

Wednesday, February 24, 2010

Page 1 of 3  
REQUEST NUMBER: 10-2074

**LOS ALAMOS  
NATIONAL LABORATORY**

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number: 10-2074

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

SHIP DATE: 2/24/2010

TURNAROUND/REPORT DUE: 3/26/2010

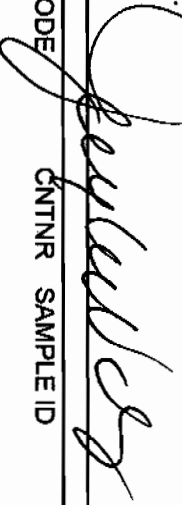
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
	SW-846:8260B	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2074

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:8260B						
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
		1	RE36-10-7539	S	2/20/2010	
SW-846:8270C						
		1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	



Wednesday, February 24, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:8321A_MOD		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
		1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	

Final Page of REQUEST NUMBER 10-2074

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2074

**LOS ALAMOS**

REQUEST NUMBER: 10-2074

**NATIONAL LABORATORY**

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/26/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

## LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7414	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7414	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7413	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7413	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7462	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7462	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7465	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7465	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7473	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7473	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7471	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7471	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7472	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7472	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7468	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7468	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7464	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7464	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7463	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7463	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7475	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7475	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7466	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7466	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7476	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7476	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7461	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7461	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7467	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7467	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7469	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7469	1	AMBER GLASS	8270C+NMED Exp	Ice	R

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2074

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7470	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7470	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7515	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7515	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7539	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7413

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/20/2010	MEDIA:	OBT3	FILL
TIME COLLECTED(HH:MM)		1215	SUB-MEDIA:	TUFF 1	NA
PRS ID:	36-008	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	36-610579		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES/NO/NA		
COMPOSITE TYPE:	NA		COMPOSITE TIME INTERVAL:	NA	
			WATER FLOWING: YES/NO/NA		
BOREHOLE: YES/NO/NA			BOREHOLE DECLINATION:	NA	
			BOREHOLE DIRECTION:	NA	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+8270+NME D-EXP	500 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+PH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Moist dark brown sand and cobbles

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-3

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  0 dpm  
 Beta/Gamma  $\leq$  143 dpm

PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

73m 2/20/10

COLLECTED BY (PRINT)

T. McFarland

REVIEWED BY (PRINT)

R. Saunders

RELINQUISHED BY (Printed Name) T. McFarland (Signature) <i>T. McFarland</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) <i>Sheri Sherwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7414

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:	QBT3		ok
TIME COLLECTED (HH:MM)		13:19		SUB-MEDIA:	TUFF 1		↓
PRS ID:	36-008	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	36-610579	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	2.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	3.0		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	R		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+8270+NME D-EXP	500 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+ N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

moist gray weathered tuff

SAMPLE COMMENTS:

FR: RE36-10-7527

LOCATION DESC:

8-3

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  5 dpm  
Beta/Gamma  $\leq$  38(2) dpm

PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$  73m 2/20/10

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) TLMcFarland	2/20/10	(Printed Name) Sheri Sherwood	2/20/10
(Signature) Tracy McFarland	1604	(Signature) Sheri Sherwood	1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7461

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		0955		SUB-MEDIA:		TUFE 1	
PRS ID: 36-008		ok		SAMPLE TECH CODE:		HA	
LOCATION ID: 36-610603		↓		FIELD QC TYPE:		NA	
LOCATION TYPE: GENERIC		↓		FIELD PREP:		NA	
TOP DEPTH: 0		0.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH: 0		0.5		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		S		EXCAVATED: YES/NO/NA		NO/NA	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NO/NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	y	
1		H3	500 ML POLY	Ice	y	
1		METALS+U-GEL	125 ML POLY	Ice	y	
1		Perchlorate+CN+ N03+pH	500 ML POLY	Ice	y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	y	

SAMPLE DESC: Brown fill, rocks

FTB: RE36-10 -7539

SAMPLE COMMENTS:

NA

LOCATION DESC: 8-1

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  0 dpm  
Beta/Gamma  $\leq$  11 dpm

PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

12m 2/20/10

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) <i>TLMcFarland</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) <i>Sherri Sherwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7462

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:	QBT3		Allh
TIME COLLECTED (HH:MM)		1001		SUB-MEDIA:	TUFF 1		NA
PRS ID:	36-008	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	36-610603	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	2.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	3.0		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	5		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown sandy silt, cobbles

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-1

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 5 dpm  
Beta/Gamma = 81 dpm

PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

72m 2/20/10

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) TLMcFarland (Signature) Tracy Zelt	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) Sheri Sherwood	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

**SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY**

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7463

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA: QBT3		fill	
TIME COLLECTED (HH:MM)		1034		SUB-MEDIA: TUFF 1		NA	
PRS ID:	36-008	ok		SAMPLE TECH CODE: HA		ok	
LOCATION ID:	36-610604	↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE:	GENERIC	↓		FIELD PREP: NA		↓	
TOP DEPTH:	0	0.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH:	0	0.5		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL:		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION:		BOREHOLE DIRECTION:			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown sandy silt, rocks and roots

SAMPLE COMMENTS:

LOCATION DESC:

8-16

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  26 dpm  
 Beta/Gamma  $\leq$  626 dpm

PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

72m 2/20/10

COLLECTED BY (PRINT)

TL McCFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) Jo. Roberson (Signature) <i>Jo. Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) <i>Sherrin Sherwood</i> (Signature) <i>Sherrin Sherwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7464

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		1045		SUB-MEDIA:		TUFF 1	
PRS ID: 36-008		ok		SAMPLE TECH CODE:		HA	
LOCATION ID: 36-610604		↓		FIELD QC TYPE:		NA	
LOCATION TYPE: GENERIC		↓		FIELD PREP:		NA	
TOP DEPTH: 0		2.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH: 0		3.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown silty sand and gray tuff fragments

SAMPLE COMMENTS:

LOCATION DESC:

8-16

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  5 dpm  
Beta/Gamma  $\leq$  183 dpm

PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

73m 2/20/10

COLLECTED BY (PRINT)

TL McFarlang

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/09-7 1604	RECEIVED BY (Printed Name) Sheri Shewood (Signature) <i>Sheri Shewood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7465

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/20/2010	MEDIA:	QBT3	Fill
TIME COLLECTED (HH:MM)		11:10	SUB-MEDIA:	TUFF 1	NA
PRS ID:	36-008	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	36-610605	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES/NO/NA		
COMPOSITE TYPE:	NA		COMPOSITE TIME INTERVAL:	NA	WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA			BOREHOLE DECLINATION:	NA	BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Blackish brown moist rocky sand, roots

FD: RE36-10-7515

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-2

FIELD SCREENING/MEASUREMENT RESULTS:

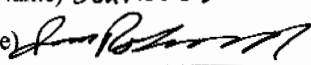
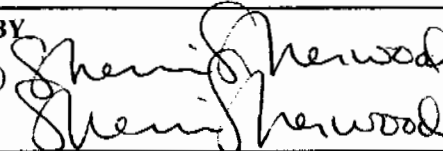
Alpha  $\leq$  0 dpm  
Beta/Gamma  $\leq$  183 dpm

RS 02.20.10  
PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Jon Roberson	2/20/10	(Printed Name) Sheri Sherwood	2/20/10
(Signature) 	1604	(Signature) 	1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7466

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA: OBTE		RS 02-20-10 ALH F.11	
TIME COLLECTED (HH:MM)		11:30		SUB-MEDIA: TUFF 1		NA	
PRS ID: 36-008		OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID: 36-610605		↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE: GENERIC		✓		FIELD PREP: NA		↓	
TOP DEPTH: 0		2.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		3.0		SCREEN/PORT DESC: NA		↓	
FIELD MATRIX: R		S		EXCAVATED: YES/NO/NA		NA	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NA	

BOREHOLE: YES/NO/NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: moist dark brown sand and rocks

SAMPLE COMMENTS:

NA

LOCATION DESC: 8-2

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 0 dpm  
Beta/Gamma = 307 dpm

RS 02-20-10  
PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Jon Roberson	2/20/10	(Printed Name) Sherri Shewood	2/20/10
(Signature)	1604	(Signature)	1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7467

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA: OBT3		SED	
TIME COLLECTED (HH:MM)		12:10		SUB-MEDIA: TUFF 1		NA	
PRS ID: 36-008		OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID: 36-610606		↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE: GENERIC		✓		FIELD PREP: NA		↓	
TOP DEPTH: 0		0.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		0.5		SCREEN/PORT DESC: NA			
FIELD MATRIX: R		SED		EXCAVATED: YES/NO NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO NA			
BOREHOLE: YES/NO NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown moist loamy, glass pieces, some roots, few pebbles

SAMPLE COMMENTS:

NA

LOCATION DESC: 8-17

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 15 dpm  
Beta/Gamma = 196 dpm

RS 02-20-10  
PID  $\frac{\text{Ambient}}{\text{Reading}}$  = ppm

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT)

TLMcFarland

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sherrin Sherwood (Signature) <i>Sherrin Sherwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7468

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:	QBT3		SED
TIME COLLECTED (HH:MM)		12:23		SUB-MEDIA:	TUFF1		NA
PRS ID:	36-008	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	36-610606	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	2.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	2.9		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	SED		EXCAVATED: YES/NO/NA	NO/NA		
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA	NO/NA			BOREHOLE DECLINATION:	NA		BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

moist brown loamy sand, some rocks, and a piece of glass

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-17

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 10 dpm  
 BX = 405 dpm

COLLECTED BY (PRINT)

In McFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) Rolenda Saunders (Signature) Rolenda Saunders	Date/Time 2-20-2010 1604	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7469

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/20/2010	MEDIA:	QBT3	SED
TIME COLLECTED (HH:MM)		14:00	SUB-MEDIA:	TUFF 1	NA
PRS ID:	36-008	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	36-610607	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	SED	EXCAVATED: YES/NO/NA		
COMPOSITE TYPE:	NA	COMPOSITE TIME INTERVAL:	NA	WATER FLOWING: YES/NO/NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION:	NA	BOREHOLE DIRECTION:	NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	1
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: dark brown loamy silt with rocks

SAMPLE COMMENTS:

NA

LOCATION DESC: 8-15

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 20 dpm  
Beta/Gamma = 510 dpmRS 02-20-10  
PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$ 

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) T L McFarland

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) <i>Sheri Sherwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7470

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA: OBT3		ALLH	
TIME COLLECTED (HH:MM)		14:05		SUB-MEDIA: TUFF1		NA	
PRS ID:	36-008	OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID:	36-610607	↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE:	GENERIC	↓		FIELD PREP: NA		↓	
TOP DEPTH:	0	2.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH:	0	3.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: dry sandy silt with tuff fragments

SAMPLE COMMENTS:

NA

LOCATION DESC: 8-15

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 0 dpm

Beta/Gamma = 716 dpm

$$\text{PID} \frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$$

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) T. McFarland

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) <i>Sherri Sherwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7471

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:	QBT3		FILL
TIME COLLECTED (HH:MM)		1348		SUB-MEDIA:	TUFF 1		NA
PRS ID:	36-008		OK	SAMPLE TECH CODE:	HA		OK
LOCATION ID:	36-610608		↓	FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC		↓	FIELD PREP:	NA		↓
TOP DEPTH:	0		0.0	SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0		0.8	SCREEN/PORT DESC:			NA
FIELD MATRIX:	R		S	EXCAVATED: YES/NO	NA		
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES/NO	NA		
BOREHOLE: YES/NO	NO			BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown moist sand and cobbles

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  20 dpm  
Beta/Gamma  $\leq$  72 dpm

PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

72m 2/20/10

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) <i>Sherrif Newwood</i> (Signature) <i>Sherrif Newwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7472

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA: OBT3		73m 2/20/10 -ATTN- FILL	
TIME COLLECTED (HH:MM)		1418		SUB-MEDIA: TUFF 1		NA	
PRS ID:	36-008	OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID:	36-610608	↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE:	GENERIC	↓		FIELD PREP: NA		↓	
TOP DEPTH:	0	2.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH:	0	3.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA		NO/NA	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NO/NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+ N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

moist brown sand and cobbles, some clay

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 36 dpm  
Beta/Gamma = 484 dpm

PID Ambient Reading = ppm

73m 2/20/10

COLLECTED BY (PRINT)

TLMcFarlane

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) Jon Roberson	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sheri Sheenwood (Signature) Sheri Sheenwood	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7473

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		OBT3	
TIME COLLECTED (HH:MM)		14:24		SUB-MEDIA:		TUFF 1	
PRS ID:	36-008	OK		SAMPLE TECH CODE:		HA	
LOCATION ID:	36-610609	↓		FIELD QC TYPE:		NA	
LOCATION TYPE:	GENERIC	↓		FIELD PREP:		NA	
TOP DEPTH:	0	0.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH:	0	0.5		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	SED		EXCAVATED: YES/NO/NA		NA	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA		NA	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown silt, rocks, roots, pine cone, saw blade, glass

SAMPLE COMMENTS:

NA

LOCATION DESC: 8-18

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  15 dpm  
 Beta/Gamma  $\leq$  543 dpm

RS 02-20-10  
 PID  $\frac{\text{Ambient Reading}}{1000} =$  ppm

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT)

TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Jon Roberson	2/20/10	(Printed Name) Sherrif Newwood	2/20/10
(Signature) Jon Roberson	1604	(Signature) Sherrif Newwood	1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

**SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY**

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7475

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		1451		SUB-MEDIA:		TUFF 1	
PRS ID: 36-008		OK		SAMPLE TECH CODE:		HA	
LOCATION ID: 36-610610		↓		FIELD QC TYPE:		NA	
LOCATION TYPE: GENERIC		↓		FIELD PREP:		NA	
TOP DEPTH: 0		0.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH: 0		0.5		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		SED		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NO/NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

moist dark brown sand and clay, roots

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-5

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 5 dpm  
Beta/Gamma = 510 dpm

PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

72m 2/20/10

COLLECTED BY (PRINT)

TLMCFarlang

REVIEWED BY (PRINT)

R Sanders

RELINQUISHED BY (Printed Name) Jon Robinson (Signature) <i>Jon Robinson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sherri Shewood (Signature) <i>Sherri Shewood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7476

WORK ORDER:

	<u>AS PLANNED</u>	<u>AS COLLECTED</u>		<u>AS PLANNED</u>	<u>AS COLLECTED</u>
DATE COLLECTED(MM/DD/YYYY):		<u>02/20/2010</u>	MEDIA:	<u>QBT3</u>	<u>Allh</u>
TIME COLLECTED (HH:MM)		<u>1505</u>	SUB-MEDIA:	<u>TUFF 1</u>	<u>NA</u>
PRS ID:	<u>36-008</u>	<u>OK</u>	SAMPLE TECH CODE:	<u>HA</u>	<u>OK</u>
LOCATION ID:	<u>36-610610</u>	<u>↓</u>	FIELD QC TYPE:	<u>NA</u>	<u>↓</u>
LOCATION TYPE:	<u>GENERIC</u>	<u>↓</u>	FIELD PREP:	<u>NA</u>	<u>↓</u>
TOP DEPTH:	<u>0</u>	<u>2.0</u>	SAMPLE USAGE:	<u>INV</u>	<u>↓</u>
BOTTOM DEPTH:	<u>0</u>	<u>3.0</u>	SCREEN/PORT DESC:		<u>NA</u>
FIELD MATRIX:	<u>R</u>	<u>S</u>	EXCAVATED: YES <input checked="" type="radio"/> NO <input type="radio"/> NA		
COMPOSITE TYPE:	<u>NA</u>		COMPOSITE TIME INTERVAL:	<u>NA</u>	WATER FLOWING: YES <input checked="" type="radio"/> NO <input type="radio"/> NA
BOREHOLE: YES <input checked="" type="radio"/> NO <input type="radio"/> NA		BOREHOLE DECLINATION:	<u>NA</u>	BOREHOLE DIRECTION:	<u>NA</u>

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	<u>Normal</u>	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

moist brown sand and weathered tuff

**FR: RE36-10-7528**

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-5

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  20 dpm  
Beta/Gamma  $\leq$  736 dpm

73m 2/20/10

PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) <u>Jon Roberson</u>	<u>2/20/10</u>	(Printed Name) <u>Sherriff Sherwood</u>	<u>2/20/10</u>
(Signature) <u>[Signature]</u>	<u>1604</u>	(Signature) <u>[Signature]</u>	<u>1604</u>
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7515

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED (MM/DD/YYYY):		02/20/2010		MEDIA:	QBT3		ELL
TIME COLLECTED (HH:MM)		11:10		SUB-MEDIA:	TUFF.1		NA
PRS ID:	36-008	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	UNK	36-610605		FIELD QC TYPE:	ED		
LOCATION TYPE:	GENERIC	OK		FIELD PREP:	NA		
TOP DEPTH:	0	0.0		SAMPLE USAGE:	QC		✓
BOTTOM DEPTH:	0	0.5		SCREEN/PORT DESC:			
FIELD MATRIX:	R			EXCAVATED: YES (NO) NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
BOREHOLE: YES (NO) NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		73m2/20/10 8082+8270+NME D-EXP	500 ML AMBER GLASS	Ice	y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	y	
1		H3	500 ML POLY	Ice	y	
1		METALS+U- GEL	125 ML POLY	Ice	y	
1		Perchlorate+CN+ N03+pH	500 ML POLY	Ice	y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	y	

SAMPLE DESC: QC Sample of RE 36-10 - 7465

Blackish brown moist rocky sand, roots

SAMPLE COMMENTS:

NA

LOCATION DESC: 8-2

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  0 dpm  
Beta/Gamma  $\leq$  183 dpm

RS 02.20.10  
PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT)

Th McFarlane

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) <i>Sherri Sherwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7527

WORK ORDER:

AS PLANNED	AS COLLECTED	AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):	02/20/2010	MEDIA:	NA
TIME COLLECTED (HH:MM)	1334	SUB-MEDIA:	OTHER
PRS ID: 36-008	OK	SAMPLE TECH CODE:	DC
LOCATION ID: UNK	36-610579	FIELD QC TYPE:	ER
LOCATION TYPE: GENERIC	OK	FIELD PREP:	UF
TOP DEPTH: 0		SAMPLE USAGE:	QC
BOTTOM DEPTH: 0		SCREEN/PORT DESC:	NA
FIELD MATRIX: W		EXCAVATED: YES/NO/NA	
COMPOSITE TYPE: NA	COMPOSITE TIME INTERVAL: NA	WATER FLOWING: YES/NO/NA	
BOREHOLE: YES/NO/NA	BOREHOLE DECLINATION: NA	BOREHOLE DIRECTION:	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	N	
1	Normal	SW-846:6850	250 ML POLY	Ice	y	
1	✓	TCN	500 ML POLY	Sodium Hydroxide	y	

SAMPLE DESC: QC Sample of RE 36-10-7414

## SAMPLE COMMENTS:

Rinsate

## LOCATION DESC:

NA

## FIELD SCREENING/MEASUREMENT RESULTS:

NA

## COLLECTED BY (PRINT)

TLMcFarland

## REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) Jon Roberson (Signature) <i>Jon Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) <i>Sherri Sherwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7528

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/20/2010		MEDIA:		NA	
TIME COLLECTED(HH:MM)		1518		SUB-MEDIA:		OTHER	
PRS ID: 36-008		OK		SAMPLE TECH CODE:		DC	
LOCATION ID: UNK		36-610610		FIELD QC TYPE:		FR	
LOCATION TYPE: GENERIC		ok		FIELD PREP:		UF	
TOP DEPTH: 0		↓		SAMPLE USAGE:		QC	
BOTTOM DEPTH: 0		↓		SCREEN/PORT DESC:		NA	
FIELD MATRIX: W		↓		EXCAVATED: YES (NO) NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES (NO) NA			
BOREHOLE: YES (NO) NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	N	
1	normal	SW-846:6850	250 ML POLY	Ice	Y	
1	normal	TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE36-10-7476

SAMPLE COMMENTS:

Rinsate

LOCATION DESC: 8-5

FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT)

TL McFarland

RELINQUISHED BY (Printed Name) Tom Roberson (Signature) <i>Tom Roberson</i>	Date/Time 2/20/10 1604	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) <i>Sherri Sherwood</i>	Date/Time 2/20/10 1604
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7539

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/20/2010	MEDIA:		NA
TIME COLLECTED(HH:MM)		0950	SUB-MEDIA:		OTHER
PRS ID:	36-008	ok	SAMPLE TECH CODE:		DC
LOCATION ID:	UNK	36-610603	FIELD QC TYPE:		FTB
LOCATION TYPE:	GENERIC	ok	FIELD PREP:		NA
TOP DEPTH:	0		SAMPLE USAGE:		QC
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES/NO/NA		
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA	WATER FLOWING: YES/NO/NA		
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA	BOREHOLE DIRECTION: NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
12m 2/20/10						
1	Normal	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of

RE36-10-7461

SAMPLE COMMENTS:

NA

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT)

JLMcFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Jon Roberson	2/20/10	(Printed Name) Sherri Sherwood	2/20/10
(Signature) [Signature]	1604	(Signature) [Signature]	1604
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	



## Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE 36-10-7413  
↓  
7414  
7461  
7462  
7463  
7464  
7465  
7466  
7467

RE 36-10-7469  
↓  
7470  
7471  
7472  
7473  
7475  
7476  
7515  
7468

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

.....

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE 36-10-7527  
7528 } Rinsate  
7539 FTB

Reason:

.....

Print Last Name McFarland

Signature

Tracy Z...

Date 2/20/10



133 State Road 4, White Rock, NM 87844

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Request or PO Number:

Client Sample ID: RE36-10-7413

ARS Sample ID: ARS2-10-00065-001

Sample Collection Date: 02/20/10 12:15

Date Received: 02/22/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	19.60	24.11	37.46	24.23		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	36.71	14.92	18.42	15.58		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	34.31	0.11	34.31		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	0.96	5.91	3.05	5.91		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	-0.04	48.03	0.11	48.03		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
SU-152	0.07	0.14	0.30	0.14		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	0.83	0.39	0.13	0.39		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	2.54	0.92	0.29	0.93		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	1.16	0.90	0.41	0.90		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	4.44	3.36	1.24	3.51		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.20	0.22	0.09	0.22		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 3.09										

*Matthew J. Edger*  
Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87344  
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065  
Client Sample ID: RE36-10-7414  
Sample Collection Date: 02/20/10 13:19  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00065-002  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	37.46	28.81	34.06	29.17		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	31.95	14.56	17.92	18.08		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	0.10	0.19	0.11	0.19		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	34.76	10.14	1.22	10.19		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.12	0.13	0.08	0.13		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	0.63	0.60	0.37	0.60		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.52	0.50	0.13	0.50		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-226	1.39	0.69	0.30	0.69		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	-0.15	-0.83	0.42	-0.83		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	3.74	3.30	1.41	3.41		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	-0.03	42.97	0.10	42.97		pCi/g	EPA 901.1M	2/22/2010	ME	N/A

NOTES: % Moisture: 2.25

Quality Assurance Review

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LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Client Sample ID: RE36-10-7461

Sample Collection Date: 02/20/10 09:55

Sample Matrix: Soil/Solid

Request or PO Number:

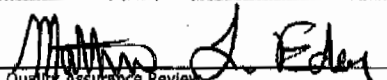
ARS Sample ID: ARS2-10-00065-003

Date Received: 02/22/10 00:00

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	22.09	23.39	32.75	23.55		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	30.65	14.60	18.31	15.08		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	33.60	0.11	33.60		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	2.35	5.16	2.50	5.16		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.14	0.19	0.11	0.19		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	-0.04	47.15	0.11	47.15		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.31	-1.08	0.29	-1.09		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	0.71	0.34	0.11	0.39		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.12	0.28	0.28	0.28		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	-0.44	-4.21	0.42	-4.21		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	4.22	3.18	1.25	3.32		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.36	0.32	0.12	0.32		pCi/g	EPA 901.1M	2/22/2010	ME	N/A

NOTES: % Moisture: 1.86

  
Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544  
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065  
Client Sample ID: RE36-10-7462  
Sample Collection Date: 02/20/10 10:01  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00065-004  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 3 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Trace/Chem Recovery
GROSS ALPHA	26.12	25.70	33.91	25.93		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	22.11	13.16	17.73	13.43		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.04	41.08	0.13	41.08		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	24.95	9.27	1.42	9.29		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.11	0.14	0.14	0.14		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.38	0.27	0.09	0.27		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RU-152	-0.55	170.71	0.38	170.71		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.01	0.47	0.15	0.47		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.80	0.56	0.34	0.56		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	0.81	0.70	0.48	0.70		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	4.35	2.71	1.13	2.88		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	-0.03	31.93	0.07	31.93		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 0.87										

*Matthew A. Eden*  
Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544  
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065  
Client Sample ID: RE36-10-7463  
Sample Collection Date: 02/20/10 10:34  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00065-005  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	19.61	24.11	37.46	24.23		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	34.14	14.63	18.42	15.22		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	33.60	0.11	33.60		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	-0.35	-4.68	4.09	-4.68		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.19	0.16	0.09	0.16		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	28.81	0.06	28.81		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.05	-0.11	0.31	-0.11		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	0.66	0.37	0.11	0.38		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	1.54	0.76	0.28	0.76		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	1.16	0.64	0.42	0.64		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	2.57	1.63	0.65	1.73		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.05	0.16	0.08	0.16		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 0.85										

*Matthew J. Eden*  
Quality Assurance Review

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LELAP Certificate # 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Client Sample ID: RE36-10-7484

Sample Collection Date: 02/20/10 10:43

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00065-006

Date Received: 02/22/10 00:00

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	37.33	28.72	33.94	29.08		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	39.35	15.29	17.78	16.03		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	33.68	0.11	33.68		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	0.47	2.45	2.12	2.45		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.05	0.08	0.10	0.08		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.45	130.38	0.29	130.38		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.42	0.45	0.08	0.45		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.72	0.74	0.36	0.74		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	0.05	0.14	0.41	0.14		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	4.13	2.23	0.81	2.42		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.46	0.34	0.11	0.34		pCi/g	EPA 901.1M	2/22/2010	ME	N/A

NOTES: % Moisture: 0.77

*Matthew L. Eder*  
Quality Assurance Review

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ARS Sample Delivery Group: ARS2-10-00065

Request or PO Number:

Client Sample ID: RE36-10-7465

ARS Sample ID: ARS2-10-00065-007

Sample Collection Date: 02/20/10 11:00

Date Received: 02/22/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	12.43	19.18	32.75	19.24		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	31.59	14.49	18.31	15.00		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	35.04	0.11	35.04		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	0.98	3.53	1.97	3.53		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
C5-134	0.13	0.21	0.13	0.21		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
C5-137	0.03	0.09	0.08	0.09		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	0.44	0.47	0.30	0.46		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	0.91	0.40	0.13	0.41		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-226	0.88	0.56	0.29	0.56		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	-0.29	-2.00	0.45	-2.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	4.23	2.77	1.10	2.93		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.54	0.30	0.08	0.30		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 2.51										

*Matthew J. Eder*  
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ARS Sample Delivery Group: ARS2-10-00065  
Client Sample ID: RE36-10-7466  
Sample Collection Date: 02/20/10 11:30  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00065-008  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	32.71	27.23	33.91	27.52		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	33.76	14.64	17.73	15.21		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	26.24	0.08	26.24		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	22.53	7.04	0.90	7.07		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.12	0.10	0.08	0.10		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.01	0.02	0.05	0.02		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.35	101.56	0.23	101.56		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.11	0.37	0.10	0.37		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.40	0.46	0.22	0.46		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	0.68	0.56	0.37	0.56		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	3.65	2.80	1.15	2.92		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.42	0.33	0.12	0.33		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 2.50										

*Matthew L. Eder*  
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ARS Sample Delivery Group: ARS2-10-00065  
Client Sample ID: RE36-10-7467  
Sample Collection Date: 02/20/10 12:10  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00065-009  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	14.38	21.96	37.28	22.03		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	34.01	14.64	18.61	15.22		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	0.05	0.21	0.17	0.21		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	0.75	3.59	2.83	3.59		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.18	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.08	0.12	0.25	0.12		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.75	0.43	0.19	0.44		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	0.23	0.53	0.47	0.53		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.01	0.55	0.19	0.55		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.38	0.38	0.43	0.38		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	-0.27	-2.95	0.83	-2.95		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	7.06	4.39	1.62	4.67		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.00	0.13	0.09	0.13		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 2.14										

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ARS Sample Delivery Group: ARS2-10-00065  
Client Sample ID: RE36-10-7468  
Sample Collection Date: 02/20/10 12:30  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00065-010  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Trace/Chem Recovery
GROSS ALPHA	18.93	22.35	33.94	22.47		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	42.55	15.31	17.78	16.17		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	48.76	0.15	48.76		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	0.00	4390.70	8.89	4390.70		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.20	0.28	0.16	0.28		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.12	0.17	0.23	0.17		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.66	188.74	0.42	188.74		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	0.94	0.45	0.11	0.45		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.00	0.00	0.41	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	-0.32	-1.82	0.62	-1.82		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	3.87	3.54	1.53	3.65		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.25	0.26	0.10	0.26		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 2.77										

*Matthew L. Eden*  
Quality Assurance Review

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ARS Sample Delivery Group: ARS2-10-00065  
Client Sample ID: RE36-10-7469  
Sample Collection Date: 02/20/10 14:00  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00065-011  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	17.26	21.39	32.75	21.50		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	44.14	16.07	18.31	18.95		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.05	53.53	0.17	53.53		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	39.25	13.27	1.84	13.32		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.18	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	-0.07	52.05	0.12	52.05		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	1.25	0.56	0.10	0.56		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.04	-0.04	0.49	-0.04		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.38	0.68	0.28	0.68		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	1.63	1.12	0.45	1.13		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	2.48	1.24	0.73	1.24		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	6.72	6.10	2.24	6.29		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	-0.04	41.62	0.09	41.62		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 1.49										

*Matthew A. Eden*  
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LILAP Certificate # 30658

NELAP Certificate # E87558



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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065  
Client Sample ID: RE36-10-7470  
Sample Collection Date: 02/20/10 14:05  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00065-012  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	18.93	22.32	33.91	22.44		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	27.19	13.59	17.73	13.99		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	0.05	0.21	0.17	0.21		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	37.08	12.91	1.85	12.95		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.32	0.38	0.18	0.38		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.15	0.22	0.12	0.22		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.50	0.35	0.10	0.35		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	0.80	0.81	0.47	0.81		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.27	0.82	0.21	0.82		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.94	0.48	0.71	0.49		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	0.08	0.11	0.70	0.11		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	5.63	4.37	1.89	4.55		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.41	0.45	0.18	0.45		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 1.53										

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ARS Sample Delivery Group: ARS2-10-00065  
Client Sample ID: RE36-10-7471  
Sample Collection Date: 02/20/10 13:48  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00065-013  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	29.48	27.76	37.46	27.99		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	47.94	16.28	18.42	17.29		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	30.45	0.10	30.45		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	1.49	2.96	1.35	2.96		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.16	0.15	0.10	0.15		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.19	0.14	0.07	0.14		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.01	0.03	0.06	0.03		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	0.39	0.39	0.26	0.39		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	0.72	0.33	0.10	0.33		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.00	0.00	0.23	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	0.43	0.55	0.40	0.55		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	3.97	3.44	1.31	3.56		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	-0.02	33.20	0.07	33.20		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 2.68										

*[Signature]*  
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ARS Sample Delivery Group: ARS2-10-00065

Request or PO Number:

Client Sample ID: RE36-10-7472

ARS Sample ID: ARS2-10-00065-014

Sample Collection Date: 02/20/10 14:18

Date Received: 02/22/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	19.00	22.43	34.06	22.55		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	37.75	14.88	17.92	15.58		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	0.20	0.27	0.13	0.27		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	3.28	16.78	6.62	16.78		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.07	0.10	0.17	0.10		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.55	158.06	0.35	158.06		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.55	0.88	0.15	0.55		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-226	3.51	1.23	0.34	1.24		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	1.35	1.00	0.51	1.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	3.12	3.88	1.77	3.94		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	-0.02	-0.22	0.09	-0.22		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 2.70										

*Matthew A. Edge*  
Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544  
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065  
Client Sample ID: RE36-10-7473  
Sample Collection Date: 02/20/10 14:24  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00065-015  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	17.36	21.39	32.75	21.50		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	33.91	14.88	18.31	15.45		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	0.05	0.21	0.17	0.21		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	2.23	7.52	3.68	7.52		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.18	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.18	0.16	0.12	0.16		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	0.36	0.42	0.46	0.42		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.12	0.55	0.18	0.56		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	2.30	1.11	0.48	1.12		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	-0.03	-1.00	0.64	-1.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	2.77	3.91	1.88	3.96		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.08	0.21	0.11	0.21		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 3.12										

*Matthew J. Eder*  
Quality Assurance Review

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LELAP Certificate# 30658

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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065  
Client Sample ID: RE36-10-7475  
Sample Collection Date: 02/20/10 14:51  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00065-016  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	85.67	33.87	83.91	34.55		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	41.27	15.87	17.73	16.66		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	32.89	0.10	32.89		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	0.34	1.55	1.79	1.55		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.07	0.08	0.13	0.08		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.44	127.31	0.29	127.31		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.08	0.41	0.12	0.42		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.64	0.41	0.28	0.41		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	1.09	0.84	0.42	0.84		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	2.26	2.65	1.16	2.70		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.11	0.16	0.07	0.16		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 3.82										

*Matthew J. Eden*  
Quality Assurance Review

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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065

Client Sample ID: RE36-10-7476

Sample Collection Date: 02/20/10 15:03

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00065-017

Date Received: 02/22/10 00:00

Report Date: 02/23/10 00:03

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	19.50	24.00	37.28	24.11		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	39.69	15.35	18.61	16.11		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	0.04	0.17	0.14	0.17		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	26.30	9.94	1.55	9.97		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.15	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.62	0.40	0.21	0.40		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.16	-0.34	0.41	-0.34		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	1.53	0.60	0.19	0.61		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.00	167.43	0.38	167.43		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	0.10	0.43	0.54	0.43		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	4.75	3.81	1.63	3.96		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	-0.01	-0.25	0.11	-0.25		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 1.87										

*[Signature]*  
Quality Assurance Review

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LELAP Certificate# 30658

NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544  
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00065  
Client Sample ID: RE36-10-7515  
Sample Collection Date: 02/20/10 11:10  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00065-018  
Date Received: 02/22/10 00:00  
Report Date: 02/23/10 00:04


Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	5.16	16.05	34.06	16.06		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
GROSS BETA	32.87	14.06	17.92	14.62		pCi/g	EPA 900.0M	2/22/2010	ME	N/A
NA-22	-0.03	28.61	0.09	28.61		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
K-40	1.80	4.44	2.09	4.44		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CO-60	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-134	0.04	0.08	0.09	0.08		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
CS-137	0.20	0.16	0.05	0.16		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
EU-152	-0.09	-0.19	0.26	-0.19		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
PB-212	0.72	0.37	0.15	0.37		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
RA-228	0.32	0.24	0.31	0.25		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-235	1.10	1.07	0.44	1.07		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
U-238	3.76	2.47	0.69	2.61		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
AM-241	0.11	0.17	0.08	0.17		pCi/g	EPA 901.1M	2/22/2010	ME	N/A
NOTES: % Moisture: 2.36										

*Matthew A. Eddy*  
Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

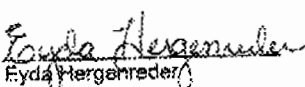
LELAP Certificate# 30658


NELAP Certificate # E87558

DATA VALIDATION COVER SHEET	
<b>5114-1</b>  <p style="text-align: center;"><b>Data Validation Cover Sheet</b></p>	Records Use only  

Section I.		
REQUEST NUMBER: <u>10-2074</u>	VALIDATION DATE: <u>4/21/10</u>	LAB CODE: <u>GEL</u>
CONTRACT LABORATORY NAME: <u>GEL Laboratories LLC</u>		
VALIDATOR: <u>Eyda Hergenreder</u> ORGANIZATION: <u>Analytical Quality Associates, Inc.</u>		
ANALYTICAL SUITE (CHECK ALL THAT APPLY):		
<input type="checkbox"/> TPH-GRO	<input type="checkbox"/> HIGH EXPLOSIVES	<input type="checkbox"/> DIOXIN FURANS
<input type="checkbox"/> TPH-DRO	<input type="checkbox"/> METALS	<input type="checkbox"/> PCB CONGENERS
<input type="checkbox"/> GENERAL CHEMISTRY	<input type="checkbox"/> RADIOCHEMISTRY	<input type="checkbox"/> LCMSMS HIGH EXPLOSIVES
		<input type="checkbox"/> LCMSMS PERCHLORATES
		<input type="checkbox"/> ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
<input checked="" type="checkbox"/> OTHER (DESCRIBE): <u>GC/MS VOCs</u>		

Section II. Completeness Check							
YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. CHAIN-OF-CUSTODY FORM(S)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. RAW/BSS DATA
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. CASE NARRATIVE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. QUALITY CONTROL FORMS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. SAMPLE RESULT FORMS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. QUANTITATION REPORTS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. SAMPLE CHROMATOGRAMS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. TICS FORMS
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. STANDARD CHROMATOGRAMS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. TICS MASS SPECTRA
Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):							
1. The CCV %Ds for 2-hexanone; 2-butanone; 1,2-dibromo-3-chloropropane and trichlorotrifluoroethane associated with all samples were >20%. All associated sample results were NDs and, thus, were qualified UJ,V7c. 2. The LCS %R for trichlorotrifluoroethane associated with samples -7414, -7413, -7462, -7465, -7471, -7472, -7468, -7464, -7463, -7475, -7466, -7476, -7461, -7515 and -7539 was < the laboratory LAL but ≥10%. All associated sample results were NDs and, thus, were qualified UJ,V12a. 3. The MS and/or MSD %R for numerous analytes and the MS/MSD RPD for 2-hexanone were outside the laboratory acceptance limits. Since MS/MSD analyses are not required for this method, no data were qualified.							
Reviewed by: <u>ETM</u>				Level: <u>1</u>		Date: <u>4/26/10</u>	

VALIDATOR'S SIGNATURE: <u></u> <div style="font-size: small; margin-top: -10px;">Eyda Hergenreder</div>	DATE: <u>4/21/10</u>
Form 5114-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5114-2</b>  <b>Volatile Organic Compound (VOC) Analytical Data Validation Checklist</b>	Records Use only  

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

# **VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST**

5114-2

## **Volatile Organic Compound (VOC) Analytical Data Validation Checklist**

Records Use only



Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. The sample result is $\leq 5X$ (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was $> 5X$ (10X for common laboratory contaminants).	N/A	J, V4a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	19. The quantitating IS are count is $< 10\%$ of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	20. The IS area count for the quantitating IS is $< 50\%$ but $> 10\%$ for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

# **VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST**

5114-2

## **Volatile Organic Compound (VOC) Analytical Data Validation Checklist**

Records Use only



Yes   No   N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

# **VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST**

5114-2

## **Volatile Organic Compound (VOC) Analytical Data Validation Checklist**

Records Use only



Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043001

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Allquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 21.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7414  
 Batch ID: 961082  
 Run Date: 03/04/2010 23:31  
 Prep Date: 03/03/2010 09:23  
 Data File: 030410V6\6A431.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.27	ug/kg	0.431	1.27
74-87-3	Chloromethane	U	1.27	ug/kg	0.380	1.27
75-01-4	Vinyl chloride	U	1.27	ug/kg	0.380	1.27
74-83-9	Bromomethane	U	1.27	ug/kg	0.380	1.27
75-00-3	Chloroethane	U	1.27	ug/kg	0.380	1.27
75-69-4	Trichlorofluoromethane	U	1.27	ug/kg	0.380	1.27
67-64-1	Acetone	U	6.34	ug/kg	2.10	6.34
75-35-4	1,1-Dichloroethylene	U	1.27	ug/kg	0.380	1.27
74-88-4	Iodomethane	U	6.34	ug/kg	2.03	6.34
75-09-2	Methylene chloride	U	6.34	ug/kg	2.54	6.34
75-15-0	Carbon disulfide	U	6.34	ug/kg	1.58	6.34
156-60-5	trans-1,2-Dichloroethylene	U	1.27	ug/kg	0.380	1.27
75-34-3	1,1-Dichloroethane	U	1.27	ug/kg	0.380	1.27
78-93-3	2-Butanone	U	6.34	ug/kg	1.90	6.34 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.27	ug/kg	0.380	1.27
594-20-7	2,2-Dichloropropane	U	1.27	ug/kg	0.380	1.27
67-66-3	Chloroform	U	1.27	ug/kg	0.380	1.27
74-97-5	Bromochloromethane	U	1.27	ug/kg	0.418	1.27
71-55-6	1,1,1-Trichloroethane	U	1.27	ug/kg	0.380	1.27
563-58-6	1,1-Dichloropropene	U	1.27	ug/kg	0.380	1.27
56-23-5	Carbon tetrachloride	U	1.27	ug/kg	0.380	1.27
107-06-2	1,2-Dichloroethane	U	1.27	ug/kg	0.380	1.27
71-43-2	Benzene	U	1.27	ug/kg	0.380	1.27
79-01-6	Trichloroethylene	U	1.27	ug/kg	0.418	1.27
78-87-5	1,2-Dichloropropane	U	1.27	ug/kg	0.380	1.27
75-27-4	Bromodichloromethane	U	1.27	ug/kg	0.380	1.27
74-95-3	Dibromomethane	U	1.27	ug/kg	0.380	1.27
108-10-1	4-Methyl-2-pentanone	U	6.34	ug/kg	1.58	6.34
10061-01-5	cis-1,3-Dichloropropylene	U	1.27	ug/kg	0.380	1.27
108-88-3	Toluene	U	1.27	ug/kg	0.380	1.27
10061-02-6	trans-1,3-Dichloropropylene	U	1.27	ug/kg	0.380	1.27
79-00-5	1,1,2-Trichloroethane	U	1.27	ug/kg	0.380	1.27
591-78-6	2-Hexanone	U	6.34	ug/kg	1.90	6.34 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.27	ug/kg	0.380	1.27
127-18-4	Tetrachloroethylene	U	1.27	ug/kg	0.380	1.27
124-48-1	Dibromochloromethane	U	1.27	ug/kg	0.380	1.27
106-93-4	1,2-Dibromoethane	U	1.27	ug/kg	0.380	1.27
108-90-7	Chlorobenzene	U	1.27	ug/kg	0.380	1.27

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043001	Date Received: 02/25/2010 08:45	%Moisture: 21.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7414	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/04/2010 23:31	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 09:23	Allquot: 5 g	Final Volume: 5 mL
Data File: 030410V6\6A431.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.27	ug/kg	0.380	1.27
179601-23-1	m,p-Xylenes	U	2.54	ug/kg	0.380	2.54
95-47-6	o-Xylene	U	1.27	ug/kg	0.380	1.27
100-42-5	Styrene	U	1.27	ug/kg	0.380	1.27
75-25-2	Bromoform	U	1.27	ug/kg	0.380	1.27
79-34-5	1,1,2,2-Tetrachloroethane	U	1.27	ug/kg	0.380	1.27
96-18-4	1,2,3-Trichloropropane	U	1.27	ug/kg	0.380	1.27
108-86-1	Bromobenzene	U	1.27	ug/kg	0.380	1.27
103-65-1	n-Propylbenzene	U	1.27	ug/kg	0.380	1.27
95-49-8	2-Chlorotoluene	U	1.27	ug/kg	0.380	1.27
98-82-8	Isopropylbenzene	U	1.27	ug/kg	0.380	1.27
108-67-8	1,3,5-Trimethylbenzene	U	1.27	ug/kg	0.380	1.27
106-43-4	4-Chlorotoluene	U	1.27	ug/kg	0.380	1.27
98-06-6	tert-Butylbenzene	U	1.27	ug/kg	0.380	1.27
95-63-6	1,2,4-Trimethylbenzene	U	1.27	ug/kg	0.380	1.27
135-98-8	sec-Butylbenzene	U	1.27	ug/kg	0.380	1.27
99-87-6	4-Isopropyltoluene	U	1.27	ug/kg	0.380	1.27
541-73-1	1,3-Dichlorobenzene	U	1.27	ug/kg	0.380	1.27
106-46-7	1,4-Dichlorobenzene	U	1.27	ug/kg	0.380	1.27
104-51-8	n-Butylbenzene	U	1.27	ug/kg	0.380	1.27
96-12-8	1,2-Dibromo-3-chloropropane	U	1.27	ug/kg	0.380	1.27 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.34	ug/kg	2.03	6.34 UJ,V7c
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.27	ug/kg	0.380	1.27
95-50-1	1,2-Dichlorobenzene	U	1.27	ug/kg	0.380	1.27

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

EH  
4/21/10

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043002

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA6.I  
Analyst: RXD1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 20.9  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE36-10-7413  
Batch ID: 961082  
Run Date: 03/04/2010 23:59  
Prep Date: 03/03/2010 10:35  
Data File: 030410V6\6A432.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.430	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.379	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.379	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.379	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.379	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.379	1.26
67-64-1	Acetone	U	6.32	ug/kg	2.10	6.32
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
74-88-4	Iodomethane	U	6.32	ug/kg	2.02	6.32
75-09-2	Methylene chloride	U	6.32	ug/kg	2.53	6.32
75-15-0	Carbon disulfide	U	6.32	ug/kg	1.58	6.32
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.379	1.26
78-93-3	2-Butanone	U	6.32	ug/kg	1.90	6.32 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.379	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.379	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.417	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.379	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.379	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.379	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.379	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.379	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.417	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.379	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.379	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.379	1.26
108-10-1	4-Methyl-2-pentanone	U	6.32	ug/kg	1.58	6.32
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.379	1.26
108-88-3	Toluene	J	0.455	ug/kg	0.379	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.379	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.379	1.26
591-78-6	2-Hexanone	U	6.32	ug/kg	1.90	6.32 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.379	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.379	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.379	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.379	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.379	1.26

EH  
4/21/10

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043002	Date Received: 02/25/2010 08:45	%Moisture: 20.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7413	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/04/2010 23:59	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V6\6A432.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.26	ug/kg	0.379	1.26
179601-23-1	m,p-Xylenes	U	2.53	ug/kg	0.379	2.53
95-47-6	o-Xylene	U	1.26	ug/kg	0.379	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.379	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.379	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.379	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.379	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.379	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.379	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.379	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.379	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.379	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.379	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.379	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.379	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.379	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.379	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.379	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.379	1.26 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane <i>Trichlorotrifluoroethane</i>	U	6.32	ug/kg	2.02	6.32 UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.379	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
No Tentatively Identified Compounds Found				ug/kg		

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043003	Date Received: 02/25/2010 08:45	%Moisture: 7.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7462	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 00:26	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Allquot: 5 g	Final Volume: 5 mL
Data File: 030410V6\6A433.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.369	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.326	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.326	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.326	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.326	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.326	1.09
67-64-1	Acetone	U	5.43	ug/kg	1.80	5.43
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
74-88-4	Iodomethane	U	5.43	ug/kg	1.74	5.43
75-09-2	Methylene chloride	U	5.43	ug/kg	2.17	5.43
75-15-0	Carbon disulfide	U	5.43	ug/kg	1.36	5.43
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.326	1.09
78-93-3	2-Butanone	U	5.43	ug/kg	1.63	5.43 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.326	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.358	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.326	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.326	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.326	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.326	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.326	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.358	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.326	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.326	1.09
108-10-1	4-Methyl-2-pentanone	U	5.43	ug/kg	1.36	5.43
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.326	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.326	1.09
591-78-6	2-Hexanone	U	5.43	ug/kg	1.63	5.43 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.326	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.326	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.326	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.326	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.326	1.09

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043003

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 7.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.326	2.17
95-47-6	o-Xylene	U	1.09	ug/kg	0.326	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.326	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.326	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.326	1.09 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.43	ug/kg	1.74	5.43 UJ,V7c
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown siloxane	16.17	7.25	ug/kg	0	J

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043004

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 22.3  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7465  
 Batch ID: 961082  
 Run Date: 03/05/2010 00:54  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V6\6A434.D

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.29	ug/kg	0.437	1.29
74-87-3	Chloromethane	U	1.29	ug/kg	0.386	1.29
75-01-4	Vinyl chloride	U	1.29	ug/kg	0.386	1.29
74-83-9	Bromomethane	U	1.29	ug/kg	0.386	1.29
75-00-3	Chloroethane	U	1.29	ug/kg	0.386	1.29
75-69-4	Trichlorofluoromethane	U	1.29	ug/kg	0.386	1.29
67-64-1	Acetone	U	6.43	ug/kg	2.14	6.43
75-35-4	1,1-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
74-88-4	Iodomethane	U	6.43	ug/kg	2.06	6.43
75-09-2	Methylene chloride	U	6.43	ug/kg	2.57	6.43
75-15-0	Carbon disulfide	U	6.43	ug/kg	1.61	6.43
156-60-5	trans-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
75-34-3	1,1-Dichloroethane	U	1.29	ug/kg	0.386	1.29
78-93-3	2-Butanone	U	6.43	ug/kg	1.93	6.43 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
594-20-7	2,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29
67-66-3	Chloroform	U	1.29	ug/kg	0.386	1.29
74-97-5	Bromochloromethane	U	1.29	ug/kg	0.425	1.29
71-55-6	1,1,1-Trichloroethane	U	1.29	ug/kg	0.386	1.29
563-58-6	1,1-Dichloropropene	U	1.29	ug/kg	0.386	1.29
56-23-5	Carbon tetrachloride	U	1.29	ug/kg	0.386	1.29
107-06-2	1,2-Dichloroethane	U	1.29	ug/kg	0.386	1.29
71-43-2	Benzene	U	1.29	ug/kg	0.386	1.29
79-01-6	Trichloroethylene	U	1.29	ug/kg	0.425	1.29
78-87-5	1,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29
75-27-4	Bromodichloromethane	U	1.29	ug/kg	0.386	1.29
74-95-3	Dibromomethane	U	1.29	ug/kg	0.386	1.29
108-10-1	4-Methyl-2-pentanone	U	6.43	ug/kg	1.61	6.43
10061-01-5	cis-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29
108-88-3	Toluene	J	0.489	ug/kg	0.386	1.29
10061-02-6	trans-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29
79-00-5	1,1,2-Trichloroethane	U	1.29	ug/kg	0.386	1.29
591-78-6	2-Hexanone	U	6.43	ug/kg	1.93	6.43 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.29	ug/kg	0.386	1.29
127-18-4	Tetrachloroethylene	U	1.29	ug/kg	0.386	1.29
124-48-1	Dibromochloromethane	U	1.29	ug/kg	0.386	1.29
106-93-4	1,2-Dibromoethane	U	1.29	ug/kg	0.386	1.29
108-90-7	Chlorobenzene	U	1.29	ug/kg	0.386	1.29

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043004	Date Received: 02/25/2010 08:45	%Moisture: 22.3
Client ID: RE36-10-7465	Client: LANL010	Project: LANL01004
Batch ID: 961082	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/05/2010 00:54	Inst: VOA6.I	Dilution: 1
Prep Date: 03/03/2010 10:35	Analyst: RXD1	Purge Vol: 5 mL
Data File: 030410V6\6A434.D	Aliquot: 5 g	Final Volume: 5 mL
	Column: DB-624	

CAS No.	Parmaame	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.29	ug/kg	0.386	1.29
179601-23-1	m,p-Xylenes	J	0.437	ug/kg	0.386	2.57
95-47-6	o-Xylene	U	1.29	ug/kg	0.386	1.29
100-42-5	Styrene	U	1.29	ug/kg	0.386	1.29
75-25-2	Bromoform	U	1.29	ug/kg	0.386	1.29
79-34-5	1,1,2,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
96-18-4	1,2,3-Trichloropropane	U	1.29	ug/kg	0.386	1.29
108-86-1	Bromobenzene	U	1.29	ug/kg	0.386	1.29
103-65-1	n-Propylbenzene	U	1.29	ug/kg	0.386	1.29
95-49-8	2-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-82-8	Isopropylbenzene	U	1.29	ug/kg	0.386	1.29
108-67-8	1,3,5-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
106-43-4	4-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-06-6	tert-Butylbenzene	U	1.29	ug/kg	0.386	1.29
95-63-6	1,2,4-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
135-98-8	sec-Butylbenzene	U	1.29	ug/kg	0.386	1.29
99-87-6	4-Isopropyltoluene	J	0.399	ug/kg	0.386	1.29
541-73-1	1,3-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
106-46-7	1,4-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
104-51-8	n-Butylbenzene	U	1.29	ug/kg	0.386	1.29
96-12-8	1,2-Dibromo-3-chloropropane	U	1.29	ug/kg	0.386	1.29 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.43	ug/kg	2.06	6.43 UJ,V7c
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
95-50-1	1,2-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
No Tentatively Identified Compounds Found				ug/kg		

EH  
4/21/10



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043005	Date Received: 02/25/2010 08:45	%Moisture: 23.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7473	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 14:22	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/05/2010 12:00	Allquot: 5 g	Final Volume: 5 mL
Data File: 030510V6\6A509.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.31	ug/kg	0.445	1.31
74-87-3	Chloromethane	U	1.31	ug/kg	0.393	1.31
75-01-4	Vinyl chloride	U	1.31	ug/kg	0.393	1.31
74-83-9	Bromomethane	U	1.31	ug/kg	0.393	1.31
75-00-3	Chloroethane	U	1.31	ug/kg	0.393	1.31
75-69-4	Trichlorofluoromethane	U	1.31	ug/kg	0.393	1.31
67-64-1	Acetone	U	6.54	ug/kg	2.17	6.54
75-35-4	1,1-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
74-88-4	Iodomethane	U	6.54	ug/kg	2.09	6.54
75-09-2	Methylene chloride	J	5.73	ug/kg	2.62	6.54
75-15-0	Carbon disulfide	U	6.54	ug/kg	1.64	6.54
156-60-5	trans-1,2-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
75-34-3	1,1-Dichloroethane	U	1.31	ug/kg	0.393	1.31
78-93-3	2-Butanone	U	6.54	ug/kg	1.96	6.54 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
594-20-7	2,2-Dichloropropane	U	1.31	ug/kg	0.393	1.31
67-66-3	Chloroform	U	1.31	ug/kg	0.393	1.31
74-97-5	Bromochloromethane	U	1.31	ug/kg	0.432	1.31
71-55-6	1,1,1-Trichloroethane	U	1.31	ug/kg	0.393	1.31
563-58-6	1,1-Dichloropropene	U	1.31	ug/kg	0.393	1.31
56-23-5	Carbon tetrachloride	U	1.31	ug/kg	0.393	1.31
107-06-2	1,2-Dichloroethane	U	1.31	ug/kg	0.393	1.31
71-43-2	Benzene	U	1.31	ug/kg	0.393	1.31
79-01-6	Trichloroethylene	U	1.31	ug/kg	0.432	1.31
78-87-5	1,2-Dichloropropane	U	1.31	ug/kg	0.393	1.31
75-27-4	Bromodichloromethane	U	1.31	ug/kg	0.393	1.31
74-95-3	Dibromomethane	U	1.31	ug/kg	0.393	1.31
108-10-1	4-Methyl-2-pentanone	U	6.54	ug/kg	1.64	6.54
10061-01-5	cis-1,3-Dichloropropylene	U	1.31	ug/kg	0.393	1.31
108-88-3	Toluene	U	1.31	ug/kg	0.393	1.31
10061-02-6	trans-1,3-Dichloropropylene	U	1.31	ug/kg	0.393	1.31
79-00-5	1,1,2-Trichloroethane	U	1.31	ug/kg	0.393	1.31
591-78-6	2-Hexanone	U	6.54	ug/kg	1.96	6.54 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.31	ug/kg	0.393	1.31
127-18-4	Tetrachloroethylene	U	1.31	ug/kg	0.393	1.31
124-48-1	Dibromochloromethane	U	1.31	ug/kg	0.393	1.31
106-93-4	1,2-Dibromoethane	U	1.31	ug/kg	0.393	1.31
108-90-7	Chlorobenzene	U	1.31	ug/kg	0.393	1.31

EH  
4/21/10

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043005

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA6.I  
Analyst: RXD1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 23.6  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE36-10-7473  
Batch ID: 961082  
Run Date: 03/05/2010 14:22  
Prep Date: 03/05/2010 12:00  
Data File: 030510V6\6A509.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.31	ug/kg	0.393	1.31
179601-23-1	m,p-Xylenes	U	2.62	ug/kg	0.393	2.62
95-47-6	o-Xylene	U	1.31	ug/kg	0.393	1.31
100-42-5	Styrene	U	1.31	ug/kg	0.393	1.31
75-25-2	Bromoform	U	1.31	ug/kg	0.393	1.31
79-34-5	1,1,2,2-Tetrachloroethane	U	1.31	ug/kg	0.393	1.31
96-18-4	1,2,3-Trichloropropane	U	1.31	ug/kg	0.393	1.31
108-86-1	Bromobenzene	U	1.31	ug/kg	0.393	1.31
103-65-1	n-Propylbenzene	U	1.31	ug/kg	0.393	1.31
95-49-8	2-Chlorotoluene	U	1.31	ug/kg	0.393	1.31
98-82-8	Isopropylbenzene	U	1.31	ug/kg	0.393	1.31
108-67-8	1,3,5-Trimethylbenzene	U	1.31	ug/kg	0.393	1.31
106-43-4	4-Chlorotoluene	U	1.31	ug/kg	0.393	1.31
98-06-6	tert-Butylbenzene	U	1.31	ug/kg	0.393	1.31
95-63-6	1,2,4-Trimethylbenzene	U	1.31	ug/kg	0.393	1.31
135-98-8	sec-Butylbenzene	U	1.31	ug/kg	0.393	1.31
99-87-6	4-Isopropyltoluene	U	1.31	ug/kg	0.393	1.31
541-73-1	1,3-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31
106-46-7	1,4-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31
104-51-8	n-Butylbenzene	U	1.31	ug/kg	0.393	1.31
96-12-8	1,2-Dibromo-3-chloropropane	U	1.31	ug/kg	0.393	1.31 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.54	ug/kg	2.09	6.54 UJ,V7c
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.31	ug/kg	0.393	1.31
95-50-1	1,2-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown siloxane	16.17	25.5	ug/kg	0	J

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043006

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 29.8  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7471  
 Batch ID: 961082  
 Run Date: 03/05/2010 01:50  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V6\6A436.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.42	ug/kg	0.484	1.42
74-87-3	Chloromethane	U	1.42	ug/kg	0.427	1.42
75-01-4	Vinyl chloride	U	1.42	ug/kg	0.427	1.42
74-83-9	Bromomethane	U	1.42	ug/kg	0.427	1.42
75-00-3	Chloroethane	U	1.42	ug/kg	0.427	1.42
75-69-4	Trichlorofluoromethane	U	1.42	ug/kg	0.427	1.42
67-64-1	Acetone	U	7.12	ug/kg	2.36	7.12
75-35-4	1,1-Dichloroethylene	U	1.42	ug/kg	0.427	1.42
74-88-4	Iodomethane	U	7.12	ug/kg	2.28	7.12
75-09-2	Methylene chloride	U	7.12	ug/kg	2.85	7.12
75-15-0	Carbon disulfide	U	7.12	ug/kg	1.78	7.12
156-60-5	trans-1,2-Dichloroethylene	U	1.42	ug/kg	0.427	1.42
75-34-3	1,1-Dichloroethane	U	1.42	ug/kg	0.427	1.42
78-93-3	2-Butanone	U	7.12	ug/kg	2.14	7.12 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.42	ug/kg	0.427	1.42
594-20-7	2,2-Dichloropropane	U	1.42	ug/kg	0.427	1.42
67-66-3	Chloroform	U	1.42	ug/kg	0.427	1.42
74-97-5	Bromochloromethane	U	1.42	ug/kg	0.470	1.42
71-55-6	1,1,1-Trichloroethane	U	1.42	ug/kg	0.427	1.42
563-58-6	1,1-Dichloropropene	U	1.42	ug/kg	0.427	1.42
56-23-5	Carbon tetrachloride	U	1.42	ug/kg	0.427	1.42
107-06-2	1,2-Dichloroethane	U	1.42	ug/kg	0.427	1.42
71-43-2	Benzene	U	1.42	ug/kg	0.427	1.42
79-01-6	Trichloroethylene	U	1.42	ug/kg	0.470	1.42
78-87-5	1,2-Dichloropropane	U	1.42	ug/kg	0.427	1.42
75-27-4	Bromodichloromethane	U	1.42	ug/kg	0.427	1.42
74-95-3	Dibromomethane	U	1.42	ug/kg	0.427	1.42
108-10-1	4-Methyl-2-pentanone	U	7.12	ug/kg	1.78	7.12
10061-01-5	cis-1,3-Dichloropropylene	U	1.42	ug/kg	0.427	1.42
108-88-3	Toluene	J	0.869	ug/kg	0.427	1.42
10061-02-6	trans-1,3-Dichloropropylene	U	1.42	ug/kg	0.427	1.42
79-00-5	1,1,2-Trichloroethane	U	1.42	ug/kg	0.427	1.42
591-78-6	2-Hexanone	U	7.12	ug/kg	2.14	7.12 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.42	ug/kg	0.427	1.42
127-18-4	Tetrachloroethylene	U	1.42	ug/kg	0.427	1.42
124-48-1	Dibromochloromethane	U	1.42	ug/kg	0.427	1.42
106-93-4	1,2-Dibromoethane	U	1.42	ug/kg	0.427	1.42
108-90-7	Chlorobenzene	U	1.42	ug/kg	0.427	1.42

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043006	Date Received: 02/25/2010 08:45	%Moisture: 29.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7471	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 01:50	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Allquot: 5 g	Final Volume: 5 mL
Data File: 030410V6\6A436.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.42	ug/kg	0.427	1.42
179601-23-1	m,p-Xylenes	U	2.85	ug/kg	0.427	2.85
95-47-6	o-Xylene	U	1.42	ug/kg	0.427	1.42
100-42-5	Styrene	U	1.42	ug/kg	0.427	1.42
75-25-2	Bromoform	U	1.42	ug/kg	0.427	1.42
79-34-5	1,1,2,2-Tetrachloroethane	U	1.42	ug/kg	0.427	1.42
96-18-4	1,2,3-Trichloropropane	U	1.42	ug/kg	0.427	1.42
108-86-1	Bromobenzene	U	1.42	ug/kg	0.427	1.42
103-65-1	n-Propylbenzene	U	1.42	ug/kg	0.427	1.42
95-49-8	2-Chlorotoluene	U	1.42	ug/kg	0.427	1.42
98-82-8	Isopropylbenzene	U	1.42	ug/kg	0.427	1.42
108-67-8	1,3,5-Trimethylbenzene		2.79	ug/kg	0.427	1.42
106-43-4	4-Chlorotoluene	U	1.42	ug/kg	0.427	1.42
98-06-6	tert-Butylbenzene	U	1.42	ug/kg	0.427	1.42
95-63-6	1,2,4-Trimethylbenzene		4.99	ug/kg	0.427	1.42
135-98-8	sec-Butylbenzene	U	1.42	ug/kg	0.427	1.42
99-87-6	4-Isopropyltoluene	J	0.484	ug/kg	0.427	1.42
541-73-1	1,3-Dichlorobenzene	U	1.42	ug/kg	0.427	1.42
106-46-7	1,4-Dichlorobenzene	U	1.42	ug/kg	0.427	1.42
104-51-8	n-Butylbenzene	U	1.42	ug/kg	0.427	1.42
96-12-8	1,2-Dibromo-3-chloropropane	U	1.42	ug/kg	0.427	1.42 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	7.12	ug/kg	2.28	7.12 UJ,V7c
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.42	ug/kg	0.427	1.42
95-50-1	1,2-Dichlorobenzene	U	1.42	ug/kg	0.427	1.42

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043007	Date Received: 02/25/2010 08:45	%Moisture: 21.9
Client ID: RE36-10-7472	Client: LANL010	Project: LANL01004
Batch ID: 961082	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/05/2010 02:17	Inst: VOA6.I	Dilution: 1
Prep Date: 03/03/2010 10:35	Analyst: RXD1	Purge Vol: 5 mL
Data File: 030410V6\6A437.D	Aliquot: 5 g	Final Volume: 5 mL
	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.28	ug/kg	0.435	1.28
74-87-3	Chloromethane	U	1.28	ug/kg	0.384	1.28
75-01-4	Vinyl chloride	U	1.28	ug/kg	0.384	1.28
74-83-9	Bromomethane	U	1.28	ug/kg	0.384	1.28
75-00-3	Chloroethane	U	1.28	ug/kg	0.384	1.28
75-69-4	Trichlorofluoromethane	U	1.28	ug/kg	0.384	1.28
67-64-1	Acetone	U	6.40	ug/kg	2.12	6.40
75-35-4	1,1-Dichloroethylene	U	1.28	ug/kg	0.384	1.28
74-88-4	Iodomethane	U	6.40	ug/kg	2.05	6.40
75-09-2	Methylene chloride	U	6.40	ug/kg	2.56	6.40
75-15-0	Carbon disulfide	U	6.40	ug/kg	1.60	6.40
156-60-5	trans-1,2-Dichloroethylene	U	1.28	ug/kg	0.384	1.28
75-34-3	1,1-Dichloroethane	U	1.28	ug/kg	0.384	1.28
78-93-3	2-Butanone	U	6.40	ug/kg	1.92	6.40 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.28	ug/kg	0.384	1.28
594-20-7	2,2-Dichloropropane	U	1.28	ug/kg	0.384	1.28
67-66-3	Chloroform	U	1.28	ug/kg	0.384	1.28
74-97-5	Bromochloromethane	U	1.28	ug/kg	0.422	1.28
71-55-6	1,1,1-Trichloroethane	U	1.28	ug/kg	0.384	1.28
563-58-6	1,1-Dichloropropene	U	1.28	ug/kg	0.384	1.28
56-23-5	Carbon tetrachloride	U	1.28	ug/kg	0.384	1.28
107-06-2	1,2-Dichloroethane	U	1.28	ug/kg	0.384	1.28
71-43-2	Benzene	U	1.28	ug/kg	0.384	1.28
79-01-6	Trichloroethylene	U	1.28	ug/kg	0.422	1.28
78-87-5	1,2-Dichloropropane	U	1.28	ug/kg	0.384	1.28
75-27-4	Bromodichloromethane	U	1.28	ug/kg	0.384	1.28
74-95-3	Dibromomethane	U	1.28	ug/kg	0.384	1.28
108-10-1	4-Methyl-2-pentanone	U	6.40	ug/kg	1.60	6.40
10061-01-5	cis-1,3-Dichloropropylene	U	1.28	ug/kg	0.384	1.28
108-88-3	Toluene	U	1.28	ug/kg	0.384	1.28
10061-02-6	trans-1,3-Dichloropropylene	U	1.28	ug/kg	0.384	1.28
79-00-5	1,1,2-Trichloroethane	U	1.28	ug/kg	0.384	1.28
591-78-6	2-Hexanone	U	6.40	ug/kg	1.92	6.40 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.28	ug/kg	0.384	1.28
127-18-4	Tetrachloroethylene	U	1.28	ug/kg	0.384	1.28
124-48-1	Dibromochloromethane	U	1.28	ug/kg	0.384	1.28
106-93-4	1,2-Dibromoethane	U	1.28	ug/kg	0.384	1.28
108-90-7	Chlorobenzene	U	1.28	ug/kg	0.384	1.28

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043007

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 21.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7472  
 Batch ID: 961082  
 Run Date: 03/05/2010 02:17  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V6\6A437.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.28	ug/kg	0.384	1.28
179601-23-1	m,p-Xylenes	U	2.56	ug/kg	0.384	2.56
95-47-6	o-Xylene	U	1.28	ug/kg	0.384	1.28
100-42-5	Styrene	U	1.28	ug/kg	0.384	1.28
75-25-2	Bromoform	U	1.28	ug/kg	0.384	1.28
79-34-5	1,1,2,2-Tetrachloroethane	U	1.28	ug/kg	0.384	1.28
96-18-4	1,2,3-Trichloropropane	U	1.28	ug/kg	0.384	1.28
108-86-1	Bromobenzene	U	1.28	ug/kg	0.384	1.28
103-65-1	n-Propylbenzene	U	1.28	ug/kg	0.384	1.28
95-49-8	2-Chlorotoluene	U	1.28	ug/kg	0.384	1.28
98-82-8	Isopropylbenzene	U	1.28	ug/kg	0.384	1.28
108-67-8	1,3,5-Trimethylbenzene	U	1.28	ug/kg	0.384	1.28
106-43-4	4-Chlorotoluene	U	1.28	ug/kg	0.384	1.28
98-06-6	tert-Butylbenzene	U	1.28	ug/kg	0.384	1.28
95-63-6	1,2,4-Trimethylbenzene	U	1.28	ug/kg	0.384	1.28
135-98-8	sec-Butylbenzene	U	1.28	ug/kg	0.384	1.28
99-87-6	4-Isopropyltoluene	U	1.28	ug/kg	0.384	1.28
541-73-1	1,3-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28
106-46-7	1,4-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28
104-51-8	n-Butylbenzene	U	1.28	ug/kg	0.384	1.28
96-12-8	1,2-Dibromo-3-chloropropane	U	1.28	ug/kg	0.384	1.28 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.40	ug/kg	2.05	6.40 UJ,V7c
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.28	ug/kg	0.384	1.28
95-50-1	1,2-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

EH  
4/21/10

Volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2074

Lab Sample ID: 248043008

Date Collected: 02/20/2010 12:00

Date Received: 02/25/2010 08:45

Matrix: R

%Moisture: 26.6

Client: LANL010

Method: SW846 8260B

Project: LANL01004

SOP Ref: GL-OA-E-038

Client ID: RE36-10-7468

Batch ID: 961082

Inst: VOA6.I

Dilution: 1

Run Date: 03/05/2010 02:45

Analyst: RXD1

Purge Vol: 5 mL

Prep Date: 03/03/2010 10:35

Aliquot: 5 g

Final Volume: 5 mL

Data File: 030410V6\6A438.D

Column: DB-624

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.36	ug/kg	0.463	1.36
74-87-3	Chloromethane	U	1.36	ug/kg	0.408	1.36
75-01-4	Vinyl chloride	U	1.36	ug/kg	0.408	1.36
74-83-9	Bromomethane	U	1.36	ug/kg	0.408	1.36
75-00-3	Chloroethane	U	1.36	ug/kg	0.408	1.36
75-69-4	Trichlorofluoromethane	U	1.36	ug/kg	0.408	1.36
67-64-1	Acetone	U	6.81	ug/kg	2.26	6.81
75-35-4	1,1-Dichloroethylene	U	1.36	ug/kg	0.408	1.36
74-88-4	Iodomethane	U	6.81	ug/kg	2.18	6.81
75-09-2	Methylene chloride	U	6.81	ug/kg	2.72	6.81
75-15-0	Carbon disulfide	U	6.81	ug/kg	1.70	6.81
156-60-5	trans-1,2-Dichloroethylene	U	1.36	ug/kg	0.408	1.36
75-34-3	1,1-Dichloroethane	U	1.36	ug/kg	0.408	1.36
78-93-3	2-Butanone	U	6.81	ug/kg	2.04	6.81 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.36	ug/kg	0.408	1.36
594-20-7	2,2-Dichloropropane	U	1.36	ug/kg	0.408	1.36
67-66-3	Chloroform	U	1.36	ug/kg	0.408	1.36
74-97-5	Bromochloromethane	U	1.36	ug/kg	0.449	1.36
71-55-6	1,1,1-Trichloroethane	U	1.36	ug/kg	0.408	1.36
563-58-6	1,1-Dichloropropene	U	1.36	ug/kg	0.408	1.36
56-23-5	Carbon tetrachloride	U	1.36	ug/kg	0.408	1.36
107-06-2	1,2-Dichloroethane	U	1.36	ug/kg	0.408	1.36
71-43-2	Benzene	U	1.36	ug/kg	0.408	1.36
79-01-6	Trichloroethylene	U	1.36	ug/kg	0.449	1.36
78-87-5	1,2-Dichloropropane	U	1.36	ug/kg	0.408	1.36
75-27-4	Bromodichloromethane	U	1.36	ug/kg	0.408	1.36
74-95-3	Dibromomethane	U	1.36	ug/kg	0.408	1.36
108-10-1	4-Methyl-2-pentanone	U	6.81	ug/kg	1.70	6.81
10061-01-5	cis-1,3-Dichloropropylene	U	1.36	ug/kg	0.408	1.36
108-88-3	Toluene	U	1.36	ug/kg	0.408	1.36
10061-02-6	trans-1,3-Dichloropropylene	U	1.36	ug/kg	0.408	1.36
79-00-5	1,1,2-Trichloroethane	U	1.36	ug/kg	0.408	1.36
591-78-6	2-Hexanone	U	6.81	ug/kg	2.04	6.81 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.36	ug/kg	0.408	1.36
127-18-4	Tetrachloroethylene	U	1.36	ug/kg	0.408	1.36
124-48-1	Dibromochloromethane	U	1.36	ug/kg	0.408	1.36
106-93-4	1,2-Dibromoethane	U	1.36	ug/kg	0.408	1.36
108-90-7	Chlorobenzene	U	1.36	ug/kg	0.408	1.36

EH  
4/21/10

Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074

Lab Sample ID: 248043008

Date Collected: 02/20/2010 12:00

Date Received: 02/25/2010 08:45

Matrix: R

%Moisture: 26.6

Client: LANL010

Project: LANL01004

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Inst: VOA6.I

Dilution: 1

Client ID: RE36-10-7468

Batch ID: 961082

Run Date: 03/05/2010 02:45

Analyst: RXD1

Purge Vol: 5 mL

Prep Date: 03/03/2010 10:35

Aliquot: 5 g

Final Volume: 5 mL

Data File: 030410V6\6A438.D

Column: DB-624

CAS No.	Parmaame	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.36	ug/kg	0.408	1.36
179601-23-1	m,p-Xylenes	U	2.72	ug/kg	0.408	2.72
95-47-6	o-Xylene	U	1.36	ug/kg	0.408	1.36
100-42-5	Styrene	U	1.36	ug/kg	0.408	1.36
75-25-2	Bromoform	U	1.36	ug/kg	0.408	1.36
79-34-5	1,1,2,2-Tetrachloroethane	U	1.36	ug/kg	0.408	1.36
96-18-4	1,2,3-Trichloropropane	U	1.36	ug/kg	0.408	1.36
108-86-1	Bromobenzene	U	1.36	ug/kg	0.408	1.36
103-65-1	n-Propylbenzene	U	1.36	ug/kg	0.408	1.36
95-49-8	2-Chlorotoluene	U	1.36	ug/kg	0.408	1.36
98-82-8	Isopropylbenzene	U	1.36	ug/kg	0.408	1.36
108-67-8	1,3,5-Trimethylbenzene	U	1.36	ug/kg	0.408	1.36
106-43-4	4-Chlorotoluene	U	1.36	ug/kg	0.408	1.36
98-06-6	tert-Butylbenzene	U	1.36	ug/kg	0.408	1.36
95-63-6	1,2,4-Trimethylbenzene	U	1.36	ug/kg	0.408	1.36
135-98-8	sec-Butylbenzene	U	1.36	ug/kg	0.408	1.36
99-87-6	4-Isopropyltoluene		2.94	ug/kg	0.408	1.36
541-73-1	1,3-Dichlorobenzene	U	1.36	ug/kg	0.408	1.36
106-46-7	1,4-Dichlorobenzene	U	1.36	ug/kg	0.408	1.36
104-51-8	n-Butylbenzene	U	1.36	ug/kg	0.408	1.36
96-12-8	1,2-Dibromo-3-chloropropane	U	1.36	ug/kg	0.408	1.36 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane <i>Trichlorotrifluoroethane</i>	U	6.81	ug/kg	2.18	6.81 UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.36	ug/kg	0.408	1.36
95-50-1	1,2-Dichlorobenzene	U	1.36	ug/kg	0.408	1.36

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	9.01	22.5	ug/kg	0	J

EH  
4/21/10



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043009

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 7  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7464  
 Batch ID: 961082  
 Run Date: 03/05/2010 03:13  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V6\6A439.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08
67-64-1	Acetone	U	5.38	ug/kg	1.79	5.38
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
74-88-4	Iodomethane	U	5.38	ug/kg	1.72	5.38
75-09-2	Methylene chloride	U	5.38	ug/kg	2.15	5.38
75-15-0	Carbon disulfide	U	5.38	ug/kg	1.34	5.38
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08
78-93-3	2-Butanone	U	5.38	ug/kg	1.61	5.38 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.355	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.355	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08
108-10-1	4-Methyl-2-pentanone	U	5.38	ug/kg	1.34	5.38
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08
591-78-6	2-Hexanone	U	5.38	ug/kg	1.61	5.38 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043009	Date Received: 02/25/2010 08:45	%Moisture: 7
Client ID: RE36-10-7464	Client: LANL010	Project: LANL01004
Batch ID: 961082	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/05/2010 03:13	Inst: VOA6.I	Dilution: 1
Prep Date: 03/03/2010 10:35	Analyst: RXD1	Purge Vol: 5 mL
Data File: 030410V6\6A439.D	Allquot: 5 g	Final Volume: 5 mL
	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane <i>Trichlorotrifluoroethane</i>	U	5.38	ug/kg	1.72	5.38 UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

EH  
4/21/10

Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043010

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA6.I  
Analyst: RXD1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 8.2  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE36-10-7463  
Batch ID: 961082  
Run Date: 03/05/2010 03:40  
Prep Date: 03/03/2010 10:35  
Data File: 030410V6\6A440.D

CAS No.	Parma name	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.371	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.327	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.327	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.327	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.327	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.327	1.09
67-64-1	Acetone	U	5.45	ug/kg	1.81	5.45
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
74-88-4	Iodomethane	U	5.45	ug/kg	1.74	5.45
75-09-2	Methylene chloride	U	5.45	ug/kg	2.18	5.45
75-15-0	Carbon disulfide	U	5.45	ug/kg	1.36	5.45
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.327	1.09
78-93-3	2-Butanone	U	5.45	ug/kg	1.63	5.45 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.327	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.360	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.327	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.327	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.327	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.327	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.327	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.360	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.327	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.327	1.09
108-10-1	4-Methyl-2-pentanone	U	5.45	ug/kg	1.36	5.45
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.327	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.327	1.09
591-78-6	2-Hexanone	U	5.45	ug/kg	1.63	5.45 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.327	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.327	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.327	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.327	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.327	1.09

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043010

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 8.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7463  
 Batch ID: 961082  
 Run Date: 03/05/2010 03:40  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V6\6A440.D

CAS No.	Parmaame	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.327	1.09
179601-23-1	m,p-Xylenes	U	2.18	ug/kg	0.327	2.18
95-47-6	o-Xylene	U	1.09	ug/kg	0.327	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.327	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.327	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.327	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.327	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.327	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.327	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.327	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.327	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.327	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.327	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.327	1.09 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.45	ug/kg	1.74	5.45 UJ,V7c
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

EH  
 4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043011

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Allquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 27.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7475  
 Batch ID: 961082  
 Run Date: 03/05/2010 04:08  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V6\6A441.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.37	ug/kg	0.467	1.37
74-87-3	Chloromethane	U	1.37	ug/kg	0.412	1.37
75-01-4	Vinyl chloride	U	1.37	ug/kg	0.412	1.37
74-83-9	Bromomethane	U	1.37	ug/kg	0.412	1.37
75-00-3	Chloroethane	U	1.37	ug/kg	0.412	1.37
75-69-4	Trichlorofluoromethane	U	1.37	ug/kg	0.412	1.37
67-64-1	Acetone	U	6.87	ug/kg	2.28	6.87
75-35-4	1,1-Dichloroethylene	U	1.37	ug/kg	0.412	1.37
74-88-4	Iodomethane	U	6.87	ug/kg	2.20	6.87
75-09-2	Methylene chloride	U	6.87	ug/kg	2.75	6.87
75-15-0	Carbon disulfide	U	6.87	ug/kg	1.72	6.87
156-60-5	trans-1,2-Dichloroethylene	U	1.37	ug/kg	0.412	1.37
75-34-3	1,1-Dichloroethane	U	1.37	ug/kg	0.412	1.37
78-93-3	2-Butanone	U	6.87	ug/kg	2.06	6.87 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.37	ug/kg	0.412	1.37
594-20-7	2,2-Dichloropropane	U	1.37	ug/kg	0.412	1.37
67-66-3	Chloroform	U	1.37	ug/kg	0.412	1.37
74-97-5	Bromochloromethane	U	1.37	ug/kg	0.453	1.37
71-55-6	1,1,1-Trichloroethane	U	1.37	ug/kg	0.412	1.37
563-58-6	1,1-Dichloropropene	U	1.37	ug/kg	0.412	1.37
56-23-5	Carbon tetrachloride	U	1.37	ug/kg	0.412	1.37
107-06-2	1,2-Dichloroethane	U	1.37	ug/kg	0.412	1.37
71-43-2	Benzene	U	1.37	ug/kg	0.412	1.37
79-01-6	Trichloroethylene	U	1.37	ug/kg	0.453	1.37
78-87-5	1,2-Dichloropropane	U	1.37	ug/kg	0.412	1.37
75-27-4	Bromodichloromethane	U	1.37	ug/kg	0.412	1.37
74-95-3	Dibromomethane	U	1.37	ug/kg	0.412	1.37
108-10-1	4-Methyl-2-pentanone	U	6.87	ug/kg	1.72	6.87
10061-01-5	cis-1,3-Dichloropropylene	U	1.37	ug/kg	0.412	1.37
108-88-3	Toluene	U	1.37	ug/kg	0.412	1.37
10061-02-6	trans-1,3-Dichloropropylene	U	1.37	ug/kg	0.412	1.37
79-00-5	1,1,2-Trichloroethane	U	1.37	ug/kg	0.412	1.37
591-78-6	2-Hexanone	U	6.87	ug/kg	2.06	6.87 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.37	ug/kg	0.412	1.37
127-18-4	Tetrachloroethylene	U	1.37	ug/kg	0.412	1.37
124-48-1	Dibromochloromethane	U	1.37	ug/kg	0.412	1.37
106-93-4	1,2-Dibromoethane	U	1.37	ug/kg	0.412	1.37
108-90-7	Chlorobenzene	U	1.37	ug/kg	0.412	1.37

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043011

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 27.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7475  
 Batch ID: 961082  
 Run Date: 03/05/2010 04:08  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V6\6A441.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.37	ug/kg	0.412	1.37
179601-23-1	m,p-Xylenes	U	2.75	ug/kg	0.412	2.75
95-47-6	o-Xylene	U	1.37	ug/kg	0.412	1.37
100-42-5	Styrene	U	1.37	ug/kg	0.412	1.37
75-25-2	Bromoform	U	1.37	ug/kg	0.412	1.37
79-34-5	1,1,2,2-Tetrachloroethane	U	1.37	ug/kg	0.412	1.37
96-18-4	1,2,3-Trichloropropane	U	1.37	ug/kg	0.412	1.37
108-86-1	Bromobenzene	U	1.37	ug/kg	0.412	1.37
103-65-1	n-Propylbenzene	U	1.37	ug/kg	0.412	1.37
95-49-8	2-Chlorotoluene	U	1.37	ug/kg	0.412	1.37
98-82-8	Isopropylbenzene	U	1.37	ug/kg	0.412	1.37
108-67-8	1,3,5-Trimethylbenzene	U	1.37	ug/kg	0.412	1.37
106-43-4	4-Chlorotoluene	U	1.37	ug/kg	0.412	1.37
98-06-6	tert-Butylbenzene	U	1.37	ug/kg	0.412	1.37
95-63-6	1,2,4-Trimethylbenzene	U	1.37	ug/kg	0.412	1.37
135-98-8	sec-Butylbenzene	U	1.37	ug/kg	0.412	1.37
99-87-6	4-Isopropyltoluene	U	1.37	ug/kg	0.412	1.37
541-73-1	1,3-Dichlorobenzene	U	1.37	ug/kg	0.412	1.37
106-46-7	1,4-Dichlorobenzene	U	1.37	ug/kg	0.412	1.37
104-51-8	n-Butylbenzene	U	1.37	ug/kg	0.412	1.37
96-12-8	1,2-Dibromo-3-chloropropane	U	1.37	ug/kg	0.412	1.37 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.87	ug/kg	2.20	6.87 UJ,V7c
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.37	ug/kg	0.412	1.37
95-50-1	1,2-Dichlorobenzene	U	1.37	ug/kg	0.412	1.37

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043012

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 20.5  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7466  
 Batch ID: 961082  
 Run Date: 03/05/2010 04:36  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V6\6A442.D

CAS No.	Permname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.428	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.377	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.377	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.377	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.377	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.377	1.26
67-64-1	Acetone	U	6.29	ug/kg	2.09	6.29
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.377	1.26
74-88-4	Iodomethane	U	6.29	ug/kg	2.01	6.29
75-09-2	Methylene chloride	U	6.29	ug/kg	2.52	6.29
75-15-0	Carbon disulfide	U	6.29	ug/kg	1.57	6.29
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.377	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.377	1.26
78-93-3	2-Butanone	U	6.29	ug/kg	1.89	6.29 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.377	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.377	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.377	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.415	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.377	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.377	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.377	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.377	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.377	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.415	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.377	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.377	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.377	1.26
108-10-1	4-Methyl-2-pentanone	U	6.29	ug/kg	1.57	6.29
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.377	1.26
108-88-3	Toluene	U	1.26	ug/kg	0.377	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.377	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.377	1.26
591-78-6	2-Hexanone	U	6.29	ug/kg	1.89	6.29 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.377	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.377	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.377	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.377	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.377	1.26

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043012	Date Received: 02/25/2010 08:45	%Moisture: 20.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7466	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 04:36	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Allquot: 5 g	Final Volume: 5 mL
Data File: 030410V6\6A442.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.26	ug/kg	0.377	1.26
179601-23-1	m,p-Xylenes	U	2.52	ug/kg	0.377	2.52
95-47-6	o-Xylene	U	1.26	ug/kg	0.377	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.377	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.377	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.377	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.377	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.377	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.377	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.377	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.377	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.377	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.377	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.377	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.377	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.377	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.377	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.377	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.377	1.26 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.29	ug/kg	2.01	6.29 UJ,V7c
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.377	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

EH  
4/21/10



Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043013	Date Received: 02/25/2010 08:45	%Moisture: 17
Client ID: RE36-10-7476	Client: LANL010	Project: LANL01004
Batch ID: 961082	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/05/2010 05:04	Inst: VOA6.I	Dilution: 1
Prep Date: 03/03/2010 10:35	Analyst: RXD1	Purge Vol: 5 mL
Data File: 030410V6\6A443.D	Allquot: 5 g	Final Volume: 5 mL
	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.20	ug/kg	0.410	1.20
74-87-3	Chloromethane	U	1.20	ug/kg	0.361	1.20
75-01-4	Vinyl chloride	U	1.20	ug/kg	0.361	1.20
74-83-9	Bromomethane	U	1.20	ug/kg	0.361	1.20
75-00-3	Chloroethane	U	1.20	ug/kg	0.361	1.20
75-69-4	Trichlorofluoromethane	U	1.20	ug/kg	0.361	1.20
67-64-1	Acetone	U	6.02	ug/kg	2.00	6.02
75-35-4	1,1-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
74-88-4	Iodomethane	U	6.02	ug/kg	1.93	6.02
75-09-2	Methylene chloride	U	6.02	ug/kg	2.41	6.02
75-15-0	Carbon disulfide	U	6.02	ug/kg	1.51	6.02
156-60-5	trans-1,2-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
75-34-3	1,1-Dichloroethane	U	1.20	ug/kg	0.361	1.20
78-93-3	2-Butanone	U	6.02	ug/kg	1.81	6.02 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
594-20-7	2,2-Dichloropropane	U	1.20	ug/kg	0.361	1.20
67-66-3	Chloroform	U	1.20	ug/kg	0.361	1.20
74-97-5	Bromochloromethane	U	1.20	ug/kg	0.398	1.20
71-55-6	1,1,1-Trichloroethane	U	1.20	ug/kg	0.361	1.20
563-58-6	1,1-Dichloropropene	U	1.20	ug/kg	0.361	1.20
56-23-5	Carbon tetrachloride	U	1.20	ug/kg	0.361	1.20
107-06-2	1,2-Dichloroethane	U	1.20	ug/kg	0.361	1.20
71-43-2	Benzene	U	1.20	ug/kg	0.361	1.20
79-01-6	Trichloroethylene	U	1.20	ug/kg	0.398	1.20
78-87-5	1,2-Dichloropropane	U	1.20	ug/kg	0.361	1.20
75-27-4	Bromodichloromethane	U	1.20	ug/kg	0.361	1.20
74-95-3	Dibromomethane	U	1.20	ug/kg	0.361	1.20
108-10-1	4-Methyl-2-pentanone	U	6.02	ug/kg	1.51	6.02
10061-01-5	cis-1,3-Dichloropropylene	U	1.20	ug/kg	0.361	1.20
108-88-3	Toluene	U	1.20	ug/kg	0.361	1.20
10061-02-6	trans-1,3-Dichloropropylene	U	1.20	ug/kg	0.361	1.20
79-00-5	1,1,2-Trichloroethane	U	1.20	ug/kg	0.361	1.20
591-78-6	2-Hexanone	U	6.02	ug/kg	1.81	6.02 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.20	ug/kg	0.361	1.20
127-18-4	Tetrachloroethylene	U	1.20	ug/kg	0.361	1.20
124-48-1	Dibromochloromethane	U	1.20	ug/kg	0.361	1.20
106-93-4	1,2-Dibromoethane	U	1.20	ug/kg	0.361	1.20
108-90-7	Chlorobenzene	U	1.20	ug/kg	0.361	1.20

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043013

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.J  
 Analyst: RXD1  
 Allquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 17  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7476  
 Batch ID: 961082  
 Run Date: 03/05/2010 05:04  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V6\6A443.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.20	ug/kg	0.361	1.20
179601-23-1	m,p-Xylenes	U	2.41	ug/kg	0.361	2.41
95-47-6	o-Xylene	U	1.20	ug/kg	0.361	1.20
100-42-5	Styrene	U	1.20	ug/kg	0.361	1.20
75-25-2	Bromoform	U	1.20	ug/kg	0.361	1.20
79-34-5	1,1,2,2-Tetrachloroethane	U	1.20	ug/kg	0.361	1.20
96-18-4	1,2,3-Trichloropropane	U	1.20	ug/kg	0.361	1.20
108-86-1	Bromobenzene	U	1.20	ug/kg	0.361	1.20
103-65-1	n-Propylbenzene	U	1.20	ug/kg	0.361	1.20
95-49-8	2-Chlorotoluene	U	1.20	ug/kg	0.361	1.20
98-82-8	Isopropylbenzene	U	1.20	ug/kg	0.361	1.20
108-67-8	1,3,5-Trimethylbenzene	U	1.20	ug/kg	0.361	1.20
106-43-4	4-Chlorotoluene	U	1.20	ug/kg	0.361	1.20
98-06-6	tert-Butylbenzene	U	1.20	ug/kg	0.361	1.20
95-63-6	1,2,4-Trimethylbenzene	U	1.20	ug/kg	0.361	1.20
135-98-8	sec-Butylbenzene	U	1.20	ug/kg	0.361	1.20
99-87-6	4-Isopropyltoluene	U	1.20	ug/kg	0.361	1.20
541-73-1	1,3-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20
106-46-7	1,4-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20
104-51-8	n-Butylbenzene	U	1.20	ug/kg	0.361	1.20
96-12-8	1,2-Dibromo-3-chloropropane	U	1.20	ug/kg	0.361	1.20 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.02	ug/kg	1.93	6.02 UJ,V7c
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.20	ug/kg	0.361	1.20
95-50-1	1,2-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
No Tentatively Identified Compounds Found				ug/kg		

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

Page 1 of 2

SDG Number: 10-2074  
 Lab Sample ID: 248043014

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Allquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.7  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7461  
 Batch ID: 961082  
 Run Date: 03/05/2010 05:31  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V6\6A444.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15
67-64-1	Acetone	U	5.73	ug/kg	1.90	5.73
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.73	ug/kg	1.83	5.73
75-09-2	Methylene chloride	U	5.73	ug/kg	2.29	5.73
75-15-0	Carbon disulfide	U	5.73	ug/kg	1.43	5.73
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15
78-93-3	2-Butanone	U	5.73	ug/kg	1.72	5.73 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.378	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.378	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15
108-10-1	4-Methyl-2-pentanone	U	5.73	ug/kg	1.43	5.73
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15
591-78-6	2-Hexanone	U	5.73	ug/kg	1.72	5.73 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15

EH  
 4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043014	Date Received: 02/25/2010 08:45	%Moisture: 12.7
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7461	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 05:31	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Allquot: 5 g	Final Volume: 5 mL
Data File: 030410V6\6A444.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.73	ug/kg	1.83	5.73 UJ,V7c
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043015

Client ID: RE36-10-7467  
 Batch ID: 961082  
 Run Date: 03/05/2010 15:18  
 Prep Date: 03/05/2010 12:04  
 Data File: 030510V6\6A511.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 16.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.20	ug/kg	0.409	1.20
74-87-3	Chloromethane	U	1.20	ug/kg	0.361	1.20
75-01-4	Vinyl chloride	U	1.20	ug/kg	0.361	1.20
74-83-9	Bromomethane	U	1.20	ug/kg	0.361	1.20
75-00-3	Chloroethane	U	1.20	ug/kg	0.361	1.20
75-69-4	Trichlorofluoromethane	U	1.20	ug/kg	0.361	1.20
67-64-1	Acetone	U	6.01	ug/kg	2.00	6.01
75-35-4	1,1-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
74-88-4	Iodomethane	U	6.01	ug/kg	1.92	6.01
75-09-2	Methylene chloride	J	4.62	ug/kg	2.41	6.01
75-15-0	Carbon disulfide	U	6.01	ug/kg	1.50	6.01
156-60-5	trans-1,2-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
75-34-3	1,1-Dichloroethane	U	1.20	ug/kg	0.361	1.20
78-93-3	2-Butanone	U	6.01	ug/kg	1.80	6.01 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
594-20-7	2,2-Dichloropropane	U	1.20	ug/kg	0.361	1.20
67-66-3	Chloroform	U	1.20	ug/kg	0.361	1.20
74-97-5	Bromochloromethane	U	1.20	ug/kg	0.397	1.20
71-55-6	1,1,1-Trichloroethane	U	1.20	ug/kg	0.361	1.20
563-58-6	1,1-Dichloropropene	U	1.20	ug/kg	0.361	1.20
56-23-5	Carbon tetrachloride	U	1.20	ug/kg	0.361	1.20
107-06-2	1,2-Dichloroethane	U	1.20	ug/kg	0.361	1.20
71-43-2	Benzene	U	1.20	ug/kg	0.361	1.20
79-01-6	Trichloroethylene	U	1.20	ug/kg	0.397	1.20
78-87-5	1,2-Dichloropropane	U	1.20	ug/kg	0.361	1.20
75-27-4	Bromodichloromethane	U	1.20	ug/kg	0.361	1.20
74-95-3	Dibromomethane	U	1.20	ug/kg	0.361	1.20
108-10-1	4-Methyl-2-pentanone	U	6.01	ug/kg	1.50	6.01
10061-01-5	cis-1,3-Dichloropropylene	U	1.20	ug/kg	0.361	1.20
108-88-3	Toluene	U	1.20	ug/kg	0.361	1.20
10061-02-6	trans-1,3-Dichloropropylene	U	1.20	ug/kg	0.361	1.20
79-00-5	1,1,2-Trichloroethane	U	1.20	ug/kg	0.361	1.20
591-78-6	2-Hexanone	U	6.01	ug/kg	1.80	6.01 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.20	ug/kg	0.361	1.20
127-18-4	Tetrachloroethylene	U	1.20	ug/kg	0.361	1.20
124-48-1	Dibromochloromethane	U	1.20	ug/kg	0.361	1.20
106-93-4	1,2-Dibromoethane	U	1.20	ug/kg	0.361	1.20
108-90-7	Chlorobenzene	U	1.20	ug/kg	0.361	1.20

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043015

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 16.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7467  
 Batch ID: 961082  
 Run Date: 03/05/2010 15:18  
 Prep Date: 03/05/2010 12:04  
 Data File: 030510V6\6A511.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.20	ug/kg	0.361	1.20
179601-23-1	m,p-Xylenes	U	2.41	ug/kg	0.361	2.41
95-47-6	o-Xylene	U	1.20	ug/kg	0.361	1.20
100-42-5	Styrene	U	1.20	ug/kg	0.361	1.20
75-25-2	Bromoform	U	1.20	ug/kg	0.361	1.20
79-34-5	1,1,2,2-Tetrachloroethane	U	1.20	ug/kg	0.361	1.20
96-18-4	1,2,3-Trichloropropane	U	1.20	ug/kg	0.361	1.20
108-86-1	Bromobenzene	U	1.20	ug/kg	0.361	1.20
103-65-1	n-Propylbenzene	U	1.20	ug/kg	0.361	1.20
95-49-8	2-Chlorotoluene	U	1.20	ug/kg	0.361	1.20
98-82-8	Isopropylbenzene	U	1.20	ug/kg	0.361	1.20
108-67-8	1,3,5-Trimethylbenzene	U	1.20	ug/kg	0.361	1.20
106-43-4	4-Chlorotoluene	U	1.20	ug/kg	0.361	1.20
98-06-6	tert-Butylbenzene	U	1.20	ug/kg	0.361	1.20
95-63-6	1,2,4-Trimethylbenzene	U	1.20	ug/kg	0.361	1.20
135-98-8	sec-Butylbenzene	U	1.20	ug/kg	0.361	1.20
99-87-6	4-Isopropyltoluene	U	1.20	ug/kg	0.361	1.20
541-73-1	1,3-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20
106-46-7	1,4-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20
104-51-8	n-Butylbenzene	U	1.20	ug/kg	0.361	1.20
96-12-8	1,2-Dibromo-3-chloropropane	U	1.20	ug/kg	0.361	1.20 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.01	ug/kg	1.92	6.01 UJ,V7c
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.20	ug/kg	0.361	1.20
95-50-1	1,2-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.17	15.6	ug/kg	0	J

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043016	Date Received: 02/25/2010 08:45	%Moisture: 12.5
Client ID: RE36-10-7469	Client: LANL010	Project: LANL01004
Batch ID: 961082	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/05/2010 15:46	Inst: VOA6.I	Dilution: 1
Prep Date: 03/05/2010 12:06	Analyst: RXD1	Purge Vol: 5 mL
Data File: 030510V6\6A512.D	Aliquot: 5 g	Final Volume: 5 mL
	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.389	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.343	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.343	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.343	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.343	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.343	1.14
67-64-1	Acetone	U	5.71	ug/kg	1.90	5.71
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
74-88-4	Iodomethane	U	5.71	ug/kg	1.83	5.71
75-09-2	Methylene chloride	U	5.71	ug/kg	2.29	5.71
75-15-0	Carbon disulfide	U	5.71	ug/kg	1.43	5.71
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.343	1.14
78-93-3	2-Butanone	U	5.71	ug/kg	1.71	5.71 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.343	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.343	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.377	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.343	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.343	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.343	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.343	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.343	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.377	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.343	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.343	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.343	1.14
108-10-1	4-Methyl-2-pentanone	U	5.71	ug/kg	1.43	5.71
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.343	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.343	1.14
591-78-6	2-Hexanone	U	5.71	ug/kg	1.71	5.71 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.343	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.343	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.343	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.343	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.343	1.14

EH  
4/21/10

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043016

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.1  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.5  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7469  
 Batch ID: 961082  
 Run Date: 03/05/2010 15:46  
 Prep Date: 03/05/2010 12:06  
 Data File: 030510V6\6A512.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.343	1.14
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.343	2.29
95-47-6	o-Xylene	U	1.14	ug/kg	0.343	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.343	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.343	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.343	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.343	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.343	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.343	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.343	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.343	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.343	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.343	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.343	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.343	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.343	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.343	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.343	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.343	1.14 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane Trichlorotrifluoroethane	U	5.71	ug/kg	1.83	5.71 UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.343	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
No Tentatively Identified Compounds Found				ug/kg		

EH  
4/21/10



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043017

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 14.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7470  
 Batch ID: 961082  
 Run Date: 03/05/2010 16:14  
 Prep Date: 03/05/2010 12:08  
 Data File: 030510V6\6A513.D

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.17	ug/kg	0.397	1.17
74-87-3	Chloromethane	U	1.17	ug/kg	0.350	1.17
75-01-4	Vinyl chloride	U	1.17	ug/kg	0.350	1.17
74-83-9	Bromomethane	U	1.17	ug/kg	0.350	1.17
75-00-3	Chloroethane	U	1.17	ug/kg	0.350	1.17
75-69-4	Trichlorofluoromethane	U	1.17	ug/kg	0.350	1.17
67-64-1	Acetone	U	5.84	ug/kg	1.94	5.84
75-35-4	1,1-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
74-88-4	Iodomethane	U	5.84	ug/kg	1.87	5.84
75-09-2	Methylene chloride	U	5.84	ug/kg	2.34	5.84
75-15-0	Carbon disulfide	U	5.84	ug/kg	1.46	5.84
156-60-5	trans-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
75-34-3	1,1-Dichloroethane	U	1.17	ug/kg	0.350	1.17
78-93-3	2-Butanone	U	5.84	ug/kg	1.75	5.84 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
594-20-7	2,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17
67-66-3	Chloroform	U	1.17	ug/kg	0.350	1.17
74-97-5	Bromochloromethane	U	1.17	ug/kg	0.385	1.17
71-55-6	1,1,1-Trichloroethane	U	1.17	ug/kg	0.350	1.17
563-58-6	1,1-Dichloropropene	U	1.17	ug/kg	0.350	1.17
56-23-5	Carbon tetrachloride	U	1.17	ug/kg	0.350	1.17
107-06-2	1,2-Dichloroethane	U	1.17	ug/kg	0.350	1.17
71-43-2	Benzene	U	1.17	ug/kg	0.350	1.17
79-01-6	Trichloroethylene	U	1.17	ug/kg	0.385	1.17
78-87-5	1,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17
75-27-4	Bromodichloromethane	U	1.17	ug/kg	0.350	1.17
74-95-3	Dibromomethane	U	1.17	ug/kg	0.350	1.17
108-10-1	4-Methyl-2-pentanone	U	5.84	ug/kg	1.46	5.84
10061-01-5	cis-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17
108-88-3	Toluene	U	1.17	ug/kg	0.350	1.17
10061-02-6	trans-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17
79-00-5	1,1,2-Trichloroethane	U	1.17	ug/kg	0.350	1.17
591-78-6	2-Hexanone	U	5.84	ug/kg	1.75	5.84 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.17	ug/kg	0.350	1.17
127-18-4	Tetrachloroethylene	U	1.17	ug/kg	0.350	1.17
124-48-1	Dibromochloromethane	U	1.17	ug/kg	0.350	1.17
106-93-4	1,2-Dibromoethane	U	1.17	ug/kg	0.350	1.17
108-90-7	Chlorobenzene	U	1.17	ug/kg	0.350	1.17

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043017

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Allquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 14.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7470  
 Batch ID: 961082  
 Run Date: 03/05/2010 16:14  
 Prep Date: 03/05/2010 12:08  
 Data File: 030510V6\6A513.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.17	ug/kg	0.350	1.17
179601-23-1	m,p-Xylenes	U	2.34	ug/kg	0.350	2.34
95-47-6	o-Xylene	U	1.17	ug/kg	0.350	1.17
100-42-5	Styrene	U	1.17	ug/kg	0.350	1.17
75-25-2	Bromoform	U	1.17	ug/kg	0.350	1.17
79-34-5	1,1,2,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17
96-18-4	1,2,3-Trichloropropane	U	1.17	ug/kg	0.350	1.17
108-86-1	Bromobenzene	U	1.17	ug/kg	0.350	1.17
103-65-1	n-Propylbenzene	U	1.17	ug/kg	0.350	1.17
95-49-8	2-Chlorotoluene	U	1.17	ug/kg	0.350	1.17
98-82-8	Isopropylbenzene	U	1.17	ug/kg	0.350	1.17
108-67-8	1,3,5-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17
106-43-4	4-Chlorotoluene	U	1.17	ug/kg	0.350	1.17
98-06-6	tert-Butylbenzene	U	1.17	ug/kg	0.350	1.17
95-63-6	1,2,4-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17
135-98-8	sec-Butylbenzene	U	1.17	ug/kg	0.350	1.17
99-87-6	4-Isopropyltoluene	U	1.17	ug/kg	0.350	1.17
541-73-1	1,3-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17
106-46-7	1,4-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17
104-51-8	n-Butylbenzene	U	1.17	ug/kg	0.350	1.17
96-12-8	1,2-Dibromo-3-chloropropane	U	1.17	ug/kg	0.350	1.17 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.84	ug/kg	1.87	5.84 UJ,V7c
<i>Trichlorotrifluoroethane</i>						
630-20-6	1,1,1,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17
95-50-1	1,2-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.17	7.61	ug/kg	0	J

EH  
4/21/10

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043018

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA6.I  
Analyst: RXD1  
Allquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 20.8  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE36-10-7515  
Batch ID: 961082  
Run Date: 03/05/2010 07:22  
Prep Date: 03/03/2010 10:35  
Data File: 030410V6\6A448.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.429	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.379	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.379	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.379	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.379	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.379	1.26
67-64-1	Acetone	U	6.31	ug/kg	2.10	6.31
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
74-88-4	Iodomethane	U	6.31	ug/kg	2.02	6.31
75-09-2	Methylene chloride	U	6.31	ug/kg	2.53	6.31
75-15-0	Carbon disulfide	U	6.31	ug/kg	1.58	6.31
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.379	1.26
78-93-3	2-Butanone	U	6.31	ug/kg	1.89	6.31 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.379	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.379	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.417	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.379	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.379	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.379	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.379	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.379	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.417	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.379	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.379	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.379	1.26
108-10-1	4-Methyl-2-pentanone	U	6.31	ug/kg	1.58	6.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.379	1.26
108-88-3	Toluene	U	1.26	ug/kg	0.379	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.379	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.379	1.26
591-78-6	2-Hexanone	U	6.31	ug/kg	1.89	6.31 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.379	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.379	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.379	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.379	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.379	1.26

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043018

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 20.8  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7515  
 Batch ID: 961082  
 Run Date: 03/05/2010 07:22  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V6\6A448.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.26	ug/kg	0.379	1.26
179601-23-1	m,p-Xylenes	J	0.404	ug/kg	0.379	2.53
95-47-6	o-Xylene	U	1.26	ug/kg	0.379	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.379	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.379	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.379	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.379	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.379	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.379	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.379	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.379	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.379	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.379	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.379	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.379	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.379	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.379	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.379	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.379	1.26 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.31	ug/kg	2.02	6.31 UJ,V7c
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.379	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
No Tentatively Identified Compounds Found				ug/kg		

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043019

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45

Matrix: R

Client ID: RE36-10-7539  
 Batch ID: 961082  
 Run Date: 03/05/2010 07:50  
 Prep Date: 03/04/2010 13:51  
 Data File: 030410V6V6A449.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00 UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043019

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45

Matrix: R

Client ID: RE36-10-7539  
Batch ID: 961082  
Run Date: 03/05/2010 07:50  
Prep Date: 03/04/2010 13:51  
Data File: 030410V6\6A449.D

Client: LANL010  
Method: SW846 8260B  
Inst: VOA6.I  
Analyst: RXD1  
Allquot: 5 g  
Column: DB-624

Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.00	ug/kg	1.60	5.00 UJ,V7c
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

EH  
4/21/10

**DATA VALIDATION COVER SHEET**

5115-1

**Data Validation Cover Sheet**

Records Use only

**Section I.**REQUEST NUMBER: 10-2074 VALIDATION DATE: 4/23/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Eyda Hergenreder ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- |  |  |   |   |
|--|--|---|---|
| <input type="checkbox"/> TPH-GRO           | <input type="checkbox"/> HIGH EXPLOSIVES | <input type="checkbox"/> DIOXIN FURANS          | <input type="checkbox"/> LCMSMS PERCHLORATES                  |
| <input type="checkbox"/> TPH-DRO           | <input type="checkbox"/> METALS          | <input type="checkbox"/> PCB CONGENERS          | <input type="checkbox"/> ORGANOCHLORINE                       |
| <input type="checkbox"/> GENERAL CHEMISTRY | <input type="checkbox"/> RADIOCHEMISTRY  | <input type="checkbox"/> LCMSMS HIGH EXPLOSIVES | <input type="checkbox"/> PESTICIDES/POLYCHLORINATED BIPHENYLS |
- ☒ OTHER (DESCRIBE): GC/MS SVOCs

**Section II. Completeness Check**

- | YES                                 | NO                       | N/A                                 | (CHECK ONE)                 | YES                                 | NO                       | N/A                      | (CHECK ONE)              |
|-------------------------------------|--------------------------|-------------------------------------|-----------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 1. CHAIN-OF-CUSTODY FORM(S) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. RAW/BSS DATA          |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 2. CASE NARRATIVE           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. QUALITY CONTROL FORMS |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 3. SAMPLE RESULT FORMS      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8. QUANTITATION REPORTS  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 4. SAMPLE CHROMATOGRAMS     | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. TICS FORMS            |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. STANDARD CHROMATOGRAMS   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. TICS MASS SPECTRA    |

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Samples RE36-10-7413RE, -7413REDL, -7465RE and -7465REDL were analyzed >1X but ≤2X the HT due to surrogate recoveries outside the acceptance windows with the original analyses. Both sets of data were reported and based on professional judgment, the original results for samples -7413 and -7413DL, and the reanalyzed results for samples -7465RE and -7465REDL were used for validation. Therefore, for samples -7413RE, -7413REDL, -7465 and -7465DL, all detect results were qualified J,SV88, and all ND results were qualified UJ,SV88. For samples -7465RE and -7465REDL, all detect results were qualified J-,SV9 and all ND results were qualified UJ,SV9.
2. The ICV and/or CCV %Ds were >20% for pyridine and 2-methyl-4,6-dinitrophenol associated with all samples, for benzyl alcohol; 2,4-dinitrophenol and benzo(ghi)perylene associated with samples -7414, -7473, -7472, -7476, -7468, -7464, -7475, -7469, -7470, -7515, -7462, -7471, -7463 and -7461, for bis(2-chloroethyl)ether, benzoic acid and hexachlorocyclopentadiene associated with samples -7413, -7413DL, -7475DL, -7467 and -7466 and bis(2-chloroethyl)ether, benzyl alcohol; 4-chloroaniline; 2,4-dinitrophenol; 4-nitroaniline; indeno(1,2,3-cd)pyrene; dibenzo(a,h)anthracene and benzo(ghi)perylene associated with samples -7465RE and -7465REDL. All associated ND sample results were qualified UJ,SV7c and all associated detect sample results were qualified J,SV7c.
3. The phenol-d4, nitrobenzene-d5 and 2,4,6-tribromophenol surrogate %Rs for sample -7413 were < the laboratory LALs but ≥10%. All associated acid fraction sample results were NDs and, thus, were qualified UJ,SV3a. Since only one surrogate for the base/neutral fraction was outside the acceptance limit, no associated sample data were qualified. The 2-fluorophenol-d5, phenol-d5, nitrobenzene-d5 and 2,4,6-tribromophenol surrogate %Rs for sample -7413DL were < the laboratory LALs but ≥10%. Since the sample was analyzed at a dilution, no data were qualified. The phenol-d5 surrogate %Rs for the MS and MSD samples and nitrobenzene-d5 surrogate %R for the MS sample were < the laboratory LALs but ≥10%; however, since these samples were QC samples, no data were qualified.
4. The LCS %R for benzyl alcohol associated with all samples was < the laboratory LAL but ≥10%. All associated sample results were NDs and, thus, were qualified UJ,SV12a.

## DATA VALIDATION COVER SHEET

**5115-1**

## Data Validation Cover Sheet

Records Use only
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5. The MS and/or MSD %Rs for numerous analytes and the MS/MSD RPDs for benzyl alcohol and 2,4-dimethylphenol were outside the laboratory acceptance limits. Since MS/MSD analyses are not required for this method, no data were qualified.

Reviewed by: ETM

**Level: 1**

Date: 4/26/10

**VALIDATOR'S SIGNATURE:**

Eyda Hergenroder  
Eyda Hergenroder


DATE: 4/23/10

Form 5115-1, Revision 0.0


LOS ALAMOS

**Environmental Restoration Project**




SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5115-2</b>  <b>Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist</b>	Records Use only  


Yes   No   N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5115-2</b>  <b>Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist</b>	Records Use only  

Yes   No   N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5115-2</b>  <b>Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist</b>	Records Use only  

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25. The surrogate is < the Lower Acceptance Level (LAL) but $\geq 10\%R$ . Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5115-2</b>  <b>Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist</b>	Records Use only  

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043002

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Allquot: 30.07 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	421	ug/kg	84.1	421
108-95-2	Phenol	U	421	ug/kg	84.1	421 UJ,SV3a
95-57-8	2-Chlorophenol	U	421	ug/kg	84.1	421 UJ,SV3a
106-46-7	1,4-Dichlorobenzene	U	421	ug/kg	84.1	421
621-64-7	N-Nitrosodipropylamine	U	421	ug/kg	84.1	421
59-50-7	4-Chloro-3-methylphenol	U	421	ug/kg	84.1	421 UJ,SV3a
83-32-9	Acenaphthene		765	ug/kg	13.9	42.1
121-14-2	2,4-Dinitrotoluene	U	421	ug/kg	42.1	421
100-02-7	4-Nitrophenol	U	421	ug/kg	139	421 UJ,SV3a
87-86-5	Pentachlorophenol	U	421	ug/kg	105	421 UJ,SV3a
110-86-1	Pyridine	U	421	ug/kg	84.1	421 UJ,SV7c
62-53-3	Aniline	U	421	ug/kg	126	421
111-44-4	bis(2-Chloroethyl) ether	U	421	ug/kg	84.1	421 UJ,SV7c
541-73-1	1,3-Dichlorobenzene	U	421	ug/kg	84.1	421
100-51-6	Benzyl alcohol	U	421	ug/kg	126	421 UJ,SV12a
95-50-1	1,2-Dichlorobenzene	U	421	ug/kg	84.1	421
108-60-1	bis(2-Chloroisopropyl) ether	U	421	ug/kg	84.1	421
95-48-7	o-Cresol	U	421	ug/kg	84.1	421 UJ,SV3a
65794-96-9	m,p-Cresols	U	421	ug/kg	126	421 UJ,SV3a
67-72-1	Hexachloroethane	U	421	ug/kg	84.1	421
98-95-3	Nitrobenzene	U	421	ug/kg	84.1	421
78-59-1	Isophorone	U	421	ug/kg	84.1	421
88-75-5	2-Nitrophenol	U	421	ug/kg	84.1	421 UJ,SV3a
105-67-9	2,4-Dimethylphenol	U	421	ug/kg	147	421 UJ,SV3a
111-91-1	bis(2-Chloroethoxy)methane	U	421	ug/kg	84.1	421
120-83-2	2,4-Dichlorophenol	U	421	ug/kg	84.1	421 UJ,SV3a
65-85-0	Benzoic acid	U	841	ug/kg	210	841 UJ,SV7c
91-20-3	Naphthalene		260	ug/kg	12.6	42.1
106-47-8	4-Chloroaniline	U	421	ug/kg	84.1	421
87-68-3	Hexachlorobutadiene	U	421	ug/kg	84.1	421
91-57-6	2-Methylnaphthalene		158	ug/kg	8.41	42.1
77-47-4	Hexachlorocyclopentadiene	U	421	ug/kg	84.1	421 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	421	ug/kg	84.1	421 UJ,SV3a
95-95-4	2,4,5-Trichlorophenol	U	421	ug/kg	84.1	421 UJ,SV3a
91-58-7	2-Chloronaphthalene	U	42.1	ug/kg	13.9	42.1
88-74-4	2-Nitroaniline	U	421	ug/kg	84.1	421
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	421	ug/kg	84.1	421
	<i>m</i> -Nitroaniline					

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043002	Date Received: 02/25/2010 08:45	%Moisture: 20.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7413	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/12/2010 23:01	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.07 g	Final Volume: 1 mL
Data File: s7c1230.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	Dimethylphthalate	U	421	ug/kg	84.1	421
606-20-2	2,6-Dinitrotoluene	U	421	ug/kg	42.1	421
208-96-8	Acenaphthylene	J	20.2	ug/kg	12.6	42.1
51-28-5	2,4-Dinitrophenol	U	841	ug/kg	160	841 UJ,SV3a
132-64-9	Dibenzofuran		481	ug/kg	84.1	421
84-66-2	Diethylphthalate	U	421	ug/kg	84.1	421
86-73-7	Fluorene		764	ug/kg	12.6	42.1
7005-72-3	4-Chlorophenylphenylether	U	421	ug/kg	84.1	421
534-52-1	2-Methyl-4,6-dinitrophenol	U	421	ug/kg	84.1	421 UJ,SV7c
100-01-6	4-Nitroaniline	U	421	ug/kg	126	421
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	421	ug/kg	84.1	421
122-66-7	Azobenzene	U	421	ug/kg	84.1	421
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	421	ug/kg	84.1	421
118-74-1	Hexachlorobenzene	U	421	ug/kg	84.1	421
120-12-7	Anthracene		1490	ug/kg	8.41	42.1
84-74-2	Di-n-butylphthalate	J	185	ug/kg	84.1	421
85-68-7	Butylbenzylphthalate	U	421	ug/kg	84.1	421
56-55-3	Benzo(a)anthracene		4030	ug/kg	12.6	42.1
91-94-1	3,3'-Dichlorobenzidine	U	421	ug/kg	126	421
218-01-9	Chrysene		4240	ug/kg	12.6	42.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	421	ug/kg	84.1	421
117-84-0	Di-n-octylphthalate	U	421	ug/kg	84.1	421
207-08-9	Benzo(k)fluoranthene	U	42.1	ug/kg	12.6	42.1
50-32-8	Benzo(a)pyrene		3700	ug/kg	12.6	42.1
193-39-5	Indeno(1,2,3-cd)pyrene		1850	ug/kg	12.6	42.1
53-70-3	Dibenzo(a,h)anthracene		669	ug/kg	12.6	42.1
191-24-2	Benzo(ghi)perylene		1790	ug/kg	12.6	42.1
120-82-1	1,2,4-Trichlorobenzene	U	421	ug/kg	84.1	421

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
86-74-8	Carbazole	7.33	181	ug/kg	95	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.6	177	ug/kg	98	NJ
	Unknown	7.68	288	ug/kg		J
84-65-1	9,10-Anthracenedione	7.86	175	ug/kg	99	NJ
	Unknown	8.61	222	ug/kg		J
2381-21-7	Pyrene, 1-methyl-	8.72	389	ug/kg	97	NJ

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043002	Date Received: 02/25/2010 08:45	%Moisture: 20.9
Client ID: RE36-10-7413	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/12/2010 23:01	Inst: MSD7.I	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1230.d	Aliquot: 30.07 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	8.82	213	ug/kg		J
479-79-8	11H-Benzo[a]fluoren-11-one	9.2	225	ug/kg	97	NJ
82-05-3	7H-Benz[de]anthracen-7-one	9.3	221	ug/kg	94	NJ
	Unknown	9.4	252	ug/kg		J
192-97-2	Benzo[e]pyrene	11.02	2530	ug/kg	99	NJ
198-55-0	Perylene	11.19	960	ug/kg	99	NJ

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043002	Date Received: 02/25/2010 08:45	%Moisture: 20.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7413DL	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 4
Run Date: 03/12/2010 21:12	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.07 g	Final Volume: 1 mL
Data File: s7c1225.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
129-00-0	Pyrene		7760	ug/kg	50.5	168
85-01-8	Phenanthrene		8640	ug/kg	50.5	168
206-44-0	Fluoranthene		10000	ug/kg	50.5	168
205-99-2	Benzo(b)fluoranthene		6620	ug/kg	50.5	168

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
86-74-8	Carbazole	7.33	851	ug/kg	95	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.57	762	ug/kg	98	NJ
	Unknown	7.59	872	ug/kg		J
	Unknown	7.67	1410	ug/kg		J
84-65-1	9,10-Anthracenedione	7.85	940	ug/kg	99	NJ
243-17-4	11H-Benzo[b]fluorene	8.71	764	ug/kg	97	NJ
192-97-2	Benzo[e]pyrene	11.01	2550	ug/kg	99	NJ

EH  
4/23/10



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043002

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7413RE  
Batch ID: 965290  
Run Date: 03/17/2010 19:12  
Prep Date: 03/16/2010 21:34  
Data File: s7c1727.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	Uh	420	ug/kg	84.0	420 UJ,SV88
108-95-2	Phenol	Uh	420	ug/kg	84.0	420
95-57-8	2-Chlorophenol	Uh	420	ug/kg	84.0	420
106-46-7	1,4-Dichlorobenzene	Uh	420	ug/kg	84.0	420
621-64-7	N-Nitrosodipropylamine	Uh	420	ug/kg	84.0	420
59-50-7	4-Chloro-3-methylphenol	Uh	420	ug/kg	84.0	420
83-32-9	Acenaphthene	h	1110	ug/kg	13.9	42.0 J,SV88
121-14-2	2,4-Dinitrotoluene	Uh	420	ug/kg	42.0	420 UJ,SV88
100-02-7	4-Nitrophenol	Uh	420	ug/kg	139	420
87-86-5	Pentachlorophenol	Uh	420	ug/kg	105	420
110-86-1	Pyridine	Uh	420	ug/kg	84.0	420
62-53-3	Aniline	Uh	420	ug/kg	126	420
111-44-4	bis(2-Chloroethyl) ether	Uh	420	ug/kg	84.0	420
541-73-1	1,3-Dichlorobenzene	Uh	420	ug/kg	84.0	420
100-51-6	Benzyl alcohol	Uh	420	ug/kg	126	420
95-50-1	1,2-Dichlorobenzene	Uh	420	ug/kg	84.0	420
108-60-1	bis(2-Chloroisopropyl)ether	Uh	420	ug/kg	84.0	420
95-48-7	o-Cresol	Uh	420	ug/kg	84.0	420
65794-96-9	m,p-Cresols	Uh	420	ug/kg	126	420
67-72-1	Hexachloroethane	Uh	420	ug/kg	84.0	420
98-95-3	Nitrobenzene	Uh	420	ug/kg	84.0	420
78-59-1	Isophorone	Uh	420	ug/kg	84.0	420
88-75-5	2-Nitrophenol	Uh	420	ug/kg	84.0	420
105-67-9	2,4-Dimethylphenol	Uh	420	ug/kg	147	420
111-91-1	bis(2-Chloroethoxy)methane	Uh	420	ug/kg	84.0	420
120-83-2	2,4-Dichlorophenol	Uh	420	ug/kg	84.0	420
65-85-0	Benzoic acid	Uh	840	ug/kg	210	840
91-20-3	Naphthalene	h	349	ug/kg	12.6	42.0 J,SV88
106-47-8	4-Chloroaniline	Uh	420	ug/kg	84.0	420 UJ,SV88
87-68-3	Hexachlorobutadiene	Uh	420	ug/kg	84.0	420 UJ,SV88
91-57-6	2-Methylnaphthalene	h	209	ug/kg	8.40	42.0 J,SV88
77-47-4	Hexachlorocyclopentadiene	Uh	420	ug/kg	84.0	420 UJ,SV88
88-06-2	2,4,6-Trichlorophenol	Uh	420	ug/kg	84.0	420
95-95-4	2,4,5-Trichlorophenol	Uh	420	ug/kg	84.0	420
91-58-7	2-Chloronaphthalene	Uh	42.0	ug/kg	13.9	42.0
88-74-4	2-Nitroaniline	Uh	420	ug/kg	84.0	420
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	Uh	420	ug/kg	84.0	420
	<i>m</i> -Nitroaniline					

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043002

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Allquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7413RE  
Batch ID: 965290  
Run Date: 03/17/2010 19:12  
Prep Date: 03/16/2010 21:34  
Data File: s7c1727.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	Dimethylphthalate	Uh	420	ug/kg	84.0	420 UJ,SV88
606-20-2	2,6-Dinitrotoluene	Uh	420	ug/kg	42.0	420 UJ,SV88
208-96-8	Acenaphthylene	Jh	33.0	ug/kg	12.6	42.0 J,SV88
51-28-5	2,4-Dinitrophenol	Uh	840	ug/kg	160	840 UJ,SV88
132-64-9	Dibenzofuran	h	694	ug/kg	84.0	420 J,SV88
84-66-2	Diethylphthalate	Uh	420	ug/kg	84.0	420 UJ,SV88
86-73-7	Fluorene	h	1040	ug/kg	12.6	42.0 J,SV88
7005-72-3	4-Chlorophenylphenylether	Uh	420	ug/kg	84.0	420 UJ,SV88
534-52-1	2-Methyl-4,6-dinitrophenol	Uh	420	ug/kg	84.0	420
100-01-6	4-Nitroaniline	Uh	420	ug/kg	126	420
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	Uh	420	ug/kg	84.0	420
122-66-7	Azobenzene	Uh	420	ug/kg	84.0	420
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	Uh	420	ug/kg	84.0	420
118-74-1	Hexachlorobenzene	Uh	420	ug/kg	84.0	420
120-12-7	Anthracene	h	2280	ug/kg	8.40	42.0 J,SV88
84-74-2	Di-n-butylphthalate	Jh	308	ug/kg	84.0	420 J,SV88
85-68-7	Butylbenzylphthalate	Uh	420	ug/kg	84.0	420 UJ,SV88
91-94-1	3,3'-Dichlorobenzidine	Uh	420	ug/kg	126	420
117-81-7	bis(2-Ethylhexyl)phthalate	Uh	420	ug/kg	84.0	420
117-84-0	Di-n-octylphthalate	Uh	420	ug/kg	84.0	420
207-08-9	Benzo(k)fluoranthene	Uh	42.0	ug/kg	12.6	42.0
193-39-5	Indeno(1,2,3-cd)pyrene	h	3810	ug/kg	12.6	42.0 J,SV88
53-70-3	Dibenzo(a,h)anthracene	h	1400	ug/kg	12.6	42.0
191-24-2	Benzo(ghi)perylene	h	4040	ug/kg	12.6	42.0
120-82-1	1,2,4-Trichlorobenzene	Uh	420	ug/kg	84.0	420 UJ,SV88

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
86-74-8	Carbazole	7.25	196	ug/kg	87	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.51	173	ug/kg	98	NJ
	Unknown	7.59	304	ug/kg		J
84-65-1	9,10-Anthracenedione	7.77	189	ug/kg	99	NJ
2381-21-7	Pyrene, 1-methyl-	8.52	212	ug/kg	95	NJ
243-17-4	11H-Benzo[b]fluorene	8.62	382	ug/kg	97	NJ
3442-78-2	Pyrene, 2-methyl-	8.72	204	ug/kg	94	NJ
479-79-8	11H-Benzo[a]fluoren-11-one	9.11	246	ug/kg	97	NJ
82-05-3	7H-Benz[de]anthracen-7-one	9.21	228	ug/kg	94	NJ

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043002	Date Received: 02/25/2010 08:45	%Moisture: 20.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7413RE	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 965290	Inst: MSD7.I	Dilution: 1
Run Date: 03/17/2010 19:12	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/16/2010 21:34	Allquot: 30.13 g	Final Volume: 1 mL
Data File: s7c1727.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.31	301	ug/kg		J
	Unknown	10.37	937	ug/kg		J
	Unknown	10.67	966	ug/kg		J
192-97-2	Benzo[e]pyrene	10.9	3520	ug/kg	99	NJ
	Unknown	11.07	1400	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074

Lab Sample ID: 248043002

Date Collected: 02/20/2010 12:00

Date Received: 02/25/2010 08:45

Matrix: R

%Moisture: 20.9

Client: LANL010

Method: SW846 8270C

Project: LANL01004

SOP Ref: GL-OA-E-009

Client ID: RE36-10-7413REDL

Batch ID: 965290

Inst: MSD7.I

Dilution: 4

Run Date: 03/17/2010 18:28

Analyst: JMB3

Inj. Vol: .5 uL

Prep Date: 03/16/2010 21:34

Aliquot: 30.13 g

Final Volume: 1 mL

Data File: s7c1725.d

Column: J&amp;W DB-5MS

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
129-00-0	Pyrene	h	10700	ug/kg	50.4	168
85-01-8	Phenanthrene	h	13500	ug/kg	50.4	168
206-44-0	Fluoranthene	h	15900	ug/kg	50.4	168
56-55-3	Benzo(a)anthracene	h	5900	ug/kg	50.4	168
218-01-9	Chrysene	h	6560	ug/kg	50.4	168
205-99-2	Benzo(b)fluoranthene	h	9240	ug/kg	50.4	168
50-32-8	Benzo(a)pyrene	h	5490	ug/kg	50.4	168

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
540-97-6	Cyclohexasiloxane, dodecamethyl-	4.95	917	ug/kg	91	NJ
244-99-5	5H-Indeno[1,2-b]pyridine	7.24	1260	ug/kg	95	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.48	1100	ug/kg	98	NJ
832-69-9	Phenanthrene, 1-methyl-	7.5	1280	ug/kg	98	NJ
	Unknown	7.58	2010	ug/kg		J
84-65-1	9,10-Anthracenedione	7.76	1360	ug/kg	98	NJ
5737-13-3	Cyclopenta(def)phenanthrenone	8.04	705	ug/kg	94	NJ
243-17-4	11H-Benzo[b]fluorene	8.61	883	ug/kg	97	NJ
479-79-8	11H-Benzo[a]fluoren-11-one	9.29	751	ug/kg	97	NJ
	Unknown	10.35	903	ug/kg		J
	Unknown	10.65	775	ug/kg		J
192-97-2	Benzo[e]pyrene	10.87	3670	ug/kg	99	NJ
198-55-0	Perylene	11.04	1400	ug/kg	98	NJ

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043001

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 21.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7414  
Batch ID: 959623  
Run Date: 03/11/2010 14:39  
Prep Date: 03/02/2010 11:17  
Data File: s7c1106.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	421	ug/kg	84.3	421
108-95-2	Phenol	U	421	ug/kg	84.3	421
95-57-8	2-Chlorophenol	U	421	ug/kg	84.3	421
106-46-7	1,4-Dichlorobenzene	U	421	ug/kg	84.3	421
621-64-7	N-Nitrosodipropylamine	U	421	ug/kg	84.3	421
59-50-7	4-Chloro-3-methylphenol	U	421	ug/kg	84.3	421
83-32-9	Acenaphthene	J	14.9	ug/kg	13.9	42.1
121-14-2	2,4-Dinitrotoluene	U	421	ug/kg	42.1	421
100-02-7	4-Nitrophenol	U	421	ug/kg	139	421
87-86-5	Pentachlorophenol	U	421	ug/kg	105	421
129-00-0	Pyrene		202	ug/kg	12.6	42.1
110-86-1	Pyridine	U	421	ug/kg	84.3	421 UJ,SV7c
62-53-3	Aniline	U	421	ug/kg	126	421
111-44-4	bis(2-Chloroethyl) ether	U	421	ug/kg	84.3	421
541-73-1	1,3-Dichlorobenzene	U	421	ug/kg	84.3	421
100-51-6	Benzyl alcohol	U	421	ug/kg	126	421 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	421	ug/kg	84.3	421
108-60-1	bis(2-Chloroisopropyl) ether	U	421	ug/kg	84.3	421
95-48-7	o-Cresol	U	421	ug/kg	84.3	421
65794-96-9	m,p-Cresols	U	421	ug/kg	126	421
67-72-1	Hexachloroethane	U	421	ug/kg	84.3	421
98-95-3	Nitrobenzene	U	421	ug/kg	84.3	421
78-59-1	Isophorone	U	421	ug/kg	84.3	421
88-75-5	2-Nitrophenol	U	421	ug/kg	84.3	421
105-67-9	2,4-Dimethylphenol	U	421	ug/kg	147	421
111-91-1	bis(2-Chloroethoxy)methane	U	421	ug/kg	84.3	421
120-83-2	2,4-Dichlorophenol	U	421	ug/kg	84.3	421
65-85-0	Benzoic acid	U	843	ug/kg	211	843
91-20-3	Naphthalene	U	42.1	ug/kg	12.6	42.1
106-47-8	4-Chloroaniline	U	421	ug/kg	84.3	421
87-68-3	Hexachlorobutadiene	U	421	ug/kg	84.3	421
91-57-6	2-Methylnaphthalene	U	42.1	ug/kg	8.43	42.1
77-47-4	Hexachlorocyclopentadiene	U	421	ug/kg	84.3	421
88-06-2	2,4,6-Trichlorophenol	U	421	ug/kg	84.3	421
95-95-4	2,4,5-Trichlorophenol	U	421	ug/kg	84.3	421
91-58-7	2-Chloronaphthalene	U	42.1	ug/kg	13.9	42.1
88-74-4	2-Nitroaniline	U	421	ug/kg	84.3	421
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	421	ug/kg	84.3	421

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043001	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 21.1
<b>Client ID:</b> RE36-10-7414	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 959623	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Run Date:</b> 03/11/2010 14:39	<b>Inst:</b> MSD7.I	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/02/2010 11:17	<b>Analyst:</b> JMB3	<b>Inj. Vol:</b> .5 uL
<b>Data File:</b> s7c1106.d	<b>Aliquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
606-20-2	Dimethylphthalate	U	421	ug/kg	84.3	421
208-96-8	2,6-Dinitrotoluene	U	421	ug/kg	42.1	421
51-28-5	Acenaphthylene	U	42.1	ug/kg	12.6	42.1
132-64-9	2,4-Dinitrophenol	U	843	ug/kg	160	843 UJ,SV7c
84-66-2	Dibenzofuran	U	421	ug/kg	84.3	421
86-73-7	Diethylphthalate	U	421	ug/kg	84.3	421
7005-72-3	Fluorene	J	13.6	ug/kg	12.6	42.1
534-52-1	4-Chlorophenylphenylether	U	421	ug/kg	84.3	421
100-01-6	2-Methyl-4,6-dinitrophenol	U	421	ug/kg	84.3	421 UJ,SV7c
122-39-4	4-Nitroaniline	U	421	ug/kg	126	421
122-66-7	<i>p</i> -Nitroaniline					
101-55-3	Diphenylamine	U	421	ug/kg	84.3	421
118-74-1	Azobenzene	U	421	ug/kg	84.3	421
85-01-8	1,2-Diphenylhydrazine					
120-12-7	4-Bromophenylphenylether	U	421	ug/kg	84.3	421
84-74-2	Hexachlorobenzene	U	421	ug/kg	84.3	421
206-44-0	Phenanthrene		160	ug/kg	12.6	42.1
85-68-7	Anthracene	J	24.8	ug/kg	8.43	42.1
56-55-3	Di-n-butylphthalate	U	421	ug/kg	84.3	421
91-94-1	Fluoranthene		216	ug/kg	12.6	42.1
218-01-9	Butylbenzylphthalate	U	421	ug/kg	84.3	421
117-81-7	Benzo(a)anthracene		89.8	ug/kg	12.6	42.1
117-84-0	3,3'-Dichlorobenzidine	U	421	ug/kg	126	421
205-99-2	Chrysene		93.5	ug/kg	12.6	42.1
207-08-9	bis(2-Ethylhexyl)phthalate	J	231	ug/kg	84.3	421
50-32-8	Di-n-octylphthalate	U	421	ug/kg	84.3	421
193-39-5	Benzo(b)fluoranthene		156	ug/kg	12.6	42.1
53-70-3	Benzo(k)fluoranthene	U	42.1	ug/kg	12.6	42.1
191-24-2	Benzo(a)pyrene		84.6	ug/kg	12.6	42.1
120-82-1	Indeno(1,2,3-cd)pyrene		63.5	ug/kg	12.6	42.1
	Dibenzo(a,h)anthracene	J	25.3	ug/kg	12.6	42.1
	Benzo(ghi)perylene		67.9	ug/kg	12.6	42.1 J,SV7c
	1,2,4-Trichlorobenzene	U	421	ug/kg	84.3	421

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	3.02	375	ug/kg		J

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043014

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7461  
Batch ID: 959623  
Run Date: 03/11/2010 21:28  
Prep Date: 03/02/2010 11:17  
Data File: s7c1125.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	381	ug/kg	76.2	381
108-95-2	Phenol	U	381	ug/kg	76.2	381
95-57-8	2-Chlorophenol	U	381	ug/kg	76.2	381
106-46-7	1,4-Dichlorobenzene	U	381	ug/kg	76.2	381
621-64-7	N-Nitrosodipropylamine	U	381	ug/kg	76.2	381
59-50-7	4-Chloro-3-methylphenol	U	381	ug/kg	76.2	381
83-32-9	Acenaphthene	J	32.9	ug/kg	12.6	38.1
121-14-2	2,4-Dinitrotoluene	U	381	ug/kg	38.1	381
100-02-7	4-Nitrophenol	U	381	ug/kg	126	381
87-86-5	Pentachlorophenol	U	381	ug/kg	95.2	381
129-00-0	Pyrene		510	ug/kg	11.4	38.1
110-86-1	Pyridine	U	381	ug/kg	76.2	381 UJ,SV7c
62-53-3	Aniline	U	381	ug/kg	114	381
111-44-4	bis(2-Chloroethyl) ether	U	381	ug/kg	76.2	381
541-73-1	1,3-Dichlorobenzene	U	381	ug/kg	76.2	381
100-51-6	Benzyl alcohol	U	381	ug/kg	114	381 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	381	ug/kg	76.2	381
108-60-1	bis(2-Chloroisopropyl)ether	U	381	ug/kg	76.2	381
95-48-7	o-Cresol	U	381	ug/kg	76.2	381
65794-96-9	m,p-Cresols	U	381	ug/kg	114	381
67-72-1	Hexachloroethane	U	381	ug/kg	76.2	381
98-95-3	Nitrobenzene	U	381	ug/kg	76.2	381
78-59-1	Isophorone	U	381	ug/kg	76.2	381
88-75-5	2-Nitrophenol	U	381	ug/kg	76.2	381
105-67-9	2,4-Dimethylphenol	U	381	ug/kg	133	381
111-91-1	bis(2-Chloroethoxy)methane	U	381	ug/kg	76.2	381
120-83-2	2,4-Dichlorophenol	U	381	ug/kg	76.2	381
65-85-0	Benzoic acid	U	762	ug/kg	190	762
91-20-3	Naphthalene	U	38.1	ug/kg	11.4	38.1
106-47-8	4-Chloroaniline	U	381	ug/kg	76.2	381
87-68-3	Hexachlorobutadiene	U	381	ug/kg	76.2	381
91-57-6	2-Methylnaphthalene	U	38.1	ug/kg	7.62	38.1
77-47-4	Hexachlorocyclopentadiene	U	381	ug/kg	76.2	381
88-06-2	2,4,6-Trichlorophenol	U	381	ug/kg	76.2	381
95-95-4	2,4,5-Trichlorophenol	U	381	ug/kg	76.2	381
91-58-7	2-Chloronaphthalene	U	38.1	ug/kg	12.6	38.1
88-74-4	2-Nitroaniline	U	381	ug/kg	76.2	381
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	381	ug/kg	76.2	381

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043014	Date Received: 02/25/2010 08:45	%Moisture: 12.7
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7461	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 21:28	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1125.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline Dimethylphthalate	U	381	ug/kg	76.2	381
606-20-2	2,6-Dinitrotoluene	U	381	ug/kg	38.1	381
208-96-8	Acenaphthylene	U	38.1	ug/kg	11.4	38.1
51-28-5	2,4-Dinitrophenol	U	762	ug/kg	145	762 UJ,SV7c
132-64-9	Dibenzofuran	U	381	ug/kg	76.2	381
84-66-2	Diethylphthalate	U	381	ug/kg	76.2	381
86-73-7	Fluorene	J	29.7	ug/kg	11.4	38.1
7005-72-3	4-Chlorophenylphenylether	U	381	ug/kg	76.2	381
534-52-1	2-Methyl-4,6-dinitrophenol	U	381	ug/kg	76.2	381 UJ,SV7c
100-01-6	4-Nitroaniline	U	381	ug/kg	114	381
122-39-4	<i>p</i> -Nitroaniline Diphenylamine	U	381	ug/kg	76.2	381
122-66-7	Azobenzene	U	381	ug/kg	76.2	381
101-55-3	1,2-Diphenylhydrazine 4-Bromophenylphenylether	U	381	ug/kg	76.2	381
118-74-1	Hexachlorobenzene	U	381	ug/kg	76.2	381
85-01-8	Phenanthrene		410	ug/kg	11.4	38.1
120-12-7	Anthracene		64.7	ug/kg	7.62	38.1
84-74-2	Di-n-butylphthalate	U	381	ug/kg	76.2	381
206-44-0	Fluoranthene		539	ug/kg	11.4	38.1
85-68-7	Butylbenzylphthalate	U	381	ug/kg	76.2	381
56-55-3	Benzo(a)anthracene		242	ug/kg	11.4	38.1
91-94-1	3,3'-Dichlorobenzidine	U	381	ug/kg	114	381
218-01-9	Chrysene		264	ug/kg	11.4	38.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	381	ug/kg	76.2	381
117-84-0	Di-n-octylphthalate	U	381	ug/kg	76.2	381
205-99-2	Benzo(b)fluoranthene		413	ug/kg	11.4	38.1
207-08-9	Benzo(k)fluoranthene	U	38.1	ug/kg	11.4	38.1
50-32-8	Benzo(a)pyrene		219	ug/kg	11.4	38.1
193-39-5	Indeno(1,2,3-cd)pyrene		164	ug/kg	11.4	38.1
53-70-3	Dibenzo(a,h)anthracene		65.1	ug/kg	11.4	38.1
191-24-2	Benzo(ghi)perylene		178	ug/kg	11.4	38.1 J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	381	ug/kg	76.2	381

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	2.35	246	ug/kg		J
	Unknown Aldol Condensate	3.02	382	ug/kg		J

EH  
4/23/10



Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043014

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
Tentatively Identified Compound Summary				Estimated			
CAS No.	Tentatively Identified Compound (TIC)		RT	Units	Fit	Qual	
644-30-4	Benzene, 1-(1,5-dimethyl-4-hexenyl)-4-me		5.99	340	ug/kg	97	NJ
	Unknown		10.72	367	ug/kg		J
	Unknown		11.21	223	ug/kg		J
198-55-0	Perylene		11.24	160	ug/kg	98	NJ
	Unknown		11.65	430	ug/kg		J
112-95-8	Eicosane		11.86	809	ug/kg	98	NJ

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2074  
Lab Sample ID: 248043003

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 7.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7462  
Batch ID: 959623  
Run Date: 03/11/2010 19:18  
Prep Date: 03/02/2010 11:17  
Data File: s7c1119.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	361	ug/kg	72.3	361
108-95-2	Phenol	U	361	ug/kg	72.3	361
95-57-8	2-Chlorophenol	U	361	ug/kg	72.3	361
106-46-7	1,4-Dichlorobenzene	U	361	ug/kg	72.3	361
621-64-7	N-Nitrosodipropylamine	U	361	ug/kg	72.3	361
59-50-7	4-Chloro-3-methylphenol	U	361	ug/kg	72.3	361
83-32-9	Acenaphthene	U	36.1	ug/kg	11.9	36.1
121-14-2	2,4-Dinitrotoluene	U	361	ug/kg	36.1	361
100-02-7	4-Nitrophenol	U	361	ug/kg	119	361
87-86-5	Pentachlorophenol	U	361	ug/kg	90.4	361
129-00-0	Pyrene		129	ug/kg	10.8	36.1
110-86-1	Pyridine	U	361	ug/kg	72.3	361 UJ,SV7c
62-53-3	Aniline	U	361	ug/kg	108	361
111-44-4	bis(2-Chloroethyl) ether	U	361	ug/kg	72.3	361
541-73-1	1,3-Dichlorobenzene	U	361	ug/kg	72.3	361
100-51-6	Benzyl alcohol	U	361	ug/kg	108	361 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	361	ug/kg	72.3	361
108-60-1	bis(2-Chloroisopropyl)ether	U	361	ug/kg	72.3	361
95-48-7	o-Cresol	U	361	ug/kg	72.3	361
65794-96-9	m,p-Cresols	U	361	ug/kg	108	361
67-72-1	Hexachloroethane	U	361	ug/kg	72.3	361
98-95-3	Nitrobenzene	U	361	ug/kg	72.3	361
78-59-1	Isophorone	U	361	ug/kg	72.3	361
88-75-5	2-Nitrophenol	U	361	ug/kg	72.3	361
105-67-9	2,4-Dimethylphenol	U	361	ug/kg	126	361
111-91-1	bis(2-Chloroethoxy)methane	U	361	ug/kg	72.3	361
120-83-2	2,4-Dichlorophenol	U	361	ug/kg	72.3	361
65-85-0	Benzoic acid	U	723	ug/kg	181	723
91-20-3	Naphthalene	U	36.1	ug/kg	10.8	36.1
106-47-8	4-Chloroaniline	U	361	ug/kg	72.3	361
87-68-3	Hexachlorobutadiene	U	361	ug/kg	72.3	361
91-57-6	2-Methylnaphthalene	U	36.1	ug/kg	7.23	36.1
77-47-4	Hexachlorocyclopentadiene	U	361	ug/kg	72.3	361
88-06-2	2,4,6-Trichlorophenol	U	361	ug/kg	72.3	361
95-95-4	2,4,5-Trichlorophenol	U	361	ug/kg	72.3	361
91-58-7	2-Chloronaphthalene	U	36.1	ug/kg	11.9	36.1
88-74-4	2-Nitroaniline	U	361	ug/kg	72.3	361
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	361	ug/kg	72.3	361

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043003

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 7.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7462  
Batch ID: 959623  
Run Date: 03/11/2010 19:18  
Prep Date: 03/02/2010 11:17  
Data File: s7c1119.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline Dimethylphthalate	U	361	ug/kg	72.3	361
606-20-2	2,6-Dinitrotoluene	U	361	ug/kg	36.1	361
208-96-8	Acenaphthylene	U	36.1	ug/kg	10.8	36.1
51-28-5	2,4-Dinitrophenol	U	723	ug/kg	137	723 UJ,SV7c
132-64-9	Dibenzofuran	U	361	ug/kg	72.3	361
84-66-2	Diethylphthalate	U	361	ug/kg	72.3	361
86-73-7	Fluorene	U	36.1	ug/kg	10.8	36.1
7005-72-3	4-Chlorophenylphenylether	U	361	ug/kg	72.3	361
534-52-1	2-Methyl-4,6-dinitrophenol	U	361	ug/kg	72.3	361 UJ,SV7c
100-01-6	4-Nitroaniline	U	361	ug/kg	108	361
122-39-4	<i>p</i> -Nitroaniline Diphenylamine	U	361	ug/kg	72.3	361
122-66-7	Azobenzene	U	361	ug/kg	72.3	361
101-55-3	1,2-Diphenylhydrazine 4-Bromophenylphenylether	U	361	ug/kg	72.3	361
118-74-1	Hexachlorobenzene	U	361	ug/kg	72.3	361
85-01-8	Phenanthrene		107	ug/kg	10.8	36.1
120-12-7	Anthracene	J	18.7	ug/kg	7.23	36.1
84-74-2	Di-n-butylphthalate	U	361	ug/kg	72.3	361
206-44-0	Fluoranthene		166	ug/kg	10.8	36.1
85-68-7	Butylbenzylphthalate	U	361	ug/kg	72.3	361
56-55-3	Benzo(a)anthracene		66.7	ug/kg	10.8	36.1
91-94-1	3,3'-Dichlorobenzidine	U	361	ug/kg	108	361
218-01-9	Chrysene		76.4	ug/kg	10.8	36.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	361	ug/kg	72.3	361
117-84-0	Di-n-octylphthalate	U	361	ug/kg	72.3	361
205-99-2	Benzo(b)fluoranthene		108	ug/kg	10.8	36.1
207-08-9	Benzo(k)fluoranthene	U	36.1	ug/kg	10.8	36.1
50-32-8	Benzo(a)pyrene		57.7	ug/kg	10.8	36.1
193-39-5	Indeno(1,2,3-cd)pyrene		45.1	ug/kg	10.8	36.1
53-70-3	Dibenzo(a,h)anthracene	U	36.1	ug/kg	10.8	36.1
191-24-2	Benzo(ghi)perylene		55.0	ug/kg	10.8	36.1 J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	361	ug/kg	72.3	361

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.36	250	ug/kg		J
	Unknown Aldol Condensate	3.02	296	ug/kg		J

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043010

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7463  
Batch ID: 959623  
Run Date: 03/11/2010 20:01  
Prep Date: 03/02/2010 11:17  
Data File: s7c1121.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	363	ug/kg	72.6	363
108-95-2	Phenol	U	363	ug/kg	72.6	363
95-57-8	2-Chlorophenol	U	363	ug/kg	72.6	363
106-46-7	1,4-Dichlorobenzene	U	363	ug/kg	72.6	363
621-64-7	N-Nitrosodipropylamine	U	363	ug/kg	72.6	363
59-50-7	4-Chloro-3-methylphenol	U	363	ug/kg	72.6	363
83-32-9	Acenaphthene	J	12.9	ug/kg	12.0	36.3
121-14-2	2,4-Dinitrotoluene	U	363	ug/kg	36.3	363
100-02-7	4-Nitrophenol	U	363	ug/kg	120	363
87-86-5	Pentachlorophenol	U	363	ug/kg	90.7	363
129-00-0	Pyrene		222	ug/kg	10.9	36.3
110-86-1	Pyridine	U	363	ug/kg	72.6	363 UJ,SV7c
62-53-3	Aniline	U	363	ug/kg	109	363
111-44-4	bis(2-Chloroethyl) ether	U	363	ug/kg	72.6	363
541-73-1	1,3-Dichlorobenzene	U	363	ug/kg	72.6	363
100-51-6	Benzyl alcohol	U	363	ug/kg	109	363 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	363	ug/kg	72.6	363
108-60-1	bis(2-Chloroisopropyl)ether	U	363	ug/kg	72.6	363
95-48-7	o-Cresol	U	363	ug/kg	72.6	363
65794-96-9	m,p-Cresols	U	363	ug/kg	109	363
67-72-1	Hexachloroethane	U	363	ug/kg	72.6	363
98-95-3	Nitrobenzene	U	363	ug/kg	72.6	363
78-59-1	Isophorone	U	363	ug/kg	72.6	363
88-75-5	2-Nitrophenol	U	363	ug/kg	72.6	363
105-67-9	2,4-Dimethylphenol	U	363	ug/kg	127	363
111-91-1	bis(2-Chloroethoxy)methane	U	363	ug/kg	72.6	363
120-83-2	2,4-Dichlorophenol	U	363	ug/kg	72.6	363
65-85-0	Benzoic acid	U	726	ug/kg	181	726
91-20-3	Naphthalene	U	36.3	ug/kg	10.9	36.3
106-47-8	4-Chloroaniline	U	363	ug/kg	72.6	363
87-68-3	Hexachlorobutadiene	U	363	ug/kg	72.6	363
91-57-6	2-Methylnaphthalene	U	36.3	ug/kg	7.26	36.3
77-47-4	Hexachlorocyclopentadiene	U	363	ug/kg	72.6	363
88-06-2	2,4,6-Trichlorophenol	U	363	ug/kg	72.6	363
95-95-4	2,4,5-Trichlorophenol	U	363	ug/kg	72.6	363
91-58-7	2-Chloronaphthalene	U	36.3	ug/kg	12.0	36.3
88-74-4	2-Nitroaniline	U	363	ug/kg	72.6	363
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	363	ug/kg	72.6	363

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043010	Date Received: 02/25/2010 08:45	%Moisture: 8.2
Client ID: RE36-10-7463	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/11/2010 20:01	Inst: MSD7.I	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1121.d	Aliquot: 30.02 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	363	ug/kg	72.6	363
606-20-2	2,6-Dinitrotoluene	U	363	ug/kg	36.3	363
208-96-8	Acenaphthylene	U	36.3	ug/kg	10.9	36.3
51-28-5	2,4-Dinitrophenol	U	726	ug/kg	138	726 UJ,SV7c
132-64-9	Dibenzofuran	U	363	ug/kg	72.6	363
84-66-2	Diethylphthalate	U	363	ug/kg	72.6	363
86-73-7	Fluorene	J	13.6	ug/kg	10.9	36.3
7005-72-3	4-Chlorophenylphenylether	U	363	ug/kg	72.6	363
534-52-1	2-Methyl-4,6-dinitrophenol	U	363	ug/kg	72.6	363 UJ,SV7c
100-01-6	4-Nitroaniline	U	363	ug/kg	109	363
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	363	ug/kg	72.6	363
122-66-7	Azobenzene	U	363	ug/kg	72.6	363
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	363	ug/kg	72.6	363
118-74-1	Hexachlorobenzene	U	363	ug/kg	72.6	363
85-01-8	Phenanthrene		172	ug/kg	10.9	36.3
120-12-7	Anthracene	J	29.0	ug/kg	7.26	36.3
84-74-2	Di-n-butylphthalate	U	363	ug/kg	72.6	363
206-44-0	Fluoranthene		249	ug/kg	10.9	36.3
85-68-7	Butylbenzylphthalate	U	363	ug/kg	72.6	363
56-55-3	Benzo(a)anthracene		107	ug/kg	10.9	36.3
91-94-1	3,3'-Dichlorobenzidine	U	363	ug/kg	109	363
218-01-9	Chrysene		128	ug/kg	10.9	36.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	363	ug/kg	72.6	363
117-84-0	Di-n-octylphthalate	U	363	ug/kg	72.6	363
205-99-2	Benzo(b)fluoranthene		207	ug/kg	10.9	36.3
207-08-9	Benzo(k)fluoranthene	U	36.3	ug/kg	10.9	36.3
50-32-8	Benzo(a)pyrene		113	ug/kg	10.9	36.3
193-39-5	Indeno(1,2,3-cd)pyrene		71.5	ug/kg	10.9	36.3
53-70-3	Dibenzo(a,h)anthracene	J	31.0	ug/kg	10.9	36.3
191-24-2	Benzo(ghi)perylene		81.8	ug/kg	10.9	36.3 J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	363	ug/kg	72.6	363

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	3.02	470	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.56	176	ug/kg	93	NJ

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043010	Date Received: 02/25/2010 08:45	%Moisture: 8.2
Client ID: RE36-10-7463	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/11/2010 20:01	Inst: MSD7.I	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1121.d	Aliquot: 30.02 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit Qual
	Unknown		13.37	232	ug/kg	J

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043009

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.7	358
108-95-2	Phenol	U	358	ug/kg	71.7	358
95-57-8	2-Chlorophenol	U	358	ug/kg	71.7	358
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.7	358
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.7	358
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.7	358
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358
87-86-5	Pentachlorophenol	U	358	ug/kg	89.6	358
129-00-0	Pyrene		40.8	ug/kg	10.8	35.8
110-86-1	Pyridine	U	358	ug/kg	71.7	358 UJ,SV7c
62-53-3	Aniline	U	358	ug/kg	108	358
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.7	358
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.7	358
100-51-6	Benzyl alcohol	U	358	ug/kg	108	358 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.7	358
108-60-1	bis(2-Chloroisopropyl) ether	U	358	ug/kg	71.7	358
95-48-7	o-Cresol	U	358	ug/kg	71.7	358
65794-96-9	m,p-Cresols	U	358	ug/kg	108	358
67-72-1	Hexachloroethane	U	358	ug/kg	71.7	358
98-95-3	Nitrobenzene	U	358	ug/kg	71.7	358
78-59-1	Isophorone	U	358	ug/kg	71.7	358
88-75-5	2-Nitrophenol	U	358	ug/kg	71.7	358
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.7	358
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.7	358
65-85-0	Benzoic acid	U	717	ug/kg	179	717
91-20-3	Naphthalene	U	35.8	ug/kg	10.8	35.8
106-47-8	4-Chloroaniline	U	358	ug/kg	71.7	358
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.7	358
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.17	35.8
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.7	358
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.7	358
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.7	358
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8
88-74-4	2-Nitroaniline	U	358	ug/kg	71.7	358
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	358	ug/kg	71.7	358

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043009	Date Received: 02/25/2010 08:45	%Moisture: 7
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7464	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 17:09	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s7e1113.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline Dimethylphthalate	U	358	ug/kg	71.7	358
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.8	35.8
51-28-5	2,4-Dinitrophenol	U	717	ug/kg	136	717 UJ,SV7c
132-64-9	Dibenzofuran	U	358	ug/kg	71.7	358
84-66-2	Diethylphthalate	U	358	ug/kg	71.7	358
86-73-7	Fluorene	U	35.8	ug/kg	10.8	35.8
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.7	358
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.7	358 UJ,SV7c
100-01-6	4-Nitroaniline	U	358	ug/kg	108	358
122-39-4	<i>p</i> -Nitroaniline Diphenylamine	U	358	ug/kg	71.7	358
122-66-7	Azobenzene	U	358	ug/kg	71.7	358
101-55-3	1,2-Diphenylhydrazine 4-Bromophenylphenylether	U	358	ug/kg	71.7	358
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.7	358
85-01-8	Phenanthrene	J	31.4	ug/kg	10.8	35.8
120-12-7	Anthracene	U	35.8	ug/kg	7.17	35.8
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.7	358
206-44-0	Fluoranthene		48.9	ug/kg	10.8	35.8
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.7	358
56-55-3	Benzo(a)anthracene	J	22.7	ug/kg	10.8	35.8
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	108	358
218-01-9	Chrysene	J	26.0	ug/kg	10.8	35.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.7	358
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.7	358
205-99-2	Benzo(b)fluoranthene	J	35.3	ug/kg	10.8	35.8
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.8	35.8
50-32-8	Benzo(a)pyrene	J	20.9	ug/kg	10.8	35.8
193-39-5	Indeno(1,2,3-cd)pyrene	J	13.6	ug/kg	10.8	35.8
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.8	35.8
191-24-2	Benzo(ghi)perylene	J	16.7	ug/kg	10.8	35.8 J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.7	358

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.12	256	ug/kg		J
	Unknown Aldol Condensate	3.02	435	ug/kg		J

EH  
4/23/10



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043009

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
629-78-7	Heptadecane	10.1	195	ug/kg	91	NJ
1000140-07-7	1,4-Dimethyl-8-isopropylidenetricyclo[5.	13.35	427	ug/kg	83	NJ

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043004

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Allquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7465  
Batch ID: 959623  
Run Date: 03/12/2010 23:44  
Prep Date: 03/02/2010 11:17  
Data File: s7c1232.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	428	ug/kg	85.5	428 UJ,SV88
108-95-2	Phenol	U	428	ug/kg	85.5	428
95-57-8	2-Chlorophenol	U	428	ug/kg	85.5	428
106-46-7	1,4-Dichlorobenzene	U	428	ug/kg	85.5	428
621-64-7	N-Nitrosodipropylamine	U	428	ug/kg	85.5	428
59-50-7	4-Chloro-3-methylphenol	U	428	ug/kg	85.5	428
83-32-9	Acenaphthene		564	ug/kg	14.1	42.8 J,SV88
121-14-2	2,4-Dinitrotoluene	U	428	ug/kg	42.8	428 UJ,SV88
100-02-7	4-Nitrophenol	U	428	ug/kg	141	428
87-86-5	Pentachlorophenol	U	428	ug/kg	107	428
110-86-1	Pyridine	U	428	ug/kg	85.5	428
62-53-3	Aniline	U	428	ug/kg	128	428
111-44-4	bis(2-Chloroethyl) ether	U	428	ug/kg	85.5	428
541-73-1	1,3-Dichlorobenzene	U	428	ug/kg	85.5	428
100-51-6	Benzyl alcohol	U	428	ug/kg	128	428
95-50-1	1,2-Dichlorobenzene	U	428	ug/kg	85.5	428
108-60-1	bis(2-Chloroisopropyl)ether	U	428	ug/kg	85.5	428
95-48-7	o-Cresol	U	428	ug/kg	85.5	428
65794-96-9	m,p-Cresols	U	428	ug/kg	128	428
67-72-1	Hexachloroethane	U	428	ug/kg	85.5	428
98-95-3	Nitrobenzene	U	428	ug/kg	85.5	428
78-59-1	Isophorone	U	428	ug/kg	85.5	428
88-75-5	2-Nitrophenol	U	428	ug/kg	85.5	428
105-67-9	2,4-Dimethylphenol	U	428	ug/kg	150	428
111-91-1	bis(2-Chloroethoxy)methane	U	428	ug/kg	85.5	428
120-83-2	2,4-Dichlorophenol	U	428	ug/kg	85.5	428
65-85-0	Benzoic acid	U	855	ug/kg	214	855
91-20-3	Naphthalene		210	ug/kg	12.8	42.8 J,SV88
106-47-8	4-Chloroaniline	U	428	ug/kg	85.5	428 UJ,SV88
87-68-3	Hexachlorobutadiene	U	428	ug/kg	85.5	428 UJ,SV88
91-57-6	2-Methylnaphthalene		123	ug/kg	8.55	42.8 J,SV88
77-47-4	Hexachlorocyclopentadiene	U	428	ug/kg	85.5	428 UJ,SV88
88-06-2	2,4,6-Trichlorophenol	U	428	ug/kg	85.5	428
95-95-4	2,4,5-Trichlorophenol	U	428	ug/kg	85.5	428
91-58-7	2-Chloronaphthalene	U	42.8	ug/kg	14.1	42.8
88-74-4	2-Nitroaniline	U	428	ug/kg	85.5	428
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	428	ug/kg	85.5	428
	<i>m</i> -Nitroaniline					

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043004

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	Dimethylphthalate	U	428	ug/kg	85.5	428 UJ,SV88
606-20-2	2,6-Dinitrotoluene	U	428	ug/kg	42.8	428
208-96-8	Acenaphthylene	U	42.8	ug/kg	12.8	42.8
51-28-5	2,4-Dinitrophenol	U	855	ug/kg	162	855
132-64-9	Dibenzofuran	J	369	ug/kg	85.5	428 J,SV88
84-66-2	Diethylphthalate	U	428	ug/kg	85.5	428 UJ,SV88
86-73-7	Fluorene		602	ug/kg	12.8	42.8 J,SV88
7005-72-3	4-Chlorophenylphenylether	U	428	ug/kg	85.5	428 UJ,SV88
534-52-1	2-Methyl-4,6-dinitrophenol	U	428	ug/kg	85.5	428
100-01-6	4-Nitroaniline	U	428	ug/kg	128	428
122-39-4	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	428	ug/kg	85.5	428
122-66-7	Azobenzene	U	428	ug/kg	85.5	428
101-55-3	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	428	ug/kg	85.5	428
118-74-1	Hexachlorobenzene	U	428	ug/kg	85.5	428
85-01-8	Phenanthrene	E	5860	ug/kg	12.8	42.8 J,SV88
120-12-7	Anthracene		1040	ug/kg	8.55	42.8 J,SV88
84-74-2	Di-n-butylphthalate	U	428	ug/kg	85.5	428 UJ,SV88
85-68-7	Butylbenzylphthalate	U	428	ug/kg	85.5	428 UJ,SV88
56-55-3	Benzo(a)anthracene		2440	ug/kg	12.8	42.8 J,SV88
91-94-1	3,3'-Dichlorobenzidine	U	428	ug/kg	128	428 UJ,SV88
218-01-9	Chrysene		2380	ug/kg	12.8	42.8 J,SV88
117-81-7	bis(2-Ethylhexyl)phthalate	U	428	ug/kg	85.5	428 UJ,SV88
117-84-0	Di-n-octylphthalate	U	428	ug/kg	85.5	428 UJ,SV88
205-99-2	Benzo(b)fluoranthene		3700	ug/kg	12.8	42.8 J,SV88
207-08-9	Benzo(k)fluoranthene	U	42.8	ug/kg	12.8	42.8 UJ,SV88
50-32-8	Benzo(a)pyrene		1960	ug/kg	12.8	42.8 J,SV88
193-39-5	Indeno(1,2,3-cd)pyrene		1030	ug/kg	12.8	42.8
53-70-3	Dibenzo(a,h)anthracene		380	ug/kg	12.8	42.8
191-24-2	Benzo(ghi)perylene		1020	ug/kg	12.8	42.8
120-82-1	1,2,4-Trichlorobenzene	U	428	ug/kg	85.5	428 UJ,SV88

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	312	ug/kg		J
244-99-5	5H-Indeno[1,2-b]pyridine	7.33	208	ug/kg	95	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.6	191	ug/kg	98	NJ
	Unknown	7.68	344	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043004

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
84-65-1	9,10-Anthracenedione	7.85	195	ug/kg	99	NJ
	Unknown	8.61	199	ug/kg		J
243-17-4	11H-Benzo[b]fluorene	8.71	357	ug/kg	97	NJ
2381-21-7	Pyrene, 1-methyl-	8.81	210	ug/kg	96	NJ
479-79-8	11H-Benzo[a]fluoren-11-one	9.19	183	ug/kg	97	NJ
239-35-0	Benzo[b]naphtho[2,1-d]thiophene	9.3	176	ug/kg	95	NJ
	Unknown	9.39	210	ug/kg		J
192-97-2	Benzo[e]pyrene	11.01	1390	ug/kg	98	NJ
198-55-0	Perylene	11.18	521	ug/kg	98	NJ

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043004

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
129-00-0	Pyrene		4710	ug/kg	51.3	171 J,SV88
206-44-0	Fluoranthene		6070	ug/kg	51.3	171 J,SV88

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	7.67	803	ug/kg		J
198-55-0	Perylene	11	1410	ug/kg	99	NJ

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043004

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.18 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7465RE  
Batch ID: 965290  
Run Date: 03/17/2010 19:55  
Prep Date: 03/16/2010 21:34  
Data File: s7c1729.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	Uh	426	ug/kg	85.3	426 UJ.SV9
108-95-2	Phenol	Uh	426	ug/kg	85.3	426
95-57-8	2-Chlorophenol	Uh	426	ug/kg	85.3	426
106-46-7	1,4-Dichlorobenzene	Uh	426	ug/kg	85.3	426
621-64-7	N-Nitrosodipropylamine	Uh	426	ug/kg	85.3	426
59-50-7	4-Chloro-3-methylphenol	Uh	426	ug/kg	85.3	426
83-32-9	Acenaphthene	h	1040	ug/kg	14.1	42.6 J-.SV9
121-14-2	2,4-Dinitrotoluene	Uh	426	ug/kg	42.6	426 UJ.SV9
100-02-7	4-Nitrophenol	Uh	426	ug/kg	141	426
87-86-5	Pentachlorophenol	Uh	426	ug/kg	107	426
110-86-1	Pyridine	Uh	426	ug/kg	85.3	426
62-53-3	Aniline	Uh	426	ug/kg	128	426
111-44-4	bis(2-Chloroethyl) ether	Uh	426	ug/kg	85.3	426
541-73-1	1,3-Dichlorobenzene	Uh	426	ug/kg	85.3	426
100-51-6	Benzyl alcohol	Uh	426	ug/kg	128	426
95-50-1	1,2-Dichlorobenzene	Uh	426	ug/kg	85.3	426
108-60-1	bis(2-Chloroisopropyl)ether	Uh	426	ug/kg	85.3	426
95-48-7	o-Cresol	Uh	426	ug/kg	85.3	426
65794-96-9	m,p-Cresols	Uh	426	ug/kg	128	426
67-72-1	Hexachloroethane	Uh	426	ug/kg	85.3	426
98-95-3	Nitrobenzene	Uh	426	ug/kg	85.3	426
78-59-1	Isophorone	Uh	426	ug/kg	85.3	426
88-75-5	2-Nitrophenol	Uh	426	ug/kg	85.3	426
105-67-9	2,4-Dimethylphenol	Uh	426	ug/kg	149	426
111-91-1	bis(2-Chloroethoxy)methane	Uh	426	ug/kg	85.3	426
120-83-2	2,4-Dichlorophenol	Uh	426	ug/kg	85.3	426
65-85-0	Benzoic acid	Uh	853	ug/kg	213	853
91-20-3	Naphthalene	h	357	ug/kg	12.8	42.6 J-.SV9
106-47-8	4-Chloroaniline	Uh	426	ug/kg	85.3	426 UJ.SV9
87-68-3	Hexachlorobutadiene	Uh	426	ug/kg	85.3	426 UJ.SV9
91-57-6	2-Methylnaphthalene	h	207	ug/kg	8.53	42.6 J-.SV9
77-47-4	Hexachlorocyclopentadiene	Uh	426	ug/kg	85.3	426 UJ.SV9
88-06-2	2,4,6-Trichlorophenol	Uh	426	ug/kg	85.3	426
95-95-4	2,4,5-Trichlorophenol	Uh	426	ug/kg	85.3	426
91-58-7	2-Chloronaphthalene	Uh	42.6	ug/kg	14.1	42.6
88-74-4	2-Nitroaniline	Uh	426	ug/kg	85.3	426
99-09-2	o-Nitroaniline	Uh	426	ug/kg	85.3	426
	3-Nitroaniline					
	m-Nitroaniline					

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074

Lab Sample ID: 248043004

Client ID: RE36-10-7465RE

Batch ID: 965290

Run Date: 03/17/2010 19:55

Prep Date: 03/16/2010 21:34

Data File: s7c1729.d

Date Collected: 02/20/2010 12:00

Date Received: 02/25/2010 08:45

Client: LANL010

Method: SW846 8270C

Inst: MSD7.I

Analyst: JMB3

Aliquot: 30.18 g

Column: J&amp;W DB-5MS

Matrix: R

%Moisture: 22.3

Project: LANL01004

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: .5 uL

Final Volume: 1 mL

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	Dimethylphthalate	Uh	426	ug/kg	85.3	426 UJ,SV9
606-20-2	2,6-Dinitrotoluene	Uh	426	ug/kg	42.6	426 UJ,SV9
208-96-8	Acenaphthylene	Jh	24.3	ug/kg	12.8	42.6 J-,SV9
51-28-5	2,4-Dinitrophenol	Uh	853	ug/kg	162	853 UJ,SV9
132-64-9	Dibenzofuran	h	665	ug/kg	85.3	426 J-,SV9
84-66-2	Diethylphthalate	Uh	426	ug/kg	85.3	426 UJ,SV9
86-73-7	Fluorene	h	1040	ug/kg	12.8	42.6 J-,SV9
7005-72-3	4-Chlorophenylphenylether	Uh	426	ug/kg	85.3	426 UJ,SV9
534-52-1	2-Methyl-4,6-dinitrophenol	Uh	426	ug/kg	85.3	426
100-01-6	4-Nitroaniline	Uh	426	ug/kg	128	426
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	Uh	426	ug/kg	85.3	426
122-66-7	Azobenzene	Uh	426	ug/kg	85.3	426
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	Uh	426	ug/kg	85.3	426
118-74-1	Hexachlorobenzene	Uh	426	ug/kg	85.3	426
120-12-7	Anthracene	h	2290	ug/kg	8.53	42.6 J-,SV9
84-74-2	Di-n-butylphthalate	Uh	426	ug/kg	85.3	426 UJ,SV9
85-68-7	Butylbenzylphthalate	Uh	426	ug/kg	85.3	426
91-94-1	3,3'-Dichlorobenzidine	Uh	426	ug/kg	128	426
117-81-7	bis(2-Ethylhexyl)phthalate	Jh	112	ug/kg	85.3	426 J-,SV9
117-84-0	Di-n-octylphthalate	Uh	426	ug/kg	85.3	426 UJ,SV9
207-08-9	Benzo(k)fluoranthene	Uh	42.6	ug/kg	12.8	42.6 UJ,SV9
50-32-8	Benzo(a)pyrene	h	4870	ug/kg	12.8	42.6 J-,SV9
193-39-5	Indeno(1,2,3-cd)pyrene	h	2630	ug/kg	12.8	42.6
53-70-3	Dibenzo(a,h)anthracene	h	943	ug/kg	12.8	42.6
191-24-2	Benzo(ghi)perylene	h	2670	ug/kg	12.8	42.6
120-82-1	1,2,4-Trichlorobenzene	Uh	426	ug/kg	85.3	426 UJ,SV9

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	2.84	642	ug/kg		J
86-74-8	Carbazole	7.25	191	ug/kg	95	NJ
	Unknown	7.59	281	ug/kg		J
2381-21-7	Pyrene, 1-methyl-	8.53	255	ug/kg	95	NJ
243-17-4	11H-Benzo[b]fluorene	8.63	469	ug/kg	97	NJ
	Unknown	8.72	302	ug/kg		J
479-79-8	11H-Benzo[a]fluoren-11-one	9.11	266	ug/kg	97	NJ
239-35-0	Benzo[b]naphtho[2,1-d]thiophene	9.21	233	ug/kg	91	NJ

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043004

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.18 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	9.31	283	ug/kg		J
192-97-2	Benzo[e]pyrene	10.89	3830	ug/kg	98	NJ
198-55-0	Perylene	11.06	1320	ug/kg	98	NJ



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043004

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.18 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7465REDL  
Batch ID: 965290  
Run Date: 03/17/2010 18:50  
Prep Date: 03/16/2010 21:34  
Data File: s7c1726.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
129-00-0	Pyrene	h	9790	ug/kg	51.2	171 J-SV9
85-01-8	Phenanthrene	h	12100	ug/kg	51.2	171
206-44-0	Fluoranthene	h	13600	ug/kg	51.2	171
56-55-3	Benzo(a)anthracene	h	5160	ug/kg	51.2	171
218-01-9	Chrysene	h	5630	ug/kg	51.2	171
205-99-2	Benzo(b)fluoranthene	h	8120	ug/kg	51.2	171

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
86-74-8	Carbazole	7.24	1200	ug/kg	95	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.48	872	ug/kg	98	NJ
832-69-9	Phenanthrene, 1-methyl-	7.5	1140	ug/kg	98	NJ
203-64-5	4H-Cyclopenta[def]phenanthrene	7.58	1810	ug/kg	76	NJ
84-65-1	9,10-Anthracenedione	7.76	1180	ug/kg	99	NJ
238-84-6	11H-Benzo[a]fluorene	8.61	957	ug/kg	95	NJ
477-75-8	9,10[1',2']-Benzenoanthracene, 9,10-dihy	10.35	774	ug/kg	78	NJ
50-32-8	Benzo[a]pyrene	10.65	864	ug/kg	95	NJ
192-97-2	Benzo[e]pyrene	10.87	3380	ug/kg	99	NJ
198-55-0	Perylene	11.04	1140	ug/kg	96	NJ
1000307-30-8	Acetamide, N-(4-fluorophenyl)-2,2,2-trif	12.24	741	ug/kg	42	NJ
13183-70-5	Silane, 1,4-phenylenebis(trimethyl-	14.38	770	ug/kg	46	NJ

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043012

Client ID: RE36-10-7466  
Batch ID: 959623  
Run Date: 03/12/2010 22:39  
Prep Date: 03/02/2010 11:17  
Data File: s7c1229.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Allquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	418	ug/kg	83.6	418
108-95-2	Phenol	U	418	ug/kg	83.6	418
95-57-8	2-Chlorophenol	U	418	ug/kg	83.6	418
106-46-7	1,4-Dichlorobenzene	U	418	ug/kg	83.6	418
621-64-7	N-Nitrosodipropylamine	U	418	ug/kg	83.6	418
59-50-7	4-Chloro-3-methylphenol	U	418	ug/kg	83.6	418
83-32-9	Acenaphthene		108	ug/kg	13.8	41.8
121-14-2	2,4-Dinitrotoluene	U	418	ug/kg	41.8	418
100-02-7	4-Nitrophenol	U	418	ug/kg	138	418
87-86-5	Pentachlorophenol	U	418	ug/kg	104	418
129-00-0	Pyrene		1360	ug/kg	12.5	41.8
110-86-1	Pyridine	U	418	ug/kg	83.6	418 UJ,SV7c
62-53-3	Aniline	U	418	ug/kg	125	418
111-44-4	bis(2-Chloroethyl) ether	U	418	ug/kg	83.6	418 UJ,SV7c
541-73-1	1,3-Dichlorobenzene	U	418	ug/kg	83.6	418
100-51-6	Benzyl alcohol	U	418	ug/kg	125	418 UJ,SV12a
95-50-1	1,2-Dichlorobenzene	U	418	ug/kg	83.6	418
108-60-1	bis(2-Chloroisopropyl)ether	U	418	ug/kg	83.6	418
95-48-7	o-Cresol	U	418	ug/kg	83.6	418
65794-96-9	m,p-Cresols	U	418	ug/kg	125	418
67-72-1	Hexachloroethane	U	418	ug/kg	83.6	418
98-95-3	Nitrobenzene	U	418	ug/kg	83.6	418
78-59-1	Isophorone	U	418	ug/kg	83.6	418
88-75-5	2-Nitrophenol	U	418	ug/kg	83.6	418
105-67-9	2,4-Dimethylphenol	U	418	ug/kg	146	418
111-91-1	bis(2-Chloroethoxy)methane	U	418	ug/kg	83.6	418
120-83-2	2,4-Dichlorophenol	U	418	ug/kg	83.6	418
65-85-0	Benzoic acid	U	836	ug/kg	209	836 UJ,SV7c
91-20-3	Naphthalene	J	31.5	ug/kg	12.5	41.8
106-47-8	4-Chloroaniline	U	418	ug/kg	83.6	418
87-68-3	Hexachlorobutadiene	U	418	ug/kg	83.6	418
91-57-6	2-Methylnaphthalene	J	20.2	ug/kg	8.36	41.8
77-47-4	Hexachlorocyclopentadiene	U	418	ug/kg	83.6	418 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	418	ug/kg	83.6	418
95-95-4	2,4,5-Trichlorophenol	U	418	ug/kg	83.6	418
91-58-7	2-Chloronaphthalene	U	41.8	ug/kg	13.8	41.8
88-74-4	2-Nitroaniline	U	418	ug/kg	83.6	418
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	418	ug/kg	83.6	418

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043012	Date Received: 02/25/2010 08:45	%Moisture: 20.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7466	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/12/2010 22:39	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1229.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	418	ug/kg	83.6	418
606-20-2	2,6-Dinitrotoluene	U	418	ug/kg	41.8	418
208-96-8	Acenaphthylene	U	41.8	ug/kg	12.5	41.8
51-28-5	2,4-Dinitrophenol	U	836	ug/kg	159	836
132-64-9	Dibenzofuran	U	418	ug/kg	83.6	418
84-66-2	Diethylphthalate	U	418	ug/kg	83.6	418
86-73-7	Fluorene		102	ug/kg	12.5	41.8
7005-72-3	4-Chlorophenylphenylether	U	418	ug/kg	83.6	418
534-52-1	2-Methyl-4,6-dinitrophenol	U	418	ug/kg	83.6	418 UJ,SV7c
100-01-6	4-Nitroaniline	U	418	ug/kg	125	418
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	418	ug/kg	83.6	418
122-66-7	Azobenzene	U	418	ug/kg	83.6	418
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	418	ug/kg	83.6	418
118-74-1	Hexachlorobenzene	U	418	ug/kg	83.6	418
85-01-8	Phenanthrene		1350	ug/kg	12.5	41.8
120-12-7	Anthracene		205	ug/kg	8.36	41.8
84-74-2	Di-n-butylphthalate	U	418	ug/kg	83.6	418
206-44-0	Fluoranthene		1440	ug/kg	12.5	41.8
85-68-7	Butylbenzylphthalate	U	418	ug/kg	83.6	418
56-55-3	Benzo(a)anthracene		604	ug/kg	12.5	41.8
91-94-1	3,3'-Dichlorobenzidine	U	418	ug/kg	125	418
218-01-9	Chrysene		681	ug/kg	12.5	41.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	418	ug/kg	83.6	418
117-84-0	Di-n-octylphthalate	U	418	ug/kg	83.6	418
205-99-2	Benzo(b)fluoranthene		1010	ug/kg	12.5	41.8
207-08-9	Benzo(k)fluoranthene	U	41.8	ug/kg	12.5	41.8
50-32-8	Benzo(a)pyrene		559	ug/kg	12.5	41.8
193-39-5	Indeno(1,2,3-cd)pyrene		336	ug/kg	12.5	41.8
53-70-3	Dibenzo(a,h)anthracene		122	ug/kg	12.5	41.8
191-24-2	Benzo(ghi)perylene		360	ug/kg	12.5	41.8
120-82-1	1,2,4-Trichlorobenzene	U	418	ug/kg	83.6	418

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.92	456	ug/kg		J
203-64-5	4H-Cyclopenta[def]phenanthrene	7.67	225	ug/kg	81	NJ

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043012

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
192-97-2	Benzo[e]pyrene	11	384	ug/kg	98	NJ

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

Page 1 of 3

SDG Number: 10-2074  
Lab Sample ID: 248043015

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 16.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7467  
Batch ID: 959623  
Run Date: 03/12/2010 22:17  
Prep Date: 03/02/2010 11:17  
Data File: s7c1228.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	400	ug/kg	80.0	400
108-95-2	Phenol	U	400	ug/kg	80.0	400
95-57-8	2-Chlorophenol	U	400	ug/kg	80.0	400
106-46-7	1,4-Dichlorobenzene	U	400	ug/kg	80.0	400
621-64-7	N-Nitrosodipropylamine	U	400	ug/kg	80.0	400
59-50-7	4-Chloro-3-methylphenol	U	400	ug/kg	80.0	400
83-32-9	Acenaphthene		60.4	ug/kg	13.2	40.0
121-14-2	2,4-Dinitrotoluene	U	400	ug/kg	40.0	400
100-02-7	4-Nitrophenol	U	400	ug/kg	132	400
87-86-5	Pentachlorophenol	U	400	ug/kg	99.9	400
129-00-0	Pyrene		157	ug/kg	12.0	40.0
110-86-1	Pyridine	U	400	ug/kg	80.0	400 UJ,SV7c
62-53-3	Aniline	U	400	ug/kg	120	400
111-44-4	bis(2-Chloroethyl) ether	U	400	ug/kg	80.0	400 UJ,SV7c
541-73-1	1,3-Dichlorobenzene	U	400	ug/kg	80.0	400
100-51-6	Benzyl alcohol	U	400	ug/kg	120	400 UJ,SV12a
95-50-1	1,2-Dichlorobenzene	U	400	ug/kg	80.0	400
108-60-1	bis(2-Chloroisopropyl)ether	U	400	ug/kg	80.0	400
95-48-7	o-Cresol	U	400	ug/kg	80.0	400
65794-96-9	m,p-Cresols	U	400	ug/kg	120	400
67-72-1	Hexachloroethane	U	400	ug/kg	80.0	400
98-95-3	Nitrobenzene	U	400	ug/kg	80.0	400
78-59-1	Isophorone	U	400	ug/kg	80.0	400
88-75-5	2-Nitrophenol	U	400	ug/kg	80.0	400
105-67-9	2,4-Dimethylphenol	U	400	ug/kg	140	400
111-91-1	bis(2-Chloroethoxy)methane	U	400	ug/kg	80.0	400
120-83-2	2,4-Dichlorophenol	U	400	ug/kg	80.0	400
65-85-0	Benzoic acid	U	800	ug/kg	200	800 UJ,SV7c
91-20-3	Naphthalene	U	40.0	ug/kg	12.0	40.0
106-47-8	4-Chloroaniline	U	400	ug/kg	80.0	400
87-68-3	Hexachlorobutadiene	U	400	ug/kg	80.0	400
91-57-6	2-Methylnaphthalene	U	40.0	ug/kg	8.00	40.0
77-47-4	Hexachlorocyclopentadiene	U	400	ug/kg	80.0	400 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	400	ug/kg	80.0	400
95-95-4	2,4,5-Trichlorophenol	U	400	ug/kg	80.0	400
91-58-7	2-Chloronaphthalene	U	40.0	ug/kg	13.2	40.0
88-74-4	2-Nitroaniline	U	400	ug/kg	80.0	400
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	400	ug/kg	80.0	400

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043015	Date Received: 02/25/2010 08:45	%Moisture: 16.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7467	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/12/2010 22:17	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1228.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	400	ug/kg	80.0	400
606-20-2	2,6-Dinitrotoluene	U	400	ug/kg	40.0	400
208-96-8	Acenaphthylene	U	40.0	ug/kg	12.0	40.0
51-28-5	2,4-Dinitrophenol	U	800	ug/kg	152	800
132-64-9	Dibenzofuran	U	400	ug/kg	80.0	400
84-66-2	Diethylphthalate	U	400	ug/kg	80.0	400
86-73-7	Fluorene	U	40.0	ug/kg	12.0	40.0
7005-72-3	4-Chlorophenylphenylether	U	400	ug/kg	80.0	400
534-52-1	2-Methyl-4,6-dinitrophenol	U	400	ug/kg	80.0	400 UJ,SV7c
100-01-6	4-Nitroaniline	U	400	ug/kg	120	400
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	400	ug/kg	80.0	400
122-66-7	Azobenzene	U	400	ug/kg	80.0	400
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	400	ug/kg	80.0	400
118-74-1	Hexachlorobenzene	U	400	ug/kg	80.0	400
85-01-8	Phenanthrene		136	ug/kg	12.0	40.0
120-12-7	Anthracene	J	21.3	ug/kg	8.00	40.0
84-74-2	Di-n-butylphthalate	J	91.3	ug/kg	80.0	400
206-44-0	Fluoranthene		170	ug/kg	12.0	40.0
85-68-7	Butylbenzylphthalate	U	400	ug/kg	80.0	400
56-55-3	Benzo(a)anthracene		78.0	ug/kg	12.0	40.0
91-94-1	3,3'-Dichlorobenzidine	U	400	ug/kg	120	400
218-01-9	Chrysene		86.8	ug/kg	12.0	40.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	400	ug/kg	80.0	400
117-84-0	Di-n-octylphthalate	U	400	ug/kg	80.0	400
205-99-2	Benzo(b)fluoranthene		144	ug/kg	12.0	40.0
207-08-9	Benzo(k)fluoranthene	U	40.0	ug/kg	12.0	40.0
50-32-8	Benzo(a)pyrene		76.8	ug/kg	12.0	40.0
193-39-5	Indeno(1,2,3-cd)pyrene		50.6	ug/kg	12.0	40.0
53-70-3	Dibenzo(a,h)anthracene	J	18.7	ug/kg	12.0	40.0
191-24-2	Benzo(ghi)perylene		56.2	ug/kg	12.0	40.0
120-82-1	1,2,4-Trichlorobenzene	U	400	ug/kg	80.0	400

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
3724-55-8	Methyl 3-butenate	2.27	365	ug/kg	80	NJ
	Unknown Aldol Condensate	2.92	629	ug/kg		J

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043015	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 16.9
<b>Client ID:</b> RE36-10-7467	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 959623	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Run Date:</b> 03/12/2010 22:17	<b>Inst:</b> MSD7.I	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/02/2010 11:17	<b>Analyst:</b> JMB3	<b>Inj. Vol:</b> .5 uL
<b>Data File:</b> s7c1228.d	<b>Allquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	3.77	202	ug/kg		J
7773-83-3	1-Docosanethiol	10.87	449	ug/kg	91	NJ
	Unknown	10.99	177	ug/kg		J
	Unknown	11.42	175	ug/kg		J
112-95-8	Eicosane	11.6	553	ug/kg	97	NJ
38651-65-9	Bicyclo[3.1.1]heptan-2-one, 6,6-dimethyl	11.79	221	ug/kg	83	NJ
	Unknown	12.86	172	ug/kg		J
83-46-5	.beta.-Sitosterol	13.69	840	ug/kg	95	NJ

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043008	Date Received: 02/25/2010 08:45	%Moisture: 26.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7468	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 16:47	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Allquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1112.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	452	ug/kg	90.5	452
108-95-2	Phenol	U	452	ug/kg	90.5	452
95-57-8	2-Chlorophenol	U	452	ug/kg	90.5	452
106-46-7	1,4-Dichlorobenzene	U	452	ug/kg	90.5	452
621-64-7	N-Nitrosodipropylamine	U	452	ug/kg	90.5	452
59-50-7	4-Chloro-3-methylphenol	U	452	ug/kg	90.5	452
83-32-9	Acenaphthene	U	45.2	ug/kg	14.9	45.2
121-14-2	2,4-Dinitrotoluene	U	452	ug/kg	45.2	452
100-02-7	4-Nitrophenol	U	452	ug/kg	149	452
87-86-5	Pentachlorophenol	U	452	ug/kg	113	452
129-00-0	Pyrene	J	37.2	ug/kg	13.6	45.2
110-86-1	Pyridine	U	452	ug/kg	90.5	452 UJ,SV7c
62-53-3	Aniline	U	452	ug/kg	136	452
111-44-4	bis(2-Chloroethyl) ether	U	452	ug/kg	90.5	452
541-73-1	1,3-Dichlorobenzene	U	452	ug/kg	90.5	452
100-51-6	Benzyl alcohol	U	452	ug/kg	136	452 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	452	ug/kg	90.5	452
108-60-1	bis(2-Chloroisopropyl)ether	U	452	ug/kg	90.5	452
95-48-7	o-Cresol	U	452	ug/kg	90.5	452
65794-96-9	m,p-Cresols	U	452	ug/kg	136	452
67-72-1	Hexachloroethane	U	452	ug/kg	90.5	452
98-95-3	Nitrobenzene	U	452	ug/kg	90.5	452
78-59-1	Isophorone	U	452	ug/kg	90.5	452
88-75-5	2-Nitrophenol	U	452	ug/kg	90.5	452
105-67-9	2,4-Dimethylphenol	U	452	ug/kg	158	452
111-91-1	bis(2-Chloroethoxy)methane	U	452	ug/kg	90.5	452
120-83-2	2,4-Dichlorophenol	U	452	ug/kg	90.5	452
65-85-0	Benzoic acid	U	905	ug/kg	226	905
91-20-3	Naphthalene	U	45.2	ug/kg	13.6	45.2
106-47-8	4-Chloroaniline	U	452	ug/kg	90.5	452
87-68-3	Hexachlorobutadiene	U	452	ug/kg	90.5	452
91-57-6	2-Methylnaphthalene	U	45.2	ug/kg	9.05	45.2
77-47-4	Hexachlorocyclopentadiene	U	452	ug/kg	90.5	452
88-06-2	2,4,6-Trichlorophenol	U	452	ug/kg	90.5	452
95-95-4	2,4,5-Trichlorophenol	U	452	ug/kg	90.5	452
91-58-7	2-Chloronaphthalene	U	45.2	ug/kg	14.9	45.2
88-74-4	2-Nitroaniline	U	452	ug/kg	90.5	452
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	452	ug/kg	90.5	452



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043008

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 26.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7468  
Batch ID: 959623  
Run Date: 03/11/2010 16:47  
Prep Date: 03/02/2010 11:17  
Data File: s7c1112.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	452	ug/kg	90.5	452
606-20-2	2,6-Dinitrotoluene	U	452	ug/kg	45.2	452
208-96-8	Acenaphthylene	U	45.2	ug/kg	13.6	45.2
51-28-5	2,4-Dinitrophenol	U	905	ug/kg	172	905 UJ,SV7c
132-64-9	Dibenzofuran	U	452	ug/kg	90.5	452
84-66-2	Diethylphthalate	U	452	ug/kg	90.5	452
86-73-7	Fluorene	U	45.2	ug/kg	13.6	45.2
7005-72-3	4-Chlorophenylphenylether	U	452	ug/kg	90.5	452
534-52-1	2-Methyl-4,6-dinitrophenol	U	452	ug/kg	90.5	452 UJ,SV7c
100-01-6	4-Nitroaniline	U	452	ug/kg	136	452
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	452	ug/kg	90.5	452
122-66-7	Azobenzene	U	452	ug/kg	90.5	452
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	452	ug/kg	90.5	452
118-74-1	Hexachlorobenzene	U	452	ug/kg	90.5	452
85-01-8	Phenanthrene	J	28.0	ug/kg	13.6	45.2
120-12-7	Anthracene	U	45.2	ug/kg	9.05	45.2
84-74-2	Di-n-butylphthalate	U	452	ug/kg	90.5	452
206-44-0	Fluoranthene		48.8	ug/kg	13.6	45.2
85-68-7	Butylbenzylphthalate	U	452	ug/kg	90.5	452
56-55-3	Benzo(a)anthracene	J	26.9	ug/kg	13.6	45.2
91-94-1	3,3'-Dichlorobenzidine	U	452	ug/kg	136	452
218-01-9	Chrysene	J	29.5	ug/kg	13.6	45.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	452	ug/kg	90.5	452
117-84-0	Di-n-octylphthalate	U	452	ug/kg	90.5	452
205-99-2	Benzo(b)fluoranthene	J	35.0	ug/kg	13.6	45.2
207-08-9	Benzo(k)fluoranthene	U	45.2	ug/kg	13.6	45.2
50-32-8	Benzo(a)pyrene	J	24.9	ug/kg	13.6	45.2
193-39-5	Indeno(1,2,3-cd)pyrene	J	22.6	ug/kg	13.6	45.2
53-70-3	Dibenzo(a,h)anthracene	U	45.2	ug/kg	13.6	45.2
191-24-2	Benzo(ghi)perylene	J	25.4	ug/kg	13.6	45.2 J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	452	ug/kg	90.5	452

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	384	ug/kg		J
112-95-8	Eicosane	11.84	349	ug/kg	98	NJ

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043008

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45

Matrix: R  
%Moisture: 26.6  
Project: LANL01004

Client ID: RE36-10-7468  
Batch ID: 959623  
Run Date: 03/11/2010 16:47  
Prep Date: 03/02/2010 11:17  
Data File: s7c1112.d

Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit Qual
	Unknown		12.76	187	ug/kg	J

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 3

SDG Number: 10-2074  
Lab Sample ID: 248043016

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Allquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7469  
Batch ID: 959623  
Run Date: 03/11/2010 18:13  
Prep Date: 03/02/2010 11:17  
Data File: s7c1116.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	381	ug/kg	76.2	381
108-95-2	Phenol	U	381	ug/kg	76.2	381
95-57-8	2-Chlorophenol	U	381	ug/kg	76.2	381
106-46-7	1,4-Dichlorobenzene	U	381	ug/kg	76.2	381
621-64-7	N-Nitrosodipropylamine	U	381	ug/kg	76.2	381
59-50-7	4-Chloro-3-methylphenol	U	381	ug/kg	76.2	381
83-32-9	Acenaphthene	U	38.1	ug/kg	12.6	38.1
121-14-2	2,4-Dinitrotoluene	U	381	ug/kg	38.1	381
100-02-7	4-Nitrophenol	U	381	ug/kg	126	381
87-86-5	Pentachlorophenol	U	381	ug/kg	95.2	381
129-00-0	Pyrene		85.4	ug/kg	11.4	38.1
110-86-1	Pyridine	U	381	ug/kg	76.2	381 UJ,SV7c
62-53-3	Aniline	U	381	ug/kg	114	381
111-44-4	bis(2-Chloroethyl) ether	U	381	ug/kg	76.2	381
541-73-1	1,3-Dichlorobenzene	U	381	ug/kg	76.2	381
100-51-6	Benzyl alcohol	U	381	ug/kg	114	381 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	381	ug/kg	76.2	381
108-60-1	bis(2-Chloroisopropyl) ether	U	381	ug/kg	76.2	381
95-48-7	o-Cresol	U	381	ug/kg	76.2	381
65794-96-9	m,p-Cresols	U	381	ug/kg	114	381
67-72-1	Hexachloroethane	U	381	ug/kg	76.2	381
98-95-3	Nitrobenzene	U	381	ug/kg	76.2	381
78-59-1	Isophorone	U	381	ug/kg	76.2	381
88-75-5	2-Nitrophenol	U	381	ug/kg	76.2	381
105-67-9	2,4-Dimethylphenol	U	381	ug/kg	133	381
111-91-1	bis(2-Chloroethoxy)methane	U	381	ug/kg	76.2	381
120-83-2	2,4-Dichlorophenol	U	381	ug/kg	76.2	381
65-85-0	Benzoic acid	U	762	ug/kg	190	762
91-20-3	Naphthalene	U	38.1	ug/kg	11.4	38.1
106-47-8	4-Chloroaniline	U	381	ug/kg	76.2	381
87-68-3	Hexachlorobutadiene	U	381	ug/kg	76.2	381
91-57-6	2-Methylnaphthalene	U	38.1	ug/kg	7.62	38.1
77-47-4	Hexachlorocyclopentadiene	U	381	ug/kg	76.2	381
88-06-2	2,4,6-Trichlorophenol	U	381	ug/kg	76.2	381
95-95-4	2,4,5-Trichlorophenol	U	381	ug/kg	76.2	381
91-58-7	2-Chloronaphthalene	U	38.1	ug/kg	12.6	38.1
88-74-4	2-Nitroaniline	U	381	ug/kg	76.2	381
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	381	ug/kg	76.2	381

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043016	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 12.5
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7469	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 959623	<b>Inst:</b> MSD7.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/11/2010 18:13	<b>Analyst:</b> JMB3	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/02/2010 11:17	<b>Aliquot:</b> 30 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s7c1116.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	381	ug/kg	76.2	381
606-20-2	2,6-Dinitrotoluene	U	381	ug/kg	38.1	381
208-96-8	Acenaphthylene	U	38.1	ug/kg	11.4	38.1
51-28-5	2,4-Dinitrophenol	U	762	ug/kg	145	762 UJ,SV7c
132-64-9	Dibenzofuran	U	381	ug/kg	76.2	381
84-66-2	Diethylphthalate	U	381	ug/kg	76.2	381
86-73-7	Fluorene	U	38.1	ug/kg	11.4	38.1
7005-72-3	4-Chlorophenylphenylether	U	381	ug/kg	76.2	381
534-52-1	2-Methyl-4,6-dinitrophenol	U	381	ug/kg	76.2	381 UJ,SV7c
100-01-6	4-Nitroaniline	U	381	ug/kg	114	381
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	381	ug/kg	76.2	381
122-66-7	Azobenzene	U	381	ug/kg	76.2	381
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	381	ug/kg	76.2	381
118-74-1	Hexachlorobenzene	U	381	ug/kg	76.2	381
85-01-8	Phenanthrene		82.9	ug/kg	11.4	38.1
120-12-7	Anthracene	J	12.7	ug/kg	7.62	38.1
84-74-2	Di-n-butylphthalate	J	211	ug/kg	76.2	381
206-44-0	Fluoranthene		105	ug/kg	11.4	38.1
85-68-7	Butylbenzylphthalate	U	381	ug/kg	76.2	381
56-55-3	Benzo(a)anthracene		42.4	ug/kg	11.4	38.1
91-94-1	3,3'-Dichlorobenzidine	U	381	ug/kg	114	381
218-01-9	Chrysene		50.0	ug/kg	11.4	38.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	381	ug/kg	76.2	381
117-84-0	Di-n-octylphthalate	U	381	ug/kg	76.2	381
205-99-2	Benzo(b)fluoranthene		71.9	ug/kg	11.4	38.1
207-08-9	Benzo(k)fluoranthene	U	38.1	ug/kg	11.4	38.1
50-32-8	Benzo(a)pyrene		38.6	ug/kg	11.4	38.1
193-39-5	Indeno(1,2,3-cd)pyrene	J	31.1	ug/kg	11.4	38.1
53-70-3	Dibenzo(a,h)anthracene	J	12.3	ug/kg	11.4	38.1
191-24-2	Benzo(ghi)perylene	J	35.5	ug/kg	11.4	38.1 J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	381	ug/kg	76.2	381

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	520	ug/kg		J
	Unknown	3.68	299	ug/kg		J

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043016	Date Received: 02/25/2010 08:45	%Moisture: 12.5
Client ID: RE36-10-7469	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/11/2010 18:13	Inst: MSD7.I	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1116.d	Allquot: 30 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
4630-07-3	Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	5.84	158	ug/kg	98	NJ
	Unknown	8.18	173	ug/kg		J
	Unknown	9.04	172	ug/kg		J
	Unknown	9.4	796	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.48	810	ug/kg	97	NJ
	Unknown	9.61	348	ug/kg		J
	Unknown	10.38	416	ug/kg		J
1000156-12-8	Alloaromadendrene oxide-(1)	10.9	166	ug/kg	90	NJ
	Unknown	12.11	328	ug/kg		J
	Unknown	12.22	698	ug/kg		J
	Unknown	12.67	173	ug/kg		J
	Unknown	12.75	358	ug/kg		J
83-46-5	.beta.-Sitosterol	14.34	909	ug/kg	94	NJ
	Unknown	14.47	169	ug/kg		J

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 3

SDG Number: 10-2074  
Lab Sample ID: 248043017

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Allquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 14.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7470  
Batch ID: 959623  
Run Date: 03/11/2010 18:35  
Prep Date: 03/02/2010 11:17  
Data File: s7c1117.d

CAS No.	Parmaame	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	389	ug/kg	77.8	389
108-95-2	Phenol	U	389	ug/kg	77.8	389
95-57-8	2-Chlorophenol	U	389	ug/kg	77.8	389
106-46-7	1,4-Dichlorobenzene	U	389	ug/kg	77.8	389
621-64-7	N-Nitrosodipropylamine	U	389	ug/kg	77.8	389
59-50-7	4-Chloro-3-methylphenol	U	389	ug/kg	77.8	389
83-32-9	Acenaphthene		93.1	ug/kg	12.8	38.9
121-14-2	2,4-Dinitrotoluene	U	389	ug/kg	38.9	389
100-02-7	4-Nitrophenol	U	389	ug/kg	128	389
87-86-5	Pentachlorophenol	U	389	ug/kg	97.2	389
129-00-0	Pyrene		453	ug/kg	11.7	38.9
110-86-1	Pyridine	U	389	ug/kg	77.8	389 UJ,SV7c
62-53-3	Aniline	U	389	ug/kg	117	389
111-44-4	bis(2-Chloroethyl) ether	U	389	ug/kg	77.8	389
541-73-1	1,3-Dichlorobenzene	U	389	ug/kg	77.8	389
100-51-6	Benzyl alcohol	U	389	ug/kg	117	389 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	389	ug/kg	77.8	389
108-60-1	bis(2-Chloroisopropyl)ether	U	389	ug/kg	77.8	389
95-48-7	o-Cresol	U	389	ug/kg	77.8	389
65794-96-9	m,p-Cresols	U	389	ug/kg	117	389
67-72-1	Hexachloroethane	U	389	ug/kg	77.8	389
98-95-3	Nitrobenzene	U	389	ug/kg	77.8	389
78-59-1	Isophorone	U	389	ug/kg	77.8	389
88-75-5	2-Nitrophenol	U	389	ug/kg	77.8	389
105-67-9	2,4-Dimethylphenol	U	389	ug/kg	136	389
111-91-1	bis(2-Chloroethoxy)methane	U	389	ug/kg	77.8	389
120-83-2	2,4-Dichlorophenol	U	389	ug/kg	77.8	389
65-85-0	Benzoic acid	U	778	ug/kg	194	778
91-20-3	Naphthalene	J	37.0	ug/kg	11.7	38.9
106-47-8	4-Chloroaniline	U	389	ug/kg	77.8	389
87-68-3	Hexachlorobutadiene	U	389	ug/kg	77.8	389
91-57-6	2-Methylnaphthalene	J	22.7	ug/kg	7.78	38.9
77-47-4	Hexachlorocyclopentadiene	U	389	ug/kg	77.8	389
88-06-2	2,4,6-Trichlorophenol	U	389	ug/kg	77.8	389
95-95-4	2,4,5-Trichlorophenol	U	389	ug/kg	77.8	389
91-58-7	2-Chloronaphthalene	U	38.9	ug/kg	12.8	38.9
88-74-4	2-Nitroaniline	U	389	ug/kg	77.8	389
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	389	ug/kg	77.8	389

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 2 of 3

SDG Number: 10-2074  
Lab Sample ID: 248043017

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Allquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 14.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7470  
Batch ID: 959623  
Run Date: 03/11/2010 18:35  
Prep Date: 03/02/2010 11:17  
Data File: s7c1117.d

CAS No.	Parmaame	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	389	ug/kg	77.8	389
606-20-2	2,6-Dinitrotoluene	U	389	ug/kg	38.9	389
208-96-8	Acenaphthylene	U	38.9	ug/kg	11.7	38.9
51-28-5	2,4-Dinitrophenol	U	778	ug/kg	148	778 UJ,SV7c
132-64-9	Dibenzofuran	U	389	ug/kg	77.8	389
84-66-2	Diethylphthalate	U	389	ug/kg	77.8	389
86-73-7	Fluorene		112	ug/kg	11.7	38.9
7005-72-3	4-Chlorophenylphenylether	U	389	ug/kg	77.8	389
534-52-1	2-Methyl-4,6-dinitrophenol	U	389	ug/kg	77.8	389 UJ,SV7c
100-01-6	4-Nitroaniline	U	389	ug/kg	117	389
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	389	ug/kg	77.8	389
122-66-7	Azobenzene	U	389	ug/kg	77.8	389
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	389	ug/kg	77.8	389
118-74-1	Hexachlorobenzene	U	389	ug/kg	77.8	389
85-01-8	Phenanthrene		762	ug/kg	11.7	38.9
120-12-7	Anthracene		158	ug/kg	7.78	38.9
84-74-2	Di-n-butylphthalate	U	389	ug/kg	77.8	389
206-44-0	Fluoranthene		614	ug/kg	11.7	38.9
85-68-7	Butylbenzylphthalate	U	389	ug/kg	77.8	389
56-55-3	Benzo(a)anthracene		237	ug/kg	11.7	38.9
91-94-1	3,3'-Dichlorobenzidine	U	389	ug/kg	117	389
218-01-9	Chrysene		255	ug/kg	11.7	38.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	389	ug/kg	77.8	389
117-84-0	Di-n-octylphthalate	U	389	ug/kg	77.8	389
205-99-2	Benzo(b)fluoranthene		325	ug/kg	11.7	38.9
207-08-9	Benzo(k)fluoranthene	U	38.9	ug/kg	11.7	38.9
50-32-8	Benzo(a)pyrene		208	ug/kg	11.7	38.9
193-39-5	Indeno(1,2,3-cd)pyrene		146	ug/kg	11.7	38.9
53-70-3	Dibenzo(a,h)anthracene		51.4	ug/kg	11.7	38.9
191-24-2	Benzo(ghi)perylene		161	ug/kg	11.7	38.9 J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	389	ug/kg	77.8	389

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	3.02	436	ug/kg		J
	Unknown	3.68	274	ug/kg		J

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043017	Date Received: 02/25/2010 08:45	%Moisture: 14.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7470	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 18:35	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Allquot: 30.03 g	Final Volume: 1 mL
Data File: s7c1117.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.84	220	ug/kg	99	NJ
120-08-1	2H-1-Benzopyran-2-one, 6,7-dimethoxy-	7.83	210	ug/kg	95	NJ
	Unknown	8.18	158	ug/kg		J
	Unknown	9.03	160	ug/kg		J
	Unknown	9.4	346	ug/kg		J
5155-70-4	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.49	698	ug/kg	99	NJ
1000140-92-3	(1S,2E,4S,5R,7E,11E)-Cembra-2,7,11-trien	9.62	389	ug/kg	89	NJ
	Unknown	10.11	162	ug/kg		J
97094-19-4	Corymbolone	10.22	190	ug/kg	91	NJ
30658-62-9	Cholest-23-ene, (5.beta.)-	10.3	330	ug/kg	92	NJ
1000259-58-5	Pentadec-7-ene, 7-bromomethyl-	10.56	161	ug/kg	83	NJ
	Unknown	11.55	199	ug/kg		J
2097-85-0	Cholestan-3-one, 4,4-dimethyl-, (5.alpha	11.86	157	ug/kg	94	NJ
	Unknown	12.12	672	ug/kg		J
36728-72-0	28-Nor-17.beta.(H)-hopane	12.24	426	ug/kg	93	NJ
	Unknown	12.31	661	ug/kg		J
	Unknown	12.68	228	ug/kg		J
	Unknown	12.77	498	ug/kg		J
	Unknown	13.04	666	ug/kg		J
	Unknown	13.48	186	ug/kg		J
83-46-5	.beta.-Sitosterol	14.12	1000	ug/kg	93	NJ
	Unknown	14.36	169	ug/kg		J

EH  
4/23/10



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043006

Client ID: RE36-10-7471  
Batch ID: 959623  
Run Date: 03/11/2010 19:40  
Prep Date: 03/02/2010 11:17  
Data File: s7c1120.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 29.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	474	ug/kg	94.9	474
108-95-2	Phenol	U	474	ug/kg	94.9	474
95-57-8	2-Chlorophenol	U	474	ug/kg	94.9	474
106-46-7	1,4-Dichlorobenzene	U	474	ug/kg	94.9	474
621-64-7	N-Nitrosodipropylamine	U	474	ug/kg	94.9	474
59-50-7	4-Chloro-3-methylphenol	U	474	ug/kg	94.9	474
83-32-9	Acenaphthene		556	ug/kg	15.7	47.4
121-14-2	2,4-Dinitrotoluene	U	474	ug/kg	47.4	474
100-02-7	4-Nitrophenol	U	474	ug/kg	157	474
87-86-5	Pentachlorophenol	U	474	ug/kg	119	474
129-00-0	Pyrene		3980	ug/kg	14.2	47.4
110-86-1	Pyridine	U	474	ug/kg	94.9	474 UJ,SV7c
62-53-3	Aniline	U	474	ug/kg	142	474
111-44-4	bis(2-Chloroethyl) ether	U	474	ug/kg	94.9	474
541-73-1	1,3-Dichlorobenzene	U	474	ug/kg	94.9	474
100-51-6	Benzyl alcohol	U	474	ug/kg	142	474 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	474	ug/kg	94.9	474
108-60-1	bis(2-Chloroisopropyl) ether	U	474	ug/kg	94.9	474
95-48-7	o-Cresol	U	474	ug/kg	94.9	474
65794-96-9	m,p-Cresols	U	474	ug/kg	142	474
67-72-1	Hexachloroethane	U	474	ug/kg	94.9	474
98-95-3	Nitrobenzene	U	474	ug/kg	94.9	474
78-59-1	Isophorone	U	474	ug/kg	94.9	474
88-75-5	2-Nitrophenol	U	474	ug/kg	94.9	474
105-67-9	2,4-Dimethylphenol	U	474	ug/kg	166	474
111-91-1	bis(2-Chloroethoxy)methane	U	474	ug/kg	94.9	474
120-83-2	2,4-Dichlorophenol	U	474	ug/kg	94.9	474
65-85-0	Benzoic acid	U	949	ug/kg	237	949
91-20-3	Naphthalene		164	ug/kg	14.2	47.4
106-47-8	4-Chloroaniline	U	474	ug/kg	94.9	474
87-68-3	Hexachlorobutadiene	U	474	ug/kg	94.9	474
91-57-6	2-Methylnaphthalene		115	ug/kg	9.49	47.4
77-47-4	Hexachlorocyclopentadiene	U	474	ug/kg	94.9	474
88-06-2	2,4,6-Trichlorophenol	U	474	ug/kg	94.9	474
95-95-4	2,4,5-Trichlorophenol	U	474	ug/kg	94.9	474
91-58-7	2-Chloronaphthalene	U	47.4	ug/kg	15.7	47.4
88-74-4	2-Nitroaniline	U	474	ug/kg	94.9	474
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	474	ug/kg	94.9	474

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043006

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 29.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7471  
Batch ID: 959623  
Run Date: 03/11/2010 19:40  
Prep Date: 03/02/2010 11:17  
Data File: s7c1120.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	474	ug/kg	94.9	474
606-20-2	2,6-Dinitrotoluene	U	474	ug/kg	47.4	474
208-96-8	Acenaphthylene	U	47.4	ug/kg	14.2	47.4
51-28-5	2,4-Dinitrophenol	U	949	ug/kg	180	949 UJ,SV7c
132-64-9	Dibenzofuran	J	341	ug/kg	94.9	474
84-66-2	Diethylphthalate	U	474	ug/kg	94.9	474
86-73-7	Fluorene		637	ug/kg	14.2	47.4
7005-72-3	4-Chlorophenylphenylether	U	474	ug/kg	94.9	474
534-52-1	2-Methyl-4,6-dinitrophenol	U	474	ug/kg	94.9	474 UJ,SV7c
100-01-6	4-Nitroaniline	U	474	ug/kg	142	474
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	474	ug/kg	94.9	474
122-66-7	Azobenzene	U	474	ug/kg	94.9	474
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	474	ug/kg	94.9	474
118-74-1	Hexachlorobenzene	U	474	ug/kg	94.9	474
85-01-8	Phenanthrene		4930	ug/kg	14.2	47.4
120-12-7	Anthracene		1020	ug/kg	9.49	47.4
84-74-2	Di-n-butylphthalate	U	474	ug/kg	94.9	474
206-44-0	Fluoranthene		4740	ug/kg	14.2	47.4
85-68-7	Butylbenzylphthalate	U	474	ug/kg	94.9	474
56-55-3	Benzo(a)anthracene		1950	ug/kg	14.2	47.4
91-94-1	3,3'-Dichlorobenzidine	U	474	ug/kg	142	474
218-01-9	Chrysene		2110	ug/kg	14.2	47.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	474	ug/kg	94.9	474
117-84-0	Di-n-octylphthalate	U	474	ug/kg	94.9	474
205-99-2	Benzo(h)fluoranthene		3040	ug/kg	14.2	47.4
207-08-9	Benzo(k)fluoranthene	U	47.4	ug/kg	14.2	47.4
50-32-8	Benzo(a)pyrene		1740	ug/kg	14.2	47.4
193-39-5	Indeno(1,2,3-cd)pyrene		1010	ug/kg	14.2	47.4
53-70-3	Dibenzo(a,h)anthracene		354	ug/kg	14.2	47.4
191-24-2	Benzo(ghi)perylene		1060	ug/kg	14.2	47.4 J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	474	ug/kg	94.9	474

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	478	ug/kg		J
93-05-0	1,4-Benzenediamine, N,N-diethyl-	5.95	193	ug/kg	98	NJ

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043006

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 29.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
486-25-9	9H-Fluoren-9-one	7.12	220	ug/kg	95	NJ
132-65-0	Dibenzothiophene	7.2	236	ug/kg	97	NJ
86-74-8	Carbazole	7.47	582	ug/kg	95	NJ
832-69-9	Phenanthrene, 1-methyl-	7.7	438	ug/kg	98	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.73	511	ug/kg	98	NJ
	Unknown	7.81	933	ug/kg		J
35465-71-5	2-Phenylnaphthalene	7.95	258	ug/kg	95	NJ
84-65-1	9,10-Anthracenedione	7.99	489	ug/kg	99	NJ
5737-13-3	Cyclopenta(def)phenanthrenone	8.28	199	ug/kg	96	NJ
243-17-4	11H-Benzo[b]fluorene	8.86	370	ug/kg	96	NJ
192-97-2	Benzo[e]pyrene	11.24	1140	ug/kg	98	NJ
	Unknown	11.43	373	ug/kg		J

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043007

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.04 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 21.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7472  
Batch ID: 959623  
Run Date: 03/11/2010 16:04  
Prep Date: 03/02/2010 11:17  
Data File: s7c1110.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	426	ug/kg	85.2	426
108-95-2	Phenol	U	426	ug/kg	85.2	426
95-57-8	2-Chlorophenol	U	426	ug/kg	85.2	426
106-46-7	1,4-Dichlorobenzene	U	426	ug/kg	85.2	426
621-64-7	N-Nitrosodipropylamine	U	426	ug/kg	85.2	426
59-50-7	4-Chloro-3-methylphenol	U	426	ug/kg	85.2	426
83-32-9	Acenaphthene	U	42.6	ug/kg	14.1	42.6
121-14-2	2,4-Dinitrotoluene	U	426	ug/kg	42.6	426
100-02-7	4-Nitrophenol	U	426	ug/kg	141	426
87-86-5	Pentachlorophenol	U	426	ug/kg	107	426
129-00-0	Pyrene		68.6	ug/kg	12.8	42.6
110-86-1	Pyridine	U	426	ug/kg	85.2	426 UJ,SV7c
62-53-3	Aniline	U	426	ug/kg	128	426
111-44-4	bis(2-Chloroethyl) ether	U	426	ug/kg	85.2	426
541-73-1	1,3-Dichlorobenzene	U	426	ug/kg	85.2	426
100-51-6	Benzyl alcohol	U	426	ug/kg	128	426 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	426	ug/kg	85.2	426
108-60-1	bis(2-Chloroisopropyl)ether	U	426	ug/kg	85.2	426
95-48-7	o-Cresol	U	426	ug/kg	85.2	426
65794-96-9	m,p-Cresols	U	426	ug/kg	128	426
67-72-1	Hexachloroethane	U	426	ug/kg	85.2	426
98-95-3	Nitrobenzene	U	426	ug/kg	85.2	426
78-59-1	Isophorone	U	426	ug/kg	85.2	426
88-75-5	2-Nitrophenol	U	426	ug/kg	85.2	426
105-67-9	2,4-Dimethylphenol	U	426	ug/kg	149	426
111-91-1	bis(2-Chloroethoxy)methane	U	426	ug/kg	85.2	426
120-83-2	2,4-Dichlorophenol	U	426	ug/kg	85.2	426
65-85-0	Benzoic acid	U	852	ug/kg	213	852
91-20-3	Naphthalene	U	42.6	ug/kg	12.8	42.6
106-47-8	4-Chloroaniline	U	426	ug/kg	85.2	426
87-68-3	Hexachlorobutadiene	U	426	ug/kg	85.2	426
91-57-6	2-Methylnaphthalene	U	42.6	ug/kg	8.52	42.6
77-47-4	Hexachlorocyclopentadiene	U	426	ug/kg	85.2	426
88-06-2	2,4,6-Trichlorophenol	U	426	ug/kg	85.2	426
95-95-4	2,4,5-Trichlorophenol	U	426	ug/kg	85.2	426
91-58-7	2-Chloronaphthalene	U	42.6	ug/kg	14.1	42.6
88-74-4	2-Nitroaniline	U	426	ug/kg	85.2	426
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	426	ug/kg	85.2	426

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043007	Date Received: 02/25/2010 08:45	%Moisture: 21.9
Client ID: RE36-10-7472	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/11/2010 16:04	Inst: MSD7.I	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1110.d	Aliquot: 30.04 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	426	ug/kg	85.2	426
606-20-2	2,6-Dinitrotoluene	U	426	ug/kg	42.6	426
208-96-8	Acenaphthylene	U	42.6	ug/kg	12.8	42.6
51-28-5	2,4-Dinitrophenol	U	852	ug/kg	162	852 UJ,SV7c
132-64-9	Dibenzofuran	U	426	ug/kg	85.2	426
84-66-2	Diethylphthalate	U	426	ug/kg	85.2	426
86-73-7	Fluorene	U	42.6	ug/kg	12.8	42.6
7005-72-3	4-Chlorophenylphenylether	U	426	ug/kg	85.2	426
534-52-1	2-Methyl-4,6-dinitrophenol	U	426	ug/kg	85.2	426 UJ,SV7c
100-01-6	4-Nitroaniline	U	426	ug/kg	128	426
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	426	ug/kg	85.2	426
122-66-7	Azobenzene	U	426	ug/kg	85.2	426
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	426	ug/kg	85.2	426
118-74-1	Hexachlorobenzene	U	426	ug/kg	85.2	426
85-01-8	Phenanthrene		59.4	ug/kg	12.8	42.6
120-12-7	Anthracene	J	9.70	ug/kg	8.52	42.6
84-74-2	Di-n-butylphthalate	U	426	ug/kg	85.2	426
206-44-0	Fluoranthene		84.9	ug/kg	12.8	42.6
85-68-7	Butylbenzylphthalate	U	426	ug/kg	85.2	426
56-55-3	Benzo(a)anthracene	J	34.8	ug/kg	12.8	42.6
91-94-1	3,3'-Dichlorobenzidine	U	426	ug/kg	128	426
218-01-9	Chrysene	J	36.6	ug/kg	12.8	42.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	426	ug/kg	85.2	426
117-84-0	Di-n-octylphthalate	U	426	ug/kg	85.2	426
205-99-2	Benzo(b)fluoranthene		57.8	ug/kg	12.8	42.6
207-08-9	Benzo(k)fluoranthene	U	42.6	ug/kg	12.8	42.6
50-32-8	Benzo(a)pyrene	J	32.7	ug/kg	12.8	42.6
193-39-5	Indeno(1,2,3-cd)pyrene	J	23.0	ug/kg	12.8	42.6
53-70-3	Dibenzo(a,h)anthracene	U	42.6	ug/kg	12.8	42.6
191-24-2	Benzo(ghi)perylene	J	26.8	ug/kg	12.8	42.6 J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	426	ug/kg	85.2	426

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	526	ug/kg		J
	Unknown	10.1	499	ug/kg		J

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043005	Date Received: 02/25/2010 08:45	%Moisture: 23.6
Client ID: RE36-10-7473	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/11/2010 15:43	Inst: MSD7.I	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1109.d	Aliquot: 30.01 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	436	ug/kg	87.2	436
108-95-2	Phenol	U	436	ug/kg	87.2	436
95-57-8	2-Chlorophenol	U	436	ug/kg	87.2	436
106-46-7	1,4-Dichlorobenzene	U	436	ug/kg	87.2	436
621-64-7	N-Nitrosodipropylamine	U	436	ug/kg	87.2	436
59-50-7	4-Chloro-3-methylphenol	U	436	ug/kg	87.2	436
83-32-9	Acenaphthene	U	43.6	ug/kg	14.4	43.6
121-14-2	2,4-Dinitrotoluene	U	436	ug/kg	43.6	436
100-02-7	4-Nitrophenol	U	436	ug/kg	144	436
87-86-5	Pentachlorophenol	U	436	ug/kg	109	436
129-00-0	Pyrene	J	20.6	ug/kg	13.1	43.6
110-86-1	Pyridine	U	436	ug/kg	87.2	436 UJ,SV7c
62-53-3	Aniline	U	436	ug/kg	131	436
111-44-4	bis(2-Chloroethyl) ether	U	436	ug/kg	87.2	436
541-73-1	1,3-Dichlorobenzene	U	436	ug/kg	87.2	436
100-51-6	Benzyl alcohol	U	436	ug/kg	131	436 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	436	ug/kg	87.2	436
108-60-1	bis(2-Chloroisopropyl) ether	U	436	ug/kg	87.2	436
95-48-7	o-Cresol	U	436	ug/kg	87.2	436
65794-96-9	m,p-Cresols	U	436	ug/kg	131	436
67-72-1	Hexachloroethane	U	436	ug/kg	87.2	436
98-95-3	Nitrobenzene	U	436	ug/kg	87.2	436
78-59-1	Isophorone	U	436	ug/kg	87.2	436
88-75-5	2-Nitrophenol	U	436	ug/kg	87.2	436
105-67-9	2,4-Dimethylphenol	U	436	ug/kg	153	436
111-91-1	bis(2-Chloroethoxy)methane	U	436	ug/kg	87.2	436
120-83-2	2,4-Dichlorophenol	U	436	ug/kg	87.2	436
65-85-0	Benzoic acid	U	872	ug/kg	218	872
91-20-3	Naphthalene	U	43.6	ug/kg	13.1	43.6
106-47-8	4-Chloroaniline	U	436	ug/kg	87.2	436
87-68-3	Hexachlorobutadiene	U	436	ug/kg	87.2	436
91-57-6	2-Methylnaphthalene	U	43.6	ug/kg	8.72	43.6
77-47-4	Hexachlorocyclopentadiene	U	436	ug/kg	87.2	436
88-06-2	2,4,6-Trichlorophenol	U	436	ug/kg	87.2	436
95-95-4	2,4,5-Trichlorophenol	U	436	ug/kg	87.2	436
91-58-7	2-Chloronaphthalene	U	43.6	ug/kg	14.4	43.6
88-74-4	2-Nitroaniline	U	436	ug/kg	87.2	436
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	436	ug/kg	87.2	436

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043005	Date Received: 02/25/2010 08:45	%Moisture: 23.6
Client ID: RE36-10-7473	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/11/2010 15:43	Inst: MSD7.1	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1109.d	Aliquot: 30.01 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	436	ug/kg	87.2	436
606-20-2	2,6-Dinitrotoluene	U	436	ug/kg	43.6	436
208-96-8	Acenaphthylene	U	43.6	ug/kg	13.1	43.6
51-28-5	2,4-Dinitrophenol	U	872	ug/kg	166	872 UJ,SV7c
132-64-9	Dibenzofuran	U	436	ug/kg	87.2	436
84-66-2	Diethylphthalate	U	436	ug/kg	87.2	436
86-73-7	Fluorene	U	43.6	ug/kg	13.1	43.6
7005-72-3	4-Chlorophenylphenylether	U	436	ug/kg	87.2	436
534-52-1	2-Methyl-4,6-dinitrophenol	U	436	ug/kg	87.2	436 UJ,SV7c
100-01-6	4-Nitroaniline	U	436	ug/kg	131	436
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	436	ug/kg	87.2	436
122-66-7	Azobenzene	U	436	ug/kg	87.2	436
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	436	ug/kg	87.2	436
118-74-1	Hexachlorobenzene	U	436	ug/kg	87.2	436
85-01-8	Phenanthrene	U	43.6	ug/kg	13.1	43.6
120-12-7	Anthracene	U	43.6	ug/kg	8.72	43.6
84-74-2	Di-n-butylphthalate	U	436	ug/kg	87.2	436
206-44-0	Fluoranthene	J	20.6	ug/kg	13.1	43.6
85-68-7	Butylbenzylphthalate	U	436	ug/kg	87.2	436
56-55-3	Benzo(a)anthracene	J	15.3	ug/kg	13.1	43.6
91-94-1	3,3'-Dichlorobenzidine	U	436	ug/kg	131	436
218-01-9	Chrysene	J	14.8	ug/kg	13.1	43.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	436	ug/kg	87.2	436
117-84-0	Di-n-octylphthalate	U	436	ug/kg	87.2	436
205-99-2	Benzo(b)fluoranthene	J	32.5	ug/kg	13.1	43.6
207-08-9	Benzo(k)fluoranthene	U	43.6	ug/kg	13.1	43.6
50-32-8	Benzo(a)pyrene	J	16.5	ug/kg	13.1	43.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	43.6	ug/kg	13.1	43.6
53-70-3	Dibenzo(a,h)anthracene	U	43.6	ug/kg	13.1	43.6
191-24-2	Benzo(ghi)perylene	U	43.6	ug/kg	13.1	43.6 UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	436	ug/kg	87.2	436

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.14	266	ug/kg		J
	Unknown Aldol Condensate	3.02	374	ug/kg		J

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043005	Date Received: 02/25/2010 08:45	%Moisture: 23.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7473	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 15:43	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Allquot: 30.01 g	Final Volume: 1 mL
Data File: s7c1109.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.17	258	ug/kg		J
	Unknown	10.09	228	ug/kg		J
	Unknown	10.53	388	ug/kg		J
	Unknown	11.04	359	ug/kg		J
	Unknown	11.44	262	ug/kg		J
	Unknown	11.64	342	ug/kg		J
	Unknown	11.8	286	ug/kg		J
	Unknown	12.09	231	ug/kg		J
	Unknown	12.35	935	ug/kg		J
	Unknown	12.66	618	ug/kg		J
	Unknown	13.23	230	ug/kg		J
	Unknown	14.3	397	ug/kg		J

EH  
4/23/10



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043011

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Allquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 27.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7475  
Batch ID: 959623  
Run Date: 03/11/2010 17:30  
Prep Date: 03/02/2010 11:17  
Data File: s7c1114.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	457	ug/kg	91.4	457
108-95-2	Phenol	U	457	ug/kg	91.4	457
95-57-8	2-Chlorophenol	U	457	ug/kg	91.4	457
106-46-7	1,4-Dichlorobenzene	U	457	ug/kg	91.4	457
621-64-7	N-Nitrosodipropylamine	U	457	ug/kg	91.4	457
59-50-7	4-Chloro-3-methylphenol	U	457	ug/kg	91.4	457
83-32-9	Acenaphthene		692	ug/kg	15.1	45.7
121-14-2	2,4-Dinitrotoluene	U	457	ug/kg	45.7	457
100-02-7	4-Nitrophenol	U	457	ug/kg	151	457
87-86-5	Pentachlorophenol	U	457	ug/kg	114	457
129-00-0	Pyrene		3680	ug/kg	13.7	45.7
110-86-1	Pyridine	U	457	ug/kg	91.4	457 UJ,SV7c
62-53-3	Aniline	U	457	ug/kg	137	457
111-44-4	bis(2-Chloroethyl) ether	U	457	ug/kg	91.4	457
541-73-1	1,3-Dichlorobenzene	U	457	ug/kg	91.4	457
100-51-6	Benzyl alcohol	U	457	ug/kg	137	457 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	457	ug/kg	91.4	457
108-60-1	bis(2-Chloroisopropyl)ether	U	457	ug/kg	91.4	457
95-48-7	o-Cresol	U	457	ug/kg	91.4	457
65794-96-9	m,p-Cresols	U	457	ug/kg	137	457
67-72-1	Hexachloroethane	U	457	ug/kg	91.4	457
98-95-3	Nitrobenzene	U	457	ug/kg	91.4	457
78-59-1	Isophorone	U	457	ug/kg	91.4	457
88-75-5	2-Nitrophenol	U	457	ug/kg	91.4	457
105-67-9	2,4-Dimethylphenol	U	457	ug/kg	160	457
111-91-1	bis(2-Chloroethoxy)methane	U	457	ug/kg	91.4	457
120-83-2	2,4-Dichlorophenol	U	457	ug/kg	91.4	457
65-85-0	Benzoic acid	U	914	ug/kg	229	914
91-20-3	Naphthalene		410	ug/kg	13.7	45.7
106-47-8	4-Chloroaniline	U	457	ug/kg	91.4	457
87-68-3	Hexachlorobutadiene	U	457	ug/kg	91.4	457
91-57-6	2-Methylnaphthalene		203	ug/kg	9.14	45.7
77-47-4	Hexachlorocyclopentadiene	U	457	ug/kg	91.4	457
88-06-2	2,4,6-Trichlorophenol	U	457	ug/kg	91.4	457
95-95-4	2,4,5-Trichlorophenol	U	457	ug/kg	91.4	457
91-58-7	2-Chloronaphthalene	U	45.7	ug/kg	15.1	45.7
88-74-4	2-Nitroaniline	U	457	ug/kg	91.4	457
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	457	ug/kg	91.4	457

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043011	Date Received: 02/25/2010 08:45	%Moisture: 27.2
Client ID: RE36-10-7475	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/11/2010 17:30	Inst: MSD7.I	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1114.d	Allquot: 30.05 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	457	ug/kg	91.4	457
606-20-2	2,6-Dinitrotoluene	U	457	ug/kg	45.7	457
208-96-8	Acenaphthylene	U	45.7	ug/kg	13.7	45.7
51-28-5	2,4-Dinitrophenol	U	914	ug/kg	174	914 UJ,SV7c
132-64-9	Dibenzofuran		529	ug/kg	91.4	457
84-66-2	Diethylphthalate	U	457	ug/kg	91.4	457
86-73-7	Fluorene		843	ug/kg	13.7	45.7
7005-72-3	4-Chlorophenylphenylether	U	457	ug/kg	91.4	457
534-52-1	2-Methyl-4,6-dinitrophenol	U	457	ug/kg	91.4	457 UJ,SV7c
100-01-6	4-Nitroaniline	U	457	ug/kg	137	457
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	457	ug/kg	91.4	457
122-66-7	Azobenzene	U	457	ug/kg	91.4	457
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	457	ug/kg	91.4	457
118-74-1	Hexachlorobenzene	U	457	ug/kg	91.4	457
120-12-7	Anthracene		1190	ug/kg	9.14	45.7
84-74-2	Di-n-butylphthalate	U	457	ug/kg	91.4	457
85-68-7	Butylbenzylphthalate	U	457	ug/kg	91.4	457
56-55-3	Benzo(a)anthracene		2080	ug/kg	13.7	45.7
91-94-1	3,3'-Dichlorobenzidine	U	457	ug/kg	137	457
218-01-9	Chrysene		2260	ug/kg	13.7	45.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	457	ug/kg	91.4	457
117-84-0	Di-n-octylphthalate	U	457	ug/kg	91.4	457
205-99-2	Benzo(b)fluoranthene		2900	ug/kg	13.7	45.7
207-08-9	Benzo(k)fluoranthene	U	45.7	ug/kg	13.7	45.7
50-32-8	Benzo(a)pyrene		1760	ug/kg	13.7	45.7
193-39-5	Indeno(1,2,3-cd)pyrene		1200	ug/kg	13.7	45.7
53-70-3	Dibenzo(a,h)anthracene	U	45.7	ug/kg	13.7	45.7
191-24-2	Benzo(ghi)perylene		1270	ug/kg	13.7	45.7 J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	457	ug/kg	91.4	457

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	517	ug/kg		J
	Unknown	7.81	281	ug/kg		J
238-84-6	11H-Benzo[a]fluorene	8.85	341	ug/kg	96	NJ

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043011

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 27.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
479-79-8	11H-Benzo[a]fluoren-11-one	9.53	187	ug/kg	98	NJ
604-53-5	1,1'-Binaphthalene	10.66	261	ug/kg	93	NJ
	Unknown	10.99	276	ug/kg		J
192-97-2	Benzo[e]pyrene	11.23	1100	ug/kg	99	NJ
198-55-0	Perylene	11.42	457	ug/kg	99	NJ
215-58-7	Benzo[b]triphenylene	13.37	265	ug/kg	96	NJ

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043011	Date Received: 02/25/2010 08:45	%Moisture: 27.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7475DL	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 4
Run Date: 03/12/2010 21:55	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s7c1227.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
85-01-8	Phenanthrene		6150	ug/kg	54.9	183
206-44-0	Fluoranthene		5470	ug/kg	54.9	183

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
203-64-5	4H-Cyclopenta[def]phenanthrene	7.67	908	ug/kg	93	NJ
192-97-2	Benzo[e]pyrene	11	1160	ug/kg	99	NJ

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043013	Date Received: 02/25/2010 08:45	%Moisture: 17
Client ID: RE36-10-7476	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/11/2010 16:26	Inst: MSD7.I	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1111.d	Aliquot: 30 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	402	ug/kg	80.3	402
108-95-2	Phenol	U	402	ug/kg	80.3	402
95-57-8	2-Chlorophenol	U	402	ug/kg	80.3	402
106-46-7	1,4-Dichlorobenzene	U	402	ug/kg	80.3	402
621-64-7	N-Nitrosodipropylamine	U	402	ug/kg	80.3	402
59-50-7	4-Chloro-3-methylphenol	U	402	ug/kg	80.3	402
83-32-9	Acenaphthene	U	40.2	ug/kg	13.3	40.2
121-14-2	2,4-Dinitrotoluene	U	402	ug/kg	40.2	402
100-02-7	4-Nitrophenol	U	402	ug/kg	133	402
87-86-5	Pentachlorophenol	U	402	ug/kg	100	402
129-00-0	Pyrene		40.4	ug/kg	12.0	40.2
110-86-1	Pyridine	U	402	ug/kg	80.3	402 UJ,SV7c
62-53-3	Aniline	U	402	ug/kg	120	402
111-44-4	bis(2-Chloroethyl) ether	U	402	ug/kg	80.3	402
541-73-1	1,3-Dichlorobenzene	U	402	ug/kg	80.3	402
100-51-6	Benzyl alcohol	U	402	ug/kg	120	402 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	402	ug/kg	80.3	402
108-60-1	bis(2-Chloroisopropyl)ether	U	402	ug/kg	80.3	402
95-48-7	o-Cresol	U	402	ug/kg	80.3	402
65794-96-9	m,p-Cresols	U	402	ug/kg	120	402
67-72-1	Hexachloroethane	U	402	ug/kg	80.3	402
98-95-3	Nitrobenzene	U	402	ug/kg	80.3	402
78-59-1	Isophorone	U	402	ug/kg	80.3	402
88-75-5	2-Nitrophenol	U	402	ug/kg	80.3	402
105-67-9	2,4-Dimethylphenol	U	402	ug/kg	141	402
111-91-1	bis(2-Chloroethoxy)methane	U	402	ug/kg	80.3	402
120-83-2	2,4-Dichlorophenol	U	402	ug/kg	80.3	402
65-85-0	Benzoic acid	U	803	ug/kg	201	803
91-20-3	Naphthalene	U	40.2	ug/kg	12.0	40.2
106-47-8	4-Chloroaniline	U	402	ug/kg	80.3	402
87-68-3	Hexachlorobutadiene	U	402	ug/kg	80.3	402
91-57-6	2-Methylnaphthalene	U	40.2	ug/kg	8.03	40.2
77-47-4	Hexachlorocyclopentadiene	U	402	ug/kg	80.3	402
88-06-2	2,4,6-Trichlorophenol	U	402	ug/kg	80.3	402
95-95-4	2,4,5-Trichlorophenol	U	402	ug/kg	80.3	402
91-58-7	2-Chloronaphthalene	U	40.2	ug/kg	13.3	40.2
88-74-4	2-Nitroaniline	U	402	ug/kg	80.3	402
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	402	ug/kg	80.3	402

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043013

Client ID: RE36-10-7476  
Batch ID: 959623  
Run Date: 03/11/2010 16:26  
Prep Date: 03/02/2010 11:17  
Data File: s7c1111.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 17  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	402	ug/kg	80.3	402
606-20-2	2,6-Dinitrotoluene	U	402	ug/kg	40.2	402
208-96-8	Acenaphthylene	U	40.2	ug/kg	12.0	40.2
51-28-5	2,4-Dinitrophenol	U	803	ug/kg	153	803 UJ,SV7c
132-64-9	Dibenzofuran	U	402	ug/kg	80.3	402
84-66-2	Diethylphthalate	U	402	ug/kg	80.3	402
86-73-7	Fluorene	U	40.2	ug/kg	12.0	40.2
7005-72-3	4-Chlorophenylphenylether	U	402	ug/kg	80.3	402
534-52-1	2-Methyl-4,6-dinitrophenol	U	402	ug/kg	80.3	402 UJ,SV7c
100-01-6	4-Nitroaniline	U	402	ug/kg	120	402
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	402	ug/kg	80.3	402
122-66-7	Azobenzene	U	402	ug/kg	80.3	402
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	402	ug/kg	80.3	402
118-74-1	Hexachlorobenzene	U	402	ug/kg	80.3	402
85-01-8	Phenanthrene	J	29.9	ug/kg	12.0	40.2
120-12-7	Anthracene	U	40.2	ug/kg	8.03	40.2
84-74-2	Di-n-butylphthalate	U	402	ug/kg	80.3	402
206-44-0	Fluoranthene		50.5	ug/kg	12.0	40.2
85-68-7	Butylbenzylphthalate	U	402	ug/kg	80.3	402
56-55-3	Benzo(a)anthracene	J	24.0	ug/kg	12.0	40.2
91-94-1	3,3'-Dichlorobenzidine	U	402	ug/kg	120	402
218-01-9	Chrysene	J	25.1	ug/kg	12.0	40.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	402	ug/kg	80.3	402
117-84-0	Di-n-octylphthalate	U	402	ug/kg	80.3	402
205-99-2	Benzo(b)fluoranthene		40.2	ug/kg	12.0	40.2
207-08-9	Benzo(k)fluoranthene	U	40.2	ug/kg	12.0	40.2
50-32-8	Benzo(a)pyrene	J	21.7	ug/kg	12.0	40.2
193-39-5	Indeno(1,2,3-cd)pyrene	J	15.9	ug/kg	12.0	40.2
53-70-3	Dibenzo(a,h)anthracene	U	40.2	ug/kg	12.0	40.2
191-24-2	Benzo(ghi)perylene	J	19.4	ug/kg	12.0	40.2 J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	402	ug/kg	80.3	402

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	570	ug/kg		J

EH  
4/23/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043018

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Allquot: 30.08 g  
Column: J&W DB-SMS

Matrix: R  
%Moisture: 20.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 10  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7515  
Batch ID: 959623  
Run Date: 03/11/2010 18:57  
Prep Date: 03/02/2010 11:17  
Data File: s7c1118.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	4200	ug/kg	839	4200
108-95-2	Phenol	U	4200	ug/kg	839	4200
95-57-8	2-Chlorophenol	U	4200	ug/kg	839	4200
106-46-7	1,4-Dichlorobenzene	U	4200	ug/kg	839	4200
621-64-7	N-Nitrosodipropylamine	U	4200	ug/kg	839	4200
59-50-7	4-Chloro-3-methylphenol	U	4200	ug/kg	839	4200
83-32-9	Acenaphthene		948	ug/kg	139	420
121-14-2	2,4-Dinitrotoluene	U	4200	ug/kg	420	4200
100-02-7	4-Nitrophenol	U	4200	ug/kg	1390	4200
87-86-5	Pentachlorophenol	U	4200	ug/kg	1050	4200
129-00-0	Pyrene		9440	ug/kg	126	420
110-86-1	Pyridine	U	4200	ug/kg	839	4200 UJ,SV7c
62-53-3	Aniline	U	4200	ug/kg	1260	4200
111-44-4	bis(2-Chloroethyl) ether	U	4200	ug/kg	839	4200
541-73-1	1,3-Dichlorobenzene	U	4200	ug/kg	839	4200
100-51-6	Benzyl alcohol	U	4200	ug/kg	1260	4200 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	4200	ug/kg	839	4200
108-60-1	bis(2-Chloroisopropyl)ether	U	4200	ug/kg	839	4200
95-48-7	o-Cresol	U	4200	ug/kg	839	4200
65794-96-9	m,p-Cresols	U	4200	ug/kg	1260	4200
67-72-1	Hexachloroethane	U	4200	ug/kg	839	4200
98-95-3	Nitrobenzene	U	4200	ug/kg	839	4200
78-59-1	Isophorone	U	4200	ug/kg	839	4200
88-75-5	2-Nitrophenol	U	4200	ug/kg	839	4200
105-67-9	2,4-Dimethylphenol	U	4200	ug/kg	1470	4200
111-91-1	bis(2-Chloroethoxy)methane	U	4200	ug/kg	839	4200
120-83-2	2,4-Dichlorophenol	U	4200	ug/kg	839	4200
65-85-0	Benzoic acid	U	8390	ug/kg	2100	8390
91-20-3	Naphthalene	J	385	ug/kg	126	420
106-47-8	4-Chloroaniline	U	4200	ug/kg	839	4200
87-68-3	Hexachlorobutadiene	U	4200	ug/kg	839	4200
91-57-6	2-Methylnaphthalene	J	214	ug/kg	83.9	420
77-47-4	Hexachlorocyclopentadiene	U	4200	ug/kg	839	4200
88-06-2	2,4,6-Trichlorophenol	U	4200	ug/kg	839	4200
95-95-4	2,4,5-Trichlorophenol	U	4200	ug/kg	839	4200
91-58-7	2-Chloronaphthalene	U	420	ug/kg	139	420
88-74-4	2-Nitroaniline	U	4200	ug/kg	839	4200
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	4200	ug/kg	839	4200

EH  
4/23/10

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043018	Date Received: 02/25/2010 08:45	%Moisture: 20.8
Client ID: RE36-10-7515	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/11/2010 18:57	Inst: MSD7.I	Dilution: 10
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1118.d	Allquot: 30.08 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	4200	ug/kg	839	4200
606-20-2	2,6-Dinitrotoluene	U	4200	ug/kg	420	4200
208-96-8	Acenaphthylene	U	420	ug/kg	126	420
51-28-5	2,4-Dinitrophenol	U	8390	ug/kg	1590	8390 UJ,SV7c
132-64-9	Dibenzofuran	U	4200	ug/kg	839	4200
84-66-2	Diethylphthalate	U	4200	ug/kg	839	4200
86-73-7	Fluorene		928	ug/kg	126	420
7005-72-3	4-Chlorophenylphenylether	U	4200	ug/kg	839	4200
534-52-1	2-Methyl-4,6-dinitrophenol	U	4200	ug/kg	839	4200 UJ,SV7c
100-01-6	4-Nitroaniline	U	4200	ug/kg	1260	4200
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	4200	ug/kg	839	4200
122-66-7	Azobenzene	U	4200	ug/kg	839	4200
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	4200	ug/kg	839	4200
118-74-1	Hexachlorobenzene	U	4200	ug/kg	839	4200
85-01-8	Phenanthrene		10200	ug/kg	126	420
120-12-7	Anthracene		1850	ug/kg	83.9	420
84-74-2	Di-n-butylphthalate	U	4200	ug/kg	839	4200
206-44-0	Fluoranthene		11300	ug/kg	126	420
85-68-7	Butylbenzylphthalate	U	4200	ug/kg	839	4200
56-55-3	Benzo(a)anthracene		4700	ug/kg	126	420
91-94-1	3,3'-Dichlorobenzidine	U	4200	ug/kg	1260	4200
218-01-9	Chrysene		4900	ug/kg	126	420
117-81-7	bis(2-Ethylhexyl)phthalate	U	4200	ug/kg	839	4200
117-84-0	Di-n-octylphthalate	U	4200	ug/kg	839	4200
205-99-2	Benzo(b)fluoranthene		7410	ug/kg	126	420
207-08-9	Benzo(k)fluoranthene	U	420	ug/kg	126	420
50-32-8	Benzo(a)pyrene		4020	ug/kg	126	420
193-39-5	Indeno(1,2,3-cd)pyrene		2530	ug/kg	126	420
53-70-3	Dibenzo(a,h)anthracene		928	ug/kg	126	420
191-24-2	Benzo(ghi)perylene		2770	ug/kg	126	420 J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	4200	ug/kg	839	4200

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
1058-61-3	Stigmast-4-en-3-one	8.48	2450	ug/kg	95	NJ
	Unknown	10.14	3640	ug/kg		J

EH  
4/23/10



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043018	Date Received: 02/25/2010 08:45	%Moisture: 20.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7515	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 10
Run Date: 03/11/2010 18:57	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.08 g	Final Volume: 1 mL
Data File: s7c1118.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit Qual
	Unknown		12.07	3270	ug/kg	J
	Unknown		12.84	4040	ug/kg	J

EH  
4/23/10

## DATA VALIDATION COVER SHEET

5122-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2074 VALIDATION DATE: 4/23/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eyda Hergenreder ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- |  |  |  |  |
|--|--|--|--|
| <input type="checkbox"/> TPH-GRO           | <input type="checkbox"/> HIGH EXPLOSIVES | <input type="checkbox"/> DIOXIN FURANS                     | <input type="checkbox"/> LCMSMS PERCHLORATES |
| <input type="checkbox"/> TPH-DRO           | <input type="checkbox"/> METALS          | <input type="checkbox"/> PCB CONGENERS                     | <input type="checkbox"/> ORGANOCHLORINE      |
| <input type="checkbox"/> GENERAL CHEMISTRY | <input type="checkbox"/> RADIOCHEMISTRY  | <input checked="" type="checkbox"/> LCMSMS HIGH EXPLOSIVES | PESTICIDES/POLYCHLORINATED BIPHENYLS         |
| <input type="checkbox"/> OTHER (DESCRIBE): |  |  |  |

## Section II. Completeness Check

- | YES                                 | NO                       | N/A                                 | (CHECK ONE)                 | YES                                 | NO                       | N/A                                 | (CHECK ONE)              |
|-------------------------------------|--------------------------|-------------------------------------|-----------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 1. CHAIN-OF-CUSTODY FORM(S) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 6. RAW/BSS DATA          |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 2. CASE NARRATIVE           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 7. QUALITY CONTROL FORMS |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 3. SAMPLE RESULT FORMS      | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 8. QUANTITATION REPORTS  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 4. SAMPLE CHROMATOGRAMS     | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 9. TICS FORMS            |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. STANDARD CHROMATOGRAMS   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 10. TICS MASS SPECTRA    |

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

- All associated samples were analyzed beyond but within 2X the prescribed HT for the primary analytes. All associated sample results were NDs and, thus, were qualified UJ,HE9.
- The ICAL RRF value for p-nitrotoluene was  $<0.05$  but  $\geq 0.01$ . All associated sample results were NDs and, thus, were qualified UJ,HE7b.
- The ICV and/or CCV %Ds for m-nitrotoluene, 1,3,5-trinitrobenzene and o-nitrotoluene were  $>20\%$  but  $\leq 40\%$  with negative bias. All associated sample results were NDs and, thus, were qualified UJ,HE7c. The ICV and/or CCVs %Ds for RDX; HMX; 2,4,6-trinitrotoluene; 2,4-diamino-6-nitrotoluene and 2,6-diamino-4-nitrotoluene associated with all samples and for PETN associated with sample RE36-10-7469 were  $>20\%$  with positive bias. All associated sample results were NDs and, thus, were not qualified.
- The LCS %Rs for 4-amino-2,6-dinitrotoluene and tetral were  $<$  the laboratory LALs but  $\geq 10\%$ . All associated sample results were NDs and, thus, were qualified UJ,HE12a. The LCS %R for 2,6-diamino-4-nitrotoluene was  $>$  the laboratory UAL. All associated sample results were NDs and, thus, were not qualified.
- The MS/MSD RPD for PETN was  $>$  the laboratory acceptance limit. All associated sample results were NDs and, thus, were qualified UJ,HE12g.

Reviewed by: ETM


Level: 1

Date: 4/26/10

VALIDATOR'S SIGNATURE:

A handwritten signature of Eyda Hergenreder in black ink.

DATE: 4/23/10

DATA VALIDATION COVER SHEET	
<b>5122-1</b>  <b>Data Validation Cover Sheet</b>	Records Use only  EST. 1943
Form 5122-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

# LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST


5122-2

## LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only



Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5122-2</b>  <b>LC/MS/MS High Explosive Analytical Data Validation Checklist</b>	Records Use only  

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. The sample result is $\leq 5$ times the concentration of the related analyte in the method blank.	U, HE4	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was $> 5x$ .	N/A	J, HE4a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14. The sample result is $\leq 5$ times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less $< 0.99$ .	UJ, R, HE7a	J, HE7a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19. The affected analytes were analyzed with a RRF of $< 0.05$ in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

## LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

## LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only



Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

# LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

## LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only



Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7414

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043001

Sample Amount 2

Moisture: 21.1

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412078a

Date Analyzed: 14-APR-10 05:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene <u>UJHE9</u>	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

EH  
4/23/10



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7414

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043001

Sample Amount 2

Moisture: 21.1

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310092.wiff

Date Analyzed: 01-APR-10 08:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7413

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043002

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412081a

Date Analyzed: 14-APR-10 07:00

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene <u>UJ,HE9</u>	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7413

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043002

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310095.wiff

Date Analyzed: 01-APR-10 09:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	331	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7462

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043003

Sample Amount 2

Moisture: 7.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412083a

Date Analyzed: 14-APR-10 07:59

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene <u>UJ.HE9</u>	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7462

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043003

Sample Amount 2

Moisture: 2.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310096.wiff

Date Analyzed: 01-APR-10 09:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7465

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043004

Sample Amount 2

Moisture: 22.3

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412084a

Date Analyzed: 14-APR-10 08:29

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE9	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7465

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043004

Sample Amount 2

Moisture: 22.3

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310097.wiff

Date Analyzed: 01-APR-10 09:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7473

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043005

Sample Amount 2

Moisture: 23.6

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412089a

Date Analyzed: 14-APR-10 10:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE9	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7473

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043005

Sample Amount 2

Moisture: 23.6

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310098.wiff

Date Analyzed: 01-APR-10 10:04

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7471

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043006

Sample Amount 2

Moisture: 29.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412108a

Date Analyzed: 14-APR-10 20:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene <u>UJHE9</u>	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7471

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043006

Sample Amount 2

Moisture: 29.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310099.wiff

Date Analyzed: 01-APR-10 10:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

EH  
4/23/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7472

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043007

Sample Amount 2

Moisture: 21.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412092a

Date Analyzed: 14-APR-10 12:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene <u>UJHE9</u>	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7472

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043007

Sample Amount 2

Moisture: 21.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310103.wiff

Date Analyzed: 01-APR-10 11:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument	X	Concentrated Extract Volume	X	Dilution
Value		Sample Amount		Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7468

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043008

Sample Amount 2

Molsture: 26.6

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412109a

Date Analyzed: 14-APR-10 20:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene <u>UJHE9</u>	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

EH  
4/23/10

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7468

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043008

Sample Amount 2

Moisture: 26.6

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310104.wiff

Date Analyzed: 01-APR-10 11:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7464

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043002

Sample Amount 2

Moisture: 7.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 258260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412094a

Date Analyzed: 14-APR-10 13:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene <u>UJ,HE9</u>	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7464

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043009

Sample Amount 2

Moisture: 7.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310105.wiff

Date Analyzed: 01-APR-10 11:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7463

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043010

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412095a

Date Analyzed: 14-APR-10 13:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene <u>UJHE9</u>	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X Concentrated Extract Volume X Dilution Factor  
Sample Amount

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7463

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043010

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310106.wiff

Date Analyzed: 01-APR-10 12:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7475

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043011

Sample Amount 2

Moisture: 27.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412096a

Date Analyzed: 14-APR-10 14:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene <u>UJ.HE9</u>	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7475

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043011

Sample Amount 2

Moisture: 27.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310107.wiff

Date Analyzed: 01-APR-10 12:26

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7466

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043012

Sample Amount 2

Moisture: 20.5

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412097a

Date Analyzed: 14-APR-10 14:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene <u>UJ,HE9</u>	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7466

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043012

Sample Amount 2

Moisture: 20.5

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310108.wiff

Date Analyzed: 01-APR-10 12:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument X Concentrated Extract Volume X Dilution  
Value Sample Amount Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7476

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043013

Sample Amount 2

Moisture: 17.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412102a

Date Analyzed: 14-APR-10 17:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene <u>UJ,HE9</u>	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7476

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043013

Sample Amount 2

Moisture: 17.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310109.wiff

Date Analyzed: 01-APR-10 12:57

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

EH  
4/23/10

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7461

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043014

Sample Amount 2

Moisture: 12.7

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412103a

Date Analyzed: 14-APR-10 17:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJHE9	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7461

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043014

Sample Amount 2

Moisture: 12.7

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310110.wiff

Date Analyzed: 01-APR-10 13:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	303	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value	X	<u>Concentrated Extract Volume</u>	X	Dilution Factor
		<u>Sample Amount</u>		

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7467

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043015

Sample Amount 2

Moisture: 16.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412104a

Date Analyzed: 14-APR-10 18:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene <u>UJHE9</u>	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7467

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043015

Sample Amount 2

Moisture: 16.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310111.wiff

Date Analyzed: 01-APR-10 13:29

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value	X	Concentrated Extract Volume	X	Dilution Factor
		Sample Amount		

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7469

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043016

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412138a

Date Analyzed: 15-APR-10 11:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene <u>UJ.HE9</u>	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X Concentrated Extract Volume X Dilution Factor  
Sample Amount

EH  
4/23/10

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7469

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043016

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310112.wiff

Date Analyzed: 01-APR-10 13:44

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

EH  
4/23/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7470

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043017

Sample Amount 2

Molsture: 14.4

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412106a

Date Analyzed: 14-APR-10 19:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene <u>UJHE9</u>	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7470

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043017

Sample Amount 2

Moisture: 14.4

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310116.wiff

Date Analyzed: 01-APR-10 14:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

EH  
4/23/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7515

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043018

Sample Amount 2

Moisture: 20.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412107a

Date Analyzed: 14-APR-10 19:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJHE9	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument X Concentrated Extract Volume X Dilution  
Value Sample Amount Factor

EH  
4/23/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7515

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043018

Sample Amount 2

Moisture: 20.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310117.wiff

Date Analyzed: 01-APR-10 15:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument X Concentrated Extract Volume X Dilution  
Value Sample Amount Factor

EH  
4/23/10

## DATA VALIDATION COVER SHEET

5116-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2074 VALIDATION DATE: 4/23/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eyda Hergenreder ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- |   |  |   |  |
|---|--|---|--|
| <input type="checkbox"/> TPH-GRO                | <input type="checkbox"/> HIGH EXPLOSIVES | <input type="checkbox"/> DIOXIN FURANS          | <input type="checkbox"/> LCMSMS PERCHLORATES       |
| <input type="checkbox"/> TPH-DRO                | <input type="checkbox"/> METALS          | <input type="checkbox"/> PCB CONGENERS          | <input checked="" type="checkbox"/> ORGANOCHLORINE |
| <input type="checkbox"/> GENERAL CHEMISTRY      | <input type="checkbox"/> RADIOCHEMISTRY  | <input type="checkbox"/> LCMSMS HIGH EXPLOSIVES | PESTICIDES/POLYCHLORINATED BIPHENYLS               |
| <input type="checkbox"/> OTHER (DESCRIBE): PCBs |  |   |  |

## Section II. Completeness Check

- | YES                                 | NO                       | N/A                                 | (CHECK ONE)                 | YES                                 | NO                       | N/A                                 | (CHECK ONE)              |
|-------------------------------------|--------------------------|-------------------------------------|-----------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 1. CHAIN-OF-CUSTODY FORM(S) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 6. RAW/BSS DATA          |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 2. CASE NARRATIVE           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 7. QUALITY CONTROL FORMS |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 3. SAMPLE RESULT FORMS      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 8. QUANTITATION REPORTS  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 4. SAMPLE CHROMATOGRAMS     | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 9. TICS FORMS            |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. STANDARD CHROMATOGRAMS   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 10. TICS MASS SPECTRA    |

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

- In the MB, aroclor-1242 was a detect. The aroclor-1242 result for sample RE36-10-7515 was a detect >50X the blank value and, thus, was not qualified, based on professional judgment. All other associated sample results were NDs and, thus, were not qualified.
- The decachlorobiphenyl surrogate %Rs on the secondary column for samples -7413 and -7515 were > the laboratory UAL. The associated samples were analyzed at dilutions and, thus, data were not qualified.
- The MS and MSD %Rs for aroclor-1260 were <10% and the MSD for aroclor-1016 was > the laboratory UAL. The MS/MSD RPD for aroclor-1260 and aroclor-1016 were outside the laboratory acceptance limit. In addition, the MS/MSD analyses were performed on a sample from another LANL RN and the raw data for the parent sample was not included in the data package. Since MS/MSD analyses are not required for this method, no data were qualified.

Reviewed by: ETM

Level: 1

Date: 4/26/10

VALIDATOR'S SIGNATURE:

A handwritten signature of Eyda Hergenreder in black ink.

DATE: 4/23/10

# **ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST**

5116-2

## **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**

Records Use only



Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

# **ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST**

5116-2

## **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**

Records Use only



Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. The sample result is $\leq 5X$ the concentration of the related analyte in the method blank.	U, P4	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15. The sample result is $\leq 5X$ the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	16. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20. The surrogate is $<10\%R$ . Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

# **ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST**

5116-2

**Organochlorine Pesticide (PEST) and Polychlorinated  
Biphenyl (PCB) Analytical Data Validation Checklist**

Records Use only



Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	21. The surrogate is < the Lower Acceptance Level (LAL) but $\geq 10\%R$ . Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

**ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB)  
ANALYTICAL DATA VALIDATION CHECKLIST**

5116-2

**Organochlorine Pesticide (PEST) and Polychlorinated  
Biphenyl (PCB) Analytical Data Validation Checklist**

Records Use only \_\_\_\_\_



Yes   No   N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19



**PCB**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043002

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Allquot: 30.05 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 20.9  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 5  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7413  
Batch ID: 961902  
Run Date: 03/08/2010 16:34  
Prep Date: 03/07/2010 11:43  
Data File: 056f5601.d  
056b5601.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	21.0	ug/kg	7.01	21.0	1
11104-28-2	Aroclor-1221	U	21.0	ug/kg	7.01	21.0	1
11141-16-5	Aroclor-1232	U	21.0	ug/kg	7.01	21.0	1
53469-21-9	Aroclor-1242	U	21.0	ug/kg	7.01	21.0	1
12672-29-6	Aroclor-1248	U	21.0	ug/kg	7.01	21.0	1
11097-69-1	Aroclor-1254		191	ug/kg	7.01	21.0	1
11096-82-5	Aroclor-1260	P	116	ug/kg	7.01	21.0	1

**PCB**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043001

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.J  
Analyst: YS1  
Aliquot: 30.11 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
% Moisture: 21.1  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.21	ug/kg	1.40	4.21	1
11104-28-2	Aroclor-1221	U	4.21	ug/kg	1.40	4.21	1
11141-16-5	Aroclor-1232	U	4.21	ug/kg	1.40	4.21	1
53469-21-9	Aroclor-1242	U	4.21	ug/kg	1.40	4.21	1
12672-29-6	Aroclor-1248	U	4.21	ug/kg	1.40	4.21	1
11097-69-1	Aroclor-1254	P	19.7	ug/kg	1.40	4.21	1
11096-82-5	Aroclor-1260	P	15.9	ug/kg	1.40	4.21	1

EH  
4/23/10

**PCB**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043018

Client ID: RE36-10-7515  
 Batch ID: 961902  
 Run Date: 03/08/2010 16:47  
 Prep Date: 03/07/2010 11:43  
 Data File: 057f5701.d  
 057b5701.d

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8082  
 Inst: ECD1A.I  
 Analyst: YS1  
 Aliquot: 30.04 g  
 Column: 1 CLP1  
 2 CLP2

Matrix: R  
 % Moisture: 20.8  
 Project: LANL01004  
 SOP Ref: GL-OA-E-040  
 Dilution: 20  
 Inj. Vol: 1 uL  
 Final Volume: 1 mL  
 Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	84.1	ug/kg	28.0	84.1	1
11104-28-2	Aroclor-1221	U	84.1	ug/kg	28.0	84.1	1
11141-16-5	Aroclor-1232	U	84.1	ug/kg	28.0	84.1	1
53469-21-9	Aroclor-1242	B	714	ug/kg	28.0	84.1	2
12672-29-6	Aroclor-1248	U	84.1	ug/kg	28.0	84.1	1
11097-69-1	Aroclor-1254		1620	ug/kg	28.0	84.1	1
11096-82-5	Aroclor-1260	P	825	ug/kg	28.0	84.1	1

EH  
 4/23/10

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2074

LOS ALAMOS

REQUEST NUMBER: 10-2074

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/26/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

2480431

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7414	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7414	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7413	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7413	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7462	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7462	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7465	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7465	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7473	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7473	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7471	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7471	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7472	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7472	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7468	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7468	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7464	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7464	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7463	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7463	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7475	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7475	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7466	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7466	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7476	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7476	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7461	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7461	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7467	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7467	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7469	1	SEPTUM AMBER GLASS	8260B	Ice	R

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2074

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7470	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7470	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7515	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7515	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7539	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

2/24/10 1400

Printed Name

Signature

Greg Tyler

2-25-10 0845

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

Wednesday, February 24, 2010

**LOS ALAMOS  
NATIONAL LABORATORY**

ATTN: Valerie Davis  
General Engineering Laboratories, Inc., Charleston, SC.  
2040 Savage Rd  
Charleston, SC 29407

These Samples are on:  
LANL Request Number: 10-2074  
Per Agreement Number: 126310011  
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

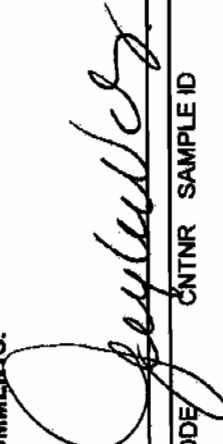
SHIP DATE: 2/24/2010  
TURNAROUND/REPORT DUE: 3/26/2010  
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846.8082	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
	SW-846.8280B	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	

Wednesday, February 24, 2010

Page 2 of 3

REQUEST NUMBER: 10-2074

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846-8280B	1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
		1	RE36-10-7539	S	2/20/2010	
	SW-846-8270C	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	

Wednesday, February 24, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
	SW-846:8321A_MOD	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7478	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	

Final Page of REQUEST NUMBER 10-2074





March 03, 2010

[www.gel.com](http://www.gel.com)

Ms. Joylene Valdez  
Los Alamos National Laboratory  
PO Box 1663  
TA-03, SM271, Drop Pt. 02U, Rm111  
Los Alamos, New Mexico 87545

Re: LANL ER Project  
Work Order: 248043  
SDG: 10-2074

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 25, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Valerie Davis  
Project Manager

Purchase Order: 72733-001-09  
Chain of Custody: 10-2074  
Enclosures

**Los Alamos National Laboratory (72733-001-09)**  
**LANL ER Project**  
**Work Order #: 248043**  
**SDG: 10-2074**

## TABLE OF CONTENTS

Case Narrative.....	1
Chain of Custody and Supporting Documentation.....	5
Data Review Qualifier Flag Definition Sheet.....	21
GC/MS Volatile Analysis.....	23
Case Narrative.....	24
Sample Data Summary.....	30
Quality Control Summary.....	69
Sample Data.....	94
Standards.....	281
Quality Control Data.....	330
Miscellaneous.....	394
GC/MS Semivolatile Analysis.....	401
Sample Data Summary.....	413
QC Summary.....	475
Sample Data.....	509
Standard Data.....	1317
QC Data.....	1396
Miscellaneous Data.....	1459
LC/MS/MS Explosives Analysis.....	1471
Sample Data Summary.....	1478
Quality Control Summary.....	1515
Sample Data.....	1652
Standards Data.....	1779
Quality Control Data.....	1982
Miscellaneous Data.....	2011
GC Semivolatile PCB Analysis.....	2027

Sample Data Summary.....	2033
Quality Control Summary.....	2037
Sample Data.....	2043
Standards Data.....	2073
Quality Control Data.....	2168
Miscellaneous Data.....	2187

# Case Narrative

**Case Narrative for  
Los Alamos National Laboratory (72733-001-09)  
LANL ER Project  
Workorder #: 248043  
SDG # : 10-2074**

**March 03, 2010**

**Laboratory Identification:**

GEL Laboratories LLC  
2040 Savage Road  
Charleston, South Carolina 29407  
(843) 556-8171

**Summary**

**Sample receipt** The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 25, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

**Sample Identification** The laboratory received the following samples:

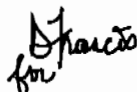
<b><u>Laboratory ID</u></b>	<b><u>Client ID</u></b>
248043001	RE36-10-7414
248043002	RE36-10-7413
248043003	RE36-10-7462
248043004	RE36-10-7465
248043005	RE36-10-7473
248043006	RE36-10-7471
248043007	RE36-10-7472
248043008	RE36-10-7468
248043009	RE36-10-7464
248043010	RE36-10-7463
248043011	RE36-10-7475
248043012	RE36-10-7466
248043013	RE36-10-7476
248043014	RE36-10-7461
248043015	RE36-10-7467
248043016	RE36-10-7469
248043017	RE36-10-7470
248043018	RE36-10-7515
248043019	RE36-10-7539

### Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

**Data Package** The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

A handwritten signature in black ink, appearing to read "for Valerie Davis".

Valerie Davis

Project Manager

**List of current GEL Certifications as of 03 March 2010**

<b>State</b>	<b>Certification</b>
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641



# **Chain of Custody and Supporting Documentation**

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2074

LOS ALAMOS

REQUEST NUMBER: 10-2074

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/26/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

2480437.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7414	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7414	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7413	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7413	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7462	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7462	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7465	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7465	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7473	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7473	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7471	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7471	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7472	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7472	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7468	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7468	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7464	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7464	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7463	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7463	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7475	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7475	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7466	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7466	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7476	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7476	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7461	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7461	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7467	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7467	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7469	1	SEPTUM AMBER GLASS	8260B	Ice	R

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2074

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7470	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7470	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7515	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7515	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7539	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

Wednesday, February 24, 2010

**LOS ALAMOS  
NATIONAL LABORATORY**

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.  
2040 Savage Rd  
Charleston, SC 29407

Please analyse the enclosed samples  
according to the schedule indicated:

**SHIP DATE: 2/24/2010**

**TURNAROUND/REPORT DUE: 3/26/2010**

**TURNAROUND REQ'D: 30 Days**

**RAD SCREENING: Yes, Below Background**

**LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT:

Signature: 

Page 1 of 3

REQUEST NUMBER: 10-2074

These Samples are on:

LANL Request Number: 10-2074

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
		1	RE36-10-7413	R	2/20/2010	
	SW-846:8260B	1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2074

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
		1	RE36-10-7539	S	2/20/2010	
		1	RE36-10-7413	R	2/20/2010	
	SW-846:8270C	1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	

Wednesday, February 24, 2010

Page 3 of 3

REQUEST NUMBER: 10-2074

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	
	SW-846:8321A_MOD	1	RE36-10-7413	R	2/20/2010	
		1	RE36-10-7414	R	2/20/2010	
		1	RE36-10-7461	R	2/20/2010	
		1	RE36-10-7462	R	2/20/2010	
		1	RE36-10-7463	R	2/20/2010	
		1	RE36-10-7464	R	2/20/2010	
		1	RE36-10-7465	R	2/20/2010	
		1	RE36-10-7466	R	2/20/2010	
		1	RE36-10-7467	R	2/20/2010	
		1	RE36-10-7468	R	2/20/2010	
		1	RE36-10-7469	R	2/20/2010	
		1	RE36-10-7470	R	2/20/2010	
		1	RE36-10-7471	R	2/20/2010	
		1	RE36-10-7472	R	2/20/2010	
		1	RE36-10-7473	R	2/20/2010	
		1	RE36-10-7475	R	2/20/2010	
		1	RE36-10-7476	R	2/20/2010	
		1	RE36-10-7515	R	2/20/2010	

Final Page of REQUEST NUMBER 10-2074



Laboratories LLC

## SAMPLE RECEIPT &amp; REVIEW FORM

Client: LANL			SDG/ARCOC/Work Order: 10-2074		
Received By: Greg Tyler			Date Received: 2/25/10		
Suspected Hazard Information		Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.	
COC/Samples marked as radioactive?			X	Maximum Counts Observed*: 80cpm	
Classified Radioactive II by RSO?			X		
COC/Samples marked containing PCBs?			X		
Shipped as a DOT Hazardous?			X	Hazard Class Shipped: UN#:	
Samples identified as Foreign Soil?			X		

Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags    blue ice    dry ice    none    other 0-6C    12-14C
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: <b>No time on Chain of Custody.</b>
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers:

7209 7850 1919 0C	7209 7850 1882 2C	7209 7850 1941 3C	7209 7850 2010 5C	7209 7850 2098 13C
7209 7850 2146 1C	7209 7850 2076 2C	7209 7850 2043 3C	7209 7850 2157 6C	7209 7850 1908 14C
7209 7850 1952 1C	7209 7850 2065 2C	7209 7850 2238 3C	7209 7850 1871 12C	
7209 7850 2054 1C	7209 7850 1996 3C	7209 7850 2124 3C	7209 7850 1893 12C	
7209 7850 1963 1C	7209 7850 2135 3C	7209 7850 1974 4C	7209 7850 1849 12C	
7209 7850 2021 2C	7209 7850 2032 3C	7209 7850 1985 4C	7209 7850 1838 13C	
7209 7850 2113 2C	7209 7850 2249 3C	7209 7850 2000 4C	7209 7850 1860 13C	
7209 7850 2102 2C	7209 7850 2168 3C	7209 7850 2087 4C	7209 7850 1850 13C	

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB11  
ACTWGT: 49.0 LB  
CAO: 0014176/CAFE

BILL SENDER

ORIGIN TO: SAFA (505) 655-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 63.0 LB  
CAO: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR3A0532VA00

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR1A015AGMMO

FedEx

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Express



2 of 2  
SH 7209 7850 1919  
M 7209 7850 1908 0201

THU - 25FEB  
PRIORITY OVERNIGHT

29

X CHSA

2 of 2  
NPSH 7209 7850 2146  
M 7209 7850 2135 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR3A05529E00

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR1A015AGMMO

FedEx  
Express



FedEx  
Express



2 of 3  
SH 7209 7850 1952  
M 7209 7850 1941 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

X CHSA

1 of 2  
TRKH 7209 7850 2054  
M MASTER MM

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



SIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
ALAMOS NATL LAB  
3 BLDG 1237 DPU 03

ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 49.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

LERIE DAVIS  
GENERAL ENGINEERING LAB  
40 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR3A05529E00

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Express



3 of 3  
7209 7850 1963

# 7209 7850 1941 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

CHSA



ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

LERIE DAVIS  
GENERAL ENGINEERING LAB  
40 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR1A015AGWMO

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Express



1 of 2  
7209 7850 2113

MASTER #

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

CHSA



ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
1A00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 49.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR2A0515BYDO

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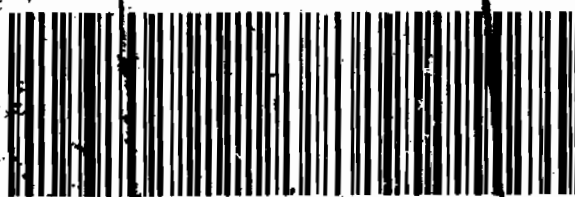


TRKH 7209 7850 2021

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR1A015AGWMO

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Express



2 of 2  
NPS# 7209 7850 2102

Matr# 7209 7850 2098 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



ORIGIN ID: SAFA (505) 655-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 55.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 55.0 LB MAN  
CAD: 0014176/CAFE2450

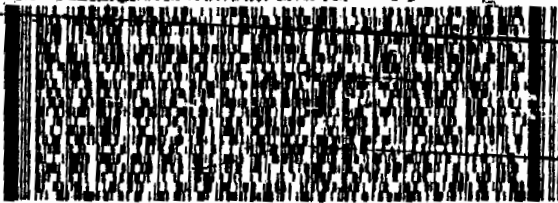
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TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 556-8171  
REF: 6B010AMR3A0532VA00

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 556-8171  
REF: 6B010AMR1A015AGNMO



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Express

2 of 3  
MPS# 7209 7850 1882  
Matr# 7209 7850 1871 0201

THU - 25FEB  
PRIORITY OVERNIGHT

XX CHSA

294



LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

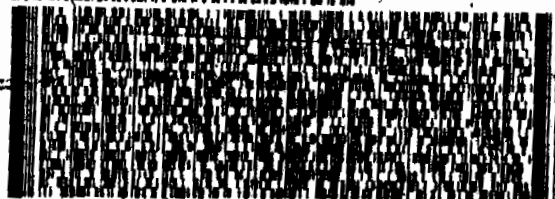
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UNITED STATES US

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TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 556-8171  
REF: 6B010AMR1A015AGNMO



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Express

1 of 2  
TRK# 0201 7209 7850 2076  
NN MASTER NN

THU - 25FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS



LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 49.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 556-8171  
REF: 6B010AMR2A0515BYDO



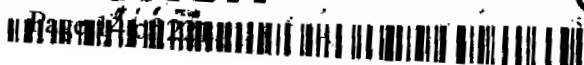
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THU - 25FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS



2 of 2  
MPS# 7209 7850 1996  
Matr# 7209 7850 1985 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS



ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 351.0 LB MAN  
CRD: 0014176/CAFE2450

BILL SENDER

ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 51.0 LB MAN  
CRD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

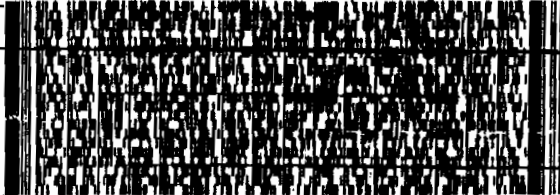
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TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0223KY10



FedEx



FedEx  
Express



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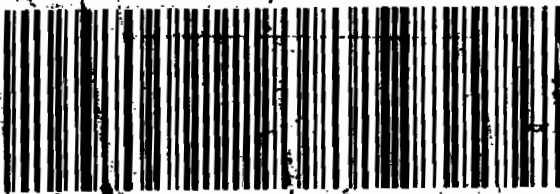
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0201

MM MASTER MM

THU - 25FEB  
PRIORITY OVERNIGHT

29

XX CHSA



Part # 156148-404 NRT 13 04-09

1 of 2  
TRKH# 7209 7850 2032  
0201

MM MASTER MM

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



Part # 156148-404 NRT 13 04-09

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 50.0 LB MAN  
CRD: 0014176/CAFE2450

BILL SENDER

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR1A015AGMM0

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AAREN0140T500



FedEx  
Express



FedEx  
Express



0022001102223

2 of 2  
MPS# 7209 7850 2249  
0263

Matr# 7209 7850 2238 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



TRKH# 7209 7850 2168  
0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 52.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 55.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A05529E00

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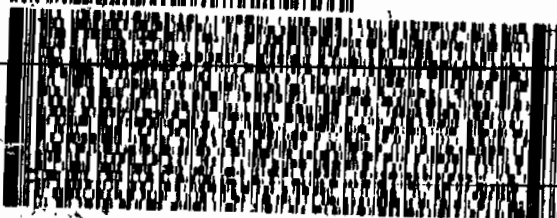
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GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0223KY10

3c



FedEx



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1 of 3  
TRKH 7209 7850 1941  
0201  
NM MASTER NM

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA

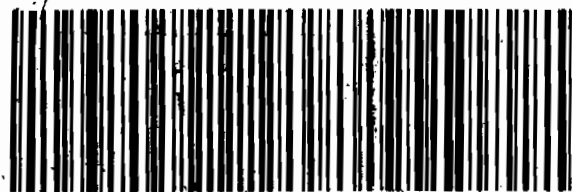


2 of 2  
MPS# 7209 7850 2043  
0203  
Matr# 7209 7850 2032 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 50.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 57.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR1A015AGWMO

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GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR1A015AGWMO

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Page 16 of 221

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0203  
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ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

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CRD: 01

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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 61.0 LB MAN  
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BILL SENDER

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GENERAL ENGINEERING LAB  
2040 SAVAGE RD

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(843) 556-8171

REF: 6B010AMR2A0515BYD0

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TRK# 7209 7850 1974

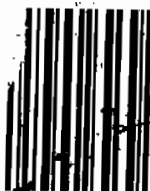
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UNITED STATES US

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GENERAL ENGINEERING LAB  
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PRIORITY OVERNIGHT

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SC-US  
CHS

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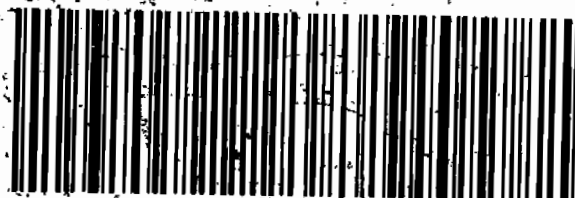
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PRIORITY OVERNIGHT

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SC-US  
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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

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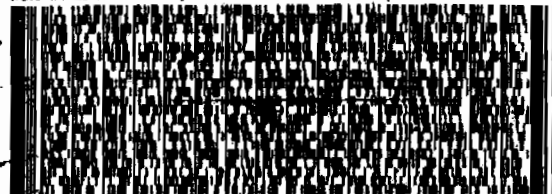
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CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR1A015AGM10

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TRK# 7209 7850 2087

0263

Matr# 7209 7850 2076 0201

THU - 25FEB A1  
PRIORITY OVERNIGHT

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SC-US  
CHS

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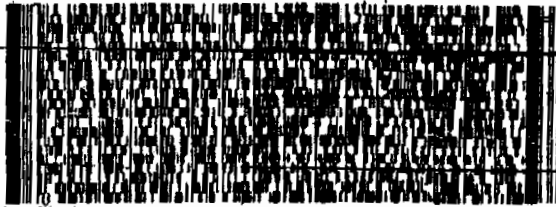
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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
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LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
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LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
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CHARLESTON SC 29407  
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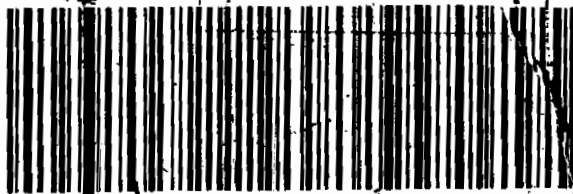


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Matr# 7209 7850 2000 0201

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PRIORITY OVERNIGHT

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LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

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BILL SENDER

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GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
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REF: 6B010AMR3A0532VA00

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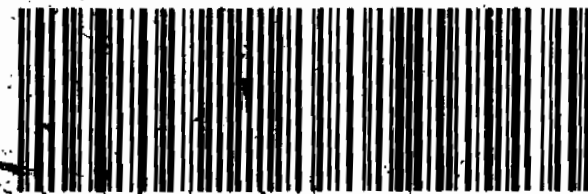


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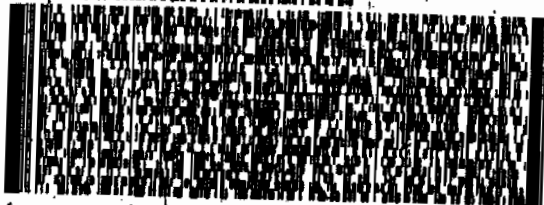
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TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
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1 of 3  
TRK# 7209 7850 1871  
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Matr# 7209 7850 1871 0201

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ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 56.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 56.0 LB MAN  
CAD: 0014176/CAFE2450

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(843) 556-8171  
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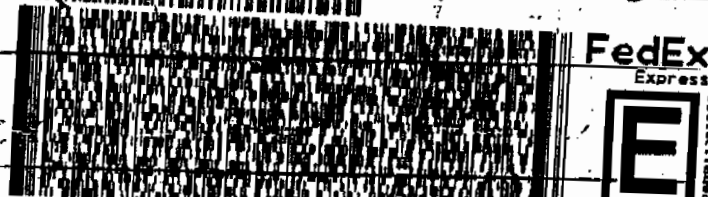
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(843) 556-8171  
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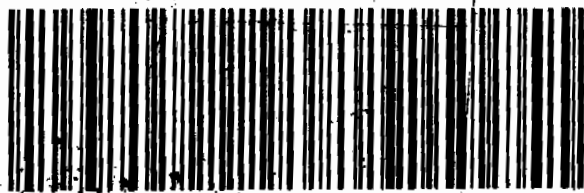


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ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
ACTWGT: 56.0 LB MAN  
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ORIGIN ID: SAFA (505) 665-9968  
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LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 24FEB10  
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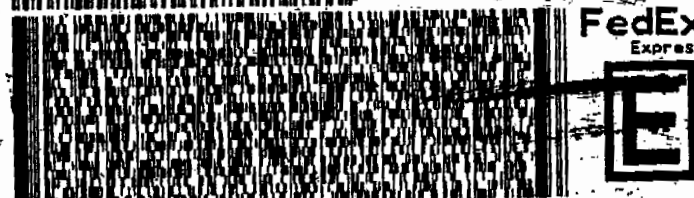
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NPSN 7209 7850 1850  
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# **Data Review Qualifier Flag Definition Sheet**

## Data Review Qualifier Definitions

Qualifier	Explanation
-----------	-------------

*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

# **GC/MS Volatile Analysis**

# Case Narrative

**ChemStation Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2074**

**Method/Analysis Information**

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer  
Analytical Method: SW846 8260B  
Prep Method: SW846 5030  
Analytical Batch Number: 961082  
Prep Batch Number: 961079

**Sample Analysis**

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

<b>Sample ID</b>	<b>Client ID</b>
248043001	RE36-10-7414
248043002	RE36-10-7413
248043003	RE36-10-7462
248043004	RE36-10-7465
248043005	RE36-10-7473
248043006	RE36-10-7471
248043007	RE36-10-7472
248043008	RE36-10-7468
248043009	RE36-10-7464
248043010	RE36-10-7463
248043011	RE36-10-7475
248043012	RE36-10-7466
248043013	RE36-10-7476
248043014	RE36-10-7461
248043015	RE36-10-7467
248043016	RE36-10-7469
248043017	RE36-10-7470
248043018	RE36-10-7515
248043019	RE36-10-7539
1202061417	Method Blank (MB)
1202061420	Laboratory Control Sample (LCS)
1202061421	Laboratory Control Sample (LCS)
1202078875	Method Blank (MB)
1202078876	Laboratory Control Sample (LCS)
1202078877	Laboratory Control Sample (LCS)
1202061418	248043001(RE36-10-7414) Post Spike (PS)
1202061419	248043001(RE36-10-7414) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.

Samples 248043 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014, 015, 016, 017 and 018 in this SDG were analyzed on an "dry weight" basis. Samples 248043 019 in this SDG were analyzed on a "as received" basis.

### **Preparation/Analytical Method Verification**

#### **SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

#### **Calibration Information**

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

#### **Initial Calibration**

All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

#### **Continuing Calibration Verification Requirements**

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

### **Quality Control (QC) Information**

#### **Method Blank (MB) Statement**

The MBs analyzed with this SDG met the acceptance criteria.

#### **Surrogate Recoveries**

Surrogate recoveries in all client and quality control samples were within the acceptance limits.

#### **Laboratory Control Sample (LCS) Recovery**

The LCS recoveries were not all within the acceptance limits. The unacceptable recoveries were less than 5% of the requested analyte list. This satisfies the client criteria. The results are reported: 1202061421 (LCS). See DER# 808491.

**QC Sample Designation**

Sample 248043001 (RE36-10-7414) was designated for spike analysis in this SDG.

**Matrix Spike (PS) Recovery Statement**

The spike recoveries were not all within the acceptance limits. See DER# 808491.

**Matrix Spike Duplicate (PSD) Recovery Statement**

The spike duplicate recoveries were not all within the acceptance limits. See DER# 808491.

**Relative Percent Difference (RPD) Statement**

The RPD between the matrix spike pair were not all within the acceptance limits. See DER# 808491.

**Internal Standard (ISTD) Acceptance**

In the following samples, internal standard responses were outside the required acceptance criteria. Sample reanalysis confirmed matrix interference: 248043005 (RE36-10-7473), 248043008 (RE36-10-7468) and 248043018 (RE36-10-7515). See DER# 808491.

**Technical Information****Holding Time Specifications**

GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

**Sample Preservation and Integrity**

All samples met the sample preservation and integrity requirements.

**Sample Dilutions**

The samples in this SDG did not require dilutions.

**Sample Re-extraction/Re-analysis**

The samples in this SDG were re-analyzed due to unacceptable recoveries in the initial analysis: 248043005 (RE36-10-7473), 248043008 (RE36-10-7468), 248043015 (RE36-10-7467), 248043016 (RE36-10-7469), 248043017 (RE36-10-7470) and 248043018 (RE36-10-7515).

**Miscellaneous Information****Electronic Packaging Comment**

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

**Data Exception (DER) Documentation**

The following DER was generated for this SDG: 808491

**Manual Integrations**

Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

**TIC Comment**

Tentatively identified compounds (TIC) were required for this sample delivery group/work order. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

**Additional Comments**

Additional comments were not required for this SDG.

**Residual Chlorine**

Residual Chlorine was not detected in any of the samples in this SDG.

**System Configuration**

The Volatile-GC/MS analysis was performed on the following instrument configuration:

<b>Instrument ID</b>	<b>Instrument</b>	<b>System Configuration</b>	<b>Column ID</b>	<b>Column Description</b>	<b>P &amp; T Trap</b>
VOA6.I	Gas Chromatograph/Mass Spectrometer	HP6890N/HP5975	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2074 GEL Work Order: 248043

**The Qualifiers in this report are defined as follows:**


- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a surrogate compound
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

**Review/Validation**

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature:



Name: Stacy Calloway

Date: 24 MAR 2010

Title: Data Validator

# **Sample Data Summary**

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043001  
  
Client ID: RE36-10-7414  
Batch ID: 961082  
Run Date: 03/04/2010 23:31  
Prep Date: 03/03/2010 09:23  
Data File: 030410V66A431.D

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA6.I  
Analyst: RXD1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
% Moisture: 21.1  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.27	ug/kg	0.431	1.27
74-87-3	Chloromethane	U	1.27	ug/kg	0.380	1.27
75-01-4	Vinyl chloride	U	1.27	ug/kg	0.380	1.27
74-83-9	Bromomethane	U	1.27	ug/kg	0.380	1.27
75-00-3	Chloroethane	U	1.27	ug/kg	0.380	1.27
75-69-4	Trichlorofluoromethane	U	1.27	ug/kg	0.380	1.27
67-64-1	Acetone	U	6.34	ug/kg	2.10	6.34
75-35-4	1,1-Dichloroethylene	U	1.27	ug/kg	0.380	1.27
74-88-4	Iodomethane	U	6.34	ug/kg	2.03	6.34
75-09-2	Methylene chloride	U	6.34	ug/kg	2.54	6.34
75-15-0	Carbon disulfide	U	6.34	ug/kg	1.58	6.34
156-60-5	trans-1,2-Dichloroethylene	U	1.27	ug/kg	0.380	1.27
75-34-3	1,1-Dichloroethane	U	1.27	ug/kg	0.380	1.27
78-93-3	2-Butanone	U	6.34	ug/kg	1.90	6.34
156-59-2	cis-1,2-Dichloroethylene	U	1.27	ug/kg	0.380	1.27
594-20-7	2,2-Dichloropropane	U	1.27	ug/kg	0.380	1.27
67-66-3	Chloroform	U	1.27	ug/kg	0.380	1.27
74-97-5	Bromochloromethane	U	1.27	ug/kg	0.418	1.27
71-55-6	1,1,1-Trichloroethane	U	1.27	ug/kg	0.380	1.27
563-58-6	1,1-Dichloropropene	U	1.27	ug/kg	0.380	1.27
56-23-5	Carbon tetrachloride	U	1.27	ug/kg	0.380	1.27
107-06-2	1,2-Dichloroethane	U	1.27	ug/kg	0.380	1.27
71-43-2	Benzene	U	1.27	ug/kg	0.380	1.27
79-01-6	Trichloroethylene	U	1.27	ug/kg	0.418	1.27
78-87-5	1,2-Dichloropropane	U	1.27	ug/kg	0.380	1.27
75-27-4	Bromodichloromethane	U	1.27	ug/kg	0.380	1.27
74-95-3	Dibromomethane	U	1.27	ug/kg	0.380	1.27
108-10-1	4-Methyl-2-pentanone	U	6.34	ug/kg	1.58	6.34
10061-01-5	cis-1,3-Dichloropropylene	U	1.27	ug/kg	0.380	1.27
108-88-3	Toluene	U	1.27	ug/kg	0.380	1.27
10061-02-6	trans-1,3-Dichloropropylene	U	1.27	ug/kg	0.380	1.27
79-00-5	1,1,2-Trichloroethane	U	1.27	ug/kg	0.380	1.27
591-78-6	2-Hexanone	U	6.34	ug/kg	1.90	6.34
142-28-9	1,3-Dichloropropane	U	1.27	ug/kg	0.380	1.27
127-18-4	Tetrachloroethylene	U	1.27	ug/kg	0.380	1.27
124-48-1	Dibromochloromethane	U	1.27	ug/kg	0.380	1.27
106-93-4	1,2-Dibromoethane	U	1.27	ug/kg	0.380	1.27
108-90-7	Chlorobenzene	U	1.27	ug/kg	0.380	1.27

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043001	Date Received: 02/25/2010 08:45	%Moisture: 21.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7414	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/04/2010 23:31	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 09:23	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A431.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.27	ug/kg	0.380	1.27
179601-23-1	m,p-Xylenes	U	2.54	ug/kg	0.380	2.54
95-47-6	o-Xylene	U	1.27	ug/kg	0.380	1.27
100-42-5	Styrene	U	1.27	ug/kg	0.380	1.27
75-25-2	Bromoform	U	1.27	ug/kg	0.380	1.27
79-34-5	1,1,2,2-Tetrachloroethane	U	1.27	ug/kg	0.380	1.27
96-18-4	1,2,3-Trichloropropane	U	1.27	ug/kg	0.380	1.27
108-86-1	Bromobenzene	U	1.27	ug/kg	0.380	1.27
103-65-1	n-Propylbenzene	U	1.27	ug/kg	0.380	1.27
95-49-8	2-Chlorotoluene	U	1.27	ug/kg	0.380	1.27
98-82-8	Isopropylbenzene	U	1.27	ug/kg	0.380	1.27
108-67-8	1,3,5-Trimethylbenzene	U	1.27	ug/kg	0.380	1.27
106-43-4	4-Chlorotoluene	U	1.27	ug/kg	0.380	1.27
98-06-6	tert-Butylbenzene	U	1.27	ug/kg	0.380	1.27
95-63-6	1,2,4-Trimethylbenzene	U	1.27	ug/kg	0.380	1.27
135-98-8	sec-Butylbenzene	U	1.27	ug/kg	0.380	1.27
99-87-6	4-Isopropyltoluene	U	1.27	ug/kg	0.380	1.27
541-73-1	1,3-Dichlorobenzene	U	1.27	ug/kg	0.380	1.27
106-46-7	1,4-Dichlorobenzene	U	1.27	ug/kg	0.380	1.27
104-51-8	n-Butylbenzene	U	1.27	ug/kg	0.380	1.27
96-12-8	1,2-Dibromo-3-chloropropane	U	1.27	ug/kg	0.380	1.27
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.34	ug/kg	2.03	6.34
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.27	ug/kg	0.380	1.27
95-50-1	1,2-Dichlorobenzene	U	1.27	ug/kg	0.380	1.27

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found						
				ug/kg		

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043002  
 Client ID: RE36-10-7413  
 Batch ID: 961082  
 Run Date: 03/04/2010 23:59  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V6\6A432.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.1  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 20.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.430	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.379	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.379	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.379	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.379	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.379	1.26
67-64-1	Acetone	U	6.32	ug/kg	2.10	6.32
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
74-88-4	Iodomethane	U	6.32	ug/kg	2.02	6.32
75-09-2	Methylene chloride	U	6.32	ug/kg	2.53	6.32
75-15-0	Carbon disulfide	U	6.32	ug/kg	1.58	6.32
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.379	1.26
78-93-3	2-Butanone	U	6.32	ug/kg	1.90	6.32
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.379	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.379	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.417	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.379	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.379	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.379	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.379	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.379	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.417	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.379	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.379	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.379	1.26
108-10-1	4-Methyl-2-pentanone	U	6.32	ug/kg	1.58	6.32
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.379	1.26
108-88-3	Toluene	J	0.455	ug/kg	0.379	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.379	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.379	1.26
591-78-6	2-Hexanone	U	6.32	ug/kg	1.90	6.32
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.379	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.379	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.379	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.379	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.379	1.26

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043002	Date Received: 02/25/2010 08:45	%Moisture: 20.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7413	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/04/2010 23:59	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A432.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.26	ug/kg	0.379	1.26
179601-23-1	m,p-Xylenes	U	2.53	ug/kg	0.379	2.53
95-47-6	o-Xylene	U	1.26	ug/kg	0.379	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.379	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.379	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.379	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.379	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.379	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.379	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.379	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.379	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.379	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.379	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.379	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.379	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.379	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.379	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.379	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.379	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.32	ug/kg	2.02	6.32
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.379	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043003  
 Client ID: RE36-10-7462  
 Batch ID: 961082  
 Run Date: 03/05/2010 00:26  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V66A433.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 7.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.369	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.326	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.326	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.326	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.326	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.326	1.09
67-64-1	Acetone	U	5.43	ug/kg	1.80	5.43
75-35-4	1,1-Dichloroethylen	U	1.09	ug/kg	0.326	1.09
74-88-4	Iodomethane	U	5.43	ug/kg	1.74	5.43
75-09-2	Methylene chloride	U	5.43	ug/kg	2.17	5.43
75-15-0	Carbon disulfide	U	5.43	ug/kg	1.36	5.43
156-60-5	trans-1,2-Dichloroethylen	U	1.09	ug/kg	0.326	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.326	1.09
78-93-3	2-Butanone	U	5.43	ug/kg	1.63	5.43
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.326	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.358	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.326	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.326	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.326	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.326	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.326	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.358	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.326	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.326	1.09
108-10-1	4-Methyl-2-pentanone	U	5.43	ug/kg	1.36	5.43
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.326	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.326	1.09
591-78-6	2-Hexanone	U	5.43	ug/kg	1.63	5.43
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.326	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.326	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.326	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.326	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.326	1.09

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043003  
 Client ID: RE36-10-7462  
 Batch ID: 961082  
 Run Date: 03/05/2010 00:26  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V66A433.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 7.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.326	2.17
95-47-6	o-Xylene	U	1.09	ug/kg	0.326	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.326	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.326	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.326	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.43	ug/kg	1.74	5.43
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.17	7.25	ug/kg	0	J



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043004  
 Client ID: RE36-10-7465  
 Batch ID: 961082  
 Run Date: 03/05/2010 00:54  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V66A434.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.J  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 % Moisture: 22.3  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.29	ug/kg	0.437	1.29
74-87-3	Chloromethane	U	1.29	ug/kg	0.386	1.29
75-01-4	Vinyl chloride	U	1.29	ug/kg	0.386	1.29
74-83-9	Bromomethane	U	1.29	ug/kg	0.386	1.29
75-00-3	Chloroethane	U	1.29	ug/kg	0.386	1.29
75-69-4	Trichlorofluoromethane	U	1.29	ug/kg	0.386	1.29
67-64-1	Acetone	U	6.43	ug/kg	2.14	6.43
75-35-4	1,1-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
74-88-4	Iodomethane	U	6.43	ug/kg	2.06	6.43
75-09-2	Methylene chloride	U	6.43	ug/kg	2.57	6.43
75-15-0	Carbon disulfide	U	6.43	ug/kg	1.61	6.43
156-60-5	trans-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
75-34-3	1,1-Dichloroethane	U	1.29	ug/kg	0.386	1.29
78-93-3	2-Butanone	U	6.43	ug/kg	1.93	6.43
156-59-2	cis-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
594-20-7	2,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29
67-66-3	Chloroform	U	1.29	ug/kg	0.386	1.29
74-97-5	Bromochloromethane	U	1.29	ug/kg	0.425	1.29
71-55-6	1,1,1-Trichloroethane	U	1.29	ug/kg	0.386	1.29
563-58-6	1,1-Dichloropropene	U	1.29	ug/kg	0.386	1.29
56-23-5	Carbon tetrachloride	U	1.29	ug/kg	0.386	1.29
107-06-2	1,2-Dichloroethane	U	1.29	ug/kg	0.386	1.29
71-43-2	Benzene	U	1.29	ug/kg	0.386	1.29
79-01-6	Trichloroethylene	U	1.29	ug/kg	0.425	1.29
78-87-5	1,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29
75-27-4	Bromodichloromethane	U	1.29	ug/kg	0.386	1.29
74-95-3	Dibromomethane	U	1.29	ug/kg	0.386	1.29
108-10-1	4-Methyl-2-pentanone	U	6.43	ug/kg	1.61	6.43
10061-01-5	cis-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29
108-88-3	Toluene	J	0.489	ug/kg	0.386	1.29
10061-02-6	trans-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29
79-00-5	1,1,2-Trichloroethane	U	1.29	ug/kg	0.386	1.29
591-78-6	2-Hexanone	U	6.43	ug/kg	1.93	6.43
142-28-9	1,3-Dichloropropane	U	1.29	ug/kg	0.386	1.29
127-18-4	Tetrachloroethylene	U	1.29	ug/kg	0.386	1.29
124-48-1	Dibromochloromethane	U	1.29	ug/kg	0.386	1.29
106-93-4	1,2-Dibromoethane	U	1.29	ug/kg	0.386	1.29
108-90-7	Chlorobenzene	U	1.29	ug/kg	0.386	1.29

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043004	Date Received: 02/25/2010 08:45	%Moisture: 22.3
	Client: LANI.010	Project: LANI.01004
Client ID: RE36-10-7465	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 00:54	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A434.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.29	ug/kg	0.386	1.29
179601-23-1	m,p-Xylenes	J	0.437	ug/kg	0.386	2.57
95-47-6	o-Xylene	U	1.29	ug/kg	0.386	1.29
100-42-5	Styrene	U	1.29	ug/kg	0.386	1.29
75-25-2	Bromoform	U	1.29	ug/kg	0.386	1.29
79-34-5	1,1,2,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
96-18-4	1,2,3-Trichloropropane	U	1.29	ug/kg	0.386	1.29
108-86-1	Bromobenzene	U	1.29	ug/kg	0.386	1.29
103-65-1	n-Propylbenzene	U	1.29	ug/kg	0.386	1.29
95-49-8	2-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-82-8	Isopropylbenzene	U	1.29	ug/kg	0.386	1.29
108-67-8	1,3,5-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
106-43-4	4-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-06-6	tert-Butylbenzene	U	1.29	ug/kg	0.386	1.29
95-63-6	1,2,4-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
135-98-8	sec-Butylbenzene	U	1.29	ug/kg	0.386	1.29
99-87-6	4-Isopropyltoluene	J	0.399	ug/kg	0.386	1.29
541-73-1	1,3-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
106-46-7	1,4-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
104-51-8	n-Butylbenzene	U	1.29	ug/kg	0.386	1.29
96-12-8	1,2-Dibromo-3-chloropropane	U	1.29	ug/kg	0.386	1.29
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.43	ug/kg	2.06	6.43
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
95-50-1	1,2-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043005  
 Client ID: RE36-10-7473  
 Batch ID: 961082  
 Run Date: 03/05/2010 14:22  
 Prep Date: 03/05/2010 12:00  
 Data File: 030510V66A509.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.1  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 23.6  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.31	ug/kg	0.445	1.31
74-87-3	Chloromethane	U	1.31	ug/kg	0.393	1.31
75-01-4	Vinyl chloride	U	1.31	ug/kg	0.393	1.31
74-83-9	Bromomethane	U	1.31	ug/kg	0.393	1.31
75-00-3	Chloroethane	U	1.31	ug/kg	0.393	1.31
75-69-4	Trichlorofluoromethane	U	1.31	ug/kg	0.393	1.31
67-64-1	Acetone	U	6.54	ug/kg	2.17	6.54
75-35-4	1,1-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
74-88-4	Iodomethane	U	6.54	ug/kg	2.09	6.54
75-09-2	Methylene chloride	J	5.73	ug/kg	2.62	6.54
75-15-0	Carbon disulfide	U	6.54	ug/kg	1.64	6.54
156-60-5	trans-1,2-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
75-34-3	1,1-Dichloroethane	U	1.31	ug/kg	0.393	1.31
78-93-3	2-Butanone	U	6.54	ug/kg	1.96	6.54
156-59-2	cis-1,2-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
594-20-7	2,2-Dichloropropane	U	1.31	ug/kg	0.393	1.31
67-66-3	Chloroform	U	1.31	ug/kg	0.393	1.31
74-97-5	Bromochloromethane	U	1.31	ug/kg	0.432	1.31
71-55-6	1,1,1-Trichloroethane	U	1.31	ug/kg	0.393	1.31
563-58-6	1,1-Dichloropropene	U	1.31	ug/kg	0.393	1.31
56-23-5	Carbon tetrachloride	U	1.31	ug/kg	0.393	1.31
107-06-2	1,2-Dichloroethane	U	1.31	ug/kg	0.393	1.31
71-43-2	Benzene	U	1.31	ug/kg	0.393	1.31
79-01-6	Trichloroethylene	U	1.31	ug/kg	0.432	1.31
78-87-5	1,2-Dichloropropane	U	1.31	ug/kg	0.393	1.31
75-27-4	Bromodichloromethane	U	1.31	ug/kg	0.393	1.31
74-95-3	Dibromomethane	U	1.31	ug/kg	0.393	1.31
108-10-1	4-Methyl-2-pentanone	U	6.54	ug/kg	1.64	6.54
10061-01-5	cis-1,3-Dichloropropylene	U	1.31	ug/kg	0.393	1.31
108-88-3	Toluene	U	1.31	ug/kg	0.393	1.31
10061-02-6	trans-1,3-Dichloropropylene	U	1.31	ug/kg	0.393	1.31
79-00-5	1,1,2-Trichloroethane	U	1.31	ug/kg	0.393	1.31
591-78-6	2-Hexanone	U	6.54	ug/kg	1.96	6.54
142-28-9	1,3-Dichloropropane	U	1.31	ug/kg	0.393	1.31
127-18-4	Tetrachloroethylene	U	1.31	ug/kg	0.393	1.31
124-48-1	Dibromochloromethane	U	1.31	ug/kg	0.393	1.31
106-93-4	1,2-Dibromoethane	U	1.31	ug/kg	0.393	1.31
108-90-7	Chlorobenzene	U	1.31	ug/kg	0.393	1.31

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043005	Date Received: 02/25/2010 08:45	%Moisture: 23.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7473	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 14:22	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/05/2010 12:00	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030510V66A509.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.31	ug/kg	0.393	1.31
179601-23-1	m,p-Xylenes	U	2.62	ug/kg	0.393	2.62
95-47-6	o-Xylene	U	1.31	ug/kg	0.393	1.31
100-42-5	Styrene	U	1.31	ug/kg	0.393	1.31
75-25-2	Bromoform	U	1.31	ug/kg	0.393	1.31
79-34-5	1,1,2,2-Tetrachloroethane	U	1.31	ug/kg	0.393	1.31
96-18-4	1,2,3-Trichloropropane	U	1.31	ug/kg	0.393	1.31
108-86-1	Bromobenzene	U	1.31	ug/kg	0.393	1.31
103-65-1	n-Propylbenzene	U	1.31	ug/kg	0.393	1.31
95-49-8	2-Chlorotoluene	U	1.31	ug/kg	0.393	1.31
98-82-8	Isopropylbenzene	U	1.31	ug/kg	0.393	1.31
108-67-8	1,3,5-Trimethylbenzene	U	1.31	ug/kg	0.393	1.31
106-43-4	4-Chlorotoluene	U	1.31	ug/kg	0.393	1.31
98-06-6	tert-Butylbenzene	U	1.31	ug/kg	0.393	1.31
95-63-6	1,2,4-Trimethylbenzene	U	1.31	ug/kg	0.393	1.31
135-98-8	sec-Butylbenzene	U	1.31	ug/kg	0.393	1.31
99-87-6	4-Isopropyltoluene	U	1.31	ug/kg	0.393	1.31
541-73-1	1,3-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31
106-46-7	1,4-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31
104-51-8	n-Butylbenzene	U	1.31	ug/kg	0.393	1.31
96-12-8	1,2-Dibromo-3-chloropropane	U	1.31	ug/kg	0.393	1.31
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.54	ug/kg	2.09	6.54
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.31	ug/kg	0.393	1.31
95-50-1	1,2-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.17	25.5	ug/kg	0	J

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043006	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 29.8
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7471	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 961082	<b>Inst:</b> VOA6.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/05/2010 01:50	<b>Analyst:</b> RXD1	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/03/2010 10:35	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030410V6\6A436.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.42	ug/kg	0.484	1.42
74-87-3	Chloromethane	U	1.42	ug/kg	0.427	1.42
75-01-4	Vinyl chloride	U	1.42	ug/kg	0.427	1.42
74-83-9	Bromomethane	U	1.42	ug/kg	0.427	1.42
75-00-3	Chloroethane	U	1.42	ug/kg	0.427	1.42
75-69-4	Trichlorofluoromethane	U	1.42	ug/kg	0.427	1.42
67-64-1	Acetone	U	7.12	ug/kg	2.36	7.12
75-35-4	1,1-Dichloroethylene	U	1.42	ug/kg	0.427	1.42
74-88-4	Iodomethane	U	7.12	ug/kg	2.28	7.12
75-09-2	Methylene chloride	U	7.12	ug/kg	2.85	7.12
75-15-0	Carbon disulfide	U	7.12	ug/kg	1.78	7.12
156-60-5	trans-1,2-Dichloroethylene	U	1.42	ug/kg	0.427	1.42
75-34-3	1,1-Dichloroethane	U	1.42	ug/kg	0.427	1.42
78-93-3	2-Butanone	U	7.12	ug/kg	2.14	7.12
156-59-2	cis-1,2-Dichloroethylene	U	1.42	ug/kg	0.427	1.42
594-20-7	2,2-Dichloropropane	U	1.42	ug/kg	0.427	1.42
67-66-3	Chloroform	U	1.42	ug/kg	0.427	1.42
74-97-5	Bromochloromethane	U	1.42	ug/kg	0.470	1.42
71-55-6	1,1,1-Trichloroethane	U	1.42	ug/kg	0.427	1.42
563-58-6	1,1-Dichloropropene	U	1.42	ug/kg	0.427	1.42
56-23-5	Carbon tetrachloride	U	1.42	ug/kg	0.427	1.42
107-06-2	1,2-Dichloroethane	U	1.42	ug/kg	0.427	1.42
71-43-2	Benzene	U	1.42	ug/kg	0.427	1.42
79-01-6	Trichloroethylene	U	1.42	ug/kg	0.470	1.42
78-87-5	1,2-Dichloropropane	U	1.42	ug/kg	0.427	1.42
75-27-4	Bromodichloromethane	U	1.42	ug/kg	0.427	1.42
74-95-3	Dibromomethane	U	1.42	ug/kg	0.427	1.42
108-10-1	4-Methyl-2-pentanone	U	7.12	ug/kg	1.78	7.12
10061-01-5	cis-1,3-Dichloropropylene	U	1.42	ug/kg	0.427	1.42
108-88-3	Toluene	J	0.869	ug/kg	0.427	1.42
10061-02-6	trans-1,3-Dichloropropylene	U	1.42	ug/kg	0.427	1.42
79-00-5	1,1,2-Trichloroethane	U	1.42	ug/kg	0.427	1.42
591-78-6	2-Hexanone	U	7.12	ug/kg	2.14	7.12
142-28-9	1,3-Dichloropropane	U	1.42	ug/kg	0.427	1.42
127-18-4	Tetrachloroethylene	U	1.42	ug/kg	0.427	1.42
124-48-1	Dibromochloromethane	U	1.42	ug/kg	0.427	1.42
106-93-4	1,2-Dibromoethane	U	1.42	ug/kg	0.427	1.42
108-90-7	Chlorobenzene	U	1.42	ug/kg	0.427	1.42

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043006	Date Received: 02/25/2010 08:45	% Moisture: 29.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7471	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 01:50	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A436.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.42	ug/kg	0.427	1.42
179601-23-1	m,p-Xylenes	U	2.85	ug/kg	0.427	2.85
95-47-6	o-Xylene	U	1.42	ug/kg	0.427	1.42
100-42-5	Styrene	U	1.42	ug/kg	0.427	1.42
75-25-2	Bromoform	U	1.42	ug/kg	0.427	1.42
79-34-5	1,1,2,2-Tetrachloroethane	U	1.42	ug/kg	0.427	1.42
96-18-4	1,2,3-Trichloropropane	U	1.42	ug/kg	0.427	1.42
108-86-1	Bromobenzene	U	1.42	ug/kg	0.427	1.42
103-65-1	n-Propylbenzene	U	1.42	ug/kg	0.427	1.42
95-49-8	2-Chlorotoluene	U	1.42	ug/kg	0.427	1.42
98-82-8	Isopropylbenzene	U	1.42	ug/kg	0.427	1.42
108-67-8	1,3,5-Trimethylbenzene		2.79	ug/kg	0.427	1.42
106-43-4	4-Chlorotoluene	U	1.42	ug/kg	0.427	1.42
98-06-6	tert-Butylbenzene	U	1.42	ug/kg	0.427	1.42
95-63-6	1,2,4-Trimethylbenzene		4.99	ug/kg	0.427	1.42
135-98-8	sec-Butylbenzene	U	1.42	ug/kg	0.427	1.42
99-87-6	4-Isopropyltoluene	J	0.484	ug/kg	0.427	1.42
541-73-1	1,3-Dichlorobenzene	U	1.42	ug/kg	0.427	1.42
106-46-7	1,4-Dichlorobenzene	U	1.42	ug/kg	0.427	1.42
104-51-8	n-Butylbenzene	U	1.42	ug/kg	0.427	1.42
96-12-8	1,2-Dibromo-3-chloropropane	U	1.42	ug/kg	0.427	1.42
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	7.12	ug/kg	2.28	7.12
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.42	ug/kg	0.427	1.42
95-50-1	1,2-Dichlorobenzene	U	1.42	ug/kg	0.427	1.42

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found						
				ug/kg		

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043007  
 Client ID: RE36-10-7472  
 Batch ID: 961082  
 Run Date: 03/05/2010 02:17  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V66A437.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 21.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.28	ug/kg	0.435	1.28
74-87-3	Chloromethane	U	1.28	ug/kg	0.384	1.28
75-01-4	Vinyl chloride	U	1.28	ug/kg	0.384	1.28
74-83-9	Bromomethane	U	1.28	ug/kg	0.384	1.28
75-00-3	Chloroethane	U	1.28	ug/kg	0.384	1.28
75-69-4	Trichlorofluoromethane	U	1.28	ug/kg	0.384	1.28
67-64-1	Acetone	U	6.40	ug/kg	2.12	6.40
75-35-4	1,1-Dichloroethylene	U	1.28	ug/kg	0.384	1.28
74-88-4	Iodomethane	U	6.40	ug/kg	2.05	6.40
75-09-2	Methylene chloride	U	6.40	ug/kg	2.56	6.40
75-15-0	Carbon disulfide	U	6.40	ug/kg	1.60	6.40
156-60-5	trans-1,2-Dichloroethylene	U	1.28	ug/kg	0.384	1.28
75-34-3	1,1-Dichloroethane	U	1.28	ug/kg	0.384	1.28
78-93-3	2-Butanone	U	6.40	ug/kg	1.92	6.40
156-59-2	cis-1,2-Dichloroethylene	U	1.28	ug/kg	0.384	1.28
594-20-7	2,2-Dichloropropane	U	1.28	ug/kg	0.384	1.28
67-66-3	Chloroform	U	1.28	ug/kg	0.384	1.28
74-97-5	Bromochloromethane	U	1.28	ug/kg	0.422	1.28
71-55-6	1,1,1-Trichloroethane	U	1.28	ug/kg	0.384	1.28
563-58-6	1,1-Dichloropropene	U	1.28	ug/kg	0.384	1.28
56-23-5	Carbon tetrachloride	U	1.28	ug/kg	0.384	1.28
107-06-2	1,2-Dichloroethane	U	1.28	ug/kg	0.384	1.28
71-43-2	Benzene	U	1.28	ug/kg	0.384	1.28
79-01-6	Trichloroethylene	U	1.28	ug/kg	0.422	1.28
78-87-5	1,2-Dichloropropane	U	1.28	ug/kg	0.384	1.28
75-27-4	Bromodichloromethane	U	1.28	ug/kg	0.384	1.28
74-95-3	Dibromomethane	U	1.28	ug/kg	0.384	1.28
108-10-1	4-Methyl-2-pentanone	U	6.40	ug/kg	1.60	6.40
10061-01-5	cis-1,3-Dichloropropylene	U	1.28	ug/kg	0.384	1.28
108-88-3	Toluene	U	1.28	ug/kg	0.384	1.28
10061-02-6	trans-1,3-Dichloropropylene	U	1.28	ug/kg	0.384	1.28
79-00-5	1,1,2-Trichloroethane	U	1.28	ug/kg	0.384	1.28
591-78-6	2-Hexanone	U	6.40	ug/kg	1.92	6.40
142-28-9	1,3-Dichloropropane	U	1.28	ug/kg	0.384	1.28
127-18-4	Tetrachloroethylene	U	1.28	ug/kg	0.384	1.28
124-48-1	Dibromochloromethane	U	1.28	ug/kg	0.384	1.28
106-93-4	1,2-Dibromoethane	U	1.28	ug/kg	0.384	1.28
108-90-7	Chlorobenzene	U	1.28	ug/kg	0.384	1.28

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043007	Date Received: 02/25/2010 08:45	%Moisture: 21.9
Client ID: RE36-10-7472	Client: LANJ.010	Project: LANJ.01004
Batch ID: 961082	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/05/2010 02:17	Inst: VOA6.I	Dilution: 1
Prep Date: 03/03/2010 10:35	Analyst: RXD1	Purge Vol: 5 mL
Data File: 030410V6A437.D	Aliquot: 5 g	Final Volume: 5 mL
	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.28	ug/kg	0.384	1.28
179601-23-1	m,p-Xylenes	U	2.56	ug/kg	0.384	2.56
95-47-6	o-Xylene	U	1.28	ug/kg	0.384	1.28
100-42-5	Styrene	U	1.28	ug/kg	0.384	1.28
75-25-2	Bromoform	U	1.28	ug/kg	0.384	1.28
79-34-5	1,1,2,2-Tetrachloroethane	U	1.28	ug/kg	0.384	1.28
96-18-4	1,2,3-Trichloropropane	U	1.28	ug/kg	0.384	1.28
108-86-1	Bromobenzene	U	1.28	ug/kg	0.384	1.28
103-65-1	n-Propylbenzene	U	1.28	ug/kg	0.384	1.28
95-49-8	2-Chlorotoluene	U	1.28	ug/kg	0.384	1.28
98-82-8	Isopropylbenzene	U	1.28	ug/kg	0.384	1.28
108-67-8	1,3,5-Trimethylbenzene	U	1.28	ug/kg	0.384	1.28
106-43-4	4-Chlorotoluene	U	1.28	ug/kg	0.384	1.28
98-06-6	tert-Butylbenzene	U	1.28	ug/kg	0.384	1.28
95-63-6	1,2,4-Trimethylbenzene	U	1.28	ug/kg	0.384	1.28
135-98-8	sec-Butylbenzene	U	1.28	ug/kg	0.384	1.28
99-87-6	4-Isopropyltoluene	U	1.28	ug/kg	0.384	1.28
541-73-1	1,3-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28
106-46-7	1,4-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28
104-51-8	n-Butylbenzene	U	1.28	ug/kg	0.384	1.28
96-12-8	1,2-Dibromo-3-chloropropane	U	1.28	ug/kg	0.384	1.28
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.40	ug/kg	2.05	6.40
630-20-6	1,1,1,2-Tetrachloroethane	U	1.28	ug/kg	0.384	1.28
95-50-1	1,2-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043008  
 Client ID: RE36-10-7468  
 Batch ID: 961082  
 Run Date: 03/05/2010 02:45  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V66A438.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.1  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 26.6  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.36	ug/kg	0.463	1.36
74-87-3	Chloromethane	U	1.36	ug/kg	0.408	1.36
75-01-4	Vinyl chloride	U	1.36	ug/kg	0.408	1.36
74-83-9	Bromomethane	U	1.36	ug/kg	0.408	1.36
75-00-3	Chloroethane	U	1.36	ug/kg	0.408	1.36
75-69-4	Trichlorofluoromethane	U	1.36	ug/kg	0.408	1.36
67-64-1	Acetone	U	6.81	ug/kg	2.26	6.81
75-35-4	1,1-Dichloroethylene	U	1.36	ug/kg	0.408	1.36
74-88-4	Iodomethane	U	6.81	ug/kg	2.18	6.81
75-09-2	Methylene chloride	U	6.81	ug/kg	2.72	6.81
75-15-0	Carbon disulfide	U	6.81	ug/kg	1.70	6.81
156-60-5	trans-1,2-Dichloroethylene	U	1.36	ug/kg	0.408	1.36
75-34-3	1,1-Dichloroethane	U	1.36	ug/kg	0.408	1.36
78-93-3	2-Butanone	U	6.81	ug/kg	2.04	6.81
156-59-2	cis-1,2-Dichloroethylene	U	1.36	ug/kg	0.408	1.36
594-20-7	2,2-Dichloropropane	U	1.36	ug/kg	0.408	1.36
67-66-3	Chloroform	U	1.36	ug/kg	0.408	1.36
74-97-5	Bromochloromethane	U	1.36	ug/kg	0.449	1.36
71-55-6	1,1,1-Trichloroethane	U	1.36	ug/kg	0.408	1.36
563-58-6	1,1-Dichloropropene	U	1.36	ug/kg	0.408	1.36
56-23-5	Carbon tetrachloride	U	1.36	ug/kg	0.408	1.36
107-06-2	1,2-Dichloroethane	U	1.36	ug/kg	0.408	1.36
71-43-2	Benzene	U	1.36	ug/kg	0.408	1.36
79-01-6	Trichloroethylene	U	1.36	ug/kg	0.449	1.36
78-87-5	1,2-Dichloropropane	U	1.36	ug/kg	0.408	1.36
75-27-4	Bromodichloromethane	U	1.36	ug/kg	0.408	1.36
74-95-3	Dibromomethane	U	1.36	ug/kg	0.408	1.36
108-10-1	4-Methyl-2-pentanone	U	6.81	ug/kg	1.70	6.81
10061-01-5	cis-1,3-Dichloropropylene	U	1.36	ug/kg	0.408	1.36
108-88-3	Toluene	U	1.36	ug/kg	0.408	1.36
10061-02-6	trans-1,3-Dichloropropylene	U	1.36	ug/kg	0.408	1.36
79-00-5	1,1,2-Trichloroethane	U	1.36	ug/kg	0.408	1.36
591-78-6	2-Hexanone	U	6.81	ug/kg	2.04	6.81
142-28-9	1,3-Dichloropropane	U	1.36	ug/kg	0.408	1.36
127-18-4	Tetrachloroethylene	U	1.36	ug/kg	0.408	1.36
124-48-1	Dibromochloromethane	U	1.36	ug/kg	0.408	1.36
106-93-4	1,2-Dibromoethane	U	1.36	ug/kg	0.408	1.36
108-90-7	Chlorobenzene	U	1.36	ug/kg	0.408	1.36

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043008	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 26.6
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7468	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 961082	<b>Inst:</b> VOA6.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/05/2010 02:45	<b>Analyst:</b> RXD1	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/03/2010 10:35	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030410V6\6A438.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.36	ug/kg	0.408	1.36
179601-23-1	m,p-Xylenes	U	2.72	ug/kg	0.408	2.72
95-47-6	o-Xylene	U	1.36	ug/kg	0.408	1.36
100-42-5	Styrene	U	1.36	ug/kg	0.408	1.36
75-25-2	Bromoform	U	1.36	ug/kg	0.408	1.36
79-34-5	1,1,2,2-Tetrachloroethane	U	1.36	ug/kg	0.408	1.36
96-18-4	1,2,3-Trichloropropane	U	1.36	ug/kg	0.408	1.36
108-86-1	Bromobenzene	U	1.36	ug/kg	0.408	1.36
103-65-1	n-Propylbenzene	U	1.36	ug/kg	0.408	1.36
95-49-8	2-Chlorotoluene	U	1.36	ug/kg	0.408	1.36
98-82-8	Isopropylbenzene	U	1.36	ug/kg	0.408	1.36
108-67-8	1,3,5-Trimethylbenzene	U	1.36	ug/kg	0.408	1.36
106-43-4	4-Chlorotoluene	U	1.36	ug/kg	0.408	1.36
98-06-6	tert-Butylbenzene	U	1.36	ug/kg	0.408	1.36
95-63-6	1,2,4-Trimethylbenzene	U	1.36	ug/kg	0.408	1.36
135-98-8	sec-Butylbenzene	U	1.36	ug/kg	0.408	1.36
99-87-6	4-Isopropyltoluene		2.94	ug/kg	0.408	1.36
541-73-1	1,3-Dichlorobenzene	U	1.36	ug/kg	0.408	1.36
106-46-7	1,4-Dichlorobenzene	U	1.36	ug/kg	0.408	1.36
104-51-8	n-Butylbenzene	U	1.36	ug/kg	0.408	1.36
96-12-8	1,2-Dibromo-3-chloropropane	U	1.36	ug/kg	0.408	1.36
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.81	ug/kg	2.18	6.81
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.36	ug/kg	0.408	1.36
95-50-1	1,2-Dichlorobenzene	U	1.36	ug/kg	0.408	1.36

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	9.01	22.5	ug/kg	0	J

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043009  
 Client ID: RE36-10-7464  
 Batch ID: 961082  
 Run Date: 03/05/2010 03:13  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V66A439.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 7  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08
67-64-1	Acetone	U	5.38	ug/kg	1.79	5.38
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
74-88-4	Iodomethane	U	5.38	ug/kg	1.72	5.38
75-09-2	Methylene chloride	U	5.38	ug/kg	2.15	5.38
75-15-0	Carbon disulfide	U	5.38	ug/kg	1.34	5.38
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08
78-93-3	2-Butanone	U	5.38	ug/kg	1.61	5.38
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.355	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.355	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08
108-10-1	4-Methyl-2-pentanone	U	5.38	ug/kg	1.34	5.38
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08
591-78-6	2-Hexanone	U	5.38	ug/kg	1.61	5.38
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043009	Date Received: 02/25/2010 08:45	%Moisture: 7
	Client: LANI.010	Project: LANL01004
Client ID: RE36-10-7464	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.1	Dilution: 1
Run Date: 03/05/2010 03:13	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V6\6A439.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.38	ug/kg	1.72	5.38
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043010  
 Client ID: RE36-10-7463  
 Batch ID: 961082  
 Run Date: 03/05/2010 03:40  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V6V6A440.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.1  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 8.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.371	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.327	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.327	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.327	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.327	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.327	1.09
67-64-1	Acetone	U	5.45	ug/kg	1.81	5.45
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
74-88-4	Iodomethane	U	5.45	ug/kg	1.74	5.45
75-09-2	Methylene chloride	U	5.45	ug/kg	2.18	5.45
75-15-0	Carbon disulfide	U	5.45	ug/kg	1.36	5.45
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.327	1.09
78-93-3	2-Butanone	U	5.45	ug/kg	1.63	5.45
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.327	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.360	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.327	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.327	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.327	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.327	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.327	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.360	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.327	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.327	1.09
108-10-1	4-Methyl-2-pentanone	U	5.45	ug/kg	1.36	5.45
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.327	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.327	1.09
591-78-6	2-Hexanone	U	5.45	ug/kg	1.63	5.45
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.327	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.327	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.327	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.327	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.327	1.09

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043010	Date Received: 02/25/2010 08:45	%Moisture: 8.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7463	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.1	Dilution: 1
Run Date: 03/05/2010 03:40	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A440.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.327	1.09
179601-23-1	m,p-Xylenes	U	2.18	ug/kg	0.327	2.18
95-47-6	o-Xylene	U	1.09	ug/kg	0.327	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.327	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.327	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.327	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.327	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.327	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.327	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.327	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.327	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.327	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.327	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.327	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.45	ug/kg	1.74	5.45
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043011  
 Client ID: RE36-10-7475  
 Batch ID: 961082  
 Run Date: 03/05/2010 04:08  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V6A441.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANI.010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 27.2  
 Project: LANI.01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.37	ug/kg	0.467	1.37
74-87-3	Chloromethane	U	1.37	ug/kg	0.412	1.37
75-01-4	Vinyl chloride	U	1.37	ug/kg	0.412	1.37
74-83-9	Bromomethane	U	1.37	ug/kg	0.412	1.37
75-00-3	Chloroethane	U	1.37	ug/kg	0.412	1.37
75-69-4	Trichlorofluoromethane	U	1.37	ug/kg	0.412	1.37
67-64-1	Acetone	U	6.87	ug/kg	2.28	6.87
75-35-4	1,1-Dichloroethylen	U	1.37	ug/kg	0.412	1.37
74-88-4	Iodomethane	U	6.87	ug/kg	2.20	6.87
75-09-2	Methylene chloride	U	6.87	ug/kg	2.75	6.87
75-15-0	Carbon disulfide	U	6.87	ug/kg	1.72	6.87
156-60-5	trans-1,2-Dichloroethylene	U	1.37	ug/kg	0.412	1.37
75-34-3	1,1-Dichloroethane	U	1.37	ug/kg	0.412	1.37
78-93-3	2-Butanone	U	6.87	ug/kg	2.06	6.87
156-59-2	cis-1,2-Dichloroethylene	U	1.37	ug/kg	0.412	1.37
594-20-7	2,2-Dichloropropane	U	1.37	ug/kg	0.412	1.37
67-66-3	Chloroform	U	1.37	ug/kg	0.412	1.37
74-97-5	Bromochloromethane	U	1.37	ug/kg	0.453	1.37
71-55-6	1,1,1-Trichloroethane	U	1.37	ug/kg	0.412	1.37
563-58-6	1,1-Dichloropropene	U	1.37	ug/kg	0.412	1.37
56-23-5	Carbon tetrachloride	U	1.37	ug/kg	0.412	1.37
107-06-2	1,2-Dichloroethane	U	1.37	ug/kg	0.412	1.37
71-43-2	Benzene	U	1.37	ug/kg	0.412	1.37
79-01-6	Trichloroethylene	U	1.37	ug/kg	0.453	1.37
78-87-5	1,2-Dichloropropane	U	1.37	ug/kg	0.412	1.37
75-27-4	Bromodichloromethane	U	1.37	ug/kg	0.412	1.37
74-95-3	Dibromomethane	U	1.37	ug/kg	0.412	1.37
108-10-1	4-Methyl-2-pentanone	U	6.87	ug/kg	1.72	6.87
10061-01-5	cis-1,3-Dichloropropylene	U	1.37	ug/kg	0.412	1.37
108-88-3	Toluene	U	1.37	ug/kg	0.412	1.37
10061-02-6	trans-1,3-Dichloropropylene	U	1.37	ug/kg	0.412	1.37
79-00-5	1,1,2-Trichloroethane	U	1.37	ug/kg	0.412	1.37
591-78-6	2-Hexanone	U	6.87	ug/kg	2.06	6.87
142-28-9	1,3-Dichloropropane	U	1.37	ug/kg	0.412	1.37
127-18-4	Tetrachloroethylene	U	1.37	ug/kg	0.412	1.37
124-48-1	Dibromochloromethane	U	1.37	ug/kg	0.412	1.37
106-93-4	1,2-Dibromoethane	U	1.37	ug/kg	0.412	1.37
108-90-7	Chlorobenzene	U	1.37	ug/kg	0.412	1.37

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043011  
 Client ID: RE36-10-7475  
 Batch ID: 961082  
 Run Date: 03/05/2010 04:08  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V66A441.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 27.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.37	ug/kg	0.412	1.37
179601-23-1	m,p-Xylenes	U	2.75	ug/kg	0.412	2.75
95-47-6	o-Xylene	U	1.37	ug/kg	0.412	1.37
100-42-5	Styrene	U	1.37	ug/kg	0.412	1.37
75-25-2	Bromoform	U	1.37	ug/kg	0.412	1.37
79-34-5	1,1,2,2-Tetrachloroethane	U	1.37	ug/kg	0.412	1.37
96-18-4	1,2,3-Trichloropropane	U	1.37	ug/kg	0.412	1.37
108-86-1	Bromobenzene	U	1.37	ug/kg	0.412	1.37
103-65-1	n-Propylbenzene	U	1.37	ug/kg	0.412	1.37
95-49-8	2-Chlorotoluene	U	1.37	ug/kg	0.412	1.37
98-82-8	Isopropylbenzene	U	1.37	ug/kg	0.412	1.37
108-67-8	1,3,5-Trimethylbenzene	U	1.37	ug/kg	0.412	1.37
106-43-4	4-Chlorotoluene	U	1.37	ug/kg	0.412	1.37
98-06-6	tert-Butylbenzene	U	1.37	ug/kg	0.412	1.37
95-63-6	1,2,4-Trimethylbenzene	U	1.37	ug/kg	0.412	1.37
135-98-8	sec-Butylbenzene	U	1.37	ug/kg	0.412	1.37
99-87-6	4-Isopropyltoluene	U	1.37	ug/kg	0.412	1.37
541-73-1	1,3-Dichlorobenzene	U	1.37	ug/kg	0.412	1.37
106-46-7	1,4-Dichlorobenzene	U	1.37	ug/kg	0.412	1.37
104-51-8	n-Butylbenzene	U	1.37	ug/kg	0.412	1.37
96-12-8	1,2-Dibromo-3-chloropropane	U	1.37	ug/kg	0.412	1.37
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.87	ug/kg	2.20	6.87
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.37	ug/kg	0.412	1.37
95-50-1	1,2-Dichlorobenzene	U	1.37	ug/kg	0.412	1.37

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043012	Date Received: 02/25/2010 08:45	%Moisture: 20.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7466	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.1	Dilution: 1
Run Date: 03/05/2010 04:36	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V6\6A442.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.428	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.377	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.377	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.377	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.377	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.377	1.26
67-64-1	Acetone	U	6.29	ug/kg	2.09	6.29
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.377	1.26
74-88-4	Iodomethane	U	6.29	ug/kg	2.01	6.29
75-09-2	Methylene chloride	U	6.29	ug/kg	2.52	6.29
75-15-0	Carbon disulfide	U	6.29	ug/kg	1.57	6.29
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.377	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.377	1.26
78-93-3	2-Butanone	U	6.29	ug/kg	1.89	6.29
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.377	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.377	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.377	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.415	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.377	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.377	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.377	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.377	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.377	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.415	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.377	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.377	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.377	1.26
108-10-1	4-Methyl-2-pentanone	U	6.29	ug/kg	1.57	6.29
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.377	1.26
108-88-3	Toluene	U	1.26	ug/kg	0.377	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.377	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.377	1.26
591-78-6	2-Hexanone	U	6.29	ug/kg	1.89	6.29
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.377	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.377	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.377	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.377	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.377	1.26

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043012	Date Received: 02/25/2010 08:45	%Moisture: 20.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7466	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 04:36	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A442.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.26	ug/kg	0.377	1.26
179601-23-1	m,p-Xylenes	U	2.52	ug/kg	0.377	2.52
95-47-6	o-Xylene	U	1.26	ug/kg	0.377	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.377	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.377	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.377	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.377	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.377	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.377	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.377	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.377	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.377	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.377	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.377	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.377	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.377	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.377	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.377	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.377	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.29	ug/kg	2.01	6.29
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.377	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043013	Date Received: 02/25/2010 08:45	%Moisture: 17
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7476	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 05:04	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A443.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.20	ug/kg	0.410	1.20
74-87-3	Chloromethane	U	1.20	ug/kg	0.361	1.20
75-01-4	Vinyl chloride	U	1.20	ug/kg	0.361	1.20
74-83-9	Bromomethane	U	1.20	ug/kg	0.361	1.20
75-00-3	Chloroethane	U	1.20	ug/kg	0.361	1.20
75-69-4	Trichlorofluoromethane	U	1.20	ug/kg	0.361	1.20
67-64-1	Acetone	U	6.02	ug/kg	2.00	6.02
75-35-4	1,1-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
74-88-4	Iodomethane	U	6.02	ug/kg	1.93	6.02
75-09-2	Methylene chloride	U	6.02	ug/kg	2.41	6.02
75-15-0	Carbon disulfide	U	6.02	ug/kg	1.51	6.02
156-60-5	trans-1,2-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
75-34-3	1,1-Dichloroethane	U	1.20	ug/kg	0.361	1.20
78-93-3	2-Butanone	U	6.02	ug/kg	1.81	6.02
156-59-2	cis-1,2-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
594-20-7	2,2-Dichloropropane	U	1.20	ug/kg	0.361	1.20
67-66-3	Chloroform	U	1.20	ug/kg	0.361	1.20
74-97-5	Bromochloromethane	U	1.20	ug/kg	0.398	1.20
71-55-6	1,1,1-Trichloroethane	U	1.20	ug/kg	0.361	1.20
563-58-6	1,1-Dichloropropene	U	1.20	ug/kg	0.361	1.20
56-23-5	Carbon tetrachloride	U	1.20	ug/kg	0.361	1.20
107-06-2	1,2-Dichloroethane	U	1.20	ug/kg	0.361	1.20
71-43-2	Benzene	U	1.20	ug/kg	0.361	1.20
79-01-6	Trichloroethylene	U	1.20	ug/kg	0.398	1.20
78-87-5	1,2-Dichloropropane	U	1.20	ug/kg	0.361	1.20
75-27-4	Bromodichloromethane	U	1.20	ug/kg	0.361	1.20
74-95-3	Dibromomethane	U	1.20	ug/kg	0.361	1.20
108-10-1	4-Methyl-2-pentanone	U	6.02	ug/kg	1.51	6.02
10061-01-5	cis-1,3-Dichloropropylene	U	1.20	ug/kg	0.361	1.20
108-88-3	Toluene	U	1.20	ug/kg	0.361	1.20
10061-02-6	trans-1,3-Dichloropropylene	U	1.20	ug/kg	0.361	1.20
79-00-5	1,1,2-Trichloroethane	U	1.20	ug/kg	0.361	1.20
591-78-6	2-Hexanone	U	6.02	ug/kg	1.81	6.02
142-28-9	1,3-Dichloropropane	U	1.20	ug/kg	0.361	1.20
127-18-4	Tetrachloroethylene	U	1.20	ug/kg	0.361	1.20
124-48-1	Dibromochloromethane	U	1.20	ug/kg	0.361	1.20
106-93-4	1,2-Dibromoethane	U	1.20	ug/kg	0.361	1.20
108-90-7	Chlorobenzene	U	1.20	ug/kg	0.361	1.20

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043013

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.1  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 17  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7476  
 Batch ID: 961082  
 Run Date: 03/05/2010 05:04  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V66A443.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.20	ug/kg	0.361	1.20
179601-23-1	m,p-Xylenes	U	2.41	ug/kg	0.361	2.41
95-47-6	o-Xylene	U	1.20	ug/kg	0.361	1.20
100-42-5	Styrene	U	1.20	ug/kg	0.361	1.20
75-25-2	Bromoform	U	1.20	ug/kg	0.361	1.20
79-34-5	1,1,2,2-Tetrachloroethane	U	1.20	ug/kg	0.361	1.20
96-18-4	1,2,3-Trichloropropane	U	1.20	ug/kg	0.361	1.20
108-86-1	Bromobenzene	U	1.20	ug/kg	0.361	1.20
103-65-1	n-Propylbenzene	U	1.20	ug/kg	0.361	1.20
95-49-8	2-Chlorotoluene	U	1.20	ug/kg	0.361	1.20
98-82-8	Isopropylbenzene	U	1.20	ug/kg	0.361	1.20
108-67-8	1,3,5-Trimethylbenzene	U	1.20	ug/kg	0.361	1.20
106-43-4	4-Chlorotoluene	U	1.20	ug/kg	0.361	1.20
98-06-6	tert-Butylbenzene	U	1.20	ug/kg	0.361	1.20
95-63-6	1,2,4-Trimethylbenzene	U	1.20	ug/kg	0.361	1.20
135-98-8	sec-Butylbenzene	U	1.20	ug/kg	0.361	1.20
99-87-6	4-Isopropyltoluene	U	1.20	ug/kg	0.361	1.20
541-73-1	1,3-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20
106-46-7	1,4-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20
104-51-8	n-Butylbenzene	U	1.20	ug/kg	0.361	1.20
96-12-8	1,2-Dibromo-3-chloropropane	U	1.20	ug/kg	0.361	1.20
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.02	ug/kg	1.93	6.02
630-20-6	1,1,1,2-Tetrachloroethane	U	1.20	ug/kg	0.361	1.20
95-50-1	1,2-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found						

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043014	Date Received: 02/25/2010 08:45	%Moisture: 12.7
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7461	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.J	Dilution: 1
Run Date: 03/05/2010 05:31	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V6\6A444.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15
67-64-1	Acetone	U	5.73	ug/kg	1.90	5.73
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.73	ug/kg	1.83	5.73
75-09-2	Methylene chloride	U	5.73	ug/kg	2.29	5.73
75-15-0	Carbon disulfide	U	5.73	ug/kg	1.43	5.73
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15
78-93-3	2-Butanone	U	5.73	ug/kg	1.72	5.73
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.378	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.378	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15
108-10-1	4-Methyl-2-pentanone	U	5.73	ug/kg	1.43	5.73
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15
591-78-6	2-Hexanone	U	5.73	ug/kg	1.72	5.73
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043014  
 Client ID: RE36-10-7461  
 Batch ID: 961082  
 Run Date: 03/05/2010 05:31  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V6\6A444.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL.010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.7  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.73	ug/kg	1.83	5.73
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043015  
 Client ID: RE36-10-7467  
 Batch ID: 961082  
 Run Date: 03/05/2010 15:18  
 Prep Date: 03/05/2010 12:04  
 Data File: 030510V66A511.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.1  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 16.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.20	ug/kg	0.409	1.20
74-87-3	Chloromethane	U	1.20	ug/kg	0.361	1.20
75-01-4	Vinyl chloride	U	1.20	ug/kg	0.361	1.20
74-83-9	Bromomethane	U	1.20	ug/kg	0.361	1.20
75-00-3	Chloroethane	U	1.20	ug/kg	0.361	1.20
75-69-4	Trichlorofluoromethane	U	1.20	ug/kg	0.361	1.20
67-64-1	Acetone	U	6.01	ug/kg	2.00	6.01
75-35-4	1,1-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
74-88-4	Iodomethane	U	6.01	ug/kg	1.92	6.01
75-09-2	Methylene chloride	J	4.62	ug/kg	2.41	6.01
75-15-0	Carbon disulfide	U	6.01	ug/kg	1.50	6.01
156-60-5	trans-1,2-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
75-34-3	1,1-Dichloroethane	U	1.20	ug/kg	0.361	1.20
78-93-3	2-Butanone	U	6.01	ug/kg	1.80	6.01
156-59-2	cis-1,2-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
594-20-7	2,2-Dichloropropane	U	1.20	ug/kg	0.361	1.20
67-66-3	Chloroform	U	1.20	ug/kg	0.361	1.20
74-97-5	Bromochloromethane	U	1.20	ug/kg	0.397	1.20
71-55-6	1,1,1-Trichloroethane	U	1.20	ug/kg	0.361	1.20
563-58-6	1,1-Dichloropropene	U	1.20	ug/kg	0.361	1.20
56-23-5	Carbon tetrachloride	U	1.20	ug/kg	0.361	1.20
107-06-2	1,2-Dichloroethane	U	1.20	ug/kg	0.361	1.20
71-43-2	Benzene	U	1.20	ug/kg	0.361	1.20
79-01-6	Trichloroethylene	U	1.20	ug/kg	0.397	1.20
78-87-5	1,2-Dichloropropane	U	1.20	ug/kg	0.361	1.20
75-27-4	Bromodichloromethane	U	1.20	ug/kg	0.361	1.20
74-95-3	Dibromomethane	U	1.20	ug/kg	0.361	1.20
108-10-1	4-Methyl-2-pentanone	U	6.01	ug/kg	1.50	6.01
10061-01-5	cis-1,3-Dichloropropylene	U	1.20	ug/kg	0.361	1.20
108-88-3	Toluene	U	1.20	ug/kg	0.361	1.20
10061-02-6	trans-1,3-Dichloropropylene	U	1.20	ug/kg	0.361	1.20
79-00-5	1,1,2-Trichloroethane	U	1.20	ug/kg	0.361	1.20
591-78-6	2-Hexanone	U	6.01	ug/kg	1.80	6.01
142-28-9	1,3-Dichloropropane	U	1.20	ug/kg	0.361	1.20
127-18-4	Tetrachloroethylene	U	1.20	ug/kg	0.361	1.20
124-48-1	Dibromochloromethane	U	1.20	ug/kg	0.361	1.20
106-93-4	1,2-Dibromoethane	U	1.20	ug/kg	0.361	1.20
108-90-7	Chlorobenzene	U	1.20	ug/kg	0.361	1.20

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043015  
  
Client ID: RE36-10-7467  
Batch ID: 961082  
Run Date: 03/05/2010 15:18  
Prep Date: 03/05/2010 12:04  
Data File: 030510V66A511.D

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA6.I  
Analyst: RXD1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 16.9  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.20	ug/kg	0.361	1.20
179601-23-1	m,p-Xylenes	U	2.41	ug/kg	0.361	2.41
95-47-6	o-Xylene	U	1.20	ug/kg	0.361	1.20
100-42-5	Styrene	U	1.20	ug/kg	0.361	1.20
75-25-2	Bromoform	U	1.20	ug/kg	0.361	1.20
79-34-5	1,1,2,2-Tetrachloroethane	U	1.20	ug/kg	0.361	1.20
96-18-4	1,2,3-Trichloropropane	U	1.20	ug/kg	0.361	1.20
108-86-1	Bromobenzene	U	1.20	ug/kg	0.361	1.20
103-65-1	n-Propylbenzene	U	1.20	ug/kg	0.361	1.20
95-49-8	2-Chlorotoluene	U	1.20	ug/kg	0.361	1.20
98-82-8	Isopropylbenzene	U	1.20	ug/kg	0.361	1.20
108-67-8	1,3,5-Trimethylbenzene	U	1.20	ug/kg	0.361	1.20
106-43-4	4-Chlorotoluene	U	1.20	ug/kg	0.361	1.20
98-06-6	tert-Butylbenzene	U	1.20	ug/kg	0.361	1.20
95-63-6	1,2,4-Trimethylbenzene	U	1.20	ug/kg	0.361	1.20
135-98-8	sec-Butylbenzene	U	1.20	ug/kg	0.361	1.20
99-87-6	4-Isopropyltoluene	U	1.20	ug/kg	0.361	1.20
541-73-1	1,3-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20
106-46-7	1,4-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20
104-51-8	n-Butylbenzene	U	1.20	ug/kg	0.361	1.20
96-12-8	1,2-Dibromo-3-chloropropane	U	1.20	ug/kg	0.361	1.20
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.01	ug/kg	1.92	6.01
630-20-6	1,1,1,2-Tetrachloroethane	U	1.20	ug/kg	0.361	1.20
95-50-1	1,2-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.17	15.6	ug/kg	0	J



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043016	Date Received: 02/25/2010 08:45	%Moisture: 12.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7469	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 15:46	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/05/2010 12:06	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030510V66A512.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDI/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.389	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.343	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.343	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.343	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.343	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.343	1.14
67-64-1	Acetone	U	5.71	ug/kg	1.90	5.71
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
74-88-4	Iodomethane	U	5.71	ug/kg	1.83	5.71
75-09-2	Methylene chloride	U	5.71	ug/kg	2.29	5.71
75-15-0	Carbon disulfide	U	5.71	ug/kg	1.43	5.71
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.343	1.14
78-93-3	2-Butanone	U	5.71	ug/kg	1.71	5.71
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.343	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.343	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.377	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.343	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.343	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.343	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.343	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.343	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.377	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.343	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.343	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.343	1.14
108-10-1	4-Methyl-2-pentanone	U	5.71	ug/kg	1.43	5.71
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.343	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.343	1.14
591-78-6	2-Hexanone	U	5.71	ug/kg	1.71	5.71
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.343	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.343	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.343	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.343	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.343	1.14

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043016	Date Received: 02/25/2010 08:45	%Moisture: 12.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7469	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 15:46	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/05/2010 12:06	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030510V6A512.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.343	1.14
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.343	2.29
95-47-6	o-Xylene	U	1.14	ug/kg	0.343	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.343	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.343	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.343	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.343	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.343	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.343	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.343	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.343	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.343	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.343	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.343	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.343	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.343	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.343	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.343	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.343	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.71	ug/kg	1.83	5.71
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.343	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043017	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 14.4
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7470	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 961082	<b>Inst:</b> VOA6.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/05/2010 16:14	<b>Analyst:</b> RXD1	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/05/2010 12:08	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030510V66A513.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.17	ug/kg	0.397	1.17
74-87-3	Chloromethane	U	1.17	ug/kg	0.350	1.17
75-01-4	Vinyl chloride	U	1.17	ug/kg	0.350	1.17
74-83-9	Bromomethane	U	1.17	ug/kg	0.350	1.17
75-00-3	Chloroethane	U	1.17	ug/kg	0.350	1.17
75-69-4	Trichlorofluoromethane	U	1.17	ug/kg	0.350	1.17
67-64-1	Acetone	U	5.84	ug/kg	1.94	5.84
75-35-4	1,1-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
74-88-4	Iodomethane	U	5.84	ug/kg	1.87	5.84
75-09-2	Methylene chloride	U	5.84	ug/kg	2.34	5.84
75-15-0	Carbon disulfide	U	5.84	ug/kg	1.46	5.84
156-60-5	trans-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
75-34-3	1,1-Dichloroethane	U	1.17	ug/kg	0.350	1.17
78-93-3	2-Butanone	U	5.84	ug/kg	1.75	5.84
156-59-2	cis-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
594-20-7	2,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17
67-66-3	Chloroform	U	1.17	ug/kg	0.350	1.17
74-97-5	Bromochloromethane	U	1.17	ug/kg	0.385	1.17
71-55-6	1,1,1-Trichloroethane	U	1.17	ug/kg	0.350	1.17
563-58-6	1,1-Dichloropropene	U	1.17	ug/kg	0.350	1.17
56-23-5	Carbon tetrachloride	U	1.17	ug/kg	0.350	1.17
107-06-2	1,2-Dichloroethane	U	1.17	ug/kg	0.350	1.17
71-43-2	Benzene	U	1.17	ug/kg	0.350	1.17
79-01-6	Trichloroethylene	U	1.17	ug/kg	0.385	1.17
78-87-5	1,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17
75-27-4	Bromodichloromethane	U	1.17	ug/kg	0.350	1.17
74-95-3	Dibromomethane	U	1.17	ug/kg	0.350	1.17
108-10-1	4-Methyl-2-pentanone	U	5.84	ug/kg	1.46	5.84
10061-01-5	cis-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17
108-88-3	Toluene	U	1.17	ug/kg	0.350	1.17
10061-02-6	trans-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17
79-00-5	1,1,2-Trichloroethane	U	1.17	ug/kg	0.350	1.17
591-78-6	2-Hexanone	U	5.84	ug/kg	1.75	5.84
142-28-9	1,3-Dichloropropane	U	1.17	ug/kg	0.350	1.17
127-18-4	Tetrachloroethylene	U	1.17	ug/kg	0.350	1.17
124-48-1	Dibromochloromethane	U	1.17	ug/kg	0.350	1.17
106-93-4	1,2-Dibromoethane	U	1.17	ug/kg	0.350	1.17
108-90-7	Chlorobenzene	U	1.17	ug/kg	0.350	1.17

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043017  
 Client ID: RE36-10-7470  
 Batch ID: 961082  
 Run Date: 03/05/2010 16:14  
 Prep Date: 03/05/2010 12:08  
 Data File: 030510V66A513.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 14.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.17	ug/kg	0.350	1.17
179601-23-1	m,p-Xylenes	U	2.34	ug/kg	0.350	2.34
95-47-6	o-Xylene	U	1.17	ug/kg	0.350	1.17
100-42-5	Styrene	U	1.17	ug/kg	0.350	1.17
75-25-2	Bromoform	U	1.17	ug/kg	0.350	1.17
79-34-5	1,1,2,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17
96-18-4	1,2,3-Trichloropropane	U	1.17	ug/kg	0.350	1.17
108-86-1	Bromobenzene	U	1.17	ug/kg	0.350	1.17
103-65-1	n-Propylbenzene	U	1.17	ug/kg	0.350	1.17
95-49-8	2-Chlorotoluene	U	1.17	ug/kg	0.350	1.17
98-82-8	Isopropylbenzene	U	1.17	ug/kg	0.350	1.17
108-67-8	1,3,5-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17
106-43-4	4-Chlorotoluene	U	1.17	ug/kg	0.350	1.17
98-06-6	tert-Butylbenzene	U	1.17	ug/kg	0.350	1.17
95-63-6	1,2,4-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17
135-98-8	sec-Butylbenzene	U	1.17	ug/kg	0.350	1.17
99-87-6	4-Isopropyltoluene	U	1.17	ug/kg	0.350	1.17
541-73-1	1,3-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17
106-46-7	1,4-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17
104-51-8	n-Butylbenzene	U	1.17	ug/kg	0.350	1.17
96-12-8	1,2-Dibromo-3-chloropropane	U	1.17	ug/kg	0.350	1.17
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.84	ug/kg	1.87	5.84
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17
95-50-1	1,2-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.17	7.61	ug/kg	0	J

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043018	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 20.8
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7515	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 961082	<b>Inst:</b> VOA6.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/05/2010 07:22	<b>Analyst:</b> RXD1	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/03/2010 10:35	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030410V66A448.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.429	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.379	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.379	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.379	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.379	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.379	1.26
67-64-1	Acetone	U	6.31	ug/kg	2.10	6.31
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
74-88-4	Iodomethane	U	6.31	ug/kg	2.02	6.31
75-09-2	Methylene chloride	U	6.31	ug/kg	2.53	6.31
75-15-0	Carbon disulfide	U	6.31	ug/kg	1.58	6.31
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.379	1.26
78-93-3	2-Butanone	U	6.31	ug/kg	1.89	6.31
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.379	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.379	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.417	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.379	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.379	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.379	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.379	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.379	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.417	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.379	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.379	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.379	1.26
108-10-1	4-Methyl-2-pentanone	U	6.31	ug/kg	1.58	6.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.379	1.26
108-88-3	Toluene	U	1.26	ug/kg	0.379	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.379	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.379	1.26
591-78-6	2-Hexanone	U	6.31	ug/kg	1.89	6.31
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.379	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.379	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.379	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.379	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.379	1.26

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043018	Date Received: 02/25/2010 08:45	%Moisture: 20.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7515	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.1	Dilution: 1
Run Date: 03/05/2010 07:22	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V6\6A448.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.26	ug/kg	0.379	1.26
179601-23-1	m,p-Xylenes	J	0.404	ug/kg	0.379	2.53
95-47-6	o-Xylene	U	1.26	ug/kg	0.379	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.379	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.379	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.379	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.379	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.379	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.379	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.379	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.379	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.379	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.379	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.379	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.379	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.379	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.379	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.379	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.379	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.31	ug/kg	2.02	6.31
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.379	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043019	<b>Date Received:</b> 02/25/2010 08:45	
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7539	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 961082	<b>Inst:</b> VOA6.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/05/2010 07:50	<b>Analyst:</b> RXD1	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/04/2010 13:51	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030410V6V6A449.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043019	<b>Date Received:</b> 02/25/2010 08:45	
<b>Client ID:</b> RE36-10-7539	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 961082	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Run Date:</b> 03/05/2010 07:50	<b>Inst:</b> VOA6.1	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/04/2010 13:51	<b>Analyst:</b> RXD1	<b>Purge Vol:</b> 5 mL
<b>Data File:</b> 030410V66A449.D	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.00	ug/kg	1.60	5.00
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		



# **Quality Control Summary**

**Volatile**  
**Surrogate Recovery Report**

Page 1 of 2

SDG Number: 10-2074

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202061420	LCS for batch 961079	98	96	102
1202061421	LCS for batch 961079	100	97	101
1202061417	MB for batch 961079	100	96	101
248043001	RE36-10-7414	98	97	106
248043002	RE36-10-7413	102	104	121
248043003	RE36-10-7462	104	97	102
248043004	RE36-10-7465	102	104	121
248043006	RE36-10-7471	102	99	111
248043007	RE36-10-7472	103	96	103
248043008	RE36-10-7468	102	107	123
248043009	RE36-10-7464	103	100	113
248043010	RE36-10-7463	103	101	123
248043011	RE36-10-7475	103	105	119
248043012	RE36-10-7466	102	100	116
248043013	RE36-10-7476	102	98	106
248043014	RE36-10-7461	104	101	118
248043018	RE36-10-7515	104	103	128
248043019	RE36-10-7539	108	97	104
1202061418	RE36-10-7414PS	102	98	103
1202061419	RE36-10-7414PSD	102	99	105
1202078876	LCS for batch 961079	101	97	102
1202078877	LCS for batch 961079	99	96	103
1202078875	MB for batch 961079	99	96	104
248043005	RE36-10-7473	101	110	129

DCED4 = 1,2-Dichloroethane-d4 (66%-134%)

TOL = Toluene-d8 (71%-128%)

BFB = Bromofluorobenzene (65%-130%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

Volatile  
Surrogate Recovery Report

Page 2 of 2

SDG Number: 10-2074

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
248043015	RE36-10-7467	103	105	123
248043016	RE36-10-7469	109	103	113
248043017	RE36-10-7470	101	104	127

## Surrogate

## Acceptance Limits

DCED4 = 1,2-Dichloroethane-d4

(66%-134%)

TOL = Toluene-d8

(71%-128%)

BFB = Bromofluorobenzene

(65%-130%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

## Volatile

Page 1 of 6

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2074

Sample Type: Post Spike

Client ID: RE36-10-7414PS

Matrix: R

Lab Sample ID: 1202061418

%Moisture: 21.1

Instrument: VOA6.I

Analysis Date: 03/05/2010 08:17

Dilution: 1

Analyst: RXD1

Pren Batch II 961079

Purge Vol: 5 mL

Batch ID: 961082

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS Dichlorodifluoromethane	50.0	0.00 U	34.2	68	39-148
74-87-3	PS Chloromethane	50.0	0.00 U	37.4	75	42-131
75-01-4	PS Vinyl chloride	50.0	0.00 U	39.5	79	50-127
74-83-9	PS Bromomethane	50.0	0.00 U	37.3	75	26-135
75-00-3	PS Chloroethane	50.0	0.00 U	40.3	81	54-128
75-69-4	PS Trichlorofluoromethane	50.0	0.00 U	41.1	82	55-138
67-64-1	PS Acetone	250	0.00 U	157	63	20-144
75-35-4	PS 1,1-Dichloroethylene	50.0	0.00 U	37.9	76	55-128
74-88-4	PS Iodomethane	250	0.00 U	158	63	47-132
75-09-2	PS Methylene chloride	50.0	0.00 U	37.2	74	56-123
75-15-0	PS Carbon disulfide	250	0.00 U	181	72	53-133
156-60-5	PS trans-1,2-Dichloroethylene	50.0	0.00 U	37.3	75	57-119
75-34-3	PS 1,1-Dichloroethane	50.0	0.00 U	39.9	80	62-125
78-93-3	PS 2-Butanone	250	0.00 U	177	71	30-150
156-59-2	PS cis-1,2-Dichloroethylene	50.0	0.00 U	38.6	77	60-124
594-20-7	PS 2,2-Dichloropropane	50.0	0.00 U	37.3	75	56-129
67-66-3	PS Chloroform	50.0	0.00 U	38.7	77	62-120
74-97-5	PS Bromochloromethane	50.0	0.00 U	39.2	78	51-135
71-55-6	PS 1,1,1-Trichloroethane	50.0	0.00 U	39.4	79	58-129
563-58-6	PS 1,1-Dichloropropene	50.0	0.00 U	37.0	74	59-126
56-23-5	PS Carbon tetrachloride	50.0	0.00 U	39.2	78	55-132
107-06-2	PS 1,2-Dichloroethane	50.0	0.00 U	39.7	79	54-121

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 2 of 6

SDG Number: 10-2074

Sample Type: Post Spike

Client ID: RE36-10-7414PS

Matrix: R

Lab Sample ID: 1202061418

%Moisture: 21.1

Instrument: VOA6.I

Analysis Date: 03/05/2010 08:17

Dilution: 1

Analyst: RXD1

Prep Batch ID: 961079

Purge Vol: 5 mL

Batch ID: 961082

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS Benzene	50.0	0.00 U	35.1	70	58-120
79-01-6	PS Trichloroethylene	50.0	0.00 U	34.5	69	54-130
78-87-5	PS 1,2-Dichloropropane	50.0	0.00 U	39.0	78	59-121
75-27-4	PS Bromodichloromethane	50.0	0.00 U	39.7	79	57-130
74-95-3	PS Dibromomethane	50.0	0.00 U	40.2	80	57-124
108-10-1	PS 4-Methyl-2-pentanone	250	0.00 U	186	74	40-137
10061-01-5	PS cis-1,3-Dichloropropylene	50.0	0.00 U	28.6	57	50-131
108-88-3	PS Toluene	50.0	0.00 U	30.7	61	54-119
10061-02-6	PS trans-1,3-Dichloropropylene	50.0	0.00 U	28.9	58	47-133
79-00-5	PS 1,1,2-Trichloroethane	50.0	0.00 U	37.4	75	60-130
591-78-6	PS 2-Hexanone	250	0.00 U	63.7	25 *	30-139
142-28-9	PS 1,3-Dichloropropane	50.0	0.00 U	36.9	74	59-125
127-18-4	PS Tetrachloroethylene	50.0	0.00 U	26.3	53	50-126
124-48-1	PS Dibromochloromethane	50.0	0.00 U	37.3	75	54-131
106-93-4	PS 1,2-Dibromoethane	50.0	0.00 U	35.0	70	55-127
108-90-7	PS Chlorobenzene	50.0	0.00 U	27.3	55	50-130
100-41-4	PS Ethylbenzene	50.0	0.00 U	23.4	47 *	50-121
179601-23-1	PS m,p-Xylenes	100	0.00 U	45.3	45 *	47-125
95-47-6	PS o-Xylene	50.0	0.00 U	26.9	54	51-127
100-42-5	PS Styrene	50.0	0.00 U	20.7	41	41-136
75-25-2	PS Bromoform	50.0	0.00 U	35.9	72	48-143
79-34-5	PS 1,1,2,2-Tetrachloroethane	50.0	0.00 U	36.9	74	52-129

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 3 of 6

SDG Number: 10-2074

Sample Type: Post Spike

Client ID: RE36-10-7414PS

Matrix: R

Lab Sample ID: 1202061418

%Moisture: 21.1

Instrument: VOA6.I

Analysis Date: 03/05/2010 08:17

Dilution: 1

Analyst: RXD1

Pre Batch ID: 961079

Purge Vol: 5 mL

Batch ID: 961082

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS 1,2,3-Trichloropropane	50.0	0.00 U	38.3	77	56-139
108-86-1	PS Bromobenzene	50.0	0.00 U	25.1	50 *	54-125
103-65-1	PS n-Propylbenzene	50.0	0.00 U	15.2	30 *	46-127
95-49-8	PS 2-Chlorotoluene	50.0	0.00 U	21.7	43 *	47-130
98-82-8	PS Isopropylbenzene	50.0	0.00 U	21.3	43	42-126
108-67-8	PS 1,3,5-Trimethylbenzene	50.0	0.00 U	19.6	39 *	44-132
106-43-4	PS 4-Chlorotoluene	50.0	0.00 U	18.9	38 *	46-127
98-06-6	PS tert-Butylbenzene	50.0	0.00 U	18.6	37 *	48-136
95-63-6	PS 1,2,4-Trimethylbenzene	50.0	0.00 U	16.0	32 *	42-132
135-98-8	PS sec-Butylbenzene	50.0	0.00 U	15.5	31 *	47-130
99-87-6	PS 4-Isopropyltoluene	50.0	0.00 U	9.49	19 *	36-142
541-73-1	PS 1,3-Dichlorobenzene	50.0	0.00 U	18.5	37 *	41-130
106-46-7	PS 1,4-Dichlorobenzene	50.0	0.00 U	17.7	35 *	41-126
104-51-8	PS n-Butylbenzene	50.0	0.00 U	9.51	19 *	37-136
96-12-8	PS 1,2-Dibromo-3-chloropropane	50.0	0.00 U	36.9	74	42-143
630-20-6	PS 1,1,1,2-Tetrachloroethane	50.0	0.00 U	34.4	69	58-127
95-50-1	PS 1,2-Dichlorobenzene	50.0	0.00 U	20.1	40 *	42-128

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 4 of 6

SDG Number: 10-2074

Sample Type: Post Spike Duplicate

Client ID: RE36-10-7414PSD

Matrix: R

Lab Sample ID: 1202061419

%Moisture: 21.1

Instrument: VOA6.I

Analysis Date: 03/05/2010 08:45

Dilution: 1

Analyst: RXD1

Pren Batch ID: 961079

Purge Vol: 5 mL

Batch ID: 961082

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD Dichlorodifluoromethane	50.0	0.00 U	34.4	69	39-148	1	0-19
74-87-3	PSD Chloromethane	50.0	0.00 U	37.4	75	42-131	0	0-23
75-01-4	PSD Vinyl chloride	50.0	0.00 U	40.7	81	50-127	3	0-23
74-83-9	PSD Bromomethane	50.0	0.00 U	37.2	74	26-135	0	0-22
75-00-3	PSD Chloroethane	50.0	0.00 U	41.0	82	54-128	2	0-25
75-69-4	PSD Trichlorofluoromethane	50.0	0.00 U	42.1	84	55-138	2	0-21
67-64-1	PSD Acetone	250	0.00 U	191	76	20-144	19	0-22
75-35-4	PSD 1,1-Dichloroethylene	50.0	0.00 U	39.1	78	55-128	3	0-20
74-88-4	PSD Iodomethane	250	0.00 U	162	65	47-132	2	0-20
75-09-2	PSD Methylene chloride	50.0	0.00 U	38.8	78	56-123	4	0-20
75-15-0	PSD Carbon disulfide	250	0.00 U	185	74	53-133	3	0-22
156-60-5	PSD trans-1,2-Dichloroethylene	50.0	0.00 U	38.2	76	57-119	2	0-20
75-34-3	PSD 1,1-Dichloroethane	50.0	0.00 U	40.5	81	62-125	2	0-20
78-93-3	PSD 2-Butanone	250	0.00 U	209	84	30-150	17	0-21
156-59-2	PSD cis-1,2-Dichloroethylene	50.0	0.00 U	39.5	79	60-124	2	0-20
594-20-7	PSD 2,2-Dichloropropane	50.0	0.00 U	39.5	79	56-129	6	0-20
67-66-3	PSD Chloroform	50.0	0.00 U	39.5	79	62-120	2	0-25
74-97-5	PSD Bromochloromethane	50.0	0.00 U	40.5	81	51-135	3	0-20
71-55-6	PSD 1,1,1-Trichloroethane	50.0	0.00 U	40.4	81	58-129	3	0-20
563-58-6	PSD 1,1-Dichloropropene	50.0	0.00 U	38.3	77	59-126	3	0-20
56-23-5	PSD Carbon tetrachloride	50.0	0.00 U	40.3	81	55-132	3	0-20
107-06-2	PSD 1,2-Dichloroethane	50.0	0.00 U	40.9	82	54-121	3	0-20

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 5 of 6

SDG Number: 10-2074

Sample Type: Post Spike Duplicate

Client ID: RE36-10-7414PSD

Matrix: R

Lab Sample ID: 1202061419

%Moisture: 21.1

Instrument: VOA6.I

Analysis Date: 03/05/2010 08:45

Dilution: 1

Analyst: RXD1

Prep Batch II 961079

Purge Vol: 5 mL

Batch ID: 961082

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD Benzene	50.0	0.00 U	34.8	70	58-120	1	0-20
79-01-6	PSD Trichloroethylene	50.0	0.00 U	36.1	72	54-130	5	0-23
78-87-5	PSD 1,2-Dichloropropane	50.0	0.00 U	39.8	80	59-121	2	0-20
75-27-4	PSD Bromodichloromethane	50.0	0.00 U	41.0	82	57-130	3	0-20
74-95-3	PSD Dibromomethane	50.0	0.00 U	42.3	85	57-124	5	0-20
108-10-1	PSD 4-Methyl-2-pentanone	250	0.00 U	207	83	40-137	11	0-25
10061-01-5	PSD cis-1,3-Dichloropropylene	50.0	0.00 U	28.9	58	50-131	1	0-20
108-88-3	PSD Toluene	50.0	0.00 U	31.3	63	54-119	2	0-23
10061-02-6	PSD trans-1,3-Dichloropropylene	50.0	0.00 U	29.4	59	47-133	2	0-24
79-00-5	PSD 1,1,2-Trichloroethane	50.0	0.00 U	40.5	81	60-130	8	0-20
591-78-6	PSD 2-Hexanone	250	0.00 U	21.4	9 *	30-139	100 *	0-21
142-28-9	PSD 1,3-Dichloropropane	50.0	0.00 U	39.7	79	59-125	7	0-20
127-18-4	PSD Tetrachloroethylene	50.0	0.00 U	28.4	57	50-126	8	0-20
124-48-1	PSD Dibromochloromethane	50.0	0.00 U	39.9	80	54-131	7	0-23
106-93-4	PSD 1,2-Dibromoethane	50.0	0.00 U	37.7	75	55-127	7	0-23
108-90-7	PSD Chlorobenzene	50.0	0.00 U	27.9	56	50-130	2	0-24
100-41-4	PSD Ethylbenzene	50.0	0.00 U	23.2	46 *	50-121	1	0-24
179601-23-1	PSD m,p-Xylenes	100	0.00 U	43.6	44 *	47-125	4	0-25
95-47-6	PSD o-Xylene	50.0	0.00 U	27.9	56	51-127	4	0-24
100-42-5	PSD Styrene	50.0	0.00 U	18.9	38 *	41-136	9	0-24
75-25-2	PSD Bromoform	50.0	0.00 U	40.6	81	48-143	12	0-20
79-34-5	PSD 1,1,2,2-Tetrachloroethane	50.0	0.00 U	41.6	83	52-129	12	0-20



Volatile  
Quality Control Summary  
Spike Recovery Report

Page 6 of 6

SDG Number: 10-2074

Sample Type: Post Spike Duplicate

Client ID: RE36-10-7414PSD

Matrix: R

Lab Sample ID: 1202061419

% Moisture: 21.1

Instrument: VOA6.I

Analysis Date: 03/05/2010 08:45

Dilution: 1

Analyst: RXD1

Pre Batch ID: 961079

Purge Vol: 5 mL

Batch ID: 961082

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD	Acceptance Limits
96-18-4	PSD 1,2,3-Trichloropropane	50.0	0.00 U	45.0	90	56-139	16	0-34
108-86-1	PSD Bromobenzene	50.0	0.00 U	26.6	53 *	54-125	6	0-22
103-65-1	PSD n-Propylbenzene	50.0	0.00 U	16.3	33 *	46-127	7	0-25
95-49-8	PSD 2-Chlorotoluene	50.0	0.00 U	23.3	47	47-130	7	0-24
98-82-8	PSD Isopropylbenzene	50.0	0.00 U	23.4	47	42-126	10	0-22
108-67-8	PSD 1,3,5-Trimethylbenzene	50.0	0.00 U	21.9	44	44-132	11	0-25
106-43-4	PSD 4-Chlorotoluene	50.0	0.00 U	20.0	40 *	46-127	6	0-26
98-06-6	PSD tert-Butylbenzene	50.0	0.00 U	21.6	43 *	48-136	15	0-24
95-63-6	PSD 1,2,4-Trimethylbenzene	50.0	0.00 U	15.1	30 *	42-132	6	0-26
135-98-8	PSD sec-Butylbenzene	50.0	0.00 U	18.1	36 *	47-130	16	0-27
99-87-6	PSD 4-Isopropyltoluene	50.0	0.00 U	12.3	25 *	36-142	26	0-27
541-73-1	PSD 1,3-Dichlorobenzene	50.0	0.00 U	20.3	41	41-130	10	0-25
106-46-7	PSD 1,4-Dichlorobenzene	50.0	0.00 U	19.4	39 *	41-126	10	0-25
104-51-8	PSD n-Butylbenzene	50.0	0.00 U	11.2	22 *	37-136	16	0-29
96-12-8	PSD 1,2-Dibromo-3-chloropropane	50.0	0.00 U	45.6	91	42-143	21	0-21
630-20-6	PSD 1,1,1,2-Tetrachloroethane	50.0	0.00 U	36.0	72	58-127	5	0-20
95-50-1	PSD 1,2-Dichlorobenzene	50.0	0.00 U	21.7	43	42-128	8	0-24

## Volatile

Page 1 of 3

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961079

Matrix: SOIL

Lab Sample ID: 1202061420

Instrument: VOA6.I

Analysis Date: 03/04/2010 22:08

Dilution: 1

Analyst: RXD1

Prep Batch ID: 961079

Purge Vol: 5 mL

Batch ID: 961082

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS Dichlorodifluoromethane	50.0	0.0	28.0	56	52-151
74-87-3	LCS Chloromethane	50.0	0.0	33.2	66	56-130
75-01-4	LCS Vinyl chloride	50.0	0.0	37.2	74	66-130
74-83-9	LCS Bromomethane	50.0	0.0	37.8	76	70-126
75-00-3	LCS Chloroethane	50.0	0.0	37.6	75	67-129
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	37.7	75	73-143
67-64-1	LCS Acetone	250	0.0	227	91	30-140
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	38.2	76	71-129
74-88-4	LCS Iodomethane	250	0.0	192	77	72-125
75-09-2	LCS Methylene chloride	50.0	0.0	38.0	76	64-121
75-15-0	LCS Carbon disulfide	250	0.0	194	78	70-133
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	40.3	81	73-120
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	41.5	83	73-120
78-93-3	LCS 2-Butanone	250	0.0	263	105	32-145
156-59-2	LCS cis-1,2-Dichloroethylene	50.0	0.0	41.5	83	74-124
594-20-7	LCS 2,2-Dichloropropane	50.0	0.0	41.5	83	73-134
67-66-3	LCS Chloroform	50.0	0.0	40.1	80	74-120
74-97-5	LCS Bromochloromethane	50.0	0.0	41.1	82	73-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	41.4	83	74-132
563-58-6	LCS 1,1-Dichloropropene	50.0	0.0	42.9	86	79-128
56-23-5	LCS Carbon tetrachloride	50.0	0.0	41.5	83	75-135
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	41.1	82	65-120

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 2 of 3

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961079

Matrix: SOIL

Lab Sample ID: 1202061420

Instrument: VOA6.I

Analysis Date: 03/04/2010 22:08

Dilution: 1

Analyst: RXD1

Pren Batch ID: 961079

Purge Vol: 5 mL

Batch ID: 961082

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS Benzene	50.0	0.0	40.1	80	74-120
79-01-6	LCS Trichloroethylene	50.0	0.0	42.4	85	77-124
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	42.7	85	73-120
75-27-4	LCS Bromodichloromethane	50.0	0.0	43.6	87	75-128
74-95-3	LCS Dibromomethane	50.0	0.0	42.3	85	75-120
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	251	101	63-133
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	44.3	89	78-127
108-88-3	LCS Toluene	50.0	0.0	40.8	82	74-120
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	44.6	89	70-125
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	41.9	84	75-120
591-78-6	LCS 2-Hexanone	250	0.0	296	118	40-153
142-28-9	LCS 1,3-Dichloropropane	50.0	0.0	41.3	83	73-120
127-18-4	LCS Tetrachloroethylene	50.0	0.0	40.9	82	72-126
124-48-1	LCS Dibromochloromethane	50.0	0.0	44.1	88	74-126
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	42.6	85	79-120
108-90-7	LCS Chlorobenzene	50.0	0.0	41.2	82	76-120
100-41-4	LCS Ethylbenzene	50.0	0.0	42.5	85	74-120
179601-23-1	LCS m,p-Xylenes	100	0.0	84.9	85	76-120
95-47-6	LCS o-Xylene	50.0	0.0	43.6	87	76-122
100-42-5	LCS Styrene	50.0	0.0	46.1	92	75-125
75-25-2	LCS Bromoform	50.0	0.0	47.6	95	68-135
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	43.4	87	72-122

**Quality Control Summary  
Spike Recovery Report**

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961079

Matrix: SOIL

Lab Sample ID: 1202061420

Instrument: VOA6.I

Analysis Date: 03/04/2010 22:08

Dilution: 1

Analyst: RXD1

Prep Batch ID: 961079

Purge Vol: 5 mL

Batch ID: 961082

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS 1,2,3-Trichloropropane	50.0	0.0	44.6	89	72-129
108-86-1	LCS Bromobenzene	50.0	0.0	43.3	87	74-120
103-65-1	LCS n-Propylbenzene	50.0	0.0	42.8	86	70-120
95-49-8	LCS 2-Chlorotoluene	50.0	0.0	43.2	86	70-120
98-82-8	LCS Isopropylbenzene	50.0	0.0	44.2	88	60-121
108-67-8	LCS 1,3,5-Trimethylbenzene	50.0	0.0	43.8	88	71-121
106-43-4	LCS 4-Chlorotoluene	50.0	0.0	43.0	86	71-120
98-06-6	LCS tert-Butylbenzene	50.0	0.0	44.0	88	75-123
95-63-6	LCS 1,2,4-Trimethylbenzene	50.0	0.0	43.5	87	73-120
135-98-8	LCS sec-Butylbenzene	50.0	0.0	43.6	87	74-123
99-87-6	LCS 4-Isopropyltoluene	50.0	0.0	44.1	88	76-127
541-73-1	LCS 1,3-Dichlorobenzene	50.0	0.0	40.9	82	75-120
106-46-7	LCS 1,4-Dichlorobenzene	50.0	0.0	40.5	81	73-120
104-51-8	LCS n-Butylbenzene	50.0	0.0	42.8	86	73-128
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	51.7	103	69-136
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	42.9	86	75-124
95-50-1	LCS 1,2-Dichlorobenzene	50.0	0.0	41.5	83	75-120

## Volatile

Page 1 of 1

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961079

Matrix: SOIL

Lab Sample ID:1202061421

Instrument: VOA6.I

Analysis Date: 03/04/2010 22:35

Dilution: 1

Analyst: RXD1

Pre Batch II 961079

Purge Vol: 5 mL

Batch ID: 961082

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS 1,1,2-Trichloro-1,2,2-Trifluor Trichlorotrifluoroethane	250	0.0	152	61 *	67-140

## Volatile

Page 1 of 3

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961079

Matrix: SOIL

Lab Sample ID: 1202078876

Instrument: VOA6.I

Analysis Date: 03/05/2010 11:36

Dilution: 1

Analyst: RXD1

Prep Batch ID: 961079

Purge Vol: 5 mL

Batch ID: 961082

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS Dichlorodifluoromethane	50.0	0.0	52.0	104	52-151
74-87-3	LCS Chloromethane	50.0	0.0	48.9	98	56-130
75-01-4	LCS Vinyl chloride	50.0	0.0	51.0	102	66-130
74-83-9	LCS Bromomethane	50.0	0.0	50.8	102	70-126
75-00-3	LCS Chloroethane	50.0	0.0	49.6	99	67-129
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	50.6	101	73-143
67-64-1	LCS Acetone	250	0.0	270	108	30-140
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	48.7	97	71-129
74-88-4	LCS Iodomethane	250	0.0	236	94	72-125
75-09-2	LCS Methylene chloride	50.0	0.0	45.6	91	64-121
75-15-0	LCS Carbon disulfide	250	0.0	252	101	70-133
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	50.1	100	73-120
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	50.1	100	73-120
78-93-3	LCS 2-Butanone	250	0.0	304	121	32-145
156-59-2	LCS cis-1,2-Dichloroethylene	50.0	0.0	50.1	100	74-124
594-20-7	LCS 2,2-Dichloropropane	50.0	0.0	52.3	105	73-134
67-66-3	LCS Chloroform	50.0	0.0	48.4	97	74-120
74-97-5	LCS Bromochloromethane	50.0	0.0	49.8	100	73-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	50.9	102	74-132
563-58-6	LCS 1,1-Dichloropropene	50.0	0.0	53.3	107	79-128
56-23-5	LCS Carbon tetrachloride	50.0	0.0	52.0	104	75-135
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	48.7	97	65-120

## Volatile

Page 2 of 3

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961079

Matrix: SOIL

Lab Sample ID: 1202078876

Instrument: VOA6.I

Analysis Date: 03/05/2010 11:36

Dilution: 1

Analyst: RXD1

Prep Batch ID: 961079

Purge Vol: 5 mL

Batch ID: 961082

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS Benzene	50.0	0.0	48.7	97	74-120
79-01-6	LCS Trichloroethylene	50.0	0.0	50.6	101	77-124
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	50.4	101	73-120
75-27-4	LCS Bromodichloromethane	50.0	0.0	51.5	103	75-128
74-95-3	LCS Dibromomethane	50.0	0.0	49.3	99	75-120
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	296	118	63-133
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	52.4	105	78-127
108-88-3	LCS Toluene	50.0	0.0	48.8	98	74-120
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	53.2	106	70-125
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	49.1	98	75-120
591-78-6	LCS 2-Hexanone	250	0.0	344	137	40-153
142-28-9	LCS 1,3-Dichloropropane	50.0	0.0	48.6	97	73-120
127-18-4	LCS Tetrachloroethylene	50.0	0.0	49.4	99	72-126
124-48-1	LCS Dibromochloromethane	50.0	0.0	52.3	105	74-126
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	51.2	102	79-120
108-90-7	LCS Chlorobenzene	50.0	0.0	48.8	98	76-120
100-41-4	LCS Ethylbenzene	50.0	0.0	50.4	101	74-120
179601-23-1	LCS m,p-Xylenes	100	0.0	102	102	76-120
95-47-6	LCS o-Xylene	50.0	0.0	51.6	103	76-122
100-42-5	LCS Styrene	50.0	0.0	55.1	110	75-125
75-25-2	LCS Bromoform	50.0	0.0	54.4	109	68-135
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	50.5	101	72-122

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 3 of 3

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961079

Matrix: SOIL

Lab Sample ID: 1202078876

Instrument: VOA6.I

Analysis Date: 03/05/2010 11:36

Dilution: 1

Analyst: RXD1

Pre Batch ID: 961079

Purge Vol: 5 mL

Batch ID: 961082

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS 1,2,3-Trichloropropane	50.0	0.0	51.2	102	72-129
108-86-1	LCS Bromobenzene	50.0	0.0	49.2	98	74-120
103-65-1	LCS n-Propylbenzene	50.0	0.0	50.6	101	70-120
95-49-8	LCS 2-Chlorotoluene	50.0	0.0	50.0	100	70-120
98-82-8	LCS Isopropylbenzene	50.0	0.0	51.6	103	60-121
108-67-8	LCS 1,3,5-Trimethylbenzene	50.0	0.0	50.7	101	71-121
106-43-4	LCS 4-Chlorotoluene	50.0	0.0	50.6	101	71-120
98-06-6	LCS tert-Butylbenzene	50.0	0.0	50.3	101	75-123
95-63-6	LCS 1,2,4-Trimethylbenzene	50.0	0.0	51.0	102	73-120
135-98-8	LCS sec-Butylbenzene	50.0	0.0	50.8	102	74-123
99-87-6	LCS 4-Isopropyltoluene	50.0	0.0	52.1	104	76-127
541-73-1	LCS 1,3-Dichlorobenzene	50.0	0.0	47.9	96	75-120
106-46-7	LCS 1,4-Dichlorobenzene	50.0	0.0	47.6	95	73-120
104-51-8	LCS n-Butylbenzene	50.0	0.0	51.4	103	73-128
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	56.9	114	69-136
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	50.5	101	75-124
95-50-1	LCS 1,2-Dichlorobenzene	50.0	0.0	48.1	96	75-120



Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 1

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961079

Matrix: SOIL

Lab Sample ID:1202078877

Instrument: VOA6.I

Analysis Date: 03/05/2010 12:32

Dilution: 1

Analyst: RXD1

Pren Batch II 961079

Purge Vol: 5 mL

Batch ID: 961082

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS 1,1,2-Trichloro-1,2,2-Trifluor Trichlorotrifluoroethane	250	0.0	255	102	67-140

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2074	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 961079	Instrument ID:	VOA6.I	Data File:	030410V6\6A430BL.D
Lab Sample ID:	1202061417	Prep Date:	03/04/2010 09:26	Analyzed:	03/04/10 23:03
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 961079	1202061420	030410V6\6A428LL.D	03/04/10	2208
02 LCS for batch 961079	1202061421	030410V6\6A429SL.D	03/04/10	2235
03 RE36-10-7414	248043001	030410V6\6A431.D	03/04/10	2331
04 RE36-10-7413	248043002	030410V6\6A432.D	03/04/10	2359
05 RE36-10-7462	248043003	030410V6\6A433.D	03/05/10	0026
06 RE36-10-7465	248043004	030410V6\6A434.D	03/05/10	0054
07 RE36-10-7471	248043006	030410V6\6A436.D	03/05/10	0150
08 RE36-10-7472	248043007	030410V6\6A437.D	03/05/10	0217
09 RE36-10-7468	248043008	030410V6\6A438.D	03/05/10	0245
10 RE36-10-7464	248043009	030410V6\6A439.D	03/05/10	0313
11 RE36-10-7463	248043010	030410V6\6A440.D	03/05/10	0340
12 RE36-10-7475	248043011	030410V6\6A441.D	03/05/10	0408
13 RE36-10-7466	248043012	030410V6\6A442.D	03/05/10	0436
14 RE36-10-7476	248043013	030410V6\6A443.D	03/05/10	0504
15 RE36-10-7461	248043014	030410V6\6A444.D	03/05/10	0531
16 RE36-10-7515	248043018	030410V6\6A448.D	03/05/10	0722
17 RE36-10-7539	248043019	030410V6\6A449.D	03/05/10	0750
18 RE36-10-7414PS	1202061418	030410V6\6A450.D	03/05/10	0817
19 RE36-10-7414PSD	1202061419	030410V6\6A451.D	03/05/10	0845

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2074	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 961079	Instrument ID:	VOA6J	Data File:	030510V6\6A506BS.D
Lab Sample ID:	1202078875	Prep Date:	03/05/2010 09:36	Analyzed:	03/05/10 13:00
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 961079	1202078876	030510V6\6A503LL.D	03/05/10	1136
02 LCS for batch 961079	1202078877	030510V6\6A505SL.D	03/05/10	1232
03 RE36-10-7473	248043005	030510V6\6A509.D	03/05/10	1422
04 RE36-10-7467	248043015	030510V6\6A511.D	03/05/10	1518
05 RE36-10-7469	248043016	030510V6\6A512.D	03/05/10	1546
06 RE36-10-7470	248043017	030510V6\6A513.D	03/05/10	1614

## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2074

Instrument ID: VOA6.I

Injection Date/Time: 10-FEB-10 12:23

Column Description: DB-624

Lab File ID 021010V6\6X302.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	24.7
75	30.0 - 60.0% of mass 95	55
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	1.3
174	50.0 - 100.0% of mass 95	83.7
175	5.0 - 9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	95.9
177	5.0 - 9.0% of mass 176	6.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W6VM100210-01	021010V6\6X303.D	10-FEB-10 12:51
ICALMIX[A]	W6VM100210-02	021010V6\6X304.D	10-FEB-10 13:19
ICALMIX[A]	W6VM100210-03	021010V6\6X305.D	10-FEB-10 13:47
ICALMIX[A]	W6VM100210-04	021010V6\6X306.D	10-FEB-10 14:14
ICALMIX[A]	W6VM100210-05	021010V6\6X307.D	10-FEB-10 14:42
ICALMIX[A]	W6VM100210-06	021010V6\6X308.D	10-FEB-10 15:10
ICALMIX[A]	W6VM100210-07	021010V6\6X309.D	10-FEB-10 15:38
ICALMIX[A]	W6VM100210-08	021010V6\6X311.D	10-FEB-10 16:33
ICVMIX[A]01	W6VM100210-09	021010V6\6X312.D	10-FEB-10 17:01
ICALMIX[B]	W6VM100210-11	021010V6\6X314.D	10-FEB-10 17:57
ICALMIX[B]	W6VM100210-12	021010V6\6X315.D	10-FEB-10 18:24
ICALMIX[B]	W6VM100210-13	021010V6\6X316.D	10-FEB-10 18:52
ICALMIX[B]	W6VM100210-14	021010V6\6X317.D	10-FEB-10 19:20
ICALMIX[B]	W6VM100210-15	021010V6\6X318.D	10-FEB-10 19:48
ICALMIX[B]	W6VM100210-16	021010V6\6X319.D	10-FEB-10 20:15
ICALMIX[B]	W6VM100210-17	021010V6\6X320.D	10-FEB-10 20:43
ICVMIX[B]02	W6VM100210-18	021010V6\6X322.D	10-FEB-10 21:38

## Instrument Performance Check

## BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2074

Instrument ID: VOA6.1

Injection Date/Time: 04-MAR-10 21:40

Column Description: DB-624

Lab File ID 030410V6\6A427BFB.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	22.8
75	30.0 - 60.0% of mass 95	53.5
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	1.3
174	50.0 - 100.0% of mass 95	91.9
175	5.0 - 9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	99.1
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD, BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]04	W6VM100304-05	030410V6\6A427.D	04-MAR-10 21:40
BLK01LCS	1202061420	030410V6\6A428LL.D	04-MAR-10 22:08
CCVMIX[B]05	W6VM100304-07	030410V6\6A429.D	04-MAR-10 22:35
BLK01SLCS	1202061421	030410V6\6A429SL.D	04-MAR-10 22:35
BLK01	1202061417	030410V6\6A430BL.D	04-MAR-10 23:03
RE36-10-7414	248043001	030410V6\6A431.D	04-MAR-10 23:31
RE36-10-7413	248043002	030410V6\6A432.D	04-MAR-10 23:59
RE36-10-7462	248043003	030410V6\6A433.D	05-MAR-10 00:26
RE36-10-7465	248043004	030410V6\6A434.D	05-MAR-10 00:54
RE36-10-7471	248043006	030410V6\6A436.D	05-MAR-10 01:50
RE36-10-7472	248043007	030410V6\6A437.D	05-MAR-10 02:17
RE36-10-7468	248043008	030410V6\6A438.D	05-MAR-10 02:45
RE36-10-7464	248043009	030410V6\6A439.D	05-MAR-10 03:13
RE36-10-7463	248043010	030410V6\6A440.D	05-MAR-10 03:40
RE36-10-7475	248043011	030410V6\6A441.D	05-MAR-10 04:08
RE36-10-7466	248043012	030410V6\6A442.D	05-MAR-10 04:36
RE36-10-7476	248043013	030410V6\6A443.D	05-MAR-10 05:04
RE36-10-7461	248043014	030410V6\6A444.D	05-MAR-10 05:31
RE36-10-7515	248043018	030410V6\6A448.D	05-MAR-10 07:22

## Instrument Performance Check

## BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2074

Instrument ID: VOA6.I

Injection Date/Time: 04-MAR-10 21:40

Column Description: DB-624

Lab File ID 030410V6\6A427BFB.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	22.8
75	30.0 - 60.0% of mass 95	53.5
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	1.3
174	50.0 - 100.0% of mass 95	91.9
175	5.0 - 9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	99.1
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
RE36-10-7539	248043019	030410V6\6A449.D	05-MAR-10 07:50
RE36-10-7414MS	1202061418	030410V6\6A450.D	05-MAR-10 08:17
RE36-10-7414MSD	1202061419	030410V6\6A451.D	05-MAR-10 08:45

## Instrument Performance Check

## BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2074

Instrument ID: VOA6.I

Injection Date/Time: 05-MAR-10 10:40

Column Description: DB-624

Lab File ID 030510V6\6A501.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	25.6
75	30.0 - 60.0% of mass 95	55.1
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	1.2
174	50.0 - 100.0% of mass 95	78.2
175	5.0 - 9.0% of mass 174	7.8
176	95.0 - 101.0% of mass 174	97.2
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD, BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]06	W6VM100305-01	030510V6\6A502.D	05-MAR-10 11:08
BLK02LCS	1202078876	030510V6\6A503LL.D	05-MAR-10 11:36
CCVMIX[B]07	W6VM100305-03	030510V6\6A504.D	05-MAR-10 12:04
BLK02SLCS	1202078877	030510V6\6A505SL.D	05-MAR-10 12:32
BLK02	1202078875	030510V6\6A506BS.D	05-MAR-10 13:00
RE36-10-7473	248043005	030510V6\6A509.D	05-MAR-10 14:22
RE36-10-7467	248043015	030510V6\6A511.D	05-MAR-10 15:18
RE36-10-7469	248043016	030510V6\6A512.D	05-MAR-10 15:46
RE36-10-7470	248043017	030510V6\6A513.D	05-MAR-10 16:14

### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2074

Instrument: VOA6.1

STD Analysis Time: 04-MAR-10 21:40

GC Column: DB-624

Data File: C:\msdchem\1\DATA\030410V6\6A427.D

	Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
	Area	# RT #	Area	# RT #	Area	# RT #
12 Hour STD	1329365	9.97	1015075	13.2	597877	15.6
Upper Limit	2658730	10.5	2030150	13.7	1195754	16.1
Lower Limit	664683	9.47	507538	12.7	298939	15.1
Sample ID						
BLK01LCS	1369081	9.97	1043218	13.2	600466	15.6
BLK01SLCS	1367374	9.97	1017954	13.2	605840	15.6
BLK01	1344278	9.97	999659	13.2	570276	15.6
RE36-10-7414	1289717	9.97	941083	13.2	495698	15.6
RE36-10-7413	1212483	9.97	804564	13.2	343698	15.6
RE36-10-7462	1275901	9.97	940423	13.2	535521	15.6
RE36-10-7465	1207849	9.97	809401	13.2	346503	15.6
RE36-10-7471	1185113	9.97	836883	13.2	411639	15.6
RE36-10-7472	1235699	9.97	918892	13.2	517126	15.6
RE36-10-7468	1144105	9.97	732702	13.2	292130	15.6 *
RE36-10-7464	1163432	9.97	817058	13.2	392074	15.6
RE36-10-7463	1176166	9.97	812879	13.2	354276	15.6
RE36-10-7475	1124561	9.97	750141	13.2	329103	15.6
RE36-10-7466	1181378	9.97	831505	13.2	391815	15.6
RE36-10-7476	1130610	9.97	822685	13.2	440953	15.6
RE36-10-7461	1163099	9.97	807728	13.2	372683	15.6
RE36-10-7515	1117769	9.97	755373	13.2	298089	15.6 *
RE36-10-7539	1172119	9.97	872220	13.2	496630	15.6
RE36-10-7414MS	1196102	9.97	899465	13.2	514205	15.6
RE36-10-7414MSD	1221613	9.97	903594	13.2	501529	15.6

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Value outside of QC Limits



### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2074

Instrument: VOA6.I

STD Analysis Time: 05-MAR-10 11:08

GC Column: DB-624

Data File: C:\msdchem\1\DATA\030510V6\6A502.D

	Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
	Area	# RT #	Area	# RT #	Area	# RT #
12 Hour STD	1297798	9.97	993368	13.2	585326	15.6
Upper Limit	2595596	10.5	1986736	13.7	1170652	16.1
Lower Limit	648899	9.47	496684	12.7	292663	15.1
Sample ID						
BLK02LCS	1368219	9.97	1044346	13.2	615024	15.6
BLK02SLCS	1386052	9.97	1039539	13.2	618528	15.6
BLK02	1369011	9.97	1029129	13.2	575259	15.6
RE36-10-7473	1199780	9.97	748249	13.2	278537	* 15.6
RE36-10-7467	1157208	9.97	757701	13.2	306690	15.6
RE36-10-7469	1116083	9.97	756468	13.2	364288	15.6
RE36-10-7470	1204418	9.97	799366	13.2	319982	15.6

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Value outside of QC Limits

# Sample Data

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043001  
 Client ID: RE36-10-7414  
 Batch ID: 961082  
 Run Date: 03/04/2010 23:31  
 Prep Date: 03/03/2010 09:23  
 Data File: 030410V6V6A431.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.1  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 21.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.27	ug/kg	0.431	1.27
74-87-3	Chloromethane	U	1.27	ug/kg	0.380	1.27
75-01-4	Vinyl chloride	U	1.27	ug/kg	0.380	1.27
74-83-9	Bromomethane	U	1.27	ug/kg	0.380	1.27
75-00-3	Chloroethane	U	1.27	ug/kg	0.380	1.27
75-69-4	Trichlorofluoromethane	U	1.27	ug/kg	0.380	1.27
67-64-1	Acetone	U	6.34	ug/kg	2.10	6.34
75-35-4	1,1-Dichloroethylene	U	1.27	ug/kg	0.380	1.27
74-88-4	Iodomethane	U	6.34	ug/kg	2.03	6.34
75-09-2	Methylene chloride	U	6.34	ug/kg	2.54	6.34
75-15-0	Carbon disulfide	U	6.34	ug/kg	1.58	6.34
156-60-5	trans-1,2-Dichloroethylene	U	1.27	ug/kg	0.380	1.27
75-34-3	1,1-Dichloroethane	U	1.27	ug/kg	0.380	1.27
78-93-3	2-Butanone	U	6.34	ug/kg	1.90	6.34
156-59-2	cis-1,2-Dichloroethylene	U	1.27	ug/kg	0.380	1.27
594-20-7	2,2-Dichloropropane	U	1.27	ug/kg	0.380	1.27
67-66-3	Chloroform	U	1.27	ug/kg	0.380	1.27
74-97-5	Bromochloromethane	U	1.27	ug/kg	0.418	1.27
71-55-6	1,1,1-Trichloroethane	U	1.27	ug/kg	0.380	1.27
563-58-6	1,1-Dichloropropene	U	1.27	ug/kg	0.380	1.27
56-23-5	Carbon tetrachloride	U	1.27	ug/kg	0.380	1.27
107-06-2	1,2-Dichloroethane	U	1.27	ug/kg	0.380	1.27
71-43-2	Benzene	U	1.27	ug/kg	0.380	1.27
79-01-6	Trichloroethylene	U	1.27	ug/kg	0.418	1.27
78-87-5	1,2-Dichloropropane	U	1.27	ug/kg	0.380	1.27
75-27-4	Bromodichloromethane	U	1.27	ug/kg	0.380	1.27
74-95-3	Dibromomethane	U	1.27	ug/kg	0.380	1.27
108-10-1	4-Methyl-2-pentanone	U	6.34	ug/kg	1.58	6.34
10061-01-5	cis-1,3-Dichloropropylene	U	1.27	ug/kg	0.380	1.27
108-88-3	Toluene	U	1.27	ug/kg	0.380	1.27
10061-02-6	trans-1,3-Dichloropropylene	U	1.27	ug/kg	0.380	1.27
79-00-5	1,1,2-Trichloroethane	U	1.27	ug/kg	0.380	1.27
591-78-6	2-Hexanone	U	6.34	ug/kg	1.90	6.34
142-28-9	1,3-Dichloropropane	U	1.27	ug/kg	0.380	1.27
127-18-4	Tetrachloroethylene	U	1.27	ug/kg	0.380	1.27
124-48-1	Dibromochloromethane	U	1.27	ug/kg	0.380	1.27
106-93-4	1,2-Dibromoethane	U	1.27	ug/kg	0.380	1.27
108-90-7	Chlorobenzene	U	1.27	ug/kg	0.380	1.27

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043001	Date Received: 02/25/2010 08:45	%Moisture: 21.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7414	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/04/2010 23:31	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 09:23	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V6\6A431.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.27	ug/kg	0.380	1.27
179601-23-1	m,p-Xylenes	U	2.54	ug/kg	0.380	2.54
95-47-6	o-Xylene	U	1.27	ug/kg	0.380	1.27
100-42-5	Styrene	U	1.27	ug/kg	0.380	1.27
75-25-2	Bromoform	U	1.27	ug/kg	0.380	1.27
79-34-5	1,1,2,2-Tetrachloroethane	U	1.27	ug/kg	0.380	1.27
96-18-4	1,2,3-Trichloropropane	U	1.27	ug/kg	0.380	1.27
108-86-1	Bromobenzene	U	1.27	ug/kg	0.380	1.27
103-65-1	n-Propylbenzene	U	1.27	ug/kg	0.380	1.27
95-49-8	2-Chlorotoluene	U	1.27	ug/kg	0.380	1.27
98-82-8	Isopropylbenzene	U	1.27	ug/kg	0.380	1.27
108-67-8	1,3,5-Trimethylbenzene	U	1.27	ug/kg	0.380	1.27
106-43-4	4-Chlorotoluene	U	1.27	ug/kg	0.380	1.27
98-06-6	tert-Butylbenzene	U	1.27	ug/kg	0.380	1.27
95-63-6	1,2,4-Trimethylbenzene	U	1.27	ug/kg	0.380	1.27
135-98-8	sec-Butylbenzene	U	1.27	ug/kg	0.380	1.27
99-87-6	4-Isopropyltoluene	U	1.27	ug/kg	0.380	1.27
541-73-1	1,3-Dichlorobenzene	U	1.27	ug/kg	0.380	1.27
106-46-7	1,4-Dichlorobenzene	U	1.27	ug/kg	0.380	1.27
104-51-8	n-Butylbenzene	U	1.27	ug/kg	0.380	1.27
96-12-8	1,2-Dibromo-3-chloropropane	U	1.27	ug/kg	0.380	1.27
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.34	ug/kg	2.03	6.34
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.27	ug/kg	0.380	1.27
95-50-1	1,2-Dichlorobenzene	U	1.27	ug/kg	0.380	1.27

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found						
				ug/kg		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A431.D  
Acq On : 4 Mar 2010 11:31 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043001|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 05 09:14:34 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1290487	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	941083	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	495698	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1289717	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	941083	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	495698	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	478723	49.23	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	98.46%		
43) Toluene-d8	11.626	11.620	0.884	98	1240847	48.41	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	96.82%		
61) Bromofluorobenzene	14.351	14.357	0.922	95	492113	53.19	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	106.38%		
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.642	4.672	0.465	50	152	N.D.		
4) Vinyl chloride	4.884	4.914	0.490	62	453	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.724	6.706	0.674	43	200	Below Cal	#	50
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.084	7.078	0.710	76	618	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	8184	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	8.687	8.694	0.871	43	208	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A431.D  
Acq On : 4 Mar 2010 11:31 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043001|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 05 09:14:34 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.699	11.699	0.889	91	1496	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	12.266	12.260	0.932	43	795	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.248	13.248	1.007	91	1745	N.D.	
55) m,p-Xylenes	13.351	13.357	1.015	106	1512	N.D.	
56) o-Xylene	13.802	13.796	1.049	106	653	N.D.	
57) Styrene	13.802	13.802	1.049	104	236	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	14.577	14.583	0.936	91	1933	N.D.	
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1162	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	14.839	14.833	0.953	91	683	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	1796	N.D.	
71) sec-Butylbenzene	15.332	15.333	0.985	105	1279	N.D.	
72) 4-Isopropyltoluene	15.454	15.454	0.993	119	1732	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	409	N.D.	
75) n-Butylbenzene	15.887	15.887	1.020	91	1573	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	401	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	0.000	18.283	0.000		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.196	180	1128	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	8.687	8.700	0.871	43	208	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A431.D  
Acq On : 4 Mar 2010 11:31 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043001|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 05 09:14:34 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	9.065	9.059	0.909	42	219	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.107	16.113	1.034	45	1434	N.D.	

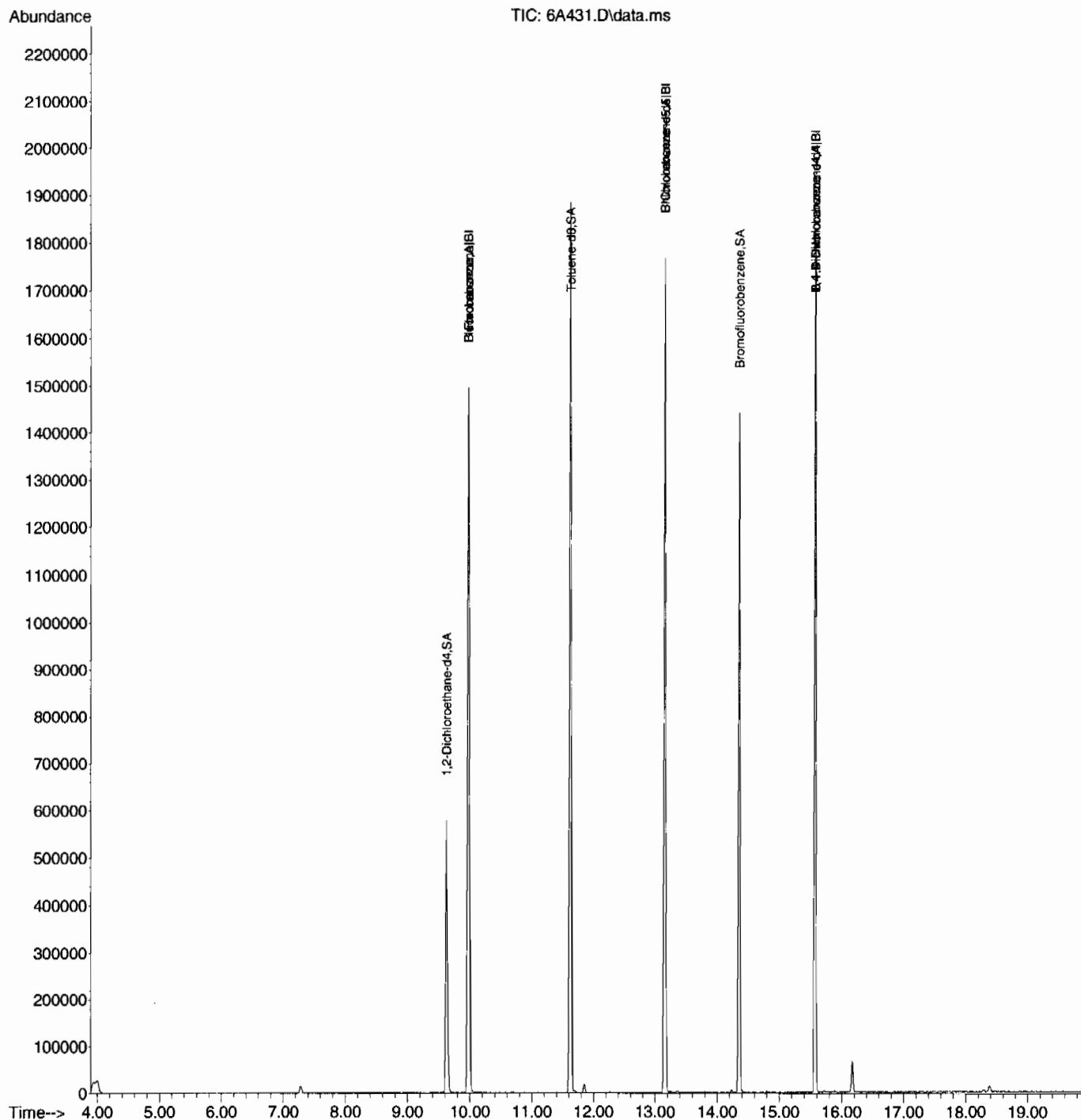
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

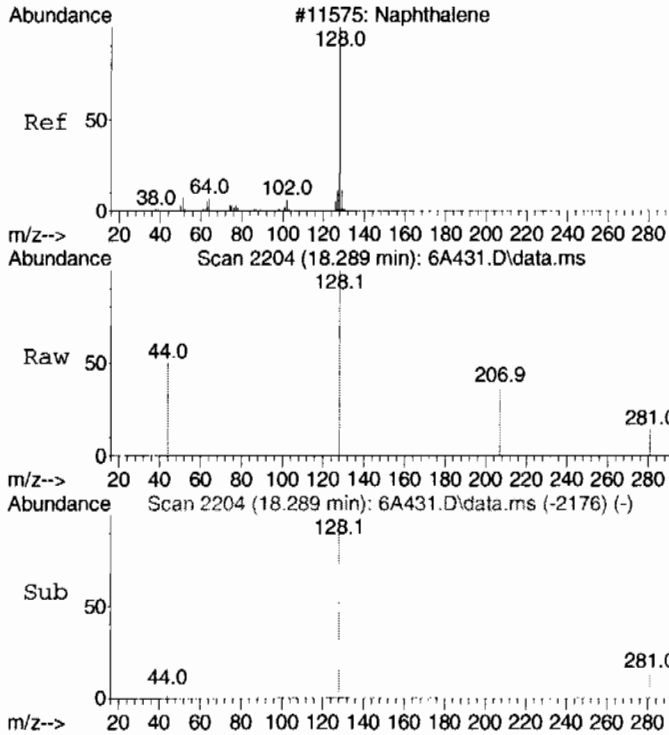
Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A431.D  
Acq On : 4 Mar 2010 11:31 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043001|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 05 09:14:34 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

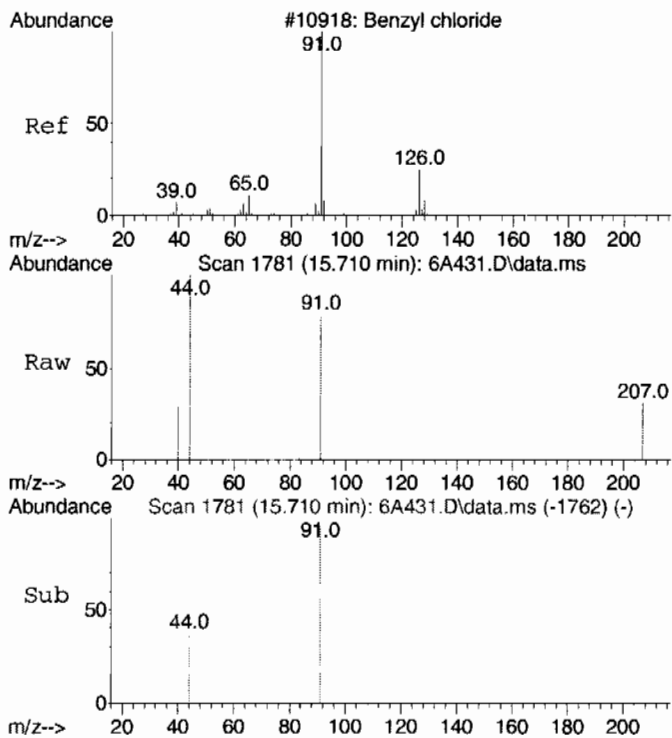
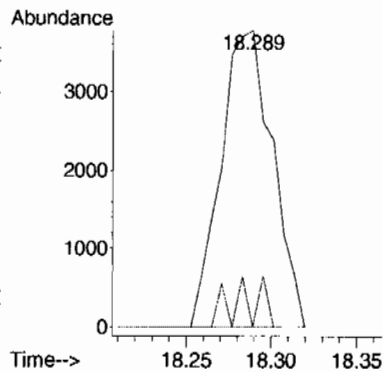






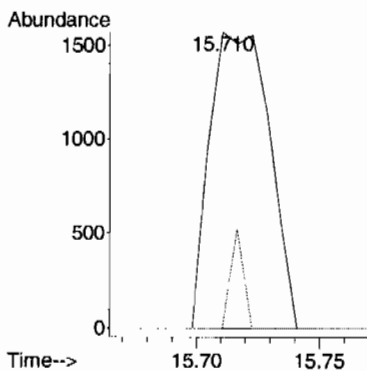
#80 BEFORE analyst DELETION  
Naphthalene  
Concen: 0.44 ug/L  
RT: 18.289 min Scan# 2204  
Delta R.T. 0.006 min  
Lab File: 6A431.D  
Acq: 4 Mar 2010 11:31 pm

Tgt Ion	Ratio	Lower	Upper
128	100		
127	2.5	0.0	43.1
129	0.0	0.0	41.1



#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 0.21 ug/L  
RT: 15.710 min Scan# 1781  
Delta R.T. -0.007 min  
Lab File: 6A431.D  
Acq: 4 Mar 2010 11:31 pm

Tgt Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.0
65	7.2	0.0	43.8



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A431.D  
Acq On : 4 Mar 2010 11:31 pm  
Operator : RXD1  
Sample : |248043001|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

No Library Search Compounds Detected

\*\*\*\*\*

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A431.D  
Acq On : 4 Mar 2010 11:31 pm  
Operator : RXD1  
Sample : |248043001|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
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**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043002  
 Client ID: RE36-10-7413  
 Batch ID: 961082  
 Run Date: 03/04/2010 23:59  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V66A432.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL.010  
 Method: SW846 8260B  
 Inst: VOA6.1  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 20.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.430	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.379	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.379	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.379	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.379	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.379	1.26
67-64-1	Acetone	U	6.32	ug/kg	2.10	6.32
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
74-88-4	Iodomethane	U	6.32	ug/kg	2.02	6.32
75-09-2	Methylene chloride	U	6.32	ug/kg	2.53	6.32
75-15-0	Carbon disulfide	U	6.32	ug/kg	1.58	6.32
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.379	1.26
78-93-3	2-Butanone	U	6.32	ug/kg	1.90	6.32
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.379	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.379	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.417	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.379	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.379	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.379	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.379	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.379	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.417	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.379	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.379	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.379	1.26
108-10-1	4-Methyl-2-pentanone	U	6.32	ug/kg	1.58	6.32
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.379	1.26
108-88-3	Toluene	J	0.455	ug/kg	0.379	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.379	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.379	1.26
591-78-6	2-Hexanone	U	6.32	ug/kg	1.90	6.32
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.379	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.379	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.379	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.379	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.379	1.26

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043002	Date Received: 02/25/2010 08:45	%Moisture: 20.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7413	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.1	Dilution: 1
Run Date: 03/04/2010 23:59	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V6A432.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.26	ug/kg	0.379	1.26
179601-23-1	m,p-Xylenes	U	2.53	ug/kg	0.379	2.53
95-47-6	o-Xylene	U	1.26	ug/kg	0.379	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.379	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.379	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.379	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.379	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.379	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.379	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.379	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.379	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.379	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.379	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.379	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.379	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.379	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.379	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.379	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.379	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.32	ug/kg	2.02	6.32
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.379	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A432.D  
Acq On : 4 Mar 2010 11:59 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043002|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 05 09:15:02 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1213774	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	804564	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	343698	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1212483	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	804564	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	343698	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	465550	50.90	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 101.80%			
43) Toluene-d8	11.620	11.620	0.883	98	1135975	51.83	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 103.66%			
61) Bromofluorobenzene	14.357	14.357	0.922	95	387146	60.35	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 120.70%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.813	4.672	0.483	50	204	N.D.		
4) Vinyl chloride	4.914	4.914	0.493	62	728	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.712	6.706	0.673	43	505	Below Cal	#	50
10) 1,1-Dichloroethylene	6.712	6.706	0.673	61	193	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.072	7.078	0.709	76	681	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	9868	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	8.706	8.694	0.873	43	224	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	9.730	9.724	0.976	78	737	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A432.D  
Acq On : 4 Mar 2010 11:59 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043002|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 05 09:15:02 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.693	11.699	0.889	91	8302	0.36 ug/L	99
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	12.266	12.260	0.932	43	633	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.247	13.248	1.007	91	3759	N.D.	
55) m,p-Xylenes	13.351	13.357	1.015	106	2740	N.D.	
56) o-Xylene	13.790	13.796	1.048	106	1371	N.D.	
57) Styrene	13.796	13.802	1.049	104	1039	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	14.150	14.156	0.909	105	870	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	14.583	14.583	0.937	91	2067	N.D.	
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	2426	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	14.839	14.833	0.953	91	206	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	4687	N.D.	
71) sec-Butylbenzene	15.326	15.333	0.984	105	1290	N.D.	
72) 4-Isopropyltoluene	15.448	15.454	0.992	119	1313	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	15.595	15.601	1.002	146	187	N.D.	
75) n-Butylbenzene	15.881	15.887	1.020	91	2064	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.283	18.283	1.174	128	52274	4.19 ug/L	97
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0m	N.D. d	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	8.706	8.700	0.873	43	224	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A432.D  
Acq On : 4 Mar 2010 11:59 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043002|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 05 09:15:02 2010

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Thu Feb 11 09:38:02 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	9.059	9.059	0.908	42	391	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.168	16.113	1.038	45	1070	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

(E) = Over the calibration range (d) = deleted

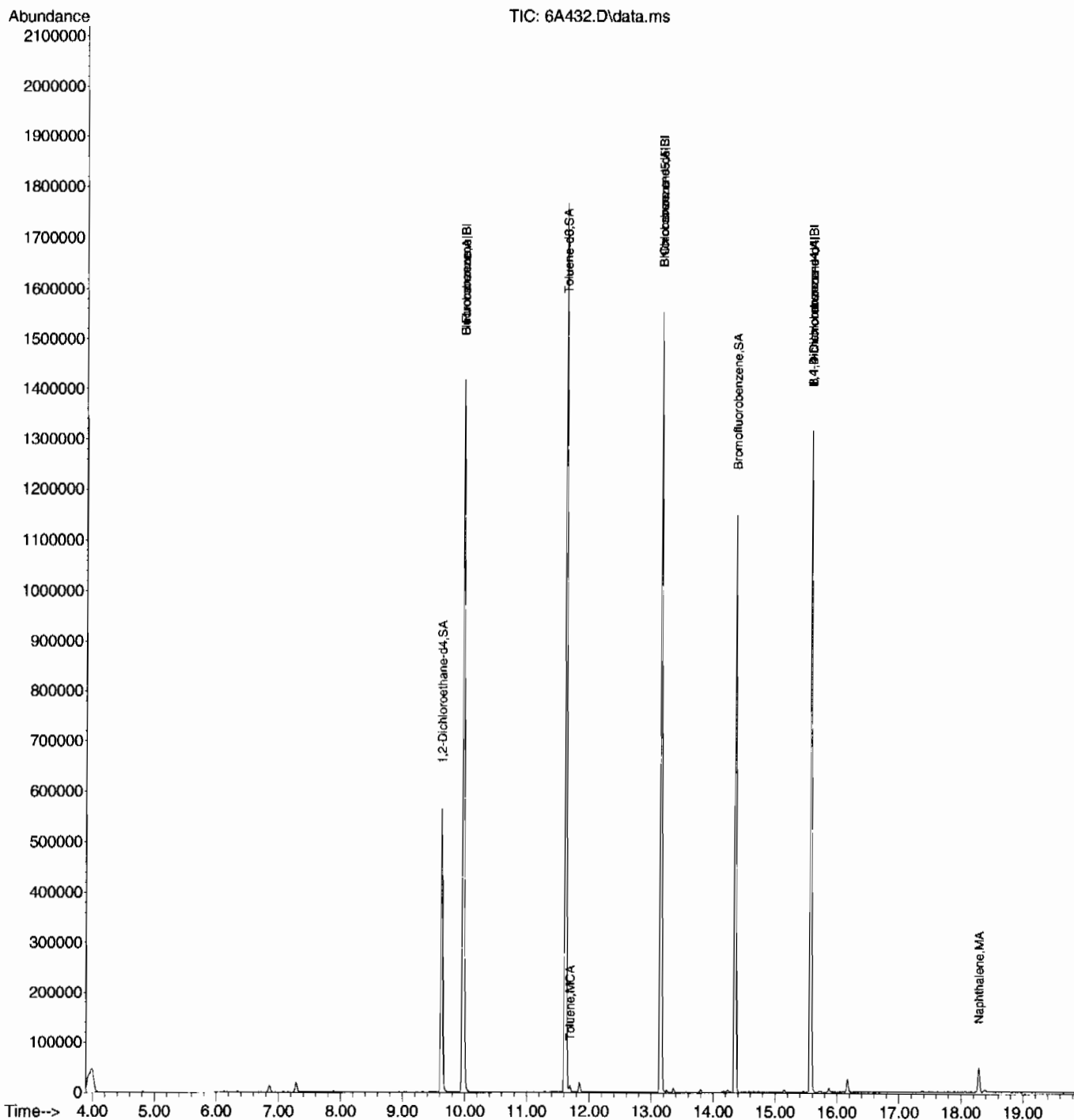


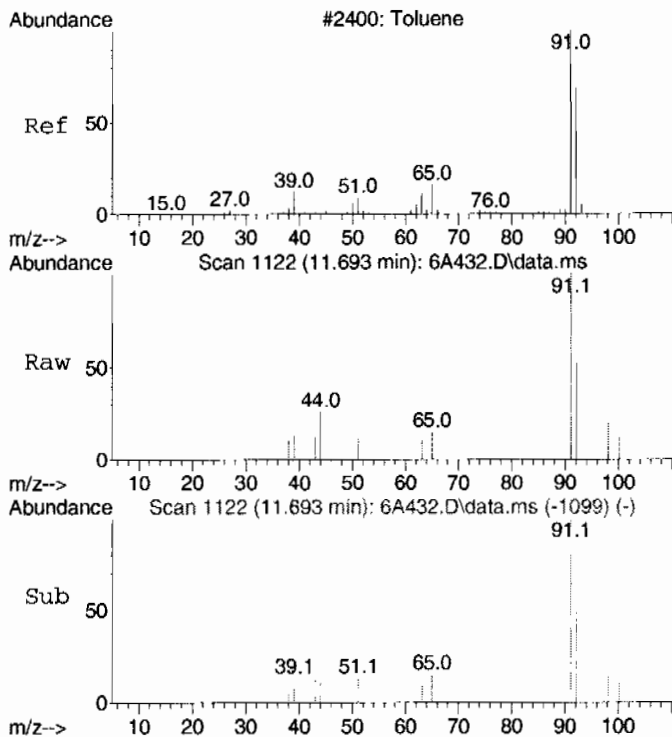
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A432.D  
Acq On : 4 Mar 2010 11:59 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043002|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 05 09:15:02 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

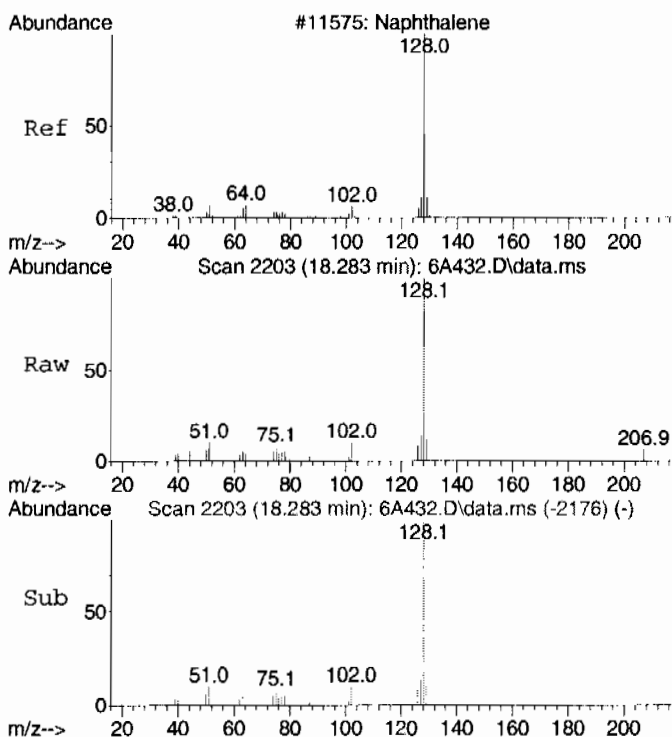
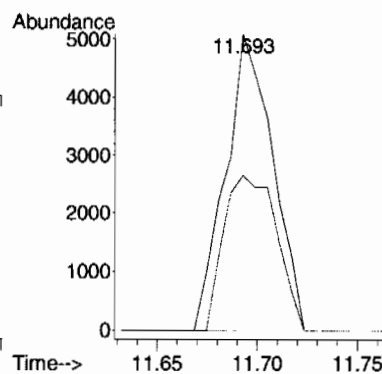
SubList :





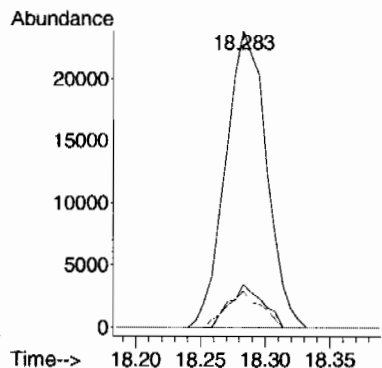
#44  
Toluene  
Concen: 0.36 ug/L  
RT: 11.693 min Scan# 1122  
Delta R.T. -0.006 min  
Lab File: 6A432.D  
Acq: 4 Mar 2010 11:59 pm

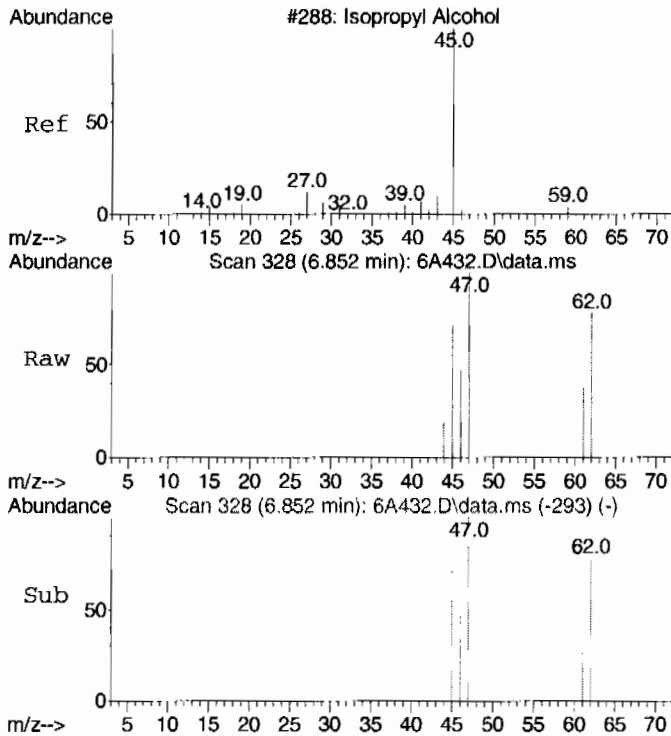
Tgt Ion	Ratio	Lower	Upper
91	100		
92	58.5	29.2	89.2



#80  
Naphthalene  
Concen: 4.19 ug/L  
RT: 18.283 min Scan# 2203  
Delta R.T. 0.000 min  
Lab File: 6A432.D  
Acq: 4 Mar 2010 11:59 pm

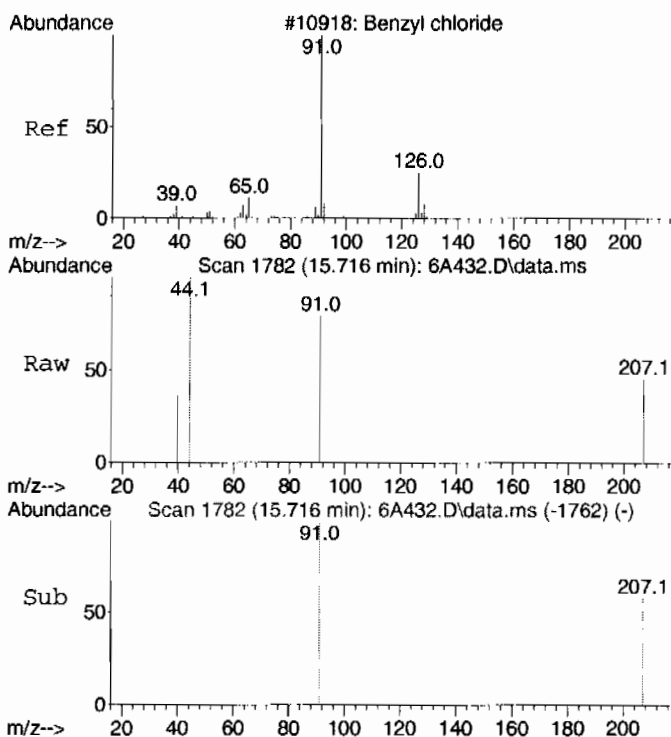
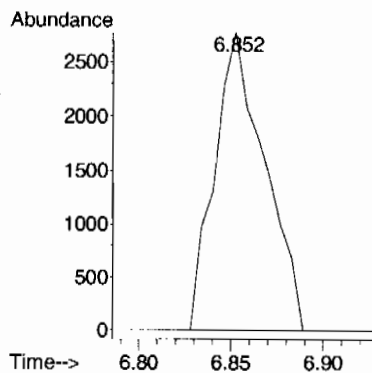
Tgt Ion	Ratio	Lower	Upper
128	100		
127	11.7	0.0	43.1
129	10.1	0.0	41.1





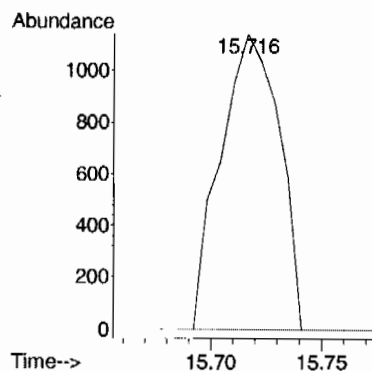
#87 BEFORE analyst DELETION  
Isopropyl Alcohol  
Concen: 9.21 ug/L  
RT: 6.852 min Scan# 328  
Delta R.T. 0.067 min  
Lab File: 6A432.D  
Acq: 4 Mar 2010 11:59 pm

Tgt Ion: 45 Resp: 5257  
Ion Ratio Lower Upper  
45 100  
43 0.0 0.0 50.2



#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 0.24 ug/L  
RT: 15.716 min Scan# 1782  
Delta R.T. -0.001 min  
Lab File: 6A432.D  
Acq: 4 Mar 2010 11:59 pm

Tgt Ion: 91 Resp: 2102  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.0  
65 0.0 0.0 43.8



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A432.D  
Acq On : 4 Mar 2010 11:59 pm  
Operator : RXD1  
Sample : |248043002|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

No Library Search Compounds Detected

\*\*\*\*\*

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A432.D  
Acq On : 4 Mar 2010 11:59 pm  
Operator : RXD1  
Sample : |248043002|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--		
					#	RT	Resp Conc

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**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043003	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 7.9
	<b>Client:</b> LANL.010	<b>Project:</b> LANL.01004
<b>Client ID:</b> RE36-10-7462	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 961082	<b>Inst:</b> VOA6J	<b>Dilution:</b> 1
<b>Run Date:</b> 03/05/2010 00:26	<b>Analyst:</b> RXD1	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/03/2010 10:35	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030410V6\6A433.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.369	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.326	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.326	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.326	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.326	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.326	1.09
67-64-1	Acetone	U	5.43	ug/kg	1.80	5.43
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
74-88-4	Iodomethane	U	5.43	ug/kg	1.74	5.43
75-09-2	Methylene chloride	U	5.43	ug/kg	2.17	5.43
75-15-0	Carbon disulfide	U	5.43	ug/kg	1.36	5.43
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.326	1.09
78-93-3	2-Butanone	U	5.43	ug/kg	1.63	5.43
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.326	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.358	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.326	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.326	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.326	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.326	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.326	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.358	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.326	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.326	1.09
108-10-1	4-Methyl-2-pentanone	U	5.43	ug/kg	1.36	5.43
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.326	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.326	1.09
591-78-6	2-Hexanone	U	5.43	ug/kg	1.63	5.43
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.326	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.326	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.326	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.326	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.326	1.09

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043003	Date Received: 02/25/2010 08:45	%Moisture: 7.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7462	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.1	Dilution: 1
Run Date: 03/05/2010 00:26	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A433.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.326	2.17
95-47-6	o-Xylene	U	1.09	ug/kg	0.326	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.326	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.326	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.326	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.43	ug/kg	1.74	5.43
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.17	7.25	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A433.D  
Acq On : 5 Mar 2010 12:26 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043003|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 05 09:15:35 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1277389	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	940423	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	535521	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1275901	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	940423	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	535521	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	501417	52.10	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 104.20%			
43) Toluene-d8	11.620	11.620	0.883	98	1242935	48.52	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 97.04%			
61) Bromofluorobenzene	14.351	14.357	0.922	95	511771	51.20	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 102.40%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.642	4.672	0.465	50	172	N.D.		
4) Vinyl chloride	4.874	4.914	0.489	62	542	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.712	6.706	0.673	43	414	Below Cal	#	50
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.078	7.078	0.710	76	226	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	6390	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A433.D  
Acq On : 5 Mar 2010 12:26 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043003|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 05 09:15:35 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.693	11.699	0.889	91	1763	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	12.266	12.260	0.932	43	204	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.248	13.248	1.007	91	999	N.D.	
55) m,p-Xylenes	13.363	13.357	1.016	106	2847	N.D.	
56) o-Xylene	13.796	13.796	1.049	106	478	N.D.	
57) Styrene	13.796	13.802	1.049	104	378	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	14.583	14.583	0.937	91	1036	N.D.	
66) 1,3,5-Trimethylbenzene	14.729	14.735	0.946	105	1365	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	14.833	14.833	0.953	91	202	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	3181	N.D.	
71) sec-Butylbenzene	15.339	15.333	0.985	105	809	N.D.	
72) 4-Isopropyltoluene	15.436	15.454	0.991	119	206	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	15.881	15.887	1.020	91	848	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.289	18.283	1.175	128	8079	0.42 ug/L	80
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A433.D  
Acq On : 5 Mar 2010 12:26 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043003|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 05 09:15:35 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	9.066	9.059	0.909	42	949	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	0.000	16.113	0.000		0m	N.D. d	

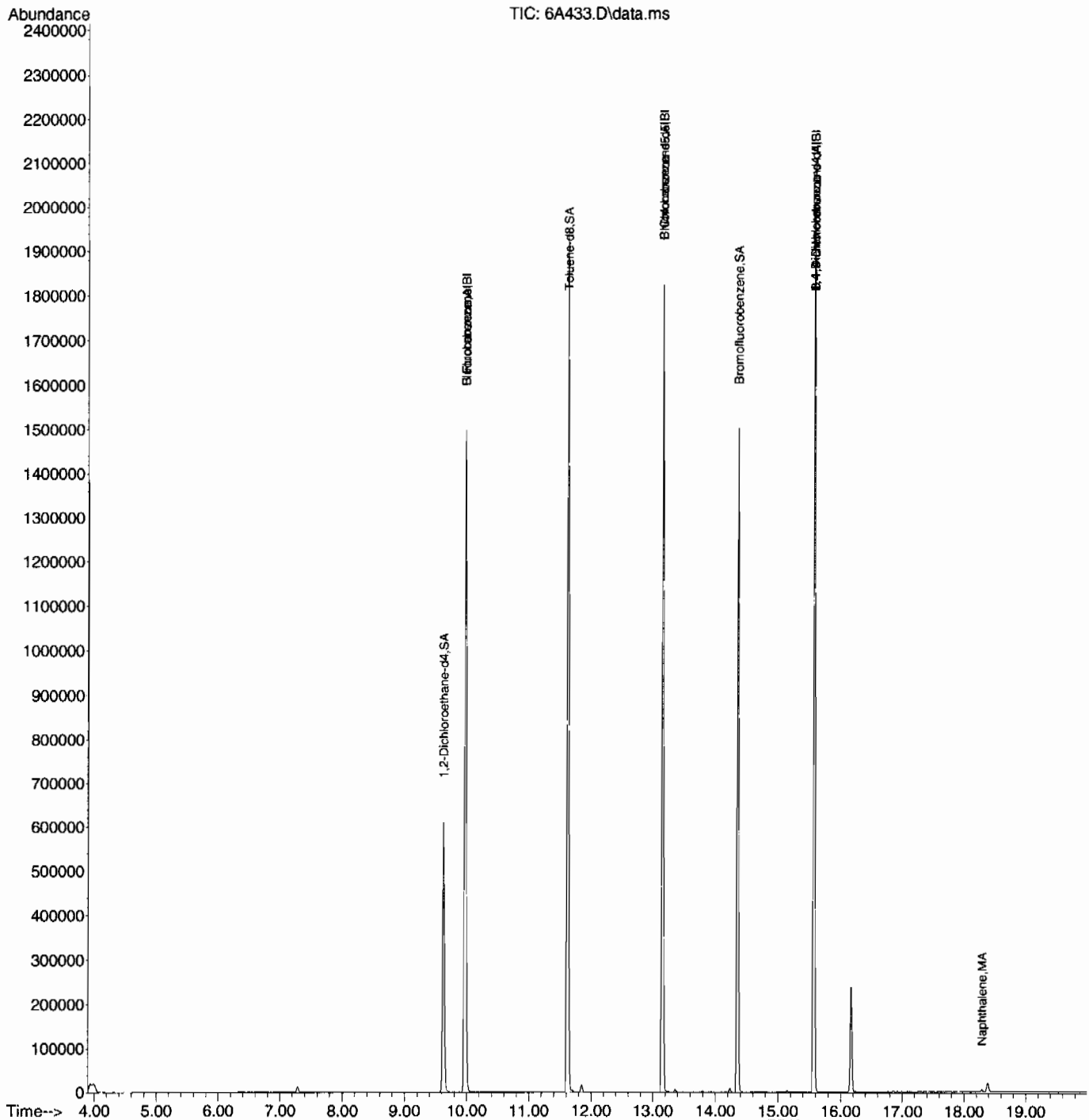
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

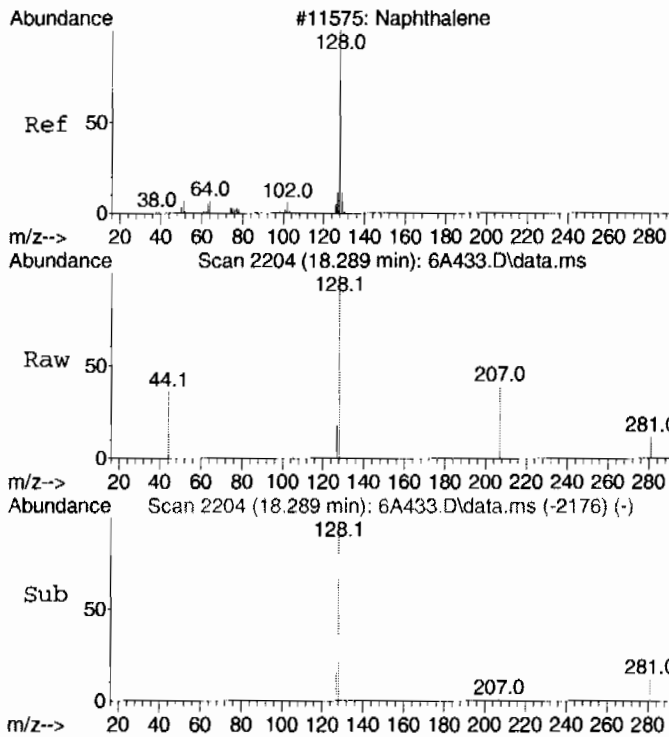
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A433.D  
Acq On : 5 Mar 2010 12:26 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043003|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 05 09:15:35 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

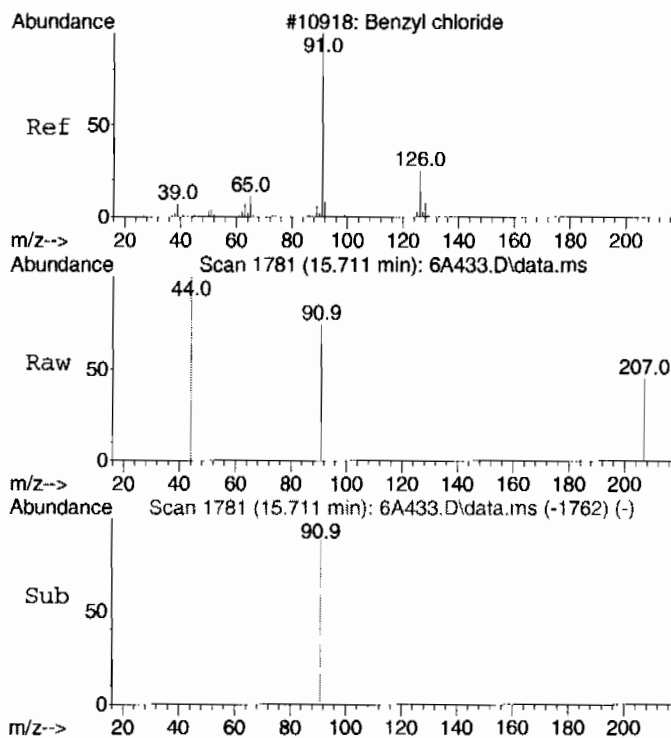
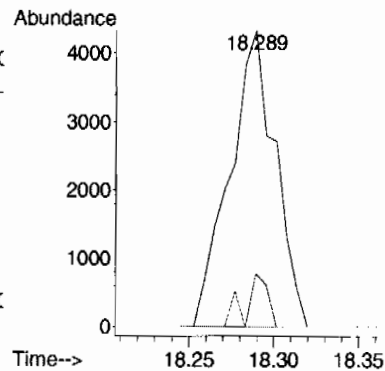
SubList :





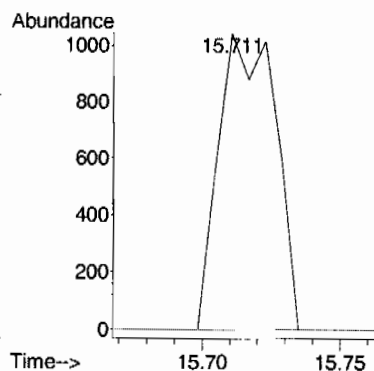
#80  
Naphthalene  
Concen: 0.42 ug/L  
RT: 18.289 min Scan# 2204  
Delta R.T. 0.006 min  
Lab File: 6A433.D  
Acq: 5 Mar 2010 12:26 am

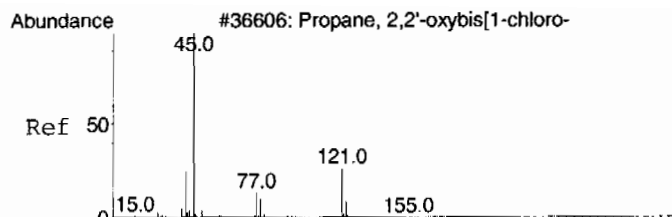
Tgt Ion: 128 Resp: 8079  
Ion Ratio Lower Upper  
128 100  
127 6.3 0.0 43.1  
129 2.4 0.0 41.1



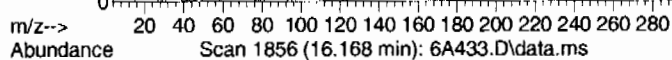
#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 0.11 ug/L  
RT: 15.711 min Scan# 1781  
Delta R.T. -0.006 min  
Lab File: 6A433.D  
Acq: 5 Mar 2010 12:26 am

Tgt Ion: 91 Resp: 1490  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.0  
65 0.0 0.0 43.8

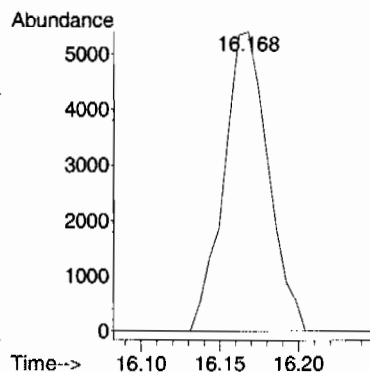
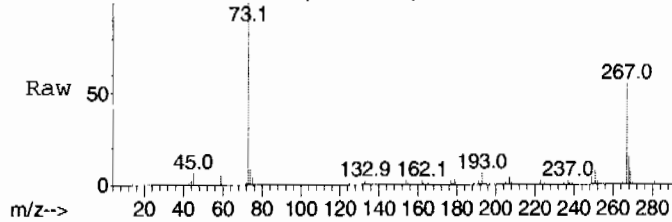




#112 BEFORE analyst DELETION  
 bis(2-Chloroisopropyl)ether  
 Concen: 2.58 ug/L  
 RT: 16.168 min Scan# 1856  
 Delta R.T. 0.055 min  
 Lab File: 6A433.D  
 Acq: 5 Mar 2010 12:26 am



Tgt Ion: 45 Resp: 10632  
 Ion Ratio Lower Upper  
 45 100  
 121 0.0 0.0 51.3



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A433.D  
Acq On : 5 Mar 2010 12:26 am  
Operator : RXD1  
Sample : |248043003|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

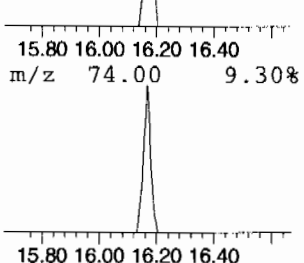
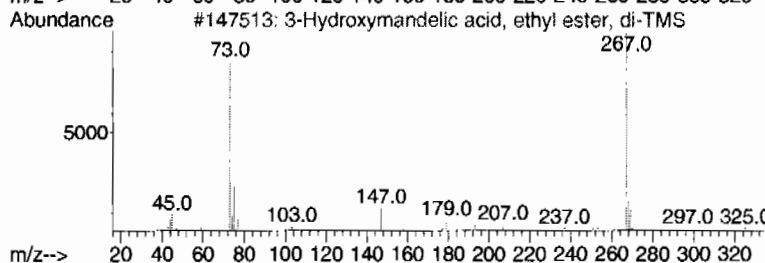
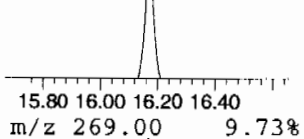
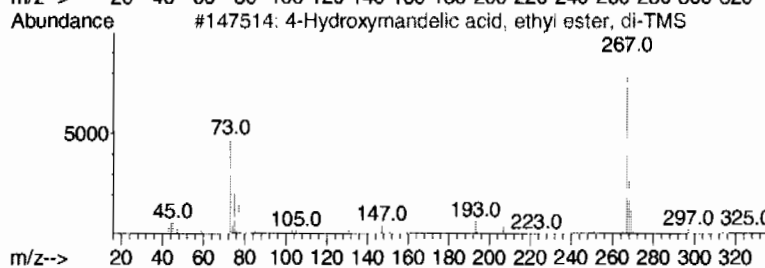
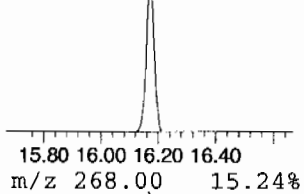
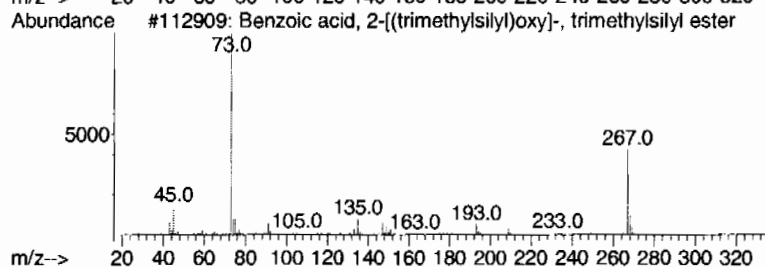
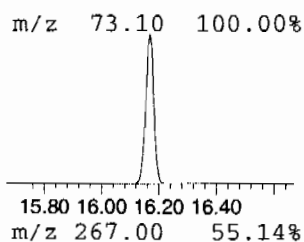
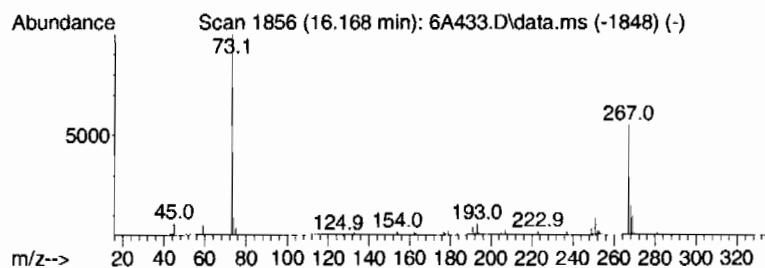
TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.168	6.68 ug/L	451753	B 1,4-Dichlorobenzene-d4	15.570

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	64
2			4-Hydroxymandelic acid, ethyl ester, di-TMS	340	C16H28O4Si2	1000071-53-3	56
3			3-Hydroxymandelic acid, ethyl ester, di-TMS	340	C16H28O4Si2	1000071-88-9	50
4			Benzeneethanamine, N-[(pentafluoroethyl)thio]-	475	C21H26F5NO2Si2	055429-85-1	50
5			Propenenitrile, 2-(2-benzothiazolyl)-	268	C14H8N2S2	106833-31-2	47



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A433.D  
Acq On : 5 Mar 2010 12:26 am  
Operator : RXD1  
Sample : |248043003|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown siloxane	16.168	6.7	ug/L	451753	6	15.570	3381130	50.0

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043004  
 Client ID: RE36-10-7465  
 Batch ID: 961082  
 Run Date: 03/05/2010 00:54  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V66A434.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.1  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 22.3  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.29	ug/kg	0.437	1.29
74-87-3	Chloromethane	U	1.29	ug/kg	0.386	1.29
75-01-4	Vinyl chloride	U	1.29	ug/kg	0.386	1.29
74-83-9	Bromomethane	U	1.29	ug/kg	0.386	1.29
75-00-3	Chloroethane	U	1.29	ug/kg	0.386	1.29
75-69-4	Trichlorofluoromethane	U	1.29	ug/kg	0.386	1.29
67-64-1	Acetone	U	6.43	ug/kg	2.14	6.43
75-35-4	1,1-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
74-88-4	Iodomethane	U	6.43	ug/kg	2.06	6.43
75-09-2	Methylene chloride	U	6.43	ug/kg	2.57	6.43
75-15-0	Carbon disulfide	U	6.43	ug/kg	1.61	6.43
156-60-5	trans-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
75-34-3	1,1-Dichloroethane	U	1.29	ug/kg	0.386	1.29
78-93-3	2-Butanone	U	6.43	ug/kg	1.93	6.43
156-59-2	cis-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
594-20-7	2,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29
67-66-3	Chloroform	U	1.29	ug/kg	0.386	1.29
74-97-5	Bromochloromethane	U	1.29	ug/kg	0.425	1.29
71-55-6	1,1,1-Trichloroethane	U	1.29	ug/kg	0.386	1.29
563-58-6	1,1-Dichloropropene	U	1.29	ug/kg	0.386	1.29
56-23-5	Carbon tetrachloride	U	1.29	ug/kg	0.386	1.29
107-06-2	1,2-Dichloroethane	U	1.29	ug/kg	0.386	1.29
71-43-2	Benzene	U	1.29	ug/kg	0.386	1.29
79-01-6	Trichloroethylene	U	1.29	ug/kg	0.425	1.29
78-87-5	1,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29
75-27-4	Bromodichloromethane	U	1.29	ug/kg	0.386	1.29
74-95-3	Dibromomethane	U	1.29	ug/kg	0.386	1.29
108-10-1	4-Methyl-2-pentanone	U	6.43	ug/kg	1.61	6.43
10061-01-5	cis-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29
108-88-3	Toluene	J	0.489	ug/kg	0.386	1.29
10061-02-6	trans-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29
79-00-5	1,1,2-Trichloroethane	U	1.29	ug/kg	0.386	1.29
591-78-6	2-Hexanone	U	6.43	ug/kg	1.93	6.43
142-28-9	1,3-Dichloropropane	U	1.29	ug/kg	0.386	1.29
127-18-4	Tetrachloroethylene	U	1.29	ug/kg	0.386	1.29
124-48-1	Dibromochloromethane	U	1.29	ug/kg	0.386	1.29
106-93-4	1,2-Dibromoethane	U	1.29	ug/kg	0.386	1.29
108-90-7	Chlorobenzene	U	1.29	ug/kg	0.386	1.29



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043004	Date Received: 02/25/2010 08:45	%Moisture: 22.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7465	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 00:54	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A434.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.29	ug/kg	0.386	1.29
179601-23-1	m,p-Xylenes	J	0.437	ug/kg	0.386	2.57
95-47-6	o-Xylene	U	1.29	ug/kg	0.386	1.29
100-42-5	Styrene	U	1.29	ug/kg	0.386	1.29
75-25-2	Bromoform	U	1.29	ug/kg	0.386	1.29
79-34-5	1,1,2,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
96-18-4	1,2,3-Trichloropropane	U	1.29	ug/kg	0.386	1.29
108-86-1	Bromobenzene	U	1.29	ug/kg	0.386	1.29
103-65-1	n-Propylbenzene	U	1.29	ug/kg	0.386	1.29
95-49-8	2-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-82-8	Isopropylbenzene	U	1.29	ug/kg	0.386	1.29
108-67-8	1,3,5-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
106-43-4	4-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-06-6	tert-Butylbenzene	U	1.29	ug/kg	0.386	1.29
95-63-6	1,2,4-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
135-98-8	sec-Butylbenzene	U	1.29	ug/kg	0.386	1.29
99-87-6	4-Isopropyltoluene	J	0.399	ug/kg	0.386	1.29
541-73-1	1,3-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
106-46-7	1,4-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
104-51-8	n-Butylbenzene	U	1.29	ug/kg	0.386	1.29
96-12-8	1,2-Dibromo-3-chloropropane	U	1.29	ug/kg	0.386	1.29
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.43	ug/kg	2.06	6.43
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
95-50-1	1,2-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A434.D  
Acq On : 5 Mar 2010 12:54 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043004|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 05 09:16:20 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1209628	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	809401	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	346503	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1207849	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	809401	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	346503	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	465230	51.04	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	102.08%			
43) Toluene-d8	11.626	11.620	0.884	98	1145374	51.95	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	103.90%			
61) Bromofluorobenzene	14.357	14.357	0.922	95	390756	60.42	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	120.84%			
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.813	4.672	0.483	50	512	N.D.		
4) Vinyl chloride	4.904	4.914	0.492	62	613	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.725	6.706	0.674	43	875	Below Cal	#	50
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.078	7.078	0.710	76	688	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	6515	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	9.724	9.724	0.975	78	229	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A434.D  
Acq On : 5 Mar 2010 12:54 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043004|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 05 09:16:20 2010

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Thu Feb 11 09:38:02 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.693	11.699	0.889	91	8818	0.38 ug/L	89
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.254	13.248	1.007	91	4129	N.D.	
55) m,p-Xylenes	13.357	13.357	1.015	106	3507	0.34 ug/L	93
56) o-Xylene	13.796	13.796	1.049	106	1290	N.D.	
57) Styrene	13.796	13.802	1.049	104	505	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	14.150	14.156	0.909	105	203	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	14.589	14.583	0.937	91	1000	N.D.	
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1174	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	3347	N.D.	
71) sec-Butylbenzene	15.333	15.333	0.985	105	560	N.D.	
72) 4-Isopropyltoluene	15.448	15.454	0.992	119	5950	0.31 ug/L	92
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	184	N.D.	
75) n-Butylbenzene	15.881	15.887	1.020	91	554	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.289	18.283	1.175	128	28078	2.23 ug/L	99
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0m	N.D. d	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A434.D  
Acq On : 5 Mar 2010 12:54 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043004|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 05 09:16:20 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	9.059	9.059	0.908	42	424	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.174	16.113	1.039	45	907	N.D.	

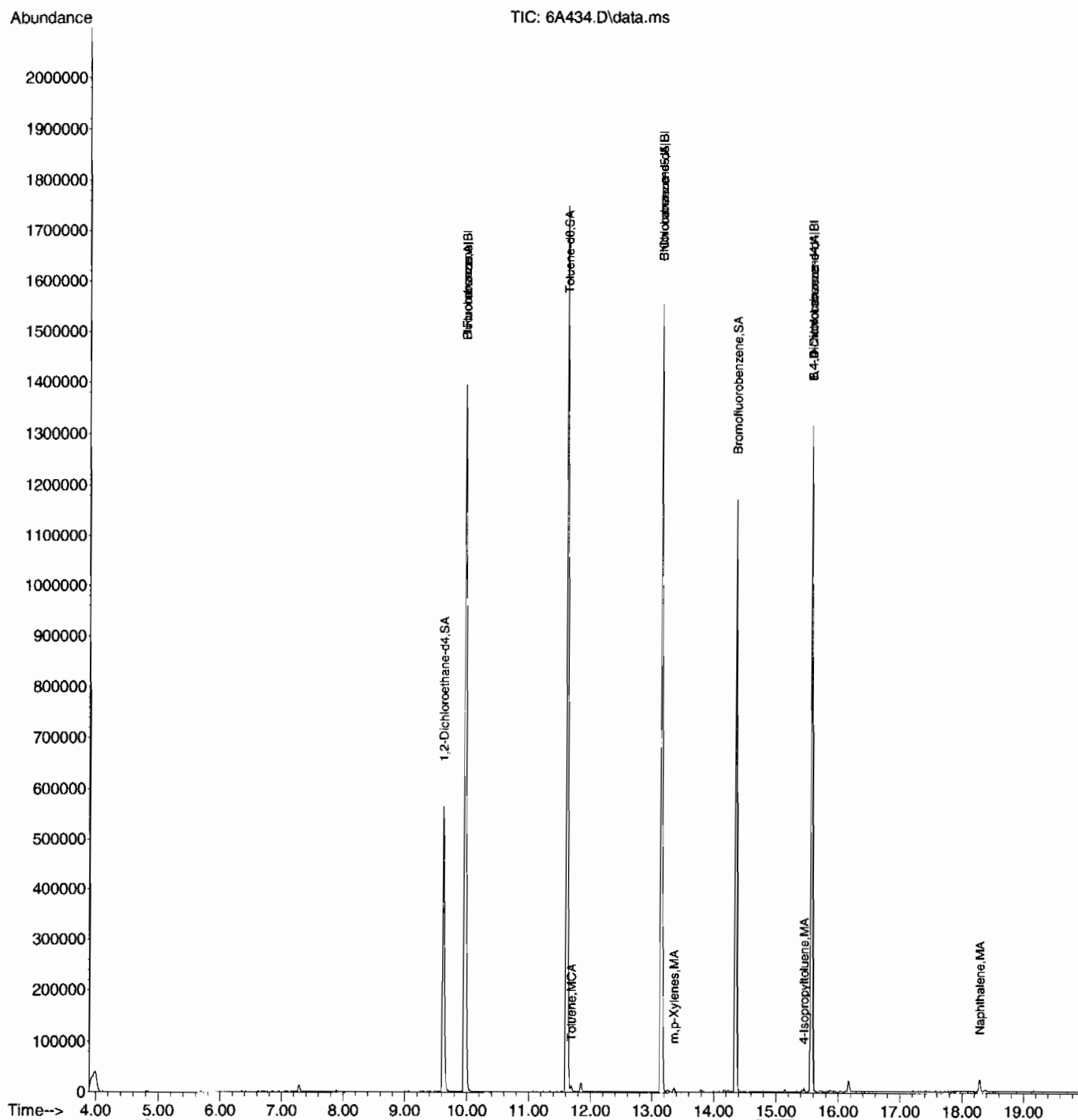
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(E) = Over the calibration range (d) = deleted

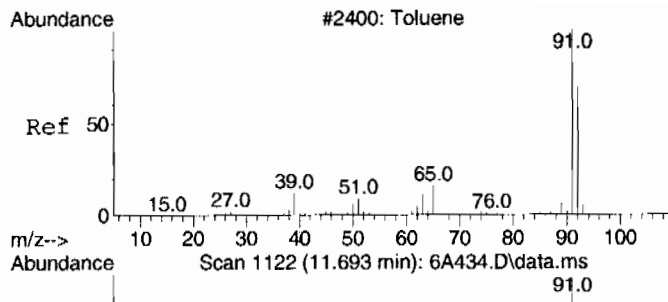
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A434.D  
Acq On : 5 Mar 2010 12:54 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043004|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 05 09:16:20 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

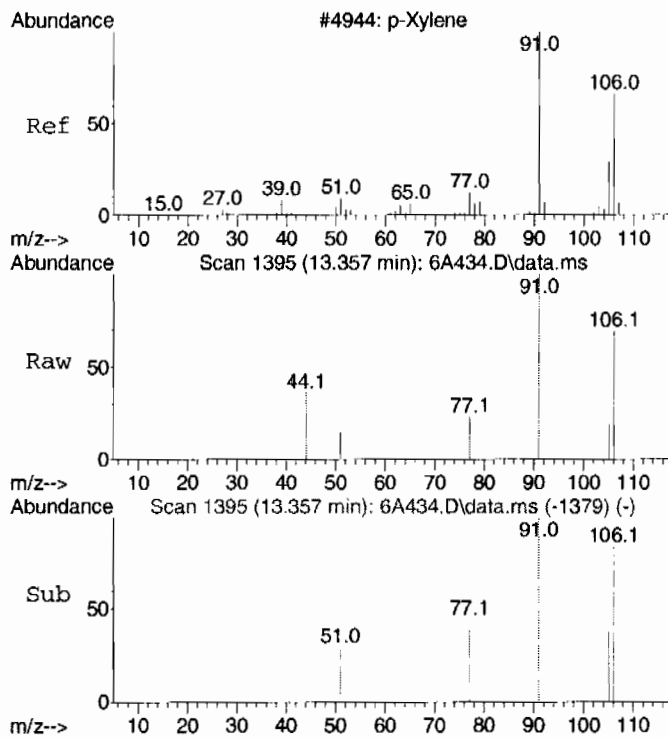
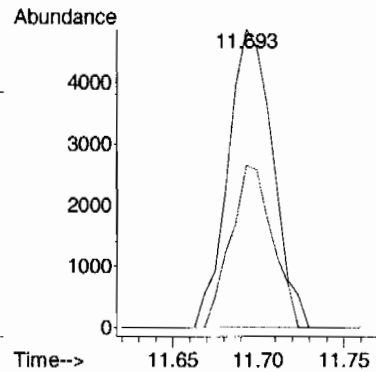
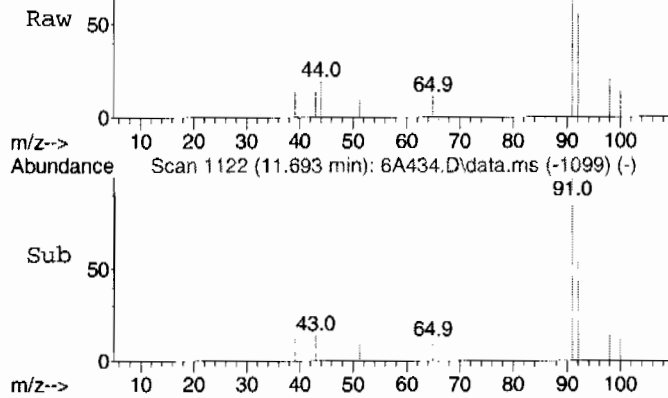
SubList :





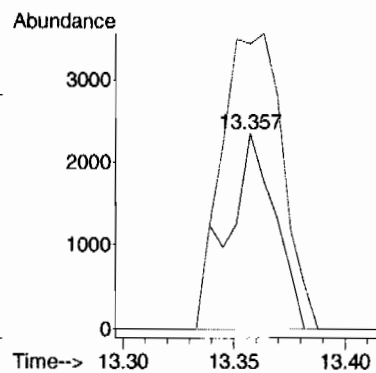
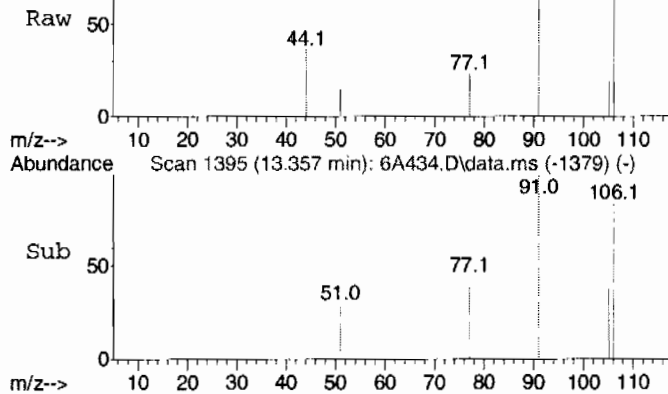
#44  
Toluene  
Concen: 0.38 ug/L  
RT: 11.693 min Scan# 1122  
Delta R.T. -0.006 min  
Lab File: 6A434.D  
Acq: 5 Mar 2010 12:54 am

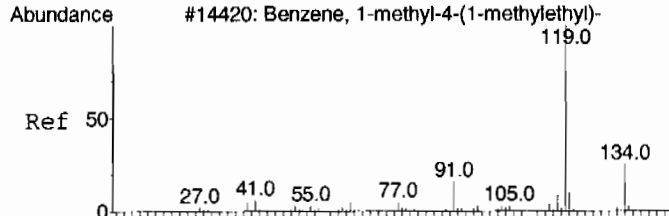
Tgt Ion	Ratio	Lower	Upper
91	100		
92	50.8	29.2	89.2



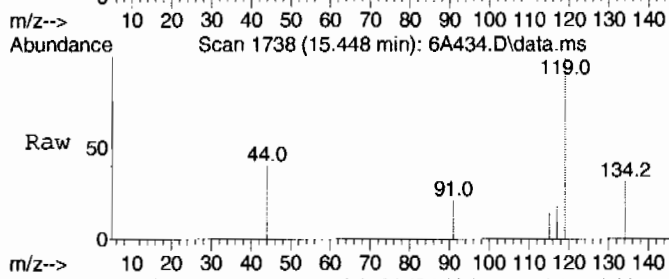
#55  
m,p-Xylenes  
Concen: 0.34 ug/L  
RT: 13.357 min Scan# 1395  
Delta R.T. 0.000 min  
Lab File: 6A434.D  
Acq: 5 Mar 2010 12:54 am

Tgt Ion	Ratio	Lower	Upper
106	100		
91	192.6	173.6	233.6

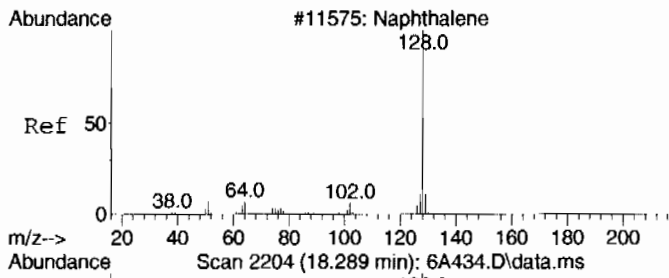
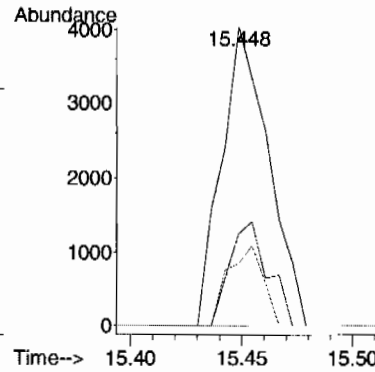
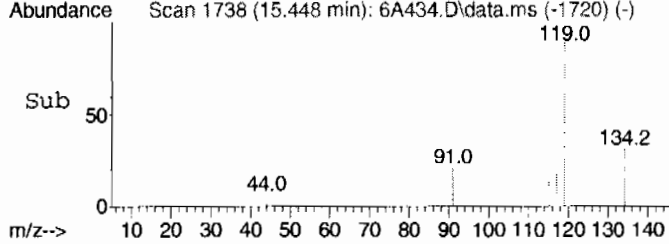




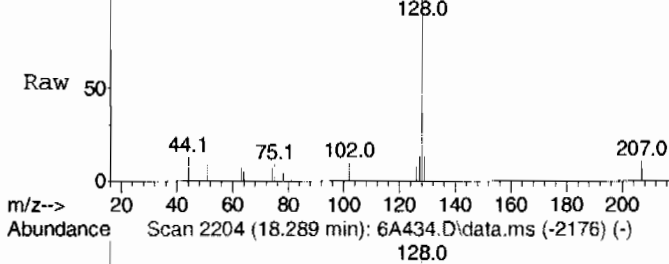
#72  
4-Isopropyltoluene  
Concen: 0.31 ug/L  
RT: 15.448 min Scan# 1738  
Delta R.T. -0.006 min  
Lab File: 6A434.D  
Acq: 5 Mar 2010 12:54 am



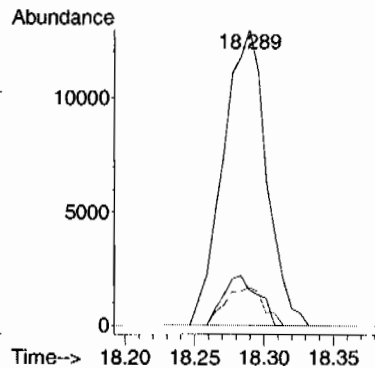
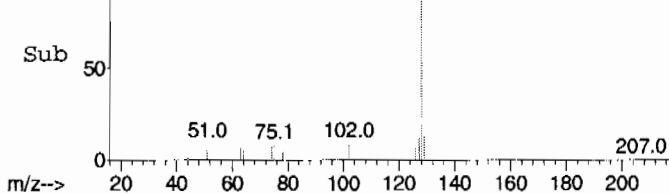
Tgt Ion	Ratio	Lower	Upper
119	100		
134	28.6	0.0	56.0
91	20.2	0.0	55.4

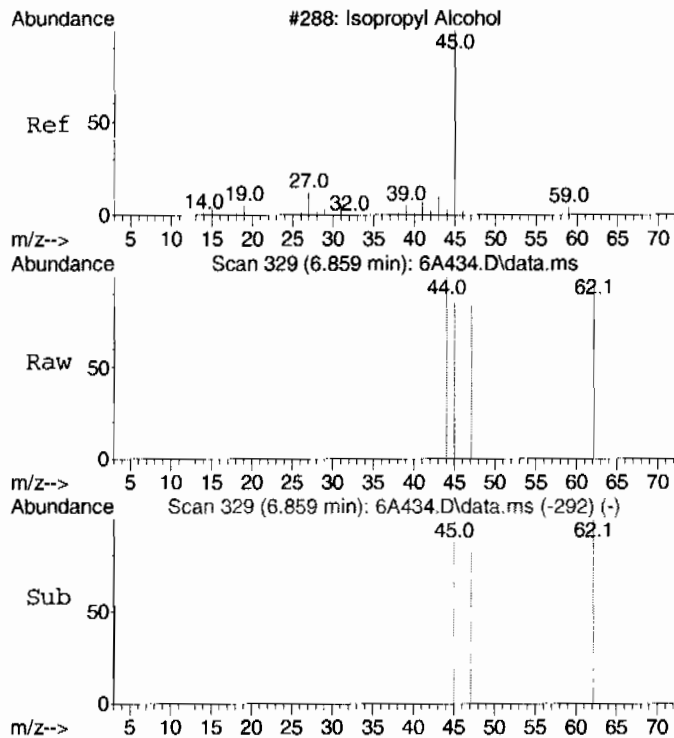


#80  
Naphthalene  
Concen: 2.23 ug/L  
RT: 18.289 min Scan# 2204  
Delta R.T. 0.006 min  
Lab File: 6A434.D  
Acq: 5 Mar 2010 12:54 am



Tgt Ion	Ratio	Lower	Upper
128	100		
127	13.5	0.0	43.1
129	11.4	0.0	41.1

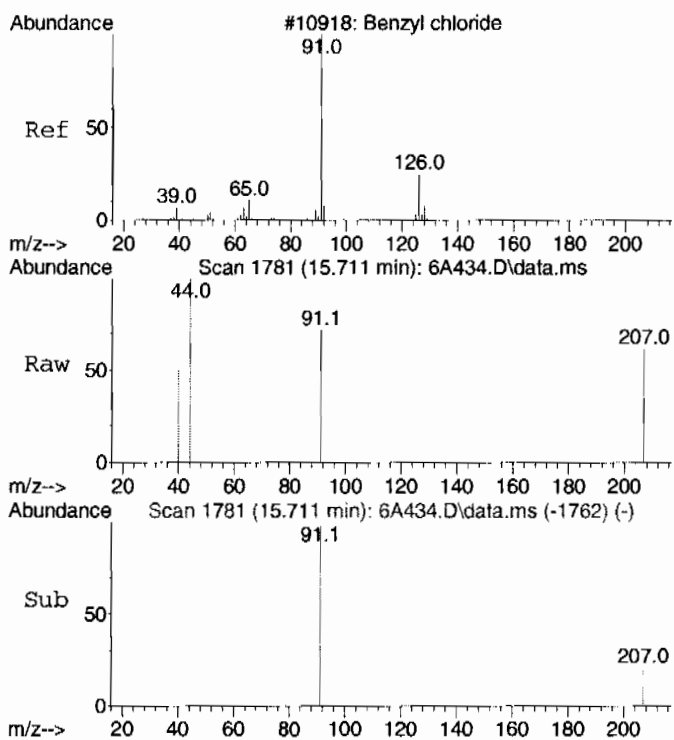
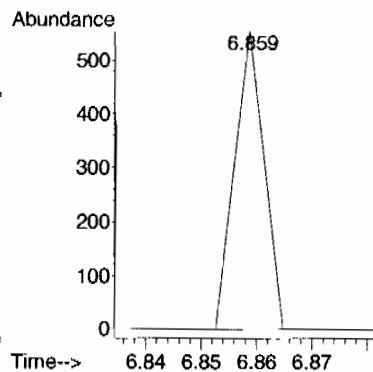




#87 BEFORE analyst DELETION  
Isopropyl Alcohol  
Concen: 0.36 ug/L  
RT: 6.859 min Scan# 329  
Delta R.T. 0.074 min  
Lab File: 6A434.D  
Acq: 5 Mar 2010 12:54 am

Tgt Ion: 45 Resp: 203

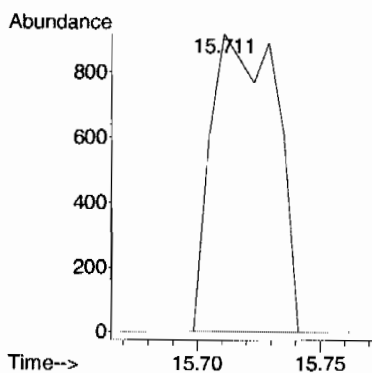
Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	50.2



#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 0.19 ug/L  
RT: 15.711 min Scan# 1781  
Delta R.T. -0.006 min  
Lab File: 6A434.D  
Acq: 5 Mar 2010 12:54 am

Tgt Ion: 91 Resp: 1691

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.0
65	0.0	0.0	43.8





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A434.D  
Acq On : 5 Mar 2010 12:54 am  
Operator : RXD1  
Sample : |248043004|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

No Library Search Compounds Detected

\*\*\*\*\*

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A434.D  
Acq On : 5 Mar 2010 12:54 am  
Operator : RXD1  
Sample : |248043004|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
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**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043006  
 Client ID: RE36-10-7471  
 Batch ID: 961082  
 Run Date: 03/05/2010 01:50  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V66A436.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.1  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 29.8  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.42	ug/kg	0.484	1.42
74-87-3	Chloromethane	U	1.42	ug/kg	0.427	1.42
75-01-4	Vinyl chloride	U	1.42	ug/kg	0.427	1.42
74-83-9	Bromomethane	U	1.42	ug/kg	0.427	1.42
75-00-3	Chloroethane	U	1.42	ug/kg	0.427	1.42
75-69-4	Trichlorofluoromethane	U	1.42	ug/kg	0.427	1.42
67-64-1	Acetone	U	7.12	ug/kg	2.36	7.12
75-35-4	1,1-Dichloroethylene	U	1.42	ug/kg	0.427	1.42
74-88-4	Iodomethane	U	7.12	ug/kg	2.28	7.12
75-09-2	Methylene chloride	U	7.12	ug/kg	2.85	7.12
75-15-0	Carbon disulfide	U	7.12	ug/kg	1.78	7.12
156-60-5	trans-1,2-Dichloroethylene	U	1.42	ug/kg	0.427	1.42
75-34-3	1,1-Dichloroethane	U	1.42	ug/kg	0.427	1.42
78-93-3	2-Butanone	U	7.12	ug/kg	2.14	7.12
156-59-2	cis-1,2-Dichloroethylene	U	1.42	ug/kg	0.427	1.42
594-20-7	2,2-Dichloropropane	U	1.42	ug/kg	0.427	1.42
67-66-3	Chloroform	U	1.42	ug/kg	0.427	1.42
74-97-5	Bromochloromethane	U	1.42	ug/kg	0.470	1.42
71-55-6	1,1,1-Trichloroethane	U	1.42	ug/kg	0.427	1.42
563-58-6	1,1-Dichloropropene	U	1.42	ug/kg	0.427	1.42
56-23-5	Carbon tetrachloride	U	1.42	ug/kg	0.427	1.42
107-06-2	1,2-Dichloroethane	U	1.42	ug/kg	0.427	1.42
71-43-2	Benzene	U	1.42	ug/kg	0.427	1.42
79-01-6	Trichloroethylene	U	1.42	ug/kg	0.470	1.42
78-87-5	1,2-Dichloropropane	U	1.42	ug/kg	0.427	1.42
75-27-4	Bromodichloromethane	U	1.42	ug/kg	0.427	1.42
74-95-3	Dibromomethane	U	1.42	ug/kg	0.427	1.42
108-10-1	4-Methyl-2-pentanone	U	7.12	ug/kg	1.78	7.12
10061-01-5	cis-1,3-Dichloropropylene	U	1.42	ug/kg	0.427	1.42
108-88-3	Toluene	J	0.869	ug/kg	0.427	1.42
10061-02-6	trans-1,3-Dichloropropylene	U	1.42	ug/kg	0.427	1.42
79-00-5	1,1,2-Trichloroethane	U	1.42	ug/kg	0.427	1.42
591-78-6	2-Hexanone	U	7.12	ug/kg	2.14	7.12
142-28-9	1,3-Dichloropropane	U	1.42	ug/kg	0.427	1.42
127-18-4	Tetrachloroethylene	U	1.42	ug/kg	0.427	1.42
124-48-1	Dibromochloromethane	U	1.42	ug/kg	0.427	1.42
106-93-4	1,2-Dibromoethane	U	1.42	ug/kg	0.427	1.42
108-90-7	Chlorobenzene	U	1.42	ug/kg	0.427	1.42

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043006  
 Client ID: RE36-10-7471  
 Batch ID: 961082  
 Run Date: 03/05/2010 01:50  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V66A436.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.1  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 29.8  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.42	ug/kg	0.427	1.42
179601-23-1	m,p-Xylenes	U	2.85	ug/kg	0.427	2.85
95-47-6	o-Xylene	U	1.42	ug/kg	0.427	1.42
100-42-5	Styrene	U	1.42	ug/kg	0.427	1.42
75-25-2	Bromoform	U	1.42	ug/kg	0.427	1.42
79-34-5	1,1,2,2-Tetrachloroethane	U	1.42	ug/kg	0.427	1.42
96-18-4	1,2,3-Trichloropropane	U	1.42	ug/kg	0.427	1.42
108-86-1	Bromobenzene	U	1.42	ug/kg	0.427	1.42
103-65-1	n-Propylbenzene	U	1.42	ug/kg	0.427	1.42
95-49-8	2-Chlorotoluene	U	1.42	ug/kg	0.427	1.42
98-82-8	Isopropylbenzene	U	1.42	ug/kg	0.427	1.42
108-67-8	1,3,5-Trimethylbenzene		2.79	ug/kg	0.427	1.42
106-43-4	4-Chlorotoluene	U	1.42	ug/kg	0.427	1.42
98-06-6	tert-Butylbenzene	U	1.42	ug/kg	0.427	1.42
95-63-6	1,2,4-Trimethylbenzene		4.99	ug/kg	0.427	1.42
135-98-8	sec-Butylbenzene	U	1.42	ug/kg	0.427	1.42
99-87-6	4-Isopropyltoluene	J	0.484	ug/kg	0.427	1.42
541-73-1	1,3-Dichlorobenzene	U	1.42	ug/kg	0.427	1.42
106-46-7	1,4-Dichlorobenzene	U	1.42	ug/kg	0.427	1.42
104-51-8	n-Butylbenzene	U	1.42	ug/kg	0.427	1.42
96-12-8	1,2-Dibromo-3-chloropropane	U	1.42	ug/kg	0.427	1.42
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	7.12	ug/kg	2.28	7.12
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.42	ug/kg	0.427	1.42
95-50-1	1,2-Dichlorobenzene	U	1.42	ug/kg	0.427	1.42

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A436.D  
Acq On : 5 Mar 2010 1:50 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043006|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 05 09:18:27 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1186727	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	836883	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	411639	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1185113	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	836883	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	411639	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	454511	50.83	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 101.66%			
43) Toluene-d8	11.620	11.620	0.883	98	1128856	49.52	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 99.04%			
61) Bromofluorobenzene	14.351	14.357	0.922	95	427904	55.69	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 111.38%			
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.642	4.672	0.465	50	155	N.D.		
4) Vinyl chloride	4.894	4.914	0.491	62	710	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.712	6.706	0.673	43	436	Below Cal	#	50
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.078	0.000		0	N.D.		
15) Methylene chloride	7.279	7.285	0.730	84	5086	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	9.730	9.724	0.976	78	211	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A436.D  
Acq On : 5 Mar 2010 1:50 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043006|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 05 09:18:27 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.699	11.699	0.889	91	14483	0.61 ug/L	99
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.248	13.248	1.007	91	1326	N.D.	
55) m,p-Xylenes	13.357	13.357	1.015	106	1990	N.D.	
56) o-Xylene	13.796	13.796	1.049	106	2491	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	14.156	14.156	0.909	105	2535	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	14.583	14.583	0.937	91	6484	N.D.	
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	41324	1.96 ug/L	98
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	14.887	14.833	0.956	91	1575	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	76274	3.50 ug/L	100
71) sec-Butylbenzene	15.333	15.333	0.985	105	5050	N.D.	
72) 4-Isopropyltoluene	15.387	15.454	0.988	119	7606	0.34 ug/L	79
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	15.826	15.887	1.016	91	3770	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.289	18.283	1.175	128	75934	5.08 ug/L	99
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0m	N.D. d	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A436.D  
Acq On : 5 Mar 2010 1:50 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043006|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 05 09:18:27 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.162	16.113	1.038	45	2868	N.D.	

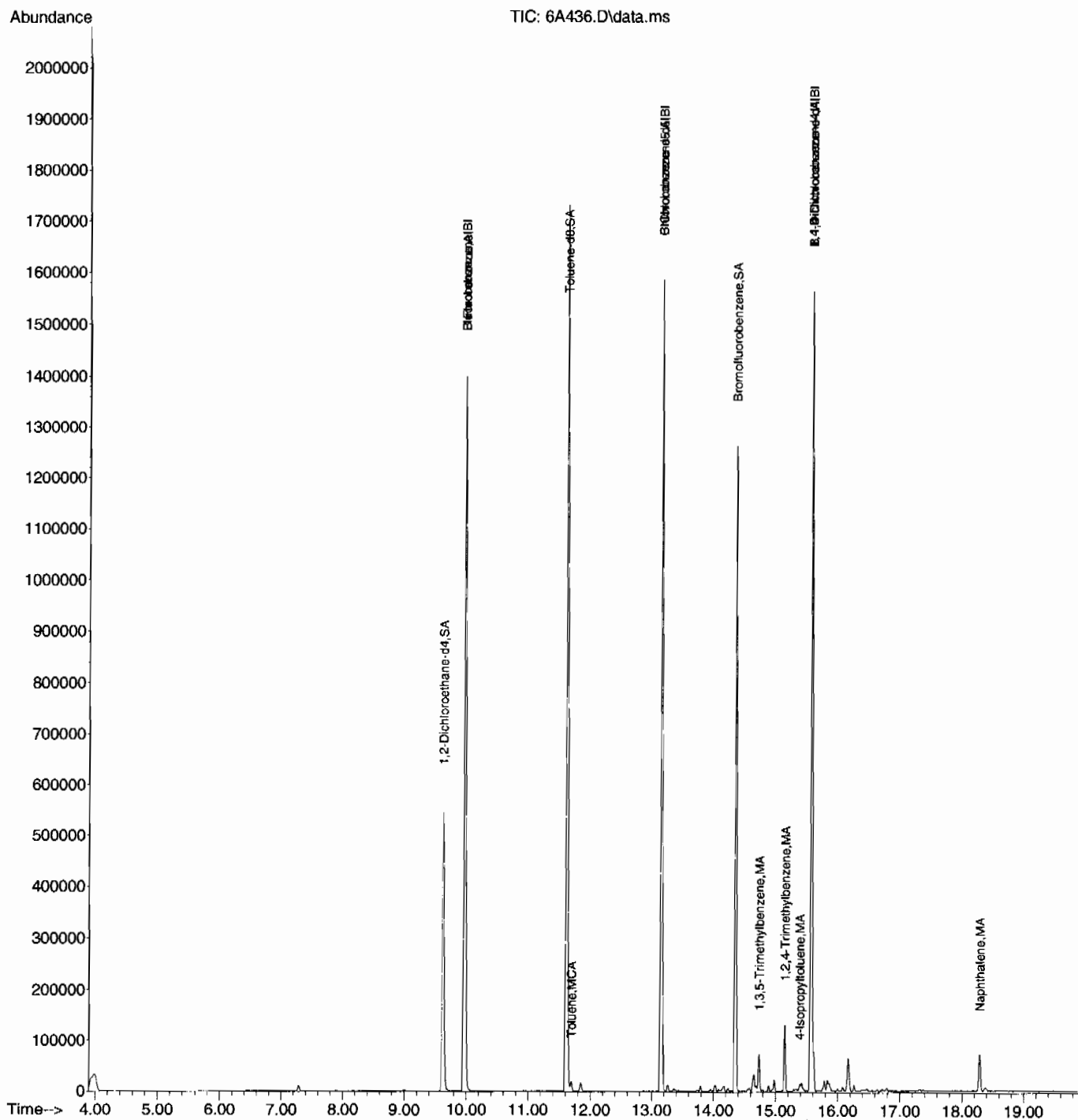
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

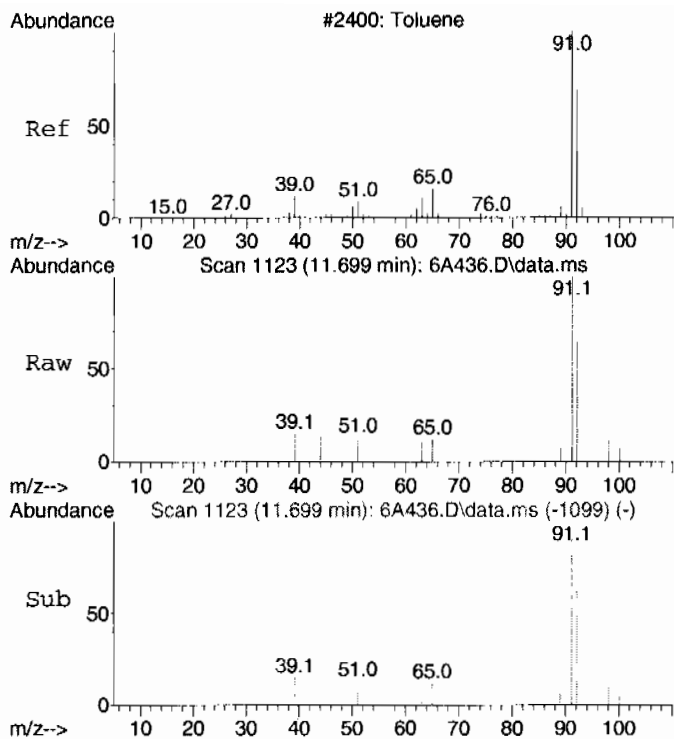
Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A436.D  
Acq On : 5 Mar 2010 1:50 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043006|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 05 09:18:27 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

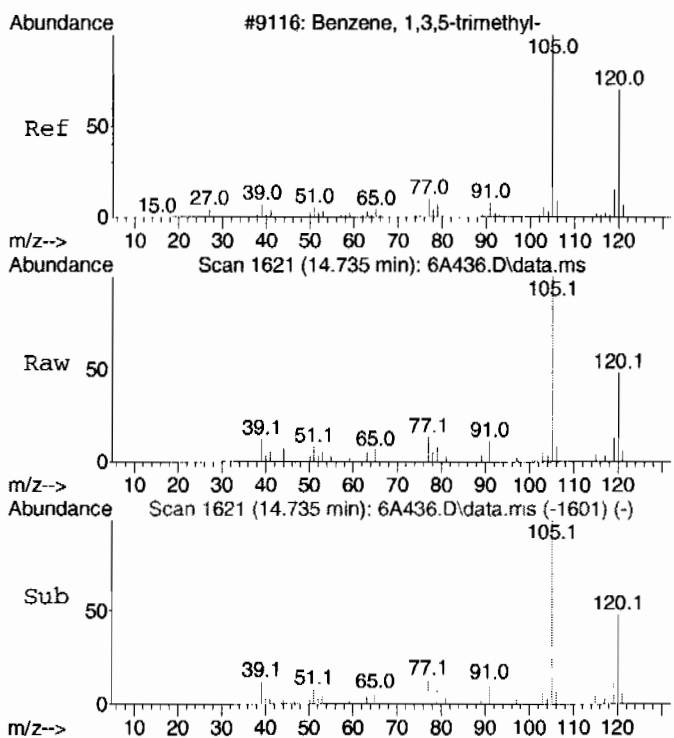
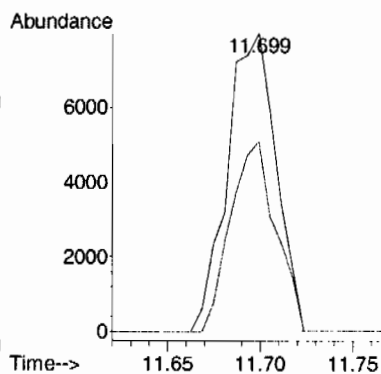






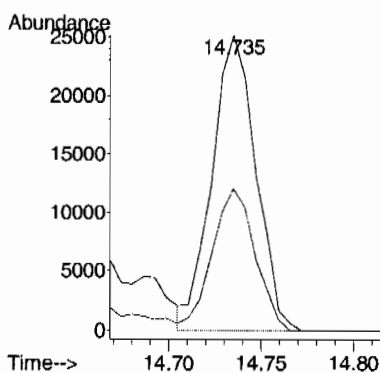
#44  
Toluene  
Concen: 0.61 ug/L  
RT: 11.699 min Scan# 1123  
Delta R.T. 0.000 min  
Lab File: 6A436.D  
Acq: 5 Mar 2010 1:50 am

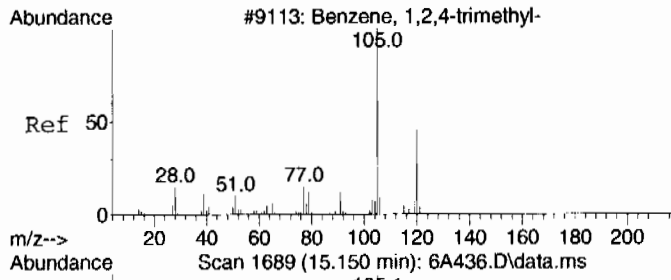
Tgt Ion	Ratio	Lower	Upper
91	100		
92	59.6	29.2	89.2



#66  
1,3,5-Trimethylbenzene  
Concen: 1.96 ug/L  
RT: 14.735 min Scan# 1621  
Delta R.T. 0.000 min  
Lab File: 6A436.D  
Acq: 5 Mar 2010 1:50 am

Tgt Ion	Ratio	Lower	Upper
105	100		
120	46.6	17.7	77.7





#70

1,2,4-Trimethylbenzene

Concen: 3.50 ug/L

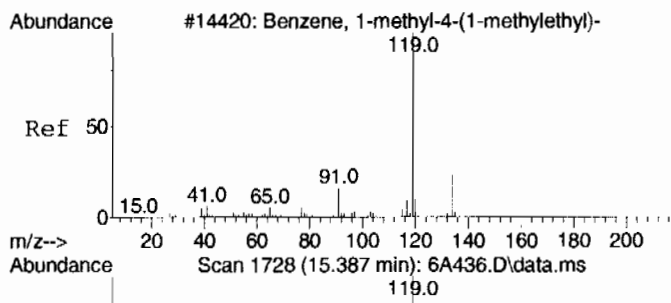
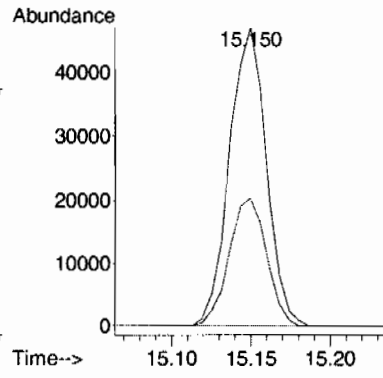
RT: 15.150 min Scan# 1689

Delta R.T. -0.000 min

Lab File: 6A436.D

Acq: 5 Mar 2010 1:50 am

Tgt Ion	Ratio	Lower	Upper
105	100		
120	43.9	14.2	74.2



#72

4-Isopropyltoluene

Concen: 0.34 ug/L

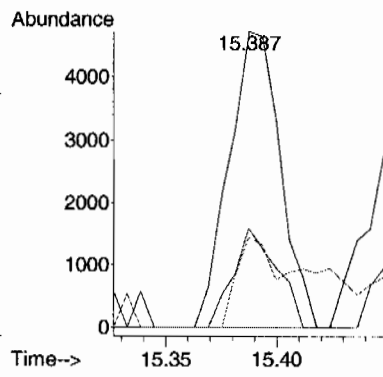
RT: 15.387 min Scan# 1728

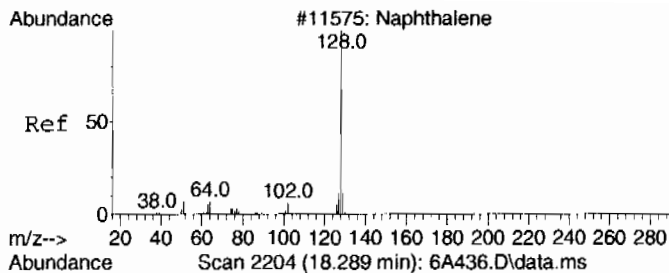
Delta R.T. -0.067 min

Lab File: 6A436.D

Acq: 5 Mar 2010 1:50 am

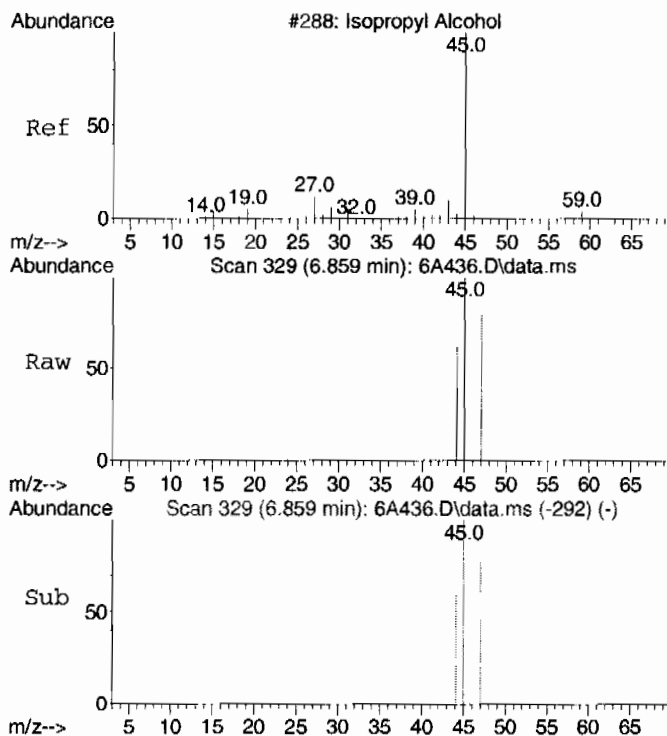
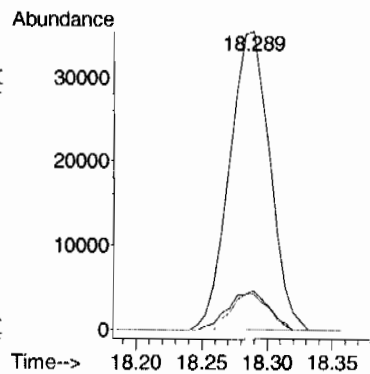
Tgt Ion	Ratio	Lower	Upper
119	100		
134	28.3	0.0	56.0
91	44.2	0.0	55.4





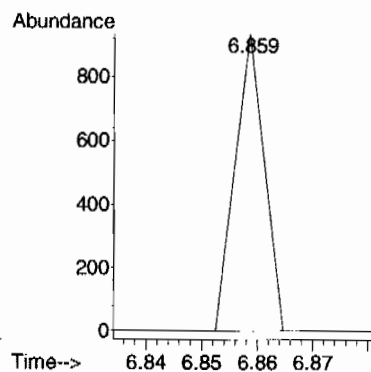
#80  
Naphthalene  
Concen: 5.08 ug/L  
RT: 18.289 min Scan# 2204  
Delta R.T. 0.006 min  
Lab File: 6A436.D  
Acq: 5 Mar 2010 1:50 am

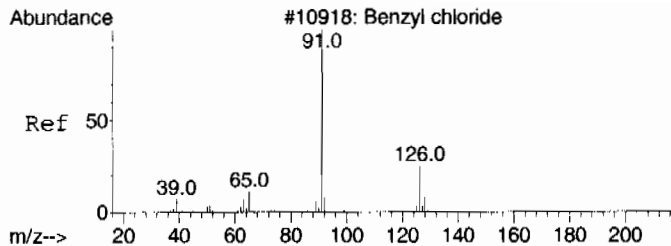
Tgt Ion: 128 Resp: 75934  
Ion Ratio Lower Upper  
128 100  
127 13.2 0.0 43.1  
129 11.4 0.0 41.1



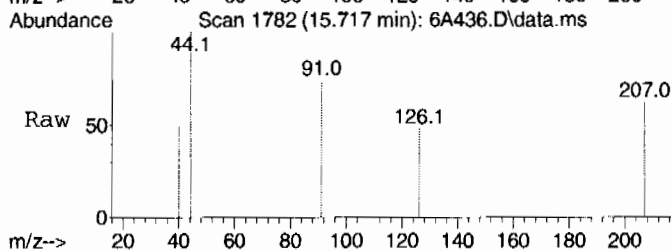
#87 BEFORE analyst DELETION  
Isopropyl Alcohol  
Concen: 0.61 ug/L  
RT: 6.859 min Scan# 329  
Delta R.T. 0.074 min  
Lab File: 6A436.D  
Acq: 5 Mar 2010 1:50 am

Tgt Ion: 45 Resp: 342  
Ion Ratio Lower Upper  
45 100  
43 0.0 0.0 50.2

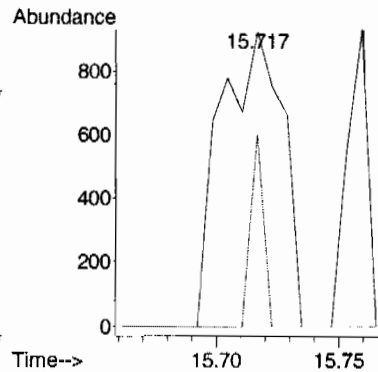
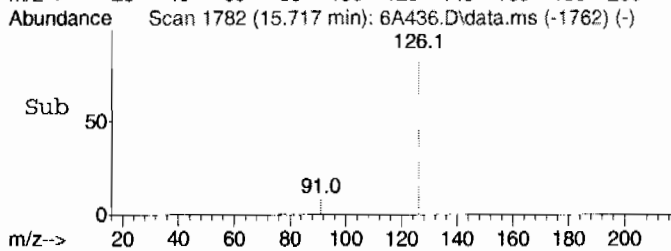




#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 0.16 ug/L  
RT: 15.717 min Scan# 1782  
Delta R.T. -0.000 min  
Lab File: 6A436.D  
Acq: 5 Mar 2010 1:50 am



Tgt Ion: 91 Resp: 1621  
Ion Ratio Lower Upper  
91 100  
126 13.6 0.0 51.0  
65 0.0 0.0 43.8



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A436.D  
Acq On : 5 Mar 2010 1:50 am  
Operator : RXD1  
Sample : |248043006|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

No Library Search Compounds Detected

\*\*\*\*\*

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A436.D  
Acq On : 5 Mar 2010 1:50 am  
Operator : RXD1  
Sample : |248043006|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
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**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043007	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 21.9
<b>Client ID:</b> RE36-10-7472	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 961082	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Run Date:</b> 03/05/2010 02:17	<b>Inst:</b> VOA6.1	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/03/2010 10:35	<b>Analyst:</b> RXD1	<b>Purge Vol:</b> 5 mL
<b>Data File:</b> 030410V66A437.D	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.28	ug/kg	0.435	1.28
74-87-3	Chloromethane	U	1.28	ug/kg	0.384	1.28
75-01-4	Vinyl chloride	U	1.28	ug/kg	0.384	1.28
74-83-9	Bromomethane	U	1.28	ug/kg	0.384	1.28
75-00-3	Chloroethane	U	1.28	ug/kg	0.384	1.28
75-69-4	Trichlorofluoromethane	U	1.28	ug/kg	0.384	1.28
67-64-1	Acetone	U	6.40	ug/kg	2.12	6.40
75-35-4	1,1-Dichloroethylen	U	1.28	ug/kg	0.384	1.28
74-88-4	Iodomethane	U	6.40	ug/kg	2.05	6.40
75-09-2	Methylene chloride	U	6.40	ug/kg	2.56	6.40
75-15-0	Carbon disulfide	U	6.40	ug/kg	1.60	6.40
156-60-5	trans-1,2-Dichloroethylene	U	1.28	ug/kg	0.384	1.28
75-34-3	1,1-Dichloroethane	U	1.28	ug/kg	0.384	1.28
78-93-3	2-Butanone	U	6.40	ug/kg	1.92	6.40
156-59-2	cis-1,2-Dichloroethylen	U	1.28	ug/kg	0.384	1.28
594-20-7	2,2-Dichloropropane	U	1.28	ug/kg	0.384	1.28
67-66-3	Chloroform	U	1.28	ug/kg	0.384	1.28
74-97-5	Bromochloromethane	U	1.28	ug/kg	0.422	1.28
71-55-6	1,1,1-Trichloroethane	U	1.28	ug/kg	0.384	1.28
563-58-6	1,1-Dichloropropene	U	1.28	ug/kg	0.384	1.28
56-23-5	Carbon tetrachloride	U	1.28	ug/kg	0.384	1.28
107-06-2	1,2-Dichloroethane	U	1.28	ug/kg	0.384	1.28
71-43-2	Benzene	U	1.28	ug/kg	0.384	1.28
79-01-6	Trichloroethylene	U	1.28	ug/kg	0.422	1.28
78-87-5	1,2-Dichloropropane	U	1.28	ug/kg	0.384	1.28
75-27-4	Bromodichloromethane	U	1.28	ug/kg	0.384	1.28
74-95-3	Dibromomethane	U	1.28	ug/kg	0.384	1.28
108-10-1	4-Methyl-2-pentanone	U	6.40	ug/kg	1.60	6.40
10061-01-5	cis-1,3-Dichloropropylenc	U	1.28	ug/kg	0.384	1.28
108-88-3	Toluene	U	1.28	ug/kg	0.384	1.28
10061-02-6	trans-1,3-Dichloropropylenc	U	1.28	ug/kg	0.384	1.28
79-00-5	1,1,2-Trichloroethane	U	1.28	ug/kg	0.384	1.28
591-78-6	2-Hexanone	U	6.40	ug/kg	1.92	6.40
142-28-9	1,3-Dichloropropane	U	1.28	ug/kg	0.384	1.28
127-18-4	Tetrachloroethylene	U	1.28	ug/kg	0.384	1.28
124-48-1	Dibromochloromethane	U	1.28	ug/kg	0.384	1.28
106-93-4	1,2-Dibromoethane	U	1.28	ug/kg	0.384	1.28
108-90-7	Chlorobenzene	U	1.28	ug/kg	0.384	1.28

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043007	Date Received: 02/25/2010 08:45	%Moisture: 21.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7472	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.1	Dilution: 1
Run Date: 03/05/2010 02:17	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A437.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.28	ug/kg	0.384	1.28
179601-23-1	m,p-Xylenes	U	2.56	ug/kg	0.384	2.56
95-47-6	o-Xylene	U	1.28	ug/kg	0.384	1.28
100-42-5	Styrene	U	1.28	ug/kg	0.384	1.28
75-25-2	Bromoform	U	1.28	ug/kg	0.384	1.28
79-34-5	1,1,2,2-Tetrachloroethane	U	1.28	ug/kg	0.384	1.28
96-18-4	1,2,3-Trichloropropane	U	1.28	ug/kg	0.384	1.28
108-86-1	Bromobenzene	U	1.28	ug/kg	0.384	1.28
103-65-1	n-Propylbenzene	U	1.28	ug/kg	0.384	1.28
95-49-8	2-Chlorotoluene	U	1.28	ug/kg	0.384	1.28
98-82-8	Isopropylbenzene	U	1.28	ug/kg	0.384	1.28
108-67-8	1,3,5-Trimethylbenzene	U	1.28	ug/kg	0.384	1.28
106-43-4	4-Chlorotoluene	U	1.28	ug/kg	0.384	1.28
98-06-6	tert-Butylbenzene	U	1.28	ug/kg	0.384	1.28
95-63-6	1,2,4-Trimethylbenzene	U	1.28	ug/kg	0.384	1.28
135-98-8	sec-Butylbenzene	U	1.28	ug/kg	0.384	1.28
99-87-6	4-Isopropyltoluene	U	1.28	ug/kg	0.384	1.28
541-73-1	1,3-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28
106-46-7	1,4-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28
104-51-8	n-Butylbenzene	U	1.28	ug/kg	0.384	1.28
96-12-8	1,2-Dibromo-3-chloropropane	U	1.28	ug/kg	0.384	1.28
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.40	ug/kg	2.05	6.40
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.28	ug/kg	0.384	1.28
95-50-1	1,2-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A437.D  
Acq On : 5 Mar 2010 2:17 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043007|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 05 09:54:19 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1237007	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	918892	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	517126	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1235699	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	918892	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	517126	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	478607	51.35	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 102.70%			
43) Toluene-d8	11.620	11.620	0.883	98	1202972	48.06	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 96.12%			
61) Bromofluorobenzene	14.351	14.357	0.921	95	495752	51.36	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 102.72%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.652	4.672	0.466	50	207	N.D.		
4) Vinyl chloride	4.894	4.914	0.491	62	466	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	0.000	6.706	0.000		0	N.D.		
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.072	7.078	0.709	76	232	N.D.		
15) Methylene chloride	7.291	7.285	0.731	84	6330	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	9.724	9.724	0.975	78	207	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A437.D  
Acq On : 5 Mar 2010 2:17 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043007|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 05 09:54:19 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	0.000	11.699	0.000		0	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	0.000	13.248	0.000		0	N.D.	
55) m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.583	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	222	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.156	15.150	0.973	105	1133	N.D.	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72) 4-Isopropyltoluene	15.448	15.454	0.992	119	183	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	15.887	15.887	1.020	91	194	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.289	18.283	1.174	128	8651	0.46 ug/L #	72
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A437.D  
Acq On : 5 Mar 2010 2:17 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043007|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 05 09:54:19 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	9.065	9.059	0.909	42	201	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.168	16.113	1.038	45	2978	N.D.	

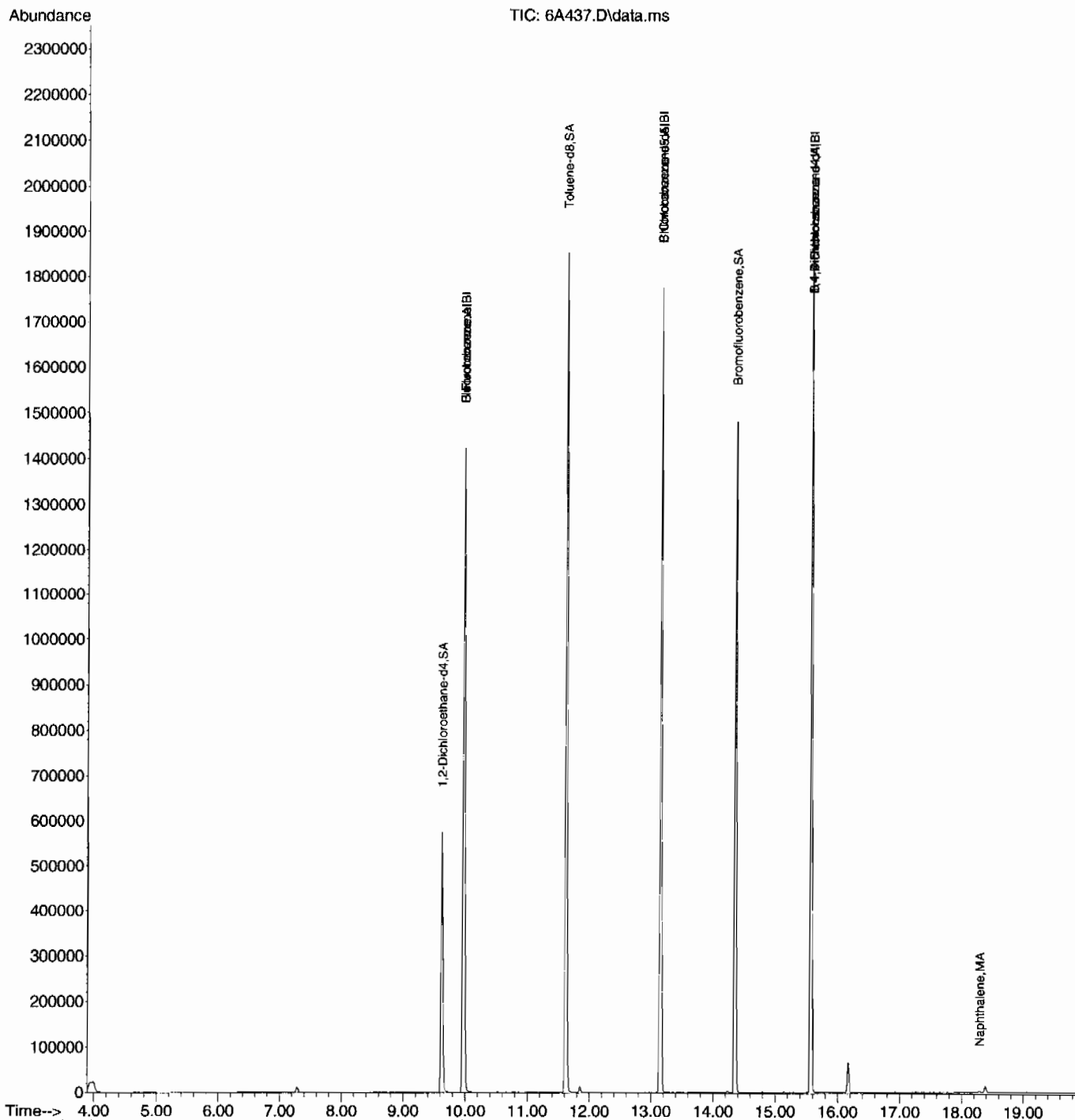
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

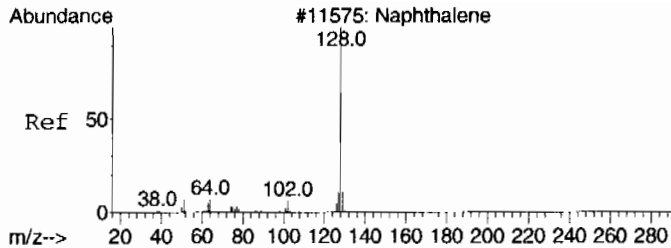
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A437.D  
Acq On : 5 Mar 2010 2:17 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043007|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 05 09:54:19 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

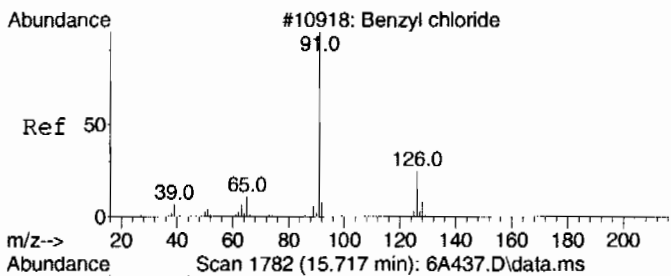
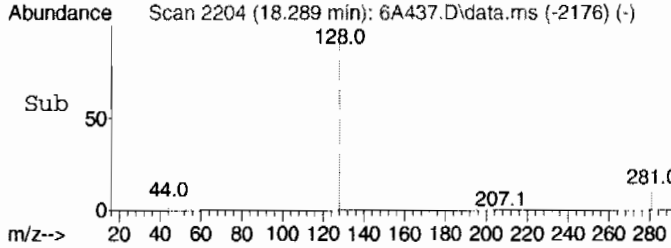
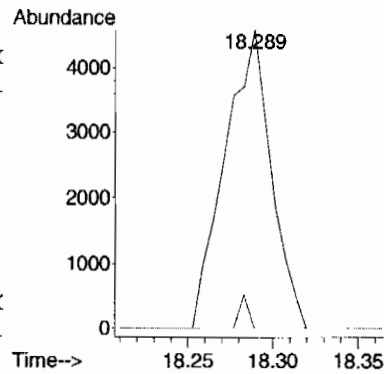
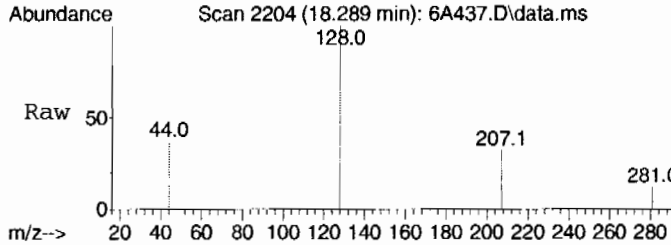
SubList :





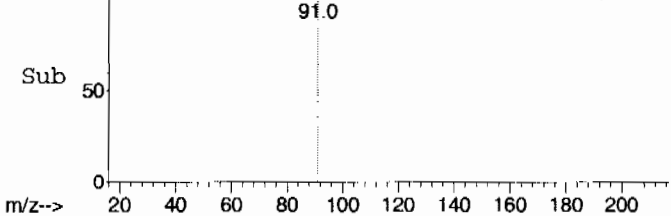
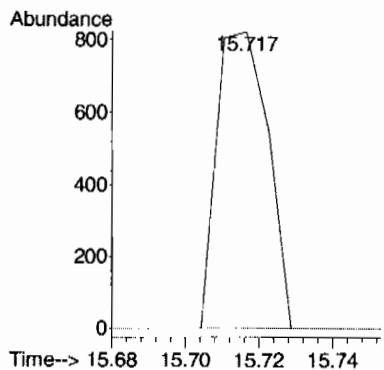
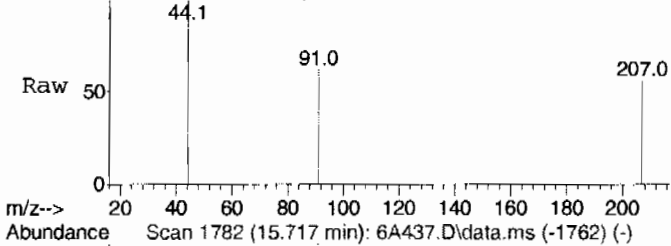
#80  
Naphthalene  
Concen: 0.46 ug/L  
RT: 18.289 min Scan# 2204  
Delta R.T. 0.006 min  
Lab File: 6A437.D  
Acq: 5 Mar 2010 2:17 am

Tgt Ion	Ratio	Lower	Upper
128	100		
127	2.2	0.0	43.1
129	0.0	0.0	41.1



#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 0.06 ug/L  
RT: 15.717 min Scan# 1782  
Delta R.T. -0.000 min  
Lab File: 6A437.D  
Acq: 5 Mar 2010 2:17 am

Tgt Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.0
65	0.0	0.0	43.8



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A437.D  
Acq On : 5 Mar 2010 2:17 am  
Operator : RXD1  
Sample : |248043007|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

No Library Search Compounds Detected

\*\*\*\*\*

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A437.D  
Acq On : 5 Mar 2010 2:17 am  
Operator : RXD1  
Sample : |248043007|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc

---

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043008	Date Received: 02/25/2010 08:45	%Moisture: 26.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7468	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 02:45	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V6\6A438.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.36	ug/kg	0.463	1.36
74-87-3	Chloromethane	U	1.36	ug/kg	0.408	1.36
75-01-4	Vinyl chloride	U	1.36	ug/kg	0.408	1.36
74-83-9	Bromomethane	U	1.36	ug/kg	0.408	1.36
75-00-3	Chloroethane	U	1.36	ug/kg	0.408	1.36
75-69-4	Trichlorofluoromethane	U	1.36	ug/kg	0.408	1.36
67-64-1	Acetone	U	6.81	ug/kg	2.26	6.81
75-35-4	1,1-Dichloroethylene	U	1.36	ug/kg	0.408	1.36
74-88-4	Iodomethane	U	6.81	ug/kg	2.18	6.81
75-09-2	Methylene chloride	U	6.81	ug/kg	2.72	6.81
75-15-0	Carbon disulfide	U	6.81	ug/kg	1.70	6.81
156-60-5	trans-1,2-Dichloroethylene	U	1.36	ug/kg	0.408	1.36
75-34-3	1,1-Dichloroethane	U	1.36	ug/kg	0.408	1.36
78-93-3	2-Butanone	U	6.81	ug/kg	2.04	6.81
156-59-2	cis-1,2-Dichloroethylene	U	1.36	ug/kg	0.408	1.36
594-20-7	2,2-Dichloropropane	U	1.36	ug/kg	0.408	1.36
67-66-3	Chloroform	U	1.36	ug/kg	0.408	1.36
74-97-5	Bromochloromethane	U	1.36	ug/kg	0.449	1.36
71-55-6	1,1,1-Trichloroethane	U	1.36	ug/kg	0.408	1.36
563-58-6	1,1-Dichloropropene	U	1.36	ug/kg	0.408	1.36
56-23-5	Carbon tetrachloride	U	1.36	ug/kg	0.408	1.36
107-06-2	1,2-Dichloroethane	U	1.36	ug/kg	0.408	1.36
71-43-2	Benzene	U	1.36	ug/kg	0.408	1.36
79-01-6	Trichloroethylene	U	1.36	ug/kg	0.449	1.36
78-87-5	1,2-Dichloropropane	U	1.36	ug/kg	0.408	1.36
75-27-4	Bromodichloromethane	U	1.36	ug/kg	0.408	1.36
74-95-3	Dibromomethane	U	1.36	ug/kg	0.408	1.36
108-10-1	4-Methyl-2-pentanone	U	6.81	ug/kg	1.70	6.81
10061-01-5	cis-1,3-Dichloropropylene	U	1.36	ug/kg	0.408	1.36
108-88-3	Toluene	U	1.36	ug/kg	0.408	1.36
10061-02-6	trans-1,3-Dichloropropylene	U	1.36	ug/kg	0.408	1.36
79-00-5	1,1,2-Trichloroethane	U	1.36	ug/kg	0.408	1.36
591-78-6	2-Hexanone	U	6.81	ug/kg	2.04	6.81
142-28-9	1,3-Dichloropropane	U	1.36	ug/kg	0.408	1.36
127-18-4	Tetrachloroethylene	U	1.36	ug/kg	0.408	1.36
124-48-1	Dibromochloromethane	U	1.36	ug/kg	0.408	1.36
106-93-4	1,2-Dibromoethane	U	1.36	ug/kg	0.408	1.36
108-90-7	Chlorobenzene	U	1.36	ug/kg	0.408	1.36



**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043008  
  
Client ID: RE36-10-7468  
Batch ID: 961082  
Run Date: 03/05/2010 02:45  
Prep Date: 03/03/2010 10:35  
Data File: 030410V66A438.D

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA6.I  
Analyst: RXD1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 26.6  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.36	ug/kg	0.408	1.36
179601-23-1	m,p-Xylenes	U	2.72	ug/kg	0.408	2.72
95-47-6	o-Xylene	U	1.36	ug/kg	0.408	1.36
100-42-5	Styrene	U	1.36	ug/kg	0.408	1.36
75-25-2	Bromoform	U	1.36	ug/kg	0.408	1.36
79-34-5	1,1,2,2-Tetrachloroethane	U	1.36	ug/kg	0.408	1.36
96-18-4	1,2,3-Trichloropropane	U	1.36	ug/kg	0.408	1.36
108-86-1	Bromobenzene	U	1.36	ug/kg	0.408	1.36
103-65-1	n-Propylbenzene	U	1.36	ug/kg	0.408	1.36
95-49-8	2-Chlorotoluene	U	1.36	ug/kg	0.408	1.36
98-82-8	Isopropylbenzene	U	1.36	ug/kg	0.408	1.36
108-67-8	1,3,5-Trimethylbenzene	U	1.36	ug/kg	0.408	1.36
106-43-4	4-Chlorotoluene	U	1.36	ug/kg	0.408	1.36
98-06-6	tert-Butylbenzene	U	1.36	ug/kg	0.408	1.36
95-63-6	1,2,4-Trimethylbenzene	U	1.36	ug/kg	0.408	1.36
135-98-8	sec-Butylbenzene	U	1.36	ug/kg	0.408	1.36
99-87-6	4-Isopropyltoluene		2.94	ug/kg	0.408	1.36
541-73-1	1,3-Dichlorobenzene	U	1.36	ug/kg	0.408	1.36
106-46-7	1,4-Dichlorobenzene	U	1.36	ug/kg	0.408	1.36
104-51-8	n-Butylbenzene	U	1.36	ug/kg	0.408	1.36
96-12-8	1,2-Dibromo-3-chloropropane	U	1.36	ug/kg	0.408	1.36
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.81	ug/kg	2.18	6.81
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.36	ug/kg	0.408	1.36
95-50-1	1,2-Dichlorobenzene	U	1.36	ug/kg	0.408	1.36

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	9.01	22.5	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A438.D  
Acq On : 5 Mar 2010 2:45 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043008|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 05 09:54:49 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1144471	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	732702	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	292130	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1144105	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	732702	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	292130	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	438776	50.88	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 101.76%			
43) Toluene-d8	11.620	11.620	0.883	98	1072153	53.72	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 107.44%			
61) Bromofluorobenzene	14.351	14.357	0.922	95	336340	61.68	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 123.36%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.672	4.672	0.468	50	162	N.D.		
4) Vinyl chloride	4.904	4.914	0.492	62	502	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.725	6.706	0.674	43	10980	N.D.		
10) 1,1-Dichloroethylene	6.731	6.706	0.675	61	1658	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.078	0.000		0	N.D.		
15) Methylene chloride	7.279	7.285	0.730	84	6055	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	9.419	9.413	0.944	56	2682	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	9.718	9.724	0.974	78	950	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A438.D  
Acq On : 5 Mar 2010 2:45 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043008|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 05 09:54:49 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.693	11.699	0.889	91	2740	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.278	13.248	1.009	91	7107	N.D.	
55) m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.583	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	14.882	14.833	0.956	91	633	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.150	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72) 4-Isopropyltoluene	15.448	15.454	0.992	119	34822	2.16 ug/L	95
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	15.894	15.887	1.021	91	230	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.283	18.283	1.174	128	1279	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	8.694	8.700	0.872	43	5799	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A438.D  
Acq On : 5 Mar 2010 2:45 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043008|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 05 09:54:49 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	9.066	9.059	0.909	42	222	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0m	N.D.	d
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.168	16.113	1.038	45	2165	N.D.	

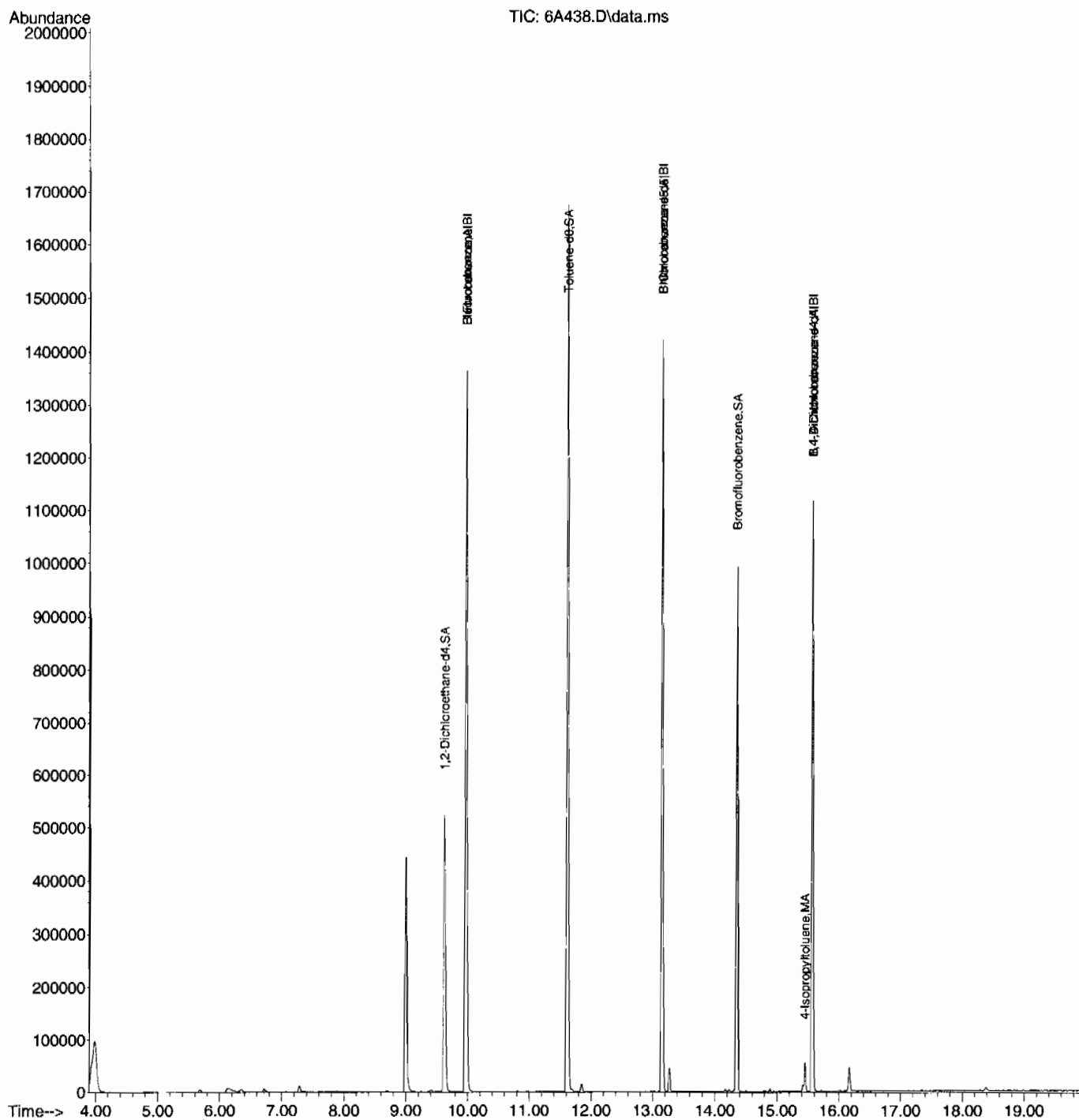
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

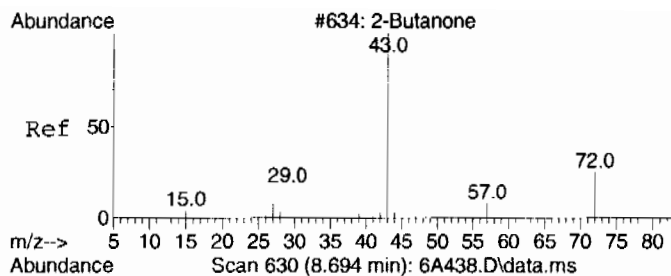
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A438.D  
Acq On : 5 Mar 2010 2:45 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043008|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 05 09:54:49 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

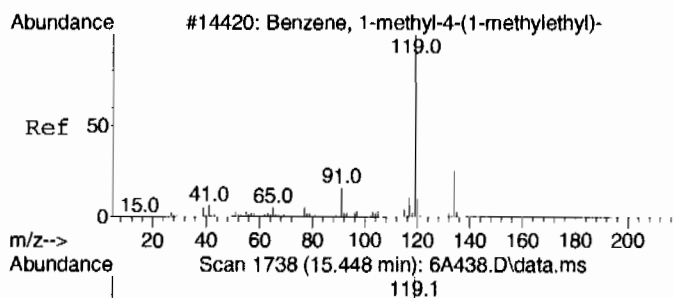
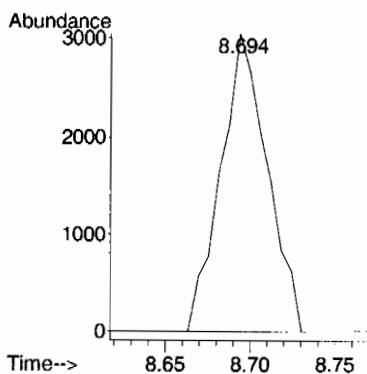
SubList :





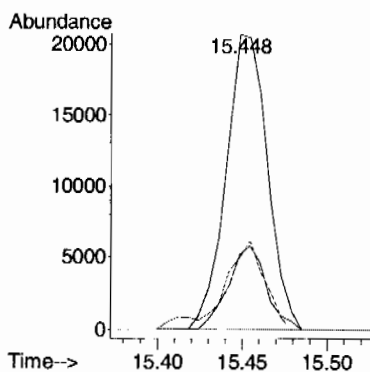
#20 BEFORE analyst DELETION  
2-Butanone  
Concen: 2.37 ug/L  
RT: 8.694 min Scan# 630  
Delta R.T. -0.000 min  
Lab File: 6A438.D  
Acq: 5 Mar 2010 2:45 am

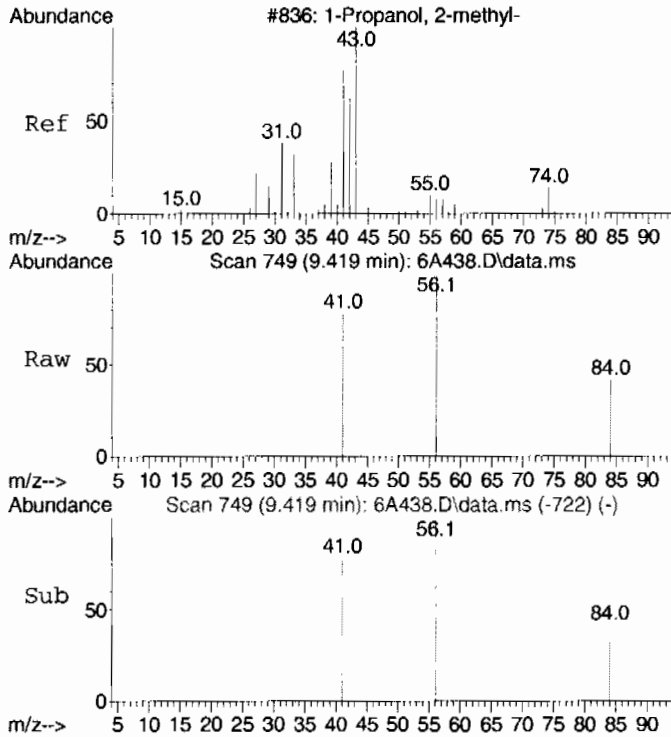
Tgt Ion: 43 Resp: 5799  
Ion Ratio Lower Upper  
43 100  
72 0.0 0.0 48.9



#72  
4-Isopropyltoluene  
Concen: 2.16 ug/L  
RT: 15.448 min Scan# 1738  
Delta R.T. -0.006 min  
Lab File: 6A438.D  
Acq: 5 Mar 2010 2:45 am

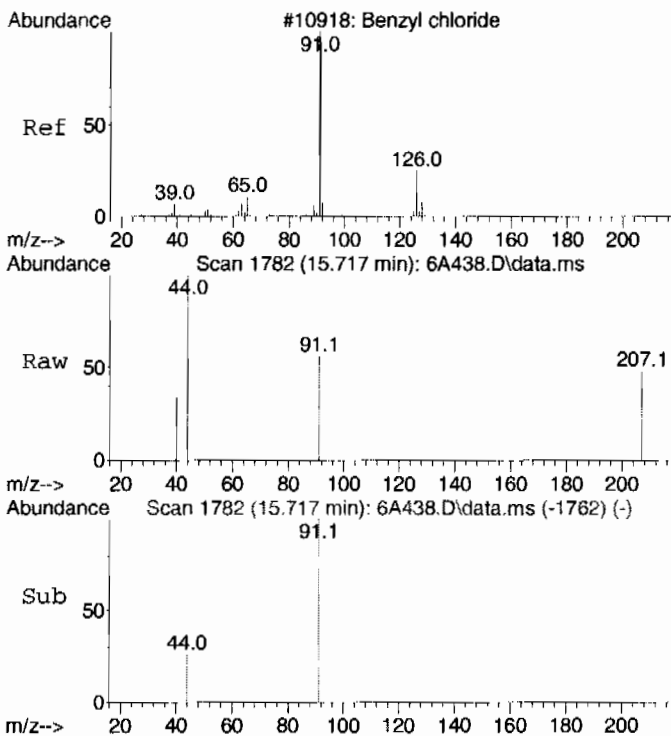
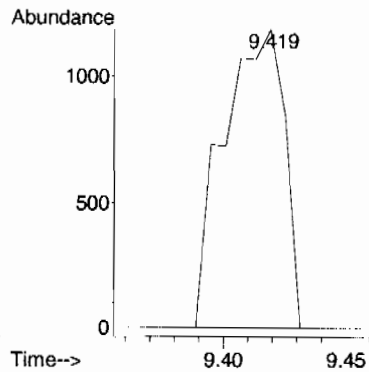
Tgt Ion: 119 Resp: 34822  
Ion Ratio Lower Upper  
119 100  
134 25.7 0.0 56.0  
91 29.7 0.0 55.4





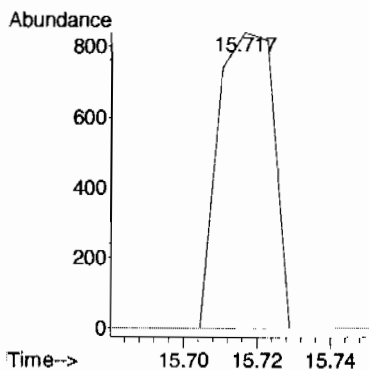
#98 BEFORE analyst DELETION  
Isobutyl alcohol  
Concen: 7.75 ug/L  
RT: 9.419 min Scan# 749  
Delta R.T. 0.031 min  
Lab File: 6A438.D  
Acq: 5 Mar 2010 2:45 am

Tgt Ion: 41 Resp: 2056  
Ion Ratio Lower Upper  
41 100  
43 0.0 105.9 165.9#



#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 0.12 ug/L  
RT: 15.717 min Scan# 1782  
Delta R.T. -0.000 min  
Lab File: 6A438.D  
Acq: 5 Mar 2010 2:45 am

Tgt Ion: 91 Resp: 876  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.0  
65 0.0 0.0 43.8



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A438.D  
Acq On : 5 Mar 2010 2:45 am  
Operator : RXD1  
Sample : |248043008|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B

SubList :

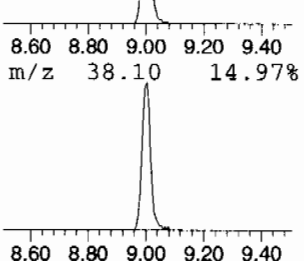
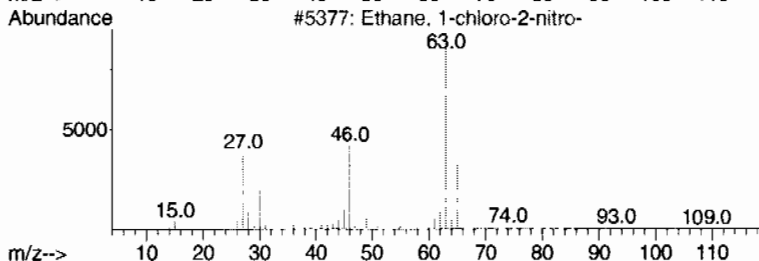
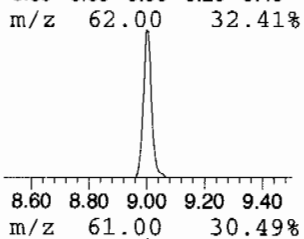
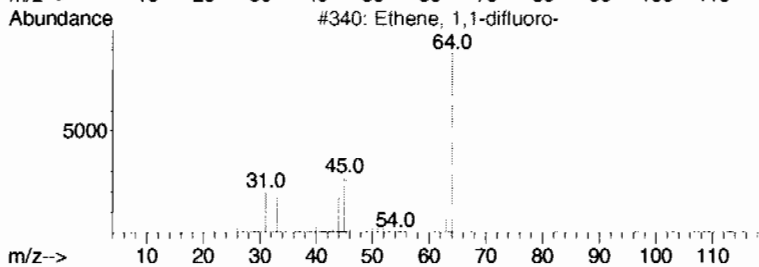
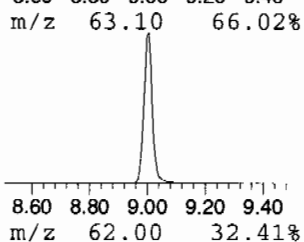
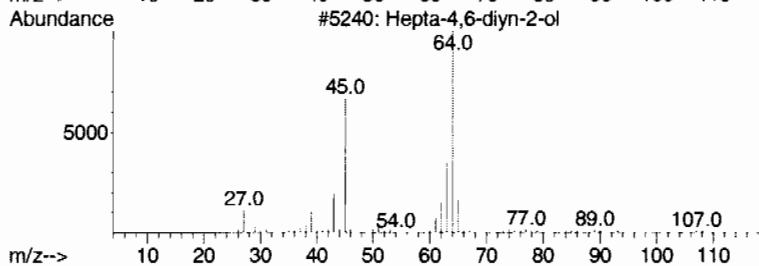
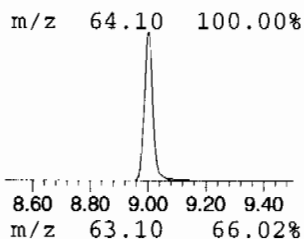
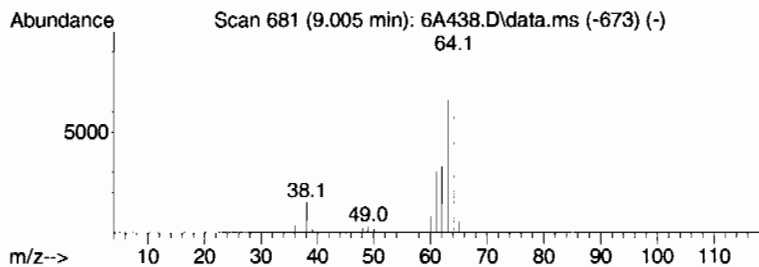
TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.005	16.51 ug/L	876299	Fluorobenzene	9.974

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hepta-4,6-diyn-2-ol	108	C7H8O	1000154-66-3	9
2	Ethene, 1,1-difluoro-	64	C2H2F2	000075-38-7	4
3	Ethane, 1-chloro-2-nitro-	109	C2H4ClNO2	000625-47-8	4
4	Ethene, 1,1-difluoro-	64	C2H2F2	000075-38-7	3
5	Ethene, 1,2-difluoro-	64	C2H2F2	001691-13-0	3





Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A438.D  
Acq On : 5 Mar 2010 2:45 am  
Operator : RXD1  
Sample : |248043008|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown	9.005	16.5	ug/L	876299	1	9.974	2653850	50.0

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043009	Date Received: 02/25/2010 08:45	%Moisture: 7
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7464	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.1	Dilution: 1
Run Date: 03/05/2010 03:13	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V6A439.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08
67-64-1	Acetone	U	5.38	ug/kg	1.79	5.38
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
74-88-4	Iodomethane	U	5.38	ug/kg	1.72	5.38
75-09-2	Methylene chloride	U	5.38	ug/kg	2.15	5.38
75-15-0	Carbon disulfide	U	5.38	ug/kg	1.34	5.38
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08
78-93-3	2-Butanone	U	5.38	ug/kg	1.61	5.38
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.355	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.355	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08
108-10-1	4-Methyl-2-pentanone	U	5.38	ug/kg	1.34	5.38
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08
591-78-6	2-Hexanone	U	5.38	ug/kg	1.61	5.38
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043009	Date Received: 02/25/2010 08:45	%Moisture: 7
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7464	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.1	Dilution: 1
Run Date: 03/05/2010 03:13	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V6V6A439.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.38	ug/kg	1.72	5.38
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found						
				ug/kg		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A439.D  
Acq On : 5 Mar 2010 3:13 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043009|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 05 09:55:38 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev (Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1164166	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	817058	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	392074	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1163432	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	817058	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	392074	50.00	ug/L	0.00

System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	449732	51.27	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 102.54%			
43) Toluene-d8	11.620	11.620	0.883	98	1114233	50.06	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 100.12%			
61) Bromofluorobenzene	14.357	14.357	0.922	95	412593	56.38	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 112.76%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.642	4.672	0.465	50	320	N.D.		
4) Vinyl chloride	4.904	4.914	0.492	62	326	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.718	6.706	0.674	43	1250	Below Cal	#	50
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.078	0.000		0	N.D.		
15) Methylene chloride	7.279	7.285	0.730	84	1019	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A439.D  
Acq On : 5 Mar 2010 3:13 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043009|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 05 09:55:38 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.699	11.699	0.889	91	1769	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.248	13.248	1.007	91	1503	N.D.	
55) m,p-Xylenes	13.357	13.357	1.015	106	2520	N.D.	
56) o-Xylene	13.796	13.796	1.049	106	1185	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	14.174	14.156	0.910	105	3024	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.583	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1005	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.144	15.150	0.973	105	2105	N.D.	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.454	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.283	18.283	1.174	128	1032	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A439.D  
Acq On : 5 Mar 2010 3:13 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043009|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 05 09:55:38 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0m	N.D.	d
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	0.000	16.113	0.000		0m	N.D.	d

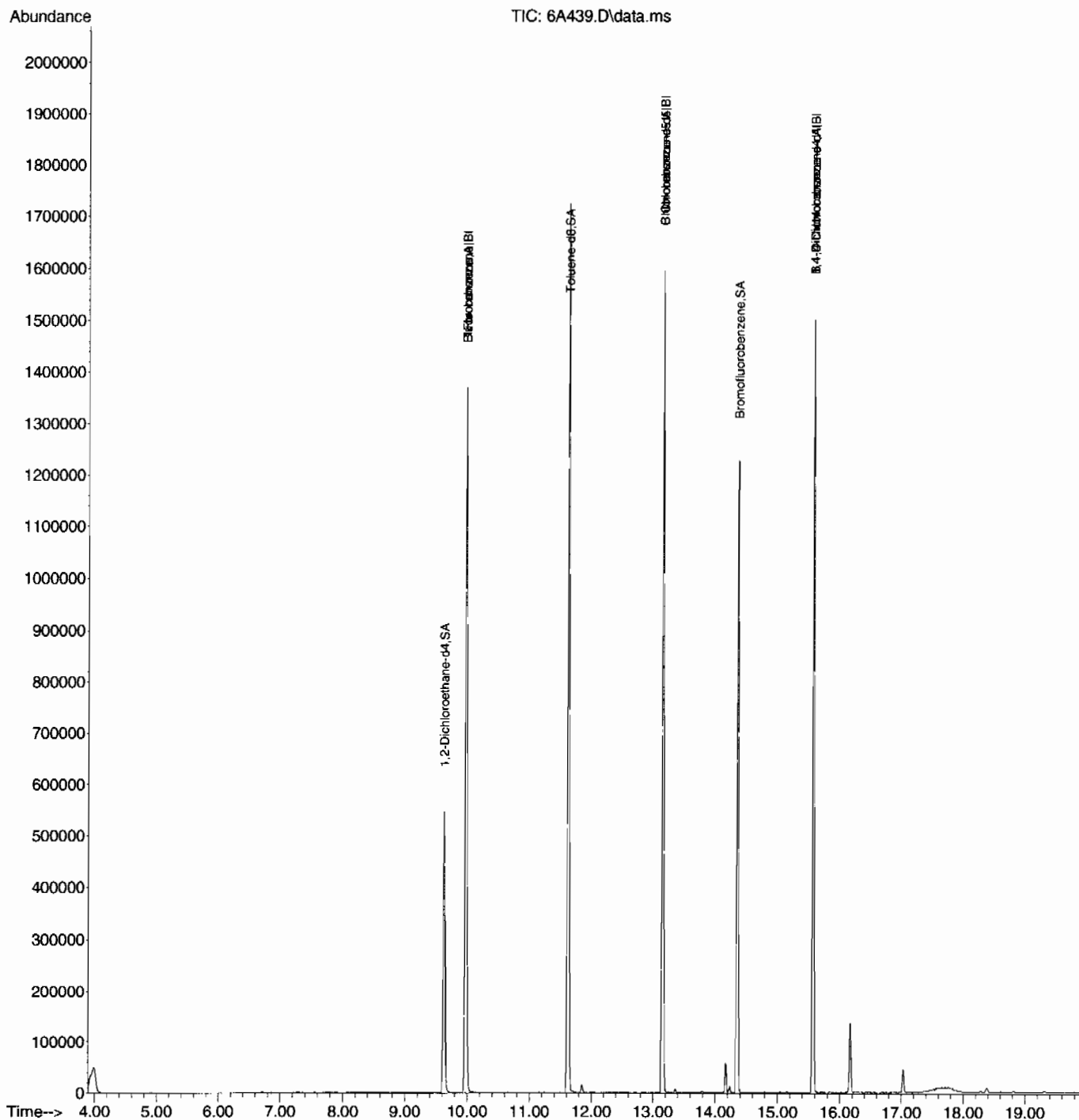
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

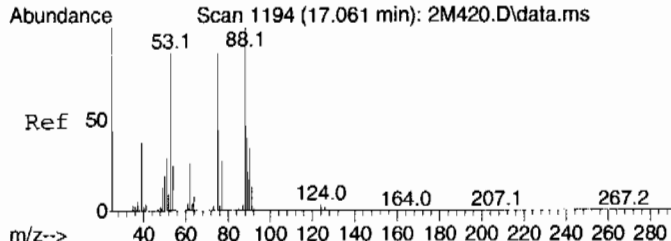
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A439.D  
Acq On : 5 Mar 2010 3:13 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043009|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 05 09:55:38 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

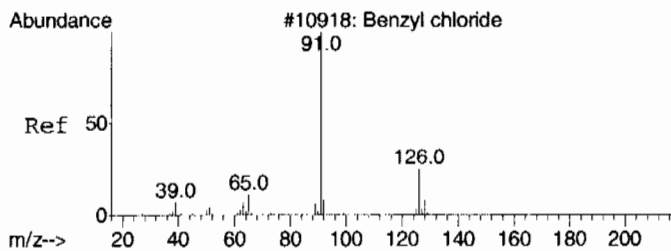
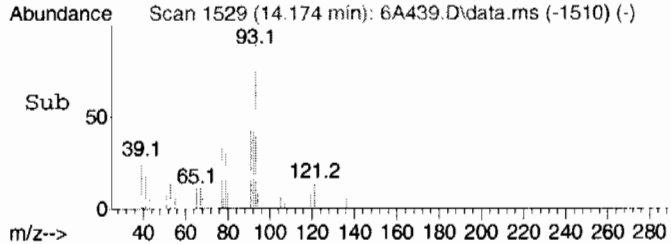
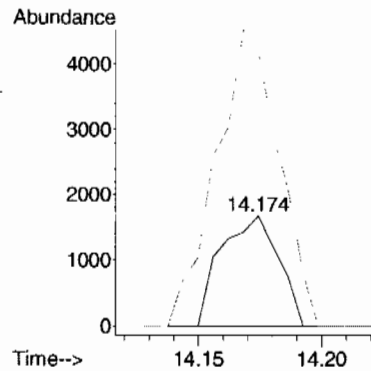
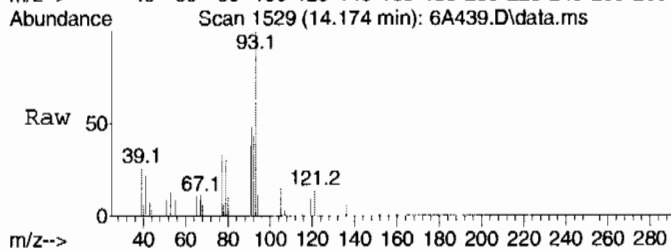
SubList :





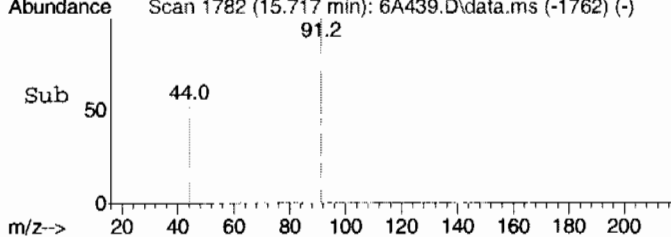
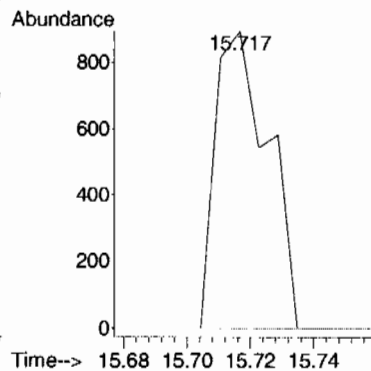
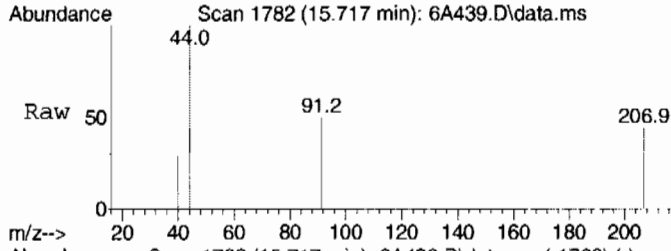
#107 BEFORE analyst DELETION  
 cis-1,4-Dichloro-2-butene  
 Concen: 1.30 ug/L  
 RT: 14.174 min Scan# 1529  
 Delta R.T. -0.025 min  
 Lab File: 6A439.D  
 Acq: 5 Mar 2010 3:13 am

Tgt Ion	Ratio	Lower	Upper
53	100		
88	0.0	77.6	137.6#
77	295.1	0.0	55.2#

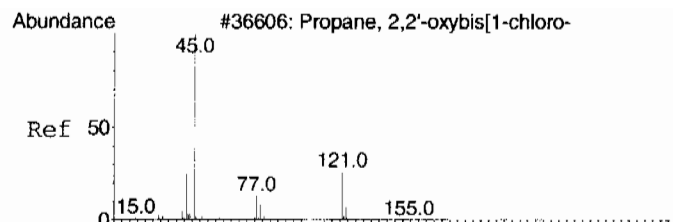


#111 BEFORE analyst DELETION  
 Benzyl chloride  
 Concen: 0.11 ug/L  
 RT: 15.717 min Scan# 1782  
 Delta R.T. -0.000 min  
 Lab File: 6A439.D  
 Acq: 5 Mar 2010 3:13 am

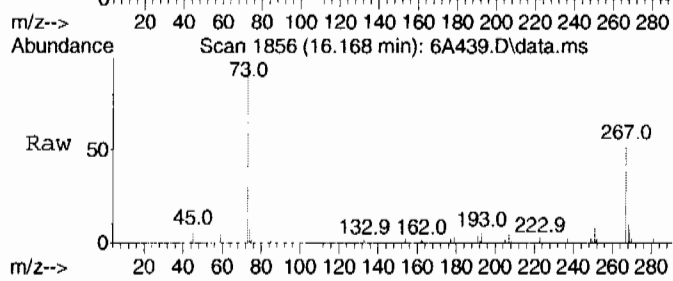
Tgt Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.0
65	0.0	0.0	43.8



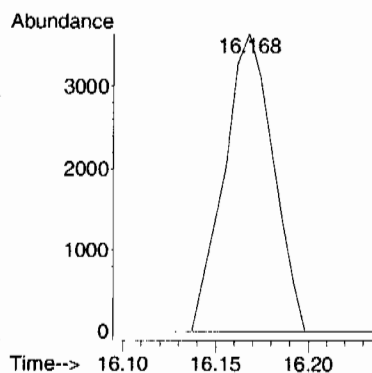
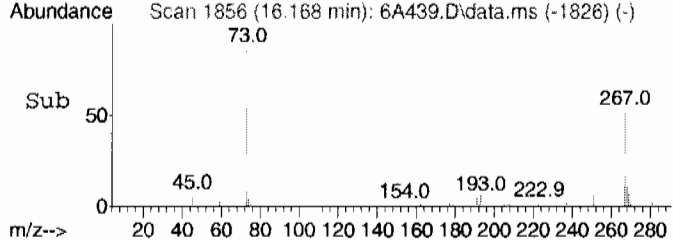




#112 BEFORE analyst DELETION  
 bis(2-Chloroisopropyl)ether  
 Concen: 2.22 ug/L  
 RT: 16.168 min Scan# 1856  
 Delta R.T. 0.055 min  
 Lab File: 6A439.D  
 Acq: 5 Mar 2010 3:13 am



Tgt Ion: 45 Resp: 6707  
 Ion Ratio Lower Upper  
 45 100  
 121 0.0 0.0 51.3



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A439.D  
Acq On : 5 Mar 2010 3:13 am  
Operator : RXD1  
Sample : |248043009|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

No Library Search Compounds Detected

\*\*\*\*\*

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A439.D  
Acq On : 5 Mar 2010 3:13 am  
Operator : RXD1  
Sample : |248043009|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043010	Date Received: 02/25/2010 08:45	%Moisture: 8.2
	Client: LANL.010	Project: LANL01004
Client ID: RE36-10-7463	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.1	Dilution: 1
Run Date: 03/05/2010 03:40	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A440.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.371	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.327	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.327	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.327	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.327	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.327	1.09
67-64-1	Acetone	U	5.45	ug/kg	1.81	5.45
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
74-88-4	Iodomethane	U	5.45	ug/kg	1.74	5.45
75-09-2	Methylene chloride	U	5.45	ug/kg	2.18	5.45
75-15-0	Carbon disulfide	U	5.45	ug/kg	1.36	5.45
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.327	1.09
78-93-3	2-Butanone	U	5.45	ug/kg	1.63	5.45
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.327	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.360	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.327	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.327	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.327	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.327	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.327	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.360	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.327	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.327	1.09
108-10-1	4-Methyl-2-pentanone	U	5.45	ug/kg	1.36	5.45
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.327	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.327	1.09
591-78-6	2-Hexanone	U	5.45	ug/kg	1.63	5.45
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.327	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.327	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.327	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.327	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.327	1.09

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043010	Date Received: 02/25/2010 08:45	%Moisture: 8.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7463	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 03:40	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A440.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.327	1.09
179601-23-1	m,p-Xylenes	U	2.18	ug/kg	0.327	2.18
95-47-6	o-Xylene	U	1.09	ug/kg	0.327	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.327	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.327	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.327	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.327	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.327	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.327	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.327	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.327	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.327	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.327	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.327	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.45	ug/kg	1.74	5.45
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A440.D  
Acq On : 5 Mar 2010 3:40 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043010|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 05 09:56:01 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1176431	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	812879	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	354276	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1176166	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	812879	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	354276	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	455951	51.44	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	102.88%			
43) Toluene-d8	11.620	11.620	0.883	98	1117474	50.47	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	100.94%			
61) Bromofluorobenzene	14.357	14.357	0.922	95	407925	61.69	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	123.38%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.652	4.672	0.466	50	163	N.D.		
4) Vinyl chloride	0.000	4.914	0.000		0	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.718	6.706	0.674	43	683	Below Cal	#	50
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.078	0.000		0	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	3692	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A440.D  
Acq On : 5 Mar 2010 3:40 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043010|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 05 09:56:01 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	0.000	11.699	0.000		0	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	0.000	13.248	0.000		0	N.D.	
55) m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.583	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	1913	N.D.	
71) sec-Butylbenzene	15.332	15.333	0.985	105	201	N.D.	
72) 4-Isopropyltoluene	15.454	15.454	0.993	119	192	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.283	18.283	1.174	128	809	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A440.D  
Acq On : 5 Mar 2010 3:40 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043010|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 05 09:56:01 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	0.000	16.113	0.000		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

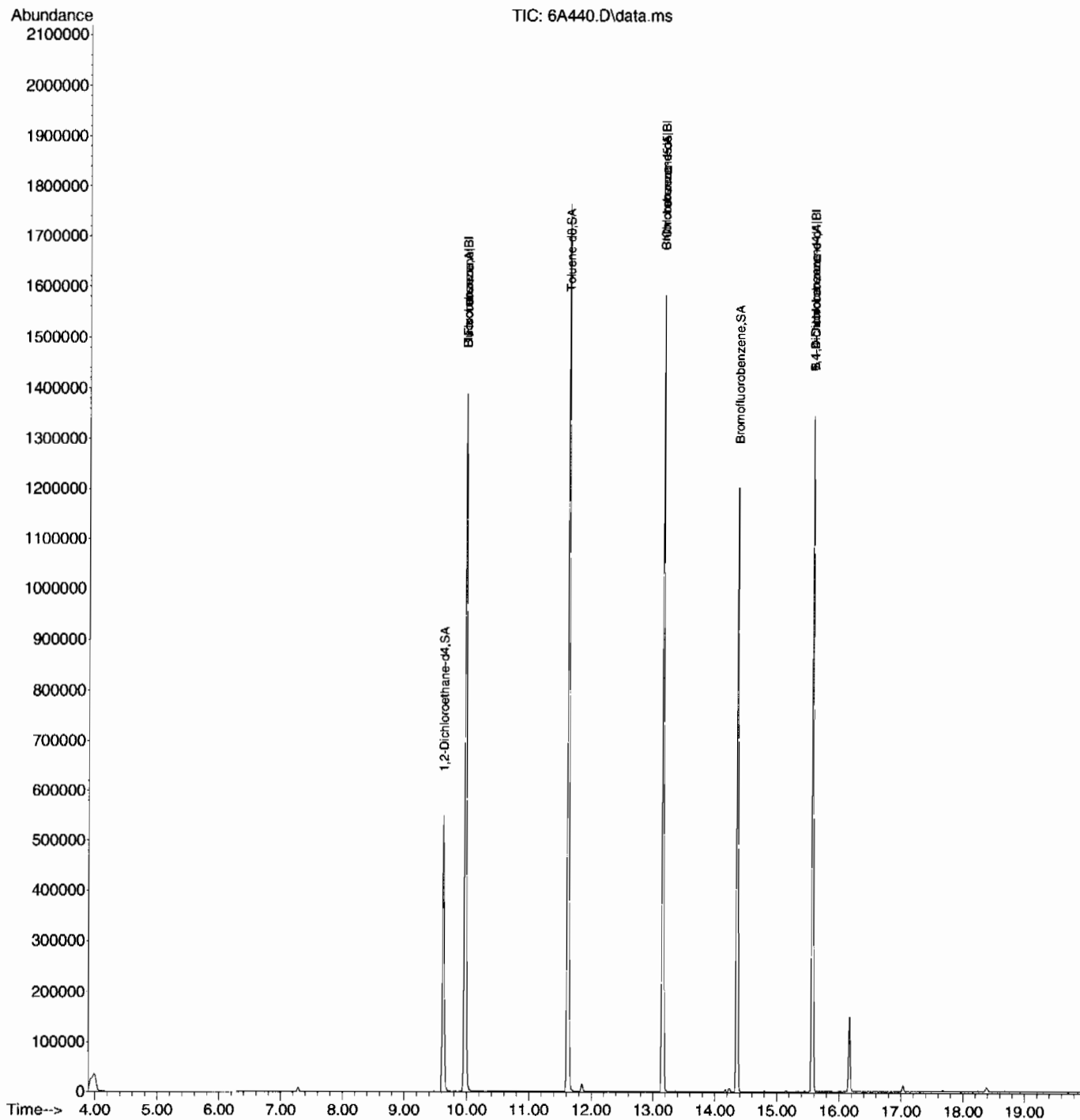


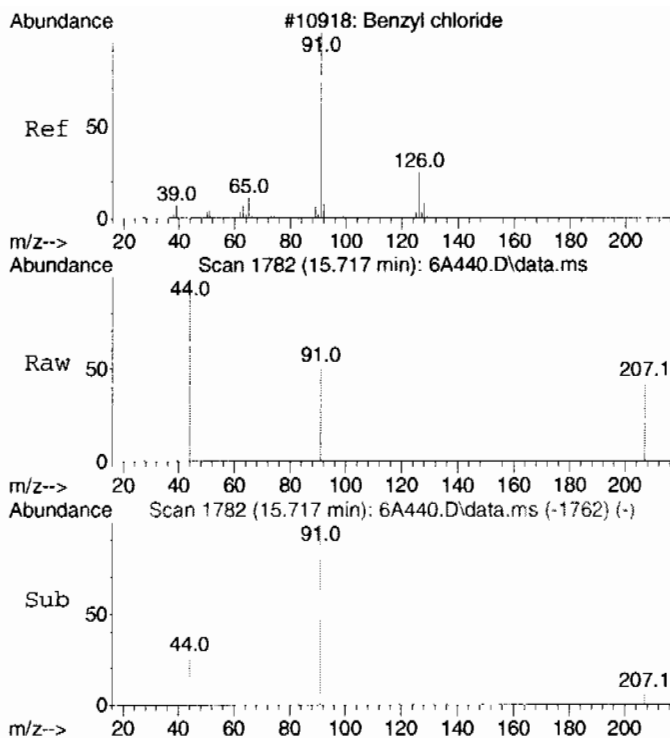
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A440.D  
Acq On : 5 Mar 2010 3:40 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043010|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 05 09:56:01 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

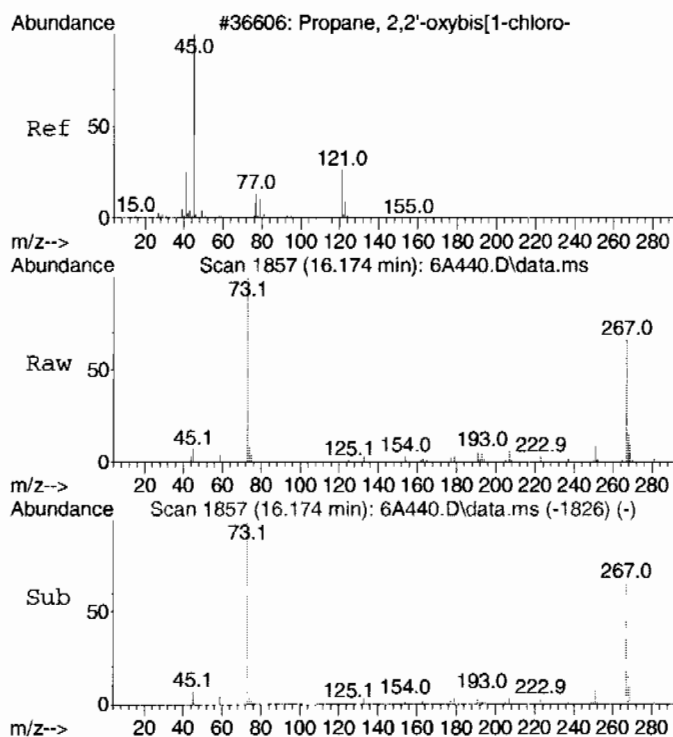
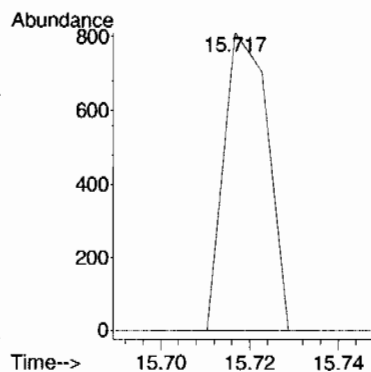
SubList :





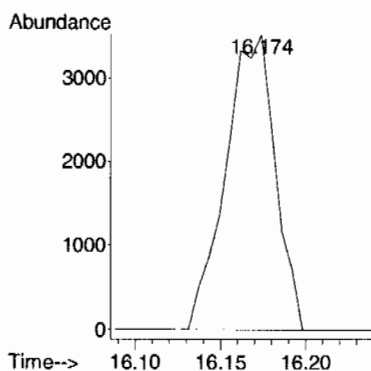
#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 0.06 ug/L  
RT: 15.717 min Scan# 1782  
Delta R.T. -0.000 min  
Lab File: 6A440.D  
Acq: 5 Mar 2010 3:40 am

Tgt Ion	Ratio	Resp	Lower	Upper
91	100	555		
126	0.0	0.0	0.0	51.0
65	0.0	0.0	0.0	43.8



#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl) ether  
Concen: 2.59 ug/L  
RT: 16.174 min Scan# 1857  
Delta R.T. 0.061 min  
Lab File: 6A440.D  
Acq: 5 Mar 2010 3:40 am

Tgt Ion	Ratio	Resp	Lower	Upper
45	100	7059		
121	0.0	0.0	0.0	51.3



Library Search Compound Report

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A440.D  
Acq On : 5 Mar 2010 3:40 am  
Operator : RXD1  
Sample : |248043010|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

No Library Search Compounds Detected

\*\*\*\*\*

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A440.D  
Acq On : 5 Mar 2010 3:40 am  
Operator : RXD1  
Sample : |248043010|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043011	Date Received: 02/25/2010 08:45	%Moisture: 27.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7475	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 04:08	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A441.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.37	ug/kg	0.467	1.37
74-87-3	Chloromethane	U	1.37	ug/kg	0.412	1.37
75-01-4	Vinyl chloride	U	1.37	ug/kg	0.412	1.37
74-83-9	Bromomethane	U	1.37	ug/kg	0.412	1.37
75-00-3	Chloroethane	U	1.37	ug/kg	0.412	1.37
75-69-4	Trichlorofluoromethane	U	1.37	ug/kg	0.412	1.37
67-64-1	Acetone	U	6.87	ug/kg	2.28	6.87
75-35-4	1,1-Dichloroethylen	U	1.37	ug/kg	0.412	1.37
74-88-4	Iodomethane	U	6.87	ug/kg	2.20	6.87
75-09-2	Methylene chloride	U	6.87	ug/kg	2.75	6.87
75-15-0	Carbon disulfide	U	6.87	ug/kg	1.72	6.87
156-60-5	trans-1,2-Dichloroethylen	U	1.37	ug/kg	0.412	1.37
75-34-3	1,1-Dichloroethane	U	1.37	ug/kg	0.412	1.37
78-93-3	2-Butanone	U	6.87	ug/kg	2.06	6.87
156-59-2	cis-1,2-Dichloroethylen	U	1.37	ug/kg	0.412	1.37
594-20-7	2,2-Dichloropropane	U	1.37	ug/kg	0.412	1.37
67-66-3	Chloroform	U	1.37	ug/kg	0.412	1.37
74-97-5	Bromochloromethane	U	1.37	ug/kg	0.453	1.37
71-55-6	1,1,1-Trichloroethane	U	1.37	ug/kg	0.412	1.37
563-58-6	1,1-Dichloropropene	U	1.37	ug/kg	0.412	1.37
56-23-5	Carbon tetrachloride	U	1.37	ug/kg	0.412	1.37
107-06-2	1,2-Dichloroethane	U	1.37	ug/kg	0.412	1.37
71-43-2	Benzene	U	1.37	ug/kg	0.412	1.37
79-01-6	Trichloroethylene	U	1.37	ug/kg	0.453	1.37
78-87-5	1,2-Dichloropropane	U	1.37	ug/kg	0.412	1.37
75-27-4	Bromodichloromethane	U	1.37	ug/kg	0.412	1.37
74-95-3	Dibromomethane	U	1.37	ug/kg	0.412	1.37
108-10-1	4-Methyl-2-pentanone	U	6.87	ug/kg	1.72	6.87
10061-01-5	cis-1,3-Dichloropropylene	U	1.37	ug/kg	0.412	1.37
108-88-3	Toluene	U	1.37	ug/kg	0.412	1.37
10061-02-6	trans-1,3-Dichloropropylene	U	1.37	ug/kg	0.412	1.37
79-00-5	1,1,2-Trichloroethane	U	1.37	ug/kg	0.412	1.37
591-78-6	2-Hexanone	U	6.87	ug/kg	2.06	6.87
142-28-9	1,3-Dichloropropane	U	1.37	ug/kg	0.412	1.37
127-18-4	Tetrachloroethylene	U	1.37	ug/kg	0.412	1.37
124-48-1	Dibromochloromethane	U	1.37	ug/kg	0.412	1.37
106-93-4	1,2-Dibromoethane	U	1.37	ug/kg	0.412	1.37
108-90-7	Chlorobenzene	U	1.37	ug/kg	0.412	1.37

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043011  
 Client ID: RE36-10-7475  
 Batch ID: 961082  
 Run Date: 03/05/2010 04:08  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V66A441.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6J  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 27.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.37	ug/kg	0.412	1.37
179601-23-1	m,p-Xylencs	U	2.75	ug/kg	0.412	2.75
95-47-6	o-Xylene	U	1.37	ug/kg	0.412	1.37
100-42-5	Styrene	U	1.37	ug/kg	0.412	1.37
75-25-2	Bromoform	U	1.37	ug/kg	0.412	1.37
79-34-5	1,1,2,2-Tetrachloroethane	U	1.37	ug/kg	0.412	1.37
96-18-4	1,2,3-Trichloropropane	U	1.37	ug/kg	0.412	1.37
108-86-1	Bromobenzene	U	1.37	ug/kg	0.412	1.37
103-65-1	n-Propylbenzene	U	1.37	ug/kg	0.412	1.37
95-49-8	2-Chlorotoluene	U	1.37	ug/kg	0.412	1.37
98-82-8	Isopropylbenzene	U	1.37	ug/kg	0.412	1.37
108-67-8	1,3,5-Trimethylbenzene	U	1.37	ug/kg	0.412	1.37
106-43-4	4-Chlorotoluene	U	1.37	ug/kg	0.412	1.37
98-06-6	tert-Butylbenzene	U	1.37	ug/kg	0.412	1.37
95-63-6	1,2,4-Trimethylbenzene	U	1.37	ug/kg	0.412	1.37
135-98-8	sec-Butylbenzene	U	1.37	ug/kg	0.412	1.37
99-87-6	4-Isopropyltoluene	U	1.37	ug/kg	0.412	1.37
541-73-1	1,3-Dichlorobenzene	U	1.37	ug/kg	0.412	1.37
106-46-7	1,4-Dichlorobenzene	U	1.37	ug/kg	0.412	1.37
104-51-8	n-Butylbenzene	U	1.37	ug/kg	0.412	1.37
96-12-8	1,2-Dibromo-3-chloropropane	U	1.37	ug/kg	0.412	1.37
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.87	ug/kg	2.20	6.87
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.37	ug/kg	0.412	1.37
95-50-1	1,2-Dichlorobenzene	U	1.37	ug/kg	0.412	1.37

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found						
				ug/kg		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A441.D  
Acq On : 5 Mar 2010 4:08 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043011|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Mar 05 09:56:38 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1125551	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	750141	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	329103	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1124561	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	750141	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	329103	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	435895	51.40	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 102.80%			
43) Toluene-d8	11.620	11.620	0.883	98	1072699	52.50	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 105.00%			
61) Bromofluorobenzene	14.351	14.357	0.922	95	366900	59.73	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 119.46%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.662	4.672	0.467	50	164	N.D.		
4) Vinyl chloride	4.924	4.914	0.494	62	332	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.712	6.706	0.673	43	1904	Below Cal	#	50
10) 1,1-Dichloroethylene	6.724	6.706	0.674	61	1239	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.084	7.078	0.710	76	235	N.D.		
15) Methylene chloride	7.279	7.285	0.730	84	5179	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	9.401	9.413	0.943	56	255	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A441.D  
Acq On : 5 Mar 2010 4:08 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043011|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Mar 05 09:56:38 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.693	11.699	0.889	91	2435	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.241	13.248	1.006	91	1623	N.D.	
55) m,p-Xylenes	13.357	13.357	1.015	106	225	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	14.168	14.156	0.910	105	3584	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	14.583	14.583	0.937	91	227	N.D.	
66) 1,3,5-Trimethylbenzene	14.741	14.735	0.947	105	483	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0m	N.D.	d
69) tert-Butylbenzene	15.186	15.107	0.975	134	406	N.D.	
70) 1,2,4-Trimethylbenzene	15.149	15.150	0.973	105	954	N.D.	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72) 4-Isopropyltoluene	15.466	15.454	0.993	119	1299	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	15.863	15.887	1.019	91	5228	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.283	18.283	1.174	128	192353	16.08 ug/L	99
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0m	N.D.	d
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A441.D  
Acq On : 5 Mar 2010 4:08 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043011|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Mar 05 09:56:38 2010

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Thu Feb 11 09:38:02 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	9.065	9.059	0.909	42	184	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0m	N.D.	d
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.168	16.113	1.038	45	2114	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

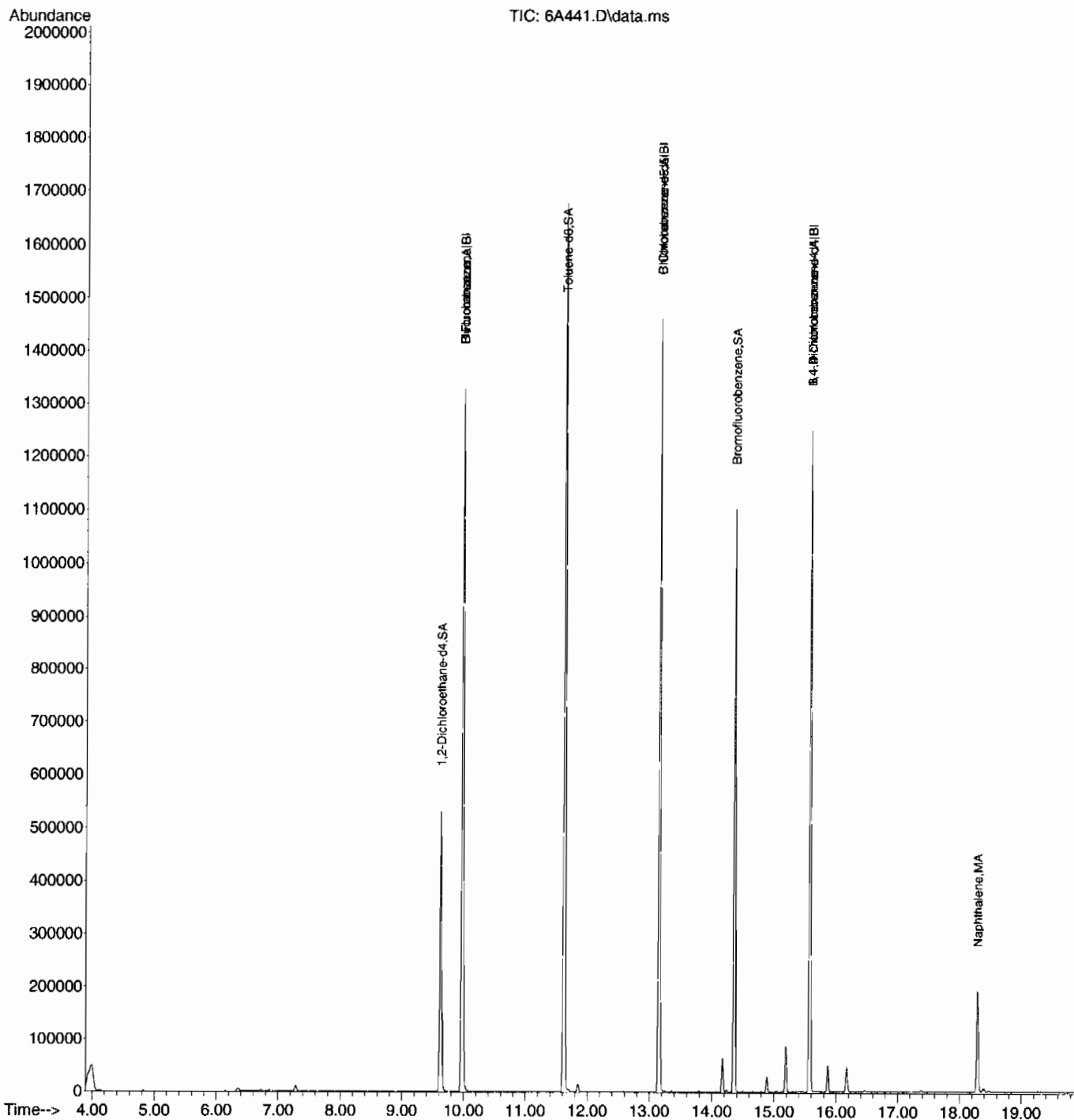
(E) = Over the calibration range (d) = deleted

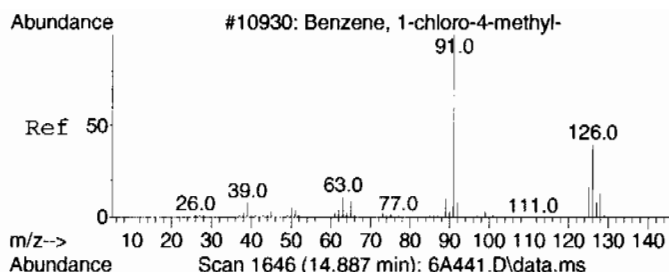
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A441.D  
Acq On : 5 Mar 2010 4:08 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043011|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Mar 05 09:56:38 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

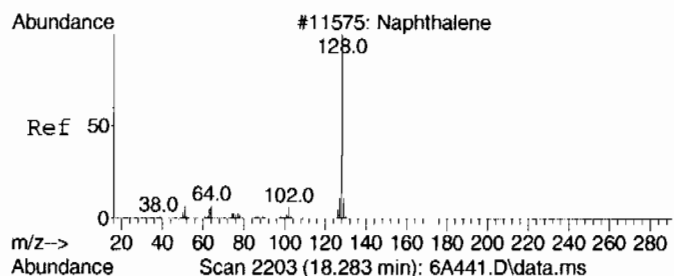
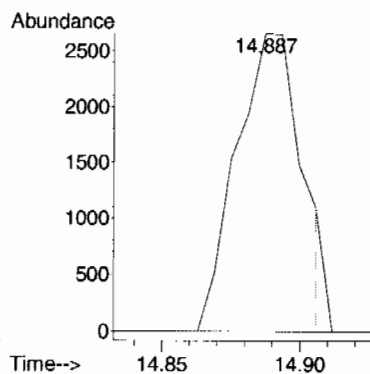
SubList :





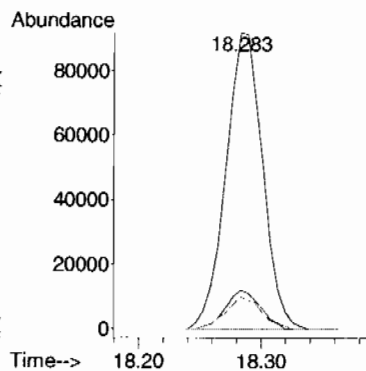
#68 BEFORE analyst DELETION  
4-Chlorotoluene  
Concen: 0.31 ug/L  
RT: 14.887 min Scan# 1646  
Delta R.T. 0.054 min  
Lab File: 6A441.D  
Acq: 5 Mar 2010 4:08 am

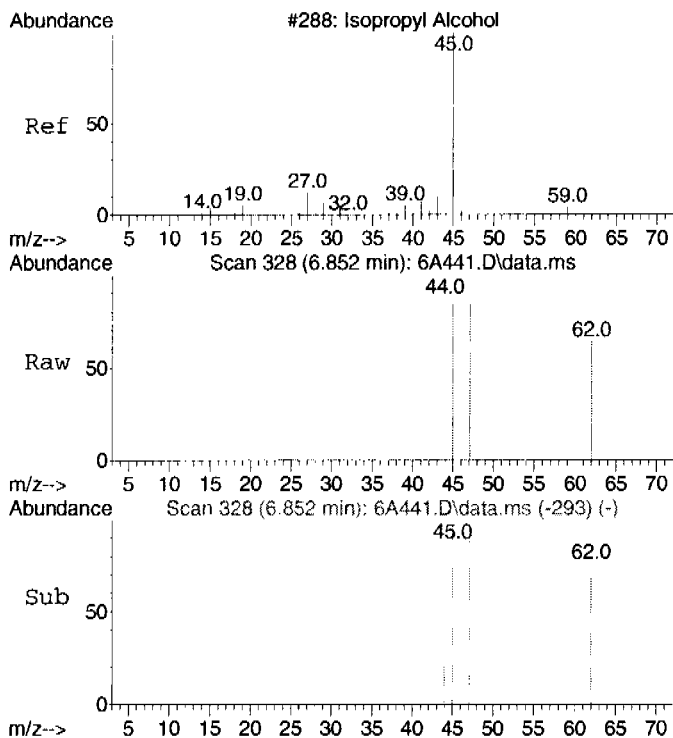
Tgt Ion: 91 Resp: 4349  
Ion Ratio Lower Upper  
91 100  
126 0.0 4.0 64.0#



#80  
Naphthalene  
Concen: 16.08 ug/L  
RT: 18.283 min Scan# 2203  
Delta R.T. 0.000 min  
Lab File: 6A441.D  
Acq: 5 Mar 2010 4:08 am

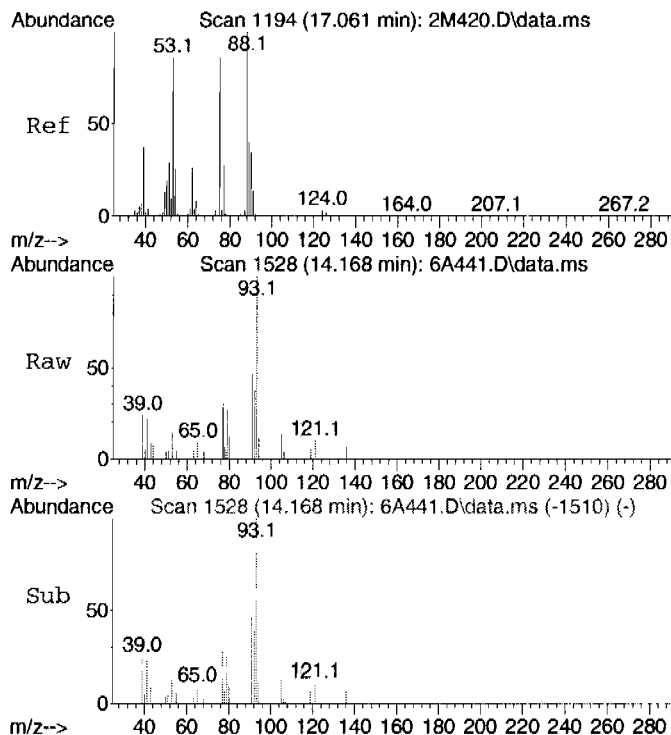
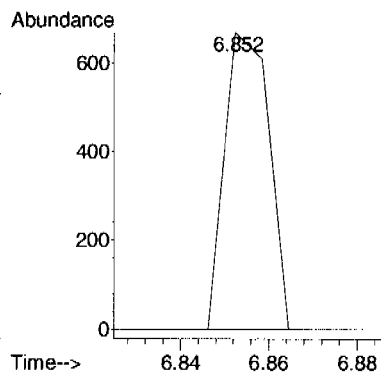
Tgt Ion: 128 Resp: 192353  
Ion Ratio Lower Upper  
128 100  
127 12.5 0.0 43.1  
129 10.7 0.0 41.1





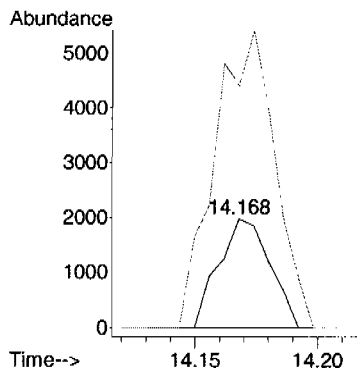
#87 BEFORE analyst DELETION  
Isopropyl Alcohol  
Concen: 0.88 ug/L  
RT: 6.852 min Scan# 328  
Delta R.T. 0.067 min  
Lab File: 6A441.D  
Acq: 5 Mar 2010 4:08 am

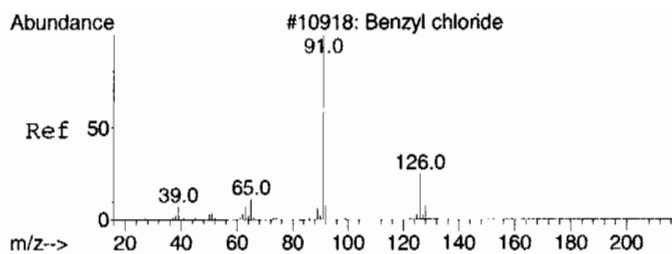
Tgt Ion: 45 Resp: 468  
Ion Ratio Lower Upper  
45 100  
43 0.0 0.0 50.2



#107 BEFORE analyst DELETION  
cis-1,4-Dichloro-2-butene  
Concen: 1.63 ug/L  
RT: 14.168 min Scan# 1528  
Delta R.T. -0.031 min  
Lab File: 6A441.D  
Acq: 5 Mar 2010 4:08 am

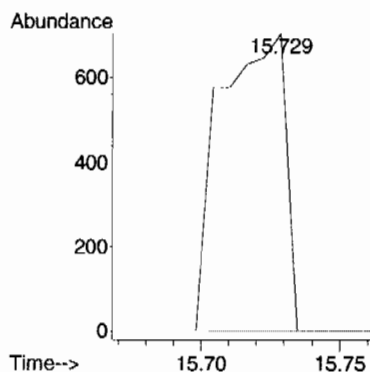
Tgt Ion: 53 Resp: 2874  
Ion Ratio Lower Upper  
53 100  
88 0.0 77.6 137.6#  
77 322.1 0.0 55.2#





#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 0.14 ug/L  
RT: 15.729 min Scan# 1784  
Delta R.T. 0.012 min  
Lab File: 6A441.D  
Acq: 5 Mar 2010 4:08 am

Tgt Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.0
65	0.0	0.0	43.8



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A441.D  
Acq On : 5 Mar 2010 4:08 am  
Operator : RXD1  
Sample : |248043011|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

No Library Search Compounds Detected

\*\*\*\*\*

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A441.D  
Acq On : 5 Mar 2010 4:08 am  
Operator : RXD1  
Sample : |248043011|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
------------------	----	---------	-------	----------	---	----	------	------

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043012	Date Received: 02/25/2010 08:45	%Moisture: 20.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7466	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 04:36	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A442.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.428	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.377	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.377	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.377	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.377	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.377	1.26
67-64-1	Acetone	U	6.29	ug/kg	2.09	6.29
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.377	1.26
74-88-4	Iodomethane	U	6.29	ug/kg	2.01	6.29
75-09-2	Methylene chloride	U	6.29	ug/kg	2.52	6.29
75-15-0	Carbon disulfide	U	6.29	ug/kg	1.57	6.29
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.377	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.377	1.26
78-93-3	2-Butanone	U	6.29	ug/kg	1.89	6.29
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.377	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.377	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.377	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.415	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.377	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.377	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.377	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.377	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.377	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.415	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.377	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.377	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.377	1.26
108-10-1	4-Methyl-2-pentanone	U	6.29	ug/kg	1.57	6.29
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.377	1.26
108-88-3	Toluene	U	1.26	ug/kg	0.377	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.377	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.377	1.26
591-78-6	2-Hexanone	U	6.29	ug/kg	1.89	6.29
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.377	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.377	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.377	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.377	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.377	1.26



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043012  
  
 Client ID: RE36-10-7466  
 Batch ID: 961082  
 Run Date: 03/05/2010 04:36  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V66A442.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 20.5  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.26	ug/kg	0.377	1.26
179601-23-1	m,p-Xylenes	U	2.52	ug/kg	0.377	2.52
95-47-6	o-Xylene	U	1.26	ug/kg	0.377	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.377	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.377	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.377	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.377	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.377	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.377	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.377	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.377	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.377	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.377	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.377	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.377	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.377	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.377	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.377	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.377	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.29	ug/kg	2.01	6.29
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.377	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A442.D  
Acq On : 5 Mar 2010 4:36 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043012|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Mar 05 09:57:08 2010

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Thu Feb 11 09:38:02 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev (Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1181579	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	831505	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	391815	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1181378	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	831505	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	391815	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	455172	51.13	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	102.26%			
43) Toluene-d8	11.620	11.620	0.883	98	1132354	49.99	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	99.98%			
61) Bromofluorobenzene	14.357	14.357	0.922	95	425687	58.21	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	116.42%			
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.813	4.672	0.483	50	318	N.D.		
4) Vinyl chloride	4.904	4.914	0.492	62	315	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.706	6.706	0.672	43	2835	Below Cal	#	50
10) 1,1-Dichloroethylene	6.718	6.706	0.674	61	398	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.078	7.078	0.710	76	184	N.D.		
15) Methylene chloride	7.291	7.285	0.731	84	7012	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	8.700	8.694	0.872	43	204	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	9.315	9.322	0.934	97	2129	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	10.364	10.364	1.039	95	201	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A442.D  
Acq On : 5 Mar 2010 4:36 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043012|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Mar 05 09:57:08 2010

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Thu Feb 11 09:38:02 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.699	11.699	0.889	91	3686	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.247	13.248	1.007	91	1469	N.D.	
55) m,p-Xylenes	13.357	13.357	1.015	106	823	N.D.	
56) o-Xylene	13.790	13.796	1.048	106	191	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	14.180	14.156	0.911	105	1116	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	14.497	14.583	0.931	91	453	N.D.	
66) 1,3,5-Trimethylbenzene	14.656	14.735	0.941	105	399	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	990	N.D.	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72) 4-Isopropyltoluene	15.454	15.454	0.993	119	480	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.283	18.283	1.174	128	39302	2.76 ug/L	97
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0m	N.D.	d
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	8.700	8.700	0.872	43	204	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A442.D  
Acq On : 5 Mar 2010 4:36 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043012|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Mar 05 09:57:08 2010

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Thu Feb 11 09:38:02 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.168	16.113	1.038	45	1436	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

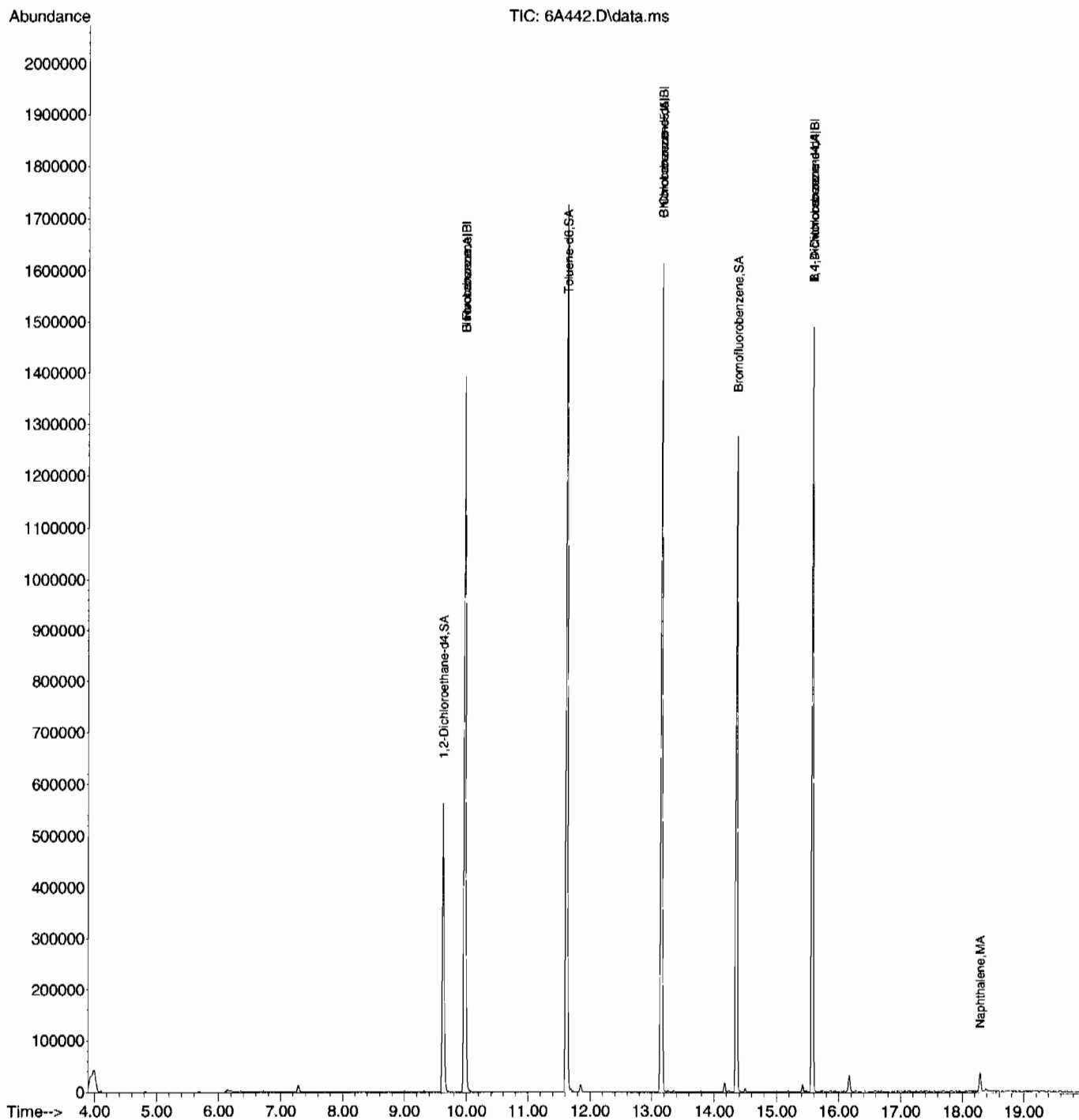
(E) = Over the calibration range (d) = deleted

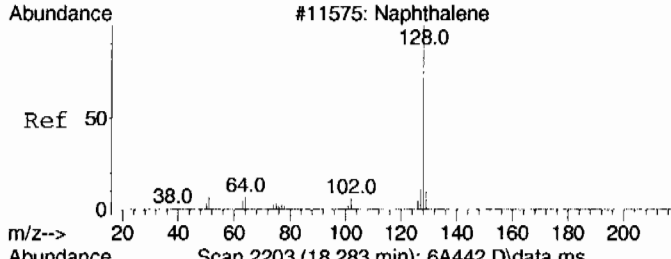
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A442.D  
Acq On : 5 Mar 2010 4:36 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043012|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Mar 05 09:57:08 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

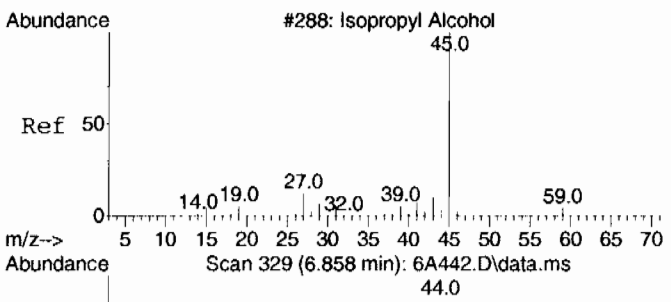
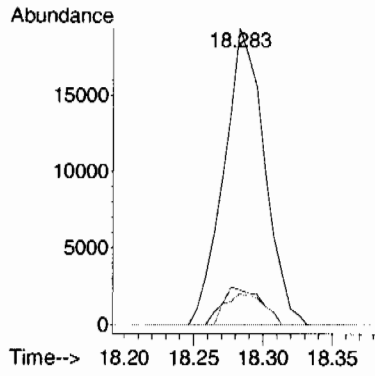
SubList :





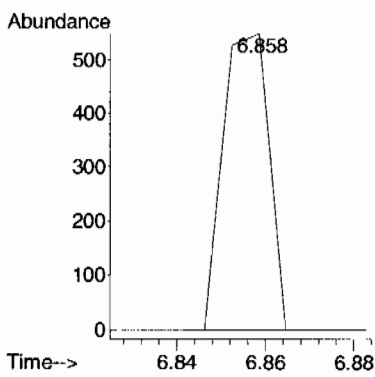
#80  
Naphthalene  
Concen: 2.76 ug/L  
RT: 18.283 min Scan# 2203  
Delta R.T. 0.000 min  
Lab File: 6A442.D  
Acq: 5 Mar 2010 4:36 am

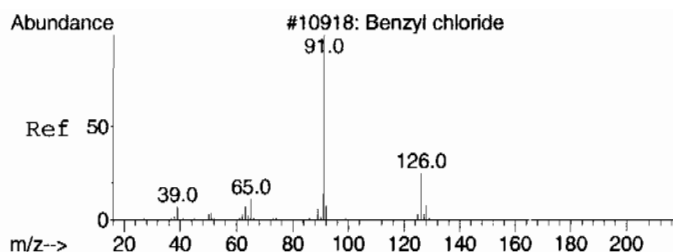
Tgt Ion:	128	Resp:	39302
Ion Ratio	Lower	Upper	
128	100		
127	12.1	0.0	43.1
129	9.9	0.0	41.1



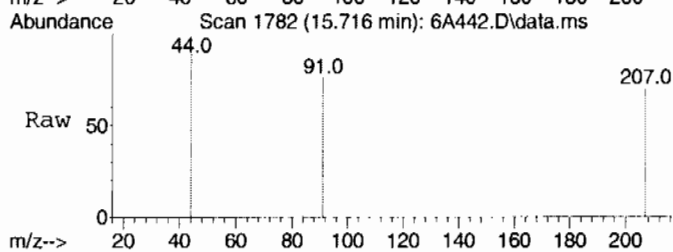
#87 BEFORE analyst DELETION  
Isopropyl Alcohol  
Concen: 0.71 ug/L  
RT: 6.858 min Scan# 329  
Delta R.T. 0.073 min  
Lab File: 6A442.D  
Acq: 5 Mar 2010 4:36 am

Tgt Ion:	45	Resp:	395
Ion Ratio	Lower	Upper	
45	100		
43	0.0	0.0	50.2

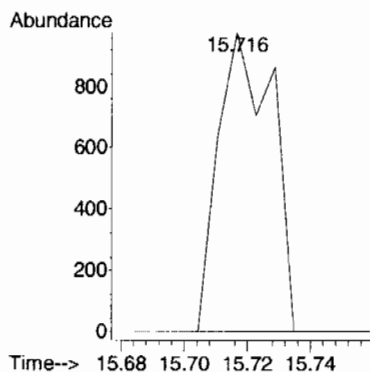
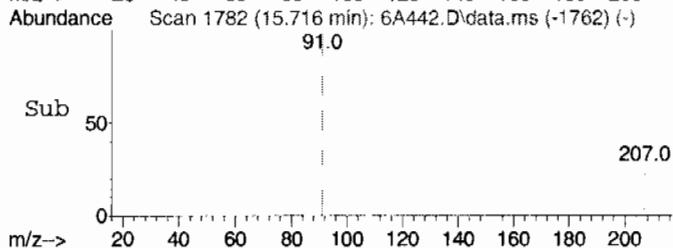




#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 0.12 ug/L  
RT: 15.716 min Scan# 1782  
Delta R.T. -0.001 min  
Lab File: 6A442.D  
Acq: 5 Mar 2010 4:36 am



Tgt Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.0
65	0.0	0.0	43.8



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A442.D  
Acq On : 5 Mar 2010 4:36 am  
Operator : RXD1  
Sample : |248043012|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 42 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

No Library Search Compounds Detected

\*\*\*\*\*



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A442.D  
Acq On : 5 Mar 2010 4:36 am  
Operator : RXD1  
Sample : |248043012|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 42 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc

-----

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043013	Date Received: 02/25/2010 08:45	%Moisture: 17
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7476	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 05:04	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A443.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.20	ug/kg	0.410	1.20
74-87-3	Chloromethane	U	1.20	ug/kg	0.361	1.20
75-01-4	Vinyl chloride	U	1.20	ug/kg	0.361	1.20
74-83-9	Bromomethane	U	1.20	ug/kg	0.361	1.20
75-00-3	Chloroethane	U	1.20	ug/kg	0.361	1.20
75-69-4	Trichlorofluoromethane	U	1.20	ug/kg	0.361	1.20
67-64-1	Acetone	U	6.02	ug/kg	2.00	6.02
75-35-4	1,1-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
74-88-4	Iodomethane	U	6.02	ug/kg	1.93	6.02
75-09-2	Methylene chloride	U	6.02	ug/kg	2.41	6.02
75-15-0	Carbon disulfide	U	6.02	ug/kg	1.51	6.02
156-60-5	trans-1,2-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
75-34-3	1,1-Dichloroethane	U	1.20	ug/kg	0.361	1.20
78-93-3	2-Butanone	U	6.02	ug/kg	1.81	6.02
156-59-2	cis-1,2-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
594-20-7	2,2-Dichloropropane	U	1.20	ug/kg	0.361	1.20
67-66-3	Chloroform	U	1.20	ug/kg	0.361	1.20
74-97-5	Bromochloromethane	U	1.20	ug/kg	0.398	1.20
71-55-6	1,1,1-Trichloroethane	U	1.20	ug/kg	0.361	1.20
563-58-6	1,1-Dichloropropene	U	1.20	ug/kg	0.361	1.20
56-23-5	Carbon tetrachloride	U	1.20	ug/kg	0.361	1.20
107-06-2	1,2-Dichloroethane	U	1.20	ug/kg	0.361	1.20
71-43-2	Benzene	U	1.20	ug/kg	0.361	1.20
79-01-6	Trichloroethylene	U	1.20	ug/kg	0.398	1.20
78-87-5	1,2-Dichloropropane	U	1.20	ug/kg	0.361	1.20
75-27-4	Bromodichloromethane	U	1.20	ug/kg	0.361	1.20
74-95-3	Dibromomethane	U	1.20	ug/kg	0.361	1.20
108-10-1	4-Methyl-2-pentanone	U	6.02	ug/kg	1.51	6.02
10061-01-5	cis-1,3-Dichloropropylene	U	1.20	ug/kg	0.361	1.20
108-88-3	Toluene	U	1.20	ug/kg	0.361	1.20
10061-02-6	trans-1,3-Dichloropropylene	U	1.20	ug/kg	0.361	1.20
79-00-5	1,1,2-Trichloroethane	U	1.20	ug/kg	0.361	1.20
591-78-6	2-Hexanone	U	6.02	ug/kg	1.81	6.02
142-28-9	1,3-Dichloropropane	U	1.20	ug/kg	0.361	1.20
127-18-4	Tetrachloroethylene	U	1.20	ug/kg	0.361	1.20
124-48-1	Dibromochloromethane	U	1.20	ug/kg	0.361	1.20
106-93-4	1,2-Dibromoethane	U	1.20	ug/kg	0.361	1.20
108-90-7	Chlorobenzene	U	1.20	ug/kg	0.361	1.20

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043013  
  
Client ID: RE36-10-7476  
Batch ID: 961082  
Run Date: 03/05/2010 05:04  
Prep Date: 03/03/2010 10:35  
Data File: 030410V66A443.D

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA6.1  
Analyst: RXD1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
% Moisture: 17  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.20	ug/kg	0.361	1.20
179601-23-1	m,p-Xylenes	U	2.41	ug/kg	0.361	2.41
95-47-6	o-Xylene	U	1.20	ug/kg	0.361	1.20
100-42-5	Styrene	U	1.20	ug/kg	0.361	1.20
75-25-2	Bromoform	U	1.20	ug/kg	0.361	1.20
79-34-5	1,1,2,2-Tetrachloroethane	U	1.20	ug/kg	0.361	1.20
96-18-4	1,2,3-Trichloropropane	U	1.20	ug/kg	0.361	1.20
108-86-1	Bromobenzene	U	1.20	ug/kg	0.361	1.20
103-65-1	n-Propylbenzene	U	1.20	ug/kg	0.361	1.20
95-49-8	2-Chlorotoluene	U	1.20	ug/kg	0.361	1.20
98-82-8	Isopropylbenzene	U	1.20	ug/kg	0.361	1.20
108-67-8	1,3,5-Trimethylbenzene	U	1.20	ug/kg	0.361	1.20
106-43-4	4-Chlorotoluene	U	1.20	ug/kg	0.361	1.20
98-06-6	tert-Butylbenzene	U	1.20	ug/kg	0.361	1.20
95-63-6	1,2,4-Trimethylbenzene	U	1.20	ug/kg	0.361	1.20
135-98-8	sec-Butylbenzene	U	1.20	ug/kg	0.361	1.20
99-87-6	4-Isopropyltoluene	U	1.20	ug/kg	0.361	1.20
541-73-1	1,3-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20
106-46-7	1,4-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20
104-51-8	n-Butylbenzene	U	1.20	ug/kg	0.361	1.20
96-12-8	1,2-Dibromo-3-chloropropane	U	1.20	ug/kg	0.361	1.20
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.02	ug/kg	1.93	6.02
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.20	ug/kg	0.361	1.20
95-50-1	1,2-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A443.D  
Acq On : 5 Mar 2010 5:04 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043013|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Mar 05 09:57:32 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1130662	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	822685	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	440953	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1130610	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	822685	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	440953	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	436129	51.19	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 102.38%			
43) Toluene-d8	11.620	11.620	0.883	98	1096000	48.91	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 97.82%			
61) Bromofluorobenzene	14.357	14.357	0.922	95	436671	53.05	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 106.10%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.672	4.672	0.468	50	161	N.D.		
4) Vinyl chloride	4.884	4.914	0.490	62	568	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	0.000	6.706	0.000		0	N.D.		
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.078	0.000		0	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	5075	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	9.053	9.053	0.908	83	451	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A443.D  
Acq On : 5 Mar 2010 5:04 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043013|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Mar 05 09:57:32 2010

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Thu Feb 11 09:38:02 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	0.000	11.699	0.000		0	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	0.000	13.248	0.000		0	N.D.	
55) m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.583	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.150	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.454	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.283	18.283	1.174	128	4399	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A443.D  
Acq On : 5 Mar 2010 5:04 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043013|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Mar 05 09:57:32 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.168	16.113	1.038	45	928	N.D.	

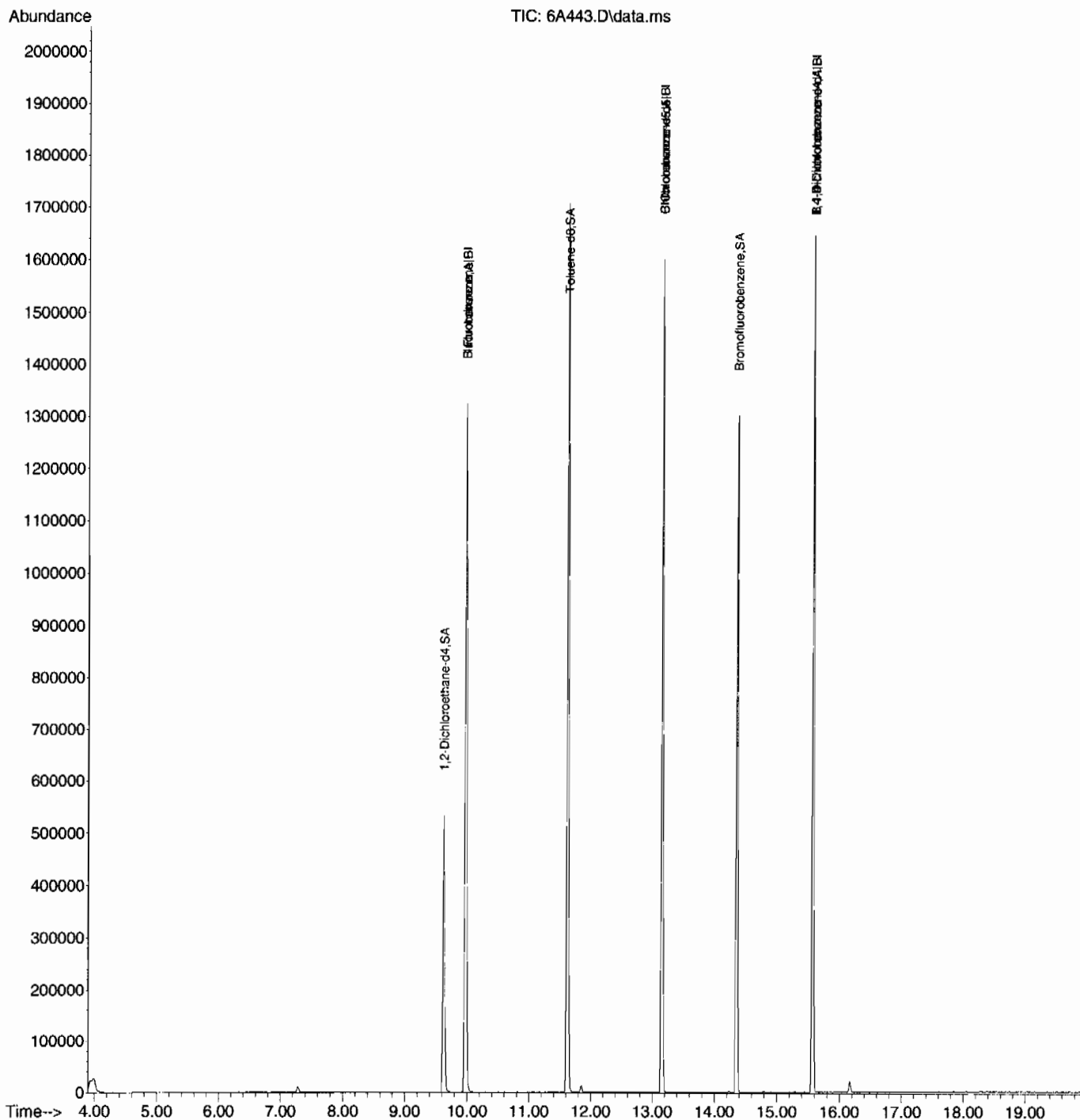
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

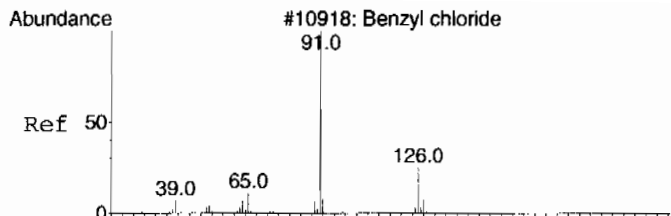
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A443.D  
Acq On : 5 Mar 2010 5:04 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043013|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 43 Sample Multiplier: 1

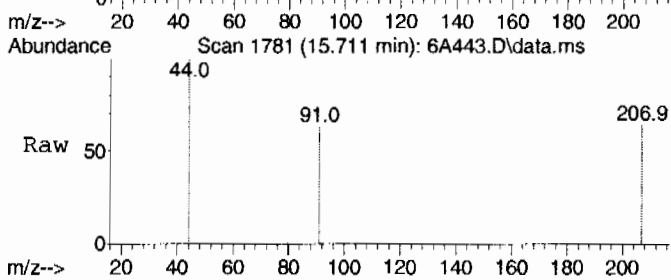
Quant Time: Mar 05 09:57:32 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :



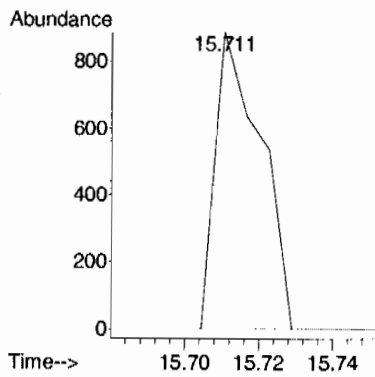
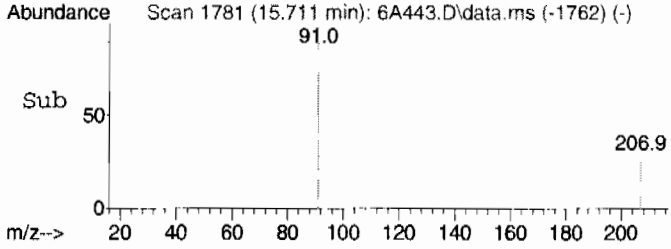


#111 BEFORE analyst DELETION  
 Benzyl chloride  
 Concen: 0.07 ug/L  
 RT: 15.711 min Scan# 1781  
 Delta R.T. -0.006 min  
 Lab File: 6A443.D  
 Acq: 5 Mar 2010 5:04 am



Tgt Ion: 91 Resp: 754

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.0
65	0.0	0.0	43.8





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A443.D  
Acq On : 5 Mar 2010 5:04 am  
Operator : RXD1  
Sample : |248043013|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 43 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

No Library Search Compounds Detected

\*\*\*\*\*

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A443.D  
Acq On : 5 Mar 2010 5:04 am  
Operator : RXD1  
Sample : |248043013|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 43 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043014  
 Client ID: RE36-10-7461  
 Batch ID: 961082  
 Run Date: 03/05/2010 05:31  
 Prep Date: 03/03/2010 10:35  
 Data File: 030410V66A444.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.7  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15
67-64-1	Acetone	U	5.73	ug/kg	1.90	5.73
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.73	ug/kg	1.83	5.73
75-09-2	Methylene chloride	U	5.73	ug/kg	2.29	5.73
75-15-0	Carbon disulfide	U	5.73	ug/kg	1.43	5.73
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15
78-93-3	2-Butanone	U	5.73	ug/kg	1.72	5.73
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.378	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.378	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15
108-10-1	4-Methyl-2-pentanone	U	5.73	ug/kg	1.43	5.73
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15
591-78-6	2-Hexanone	U	5.73	ug/kg	1.72	5.73
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043014	Date Received: 02/25/2010 08:45	%Moisture: 12.7
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7461	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6J	Dilution: 1
Run Date: 03/05/2010 05:31	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A444.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.73	ug/kg	1.83	5.73
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A444.D  
Acq On : 5 Mar 2010 5:31 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043014|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Mar 05 09:57:47 2010

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Thu Feb 11 09:38:02 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1164426	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	807728	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	372683	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1163099	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	807728	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	372683	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	455934	51.97	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 103.94%			
43) Toluene-d8	11.620	11.620	0.883	98	1112795	50.58	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 101.16%			
61) Bromofluorobenzene	14.357	14.357	0.922	95	408976	58.79	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 117.58%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.652	4.672	0.466	50	193	N.D.		
4) Vinyl chloride	4.904	4.914	0.492	62	337	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.730	6.706	0.675	43	1899	Below Cal	#	50
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.078	0.000		0	N.D.		
15) Methylene chloride	7.279	7.285	0.730	84	7837	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A444.D  
Acq On : 5 Mar 2010 5:31 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043014|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Mar 05 09:57:47 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.699	11.699	0.889	91	2628	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.272	13.248	1.009	91	2624	N.D.	
55) m,p-Xylenes	13.357	13.357	1.015	106	1285	N.D.	
56) o-Xylene	13.796	13.796	1.049	106	1189	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.583	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	706	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	14.887	14.833	0.956	91	3134	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.143	15.150	0.973	105	1503	N.D.	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.454	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.289	18.283	1.175	128	2039	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A444.D  
Acq On : 5 Mar 2010 5:31 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043014|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Mar 05 09:57:47 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	9.071	9.059	0.910	42	1041	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.161	16.113	1.038	45	3037	N.D.	

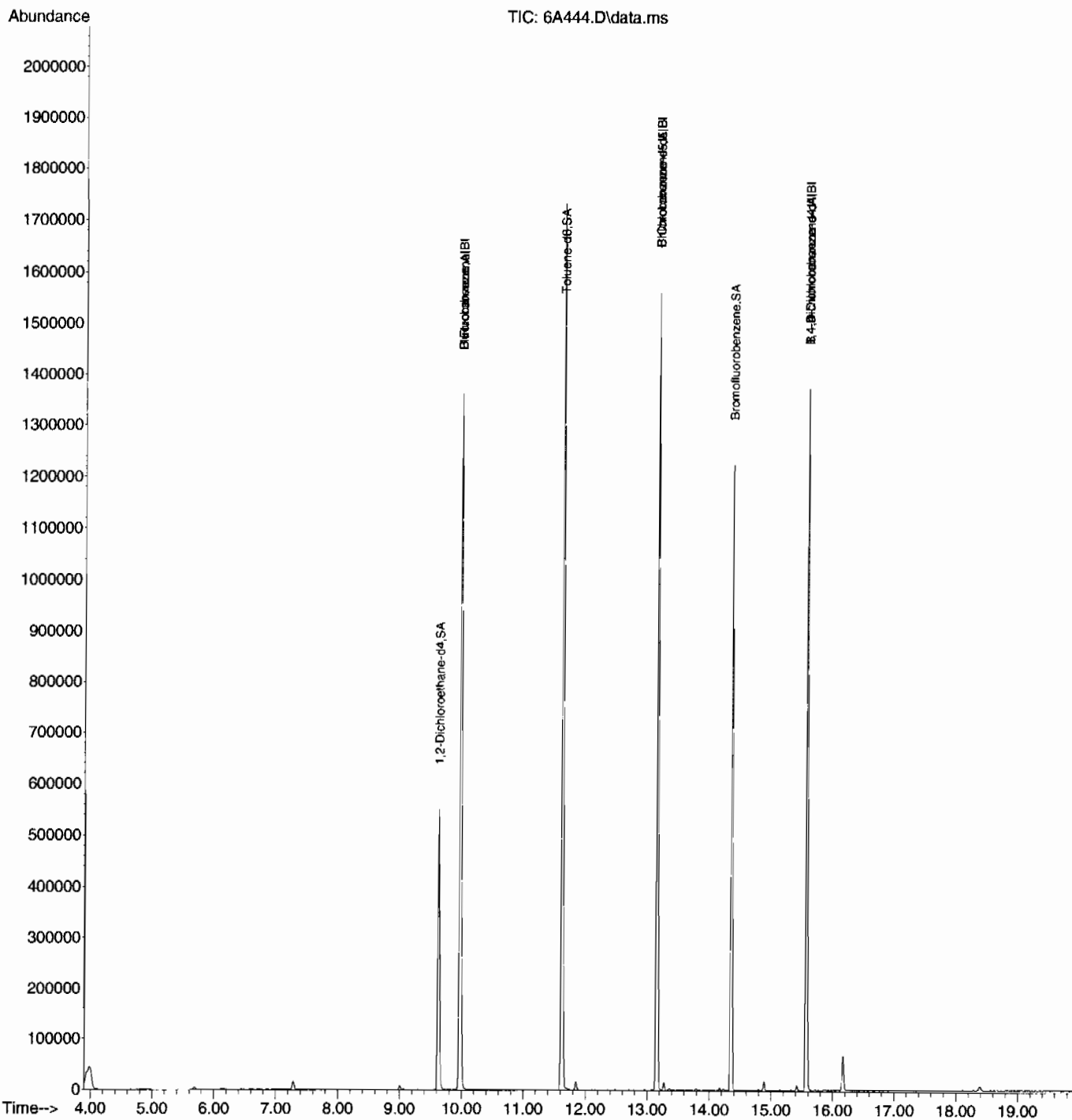
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

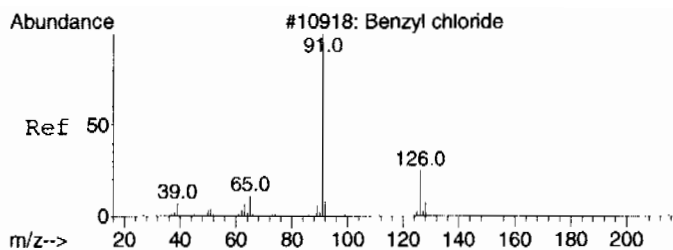
Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A444.D  
Acq On : 5 Mar 2010 5:31 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043014|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Mar 05 09:57:47 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

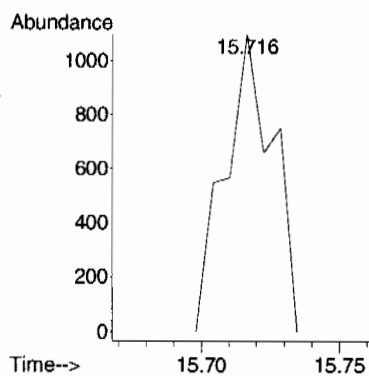






#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 0.14 ug/L  
RT: 15.716 min Scan# 1782  
Delta R.T. -0.001 min  
Lab File: 6A444.D  
Acq: 5 Mar 2010 5:31 am

Tgt Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.0
65	0.0	0.0	43.8



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A444.D  
Acq On : 5 Mar 2010 5:31 am  
Operator : RXD1  
Sample : |248043014|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 44 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

No Library Search Compounds Detected

\*\*\*\*\*

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A444.D  
Acq On : 5 Mar 2010 5:31 am  
Operator : RXD1  
Sample : |248043014|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 44 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043018	Date Received: 02/25/2010 08:45	%Moisture: 20.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7515	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 07:22	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V6\6A448.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.429	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.379	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.379	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.379	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.379	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.379	1.26
67-64-1	Acetone	U	6.31	ug/kg	2.10	6.31
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
74-88-4	Iodomethane	U	6.31	ug/kg	2.02	6.31
75-09-2	Methylenc chloride	U	6.31	ug/kg	2.53	6.31
75-15-0	Carbon disulfide	U	6.31	ug/kg	1.58	6.31
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.379	1.26
78-93-3	2-Butanone	U	6.31	ug/kg	1.89	6.31
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.379	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.379	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.379	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.417	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.379	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.379	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.379	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.379	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.379	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.417	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.379	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.379	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.379	1.26
108-10-1	4-Methyl-2-pentanone	U	6.31	ug/kg	1.58	6.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.379	1.26
108-88-3	Toluene	U	1.26	ug/kg	0.379	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.379	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.379	1.26
591-78-6	2-Hexanone	U	6.31	ug/kg	1.89	6.31
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.379	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.379	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.379	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.379	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.379	1.26

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043018	Date Received: 02/25/2010 08:45	%Moisture: 20.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7515	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 07:22	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A448.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.26	ug/kg	0.379	1.26
179601-23-1	m,p-Xylenes	J	0.404	ug/kg	0.379	2.53
95-47-6	o-Xylene	U	1.26	ug/kg	0.379	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.379	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.379	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.379	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.379	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.379	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.379	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.379	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.379	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.379	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.379	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.379	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.379	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.379	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.379	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.379	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.379	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.31	ug/kg	2.02	6.31
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.379	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.379	1.26

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found						
				ug/kg		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A448.D  
Acq On : 5 Mar 2010 7:22 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043018|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 48 Sample Multiplier: 1

Quant Time: Mar 05 09:59:21 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1118276	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	755373	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	298089	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1117769	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	755373	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	298089	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	437609	51.93	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	103.86%			
43) Toluene-d8	11.620	11.620	0.883	98	1063117	51.67	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	103.34%			
61) Bromofluorobenzene	14.351	14.357	0.922	95	354901	63.78	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	127.56%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.763	4.672	0.478	50	166	N.D.		
4) Vinyl chloride	4.894	4.914	0.491	62	320	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.718	6.706	0.674	43	6963	Below Cal		72
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	7.298	7.072	0.732	41	211	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.078	7.078	0.710	76	816	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	8906	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	8.700	8.694	0.872	43	193	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	9.334	9.322	0.936	97	1218	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	9.718	9.724	0.974	78	408	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A448.D  
Acq On : 5 Mar 2010 7:22 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043018|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 48 Sample Multiplier: 1

Quant Time: Mar 05 09:59:21 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.699	11.699	0.889	91	6042	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.248	13.248	1.007	91	3300	N.D.	
55) m,p-Xylenes	13.357	13.357	1.015	106	3090	0.32 ug/L	87
56) o-Xylene	13.790	13.796	1.048	106	1520	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	14.571	14.583	0.936	91	193	N.D.	
66) 1,3,5-Trimethylbenzene	14.729	14.735	0.946	105	1189	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	14.881	14.833	0.956	91	196	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	3131	N.D.	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72) 4-Isopropyltoluene	15.455	15.454	0.993	119	3837	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.283	18.283	1.174	128	30478	2.81 ug/L	97
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0m	N.D. d	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	8.700	8.700	0.872	43	193	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A448.D  
Acq On : 5 Mar 2010 7:22 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043018|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 48 Sample Multiplier: 1

Quant Time: Mar 05 09:59:21 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	9.078	9.059	0.910	42	923	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.168	16.113	1.038	45	2779	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

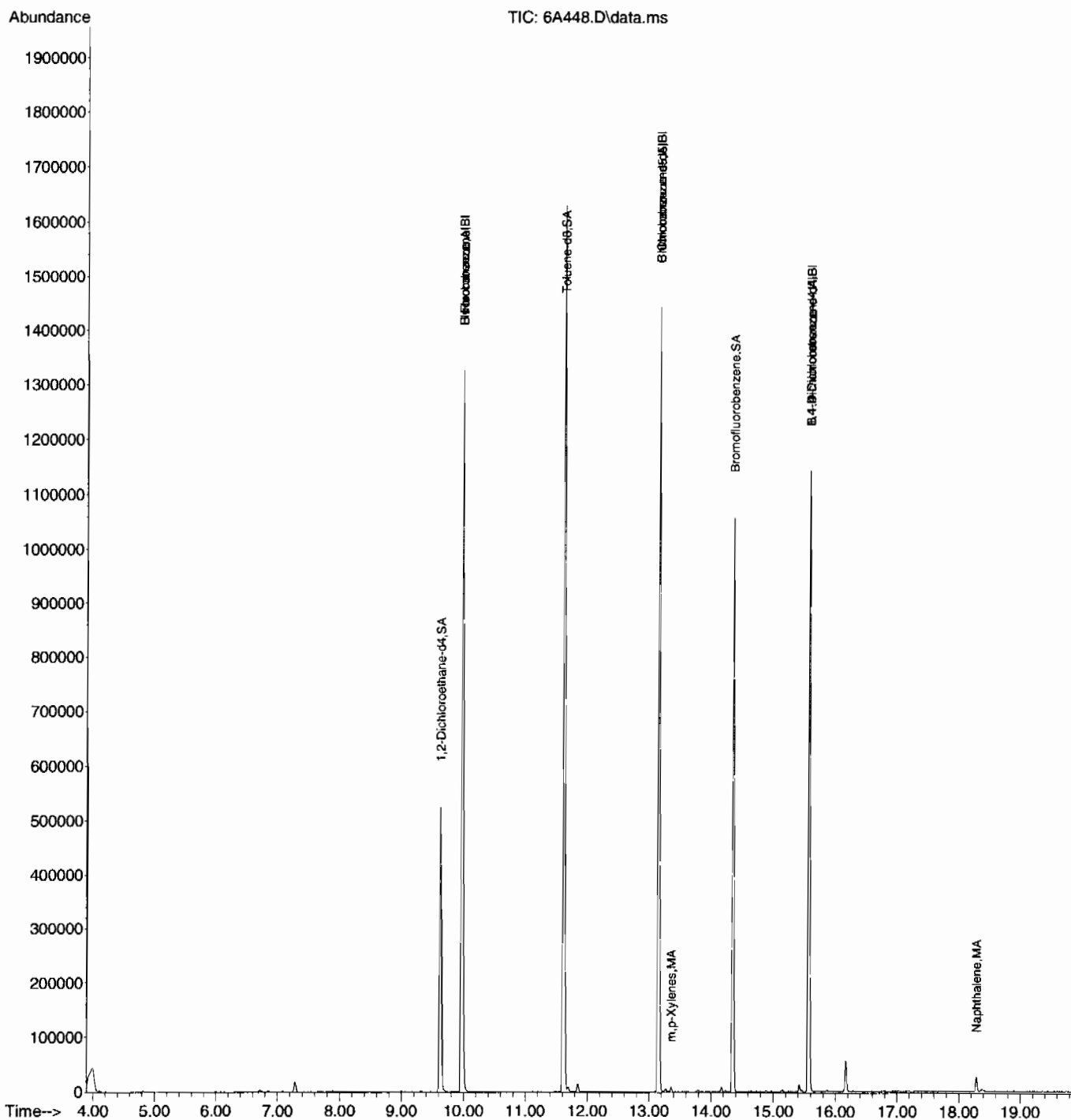


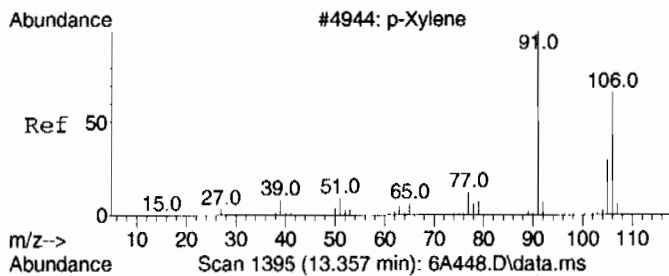
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A448.D  
Acq On : 5 Mar 2010 7:22 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043018|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 48 Sample Multiplier: 1

Quant Time: Mar 05 09:59:21 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

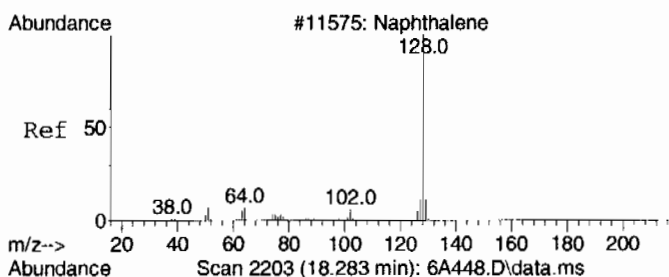
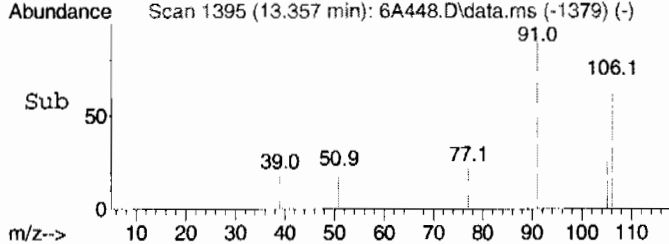
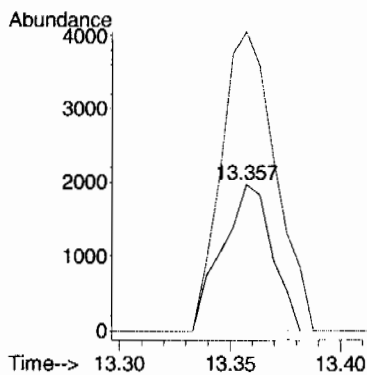
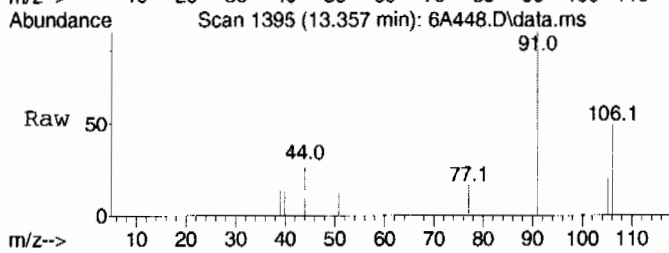
SubList :





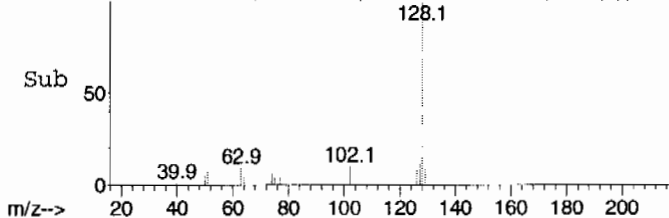
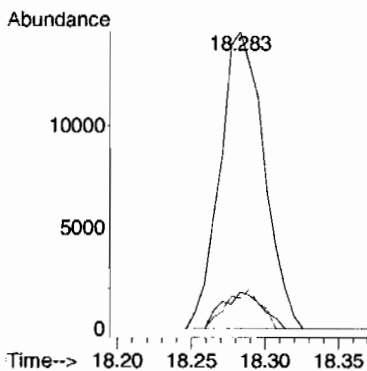
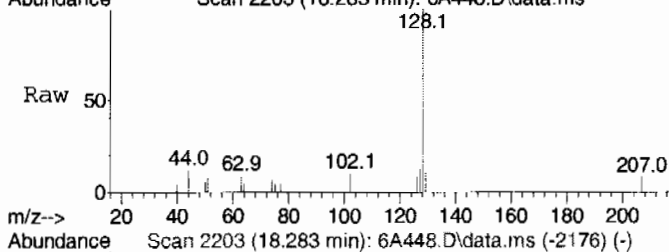
#55  
m,p-Xylenes  
Concen: 0.32 ug/L  
RT: 13.357 min Scan# 1395  
Delta R.T. 0.000 min  
Lab File: 6A448.D  
Acq: 5 Mar 2010 7:22 am

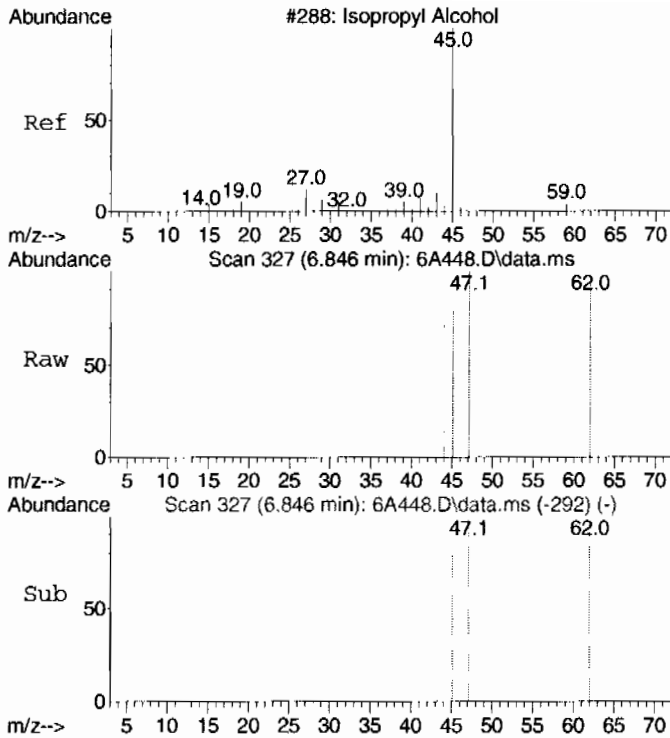
Tgt Ion:106 Resp: 3090  
Ion Ratio Lower Upper  
106 100  
91 223.5 173.6 233.6



#80  
Naphthalene  
Concen: 2.81 ug/L  
RT: 18.283 min Scan# 2203  
Delta R.T. 0.000 min  
Lab File: 6A448.D  
Acq: 5 Mar 2010 7:22 am

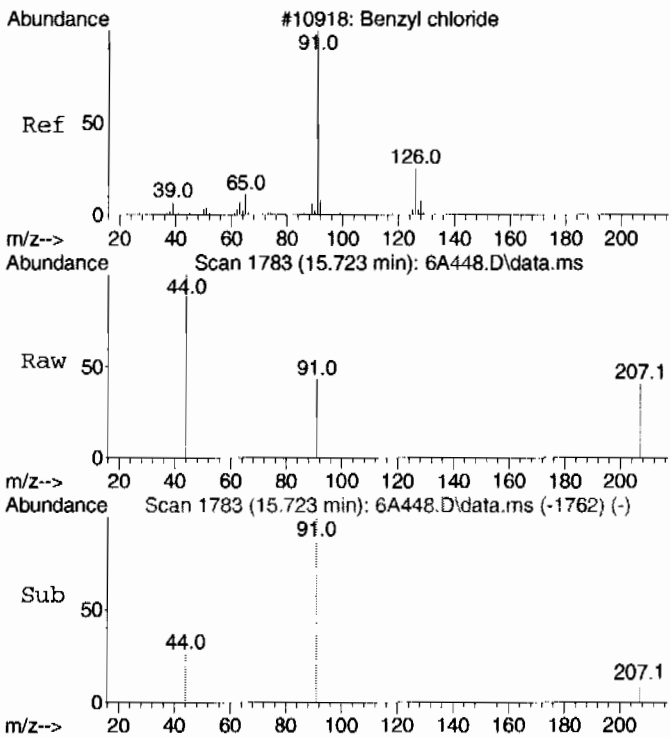
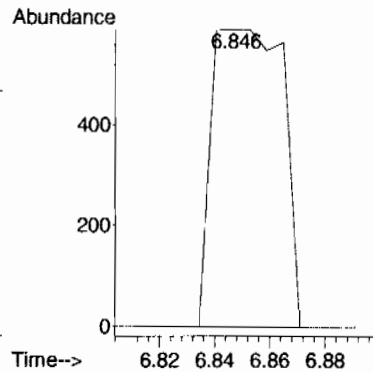
Tgt Ion:128 Resp: 30478  
Ion Ratio Lower Upper  
128 100  
127 11.3 0.0 43.1  
129 10.3 0.0 41.1





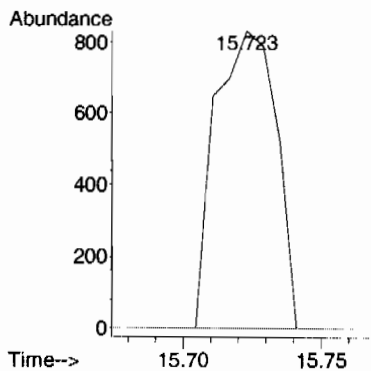
#87 BEFORE analyst DELETION  
Isopropyl Alcohol  
Concen: 2.00 ug/L  
RT: 6.846 min Scan# 327  
Delta R.T. 0.061 min  
Lab File: 6A448.D  
Acq: 5 Mar 2010 7:22 am

Tgt Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	50.2



#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 0.17 ug/L  
RT: 15.723 min Scan# 1783  
Delta R.T. 0.006 min  
Lab File: 6A448.D  
Acq: 5 Mar 2010 7:22 am

Tgt Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.0
65	0.0	0.0	43.8



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A448.D  
Acq On : 5 Mar 2010 7:22 am  
Operator : RXD1  
Sample : |248043018|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

No Library Search Compounds Detected

\*\*\*\*\*

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A448.D  
Acq On : 5 Mar 2010 7:22 am  
Operator : RXD1  
Sample : |248043018|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--		
					#	RT	Resp Conc

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**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043019	Date Received: 02/25/2010 08:45	
Client ID: RE36-10-7539	Client: LANL010	Project: LANL01004
Batch ID: 961082	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/05/2010 07:50	Inst: VOA6.I	Dilution: 1
Prep Date: 03/04/2010 13:51	Analyst: RXD1	Purge Vol: 5 mL
Data File: 030410V66A449.D	Aliquot: 5 g	Final Volume: 5 mL
	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043019  
 Client ID: RE36-10-7539  
 Batch ID: 961082  
 Run Date: 03/05/2010 07:50  
 Prep Date: 03/04/2010 13:51  
 Data File: 030410V6\6A449.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.1  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
No Tentatively Identified Compounds Found				ug/kg		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A449.D  
Acq On : 5 Mar 2010 7:50 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043019|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Mar 05 09:59:39 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1172559	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	872220	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	496630	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1172119	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	872220	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	496630	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	478364	54.14	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	108.28%			
43) Toluene-d8	11.620	11.620	0.883	98	1152550	48.51	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	97.02%			
61) Bromofluorobenzene	14.357	14.357	0.922	95	483442	52.15	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	104.30%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.652	4.672	0.466	50	535	N.D.		
4) Vinyl chloride	4.894	4.914	0.491	62	167	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.718	6.706	0.674	43	10227	N.D.		
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.078	7.078	0.710	76	201	N.D.		
15) Methylene chloride	7.279	7.285	0.730	84	4328	N.D.		
16) tert-Butyl methyl ether	7.578	7.572	0.760	73	2397	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A449.D  
Acq On : 5 Mar 2010 7:50 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043019|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Mar 05 09:59:39 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.699	11.699	0.889	91	385	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	0.000	13.248	0.000		0	N.D.	
55) m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.583	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.143	15.150	0.973	105	193	N.D.	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.454	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.283	18.283	1.174	128	4293	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A449.D  
Acq On : 5 Mar 2010 7:50 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043019|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Mar 05 09:59:39 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.174	16.113	1.039	45	3684	N.D.	

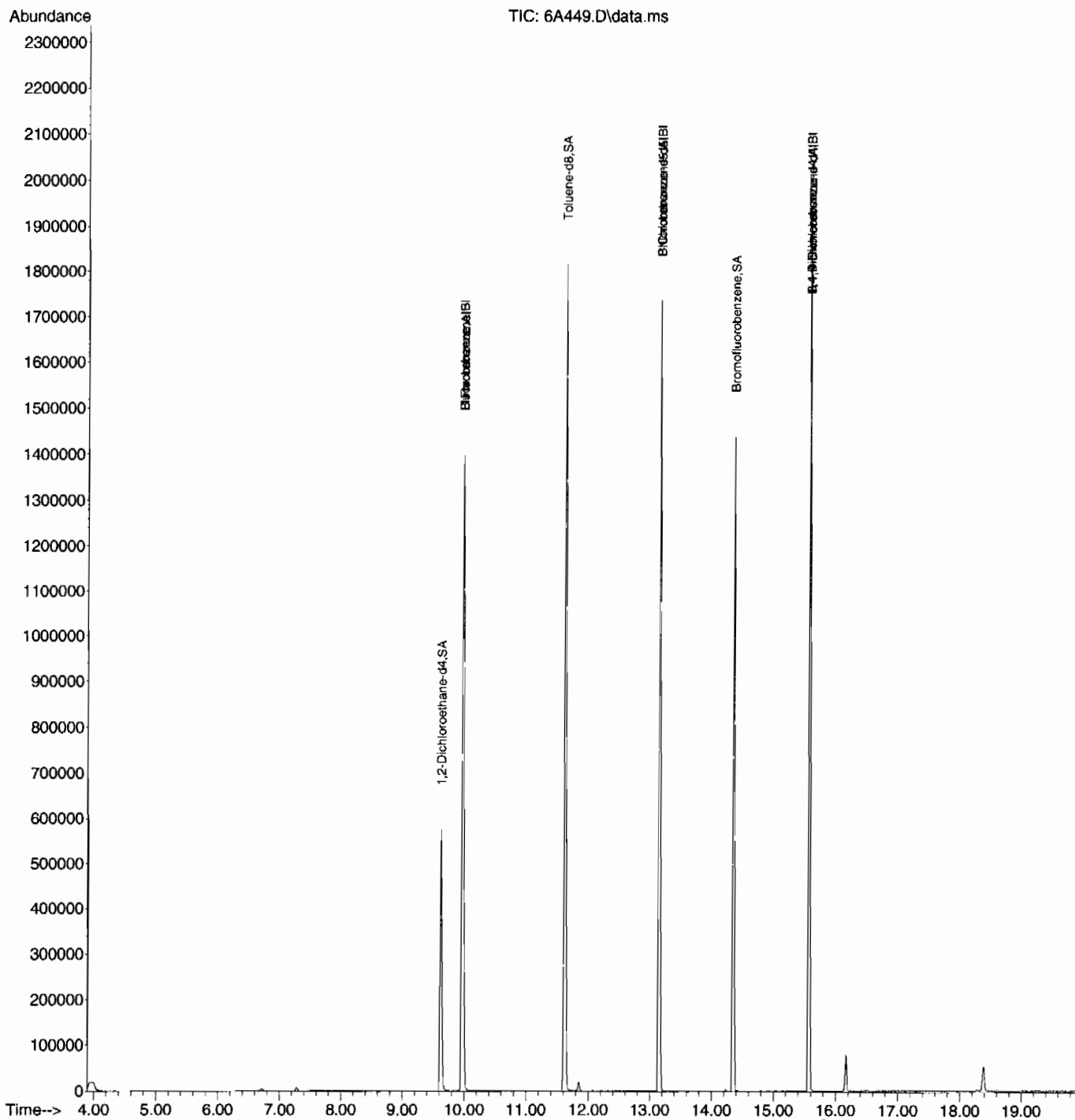
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

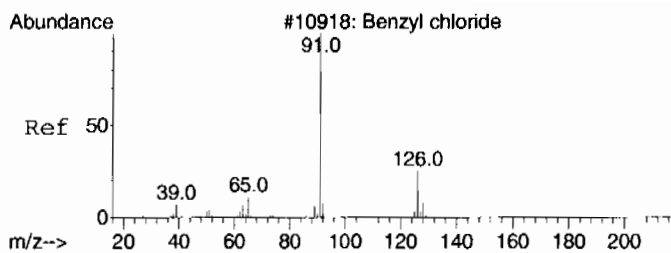
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A449.D  
Acq On : 5 Mar 2010 7:50 am  
Operator : RXD1  
InstName : VOA6  
Sample : |248043019|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 49 Sample Multiplier: 1

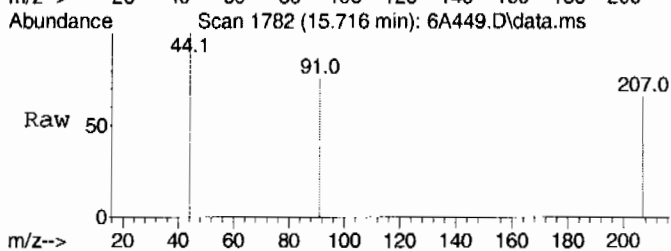
Quant Time: Mar 05 09:59:39 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

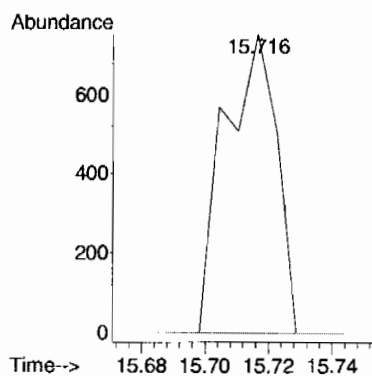
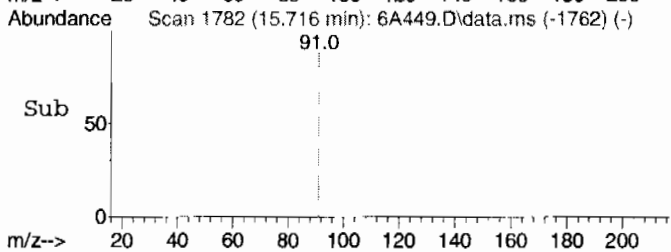




#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 0.07 ug/L  
RT: 15.716 min Scan# 1782  
Delta R.T. -0.001 min  
Lab File: 6A449.D  
Acq: 5 Mar 2010 7:50 am



Tgt Ion:	91	Resp:	855
Ion Ratio	Lower	Upper	
91	100		
126	0.0	0.0	51.0
65	0.0	0.0	43.8



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A449.D  
Acq On : 5 Mar 2010 7:50 am  
Operator : RXD1  
Sample : |248043019|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

No Library Search Compounds Detected

\*\*\*\*\*

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A449.D  
Acq On : 5 Mar 2010 7:50 am  
Operator : RXD1  
Sample : |248043019|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc

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**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043005	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 23.6
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7473	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 961082	<b>Inst:</b> VOA6.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/05/2010 14:22	<b>Analyst:</b> RXD1	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/05/2010 12:00	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030510V6\6A509.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.31	ug/kg	0.445	1.31
74-87-3	Chloromethane	U	1.31	ug/kg	0.393	1.31
75-01-4	Vinyl chloride	U	1.31	ug/kg	0.393	1.31
74-83-9	Bromomethane	U	1.31	ug/kg	0.393	1.31
75-00-3	Chloroethane	U	1.31	ug/kg	0.393	1.31
75-69-4	Trichlorofluoromethane	U	1.31	ug/kg	0.393	1.31
67-64-1	Acetone	U	6.54	ug/kg	2.17	6.54
75-35-4	1,1-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
74-88-4	Iodomethane	U	6.54	ug/kg	2.09	6.54
75-09-2	Methylene chloride	J	5.73	ug/kg	2.62	6.54
75-15-0	Carbon disulfide	U	6.54	ug/kg	1.64	6.54
156-60-5	trans-1,2-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
75-34-3	1,1-Dichloroethane	U	1.31	ug/kg	0.393	1.31
78-93-3	2-Butanone	U	6.54	ug/kg	1.96	6.54
156-59-2	cis-1,2-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
594-20-7	2,2-Dichloropropane	U	1.31	ug/kg	0.393	1.31
67-66-3	Chloroform	U	1.31	ug/kg	0.393	1.31
74-97-5	Bromochloromethane	U	1.31	ug/kg	0.432	1.31
71-55-6	1,1,1-Trichloroethane	U	1.31	ug/kg	0.393	1.31
563-58-6	1,1-Dichloropropene	U	1.31	ug/kg	0.393	1.31
56-23-5	Carbon tetrachloride	U	1.31	ug/kg	0.393	1.31
107-06-2	1,2-Dichloroethane	U	1.31	ug/kg	0.393	1.31
71-43-2	Benzene	U	1.31	ug/kg	0.393	1.31
79-01-6	Trichloroethylene	U	1.31	ug/kg	0.432	1.31
78-87-5	1,2-Dichloropropane	U	1.31	ug/kg	0.393	1.31
75-27-4	Bromodichloromethane	U	1.31	ug/kg	0.393	1.31
74-95-3	Dibromomethane	U	1.31	ug/kg	0.393	1.31
108-10-1	4-Methyl-2-pentanone	U	6.54	ug/kg	1.64	6.54
10061-01-5	cis-1,3-Dichloropropylene	U	1.31	ug/kg	0.393	1.31
108-88-3	Toluene	U	1.31	ug/kg	0.393	1.31
10061-02-6	trans-1,3-Dichloropropylene	U	1.31	ug/kg	0.393	1.31
79-00-5	1,1,2-Trichloroethane	U	1.31	ug/kg	0.393	1.31
591-78-6	2-Hexanone	U	6.54	ug/kg	1.96	6.54
142-28-9	1,3-Dichloropropane	U	1.31	ug/kg	0.393	1.31
127-18-4	Tetrachloroethylene	U	1.31	ug/kg	0.393	1.31
124-48-1	Dibromochloromethane	U	1.31	ug/kg	0.393	1.31
106-93-4	1,2-Dibromoethane	U	1.31	ug/kg	0.393	1.31
108-90-7	Chlorobenzene	U	1.31	ug/kg	0.393	1.31

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043005	Date Received: 02/25/2010 08:45	%Moisture: 23.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7473	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.1	Dilution: 1
Run Date: 03/05/2010 14:22	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/05/2010 12:00	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030510V6A509.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.31	ug/kg	0.393	1.31
179601-23-1	m,p-Xylenes	U	2.62	ug/kg	0.393	2.62
95-47-6	o-Xylene	U	1.31	ug/kg	0.393	1.31
100-42-5	Styrene	U	1.31	ug/kg	0.393	1.31
75-25-2	Bromoform	U	1.31	ug/kg	0.393	1.31
79-34-5	1,1,2,2-Tetrachloroethane	U	1.31	ug/kg	0.393	1.31
96-18-4	1,2,3-Trichloropropane	U	1.31	ug/kg	0.393	1.31
108-86-1	Bromobenzene	U	1.31	ug/kg	0.393	1.31
103-65-1	n-Propylbenzene	U	1.31	ug/kg	0.393	1.31
95-49-8	2-Chlorotoluene	U	1.31	ug/kg	0.393	1.31
98-82-8	Isopropylbenzene	U	1.31	ug/kg	0.393	1.31
108-67-8	1,3,5-Trimethylbenzene	U	1.31	ug/kg	0.393	1.31
106-43-4	4-Chlorotoluene	U	1.31	ug/kg	0.393	1.31
98-06-6	tert-Butylbenzene	U	1.31	ug/kg	0.393	1.31
95-63-6	1,2,4-Trimethylbenzene	U	1.31	ug/kg	0.393	1.31
135-98-8	sec-Butylbenzene	U	1.31	ug/kg	0.393	1.31
99-87-6	4-Isopropyltoluene	U	1.31	ug/kg	0.393	1.31
541-73-1	1,3-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31
106-46-7	1,4-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31
104-51-8	n-Butylbenzene	U	1.31	ug/kg	0.393	1.31
96-12-8	1,2-Dibromo-3-chloropropane	U	1.31	ug/kg	0.393	1.31
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.54	ug/kg	2.09	6.54
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.31	ug/kg	0.393	1.31
95-50-1	1,2-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.17	25.5	ug/kg	0	J



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A509.D  
Acq On : 5 Mar 2010 2:22 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043005|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 08:32:59 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1200457	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	748249	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	278537	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1199780	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	748249	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	278537	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	457211	50.55	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	101.10%			
43) Toluene-d8	11.626	11.620	0.884	98	1120609	54.98	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	109.96%			
61) Bromofluorobenzene	14.357	14.357	0.922	95	335273	64.49	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	128.98%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.662	4.672	0.467	50	1486	N.D.		
4) Vinyl chloride	4.894	4.914	0.491	62	353	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.725	6.706	0.674	43	5076	Below Cal		58
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	7.285	7.072	0.730	41	1470	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.084	7.078	0.710	76	1698	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	29642	4.38 ug/L		99
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	8.700	8.694	0.872	43	530	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	9.407	9.413	0.943	56	926	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	9.718	9.724	0.974	78	1061	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A509.D  
Acq On : 5 Mar 2010 2:22 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043005|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 08:32:59 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.699	11.699	0.889	91	5759	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	12.266	12.260	0.932	43	188	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	0.000	13.248	0.000		0	N.D.	
55) m,p-Xylenes	13.351	13.357	1.015	106	1117	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	14.583	14.583	0.937	91	311	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.144	15.150	0.973	105	956	N.D.	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72) 4-Isopropyltoluene	15.455	15.454	0.993	119	444	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	15.893	15.887	1.021	91	375	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.283	18.283	1.174	128	1319	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	7.285	7.139	0.730	41	1271	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	8.700	8.700	0.872	43	530	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A509.D  
Acq On : 5 Mar 2010 2:22 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043005|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 08:32:59 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	9.072	9.059	0.910	42	1195	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0m	N.D.	d
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	0.000	16.113	0.000		0m	N.D.	d

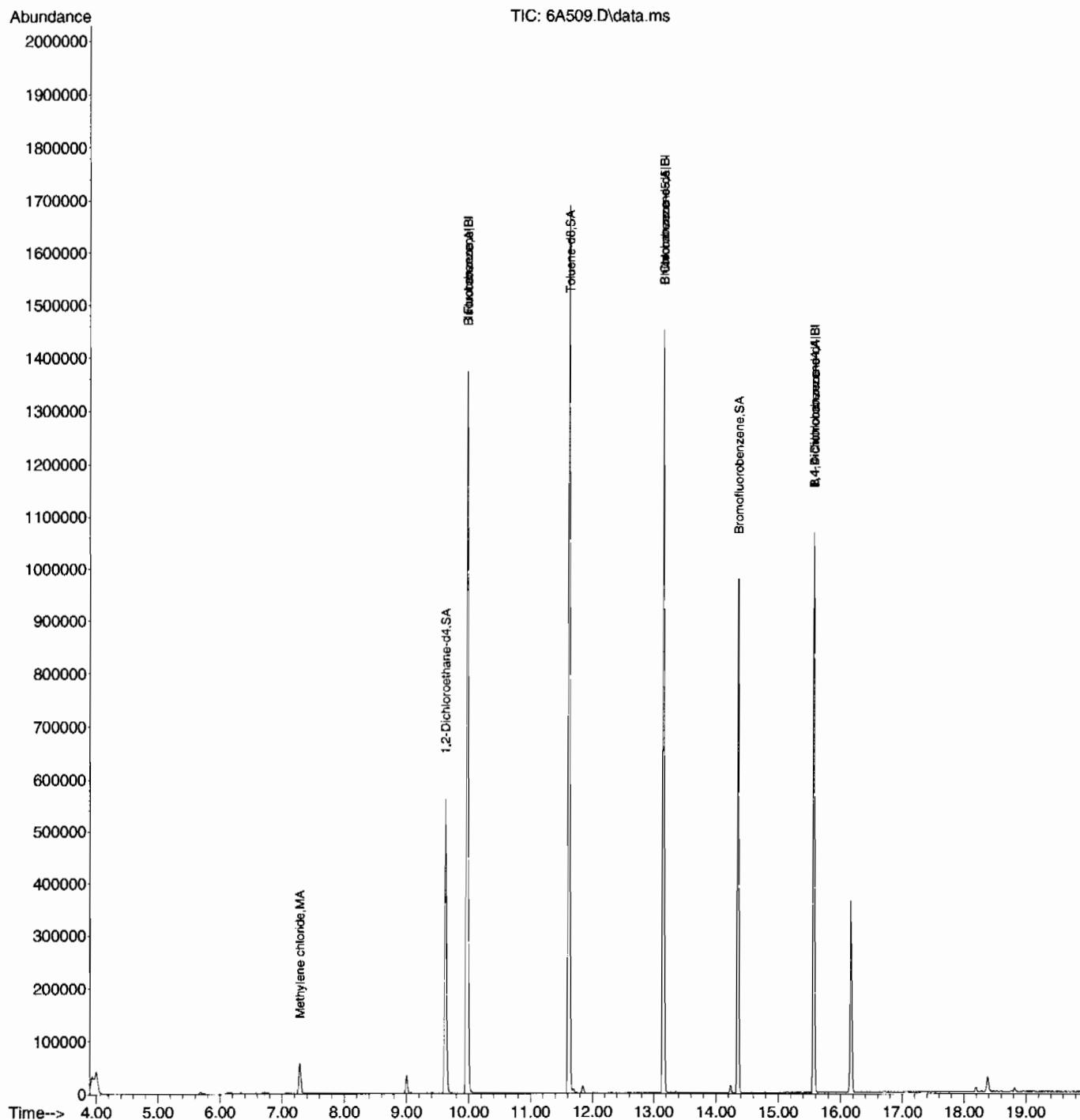
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

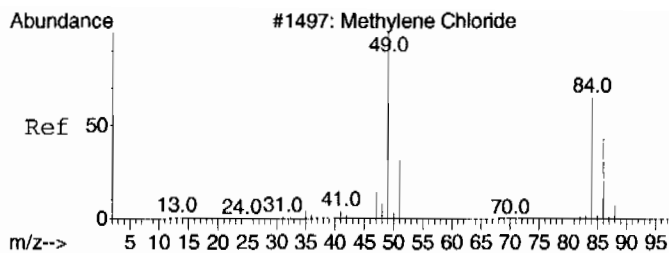
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A509.D  
Acq On : 5 Mar 2010 2:22 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043005|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 08:32:59 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

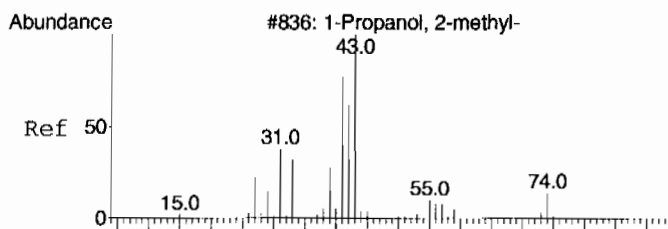
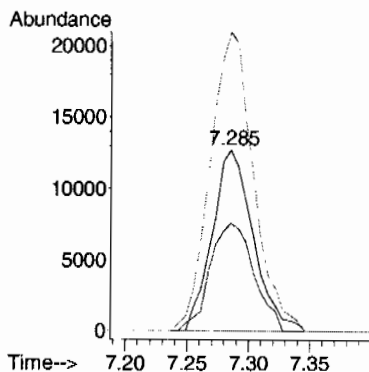
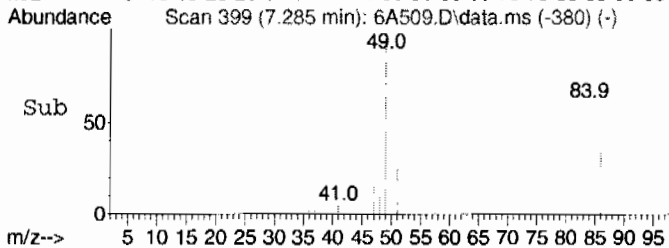
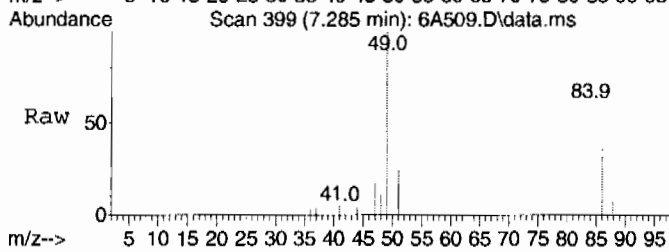
SubList :





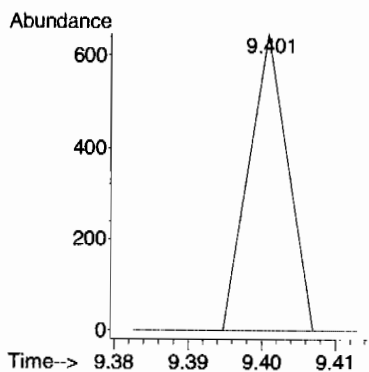
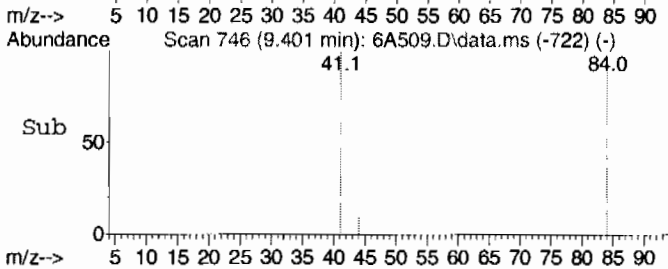
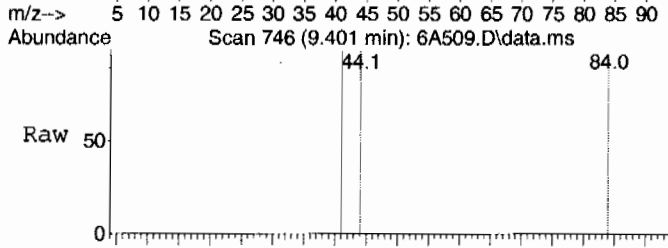
#15  
Methylene chloride  
Concen: 4.38 ug/L  
RT: 7.285 min Scan# 399  
Delta R.T. 0.000 min  
Lab File: 6A509.D  
Acq: 5 Mar 2010 2:22 pm

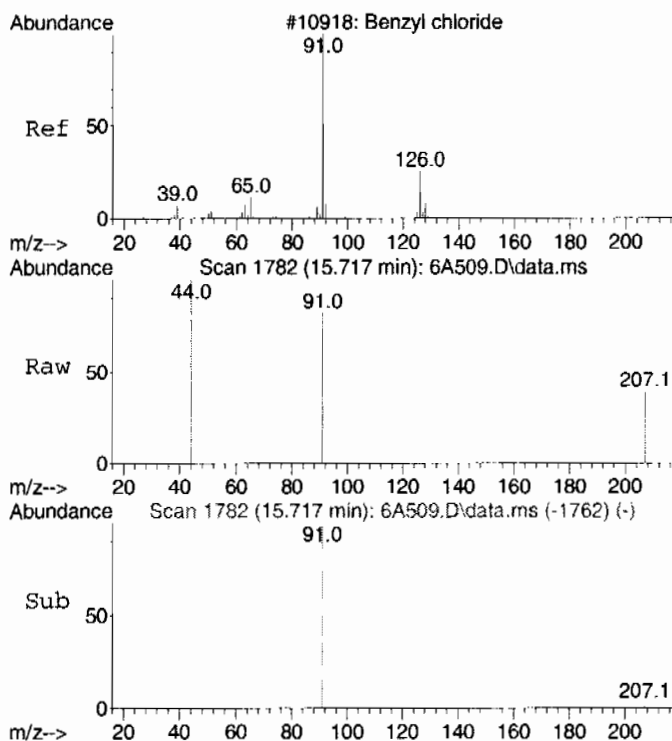
Tgt Ion	Ratio	Lower	Upper
84	100		
86	64.0	33.5	93.5
49	173.6	141.2	201.2



#98 BEFORE analyst DELETION  
Isobutyl alcohol  
Concen: 0.85 ug/L  
RT: 9.401 min Scan# 746  
Delta R.T. 0.013 min  
Lab File: 6A509.D  
Acq: 5 Mar 2010 2:22 pm

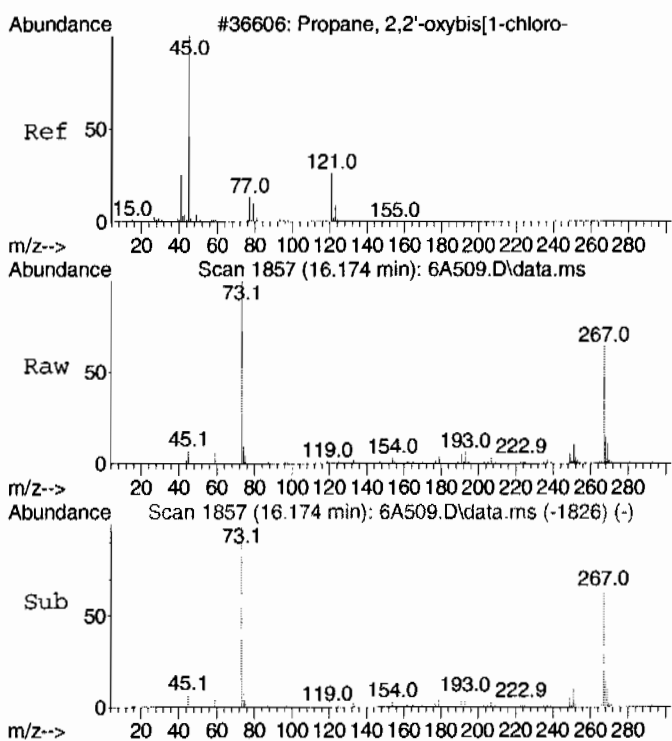
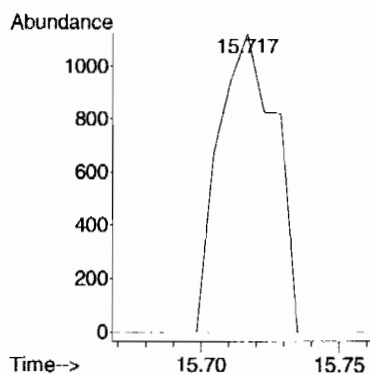
Tgt Ion	Ratio	Lower	Upper
41	100		
43	0.0	105.9	165.9#





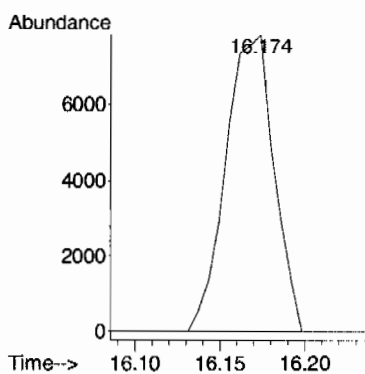
#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 0.23 ug/L  
RT: 15.717 min Scan# 1782  
Delta R.T. -0.000 min  
Lab File: 6A509.D  
Acq: 5 Mar 2010 2:22 pm

Tgt Ion:	91	Resp:	1603
Ion Ratio	Lower	Upper	
91	100		
126	0.0	0.0	51.0
65	0.0	0.0	43.8



#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl)ether  
Concen: 7.19 ug/L  
RT: 16.174 min Scan# 1857  
Delta R.T. 0.061 min  
Lab File: 6A509.D  
Acq: 5 Mar 2010 2:22 pm

Tgt Ion:	45	Resp:	15422
Ion Ratio	Lower	Upper	
45	100		
121	0.0	0.0	51.3



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A509.D  
Acq On : 5 Mar 2010 2:22 pm  
Operator : RXD1  
Sample : |248043005|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B

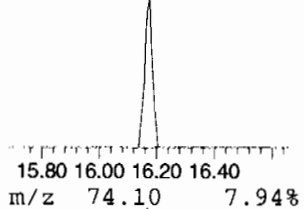
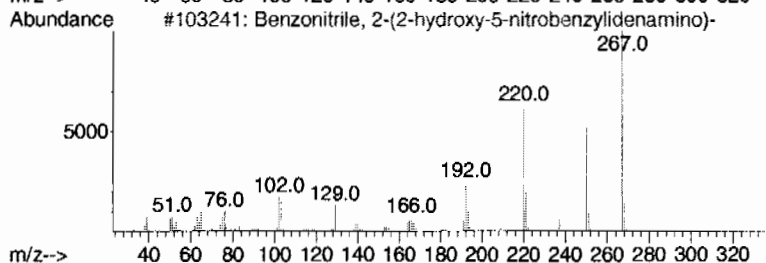
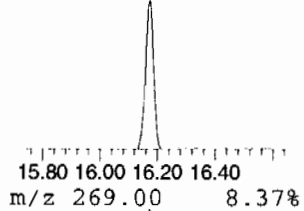
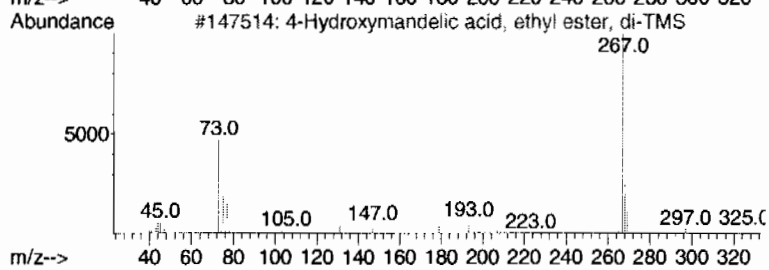
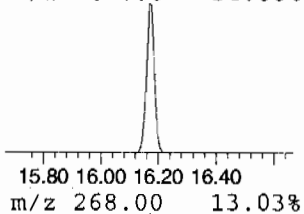
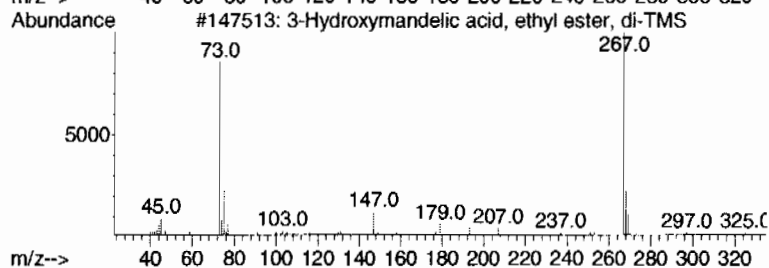
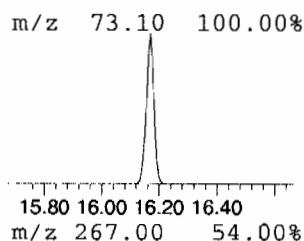
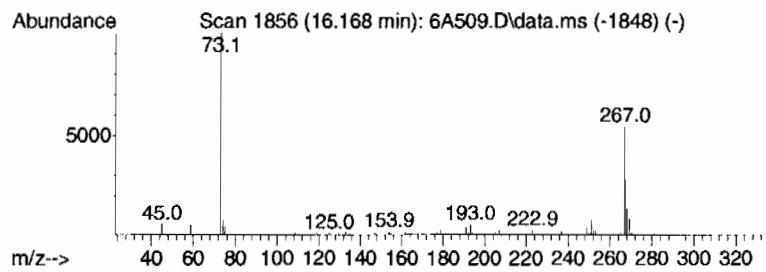
SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.168	19.49 ug/L	674308	B 1,4-Dichlorobenzene-d4	15.570

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	56
2			4-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-53-3	56
3			Benzonitrile, 2-(2-hydroxy-5-nit...	267	C14H9N3O3	303768-30-1	47
4			1,3-Diphenyl-5-methylthio-1,2,4-...	267	C15H13N3S	051384-17-9	47
5			Butanamide, 2,2,3,3,4,4,4-hepta...	493	C18H26F7NO3Si2	055471-01-7	45



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A509.D  
Acq On : 5 Mar 2010 2:22 pm  
Operator : RXD1  
Sample : |248043005|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown siloxane	16.168	19.5	ug/L	674308	6	15.570	1730290	50.0



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043015	Date Received: 02/25/2010 08:45	%Moisture: 16.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7467	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.1	Dilution: 1
Run Date: 03/05/2010 15:18	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/05/2010 12:04	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030510V66A511.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.20	ug/kg	0.409	1.20
74-87-3	Chloromethane	U	1.20	ug/kg	0.361	1.20
75-01-4	Vinyl chloride	U	1.20	ug/kg	0.361	1.20
74-83-9	Bromomethane	U	1.20	ug/kg	0.361	1.20
75-00-3	Chloroethane	U	1.20	ug/kg	0.361	1.20
75-69-4	Trichlorofluoromethane	U	1.20	ug/kg	0.361	1.20
67-64-1	Acetone	U	6.01	ug/kg	2.00	6.01
75-35-4	1,1-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
74-88-4	Iodomethane	U	6.01	ug/kg	1.92	6.01
75-09-2	Methylene chloride	J	4.62	ug/kg	2.41	6.01
75-15-0	Carbon disulfide	U	6.01	ug/kg	1.50	6.01
156-60-5	trans-1,2-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
75-34-3	1,1-Dichloroethane	U	1.20	ug/kg	0.361	1.20
78-93-3	2-Butanone	U	6.01	ug/kg	1.80	6.01
156-59-2	cis-1,2-Dichloroethylene	U	1.20	ug/kg	0.361	1.20
594-20-7	2,2-Dichloropropane	U	1.20	ug/kg	0.361	1.20
67-66-3	Chloroform	U	1.20	ug/kg	0.361	1.20
74-97-5	Bromochloromethane	U	1.20	ug/kg	0.397	1.20
71-55-6	1,1,1-Trichloroethane	U	1.20	ug/kg	0.361	1.20
563-58-6	1,1-Dichloropropene	U	1.20	ug/kg	0.361	1.20
56-23-5	Carbon tetrachloride	U	1.20	ug/kg	0.361	1.20
107-06-2	1,2-Dichloroethane	U	1.20	ug/kg	0.361	1.20
71-43-2	Benzene	U	1.20	ug/kg	0.361	1.20
79-01-6	Trichloroethylene	U	1.20	ug/kg	0.397	1.20
78-87-5	1,2-Dichloropropane	U	1.20	ug/kg	0.361	1.20
75-27-4	Bromodichloromethane	U	1.20	ug/kg	0.361	1.20
74-95-3	Dibromomethane	U	1.20	ug/kg	0.361	1.20
108-10-1	4-Methyl-2-pentanone	U	6.01	ug/kg	1.50	6.01
10061-01-5	cis-1,3-Dichloropropylene	U	1.20	ug/kg	0.361	1.20
108-88-3	Toluene	U	1.20	ug/kg	0.361	1.20
10061-02-6	trans-1,3-Dichloropropylene	U	1.20	ug/kg	0.361	1.20
79-00-5	1,1,2-Trichloroethane	U	1.20	ug/kg	0.361	1.20
591-78-6	2-Hexanone	U	6.01	ug/kg	1.80	6.01
142-28-9	1,3-Dichloropropane	U	1.20	ug/kg	0.361	1.20
127-18-4	Tetrachloroethylene	U	1.20	ug/kg	0.361	1.20
124-48-1	Dibromochloromethane	U	1.20	ug/kg	0.361	1.20
106-93-4	1,2-Dibromoethane	U	1.20	ug/kg	0.361	1.20
108-90-7	Chlorobenzene	U	1.20	ug/kg	0.361	1.20

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043015	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 16.9
<b>Client ID:</b> RE36-10-7467	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 961082	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Run Date:</b> 03/05/2010 15:18	<b>Inst:</b> VOA6.I	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/05/2010 12:04	<b>Analyst:</b> RXD1	<b>Purge Vol:</b> 5 mL
<b>Data File:</b> 030510V66A511.D	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDI/LOD	PQI/LOQ
100-41-4	Ethylbenzene	U	1.20	ug/kg	0.361	1.20
179601-23-1	m,p-Xylenes	U	2.41	ug/kg	0.361	2.41
95-47-6	o-Xylene	U	1.20	ug/kg	0.361	1.20
100-42-5	Styrene	U	1.20	ug/kg	0.361	1.20
75-25-2	Bromoform	U	1.20	ug/kg	0.361	1.20
79-34-5	1,1,2,2-Tetrachloroethane	U	1.20	ug/kg	0.361	1.20
96-18-4	1,2,3-Trichloropropane	U	1.20	ug/kg	0.361	1.20
108-86-1	Bromobenzene	U	1.20	ug/kg	0.361	1.20
103-65-1	n-Propylbenzene	U	1.20	ug/kg	0.361	1.20
95-49-8	2-Chlorotoluene	U	1.20	ug/kg	0.361	1.20
98-82-8	Isopropylbenzene	U	1.20	ug/kg	0.361	1.20
108-67-8	1,3,5-Trimethylbenzene	U	1.20	ug/kg	0.361	1.20
106-43-4	4-Chlorotoluene	U	1.20	ug/kg	0.361	1.20
98-06-6	tert-Butylbenzene	U	1.20	ug/kg	0.361	1.20
95-63-6	1,2,4-Trimethylbenzene	U	1.20	ug/kg	0.361	1.20
135-98-8	sec-Butylbenzene	U	1.20	ug/kg	0.361	1.20
99-87-6	4-Isopropyltoluene	U	1.20	ug/kg	0.361	1.20
541-73-1	1,3-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20
106-46-7	1,4-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20
104-51-8	n-Butylbenzene	U	1.20	ug/kg	0.361	1.20
96-12-8	1,2-Dibromo-3-chloropropane	U	1.20	ug/kg	0.361	1.20
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.01	ug/kg	1.92	6.01
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.20	ug/kg	0.361	1.20
95-50-1	1,2-Dichlorobenzene	U	1.20	ug/kg	0.361	1.20

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.17	15.6	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A511.D  
Acq On : 5 Mar 2010 3:18 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043015|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 08:34:42 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1158080	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	757701	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	306690	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1157208	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	757701	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	306690	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	448443	51.39	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	102.78%			
43) Toluene-d8	11.620	11.620	0.883	98	1083338	52.49	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	104.98%			
61) Bromofluorobenzene	14.357	14.357	0.922	95	351033	61.32	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	122.64%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.642	4.672	0.465	50	151	N.D.		
4) Vinyl chloride	0.000	4.914	0.000		0	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.712	6.706	0.673	43	3264	Below Cal		67
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	7.279	7.072	0.730	41	1144	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.072	7.078	0.709	76	362	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	25079	3.84 ug/L		99
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A511.D  
Acq On : 5 Mar 2010 3:18 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043015|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 08:34:42 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.693	11.699	0.889	91	1344	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	0.000	13.248	0.000		0	N.D.	
55) m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.583	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.144	15.150	0.973	105	233	N.D.	
71) sec-Butylbenzene	15.333	15.333	0.985	105	198	N.D.	
72) 4-Isopropyltoluene	15.454	15.454	0.993	119	423	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	15.887	15.887	1.020	91	202	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.277	18.283	1.174	128	1088	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	7.279	7.139	0.730	41	1144	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A511.D  
Acq On : 5 Mar 2010 3:18 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043015|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 08:34:42 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	9.047	9.059	0.907	42	226	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	0.000	16.113	0.000		0m	N.D. d	

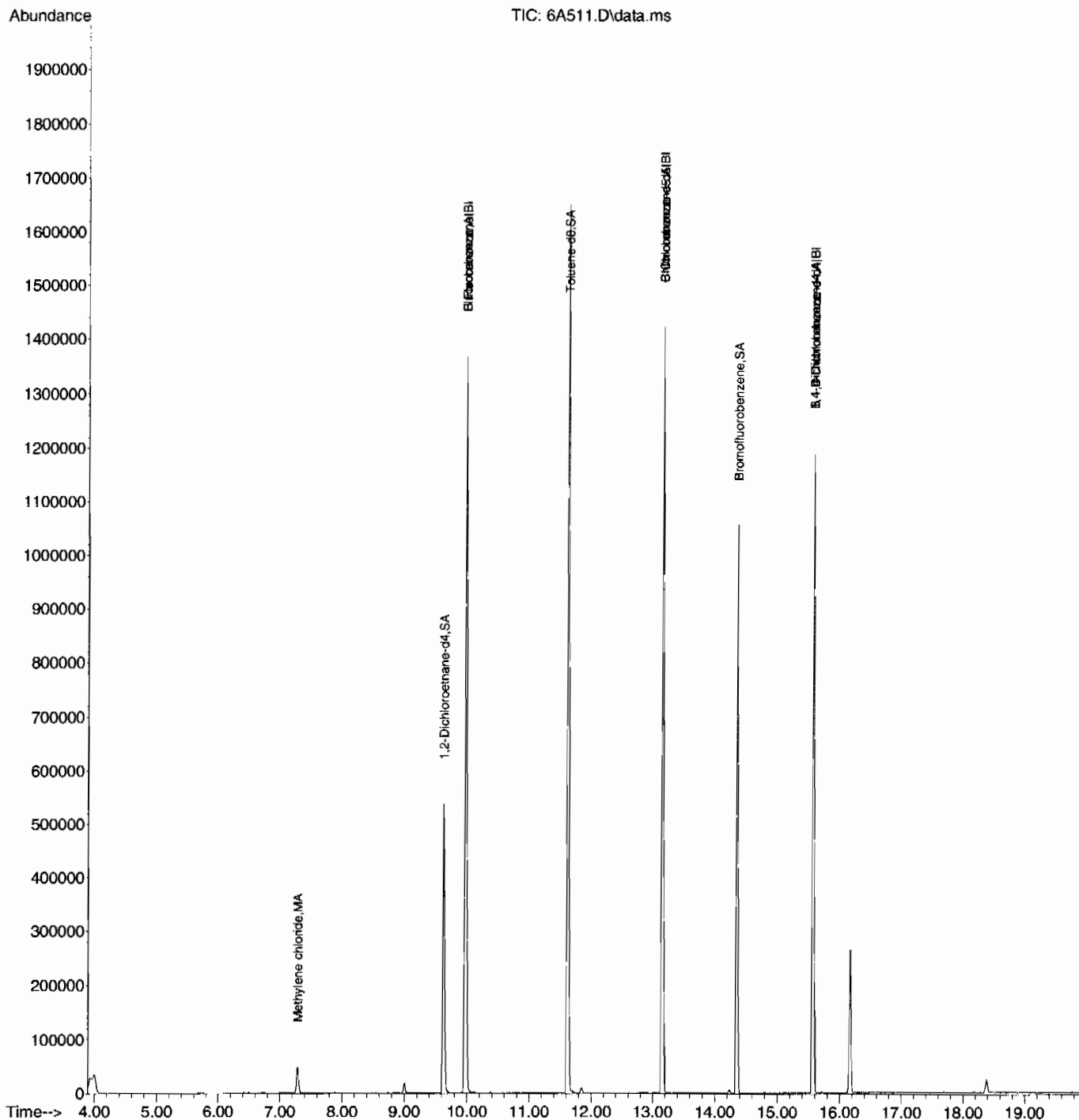
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

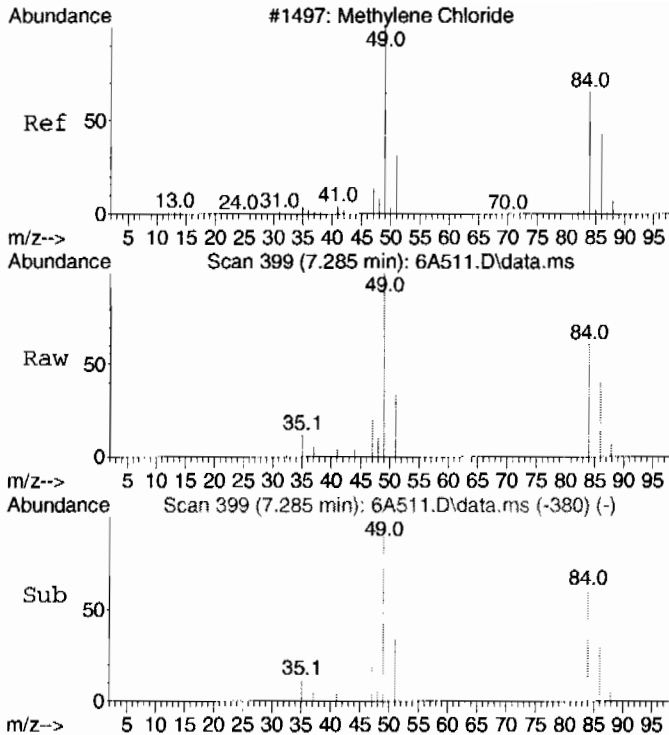
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A511.D  
Acq On : 5 Mar 2010 3:18 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043015|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 08:34:42 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :





#15

Methylene chloride

Concen: 3.84 ug/L

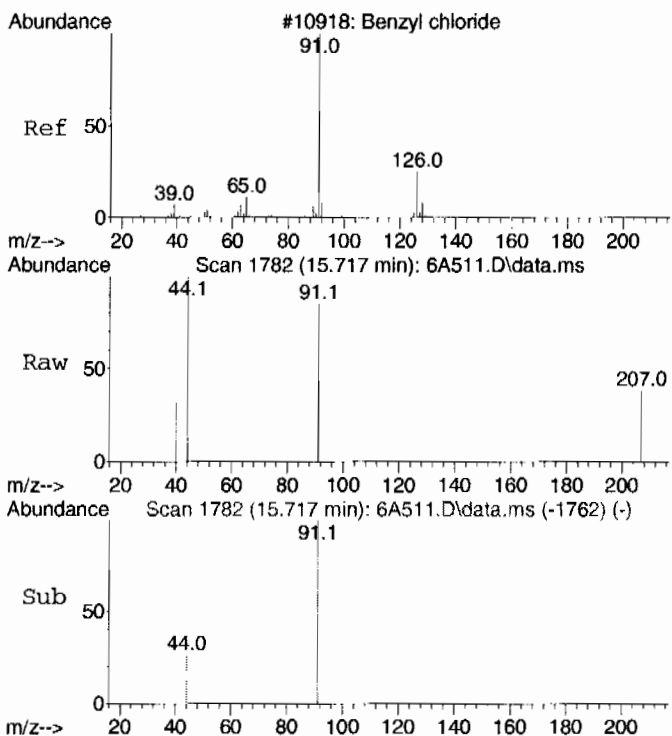
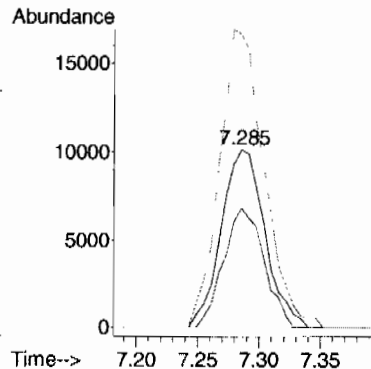
RT: 7.285 min Scan# 399

Delta R.T. 0.000 min

Lab File: 6A511.D

Acq: 5 Mar 2010 3:18 pm

Tgt Ion	Ratio	Lower	Upper
84	100		
86	62.4	33.5	93.5
49	170.3	141.2	201.2



#111 BEFORE analyst DELETION

Benzyl chloride

Concen: 0.23 ug/L

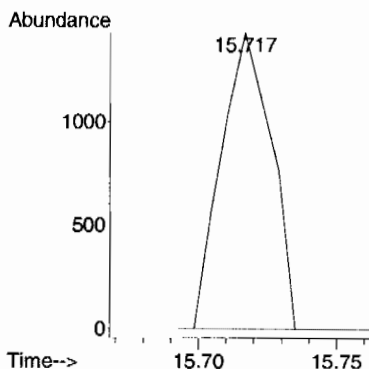
RT: 15.717 min Scan# 1782

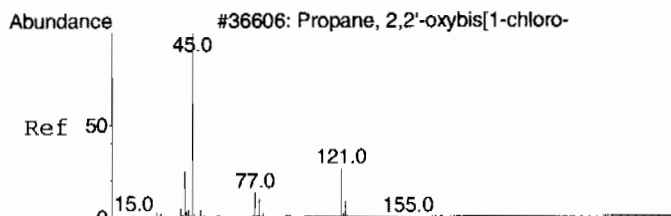
Delta R.T. -0.000 min

Lab File: 6A511.D

Acq: 5 Mar 2010 3:18 pm

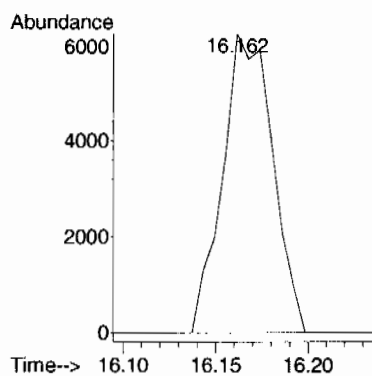
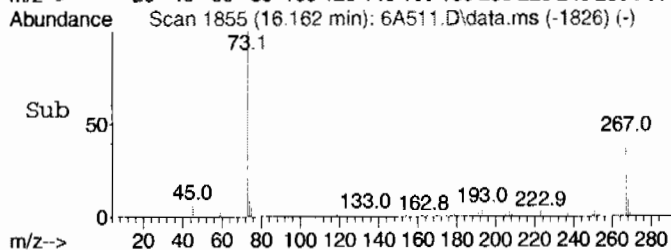
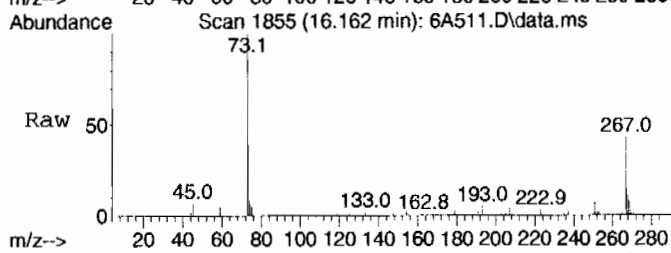
Tgt Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.0
65	0.0	0.0	43.8





#112 BEFORE analyst DELETION  
 bis(2-Chloroisopropyl)ether  
 Concen: 4.97 ug/L  
 RT: 16.162 min Scan# 1855  
 Delta R.T. 0.049 min  
 Lab File: 6A511.D  
 Acq: 5 Mar 2010 3:18 pm

Tgt Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	51.3





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A511.D  
Acq On : 5 Mar 2010 3:18 pm  
Operator : RXD1  
Sample : |248043015|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B

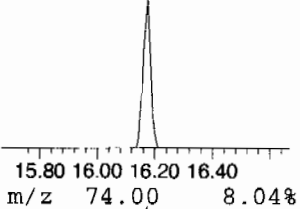
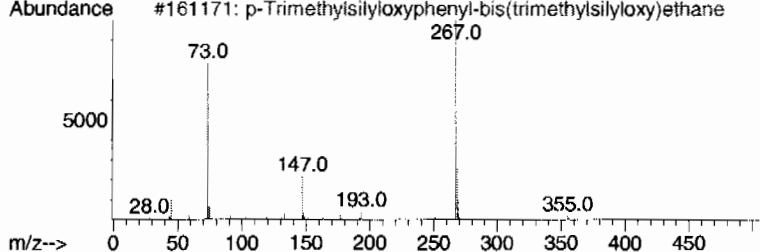
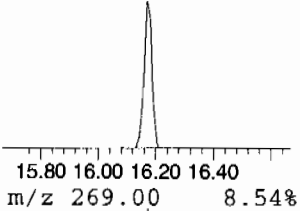
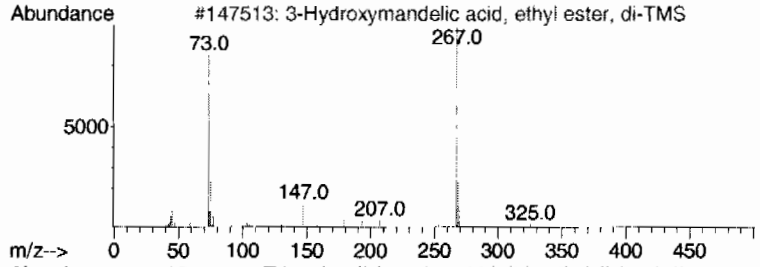
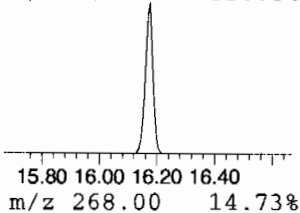
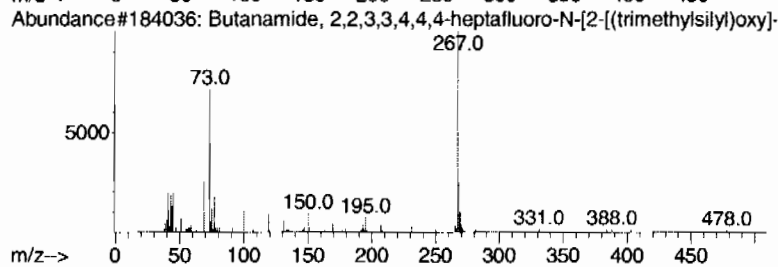
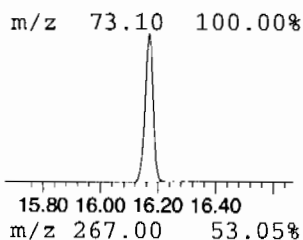
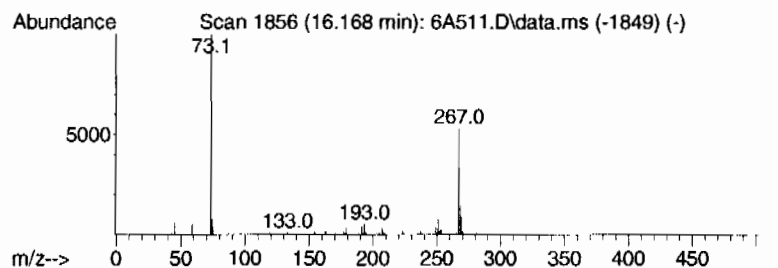
SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.168	12.96 ug/L	502723	B 1,4-Dichlorobenzene-d4	15.570

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Butanamide, 2,2,3,3,4,4,4-heptafluoro-N-[(trimethylsilyl)oxy]-	493	C18H26F7NO3Si2	055471-01-7	72
2			3-Hydroxymandelic acid, ethyl ester, di-TMS	340	C16H28O4Si2	1000071-88-9	64
3			p-Trimethylsilyloxyphenyl-bis(trimethylsilyloxy)ethane	370	C17H34O3Si3	1000079-08-1	59
4			4-Hydroxymandelic acid, ethyl ester, di-TMS	340	C16H28O4Si2	1000071-53-3	56
5			Benzeneethanamine, N-[(pentafluorophenyl)dimethylsilyl]-	475	C21H26F5NO2Si2	055429-85-1	50



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A511.D  
Acq On : 5 Mar 2010 3:18 pm  
Operator : RXD1  
Sample : |248043015|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown siloxane	16.168	13.0	ug/L	502723	6	15.570	1938810	50.0

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043016	Date Received: 02/25/2010 08:45	%Moisture: 12.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7469	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 15:46	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/05/2010 12:06	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030510V6\6A512.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQI/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.389	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.343	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.343	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.343	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.343	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.343	1.14
67-64-1	Acetone	U	5.71	ug/kg	1.90	5.71
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
74-88-4	Iodomethane	U	5.71	ug/kg	1.83	5.71
75-09-2	Methylene chloride	U	5.71	ug/kg	2.29	5.71
75-15-0	Carbon disulfide	U	5.71	ug/kg	1.43	5.71
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.343	1.14
78-93-3	2-Butanone	U	5.71	ug/kg	1.71	5.71
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.343	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.343	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.377	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.343	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.343	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.343	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.343	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.343	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.377	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.343	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.343	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.343	1.14
108-10-1	4-Methyl-2-pentanone	U	5.71	ug/kg	1.43	5.71
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.343	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.343	1.14
591-78-6	2-Hexanone	U	5.71	ug/kg	1.71	5.71
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.343	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.343	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.343	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.343	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.343	1.14

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043016	Date Received: 02/25/2010 08:45	%Moisture: 12.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7469	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 15:46	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/05/2010 12:06	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030510V66A512.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.343	1.14
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.343	2.29
95-47-6	o-Xylene	U	1.14	ug/kg	0.343	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.343	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.343	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.343	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.343	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.343	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.343	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.343	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.343	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.343	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.343	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.343	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.343	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.343	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.343	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.343	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.343	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.71	ug/kg	1.83	5.71
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.343	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A512.D  
Acq On : 5 Mar 2010 3:46 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043016|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 08 08:35:25 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1116488	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	756468	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	364288	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1116083	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	756468	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	364288	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	456898	54.31	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	108.62%			
43) Toluene-d8	11.620	11.620	0.883	98	1055973	51.25	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	102.50%			
61) Bromofluorobenzene	14.351	14.357	0.922	95	382552	56.26	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	112.52%			
Target Compounds								
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	0.000	4.672	0.000		0	N.D.		
4) Vinyl chloride	4.904	4.914	0.492	62	359	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.718	6.706	0.674	43	1075	Below Cal	#	50
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	7.298	7.072	0.732	41	213	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.066	7.078	0.708	76	211	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	10100	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A512.D  
Acq On : 5 Mar 2010 3:46 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043016|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 08 08:35:25 2010

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Thu Feb 11 09:38:02 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	0.000	11.699	0.000		0	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	0.000	13.248	0.000		0	N.D.	
55) m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.583	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.150	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.454	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.277	18.283	1.174	128	204	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A512.D  
Acq On : 5 Mar 2010 3:46 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043016|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 08 08:35:25 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	9.072	9.059	0.910	42	211	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	0.000	16.113	0.000		0m	N.D. d	

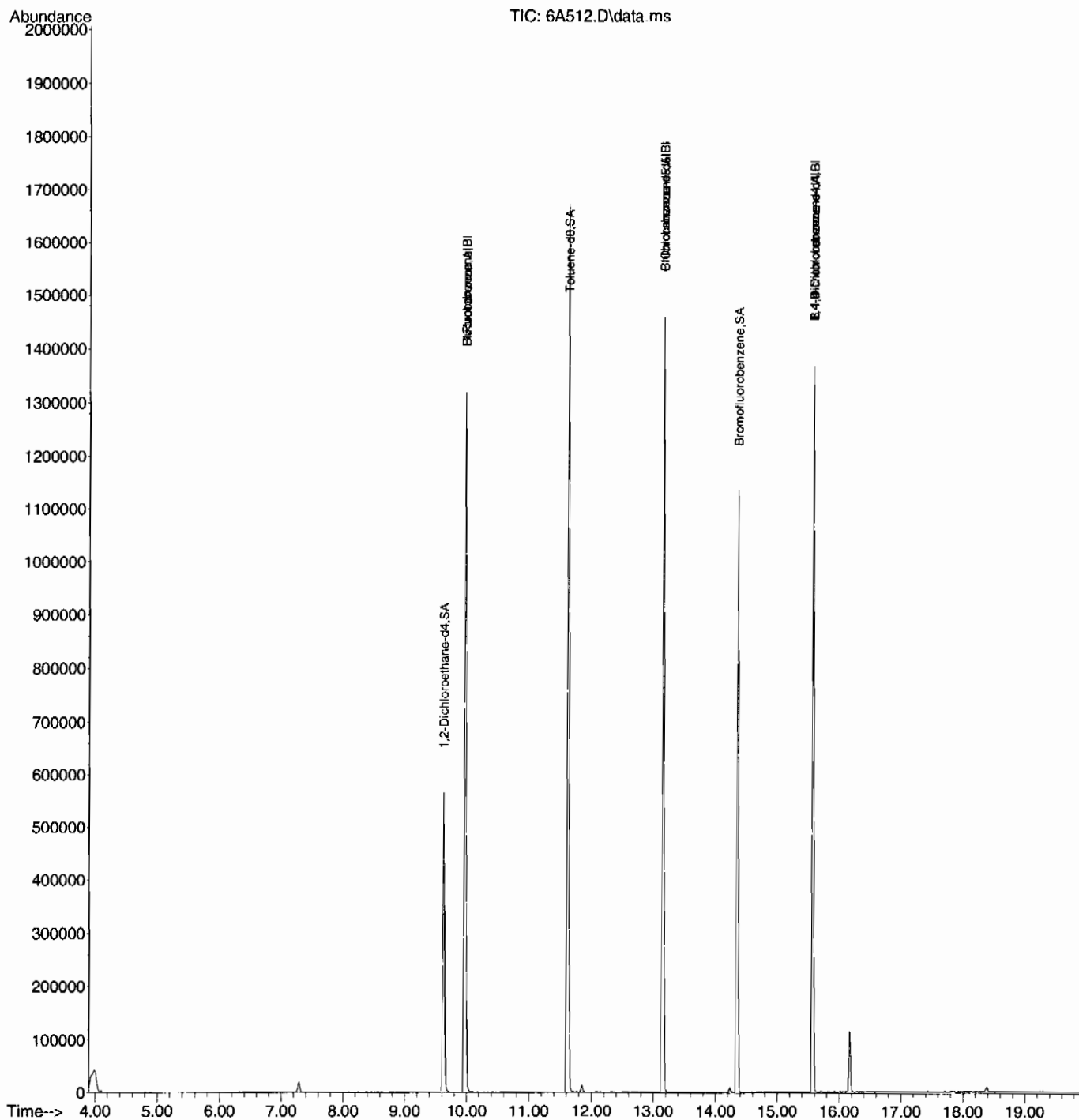
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

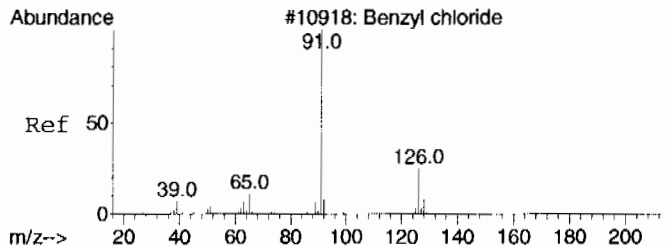
Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A512.D  
Acq On : 5 Mar 2010 3:46 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043016|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 08 08:35:25 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

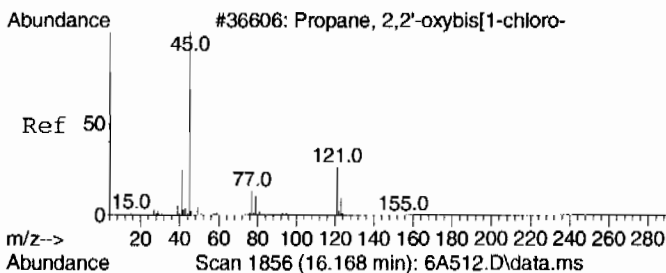
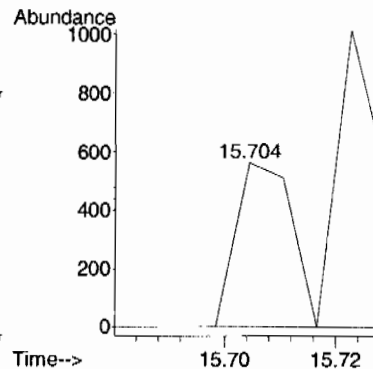






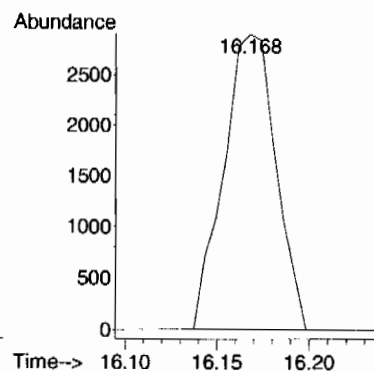
#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 0.04 ug/L  
RT: 15.704 min Scan# 1780  
Delta R.T. -0.013 min  
Lab File: 6A512.D  
Acq: 5 Mar 2010 3:46 pm

Tgt Ion: 91 Resp: 394  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.0  
65 0.0 0.0 43.8



#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl)ether  
Concen: 2.03 ug/L  
RT: 16.168 min Scan# 1856  
Delta R.T. 0.055 min  
Lab File: 6A512.D  
Acq: 5 Mar 2010 3:46 pm

Tgt Ion: 45 Resp: 5687  
Ion Ratio Lower Upper  
45 100  
121 0.0 0.0 51.3



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A512.D  
Acq On : 5 Mar 2010 3:46 pm  
Operator : RXD1  
Sample : |248043016|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

No Library Search Compounds Detected

\*\*\*\*\*

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A512.D  
Acq On : 5 Mar 2010 3:46 pm  
Operator : RXD1  
Sample : |248043016|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc

-----

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043017  
 Client ID: RE36-10-7470  
 Batch ID: 961082  
 Run Date: 03/05/2010 16:14  
 Prep Date: 03/05/2010 12:08  
 Data File: 030510V66A513.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.1  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 14.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.17	ug/kg	0.397	1.17
74-87-3	Chloromethane	U	1.17	ug/kg	0.350	1.17
75-01-4	Vinyl chloride	U	1.17	ug/kg	0.350	1.17
74-83-9	Bromomethane	U	1.17	ug/kg	0.350	1.17
75-00-3	Chloroethane	U	1.17	ug/kg	0.350	1.17
75-69-4	Trichlorofluoromethane	U	1.17	ug/kg	0.350	1.17
67-64-1	Acetone	U	5.84	ug/kg	1.94	5.84
75-35-4	1,1-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
74-88-4	Iodomethane	U	5.84	ug/kg	1.87	5.84
75-09-2	Methylene chloride	U	5.84	ug/kg	2.34	5.84
75-15-0	Carbon disulfide	U	5.84	ug/kg	1.46	5.84
156-60-5	trans-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
75-34-3	1,1-Dichloroethane	U	1.17	ug/kg	0.350	1.17
78-93-3	2-Butanone	U	5.84	ug/kg	1.75	5.84
156-59-2	cis-1,2-Dichloroethylene	U	1.17	ug/kg	0.350	1.17
594-20-7	2,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17
67-66-3	Chloroform	U	1.17	ug/kg	0.350	1.17
74-97-5	Bromochloromethane	U	1.17	ug/kg	0.385	1.17
71-55-6	1,1,1-Trichloroethane	U	1.17	ug/kg	0.350	1.17
563-58-6	1,1-Dichloropropene	U	1.17	ug/kg	0.350	1.17
56-23-5	Carbon tetrachloride	U	1.17	ug/kg	0.350	1.17
107-06-2	1,2-Dichloroethane	U	1.17	ug/kg	0.350	1.17
71-43-2	Benzene	U	1.17	ug/kg	0.350	1.17
79-01-6	Trichloroethylene	U	1.17	ug/kg	0.385	1.17
78-87-5	1,2-Dichloropropane	U	1.17	ug/kg	0.350	1.17
75-27-4	Bromodichloromethane	U	1.17	ug/kg	0.350	1.17
74-95-3	Dibromomethane	U	1.17	ug/kg	0.350	1.17
108-10-1	4-Methyl-2-pentanone	U	5.84	ug/kg	1.46	5.84
10061-01-5	cis-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17
108-88-3	Toluene	U	1.17	ug/kg	0.350	1.17
10061-02-6	trans-1,3-Dichloropropylene	U	1.17	ug/kg	0.350	1.17
79-00-5	1,1,2-Trichloroethane	U	1.17	ug/kg	0.350	1.17
591-78-6	2-Hexanone	U	5.84	ug/kg	1.75	5.84
142-28-9	1,3-Dichloropropane	U	1.17	ug/kg	0.350	1.17
127-18-4	Tetrachloroethylene	U	1.17	ug/kg	0.350	1.17
124-48-1	Dibromochloromethane	U	1.17	ug/kg	0.350	1.17
106-93-4	1,2-Dibromoethane	U	1.17	ug/kg	0.350	1.17
108-90-7	Chlorobenzene	U	1.17	ug/kg	0.350	1.17

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 248043017  
 Client ID: RE36-10-7470  
 Batch ID: 961082  
 Run Date: 03/05/2010 16:14  
 Prep Date: 03/05/2010 12:08  
 Data File: 030510V6\6A513.D

Date Collected: 02/20/2010 12:00  
 Date Received: 02/25/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 14.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.17	ug/kg	0.350	1.17
179601-23-1	m,p-Xylenes	U	2.34	ug/kg	0.350	2.34
95-47-6	o-Xylene	U	1.17	ug/kg	0.350	1.17
100-42-5	Styrene	U	1.17	ug/kg	0.350	1.17
75-25-2	Bromoform	U	1.17	ug/kg	0.350	1.17
79-34-5	1,1,2,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17
96-18-4	1,2,3-Trichloropropane	U	1.17	ug/kg	0.350	1.17
108-86-1	Bromobenzene	U	1.17	ug/kg	0.350	1.17
103-65-1	n-Propylbenzene	U	1.17	ug/kg	0.350	1.17
95-49-8	2-Chlorotoluene	U	1.17	ug/kg	0.350	1.17
98-82-8	Isopropylbenzene	U	1.17	ug/kg	0.350	1.17
108-67-8	1,3,5-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17
106-43-4	4-Chlorotoluene	U	1.17	ug/kg	0.350	1.17
98-06-6	tert-Butylbenzene	U	1.17	ug/kg	0.350	1.17
95-63-6	1,2,4-Trimethylbenzene	U	1.17	ug/kg	0.350	1.17
135-98-8	sec-Butylbenzene	U	1.17	ug/kg	0.350	1.17
99-87-6	4-Isopropyltoluene	U	1.17	ug/kg	0.350	1.17
541-73-1	1,3-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17
106-46-7	1,4-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17
104-51-8	n-Butylbenzene	U	1.17	ug/kg	0.350	1.17
96-12-8	1,2-Dibromo-3-chloropropane	U	1.17	ug/kg	0.350	1.17
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.84	ug/kg	1.87	5.84
630-20-6	1,1,1,2-Tetrachloroethane	U	1.17	ug/kg	0.350	1.17
95-50-1	1,2-Dichlorobenzene	U	1.17	ug/kg	0.350	1.17

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.17	7.61	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A513.D  
Acq On : 5 Mar 2010 4:14 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043017|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 08 08:39:04 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1204675	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	799366	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	319982	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1204418	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	799366	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	319982	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	457394	50.39	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	100.78%			
43) Toluene-d8	11.620	11.620	0.883	98	1132844	52.03	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	104.06%			
61) Bromofluorobenzene	14.351	14.357	0.922	95	378999	63.46	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	126.92%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.652	4.672	0.466	50	157	N.D.		
4) Vinyl chloride	4.914	4.914	0.493	62	351	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.700	6.706	0.672	43	418	Below Cal	#	50
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.078	7.078	0.710	76	191	N.D.		
15) Methylene chloride	7.279	7.285	0.730	84	11318	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A513.D  
Acq On : 5 Mar 2010 4:14 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043017|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 08 08:39:04 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.699	11.699	0.889	91	212	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	0.000	13.248	0.000		0	N.D.	
55) m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.583	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.150	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.454	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	0.000	18.283	0.000		0	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A513.D  
Acq On : 5 Mar 2010 4:14 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043017|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 08 08:39:04 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111) Benzyl chloride	0.000	15.717	0.000		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	0.000	16.113	0.000		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

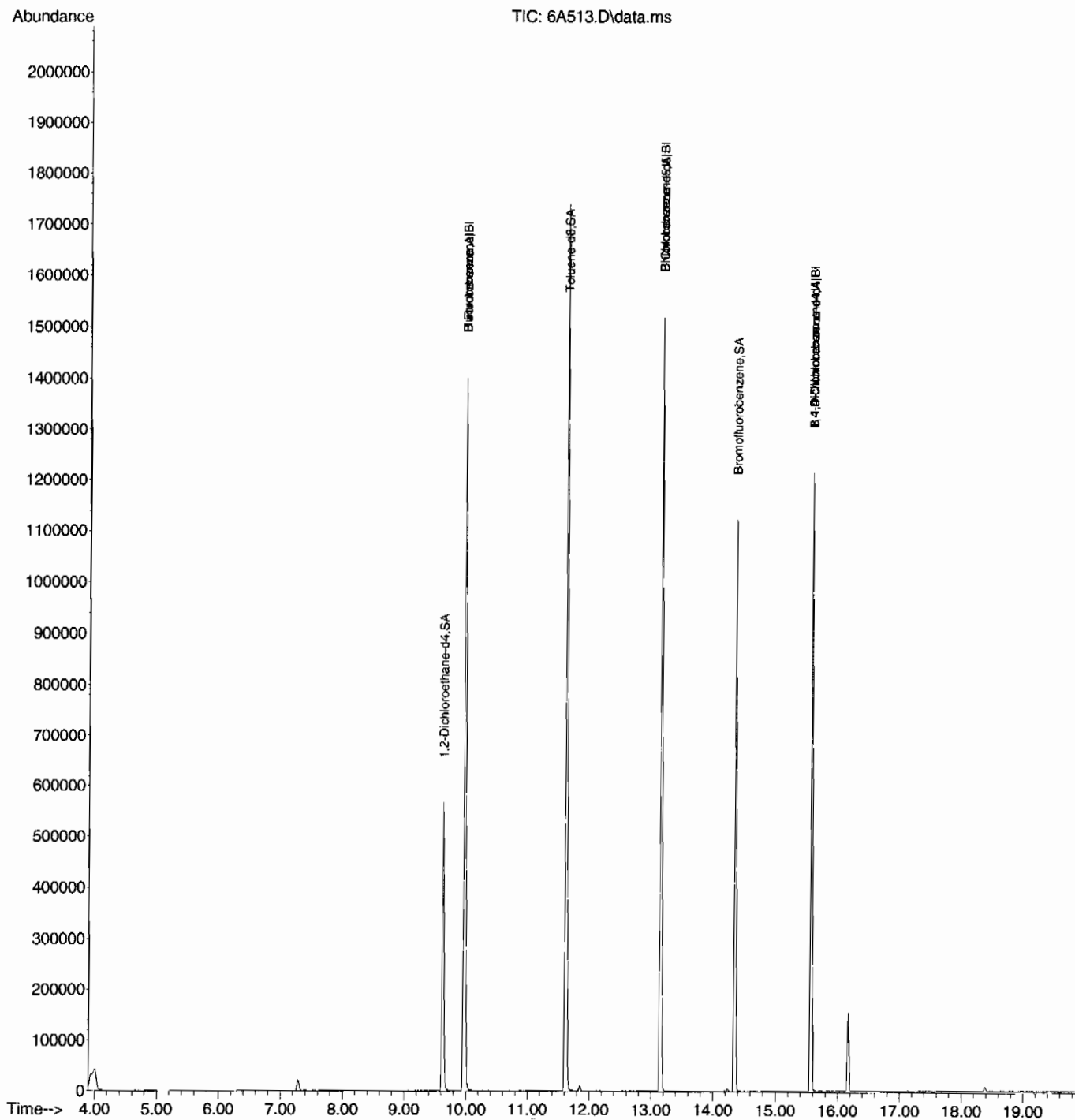


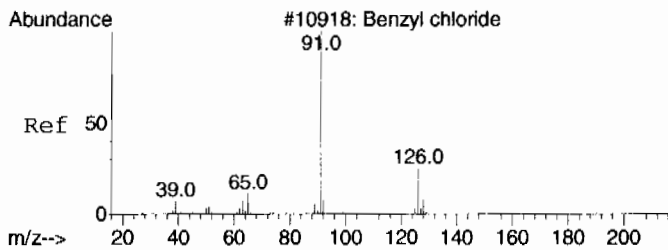
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A513.D  
Acq On : 5 Mar 2010 4:14 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |248043017|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 08 08:39:04 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

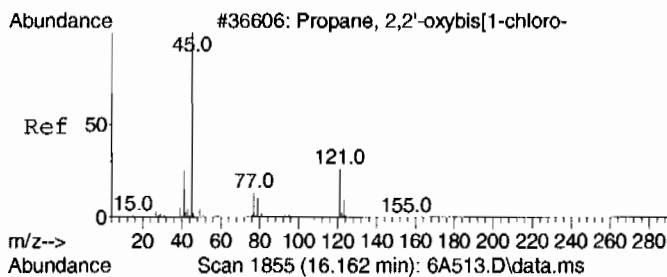
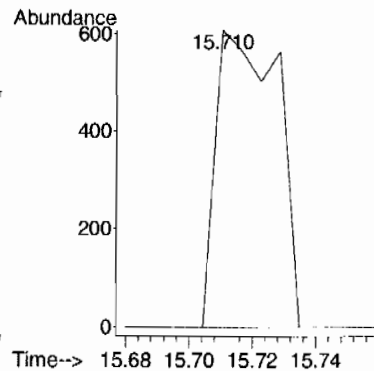
SubList :





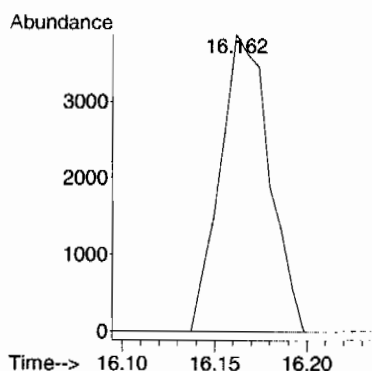
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Benzyl chloride  
Concen: 0.10 ug/L  
RT: 15.710 min Scan# 1781  
Delta R.T. -0.007 min  
Lab File: 6A513.D  
Acq: 5 Mar 2010 4:14 pm

Tgt Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.0
65	0.0	0.0	43.8



#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl)ether  
Concen: 2.91 ug/L  
RT: 16.162 min Scan# 1855  
Delta R.T. 0.049 min  
Lab File: 6A513.D  
Acq: 5 Mar 2010 4:14 pm

Tgt Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	51.3



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A513.D  
Acq On : 5 Mar 2010 4:14 pm  
Operator : RXD1  
Sample : |248043017|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B

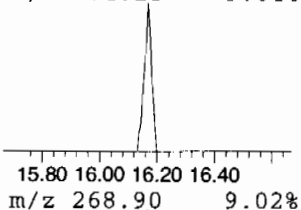
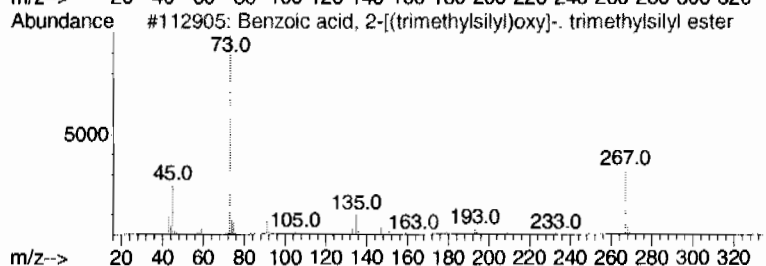
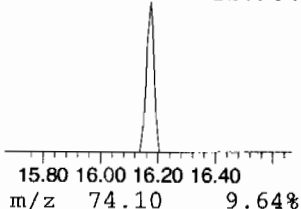
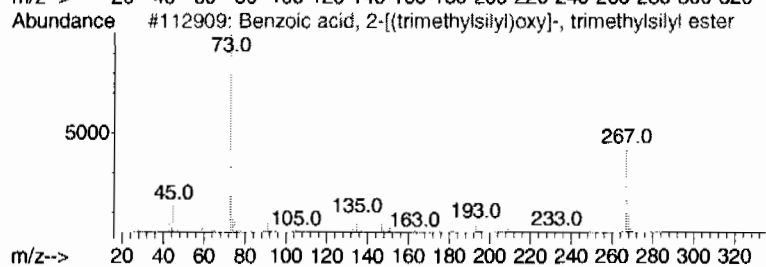
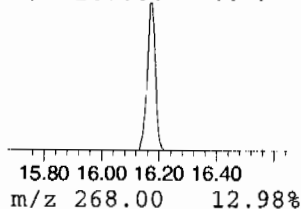
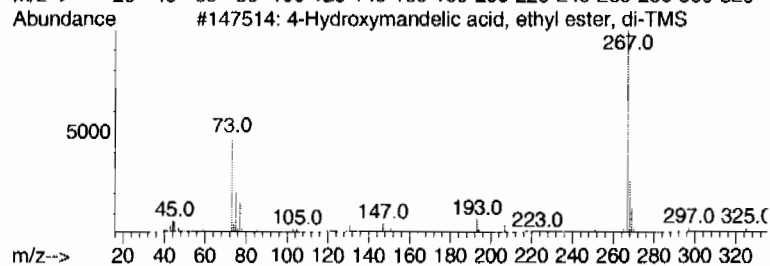
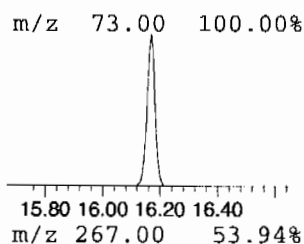
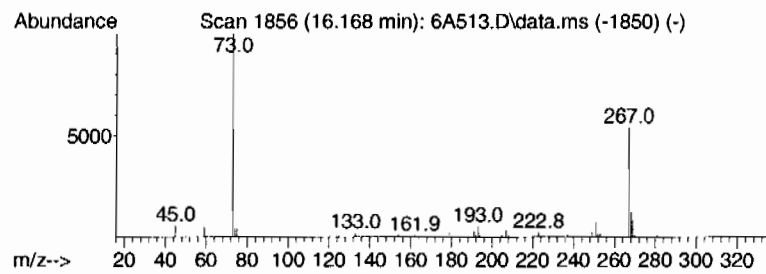
SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.168	6.52 ug/L	262430	B 1,4-Dichlorobenzene-d4	15.570

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-53-3	56
2	Benzoic acid, 2-[(trimethylsilyl)...	282	C13H22O3Si2	003789-85-3	50
3	Benzoic acid, 2-[(trimethylsilyl)...	282	C13H22O3Si2	003789-85-3	50
4	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	45
5	Benzonitrile, 2-(2-hydroxy-5-nit...	267	C14H9N3O3	303768-30-1	43



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A513.D  
Acq On : 5 Mar 2010 4:14 pm  
Operator : RXD1  
Sample : |248043017|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
unknown siloxane	16.168	6.5	ug/L	262430	6	15.570	2011710	50.0

# Standards

## EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624

## Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

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Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis



# Calibration History Report VOA6

GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Last Update : Thu Feb 11 09:38:02 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\021010V6\6X311.D

Injection Date	Mix	Calibration File
10 Feb 2010 4:33 pm	A	C:\msdchem\1\DATA\021010V6\6X311.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\021010V6\6X314.D

Injection Date	Mix	Calibration File
10 Feb 2010 12:51 pm	A	C:\msdchem\1\DATA\021010V6\6X303.D
10 Feb 2010 5:57 pm	B	C:\msdchem\1\DATA\021010V6\6X314.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\021010V6\6X315.D

Injection Date	Mix	Calibration File
10 Feb 2010 1:19 pm	A	C:\msdchem\1\DATA\021010V6\6X304.D
10 Feb 2010 6:24 pm	B	C:\msdchem\1\DATA\021010V6\6X315.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\021010V6\6X316.D

Injection Date	Mix	Calibration File
10 Feb 2010 1:47 pm	A	C:\msdchem\1\DATA\021010V6\6X305.D
10 Feb 2010 6:52 pm	B	C:\msdchem\1\DATA\021010V6\6X316.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\021010V6\6X317.D

Injection Date	Mix	Calibration File
10 Feb 2010 2:14 pm	A	C:\msdchem\1\DATA\021010V6\6X306.D
10 Feb 2010 7:20 pm	B	C:\msdchem\1\DATA\021010V6\6X317.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\021010V6\6X318.D

Injection Date	Mix	Calibration File
10 Feb 2010 2:42 pm	A	C:\msdchem\1\DATA\021010V6\6X307.D
10 Feb 2010 7:48 pm	B	C:\msdchem\1\DATA\021010V6\6X318.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\021010V6\6X319.D

Injection Date	Mix	Calibration File
10 Feb 2010 3:10 pm	A	C:\msdchem\1\DATA\021010V6\6X308.D
10 Feb 2010 8:15 pm	B	C:\msdchem\1\DATA\021010V6\6X319.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\021010V6\6X320.D

Injection Date	Mix	Calibration File
10 Feb 2010 3:38 pm	A	C:\msdchem\1\DATA\021010V6\6X309.D
10 Feb 2010 8:43 pm	B	C:\msdchem\1\DATA\021010V6\6X320.D

VOA6-8260-021010.M Wed Mar 10 09:00:00 2010

VOA6-8260-021010.M Wed Mar 10 08:58:59 2010

Page: 1

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ .  $y = b + m1(x) + m2(xE2)$

b		Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
		m1   m2										
2)MA	Dichlorodifluoromethane		0.2179610	0.2237420 0.2260326	0.2559162	0.2814446	0.2289998	0.2302619	0.2378	AVRG		9.5553
3)MPA	Chloromethane		0.3676927	0.4117955 0.3744244	0.4184848	0.4053040	0.3672500	0.3722326	0.3882	AVRG		5.8280
4)MCA	Vinyl chloride		0.3223203	0.3728066 0.3214796	0.3628792	0.3591428	0.3334717	0.3343333	0.3438	AVRG		6.0514
5)MA	Bromomethane		0.2090649	0.1974108 0.2057782	0.2037236	0.2089845	0.2117853	0.2138069	0.2072	AVRG		2.6525
6)MA	Chloroethane		0.2116347	0.2135142 0.2127040	0.2181923	0.2264573	0.2163993	0.2194970	0.2169	AVRG		2.3567
7)MA	Trichlorofluoromethane		0.4724165	0.4860013 0.4666453	0.4991791	0.5099254	0.4795290	0.4906985	0.4863	AVRG		3.1051
8)MA	Ethyl ether		0.2705201	0.2657049 0.2487887	0.2750323	0.2752591	0.2672479	0.2754098	0.2683	AVRG		3.5288
9)MA	Acetone	0.0073   0.1022   0.00	808675	21019 1638034	35690	79215	158736	305817		LINR		0.9999
10)MCA	1,1-Dichloroethylene		0.4567766	0.4532144 0.4603065	0.4324089	0.4431557	0.4470308	0.4468719	0.4485	AVRG		2.0803
11)MA	Iodomethane		0.4256667	0.4320842 0.4178366	0.4137067	0.4239894	0.4358722	0.4266971	0.4251	AVRG		1.8004
12)MA	Acetonitrile		0.0401942	0.0416699 0.0398811	0.0405632	0.0400535	0.0405661	0.0401081	0.0404	AVRG		1.4893
13)MA	Methyl acetate		0.2431766	0.2490938 0.2305202	0.2250000	0.2316611	0.2352786	0.2197728	0.2335	AVRG		4.3285
14)MA	Carbon disulfide		0.7789707	0.7923998 0.7576769	0.7739972	0.7886159	0.7998178	0.7811941	0.7818	AVRG		1.7589
15)MA	Methylene chloride		0.2669665	0.2622391	0.3343049	0.2807772	0.2818881	0.2666515	0.2821	AVRG		9.4964
16)MA	tert-Butyl methyl ether		0.7776969	0.7379241 0.7697732	0.7458004	0.7029943	0.7516617	0.7551586	0.7487	AVRG		3.2483

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ ,  $y = b + m_1(x) + m_2(xE2)$

Page 287 of 221	b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/ $r^2$
	17)MA	trans-1,2-Dichloroethylene	0.4196235	0.4242357 0.4260549	0.4017105	0.4100256	0.4299008	0.4237436	0.4193	AVRG		2.3800
	18)MA	Vinyl acetate	0.6117120	0.5099968 0.5786140	0.5441609	0.5977801	0.5938689	0.6571932	0.5848	AVRG		8.1120
	19)MPA	1,1-Dichloroethane	0.5054201	0.4991306 0.5110482	0.5216537	0.5073924	0.5211708	0.5163005	0.5117	AVRG		1.6472
	20)MA	2-Butanone	0.1085529	0.1046571 0.1021868	0.1078562	0.1095640	0.1082897	0.1084021	0.1071	AVRG		2.4700
	21)MA	cis-1,2-Dichloroethylene	0.4698247	0.4692452 0.4717481	0.4360397	0.4552682	0.4694360	0.4801393	0.4645	AVRG		3.1289
	22)MA	2,2-Dichloropropane	0.4465032	0.4440021 0.4581629	0.4107149	0.4298089	0.4424626	0.4538992	0.4408	AVRG		3.6399
	23)MA	Bromochloromethane	0.1317197	0.1323447 0.1326731	0.1247539	0.1263566	0.1327922	0.1322187	0.1304	AVRG		2.5805
	24)MCA	Chloroform	0.4912422	0.5390263 0.4899114	0.5076025	0.4898048	0.4958256	0.5051574	0.5027	AVRG		3.5009
	25)MA	1,1,1-Trichloroethane	0.4778231	0.4676131 0.4800535	0.4376190	0.4615326	0.4680187	0.4738024	0.4666	AVRG		3.0651
	26)MA	Cyclohexane	0.5254499	0.4655095 0.5346546	0.4666291	0.4796369	0.5000668	0.5142121	0.4980	AVRG		5.6444
	27)MA	1,1-Dichloropropene	0.3680153	0.3370456 0.3746078	0.3355394	0.3522757	0.3591087	0.3630960	0.3557	AVRG		4.2043
	28)MA	Carbon tetrachloride	0.4410733	0.4219507 0.4496629	0.4104970	0.4149050	0.4279630	0.4357636	0.4288	AVRG		3.3116
	29)SA	1,2-Dichloroethane-d4	0.3749375	0.3844539 0.3595192	0.3848644	0.3793007	0.3819781	0.3721629	0.3767	AVRG		2.3747
	30)MA	1,2-Dichloroethane	0.4512634	0.4621728 0.4417139	0.4611103	0.4529577	0.4540432	0.4572777	0.4544	AVRG		1.5214
	31)MA	Benzene	1.0450600 0.9806889	1.0763842 0.9774817	0.9701106	0.9517895	1.0045542	0.9785327	0.9981	AVRG		4.2194

Method File : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Last Update : Thu Feb 11 09:38:02 2010  
Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ .  $y = b + m_1(x) + m_2(xE2)$

b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
32)MA	Cyclohexene	0.5328123	0.4677219 0.5394205	0.4549561	0.4735949	0.4990188	0.5196860	0.4982	AVRG		6.7397
33)MA	n-Butyl alcohol	0.0065375 0.0087009	0.0061338 0.0085995	0.0066777	0.0072529	0.0074903	0.0081689	0.0074	AVRG	#	13.0468
34)MA	Trichloroethylene	0.2648621	0.2443789 0.2690487	0.2685332	0.2554471	0.2686968	0.2666480	0.2625	AVRG		3.5414
35)MA	1,2-Dichloropropane	0.2738125	0.2871398 0.2746695	0.2562974	0.2516583	0.2684049	0.2753366	0.2696	AVRG		4.5027
36)MA	Methylcyclohexane	0.4603450	0.3939150 0.4651263	0.3823947	0.4247501	0.4346695	0.4547150	0.4308	AVRG		7.5675
37)MA	Dibromomethane	0.1552585	0.1497174 0.1547855	0.1428897	0.1447909	0.1537168	0.1541250	0.1508	AVRG		3.3733
38)MA	Bromodichloromethane	0.3695012	0.3493044 0.3754041	0.3353034	0.3360874	0.3554372	0.3679267	0.3556	AVRG		4.5490
39)MA	2-Chloroethylvinyl ether	0.1722275	0.1310608 0.1645804	0.1363289	0.1922401	0.1576908	0.1662294	0.1601	AVRG		13.1353
40)MA	cis-1,3-Dichloropropylene	0.4279547	0.3844126 0.4333932	0.3638596	0.3612955	0.3970755	0.4232154	0.3987	AVRG		7.5793
42)MA	4-Methyl-2-pentanone	0.1282017	0.1051043 0.1207667	0.1092914	0.1155644	0.1221612	0.1298264	0.1187	AVRG		7.7937
43)SA	Toluene-d8	1.3411550	1.3592084 1.3577252	1.3501021	1.3833571	1.3700860	1.3721548	1.3620	AVRG		1.0499
44)MA	Toluene	1.3908592	1.4929714 1.3933189	1.4334030	1.3962960	1.4419124	1.4432364	1.4274	AVRG		2.5995
45)MA	trans-1,3-Dichloropropyl	0.5531108	0.4523273 0.5619803	0.4641342	0.5083898	0.5284531	0.5572582	0.5180	AVRG		8.6789
46)MA	1,1,2-Trichloroethane	0.2296088	0.2266660 0.2327735	0.2435745	0.2228422	0.2317354	0.2339939	0.2316	AVRG		2.8177
47)MA	2-Hexanone	0.2497838	0.2107210 0.2307666	0.2054181	0.2198855	0.2345448	0.2508317	0.2289	AVRG		7.8077

# Response Factor Report VOA6

GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Last Update : Thu Feb 11 09:38:02 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ .  $y = b + m1(x) + m2(xE2)$

b	Compound m1   m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA	1,3-Dichloropropane	0.4960480	0.5324541 0.4950191	0.4882637	0.5067726	0.5095807	0.5238058	0.5074	AVRG		3.1679
49)MA	Tetrachloroethylene	0.3004105	0.3150818 0.3034351	0.3182174	0.3130804	0.3090618	0.3193593	0.3112	AVRG		2.3306
50)MA	Dibromochloromethane	0.3788319	0.3396976 0.3904085	0.3154180	0.3323683	0.3430572	0.3743309	0.3534	AVRG		7.8630
51)MA	1,2-Dibromoethane	0.2977367	0.2872509 0.3031873	0.2792981	0.2699109	0.2870328	0.3024351	0.2896	AVRG		4.2799
52)MPA	Chlorobenzene	0.9283349	0.9987973 0.9417033	0.9487562	0.9469505	0.9702871	0.9872412	0.9603	AVRG		2.6843
53)MA	1,1,1,2-Tetrachloroethane	0.3753032	0.3397981 0.3800641	0.3495313	0.3607841	0.3697972	0.3871770	0.3661	AVRG		4.6415
54)MCA	Ethylbenzene	1.6642385	1.6169545 1.6892670	1.5528615	1.6078671	1.6872593	1.7341888	1.6504	AVRG		3.7124
55)MA	m,p-Xylenes	0.6442133	0.5902258 0.6517501	0.6174954	0.6471007	0.6491011	0.6897401	0.6414	AVRG		4.8199
56)MA	o-Xylene	0.6319967	0.5496852 0.6344721	0.5742035	0.6123597	0.6375749	0.6574898	0.6140	AVRG		6.2775
57)MA	Styrene	1.0368670	0.8316613 1.0500282	0.8063078	0.9017073	1.0033354	1.0578543	0.9554	AVRG		11.2089
59)MPA	Bromoforn	0.4268682	0.3264814 0.4477410	0.3518241	0.3527517	0.3788682	0.4019395	0.3838	AVRG		11.4414
60)MA	Isopropylbenzene	3.0431055	2.7310757 3.0962235	2.6781947	2.8221673	2.9957693	3.1463292	2.9304	AVRG		6.3254
61)SA	Bromofluorobenzene	0.9237938	0.9323470 0.9298796	0.9330661	0.9343819	0.9503856	0.9291362	0.9333	AVRG		0.8895
62)MPA	1,1,2,2-Tetrachloroethane	0.6269284	0.5953433 0.6285248	0.6365084	0.5959543	0.6145417	0.6383735	0.6195	AVRG		2.9063
63)MA	1,2,3-Trichloropropane	0.1968257	0.1767574 0.1953330	0.2012894	0.1931103	0.1925997	0.1965828	0.1932	AVRG		4.0384

Response Factor Report VOA6  
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Last Update : Thu Feb 11 09:38:02 2010  
Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ .  $y = b + m_1(x) + m_2(xE2)$

b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
64)MA	Bromobenzene	0.7338928	0.7336300 0.7338327	0.7322246	0.7277760	0.7336810	0.7705535	0.7379	AVRG		1.9712
65)MA	n-Propylbenzene	3.4912355	3.4590737 3.5172675	3.3210583	3.3418875	3.5178074	3.6478199	3.4709	AVRG		3.2276
66)MA	1,3,5-Trimethylbenzene	2.6365879	2.2323425 2.6696061	2.3479868	2.5651833	2.6741377	2.8066862	2.5618	AVRG		7.8730
67)MA	2-Chlorotoluene	0.7276412	0.7021776 0.7147264	0.6598971	0.6979535	0.7321147	0.7683377	0.7147	AVRG		4.7064
68)MA	4-Chlorotoluene	2.1622937	2.0504729 2.1998271	2.0787363	2.1481471	2.1813486	2.2586605	2.1542	AVRG		3.2981
69)MA	tert-Butylbenzene	0.5574441	0.5437024 0.5687178	0.4936691	0.4998785	0.5490943	0.5814281	0.5420	AVRG		6.1518
70)MA	1,2,4-Trimethylbenzene	2.7187224	2.3997421 2.7591278	2.4656649	2.6079312	2.7348203	2.8352561	2.6459	AVRG		6.1021
71)MA	sec-Butylbenzene	3.4893559	3.1131837 3.5015356	3.1086150	3.2980439	3.4676357	3.6640796	3.3775	AVRG		6.2414
72)MA	4-Isopropyltoluene	2.8960557	2.3865720 2.9202274	2.5139986	2.7158710	2.8544542	3.0102079	2.7568	AVRG		8.3451
73)MA	1,3-Dichlorobenzene	1.4189281	1.5675959 1.4437178	1.4624173	1.4848610	1.4918543	1.5142991	1.4834	AVRG		3.2898
74)MA	1,4-Dichlorobenzene	1.4392831	1.6239156 1.4610345	1.5588253	1.4936777	1.4903539	1.5304738	1.5139	AVRG		4.1533
75)MA	n-Butylbenzene	2.7538422	2.4372598 2.7819035	2.4450432	2.5645670	2.7219023	2.8713645	2.6537	AVRG		6.4691
76)MA	1,2-Dichlorobenzene	1.3625524	1.4033154 1.3708430	1.3906950	1.3752093	1.4211061	1.4371689	1.3944	AVRG		1.9799
77)MA	1,2-Dibromo-3-chloroprop	0.1326598	0.0887253	0.1065243	0.1050979	0.1183067	0.1249332	0.1127	AVRG		14.0297
78)MA	1,2,4-Trichlorobenzene	1.0055726	0.9775379 1.0108804	0.9367564	0.9467714	0.9980594	1.0327219	0.9869	AVRG		3.5489

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ .  $y = b + m_1(x) + m_2(xE2)$

Page	b	Compound ml   m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
291	79)MA	Hexachlorobutadiene	0.7059606	0.7326769 0.7055863	0.7361155	0.6956081	0.6838473	0.7412261	0.7144	AVRG		3.1093
221	80)MA	Naphthalene	1.9872750	1.5825856 2.0268756	1.6366001	1.6912734	1.8424793	1.9524159	1.8171	AVRG		9.9297
	81)MA	1,2,3-Trichlorobenzene	0.8514086	0.8026001 0.8570272	0.7852706	0.8054139	0.8277427	0.8704773	0.8286	AVRG		3.8715
	83)B	Chlorotrifluoroethylene	0.1889030	0.1717194 0.1592864	0.1859755	0.1768208	0.1715099	0.1778414	0.1760	AVRG		5.6239
	84)B	2-Chloro-1,1,1-trifluoro	0.4017097	0.3696385 0.3861295	0.3705788	0.3778253	0.3817293	0.3829994	0.3815	AVRG		2.8425
	85)B	Acrolein	0.0282429	0.0265284 0.0183435	0.0258988	0.0266153	0.0281745	0.0271272	0.0258	AVRG		13.2295
	86)B	Trichlorotrifluoroethane	0.1033898	0.1405718 0.1045531	0.1108847	0.1119796	0.1141775	0.1114104	0.1139	AVRG		10.9248
	87)B	Isopropyl Alcohol	0.0239176	0.0215349 0.0265370	0.0218966	0.0216411	0.0248574	0.0244381	0.0235	AVRG		8.1312
	88)B	Allyl chloride	0.4884987	0.5265692 0.4738964	0.4840999	0.5154334	0.5206778	0.5131536	0.5032	AVRG		4.0889
	89)B	tert-Butyl Alcohol	0.0360065	0.0324846 0.0398015	0.0328504	0.0321783	0.0381322	0.0370843	0.0355	AVRG		8.5540
	90)B	Acrylonitrile	0.1003027	0.1026324 0.1037758	0.0937247	0.0971370	0.1053876	0.1013560	0.1006	AVRG		3.9973
	91)B	Isopropyl ether	1.1307623	0.9804059 1.1676887	1.0114375	1.0405820	1.0951882	1.1200311	1.0780	AVRG		6.3646
	92)B	2-Chloro-1,3-butadiene	0.4320064	0.4153618 0.4498223	0.3748526	0.4045222	0.4216678	0.4319657	0.4186	AVRG		5.7410
	93)B	Ethyl tert-butyl ether	0.9644457	0.8080536 1.0064621	0.8475619	0.8504024	0.9215790	0.9507612	0.9070	AVRG		8.0322
	94)B	Ethyl acetate	0.2896072	0.3220651 0.3002178	0.2827252	0.2786296	0.3103078	0.2927766	0.2966	AVRG		5.2018

Response Factor Report VOA6  
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Last Update : Thu Feb 11 09:38:02 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ ,  $y = b + m_1(x) + m_2(xE2)$

b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
95)B	Propionitrile	0.0389648	0.0378177 0.0412614	0.0360375	0.0360442	0.0400125	0.0393875	0.0385	AVRG		5.1374
96)B	Methacrylonitrile	0.1812696	0.1666316 0.1860826	0.1701044	0.1718846	0.1900179	0.1842277	0.1786	AVRG		5.0374
97)B	Tetrahydrofuran	0.0873828	0.0908501 0.0927119	0.0860312	0.0860915	0.0942770	0.0888769	0.0895	AVRG		3.6356
98)B	Isobutyl alcohol	0.0120606	0.0104756 0.0125479	0.0108076	0.0107408	0.0125820	0.0119292	0.0116	AVRG		7.7267
99)B	Methyl tert-amyl ether	0.7825306	0.6640006 0.8010907	0.6950337	0.7185198	0.7730566	0.7848593	0.7456	AVRG		7.0732
100)B	Methyl methacrylate	0.1552899	0.1327940 0.1583911	0.1287508	0.1394817	0.1600007	0.1546266	0.1470	AVRG		8.8538
101)B	1,4-Dioxane	0.0023956	0.0021355 0.0025446	0.0022732	0.0022326	0.0025653	0.0024235	0.0024	AVRG	#	6.7958
102)B	2-Nitropropane	0.1046554	0.0860970 0.1105739	0.0746622	0.0835138	0.0958489	0.0980353	0.0933	AVRG		13.4897
104)B	Ethyl methacrylate	0.3892142	0.3281959 0.3846397	0.3314592	0.3658252	0.4089067	0.4020548	0.3729	AVRG		8.7009
106)B	1-Chlorohexane	0.7710917	0.7446314 0.7789732	0.6932078	0.7603516	0.7520400	0.7865583	0.7553	AVRG		4.1139
107)B	cis-1,4-Dichloro-2-buten	0.2810185	0.2487749 0.2832635	0.2474531	0.2566035	0.2790792	0.2788720	0.2679	AVRG		6.0291
108)B	Cyclohexanone	0.0340879	0.0257420	0.0252405	0.0268718	0.0320032	0.0336280	0.0296	AVRG		13.8059
109)B	trans-1,4-Dichloro-2-but	0.2641591	0.2258403 0.2679798	0.2400259	0.2568345	0.2763855	0.2673888	0.2569	AVRG		6.9522
110)B	Pentachloroethane	0.3249720	0.3333091 0.3361209	0.3405849	0.3561341	0.3710328	0.2789964	0.3345	AVRG		8.6444
111)B	Benzyl chloride	1.2730388	1.1881275 1.2094626	1.1801871	1.2639707	1.3488182	1.3101067	1.2534	AVRG		5.0846



Response Factor Report VOA6  
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Last Update : Thu Feb 11 09:38:02 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ .  $y = b + m1(x) + m2(xE2)$

b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
0.12)B	bis(2-Chloroisopropyl)et	0.3967158	0.3567635	0.3474746	0.3638014	0.4250964	0.3986649	0.3850	AVRG		7.5364

Page 93 of 211  
N#) = Out of Range

## Continuing Calibration Summary

Client SDG: 10-2074

Instrument ID: VOA6.I

Injection Date 10-FEB-10 17:01

Data File: 021010V6\6X312.D

Init. Cal. Date(s) 10-FEB-10 12:51 - 10-FEB-10 20:43

Lab Sample ID W6VM100210-09

Quant Type ISTD

Method:VOA6-8260-021010.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S 1,2-Dichloroethane-d4	0.3767	0.35357		.01		-6.14016	30		Averaged	
S Toluene-d8	1.362	1.36035		.01		-0.12115	30		Averaged	
S Bromofluorobenzene	0.9333	0.93291		.01		-0.04179	30		Averaged	
Dichlorodifluoromethane	0.2378	0.21772		.01		-8.44407	30		Averaged	
Chloromethane	0.3882	0.33875		.1		-12.73828	30		Averaged	spcc
Vinyl chloride	0.3438	0.32618		.01		-5.12507	20		Averaged	ccc
Bromomethane	0.2072	0.19918		.01		-3.87066	30		Averaged	
Chloroethane	0.2169	0.20884		.01		-3.716	30		Averaged	
Trichlorofluoromethane	0.4863	0.46834		.01		-3.69319	30		Averaged	
Ethyl ether	0.2683	0.25491		.01		-4.99068	30		Averaged	
1,1-Dichloroethylene	0.4485	0.42059		.01		-6.22297	20		Averaged	ccc
Acetone	250	240.23	250			-3.908	40		Linear	
Iodomethane	0.4251	0.39474		.01		-7.14185	30		Averaged	
Acetonitrile	0.0404	0.04033		.01		-0.17327	30		Averaged	
Carbon disulfide	0.7818	0.76602		.01		-2.01842	30		Averaged	
Methyl acetate	0.2335	0.22426		.01		-3.95717	40		Averaged	
Methylene chloride	0.2821	0.25685		.01		-8.95073	30		Averaged	
tert-Butyl methyl ether	0.7487	0.72672		.01		-2.93576	30		Averaged	
trans-1,2-Dichloroethylene	0.4193	0.40737		.01		-2.84522	30		Averaged	
Vinyl acetate	0.5848	0.63796		.01		9.09029	40		Averaged	
1,1-Dichloroethane	0.5117	0.49238		.1		-3.77565	30		Averaged	spcc
2-Butanone	0.1071	0.12437		.01		16.12512	40		Averaged	
cis-1,2-Dichloroethylene	0.4645	0.45641		.01		-1.74166	30		Averaged	
2,2-Dichloropropane	0.4408	0.4413		.01		0.11343	30		Averaged	
Bromochloromethane	0.1304	0.12597		.01		-3.39724	30		Averaged	
Chloroform	0.5027	0.47056		.01		-6.39348	20		Averaged	ccc
1,1,1-Trichloroethane	0.4666	0.45559		.01		-2.35962	30		Averaged	
Cyclohexane	0.498	0.53091		.01		6.60843	30		Averaged	
1,1-Dichloropropene	0.3557	0.36859		.01		3.62384	30		Averaged	
Carbon tetrachloride	0.4288	0.42019		.01		-2.00793	30		Averaged	
1,2-Dichloroethane	0.4544	0.41856		.01		-7.88732	30		Averaged	
Benzene	0.9981	0.95035		.01		-4.78409	30		Averaged	
Cyclohexene	0.4982	0.50919		.01		2.20594	30		Averaged	
n-Butyl alcohol	0.0074	0.00854		.01		15.40541	40		Averaged	
Trichloroethylene	0.2625	0.2577		.01		-1.82857	30		Averaged	
Methylcyclohexane	0.4308	0.46396		.01		7.69731	30		Averaged	
1,2-Dichloropropane	0.2696	0.26447		.01		-1.90282	20		Averaged	ccc

## Continuing Calibration Summary

Instrument ID: VOA6.I

Injection Date 10-FEB-10 17:01

Data File: 021010V6\6X312.D

Init. Cal. Date(s) 10-FEB-10 12:51

10-FEB-10 20:43

Lab Sample ID W6VM100210-09

Quant Type ISTD

Method:VOA6-8260-021010.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Dibromomethane	0.1508	0.14539		.01		-3.58753	30		Averaged
Bromodichloromethane	0.3556	0.35129		.01		-1.21204	30		Averaged
2-Chloroethylvinyl ether	0.1601	0.15761		.01		-1.55528	30		Averaged
cis-1,3-Dichloropropylene	0.3987	0.40693		.01		2.06421	30		Averaged
4-Methyl-2-pentanone	0.1187	0.13521		.01		13.90901	40		Averaged
Toluene	1.4274	1.40288		.01		-1.71781	20		Averaged ccc
trans-1,3-Dichloropropylene	0.518	0.54425		.01		5.06757	30		Averaged
1,1,2-Trichloroethane	0.2316	0.22594		.01		-2.44387	30		Averaged
2-Hexanone	0.2289	0.26717		.01		16.71909	40		Averaged
1,3-Dichloropropane	0.5074	0.49311		.01		-2.81632	30		Averaged
Tetrachloroethylene	0.3112	0.30557		.01		-1.80913	30		Averaged
Dibromochloromethane	0.3534	0.36123		.01		2.21562	30		Averaged
1,2-Dibromoethane	0.2896	0.28822		.01		-0.47652	30		Averaged
Chlorobenzene	0.9603	0.93212		.3		-2.9345	30		Averaged spcc
1,1,1,2-Tetrachloroethane	0.3661	0.36567		.01		-0.11745	30		Averaged
Ethylbenzene	1.6504	1.66413		.01		0.83192	20		Averaged ccc
m,p-Xylenes	0.6414	0.64647		.01		0.79046	30		Averaged
o-Xylene	0.614	0.6311		.01		2.78502	30		Averaged
Styrene	0.9554	1.0243		.01		7.21164	30		Averaged
Bromoform	0.3838	0.40994		.1		6.81084	30		Averaged spcc
Isopropylbenzene	2.9304	3.07318		.01		4.87237	30		Averaged
1,1,2,2-Tetrachloroethane	0.6195	0.62157		.3		0.33414	30		Averaged spcc
1,2,3-Trichloropropane	0.1932	0.19341		.01		0.1087	30		Averaged
Bromobenzene	0.7379	0.73907		.01		0.15856	30		Averaged
n-Propylbenzene	3.4709	3.53943		.01		1.97442	30		Averaged
2-Chlorotoluene	0.7147	0.73038		.01		2.19393	30		Averaged
1,3,5-Trimethylbenzene	2.5618	2.65178		.01		3.51237	30		Averaged
4-Chlorotoluene	2.1542	2.19877		.01		2.06898	30		Averaged
tert-Butylbenzene	0.542	0.57422		.01		5.94465	30		Averaged
1,2,4-Trimethylbenzene	2.6459	2.72594		.01		3.02506	30		Averaged
sec-Butylbenzene	3.3775	3.54129		.01		4.84944	30		Averaged
4-Isopropyltoluene	2.7568	2.94387		.01		6.78577	30		Averaged
1,3-Dichlorobenzene	1.4834	1.43877		.01		-3.00863	30		Averaged
1,4-Dichlorobenzene	1.5139	1.45913		.01		-3.61781	30		Averaged
n-Butylbenzene	2.6537	2.83362		.01		6.77997	30		Averaged
1,2-Dichlorobenzene	1.3944	1.38938		.01		-0.36001	30		Averaged
1,2-Dibromo-3-chloropropane	0.1127	0.13292		.01		17.94144	30		Averaged

## Continuing Calibration Summary

Instrument ID: VOA6.I

Injection Date 10-FEB-10 17:01

Data File: 021010V6\6X312.D

Init. Cal. Date(s) 10-FEB-10 12:51 10-FEB-10 20:43

Lab Sample ID W6VM100210-09 Quant Type ISTD

Method:VOA6-8260-021010.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9869	1.04276		.01		5.66015	30		Averaged
Hexachlorobutadiene	0.7144	0.73092		.01		2.31243	30		Averaged
Naphthalene	1.8171	1.97648		.01		8.77112	30		Averaged
1,2,3-Trichlorobenzene	0.8286	0.88738		.01		7.09389	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\  
Data File : 6X312.D  
Acq On : 10 Feb 2010 5:01 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100210-09|ICV|1|VOAF|1|VOA8260BS|  
Misc : ICV 5uL N/A MIX[A] 0126-01C+0210-01  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 11 09:39:41 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1591691	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1155507	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	660829	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1589507	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1155507	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	660829	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	562772	46.92	ug/L	0.00
43) Toluene-d8	11.620	11.620	0.883	98	1571892	49.94	ug/L	0.00
61) Bromofluorobenzene	14.357	14.357	0.922	95	616491	49.98	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	346540	45.78	ug/L	98
3) Chloromethane	4.672	4.672	0.468	50	539186	43.63	ug/L	99
4) Vinyl chloride	4.914	4.914	0.493	62	519180	47.44	ug/L	100
5) Bromomethane	5.468	5.468	0.548	94	317040	48.06	ug/L	100
6) Chloroethane	5.609	5.619	0.562	64	332403	48.14	ug/L	100
7) Trichlorofluoromethane	6.022	6.032	0.604	101	745457	48.15	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	405739	47.51	ug/L	100
9) Acetone	6.706	6.706	0.672	43	793168	240.23	ug/L	99
10) 1,1-Dichloroethylene	6.706	6.706	0.672	61	669443	46.88	ug/L	99
11) Iodomethane	6.950	6.956	0.697	142	3141527	232.13	ug/L	98
12) Acetonitrile	7.072	7.072	0.709	41	1604787	1246.77	ug/L	99
13) Methyl acetate	7.096	7.096	0.711	43	1784745	240.10	ug/L	100
14) Carbon disulfide	7.078	7.078	0.710	76	6096369	244.95	ug/L	100
15) Methylene chloride	7.285	7.285	0.730	84	408822	45.52	ug/L	99
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	1156713	48.53	ug/L	99
17) trans-1,2-Dichloroethy...	7.620	7.615	0.764	61	648408	48.57	ug/L	99
18) Vinyl acetate	8.059	8.060	0.808	43	5077153	272.74	ug/L	95
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	783709	48.11	ug/L	100
20) 2-Butanone	8.687	8.694	0.871	43	989782	290.38	ug/L	100
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	726471	49.13	ug/L	99
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	702409	50.06	ug/L	99
23) Bromochloromethane	9.017	9.017	0.904	128	200502	48.30	ug/L	98
24) Chloroform	9.053	9.053	0.908	83	748993	46.81	ug/L	99
25) 1,1,1-Trichloroethane	9.321	9.322	0.935	97	725157	48.82	ug/L	100
26) Cyclohexane	9.413	9.413	0.944	56	845046	53.30	ug/L	99
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	586677	51.82	ug/L	97
28) Carbon tetrachloride	9.510	9.510	0.954	117	668811	48.99	ug/L	98
30) 1,2-Dichloroethane	9.705	9.706	0.973	62	666217	46.06	ug/L	100
31) Benzene	9.724	9.724	0.975	78	1512665	47.61	ug/L	100
32) Cyclohexene	9.827	9.828	0.985	67	810473	51.11	ug/L	100
33) n-Butyl alcohol	10.077	10.077	1.010	56	1359848	5737.54	ug/L	99
34) Trichloroethylene	10.364	10.364	1.039	95	410179	49.08	ug/L	98
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	420954	49.05	ug/L	99
36) Methylcyclohexane	10.602	10.602	1.063	83	738474	53.84	ug/L	99
37) Dibromomethane	10.748	10.748	1.078	93	231418	48.22	ug/L	99
38) Bromodichloromethane	10.864	10.864	1.089	83	559141	49.40	ug/L	100
39) 2-Chloroethylvinyl ether	11.089	11.089	1.112	63	1254306	246.18	ug/L	99
40) cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	647712	51.03	ug/L	98

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\  
Data File : 6X312.D  
Acq On : 10 Feb 2010 5:01 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100210-09|ICV|1|VOAF|1|VOA8260BS|  
Misc : ICV 5uL N/A MIX[A] 0126-01C+0210-01  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 11 09:39:41 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	11.406	11.406	0.867	58	781198	284.77	ug/L	98
44) Toluene	11.699	11.699	0.889	91	1621038	49.14	ug/L	100
45) trans-1,3-Dichloroprop...	11.857	11.858	0.901	75	628883	52.54	ug/L	99
46) 1,1,2-Trichloroethane	12.077	12.077	0.918	83	261072	48.78	ug/L	99
47) 2-Hexanone	12.260	12.260	0.932	43	1543566	291.86	ug/L	94
48) 1,3-Dichloropropane	12.272	12.272	0.933	76	569797	48.59	ug/L	97
49) Tetrachloroethylene	12.290	12.290	0.934	164	353089	49.09	ug/L	100
50) Dibromochloromethane	12.534	12.534	0.953	129	417400	51.10	ug/L	99
51) 1,2-Dibromoethane	12.705	12.705	0.966	107	333041	49.77	ug/L	100
52) Chlorobenzene	13.186	13.187	1.002	112	1077067	48.53	ug/L	99
53) 1,1,1,2-Tetrachloroethane	13.241	13.241	1.006	131	422540	49.95	ug/L	99
54) Ethylbenzene	13.254	13.248	1.007	91	1922912	50.42	ug/L	100
55) m,p-Xylenes	13.363	13.357	1.016	106	1493998	100.79	ug/L	98
56) o-Xylene	13.796	13.796	1.049	106	729235	51.39	ug/L	97
57) Styrene	13.796	13.802	1.049	104	1183589	53.61	ug/L	99
59) Bromoform	14.058	14.058	0.903	173	270903	53.41	ug/L	99
60) Isopropylbenzene	14.156	14.156	0.909	105	2030847	52.44	ug/L	100
62) 1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	410754	50.17	ug/L	99
63) 1,2,3-Trichloropropane	14.528	14.528	0.933	110	127809	50.05	ug/L	97
64) Bromobenzene	14.564	14.564	0.935	156	488400	50.08	ug/L	99
65) n-Propylbenzene	14.583	14.583	0.936	91	2338957	50.99	ug/L	100
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1752374	51.76	ug/L	100
67) 2-Chlorotoluene	14.729	14.735	0.946	126	482655	51.10	ug/L	98
68) 4-Chlorotoluene	14.832	14.833	0.952	91	1453013	51.03	ug/L	99
69) tert-Butylbenzene	15.107	15.107	0.970	134	379461	52.97	ug/L	# 89
70) 1,2,4-Trimethylbenzene	15.149	15.150	0.973	105	1801380	51.51	ug/L	100
71) sec-Butylbenzene	15.332	15.333	0.984	105	2340187	52.42	ug/L	99
72) 4-Isopropyltoluene	15.454	15.454	0.992	119	1945393	53.39	ug/L	100
73) 1,3-Dichlorobenzene	15.515	15.515	0.996	146	950779	48.50	ug/L	99
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	964235	48.19	ug/L	99
75) n-Butylbenzene	15.887	15.887	1.020	91	1872540	53.39	ug/L	100
76) 1,2-Dichlorobenzene	16.021	16.021	1.029	146	918142	49.82	ug/L	100
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	87837	58.97	ug/L	98 E
78) 1,2,4-Trichlorobenzene	17.911	17.911	1.150	180	689083	52.83	ug/L	100
79) Hexachlorobutadiene	18.076	18.076	1.160	225	483014	51.15	ug/L	99
80) Naphthalene	18.289	18.283	1.174	128	1306117	54.39	ug/L	100
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.195	180	586405	53.55	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85) Acrolein	6.468	6.535	0.649		0m	N.D.	d	
86) Trichlorotrifluoroethane	6.688	6.682	0.671		0m	N.D.	d	
87) Isopropyl Alcohol	6.700	6.785	0.672		0m	N.D.	d	
88) Allyl chloride	7.072	7.139	0.709		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90) Acrylonitrile	7.578	7.541	0.760		0m	N.D.	d	
91) Isopropyl ether	8.066	8.078	0.809		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.212	8.206	0.823		0m	N.D.	d	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94) Ethyl acetate	8.687	8.700	0.871		0m	N.D.	d	
95) Propionitrile	8.693	8.773	0.872		0m	N.D.	d	
96) Methacrylonitrile	8.968	8.950	0.899		0m	N.D.	d	
97) Tetrahydrofuran	9.047	9.059	0.907		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\  
Data File : 6X312.D  
Acq On : 10 Feb 2010 5:01 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100210-09|ICV|1|VOAF|1|VOA8260BS|  
Misc : ICV 5uL N/A MIX[A] 0126-01C+0210-01  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 11 09:39:41 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	9.413	9.388	0.944		0m	N.D.	d
99) Methyl tert-amyl ether	9.718	9.736	0.974		0m	N.D.	d
100) Methyl methacrylate	10.602	10.589	1.063		0m	N.D.	d
101) 1,4-Dioxane	10.742	10.699	1.077		0m	N.D.	d
102) 2-Nitropropane	11.089	11.071	1.112		0m	N.D.	d
104) Ethyl methacrylate	11.864	11.858	0.902		0m	N.D.	d
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.	d
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	15.174	15.174	0.974		0m	N.D.	d
111) Benzyl chloride	15.716	15.717	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.113	16.113	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted





## Continuing Calibration Summary

Client SDG: 10-2074

Instrument ID: VOA6.I

Injection Date 10-FEB-10 21:38

Data File: 021010V6\6X322.D

Init. Cal. Date(s) 10-FEB-10 12:51 - 10-FEB-10 20:43

Lab Sample ID W6VM100210-18 Quant Type ISTD

Method:VOA6-8260-021010.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S1,2-Dichloroethane-d4	0.3767	0.35354		.01		-6.14813	30		Averaged
SToluene-d8	1.362	1.32182		.01		-2.95007	30		Averaged
SBromofluorobenzene	0.9333	0.93856		.01		0.56359	30		Averaged
Chlorotrifluoroethylene	0.176	0.12792		.01		-27.31818	30		Averaged
2-Chloro-1,1,1-trifluoroethane	0.3815	0.35812		.01		-6.12844	30		Averaged
Acrolein	0.0258	0.03275		.01		26.93798	30		Averaged
Trichlorotrifluoroethane	0.1139	0.0957		.01		-15.97893	30		Averaged
Isopropyl Alcohol	0.0235	0.02446		.01		4.08511	40		Averaged
Allyl chloride	0.5032	0.42345		.01		-15.84857	30		Averaged
tert-Butyl Alcohol	0.0355	0.03666		.01		3.26761	40		Averaged
Acrylonitrile	0.1006	0.08597		.01		-14.54274	30		Averaged
Isopropyl ether	1.078	1.0768		.01		-0.11132	30		Averaged
2-Chloro-1,3-butadiene	0.4186	0.40612		.01		-2.98137	30		Averaged
Ethyl tert-butyl ether	0.907	0.91365		.01		0.73319	30		Averaged
Ethyl acetate	0.2966	0.24167		.01		-18.51989	40		Averaged
Propionitrile	0.0385	0.03357		.01		-12.80519	30		Averaged
Methacrylonitrile	0.1786	0.15417		.01		-13.67861	30		Averaged
Tetrahydrofuran	0.0895	0.07791		.01		-12.94972	30		Averaged
Isobutyl alcohol	0.0116	0.01007		.01		-13.18966	40		Averaged
Methyl tert-amyl ether	0.7456	0.74221		.01		-0.45467	30		Averaged
Methyl methacrylate	0.147	0.13272		.01		-9.71429	30		Averaged
1,4-Dioxane	0.0024	0.00207		.01		-13.75	40		Averaged
2-Nitropropane	0.0933	0.08838		.01		-5.27331	30		Averaged
Ethyl methacrylate	0.3729	0.341		.01		-8.55457	30		Averaged
1-Chlorohexane	0.7553	0.76137		.01		0.80365	30		Averaged
cis-1,4-Dichloro-2-butene	0.2679	0.25319		.01		-5.49085	30		Averaged
Cyclohexanone	0.0296	0.01905		.01		-35.64189	40		Averaged
trans-1,4-Dichloro-2-butene	0.2569	0.24039		.01		-6.42663	30		Averaged
Pentachloroethane	0.3345	0.29298		.01		-12.41256	30		Averaged
Benzyl chloride	1.2534	1.00976		.01		-19.43833	30		Averaged
bis(2-Chloroisopropyl)ether	0.385	0.33446		.01		-13.12727	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\  
Data File : 6X322.D  
Acq On : 10 Feb 2010 9:38 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100210-18|ICV|1|VOAF|1|VOA8260BS|  
Misc : ICV 5uL N/A MIX[B] 1023-08B+0125-08B  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 11 09:40:02 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1666633	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1236503	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	722559	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1664875	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1236503	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	722559	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	589222	46.92	ug/L	0.00
43) Toluene-d8	11.620	11.620	0.883	98	1634438	48.53	ug/L	0.00
61) Bromofluorobenzene	14.351	14.357	0.922	95	678164	50.28	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.280	4.360	0.429		0m	N.D.	d	
3) Chloromethane	4.652	4.672	0.466		0m	N.D.	d	
4) Vinyl chloride	4.884	4.914	0.490		0m	N.D.	d	
5) Bromomethane	5.448	5.468	0.546		0m	N.D.	d	
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	6.032	6.032	0.605		0m	N.D.	d	
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.682	6.706	0.670		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.682	6.706	0.670		0m	N.D.	d	
11) Iodomethane	6.944	6.956	0.696		0m	N.D.	d	
12) Acetonitrile	7.139	7.072	0.716		0m	N.D.	d	
13) Methyl acetate	7.096	7.096	0.711		0m	N.D.	d	
14) Carbon disulfide	7.139	7.078	0.716		0m	N.D.	d	
15) Methylene chloride	7.291	7.285	0.731		0m	N.D.	d	
16) tert-Butyl methyl ether	7.584	7.572	0.760		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	7.615	7.615	0.763		0m	N.D.	d	
18) Vinyl acetate	8.078	8.060	0.810		0m	N.D.	d	
19) 1,1-Dichloroethane	8.200	8.102	0.822		0m	N.D.	d	
20) 2-Butanone	8.700	8.694	0.872		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.700	8.742	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	9.047	9.053	0.907		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	9.389	9.413	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	9.712	9.706	0.974		0m	N.D.	d	
31) Benzene	9.712	9.724	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	10.090	10.077	1.012		0m	N.D.	d	
34) Trichloroethylene	10.370	10.364	1.040		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.590	10.602	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	11.096	11.089	1.112		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.315	11.315	1.134		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\  
Data File : 6X322.D  
Acq On : 10 Feb 2010 9:38 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100210-18|ICV|1|VOAF|1|VOA8260BS|  
Misc : ICV 5uL N/A MIX[B] 1023-08B+0125-08B  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 11 09:40:02 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.		
44) Toluene	11.687	11.699	0.888		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	11.851	11.858	0.901		0m	N.D.	d	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47) 2-Hexanone	12.266	12.260	0.932		0m	N.D.	d	
48) 1,3-Dichloropropane	12.309	12.272	0.936		0m	N.D.	d	
49) Tetrachloroethylene	12.290	12.290	0.934		0m	N.D.	d	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.		
52) Chlorobenzene	13.187	13.187	1.002		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	13.241	13.241	1.006		0m	N.D.	d	
54) Ethylbenzene	13.254	13.248	1.007		0m	N.D.	d	
55) m,p-Xylenes	13.369	13.357	1.016		0m	N.D.	d	
56) o-Xylene	0.000	13.796	0.000		0	N.D.		
57) Styrene	13.790	13.802	1.048		0m	N.D.	d	
59) Bromoform	0.000	14.058	0.000		0	N.D.		
60) Isopropylbenzene	14.162	14.156	0.910		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	14.436	14.436	0.927		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.		
64) Bromobenzene	14.564	14.564	0.935		0m	N.D.	d	
65) n-Propylbenzene	14.577	14.583	0.936		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946		0m	N.D.	d	
67) 2-Chlorotoluene	14.735	14.735	0.946		0m	N.D.	d	
68) 4-Chlorotoluene	14.833	14.833	0.953		0m	N.D.	d	
69) tert-Butylbenzene	15.180	15.107	0.975		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973		0m	N.D.	d	
71) sec-Butylbenzene	15.333	15.333	0.985		0m	N.D.	d	
72) 4-Isopropyltoluene	15.454	15.454	0.993		0m	N.D.	d	
73) 1,3-Dichlorobenzene	15.515	15.515	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	15.601	15.601	1.002		0m	N.D.	d	
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.		
76) 1,2-Dichlorobenzene	16.021	16.021	1.029		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	17.911	17.911	1.150		0m	N.D.	d	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.		
80) Naphthalene	18.289	18.283	1.175		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.		
83) Chlorotrifluoroethylene	4.290	4.279	0.430	116	638914	109.02	ug/L	100
84) 2-Chloro-1,1,1-trifluo...	5.035	5.035	0.505	118	1788654	140.80	ug/L	100
85) Acrolein	6.535	6.535	0.655	56	272634	316.78	ug/L	98
86) Trichlorotrifluoroethane	6.682	6.682	0.670	85	796647	210.14	ug/L	99
87) Isopropyl Alcohol	6.785	6.785	0.680	45	2036163	2597.06	ug/L	99
88) Allyl chloride	7.139	7.139	0.716	41	3524979	210.38	ug/L	100
89) tert-Butyl Alcohol	7.285	7.285	0.730	59	3051808	2581.37	ug/L	99
90) Acrylonitrile	7.541	7.541	0.756	53	715686	213.62	ug/L	99
91) Isopropyl ether	8.078	8.078	0.810	45	1792742	49.94	ug/L	99
92) 2-Chloro-1,3-butadiene	8.206	8.206	0.823	53	676140	48.51	ug/L	99
93) Ethyl tert-butyl ether	8.486	8.486	0.851	59	1521110	50.36	ug/L	100
94) Ethyl acetate	8.700	8.700	0.872	43	2011792	203.69	ug/L	100
95) Propionitrile	8.773	8.773	0.880	54	279481	217.99	ug/L	99
96) Methacrylonitrile	8.950	8.950	0.897	41	1283383	215.80	ug/L	100
97) Tetrahydrofuran	9.059	9.059	0.908	42	648532	217.72	ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\  
Data File : 6X322.D  
Acq On : 10 Feb 2010 9:38 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100210-18|ICV|1|VOAF|1|VOA8260BS|  
Misc : ICV 5uL N/A MIX[B] 1023-08B+0125-08B  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 11 09:40:02 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98) Isobutyl alcohol	9.389	9.388	0.941	41	838264	2171.76	ug/L	100
99) Methyl tert-amyl ether	9.736	9.736	0.976	73	1235685	49.77	ug/L	93
100) Methyl methacrylate	10.590	10.589	1.062	69	1104810	225.64	ug/L	100
101) 1,4-Dioxane	10.699	10.699	1.073	88	172677	2190.75	ug/L	100
102) 2-Nitropropane	11.071	11.071	1.110	43	735697	236.71	ug/L	97
104) Ethyl methacrylate	11.858	11.858	0.901	69	2108227	228.61	ug/L	100
106) 1-Chlorohexane	13.052	13.052	0.838	55	550138	50.40	ug/L	99
107) cis-1,4-Dichloro-2-butene	14.199	14.199	0.912	53	914739	236.31	ug/L	99
108) Cyclohexanone	14.314	14.314	0.919	42	344167	804.71	ug/L	98
109) trans-1,4-Dichloro-2-b...	14.485	14.485	0.930	53	868481	233.89	ug/L	99
110) Pentachloroethane	15.180	15.174	0.975	167	1058491	219.00	ug/L	99
111) Benzyl chloride	15.717	15.717	1.009	91	3648041	201.41	ug/L	100
112) bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	1208350	217.18	ug/L	100

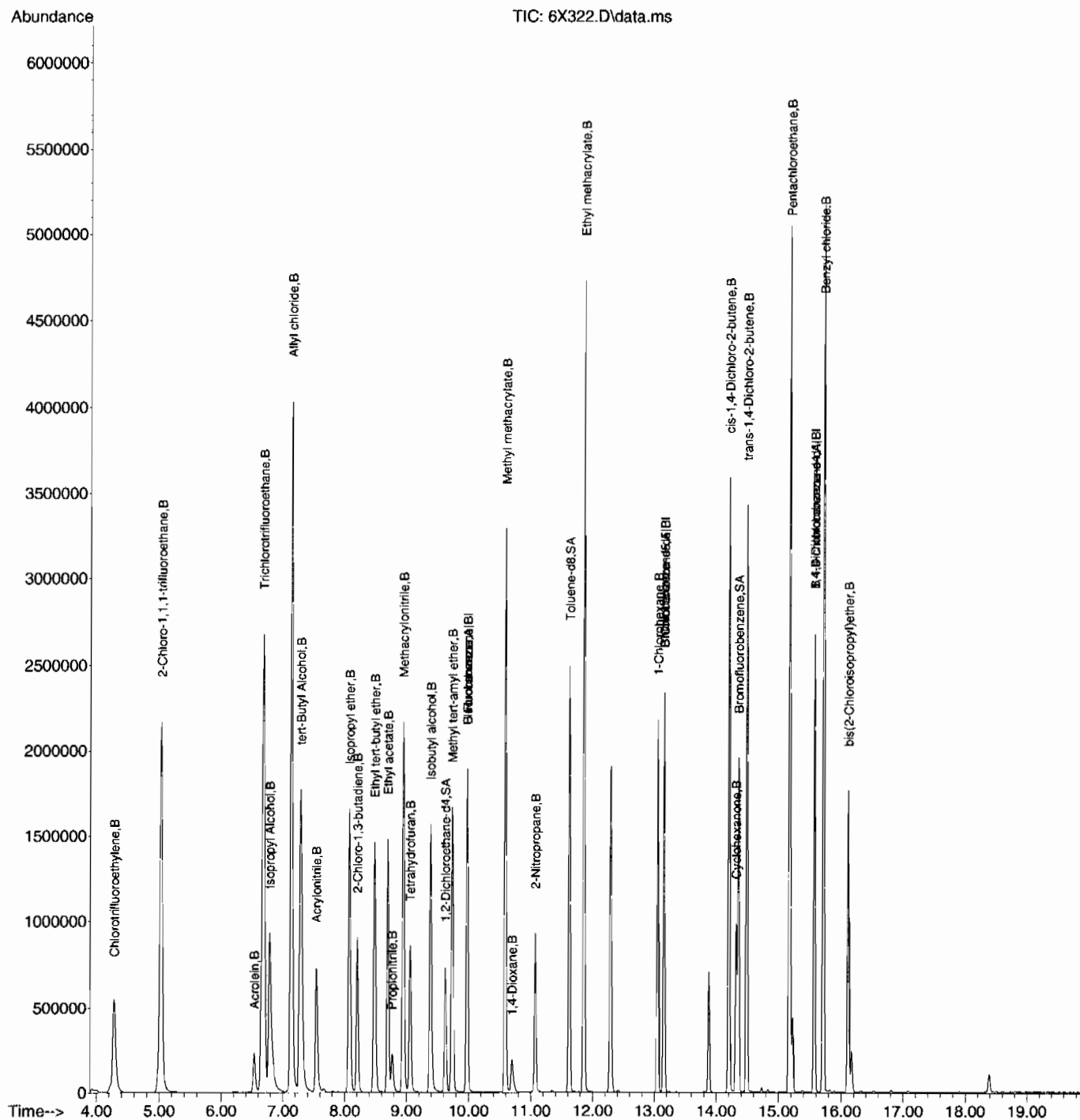
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\  
Data File : 6X322.D  
Acq On : 10 Feb 2010 9:38 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100210-18|ICV|1|VOAF|1|VOA8260BS|  
Misc : ICV 5uL N/A MIX[B] 1023-08B+0125-08B  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 11 09:40:02 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :



## Continuing Calibration Summary

Client SDG: 10-2074

Instrument ID: VOA6.I

Injection Date 04-MAR-10 21:40

Data File: 030410V6\6A427.D

Init. Cal. Date(s) 10-FEB-10 12:51 - 10-FEB-10 20:43

Lab Sample ID W6VM100304-05 Quant Type ISTD

Method:VOA6-8260-021010.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S1,2-Dichloroethane-d4	0.3767	0.37011		.01		-1.7494	30		Averaged
SToluene-d8	1.362	1.32192		.01		-2.94273	30		Averaged
SBromofluorobenzene	0.9333	0.93656		.01		0.3493	30		Averaged
Dichlorodifluoromethane	0.2378	0.20294		.01		-14.65938	30		Averaged
Chloromethane	0.3882	0.35284		.1		-9.10871	30		Averaged spcc
Vinyl chloride	0.3438	0.31187		.01		-9.28738	20		Averaged ccc
Bromomethane	0.2072	0.19578		.01		-5.51158	30		Averaged
Chloroethane	0.2169	0.20175		.01		-6.98479	30		Averaged
Trichlorofluoromethane	0.4863	0.43601		.01		-10.34135	30		Averaged
Ethyl ether	0.2683	0.25746		.01		-4.04025	30		Averaged
1,1-Dichloroethylene	0.4485	0.42725		.01		-4.73802	20		Averaged ccc
Acetone	250	287.78	250			15.112	40		Linear
Iodomethane	0.4251	0.40526		.01		-4.66714	30		Averaged
Acetonitrile	0.0404	0.03997		.01		-1.06436	30		Averaged
Carbon disulfide	0.7818	0.70059		.01		-10.38757	30		Averaged
Methyl acetate	0.2335	0.2349		.01		0.59957	40		Averaged
Methylene chloride	0.2821	0.2584		.01		-8.40128	30		Averaged
tert-Butyl methyl ether	0.7487	0.78175		.01		4.41432	30		Averaged
trans-1,2-Dichloroethylene	0.4193	0.41013		.01		-2.18698	30		Averaged
Vinyl acetate	0.5848	0.58508		.01		0.04788	40		Averaged
1,1-Dichloroethane	0.5117	0.50934		.1		-0.46121	30		Averaged spcc
2-Butanone	0.1071	0.13405		.01		25.1634	40		Averaged
cis-1,2-Dichloroethylene	0.4645	0.47011		.01		1.20775	30		Averaged
2,2-Dichloropropane	0.4408	0.43536		.01		-1.23412	30		Averaged
Bromochloromethane	0.1304	0.12986		.01		-0.41411	30		Averaged
Chloroform	0.5027	0.49106		.01		-2.3155	20		Averaged ccc
1,1,1-Trichloroethane	0.4666	0.4648		.01		-0.38577	30		Averaged
Cyclohexane	0.498	0.48949		.01		-1.70884	30		Averaged
1,1-Dichloropropene	0.3557	0.36198		.01		1.76553	30		Averaged
Carbon tetrachloride	0.4288	0.42966		.01		0.20056	30		Averaged
1,2-Dichloroethane	0.4544	0.45997		.01		1.22579	30		Averaged
Benzene	0.9981	0.96146		.01		-3.67097	30		Averaged
Cyclohexene	0.4982	0.51588		.01		3.54878	30		Averaged
n-Butyl alcohol	0.0074	0.00958		.01		29.45946	40		Averaged
Trichloroethylene	0.2625	0.26843		.01		2.25905	30		Averaged
Methylcyclohexane	0.4308	0.44191		.01		2.57892	30		Averaged
1,2-Dichloropropane	0.2696	0.27359		.01		1.47997	20		Averaged ccc

## Continuing Calibration Summary

Instrument ID: VOA6.I

Injection Date 04-MAR-10 21:40

Data File: 030410V6\6A427.D

Init. Cal. Date(s) 10-FEB-10 12:51 10-FEB-10 20:43

Lab Sample ID W6VM100304-05

Quant Type ISTD

Method:VOA6-8260-021010.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Dibromomethane	0.1508	0.1552		.01		2.91777	30		Averaged
Bromodichloromethane	0.3556	0.37759		.01		6.18391	30		Averaged
2-Chloroethylvinyl ether	0.1601	0.16909		.01		5.61524	30		Averaged
cis-1,3-Dichloropropylene	0.3987	0.42747		.01		7.21595	30		Averaged
4-Methyl-2-pentanone	0.1187	0.14003		.01		17.96967	40		Averaged
Toluene	1.4274	1.39023		.01		-2.60404	20		Averaged ccc
trans-1,3-Dichloropropylene	0.518	0.56038		.01		8.18147	30		Averaged
1,1,2-Trichloroethane	0.2316	0.23267		.01		0.462	30		Averaged
2-Hexanone	0.2289	0.33246		.01		45.24246	40	*	Averaged
1,3-Dichloropropane	0.5074	0.50962		.01		0.43752	30		Averaged
Tetrachloroethylene	0.3112	0.30067		.01		-3.38368	30		Averaged
Dibromochloromethane	0.3534	0.39286		.01		11.16582	30		Averaged
1,2-Dibromoethane	0.2896	0.30082		.01		3.87431	30		Averaged
Chlorobenzene	0.9603	0.94273		.3		-1.82964	30		Averaged spcc
1,1,1,2-Tetrachloroethane	0.3661	0.38139		.01		4.17645	30		Averaged
Ethylbenzene	1.6504	1.68696		.01		2.21522	20		Averaged ccc
m,p-Xylenes	0.6414	0.65368		.01		1.91456	30		Averaged
o-Xylene	0.614	0.64464		.01		4.99023	30		Averaged
Styrene	0.9554	1.07678		.01		12.70463	30		Averaged
Bromoform	0.3838	0.44183		.1		15.11985	30		Averaged spcc
Isopropylbenzene	2.9304	3.06801		.01		4.69595	30		Averaged
1,1,2,2-Tetrachloroethane	0.6195	0.65293		.3		5.39629	30		Averaged spcc
1,2,3-Trichloropropane	0.1932	0.20713		.01		7.21014	30		Averaged
Bromobenzene	0.7379	0.74997		.01		1.63572	30		Averaged
n-Propylbenzene	3.4709	3.50799		.01		1.0686	30		Averaged
2-Chlorotoluene	0.7147	0.73504		.01		2.84595	30		Averaged
1,3,5-Trimethylbenzene	2.5618	2.67453		.01		4.40042	30		Averaged
4-Chlorotoluene	2.1542	2.20948		.01		2.56615	30		Averaged
tert-Butylbenzene	0.542	0.56111		.01		3.52583	30		Averaged
1,2,4-Trimethylbenzene	2.6459	2.7765		.01		4.93594	30		Averaged
sec-Butylbenzene	3.3775	3.50468		.01		3.76551	30		Averaged
4-Isopropyltoluene	2.7568	2.93404		.01		6.42919	30		Averaged
1,3-Dichlorobenzene	1.4834	1.46164		.01		-1.4669	30		Averaged
1,4-Dichlorobenzene	1.5139	1.48141		.01		-2.14611	30		Averaged
n-Butylbenzene	2.6537	2.77896		.01		4.7202	30		Averaged
1,2-Dichlorobenzene	1.3944	1.39565		.01		0.08964	30		Averaged
1,2-Dibromo-3-chloropropane	0.1127	0.1384		.01		22.8039	30		Averaged

## Continuing Calibration Summary

Page 3 of 3

Instrument ID: VOA6.I

Injection Date 04-MAR-10 21:40

Data File: 030410V6\6A427.D

Init. Cal. Date(s) 10-FEB-10 12:51 10-FEB-10 20:43

Lab Sample ID W6VM100304-05 Quant Type ISTD

Method:VOA6-8260-021010.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9869	1.00115		.01		1.44392	30		Averaged
Hexachlorobutadiene	0.7144	0.69231		.01		-3.09211	30		Averaged
Naphthalene	1.8171	2.07102		.01		13.97391	30		Averaged
1,2,3-Trichlorobenzene	0.8286	0.86796		.01		4.75018	30		Averaged



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A427.D  
Acq On : 4 Mar 2010 9:40 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100304-05|CCV|1|VOAF|1|VOA8260BS|  
Misc : CCV 5mL N/A MIX[A] 0106-07D+0222-07A  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 05 08:41:26 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1330677	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1015075	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	597877	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1329365	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1015075	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	597877	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	492497	49.12	ug/L	0.00
43) Toluene-d8	11.626	11.620	0.884	98	1341843	48.53	ug/L	0.00
61) Bromofluorobenzene	14.351	14.357	0.921	95	559949	50.18	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	270044	42.68	ug/L	100
3) Chloromethane	4.672	4.672	0.468	50	469513	45.45	ug/L	100
4) Vinyl chloride	4.914	4.914	0.493	62	415004	45.36	ug/L	99
5) Bromomethane	5.468	5.468	0.548	94	260522	47.24	ug/L	100
6) Chloroethane	5.619	5.619	0.563	64	268462	46.50	ug/L	100
7) Trichlorofluoromethane	6.032	6.032	0.605	101	580183	44.83	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	342602	47.98	ug/L	97
9) Acetone	6.706	6.706	0.672	43	792434	287.78	ug/L	100
10) 1,1-Dichloroethylene	6.706	6.706	0.672	61	568526	47.63	ug/L	99
11) Iodomethane	6.956	6.956	0.697	142	2696337	238.32	ug/L	100
12) Acetonitrile	7.072	7.072	0.709	41	1329728	1235.71	ug/L	99
13) Methyl acetate	7.096	7.096	0.711	43	1562887	251.50	ug/L	100
14) Carbon disulfide	7.084	7.078	0.710	76	4661294	224.03	ug/L	100
15) Methylene chloride	7.285	7.285	0.730	84	343846	45.79	ug/L	100
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	1040258	52.21	ug/L	100
17) trans-1,2-Dichloroethy...	7.620	7.615	0.764	61	545746	48.90	ug/L	99
18) Vinyl acetate	8.059	8.060	0.808	43	3892786	250.14	ug/L	99
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	677771	49.77	ug/L	100
20) 2-Butanone	8.693	8.694	0.872	43	891868	312.98	ug/L	99
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	625559	50.60	ug/L	99
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	579326	49.38	ug/L	98
23) Bromochloromethane	9.017	9.017	0.904	128	172807	49.79	ug/L	99
24) Chloroform	9.053	9.053	0.908	83	653444	48.85	ug/L	100
25) 1,1,1-Trichloroethane	9.321	9.322	0.935	97	618499	49.80	ug/L	99
26) Cyclohexane	9.413	9.413	0.944	56	651349	49.14	ug/L	99
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	481672	50.89	ug/L	98
28) Carbon tetrachloride	9.510	9.510	0.954	117	571745	50.10	ug/L	99
30) 1,2-Dichloroethane	9.712	9.706	0.974	62	612065	50.62	ug/L	99
31) Benzene	9.724	9.724	0.975	78	1279389	48.17	ug/L	99
32) Cyclohexene	9.833	9.828	0.986	67	686465	51.78	ug/L	99
33) n-Butyl alcohol	10.077	10.077	1.010	56	1274427	6431.86	ug/L	98
34) Trichloroethylene	10.364	10.364	1.039	95	357197	51.13	ug/L	99
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	364061	50.74	ug/L	99
36) Methylcyclohexane	10.602	10.602	1.063	83	588037	51.28	ug/L	100
37) Dibromomethane	10.748	10.748	1.078	93	206516	51.47	ug/L	99
38) Bromodichloromethane	10.864	10.864	1.089	83	502450	53.10	ug/L	100
39) 2-Chloroethylvinyl ether	11.089	11.089	1.112	63	1125011	264.12	ug/L	99
40) cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	568829	53.60	ug/L	98

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A427.D  
Acq On : 4 Mar 2010 9:40 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100304-05|CCV|1|VOAF|1|VOA8260BS|  
Misc : CCV 5mL N/A MIX[A] 0106-07D+0222-07A  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 05 08:41:26 2010

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Thu Feb 11 09:38:02 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	11.406	11.406	0.867	58	710710	294.92	ug/L	99
44) Toluene	11.693	11.699	0.889	91	1411183	48.70	ug/L	100
45) trans-1,3-Dichloroprop...	11.857	11.858	0.901	75	568826	54.10	ug/L	99
46) 1,1,2-Trichloroethane	12.077	12.077	0.918	83	236178	50.23	ug/L	99
47) 2-Hexanone	12.260	12.260	0.932	43	1687338	363.18	ug/L	95
48) 1,3-Dichloropropane	12.272	12.272	0.933	76	517303	50.22	ug/L	93
49) Tetrachloroethylene	12.290	12.290	0.934	164	305203	48.30	ug/L	99
50) Dibromochloromethane	12.540	12.534	0.953	129	398784	55.58	ug/L	98
51) 1,2-Dibromoethane	12.705	12.705	0.966	107	305355	51.95	ug/L	100
52) Chlorobenzene	13.186	13.187	1.002	112	956940	49.09	ug/L	100
53) 1,1,1,2-Tetrachloroethane	13.241	13.241	1.006	131	387144	52.09	ug/L	99
54) Ethylbenzene	13.254	13.248	1.007	91	1712392	51.11	ug/L	99
55) m,p-Xylenes	13.357	13.357	1.015	106	1327062	101.92	ug/L	100
56) o-Xylene	13.796	13.796	1.049	106	654357	52.50	ug/L	99
57) Styrene	13.802	13.802	1.049	104	1093014	56.35	ug/L	100
59) Bromoform	14.058	14.058	0.903	173	264160	57.56	ug/L	99
60) Isopropylbenzene	14.156	14.156	0.909	105	1834292	52.35	ug/L	100
62) 1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	390373	52.70	ug/L	99
63) 1,2,3-Trichloropropane	14.528	14.528	0.933	110	123837	53.60	ug/L	94
64) Bromobenzene	14.564	14.564	0.935	156	448387	50.81	ug/L	100
65) n-Propylbenzene	14.583	14.583	0.936	91	2097346	50.53	ug/L	100
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1599040	52.20	ug/L	99
67) 2-Chlorotoluene	14.729	14.735	0.946	126	439461	51.42	ug/L	99
68) 4-Chlorotoluene	14.832	14.833	0.952	91	1320995	51.28	ug/L	99
69) tert-Butylbenzene	15.107	15.107	0.970	134	335477	51.76	ug/L	99
70) 1,2,4-Trimethylbenzene	15.149	15.150	0.973	105	1660007	52.47	ug/L	100
71) sec-Butylbenzene	15.332	15.333	0.984	105	2095365	51.88	ug/L	99
72) 4-Isopropyltoluene	15.454	15.454	0.992	119	1754196	53.22	ug/L	100
73) 1,3-Dichlorobenzene	15.515	15.515	0.996	146	873881	49.27	ug/L	99
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	885703	48.93	ug/L	100
75) n-Butylbenzene	15.887	15.887	1.020	91	1661474	52.36	ug/L	99
76) 1,2-Dichlorobenzene	16.021	16.021	1.029	146	834425	50.04	ug/L	100
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	82744	61.40	ug/L	99 E
78) 1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	598566	50.72	ug/L	100
79) Hexachlorobutadiene	18.076	18.076	1.160	225	413919	48.45	ug/L	100
80) Naphthalene	18.283	18.283	1.174	128	1238218	56.99	ug/L	100
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.195	180	518931	52.38	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85) Acrolein	6.468	6.535	0.649		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.		
87) Isopropyl Alcohol	6.706	6.785	0.672		0m	N.D.	d	
88) Allyl chloride	7.072	7.139	0.709		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90) Acrylonitrile	7.572	7.541	0.759		0m	N.D.	d	
91) Isopropyl ether	8.059	8.078	0.808		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.212	8.206	0.823		0m	N.D.	d	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94) Ethyl acetate	8.693	8.700	0.872		0m	N.D.	d	
95) Propionitrile	8.693	8.773	0.872		0m	N.D.	d	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.		
97) Tetrahydrofuran	9.047	9.059	0.907		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A427.D  
Acq On : 4 Mar 2010 9:40 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100304-05|CCV|1|VOAF|1|VOA8260BS|  
Misc : CCV 5mL N/A MIX[A] 0106-07D+0222-07A  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 05 08:41:26 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	9.413	9.388	0.944		0m	N.D.	d
99) Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.	d
100) Methyl methacrylate	10.602	10.589	1.063		0m	N.D.	d
101) 1,4-Dioxane	10.748	10.699	1.078		0m	N.D.	d
102) 2-Nitropropane	11.089	11.071	1.112		0m	N.D.	d
104) Ethyl methacrylate	11.864	11.858	0.902		0m	N.D.	d
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.150	14.199	0.908		0m	N.D.	d
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	15.174	15.174	0.974		0m	N.D.	d
111) Benzyl chloride	15.716	15.717	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.161	16.113	1.038		0m	N.D.	d

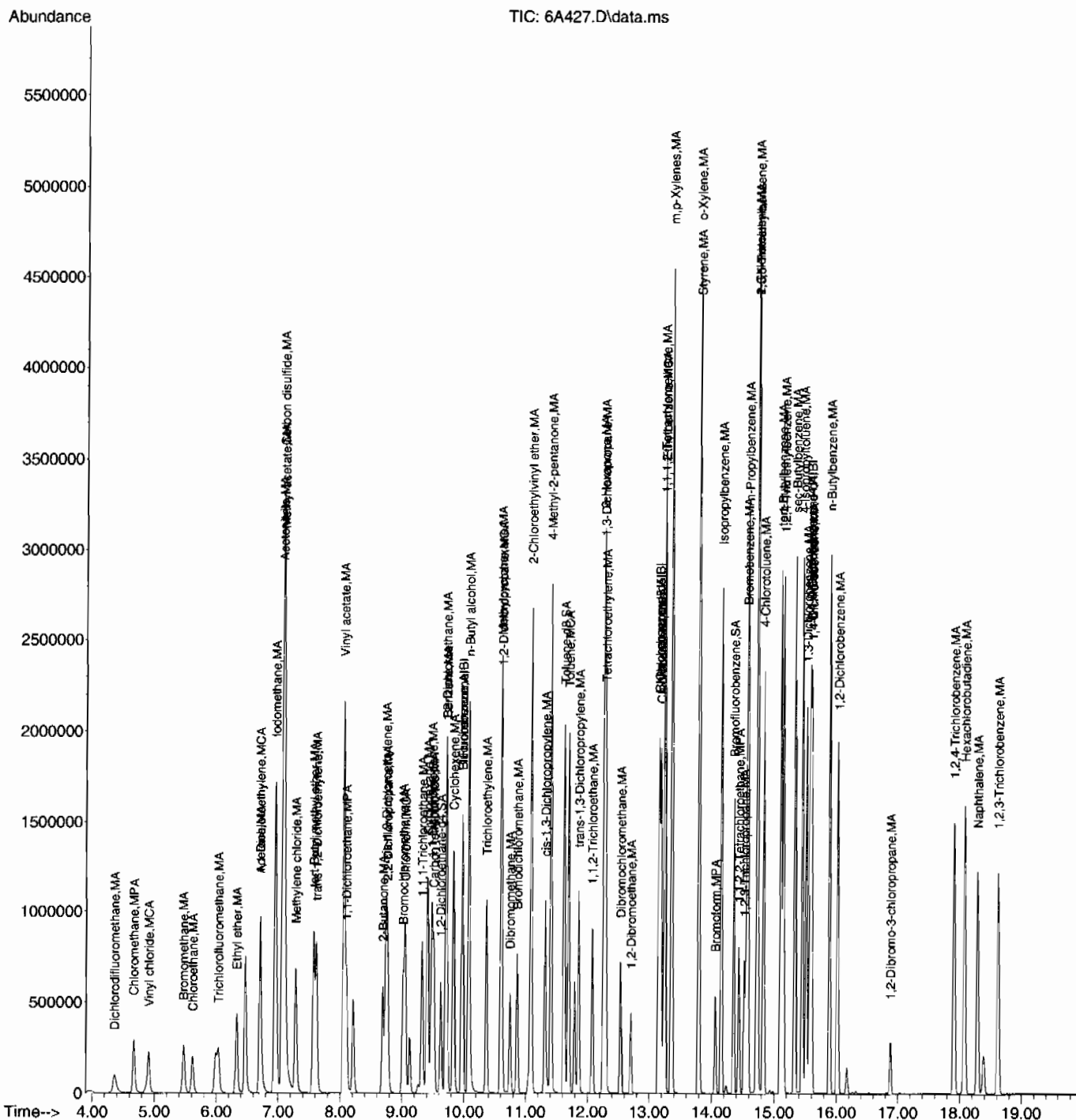
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A427.D  
Acq On : 4 Mar 2010 9:40 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100304-05|CCV|1|VOAF|1|VOA8260BS|  
Misc : CCV 5mL N/A MIX[A] 0106-07D+0222-07A  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 05 08:41:26 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :



## Continuing Calibration Summary

Client SDG: 10-2074

Instrument ID: VOA6.I

Injection Date 04-MAR-10 22:35

Data File: 030410V6\6A429.D

Init. Cal. Date(s) 10-FEB-10 12:51 - 10-FEB-10 20:43

Lab Sample ID W6VM100304-07 Quant Type ISTD

Method:VOA6-8260-021010.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S1,2-Dichloroethane-d4	0.3767	0.37636		.01		-0.09026	30		Averaged
SToluene-d8	1.362	1.31663		.01		-3.33113	30		Averaged
SBromofluorobenzene	0.9333	0.9466		.01		1.42505	30		Averaged
Acrolein	0.0258	0.02675		.01		3.68217	30		Averaged
Trichlorotrifluoroethane	0.1139	0.06909		.01		-39.34153	30	*	Averaged
Allyl chloride	0.5032	0.35617		.01		-29.219	30		Averaged
Acrylonitrile	0.1006	0.07864		.01		-21.82903	30		Averaged
2-Chloro-1,3-butadiene	0.4186	0.37608		.01		-10.15767	30		Averaged
Ethyl acetate	0.2966	0.22071		.01		-25.58665	40		Averaged
Propionitrile	0.0385	0.03137		.01		-18.51948	30		Averaged
Methacrylonitrile	0.1786	0.14434		.01		-19.18253	30		Averaged
Tetrahydrofuran	0.0895	0.07402		.01		-17.29609	30		Averaged
Isobutyl alcohol	0.0116	0.0097		.01		-16.37931	40		Averaged
Methyl methacrylate	0.147	0.128		.01		-12.92517	30		Averaged
1,4-Dioxane	0.0024	0.00201		.01		-16.25	40		Averaged
2-Nitropropane	0.0933	0.08792		.01		-5.76635	30		Averaged
Ethyl methacrylate	0.3729	0.33014		.01		-11.46688	30		Averaged
cis-1,4-Dichloro-2-butene	0.2679	0.23047		.01		-13.97163	30		Averaged
Cyclohexanone	0.0296	0.0232		.01		-21.62162	40		Averaged
trans-1,4-Dichloro-2-butene	0.2569	0.22056		.01		-14.14558	30		Averaged
Pentachloroethane	0.3345	0.29165		.01		-12.81016	30		Averaged
Benzyl chloride	1.2534	0.93184		.01		-25.65502	30		Averaged
bis(2-Chloroisopropyl)ether	0.385	0.32108		.01		-16.6026	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A429.D  
Acq On : 4 Mar 2010 10:35 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100304-07|CCV|1|VOAF|1|VOA8260BS|  
Misc : CCV 5g N/A SOIL MIX[B] UVM100215-08A  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 05 08:53:24 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1368595	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1017954	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	605840	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1367374	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1017954	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	605840	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	515079	49.95	ug/L	0.00
43) Toluene-d8	11.620	11.620	0.883	98	1340270	48.34	ug/L	0.00
61) Bromofluorobenzene	14.351	14.357	0.922	95	573489	50.71	ug/L	0.00
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.652	4.672	0.466		0m	N.D.	d	
4) Vinyl chloride	4.884	4.914	0.490		0m	N.D.	d	
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.676	6.706	0.669		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.682	6.706	0.670		0m	N.D.	d	
11) Iodomethane	6.956	6.956	0.697		0m	N.D.	d	
12) Acetonitrile	7.139	7.072	0.716		0m	N.D.	d	
13) Methyl acetate	7.096	7.096	0.711		0m	N.D.	d	
14) Carbon disulfide	7.139	7.078	0.716		0m	N.D.	d	
15) Methylene chloride	7.291	7.285	0.731		0m	N.D.	d	
16) tert-Butyl methyl ether	7.584	7.572	0.760		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	7.608	7.615	0.763		0m	N.D.	d	
18) Vinyl acetate	8.212	8.060	0.823		0m	N.D.	d	
19) 1,1-Dichloroethane	8.108	8.102	0.813		0m	N.D.	d	
20) 2-Butanone	8.700	8.694	0.872		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.700	8.742	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	9.053	9.053	0.908		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	9.389	9.413	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	9.474	9.480	0.950		0m	N.D.	d	
28) Carbon tetrachloride	9.523	9.510	0.955		0m	N.D.	d	
30) 1,2-Dichloroethane	9.718	9.706	0.974		0m	N.D.	d	
31) Benzene	9.718	9.724	0.974		0m	N.D.	d	
32) Cyclohexene	9.821	9.828	0.985		0m	N.D.	d	
33) n-Butyl alcohol	10.077	10.077	1.010		0m	N.D.	d	
34) Trichloroethylene	10.364	10.364	1.039		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.583	10.602	1.061		0m	N.D.	d	
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		
38) Bromodichloromethane	10.858	10.864	1.089		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.083	11.089	1.111		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.309	11.315	1.134		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A429.D  
Acq On : 4 Mar 2010 10:35 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100304-07|CCV|1|VOAF|1|VOA8260BS|  
Misc : CCV 5g N/A SOIL MIX[B] UVM100215-08A  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 05 08:53:24 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
42) 4-Methyl-2-pentanone	11.413	11.406	0.867		0m	N.D.	d
44) Toluene	11.693	11.699	0.889		0m	N.D.	d
45) trans-1,3-Dichloroprop...	11.858	11.858	0.901		0m	N.D.	d
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	12.266	12.260	0.932		0m	N.D.	d
48) 1,3-Dichloropropane	12.272	12.272	0.933		0m	N.D.	d
49) Tetrachloroethylene	12.290	12.290	0.934		0m	N.D.	d
50) Dibromochloromethane	12.534	12.534	0.953		0m	N.D.	d
51) 1,2-Dibromoethane	12.699	12.705	0.965		0m	N.D.	d
52) Chlorobenzene	13.187	13.187	1.002		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	13.241	13.241	1.006		0m	N.D.	d
54) Ethylbenzene	13.254	13.248	1.007		0m	N.D.	d
55) m,p-Xylenes	13.363	13.357	1.016		0m	N.D.	d
56) o-Xylene	13.802	13.796	1.049		0m	N.D.	d
57) Styrene	13.802	13.802	1.049		0m	N.D.	d
59) Bromoform	14.052	14.058	0.903		0m	N.D.	d
60) Isopropylbenzene	14.156	14.156	0.909		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	14.430	14.436	0.927		0m	N.D.	d
63) 1,2,3-Trichloropropane	14.528	14.528	0.933		0m	N.D.	d
64) Bromobenzene	14.570	14.564	0.936		0m	N.D.	d
65) n-Propylbenzene	14.583	14.583	0.937		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946		0m	N.D.	d
67) 2-Chlorotoluene	14.729	14.735	0.946		0m	N.D.	d
68) 4-Chlorotoluene	14.833	14.833	0.953		0m	N.D.	d
69) tert-Butylbenzene	15.113	15.107	0.971		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973		0m	N.D.	d
71) sec-Butylbenzene	15.332	15.333	0.985		0m	N.D.	d
72) 4-Isopropyltoluene	15.448	15.454	0.992		0m	N.D.	d
73) 1,3-Dichlorobenzene	15.515	15.515	0.996		0m	N.D.	d
74) 1,4-Dichlorobenzene	15.601	15.601	1.002		0m	N.D.	d
75) n-Butylbenzene	15.887	15.887	1.020		0m	N.D.	d
76) 1,2-Dichlorobenzene	16.021	16.021	1.029		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084		0m	N.D.	d
78) 1,2,4-Trichlorobenzene	17.911	17.911	1.150		0m	N.D.	d
79) Hexachlorobutadiene	18.076	18.076	1.161		0m	N.D.	d
80) Naphthalene	18.283	18.283	1.174		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.196		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	6.535	6.535	0.655	56	182912	258.77 ug/L	100
86) Trichlorotrifluoroethane	6.682	6.682	0.670	85	472338	151.70 ug/L	99
87) Isopropyl Alcohol	0.000	6.785	0.000		0m	N.D.	d
88) Allyl chloride	7.139	7.139	0.716	41	2435074	176.96 ug/L	99
89) tert-Butyl Alcohol	7.297	7.285	0.732	59	262	0.27 ug/L #	50
90) Acrylonitrile	7.541	7.541	0.756	53	537639	195.39 ug/L	99
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	8.206	8.206	0.823	53	514237	44.92 ug/L	100
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	8.700	8.700	0.872	43	1508973	186.02 ug/L	100
95) Propionitrile	8.773	8.773	0.880	54	214460	203.67 ug/L	100
96) Methacrylonitrile	8.950	8.950	0.897	41	986858	202.05 ug/L	100
97) Tetrahydrofuran	9.059	9.059	0.908	42	506070	206.85 ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A429.D  
Acq On : 4 Mar 2010 10:35 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100304-07|CCV|1|VOAF|1|VOA8260BS|  
Misc : CCV 5g N/A SOIL MIX[B] UVM100215-08A  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 05 08:53:24 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98) Isobutyl alcohol	9.389	9.388	0.941	41	662882	2091.04	ug/L	98
99) Methyl tert-amyl ether	9.730	9.736	0.976	73	926	N.D.		
100) Methyl methacrylate	10.589	10.589	1.062	69	875145	217.62	ug/L	99
101) 1,4-Dioxane	10.699	10.699	1.073	88	137511	2124.18	ug/L	99
102) 2-Nitropropane	11.071	11.071	1.110	43	601091	235.48	ug/L	99
104) Ethyl methacrylate	11.858	11.858	0.901	69	1680312	221.33	ug/L	99
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.		
107) cis-1,4-Dichloro-2-butene	14.199	14.199	0.912	53	698132	215.10	ug/L	99
108) Cyclohexanone	14.314	14.314	0.919	42	351426	979.99	ug/L	98
109) trans-1,4-Dichloro-2-b...	14.485	14.485	0.930	53	668110	214.60	ug/L	99
110) Pentachloroethane	15.174	15.174	0.975	167	883476	218.01	ug/L	100
111) Benzyl chloride	15.717	15.717	1.009	91	2822742	185.87	ug/L	100
112) bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	972601	208.48	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

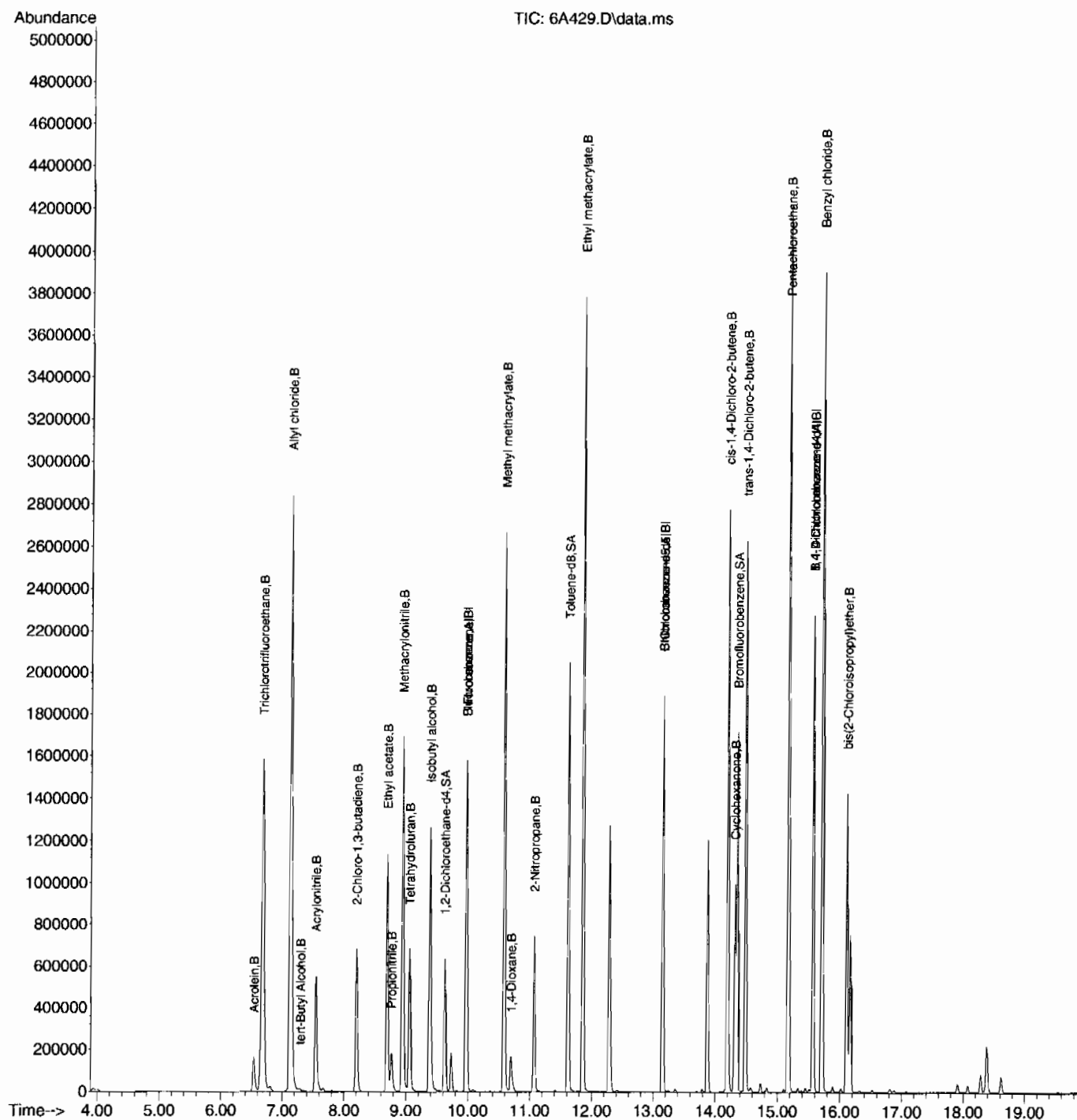


Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A429.D  
Acq On : 4 Mar 2010 10:35 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100304-07|CCV|1|VOAF|1|VOA8260BS|  
Misc : CCV 5g N/A SOIL MIX[B] UVM100215-08A  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 05 08:53:24 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :



## Continuing Calibration Summary

Client SDG: 10-2074

Instrument ID: VOA6.I

Injection Date: 05-MAR-10 11:08

Data File: 030510V6\6A502.D

Init. Cal. Date(s) 10-FEB-10 12:51 - 10-FEB-10 20:43

Lab Sample ID W6VM100305-01

Quant Type ISTD

Method:VOA6-8260-021010.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S1,2-Dichloroethane-d4	0.3767	0.36813		.01		-2.27502	30		Averaged	
SToluene-d8	1.362	1.32346		.01		-2.82966	30		Averaged	
SBromofluorobenzene	0.9333	0.94034		.01		0.75431	30		Averaged	
Dichlorodifluoromethane	0.2378	0.25605		.01		7.67452	30		Averaged	
Chloromethane	0.3882	0.38401		.1		-1.07934	30		Averaged	spcc
Vinyl chloride	0.3438	0.36117		.01		5.05236	20		Averaged	ccc
Bromomethane	0.2072	0.21561		.01		4.05888	30		Averaged	
Chloroethane	0.2169	0.21888		.01		0.91286	30		Averaged	
Trichlorofluoromethane	0.4863	0.50647		.01		4.14765	30		Averaged	
Ethyl ether	0.2683	0.24725		.01		-7.8457	30		Averaged	
1,1-Dichloroethylene	0.4485	0.44353		.01		-1.10814	20		Averaged	ccc
Acetone	250	259.93	250			3.972	40		Linear	
Iodomethane	0.4251	0.40461		.01		-4.82004	30		Averaged	
Acetonitrile	0.0404	0.03674		.01		-9.05941	30		Averaged	
Carbon disulfide	0.7818	0.78919		.01		0.94525	30		Averaged	
Methyl acetate	0.2335	0.21293		.01		-8.80942	40		Averaged	
Methylene chloride	0.2821	0.25916		.01		-8.13187	30		Averaged	
tert-Butyl methyl ether	0.7487	0.7407		.01		-1.06852	30		Averaged	
trans-1,2-Dichloroethylene	0.4193	0.42264		.01		0.79657	30		Averaged	
Vinyl acetate	0.5848	0.66571		.01		13.8355	40		Averaged	
1,1-Dichloroethane	0.5117	0.52026		.1		1.67286	30		Averaged	spcc
2-Butanone	0.1071	0.11877		.01		10.89636	40		Averaged	
cis-1,2-Dichloroethylene	0.4645	0.47813		.01		2.93434	30		Averaged	
2,2-Dichloropropane	0.4408	0.47214		.01		7.1098	30		Averaged	
Bromochloromethane	0.1304	0.12791		.01		-1.90951	30		Averaged	
Chloroform	0.5027	0.49219		.01		-2.09071	20		Averaged	ccc
1,1,1-Trichloroethane	0.4666	0.48055		.01		2.98971	30		Averaged	
Cyclohexane	0.498	0.53686		.01		7.80321	30		Averaged	
1,1-Dichloropropene	0.3557	0.3814		.01		7.22519	30		Averaged	
Carbon tetrachloride	0.4288	0.45736		.01		6.66045	30		Averaged	
1,2-Dichloroethane	0.4544	0.44432		.01		-2.21831	30		Averaged	
Benzene	0.9981	0.96488		.01		-3.32832	30		Averaged	
Cyclohexene	0.4982	0.52777		.01		5.93537	30		Averaged	
n-Butyl alcohol	0.0074	0.00809		.01		9.32432	40		Averaged	
Trichloroethylene	0.2625	0.27017		.01		2.9219	30		Averaged	
Methylcyclohexane	0.4308	0.46655		.01		8.29851	30		Averaged	
1,2-Dichloropropane	0.2696	0.27153		.01		0.71588	20		Averaged	ccc

## Continuing Calibration Summary

Instrument ID: VOA6.1

Injection Date 05-MAR-10 11:08

Data File: 030510V6\6A502.D

Init. Cal. Date(s) 10-FEB-10 12:51 10-FEB-10 20:43

Lab Sample ID W6VM100305-01

Quant Type ISTD

Method:VOA6-8260-021010.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Dibromomethane	0.1508	0.14707		.01		-2.47347	30		Averaged
Bromodichloromethane	0.3556	0.37075		.01		4.2604	30		Averaged
2-Chloroethylvinyl ether	0.1601	0.14946		.01		-6.64585	30		Averaged
cis-1,3-Dichloropropylene	0.3987	0.41718		.01		4.63506	30		Averaged
4-Methyl-2-pentanone	0.1187	0.12612		.01		6.25105	40		Averaged
Toluene	1.4274	1.38594		.01		-2.90458	20		Averaged ccc
trans-1,3-Dichloropropylene	0.518	0.54338		.01		4.89961	30		Averaged
1,1,2-Trichloroethane	0.2316	0.22367		.01		-3.42401	30		Averaged
2-Hexanone	0.2289	0.28993		.01		26.6623	40		Averaged
1,3-Dichloropropane	0.5074	0.48618		.01		-4.1821	30		Averaged
Tetrachloroethylene	0.3112	0.30751		.01		-1.18573	30		Averaged
Dibromochloromethane	0.3534	0.36607		.01		3.58517	30		Averaged
1,2-Dibromoethane	0.2896	0.28559		.01		-1.38467	30		Averaged
Chlorobenzene	0.9603	0.93585		.3		-2.54608	30		Averaged spcc
1,1,1,2-Tetrachloroethane	0.3661	0.37107		.01		1.35755	30		Averaged
Ethylbenzene	1.6504	1.6747		.01		1.47237	20		Averaged ccc
m,p-Xylenes	0.6414	0.65081		.01		1.4671	30		Averaged
o-Xylene	0.614	0.63816		.01		3.93485	30		Averaged
Styrene	0.9554	1.05596		.01		10.52543	30		Averaged
Bromoform	0.3838	0.40465		.1		5.43252	30		Averaged spcc
Isopropylbenzene	2.9304	3.05944		.01		4.40349	30		Averaged
1,1,2,2-Tetrachloroethane	0.6195	0.59584		.3		-3.81921	30		Averaged spcc
1,2,3-Trichloropropane	0.1932	0.18871		.01		-2.32402	30		Averaged
Bromobenzene	0.7379	0.73132		.01		-0.89172	30		Averaged
n-Propylbenzene	3.4709	3.5334		.01		1.80069	30		Averaged
2-Chlorotoluene	0.7147	0.72771		.01		1.82034	30		Averaged
1,3,5-Trimethylbenzene	2.5618	2.65022		.01		3.45148	30		Averaged
4-Chlorotoluene	2.1542	2.21108		.01		2.64042	30		Averaged
tert-Butylbenzene	0.542	0.55334		.01		2.09225	30		Averaged
1,2,4-Trimethylbenzene	2.6459	2.74899		.01		3.89622	30		Averaged
sec-Butylbenzene	3.3775	3.48897		.01		3.30037	30		Averaged
4-Isopropyltoluene	2.7568	2.92937		.01		6.25979	30		Averaged
1,3-Dichlorobenzene	1.4834	1.45056		.01		-2.21383	30		Averaged
1,4-Dichlorobenzene	1.5139	1.4676		.01		-3.05833	30		Averaged
n-Butylbenzene	2.6537	2.7983		.01		5.449	30		Averaged
1,2-Dichlorobenzene	1.3944	1.36161		.01		-2.35155	30		Averaged
1,2-Dibromo-3-chloropropane	0.1127	0.11812		.01		4.80923	30		Averaged

## Continuing Calibration Summary

Page 3 of 3

Instrument ID: VOA6.I

Injection Date 05-MAR-10 11:08

Data File: 030510V6\6A502.D

Init. Cal. Date(s) 10-FEB-10 12:51 10-FEB-10 20:43

Lab Sample ID W6VM100305-01 Quant Type ISTD

Method:VOA6-8260-021010.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9869	0.9652		.01		-2.1988	30		Averaged
Hexachlorobutadiene	0.7144	0.671		.01		-6.07503	30		Averaged
Naphthalene	1.8171	1.71023		.01		-5.88135	30		Averaged
1,2,3-Trichlorobenzene	0.8286	0.79229		.01		-4.38209	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A502.D  
Acq On : 5 Mar 2010 11:08 am  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100305-01|CCV|1|VOAF|1|VOA8260BS|  
Misc : CCV 5mL N/A MIX[A] 0220-01D+0304-01  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 05 11:34:42 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1298098	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	993368	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	585326	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1297798	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	993368	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	585326	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	477863	48.86	ug/L	0.00
43) Toluene-d8	11.620	11.620	0.883	98	1314685	48.59	ug/L	0.00
61) Bromofluorobenzene	14.351	14.357	0.922	95	550403	50.38	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	332380	53.85	ug/L	100
3) Chloromethane	4.672	4.672	0.468	50	498486	49.46	ug/L	99
4) Vinyl chloride	4.914	4.914	0.493	62	468839	52.53	ug/L	100
5) Bromomethane	5.468	5.468	0.548	94	279883	52.02	ug/L	99
6) Chloroethane	5.619	5.619	0.563	64	284125	50.45	ug/L	100
7) Trichlorofluoromethane	6.022	6.032	0.604	101	657447	52.07	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	320955	46.08	ug/L	96
9) Acetone	6.706	6.706	0.672	43	699123	259.93	ug/L	100
10) 1,1-Dichloroethylene	6.706	6.706	0.672	61	575750	49.44	ug/L	99
11) Iodomethane	6.956	6.956	0.697	142	2626099	237.94	ug/L	99
12) Acetonitrile	7.066	7.072	0.708	41	1192344	1135.85	ug/L	100
13) Methyl acetate	7.096	7.096	0.711	43	1382004	227.97	ug/L	99
14) Carbon disulfide	7.078	7.078	0.710	76	5122257	252.36	ug/L	100
15) Methylene chloride	7.285	7.285	0.730	84	336413	45.93	ug/L	100
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	961505	49.46	ug/L	100
17) trans-1,2-Dichloroethy...	7.615	7.615	0.763	61	548634	50.40	ug/L	98
18) Vinyl acetate	8.060	8.060	0.808	43	4320790	284.61	ug/L	96
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	675343	50.83	ug/L	100
20) 2-Butanone	8.688	8.694	0.871	43	770853	277.30	ug/L	99
21) cis-1,2-Dichloroethylene	8.736	8.742	0.876	61	620655	51.46	ug/L	98
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	612879	53.56	ug/L	100
23) Bromochloromethane	9.011	9.017	0.903	128	166044	49.04	ug/L	99
24) Chloroform	9.053	9.053	0.908	83	638906	48.96	ug/L	100
25) 1,1,1-Trichloroethane	9.322	9.322	0.935	97	623799	51.49	ug/L	99
26) Cyclohexane	9.413	9.413	0.944	56	696896	53.90	ug/L	99
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	495100	53.62	ug/L	99
28) Carbon tetrachloride	9.511	9.510	0.954	117	593701	53.33	ug/L	100
30) 1,2-Dichloroethane	9.706	9.706	0.973	62	576771	48.89	ug/L	100
31) Benzene	9.724	9.724	0.975	78	1252514	48.34	ug/L	99
32) Cyclohexene	9.828	9.828	0.985	67	685096	52.97	ug/L	98
33) n-Butyl alcohol	10.078	10.077	1.010	56	1050116	5432.80	ug/L	100
34) Trichloroethylene	10.364	10.364	1.039	95	350708	51.46	ug/L	99
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	352467	50.35	ug/L	99
36) Methylcyclohexane	10.602	10.602	1.063	83	605622	54.14	ug/L	99
37) Dibromomethane	10.748	10.748	1.078	93	190908	48.78	ug/L	99
38) Bromodichloromethane	10.858	10.864	1.089	83	481275	52.14	ug/L	100
39) 2-Chloroethylvinyl ether	11.083	11.089	1.111	63	970046	233.45	ug/L	100
40) cis-1,3-Dichloropropylene	11.309	11.315	1.134	75	541540	52.31	ug/L	97

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A502.D  
Acq On : 5 Mar 2010 11:08 am  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100305-01|CCV|1|VOAF|1|VOA8260BS|  
Misc : CCV 5mL N/A MIX[A] 0220-01D+0304-01  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 05 11:34:42 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	11.407	11.406	0.867	58	626396	265.61	ug/L	100
44) Toluene	11.693	11.699	0.889	91	1376747	48.55	ug/L	100
45) trans-1,3-Dichloroprop...	11.858	11.858	0.901	75	539779	52.46	ug/L	99
46) 1,1,2-Trichloroethane	12.077	12.077	0.918	83	222189	48.29	ug/L	99
47) 2-Hexanone	12.260	12.260	0.932	43	1440030	316.72	ug/L	96
48) 1,3-Dichloropropane	12.272	12.272	0.933	76	482954	47.91	ug/L	97
49) Tetrachloroethylene	12.284	12.290	0.934	164	305467	49.40	ug/L	99
50) Dibromochloromethane	12.534	12.534	0.953	129	363643	51.79	ug/L	99
51) 1,2-Dibromoethane	12.705	12.705	0.966	107	283695	49.32	ug/L	99
52) Chlorobenzene	13.187	13.187	1.002	112	929640	48.73	ug/L	99
53) 1,1,1,2-Tetrachloroethane	13.242	13.241	1.006	131	368614	50.68	ug/L	100
54) Ethylbenzene	13.248	13.248	1.007	91	1663593	50.74	ug/L	100
55) m,p-Xylenes	13.357	13.357	1.015	106	1292979	101.47	ug/L	100
56) o-Xylene	13.796	13.796	1.049	106	633931	51.97	ug/L	100
57) Styrene	13.796	13.802	1.049	104	1048953	55.26	ug/L	99
59) Bromoform	14.058	14.058	0.903	173	236850	52.72	ug/L	100
60) Isopropylbenzene	14.156	14.156	0.909	105	1790768	52.20	ug/L	100
62) 1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	348762	48.09	ug/L	100
63) 1,2,3-Trichloropropane	14.528	14.528	0.933	110	110454	48.83	ug/L	95
64) Bromobenzene	14.564	14.564	0.935	156	428063	49.55	ug/L	99
65) n-Propylbenzene	14.583	14.583	0.937	91	2068190	50.90	ug/L	99
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1551242	51.73	ug/L	99
67) 2-Chlorotoluene	14.729	14.735	0.946	126	425949	50.91	ug/L	97
68) 4-Chlorotoluene	14.833	14.833	0.953	91	1294205	51.32	ug/L	99
69) tert-Butylbenzene	15.107	15.107	0.970	134	323887	51.05	ug/L	99
70) 1,2,4-Trimethylbenzene	15.144	15.150	0.973	105	1609055	51.95	ug/L	100
71) sec-Butylbenzene	15.333	15.333	0.985	105	2042186	51.65	ug/L	100
72) 4-Isopropyltoluene	15.455	15.454	0.993	119	1714637	53.13	ug/L	100
73) 1,3-Dichlorobenzene	15.515	15.515	0.996	146	849053	48.89	ug/L	100
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	859025	48.47	ug/L	100
75) n-Butylbenzene	15.887	15.887	1.020	91	1637918	52.72	ug/L	100
76) 1,2-Dichlorobenzene	16.015	16.021	1.029	146	796986	48.82	ug/L	99
77) 1,2-Dibromo-3-chloropr...	16.875	16.881	1.084	157	69136	52.40	ug/L	99 E
78) 1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	564958	48.90	ug/L	100
79) Hexachlorobutadiene	18.076	18.076	1.161	225	392751	46.96	ug/L	99
80) Naphthalene	18.283	18.283	1.174	128	1001044	47.06	ug/L	99
81) 1,2,3-Trichlorobenzene	18.619	18.618	1.196	180	463748	47.81	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85) Acrolein	6.456	6.535	0.647		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.		
87) Isopropyl Alcohol	6.706	6.785	0.672		0m	N.D.	d	
88) Allyl chloride	7.066	7.139	0.708		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90) Acrylonitrile	7.572	7.541	0.759		0m	N.D.	d	
91) Isopropyl ether	8.060	8.078	0.808		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.212	8.206	0.823		0m	N.D.	d	
93) Ethyl tert-butyl ether	8.480	8.486	0.850		0m	N.D.	d	
94) Ethyl acetate	8.688	8.700	0.871		0m	N.D.	d	
95) Propionitrile	8.688	8.773	0.871		0m	N.D.	d	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.		
97) Tetrahydrofuran	9.035	9.059	0.906		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A502.D  
Acq On : 5 Mar 2010 11:08 am  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100305-01|CCV|1|VOAF|1|VOA8260BS|  
Misc : CCV 5mL N/A MIX[A] 0220-01D+0304-01  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 05 11:34:42 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	9.407	9.388	0.943		0m	N.D.	d
99) Methyl tert-amyl ether	9.718	9.736	0.974		0m	N.D.	d
100) Methyl methacrylate	10.602	10.589	1.063		0m	N.D.	d
101) 1,4-Dioxane	10.754	10.699	1.078		0m	N.D.	d
102) 2-Nitropropane	11.083	11.071	1.111		0m	N.D.	d
104) Ethyl methacrylate	11.791	11.858	0.896		0m	N.D.	d
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.	d
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	15.180	15.174	0.975		0m	N.D.	d
111) Benzyl chloride	15.680	15.717	1.007		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.168	16.113	1.038		0m	N.D.	d

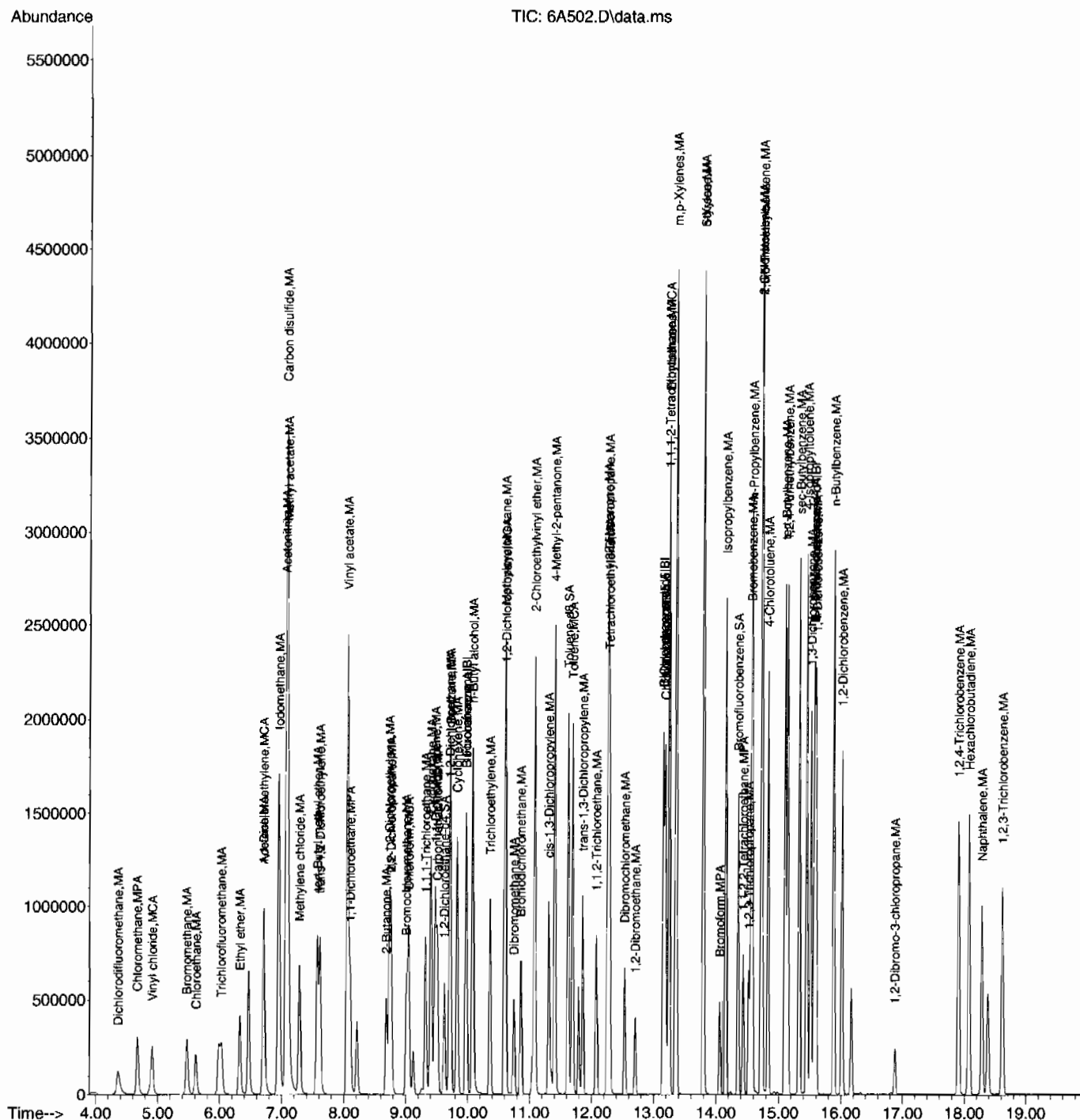
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

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Data Path : C:\msdchem\1\DATA\030510V6\
Data File : 6A502.D
Acq On    : 5 Mar 2010 11:08 am
Operator  : RXD1
InstName  : VOA6
Sample    : |W6VM100305-01|CCV|1|VOAF|1|VOA8260BS|
Misc      : CCV 5mL N/A MIX[A] 0220-01D+0304-01
ALS Vial  : 2      Sample Multiplier:1

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SubList :





## Continuing Calibration Summary

Client SDG: 10-2074

Instrument ID: VOA6.I

Injection Date 05-MAR-10 12:04

Data File: 030510V6\6A504.D

Init. Cal. Date(s) 10-FEB-10 12:51 - 10-FEB-10 20:43

Lab Sample ID W6VM100305-03

Quant Type ISTD

Method:VOA6-8260-021010.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S1,2-Dichloroethane-d4	0.3767	0.35541		.01		-5.65171	30		Averaged
SToluene-d8	1.362	1.33539		.01		-1.95374	30		Averaged
SBromofluorobenzene	0.9333	0.9593		.01		2.78581	30		Averaged
Acrolein	0.0258	0.03562		.01		38.06202	30	*	Averaged
Trichlorotrifluoroethane	0.1139	0.1215		.01		6.67252	30		Averaged
Allyl chloride	0.5032	0.53389		.01		6.09897	30		Averaged
Acrylonitrile	0.1006	0.09465		.01		-5.91451	30		Averaged
2-Chloro-1,3-butadiene	0.4186	0.55021		.01		31.44052	30	*	Averaged
Ethyl acetate	0.2966	0.25911		.01		-12.63992	40		Averaged
Propionitrile	0.0385	0.03649		.01		-5.22078	30		Averaged
Methacrylonitrile	0.1786	0.17263		.01		-3.34267	30		Averaged
Tetrahydrofuran	0.0895	0.08529		.01		-4.70391	30		Averaged
Isobutyl alcohol	0.0116	0.01037		.01		-10.60345	40		Averaged
Methyl methacrylate	0.147	0.15023		.01		2.19728	30		Averaged
1,4-Dioxane	0.0024	0.00226		.01		-5.83333	40		Averaged
2-Nitropropane	0.0933	0.10191		.01		9.2283	30		Averaged
Ethyl methacrylate	0.3729	0.39961		.01		7.16278	30		Averaged
cis-1,4-Dichloro-2-butene	0.2679	0.29034		.01		8.37626	30		Averaged
Cyclohexanone	0.0296	0.02833		.01		-4.29054	40		Averaged
trans-1,4-Dichloro-2-butene	0.2569	0.27515		.01		7.10393	30		Averaged
Pentachloroethane	0.3345	0.50338		.01		50.48729	30	*	Averaged
Benzyl chloride	1.2534	1.34997		.01		7.70464	30		Averaged
bis(2-Chloroisopropyl)ether	0.385	0.34633		.01		-10.04416	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A504.D  
Acq On : 5 Mar 2010 12:04 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100305-03|CCV|1|VOAF|1|VOA8260BS|  
Misc : CCV 5mL N/A MIX[B] UVM100215-08B  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 05 12:22:14 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1384045	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1013642	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	600349	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1383787	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1013642	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	600349	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	491902	47.17	ug/L	0.00
43) Toluene-d8	11.620	11.620	0.883	98	1353610	49.02	ug/L	0.00
61) Bromofluorobenzene	14.357	14.357	0.922	95	575912	51.39	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.662	4.672	0.467		0m	N.D.	d	
4) Vinyl chloride	4.894	4.914	0.491		0m	N.D.	d	
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.682	6.706	0.670		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.676	6.706	0.669		0m	N.D.	d	
11) Iodomethane	6.938	6.956	0.696		0m	N.D.	d	
12) Acetonitrile	7.139	7.072	0.716		0m	N.D.	d	
13) Methyl acetate	7.096	7.096	0.711		0m	N.D.	d	
14) Carbon disulfide	7.139	7.078	0.716		0m	N.D.	d	
15) Methylene chloride	7.285	7.285	0.730		0m	N.D.	d	
16) tert-Butyl methyl ether	7.566	7.572	0.759		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	8.060	8.060	0.808		0m	N.D.	d	
19) 1,1-Dichloroethane	8.206	8.102	0.823		0m	N.D.	d	
20) 2-Butanone	8.700	8.694	0.872		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.700	8.742	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	9.053	9.053	0.908		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	9.389	9.413	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	9.474	9.480	0.950		0m	N.D.	d	
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	9.724	9.724	0.975		0m	N.D.	d	
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	10.077	10.077	1.010		0m	N.D.	d	
34) Trichloroethylene	10.358	10.364	1.039		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.590	10.602	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A504.D  
Acq On : 5 Mar 2010 12:04 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100305-03|CCV|1|VOAF|1|VOA8260BS|  
Misc : CCV 5mL N/A MIX[B] UVM100215-08B  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 05 12:22:14 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
42) 4-Methyl-2-pentanone	11.413	11.406	0.867		0m	N.D.	d
44) Toluene	11.693	11.699	0.889		0m	N.D.	d
45) trans-1,3-Dichloroprop...	11.858	11.858	0.901		0m	N.D.	d
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	12.266	12.260	0.932		0m	N.D.	d
48) 1,3-Dichloropropane	12.266	12.272	0.932		0m	N.D.	d
49) Tetrachloroethylene	12.290	12.290	0.934		0m	N.D.	d
50) Dibromochloromethane	12.540	12.534	0.953		0m	N.D.	d
51) 1,2-Dibromoethane	12.711	12.705	0.966		0m	N.D.	d
52) Chlorobenzene	13.187	13.187	1.002		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	13.248	13.241	1.007		0m	N.D.	d
54) Ethylbenzene	13.248	13.248	1.007		0m	N.D.	d
55) m,p-Xylenes	13.351	13.357	1.015		0m	N.D.	d
56) o-Xylene	13.802	13.796	1.049		0m	N.D.	d
57) Styrene	13.796	13.802	1.049		0m	N.D.	d
59) Bromoform	14.071	14.058	0.904		0m	N.D.	d
60) Isopropylbenzene	14.156	14.156	0.909		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	14.442	14.436	0.928		0m	N.D.	d
63) 1,2,3-Trichloropropane	14.522	14.528	0.933		0m	N.D.	d
64) Bromobenzene	14.558	14.564	0.935		0m	N.D.	d
65) n-Propylbenzene	14.583	14.583	0.937		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946		0m	N.D.	d
67) 2-Chlorotoluene	14.723	14.735	0.946		0m	N.D.	d
68) 4-Chlorotoluene	14.833	14.833	0.953		0m	N.D.	d
69) tert-Butylbenzene	15.107	15.107	0.970		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973		0m	N.D.	d
71) sec-Butylbenzene	15.333	15.333	0.985		0m	N.D.	d
72) 4-Isopropyltoluene	15.454	15.454	0.993		0m	N.D.	d
73) 1,3-Dichlorobenzene	15.515	15.515	0.996		0m	N.D.	d
74) 1,4-Dichlorobenzene	15.601	15.601	1.002		0m	N.D.	d
75) n-Butylbenzene	15.887	15.887	1.020		0m	N.D.	d
76) 1,2-Dichlorobenzene	16.021	16.021	1.029		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084		0m	N.D.	d
78) 1,2,4-Trichlorobenzene	17.905	17.911	1.150		0m	N.D.	d
79) Hexachlorobutadiene	18.076	18.076	1.161		0m	N.D.	d
80) Naphthalene	18.289	18.283	1.175		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.196		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	6.535	6.535	0.655	56	246448	344.52 ug/L	98
86) Trichlorotrifluoroethane	6.682	6.682	0.670	85	840674	266.80 ug/L	99
87) Isopropyl Alcohol	0.000	6.785	0.000		0m	N.D.	d
88) Allyl chloride	7.139	7.139	0.716	41	3693917	265.25 ug/L	99
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	7.541	7.541	0.756	53	654887	235.18 ug/L	100
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	8.206	8.206	0.823	53	761368	65.72 ug/L	100
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	8.700	8.700	0.872	43	1792737	218.38 ug/L	100
95) Propionitrile	8.773	8.773	0.880	54	252455	236.91 ug/L	98
96) Methacrylonitrile	8.950	8.950	0.897	41	1194425	241.64 ug/L	100
97) Tetrahydrofuran	9.059	9.059	0.908	42	590124	238.35 ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A504.D  
Acq On : 5 Mar 2010 12:04 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100305-03|CCV|1|VOAF|1|VOA8260BS|  
Misc : CCV 5mL N/A MIX[B] UVM100215-08B  
ALS Vial : 4 Sample Multiplier: 1

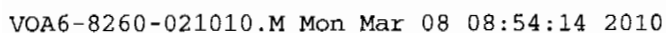
Quant Time: Mar 05 12:22:14 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98) Isobutyl alcohol	9.389	9.388	0.941	41	717586	2236.75	ug/L	98
99) Methyl tert-amyl ether	9.730	9.736	0.976	73	889	N.D.		
100) Methyl methacrylate	10.590	10.589	1.062	69	1039440	255.41	ug/L	99
101) 1,4-Dioxane	10.699	10.699	1.073	88	156564	2389.81	ug/L	99
102) 2-Nitropropane	11.071	11.071	1.110	43	705093	272.94	ug/L	98
104) Ethyl methacrylate	11.858	11.858	0.901	69	2025326	267.91	ug/L	99
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.		
107) cis-1,4-Dichloro-2-butene	14.199	14.199	0.912	53	871523	270.97	ug/L	99
108) Cyclohexanone	14.314	14.314	0.919	42	425246	1196.69	ug/L	97
109) trans-1,4-Dichloro-2-b...	14.485	14.485	0.930	53	825918	267.71	ug/L	99
110) Pentachloroethane	15.180	15.174	0.975	167	1511020	376.27	ug/L	100
111) Benzyl chloride	15.717	15.717	1.009	91	4052266	269.26	ug/L	100
112) bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	1039590	224.88	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A504.D  
Acq On : 5 Mar 2010 12:04 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |W6VM100305-03|CCV|1|VOAF|1|VOA8260BS|  
Misc : CCV 5mL N/A MIX[B] UVM100215-08B  
ALS Vial : 4 Sample Multiplier:1

SubList :



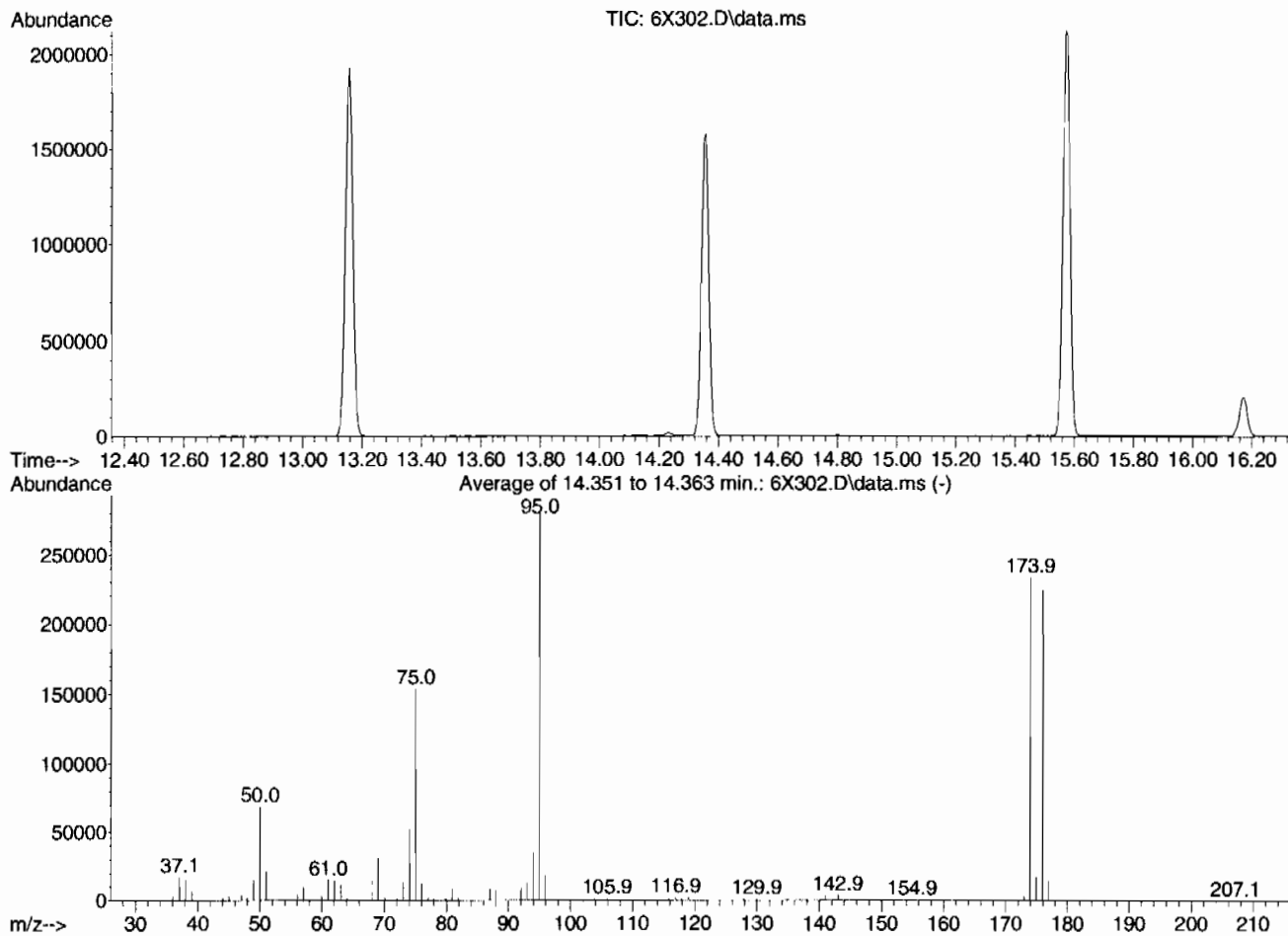
# Quality Control Data

Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\  
Data File : 6X302.D  
Acq On : 10 Feb 2010 12:23 pm  
Operator : RXD1  
Sample : |UVM100114-02|BFB|1|VOAF|1|VOA8260BS|  
Misc : BFB 5mL N/A  
ALS Vial : 2 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Title : Volatile Organics 8260B SubList :  
Last Update : Mon Dec 14 12:44:52 2009



AutoFind: Scans 1558, 1559, 1560; Background Corrected with Scan 1549

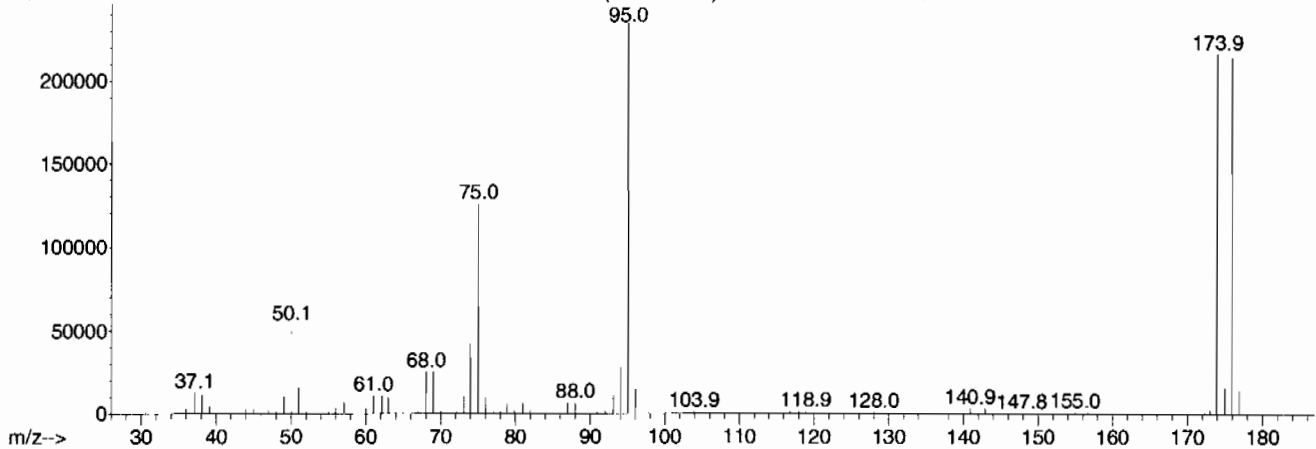
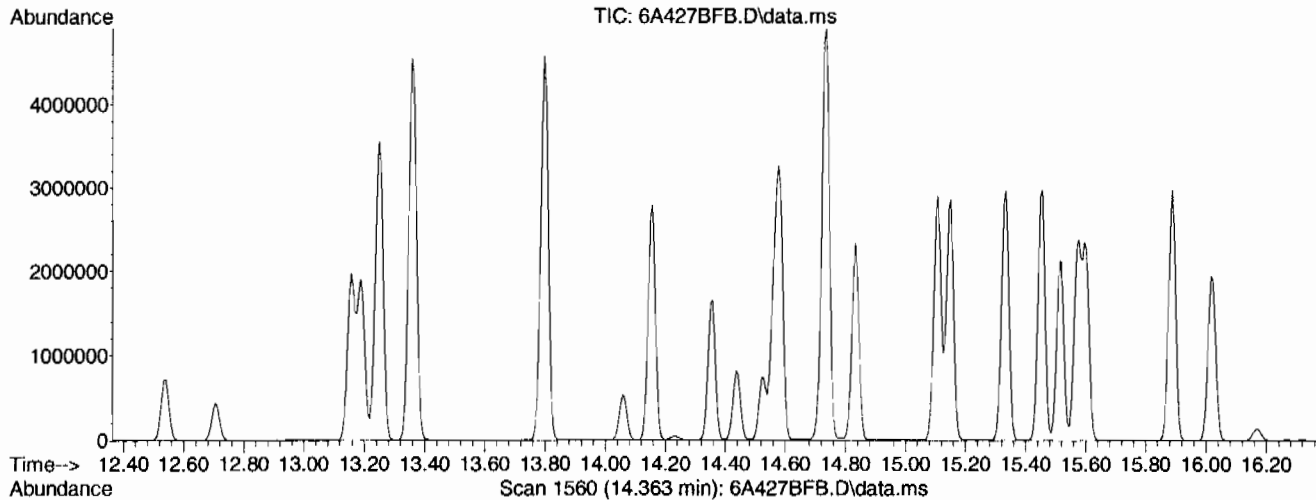
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.7	68928	PASS
75	95	30	60	55.0	153651	PASS
95	95	100	100	100.0	279445	PASS
96	95	5	9	6.4	17904	PASS
173	174	0.00	2	1.3	3045	PASS
174	95	50	100	83.7	233771	PASS
175	174	5	9	7.4	17404	PASS
176	174	95	101	95.9	224192	PASS
177	176	5	9	6.2	14007	PASS

Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A427BFB.D  
Acq On : 4 Mar 2010 9:40 pm  
Operator : RXD1  
Sample : |W6VM100304-05|BFB|1|VOAF|1|VOA8260BS|  
Misc : BFB 5mL N/A MIX[A] 0106-07D+0222-07A  
ALS Vial : 27 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Title : Volatile Organics 8260B  
Last Update : Thu Feb 11 09:38:02 2010  
SubList :



Spectrum Information: Scan 1560

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.8	53464	PASS
75	95	30	60	53.5	125800	PASS
95	95	100	100	100.0	234944	PASS
96	95	5	9	6.1	14410	PASS
173	174	0.00	2	1.3	2710	PASS
174	95	50	100	91.9	215936	PASS
175	174	5	9	7.4	16027	PASS
176	174	95	101	99.1	214016	PASS
177	176	5	9	6.5	13866	PASS

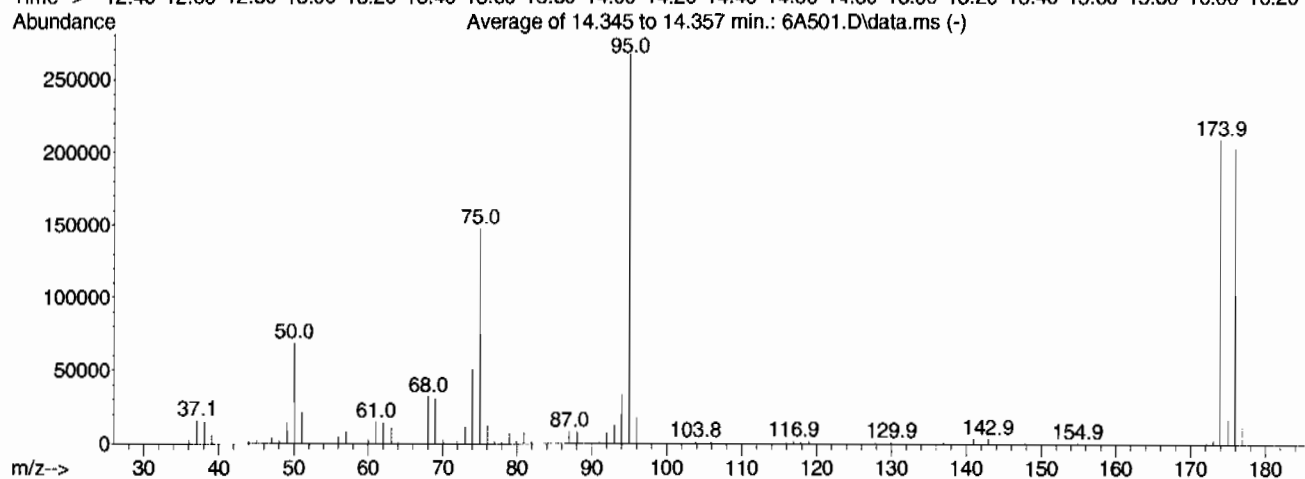
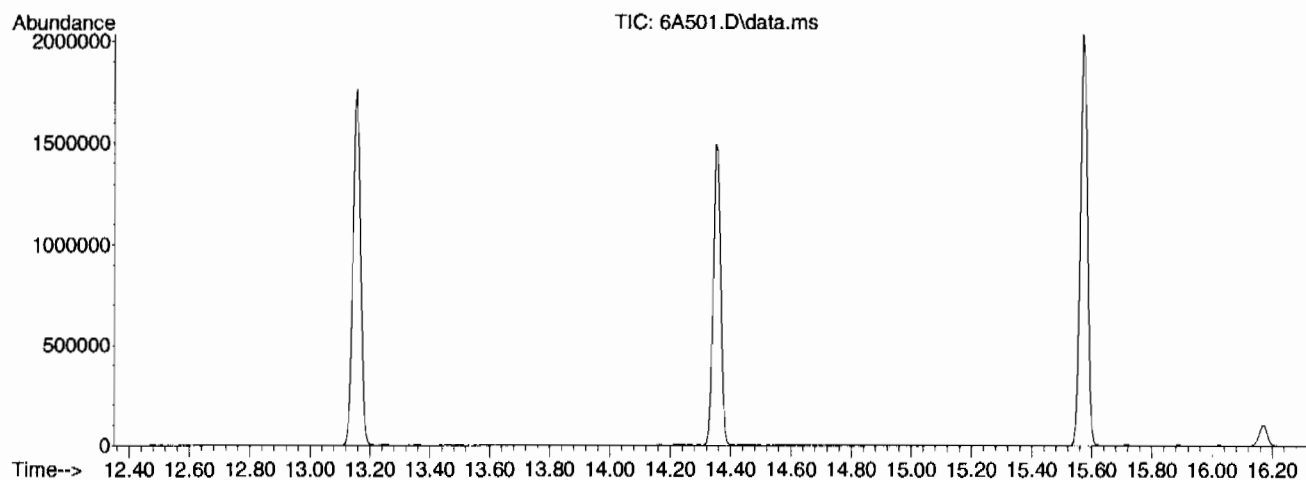


Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A501.D  
Acq On : 5 Mar 2010 10:40 am  
Operator : RXD1  
Sample : |UVM100203-02|BFB|1|VOAF|1|VOA8260BS|  
Misc : BFB 5mL N/A  
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Title : Volatile Organics 8260B SubList :  
Last Update : Thu Feb 11 09:38:02 2010



AutoFind: Scans 1557, 1558, 1559; Background Corrected with Scan 1549

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.6	68496	PASS
75	95	30	60	55.1	147501	PASS
95	95	100	100	100.0	267541	PASS
96	95	5	9	6.8	18115	PASS
173	174	0.00	2	1.2	2446	PASS
174	95	50	100	78.2	209109	PASS
175	174	5	9	7.8	16330	PASS
176	174	95	101	97.2	203307	PASS
177	176	5	9	6.6	13404	PASS

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 1202061417  
 Client Sample: QC for batch 961079  
 Client ID: MB for batch 961079  
 Batch ID: 961082  
 Run Date: 03/04/2010 23:03  
 Prep Date: 03/04/2010 09:26  
 Data File: 030410V6\6A430BL.D

Client: LANL.010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: SOIL  
 Project: QC  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 1202061417  
 Client Sample: QC for batch 961079  
 Client ID: MB for batch 961079  
 Batch ID: 961082  
 Run Date: 03/04/2010 23:03  
 Prep Date: 03/04/2010 09:26  
 Data File: 030410V6\6A430BL.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: SOIL  
 Project: QC  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.17	6.42	ug/kg	0	J
	unknown siloxane	16.17	11.7	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A430BL.D  
Acq On : 4 Mar 2010 11:03 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061417|961082|1|VOAF|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 05 08:54:59 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev (Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1345959	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	999659	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	570276	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1344278	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	999659	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	570276	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	506281	49.92	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	99.84%			
43) Toluene-d8	11.620	11.620	0.883	98	1308845	48.07	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	96.14%			
61) Bromofluorobenzene	14.351	14.357	0.922	95	539284	50.66	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	101.32%			
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.642	4.672	0.465	50	1118	N.D.		
4) Vinyl chloride	4.894	4.914	0.491	62	1209	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.718	6.706	0.674	43	1537	Below Cal	#	50
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	7.133	7.072	0.715	41	1101	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.072	7.078	0.709	76	492	N.D.		
15) Methylene chloride	7.279	7.285	0.730	84	2226	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	8.700	8.694	0.872	43	1875	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A430BL.D  
Acq On : 4 Mar 2010 11:03 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061417|961082|1|VOAF|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 05 08:54:59 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.693	11.699	0.889	91	1001	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	12.266	12.260	0.932	43	1800	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	13.187	13.187	1.002	112	184	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.254	13.248	1.007	91	605	N.D.	
55) m,p-Xylenes	13.357	13.357	1.015	106	201	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	13.802	13.802	1.049	104	728	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	14.156	14.156	0.909	105	1141	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	14.583	14.583	0.937	91	2925	N.D.	
66) 1,3,5-Trimethylbenzene	14.729	14.735	0.946	105	1769	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	14.833	14.833	0.953	91	978	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	2108	N.D.	
71) sec-Butylbenzene	15.339	15.333	0.985	105	2977	N.D.	
72) 4-Isopropyltoluene	15.455	15.454	0.993	119	2373	N.D.	
73) 1,3-Dichlorobenzene	15.522	15.515	0.997	146	817	N.D.	
74) 1,4-Dichlorobenzene	15.595	15.601	1.002	146	1052	N.D.	
75) n-Butylbenzene	15.887	15.887	1.020	91	2945	N.D.	
76) 1,2-Dichlorobenzene	16.015	16.021	1.029	146	664	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	2157	N.D.	
79) Hexachlorobutadiene	18.070	18.076	1.161	225	1096	N.D.	
80) Naphthalene	18.283	18.283	1.174	128	10787	0.52 ug/L	85
81) 1,2,3-Trichlorobenzene	18.612	18.618	1.195	180	4150	0.44 ug/L	86
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	7.133	7.139	0.715	41	1101	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	8.700	8.700	0.872	43	1875	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A430BL.D  
Acq On : 4 Mar 2010 11:03 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061417|961082|1|VOAF|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 05 08:54:59 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	8.944	8.950	0.897	41	379	N.D.	
97) Tetrahydrofuran	9.053	9.059	0.908	42	214	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0m	N.D.	d
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	10.590	10.589	1.062	69	429	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104) Ethyl methacrylate	11.864	11.858	0.902	69	2321	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.205	14.199	0.912	53	1998	N.D.	
108) Cyclohexanone	14.308	14.314	0.919	42	3710	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0m	N.D.	d
110) Pentachloroethane	15.180	15.174	0.975	167	2976	0.78 ug/L	81
111) Benzyl chloride	15.717	15.717	1.009	91	21387	1.50 ug/L	93
112) bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	16159	3.68 ug/L	99

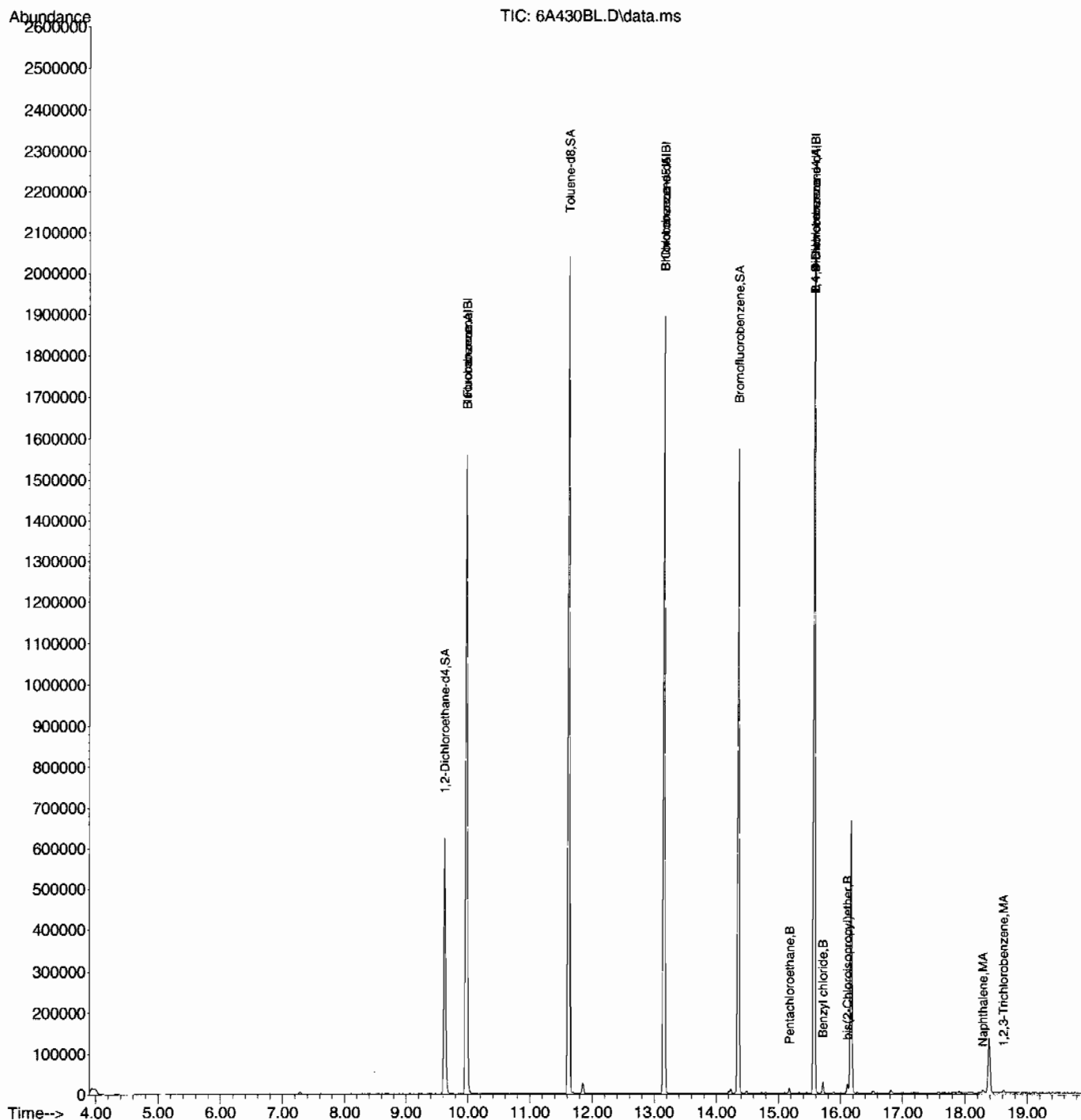
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

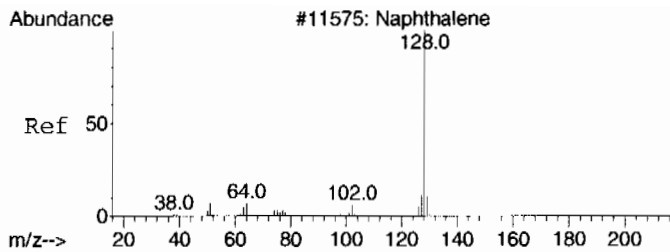
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A430BL.D  
Acq On : 4 Mar 2010 11:03 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061417|961082|1|VOAF|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 05 08:54:59 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

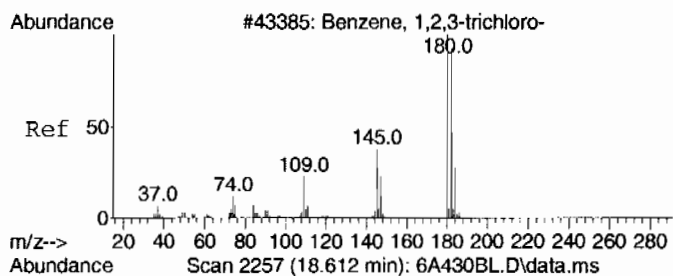
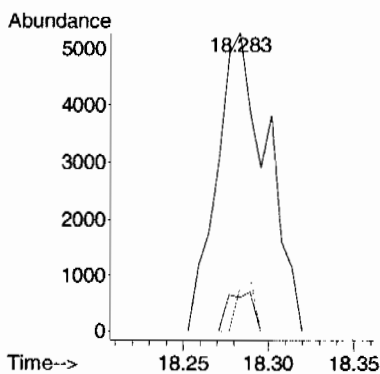
SubList :





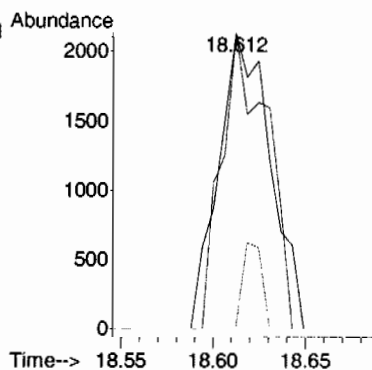
#80  
Naphthalene  
Concen: 0.52 ug/L  
RT: 18.283 min Scan# 2203  
Delta R.T. 0.000 min  
Lab File: 6A430BL.D  
Acq: 4 Mar 2010 11:03 pm

Tgt Ion	Ratio	Lower	Upper
128	100		
127	6.7	0.0	43.1
129	6.0	0.0	41.1

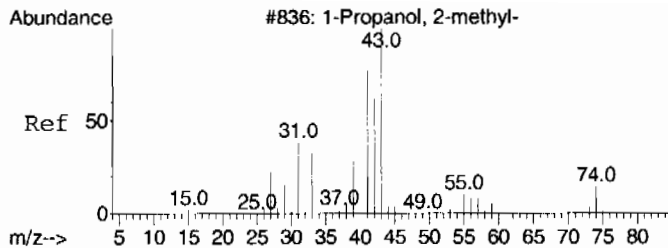


#81  
1,2,3-Trichlorobenzene  
Concen: 0.44 ug/L  
RT: 18.612 min Scan# 2257  
Delta R.T. -0.006 min  
Lab File: 6A430BL.D  
Acq: 4 Mar 2010 11:03 pm

Tgt Ion	Ratio	Lower	Upper
180	100		
182	88.9	65.0	125.0
145	10.6	1.6	61.6

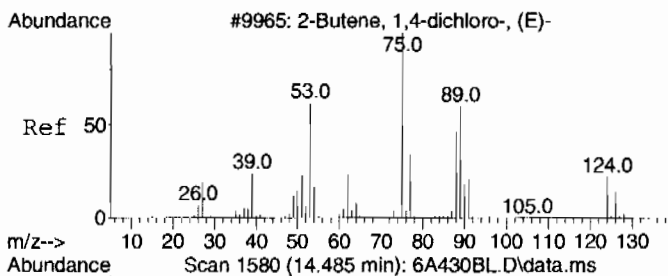
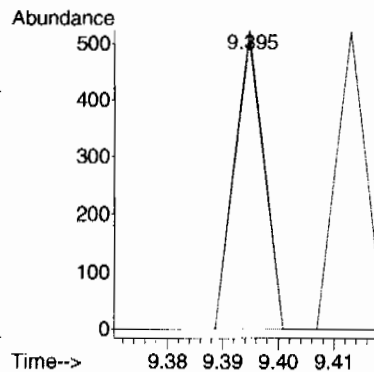






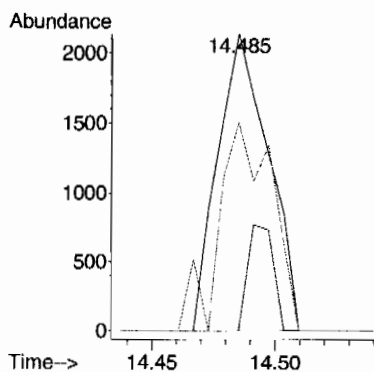
#98 BEFORE analyst DELETION  
Isobutyl alcohol  
Concen: 0.62 ug/L  
RT: 9.395 min Scan# 745  
Delta R.T. 0.007 min  
Lab File: 6A430BL.D  
Acq: 4 Mar 2010 11:03 pm

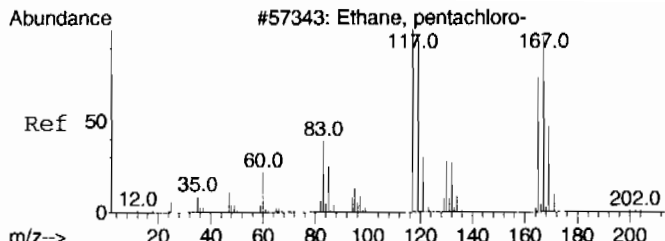
Tgt Ion: 41 Resp: 192  
Ion Ratio Lower Upper  
41 100  
43 96.4 105.9 165.9#



#109 BEFORE analyst DELETION  
trans-1,4-Dichloro-2-butene  
Concen: 1.05 ug/L  
RT: 14.485 min Scan# 1580  
Delta R.T. 0.000 min  
Lab File: 6A430BL.D  
Acq: 4 Mar 2010 11:03 pm

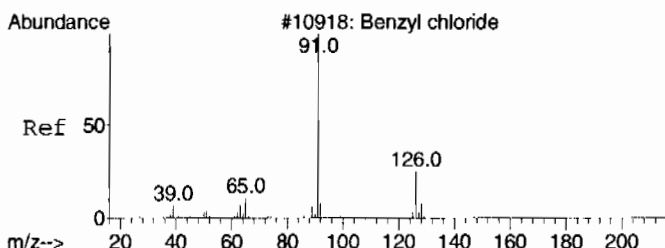
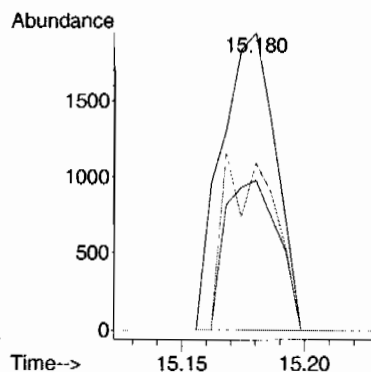
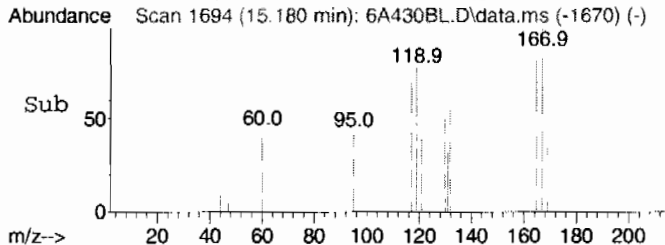
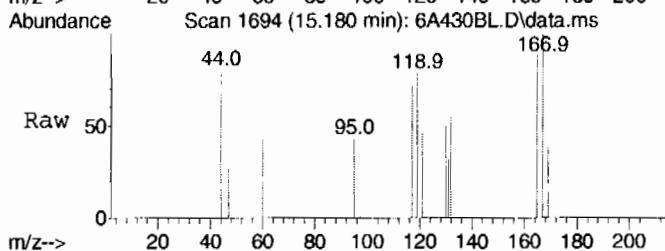
Tgt Ion: 53 Resp: 3064  
Ion Ratio Lower Upper  
53 100  
88 18.0 20.6 80.6#  
75 74.1 68.4 128.4





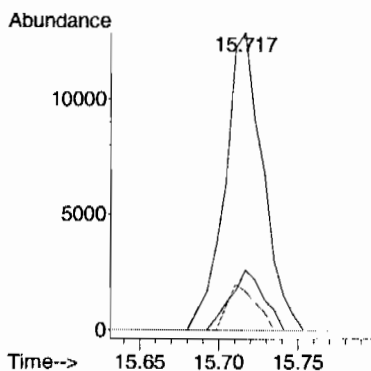
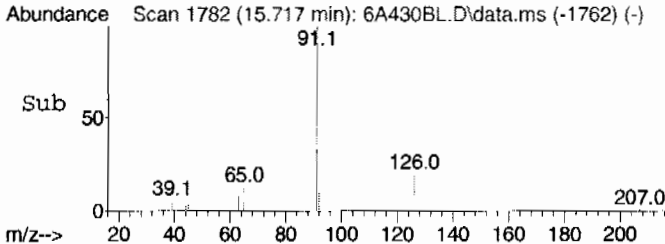
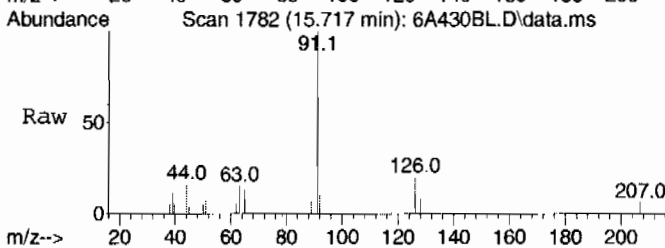
#110  
Pentachloroethane  
Concen: 0.78 ug/L  
RT: 15.180 min Scan# 1694  
Delta R.T. 0.006 min  
Lab File: 6A430BL.D  
Acq: 4 Mar 2010 11:03 pm

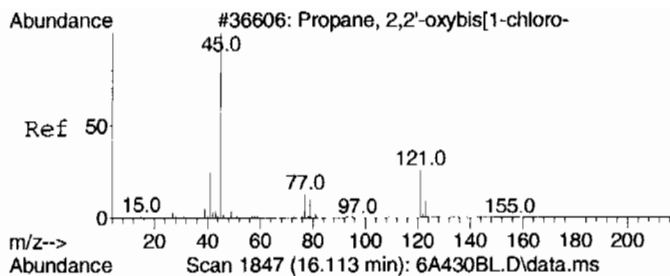
Tgt Ion: 167 Resp: 2976  
Ion Ratio Lower Upper  
167 100  
130 48.9 11.2 71.2  
132 54.3 8.3 68.3



#111  
Benzyl chloride  
Concen: 1.50 ug/L  
RT: 15.717 min Scan# 1782  
Delta R.T. -0.000 min  
Lab File: 6A430BL.D  
Acq: 4 Mar 2010 11:03 pm

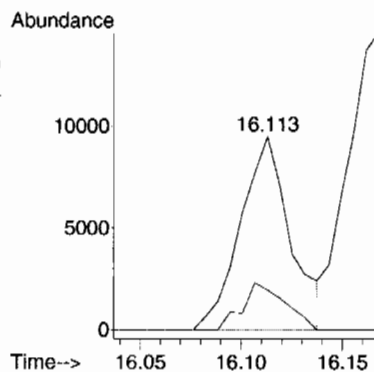
Tgt Ion: 91 Resp: 21387  
Ion Ratio Lower Upper  
91 100  
126 17.5 0.0 51.0  
65 11.2 0.0 43.8





#112  
bis(2-Chloroisopropyl)ether  
Concen: 3.68 ug/L  
RT: 16.113 min Scan# 1847  
Delta R.T. -0.000 min  
Lab File: 6A430BL.D  
Acq: 4 Mar 2010 11:03 pm

Tgt Ion: 45 Resp: 16159  
Ion Ratio Lower Upper  
45 100  
121 21.0 0.0 51.3



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A430BL.D  
Acq On : 4 Mar 2010 11:03 pm  
Operator : RXD1  
Sample : |1202061417|961082|1|VOAF|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B

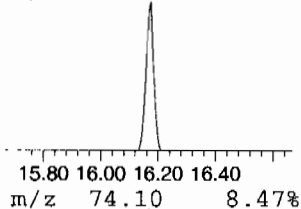
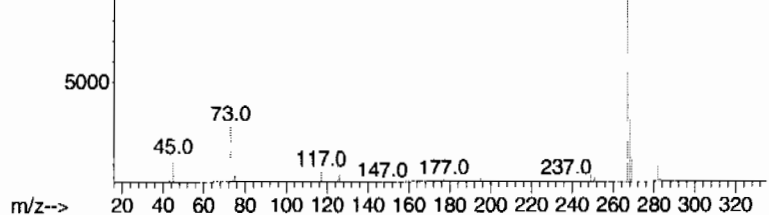
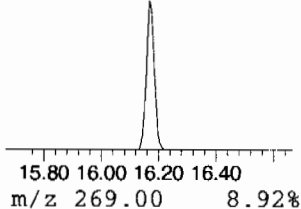
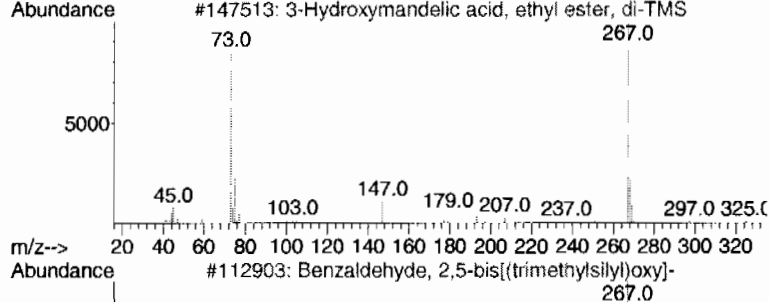
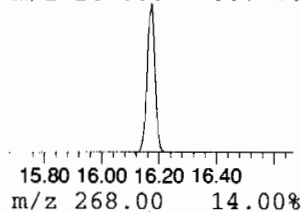
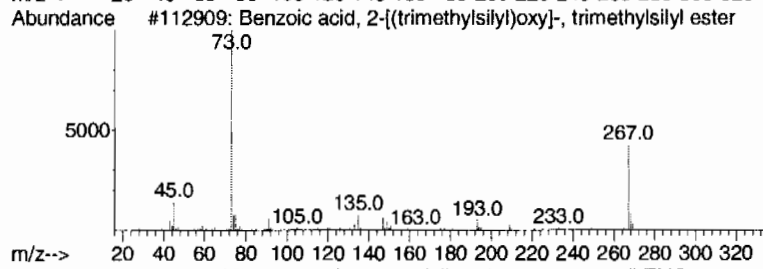
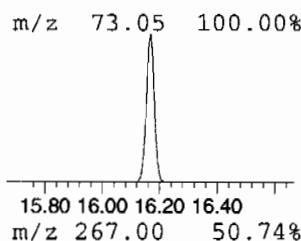
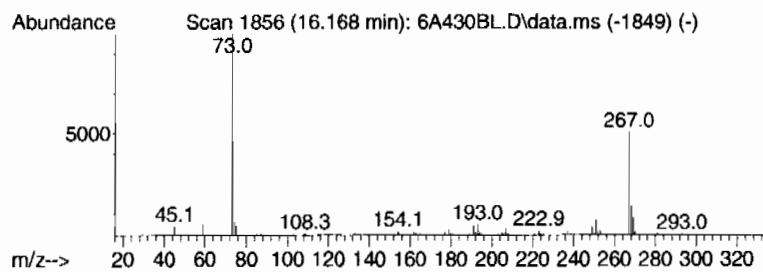
SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.168	11.67 ug/L	832440	B 1,4-Dichlorobenzene-d4	15.570

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	59
2		3-Hydroxymandelic acid, ethyl ester, di-TMS	340	C16H28O4Si2	1000071-88-9	56
3		Benzaldehyde, 2,5-bis[(trimethylsilyl)oxy]-	282	C13H22O3Si2	056114-69-3	53
4		Butanamide, 2,2,3,3,4,4,4-heptafluoro-N-methyl-N-(trimethylsilyl)-	493	C18H26F7NO3Si2	055471-01-7	50
5		Benzaldehyde, 2,4-bis(trimethylsilyloxy)-	282	C13H22O3Si2	033617-38-8	50



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A430BL.D  
Acq On : 4 Mar 2010 11:03 pm  
Operator : RXD1  
Sample : |1202061417|961082|1|VOAF|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

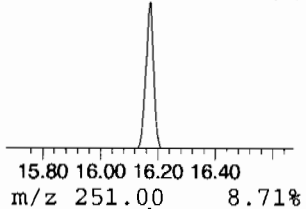
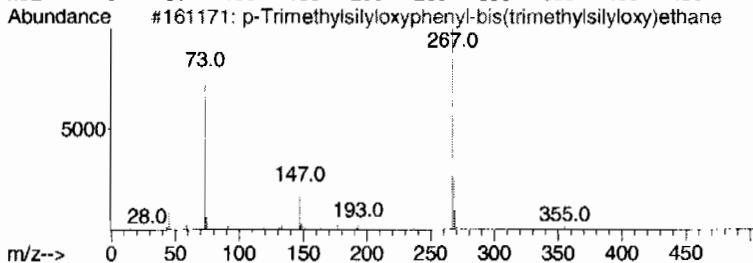
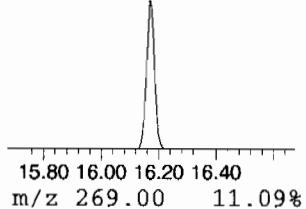
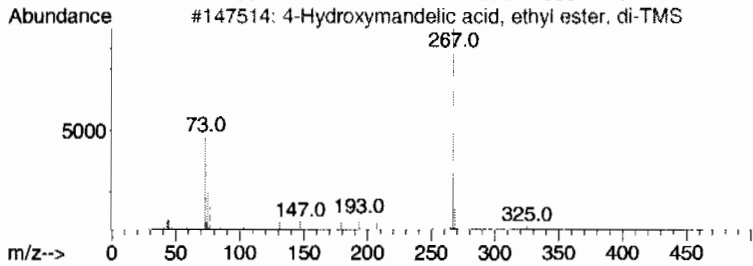
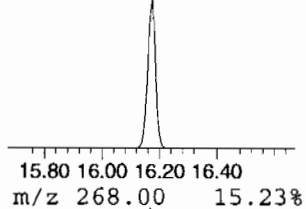
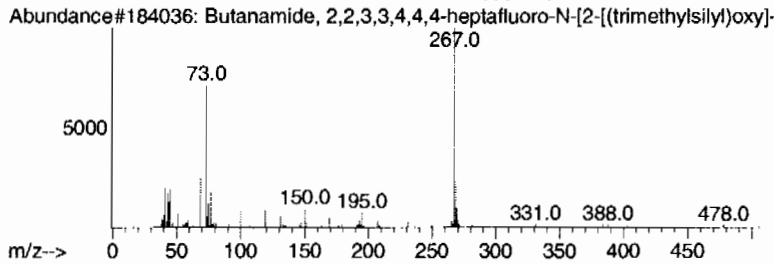
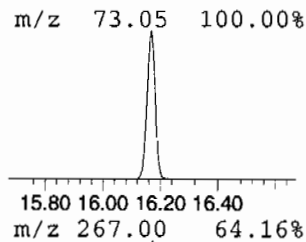
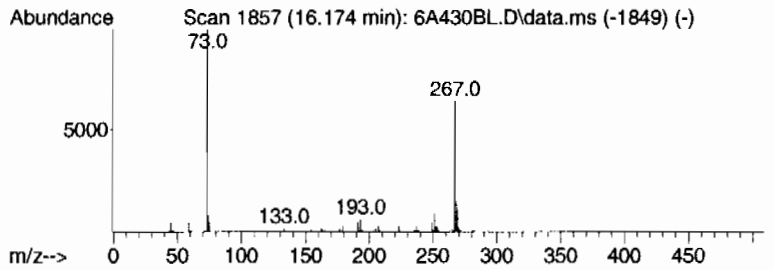
TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.174	6.42 ug/L	457864	B 1,4-Dichlorobenzene-d4	15.570

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Butanamide, 2,2,3,3,4,4,4-heptafluoro-N-[2-[(trimethylsilyl)oxy]-	493	C18H26F7NO3Si2	055471-01-7	56
2		4-Hydroxymandelic acid, ethyl ester, di-TMS	340	C16H28O4Si2	1000071-53-3	56
3		p-Trimethylsilyloxyphenyl-bis(trimethylsilyloxy)ethane	370	C17H34O3Si3	1000079-08-1	45
4		1,3-Diphenyl-5-methylthio-1,2,4-triazole	267	C15H13N3S	051384-17-9	43
5		3-Hydroxymandelic acid, ethyl ester, di-TMS	340	C16H28O4Si2	1000071-88-9	42



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A430BL.D  
Acq On : 4 Mar 2010 11:03 pm  
Operator : RXD1  
Sample : |1202061417|961082|1|VOAF|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown siloxane	16.168	11.7	ug/L	832440	6	15.570	3566420	50.0
unknown siloxane	16.174	6.4	ug/L	457864	6	15.570	3566420	50.0

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 1202078875  
 Client Sample: QC for batch 961079  
 Client ID: MB for batch 961079  
 Batch ID: 961082  
 Run Date: 03/05/2010 13:00  
 Prep Date: 03/05/2010 09:36  
 Data File: 030510V66A506BS.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.1  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: SOIL  
 Project: QC  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 1202078875  
 Client Sample: QC for batch 961079  
 Client ID: MB for batch 961079  
 Batch ID: 961082  
 Run Date: 03/05/2010 13:00  
 Prep Date: 03/05/2010 09:36  
 Data File: 030510V66A506BS.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: SOIL  
 Project: QC  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.00	ug/kg	1.60	5.00
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	18.39	13.2	ug/kg	0	J



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A506BS.D  
Acq On : 5 Mar 2010 1:00 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202078875|961082|1|VOAF|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 05 14:03:56 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1370929	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1029129	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	575259	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1369011	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1029129	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	575259	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	511800	49.55	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	99.10%			
43) Toluene-d8	11.620	11.620	0.883	98	1343334	47.92	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	95.84%			
61) Bromofluorobenzene	14.357	14.357	0.922	95	558610	52.02	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	104.04%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.662	4.672	0.467	50	1216	N.D.		
4) Vinyl chloride	4.874	4.914	0.489	62	1158	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.731	6.706	0.675	43	1601	Below Cal	#	50
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	7.139	7.072	0.716	41	951	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.072	7.078	0.709	76	229	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	4982	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	8.706	8.694	0.873	43	2818	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A506BS.D  
Acq On : 5 Mar 2010 1:00 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202078875|961082|1|VOAF|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 05 14:03:56 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.699	11.699	0.889	91	547	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	12.260	12.260	0.932	43	1199	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.248	13.248	1.007	91	193	N.D.	
55) m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	14.156	14.156	0.909	105	237	N.D.	
62) 1,1,2,2-Tetrachloroethane	14.327	14.436	0.920	83	430	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	14.589	14.583	0.937	91	1373	N.D.	
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	234	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	14.833	14.833	0.953	91	673	N.D.	
69) tert-Butylbenzene	15.180	15.107	0.975	134	184	N.D.	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	902	N.D.	
71) sec-Butylbenzene	15.333	15.333	0.985	105	1231	N.D.	
72) 4-Isopropyltoluene	15.454	15.454	0.993	119	786	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	371	N.D.	
75) n-Butylbenzene	15.887	15.887	1.020	91	1370	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.911	17.911	1.150	180	710	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.283	18.283	1.174	128	4629	N.D.	
81) 1,2,3-Trichlorobenzene	18.631	18.618	1.197	180	1878	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	7.139	7.139	0.716	41	951	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	7.566	7.541	0.759	53	184	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	8.706	8.700	0.873	43	2818	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A506BS.D  
Acq On : 5 Mar 2010 1:00 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202078875|961082|1|VOAF|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 05 14:03:56 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	8.773	0.000		0	N.D.	
96) Methacrylonitrile	8.944	8.950	0.897	41	452	N.D.	
97) Tetrahydrofuran	9.059	9.059	0.908	42	491	N.D.	
98) Isobutyl alcohol	0.000	9.388	0.000		0m	N.D.	d
99) Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100) Methyl methacrylate	10.590	10.589	1.062	69	986	N.D.	
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	11.077	11.071	1.111	43	381	N.D.	
104) Ethyl methacrylate	11.864	11.858	0.902	69	3475	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.199	14.199	0.912	53	2672	N.D.	
108) Cyclohexanone	14.314	14.314	0.919	42	8613	25.29 ug/L	84
109) trans-1,4-Dichloro-2-b...	14.491	14.485	0.931	53	4392	1.49 ug/L	78
110) Pentachloroethane	15.180	15.174	0.975	167	5183	1.35 ug/L	94
111) Benzyl chloride	15.717	15.717	1.009	91	34146	2.37 ug/L	98
112) bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	24215	5.47 ug/L	99

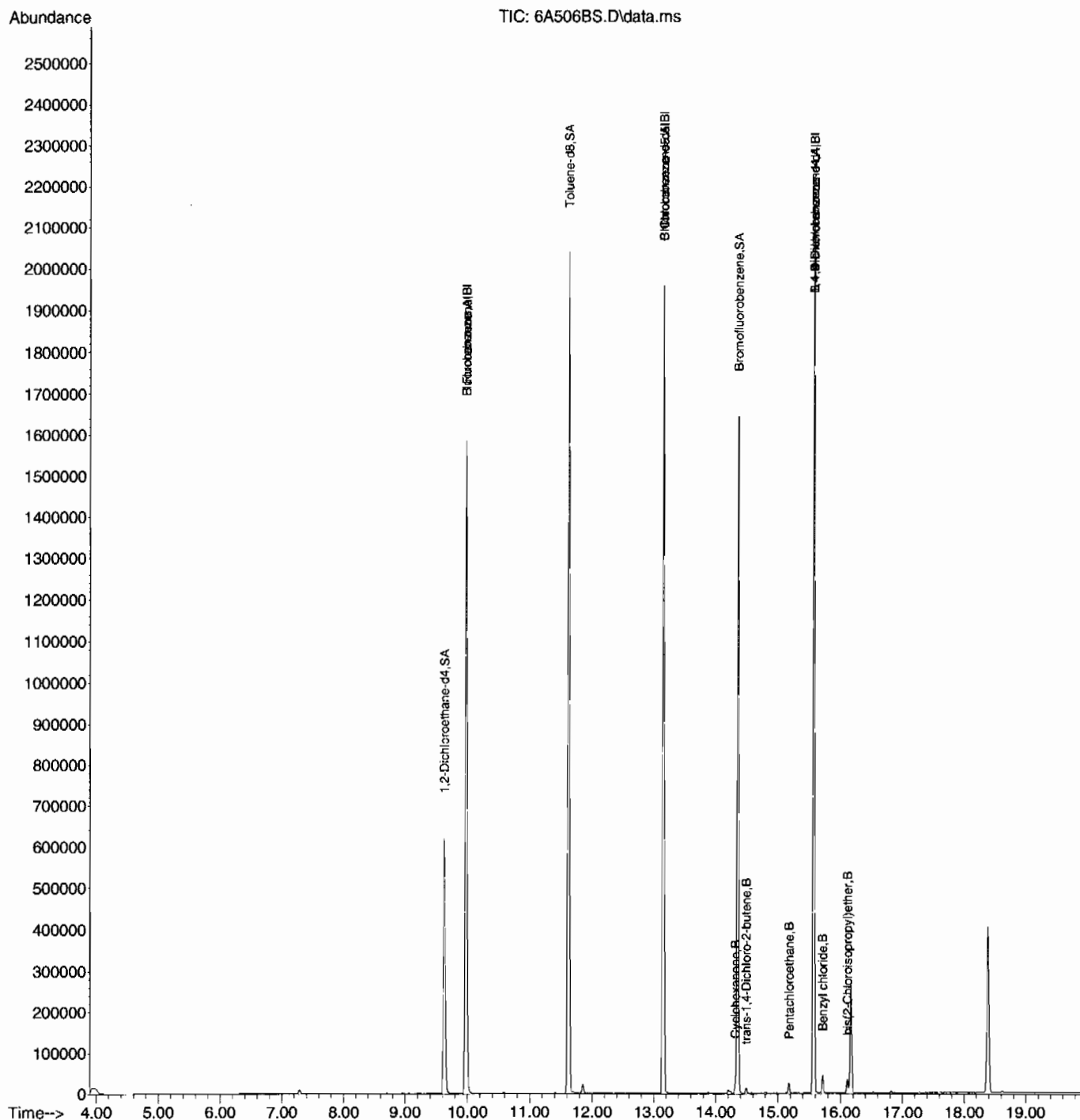
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

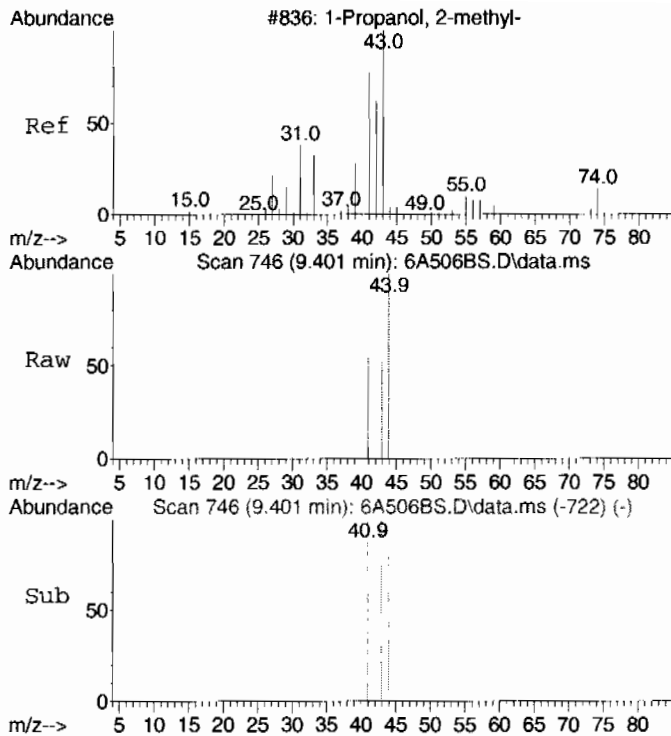
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A506BS.D  
Acq On : 5 Mar 2010 1:00 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202078875|961082|1|VOAF|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 05 14:03:56 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

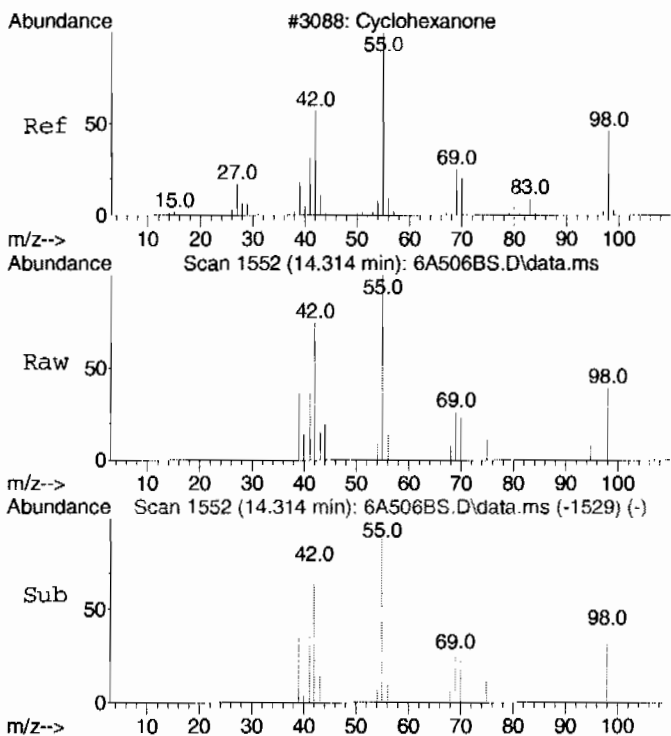
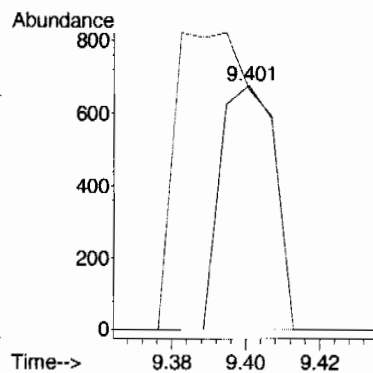
SubList :





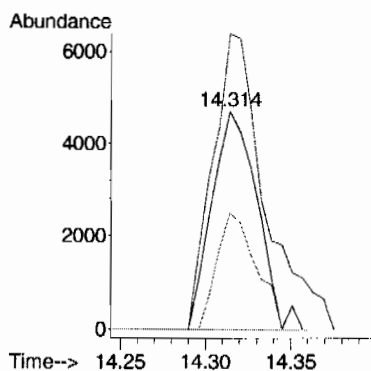
#98 BEFORE analyst DELETION  
Isobutyl alcohol  
Concen: 2.18 ug/L  
RT: 9.401 min Scan# 746  
Delta R.T. 0.013 min  
Lab File: 6A506BS.D  
Acq: 5 Mar 2010 1:00 pm

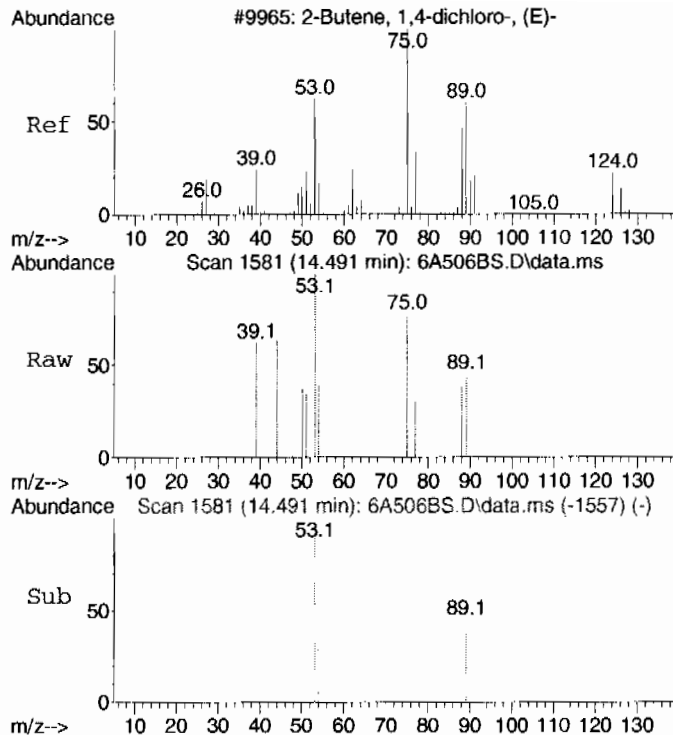
Tgt Ion: 41 Resp: 691  
Ion Ratio Lower Upper  
41 100  
43 196.2 105.9 165.9#



#108  
Cyclohexanone  
Concen: 25.29 ug/L  
RT: 14.314 min Scan# 1552  
Delta R.T. 0.000 min  
Lab File: 6A506BS.D  
Acq: 5 Mar 2010 1:00 pm

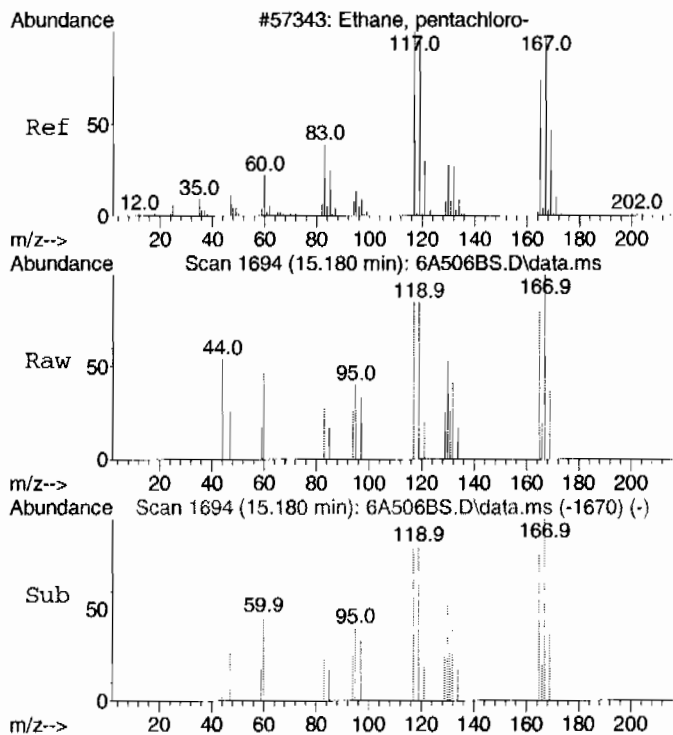
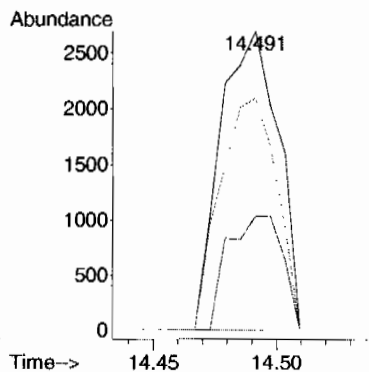
Tgt Ion: 42 Resp: 8613  
Ion Ratio Lower Upper  
42 100  
55 156.8 101.9 161.9  
98 45.7 17.0 77.0





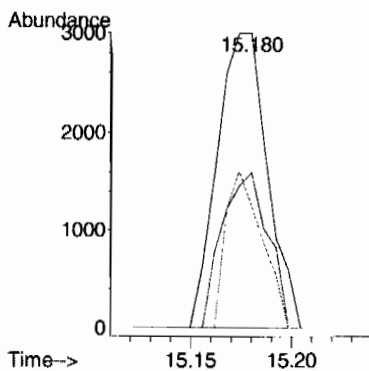
#109  
trans-1,4-Dichloro-2-butene  
Concen: 1.49 ug/L  
RT: 14.491 min Scan# 1581  
Delta R.T. 0.006 min  
Lab File: 6A506BS.D  
Acq: 5 Mar 2010 1:00 pm

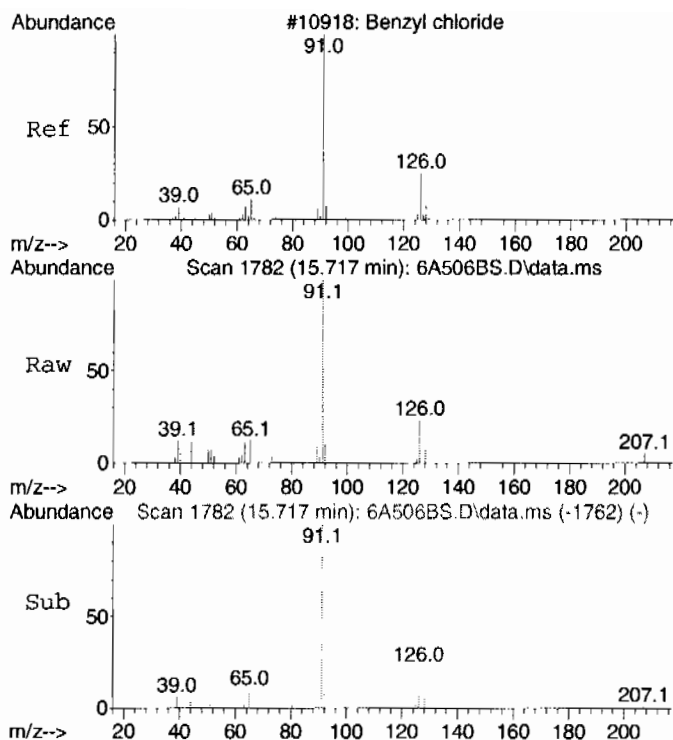
Tgt Ion: 53 Resp: 4392  
Ion Ratio Lower Upper  
53 100  
88 36.5 20.6 80.6  
75 76.3 68.4 128.4



#110  
Pentachloroethane  
Concen: 1.35 ug/L  
RT: 15.180 min Scan# 1694  
Delta R.T. 0.006 min  
Lab File: 6A506BS.D  
Acq: 5 Mar 2010 1:00 pm

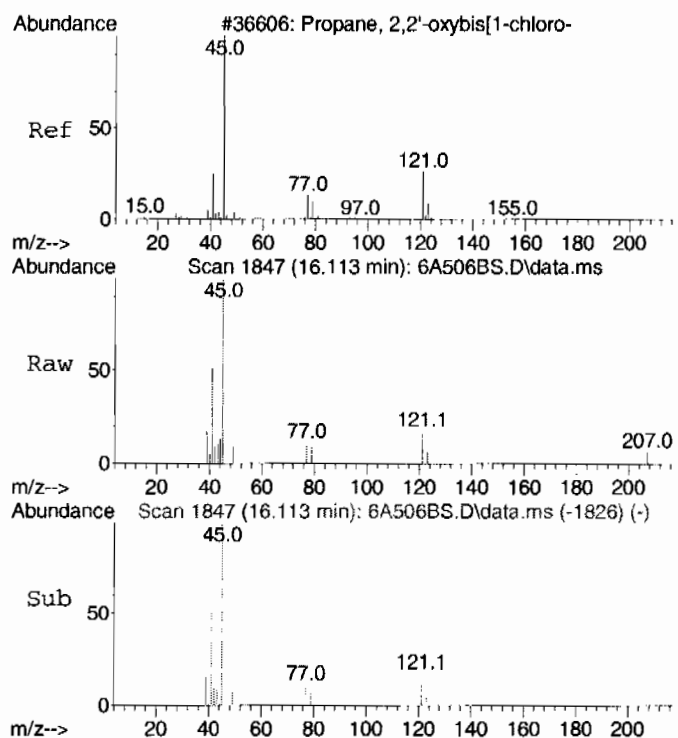
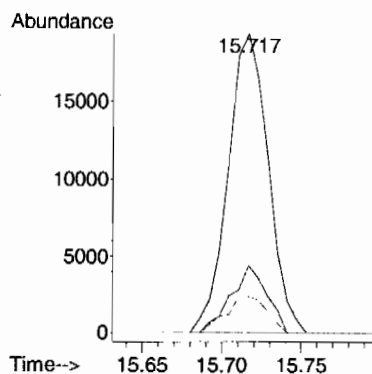
Tgt Ion: 167 Resp: 5183  
Ion Ratio Lower Upper  
167 100  
130 48.4 11.2 71.2  
132 38.6 8.3 68.3





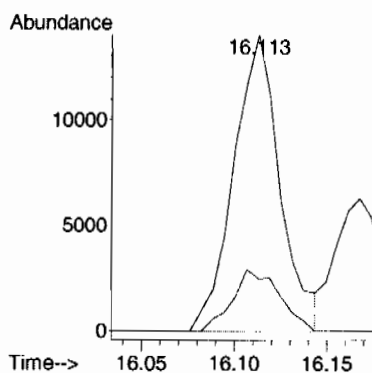
#111  
Benzyl chloride  
Concen: 2.37 ug/L  
RT: 15.717 min Scan# 1782  
Delta R.T. -0.000 min  
Lab File: 6A506BS.D  
Acq: 5 Mar 2010 1:00 pm

Tgt Ion	Ratio	Lower	Upper
91	100		
126	20.4	0.0	51.0
65	12.7	0.0	43.8



#112  
bis(2-Chloroisopropyl) ether  
Concen: 5.47 ug/L  
RT: 16.113 min Scan# 1847  
Delta R.T. -0.000 min  
Lab File: 6A506BS.D  
Acq: 5 Mar 2010 1:00 pm

Tgt Ion	Ratio	Lower	Upper
45	100		
121	20.8	0.0	51.3



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A506BS.D  
Acq On : 5 Mar 2010 1:00 pm  
Operator : RXD1  
Sample : |1202078875|961082|1|VOAF|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B

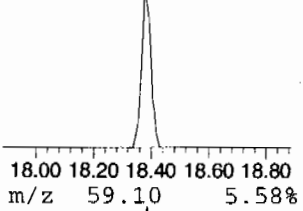
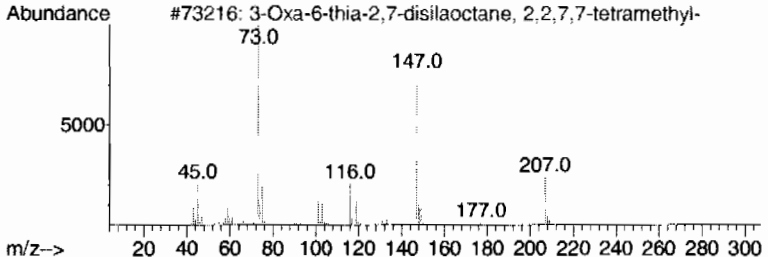
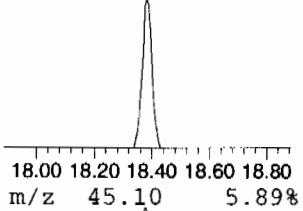
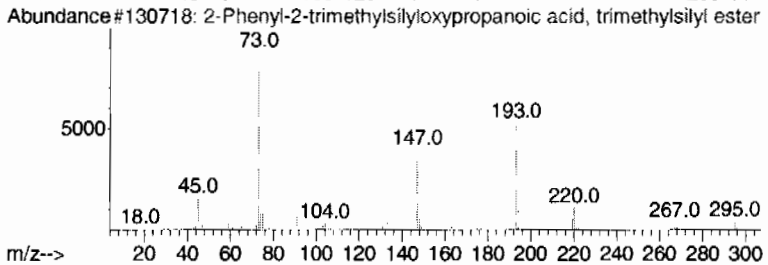
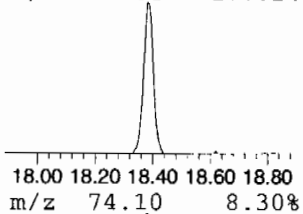
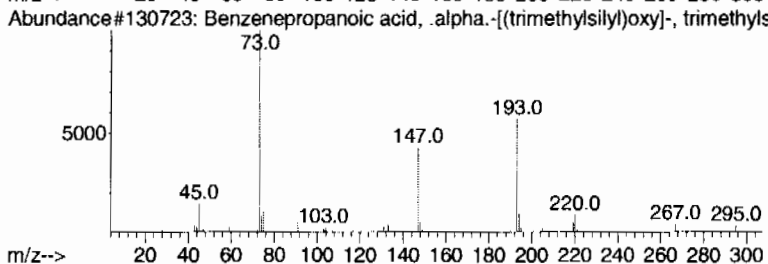
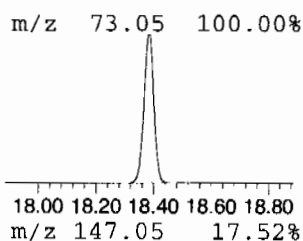
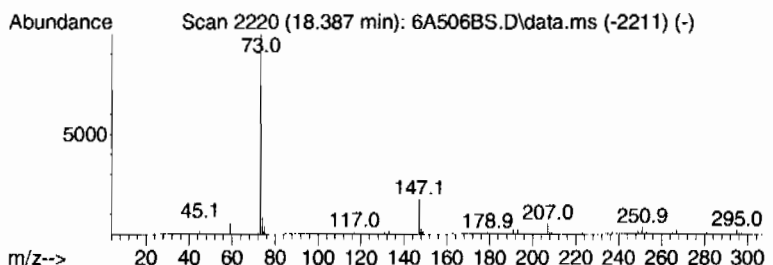
SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.387	13.15 ug/L	952033	B 1,4-Dichlorobenzene-d4	15.570

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Benzenepropanoic acid, .alpha.-[...	310	C15H26O3Si2	027750-45-4	38
2			2-Phenyl-2-trimethylsilyloxyprop...	310	C15H26O3Si2	082326-12-3	38
3			3-Oxa-6-thia-2,7-disilaooctane, 2...	222	C8H22OSSi2	078921-31-0	37
4			Ribo-hexos-3-ulose, 2,4,5,6-tetr...	524	C20H48N2O6Si4	062108-14-9	33
5			Acetic acid, bis[(trimethylsilyl)...	308	C11H28O4Si3	055517-38-9	28





Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A506BS.D  
Acq On : 5 Mar 2010 1:00 pm  
Operator : RXD1  
Sample : |1202078875|961082|1|VOAF|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown siloxane	18.387	13.2	ug/L	952033	6	15.570	3619230	50.0

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 1202061420  
 Client Sample: QC for batch 961079  
 Client ID: LCS for batch 961079  
 Batch ID: 961082  
 Run Date: 03/04/2010 22:08  
 Prep Date: 03/04/2010 09:23  
 Data File: 030410V66A428LL.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: SOIL  
 Project: QC  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		28.0	ug/kg	0.340	1.00
74-87-3	Chloromethane		33.2	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		37.2	ug/kg	0.300	1.00
74-83-9	Bromomethane		37.8	ug/kg	0.300	1.00
75-00-3	Chloroethane		37.6	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		37.7	ug/kg	0.300	1.00
67-64-1	Acetone		227	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		38.2	ug/kg	0.300	1.00
74-88-4	Iodomethane		192	ug/kg	1.60	5.00
75-09-2	Methylene chloride		38.0	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		194	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		40.3	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		41.5	ug/kg	0.300	1.00
78-93-3	2-Butanone		263	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		41.5	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		41.5	ug/kg	0.300	1.00
67-66-3	Chloroform		40.1	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		41.1	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		41.4	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		42.9	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		41.5	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		41.1	ug/kg	0.300	1.00
71-43-2	Benzene		40.1	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		42.4	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		42.7	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		43.6	ug/kg	0.300	1.00
74-95-3	Dibromomethane		42.3	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		251	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		44.3	ug/kg	0.300	1.00
108-88-3	Toluene		40.8	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		44.6	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		41.9	ug/kg	0.300	1.00
591-78-6	2-Hexanone		296	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		41.3	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		40.9	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		44.1	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		42.6	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		41.2	ug/kg	0.300	1.00

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 1202061420  
 Client Sample: QC for batch 961079  
 Client ID: LCS for batch 961079  
 Batch ID: 961082  
 Run Date: 03/04/2010 22:08  
 Prep Date: 03/04/2010 09:23  
 Data File: 030410V6\6A428LL.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: SOIL  
 Project: QC  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		42.5	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		84.9	ug/kg	0.300	2.00
95-47-6	o-Xylene		43.6	ug/kg	0.300	1.00
100-42-5	Styrene		46.1	ug/kg	0.300	1.00
75-25-2	Bromoform		47.6	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		43.4	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		44.6	ug/kg	0.300	1.00
108-86-1	Bromobenzene		43.3	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		42.8	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		43.2	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		44.2	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		43.8	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		43.0	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		44.0	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		43.5	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		43.6	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		44.1	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		40.9	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		40.5	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		42.8	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	E	51.7	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.00	ug/kg	1.60	5.00
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		42.9	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		41.5	ug/kg	0.300	1.00

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A428LL.D  
Acq On : 4 Mar 2010 10:08 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061420|961082|1|VOAF|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[A] 0220-01C+0304-01  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 05 08:41:29 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1370172	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1043218	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	600466	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1369081	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1043218	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	600466	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	503642	48.78	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	97.56%			
43) Toluene-d8	11.620	11.620	0.883	98	1366349	48.08	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	96.16%			
61) Bromofluorobenzene	14.351	14.357	0.921	95	572238	51.06	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	102.12%			
Target Compounds								QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	182273	27.97	ug/L	99
3) Chloromethane	4.672	4.672	0.468	50	353512	33.23	ug/L	100
4) Vinyl chloride	4.914	4.914	0.493	62	350805	37.24	ug/L	99
5) Bromomethane	5.468	5.468	0.548	94	214493	37.77	ug/L	100
6) Chloroethane	5.619	5.619	0.563	64	223473	37.60	ug/L	99
7) Trichlorofluoromethane	6.032	6.032	0.605	101	502467	37.70	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	301126	40.96	ug/L	99
9) Acetone	6.706	6.706	0.672	43	645238	226.83	ug/L	99
10) 1,1-Dichloroethylene	6.706	6.706	0.672	61	469526	38.20	ug/L	99
11) Iodomethane	6.950	6.956	0.697	142	2235737	191.91	ug/L	98
12) Acetonitrile	7.072	7.072	0.709	41	1102523	995.04	ug/L	100
13) Methyl acetate	7.096	7.096	0.711	43	1298663	202.96	ug/L	100
14) Carbon disulfide	7.078	7.078	0.710	76	4153011	193.85	ug/L	100
15) Methylene chloride	7.285	7.285	0.730	84	294009	38.03	ug/L	99
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	872301	42.52	ug/L	99
17) trans-1,2-Dichloroethy...	7.615	7.615	0.763	61	463424	40.33	ug/L	99
18) Vinyl acetate	8.060	8.060	0.808	43	3515278	219.37	ug/L	90
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	581517	41.47	ug/L	100
20) 2-Butanone	8.688	8.694	0.871	43	770379	262.56	ug/L	100
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	528447	41.51	ug/L	99
22) 2,2-Dichloropropane	8.761	8.767	0.878	77	500791	41.46	ug/L	98
23) Bromochloromethane	9.017	9.017	0.904	128	146801	41.08	ug/L	99
24) Chloroform	9.053	9.053	0.908	83	552428	40.11	ug/L	99
25) 1,1,1-Trichloroethane	9.322	9.322	0.935	97	529108	41.38	ug/L	100
26) Cyclohexane	9.407	9.413	0.943	56	579216	42.44	ug/L	99
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	417866	42.87	ug/L	98
28) Carbon tetrachloride	9.511	9.510	0.954	117	488186	41.54	ug/L	99
30) 1,2-Dichloroethane	9.706	9.706	0.973	62	512213	41.14	ug/L	99
31) Benzene	9.724	9.724	0.975	78	1097638	40.13	ug/L	100
32) Cyclohexene	9.828	9.828	0.985	67	579931	42.48	ug/L	99
33) n-Butyl alcohol	10.078	10.077	1.010	56	1021286	5005.72	ug/L	98
34) Trichloroethylene	10.364	10.364	1.039	95	304834	42.37	ug/L	100
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	315697	42.73	ug/L	99
36) Methylcyclohexane	10.602	10.602	1.063	83	514209	43.55	ug/L	99
37) Dibromomethane	10.748	10.748	1.078	93	174584	42.26	ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A428LL.D  
Acq On : 4 Mar 2010 10:08 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061420|961082|1|VOAF|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[A] 0220-01C+0304-01  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 05 08:41:29 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	10.864	10.864	1.089	83	424550	43.57	ug/L	100
39) 2-Chloroethylvinyl ether	11.090	11.089	1.112	63	1027342	234.23	ug/L	99
40) cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	483552	44.25	ug/L	99
42) 4-Methyl-2-pentanone	11.407	11.406	0.867	58	622382	251.30	ug/L	98
44) Toluene	11.693	11.699	0.889	91	1214022	40.76	ug/L	100
45) trans-1,3-Dichloroprop...	11.858	11.858	0.901	75	482361	44.64	ug/L	98
46) 1,1,2-Trichloroethane	12.077	12.077	0.918	83	202455	41.90	ug/L	99
47) 2-Hexanone	12.260	12.260	0.932	43	1413354	296.00	ug/L	94
48) 1,3-Dichloropropane	12.272	12.272	0.933	76	437127	41.29	ug/L	95
49) Tetrachloroethylene	12.291	12.290	0.934	164	265773	40.93	ug/L	99
50) Dibromochloromethane	12.534	12.534	0.953	129	325425	44.13	ug/L	99
51) 1,2-Dibromoethane	12.705	12.705	0.966	107	257527	42.63	ug/L	99
52) Chlorobenzene	13.187	13.187	1.002	112	826361	41.24	ug/L	100
53) 1,1,1,2-Tetrachloroethane	13.242	13.241	1.006	131	327711	42.91	ug/L	98
54) Ethylbenzene	13.248	13.248	1.007	91	1461742	42.45	ug/L	100
55) m,p-Xylenes	13.357	13.357	1.015	106	1136157	84.90	ug/L	100
56) o-Xylene	13.796	13.796	1.049	106	559017	43.64	ug/L	100
57) Styrene	13.796	13.802	1.049	104	918152	46.06	ug/L	99
59) Bromoform	14.058	14.058	0.903	173	219256	47.57	ug/L	98
60) Isopropylbenzene	14.156	14.156	0.909	105	1553862	44.15	ug/L	100
62) 1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	322878	43.40	ug/L	99
63) 1,2,3-Trichloropropane	14.528	14.528	0.933	110	103436	44.58	ug/L	95
64) Bromobenzene	14.564	14.564	0.935	156	383472	43.27	ug/L	98
65) n-Propylbenzene	14.583	14.583	0.936	91	1783627	42.79	ug/L	99
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1346769	43.78	ug/L	99
67) 2-Chlorotoluene	14.729	14.735	0.946	126	371067	43.23	ug/L	99
68) 4-Chlorotoluene	14.833	14.833	0.952	91	1113497	43.04	ug/L	100
69) tert-Butylbenzene	15.107	15.107	0.970	134	286583	44.03	ug/L	98
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	1381865	43.49	ug/L	99
71) sec-Butylbenzene	15.333	15.333	0.984	105	1767636	43.58	ug/L	100
72) 4-Isopropyltoluene	15.455	15.454	0.992	119	1459477	44.08	ug/L	100
73) 1,3-Dichlorobenzene	15.515	15.515	0.996	146	728979	40.92	ug/L	99
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	735782	40.47	ug/L	99
75) n-Butylbenzene	15.887	15.887	1.020	91	1364455	42.81	ug/L	100
76) 1,2-Dichlorobenzene	16.015	16.021	1.028	146	694519	41.47	ug/L	100
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	70019	51.73	ug/L	98 E
78) 1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	489358	41.29	ug/L	100
79) Hexachlorobutadiene	18.076	18.076	1.160	225	343849	40.08	ug/L	99
80) Naphthalene	18.283	18.283	1.174	128	1042591	47.78	ug/L	99
81) 1,2,3-Trichlorobenzene	18.619	18.618	1.195	180	449514	45.18	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85) Acrolein	6.462	6.535	0.648		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.		
87) Isopropyl Alcohol	6.731	6.785	0.675		0m	N.D.	d	
88) Allyl chloride	7.072	7.139	0.709		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90) Acrylonitrile	7.572	7.541	0.759		0m	N.D.	d	
91) Isopropyl ether	8.060	8.078	0.808		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.212	8.206	0.823		0m	N.D.	d	
93) Ethyl tert-butyl ether	8.480	8.486	0.850		0m	N.D.	d	
94) Ethyl acetate	8.688	8.700	0.871		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A428LL.D  
Acq On : 4 Mar 2010 10:08 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061420|961082|1|VOAF|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[A] 0220-01C+0304-01  
ALS Vial : 28 Sample Multiplier: 1

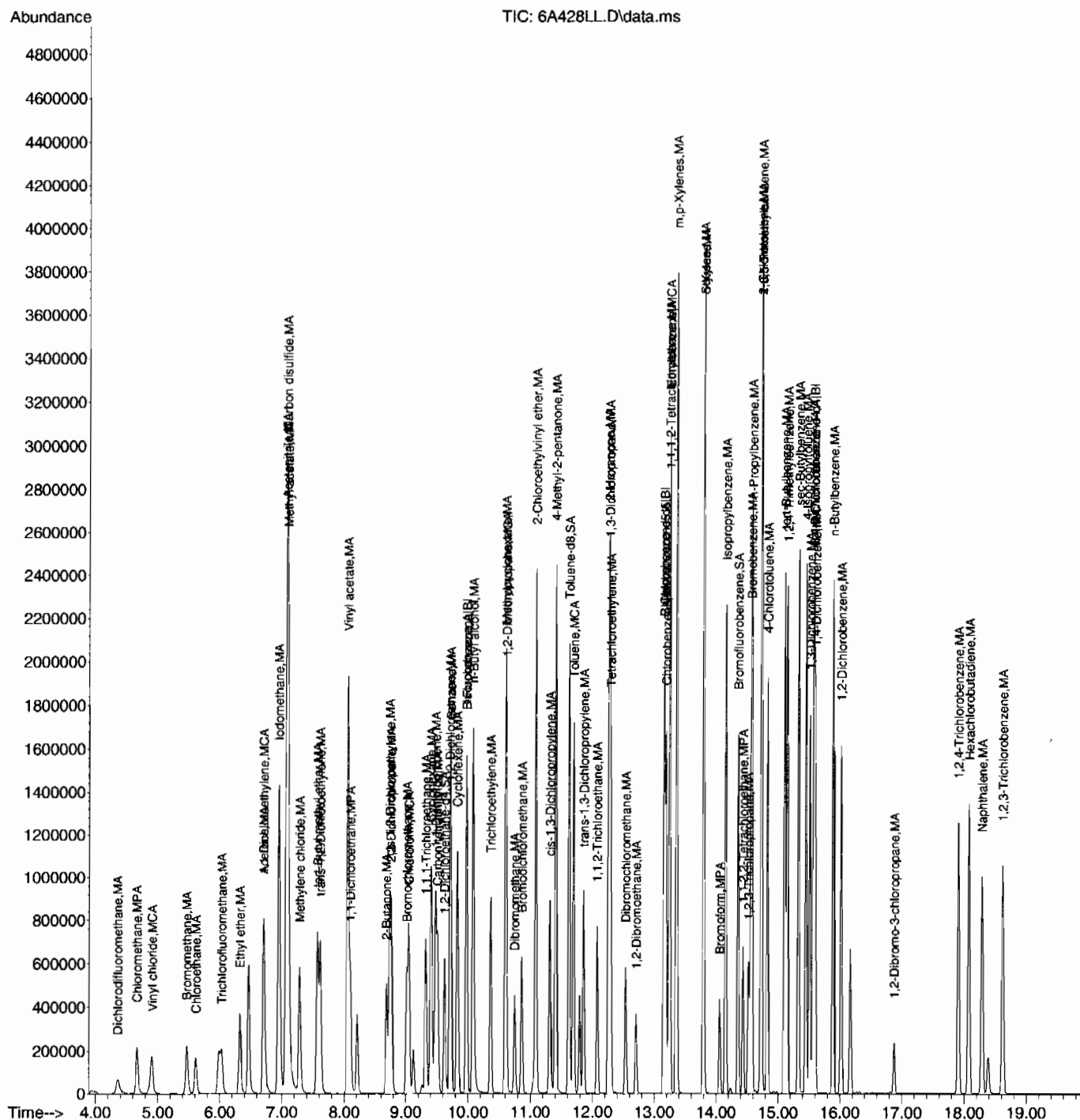
Quant Time: Mar 05 08:41:29 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	8.694	8.773	0.872		0m	N.D.	d
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	9.041	9.059	0.906		0m	N.D.	d
98) Isobutyl alcohol	9.407	9.388	0.943		0m	N.D.	d
99) Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.	d
100) Methyl methacrylate	10.602	10.589	1.063		0m	N.D.	d
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	11.090	11.071	1.112		0m	N.D.	d
104) Ethyl methacrylate	11.864	11.858	0.902		0m	N.D.	d
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.150	14.199	0.908		0m	N.D.	d
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	15.174	15.174	0.974		0m	N.D.	d
111) Benzyl chloride	15.717	15.717	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.168	16.113	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

```
Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A428LL.D  
Acq On : 4 Mar 2010 10:08 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061420|961082|1|VOAF|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[A] 0220-01C+0304-01  
ALS Vial : 28 Sample Multiplier: 1
```

SubList :



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074

Matrix: SOIL

Lab Sample ID: 1202061421

Client Sample: QC for batch 961079

Client: LANL010

Project: QC

Client ID: LCS for batch 961079

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 961082

Inst: VOA6.1

Dilution: 1

Run Date: 03/04/2010 22:35

Analyst: RXD1

Purge Vol: 5 mL

Prep Date: 03/04/2010 09:21

Aliquot: 5 g

Final Volume: 5 mL

Data File: 030410V66A429SL.D

Column: DB-624

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 1202061421  
 Client Sample: QC for batch 961079  
 Client ID: LCS for batch 961079  
 Batch ID: 961082  
 Run Date: 03/04/2010 22:35  
 Prep Date: 03/04/2010 09:21  
 Data File: 030410V66A429SLD

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: SOIL  
 Project: QC  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane		152	ug/kg	1.60	5.00
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A429SL.D  
Acq On : 4 Mar 2010 10:35 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061421|961082|1|VOAF|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[B] UVM100215-08A  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 05 08:53:24 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1368595	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1017954	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	605840	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1367374	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1017954	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	605840	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	515079	49.95	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	99.90%			
43) Toluene-d8	11.620	11.620	0.883	98	1340270	48.34	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	96.68%			
61) Bromofluorobenzene	14.351	14.357	0.922	95	573489	50.71	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	101.42%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.652	4.672	0.466		0m	N.D.	d	
4) Vinyl chloride	4.884	4.914	0.490		0m	N.D.	d	
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.676	6.706	0.669		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.682	6.706	0.670		0m	N.D.	d	
11) Iodomethane	6.956	6.956	0.697		0m	N.D.	d	
12) Acetonitrile	7.139	7.072	0.716		0m	N.D.	d	
13) Methyl acetate	7.096	7.096	0.711		0m	N.D.	d	
14) Carbon disulfide	7.139	7.078	0.716		0m	N.D.	d	
15) Methylene chloride	7.291	7.285	0.731		0m	N.D.	d	
16) tert-Butyl methyl ether	7.584	7.572	0.760		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	7.608	7.615	0.763		0m	N.D.	d	
18) Vinyl acetate	8.212	8.060	0.823		0m	N.D.	d	
19) 1,1-Dichloroethane	8.108	8.102	0.813		0m	N.D.	d	
20) 2-Butanone	8.700	8.694	0.872		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.700	8.742	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	9.053	9.053	0.908		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	9.389	9.413	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	9.474	9.480	0.950		0m	N.D.	d	
28) Carbon tetrachloride	9.523	9.510	0.955		0m	N.D.	d	
30) 1,2-Dichloroethane	9.718	9.706	0.974		0m	N.D.	d	
31) Benzene	9.718	9.724	0.974		0m	N.D.	d	
32) Cyclohexene	9.821	9.828	0.985		0m	N.D.	d	
33) n-Butyl alcohol	10.077	10.077	1.010		0m	N.D.	d	
34) Trichloroethylene	10.364	10.364	1.039		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.583	10.602	1.061		0m	N.D.	d	
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A429SL.D  
Acq On : 4 Mar 2010 10:35 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061421|961082|1|VOAF|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[B] UVM100215-08A  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 05 08:53:24 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	10.858	10.864	1.089		0m	N.D.	d
39) 2-Chloroethylvinyl ether	11.083	11.089	1.111		0m	N.D.	d
40) cis-1,3-Dichloropropylene	11.309	11.315	1.134		0m	N.D.	d
42) 4-Methyl-2-pentanone	11.413	11.406	0.867		0m	N.D.	d
44) Toluene	11.693	11.699	0.889		0m	N.D.	d
45) trans-1,3-Dichloroprop...	11.858	11.858	0.901		0m	N.D.	d
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	12.266	12.260	0.932		0m	N.D.	d
48) 1,3-Dichloropropane	12.272	12.272	0.933		0m	N.D.	d
49) Tetrachloroethylene	12.290	12.290	0.934		0m	N.D.	d
50) Dibromochloromethane	12.534	12.534	0.953		0m	N.D.	d
51) 1,2-Dibromoethane	12.699	12.705	0.965		0m	N.D.	d
52) Chlorobenzene	13.187	13.187	1.002		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	13.241	13.241	1.006		0m	N.D.	d
54) Ethylbenzene	13.254	13.248	1.007		0m	N.D.	d
55) m,p-Xylenes	13.363	13.357	1.016		0m	N.D.	d
56) o-Xylene	13.802	13.796	1.049		0m	N.D.	d
57) Styrene	13.802	13.802	1.049		0m	N.D.	d
59) Bromoform	14.052	14.058	0.903		0m	N.D.	d
60) Isopropylbenzene	14.156	14.156	0.909		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	14.430	14.436	0.927		0m	N.D.	d
63) 1,2,3-Trichloropropane	14.528	14.528	0.933		0m	N.D.	d
64) Bromobenzene	14.570	14.564	0.936		0m	N.D.	d
65) n-Propylbenzene	14.583	14.583	0.937		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946		0m	N.D.	d
67) 2-Chlorotoluene	14.729	14.735	0.946		0m	N.D.	d
68) 4-Chlorotoluene	14.833	14.833	0.953		0m	N.D.	d
69) tert-Butylbenzene	15.113	15.107	0.971		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973		0m	N.D.	d
71) sec-Butylbenzene	15.332	15.333	0.985		0m	N.D.	d
72) 4-Isopropyltoluene	15.448	15.454	0.992		0m	N.D.	d
73) 1,3-Dichlorobenzene	15.515	15.515	0.996		0m	N.D.	d
74) 1,4-Dichlorobenzene	15.601	15.601	1.002		0m	N.D.	d
75) n-Butylbenzene	15.887	15.887	1.020		0m	N.D.	d
76) 1,2-Dichlorobenzene	16.021	16.021	1.029		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084		0m	N.D.	d
78) 1,2,4-Trichlorobenzene	17.911	17.911	1.150		0m	N.D.	d
79) Hexachlorobutadiene	18.076	18.076	1.161		0m	N.D.	d
80) Naphthalene	18.283	18.283	1.174		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.196		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	6.535	6.535	0.655	56	182912	258.77 ug/L	100
86) Trichlorotrifluoroethane	6.682	6.682	0.670	85	472338	151.70 ug/L	99
87) Isopropyl Alcohol	0.000	6.785	0.000		0m	N.D.	d
88) Allyl chloride	7.139	7.139	0.716	41	2435074	176.96 ug/L	99
89) tert-Butyl Alcohol	7.297	7.285	0.732	59	262	0.27 ug/L #	50
90) Acrylonitrile	7.541	7.541	0.756	53	537639	195.39 ug/L	99
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	8.206	8.206	0.823	53	514237	44.92 ug/L	100
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	8.700	8.700	0.872	43	1508973	186.02 ug/L	100

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A429SL.D  
Acq On : 4 Mar 2010 10:35 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061421|961082|1|VOAF|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[B] UVM100215-08A  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 05 08:53:24 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	8.773	8.773	0.880	54	214460	203.67	ug/L 100
96) Methacrylonitrile	8.950	8.950	0.897	41	986858	202.05	ug/L 100
97) Tetrahydrofuran	9.059	9.059	0.908	42	506070	206.85	ug/L 99
98) Isobutyl alcohol	9.389	9.388	0.941	41	662882	2091.04	ug/L 98
99) Methyl tert-amyl ether	9.730	9.736	0.976	73	926	N.D.	
100) Methyl methacrylate	10.589	10.589	1.062	69	875145	217.62	ug/L 99
101) 1,4-Dioxane	10.699	10.699	1.073	88	137511	2124.18	ug/L 99
102) 2-Nitropropane	11.071	11.071	1.110	43	601091	235.48	ug/L 99
104) Ethyl methacrylate	11.858	11.858	0.901	69	1680312	221.33	ug/L 99
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.199	14.199	0.912	53	698132	215.10	ug/L 99
108) Cyclohexanone	14.314	14.314	0.919	42	351426	979.99	ug/L 98
109) trans-1,4-Dichloro-2-b...	14.485	14.485	0.930	53	668110	214.60	ug/L 99
110) Pentachloroethane	15.174	15.174	0.975	167	883476	218.01	ug/L 100
111) Benzyl chloride	15.717	15.717	1.009	91	2822742	185.87	ug/L 100
112) bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	972601	208.48	ug/L 100

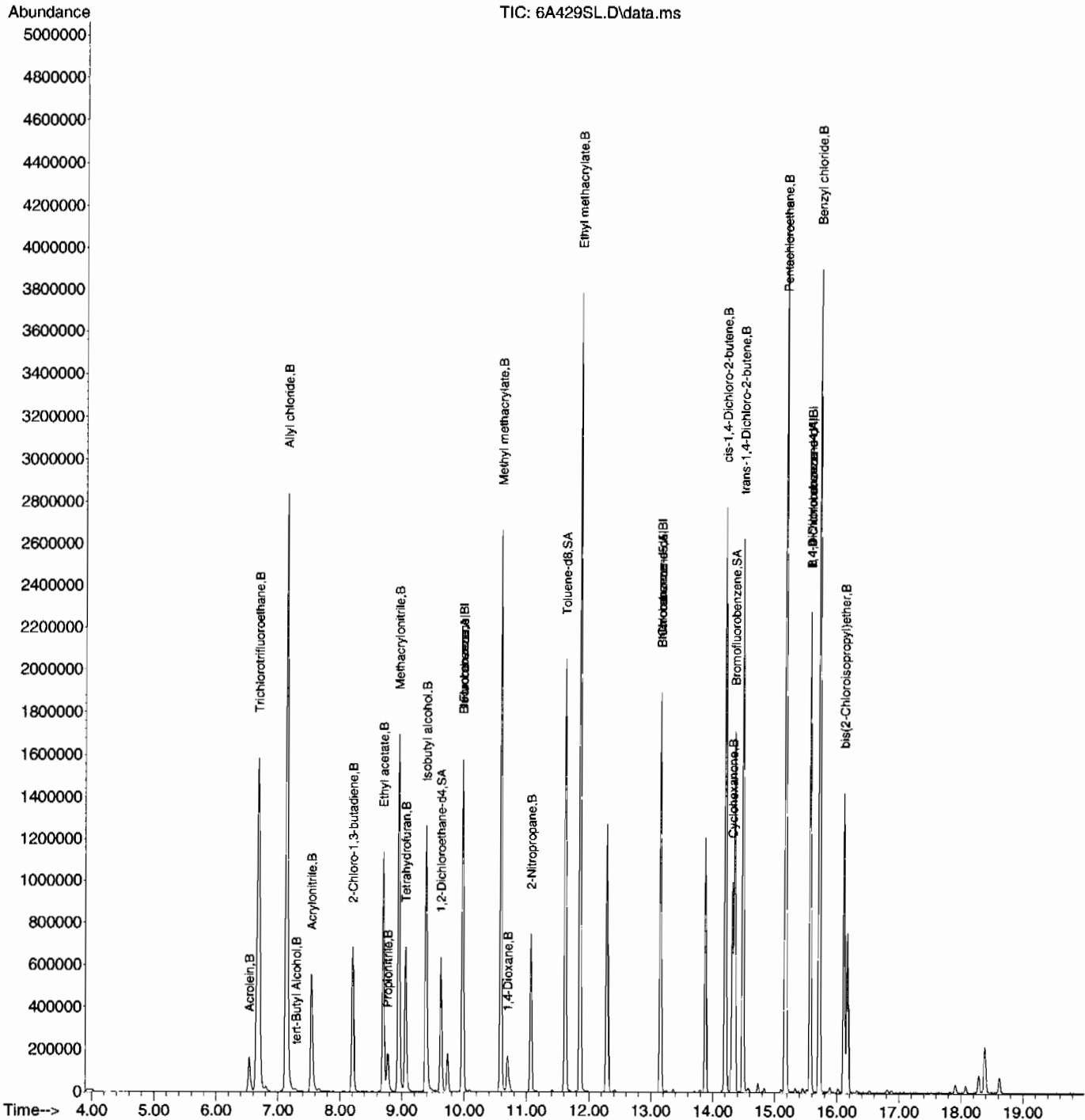
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A429SL.D  
Acq On : 4 Mar 2010 10:35 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061421|961082|1|VOAF|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[B] UVM100215-08A  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 05 08:53:24 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 1202078876  
 Client Sample: QC for batch 961079  
 Client ID: LCS for batch 961079  
 Batch ID: 961082  
 Run Date: 03/05/2010 11:36  
 Prep Date: 03/05/2010 09:32  
 Data File: 030510V6\6A503LL.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: SOIL  
 Project: QC  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		52.0	ug/kg	0.340	1.00
74-87-3	Chloromethane		48.9	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		51.0	ug/kg	0.300	1.00
74-83-9	Bromomethane		50.8	ug/kg	0.300	1.00
75-00-3	Chloroethane		49.6	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		50.6	ug/kg	0.300	1.00
67-64-1	Acetone		270	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		48.7	ug/kg	0.300	1.00
74-88-4	Iodomethane		236	ug/kg	1.60	5.00
75-09-2	Methylene chloride		45.6	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		252	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		50.1	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		50.1	ug/kg	0.300	1.00
78-93-3	2-Butanone		304	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		50.1	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		52.3	ug/kg	0.300	1.00
67-66-3	Chloroform		48.4	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		49.8	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		50.9	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		53.3	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		52.0	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		48.7	ug/kg	0.300	1.00
71-43-2	Benzene		48.7	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		50.6	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		50.4	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		51.5	ug/kg	0.300	1.00
74-95-3	Dibromomethane		49.3	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		296	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		52.4	ug/kg	0.300	1.00
108-88-3	Toluene		48.8	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		53.2	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		49.1	ug/kg	0.300	1.00
591-78-6	2-Hexanone		344	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		48.6	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		49.4	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		52.3	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		51.2	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		48.8	ug/kg	0.300	1.00

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 1202078876  
 Client Sample: QC for batch 961079  
 Client ID: LCS for batch 961079  
 Batch ID: 961082  
 Run Date: 03/05/2010 11:36  
 Prep Date: 03/05/2010 09:32  
 Data File: 030510V6\6A503LL.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.I  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: SOIL  
 Project: QC  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		50.4	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		102	ug/kg	0.300	2.00
95-47-6	o-Xylene		51.6	ug/kg	0.300	1.00
100-42-5	Styrene		55.1	ug/kg	0.300	1.00
75-25-2	Bromoform		54.4	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		50.5	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		51.2	ug/kg	0.300	1.00
108-86-1	Bromobenzene		49.2	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		50.6	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		50.0	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		51.6	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		50.7	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		50.6	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		50.3	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		51.0	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		50.8	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		52.1	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		47.9	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		47.6	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		51.4	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	E	56.9	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.00	ug/kg	1.60	5.00
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		50.5	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		48.1	ug/kg	0.300	1.00

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A503LL.D  
Acq On : 5 Mar 2010 11:36 am  
Operator : RXD1  
InstName : VOA6  
Sample : |1202078876|961082|1|VOAF|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[A] 0220-01D+0304-01  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 05 12:08:56 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1369434	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1044346	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	615024	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1368219	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1044346	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	615024	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	521502	50.54	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	101.08%			
43) Toluene-d8	11.620	11.620	0.883	98	1380893	48.54	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	97.08%			
61) Bromofluorobenzene	14.357	14.357	0.922	95	583791	50.85	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	101.70%			
Target Compounds								QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	338674	52.01	ug/L	100
3) Chloromethane	4.672	4.672	0.468	50	519892	48.90	ug/L	99
4) Vinyl chloride	4.914	4.914	0.493	62	480587	51.04	ug/L	100
5) Bromomethane	5.468	5.468	0.548	94	288358	50.81	ug/L	100
6) Chloroethane	5.609	5.619	0.562	64	294364	49.55	ug/L	99
7) Trichlorofluoromethane	5.992	6.032	0.601	101	673448	50.56	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	356580	48.53	ug/L	99
9) Acetone	6.706	6.706	0.672	43	764952	269.72	ug/L	99
10) 1,1-Dichloroethylene	6.706	6.706	0.672	61	598666	48.73	ug/L	99
11) Iodomethane	6.950	6.956	0.697	142	2747956	236.01	ug/L	99
12) Acetonitrile	7.072	7.072	0.709	41	1350685	1219.66	ug/L	100
13) Methyl acetate	7.096	7.096	0.711	43	1578783	246.87	ug/L	100
14) Carbon disulfide	7.078	7.078	0.710	76	5403631	252.36	ug/L	100
15) Methylene chloride	7.279	7.285	0.730	84	352394	45.60	ug/L	99
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	1047490	51.08	ug/L	100
17) trans-1,2-Dichloroethy...	7.615	7.615	0.763	61	575473	50.11	ug/L	99
18) Vinyl acetate	8.060	8.060	0.808	43	4729958	295.33	ug/L	96
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	702783	50.14	ug/L	100
20) 2-Butanone	8.688	8.694	0.871	43	890241	303.57	ug/L	100
21) cis-1,2-Dichloroethylene	8.736	8.742	0.876	61	637822	50.13	ug/L	99
22) 2,2-Dichloropropane	8.761	8.767	0.878	77	631194	52.28	ug/L	99
23) Bromochloromethane	9.017	9.017	0.904	128	177737	49.76	ug/L	100
24) Chloroform	9.053	9.053	0.908	83	666099	48.38	ug/L	100
25) 1,1,1-Trichloroethane	9.322	9.322	0.935	97	650223	50.88	ug/L	100
26) Cyclohexane	9.407	9.413	0.943	56	738950	54.17	ug/L	99
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	519543	53.33	ug/L	99
28) Carbon tetrachloride	9.511	9.510	0.954	117	610343	51.97	ug/L	100
30) 1,2-Dichloroethane	9.706	9.706	0.973	62	605634	48.67	ug/L	100
31) Benzene	9.724	9.724	0.975	78	1331853	48.72	ug/L	100
32) Cyclohexene	9.828	9.828	0.985	67	723361	53.02	ug/L	100
33) n-Butyl alcohol	10.078	10.077	1.010	56	1230919	6036.46	ug/L	99
34) Trichloroethylene	10.364	10.364	1.039	95	363640	50.58	ug/L	98
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	372240	50.41	ug/L	100
36) Methylcyclohexane	10.602	10.602	1.063	83	647562	54.88	ug/L	99
37) Dibromomethane	10.748	10.748	1.078	93	203696	49.33	ug/L	98



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A503LL.D  
Acq On : 5 Mar 2010 11:36 am  
Operator : RXD1  
InstName : VOA6  
Sample : |1202078876|961082|1|VOAF|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[A] 0220-01D+0304-01  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 05 12:08:56 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	10.864	10.864	1.089	83	501447	51.49	ug/L	100
39) 2-Chloroethylvinyl ether	11.083	11.089	1.111	63	1006959	229.71	ug/L	99
40) cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	571964	52.37	ug/L	98
42) 4-Methyl-2-pentanone	11.407	11.406	0.867	58	734309	296.17	ug/L	98
44) Toluene	11.693	11.699	0.889	91	1454518	48.79	ug/L	100
45) trans-1,3-Dichloroprop...	11.858	11.858	0.901	75	575890	53.23	ug/L	99
46) 1,1,2-Trichloroethane	12.077	12.077	0.918	83	237261	49.05	ug/L	99
47) 2-Hexanone	12.260	12.260	0.932	43	1641902	343.50	ug/L	95
48) 1,3-Dichloropropane	12.272	12.272	0.933	76	515379	48.63	ug/L	95
49) Tetrachloroethylene	12.291	12.290	0.934	164	321063	49.39	ug/L	99
50) Dibromochloromethane	12.534	12.534	0.953	129	386044	52.29	ug/L	99
51) 1,2-Dibromoethane	12.705	12.705	0.966	107	309318	51.15	ug/L	98
52) Chlorobenzene	13.187	13.187	1.002	112	979448	48.83	ug/L	100
53) 1,1,1,2-Tetrachloroethane	13.242	13.241	1.006	131	385826	50.46	ug/L	100
54) Ethylbenzene	13.248	13.248	1.007	91	1738724	50.44	ug/L	100
55) m,p-Xylenes	13.357	13.357	1.015	106	1367373	102.07	ug/L	98
56) o-Xylene	13.796	13.796	1.049	106	661699	51.60	ug/L	100
57) Styrene	13.796	13.802	1.049	104	1099322	55.09	ug/L	99
59) Bromoform	14.059	14.058	0.903	173	256967	54.43	ug/L	99
60) Isopropylbenzene	14.156	14.156	0.909	105	1858033	51.55	ug/L	100
62) 1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	384884	50.51	ug/L	100
63) 1,2,3-Trichloropropane	14.528	14.528	0.933	110	121785	51.24	ug/L	97
64) Bromobenzene	14.565	14.564	0.935	156	446366	49.18	ug/L	99
65) n-Propylbenzene	14.583	14.583	0.937	91	2158093	50.55	ug/L	100
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1598766	50.74	ug/L	100
67) 2-Chlorotoluene	14.729	14.735	0.946	126	439685	50.02	ug/L	97
68) 4-Chlorotoluene	14.833	14.833	0.953	91	1339697	50.56	ug/L	100
69) tert-Butylbenzene	15.107	15.107	0.970	134	335518	50.33	ug/L	99
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	1658725	50.97	ug/L	100
71) sec-Butylbenzene	15.333	15.333	0.985	105	2110058	50.79	ug/L	99
72) 4-Isopropyltoluene	15.455	15.454	0.993	119	1767852	52.13	ug/L	100
73) 1,3-Dichlorobenzene	15.516	15.515	0.996	146	874754	47.94	ug/L	100
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	887008	47.63	ug/L	100
75) n-Butylbenzene	15.887	15.887	1.020	91	1679066	51.44	ug/L	100
76) 1,2-Dichlorobenzene	16.015	16.021	1.029	146	824914	48.09	ug/L	99
77) 1,2-Dibromo-3-chloropr...	16.875	16.881	1.084	157	78883	56.90	ug/L	99 E
78) 1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	598351	49.29	ug/L	99
79) Hexachlorobutadiene	18.076	18.076	1.161	225	406945	46.31	ug/L	99
80) Naphthalene	18.283	18.283	1.174	128	1196507	53.53	ug/L	99
81) 1,2,3-Trichlorobenzene	18.619	18.618	1.196	180	523688	51.38	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85) Acrolein	6.462	6.535	0.648		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.		
87) Isopropyl Alcohol	6.712	6.785	0.673		0m	N.D.	d	
88) Allyl chloride	7.072	7.139	0.709		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90) Acrylonitrile	7.572	7.541	0.759		0m	N.D.	d	
91) Isopropyl ether	8.060	8.078	0.808		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.212	8.206	0.823		0m	N.D.	d	
93) Ethyl tert-butyl ether	8.486	8.486	0.851		0m	N.D.	d	
94) Ethyl acetate	8.688	8.700	0.871		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A503LL.D  
Acq On : 5 Mar 2010 11:36 am  
Operator : RXD1  
InstName : VOA6  
Sample : |1202078876|961082|1|VOAF|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[A] 0220-01D+0304-01  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 05 12:08:56 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

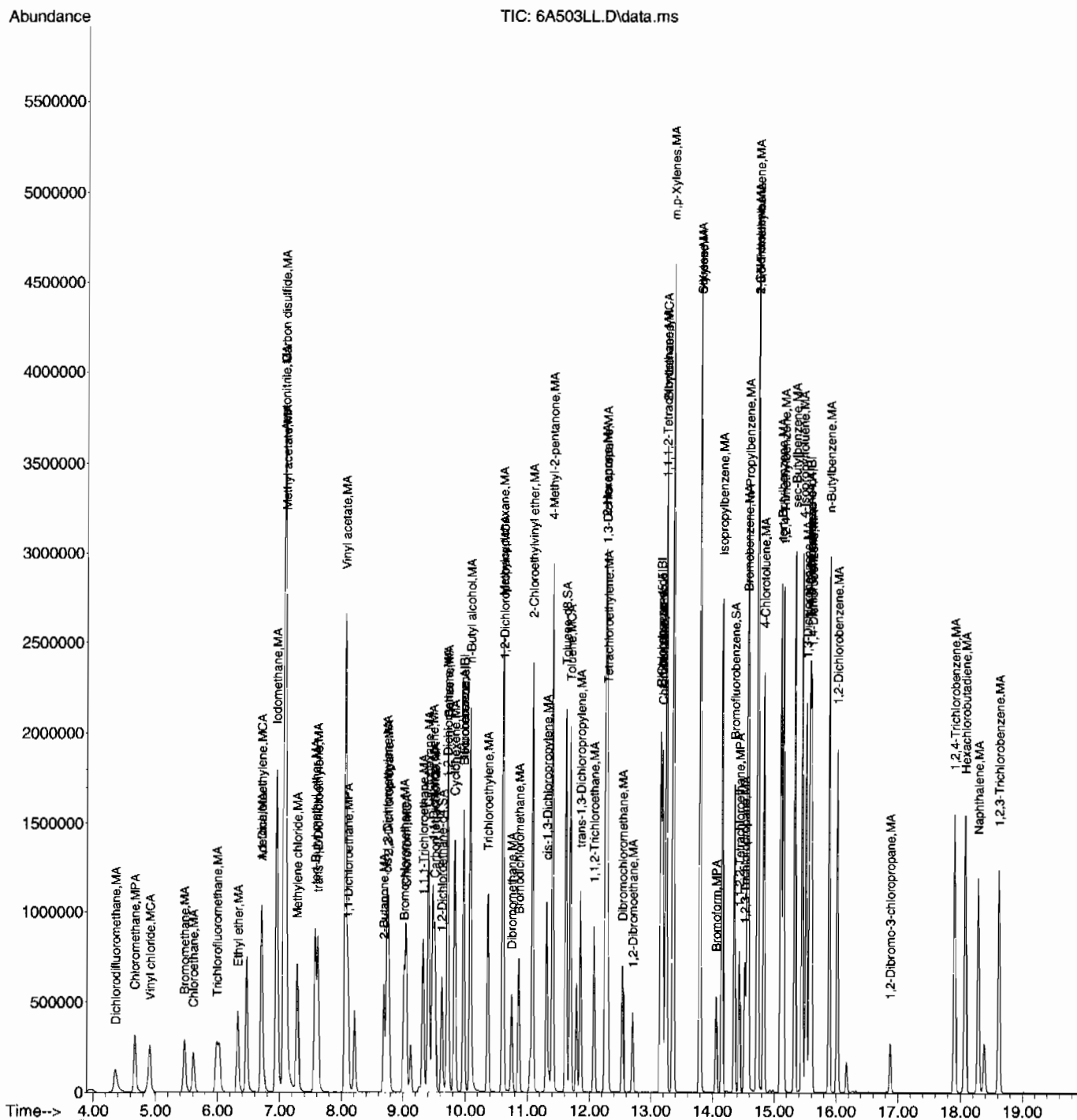
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	8.688	8.773	0.871		0m	N.D.	d
96) Methacrylonitrile	8.913	8.950	0.894		0m	N.D.	d
97) Tetrahydrofuran	9.047	9.059	0.907		0m	N.D.	d
98) Isobutyl alcohol	9.407	9.388	0.943		0m	N.D.	d
99) Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.	d
100) Methyl methacrylate	10.602	10.589	1.063		0m	N.D.	d
101) 1,4-Dioxane	10.754	10.699	1.078		0m	N.D.	d
102) 2-Nitropropane	11.083	11.071	1.111		0m	N.D.	d
104) Ethyl methacrylate	11.791	11.858	0.896		0m	N.D.	d
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.150	14.199	0.909		0m	N.D.	d
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	15.180	15.174	0.975		0m	N.D.	d
111) Benzyl chloride	15.717	15.717	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.162	16.113	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

```
Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A503LL.D  
Acq On : 5 Mar 2010 11:36 am  
Operator : RXD1  
InstName : VOA6  
Sample : |1202078876|961082|1|VOAF|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[A] 0220-01D+0304-01  
ALS Vial : 3 Sample Multiplier: 1
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Quant Time: Mar 05 12:08:56 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074		Matrix: SOIL
Lab Sample ID: 1202078877		
Client Sample: QC for batch 961079	Client: LANL010	Project: QC
Client ID: LCS for batch 961079	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.1	Dilution: 1
Run Date: 03/05/2010 12:32	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/05/2010 09:33	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030510V6\6A50SSL.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
 Lab Sample ID: 1202078877  
 Client Sample: QC for batch 961079  
 Client ID: LCS for batch 961079  
 Batch ID: 961082  
 Run Date: 03/05/2010 12:32  
 Prep Date: 03/05/2010 09:33  
 Data File: 030510V66A505SL.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA6.J  
 Analyst: RXD1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: SOIL  
 Project: QC  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane		255	ug/kg	1.60	5.00
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A505SL.D  
Acq On : 5 Mar 2010 12:32 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202078877|961082|1|VOAF|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[B] UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 05 14:01:05 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1386671	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1039539	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	618528	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1386052	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1039539	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	618528	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	517995	49.58	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	99.16%			
43) Toluene-d8	11.620	11.620	0.883	98	1363301	48.15	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	96.30%			
61) Bromofluorobenzene	14.351	14.357	0.922	95	592678	51.34	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	102.68%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.652	4.672	0.466		0m	N.D.	d	
4) Vinyl chloride	4.894	4.914	0.491		0m	N.D.	d	
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.688	6.706	0.671		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.688	6.706	0.671		0m	N.D.	d	
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	7.139	7.072	0.716		0m	N.D.	d	
13) Methyl acetate	7.096	7.096	0.711		0m	N.D.	d	
14) Carbon disulfide	7.139	7.078	0.716		0m	N.D.	d	
15) Methylene chloride	7.285	7.285	0.730		0m	N.D.	d	
16) tert-Butyl methyl ether	7.572	7.572	0.759		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	8.066	8.060	0.809		0m	N.D.	d	
19) 1,1-Dichloroethane	8.206	8.102	0.823		0m	N.D.	d	
20) 2-Butanone	8.700	8.694	0.872		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.700	8.742	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	9.053	9.053	0.908		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	9.389	9.413	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	9.724	9.724	0.975		0m	N.D.	d	
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	10.090	10.077	1.012		0m	N.D.	d	
34) Trichloroethylene	10.376	10.364	1.040		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.583	10.602	1.061		0m	N.D.	d	
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A505SL.D  
Acq On : 5 Mar 2010 12:32 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202078877|961082|1|VOAF|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[B] UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 05 14:01:05 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.693	11.699	0.889		0m	N.D. d	
45) trans-1,3-Dichloroprop...	11.864	11.858	0.902		0m	N.D. d	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	12.266	12.260	0.932		0m	N.D. d	
48) 1,3-Dichloropropane	12.315	12.272	0.936		0m	N.D. d	
49) Tetrachloroethylene	12.290	12.290	0.934		0m	N.D. d	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	13.187	13.187	1.002		0m	N.D. d	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.248	13.248	1.007		0m	N.D. d	
55) m,p-Xylenes	13.363	13.357	1.016		0m	N.D. d	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	13.796	13.802	1.049		0m	N.D. d	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	14.150	14.156	0.909		0m	N.D. d	
62) 1,1,2,2-Tetrachloroethane	14.485	14.436	0.930		0m	N.D. d	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	14.564	14.564	0.935		0m	N.D. d	
65) n-Propylbenzene	14.577	14.583	0.936		0m	N.D. d	
66) 1,3,5-Trimethylbenzene	14.729	14.735	0.946		0m	N.D. d	
67) 2-Chlorotoluene	14.735	14.735	0.946		0m	N.D. d	
68) 4-Chlorotoluene	14.833	14.833	0.953		0m	N.D. d	
69) tert-Butylbenzene	15.174	15.107	0.975		0m	N.D. d	
70) 1,2,4-Trimethylbenzene	15.144	15.150	0.973		0m	N.D. d	
71) sec-Butylbenzene	15.333	15.333	0.985		0m	N.D. d	
72) 4-Isopropyltoluene	15.448	15.454	0.992		0m	N.D. d	
73) 1,3-Dichlorobenzene	15.515	15.515	0.996		0m	N.D. d	
74) 1,4-Dichlorobenzene	15.601	15.601	1.002		0m	N.D. d	
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	16.009	16.021	1.028		0m	N.D. d	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.911	17.911	1.150		0m	N.D. d	
79) Hexachlorobutadiene	18.070	18.076	1.161		0m	N.D. d	
80) Naphthalene	18.283	18.283	1.174		0m	N.D. d	
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.196		0m	N.D. d	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	6.529	6.535	0.655	56	254346	354.98 ug/L	100
86) Trichlorotrifluoroethane	6.682	6.682	0.670	85	805884	255.34 ug/L	99
87) Isopropyl Alcohol	0.000	6.785	0.000		0m	N.D. d	
88) Allyl chloride	7.139	7.139	0.716	41	3493754	250.47 ug/L	98
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	7.541	7.541	0.756	53	685558	245.79 ug/L	100
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	8.206	8.206	0.823	53	719948	62.04 ug/L	100
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	8.700	8.700	0.872	43	1899445	231.00 ug/L	100

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A505SL.D  
Acq On : 5 Mar 2010 12:32 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202078877|961082|1|VOAF|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[B] UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 05 14:01:05 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95) Propionitrile	8.773	8.773	0.880	54	272785	255.57	ug/L	100
96) Methacrylonitrile	8.950	8.950	0.897	41	1238729	250.20	ug/L	99
97) Tetrahydrofuran	9.059	9.059	0.908	42	641699	258.76	ug/L	99
98) Isobutyl alcohol	9.389	9.388	0.941	41	885756	2756.44	ug/L	98
99) Methyl tert-amyl ether	9.730	9.736	0.976	73	1232	N.D.		
100) Methyl methacrylate	10.583	10.589	1.061	69	1087201	266.71	ug/L	99
101) 1,4-Dioxane	10.693	10.699	1.072	88	172143	2623.32	ug/L	99
102) 2-Nitropropane	11.071	11.071	1.110	43	749814	289.78	ug/L	98
104) Ethyl methacrylate	11.858	11.858	0.901	69	2092641	269.92	ug/L	99
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.		
107) cis-1,4-Dichloro-2-butene	14.199	14.199	0.912	53	929763	280.59	ug/L	99
108) Cyclohexanone	14.314	14.314	0.919	42	575545	1572.04	ug/L	97 E
109) trans-1,4-Dichloro-2-b...	14.485	14.485	0.930	53	886607	278.93	ug/L	99
110) Pentachloroethane	15.180	15.174	0.975	167	1314488	317.71	ug/L	100
111) Benzyl chloride	15.717	15.717	1.009	91	4231919	272.94	ug/L	100
112) bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	1281765	269.12	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

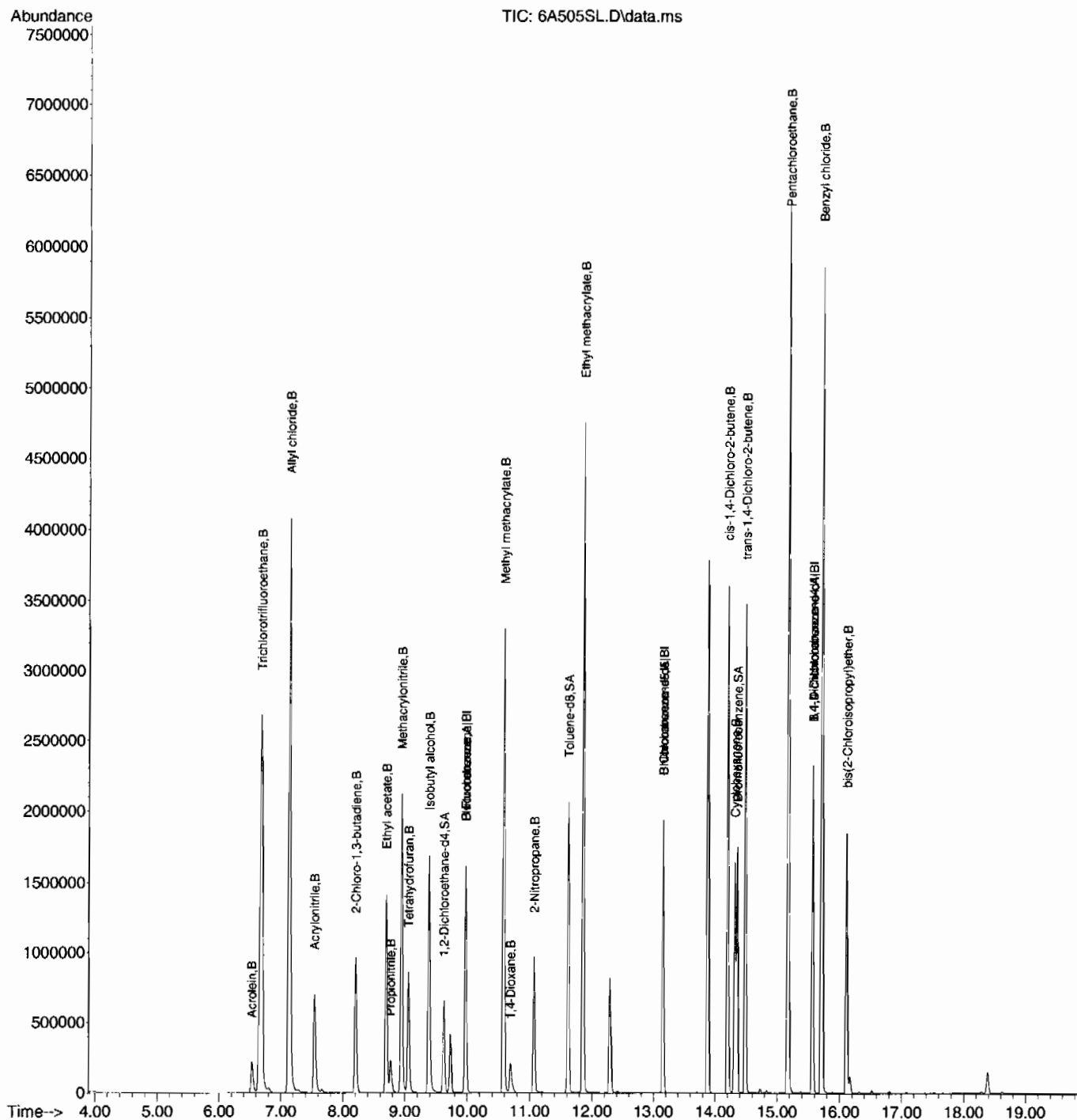


Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V6\  
Data File : 6A505SL.D  
Acq On : 5 Mar 2010 12:32 pm  
Operator : RXD1  
InstName : VOA6  
Sample : |1202078877|961082|1|VOAF|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[B] UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 05 14:01:05 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 1202061418	Date Received: 02/25/2010 08:45	%Moisture: 21.1
Client Sample: QC for batch 961079	Client: LANL010	Project: QC
Client ID: RE36-10-7414PS	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 08:17	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A450.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		43.4	ug/kg	0.431	1.27
74-87-3	Chloromethane		47.4	ug/kg	0.380	1.27
75-01-4	Vinyl chloride		50.1	ug/kg	0.380	1.27
74-83-9	Bromomethane		47.2	ug/kg	0.380	1.27
75-00-3	Chloroethane		51.0	ug/kg	0.380	1.27
75-69-4	Trichlorofluoromethane		52.1	ug/kg	0.380	1.27
67-64-1	Acetone		200	ug/kg	2.10	6.34
75-35-4	1,1-Dichloroethylene		48.1	ug/kg	0.380	1.27
74-88-4	Iodomethane		200	ug/kg	2.03	6.34
75-09-2	Methylene chloride		47.2	ug/kg	2.54	6.34
75-15-0	Carbon disulfide		229	ug/kg	1.58	6.34
156-60-5	trans-1,2-Dichloroethylene		47.3	ug/kg	0.380	1.27
75-34-3	1,1-Dichloroethane		50.5	ug/kg	0.380	1.27
78-93-3	2-Butanone		224	ug/kg	1.90	6.34
156-59-2	cis-1,2-Dichloroethylene		49.0	ug/kg	0.380	1.27
594-20-7	2,2-Dichloropropane		47.3	ug/kg	0.380	1.27
67-66-3	Chloroform		49.0	ug/kg	0.380	1.27
74-97-5	Bromochloromethane		49.7	ug/kg	0.418	1.27
71-55-6	1,1,1-Trichloroethane		49.9	ug/kg	0.380	1.27
563-58-6	1,1-Dichloropropene		46.9	ug/kg	0.380	1.27
56-23-5	Carbon tetrachloride		49.7	ug/kg	0.380	1.27
107-06-2	1,2-Dichloroethane		50.3	ug/kg	0.380	1.27
71-43-2	Benzene		44.5	ug/kg	0.380	1.27
79-01-6	Trichloroethylene		43.7	ug/kg	0.418	1.27
78-87-5	1,2-Dichloropropane		49.5	ug/kg	0.380	1.27
75-27-4	Bromodichloromethane		50.3	ug/kg	0.380	1.27
74-95-3	Dibromomethane		51.0	ug/kg	0.380	1.27
108-10-1	4-Methyl-2-pentanone		235	ug/kg	1.58	6.34
10061-01-5	cis-1,3-Dichloropropylene		36.3	ug/kg	0.380	1.27
108-88-3	Toluene		38.9	ug/kg	0.380	1.27
10061-02-6	trans-1,3-Dichloropropylene		36.6	ug/kg	0.380	1.27
79-00-5	1,1,2-Trichloroethane		47.4	ug/kg	0.380	1.27
591-78-6	2-Hexanone		80.8	ug/kg	1.90	6.34
142-28-9	1,3-Dichloropropane		46.8	ug/kg	0.380	1.27
127-18-4	Tetrachloroethylene		33.3	ug/kg	0.380	1.27
124-48-1	Dibromochloromethane		47.3	ug/kg	0.380	1.27
106-93-4	1,2-Dibromoethane		44.4	ug/kg	0.380	1.27
108-90-7	Chlorobenzene		34.7	ug/kg	0.380	1.27

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 1202061418	Date Received: 02/25/2010 08:45	%Moisture: 21.1
Client Sample: QC for batch 961079	Client: LANI.010	Project: QC
Client ID: RE36-10-7414PS	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 08:17	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A450.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		29.6	ug/kg	0.380	1.27
179601-23-1	m,p-Xylenes		57.5	ug/kg	0.380	2.54
95-47-6	o-Xylene		34.0	ug/kg	0.380	1.27
100-42-5	Styrene		26.3	ug/kg	0.380	1.27
75-25-2	Bromoform		45.5	ug/kg	0.380	1.27
79-34-5	1,1,2,2-Tetrachloroethane		46.8	ug/kg	0.380	1.27
96-18-4	1,2,3-Trichloropropane		48.5	ug/kg	0.380	1.27
108-86-1	Bromobenzene		31.8	ug/kg	0.380	1.27
103-65-1	n-Propylbenzene		19.2	ug/kg	0.380	1.27
95-49-8	2-Chlorotoluene		27.5	ug/kg	0.380	1.27
98-82-8	Isopropylbenzene		27.0	ug/kg	0.380	1.27
108-67-8	1,3,5-Trimethylbenzene		24.8	ug/kg	0.380	1.27
106-43-4	4-Chlorotoluene		23.9	ug/kg	0.380	1.27
98-06-6	tert-Butylbenzene		23.5	ug/kg	0.380	1.27
95-63-6	1,2,4-Trimethylbenzene		20.2	ug/kg	0.380	1.27
135-98-8	sec-Butylbenzene		19.6	ug/kg	0.380	1.27
99-87-6	4-Isopropyltoluene		12.0	ug/kg	0.380	1.27
541-73-1	1,3-Dichlorobenzene		23.4	ug/kg	0.380	1.27
106-46-7	1,4-Dichlorobenzene		22.4	ug/kg	0.380	1.27
104-51-8	n-Butylbenzene		12.1	ug/kg	0.380	1.27
96-12-8	1,2-Dibromo-3-chloropropane		46.8	ug/kg	0.380	1.27
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.34	ug/kg	2.03	6.34
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		43.6	ug/kg	0.380	1.27
95-50-1	1,2-Dichlorobenzene		25.4	ug/kg	0.380	1.27

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A450.D  
Acq On : 5 Mar 2010 8:17 am  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061418|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL MIX[A] MS 248043001  
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Mar 05 08:42:38 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1196274	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	899465	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	514205	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1196102	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	899465	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	514205	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	457437	50.75	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	101.50%			
43) Toluene-d8	11.620	11.620	0.883	98	1197475	48.87	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	97.74%			
61) Bromofluorobenzene	14.351	14.357	0.922	95	496176	51.70	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	103.40%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	194593	34.21	ug/L	100
3) Chloromethane	4.672	4.672	0.468	50	346873	37.35	ug/L	99
4) Vinyl chloride	4.914	4.914	0.493	62	324938	39.51	ug/L	99
5) Bromomethane	5.468	5.468	0.548	94	184689	37.25	ug/L	99
6) Chloroethane	5.619	5.619	0.563	64	208878	40.25	ug/L	100
7) Trichlorofluoromethane	6.032	6.032	0.605	101	478371	41.11	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	256081	39.90	ug/L	100
9) Acetone	6.706	6.706	0.672	43	393752	157.47	ug/L	98
10) 1,1-Dichloroethylene	6.706	6.706	0.672	61	407046	37.93	ug/L	98
11) Iodomethane	6.956	6.956	0.697	142	1607278	158.02	ug/L	99
12) Acetonitrile	7.066	7.072	0.708	41	924167	955.31	ug/L	100
13) Methyl acetate	7.096	7.096	0.711	43	653601	116.99	ug/L	99
14) Carbon disulfide	7.078	7.078	0.710	76	3381420	180.77	ug/L	100
15) Methylene chloride	7.285	7.285	0.730	84	251126	37.20	ug/L	96
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	746875	41.69	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	7.615	0.764	61	374442	37.32	ug/L	97
18) Vinyl acetate	8.078	8.060	0.810	43	203	N.D.		
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	487930	39.85	ug/L	99
20) 2-Butanone	8.694	8.694	0.872	43	453525	177.04	ug/L	99
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	429226	38.62	ug/L	100
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	393592	37.32	ug/L	96
23) Bromochloromethane	9.017	9.017	0.904	128	122352	39.21	ug/L	100
24) Chloroform	9.053	9.053	0.908	83	464925	38.66	ug/L	99
25) 1,1,1-Trichloroethane	9.322	9.322	0.935	97	439781	39.39	ug/L	99
26) Cyclohexane	9.407	9.413	0.943	56	448567	37.65	ug/L	99
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	314895	37.00	ug/L	97
28) Carbon tetrachloride	9.511	9.510	0.954	117	401730	39.16	ug/L	100
30) 1,2-Dichloroethane	9.706	9.706	0.973	62	431048	39.65	ug/L	99
31) Benzene	9.724	9.724	0.975	78	837327	35.06	ug/L	99
32) Cyclohexene	9.828	9.828	0.985	67	434089	36.42	ug/L	98
33) n-Butyl alcohol	10.078	10.077	1.010	56	482596	2709.24	ug/L	100
34) Trichloroethylene	10.364	10.364	1.039	95	216465	34.46	ug/L	100
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	251845	39.04	ug/L	99
36) Methylcyclohexane	10.602	10.602	1.063	83	358465	34.77	ug/L	97
37) Dibromomethane	10.748	10.748	1.078	93	145088	40.23	ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A450.D  
Acq On : 5 Mar 2010 8:17 am  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061418|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL MIX[A] MS 248043001  
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Mar 05 08:42:38 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	10.864	10.864	1.089	83	337619	39.69	ug/L	100
39) 2-Chloroethylvinyl ether	11.090	11.089	1.112	63	704920	184.09	ug/L	99
40) cis-1,3-Dichloropropylene	11.309	11.315	1.134	75	273167	28.63	ug/L	98
42) 4-Methyl-2-pentanone	11.407	11.406	0.867	58	396230	185.56	ug/L	99
44) Toluene	11.693	11.699	0.889	91	787579	30.67	ug/L	99
45) trans-1,3-Dichloroprop...	11.858	11.858	0.901	75	268783	28.85	ug/L	99
46) 1,1,2-Trichloroethane	12.077	12.077	0.918	83	155814	37.40	ug/L	99
47) 2-Hexanone	12.260	12.260	0.932	43	262242	63.70	ug/L	94
48) 1,3-Dichloropropane	12.272	12.272	0.933	76	337079	36.93	ug/L #	73
49) Tetrachloroethylene	12.291	12.290	0.934	164	146988	26.25	ug/L	98
50) Dibromochloromethane	12.534	12.534	0.953	129	237243	37.31	ug/L	100
51) 1,2-Dibromoethane	12.705	12.705	0.966	107	182542	35.04	ug/L	100
52) Chlorobenzene	13.187	13.187	1.002	112	472129	27.33	ug/L	98
53) 1,1,1,2-Tetrachloroethane	13.242	13.241	1.006	131	226398	34.38	ug/L	99
54) Ethylbenzene	13.248	13.248	1.007	91	693831	23.37	ug/L	100
55) m,p-Xylenes	13.357	13.357	1.015	106	523031	45.33	ug/L	100
56) o-Xylene	13.796	13.796	1.049	106	296604	26.85	ug/L	98
57) Styrene	13.796	13.802	1.049	104	356044	20.72	ug/L	95
59) Bromoform	14.058	14.058	0.903	173	141677	35.90	ug/L	100
60) Isopropylbenzene	14.156	14.156	0.909	105	642013	21.30	ug/L	99
62) 1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	235291	36.93	ug/L	100
63) 1,2,3-Trichloropropane	14.522	14.528	0.933	110	76038	38.27	ug/L #	51
64) Bromobenzene	14.564	14.564	0.935	156	190573	25.11	ug/L	98
65) n-Propylbenzene	14.583	14.583	0.937	91	541224	15.16	ug/L	99
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	515083	19.55	ug/L	99
67) 2-Chlorotoluene	14.729	14.735	0.946	126	159291	21.67	ug/L	99
68) 4-Chlorotoluene	14.833	14.833	0.953	91	418266	18.88	ug/L	99
69) tert-Butylbenzene	15.107	15.107	0.970	134	103404	18.55	ug/L	98
70) 1,2,4-Trimethylbenzene	15.144	15.150	0.973	105	434488	15.97	ug/L	99
71) sec-Butylbenzene	15.333	15.333	0.985	105	536641	15.45	ug/L	99
72) 4-Isopropyltoluene	15.455	15.454	0.993	119	269179	9.49	ug/L	99
73) 1,3-Dichlorobenzene	15.515	15.515	0.996	146	281625	18.46	ug/L	98
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	274804	17.65	ug/L	99
75) n-Butylbenzene	15.887	15.887	1.020	91	259511	9.51	ug/L	99
76) 1,2-Dichlorobenzene	16.015	16.021	1.029	146	287536	20.05	ug/L	99
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	42765	36.90	ug/L	97
78) 1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	125123	12.33	ug/L	99
79) Hexachlorobutadiene	18.076	18.076	1.161	225	48597	6.61	ug/L	96
80) Naphthalene	18.283	18.283	1.174	128	148418	7.94	ug/L	100
81) 1,2,3-Trichlorobenzene	18.619	18.618	1.196	180	110993	13.03	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85) Acrolein	0.000	6.535	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.		
87) Isopropyl Alcohol	6.792	6.785	0.681		0m	N.D.	d	
88) Allyl chloride	7.066	7.139	0.708		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90) Acrylonitrile	7.572	7.541	0.759		0m	N.D.	d	
91) Isopropyl ether	8.072	8.078	0.809		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94) Ethyl acetate	8.694	8.700	0.872		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A450.D  
Acq On : 5 Mar 2010 8:17 am  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061418|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL MIX[A] MS 248043001  
ALS Vial : 50 Sample Multiplier: 1

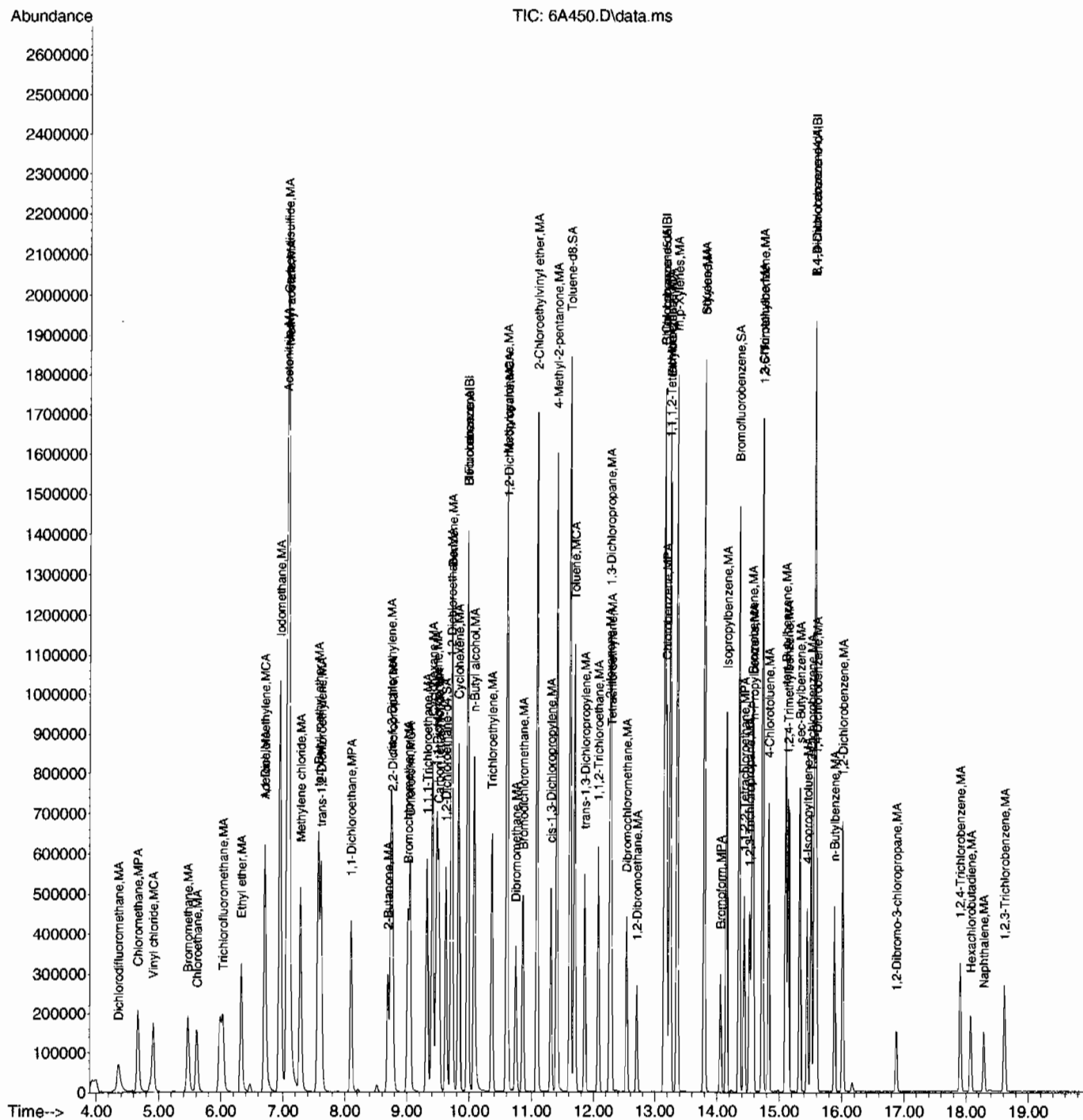
Quant Time: Mar 05 08:42:38 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	8.694	8.773	0.872		0m	N.D.	d
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	9.053	9.059	0.908		0m	N.D.	d
98) Isobutyl alcohol	9.407	9.388	0.943		0m	N.D.	d
99) Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.	d
100) Methyl methacrylate	10.602	10.589	1.063		0m	N.D.	d
101) 1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102) 2-Nitropropane	11.083	11.071	1.111		0m	N.D.	d
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.	d
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	15.174	15.174	0.975		0m	N.D.	d
111) Benzyl chloride	15.711	15.717	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.174	16.113	1.039		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

```
Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A450.D  
Acq On : 5 Mar 2010 8:17 am  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061418|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL MIX[A] MS 248043001  
ALS Vial : 50 Sample Multiplier: 1
```

SubList :



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 1202061419	Date Received: 02/25/2010 08:45	%Moisture: 21.1
Client Sample: QC for batch 961079	Client: LANL010	Project: QC
Client ID: RE36-10-7414PSD	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.I	Dilution: 1
Run Date: 03/05/2010 08:45	Analyst: RXDI	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V6V6A451.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		43.6	ug/kg	0.431	1.27
74-87-3	Chloromethane		47.4	ug/kg	0.380	1.27
75-01-4	Vinyl chloride		51.6	ug/kg	0.380	1.27
74-83-9	Bromomethane		47.1	ug/kg	0.380	1.27
75-00-3	Chloroethane		52.0	ug/kg	0.380	1.27
75-69-4	Trichlorofluoromethane		53.4	ug/kg	0.380	1.27
67-64-1	Acetone		242	ug/kg	2.10	6.34
75-35-4	1,1-Dichloroethylene		49.6	ug/kg	0.380	1.27
74-88-4	Iodomethane		205	ug/kg	2.03	6.34
75-09-2	Methylene chloride		49.2	ug/kg	2.54	6.34
75-15-0	Carbon disulfide		235	ug/kg	1.58	6.34
156-60-5	trans-1,2-Dichloroethylen		48.4	ug/kg	0.380	1.27
75-34-3	1,1-Dichloroethane		51.3	ug/kg	0.380	1.27
78-93-3	2-Butanone		266	ug/kg	1.90	6.34
156-59-2	cis-1,2-Dichloroethylene		50.1	ug/kg	0.380	1.27
594-20-7	2,2-Dichloropropane		50.0	ug/kg	0.380	1.27
67-66-3	Chloroform		50.0	ug/kg	0.380	1.27
74-97-5	Bromochloromethane		51.3	ug/kg	0.418	1.27
71-55-6	1,1,1-Trichloroethane		51.3	ug/kg	0.380	1.27
563-58-6	1,1-Dichloropropene		48.5	ug/kg	0.380	1.27
56-23-5	Carbon tetrachloride		51.1	ug/kg	0.380	1.27
107-06-2	1,2-Dichloroethane		51.8	ug/kg	0.380	1.27
71-43-2	Benzene		44.1	ug/kg	0.380	1.27
79-01-6	Trichloroethylene		45.8	ug/kg	0.418	1.27
78-87-5	1,2-Dichloropropane		50.5	ug/kg	0.380	1.27
75-27-4	Bromodichloromethane		52.0	ug/kg	0.380	1.27
74-95-3	Dibromomethane		53.6	ug/kg	0.380	1.27
108-10-1	4-Methyl-2-pentanone		262	ug/kg	1.58	6.34
10061-01-5	cis-1,3-Dichloropropylene		36.6	ug/kg	0.380	1.27
108-88-3	Toluene		39.6	ug/kg	0.380	1.27
10061-02-6	trans-1,3-Dichloropropylene		37.3	ug/kg	0.380	1.27
79-00-5	1,1,2-Trichloroethane		51.4	ug/kg	0.380	1.27
591-78-6	2-Hexanone		27.1	ug/kg	1.90	6.34
142-28-9	1,3-Dichloropropane		50.4	ug/kg	0.380	1.27
127-18-4	Tetrachloroethylene		36.0	ug/kg	0.380	1.27
124-48-1	Dibromochloromethane		50.6	ug/kg	0.380	1.27
106-93-4	1,2-Dibromoethane		47.8	ug/kg	0.380	1.27
108-90-7	Chlorobenzene		35.4	ug/kg	0.380	1.27



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 1202061419	Date Received: 02/25/2010 08:45	%Moisture: 21.1
Client Sample: QC for batch 961079	Client: LANL010	Project: QC
Client ID: RE36-10-7414PSD	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961082	Inst: VOA6.1	Dilution: 1
Run Date: 03/05/2010 08:45	Analyst: RXD1	Purge Vol: 5 mL
Prep Date: 03/03/2010 10:35	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030410V66A451.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		29.5	ug/kg	0.380	1.27
179601-23-1	m,p-Xylenes		55.3	ug/kg	0.380	2.54
95-47-6	o-Xylene		35.4	ug/kg	0.380	1.27
100-42-5	Styrene		24.0	ug/kg	0.380	1.27
75-25-2	Bromoform		51.5	ug/kg	0.380	1.27
79-34-5	1,1,2,2-Tetrachloroethane		52.8	ug/kg	0.380	1.27
96-18-4	1,2,3-Trichloropropane		57.0	ug/kg	0.380	1.27
108-86-1	Bromobenzene		33.7	ug/kg	0.380	1.27
103-65-1	n-Propylbenzene		20.7	ug/kg	0.380	1.27
95-49-8	2-Chlorotoluene		29.5	ug/kg	0.380	1.27
98-82-8	Isopropylbenzene		29.7	ug/kg	0.380	1.27
108-67-8	1,3,5-Trimethylbenzene		27.8	ug/kg	0.380	1.27
106-43-4	4-Chlorotoluene		25.4	ug/kg	0.380	1.27
98-06-6	tert-Butylbenzene		27.4	ug/kg	0.380	1.27
95-63-6	1,2,4-Trimethylbenzene		19.1	ug/kg	0.380	1.27
135-98-8	sec-Butylbenzene		22.9	ug/kg	0.380	1.27
99-87-6	4-Isopropyltoluene		15.6	ug/kg	0.380	1.27
541-73-1	1,3-Dichlorobenzene		25.8	ug/kg	0.380	1.27
106-46-7	1,4-Dichlorobenzene		24.6	ug/kg	0.380	1.27
104-51-8	n-Butylbenzene		14.2	ug/kg	0.380	1.27
96-12-8	1,2-Dibromo-3-chloropropane		57.8	ug/kg	0.380	1.27
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.34	ug/kg	2.03	6.34
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		45.7	ug/kg	0.380	1.27
95-50-1	1,2-Dichlorobenzene		27.5	ug/kg	0.380	1.27

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A451.D  
Acq On : 5 Mar 2010 8:45 am  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061419|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL MIX[A] MSD 248043001  
ALS Vial : 51 Sample Multiplier: 1

Quant Time: Mar 05 10:00:24 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1222700	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	903594	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	501529	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1221613	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	903594	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	501529	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	469868	51.00	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	102.00%			
43) Toluene-d8	11.620	11.620	0.883	98	1214087	49.33	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	98.66%			
61) Bromofluorobenzene	14.351	14.357	0.922	95	490046	52.35	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	104.70%			
Target Compounds								QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	199932	34.39	ug/L	99
3) Chloromethane	4.672	4.672	0.468	50	354890	37.39	ug/L	99
4) Vinyl chloride	4.914	4.914	0.493	62	341873	40.67	ug/L	100
5) Bromomethane	5.468	5.468	0.548	94	188322	37.16	ug/L	99
6) Chloroethane	5.619	5.619	0.563	64	217502	41.00	ug/L	99
7) Trichlorofluoromethane	6.032	6.032	0.605	101	500925	42.12	ug/L	99
8) Ethyl ether	6.328	6.328	0.634	59	282012	42.99	ug/L	100
9) Acetone	6.706	6.706	0.672	43	486836	191.23	ug/L	100
10) 1,1-Dichloroethylene	6.706	6.706	0.672	61	429302	39.14	ug/L	99
11) Iodomethane	6.956	6.956	0.697	142	1679788	161.58	ug/L	100
12) Acetonitrile	7.072	7.072	0.709	41	1117514	1130.21	ug/L	99
13) Methyl acetate	7.096	7.096	0.711	43	597820	104.70	ug/L	100
14) Carbon disulfide	7.078	7.078	0.710	76	3546293	185.49	ug/L	99
15) Methylene chloride	7.285	7.285	0.730	84	267693	38.80	ug/L	99
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	817887	44.67	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	7.615	0.764	61	391791	38.21	ug/L	98
18) Vinyl acetate	8.059	8.060	0.808	43	239	N.D.		
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	506554	40.48	ug/L	100
20) 2-Butanone	8.693	8.694	0.872	43	548279	209.40	ug/L	100
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	449127	39.54	ug/L	99
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	425471	39.47	ug/L	97
23) Bromochloromethane	9.017	9.017	0.904	128	129088	40.48	ug/L	99
24) Chloroform	9.053	9.053	0.908	83	485216	39.47	ug/L	99
25) 1,1,1-Trichloroethane	9.321	9.322	0.935	97	461332	40.43	ug/L	99
26) Cyclohexane	9.413	9.413	0.944	56	485587	39.87	ug/L	99
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	332947	38.28	ug/L	98
28) Carbon tetrachloride	9.510	9.510	0.954	117	422714	40.31	ug/L	100
30) 1,2-Dichloroethane	9.705	9.706	0.973	62	453959	40.86	ug/L	100
31) Benzene	9.724	9.724	0.975	78	848198	34.75	ug/L	99
32) Cyclohexene	9.827	9.828	0.985	67	467710	38.39	ug/L	99
33) n-Butyl alcohol	10.077	10.077	1.010	56	458737	2519.64	ug/L	100
34) Trichloroethylene	10.358	10.364	1.039	95	232011	36.14	ug/L	98
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	262456	39.81	ug/L	100
36) Methylcyclohexane	10.602	10.602	1.063	83	397396	37.72	ug/L	99
37) Dibromomethane	10.748	10.748	1.078	93	155858	42.28	ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A451.D  
Acq On : 5 Mar 2010 8:45 am  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061419|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL MIX[A] MSD 248043001  
ALS Vial : 51 Sample Multiplier: 1

Quant Time: Mar 05 10:00:24 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	10.864	10.864	1.089	83	356855	41.04	ug/L	99
39) 2-Chloroethylvinyl ether	11.089	11.089	1.112	63	786409	200.93	ug/L	99
40) cis-1,3-Dichloropropylene	11.309	11.315	1.134	75	281602	28.88	ug/L	99
42) 4-Methyl-2-pentanone	11.406	11.406	0.867	58	443742	206.86	ug/L	99
44) Toluene	11.693	11.699	0.889	91	806520	31.26	ug/L	100
45) trans-1,3-Dichloroprop...	11.857	11.858	0.901	75	275122	29.39	ug/L	99
46) 1,1,2-Trichloroethane	12.077	12.077	0.918	83	169513	40.50	ug/L	99
47) 2-Hexanone	12.260	12.260	0.932	43	88431	21.38	ug/L	92
48) 1,3-Dichloropropane	12.272	12.272	0.933	76	364213	39.72	ug/L #	66
49) Tetrachloroethylene	12.284	12.290	0.934	164	159699	28.39	ug/L	99
50) Dibromochloromethane	12.534	12.534	0.953	129	255091	39.94	ug/L	98
51) 1,2-Dibromoethane	12.705	12.705	0.966	107	197390	37.72	ug/L	98
52) Chlorobenzene	13.187	13.187	1.002	112	484705	27.93	ug/L	99
53) 1,1,1,2-Tetrachloroethane	13.241	13.241	1.006	131	238324	36.03	ug/L	99
54) Ethylbenzene	13.247	13.248	1.007	91	692920	23.23	ug/L	99
55) m,p-Xylenes	13.357	13.357	1.015	106	505507	43.61	ug/L	100
56) o-Xylene	13.796	13.796	1.049	106	309855	27.93	ug/L	99
57) Styrene	13.796	13.802	1.049	104	327095	18.94	ug/L	94
59) Bromoform	14.058	14.058	0.903	173	156458	40.64	ug/L	99
60) Isopropylbenzene	14.156	14.156	0.909	105	688608	23.43	ug/L	99
62) 1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	258568	41.61	ug/L	100
63) 1,2,3-Trichloropropane	14.528	14.528	0.933	110	87106	44.95	ug/L #	40
64) Bromobenzene	14.564	14.564	0.935	156	196509	26.55	ug/L	98
65) n-Propylbenzene	14.583	14.583	0.937	91	567492	16.30	ug/L	99
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	563078	21.91	ug/L	100
67) 2-Chlorotoluene	14.729	14.735	0.946	126	167062	23.30	ug/L	98
68) 4-Chlorotoluene	14.833	14.833	0.953	91	432128	20.00	ug/L	99
69) tert-Butylbenzene	15.107	15.107	0.970	134	117581	21.63	ug/L	93
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	400158	15.08	ug/L	100
71) sec-Butylbenzene	15.332	15.333	0.985	105	612270	18.07	ug/L	100
72) 4-Isopropyltoluene	15.448	15.454	0.992	119	341189	12.34	ug/L	100
73) 1,3-Dichlorobenzene	15.515	15.515	0.996	146	302155	20.31	ug/L	99
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	295111	19.43	ug/L	99
75) n-Butylbenzene	15.887	15.887	1.020	91	297538	11.18	ug/L	100
76) 1,2-Dichlorobenzene	16.015	16.021	1.029	146	302801	21.65	ug/L	99
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	51499	45.55	ug/L	98
78) 1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	144138	14.56	ug/L	98
79) Hexachlorobutadiene	18.076	18.076	1.161	225	60252	8.41	ug/L	99
80) Naphthalene	18.283	18.283	1.174	128	91867	5.04	ug/L	98
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.196	180	133364	16.05	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85) Acrolein	0.000	6.535	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.		
87) Isopropyl Alcohol	6.785	6.785	0.680		0m	N.D.	d	
88) Allyl chloride	7.072	7.139	0.709		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90) Acrylonitrile	7.578	7.541	0.760		0m	N.D.	d	
91) Isopropyl ether	8.072	8.078	0.809		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.206	8.206	0.823		0m	N.D.	d	
93) Ethyl tert-butyl ether	8.474	8.486	0.850		0m	N.D.	d	
94) Ethyl acetate	8.693	8.700	0.872		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A451.D  
Acq On : 5 Mar 2010 8:45 am  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061419|961082|1|VOAF|1|VOA8260BS|  
Misc : LANL 5g N/A SOIL MIX[A] MSD 248043001  
ALS Vial : 51 Sample Multiplier: 1

Quant Time: Mar 05 10:00:24 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	8.687	8.773	0.871		0m	N.D.	d
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97) Tetrahydrofuran	9.053	9.059	0.908		0m	N.D.	d
98) Isobutyl alcohol	9.407	9.388	0.943		0m	N.D.	d
99) Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.	d
100) Methyl methacrylate	10.602	10.589	1.063		0m	N.D.	d
101) 1,4-Dioxane	10.760	10.699	1.079		0m	N.D.	d
102) 2-Nitropropane	11.083	11.071	1.111		0m	N.D.	d
104) Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.	d
108) Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110) Pentachloroethane	15.186	15.174	0.975		0m	N.D.	d
111) Benzyl chloride	15.717	15.717	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.174	16.113	1.039		0m	N.D.	d

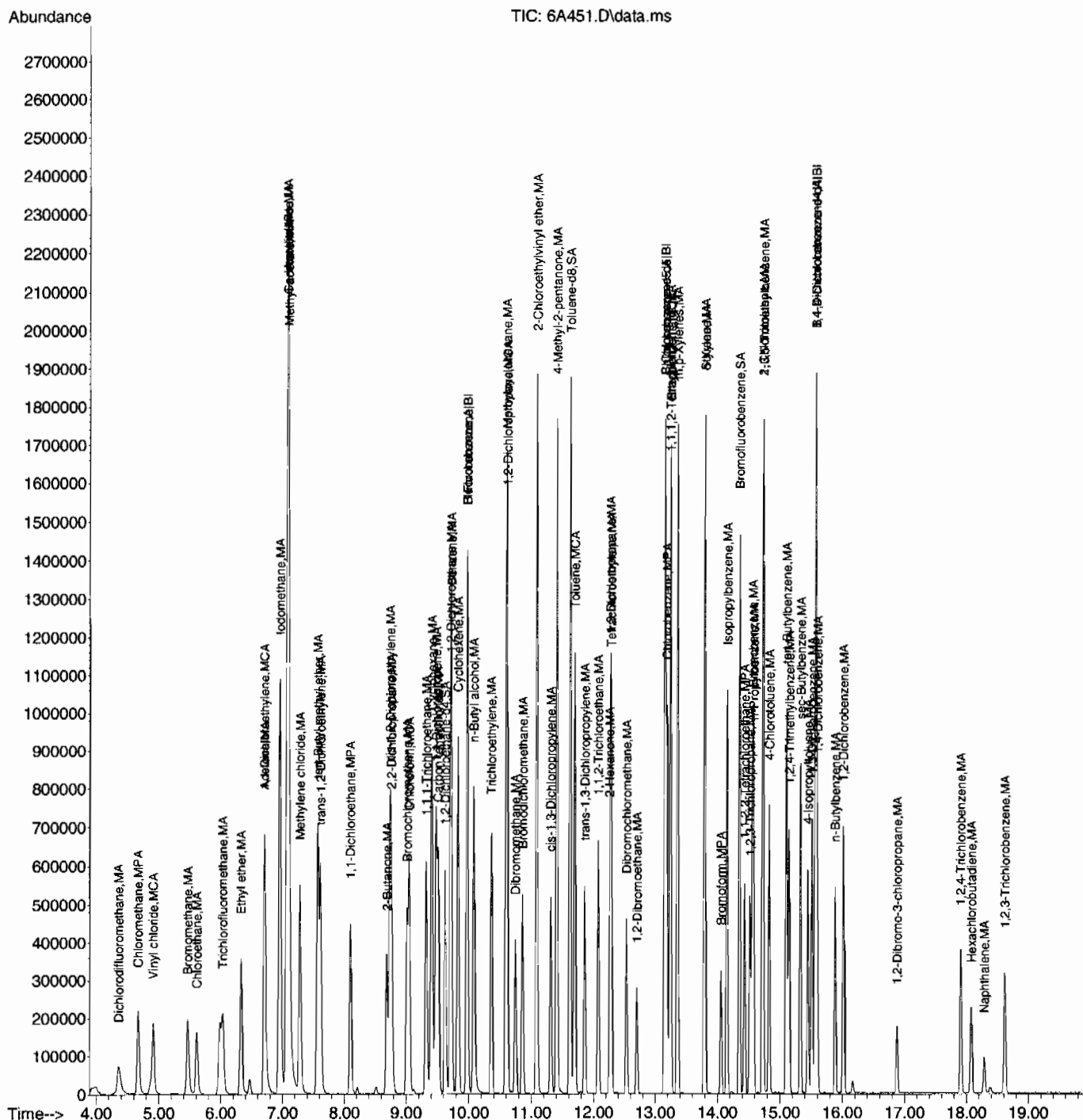
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V6\  
Data File : 6A451.D  
Acq On : 5 Mar 2010 8:45 am  
Operator : RXD1  
InstName : VOA6  
Sample : |1202061419|961082|1|VOAF|1|VOA8260BS|  
Misc : LANTL 5g N/A SOIL MIX[A] MSD 248043001  
ALS Vial : 51 Sample Multiplier: 1

Quant Time: Mar 05 10:00:24 2010  
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Thu Feb 11 09:38:02 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :



# Miscellaneous

# Prep Logbook

## Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

**Batch ID:** 961079      Verified by: \_\_\_\_\_      Type: \_\_\_\_\_      Sample Id: \_\_\_\_\_      Description: \_\_\_\_\_      Serial Number: \_\_\_\_\_      Spike Amount Spike Units: \_\_\_\_\_  
**Analyst:** Ryan Dushak  
**Method:** SW846 5030  
**Lab SOP:** GL-OA-E-038 REV# 14  
**Instrument:** Sartorius Balance B-001

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check I
248043001	03-MAR-2010 09:23:00	Soil	5	5	1	
1202061418 PS (248043001)	03-MAR-2010 10:35:00	Soil	5	5	1	
1202061419 PSD (248043001)	03-MAR-2010 10:35:00	Soil	5	5	1	
248043002	03-MAR-2010 10:35:00	Soil	5	5	1	
248043003	03-MAR-2010 10:35:00	Soil	5	5	1	
248043004	03-MAR-2010 10:35:00	Soil	5	5	1	
248043006	03-MAR-2010 10:35:00	Soil	5	5	1	
248043007	03-MAR-2010 10:35:00	Soil	5	5	1	
248043008	03-MAR-2010 10:35:00	Soil	5	5	1	
248043009	03-MAR-2010 10:35:00	Soil	5	5	1	
248043010	03-MAR-2010 10:35:00	Soil	5	5	1	
248043011	03-MAR-2010 10:35:00	Soil	5	5	1	
248043012	03-MAR-2010 10:35:00	Soil	5	5	1	
248043013	03-MAR-2010 10:35:00	Soil	5	5	1	
248043014	03-MAR-2010 10:35:00	Soil	5	5	1	
248043018	03-MAR-2010 10:35:00	Soil	5	5	1	
1202061421 LCS	04-MAR-2010 09:21:00	Soil	5	5	1	
1202061420 LCS	04-MAR-2010 09:23:00	Soil	5	5	1	
1202061417 MB	04-MAR-2010 09:26:00	Soil	5	5	1	
248043019	04-MAR-2010 13:51:00	Misc Solid	5	5	1	
1202078876 LCS	05-MAR-2010 09:32:00	Soil	5	5	1	
1202078877 LCS	05-MAR-2010 09:33:00	Soil	5	5	1	
1202078875 MB	05-MAR-2010 09:36:00	Soil	5	5	1	
248043005	05-MAR-2010 12:00:00	Soil	5	5	1	
248043015	05-MAR-2010 12:04:00	Soil	5	5	1	
248043016	05-MAR-2010 12:06:00	Soil	5	5	1	

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Batch ID: 961079

Analyst: Ryan Dushak

Method: SW846 5030

Lab SOP: GL-OA-E-038 REV# 14

Instrument: Sartorius Balance B-001

Verified by:

Spike Amount

Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check	Serial Number
248043017	05-MAR-2010 12:08:00	Soil	5	5	1		
Reagent/Solvent Lot ID	Description	Amount	Comments:				



Date: 2/10/2010

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Method 8250B/624 Operator: RXD1

REVIEWED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Daily Instrument Readings: \_\_\_\_\_

Multipier Voltage: 1882

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 021010V6

Daily Standard

Purge Amount

(See pg. 30

for ICAL Std. Std. Ids)

NaHSO4 lot # n/a

CI test lot # 72612

Sequence Number: 021010V6

5 Water Purge Vol:ML

N/A Soil Purge Wt.:G

N/A Mid level ext. MeOH Vol:

N/A ul

N/A Methanol Lot #

x Heated Purge

Solution ID#	W6VM100210-09	W6VM100210-01	W6VM100114-02	W6VM100210-18	W6VM100114-02
L-ICV	IS	SS	S-ICV	BFB	
Blk/	1	1	1	5+5	1
Smpl	5-5	1	1	5+5	1
ICV					
LCS					
BFB					

Analysis		Date		Time		Data File		Lab Sample ID		Client		Batch #		Wt.(g) or Vol.(ml/ul)		Dil.		Factor		pH		AS		Matrix Analyst		CI test		Acceptable		Comments	
2/10/2010	11:55	6X301.D	12020--	BLANK	BLANK	BLANK	BLANK	5mL	1	N/A	1	N/A	1	W	RXD1	N/A	X	RINSE													
2/10/2010	12:23	6X302.D	UVM100114-02	BFB	BFB	5mL	1	N/A	1	N/A	2	W	RXD1	N/A	O	BFB															
2/10/2010	12:51	6X303.D	W6VM100210-01	ICAL	ICAL	5uL	1	N/A	3	W	RXD1	N/A	O	MIX[A]	UVM100106-02C+UVM100202-02B																
2/10/2010	13:19	6X304.D	W6VM100210-02	ICAL	ICAL	5uL	1	N/A	4	W	RXD1	N/A	O	MIX[A]	UVM100106-03C+UVM100202-03B																
2/10/2010	13:47	6X305.D	W6VM100210-03	ICAL	ICAL	5uL	1	N/A	5	W	RXD1	N/A	O	MIX[A]	UVM100106-04C+UVM100202-04B																
2/10/2010	14:14	6X306.D	W6VM100210-04	ICAL	ICAL	5uL	1	N/A	6	W	RXD1	N/A	O	MIX[A]	UVM100106-05C+UVM100202-05B																
2/10/2010	14:42	6X307.D	W6VM100210-05	ICAL	ICAL	5uL	1	N/A	7	W	RXD1	N/A	O	MIX[A]	UVM100106-06C+UVM100202-06B																
2/10/2010	15:10	6X308.D	W6VM100210-06	ICAL	ICAL	5uL	1	N/A	8	W	RXD1	N/A	O	MIX[A]	UVM100106-07C+UVM100202-07B																
2/10/2010	15:38	6X309.D	W6VM100210-07	ICAL	ICAL	5uL	1	N/A	9	W	RXD1	N/A	O	MIX[A]	UVM100106-08C+UVM100202-08B																
2/10/2010	16:05	6X310.D	12020--	BLANK	BLANK	5mL	1	N/A	10	W	RXD1	N/A	X	RINSE																	
2/10/2010	16:33	6X311.D	W6VM100210-08	ICAL	ICAL	5uL	1	N/A	11	W	RXD1	N/A	O	MIX[A]	UVM100106-01C+UVM100202-01B																
2/10/2010	17:01	6X312.D	W6VM100210-09	ICV	ICV	5uL	1	N/A	12	W	RXD1	N/A	O	MIX[A]	UVM100126-01C+UVM100210-01																
2/10/2010	17:29	6X313.D	W6VM100210-10	ICV	ICV	5uL	1	N/A	13	W	RXD1	N/A	X	MIX[A]	UVM100126-02B+UVM100210-01																
2/10/2010	17:57	6X314.D	W6VM100210-11	ICAL	ICAL	5uL	1	N/A	14	W	RXD1	N/A	O	MIX[B]	UVM100118-01+UVM100125-01C																
2/10/2010	18:24	6X315.D	W6VM100210-12	ICAL	ICAL	5uL	1	N/A	15	W	RXD1	N/A	O	MIX[B]	UVM100118-02+UVM100125-02C																
2/10/2010	18:52	6X316.D	W6VM100210-13	ICAL	ICAL	5uL	1	N/A	16	W	RXD1	N/A	O	MIX[B]	UVM100118-03+UVM100125-03C																
2/10/2010	19:20	6X317.D	W6VM100210-14	ICAL	ICAL	5uL	1	N/A	17	W	RXD1	N/A	O	MIX[B]	UVM100118-04+UVM100125-04C																
2/10/2010	19:48	6X318.D	W6VM100210-15	ICAL	ICAL	5uL	1	N/A	18	W	RXD1	N/A	O	MIX[B]	UVM100118-05+UVM100125-05C																
2/10/2010	20:15	6X319.D	W6VM100210-16	ICAL	ICAL	5uL	1	N/A	19	W	RXD1	N/A	O	MIX[B]	UVM100118-06+UVM100125-06C																
2/10/2010	20:43	6X320.D	W6VM100210-17	ICAL	ICAL	5uL	1	N/A	20	W	RXD1	N/A	O	MIX[B]	UVM100118-07+UVM100125-07C																
2/10/2010	21:11	6X321.D	12020--	BLANK	BLANK	5mL	1	N/A	21	W	RXD1	N/A	X	RINSE																	
2/10/2010	21:38	6X322.D	W6VM100210-18	ICV	ICV	5uL	1	N/A	22	W	RXD1	N/A	O	MIX[B]	UVM101023-08B+UVM100125-08B																
2/10/2010	22:06	6X323.D	W6VM100210-19	ICV	ICV	5uL	1	N/A	23	W	RXD1	N/A	X	MIX[B]	UVM100118-08B+UVM100125-08B																
2/10/2010	22:33	6X324.D	12020--	BLANK	BLANK	5mL	1	N/A	24	W	RXD1	N/A	X	RINSE																	

Method 8260B/624 Operator: RXD1  
HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4  
REVIEWED BY: DATE: 1906  
Daily Instrument Readings: Multiplier Voltage:

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 2/10/2010  
(See pg. 30 for ICAL Std. Sci. Ids)  
NaHSO4 lot # n/a  
CI test lot # 72612  
Sequence Number: 030410V6pm  
Daily Standard Solution ID# Volume Added for Purge (ul) MS/ Bk/ Smpl CCV LCS BFB  
IS W6VM100304-05 5+5  
SS UVM100114-02 1 1  
LCS/MS W6VM100304-06 1 1  
BFB W6VM100304-05 5+5  
SHORT W6VM100304-07 1  
Purge Amount  
5 Water Purge Vol: ML  
5 Soil Purge Wt.: G  
N/A Mid level ext. MeOH Vol:  
N/A ul  
N/A Methanol Lot #  
x Heated Purge

Analysis			Lab Sample ID		Client	Batch #	Wt.(g) or Vol.(ml/ul)		Dil.	AS		Matrix Analyst	CI test		Acceptable	Comments
Date	Time	Data File	Lab Sample ID	Factor			pH	Slot #		w or s	(Y/N)		(O/X)			
4 Mar 2010	21:40	6A427.D	W6VM100304-05	GEL	GEL	BFB/CCV	5mL		1	N/A	27		RXD1	N/A	O	MIX[A] UVM100106-07D+UVM100222-07A
4 Mar 2010	22:08	6A428.D	W6VM100304-06	GEL	GEL	LCS	5g		1	N/A	28		RXD1	N/A	O	SOIL MIX[A] UVM100220-01C+IVM100304-01
4 Mar 2010	22:35	6A429.D	W6VM100304-07	GEL	GEL	CCV	5g		1	N/A	29		RXD1	N/A	O	SOIL MIX[B] UVM100215-08A
4 Mar 2010	23:03	6A430.D	12020--	BLANK	BLANK	BLANK	5g		1	N/A	30	s	RXD1	N/A	O	SOIL
4 Mar 2010	23:31	6A431.D	248043001	LANL	LANL	961082	5g		1	N/A	31	s	RXD1	N/A	O	SOIL
4 Mar 2010	23:59	6A432.D	248043002	LANL	LANL	961082	5g		1	N/A	32	s	RXD1	N/A	O	SOIL
5 Mar 2010	00:26	6A433.D	248043003	LANL	LANL	961082	5g		1	N/A	33	s	RXD1	N/A	O	SOIL
5 Mar 2010	00:54	6A434.D	248043004	LANL	LANL	961082	5g		1	N/A	34	s	RXD1	N/A	O	SOIL
5 Mar 2010	01:22	6A435.D	248043005	LANL	LANL	961082	5g		1	N/A	35	s	RXD1	N/A	x	SOIL, SS high, IS low, see 030510V6
5 Mar 2010	01:50	6A436.D	248043006	LANL	LANL	961082	5g		1	N/A	36	s	RXD1	N/A	O	SOIL
5 Mar 2010	02:17	6A437.D	248043007	LANL	LANL	961082	5g		1	N/A	37	s	RXD1	N/A	O	SOIL
5 Mar 2010	02:45	6A438.D	248043008	LANL	LANL	961082	5g		1	N/A	38	s	RXD1	N/A	o	SOIL, IS low, see 030510V6
5 Mar 2010	03:13	6A439.D	248043009	LANL	LANL	961082	5g		1	N/A	39	s	RXD1	N/A	O	SOIL
5 Mar 2010	03:40	6A440.D	248043010	LANL	LANL	961082	5g		1	N/A	40	s	RXD1	N/A	O	SOIL
5 Mar 2010	04:08	6A441.D	248043011	LANL	LANL	961082	5g		1	N/A	41	s	RXD1	N/A	O	SOIL
5 Mar 2010	04:36	6A442.D	248043012	LANL	LANL	961082	5g		1	N/A	42	s	RXD1	N/A	O	SOIL
5 Mar 2010	05:04	6A443.D	248043013	LANL	LANL	961082	5g		1	N/A	43	s	RXD1	N/A	O	SOIL
5 Mar 2010	05:31	6A444.D	248043014	LANL	LANL	961082	5g		1	N/A	44	s	RXD1	N/A	O	SOIL
5 Mar 2010	05:59	6A445.D	248043015	LANL	LANL	961082	5g		1	N/A	45	s	RXD1	N/A	x	SOIL, IS low, see 030510V6
5 Mar 2010	06:27	6A446.D	248043016	LANL	LANL	961082	5g		1	N/A	46	s	RXD1	N/A	x	SOIL, SS high, IS low, see 030510V6
5 Mar 2010	06:54	6A447.D	248043017	LANL	LANL	961082	5g		1	N/A	47	s	RXD1	N/A	x	SOIL, IS low, see 030510V6
5 Mar 2010	07:22	6A448.D	248043018	LANL	LANL	961082	5g		1	N/A	48	s	RXD1	N/A	O	SOIL, IS low, see 030510V6
5 Mar 2010	07:50	6A449.D	248043019	LANL	LANL	961082	5g		1	N/A	49	s	RXD1	N/A	O	SOIL
5 Mar 2010	08:17	6A450.D	1202061418	LANL	LANL	961082	5g		1	N/A	50	s	RXD1	N/A	O	SOIL MIX[A] MS 248043001
5 Mar 2010	08:45	6A451.D	1202061419	LANL	LANL	961082	5g		1	N/A	51	s	RXD1	N/A	O	SOIL MIX[A] MSD 248043001

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

REVIEWED BY:

DATE: \_\_\_\_\_

\_\_\_\_\_

## Initial Calibration Date: 2/10/2010

Volume Added for Purge (ul)

Purge Amount

for ICAL Std. Sci. Ids)

CCV Wi

7

5 Water Purge Vol:ML

n/a

	Mid level ext. MeOH Vol:
x	

72612

100 III

Sequence Number: 030510V6

DA057 Methanol Lot #

---

Source	Heated Purge
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
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95	95
96	96
97	97
98	98
99	99
100	100

Analysis			Dili.				AS			Matrix Analyst		Cf test		Acceptable	Comments
Date	Time	Data File	Lab Sample ID	Client	Batch #	Vol(ml/ul)	Factor	pH	Slot #	w	s	(Y/N)	(O/X)		
5 Mar 2010 10:40		6A501.D	UVM100203-02	GEL	BFB	5mL	1	N/A	1	w		RXD1	N/A	O	
5 Mar 2010 11:08		6A502.D	W6VM100304-01	GEL	CCV/LCS	5mL	1	N/A	2	w		RXD1	N/A	O	MIX[A] UVM100220-01D+IVM100304-01
5 Mar 2010 11:36		6A503.D	W6VM100304-02	GEL	LCS	5g	1	N/A	3	s		RXD1	N/A	O	SOIL MIX[A] UVM100220-01D+IVM100304-01
5 Mar 2010 12:04		6A504.D	W6VM100304-03	GEL	CCV	5mL	1	N/A	4	w		RXD1	N/A	O	MIX[B] UVM100215-08B
5 Mar 2010 12:32		6A505.D	W6VM100304-04	GEL	LCS	5g	1	N/A	5	s		RXD1	N/A	O	SOIL MIX[B] UVM100215-08B
5 Mar 2010 13:00		6A506.D	12020--	BLANK	BLANK	5g	1	N/A	6	s		RXD1	N/A	O	SOIL
5 Mar 2010 13:27		6A507.D	12020--	BLANK	BLANK	5mL	1	N/A	7	w		RXD1	N/A	O	
5 Mar 2010 13:55		6A508.D	12020--	HB	HB	100uL	50	N/A	8	s		RXD1	N/A	O	SOIL
5 Mar 2010 14:22		6A509.D	248043005	LANL	961082	5g	1	N/A	9	s		RXD1	N/A	O	SOIL, RR of 6A435, IS low
5 Mar 2010 14:50		6A510.D	248043008	LANL	961082	5g	1	N/A	10	s		RXD1	N/A	x	RR of 6A438, bad purge, see 030810V6
5 Mar 2010 15:18		6A511.D	248043015	LANL	961082	5g	1	N/A	11	s		RXD1	N/A	O	SOIL, RR of 6A445
5 Mar 2010 15:46		6A512.D	248043016	LANL	961082	5g	1	N/A	12	s		RXD1	N/A	O	SOIL, RR of 6A446
5 Mar 2010 16:14		6A513.D	248043017	LANL	961082	5g	1	N/A	13	s		RXD1	N/A	O	SOIL, RR of 6A447
5 Mar 2010 16:41		6A514.D	248043018	LANL	961082	5g	1	N/A	14	s		RXD1	N/A	x	SOIL, RR of 6A448, SS high, IS low
5 Mar 2010 17:09		6A515.D	248440001	QCOA	961749	5mL	1	pH2	15	w		RXD1	N	O	
5 Mar 2010 17:37		6A516.D	248440002	QCOA	961749	5mL	1	pH2	16	w		RXD1	N	O	
5 Mar 2010 18:05		6A517.D	248440003	QCOA	961749	5mL	1	pH5	17	w		RXD1	N	O	
5 Mar 2010 18:33		6A518.D	248440004	QCOA	961749	5mL	1	pH5	18	w		RXD1	N	O	
5 Mar 2010 19:00		6A519.D	248440005	QCOA	961749	5mL	1	pH2	19	w		RXD1	N	O	
5 Mar 2010 19:28		6A520.D	248440006	QCOA	961749	5mL	1	pH2	20	w		RXD1	N	O	
5 Mar 2010 19:56		6A521.D	248440007	QCOA	961749	5mL	1	pH2	21	w		RXD1	N	O	
5 Mar 2010 20:24		6A522.D	248440008	QCOA	961749	5mL	1	pH2	22	w		RXD1	N	O	
5 Mar 2010 20:52		6A523.D	247831001	CARE	961797	100uL	50	N/A	23	s		RXD1	N/A	O	SOIL
5 Mar 2010 21:20		6A524.D	1202062971	CARE	961797	100uL	50	N/A	24	s		RXD1	N/A	x	MIX[A] MS 247831001, see 030810V6
5 Mar 2010 12:28		6A525.D	1202062972	CARE	961797	100uL	50	N/A	25	s		RXD1	N/A	x	MIX[A] MS 247831001, out of tune
6 Mar 2010 12:56		6A526.D	12020--	BLANK	BLANK	5mL	1	N/A	26	w		RXD1	N/A	x	RUNSE

### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 23-MAR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> VOA GC/MS	<b>Test / Method:</b> SW846 8260B	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 961082	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG): 248043(10-2074)</b>			
<b>Application Issues:</b>			
Failed Recovery for MS/PS			
Failed RPD for MS/MSD, or PS/PSD			
Other			
Failed Recovery for LCS/LCSD			
Failed Recovery for MSD/PSD			
<b>Specification and Requirements</b>		<b>DER Disposition:</b>	
<b>Exception Description:</b>			
<p>1. Multiple compounds did not meet acceptance criteria in the MS/MSD: (1202061418MS, 1202061419MSD)</p> <p>2. The relative percent differences (RPD) between the MS and MSD (1202061418MS, 1202061419MSD) recoveries were not within the acceptance limits for 2-Hexanone.</p> <p>2-Hexanone recovered at 99.48%. The limits are 0.00% - 21.00%</p> <p>3. The following compound did not meet acceptance criteria in the LCS: (1202061421LCS):</p> <p>Trichlorotrifluoroethane recovered at 60.68%. The limits are 7.00% - 140.00%</p> <p>4. The following samples did not meet acceptance criteria for internal standard recoveries.</p> <p>248043005 recovered 1,4-Dichlorobenzene-d4 at 47.59. The limits are 50 - 200%.</p> <p>248043008 recovered 1,4-Dichlorobenzene-d4 at 48.86. The limits are 50 - 200%.</p> <p>248043018 recovered 1,4-Dichlorobenzene-d4 at 49.86. The limits are 50 - 200%.</p>		<p>1. The MS/MSD exhibited similar recoveries. It is believed that matrix interference has been demonstrated. The data is reported.</p> <p>2. The MS/MSD pair had low recoveries for the analyte. Narrate and Report.</p> <p>3. The unacceptable recoveries were less than 5% of the requested analyte list. This satisfies the client criteria. The results are reported.</p> <p>4. The samples were re-analyzed and the recoveries were confirmed. Narrate and Report.</p>	

**Originator's Name:**

Ryan Dushak 23-MAR-10

**Data Validator/Group Leader:**

Stacy Calloway 24-MAR-10

# **GC/MS Semivolatile Analysis**

**Semi-Volatile Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2074**

**Method/Analysis Information**

<b>Procedure:</b>	<b>Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry</b>
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	959623
Prep Batch Number:	959622

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

<b>Sample ID</b>	<b>Client ID</b>
248043001	RE36-10-7414
248043002	RE36-10-7413
248043003	RE36-10-7462
248043004	RE36-10-7465
248043005	RE36-10-7473
248043006	RE36-10-7471
248043007	RE36-10-7472
248043008	RE36-10-7468
248043009	RE36-10-7464
248043010	RE36-10-7463
248043011	RE36-10-7475
248043012	RE36-10-7466
248043013	RE36-10-7476
248043014	RE36-10-7461
248043015	RE36-10-7467
248043016	RE36-10-7469
248043017	RE36-10-7470
248043018	RE36-10-7515
1202058129	Method Blank (MB)
1202058130	Laboratory Control Sample (LCS)
1202058131	248043001(RE36-10-7414) Matrix Spike (MS)
1202058132	248043001(RE36-10-7414) Matrix Spike Duplicate (MSD)

The samples in this batch were analyzed on a "dry weight" basis.

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

#### **Calibration Information**

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

#### **Initial Calibration**

All initial calibration requirements have been met for this batch. A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

#### **CCV Requirements**

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

## **Quality Control (QC) Information**

### **Method Blank (MB) Statement**

The MB analyzed with this batch met the acceptance criteria.

### **Surrogate Recoveries**

The following samples failed surrogate recovery and were re-extracted out of holding and analyzed: 248043002 (RE36-10-7413) and 248043004 (RE36-10-7465). The re-extracted samples passed all surrogate recoveries. Both sets of data are reported.

The MS (1202058131) and MSD (1202058132) failed to meet surrogate recovery acceptance criteria for all surrogates. Please see the QC summary report for specific failures. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.

### **Laboratory Control Sample (LCS) Recovery**

The LCS (1202058130) recovered Benzyl alcohol at 25% (SPC limits: 27%-108%). The Benzyl alcohol failure represents less than 5% of the total requested spike analyte list. That satisfied the acceptance criteria for the client and the data results have been reported. Please note that Benzyl alcohol is a poor responder that is subject to erratic chromatography behavior. This may account for the low recovery of the analyte in the LCS (as well as the MS and MSD).

### **QC Sample Designation**

Sample 248043001 (RE36-10-7414) was selected for analysis as the matrix spike and matrix spike duplicate.

### **Matrix Spike (MS) Recovery Statement**

The MS recoveries were not within the acceptance limits. Please see the spike recovery report for the specific failures. Since the MS and MSD displayed spike similar recoveries, the failures were attributed to sample matrix interference and the data have been reported. Please note that Benzyl alcohol is a poor responder that is subject to erratic chromatography behavior. This may account for the low recovery of the analyte in the MS and MSD (as well as the LCS).

### **Matrix Spike Duplicate (MSD) Recovery Statement**

The MS recoveries were not within the acceptance limits. Please see the spike recovery report for the specific failures. Since the MS and MSD displayed spike similar recoveries, the failures were attributed to sample matrix interference and the data have been reported. Please note that Benzyl alcohol is a poor responder that is subject to erratic chromatography behavior. This may account for the low recovery of the analyte in the MS and MSD (as well as the LCS).

### **MS/MSD Relative Percent Difference (RPD) Statement**

The MS(1202058131)/MSD(1202058132) RPD value for 2,4-Dimethylphenol was 133% (limit: 30%) and for Benzyl alcohol was 200% (limit: 30%). The RPD failures were attributed to matrix interference and the data have been reported.

### **Internal Standard (ISTD) Acceptance**

The internal standard responses were within the required acceptance criteria for all samples and QC.

## **Technical Information**

### **Holding Time Specifications**

All samples in this batch met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.



**Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

**Sample Dilutions**

Sample 248043018 (RE36-10-7515) was diluted because the extract was very dark and viscous. Samples 248043002 (RE36-10-7413), 248043004 (RE36-10-7465) and 248043011 (RE36-10-7475) were diluted due to the presence of overrange target analytes.

**Sample Re-extraction/Re-analysis**

Samples 248043002 (RE36-10-7413) and 248043004 (RE36-10-7465) were re-extracted due to surrogate failure in this batch.

**Method/Analysis Information**

<b>Procedure:</b>	<b>Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry</b>
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	965290
Prep Batch Number:	965289

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

<b>Sample ID</b>	<b>Client ID</b>
248043002	RE36-10-7413
248043004	RE36-10-7465
1202071125	Method Blank (MB)
1202071126	Laboratory Control Sample (LCS)
1202071127	Laboratory Control Sample Duplicate (LCSD)

The samples in this batch were analyzed on a "dry weight" basis.

**Preparation/Analytical Method Verification****SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

**Calibration Information**

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

#### **Initial Calibration**

All initial calibration requirements have been met for this batch. A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

#### **CCV Requirements**

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

#### **Quality Control (QC) Information**

##### **Method Blank (MB) Statement**

The MB analyzed with this batch met the acceptance criteria.

##### **Surrogate Recoveries**

All the surrogate recoveries were within the established acceptance criteria for this batch.

##### **Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

##### **Laboratory Control Sample Duplicate (LCSD) Recovery**

The LCSD spike recoveries met the acceptance limits.

**LCS/LCSD Relative Percent Difference (RPD) Statement**

The RPD(s) between the LCS and LCSD met the acceptance limits.

**QC Sample Designation**

No matrix spike and matrix spike duplicate were extracted and analyzed with this SDG.

**Internal Standard (ISTD) Acceptance**

The internal standard responses were within the required acceptance criteria for all samples and QC.

**Technical Information****Holding Time Specifications**

The following samples were re-extracted out of holding in this batch due to surrogate failures: 248043002 (RE36-10-7413) and 248043004 (RE36-10-7465). The failures did not confirm, so both sets of results are reported.

GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

**Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

**Sample Re-extraction/Re-analysis**

The following samples were re-extracted out of holding in this batch due to surrogate failures: 248043002 (RE36-10-7413) and 248043004 (RE36-10-7465). The failures did not confirm, so both sets of results are reported.

**Miscellaneous Information****Data Exception (DER) Documentation**

The following DERs were generated for this SDG: 804126 and 808467. They are located in the Miscellaneous Section of the data report.

**Manual Integrations**

Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

**Additional Comments**

Additional comments were not required for this SDG.

**Electronic Package Comment**

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

**System Configuration**

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:


<b>Instrument ID</b>	<b>Instrument</b>	<b>System Configuration</b>	<b>Column ID</b>	<b>Column Description</b>
MSD7.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Review Validation:**

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer:  Date: 3-24-10

# Roadmap for LANL 10-2074 SVOA

This roadmap was analyzed by jos00786 on 03-18-2010, 15:06.

This roadmap was reviewed by bar00895 on 03-23-2010, 16:19.

This roadmap was packaged by CHA01131 on 03-23-2010, 16:42.

Sample										
exclude	manual	datafile	sample	injdate	injtime	sublist	chemid	dilution	batchid	comment
<input type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1106.d	248043001	11-MAR-2010	14:39	10-2074.sub	RE36-10-7414	1	959623	
<input type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1109.d	248043005	11-MAR-2010	15:43	10-2074.sub	RE36-10-7473	1	959623	
<input type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1110.d	248043007	11-MAR-2010	16:04	10-2074.sub	RE36-10-7472	1	959623	
<input type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1111.d	248043013	11-MAR-2010	16:26	10-2074.sub	RE36-10-7476	1	959623	
<input type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1112.d	248043008	11-MAR-2010	16:47	10-2074.sub	RE36-10-7468	1	959623	
<input type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1113.d	248043009	11-MAR-2010	17:09	10-2074.sub	RE36-10-7464	1	959623	
<input type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1114.d	248043011	11-MAR-2010	17:30	10-2074.sub	RE36-10-7475	1	959623	REPORT: all excpt c68/76 (OR - rerun @ 4x - see s7c1227)
<input checked="" type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1115.d	248043015	11-MAR-2010	17:52	10-2074.sub	RE36-10-7467	1	959623	DUSE: possible carryover - rerun - see s7c1228
<input type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1116.d	248043016	11-MAR-2010	18:13	10-2074.sub	RE36-10-7469	1	959623	
<input type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1117.d	248043017	11-MAR-2010	18:35	10-2074.sub	RE36-10-7470	1	959623	
<input type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1118.d	248043018	11-MAR-2010	18:57	10-2074.sub	RE36-10-7515	10	959623	
<input type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1119.d	248043003	11-MAR-2010	19:18	10-2074.sub	RE36-10-7462	1	959623	
<input type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1120.d	248043006	11-MAR-2010	19:40	10-2074.sub	RE36-10-7471	1	959623	
<input type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1121.d	248043010	11-MAR-2010	20:01	10-2074.sub	RE36-10-7463	1	959623	
<input checked="" type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1122.d	248043002	11-MAR-2010	20:23	10-2074.sub	RE36-10-7413	1	959623	DUSE: see reruns s7c1225 (4x) and s7c1230 (neat)
<input checked="" type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1123.d	248043004	11-MAR-2010	20:45	10-2074.sub	RE36-10-7465	1	959623	DUSE: see reruns s7c1226 (4x) and s7c1242 (neat)
<input checked="" type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1124.d	248043012	11-MAR-2010	21:06	10-2074.sub	RE36-10-7466	1	959623	DUSE: possible carryover - rerun - see s7c1229
<input type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1125.d	248043014	11-MAR-2010	21:28	10-2074.sub	RE36-10-7461	1	959623	
<input checked="" type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1126.d	248043005	11-MAR-2010	21:49	10-2074.sub	RE36-10-7462	1	959623	DUSE: rerun not needed - see s7c1119
<input checked="" type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1127.d	248043006	11-MAR-2010	22:11	10-2074.sub	RE36-10-7471	1	959623	DUSE: rerun not needed - see s7c1120
<input checked="" type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1128.d	248043010	11-MAR-2010	22:33	10-2074.sub	RE36-10-7463	1	959623	DUSE: rerun not needed - see s7c1171
<input checked="" type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1129.d	248043002	11-MAR-2010	22:55	10-2074.sub	RE36-10-7413	1	959623	DUSE: rerun not needed - see s7c1122
<input checked="" type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1130.d	248043004	11-MAR-2010	23:16	10-2074.sub	RE36-10-7465	1	959623	DUSE: rerun not needed - see s7c1123
<input checked="" type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1131.d	248043012	11-MAR-2010	23:38	10-2074.sub	RE36-10-7466	1	959623	DUSE: rerun not needed - possible carryover - see s7c1123
<input checked="" type="checkbox"/>	N	/chem/MSD7.s0031110.b67c1132.d	248043014	11-MAR-2010	23:59	10-2074.sub	RE36-10-7461	1	959623	DUSE: rerun not needed - see s7c1125
<input type="checkbox"/>	N	/chem/MSD7.s0031210.b67c1225.d	248043002	12-MAR-2010	21:12	10-2074.sub	RE36-10-7413DL	4	959623	REPORT: dilution of s7c1230 for OR hits
<input type="checkbox"/>	N	/chem/MSD7.s0031210.b67c1236.d	248043004	12-MAR-2010	21:34	10-2074.sub	RE36-10-7465DL	4	959623	REPORT: dilution of s7c1232 for OR hits

<input type="checkbox"/>	N	/chem/MSD7.s031210.b67c1227.d	248043011	12-MAR-2010	21:55	10-2074.sub	RE36-10-7475DL	4	959621	REPORT: dilution of s7c1214 for OR hits
<input type="checkbox"/>	N	/chem/MSD7.s031210.b67c1228.d	248043013	12-MAR-2010	22:17	10-2074.sub	RE36-10-7467	1	959623	
<input type="checkbox"/>	N	/chem/MSD7.s031210.b67c1229.d	248043012	12-MAR-2010	22:19	10-2074.sub	RE36-10-7466	1	959623	
<input type="checkbox"/>	N	/chem/MSD7.s031210.b67c1230.d	248043002	12-MAR-2010	23:01	10-2074.sub	RE36-10-7413	1	959623	REPORT: all except OR hits (see s7c1225) - FAILS SURR - RX
<input type="checkbox"/>	N	/chem/MSD7.s031210.b67c1232.d	248043004	12-MAR-2010	23:44	10-2074.sub	RE36-10-7465	1	959623	REPORT: all except OR hits (see s7c1226) - FAILS SURR - RX
<input checked="" type="checkbox"/>	N	/chem/MSD7.s031210.b67c1234.d	248043015	13-MAR-2010	00:27	10-2074.sub	RE36-10-7467	1	959623	DOSE: see s7c1228
<input checked="" type="checkbox"/>	N	/chem/MSD7.s031210.b67c1235.d	248043002	13-MAR-2010	00:49	10-2074.sub	RE36-10-7413	1	959623	DOSE: see s7c1230
<input checked="" type="checkbox"/>	N	/chem/MSD7.s031210.b67c1237.d	248043004	13-MAR-2010	01:32	10-2074.sub	RE36-10-7465	1	959623	DOSE: see s7c1232
<input type="checkbox"/>	N	/chem/MSD7.s031710.b67c1725.d	248043002	17-MAR-2010	18:28	10-2074.sub	RE36-10-7413REDL	4	965290	REPORT: dilution of s7c1727 for OR hits
<input type="checkbox"/>	N	/chem/MSD7.s031710.b67c1726.d	248043004	17-MAR-2010	18:50	10-2074.sub	RE36-10-7465REDL	4	965290	REPORT: dilution of s7c1729 for OR hits
<input type="checkbox"/>	N	/chem/MSD7.s031710.b67c1727.d	248043002	17-MAR-2010	19:12	10-2074.sub	RE36-10-7413RE	1	965290	REPORT: rx of s7c1230 (pass out of hold) - see s7c1725 (4x)
<input type="checkbox"/>	N	/chem/MSD7.s031710.b67c1729.d	248043004	17-MAR-2010	19:55	10-2074.sub	RE36-10-7465RE	1	965290	REPORT: rx of s7c1232 (pass out of hold) - see s7c1726 (4x)

QC Sample

exclude	manual	datafile	smid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
<input type="checkbox"/>	N	/chem/MSD7.s031110.b67c1104.d	1202058129	mb	11-MAR-2010	13:56	10-2074.sub	SBLK01	1	959623	
<input type="checkbox"/>	N	/chem/MSD7.s031110.b67c1105.d	1202058130	lcs	11-MAR-2010	14:17	10-2074.sub	SBLK01LCS	1	959623	

<input type="checkbox"/>	N	/chem/MSD7.i/s031110.b/s7c1107.d	1202058131	ms	11-MAR-2010	15:00	10-2074.sub	RE36-10-7414MS	1	959623	<input type="checkbox"/>
<input type="checkbox"/>	N	/chem/MSD7.i/s031110.b/s7c1108.d	1202058132	msd	11-MAR-2010	15:21	10-2074.sub	RE36-10-7414MSD	1	959623	<input type="checkbox"/>
<input type="checkbox"/>	N	/chem/MSD7.i/s031710.b/s7c1706.d	1202071125	mb	17-MAR-2010	11:41	10-2074.sub	SBLK02	1	965290	<input type="checkbox"/>
<input type="checkbox"/>	N	/chem/MSD7.i/s031710.b/s7c1707.d	1202071126	lcs	17-MAR-2010	12:02	10-2074.sub	SBLK02LCS	1	965290	<input type="checkbox"/>
<input type="checkbox"/>	N	/chem/MSD7.i/s031710.b/s7c1708.d	1202071127	lcscd	17 MAR-2010	12:24	10-2074.sub	SBLK02LCSD	1	965290	<input type="checkbox"/>



# Sample Data Summary

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043002

Client ID: RE36-10-7413  
Batch ID: 959623  
Run Date: 03/12/2010 23:01  
Prep Date: 03/02/2010 11:17  
Data File: s7c1230.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.07 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	421	ug/kg	84.1	421
108-95-2	Phenol	U	421	ug/kg	84.1	421
95-57-8	2-Chlorophenol	U	421	ug/kg	84.1	421
106-46-7	1,4-Dichlorobenzene	U	421	ug/kg	84.1	421
621-64-7	N-Nitrosodipropylamine	U	421	ug/kg	84.1	421
59-50-7	4-Chloro-3-methylphenol	U	421	ug/kg	84.1	421
83-32-9	Acenaphthene		765	ug/kg	13.9	42.1
121-14-2	2,4-Dinitrotoluene	U	421	ug/kg	42.1	421
100-02-7	4-Nitrophenol	U	421	ug/kg	139	421
87-86-5	Pentachlorophenol	U	421	ug/kg	105	421
110-86-1	Pyridine	U	421	ug/kg	84.1	421
62-53-3	Aniline	U	421	ug/kg	126	421
111-44-4	bis(2-Chloroethyl) ether	U	421	ug/kg	84.1	421
541-73-1	1,3-Dichlorobenzene	U	421	ug/kg	84.1	421
100-51-6	Benzyl alcohol	U	421	ug/kg	126	421
95-50-1	1,2-Dichlorobenzene	U	421	ug/kg	84.1	421
108-60-1	bis(2-Chloroisopropyl)ether	U	421	ug/kg	84.1	421
95-48-7	o-Cresol	U	421	ug/kg	84.1	421
65794-96-9	m,p-Cresols	U	421	ug/kg	126	421
67-72-1	Hexachloroethane	U	421	ug/kg	84.1	421
98-95-3	Nitrobenzene	U	421	ug/kg	84.1	421
78-59-1	Isophorone	U	421	ug/kg	84.1	421
88-75-5	2-Nitrophenol	U	421	ug/kg	84.1	421
105-67-9	2,4-Dimethylphenol	U	421	ug/kg	147	421
111-91-1	bis(2-Chloroethoxy)methane	U	421	ug/kg	84.1	421
120-83-2	2,4-Dichlorophenol	U	421	ug/kg	84.1	421
65-85-0	Benzoic acid	U	841	ug/kg	210	841
91-20-3	Naphthalene		260	ug/kg	12.6	42.1
106-47-8	4-Chloroaniline	U	421	ug/kg	84.1	421
87-68-3	Hexachlorobutadiene	U	421	ug/kg	84.1	421
91-57-6	2-Methylnaphthalene		158	ug/kg	8.41	42.1
77-47-4	Hexachlorocyclopentadiene	U	421	ug/kg	84.1	421
88-06-2	2,4,6-Trichlorophenol	U	421	ug/kg	84.1	421
95-95-4	2,4,5-Trichlorophenol	U	421	ug/kg	84.1	421
91-58-7	2-Chloronaphthalene	U	42.1	ug/kg	13.9	42.1
88-74-4	2-Nitroaniline	U	421	ug/kg	84.1	421
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	421	ug/kg	84.1	421
	<i>m</i> -Nitroaniline					

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043002

Client ID: RE36-10-7413  
Batch ID: 959623  
Run Date: 03/12/2010 23:01  
Prep Date: 03/02/2010 11:17  
Data File: s7c1230.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.07 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	Dimethylphthalate	U	421	ug/kg	84.1	421
606-20-2	2,6-Dinitrotoluene	U	421	ug/kg	42.1	421
208-96-8	Acenaphthylene	J	20.2	ug/kg	12.6	42.1
51-28-5	2,4-Dinitrophenol	U	841	ug/kg	160	841
132-64-9	Dibenzofuran		481	ug/kg	84.1	421
84-66-2	Diethylphthalate	U	421	ug/kg	84.1	421
86-73-7	Fluorene		764	ug/kg	12.6	42.1
7005-72-3	4-Chlorophenylphenylether	U	421	ug/kg	84.1	421
534-52-1	2-Methyl-4,6-dinitrophenol	U	421	ug/kg	84.1	421
100-01-6	4-Nitroaniline	U	421	ug/kg	126	421
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	421	ug/kg	84.1	421
122-66-7	Azobenzene	U	421	ug/kg	84.1	421
	<i>1,2-Diphenylhydrazine</i>					
101-55-3	4-Bromophenylphenylether	U	421	ug/kg	84.1	421
118-74-1	Hexachlorobenzene	U	421	ug/kg	84.1	421
120-12-7	Anthracene		1490	ug/kg	8.41	42.1
84-74-2	Di-n-butylphthalate	J	185	ug/kg	84.1	421
85-68-7	Butylbenzylphthalate	U	421	ug/kg	84.1	421
56-55-3	Benzo(a)anthracene		4030	ug/kg	12.6	42.1
91-94-1	3,3'-Dichlorobenzidine	U	421	ug/kg	126	421
218-01-9	Chrysene		4240	ug/kg	12.6	42.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	421	ug/kg	84.1	421
117-84-0	Di-n-octylphthalate	U	421	ug/kg	84.1	421
207-08-9	Benzo(k)fluoranthene	U	42.1	ug/kg	12.6	42.1
50-32-8	Benzo(a)pyrene		3700	ug/kg	12.6	42.1
193-39-5	Indeno(1,2,3-cd)pyrene		1850	ug/kg	12.6	42.1
53-70-3	Dibenzo(a,h)anthracene		669	ug/kg	12.6	42.1
191-24-2	Benzo(ghi)perylene		1790	ug/kg	12.6	42.1
120-82-1	1,2,4-Trichlorobenzene	U	421	ug/kg	84.1	421

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
86-74-8	Carbazole	7.33	181	ug/kg	95	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.6	177	ug/kg	98	NJ
	Unknown	7.68	288	ug/kg		J
84-65-1	9,10-Anthracenedione	7.86	175	ug/kg	99	NJ
	Unknown	8.61	222	ug/kg		J
2381-21-7	Pyrene, 1-methyl-	8.72	389	ug/kg	97	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043002	Date Received: 02/25/2010 08:45	%Moisture: 20.9
Client ID: RE36-10-7413	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/12/2010 23:01	Inst: MSD7.I	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1230.d	Aliquot: 30.07 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown	8.82	213	ug/kg		J
479-79-8	11H-Benzo[a]fluoren-11-one	9.2	225	ug/kg	97	NJ
82-05-3	7H-Benz[de]anthracen-7-one	9.3	221	ug/kg	94	NJ
	Unknown	9.4	252	ug/kg		J
192-97-2	Benzo[e]pyrene	11.02	2530	ug/kg	99	NJ
198-55-0	Perylene	11.19	960	ug/kg	99	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043002

Client ID: RE36-10-7413DL  
Batch ID: 959623  
Run Date: 03/12/2010 21:12  
Prep Date: 03/02/2010 11:17  
Data File: s7c1225.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.07 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
129-00-0	Pyrene		7760	ug/kg	50.5	168
85-01-8	Phenanthrene		8640	ug/kg	50.5	168
206-44-0	Fluoranthene		10000	ug/kg	50.5	168
205-99-2	Benzo(b)fluoranthene		6620	ug/kg	50.5	168

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
86-74-8	Carbazole	7.33	851	ug/kg	95	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.57	762	ug/kg	98	NJ
	Unknown	7.59	872	ug/kg		J
	Unknown	7.67	1410	ug/kg		J
84-65-1	9,10-Anthracenedione	7.85	940	ug/kg	99	NJ
243-17-4	11H-Benzo[b]fluorene	8.71	764	ug/kg	97	NJ
192-97-2	Benzo[e]pyrene	11.01	2550	ug/kg	99	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043002	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 20.9
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7413RE	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 965290	<b>Inst:</b> MSD7.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/17/2010 19:12	<b>Analyst:</b> JMB3	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/16/2010 21:34	<b>Aliquot:</b> 30.13 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s7c1727.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	Uh	420	ug/kg	84.0	420
108-95-2	Phenol	Uh	420	ug/kg	84.0	420
95-57-8	2-Chlorophenol	Uh	420	ug/kg	84.0	420
106-46-7	1,4-Dichlorobenzene	Uh	420	ug/kg	84.0	420
621-64-7	N-Nitrosodipropylamine	Uh	420	ug/kg	84.0	420
59-50-7	4-Chloro-3-methylphenol	Uh	420	ug/kg	84.0	420
83-32-9	Acenaphthene	h	1110	ug/kg	13.9	42.0
121-14-2	2,4-Dinitrotoluene	Uh	420	ug/kg	42.0	420
100-02-7	4-Nitrophenol	Uh	420	ug/kg	139	420
87-86-5	Pentachlorophenol	Uh	420	ug/kg	105	420
110-86-1	Pyridine	Uh	420	ug/kg	84.0	420
62-53-3	Aniline	Uh	420	ug/kg	126	420
111-44-4	bis(2-Chloroethyl) ether	Uh	420	ug/kg	84.0	420
541-73-1	1,3-Dichlorobenzene	Uh	420	ug/kg	84.0	420
100-51-6	Benzyl alcohol	Uh	420	ug/kg	126	420
95-50-1	1,2-Dichlorobenzene	Uh	420	ug/kg	84.0	420
108-60-1	bis(2-Chloroisopropyl)ether	Uh	420	ug/kg	84.0	420
95-48-7	o-Cresol	Uh	420	ug/kg	84.0	420
65794-96-9	m,p-Cresols	Uh	420	ug/kg	126	420
67-72-1	Hexachloroethane	Uh	420	ug/kg	84.0	420
98-95-3	Nitrobenzene	Uh	420	ug/kg	84.0	420
78-59-1	Isophorone	Uh	420	ug/kg	84.0	420
88-75-5	2-Nitrophenol	Uh	420	ug/kg	84.0	420
105-67-9	2,4-Dimethylphenol	Uh	420	ug/kg	147	420
111-91-1	bis(2-Chloroethoxy)methane	Uh	420	ug/kg	84.0	420
120-83-2	2,4-Dichlorophenol	Uh	420	ug/kg	84.0	420
65-85-0	Benzoic acid	Uh	840	ug/kg	210	840
91-20-3	Naphthalene	h	349	ug/kg	12.6	42.0
106-47-8	4-Chloroaniline	Uh	420	ug/kg	84.0	420
87-68-3	Hexachlorobutadiene	Uh	420	ug/kg	84.0	420
91-57-6	2-Methylnaphthalene	h	209	ug/kg	8.40	42.0
77-47-4	Hexachlorocyclopentadiene	Uh	420	ug/kg	84.0	420
88-06-2	2,4,6-Trichlorophenol	Uh	420	ug/kg	84.0	420
95-95-4	2,4,5-Trichlorophenol	Uh	420	ug/kg	84.0	420
91-58-7	2-Chloronaphthalene	Uh	42.0	ug/kg	13.9	42.0
88-74-4	2-Nitroaniline	Uh	420	ug/kg	84.0	420
99-09-2	<i>o</i> -Nitroaniline	Uh	420	ug/kg	84.0	420
	<i>m</i> -Nitroaniline					

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043002

Client ID: RE36-10-7413RE  
Batch ID: 965290  
Run Date: 03/17/2010 19:12  
Prep Date: 03/16/2010 21:34  
Data File: s7c1727.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL.010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	Dimethylphthalate	Uh	420	ug/kg	84.0	420
606-20-2	2,6-Dinitrotoluene	Uh	420	ug/kg	42.0	420
208-96-8	Acenaphthylene	Jh	33.0	ug/kg	12.6	42.0
51-28-5	2,4-Dinitrophenol	Uh	840	ug/kg	160	840
132-64-9	Dibenzofuran	h	694	ug/kg	84.0	420
84-66-2	Diethylphthalate	Uh	420	ug/kg	84.0	420
86-73-7	Fluorene	h	1040	ug/kg	12.6	42.0
7005-72-3	4-Chlorophenylphenylether	Uh	420	ug/kg	84.0	420
534-52-1	2-Methyl-4,6-dinitrophenol	Uh	420	ug/kg	84.0	420
100-01-6	4-Nitroaniline	Uh	420	ug/kg	126	420
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	Uh	420	ug/kg	84.0	420
122-66-7	Azobenzene	Uh	420	ug/kg	84.0	420
	<i>1,2-Diphenylhydrazine</i>					
101-55-3	4-Bromophenylphenylether	Uh	420	ug/kg	84.0	420
118-74-1	Hexachlorobenzene	Uh	420	ug/kg	84.0	420
120-12-7	Anthracene	h	2280	ug/kg	8.40	42.0
84-74-2	Di-n-butylphthalate	Jh	308	ug/kg	84.0	420
85-68-7	Butylbenzylphthalate	Uh	420	ug/kg	84.0	420
91-94-1	3,3'-Dichlorobenzidine	Uh	420	ug/kg	126	420
117-81-7	bis(2-Ethylhexyl)phthalate	Uh	420	ug/kg	84.0	420
117-84-0	Di-n-octylphthalate	Uh	420	ug/kg	84.0	420
207-08-9	Benzo(k)fluoranthene	Uh	42.0	ug/kg	12.6	42.0
193-39-5	Indeno(1,2,3-cd)pyrene	h	3810	ug/kg	12.6	42.0
53-70-3	Dibenzo(a,h)anthracene	h	1400	ug/kg	12.6	42.0
191-24-2	Benzo(ghi)perylene	h	4040	ug/kg	12.6	42.0
120-82-1	1,2,4-Trichlorobenzene	Uh	420	ug/kg	84.0	420

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
86-74-8	Carbazole	7.25	196	ug/kg	87	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.51	173	ug/kg	98	NJ
	Unknown	7.59	304	ug/kg		J
84-65-1	9,10-Anthracenedione	7.77	189	ug/kg	99	NJ
2381-21-7	Pyrene, 1-methyl-	8.52	212	ug/kg	95	NJ
243-17-4	11H-Benzo[b]fluorene	8.62	382	ug/kg	97	NJ
3442-78-2	Pyrene, 2-methyl-	8.72	204	ug/kg	94	NJ
479-79-8	11H-Benzo[a]fluorene-11-one	9.11	246	ug/kg	97	NJ
82-05-3	7H-Benz[de]anthracene-7-one	9.21	228	ug/kg	94	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043002	Date Received: 02/25/2010 08:45	%Moisture: 20.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7413RE	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 965290	Inst: MSD7.1	Dilution: 1
Run Date: 03/17/2010 19:12	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/16/2010 21:34	Aliquot: 30.13 g	Final Volume: 1 mL
Data File: s7c1727.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.31	301	ug/kg		J
	Unknown	10.37	937	ug/kg		J
	Unknown	10.67	966	ug/kg		J
192-97-2	Benzo[e]pyrene	10.9	3520	ug/kg	99	NJ
	Unknown	11.07	1400	ug/kg		J



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043002

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7413REDL  
Batch ID: 965290  
Run Date: 03/17/2010 18:28  
Prep Date: 03/16/2010 21:34  
Data File: s7c1725.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
129-00-0	Pyrene	h	10700	ug/kg	50.4	168
85-01-8	Phenanthrene	h	13500	ug/kg	50.4	168
206-44-0	Fluoranthene	h	15900	ug/kg	50.4	168
56-55-3	Benzo(a)anthracene	h	5900	ug/kg	50.4	168
218-01-9	Chrysene	h	6560	ug/kg	50.4	168
205-99-2	Benzo(b)fluoranthene	h	9240	ug/kg	50.4	168
50-32-8	Benzo(a)pyrene	h	5490	ug/kg	50.4	168

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
540-97-6	Cyclohexasiloxane, dodecamethyl-	4.95	917	ug/kg	91	NJ
244-99-5	5H-Indeno[1,2-b]pyridine	7.24	1260	ug/kg	95	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.48	1100	ug/kg	98	NJ
832-69-9	Phenanthrene, 1-methyl-	7.5	1280	ug/kg	98	NJ
	Unknown	7.58	2010	ug/kg		J
84-65-1	9,10-Anthracenedione	7.76	1360	ug/kg	98	NJ
5737-13-3	Cyclopenta(def)phenanthrenone	8.04	705	ug/kg	94	NJ
243-17-4	11H-Benzo[b]fluorene	8.61	883	ug/kg	97	NJ
479-79-8	11H-Benzo[a]fluoren-11-one	9.29	751	ug/kg	97	NJ
	Unknown	10.35	903	ug/kg		J
	Unknown	10.65	775	ug/kg		J
192-97-2	Benzo[e]pyrene	10.87	3670	ug/kg	99	NJ
198-55-0	Perylene	11.04	1400	ug/kg	98	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043001

Client ID: RE36-10-7414  
Batch ID: 959623  
Run Date: 03/11/2010 14:39  
Prep Date: 03/02/2010 11:17  
Data File: s7c1106.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 21.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	421	ug/kg	84.3	421
108-95-2	Phenol	U	421	ug/kg	84.3	421
95-57-8	2-Chlorophenol	U	421	ug/kg	84.3	421
106-46-7	1,4-Dichlorobenzene	U	421	ug/kg	84.3	421
621-64-7	N-Nitrosodipropylamine	U	421	ug/kg	84.3	421
59-50-7	4-Chloro-3-methylphenol	U	421	ug/kg	84.3	421
83-32-9	Acenaphthene	J	14.9	ug/kg	13.9	42.1
121-14-2	2,4-Dinitrotoluene	U	421	ug/kg	42.1	421
100-02-7	4-Nitrophenol	U	421	ug/kg	139	421
87-86-5	Pentachlorophenol	U	421	ug/kg	105	421
129-00-0	Pyrene		202	ug/kg	12.6	42.1
110-86-1	Pyridine	U	421	ug/kg	84.3	421
62-53-3	Aniline	U	421	ug/kg	126	421
111-44-4	bis(2-Chloroethyl) ether	U	421	ug/kg	84.3	421
541-73-1	1,3-Dichlorobenzene	U	421	ug/kg	84.3	421
100-51-6	Benzyl alcohol	U	421	ug/kg	126	421
95-50-1	1,2-Dichlorobenzene	U	421	ug/kg	84.3	421
108-60-1	bis(2-Chloroisopropyl)ether	U	421	ug/kg	84.3	421
95-48-7	o-Cresol	U	421	ug/kg	84.3	421
65794-96-9	m,p-Cresols	U	421	ug/kg	126	421
67-72-1	Hexachloroethane	U	421	ug/kg	84.3	421
98-95-3	Nitrobenzene	U	421	ug/kg	84.3	421
78-59-1	Isophorone	U	421	ug/kg	84.3	421
88-75-5	2-Nitrophenol	U	421	ug/kg	84.3	421
105-67-9	2,4-Dimethylphenol	U	421	ug/kg	147	421
111-91-1	bis(2-Chloroethoxy)methane	U	421	ug/kg	84.3	421
120-83-2	2,4-Dichlorophenol	U	421	ug/kg	84.3	421
65-85-0	Benzoic acid	U	843	ug/kg	211	843
91-20-3	Naphthalene	U	42.1	ug/kg	12.6	42.1
106-47-8	4-Chloroaniline	U	421	ug/kg	84.3	421
87-68-3	Hexachlorobutadiene	U	421	ug/kg	84.3	421
91-57-6	2-Methylnaphthalene	U	42.1	ug/kg	8.43	42.1
77-47-4	Hexachlorocyclopentadiene	U	421	ug/kg	84.3	421
88-06-2	2,4,6-Trichlorophenol	U	421	ug/kg	84.3	421
95-95-4	2,4,5-Trichlorophenol	U	421	ug/kg	84.3	421
91-58-7	2-Chloronaphthalene	U	42.1	ug/kg	13.9	42.1
88-74-4	2-Nitroaniline	U	421	ug/kg	84.3	421
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	421	ug/kg	84.3	421

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043001	Date Received: 02/25/2010 08:45	%Moisture: 21.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7414	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 14:39	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1106.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline Dimethylphthalate	U	421	ug/kg	84.3	421
606-20-2	2,6-Dinitrotoluene	U	421	ug/kg	42.1	421
208-96-8	Acenaphthylene	U	42.1	ug/kg	12.6	42.1
51-28-5	2,4-Dinitrophenol	U	843	ug/kg	160	843
132-64-9	Dibenzofuran	U	421	ug/kg	84.3	421
84-66-2	Diethylphthalate	U	421	ug/kg	84.3	421
86-73-7	Fluorene	J	13.6	ug/kg	12.6	42.1
7005-72-3	4-Chlorophenylphenylether	U	421	ug/kg	84.3	421
534-52-1	2-Methyl-4,6-dinitrophenol	U	421	ug/kg	84.3	421
100-01-6	4-Nitroaniline	U	421	ug/kg	126	421
122-39-4	<i>p</i> -Nitroaniline Diphenylamine	U	421	ug/kg	84.3	421
122-66-7	Azobenzene	U	421	ug/kg	84.3	421
101-55-3	<i>1,2</i> -Diphenylhydrazine 4-Bromophenylphenylether	U	421	ug/kg	84.3	421
118-74-1	Hexachlorobenzene	U	421	ug/kg	84.3	421
85-01-8	Phenanthrene		160	ug/kg	12.6	42.1
120-12-7	Anthracene	J	24.8	ug/kg	8.43	42.1
84-74-2	Di-n-butylphthalate	U	421	ug/kg	84.3	421
206-44-0	Fluoranthene		216	ug/kg	12.6	42.1
85-68-7	Butylbenzylphthalate	U	421	ug/kg	84.3	421
56-55-3	Benzo(a)anthracene		89.8	ug/kg	12.6	42.1
91-94-1	3,3'-Dichlorobenzidine	U	421	ug/kg	126	421
218-01-9	Chrysene		93.5	ug/kg	12.6	42.1
117-81-7	bis(2-Ethylhexyl)phthalate	J	231	ug/kg	84.3	421
117-84-0	Di-n-octylphthalate	U	421	ug/kg	84.3	421
205-99-2	Benzo(b)fluoranthene		156	ug/kg	12.6	42.1
207-08-9	Benzo(k)fluoranthene	U	42.1	ug/kg	12.6	42.1
50-32-8	Benzo(a)pyrene		84.6	ug/kg	12.6	42.1
193-39-5	Indeno(1,2,3-cd)pyrene		63.5	ug/kg	12.6	42.1
53-70-3	Dibenzo(a,h)anthracene	J	25.3	ug/kg	12.6	42.1
191-24-2	Benzo(ghi)perylene		67.9	ug/kg	12.6	42.1
120-82-1	1,2,4-Trichlorobenzene	U	421	ug/kg	84.3	421

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	375	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043014

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	381	ug/kg	76.2	381
108-95-2	Phenol	U	381	ug/kg	76.2	381
95-57-8	2-Chlorophenol	U	381	ug/kg	76.2	381
106-46-7	1,4-Dichlorobenzene	U	381	ug/kg	76.2	381
621-64-7	N-Nitrosodipropylamine	U	381	ug/kg	76.2	381
59-50-7	4-Chloro-3-methylphenol	U	381	ug/kg	76.2	381
83-32-9	Acenaphthene	J	32.9	ug/kg	12.6	38.1
121-14-2	2,4-Dinitrotoluene	U	381	ug/kg	38.1	381
100-02-7	4-Nitrophenol	U	381	ug/kg	126	381
87-86-5	Pentachlorophenol	U	381	ug/kg	95.2	381
129-00-0	Pyrene		510	ug/kg	11.4	38.1
110-86-1	Pyridine	U	381	ug/kg	76.2	381
62-53-3	Aniline	U	381	ug/kg	114	381
111-44-4	bis(2-Chloroethyl) ether	U	381	ug/kg	76.2	381
541-73-1	1,3-Dichlorobenzene	U	381	ug/kg	76.2	381
100-51-6	Benzyl alcohol	U	381	ug/kg	114	381
95-50-1	1,2-Dichlorobenzene	U	381	ug/kg	76.2	381
108-60-1	bis(2-Chloroisopropyl)ether	U	381	ug/kg	76.2	381
95-48-7	o-Cresol	U	381	ug/kg	76.2	381
65794-96-9	m,p-Cresols	U	381	ug/kg	114	381
67-72-1	Hexachloroethane	U	381	ug/kg	76.2	381
98-95-3	Nitrobenzene	U	381	ug/kg	76.2	381
78-59-1	Isophorone	U	381	ug/kg	76.2	381
88-75-5	2-Nitrophenol	U	381	ug/kg	76.2	381
105-67-9	2,4-Dimethylphenol	U	381	ug/kg	133	381
111-91-1	bis(2-Chloroethoxy)methane	U	381	ug/kg	76.2	381
120-83-2	2,4-Dichlorophenol	U	381	ug/kg	76.2	381
65-85-0	Benzoic acid	U	762	ug/kg	190	762
91-20-3	Naphthalene	U	38.1	ug/kg	11.4	38.1
106-47-8	4-Chloroaniline	U	381	ug/kg	76.2	381
87-68-3	Hexachlorobutadiene	U	381	ug/kg	76.2	381
91-57-6	2-Methylnaphthalene	U	38.1	ug/kg	7.62	38.1
77-47-4	Hexachlorocyclopentadiene	U	381	ug/kg	76.2	381
88-06-2	2,4,6-Trichlorophenol	U	381	ug/kg	76.2	381
95-95-4	2,4,5-Trichlorophenol	U	381	ug/kg	76.2	381
91-58-7	2-Chloronaphthalene	U	38.1	ug/kg	12.6	38.1
88-74-4	2-Nitroaniline	U	381	ug/kg	76.2	381
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	381	ug/kg	76.2	381

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043014

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	381	ug/kg	76.2	381
606-20-2	2,6-Dinitrotoluene	U	381	ug/kg	38.1	381
208-96-8	Accnaphthylene	U	38.1	ug/kg	11.4	38.1
51-28-5	2,4-Dinitrophenol	U	762	ug/kg	145	762
132-64-9	Dibenzofuran	U	381	ug/kg	76.2	381
84-66-2	Diethylphthalate	U	381	ug/kg	76.2	381
86-73-7	Fluorene	J	29.7	ug/kg	11.4	38.1
7005-72-3	4-Chlorophenylphenylether	U	381	ug/kg	76.2	381
534-52-1	2-Methyl-4,6-dinitrophenol	U	381	ug/kg	76.2	381
100-01-6	4-Nitroaniline	U	381	ug/kg	114	381
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	381	ug/kg	76.2	381
122-66-7	Azobenzene	U	381	ug/kg	76.2	381
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	381	ug/kg	76.2	381
118-74-1	Hexachlorobenzene	U	381	ug/kg	76.2	381
85-01-8	Phenanthrene		410	ug/kg	11.4	38.1
120-12-7	Anthracene		64.7	ug/kg	7.62	38.1
84-74-2	Di-n-butylphthalate	U	381	ug/kg	76.2	381
206-44-0	Fluoranthene		539	ug/kg	11.4	38.1
85-68-7	Butylbenzylphthalate	U	381	ug/kg	76.2	381
56-55-3	Benzo(a)anthracene		242	ug/kg	11.4	38.1
91-94-1	3,3'-Dichlorobenzidine	U	381	ug/kg	114	381
218-01-9	Chrysene		264	ug/kg	11.4	38.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	381	ug/kg	76.2	381
117-84-0	Di-n-octylphthalate	U	381	ug/kg	76.2	381
205-99-2	Benzo(b)fluoranthene		413	ug/kg	11.4	38.1
207-08-9	Benzo(k)fluoranthene	U	38.1	ug/kg	11.4	38.1
50-32-8	Benzo(a)pyrene		219	ug/kg	11.4	38.1
193-39-5	Indeno(1,2,3-cd)pyrene		164	ug/kg	11.4	38.1
53-70-3	Dibenzo(a,h)anthracene		65.1	ug/kg	11.4	38.1
191-24-2	Benzo(ghi)perylene		178	ug/kg	11.4	38.1
120-82-1	1,2,4-Trichlorobenzene	U	381	ug/kg	76.2	381

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.35	246	ug/kg		J
	Unknown Aldol Condensate	3.02	382	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043014

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
644-30-4	Benzene, 1-(1,5-dimethyl-4-hexenyl)-4-me	5.99	340	ug/kg	97	NJ
	Unknown	10.72	367	ug/kg		J
	Unknown	11.21	223	ug/kg		J
198-55-0	Perylene	11.24	160	ug/kg	98	NJ
	Unknown	11.65	430	ug/kg		J
112-95-8	Eicosane	11.86	809	ug/kg	98	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043003	Date Received: 02/25/2010 08:45	%Moisture: 7.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7462	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 19:18	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s7c1119.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	361	ug/kg	72.3	361
108-95-2	Phenol	U	361	ug/kg	72.3	361
95-57-8	2-Chlorophenol	U	361	ug/kg	72.3	361
106-46-7	1,4-Dichlorobenzene	U	361	ug/kg	72.3	361
621-64-7	N-Nitrosodipropylamine	U	361	ug/kg	72.3	361
59-50-7	4-Chloro-3-methylphenol	U	361	ug/kg	72.3	361
83-32-9	Acenaphthene	U	36.1	ug/kg	11.9	36.1
121-14-2	2,4-Dinitrotoluene	U	361	ug/kg	36.1	361
100-02-7	4-Nitrophenol	U	361	ug/kg	119	361
87-86-5	Pentachlorophenol	U	361	ug/kg	90.4	361
129-00-0	Pyrene		129	ug/kg	10.8	36.1
110-86-1	Pyridine	U	361	ug/kg	72.3	361
62-53-3	Aniline	U	361	ug/kg	108	361
111-44-4	bis(2-Chloroethyl) ether	U	361	ug/kg	72.3	361
541-73-1	1,3-Dichlorobenzene	U	361	ug/kg	72.3	361
100-51-6	Benzyl alcohol	U	361	ug/kg	108	361
95-50-1	1,2-Dichlorobenzene	U	361	ug/kg	72.3	361
108-60-1	bis(2-Chloroisopropyl) ether	U	361	ug/kg	72.3	361
95-48-7	o-Cresol	U	361	ug/kg	72.3	361
65794-96-9	m,p-Cresols	U	361	ug/kg	108	361
67-72-1	Hexachloroethane	U	361	ug/kg	72.3	361
98-95-3	Nitrobenzene	U	361	ug/kg	72.3	361
78-59-1	Isophorone	U	361	ug/kg	72.3	361
88-75-5	2-Nitrophenol	U	361	ug/kg	72.3	361
105-67-9	2,4-Dimethylphenol	U	361	ug/kg	126	361
111-91-1	bis(2-Chloroethoxy)methane	U	361	ug/kg	72.3	361
120-83-2	2,4-Dichlorophenol	U	361	ug/kg	72.3	361
65-85-0	Benzoic acid	U	723	ug/kg	181	723
91-20-3	Naphthalene	U	36.1	ug/kg	10.8	36.1
106-47-8	4-Chloroaniline	U	361	ug/kg	72.3	361
87-68-3	Hexachlorobutadiene	U	361	ug/kg	72.3	361
91-57-6	2-Methylnaphthalene	U	36.1	ug/kg	7.23	36.1
77-47-4	Hexachlorocyclopentadiene	U	361	ug/kg	72.3	361
88-06-2	2,4,6-Trichlorophenol	U	361	ug/kg	72.3	361
95-95-4	2,4,5-Trichlorophenol	U	361	ug/kg	72.3	361
91-58-7	2-Chloronaphthalene	U	36.1	ug/kg	11.9	36.1
88-74-4	2-Nitroaniline	U	361	ug/kg	72.3	361
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	361	ug/kg	72.3	361

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043003	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 7.9
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7462	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 959623	<b>Inst:</b> MSD7.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/11/2010 19:18	<b>Analyst:</b> JMB3	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/02/2010 11:17	<b>Aliquot:</b> 30.05 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s7c1119.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/L.O.D	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	361	ug/kg	72.3	361
606-20-2	2,6-Dinitrotoluene	U	361	ug/kg	36.1	361
208-96-8	Acenaphthylene	U	36.1	ug/kg	10.8	36.1
51-28-5	2,4-Dinitrophenol	U	723	ug/kg	137	723
132-64-9	Dibenzofuran	U	361	ug/kg	72.3	361
84-66-2	Diethylphthalate	U	361	ug/kg	72.3	361
86-73-7	Fluorene	U	36.1	ug/kg	10.8	36.1
7005-72-3	4-Chlorophenylphenylether	U	361	ug/kg	72.3	361
534-52-1	2-Methyl-4,6-dinitrophenol	U	361	ug/kg	72.3	361
100-01-6	4-Nitroaniline	U	361	ug/kg	108	361
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	361	ug/kg	72.3	361
122-66-7	Azobenzene	U	361	ug/kg	72.3	361
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	361	ug/kg	72.3	361
118-74-1	Hexachlorobenzene	U	361	ug/kg	72.3	361
85-01-8	Phenanthrene		107	ug/kg	10.8	36.1
120-12-7	Anthracene	J	18.7	ug/kg	7.23	36.1
84-74-2	Di-n-butylphthalate	U	361	ug/kg	72.3	361
206-44-0	Fluoranthene		166	ug/kg	10.8	36.1
85-68-7	Butylbenzylphthalate	U	361	ug/kg	72.3	361
56-55-3	Benzo(a)anthracene		66.7	ug/kg	10.8	36.1
91-94-1	3,3'-Dichlorobenzidine	U	361	ug/kg	108	361
218-01-9	Chrysene		76.4	ug/kg	10.8	36.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	361	ug/kg	72.3	361
117-84-0	Di-n-octylphthalate	U	361	ug/kg	72.3	361
205-99-2	Benzo(b)fluoranthene		108	ug/kg	10.8	36.1
207-08-9	Benzo(k)fluoranthene	U	36.1	ug/kg	10.8	36.1
50-32-8	Benzo(a)pyrene		57.7	ug/kg	10.8	36.1
193-39-5	Indeno(1,2,3-cd)pyrene		45.1	ug/kg	10.8	36.1
53-70-3	Dibenzo(a,h)anthracene	U	36.1	ug/kg	10.8	36.1
191-24-2	Benzo(ghi)perylene		55.0	ug/kg	10.8	36.1
120-82-1	1,2,4-Trichlorobenzene	U	361	ug/kg	72.3	361

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.36	250	ug/kg		J
	Unknown Aldol Condensate	3.02	296	ug/kg		J



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043010	Date Received: 02/25/2010 08:45	%Moisture: 8.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7463	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 20:01	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s7c1121.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	363	ug/kg	72.6	363
108-95-2	Phenol	U	363	ug/kg	72.6	363
95-57-8	2-Chlorophenol	U	363	ug/kg	72.6	363
106-46-7	1,4-Dichlorobenzene	U	363	ug/kg	72.6	363
621-64-7	N-Nitrosodipropylamine	U	363	ug/kg	72.6	363
59-50-7	4-Chloro-3-methylphenol	U	363	ug/kg	72.6	363
83-32-9	Acenaphthene	J	12.9	ug/kg	12.0	36.3
121-14-2	2,4-Dinitrotoluene	U	363	ug/kg	36.3	363
100-02-7	4-Nitrophenol	U	363	ug/kg	120	363
87-86-5	Pentachlorophenol	U	363	ug/kg	90.7	363
129-00-0	Pyrene		222	ug/kg	10.9	36.3
110-86-1	Pyridine	U	363	ug/kg	72.6	363
62-53-3	Aniline	U	363	ug/kg	109	363
111-44-4	bis(2-Chloroethyl) ether	U	363	ug/kg	72.6	363
541-73-1	1,3-Dichlorobenzene	U	363	ug/kg	72.6	363
100-51-6	Benzyl alcohol	U	363	ug/kg	109	363
95-50-1	1,2-Dichlorobenzene	U	363	ug/kg	72.6	363
108-60-1	bis(2-Chloroisopropyl)ether	U	363	ug/kg	72.6	363
95-48-7	o-Cresol	U	363	ug/kg	72.6	363
65794-96-9	m,p-Cresols	U	363	ug/kg	109	363
67-72-1	Hexachloroethane	U	363	ug/kg	72.6	363
98-95-3	Nitrobenzene	U	363	ug/kg	72.6	363
78-59-1	Isophorone	U	363	ug/kg	72.6	363
88-75-5	2-Nitrophenol	U	363	ug/kg	72.6	363
105-67-9	2,4-Dimethylphenol	U	363	ug/kg	127	363
111-91-1	bis(2-Chloroethoxy)methane	U	363	ug/kg	72.6	363
120-83-2	2,4-Dichlorophenol	U	363	ug/kg	72.6	363
65-85-0	Benzoic acid	U	726	ug/kg	181	726
91-20-3	Naphthalene	U	36.3	ug/kg	10.9	36.3
106-47-8	4-Chloroaniline	U	363	ug/kg	72.6	363
87-68-3	Hexachlorobutadiene	U	363	ug/kg	72.6	363
91-57-6	2-Methylnaphthalene	U	36.3	ug/kg	7.26	36.3
77-47-4	Hexachlorocyclopentadiene	U	363	ug/kg	72.6	363
88-06-2	2,4,6-Trichlorophenol	U	363	ug/kg	72.6	363
95-95-4	2,4,5-Trichlorophenol	U	363	ug/kg	72.6	363
91-58-7	2-Chloronaphthalene	U	36.3	ug/kg	12.0	36.3
88-74-4	2-Nitroaniline	U	363	ug/kg	72.6	363
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	363	ug/kg	72.6	363

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043010	Date Received: 02/25/2010 08:45	%Moisture: 8.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7463	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 20:01	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s7c1121.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	363	ug/kg	72.6	363
606-20-2	2,6-Dinitrotoluene	U	363	ug/kg	36.3	363
208-96-8	Acenaphthylene	U	36.3	ug/kg	10.9	36.3
51-28-5	2,4-Dinitrophenol	U	726	ug/kg	138	726
132-64-9	Dibenzofuran	U	363	ug/kg	72.6	363
84-66-2	Diethylphthalate	U	363	ug/kg	72.6	363
86-73-7	Fluorene	J	13.6	ug/kg	10.9	36.3
7005-72-3	4-Chlorophenylphenylether	U	363	ug/kg	72.6	363
534-52-1	2-Methyl-4,6-dinitrophenol	U	363	ug/kg	72.6	363
100-01-6	4-Nitroaniline	U	363	ug/kg	109	363
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	363	ug/kg	72.6	363
122-66-7	Azobenzene	U	363	ug/kg	72.6	363
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	363	ug/kg	72.6	363
118-74-1	Hexachlorobenzene	U	363	ug/kg	72.6	363
85-01-8	Phenanthrene		172	ug/kg	10.9	36.3
120-12-7	Anthracene	J	29.0	ug/kg	7.26	36.3
84-74-2	Di-n-butylphthalate	U	363	ug/kg	72.6	363
206-44-0	Fluoranthene		249	ug/kg	10.9	36.3
85-68-7	Butylbenzylphthalate	U	363	ug/kg	72.6	363
56-55-3	Benzo(a)anthracene		107	ug/kg	10.9	36.3
91-94-1	3,3'-Dichlorobenzidine	U	363	ug/kg	109	363
218-01-9	Chrysene		128	ug/kg	10.9	36.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	363	ug/kg	72.6	363
117-84-0	Di-n-octylphthalate	U	363	ug/kg	72.6	363
205-99-2	Benzo(b)fluoranthene		207	ug/kg	10.9	36.3
207-08-9	Benzo(k)fluoranthene	U	36.3	ug/kg	10.9	36.3
50-32-8	Benzo(a)pyrene		113	ug/kg	10.9	36.3
193-39-5	Indeno(1,2,3-cd)pyrene		71.5	ug/kg	10.9	36.3
53-70-3	Dibenzo(a,h)anthracene	J	31.0	ug/kg	10.9	36.3
191-24-2	Benzo(ghi)perylene		81.8	ug/kg	10.9	36.3
120-82-1	1,2,4-Trichlorobenzene	U	363	ug/kg	72.6	363

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	470	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.56	176	ug/kg	93	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043010	Date Received: 02/25/2010 08:45	%Moisture: 8.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7463	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 20:01	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s7c1121.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
Tentatively Identified Compound Summary							
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit	Qual
	Unknown		13.37	232	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043009	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 7
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7464	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 959623	<b>Inst:</b> MSD7.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/11/2010 17:09	<b>Analyst:</b> JMB3	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/02/2010 11:17	<b>Aliquot:</b> 30.01 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s7c1113.d	<b>Column:</b> J&W DB-SMS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.7	358
108-95-2	Phenol	U	358	ug/kg	71.7	358
95-57-8	2-Chlorophenol	U	358	ug/kg	71.7	358
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.7	358
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.7	358
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.7	358
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358
87-86-5	Pentachlorophenol	U	358	ug/kg	89.6	358
129-00-0	Pyrene		40.8	ug/kg	10.8	35.8
110-86-1	Pyridine	U	358	ug/kg	71.7	358
62-53-3	Aniline	U	358	ug/kg	108	358
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.7	358
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.7	358
100-51-6	Benzyl alcohol	U	358	ug/kg	108	358
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.7	358
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.7	358
95-48-7	o-Cresol	U	358	ug/kg	71.7	358
65794-96-9	m,p-Cresols	U	358	ug/kg	108	358
67-72-1	Hexachloroethane	U	358	ug/kg	71.7	358
98-95-3	Nitrobenzene	U	358	ug/kg	71.7	358
78-59-1	Isophorone	U	358	ug/kg	71.7	358
88-75-5	2-Nitrophenol	U	358	ug/kg	71.7	358
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.7	358
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.7	358
65-85-0	Benzoic acid	U	717	ug/kg	179	717
91-20-3	Naphthalene	U	35.8	ug/kg	10.8	35.8
106-47-8	4-Chloroaniline	U	358	ug/kg	71.7	358
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.7	358
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.17	35.8
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.7	358
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.7	358
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.7	358
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8
88-74-4	2-Nitroaniline	U	358	ug/kg	71.7	358
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	358	ug/kg	71.7	358

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043009	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 7
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7464	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 959623	<b>Inst:</b> MSD7.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/11/2010 17:09	<b>Analyst:</b> JMB3	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/02/2010 11:17	<b>Aliquot:</b> 30.01 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s7c1113.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	358	ug/kg	71.7	358
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.8	35.8
51-28-5	2,4-Dinitrophenol	U	717	ug/kg	136	717
132-64-9	Dibenzofuran	U	358	ug/kg	71.7	358
84-66-2	Diethylphthalate	U	358	ug/kg	71.7	358
86-73-7	Fluorene	U	35.8	ug/kg	10.8	35.8
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.7	358
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.7	358
100-01-6	4-Nitroaniline	U	358	ug/kg	108	358
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	358	ug/kg	71.7	358
122-66-7	Azobenzene	U	358	ug/kg	71.7	358
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.7	358
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.7	358
85-01-8	Phenanthrene	J	31.4	ug/kg	10.8	35.8
120-12-7	Anthracene	U	35.8	ug/kg	7.17	35.8
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.7	358
206-44-0	Fluoranthene		48.9	ug/kg	10.8	35.8
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.7	358
56-55-3	Benzo(a)anthracene	J	22.7	ug/kg	10.8	35.8
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	108	358
218-01-9	Chrysene	J	26.0	ug/kg	10.8	35.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.7	358
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.7	358
205-99-2	Benzo(b)fluoranthene	J	35.3	ug/kg	10.8	35.8
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.8	35.8
50-32-8	Benzo(a)pyrene	J	20.9	ug/kg	10.8	35.8
193-39-5	Indeno(1,2,3-cd)pyrene	J	13.6	ug/kg	10.8	35.8
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.8	35.8
191-24-2	Benzo(ghi)perylene	J	16.7	ug/kg	10.8	35.8
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.7	358

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.12	256	ug/kg		J
	Unknown Aldol Condensate	3.02	435	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043009	Date Received: 02/25/2010 08:45	%Moisture: 7
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7464	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 17:09	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s7c1113.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
629-78-7	Heptadecane	10.1	195	ug/kg	91	NJ
1000140-07-7	1,4-Dimethyl-8-isopropylidenetricyclo[5.	13.35	427	ug/kg	83	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043004	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 22.3
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7465	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 959623	<b>Inst:</b> MSD7.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/12/2010 23:44	<b>Analyst:</b> JMB3	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/02/2010 11:17	<b>Aliquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s7c1232.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	428	ug/kg	85.5	428
108-95-2	Phenol	U	428	ug/kg	85.5	428
95-57-8	2-Chlorophenol	U	428	ug/kg	85.5	428
106-46-7	1,4-Dichlorobenzene	U	428	ug/kg	85.5	428
621-64-7	N-Nitrosodipropylamine	U	428	ug/kg	85.5	428
59-50-7	4-Chloro-3-methylphenol	U	428	ug/kg	85.5	428
83-32-9	Acenaphthene		564	ug/kg	14.1	42.8
121-14-2	2,4-Dinitrotoluene	U	428	ug/kg	42.8	428
100-02-7	4-Nitrophenol	U	428	ug/kg	141	428
87-86-5	Pentachlorophenol	U	428	ug/kg	107	428
110-86-1	Pyridine	U	428	ug/kg	85.5	428
62-53-3	Aniline	U	428	ug/kg	128	428
111-44-4	bis(2-Chloroethyl) ether	U	428	ug/kg	85.5	428
541-73-1	1,3-Dichlorobenzene	U	428	ug/kg	85.5	428
100-51-6	Benzyl alcohol	U	428	ug/kg	128	428
95-50-1	1,2-Dichlorobenzene	U	428	ug/kg	85.5	428
108-60-1	bis(2-Chloroisopropyl)ether	U	428	ug/kg	85.5	428
95-48-7	o-Cresol	U	428	ug/kg	85.5	428
65794-96-9	m,p-Cresols	U	428	ug/kg	128	428
67-72-1	Hexachloroethane	U	428	ug/kg	85.5	428
98-95-3	Nitrobenzene	U	428	ug/kg	85.5	428
78-59-1	Isophorone	U	428	ug/kg	85.5	428
88-75-5	2-Nitrophenol	U	428	ug/kg	85.5	428
105-67-9	2,4-Dimethylphenol	U	428	ug/kg	150	428
111-91-1	bis(2-Chloroethoxy)methane	U	428	ug/kg	85.5	428
120-83-2	2,4-Dichlorophenol	U	428	ug/kg	85.5	428
65-85-0	Benzoic acid	U	855	ug/kg	214	855
91-20-3	Naphthalene		210	ug/kg	12.8	42.8
106-47-8	4-Chloroaniline	U	428	ug/kg	85.5	428
87-68-3	Hexachlorobutadiene	U	428	ug/kg	85.5	428
91-57-6	2-Methylnaphthalene		123	ug/kg	8.55	42.8
77-47-4	Hexachlorocyclopentadiene	U	428	ug/kg	85.5	428
88-06-2	2,4,6-Trichlorophenol	U	428	ug/kg	85.5	428
95-95-4	2,4,5-Trichlorophenol	U	428	ug/kg	85.5	428
91-58-7	2-Chloronaphthalene	U	42.8	ug/kg	14.1	42.8
88-74-4	2-Nitroaniline	U	428	ug/kg	85.5	428
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	428	ug/kg	85.5	428
	<i>m</i> -Nitroaniline					

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043004

Client ID: RE36-10-7465  
Batch ID: 959623  
Run Date: 03/12/2010 23:44  
Prep Date: 03/02/2010 11:17  
Data File: s7c1232.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	Dimethylphthalate	U	428	ug/kg	85.5	428
606-20-2	2,6-Dinitrotoluene	U	428	ug/kg	42.8	428
208-96-8	Acenaphthylene	U	42.8	ug/kg	12.8	42.8
51-28-5	2,4-Dinitrophenol	U	855	ug/kg	162	855
132-64-9	Dibenzofuran	J	369	ug/kg	85.5	428
84-66-2	Diethylphthalate	U	428	ug/kg	85.5	428
86-73-7	Fluorene		602	ug/kg	12.8	42.8
7005-72-3	4-Chlorophenylphenylether	U	428	ug/kg	85.5	428
534-52-1	2-Methyl-4,6-dinitrophenol	U	428	ug/kg	85.5	428
100-01-6	4-Nitroaniline	U	428	ug/kg	128	428
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	428	ug/kg	85.5	428
122-66-7	Azobenzene	U	428	ug/kg	85.5	428
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	428	ug/kg	85.5	428
118-74-1	Hexachlorobenzene	U	428	ug/kg	85.5	428
85-01-8	Phenanthrene	E	5860	ug/kg	12.8	42.8
120-12-7	Anthracene		1040	ug/kg	8.55	42.8
84-74-2	Di-n-butylphthalate	U	428	ug/kg	85.5	428
85-68-7	Butylbenzylphthalate	U	428	ug/kg	85.5	428
56-55-3	Benzo(a)anthracene		2440	ug/kg	12.8	42.8
91-94-1	3,3'-Dichlorobenzidine	U	428	ug/kg	128	428
218-01-9	Chrysene		2380	ug/kg	12.8	42.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	428	ug/kg	85.5	428
117-84-0	Di-n-octylphthalate	U	428	ug/kg	85.5	428
205-99-2	Benzo(b)fluoranthene		3700	ug/kg	12.8	42.8
207-08-9	Benzo(k)fluoranthene	U	42.8	ug/kg	12.8	42.8
50-32-8	Benzo(a)pyrene		1960	ug/kg	12.8	42.8
193-39-5	Indeno(1,2,3-cd)pyrene		1030	ug/kg	12.8	42.8
53-70-3	Dibenzo(a,h)anthracene		380	ug/kg	12.8	42.8
191-24-2	Benzo(ghi)perylene		1020	ug/kg	12.8	42.8
120-82-1	1,2,4-Trichlorobenzene	U	428	ug/kg	85.5	428

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	312	ug/kg		J
244-99-5	5H-Indeno[1,2-b]pyridine	7.33	208	ug/kg	95	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.6	191	ug/kg	98	NJ
	Unknown	7.68	344	ug/kg		J



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043004	Date Received: 02/25/2010 08:45	%Moisture: 22.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7465	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/12/2010 23:44	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1232.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
84-65-1	9,10-Anthracenedione	7.85	195	ug/kg	99	NJ
	Unknown	8.61	199	ug/kg		J
243-17-4	11H-Benzo[b]fluorene	8.71	357	ug/kg	97	NJ
2381-21-7	Pyrene, 1-methyl-	8.81	210	ug/kg	96	NJ
479-79-8	11H-Benzo[a]fluorene-11-one	9.19	183	ug/kg	97	NJ
239-35-0	Benzo[b]naphtho[2,1-d]thiophene	9.3	176	ug/kg	95	NJ
	Unknown	9.39	210	ug/kg		J
192-97-2	Benzo[e]pyrene	11.01	1390	ug/kg	98	NJ
198-55-0	Perylene	11.18	521	ug/kg	98	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043004	Date Received: 02/25/2010 08:45	% Moisture: 22.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7465DL	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 4
Run Date: 03/12/2010 21:34	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1226.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
129-00-0	Pyrene		4710	ug/kg	51.3	171
206-44-0	Fluoranthene		6070	ug/kg	51.3	171

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	7.67	803	ug/kg		J
198-55-0	Perylene	11	1410	ug/kg	99	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043004

Client ID: RE36-10-7465RE  
Batch ID: 965290  
Run Date: 03/17/2010 19:55  
Prep Date: 03/16/2010 21:34  
Data File: s7c1729.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.18 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	Uh	426	ug/kg	85.3	426
108-95-2	Phcnol	Uh	426	ug/kg	85.3	426
95-57-8	2-Chlorophenol	Uh	426	ug/kg	85.3	426
106-46-7	1,4-Dichlorobenzene	Uh	426	ug/kg	85.3	426
621-64-7	N-Nitrosodipropylamine	Uh	426	ug/kg	85.3	426
59-50-7	4-Chloro-3-methylphenol	Uh	426	ug/kg	85.3	426
83-32-9	Acenaphthene	h	1040	ug/kg	14.1	42.6
121-14-2	2,4-Dinitrotoluene	Uh	426	ug/kg	42.6	426
100-02-7	4-Nitrophenol	Uh	426	ug/kg	141	426
87-86-5	Pentachlorophenol	Uh	426	ug/kg	107	426
110-86-1	Pyridine	Uh	426	ug/kg	85.3	426
62-53-3	Aniline	Uh	426	ug/kg	128	426
111-44-4	bis(2-Chloroethyl) ether	Uh	426	ug/kg	85.3	426
541-73-1	1,3-Dichlorobenzene	Uh	426	ug/kg	85.3	426
100-51-6	Benzyl alcohol	Uh	426	ug/kg	128	426
95-50-1	1,2-Dichlorobenzene	Uh	426	ug/kg	85.3	426
108-60-1	bis(2-Chloroisopropyl)ether	Uh	426	ug/kg	85.3	426
95-48-7	o-Cresol	Uh	426	ug/kg	85.3	426
65794-96-9	m,p-Cresols	Uh	426	ug/kg	128	426
67-72-1	Hexachloroethane	Uh	426	ug/kg	85.3	426
98-95-3	Nitrobenzene	Uh	426	ug/kg	85.3	426
78-59-1	Isophorone	Uh	426	ug/kg	85.3	426
88-75-5	2-Nitrophenol	Uh	426	ug/kg	85.3	426
105-67-9	2,4-Dimethylphenol	Uh	426	ug/kg	149	426
111-91-1	bis(2-Chloroethoxy)methane	Uh	426	ug/kg	85.3	426
120-83-2	2,4-Dichlorophenol	Uh	426	ug/kg	85.3	426
65-85-0	Benzoic acid	Uh	853	ug/kg	213	853
91-20-3	Naphthalene	h	357	ug/kg	12.8	42.6
106-47-8	4-Chloroaniline	Uh	426	ug/kg	85.3	426
87-68-3	Hexachlorobutadiene	Uh	426	ug/kg	85.3	426
91-57-6	2-Methylnaphthalene	h	207	ug/kg	8.53	42.6
77-47-4	Hexachlorocyclopentadiene	Uh	426	ug/kg	85.3	426
88-06-2	2,4,6-Trichlorophenol	Uh	426	ug/kg	85.3	426
95-95-4	2,4,5-Trichlorophenol	Uh	426	ug/kg	85.3	426
91-58-7	2-Chloronaphthalene	Uh	42.6	ug/kg	14.1	42.6
88-74-4	2-Nitroaniline	Uh	426	ug/kg	85.3	426
99-09-2	<i>o</i> -Nitroaniline	Uh	426	ug/kg	85.3	426
	<i>m</i> -Nitroaniline					

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043004

Client ID: RE36-10-7465RE  
Batch ID: 965290  
Run Date: 03/17/2010 19:55  
Prep Date: 03/16/2010 21:34  
Data File: s7c1729.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.18 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	Dimethylphthalate	Uh	426	ug/kg	85.3	426
606-20-2	2,6-Dinitrotoluene	Uh	426	ug/kg	42.6	426
208-96-8	Accnaphthylene	Jh	24.3	ug/kg	12.8	42.6
51-28-5	2,4-Dinitrophenol	Uh	853	ug/kg	162	853
132-64-9	Dibenzofuran	h	665	ug/kg	85.3	426
84-66-2	Diethylphthalate	Uh	426	ug/kg	85.3	426
86-73-7	Fluorene	h	1040	ug/kg	12.8	42.6
7005-72-3	4-Chlorophenylphenylether	Uh	426	ug/kg	85.3	426
534-52-1	2-Methyl-4,6-dinitrophenol	Uh	426	ug/kg	85.3	426
100-01-6	4-Nitroaniline	Uh	426	ug/kg	128	426
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	Uh	426	ug/kg	85.3	426
122-66-7	Azobenzene	Uh	426	ug/kg	85.3	426
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	Uh	426	ug/kg	85.3	426
118-74-1	Hexachlorobenzene	Uh	426	ug/kg	85.3	426
120-12-7	Anthracene	h	2290	ug/kg	8.53	42.6
84-74-2	Di-n-butylphthalate	Uh	426	ug/kg	85.3	426
85-68-7	Butylbenzylphthalate	Uh	426	ug/kg	85.3	426
91-94-1	3,3'-Dichlorobenzidine	Uh	426	ug/kg	128	426
117-81-7	bis(2-Ethylhexyl)phthalate	Jh	112	ug/kg	85.3	426
117-84-0	Di-n-octylphthalate	Uh	426	ug/kg	85.3	426
207-08-9	Benzo(k)fluoranthene	Uh	42.6	ug/kg	12.8	42.6
50-32-8	Benzo(a)pyrene	h	4870	ug/kg	12.8	42.6
193-39-5	Indeno(1,2,3-cd)pyrene	h	2630	ug/kg	12.8	42.6
53-70-3	Dibenzo(a,h)anthracene	h	943	ug/kg	12.8	42.6
191-24-2	Benzo(ghi)perylene	h	2670	ug/kg	12.8	42.6
120-82-1	1,2,4-Trichlorobenzene	Uh	426	ug/kg	85.3	426

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.84	642	ug/kg		J
86-74-8	Carbazole	7.25	191	ug/kg	95	NJ
	Unknown	7.59	281	ug/kg		J
2381-21-7	Pyrene, 1-methyl-	8.53	255	ug/kg	95	NJ
243-17-4	11H-Benzo[b]fluorene	8.63	469	ug/kg	97	NJ
	Unknown	8.72	302	ug/kg		J
479-79-8	11H-Benzo[a]fluoren-11-one	9.11	266	ug/kg	97	NJ
239-35-0	Benzo[b]naphtho[2,1-d]thiophene	9.21	233	ug/kg	91	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043004	Date Received: 02/25/2010 08:45	%Moisture: 22.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7465RE	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 965290	Inst: MSD7.1	Dilution: 1
Run Date: 03/17/2010 19:55	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/16/2010 21:34	Aliquot: 30.18 g	Final Volume: 1 mL
Data File: s7c1729.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.31	283	ug/kg		J
192-97-2	Benzo[e]pyrenc	10.89	3830	ug/kg	98	NJ
198-55-0	Perylene	11.06	1320	ug/kg	98	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043004

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7J  
Analyst: JMB3  
Aliquot: 30.18 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7465REDL  
Batch ID: 965290  
Run Date: 03/17/2010 18:50  
Prep Date: 03/16/2010 21:34  
Data File: s7c1726.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
129-00-0	Pyrene	h	9790	ug/kg	51.2	171
85-01-8	Phenanthrene	h	12100	ug/kg	51.2	171
206-44-0	Fluoranthene	h	13600	ug/kg	51.2	171
56-55-3	Benzo(a)anthracene	h	5160	ug/kg	51.2	171
218-01-9	Chrysene	h	5630	ug/kg	51.2	171
205-99-2	Benzo(b)fluoranthene	h	8120	ug/kg	51.2	171

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
86-74-8	Carbazole	7.24	1200	ug/kg	95	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.48	872	ug/kg	98	NJ
832-69-9	Phenanthrene, 1-methyl-	7.5	1140	ug/kg	98	NJ
203-64-5	4H-Cyclopenta[def]phenanthrene	7.58	1810	ug/kg	76	NJ
84-65-1	9,10-Anthracenedione	7.76	1180	ug/kg	99	NJ
238-84-6	11H-Benzo[a]fluorene	8.61	957	ug/kg	95	NJ
477-75-8	9,10[1',2']-Benzenoanthracene, 9,10-dihy	10.35	774	ug/kg	78	NJ
50-32-8	Benzo[a]pyrene	10.65	864	ug/kg	95	NJ
192-97-2	Benzo[e]pyrene	10.87	3380	ug/kg	99	NJ
198-55-0	Perylene	11.04	1140	ug/kg	96	NJ
1000307-30-8	Acetamide, N-(4-fluorophenyl)-2,2,2-trif	12.24	741	ug/kg	42	NJ
13183-70-5	Silane, 1,4-phenylenebis(trimethyl-	14.38	770	ug/kg	46	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043012	Date Received: 02/25/2010 08:45	%Moisture: 20.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7466	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/12/2010 22:39	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1229.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	418	ug/kg	83.6	418
108-95-2	Phenol	U	418	ug/kg	83.6	418
95-57-8	2-Chlorophenol	U	418	ug/kg	83.6	418
106-46-7	1,4-Dichlorobenzene	U	418	ug/kg	83.6	418
621-64-7	N-Nitrosodipropylamine	U	418	ug/kg	83.6	418
59-50-7	4-Chloro-3-methylphenol	U	418	ug/kg	83.6	418
83-32-9	Accnaphthene		108	ug/kg	13.8	41.8
121-14-2	2,4-Dinitrotoluene	U	418	ug/kg	41.8	418
100-02-7	4-Nitrophenol	U	418	ug/kg	138	418
87-86-5	Pentachlorophenol	U	418	ug/kg	104	418
129-00-0	Pyrene		1360	ug/kg	12.5	41.8
110-86-1	Pyridine	U	418	ug/kg	83.6	418
62-53-3	Aniline	U	418	ug/kg	125	418
111-44-4	bis(2-Chloroethyl) ether	U	418	ug/kg	83.6	418
541-73-1	1,3-Dichlorobenzene	U	418	ug/kg	83.6	418
100-51-6	Benzyl alcohol	U	418	ug/kg	125	418
95-50-1	1,2-Dichlorobenzene	U	418	ug/kg	83.6	418
108-60-1	bis(2-Chloroisopropyl)ether	U	418	ug/kg	83.6	418
95-48-7	o-Cresol	U	418	ug/kg	83.6	418
65794-96-9	m,p-Cresols	U	418	ug/kg	125	418
67-72-1	Hexachloroethane	U	418	ug/kg	83.6	418
98-95-3	Nitrobenzene	U	418	ug/kg	83.6	418
78-59-1	Isophorone	U	418	ug/kg	83.6	418
88-75-5	2-Nitrophenol	U	418	ug/kg	83.6	418
105-67-9	2,4-Dimethylphenol	U	418	ug/kg	146	418
111-91-1	bis(2-Chloroethoxy)methane	U	418	ug/kg	83.6	418
120-83-2	2,4-Dichlorophenol	U	418	ug/kg	83.6	418
65-85-0	Benzoic acid	U	836	ug/kg	209	836
91-20-3	Naphthalene	J	31.5	ug/kg	12.5	41.8
106-47-8	4-Chloroaniline	U	418	ug/kg	83.6	418
87-68-3	Hexachlorobutadiene	U	418	ug/kg	83.6	418
91-57-6	2-Methylnaphthalene	J	20.2	ug/kg	8.36	41.8
77-47-4	Hexachlorocyclopentadiene	U	418	ug/kg	83.6	418
88-06-2	2,4,6-Trichlorophenol	U	418	ug/kg	83.6	418
95-95-4	2,4,5-Trichlorophenol	U	418	ug/kg	83.6	418
91-58-7	2-Chloronaphthalene	U	41.8	ug/kg	13.8	41.8
88-74-4	2-Nitroaniline	U	418	ug/kg	83.6	418
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	418	ug/kg	83.6	418

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043012	Date Received: 02/25/2010 08:45	%Moisture: 20.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7466	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/12/2010 22:39	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1229.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	418	ug/kg	83.6	418
606-20-2	2,6-Dinitrotoluene	U	418	ug/kg	41.8	418
208-96-8	Acenaphthylene	U	41.8	ug/kg	12.5	41.8
51-28-5	2,4-Dinitrophenol	U	836	ug/kg	159	836
132-64-9	Dibenzofuran	U	418	ug/kg	83.6	418
84-66-2	Diethylphthalate	U	418	ug/kg	83.6	418
86-73-7	Fluorene		102	ug/kg	12.5	41.8
7005-72-3	4-Chlorophenylphenylether	U	418	ug/kg	83.6	418
534-52-1	2-Methyl-4,6-dinitrophenol	U	418	ug/kg	83.6	418
100-01-6	4-Nitroaniline	U	418	ug/kg	125	418
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	418	ug/kg	83.6	418
122-66-7	Azobenzene	U	418	ug/kg	83.6	418
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	418	ug/kg	83.6	418
118-74-1	Hexachlorobenzene	U	418	ug/kg	83.6	418
85-01-8	Phenanthrene		1350	ug/kg	12.5	41.8
120-12-7	Anthracene		205	ug/kg	8.36	41.8
84-74-2	Di-n-butylphthalate	U	418	ug/kg	83.6	418
206-44-0	Fluoranthene		1440	ug/kg	12.5	41.8
85-68-7	Butylbenzylphthalate	U	418	ug/kg	83.6	418
56-55-3	Benzo(a)anthracene		604	ug/kg	12.5	41.8
91-94-1	3,3'-Dichlorobenzidine	U	418	ug/kg	125	418
218-01-9	Chrysene		681	ug/kg	12.5	41.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	418	ug/kg	83.6	418
117-84-0	Di-n-octylphthalate	U	418	ug/kg	83.6	418
205-99-2	Benzo(b)fluoranthene		1010	ug/kg	12.5	41.8
207-08-9	Benzo(k)fluoranthene	U	41.8	ug/kg	12.5	41.8
50-32-8	Benzo(a)pyrene		559	ug/kg	12.5	41.8
193-39-5	Indeno(1,2,3-cd)pyrene		336	ug/kg	12.5	41.8
53-70-3	Dibenzo(a,h)anthracene		122	ug/kg	12.5	41.8
191-24-2	Benzo(ghi)perylene		360	ug/kg	12.5	41.8
120-82-1	1,2,4-Trichlorobenzene	U	418	ug/kg	83.6	418

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.92	456	ug/kg		J
203-64-5	4H-Cyclopenta[def]phenanthrene	7.67	225	ug/kg	81	NJ



Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043012	Date Received: 02/25/2010 08:45	%Moisture: 20.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7466	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/12/2010 22:39	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1229.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
192-97-2	Benzo[e]pyrene	11	384	ug/kg	98	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043015

Client ID: RE36-10-7467  
Batch ID: 959623  
Run Date: 03/12/2010 22:17  
Prep Date: 03/02/2010 11:17  
Data File: s7c1228.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 16.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	400	ug/kg	80.0	400
108-95-2	Phenol	U	400	ug/kg	80.0	400
95-57-8	2-Chlorophenol	U	400	ug/kg	80.0	400
106-46-7	1,4-Dichlorobenzene	U	400	ug/kg	80.0	400
621-64-7	N-Nitrosodipropylamine	U	400	ug/kg	80.0	400
59-50-7	4-Chloro-3-methylphenol	U	400	ug/kg	80.0	400
83-32-9	Acenaphthene		60.4	ug/kg	13.2	40.0
121-14-2	2,4-Dinitrotoluene	U	400	ug/kg	40.0	400
100-02-7	4-Nitrophenol	U	400	ug/kg	132	400
87-86-5	Pentachlorophenol	U	400	ug/kg	99.9	400
129-00-0	Pyrene		157	ug/kg	12.0	40.0
110-86-1	Pyridine	U	400	ug/kg	80.0	400
62-53-3	Aniline	U	400	ug/kg	120	400
111-44-4	bis(2-Chloroethyl) ether	U	400	ug/kg	80.0	400
541-73-1	1,3-Dichlorobenzene	U	400	ug/kg	80.0	400
100-51-6	Benzyl alcohol	U	400	ug/kg	120	400
95-50-1	1,2-Dichlorobenzene	U	400	ug/kg	80.0	400
108-60-1	bis(2-Chloroisopropyl)ether	U	400	ug/kg	80.0	400
95-48-7	o-Cresol	U	400	ug/kg	80.0	400
65794-96-9	m,p-Cresols	U	400	ug/kg	120	400
67-72-1	Hexachloroethane	U	400	ug/kg	80.0	400
98-95-3	Nitrobenzene	U	400	ug/kg	80.0	400
78-59-1	Isophorone	U	400	ug/kg	80.0	400
88-75-5	2-Nitrophenol	U	400	ug/kg	80.0	400
105-67-9	2,4-Dimethylphenol	U	400	ug/kg	140	400
111-91-1	bis(2-Chloroethoxy)methane	U	400	ug/kg	80.0	400
120-83-2	2,4-Dichlorophenol	U	400	ug/kg	80.0	400
65-85-0	Benzoic acid	U	800	ug/kg	200	800
91-20-3	Naphthalene	U	40.0	ug/kg	12.0	40.0
106-47-8	4-Chloroaniline	U	400	ug/kg	80.0	400
87-68-3	Hexachlorobutadiene	U	400	ug/kg	80.0	400
91-57-6	2-Methylnaphthalene	U	40.0	ug/kg	8.00	40.0
77-47-4	Hexachlorocyclopentadiene	U	400	ug/kg	80.0	400
88-06-2	2,4,6-Trichlorophenol	U	400	ug/kg	80.0	400
95-95-4	2,4,5-Trichlorophenol	U	400	ug/kg	80.0	400
91-58-7	2-Chloronaphthalene	U	40.0	ug/kg	13.2	40.0
88-74-4	2-Nitroaniline	U	400	ug/kg	80.0	400
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	400	ug/kg	80.0	400

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043015	Date Received: 02/25/2010 08:45	%Moisture: 16.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7467	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/12/2010 22:17	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1228.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	400	ug/kg	80.0	400
606-20-2	2,6-Dinitrotoluene	U	400	ug/kg	40.0	400
208-96-8	Acenaphthylene	U	40.0	ug/kg	12.0	40.0
51-28-5	2,4-Dinitrophenol	U	800	ug/kg	152	800
132-64-9	Dibenzofuran	U	400	ug/kg	80.0	400
84-66-2	Diethylphthalate	U	400	ug/kg	80.0	400
86-73-7	Fluorene	U	40.0	ug/kg	12.0	40.0
7005-72-3	4-Chlorophenylphenylether	U	400	ug/kg	80.0	400
534-52-1	2-Methyl-4,6-dinitrophenol	U	400	ug/kg	80.0	400
100-01-6	4-Nitroaniline	U	400	ug/kg	120	400
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	400	ug/kg	80.0	400
122-66-7	Azobenzene	U	400	ug/kg	80.0	400
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	400	ug/kg	80.0	400
118-74-1	Hexachlorobenzene	U	400	ug/kg	80.0	400
85-01-8	Phenanthrene		136	ug/kg	12.0	40.0
120-12-7	Anthracene	J	21.3	ug/kg	8.00	40.0
84-74-2	Di-n-butylphthalate	J	91.3	ug/kg	80.0	400
206-44-0	Fluoranthene		170	ug/kg	12.0	40.0
85-68-7	Butylbenzylphthalate	U	400	ug/kg	80.0	400
56-55-3	Benzo(a)anthracene		78.0	ug/kg	12.0	40.0
91-94-1	3,3'-Dichlorobenzidine	U	400	ug/kg	120	400
218-01-9	Chrysene		86.8	ug/kg	12.0	40.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	400	ug/kg	80.0	400
117-84-0	Di-n-octylphthalate	U	400	ug/kg	80.0	400
205-99-2	Benzo(b)fluoranthene		144	ug/kg	12.0	40.0
207-08-9	Benzo(k)fluoranthene	U	40.0	ug/kg	12.0	40.0
50-32-8	Benzo(a)pyrene		76.8	ug/kg	12.0	40.0
193-39-5	Indeno(1,2,3-cd)pyrene		50.6	ug/kg	12.0	40.0
53-70-3	Dibenzo(a,h)anthracene	J	18.7	ug/kg	12.0	40.0
191-24-2	Benzo(ghi)perylene		56.2	ug/kg	12.0	40.0
120-82-1	1,2,4-Trichlorobenzene	U	400	ug/kg	80.0	400

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
3724-55-8	Methyl 3-butenate	2.27	365	ug/kg	80	NJ
	Unknown Aldol Condensate	2.92	629	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043015	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 16.9
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7467	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 959623	<b>Inst:</b> MSD7.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/12/2010 22:17	<b>Analyst:</b> JMB3	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/02/2010 11:17	<b>Aliquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s7c1228.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	3.77	202	ug/kg		J
7773-83-3	1-Docosanethiol	10.87	449	ug/kg	91	NJ
	Unknown	10.99	177	ug/kg		J
	Unknown	11.42	175	ug/kg		J
112-95-8	Eicosane	11.6	553	ug/kg	97	NJ
38651-65-9	Bicyclo[3.1.1]heptan-2-one, 6,6-dimethyl	11.79	221	ug/kg	83	NJ
	Unknown	12.86	172	ug/kg		J
83-46-5	.beta.-Sitosterol	13.69	840	ug/kg	95	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043008	Date Received: 02/25/2010 08:45	%Moisture: 26.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7468	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 16:47	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1112.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	452	ug/kg	90.5	452
108-95-2	Phenol	U	452	ug/kg	90.5	452
95-57-8	2-Chlorophenol	U	452	ug/kg	90.5	452
106-46-7	1,4-Dichlorobenzene	U	452	ug/kg	90.5	452
621-64-7	N-Nitrosodipropylamine	U	452	ug/kg	90.5	452
59-50-7	4-Chloro-3-methylphenol	U	452	ug/kg	90.5	452
83-32-9	Acenaphthene	U	45.2	ug/kg	14.9	45.2
121-14-2	2,4-Dinitrotoluene	U	452	ug/kg	45.2	452
100-02-7	4-Nitrophenol	U	452	ug/kg	149	452
87-86-5	Pentachlorophenol	U	452	ug/kg	113	452
129-00-0	Pyrene	J	37.2	ug/kg	13.6	45.2
110-86-1	Pyridine	U	452	ug/kg	90.5	452
62-53-3	Aniline	U	452	ug/kg	136	452
111-44-4	bis(2-Chloroethyl) ether	U	452	ug/kg	90.5	452
541-73-1	1,3-Dichlorobenzene	U	452	ug/kg	90.5	452
100-51-6	Benzyl alcohol	U	452	ug/kg	136	452
95-50-1	1,2-Dichlorobenzene	U	452	ug/kg	90.5	452
108-60-1	bis(2-Chloroisopropyl)ether	U	452	ug/kg	90.5	452
95-48-7	o-Cresol	U	452	ug/kg	90.5	452
65794-96-9	m,p-Cresols	U	452	ug/kg	136	452
67-72-1	Hexachloroethane	U	452	ug/kg	90.5	452
98-95-3	Nitrobenzene	U	452	ug/kg	90.5	452
78-59-1	Isophorone	U	452	ug/kg	90.5	452
88-75-5	2-Nitrophenol	U	452	ug/kg	90.5	452
105-67-9	2,4-Dimethylphenol	U	452	ug/kg	158	452
111-91-1	bis(2-Chloroethoxy)methane	U	452	ug/kg	90.5	452
120-83-2	2,4-Dichlorophenol	U	452	ug/kg	90.5	452
65-85-0	Benzoic acid	U	905	ug/kg	226	905
91-20-3	Naphthalene	U	45.2	ug/kg	13.6	45.2
106-47-8	4-Chloroaniline	U	452	ug/kg	90.5	452
87-68-3	Hexachlorobutadiene	U	452	ug/kg	90.5	452
91-57-6	2-Methylnaphthalene	U	45.2	ug/kg	9.05	45.2
77-47-4	Hexachlorocyclopentadiene	U	452	ug/kg	90.5	452
88-06-2	2,4,6-Trichlorophenol	U	452	ug/kg	90.5	452
95-95-4	2,4,5-Trichlorophenol	U	452	ug/kg	90.5	452
91-58-7	2-Chloronaphthalene	U	45.2	ug/kg	14.9	45.2
88-74-4	2-Nitroaniline	U	452	ug/kg	90.5	452
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	452	ug/kg	90.5	452

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043008

Client ID: RE36-10-7468  
Batch ID: 959623  
Run Date: 03/11/2010 16:47  
Prep Date: 03/02/2010 11:17  
Data File: s7c1112.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 26.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	452	ug/kg	90.5	452
606-20-2	2,6-Dinitrotoluene	U	452	ug/kg	45.2	452
208-96-8	Acenaphthylene	U	45.2	ug/kg	13.6	45.2
51-28-5	2,4-Dinitrophenol	U	905	ug/kg	172	905
132-64-9	Dibenzofuran	U	452	ug/kg	90.5	452
84-66-2	Diethylphthalate	U	452	ug/kg	90.5	452
86-73-7	Fluorene	U	45.2	ug/kg	13.6	45.2
7005-72-3	4-Chlorophenylphenylether	U	452	ug/kg	90.5	452
534-52-1	2-Methyl-4,6-dinitrophenol	U	452	ug/kg	90.5	452
100-01-6	4-Nitroaniline	U	452	ug/kg	136	452
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	452	ug/kg	90.5	452
122-66-7	Azobenzene	U	452	ug/kg	90.5	452
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	452	ug/kg	90.5	452
118-74-1	Hexachlorobenzene	U	452	ug/kg	90.5	452
85-01-8	Phenanthrene	J	28.0	ug/kg	13.6	45.2
120-12-7	Anthracene	U	45.2	ug/kg	9.05	45.2
84-74-2	Di-n-butylphthalate	U	452	ug/kg	90.5	452
206-44-0	Fluoranthene		48.8	ug/kg	13.6	45.2
85-68-7	Butylbenzylphthalate	U	452	ug/kg	90.5	452
56-55-3	Benzo(a)anthracene	J	26.9	ug/kg	13.6	45.2
91-94-1	3,3'-Dichlorobenzidine	U	452	ug/kg	136	452
218-01-9	Chrysene	J	29.5	ug/kg	13.6	45.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	452	ug/kg	90.5	452
117-84-0	Di-n-octylphthalate	U	452	ug/kg	90.5	452
205-99-2	Benzo(b)fluoranthene	J	35.0	ug/kg	13.6	45.2
207-08-9	Benzo(k)fluoranthene	U	45.2	ug/kg	13.6	45.2
50-32-8	Benzo(a)pyrene	J	24.9	ug/kg	13.6	45.2
193-39-5	Indeno(1,2,3-cd)pyrene	J	22.6	ug/kg	13.6	45.2
53-70-3	Dibenzo(a,h)anthracene	U	45.2	ug/kg	13.6	45.2
191-24-2	Benzo(ghi)perylene	J	25.4	ug/kg	13.6	45.2
120-82-1	1,2,4-Trichlorobenzene	U	452	ug/kg	90.5	452

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	384	ug/kg		J
112-95-8	Eicosane	11.84	349	ug/kg	98	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043008	Date Received: 02/25/2010 08:45	%Moisture: 26.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7468	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 16:47	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1112.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
Tentatively Identified Compound Summary							
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit	Qual
	Unknown		12.76	187	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043016	Date Received: 02/25/2010 08:45	%Moisture: 12.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7469	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 18:13	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30 g	Final Volume: 1 mL
Data File: s7c1116.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	381	ug/kg	76.2	381
108-95-2	Phenol	U	381	ug/kg	76.2	381
95-57-8	2-Chlorophenol	U	381	ug/kg	76.2	381
106-46-7	1,4-Dichlorobenzene	U	381	ug/kg	76.2	381
621-64-7	N-Nitrosodipropylamine	U	381	ug/kg	76.2	381
59-50-7	4-Chloro-3-methylphenol	U	381	ug/kg	76.2	381
83-32-9	Acenaphthene	U	38.1	ug/kg	12.6	38.1
121-14-2	2,4-Dinitrotoluene	U	381	ug/kg	38.1	381
100-02-7	4-Nitrophenol	U	381	ug/kg	126	381
87-86-5	Pentachlorophenol	U	381	ug/kg	95.2	381
129-00-0	Pyrene		85.4	ug/kg	11.4	38.1
110-86-1	Pyridine	U	381	ug/kg	76.2	381
62-53-3	Aniline	U	381	ug/kg	114	381
111-44-4	bis(2-Chloroethyl) ether	U	381	ug/kg	76.2	381
541-73-1	1,3-Dichlorobenzene	U	381	ug/kg	76.2	381
100-51-6	Benzyl alcohol	U	381	ug/kg	114	381
95-50-1	1,2-Dichlorobenzene	U	381	ug/kg	76.2	381
108-60-1	bis(2-Chloroisopropyl)ether	U	381	ug/kg	76.2	381
95-48-7	o-Cresol	U	381	ug/kg	76.2	381
65794-96-9	m,p-Cresols	U	381	ug/kg	114	381
67-72-1	Hexachloroethane	U	381	ug/kg	76.2	381
98-95-3	Nitrobenzene	U	381	ug/kg	76.2	381
78-59-1	Isophorone	U	381	ug/kg	76.2	381
88-75-5	2-Nitrophenol	U	381	ug/kg	76.2	381
105-67-9	2,4-Dimethylphenol	U	381	ug/kg	133	381
111-91-1	bis(2-Chloroethoxy)methane	U	381	ug/kg	76.2	381
120-83-2	2,4-Dichlorophenol	U	381	ug/kg	76.2	381
65-85-0	Benzoic acid	U	762	ug/kg	190	762
91-20-3	Naphthalene	U	38.1	ug/kg	11.4	38.1
106-47-8	4-Chloroaniline	U	381	ug/kg	76.2	381
87-68-3	Hexachlorobutadiene	U	381	ug/kg	76.2	381
91-57-6	2-Methylnaphthalene	U	38.1	ug/kg	7.62	38.1
77-47-4	Hexachlorocyclopentadiene	U	381	ug/kg	76.2	381
88-06-2	2,4,6-Trichlorophenol	U	381	ug/kg	76.2	381
95-95-4	2,4,5-Trichlorophenol	U	381	ug/kg	76.2	381
91-58-7	2-Chloronaphthalene	U	38.1	ug/kg	12.6	38.1
88-74-4	2-Nitroaniline	U	381	ug/kg	76.2	381
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	381	ug/kg	76.2	381



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043016	Date Received: 02/25/2010 08:45	%Moisture: 12.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7469	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 18:13	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30 g	Final Volume: 1 mL
Data File: s7c1116.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	381	ug/kg	76.2	381
606-20-2	2,6-Dinitrotoluene	U	381	ug/kg	38.1	381
208-96-8	Acenaphthylene	U	38.1	ug/kg	11.4	38.1
51-28-5	2,4-Dinitrophenol	U	762	ug/kg	145	762
132-64-9	Dibenzofuran	U	381	ug/kg	76.2	381
84-66-2	Diethylphthalate	U	381	ug/kg	76.2	381
86-73-7	Fluorene	U	38.1	ug/kg	11.4	38.1
7005-72-3	4-Chlorophenylphenylether	U	381	ug/kg	76.2	381
534-52-1	2-Methyl-4,6-dinitrophenol	U	381	ug/kg	76.2	381
100-01-6	4-Nitroaniline	U	381	ug/kg	114	381
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	381	ug/kg	76.2	381
122-66-7	Azobenzene	U	381	ug/kg	76.2	381
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	381	ug/kg	76.2	381
118-74-1	Hexachlorobenzene	U	381	ug/kg	76.2	381
85-01-8	Phenanthrene		82.9	ug/kg	11.4	38.1
120-12-7	Anthracene	J	12.7	ug/kg	7.62	38.1
84-74-2	Di-n-butylphthalate	J	211	ug/kg	76.2	381
206-44-0	Fluoranthene		105	ug/kg	11.4	38.1
85-68-7	Butylbenzylphthalate	U	381	ug/kg	76.2	381
56-55-3	Benzo(a)anthracene		42.4	ug/kg	11.4	38.1
91-94-1	3,3'-Dichlorobenzidine	U	381	ug/kg	114	381
218-01-9	Chrysene		50.0	ug/kg	11.4	38.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	381	ug/kg	76.2	381
117-84-0	Di-n-octylphthalate	U	381	ug/kg	76.2	381
205-99-2	Benzo(b)fluoranthene		71.9	ug/kg	11.4	38.1
207-08-9	Benzo(k)fluoranthene	U	38.1	ug/kg	11.4	38.1
50-32-8	Benzo(a)pyrene		38.6	ug/kg	11.4	38.1
193-39-5	Indeno(1,2,3-cd)pyrene	J	31.1	ug/kg	11.4	38.1
53-70-3	Dibenzo(a,h)anthracene	J	12.3	ug/kg	11.4	38.1
191-24-2	Benzo(ghi)perylene	J	35.5	ug/kg	11.4	38.1
120-82-1	1,2,4-Trichlorobenzene	U	381	ug/kg	76.2	381

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	520	ug/kg		J
	Unknown	3.68	299	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043016	Date Received: 02/25/2010 08:45	%Moisture: 12.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7469	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 18:13	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30 g	Final Volume: 1 mL
Data File: s7c1116.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
4630-07-3	Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	5.84	158	ug/kg	98	NJ
	Unknown	8.18	173	ug/kg		J
	Unknown	9.04	172	ug/kg		J
	Unknown	9.4	796	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.48	810	ug/kg	97	NJ
	Unknown	9.61	348	ug/kg		J
	Unknown	10.38	416	ug/kg		J
1000156-12-8	Alloaromadendrene oxide-(1)	10.9	166	ug/kg	90	NJ
	Unknown	12.11	328	ug/kg		J
	Unknown	12.22	698	ug/kg		J
	Unknown	12.67	173	ug/kg		J
	Unknown	12.75	358	ug/kg		J
83-46-5	.beta.-Sitosterol	14.34	909	ug/kg	94	NJ
	Unknown	14.47	169	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043017

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 14.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7470  
Batch ID: 959623  
Run Date: 03/11/2010 18:35  
Prep Date: 03/02/2010 11:17  
Data File: s7c1117.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	389	ug/kg	77.8	389
108-95-2	Phenol	U	389	ug/kg	77.8	389
95-57-8	2-Chlorophenol	U	389	ug/kg	77.8	389
106-46-7	1,4-Dichlorobenzene	U	389	ug/kg	77.8	389
621-64-7	N-Nitrosodipropylamine	U	389	ug/kg	77.8	389
59-50-7	4-Chloro-3-methylphenol	U	389	ug/kg	77.8	389
83-32-9	Acenaphthene		93.1	ug/kg	12.8	38.9
121-14-2	2,4-Dinitrotoluene	U	389	ug/kg	38.9	389
100-02-7	4-Nitrophenol	U	389	ug/kg	128	389
87-86-5	Pentachlorophenol	U	389	ug/kg	97.2	389
129-00-0	Pyrene		453	ug/kg	11.7	38.9
110-86-1	Pyridine	U	389	ug/kg	77.8	389
62-53-3	Aniline	U	389	ug/kg	117	389
111-44-4	bis(2-Chloroethyl) ether	U	389	ug/kg	77.8	389
541-73-1	1,3-Dichlorobenzene	U	389	ug/kg	77.8	389
100-51-6	Benzyl alcohol	U	389	ug/kg	117	389
95-50-1	1,2-Dichlorobenzene	U	389	ug/kg	77.8	389
108-60-1	bis(2-Chloroisopropyl)ether	U	389	ug/kg	77.8	389
95-48-7	o-Cresol	U	389	ug/kg	77.8	389
65794-96-9	m,p-Cresols	U	389	ug/kg	117	389
67-72-1	Hexachloroethane	U	389	ug/kg	77.8	389
98-95-3	Nitrobenzene	U	389	ug/kg	77.8	389
78-59-1	Isophorone	U	389	ug/kg	77.8	389
88-75-5	2-Nitrophenol	U	389	ug/kg	77.8	389
105-67-9	2,4-Dimethylphenol	U	389	ug/kg	136	389
111-91-1	bis(2-Chloroethoxy)methane	U	389	ug/kg	77.8	389
120-83-2	2,4-Dichlorophenol	U	389	ug/kg	77.8	389
65-85-0	Benzoic acid	U	778	ug/kg	194	778
91-20-3	Naphthalene	J	37.0	ug/kg	11.7	38.9
106-47-8	4-Chloroaniline	U	389	ug/kg	77.8	389
87-68-3	Hexachlorobutadiene	U	389	ug/kg	77.8	389
91-57-6	2-Methylnaphthalene	J	22.7	ug/kg	7.78	38.9
77-47-4	Hexachlorocyclopentadiene	U	389	ug/kg	77.8	389
88-06-2	2,4,6-Trichlorophenol	U	389	ug/kg	77.8	389
95-95-4	2,4,5-Trichlorophenol	U	389	ug/kg	77.8	389
91-58-7	2-Chloronaphthalene	U	38.9	ug/kg	12.8	38.9
88-74-4	2-Nitroaniline	U	389	ug/kg	77.8	389
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	389	ug/kg	77.8	389

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043017	Date Received: 02/25/2010 08:45	%Moisture: 14.4
Client ID: RE36-10-7470	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/11/2010 18:35	Inst: MSD7.I	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1117.d	Aliquot: 30.03 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	389	ug/kg	77.8	389
606-20-2	2,6-Dinitrotoluene	U	389	ug/kg	38.9	389
208-96-8	Acenaphthylene	U	38.9	ug/kg	11.7	38.9
51-28-5	2,4-Dinitrophenol	U	778	ug/kg	148	778
132-64-9	Dibenzofuran	U	389	ug/kg	77.8	389
84-66-2	Diethylphthalate	U	389	ug/kg	77.8	389
86-73-7	Fluorene		112	ug/kg	11.7	38.9
7005-72-3	4-Chlorophenylphenylether	U	389	ug/kg	77.8	389
534-52-1	2-Methyl-4,6-dinitrophenol	U	389	ug/kg	77.8	389
100-01-6	4-Nitroaniline	U	389	ug/kg	117	389
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	389	ug/kg	77.8	389
122-66-7	Azobenzene	U	389	ug/kg	77.8	389
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	389	ug/kg	77.8	389
118-74-1	Hexachlorobenzene	U	389	ug/kg	77.8	389
85-01-8	Phcnanthrene		762	ug/kg	11.7	38.9
120-12-7	Anthracene		158	ug/kg	7.78	38.9
84-74-2	Di-n-butylphthalate	U	389	ug/kg	77.8	389
206-44-0	Fluoranthene		614	ug/kg	11.7	38.9
85-68-7	Butylbenzylphthalate	U	389	ug/kg	77.8	389
56-55-3	Benzo(a)anthracene		237	ug/kg	11.7	38.9
91-94-1	3,3'-Dichlorobenzidine	U	389	ug/kg	117	389
218-01-9	Chrysene		255	ug/kg	11.7	38.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	389	ug/kg	77.8	389
117-84-0	Di-n-octylphthalate	U	389	ug/kg	77.8	389
205-99-2	Benzo(b)fluoranthene		325	ug/kg	11.7	38.9
207-08-9	Benzo(k)fluoranthene	U	38.9	ug/kg	11.7	38.9
50-32-8	Benzo(a)pyrene		208	ug/kg	11.7	38.9
193-39-5	Indeno(1,2,3-cd)pyrene		146	ug/kg	11.7	38.9
53-70-3	Dibenzo(a,h)anthracene		51.4	ug/kg	11.7	38.9
191-24-2	Benzo(ghi)perylene		161	ug/kg	11.7	38.9
120-82-1	1,2,4-Trichlorobenzene	U	389	ug/kg	77.8	389

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	436	ug/kg		J
	Unknown	3.68	274	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043017	Date Received: 02/25/2010 08:45	%Moisture: 14.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7470	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 18:35	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.03 g	Final Volume: 1 mL
Data File: s7c1117.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.84	220	ug/kg	99	NJ
120-08-1	2H-1-Benzopyran-2-one, 6,7-dimethoxy-	7.83	210	ug/kg	95	NJ
	Unknown	8.18	158	ug/kg		J
	Unknown	9.03	160	ug/kg		J
	Unknown	9.4	546	ug/kg		J
5155-70-4	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.49	698	ug/kg	99	NJ
1000140-92-3	(1S,2E,4S,5R,7E,11E)-Cembra-2,7,11-trien	9.62	389	ug/kg	89	NJ
	Unknown	10.11	162	ug/kg		J
97094-19-4	Corymbolone	10.22	190	ug/kg	91	NJ
30658-62-9	Cholest-23-ene, (5.beta.)-	10.3	330	ug/kg	92	NJ
1000259-58-5	Pentadec-7-ene, 7-bromomethyl-	10.56	161	ug/kg	83	NJ
	Unknown	11.55	199	ug/kg		J
2097-85-0	Cholestan-3-one, 4,4-dimethyl-, (5.alpha	11.86	157	ug/kg	94	NJ
	Unknown	12.12	672	ug/kg		J
36728-72-0	28-Nor-17.beta.(H)-hopane	12.24	426	ug/kg	93	NJ
	Unknown	12.31	661	ug/kg		J
	Unknown	12.68	228	ug/kg		J
	Unknown	12.77	498	ug/kg		J
	Unknown	13.04	666	ug/kg		J
	Unknown	13.48	186	ug/kg		J
83-46-5	.beta.-Sitosterol	14.12	1000	ug/kg	93	NJ
	Unknown	14.36	169	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043006	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 29.8
	<b>Client:</b> LANL.010	<b>Project:</b> LANL.01004
<b>Client ID:</b> RE36-10-7471	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 959623	<b>Inst:</b> MSD7.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/11/2010 19:40	<b>Analyst:</b> JMB3	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/02/2010 11:17	<b>Aliquot:</b> 30.02 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s7c1120.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	474	ug/kg	94.9	474
108-95-2	Phenol	U	474	ug/kg	94.9	474
95-57-8	2-Chlorophenol	U	474	ug/kg	94.9	474
106-46-7	1,4-Dichlorobenzene	U	474	ug/kg	94.9	474
621-64-7	N-Nitrosodipropylamine	U	474	ug/kg	94.9	474
59-50-7	4-Chloro-3-methylphenol	U	474	ug/kg	94.9	474
83-32-9	Acenaphthene		556	ug/kg	15.7	47.4
121-14-2	2,4-Dinitrotoluene	U	474	ug/kg	47.4	474
100-02-7	4-Nitrophenol	U	474	ug/kg	157	474
87-86-5	Pentachlorophenol	U	474	ug/kg	119	474
129-00-0	Pyrene		3980	ug/kg	14.2	47.4
110-86-1	Pyridine	U	474	ug/kg	94.9	474
62-53-3	Aniline	U	474	ug/kg	142	474
111-44-4	bis(2-Chloroethyl) ether	U	474	ug/kg	94.9	474
541-73-1	1,3-Dichlorobenzene	U	474	ug/kg	94.9	474
100-51-6	Benzyl alcohol	U	474	ug/kg	142	474
95-50-1	1,2-Dichlorobenzene	U	474	ug/kg	94.9	474
108-60-1	bis(2-Chloroisopropyl)ether	U	474	ug/kg	94.9	474
95-48-7	o-Cresol	U	474	ug/kg	94.9	474
65794-96-9	m,p-Cresols	U	474	ug/kg	142	474
67-72-1	Hexachloroethane	U	474	ug/kg	94.9	474
98-95-3	Nitrobenzene	U	474	ug/kg	94.9	474
78-59-1	Isophorone	U	474	ug/kg	94.9	474
88-75-5	2-Nitrophenol	U	474	ug/kg	94.9	474
105-67-9	2,4-Dimethylphenol	U	474	ug/kg	166	474
111-91-1	bis(2-Chloroethoxy)methane	U	474	ug/kg	94.9	474
120-83-2	2,4-Dichlorophenol	U	474	ug/kg	94.9	474
65-85-0	Benzoic acid	U	949	ug/kg	237	949
91-20-3	Naphthalene		164	ug/kg	14.2	47.4
106-47-8	4-Chloroaniline	U	474	ug/kg	94.9	474
87-68-3	Hexachlorobutadiene	U	474	ug/kg	94.9	474
91-57-6	2-Methylnaphthalene		115	ug/kg	9.49	47.4
77-47-4	Hexachlorocyclopentadiene	U	474	ug/kg	94.9	474
88-06-2	2,4,6-Trichlorophenol	U	474	ug/kg	94.9	474
95-95-4	2,4,5-Trichlorophenol	U	474	ug/kg	94.9	474
91-58-7	2-Chloronaphthalene	U	47.4	ug/kg	15.7	47.4
88-74-4	2-Nitroaniline	U	474	ug/kg	94.9	474
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	474	ug/kg	94.9	474

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043006	Date Received: 02/25/2010 08:45	%Moisture: 29.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7471	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 19:40	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s7c1120.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	474	ug/kg	94.9	474
606-20-2	2,6-Dinitrotoluene	U	474	ug/kg	47.4	474
208-96-8	Acenaphthylene	U	47.4	ug/kg	14.2	47.4
51-28-5	2,4-Dinitrophenol	U	949	ug/kg	180	949
132-64-9	Dibenzofuran	J	341	ug/kg	94.9	474
84-66-2	Diethylphthalate	U	474	ug/kg	94.9	474
86-73-7	Fluorene		637	ug/kg	14.2	47.4
7005-72-3	4-Chlorophenylphenylether	U	474	ug/kg	94.9	474
534-52-1	2-Methyl-4,6-dinitrophenol	U	474	ug/kg	94.9	474
100-01-6	4-Nitroaniline	U	474	ug/kg	142	474
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	474	ug/kg	94.9	474
122-66-7	Azobenzene	U	474	ug/kg	94.9	474
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	474	ug/kg	94.9	474
118-74-1	Hexachlorobenzene	U	474	ug/kg	94.9	474
85-01-8	Phenanthrene		4930	ug/kg	14.2	47.4
120-12-7	Anthracene		1020	ug/kg	9.49	47.4
84-74-2	Di-n-butylphthalate	U	474	ug/kg	94.9	474
206-44-0	Fluoranthene		4740	ug/kg	14.2	47.4
85-68-7	Butylbenzylphthalate	U	474	ug/kg	94.9	474
56-55-3	Benzo(a)anthracene		1950	ug/kg	14.2	47.4
91-94-1	3,3'-Dichlorobenzidine	U	474	ug/kg	142	474
218-01-9	Chrysene		2110	ug/kg	14.2	47.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	474	ug/kg	94.9	474
117-84-0	Di-n-octylphthalate	U	474	ug/kg	94.9	474
205-99-2	Benzo(b)fluoranthene		3040	ug/kg	14.2	47.4
207-08-9	Benzo(k)fluoranthene	U	47.4	ug/kg	14.2	47.4
50-32-8	Benzo(a)pyrene		1740	ug/kg	14.2	47.4
193-39-5	Indeno(1,2,3-cd)pyrene		1010	ug/kg	14.2	47.4
53-70-3	Dibenzo(a,h)anthracene		354	ug/kg	14.2	47.4
191-24-2	Benzo(ghi)perylene		1060	ug/kg	14.2	47.4
120-82-1	1,2,4-Trichlorobenzene	U	474	ug/kg	94.9	474

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	478	ug/kg		J
93-05-0	1,4-Benzenediamine, N,N-diethyl-	5.95	193	ug/kg	98	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043006	Date Received: 02/25/2010 08:45	%Moisture: 29.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7471	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 19:40	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s7c1120.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
486-25-9	9H-Fluoren-9-one	7.12	220	ug/kg	95	NJ
132-65-0	Dibenzothiophene	7.2	236	ug/kg	97	NJ
86-74-8	Carbazole	7.47	582	ug/kg	95	NJ
832-69-9	Phenanthrene, 1-methyl-	7.7	438	ug/kg	98	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.73	511	ug/kg	98	NJ
	Unknown	7.81	933	ug/kg		J
35465-71-5	2-Phenylnaphthalene	7.95	258	ug/kg	95	NJ
84-65-1	9,10-Anthracenedione	7.99	489	ug/kg	99	NJ
5737-13-3	Cyclopenta(def)phenanthrenone	8.28	199	ug/kg	96	NJ
243-17-4	11H-Benzo[b]fluorene	8.86	370	ug/kg	96	NJ
192-97-2	Benzo[e]pyrene	11.24	1140	ug/kg	98	NJ
	Unknown	11.43	373	ug/kg		J



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043007

Client ID: RE36-10-7472  
Batch ID: 959623  
Run Date: 03/11/2010 16:04  
Prep Date: 03/02/2010 11:17  
Data File: s7c1110.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.04 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 21.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	426	ug/kg	85.2	426
108-95-2	Phenol	U	426	ug/kg	85.2	426
95-57-8	2-Chlorophenol	U	426	ug/kg	85.2	426
106-46-7	1,4-Dichlorobenzene	U	426	ug/kg	85.2	426
621-64-7	N-Nitrosodipropylamine	U	426	ug/kg	85.2	426
59-50-7	4-Chloro-3-methylphenol	U	426	ug/kg	85.2	426
83-32-9	Acenaphthene	U	42.6	ug/kg	14.1	42.6
121-14-2	2,4-Dinitrotoluene	U	426	ug/kg	42.6	426
100-02-7	4-Nitrophenol	U	426	ug/kg	141	426
87-86-5	Pentachlorophenol	U	426	ug/kg	107	426
129-00-0	Pyrene		68.6	ug/kg	12.8	42.6
110-86-1	Pyridine	U	426	ug/kg	85.2	426
62-53-3	Aniline	U	426	ug/kg	128	426
111-44-4	bis(2-Chloroethyl) ether	U	426	ug/kg	85.2	426
541-73-1	1,3-Dichlorobenzene	U	426	ug/kg	85.2	426
100-51-6	Benzyl alcohol	U	426	ug/kg	128	426
95-50-1	1,2-Dichlorobenzene	U	426	ug/kg	85.2	426
108-60-1	bis(2-Chloroisopropyl)ether	U	426	ug/kg	85.2	426
95-48-7	o-Cresol	U	426	ug/kg	85.2	426
65794-96-9	m,p-Cresols	U	426	ug/kg	128	426
67-72-1	Hexachloroethane	U	426	ug/kg	85.2	426
98-95-3	Nitrobenzene	U	426	ug/kg	85.2	426
78-59-1	Isophorone	U	426	ug/kg	85.2	426
88-75-5	2-Nitrophenol	U	426	ug/kg	85.2	426
105-67-9	2,4-Dimethylphenol	U	426	ug/kg	149	426
111-91-1	bis(2-Chloroethoxy)methane	U	426	ug/kg	85.2	426
120-83-2	2,4-Dichlorophenol	U	426	ug/kg	85.2	426
65-85-0	Benzoic acid	U	852	ug/kg	213	852
91-20-3	Naphthalene	U	42.6	ug/kg	12.8	42.6
106-47-8	4-Chloroaniline	U	426	ug/kg	85.2	426
87-68-3	Hexachlorobutadiene	U	426	ug/kg	85.2	426
91-57-6	2-Methylnaphthalene	U	42.6	ug/kg	8.52	42.6
77-47-4	Hexachlorocyclopentadiene	U	426	ug/kg	85.2	426
88-06-2	2,4,6-Trichlorophenol	U	426	ug/kg	85.2	426
95-95-4	2,4,5-Trichlorophenol	U	426	ug/kg	85.2	426
91-58-7	2-Chloronaphthalene	U	42.6	ug/kg	14.1	42.6
88-74-4	2-Nitroaniline	U	426	ug/kg	85.2	426
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	426	ug/kg	85.2	426

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043007	Date Received: 02/25/2010 08:45	%Moisture: 21.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7472	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 16:04	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.04 g	Final Volume: 1 mL
Data File: s7c1110.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<i>m-Nitroaniline</i>						
131-11-3	Dimethylphthalate	U	426	ug/kg	85.2	426
606-20-2	2,6-Dinitrotoluene	U	426	ug/kg	42.6	426
208-96-8	Acenaphthylene	U	42.6	ug/kg	12.8	42.6
51-28-5	2,4-Dinitrophenol	U	852	ug/kg	162	852
132-64-9	Dibenzofuran	U	426	ug/kg	85.2	426
84-66-2	Diethylphthalate	U	426	ug/kg	85.2	426
86-73-7	Fluorene	U	42.6	ug/kg	12.8	42.6
7005-72-3	4-Chlorophenylphenylether	U	426	ug/kg	85.2	426
534-52-1	2-Methyl-4,6-dinitrophenol	U	426	ug/kg	85.2	426
100-01-6	4-Nitroaniline	U	426	ug/kg	128	426
<i>p-Nitroaniline</i>						
122-39-4	Diphenylamine	U	426	ug/kg	85.2	426
122-66-7	Azobenzene	U	426	ug/kg	85.2	426
<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenylphenylether	U	426	ug/kg	85.2	426
118-74-1	Hexachlorobenzene	U	426	ug/kg	85.2	426
85-01-8	Phenanthrene		59.4	ug/kg	12.8	42.6
120-12-7	Anthracene	J	9.70	ug/kg	8.52	42.6
84-74-2	Di-n-butylphthalate	U	426	ug/kg	85.2	426
206-44-0	Fluoranthene		84.9	ug/kg	12.8	42.6
85-68-7	Butylbenzylphthalate	U	426	ug/kg	85.2	426
56-55-3	Benzo(a)anthracene	J	34.8	ug/kg	12.8	42.6
91-94-1	3,3'-Dichlorobenzidine	U	426	ug/kg	128	426
218-01-9	Chrysene	J	36.6	ug/kg	12.8	42.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	426	ug/kg	85.2	426
117-84-0	Di-n-octylphthalate	U	426	ug/kg	85.2	426
205-99-2	Benzo(b)fluoranthene		57.8	ug/kg	12.8	42.6
207-08-9	Benzo(k)fluoranthene	U	42.6	ug/kg	12.8	42.6
50-32-8	Benzo(a)pyrene	J	32.7	ug/kg	12.8	42.6
193-39-5	Indeno(1,2,3-cd)pyrene	J	23.0	ug/kg	12.8	42.6
53-70-3	Dibenzo(a,h)anthracene	U	42.6	ug/kg	12.8	42.6
191-24-2	Benzo(ghi)perylene	J	26.8	ug/kg	12.8	42.6
120-82-1	1,2,4-Trichlorobenzene	U	426	ug/kg	85.2	426

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	526	ug/kg		J
	Unknown	10.1	499	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043005	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 23.6
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7473	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 959623	<b>Inst:</b> MSD7.J	<b>Dilution:</b> 1
<b>Run Date:</b> 03/11/2010 15:43	<b>Analyst:</b> JMB3	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/02/2010 11:17	<b>Aliquot:</b> 30.01 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s7c1109.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	436	ug/kg	87.2	436
108-95-2	Phenol	U	436	ug/kg	87.2	436
95-57-8	2-Chlorophenol	U	436	ug/kg	87.2	436
106-46-7	1,4-Dichlorobenzene	U	436	ug/kg	87.2	436
621-64-7	N-Nitrosodipropylamine	U	436	ug/kg	87.2	436
59-50-7	4-Chloro-3-methylphenol	U	436	ug/kg	87.2	436
83-32-9	Acenaphthene	U	43.6	ug/kg	14.4	43.6
121-14-2	2,4-Dinitrotoluene	U	436	ug/kg	43.6	436
100-02-7	4-Nitrophenol	U	436	ug/kg	144	436
87-86-5	Pentachlorophenol	U	436	ug/kg	109	436
129-00-0	Pyrene	J	20.6	ug/kg	13.1	43.6
110-86-1	Pyridine	U	436	ug/kg	87.2	436
62-53-3	Aniline	U	436	ug/kg	131	436
111-44-4	bis(2-Chloroethyl) ether	U	436	ug/kg	87.2	436
541-73-1	1,3-Dichlorobenzene	U	436	ug/kg	87.2	436
100-51-6	Benzyl alcohol	U	436	ug/kg	131	436
95-50-1	1,2-Dichlorobenzene	U	436	ug/kg	87.2	436
108-60-1	bis(2-Chloroisopropyl)ether	U	436	ug/kg	87.2	436
95-48-7	o-Cresol	U	436	ug/kg	87.2	436
65794-96-9	m,p-Cresols	U	436	ug/kg	131	436
67-72-1	Hexachloroethane	U	436	ug/kg	87.2	436
98-95-3	Nitrobenzene	U	436	ug/kg	87.2	436
78-59-1	Isophorone	U	436	ug/kg	87.2	436
88-75-5	2-Nitrophenol	U	436	ug/kg	87.2	436
105-67-9	2,4-Dimethylphenol	U	436	ug/kg	153	436
111-91-1	bis(2-Chloroethoxy)methane	U	436	ug/kg	87.2	436
120-83-2	2,4-Dichlorophenol	U	436	ug/kg	87.2	436
65-85-0	Benzoic acid	U	872	ug/kg	218	872
91-20-3	Naphthalene	U	43.6	ug/kg	13.1	43.6
106-47-8	4-Chloroaniline	U	436	ug/kg	87.2	436
87-68-3	Hexachlorobutadiene	U	436	ug/kg	87.2	436
91-57-6	2-Methylnaphthalene	U	43.6	ug/kg	8.72	43.6
77-47-4	Hexachlorocyclopentadiene	U	436	ug/kg	87.2	436
88-06-2	2,4,6-Trichlorophenol	U	436	ug/kg	87.2	436
95-95-4	2,4,5-Trichlorophenol	U	436	ug/kg	87.2	436
91-58-7	2-Chloronaphthalene	U	43.6	ug/kg	14.4	43.6
88-74-4	2-Nitroaniline	U	436	ug/kg	87.2	436
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	436	ug/kg	87.2	436

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043005

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 23.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	436	ug/kg	87.2	436
606-20-2	2,6-Dinitrotoluene	U	436	ug/kg	43.6	436
208-96-8	Acenaphthylene	U	43.6	ug/kg	13.1	43.6
51-28-5	2,4-Dinitrophenol	U	872	ug/kg	166	872
132-64-9	Dibenzofuran	U	436	ug/kg	87.2	436
84-66-2	Diethylphthalate	U	436	ug/kg	87.2	436
86-73-7	Fluorene	U	43.6	ug/kg	13.1	43.6
7005-72-3	4-Chlorophenylphenylether	U	436	ug/kg	87.2	436
534-52-1	2-Methyl-4,6-dinitrophenol	U	436	ug/kg	87.2	436
100-01-6	4-Nitroaniline	U	436	ug/kg	131	436
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	436	ug/kg	87.2	436
122-66-7	Azobenzene	U	436	ug/kg	87.2	436
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	436	ug/kg	87.2	436
118-74-1	Hexachlorobenzene	U	436	ug/kg	87.2	436
85-01-8	Phenanthrene	U	43.6	ug/kg	13.1	43.6
120-12-7	Anthracene	U	43.6	ug/kg	8.72	43.6
84-74-2	Di-n-butylphthalate	U	436	ug/kg	87.2	436
206-44-0	Fluoranthene	J	20.6	ug/kg	13.1	43.6
85-68-7	Butylbenzylphthalate	U	436	ug/kg	87.2	436
56-55-3	Benzo(a)anthracene	J	15.3	ug/kg	13.1	43.6
91-94-1	3,3'-Dichlorobenzidine	U	436	ug/kg	131	436
218-01-9	Chrysene	J	14.8	ug/kg	13.1	43.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	436	ug/kg	87.2	436
117-84-0	Di-n-octylphthalate	U	436	ug/kg	87.2	436
205-99-2	Benzo(b)fluoranthene	J	32.5	ug/kg	13.1	43.6
207-08-9	Benzo(k)fluoranthene	U	43.6	ug/kg	13.1	43.6
50-32-8	Benzo(a)pyrene	J	16.5	ug/kg	13.1	43.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	43.6	ug/kg	13.1	43.6
53-70-3	Dibenzo(a,h)anthracene	U	43.6	ug/kg	13.1	43.6
191-24-2	Benzo(ghi)perylene	U	43.6	ug/kg	13.1	43.6
120-82-1	1,2,4-Trichlorobenzene	U	436	ug/kg	87.2	436

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.14	266	ug/kg		J
	Unknown Aldol Condensate	3.02	374	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043005	Date Received: 02/25/2010 08:45	%Moisture: 23.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7473	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 15:43	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s7c1109.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown	8.17	258	ug/kg		J
	Unknown	10.09	228	ug/kg		J
	Unknown	10.53	388	ug/kg		J
	Unknown	11.04	359	ug/kg		J
	Unknown	11.44	262	ug/kg		J
	Unknown	11.64	342	ug/kg		J
	Unknown	11.8	286	ug/kg		J
	Unknown	12.09	231	ug/kg		J
	Unknown	12.35	935	ug/kg		J
	Unknown	12.66	618	ug/kg		J
	Unknown	13.23	230	ug/kg		J
	Unknown	14.3	397	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043011	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 27.2
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7475	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 959623	<b>Inst:</b> MSD7.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/11/2010 17:30	<b>Analyst:</b> JMB3	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/02/2010 11:17	<b>Aliquot:</b> 30.05 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s7c1114.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDI/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	457	ug/kg	91.4	457
108-95-2	Phenol	U	457	ug/kg	91.4	457
95-57-8	2-Chlorophenol	U	457	ug/kg	91.4	457
106-46-7	1,4-Dichlorobenzene	U	457	ug/kg	91.4	457
621-64-7	N-Nitrosodipropylamine	U	457	ug/kg	91.4	457
59-50-7	4-Chloro-3-methylphenol	U	457	ug/kg	91.4	457
83-32-9	Acenaphthene		692	ug/kg	15.1	45.7
121-14-2	2,4-Dinitrotoluene	U	457	ug/kg	45.7	457
100-02-7	4-Nitrophenol	U	457	ug/kg	151	457
87-86-5	Pentachlorophenol	U	457	ug/kg	114	457
129-00-0	Pyrene		3680	ug/kg	13.7	45.7
110-86-1	Pyridine	U	457	ug/kg	91.4	457
62-53-3	Aniline	U	457	ug/kg	137	457
111-44-4	bis(2-Chloroethyl) ether	U	457	ug/kg	91.4	457
541-73-1	1,3-Dichlorobenzene	U	457	ug/kg	91.4	457
100-51-6	Benzyl alcohol	U	457	ug/kg	137	457
95-50-1	1,2-Dichlorobenzene	U	457	ug/kg	91.4	457
108-60-1	bis(2-Chloroisopropyl)ether	U	457	ug/kg	91.4	457
95-48-7	o-Cresol	U	457	ug/kg	91.4	457
65794-96-9	m,p-Cresols	U	457	ug/kg	137	457
67-72-1	Hexachloroethane	U	457	ug/kg	91.4	457
98-95-3	Nitrobenzene	U	457	ug/kg	91.4	457
78-59-1	Isophorone	U	457	ug/kg	91.4	457
88-75-5	2-Nitrophenol	U	457	ug/kg	91.4	457
105-67-9	2,4-Dimethylphenol	U	457	ug/kg	160	457
111-91-1	bis(2-Chloroethoxy)methane	U	457	ug/kg	91.4	457
120-83-2	2,4-Dichlorophenol	U	457	ug/kg	91.4	457
65-85-0	Benzoic acid	U	914	ug/kg	229	914
91-20-3	Naphthalene		410	ug/kg	13.7	45.7
106-47-8	4-Chloroaniline	U	457	ug/kg	91.4	457
87-68-3	Hexachlorobutadiene	U	457	ug/kg	91.4	457
91-57-6	2-Methylnaphthalene		203	ug/kg	9.14	45.7
77-47-4	Hexachlorocyclopentadiene	U	457	ug/kg	91.4	457
88-06-2	2,4,6-Trichlorophenol	U	457	ug/kg	91.4	457
95-95-4	2,4,5-Trichlorophenol	U	457	ug/kg	91.4	457
91-58-7	2-Chloronaphthalene	U	45.7	ug/kg	15.1	45.7
88-74-4	2-Nitroaniline	U	457	ug/kg	91.4	457
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	457	ug/kg	91.4	457

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043011	Date Received: 02/25/2010 08:45	%Moisture: 27.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7475	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 17:30	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s7c1114.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	457	ug/kg	91.4	457
606-20-2	2,6-Dinitrotoluene	U	457	ug/kg	45.7	457
208-96-8	Acenaphthylene	U	45.7	ug/kg	13.7	45.7
51-28-5	2,4-Dinitrophenol	U	914	ug/kg	174	914
132-64-9	Dibenzofuran		529	ug/kg	91.4	457
84-66-2	Diethylphthalate	U	457	ug/kg	91.4	457
86-73-7	Fluorene		843	ug/kg	13.7	45.7
7005-72-3	4-Chlorophenylphenylether	U	457	ug/kg	91.4	457
534-52-1	2-Methyl-4,6-dinitrophenol	U	457	ug/kg	91.4	457
100-01-6	4-Nitroaniline	U	457	ug/kg	137	457
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	457	ug/kg	91.4	457
122-66-7	Azobenzene	U	457	ug/kg	91.4	457
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	457	ug/kg	91.4	457
118-74-1	Hexachlorobenzene	U	457	ug/kg	91.4	457
120-12-7	Anthracene		1190	ug/kg	9.14	45.7
84-74-2	Di-n-butylphthalate	U	457	ug/kg	91.4	457
85-68-7	Butylbenzylphthalate	U	457	ug/kg	91.4	457
56-55-3	Benzo(a)anthracene		2080	ug/kg	13.7	45.7
91-94-1	3,3'-Dichlorobenzidine	U	457	ug/kg	137	457
218-01-9	Chrysene		2260	ug/kg	13.7	45.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	457	ug/kg	91.4	457
117-84-0	Di-n-octylphthalate	U	457	ug/kg	91.4	457
205-99-2	Benzo(b)fluoranthene		2900	ug/kg	13.7	45.7
207-08-9	Benzo(k)fluoranthene	U	45.7	ug/kg	13.7	45.7
50-32-8	Benzo(a)pyrene		1760	ug/kg	13.7	45.7
193-39-5	Indeno(1,2,3-cd)pyrene		1200	ug/kg	13.7	45.7
53-70-3	Dibenzo(a,h)anthracene	U	45.7	ug/kg	13.7	45.7
191-24-2	Benzo(ghi)perylene		1270	ug/kg	13.7	45.7
120-82-1	1,2,4-Trichlorobenzene	U	457	ug/kg	91.4	457

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	517	ug/kg		J
	Unknown	7.81	281	ug/kg		J
238-84-6	11H-Benzo[a]fluorene	8.85	341	ug/kg	96	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043011	Date Received: 02/25/2010 08:45	%Moisture: 27.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7475	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 17:30	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s7c1114.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
479-79-8	11H-Benzo[a]fluoren-11-one	9.53	187	ug/kg	98	NJ
604-53-5	1,1'-Binaphthalene	10.66	261	ug/kg	93	NJ
	Unknown	10.99	276	ug/kg		J
192-97-2	Benzo[e]pyrene	11.23	1100	ug/kg	99	NJ
198-55-0	Perylene	11.42	457	ug/kg	99	NJ
215-58-7	Benzo[b]triphenylene	13.37	265	ug/kg	96	NJ



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043011	Date Received: 02/25/2010 08:45	%Moisture: 27.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7475DL	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 4
Run Date: 03/12/2010 21:55	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s7c1227.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
85-01-8	Phenanthrene		6150	ug/kg	54.9	183
206-44-0	Fluoranthene		5470	ug/kg	54.9	183

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
203-64-5	4H-Cyclopenta[def]phenanthrene	7.67	908	ug/kg	93	NJ
192-97-2	Benzo[e]pyrene	11	1160	ug/kg	99	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043013	Date Received: 02/25/2010 08:45	%Moisture: 17
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7476	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 16:26	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30 g	Final Volume: 1 mL
Data File: s7c1111.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	402	ug/kg	80.3	402
108-95-2	Phenol	U	402	ug/kg	80.3	402
95-57-8	2-Chlorophenol	U	402	ug/kg	80.3	402
106-46-7	1,4-Dichlorobenzene	U	402	ug/kg	80.3	402
621-64-7	N-Nitrosodipropylamine	U	402	ug/kg	80.3	402
59-50-7	4-Chloro-3-methylphenol	U	402	ug/kg	80.3	402
83-32-9	Acenaphthene	U	40.2	ug/kg	13.3	40.2
121-14-2	2,4-Dinitrotoluene	U	402	ug/kg	40.2	402
100-02-7	4-Nitrophenol	U	402	ug/kg	133	402
87-86-5	Pentachlorophenol	U	402	ug/kg	100	402
129-00-0	Pyrene		40.4	ug/kg	12.0	40.2
110-86-1	Pyridine	U	402	ug/kg	80.3	402
62-53-3	Aniline	U	402	ug/kg	120	402
111-44-4	bis(2-Chloroethyl) ether	U	402	ug/kg	80.3	402
541-73-1	1,3-Dichlorobenzene	U	402	ug/kg	80.3	402
100-51-6	Benzyl alcohol	U	402	ug/kg	120	402
95-50-1	1,2-Dichlorobenzene	U	402	ug/kg	80.3	402
108-60-1	bis(2-Chloroisopropyl)ether	U	402	ug/kg	80.3	402
95-48-7	o-Cresol	U	402	ug/kg	80.3	402
65794-96-9	m,p-Cresols	U	402	ug/kg	120	402
67-72-1	Hexachloroethane	U	402	ug/kg	80.3	402
98-95-3	Nitrobenzene	U	402	ug/kg	80.3	402
78-59-1	Isophorone	U	402	ug/kg	80.3	402
88-75-5	2-Nitrophenol	U	402	ug/kg	80.3	402
105-67-9	2,4-Dimethylphenol	U	402	ug/kg	141	402
111-91-1	bis(2-Chloroethoxy)methane	U	402	ug/kg	80.3	402
120-83-2	2,4-Dichlorophenol	U	402	ug/kg	80.3	402
65-85-0	Benzoic acid	U	803	ug/kg	201	803
91-20-3	Naphthalene	U	40.2	ug/kg	12.0	40.2
106-47-8	4-Chloroaniline	U	402	ug/kg	80.3	402
87-68-3	Hexachlorobutadiene	U	402	ug/kg	80.3	402
91-57-6	2-Methylnaphthalene	U	40.2	ug/kg	8.03	40.2
77-47-4	Hexachlorocyclopentadiene	U	402	ug/kg	80.3	402
88-06-2	2,4,6-Trichlorophenol	U	402	ug/kg	80.3	402
95-95-4	2,4,5-Trichlorophenol	U	402	ug/kg	80.3	402
91-58-7	2-Chloronaphthalene	U	40.2	ug/kg	13.3	40.2
88-74-4	2-Nitroaniline	U	402	ug/kg	80.3	402
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	402	ug/kg	80.3	402

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043013	Date Received: 02/25/2010 08:45	%Moisture: 17
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7476	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 16:26	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30 g	Final Volume: 1 mL
Data File: s7c1111.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	402	ug/kg	80.3	402
606-20-2	2,6-Dinitrotoluene	U	402	ug/kg	40.2	402
208-96-8	Acenaphthylene	U	40.2	ug/kg	12.0	40.2
51-28-5	2,4-Dinitrophenol	U	803	ug/kg	153	803
132-64-9	Dibenzofuran	U	402	ug/kg	80.3	402
84-66-2	Diethylphthalate	U	402	ug/kg	80.3	402
86-73-7	Fluorene	U	40.2	ug/kg	12.0	40.2
7005-72-3	4-Chlorophenylphenylether	U	402	ug/kg	80.3	402
534-52-1	2-Methyl-4,6-dinitrophenol	U	402	ug/kg	80.3	402
100-01-6	4-Nitroaniline	U	402	ug/kg	120	402
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	402	ug/kg	80.3	402
122-66-7	Azobenzene	U	402	ug/kg	80.3	402
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	402	ug/kg	80.3	402
118-74-1	Hexachlorobenzene	U	402	ug/kg	80.3	402
85-01-8	Phenanthrene	J	29.9	ug/kg	12.0	40.2
120-12-7	Anthracene	U	40.2	ug/kg	8.03	40.2
84-74-2	Di-n-butylphthalate	U	402	ug/kg	80.3	402
206-44-0	Fluoranthene		50.5	ug/kg	12.0	40.2
85-68-7	Butylbenzylphthalate	U	402	ug/kg	80.3	402
56-55-3	Benzo(a)anthracene	J	24.0	ug/kg	12.0	40.2
91-94-1	3,3'-Dichlorobenzidine	U	402	ug/kg	120	402
218-01-9	Chrysene	J	25.1	ug/kg	12.0	40.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	402	ug/kg	80.3	402
117-84-0	Di-n-octylphthalate	U	402	ug/kg	80.3	402
205-99-2	Benzo(b)fluoranthene		40.2	ug/kg	12.0	40.2
207-08-9	Benzo(k)fluoranthene	U	40.2	ug/kg	12.0	40.2
50-32-8	Benzo(a)pyrene	J	21.7	ug/kg	12.0	40.2
193-39-5	Indeno(1,2,3-cd)pyrene	J	15.9	ug/kg	12.0	40.2
53-70-3	Dibenzo(a,h)anthracene	U	40.2	ug/kg	12.0	40.2
191-24-2	Benzo(ghi)perylene	J	19.4	ug/kg	12.0	40.2
120-82-1	1,2,4-Trichlorobenzene	U	402	ug/kg	80.3	402

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	570	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043018	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 20.8
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7515	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 959623	<b>Inst:</b> MSD7.1	<b>Dilution:</b> 10
<b>Run Date:</b> 03/11/2010 18:57	<b>Analyst:</b> JMB3	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/02/2010 11:17	<b>Aliquot:</b> 30.08 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s7c1118.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	4200	ug/kg	839	4200
108-95-2	Phenol	U	4200	ug/kg	839	4200
95-57-8	2-Chlorophenol	U	4200	ug/kg	839	4200
106-46-7	1,4-Dichlorobenzene	U	4200	ug/kg	839	4200
621-64-7	N-Nitrosodipropylamine	U	4200	ug/kg	839	4200
59-50-7	4-Chloro-3-methylphenol	U	4200	ug/kg	839	4200
83-32-9	Acenaphthene		948	ug/kg	139	420
121-14-2	2,4-Dinitrotoluene	U	4200	ug/kg	420	4200
100-02-7	4-Nitrophenol	U	4200	ug/kg	1390	4200
87-86-5	Pentachlorophenol	U	4200	ug/kg	1050	4200
129-00-0	Pyrene		9440	ug/kg	126	420
110-86-1	Pyridine	U	4200	ug/kg	839	4200
62-53-3	Aniline	U	4200	ug/kg	1260	4200
111-44-4	bis(2-Chloroethyl) ether	U	4200	ug/kg	839	4200
541-73-1	1,3-Dichlorobenzene	U	4200	ug/kg	839	4200
100-51-6	Benzyl alcohol	U	4200	ug/kg	1260	4200
95-50-1	1,2-Dichlorobenzene	U	4200	ug/kg	839	4200
108-60-1	bis(2-Chloroisopropyl)ether	U	4200	ug/kg	839	4200
95-48-7	o-Cresol	U	4200	ug/kg	839	4200
65794-96-9	m,p-Cresols	U	4200	ug/kg	1260	4200
67-72-1	Hexachloroethane	U	4200	ug/kg	839	4200
98-95-3	Nitrobenzene	U	4200	ug/kg	839	4200
78-59-1	Isophorone	U	4200	ug/kg	839	4200
88-75-5	2-Nitrophenol	U	4200	ug/kg	839	4200
105-67-9	2,4-Dimethylphenol	U	4200	ug/kg	1470	4200
111-91-1	bis(2-Chloroethoxy)methane	U	4200	ug/kg	839	4200
120-83-2	2,4-Dichlorophenol	U	4200	ug/kg	839	4200
65-85-0	Benzoic acid	U	8390	ug/kg	2100	8390
91-20-3	Naphthalene	J	385	ug/kg	126	420
106-47-8	4-Chloroaniline	U	4200	ug/kg	839	4200
87-68-3	Hexachlorobutadiene	U	4200	ug/kg	839	4200
91-57-6	2-Methylnaphthalene	J	214	ug/kg	83.9	420
77-47-4	Hexachlorocyclopentadiene	U	4200	ug/kg	839	4200
88-06-2	2,4,6-Trichlorophenol	U	4200	ug/kg	839	4200
95-95-4	2,4,5-Trichlorophenol	U	4200	ug/kg	839	4200
91-58-7	2-Chloronaphthalene	U	420	ug/kg	139	420
88-74-4	2-Nitroaniline	U	4200	ug/kg	839	4200
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	4200	ug/kg	839	4200

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043018	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 20.8
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7515	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 959623	<b>Inst:</b> MSD7.1	<b>Dilution:</b> 10
<b>Run Date:</b> 03/11/2010 18:57	<b>Analyst:</b> JMB3	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/02/2010 11:17	<b>Aliquot:</b> 30.08 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s7c1118.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	4200	ug/kg	839	4200
606-20-2	2,6-Dinitrotoluene	U	4200	ug/kg	420	4200
208-96-8	Acenaphthylene	U	420	ug/kg	126	420
51-28-5	2,4-Dinitrophenol	U	8390	ug/kg	1590	8390
132-64-9	Dibenzofuran	U	4200	ug/kg	839	4200
84-66-2	Diethylphthalate	U	4200	ug/kg	839	4200
86-73-7	Fluorene		928	ug/kg	126	420
7005-72-3	4-Chlorophenylphenylether	U	4200	ug/kg	839	4200
534-52-1	2-Methyl-4,6-dinitrophenol	U	4200	ug/kg	839	4200
100-01-6	4-Nitroaniline	U	4200	ug/kg	1260	4200
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	4200	ug/kg	839	4200
122-66-7	Azobenzene	U	4200	ug/kg	839	4200
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	4200	ug/kg	839	4200
118-74-1	Hexachlorobenzene	U	4200	ug/kg	839	4200
85-01-8	Phenanthrene		10200	ug/kg	126	420
120-12-7	Anthracene		1850	ug/kg	83.9	420
84-74-2	Di-n-butylphthalate	U	4200	ug/kg	839	4200
206-44-0	Fluoranthene		11300	ug/kg	126	420
85-68-7	Butylbenzylphthalate	U	4200	ug/kg	839	4200
56-55-3	Benzo(a)anthracene		4700	ug/kg	126	420
91-94-1	3,3'-Dichlorobenzidine	U	4200	ug/kg	1260	4200
218-01-9	Chrysene		4900	ug/kg	126	420
117-81-7	bis(2-Ethylhexyl)phthalate	U	4200	ug/kg	839	4200
117-84-0	Di-n-octylphthalate	U	4200	ug/kg	839	4200
205-99-2	Benzo(b)fluoranthene		7410	ug/kg	126	420
207-08-9	Benzo(k)fluoranthene	U	420	ug/kg	126	420
50-32-8	Benzo(a)pyrene		4020	ug/kg	126	420
193-39-5	Indeno(1,2,3-cd)pyrene		2530	ug/kg	126	420
53-70-3	Dibenzo(a,h)anthracene		928	ug/kg	126	420
191-24-2	Benzo(ghi)perylene		2770	ug/kg	126	420
120-82-1	1,2,4-Trichlorobenzene	U	4200	ug/kg	839	4200

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
1058-61-3	Stigmast-4-en-3-one	8.48	2450	ug/kg	95	NJ
	Unknown	10.14	3640	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043018	Date Received: 02/25/2010 08:45	%Moisture: 20.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7515	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 10
Run Date: 03/11/2010 18:57	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.08 g	Final Volume: 1 mL
Data File: s7c1118.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	12.07	3270	ug/kg		J
	Unknown	12.84	4040	ug/kg		J

# QC Summary

Semi-Volatile  
Surrogate Recovery Report

Page 1 of 2

SDG Number: 10-2074

Matrix Type: SOLID

CAP Column (1) : J&amp;W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202058129	MB for batch 959622	62	61	61	69	68	90
1202058130	LCS for batch 959622	65	63	65	69	76	82
248043001	RE36-10-7414	41	42	40	42	47	64
1202058131	RE36-10-7414MS	30	30 *	30 *	33	46	48
1202058132	RE36-10-7414MSD	31	31 *	31	34	42	47
248043005	RE36-10-7473	44	43	46	52	50	59
248043007	RE36-10-7472	38	41	35	39	51	57
248043013	RE36-10-7476	50	54	48	53	71	81
248043008	RE36-10-7468	33	34	32	39	48	45
248043009	RE36-10-7464	46	49	48	56	65	70
248043011	RE36-10-7475	39	42	36	41	56	50
248043016	RE36-10-7469	56	57	58	66	76	78
248043017	RE36-10-7470	47	48	50	57	64	61
248043018	RE36-10-7515	39 D	36 D	42 D	53 D	51 D	61 D
248043003	RE36-10-7462	35	38	37	46	49	49
248043006	RE36-10-7471	39	43	38	49	55	58
248043010	RE36-10-7463	55	60	58	69	76	82
248043014	RE36-10-7461	45	50	45	61	66	77
248043002	RE36-10-7413DL	28 * D	28 * D	28 * D	33 D	32 * D	36 D
248043004	RE36-10-7465DL	20 * D	21 * D	20 * D	24 * D	24 * D	25 D
248043011	RE36-10-7475DL	36 D	40 D	34 D	40 D	50 D	54 D
248043015	RE36-10-7467	50	53	50	58	65	74
248043012	RE36-10-7466	36	41	33	43	56	63
248043002	RE36-10-7413	29	30 *	30 *	33	35 *	41

2FP = 2-Fluorophenol (29%-99%)  
 PHL = Phenol-d5 (33%-98%)  
 NBZ = Nitrobenzene-d5 (31%-105%)  
 FBP = 2-Fluorobiphenyl (25%-109%)  
 TBP = 2,4,6-Tribromophenol (37%-106%)  
 TPH = p-Terphenyl-d14 (13%-150%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted



Semi-Volatile  
Surrogate Recovery Report

Page 2 of 2

SDG Number: 10-2074

Matrix Type: SOLID

CAP Column (1) : J&amp;W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
248043004	RE36-10-7465	21 *	22 *	21 *	24 *	26 *	29
1202071125	MB for batch 965289	63	61	68	73	71	81
1202071126	LCS for batch 965289	71	71	72	79	90	80
1202071127	LCSD for batch 965289	72	71	72	79	91	86
248043002	RE36-10-7413REDL	44 D	39 D	50 D	56 D	48 D	56 D
248043004	RE36-10-7465REDL	52 D	48 D	57 D	68 D	49 D	67 D
248043002	RE36-10-7413RE	50	47	55	60	55	59
248043004	RE36-10-7465RE	57	55	60	71	62	82

**Surrogate****Acceptance Limits**

2FP	= 2-Fluorophenol	(29%-99%)
PHL	= Phenol-d5	(33%-98%)
NBZ	= Nitrobenzene-d5	(31%-105%)
FBP	= 2-Fluorobiphenyl	(25%-109%)
TBP	= 2,4,6-Tribromophenol	(37%-106%)
TPH	= p-Terphenyl-d14	(13%-150%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 4

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959622

Matrix: SOIL

Lab Sample ID: 1202058130

Instrument: MSD7.I

Analysis Date: 03/11/2010 14:17

Dilution: 1

Analyst: JMB3

Prep Batch ID: 959622

Inj. Vol: .5 uL

Batch ID: 959623

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS N-Methyl-N-nitrosomethylam	1670	0.0	903	54	22-114
108-95-2	LCS Phenol	1670	0.0	1060	64	39-104
95-57-8	LCS 2-Chlorophenol	1670	0.0	1220	73	40-107
106-46-7	LCS 1,4-Dichlorobenzene	1670	0.0	1040	62	33-108
621-64-7	LCS N-Nitrosodipropylamine	1670	0.0	1230	74	34-113
59-50-7	LCS 4-Chloro-3-methylphenol	1670	0.0	1180	71	42-114
83-32-9	LCS Acenaphthene	1670	0.0	1230	74	40-105
121-14-2	LCS 2,4-Dinitrotoluene	1670	0.0	1310	79	49-112
100-02-7	LCS 4-Nitrophenol	1670	0.0	1150	69	24-113
87-86-5	LCS Pentachlorophenol	1670	0.0	1380	83	27-116
129-00-0	LCS Pyrene	1670	0.0	1180	71	42-113
110-86-1	LCS Pyridine	1670	0.0	880	53	8-125
62-53-3	LCS Aniline	1670	0.0	1030	62	18-126
111-44-4	LCS bis(2-Chloroethyl) ether	1670	0.0	940	56	32-103
541-73-1	LCS 1,3-Dichlorobenzene	1670	0.0	980	59	32-108
100-51-6	LCS Benzyl alcohol	1670	0.0	424	25 *	27-108
95-50-1	LCS 1,2-Dichlorobenzene	1670	0.0	1100	66	35-111
108-60-1	LCS bis(2-Chloroisopropyl)ether	1670	0.0	1040	63	28-117
95-48-7	LCS o-Cresol	1670	0.0	1100	66	39-111
65794-96-9	LCS m,p-Cresols	1670	0.0	1420	85	45-121
67-72-1	LCS Hexachloroethane	1670	0.0	1020	61	30-109
98-95-3	LCS Nitrobenzene	1670	0.0	1150	69	33-116

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 2 of 4

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959622

Matrix: SOIL

Lab Sample ID: J202058130

Instrument: MSD7.I

Analysis Date: 03/11/2010 14:17

Dilution: 1

Analyst: JMB3

Prep Batch ID: 959622

Inj. Vol: .5 uL

Batch ID: 959623

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS Isophorone	1670	0.0	1110	67	35-113
88-75-5	LCS 2-Nitrophenol	1670	0.0	1220	73	31-117
105-67-9	LCS 2,4-Dimethylphenol	1670	0.0	624	37	32-112
111-91-1	LCS bis(2-Chloroethoxy)methane	1670	0.0	1100	66	34-110
120-83-2	LCS 2,4-Dichlorophenol	1670	0.0	1200	72	34-116
65-85-0	LCS Benzoic acid	3330	0.0	3080	92	22-138
91-20-3	LCS Naphthalene	1670	0.0	1120	67	35-103
106-47-8	LCS 4-Chloroaniline	1670	0.0	1110	66	20-118
87-68-3	LCS Hexachlorobutadiene	1670	0.0	1140	69	31-117
91-57-6	LCS 2-Methylnaphthalene	1670	0.0	1160	70	38-115
77-47-4	LCS Hexachlorocyclopentadiene	1670	0.0	1250	75	22-140
88-06-2	LCS 2,4,6-Trichlorophenol	1670	0.0	1270	76	40-110
95-95-4	LCS 2,4,5-Trichlorophenol	1670	0.0	1430	86	43-113
91-58-7	LCS 2-Chloronaphthalene	1670	0.0	1150	69	37-111
88-74-4	LCS 2-Nitroaniline <i>o</i> -Nitroaniline	1670	0.0	1080	65	41-113
99-09-2	LCS 3-Nitroaniline <i>m</i> -Nitroaniline	1670	0.0	1210	73	34-125
131-11-3	LCS Dimethylphthalate	1670	0.0	1320	79	48-122
606-20-2	LCS 2,6-Dinitrotoluene	1670	0.0	1300	78	47-107
208-96-8	LCS Acenaphthylene	1670	0.0	1240	74	44-110
51-28-5	LCS 2,4-Dinitrophenol	1670	0.0	1620	97	18-127
132-64-9	LCS Dibenzofuran	1670	0.0	1250	75	49-115
84-66-2	LCS Diethylphthalate	1670	0.0	1370	82	51-126

## Semi-Volatile

Page 3 of 4

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959622

Matrix: SOIL

Lab Sample ID: 1202058130

Instrument: MSD7.I

Analysis Date: 03/11/2010 14:17

Dilution: 1

Analyst: JMB3

Pre Batch ID: 959622

Inj. Vol: .5 uL

Batch ID: 959623

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS Fluorene	1670	0.0	1240	75	43-109
7005-72-3	LCS 4-Chlorophenylphenylether	1670	0.0	1310	79	45-115
534-52-1	LCS 2-Methyl-4,6-dinitrophenol	1670	0.0	1530	92	32-117
100-01-6	LCS 4-Nitroaniline <i>p</i> -Nitroaniline	1670	0.0	1330	80	33-148
122-39-4	LCS Diphenylamine	1670	0.0	1360	81	46-114
122-66-7	LCS Azobenzene <i>1,2-Diphenylhydrazine</i>	1670	0.0	1290	77	38-123
101-55-3	LCS 4-Bromophenylphenylether	1670	0.0	1290	78	40-119
118-74-1	LCS Hexachlorobenzene	1670	0.0	1290	78	43-111
85-01-8	LCS Phenanthrene	1670	0.0	1270	76	46-107
120-12-7	LCS Anthracene	1670	0.0	1280	77	46-110
84-74-2	LCS Di-n-butylphthalate	1670	0.0	1400	84	52-132
206-44-0	LCS Fluoranthene	1670	0.0	1330	80	51-115
85-68-7	LCS Butylbenzylphthalate	1670	0.0	1370	82	47-137
56-55-3	LCS Benzo(a)anthracene	1670	0.0	1260	76	50-108
91-94-1	LCS 3,3'-Dichlorobenzidine	1670	0.0	1200	72	36-103
218-01-9	LCS Chrysene	1670	0.0	1300	78	48-111
117-81-7	LCS bis(2-Ethylhexyl)phthalate	1670	0.0	1510	90	48-139
117-84-0	LCS Di-n-octylphthalate	1670	0.0	1430	86	42-141
205-99-2	LCS Benzo(b)fluoranthene	1670	0.0	1290	77	49-114
207-08-9	LCS Benzo(k)fluoranthene	1670	0.0	1230	74	50-116
50-32-8	LCS Benzo(a)pyrene	1670	0.0	1300	78	54-114
193-39-5	LCS Indeno(1,2,3-cd)pyrene	1670	0.0	1610	97	53-120

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 4 of 4

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 959622

Matrix: SOIL

Lab Sample ID:1202058130

Instrument: MSD7.I

Analysis Date: 03/11/2010 14:17

Dilution: 1

Analyst: JMB3

Prep Batch II 959622

Inj. Vol: .5 uL

Batch ID: 959623

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS Dibenzo(a,h)anthracene	1670	0.0	1630	98	53-121
191-24-2	LCS Benzo(ghi)perylene	1670	0.0	1620	97	50-121
120-82-1	LCS 1,2,4-Trichlorobenzene	1670	0.0	1130	68	32-114

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 8

SDG Number: 10-2074

Sample Type: Matrix Spike

Client ID: RE36-10-7414MS

Matrix: R

Lab Sample ID: 1202058131

%Moisture: 21.1

Instrument: MSD7.1

Analysis Date: 03/11/2010 15:00

Dilution: 1

Analyst: JMB3

Pren Batch II 959622

Inj. Vol: .5 uL

Batch ID: 959623

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS N-Methyl-N-nitrosomethylam	2110	0.00 U	480	23 *	27-98
108-95-2	MS Phenol	2110	0.00 U	584	28 *	33-94
95-57-8	MS 2-Chlorophenol	2110	0.00 U	702	33	29-96
106-46-7	MS 1,4-Dichlorobenzene	2110	0.00 U	341	16 *	27-96
621-64-7	MS N-Nitrosodipropylamine	2110	0.00 U	698	33	29-102
59-50-7	MS 4-Chloro-3-methylphenol	2110	0.00 U	793	38	29-110
83-32-9	MS Acenaphthene	2110	14.9 J	762	35	17-109
121-14-2	MS 2,4-Dinitrotoluene	2110	0.00 U	949	45	33-107
100-02-7	MS 4-Nitrophenol	2110	0.00 U	692	33	15-110
87-86-5	MS Pentachlorophenol	2110	0.00 U	926	44	23-110
129-00-0	MS Pyrene	2110	202	986	37	24-118
110-86-1	MS Pyridine	2110	0.00 U	490	23 *	25-102
62-53-3	MS Aniline	2110	0.00 U	521	25	18-109
111-44-4	MS bis(2-Chloroethyl) ether	2110	0.00 U	510	24 *	29-96
541-73-1	MS 1,3-Dichlorobenzene	2110	0.00 U	308	15 *	26-97
100-51-6	MS Benzyl alcohol	2110	0.00 U	0.00	0 *	19-112
95-50-1	MS 1,2-Dichlorobenzene	2110	0.00 U	400	19 *	30-97
108-60-1	MS bis(2-Chloroisopropyl)ether	2110	0.00 U	537	25 *	28-103
95-48-7	MS o-Cresol	2110	0.00 U	659	31 *	32-107
65794-96-9	MS m,p-Cresols	2110	0.00 U	804	38	33-115
67-72-1	MS Hexachloroethane	2110	0.00 U	280	13 *	25-100
98-95-3	MS Nitrobenzene	2110	0.00 U	672	32	27-106

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 2 of 8

SDG Number: 10-2074

Sample Type: Matrix Spike

Client ID: RE36-10-7414MS

Matrix: R

Lab Sample ID: 1202058131

%Moisture: 21.1

Instrument: MSD7.I

Analysis Date: 03/11/2010 15:00

Dilution: 1

Analyst: JMB3

Pre Batch ID: 959622

Inj. Vol: .5 uL

Batch ID: 959623

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS Isophorone	2110	0.00 U	670	32	29-104
88-75-5	MS 2-Nitrophenol	2110	0.00 U	732	35	26-102
105-67-9	MS 2,4-Dimethylphenol	2110	0.00 U	226	11 *	22-104
111-91-1	MS bis(2-Chloroethoxy)methane	2110	0.00 U	667	32	27-101
120-83-2	MS 2,4-Dichlorophenol	2110	0.00 U	742	35	26-103
65-85-0	MS Benzoic acid	4210	0.00 U	1560	37	13-131
91-20-3	MS Naphthalene	2110	0.00 U	579	27	23-103
106-47-8	MS 4-Chloroaniline	2110	0.00 U	627	30	26-103
87-68-3	MS Hexachlorobutadiene	2110	0.00 U	434	21 *	28-101
91-57-6	MS 2-Methylnaphthalene	2110	0.00 U	652	31	27-106
77-47-4	MS Hexachlorocyclopentadiene	2110	0.00 U	421	20 *	24-117
88-06-2	MS 2,4,6-Trichlorophenol	2110	0.00 U	762	36	26-105
95-95-4	MS 2,4,5-Trichlorophenol	2110	0.00 U	1030	49	30-110
91-58-7	MS 2-Chloronaphthalene	2110	0.00 U	667	32	28-102
88-74-4	MS 2-Nitroaniline <i>o</i> -Nitroaniline	2110	0.00 U	746	35	33-106
99-09-2	MS 3-Nitroaniline <i>m</i> -Nitroaniline	2110	0.00 U	835	40	33-116
131-11-3	MS Dimethylphthalate	2110	0.00 U	915	43	38-113
606-20-2	MS 2,6-Dinitrotoluene	2110	0.00 U	884	42	29-107
208-96-8	MS Acenaphthylene	2110	0.00 U	775	37	25-108
51-28-5	MS 2,4-Dinitrophenol	2110	0.00 U	1250	59	14-102
132-64-9	MS Dibenzofuran	2110	0.00 U	808	38	35-112
84-66-2	MS Diethylphthalate	2110	0.00 U	1010	48	36-122

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 3 of 8

SDG Number: 10-2074

Sample Type: Matrix Spike

Client ID: RE36-10-7414MS

Matrix: R

Lab Sample ID: 1202058131

%Moisture: 21.1

Instrument: MSD7.I

Analysis Date: 03/11/2010 15:00

Dilution: 1

Analyst: JMB3

Pren Batch II 959622

Inj. Vol: .5 uL

Batch ID: 959623

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS Fluorene	2110	13.6 J	848	40	33-105
7005-72-3	MS 4-Chlorophenylphenylether	2110	0.00 U	867	41	30-110
534-52-1	MS 2-Methyl-4,6-dinitrophenol	2110	0.00 U	1200	57	26-97
100-01-6	MS 4-Nitroaniline <i>p</i> -Nitroaniline	2110	0.00 U	1000	48	28-135
122-39-4	MS Diphenylamine	2110	0.00 U	954	45	33-109
122-66-7	MS Azobenzene <i>1,2</i> -Diphenylhydrazine	2110	0.00 U	888	42	31-113
101-55-3	MS 4-Bromophenylphenylether	2110	0.00 U	911	43	31-109
118-74-1	MS Hexachlorobenzene	2110	0.00 U	971	46	37-99
85-01-8	MS Phenanthrene	2110	160	1070	43	29-109
120-12-7	MS Anthracene	2110	24.8 J	991	46	19-118
84-74-2	MS Di-n-butylphthalate	2110	0.00 U	1050	50	39-123
206-44-0	MS Fluoranthene	2110	216	1220	48	33-114
85-68-7	MS Butylbenzylphthalate	2110	0.00 U	946	45	35-131
56-55-3	MS Benzo(a)anthracene	2110	89.8	1010	44	30-111
91-94-1	MS 3,3'-Dichlorobenzidine	2110	0.00 U	842	40	30-124
218-01-9	MS Chrysene	2110	93.5	1070	47	32-108
117-81-7	MS bis(2-Ethylhexyl)phthalate	2110	231 J	1180	45	37-129
117-84-0	MS Di-n-octylphthalate	2110	0.00 U	880	42	31-143
205-99-2	MS Benzo(h)fluoranthene	2110	156	950	38	29-118
207-08-9	MS Benzo(k)fluoranthene	2110	0.00 U	1010	48	32-118
50-32-8	MS Benzo(a)pyrene	2110	84.6	1040	45	33-115
193-39-5	MS Indeno(1,2,3-cd)pyrene	2110	63.5	1220	55	29-114



Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 4 of 8

SDG Number: 10-2074

Client ID: RE36-10-7414MS

Lab Sample ID:1202058131

Instrument: MSD7.I

Analyst: JMB3

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: R

%Moisture: 21.1

Analysis Date: 03/11/2010 15:00

Dilution: 1

Prep Batch ID: 959622

Batch ID: 959623

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS Dibenzo(a,h)anthracene	2110	25.3 J	1240	57	27-119
191-24-2	MS Benzo(ghi)perylene	2110	67.9	1170	52	28-112
120-82-1	MS 1,2,4-Trichlorobenzene	2110	0.00 U	534	25 *	28-99

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 5 of 8

SDG Number: 10-2074

Sample Type: Matrix Spike Duplicate

Client ID: RE36-10-7414MSD

Matrix: R

Lab Sample ID: 1202058132

% Moisture: 21.1

Instrument: MSD7.I

Analysis Date: 03/11/2010 15:21

Dilution: 1

Analyst: JMB3

Pren Batch II 959622

Inj. Vol: .5 uL

Batch ID: 959623

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	2110	0.00	U	529	25 *	27-98	10	0-30
108-95-2	MSD Phenol	2110	0.00	U	616	29 *	33-94	5	0-30
95-57-8	MSD 2-Chlorophenol	2110	0.00	U	702	33	29-96	0	0-30
106-46-7	MSD 1,4-Dichlorobenzene	2110	0.00	U	326	15 *	27-96	5	0-30
621-64-7	MSD N-Nitrosodipropylamine	2110	0.00	U	711	34	29-102	2	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	2110	0.00	U	775	37	29-110	2	0-30
83-32-9	MSD Acenaphthene	2110	14.9	J	743	35	17-109	3	0-30
121-14-2	MSD 2,4-Dinitrotoluene	2110	0.00	U	830	39	33-107	13	0-30
100-02-7	MSD 4-Nitrophenol	2110	0.00	U	656	31	15-110	5	0-30
87-86-5	MSD Pentachlorophenol	2110	0.00	U	815	39	23-110	13	0-30
129-00-0	MSD Pyrene	2110	202		1010	38	24-118	2	0-30
110-86-1	MSD Pyridine	2110	0.00	U	550	26	25-102	12	0-30
62-53-3	MSD Aniline	2110	0.00	U	566	27	18-109	8	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	2110	0.00	U	517	25 *	29-96	1	0-30
541-73-1	MSD 1,3-Dichlorobenzene	2110	0.00	U	306	15 *	26-97	1	0-30
100-51-6	MSD Benzyl alcohol	2110	0.00	U	130	6 *	19-112	200 *	0-30
95-50-1	MSD 1,2-Dichlorobenzene	2110	0.00	U	391	19 *	30-97	2	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	2110	0.00	U	527	25 *	28-103	2	0-30
95-48-7	MSD o-Cresol	2110	0.00	U	655	31 *	32-107	1	0-30
65794-96-9	MSD m,p-Cresols	2110	0.00	U	848	40	33-115	5	0-30
67-72-1	MSD Hexachloroethane	2110	0.00	U	280	13 *	25-100	0	0-30
98-95-3	MSD Nitrobenzene	2110	0.00	U	682	32	27-106	2	0-30

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 6 of 8

SDG Number: 10-2074

Sample Type: Matrix Spike Duplicate

Client ID: RE36-10-7414MSD

Matrix: R

Lab Sample ID: 1202058132

% Moisture: 21.1

Instrument: MSD7.I

Analysis Date: 03/11/2010 15:21

Dilution: 1

Analyst: JMB3

Prep Batch II 959622

Inj. Vol: .5 uL

Batch ID: 959623

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	U	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	2110	0.00	U	685	33	29-104	2	0-30
88-75-5	MSD 2-Nitrophenol	2110	0.00	U	724	34	26-102	1	0-30
105-67-9	MSD 2,4-Dimethylphenol	2110	0.00	U	1130	53	22-104	133 *	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	2110	0.00	U	675	32	27-101	1	0-30
120-83-2	MSD 2,4-Dichlorophenol	2110	0.00	U	739	35	26-103	0	0-30
65-85-0	MSD Benzoic acid	4210	0.00	U	1430	34	13-131	9	0-30
91-20-3	MSD Naphthalene	2110	0.00	U	578	27	23-103	0	0-30
106-47-8	MSD 4-Chloroaniline	2110	0.00	U	694	33	26-103	10	0-30
87-68-3	MSD Hexachlorobutadiene	2110	0.00	U	433	21 *	28-101	0	0-30
91-57-6	MSD 2-Methylnaphthalene	2110	0.00	U	646	31	27-106	1	0-30
77-47-4	MSD Hexachlorocyclopentadiene	2110	0.00	U	433	21 *	24-117	3	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	2110	0.00	U	833	40	26-105	9	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	2110	0.00	U	950	45	30-110	8	0-30
91-58-7	MSD 2-Chloronaphthalene	2110	0.00	U	676	32	28-102	1	0-30
88-74-4	MSD 2-Nitroaniline <i>o</i> -Nitroaniline	2110	0.00	U	699	33	33-106	6	0-30
99-09-2	MSD 3-Nitroaniline <i>m</i> -Nitroaniline	2110	0.00	U	778	37	33-116	7	0-30
131-11-3	MSD Dimethylphthalate	2110	0.00	U	863	41	38-113	6	0-30
606-20-2	MSD 2,6-Dinitrotoluene	2110	0.00	U	836	40	29-107	6	0-30
208-96-8	MSD Acenaphthylene	2110	0.00	U	753	36	25-108	3	0-30
51-28-5	MSD 2,4-Dinitrophenol	2110	0.00	U	1090	52	14-102	13	0-30
132-64-9	MSD Dibenzofuran	2110	0.00	U	791	38	35-112	2	0-30
84-66-2	MSD Diethylphthalate	2110	0.00	U	918	44	36-122	9	0-30

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 7 of 8

SDG Number: 10-2074

Sample Type: Matrix Spike Duplicate

Client ID: RE36-10-7414MSD

Matrix: R

Lab Sample ID:1202058132

%Moisture: 21.1

Instrument: MSD7.I

Analysis Date: 03/11/2010 15:21

Dilution: 1

Analyst: JMB3

Prep Batch ID: 959622

Inj. Vol: .5 uL

Batch ID: 959623

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	J	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD Fluorene	2110	13.6	J	816	38	33-105	4	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	2110	0.00	U	819	39	30-110	6	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	2110	0.00	U	1040	49	26-97	14	0-30
100-01-6	MSD 4-Nitroaniline <i>p-Nitroaniline</i>	2110	0.00	U	830	39	28-135	19	0-30
122-39-4	MSD Diphenylamine	2110	0.00	U	846	40	33-109	12	0-30
122-66-7	MSD Azobenzene <i>1,2-Diphenylhydrazine</i>	2110	0.00	U	831	39	31-113	7	0-30
101-55-3	MSD 4-Bromophenylphenylether	2110	0.00	U	841	40	31-109	8	0-30
118-74-1	MSD Hexachlorobenzene	2110	0.00	U	883	42	37-99	9	0-30
85-01-8	MSD Phenanthrene	2110	160		1020	41	29-109	4	0-30
120-12-7	MSD Anthracene	2110	24.8	J	873	40	19-118	13	0-30
84-74-2	MSD Di-n-butylphthalate	2110	0.00	U	918	44	39-123	13	0-30
206-44-0	MSD Fluoranthene	2110	216		1120	43	33-114	8	0-30
85-68-7	MSD Butylbenzylphthalate	2110	0.00	U	873	41	35-131	8	0-30
56-55-3	MSD Benzo(a)anthracene	2110	89.8		905	39	30-111	11	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	2110	0.00	U	648	31	30-124	26	0-30
218-01-9	MSD Chrysene	2110	93.5		977	42	32-108	9	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	2110	231	J	1010	37	37-129	16	0-30
117-84-0	MSD Di-n-octylphthalate	2110	0.00	U	912	43	31-143	4	0-30
205-99-2	MSD Benzo(b)fluoranthene	2110	156		968	39	29-118	2	0-30
207-08-9	MSD Benzo(k)fluoranthene	2110	0.00	U	882	42	32-118	14	0-30
50-32-8	MSD Benzo(a)pyrene	2110	84.6		927	40	33-115	11	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	2110	63.5		1030	46	29-114	17	0-30

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 8 of 8

SDG Number: 10-2074

Sample Type: Matrix Spike Duplicate

Client ID: RE36-10-7414MSD

Matrix: R

Lab Sample ID:1202058132

%Moisture: 21.1

Instrument: MSD7.I

Analysis Date: 03/11/2010 15:21

Dilution: 1

Analyst: JMB3

Pren Batch II 959622

Inj. Vol: .5 uL

Batch ID: 959623

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	2110	25.3	J	1040	48	27-119	18	0-30
191-24-2	MSD Benzo(ghi)perylene	2110	67.9		989	44	28-112	16	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	2110	0.00	U	518	25 *	28-99	3	0-30

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 8

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 965289

Matrix: SOIL

Lab Sample ID: 1202071126

Instrument: MSD7.I

Analysis Date: 03/17/2010 12:02

Dilution: 1

Analyst: JMB3

Prep Batch II 965289

Inj. Vol: .5 uL

Batch ID: 965290

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS N-Methyl-N-nitrosomethylam	1670	0.0	973	58	22-114
108-95-2	LCS Phenol	1670	0.0	1180	71	39-104
95-57-8	LCS 2-Chlorophenol	1670	0.0	1320	79	40-107
106-46-7	LCS 1,4-Dichlorobenzene	1670	0.0	1230	74	33-108
621-64-7	LCS N-Nitrosodipropylamine	1670	0.0	1250	75	34-113
59-50-7	LCS 4-Chloro-3-methylphenol	1670	0.0	1250	75	42-114
83-32-9	LCS Acenaphthene	1670	0.0	1400	84	40-105
121-14-2	LCS 2,4-Dinitrotoluene	1670	0.0	1420	85	49-112
100-02-7	LCS 4-Nitrophenol	1670	0.0	1410	85	24-113
87-86-5	LCS Pentachlorophenol	1670	0.0	1670	100	27-116
129-00-0	LCS Pyrene	1670	0.0	1130	68	42-113
110-86-1	LCS Pyridine	1670	0.0	956	57	8-125
62-53-3	LCS Aniline	1670	0.0	895	54	18-126
111-44-4	LCS bis(2-Chloroethyl) ether	1670	0.0	1010	61	32-103
541-73-1	LCS 1,3-Dichlorobenzene	1670	0.0	1170	70	32-108
100-51-6	LCS Benzyl alcohol	1670	0.0	635	38	27-108
95-50-1	LCS 1,2-Dichlorobenzene	1670	0.0	1260	76	35-111
108-60-1	LCS bis(2-Chloroisopropyl)ether	1670	0.0	1110	66	28-117
95-48-7	LCS o-Cresol	1670	0.0	1310	79	39-111
65794-96-9	LCS m,p-Cresols	1670	0.0	1460	88	45-121
67-72-1	LCS Hexachloroethane	1670	0.0	1210	72	30-109
98-95-3	LCS Nitrobenzene	1670	0.0	1200	72	33-116

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 965289

Matrix: SOIL

Lab Sample ID: 1202071126

Instrument: MSD7.J

Analysis Date: 03/17/2010 12:02

Dilution: 1

Analyst: JMB3

Pren Batch II 965289

Inj. Vol: .5 uL

Batch ID: 965290

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS Isophorone	1670	0.0	1170	70	35-113
88-75-5	LCS 2-Nitrophenol	1670	0.0	1340	80	31-117
105-67-9	LCS 2,4-Dimethylphenol	1670	0.0	1230	74	32-112
111-91-1	LCS bis(2-Chloroethoxy)methane	1670	0.0	1160	69	34-110
120-83-2	LCS 2,4-Dichlorophenol	1670	0.0	1290	78	34-116
65-85-0	LCS Benzoic acid	3330	0.0	2980	89	22-138
91-20-3	LCS Naphthalene	1670	0.0	1220	73	35-103
106-47-8	LCS 4-Chloroaniline	1670	0.0	796	48	20-118
87-68-3	LCS Hexachlorobutadiene	1670	0.0	1290	77	31-117
91-57-6	LCS 2-Methylnaphthalene	1670	0.0	1270	76	38-115
77-47-4	LCS Hexachlorocyclopentadiene	1670	0.0	1500	90	22-140
88-06-2	LCS 2,4,6-Trichlorophenol	1670	0.0	1470	88	40-110
95-95-4	LCS 2,4,5-Trichlorophenol	1670	0.0	1590	96	43-113
91-58-7	LCS 2-Chloronaphthalene	1670	0.0	1250	75	37-111
88-74-4	LCS 2-Nitroaniline o-Nitroaniline	1670	0.0	1230	74	41-113
99-09-2	LCS 3-Nitroaniline m-Nitroaniline	1670	0.0	1240	75	34-125
131-11-3	LCS Dimethylphthalate	1670	0.0	1460	88	48-122
606-20-2	LCS 2,6-Dinitrotoluene	1670	0.0	1410	85	47-107
208-96-8	LCS Acenaphthylene	1670	0.0	1380	83	44-110
51-28-5	LCS 2,4-Dinitrophenol	1670	0.0	1960	118	18-127
132-64-9	LCS Dibenzofuran	1670	0.0	1380	83	49-115
84-66-2	LCS Diethylphthalate	1670	0.0	1510	91	51-126

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 3 of 8

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 965289

Matrix: SOIL

Lab Sample ID: 1202071126

Instrument: MSD7.I

Analysis Date: 03/17/2010 12:02

Dilution: 1

Analyst: JMB3

Pre Batch ID: 965289

Inj. Vol: .5 uL

Batch ID: 965290

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS Fluorene	1670	0.0	1400	84	43-109
7005-72-3	LCS 4-Chlorophenylphenylether	1670	0.0	1450	87	45-115
534-52-1	LCS 2-Methyl-4,6-dinitrophenol	1670	0.0	1680	101	32-117
100-01-6	LCS 4-Nitroaniline <i>p-Nitroaniline</i>	1670	0.0	1640	98	33-148
122-39-4	LCS Diphenylamine	1670	0.0	1360	82	46-114
122-66-7	LCS Azobenzene <i>1,2-Diphenylhydrazine</i>	1670	0.0	1360	82	38-123
101-55-3	LCS 4-Bromophenylphenylether	1670	0.0	1380	83	40-119
118-74-1	LCS Hexachlorobenzene	1670	0.0	1340	81	43-111
85-01-8	LCS Phenanthrene	1670	0.0	1370	82	46-107
120-12-7	LCS Anthracene	1670	0.0	1390	83	46-110
84-74-2	LCS Di-n-butylphthalate	1670	0.0	1470	88	52-132
206-44-0	LCS Fluoranthene	1670	0.0	1430	86	51-115
85-68-7	LCS Butylbenzylphthalate	1670	0.0	1270	76	47-137
56-55-3	LCS Benzo(a)anthracene	1670	0.0	1280	77	50-108
91-94-1	LCS 3,3'-Dichlorobenzidine	1670	0.0	1500	90	36-103
218-01-9	LCS Chrysene	1670	0.0	1400	84	48-111
117-81-7	LCS bis(2-Ethylhexyl)phthalate	1670	0.0	1380	83	48-139
117-84-0	LCS Di-n-octylphthalate	1670	0.0	1240	74	42-141
205-99-2	LCS Benzo(b)fluoranthene	1670	0.0	1300	78	49-114
207-08-9	LCS Benzo(k)fluoranthene	1670	0.0	1310	79	50-116
50-32-8	LCS Benzo(a)pyrene	1670	0.0	1390	84	54-114
193-39-5	LCS Indeno(1,2,3-cd)pyrene	1670	0.0	1800	108	53-120



Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 4 of 8

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 965289

Matrix: SOIL

Lab Sample ID:1202071126

Instrument: MSD7.1

Analysis Date: 03/17/2010 12:02

Dilution: 1

Analyst: JMB3

Prep Batch II 965289

Inj. Vol: .5 uL

Batch ID: 965290

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS Dibenzo(a,h)anthracene	1670	0.0	1870	112	53-121
191-24-2	LCS Benzo(ghi)perylene	1670	0.0	1750	105	50-121
120-82-1	LCS 1,2,4-Trichlorobenzene	1670	0.0	1230	74	32-114

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 5 of 8

SDG Number: 10-2074

Sample Type: Laboratory Control Sample Duplicate

Client ID: LCSD for batch 965289

Matrix: SOIL

Lab Sample ID: 1202071127

Instrument: MSD7.I

Analysis Date: 03/17/2010 12:24

Dilution: 1

Analyst: JMB3

Prep Batch ID: 965289

Inj. Vol: .5 uL

Batch ID: 965290

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	LCSD N-Methyl-N-nitrosomethylam	1670	0.0	982	59	22-114	1	0-37
108-95-2	LCSD Phenol	1670	0.0	1180	71	39-104	0	0-35
95-57-8	LCSD 2-Chlorophenol	1670	0.0	1340	80	40-107	2	0-30
106-46-7	LCSD 1,4-Dichlorobenzene	1670	0.0	1220	73	33-108	1	0-30
621-64-7	LCSD N-Nitrosodipropylamine	1670	0.0	1240	74	34-113	1	0-35
59-50-7	LCSD 4-Chloro-3-methylphenol	1670	0.0	1250	75	42-114	0	0-30
83-32-9	LCSD Acenaphthene	1670	0.0	1380	83	40-105	1	0-30
121-14-2	LCSD 2,4-Dinitrotoluene	1670	0.0	1360	82	49-112	4	0-30
100-02-7	LCSD 4-Nitrophenol	1670	0.0	1210	73	24-113	15	0-30
87-86-5	LCSD Pentachlorophenol	1670	0.0	1710	102	27-116	2	0-30
129-00-0	LCSD Pyrene	1670	0.0	1250	75	42-113	10	0-34
110-86-1	LCSD Pyridine	1670	0.0	994	60	8-125	4	0-37
62-53-3	LCSD Aniline	1670	0.0	871	52	18-126	3	0-30
111-44-4	LCSD bis(2-Chloroethyl) ether	1670	0.0	1020	61	32-103	0	0-36
541-73-1	LCSD 1,3-Dichlorobenzene	1670	0.0	1170	70	32-108	0	0-30
100-51-6	LCSD Benzyl alcohol	1670	0.0	519	31	27-108	20	0-30
95-50-1	LCSD 1,2-Dichlorobenzene	1670	0.0	1280	77	35-111	1	0-30
108-60-1	LCSD bis(2-Chloroisopropyl)ether	1670	0.0	1120	67	28-117	1	0-34
95-48-7	LCSD o-Cresol	1670	0.0	1300	78	39-111	1	0-29
65794-96-9	LCSD m,p-Cresols	1670	0.0	1490	89	45-121	2	0-28
67-72-1	LCSD Hexachloroethane	1670	0.0	1210	72	30-109	0	0-34
98-95-3	LCSD Nitrobenzene	1670	0.0	1210	73	33-116	1	0-33

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 6 of 8

SDG Number: 10-2074

Sample Type: Laboratory Control Sample Duplicate

Client ID: LCSD for batch 965289

Matrix: SOIL

Lab Sample ID: 1202071127

Instrument: MSD7.I

Analysis Date: 03/17/2010 12:24

Dilution: 1

Analyst: JMB3

Pred Batch II 965289

Inj. Vol: .5 uL

Batch ID: 965290

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	LCSD Isophorone	1670	0.0	1170	70	35-113	0	0-34
88-75-5	LCSD 2-Nitrophenol	1670	0.0	1360	81	31-117	2	0-30
105-67-9	LCSD 2,4-Dimethylphenol	1670	0.0	1250	75	32-112	2	0-30
111-91-1	LCSD bis(2-Chloroethoxy)methane	1670	0.0	1170	70	34-110	1	0-34
120-83-2	LCSD 2,4-Dichlorophenol	1670	0.0	1280	77	34-116	1	0-30
65-85-0	LCSD Benzoic acid	3330	0.0	3090	93	22-138	4	0-30
91-20-3	LCSD Naphthalene	1670	0.0	1190	72	35-103	3	0-33
106-47-8	LCSD 4-Chloroaniline	1670	0.0	678	41	20-118	16	0-30
87-68-3	LCSD Hexachlorobutadiene	1670	0.0	1320	79	31-117	2	0-32
91-57-6	LCSD 2-Methylnaphthalene	1670	0.0	1270	76	38-115	0	0-30
77-47-4	LCSD Hexachlorocyclopentadiene	1670	0.0	1410	85	22-140	6	0-30
88-06-2	LCSD 2,4,6-Trichlorophenol	1670	0.0	1440	86	40-110	2	0-30
95-95-4	LCSD 2,4,5-Trichlorophenol	1670	0.0	1590	95	43-113	0	0-30
91-58-7	LCSD 2-Chloronaphthalene	1670	0.0	1250	75	37-111	0	0-30
88-74-4	LCSD 2-Nitroaniline <i>o</i> -Nitroaniline	1670	0.0	1180	71	41-113	4	0-30
99-09-2	LCSD 3-Nitroaniline <i>m</i> -Nitroaniline	1670	0.0	1130	68	34-125	10	0-26
131-11-3	LCSD Dimethylphthalate	1670	0.0	1450	87	48-122	1	0-33
606-20-2	LCSD 2,6-Dinitrotoluene	1670	0.0	1370	82	47-107	3	0-30
208-96-8	LCSD Acenaphthylene	1670	0.0	1370	82	44-110	1	0-30
51-28-5	LCSD 2,4-Dinitrophenol	1670	0.0	1830	110	18-127	7	0-30
132-64-9	LCSD Dibenzofuran	1670	0.0	1360	82	49-115	1	0-24
84-66-2	LCSD Diethylphthalate	1670	0.0	1480	89	51-126	2	0-32

## Semi-Volatile

Page 7 of 8

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2074

Sample Type: Laboratory Control Sample Duplicate

Client ID: LCSD for batch 965289

Matrix: SOIL

Lab Sample ID: 1202071127

Instrument: MSD7.I

Analysis Date: 03/17/2010 12:24

Dilution: 1

Analyst: JMB3

Pre Batch ID: 965289

Inj. Vol: .5 uL

Batch ID: 965290

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	LCSD Fluorene	1670	0.0	1390	83	43-109	1	0-30
7005-72-3	LCSD 4-Chlorophenylphenylether	1670	0.0	1400	84	45-115	3	0-30
534-52-1	LCSD 2-Methyl-4,6-dinitrophenol	1670	0.0	1630	98	32-117	3	0-30
100-01-6	LCSD 4-Nitroaniline <i>p</i> -Nitroaniline	1670	0.0	1440	87	33-148	13	0-30
122-39-4	LCSD Diphenylamine	1670	0.0	1380	83	46-114	2	0-32
122-66-7	LCSD Azobenzene <i>1,2</i> -Diphenylhydrazine	1670	0.0	1370	82	38-123	0	0-30
101-55-3	LCSD 4-Bromophenylphenylether	1670	0.0	1420	85	40-119	3	0-30
118-74-1	LCSD Hexachlorobenzene	1670	0.0	1360	82	43-111	1	0-32
85-01-8	LCSD Phenanthrene	1670	0.0	1380	83	46-107	1	0-34
120-12-7	LCSD Anthracene	1670	0.0	1390	83	46-110	0	0-30
84-74-2	LCSD Di-n-butylphthalate	1670	0.0	1500	90	52-132	2	0-33
206-44-0	LCSD Fluoranthene	1670	0.0	1400	84	51-115	3	0-34
85-68-7	LCSD Butylbenzylphthalate	1670	0.0	1390	83	47-137	9	0-35
56-55-3	LCSD Benzo(a)anthracene	1670	0.0	1290	77	50-108	0	0-30
91-94-1	LCSD 3,3'-Dichlorobenzidine	1670	0.0	1390	83	36-103	8	0-30
218-01-9	LCSD Chrysene	1670	0.0	1390	83	48-111	1	0-33
117-81-7	LCSD bis(2-Ethylhexyl)phthalate	1670	0.0	1490	90	48-139	8	0-36
117-84-0	LCSD Di-n-octylphthalate	1670	0.0	1320	79	42-141	6	0-37
205-99-2	LCSD Benzo(b)fluoranthene	1670	0.0	1350	81	49-114	4	0-35
207-08-9	LCSD Benzo(k)fluoranthene	1670	0.0	1280	77	50-116	3	0-37
50-32-8	LCSD Benzo(a)pyrene	1670	0.0	1380	83	54-114	1	0-30
193-39-5	LCSD Indeno(1,2,3-cd)pyrene	1670	0.0	1810	109	53-120	0	0-33

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 8 of 8

SDG Number: 10-2074

Sample Type: Laboratory Control Sample Duplicate

Client ID: LCSD for batch 965289

Matrix: SOIL

Lab Sample ID:1202071127

Instrument: MSD7.1

Analysis Date: 03/17/2010 12:24

Dilution: 1

Analyst: JMB3

Prep Batch ID: 965289

Inj. Vol: .5 uL

Batch ID: 965290

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	LCSD Dibenzo(a,h)anthracene	1670	0.0	1830	110	53-121	2	0-33
191-24-2	LCSD Benzo(ghi)perylene	1670	0.0	1750	105	50-121	0	0-34
120-82-1	LCSD 1,2,4-Trichlorobenzene	1670	0.0	1240	75	32-114	1	0-30

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2074	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 959622	Instrument ID:	MSD7.1	Data File:	s7c1104.d
Lab Sample ID:	1202058129	Prep Date:	03/02/2010 11:17	Analyzed:	03/11/10 13:56
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 959622	1202058130	s7c1105.d	03/11/10	1417
02 RE36-10-7414	248043001	s7c1106.d	03/11/10	1439
03 RE36-10-7414MS	1202058131	s7c1107.d	03/11/10	1500
04 RE36-10-7414MSD	1202058132	s7c1108.d	03/11/10	1521
05 RE36-10-7473	248043005	s7c1109.d	03/11/10	1543
06 RE36-10-7472	248043007	s7c1110.d	03/11/10	1604
07 RE36-10-7476	248043013	s7c1111.d	03/11/10	1626
08 RE36-10-7468	248043008	s7c1112.d	03/11/10	1647
09 RE36-10-7464	248043009	s7c1113.d	03/11/10	1709
10 RE36-10-7475	248043011	s7c1114.d	03/11/10	1730
11 RE36-10-7469	248043016	s7c1116.d	03/11/10	1813
12 RE36-10-7470	248043017	s7c1117.d	03/11/10	1835
13 RE36-10-7515	248043018	s7c1118.d	03/11/10	1857
14 RE36-10-7462	248043003	s7c1119.d	03/11/10	1918
15 RE36-10-7471	248043006	s7c1120.d	03/11/10	1940
16 RE36-10-7463	248043010	s7c1121.d	03/11/10	2001
17 RE36-10-7461	248043014	s7c1125.d	03/11/10	2128
18 RE36-10-7413DL	248043002	s7c1225.d	03/12/10	2112
19 RE36-10-7465DL	248043004	s7c1226.d	03/12/10	2134
20 RE36-10-7475DL	248043011	s7c1227.d	03/12/10	2155
21 RE36-10-7467	248043015	s7c1228.d	03/12/10	2217
22 RE36-10-7466	248043012	s7c1229.d	03/12/10	2239
23 RE36-10-7413	248043002	s7c1230.d	03/12/10	2301
24 RE36-10-7465	248043004	s7c1232.d	03/12/10	2344

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2074	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965289	Instrument ID:	MSD7.I	Data File:	s7c1706.d
Lab Sample ID:	1202071125	Prep Date:	03/16/2010 21:34	Analyzed:	03/17/10 11:41
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 965289	1202071126	s7c1707.d	03/17/10	1202
02 LCSD for batch 965289	1202071127	s7c1708.d	03/17/10	1224
03 RE36-10-7413REDL	248043002	s7c1725.d	03/17/10	1828
04 RE36-10-7465REDL	248043004	s7c1726.d	03/17/10	1850
05 RE36-10-7413RE	248043002	s7c1727.d	03/17/10	1912
06 RE36-10-7465RE	248043004	s7c1729.d	03/17/10	1955

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2074

Instrument ID: MSD7.I

Injection Date/Time: 11-MAR-10 12:39

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD7.i/s031110.b/s7c1101.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	55.7
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	49
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	53.4
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	23
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	77.6
442	Greater than 40% of mass 198	64.8
443	17 - 23% of mass 442	19.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD, BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-05.2	s7c1102.d	11-MAR-10 12:51
APCVS	WBN100218-08.2	s7c1103.d	11-MAR-10 13:16
SBLK01	1202058129	s7c1104.d	11-MAR-10 13:56
SBLK01LCS	1202058130	s7c1105.d	11-MAR-10 14:17
RE36-10-7414	248043001	s7c1106.d	11-MAR-10 14:39
RE36-10-7414MS	1202058131	s7c1107.d	11-MAR-10 15:00
RE36-10-7414MSD	1202058132	s7c1108.d	11-MAR-10 15:21
RE36-10-7473	248043005	s7c1109.d	11-MAR-10 15:43
RE36-10-7472	248043007	s7c1110.d	11-MAR-10 16:04
RE36-10-7476	248043013	s7c1111.d	11-MAR-10 16:26
RE36-10-7468	248043008	s7c1112.d	11-MAR-10 16:47
RE36-10-7464	248043009	s7c1113.d	11-MAR-10 17:09
RE36-10-7475	248043011	s7c1114.d	11-MAR-10 17:30
RE36-10-7469	248043016	s7c1116.d	11-MAR-10 18:13
RE36-10-7470	248043017	s7c1117.d	11-MAR-10 18:35
RE36-10-7515	248043018	s7c1118.d	11-MAR-10 18:57



## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2074

Instrument ID: MSD7.I

Injection Date/Time: 11-MAR-10 12:39

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD7.i/s031110.b/s7c1101.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	55.7
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	49
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	53.4
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	23
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	77.6
442	Greater than 40% of mass 198	64.8
443	17 - 23% of mass 442	19.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
RE36-10-7462	248043003	s7c1119.d	11-MAR-10 19:18
RE36-10-7471	248043006	s7c1120.d	11-MAR-10 19:40
RE36-10-7463	248043010	s7c1121.d	11-MAR-10 20:01
RE36-10-7461	248043014	s7c1125.d	11-MAR-10 21:28

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2074

Instrument ID: MSD7.I

Injection Date/Time: 12-MAR-10 14:06

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD7.i/s031210.b/s7c1205.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	56.1
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	48.5
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	53.2
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	22.5
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	77.5
442	Greater than 40% of mass 198	61.2
443	17 - 23% of mass 442	19.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-05.2	s7c1206.d	12-MAR-10 14:19
APCVS	WBN100218-08.2	s7c1207.d	12-MAR-10 14:43
RE36-10-7413DL	248043002	s7c1225.d	12-MAR-10 21:12
RE36-10-7465DL	248043004	s7c1226.d	12-MAR-10 21:34
RE36-10-7475DL	248043011	s7c1227.d	12-MAR-10 21:55
RE36-10-7467	248043015	s7c1228.d	12-MAR-10 22:17
RE36-10-7466	248043012	s7c1229.d	12-MAR-10 22:39
RE36-10-7413	248043002	s7c1230.d	12-MAR-10 23:01
RE36-10-7465	248043004	s7c1232.d	12-MAR-10 23:44

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2074

Instrument ID: MSD7.1

Injection Date/Time: 17-MAR-10 10:00

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD7.i/s031710.b/s7c1701.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	55.3
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	48.3
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	53.3
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.1
365	Greater than 1% of mass 198	2.5
441	Present, but less than mass 443	78.5
442	Greater than 40% of mass 198	62.4
443	17 - 23% of mass 442	19.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD, BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-05.2	s7c1702.d	17-MAR-10 10:13
APCVS	WBN100312-03.2	s7c1703.d	17-MAR-10 10:37
SBLK02	1202071125	s7c1706.d	17-MAR-10 11:41
SBLK02LCS	1202071126	s7c1707.d	17-MAR-10 12:02
SBLK02LCSD	1202071127	s7c1708.d	17-MAR-10 12:24
RE36-10-7413REDL	248043002	s7c1725.d	17-MAR-10 18:28
RE36-10-7465REDL	248043004	s7c1726.d	17-MAR-10 18:50
RE36-10-7413RE	248043002	s7c1727.d	17-MAR-10 19:12
RE36-10-7465RE	248043004	s7c1729.d	17-MAR-10 19:55

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2074

Instrument ID: MSD7.I

Injection Date/Time: 26-FEB-10 10:23

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD7.i/s022610.b/s7b2601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	59.4
68	Less than 2% of mass 69	0.6
69	Mass 69 Relative Abundance	48.9
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	54.1
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.2
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	79.7
442	Greater than 40% of mass 198	71.6
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD, BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100225-08	s7b2603.d	26-FEB-10 11:07
MEGA040	WBN100225-05.1	s7b2606.d	26-FEB-10 12:19
MEGA050	WBN100225-04	s7b2607.d	26-FEB-10 12:43
MEGA080	WBN100225-03	s7b2608.d	26-FEB-10 13:07
MEGA100	WBN100225-02	s7b2609.d	26-FEB-10 13:32
MEGA120	WBN100225-01	s7b2610.d	26-FEB-10 13:56
MEGA010	WBN100225-07	s7b2612.d	26-FEB-10 14:44
MEGA020	WBN100225-06	s7b2613.d	26-FEB-10 15:08
MEGAICV	WBN100225-09.1	s7b2614.d	26-FEB-10 15:33

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2074

Instrument ID: MSD7.I

Injection Date/Time: 26-FEB-10 16:00

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD7.i/s022610.b/s7b2615.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	59
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	49.2
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	55.5
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	78.7
442	Greater than 40% of mass 198	68.1
443	17 - 23% of mass 442	19.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD, BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN100218-01	s7b2617.d	26-FEB-10 16:34
AP020	WBN100218-02	s7b2618.d	26-FEB-10 16:56
AP040	WBN100218-03.1	s7b2619.d	26-FEB-10 17:17
AP050	WBN100218-04	s7b2620.d	26-FEB-10 17:39
AP080	WBN100218-05	s7b2621.d	26-FEB-10 18:00
AP100	WBN100218-06	s7b2622.d	26-FEB-10 18:22
AP120	WBN100218-07	s7b2623.d	26-FEB-10 18:43
APICV	WBN100218-08.1	s7b2638.d	27-FEB-10 00:07

### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2074

Instrument: MSD7.1

STD Analysis Time: 11-MAR-10 12:51

GC Column: J&amp;W DB-5MS

Data File: s7c1102.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12							
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#			
12 Hour STD	413051		3.99		1673712		4.86		875652		6.11		1577491		7.28		1230121		9.69		963725		11.4
Upper Limit	826102		4.49		3347424		5.36		1751304		6.61		3154982		7.78		2460242		10.2		1927450		11.9
Lower Limit	206526		3.49		836856		4.36		437826		5.61		788746		6.78		615061		9.19		481863		10.9
Sample ID																							
BLK01	387395		3.99		1480154		4.86		819738		6.11		1412238		7.28		942845		9.69		632256		11.4
BLK01LCS	345433		3.99		1390294		4.85		743711		6.11		1370988		7.28		1099776		9.69		854020		11.4
RE36-10-7414	392352		3.99		1472442		4.85		823589		6.11		1390543		7.28		877873		9.68		568708		11.4
RE36-10-7414MS	378493		3.99		1442219		4.86		782579		6.11		1457322		7.28		1263223		9.68		1090461		11.4
RE36-10-7414MSD	403199		3.99		1530224		4.85		833584		6.11		1504015		7.28		1142837		9.68		826530		11.4
RE36-10-7473	441911		3.99		1657425		4.85		902547		6.11		1591561		7.28		1053938		9.68		626447		11.4
RE36-10-7472	433158		3.99		1642891		4.85		915947		6.11		1613710		7.28		1159786		9.68		800743		11.4
RE36-10-7476	391174		3.99		1491067		4.85		832389		6.11		1480905		7.28		1134324		9.68		789377		11.4
RE36-10-7468	420336		3.99		1592594		4.85		863581		6.11		1552702		7.28		1319874		9.68		1039305		11.4
RE36-10-7464	344758		3.99		1325476		4.85		743878		6.11		1323197		7.28		991738		9.68		714854		11.4
RE36-10-7475	374765		3.99		1439605		4.85		805100		6.11		1459695		7.28		1261481		9.69		993525		11.4
RE36-10-7469	364147		3.99		1399862		4.86		784259		6.11		1375721		7.28		997354		9.69		610698		11.4
RE36-10-7470	387010		3.99		1467549		4.86		821399		6.11		1440281		7.28		1089337		9.7		806553		11.4
RE36-10-7515	379916		3.99		1422618		4.86		792980		6.11		1364554		7.28		924364		9.69		563807		11.4
RE36-10-7462	387072		3.99		1476262		4.86		845965		6.11		1520430		7.28		1170917		9.69		803605		11.4
RE36-10-7471	374640		3.99		1444114		4.86		815683		6.11		1449254		7.29		983989		9.7		587321		11.4
RE36-10-7463	360703		3.99		1387780		4.86		796548		6.11		1445259		7.28		988949		9.69		529698		11.4
RE36-10-7461	377025		3.99		1437404		4.86		799731		6.11		1415646		7.29		860803		9.69		516610		11.4

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Value outside of QC Limits

### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2074

Instrument: MSD7.I

STD Analysis Time: 12-MAR-10 14:19

GC Column: J&amp;W DB-5MS

Data File: s7c1206.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12							
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#			
12 Hour STD	411905		3.88		1624377		4.75		868207		6		1600732		7.16		1168014		9.55		806637		11.2
Upper Limit	823810		4.38		3248754		5.25		1736414		6.5		3201464		7.66		2336028		10.1		1613274		11.7
Lower Limit	205953		3.38		812189		4.25		434104		5.5		800366		6.66		584007		9.05		403319		10.7
Sample ID																							
RE36-10-7413DL	453662		3.88		1700649		4.75		936946		5.99		1675668		7.15		1271631		9.55		769224		11.2
RE36-10-7465DL	438645		3.88		1643301		4.75		926886		5.99		1666448		7.15		1224077		9.54		825106		11.2
RE36-10-7475DL	416043		3.88		1546997		4.75		881155		5.99		1574522		7.15		1111662		9.54		751438		11.2
RE36-10-7467	416906		3.88		1611480		4.74		919140		5.99		1627126		7.15		1023971		9.54		609911		11.2
RE36-10-7466	417536		3.88		1582196		4.74		893398		5.99		1564152		7.15		953053		9.54		574399		11.2
RE36-10-7413	436933		3.88		1660025		4.75		949592		5.99		1639375		7.16		1011633		9.56		497335		11.2
RE36-10-7465	325911		3.88		1249316		4.75		729037		5.99		1312430		7.15		872939		9.55		429332		11.2

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Value outside of QC Limits

### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2074

Instrument: MSD7.1

STD Analysis Time: 17-MAR-10 10:13

GC Column: J&amp;W DB-5MS

Data File: s7c1702.d

	1,4-Dichlorobenzene-d4				Naphthalene-d8				Acenaphthene-d10				Phenanthrene-d10				Chrysene-d12				Perylene-d12			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	287888		3.8		1131487		4.66		603090		5.91		1094485		7.07		918635		9.46		715600			11.0
Upper Limit	575776		4.3		2262974		5.16		1206180		6.41		2188970		7.57		1837270		9.96		1431200			11.5
Lower Limit	143944		3.3		565744		4.16		301545		5.41		547243		6.57		459318		8.96		357800			10.5
Sample ID																								
BLK02	295371		3.8		1094749		4.66		628213		5.91		1104366		7.06		920415		9.44		708155			11.0
BLK02LCS	302419		3.8		1227174		4.66		625321		5.91		1188131		7.06		1060536		9.45		858190			11.0
BLK02LCS.D	339081		3.8		1380968		4.66		713588		5.91		1312947		7.06		1049359		9.45		832012			11.0
RE36-10-7413REDL	351674		3.8		1250053		4.66		698717		5.91		1262581		7.06		1094321		9.45		833451			11.0
RE36-10-7465REDL	351684		3.8		1286995		4.66		695303		5.91		1248504		7.06		998077		9.45		659834			11.0
RE36-10-7413RE	361256		3.8		1321632		4.66		718546		5.91		1281493		7.07		1042898		9.47		654108			11.0
RE36-10-7465RE	384238		3.8		1431023		4.66		759241		5.91		1291026		7.07		817310		9.47		348933			11.0

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Value outside of QC Limits



# Sample Data

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043002	Date Received: 02/25/2010 08:45	%Moisture: 20.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7413	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/12/2010 23:01	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.07 g	Final Volume: 1 mL
Data File: s7c1230.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	421	ug/kg	84.1	421
108-95-2	Phenol	U	421	ug/kg	84.1	421
95-57-8	2-Chlorophenol	U	421	ug/kg	84.1	421
106-46-7	1,4-Dichlorobenzene	U	421	ug/kg	84.1	421
621-64-7	N-Nitrosodipropylamine	U	421	ug/kg	84.1	421
59-50-7	4-Chloro-3-methylphenol	U	421	ug/kg	84.1	421
83-32-9	Acenaphthene		765	ug/kg	13.9	42.1
121-14-2	2,4-Dinitrotoluene	U	421	ug/kg	42.1	421
100-02-7	4-Nitrophenol	U	421	ug/kg	139	421
87-86-5	Pentachlorophenol	U	421	ug/kg	105	421
110-86-1	Pyridine	U	421	ug/kg	84.1	421
62-53-3	Aniline	U	421	ug/kg	126	421
111-44-4	bis(2-Chloroethyl) ether	U	421	ug/kg	84.1	421
541-73-1	1,3-Dichlorobenzene	U	421	ug/kg	84.1	421
100-51-6	Benzyl alcohol	U	421	ug/kg	126	421
95-50-1	1,2-Dichlorobenzene	U	421	ug/kg	84.1	421
108-60-1	bis(2-Chloroisopropyl)ether	U	421	ug/kg	84.1	421
95-48-7	o-Cresol	U	421	ug/kg	84.1	421
65794-96-9	m,p-Cresols	U	421	ug/kg	126	421
67-72-1	Hexachloroethane	U	421	ug/kg	84.1	421
98-95-3	Nitrobenzene	U	421	ug/kg	84.1	421
78-59-1	Isophorone	U	421	ug/kg	84.1	421
88-75-5	2-Nitrophenol	U	421	ug/kg	84.1	421
105-67-9	2,4-Dimethylphenol	U	421	ug/kg	147	421
111-91-1	bis(2-Chloroethoxy)methane	U	421	ug/kg	84.1	421
120-83-2	2,4-Dichlorophenol	U	421	ug/kg	84.1	421
65-85-0	Benzoic acid	U	841	ug/kg	210	841
91-20-3	Naphthalene		260	ug/kg	12.6	42.1
106-47-8	4-Chloroaniline	U	421	ug/kg	84.1	421
87-68-3	Hexachlorobutadiene	U	421	ug/kg	84.1	421
91-57-6	2-Methylnaphthalene		158	ug/kg	8.41	42.1
77-47-4	Hexachlorocyclopentadiene	U	421	ug/kg	84.1	421
88-06-2	2,4,6-Trichlorophenol	U	421	ug/kg	84.1	421
95-95-4	2,4,5-Trichlorophenol	U	421	ug/kg	84.1	421
91-58-7	2-Chloronaphthalene	U	42.1	ug/kg	13.9	42.1
88-74-4	2-Nitroaniline	U	421	ug/kg	84.1	421
99-09-2	<i>o</i> -Nitroaniline	U	421	ug/kg	84.1	421
	<i>m</i> -Nitroaniline					

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043002

Client ID: RE36-10-7413  
Batch ID: 959623  
Run Date: 03/12/2010 23:01  
Prep Date: 03/02/2010 11:17  
Data File: s7c1230.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.07 g  
Column: J&W DB-5MS

Matrix: R  
% Moisture: 20.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	Dimethylphthalate	U	421	ug/kg	84.1	421
606-20-2	2,6-Dinitrotoluene	U	421	ug/kg	42.1	421
208-96-8	Acenaphthylene	J	20.2	ug/kg	12.6	42.1
51-28-5	2,4-Dinitrophenol	U	841	ug/kg	160	841
132-64-9	Dibenzofuran		481	ug/kg	84.1	421
84-66-2	Diethylphthalate	U	421	ug/kg	84.1	421
86-73-7	Fluorene		764	ug/kg	12.6	42.1
7005-72-3	4-Chlorophenylphenylether	U	421	ug/kg	84.1	421
534-52-1	2-Methyl-4,6-dinitrophenol	U	421	ug/kg	84.1	421
100-01-6	4-Nitroaniline	U	421	ug/kg	126	421
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	421	ug/kg	84.1	421
122-66-7	Azobenzene	U	421	ug/kg	84.1	421
	<i>1,2-Diphenylhydrazine</i>					
101-55-3	4-Bromophenylphenylether	U	421	ug/kg	84.1	421
118-74-1	Hexachlorobenzene	U	421	ug/kg	84.1	421
120-12-7	Anthracene		1490	ug/kg	8.41	42.1
84-74-2	Di-n-butylphthalate	J	185	ug/kg	84.1	421
85-68-7	Butylbenzylphthalate	U	421	ug/kg	84.1	421
56-55-3	Benzo(a)anthracene		4030	ug/kg	12.6	42.1
91-94-1	3,3'-Dichlorobenzidine	U	421	ug/kg	126	421
218-01-9	Chrysene		4240	ug/kg	12.6	42.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	421	ug/kg	84.1	421
117-84-0	Di-n-octylphthalate	U	421	ug/kg	84.1	421
207-08-9	Benzo(k)fluoranthene	U	42.1	ug/kg	12.6	42.1
50-32-8	Benzo(a)pyrene		3700	ug/kg	12.6	42.1
193-39-5	Indeno(1,2,3-cd)pyrene		1850	ug/kg	12.6	42.1
53-70-3	Dibenzo(a,h)anthracene		669	ug/kg	12.6	42.1
191-24-2	Benzo(ghi)perylene		1790	ug/kg	12.6	42.1
120-82-1	1,2,4-Trichlorobenzene	U	421	ug/kg	84.1	421

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
86-74-8	Carbazole	7.33	181	ug/kg	95	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.6	177	ug/kg	98	NJ
	Unknown	7.68	288	ug/kg		J
84-65-1	9,10-Anthracenedione	7.86	175	ug/kg	99	NJ
	Unknown	8.61	222	ug/kg		J
2381-21-7	Pyrene, 1-methyl-	8.72	389	ug/kg	97	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043002

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.07 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7413  
Batch ID: 959623  
Run Date: 03/12/2010 23:01  
Prep Date: 03/02/2010 11:17  
Data File: s7c1230.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
Tentatively Identified Compound Summary							
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit	Qual
	Unknown		8.82	213	ug/kg		J
479-79-8	11H-Benzo[a]fluoren-11-one		9.2	225	ug/kg	97	NJ
82-05-3	7H-Benz[de]anthracen-7-one		9.3	221	ug/kg	94	NJ
	Unknown		9.4	252	ug/kg		J
192-97-2	Benzo[e]pyrene		11.02	2530	ug/kg	99	NJ
198-55-0	Perylene		11.19	960	ug/kg	99	NJ

Data File: /chem/MSD7.i/s031210.b/s7c1230.d  
Report Date: 13-Mar-2010 10:01

Page 1

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031210.b/s7c1230.d  
Lab Smp Id: 248043002 Client Smp ID: RE36-10-7413  
Inj Date : 12-MAR-2010 23:01  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043002|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 15:38 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 26  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	20.93190	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT		ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.879	3.884	(1.000)	436933	40.0000	
* 29 Naphthalene-d8	136	4.746	4.751	(1.000)	1660025	40.0000	
* 46 Acenaphthene-d10	164	5.993	5.998	(1.000)	949592	40.0000	
* 67 Phenanthrene-d10	188	7.159	7.159	(1.000)	1639375	40.0000	
* 91 Chrysene-d12	240	9.557	9.552	(1.000)	1011633	40.0000	
* 98 Perylene-d12	264	11.160	11.160	(1.000)	497335	40.0000	
\$ 3 2-Fluorophenol	112	3.085	3.080	(0.795)	325710	28.6795	1210
\$ 5 Phenol-d5	99	3.600	3.610	(0.928)	421909	29.6303	1250(R)
\$ 20 Nitrobenzene-d5	82	4.240	4.250	(0.893)	186356	14.8842	626(R)
\$ 39 2-Fluorobiphenyl	172	5.483	5.488	(0.915)	396051	16.7354	704
\$ 60 2,4,6-Tribromophenol	329	6.586	6.590	(1.099)	96957	35.3194	1480(R)
\$ 81 p-Terphenyl-d14	244	8.526	8.526	(0.892)	368583	20.3372	855

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
=====	=====	=====	=====	=====	=====	=====	(ng/ul)	(ug/Kg)
47 Acenaphthene		154	6.017	6.022	(1.004)	380306	18.1958	765
79 Pyrene		202	8.439	8.425	(0.883)	6004506	187.880	7900 (A)
30 Naphthalene		128	4.761	4.765	(1.003)	193839	6.18145	260
34 2-Methylnaphthalene		142	5.237	5.242	(1.103)	84626	3.76023	158
45 Acenaphthylene		152	5.892	5.897	(0.983)	16882	0.48050	20.2 (a)
49 Dibenzofuran		168	6.138	6.147	(1.024)	335885	11.4344	481
53 Fluorene		166	6.398	6.403	(1.067)	447822	18.1691	764
68 Phenanthrene		178	7.187	7.178	(1.004)	6383622	189.758	7980 (A)
69 Anthracene		178	7.221	7.221	(1.009)	1206262	35.4047	1490
72 Di-n-butylphthalate		149	7.573	7.578	(1.058)	188395	4.39541	185 (a)
76 Fluoranthene		202	8.228	8.208	(1.149)	7129240	194.907	8200 (A)
89 Benzo(a)anthracene		228	9.542	9.537	(0.998)	2325426	95.8869	4030
92 Chrysene		228	9.581	9.576	(1.003)	2175669	100.817	4240
95 Benzo(b)fluoranthene		252	10.679	10.664	(0.957)	2305235	165.281	6950 (A)
97 Benzo(a)pyrene		252	11.093	11.083	(0.994)	1007395	88.0875	3700
99 Indeno(1,2,3-cd)pyrene		276	12.836	12.841	(1.150)	361164	43.9171	1850
100 Dibenzo(a,h)anthracene		278	12.841	12.850	(1.151)	103696	15.9113	669
101 Benzo(ghi)perylene		276	13.346	13.351	(1.196)	292385	42.6320	1790

#### QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.

## ION RATIO REPORT

## SV REPORT

Data file: s7c1230.d

Report Date: 03/13/2010 09:26

Lab. ID: 248043002

SampleType: SAMPLE

Injection Date: 12-MAR-2010 23:01

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043002|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	24743	3.60	3.67	80-120	100	(T)
93	2279	3.56	3.67	229-289	9	(QT)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	29185	4.24	4.13	80-120	100	(T)
42	22354	4.24	4.13	63-123	77	(T)
-----						
30	Naphthalene	CAS#: 91-20-3				
128	193839	4.76	4.77	80-120	100	( )
129	20967	4.76	4.77	0- 43	11	( )
127	24244	4.76	4.77	0- 44	13	( )
-----						
34	2-Methylnaphthalene	CAS#: 91-57-6				
142	84626	5.24	5.24	80-120	100	( )
141	71921	5.24	5.24	54-114	85	( )
-----						
43	Dimethylphthalate	CAS#: 131-11-3				
163	169461	5.99	5.76	80-120	100	(T)
164	951718	5.99	5.76	0- 40	562	(QT)
-----						
44	2,6-Dinitrotoluene	CAS#: 606-20-2				
165	128336	5.99	5.82	80-120	100	(T)
63	40861	6.02	5.82	56-116	32	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
45 Acenaphthylene			CAS#:	208-96-8		
152	16882	5.89	5.90	80-120	100	( )
151	4567	5.89	5.90	0- 49	27	( )
153	5456	5.82	5.90	0- 43	32	(T)
<hr/>						
47 Acenaphthene			CAS#:	83-32-9		
154	380306	6.02	6.02	80-120	100	( )
153	439788	6.02	6.02	73-133	116	( )
152	189258	6.02	6.02	18- 78	50	( )
<hr/>						
49 Dibenzofuran			CAS#:	132-64-9		
168	335885	6.14	6.15	80-120	100	( )
139	131552	6.14	6.15	8- 68	39	( )
<hr/>						
50 2,4-Dinitrotoluene			CAS#:	121-14-2		
165	128336	5.99	6.11	80-120	100	(T)
89	1750	5.99	6.11	39- 99	1	(QT)
63	40861	6.02	6.11	18- 78	32	(T)
<hr/>						
52 4-Nitrophenol			CAS#:	100-02-7		
139	131552	6.14	6.05	80-120	100	(T)
109	1142	6.14	6.05	38- 98	1	(QT)
65	2625	6.14	6.05	69-129	2	(QT)
<hr/>						
53 Fluorene			CAS#:	86-73-7		
166	447822	6.40	6.40	80-120	100	( )
165	405068	6.40	6.40	62-122	90	( )
167	69409	6.40	6.40	0- 44	15	( )
<hr/>						
55 2-Methyl-4,6-dinitrophenol			CAS#:	534-52-1		
198	436	6.59	6.42	80-120	100	(T)
105	1576	6.58	6.42	11- 71	361	(QT)
51	10246	6.58	6.42	34- 94	2345	(QT)
<hr/>						
68 Phenanthrene			CAS#:	85-01-8		
178	6383622	7.19	7.18	80-120	100	( )
179	1100508	7.19	7.18	0- 46	17	( )
176	1201633	7.19	7.18	0- 48	19	( )
<hr/>						
69 Anthracene			CAS#:	120-12-7		
178	1206262	7.22	7.22	80-120	100	( )
179	274412	7.22	7.22	0- 46	23	( )
176	207753	7.22	7.22	0- 48	17	( )
<hr/>						
72 Di-n-butylphthalate			CAS#:	84-74-2		
149	188395	7.57	7.58	80-120	100	( )
150	28978	7.57	7.58	0- 39	15	( )
104	11361	7.57	7.58	0- 35	6	( )
<hr/>						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
76 Fluoranthene		CAS#: 206-44-0				
202	7129240	8.23	8.21	80-120	100	( )
203	1292168	8.23	8.21	0- 48	18	( )
101	991996	8.23	8.21	0- 41	14	( )
<hr/>						
79 Pyrene		CAS#: 129-00-0				
202	6004506	8.44	8.43	80-120	100	( )
200	1237181	8.44	8.43	0- 50	21	( )
101	992169	8.44	8.43	0- 43	17	( )
<hr/>						
89 Benzo(a)anthracene		CAS#: 56-55-3				
228	2325426	9.54	9.54	80-120	100	( )
226	616838	9.54	9.54	0- 56	27	( )
229	649560	9.54	9.54	0- 50	28	( )
<hr/>						
92 Chrysene		CAS#: 218-01-9				
228	2175669	9.58	9.58	80-120	100	( )
229	522403	9.58	9.58	0- 50	24	( )
226	625310	9.58	9.58	0- 58	29	( )
<hr/>						
95 Benzo(b)fluoranthene		CAS#: 205-99-2				
252	2305235	10.68	10.66	80-120	100	( )
253	542839	10.68	10.66	0- 52	24	( )
125	270942	10.68	10.66	0- 41	12	( )
<hr/>						
96 Benzo(k)fluoranthene		CAS#: 207-08-9				
252	2305415	10.68	10.70	80-120	100	( )
253	542884	10.68	10.70	0- 52	24	( )
125	270942	10.68	10.70	0- 41	12	( )
<hr/>						
97 Benzo(a)pyrene		CAS#: 50-32-8				
252	1007395	11.09	11.08	80-120	100	( )
253	237286	11.09	11.08	0- 52	24	( )
125	116502	11.09	11.08	0- 42	12	( )
<hr/>						
99 Indeno(1,2,3-cd)pyrene		CAS#: 193-39-5				
276	361164	12.84	12.84	80-120	100	( )
138	92787	12.83	12.84	2- 62	26	( )
<hr/>						
100 Dibenzo(a,h)anthracene		CAS#: 53-70-3				
278	103696	12.84	12.85	80-120	100	( )
139	8597	12.85	12.85	0- 50	8	( )
<hr/>						
101 Benzo(ghi)perylene		CAS#: 191-24-2				
276	292385	13.35	13.35	80-120	100	( )
138	77306	13.35	13.35	0- 57	26	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031210.b/s7c1230.d  
 Lab Smp Id: 248043002 Client Smp ID: RE36-10-7413  
 Inj Date : 12-MAR-2010 23:01  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043002|959623|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 12-Mar-2010 15:38 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 26  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	20.93190	% moisture

Cpnd Variable Local Compound Variable

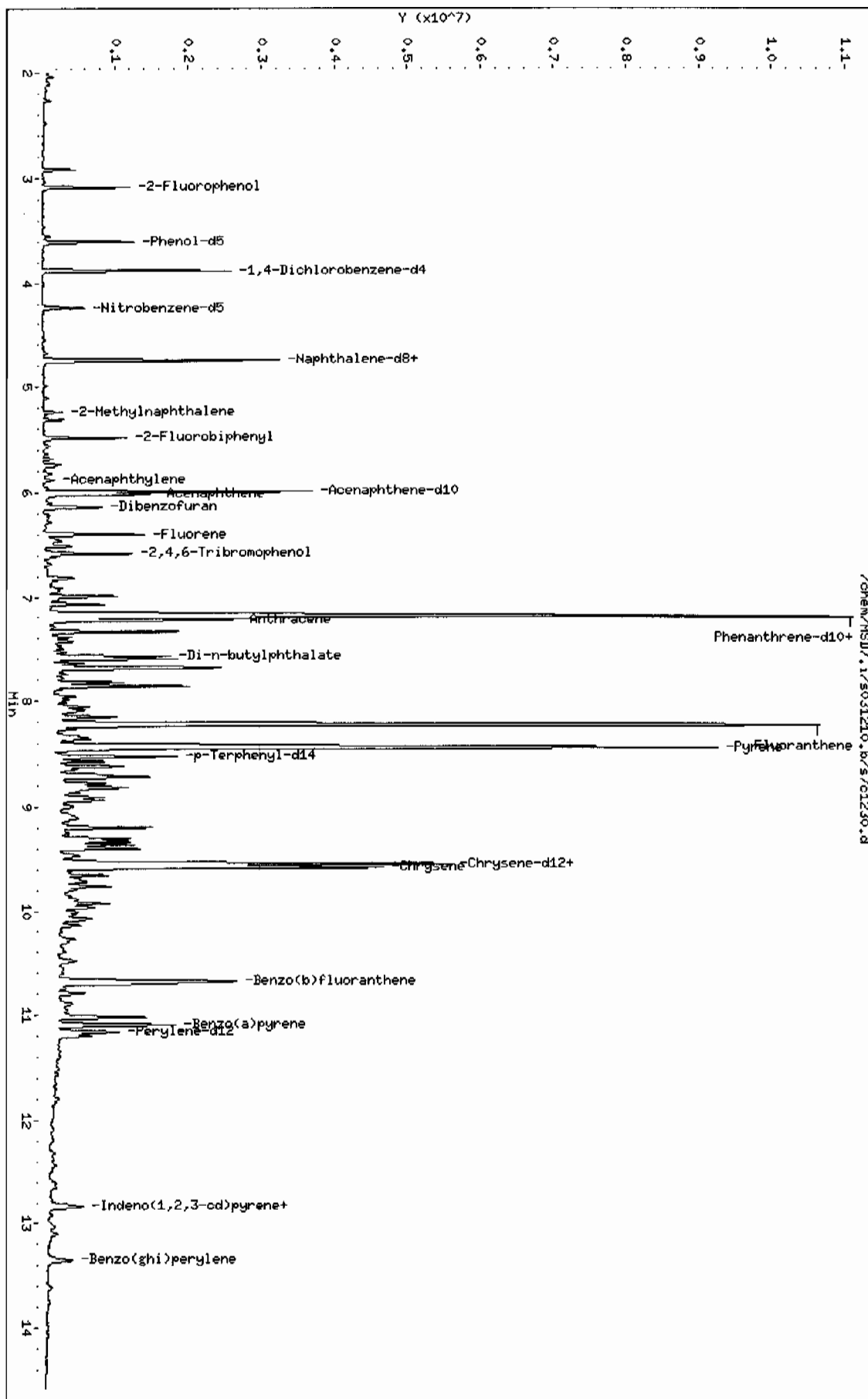
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 67 Phenanthrene-d10	7.159	19579499	40.000
* 91 Chrysene-d12	9.557	10146728	40.000
* 98 Perylene-d12	11.160	1367987	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

CONCENTRATIONS					QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #	
7.332	2110560	4.31177457	181	95	NIST05.L	34221	67	
Carbazole					CAS #: 86-74-8			
7.597	2055497	4.19928393	177	98	NIST05.L	51412	67	
Phenanthrene, 2-methyl-					CAS #: 2531-84-2			
7.679	3350139	6.84417683	288	0		0	67	
Unknown					CAS #:			
7.857	2033780	4.15491783	175	99	NIST05.L	62993	67	
9,10-Anthracenedione					CAS #: 84-65-1			
8.613	1336774	5.26977251	222	0		0	91	
Unknown					CAS #:			
8.719	2347061	9.25248508	389	97	NIST05.L	68688	91	
Pyrene, 1-methyl-					CAS #: 2381-21-7			
8.815	1282452	5.05562781	213	0		0	91	
Unknown					CAS #:			
9.195	1356480	5.34745614	225	97	NIST05.L	78768	91	
11H-Benzo[a]fluoren-11-one					CAS #: 479-79-8			
9.301	1331783	5.25009603	221	94	NIST05.L	78772	91	
7H-Benz[de]anthracen-7-one					CAS #: 82-05-3			
9.398	1517930	5.98391755	252	0		0	91	
Unknown					CAS #:			
11.020	2054645	60.0778922	2530	99	NIST05.L	93577	98	
Benzo[e]pyrene					CAS #: 192-97-2			
11.194	780702	22.8277441	960	99	NIST05.L	93575	98	
Perylene					CAS #: 198-55-0			

Data File: /chem/HSD7.i/s031210.b/s701230.d  
 Date : 12-MAR-2010 23:04  
 Client ID: RE36-10-7413  
 Sample Info: 1248043002195962311SVH11L1ANL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: HSD7.i  
 Operator: JHB3  
 Column diameter: 0.20



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: I248043002195962311SVMI1ILANL

Volume Injected (uL): 0.5

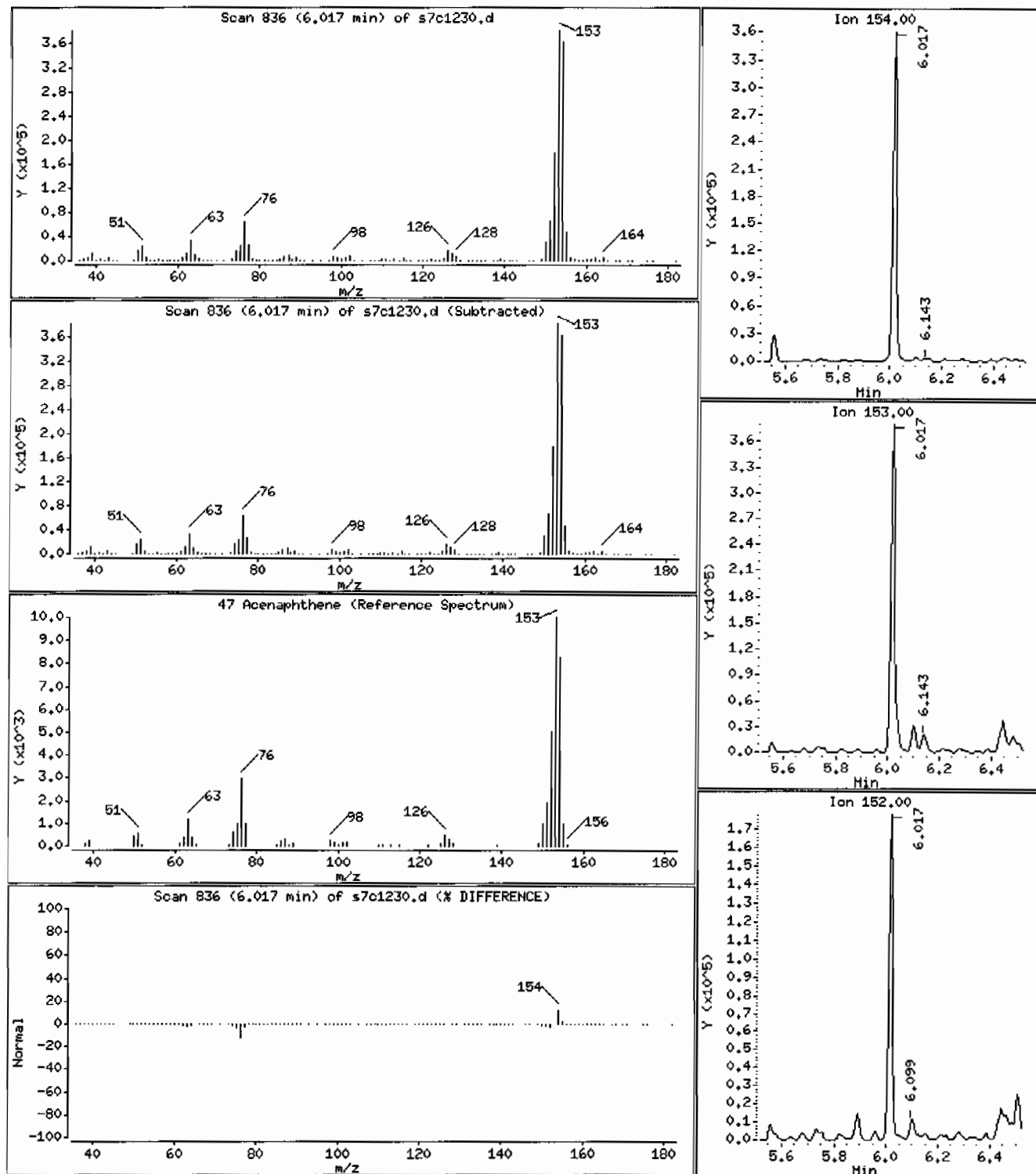
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 765 ug/Kg



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: HSD7.i

Sample Info: 12480430021959623111SVH111LANL

Volume Injected (uL): 0.5

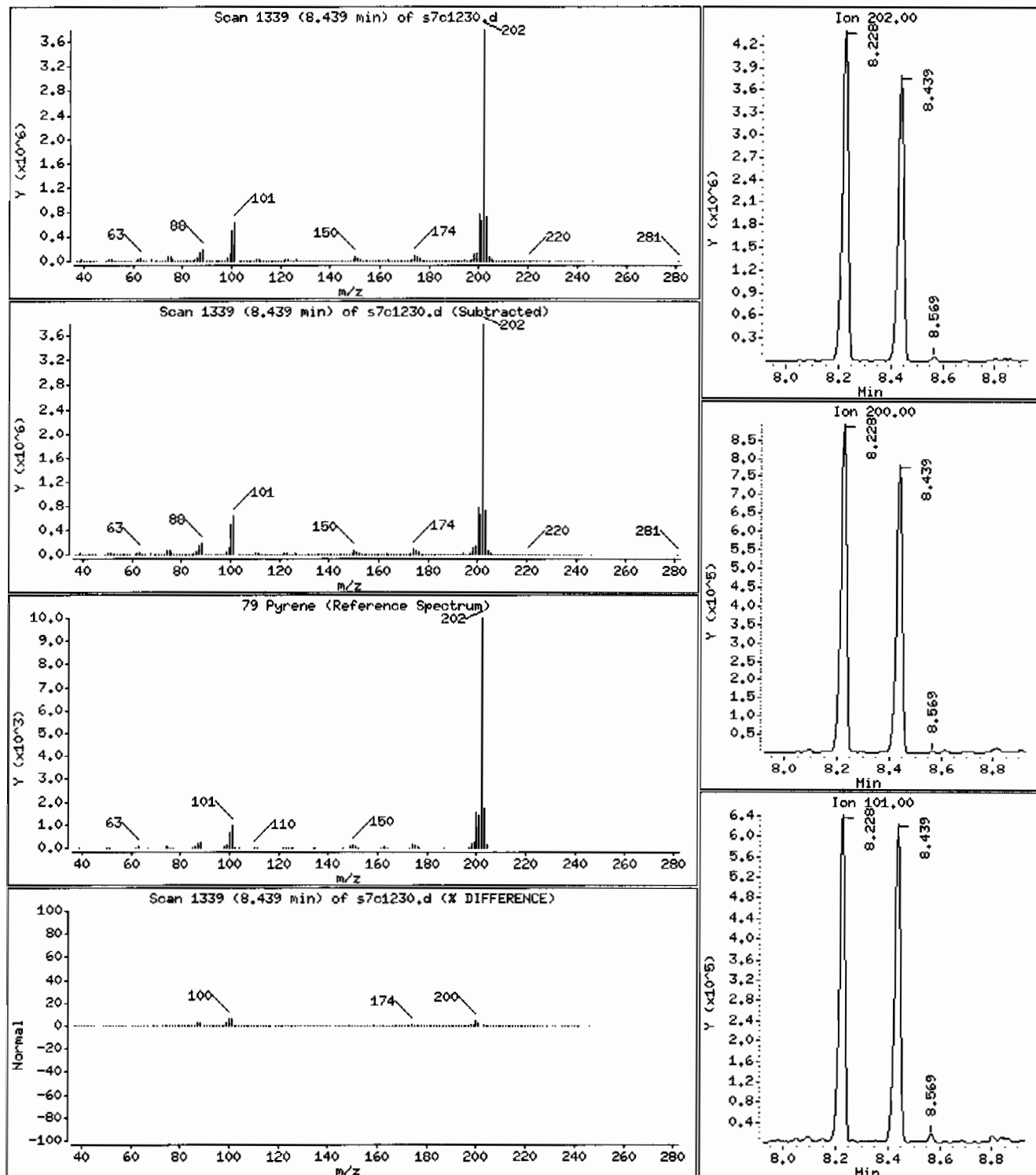
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 7900 ug/Kg



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 1248043002195962311ISVM111LANL

Volume Injected (uL): 0.5

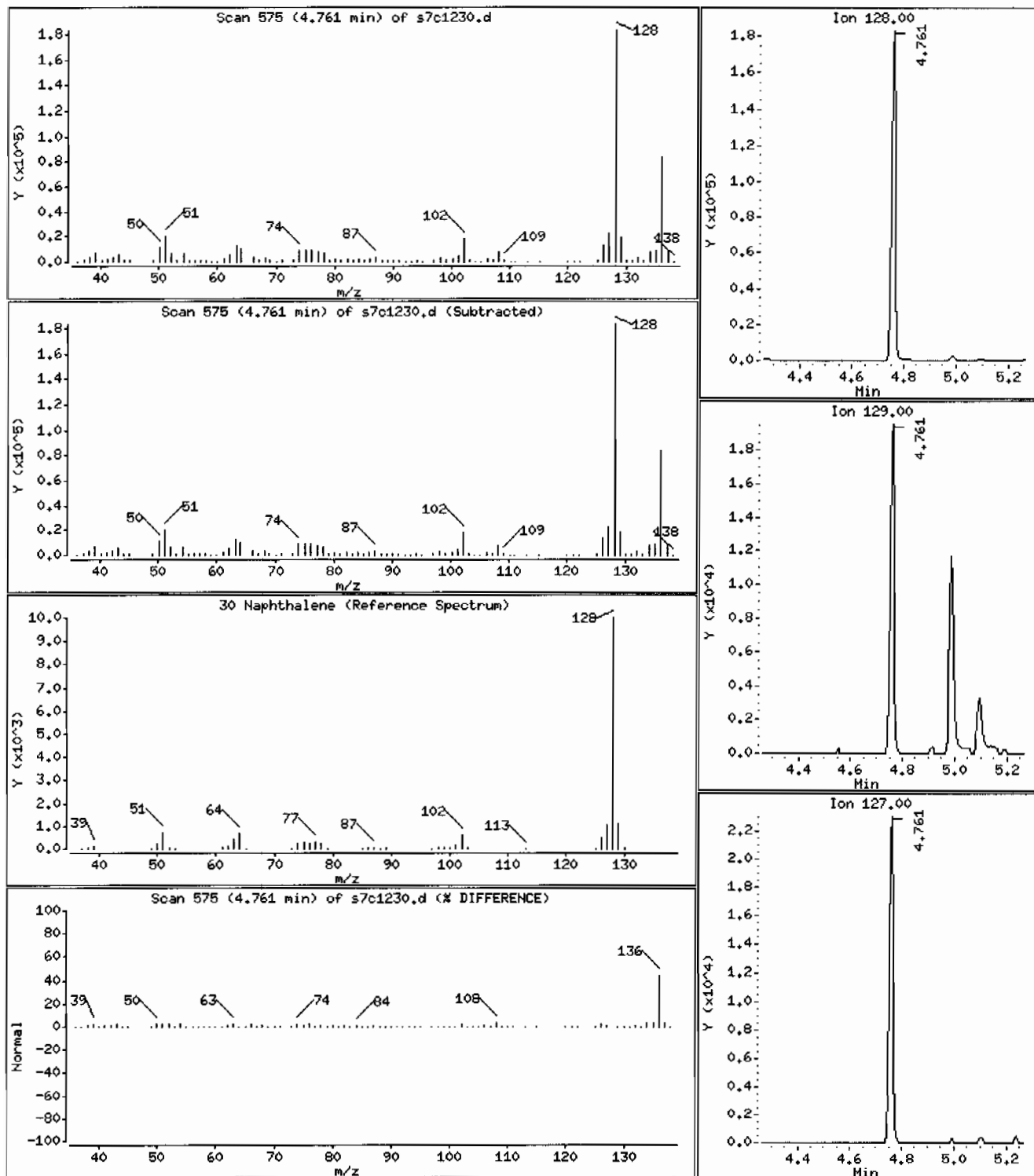
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 260 ug/Kg



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: HSD7.i

Sample Info: 1248043002195962311SVMI1ILANL

Volume Injected (uL): 0.5

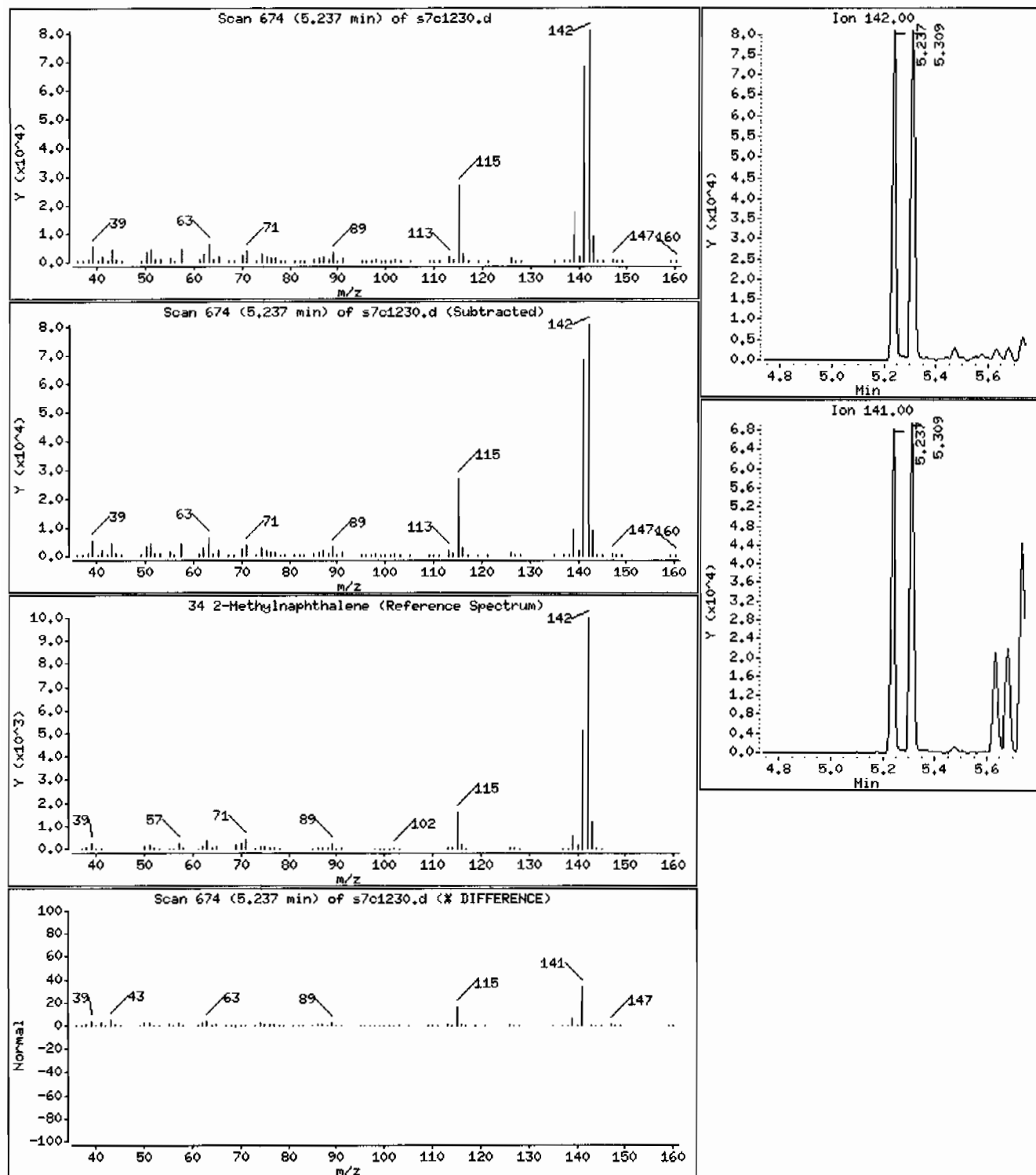
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 158 ug/Kg





Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 1248043002195962311SVMI11LANL

Volume Injected (uL): 0.5

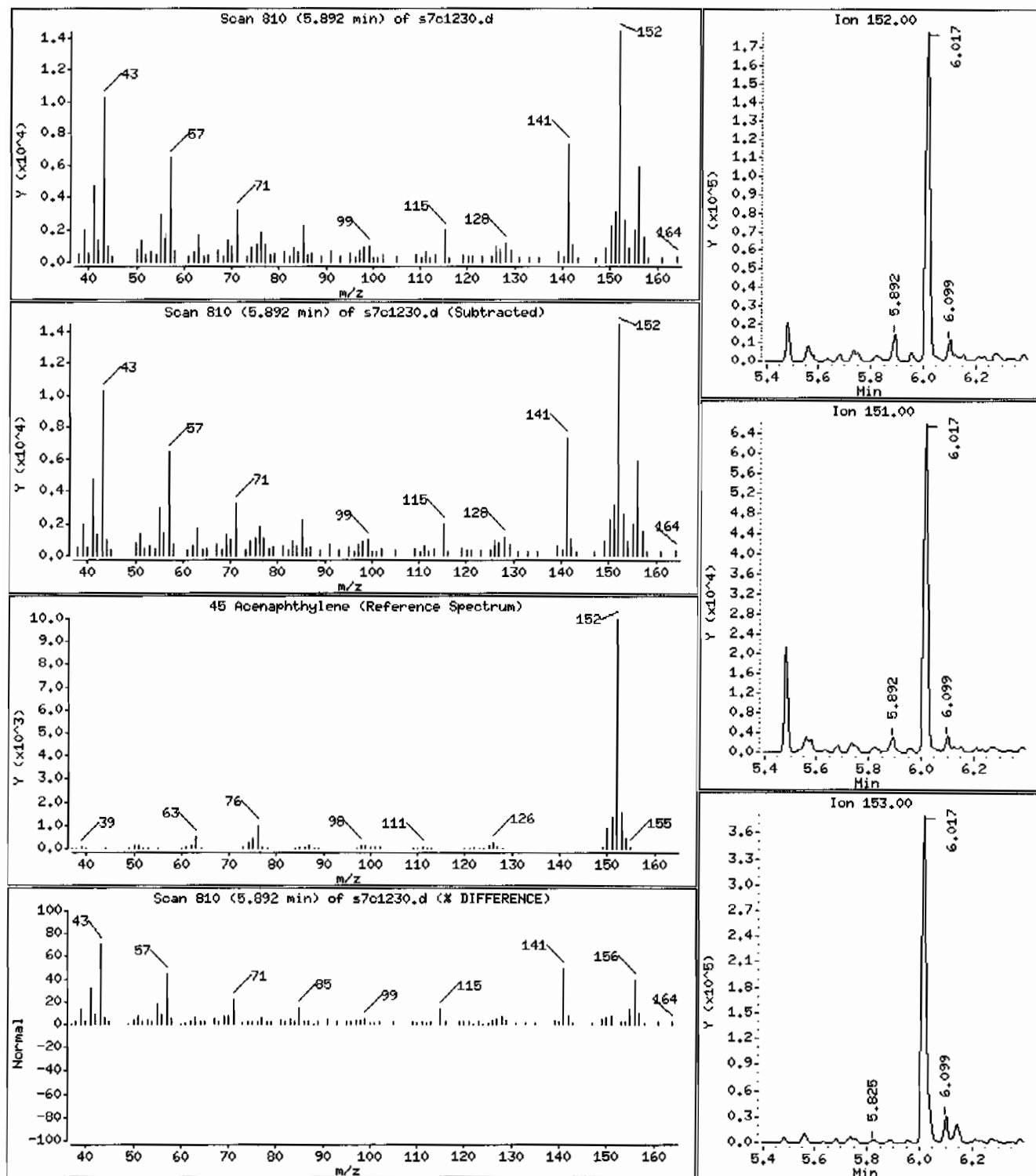
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

45 Acenaphthylene

Concentration: 20.2 ug/Kg



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 12480430021959623111SVH111LANL

Volume Injected (uL): 0.5

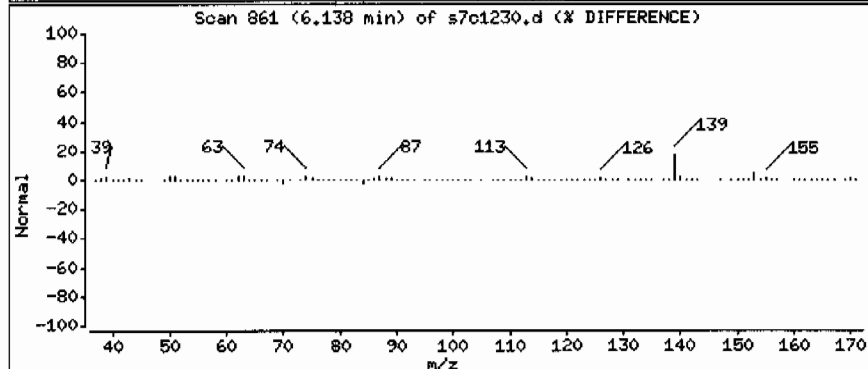
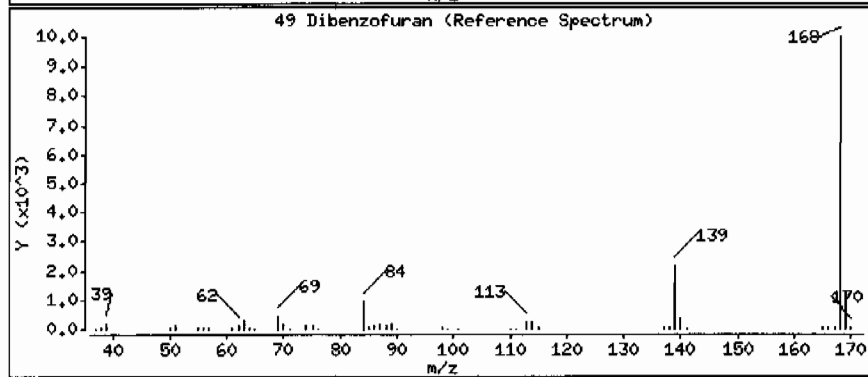
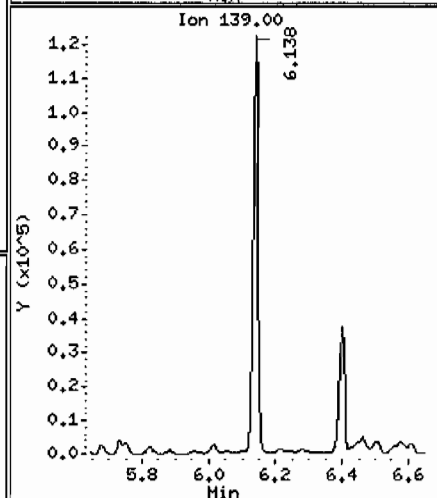
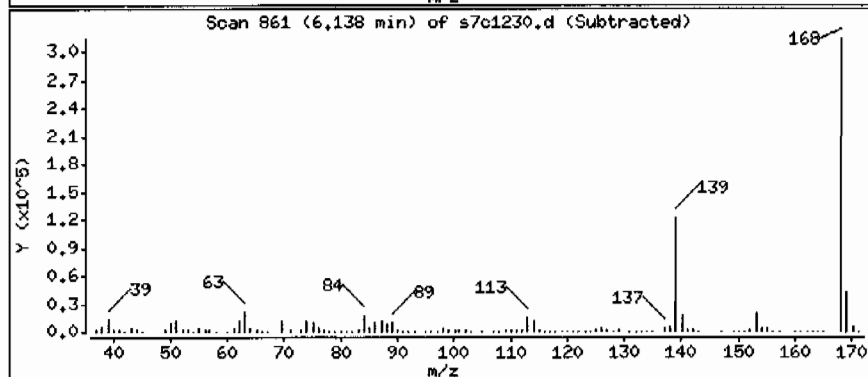
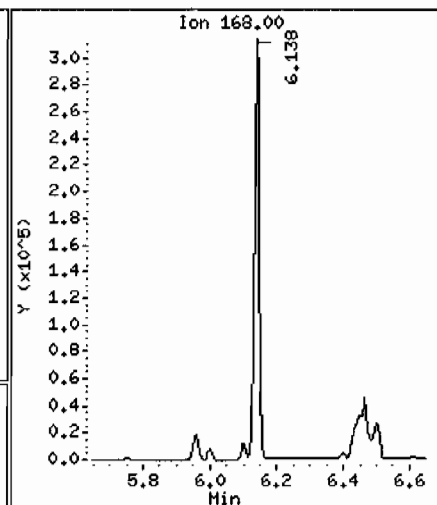
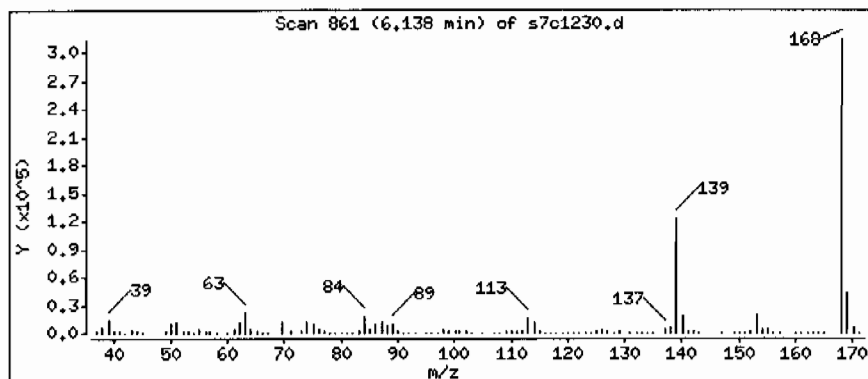
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

49 Dibenzofuran

Concentration: 481 ug/Kg



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 1248043002195962311SVH111LANL

Volume Injected (uL): 0.5

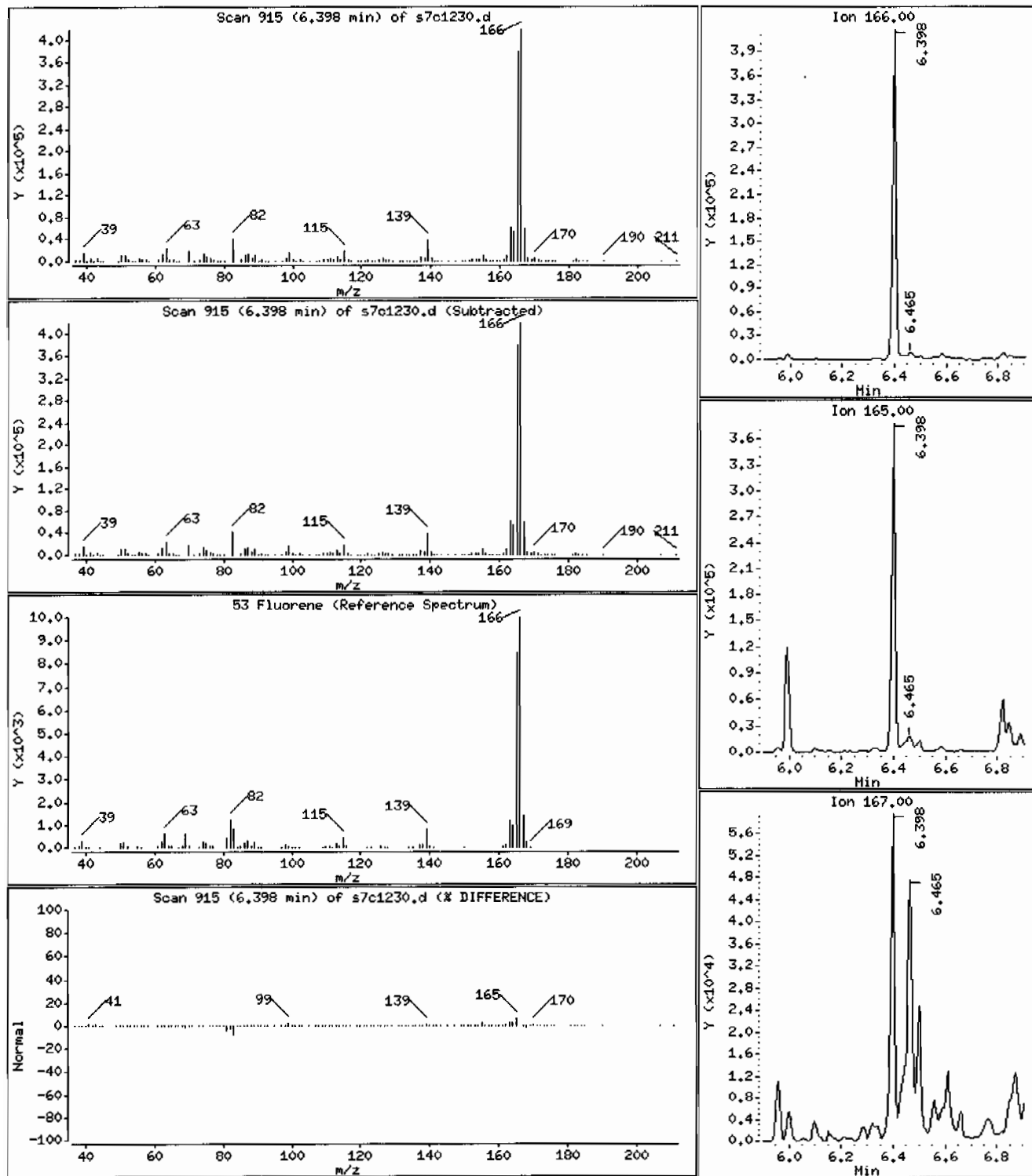
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 764 ug/Kg



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: I248043002195962311SVH111LANL

Volume Injected (uL): 0.5

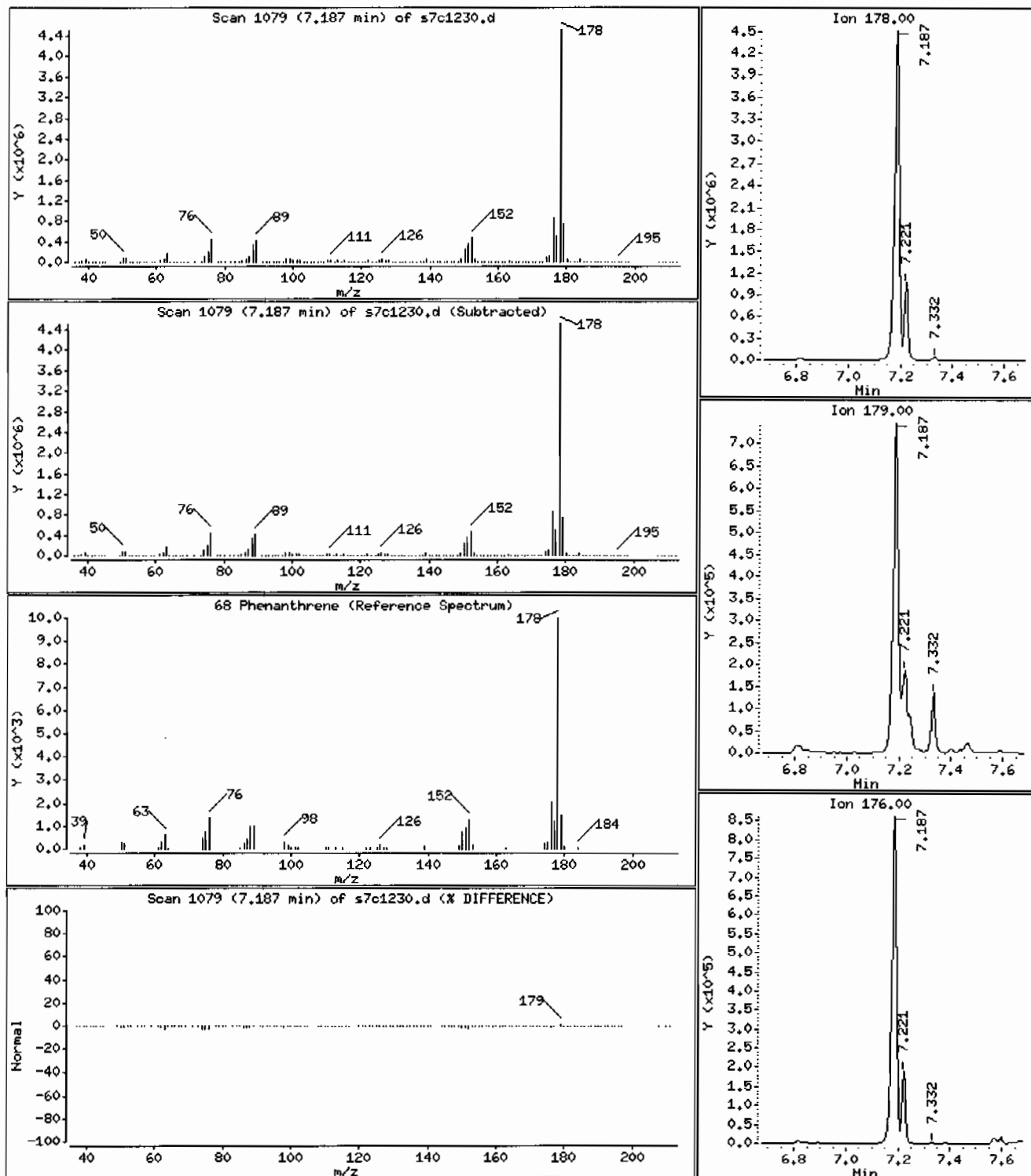
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 7980 ug/Kg



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: HSD7.i

Sample Info: 1248043002195962311SVH11ILANL

Volume Injected (uL): 0.5

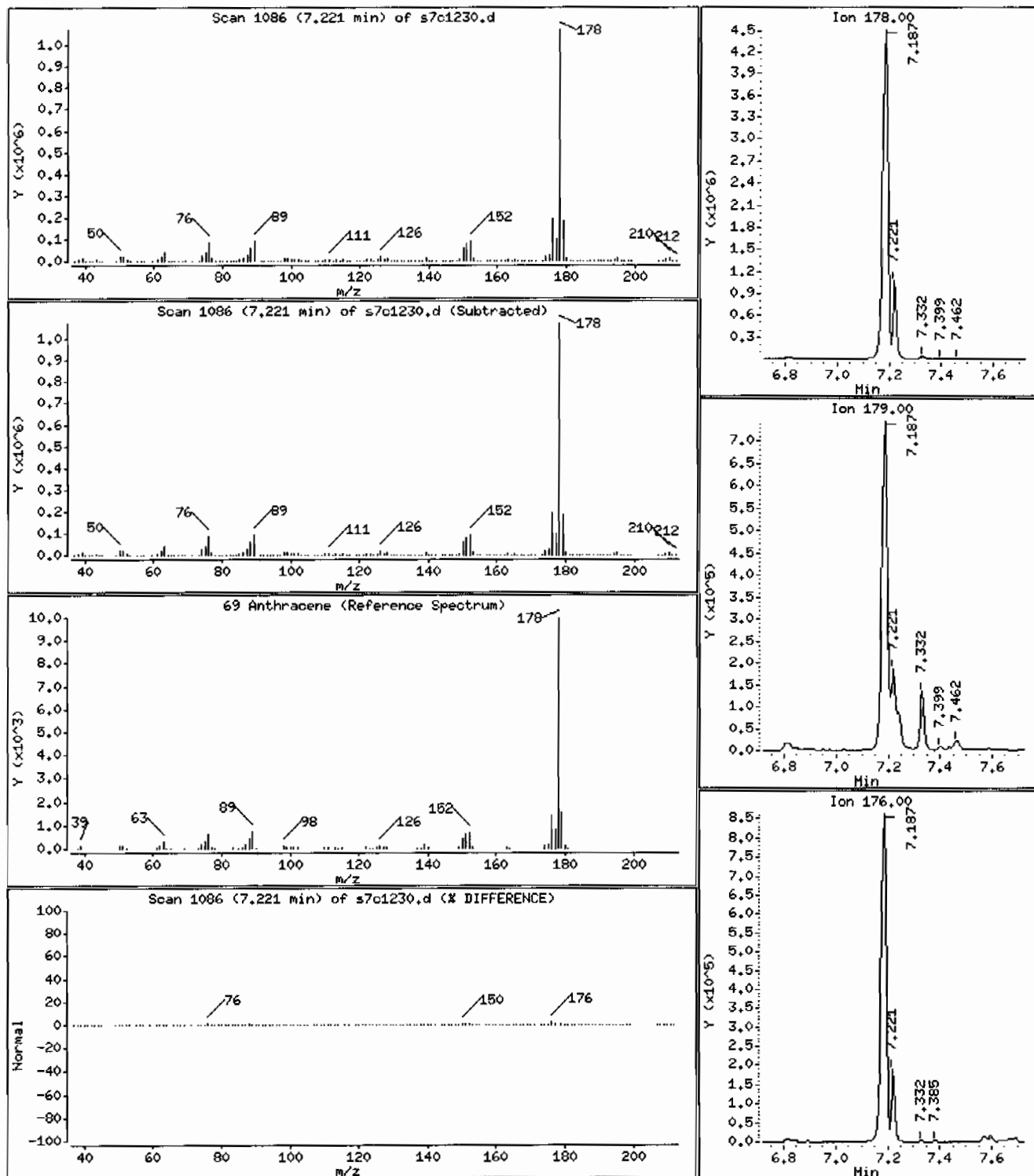
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 1490 ug/Kg



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 1248043002195962311ISVH11ILANL

Volume Injected (uL): 0.5

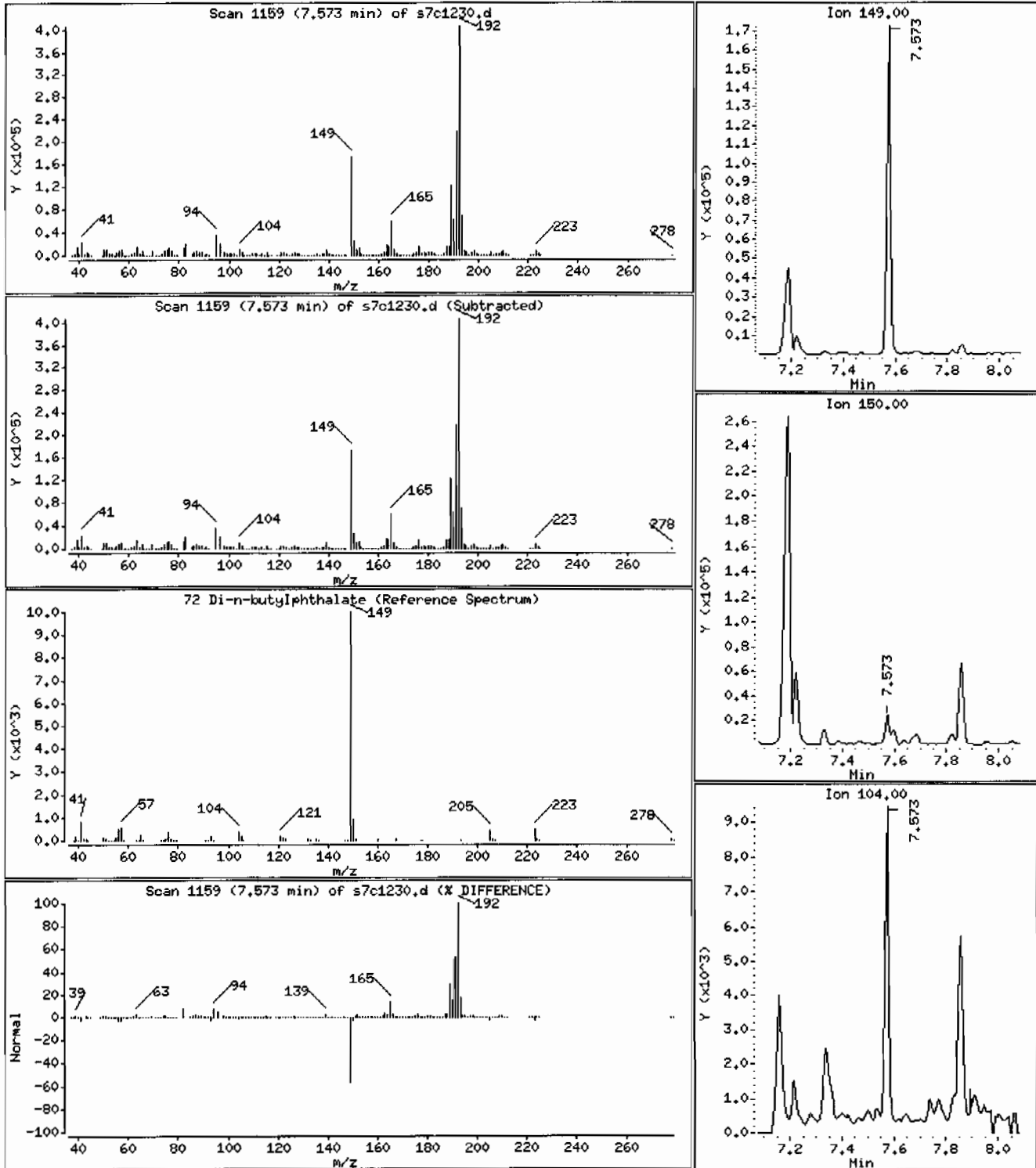
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

72 Di-n-butylphthalate

Concentration: 185 ug/Kg



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 1248043002195962311ISVM111LANL

Volume Injected (uL): 0.5

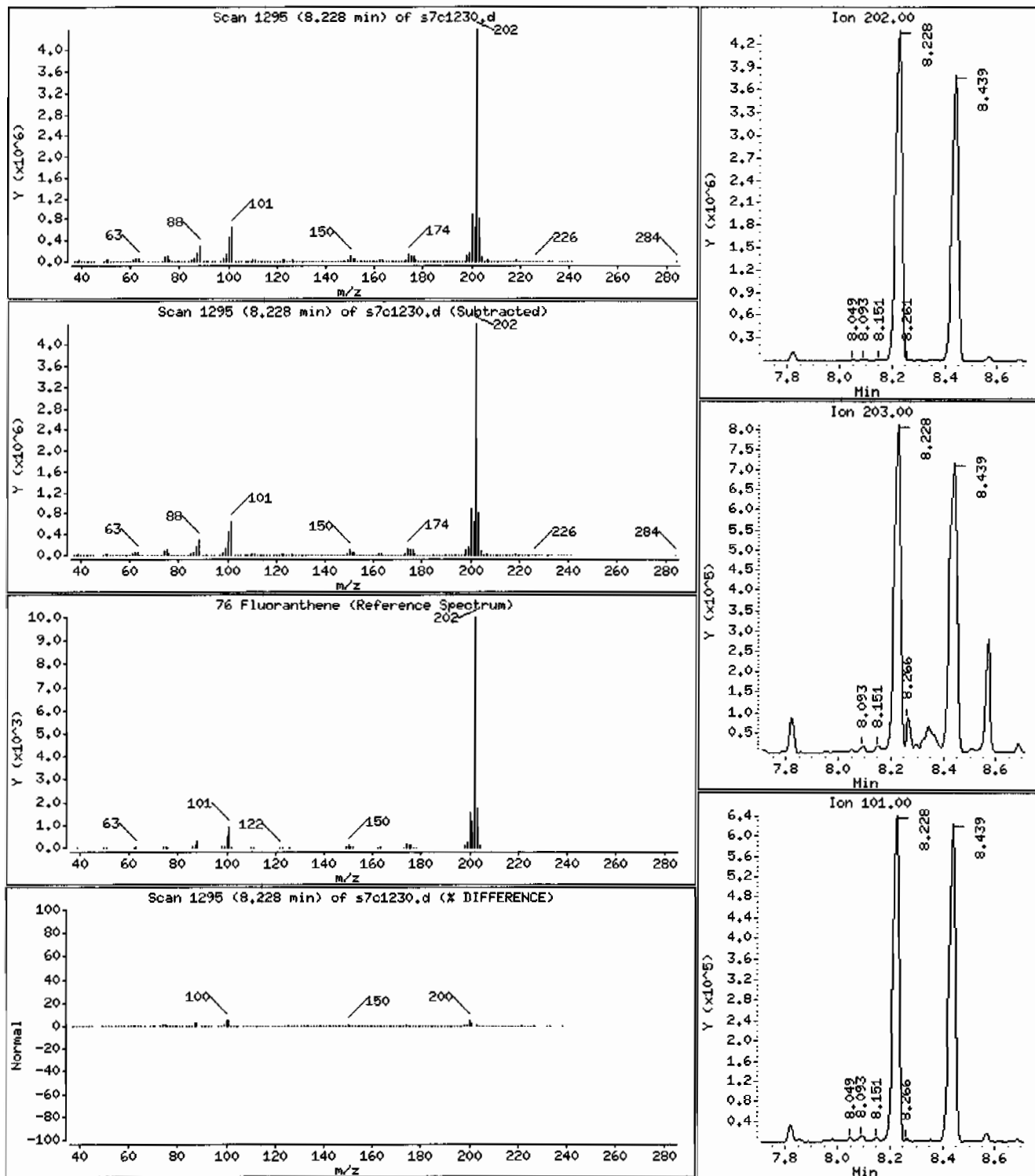
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 8200 ug/Kg



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 1248043002195962311SVMI11LANL

Volume Injected (uL): 0.5

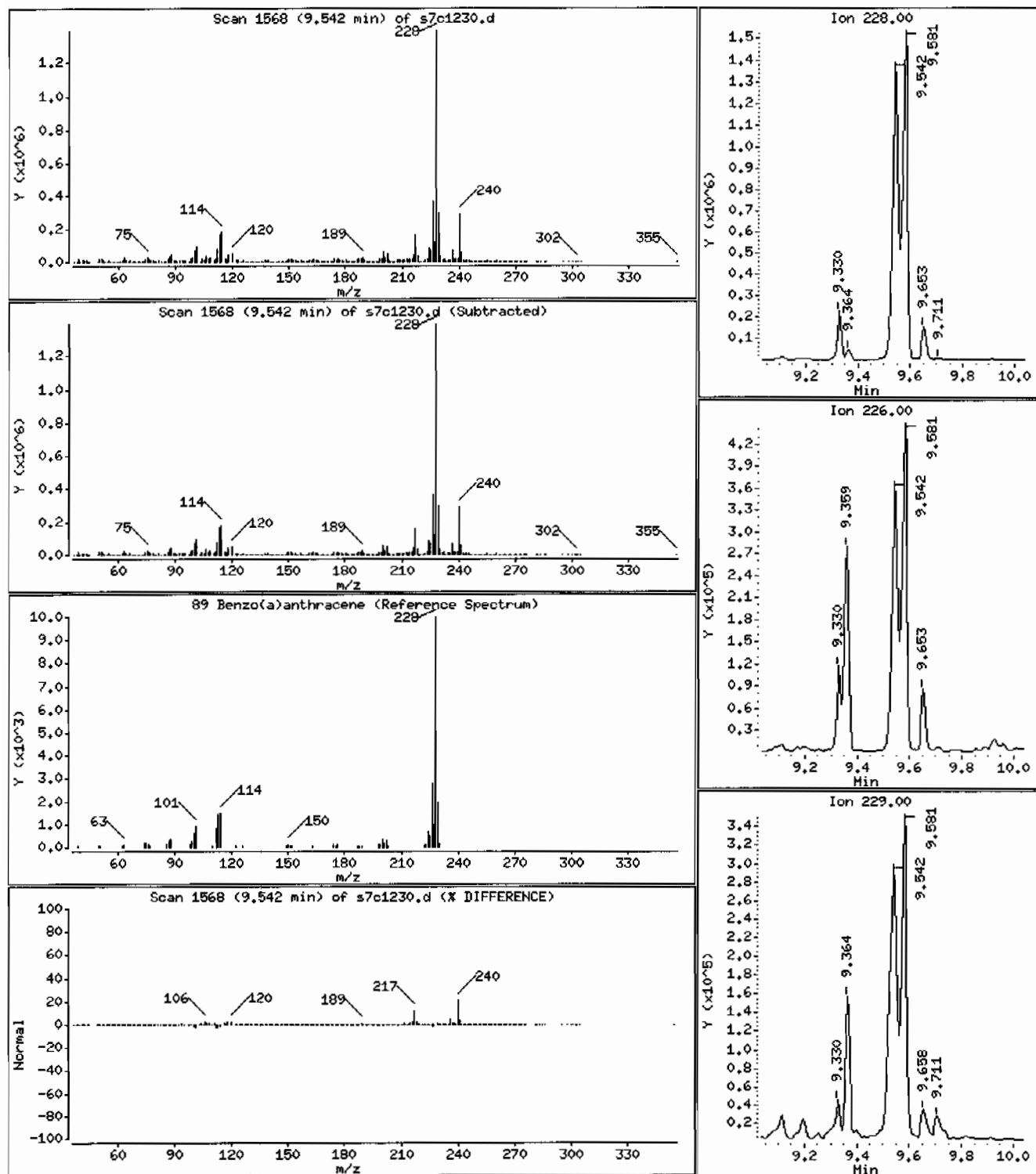
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 4030 ug/Kg





Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 1248043002|9596231|1SVHI1|LANL

Volume Injected (uL): 0.5

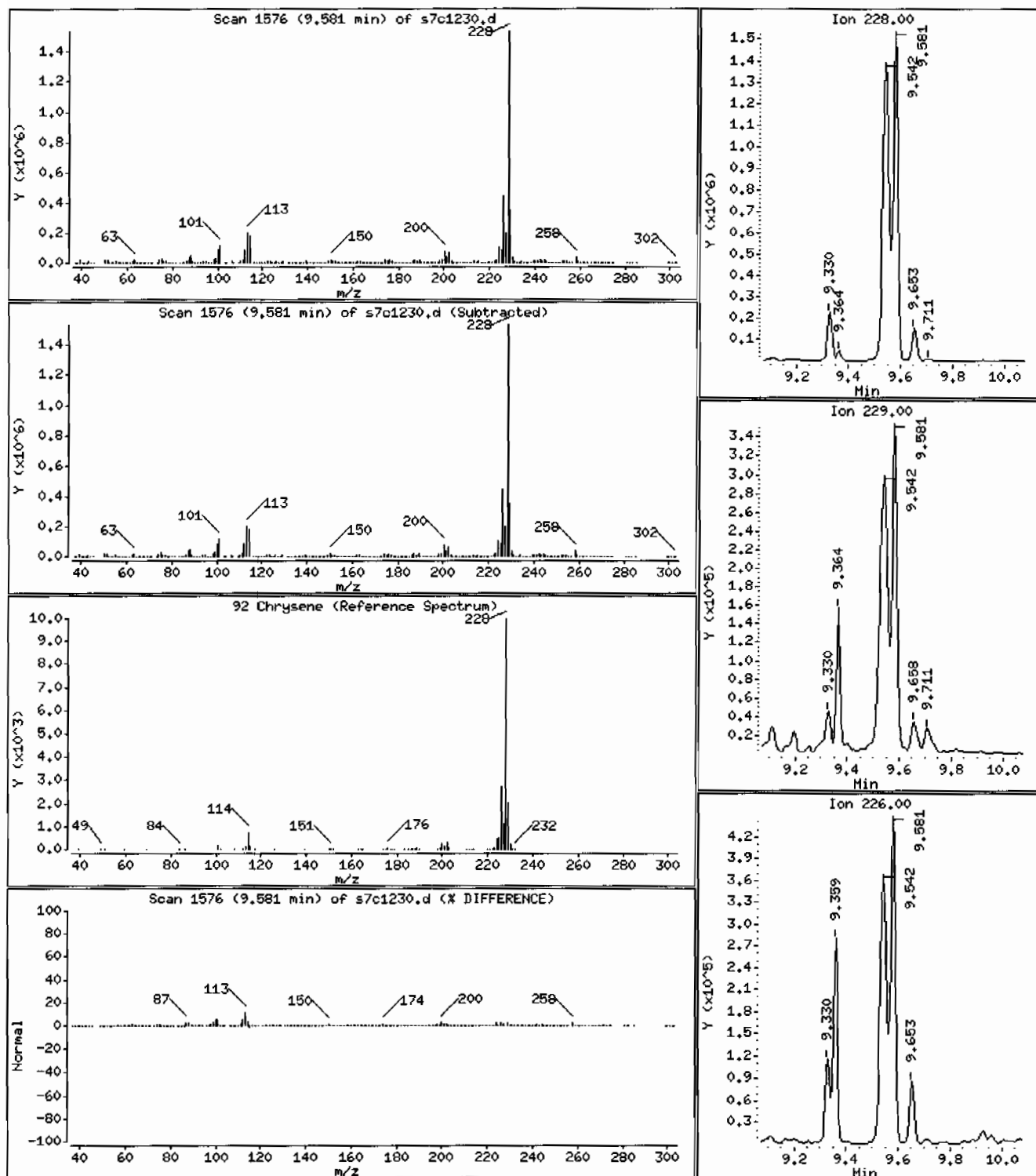
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 4240 ug/Kg



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 1248043002195962311SVMI1ILANL

Volume Injected (uL): 0,5

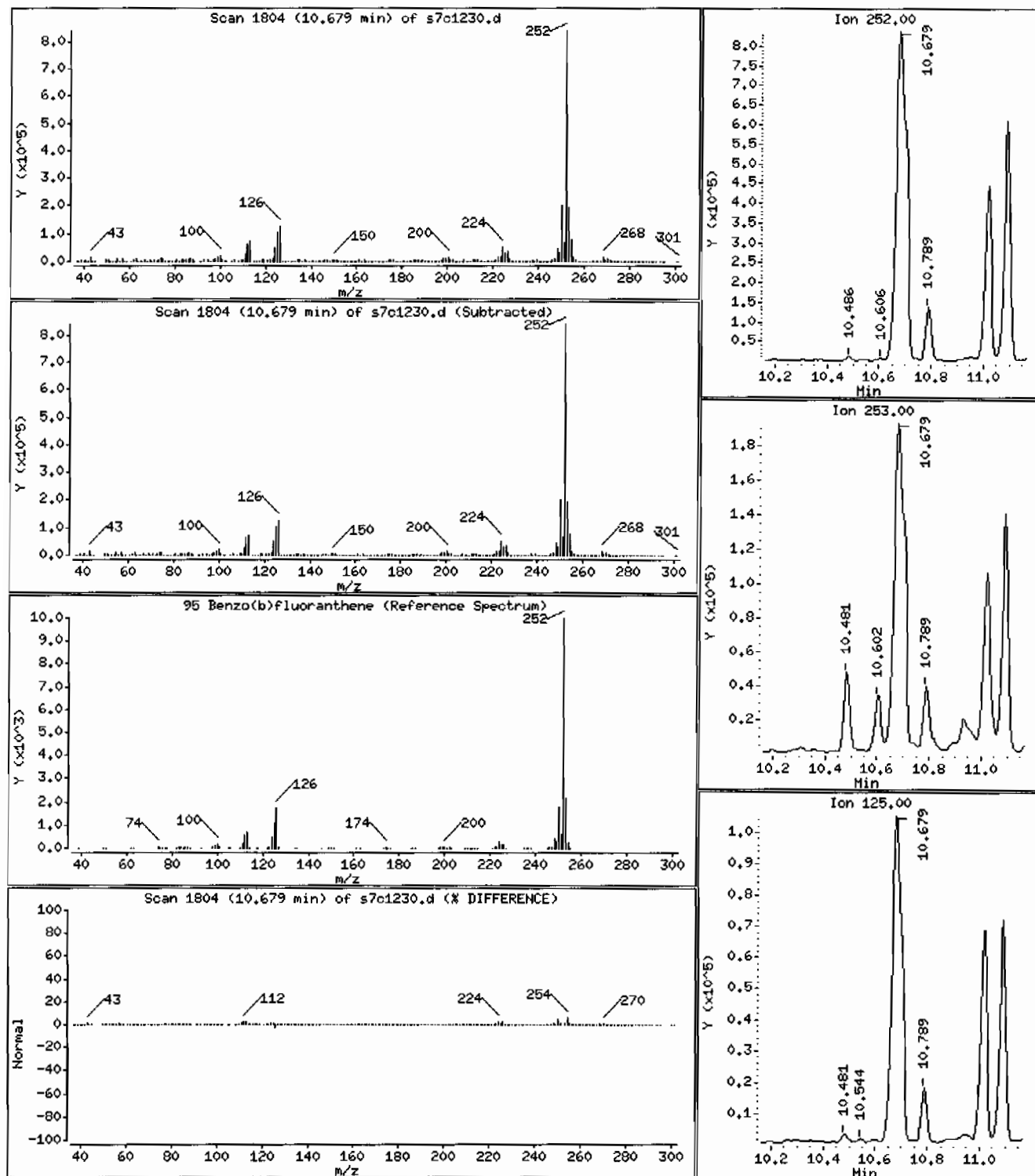
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

95 Benzo(b)fluoranthene

Concentration: 6950 ug/Kg



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: HSD7.i

Sample Info: 12480430021959623111SVH11ILANL

Volume Injected (uL): 0.5

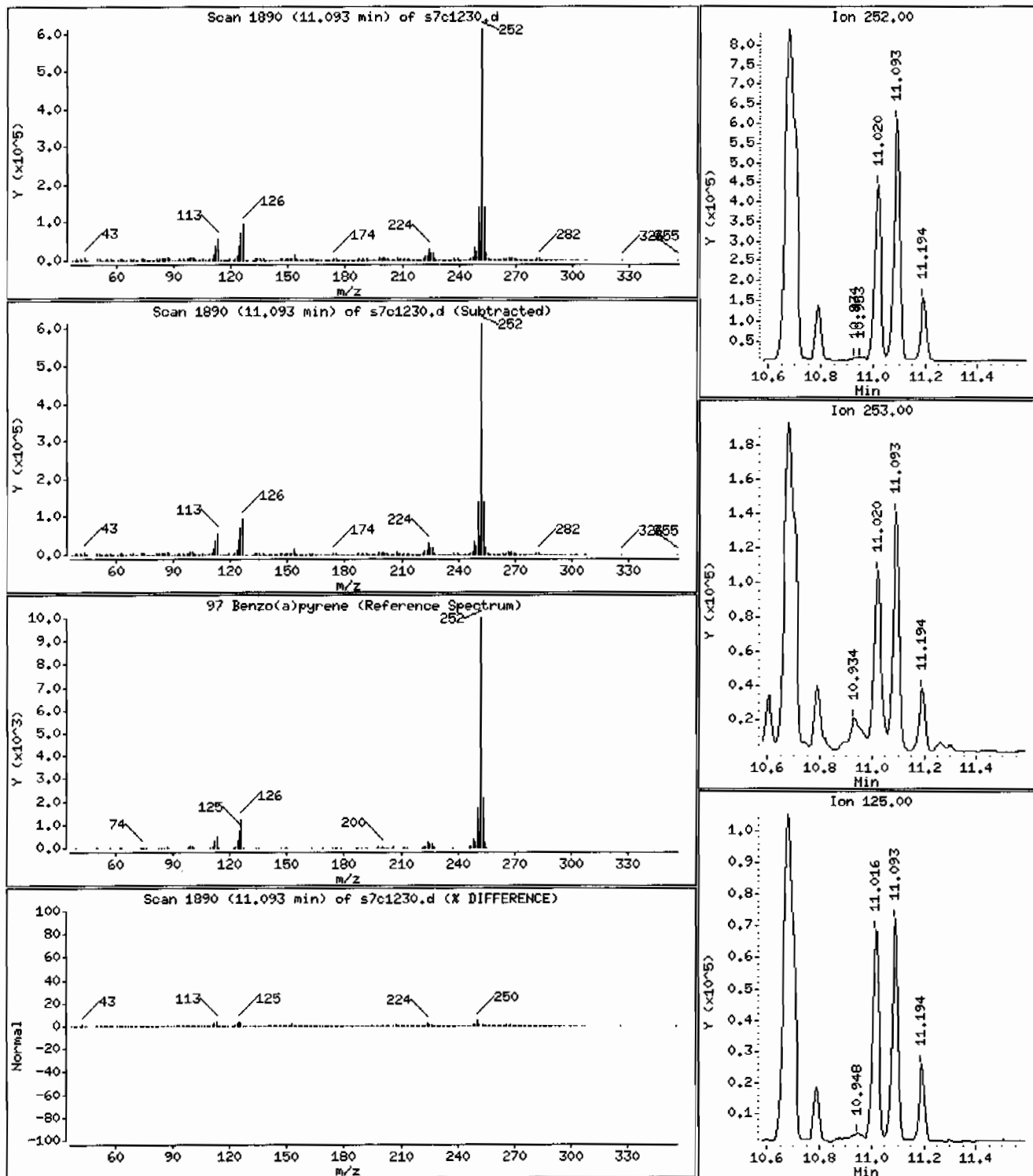
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 3700 ug/Kg



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 1248043002195962311SVH111LANL

Volume Injected (uL): 0.5

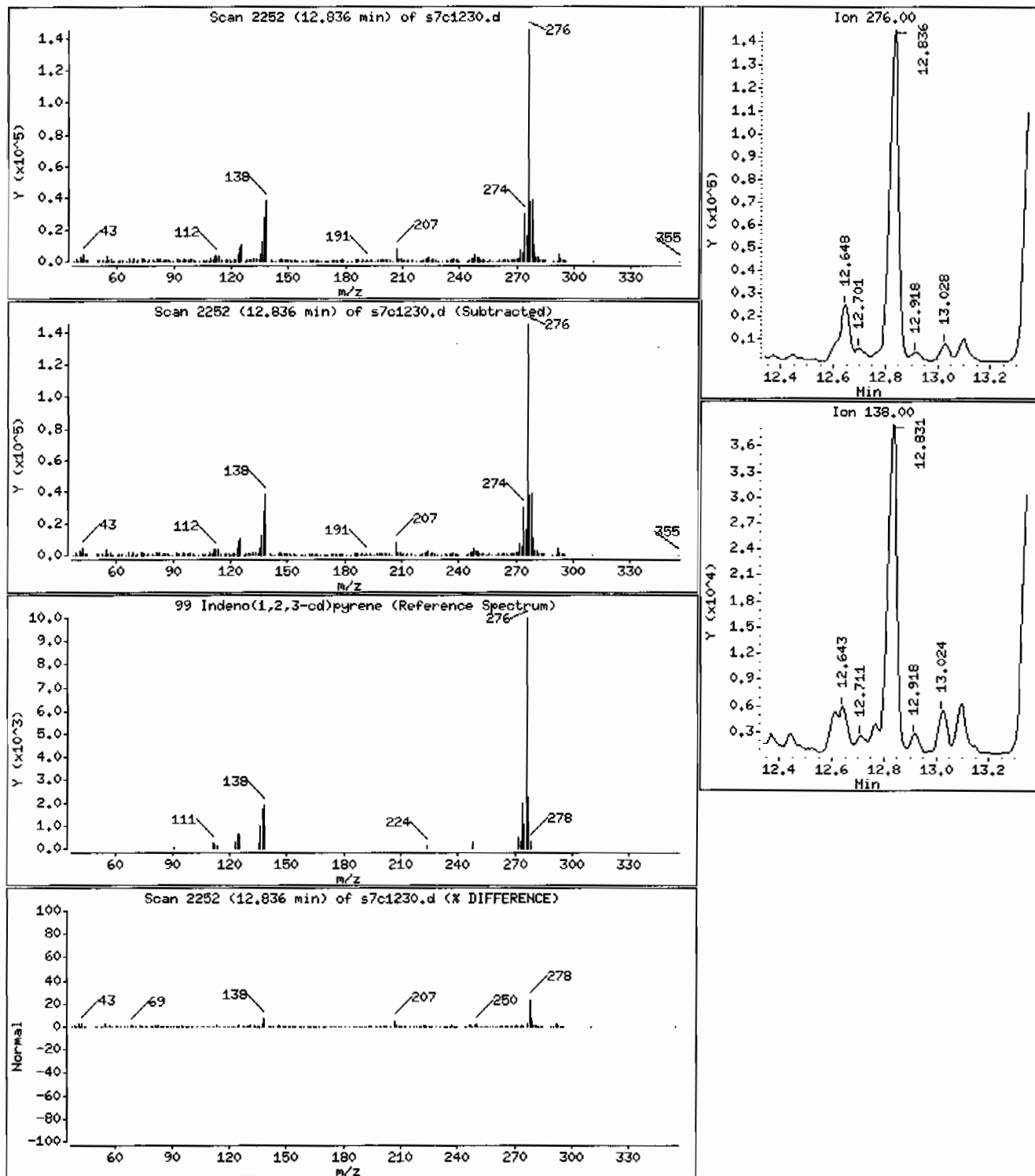
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 1850 ug/Kg



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 1248043002195962311SVH11ILANL

Volume Injected (uL): 0.5

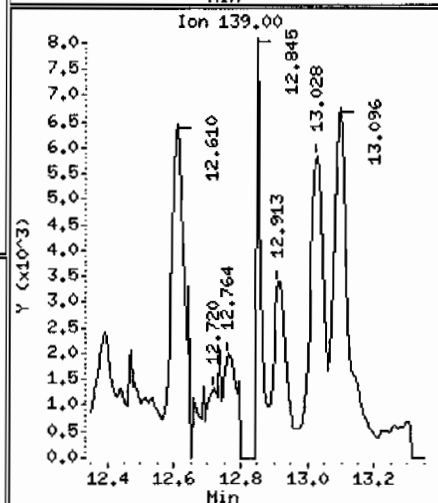
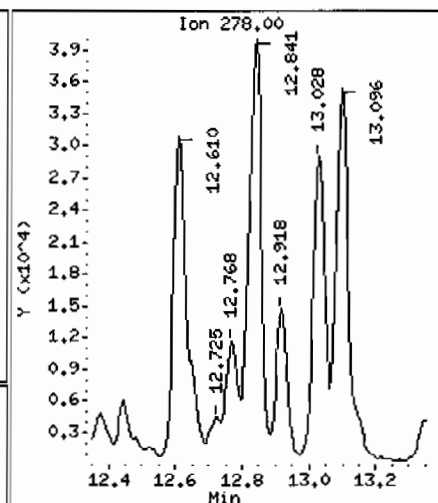
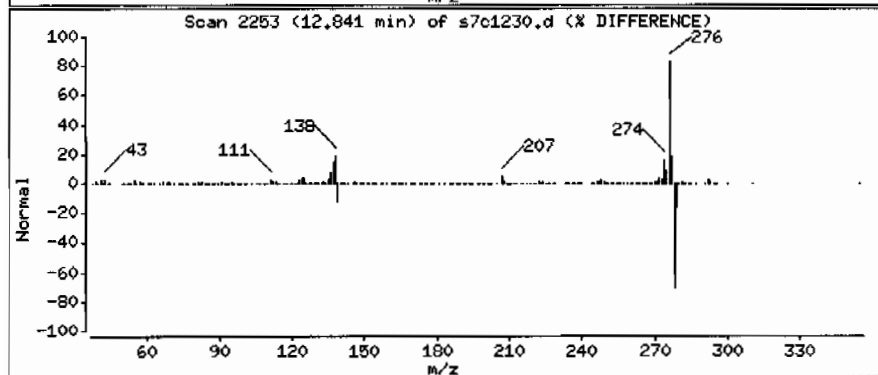
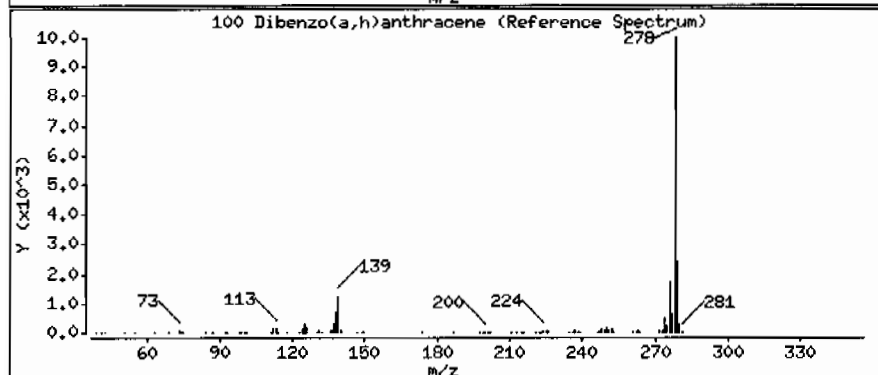
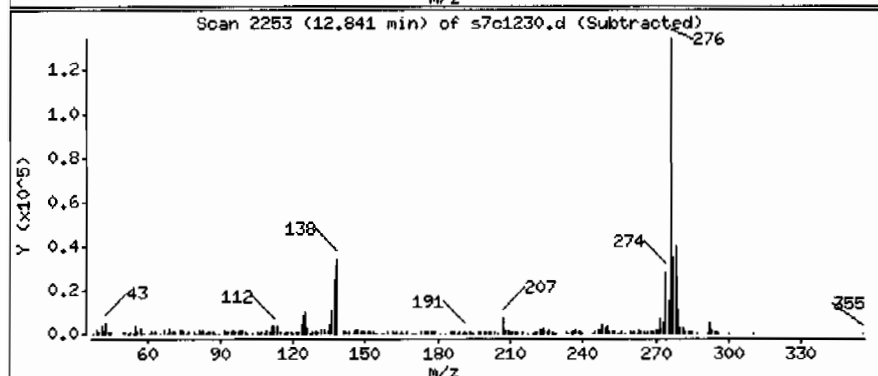
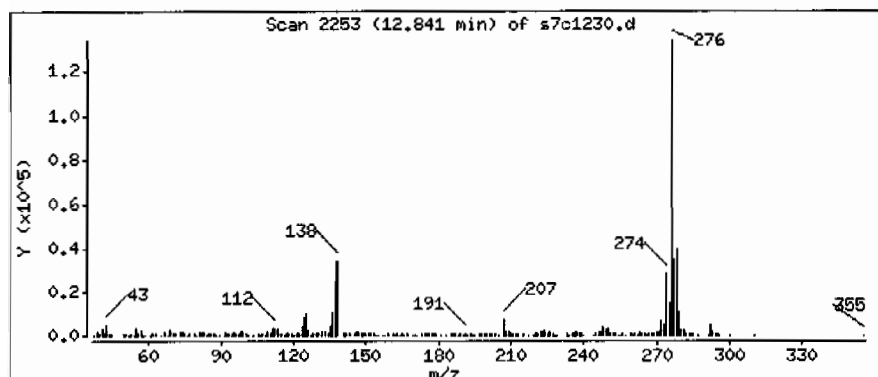
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 669 ug/Kg



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: HSD7.i

Sample Info: I248043002195962311SVMI11LANL

Volume Injected (uL): 0.5

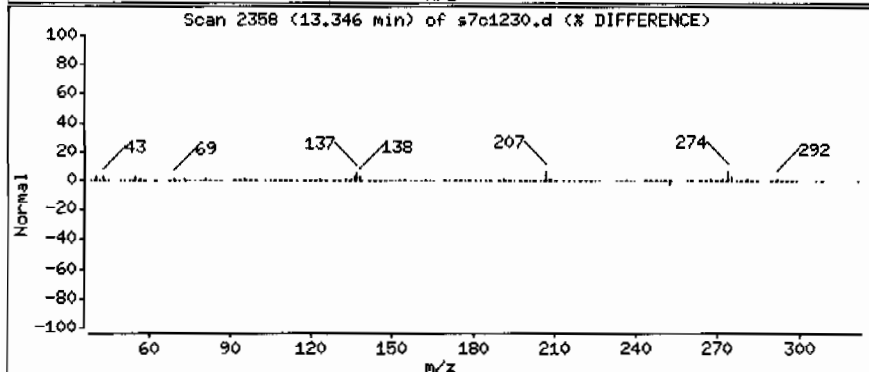
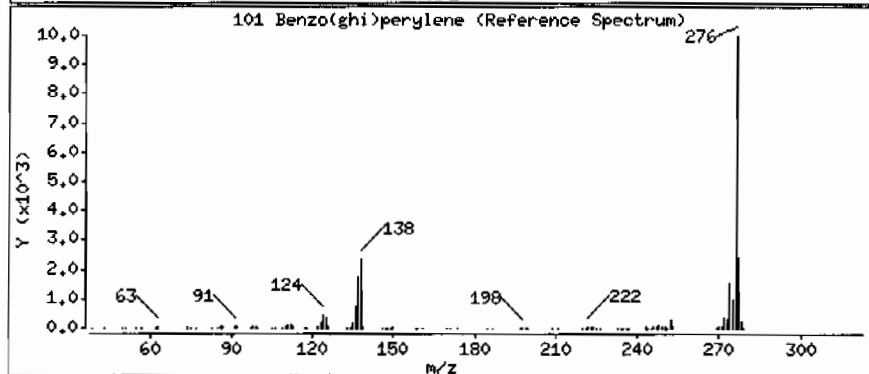
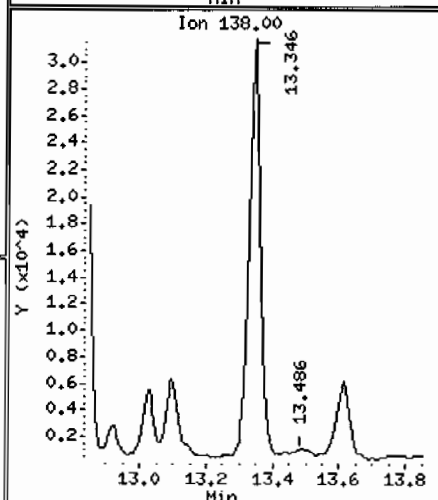
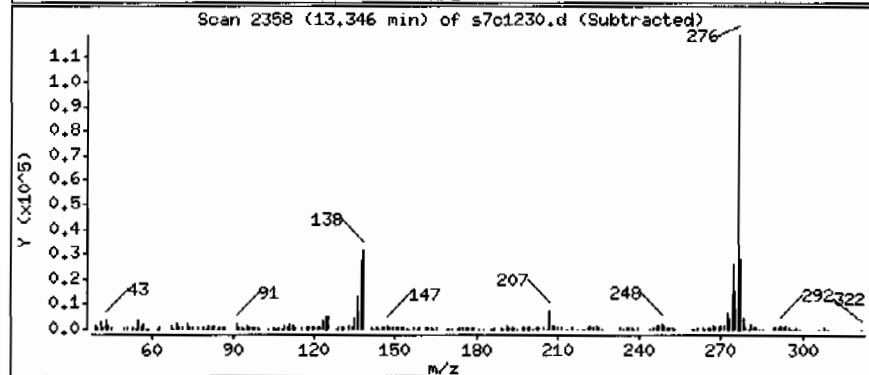
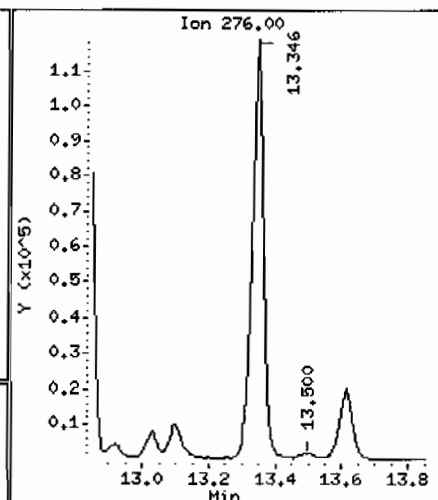
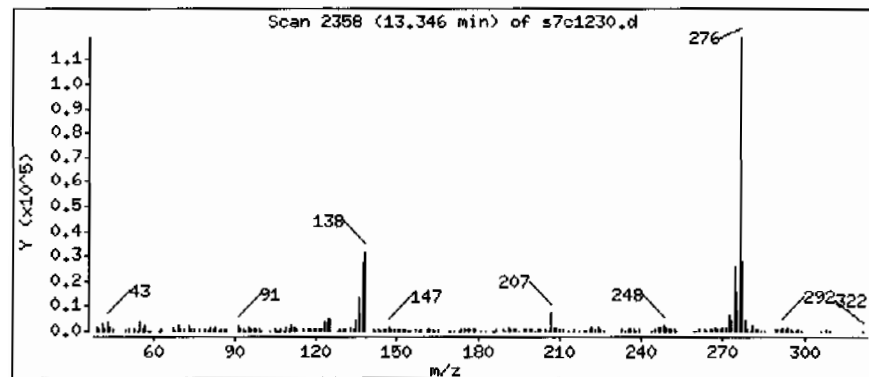
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 1790 ug/Kg



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: I248043002195962311SVH111LANL

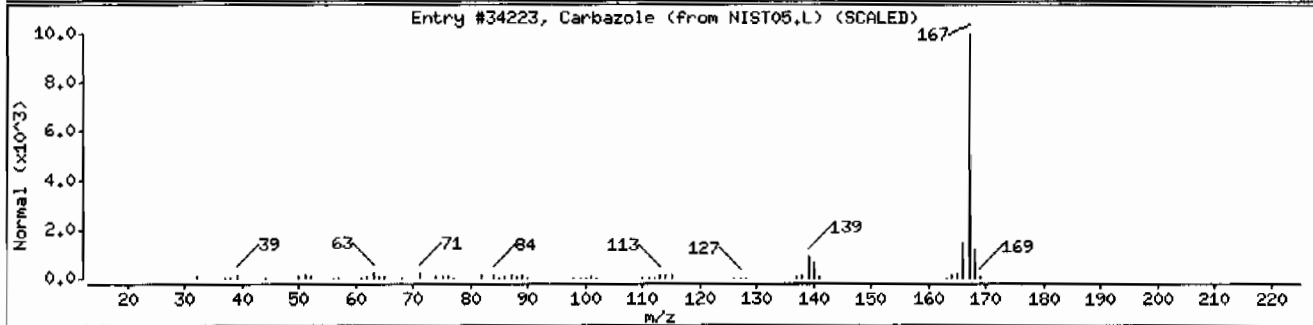
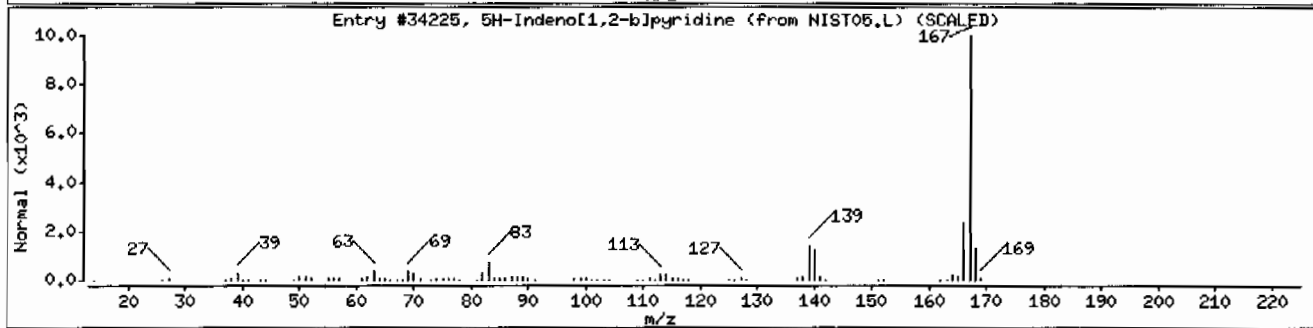
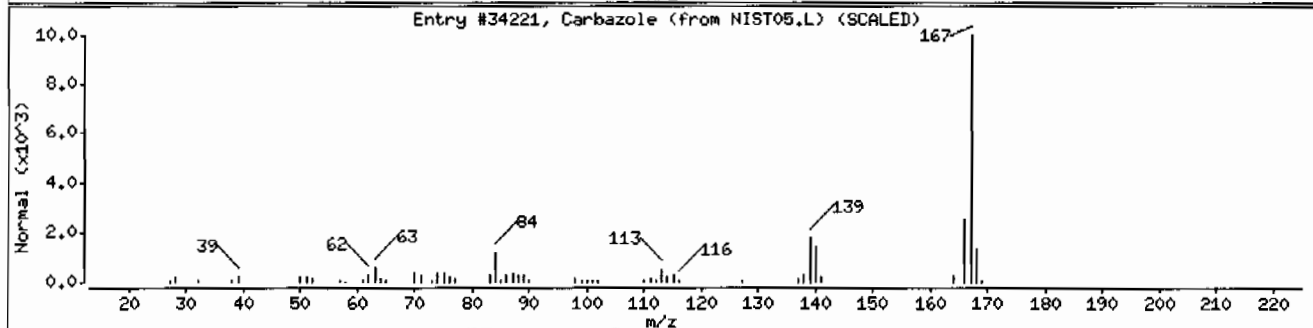
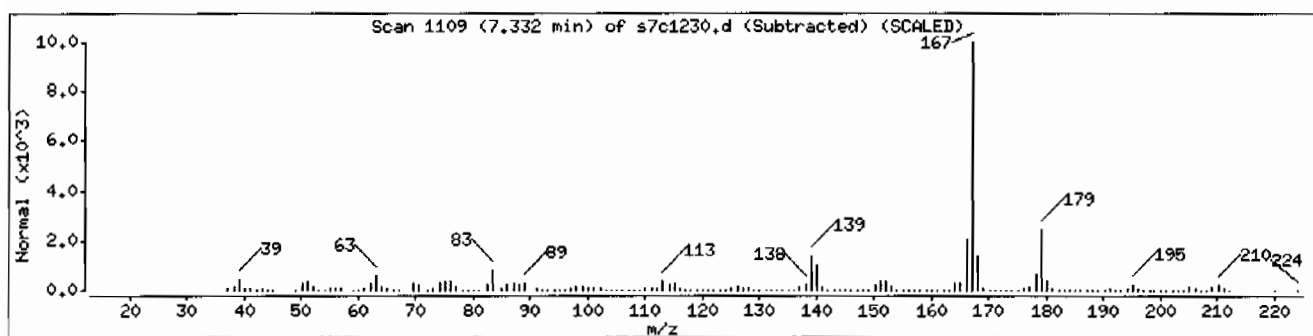
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Carbazole	86-74-8	NIST05.L	34221	95	C12H9N	167
5H-Indeno[1,2-b]pyridine	244-99-5	NIST05.L	34225	94	C12H9N	167
Carbazole	86-74-8	NIST05.L	34223	76	C12H9N	167



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: I2480430021959623111SVH111LANL

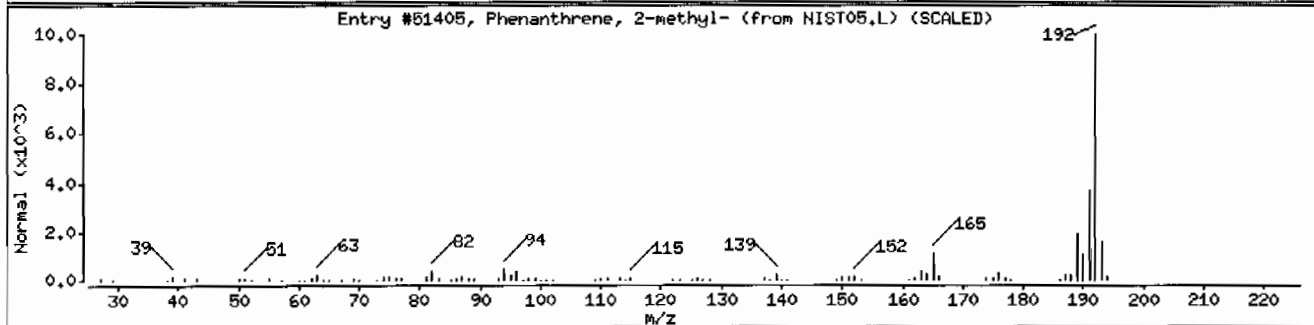
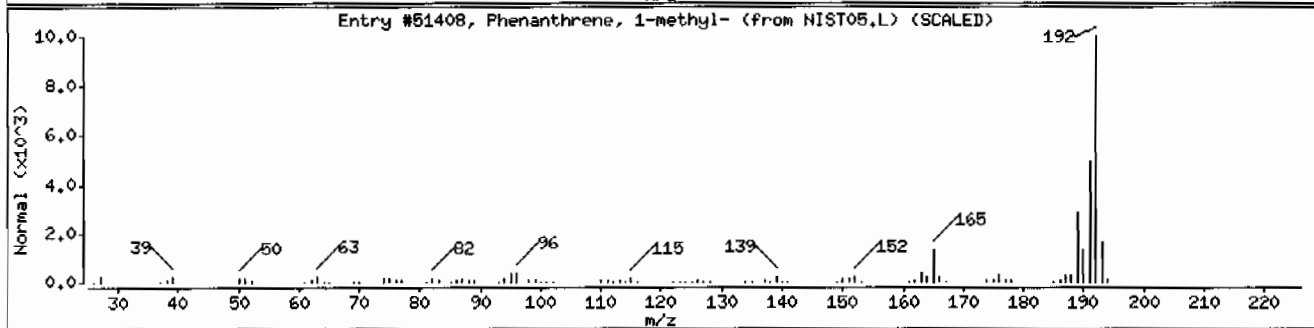
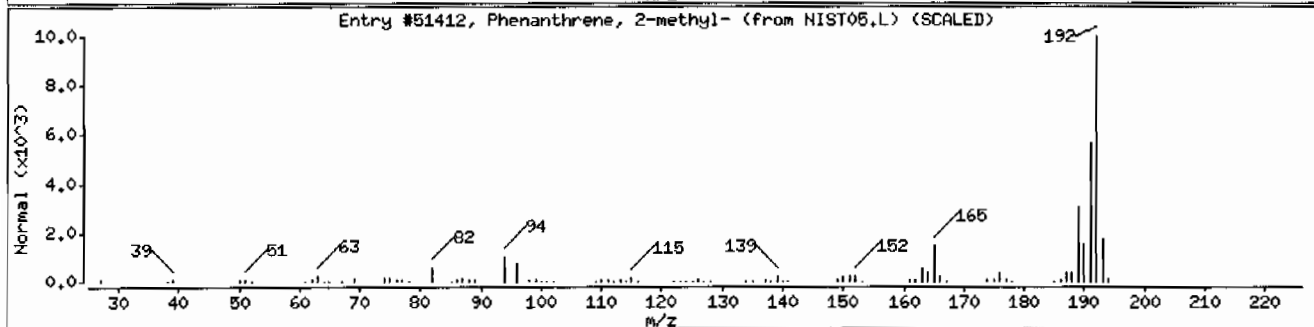
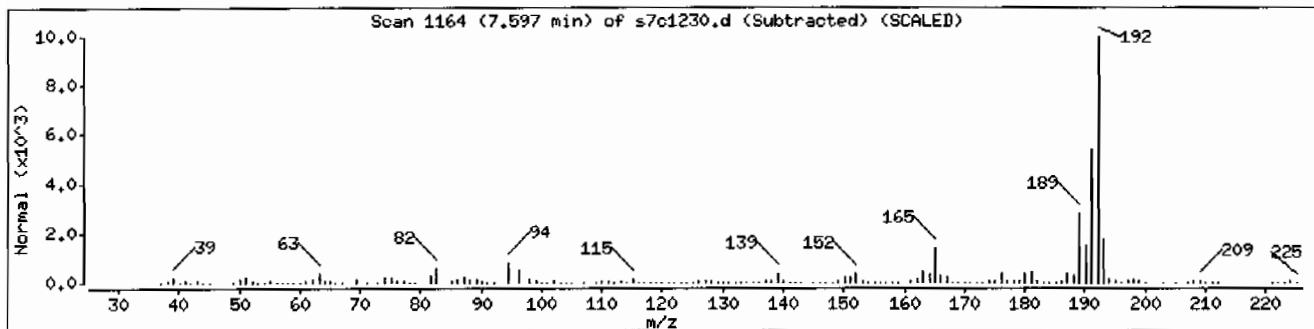
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51412	98	C15H12	192
Phenanthrene, 1-methyl-	832-69-9	NIST05.L	51408	98	C15H12	192
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51405	98	C15H12	192





Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 12480430021959623111SVH111LANL

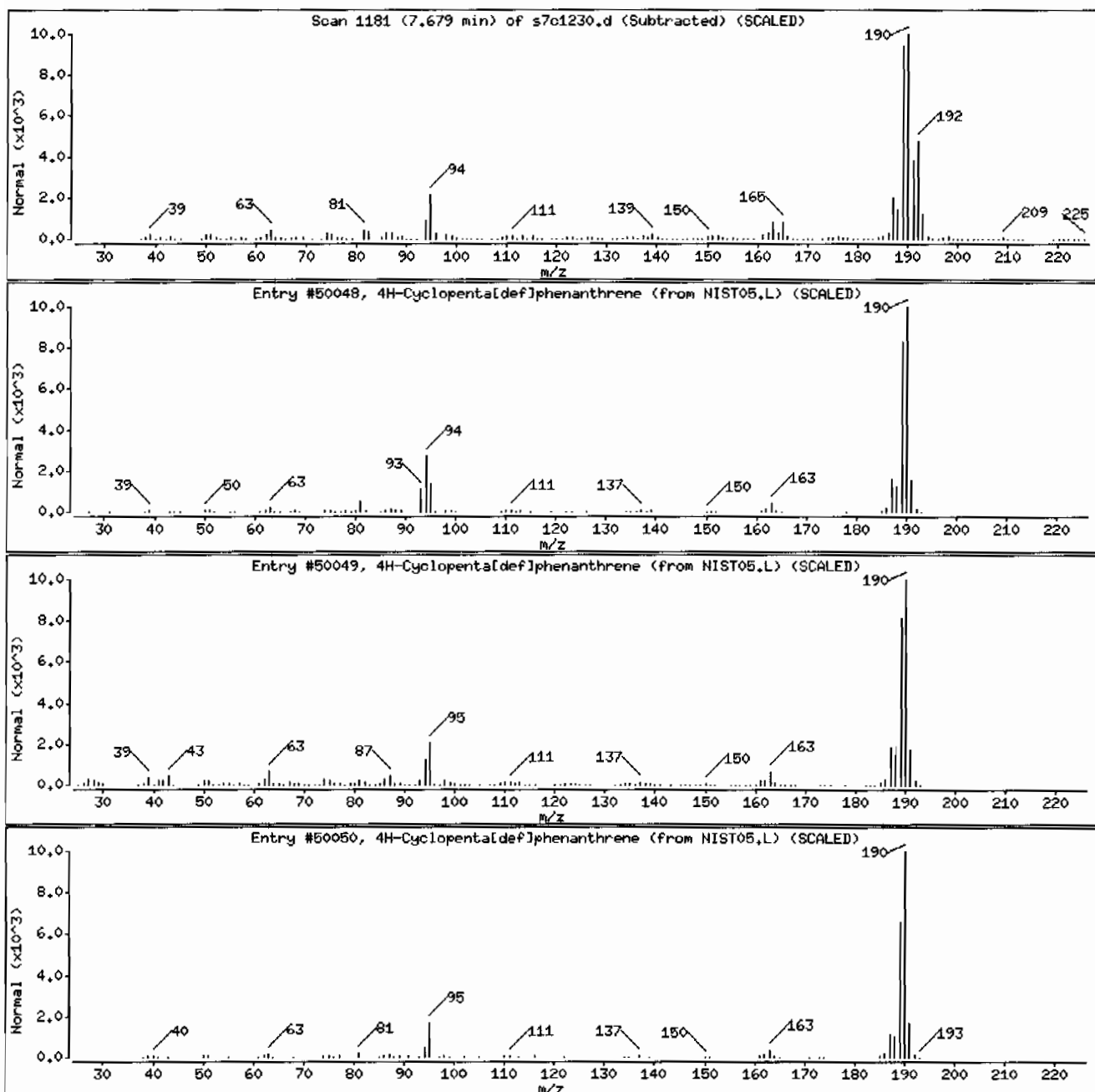
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50048	70	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50049	60	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50050	52	C15H10	190



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 1248043002195962311SVH11ILANL

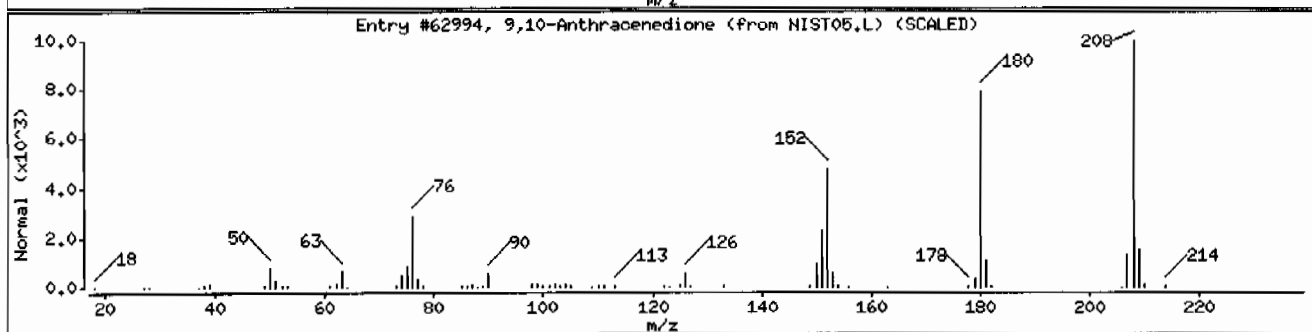
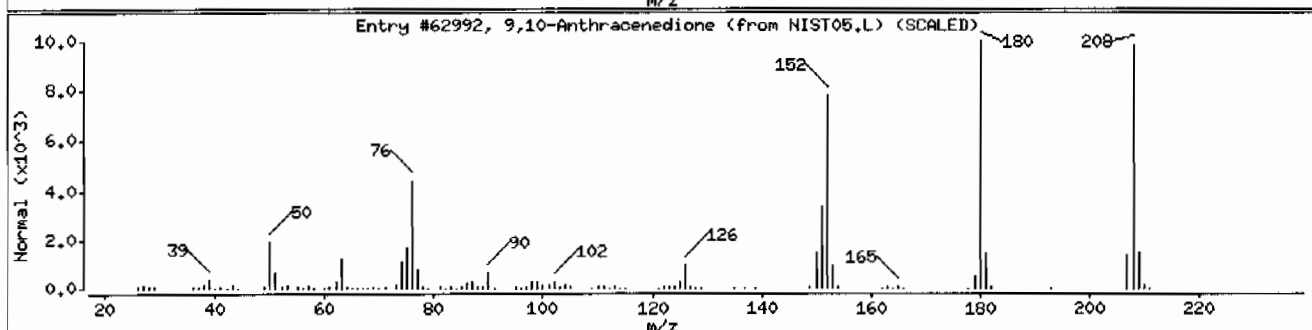
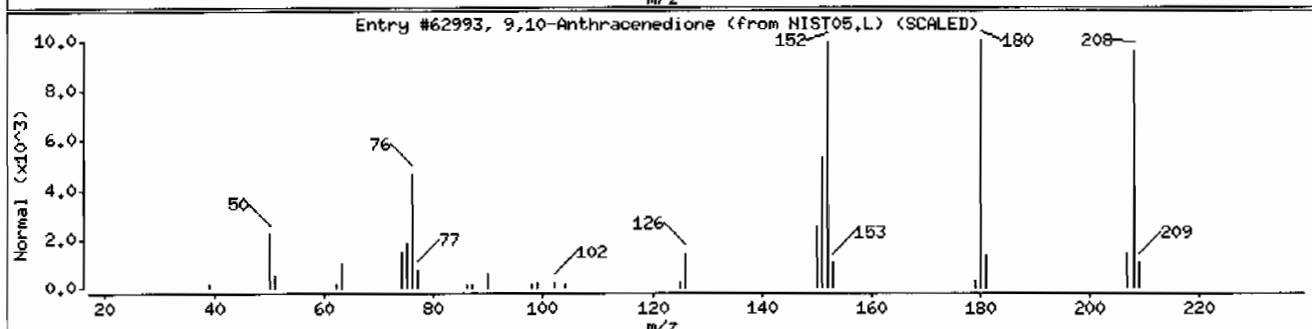
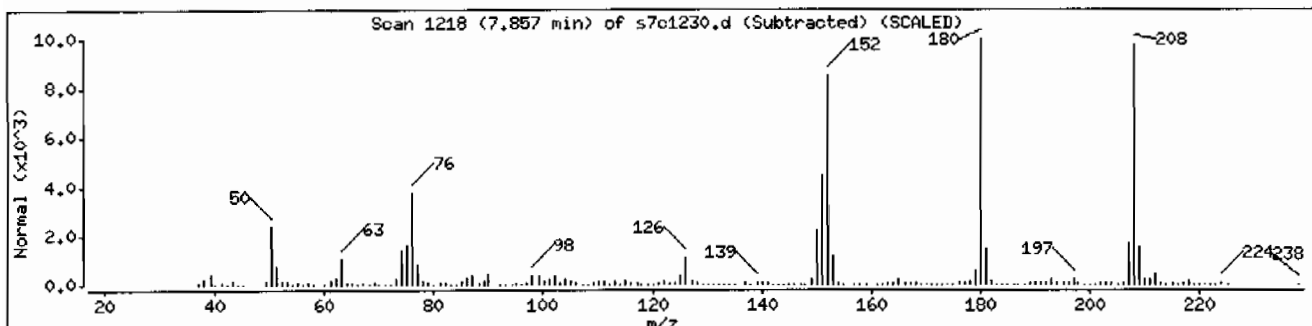
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9,10-Anthracenedione	84-65-1	NIST05.L	62993	99	C14H8O2	208
9,10-Anthracenedione	84-65-1	NIST05.L	62992	95	C14H8O2	208
9,10-Anthracenedione	84-65-1	NIST05.L	62994	95	C14H8O2	208



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: HSD7.i

Sample Info: 12480430021959623111SVMI11LANL

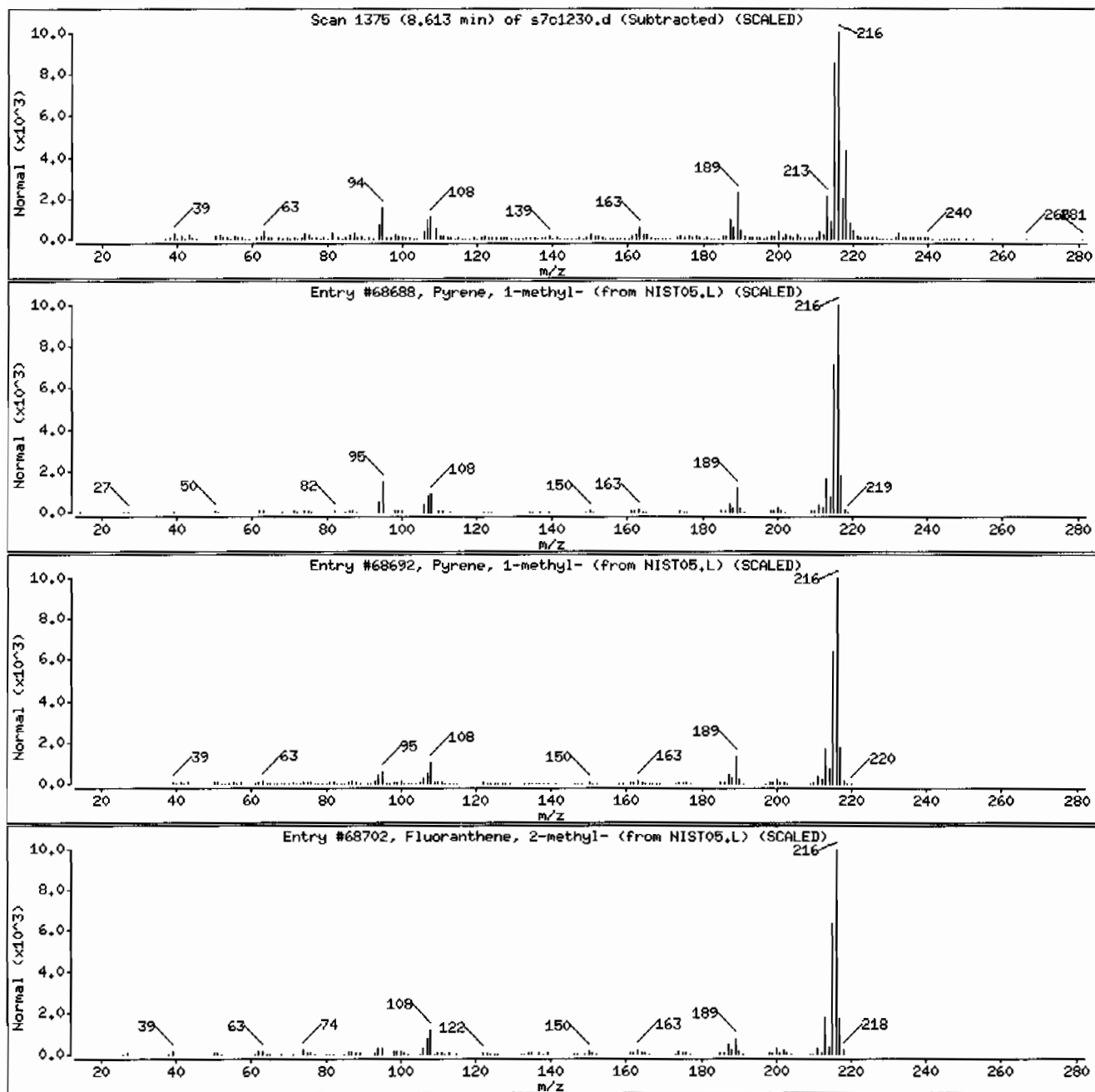
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68688	96	C17H12	216
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68692	92	C17H12	216
Fluoranthene, 2-methyl-	33543-31-6	NIST05.L	68702	91	C17H12	216



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: HSD7.i

Sample Info: 1248043002195962311SVH11ILANL

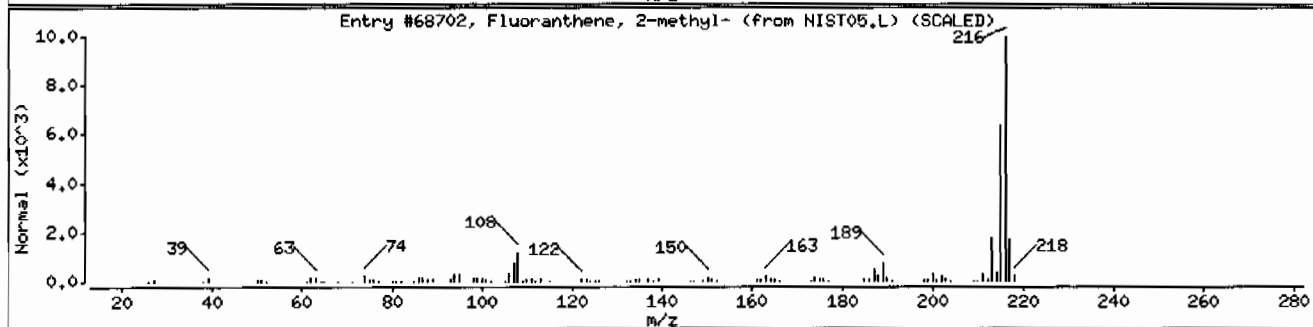
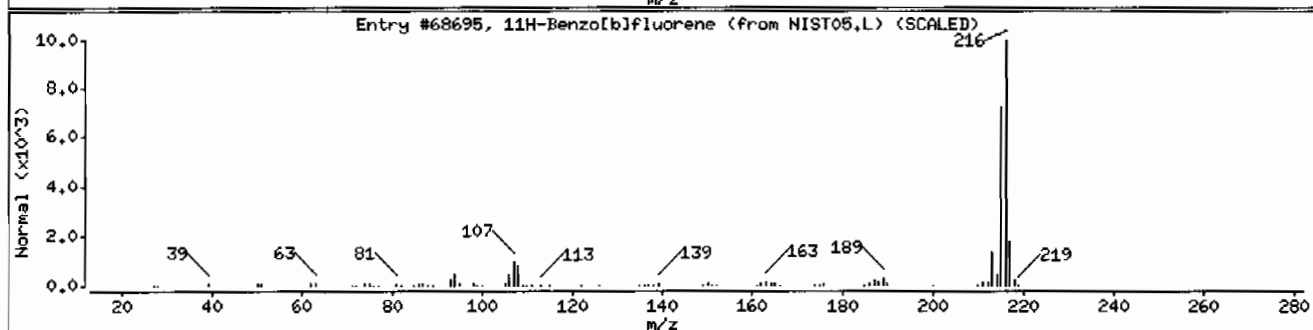
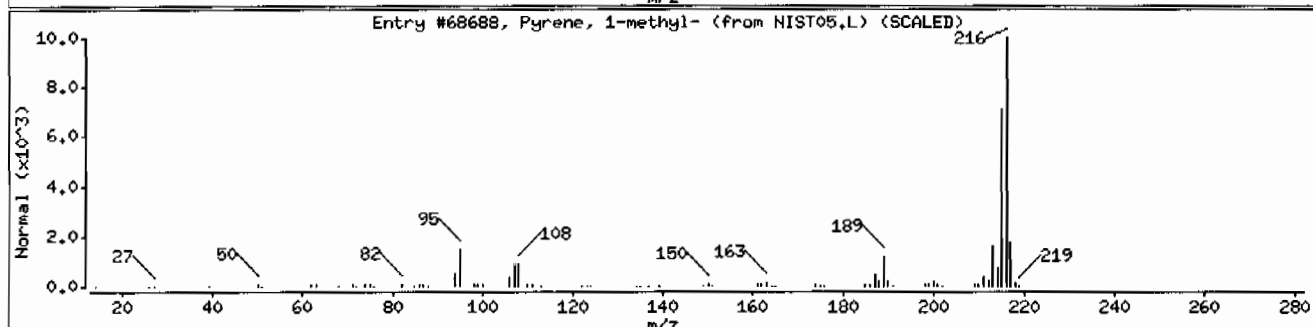
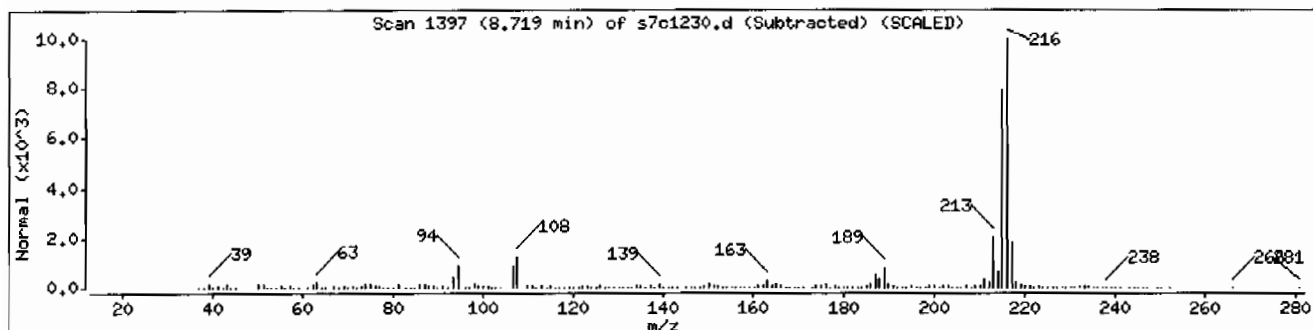
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68688	97	C17H12	216
11H-Benzo[b]fluorene	243-17-4	NIST05.L	68695	96	C17H12	216
Fluoranthene, 2-methyl-	33543-31-6	NIST05.L	68702	96	C17H12	216



Date: 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 1248043002195962311SVMI1ILANL

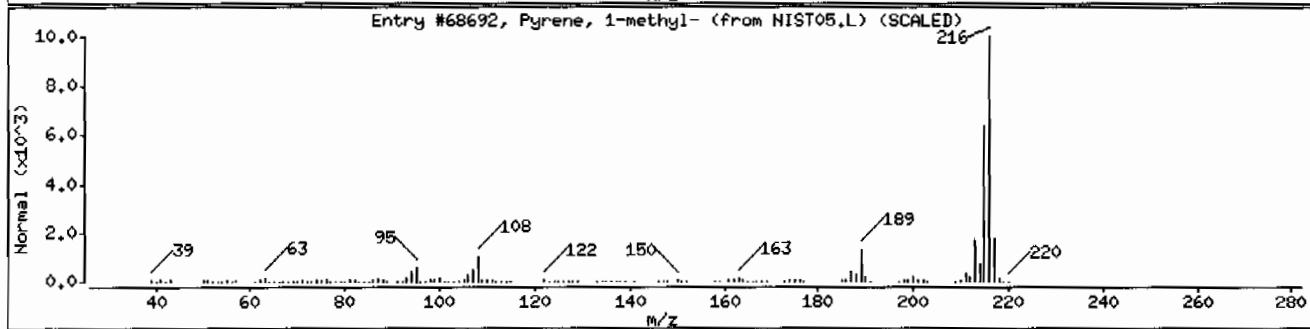
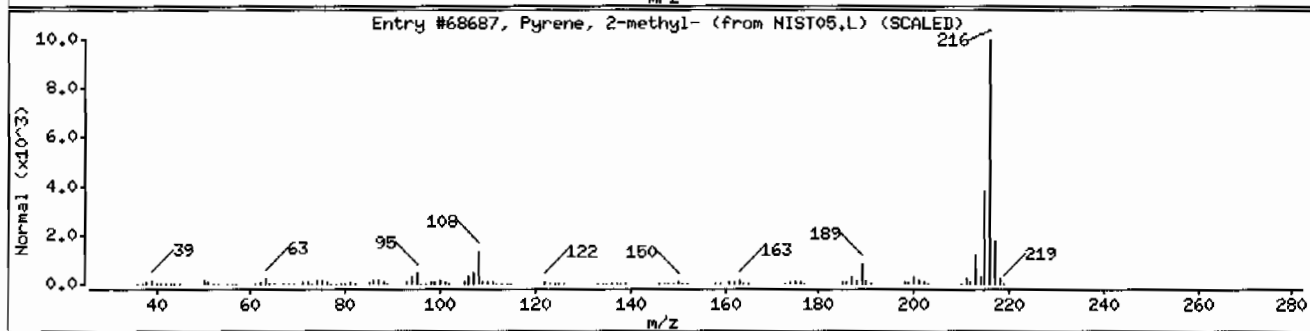
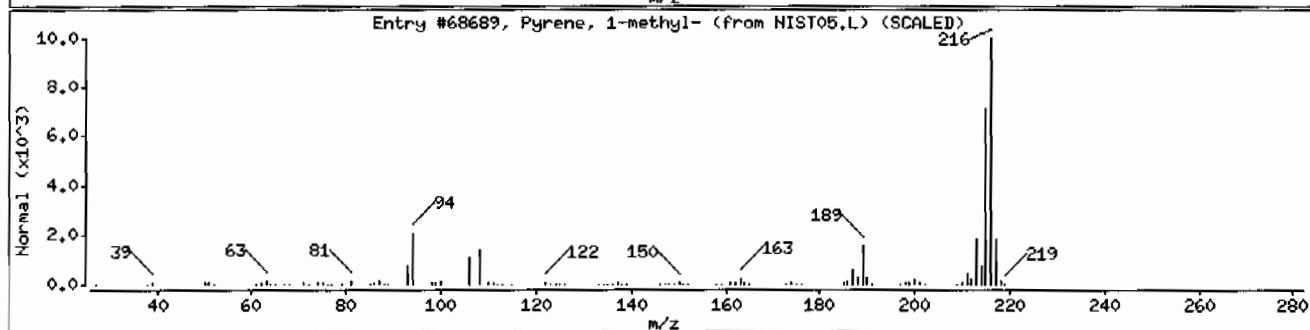
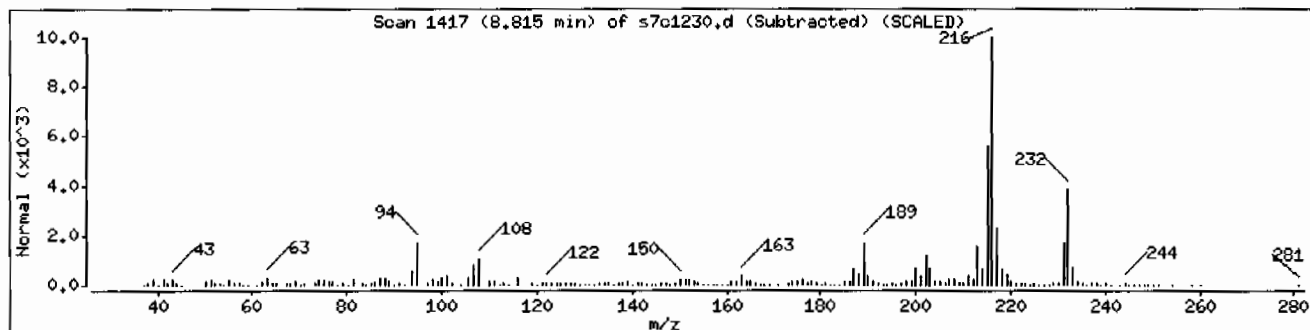
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68689	96	C17H12	216
Pyrene, 2-methyl-	3442-78-2	NIST05.L	68687	95	C17H12	216
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68692	92	C17H12	216



Date: 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 1248043002195962311SVH11LANL

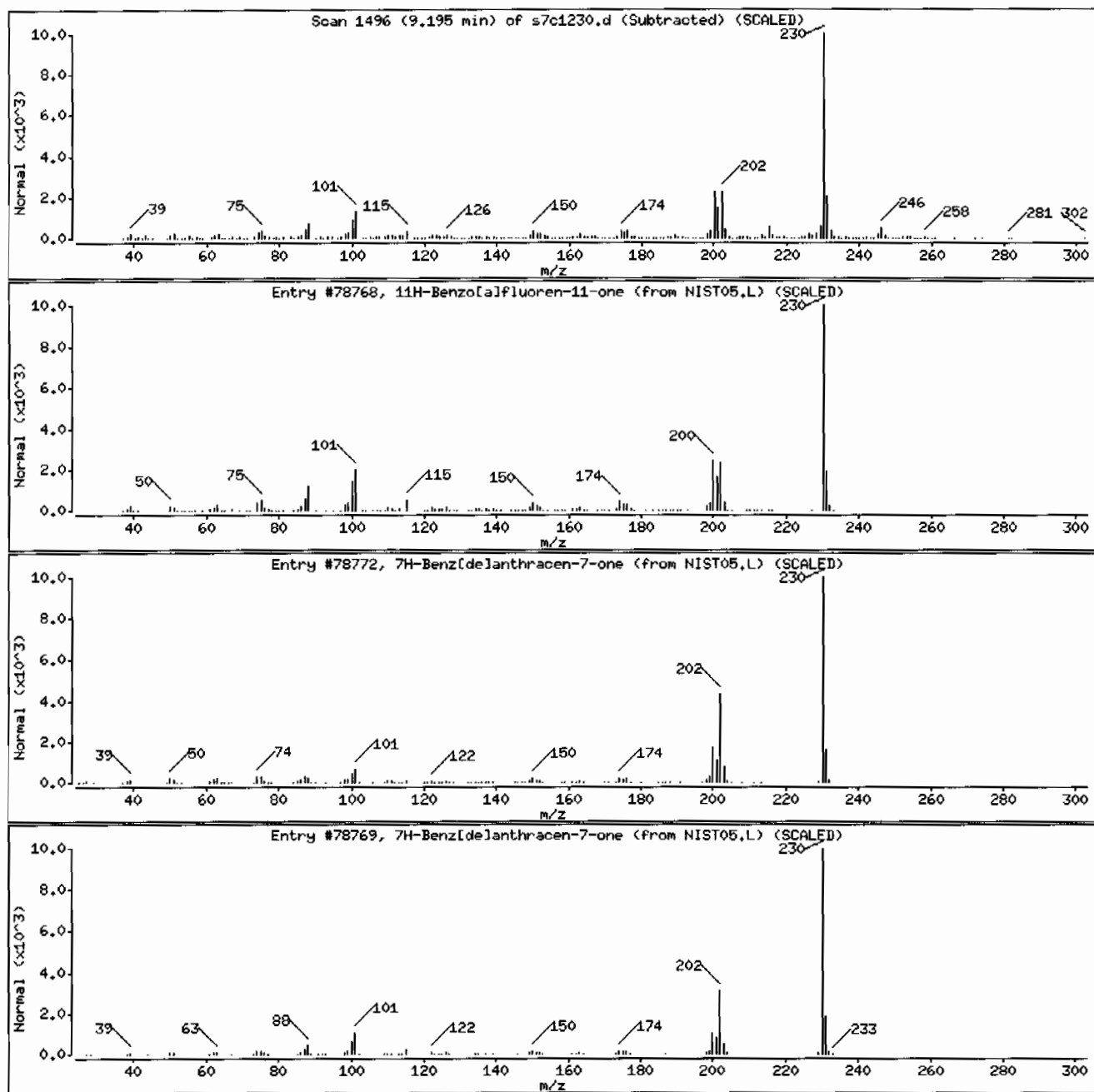
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[a]fluoren-11-one	479-79-8	NIST05.L	78768	97	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78772	90	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78769	74	C17H10O	230



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 1248043002195962311SVMI1ILANL

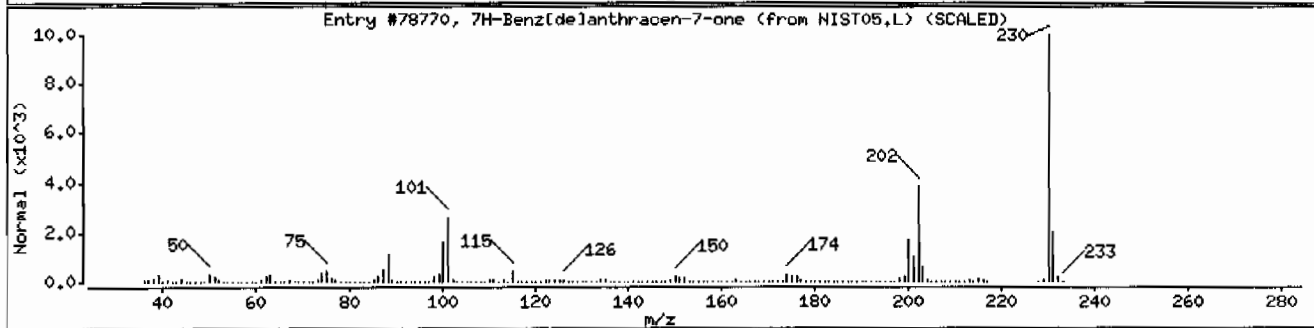
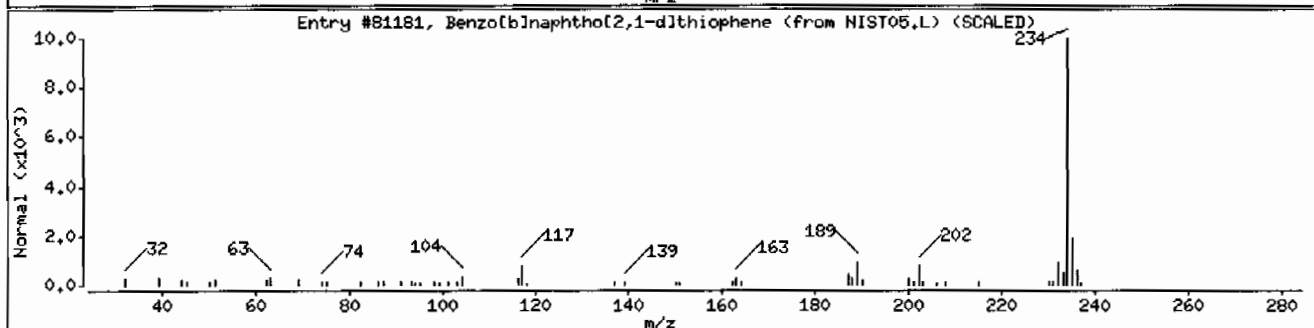
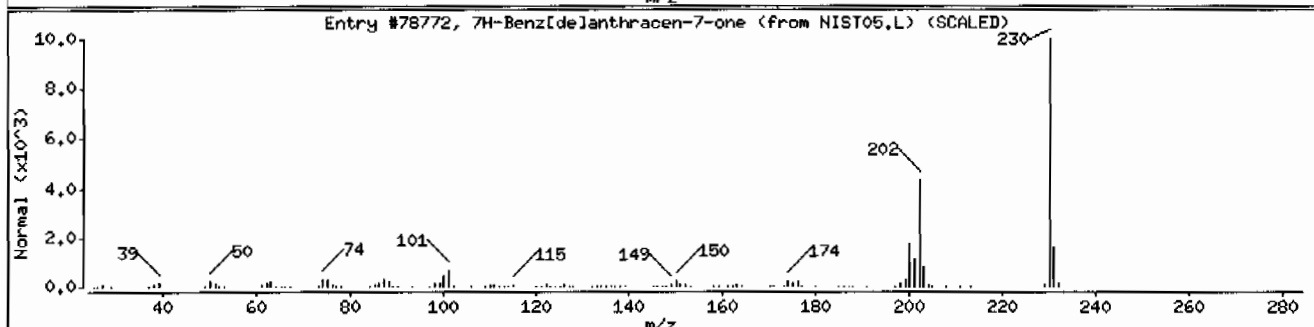
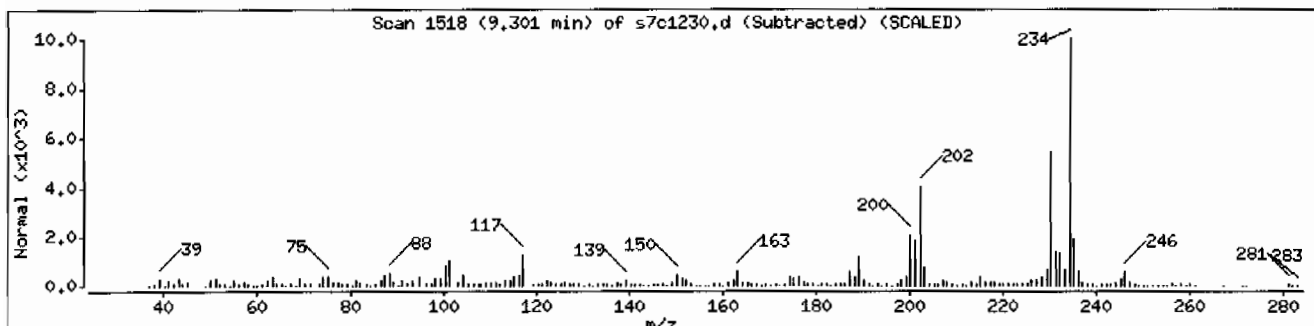
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78772	94	C17H10O	230
Benzo[b]naphtho[2,1-d]thiophene	239-35-0	NIST05.L	81181	90	C16H10S	234
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78770	84	C17H10O	230



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: 1248043002195962311SVH11ILANL

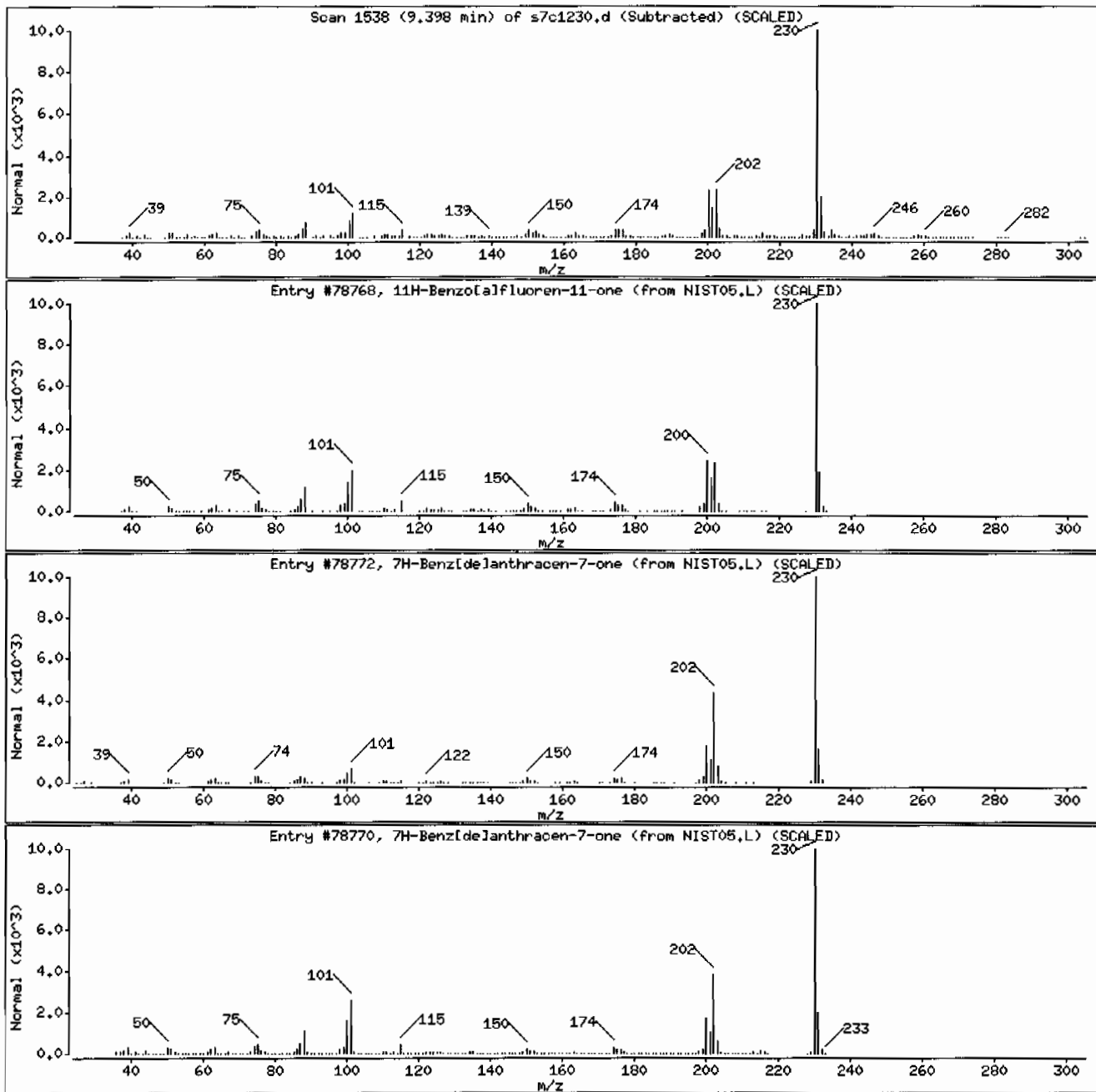
Volume Injected (UL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11H-Benzo[ <i>a</i> ]fluoren-11-one	479-79-8	NIST05.L	78768	97	C <sub>17</sub> H <sub>10</sub> O	230
7H-Benz[ <i>de</i> ]anthracen-7-one	82-05-3	NIST05.L	78772	90	C <sub>17</sub> H <sub>10</sub> O	230
7H-Benz[ <i>de</i> ]anthracen-7-one	82-05-3	NIST05.L	78770	89	C <sub>17</sub> H <sub>10</sub> O	230





Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: I2480430021959623111SVH111LANL

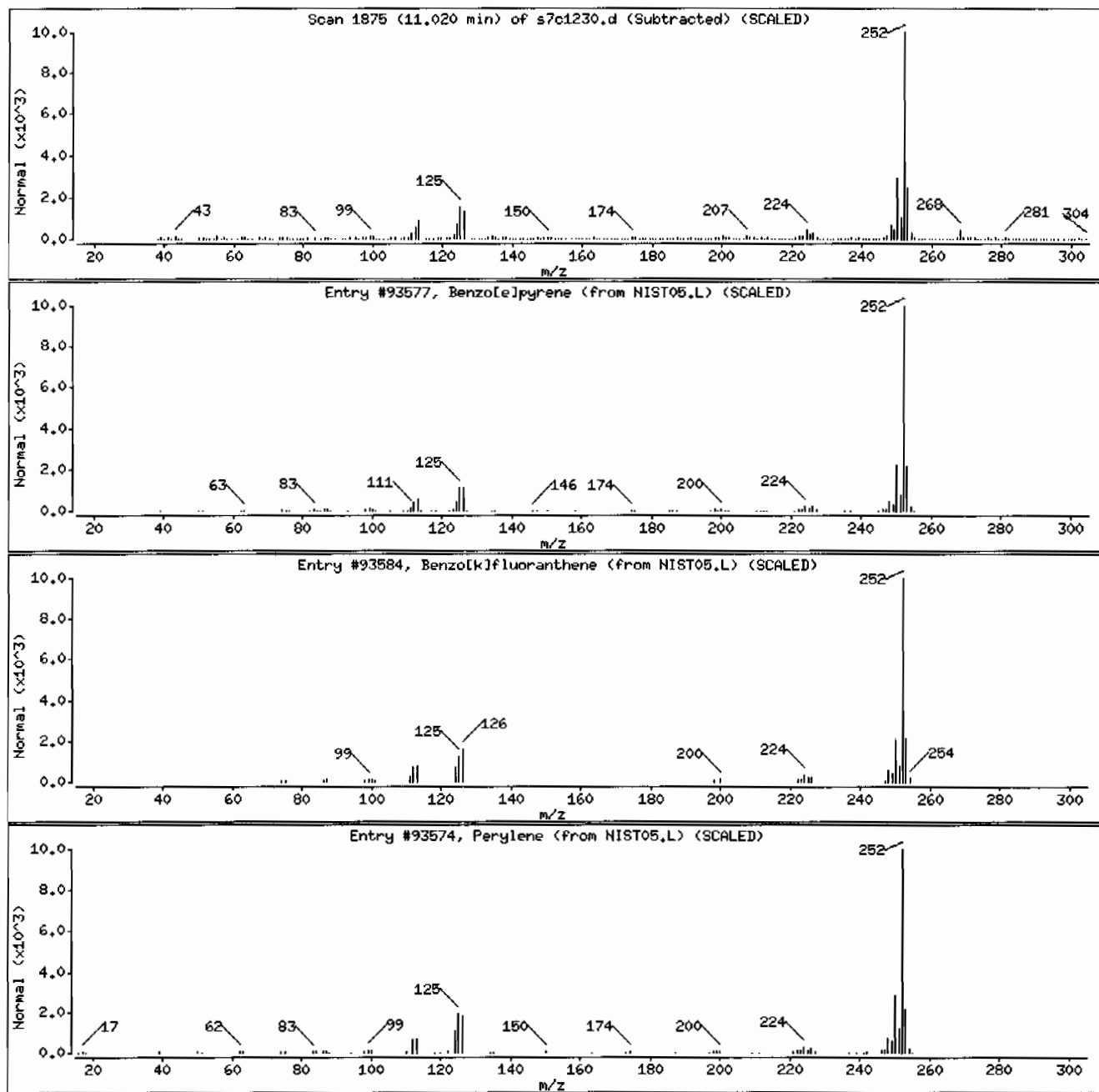
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[el]pyrene	192-97-2	NIST05.L	93577	99	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	98	C20H12	252
Perylene	198-55-0	NIST05.L	93574	98	C20H12	252



Date : 12-MAR-2010 23:01

Client ID: RE36-10-7413

Instrument: MSD7.i

Sample Info: I248043002195962311ISVMI1ILANL

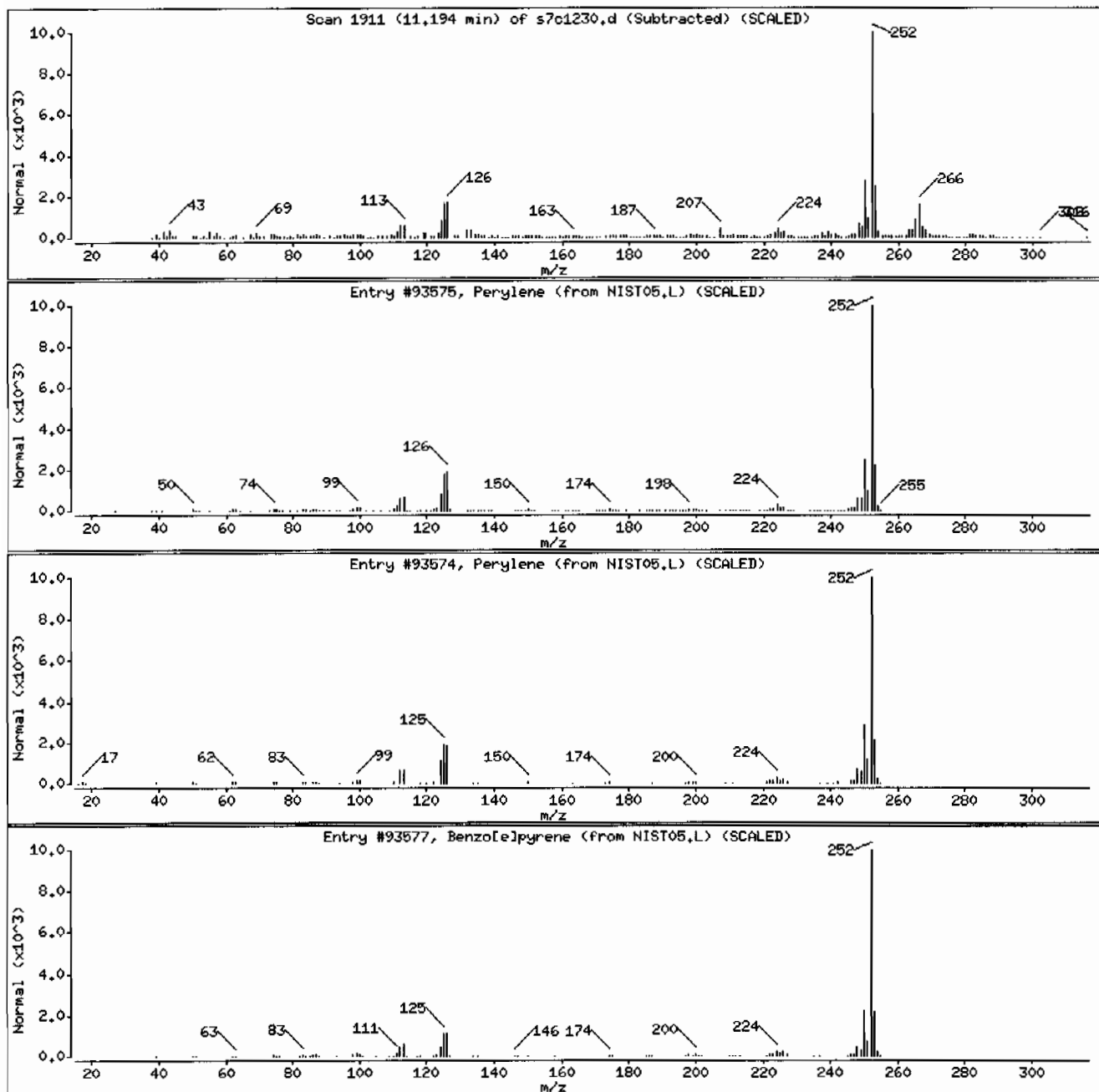
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Perylene	198-55-0	NIST05.L	93575	99	C <sub>20</sub> H <sub>12</sub>	252
Perylene	198-55-0	NIST05.L	93574	98	C <sub>20</sub> H <sub>12</sub>	252
Benzo[el]pyrene	192-97-2	NIST05.L	93577	98	C <sub>20</sub> H <sub>12</sub>	252



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043002	Date Received: 02/25/2010 08:45	%Moisture: 20.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7413DL	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 4
Run Date: 03/12/2010 21:12	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.07 g	Final Volume: 1 mL
Data File: s7c1225.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
129-00-0	Pyrene		7760	ug/kg	50.5	168
85-01-8	Phenanthrene		8640	ug/kg	50.5	168
206-44-0	Fluoranthene		10000	ug/kg	50.5	168
205-99-2	Benzo(b)fluoranthene		6620	ug/kg	50.5	168

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
86-74-8	Carbazole	7.33	851	ug/kg	95	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.57	762	ug/kg	98	NJ
	Unknown	7.59	872	ug/kg		J
	Unknown	7.67	1410	ug/kg		J
84-65-1	9,10-Anthracenedione	7.85	940	ug/kg	99	NJ
243-17-4	11H-Benzo[b]fluorene	8.71	764	ug/kg	97	NJ
192-97-2	Benzo[e]pyrene	11.01	2550	ug/kg	99	NJ

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Data file : /chem/MSD7.i/s031210.b/s7c1225.d  
Lab Smp Id: 248043002 Client Smp ID: RE36-10-7413DL  
Inj Date : 12-MAR-2010 21:12  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043002|959623|4|SVM|2|LANL\_4x  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 15:38 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 21  
Dil Factor: 4.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	20.93190	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.879	3.884	(1.000)	453662	40.0000
* 29 Naphthalene-d8	136	4.746	4.751	(1.000)	1700649	40.0000
* 46 Acenaphthene-d10	164	5.993	5.998	(1.000)	936946	40.0000
* 67 Phenanthrene-d10	188	7.154	7.159	(1.000)	1675668	40.0000
* 91 Chrysene-d12	240	9.547	9.552	(1.000)	1271631	40.0000
* 98 Perylene-d12	264	11.150	11.160	(1.000)	769224	40.0000
\$ 3 2-Fluorophenol	112	3.080	3.080	(0.794)	82733	7.01619 1180 (R)
\$ 5 Phenol-d5	99	3.600	3.610	(0.928)	102612	6.94062 1170 (R)
\$ 20 Nitrobenzene-d5	82	4.240	4.250	(0.893)	45082	3.51467 591 (R)
\$ 39 2-Fluorobiphenyl	172	5.483	5.488	(0.915)	96485	4.13208 695
\$ 60 2,4,6-Tribromophenol	329	6.581	6.590	(1.098)	21952	8.10459 1360 (R)
\$ 81 p-Terphenyl-d14	244	8.516	8.526	(0.892)	102823	4.51344 759

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
47 Acenaphthene		154	6.017	6.022	(1.004)	97661	4.73566	797
79 Pyrene		202	8.425	8.425	(0.882)	1852082	46.1027	7760
30 Naphthalene		128	4.760	4.765	(1.003)	46489	1.44710	243
34 2-Methylnaphthalene		142	5.237	5.242	(1.103)	21175	0.91840	154 (a)
49 Dibenzofuran		168	6.138	6.147	(1.024)	82959	2.86226	482 (a)
53 Fluorene		166	6.398	6.403	(1.067)	110585	4.54723	765
68 Phenanthrene		178	7.173	7.178	(1.003)	1765923	51.3566	8640
69 Anthracene		178	7.211	7.221	(1.008)	311426	8.94262	1500
76 Fluoranthene		202	8.208	8.208	(1.147)	2229575	59.6343	10000
89 Benzo(a)anthracene		228	9.532	9.537	(0.998)	756608	24.8193	4180
92 Chrysene		228	9.566	9.576	(1.002)	675012	24.8836	4190
95 Benzo(b)fluoranthene		252	10.659	10.664	(0.956)	849478	39.3783	6620
97 Benzo(a)pyrene		252	11.073	11.083	(0.993)	383034	21.6545	3640
99 Indeno(1,2,3-cd)pyrene		276	12.812	12.841	(1.149)	152411	11.9823	2020
100 Dibenzo(a,h)anthracene		278	12.821	12.850	(1.150)	40223	3.99039	671
101 Benzo(ghi)perylene		276	13.327	13.351	(1.195)	132938	12.5322	2110

#### QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).  
R - Spike/Surrogate failed recovery limits.

## ION RATIO REPORT

## SV REPORT

Data file: s7c1225.d

Report Date: 03/13/2010 09:25

Lab. ID: 248043002

SampleType: SAMPLE

Injection Date: 12-MAR-2010 21:12

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043002|959623|4|SVM|2|LANL 4x

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 4.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
30 Naphthalene			CAS#: 91-20-3			
128	46489	4.76	4.77	80-120	100	( )
129	5413	4.76	4.77	0- 43	12	( )
127	5751	4.76	4.77	0- 44	12	( )
-----						
34 2-Methylnaphthalene			CAS#: 91-57-6			
142	21175	5.24	5.24	80-120	100	( )
141	17299	5.24	5.24	54-114	82	( )
-----						
43 Dimethylphthalate			CAS#: 131-11-3			
163	169655	5.99	5.76	80-120	100	(T)
164	936946	5.99	5.76	0- 40	552	(QT)
-----						
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	124378	5.99	5.82	80-120	100	(T)
63	1874	5.99	5.82	56-116	2	(QT)
-----						
45 Acenaphthylene			CAS#: 208-96-8			
152	47548	6.01	5.90	80-120	100	(T)
151	17613	6.01	5.90	0- 49	37	(T)
153	109236	6.02	5.90	0- 43	230	(QT)
-----						
47 Acenaphthene			CAS#: 83-32-9			
154	97661	6.02	6.02	80-120	100	( )
153	109236	6.02	6.02	73-133	112	( )
152	47548	6.01	6.02	18- 78	49	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
49 Dibenzofuran			CAS#: 132-64-9			
168	82959	6.14	6.15	80-120	100	( )
139	30982	6.14	6.15	8- 68	37	( )
-----						
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	124378	5.99	6.11	80-120	100	(T)
89	1928	5.99	6.11	39- 99	2	(QT)
63	1874	5.99	6.11	18- 78	2	(QT)
-----						
52 4-Nitrophenol			CAS#: 100-02-7			
139	30982	6.14	6.05	80-120	100	(T)
109	305	6.14	6.05	38- 98	1	(QT)
65	673	6.14	6.05	69-129	2	(QT)
-----						
53 Fluorene			CAS#: 86-73-7			
166	110585	6.40	6.40	80-120	100	( )
165	101353	6.40	6.40	62-122	92	( )
167	17195	6.40	6.40	0- 44	16	( )
-----						
68 Phenanthrene			CAS#: 85-01-8			
178	1765923	7.17	7.18	80-120	100	( )
179	282401	7.17	7.18	0- 46	16	( )
176	325036	7.17	7.18	0- 48	18	( )
-----						
69 Anthracene			CAS#: 120-12-7			
178	311426	7.21	7.22	80-120	100	( )
179	72533	7.21	7.22	0- 46	23	( )
176	53926	7.21	7.22	0- 48	17	( )
-----						
76 Fluoranthene			CAS#: 206-44-0			
202	2229575	8.21	8.21	80-120	100	( )
203	396648	8.21	8.21	0- 48	18	( )
101	249855	8.21	8.21	0- 41	11	( )
-----						
79 Pyrene			CAS#: 129-00-0			
202	1852082	8.42	8.43	80-120	100	( )
200	368474	8.42	8.43	0- 50	20	( )
101	252872	8.42	8.43	0- 43	14	( )
-----						
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	756608	9.53	9.54	80-120	100	( )
226	200961	9.53	9.54	0- 56	27	( )
229	206654	9.53	9.54	0- 50	27	( )
-----						
92 Chrysene			CAS#: 218-01-9			
228	675012	9.57	9.58	80-120	100	( )
229	161024	9.57	9.58	0- 50	24	( )
226	191272	9.57	9.58	0- 58	28	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	849478	10.66	10.66	80-120	100	( )
253	197427	10.66	10.66	0- 52	23	( )
125	96600	10.66	10.66	0- 41	11	( )
<hr/>						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	849478	10.66	10.70	80-120	100	( )
253	197446	10.66	10.70	0- 52	23	( )
125	96600	10.66	10.70	0- 41	11	( )
<hr/>						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	383034	11.07	11.08	80-120	100	( )
253	88959	11.07	11.08	0- 52	23	( )
125	43168	11.07	11.08	0- 42	11	( )
<hr/>						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	152411	12.81	12.84	80-120	100	( )
138	40692	12.81	12.84	2- 62	27	( )
<hr/>						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	40223	12.82	12.85	80-120	100	( )
139	4745	12.82	12.85	0- 50	12	( )
<hr/>						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	132938	13.33	13.35	80-120	100	( )
138	35477	13.32	13.35	0- 57	27	( )

Q qualifier indicates ion failed ratio requirement



GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031210.b/s7c1225.d  
Lab Smp Id: 248043002 Client Smp ID: RE36-10-7413DL  
Inj Date : 12-MAR-2010 21:12  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043002|959623|4|SVM|2|LANL\_4x  
Misc Info : |MSD8270 S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 15:38 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 21  
Dil Factor: 4.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	20.93190	% moisture

Cpnd Variable Local Compound Variable

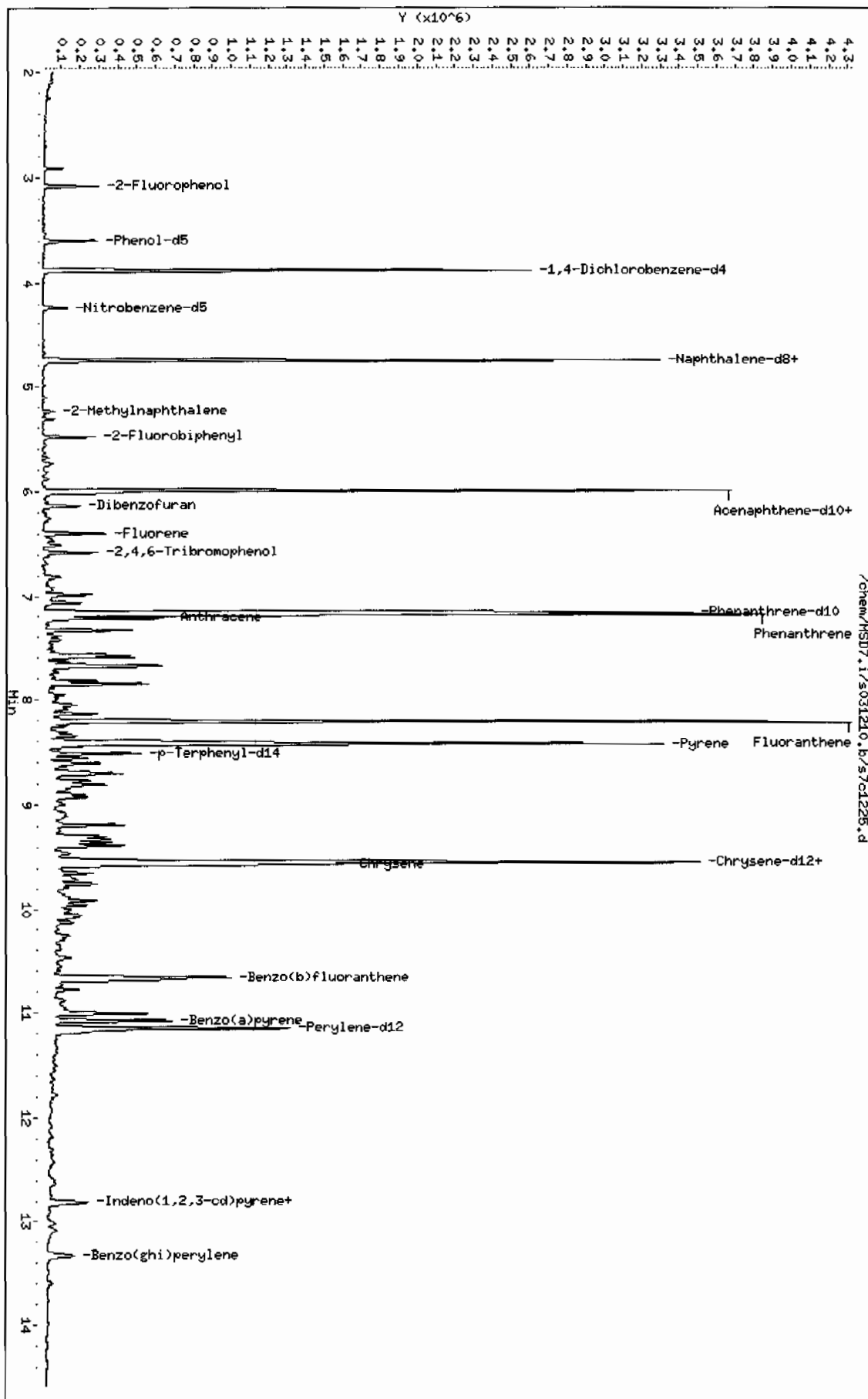
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 67 Phenanthrene-d10	7.154	4411113	40.000
* 91 Chrysene-d12	9.547	6133797	40.000
* 98 Perylene-d12	11.150	2218390	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
----	----	-----	-----	----	-----	-----	-----

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Carbazole				CAS #: 86-74-8			
7.327	557498	5.05539310	850	95	NIST05.L	34221	67
Phenanthrene, 2-methyl-				CAS #: 2531-84-2			
7.568	499512	4.52957631	762	98	NIST05.L	51412	67
Unknown				CAS #:			
7.592	571582	5.18310921	872	0		0	67
Unknown				CAS #:			
7.674	922613	8.36626240	1410	0		0	67
9,10-Anthracenedione				CAS #: 84-65-1			
7.847	616470	5.59015204	940	99	NIST05.L	62993	67
11H-Benzo[b]fluorene				CAS #: 243-17-4			
8.709	696554	4.54240066	764	97	NIST05.L	68695	91
Benzo[e]pyrene				CAS #: 192-97-2			
11.006	841107	15.1660723	2550	99	NIST05.L	93577	98

Data File: /chem/HSD7.i/s031210.b/s7c1226.d  
 Date: 12-MAR-2010 21:12  
 Client ID: RE36-10-7413DL  
 Sample Info: 12480430021959623141SVH12ILANL\_4x  
 Volume Injected (uL): 0.5  
 Column phase: J&M DB-SHS

Instrument: MSD7.i  
 Operator: JMB3  
 Column diameter: 0.20



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: 12480430021959623141SVH121LANL\_4x

Volume Injected (uL): 0.5

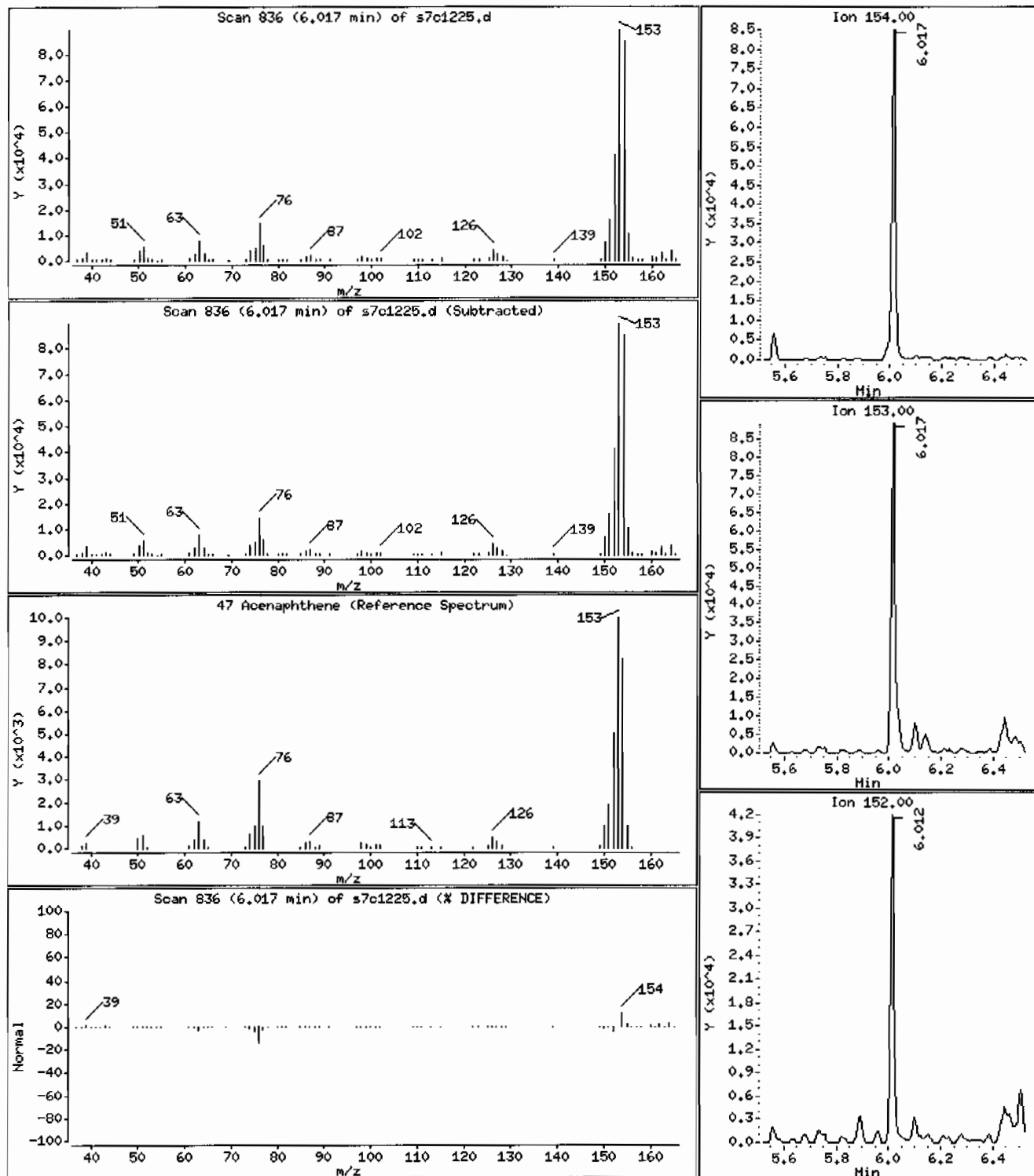
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 797 ug/Kg



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: 12480430021959623141SVHI21LANL\_4x

Volume Injected (uL): 0.5

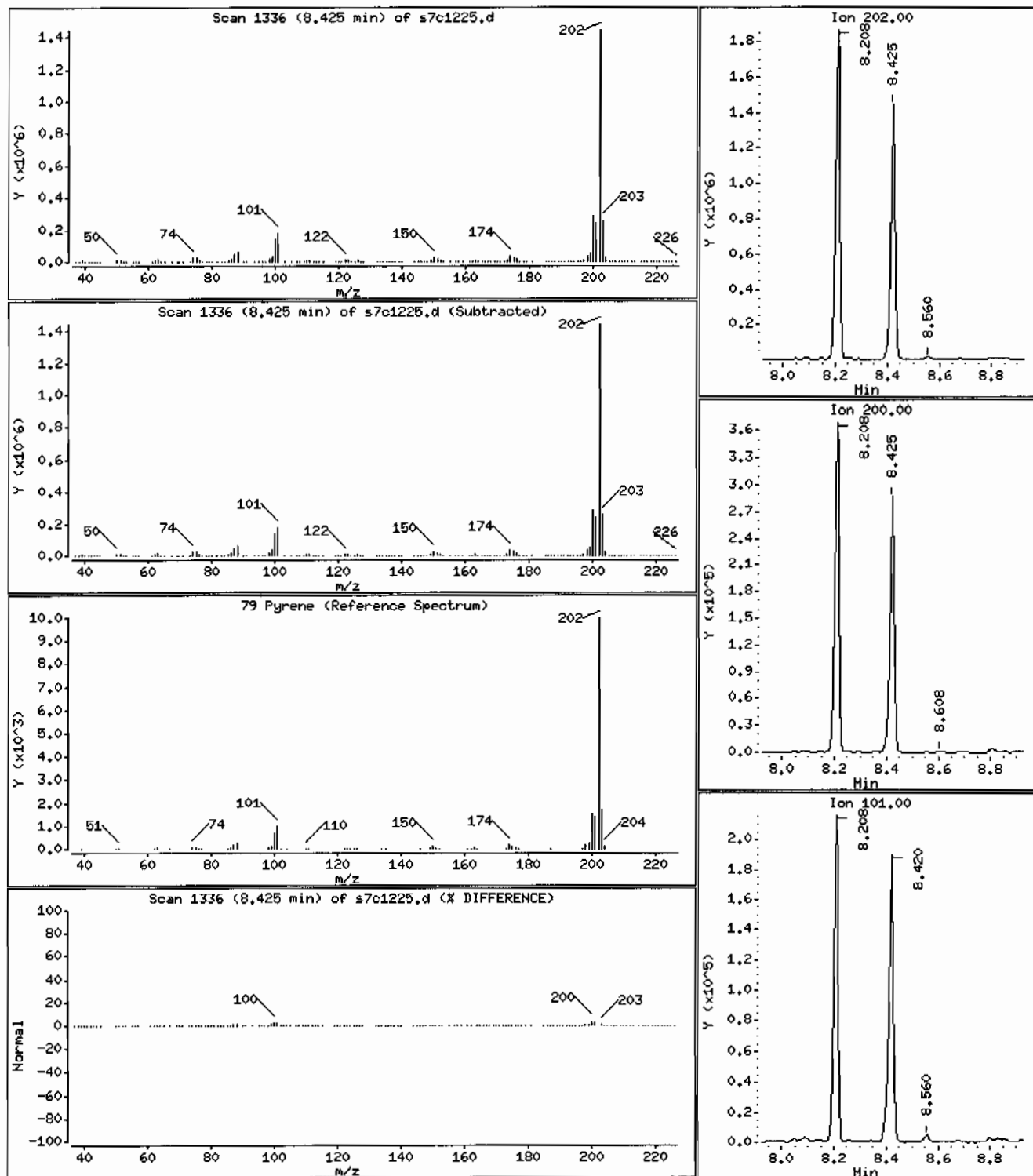
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 7760 ug/Kg



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: 12480430021959623141SVH12ILANL\_4x

Volume Injected (uL): 0.5

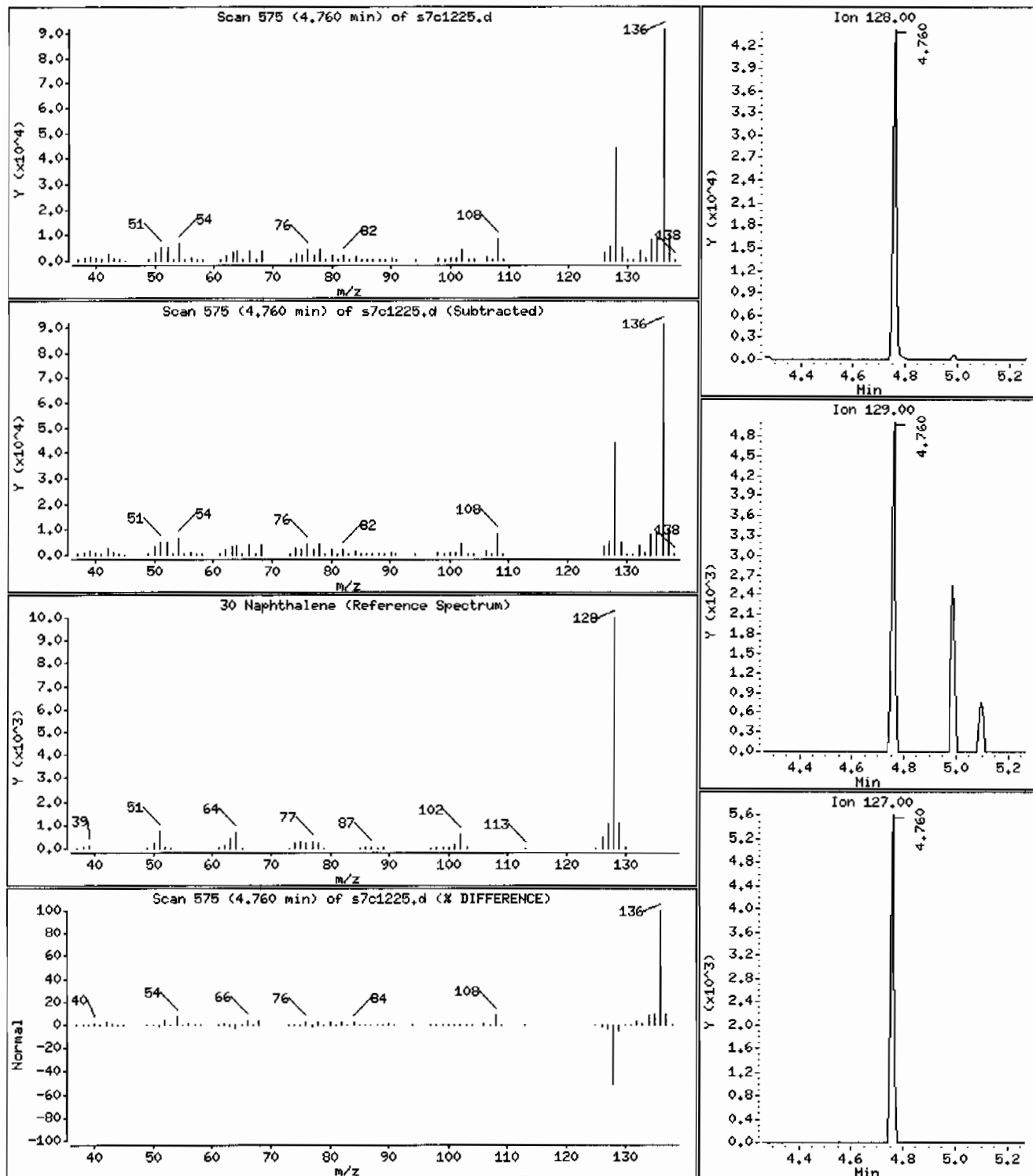
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 243 ug/Kg



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: HSD7.i

Sample Info: 12480430021959623141SVH12ILANL\_4x

Volume Injected (uL): 0.5

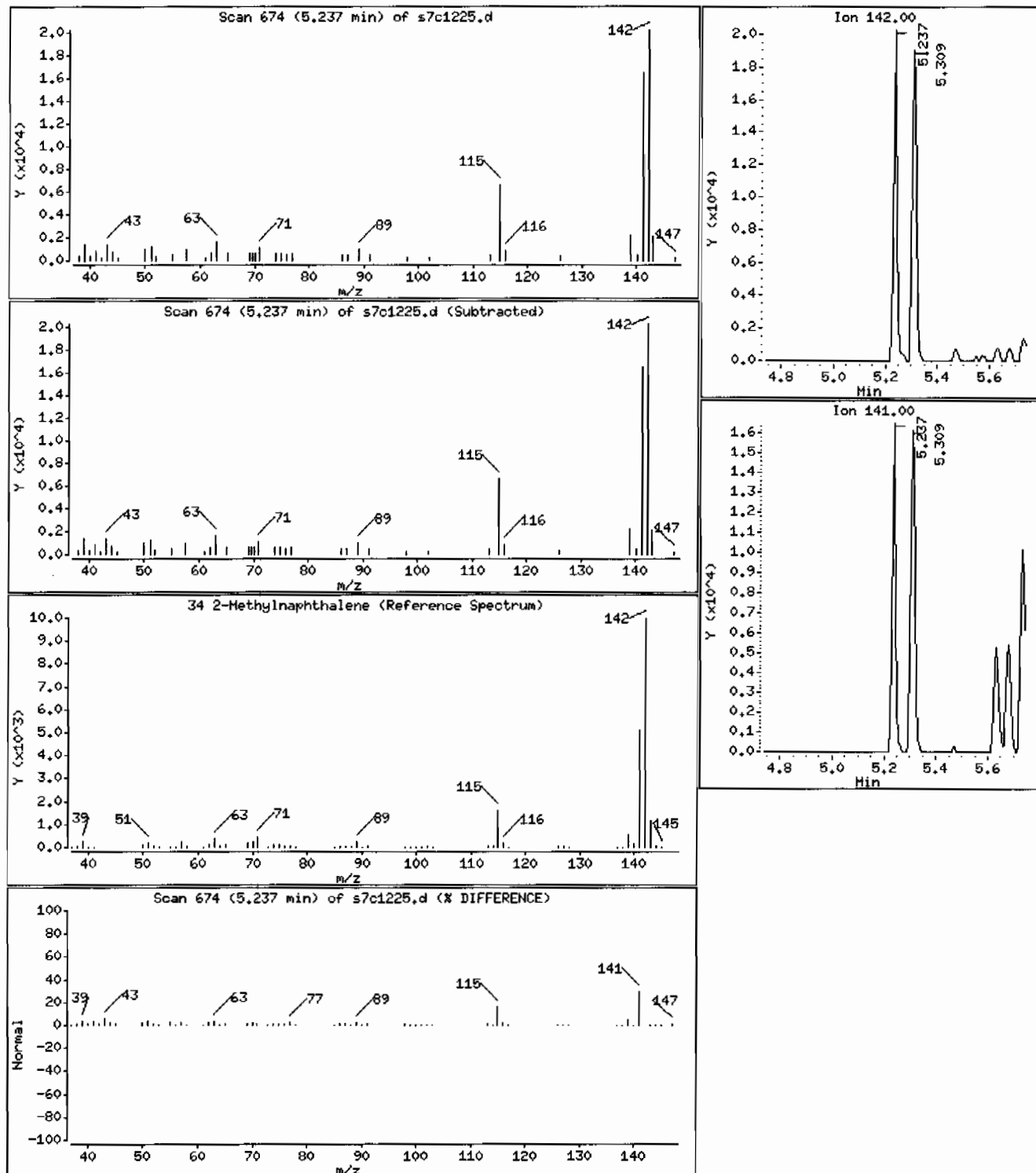
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 154 ug/Kg



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: 12480430021959623141SVMI2ILANL\_4x

Volume Injected (uL): 0.5

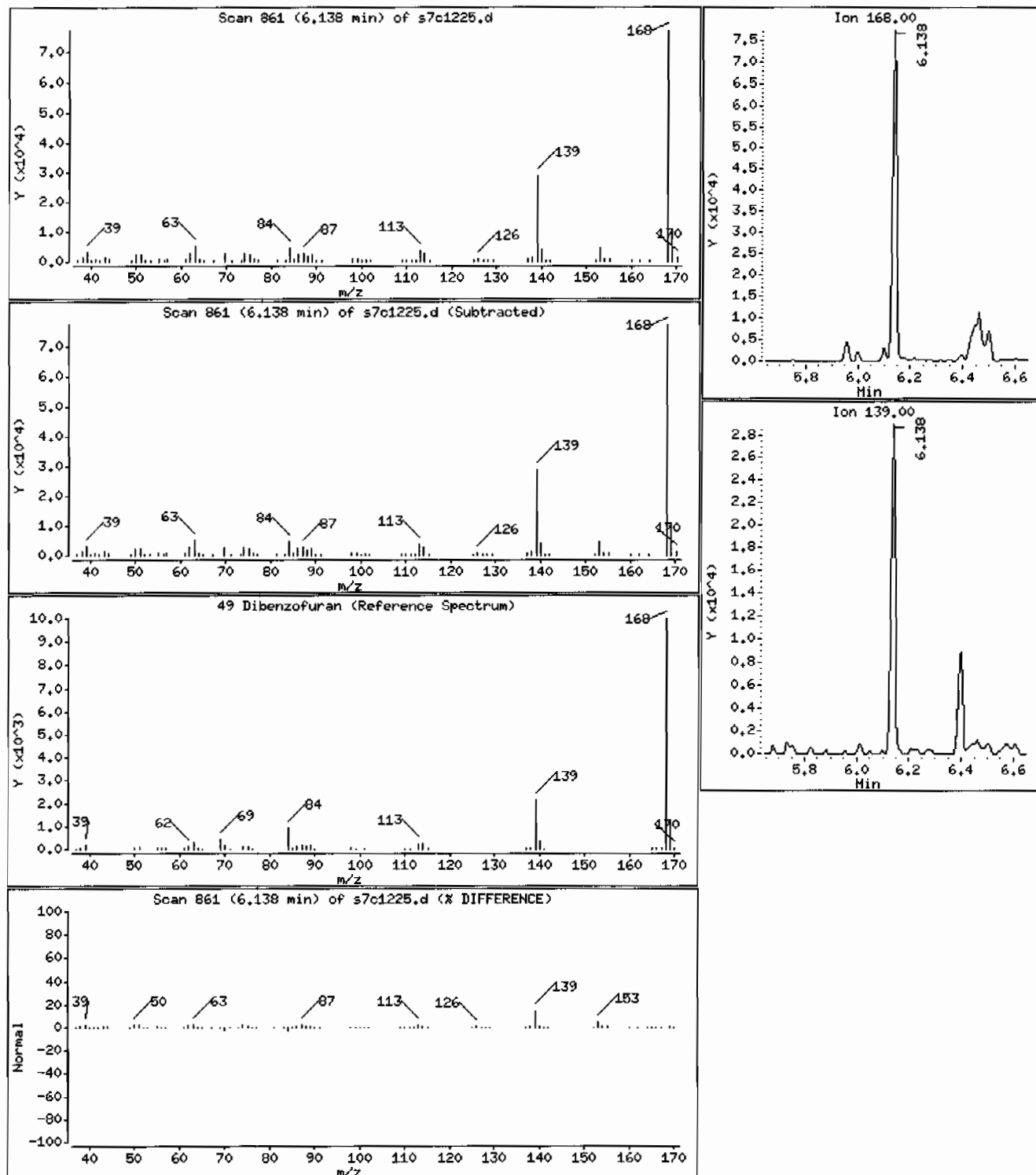
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

49 Dibenzofuran

Concentration: 482 ug/Kg





Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: I2480430021959623141SVMI21LANL\_4x

Volume Injected (uL): 0.5

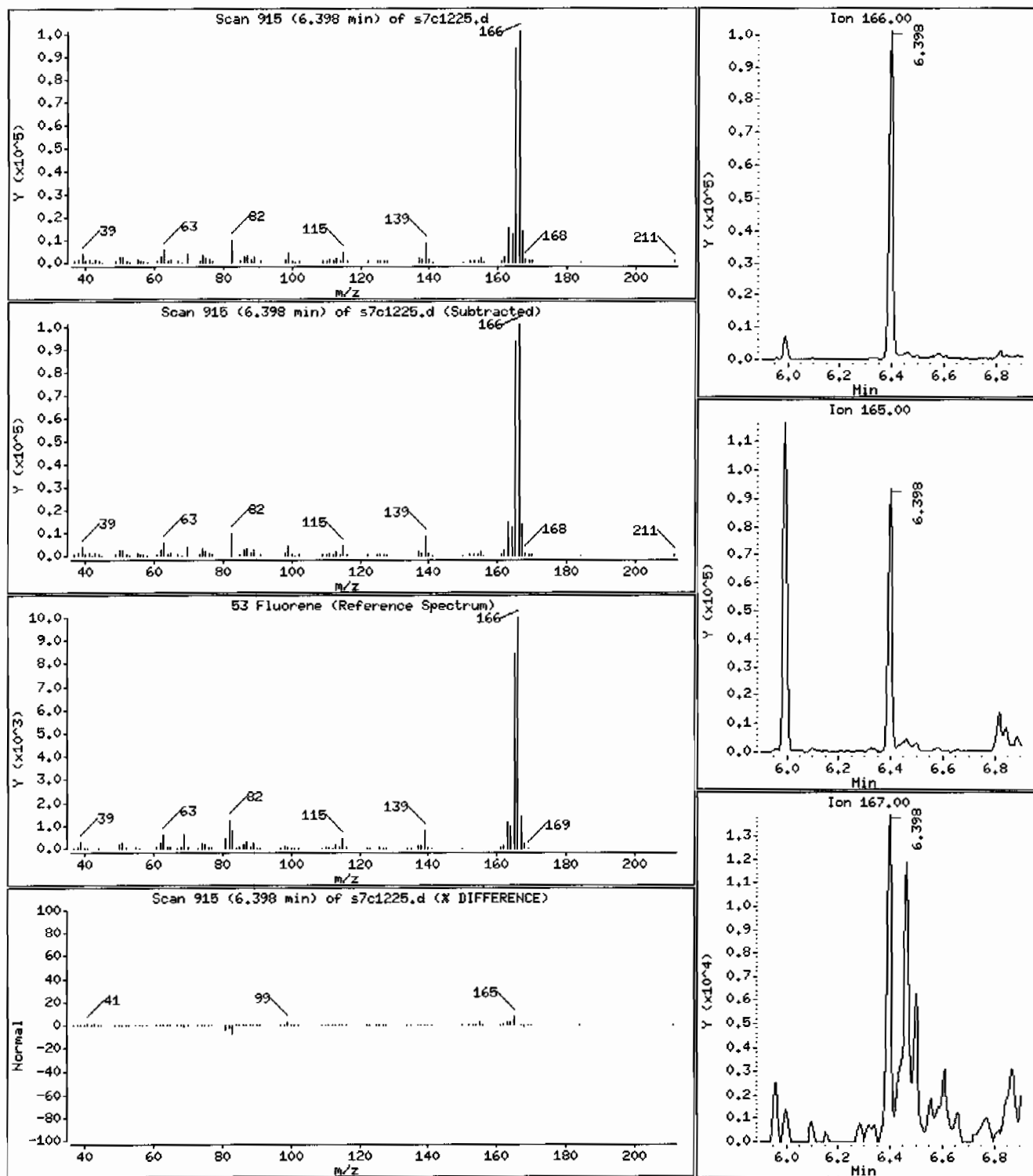
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 765 ug/Kg



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: 1248043002195962314ISVMI2ILANL\_4x

Volume Injected (uL): 0.5

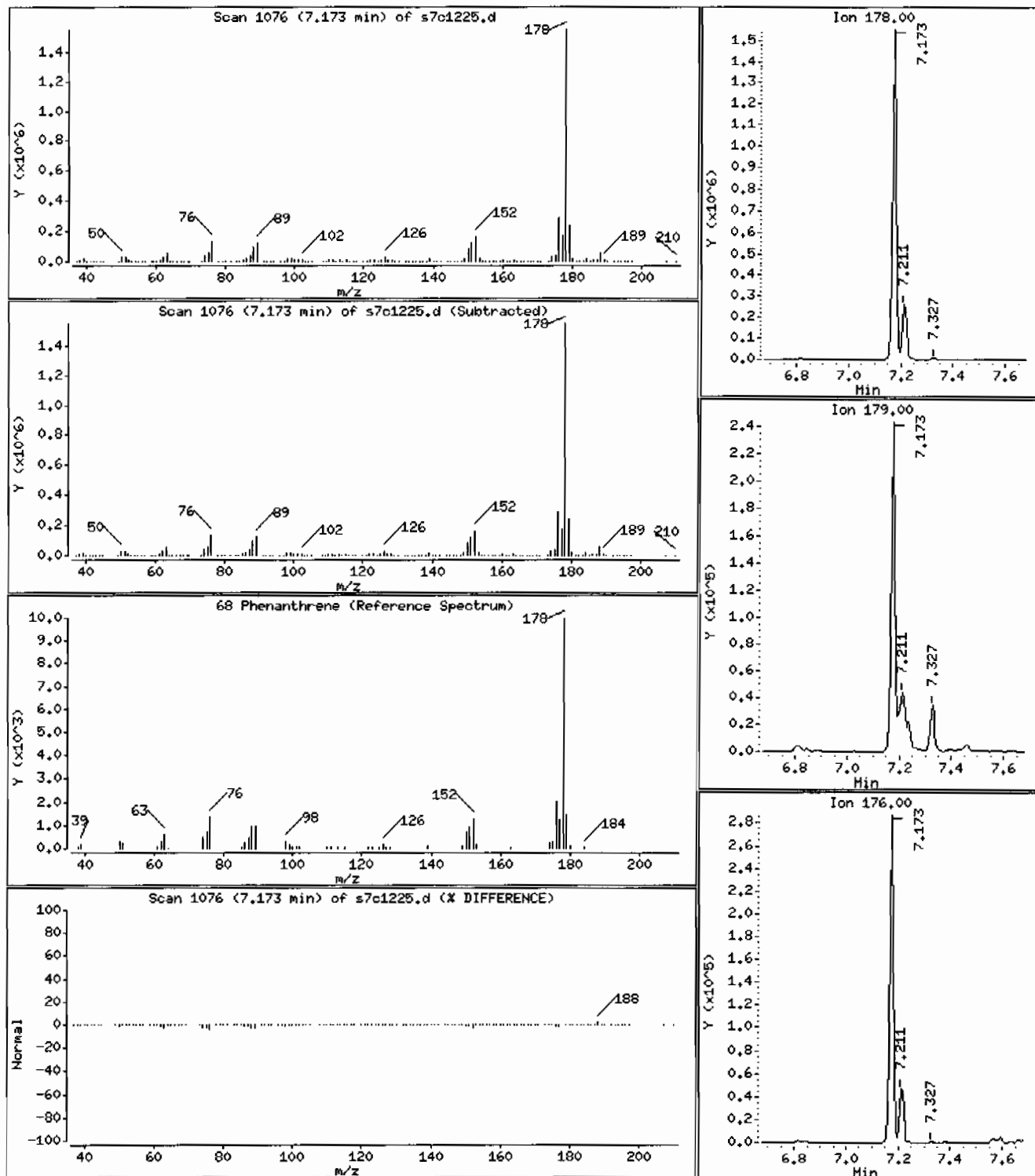
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 8640 ug/Kg



Data File: /chem/HSD7.i/s031210.b/s7c1225.d

Page 9

Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: HSD7.i

Sample Info: 12480430021959623141SVH12ILANL\_4x

Volume Injected (uL): 0.5

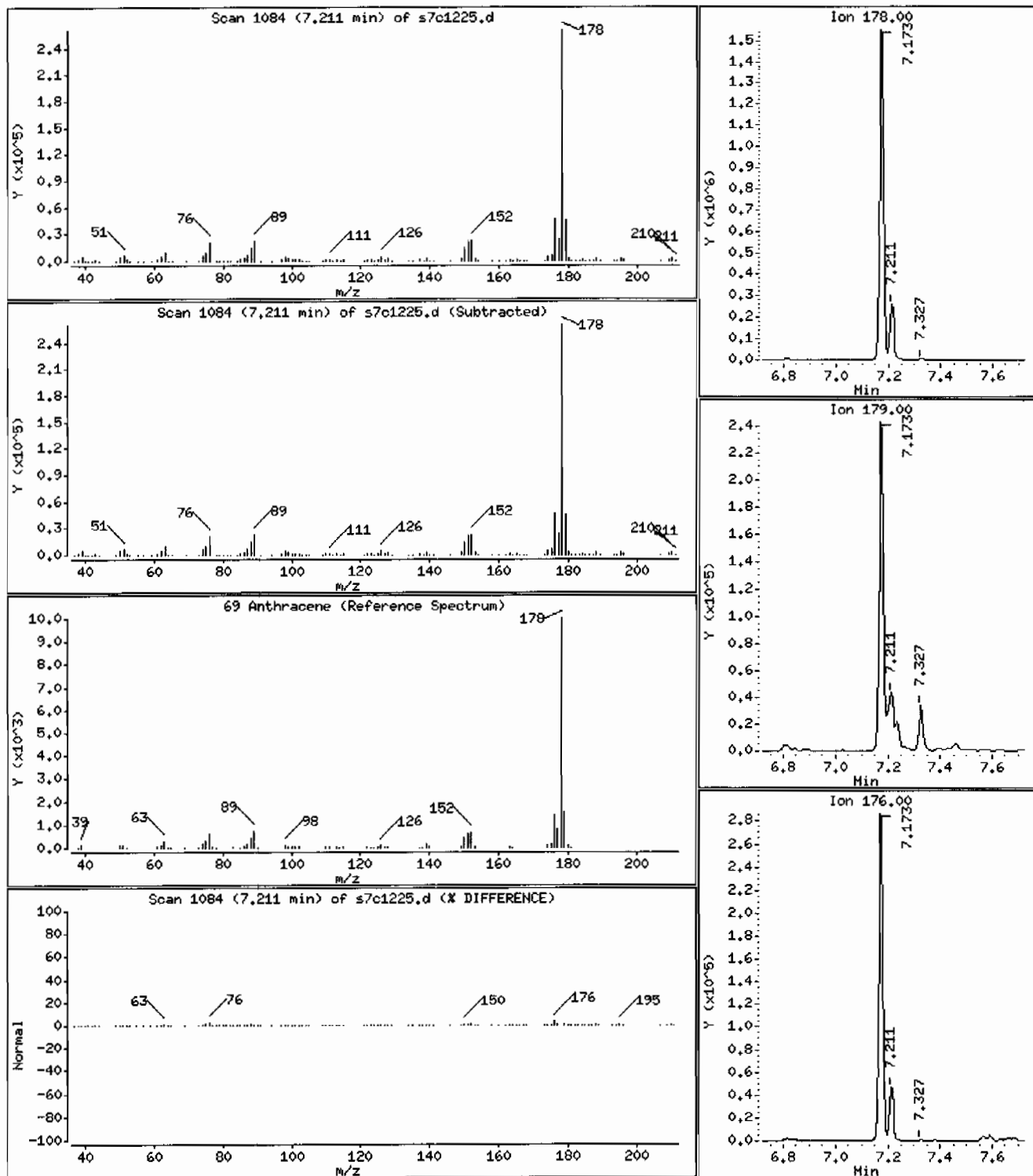
Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 1500 ug/Kg



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: 12480430021959623141SVH12ILANL\_4x

Volume Injected (uL): 0.5

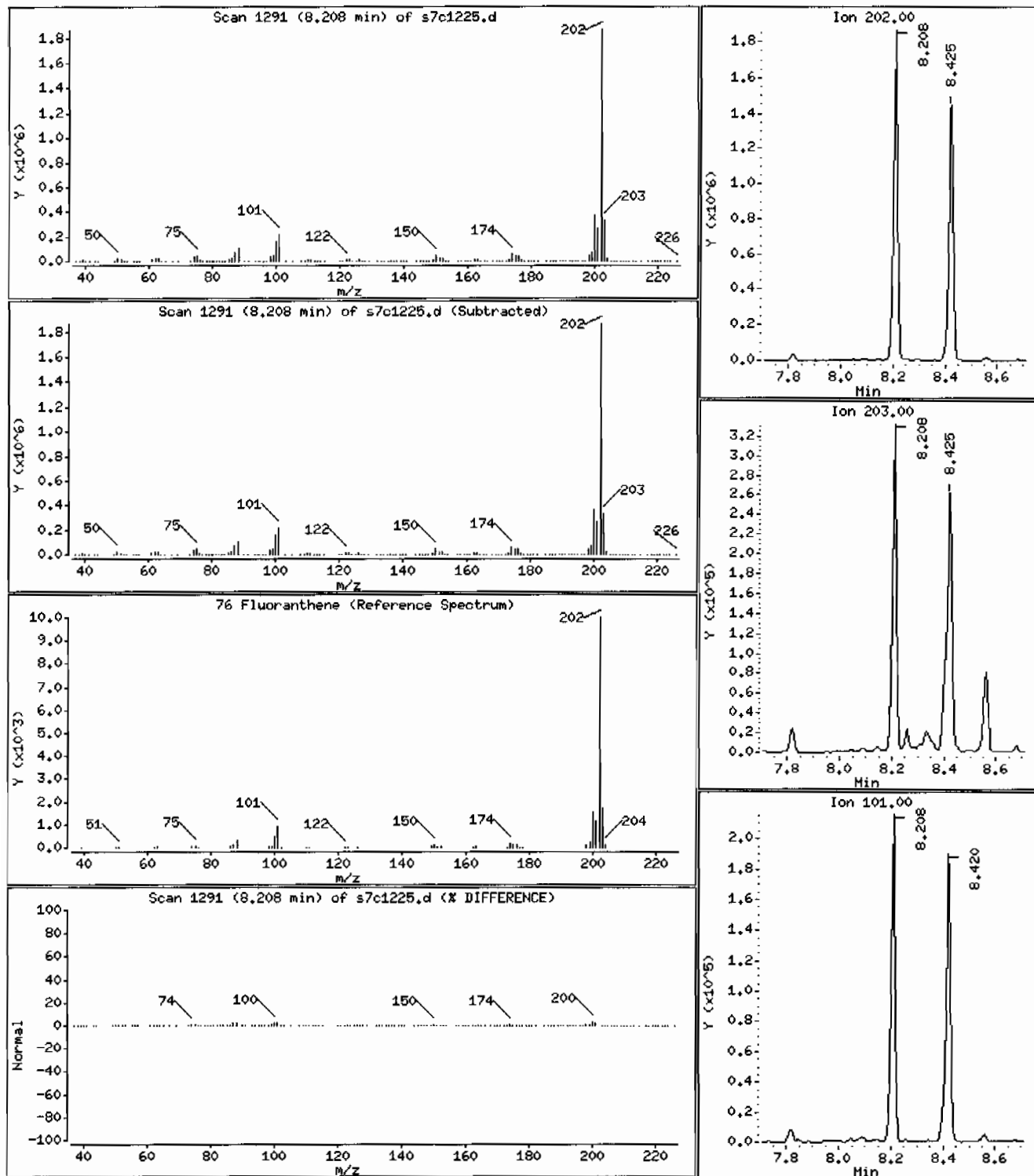
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 10000 ug/Kg



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: HSD7.i

Sample Info: 12480430021959623141SVHI2ILANL\_4x

Volume Injected (uL): 0.5

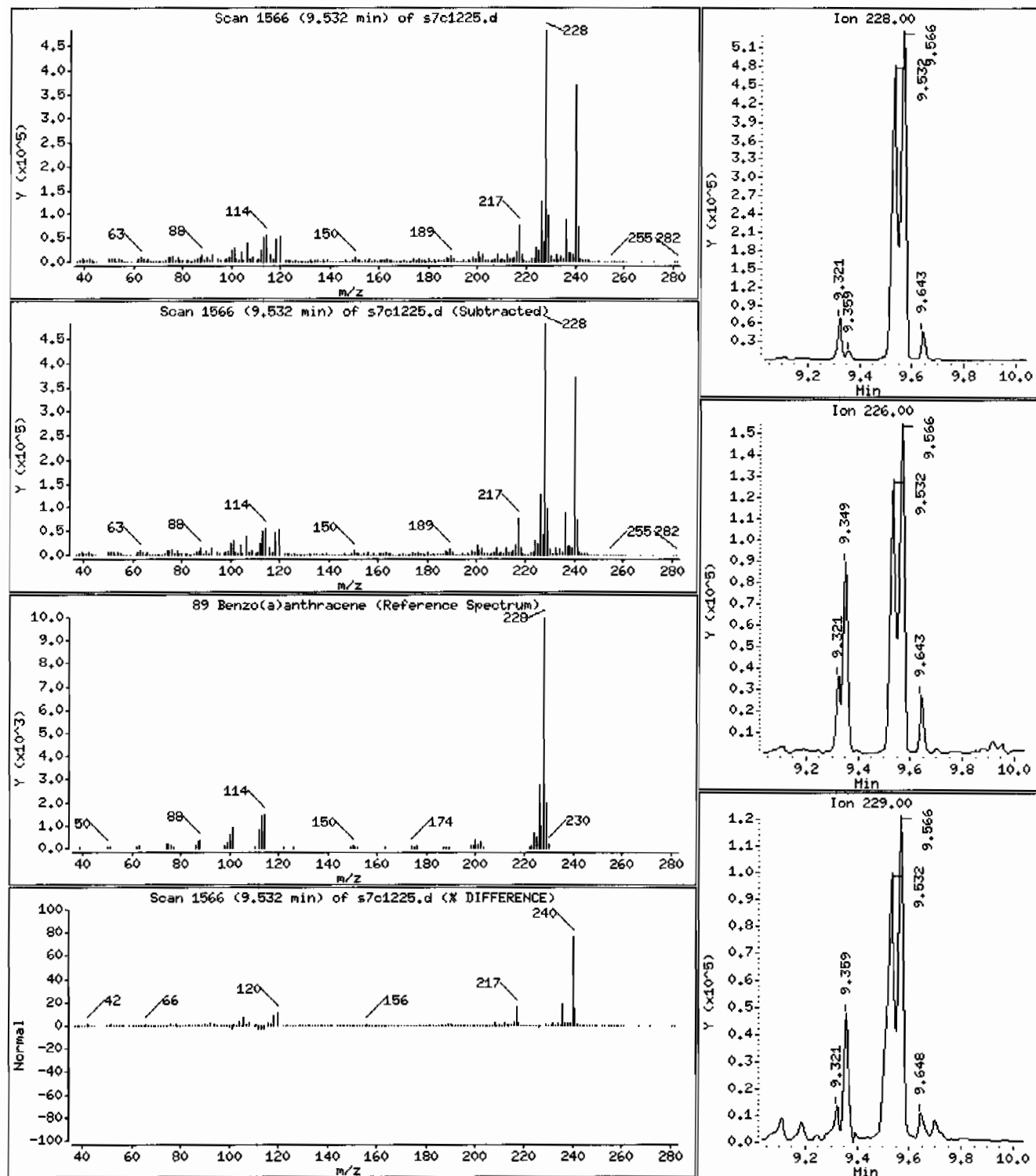
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 4180 ug/Kg



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: 12480430021959623141SVH121LANL\_4x

Volume Injected (uL): 0.5

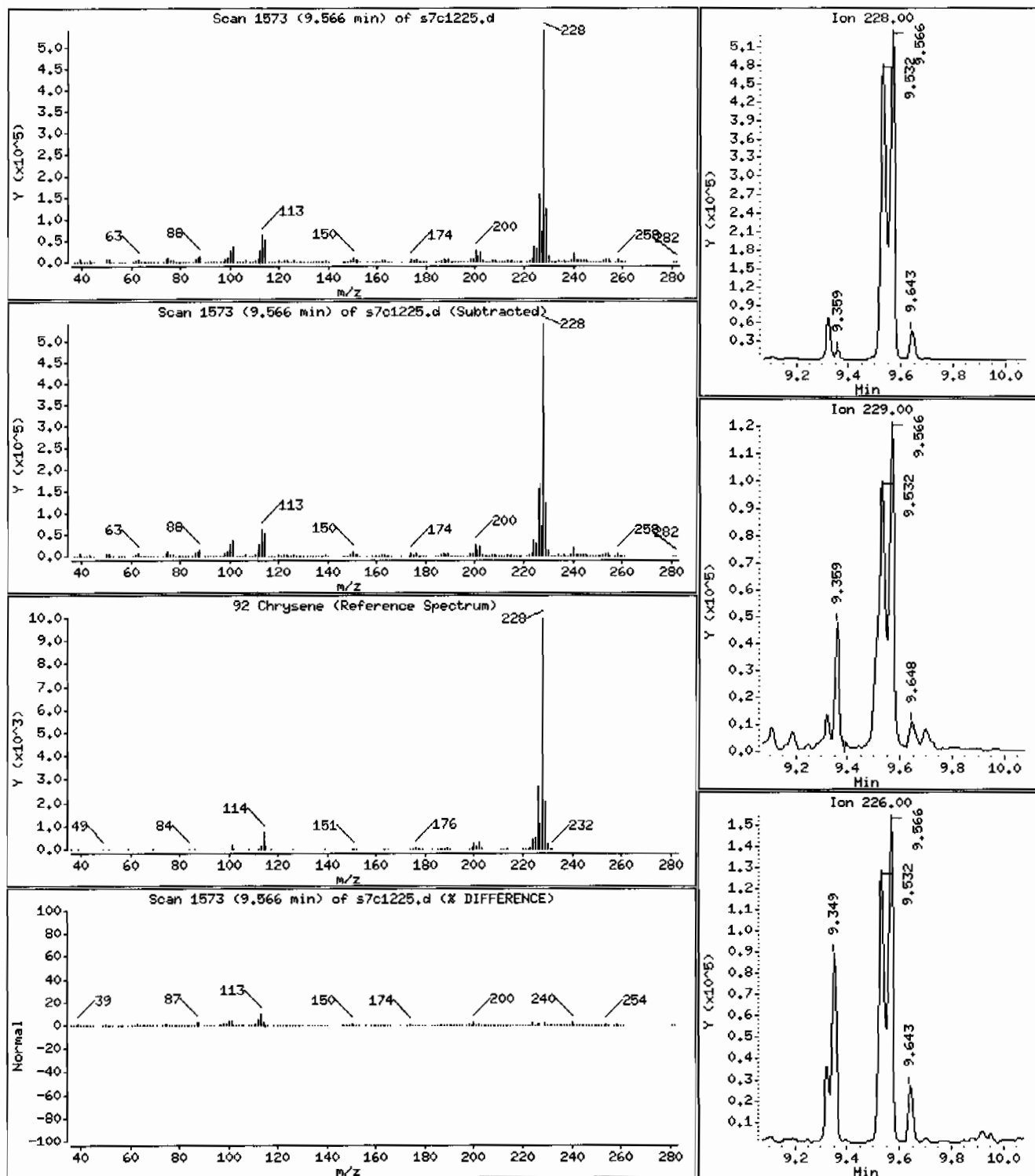
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 4190 ug/Kg



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: 12480430021959623141SVH121LANL\_4x

Volume Injected (uL): 0.5

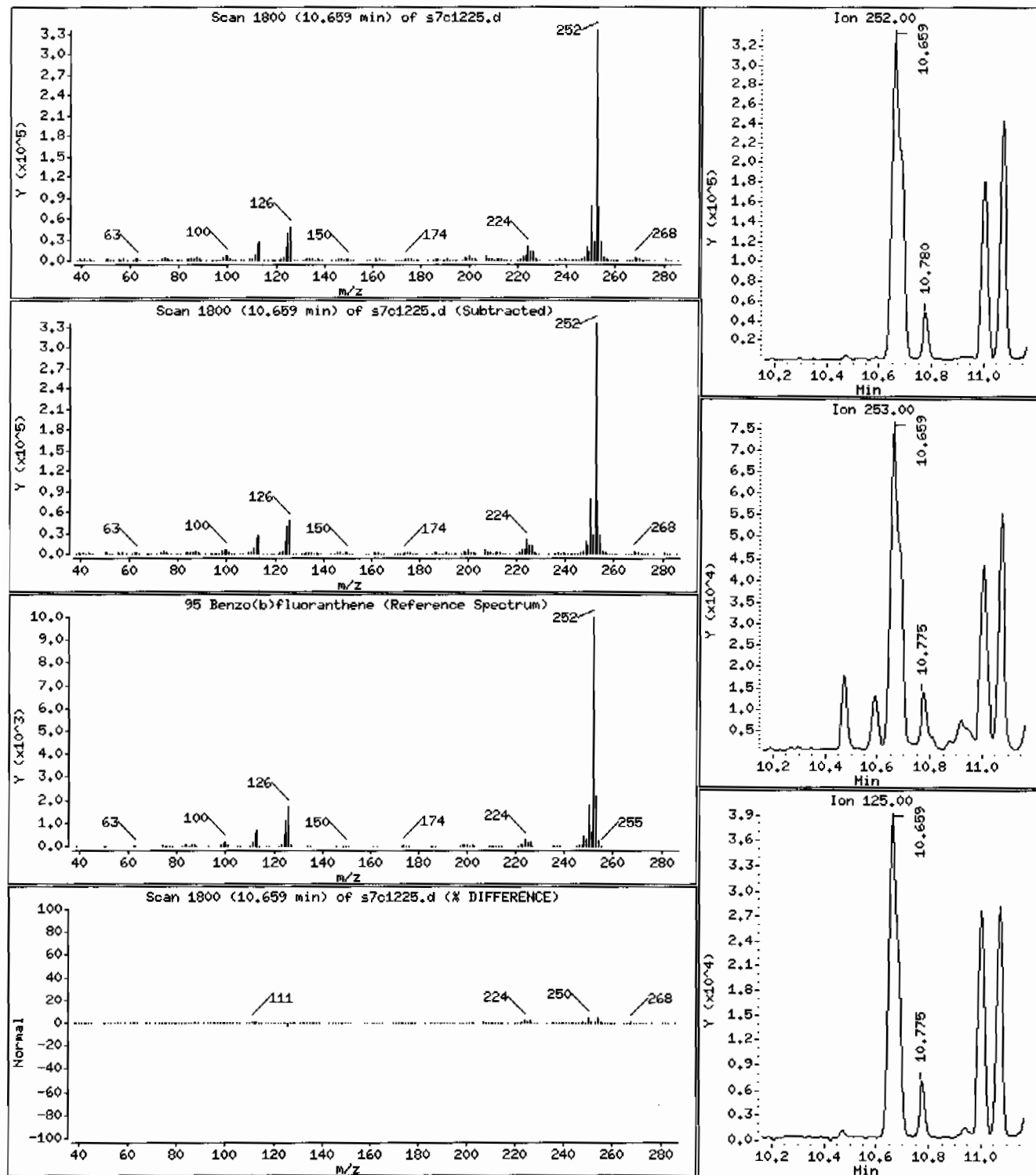
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 6620 ug/Kg



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: I2480430021959623141SVH12ILANL\_4x

Volume Injected (uL): 0.5

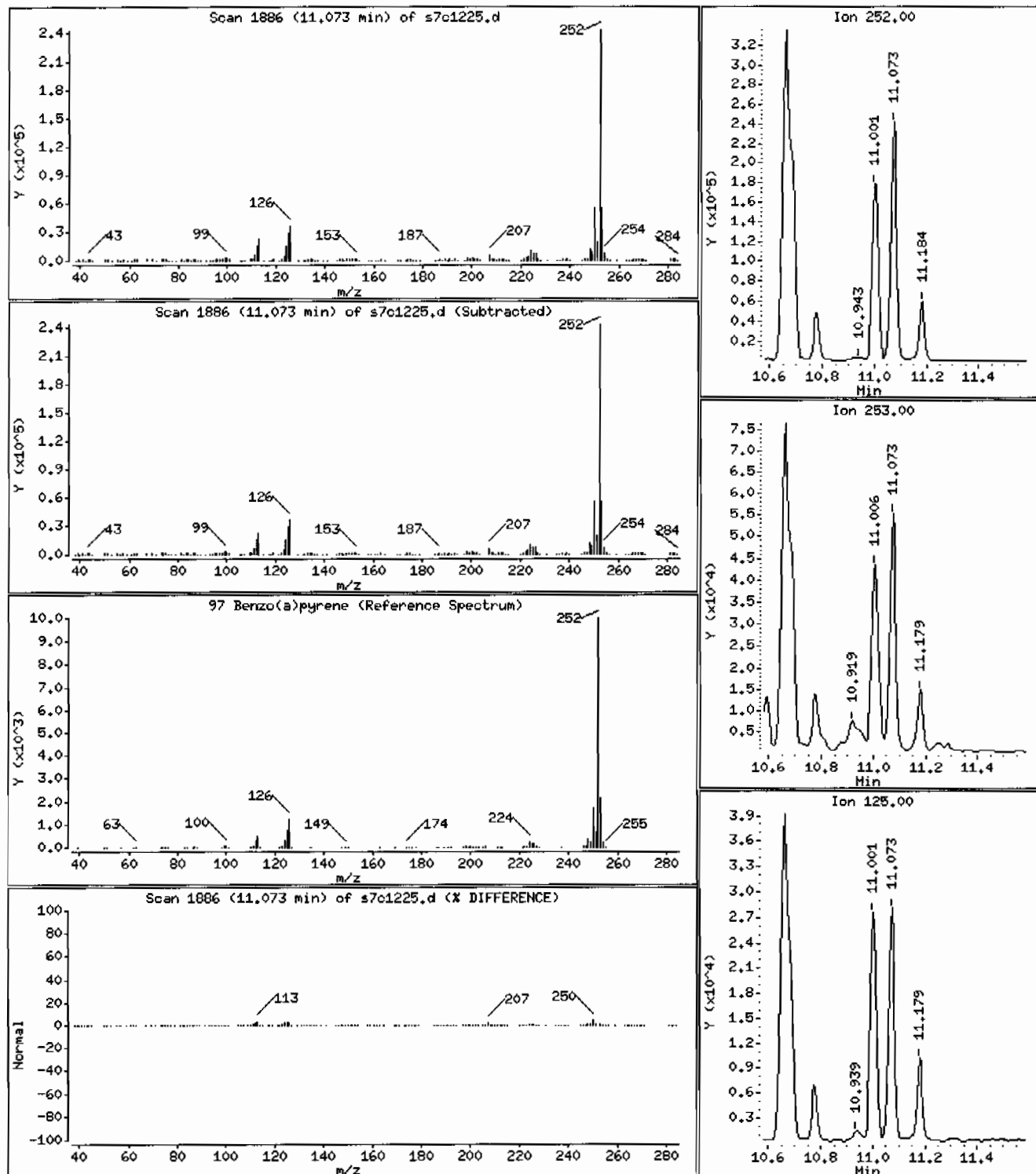
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 3640 ug/Kg





Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: HSD7.i

Sample Info: 12480430021959623141SVH121LANL\_4x

Volume Injected (uL): 0.5

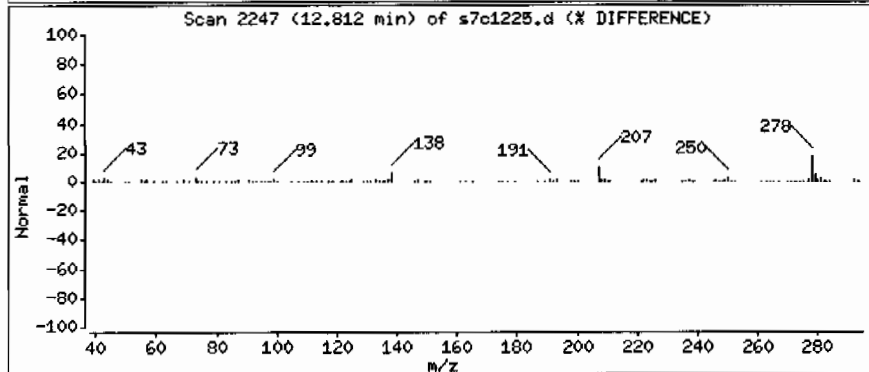
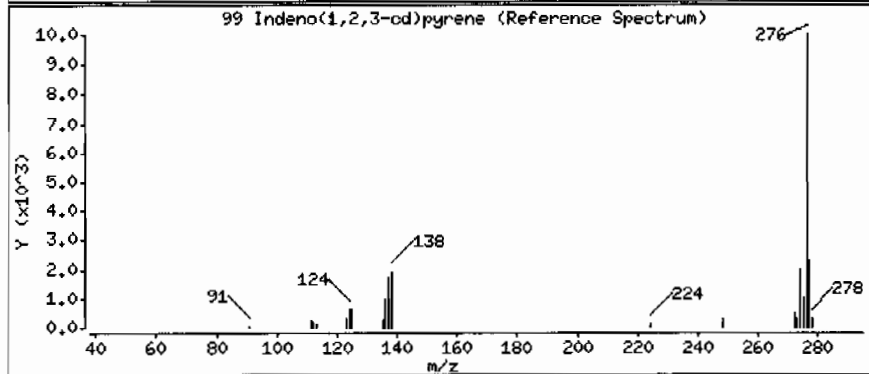
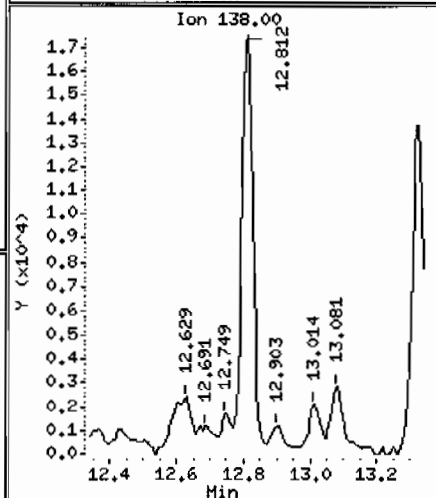
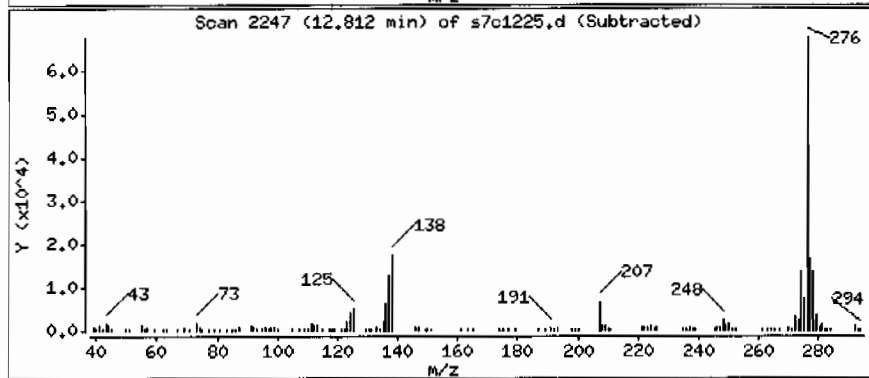
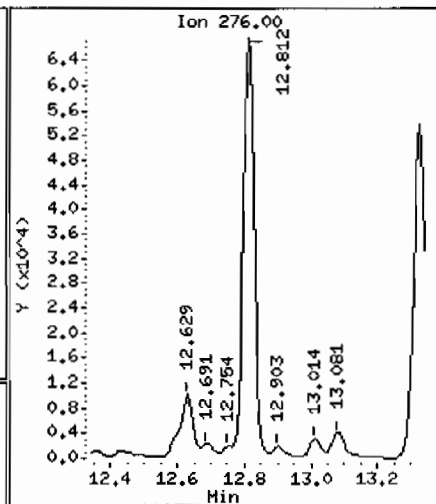
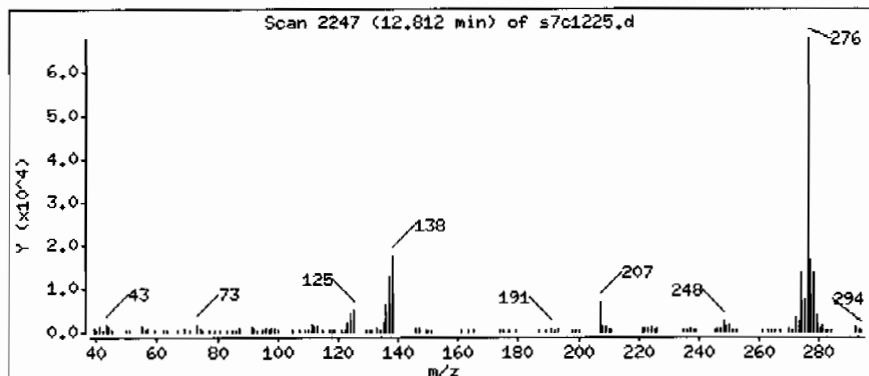
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 2020 ug/Kg



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: I2480430021959623141SVHI2ILANL\_4x

Volume Injected (uL): 0.5

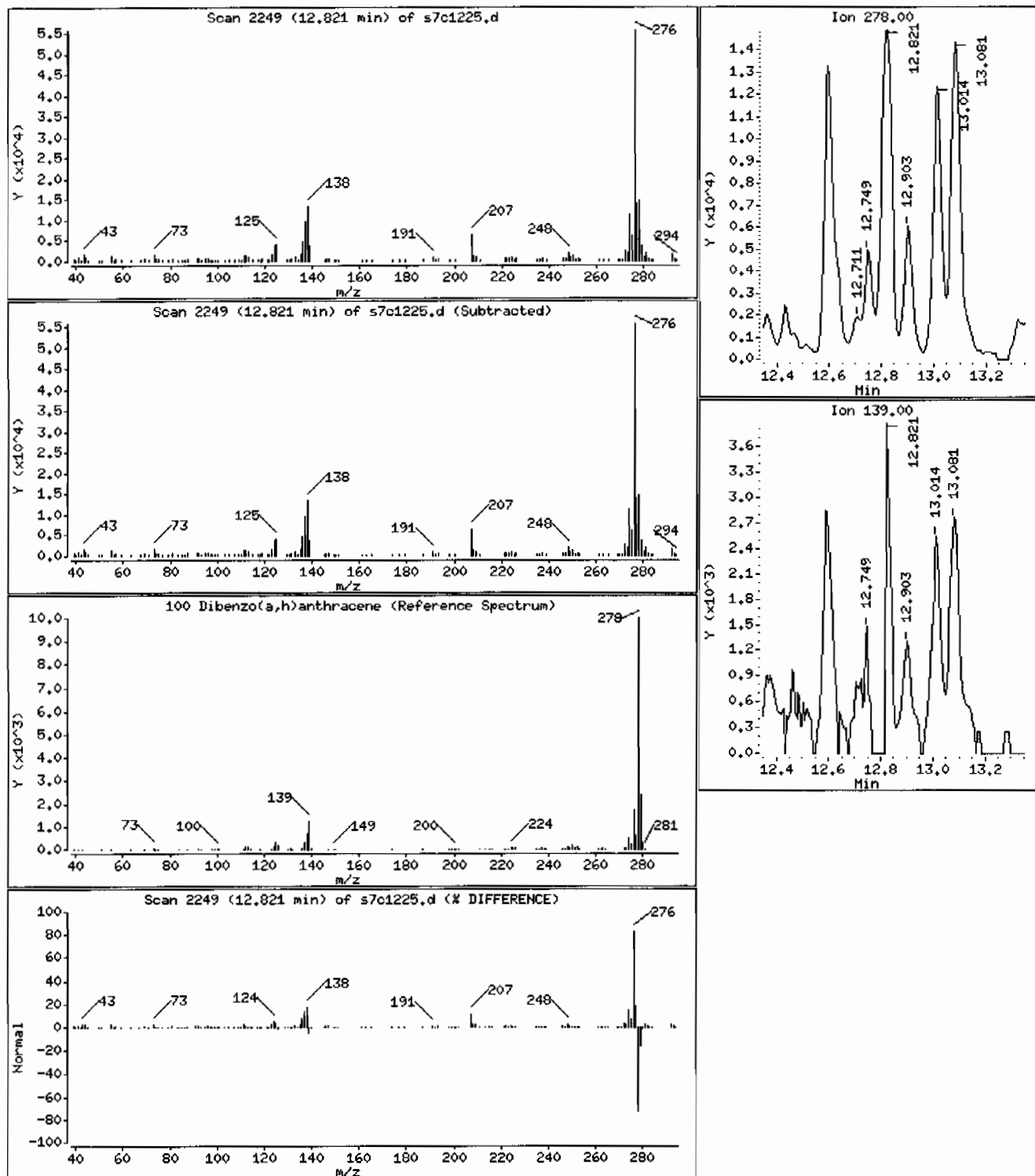
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 671 ug/Kg



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: 12480430021959623141SVH12ILANL\_4x

Volume Injected (uL): 0.5

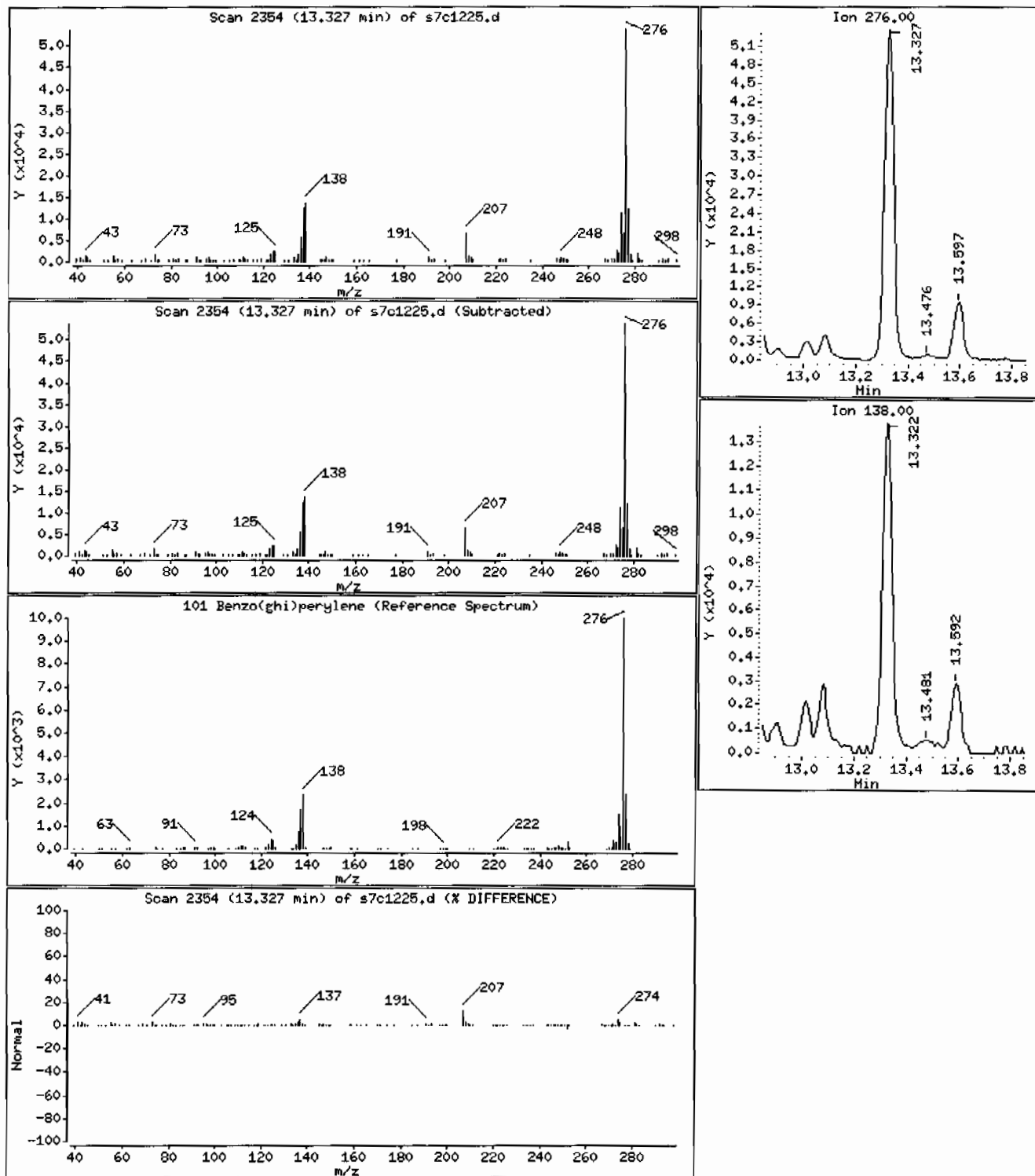
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 2110 ug/Kg



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: 12480430021959623141SVMI2ILANL\_4x

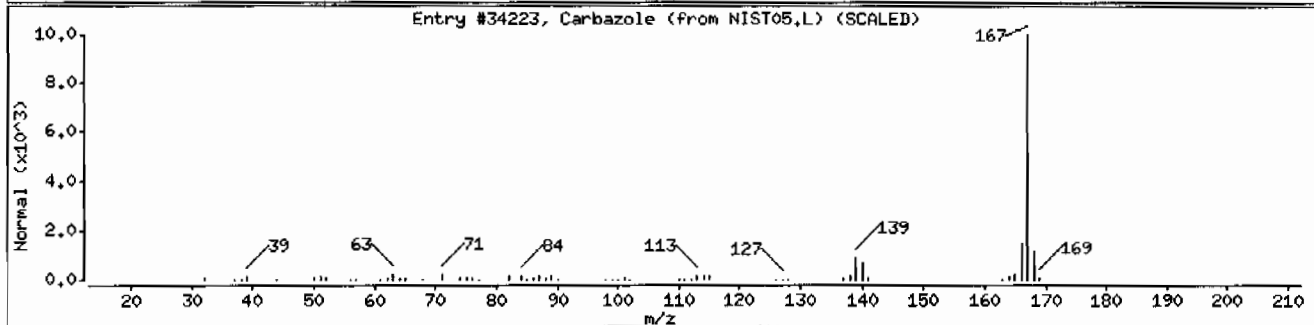
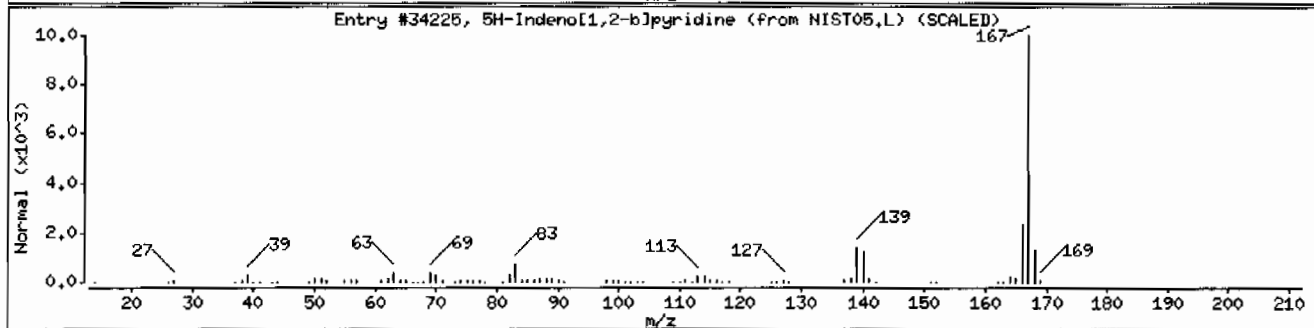
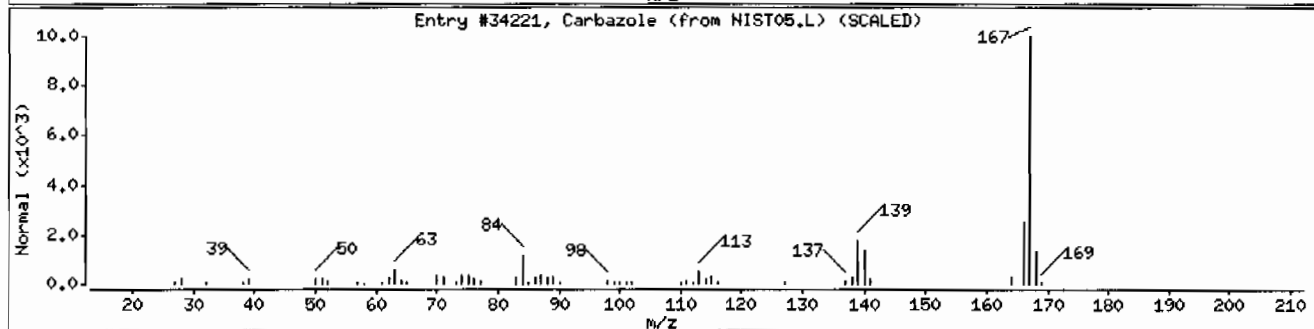
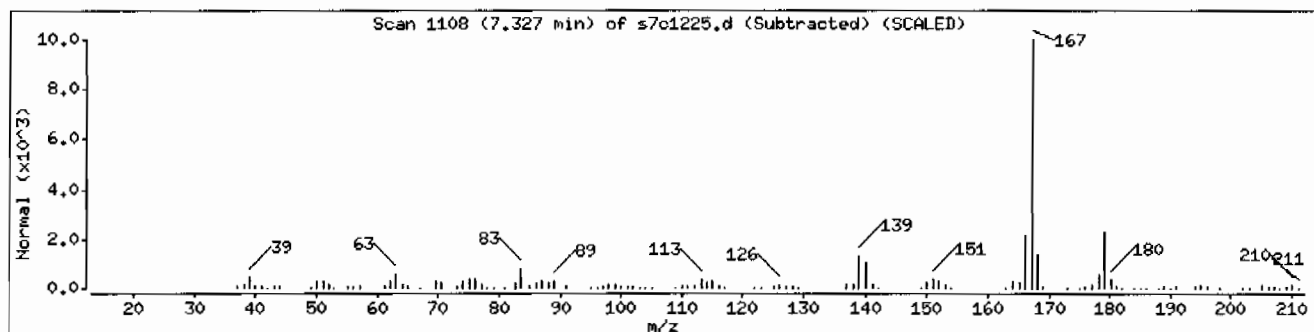
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-SMS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Carbazole	86-74-8	NIST05.L	34221	95	C12H9N	167
5H-Indeno[1,2-b]pyridine	244-99-5	NIST05.L	34225	94	C12H9N	167
Carbazole	86-74-8	NIST05.L	34223	76	C12H9N	167



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: I2480430021959623141SVMI21LANL\_4x

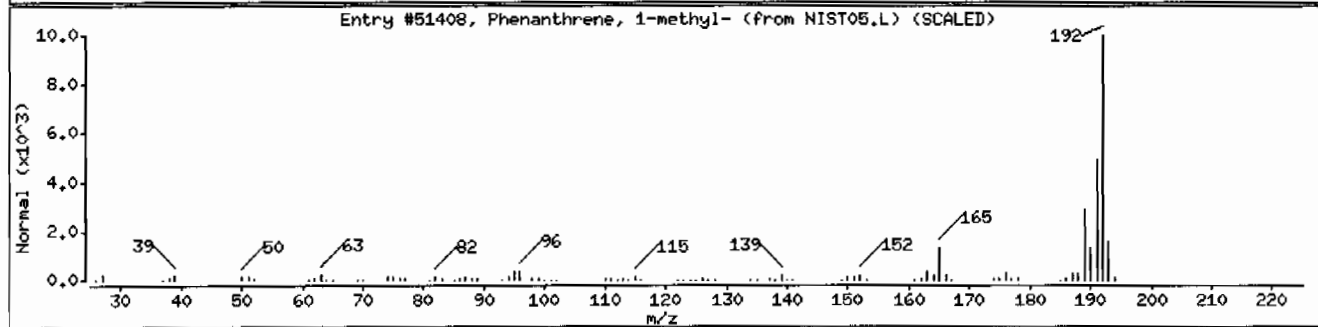
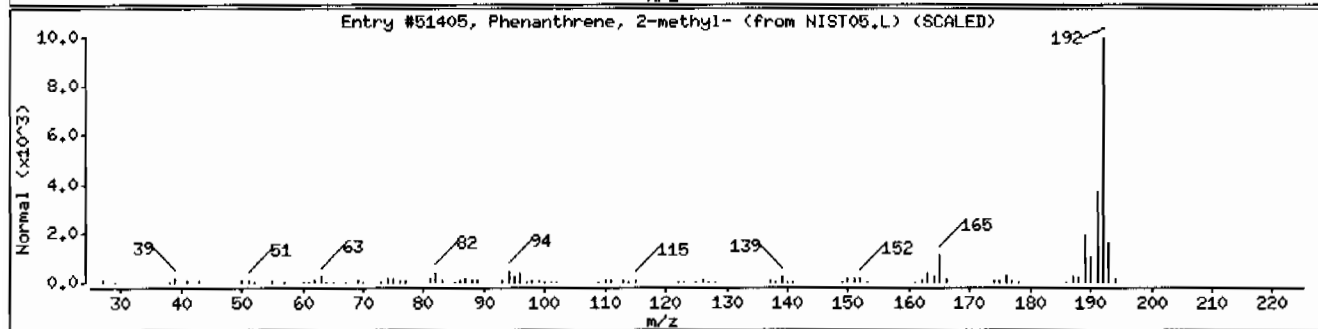
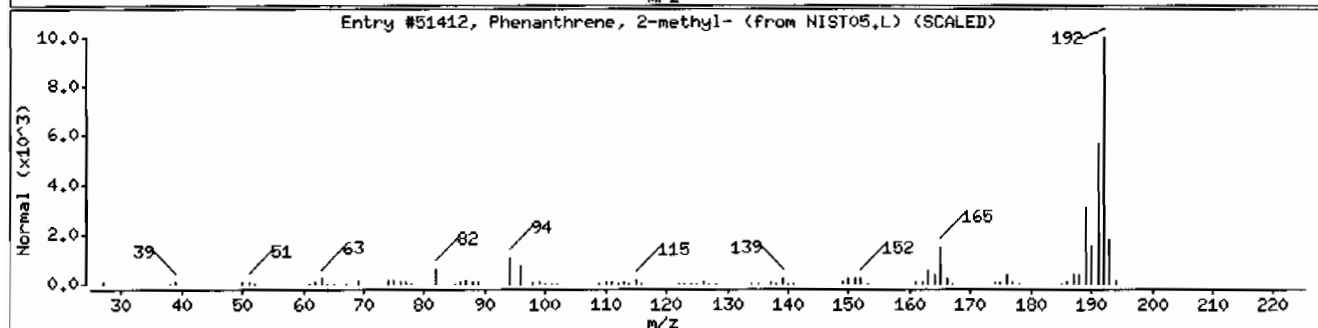
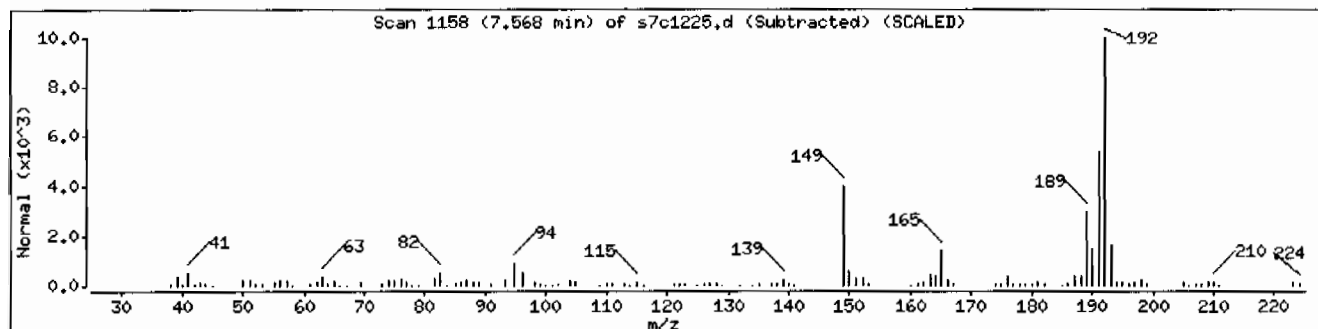
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51412	98	C15H12	192
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51405	97	C15H12	192
Phenanthrene, 1-methyl-	832-69-9	NIST05.L	51408	97	C15H12	192



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: HSD7.i

Sample Info: 12480430021959623141SVH121LANL\_4x

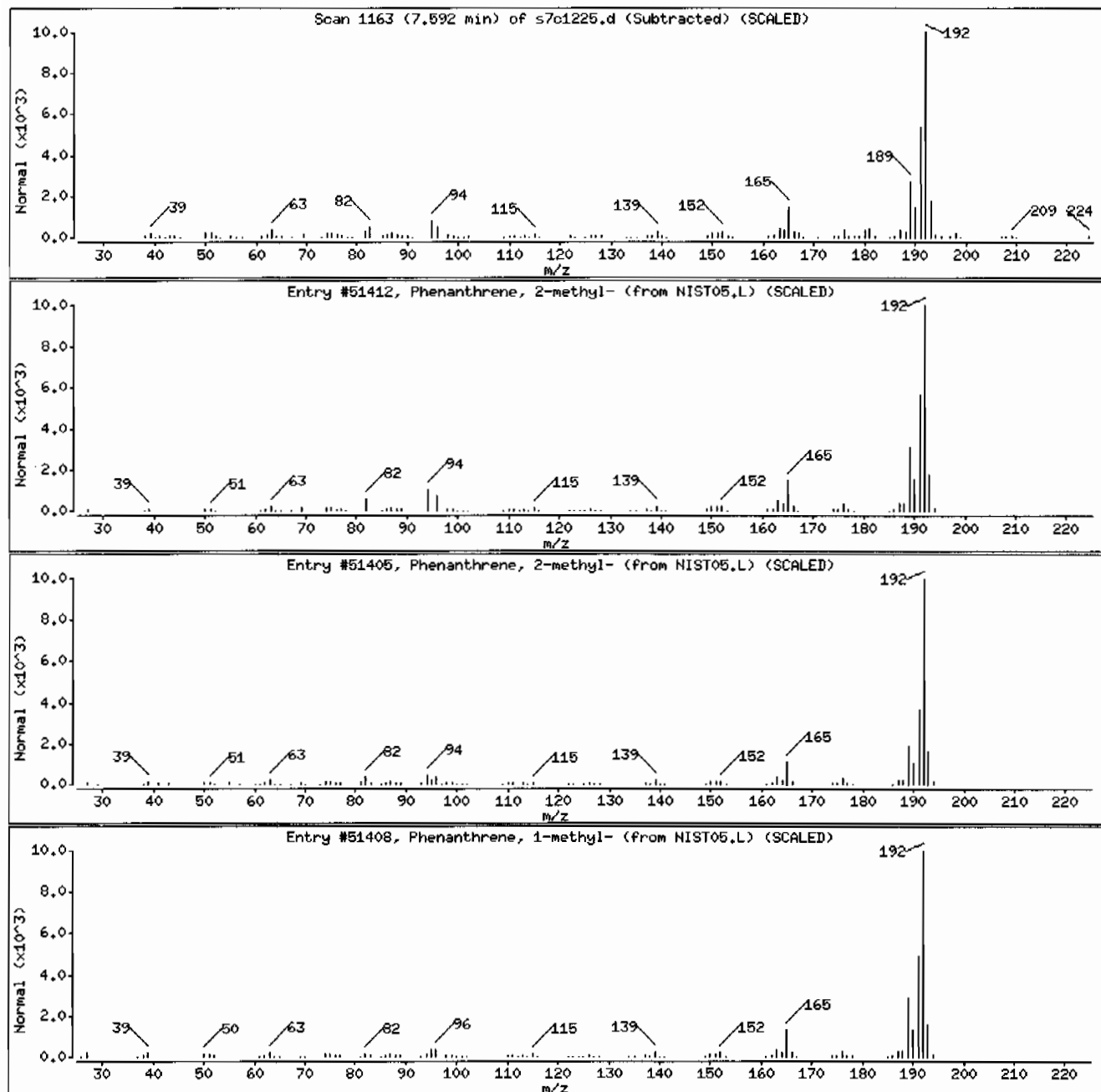
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51412	98	C15H12	192
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51405	98	C15H12	192
Phenanthrene, 1-methyl-	832-69-9	NIST05.L	51408	98	C15H12	192



Date: 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: 12480430021959623141SVMI2ILANL\_4x

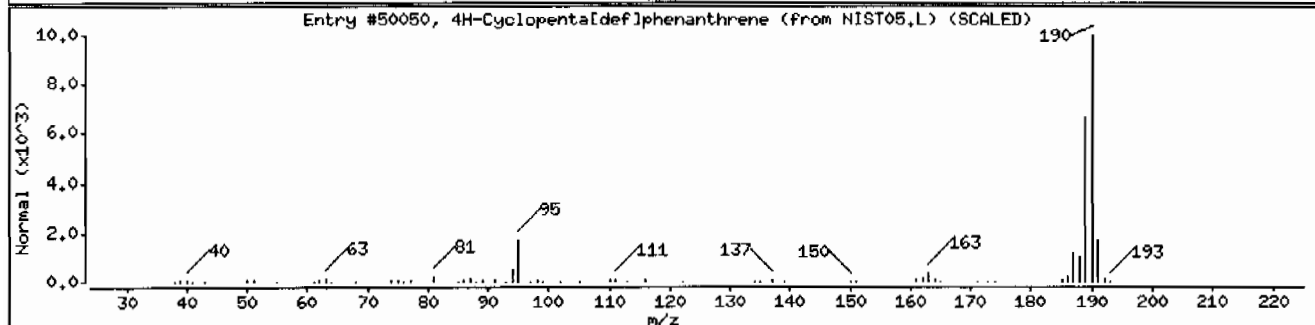
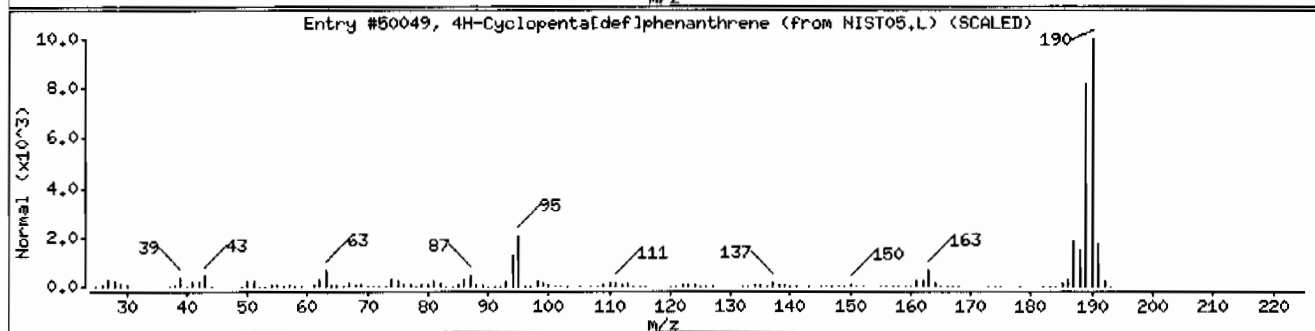
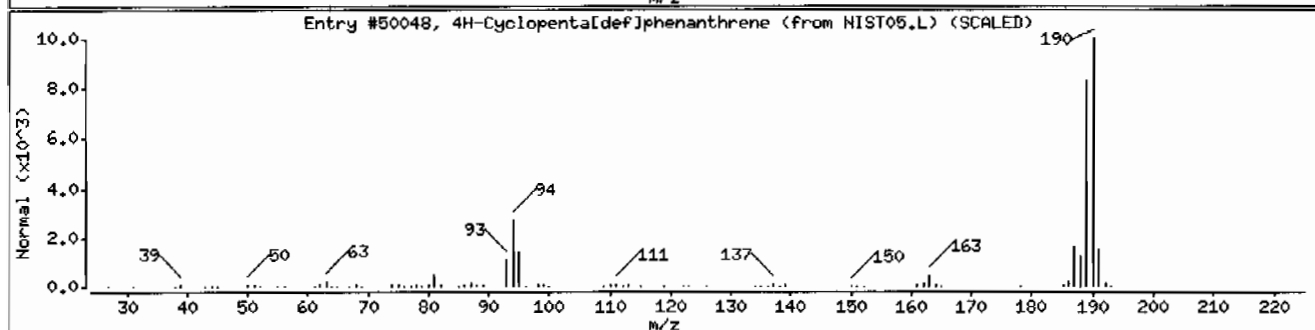
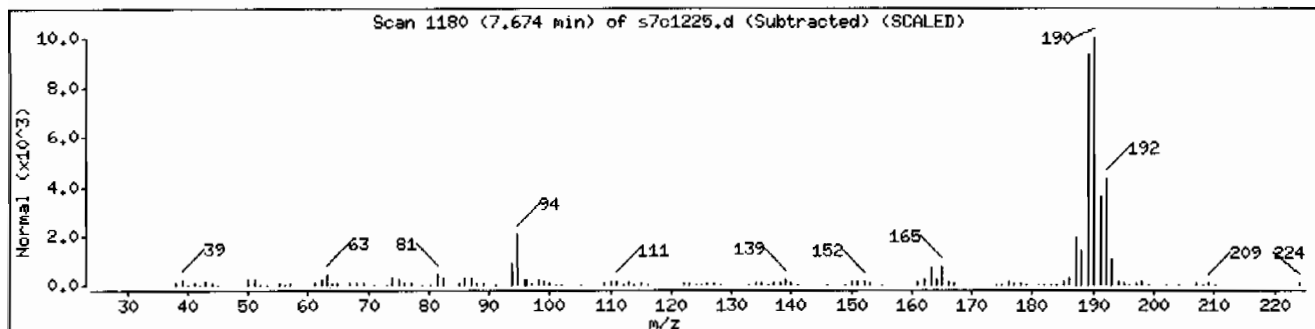
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50048	76	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50049	64	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50050	58	C15H10	190



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: 12480430021959623141SVHI2ILANL\_4x

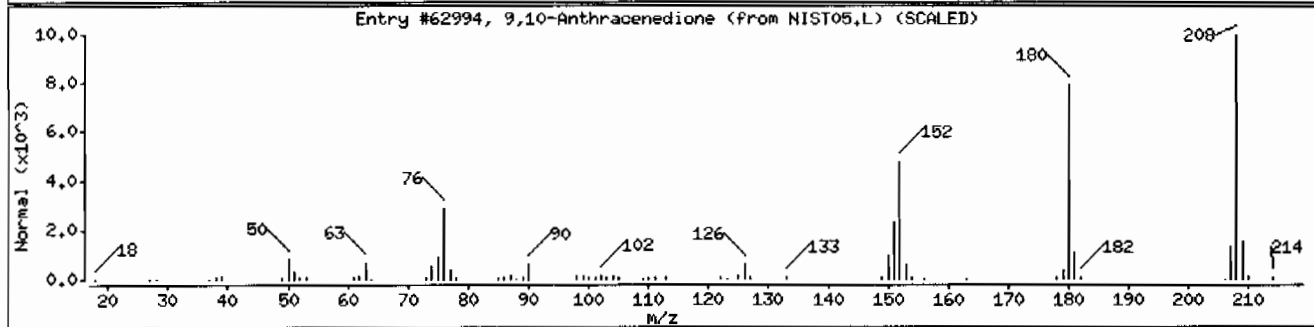
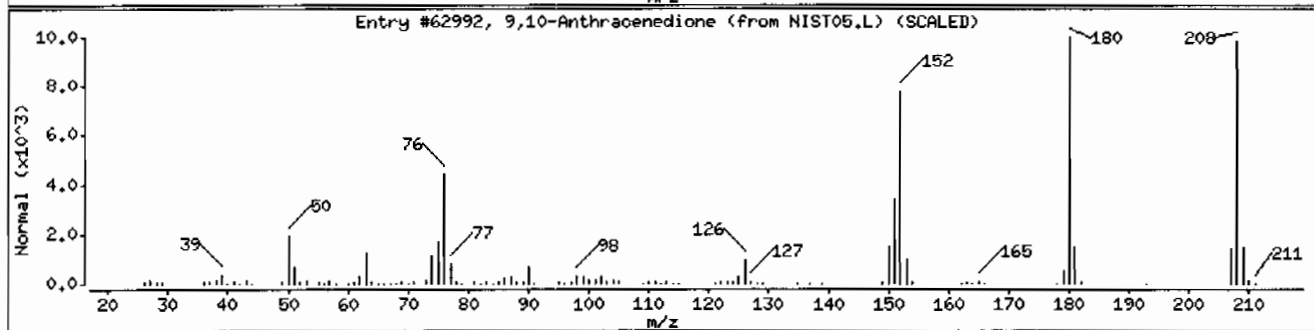
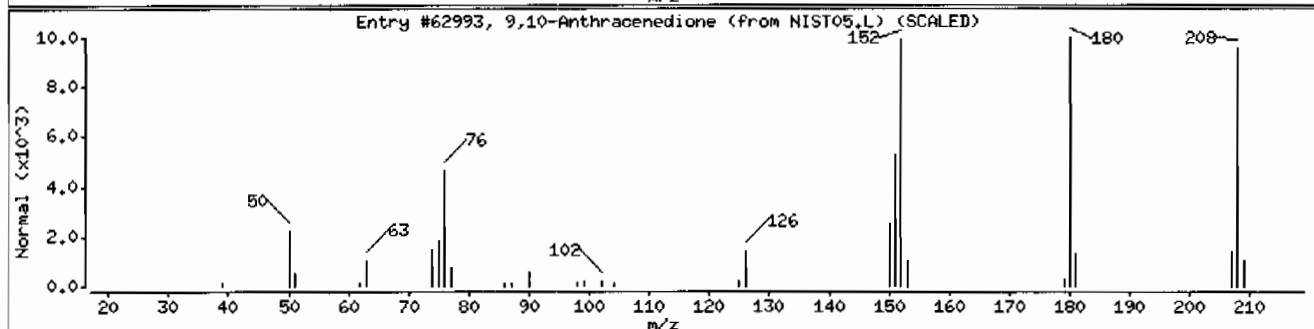
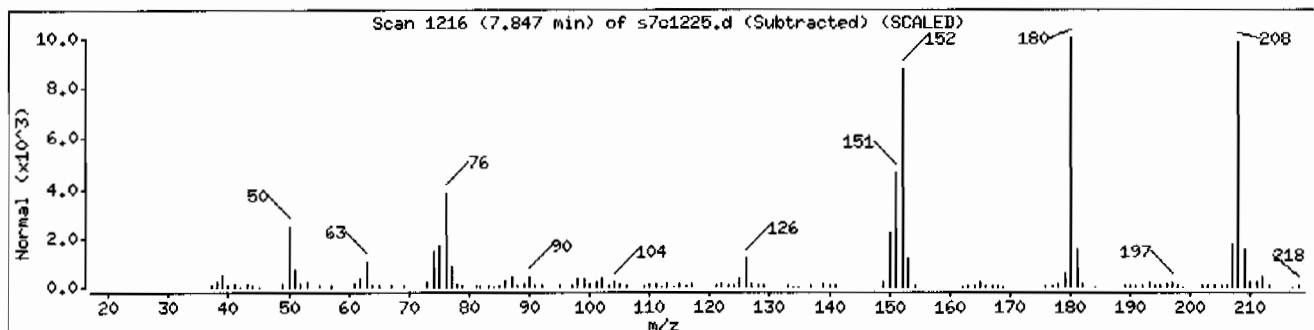
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9,10-Anthracenedione	84-65-1	NIST05.L	62993	99	C14H8O2	208
9,10-Anthracenedione	84-65-1	NIST05.L	62992	96	C14H8O2	208
9,10-Anthracenedione	84-65-1	NIST05.L	62994	95	C14H8O2	208





Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: 12480430021959623141SVMI2ILANL\_4x

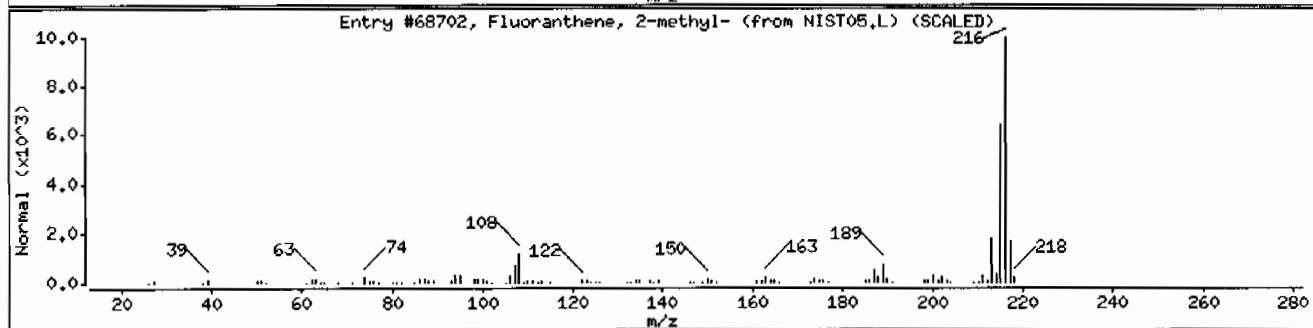
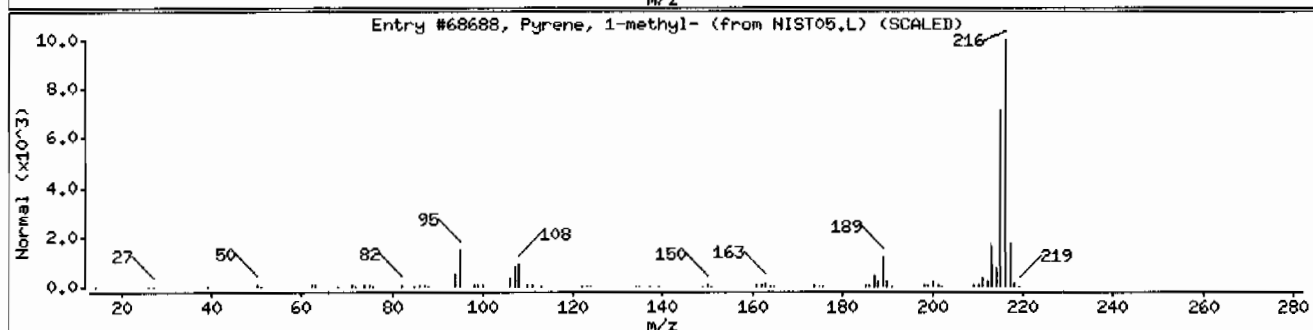
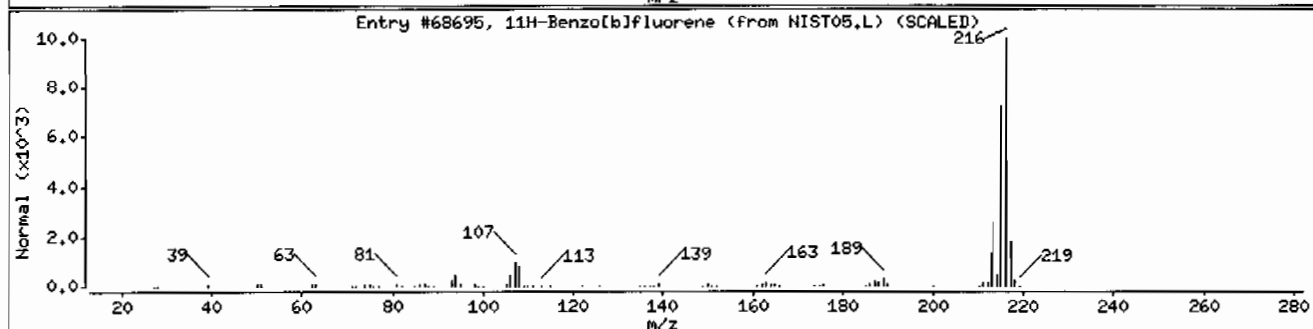
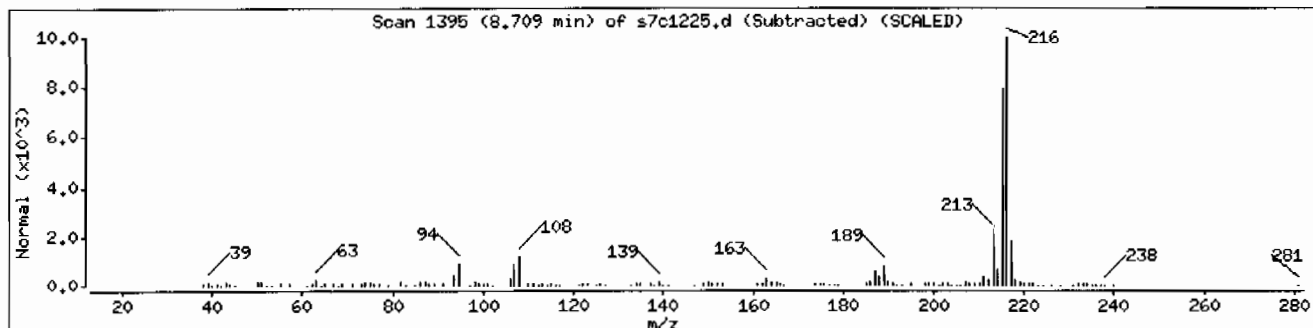
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[b]fluorene	243-17-4	NIST05.L	68695	97	C17H12	216
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68688	97	C17H12	216
Fluoranthene, 2-methyl-	33543-31-6	NIST05.L	68702	96	C17H12	216



Date : 12-MAR-2010 21:12

Client ID: RE36-10-7413DL

Instrument: MSD7.i

Sample Info: 1248043002195962314ISVH12ILANL\_4x

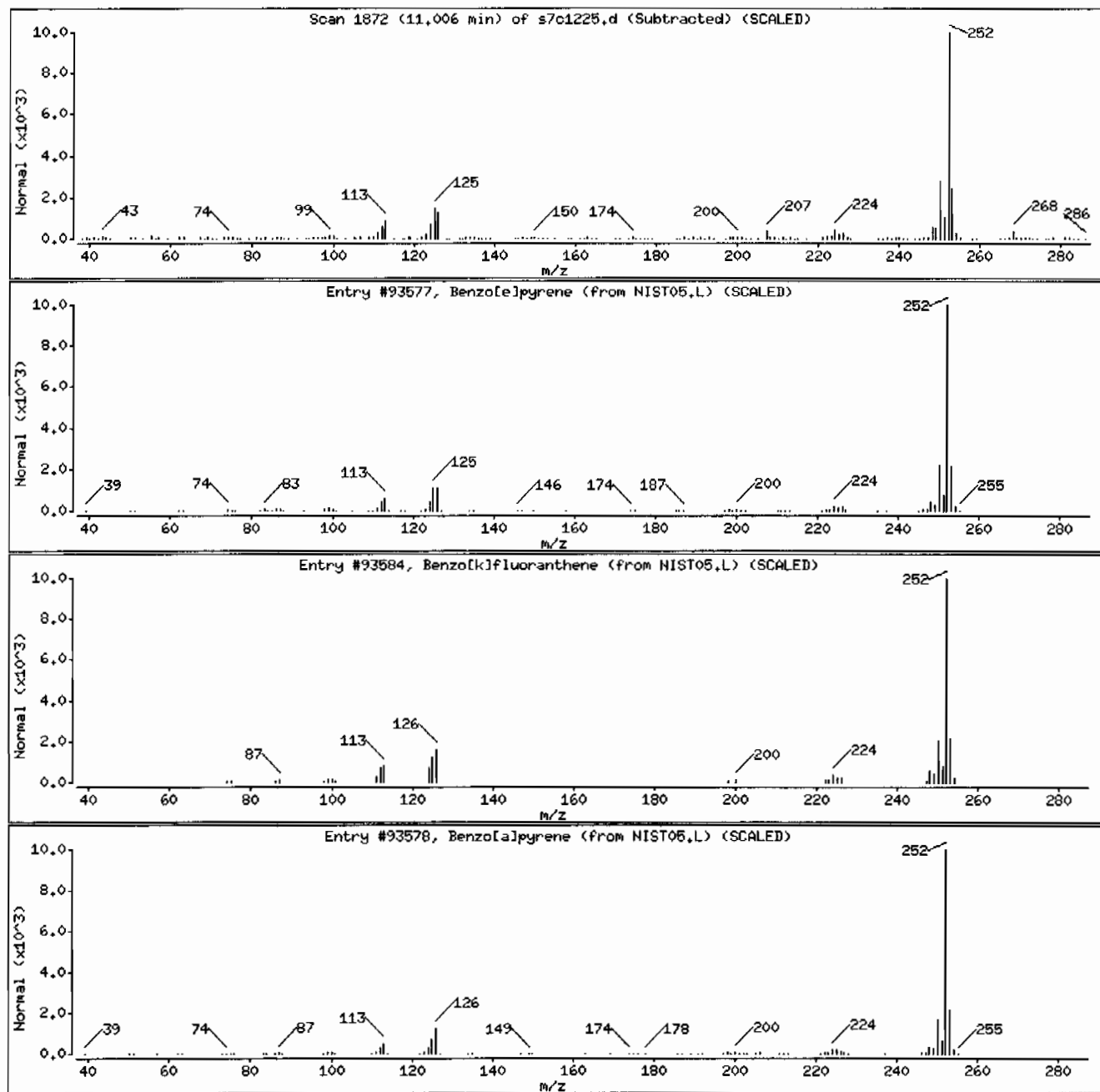
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[e]pyrene	192-97-2	NIST05.L	93577	99	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	98	C20H12	252
Benzo[a]pyrene	50-32-8	NIST05.L	93578	97	C20H12	252



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

Page 1 of 3

SDG Number: 10-2074  
Lab Sample ID: 248043002

Client ID: RE36-10-7413RE  
Batch ID: 965290  
Run Date: 03/17/2010 19:12  
Prep Date: 03/16/2010 21:34  
Data File: s7c1727.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	Uh	420	ug/kg	84.0	420
108-95-2	Phenol	Uh	420	ug/kg	84.0	420
95-57-8	2-Chlorophenol	Uh	420	ug/kg	84.0	420
106-46-7	1,4-Dichlorobenzene	Uh	420	ug/kg	84.0	420
621-64-7	N-Nitrosodipropylamine	Uh	420	ug/kg	84.0	420
59-50-7	4-Chloro-3-methylphenol	Uh	420	ug/kg	84.0	420
83-32-9	Acenaphthene	h	1110	ug/kg	13.9	42.0
121-14-2	2,4-Dinitrotoluene	Uh	420	ug/kg	42.0	420
100-02-7	4-Nitrophenol	Uh	420	ug/kg	139	420
87-86-5	Pentachlorophenol	Uh	420	ug/kg	105	420
110-86-1	Pyridine	Uh	420	ug/kg	84.0	420
62-53-3	Aniline	Uh	420	ug/kg	126	420
111-44-4	bis(2-Chloroethyl) ether	Uh	420	ug/kg	84.0	420
541-73-1	1,3-Dichlorobenzene	Uh	420	ug/kg	84.0	420
100-51-6	Benzyl alcohol	Uh	420	ug/kg	126	420
95-50-1	1,2-Dichlorobenzene	Uh	420	ug/kg	84.0	420
108-60-1	bis(2-Chloroisopropyl)ether	Uh	420	ug/kg	84.0	420
95-48-7	o-Cresol	Uh	420	ug/kg	84.0	420
65794-96-9	m,p-Cresols	Uh	420	ug/kg	126	420
67-72-1	Hexachloroethane	Uh	420	ug/kg	84.0	420
98-95-3	Nitrobenzene	Uh	420	ug/kg	84.0	420
78-59-1	Isophorone	Uh	420	ug/kg	84.0	420
88-75-5	2-Nitrophenol	Uh	420	ug/kg	84.0	420
105-67-9	2,4-Dimethylphenol	Uh	420	ug/kg	147	420
111-91-1	bis(2-Chloroethoxy)methane	Uh	420	ug/kg	84.0	420
120-83-2	2,4-Dichlorophenol	Uh	420	ug/kg	84.0	420
65-85-0	Benzoic acid	Uh	840	ug/kg	210	840
91-20-3	Naphthalene	h	349	ug/kg	12.6	42.0
106-47-8	4-Chloroaniline	Uh	420	ug/kg	84.0	420
87-68-3	Hexachlorobutadiene	Uh	420	ug/kg	84.0	420
91-57-6	2-Methylnaphthalene	h	209	ug/kg	8.40	42.0
77-47-4	Hexachlorocyclopentadiene	Uh	420	ug/kg	84.0	420
88-06-2	2,4,6-Trichlorophenol	Uh	420	ug/kg	84.0	420
95-95-4	2,4,5-Trichlorophenol	Uh	420	ug/kg	84.0	420
91-58-7	2-Chloronaphthalene	Uh	42.0	ug/kg	13.9	42.0
88-74-4	2-Nitroaniline	Uh	420	ug/kg	84.0	420
99-09-2	<i>o</i> -Nitroaniline	Uh	420	ug/kg	84.0	420
	3-Nitroaniline					
	<i>m</i> -Nitroaniline					

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043002	Date Received: 02/25/2010 08:45	%Moisture: 20.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7413RE	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 965290	Inst: MSD7.1	Dilution: 1
Run Date: 03/17/2010 19:12	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/16/2010 21:34	Aliquot: 30.13 g	Final Volume: 1 mL
Data File: s7c1727.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	Dimethylphthalate	Uh	420	ug/kg	84.0	420
606-20-2	2,6-Dinitrotoluene	Uh	420	ug/kg	42.0	420
208-96-8	Acenaphthylene	Jh	33.0	ug/kg	12.6	42.0
51-28-5	2,4-Dinitrophenol	Uh	840	ug/kg	160	840
132-64-9	Dibenzofuran	h	694	ug/kg	84.0	420
84-66-2	Diethylphthalate	Uh	420	ug/kg	84.0	420
86-73-7	Fluorene	h	1040	ug/kg	12.6	42.0
7005-72-3	4-Chlorophenylphenylether	Uh	420	ug/kg	84.0	420
534-52-1	2-Methyl-4,6-dinitrophenol	Uh	420	ug/kg	84.0	420
100-01-6	4-Nitroaniline	Uh	420	ug/kg	126	420
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	Uh	420	ug/kg	84.0	420
122-66-7	Azobenzene	Uh	420	ug/kg	84.0	420
	<i>1,2-Diphenylhydrazine</i>					
101-55-3	4-Bromophenylphenylether	Uh	420	ug/kg	84.0	420
118-74-1	Hexachlorobenzene	Uh	420	ug/kg	84.0	420
120-12-7	Anthracene	h	2280	ug/kg	8.40	42.0
84-74-2	Di-n-butylphthalate	Jh	308	ug/kg	84.0	420
85-68-7	Butylbenzylphthalate	Uh	420	ug/kg	84.0	420
91-94-1	3,3'-Dichlorobenzidine	Uh	420	ug/kg	126	420
117-81-7	bis(2-Ethylhexyl)phthalate	Uh	420	ug/kg	84.0	420
117-84-0	Di-n-octylphthalate	Uh	420	ug/kg	84.0	420
207-08-9	Benzo(k)fluoranthene	Uh	42.0	ug/kg	12.6	42.0
193-39-5	Indeno(1,2,3-cd)pyrene	h	3810	ug/kg	12.6	42.0
53-70-3	Dibenzo(a,h)anthracene	h	1400	ug/kg	12.6	42.0
191-24-2	Benzo(ghi)perylene	h	4040	ug/kg	12.6	42.0
120-82-1	1,2,4-Trichlorobenzene	Uh	420	ug/kg	84.0	420

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
86-74-8	Carbazole	7.25	196	ug/kg	87	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.51	173	ug/kg	98	NJ
	Unknown	7.59	304	ug/kg		J
84-65-1	9,10-Anthracenedione	7.77	189	ug/kg	99	NJ
2381-21-7	Pyrene, 1-methyl-	8.52	212	ug/kg	95	NJ
243-17-4	11H-Benzo[b]fluorene	8.62	382	ug/kg	97	NJ
3442-78-2	Pyrene, 2-methyl-	8.72	204	ug/kg	94	NJ
479-79-8	11H-Benzo[a]fluoren-11-one	9.11	246	ug/kg	97	NJ
82-05-3	7H-Benz[de]anthracen-7-one	9.21	228	ug/kg	94	NJ

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043002	Date Received: 02/25/2010 08:45	% Moisture: 20.9
Client ID: RE36-10-7413RE	Client: LANL010	Project: LANL01004
Batch ID: 965290	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/17/2010 19:12	Inst: MSD7.1	Dilution: 1
Prep Date: 03/16/2010 21:34	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1727.d	Aliquot: 30.13 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.31	301	ug/kg		J
	Unknown	10.37	937	ug/kg		J
	Unknown	10.67	966	ug/kg		J
192-97-2	Benzo[e]pyrene	10.9	3520	ug/kg	99	NJ
	Unknown	11.07	1400	ug/kg		J

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GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031710.b/s7c1727.d  
Lab Smp Id: 248043002 Client Smp ID: RE36-10-7413RE  
Inj Date : 17-MAR-2010 19:12  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043002|965290|1|SVM|3|LANL\_rx  
Misc Info : |MSD8270\_S|WBN100310-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 17-Mar-2010 13:51 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 26  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.13000	weight of sample
M	20.93190	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.802	3.802	(1.000)	361256	40.0000		
* 29 Naphthalene-d8	136	4.659	4.664	(1.000)	1321632	40.0000		
* 46 Acenaphthene-d10	164	5.907	5.911	(1.000)	718546	40.0000		
* 67 Phenanthrene-d10	188	7.067	7.067	(1.000)	1281493	40.0000		
* 91 Chrysene-d12	240	9.470	9.455	(1.000)	1042898	40.0000		
* 98 Perylene-d12	264	11.035	11.016	(1.000)	654108	40.0000		
\$ 3 2-Fluorophenol	112	3.003	2.998	(0.790)	466584	49.6901	2080	
\$ 5 Phenol-d5	99	3.523	3.528	(0.927)	556315	47.2539	1980	
\$ 20 Nitrobenzene-d5	82	4.159	4.168	(0.893)	273685	27.4559	1150	
\$ 39 2-Fluorobiphenyl	172	5.401	5.406	(0.914)	535544	29.9064	1260	
\$ 60 2,4,6-Tribromophenol	329	6.499	6.499	(1.100)	114770	55.2517	2320	
\$ 81 p-Terphenyl-d14	244	8.435	8.430	(0.891)	546832	29.2678	1230	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng/ul)	(ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====
47 Acenaphthene	154	5.931	5.935	(1.004)	416363	26.3264	1100
79 Pyrene	202	8.353	8.329	(0.882)	8346932	253.345	10600(A)
30 Naphthalene	128	4.674	4.683	(1.003)	207321	8.30418	348
34 2-Methylnaphthalene	142	5.155	5.160	(1.106)	89363	4.98738	209
45 Acenaphthylene	152	5.805	5.815	(0.983)	20895	0.78594	33.0(a)
49 Dibenzofuran	168	6.056	6.061	(1.025)	367694	16.5421	694
53 Fluorene	166	6.311	6.316	(1.068)	460159	24.6728	1040
68 Phenanthrene	178	7.101	7.086	(1.005)	8120141	308.787	13000(A)
69 Anthracene	178	7.134	7.130	(1.010)	1443864	54.2136	2280
72 Di-n-butylphthalate	149	7.486	7.486	(1.059)	246120	7.34579	308(a)
76 Fluoranthene	202	8.141	8.112	(1.152)	9678709	338.504	14200(A)
89 Benzo(a)anthracene	228	9.455	9.441	(0.998)	3488537	139.534	5860(A)
92 Chrysene	228	9.499	9.480	(1.003)	3432018	154.266	6480(A)
95 Benzo(b)fluoranthene	252	10.573	10.539	(0.958)	4321688	235.592	9890(A)
97 Benzo(a)pyrene	252	10.977	10.943	(0.995)	2009044	133.568	5610(A)
99 Indeno(1,2,3-cd)pyrene	276	12.667	12.629	(1.148)	981857	90.7773	3810
100 Dibenzo(a,h)anthracene	278	12.667	12.643	(1.148)	286034	33.3705	1400(H)
101 Benzo(ghi)perylene	276	13.163	13.120	(1.193)	867311	96.1513	4040

#### QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.
- H - Operator selected an alternate compound hit.

## ION RATIO REPORT

## SV REPORT

Data file: s7c1727.d

Report Date: 03/18/2010 09:13

Lab. ID: 248043002

SampleType: SAMPLE

Injection Date: 17-MAR-2010 19:12

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043002|965290|1|SVM|3|LANL rx

Miscellaneous Info: |MSD8270\_S|WBN100310-01|

Comment:

Method used: /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	35241	3.52	3.59	80-120	100	(T)
93	1276	3.48	3.59	211-271	4	(QT)
-----						
17	N-Nitrosodipropylamine		CAS#: 621-64-7			
70	41838	4.16	4.04	80-120	100	(T)
42	33881	4.16	4.04	66-126	81	(T)
-----						
30	Naphthalene		CAS#: 91-20-3			
128	207321	4.67	4.68	80-120	100	( )
129	23250	4.67	4.68	0- 41	11	( )
127	26303	4.67	4.68	0- 44	13	( )
-----						
31	4-Chloroaniline		CAS#: 106-47-8			
127	26303	4.67	4.70	80-120	100	( )
65	4222	4.66	4.70	2- 62	16	( )
-----						
34	2-Methylnaphthalene		CAS#: 91-57-6			
142	89363	5.16	5.16	80-120	100	( )
141	75388	5.16	5.16	54-114	84	( )
-----						
43	Dimethylphthalate		CAS#: 131-11-3			
163	129715	5.91	5.68	80-120	100	(T)
164	721171	5.91	5.68	0- 40	556	(QT)
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	6304	5.88	5.74	80-120	100	(T)
63	42734	5.93	5.74	58-118	678	(QT)
-----						
45 Acenaphthylene				CAS#: 208-96-8		
152	20895	5.81	5.82	80-120	100	( )
151	5815	5.81	5.82	0- 50	28	( )
153	5916	5.81	5.82	0- 43	28	( )
-----						
47 Acenaphthene				CAS#: 83-32-9		
154	416363	5.93	5.94	80-120	100	( )
153	483279	5.93	5.94	72-132	116	( )
152	206753	5.93	5.94	17- 77	50	( )
-----						
49 Dibenzofuran				CAS#: 132-64-9		
168	367694	6.06	6.06	80-120	100	( )
139	151379	6.06	6.06	9- 69	41	( )
-----						
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	97284	5.91	6.03	80-120	100	(T)
89	1239	5.91	6.03	41-101	1	(QT)
63	42367	5.93	6.03	22- 82	44	(T)
-----						
52 4-Nitrophenol				CAS#: 100-02-7		
139	151662	6.06	5.96	80-120	100	(T)
109	2881	6.06	5.96	49-109	2	(QT)
65	3325	6.05	5.96	83-143	2	(QT)
-----						
53 Fluorene				CAS#: 86-73-7		
166	460159	6.31	6.32	80-120	100	( )
165	415916	6.31	6.32	61-121	90	( )
167	70699	6.31	6.32	0- 43	15	( )
-----						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	442	6.50	6.34	80-120	100	(T)
105	1922	6.50	6.34	11- 71	434	(QT)
51	12119	6.49	6.34	31- 91	2737	(QT)
-----						
68 Phenanthrene				CAS#: 85-01-8		
178	8120141	7.10	7.09	80-120	100	( )
179	1408452	7.10	7.09	0- 46	17	( )
176	1525098	7.10	7.09	0- 49	19	( )
-----						
69 Anthracene				CAS#: 120-12-7		
178	1443864	7.13	7.13	80-120	100	( )
179	420816	7.13	7.13	0- 45	29	( )
176	241725	7.13	7.13	0- 47	17	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
72 Di-n-butylphthalate				CAS#: 84-74-2		
149	246120	7.49	7.49	80-120	100	( )
150	42023	7.49	7.49	0- 39	17	( )
104	13348	7.49	7.49	0- 35	5	( )
-----						
76 Fluoranthene				CAS#: 206-44-0		
202	9678709	8.14	8.11	80-120	100	( )
203	1811031	8.14	8.11	0- 47	19	( )
101	1335727	8.14	8.11	0- 40	14	( )
-----						
79 Pyrene				CAS#: 129-00-0		
202	8346932	8.35	8.33	80-120	100	( )
200	1732493	8.35	8.33	0- 50	21	( )
101	1396798	8.35	8.33	0- 42	17	( )
-----						
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	3488537	9.46	9.44	80-120	100	( )
226	930067	9.46	9.44	0- 56	27	( )
229	981318	9.46	9.44	0- 50	28	( )
-----						
90 3,3'-Dichlorobenzidine				CAS#: 91-94-1		
252	22237	9.48	9.39	80-120	100	(T)
254	38942	9.48	9.39	34- 94	175	(QT)
126	31505	9.49	9.39	0- 43	142	(QT)
-----						
92 Chrysene				CAS#: 218-01-9		
228	3432018	9.50	9.48	80-120	100	( )
229	830102	9.50	9.48	0- 49	24	( )
226	984185	9.50	9.48	0- 58	29	( )
-----						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	4321688	10.57	10.54	80-120	100	( )
253	1037147	10.57	10.54	0- 52	24	( )
125	511433	10.57	10.54	0- 41	12	( )
-----						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	4322865	10.57	10.57	80-120	100	( )
253	1037166	10.57	10.57	0- 52	24	( )
125	511433	10.57	10.57	0- 41	12	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	2009044	10.98	10.94	80-120	100	( )
253	483939	10.98	10.94	0- 52	24	( )
125	230822	10.97	10.94	0- 42	11	( )
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	981857	12.67	12.63	80-120	100	( )
138	244660	12.67	12.63	1- 61	25	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
100	Dibenzo(a,h)anthracene			CAS#: 53-70-3		
278	286034	12.67	12.64	80-120	100	( )
139	34540	12.67	12.64	0- 49	12	( )

-----						
101	Benzo(ghi)perylene			CAS#: 191-24-2		
276	867311	13.16	13.12	80-120	100	( )
138	227365	13.16	13.12	0- 56	26	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

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Data file : /chem/MSD7.i/s031710.b/s7c1727.d  
 Lab Smp Id: 248043002 Client Smp ID: RE36-10-7413RE  
 Inj Date : 17-MAR-2010 19:12  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043002|965290|1|SVM|3|LANL\_rx  
 Misc Info : |MSD8270\_S|WBN100310-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 17-Mar-2010 13:51 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 26  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.13000	weight of sample
M	20.93190	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 67 Phenanthrene-d10	7.067	23137858	40.000
* 91 Chrysene-d12	9.470	14147346	40.000
* 98 Perylene-d12	11.035	1816400	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

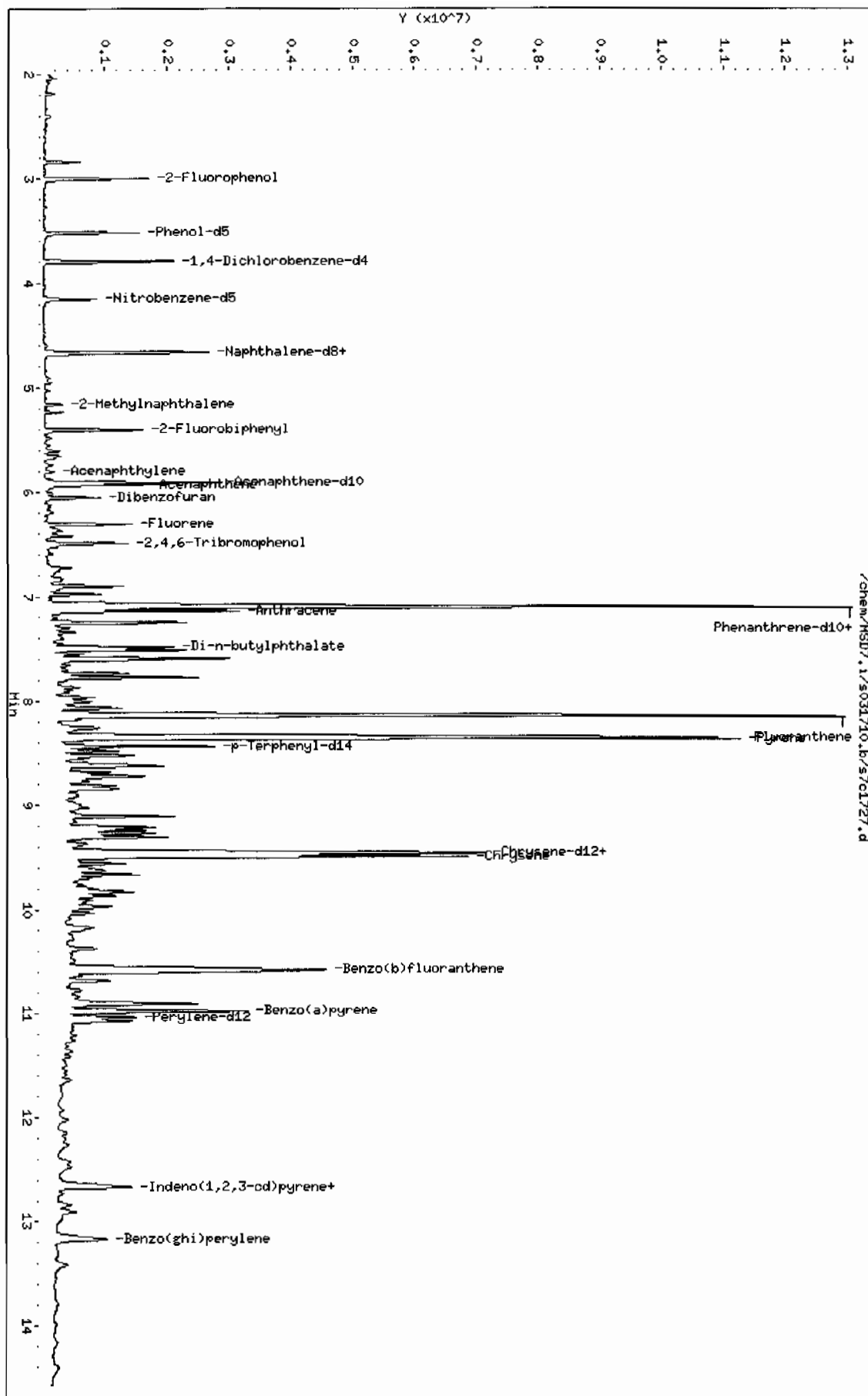
RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Carbazole					CAS #: 86-74-8		
7.245	2695545	4.65997295	196	87	NIST05.L	34223	67 (L)
Phenanthrene, 2-methyl-					CAS #: 2531-84-2		
7.505	2378498	4.11187180	172	98	NIST05.L	51412	67
Unknown					CAS #:		
7.587	4185173	7.23519446	304	0		0	67
9,10-Anthracenedione					CAS #: 84-65-1		
7.765	2600072	4.49492241	189	99	NIST05.L	62993	67
Pyrene, 1-methyl-					CAS #: 2381-21-7		
8.521	1784625	5.04582227	212	95	NIST05.L	68688	91
11H-Benzo[b]fluorene					CAS #: 243-17-4		
8.622	3222715	9.11185806	382	97	NIST05.L	68695	91
Pyrene, 2-methyl-					CAS #: 3442-78-2		
8.723	1721062	4.86610609	204	94	NIST05.L	68687	91
11H-Benzo[a]fluorene-11-one					CAS #: 479-79-8		
9.109	2075624	5.86858806	246	97	NIST05.L	78768	91
7H-Benz[de]anthracene-7-one					CAS #: 82-05-3		
9.210	1924104	5.44018494	228	94	NIST05.L	78772	91
Unknown					CAS #:		
9.311	2533948	7.16444666	301	0		0	91
Unknown					CAS #:		
10.370	1014187	22.3340082	937	0		0	98
Unknown					CAS #:		
10.674	1044723	23.0064584	966	0		0	98 (L)
Benzo[e]pyrene					CAS #: 192-97-2		
10.900	3810346	83.9098229	3520	99	NIST05.L	93577	98
Unknown					CAS #:		
11.069	1516479	33.3952511	1400	0		0	98

#### QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/MSD7.i/s031710.b/s701727.d  
 Date: 17-MAR-2010 19:12  
 Client ID: RE36-10-7413RE  
 Sample Info: 1248043002196529011SVH131LANL\_rx  
 Volume Injected (uL): 0.5  
 Column phase: 3M DB-SMS

Instrument: MSD7.i  
 Operator: JMB3  
 Column diameter: 0.20



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: HSD7.i

Sample Info: I248043002196529011ISVHI3ILANL\_rx

Volume Injected (uL): 0.5

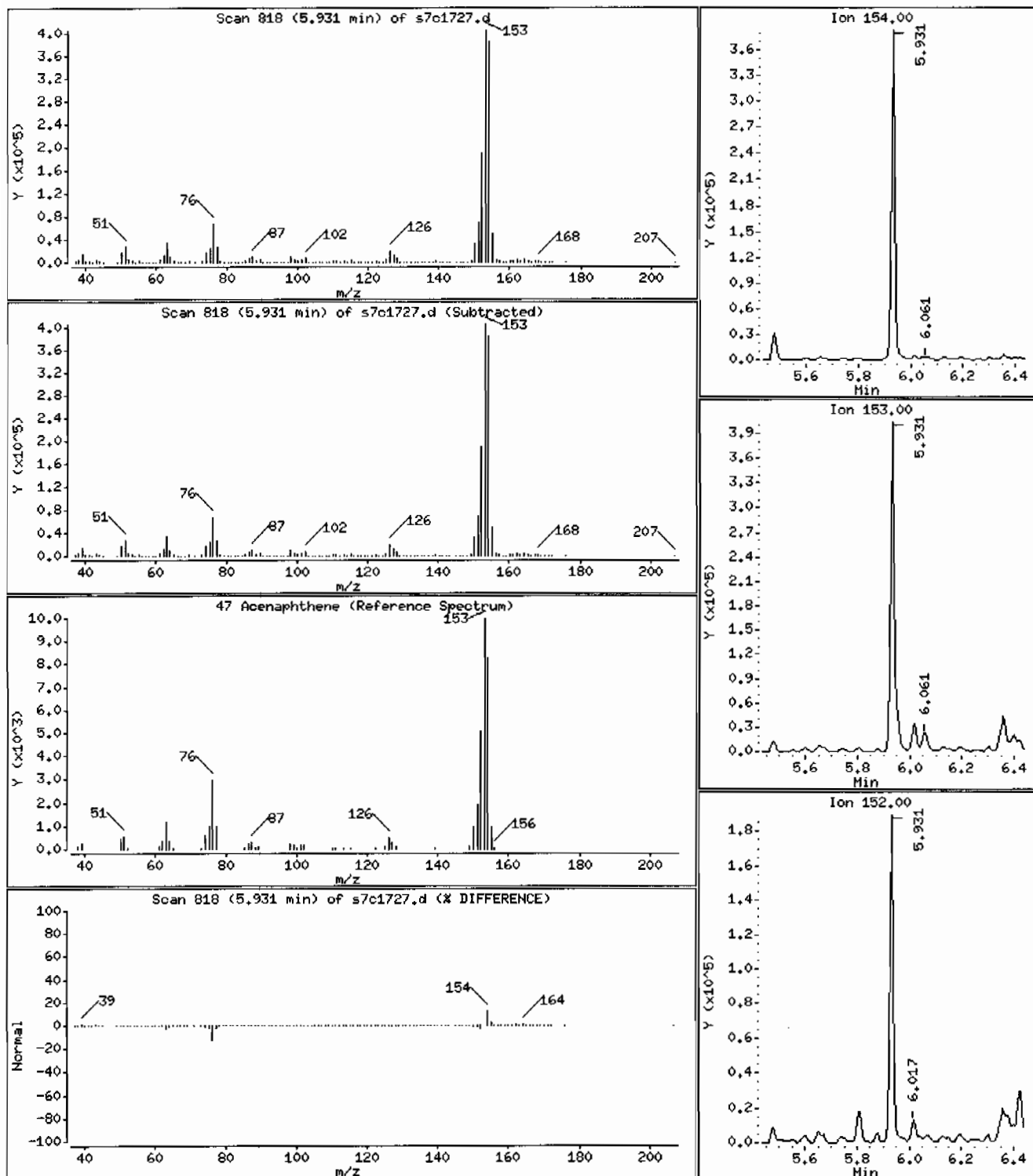
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 1100 ug/Kg



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: HSD7.i

Sample Info: 1248043002196529011ISVM13ILANL\_rx

Volume Injected (uL): 0.5

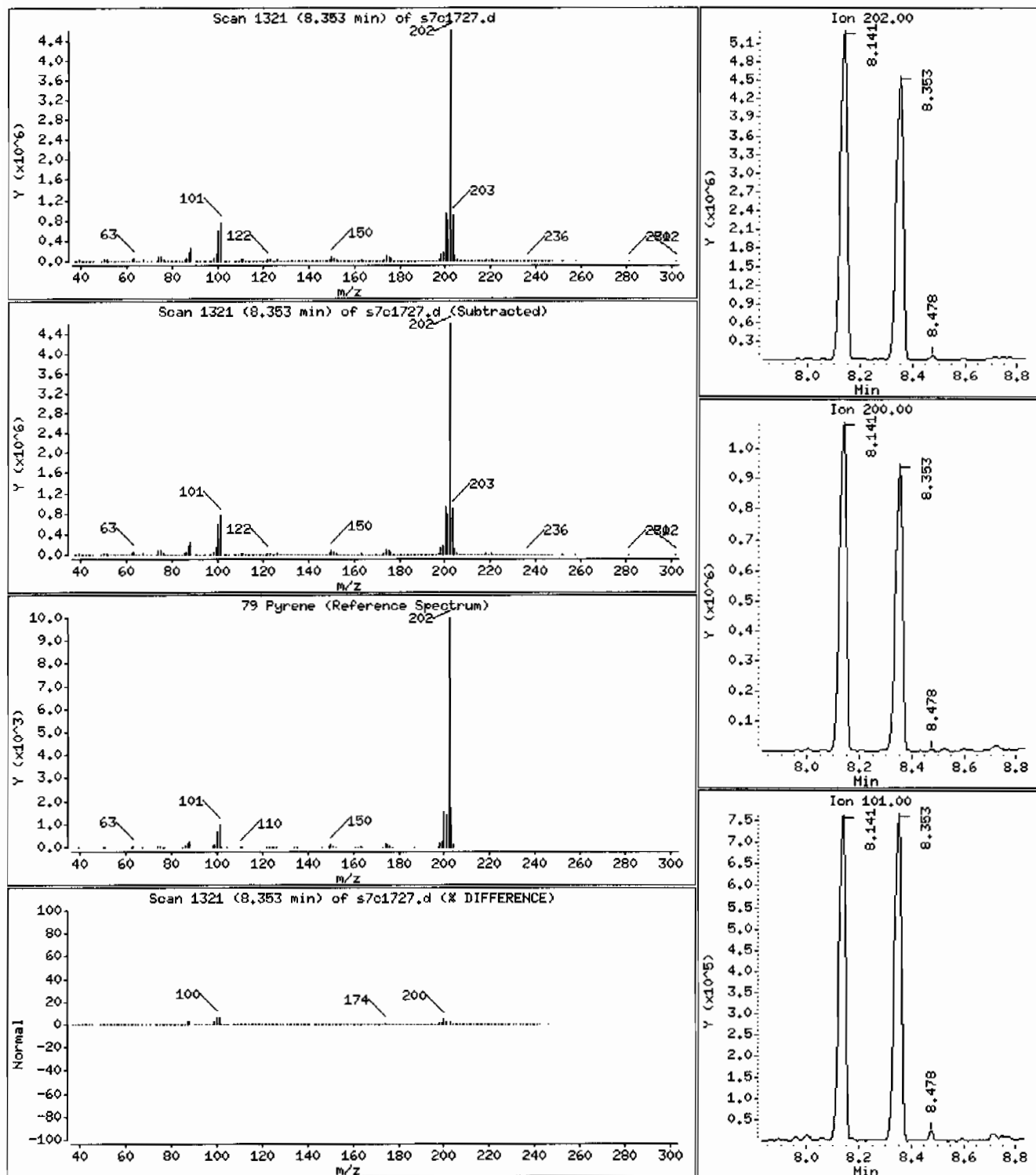
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 10600 ug/Kg





Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: 1248043002196529011ISVH13ILANL\_rx

Volume Injected (uL): 0.5

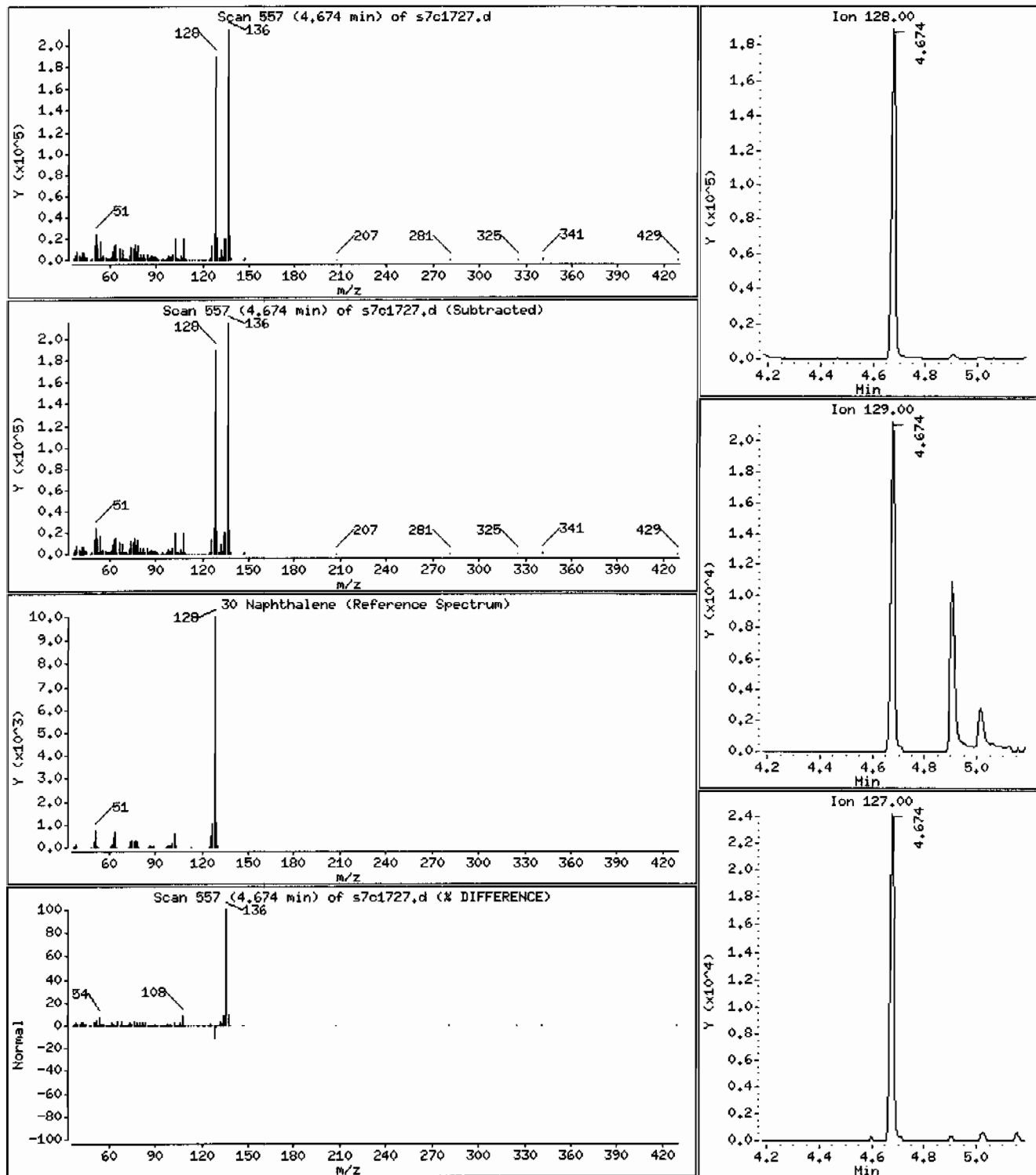
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 348 ug/Kg



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: I248043002I9652901IISVM13ILANL\_rx

Volume Injected (uL): 0.5

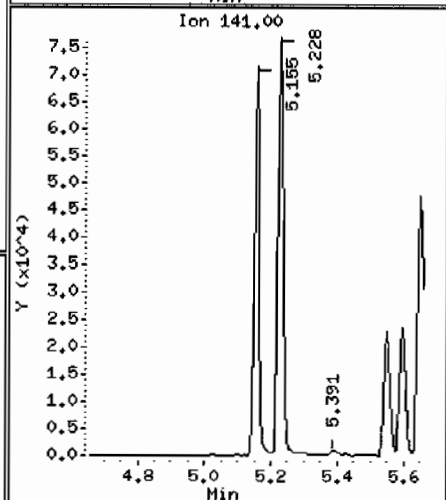
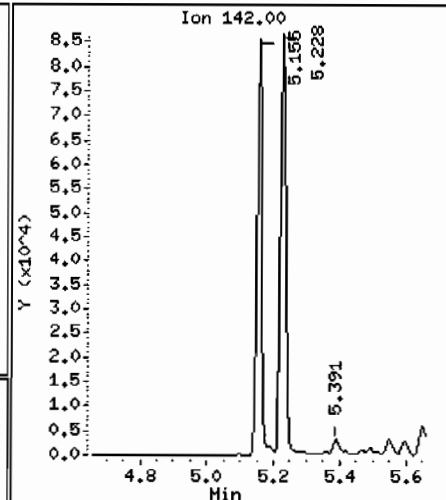
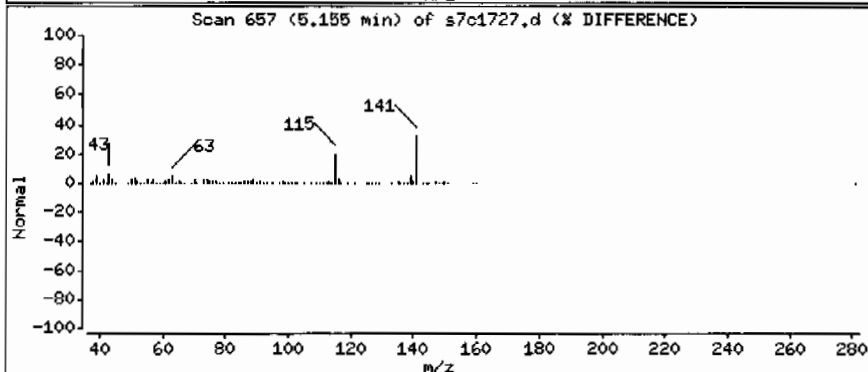
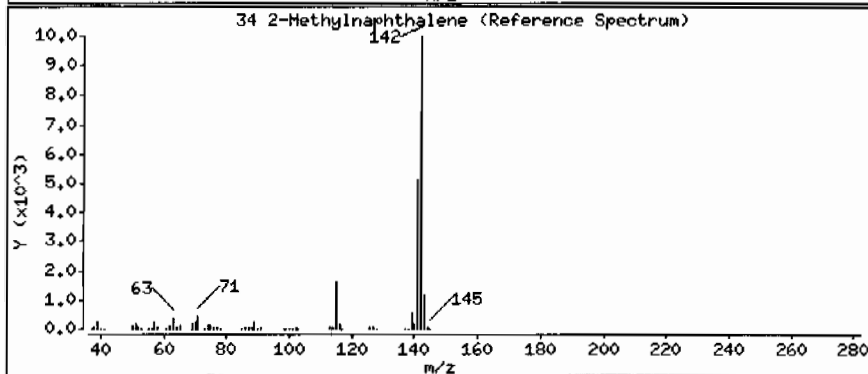
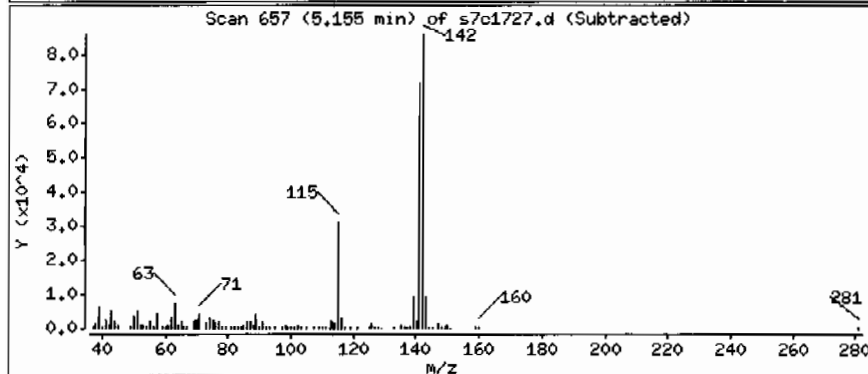
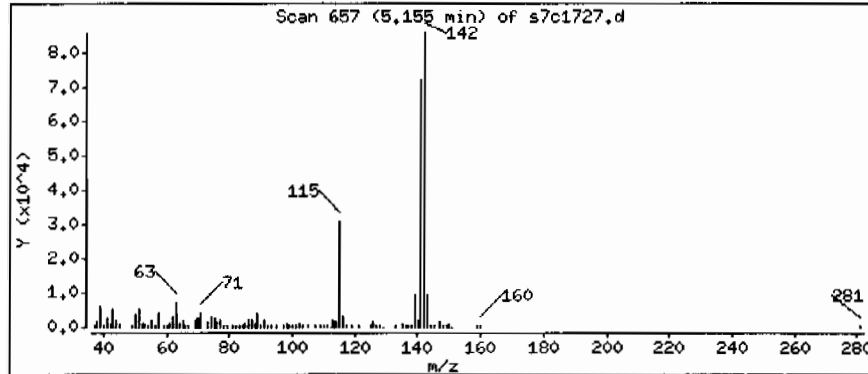
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 209 ug/Kg



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: I248043002196529011SVHI3ILANL\_rx

Volume Injected (uL): 0.5

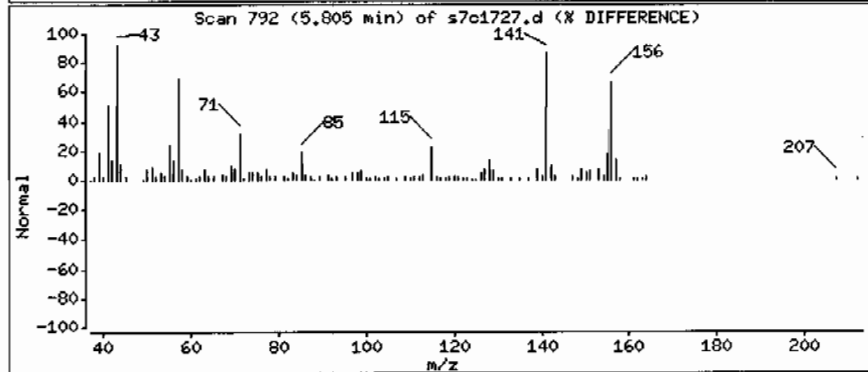
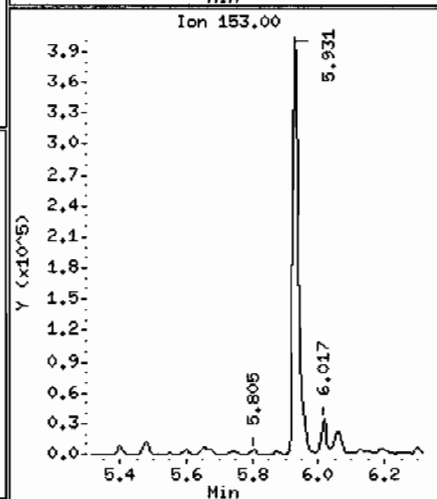
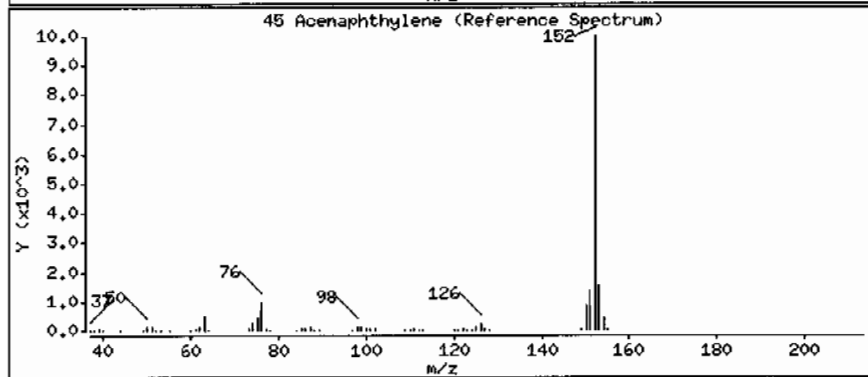
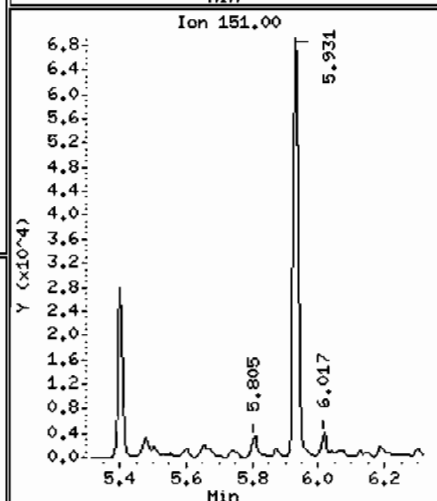
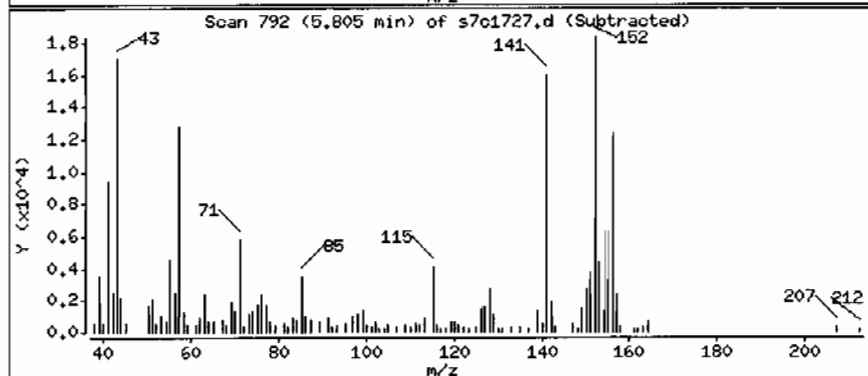
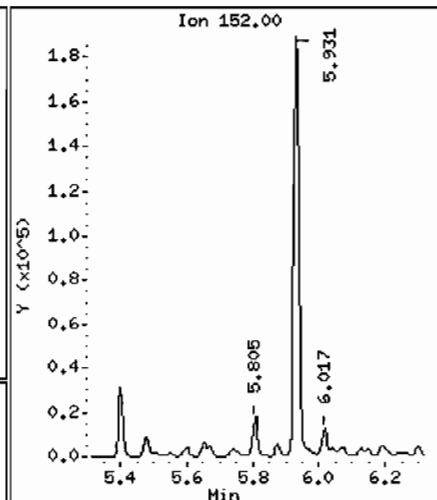
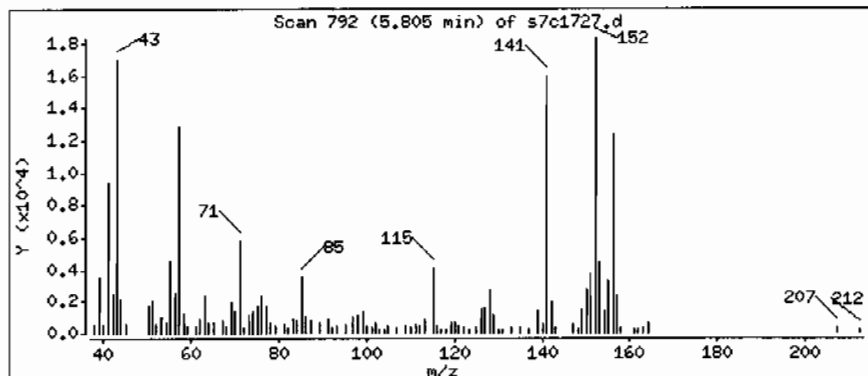
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

45 Acenaphthylene

Concentration: 33.0 ug/Kg



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: I248043002196529011ISVH13ILANL\_rx

Volume Injected (uL): 0.5

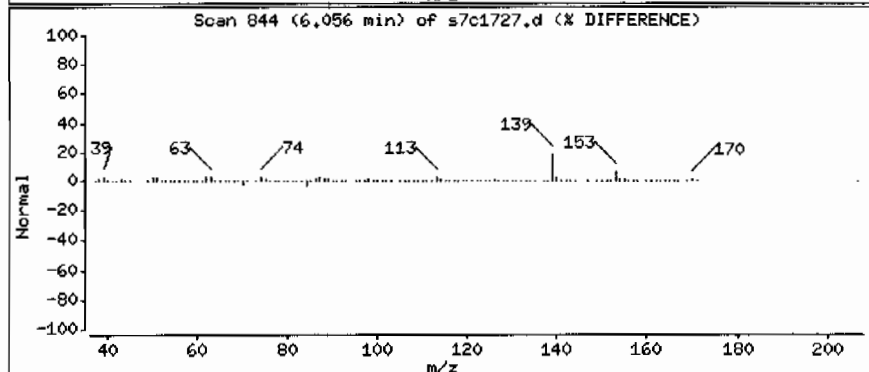
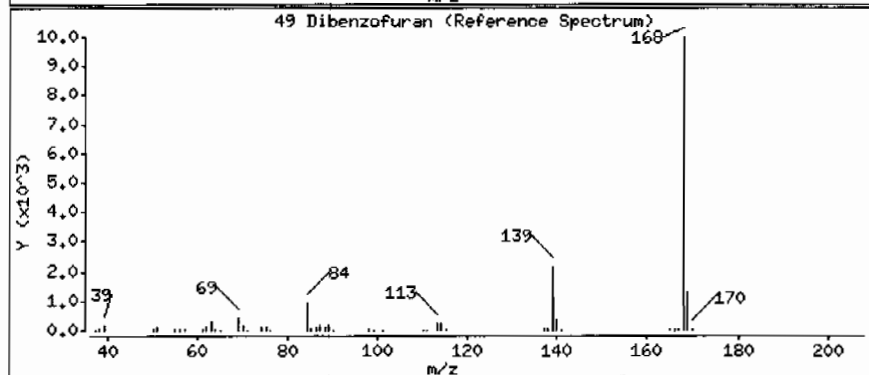
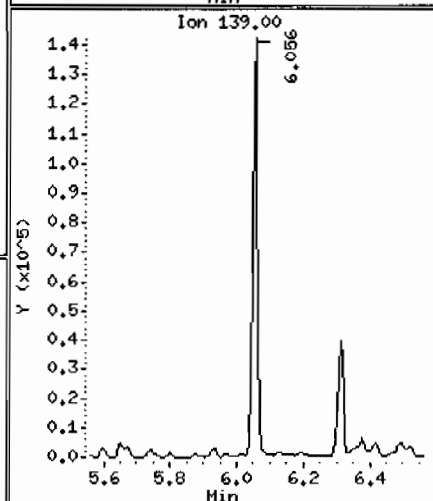
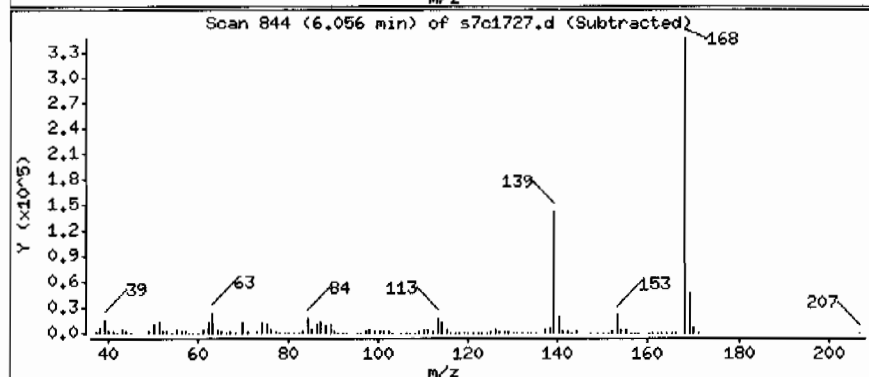
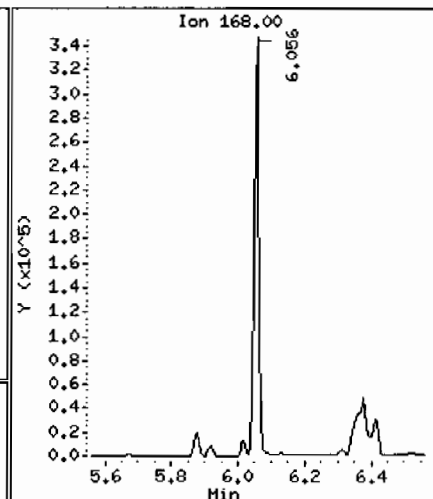
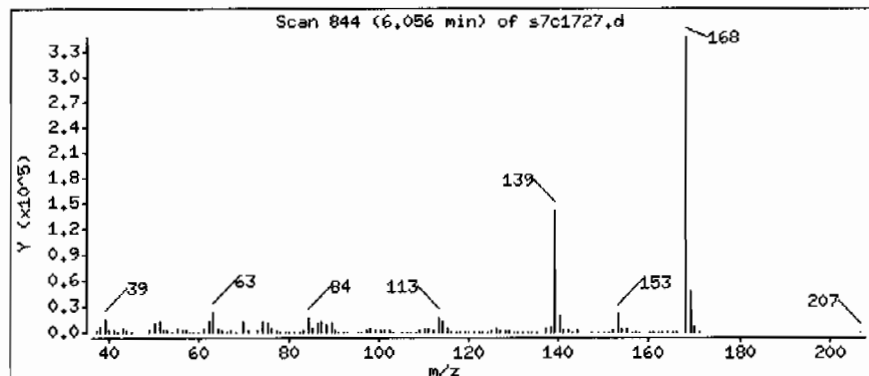
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

49 Dibenzofuran

Concentration: 694 ug/Kg



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: 1248043002196529011ISVH13ILANL\_rx

Volume Injected (uL): 0.5

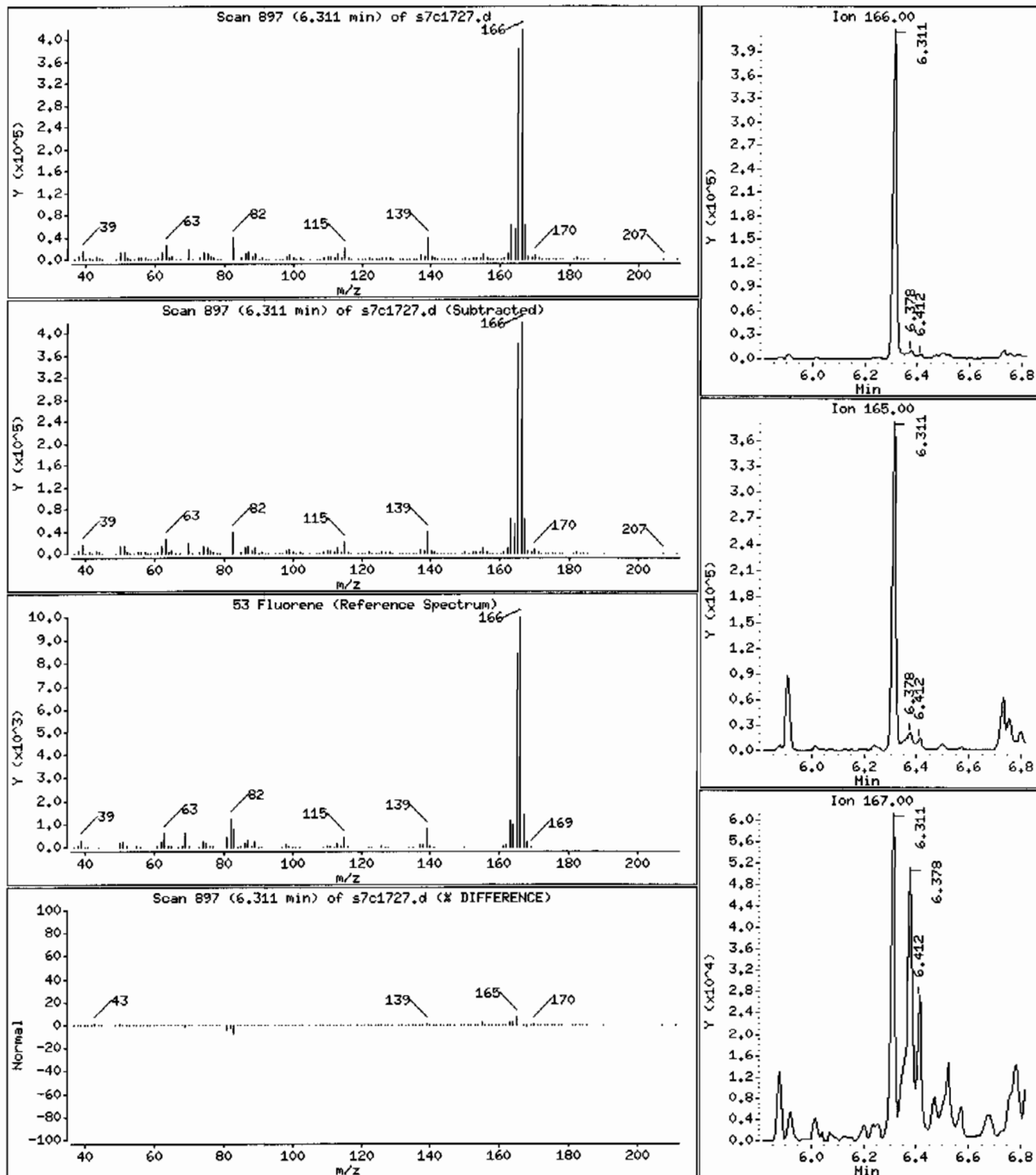
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 1040 ug/Kg



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: 1248043002196529011SVH13ILANL\_rx

Volume Injected (uL): 0.5

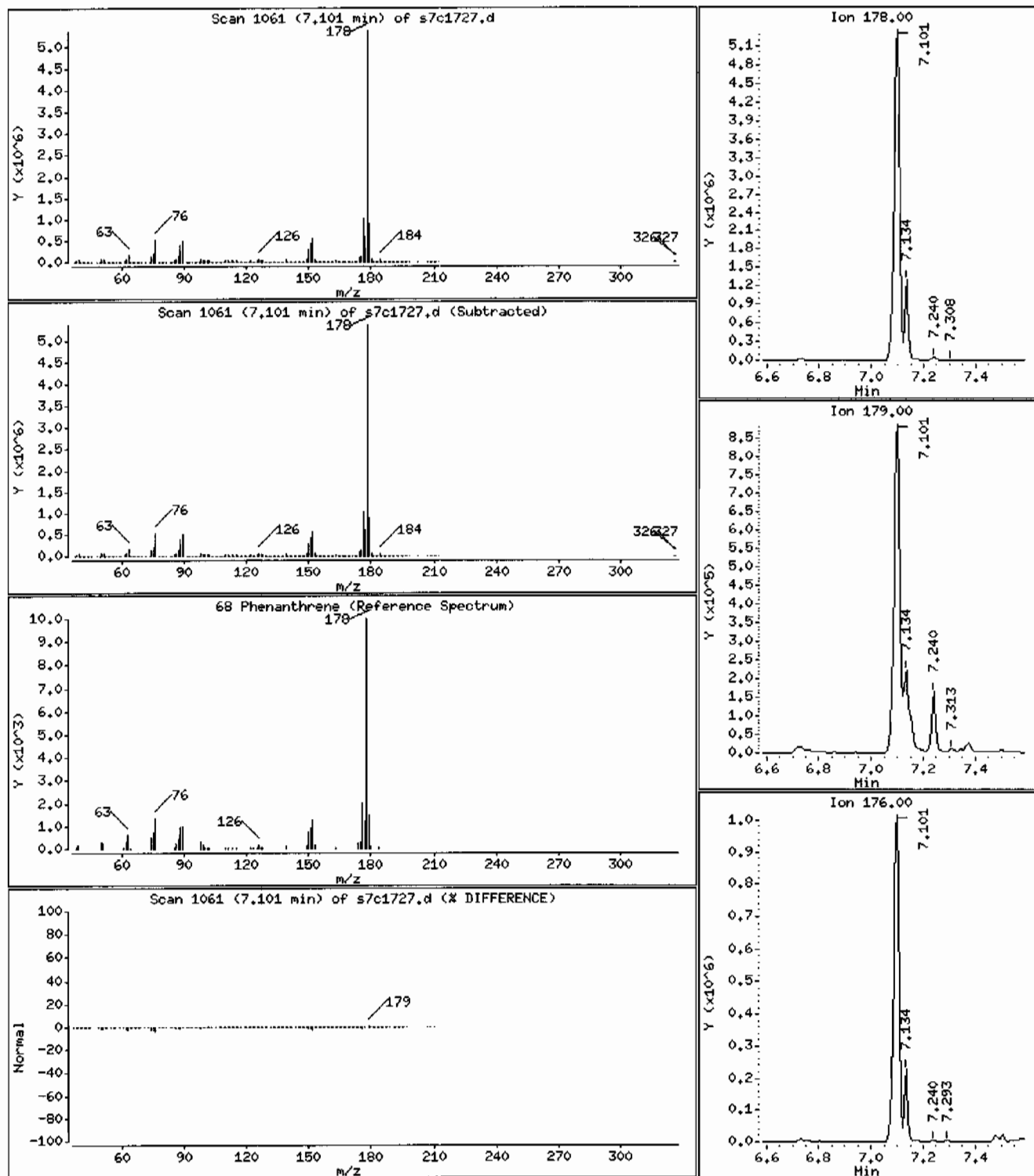
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 13000 ug/Kg



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: I248043002196529011ISVHI3ILANL\_rx

Volume Injected (uL): 0.5

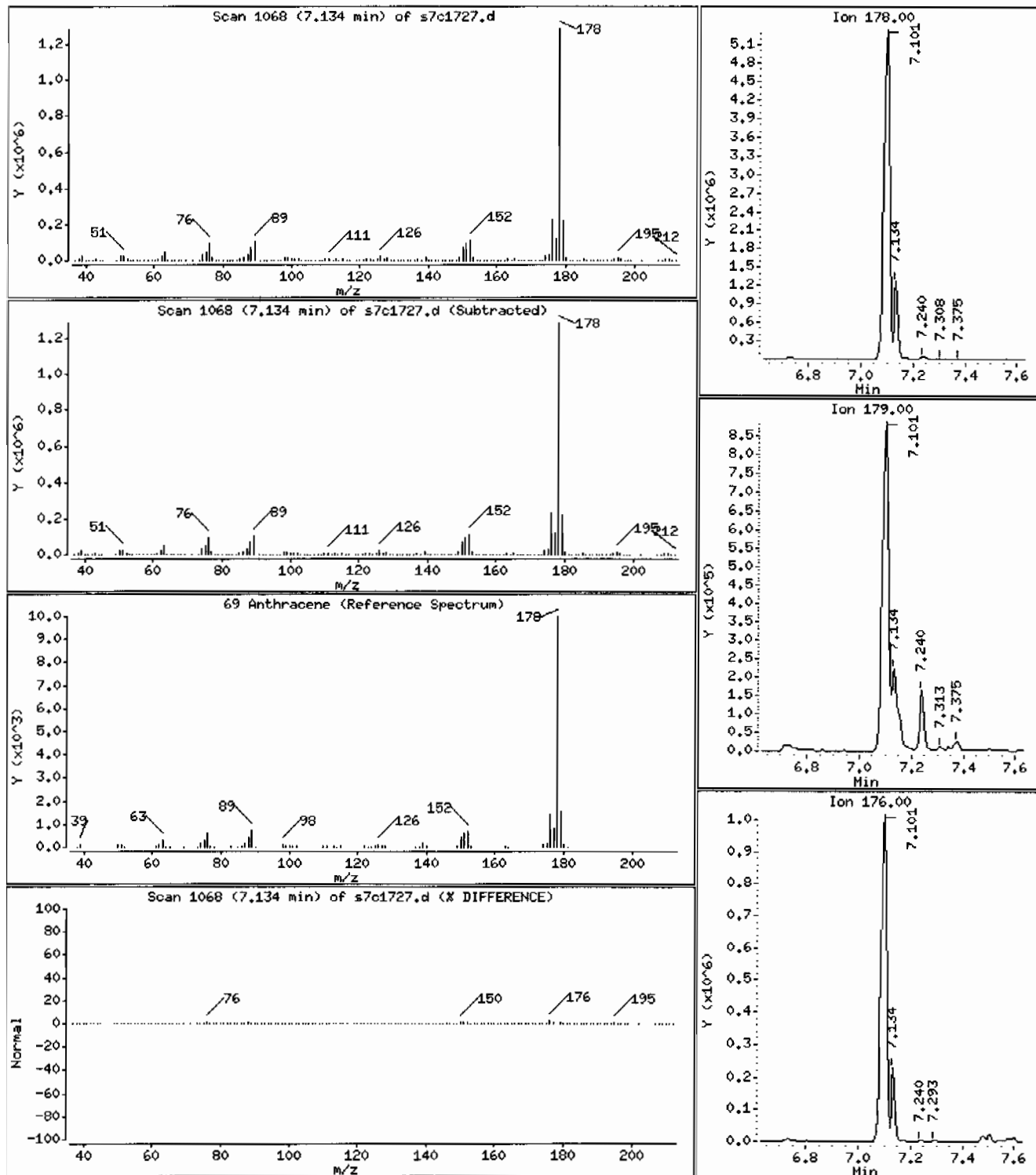
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 2280 ug/Kg



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: I248043002196529011ISVH13ILANL\_rx

Volume Injected (uL): 0.5

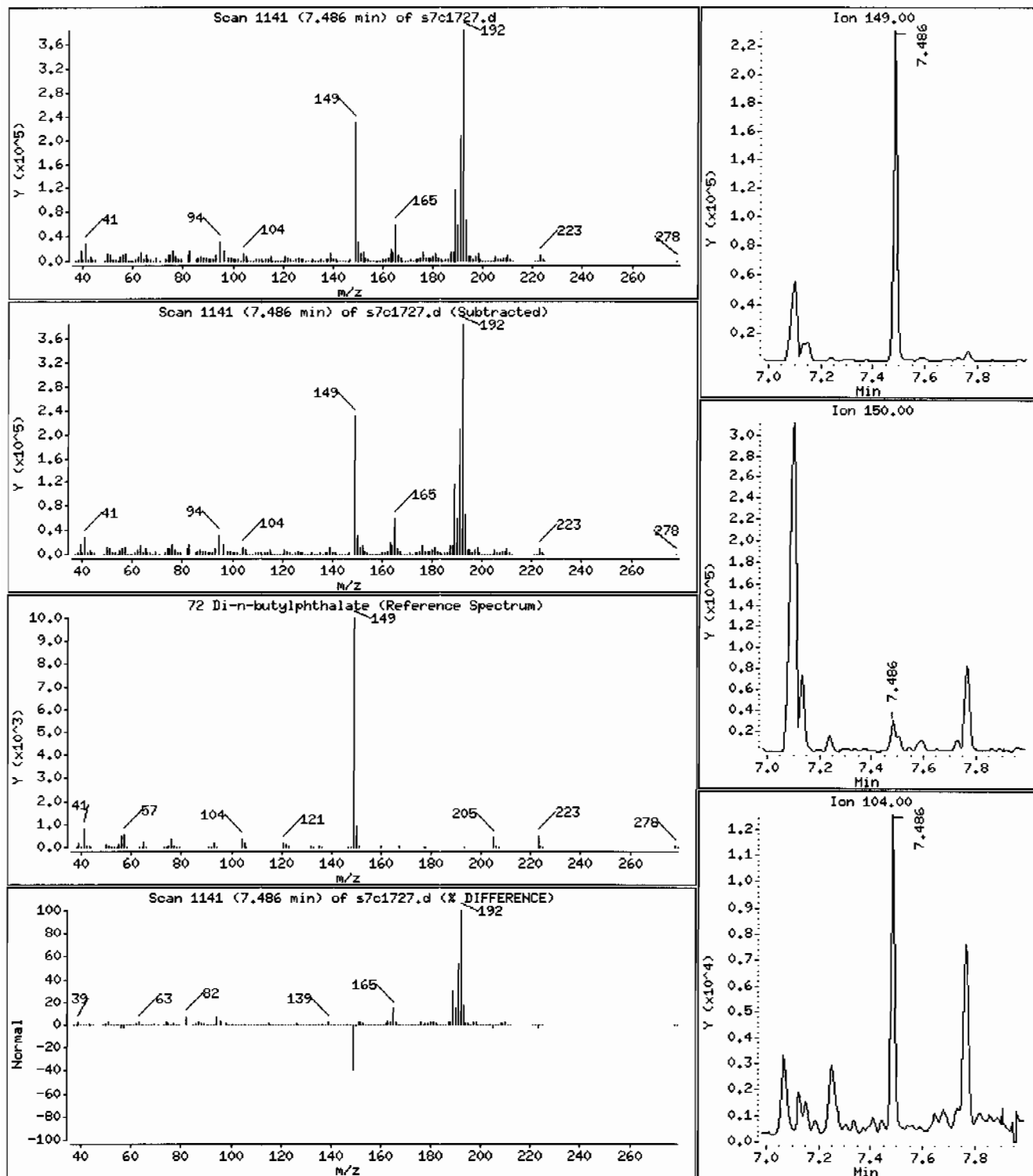
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

72 Di-n-butylphthalate

Concentration: 308 ug/Kg





Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: I248043002196529011ISVHI3ILANL\_rx

Volume Injected (uL): 0.5

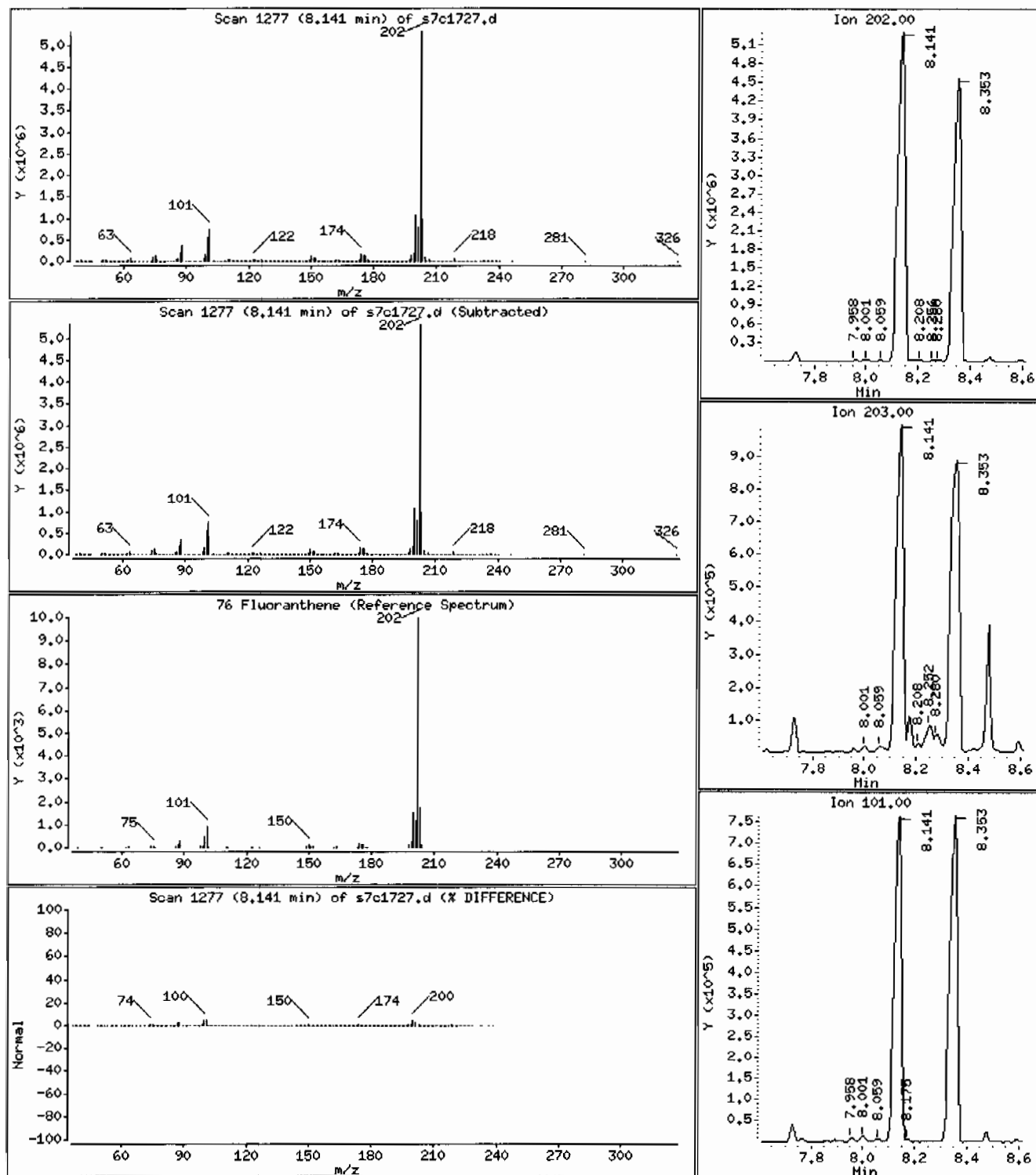
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 14200 ug/Kg



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: 1248043002196529011ISVH13ILANL\_rx

Volume Injected (uL): 0.5

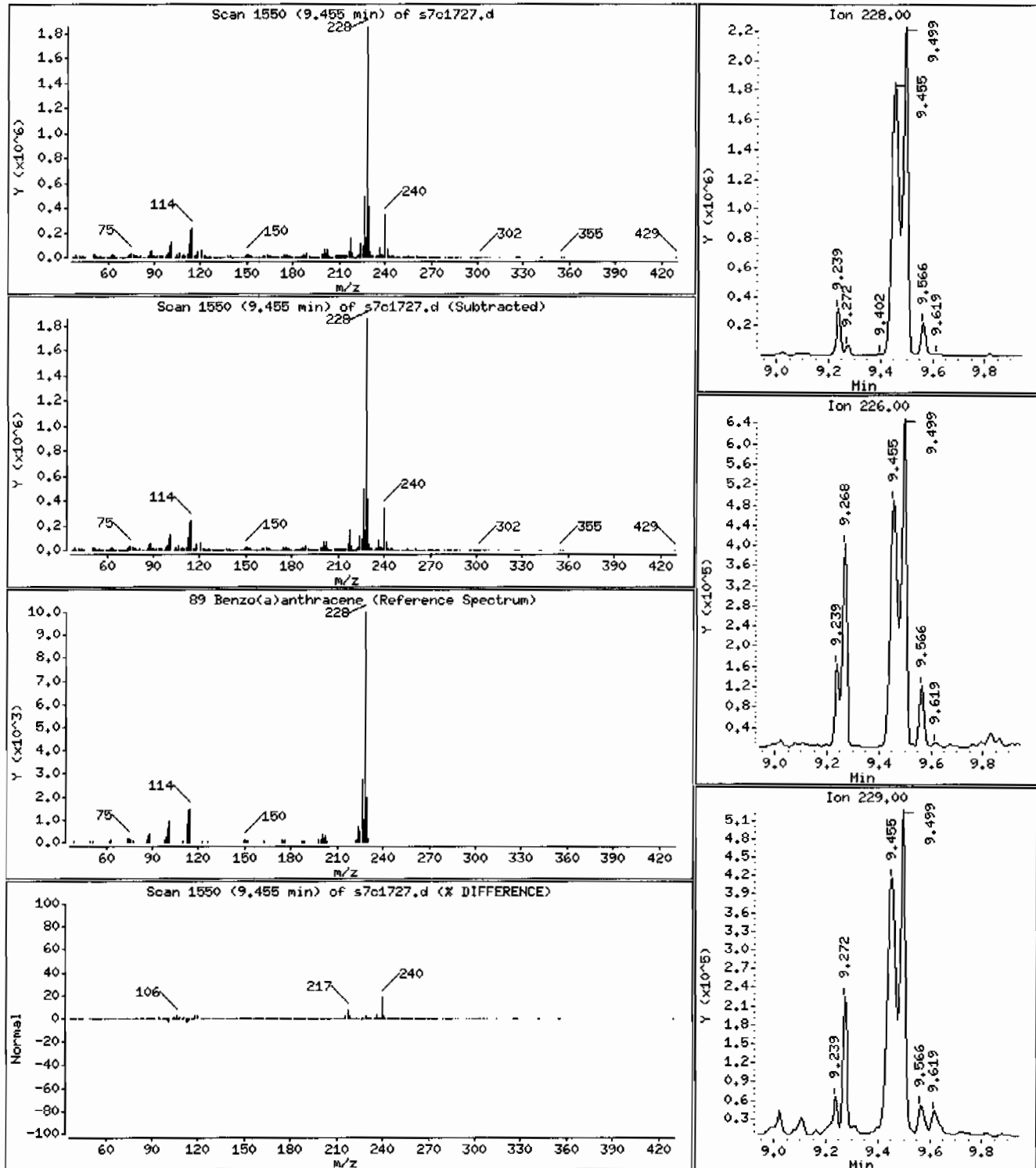
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 5860 ug/Kg



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: 1248043002196529011SVH13ILANL\_rx

Volume Injected (uL): 0.5

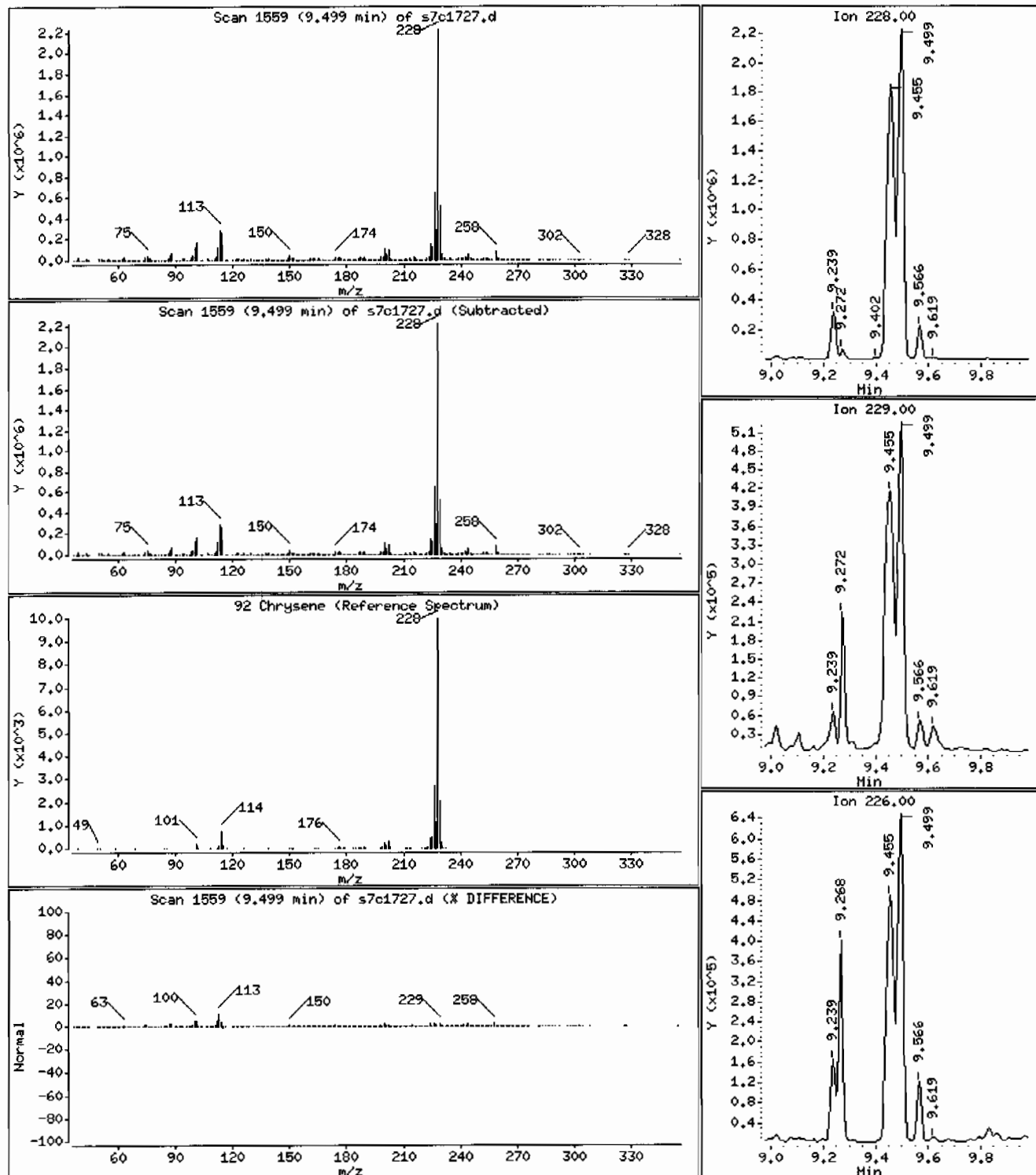
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 6480 ug/Kg



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: 12480430021965290111SVH131LANL\_rx

Volume Injected (uL): 0.5

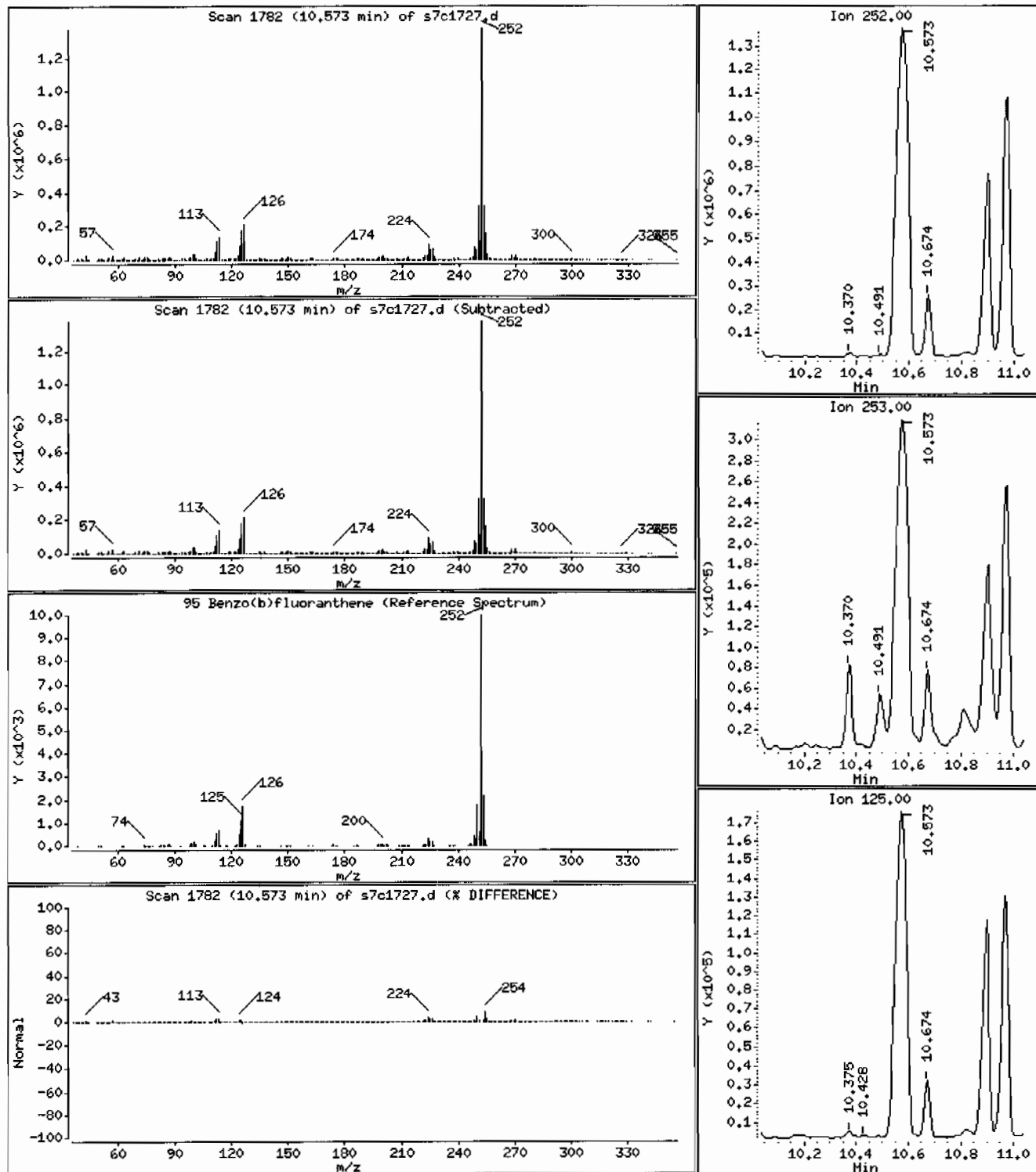
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 9890 ug/Kg



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: I248043002196529011ISVHI3ILANL\_rx

Volume Injected (uL): 0.5

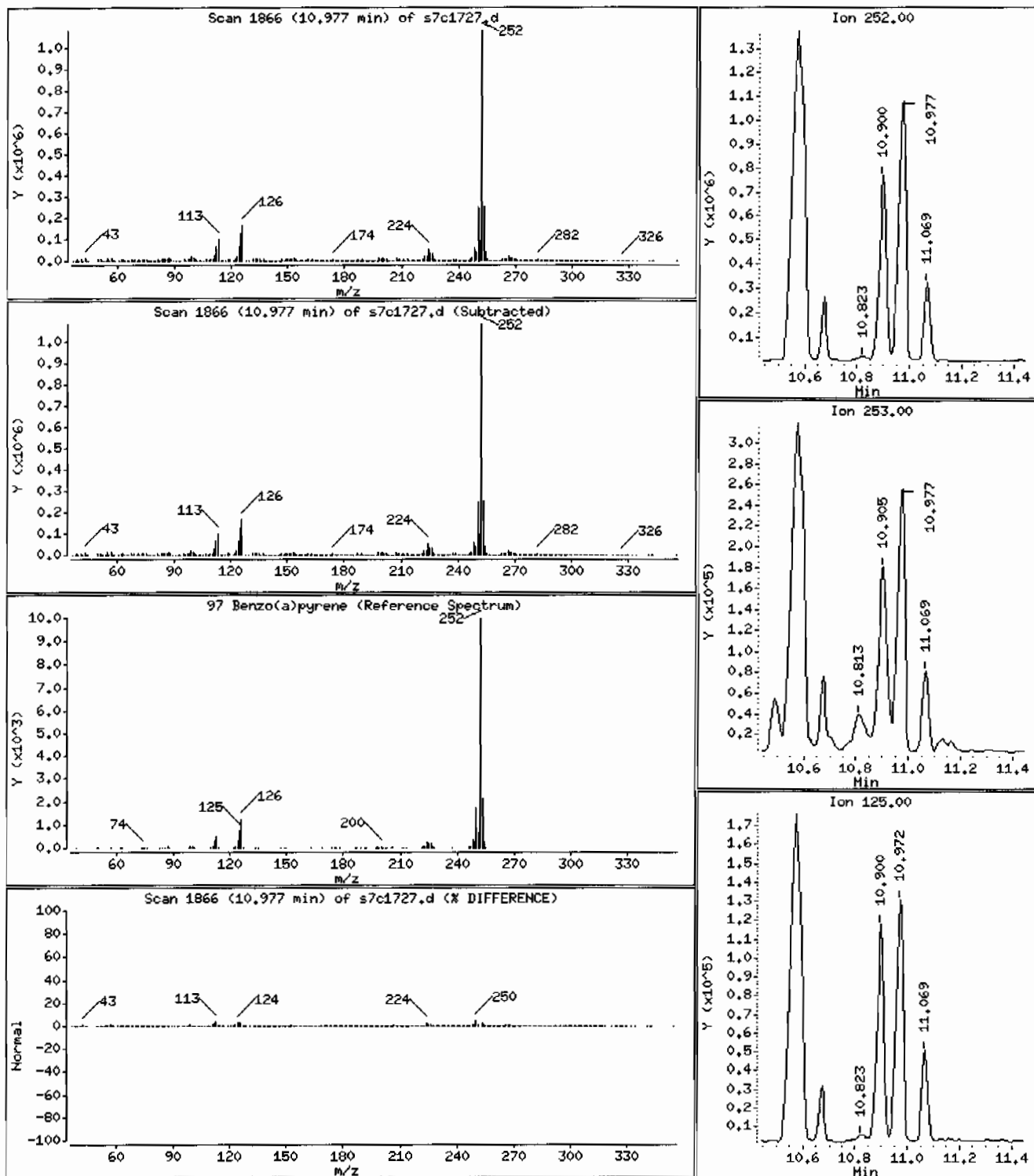
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 5610 ug/Kg



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: I248043002196529011SVH131LANL\_rx

Volume Injected (uL): 0.5

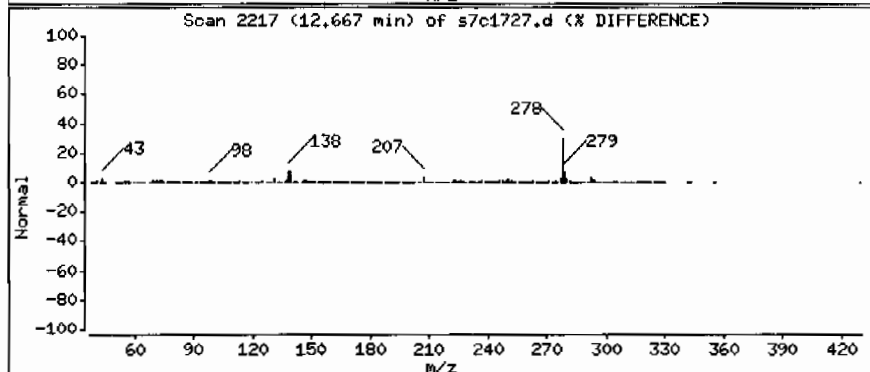
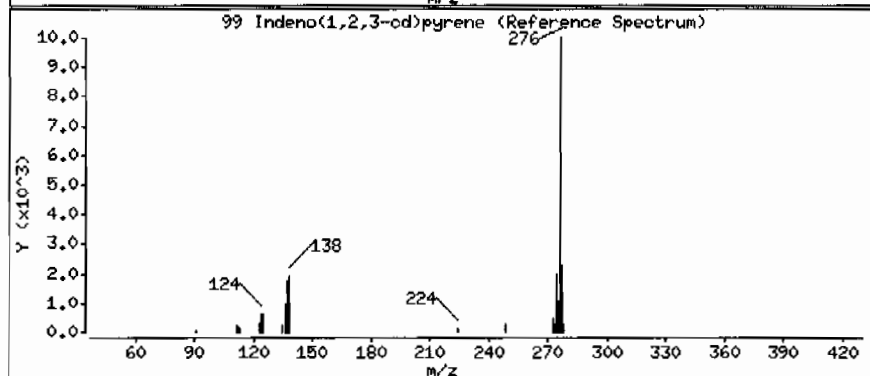
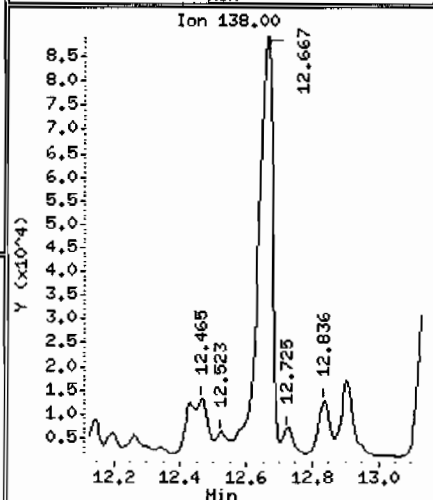
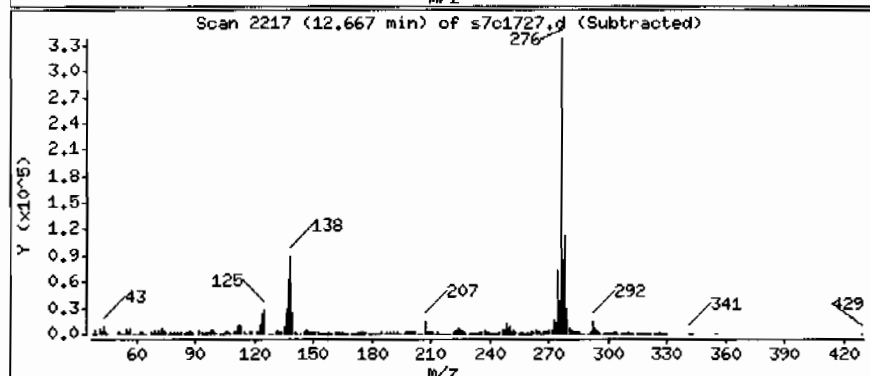
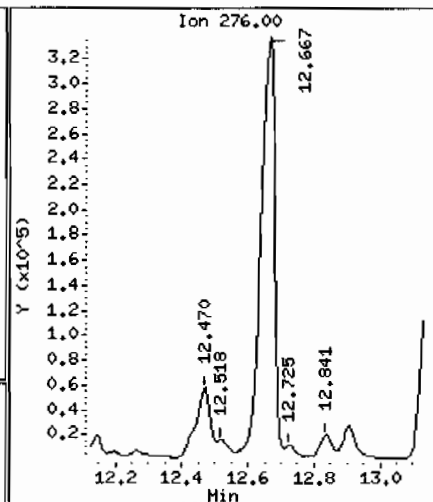
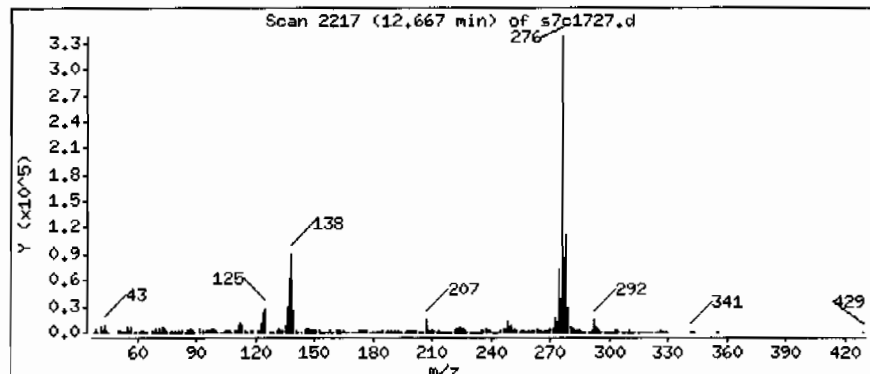
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 3810 ug/Kg



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: 1248043002196529011ISVH13ILANL\_rx

Volume Injected (uL): 0.5

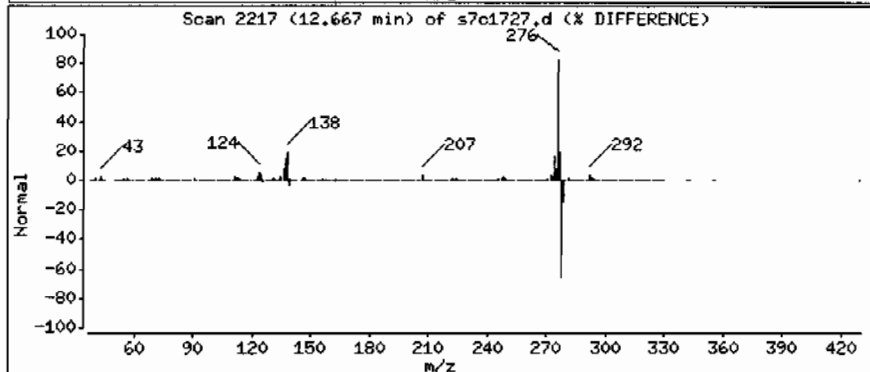
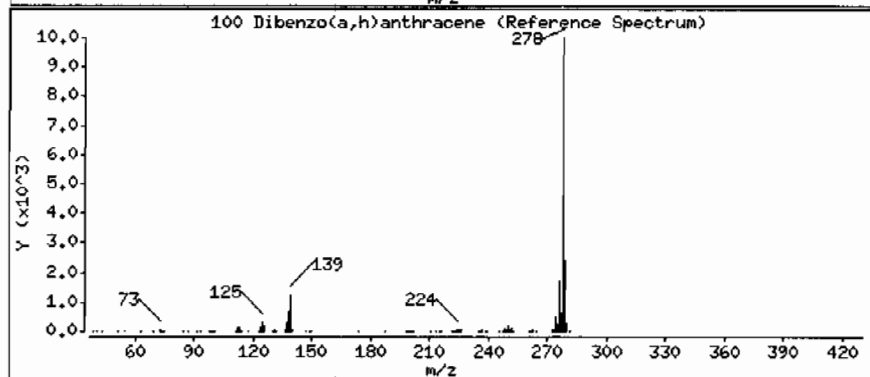
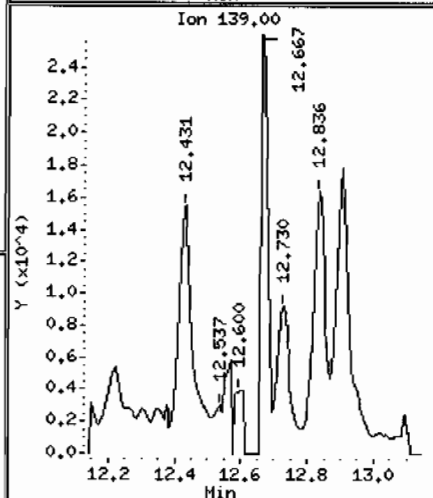
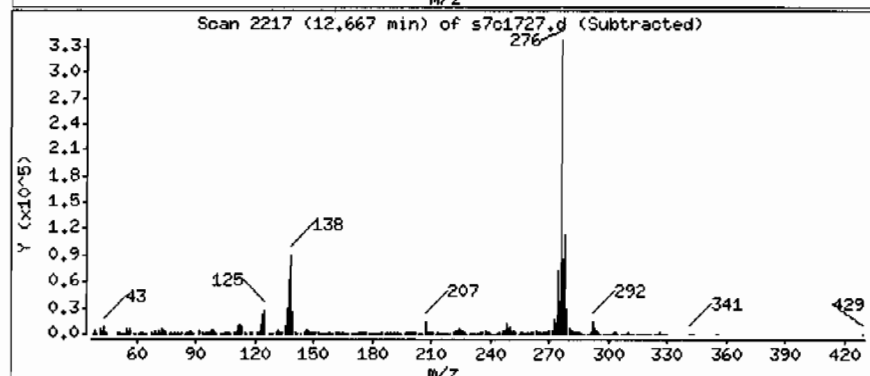
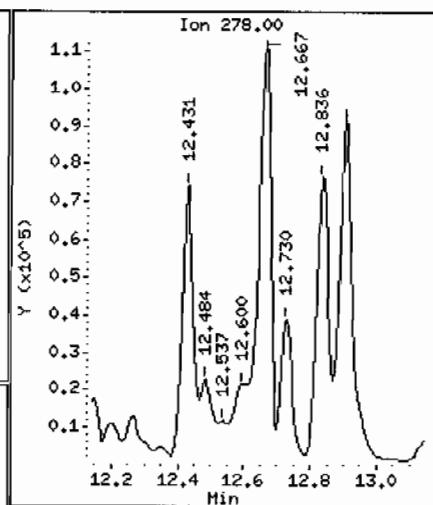
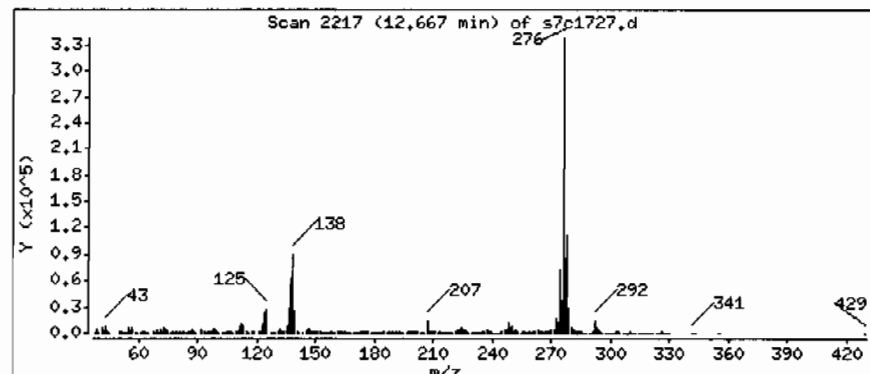
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 1400 ug/Kg



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: HSD7.i

Sample Info: 1248043002196529011SVH131LANL\_rx

Volume Injected (uL): 0.5

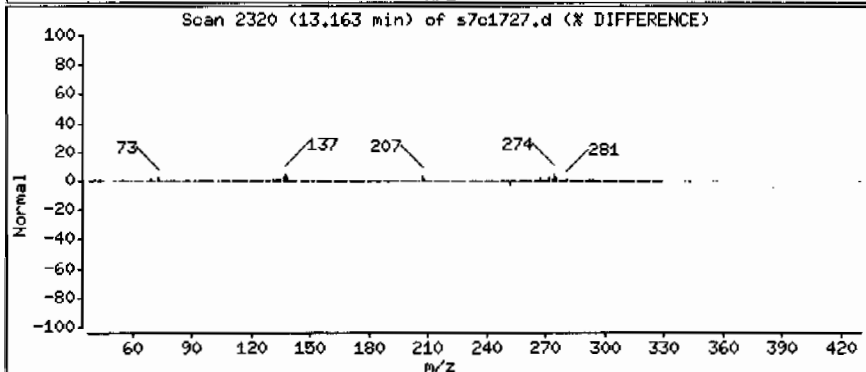
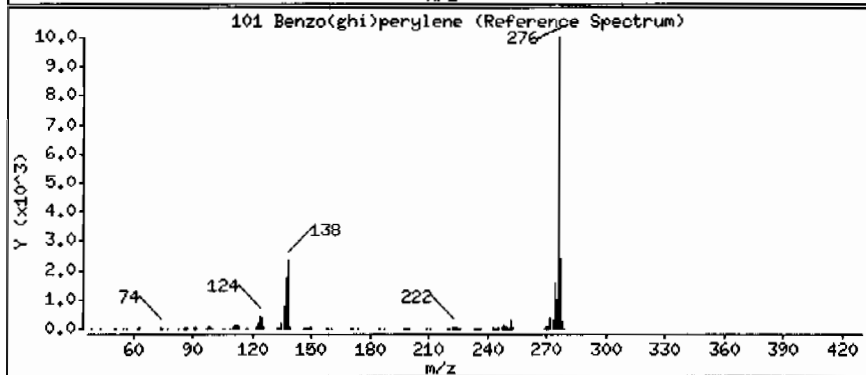
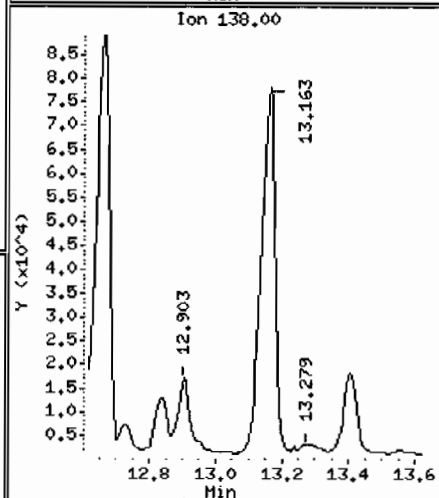
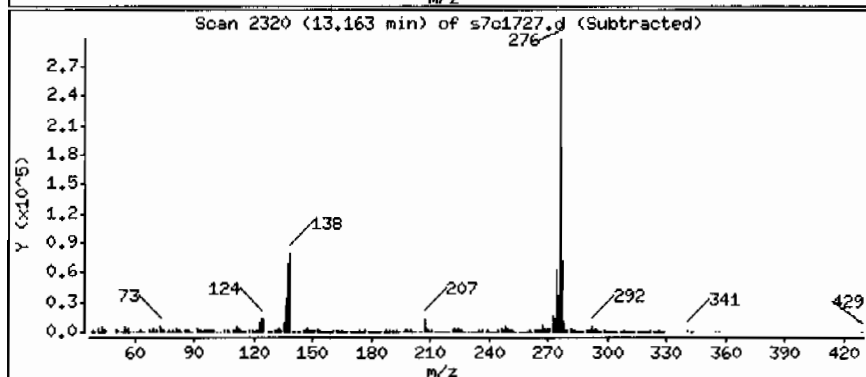
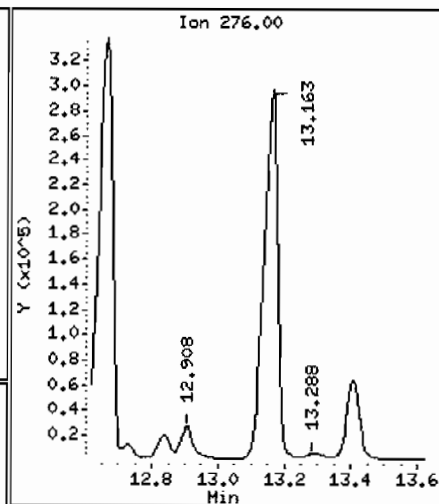
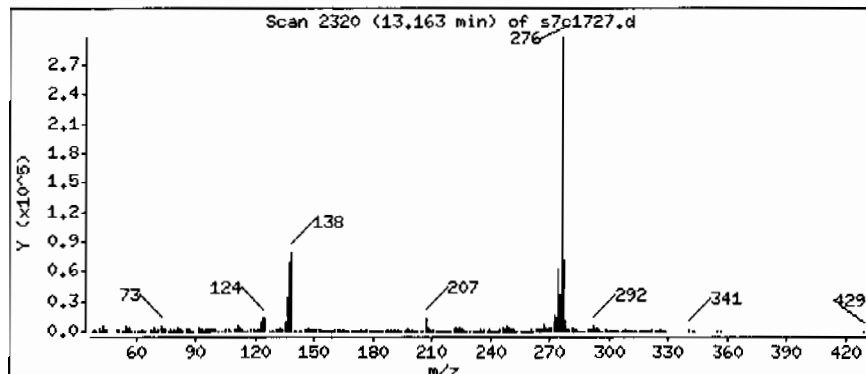
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 4040 ug/Kg





Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: I248043002196529011ISVH13ILANL\_rx

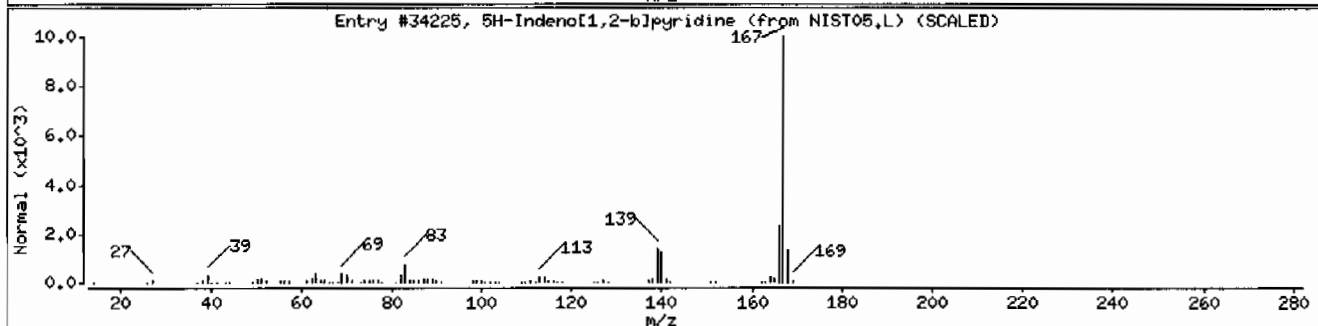
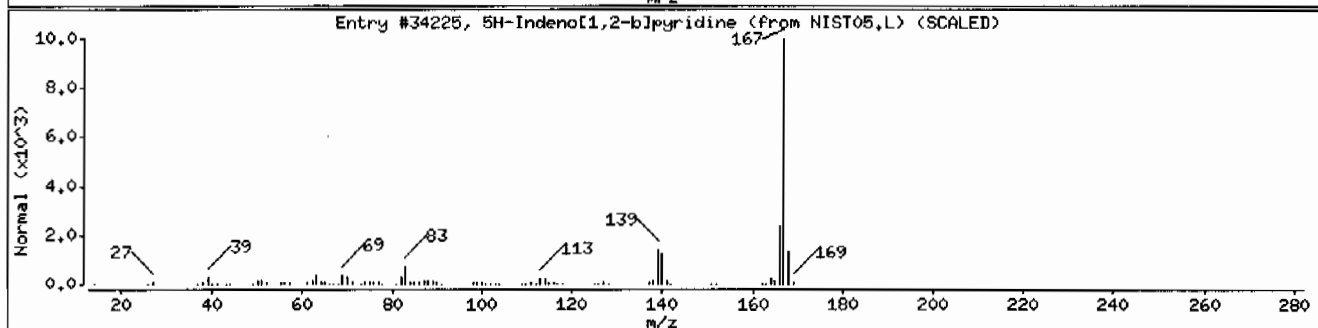
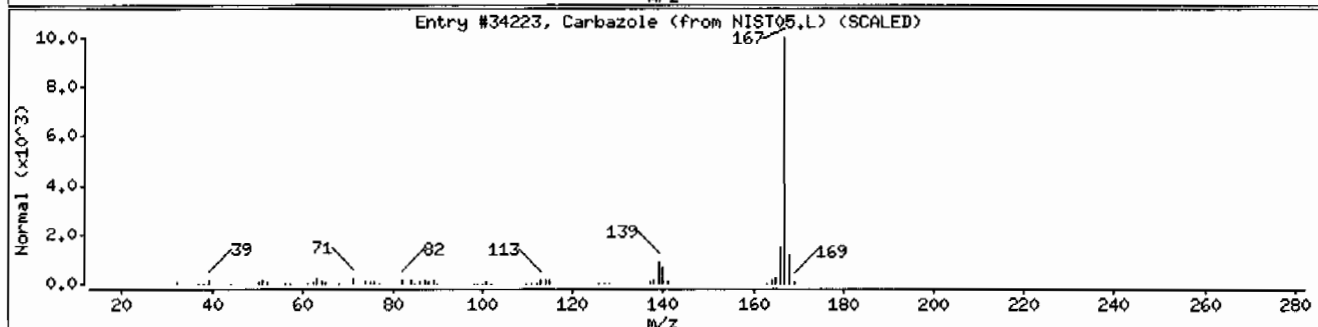
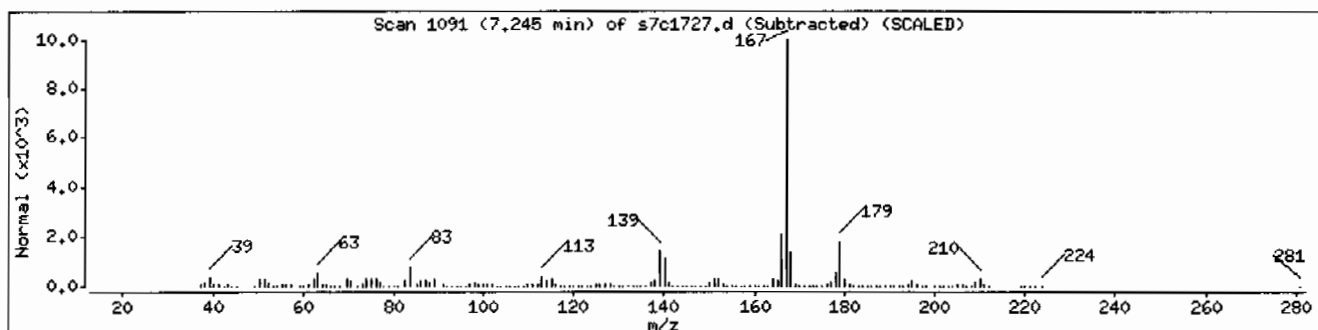
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Carbazole	86-74-8	NIST05.L	34223	87	C12H9N	167
5H-Indeno[1,2-b]pyridine	244-99-5	NIST05.L	34225	95	C12H9N	167
5H-Indeno[1,2-b]pyridine	244-99-5	NIST05.L	34225	95	C12H9N	167



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: 1248043002196529011SVH131LANL\_rx

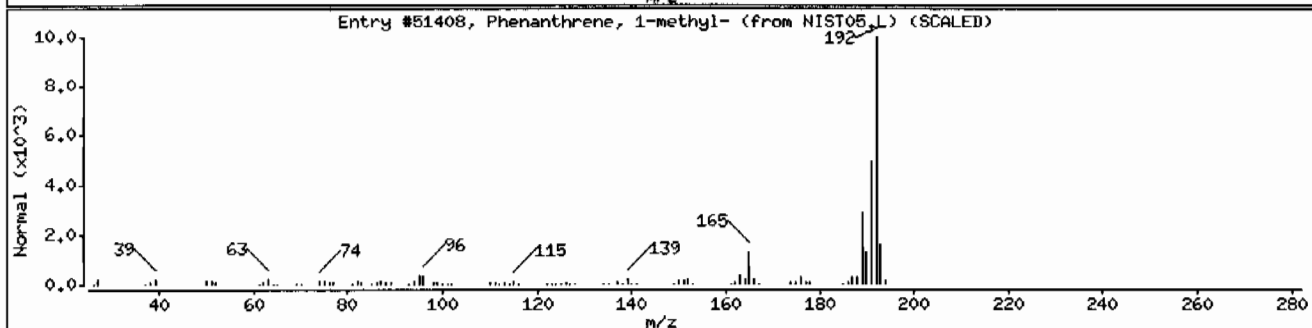
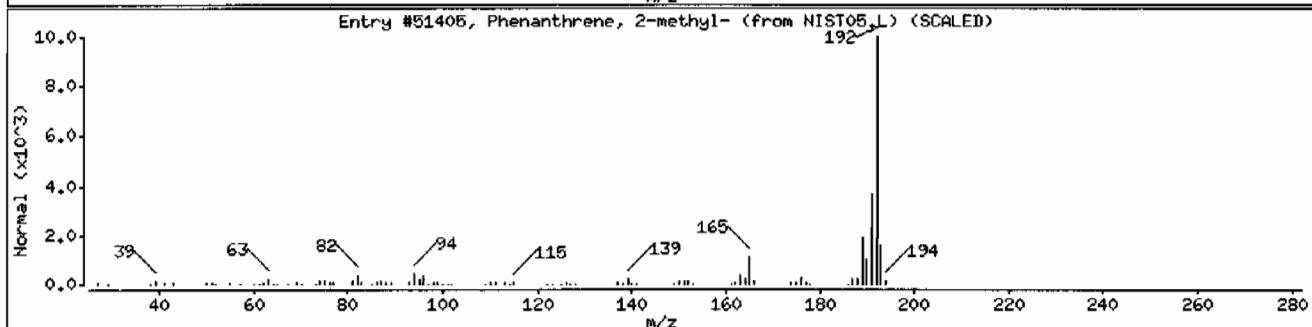
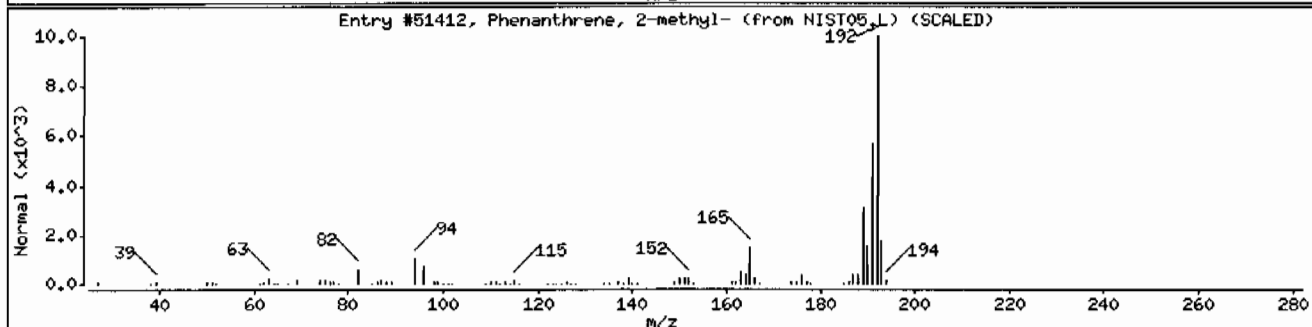
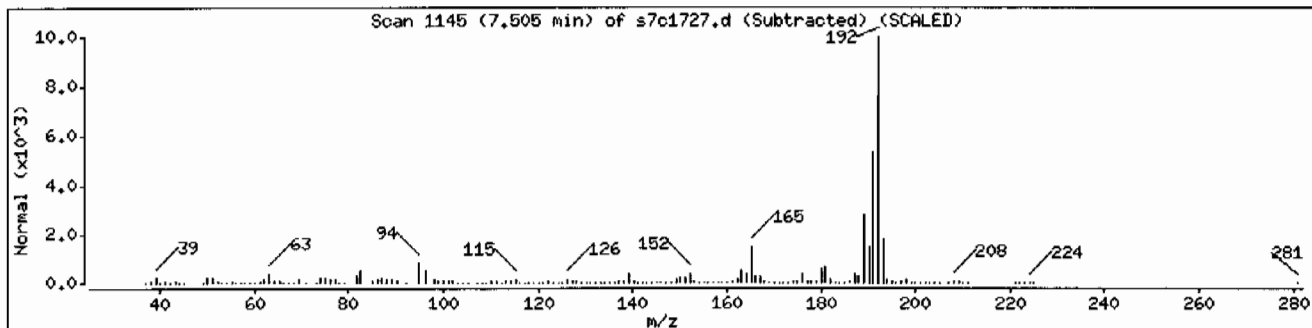
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-BMS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51412	98	C15H12	192
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51405	98	C15H12	192
Phenanthrene, 1-methyl-	832-69-9	NIST05.L	51408	98	C15H12	192



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: I248043002196529011SVHI3ILANL\_rx

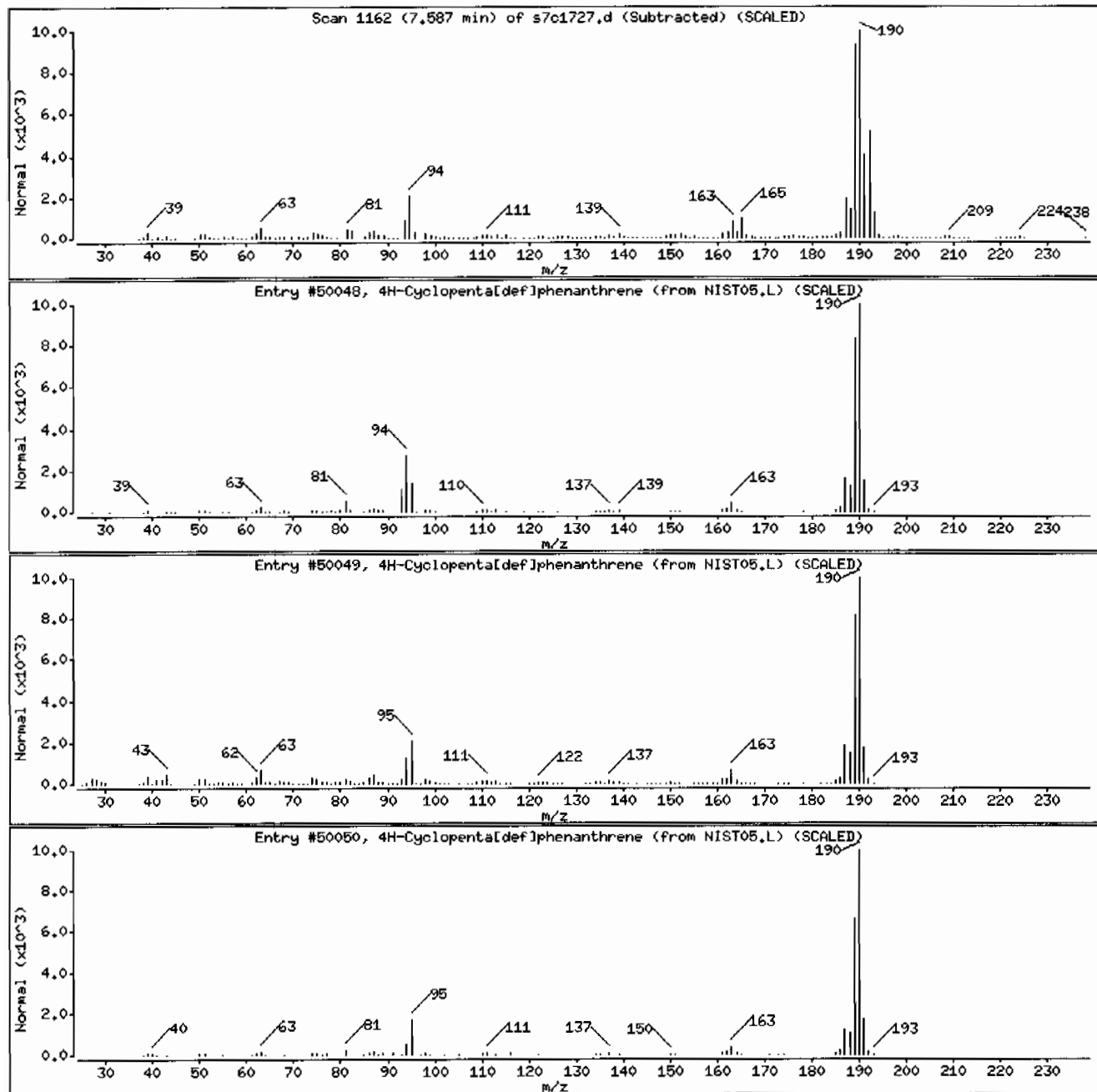
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50048	70	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50049	60	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50050	49	C15H10	190



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: I248043002196529011SVHI3ILANL\_rx

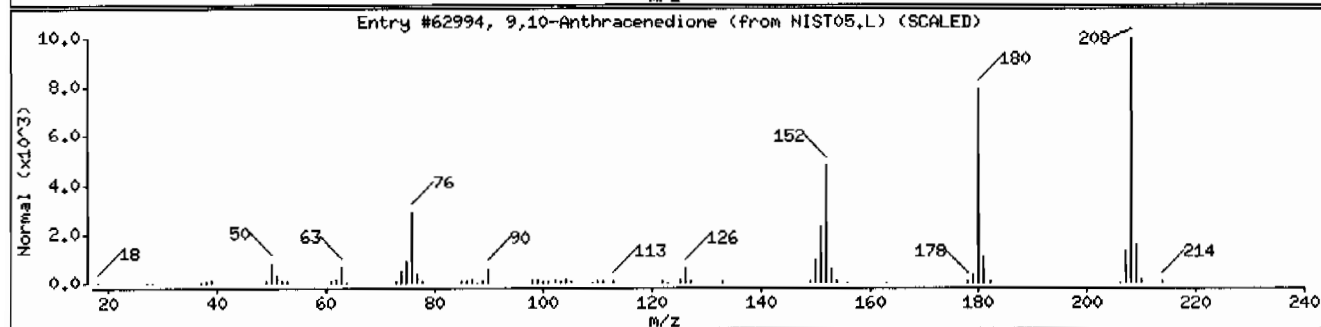
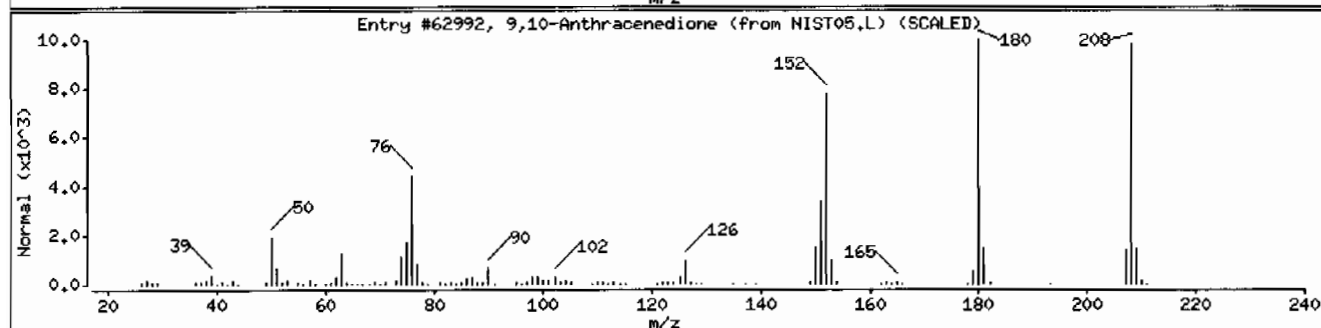
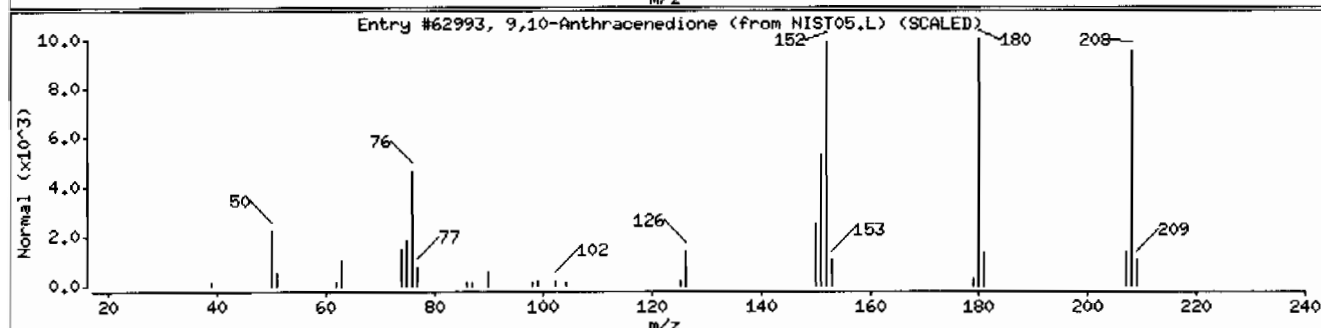
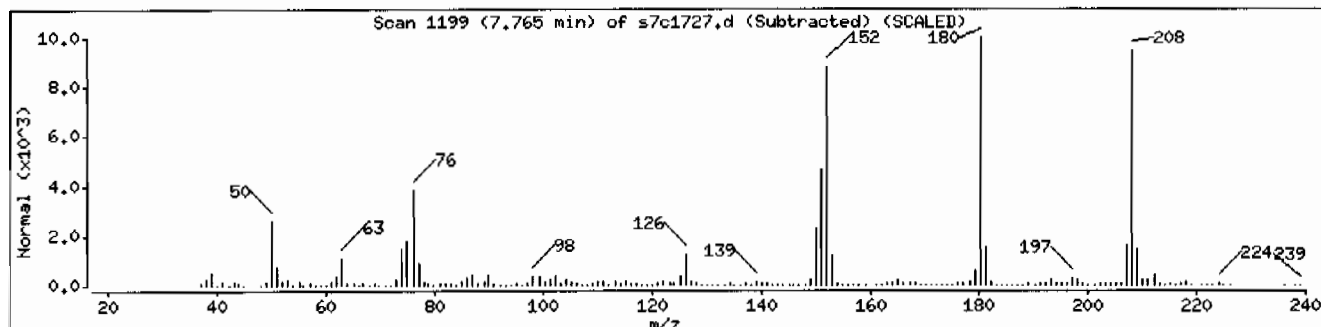
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9,10-Anthracenedione	84-65-1	NIST05.L	62993	99	C14H8O2	208
9,10-Anthracenedione	84-65-1	NIST05.L	62992	95	C14H8O2	208
9,10-Anthracenedione	84-65-1	NIST05.L	62994	95	C14H8O2	208



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: I2480430021965290111SVH131LANL\_rx

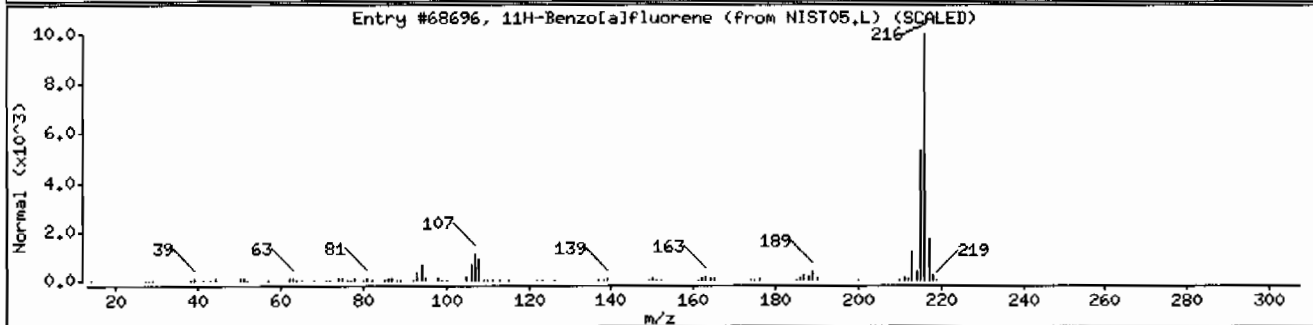
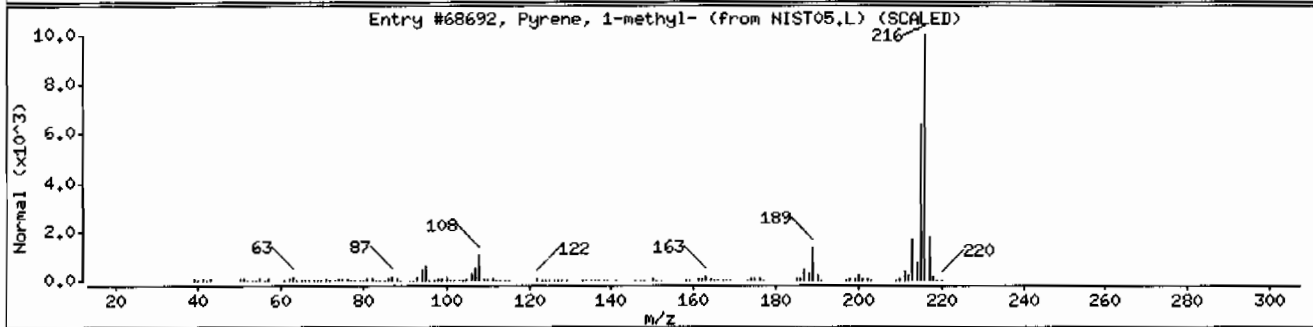
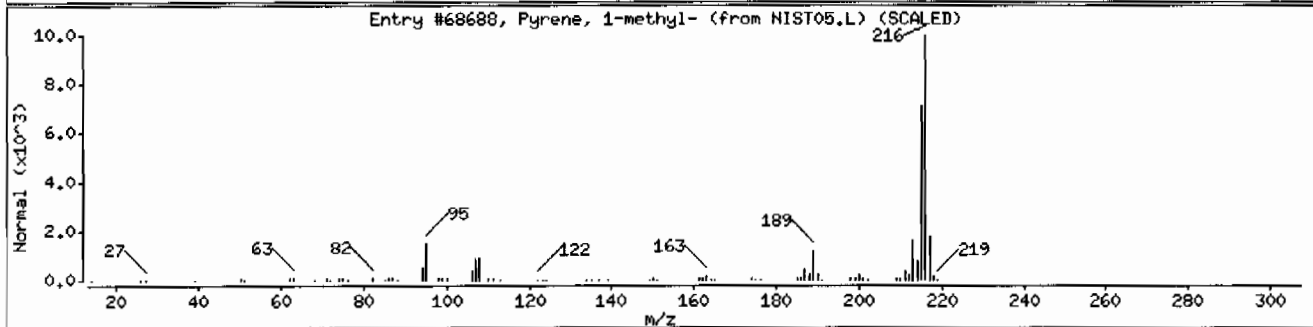
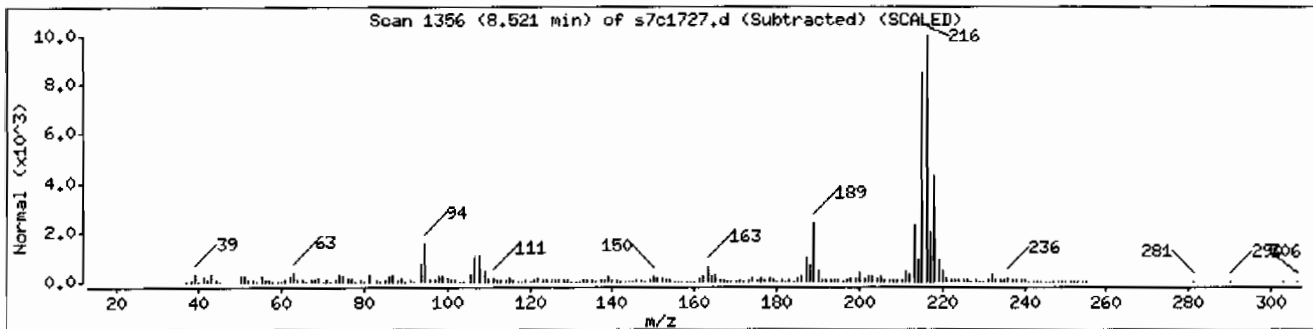
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68688	95	C17H12	216
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68692	95	C17H12	216
11H-Benzo[a]fluorene	238-84-6	NIST05.L	68696	94	C17H12	216



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: I248043002196529011ISVH13ILANL\_rx

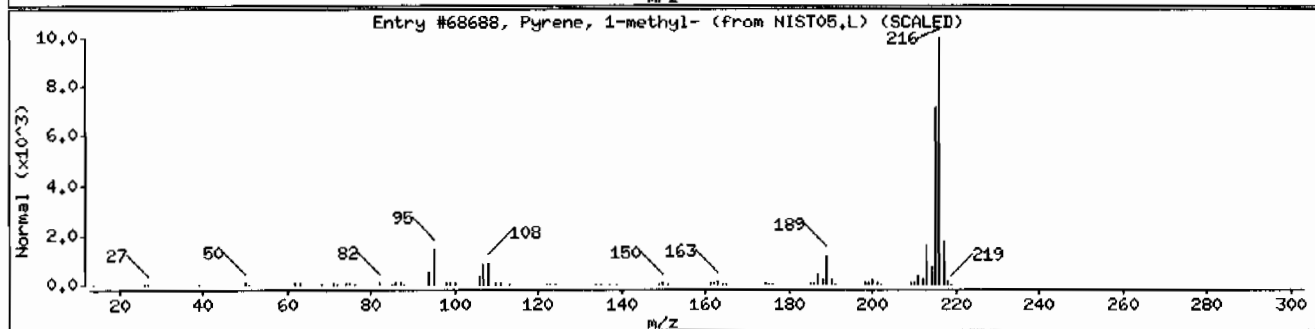
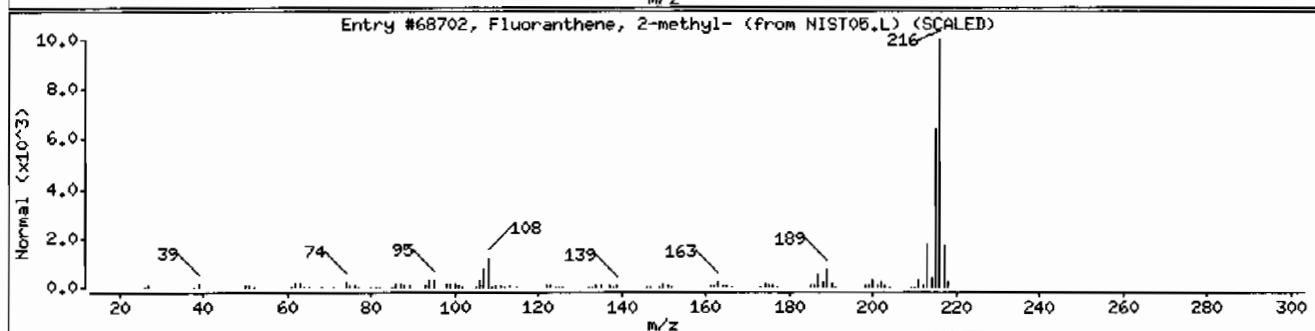
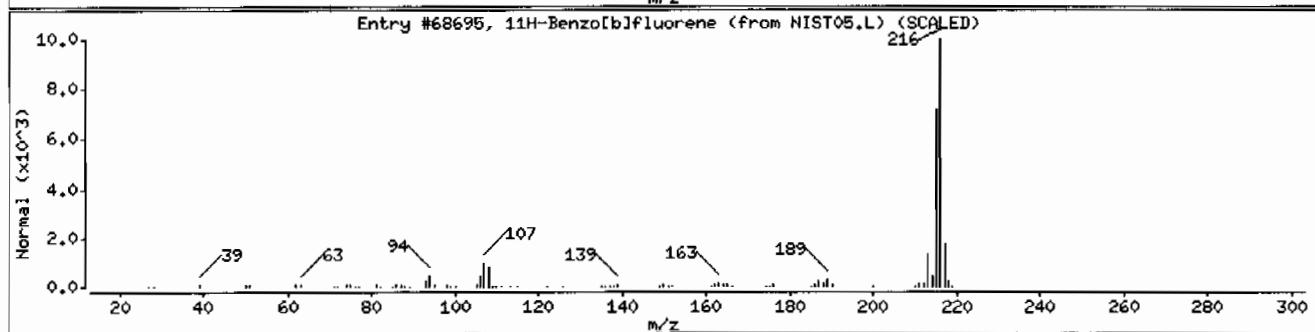
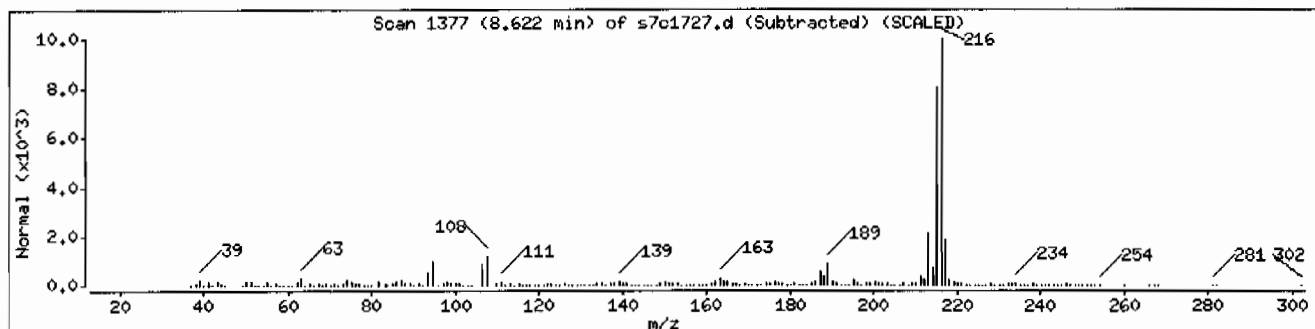
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[b]fluorene	243-17-4	NIST05.L	68695	97	C17H12	216
Fluoranthene, 2-methyl-	33543-31-6	NIST05.L	68702	95	C17H12	216
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68688	94	C17H12	216



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: I248043002196529011ISVHI3ILANL\_rx

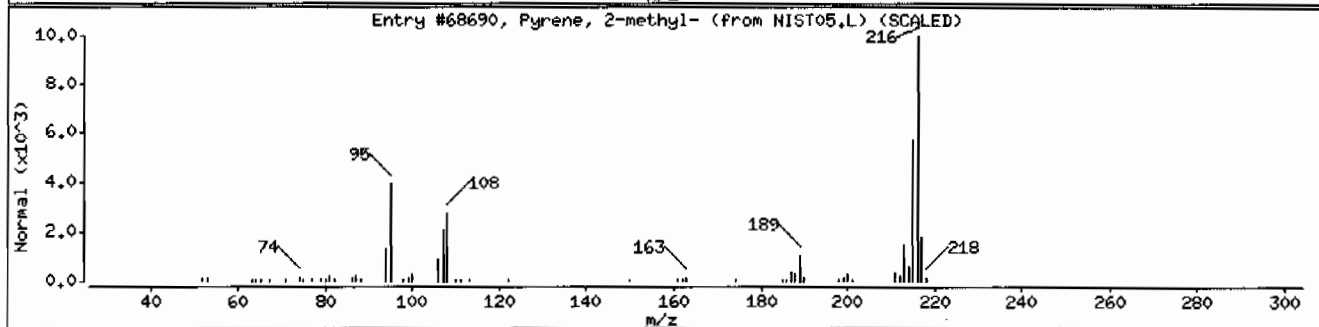
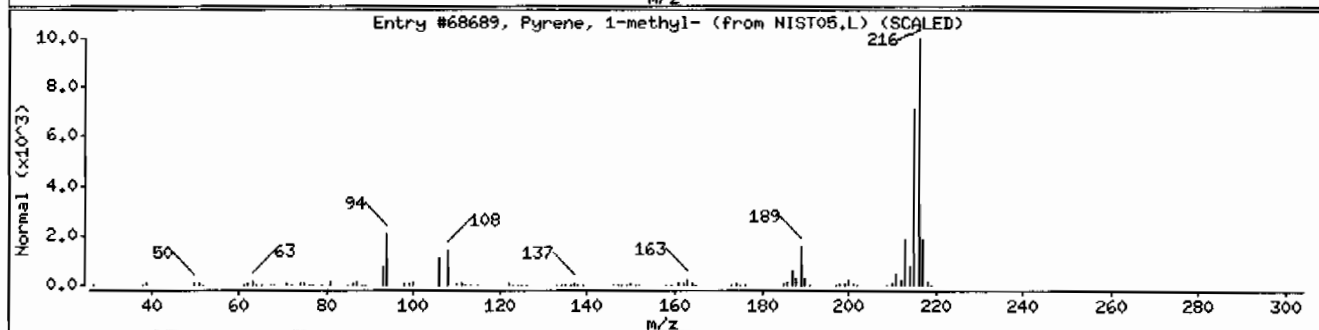
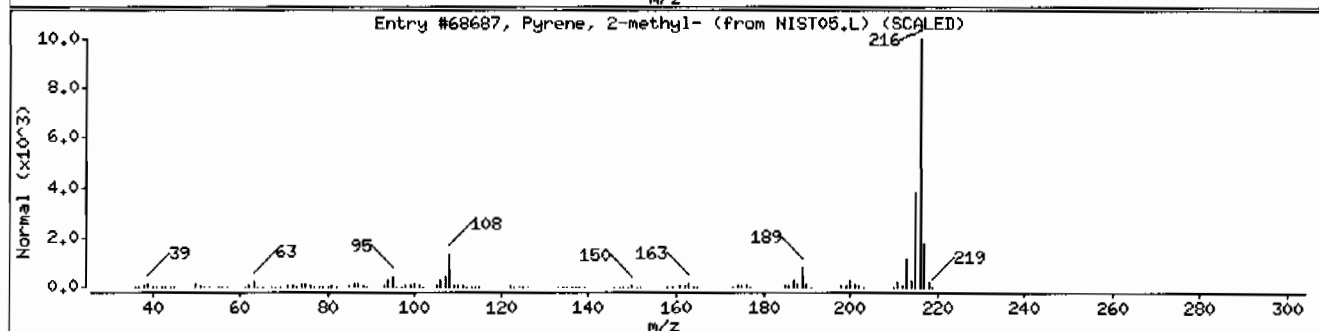
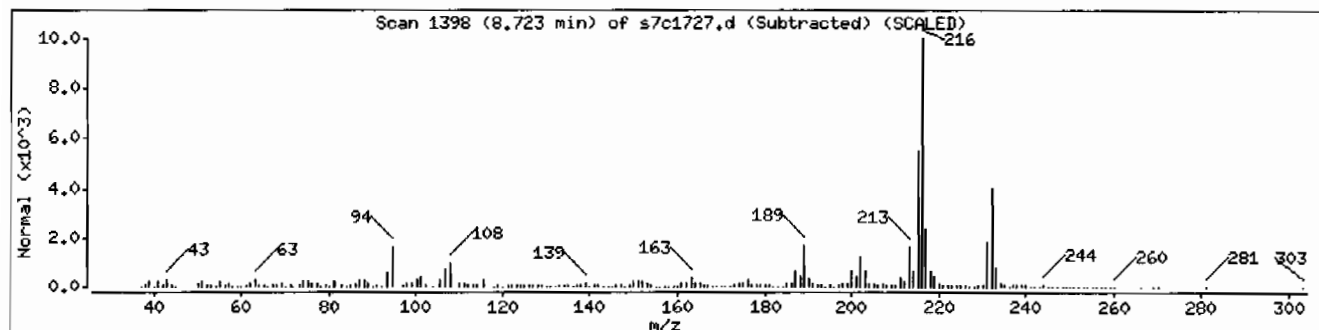
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyrene, 2-methyl-	3442-78-2	NIST05.L	68687	94	C17H12	216
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68689	91	C17H12	216
Pyrene, 2-methyl-	3442-78-2	NIST05.L	68690	83	C17H12	216



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: I248043002196529011ISVMI3ILANL\_rx

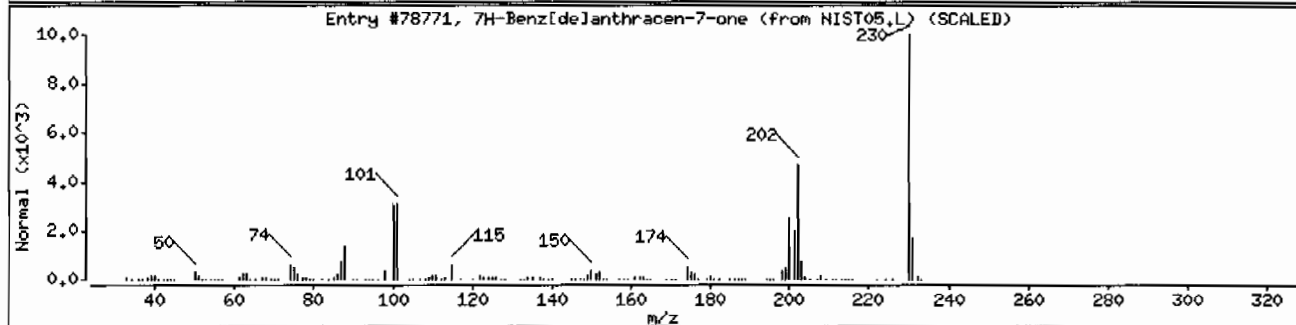
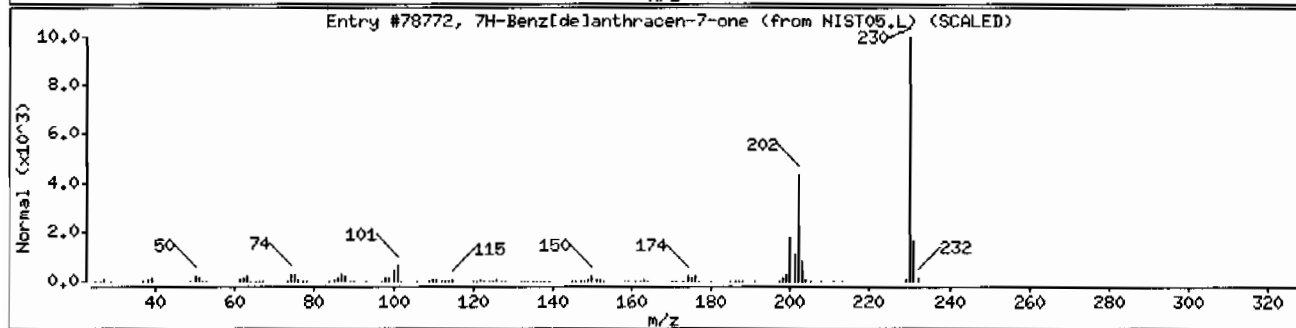
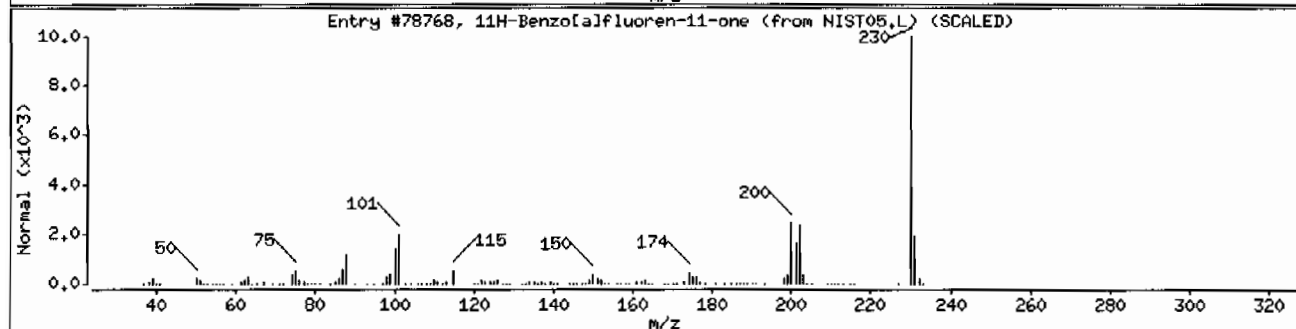
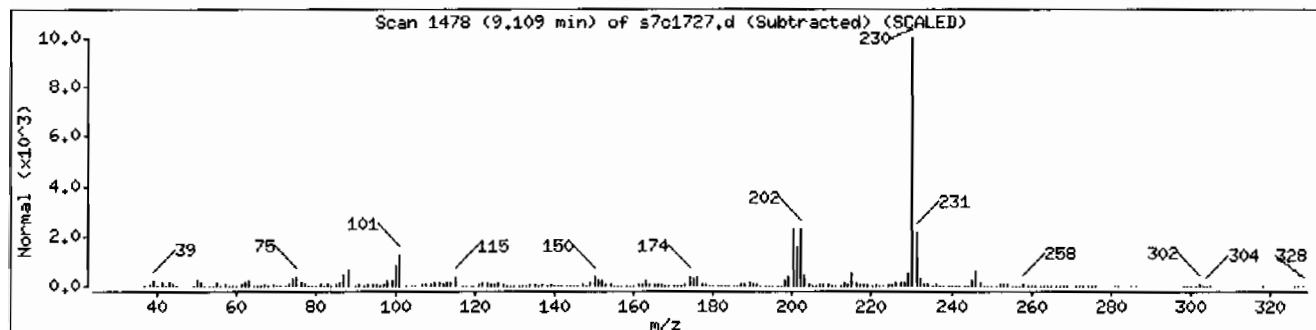
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[a]fluoren-11-one	479-79-8	NIST05.L	78768	97	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78772	90	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78771	83	C17H10O	230





Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: HSD7.i

Sample Info: I248043002196529011ISVHI3ILANL\_rx

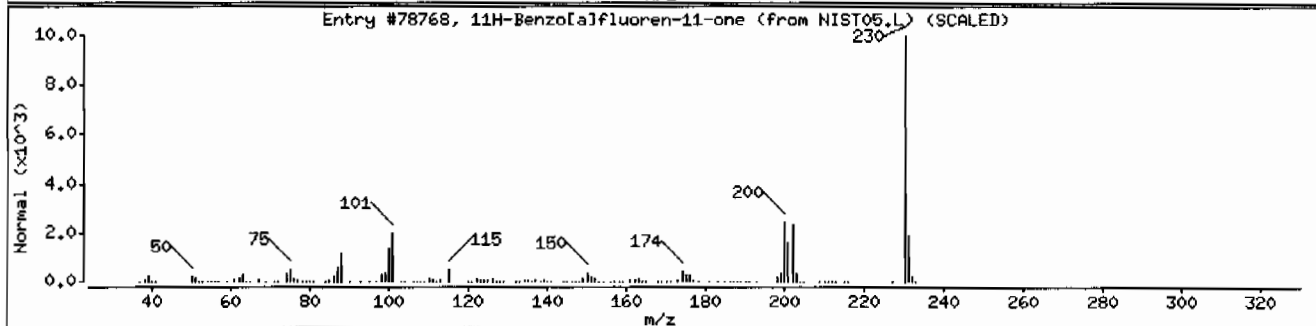
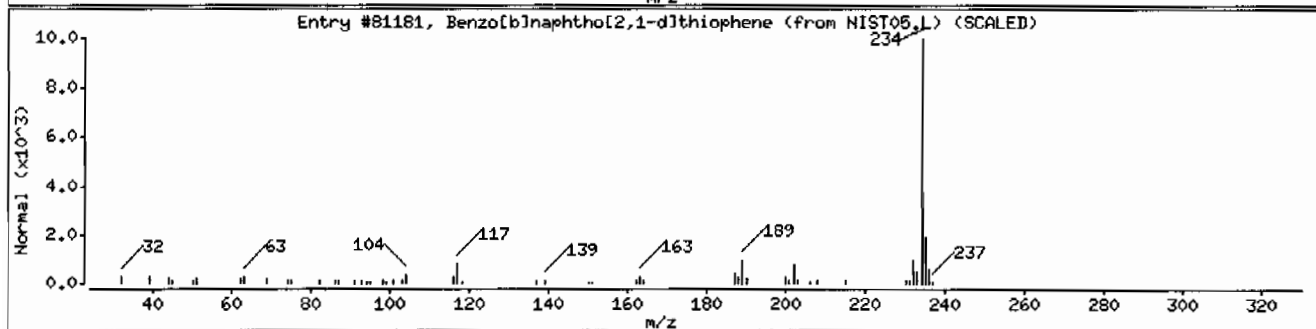
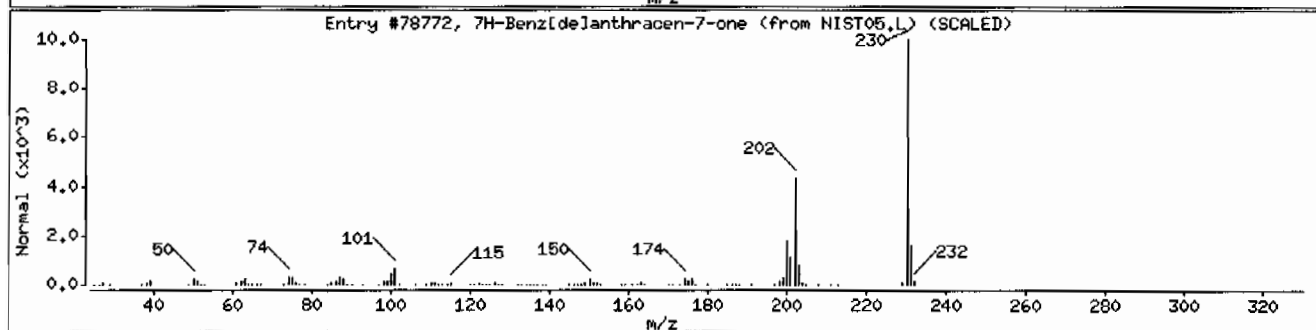
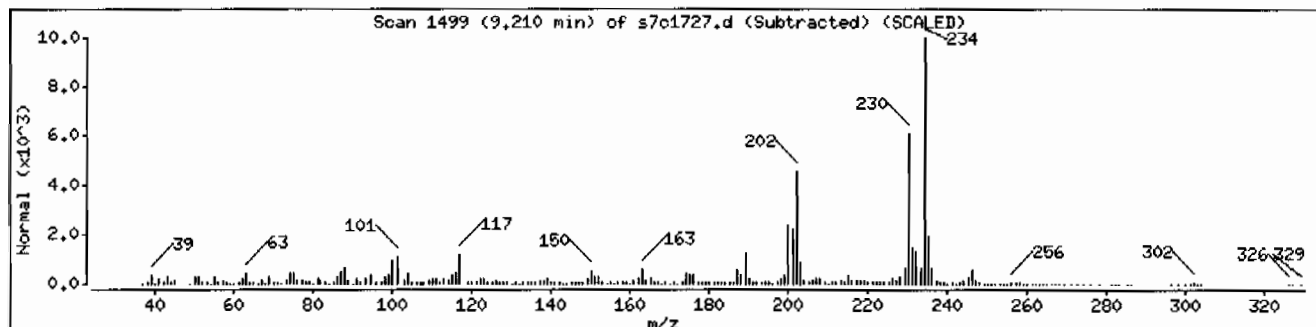
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78772	94	C17H10O	230
Benzo[b]naphtho[2,1-d]thiophene	239-35-0	NIST05.L	81181	89	C16H10S	234
11H-Benzo[a]fluoren-11-one	479-79-8	NIST05.L	78768	53	C17H10O	230



Date: 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: HSD7.i

Sample Info: I248043002196529011SVHI3ILANL\_rx

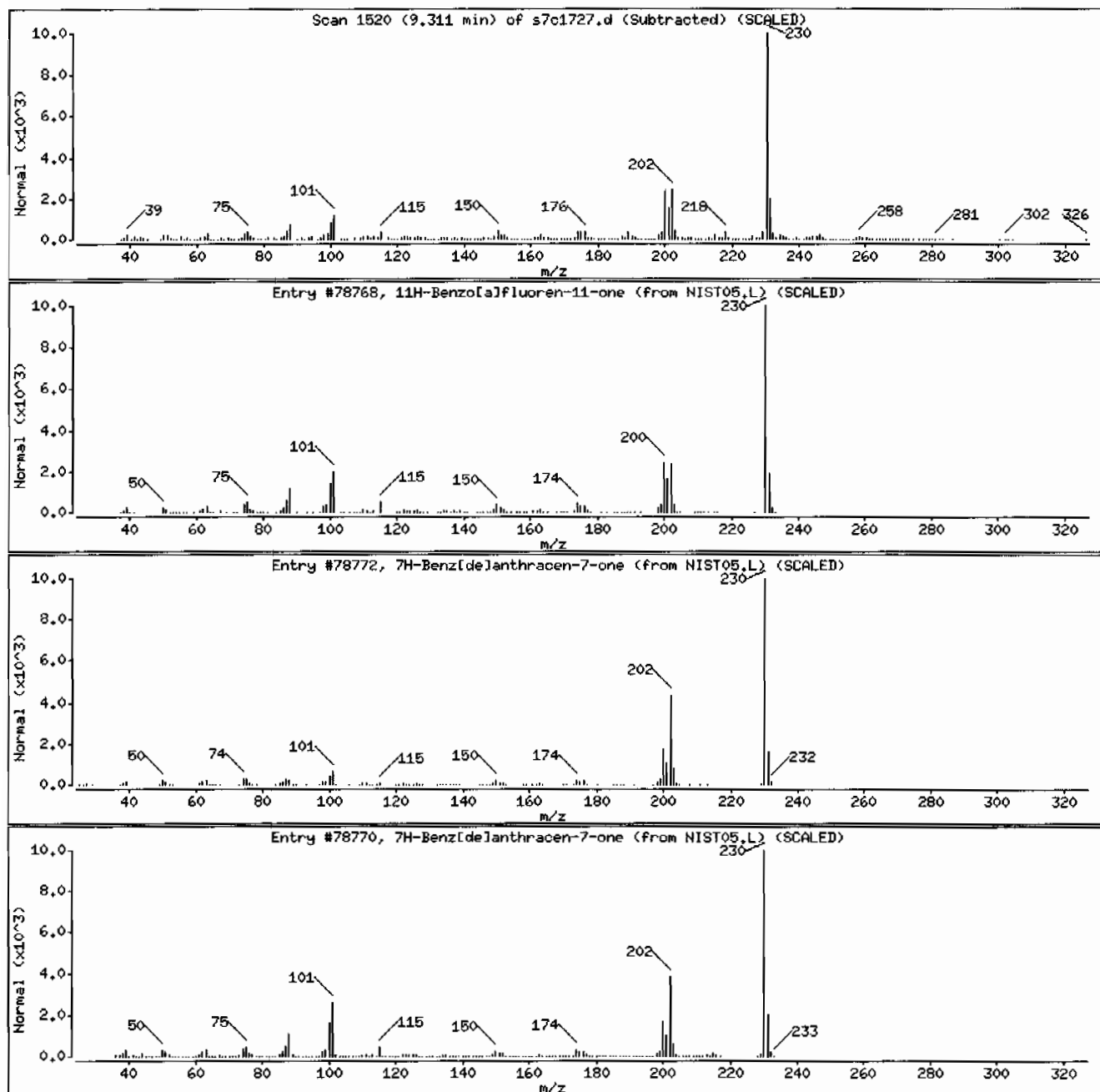
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11H-Benzo[a]fluoren-11-one	479-79-8	NIST05.L	78768	97	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78772	90	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78770	76	C17H10O	230



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: I248043002196529011SVHI3ILANL\_rx

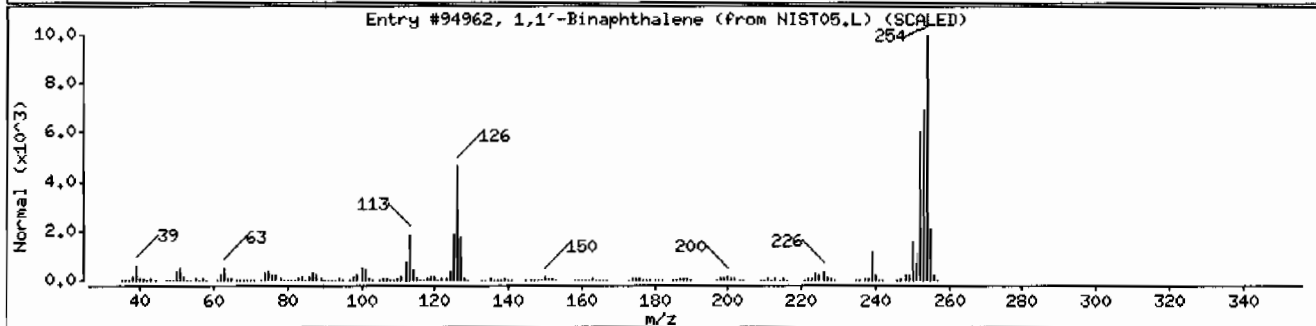
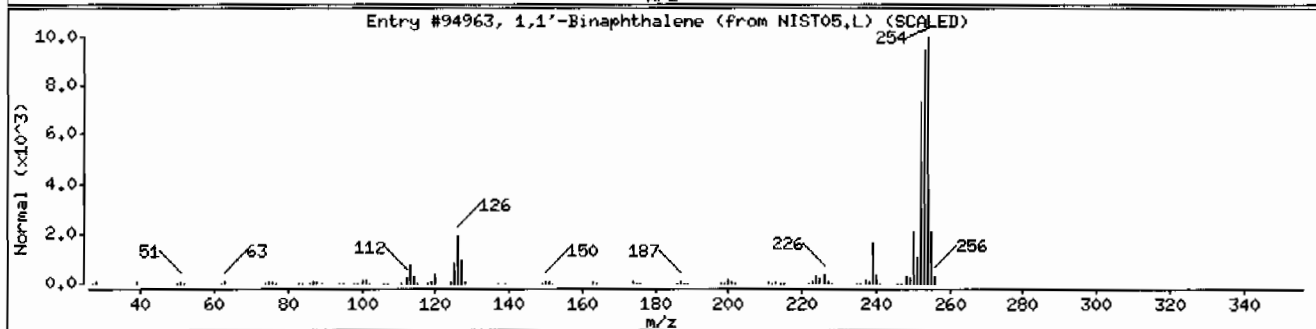
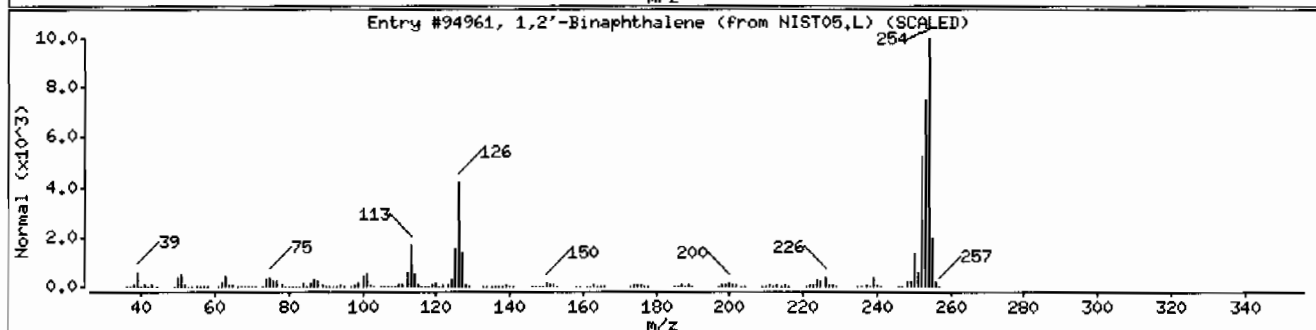
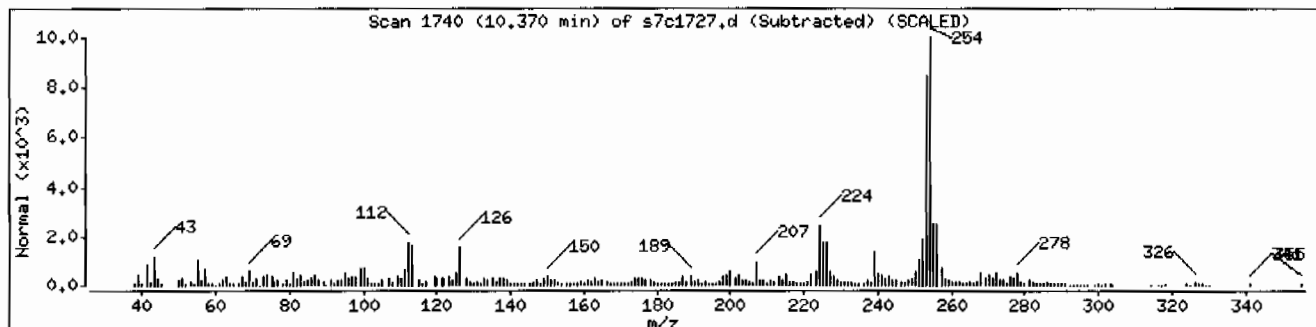
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2'-Binaphthalene	4325-74-0	NIST05.L	94961	70	C <sub>20</sub> H <sub>14</sub>	254
1,1'-Binaphthalene	604-53-5	NIST05.L	94963	70	C <sub>20</sub> H <sub>14</sub>	254
1,1'-Binaphthalene	604-53-5	NIST05.L	94962	70	C <sub>20</sub> H <sub>14</sub>	254



Date : 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: HSD7.i

Sample Info: 1248043002196529011SVH131LANL\_rx

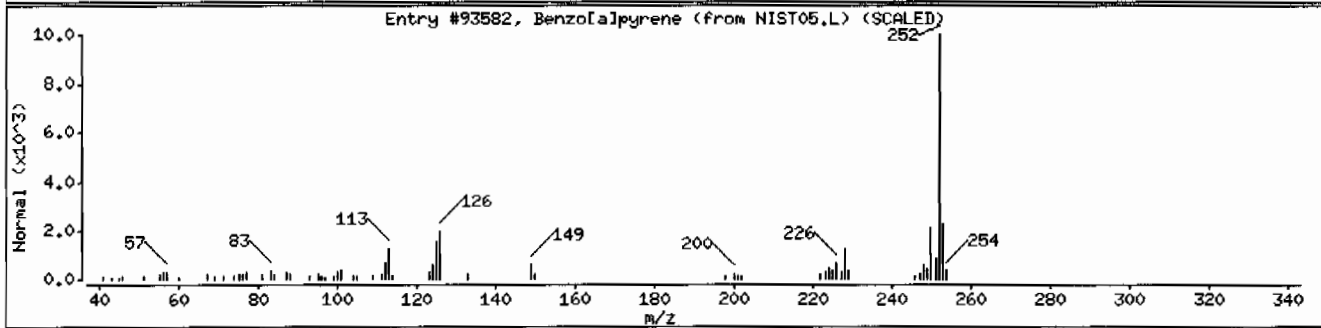
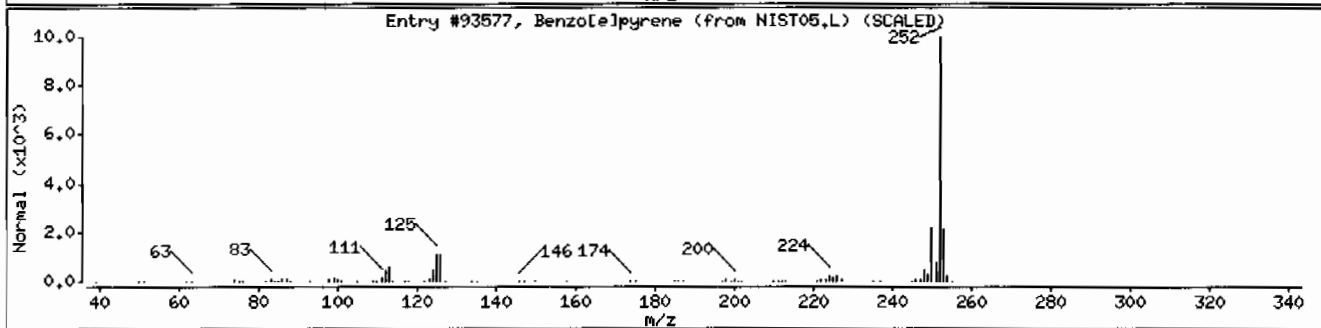
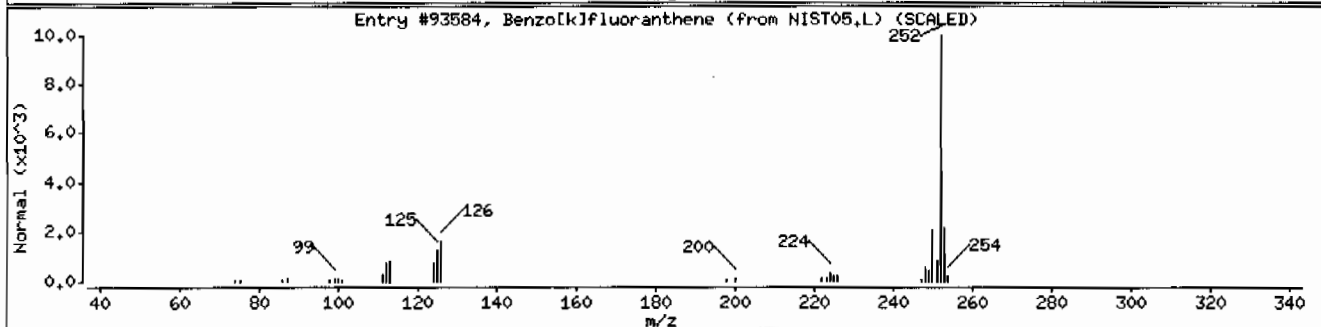
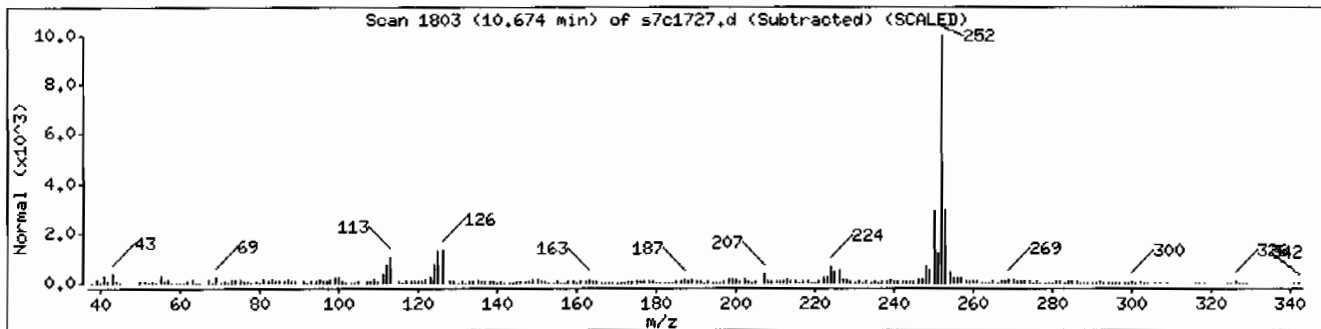
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	96	C20H12	252
Benzo[e]pyrene	192-97-2	NIST05.L	93577	95	C20H12	252
Benzo[a]pyrene	50-32-8	NIST05.L	93582	94	C20H12	252



Date: 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: MSD7.i

Sample Info: 1248043002196529011SVH131LANL\_rx

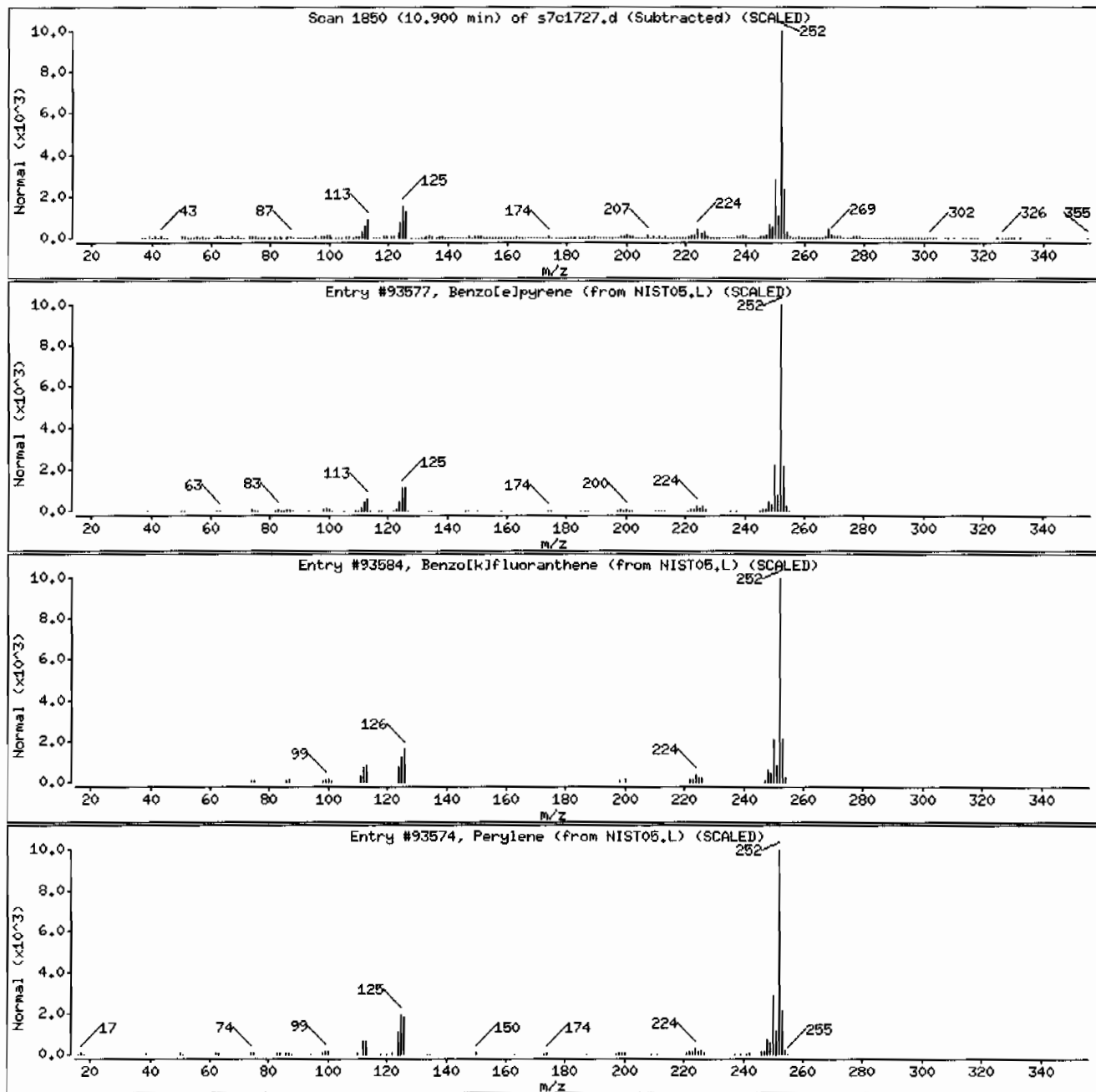
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[e]pyrene	192-97-2	NIST05.L	93577	99	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	98	C20H12	252
Perylene	198-55-0	NIST05.L	93574	98	C20H12	252



Date: 17-MAR-2010 19:12

Client ID: RE36-10-7413RE

Instrument: HSD7.i

Sample Info: 12480430021965290111SVH131LANL\_rx

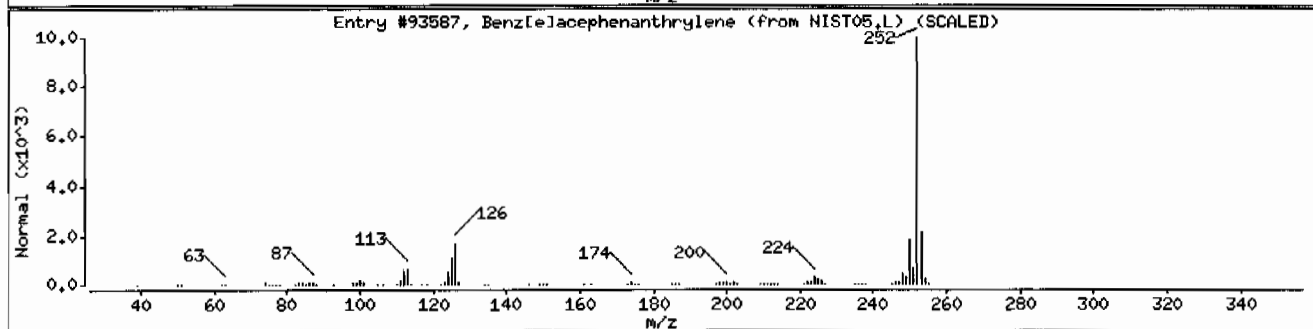
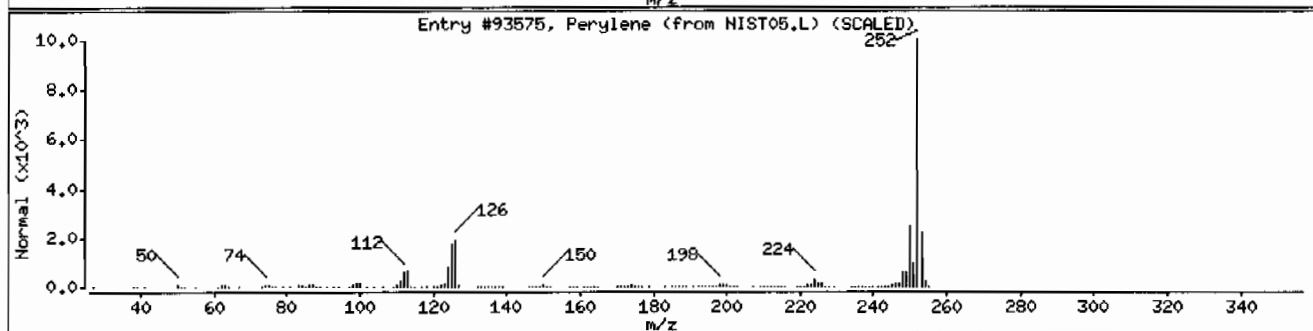
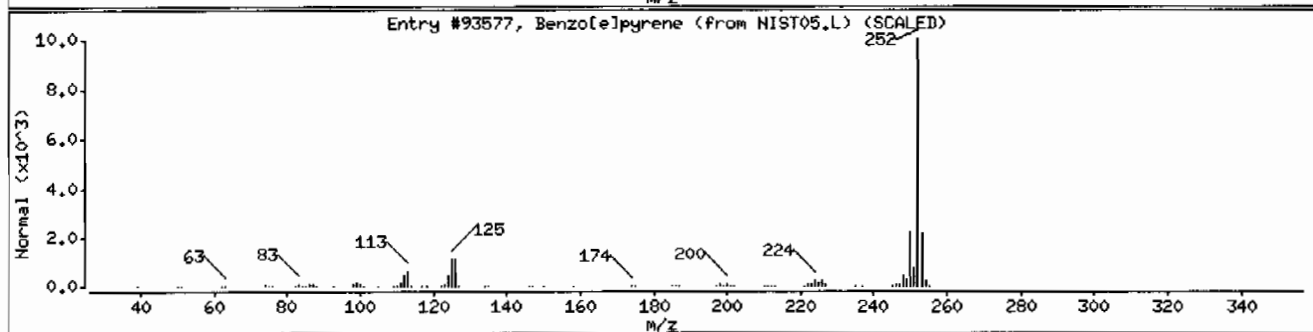
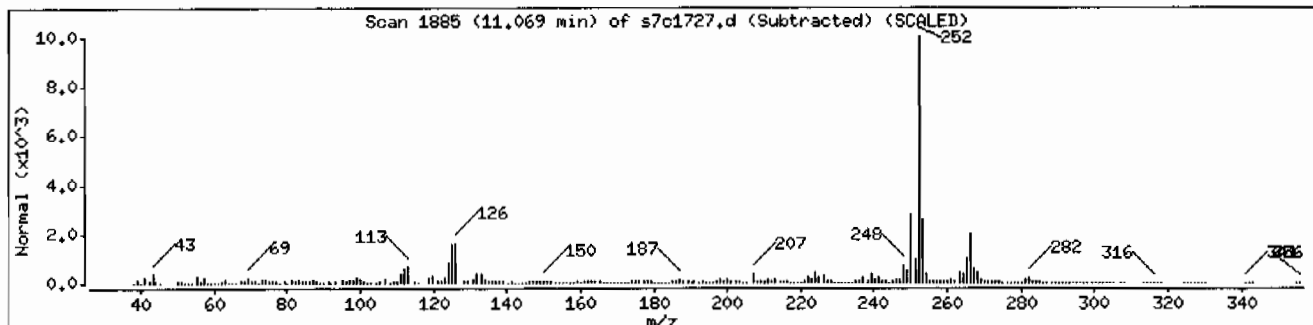
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzo[e]pyrene	192-97-2	NIST05.L	93577	98	C20H12	252
Perylene	198-55-0	NIST05.L	93575	98	C20H12	252
Benz[e]acephenanthrylene	205-99-2	NIST05.L	93587	96	C20H12	252



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043002

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7413REDL  
Batch ID: 965290  
Run Date: 03/17/2010 18:28  
Prep Date: 03/16/2010 21:34  
Data File: s7c1725.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
129-00-0	Pyrene	h	10700	ug/kg	50.4	168
85-01-8	Phenanthrene	h	13500	ug/kg	50.4	168
206-44-0	Fluoranthene	h	15900	ug/kg	50.4	168
56-55-3	Benzo(a)anthracene	h	5900	ug/kg	50.4	168
218-01-9	Chrysene	h	6560	ug/kg	50.4	168
205-99-2	Benzo(b)fluoranthene	h	9240	ug/kg	50.4	168
50-32-8	Benzo(a)pyrene	h	5490	ug/kg	50.4	168

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
540-97-6	Cyclohexasiloxane, dodecamethyl-	4.95	917	ug/kg	91	NJ
244-99-5	5H-Indeno[1,2-b]pyridine	7.24	1260	ug/kg	95	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.48	1100	ug/kg	98	NJ
832-69-9	Phenanthrene, 1-methyl-	7.5	1280	ug/kg	98	NJ
	Unknown	7.58	2010	ug/kg		J
84-65-1	9,10-Anthracenedione	7.76	1360	ug/kg	98	NJ
5737-13-3	Cyclopenta(def)phenanthrenone	8.04	705	ug/kg	94	NJ
243-17-4	11H-Benzo[b]fluorene	8.61	883	ug/kg	97	NJ
479-79-8	11H-Benzo[a]fluoren-11-one	9.29	751	ug/kg	97	NJ
	Unknown	10.35	903	ug/kg		J
	Unknown	10.65	775	ug/kg		J
192-97-2	Benzo[e]pyrene	10.87	3670	ug/kg	99	NJ
198-55-0	Perylene	11.04	1400	ug/kg	98	NJ

Data File: /chem/MSD7.i/s031710.b/s7c1725.d  
Report Date: 18-Mar-2010 09:34

Page 1

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Data file : /chem/MSD7.i/s031710.b/s7c1725.d  
Lab Smp Id: 248043002 Client Smp ID: RE36-10-7413REDL  
Inj Date : 17-MAR-2010 18:28  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043002|965290|4|SVM|4|LANL\_rx  
Misc Info : |MSD8270\_S|WBN100310-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 17-Mar-2010 13:51 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 24  
Dil Factor: 4.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vl	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.13000	weight of sample
M	20.93190	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG			RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT REL RT		ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.802	3.802 (1.000)	351674	40.0000	
* 29 Naphthalene-d8	136	4.659	4.664 (1.000)	1250053	40.0000	
* 46 Acenaphthene-d10	164	5.906	5.911 (1.000)	698717	40.0000	
* 67 Phenanthrene-d10	188	7.062	7.067 (1.000)	1262581	40.0000	
* 91 Chrysene-d12	240	9.451	9.455 (1.000)	1094321	40.0000	
* 98 Perylene-d12	264	11.015	11.016 (1.000)	833451	40.0000	
\$ 3 2-Fluorophenol	112	3.003	2.998 (0.790)	99923	10.9315	1840
\$ 5 Phenol-d5	99	3.523	3.528 (0.927)	112221	9.79188	1640
\$ 20 Nitrobenzene-d5	82	4.159	4.168 (0.893)	58546	6.20961	1040
\$ 39 2-Fluorobiphenyl	172	5.401	5.406 (0.914)	122531	7.03668	1180
\$ 60 2,4,6-Tribromophenol	329	6.494	6.499 (1.099)	24370	12.0650	2020
\$ 81 p-Terphenyl-d14	244	8.425	8.430 (0.891)	136302	6.95241	1170



Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
47 Acenaphthene	154	5.931	5.935	(1.004)	97885	6.36486	1070
79 Pyrene	202	8.329	8.329	(0.881)	2196552	63.5365	10700
30 Naphthalene	128	4.679	4.683	(1.004)	49101	2.07934	349
34 2-Methylnaphthalene	142	5.155	5.160	(1.106)	20791	1.22679	206
49 Dibenzofuran	168	6.056	6.061	(1.025)	86867	4.01896	675 (a)
53 Fluorene	166	6.311	6.316	(1.068)	109391	6.03178	1010
68 Phenanthrene	178	7.086	7.086	(1.003)	2082304	80.3706	13500
69 Anthracene	178	7.125	7.130	(1.009)	359193	13.6888	2300
76 Fluoranthene	202	8.117	8.112	(1.149)	2664172	94.5726	15900
89 Benzo(a)anthracene	228	9.441	9.441	(0.999)	922175	35.1519	5900
92 Chrysene	228	9.475	9.480	(1.003)	912084	39.0708	6560
95 Benzo(b)fluoranthene	252	10.539	10.539	(0.957)	1285657	55.0050	9240
97 Benzo(a)pyrene	252	10.943	10.943	(0.993)	626184	32.6727	5480
99 Indeno(1,2,3-cd)pyrene	276	12.619	12.629	(1.146)	323979	23.5080	3950
100 Dibenzo(a,h)anthracene	278	12.624	12.643	(1.146)	88050	8.06201	1350
101 Benzo(ghi)perylene	276	13.110	13.120	(1.190)	293108	25.5022	4280

#### QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

## ION RATIO REPORT

## SV REPORT

Data file: s7c1725.d

Report Date: 03/18/2010 09:12

Lab. ID: 248043002

SampleType: SAMPLE

Injection Date: 17-MAR-2010 18:28

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043002|965290|4|SVM|4|LANL\_rx

Miscellaneous Info: |MSD8270\_S|WBN100310-01|

Comment:

Method used: /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 4.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
30 Naphthalene			CAS#: 91-20-3			
128	49101	4.68	4.68	80-120	100	( )
129	5096	4.67	4.68	0- 41	10	( )
127	5820	4.68	4.68	0- 44	12	( )
-----						
34 2-Methylnaphthalene			CAS#: 91-57-6			
142	20791	5.16	5.16	80-120	100	( )
141	16780	5.16	5.16	54-114	81	( )
-----						
43 Dimethylphthalate			CAS#: 131-11-3			
163	127331	5.91	5.68	80-120	100	(T)
164	698717	5.91	5.68	0- 40	549	(QT)
-----						
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	92404	5.91	5.74	80-120	100	(T)
63	12191	5.93	5.74	58-118	13	(QT)
-----						
45 Acenaphthylene			CAS#: 208-96-8			
152	49848	5.93	5.82	80-120	100	(T)
151	18087	5.93	5.82	0- 50	36	(T)
153	113504	5.93	5.82	0- 43	228	(QT)
-----						
47 Acenaphthene			CAS#: 83-32-9			
154	97885	5.93	5.94	80-120	100	( )
153	113504	5.93	5.94	72-132	116	( )
152	49848	5.93	5.94	17- 77	51	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
49 Dibenzofuran			CAS#:	132-64-9		
168	86867	6.06	6.06	80-120	100	( )
139	36446	6.06	6.06	9- 69	42	( )
-----						
50 2,4-Dinitrotoluene			CAS#:	121-14-2		
165	92404	5.91	6.03	80-120	100	(T)
89	1483	5.91	6.03	41-101	2	(QT)
63	12191	5.93	6.03	22- 82	13	(QT)
-----						
52 4-Nitrophenol			CAS#:	100-02-7		
139	36446	6.06	5.96	80-120	100	(T)
109	405	6.06	5.96	49-109	1	(QT)
65	815	6.05	5.96	83-143	2	(QT)
-----						
53 Fluorene			CAS#:	86-73-7		
166	109391	6.31	6.32	80-120	100	( )
165	99973	6.31	6.32	61-121	91	( )
167	16861	6.31	6.32	0- 43	15	( )
-----						
68 Phenanthrene			CAS#:	85-01-8		
178	2082304	7.09	7.09	80-120	100	( )
179	341584	7.09	7.09	0- 46	16	( )
176	386396	7.09	7.09	0- 49	19	( )
-----						
69 Anthracene			CAS#:	120-12-7		
178	359193	7.12	7.13	80-120	100	( )
179	79285	7.12	7.13	0- 45	22	( )
176	61978	7.12	7.13	0- 47	17	( )
-----						
76 Fluoranthene			CAS#:	206-44-0		
202	2664172	8.12	8.11	80-120	100	( )
203	469899	8.12	8.11	0- 47	18	( )
101	293419	8.12	8.11	0- 40	11	( )
-----						
79 Pyrene			CAS#:	129-00-0		
202	2196552	8.33	8.33	80-120	100	( )
200	445526	8.33	8.33	0- 50	20	( )
101	294907	8.33	8.33	0- 42	13	( )
-----						
89 Benzo(a)anthracene			CAS#:	56-55-3		
228	922175	9.44	9.44	80-120	100	( )
226	246099	9.44	9.44	0- 56	27	( )
229	252482	9.44	9.44	0- 50	27	( )
-----						
92 Chrysene			CAS#:	218-01-9		
228	912084	9.47	9.48	80-120	100	( )
229	215466	9.47	9.48	0- 49	24	( )
226	260698	9.47	9.48	0- 58	29	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	1285657	10.54	10.54	80-120	100	( )
253	298995	10.54	10.54	0- 52	23	( )
125	141042	10.54	10.54	0- 41	11	( )
-----						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	1285657	10.54	10.57	80-120	100	( )
253	289541	10.54	10.57	0- 52	23	( )
125	141042	10.54	10.57	0- 41	11	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	626184	10.94	10.94	80-120	100	( )
253	147265	10.94	10.94	0- 52	24	( )
125	67868	10.94	10.94	0- 42	11	( )
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	323979	12.62	12.63	80-120	100	( )
138	83075	12.62	12.63	1- 61	26	( )
-----						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	88050	12.62	12.64	80-120	100	( )
139	7082	12.63	12.64	0- 49	8	( )
-----						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	293108	13.11	13.12	80-120	100	( )
138	74192	13.11	13.12	0- 56	25	( )

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD7.i/s031710.b/s7c1725.d  
 Lab Smp Id: 248043002 Client Smp ID: RE36-10-7413REDL  
 Inj Date : 17-MAR-2010 18:28  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043002|965290|4|SVM|4|LANL\_rx  
 Misc Info : |MSD8270\_S|WBN100310-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 17-Mar-2010 13:51 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 24  
 Dil Factor: 4.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.13000	weight of sample
M	20.93190	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 29 Naphthalene-d8	4.659	2812991	40.000
* 67 Phenanthrene-d10	7.062	3449928	40.000
* 91 Chrysene-d12	9.451	6189735	40.000
* 98 Perylene-d12	11.015	2324971	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

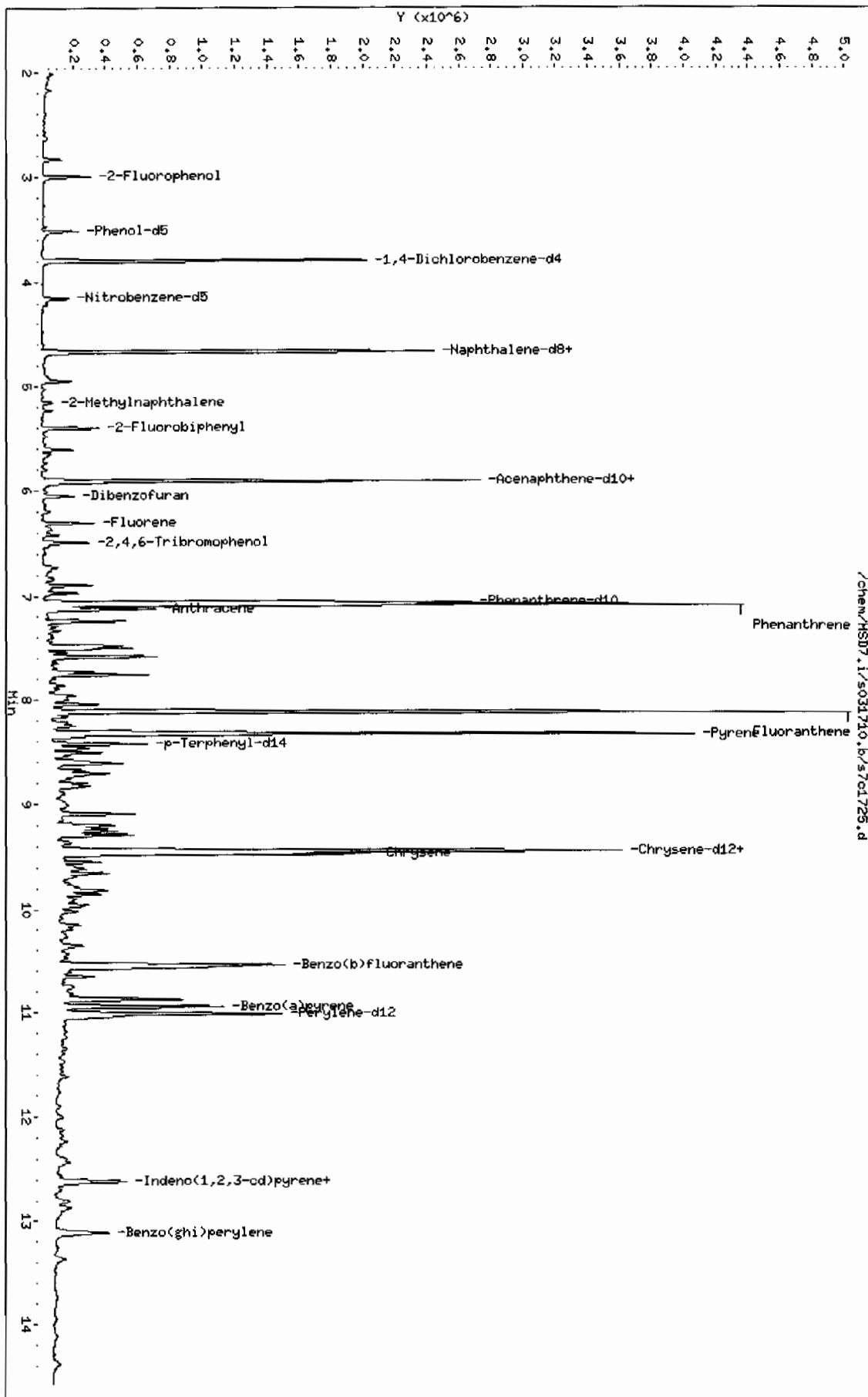
RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
====	====	=====	=====	=====	=====	=====	=====
Cyclohexasiloxane, dodecamethyl-					CAS #: 540-97-6		
4.948	383930	5.45937930	917	91	NIST05.L	179152	29
5H-Indeno[1,2-b]pyridine					CAS #: 244-99-5		
7.240	645404	7.48309585	1260	95	NIST05.L	34225	67
Phenanthrene, 2-methyl-					CAS #: 2531-84-2		
7.476	566946	6.57342346	1100	98	NIST05.L	51412	67
Phenanthrene, 1-methyl-					CAS #: 832-69-9		
7.500	658271	7.63228855	1280	98	NIST05.L	51408	67
Unknown					CAS #:		
7.582	1032934	11.9762955	2010	0		0	67
9,10-Anthracenedione					CAS #: 84-65-1		
7.756	699467	8.10993461	1360	98	NIST05.L	62993	67
Cyclopenta(def)phenanthrenone					CAS #: 5737-13-3		
8.040	361958	4.19669901	705	94	NIST05.L	60105	67
11H-Benzo[b]fluorene					CAS #: 243-17-4		
8.613	814077	5.26082250	883	97	NIST05.L	68695	91
11H-Benzo[a]fluoren-11-one					CAS #: 479-79-8		
9.292	692458	4.47487855	751	97	NIST05.L	78768	91
Unknown					CAS #:		
10.351	312433	5.37524950	902	0		0	98
Unknown					CAS #:		
10.650	268426	4.61813620	775	0		0	98 (L)
Benzo[el]pyrene					CAS #: 192-97-2		
10.871	1270664	21.8611528	3670	99	NIST05.L	93577	98
Perylene					CAS #: 198-55-0		
11.044	484418	8.33417148	1400	98	NIST05.L	93575	98

## QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/MSD7.1/s031710.b/s7cd725.d  
 Date: 17-MAR-2010 18:28  
 Client ID: RE36-10-7413REDL  
 Sample Info: 1248043002|96529014|SMH14|LANL.rtx  
 Volume Injected (uL): 0.5  
 Column phase: J&M DB-SMS

Instrument: MSD7.1  
 Operator: JHB3  
 Column diameter: 0.20



Date: 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVH141LANL\_rx

Volume Injected (uL): 0.5

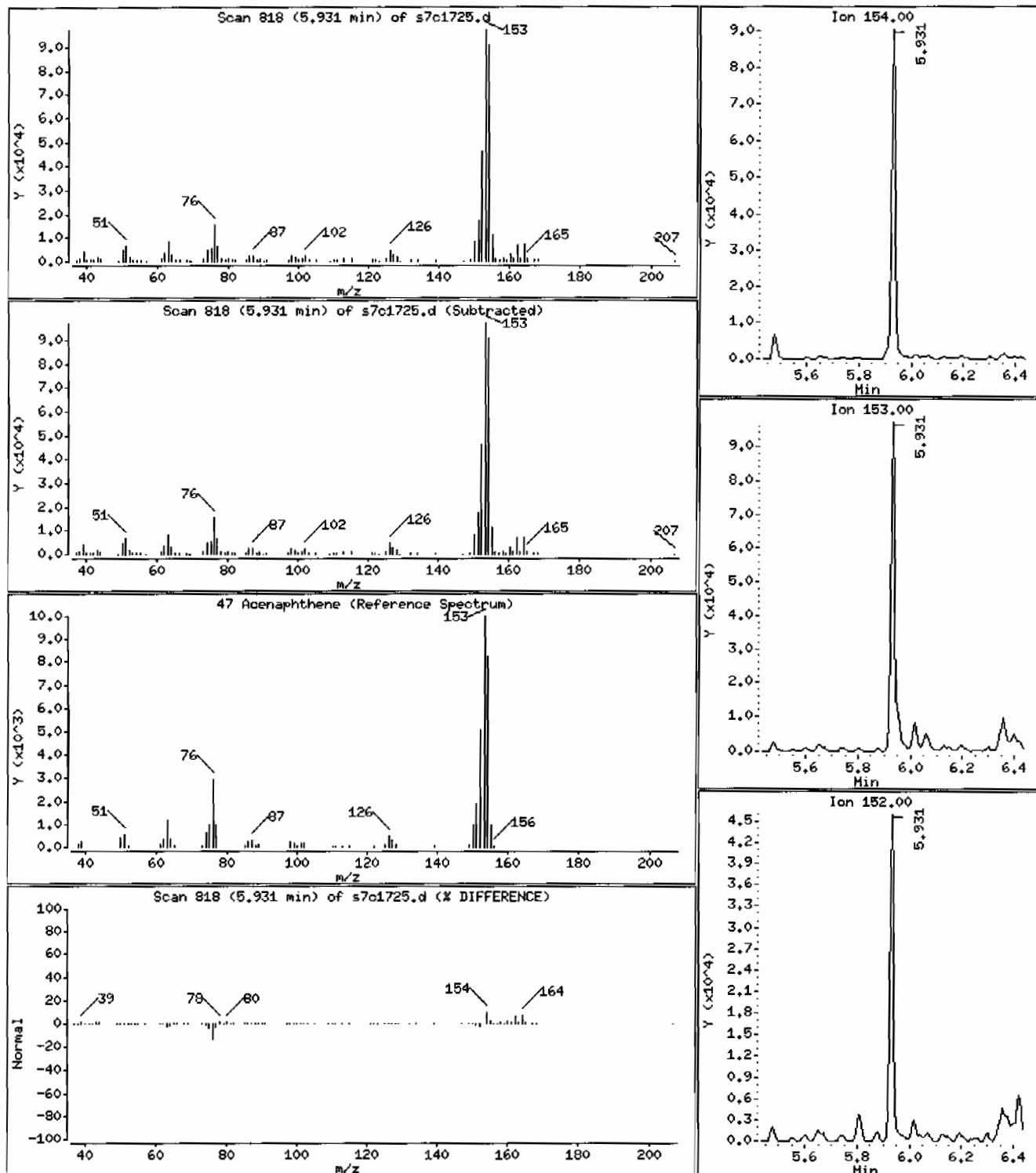
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 1070 ug/Kg





Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVH141LANL\_rx

Volume Injected (uL): 0.5

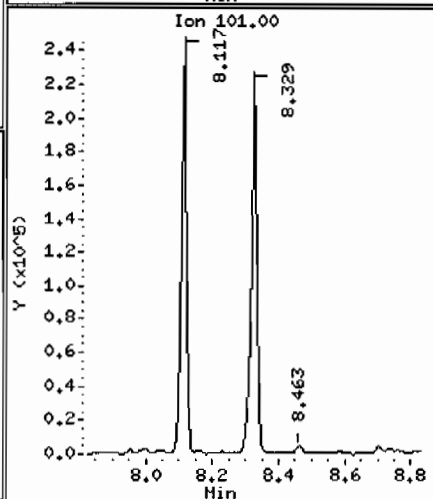
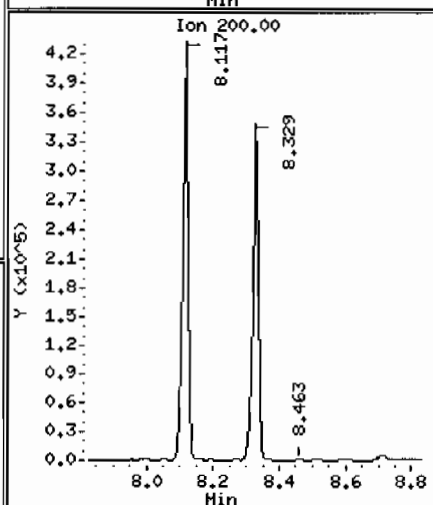
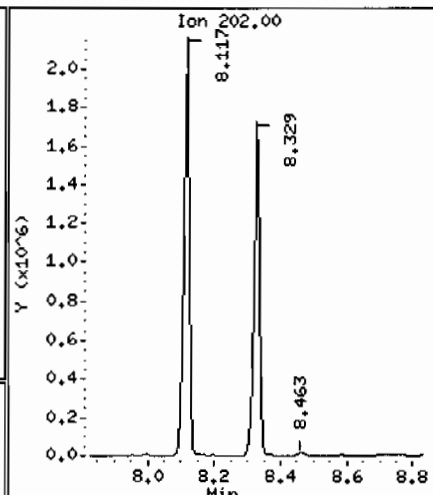
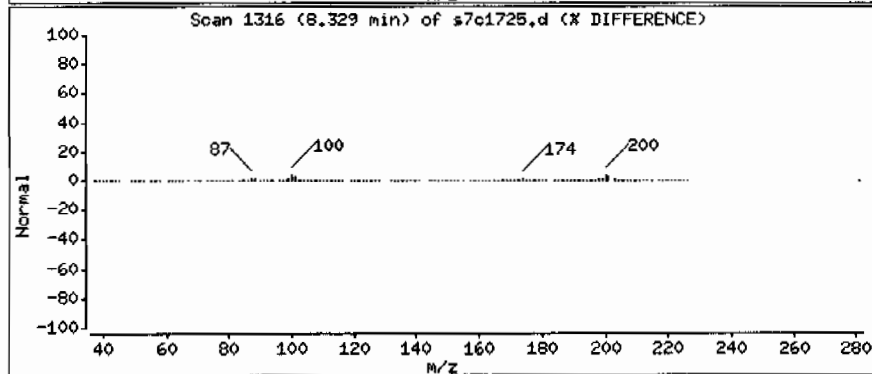
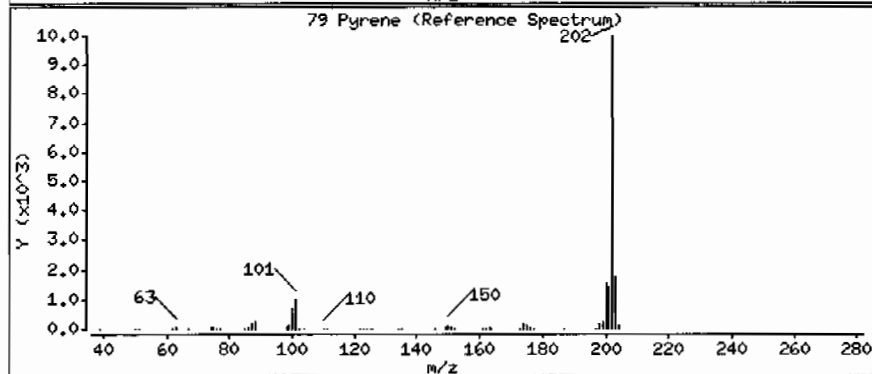
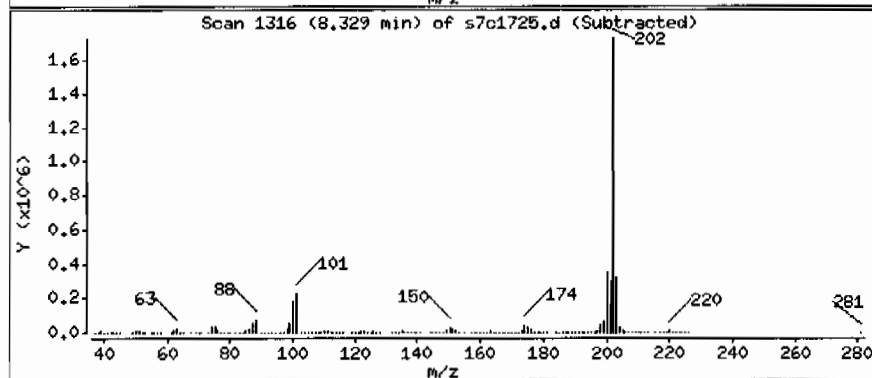
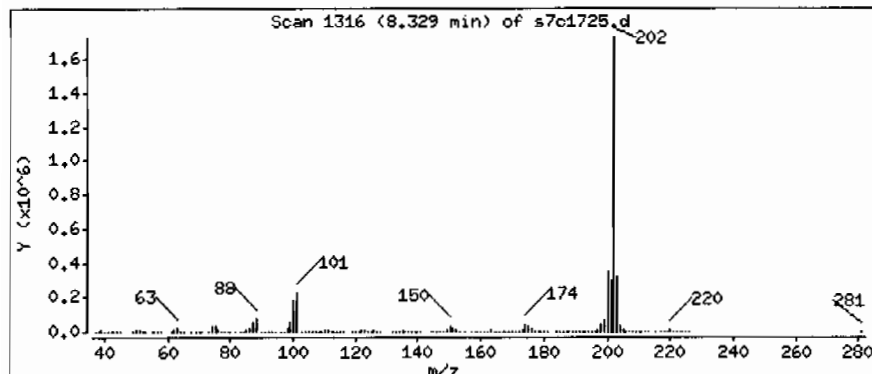
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 10700 ug/Kg



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: HSD7.i

Sample Info: 1248043002196529014ISVH14ILANL\_rx

Volume Injected (uL): 0.5

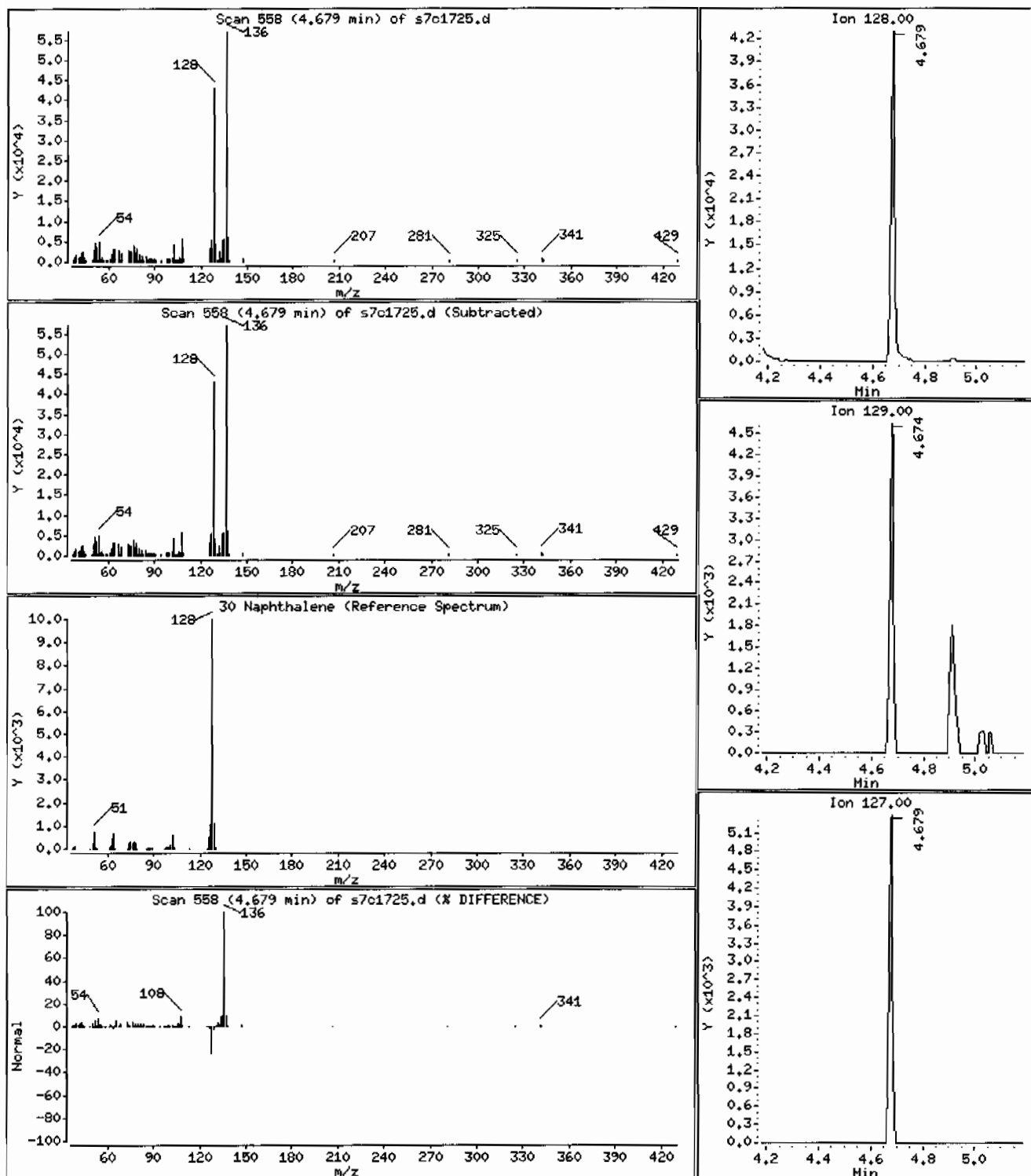
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 349 ug/Kg



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: HSD7.i

Sample Info: I2480430021965290141SVH141LANL\_rx

Volume Injected (uL): 0.5

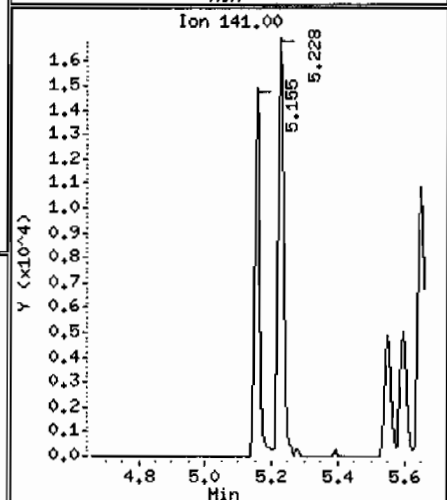
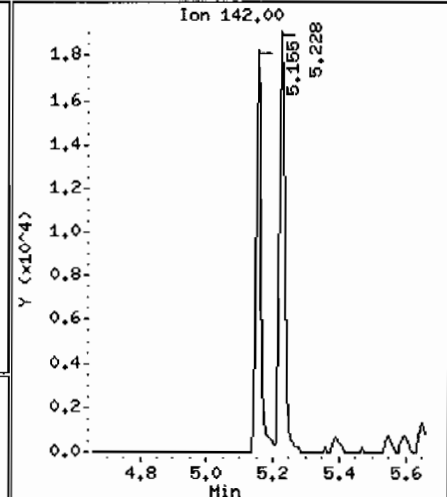
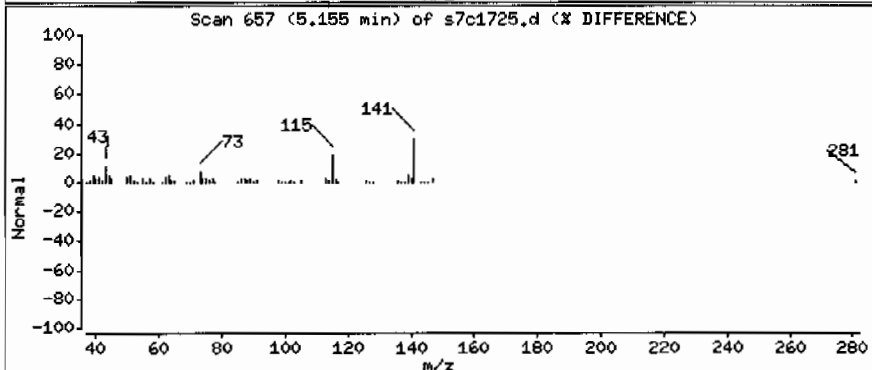
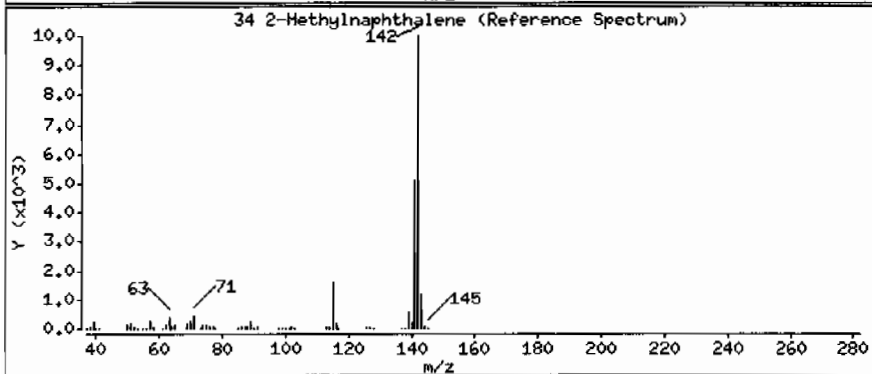
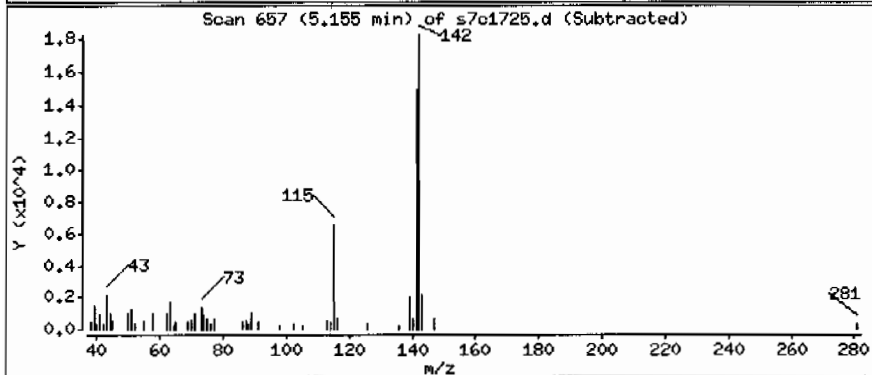
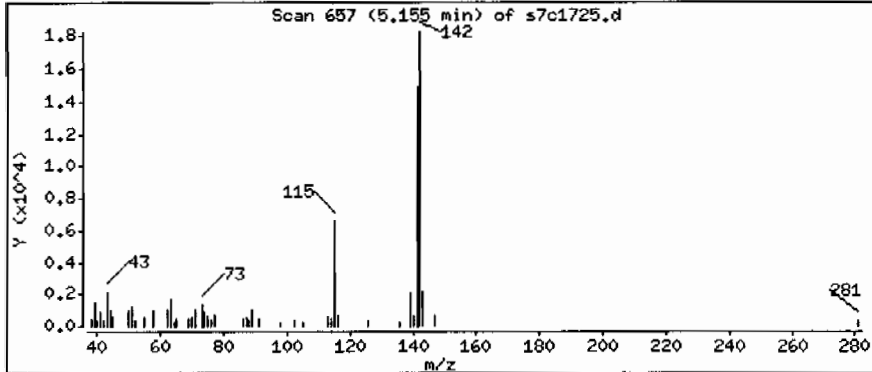
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 206 ug/Kg



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 1248043002196529014ISVH14ILANL\_rx

Volume Injected (uL): 0.5

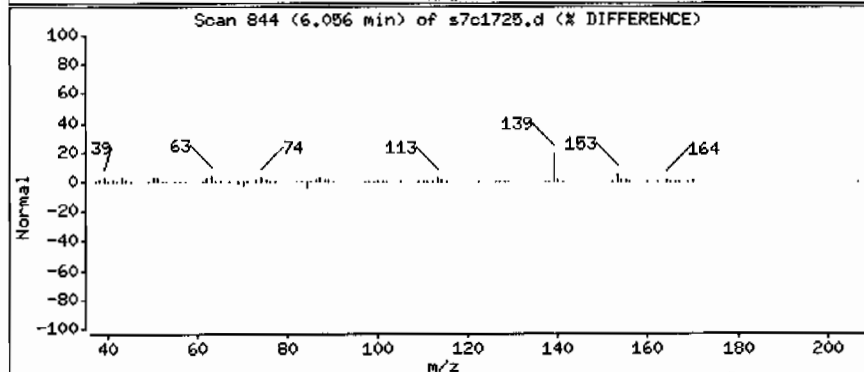
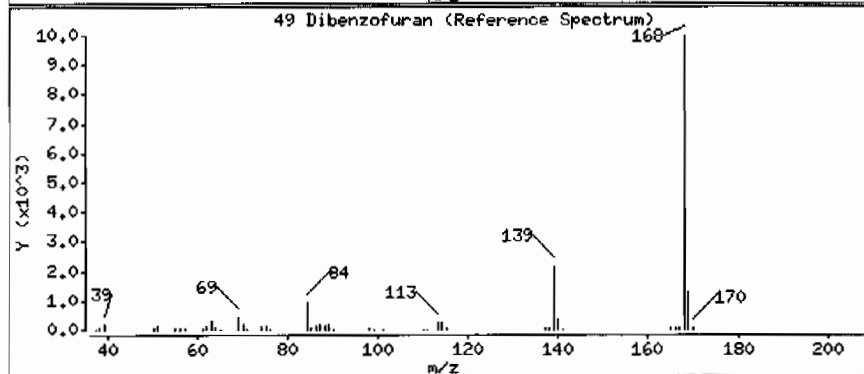
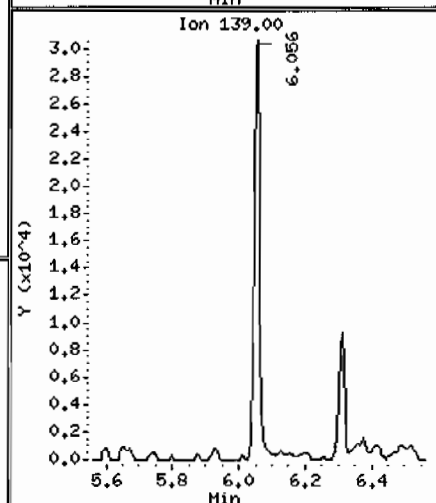
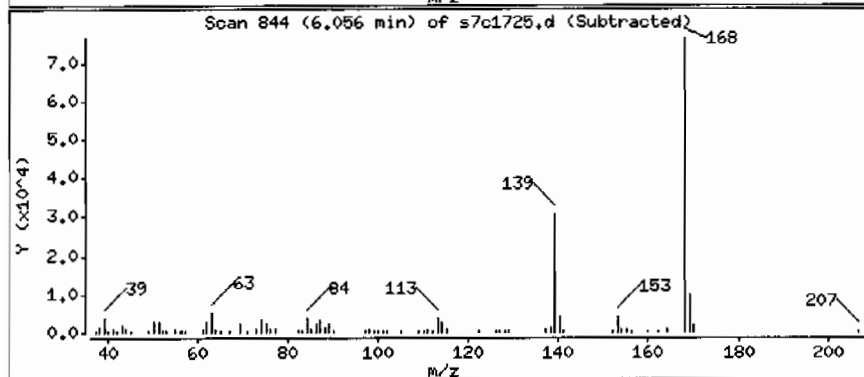
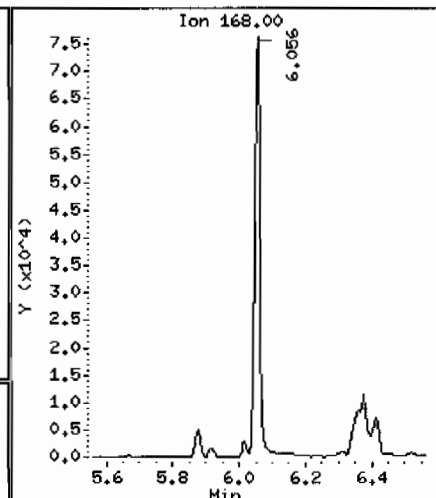
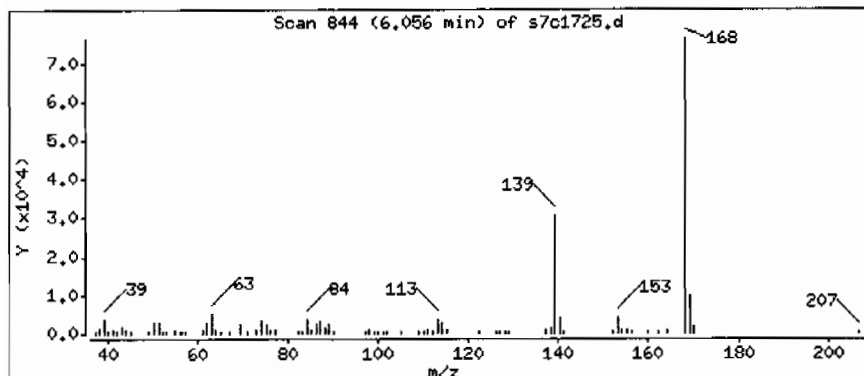
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

49 Dibenzofuran

Concentration: 675 ug/Kg



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVH141LANL\_rx

Volume Injected (uL): 0.5

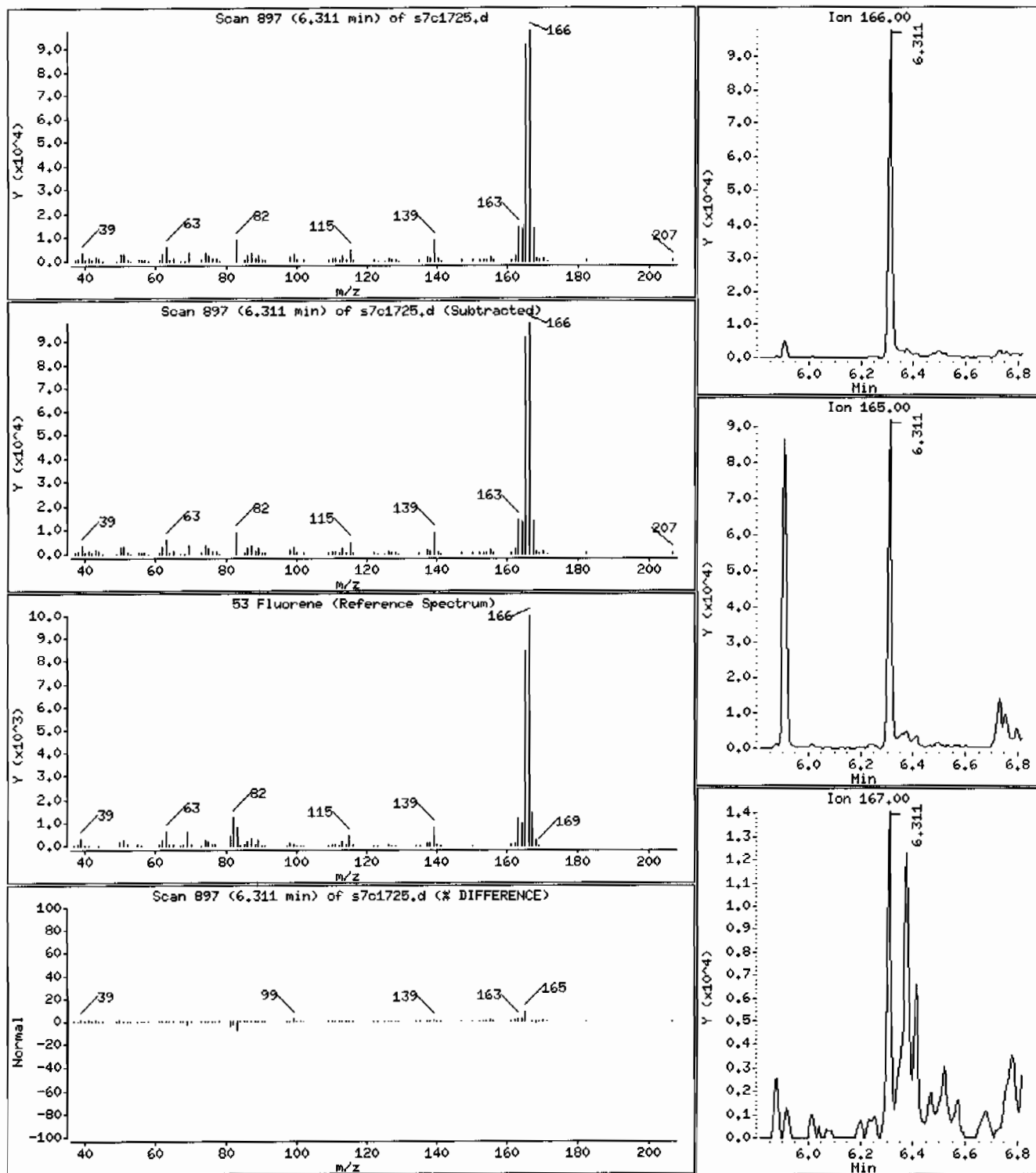
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 1010 ug/Kg



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: HSD7.i

Sample Info: I248043002196529014ISVM14ILANL\_rx

Volume Injected (uL): 0.5

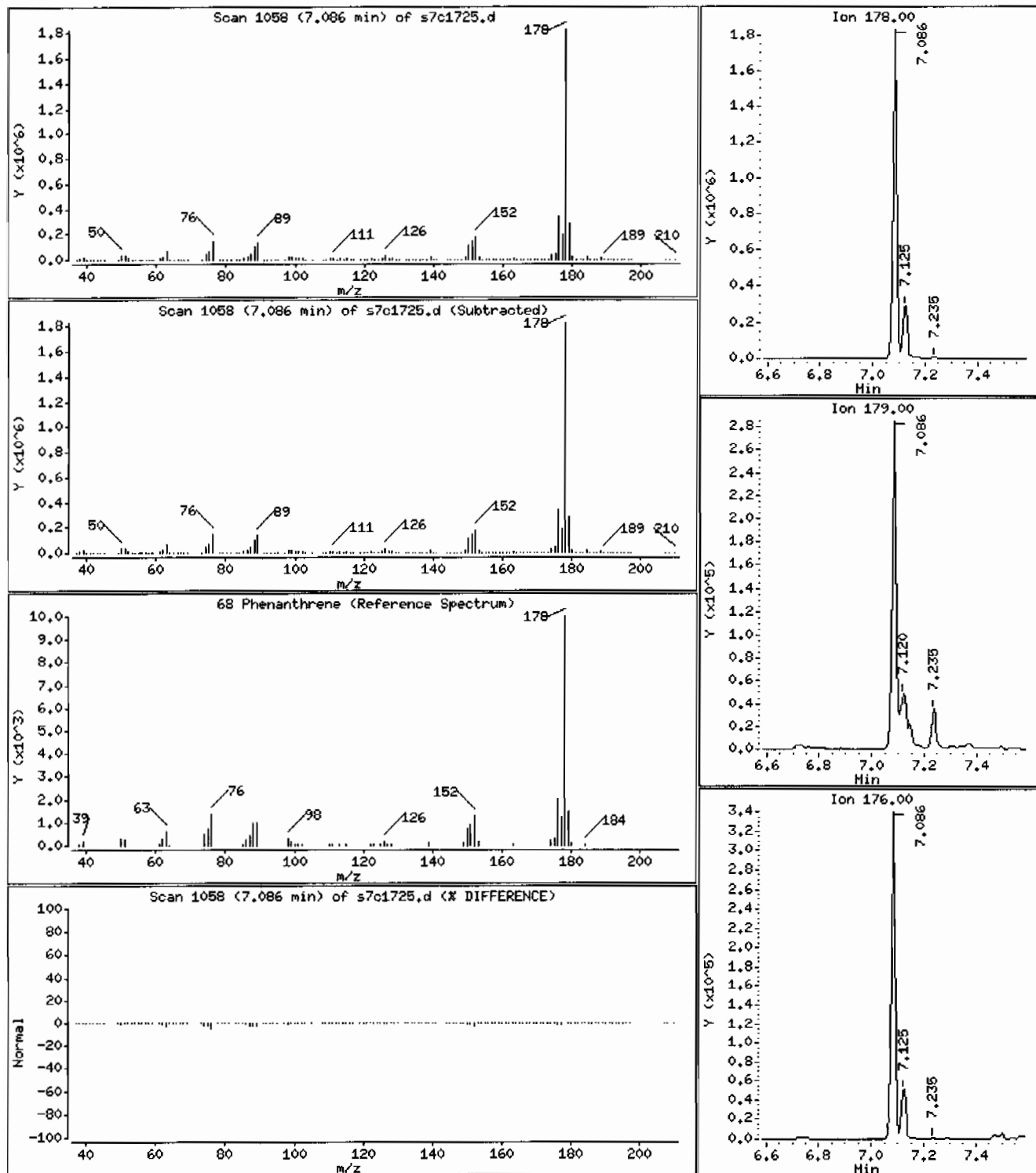
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 13500 ug/Kg



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVH141LANL\_rx

Volume Injected (uL): 0.5

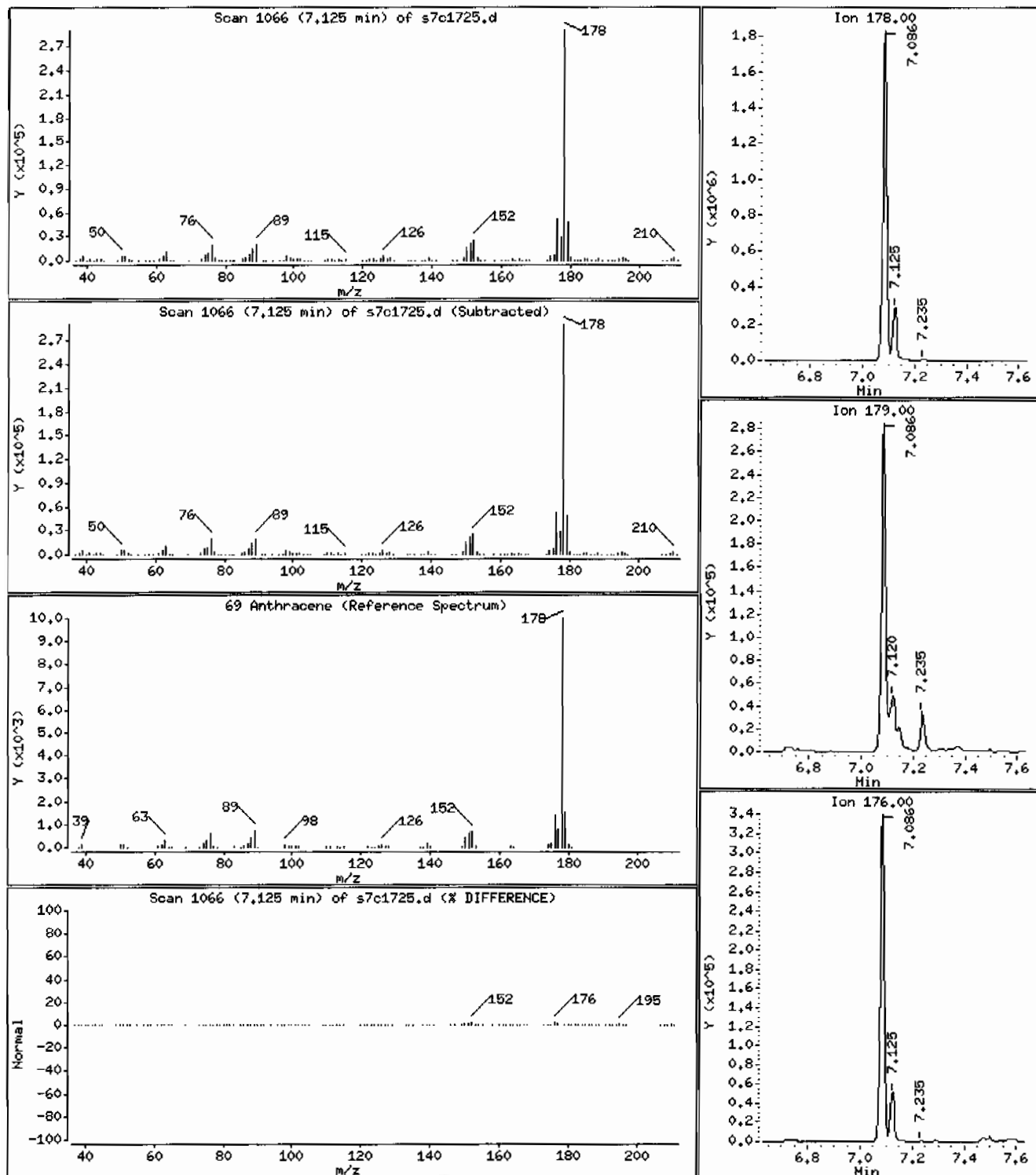
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 2300 ug/Kg



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVH141LANL\_rx

Volume Injected (uL): 0.5

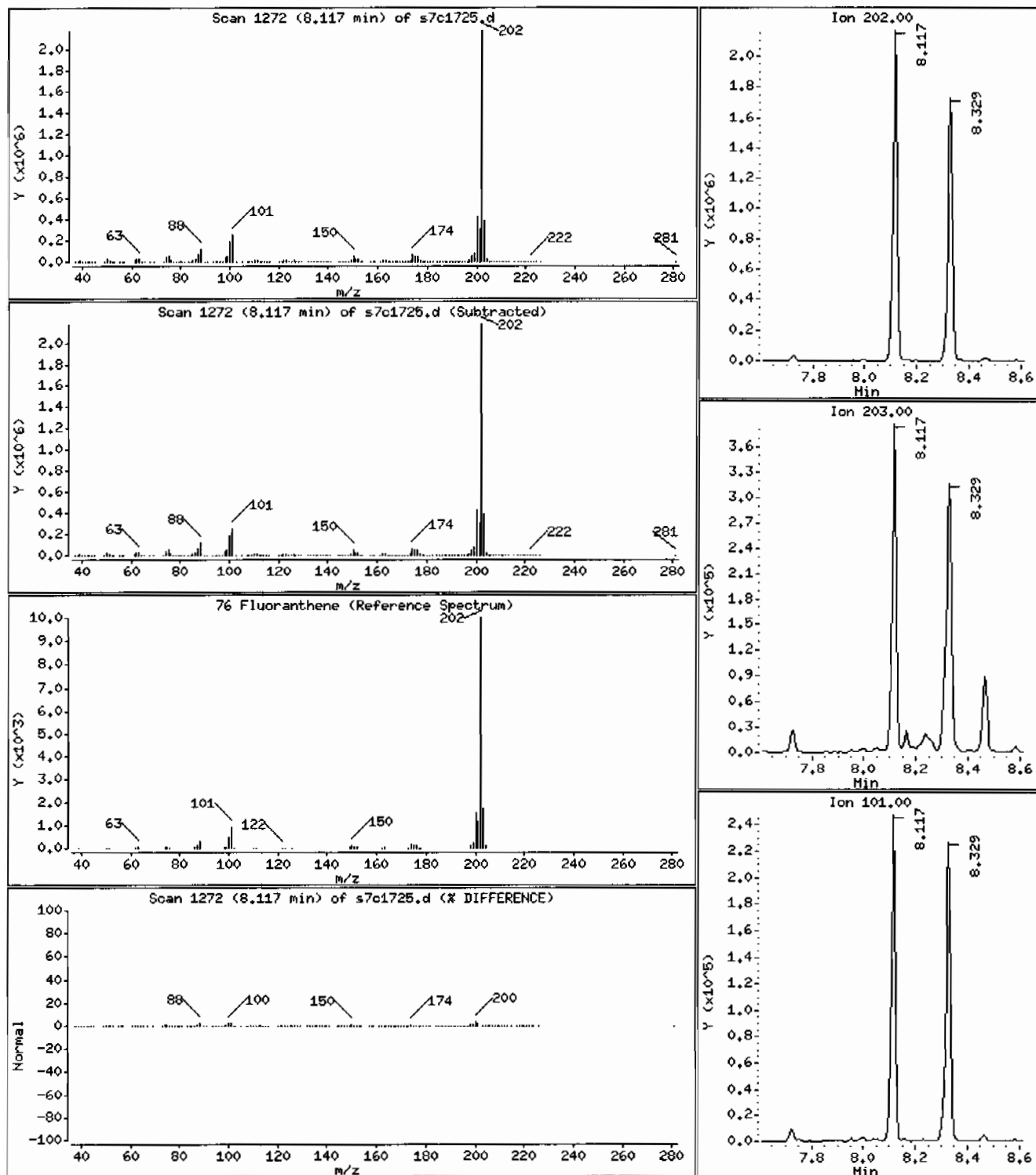
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 15900 ug/Kg





Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: HSD7.i

Sample Info: 1248043002196529014ISVM14ILANL\_rx

Volume Injected (uL): 0.5

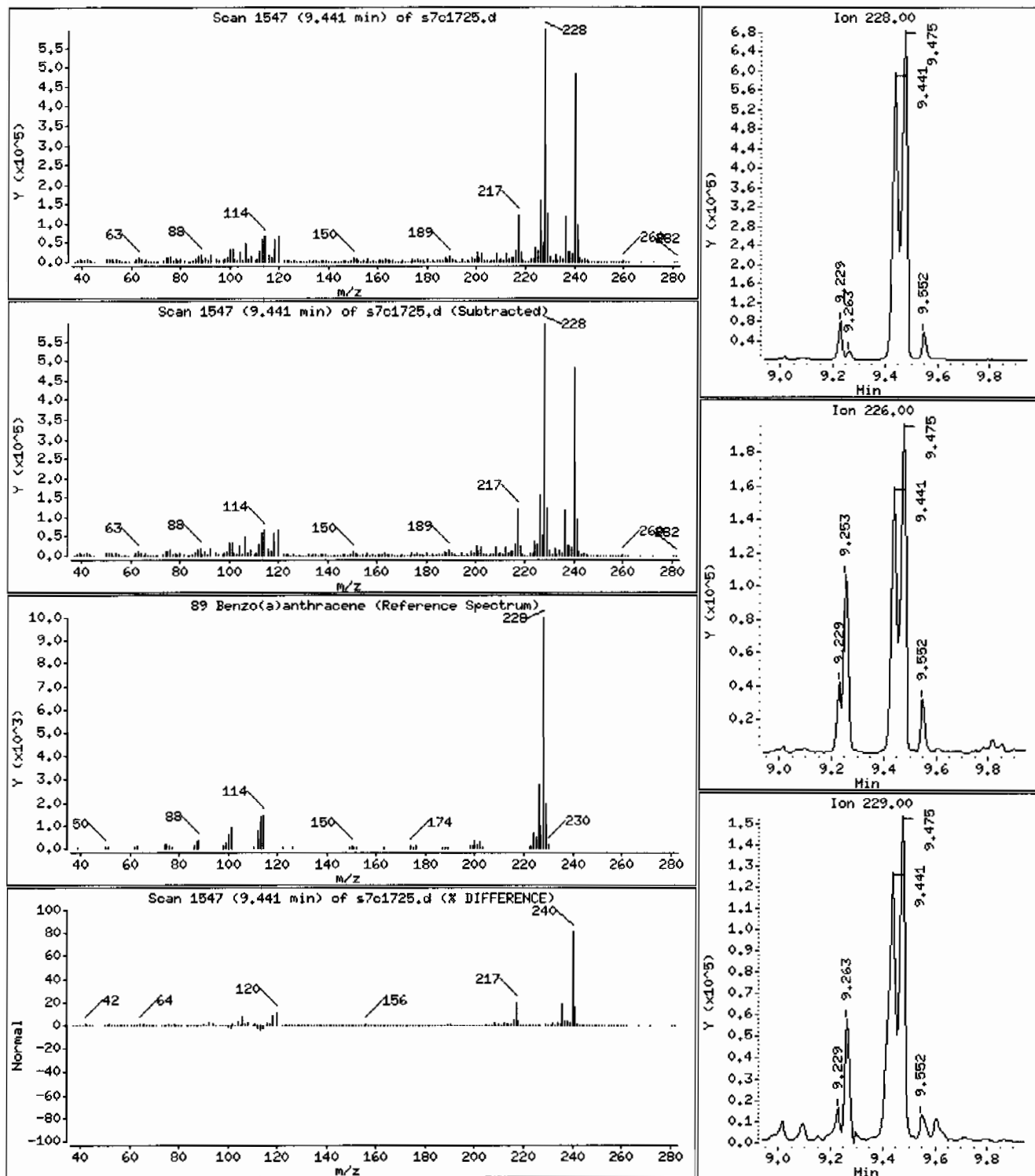
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 5900 ug/Kg



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: HSD7.i

Sample Info: 12480430021965290141SVH141LANL\_rx

Volume Injected (uL): 0.5

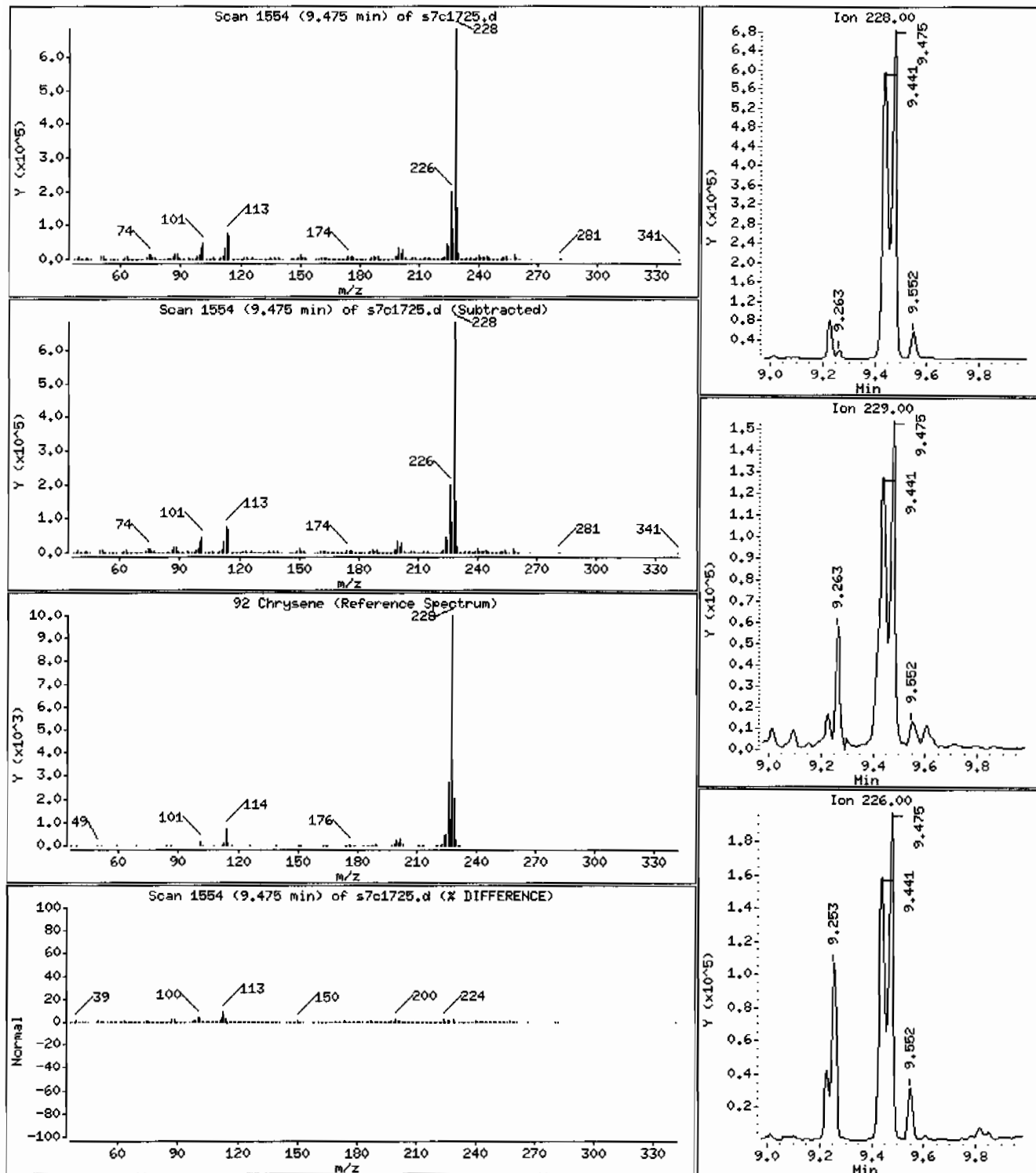
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 6560 ug/Kg



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: I248043002196529014ISVM14ILANL\_rx

Volume Injected (uL): 0.5

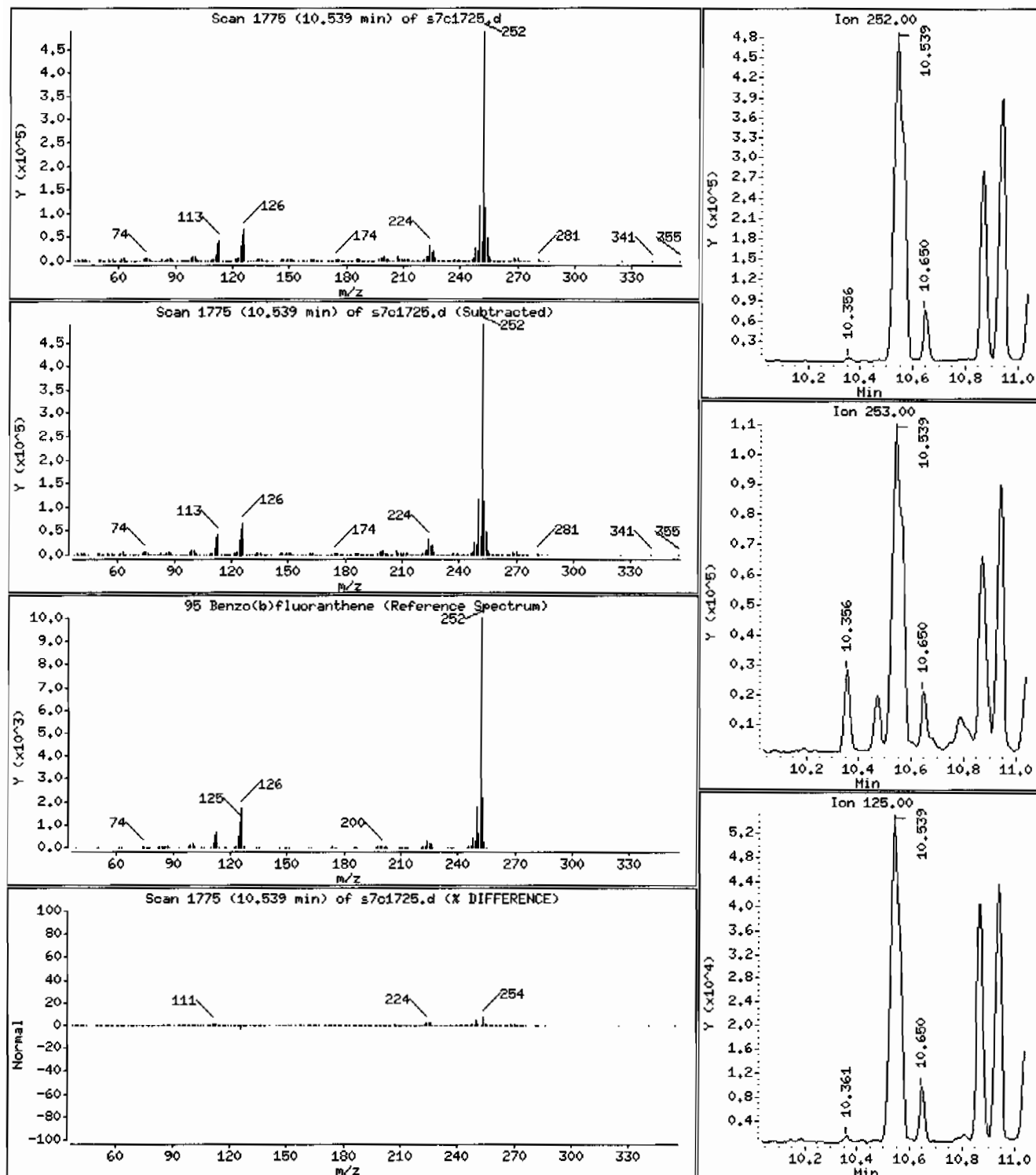
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 9240 ug/Kg



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVHI41LANL\_rx

Volume Injected (uL): 0.5

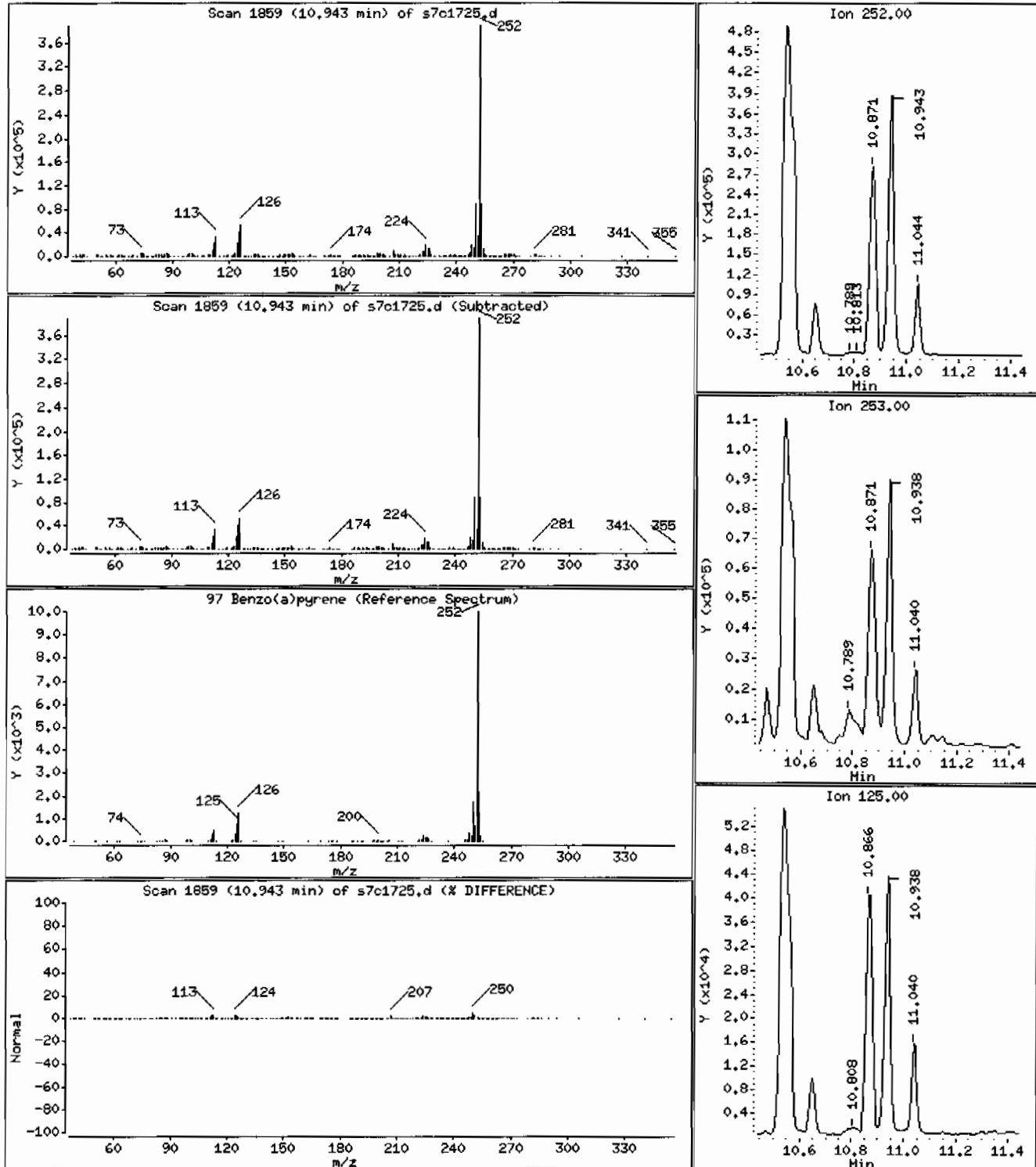
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 5480 ug/Kg



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVHI41LANL\_rx

Volume Injected (uL): 0.5

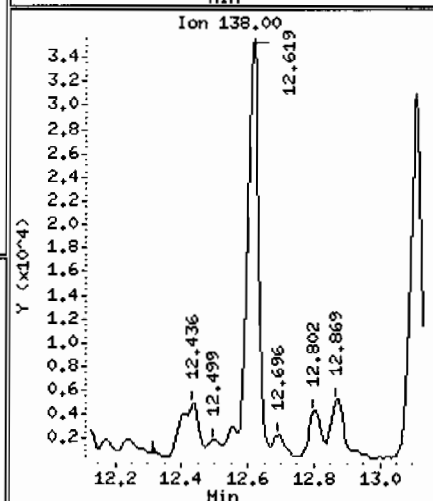
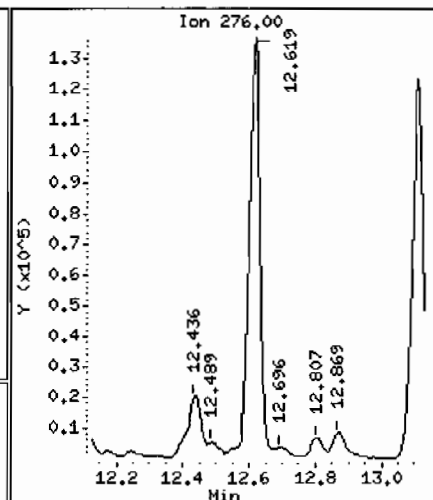
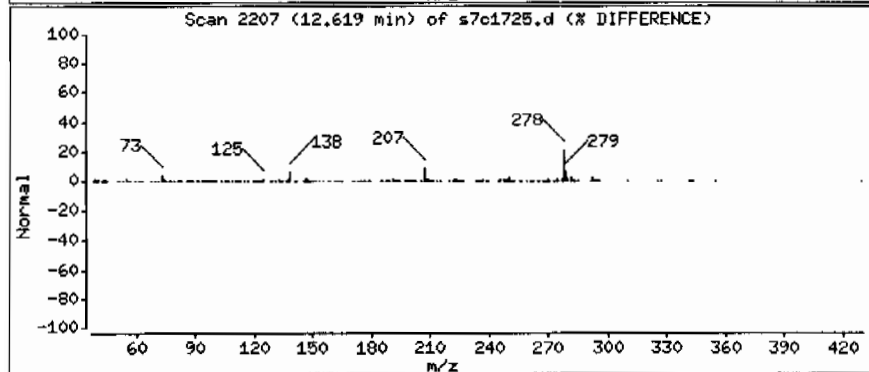
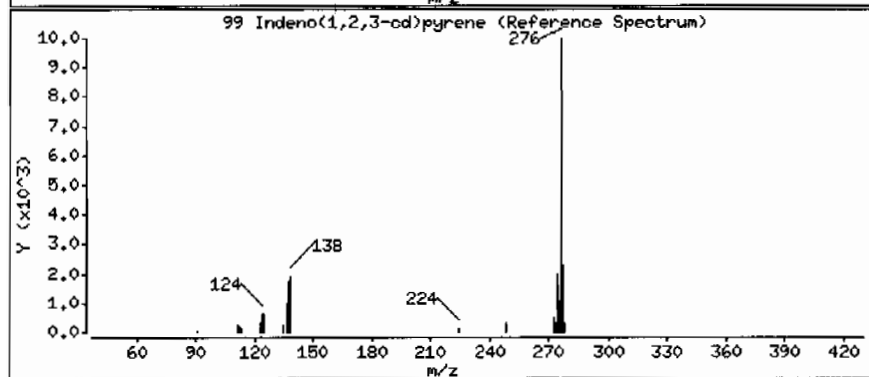
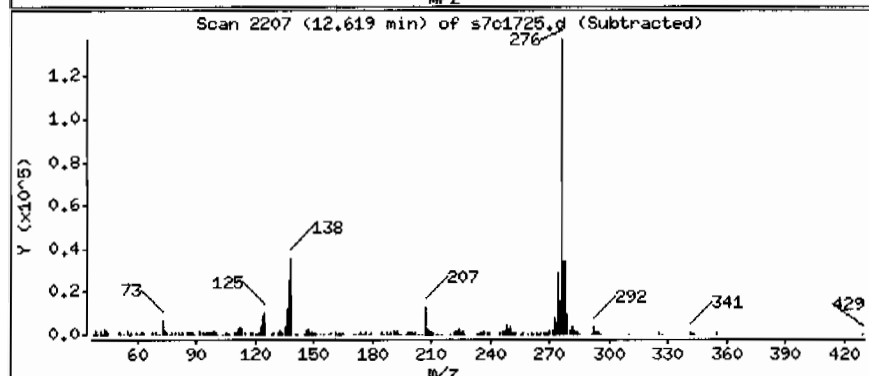
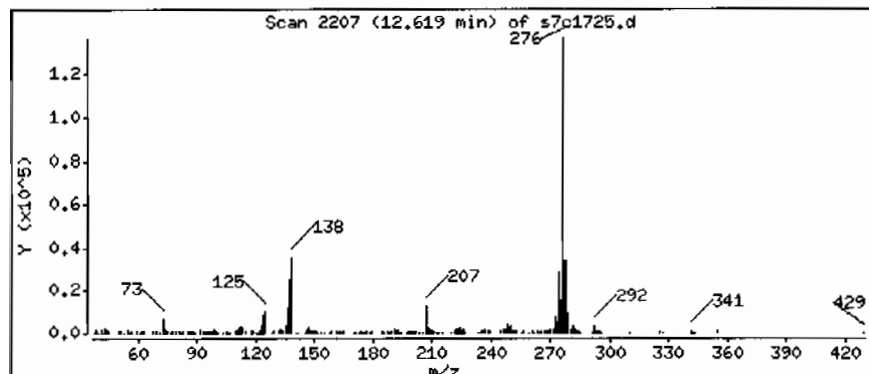
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 3950 ug/Kg



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: HSD7.i

Sample Info: 12480430021965290141SVH141LANL\_rx

Volume Injected (uL): 0.5

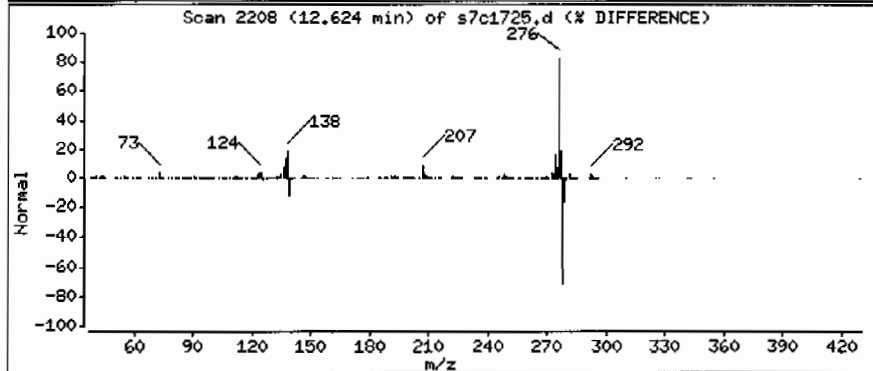
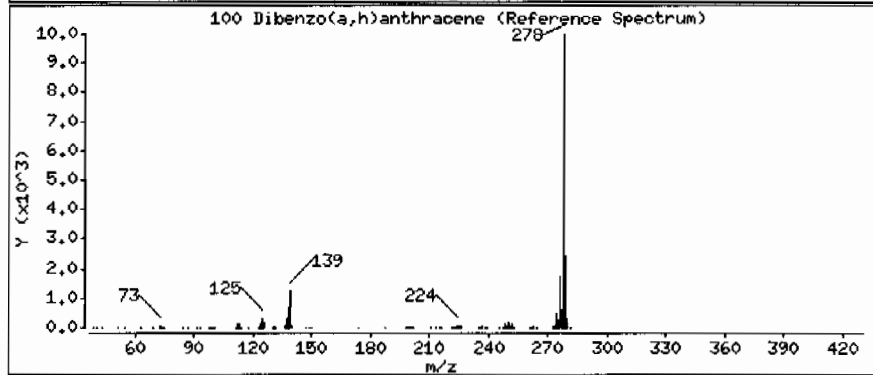
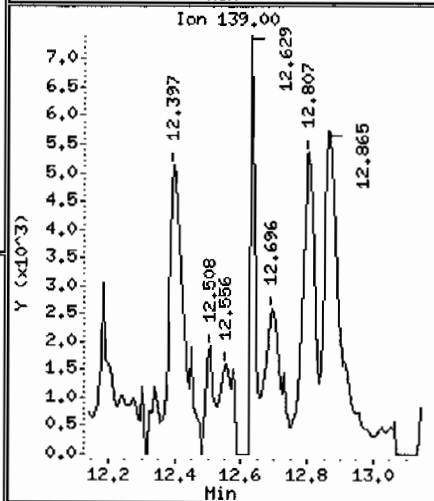
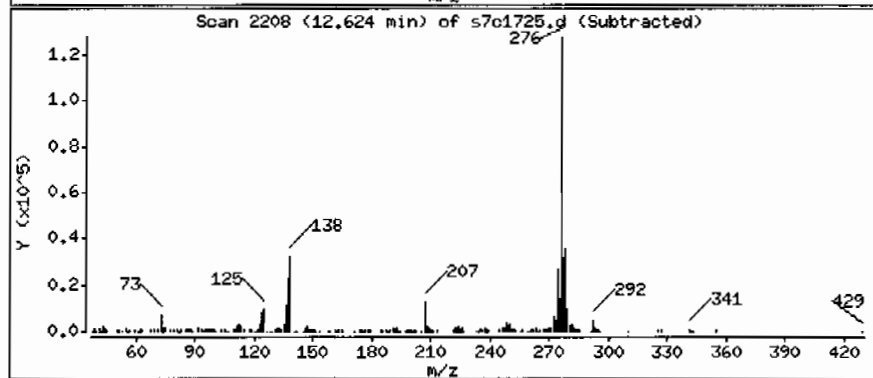
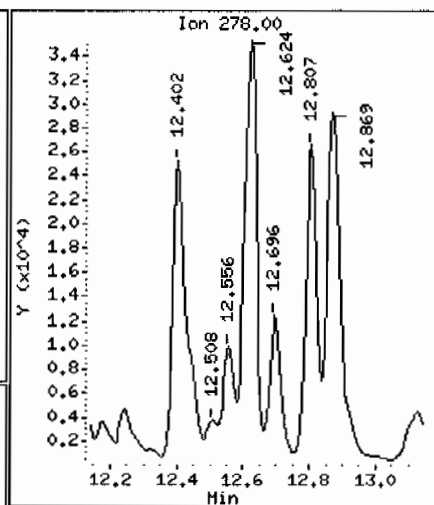
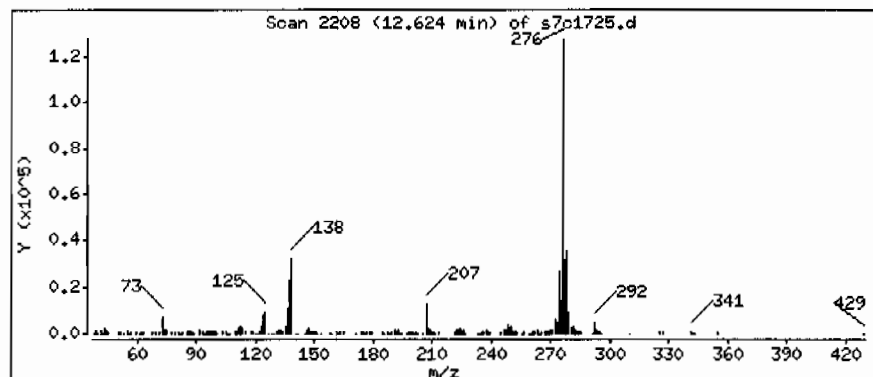
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 1350 ug/Kg



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: HSD7.i

Sample Info: I248043002196529014ISVH141LANL\_rx

Volume Injected (uL): 0,5

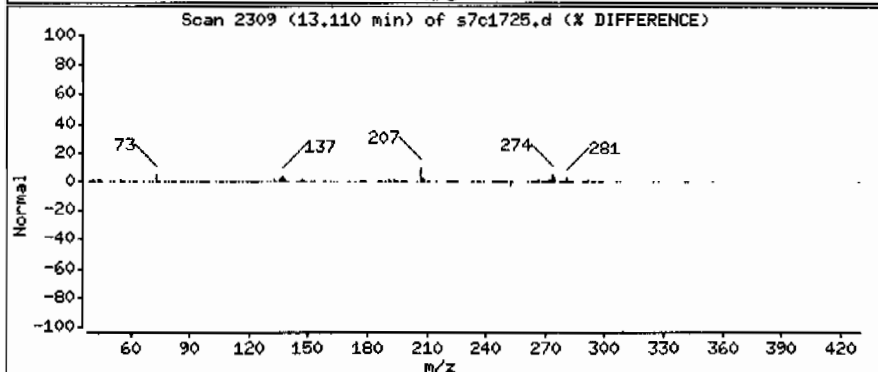
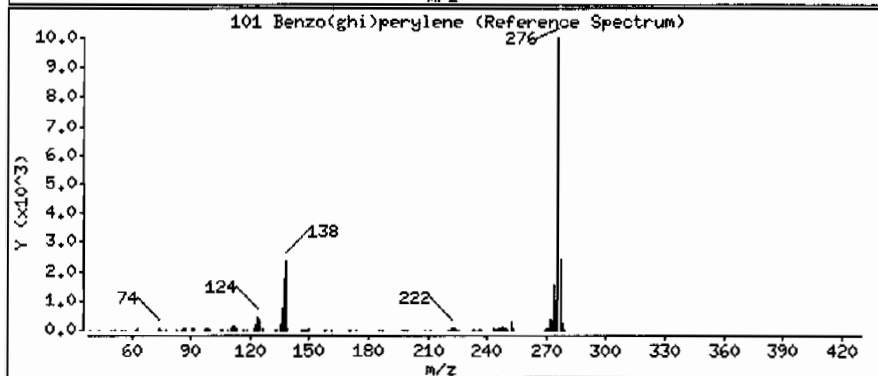
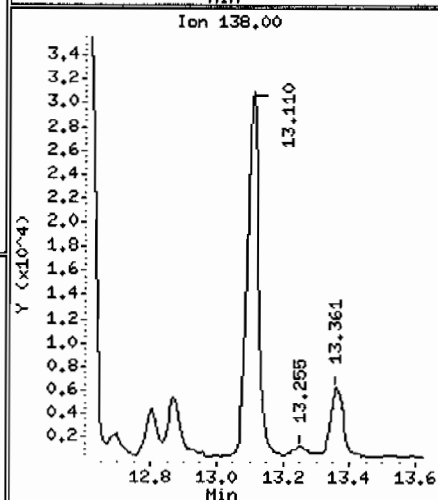
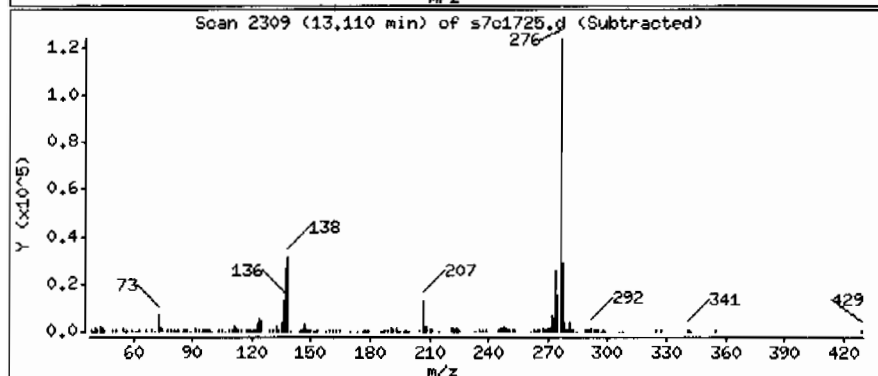
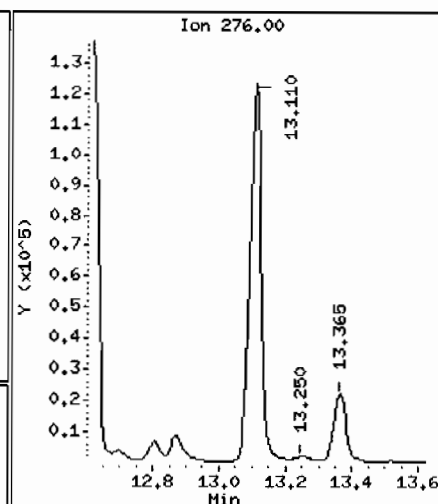
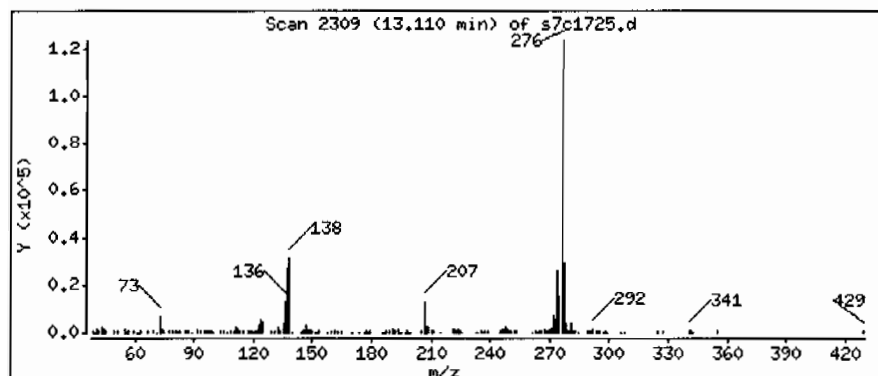
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

101 Benzo(ghi)perylene

Concentration: 4280 ug/Kg



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVH141LANL\_rx

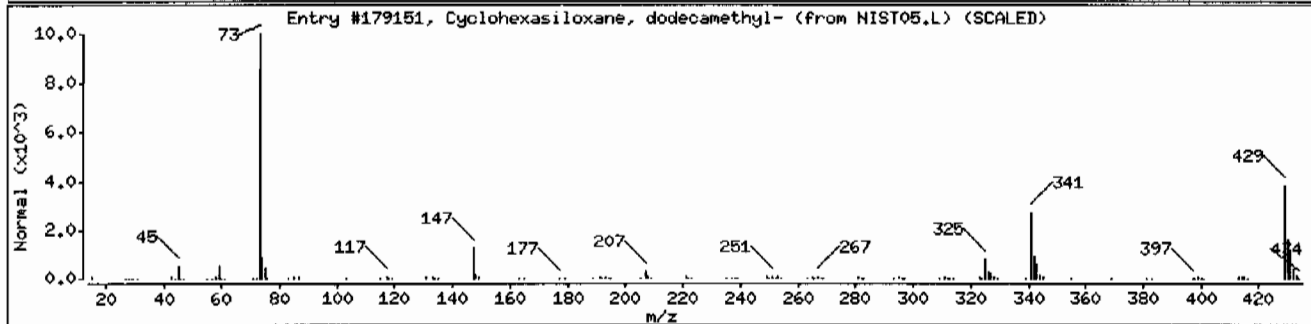
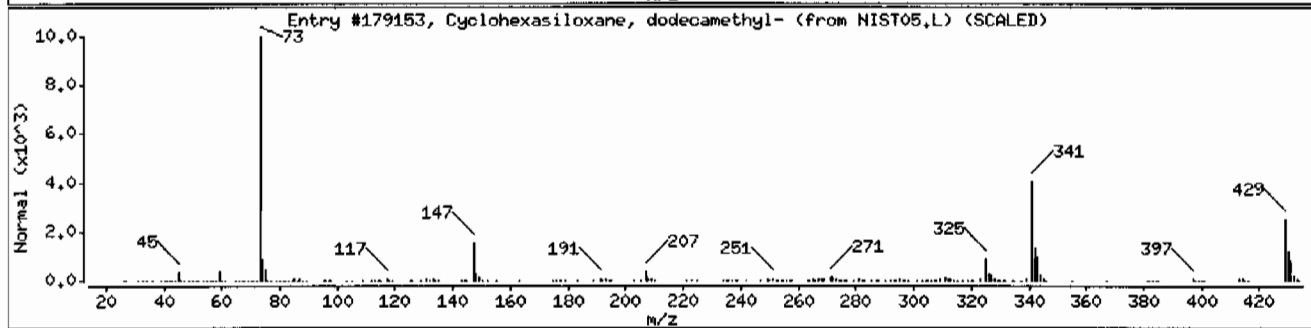
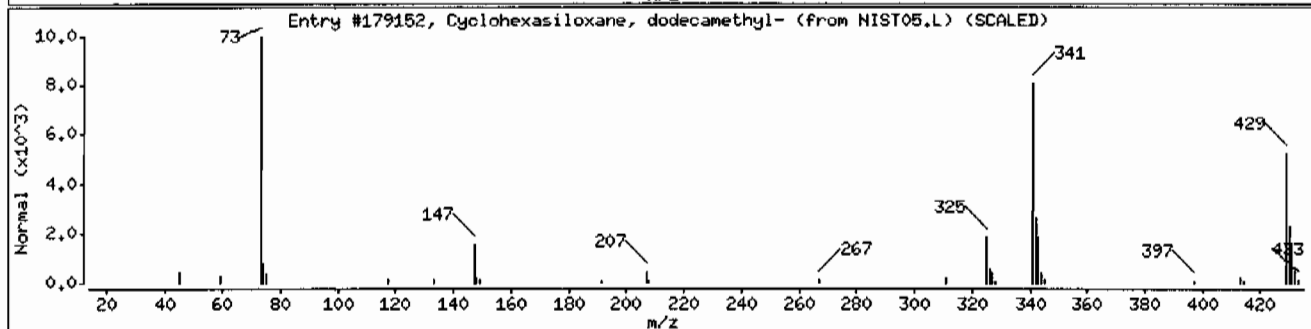
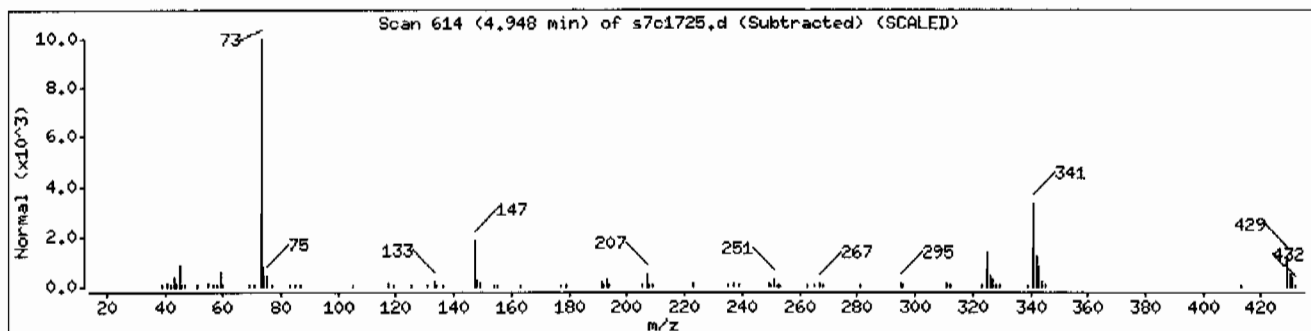
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexasiloxane, dodecamethyl-	540-97-6	NIST05.L	179152	91	C <sub>12</sub> H <sub>36</sub> O <sub>6</sub> Si <sub>6</sub>	444
Cyclohexasiloxane, dodecamethyl-	540-97-6	NIST05.L	179153	91	C <sub>12</sub> H <sub>36</sub> O <sub>6</sub> Si <sub>6</sub>	444
Cyclohexasiloxane, dodecamethyl-	540-97-6	NIST05.L	179151	91	C <sub>12</sub> H <sub>36</sub> O <sub>6</sub> Si <sub>6</sub>	444





Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: I2480430021965290141SVH141LANL\_rx

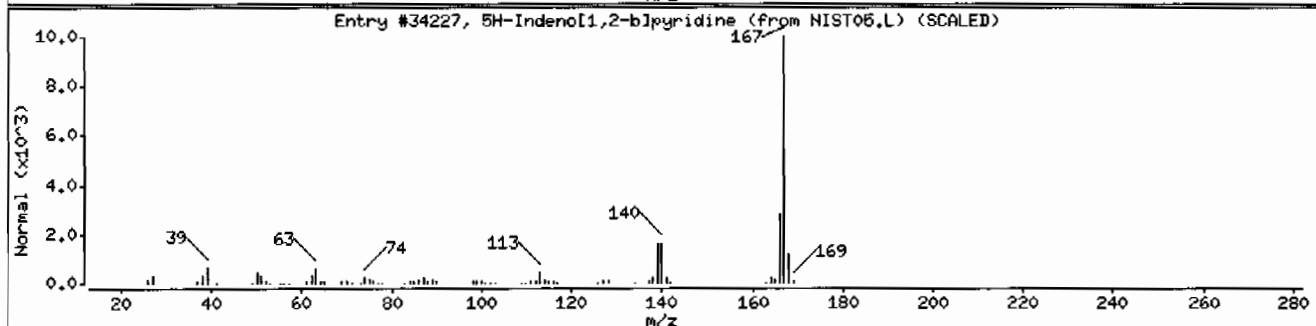
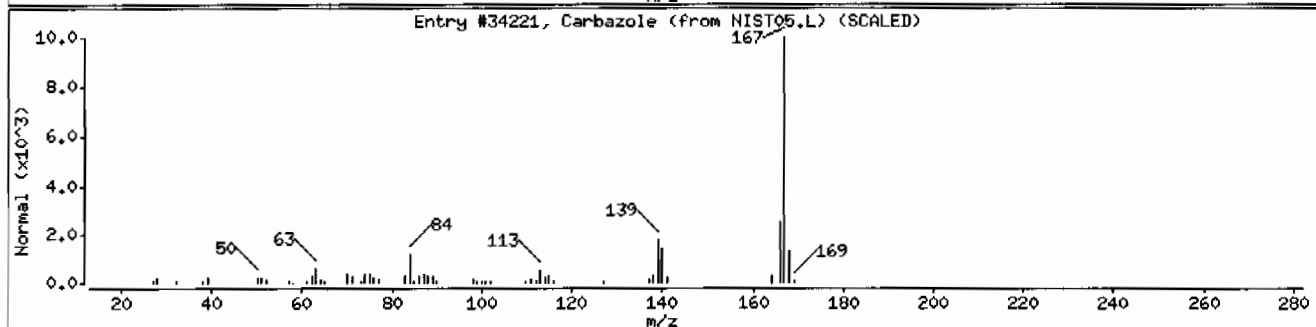
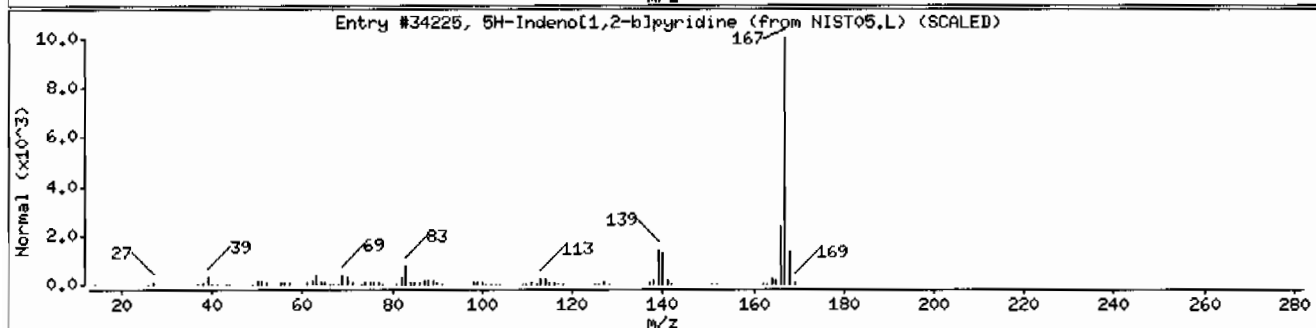
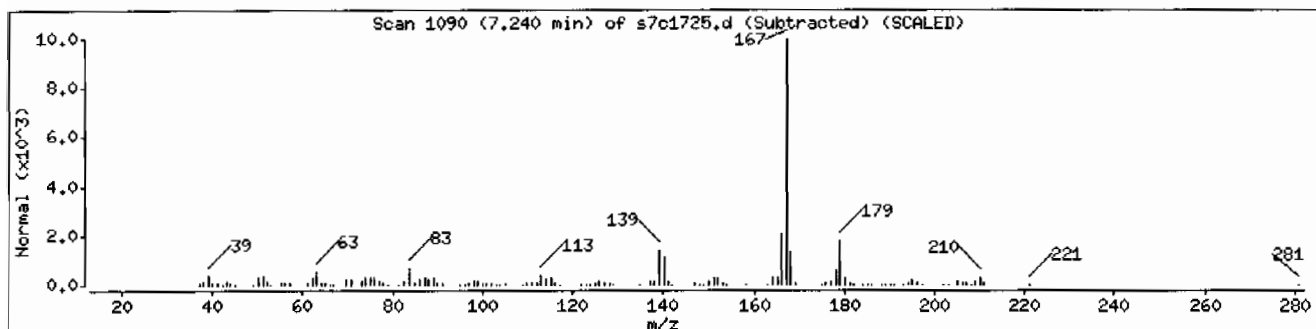
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
5H-Indeno[1,2-b]pyridine	244-99-5	NIST05.L	34225	95	C12H9N	167
Carbazole	86-74-8	NIST05.L	34221	95	C12H9N	167
5H-Indeno[1,2-b]pyridine	244-99-5	NIST05.L	34227	94	C12H9N	167



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVH141LANL\_rx

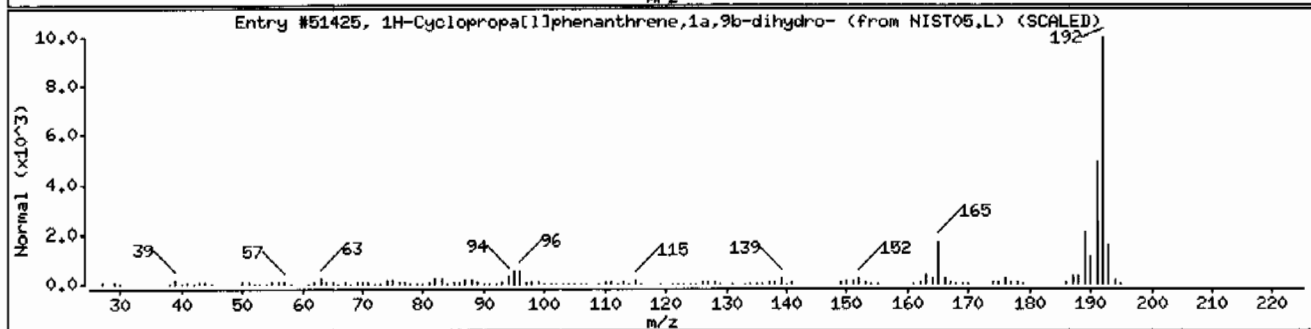
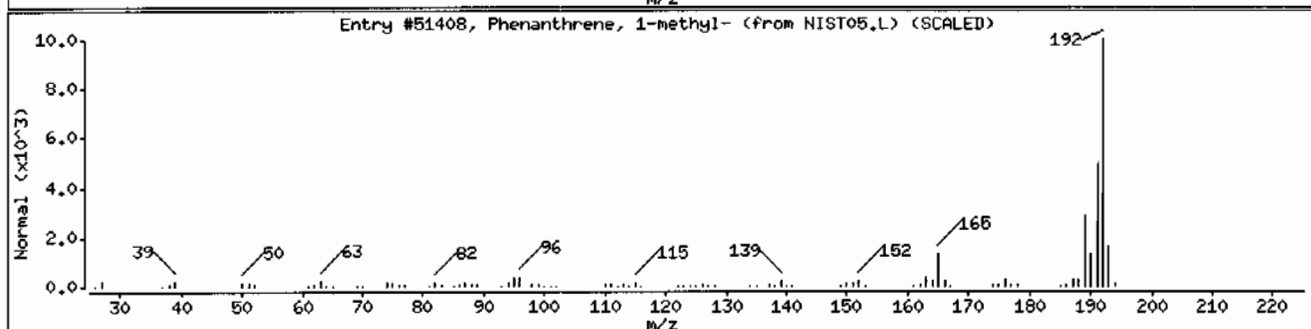
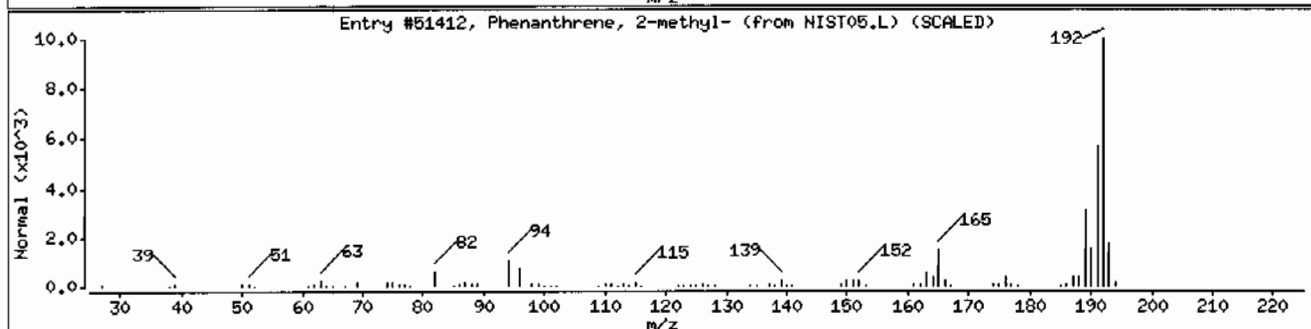
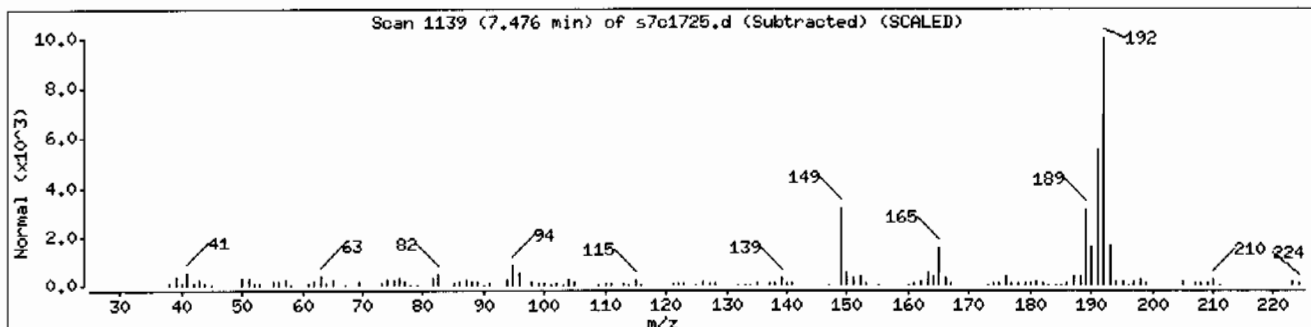
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51412	98	C15H12	192
Phenanthrene, 1-methyl-	832-69-9	NIST05.L	51408	97	C15H12	192
1H-Cyclopropa[1]phenanthrene,1a,9b-dihyd	949-41-7	NIST05.L	51425	96	C15H12	192



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVH141LANL\_rx

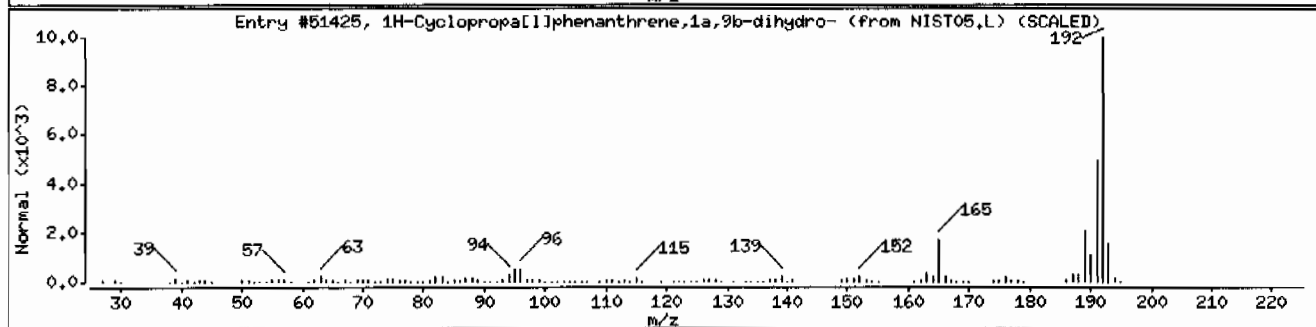
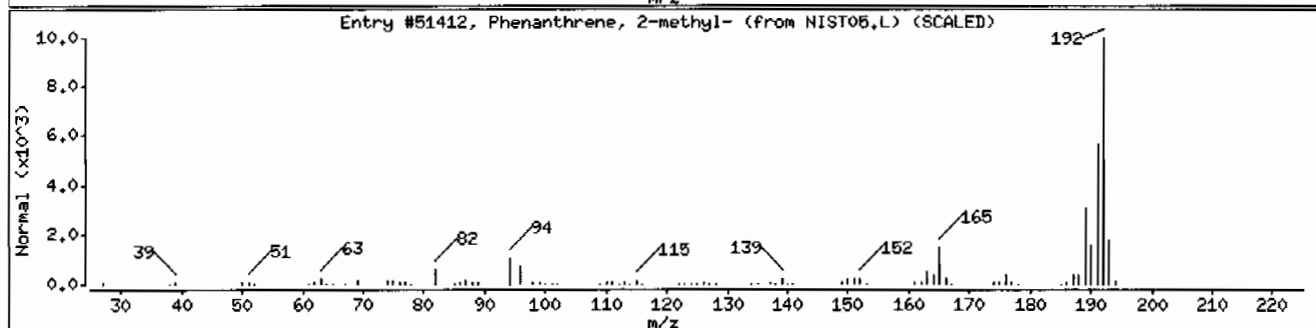
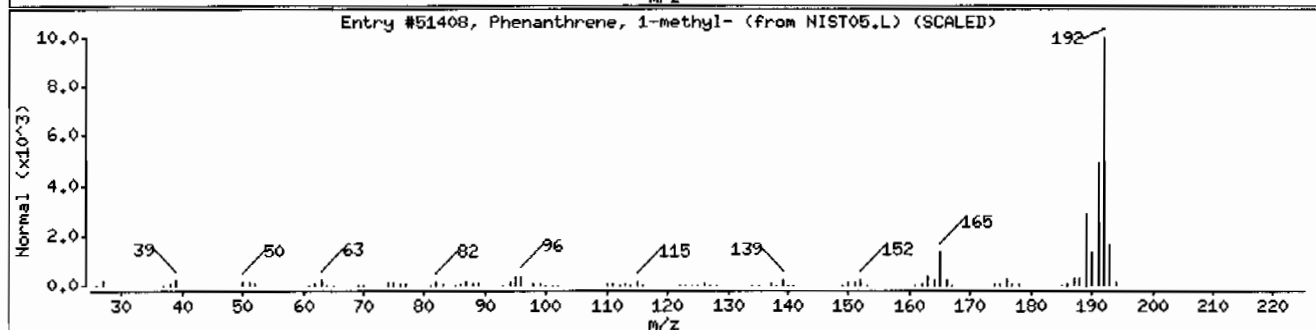
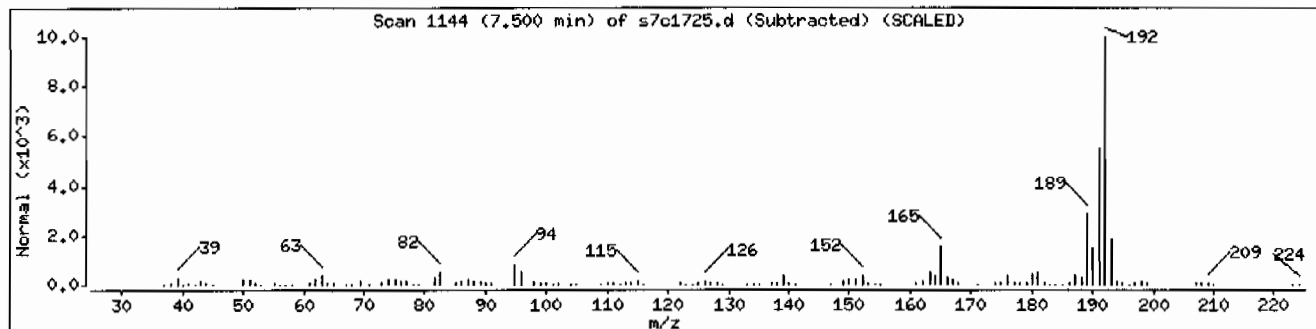
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 1-methyl-	832-69-9	NIST05.L	51408	98	C15H12	192
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51412	98	C15H12	192
1H-Cyclopropa[1]phenanthrene,1a,9b-dihyd	949-41-7	NIST05.L	51425	97	C15H12	192



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVH141LANL\_rx

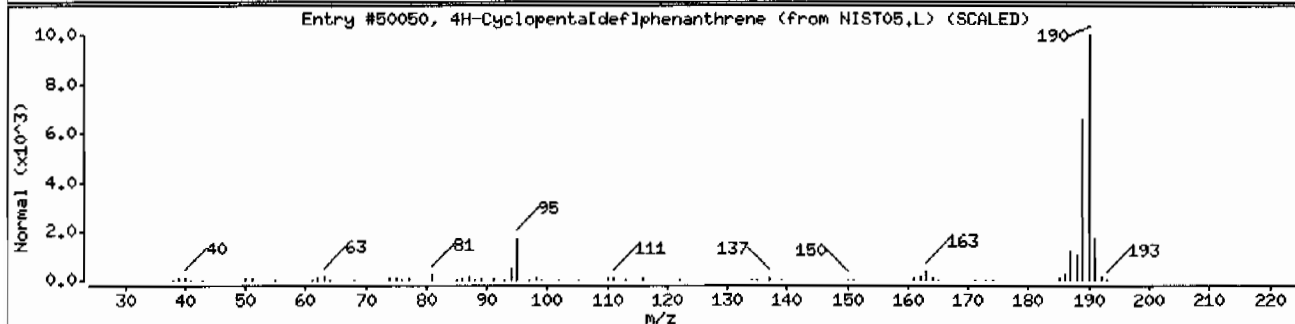
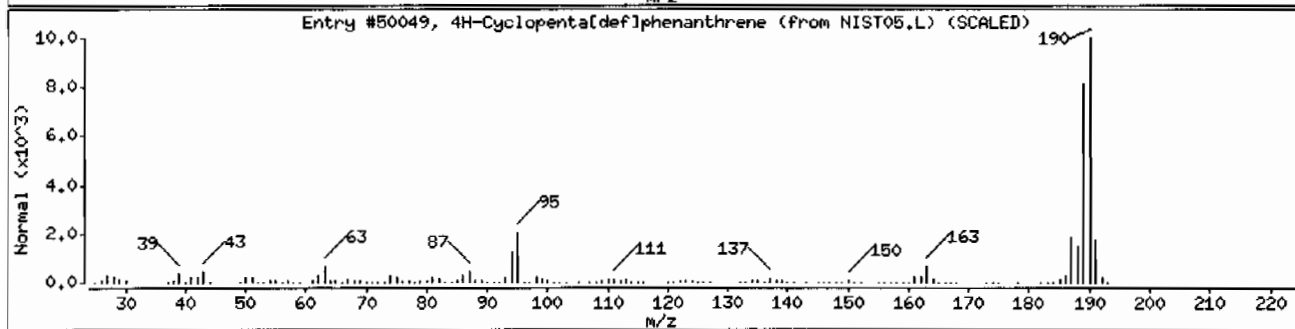
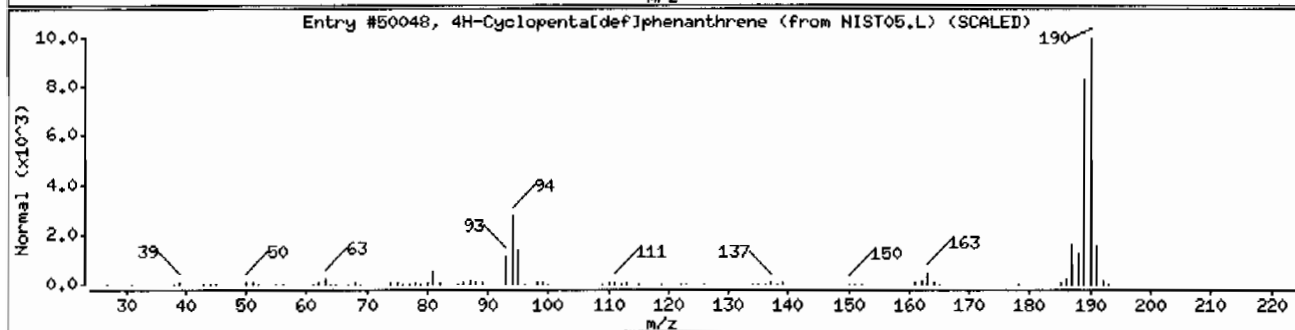
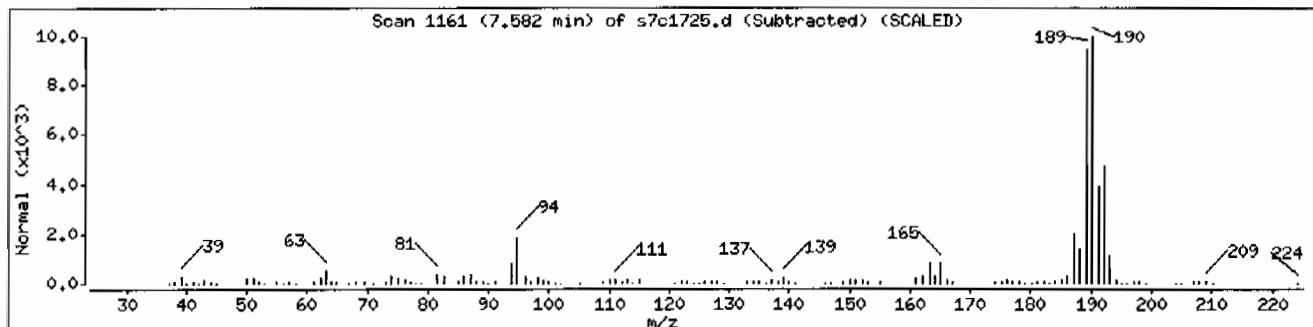
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50048	70	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50049	53	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50050	52	C15H10	190



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVMI41LANL\_rx

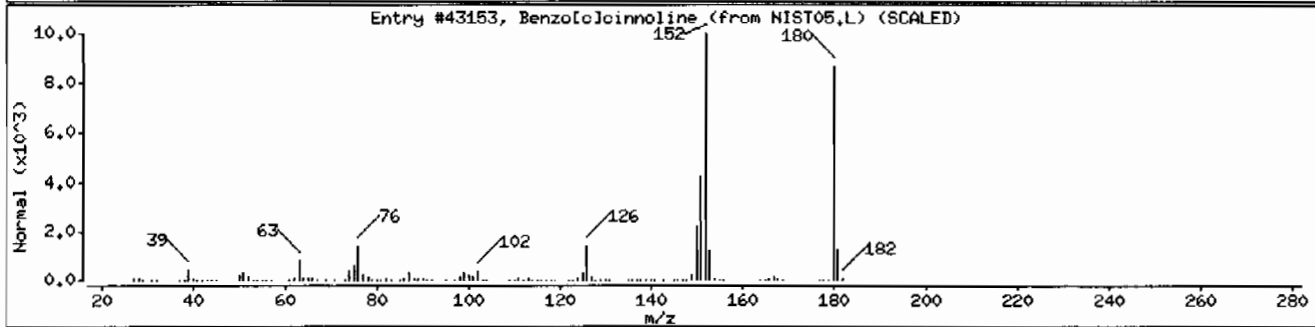
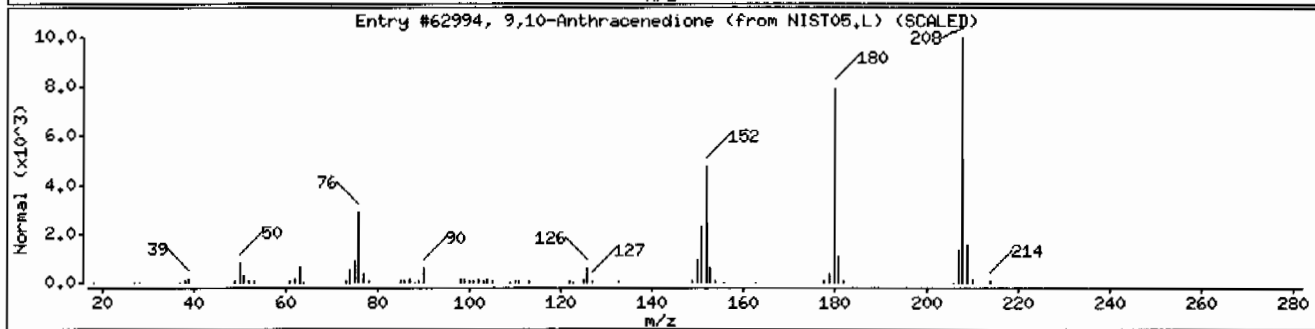
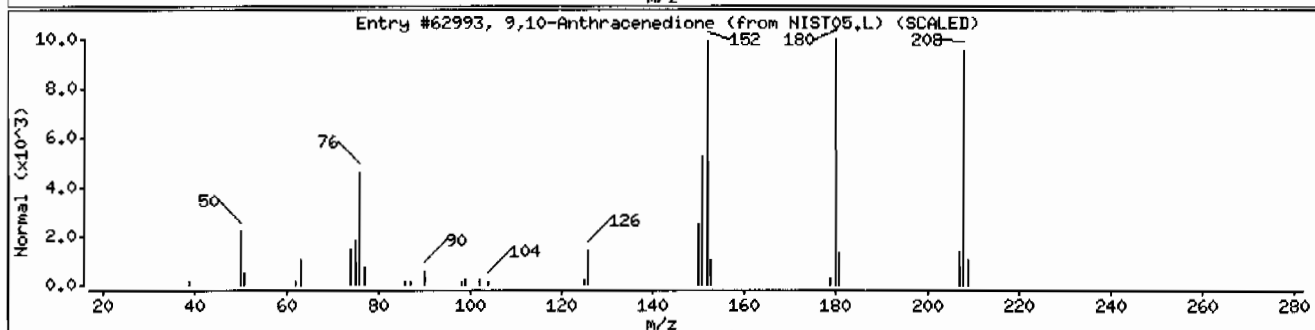
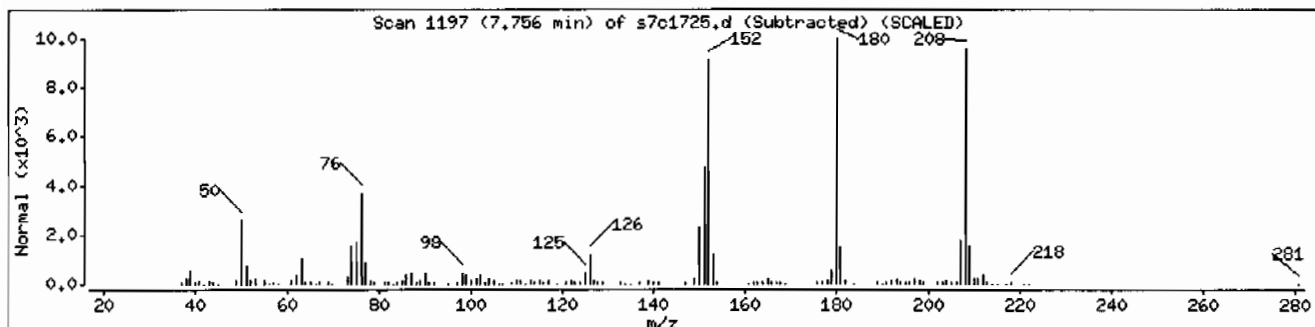
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9,10-Anthracenedione	84-65-1	NIST05.L	62993	98	C14H8O2	208
9,10-Anthracenedione	84-65-1	NIST05.L	62994	94	C14H8O2	208
Benzofcinnoline	230-17-1	NIST05.L	43153	93	C12H8N2	180



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: I2480430021965290141SVH141LANL\_rx

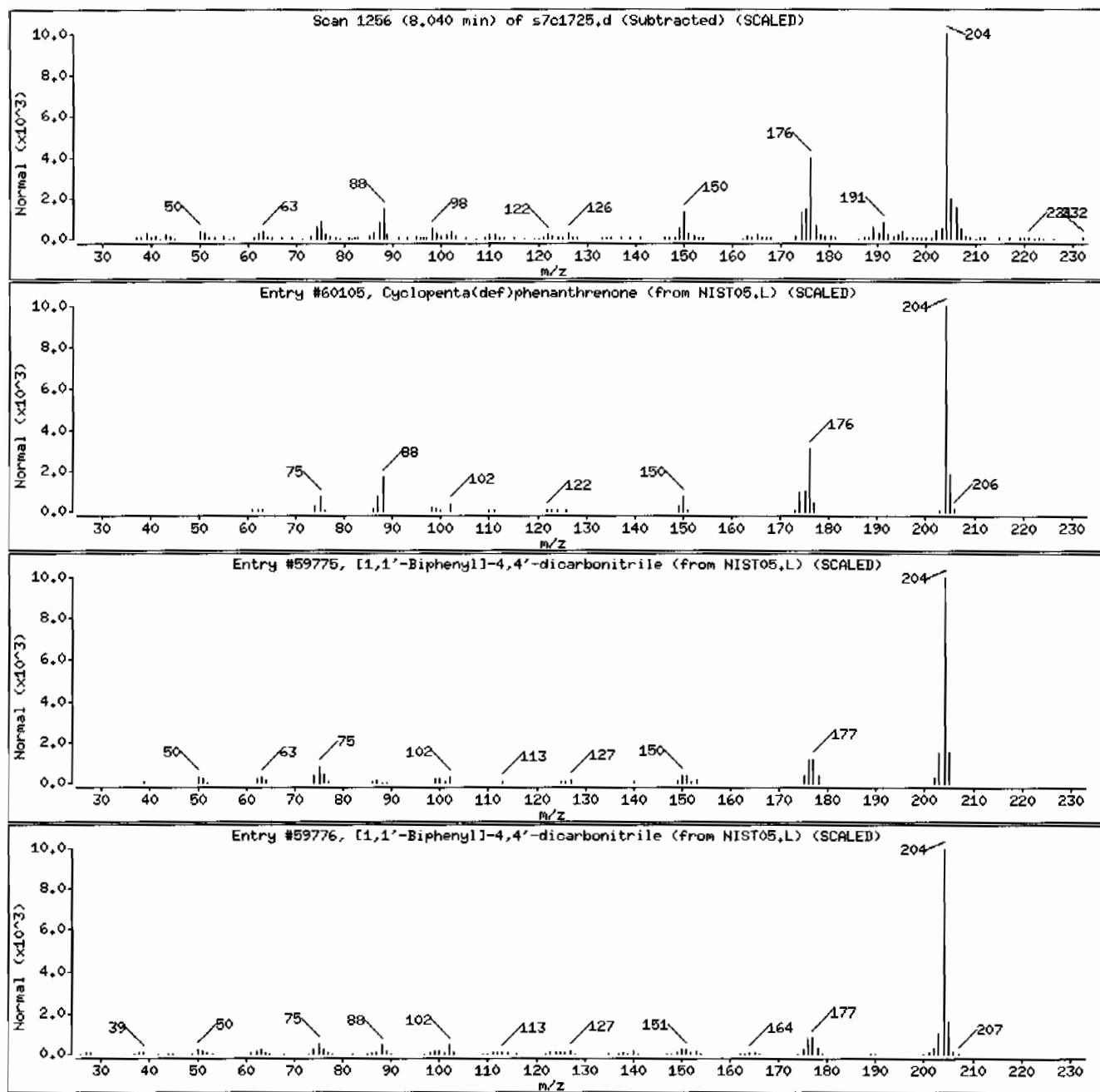
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclopenta(def)phenanthrene	5737-13-3	NIST05.L	60105	94	C15H8O	204
[1,1'-Biphenyl]-4,4'-dicarbonitrile	1591-30-6	NIST05.L	59775	53	C14H8N2	204
[1,1'-Biphenyl]-4,4'-dicarbonitrile	1591-30-6	NIST05.L	59776	49	C14H8N2	204



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVH141LANL\_rx

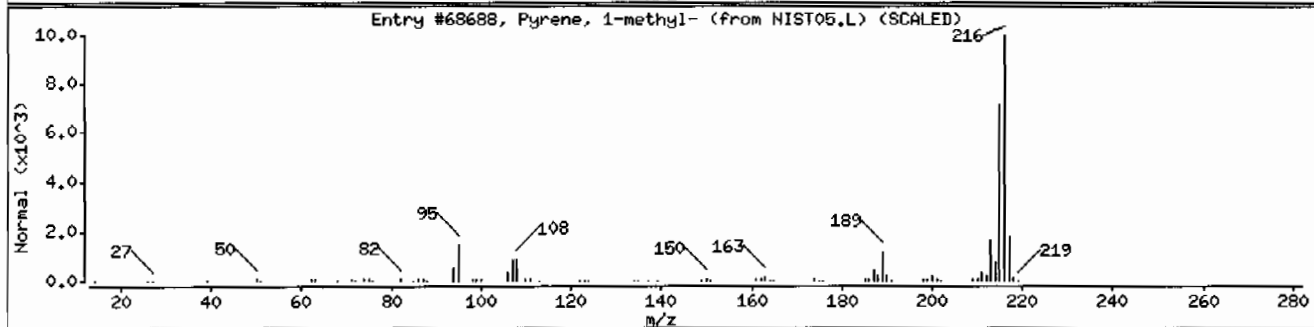
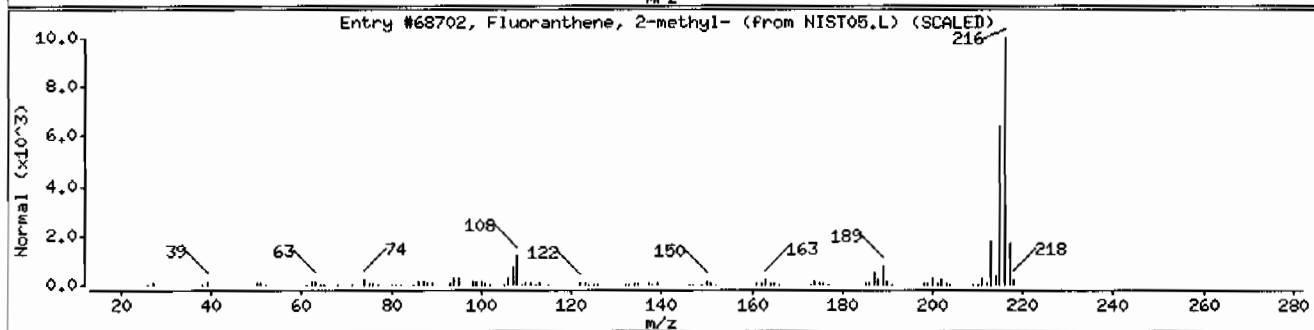
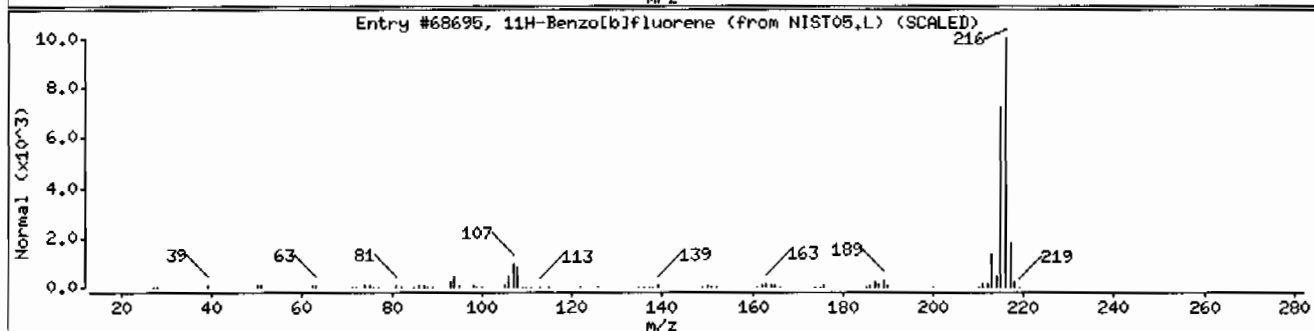
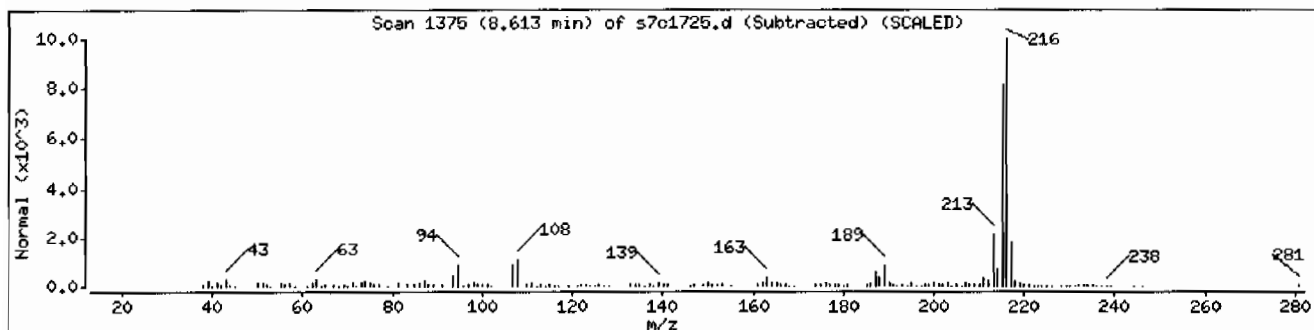
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[b]fluorene	243-17-4	NIST05.L	68695	97	C17H12	216
Fluoranthene, 2-methyl-	33543-31-6	NIST05.L	68702	94	C17H12	216
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68688	94	C17H12	216



Date: 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVH141LANL\_rx

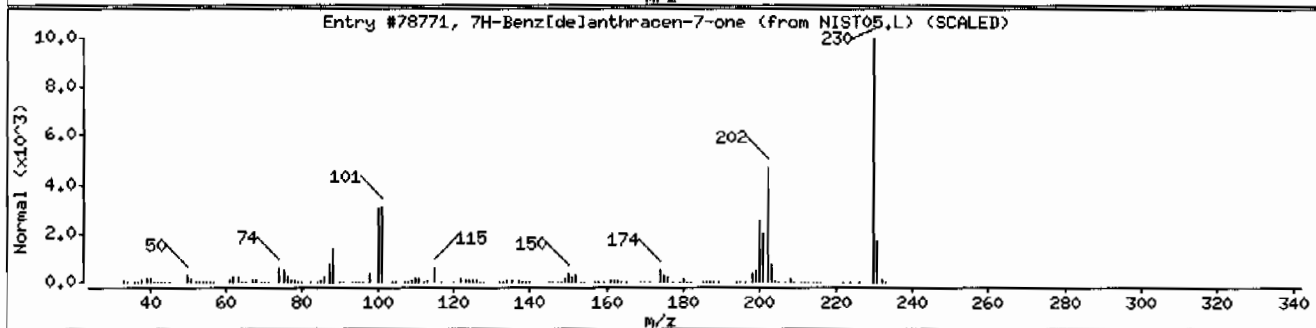
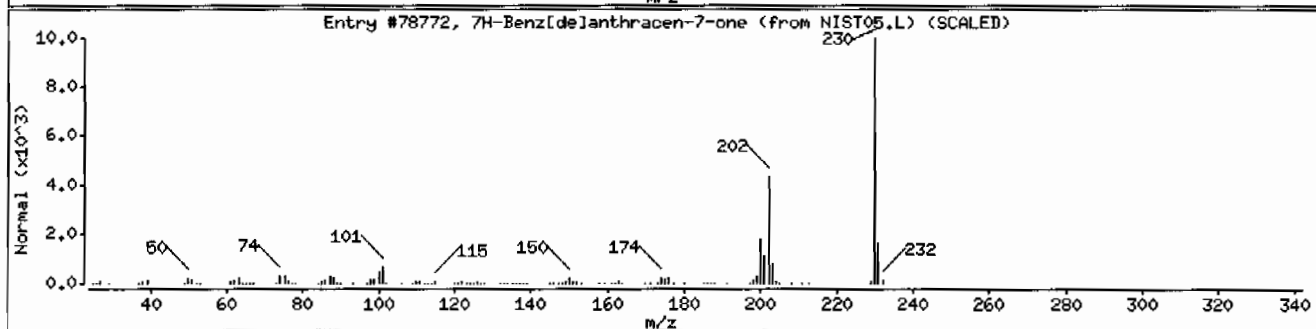
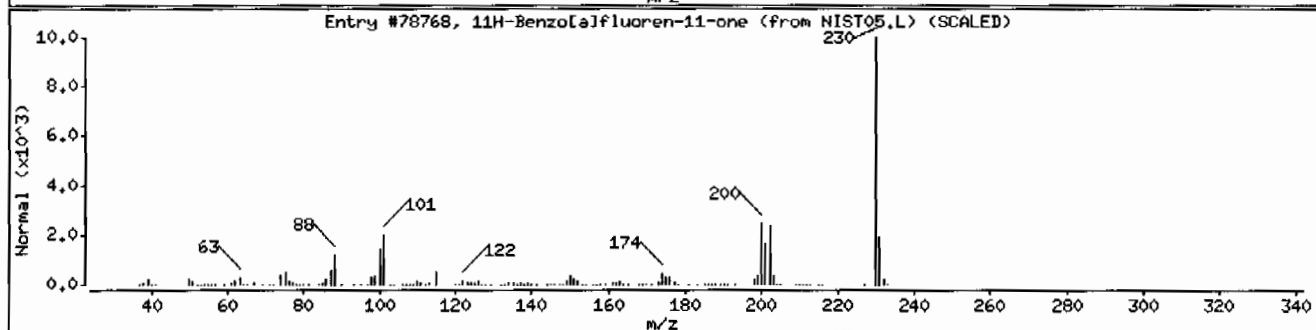
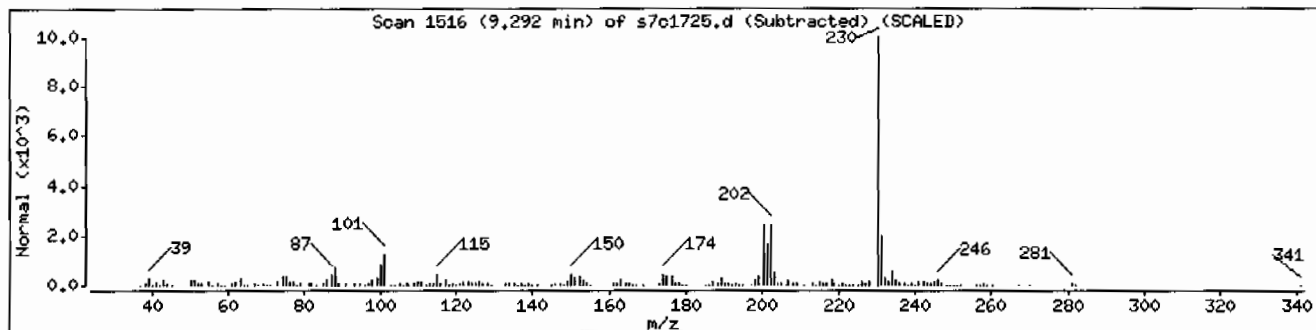
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[a]fluoren-11-one	479-79-8	NIST05.L	78768	97	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78772	90	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78771	83	C17H10O	230





Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVH141LANL\_rx

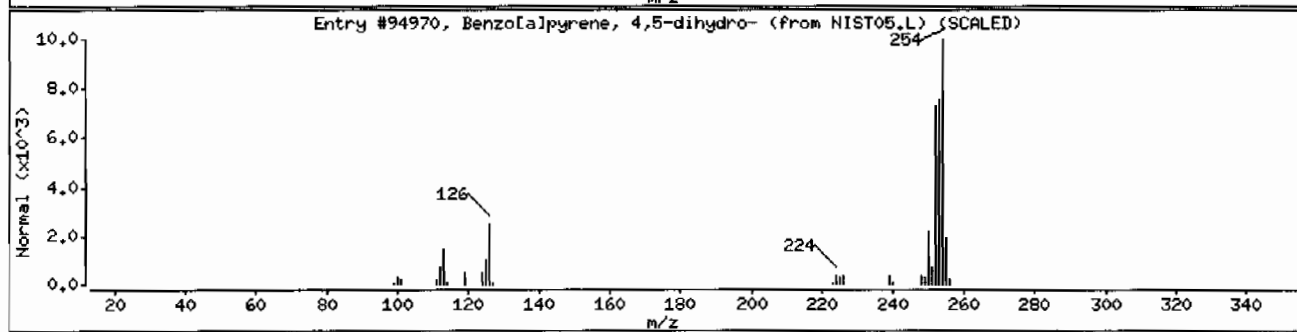
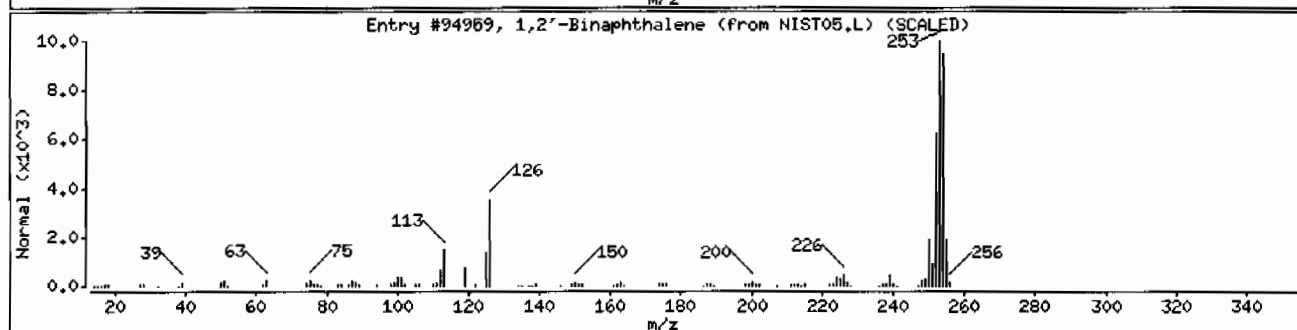
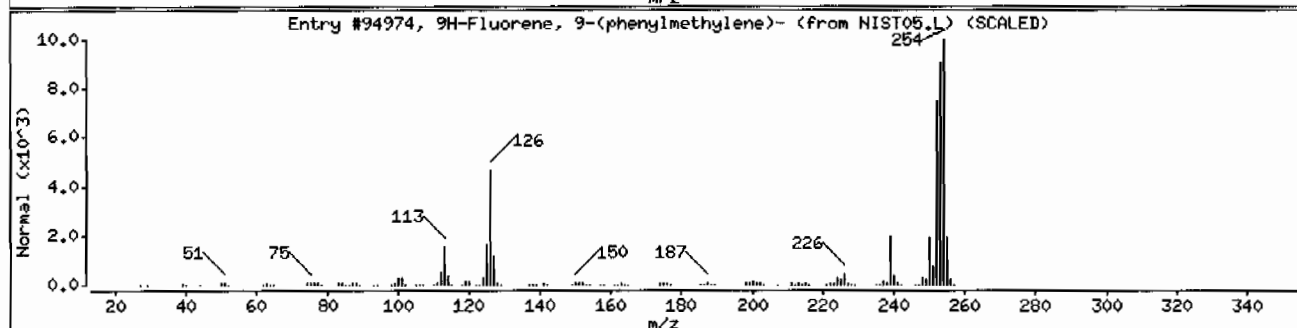
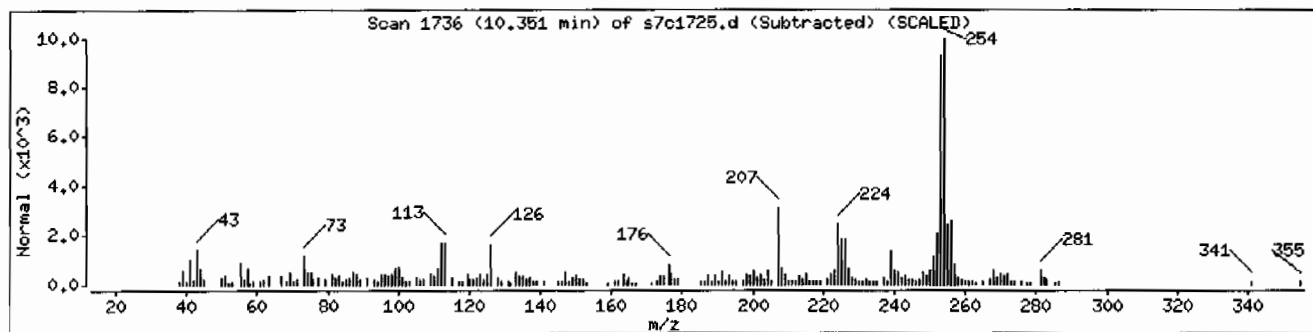
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9H-Fluorene, 9-(phenylmethylene)-	1836-87-9	NIST05.L	94974	70	C20H14	254
1,2'-Binaphthalene	4325-74-0	NIST05.L	94959	58	C20H14	254
Benzo[a]pyrene, 4,5-dihydro-	57652-66-1	NIST05.L	94970	58	C20H14	254



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVMI41LANL\_rx

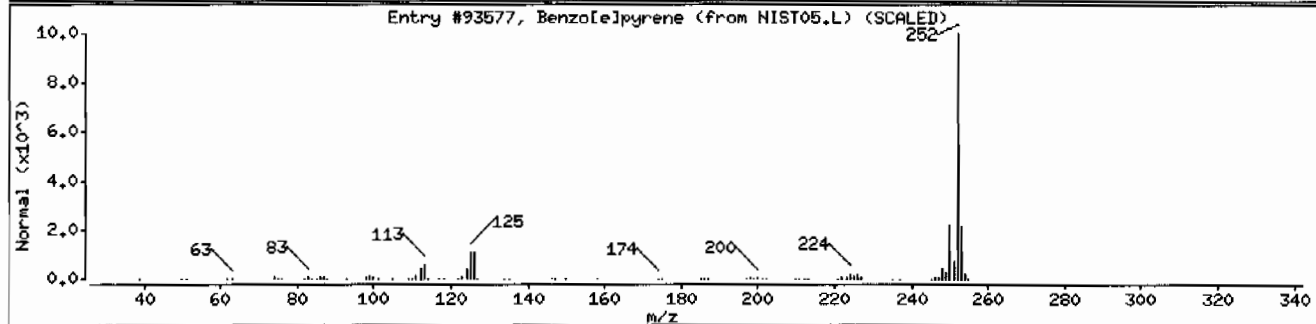
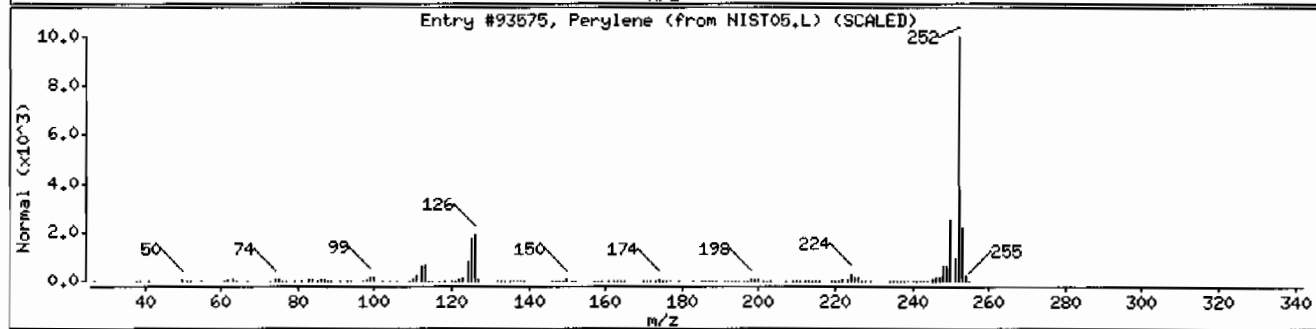
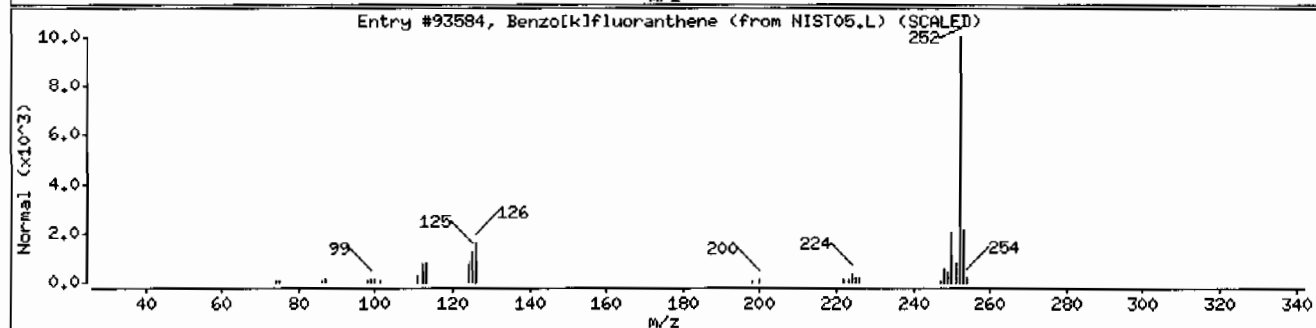
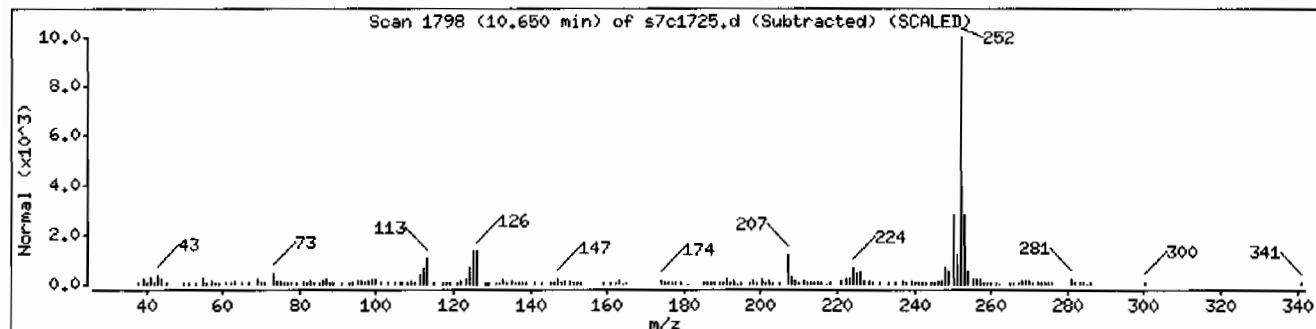
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	96	C <sub>20</sub> H <sub>12</sub>	252
Perylene	198-55-0	NIST05.L	93575	94	C <sub>20</sub> H <sub>12</sub>	252
Benzo[e]pyrene	192-97-2	NIST05.L	93577	94	C <sub>20</sub> H <sub>12</sub>	252



Date: 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 12480430021965290141SVH141LANL\_rx

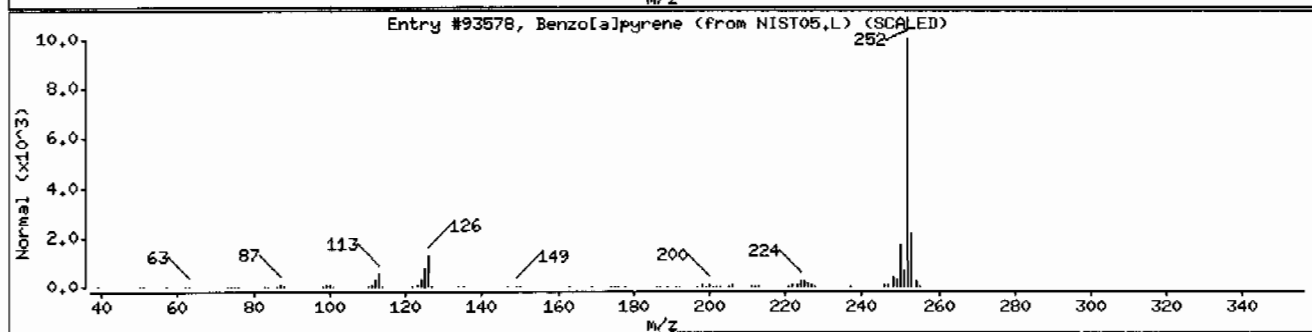
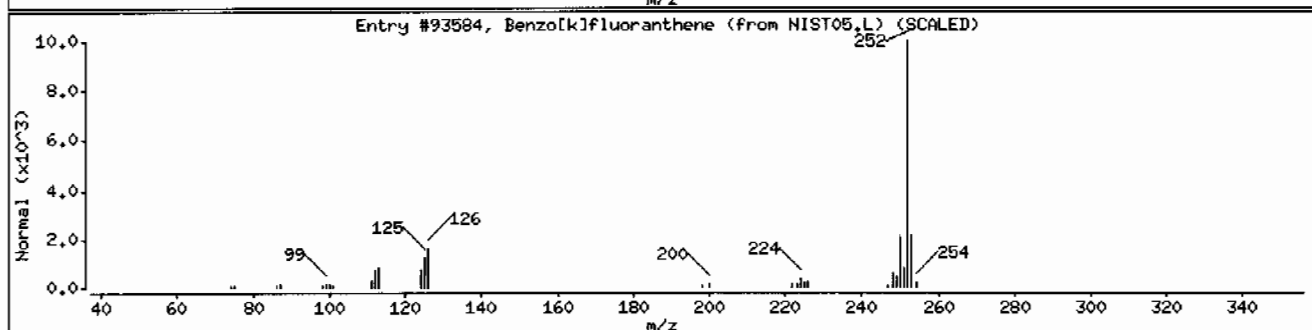
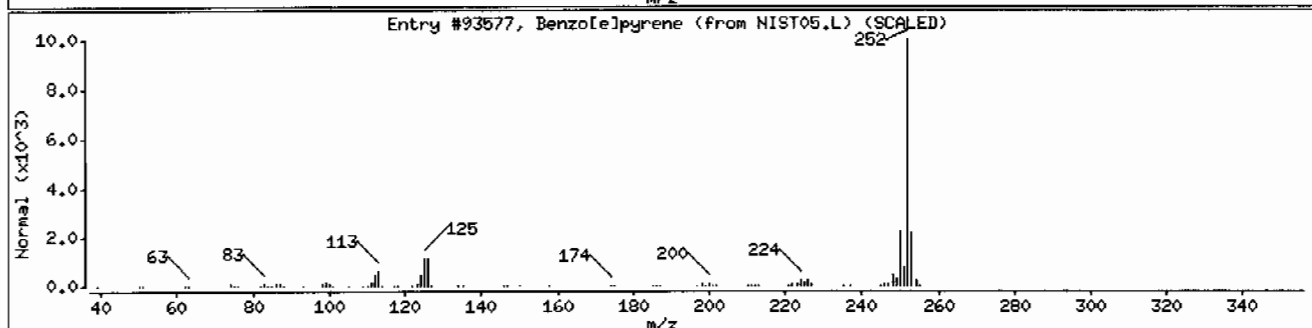
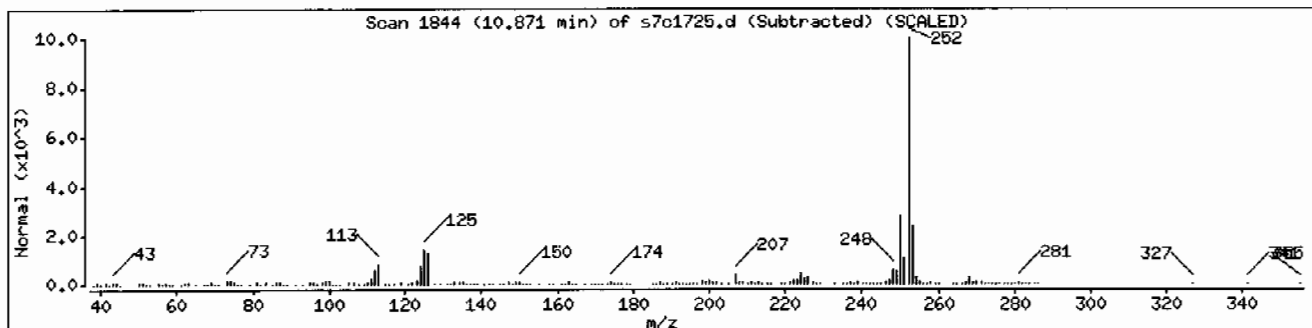
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[e]pyrene	192-97-2	NIST05.L	93577	99	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	98	C20H12	252
Benzo[a]pyrene	50-32-8	NIST05.L	93578	97	C20H12	252



Date : 17-MAR-2010 18:28

Client ID: RE36-10-7413REDL

Instrument: MSD7.i

Sample Info: 1248043002196529014ISVH141LANL\_rx

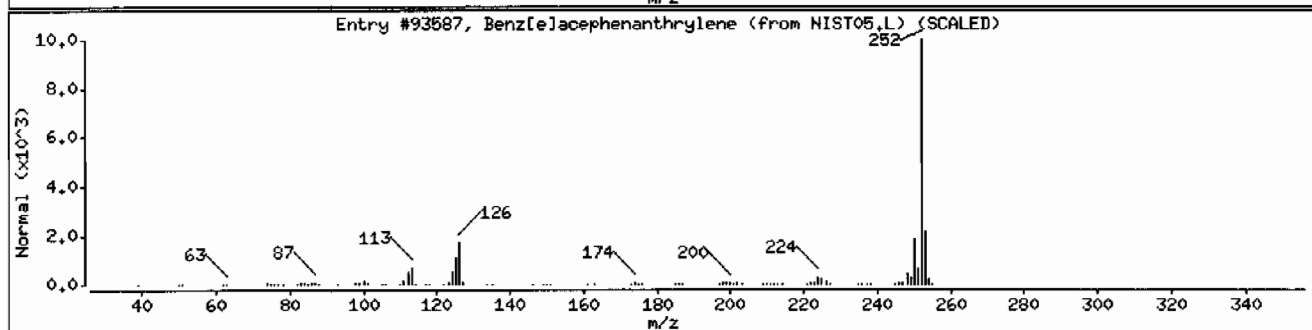
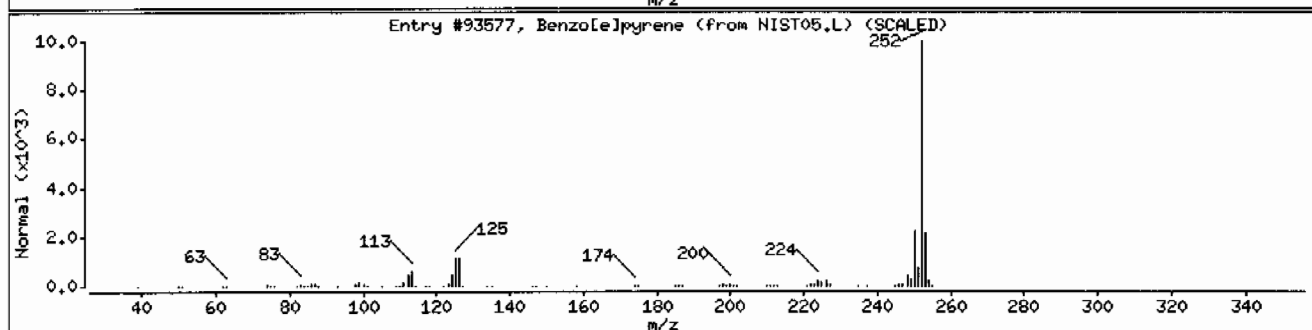
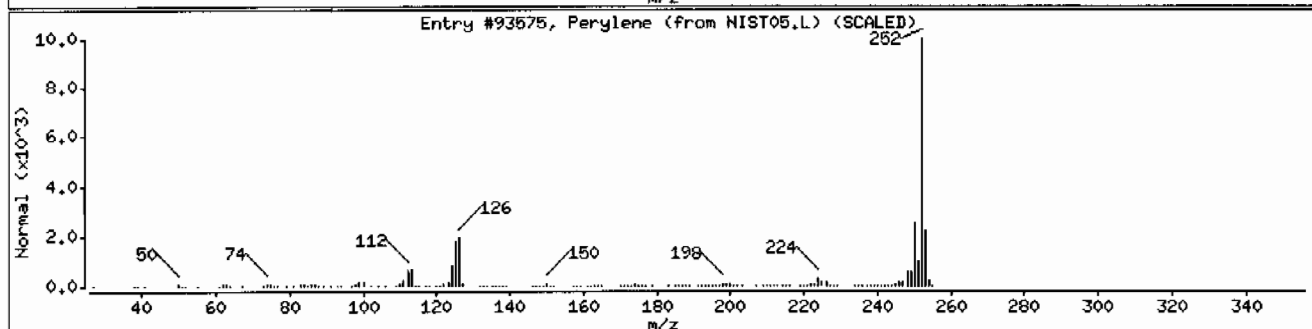
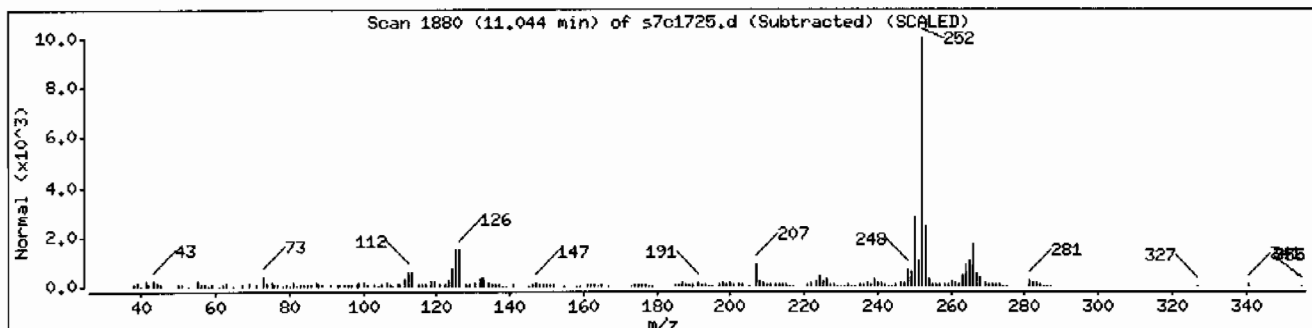
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Perylene	198-55-0	NIST05.L	93575	98	C <sub>20</sub> H <sub>12</sub>	252
Benzo[ <i>a</i> ]pyrene	192-97-2	NIST05.L	93577	98	C <sub>20</sub> H <sub>12</sub>	252
Benzo[ <i>a</i> ]acephenanthrylene	205-99-2	NIST05.L	93587	96	C <sub>20</sub> H <sub>12</sub>	252



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043001	Date Received: 02/25/2010 08:45	% Moisture: 21.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7414	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 14:39	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1106.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	421	ug/kg	84.3	421
108-95-2	Phenol	U	421	ug/kg	84.3	421
95-57-8	2-Chlorophenol	U	421	ug/kg	84.3	421
106-46-7	1,4-Dichlorobenzene	U	421	ug/kg	84.3	421
621-64-7	N-Nitrosodipropylamine	U	421	ug/kg	84.3	421
59-50-7	4-Chloro-3-methylphenol	U	421	ug/kg	84.3	421
83-32-9	Acenaphthene	J	14.9	ug/kg	13.9	42.1
121-14-2	2,4-Dinitrotoluene	U	421	ug/kg	42.1	421
100-02-7	4-Nitrophenol	U	421	ug/kg	139	421
87-86-5	Pentachlorophenol	U	421	ug/kg	105	421
129-00-0	Pyrene		202	ug/kg	12.6	42.1
110-86-1	Pyridine	U	421	ug/kg	84.3	421
62-53-3	Aniline	U	421	ug/kg	126	421
111-44-4	bis(2-Chloroethyl) ether	U	421	ug/kg	84.3	421
541-73-1	1,3-Dichlorobenzene	U	421	ug/kg	84.3	421
100-51-6	Benzyl alcohol	U	421	ug/kg	126	421
95-50-1	1,2-Dichlorobenzene	U	421	ug/kg	84.3	421
108-60-1	bis(2-Chloroisopropyl)ether	U	421	ug/kg	84.3	421
95-48-7	o-Cresol	U	421	ug/kg	84.3	421
65794-96-9	m,p-Cresols	U	421	ug/kg	126	421
67-72-1	Hexachloroethane	U	421	ug/kg	84.3	421
98-95-3	Nitrobenzene	U	421	ug/kg	84.3	421
78-59-1	Isophorone	U	421	ug/kg	84.3	421
88-75-5	2-Nitrophenol	U	421	ug/kg	84.3	421
105-67-9	2,4-Dimethylphenol	U	421	ug/kg	147	421
111-91-1	bis(2-Chloroethoxy)methane	U	421	ug/kg	84.3	421
120-83-2	2,4-Dichlorophenol	U	421	ug/kg	84.3	421
65-85-0	Benzoic acid	U	843	ug/kg	211	843
91-20-3	Naphthalene	U	42.1	ug/kg	12.6	42.1
106-47-8	4-Chloroaniline	U	421	ug/kg	84.3	421
87-68-3	Hexachlorobutadiene	U	421	ug/kg	84.3	421
91-57-6	2-Methylnaphthalene	U	42.1	ug/kg	8.43	42.1
77-47-4	Hexachlorocyclopentadiene	U	421	ug/kg	84.3	421
88-06-2	2,4,6-Trichlorophenol	U	421	ug/kg	84.3	421
95-95-4	2,4,5-Trichlorophenol	U	421	ug/kg	84.3	421
91-58-7	2-Chloronaphthalene	U	42.1	ug/kg	13.9	42.1
88-74-4	2-Nitroaniline	U	421	ug/kg	84.3	421
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	421	ug/kg	84.3	421

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043001

Client ID: RE36-10-7414  
Batch ID: 959623  
Run Date: 03/11/2010 14:39  
Prep Date: 03/02/2010 11:17  
Data File: s7c1106.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 21.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	421	ug/kg	84.3	421
606-20-2	2,6-Dinitrotoluene	U	421	ug/kg	42.1	421
208-96-8	Acenaphthylene	U	42.1	ug/kg	12.6	42.1
51-28-5	2,4-Dinitrophenol	U	843	ug/kg	160	843
132-64-9	Dibenzofuran	U	421	ug/kg	84.3	421
84-66-2	Diethylphthalate	U	421	ug/kg	84.3	421
86-73-7	Fluorene	J	13.6	ug/kg	12.6	42.1
7005-72-3	4-Chlorophenylphenylether	U	421	ug/kg	84.3	421
534-52-1	2-Methyl-4,6-dinitrophenol	U	421	ug/kg	84.3	421
100-01-6	4-Nitroaniline	U	421	ug/kg	126	421
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	421	ug/kg	84.3	421
122-66-7	Azobenzene	U	421	ug/kg	84.3	421
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	421	ug/kg	84.3	421
118-74-1	Hexachlorobenzene	U	421	ug/kg	84.3	421
85-01-8	Phenanthrene		160	ug/kg	12.6	42.1
120-12-7	Anthracene	J	24.8	ug/kg	8.43	42.1
84-74-2	Di-n-butylphthalate	U	421	ug/kg	84.3	421
206-44-0	Fluoranthene		216	ug/kg	12.6	42.1
85-68-7	Butylbenzylphthalate	U	421	ug/kg	84.3	421
56-55-3	Benzo(a)anthracene		89.8	ug/kg	12.6	42.1
91-94-1	3,3'-Dichlorobenzidine	U	421	ug/kg	126	421
218-01-9	Chrysene		93.5	ug/kg	12.6	42.1
117-81-7	bis(2-Ethylhexyl)phthalate	J	231	ug/kg	84.3	421
117-84-0	Di-n-octylphthalate	U	421	ug/kg	84.3	421
205-99-2	Benzo(b)fluoranthene		156	ug/kg	12.6	42.1
207-08-9	Benzo(k)fluoranthene	U	42.1	ug/kg	12.6	42.1
50-32-8	Benzo(a)pyrene		84.6	ug/kg	12.6	42.1
193-39-5	Indeno(1,2,3-cd)pyrene		63.5	ug/kg	12.6	42.1
53-70-3	Dibenzo(a,h)anthracene	J	25.3	ug/kg	12.6	42.1
191-24-2	Benzo(ghi)perylene		67.9	ug/kg	12.6	42.1
120-82-1	1,2,4-Trichlorobenzene	U	421	ug/kg	84.3	421

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	375	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031110.b/s7c1106.d  
 Lab Smp Id: 248043001 Client Smp ID: RE36-10-7414  
 Inj Date : 11-MAR-2010 14:39  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043001|959623|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 11-Mar-2010 15:51 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 6  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	21.13440	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.985	3.990	(1.000)	392352	40.0000	
* 29 Naphthalene-d8	136	4.852	4.857	(1.000)	1472442	40.0000	
* 46 Acenaphthene-d10	164	6.109	6.114	(1.000)	823589	40.0000	
* 67 Phenanthrene-d10	188	7.279	7.284	(1.000)	1390543	40.0000	
* 91 Chrysene-d12	240	9.677	9.691	(1.000)	877873	40.0000	
* 98 Perylene-d12	264	11.367	11.386	(1.000)	568708	40.0000	
\$ 3 2-Fluorophenol	112	3.186	3.181	(0.799)	419210	41.1065	1730
\$ 5 Phenol-d5	99	3.701	3.706	(0.929)	541859	42.3782	1780
\$ 20 Nitrobenzene-d5	82	4.346	4.356	(0.896)	222083	19.9974	843
\$ 39 2-Fluorobiphenyl	172	5.594	5.598	(0.916)	432984	21.0952	889
\$ 60 2,4,6-Tribromophenol	329	6.701	6.711	(1.097)	112865	47.4046	2000
\$ 81 p-Terphenyl-d14	244	8.651	8.656	(0.894)	502911	31.9770	1350

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
47 Acenaphthene	154	6.128	6.138	(1.003)	6425	0.35444	14.9(a)
79 Pyrene	202	8.550	8.560	(0.884)	132988	4.79521	202
53 Fluorene	166	6.518	6.528	(1.067)	6899	0.32273	13.6(a)
68 Phenanthrene	178	7.298	7.308	(1.003)	108236	3.79314	160
69 Anthracene	178	7.337	7.351	(1.008)	16974	0.58735	24.8(a)
76 Fluoranthene	202	8.334	8.343	(1.145)	158889	5.12120	216
89 Benzo(a)anthracene	228	9.667	9.677	(0.999)	44852	2.13123	89.8
92 Chrysene	228	9.701	9.715	(1.002)	41552	2.21882	93.5
93 bis(2-Ethylhexyl)phthalate	149	9.600	9.605	(0.992)	91569	5.48201	231(a)
95 Benzo(b)fluoranthene	252	10.847	10.861	(0.954)	59089	3.70488	156
97 Benzo(a)pyrene	252	11.285	11.309	(0.993)	26244	2.00680	84.6
99 Indeno(1,2,3-cd)pyrene	276	13.130	13.168	(1.155)	14178	1.50766	63.5
100 Dibenzo(a,h)anthracene	278	13.139	13.182	(1.156)	4479	0.60102	25.3(a)
101 Benzo(ghi)perylene	276	13.674	13.712	(1.203)	12633	1.61082	67.9

#### QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).



## ION RATIO REPORT

## SV REPORT

Data file: s7c1106.d

Report Date: 03/11/2010 16:03

Lab. ID: 248043001

SampleType: SAMPLE

Injection Date: 11-MAR-2010 14:39

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043001|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	29992	3.70	3.72	80-120	100	( )
93	657	3.78	3.72	0- 35	2	(T)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	32456	4.35	4.24	80-120	100	(T)
42	24204	4.35	4.24	61-121	75	(T)
-----						
43 Dimethylphthalate		CAS#: 131-11-3				
163	147880	6.11	5.87	80-120	100	(T)
164	823589	6.11	5.87	0- 40	557	(QT)
-----						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	108027	6.10	5.93	80-120	100	(T)
63	1412	6.11	5.93	52-112	1	(QT)
-----						
47 Acenaphthene		CAS#: 83-32-9				
154	6425	6.13	6.14	80-120	100	( )
153	6536	6.13	6.14	71-131	102	( )
152	2576	6.13	6.14	17- 77	40	( )
-----						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	108027	6.10	6.23	80-120	100	(T)
89	1468	6.10	6.23	37- 97	1	(QT)
63	1412	6.11	6.23	17- 77	1	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
53 Fluorene		CAS#: 86-73-7				
166	6899	6.52	6.53	80-120	100	( )
165	6533	6.52	6.53	61-121	95	( )
167	1506	6.51	6.53	0- 44	22	( )
-----						
55 2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1				
198	293	6.70	6.54	80-120	100	(T)
105	935	6.70	6.54	10- 70	318	(QT)
51	1407	6.70	6.54	54-114	479	(QT)
-----						
68 Phenanthrene		CAS#: 85-01-8				
178	108236	7.30	7.31	80-120	100	( )
179	17146	7.30	7.31	0- 46	16	( )
176	19404	7.30	7.31	0- 49	18	( )
-----						
69 Anthracene		CAS#: 120-12-7				
178	16974	7.34	7.35	80-120	100	( )
179	3806	7.34	7.35	0- 46	22	( )
176	2867	7.34	7.35	0- 48	17	( )
-----						
76 Fluoranthene		CAS#: 206-44-0				
202	158889	8.33	8.34	80-120	100	( )
203	27174	8.33	8.34	0- 48	17	( )
101	17635	8.33	8.34	0- 41	11	( )
-----						
79 Pyrene		CAS#: 129-00-0				
202	132988	8.55	8.56	80-120	100	( )
200	26270	8.55	8.56	0- 50	20	( )
101	18100	8.55	8.56	0- 44	14	( )
-----						
89 Benzo(a)anthracene		CAS#: 56-55-3				
228	44852	9.67	9.68	80-120	100	( )
226	10783	9.67	9.68	0- 56	24	( )
229	12425	9.67	9.68	0- 50	28	( )
-----						
92 Chrysene		CAS#: 218-01-9				
228	41552	9.70	9.72	80-120	100	( )
229	9538	9.70	9.72	0- 50	23	( )
226	13227	9.70	9.72	0- 59	32	( )
-----						
93 bis(2-Ethylhexyl)phthalate		CAS#: 117-81-7				
149	91569	9.60	9.60	80-120	100	( )
167	26582	9.60	9.60	2- 62	29	( )
-----						
95 Benzo(b)fluoranthene		CAS#: 205-99-2				
252	59089	10.85	10.86	80-120	100	( )
253	14193	10.85	10.86	0- 52	24	( )
125	7712	10.85	10.86	0- 41	13	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	59089	10.85	10.90	80-120	100	( )
253	14193	10.85	10.90	0- 52	24	( )
125	7712	10.85	10.90	0- 42	13	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	26244	11.29	11.31	80-120	100	( )
253	6469	11.29	11.31	0- 52	25	( )
125	3885	11.29	11.31	0- 42	15	( )
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	14178	13.13	13.17	80-120	100	( )
138	4099	13.13	13.17	2- 62	29	( )
-----						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	4479	13.14	13.18	80-120	100	( )
139	766	13.13	13.18	0- 50	17	( )
-----						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	12633	13.67	13.71	80-120	100	( )
138	3910	13.67	13.71	0- 58	31	( )

Q qualifier indicates ion failed ratio requirement

Data File: /chem/MSD7.i/s031110.b/s7c1106.d  
Report Date: 11-Mar-2010 16:21

Page 1

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031110.b/s7c1106.d  
Lab Smp Id: 248043001 Client Smp ID: RE36-10-7414  
Inj Date : 11-MAR-2010 14:39  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043001|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 11-Mar-2010 15:51 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 6  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	21.13440	% moisture

Cpnd Variable

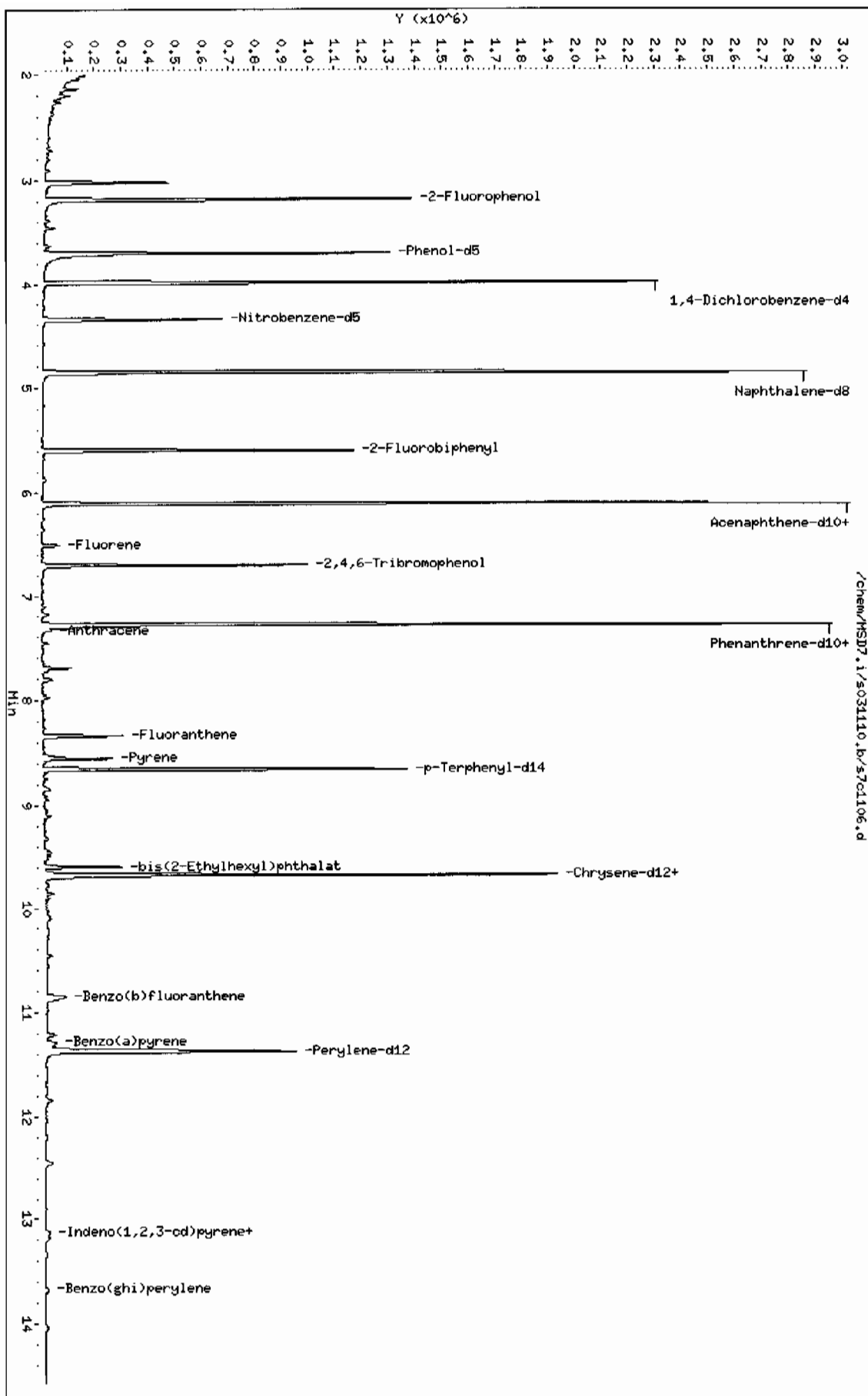
Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.985	2425704	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate							
3.022	539602	8.89806078	375	0		0	10

Data File: /chem/HSD7.1/s031110.b/s7c1106.d  
 Date: 11-MAR-2010 14:39  
 Client ID: RE36-10-7414  
 Sample Info: 1248043001/95962311/SWH11/LANL  
 Volume Injected (uL): 0.5  
 Column phase: 36M DB-5MS

Instrument: HSD7.1  
 Operator: JHB3  
 Column diameter: 0.20



Date : 11-MAR-2010 14:39

Client ID: RE36-10-7414

Instrument: MSD7.i

Sample Info: 1248043001195962311SVMI11LANL

Volume Injected (uL): 0.5

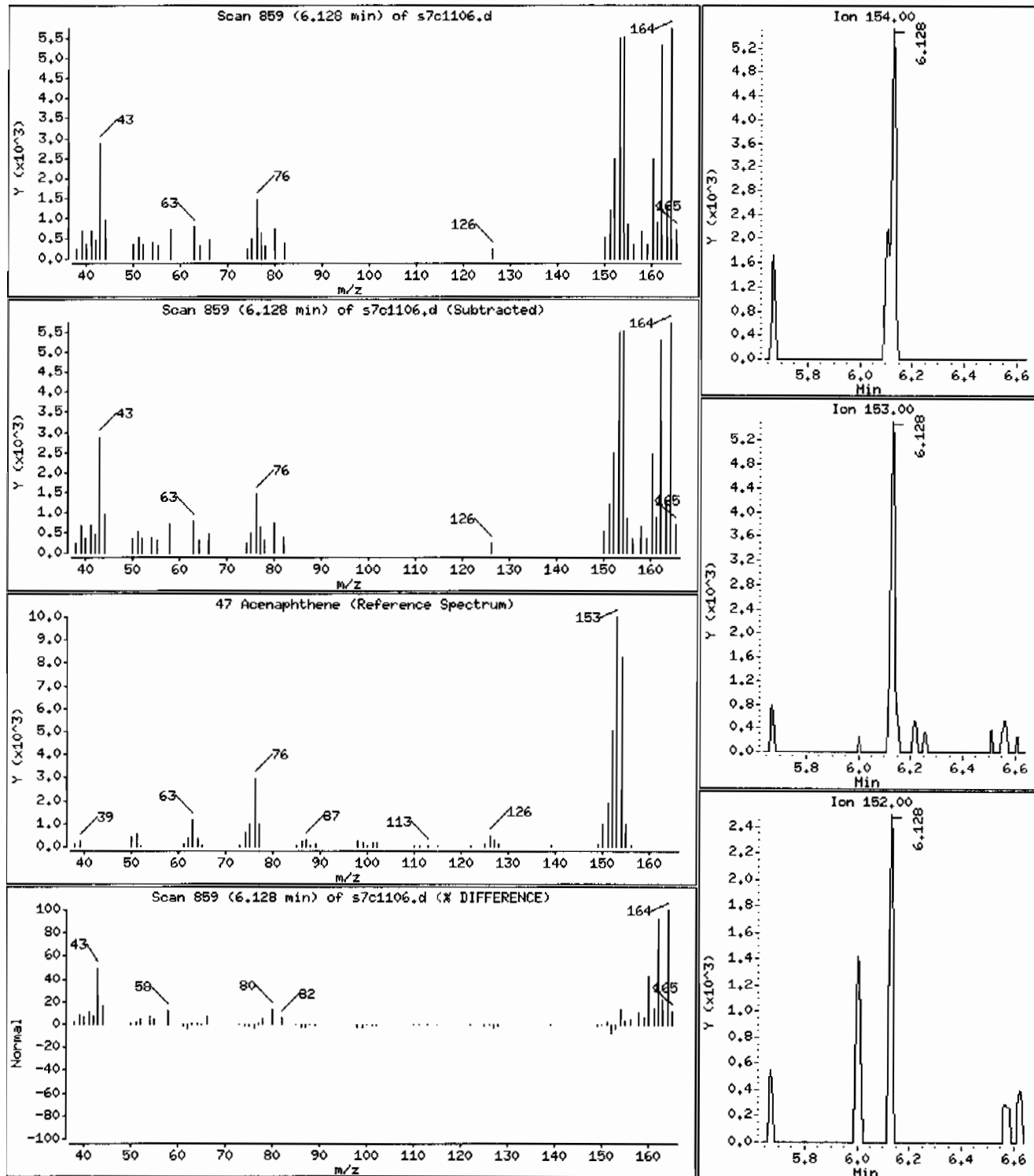
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 14.9 ug/Kg



Date : 11-MAR-2010 14:39

Client ID: RE36-10-7414

Instrument: MSD7.i

Sample Info: I248043001I9596231IISVHI1ILANL

Volume Injected (uL): 0.5

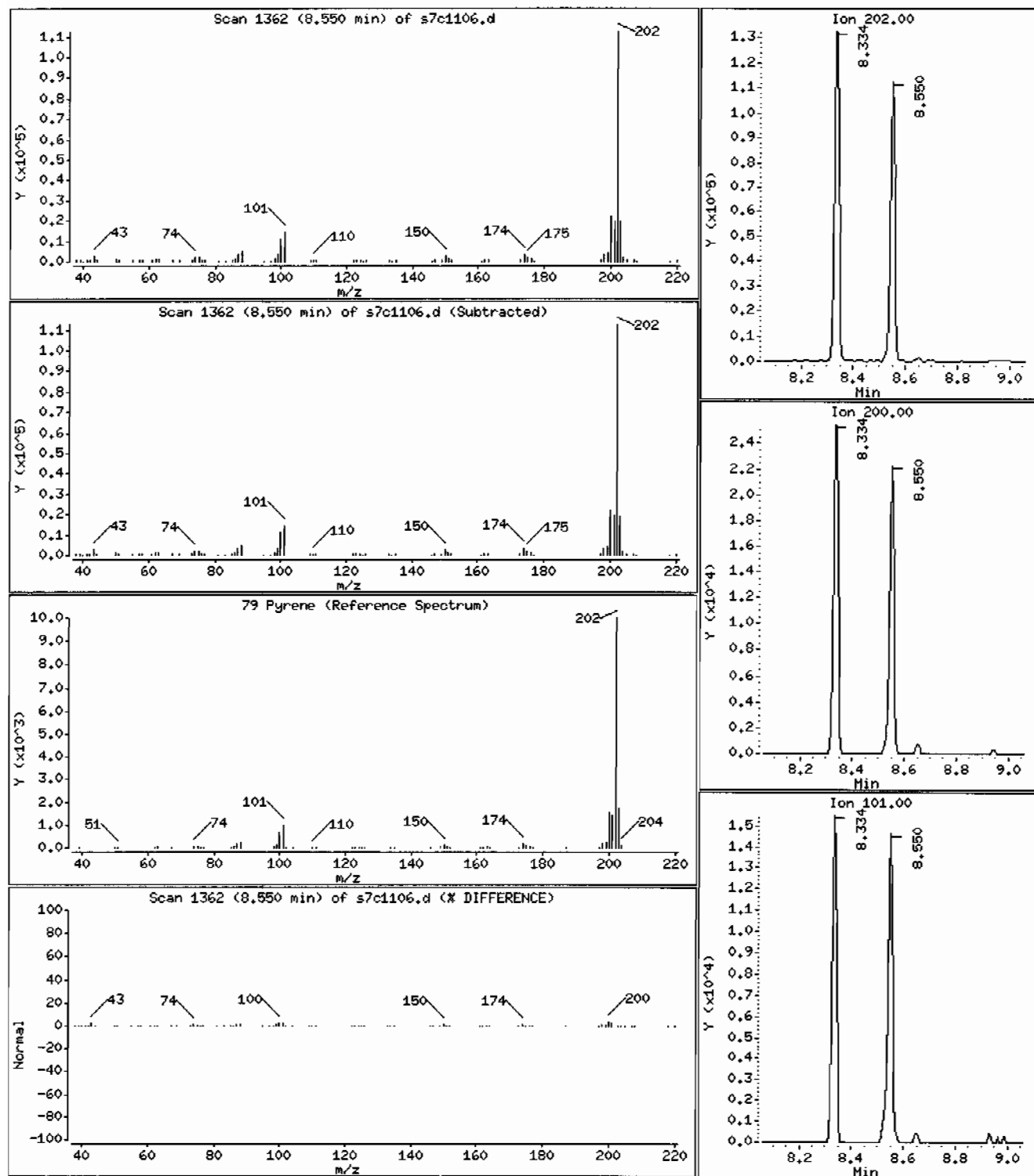
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 202 ug/Kg



Date : 11-MAR-2010 14:39

Client ID: RE36-10-7414

Instrument: MSD7.i

Sample Info: 12480430011959623111SVH111LANL

Volume Injected (uL): 0.5

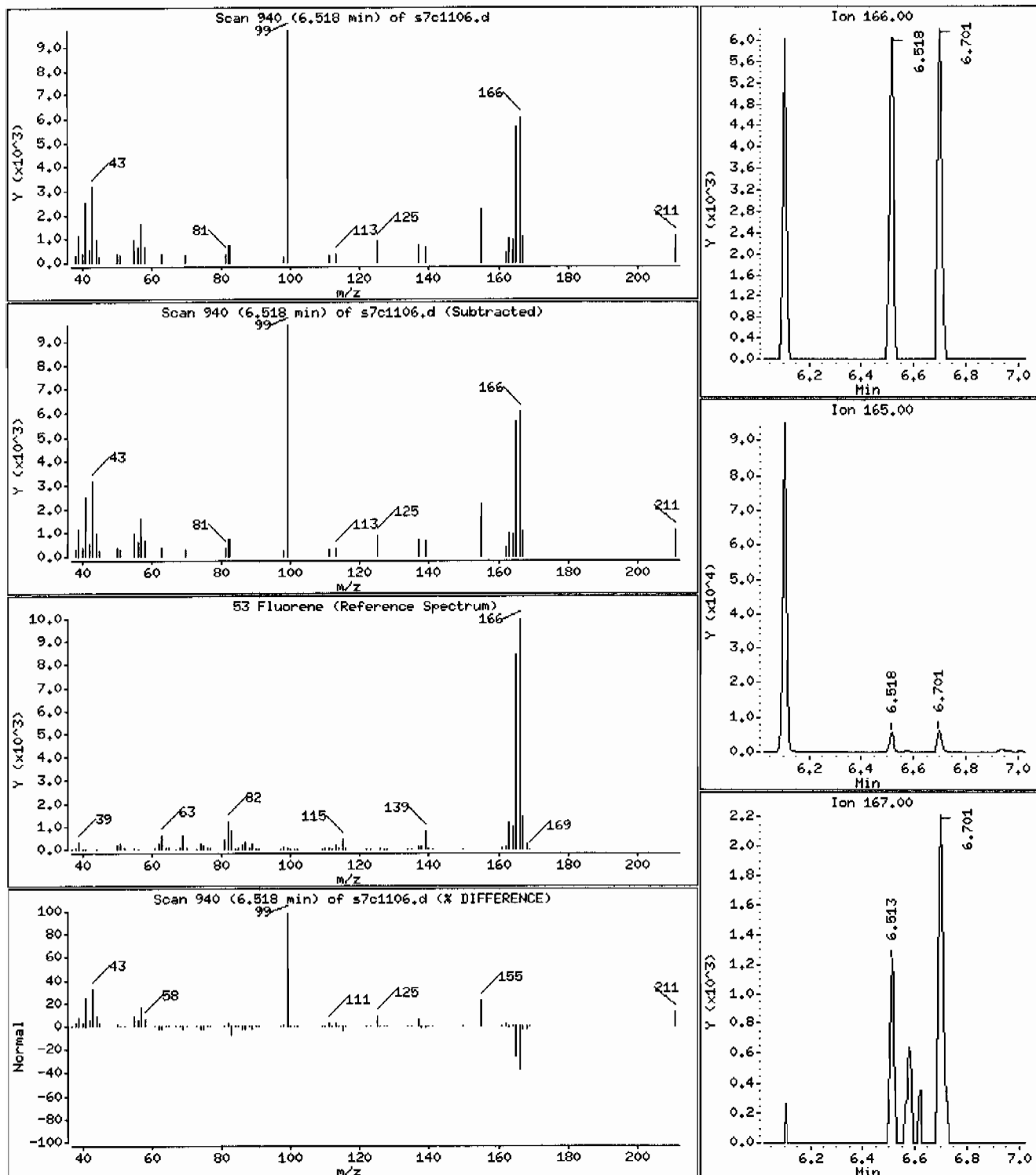
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 13,6 ug/Kg





Date : 11-MAR-2010 14:39

Client ID: RE36-10-7414

Instrument: MSD7.i

Sample Info: 12480430011959623111SVMI11LANL

Volume Injected (uL): 0.5

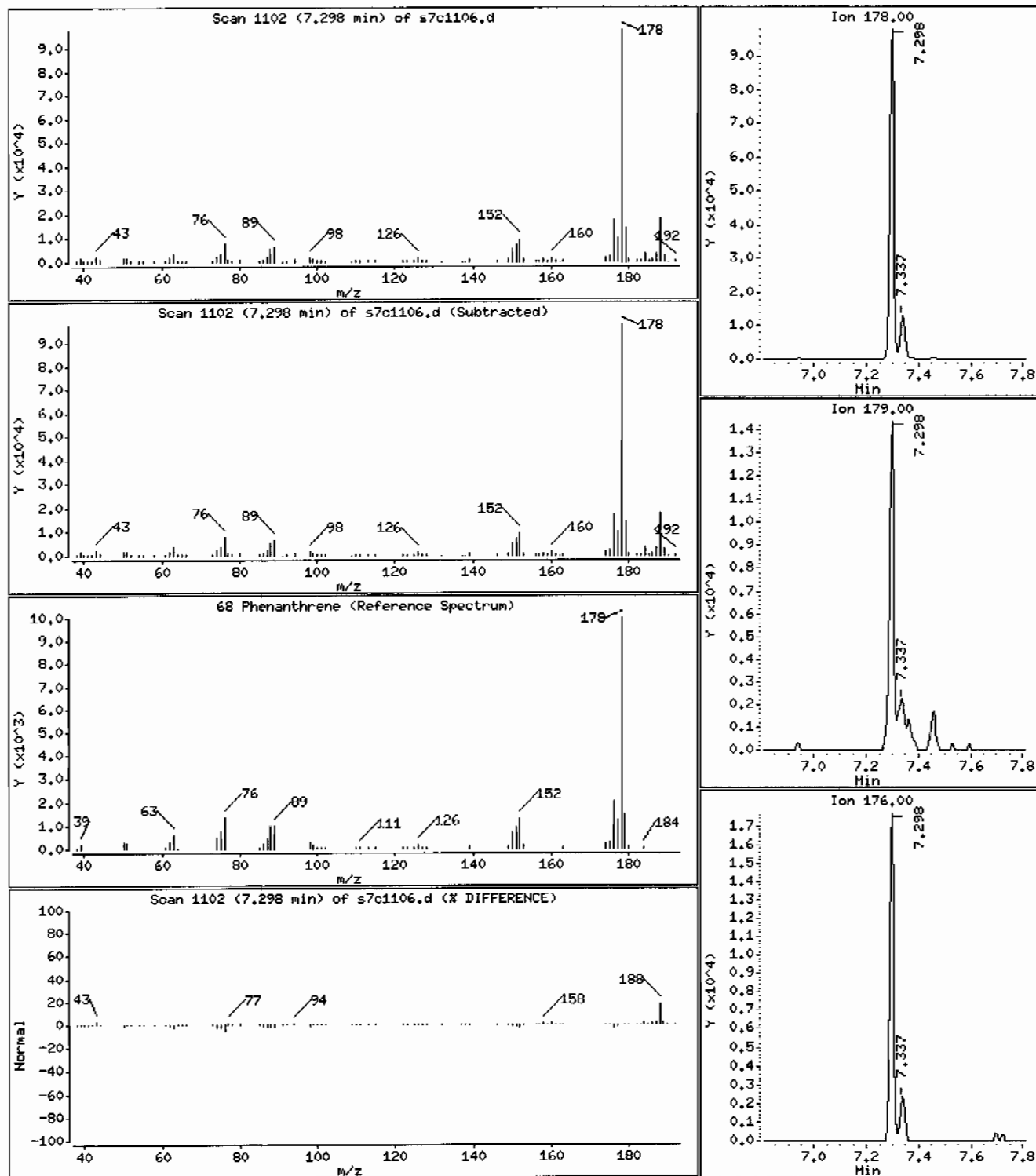
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 160 ug/Kg



Date : 11-MAR-2010 14:39

Client ID: RE36-10-7414

Instrument: MSD7.i

Sample Info: I248043001I9596231IISVHI1ILANL

Volume Injected (uL): 0.5

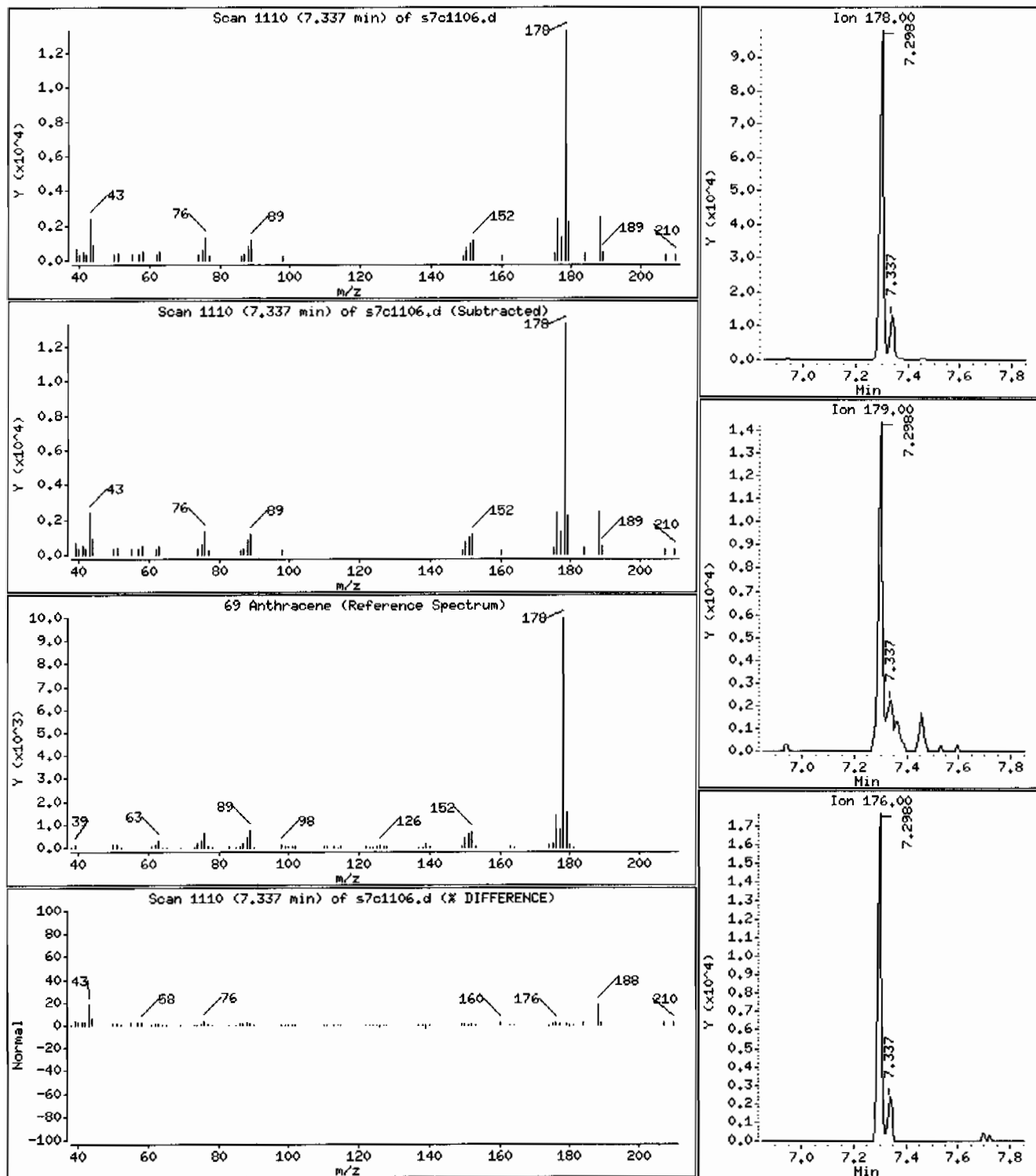
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 24,8 ug/Kg



Date : 11-MAR-2010 14:39

Client ID: RE36-10-7414

Instrument: MSD7.1

Sample Info: 124804300195962311SVH111LANL

Volume Injected (uL): 0.5

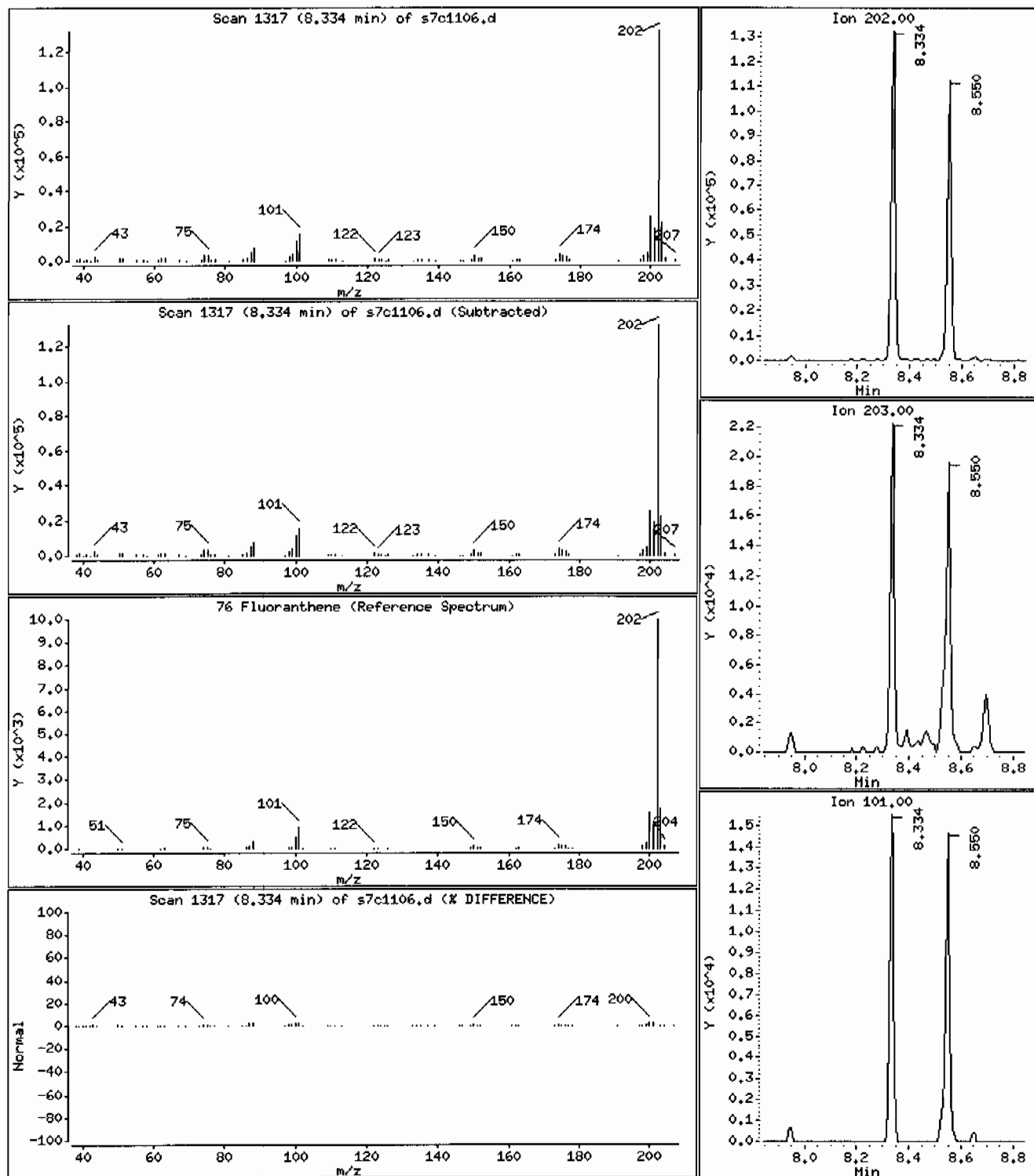
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 216 ug/Kg



Date : 11-MAR-2010 14:39

Client ID: RE36-10-7414

Instrument: MSD7.i

Sample Info: 1248043001195962311ISVH11ILANL

Volume Injected (uL): 0.5

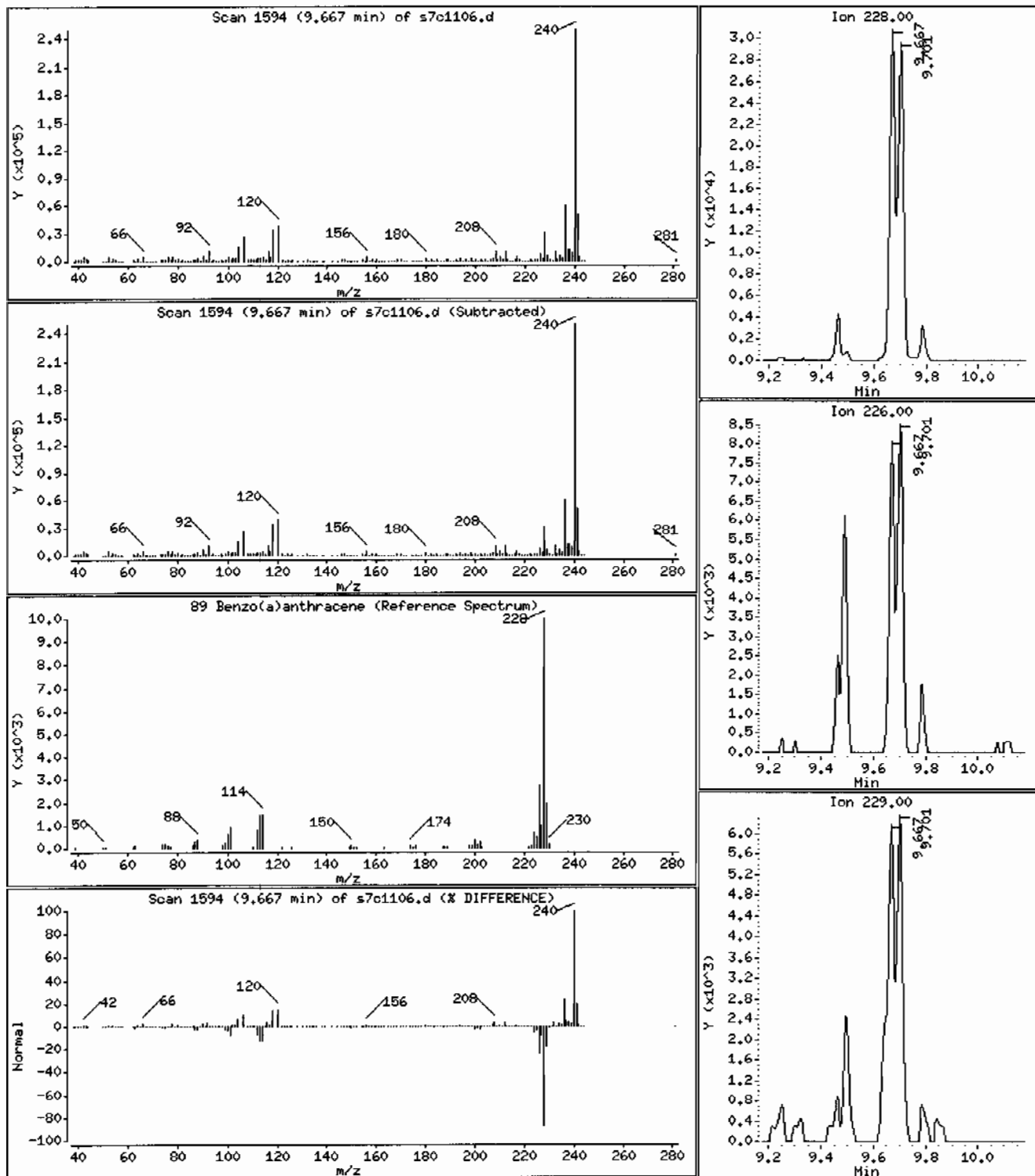
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 89.8 ug/Kg



Date : 11-MAR-2010 14:39

Client ID: RE36-10-7414

Instrument: MSD7.i

Sample Info: 124804300195962311SVH111LANL

Volume Injected (uL): 0.5

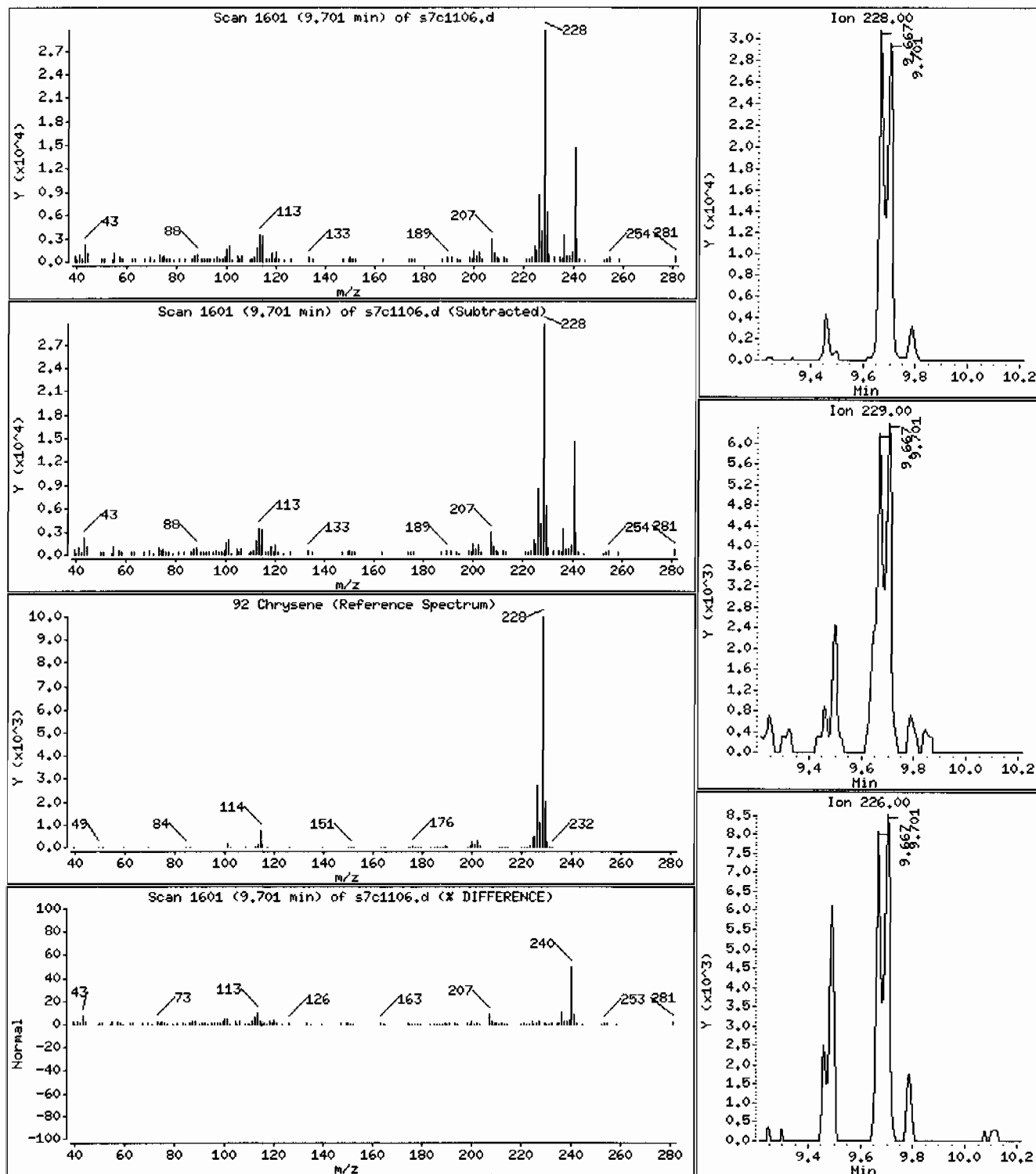
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 93,5 ug/Kg



Date : 11-MAR-2010 14:39

Client ID: RE36-10-7414

Instrument: HSD7.i

Sample Info: 1248043001195962311SVMI1ILANL

Volume Injected (uL): 0.5

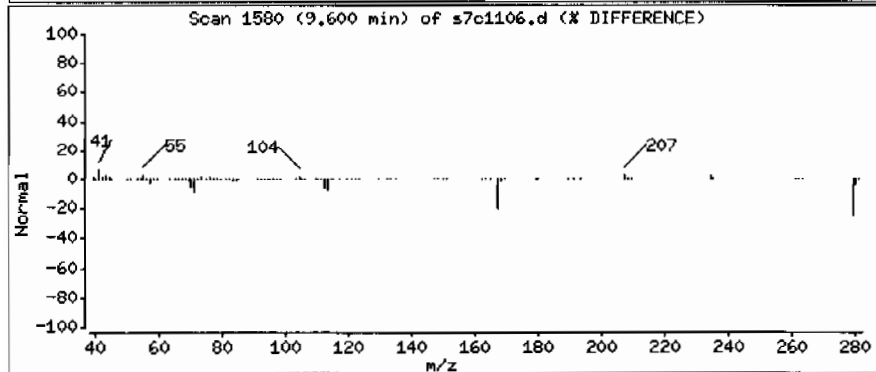
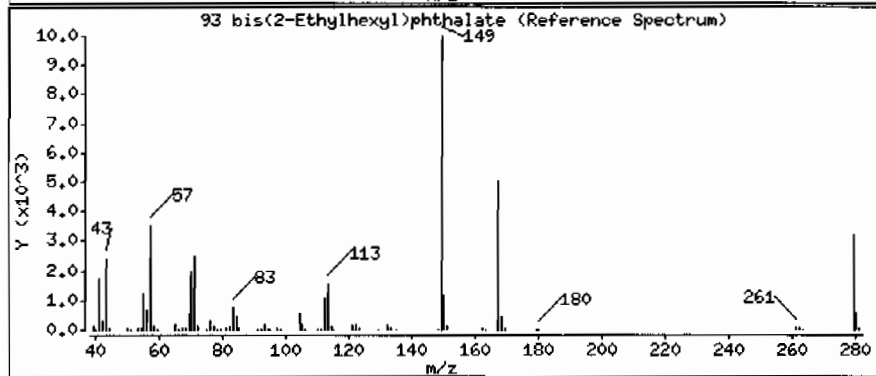
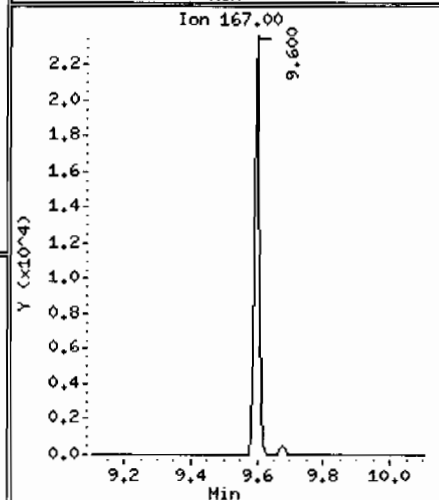
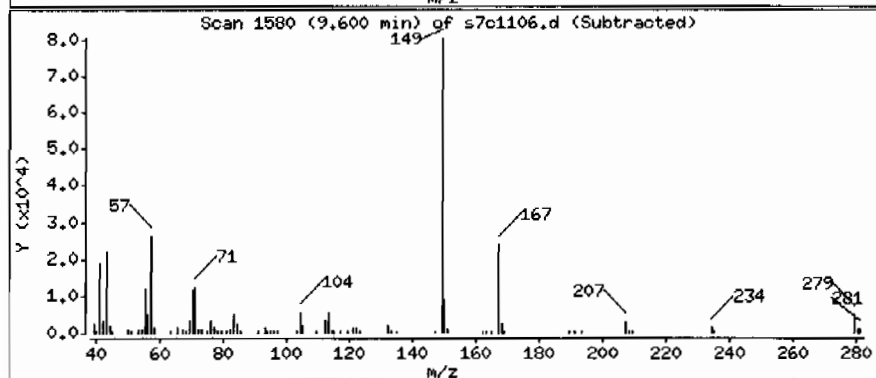
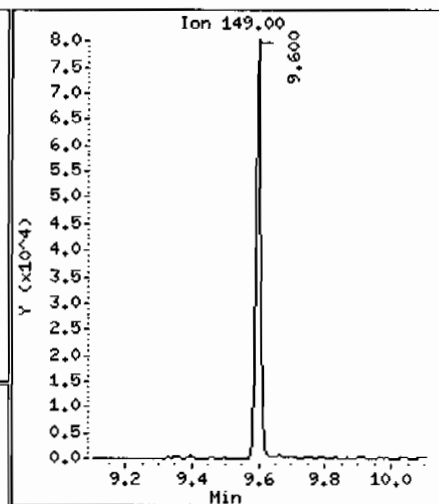
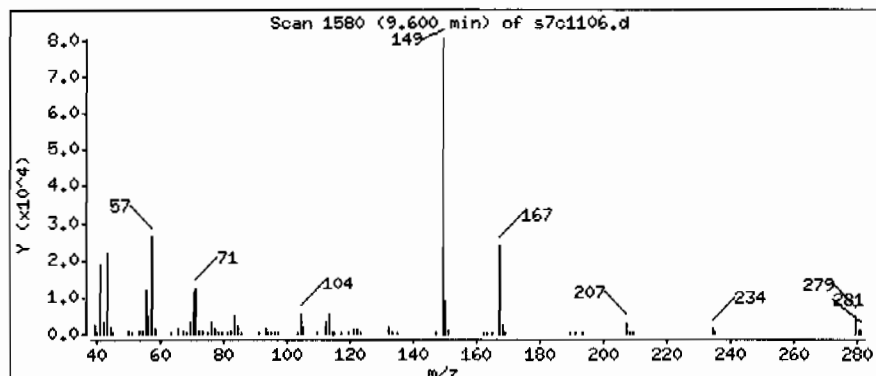
Operator: JMB3

Column phase: J&amp;W DB-5HS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 231 ug/Kg



Date : 11-MAR-2010 14:39

Client ID: RE36-10-7414

Instrument: MSD7.i

Sample Info: 1248043001195962311SVHI11LANL

Volume Injected (UL): 0,5

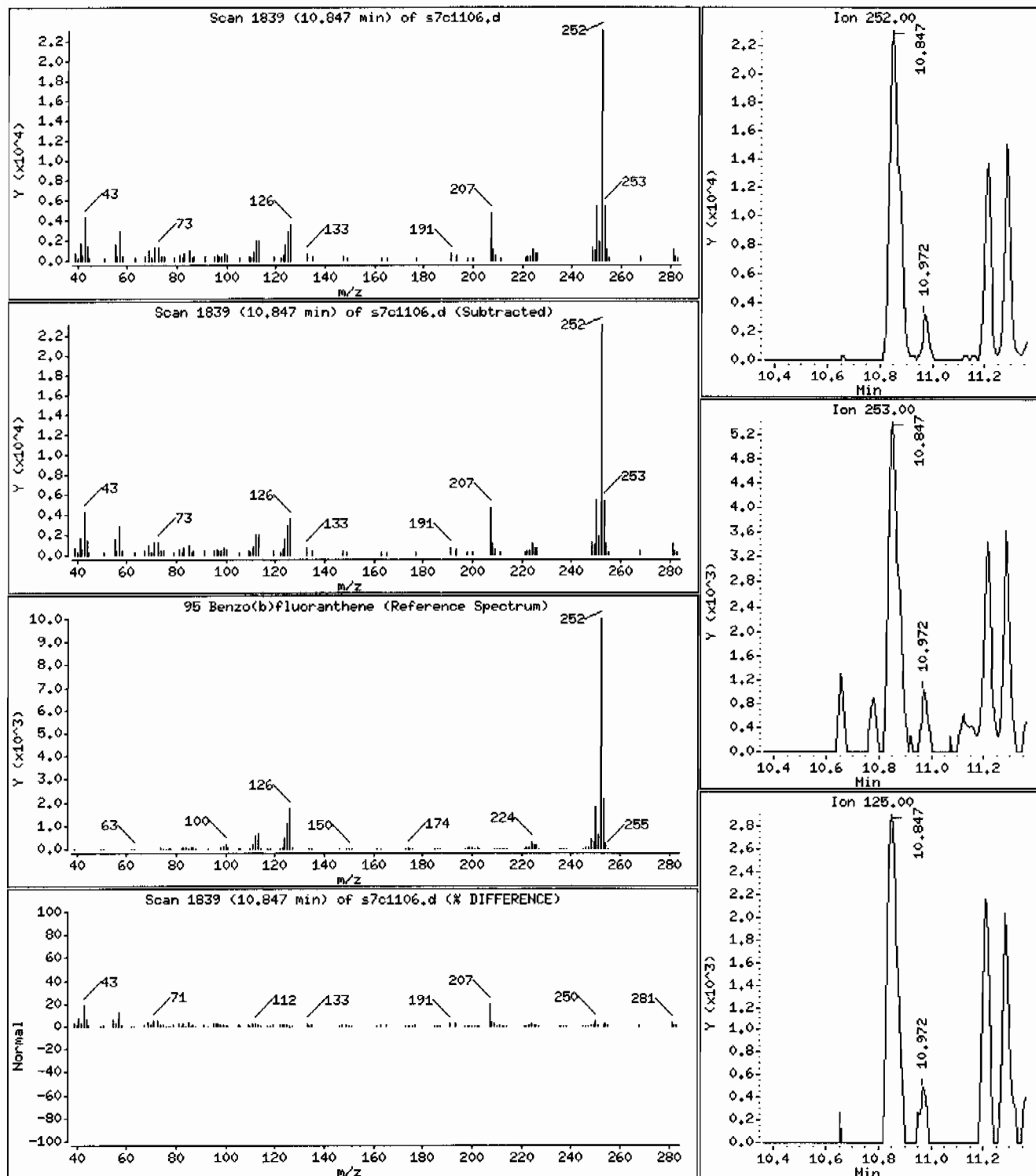
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

95 Benzo(b)fluoranthene

Concentration: 156 ug/Kg



Date : 11-MAR-2010 14:39

Client ID: RE36-10-7414

Instrument: MSD7.i

Sample Info: 1248043001195962311ISVH11ILANL

Volume Injected (uL): 0.5

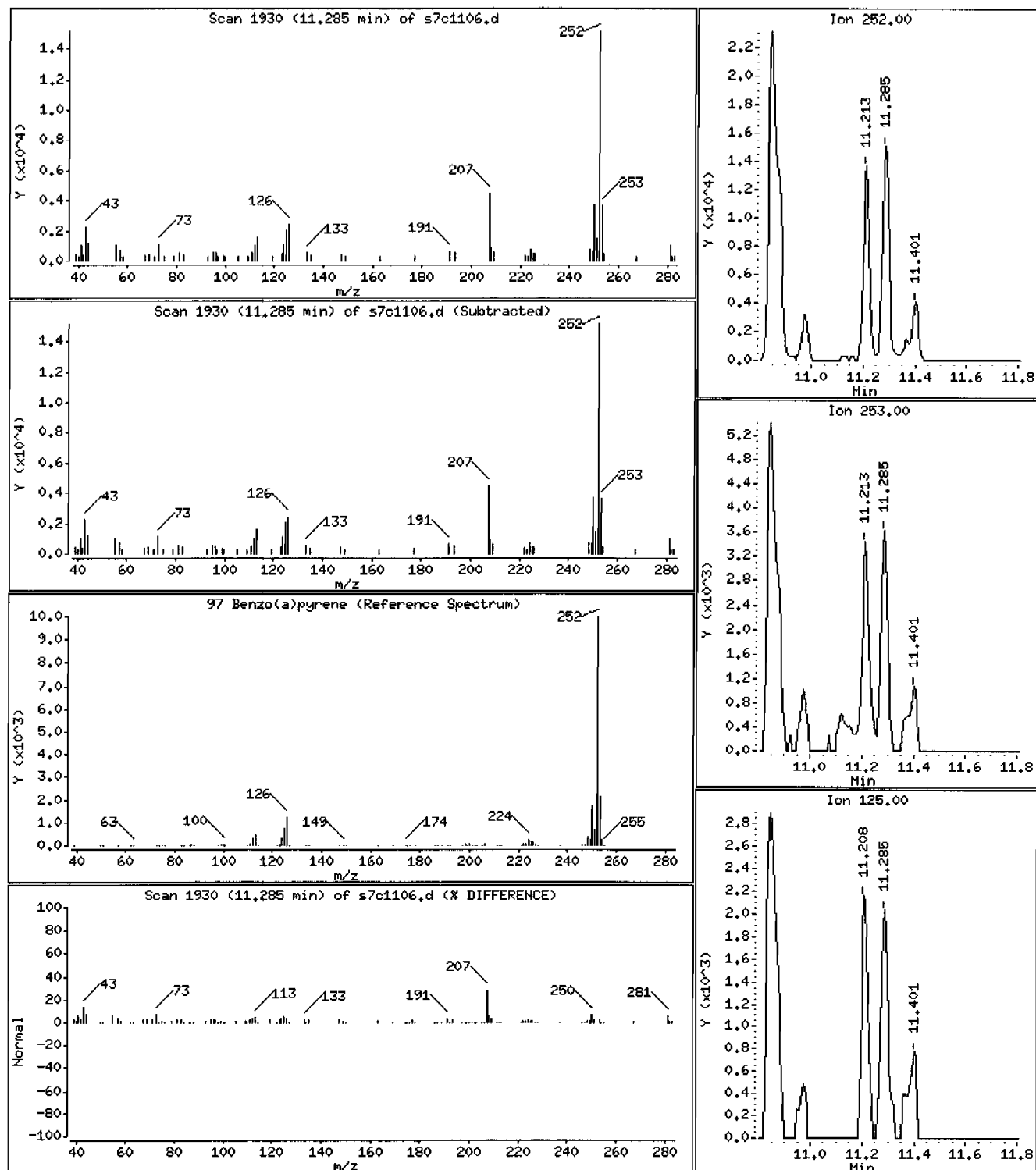
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 84,6 ug/Kg





Date : 11-MAR-2010 14:39

Client ID: RE36-10-7414

Instrument: MSD7.i

Sample Info: 1248043001195962311SVMI11LANL

Volume Injected (uL): 0.5

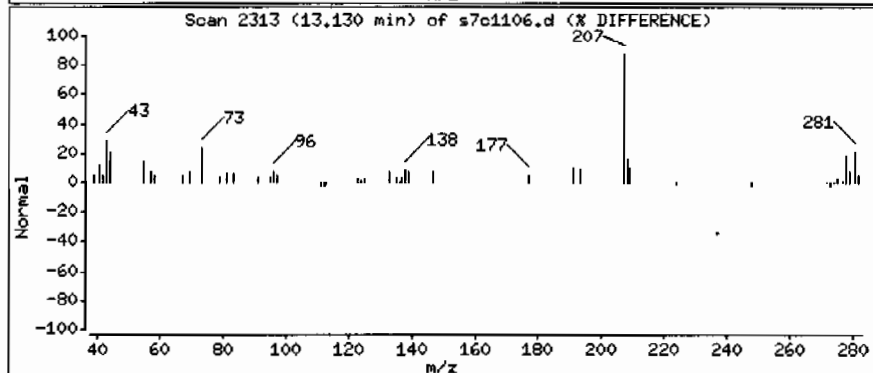
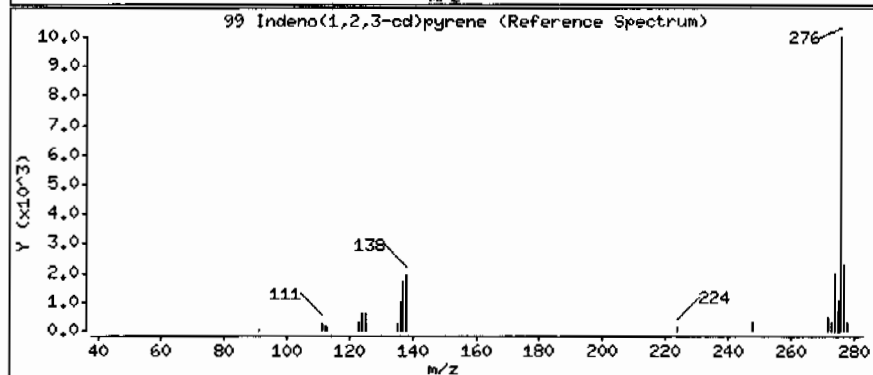
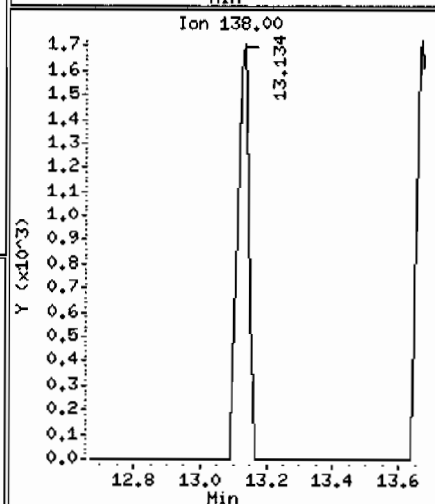
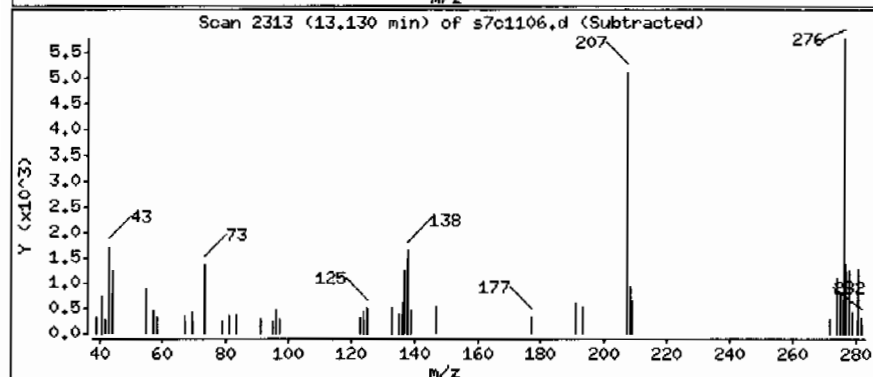
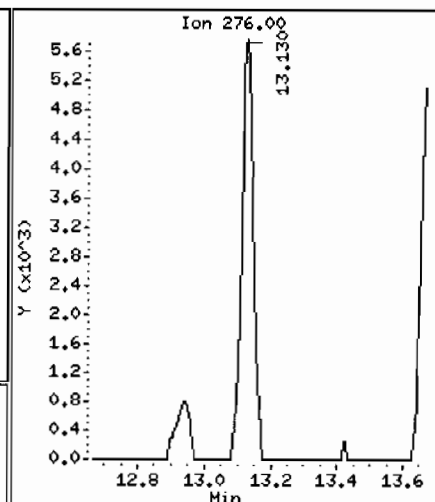
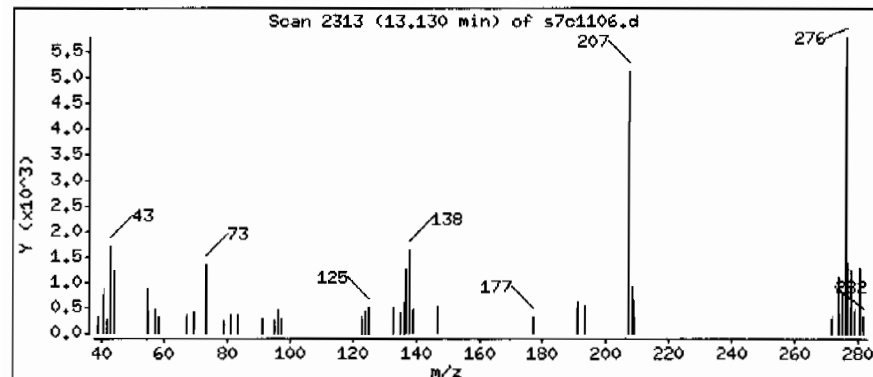
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 63,5 ug/Kg



Date : 11-MAR-2010 14:39

Client ID: RE36-10-7414

Instrument: MSD7.i

Sample Info: 1248043001195962311SVH111LANL

Volume Injected (uL): 0.5

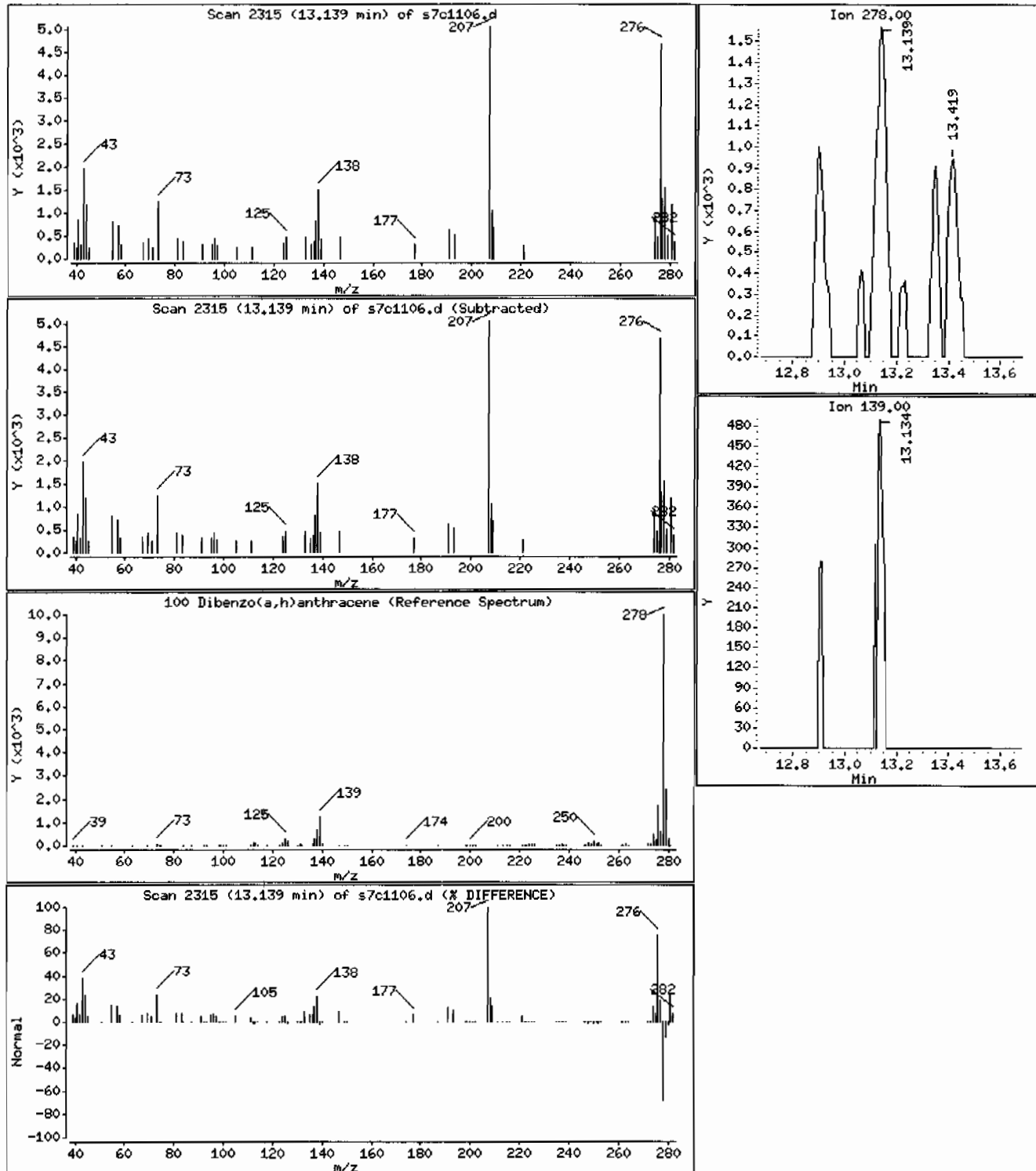
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 25.3 ug/Kg



Date : 11-MAR-2010 14:39

Client ID: RE36-10-7414

Instrument: MSD7.i

Sample Info: 124804300195962311SVH11ILANL

Volume Injected (uL): 0.5

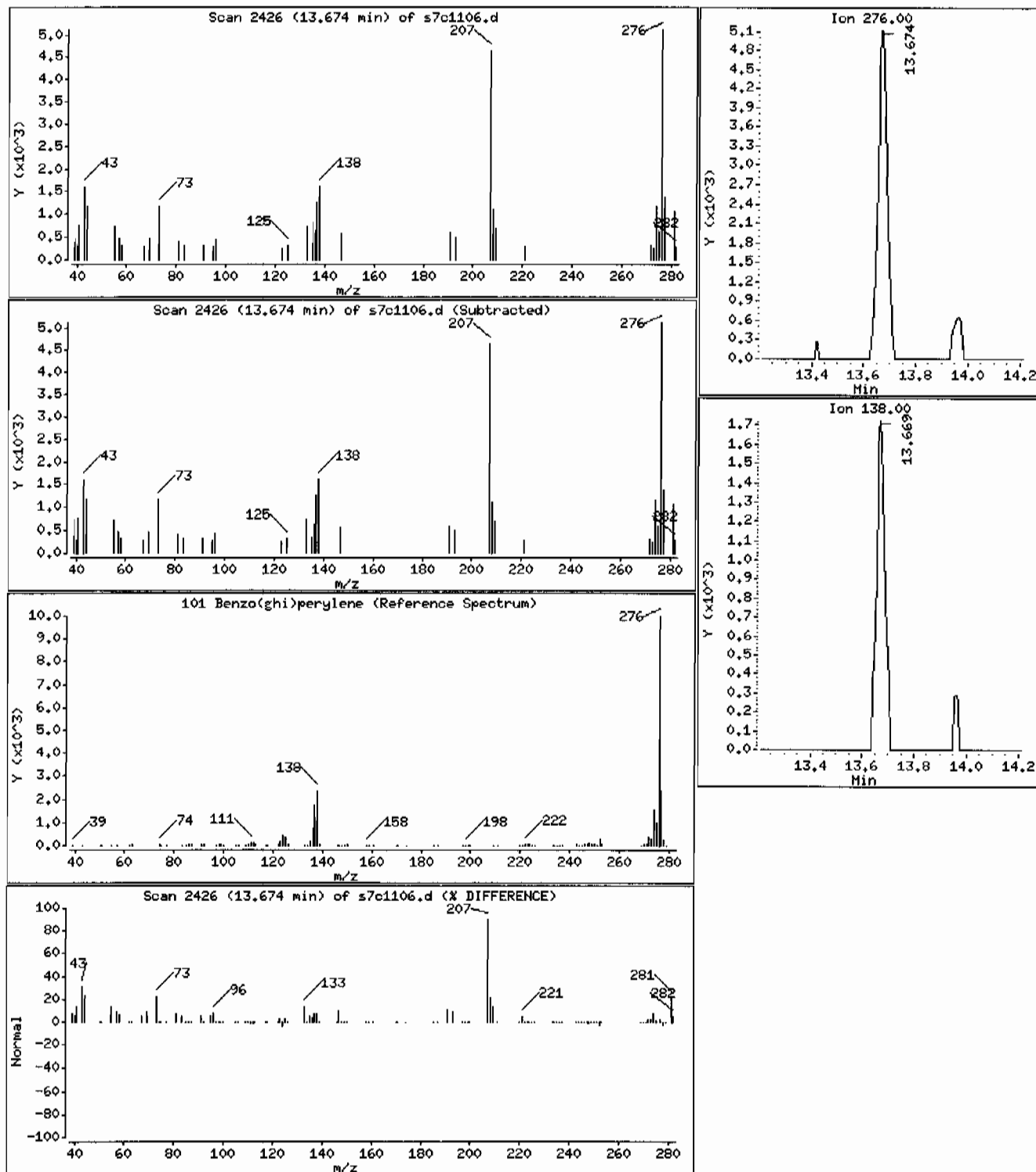
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 67.9 ug/Kg



Date : 11-MAR-2010 14:39

Client ID: RE36-10-7414

Instrument: MSD7.i

Sample Info: I248043001195962311ISVH11ILANL

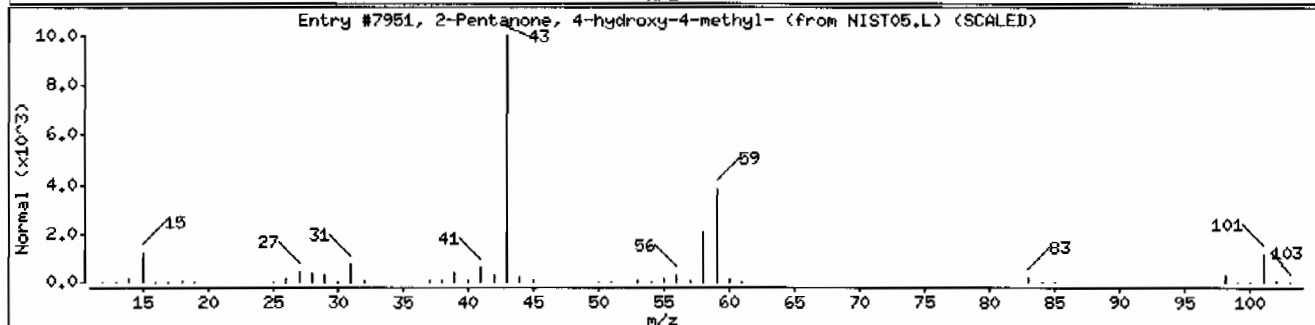
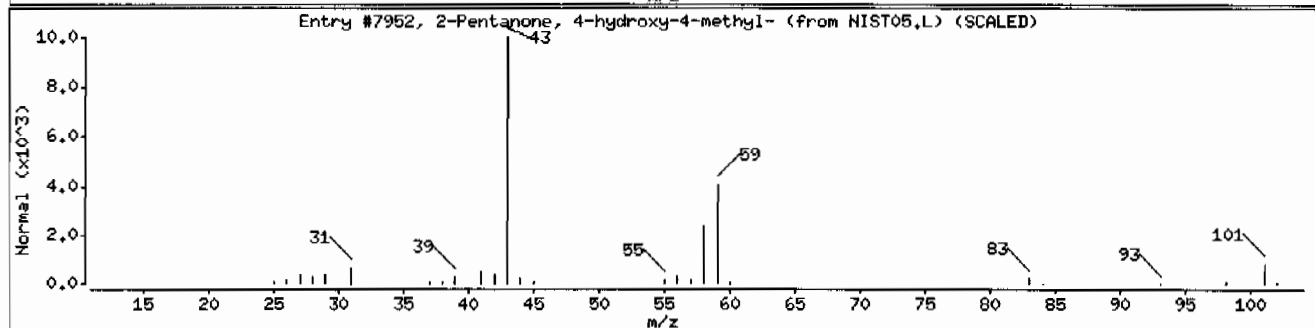
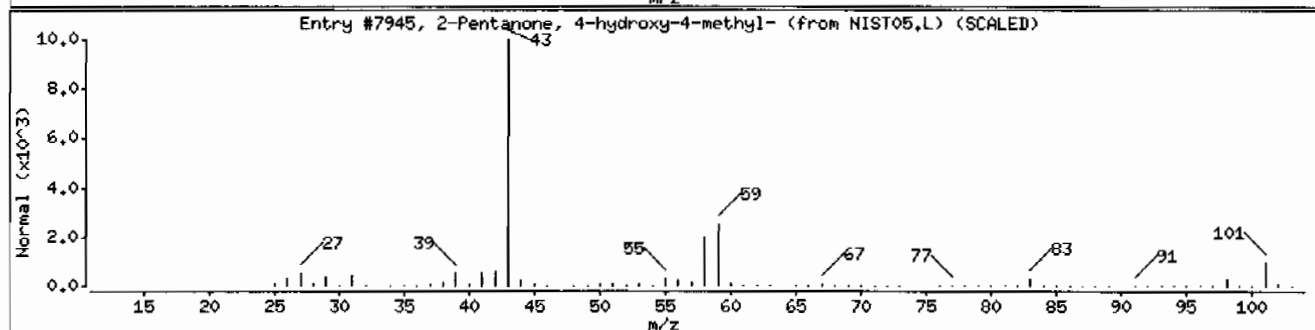
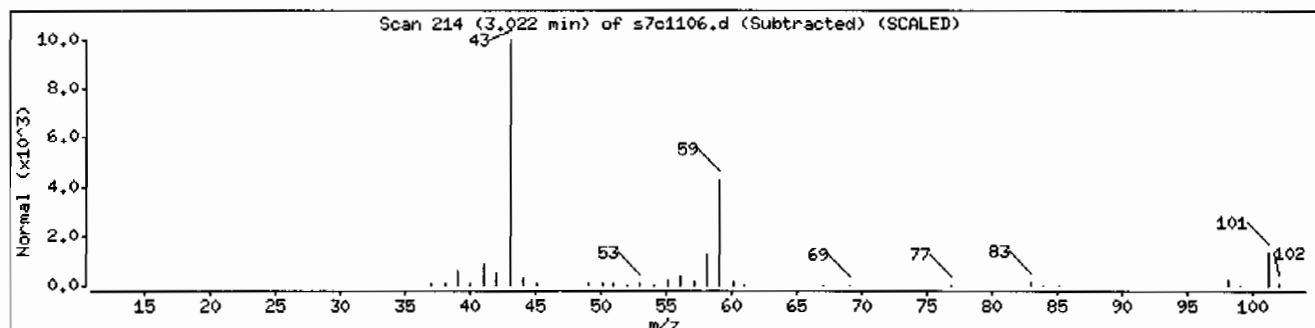
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043014	Date Received: 02/25/2010 08:45	%Moisture: 12.7
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7461	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 21:28	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1125.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	381	ug/kg	76.2	381
108-95-2	Phenol	U	381	ug/kg	76.2	381
95-57-8	2-Chlorophenol	U	381	ug/kg	76.2	381
106-46-7	1,4-Dichlorobenzene	U	381	ug/kg	76.2	381
621-64-7	N-Nitrosodipropylamine	U	381	ug/kg	76.2	381
59-50-7	4-Chloro-3-methylphenol	U	381	ug/kg	76.2	381
83-32-9	Acenaphthene	J	32.9	ug/kg	12.6	38.1
121-14-2	2,4-Dinitrotoluene	U	381	ug/kg	38.1	381
100-02-7	4-Nitrophenol	U	381	ug/kg	126	381
87-86-5	Pentachlorophenol	U	381	ug/kg	95.2	381
129-00-0	Pyrene		510	ug/kg	11.4	38.1
110-86-1	Pyridine	U	381	ug/kg	76.2	381
62-53-3	Aniline	U	381	ug/kg	114	381
111-44-4	bis(2-Chloroethyl) ether	U	381	ug/kg	76.2	381
541-73-1	1,3-Dichlorobenzene	U	381	ug/kg	76.2	381
100-51-6	Benzyl alcohol	U	381	ug/kg	114	381
95-50-1	1,2-Dichlorobenzene	U	381	ug/kg	76.2	381
108-60-1	bis(2-Chloroisopropyl)ether	U	381	ug/kg	76.2	381
95-48-7	o-Cresol	U	381	ug/kg	76.2	381
65794-96-9	m,p-Cresols	U	381	ug/kg	114	381
67-72-1	Hexachloroethane	U	381	ug/kg	76.2	381
98-95-3	Nitrobenzene	U	381	ug/kg	76.2	381
78-59-1	Isophorone	U	381	ug/kg	76.2	381
88-75-5	2-Nitrophenol	U	381	ug/kg	76.2	381
105-67-9	2,4-Dimethylphenol	U	381	ug/kg	133	381
111-91-1	bis(2-Chloroethoxy)methane	U	381	ug/kg	76.2	381
120-83-2	2,4-Dichlorophenol	U	381	ug/kg	76.2	381
65-85-0	Benzoic acid	U	762	ug/kg	190	762
91-20-3	Naphthalene	U	38.1	ug/kg	11.4	38.1
106-47-8	4-Chloroaniline	U	381	ug/kg	76.2	381
87-68-3	Hexachlorobutadiene	U	381	ug/kg	76.2	381
91-57-6	2-Methylnaphthalene	U	38.1	ug/kg	7.62	38.1
77-47-4	Hexachlorocyclopentadiene	U	381	ug/kg	76.2	381
88-06-2	2,4,6-Trichlorophenol	U	381	ug/kg	76.2	381
95-95-4	2,4,5-Trichlorophenol	U	381	ug/kg	76.2	381
91-58-7	2-Chloronaphthalene	U	38.1	ug/kg	12.6	38.1
88-74-4	2-Nitroaniline	U	381	ug/kg	76.2	381
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	381	ug/kg	76.2	381

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043014

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANI.010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.7  
Project: LANI.01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	381	ug/kg	76.2	381
606-20-2	2,6-Dinitrotoluene	U	381	ug/kg	38.1	381
208-96-8	Acenaphthylene	U	38.1	ug/kg	11.4	38.1
51-28-5	2,4-Dinitrophenol	U	762	ug/kg	145	762
132-64-9	Dibenzofuran	U	381	ug/kg	76.2	381
84-66-2	Diethylphthalate	U	381	ug/kg	76.2	381
86-73-7	Fluorene	J	29.7	ug/kg	11.4	38.1
7005-72-3	4-Chlorophenylphenylether	U	381	ug/kg	76.2	381
534-52-1	2-Methyl-4,6-dinitrophenol	U	381	ug/kg	76.2	381
100-01-6	4-Nitroaniline	U	381	ug/kg	114	381
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	381	ug/kg	76.2	381
122-66-7	Azobenzene	U	381	ug/kg	76.2	381
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	381	ug/kg	76.2	381
118-74-1	Hexachlorobenzene	U	381	ug/kg	76.2	381
85-01-8	Phenanthrene		410	ug/kg	11.4	38.1
120-12-7	Anthracene		64.7	ug/kg	7.62	38.1
84-74-2	Di-n-butylphthalate	U	381	ug/kg	76.2	381
206-44-0	Fluoranthene		539	ug/kg	11.4	38.1
85-68-7	Butylbenzylphthalate	U	381	ug/kg	76.2	381
56-55-3	Benzo(a)anthracene		242	ug/kg	11.4	38.1
91-94-1	3,3'-Dichlorobenzidine	U	381	ug/kg	114	381
218-01-9	Chrysene		264	ug/kg	11.4	38.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	381	ug/kg	76.2	381
117-84-0	Di-n-octylphthalate	U	381	ug/kg	76.2	381
205-99-2	Benzo(b)fluoranthene		413	ug/kg	11.4	38.1
207-08-9	Benzo(k)fluoranthene	U	38.1	ug/kg	11.4	38.1
50-32-8	Benzo(a)pyrene		219	ug/kg	11.4	38.1
193-39-5	Indeno(1,2,3-cd)pyrene		164	ug/kg	11.4	38.1
53-70-3	Dibenzo(a,h)anthracene		65.1	ug/kg	11.4	38.1
191-24-2	Benzo(ghi)perylene		178	ug/kg	11.4	38.1
120-82-1	1,2,4-Trichlorobenzene	U	381	ug/kg	76.2	381

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.35	246	ug/kg		J
	Unknown Aldol Condensate	3.02	382	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043014	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 12.7
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7461	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 959623	<b>Inst:</b> MSD7J	<b>Dilution:</b> 1
<b>Run Date:</b> 03/11/2010 21:28	<b>Analyst:</b> JMB3	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/02/2010 11:17	<b>Aliquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s7c1125.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
---------	----------	-----------	--------	-------	---------	---------

Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
644-30-4	Benzene, 1-(1,5-dimethyl-4-hexenyl)-4-me	5.99	340	ug/kg	97	NJ
	Unknown	10.72	367	ug/kg		J
	Unknown	11.21	223	ug/kg		J
198-55-0	Perylene	11.24	160	ug/kg	98	NJ
	Unknown	11.65	430	ug/kg		J
112-95-8	Eicosane	11.86	809	ug/kg	98	NJ

Data File: /chem/MSD7.i/s031110.b/s7c1125.d  
Report Date: 12-Mar-2010 10:09

Page 1

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Data file : /chem/MSD7.i/s031110.b/s7c1125.d  
Lab Smp Id: 248043014 Client Smp ID: RE36-10-7461  
Inj Date : 11-MAR-2010 21:28  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043014|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 25  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	12.71990	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG			RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT REL RT		ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.995	3.990 (1.000)	377025	40.0000	
* 29 Naphthalene-d8	136	4.862	4.857 (1.000)	1437404	40.0000	
* 46 Acenaphthene-d10	164	6.114	6.114 (1.000)	799731	40.0000	
* 67 Phenanthrene-d10	188	7.288	7.284 (1.000)	1415646	40.0000	
* 91 Chrysene-d12	240	9.691	9.691 (1.000)	860803	40.0000	
* 98 Perylene-d12	264	11.396	11.386 (1.000)	516610	40.0000	
\$ 3 2-Fluorophenol	112	3.195	3.181 (0.800)	436845	44.5771	1700
\$ 5 Phenol-d5	99	3.716	3.706 (0.930)	619185	50.3944	1920
\$ 20 Nitrobenzene-d5	82	4.351	4.356 (0.895)	246017	22.6925	864
\$ 39 2-Fluorobiphenyl	172	5.598	5.598 (0.916)	608367	30.5242	1160
\$ 60 2,4,6-Tribromophenol	329	6.715	6.711 (1.098)	152281	65.8678	2510
\$ 81 p-Terphenyl-d14	244	8.661	8.656 (0.894)	594338	38.5397	1470



Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
47 Acenaphthene	154	6.138	6.138	(1.004)	15194	0.86318	32.9(a)
79 Pyrene	202	8.565	8.560	(0.884)	364401	13.3999	510
53 Fluorene	166	6.523	6.528	(1.067)	16192	0.78005	29.7(a)
68 Phenanthrene	178	7.308	7.308	(1.003)	313008	10.7749	410
69 Anthracene	178	7.351	7.351	(1.009)	49956	1.69797	64.6(H)
76 Fluoranthene	202	8.348	8.343	(1.145)	447388	14.1642	539
89 Benzo(a)anthracene	228	9.682	9.677	(0.999)	131395	6.36730	242
92 Chrysene	228	9.715	9.715	(1.002)	127406	6.93823	264
95 Benzo(b)fluoranthene	252	10.871	10.861	(0.954)	157052	10.8402	413
97 Benzo(a)pyrene	252	11.314	11.309	(0.993)	68252	5.74534	219
99 Indeno(1,2,3-cd)pyrene	276	13.173	13.168	(1.156)	36701	4.29629	164
100 Dibenzo(a,h)anthracene	278	13.182	13.182	(1.157)	11570	1.70909	65.1
101 Benzo(ghi)perylene	276	13.722	13.712	(1.204)	33225	4.66372	178

#### QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- H - Operator selected an alternate compound hit.

## ION RATIO REPORT

## SV REPORT

Data file: s7c1125.d

Report Date: 03/12/2010 08:18

Lab. ID: 248043014

SampleType: SAMPLE

Injection Date: 11-MAR-2010 21:28

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043014|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	34530	3.72	3.78	80-120	100	(T)
93	2476	3.76	3.78	206-266	7	(Q)
-----						
15 o-Cresol		CAS#: 95-48-7				
107	17110	4.05	4.11	80-120	100	(T)
108	4902	4.05	4.11	82-142	29	(QT)
77	20209	4.05	4.11	14- 74	118	(QT)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	35862	4.35	4.24	80-120	100	(T)
42	26632	4.35	4.23	61-121	74	(T)
-----						
22 Isophorone		CAS#: 78-59-1				
82	235090	4.35	4.52	80-120	100	(T)
138	254	4.66	4.52	0- 50	0	(T)
-----						
25 bis(2-Chloroethoxy)methane		CAS#: 111-91-1				
93	31626	4.85	4.64	80-120	100	(T)
123	581	4.85	4.64	0- 45	2	(T)
95	9367	4.85	4.64	3- 63	30	(T)
-----						
43 Dimethylphthalate		CAS#: 131-11-3				
163	142310	6.11	5.87	80-120	100	(T)
164	799643	6.11	5.87	0- 40	562	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
44	2,6-Dinitrotoluene		CAS#: 606-20-2			
165	105443	6.11	5.93	80-120	100	(T)
63	1506	6.11	5.93	52-112	1	(QT)
-----						
45	Acenaphthylene		CAS#: 208-96-8			
152	23402	6.08	6.01	80-120	100	(T)
151	6163	6.08	6.01	0- 49	26	(T)
153	24496	6.08	6.01	0- 43	105	(QT)
-----						
47	Acenaphthene		CAS#: 83-32-9			
154	15194	6.14	6.14	80-120	100	( )
153	17240	6.14	6.14	71-131	113	( )
152	7723	6.14	6.14	17- 77	51	( )
-----						
50	2,4-Dinitrotoluene		CAS#: 121-14-2			
165	105443	6.11	6.23	80-120	100	(T)
89	2164	6.11	6.23	37- 97	2	(QT)
63	1506	6.11	6.23	17- 77	1	(QT)
-----						
53	Fluorene		CAS#: 86-73-7			
166	16192	6.52	6.53	80-120	100	( )
165	14436	6.52	6.53	61-121	89	( )
167	2537	6.52	6.52	0- 44	16	( )
-----						
54	4-Chlorophenylphenylether		CAS#: 7005-72-3			
204	29367	6.67	6.50	80-120	100	(T)
141	612	6.67	6.50	30- 90	2	(QT)
206	296	6.67	6.50	3- 63	1	(QT)
-----						
55	2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1			
198	403	6.72	6.54	80-120	100	(T)
105	6253	6.72	6.54	10- 70	1550	(QT)
51	2358	6.71	6.54	54-114	585	(QT)
-----						
68	Phenanthrene		CAS#: 85-01-8			
178	313008	7.31	7.31	80-120	100	( )
179	49670	7.31	7.31	0- 46	16	( )
176	57708	7.31	7.31	0- 49	18	( )
-----						
69	Anthracene		CAS#: 120-12-7			
178	49956	7.35	7.35	80-120	100	( )
179	12739	7.35	7.35	0- 46	26	( )
176	9089	7.35	7.35	0- 48	18	( )
-----						
76	Fluoranthene		CAS#: 206-44-0			
202	447388	8.35	8.34	80-120	100	( )
203	77465	8.35	8.34	0- 48	17	( )
101	47599	8.35	8.34	0- 41	11	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
79 Pyrene		CAS#: 129-00-0				
202	364401	8.56	8.56	80-120	100	( )
200	74847	8.56	8.56	0- 50	21	( )
101	48681	8.56	8.56	0- 44	13	( )
-----						
89 Benzo(a)anthracene		CAS#: 56-55-3				
228	131395	9.68	9.68	80-120	100	( )
226	34732	9.68	9.68	0- 56	26	( )
229	36171	9.68	9.68	0- 50	28	( )
-----						
92 Chrysene		CAS#: 218-01-9				
228	127406	9.72	9.72	80-120	100	( )
229	30098	9.72	9.72	0- 50	24	( )
226	36163	9.72	9.72	0- 59	28	( )
-----						
95 Benzo(b)fluoranthene		CAS#: 205-99-2				
252	157052	10.87	10.86	80-120	100	( )
253	38574	10.87	10.86	0- 52	25	( )
125	29107	10.87	10.86	0- 41	19	( )
-----						
96 Benzo(k)fluoranthene		CAS#: 207-08-9				
252	157052	10.87	10.90	80-120	100	( )
253	38981	10.87	10.90	0- 52	25	( )
125	29107	10.87	10.90	0- 42	19	( )
-----						
97 Benzo(a)pyrene		CAS#: 50-32-8				
252	68252	11.31	11.31	80-120	100	( )
253	16512	11.31	11.31	0- 52	24	( )
125	9164	11.31	11.30	0- 42	13	( )
-----						
99 Indeno(1,2,3-cd)pyrene		CAS#: 193-39-5				
276	36701	13.17	13.17	80-120	100	( )
138	8835	13.17	13.17	2- 62	24	( )
-----						
100 Dibenzo(a,h)anthracene		CAS#: 53-70-3				
278	11570	13.18	13.18	80-120	100	( )
139	1937	13.18	13.18	0- 50	17	( )
-----						
101 Benzo(ghi)perylene		CAS#: 191-24-2				
276	33225	13.72	13.71	80-120	100	( )
138	9402	13.72	13.71	0- 58	28	( )

Q qualifier indicates ion failed ratio requirement

Data File: /chem/MSD7.i/s031110.b/s7c1125.d  
Report Date: 12-Mar-2010 10:09

Page 1

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Data file : /chem/MSD7.i/s031110.b/s7c1125.d  
Lab Smp Id: 248043014 Client Smp ID: RE36-10-7461  
Inj Date : 11-MAR-2010 21:28  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043014|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 25  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	12.71990	% moisture

Cpnd Variable Local Compound Variable

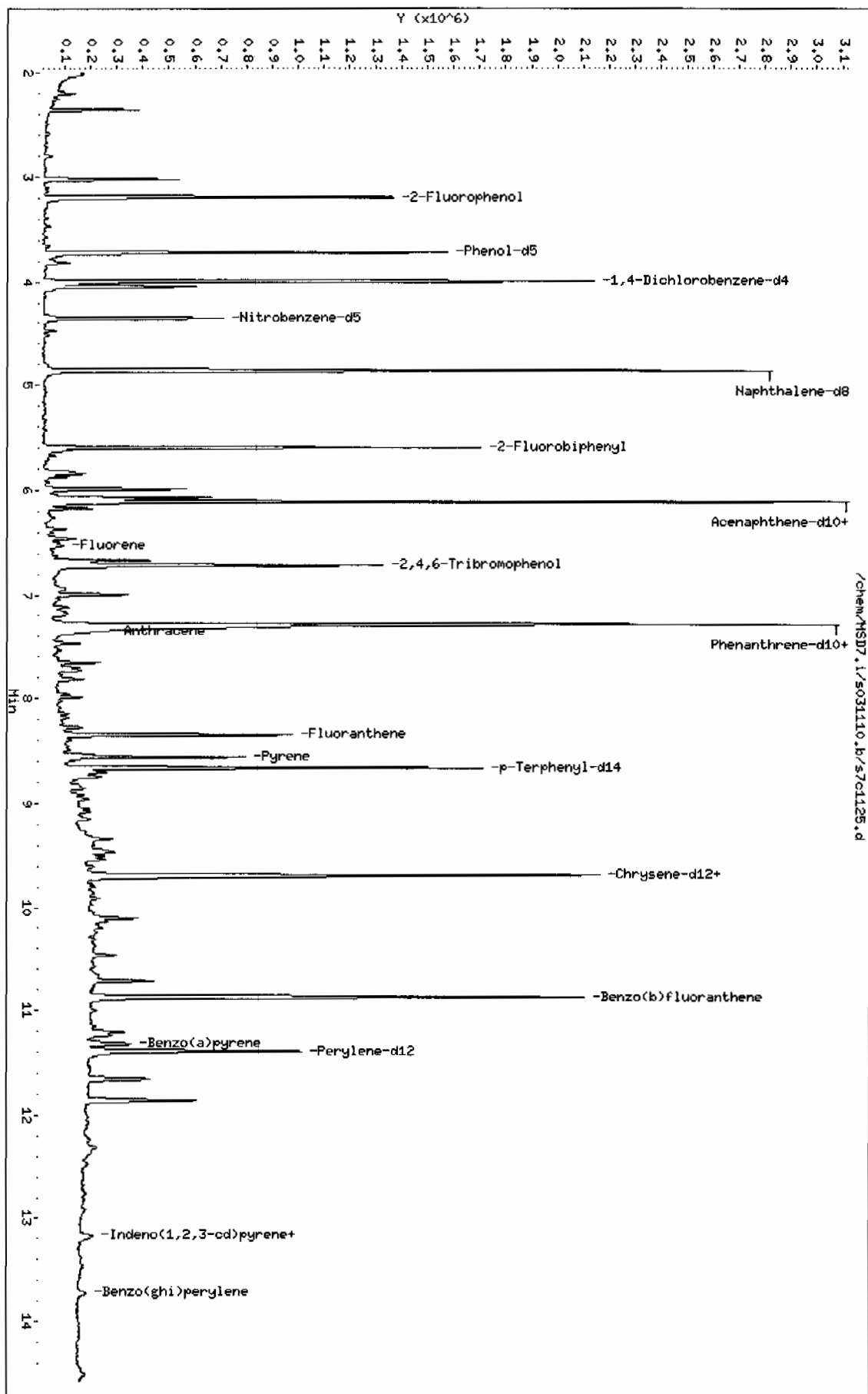
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.995	2309727	40.000
* 46 Acenaphthene-d10	6.114	3518675	40.000
* 98 Perylene-d12	11.396	1436977	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
====	=====	=====	=====	=====	=====	=====	=====
Unknown					CAS #:		
2.353	372431	6.44979075	246	0		0	10
Unknown Aldol Condensate					CAS #:		
3.022	578962	10.0264980	382	0		0	10
Benzene, 1-(1,5-dimethyl-4-hexenyl)-4-me					CAS #: 644-30-4		
5.993	785282	8.92701848	340	97	NIST05.L	58537	46
Unknown					CAS #:		
10.717	346022	9.63194340	367	0		0	98
Unknown					CAS #:		
11.208	210111	5.84870649	223	0		0	98
Perylene					CAS #: 198-55-0		
11.237	150660	4.19380414	160	98	NIST05.L	93574	98
Unknown					CAS #:		
11.651	405434	11.2857480	430	0		0	98
Eicosane					CAS #: 112-95-8		
11.858	763062	21.2407604	809	98	NIST05.L	113488	98

Data File: /chem/HSD7.i/s031110.b/s7c1125.d  
 Date: 11-MAR-2010 21:28  
 Client ID: REC6-10-7461  
 Sample Info: 1248043014195962311SVH111LANL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: HSD7.i  
 Operator: JHB3  
 Column diameter: 0.20



Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.i

Sample Info: 1248043014195962311ISVH11ILANL

Volume Injected (uL): 0.5

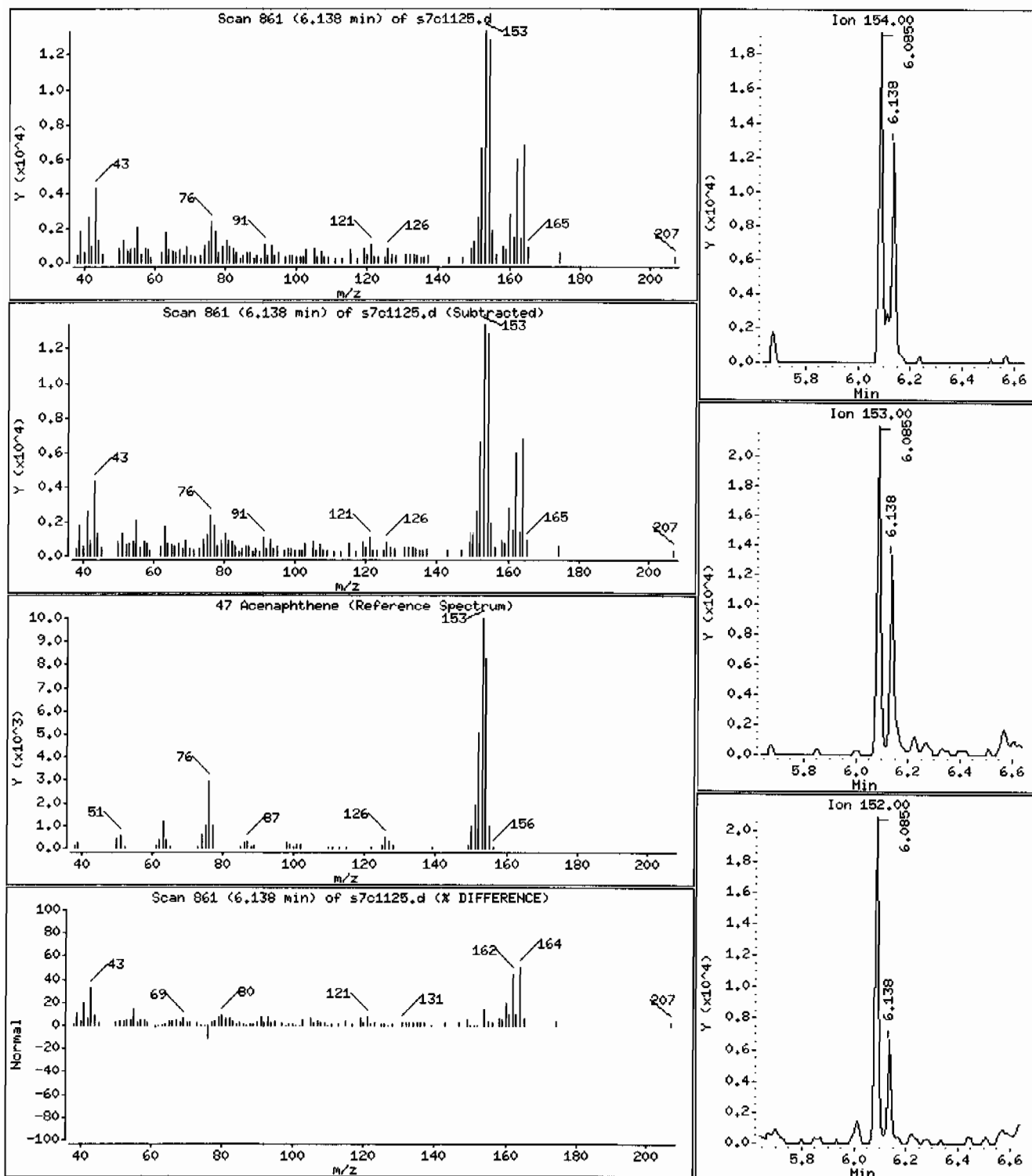
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 32.9 ug/Kg





Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.i

Sample Info: 12480430141959623111SVH111LANL

Volume Injected (uL): 0.5

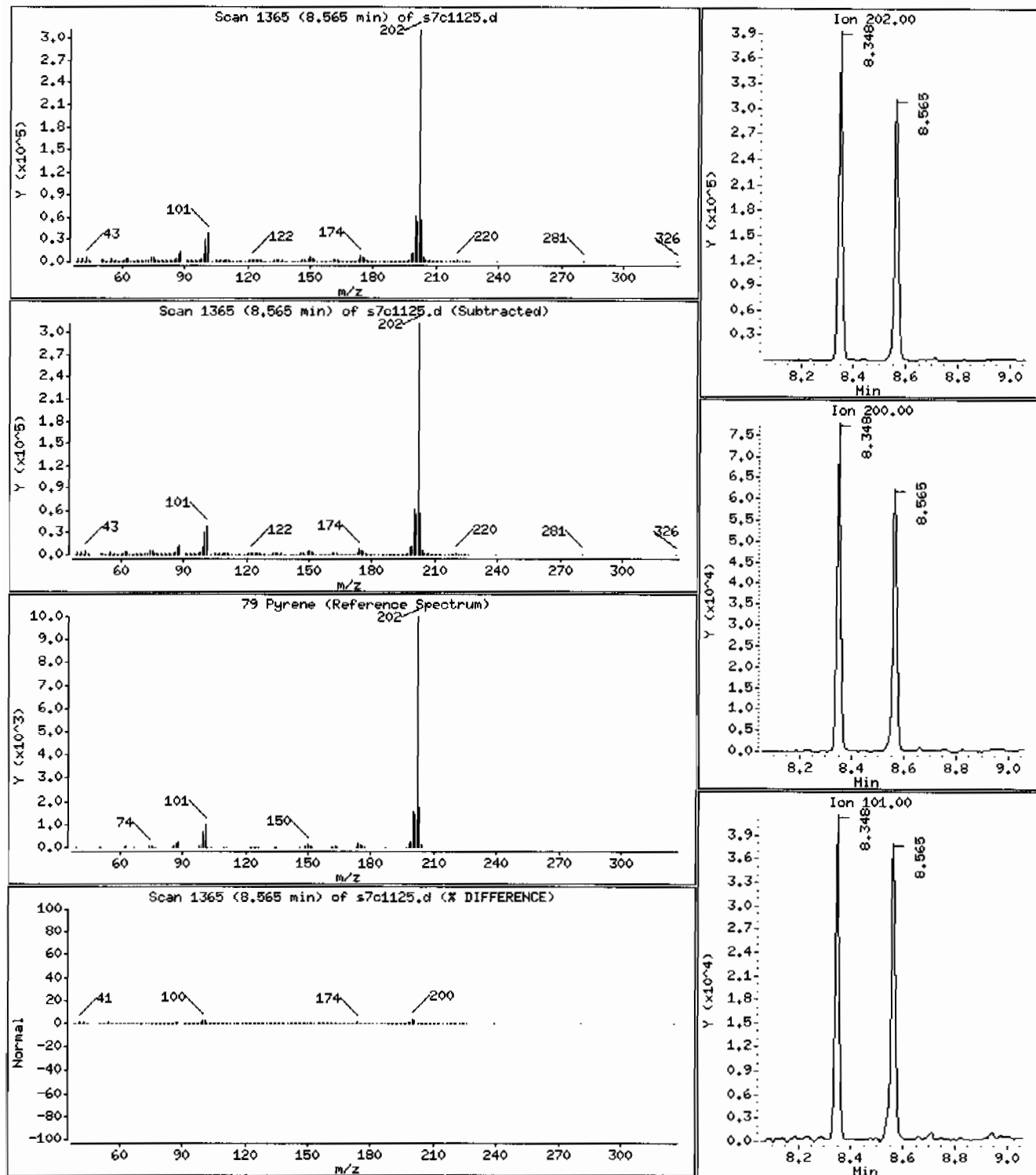
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 510 ug/Kg



Date: 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.i

Sample Info: 1248043014195962311SVMI1ILANL

Volume Injected (uL): 0.5

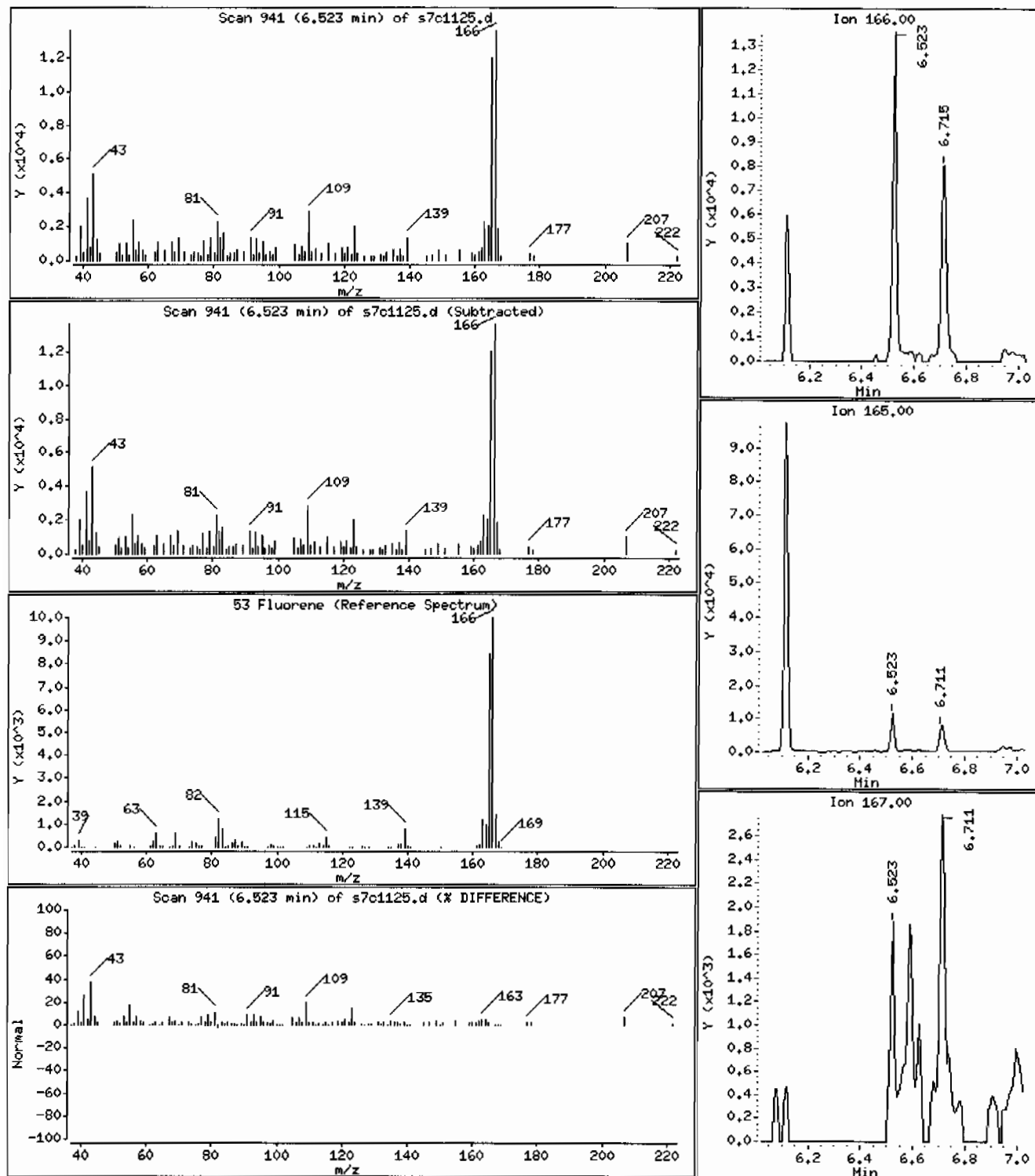
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 29.7 ug/Kg



Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: HSD7.i

Sample Info: 12480430141959623111SVH111LANL

Volume Injected (uL): 0.5

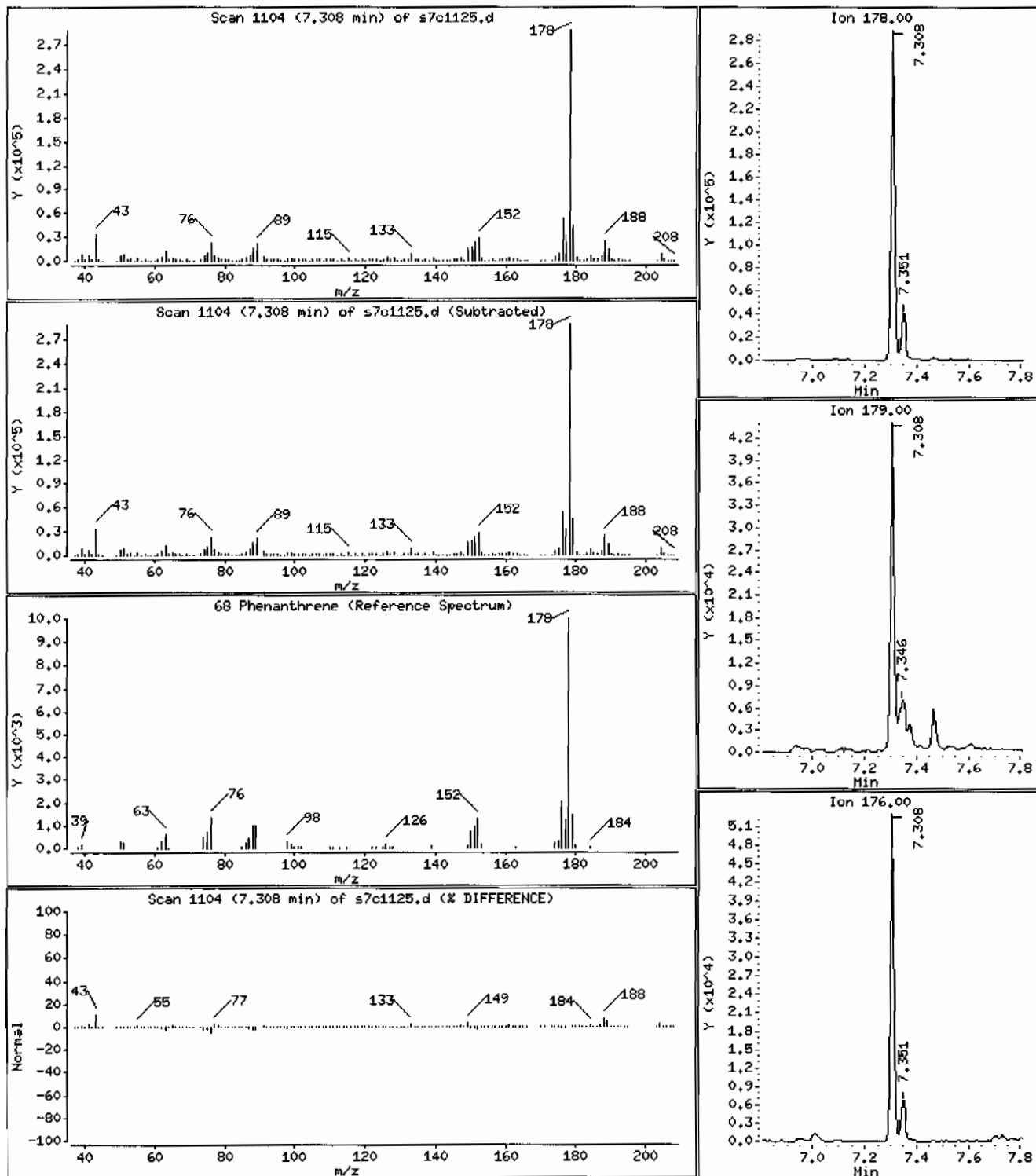
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 410 ug/Kg



Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.i

Sample Info: 1248043014195962311SVH11ILANL

Volume Injected (uL): 0.5

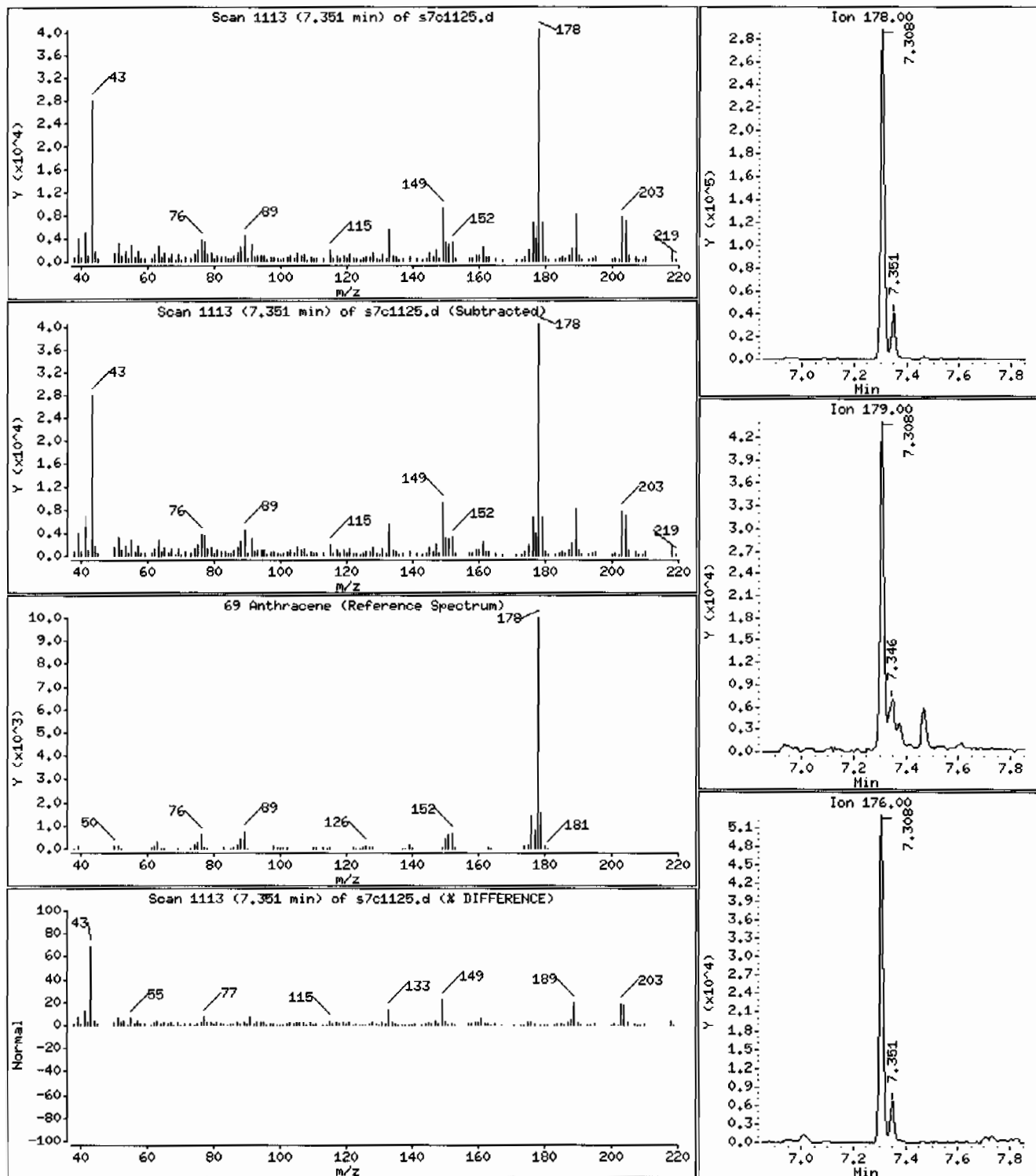
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 64.6 ug/Kg



Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: HSD7.i

Sample Info: I248043014195962311SVMI1ILANL

Volume Injected (uL): 0.5

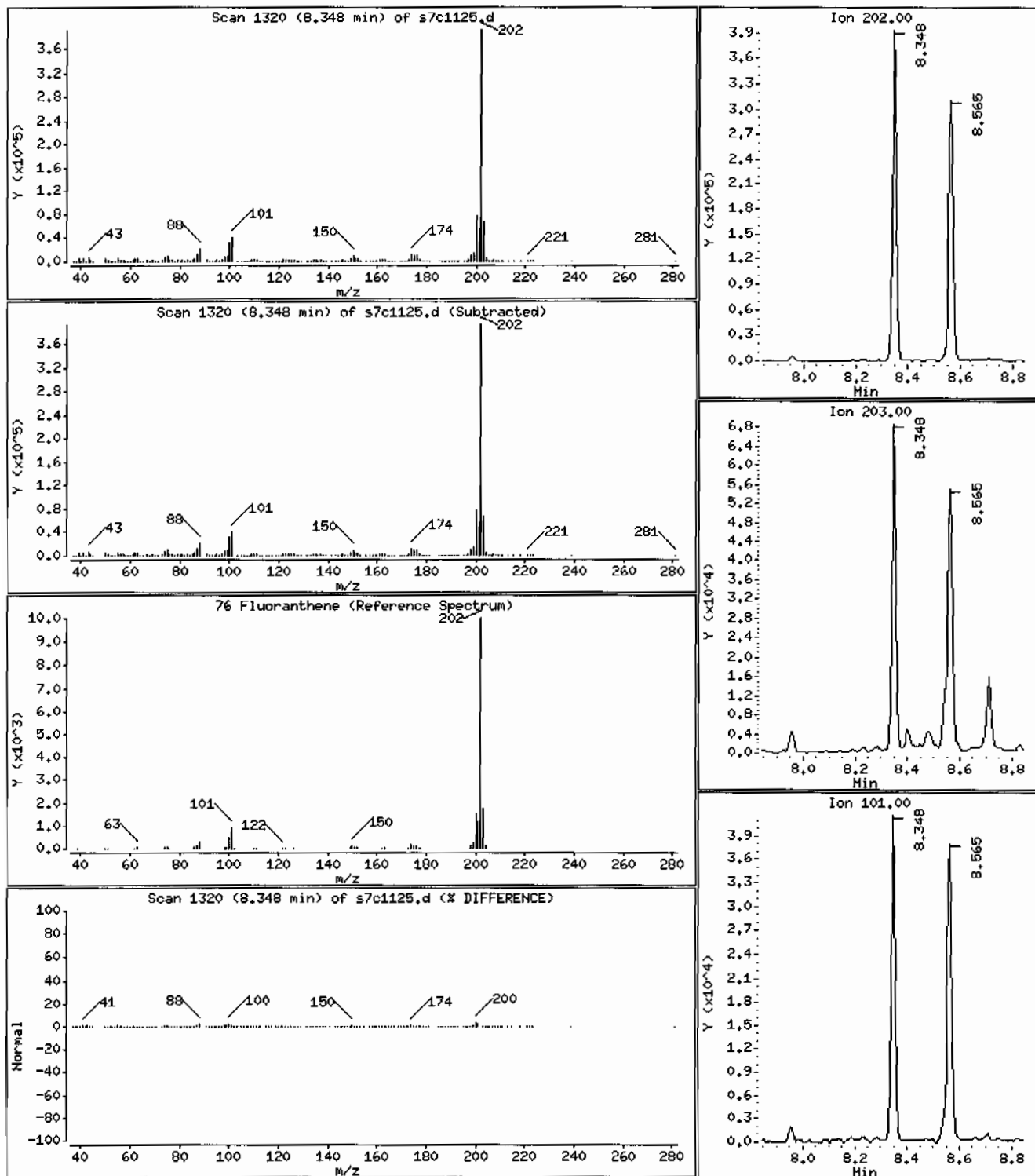
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 539 ug/Kg



Data File: /chem/MSD7.i/s031110,b/s7c1125,d

Page 8

Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.1

Sample Info: 12480430141959623111SVH111LANL

Volume Injected (uL): 0.5

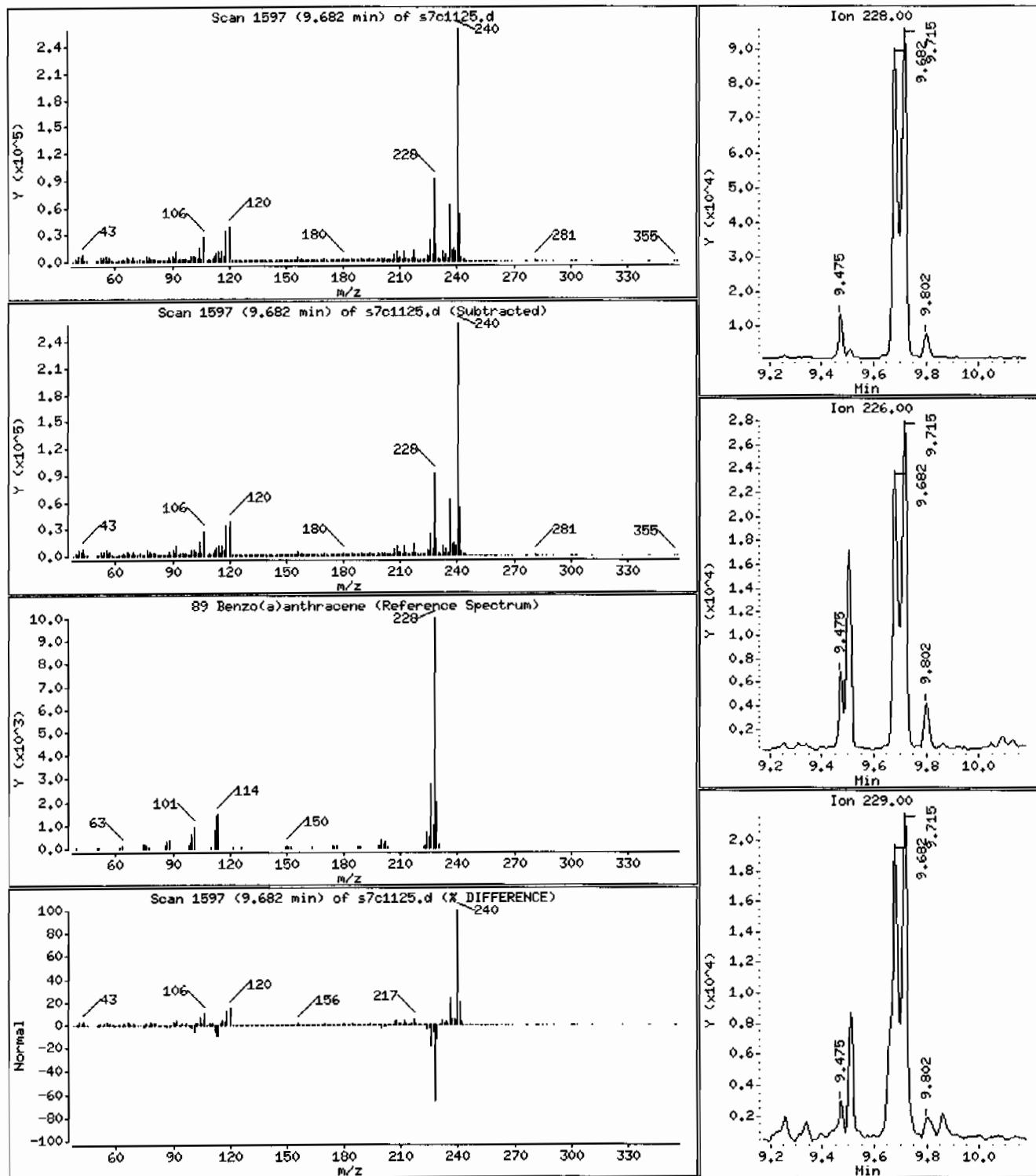
Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 242 ug/Kg



Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.i

Sample Info: 12480430141959623111SVH111LANL

Volume Injected (uL): 0.5

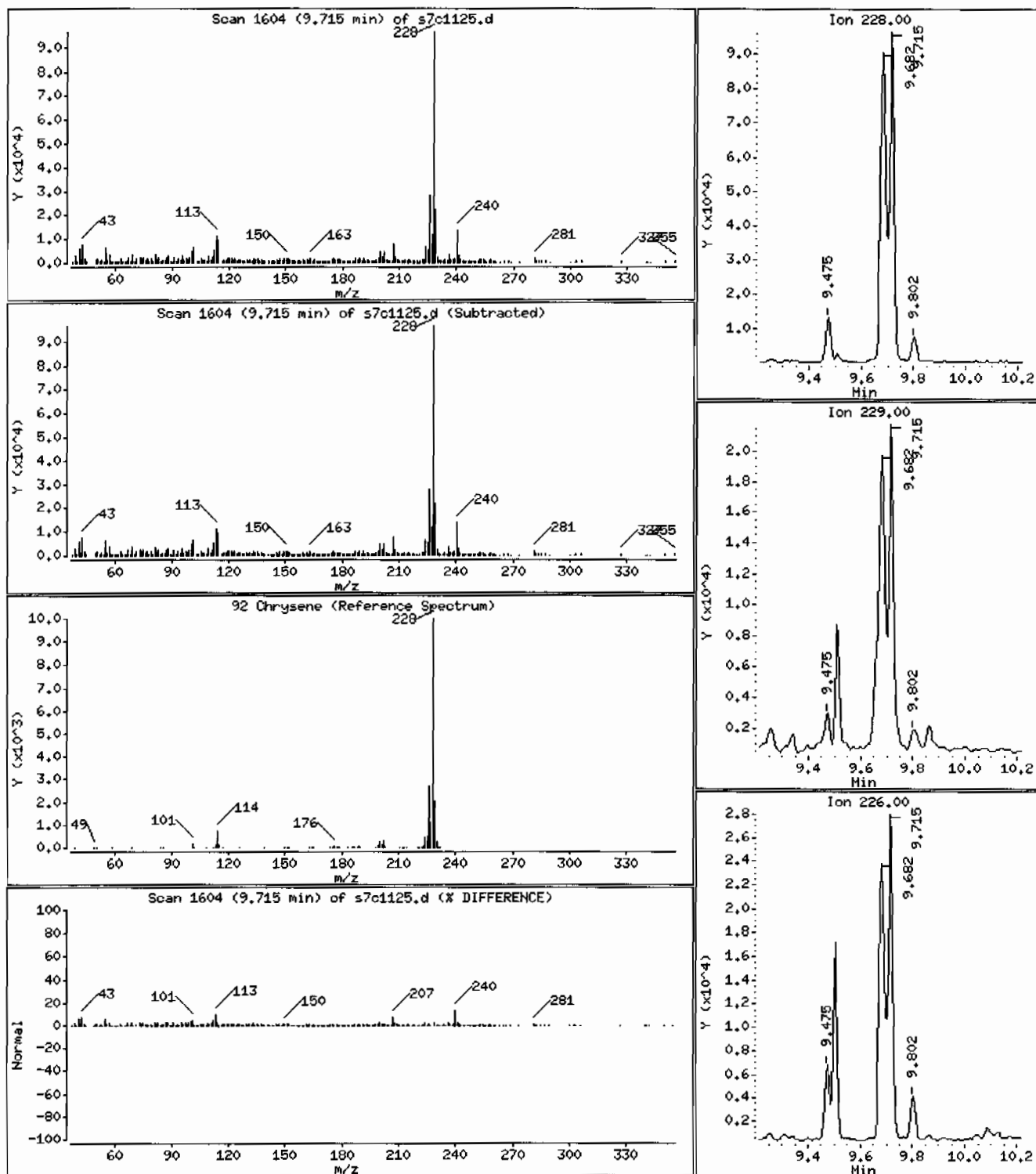
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 264 ug/Kg



Date: 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: HSD7.i

Sample Info: 1248043014195962311SVH11ILANL

Volume Injected (uL): 0.5

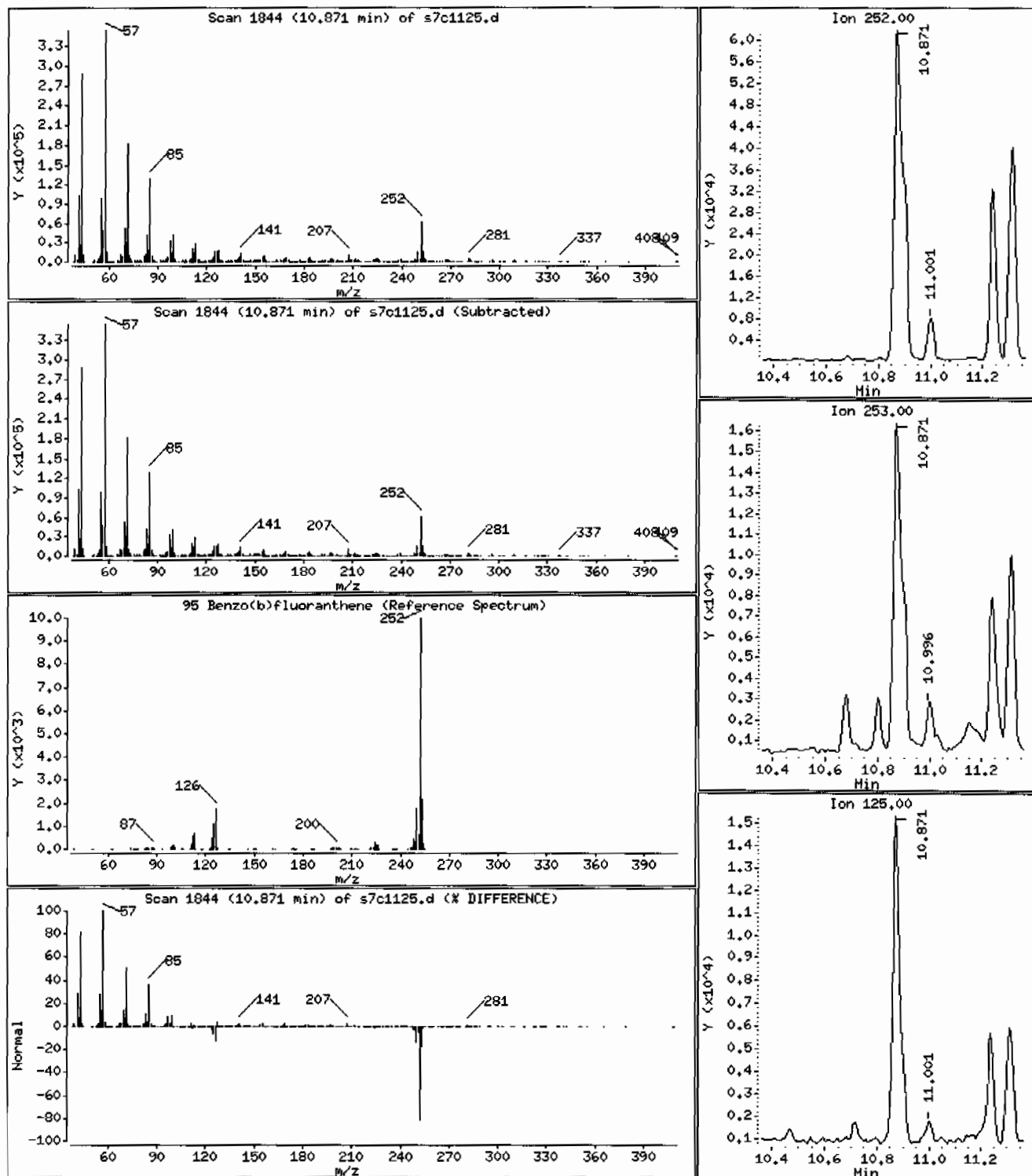
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 413 ug/Kg





Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: HSD7.i

Sample Info: I248043014I9596231IISVH11ILANL

Volume Injected (uL): 0.5

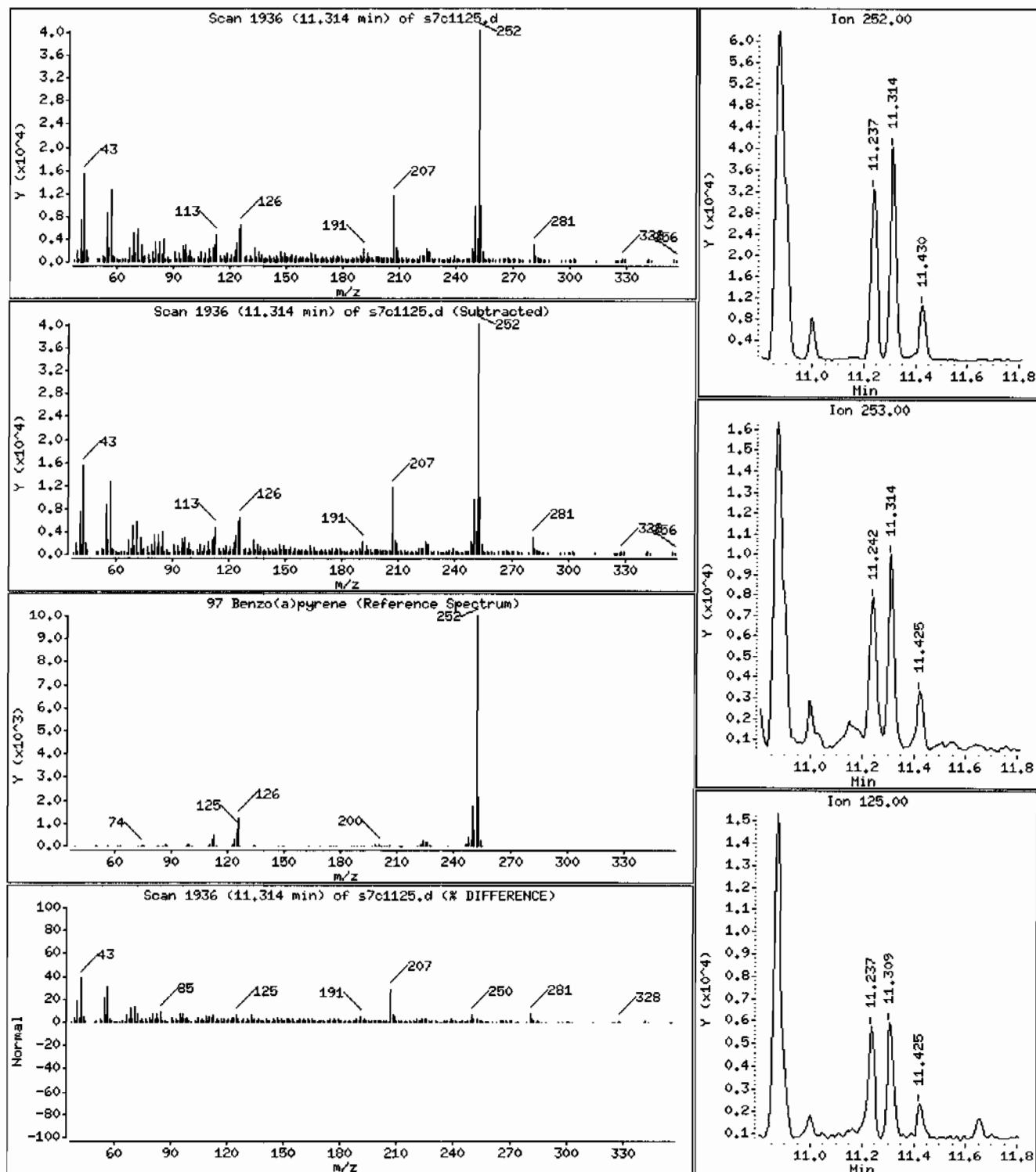
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 219 ug/Kg



Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.i

Sample Info: 1248043014195962311SVH11ILANL

Volume Injected (uL): 0.5

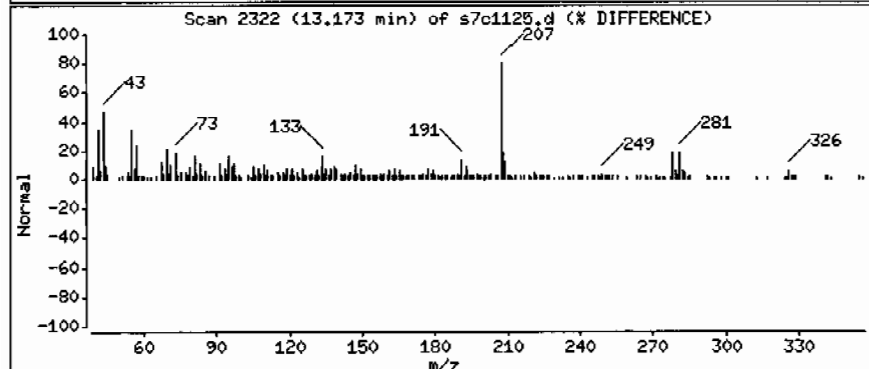
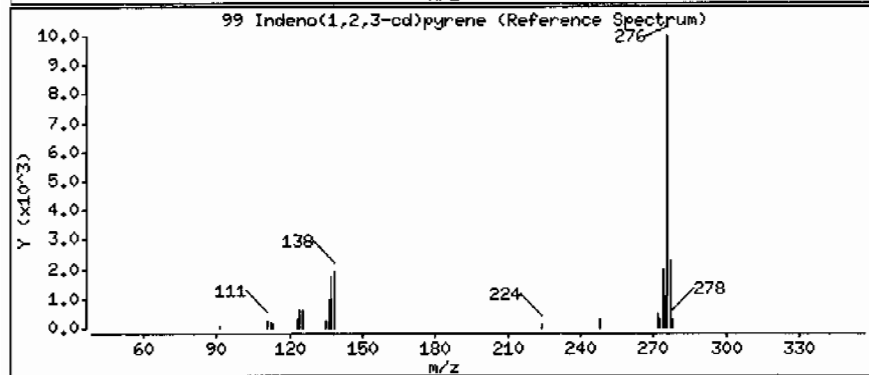
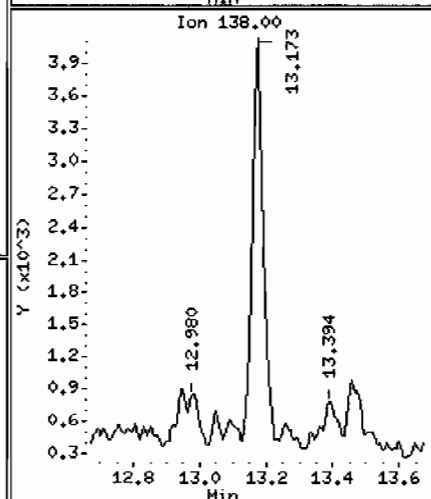
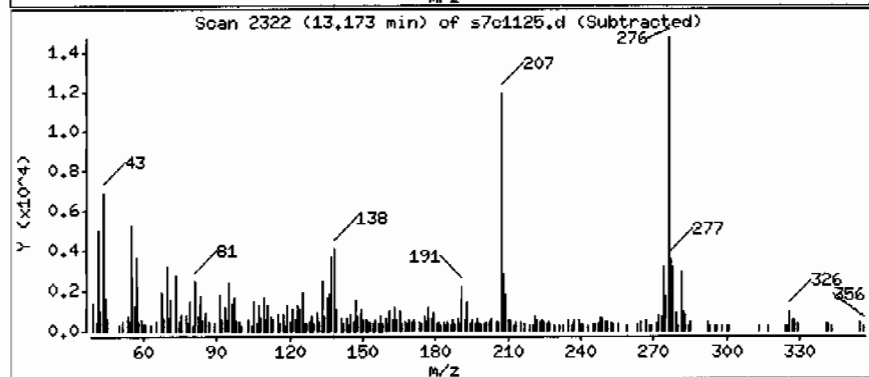
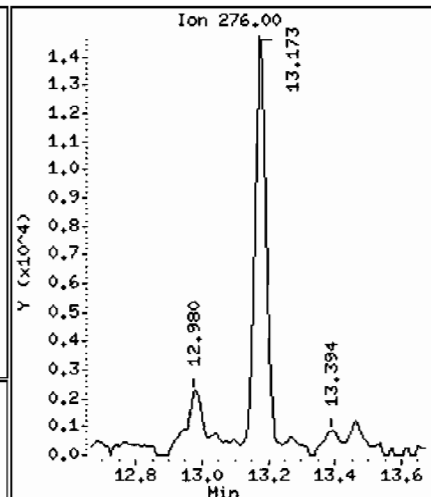
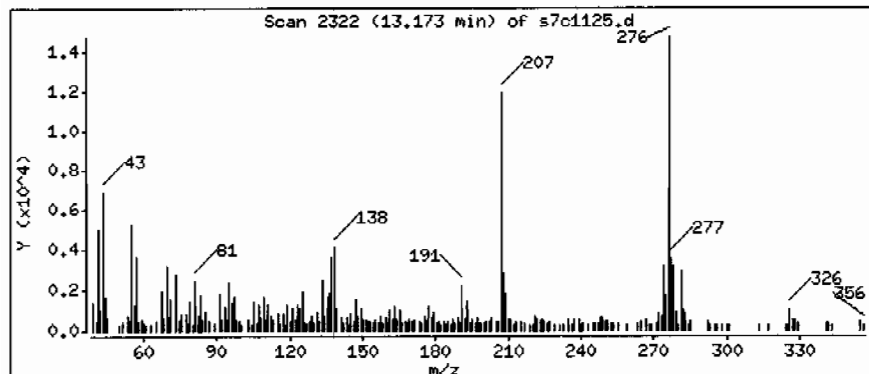
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 164 ug/Kg



Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.i

Sample Info: 12480430141959623111SVMI11LANL

Volume Injected (uL): 0.5

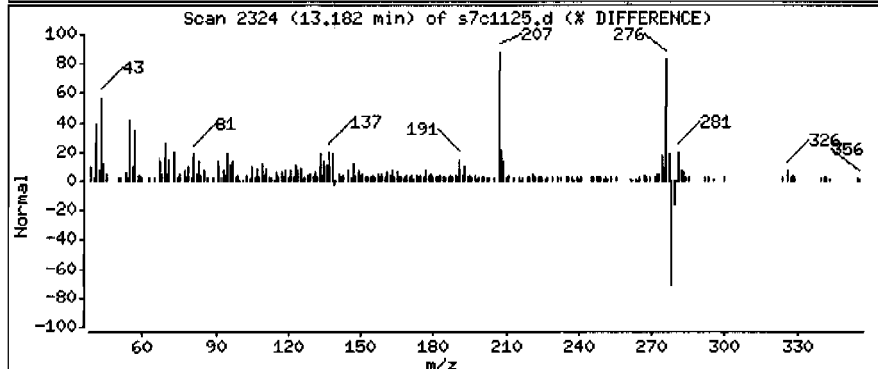
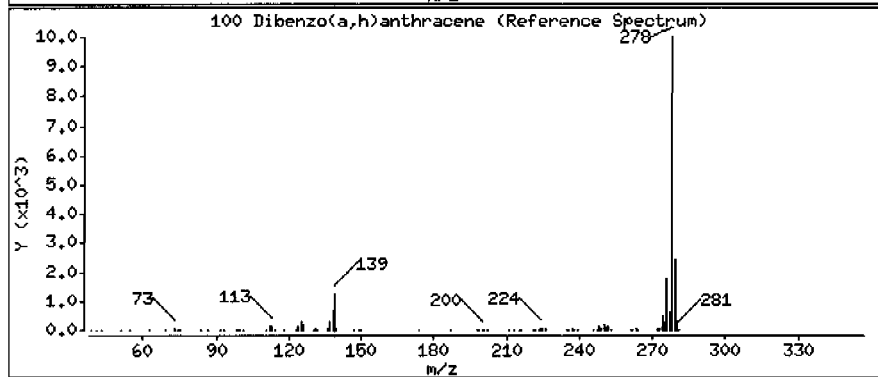
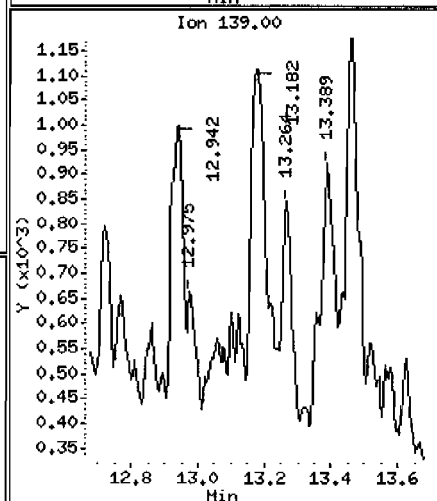
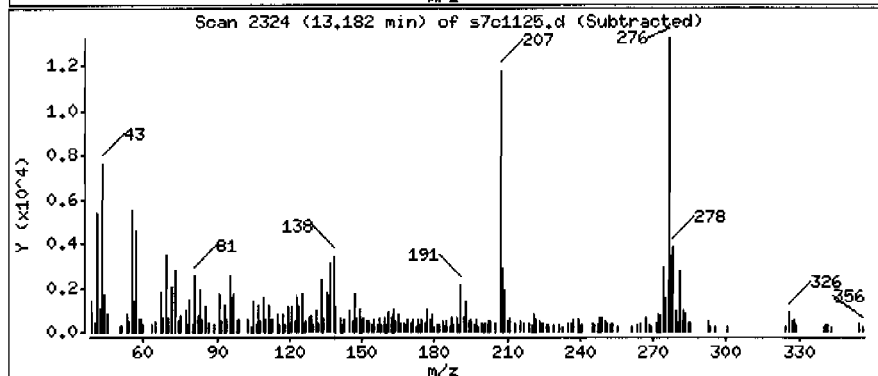
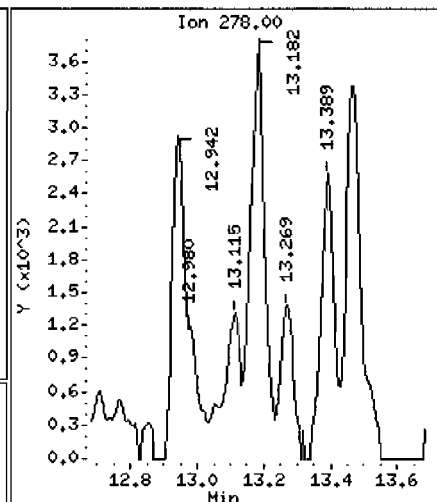
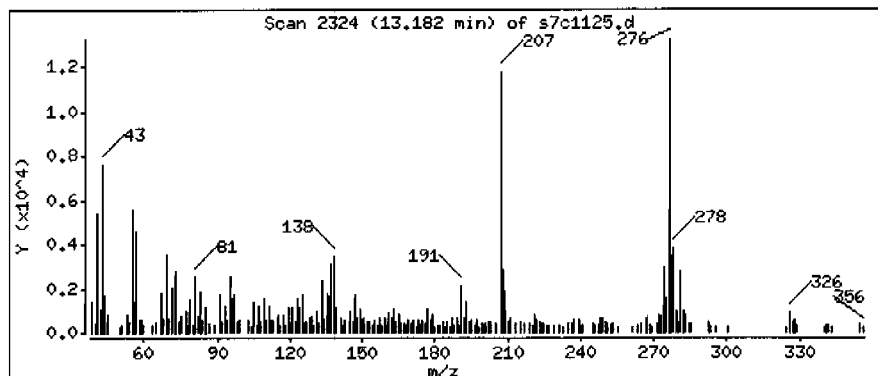
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 65.1 ug/Kg



Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.i

Sample Info: I248043014195962311SVHI11LANL

Volume Injected (UL): 0.5

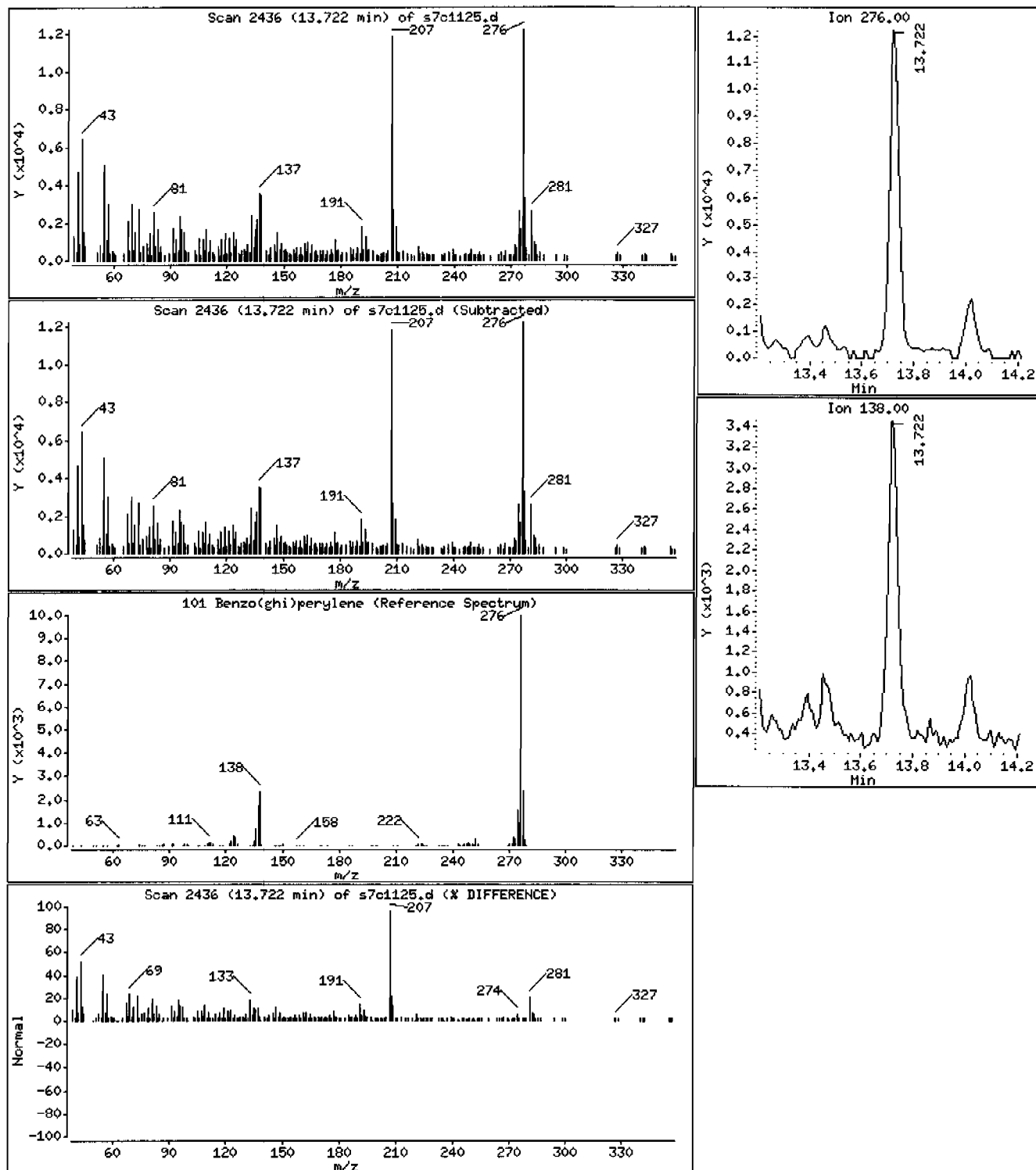
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 178 ug/Kg



Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.i

Sample Info: 1248043014195962311ISVHI11LANL

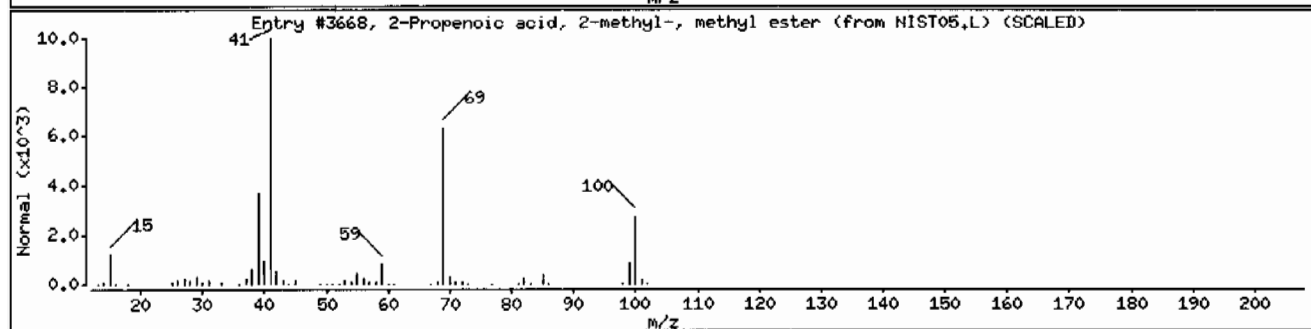
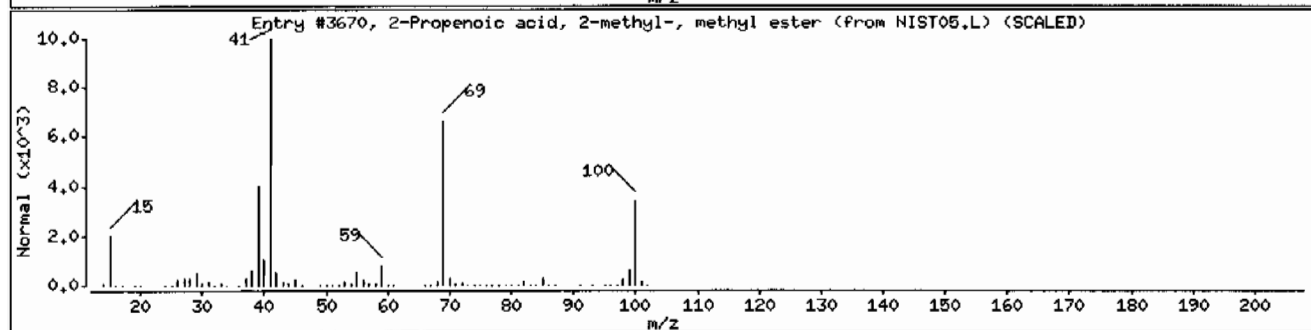
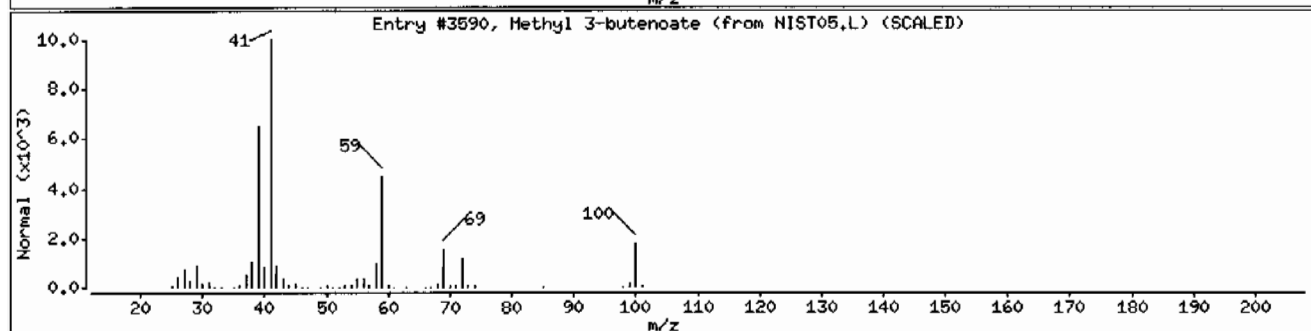
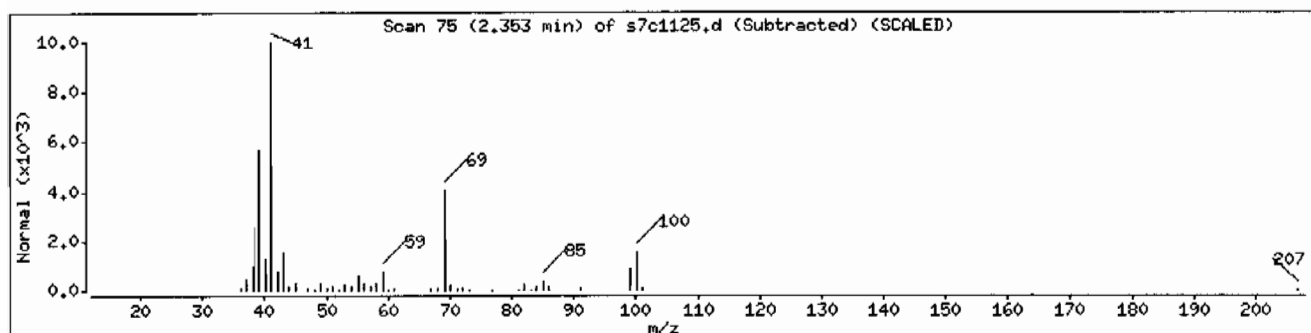
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Methyl 3-butenate	3724-55-8	NIST05.L	3590	72	C5H8O2	100
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	NIST05.L	3670	49	C5H8O2	100
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	NIST05.L	3668	49	C5H8O2	100



Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.i

Sample Info: 1248043014195962311SVMI11LANL

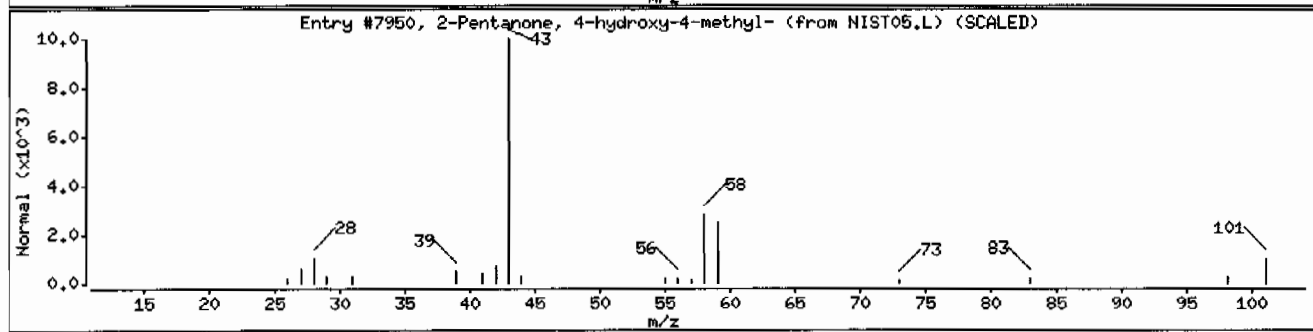
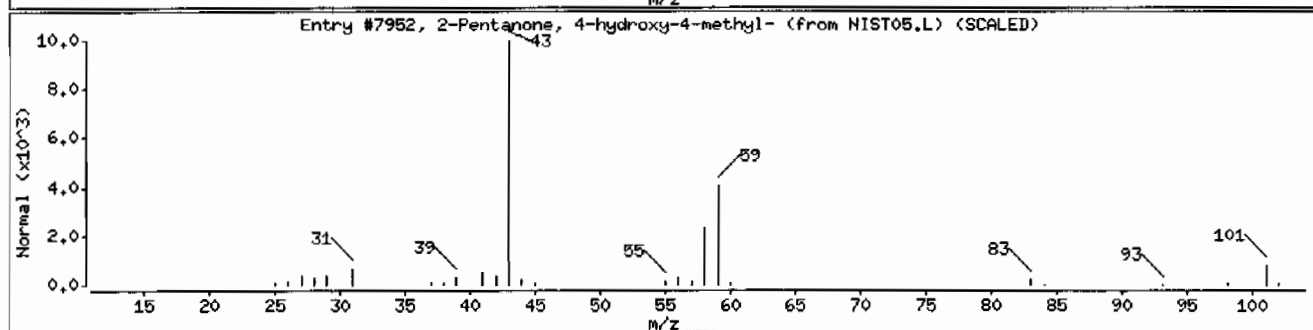
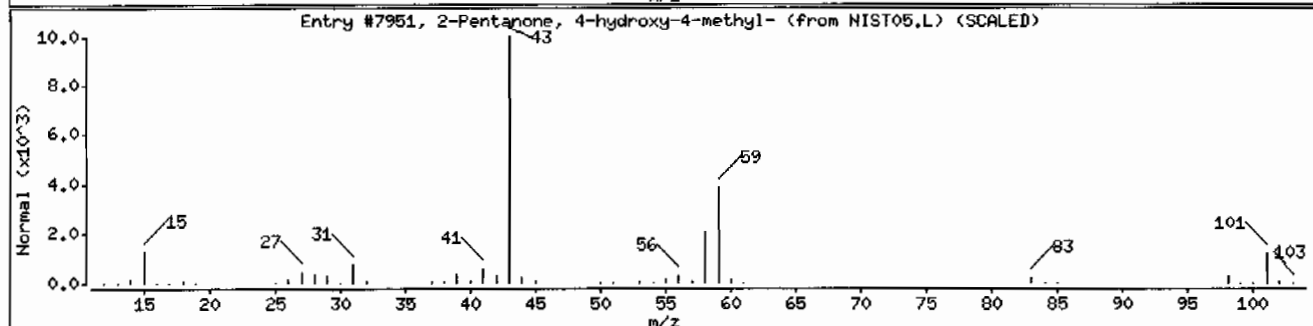
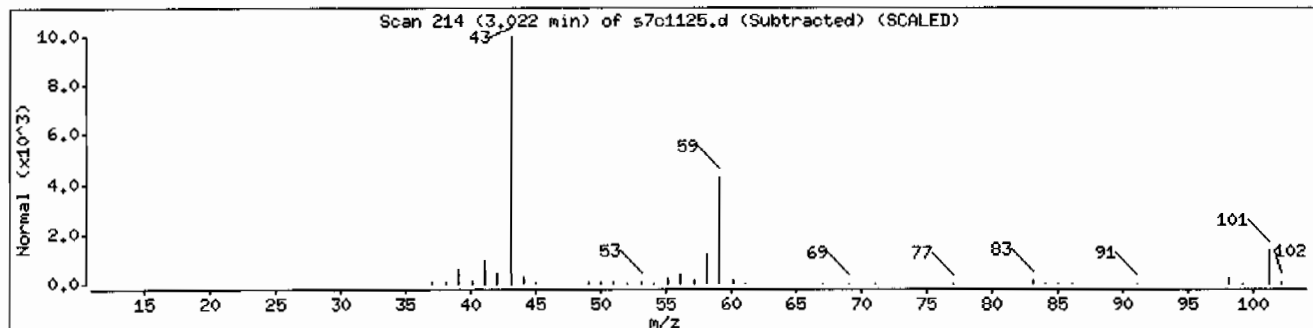
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7950	12	C6H12O2	116



Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.i

Sample Info: 1248043014195962311ISVH11ILANL

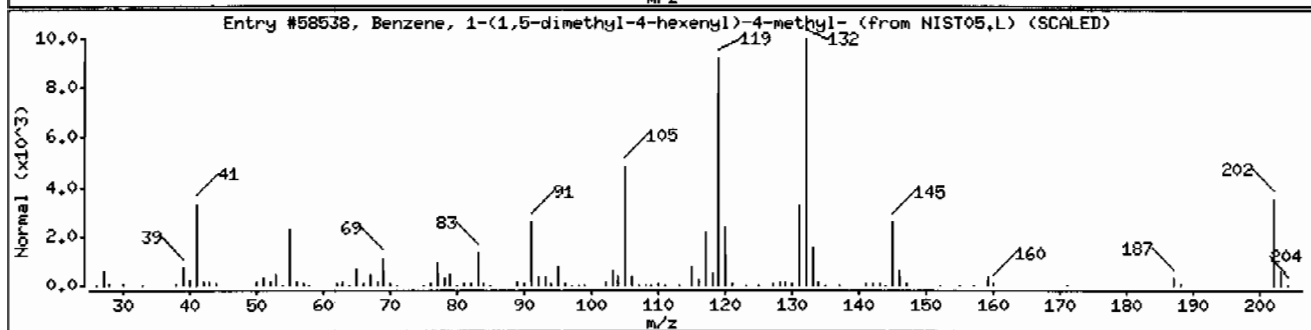
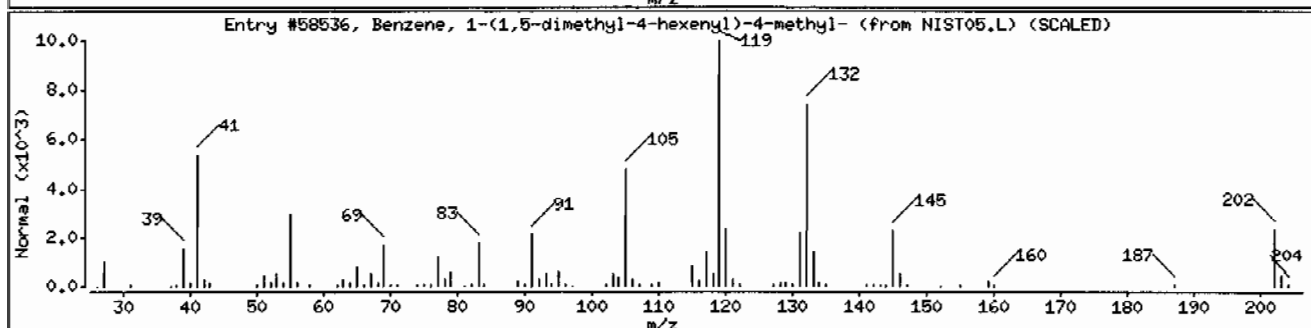
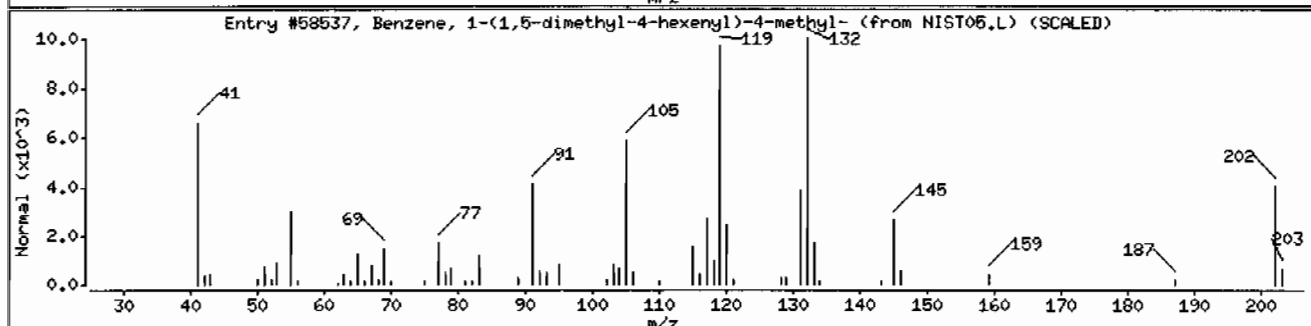
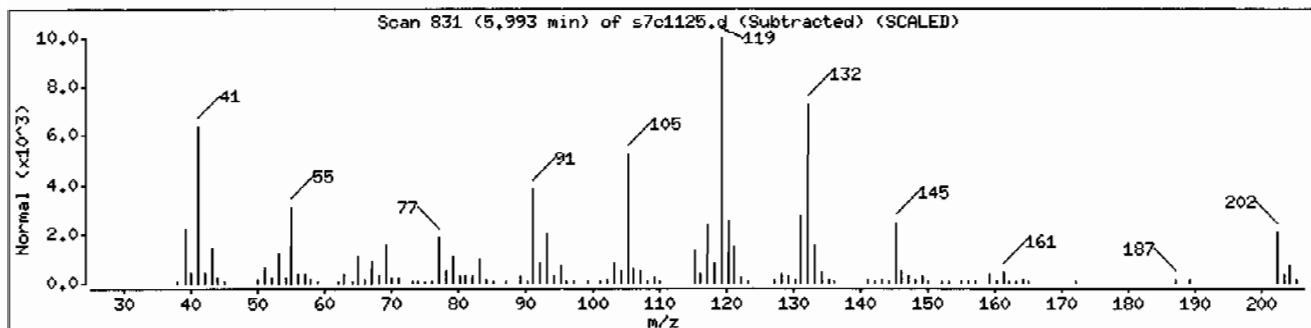
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-(1,5-dimethyl-4-hexenyl)-4-me	644-30-4	NIST05.L	58537	97	C15H22	202
Benzene, 1-(1,5-dimethyl-4-hexenyl)-4-me	644-30-4	NIST05.L	58536	94	C15H22	202
Benzene, 1-(1,5-dimethyl-4-hexenyl)-4-me	644-30-4	NIST05.L	58538	91	C15H22	202



Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.i

Sample Info: I248043014195962311SVH11ILANL

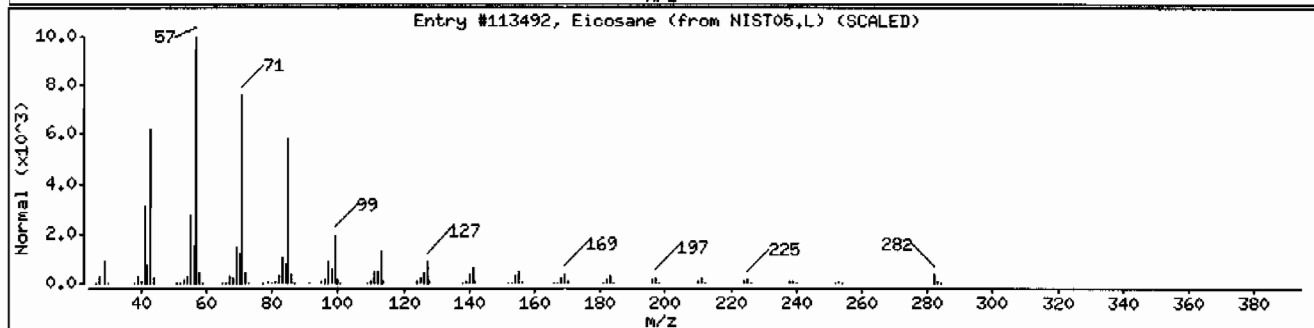
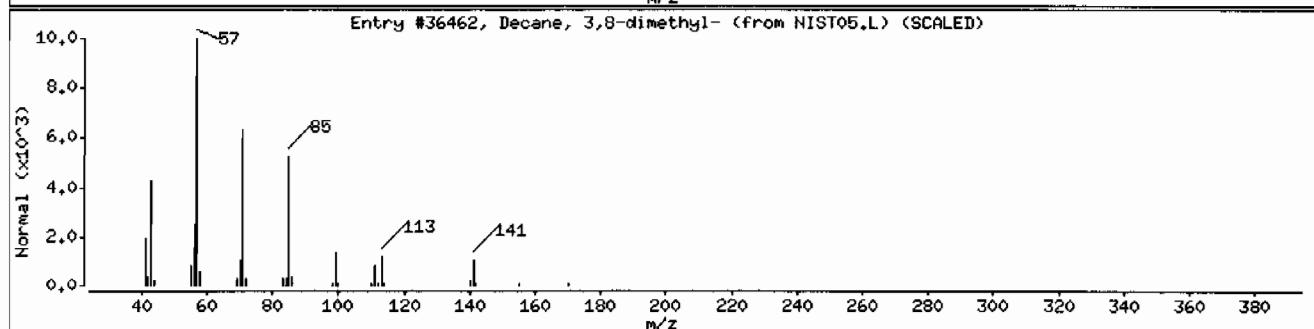
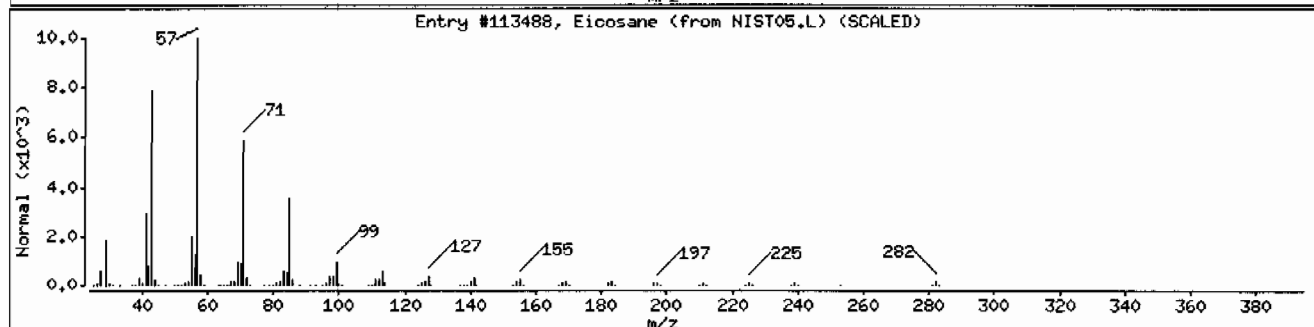
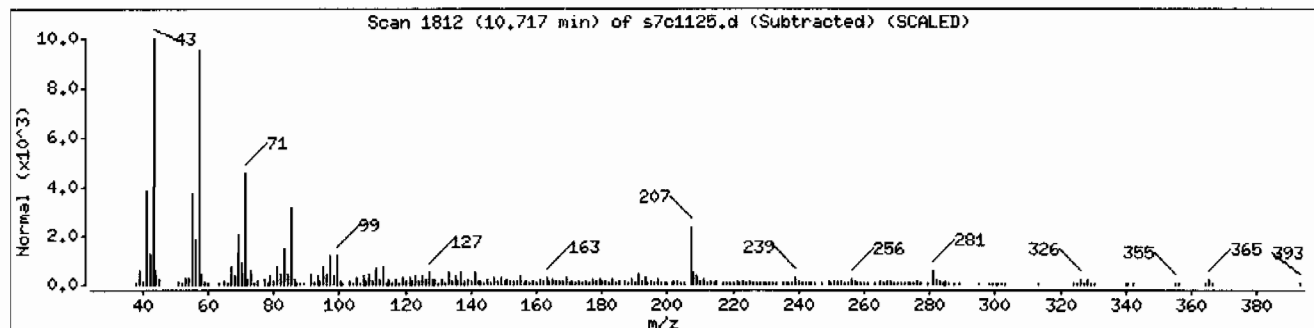
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113488	92	C <sub>20</sub> H <sub>42</sub>	282
Decane, 3,8-dimethyl-	17312-55-9	NIST05.L	36462	83	C <sub>12</sub> H <sub>26</sub>	170
Eicosane	112-95-8	NIST05.L	113492	78	C <sub>20</sub> H <sub>42</sub>	282





Date: 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.i

Sample Info: 1248043014195962311ISVH11ILANL

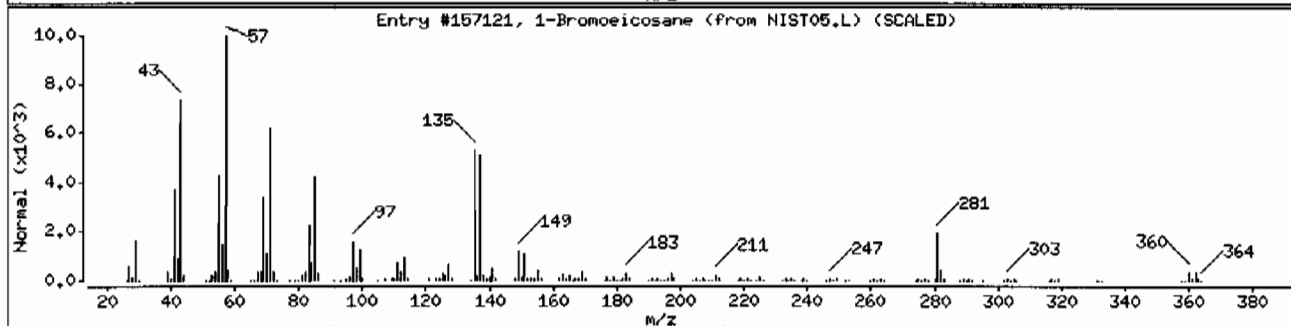
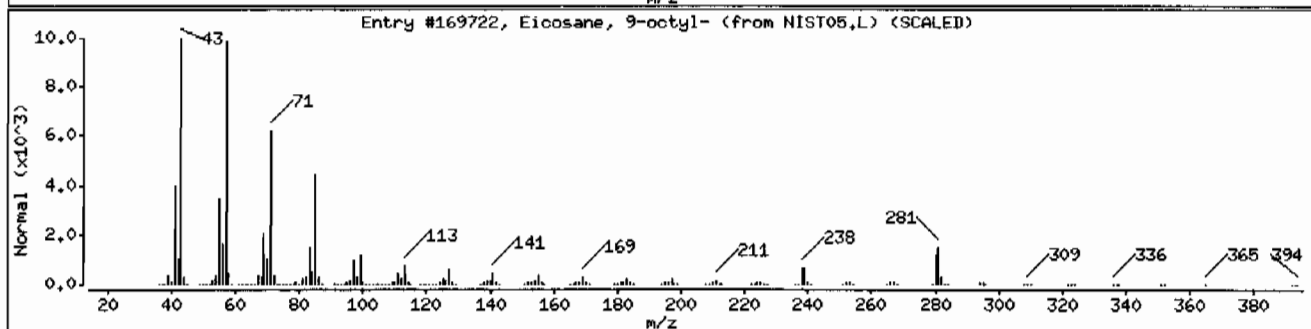
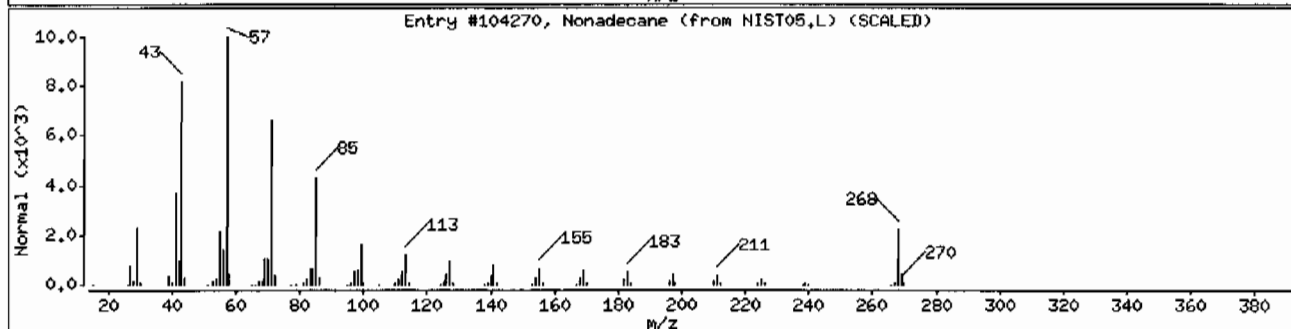
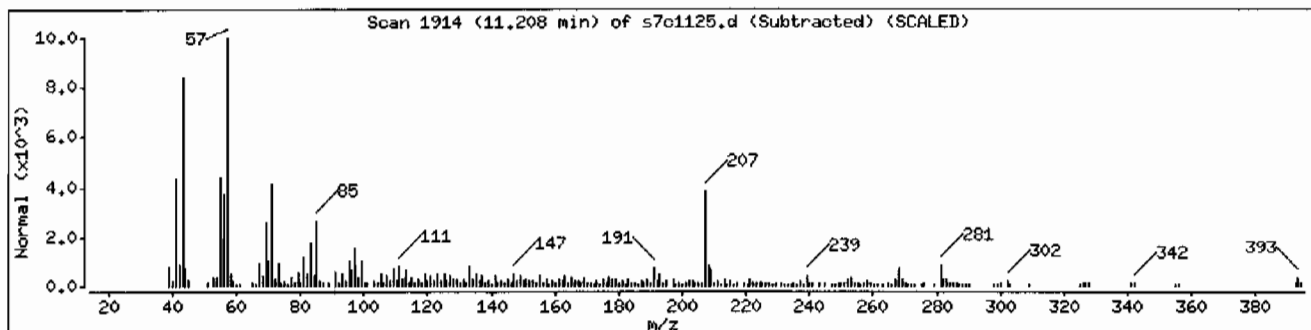
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Nonadecane	629-92-5	NIST05.L	104270	50	C19H40	268
Eicosane, 9-octyl-	13475-77-9	NIST05.L	169722	49	C28H58	394
1-Bromoeicosane	4276-49-7	NIST05.L	157121	47	C20H41Br	360



Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.i

Sample Info: 1248043014195962311SVH11ILANL

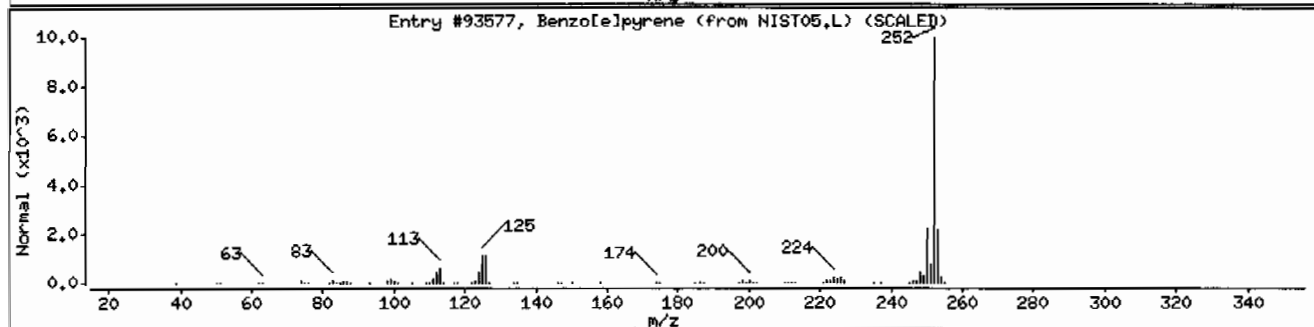
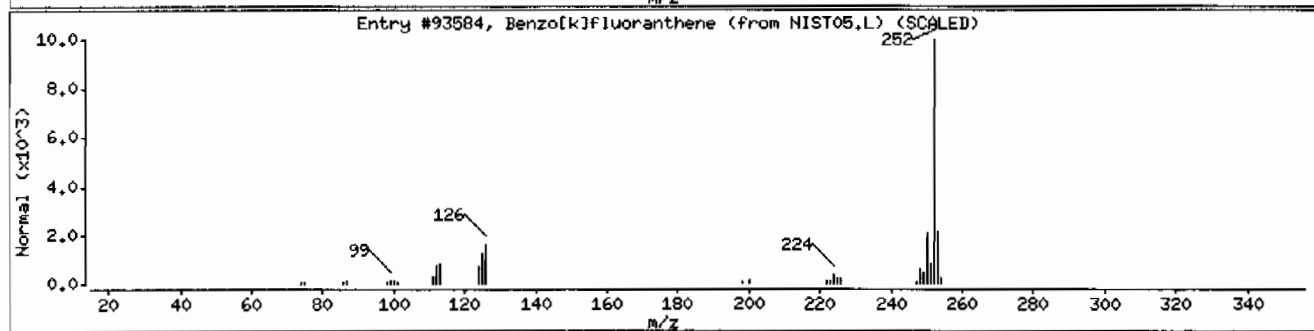
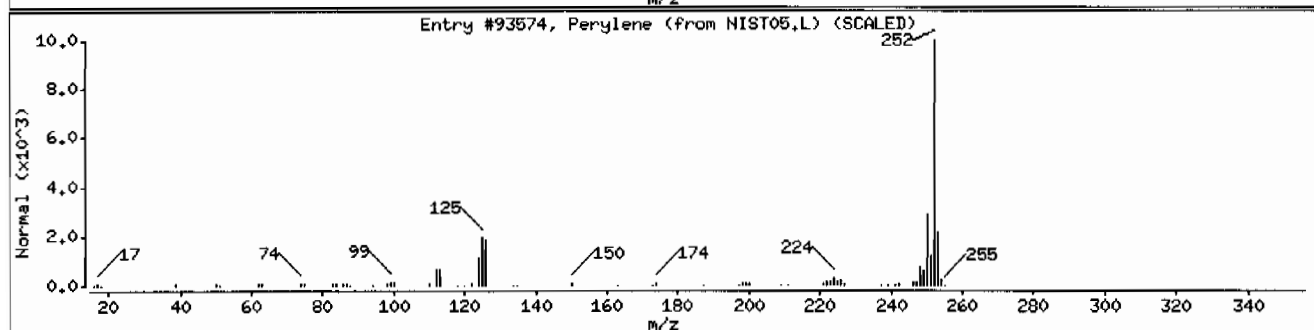
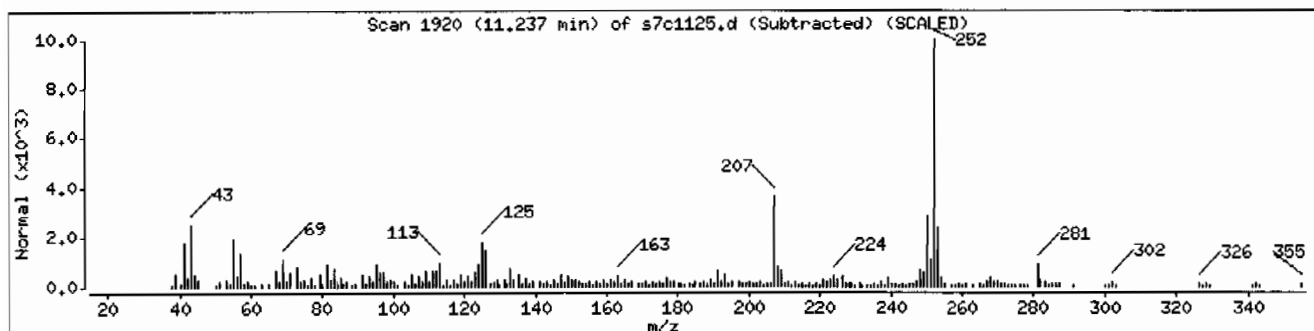
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Perylene	198-55-0	NIST05.L	93574	98	C <sub>20</sub> H <sub>12</sub>	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	96	C <sub>20</sub> H <sub>12</sub>	252
Benzo[e]pyrene	192-97-2	NIST05.L	93577	95	C <sub>20</sub> H <sub>12</sub>	252



Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.i

Sample Info: 1248043014195962311SVH111LANL

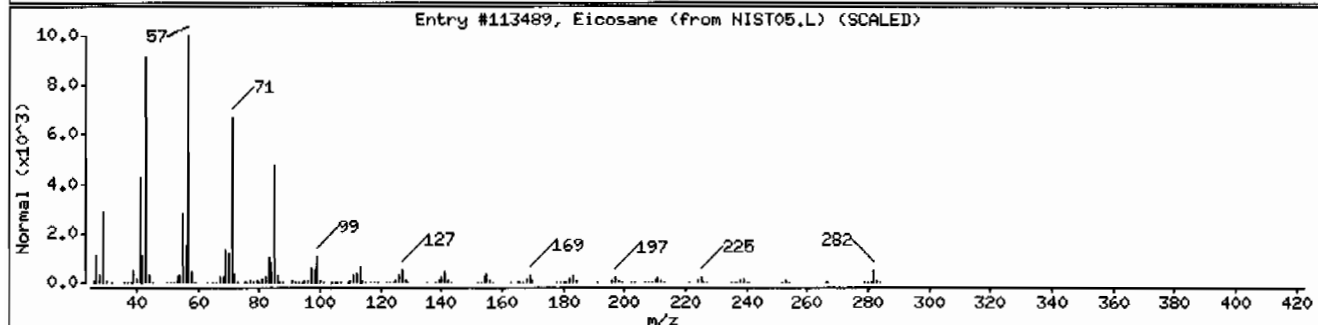
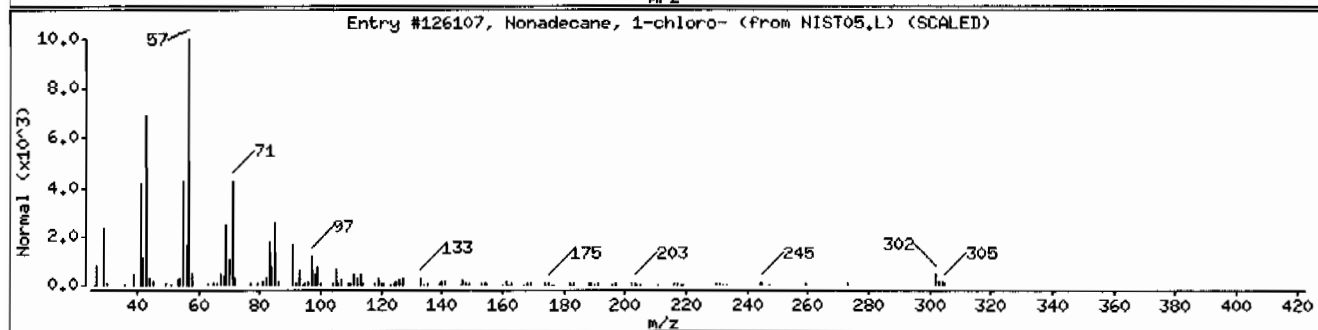
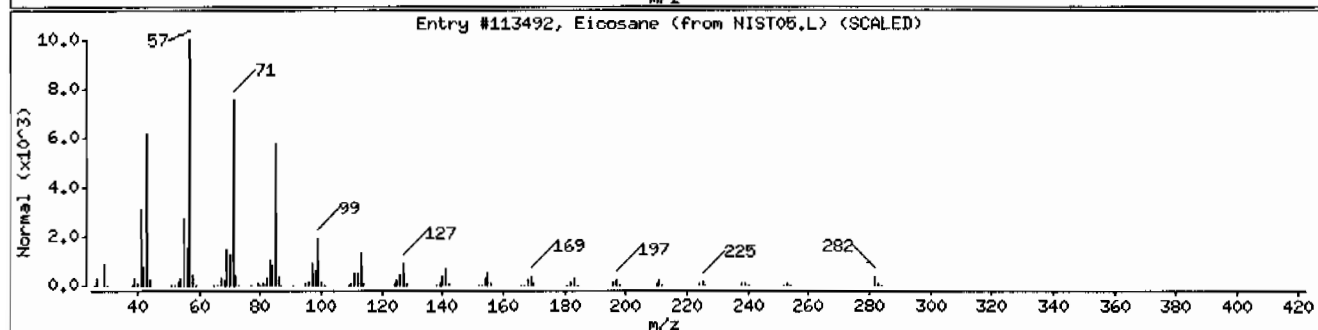
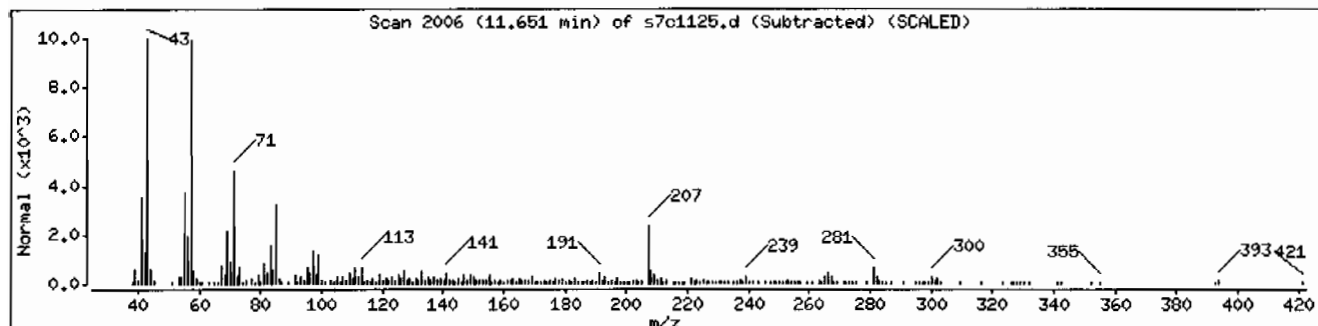
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113492	95	C <sub>20</sub> H <sub>42</sub>	282
Nonadecane, 1-chloro-	62016-76-6	NIST05.L	126107	93	C <sub>19</sub> H <sub>39</sub> Cl	302
Eicosane	112-95-8	NIST05.L	113489	89	C <sub>20</sub> H <sub>42</sub>	282



Date : 11-MAR-2010 21:28

Client ID: RE36-10-7461

Instrument: MSD7.i

Sample Info: I248043014195962311SVH111LANL

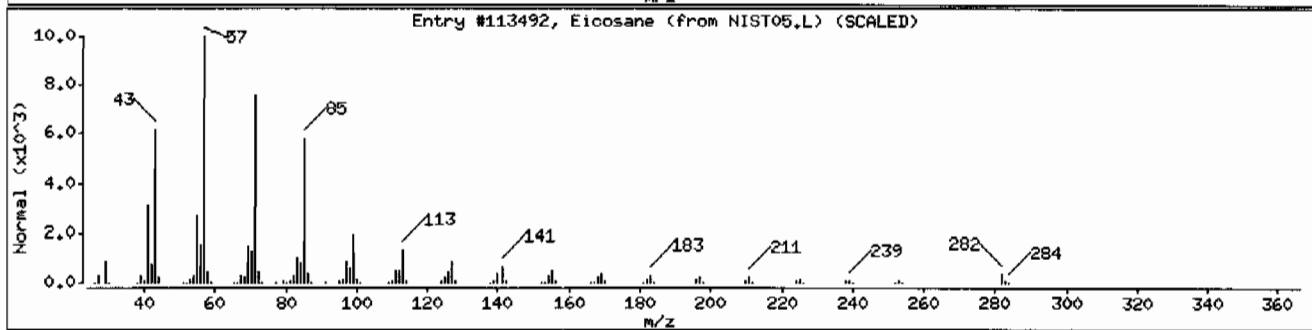
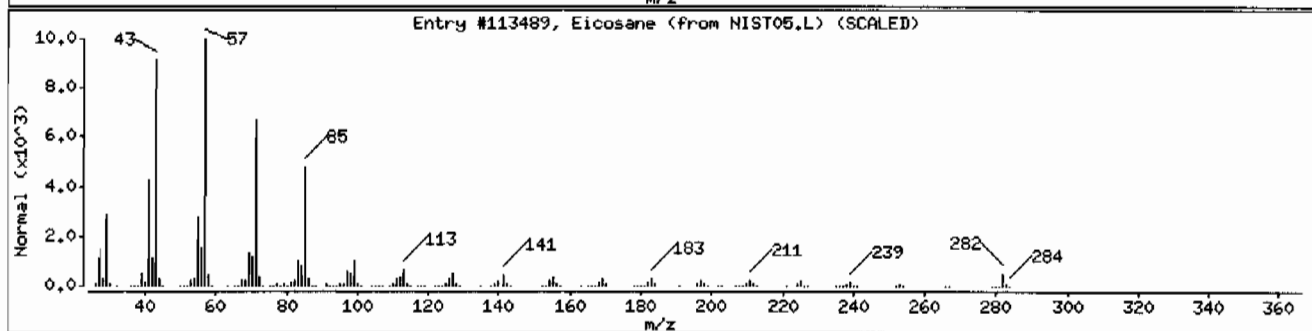
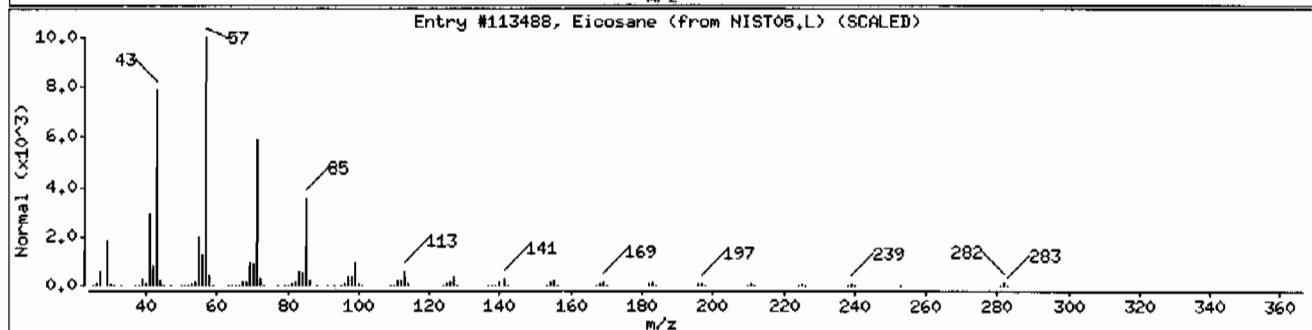
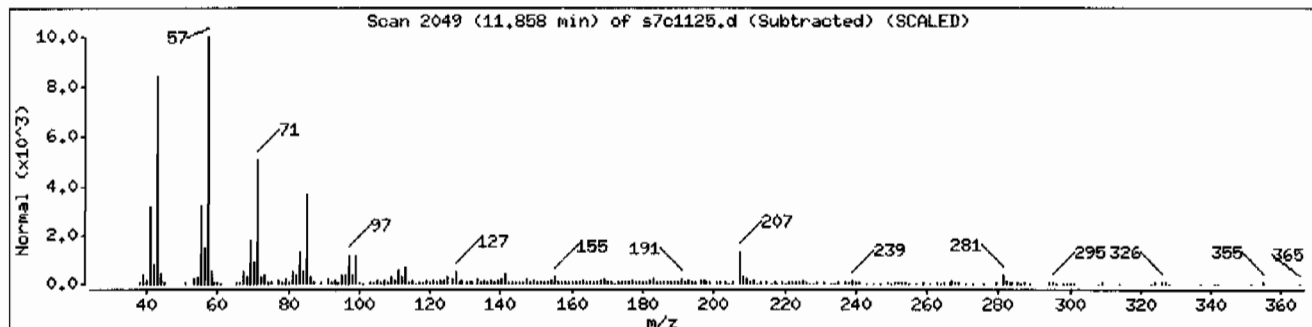
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113488	98	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113489	97	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113492	90	C <sub>20</sub> H <sub>42</sub>	282



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043003	Date Received: 02/25/2010 08:45	%Moisture: 7.9
	Client: I.ANL010	Project: LANL01004
Client ID: RE36-10-7462	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 19:18	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s7c1119.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	361	ug/kg	72.3	361
108-95-2	Phenol	U	361	ug/kg	72.3	361
95-57-8	2-Chlorophenol	U	361	ug/kg	72.3	361
106-46-7	1,4-Dichlorobenzene	U	361	ug/kg	72.3	361
621-64-7	N-Nitrosodipropylamine	U	361	ug/kg	72.3	361
59-50-7	4-Chloro-3-methylphenol	U	361	ug/kg	72.3	361
83-32-9	Acenaphthene	U	36.1	ug/kg	11.9	36.1
121-14-2	2,4-Dinitrotoluene	U	361	ug/kg	36.1	361
100-02-7	4-Nitrophenol	U	361	ug/kg	119	361
87-86-5	Pentachlorophenol	U	361	ug/kg	90.4	361
129-00-0	Pyrene		129	ug/kg	10.8	36.1
110-86-1	Pyridine	U	361	ug/kg	72.3	361
62-53-3	Aniline	U	361	ug/kg	108	361
111-44-4	bis(2-Chloroethyl) ether	U	361	ug/kg	72.3	361
541-73-1	1,3-Dichlorobenzene	U	361	ug/kg	72.3	361
100-51-6	Benzyl alcohol	U	361	ug/kg	108	361
95-50-1	1,2-Dichlorobenzene	U	361	ug/kg	72.3	361
108-60-1	bis(2-Chloroisopropyl)ether	U	361	ug/kg	72.3	361
95-48-7	o-Cresol	U	361	ug/kg	72.3	361
65794-96-9	m,p-Cresols	U	361	ug/kg	108	361
67-72-1	Hexachloroethane	U	361	ug/kg	72.3	361
98-95-3	Nitrobenzene	U	361	ug/kg	72.3	361
78-59-1	Isophorone	U	361	ug/kg	72.3	361
88-75-5	2-Nitrophenol	U	361	ug/kg	72.3	361
105-67-9	2,4-Dimethylphenol	U	361	ug/kg	126	361
111-91-1	bis(2-Chloroethoxy)methane	U	361	ug/kg	72.3	361
120-83-2	2,4-Dichlorophenol	U	361	ug/kg	72.3	361
65-85-0	Benzoic acid	U	723	ug/kg	181	723
91-20-3	Naphthalene	U	36.1	ug/kg	10.8	36.1
106-47-8	4-Chloroaniline	U	361	ug/kg	72.3	361
87-68-3	Hexachlorobutadiene	U	361	ug/kg	72.3	361
91-57-6	2-Methylnaphthalene	U	36.1	ug/kg	7.23	36.1
77-47-4	Hexachlorocyclopentadiene	U	361	ug/kg	72.3	361
88-06-2	2,4,6-Trichlorophenol	U	361	ug/kg	72.3	361
95-95-4	2,4,5-Trichlorophenol	U	361	ug/kg	72.3	361
91-58-7	2-Chloronaphthalene	U	36.1	ug/kg	11.9	36.1
88-74-4	2-Nitroaniline	U	361	ug/kg	72.3	361
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	361	ug/kg	72.3	361

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043003	Date Received: 02/25/2010 08:45	%Moisture: 7.9
Client ID: RE36-10-7462	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/11/2010 19:18	Inst: MSD7.1	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1119.d	Aliquot: 30.05 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	361	ug/kg	72.3	361
606-20-2	2,6-Dinitrotoluene	U	361	ug/kg	36.1	361
208-96-8	Acenaphthylene	U	36.1	ug/kg	10.8	36.1
51-28-5	2,4-Dinitrophenol	U	723	ug/kg	137	723
132-64-9	Dibenzofuran	U	361	ug/kg	72.3	361
84-66-2	Diethylphthalate	U	361	ug/kg	72.3	361
86-73-7	Fluorene	U	36.1	ug/kg	10.8	36.1
7005-72-3	4-Chlorophenylphenylether	U	361	ug/kg	72.3	361
534-52-1	2-Methyl-4,6-dinitrophenol	U	361	ug/kg	72.3	361
100-01-6	4-Nitroaniline	U	361	ug/kg	108	361
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	361	ug/kg	72.3	361
122-66-7	Azobenzene	U	361	ug/kg	72.3	361
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	361	ug/kg	72.3	361
118-74-1	Hexachlorobenzene	U	361	ug/kg	72.3	361
85-01-8	Phenanthrene		107	ug/kg	10.8	36.1
120-12-7	Anthracene	J	18.7	ug/kg	7.23	36.1
84-74-2	Di-n-butylphthalate	U	361	ug/kg	72.3	361
206-44-0	Fluoranthene		166	ug/kg	10.8	36.1
85-68-7	Butylbenzylphthalate	U	361	ug/kg	72.3	361
56-55-3	Benzo(a)anthracene		66.7	ug/kg	10.8	36.1
91-94-1	3,3'-Dichlorobenzidine	U	361	ug/kg	108	361
218-01-9	Chrysene		76.4	ug/kg	10.8	36.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	361	ug/kg	72.3	361
117-84-0	Di-n-octylphthalate	U	361	ug/kg	72.3	361
205-99-2	Benzo(b)fluoranthene		108	ug/kg	10.8	36.1
207-08-9	Benzo(k)fluoranthene	U	36.1	ug/kg	10.8	36.1
50-32-8	Benzo(a)pyrene		57.7	ug/kg	10.8	36.1
193-39-5	Indeno(1,2,3-cd)pyrene		45.1	ug/kg	10.8	36.1
53-70-3	Dibenzo(a,h)anthracene	U	36.1	ug/kg	10.8	36.1
191-24-2	Benzo(ghi)perylene		55.0	ug/kg	10.8	36.1
120-82-1	1,2,4-Trichlorobenzene	U	361	ug/kg	72.3	361

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.36	250	ug/kg		J
	Unknown Aldol Condensate	3.02	296	ug/kg		J

Data File: /chem/MSD7.i/s031110.b/s7c1119.d  
Report Date: 12-Mar-2010 09:57

Page 1

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Data file : /chem/MSD7.i/s031110.b/s7c1119.d  
Lab Smp Id: 248043003 Client Smp ID: RE36-10-7462  
Inj Date : 11-MAR-2010 19:18  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043003|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 19  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	7.92380	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.990	3.990	(1.000)	387072	40.0000	
* 29 Naphthalene-d8	136	4.857	4.857	(1.000)	1476262	40.0000	
* 46 Acenaphthene-d10	164	6.109	6.114	(1.000)	845965	40.0000	
* 67 Phenanthrene-d10	188	7.284	7.284	(1.000)	1520430	40.0000	
* 91 Chrysene-d12	240	9.691	9.691	(1.000)	1170917	40.0000	
* 98 Perylene-d12	264	11.386	11.386	(1.000)	803605	40.0000	
\$ 3 2-Fluorophenol	112	3.191	3.181	(0.800)	348727	34.6616	1250
\$ 5 Phenol-d5	99	3.711	3.706	(0.930)	477983	37.8925	1370
\$ 20 Nitrobenzene-d5	82	4.351	4.356	(0.896)	208592	18.7340	677
\$ 39 2-Fluorobiphenyl	172	5.593	5.598	(0.916)	484882	22.9989	831
\$ 60 2,4,6-Tribromophenol	329	6.711	6.711	(1.099)	120118	49.1165	1780
\$ 81 p-Terphenyl-d14	244	8.656	8.656	(0.893)	515519	24.5752	888

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	====	==	=====	=====	=====	=====	=====
79 Pyrene	202	8.560	8.560	(0.883)	131535	3.55584	128
68 Phenanthrene	178	7.303	7.308	(1.003)	92039	2.94997	107
69 Anthracene	178	7.346	7.351	(1.009)	16351	0.51746	18.7(a)
76 Fluoranthene	202	8.343	8.343	(1.145)	155935	4.59663	166
89 Benzo(a)anthracene	228	9.677	9.677	(0.998)	51820	1.84608	66.7
92 Chrysene	228	9.711	9.715	(1.002)	52804	2.11399	76.4
95 Benzo(b)fluoranthene	252	10.861	10.861	(0.954)	67409	2.99111	108
97 Benzo(a)pyrene	252	11.304	11.309	(0.993)	29478	1.59521	57.6
99 Indeno(1,2,3-cd)pyrene	276	13.158	13.168	(1.156)	16594	1.24878	45.1
101 Benzo(ghi)perylene	276	13.707	13.712	(1.204)	16865	1.52186	55.0

# QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).



## ION RATIO REPORT

## SV REPORT

Data file: s7c1119.d

Report Date: 03/12/2010 08:17

Lab. ID: 248043003

SampleType: SAMPLE

Injection Date: 11-MAR-2010 19:18

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043003|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	28595	3.71	3.78	80-120	100	(T)
93	1002	3.67	3.78	206-266	4	(QT)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	30546	4.35	4.24	80-120	100	(T)
42	20540	4.35	4.23	61-121	67	(T)
-----						
43 Dimethylphthalate		CAS#: 131-11-3				
163	151388	6.11	5.87	80-120	100	(T)
164	845145	6.11	5.87	0- 40	558	(QT)
-----						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	110859	6.11	5.93	80-120	100	(T)
63	1866	6.11	5.93	52-112	2	(QT)
-----						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	110859	6.11	6.23	80-120	100	(T)
89	1479	6.11	6.23	37- 97	1	(QT)
63	1866	6.11	6.23	17- 77	2	(QT)
-----						
53 Fluorene		CAS#: 86-73-7				
166	7104	6.71	6.53	80-120	100	(T)
165	8438	6.71	6.53	61-121	119	(T)
167	2909	6.71	6.52	0- 44	41	(T)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	419	6.71	6.54	80-120	100	(T)
105	1389	6.71	6.54	10- 70	332	(QT)
51	1312	6.71	6.54	54-114	313	(QT)
-----						
68 Phenanthrene				CAS#: 85-01-8		
178	92039	7.30	7.31	80-120	100	( )
179	15333	7.30	7.31	0- 46	17	( )
176	17243	7.30	7.31	0- 49	19	( )
-----						
69 Anthracene				CAS#: 120-12-7		
178	16351	7.35	7.35	80-120	100	( )
179	4276	7.34	7.35	0- 46	26	( )
176	2863	7.35	7.35	0- 48	18	( )
-----						
76 Fluoranthene				CAS#: 206-44-0		
202	155935	8.34	8.34	80-120	100	( )
203	27102	8.34	8.34	0- 48	17	( )
101	17123	8.34	8.34	0- 41	11	( )
-----						
79 Pyrene				CAS#: 129-00-0		
202	131535	8.56	8.56	80-120	100	( )
200	26318	8.56	8.56	0- 50	20	( )
101	17749	8.56	8.56	0- 44	13	( )
-----						
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	51820	9.68	9.68	80-120	100	( )
226	14047	9.68	9.68	0- 56	27	( )
229	13644	9.68	9.68	0- 50	26	( )
-----						
92 Chrysene				CAS#: 218-01-9		
228	52804	9.71	9.72	80-120	100	( )
229	12429	9.71	9.72	0- 50	24	( )
226	15879	9.71	9.72	0- 59	30	( )
-----						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	67409	10.86	10.86	80-120	100	( )
253	16064	10.86	10.86	0- 52	24	( )
125	8529	10.86	10.86	0- 41	13	( )
-----						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	67409	10.86	10.90	80-120	100	( )
253	16191	10.86	10.90	0- 52	24	( )
125	9344	10.86	10.90	0- 42	14	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	29478	11.30	11.31	80-120	100	( )
253	6914	11.30	11.31	0- 52	23	( )
125	4656	11.30	11.30	0- 42	16	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
99	Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5		
276	16594	13.16	13.17	80-120	100	( )
138	4360	13.16	13.17	2- 62	26	( )
-----						
100	Dibenzo(a,h)anthracene			CAS#: 53-70-3		
278	5145	13.17	13.18	80-120	100	( )
139	262	13.19	13.18	0- 50	5	( )
-----						
101	Benzo(ghi)perylene			CAS#: 191-24-2		
276	16865	13.71	13.71	80-120	100	( )
138	4650	13.71	13.71	0- 58	28	( )
-----						
Q qualifier indicates ion failed ratio requirement						

Data File: /chem/MSD7.i/s031110.b/s7c1119.d  
 Report Date: 12-Mar-2010 09:57

Page 1

# GEL Laboratories LLC

## GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031110.b/s7c1119.d  
 Lab Smp Id: 248043003 Client Smp ID: RE36-10-7462  
 Inj Date : 11-MAR-2010 19:18  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043003|959623|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 19  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	7.92380	% moisture

Cpnd Variable

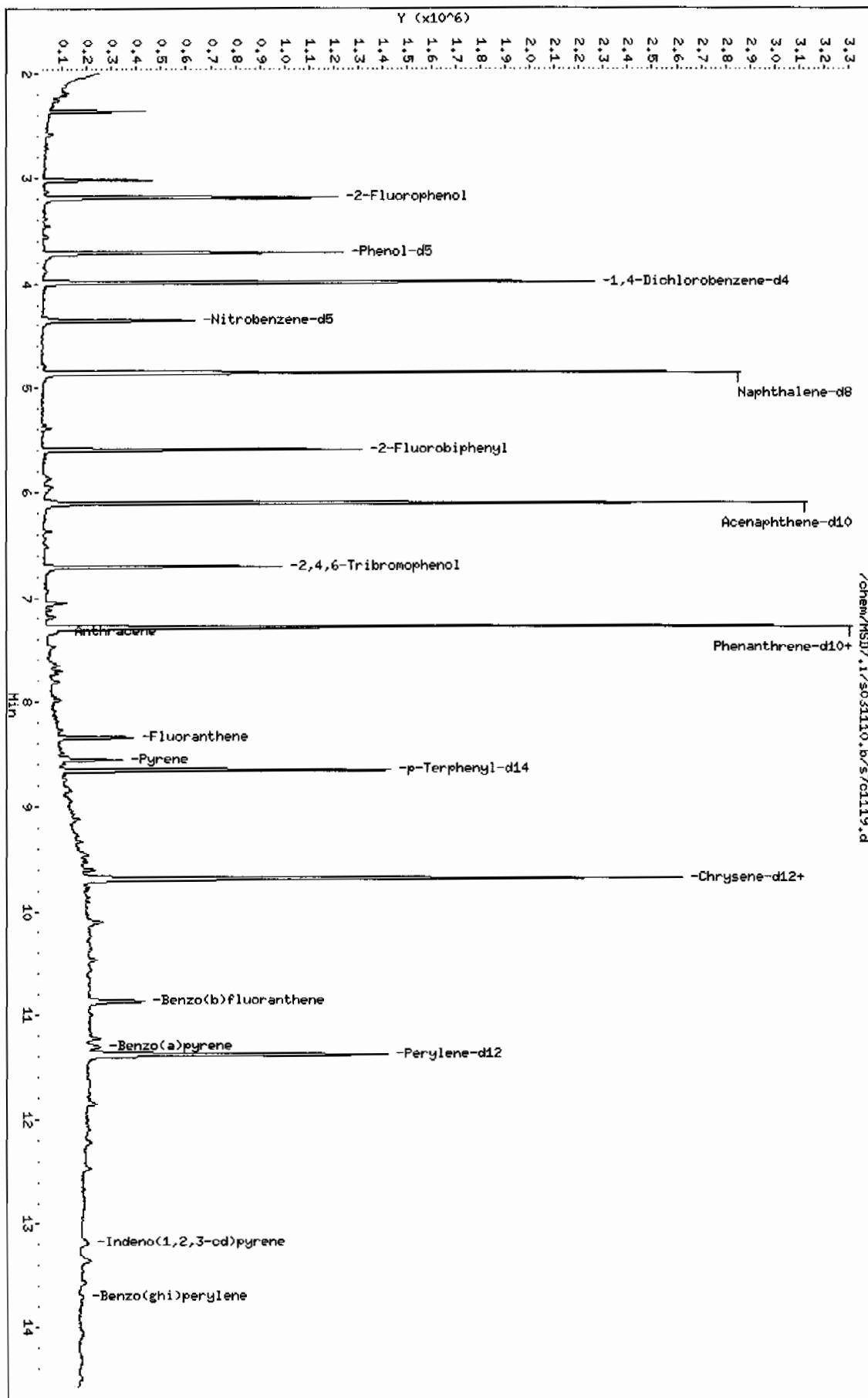
Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.990	2354671	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown				CAS #:			
2.358	406878	6.91183735	250	0		0	10
Unknown Aldol Condensate				CAS #:			
3.022	482712	8.20008168	296	0		0	10

Data File: /chem/MSD7.1/s031110.b/s7c1119.d  
 Date: 11-MAR-2010 19:18  
 Client ID: RE36-10-7462  
 Sample Info: 1249043003195962311SUM11LNL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: MSD7.1  
 Operator: JH83  
 Column diameter: 0.20



Date : 11-MAR-2010 19:18

Client ID: RE36-10-7462

Instrument: HSD7.i

Sample Info: I2480430031959623111SVH111LANL

Volume Injected (uL): 0.5

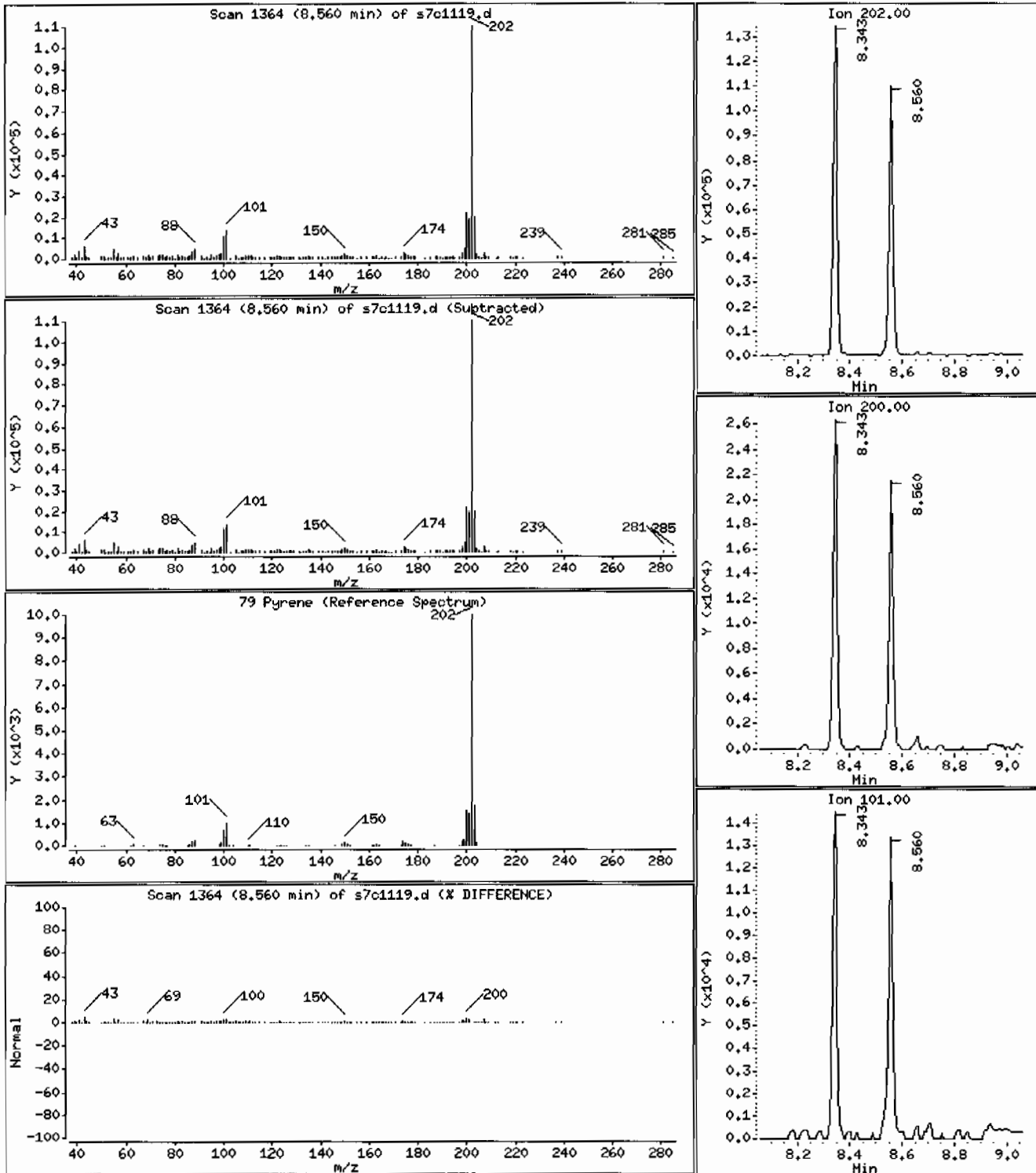
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 128 ug/Kg



Date : 11-MAR-2010 19:18

Client ID: RE36-10-7462

Instrument: MSD7.i

Sample Info: 1248043003195962311SVH11/LANL

Volume Injected (uL): 0.5

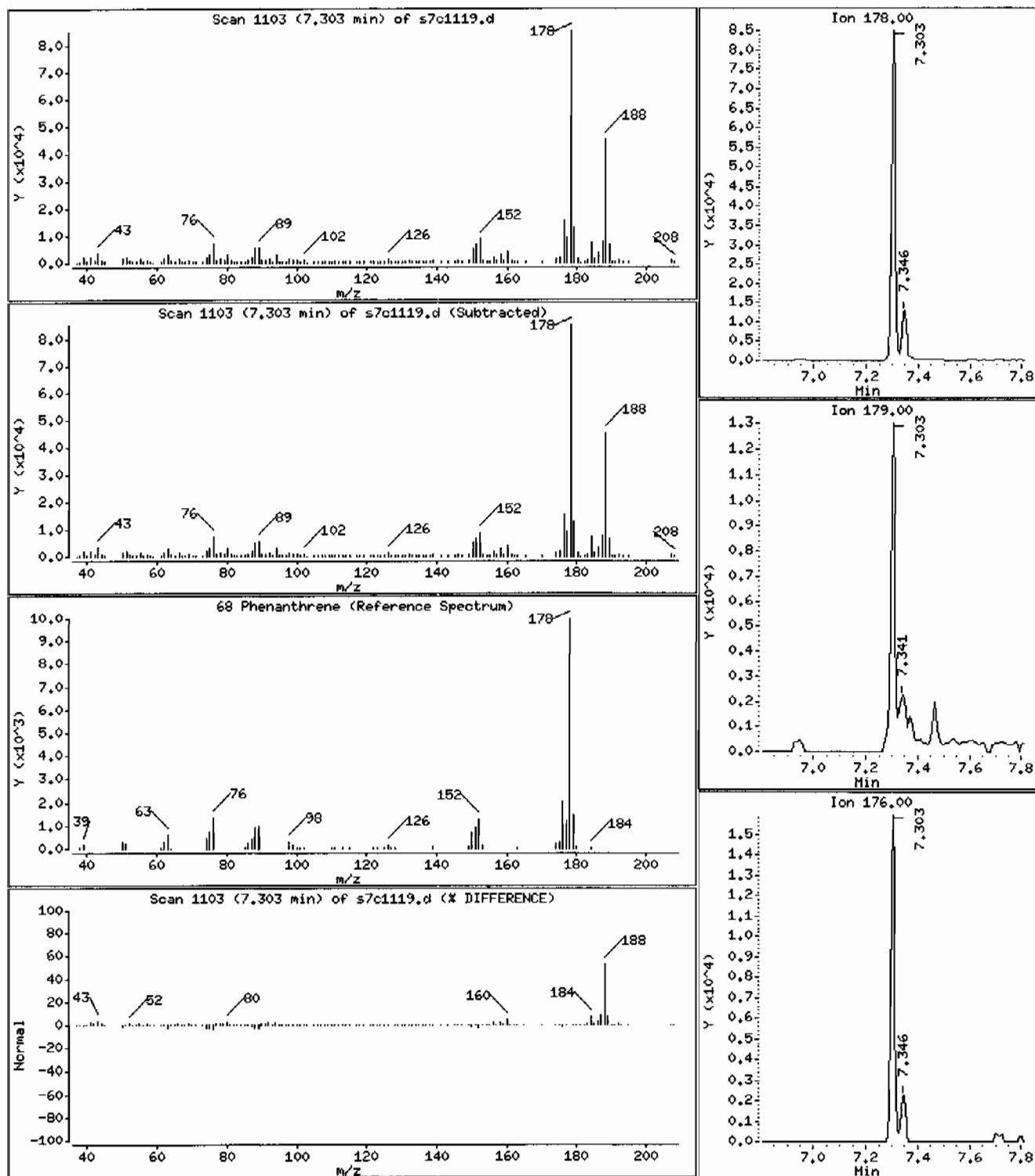
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 107 ug/Kg



Date: 11-MAR-2010 19:18

Client ID: RE36-10-7462

Instrument: MSD7.i

Sample Info: 1248043003195962311SVH11ILANL

Volume Injected (uL): 0.5

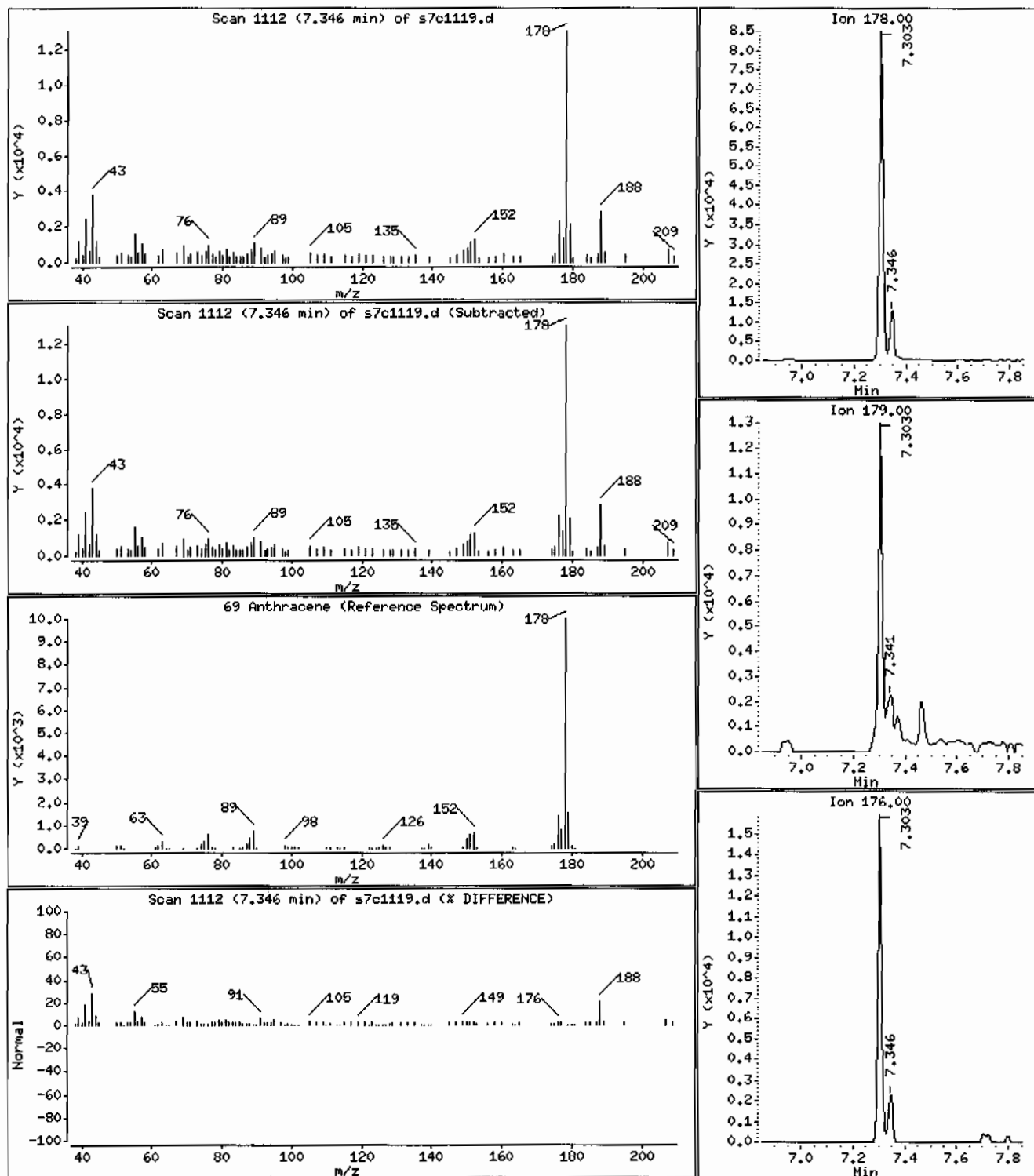
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 18.7 ug/Kg





Date : 11-MAR-2010 19:18

Client ID: RE36-10-7462

Instrument: MSD7.i

Sample Info: 1248043003195962311SVH111LANL

Volume Injected (uL): 0.5

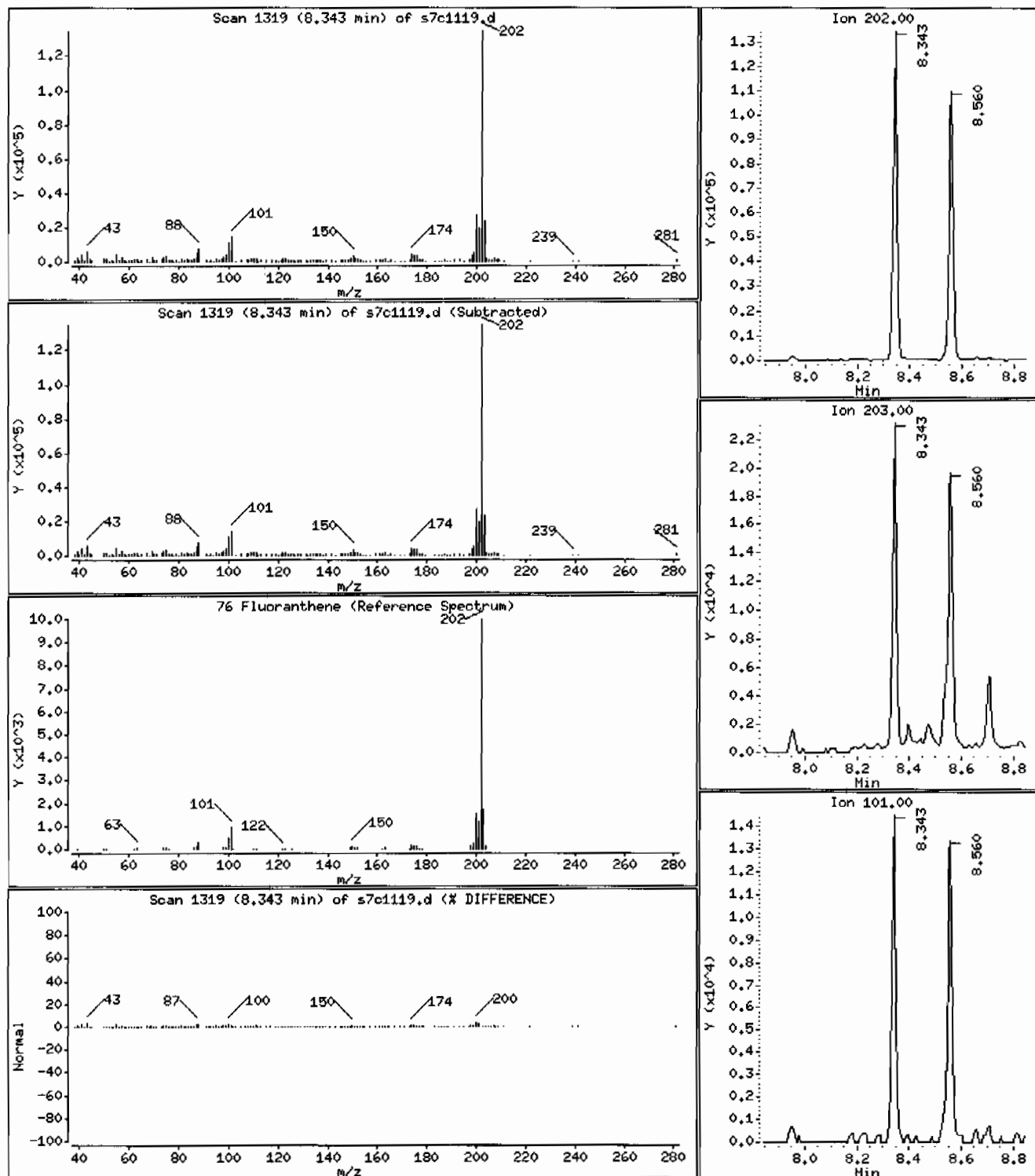
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 166 ug/Kg



Date : 11-MAR-2010 19:18

Client ID: RE36-10-7462

Instrument: MSD7.i

Sample Info: 1248043003195962311SVH11ILANL

Volume Injected (uL): 0.5

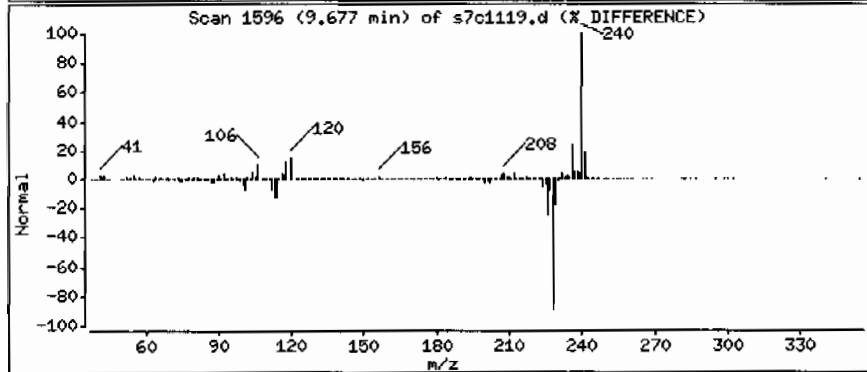
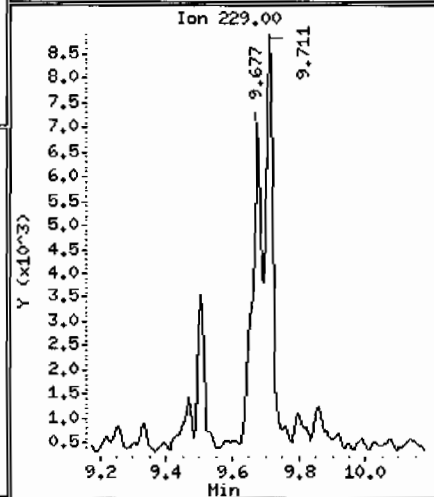
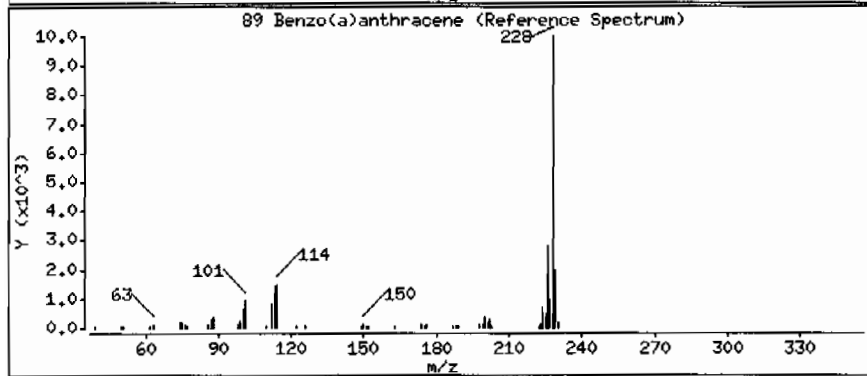
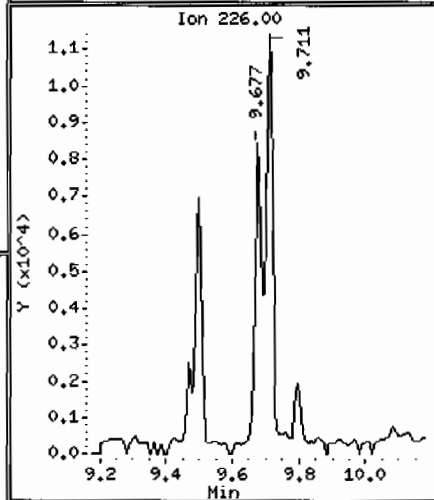
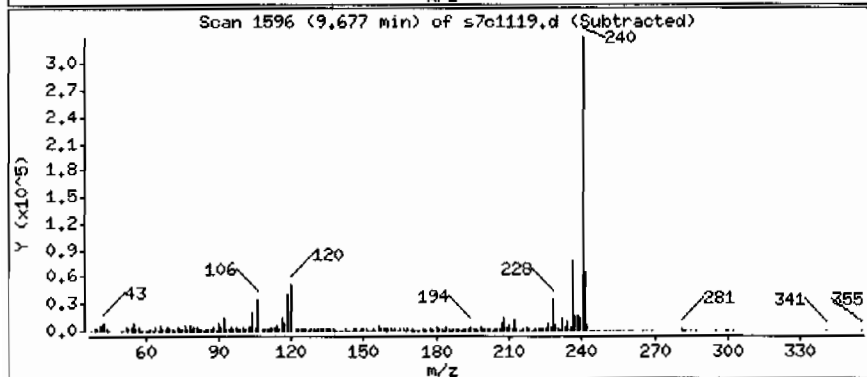
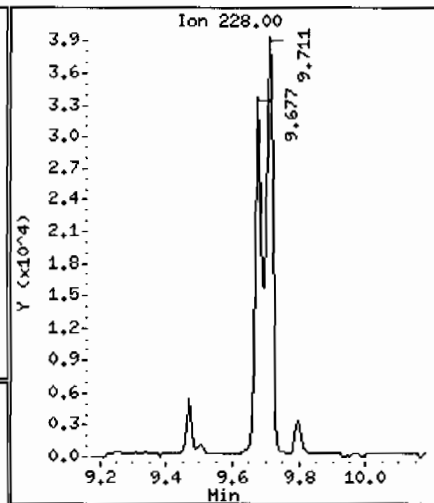
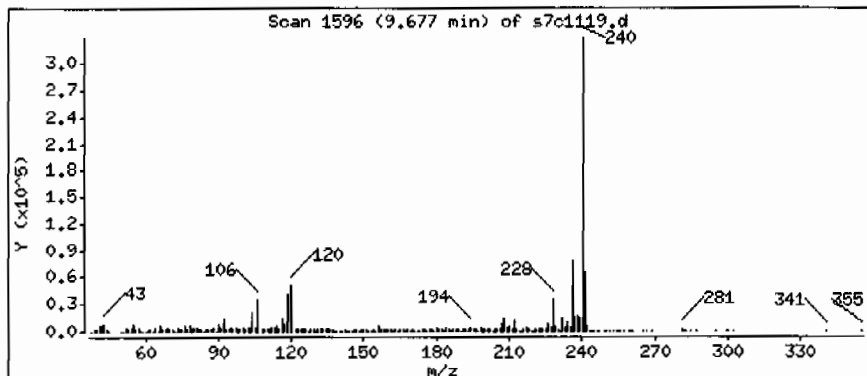
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 66.7 ug/Kg



Date : 11-MAR-2010 19:18

Client ID: RE36-10-7462

Instrument: MSD7.i

Sample Info: 12480430031959623111SVH111LANL

Volume Injected (uL): 0,5

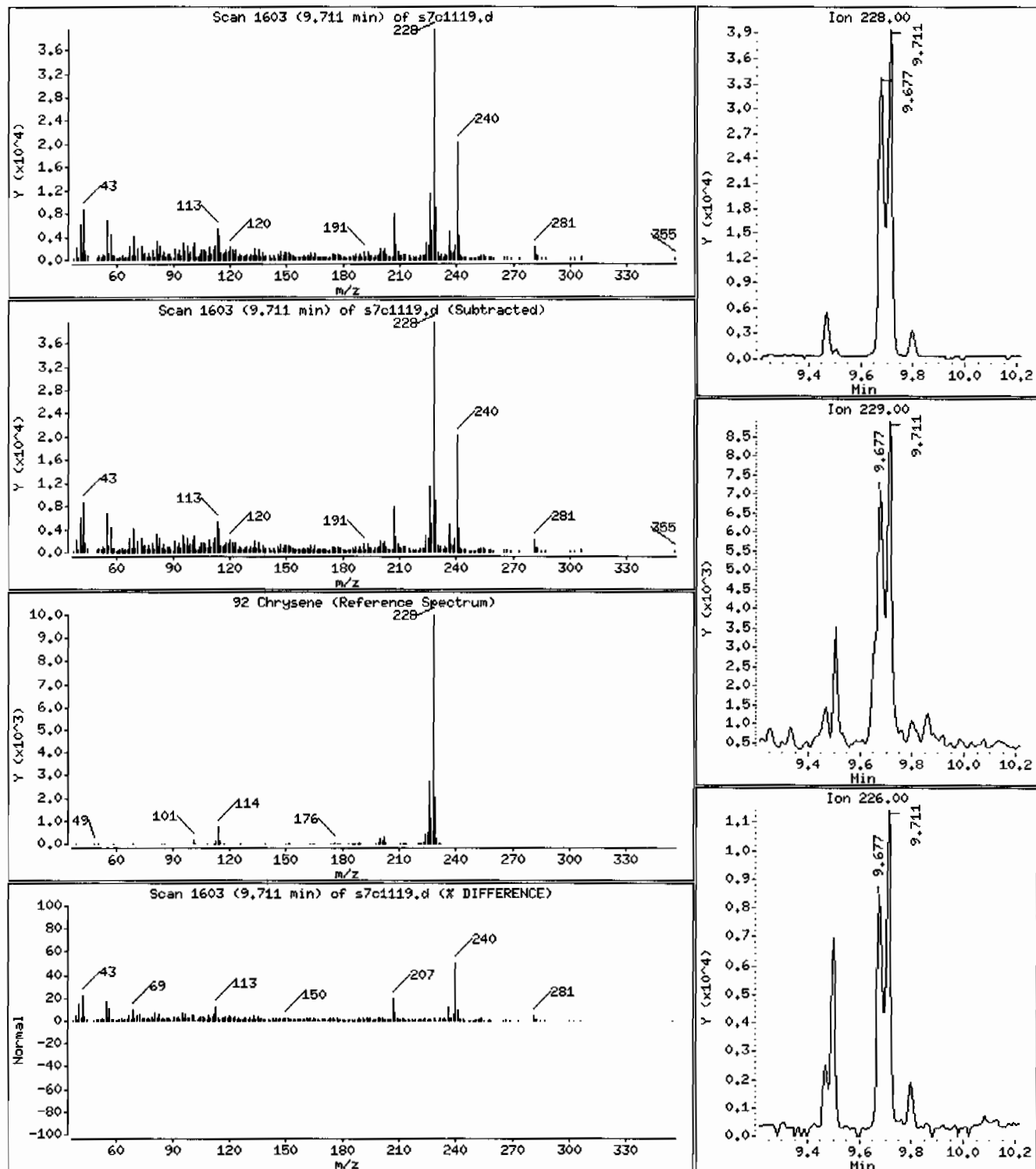
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

92 Chrysene

Concentration: 76,4 ug/Kg



Date : 11-MAR-2010 19:18

Client ID: RE36-10-7462

Instrument: HSD7.i

Sample Info: 12480430031959623111SVH111LANL

Volume Injected (uL): 0.5

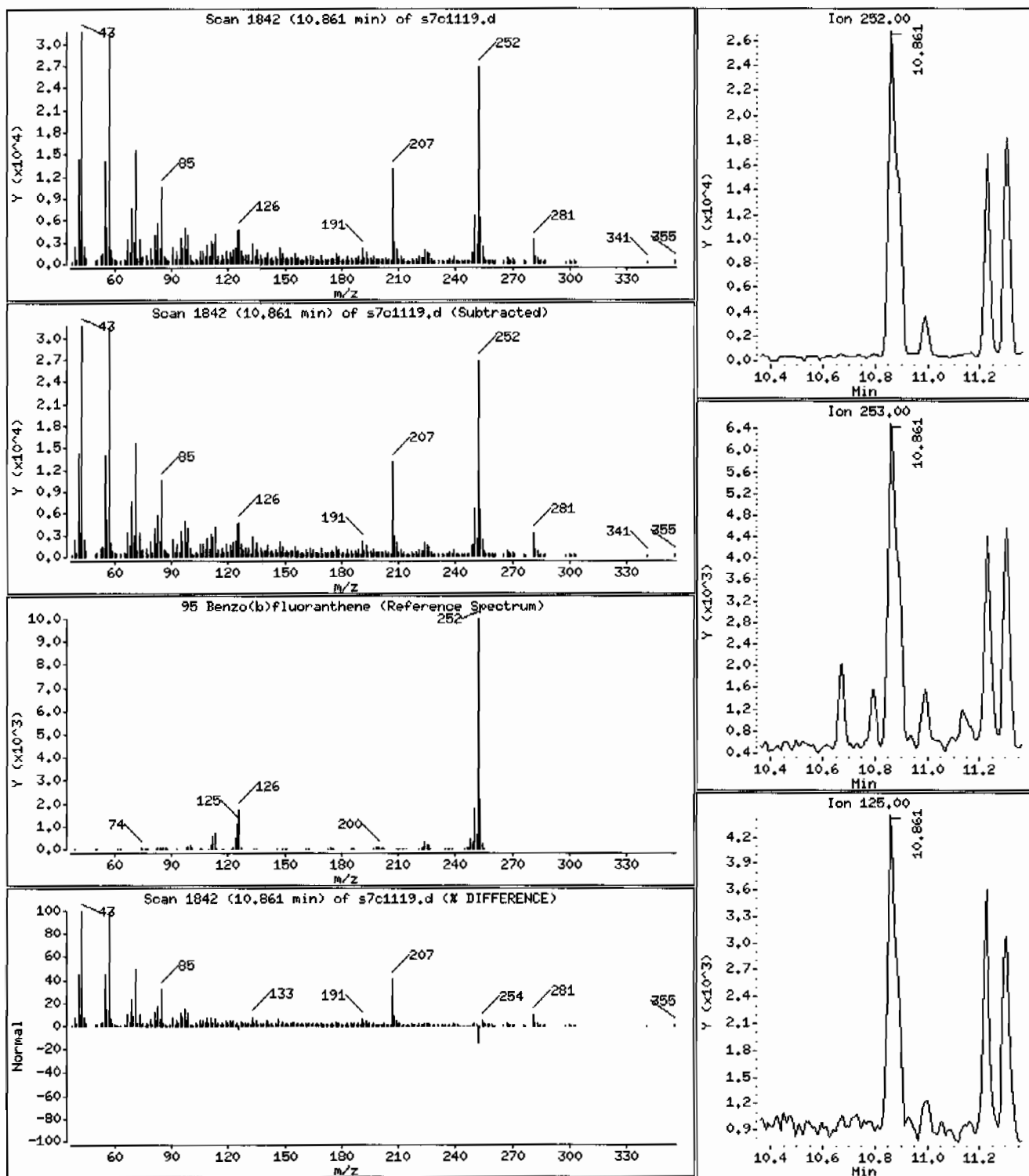
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)Fluoranthene

Concentration: 108 ug/Kg



Date : 11-MAR-2010 19:18

Client ID: RE36-10-7462

Instrument: MSD7.i

Sample Info: I248043003195962311SVH111LANL

Volume Injected (uL): 0.5

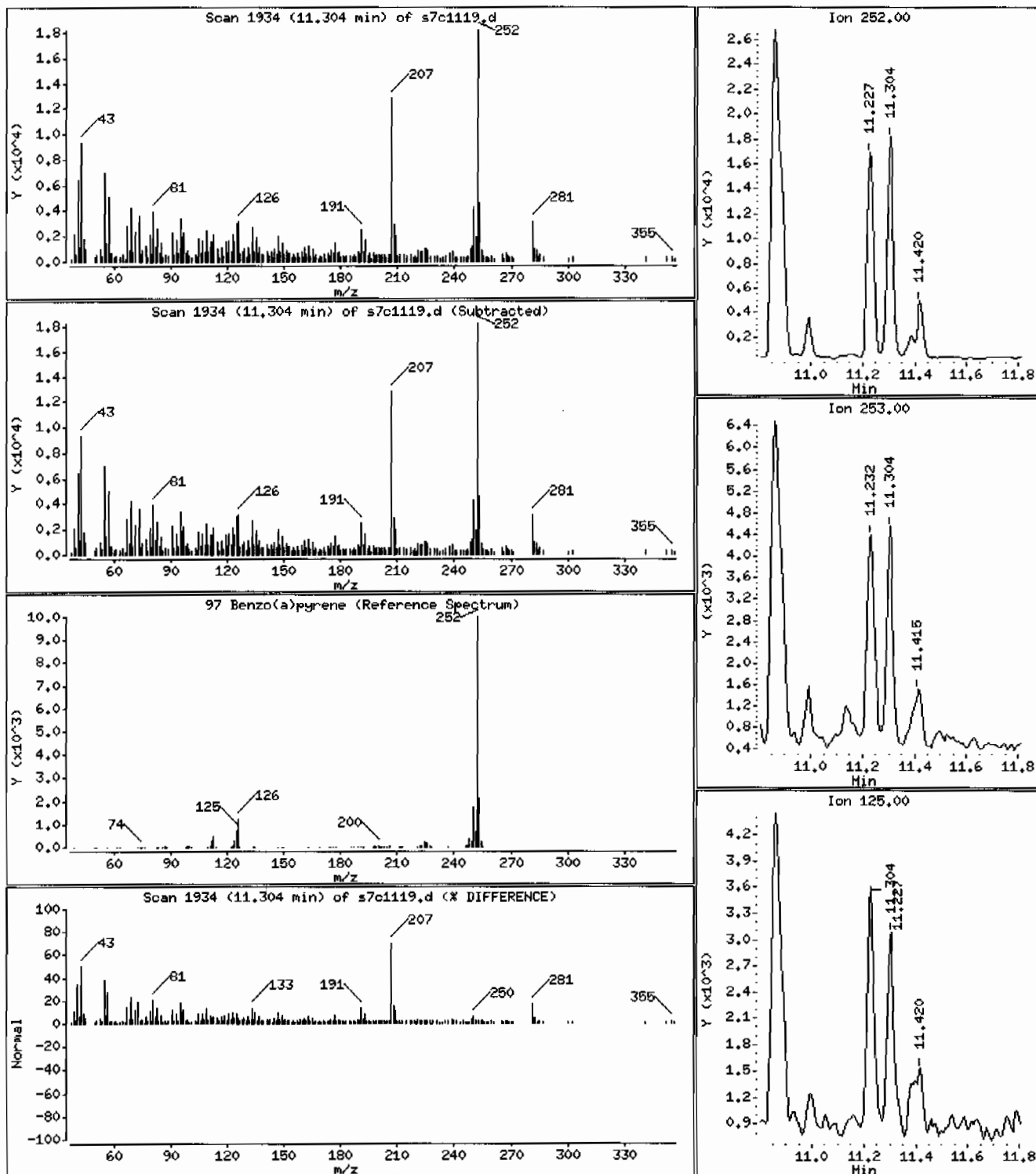
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 57.6 ug/Kg



Date : 11-MAR-2010 19:18

Client ID: RE36-10-7462

Instrument: MSD7.i

Sample Info: I2480430031959623111SVH111LANL

Volume Injected (uL): 0.5

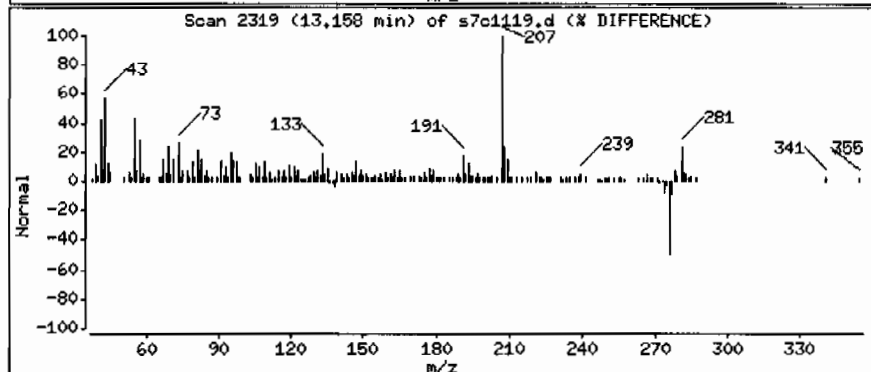
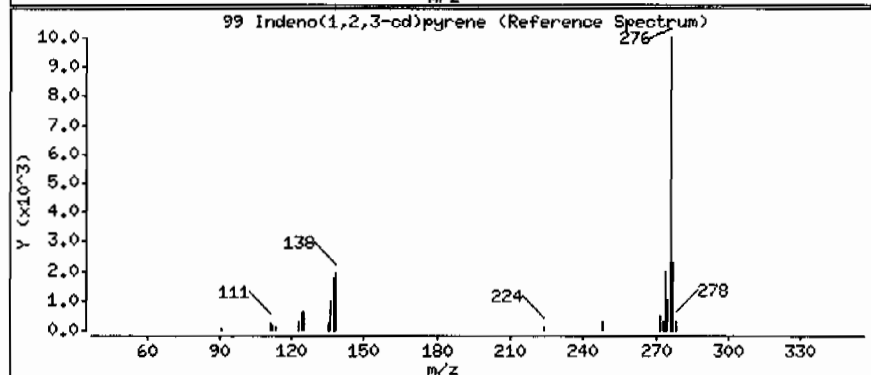
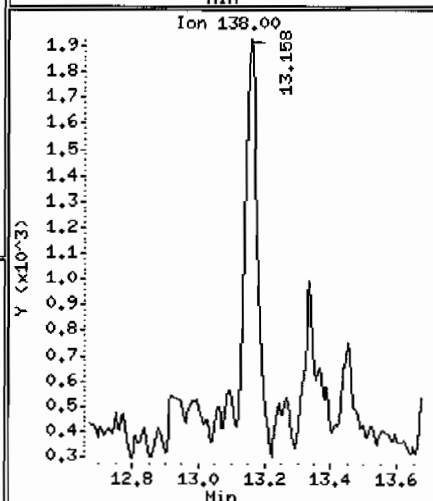
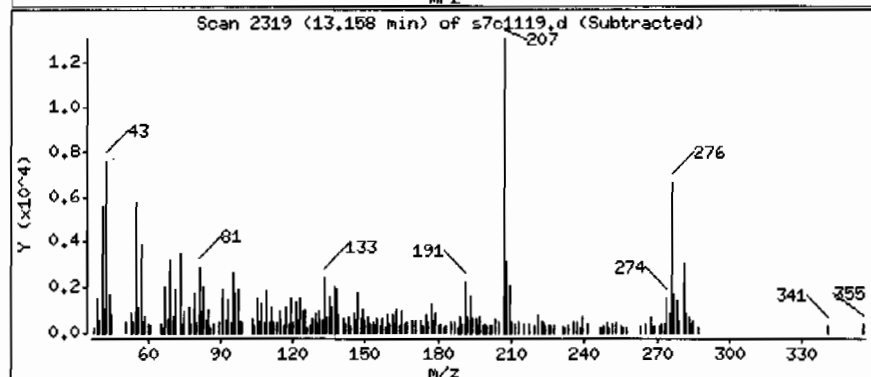
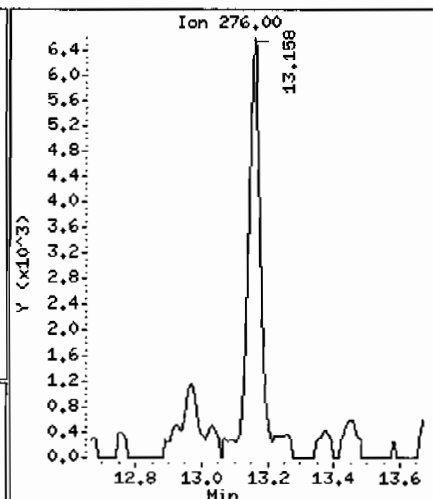
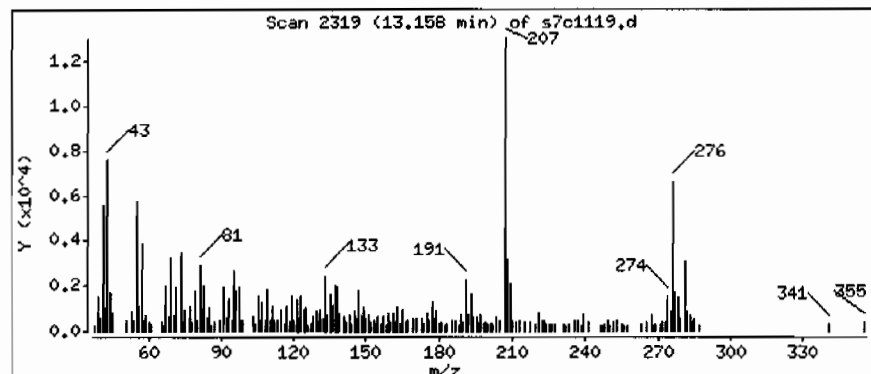
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 45.1 ug/Kg



Date : 11-MAR-2010 19:18

Client ID: RE36-10-7462

Instrument: MSD7.i

Sample Info: 1248043003195962311SVMI1ILANL

Volume Injected (uL): 0.5

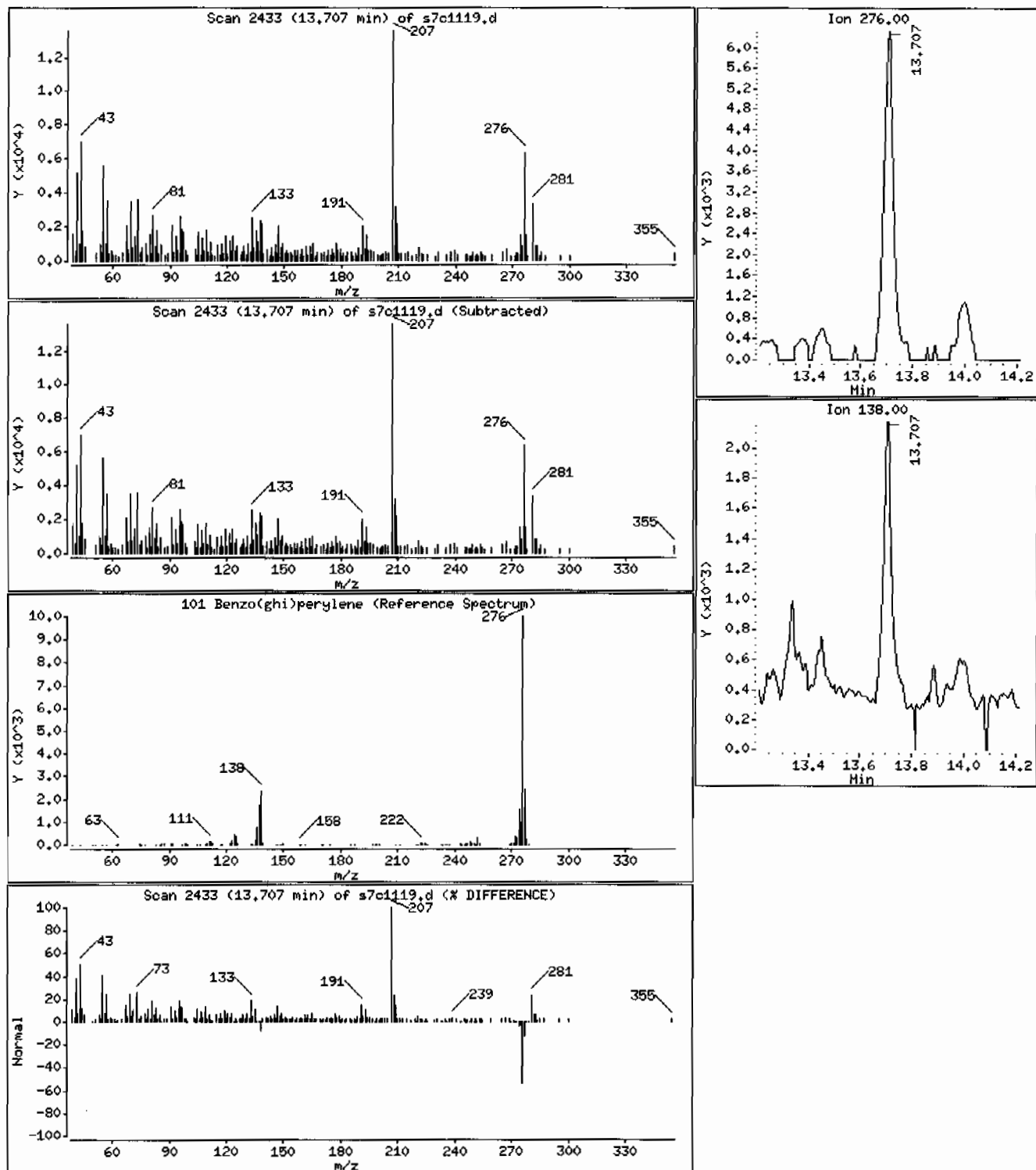
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 55.0 ug/Kg



Date: 11-MAR-2010 19:18

Client ID: RE36-10-7462

Instrument: MSD7.i

Sample Info: 1248043003195962311SVMI11LANL

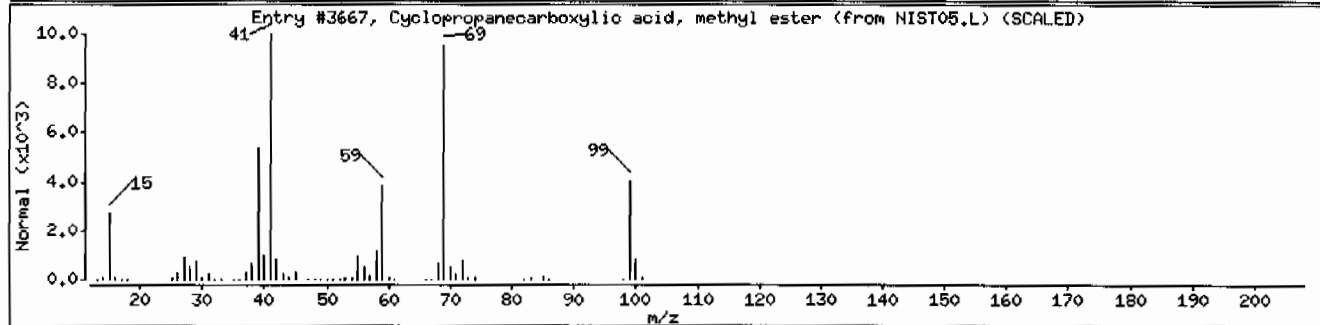
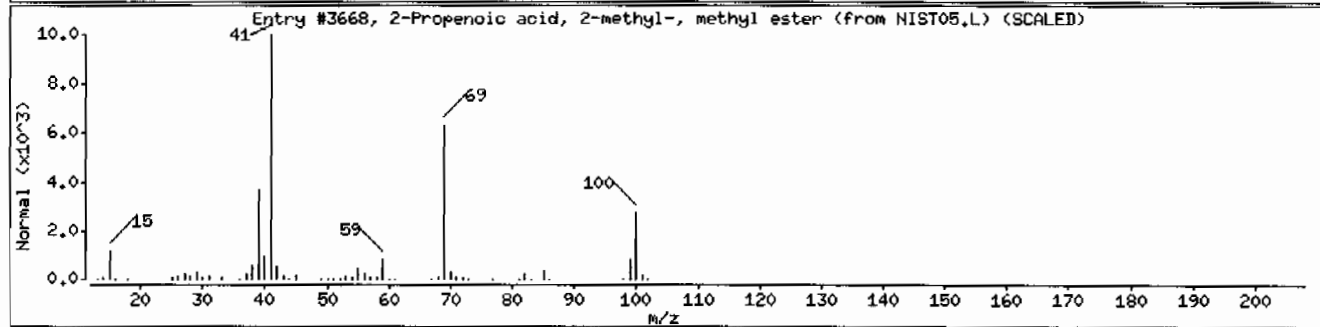
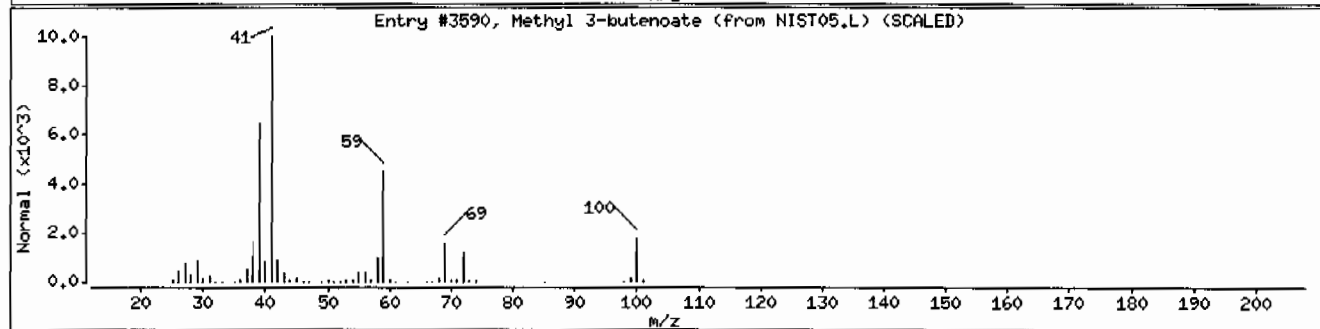
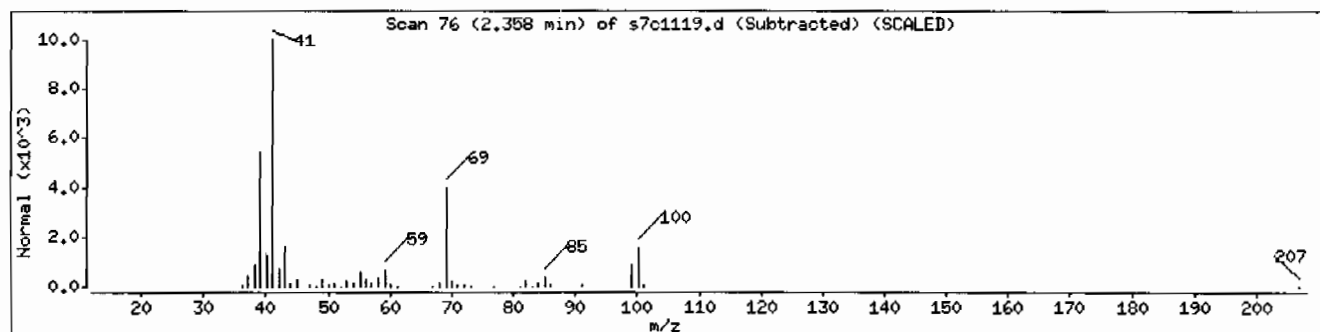
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Methyl 3-butenate	3724-55-8	NIST05.L	3590	72	C5H8O2	100
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	NIST05.L	3668	49	C5H8O2	100
Cyclopropanecarboxylic acid, methyl ester	2868-37-3	NIST05.L	3667	45	C5H8O2	100





Date : 11-MAR-2010 19:18

Client ID: RE36-10-7462

Instrument: MSD7.i

Sample Info: 1248043003195962311SVMI1ILANL

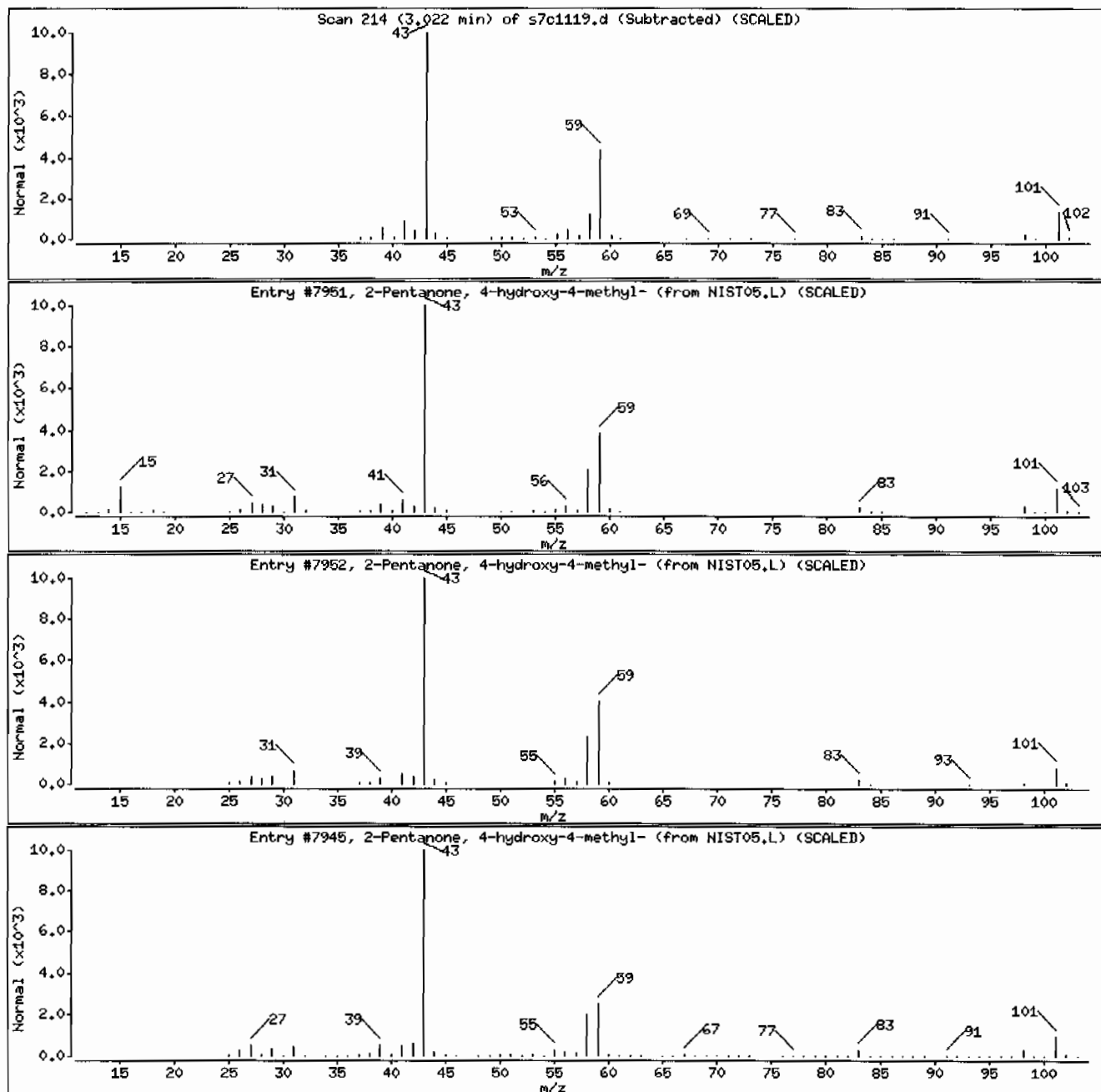
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043010

Client ID: RE36-10-7463  
Batch ID: 959623  
Run Date: 03/11/2010 20:01  
Prep Date: 03/02/2010 11:17  
Data File: s7c1121.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQI/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	363	ug/kg	72.6	363
108-95-2	Phenol	U	363	ug/kg	72.6	363
95-57-8	2-Chlorophenol	U	363	ug/kg	72.6	363
106-46-7	1,4-Dichlorobenzene	U	363	ug/kg	72.6	363
621-64-7	N-Nitrosodipropylamine	U	363	ug/kg	72.6	363
59-50-7	4-Chloro-3-methylphenol	U	363	ug/kg	72.6	363
83-32-9	Acenaphthene	J	12.9	ug/kg	12.0	36.3
121-14-2	2,4-Dinitrotoluene	U	363	ug/kg	36.3	363
100-02-7	4-Nitrophenol	U	363	ug/kg	120	363
87-86-5	Pentachlorophenol	U	363	ug/kg	90.7	363
129-00-0	Pyrene		222	ug/kg	10.9	36.3
110-86-1	Pyridine	U	363	ug/kg	72.6	363
62-53-3	Aniline	U	363	ug/kg	109	363
111-44-4	bis(2-Chloroethyl) ether	U	363	ug/kg	72.6	363
541-73-1	1,3-Dichlorobenzene	U	363	ug/kg	72.6	363
100-51-6	Benzyl alcohol	U	363	ug/kg	109	363
95-50-1	1,2-Dichlorobenzene	U	363	ug/kg	72.6	363
108-60-1	bis(2-Chloroisopropyl)ether	U	363	ug/kg	72.6	363
95-48-7	o-Cresol	U	363	ug/kg	72.6	363
65794-96-9	m,p-Cresols	U	363	ug/kg	109	363
67-72-1	Hexachloroethane	U	363	ug/kg	72.6	363
98-95-3	Nitrobenzene	U	363	ug/kg	72.6	363
78-59-1	Isophorone	U	363	ug/kg	72.6	363
88-75-5	2-Nitrophenol	U	363	ug/kg	72.6	363
105-67-9	2,4-Dimethylphenol	U	363	ug/kg	127	363
111-91-1	bis(2-Chloroethoxy)methane	U	363	ug/kg	72.6	363
120-83-2	2,4-Dichlorophenol	U	363	ug/kg	72.6	363
65-85-0	Benzoic acid	U	726	ug/kg	181	726
91-20-3	Naphthalene	U	36.3	ug/kg	10.9	36.3
106-47-8	4-Chloroaniline	U	363	ug/kg	72.6	363
87-68-3	Hexachlorobutadiene	U	363	ug/kg	72.6	363
91-57-6	2-Methylnaphthalene	U	36.3	ug/kg	7.26	36.3
77-47-4	Hexachlorocyclopentadiene	U	363	ug/kg	72.6	363
88-06-2	2,4,6-Trichlorophenol	U	363	ug/kg	72.6	363
95-95-4	2,4,5-Trichlorophenol	U	363	ug/kg	72.6	363
91-58-7	2-Chloronaphthalene	U	36.3	ug/kg	12.0	36.3
88-74-4	2-Nitroaniline	U	363	ug/kg	72.6	363
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	363	ug/kg	72.6	363

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043010	Date Received: 02/25/2010 08:45	%Moisture: 8.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7463	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 20:01	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s7c1121.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<i>m-Nitroaniline</i>						
131-11-3	Dimethylphthalate	U	363	ug/kg	72.6	363
606-20-2	2,6-Dinitrotoluene	U	363	ug/kg	36.3	363
208-96-8	Acenaphthylene	U	36.3	ug/kg	10.9	36.3
51-28-5	2,4-Dinitrophenol	U	726	ug/kg	138	726
132-64-9	Dibenzofuran	U	363	ug/kg	72.6	363
84-66-2	Diethylphthalate	U	363	ug/kg	72.6	363
86-73-7	Fluorene	J	13.6	ug/kg	10.9	36.3
7005-72-3	4-Chlorophenylphenylether	U	363	ug/kg	72.6	363
534-52-1	2-Methyl-4,6-dinitrophenol	U	363	ug/kg	72.6	363
100-01-6	4-Nitroaniline	U	363	ug/kg	109	363
<i>p-Nitroaniline</i>						
122-39-4	Diphenylamine	U	363	ug/kg	72.6	363
122-66-7	Azobenzene	U	363	ug/kg	72.6	363
<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenylphenylether	U	363	ug/kg	72.6	363
118-74-1	Hexachlorobenzene	U	363	ug/kg	72.6	363
85-01-8	Phenanthrene		172	ug/kg	10.9	36.3
120-12-7	Anthracene	J	29.0	ug/kg	7.26	36.3
84-74-2	Di-n-butylphthalate	U	363	ug/kg	72.6	363
206-44-0	Fluoranthene		249	ug/kg	10.9	36.3
85-68-7	Butylbenzylphthalate	U	363	ug/kg	72.6	363
56-55-3	Benzo(a)anthracene		107	ug/kg	10.9	36.3
91-94-1	3,3'-Dichlorobenzidine	U	363	ug/kg	109	363
218-01-9	Chrysene		128	ug/kg	10.9	36.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	363	ug/kg	72.6	363
117-84-0	Di-n-octylphthalate	U	363	ug/kg	72.6	363
205-99-2	Benzo(b)fluoranthene		207	ug/kg	10.9	36.3
207-08-9	Benzo(k)fluoranthene	U	36.3	ug/kg	10.9	36.3
50-32-8	Benzo(a)pyrene		113	ug/kg	10.9	36.3
193-39-5	Indeno(1,2,3-cd)pyrene		71.5	ug/kg	10.9	36.3
53-70-3	Dibenzo(a,h)anthracene	J	31.0	ug/kg	10.9	36.3
191-24-2	Benzo(ghi)perylene		81.8	ug/kg	10.9	36.3
120-82-1	1,2,4-Trichlorobenzene	U	363	ug/kg	72.6	363

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	470	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.56	176	ug/kg	93	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043010	Date Received: 02/25/2010 08:45	%Moisture: 8.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7463	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 20:01	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s7c1121.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDI/LOD	PQL/LOQ	
Tentatively Identified Compound Summary							
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit	Qual
	Unknown		13.37	232	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031110.b/s7c1121.d  
 Lab Smp Id: 248043010 Client Smp ID: RE36-10-7463  
 Inj Date : 11-MAR-2010 20:01  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043010|959623|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 21  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	8.23300	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.995	3.990	(1.000)	360703	40.0000		
* 29 Naphthalene-d8	136	4.857	4.857	(1.000)	1387780	40.0000		
* 46 Acenaphthene-d10	164	6.114	6.114	(1.000)	796548	40.0000		
* 67 Phenanthrene-d10	188	7.284	7.284	(1.000)	1445259	40.0000		
* 91 Chrysene-d12	240	9.691	9.691	(1.000)	988949	40.0000		
* 98 Perylene-d12	264	11.391	11.386	(1.000)	529698	40.0000		
\$ 3 2-Fluorophenol	112	3.191	3.181	(0.799)	516431	55.0830	2000	
\$ 5 Phenol-d5	99	3.715	3.706	(0.930)	700592	59.6002	2160	
\$ 20 Nitrobenzene-d5	82	4.351	4.356	(0.896)	304699	29.1103	1060	
\$ 39 2-Fluorobiphenyl	172	5.598	5.598	(0.916)	680236	34.2666	1240	
\$ 60 2,4,6-Tribromophenol	329	6.711	6.711	(1.098)	174548	75.8009	2750	
\$ 81 p-Terphenyl-d14	244	8.661	8.656	(0.894)	730332	41.2216	1500	

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====
47 Acenaphthene	154	6.133	6.138	(1.003)	6234	0.35557	12.9 (a)
79 Pyrene	202	8.560	8.560	(0.883)	190764	6.10589	222
53 Fluorene	166	6.523	6.528	(1.067)	7761	0.37538	13.6 (a)
68 Phenanthrene	178	7.303	7.308	(1.003)	140467	4.73632	172
69 Anthracene	178	7.346	7.351	(1.009)	24023	0.79980	29.0 (a)
76 Fluoranthene	202	8.343	8.343	(1.145)	221479	6.86830	249
89 Benzo(a)anthracene	228	9.677	9.677	(0.998)	69887	2.94783	107
92 Chrysene	228	9.715	9.715	(1.002)	74554	3.53394	128
95 Benzo(b)fluoranthene	252	10.866	10.861	(0.954)	84520	5.68969	206
97 Benzo(a)pyrene	252	11.309	11.309	(0.993)	38080	3.12631	113
99 Indeno(1,2,3-cd)pyrene	276	13.168	13.168	(1.156)	17260	1.97057	71.5
100 Dibenzo(a,h)anthracene	278	13.178	13.182	(1.157)	5932	0.85461	31.0 (a)
101 Benzo(ghi)perylene	276	13.712	13.712	(1.204)	16453	2.25241	81.8

#### QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

## ION RATIO REPORT

## SV REPORT

Data file: s7c1121.d

Report Date: 03/12/2010 08:17

Lab. ID: 248043010

SampleType: SAMPLE

Injection Date: 11-MAR-2010 20:01

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043010|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	40722	3.72	3.78	80-120	100	(T)
93	1724	3.67	3.78	206-266	4	(QT)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	43374	4.35	4.24	80-120	100	(T)
42	31985	4.35	4.23	61-121	74	(T)
-----						
43	Dimethylphthalate	CAS#: 131-11-3				
163	143578	6.11	5.87	80-120	100	(T)
164	796548	6.11	5.87	0- 40	555	(QT)
-----						
44	2,6-Dinitrotoluene	CAS#: 606-20-2				
165	106793	6.11	5.93	80-120	100	(T)
63	1774	6.11	5.93	52-112	2	(QT)
-----						
47	Acenaphthene	CAS#: 83-32-9				
154	6234	6.13	6.14	80-120	100	( )
153	7036	6.13	6.14	71-131	113	( )
152	3379	6.13	6.14	17- 77	54	( )
-----						
50	2,4-Dinitrotoluene	CAS#: 121-14-2				
165	106793	6.11	6.23	80-120	100	(T)
89	1606	6.11	6.23	37- 97	2	(QT)
63	1774	6.11	6.23	17- 77	2	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
53 Fluorene		CAS#: 86-73-7				
166	7761	6.52	6.53	80-120	100	( )
165	7142	6.52	6.53	61-121	92	( )
167	1948	6.52	6.52	0- 44	25	( )
-----						
55 2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1				
198	508	6.71	6.54	80-120	100	(T)
105	2743	6.72	6.54	10- 70	539	(QT)
51	2121	6.71	6.54	54-114	417	(QT)
-----						
61 4-Bromophenylphenylether		CAS#: 101-55-3				
248	12146	6.71	6.89	80-120	100	(T)
141	88023	6.71	6.88	48-108	725	(QT)
250	25046	6.71	6.89	68-128	206	(QT)
-----						
68 Phenanthrene		CAS#: 85-01-8				
178	140467	7.30	7.31	80-120	100	( )
179	23276	7.30	7.31	0- 46	17	( )
176	25747	7.30	7.31	0- 49	18	( )
-----						
69 Anthracene		CAS#: 120-12-7				
178	24023	7.35	7.35	80-120	100	( )
179	5533	7.35	7.35	0- 46	23	( )
176	4594	7.35	7.35	0- 48	19	( )
-----						
76 Fluoranthene		CAS#: 206-44-0				
202	221479	8.34	8.34	80-120	100	( )
203	38982	8.34	8.34	0- 48	18	( )
101	24059	8.34	8.34	0- 41	11	( )
-----						
79 Pyrene		CAS#: 129-00-0				
202	190764	8.56	8.56	80-120	100	( )
200	39841	8.56	8.56	0- 50	21	( )
101	26394	8.56	8.56	0- 44	14	( )
-----						
89 Benzo(a)anthracene		CAS#: 56-55-3				
228	69887	9.68	9.68	80-120	100	( )
226	18486	9.68	9.68	0- 56	26	( )
229	18649	9.68	9.68	0- 50	27	( )
-----						
92 Chrysene		CAS#: 218-01-9				
228	74554	9.72	9.72	80-120	100	( )
229	17136	9.72	9.72	0- 50	23	( )
226	20991	9.72	9.72	0- 59	28	( )
-----						
95 Benzo(b)fluoranthene		CAS#: 205-99-2				
252	84520	10.87	10.86	80-120	100	( )
253	20741	10.86	10.86	0- 52	25	( )
125	8780	10.87	10.86	0- 41	10	( )
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	84520	10.87	10.90	80-120	100	( )
253	20741	10.86	10.90	0- 52	25	( )
125	8780	10.87	10.90	0- 42	10	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	38080	11.31	11.31	80-120	100	( )
253	8727	11.31	11.31	0- 52	23	( )
125	5729	11.30	11.30	0- 42	15	( )
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	17260	13.17	13.17	80-120	100	( )
138	4266	13.17	13.17	2- 62	25	( )
-----						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	5932	13.18	13.18	80-120	100	( )
139	511	13.17	13.18	0- 50	9	( )
-----						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	16453	13.71	13.71	80-120	100	( )
138	4030	13.71	13.71	0- 58	24	( )

Q qualifier indicates ion failed ratio requirement

Data File: /chem/MSD7.i/s031110.b/s7c1121.d  
Report Date: 12-Mar-2010 10:00

Page 1

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031110.b/s7c1121.d  
Lab Smp Id: 248043010 Client Smp ID: RE36-10-7463  
Inj Date : 11-MAR-2010 20:01  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043010|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 21  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	8.23300	% moisture

Cpnd Variable

Local Compound Variable

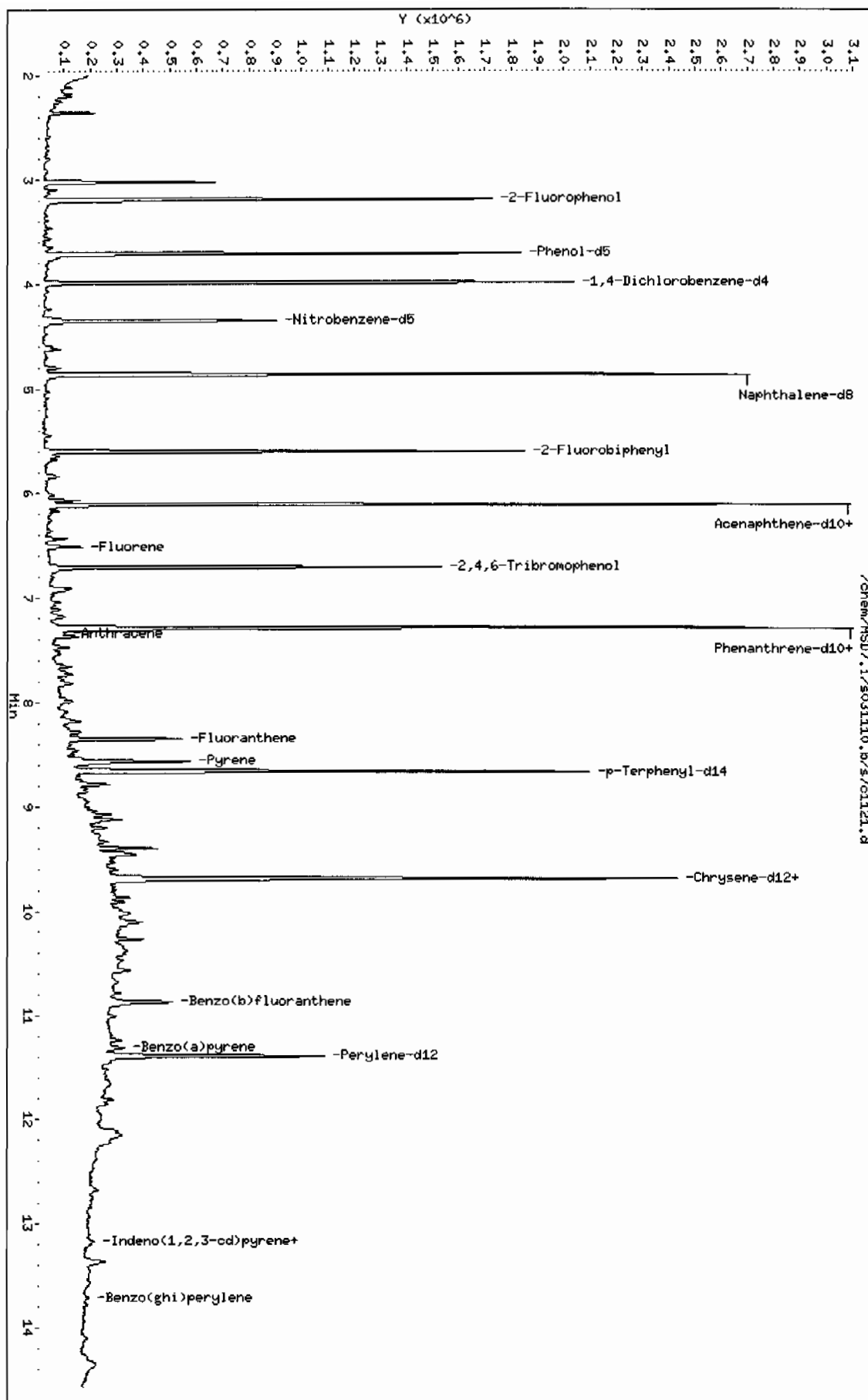
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.995	2193456	40.000
* 98 Perylene-d12	11.391	1434503	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
----	----	-----	-----	----	-----	-----	-----
Unknown Aldol Condensate					CAS #:		
3.022	710400	12.9548985	470	0		0	10

RT	CONCENTRATIONS				QUANT		
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	=====	=====	====	=====	=====	=====
Pyridine-3-carboxamide, oxime, N-(2-trif				CAS #: 288246-53-7			
10.563	173511	4.83822505	176	93	NIST05.L	112295	98
Unknown				CAS #:			
13.365	228812	6.38024817	232	0		0	98

Data File: /chem/MSD7.i/s031110.b/s701121.d  
 Date : 11-MAR-2010 20:01  
 Client ID: RE36-10-7463  
 Sample Info: 1248043010195962311SVH11L1ANL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: MSD7.i  
 Operator: JMB3  
 Column diameter: 0.20



Date : 11-MAR-2010 20:01

Client ID: RE36-10-7463

Instrument: HSD7.i

Sample Info: 1248043010195962311SVH111LANL

Volume Injected (uL): 0.5

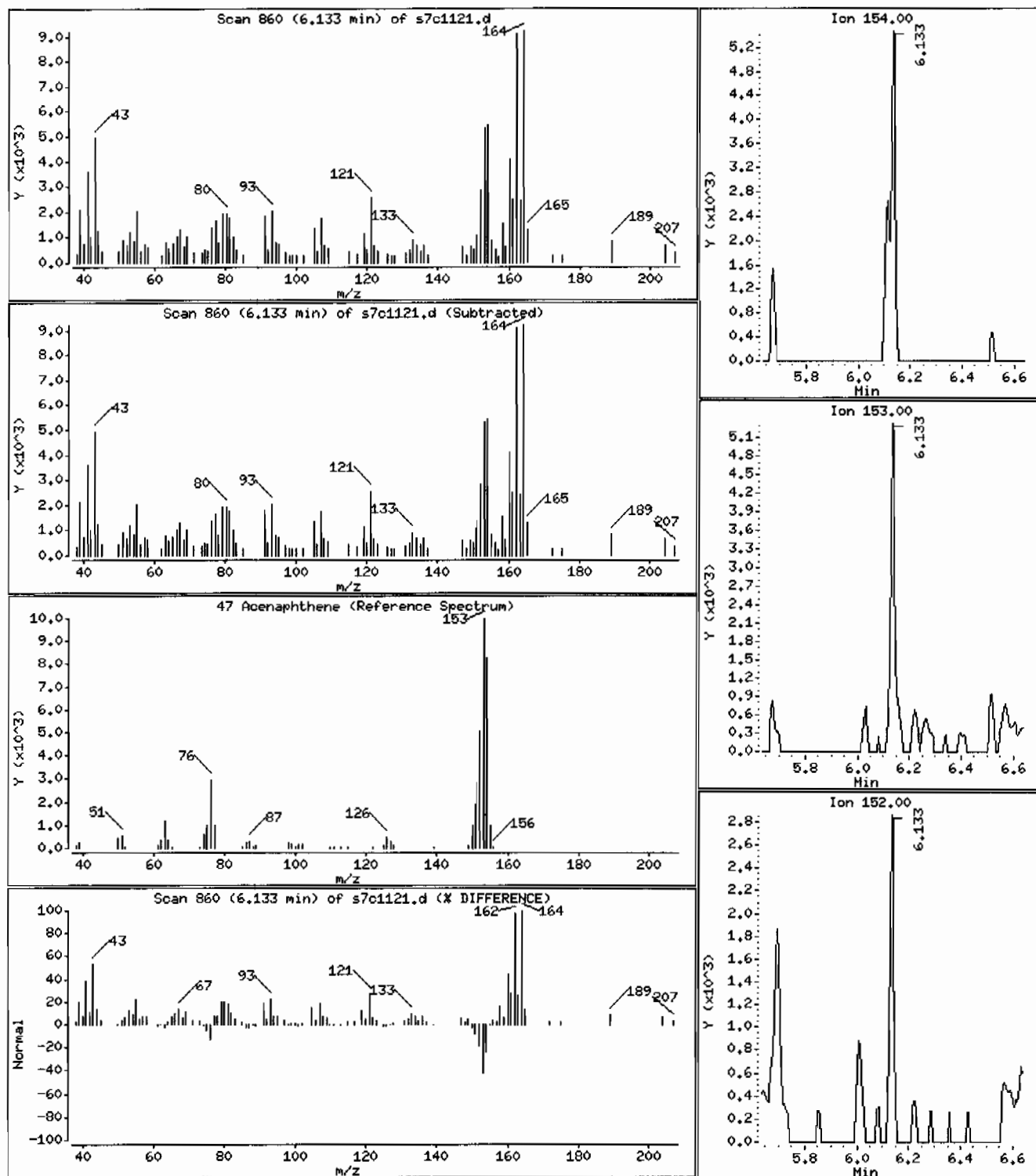
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 12.9 ug/Kg



Date : 11-MAR-2010 20:01

Client ID: RE36-10-7463

Instrument: HSD7.i

Sample Info: 12480430101959623111SVH111LANL

Volume Injected (uL): 0.5

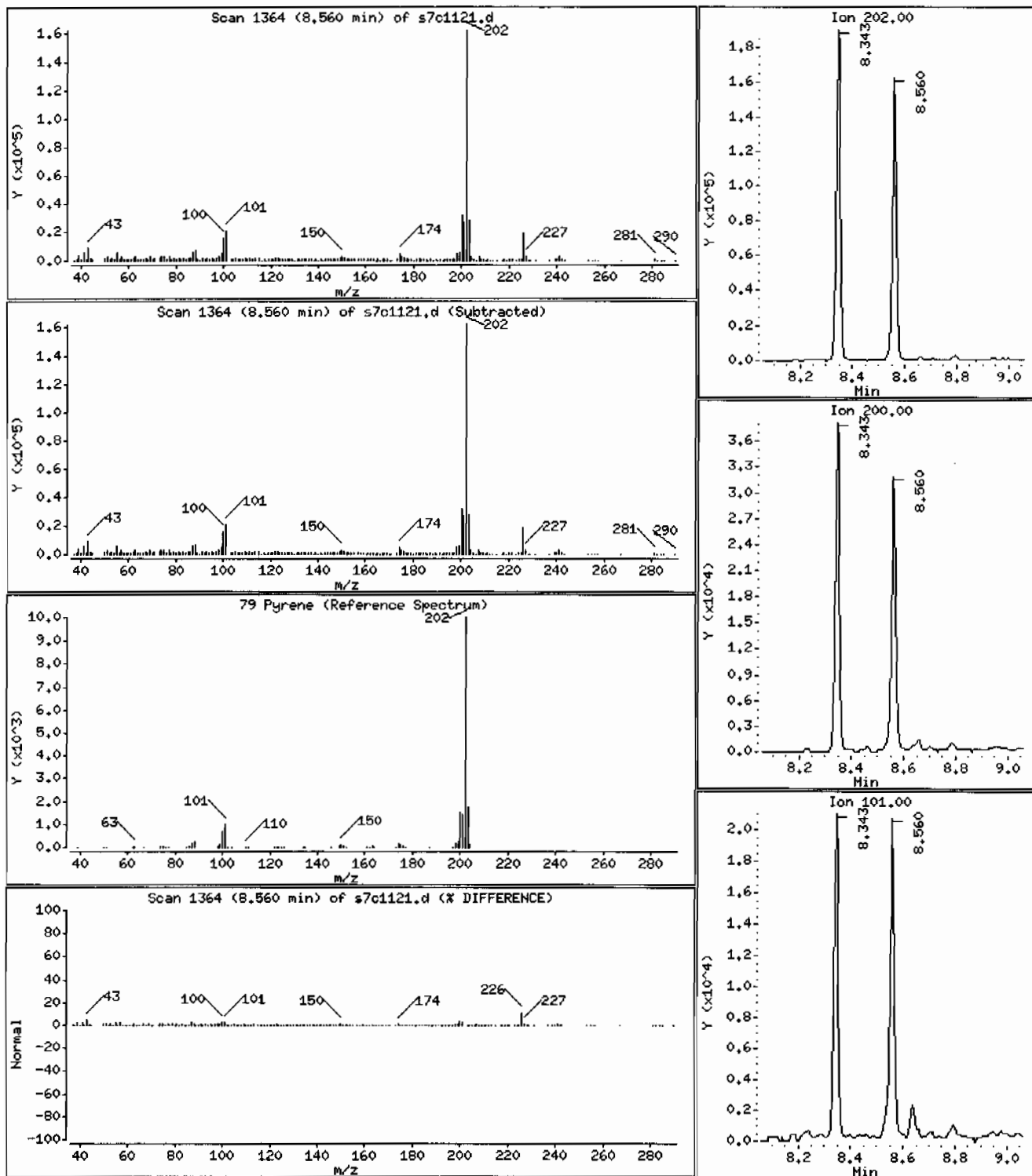
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 222 ug/Kg



Date : 11-MAR-2010 20:01

Client ID: RE36-10-7463

Instrument: HSD7.i

Sample Info: I2480430101959623111SVH11ILANL

Volume Injected (uL): 0.5

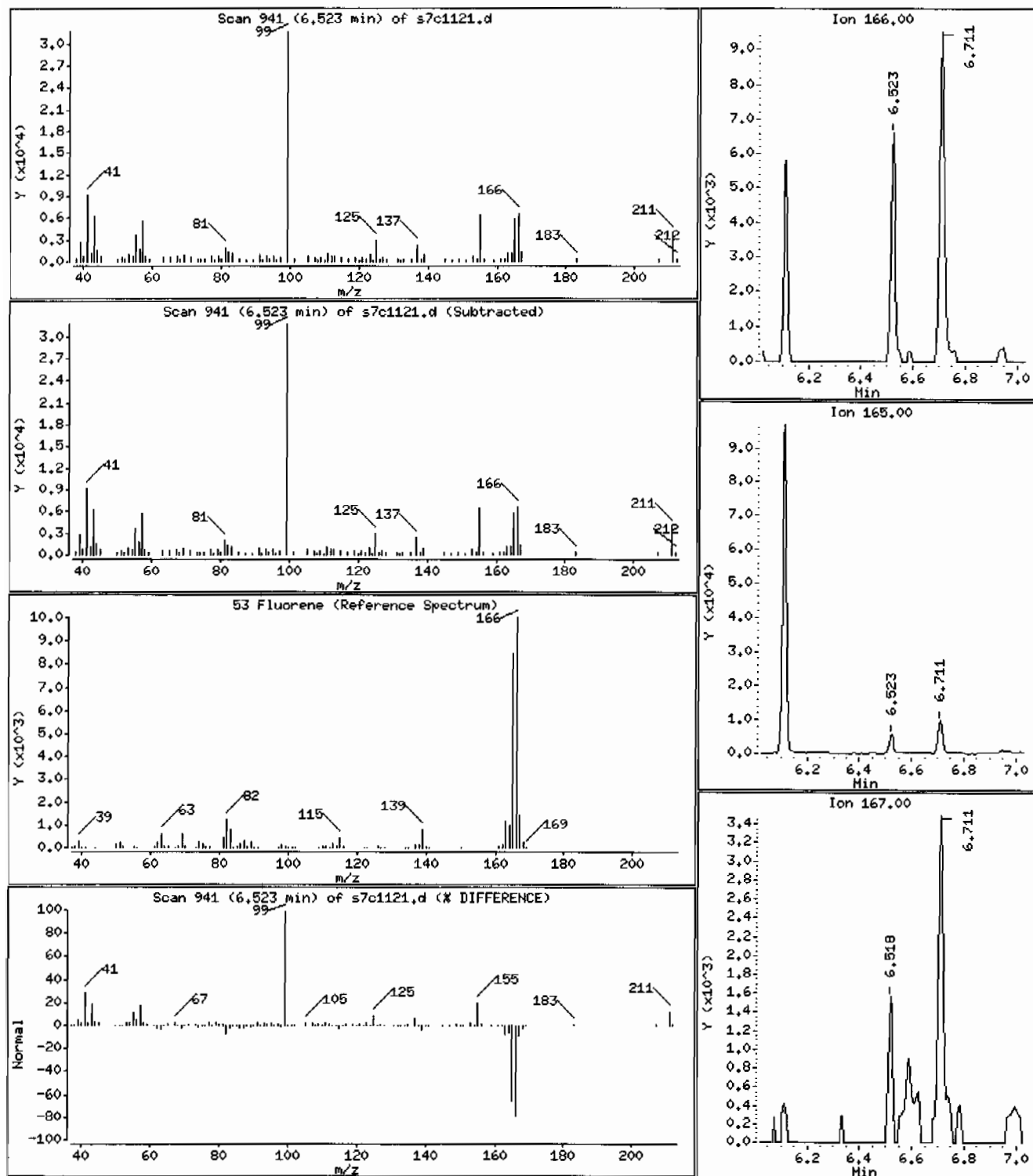
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

53 Fluorene

Concentration: 13,6 ug/Kg



Date : 11-MAR-2010 20:01

Client ID: RE36-10-7463

Instrument: HSD7.i

Sample Info: 1248043010195962311SVH111LANL

Volume Injected (uL): 0.5

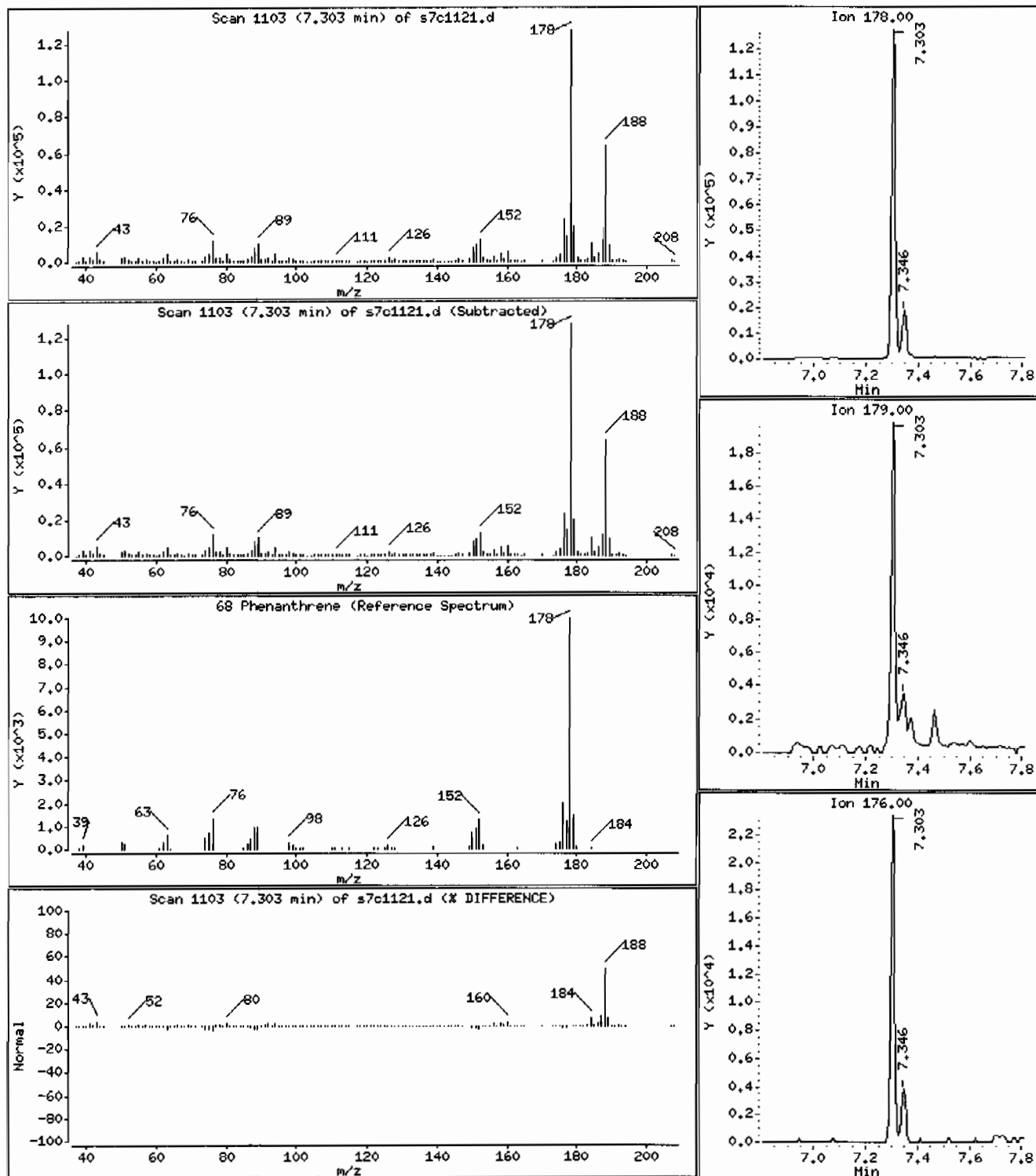
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 172 ug/Kg





Date : 11-MAR-2010 20:01

Client ID: RE36-10-7463

Instrument: MSD7.i

Sample Info: 1248043010195962311ISVH11ILANL

Volume Injected (uL): 0.5

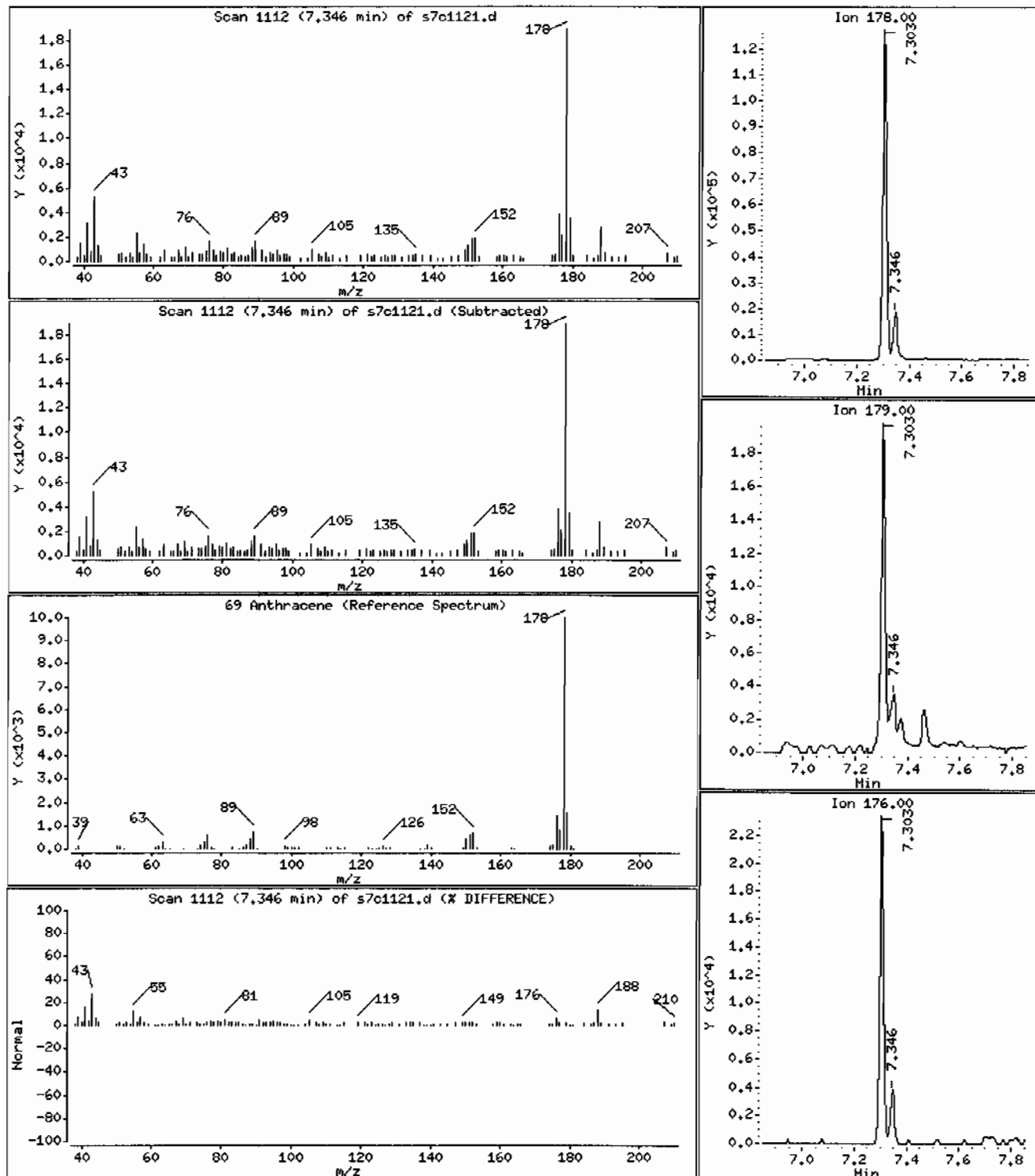
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 29.0 ug/Kg



Date: 11-MAR-2010 20:01

Client ID: RE36-10-7463

Instrument: MSD7.i

Sample Info: 12480430101959623111SVH11ILANL

Volume Injected (uL): 0.5

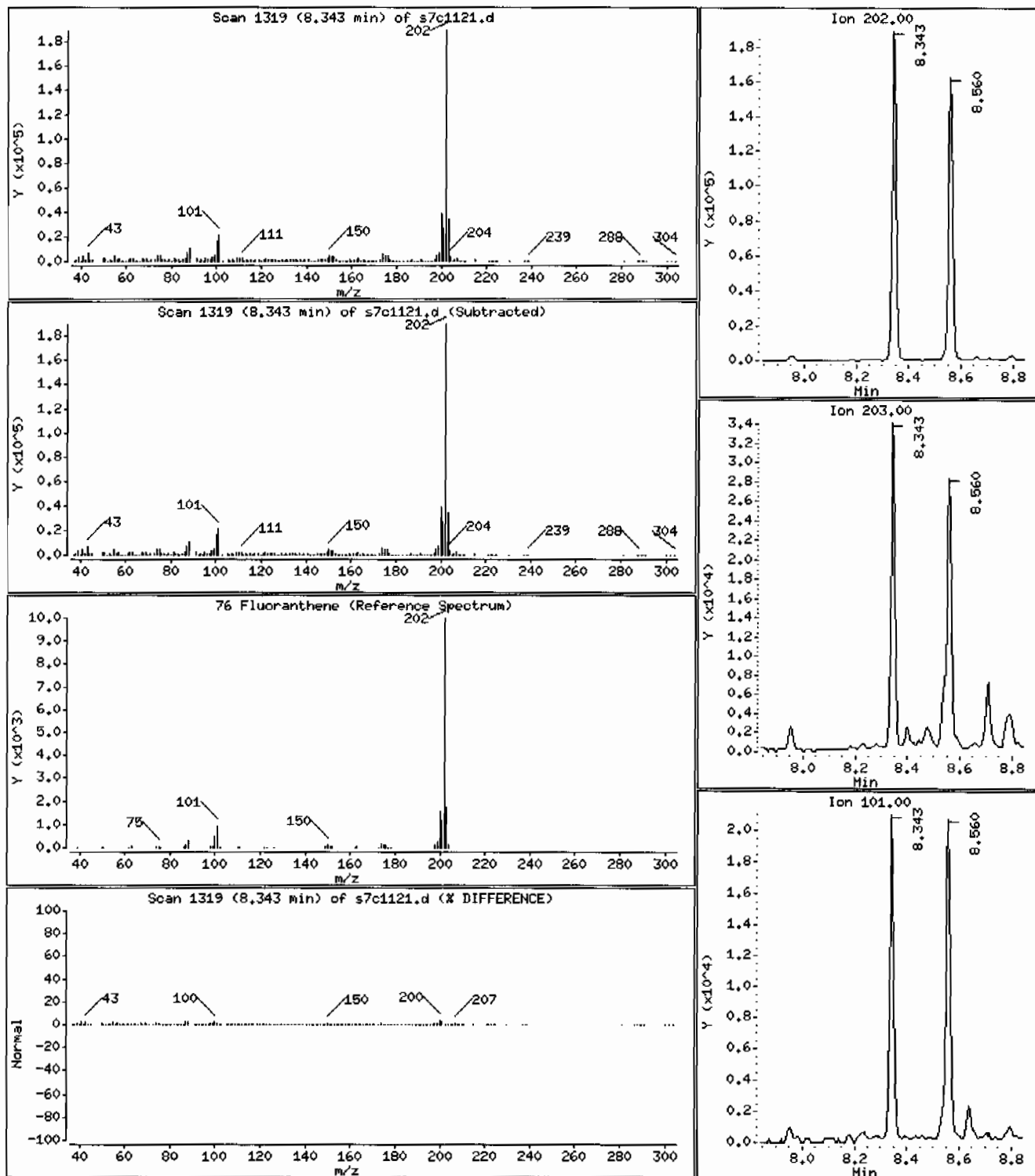
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 249 ug/Kg



Date : 11-MAR-2010 20:01

Client ID: RE36-10-7463

Instrument: MSD7.i

Sample Info: 12480430101959623111SVH11ILANL

Volume Injected (uL): 0.5

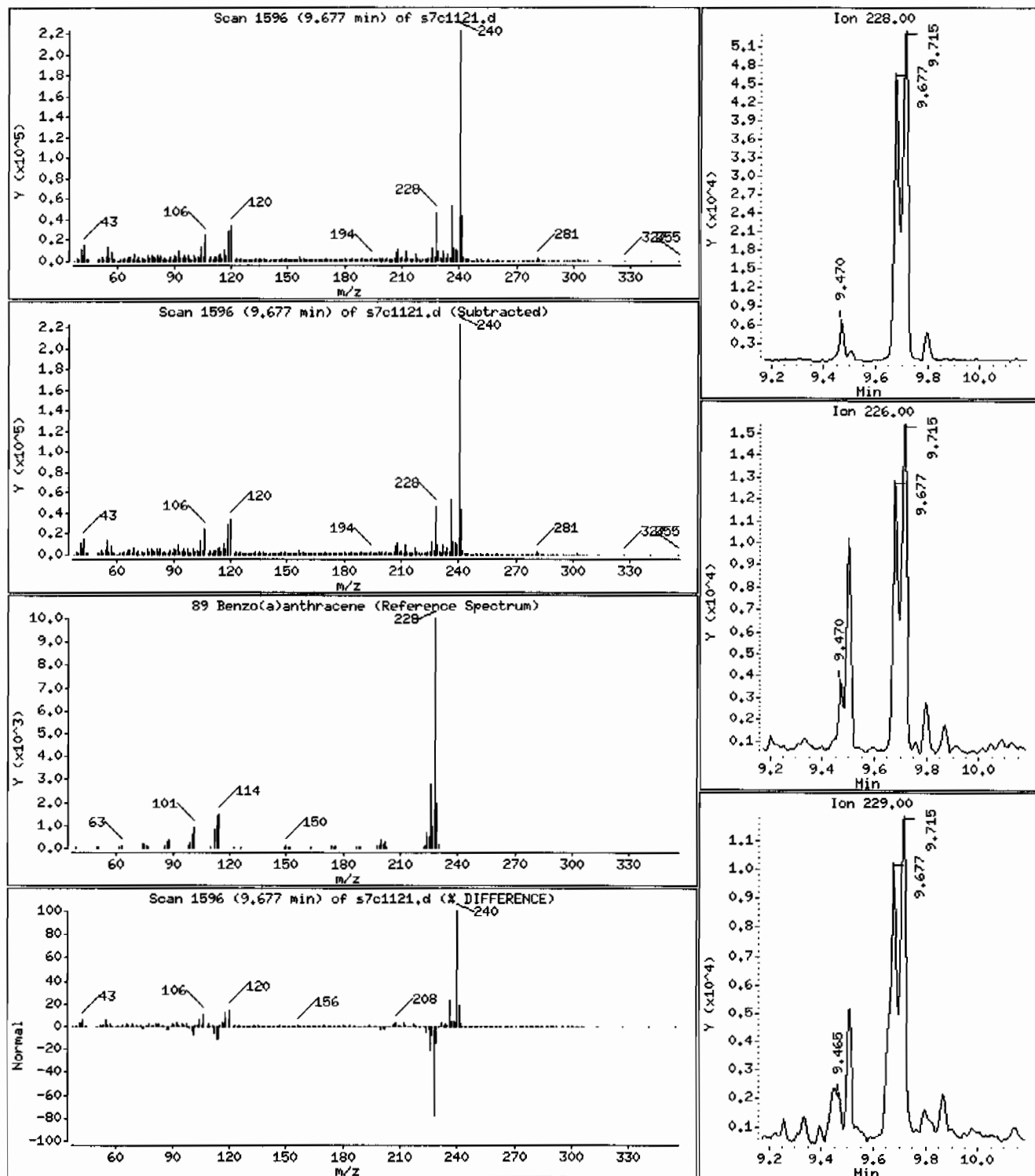
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 107 ug/Kg



Date : 11-MAR-2010 20:01

Client ID: RE36-10-7463

Instrument: MSD7.i

Sample Info: 1248043010195962311SVH111LANL

Volume Injected (uL): 0.5

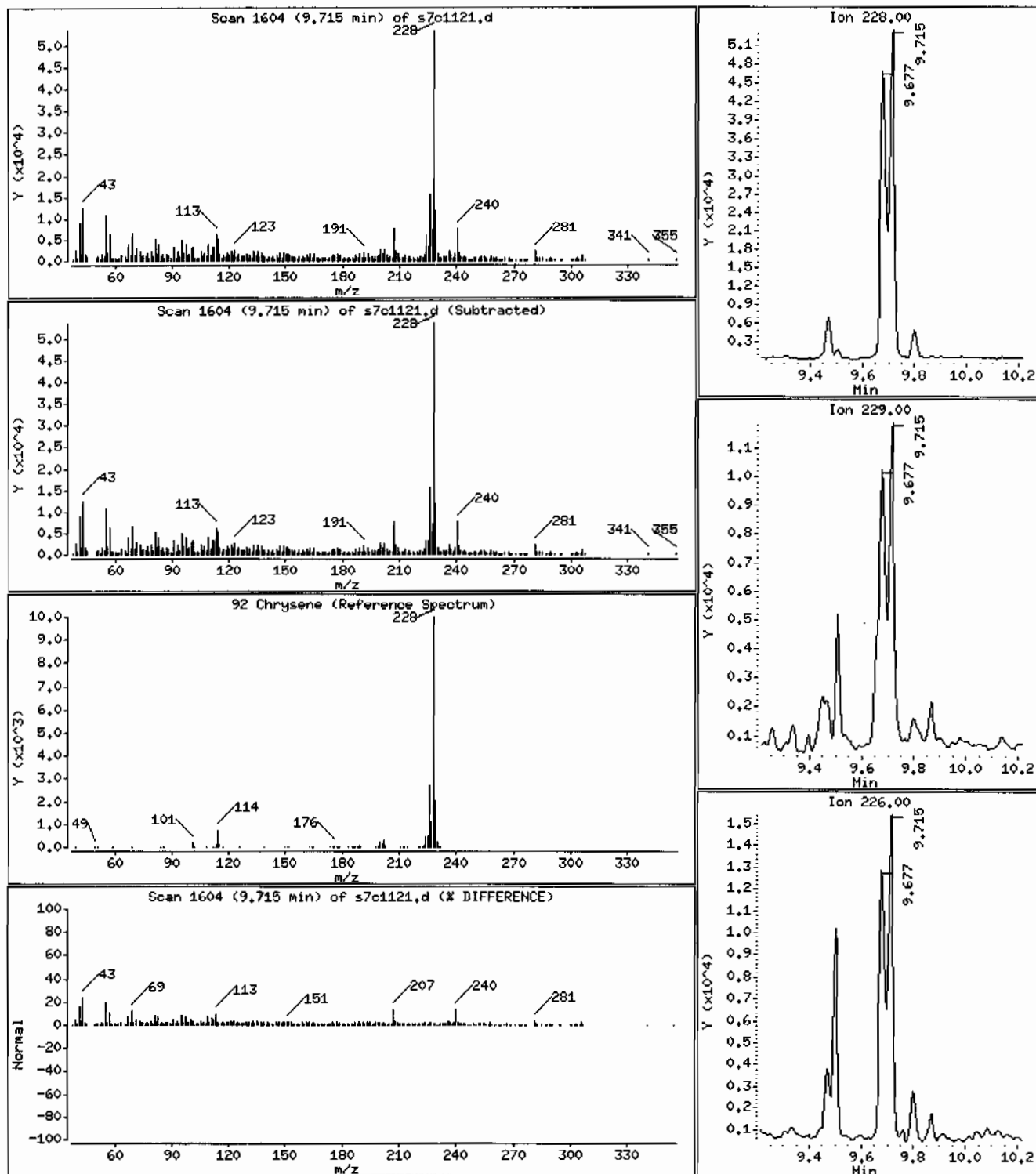
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 128 ug/Kg



Date : 11-MAR-2010 20:01

Client ID: RE36-10-7463

Instrument: MSD7.i

Sample Info: 1248043010195962311SVH111LANL

Volume Injected (uL): 0.5

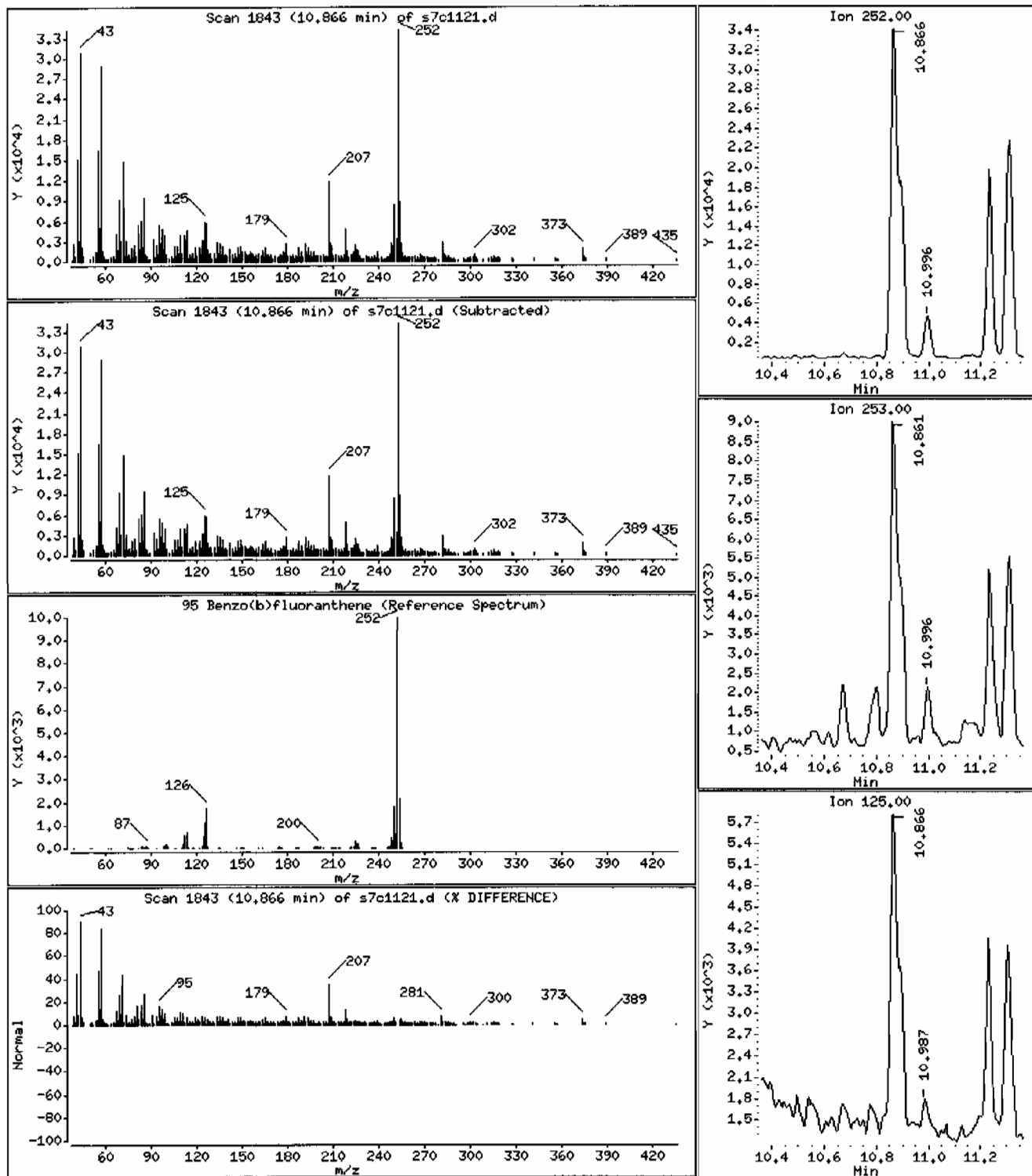
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 206 ug/Kg



Date : 11-MAR-2010 20:01

Client ID: RE36-10-7463

Instrument: MSD7.i

Sample Info: 1248043010195962311SVMI11LANL

Volume Injected (uL): 0.5

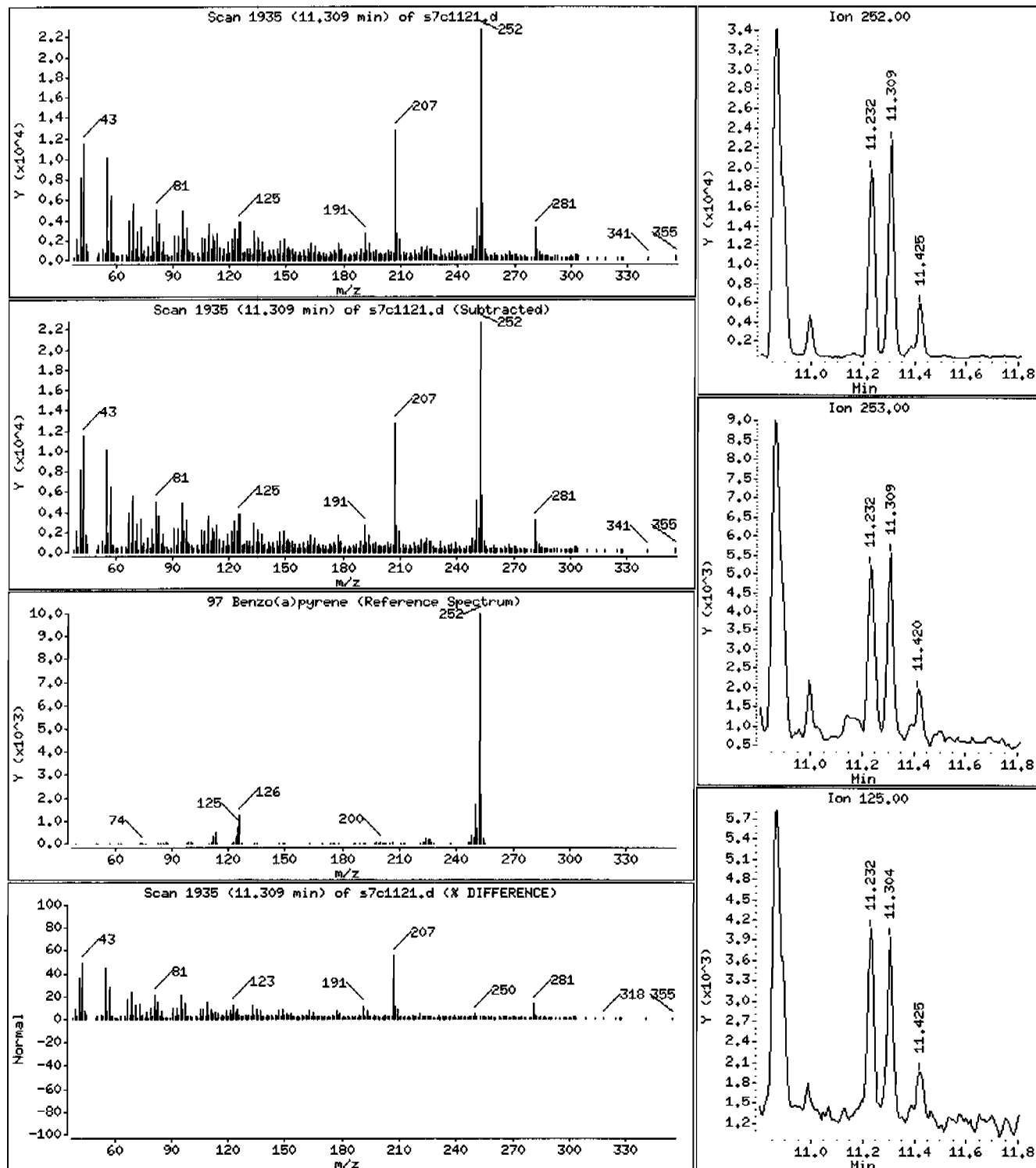
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 113 ug/Kg



Date : 11-MAR-2010 20:01

Client ID: RE36-10-7463

Instrument: MSD7.i

Sample Info: 12480430101959623111SVMI1ILANL

Volume Injected (uL): 0.5

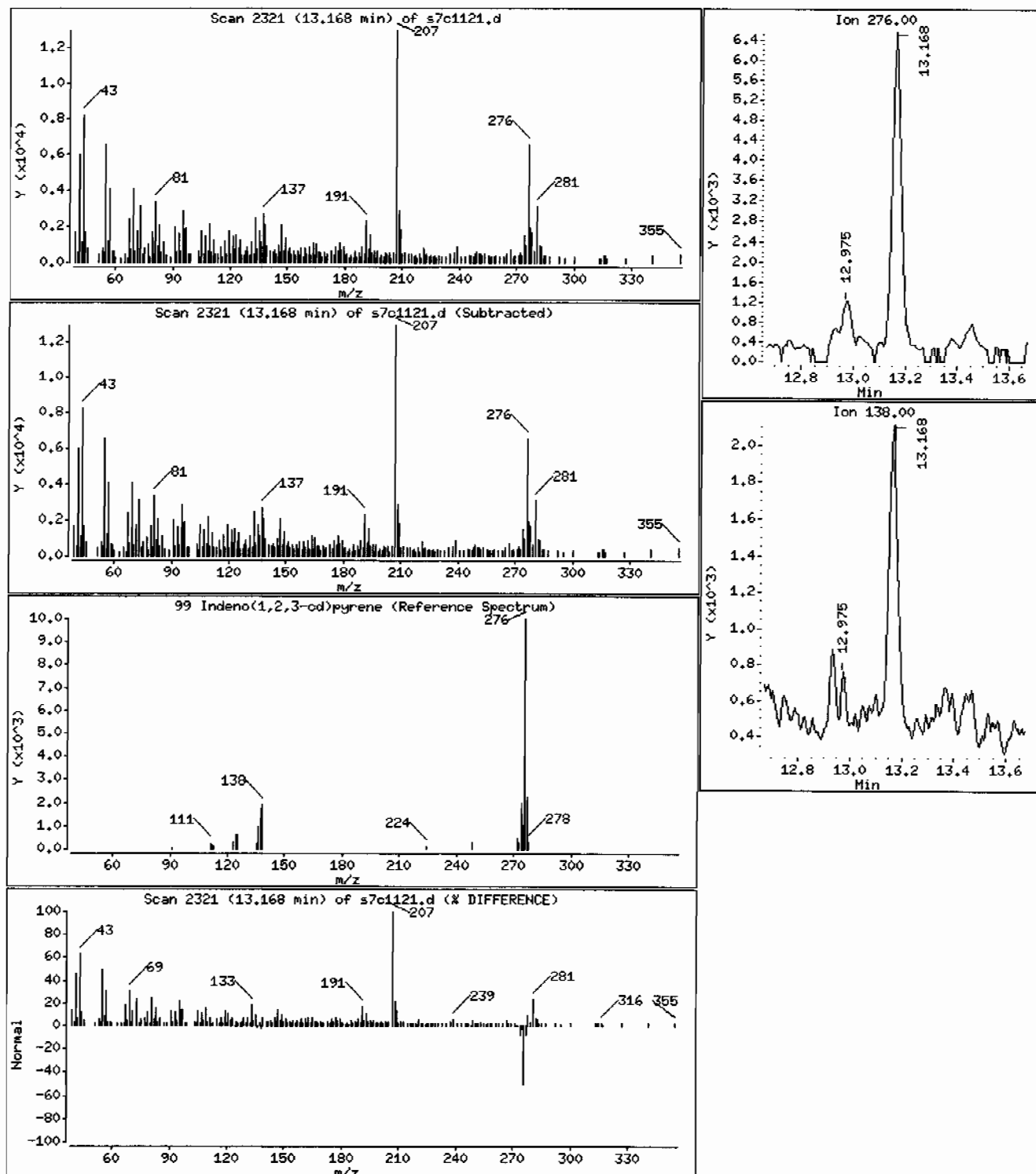
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 71.5 ug/Kg



Date : 11-MAR-2010 20:01

Client ID: RE36-10-7463

Instrument: HSD7.i

Sample Info: 1248043010195962311ISVH11LANL

Volume Injected (uL): 0.5

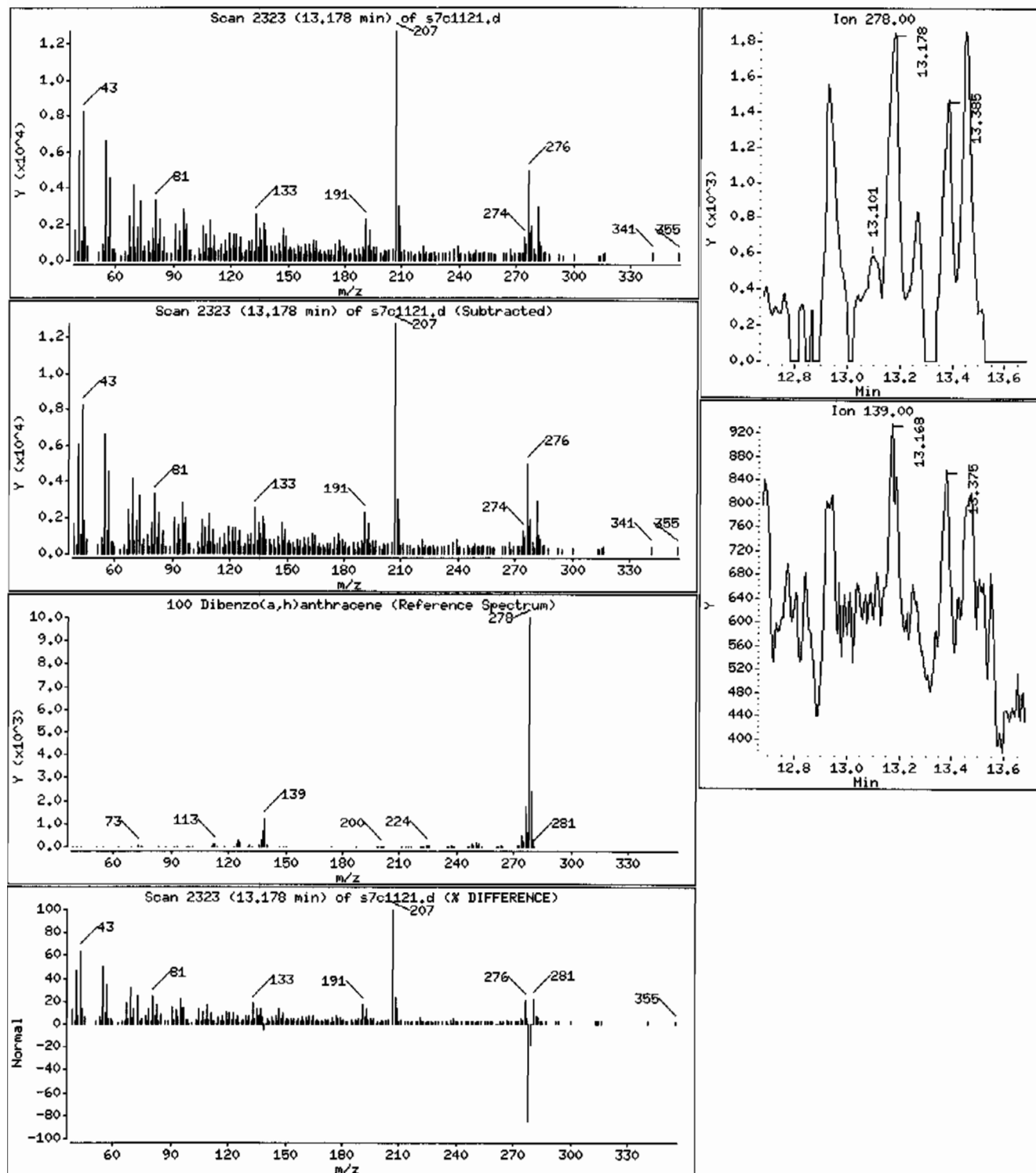
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 31.0 ug/Kg





Date : 11-MAR-2010 20:01

Client ID: RE36-10-7463

Instrument: HSD7.i

Sample Info: 12480430101959623111SVH111LANL

Volume Injected (uL): 0.5

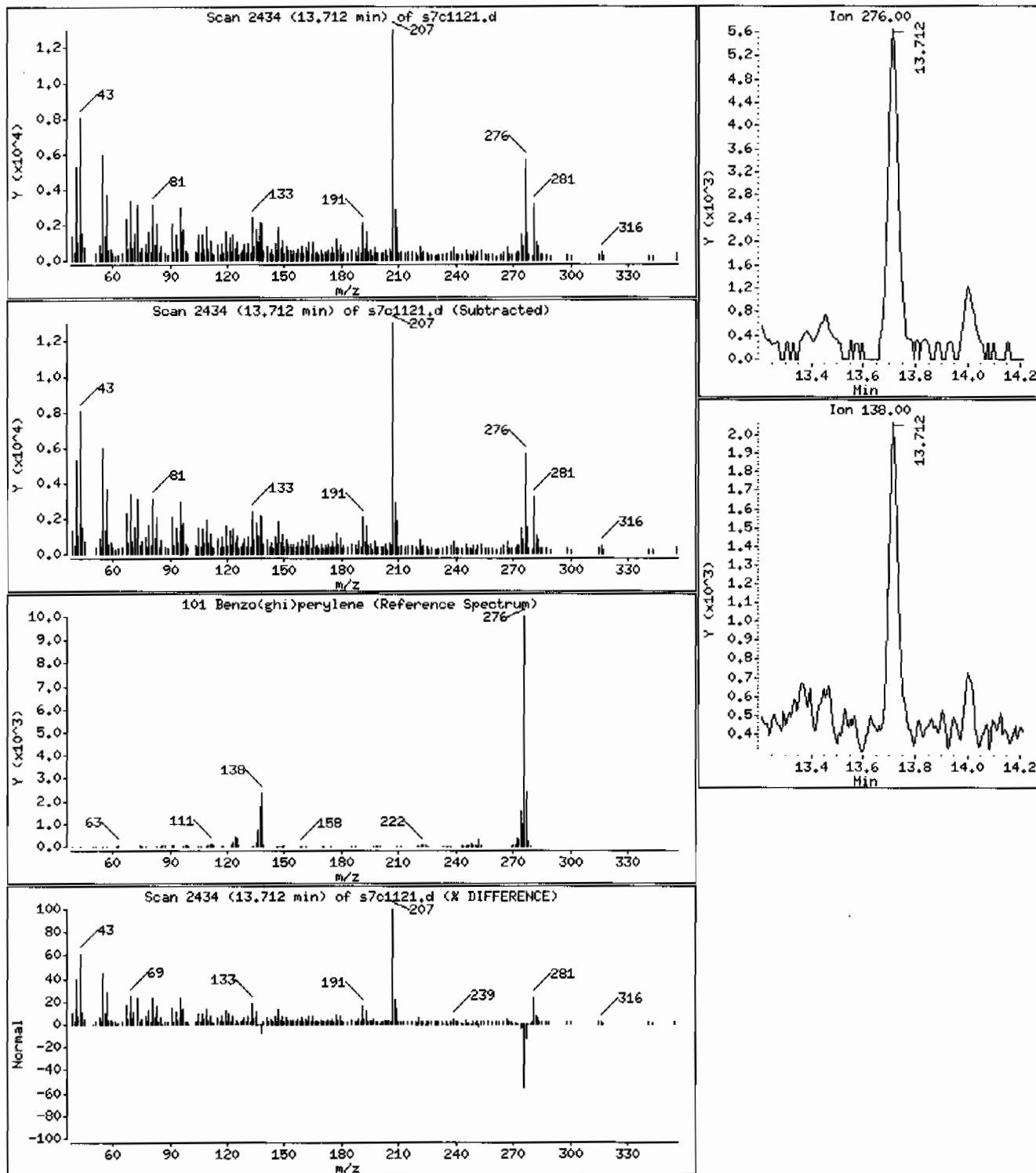
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 81.8 ug/Kg



Date: 11-MAR-2010 20:01

Client ID: RE36-10-7463

Instrument: MSD7.i

Sample Info: I2480430101959623111SVH111LANL

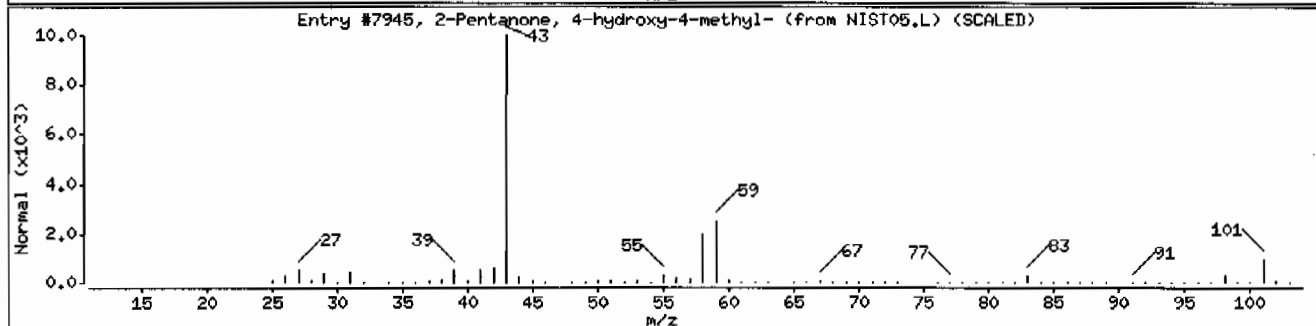
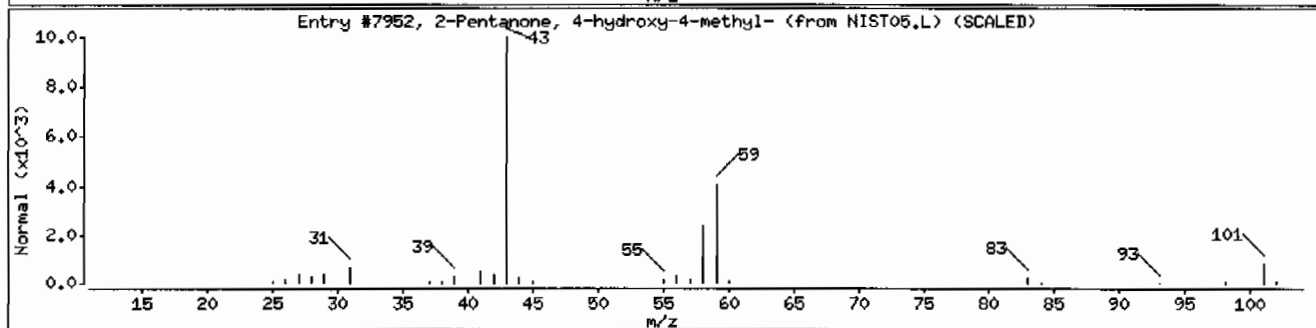
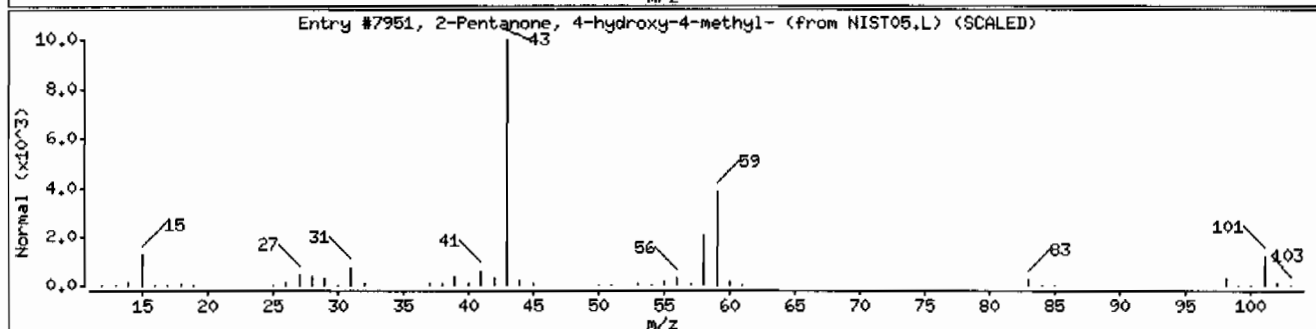
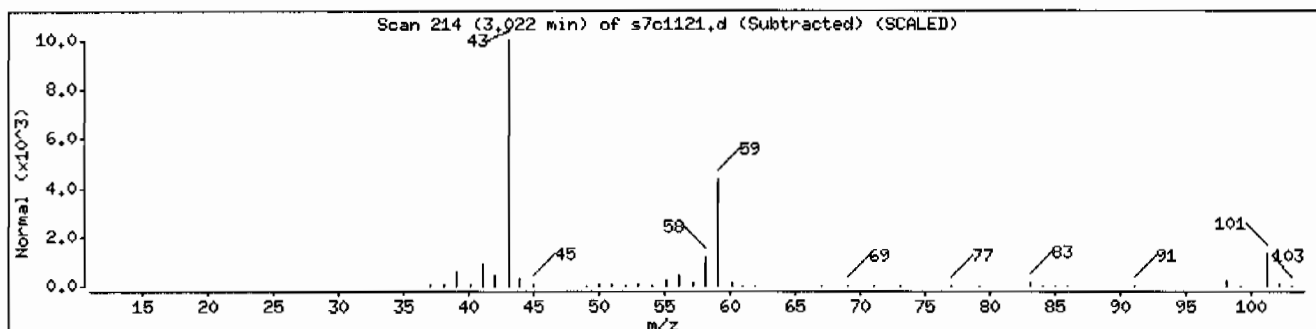
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	45	C6H12O2	116



Date : 11-MAR-2010 20:01

Client ID: RE36-10-7463

Instrument: HSD7.1

Sample Info: 1248043010195962311SVH111LANL

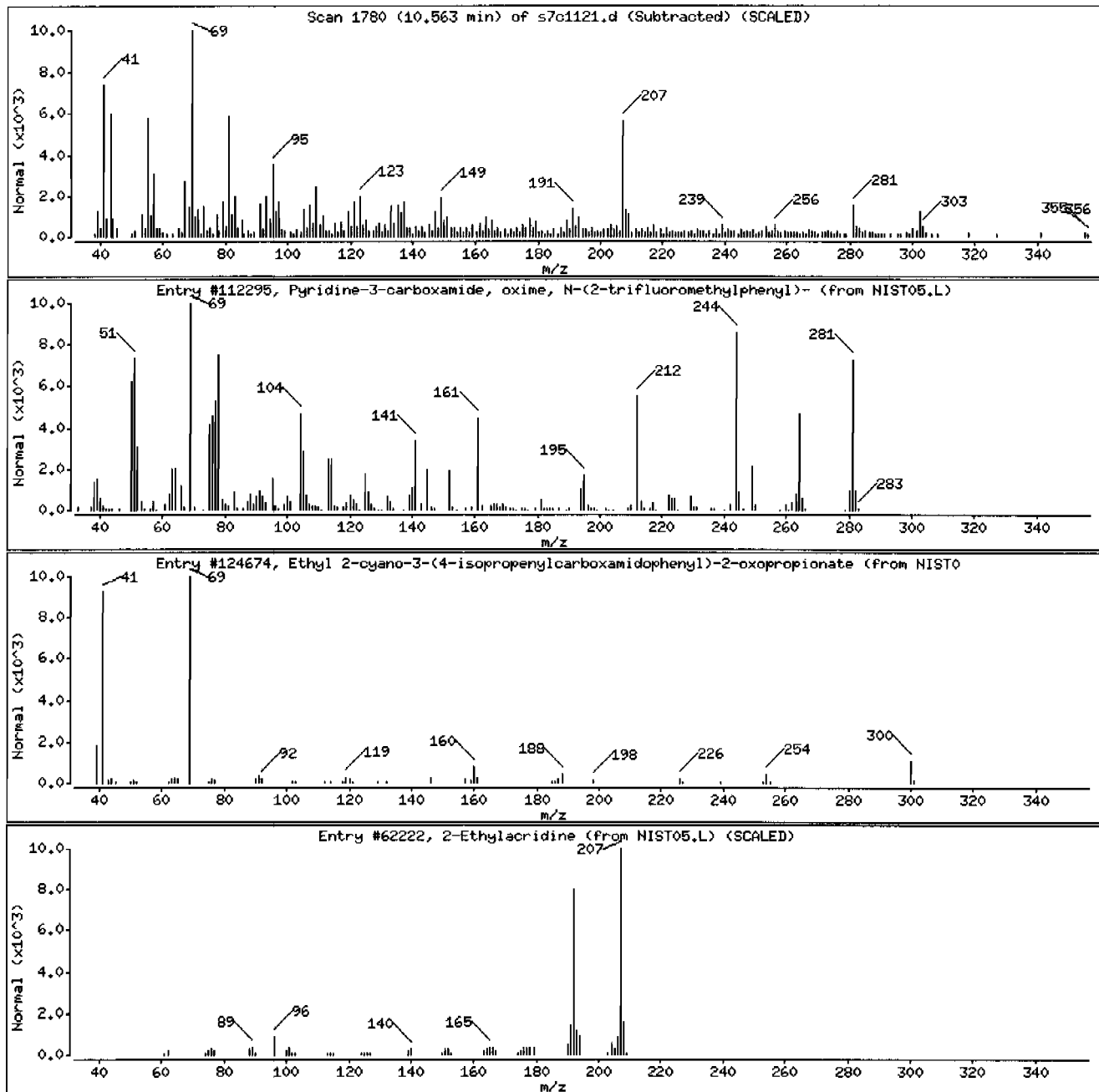
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyridine-3-carboxamide, oxime, N-(2-trif	288246-53-7	NIST05.L	112295	93	C13H10F3N3O	281
Ethyl 2-cyano-3-(4-isopropenylcarboxamid	1000222-67-5	NIST05.L	124674	30	C16H16N2O4	300
2-Ethylacridine	55751-83-2	NIST05.L	62222	25	C15H13N	207



Date : 11-MAR-2010 20:01

Client ID: RE36-10-7463

Instrument: MSD7.i

Sample Info: 1248043010195962311SVHI11LANL

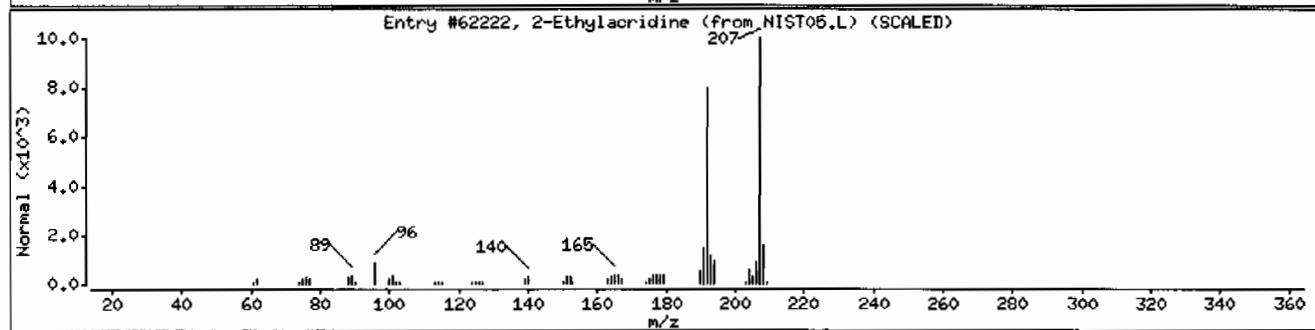
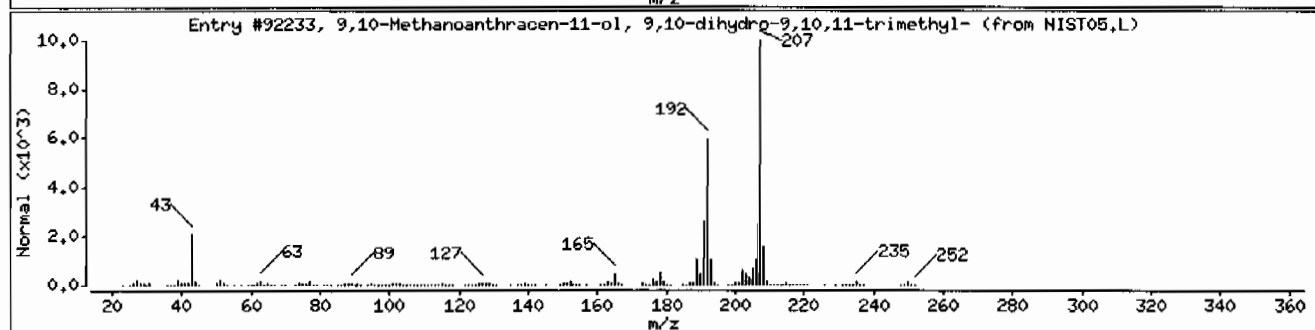
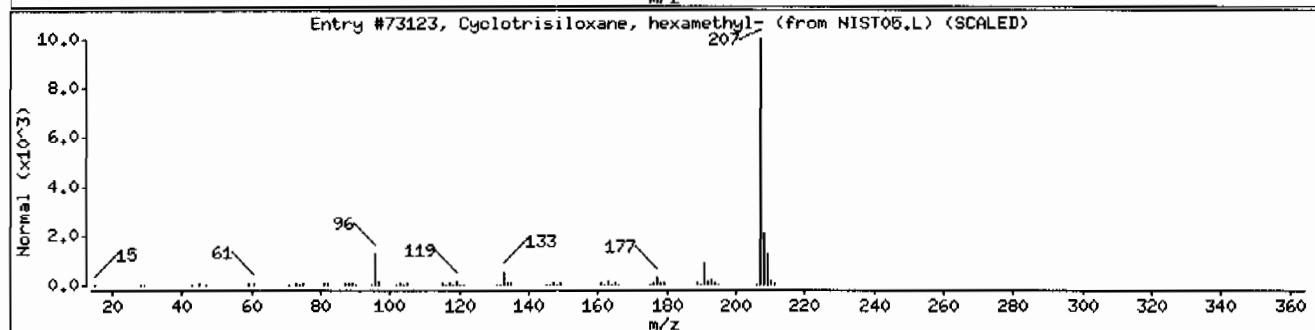
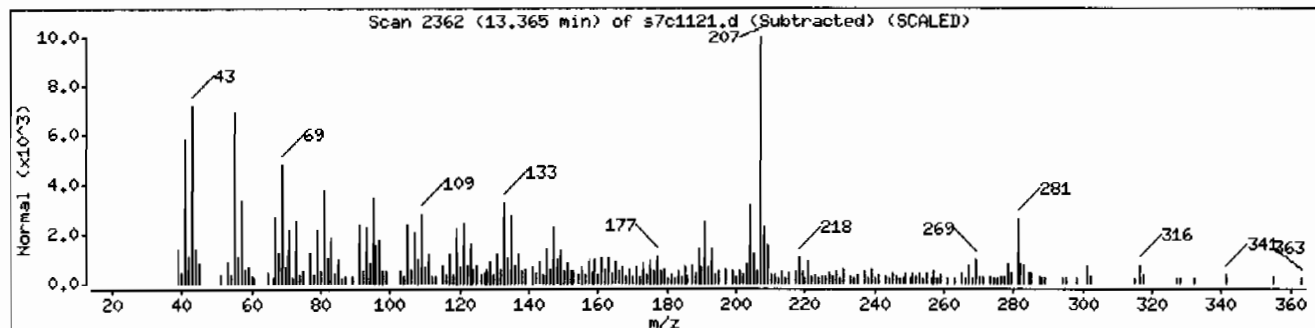
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73123	43	C <sub>6</sub> H <sub>18</sub> O <sub>3</sub> Si <sub>3</sub>	222
9,10-Methanoanthracen-11-ol, 9,10-dihydro	126615-74-5	NIST05.L	92233	42	C <sub>18</sub> H <sub>18</sub> O	250
2-Ethylacridine	55751-83-2	NIST05.L	62222	41	C <sub>15</sub> H <sub>13</sub> N	207



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043009

Client ID: RE36-10-7464  
Batch ID: 959623  
Run Date: 03/11/2010 17:09  
Prep Date: 03/02/2010 11:17  
Data File: s7c1113.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.7	358
108-95-2	Phenol	U	358	ug/kg	71.7	358
95-57-8	2-Chlorophenol	U	358	ug/kg	71.7	358
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.7	358
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.7	358
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.7	358
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358
87-86-5	Pentachlorophenol	U	358	ug/kg	89.6	358
129-00-0	Pyrene		40.8	ug/kg	10.8	35.8
110-86-1	Pyridine	U	358	ug/kg	71.7	358
62-53-3	Aniline	U	358	ug/kg	108	358
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.7	358
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.7	358
100-51-6	Benzyl alcohol	U	358	ug/kg	108	358
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.7	358
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.7	358
95-48-7	o-Cresol	U	358	ug/kg	71.7	358
65794-96-9	m,p-Cresols	U	358	ug/kg	108	358
67-72-1	Hexachloroethane	U	358	ug/kg	71.7	358
98-95-3	Nitrobenzene	U	358	ug/kg	71.7	358
78-59-1	Isophorone	U	358	ug/kg	71.7	358
88-75-5	2-Nitrophenol	U	358	ug/kg	71.7	358
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.7	358
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.7	358
65-85-0	Benzoic acid	U	717	ug/kg	179	717
91-20-3	Naphthalene	U	35.8	ug/kg	10.8	35.8
106-47-8	4-Chloroaniline	U	358	ug/kg	71.7	358
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.7	358
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.17	35.8
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.7	358
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.7	358
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.7	358
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8
88-74-4	2-Nitroaniline	U	358	ug/kg	71.7	358
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	358	ug/kg	71.7	358

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043009

Client ID: RE36-10-7464  
Batch ID: 959623  
Run Date: 03/11/2010 17:09  
Prep Date: 03/02/2010 11:17  
Data File: s7c1113.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	358	ug/kg	71.7	358
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.8	35.8
51-28-5	2,4-Dinitrophenol	U	717	ug/kg	136	717
132-64-9	Dibenzofuran	U	358	ug/kg	71.7	358
84-66-2	Diethylphthalate	U	358	ug/kg	71.7	358
86-73-7	Fluorene	U	35.8	ug/kg	10.8	35.8
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.7	358
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.7	358
100-01-6	4-Nitroaniline	U	358	ug/kg	108	358
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	358	ug/kg	71.7	358
122-66-7	Azobenzene	U	358	ug/kg	71.7	358
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.7	358
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.7	358
85-01-8	Phenanthrene	J	31.4	ug/kg	10.8	35.8
120-12-7	Anthracene	U	35.8	ug/kg	7.17	35.8
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.7	358
206-44-0	Fluoranthene		48.9	ug/kg	10.8	35.8
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.7	358
56-55-3	Benzo(a)anthracene	J	22.7	ug/kg	10.8	35.8
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	108	358
218-01-9	Chrysene	J	26.0	ug/kg	10.8	35.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.7	358
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.7	358
205-99-2	Benzo(b)fluoranthene	J	35.3	ug/kg	10.8	35.8
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.8	35.8
50-32-8	Benzo(a)pyrene	J	20.9	ug/kg	10.8	35.8
193-39-5	Indeno(1,2,3-cd)pyrene	J	13.6	ug/kg	10.8	35.8
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.8	35.8
191-24-2	Benzo(ghi)perylene	J	16.7	ug/kg	10.8	35.8
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.7	358

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.12	256	ug/kg		J
	Unknown Aldol Condensate	3.02	435	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043009	Date Received: 02/25/2010 08:45	%Moisture: 7
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7464	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 17:09	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s7c1113.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
Tentatively Identified Compound Summary							
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit	Qual
629-78-7	Heptadecane		10.1	195	ug/kg	91	NJ
1000140-07-7	1,4-Dimethyl-8-isopropylidenetricyclo[5.		13.35	427	ug/kg	83	NJ

Data File: /chem/MSD7.i/s031110.b/s7c1113.d  
 Report Date: 12-Mar-2010 08:51

Page 1

# GEL Laboratories LLC

## GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031110.b/s7c1113.d  
 Lab Smp Id: 248043009 Client Smp ID: RE36-10-7464  
 Inj Date : 11-MAR-2010 17:09  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043009|959623|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 13  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	7.04730	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.990	3.990	(1.000)	344758	40.0000		
* 29 Naphthalene-d8	136	4.852	4.857	(1.000)	1325476	40.0000		
* 46 Acenaphthene-d10	164	6.109	6.114	(1.000)	743878	40.0000		
* 67 Phenanthrene-d10	188	7.279	7.284	(1.000)	1323197	40.0000		
* 91 Chrysene-d12	240	9.682	9.691	(1.000)	991738	40.0000		
* 98 Perylene-d12	264	11.372	11.386	(1.000)	714854	40.0000		
\$ 3 2-Fluorophenol	112	3.186	3.181	(0.798)	412019	45.9788	1650	
\$ 5 Phenol-d5	99	3.706	3.706	(0.929)	554440	49.3483	1770	
\$ 20 Nitrobenzene-d5	82	4.346	4.356	(0.896)	242000	24.2069	868	
\$ 39 2-Fluorobiphenyl	172	5.594	5.598	(0.916)	517836	27.9327	1000	
\$ 60 2,4,6-Tribromophenol	329	6.706	6.711	(1.098)	140386	65.2820	2340	
\$ 81 p-Terphenyl-d14	244	8.656	8.656	(0.894)	622505	35.0368	1260	



Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
=====			==	=====	=====	=====	=====	=====
79 Pyrene		202	8.555	8.560	(0.884)	35624	1.13703	40.8
68 Phenanthrene		178	7.298	7.308	(1.003)	23748	0.87461	31.4(a)
76 Fluoranthene		202	8.338	8.343	(1.146)	40311	1.36540	48.9
89 Benzo(a)anthracene		228	9.672	9.677	(0.999)	15036	0.63243	22.7(a)
92 Chrysene		228	9.706	9.715	(1.002)	15344	0.72528	26.0(a)
95 Benzo(b)fluoranthene		252	10.847	10.861	(0.954)	19742	0.98476	35.3(a)
97 Benzo(a)pyrene		252	11.290	11.309	(0.993)	9569	0.58212	20.9(a)
99 Indeno(1,2,3-cd)pyrene		276	13.134	13.168	(1.155)	4479	0.37892	13.6(a)
101 Benzo(ghi)perylene		276	13.683	13.712	(1.203)	4586	0.46521	16.7(a)

#### QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

## ION RATIO REPORT

## SV REPORT

Data file: s7c1113.d

Report Date: 03/12/2010 08:15

Lab. ID: 248043009

SampleType: SAMPLE

Injection Date: 11-MAR-2010 17:09

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043009|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	31772	3.71	3.78	80-120	100	(T)
93	909	3.76	3.78	206-266	3	(Q)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	35431	4.35	4.24	80-120	100	(T)
42	26500	4.35	4.23	61-121	75	(T)
-----						
43	Dimethylphthalate	CAS#: 131-11-3				
163	133068	6.11	5.87	80-120	100	(T)
164	742634	6.11	5.87	0- 40	558	(QT)
-----						
44	2,6-Dinitrotoluene	CAS#: 606-20-2				
165	96977	6.11	5.93	80-120	100	(T)
63	1370	6.10	5.93	52-112	1	(QT)
-----						
50	2,4-Dinitrotoluene	CAS#: 121-14-2				
165	96977	6.11	6.23	80-120	100	(T)
89	1285	6.11	6.23	37- 97	1	(QT)
63	1370	6.10	6.23	17- 77	1	(QT)
-----						
53	Fluorene	CAS#: 86-73-7				
166	8393	6.71	6.53	80-120	100	(T)
165	8770	6.71	6.53	61-121	104	(T)
167	2750	6.70	6.52	0- 44	33	(T)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	396	6.70	6.54	80-120	100	(T)
105	1760	6.71	6.54	10- 70	444	(QT)
51	2351	6.70	6.54	54-114	594	(QT)
-----						
68 Phenanthrene				CAS#: 85-01-8		
178	23748	7.30	7.31	80-120	100	( )
179	4539	7.30	7.31	0- 46	19	( )
176	4050	7.30	7.31	0- 49	17	( )
-----						
69 Anthracene				CAS#: 120-12-7		
178	23748	7.30	7.35	80-120	100	( )
179	4539	7.30	7.35	0- 46	19	( )
176	4050	7.30	7.35	0- 48	17	( )
-----						
76 Fluoranthene				CAS#: 206-44-0		
202	40311	8.34	8.34	80-120	100	( )
203	7313	8.34	8.34	0- 48	18	( )
101	4147	8.34	8.34	0- 41	10	( )
-----						
79 Pyrene				CAS#: 129-00-0		
202	35624	8.55	8.56	80-120	100	( )
200	7876	8.55	8.56	0- 50	22	( )
101	5253	8.55	8.56	0- 44	15	( )
-----						
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	15036	9.67	9.68	80-120	100	( )
226	3770	9.67	9.68	0- 56	25	( )
229	4676	9.67	9.68	0- 50	31	( )
-----						
92 Chrysene				CAS#: 218-01-9		
228	15344	9.71	9.72	80-120	100	( )
229	3006	9.71	9.72	0- 50	20	( )
226	4203	9.71	9.72	0- 59	27	( )
-----						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	19742	10.85	10.86	80-120	100	( )
253	5770	10.85	10.86	0- 52	29	( )
125	3187	10.85	10.86	0- 41	16	( )
-----						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	19742	10.85	10.90	80-120	100	( )
253	5770	10.85	10.90	0- 52	29	( )
125	2834	10.85	10.90	0- 42	14	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	9569	11.29	11.31	80-120	100	( )
253	3040	11.29	11.31	0- 52	32	( )
125	1129	11.29	11.30	0- 42	12	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
99	Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5		
276	4479	13.13	13.17	80-120	100	( )
138	2005	13.14	13.17	2- 62	45	( )

-----						
101	Benzo(ghi)perylene			CAS#: 191-24-2		
276	4586	13.68	13.71	80-120	100	( )
138	1887	13.68	13.71	0- 58	41	( )

-----

Q qualifier indicates ion failed ratio requirement

Data File: /chem/MSD7.i/s031110.b/s7c1113.d  
Report Date: 12-Mar-2010 08:51

Page 1

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031110.b/s7c1113.d  
Lab Smp Id: 248043009 Client Smp ID: RE36-10-7464  
Inj Date : 11-MAR-2010 17:09  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043009|959623|1|SVM|1|LANL  
Misc Info : |MSD8270 S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 13  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	7.04730	% moisture

Cpnd Variable

Local Compound Variable

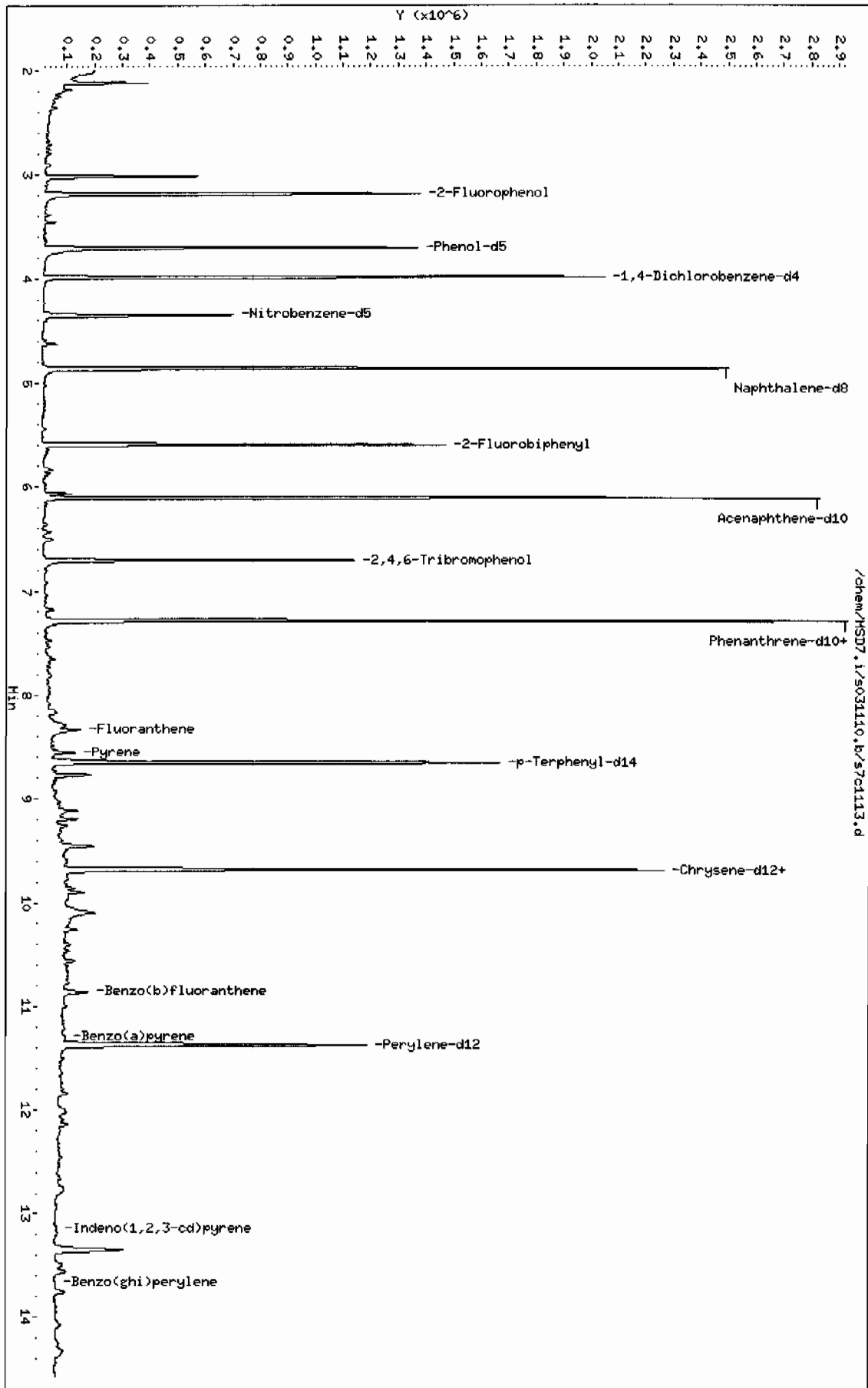
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.990	2132771	40.000
* 91 Chrysene-d12	9.682	2734541	40.000
* 98 Perylene-d12	11.372	1944324	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
...	...	...	...	...	...	...	...

CONCENTRATIONS					QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #	
=====	=====	=====	=====	=====	=====	=====	=====	
Unknown					CAS #:			
2.117	380521	7.13664651	256	0		0	10	
Unknown Aldol Condensate					CAS #:			
3.017	646722	12.1292331	435	0		0	10	
Heptadecane					CAS #: 629-78-7			
10.096	371651	5.43639701	195	91	NIST05.L	85524	91	
1,4-Dimethyl-8-isopropylidenetricyclo[5.1.0]dec-2-ene					CAS #: 1000140-07-7			
13.346	578697	11.9053517	427	83	NIST05.L	59920	98	

Data File: /chem/MSD7.1/s031110.b/s7c1113.d  
 Date: 11-MAR-2010 17:09  
 Client ID: REC6-10-7464  
 Sample Info: 1248043009195962311SWH11LNL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5HS

Instrument: MSD7.1  
 Operator: JMB3  
 Column diameter: 0.20



Date : 11-MAR-2010 17:09

Client ID: RE36-10-7464

Instrument: MSD7.i

Sample Info: I2480430091959623111SVH111LANL

Volume Injected (uL): 0,5

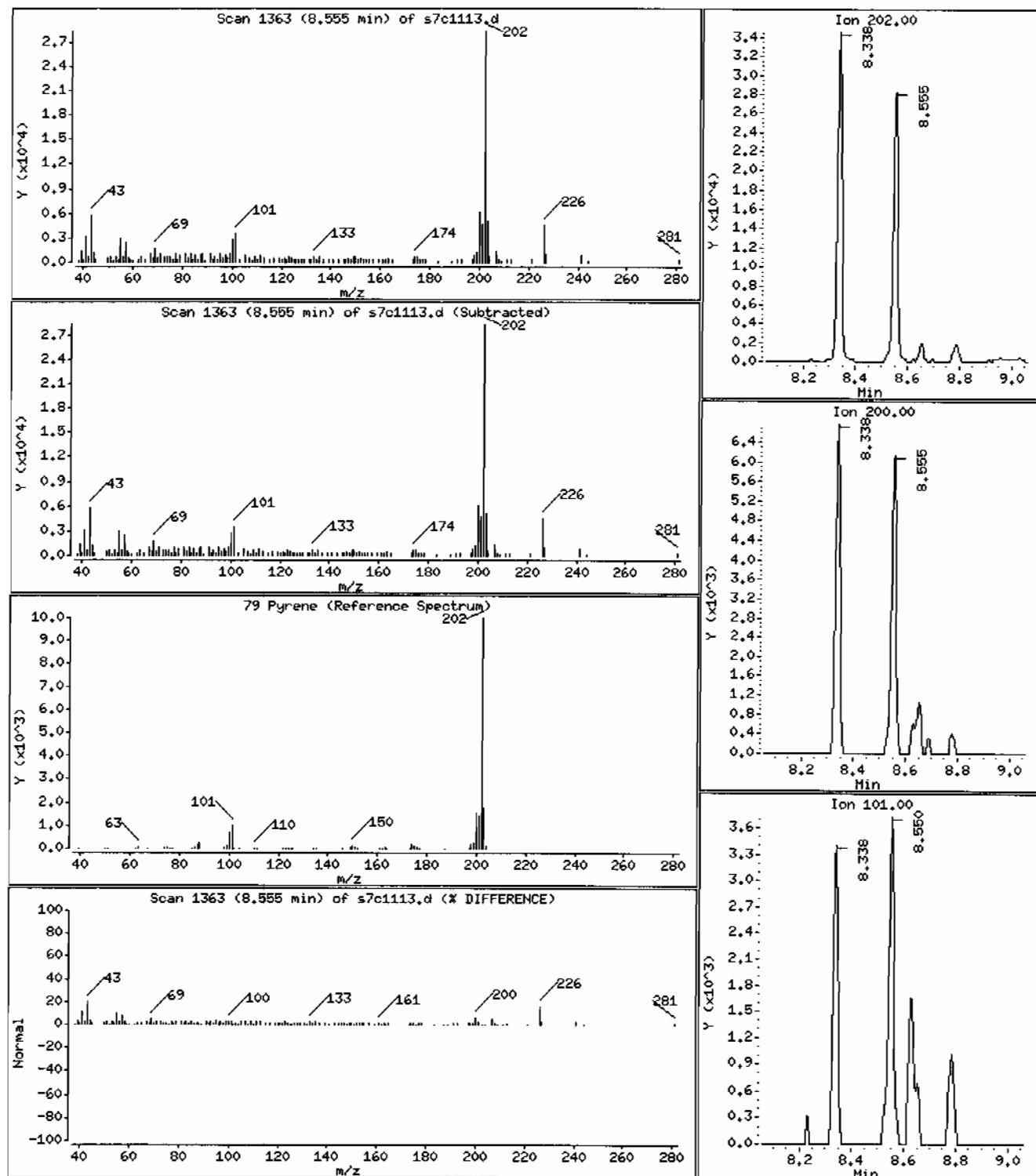
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

79 Pyrene

Concentration: 40,8 ug/Kg





Date : 11-MAR-2010 17:09

Client ID: RE36-10-7464

Instrument: MSD7.i

Sample Info: 12480430091959623111SVH111LANL

Volume Injected (uL): 0.5

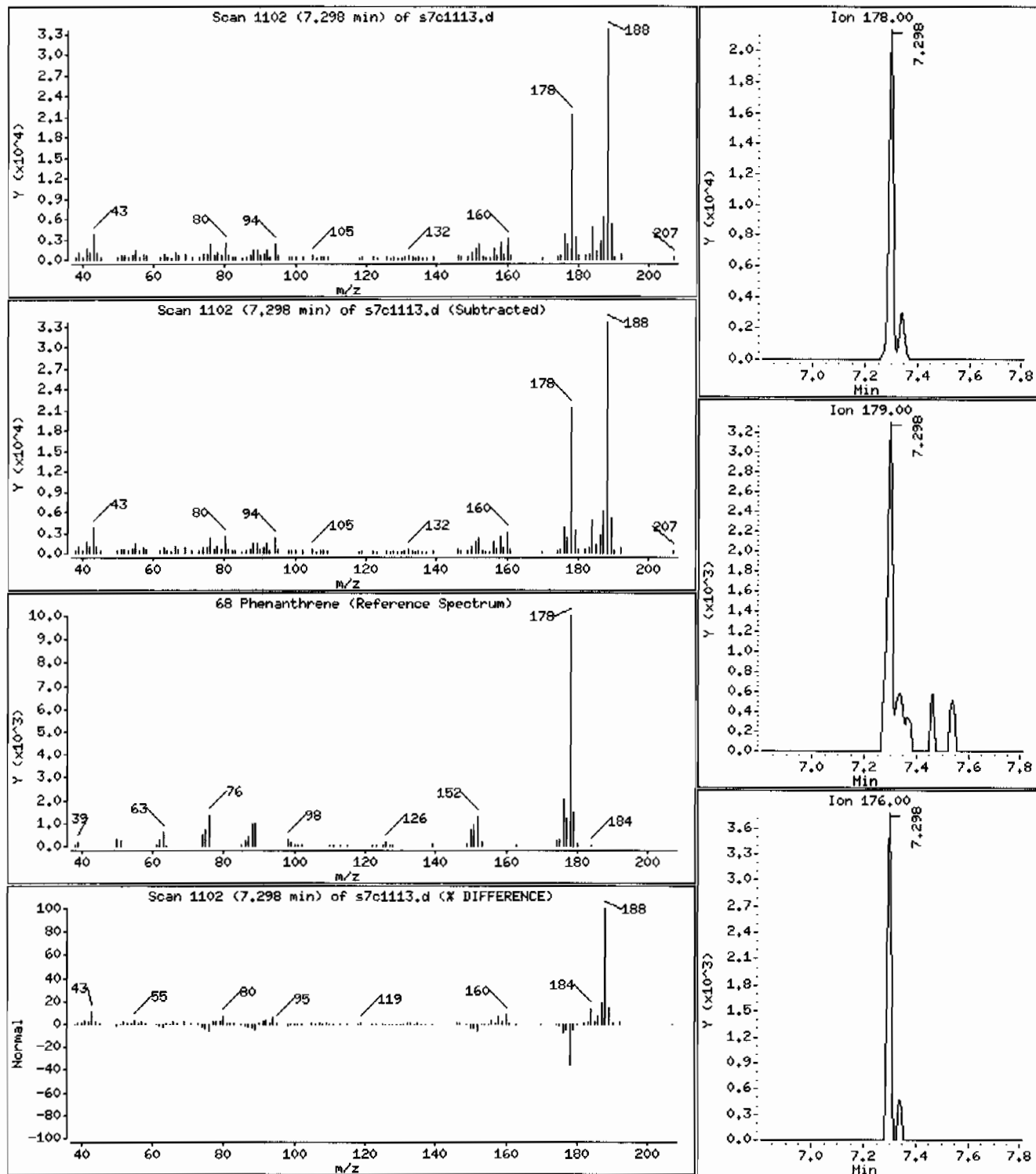
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 31.4 ug/Kg



Date : 11-MAR-2010 17:09

Client ID: RE36-10-7464

Instrument: MSD7.i

Sample Info: 1248043009195962311SVMI1ILANL

Volume Injected (uL): 0.5

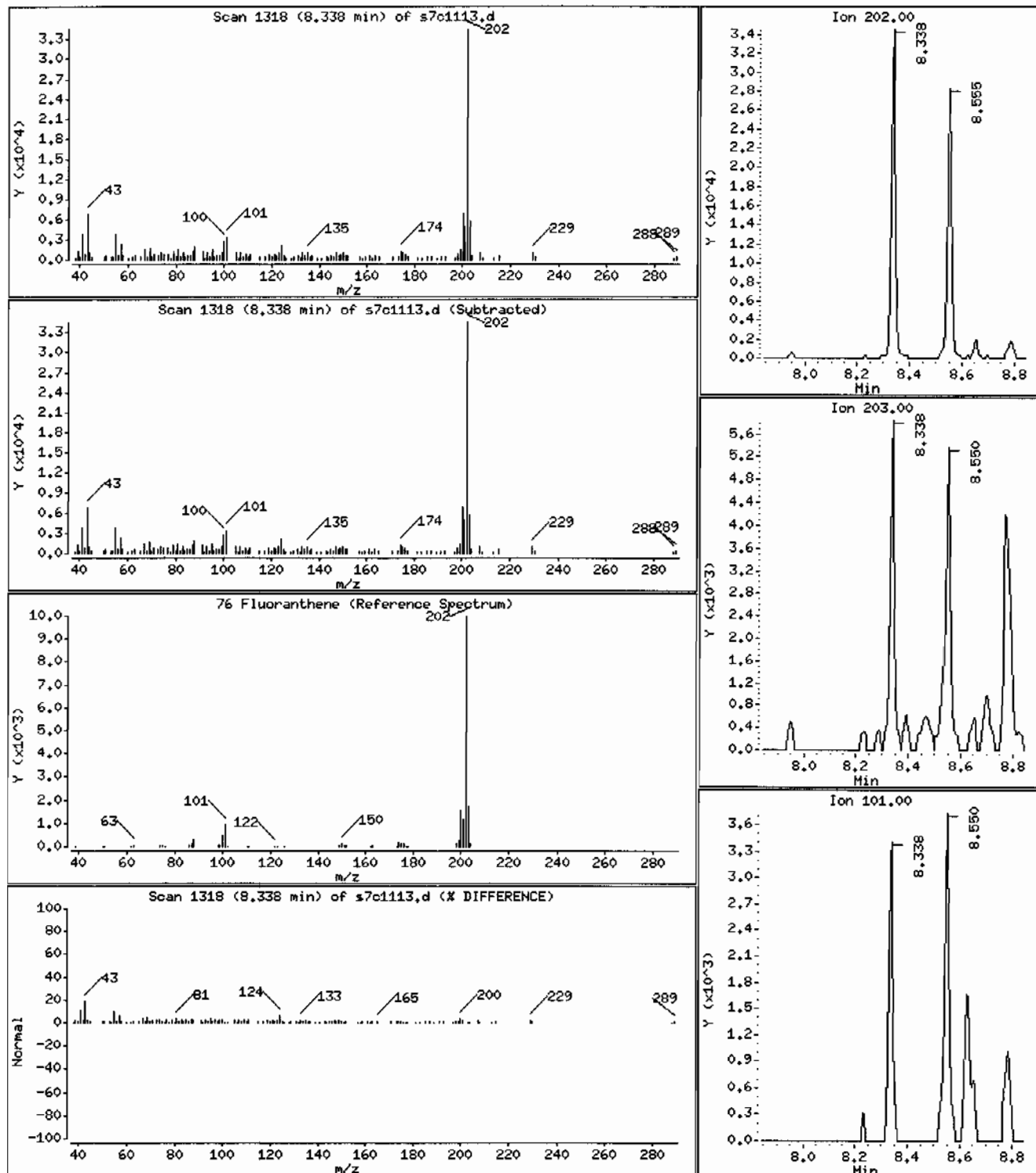
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 48.9 ug/Kg



Date : 11-MAR-2010 17:09

Client ID: RE36-10-7464

Instrument: MSD7.i

Sample Info: 12480430091959623111SVH111LANL

Volume Injected (uL): 0.5

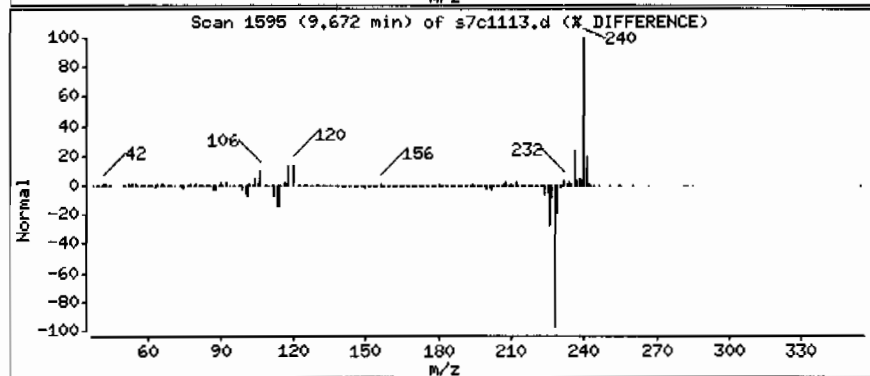
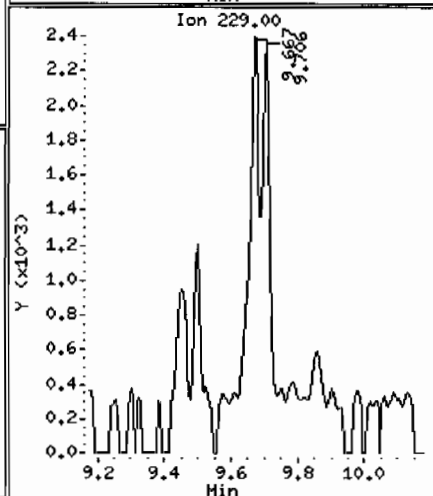
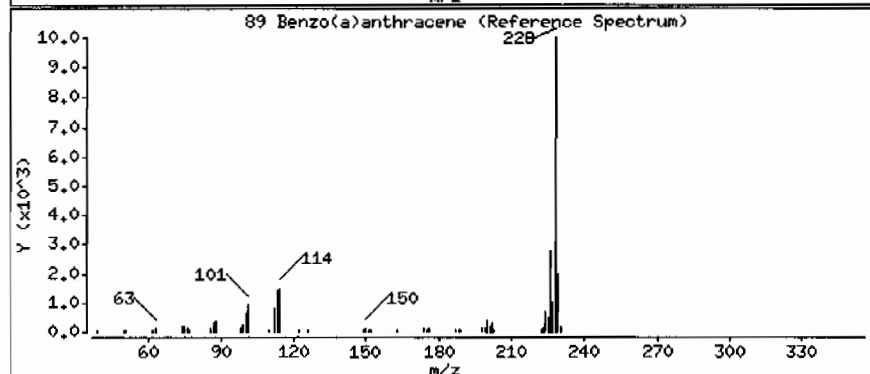
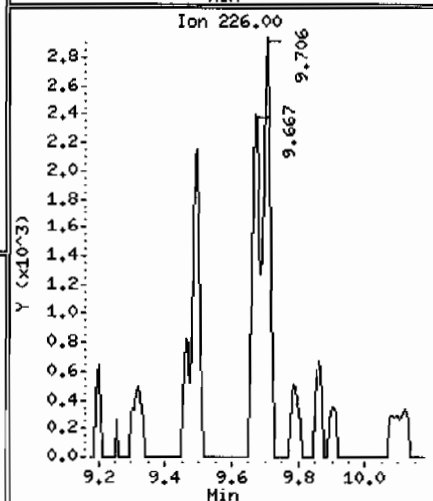
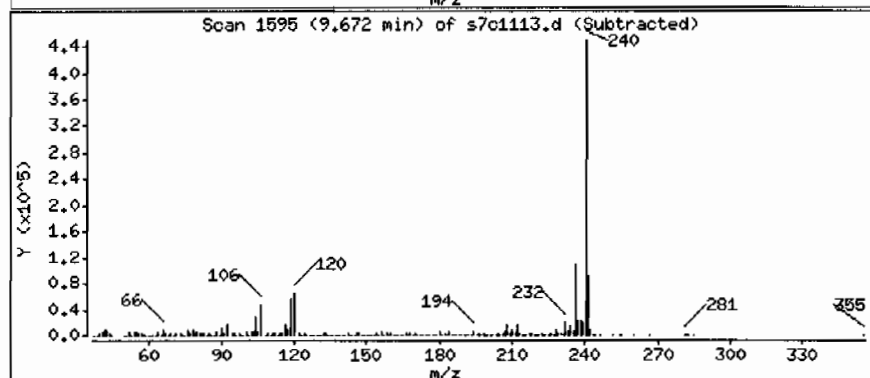
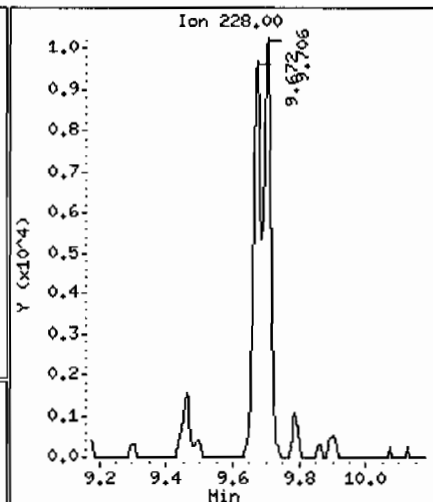
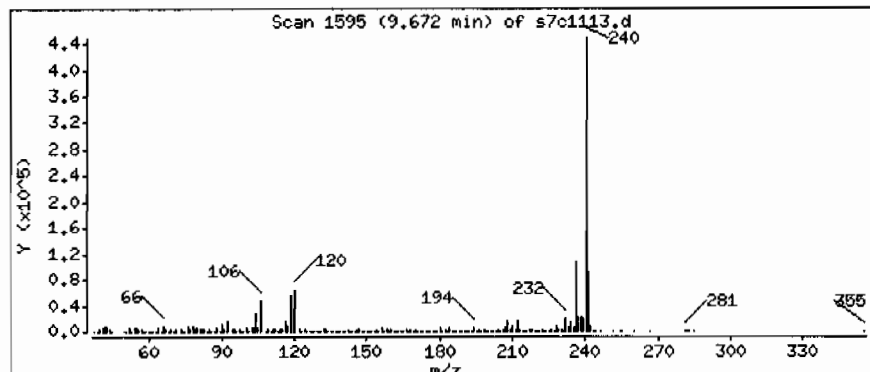
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 22.7 ug/Kg



Date : 11-MAR-2010 17:09

Client ID: RE36-10-7464

Instrument: MSD7.i

Sample Info: 1248043009195962311SVH111LANL

Volume Injected (uL): 0.5

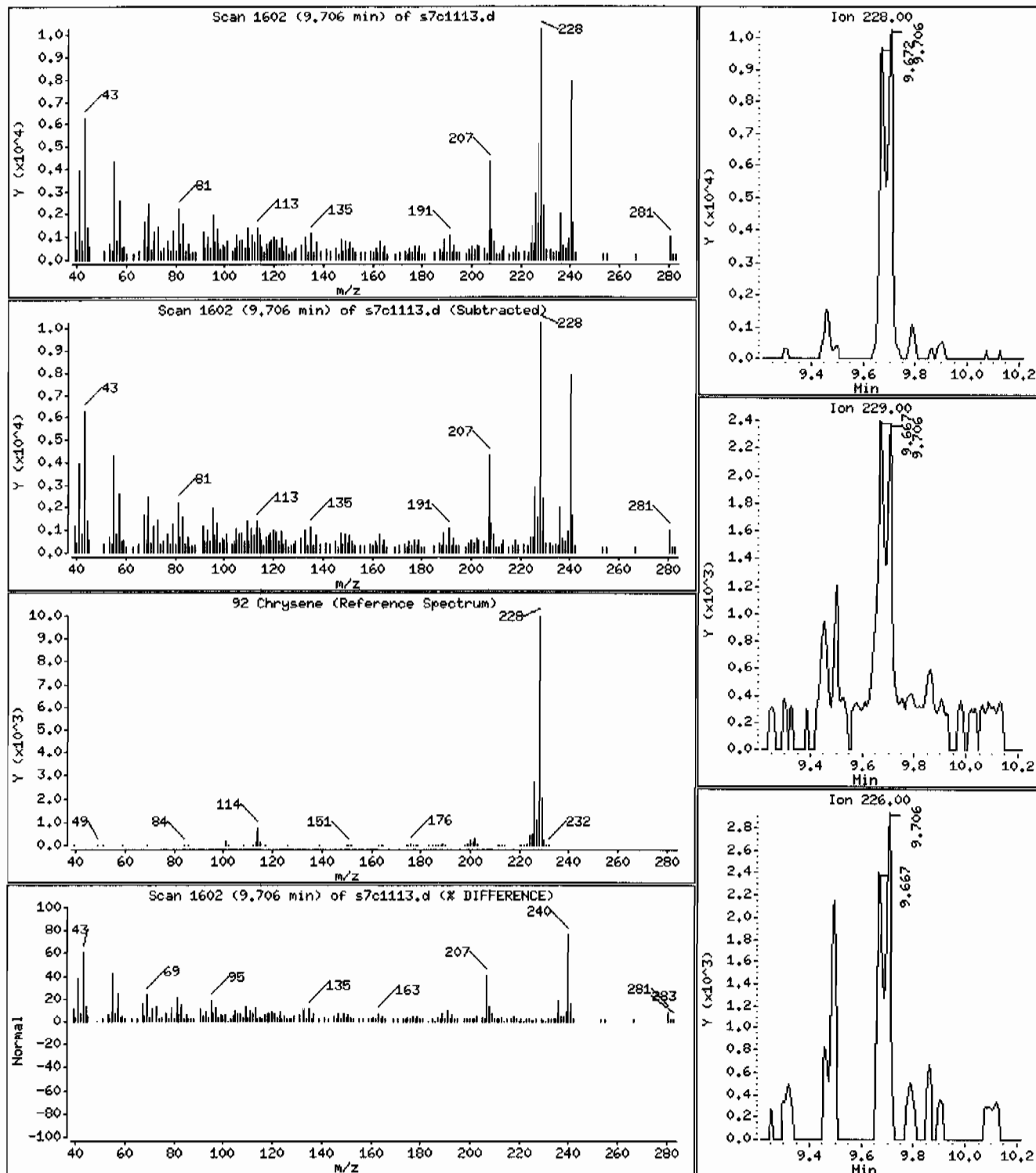
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 26.0 ug/Kg



Date: 11-MAR-2010 17:09

Client ID: RE36-10-7464

Instrument: MSD7.i

Sample Info: 12480430091959623111SVH111LANL

Volume Injected (uL): 0.5

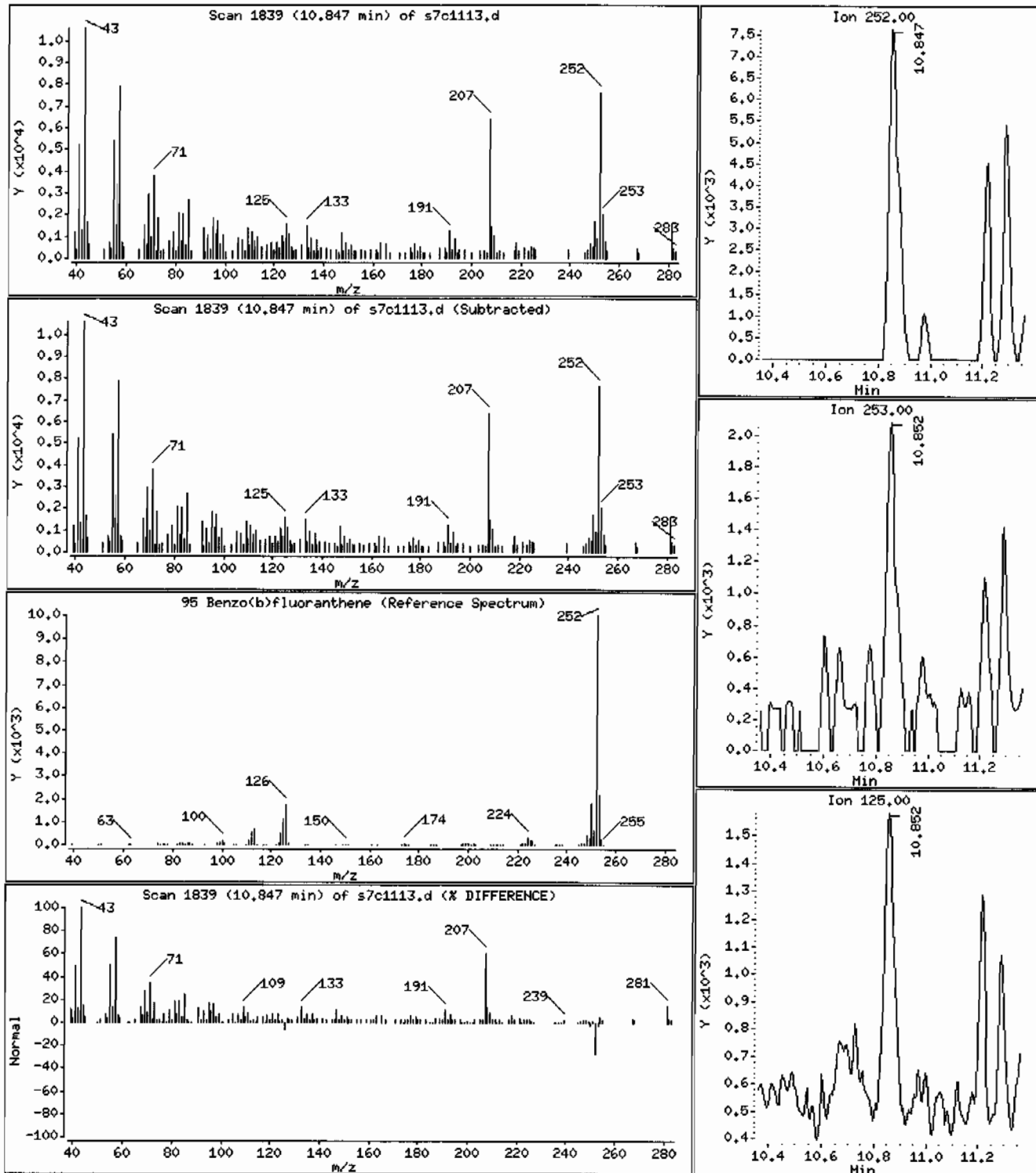
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 35.3 ug/Kg



Date: 11-MAR-2010 17:09

Client ID: RE36-10-7464

Instrument: MSD7.i

Sample Info: 1248043009195962311SVH111LANL

Volume Injected (uL): 0.5

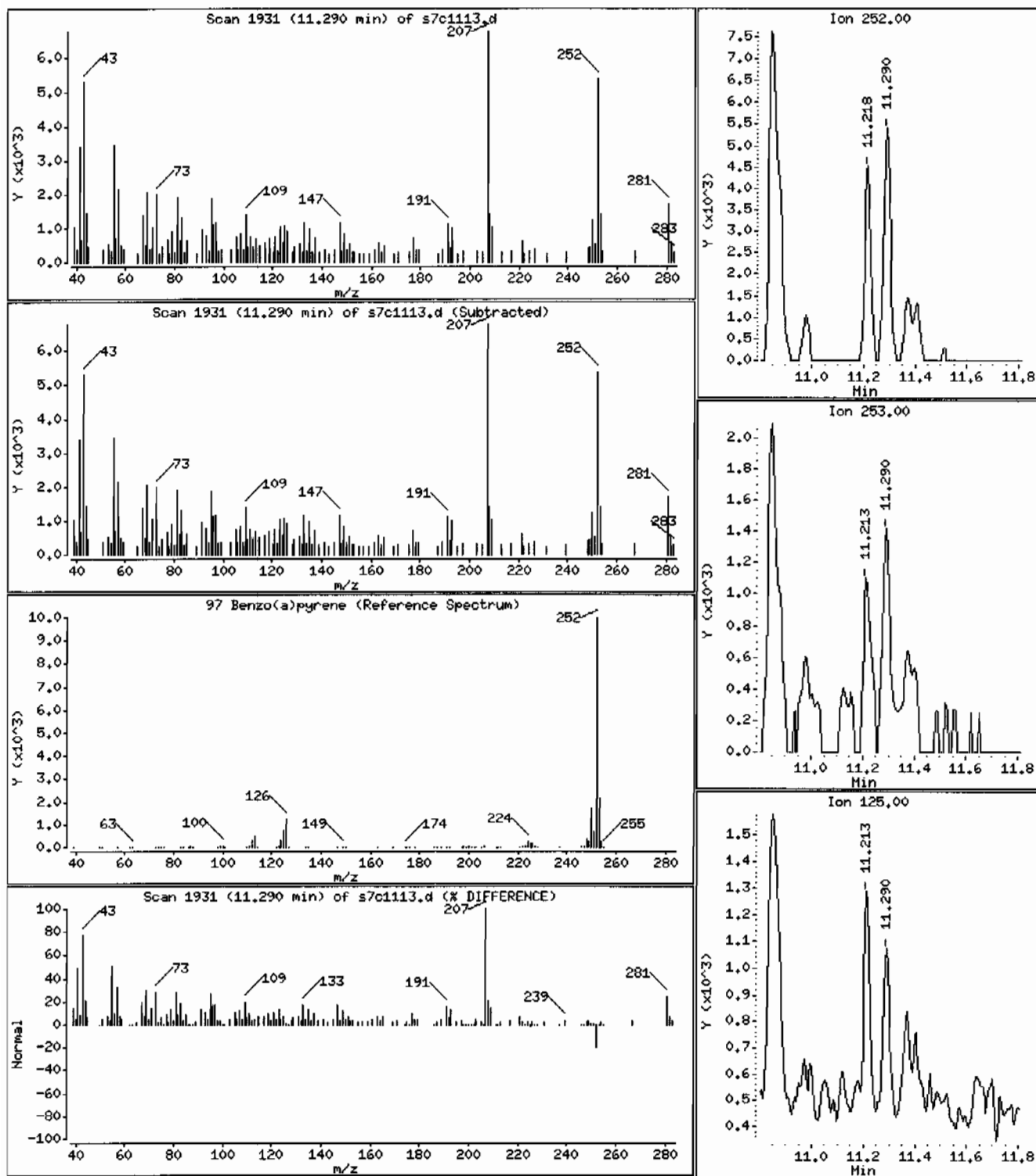
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 20.9 ug/Kg



Date: 11-MAR-2010 17:09

Client ID: RE36-10-7464

Instrument: MSD7.i

Sample Info: 1248043009195962311SVH111LANL

Volume Injected (uL): 0.5

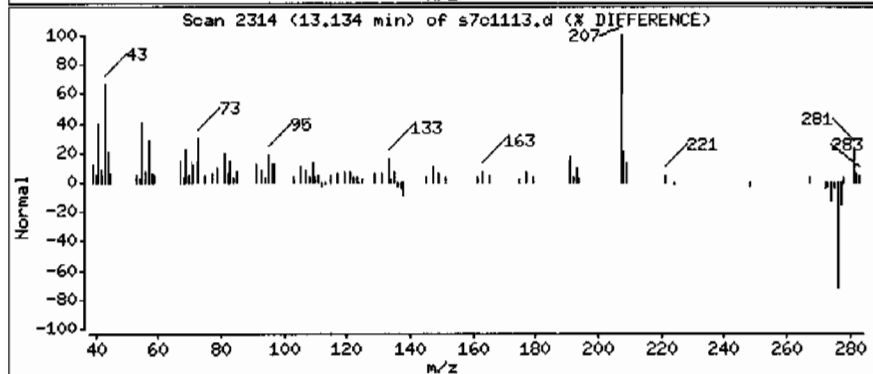
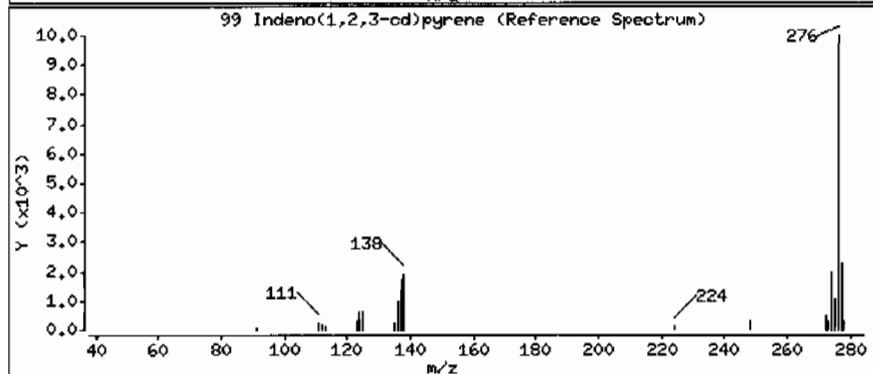
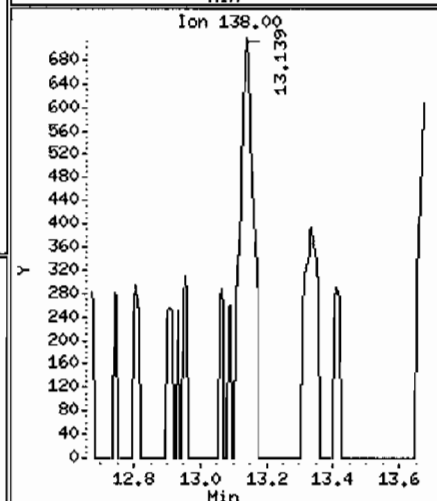
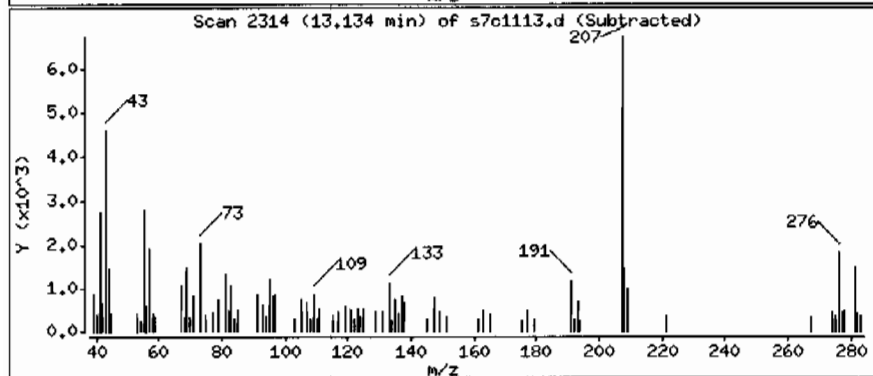
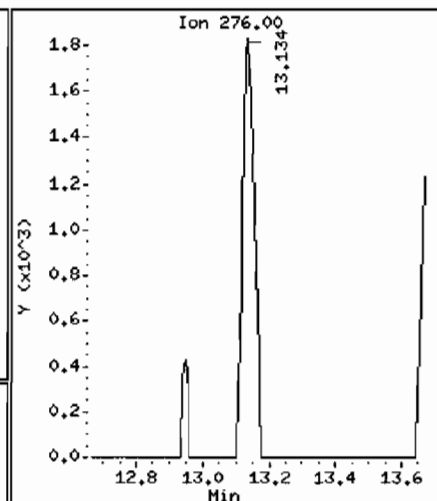
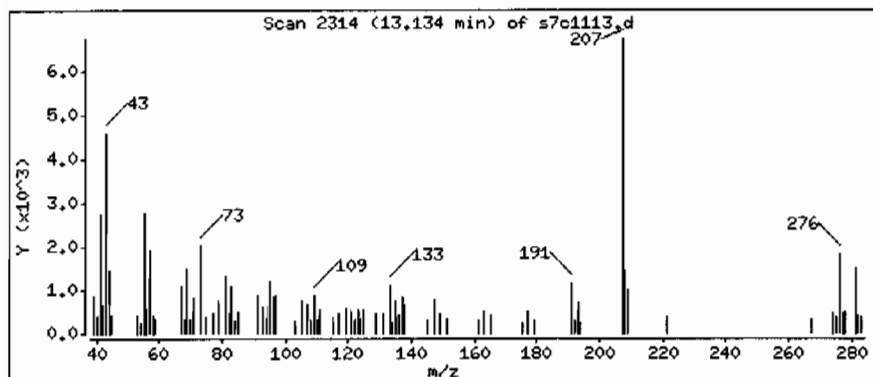
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 13.6 ug/Kg



Date : 11-MAR-2010 17:09

Client ID: RE36-10-7464

Instrument: MSD7.i

Sample Info: 1248043009195962311ISVH11ILANL

Volume Injected (uL): 0.5

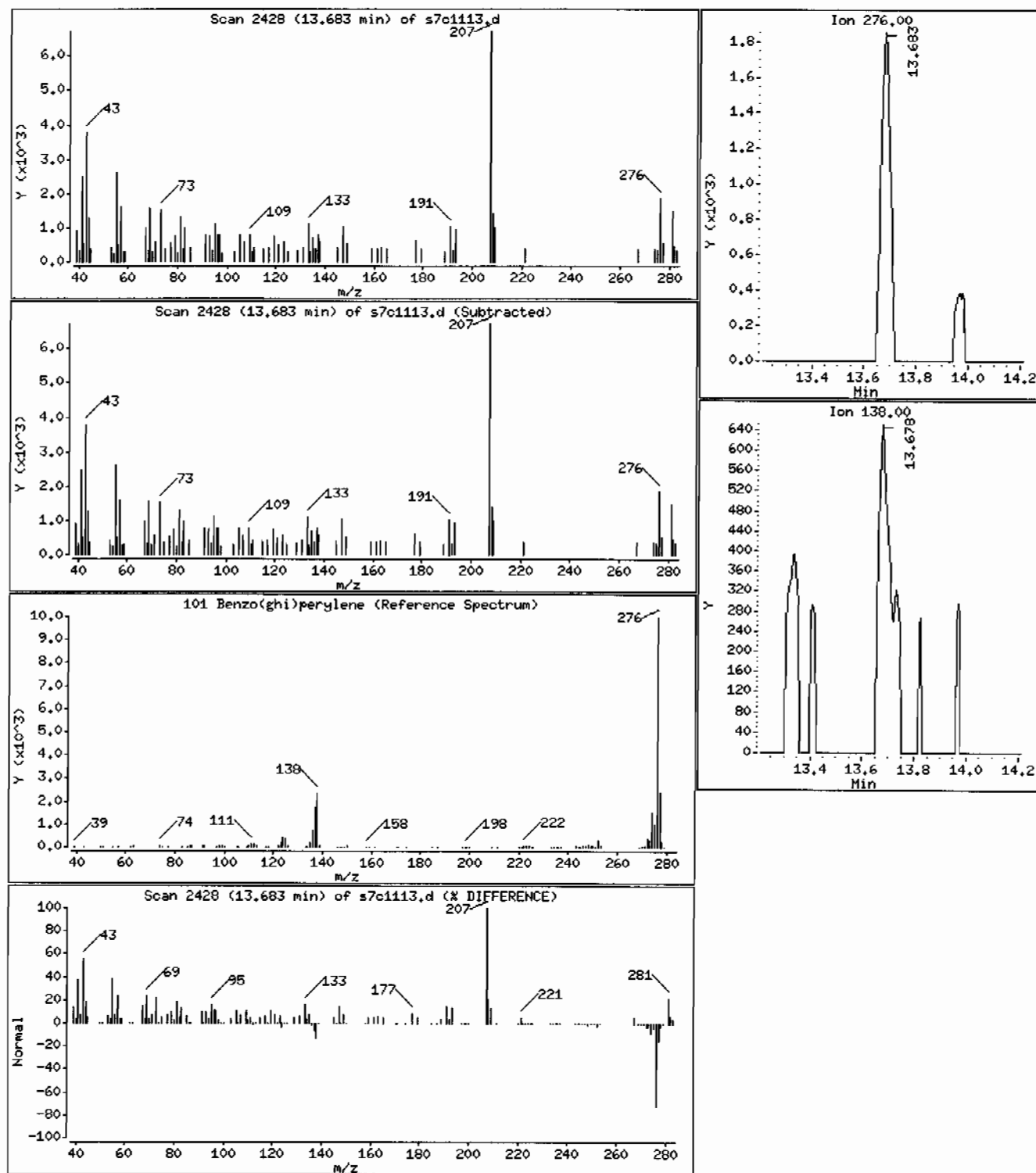
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 16.7 ug/Kg





Date : 11-MAR-2010 17:09

Client ID: RE36-10-7464

Instrument: MSD7.i

Sample Info: 1248043009195962311SVH11ILANL

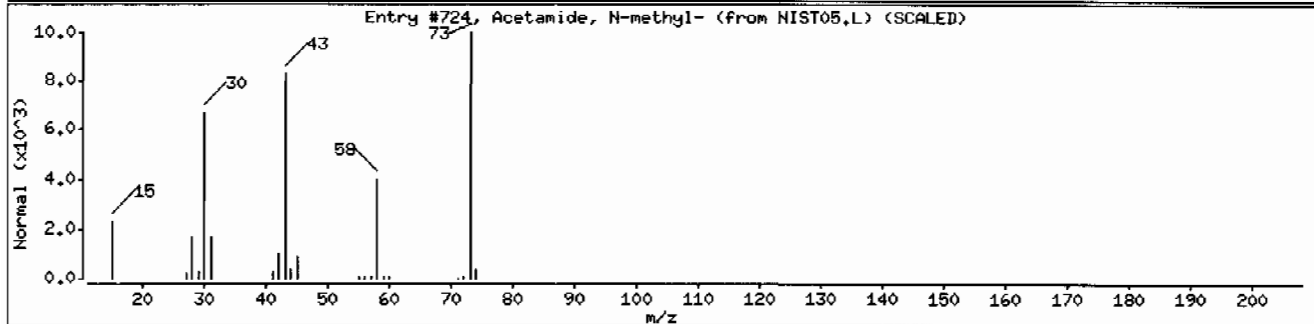
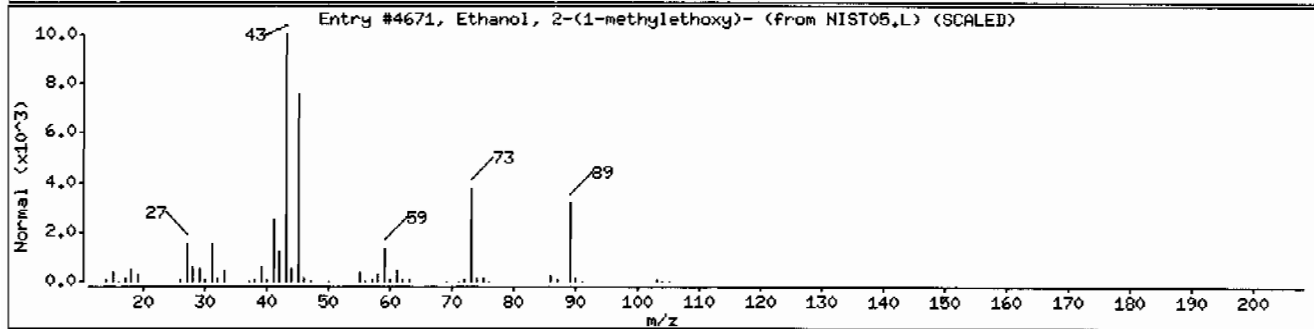
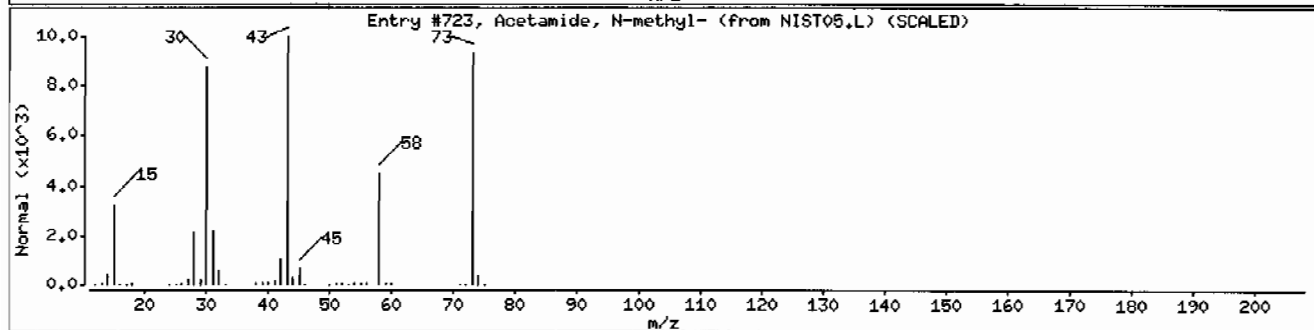
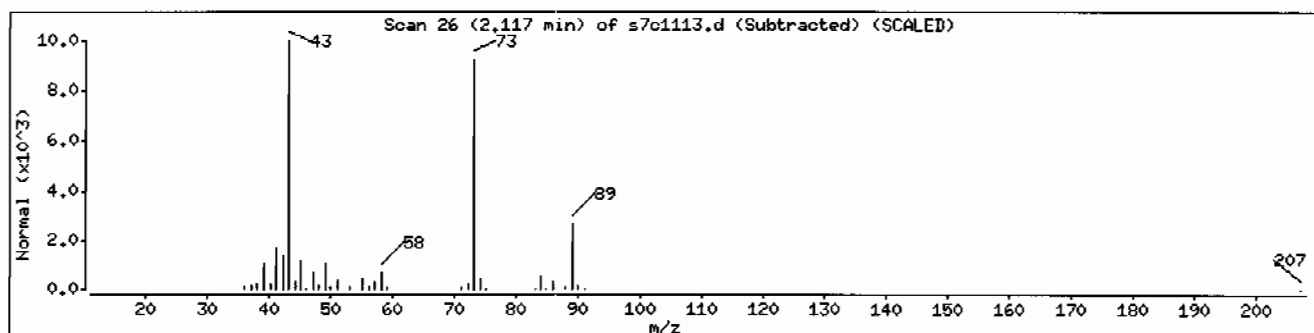
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acetamide, N-methyl-	79-16-3	NIST05.L	723	43	C3H7NO	73
Ethanol, 2-(1-methylethoxy)-	109-59-1	NIST05.L	4671	36	C5H12O2	104
Acetamide, N-methyl-	79-16-3	NIST05.L	724	35	C3H7NO	73



Date : 11-MAR-2010 17:09

Client ID: RE36-10-7464

Instrument: MSD7.i

Sample Info: 12480430091959623111SVH111LANL

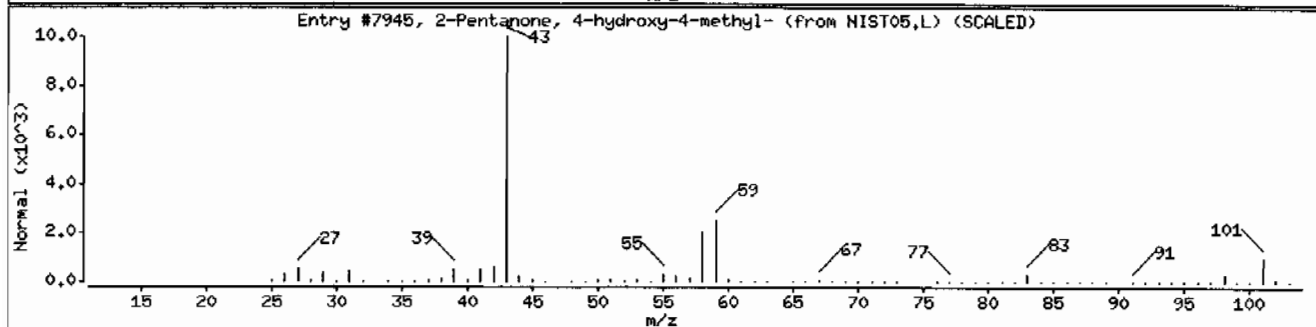
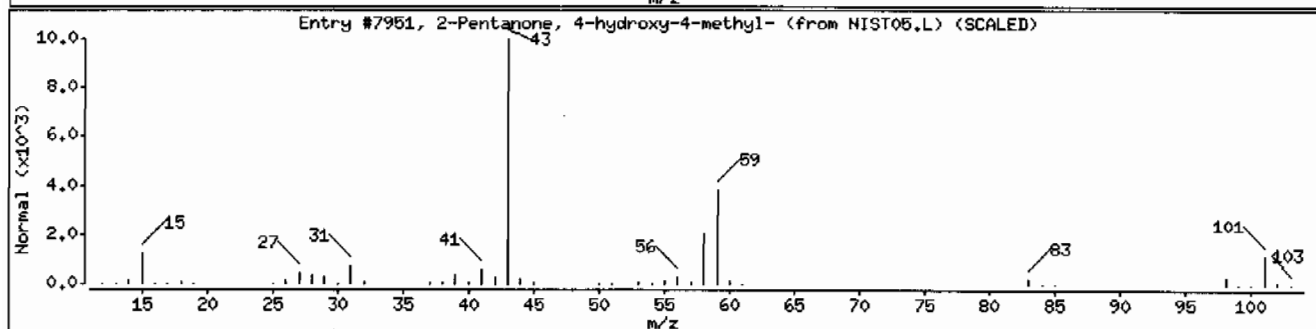
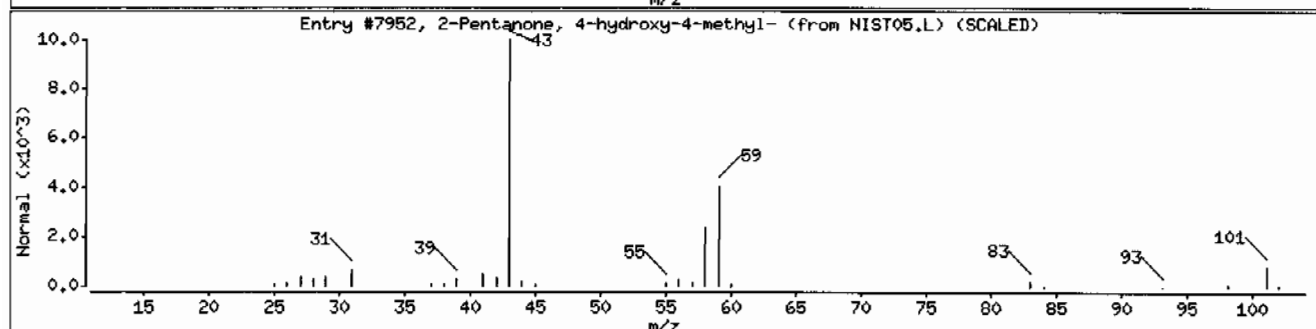
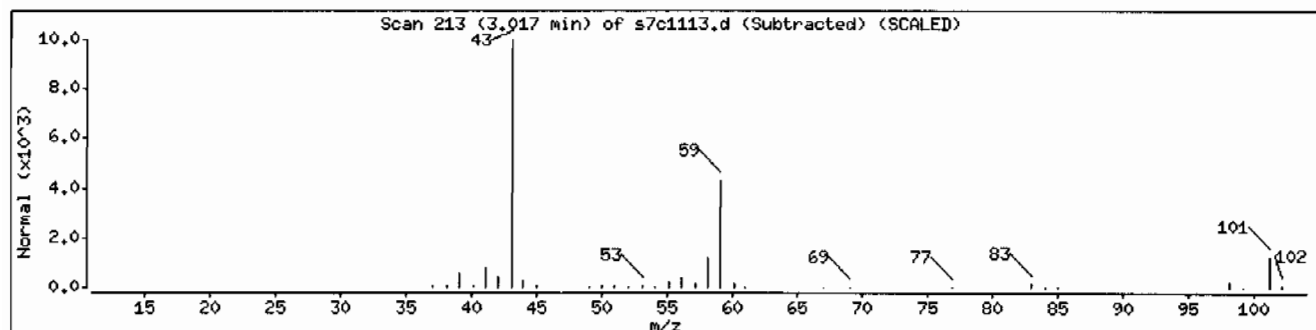
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116



Date: 11-MAR-2010 17:09

Client ID: RE36-10-7464

Instrument: MSD7.i

Sample Info: I2480430091959623111SVH111LANL

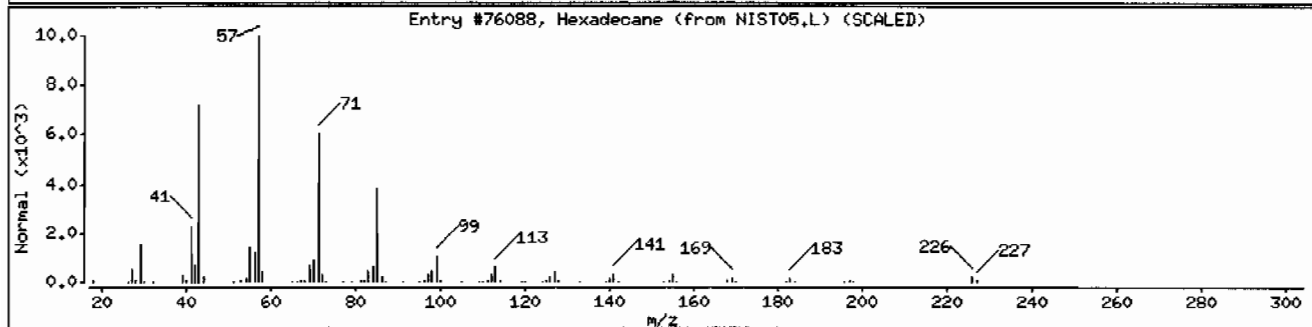
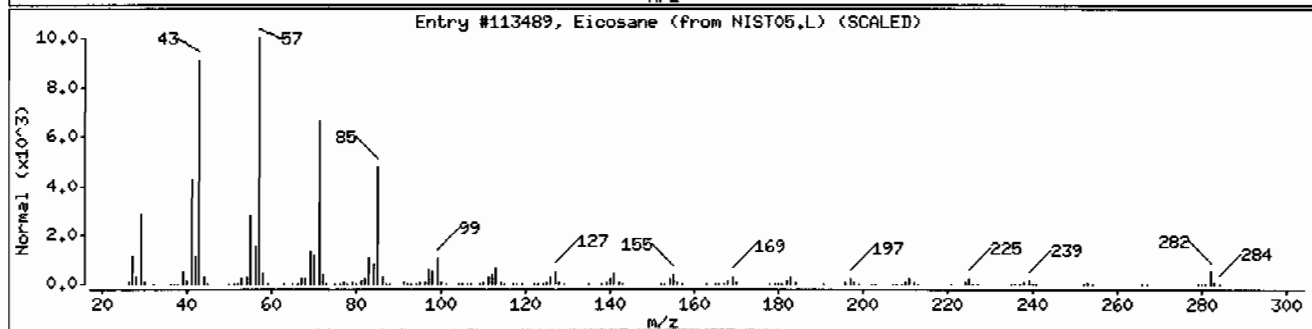
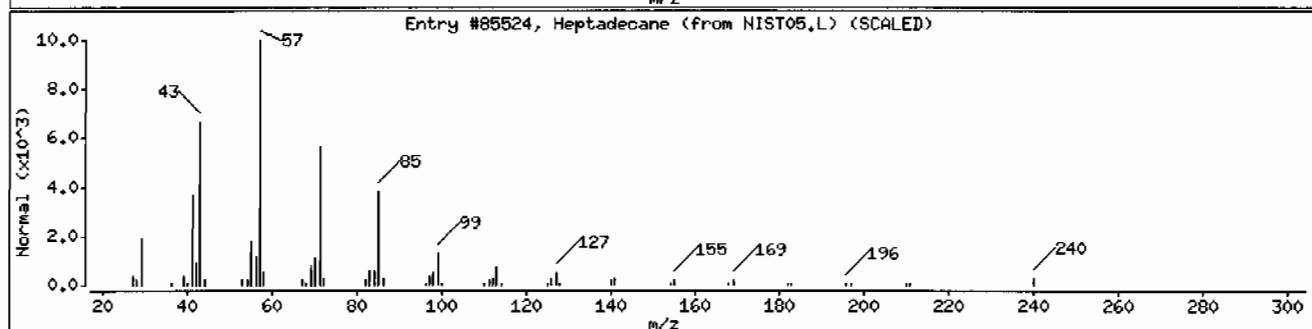
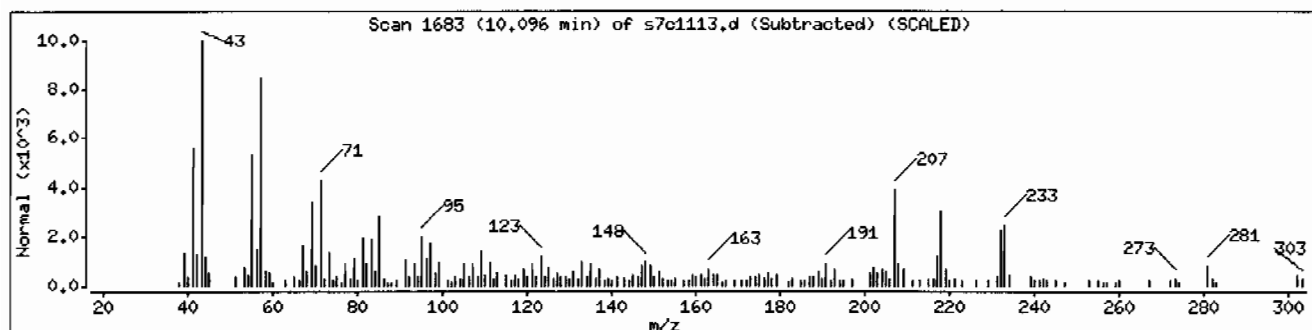
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptadecane	629-78-7	NIST05.L	85524	91	C17H36	240
Eicosane	112-95-8	NIST05.L	113489	91	C20H42	282
Hexadecane	544-76-3	NIST05.L	76088	91	C16H34	226



Date : 11-MAR-2010 17:09

Client ID: RE36-10-7464

Instrument: MSD7.i

Sample Info: 1248043009195962311SVMI1ILANL

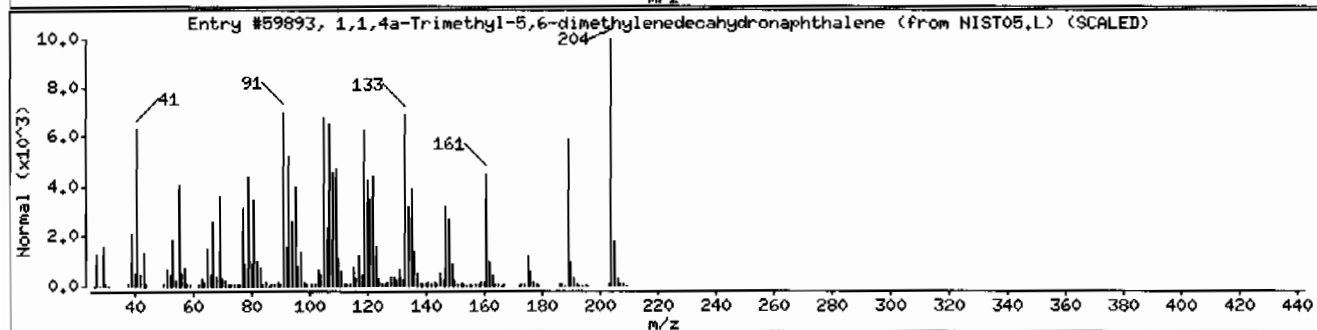
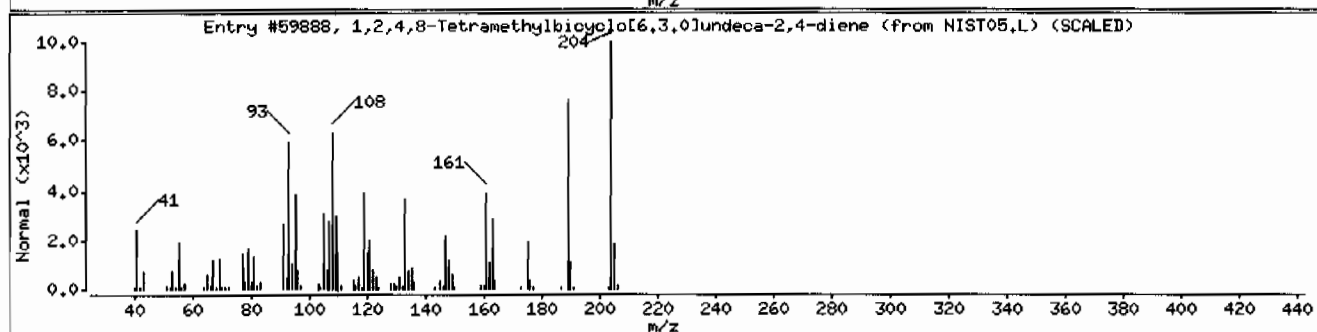
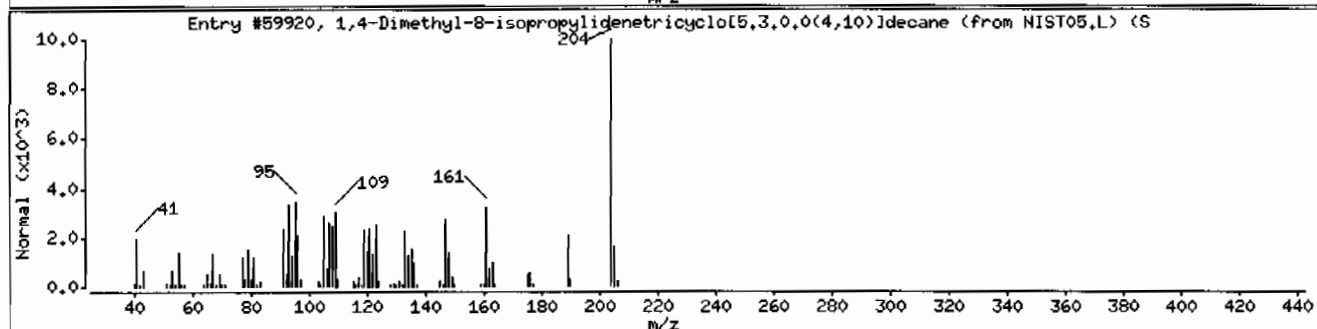
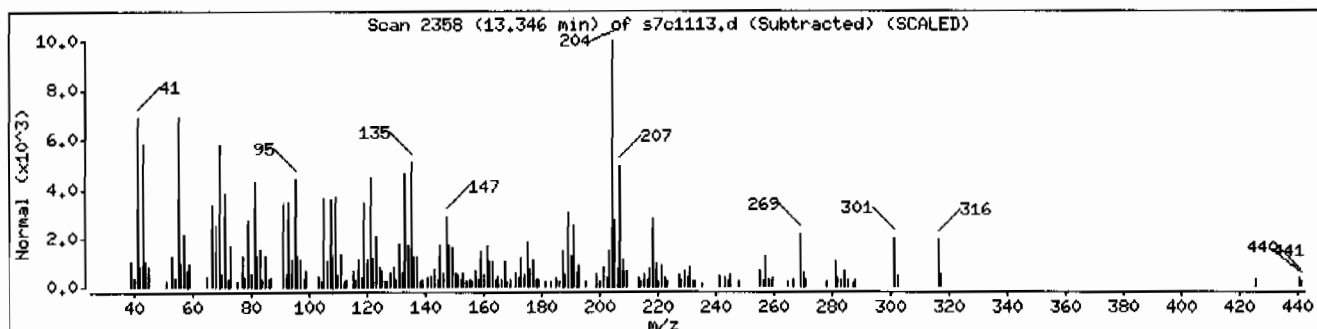
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Dimethyl-8-isopropylidenetricyclo[5.	1000140-07-7	NIST05.L	59920	83	C15H24	204
1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-	137235-51-9	NIST05.L	59888	50	C15H24	204
1,1,4a-Trimethyl-5,6-dimethylenedecahydr	1000193-60-8	NIST05.L	59893	45	C15H24	204



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Data file : /chem/MSD7.i/s031210.b/s7c1232.d  
Lab Smp Id: 248043004 Client Smp ID: RE36-10-7465  
Inj Date : 12-MAR-2010 23:44  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043004|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 15:38 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 28  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	22.27460	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	ON-COLUMN	FINAL
=====	=====	=====	=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	152	3.884	3.884	(1.000)	325911	40.0000
* 29 Naphthalene-d8	136	4.746	4.751	(1.000)	1249316	40.0000
* 46 Acenaphthene-d10	164	5.993	5.998	(1.000)	729037	40.0000
* 67 Phenanthrene-d10	188	7.154	7.159	(1.000)	1312430	40.0000
* 91 Chrysene-d12	240	9.547	9.552	(1.000)	872939	40.0000
* 98 Perylene-d12	264	11.155	11.160	(1.000)	429332	40.0000
\$ 3 2-Fluorophenol	112	3.085	3.080	(0.794)	176115	889(R)
\$ 5 Phenol-d5	99	3.605	3.610	(0.928)	231924	934(R)
\$ 20 Nitrobenzene-d5	82	4.240	4.250	(0.893)	99334	451(R)
\$ 39 2-Fluorobiphenyl	172	5.483	5.488	(0.915)	218775	515(R)
\$ 60 2,4,6-Tribromophenol	329	6.585	6.590	(1.099)	55218	1120(R)
\$ 81 p-Terphenyl-d14	244	8.521	8.526	(0.893)	228089	624

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
47 Acenaphthene	154	6.017	6.022	(1.004)	211629	13.1886	564
79 Pyrene	202	8.430	8.425	(0.883)	3179013	115.275	4930
30 Naphthalene	128	4.760	4.765	(1.003)	115906	4.91131	210
34 2-Methylnaphthalene	142	5.237	5.242	(1.103)	48646	2.87210	123
49 Dibenzofuran	168	6.138	6.147	(1.024)	194456	8.62247	369(a)
53 Fluorene	166	6.398	6.403	(1.067)	266416	14.0791	602
68 Phenanthrene	178	7.182	7.178	(1.004)	3693493	137.143	5860(A)
69 Anthracene	178	7.216	7.221	(1.009)	666572	24.4382	1040
76 Fluoranthene	202	8.218	8.208	(1.149)	3943658	134.674	5760(A)
89 Benzo(a)anthracene	228	9.537	9.537	(0.999)	1195367	57.1212	2440
92 Chrysene	228	9.571	9.576	(1.003)	1036723	55.6726	2380
95 Benzo(b)fluoranthene	252	10.669	10.664	(0.956)	1043152	86.6386	3700
97 Benzo(a)pyrene	252	11.083	11.083	(0.994)	453575	45.9430	1960
99 Indeno(1,2,3-cd)pyrene	276	12.826	12.841	(1.150)	171532	24.1619	1030
100 Dibenzo(a,h)anthracene	278	12.831	12.850	(1.150)	50035	8.89354	380
101 Benzo(ghi)perylene	276	13.341	13.351	(1.196)	140881	23.7952	1020

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.

## ION RATIO REPORT

## SV REPORT

Data file: s7c1232.d

Report Date: 03/13/2010 09:27

Lab. ID: 248043004

SampleType: SAMPLE

Injection Date: 12-MAR-2010 23:44

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043004|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	15459	4.24	4.13	80-120	100	(T)
42	12019	4.24	4.13	63-123	78	(T)
-----						
30 Naphthalene				CAS#: 91-20-3		
128	115906	4.76	4.77	80-120	100	( )
129	12242	4.76	4.77	0- 43	11	( )
127	14617	4.76	4.77	0- 44	13	( )
-----						
34 2-Methylnaphthalene				CAS#: 91-57-6		
142	48646	5.24	5.24	80-120	100	( )
141	41688	5.24	5.24	54-114	86	( )
-----						
43 Dimethylphthalate				CAS#: 131-11-3		
163	130178	5.99	5.76	80-120	100	(T)
164	729037	5.99	5.76	0- 40	560	(QT)
-----						
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	97725	5.99	5.82	80-120	100	(T)
63	22745	6.02	5.82	56-116	23	(QT)
-----						
45 Acenaphthylene				CAS#: 208-96-8		
152	11519	5.97	5.90	80-120	100	(T)
151	3028	5.97	5.90	0- 49	26	(T)
153	11253	5.97	5.90	0- 43	98	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
47 Acenaphthene			CAS#: 83-32-9			
154	211629	6.02	6.02	80-120	100	( )
153	247860	6.02	6.02	73-133	117	( )
152	105832	6.02	6.02	18- 78	50	( )
-----						
49 Dibenzofuran			CAS#: 132-64-9			
168	194456	6.14	6.15	80-120	100	( )
139	75910	6.14	6.15	8- 68	39	( )
-----						
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	97725	5.99	6.11	80-120	100	(T)
89	1959	5.99	6.11	39- 99	2	(QT)
63	23337	6.02	6.11	18- 78	24	(T)
-----						
52 4-Nitrophenol			CAS#: 100-02-7			
139	75910	6.14	6.05	80-120	100	(T)
109	1290	6.14	6.05	38- 98	2	(QT)
65	1562	6.14	6.05	69-129	2	(QT)
-----						
53 Fluorene			CAS#: 86-73-7			
166	266416	6.40	6.40	80-120	100	( )
165	242370	6.40	6.40	62-122	91	( )
167	40963	6.40	6.40	0- 44	15	( )
-----						
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	147	6.58	6.42	80-120	100	(T)
105	1236	6.58	6.42	11- 71	836	(QT)
51	6124	6.58	6.42	34- 94	4139	(QT)
-----						
68 Phenanthrene			CAS#: 85-01-8			
178	3693493	7.18	7.18	80-120	100	( )
179	621184	7.18	7.18	0- 46	17	( )
176	684913	7.18	7.18	0- 48	19	( )
-----						
69 Anthracene			CAS#: 120-12-7			
178	666572	7.22	7.22	80-120	100	( )
179	147693	7.22	7.22	0- 46	22	( )
176	115152	7.22	7.22	0- 48	17	( )
-----						
76 Fluoranthene			CAS#: 206-44-0			
202	3943658	8.22	8.21	80-120	100	( )
203	708414	8.22	8.21	0- 48	18	( )
101	486881	8.22	8.21	0- 41	12	( )
-----						
79 Pyrene			CAS#: 129-00-0			
202	3179013	8.43	8.43	80-120	100	( )
200	647425	8.43	8.43	0- 50	20	( )
101	472847	8.43	8.43	0- 43	15	( )
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	1195367	9.54	9.54	80-120	100	( )
226	290102	9.54	9.54	0- 56	24	( )
229	320611	9.54	9.54	0- 50	27	( )
-----						
92 Chrysene				CAS#: 218-01-9		
228	1036723	9.57	9.58	80-120	100	( )
229	244581	9.57	9.58	0- 50	24	( )
226	315907	9.57	9.58	0- 58	30	( )
-----						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	1043152	10.67	10.66	80-120	100	( )
253	246894	10.67	10.66	0- 52	24	( )
125	120610	10.67	10.66	0- 41	12	( )
-----						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	1043152	10.67	10.70	80-120	100	( )
253	246917	10.67	10.70	0- 52	24	( )
125	120610	10.67	10.70	0- 41	12	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	453575	11.08	11.08	80-120	100	( )
253	109022	11.08	11.08	0- 52	24	( )
125	51728	11.08	11.08	0- 42	11	( )
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	171532	12.83	12.84	80-120	100	( )
138	44590	12.82	12.84	2- 62	26	( )
-----						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	50035	12.83	12.85	80-120	100	( )
139	5379	12.84	12.85	0- 50	11	( )
-----						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	140881	13.34	13.35	80-120	100	( )
138	37527	13.34	13.35	0- 57	27	( )

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD7.i/s031210.b/s7c1232.d  
Lab Smp Id: 248043004 Client Smp ID: RE36-10-7465  
Inj Date : 12-MAR-2010 23:44  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043004|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 15:38 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 28  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	22.27460	% moisture

Cpnd Variable

Local Compound Variable

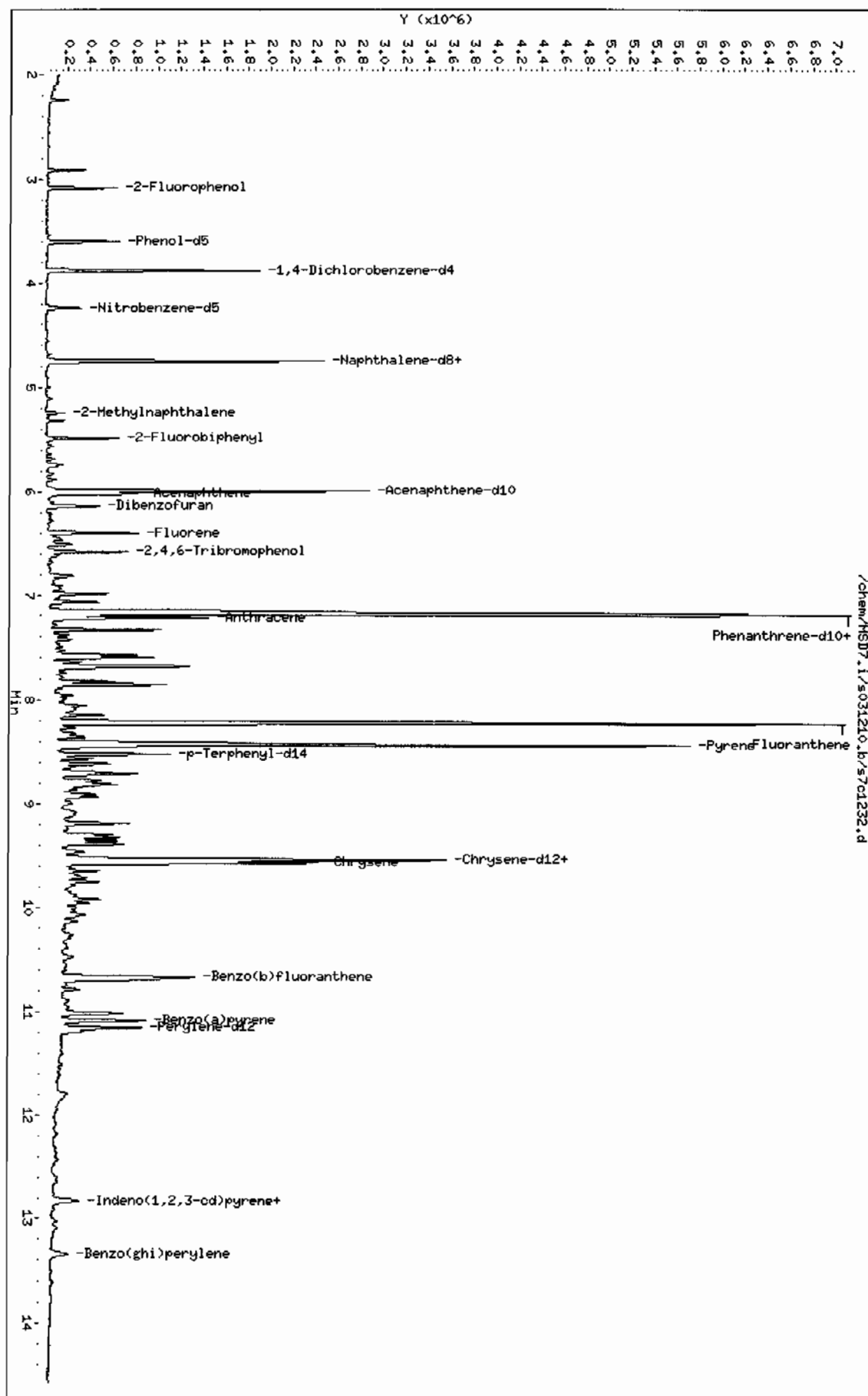
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.884	2011712	40.000
* 67 Phenanthrene-d10	7.154	9484270	40.000
* 91 Chrysene-d12	9.547	6089066	40.000
* 98 Perylene-d12	11.155	1139264	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

RT	CONCENTRATIONS			QUAL	QUANT		
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.911	366634	7.28997958	312	0		0	10
5H-Indeno[1,2-b]pyridine					CAS #: 244-99-5		
7.332	1155279	4.87239842	208	95	NIST05.L	34225	67
Phenanthrene, 2-methyl-					CAS #: 2531-84-2		
7.597	1059624	4.46897484	191	98	NIST05.L	51412	67
Unknown					CAS #:		
7.678	1908640	8.04970873	344	0		0	67
9,10-Anthracenedione					CAS #: 84-65-1		
7.852	1081132	4.55968545	195	99	NIST05.L	62993	67
Unknown					CAS #:		
8.608	709009	4.65758679	199	0		0	91
11H-Benzo[b]fluorene					CAS #: 243-17-4		
8.714	1269286	8.33813559	356	97	NIST05.L	68695	91
Pyrene, 1-methyl-					CAS #: 2381-21-7		
8.815	748326	4.91586768	210	96	NIST05.L	68692	91
11H-Benzo[a]fluoren-11-one					CAS #: 479-79-8		
9.190	652007	4.28313207	183	97	NIST05.L	78768	91
Benzo[b]naphtho[2,1-d]thiophene					CAS #: 239-35-0		
9.301	626180	4.11347189	176	95	NIST05.L	81181	91
Unknown					CAS #:		
9.388	749369	4.92271643	210	0		0	91
Benzo[e]pyrene					CAS #: 192-97-2		
11.011	923543	32.4259505	1390	98	NIST05.L	93577	98
Perylene					CAS #: 198-55-0		
11.184	346929	12.1808092	521	98	NIST05.L	93575	98

Data File: /chem/MSD7.1/s031210.b/s701232.d  
 Date: 12-MAR-2010 23:44  
 Client ID: RE36-10-7465  
 Sample Info: 1248043004/95962311/SVM11/LANL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-SMS

Instrument: MSD7.1  
 Operator: JHB3  
 Column diameter: 0.20



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.1

Sample Info: 12480430041959623111SVH111LANL

Volume Injected (uL): 0.5

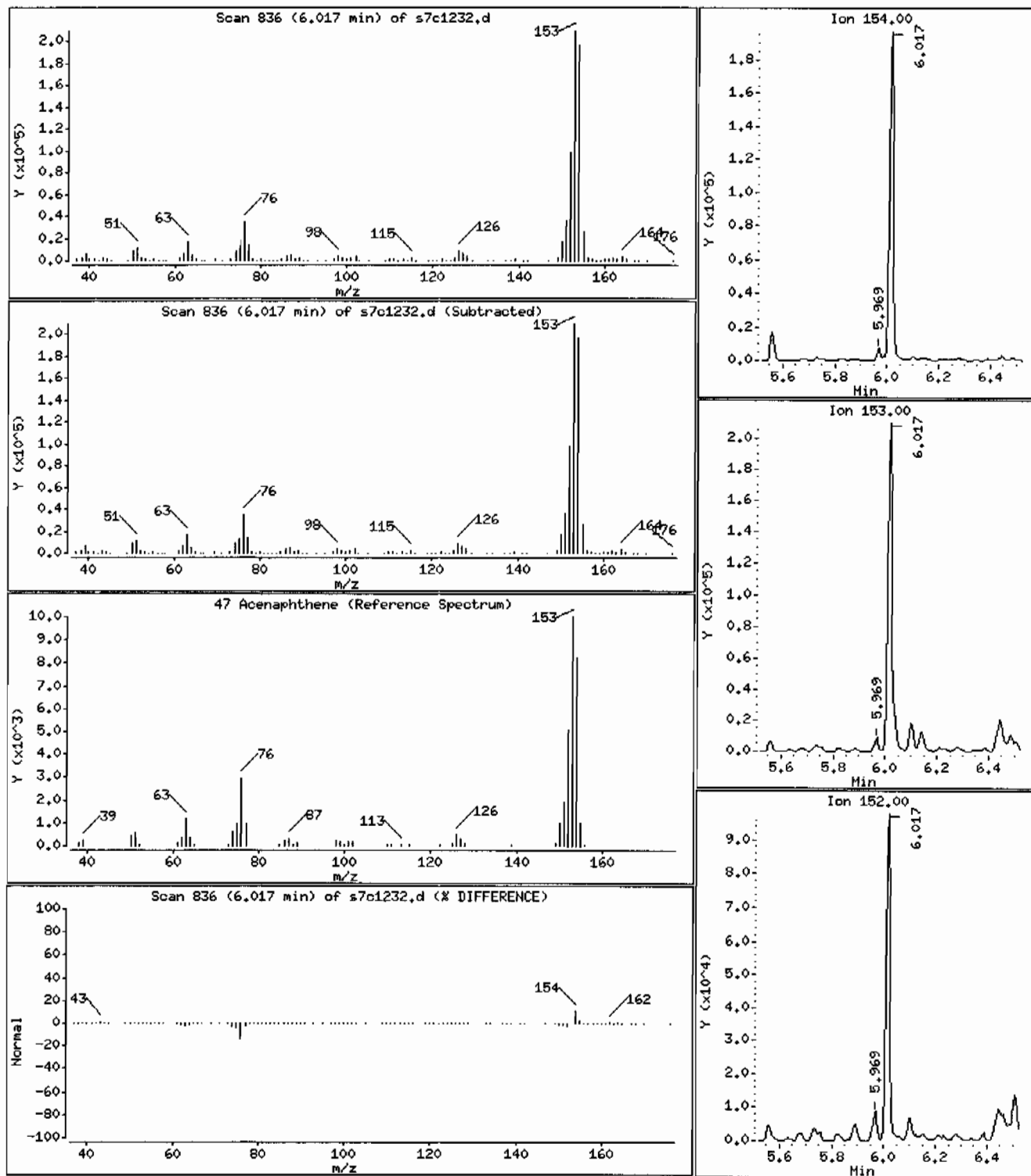
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 564 ug/Kg



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 1248043004195962311ISVH11ILANL

Volume Injected (uL): 0.5

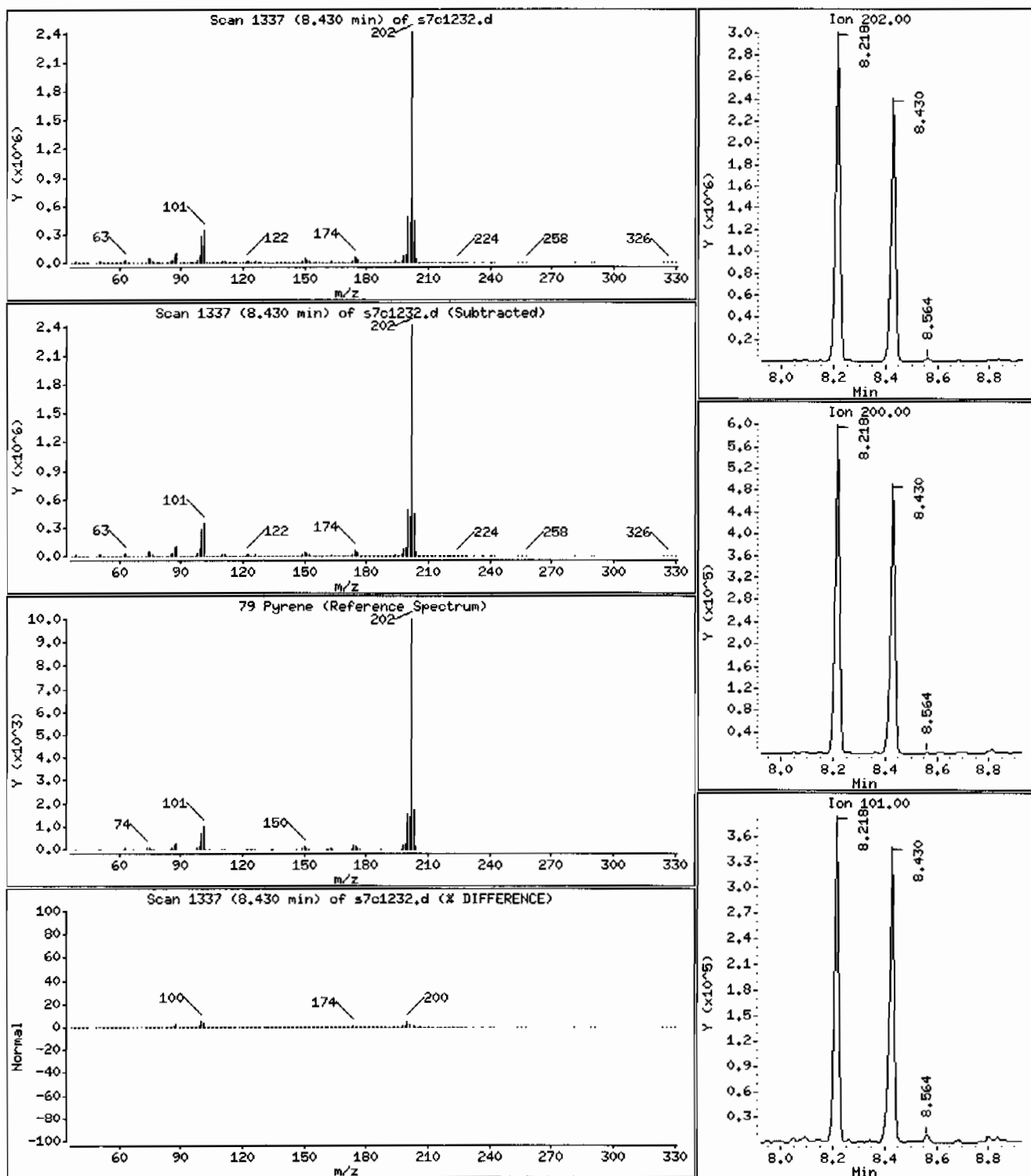
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 4930 ug/Kg



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 1248043004195962311SVMI1ILANL

Volume Injected (uL): 0.5

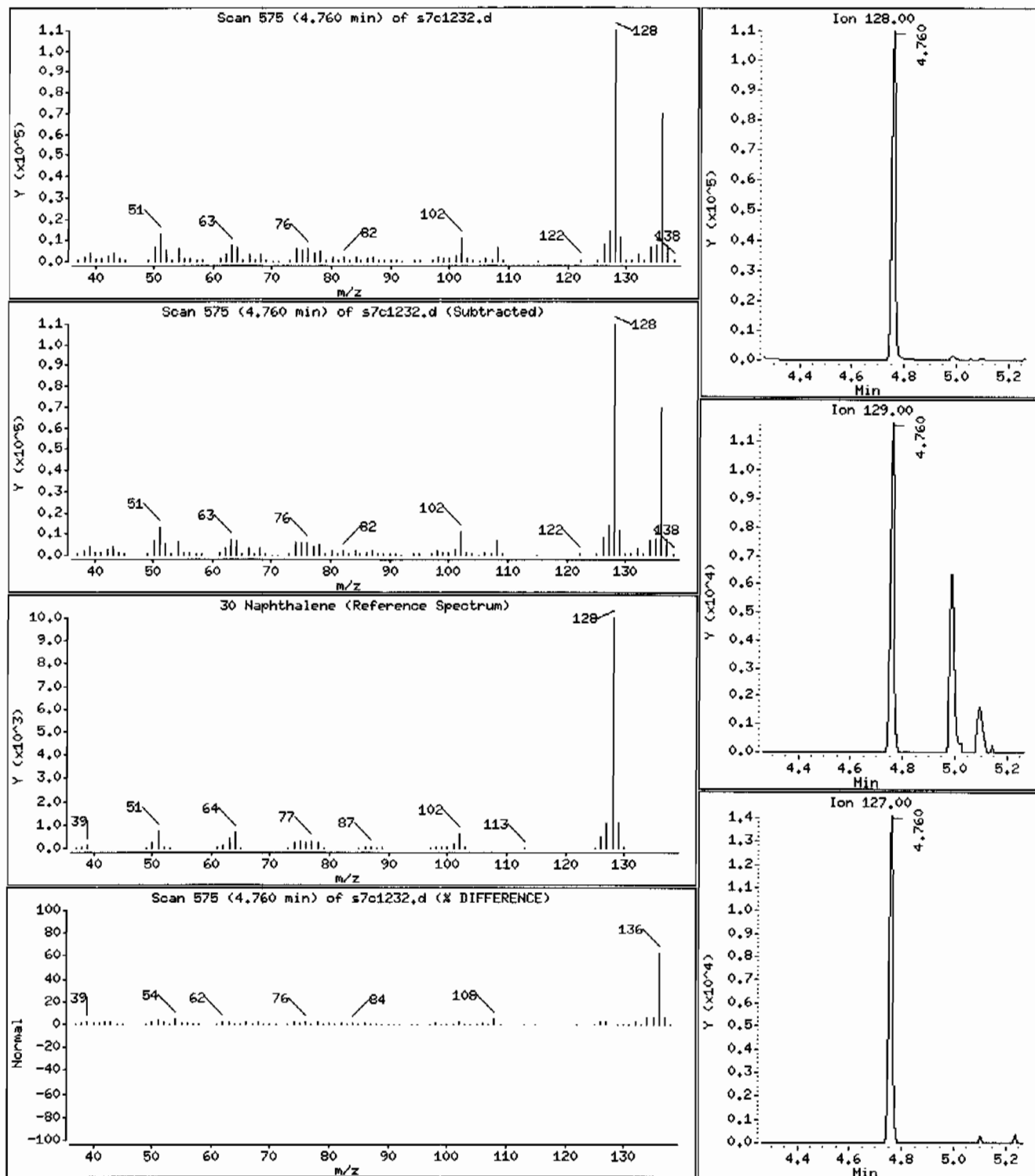
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 210 ug/Kg



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: HSD7.i

Sample Info: 1248043004195962311SVH111LANL

Volume Injected (uL): 0.5

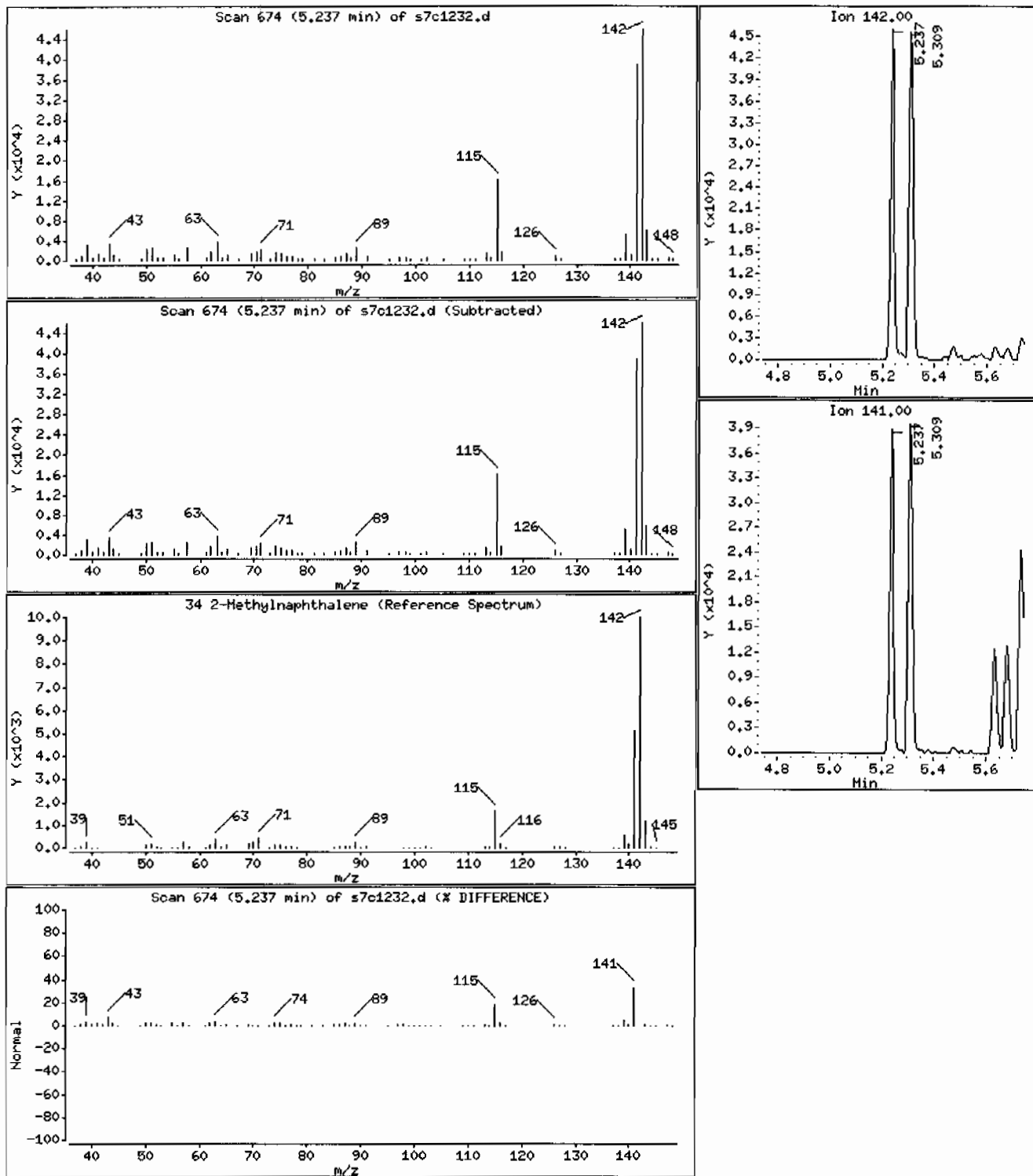
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 123 ug/Kg





Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 1248043004195962311|SVH11|LANL

Volume Injected (uL): 0.5

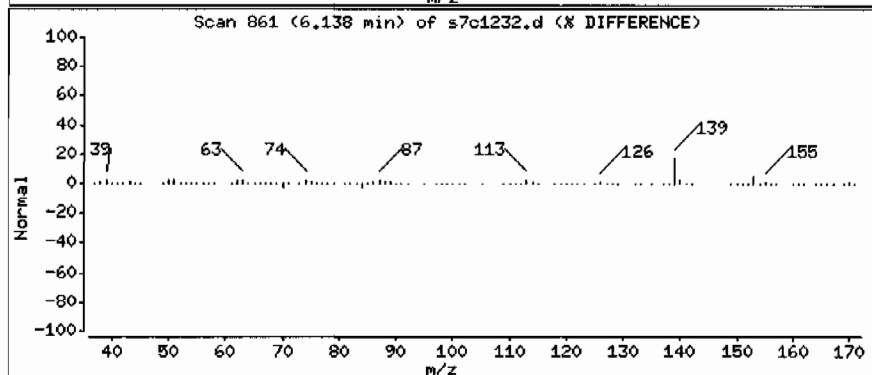
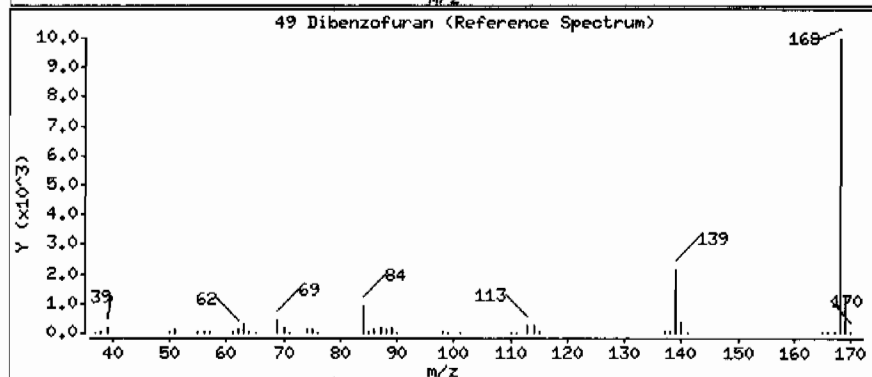
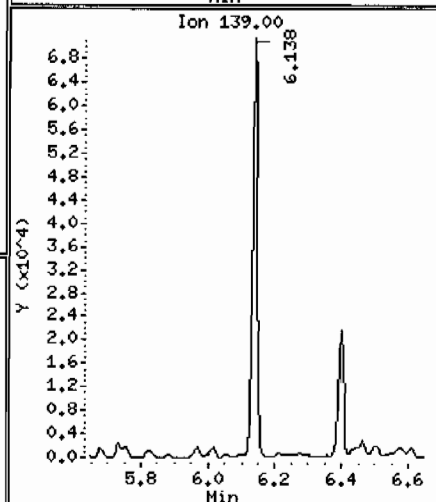
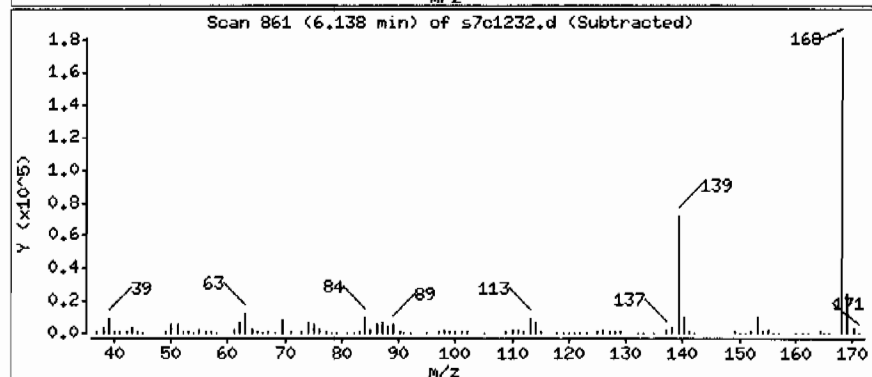
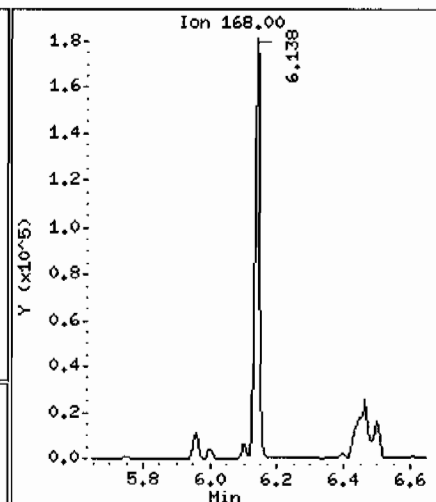
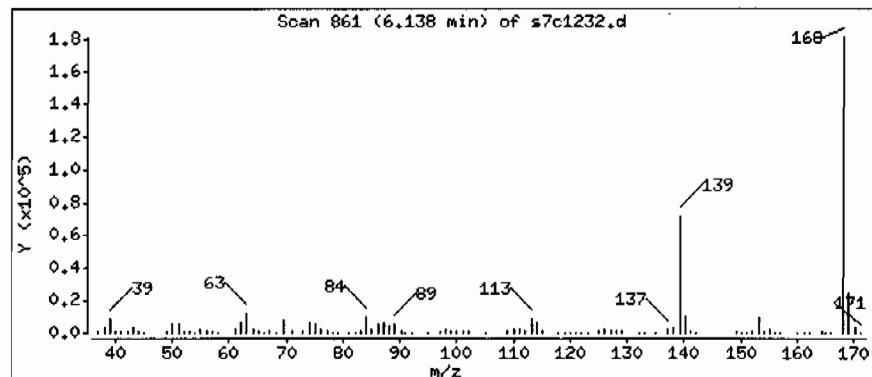
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

49 Dibenzofuran

Concentration: 369 ug/Kg



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 12480430041959623111SVH111LANL

Volume Injected (uL): 0,5

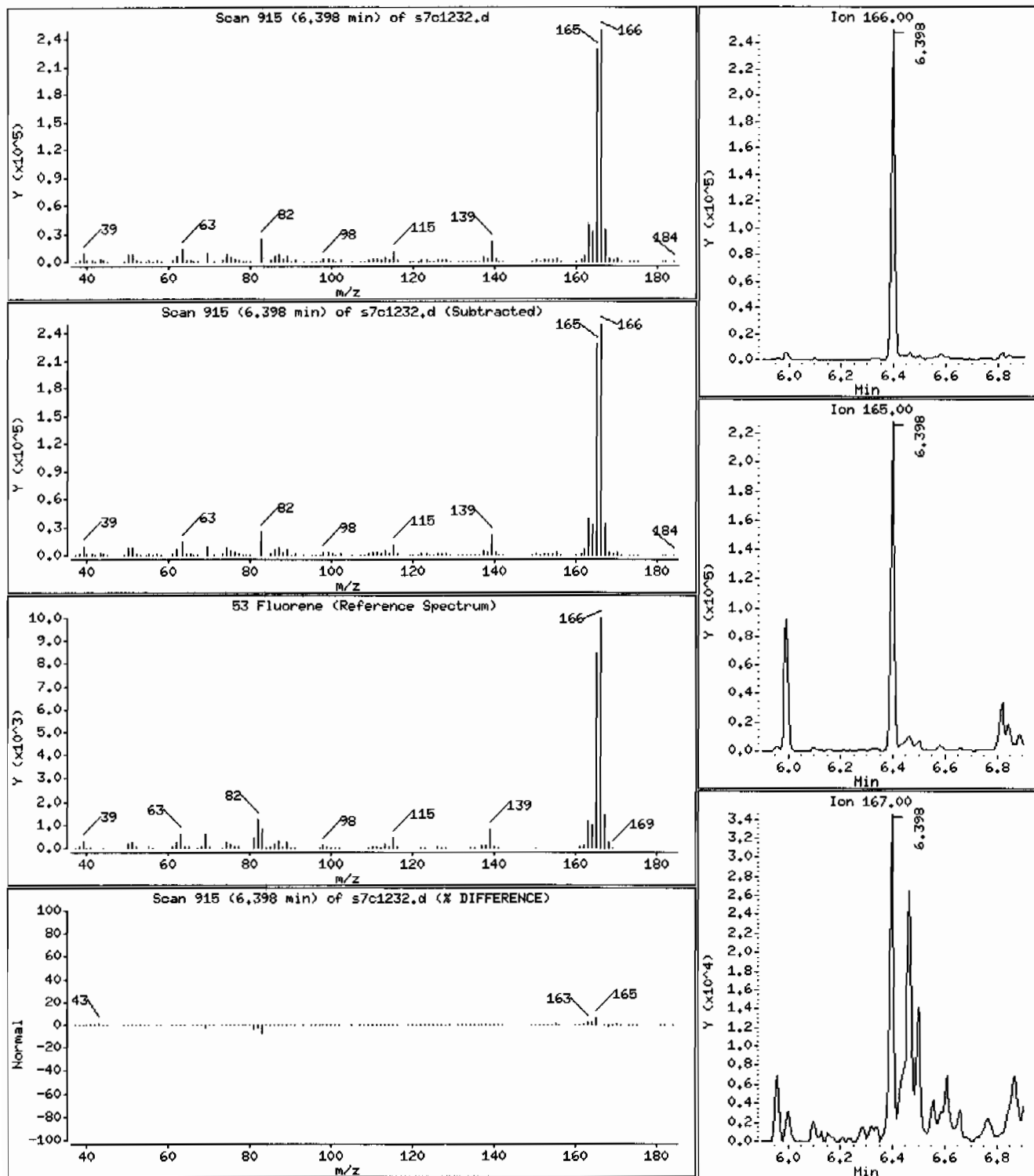
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

53 Fluorene

Concentration: 602 ug/Kg



Date: 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 12480430041959623111SVH111LANL

Volume Injected (uL): 0.5

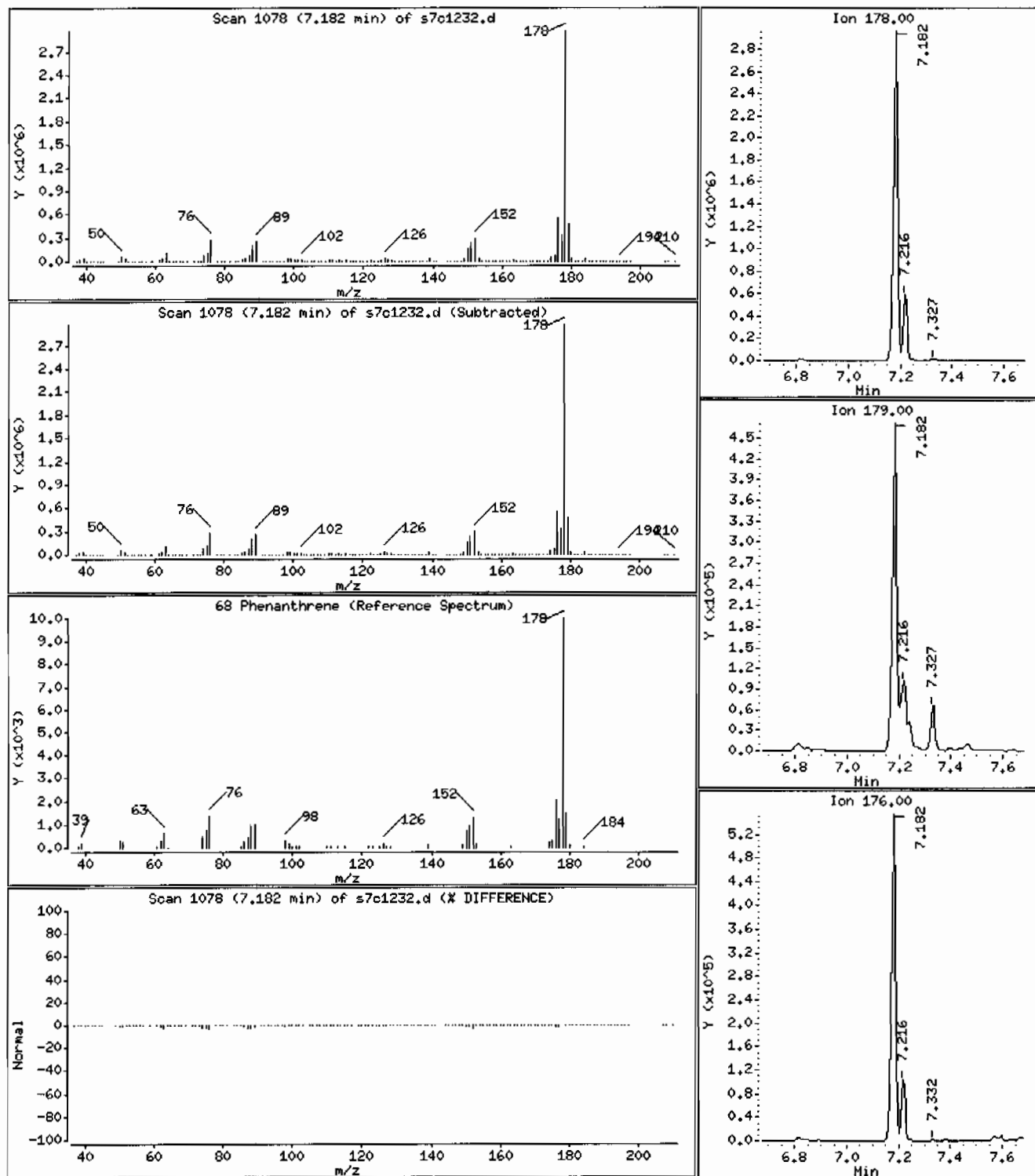
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 5860 ug/Kg



Date: 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 1248043004195962311SVH11ILANL

Volume Injected (UL): 0.5

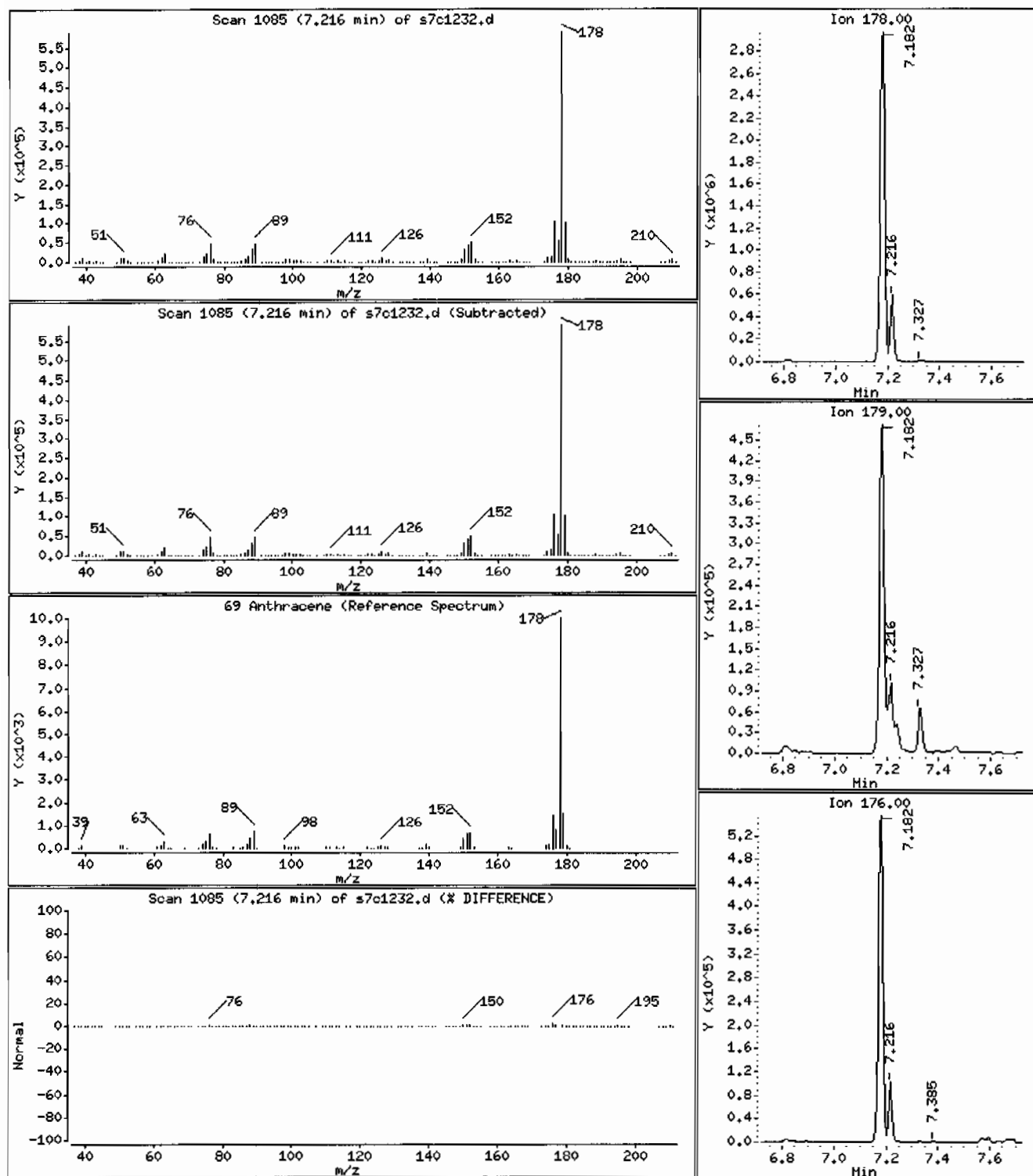
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 1040 ug/Kg



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.1

Sample Info: 1248043004195962311ISVH11ILANL

Volume Injected (uL): 0.5

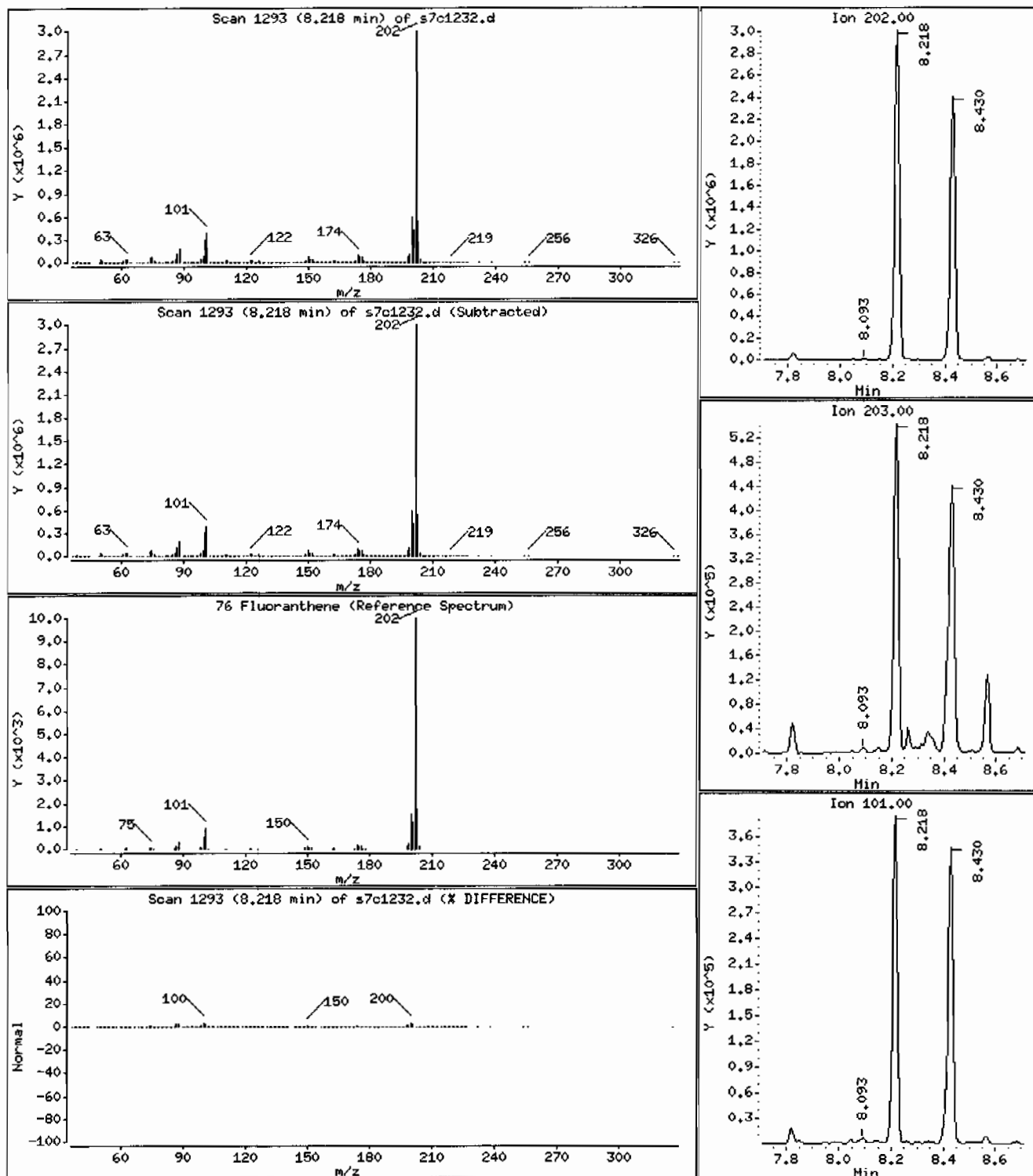
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 5760 ug/Kg



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 12480430041959623111SVH111LANL

Volume Injected (uL): 0.5

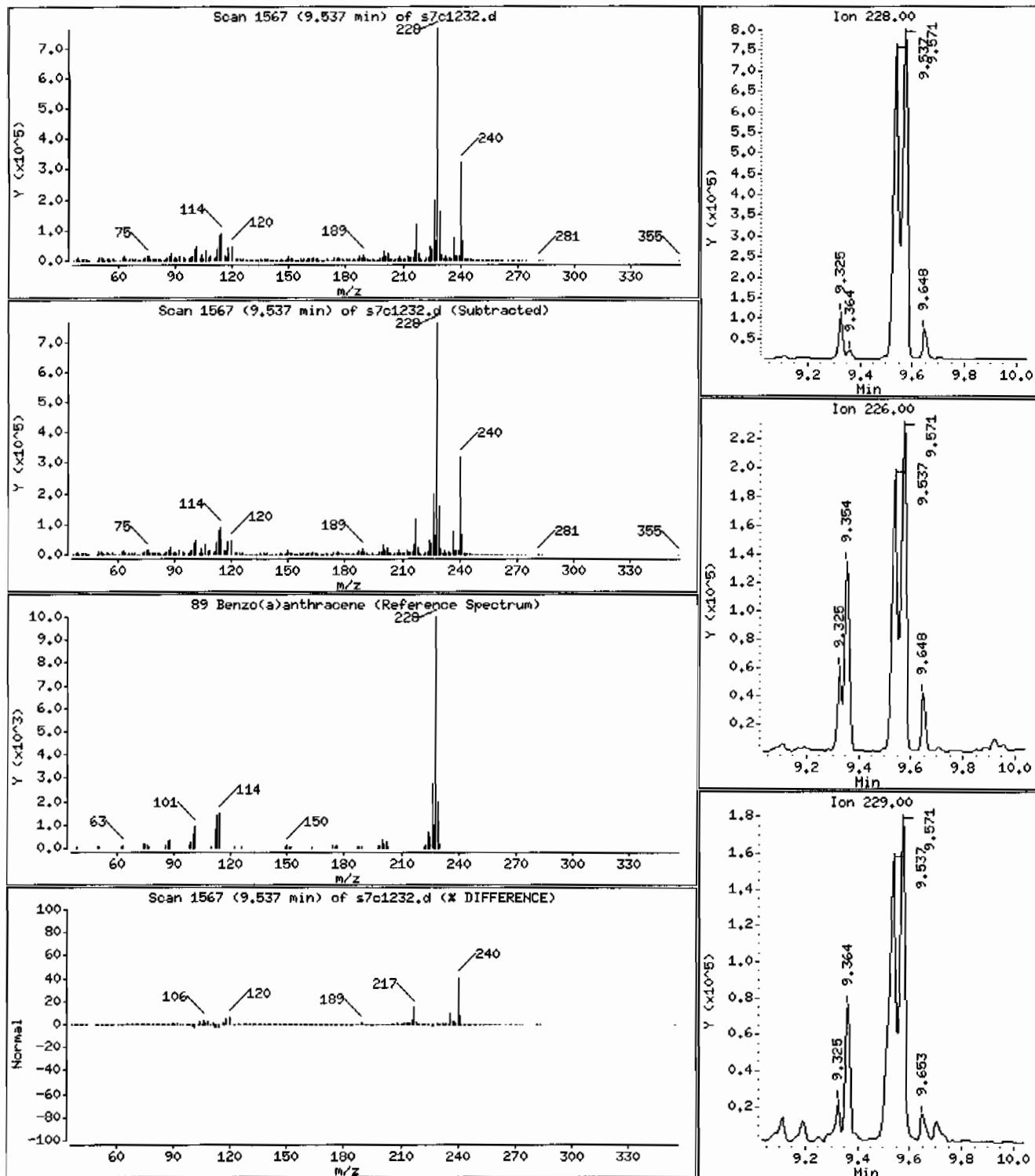
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 2440 ug/Kg



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 1248043004195962311ISVH11ILANL

Volume Injected (uL): 0.5

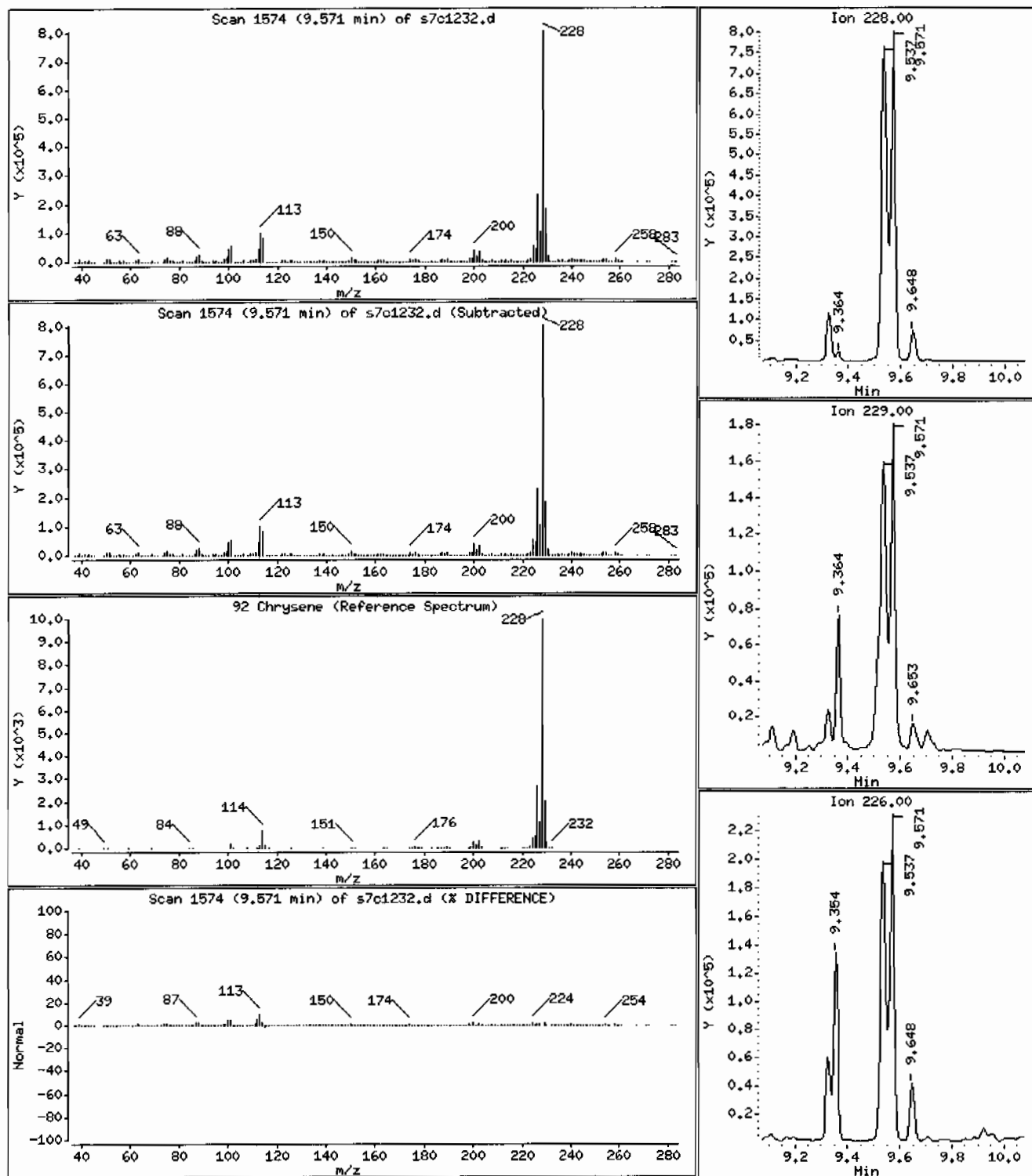
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 2380 ug/Kg



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 12480430041959623111SVH111LANL

Volume Injected (uL): 0.5

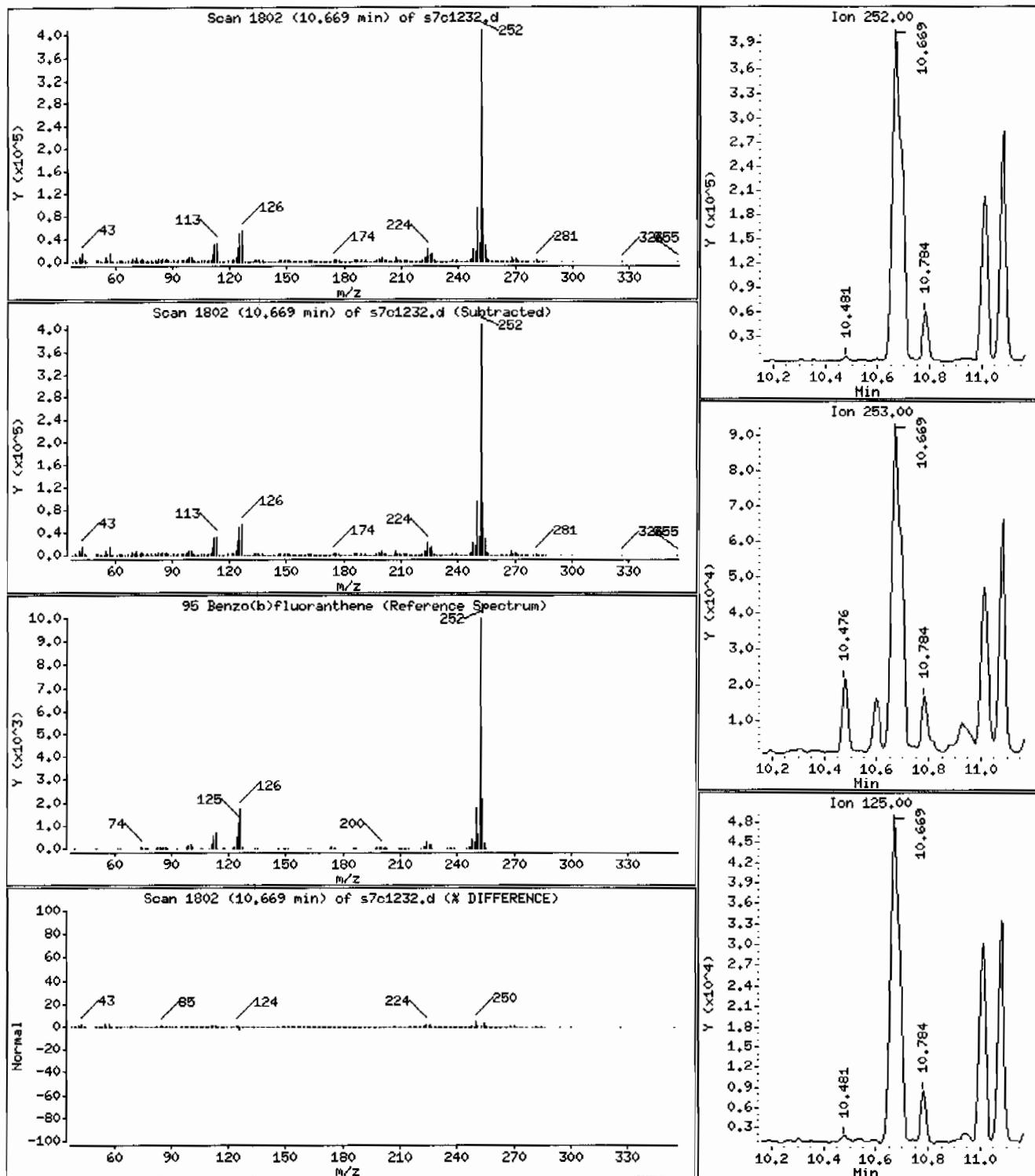
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 3700 ug/Kg





Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.1

Sample Info: 1248043004195962311SVMI11LANL

Volume Injected (uL): 0.5

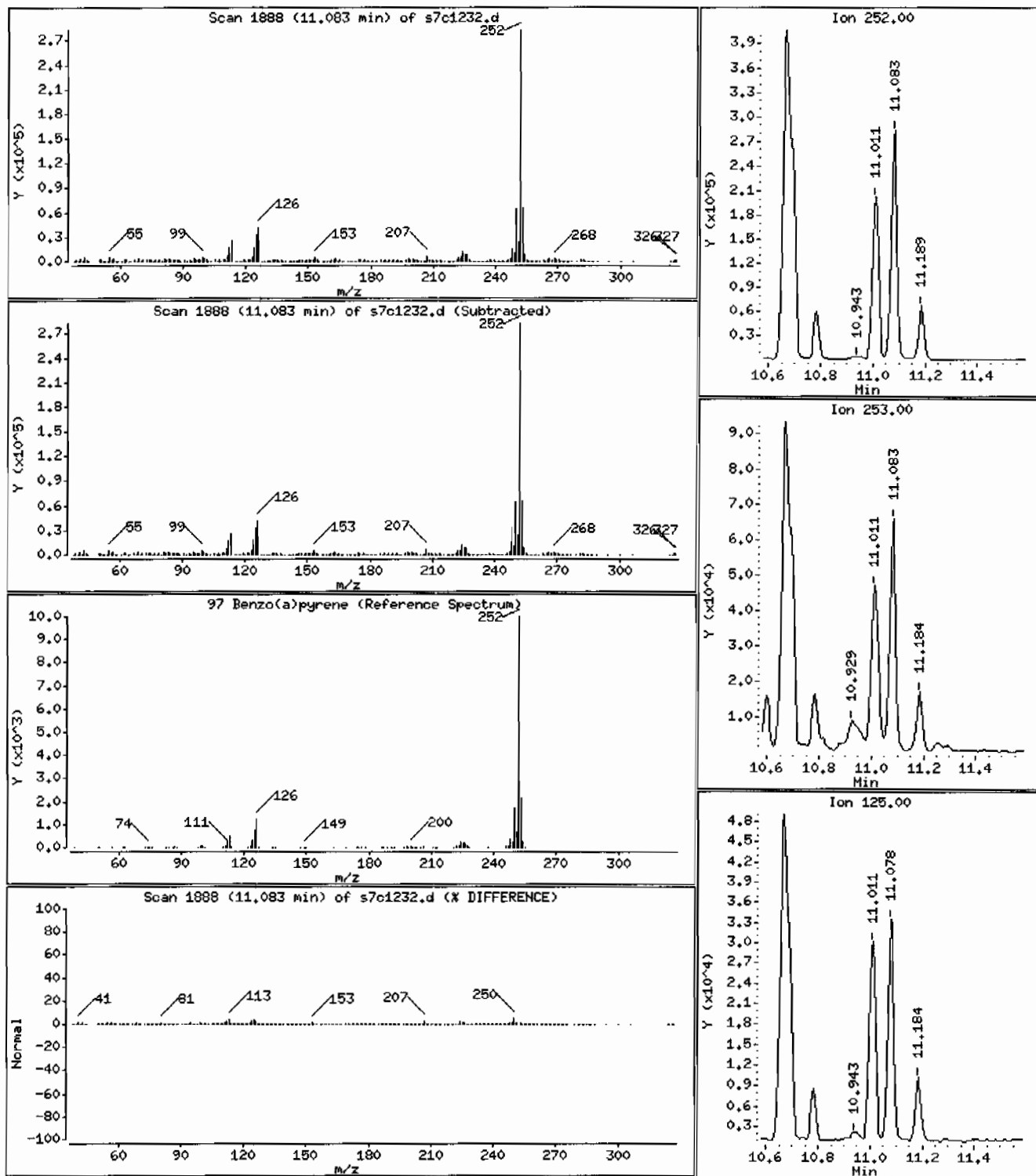
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 1960 ug/Kg



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.1

Sample Info: 1248043004195962311SVH111LANL

Volume Injected (uL): 0.5

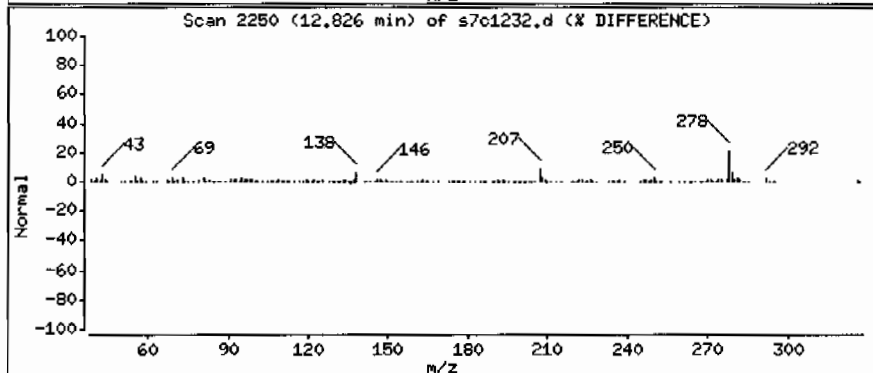
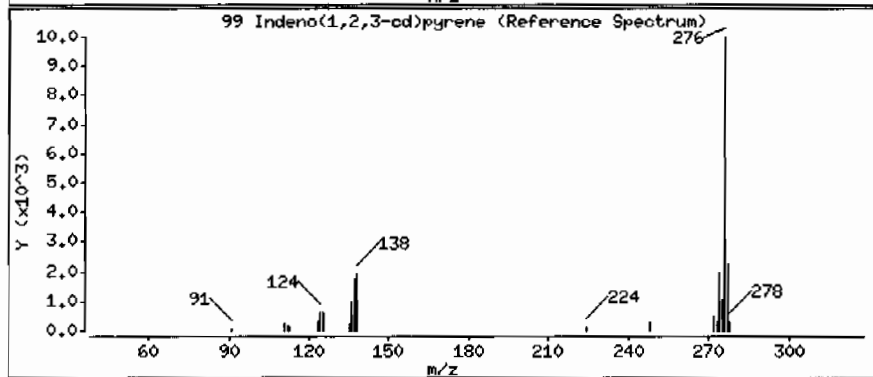
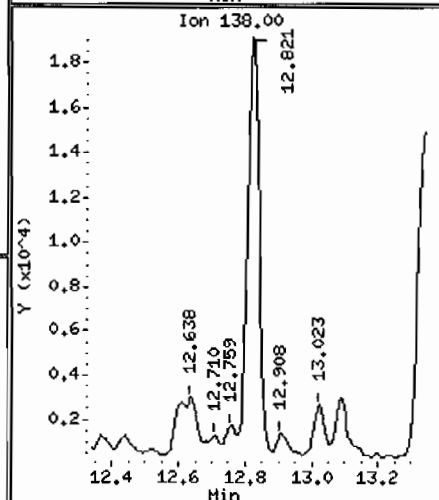
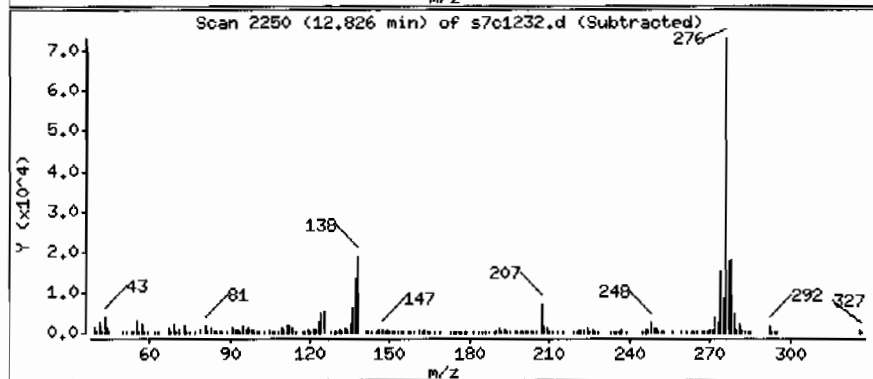
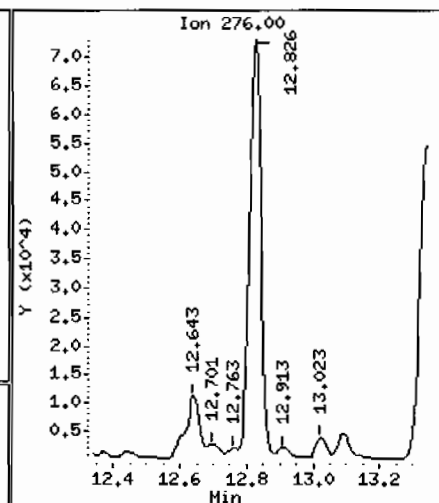
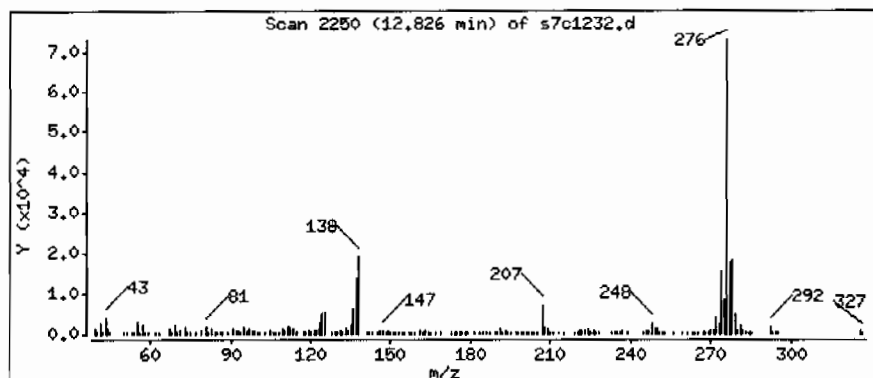
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 1030 ug/Kg



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.1

Sample Info: 12480430041959623111SVH111LANL

Volume Injected (uL): 0.5

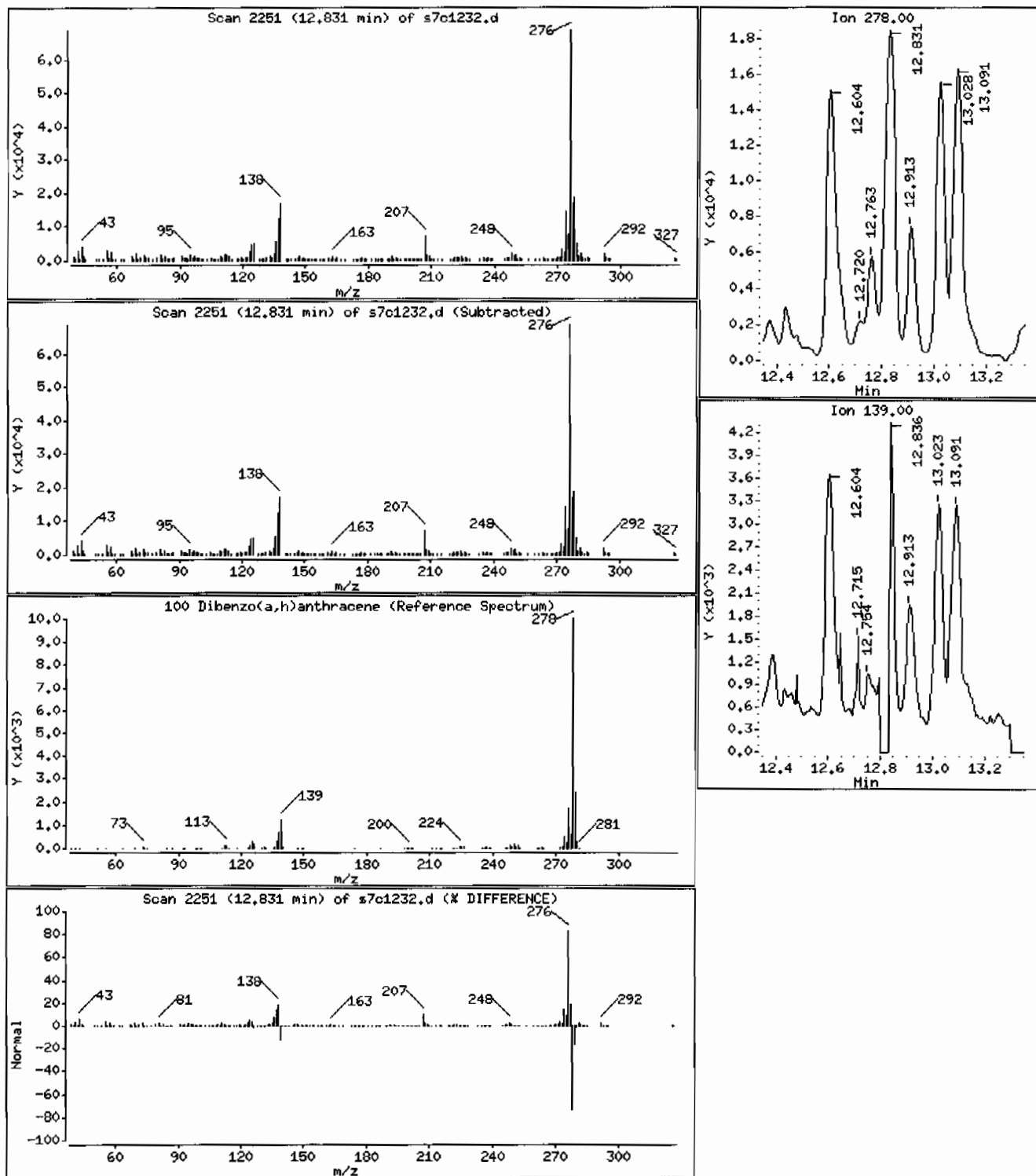
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 380 ug/Kg



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 1248043004195962311SVH111LANL

Volume Injected (uL): 0.5

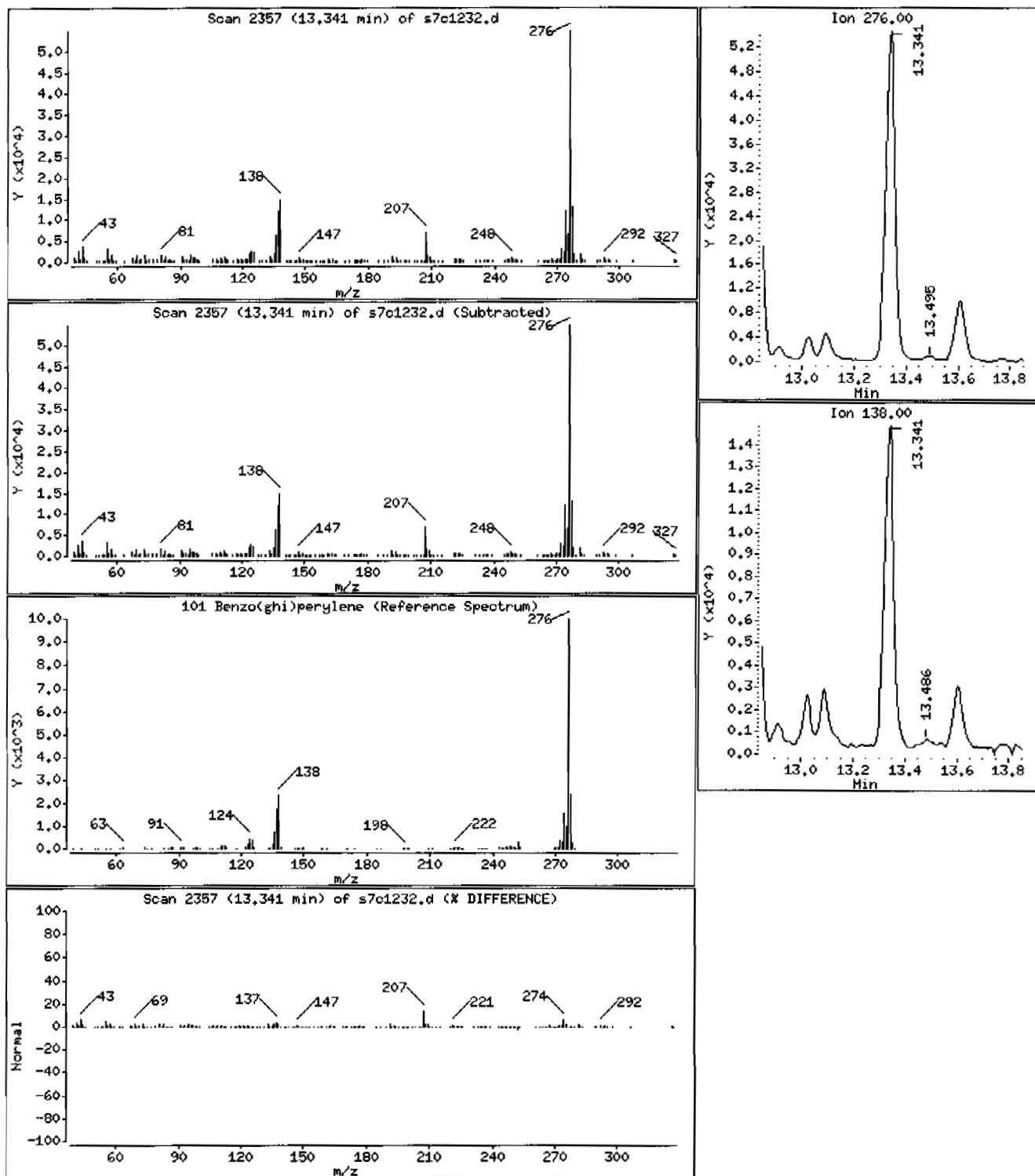
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 1020 ug/Kg



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 12480430041959623111SVH111LANL

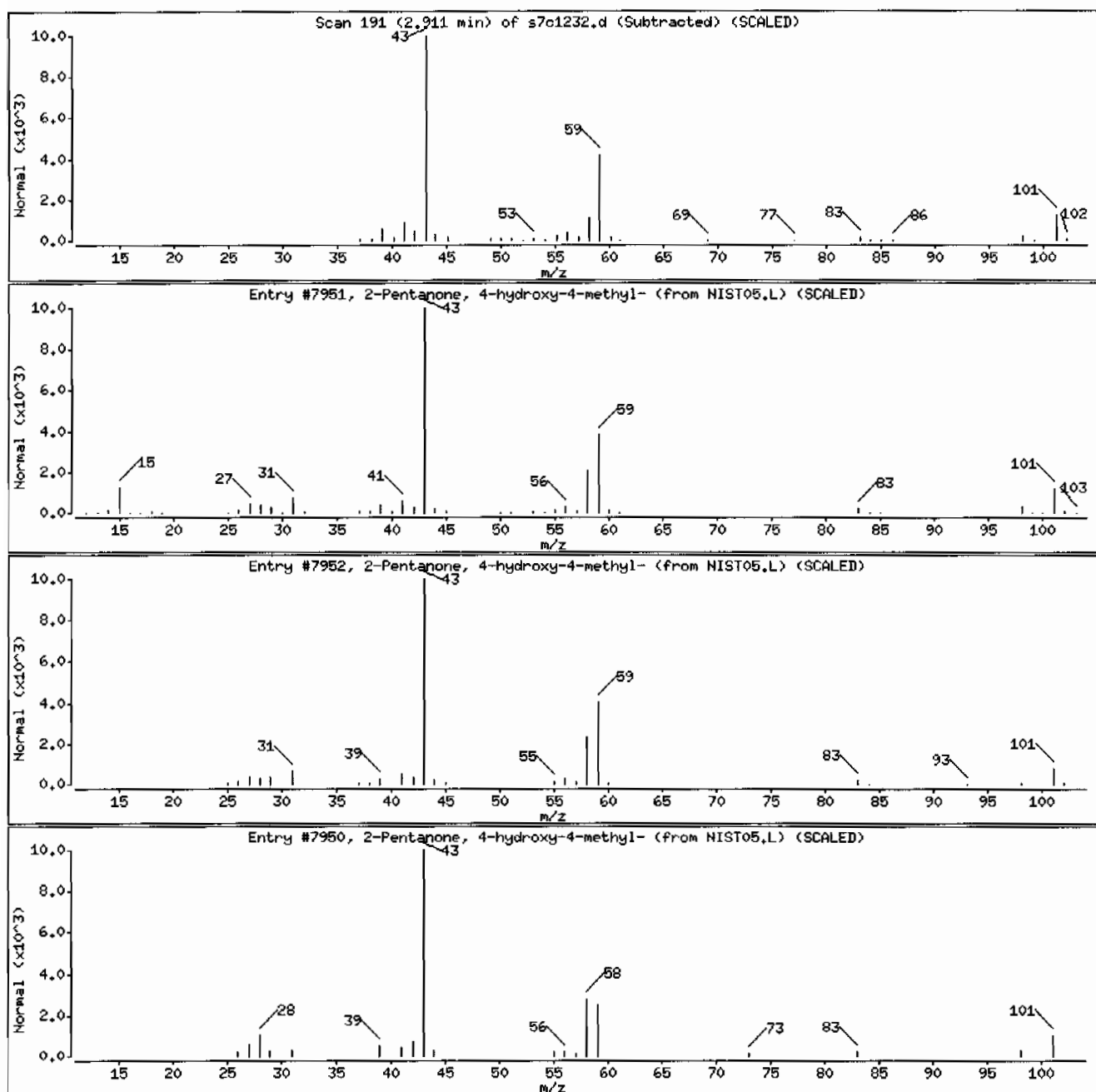
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7950	25	C6H12O2	116



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 1248043004195962311SVMI11LANL

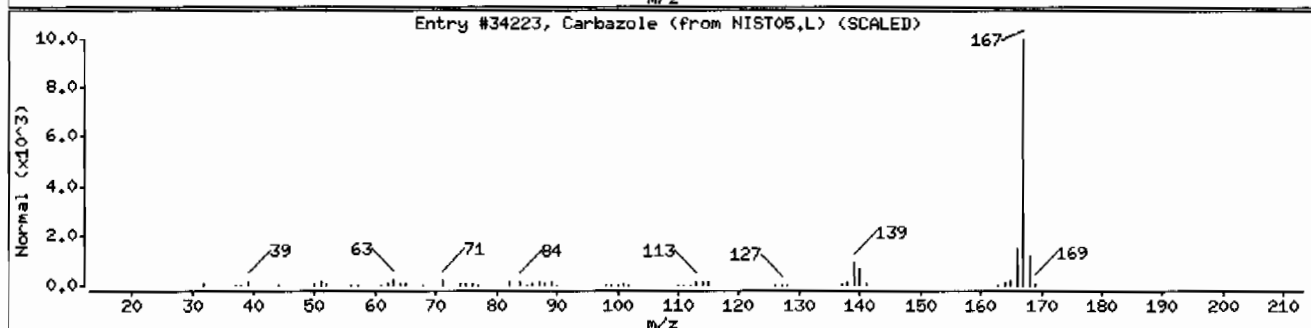
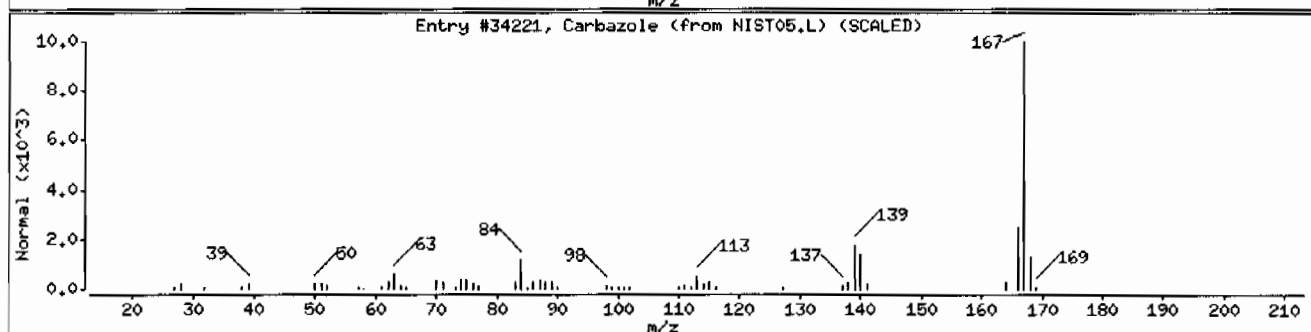
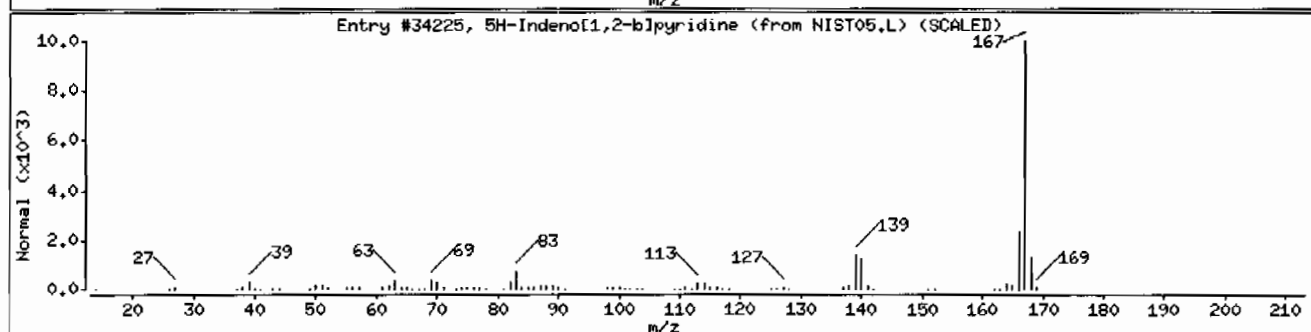
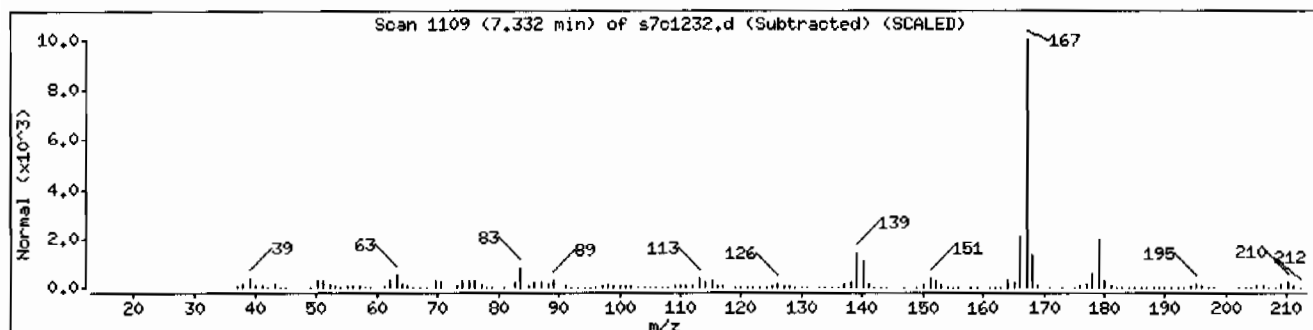
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
5H-Indeno[1,2-b]pyridine	244-99-5	NIST05.L	34225	95	C12H9N	167
Carbazole	86-74-8	NIST05.L	34221	95	C12H9N	167
Carbazole	86-74-8	NIST05.L	34223	81	C12H9N	167



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 12480430041959623111SVH111LANL

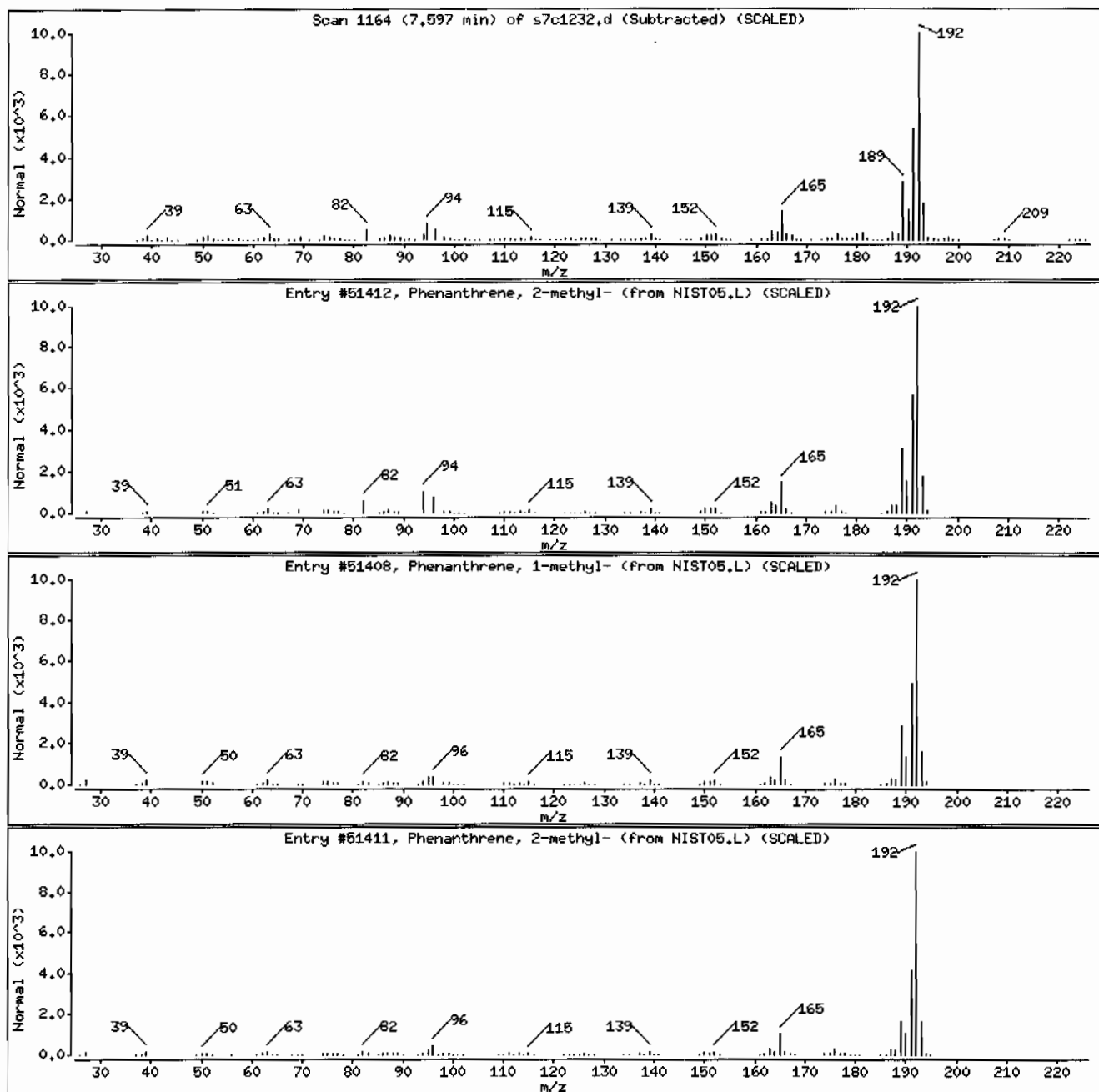
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51412	98	C15H12	192
Phenanthrene, 1-methyl-	832-69-9	NIST05.L	51408	98	C15H12	192
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51411	97	C15H12	192



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 1248043004195962311SVMI11LANL

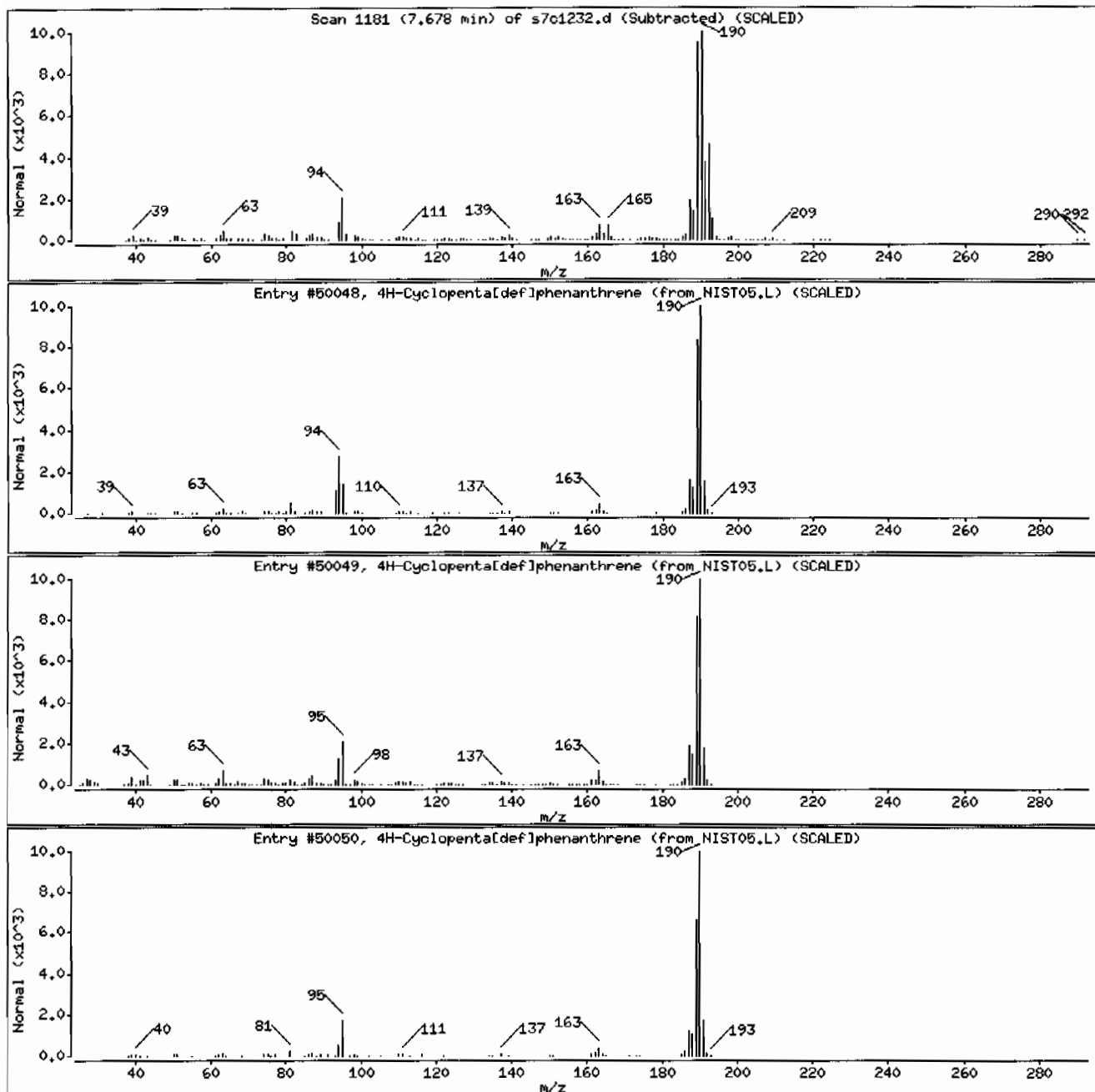
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50048	76	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50049	64	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50050	58	C15H10	190





Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 12480430041959623111SVH11ILANL

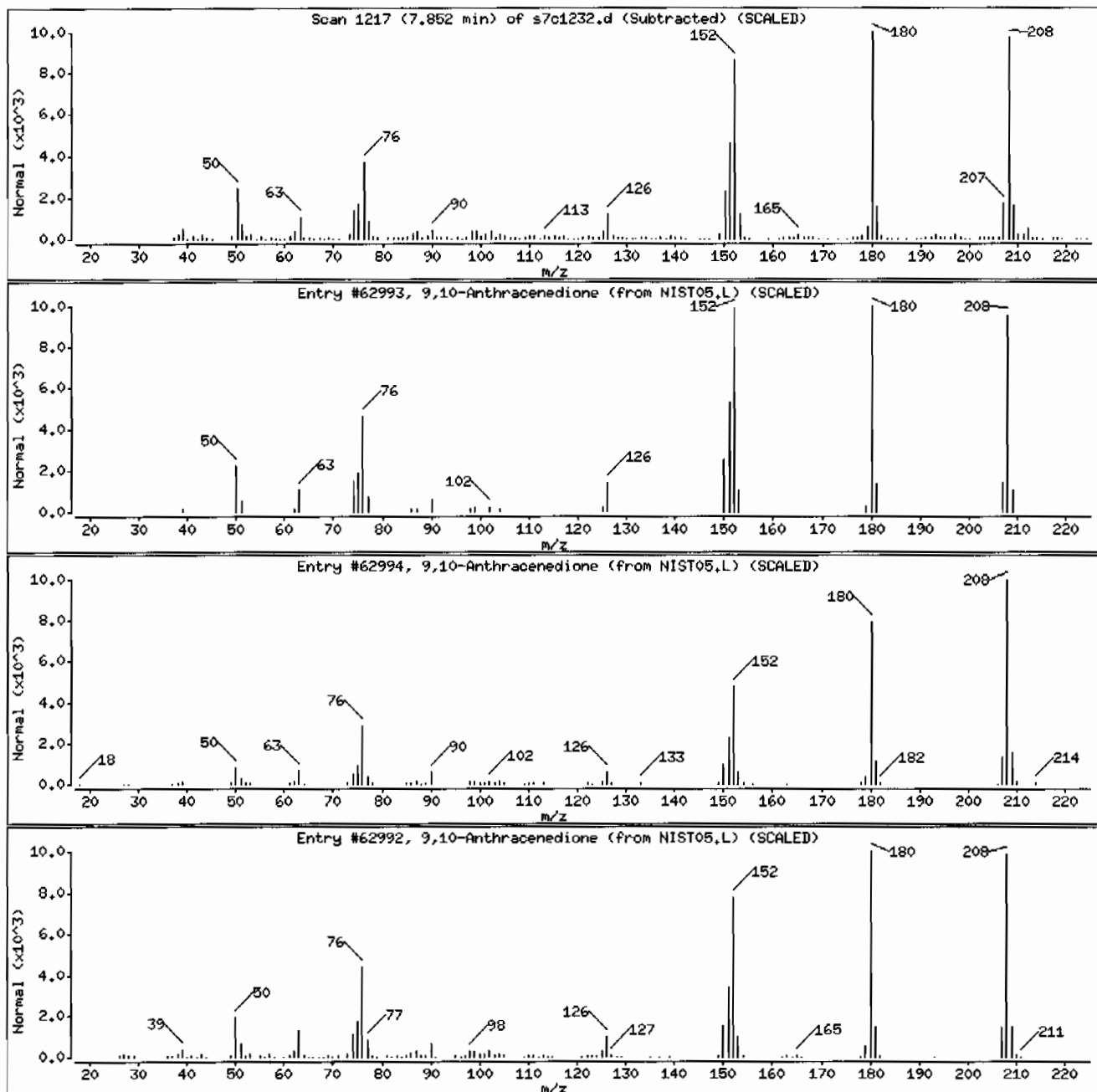
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9,10-Anthracenedione	84-65-1	NIST05.L	62993	99	C14H8O2	208
9,10-Anthracenedione	84-65-1	NIST05.L	62994	95	C14H8O2	208
9,10-Anthracenedione	84-65-1	NIST05.L	62992	94	C14H8O2	208



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: HSD7.i

Sample Info: 1248043004195962311ISVMI11LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

## Library Search Compound Match

Unknown

Pyrene, 1-methyl-

11H-Benzo[b]fluorene

Pyrene, 1-methyl-

CAS Number

Library

Entry

Quality

Formula

Weight

2381-21-7

NIST05.L

68688

93

C17H12

216

243-17-4

NIST05.L

68695

93

C17H12

216

2381-21-7

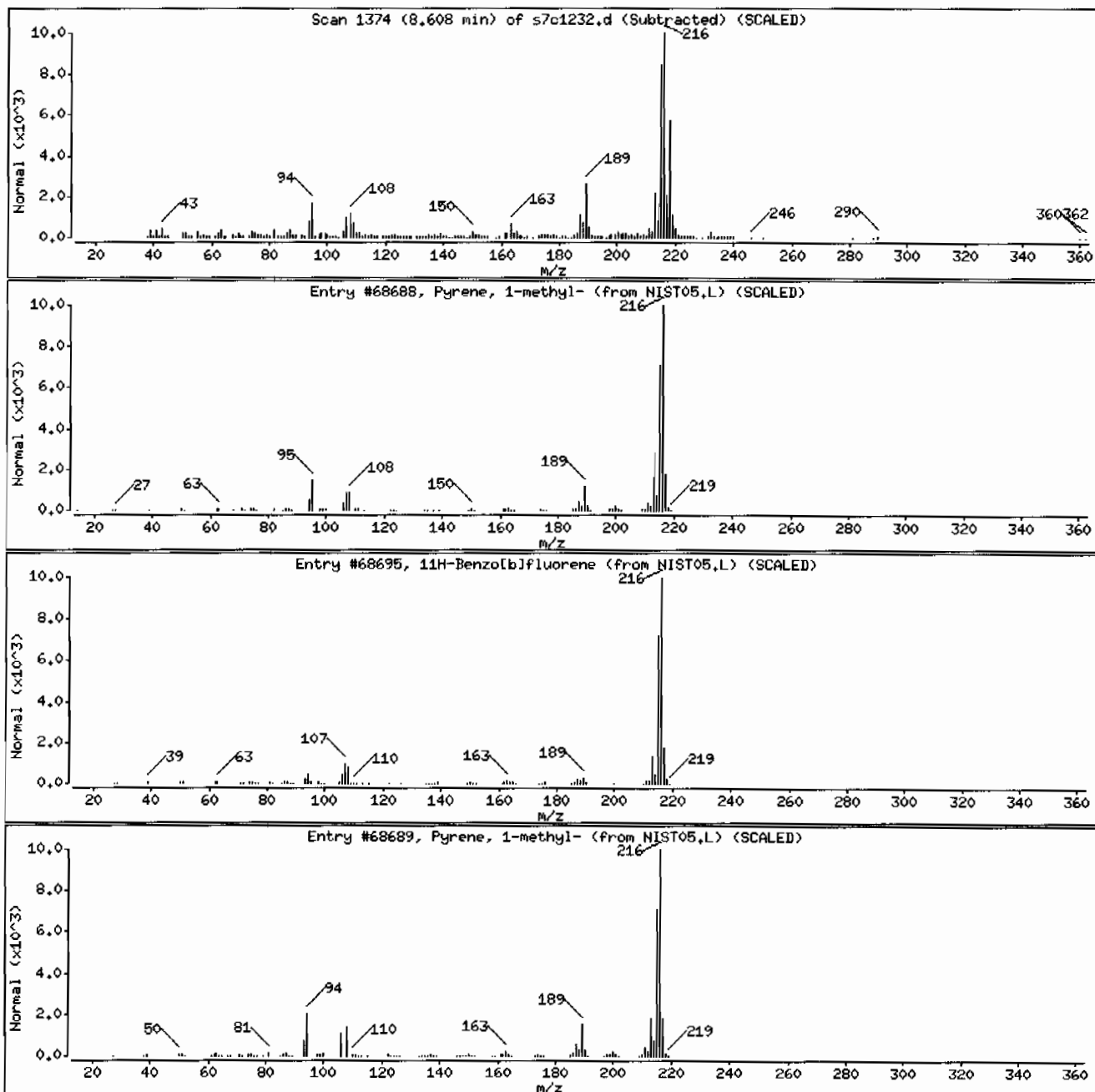
NIST05.L

68689

92

C17H12

216



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 1248043004195962311SVH11ILANL

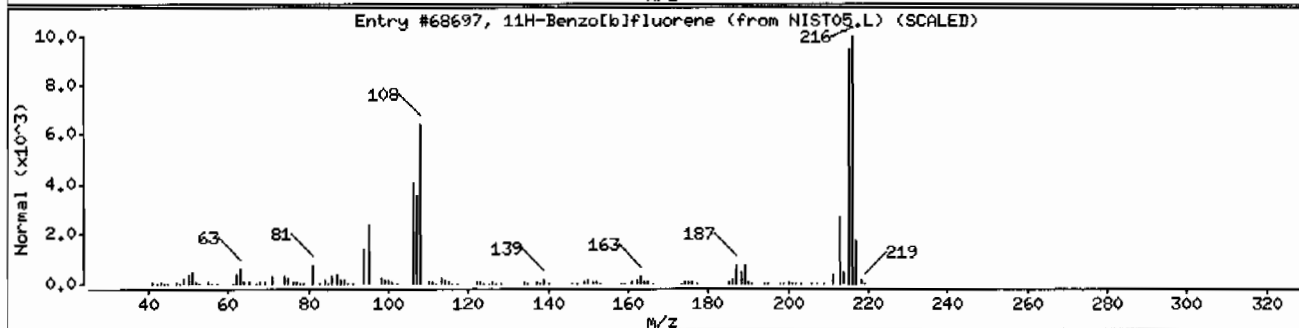
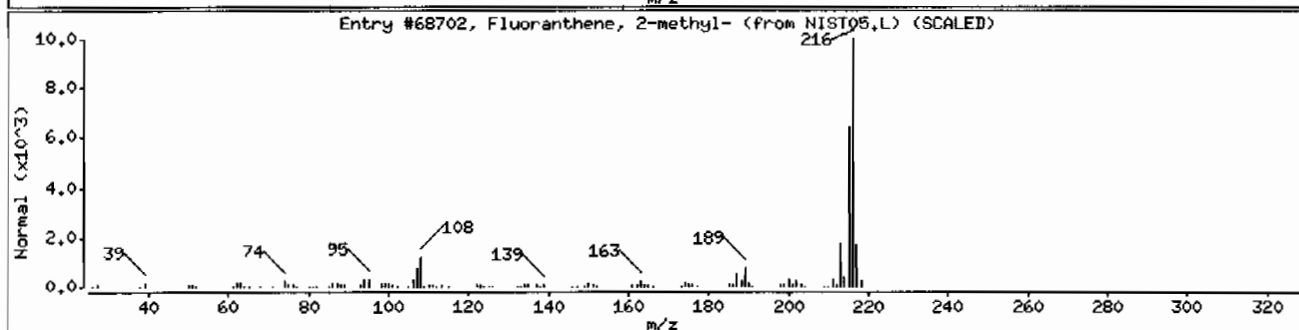
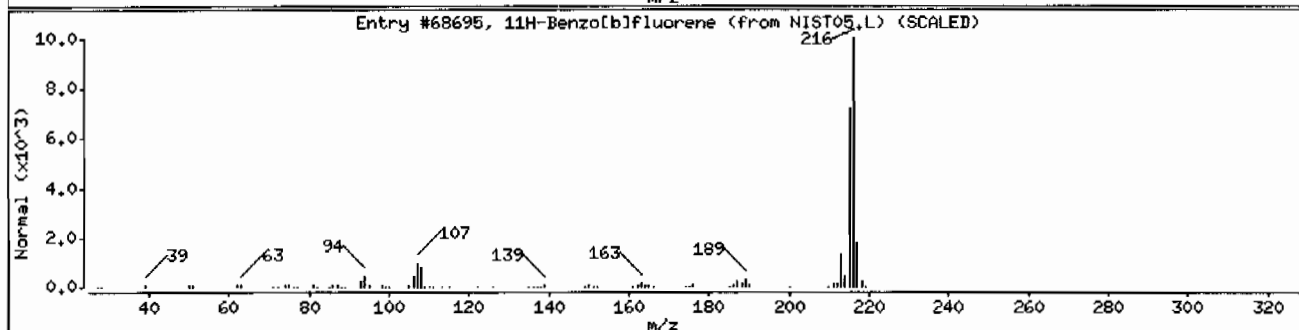
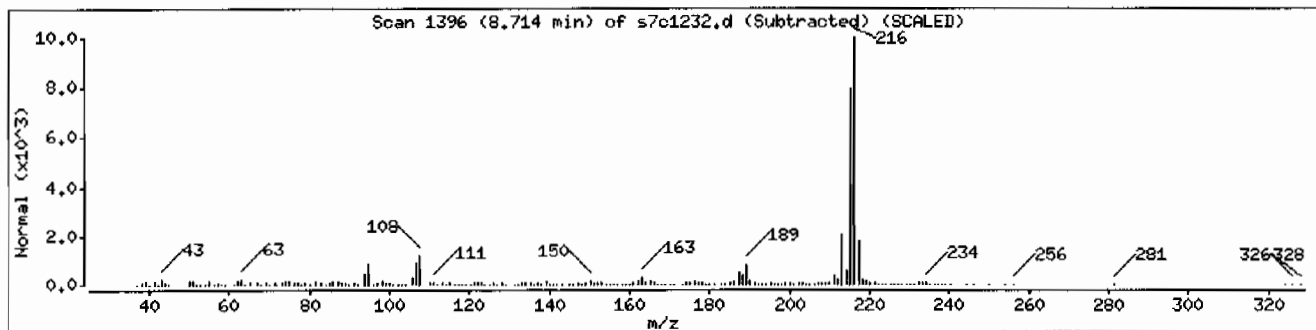
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[b]fluorene	243-17-4	NIST05.L	68695	97	C17H12	216
Fluoranthene, 2-methyl-	33543-31-6	NIST05.L	68702	96	C17H12	216
11H-Benzo[b]fluorene	243-17-4	NIST05.L	68697	93	C17H12	216



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 1248043004195962311SVMI1ILANL

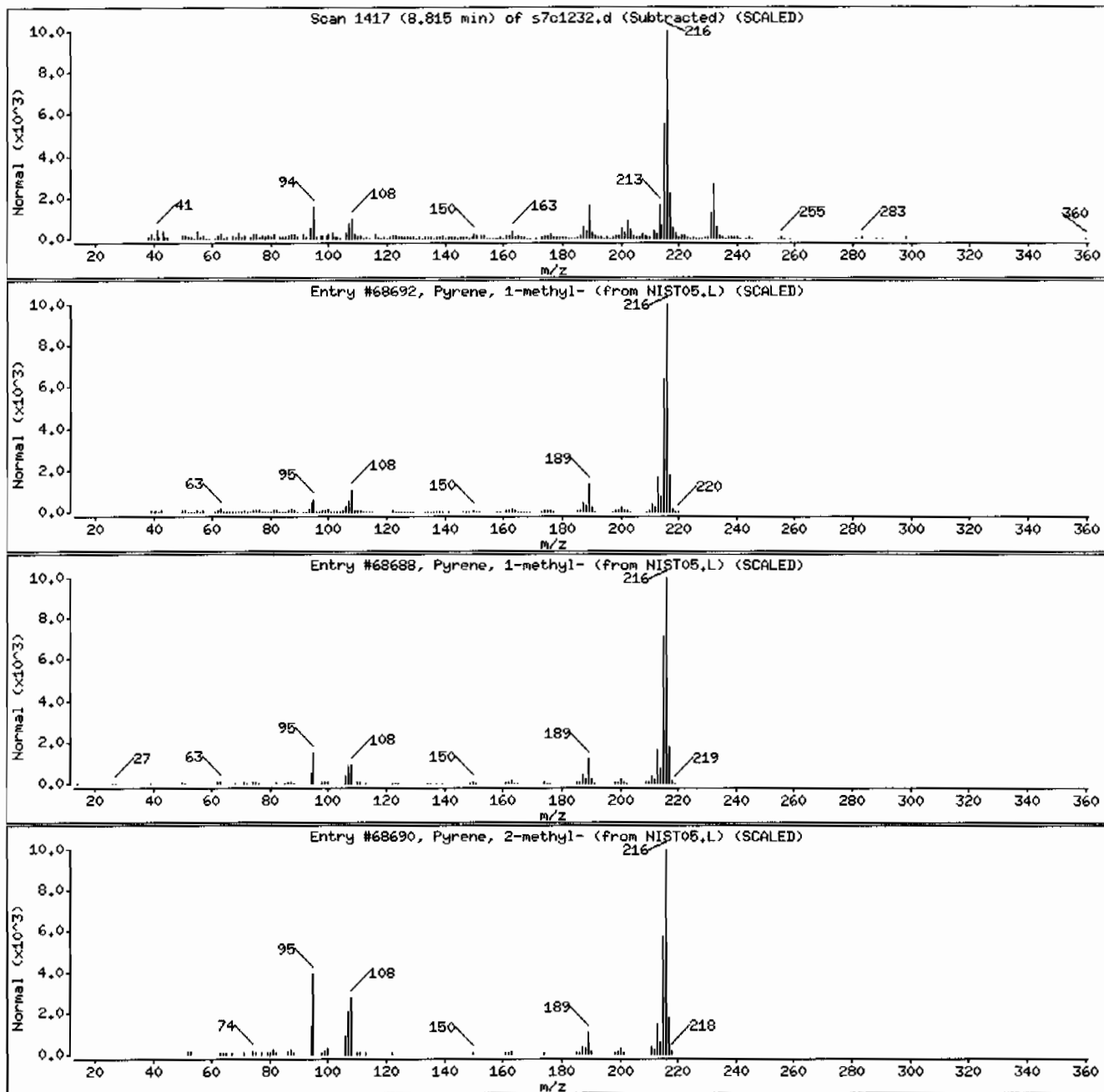
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68692	96	C17H12	216
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68688	95	C17H12	216
Pyrene, 2-methyl-	3442-78-2	NIST05.L	68690	94	C17H12	216



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 1248043004195962311SVH111LANL

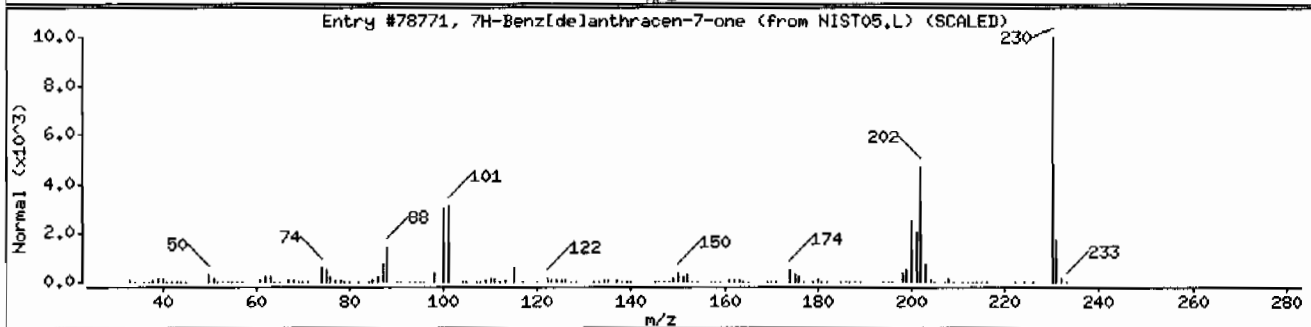
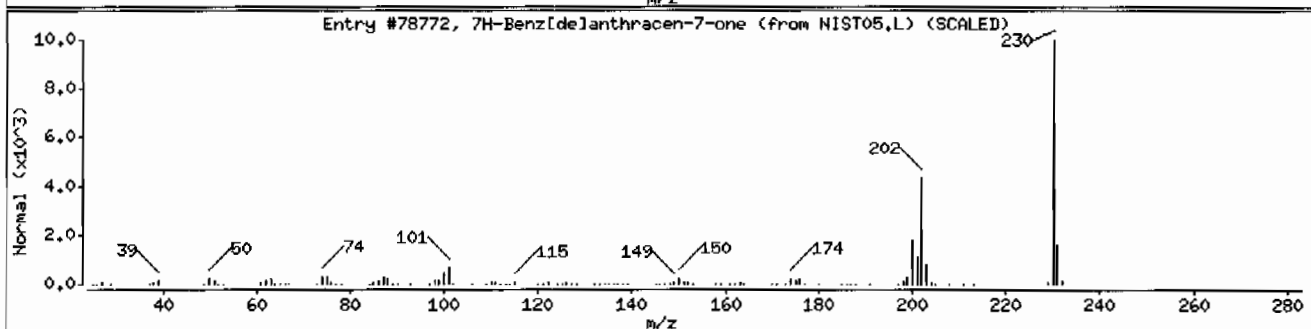
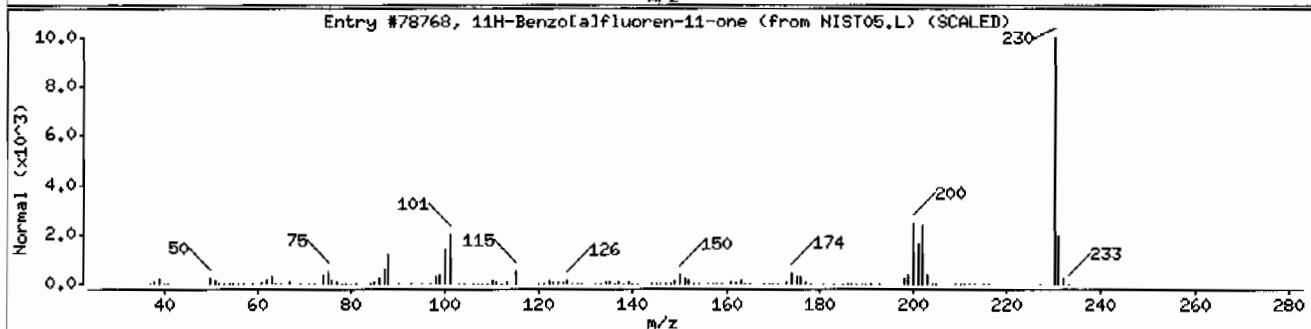
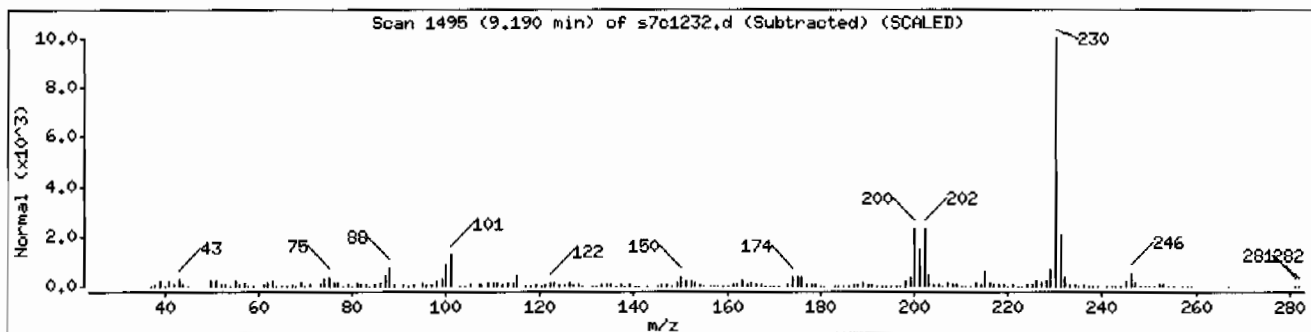
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[a]fluoren-11-one	479-79-8	NIST05.L	78768	97	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78772	90	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78771	83	C17H10O	230



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 1248043004195962311SVMI1ILANL

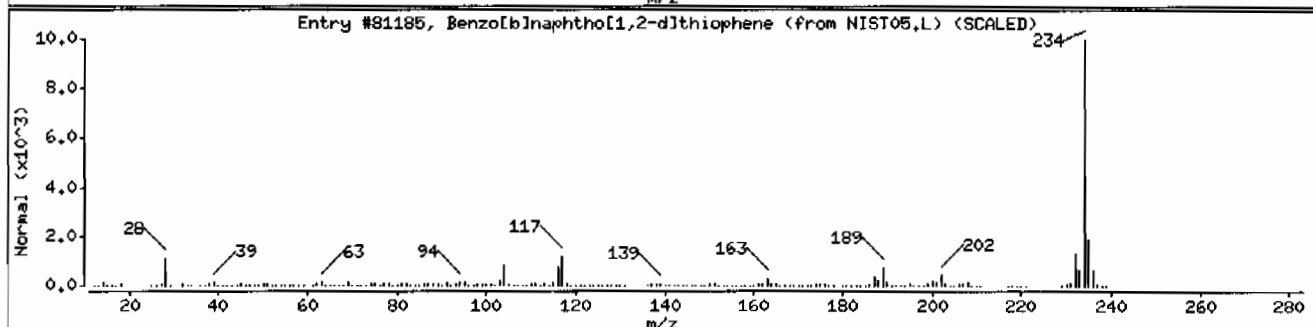
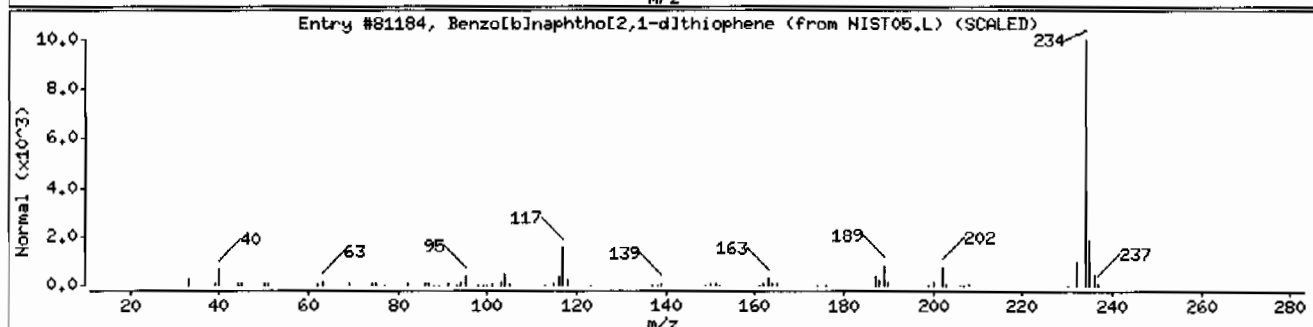
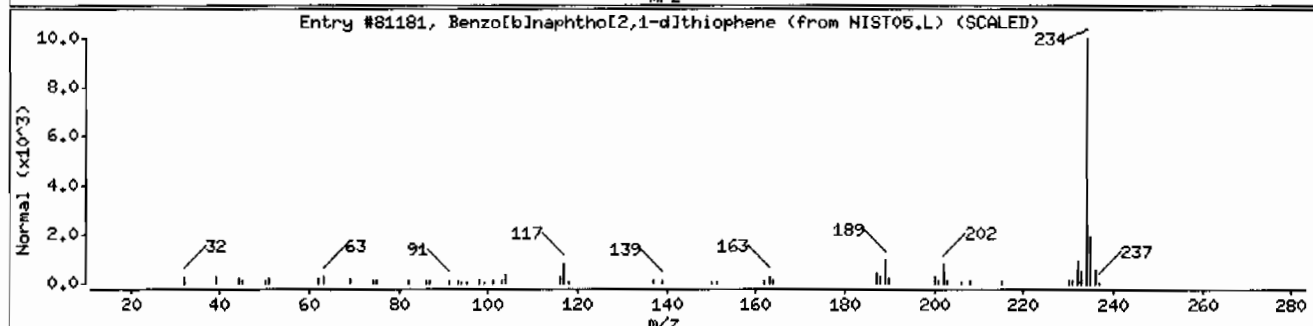
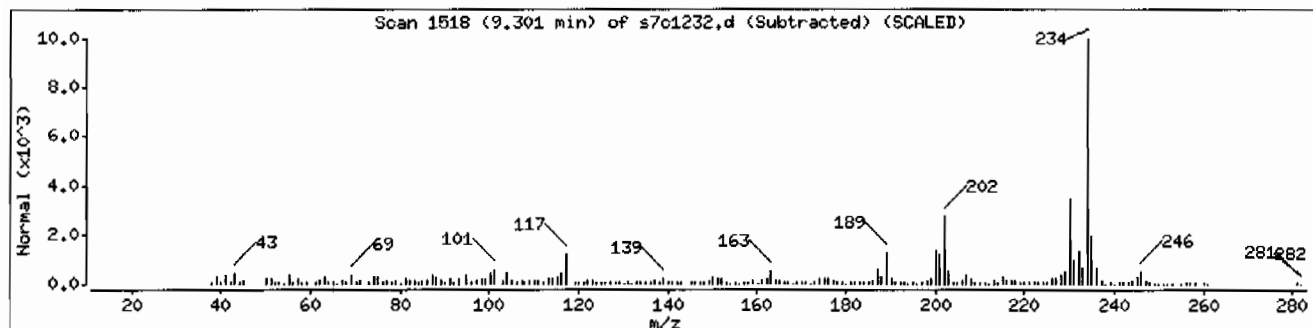
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[b]naphtho[2,1-d]thiophene	239-35-0	NIST05.L	81181	95	C16H10S	234
Benzo[b]naphtho[2,1-d]thiophene	239-35-0	NIST05.L	81184	83	C16H10S	234
Benzo[b]naphtho[1,2-d]thiophene	205-43-6	NIST05.L	81185	64	C16H10S	234



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 1248043004195962311SVH111LANL

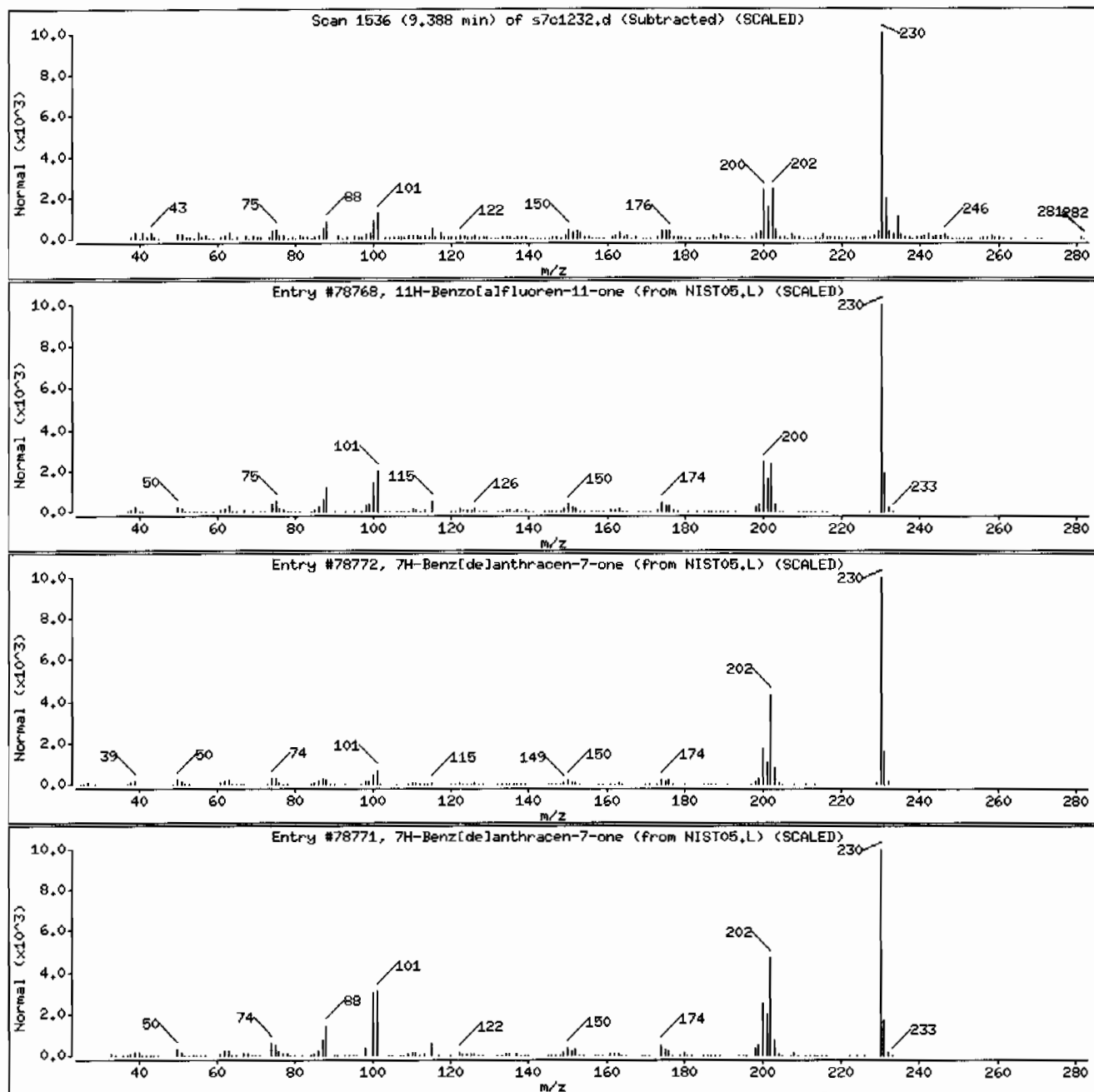
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11H-Benzo[a]fluoren-11-one	479-79-8	NIST05.L	78768	97	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78772	90	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78771	83	C17H10O	230



Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 1248043004195962311SVH11ILANL

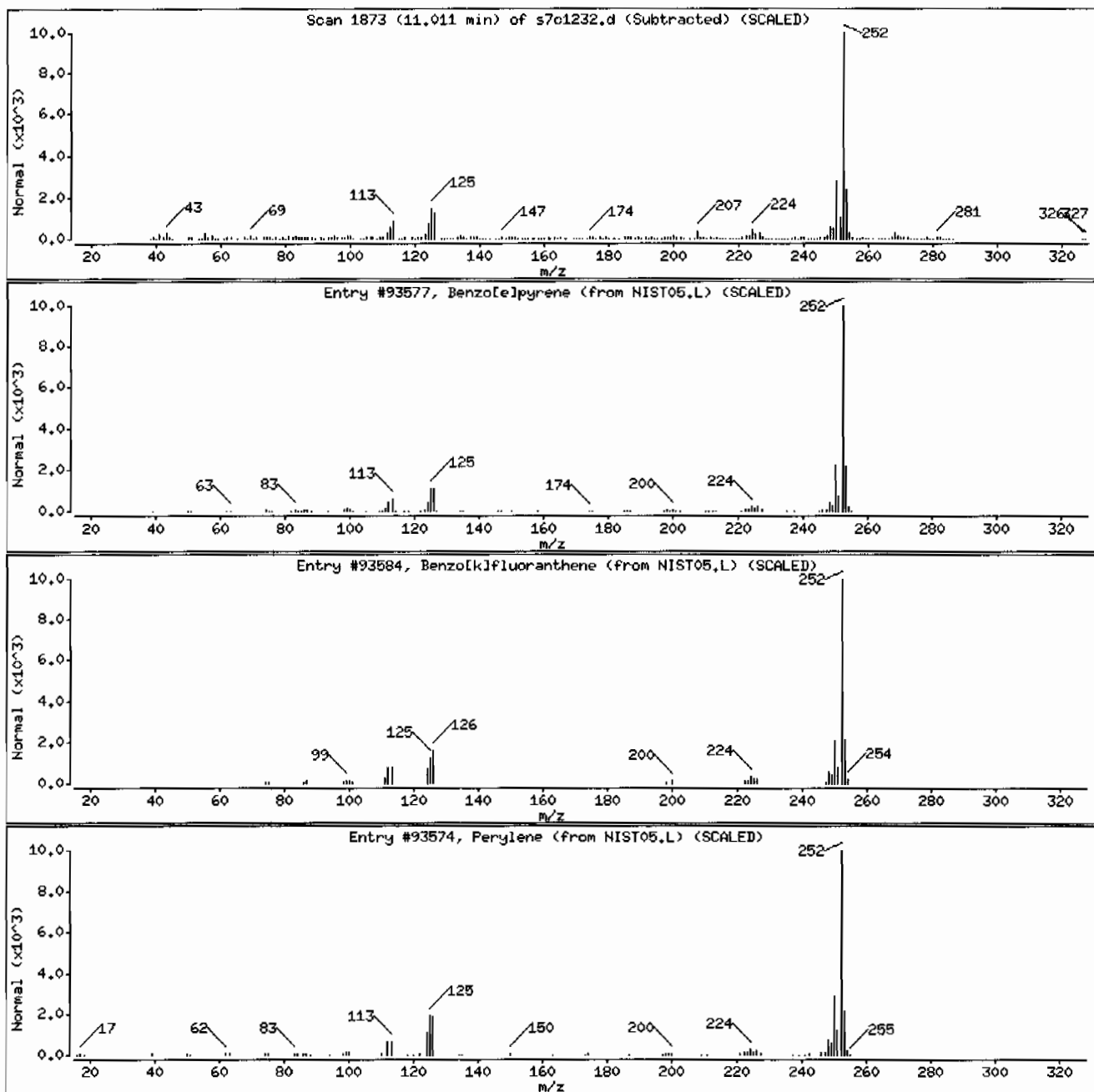
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[ <i>a</i> ]pyrene	192-97-2	NIST05.L	93577	98	C <sub>20</sub> H <sub>12</sub>	252
Benzo[ <i>k</i> ]fluoranthene	207-08-9	NIST05.L	93584	98	C <sub>20</sub> H <sub>12</sub>	252
Perylene	198-55-0	NIST05.L	93574	98	C <sub>20</sub> H <sub>12</sub>	252





Date : 12-MAR-2010 23:44

Client ID: RE36-10-7465

Instrument: MSD7.i

Sample Info: 1248043004195962311SVMI1ILANL

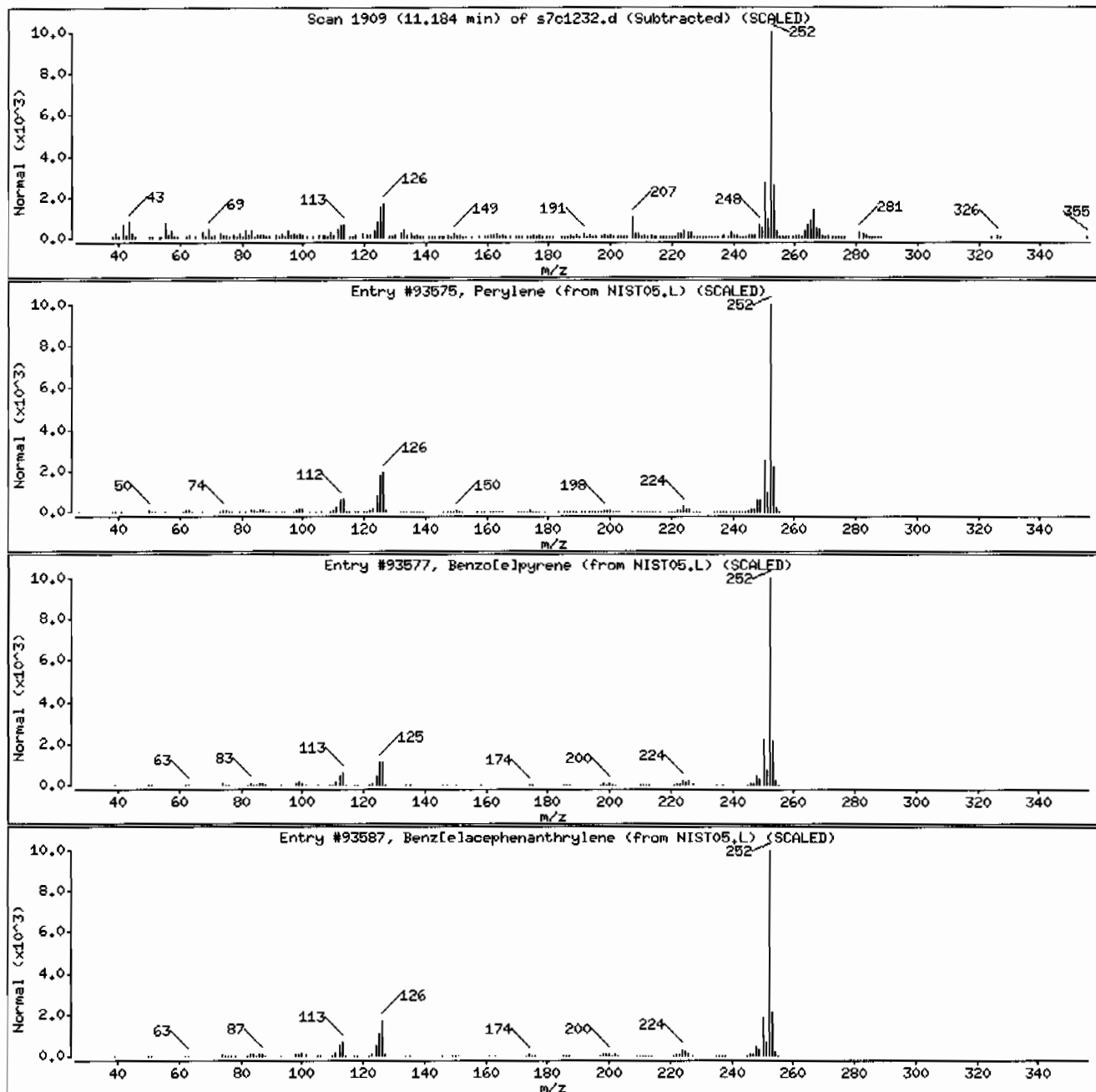
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Perylene	198-55-0	NIST05.L	93575	98	C20H12	252
Benzo[ <i>a</i> ]pyrene	192-97-2	NIST05.L	93577	97	C20H12	252
Benzo[ <i>a</i> ]acephenanthrylene	205-99-2	NIST05.L	93587	97	C20H12	252



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043004

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
129-00-0	Pyrene		4710	ug/kg	51.3	171
206-44-0	Fluoranthene		6070	ug/kg	51.3	171

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	7.67	803	ug/kg		J
198-55-0	Perylene	11	1410	ug/kg	99	NJ

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Data file : /chem/MSD7.i/s031210.b/s7c1226.d  
Lab Smp Id: 248043004 Client Smp ID: RE36-10-7465DL  
Inj Date : 12-MAR-2010 21:34  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043004|959623|4|SVM|2|LANL\_4x  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 15:38 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 22  
Dil Factor: 4.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	22.27460	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.884	3.884	(1.000)	438645	40.0000	
* 29 Naphthalene-d8	136	4.746	4.751	(1.000)	1643301	40.0000	
* 46 Acenaphthene-d10	164	5.993	5.998	(1.000)	926886	40.0000	
* 67 Phenanthrene-d10	188	7.154	7.159	(1.000)	1666448	40.0000	
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	1224077	40.0000	
* 98 Perylene-d12	264	11.150	11.160	(1.000)	825106	40.0000	
\$ 3 2-Fluorophenol	112	3.080	3.080	(0.793)	56278	4.93606	844 (R)
\$ 5 Phenol-d5	99	3.600	3.610	(0.927)	74825	5.23439	895 (R)
\$ 20 Nitrobenzene-d5	82	4.240	4.250	(0.893)	31750	2.56167	438 (R)
\$ 39 2-Fluorobiphenyl	172	5.483	5.488	(0.915)	68070	2.94681	504 (R)
\$ 60 2,4,6-Tribromophenol	329	6.581	6.590	(1.098)	15776	5.88765	1010 (R)
\$ 81 p-Terphenyl-d14	244	8.516	8.526	(0.892)	69762	3.18118	544

Compounds	QUANT SIG						CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL	
	=====	==	=====	=====	=====	(ng/ul)	(ug/Kg)	
47 Acenaphthene	154	6.017	6.022	(1.004)	66437	3.25655	557	
79 Pyrene	202	8.420	8.425	(0.882)	1064555	27.5287	4710	
30 Naphthalene	128	4.761	4.765	(1.003)	36391	1.17231	200	
34 2-Methylnaphthalene	142	5.237	5.242	(1.103)	15575	0.69909	120 (a)	
49 Dibenzofuran	168	6.138	6.147	(1.024)	61310	2.13828	366 (a)	
53 Fluorene	166	6.398	6.403	(1.067)	82015	3.40904	583	
68 Phenanthrene	178	7.173	7.178	(1.003)	1163590	34.0267	5820	
69 Anthracene	178	7.212	7.221	(1.008)	205245	5.92623	1010	
76 Fluoranthene	202	8.208	8.208	(1.147)	1319522	35.4885	6070	
89 Benzo(a)anthracene	228	9.533	9.537	(0.999)	402140	13.7040	2340	
92 Chrysene	228	9.566	9.576	(1.003)	395041	15.1285	2590	
95 Benzo(b)fluoranthene	252	10.659	10.664	(0.956)	478304	20.6705	3540	
97 Benzo(a)pyrene	252	11.073	11.083	(0.993)	217093	11.4419	1960	
99 Indeno(1,2,3-cd)pyrene	276	12.812	12.841	(1.149)	86631	6.34954	1080	
100 Dibenzo(a,h)anthracene	278	12.817	12.850	(1.149)	24015	2.22109	380	
101 Benzo(ghi)perylene	276	13.322	13.351	(1.195)	72730	6.39196	1090	

#### QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

## ION RATIO REPORT

## SV REPORT

Data file: s7c1226.d

Report Date: 03/13/2010 09:25

Lab. ID: 248043004

SampleType: SAMPLE

Injection Date: 12-MAR-2010 21:34

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043004|959623|4|SVM|2|LANL\_4x

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 4.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
30 Naphthalene			CAS#: 91-20-3			
128	36391	4.76	4.77	80-120	100	( )
129	4151	4.76	4.77	0- 43	11	( )
127	4646	4.76	4.77	0- 44	13	( )
-----						
34 2-Methylnaphthalene			CAS#: 91-57-6			
142	15575	5.24	5.24	80-120	100	( )
141	13485	5.24	5.24	54-114	87	( )
-----						
43 Dimethylphthalate			CAS#: 131-11-3			
163	165744	5.99	5.76	80-120	100	(T)
164	926886	5.99	5.76	0- 40	559	(QT)
-----						
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	121645	5.99	5.82	80-120	100	(T)
63	1709	5.99	5.82	56-116	1	(QT)
-----						
45 Acenaphthylene			CAS#: 208-96-8			
152	32796	6.02	5.90	80-120	100	(T)
151	12027	6.02	5.90	0- 49	37	(T)
153	77678	6.02	5.90	0- 43	237	(QT)
-----						
47 Acenaphthene			CAS#: 83-32-9			
154	66437	6.02	6.02	80-120	100	( )
153	77678	6.02	6.02	73-133	117	( )
152	32796	6.02	6.02	18- 78	49	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
49	Dibenzofuran		CAS#:	132-64-9		
168	61310	6.14	6.15	80-120	100	( )
139	23336	6.14	6.15	8- 68	38	( )
<hr/>						
50	2,4-Dinitrotoluene		CAS#:	121-14-2		
165	121645	5.99	6.11	80-120	100	(T)
89	2027	5.99	6.11	39- 99	2	(QT)
63	1709	5.99	6.11	18- 78	1	(QT)
<hr/>						
52	4-Nitrophenol		CAS#:	100-02-7		
139	23336	6.14	6.05	80-120	100	(T)
109	239	6.14	6.05	38- 98	1	(QT)
65	418	6.14	6.05	69-129	2	(QT)
<hr/>						
53	Fluorene		CAS#:	86-73-7		
166	82015	6.40	6.40	80-120	100	( )
165	74418	6.40	6.40	62-122	91	( )
167	12329	6.40	6.40	0- 44	15	( )
<hr/>						
68	Phenanthrene		CAS#:	85-01-8		
178	1163590	7.17	7.18	80-120	100	( )
179	187291	7.17	7.18	0- 46	16	( )
176	215168	7.17	7.18	0- 48	18	( )
<hr/>						
69	Anthracene		CAS#:	120-12-7		
178	205245	7.21	7.22	80-120	100	( )
179	48799	7.21	7.22	0- 46	24	( )
176	36735	7.21	7.22	0- 48	18	( )
<hr/>						
76	Fluoranthene		CAS#:	206-44-0		
202	1319522	8.21	8.21	80-120	100	( )
203	229931	8.21	8.21	0- 48	17	( )
101	142503	8.20	8.21	0- 41	11	( )
<hr/>						
79	Pyrene		CAS#:	129-00-0		
202	1064555	8.42	8.43	80-120	100	( )
200	216154	8.42	8.43	0- 50	20	( )
101	142003	8.42	8.43	0- 43	13	( )
<hr/>						
89	Benzo(a)anthracene		CAS#:	56-55-3		
228	402140	9.53	9.54	80-120	100	( )
226	105385	9.53	9.54	0- 56	26	( )
229	106415	9.53	9.54	0- 50	26	( )
<hr/>						
92	Chrysene		CAS#:	218-01-9		
228	395041	9.57	9.58	80-120	100	( )
229	89848	9.57	9.58	0- 50	23	( )
226	111286	9.57	9.58	0- 58	28	( )
<hr/>						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	478304	10.66	10.66	80-120	100	( )
253	109632	10.66	10.66	0- 52	23	( )
125	55494	10.66	10.66	0- 41	12	( )
-----						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	478365	10.66	10.70	80-120	100	( )
253	110004	10.66	10.70	0- 52	23	( )
125	55494	10.66	10.70	0- 41	12	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	217093	11.07	11.08	80-120	100	( )
253	51228	11.07	11.08	0- 52	24	( )
125	24631	11.07	11.08	0- 42	11	( )
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	86631	12.81	12.84	80-120	100	( )
138	23015	12.81	12.84	2- 62	27	( )
-----						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	24015	12.82	12.85	80-120	100	( )
139	3162	12.82	12.85	0- 50	13	( )
-----						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	72730	13.32	13.35	80-120	100	( )
138	19932	13.32	13.35	0- 57	27	( )

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD7.i/s031210.b/s7c1226.d  
Lab Smp Id: 248043004 Client Smp ID: RE36-10-7465DL  
Inj Date : 12-MAR-2010 21:34  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043004|959623|4|SVM|2|LANL\_4x  
Misc Info : |MSD8270 S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 15:38 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 22  
Dil Factor: 4.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	22.27460	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 67 Phenanthrene-d10	7.154	4963686	40.000
* 98 Perylene-d12	11.150	2422902	40.000

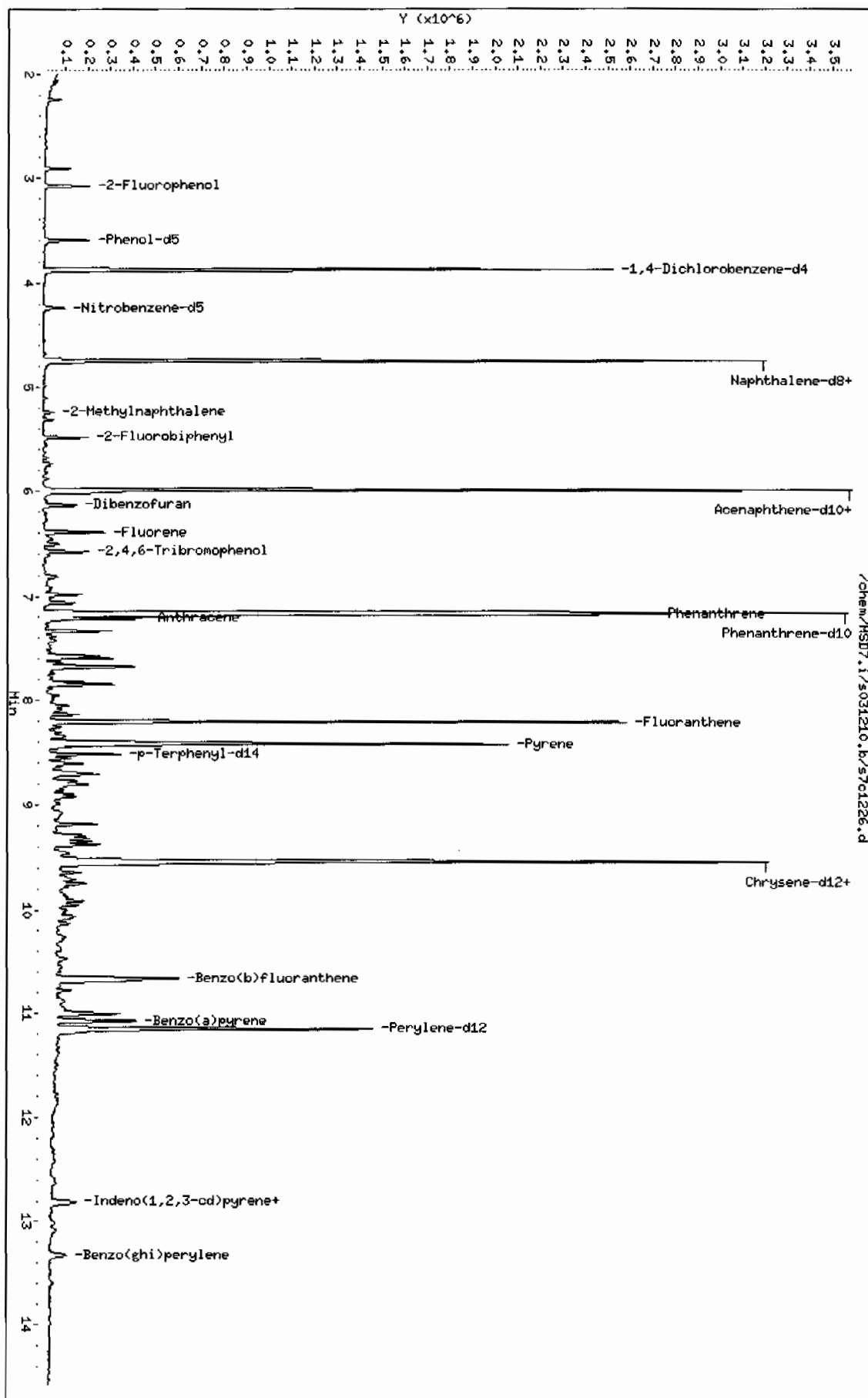
CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown					CAS #:		
7.674	582542	4.69443254	803	0		0	67



RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
====	=====	=====	=====	=====	=====	=====	=====
Perylene					CAS #: 198-55-0		
11.001	498931	8.23691786	1410	99	NIST05.L	93574	98

Data File: /chem/MSD7.i/s031210.b/s7c1226.d  
 Date: 12-MAR-2010 21:34  
 Client ID: RE36-10-7465DL  
 Sample Info: 12480430041959623141SVH121LAPL\_4x  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-SHS

Instrument: MSD7.i  
 Operator: JHB3  
 Column diameter: 0.20



Date: 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: MSD7.i

Sample Info: 12480430041959623141SVH121LANL\_4x

Volume Injected (uL): 0.5

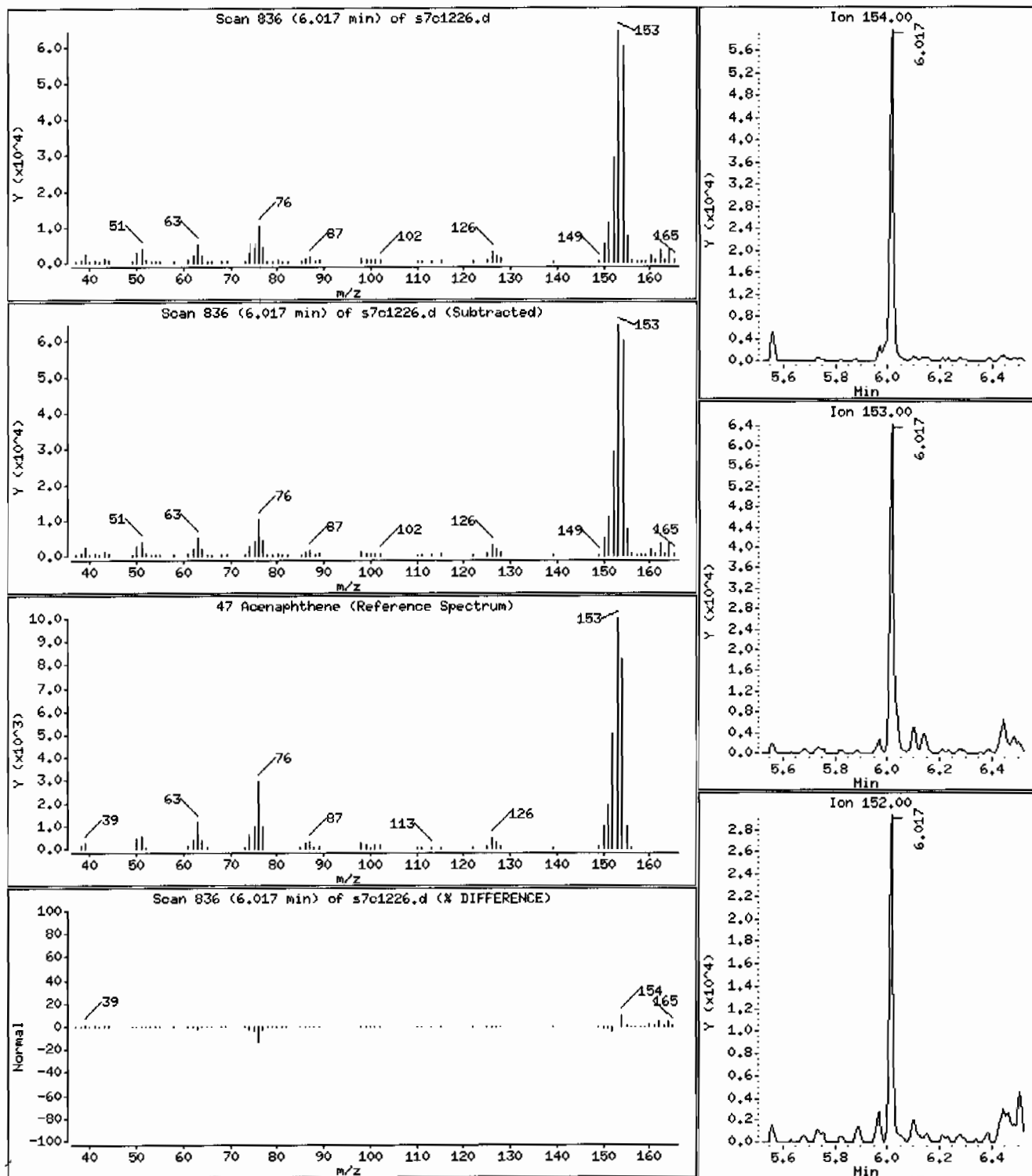
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 557 ug/Kg



Date : 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: MSD7.i

Sample Info: 12480430041959623141SVH121LANL\_4x

Volume Injected (uL): 0.5

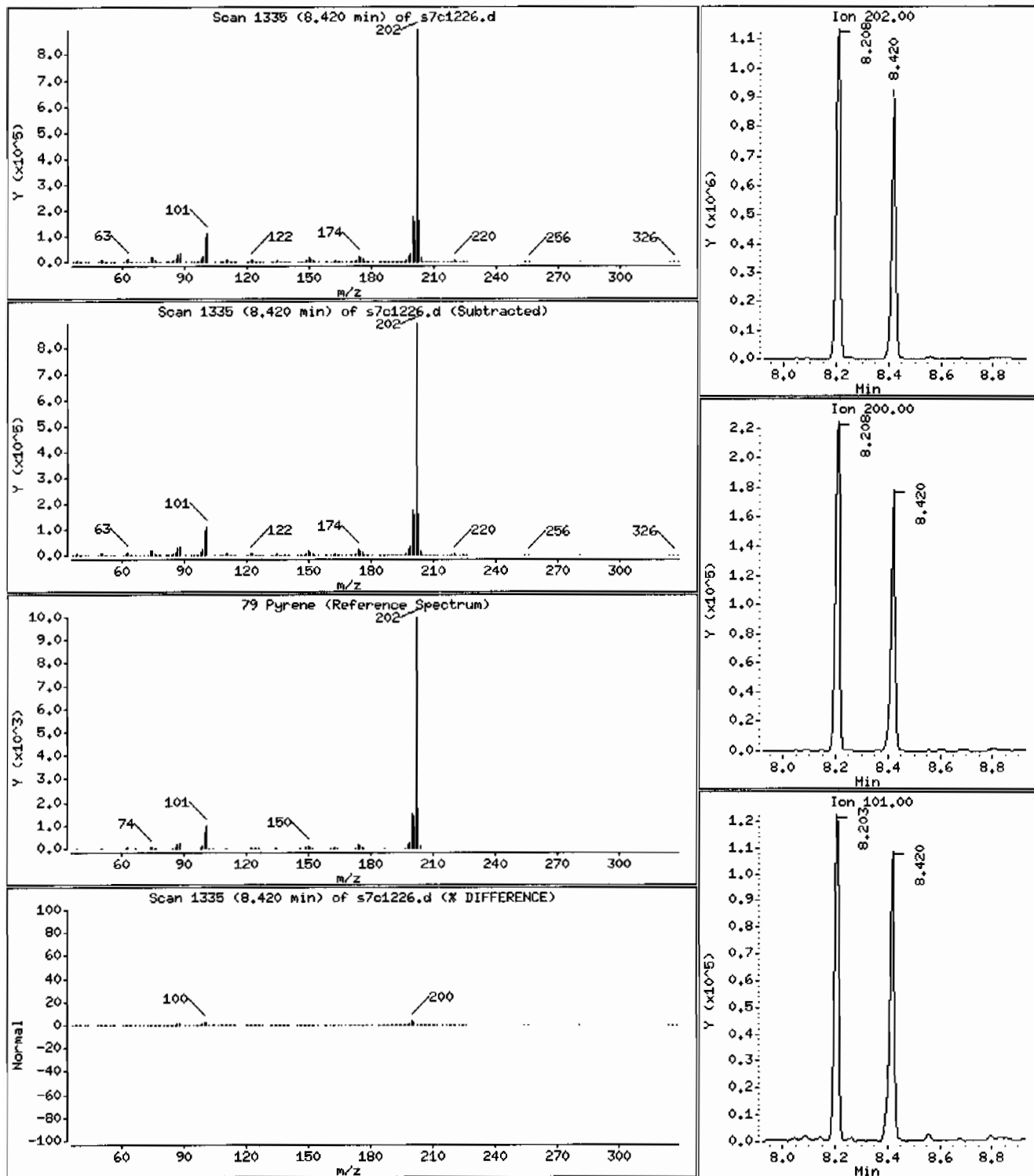
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 4710 ug/Kg



Date : 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: MSD7.i

Sample Info: 12480430041959623141SVH121LANL\_4x

Volume Injected (uL): 0.5

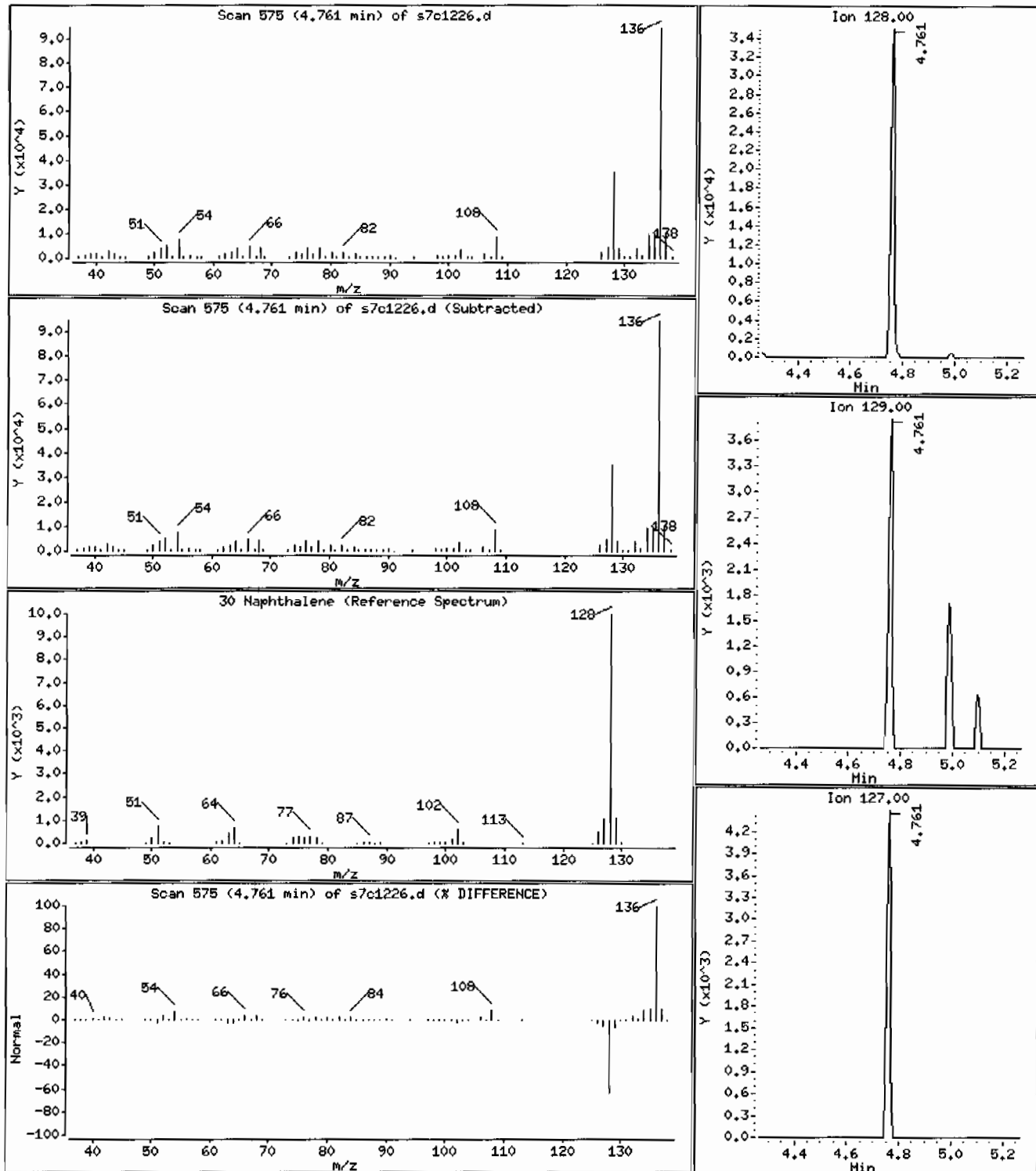
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 200 ug/Kg



Date : 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: HSD7.i

Sample Info: 12480430041959623141SVH121LANL\_4x

Volume Injected (uL): 0.5

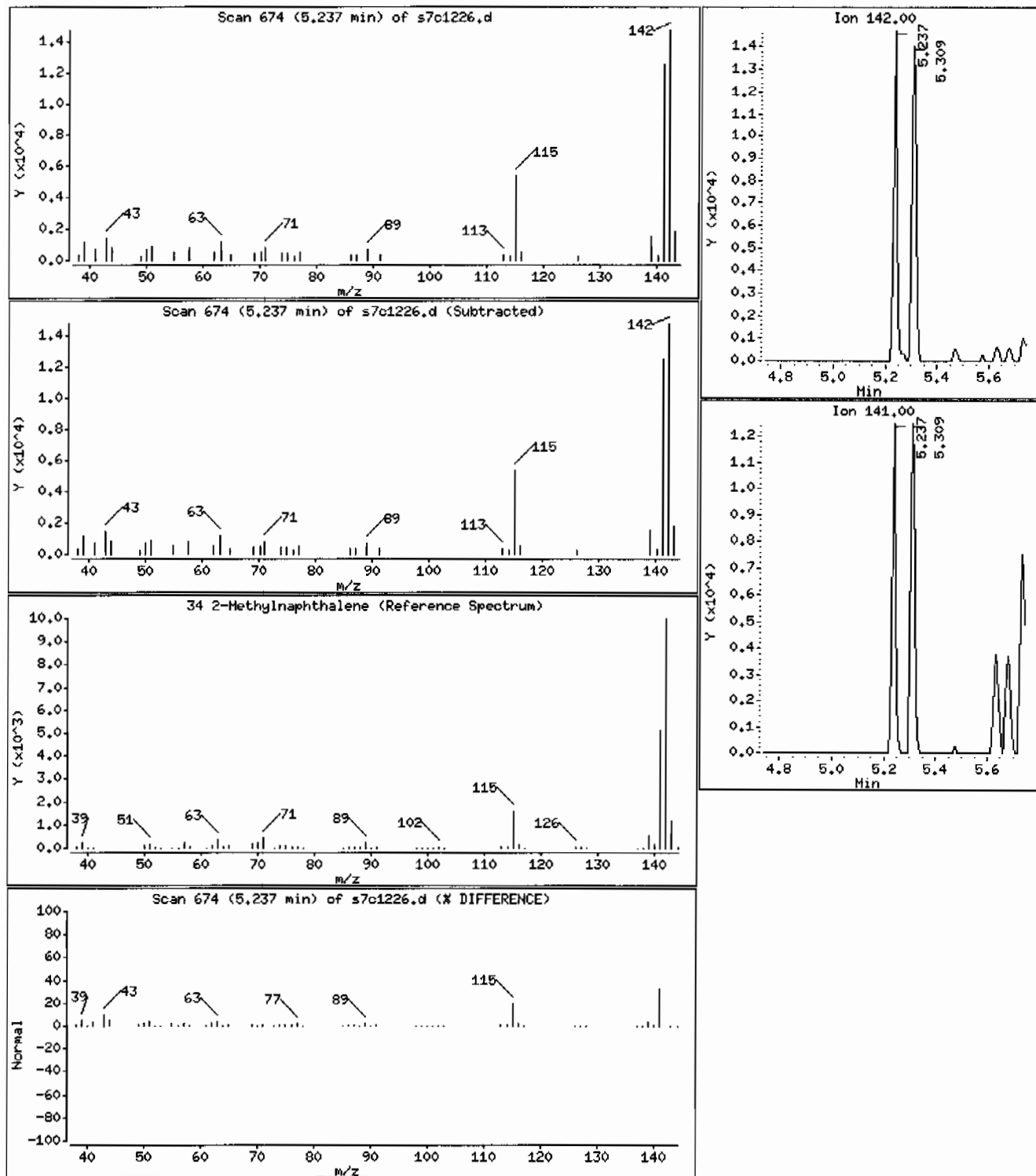
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 120 ug/Kg



Date: 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: MSD7.i

Sample Info: 12480430041959623141SVH121LANL\_4x

Volume Injected (uL): 0.5

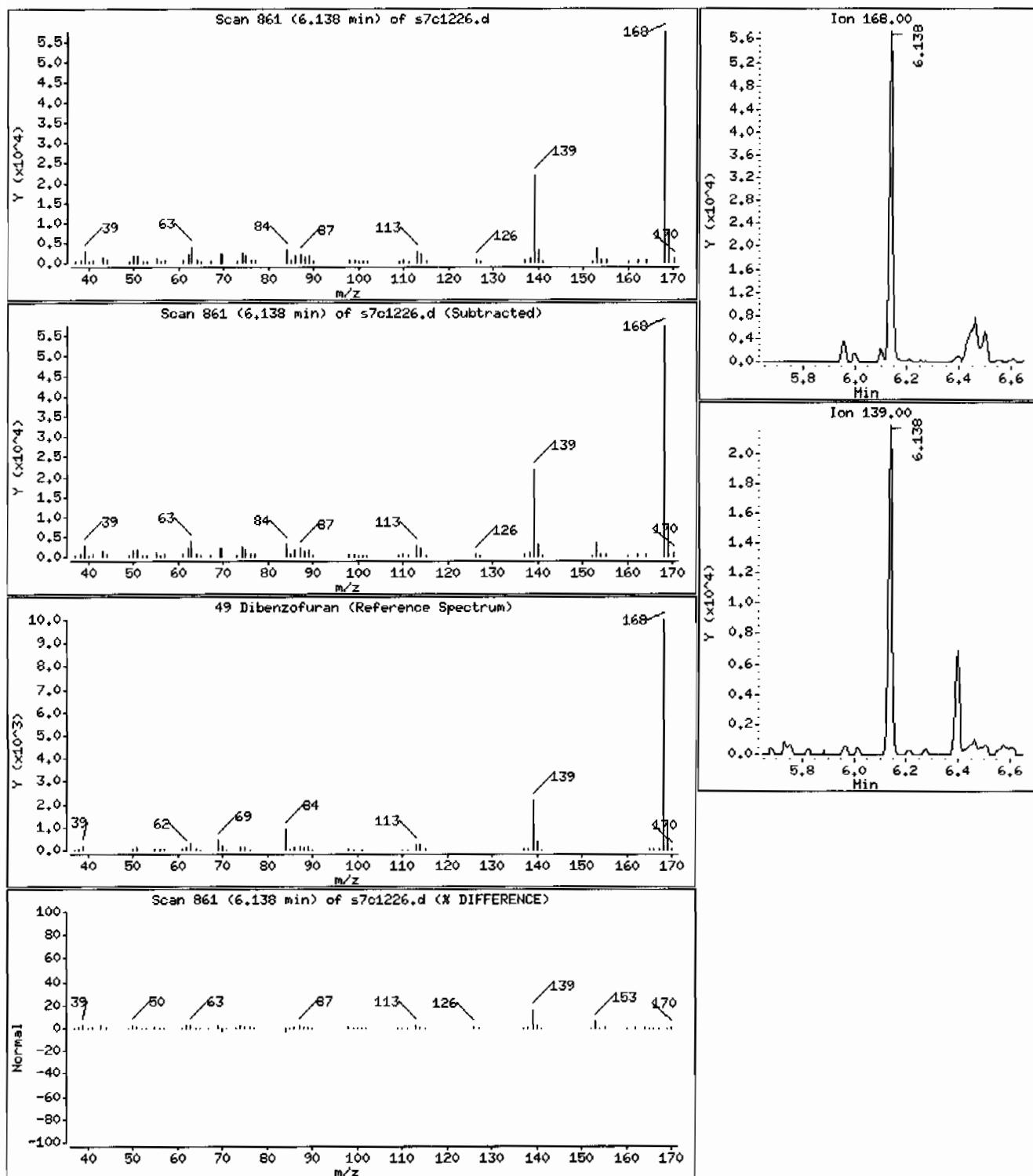
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

49 Dibenzofuran

Concentration: 366 ug/Kg



Date : 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: MSD7.i

Sample Info: 12480430041959623141SVMI2ILANL\_4x

Volume Injected (uL): 0.5

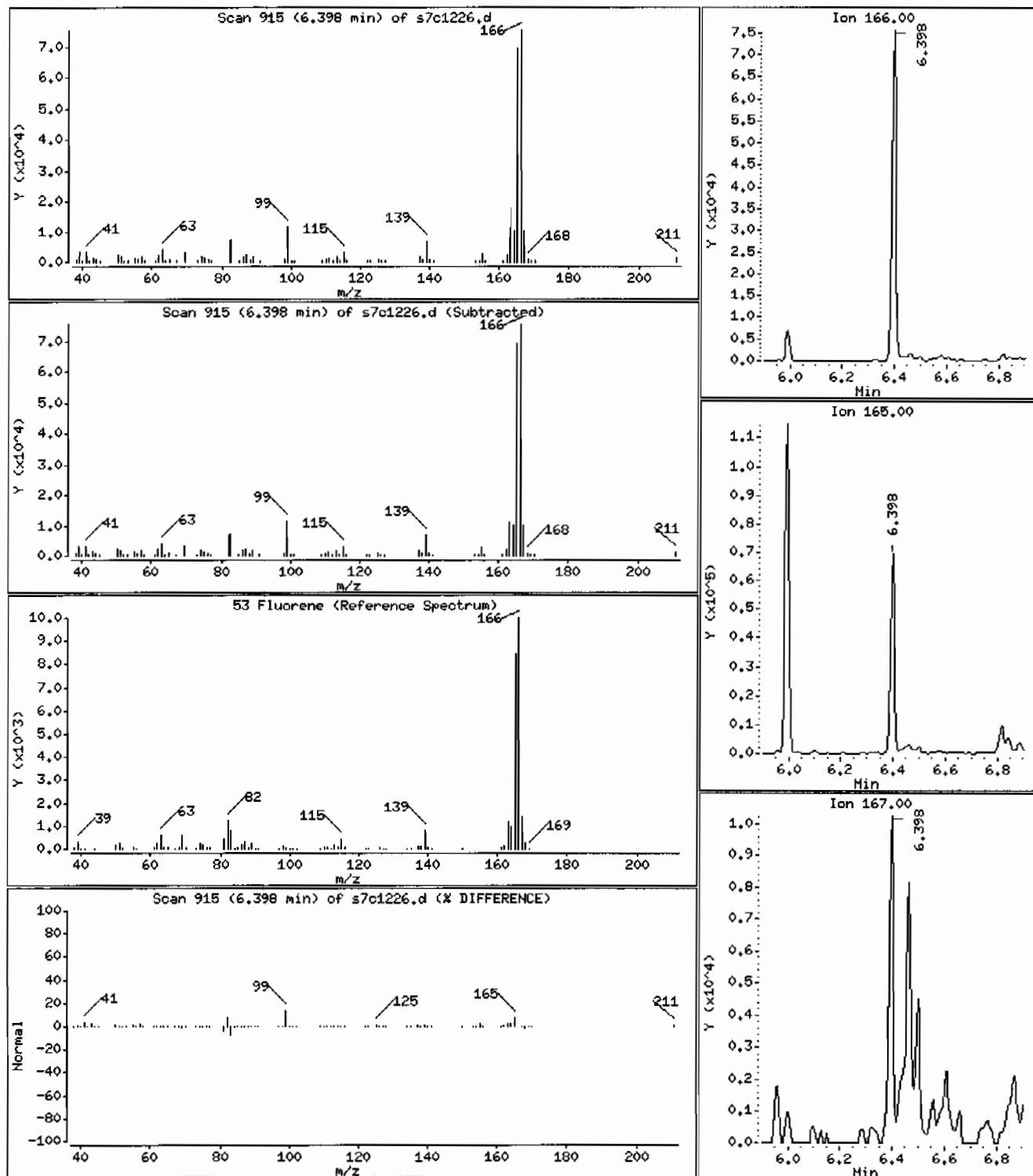
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 583 ug/Kg





Date : 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: MSD7.1

Sample Info: 12480430041959623141SVMI21LANL\_4x

Volume Injected (uL): 0.5

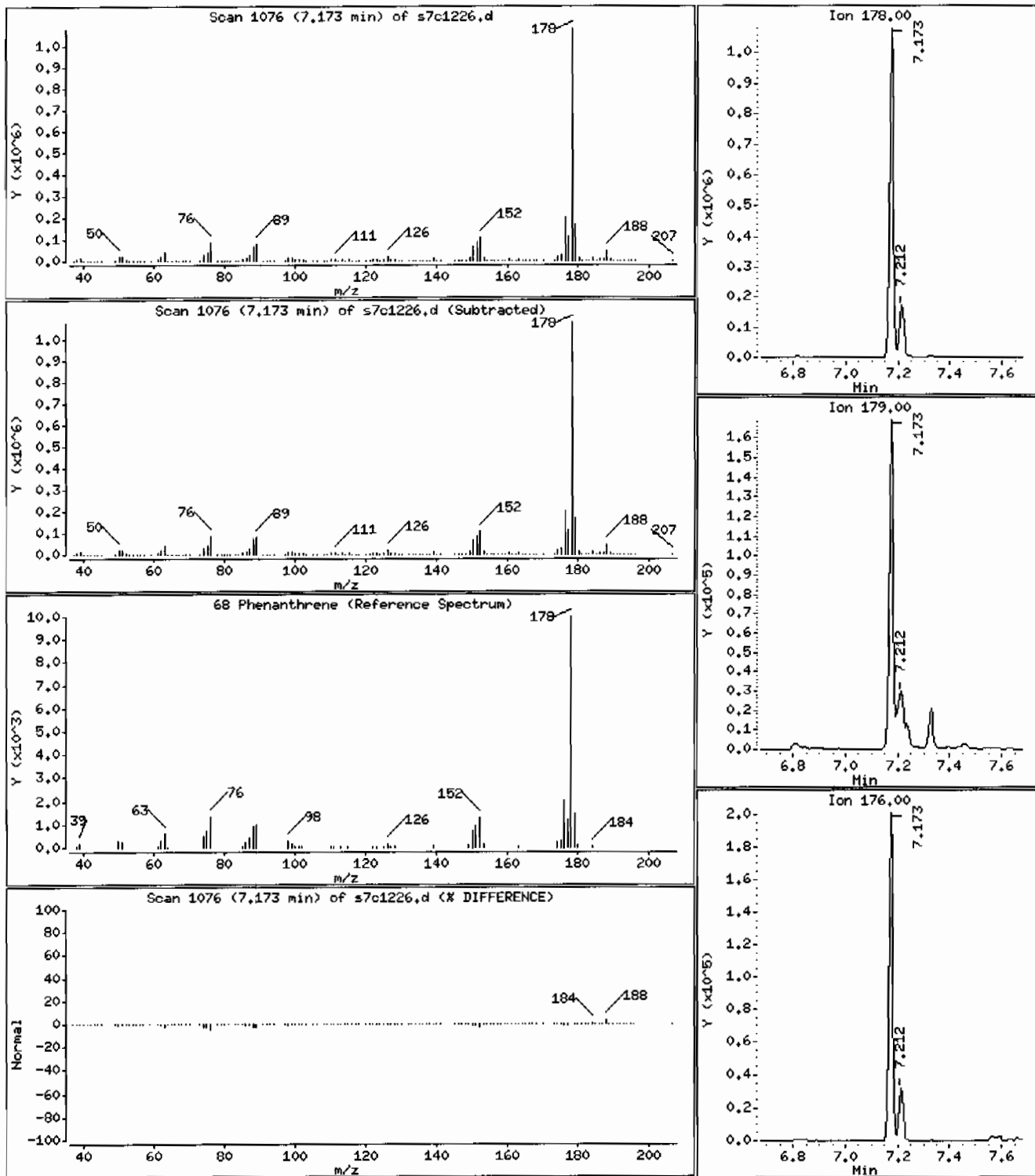
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 5820 ug/Kg



Date : 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: MSD7.i

Sample Info: 12480430041959623141SVH12ILANL\_4x

Volume Injected (uL): 0.5

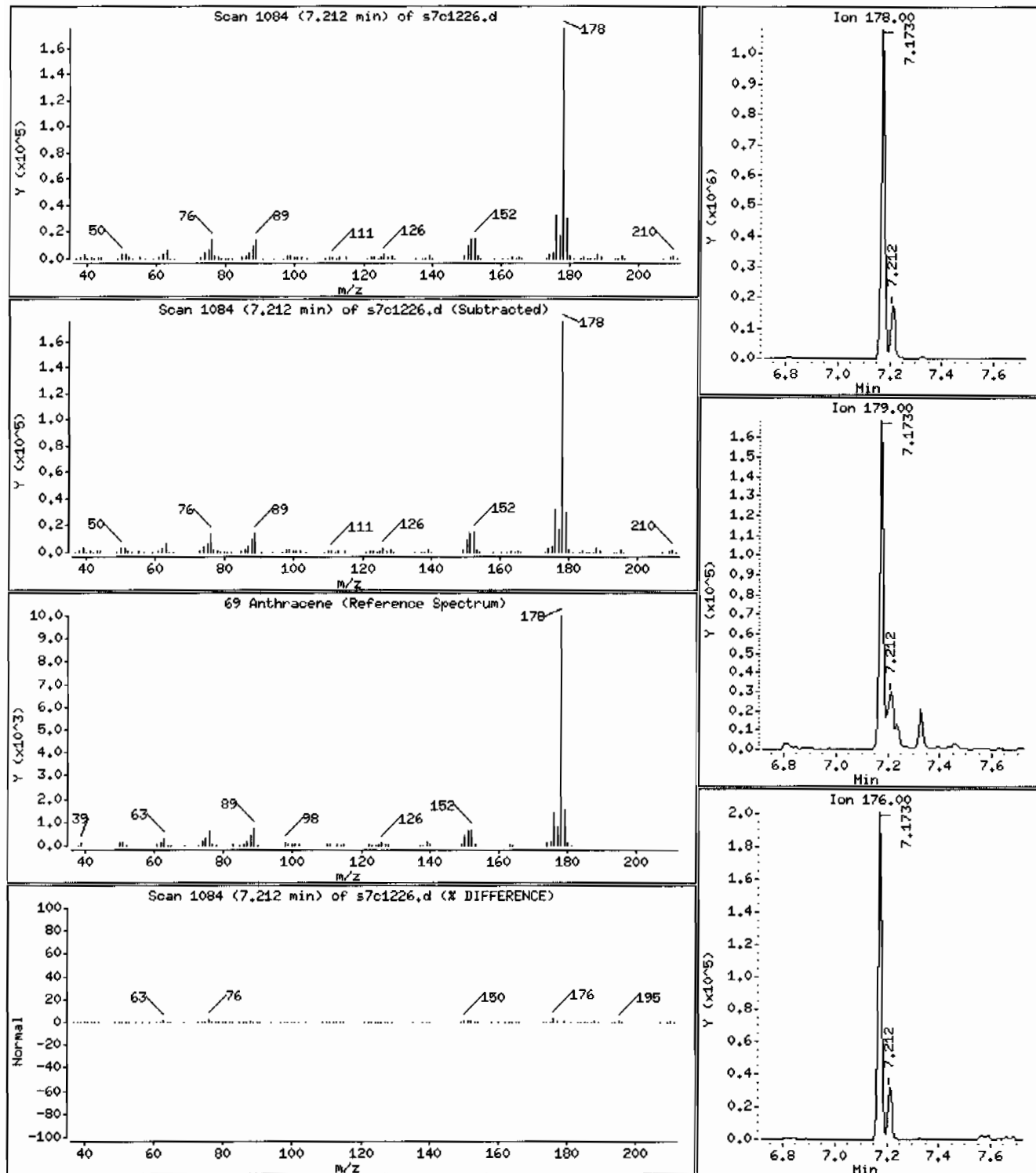
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 1010 ug/Kg



Date : 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: MSD7.i

Sample Info: 1248043004195962314ISVM12ILANL\_4x

Volume Injected (uL): 0.5

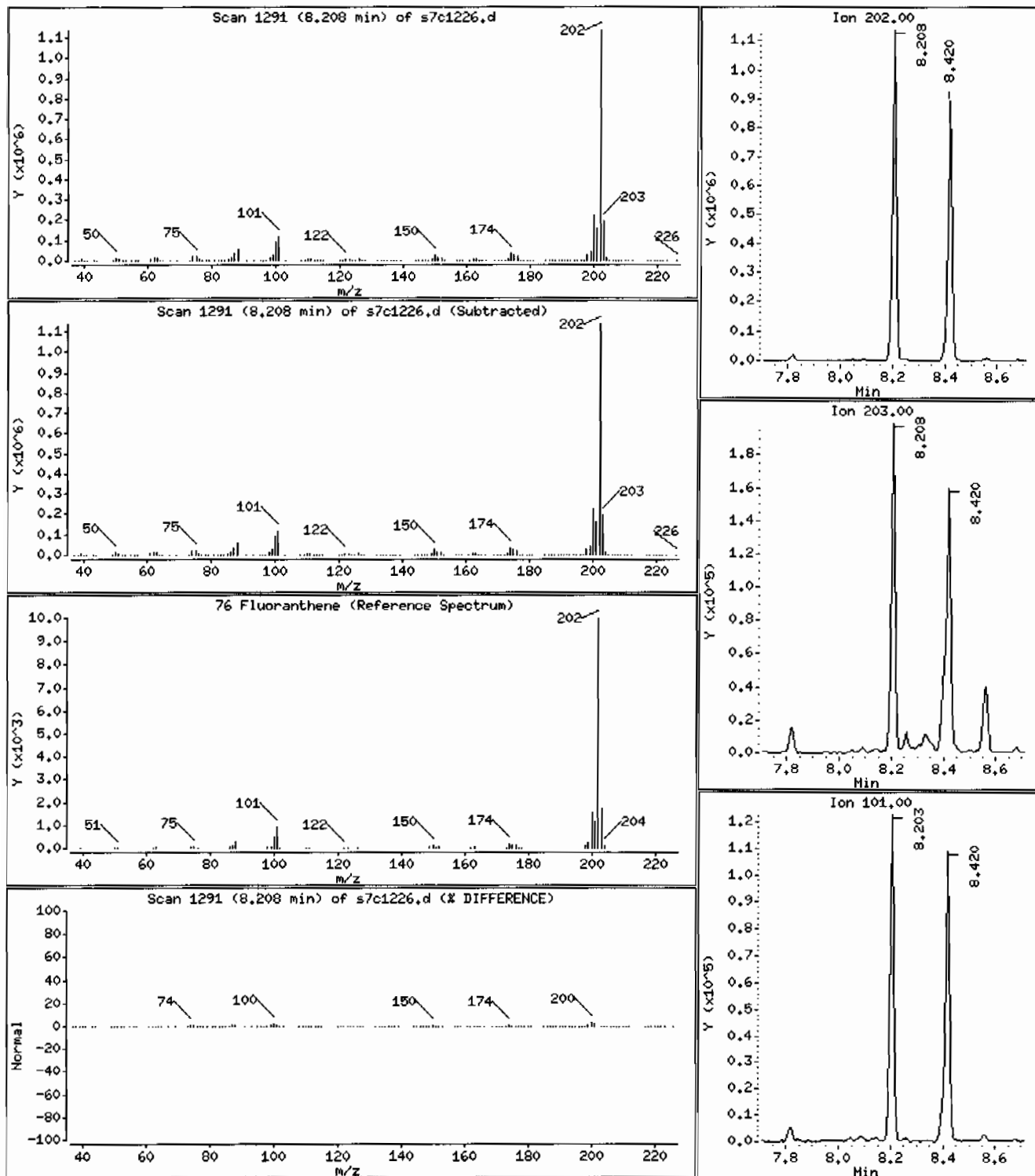
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 6070 ug/Kg



Date : 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: MSD7.i

Sample Info: 1248043004|95962314|SVMI2ILANL\_4x

Volume Injected (uL): 0.5

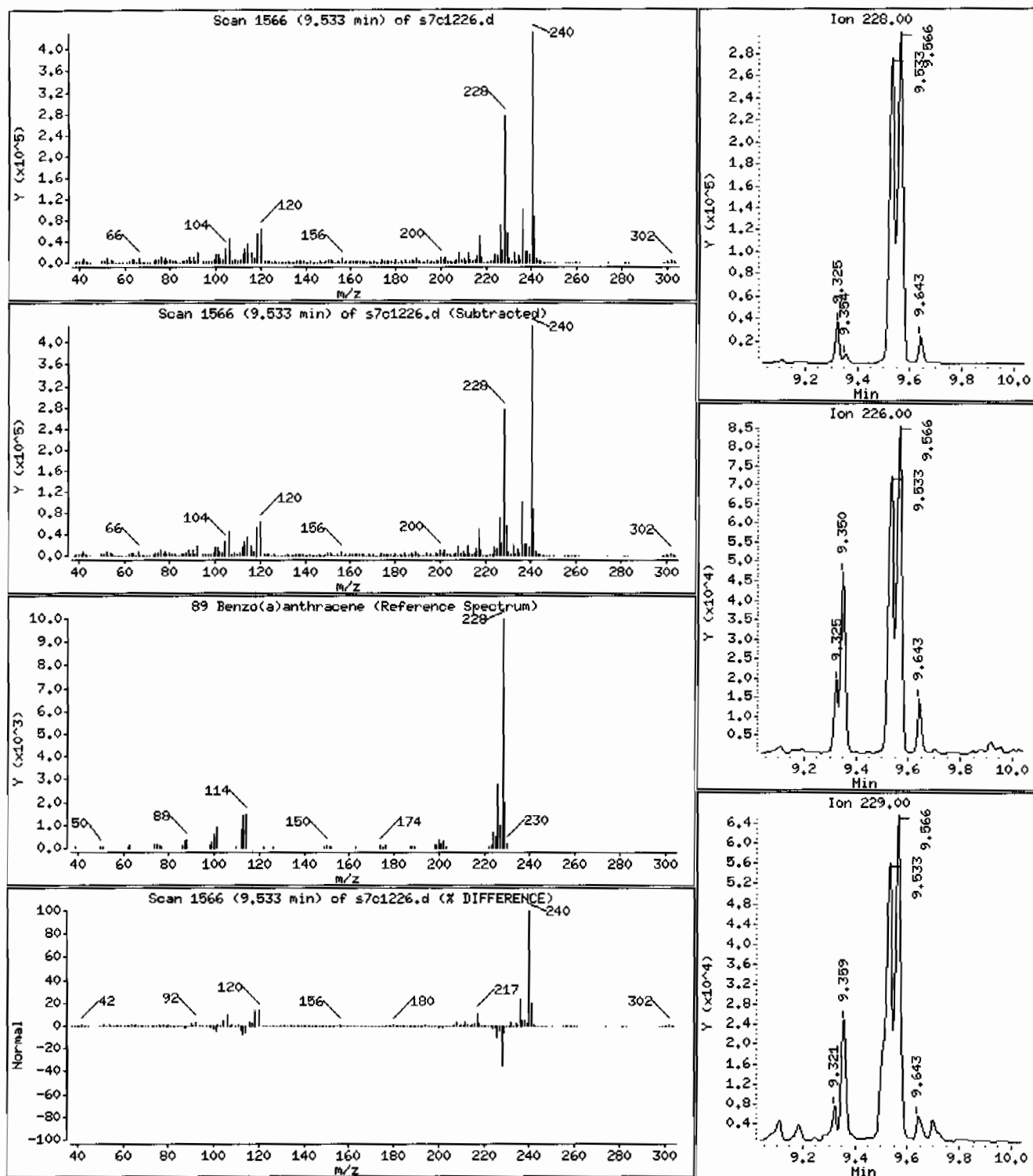
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 2340 ug/Kg



Date : 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: MSD7.i

Sample Info: 12480430041959623141SVH121LANL\_4x

Volume Injected (uL): 0.5

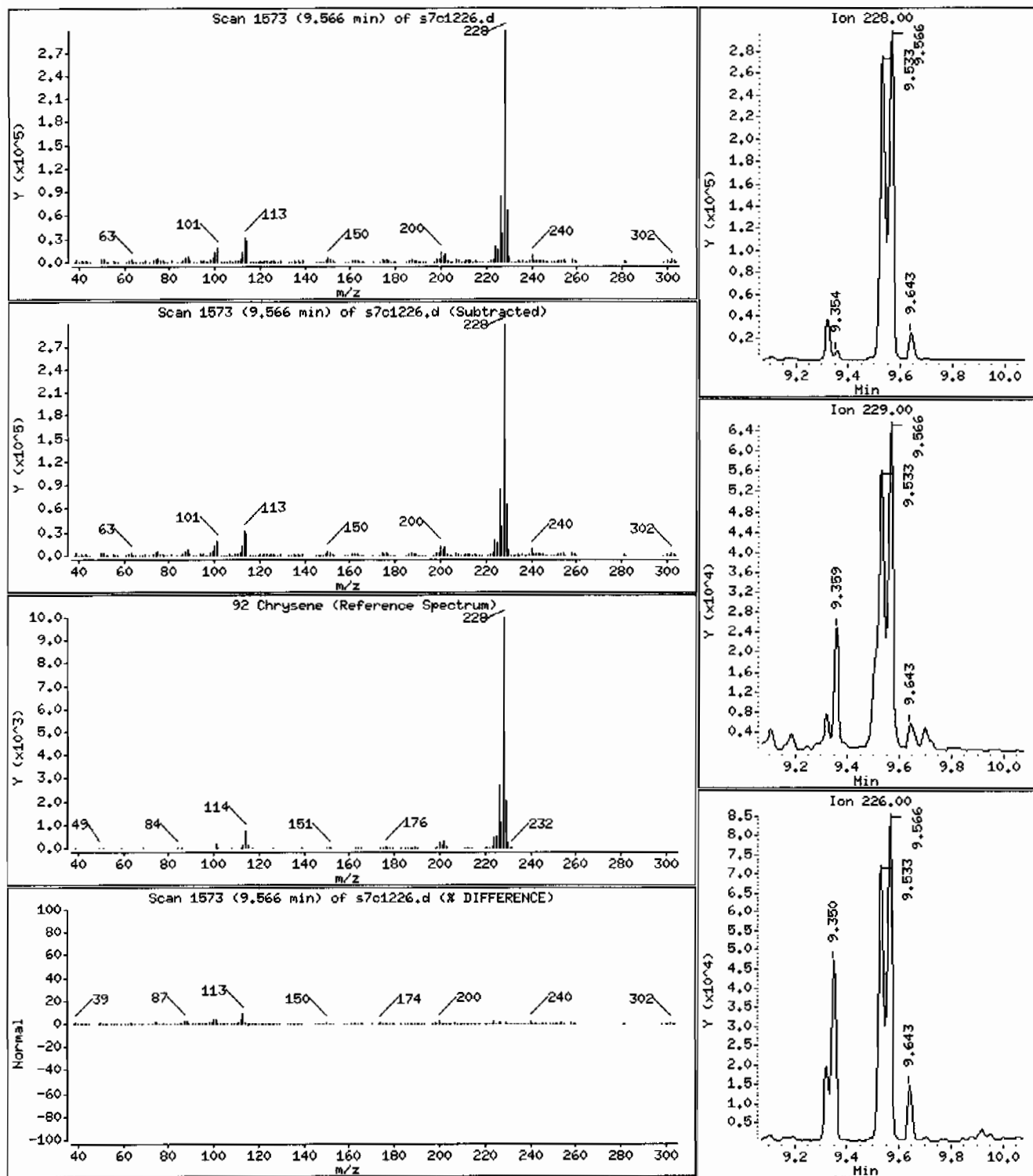
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 2590 ug/Kg



Date : 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: HSD7.i

Sample Info: 1248043004195962314ISVH121LANL\_4x

Volume Injected (uL): 0.5

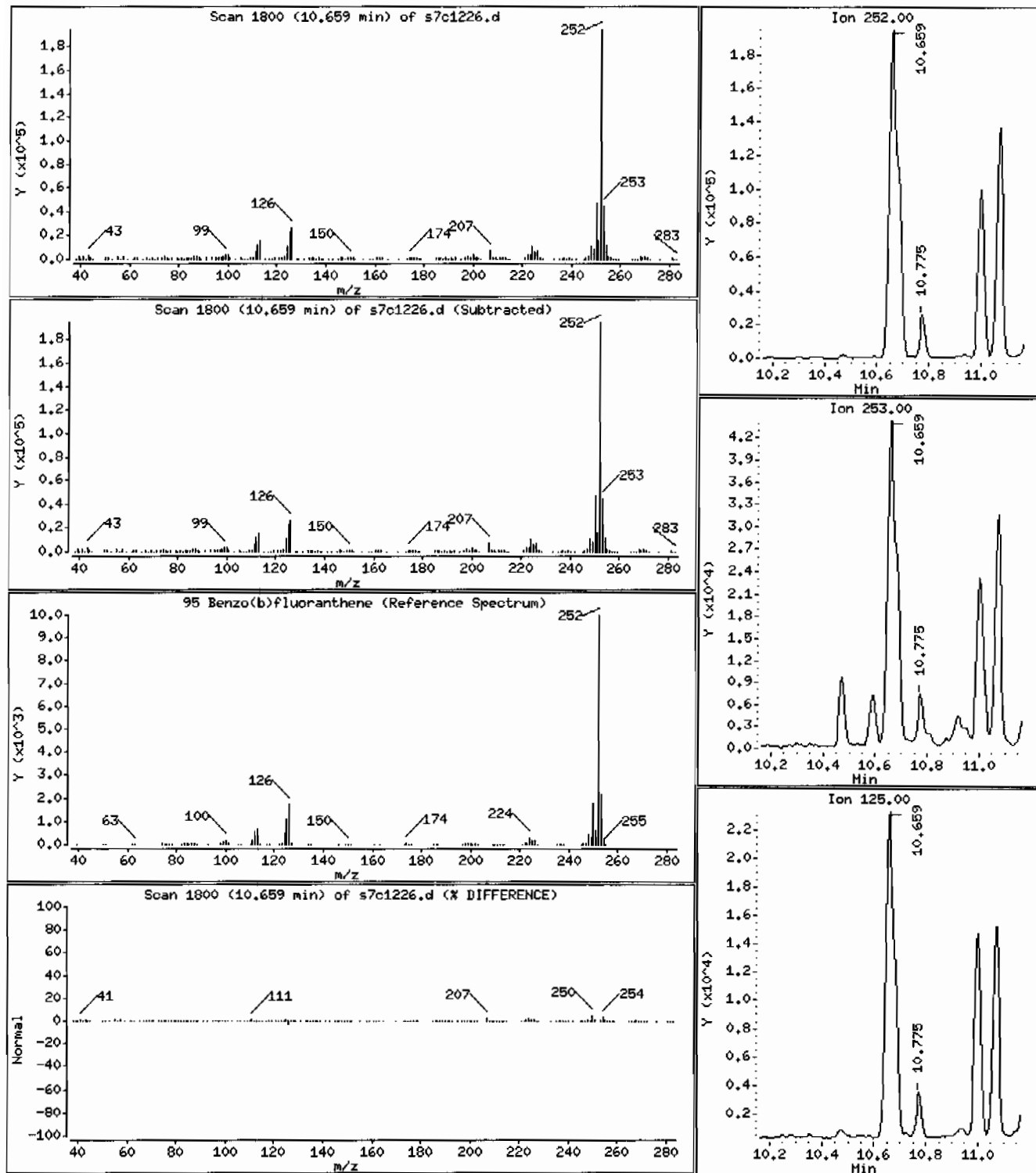
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 3540 ug/Kg



Date : 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: MSD7.i

Sample Info: 1248043004195962314ISVM121LANL\_4x

Volume Injected (uL): 0.5

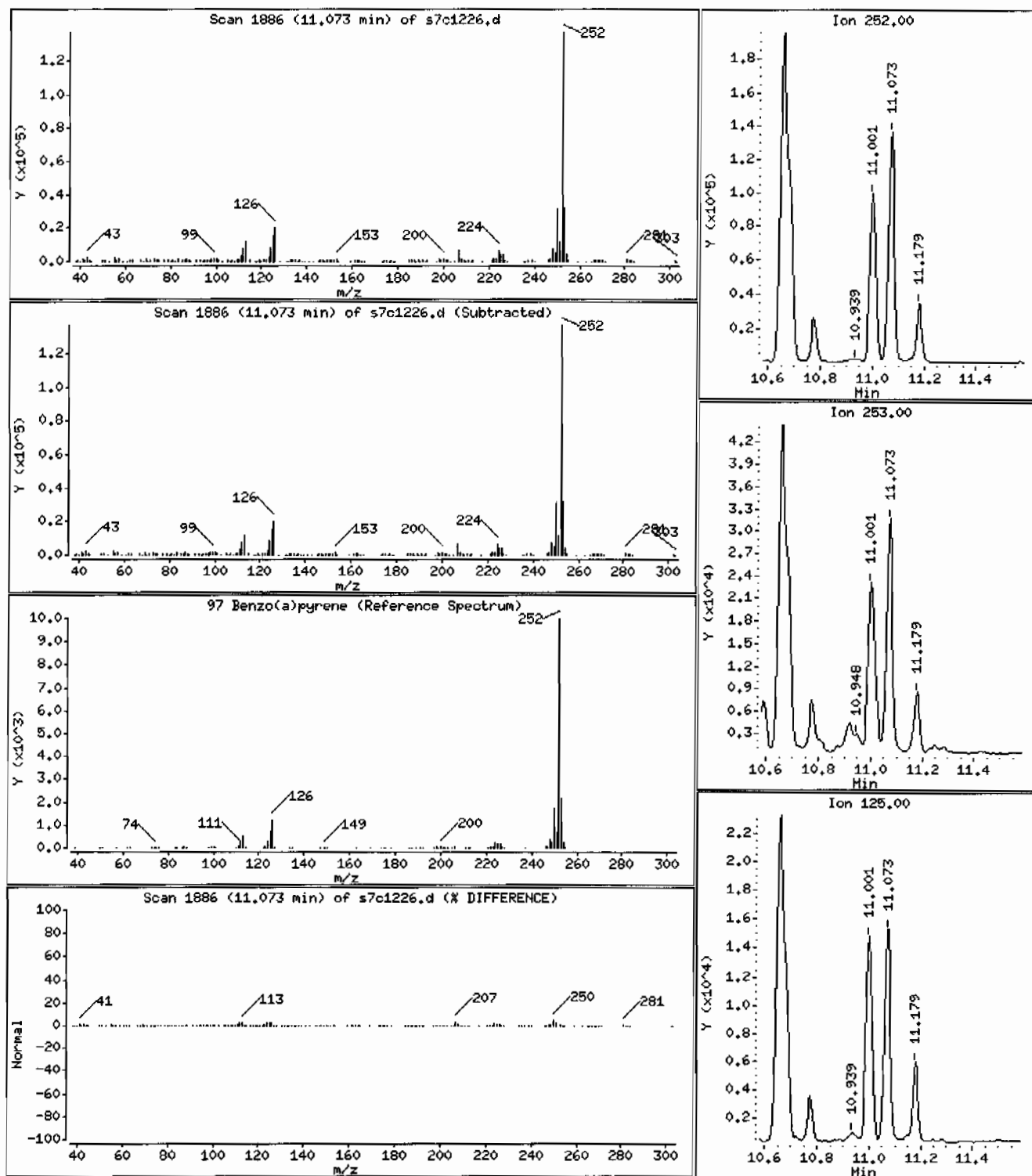
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 1960 ug/Kg



Date : 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: MSD7.i

Sample Info: 12480430041959623141SVH121LANL\_4x

Volume Injected (uL): 0.5

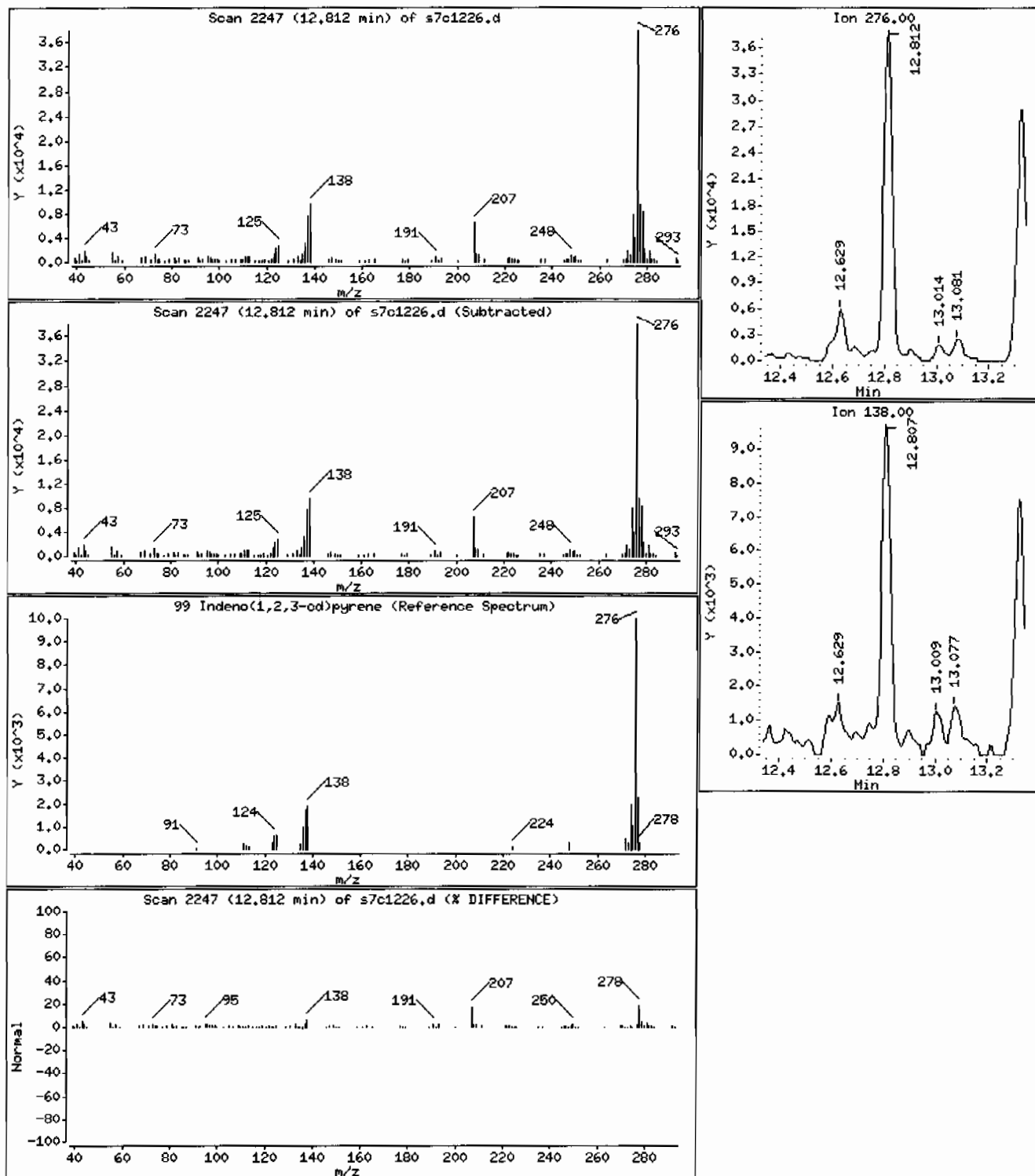
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 1080 ug/Kg





Date : 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: MSD7.i

Sample Info: 12480430041959623141SVMI2ILANL\_4x

Volume Injected (uL): 0.5

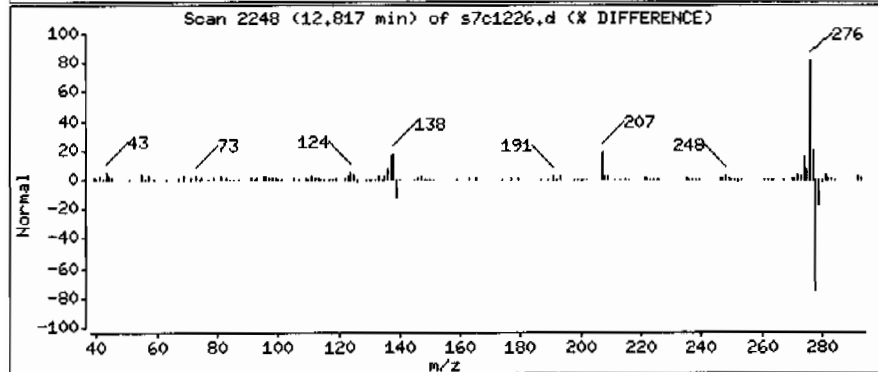
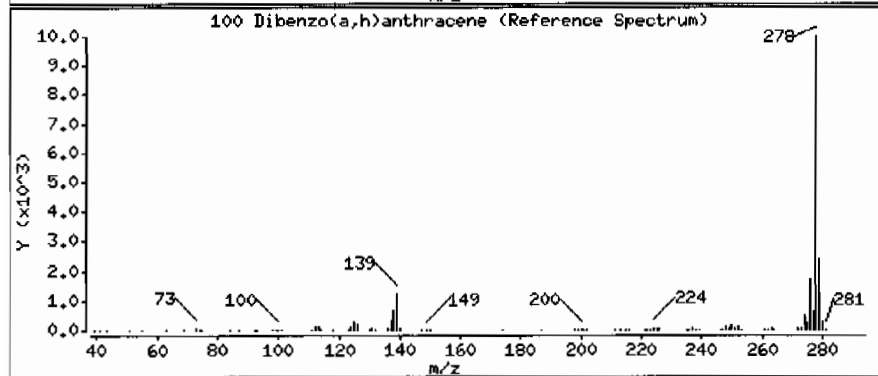
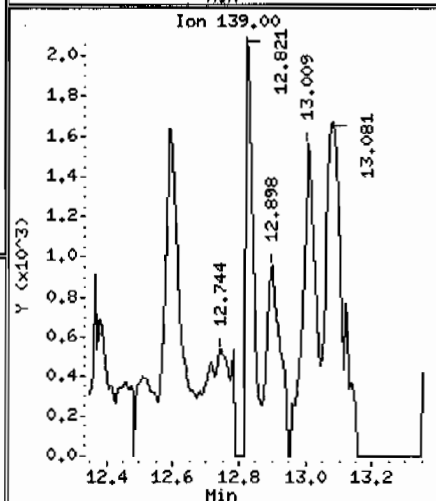
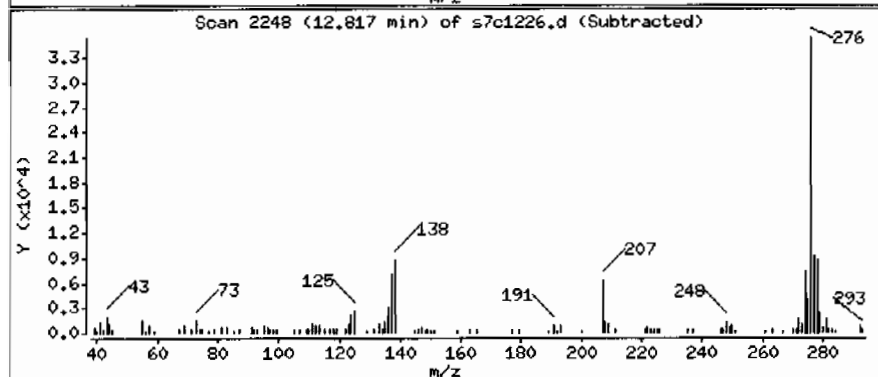
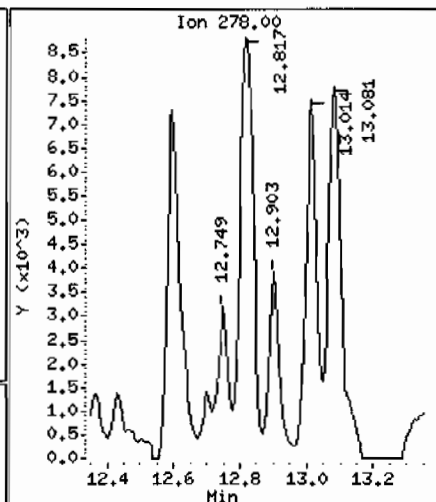
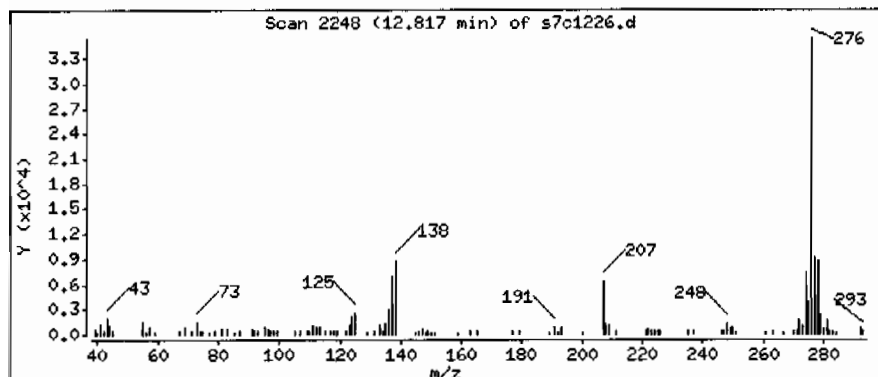
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 380 ug/Kg



Date : 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: MSD7.i

Sample Info: 12480430041959623141SVH121LANL\_4x

Volume Injected (uL): 0.5

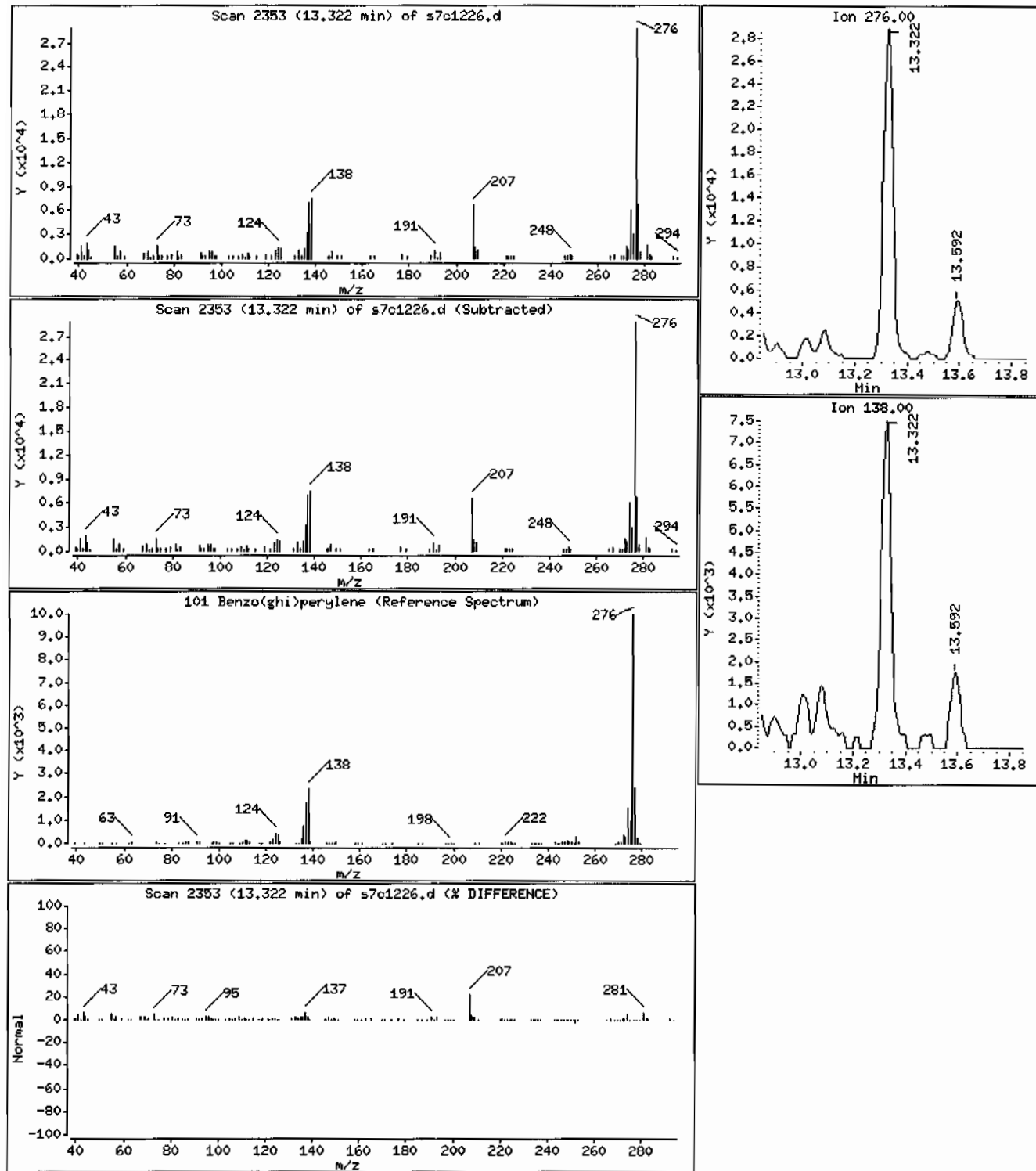
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 1090 ug/Kg



Date: 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: MSD7.i

Sample Info: 12480430041959623141SVH121LANL\_4x

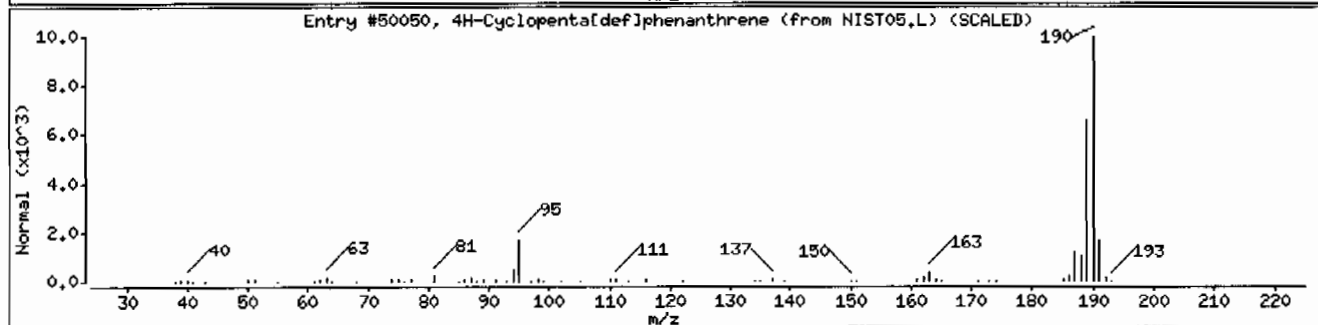
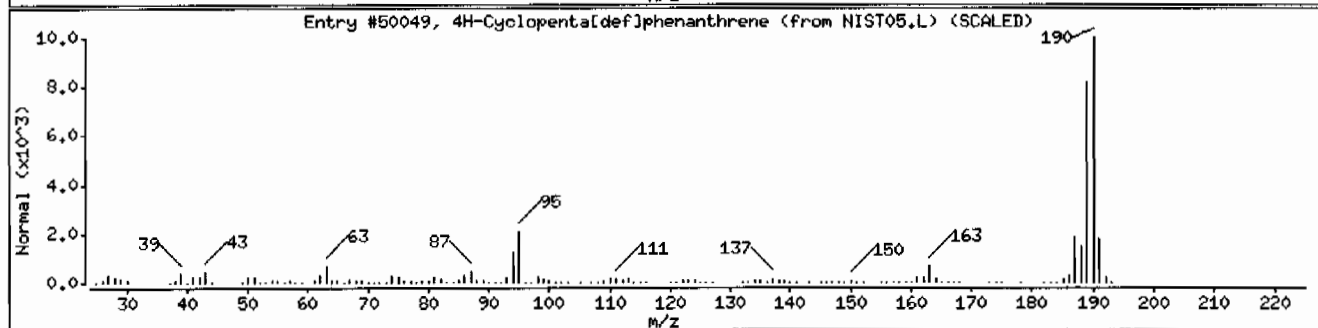
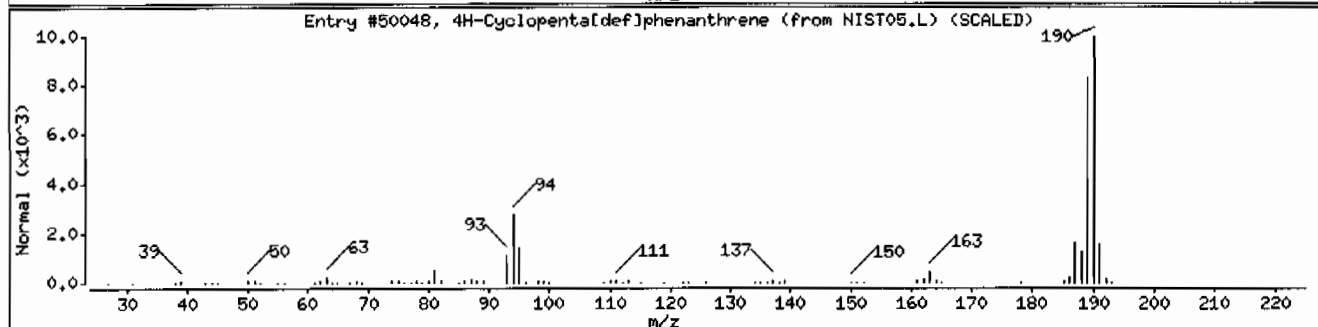
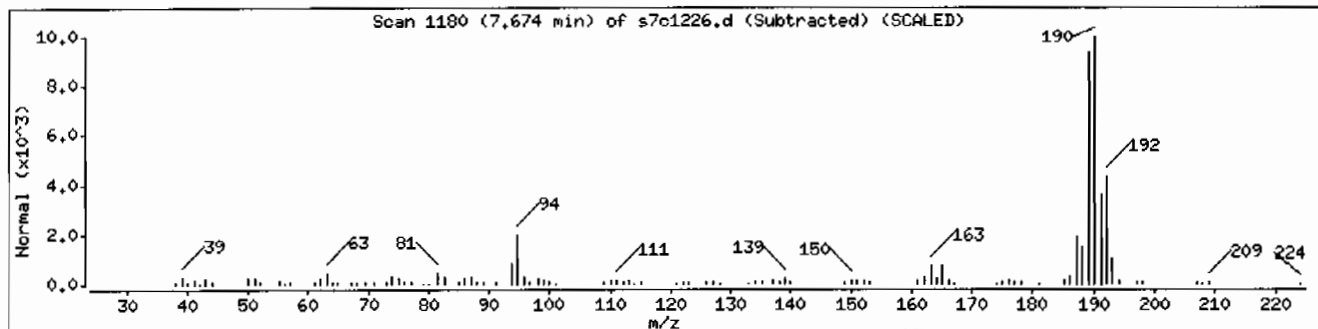
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50048	76	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50049	64	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50050	58	C15H10	190



Date : 12-MAR-2010 21:34

Client ID: RE36-10-7465DL

Instrument: MSD7.i

Sample Info: 12480430041959623141SVH12ILANL\_4x

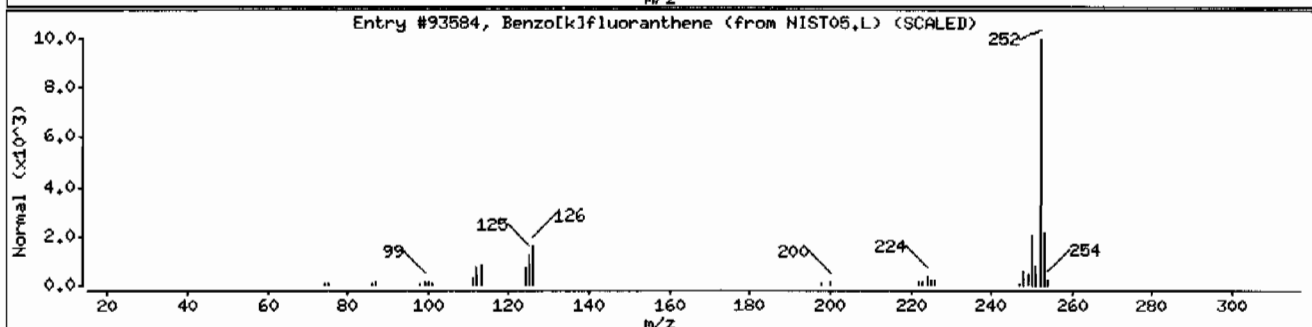
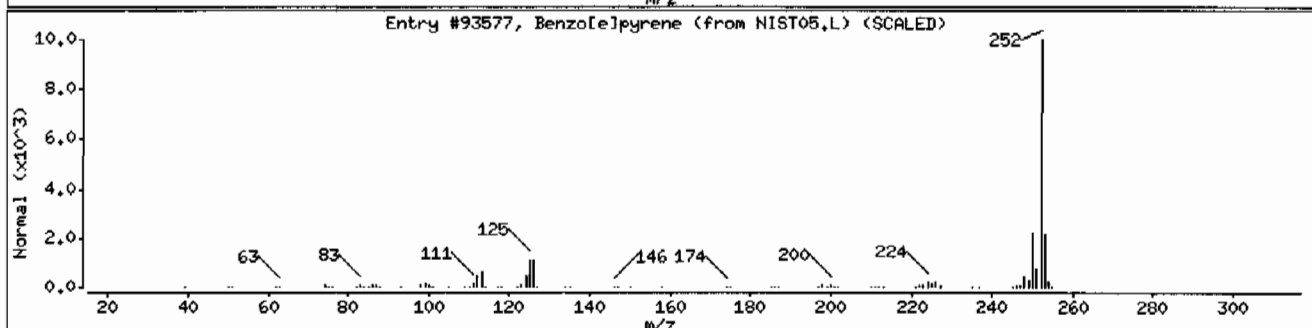
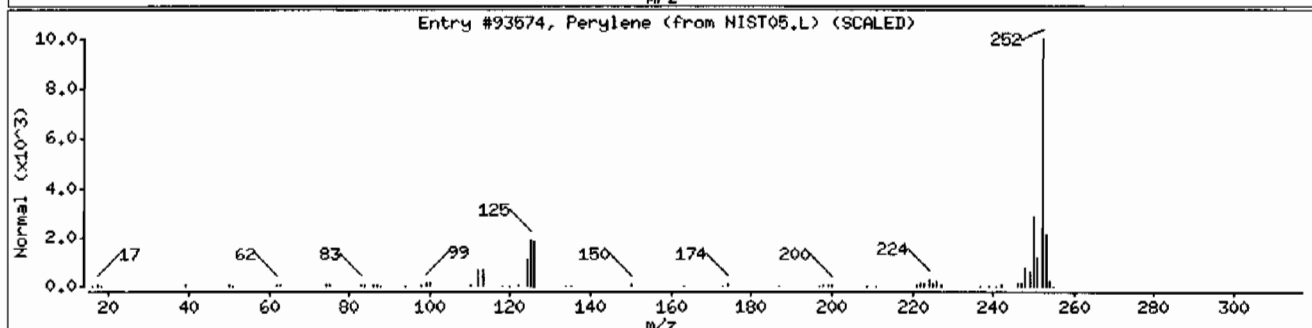
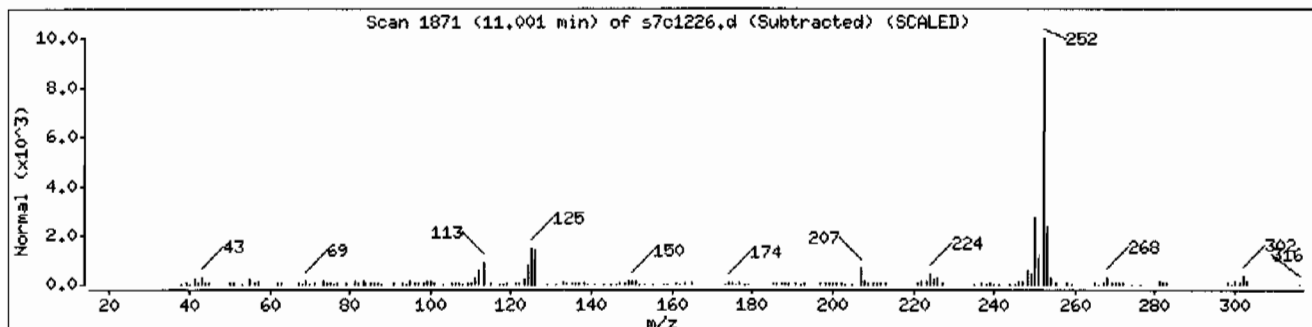
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Perylene	198-55-0	NIST05.L	93574	99	C <sub>20</sub> H <sub>12</sub>	252
Benzo[el]pyrene	192-97-2	NIST05.L	93577	99	C <sub>20</sub> H <sub>12</sub>	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	98	C <sub>20</sub> H <sub>12</sub>	252



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043004

Client ID: RE36-10-7465RE  
Batch ID: 965290  
Run Date: 03/17/2010 19:55  
Prep Date: 03/16/2010 21:34  
Data File: s7c1729.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.18 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	Uh	426	ug/kg	85.3	426
108-95-2	Phenol	Uh	426	ug/kg	85.3	426
95-57-8	2-Chlorophenol	Uh	426	ug/kg	85.3	426
106-46-7	1,4-Dichlorobenzene	Uh	426	ug/kg	85.3	426
621-64-7	N-Nitrosodipropylamine	Uh	426	ug/kg	85.3	426
59-50-7	4-Chloro-3-methylphenol	Uh	426	ug/kg	85.3	426
83-32-9	Acenaphthene	h	1040	ug/kg	14.1	42.6
121-14-2	2,4-Dinitrotoluene	Uh	426	ug/kg	42.6	426
100-02-7	4-Nitrophenol	Uh	426	ug/kg	141	426
87-86-5	Pentachlorophenol	Uh	426	ug/kg	107	426
110-86-1	Pyridine	Uh	426	ug/kg	85.3	426
62-53-3	Aniline	Uh	426	ug/kg	128	426
111-44-4	bis(2-Chloroethyl) ether	Uh	426	ug/kg	85.3	426
541-73-1	1,3-Dichlorobenzene	Uh	426	ug/kg	85.3	426
100-51-6	Benzyl alcohol	Uh	426	ug/kg	128	426
95-50-1	1,2-Dichlorobenzene	Uh	426	ug/kg	85.3	426
108-60-1	bis(2-Chloroisopropyl)ether	Uh	426	ug/kg	85.3	426
95-48-7	o-Cresol	Uh	426	ug/kg	85.3	426
65794-96-9	m,p-Cresols	Uh	426	ug/kg	128	426
67-72-1	Hexachloroethane	Uh	426	ug/kg	85.3	426
98-95-3	Nitrobenzene	Uh	426	ug/kg	85.3	426
78-59-1	Isophorone	Uh	426	ug/kg	85.3	426
88-75-5	2-Nitrophenol	Uh	426	ug/kg	85.3	426
105-67-9	2,4-Dimethylphenol	Uh	426	ug/kg	149	426
111-91-1	bis(2-Chloroethoxy)methane	Uh	426	ug/kg	85.3	426
120-83-2	2,4-Dichlorophenol	Uh	426	ug/kg	85.3	426
65-85-0	Benzoic acid	Uh	853	ug/kg	213	853
91-20-3	Naphthalene	h	357	ug/kg	12.8	42.6
106-47-8	4-Chloroaniline	Uh	426	ug/kg	85.3	426
87-68-3	Hexachlorobutadiene	Uh	426	ug/kg	85.3	426
91-57-6	2-Methylnaphthalene	h	207	ug/kg	8.53	42.6
77-47-4	Hexachlorocyclopentadiene	Uh	426	ug/kg	85.3	426
88-06-2	2,4,6-Trichlorophenol	Uh	426	ug/kg	85.3	426
95-95-4	2,4,5-Trichlorophenol	Uh	426	ug/kg	85.3	426
91-58-7	2-Chloronaphthalene	Uh	42.6	ug/kg	14.1	42.6
88-74-4	2-Nitroaniline	Uh	426	ug/kg	85.3	426
99-09-2	<i>o</i> -Nitroaniline	Uh	426	ug/kg	85.3	426
	3-Nitroaniline					
	<i>m</i> -Nitroaniline					

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043004

Client ID: RE36-10-7465RE  
Batch ID: 965290  
Run Date: 03/17/2010 19:55  
Prep Date: 03/16/2010 21:34  
Data File: s7c1729.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.18 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	Dimethylphthalate	Uh	426	ug/kg	85.3	426
606-20-2	2,6-Dinitrotoluene	Uh	426	ug/kg	42.6	426
208-96-8	Acenaphthylene	Jh	24.3	ug/kg	12.8	42.6
51-28-5	2,4-Dinitrophenol	Uh	853	ug/kg	162	853
132-64-9	Dibenzofuran	h	665	ug/kg	85.3	426
84-66-2	Diethylphthalate	Uh	426	ug/kg	85.3	426
86-73-7	Fluorene	h	1040	ug/kg	12.8	42.6
7005-72-3	4-Chlorophenylphenylether	Uh	426	ug/kg	85.3	426
534-52-1	2-Methyl-4,6-dinitrophenol	Uh	426	ug/kg	85.3	426
100-01-6	4-Nitroaniline	Uh	426	ug/kg	128	426
	<i>p-Nitroaniline</i>					
122-39-4	Diphenylamine	Uh	426	ug/kg	85.3	426
122-66-7	Azobenzene	Uh	426	ug/kg	85.3	426
	<i>1,2-Diphenylhydrazine</i>					
101-55-3	4-Bromophenylphenylether	Uh	426	ug/kg	85.3	426
118-74-1	Hexachlorobenzene	Uh	426	ug/kg	85.3	426
120-12-7	Anthracene	h	2290	ug/kg	8.53	42.6
84-74-2	Di-n-butylphthalate	Uh	426	ug/kg	85.3	426
85-68-7	Butylbenzylphthalate	Uh	426	ug/kg	85.3	426
91-94-1	3,3'-Dichlorobenzidine	Uh	426	ug/kg	128	426
117-81-7	bis(2-Ethylhexyl)phthalate	Jh	112	ug/kg	85.3	426
117-84-0	Di-n-octylphthalate	Uh	426	ug/kg	85.3	426
207-08-9	Benzo(k)fluoranthene	Uh	42.6	ug/kg	12.8	42.6
50-32-8	Benzo(a)pyrene	h	4870	ug/kg	12.8	42.6
193-39-5	Indeno(1,2,3-cd)pyrene	h	2630	ug/kg	12.8	42.6
53-70-3	Dibenzo(a,h)anthracene	h	943	ug/kg	12.8	42.6
191-24-2	Benzo(ghi)perylene	h	2670	ug/kg	12.8	42.6
120-82-1	1,2,4-Trichlorobenzene	Uh	426	ug/kg	85.3	426

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.84	642	ug/kg		J
86-74-8	Carbazole	7.25	191	ug/kg	95	NJ
	Unknown	7.59	281	ug/kg		J
2381-21-7	Pyrene, 1-methyl-	8.53	255	ug/kg	95	NJ
243-17-4	11H-Benzo[b]fluorene	8.63	469	ug/kg	97	NJ
	Unknown	8.72	302	ug/kg		J
479-79-8	11H-Benzo[a]fluoren-11-one	9.11	266	ug/kg	97	NJ
239-35-0	Benzo[b]naphtho[2,1-d]thiophene	9.21	233	ug/kg	91	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

Page 3 of 3

SDG Number: 10-2074  
Lab Sample ID: 248043004

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.18 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
Tentatively Identified Compound Summary							
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit	Qual
	Unknown		9.31	283	ug/kg		J
192-97-2	Benzo[e]pyrene		10.89	3830	ug/kg	98	NJ
198-55-0	Perylene		11.06	1320	ug/kg	98	NJ

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031710.b/s7c1729.d  
Lab Smp Id: 248043004 Client Smp ID: RE36-10-7465RE  
Inj Date : 17-MAR-2010 19:55  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043004|965290|1|SVM|3|LANL\_rx  
Misc Info : |MSD8270\_S|WBN100310-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 17-Mar-2010 13:51 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 28  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.18000	weight of sample
M	22.27460	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.802	3.802	(1.000)	384238	40.0000	
* 29 Naphthalene-d8	136	4.664	4.664	(1.000)	1431023	40.0000	
* 46 Acenaphthene-d10	164	5.911	5.911	(1.000)	759241	40.0000	
* 67 Phenanthrene-d10	188	7.072	7.067	(1.000)	1291026	40.0000	
* 91 Chrysene-d12	240	9.465	9.455	(1.000)	817310	40.0000	
* 98 Perylene-d12	264	11.025	11.016	(1.000)	348933	40.0000	
\$ 3 2-Fluorophenol	112	3.008	2.998	(0.791)	571881	57.2612	2440
\$ 5 Phenol-d5	99	3.528	3.528	(0.928)	690797	55.1674	2350
\$ 20 Nitrobenzene-d5	82	4.159	4.168	(0.892)	325639	30.1707	1290
\$ 39 2-Fluorobiphenyl	172	5.401	5.406	(0.914)	675708	35.7110	1520
\$ 60 2,4,6-Tribromophenol	329	6.504	6.499	(1.100)	136229	62.0671	2640
\$ 81 p-Terphenyl-d14	244	8.435	8.430	(0.891)	602282	41.1331	1750



Compounds	QUANT	SIC						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
47 Acenaphthene	154		5.935	5.935	(1.004)		407528	24.3866	1040
79 Pyrene	202		8.353	8.329	(0.882)		6735542	260.863	11100 (A)
30 Naphthalene	128		4.679	4.683	(1.003)		226246	8.36948	357
34 2-Methylnaphthalene	142		5.155	5.160	(1.105)		94266	4.85885	207
45 Acenaphthylene	152		5.810	5.815	(0.983)		16030	0.57063	24.3 (a)
49 Dibenzofuran	168		6.056	6.061	(1.024)		366459	15.6029	665
53 Fluorene	166		6.316	6.316	(1.068)		482767	24.4976	1040
68 Phenanthrene	178		7.101	7.086	(1.004)		7362647	277.914	11800 (A)
69 Anthracene	178		7.134	7.130	(1.009)		1441192	53.7137	2290
76 Fluoranthene	202		8.136	8.112	(1.150)		8152677	283.027	12100 (A)
89 Benzo(a)anthracene	228		9.455	9.441	(0.999)		2393835	122.176	5210 (A)
92 Chrysene	228		9.494	9.480	(1.003)		2314938	132.775	5660 (A)
93 bis(2-Ethylhexyl)phthalate	149		9.388	9.383	(0.992)		40867	2.62790	112 (a)
95 Benzo(b)fluoranthene	252		10.558	10.539	(0.958)		2146543	219.359	9350 (A)
97 Benzo(a)pyrene	252		10.963	10.943	(0.994)		916461	114.218	4870
99 Indeno(1,2,3-cd)pyrene	276		12.643	12.629	(1.147)		356117	61.7204	2630
100 Dibenzo(a,h)anthracene	278		12.648	12.643	(1.147)		101130	22.1173	943
101 Benzo(ghi)perylene	276		13.139	13.120	(1.192)		301620	62.6828	2670

#### QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount  
exceeded maximum amount.

## ION RATIO REPORT

## SV REPORT

Data file: s7c1729.d

Report Date: 03/18/2010 09:14

Lab. ID: 248043004

SampleType: SAMPLE

Injection Date: 17-MAR-2010 19:55

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043004|965290|1|SVM|3|LANL\_rx

Miscellaneous Info: |MSD8270\_S|WBN100310-01|

Comment:

Method used: /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	43727	3.53	3.59	80-120	100	(T)
93	1816	3.48	3.59	211-271	4	(QT)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	50457	4.16	4.04	80-120	100	(T)
42	41572	4.16	4.04	66-126	82	(T)
-----						
30	Naphthalene	CAS#: 91-20-3				
128	226246	4.68	4.68	80-120	100	( )
129	24907	4.68	4.68	0- 41	11	( )
127	29261	4.68	4.68	0- 44	13	( )
-----						
31	4-Chloroaniline	CAS#: 106-47-8				
127	29261	4.68	4.70	80-120	100	( )
65	4705	4.66	4.70	2- 62	16	( )
-----						
34	2-Methylnaphthalene	CAS#: 91-57-6				
142	94266	5.16	5.16	80-120	100	( )
141	81807	5.16	5.16	54-114	87	( )
-----						
43	Dimethylphthalate	CAS#: 131-11-3				
163	139207	5.91	5.68	80-120	100	(T)
164	759241	5.91	5.68	0- 40	545	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	6196	5.88	5.74	80-120	100	(T)
63	10295	5.89	5.74	58-118	166	(QT)
-----						
45 Acenaphthylene				CAS#: 208-96-8		
152	16030	5.81	5.82	80-120	100	( )
151	3566	5.81	5.82	0- 50	22	( )
153	5542	5.74	5.82	0- 43	35	(T)
-----						
47 Acenaphthene				CAS#: 83-32-9		
154	407528	5.94	5.94	80-120	100	( )
153	467994	5.94	5.94	72-132	115	( )
152	201078	5.94	5.94	17- 77	49	( )
-----						
49 Dibenzofuran				CAS#: 132-64-9		
168	366459	6.06	6.06	80-120	100	( )
139	149928	6.06	6.06	9- 69	41	( )
-----						
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	102353	5.91	6.03	80-120	100	(T)
89	4234	5.94	6.03	41-101	4	(QT)
63	41121	5.94	6.03	22- 82	40	(T)
-----						
52 4-Nitrophenol				CAS#: 100-02-7		
139	10337	5.89	5.96	80-120	100	(T)
109	501	5.87	5.96	49-109	5	(QT)
65	2659	5.89	5.96	83-143	26	(QT)
-----						
53 Fluorene				CAS#: 86-73-7		
166	482767	6.32	6.32	80-120	100	( )
165	440208	6.32	6.32	61-121	91	( )
167	75292	6.31	6.32	0- 43	16	( )
-----						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	632	6.50	6.34	80-120	100	(T)
105	2748	6.50	6.34	11- 71	434	(QT)
51	11495	6.49	6.34	31- 91	1817	(QT)
-----						
68 Phenanthrene				CAS#: 85-01-8		
178	7362647	7.10	7.09	80-120	100	( )
179	1272864	7.10	7.09	0- 46	17	( )
176	1382338	7.10	7.09	0- 49	19	( )
-----						
69 Anthracene				CAS#: 120-12-7		
178	1441192	7.13	7.13	80-120	100	( )
179	404455	7.13	7.13	0- 45	28	( )
176	247652	7.13	7.13	0- 47	17	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
76 Fluoranthene			CAS#:	206-44-0		
202	8152677	8.14	8.11	80-120	100	( )
203	1514597	8.14	8.11	0- 47	19	( )
101	1073320	8.14	8.11	0- 40	13	( )
-----						
79 Pyrene			CAS#:	129-00-0		
202	6735542	8.35	8.33	80-120	100	( )
200	1379702	8.35	8.33	0- 50	20	( )
101	1088252	8.35	8.33	0- 42	16	( )
-----						
89 Benzo(a)anthracene			CAS#:	56-55-3		
228	2393835	9.46	9.44	80-120	100	( )
226	631519	9.46	9.44	0- 56	26	( )
229	658169	9.45	9.44	0- 50	27	( )
-----						
92 Chrysene			CAS#:	218-01-9		
228	2314938	9.49	9.48	80-120	100	( )
229	552024	9.49	9.48	0- 49	24	( )
226	661299	9.49	9.48	0- 58	29	( )
-----						
93 bis(2-Ethylhexyl)phthalate			CAS#:	117-81-7		
149	40867	9.39	9.38	80-120	100	( )
167	13999	9.39	9.38	2- 62	34	( )
-----						
95 Benzo(b)fluoranthene			CAS#:	205-99-2		
252	2146543	10.56	10.54	80-120	100	( )
253	501059	10.56	10.54	0- 52	23	( )
125	241861	10.56	10.54	0- 41	11	( )
-----						
96 Benzo(k)fluoranthene			CAS#:	207-08-9		
252	2146543	10.56	10.57	80-120	100	( )
253	501011	10.56	10.57	0- 52	23	( )
125	241861	10.56	10.57	0- 41	11	( )
-----						
97 Benzo(a)pyrene			CAS#:	50-32-8		
252	916461	10.96	10.94	80-120	100	( )
253	216717	10.96	10.94	0- 52	24	( )
125	103686	10.96	10.94	0- 42	11	( )
-----						
99 Indeno(1,2,3-cd)pyrene			CAS#:	193-39-5		
276	356117	12.64	12.63	80-120	100	( )
138	90089	12.64	12.63	1- 61	25	( )
-----						
100 Dibenzo(a,h)anthracene			CAS#:	53-70-3		
278	101130	12.65	12.64	80-120	100	( )
139	9082	12.65	12.64	0- 49	9	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
101	Benzo(ghi)perylene			CAS#: 191-24-2		
276	301620	13.14	13.12	80-120	100	( )
138	77111	13.13	13.12	0- 56	26	( )

-----  
 Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031710.b/s7c1729.d  
 Lab Smp Id: 248043004 Client Smp ID: RE36-10-7465RE  
 Inj Date : 17-MAR-2010 19:55  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043004|965290|1|SVM|3|LANL\_rx  
 Misc Info : |MSD8270 S|WBN100310-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 17-Mar-2010 13:51 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 28  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.18000	weight of sample
M	22.27460	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.802	2383398	40.000
* 67 Phenanthrene-d10	7.072	21278961	40.000
* 91 Chrysene-d12	9.465	9756158	40.000
* 98 Perylene-d12	11.025	860952	40.000

CONCENTRATIONS				QUANT		
RT	AREA	ON-COL (ng/nl)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY
=====	=====	=====	=====	=====	=====	=====

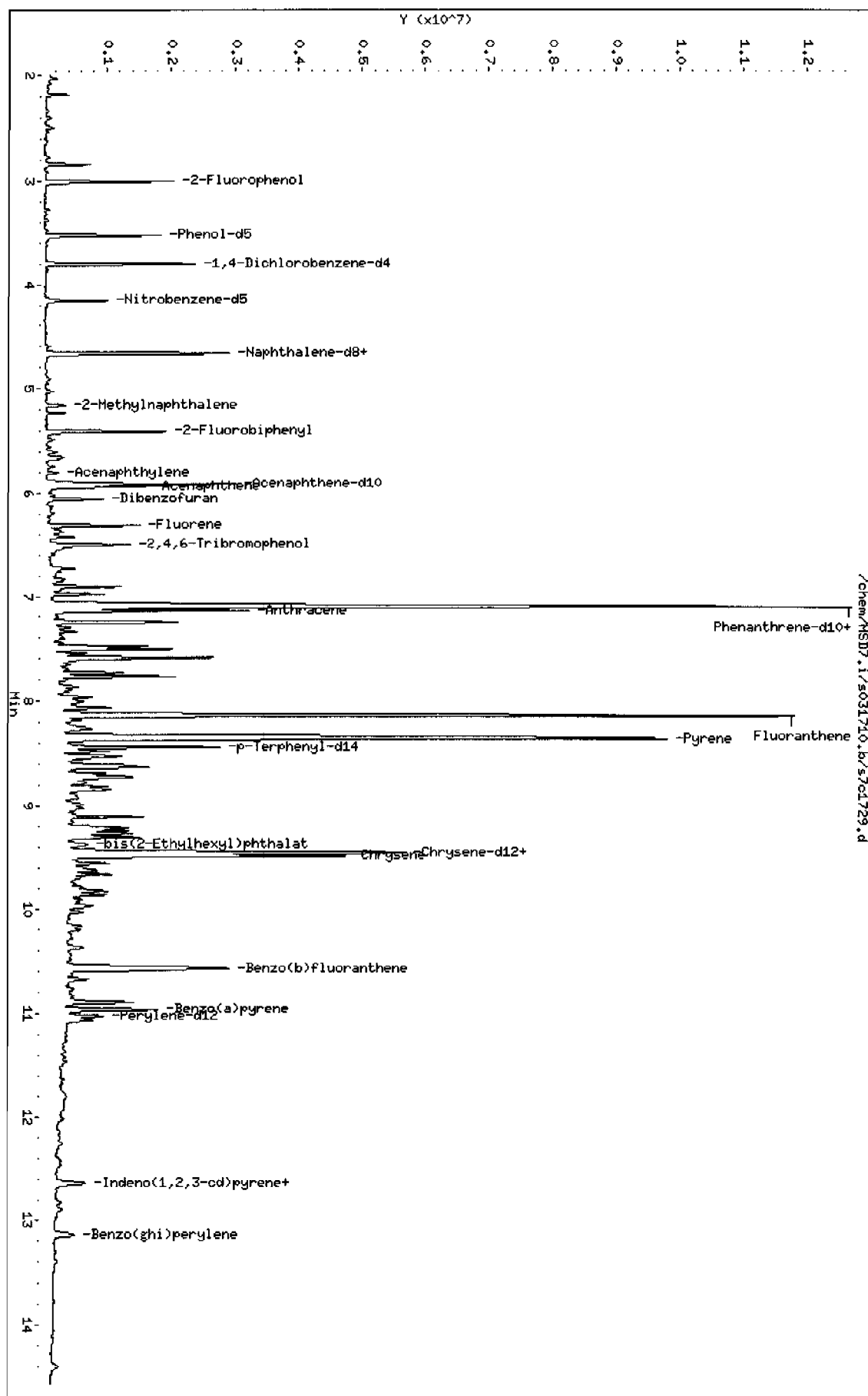
RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate					CAS #:		
2.844	897474	15.0620893	642	0		0	10
Carbazole					CAS #: 86-74-8		
7.245	2388320	4.48954147	191	95	NIST05.L	34221	67 (L)
Unknown					CAS #:		
7.587	3512291	6.60237322	281	0		0	67
Pyrene, 1-methyl-					CAS #: 2381-21-7		
8.526	1461719	5.99301165	255	95	NIST05.L	68688	91
11H-Benzo[b]fluorene					CAS #: 243-17-4		
8.627	2682290	10.9973186	469	97	NIST05.L	68695	91
Unknown					CAS #:		
8.723	1729200	7.08967442	302	0		0	91
11H-Benzo[a]fluoren-11-one					CAS #: 479-79-8		
9.109	1520935	6.23579576	266	97	NIST05.L	78768	91
Benzo[b]naphtho[2,1-d]thiophene					CAS #: 239-35-0		
9.215	1333366	5.46676557	233	91	NIST05.L	81181	91
Unknown					CAS #:		
9.306	1620871	6.64553049	283	0		0	91
Benzo[e]pyrene					CAS #: 192-97-2		
10.890	1932527	89.7855012	3830	98	NIST05.L	93577	98
Perylene					CAS #: 198-55-0		
11.059	668827	31.0738259	1320	98	NIST05.L	93575	98

#### QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/MSD7.1/s031710.b/s701729.d  
 Date : 17-MAR-2010 19:55  
 Client ID: RE36-10-746SRE  
 Sample Info: 12480430041%6529014|SM131LANL.r.x  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: MSD7.1  
 Operator: JHB3  
 Column diameter: 0.20





Date : 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: HSD7.i

Sample Info: 1248043004196529011SVHI3ILANL\_rx

Volume Injected (uL): 0.5

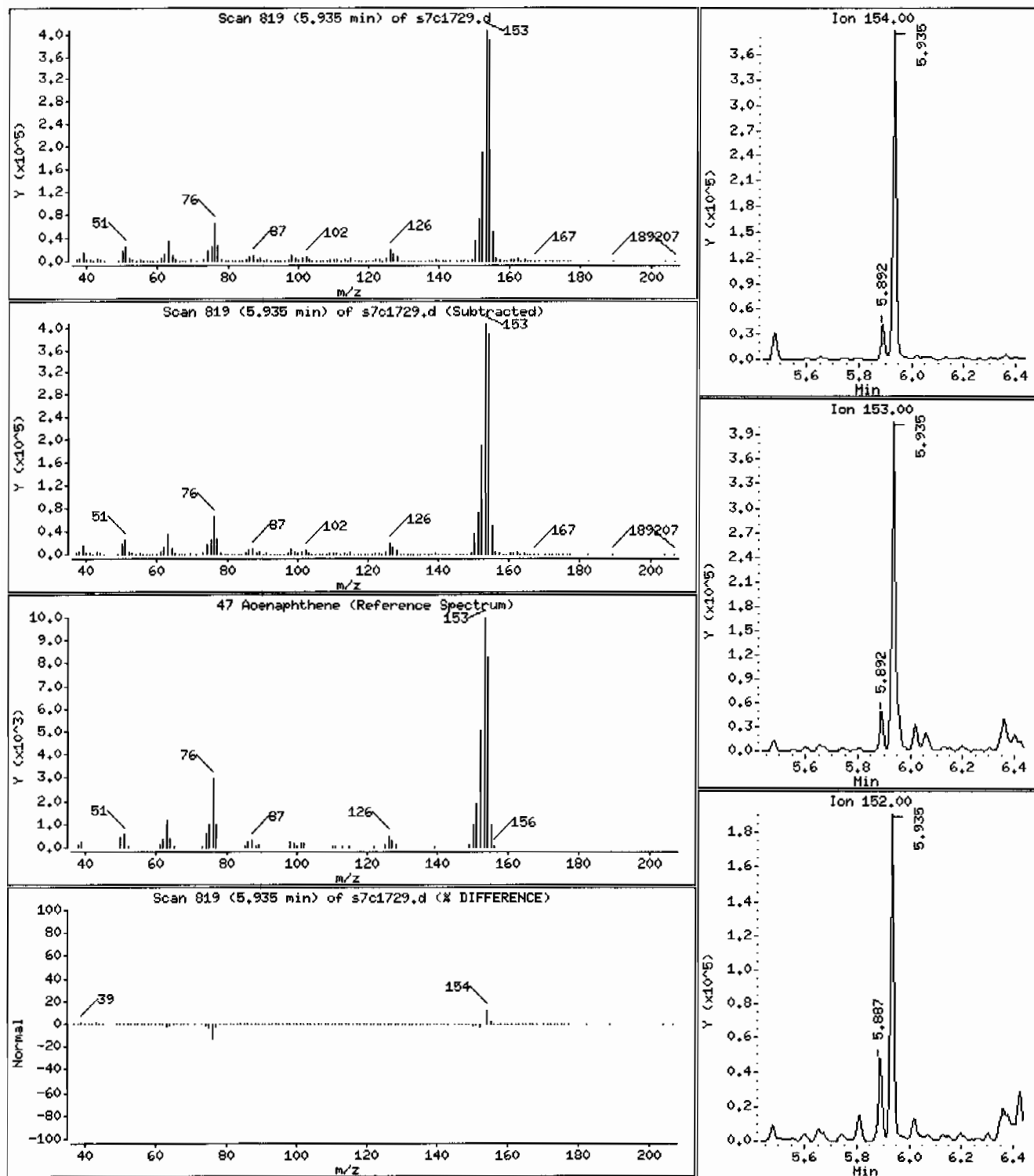
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 1040 ug/Kg



Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011SVH131LANL\_rx

Volume Injected (uL): 0.5

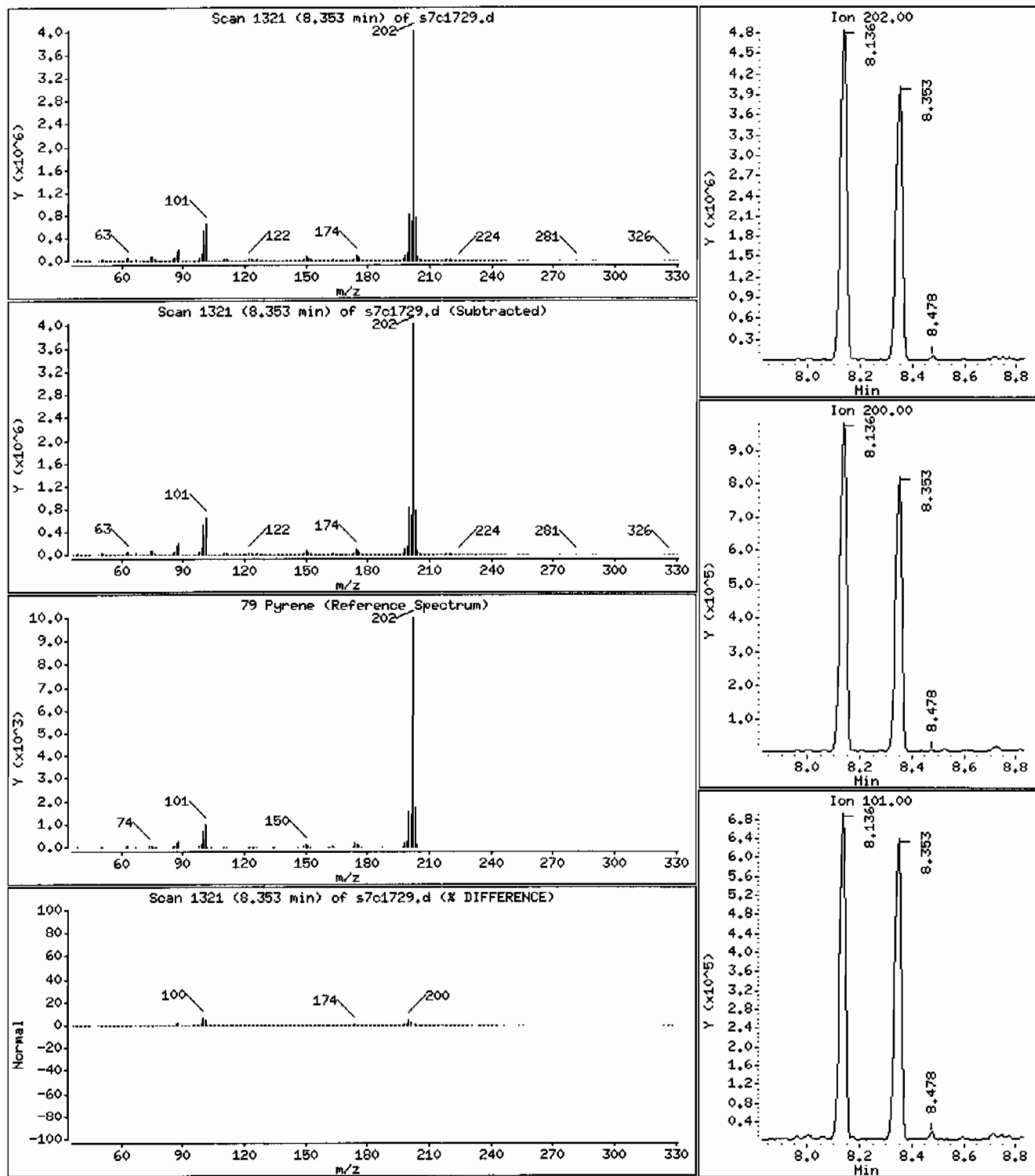
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 11100 ug/Kg



Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011SVH131LANL\_rx

Volume Injected (uL): 0.5

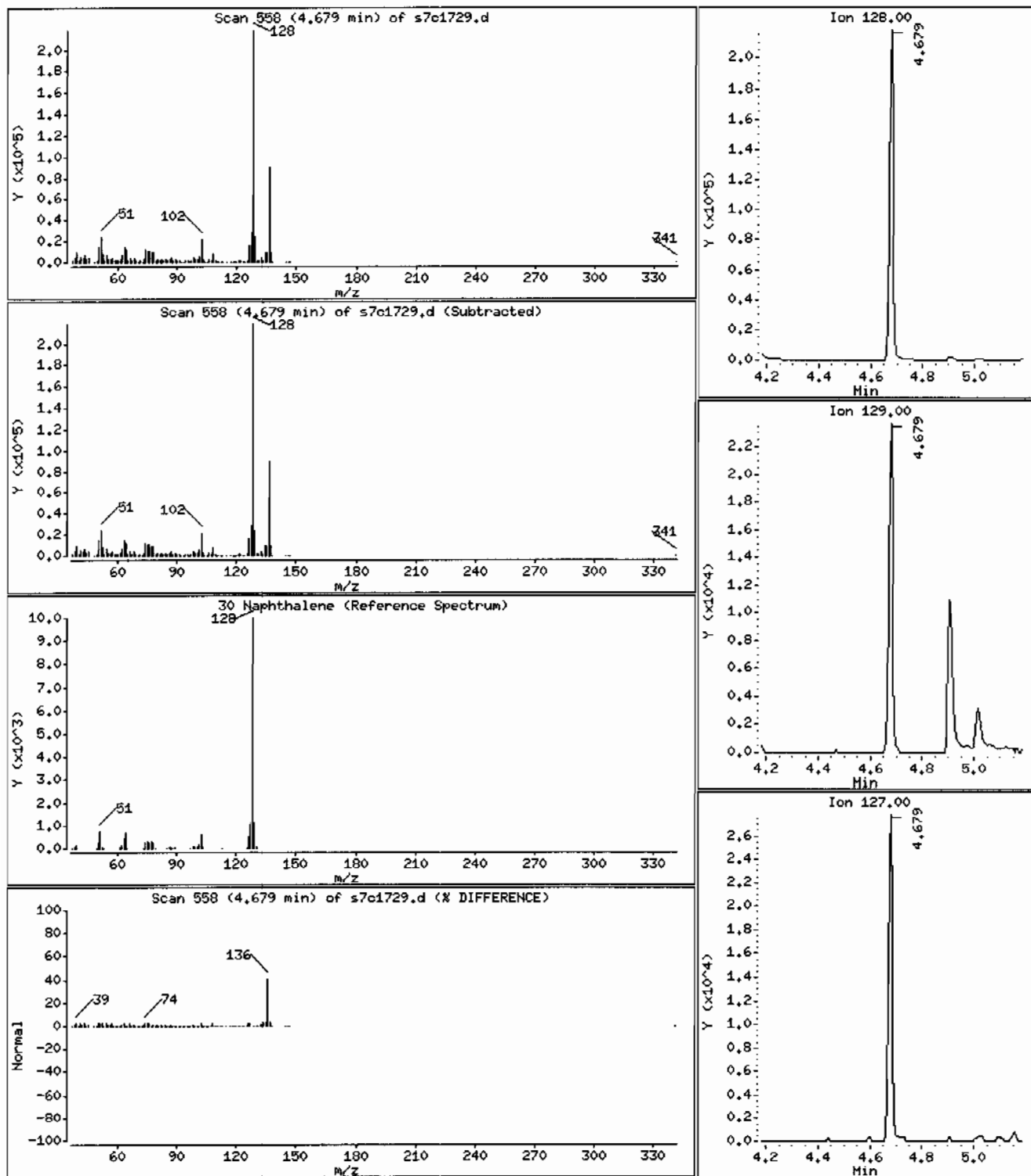
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 357 ug/Kg



Date : 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: I248043004196529011SVH13ILANL\_rx

Volume Injected (uL): 0.5

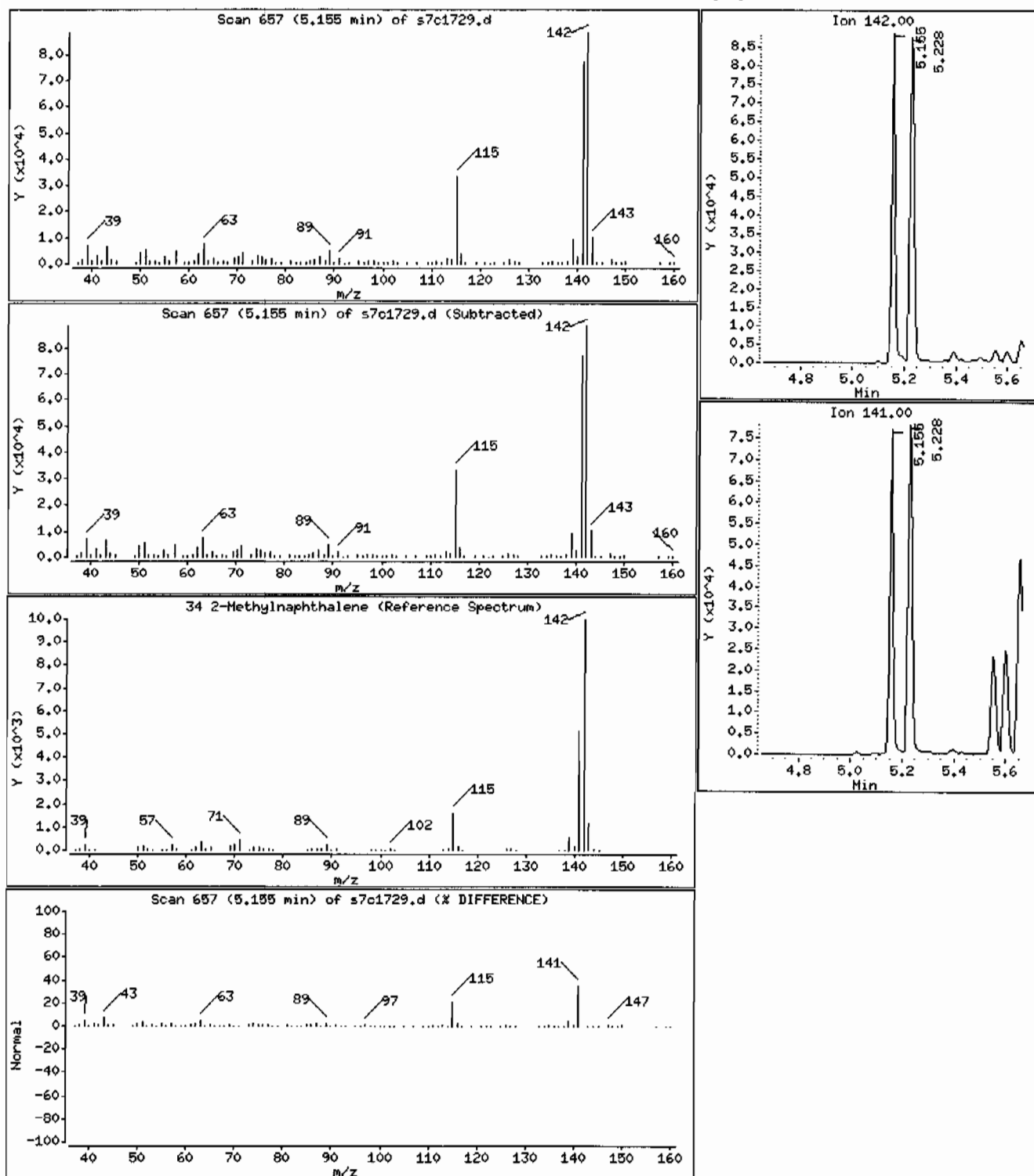
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 207 ug/Kg



Date : 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011ISVH13ILANL\_rx

Volume Injected (uL): 0.5

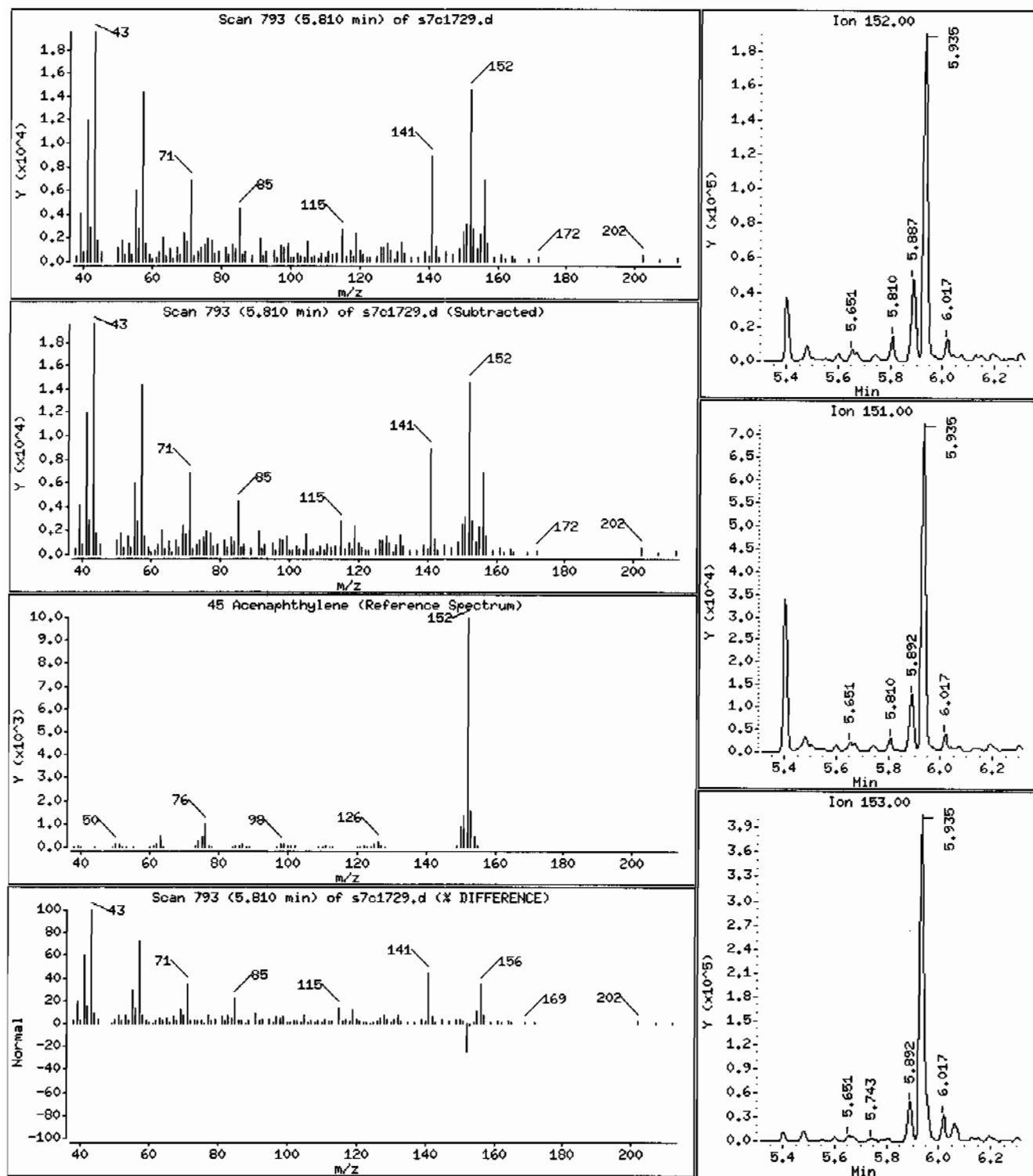
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

45 Acenaphthylene

Concentration: 24.3 ug/Kg



Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011SVMI3ILANL\_rx

Volume Injected (uL): 0.5

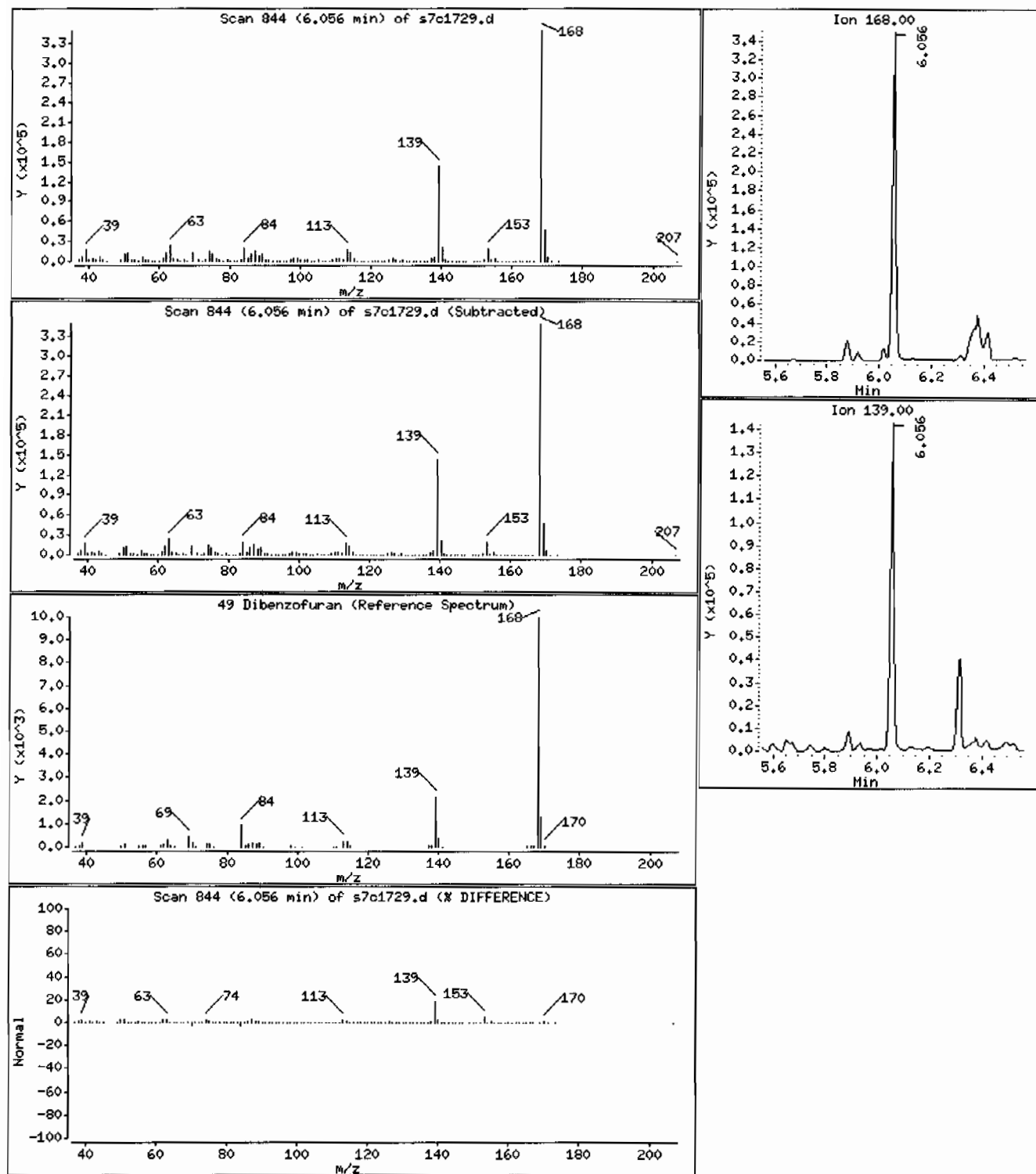
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

49 Dibenzofuran

Concentration: 665 ug/Kg



Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011SVMI31LANL\_rx

Volume Injected (uL): 0.5

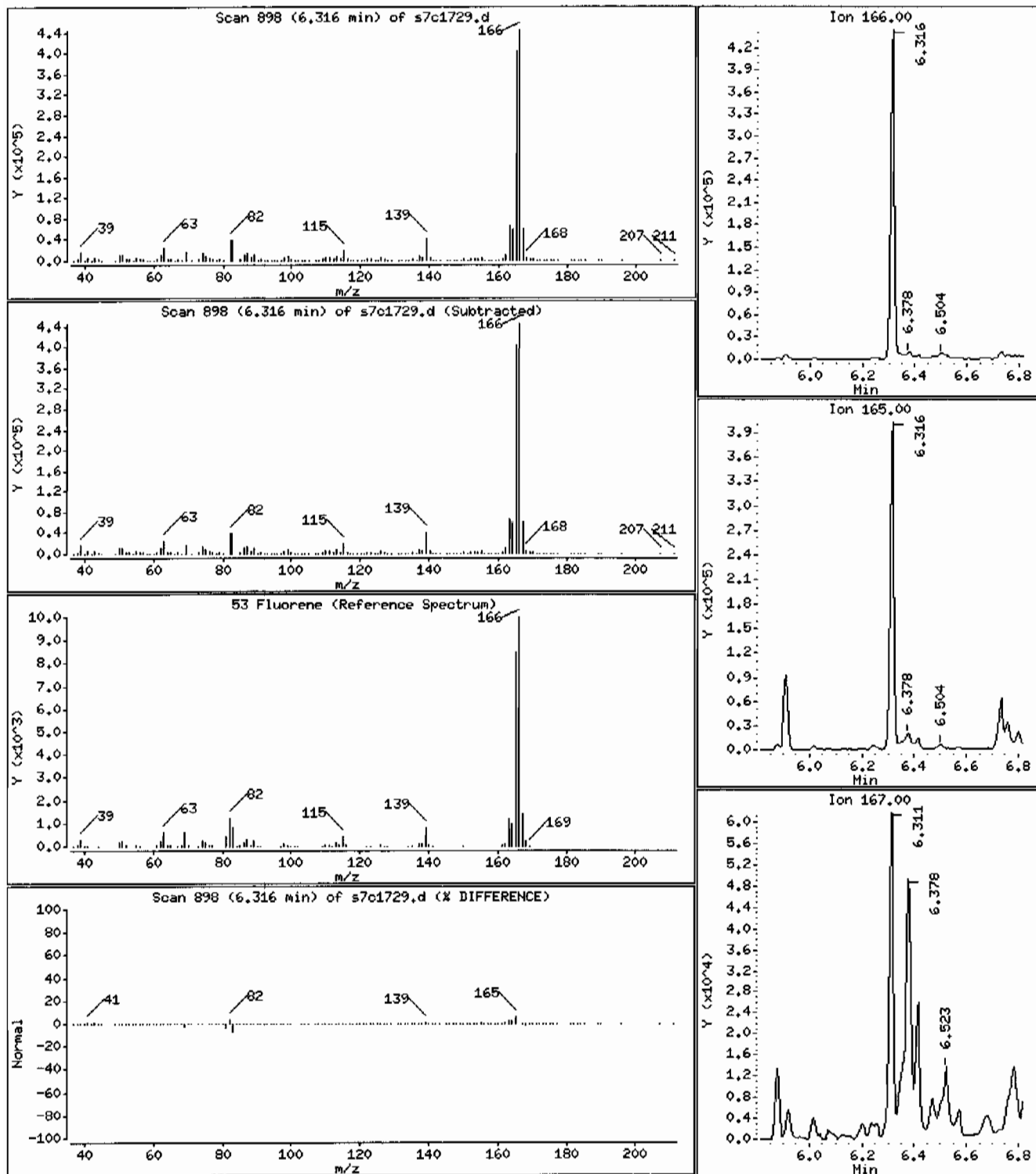
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 1040 ug/Kg



Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.1

Sample Info: 1248043004196529011SVH131LANL\_rx

Volume Injected (uL): 0.5

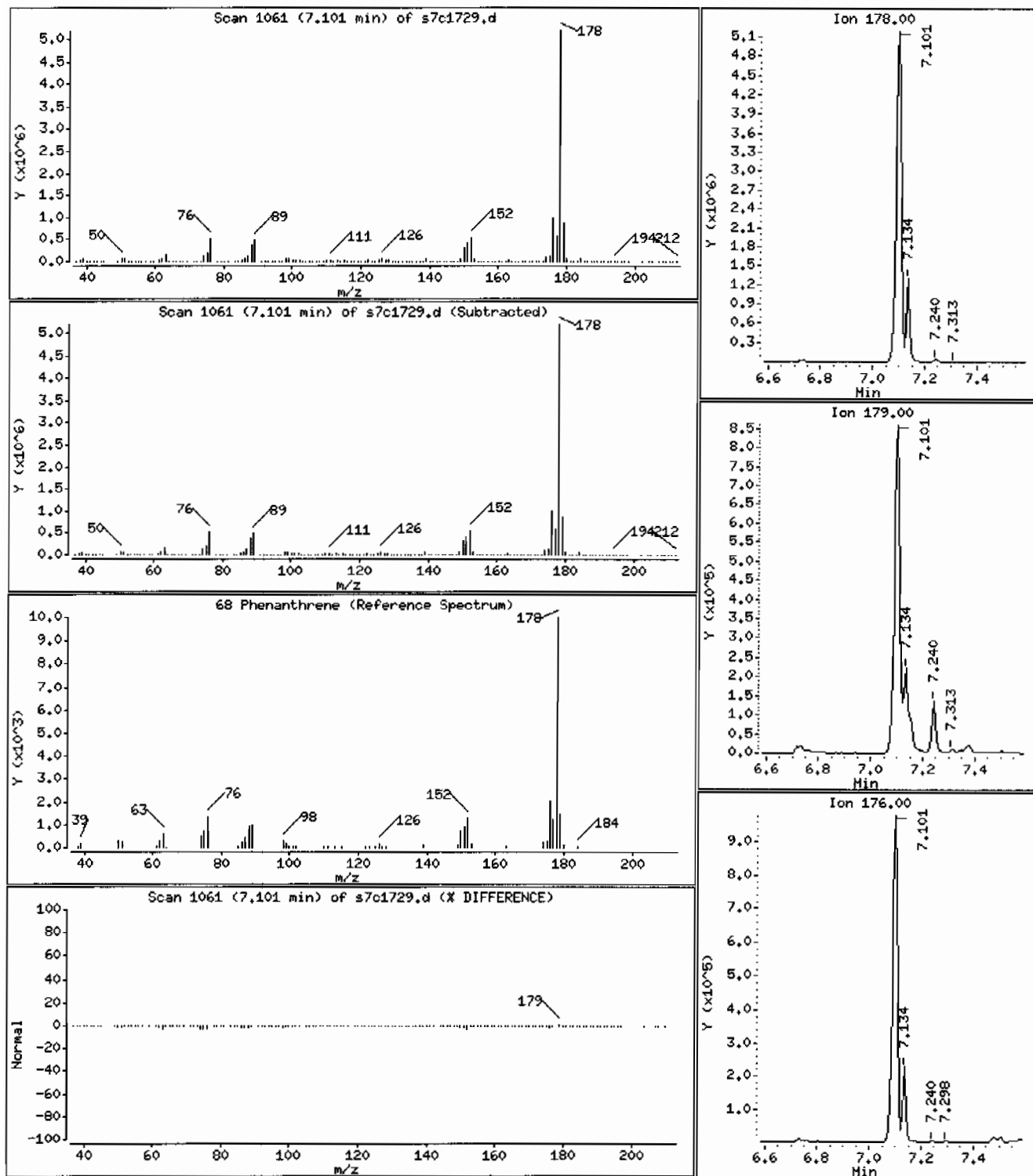
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 11800 ug/Kg





Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011SVH131LANL\_rx

Volume Injected (uL): 0.5

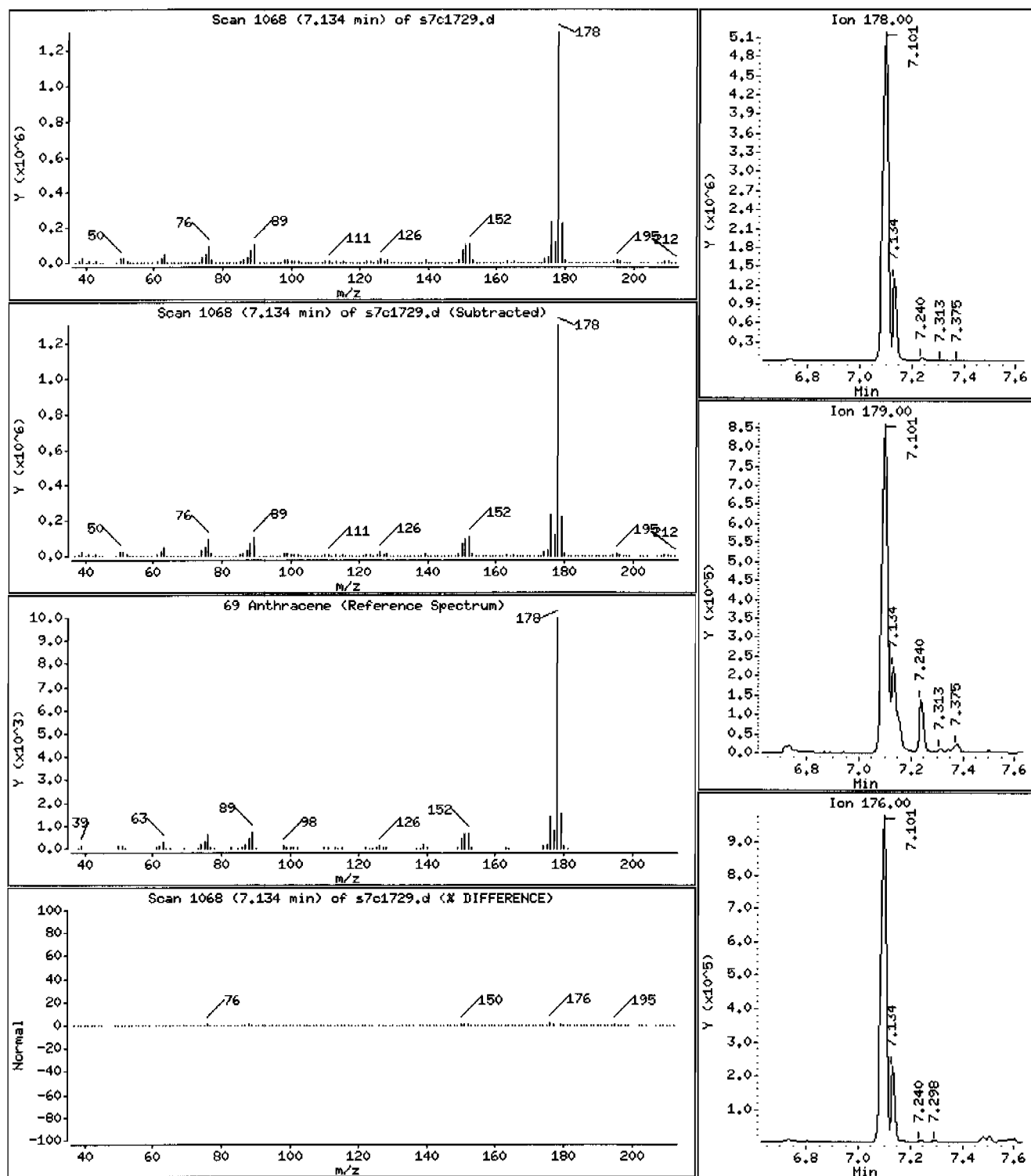
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 2290 ug/Kg



Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011SVH131LANL\_rx

Volume Injected (uL): 0.5

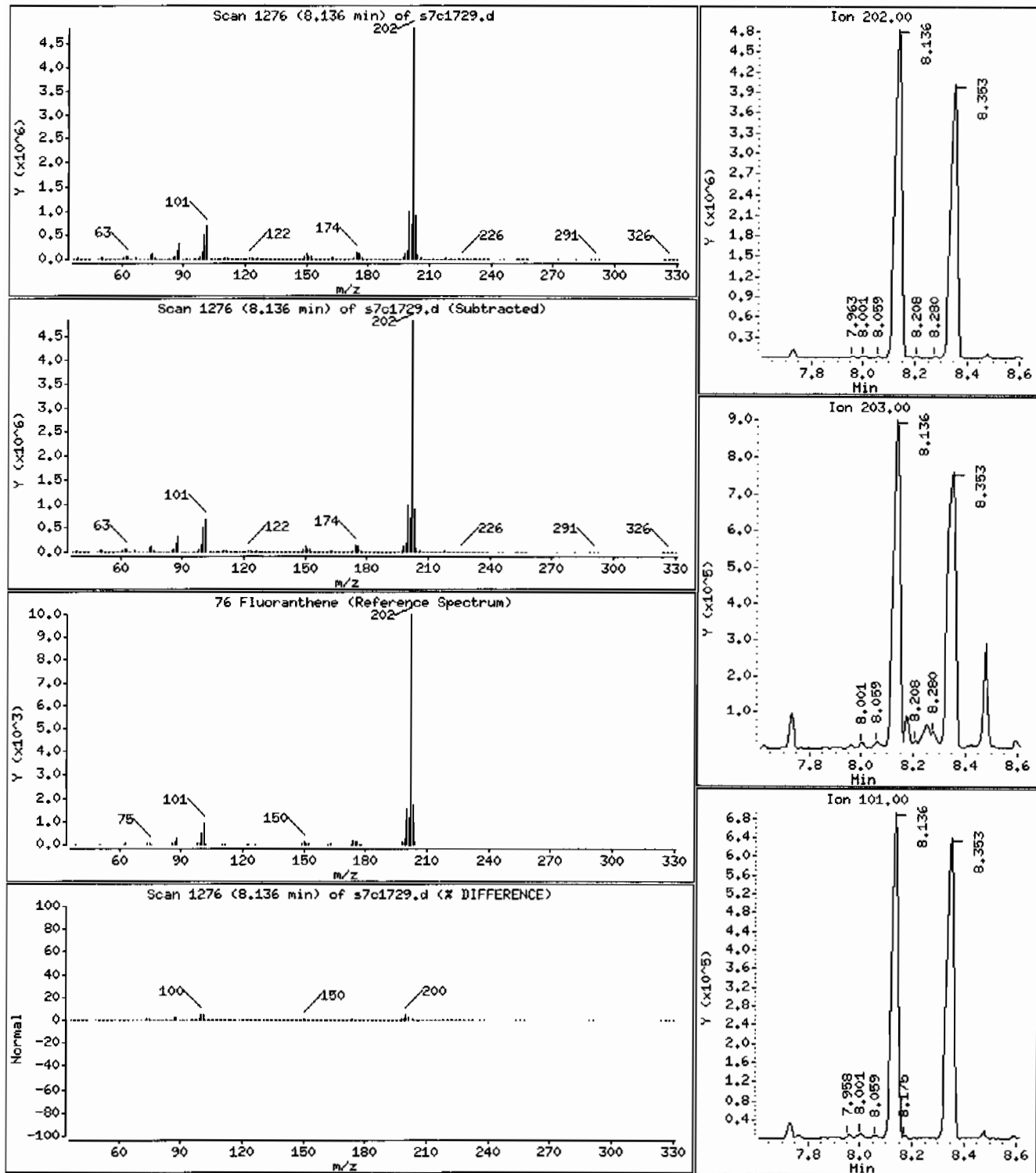
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 12100 ug/Kg



Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: I248043004I965290I1ISVH13ILANL\_rx

Volume Injected (uL): 0.5

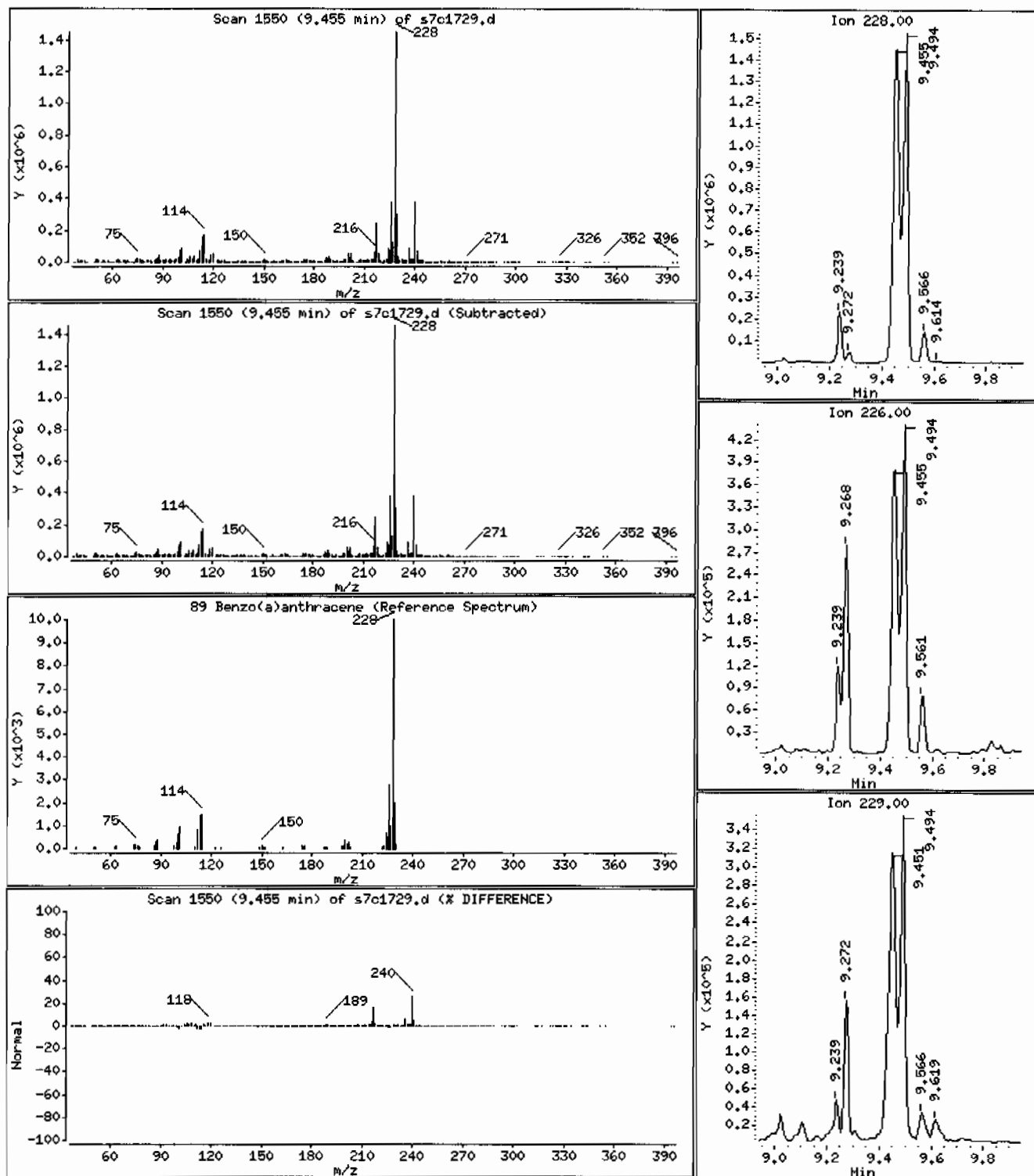
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 5210 ug/Kg



Date : 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011SVH131LANL\_rx

Volume Injected (uL): 0.5

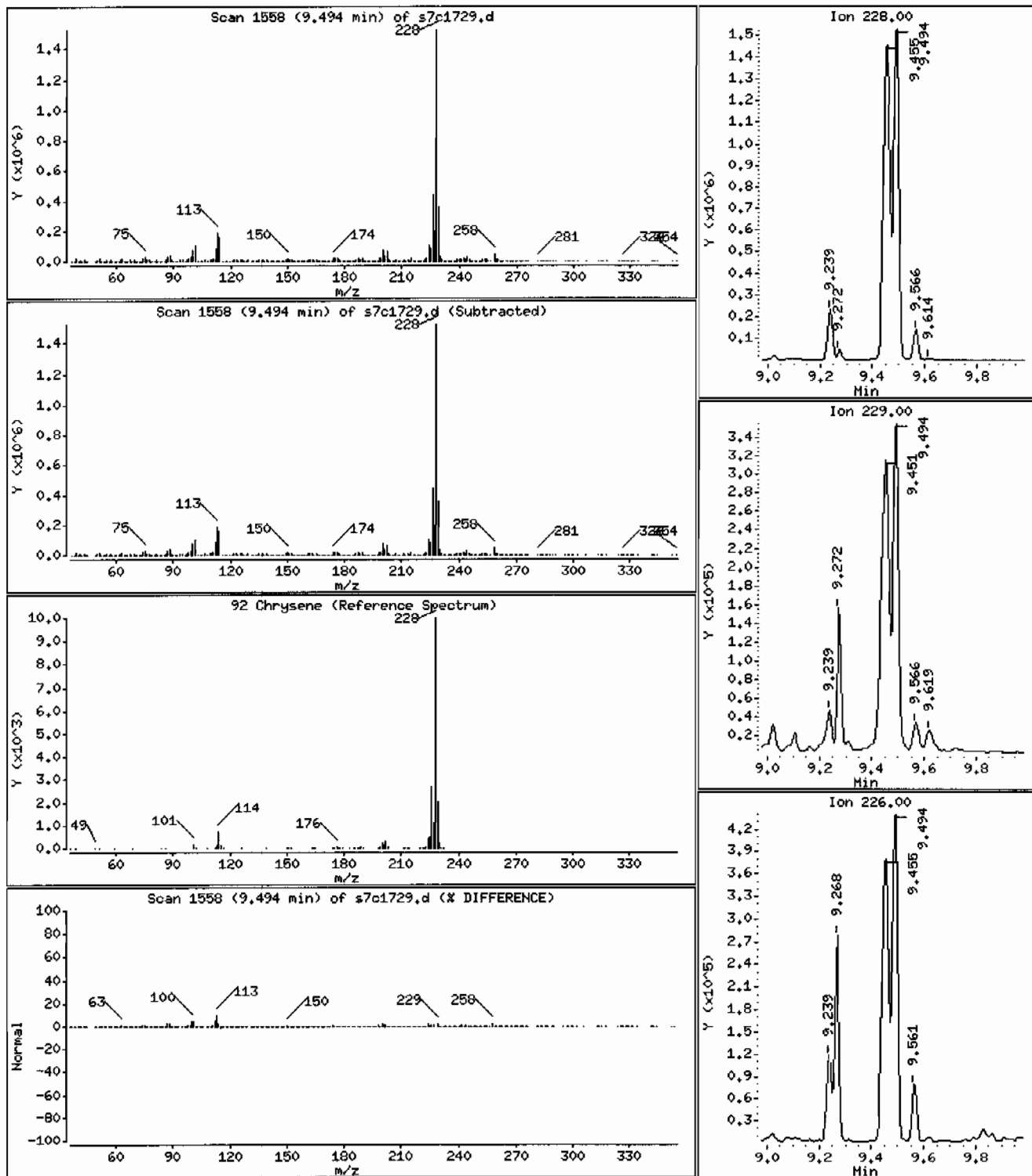
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 5660 ug/Kg



Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011SVH131LANL\_rx

Volume Injected (uL): 0,5

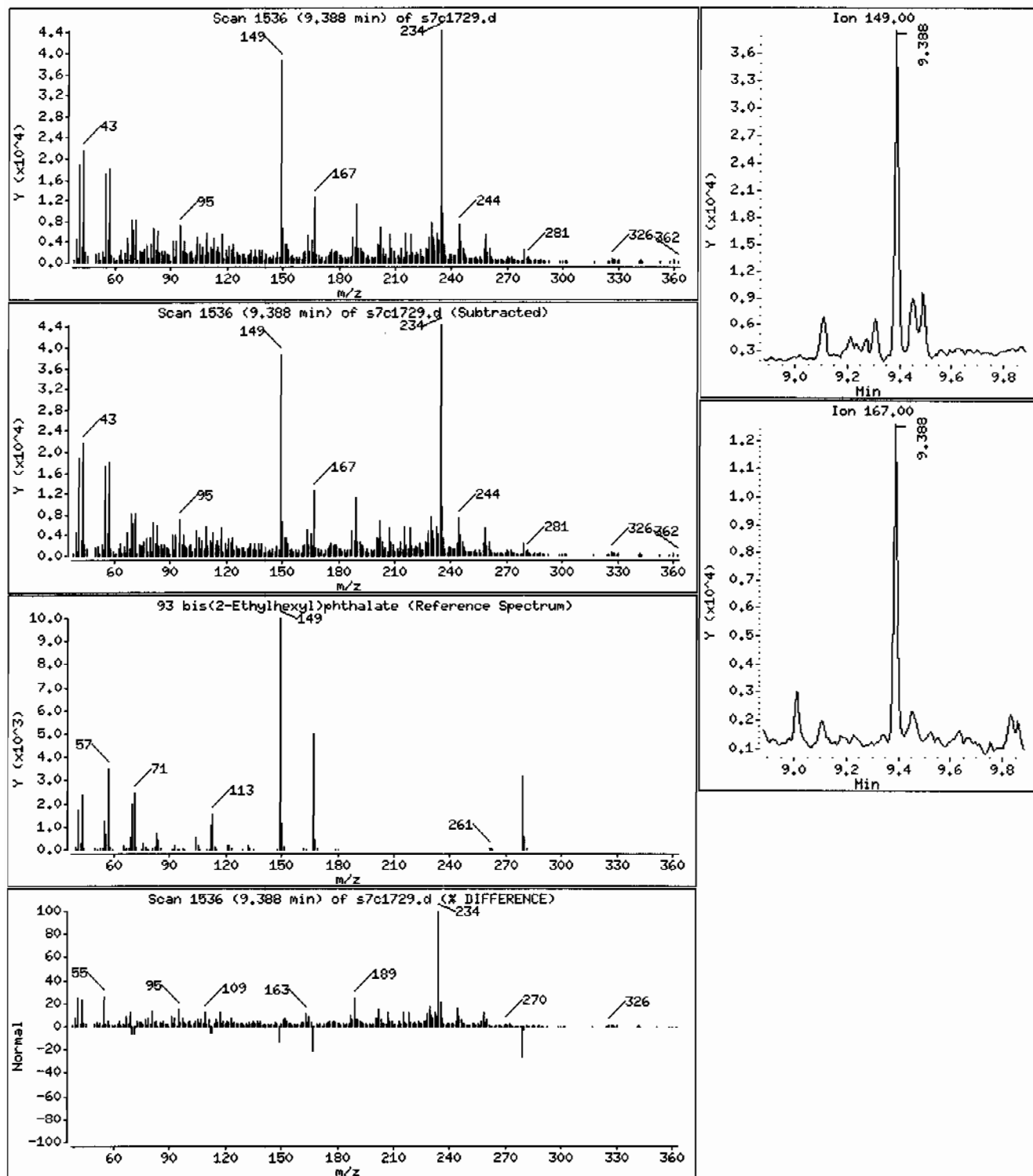
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

93 bis(2-Ethylhexyl)phthalate

Concentration: 112 ug/Kg



Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011ISVMI3ILANL\_rx

Volume Injected (uL): 0.5

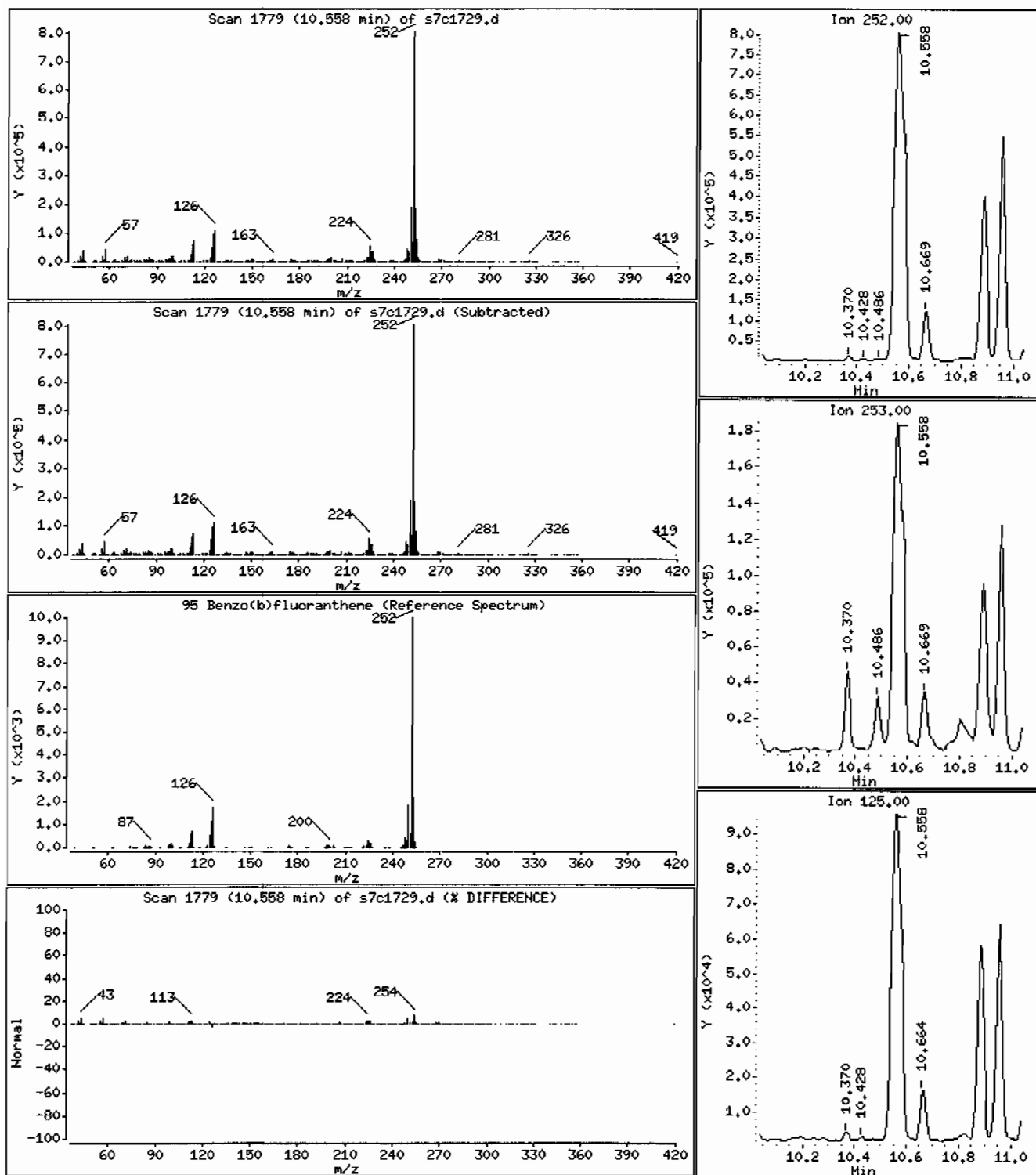
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 9350 ug/Kg



Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011ISVHI3ILANL\_rx

Volume Injected (uL): 0.5

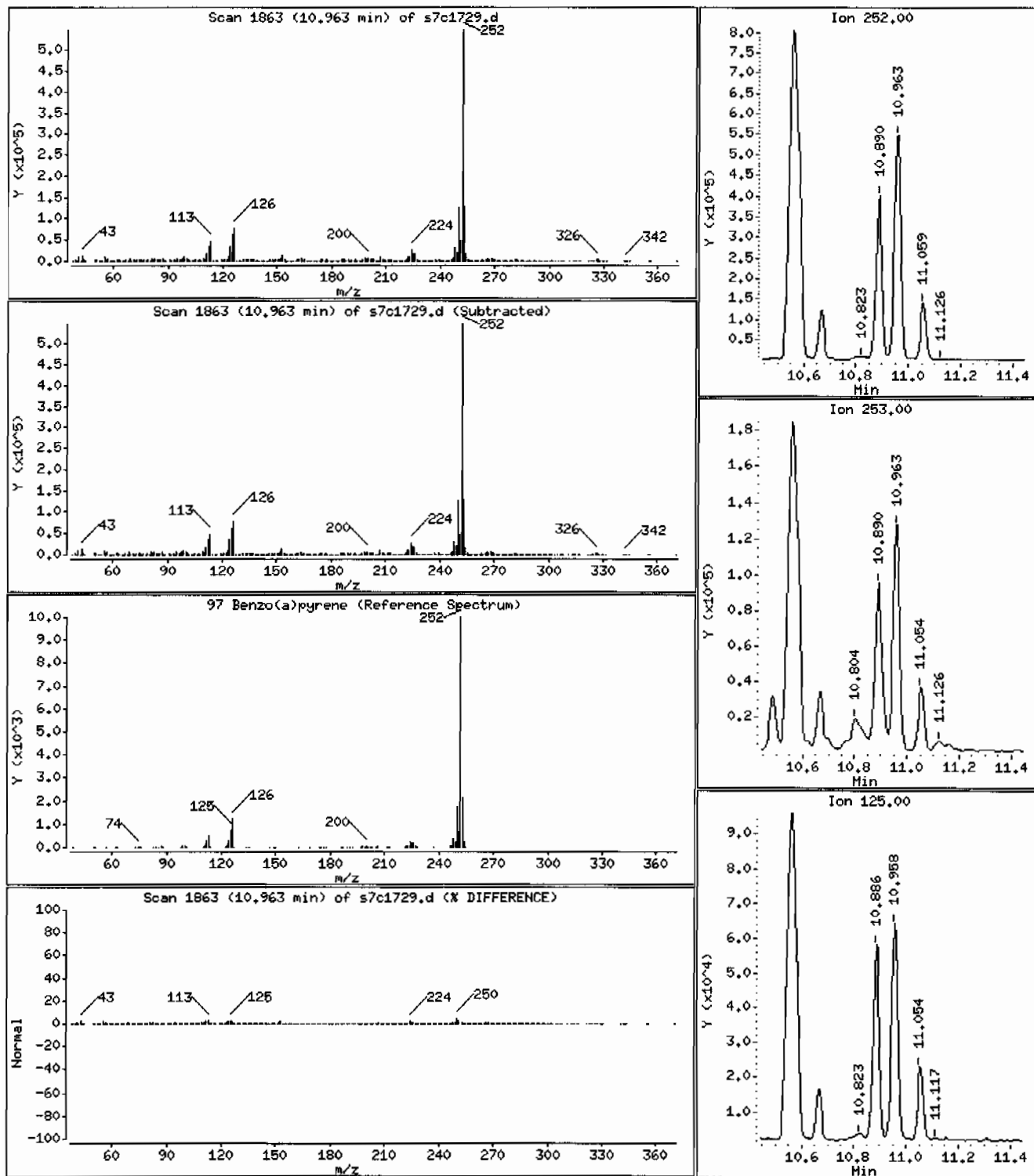
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 4870 ug/Kg



Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: HSD7.i

Sample Info: I248043004I965290I1ISVM13ILANL\_rx

Volume Injected (uL): 0.5

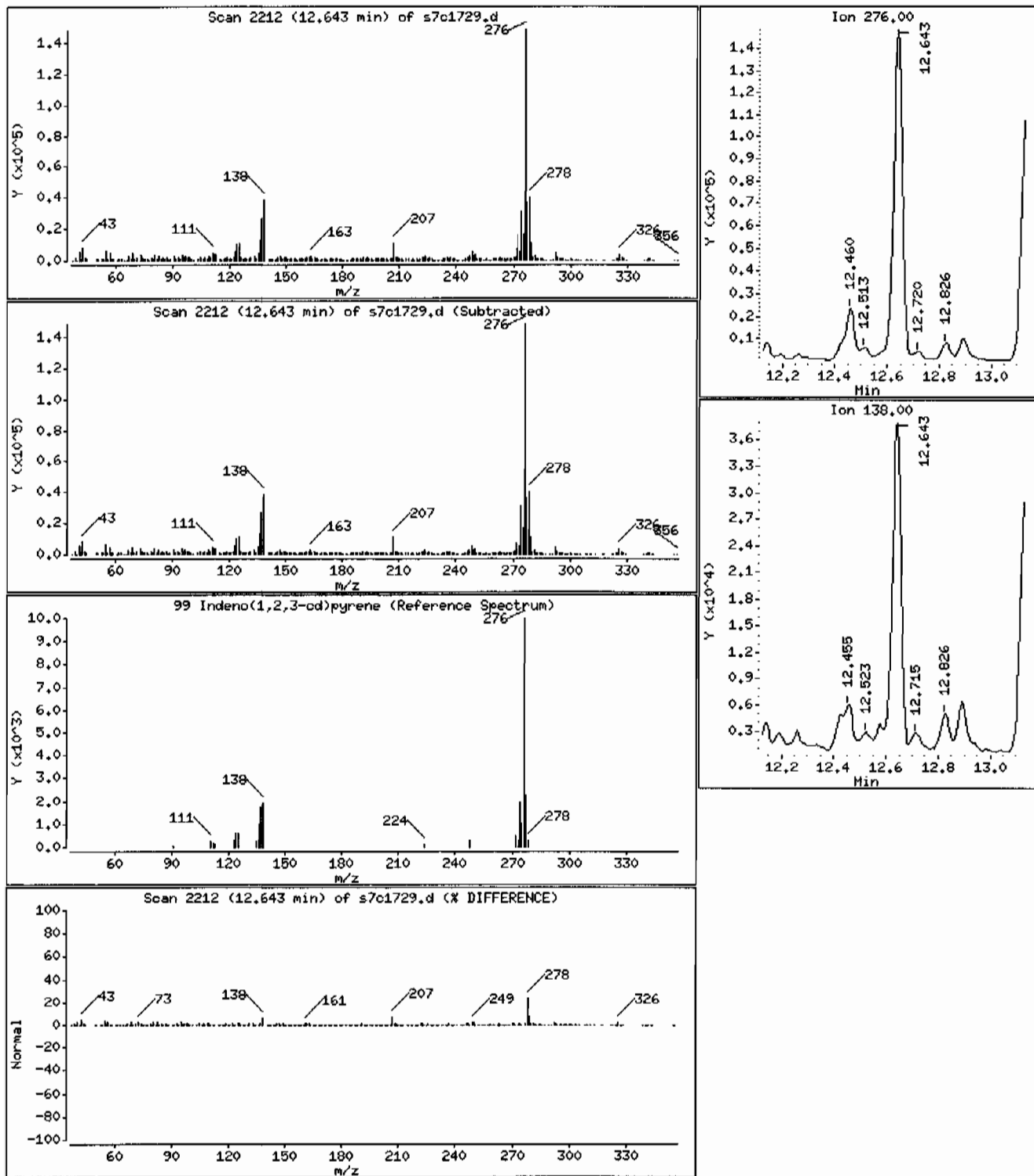
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 2630 ug/Kg





Date : 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: HSD7.i

Sample Info: 1248043004196529011SVH131LANL\_rx

Volume Injected (uL): 0.5

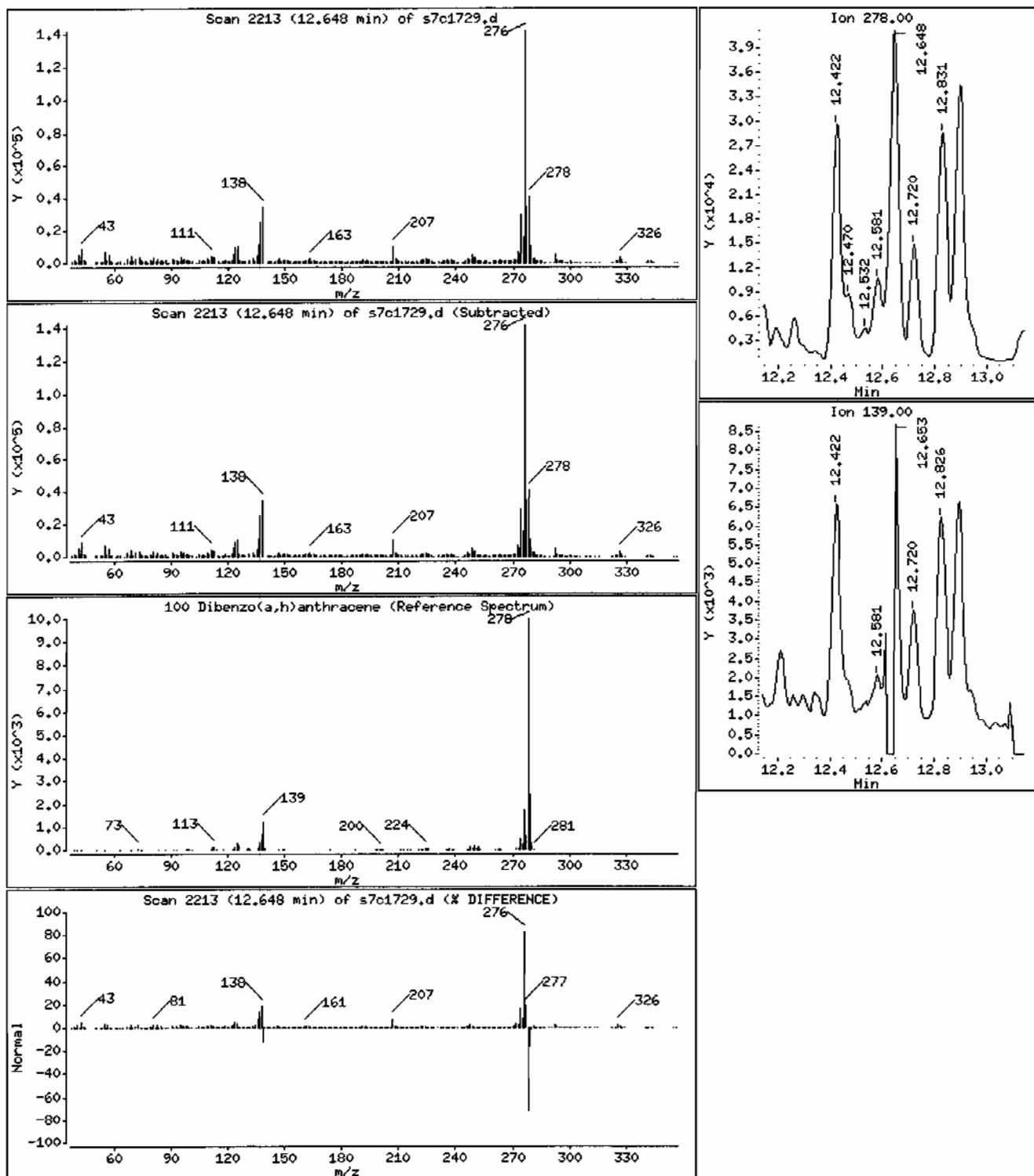
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 943 ug/Kg



Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011ISVMI3ILANL\_rx

Volume Injected (uL): 0.5

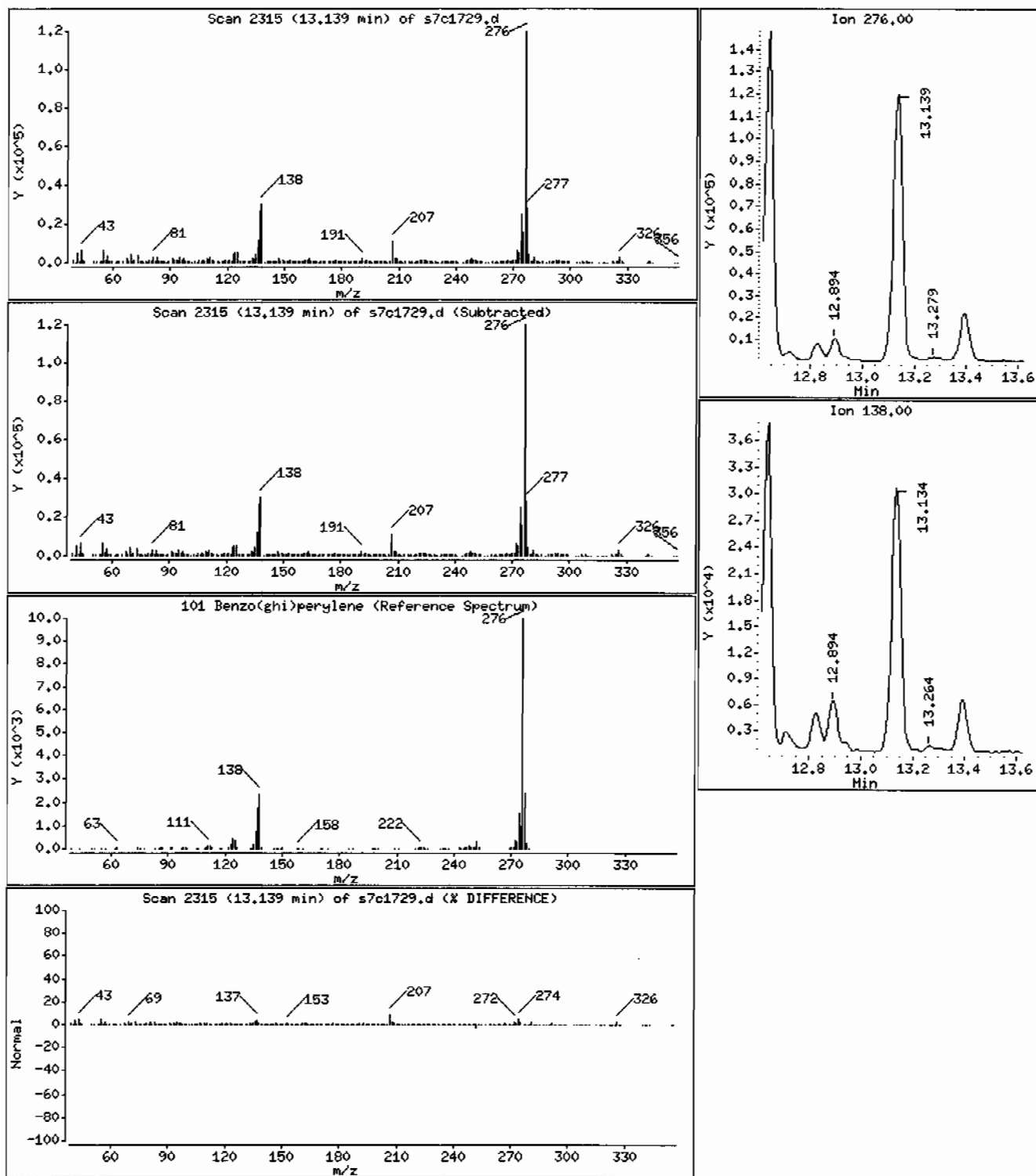
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 2670 ug/Kg



Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011ISVH13ILANL\_rx

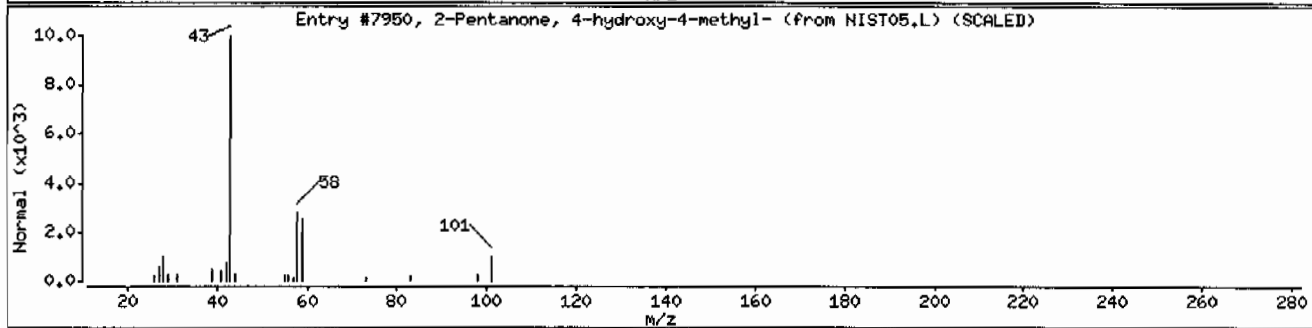
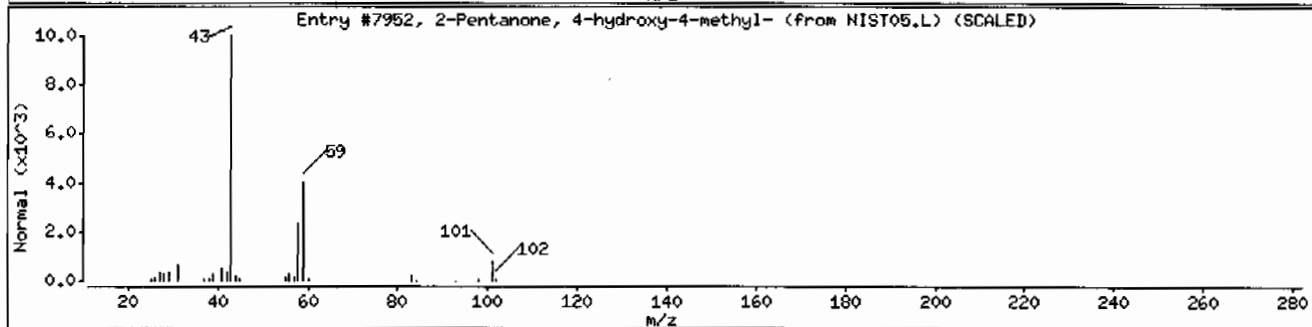
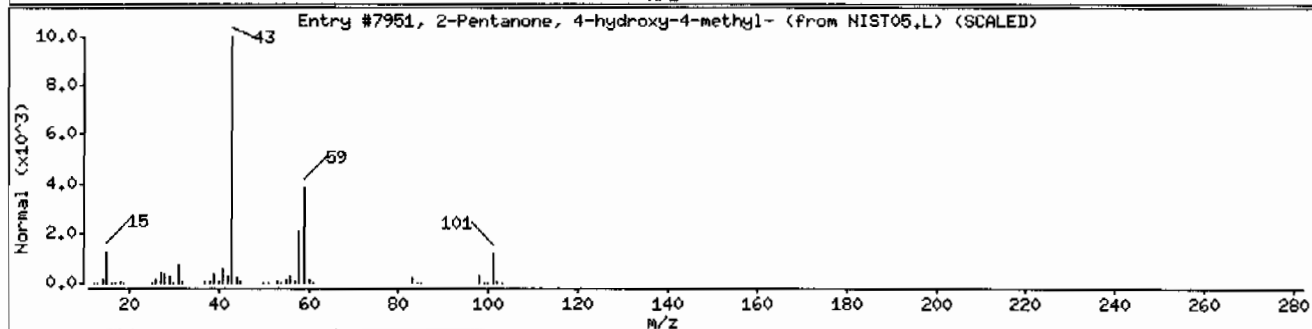
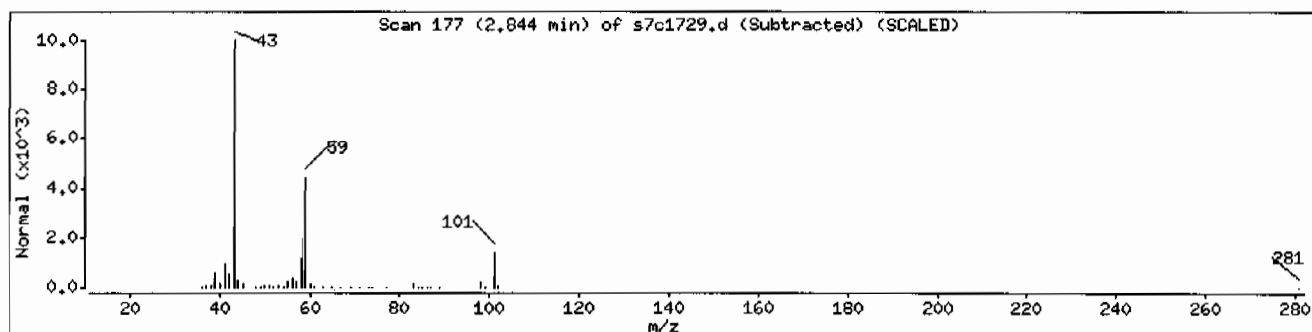
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7950	23	C6H12O2	116



Date : 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011SVH131LANL\_rx

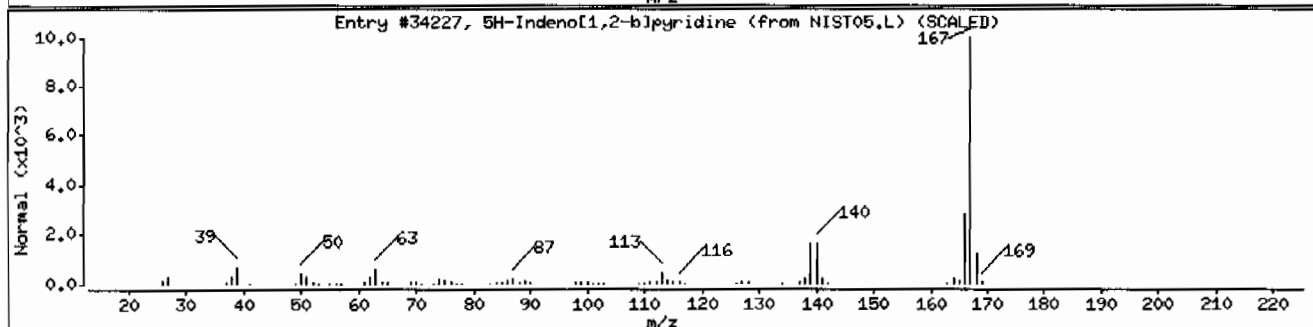
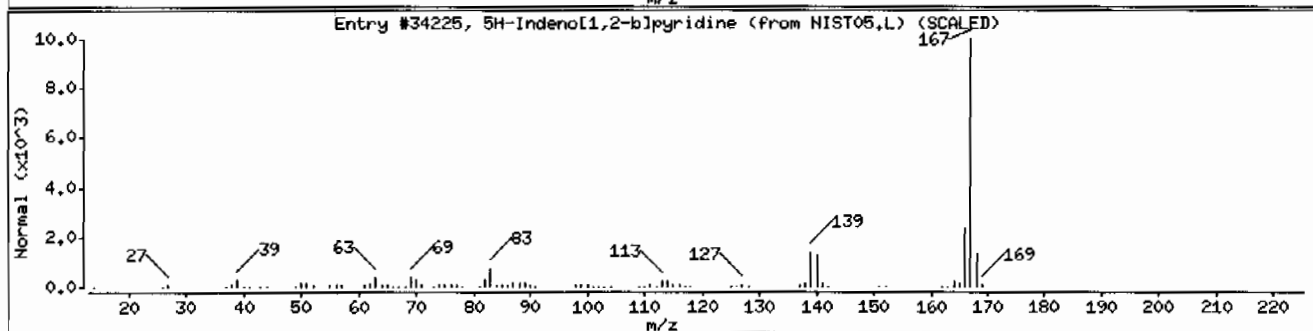
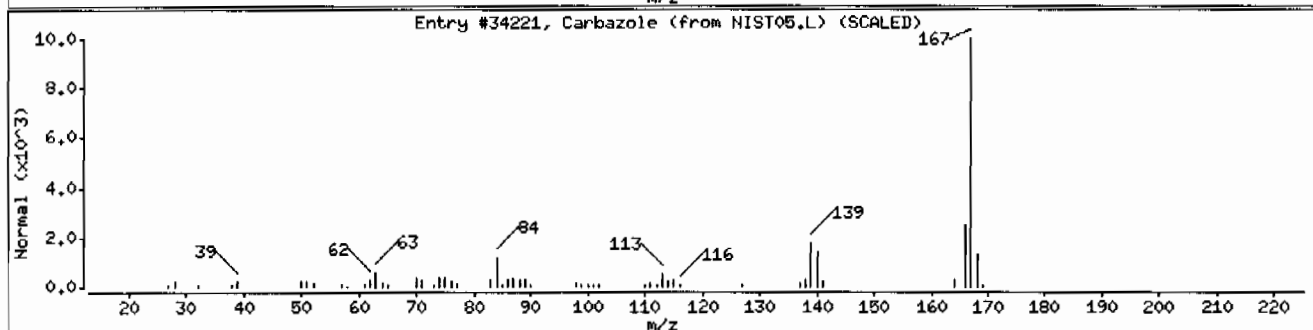
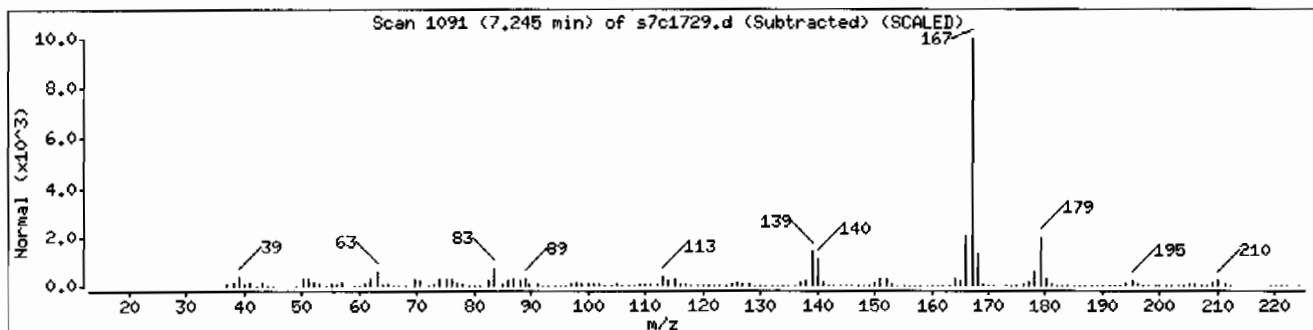
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Carbazole	86-74-8	NIST05.L	34221	95	C12H9N	167
5H-Indeno[1,2-b]pyridine	244-99-5	NIST05.L	34225	95	C12H9N	167
5H-Indeno[1,2-b]pyridine	244-99-5	NIST05.L	34227	94	C12H9N	167



Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011SVH131LANL\_rx

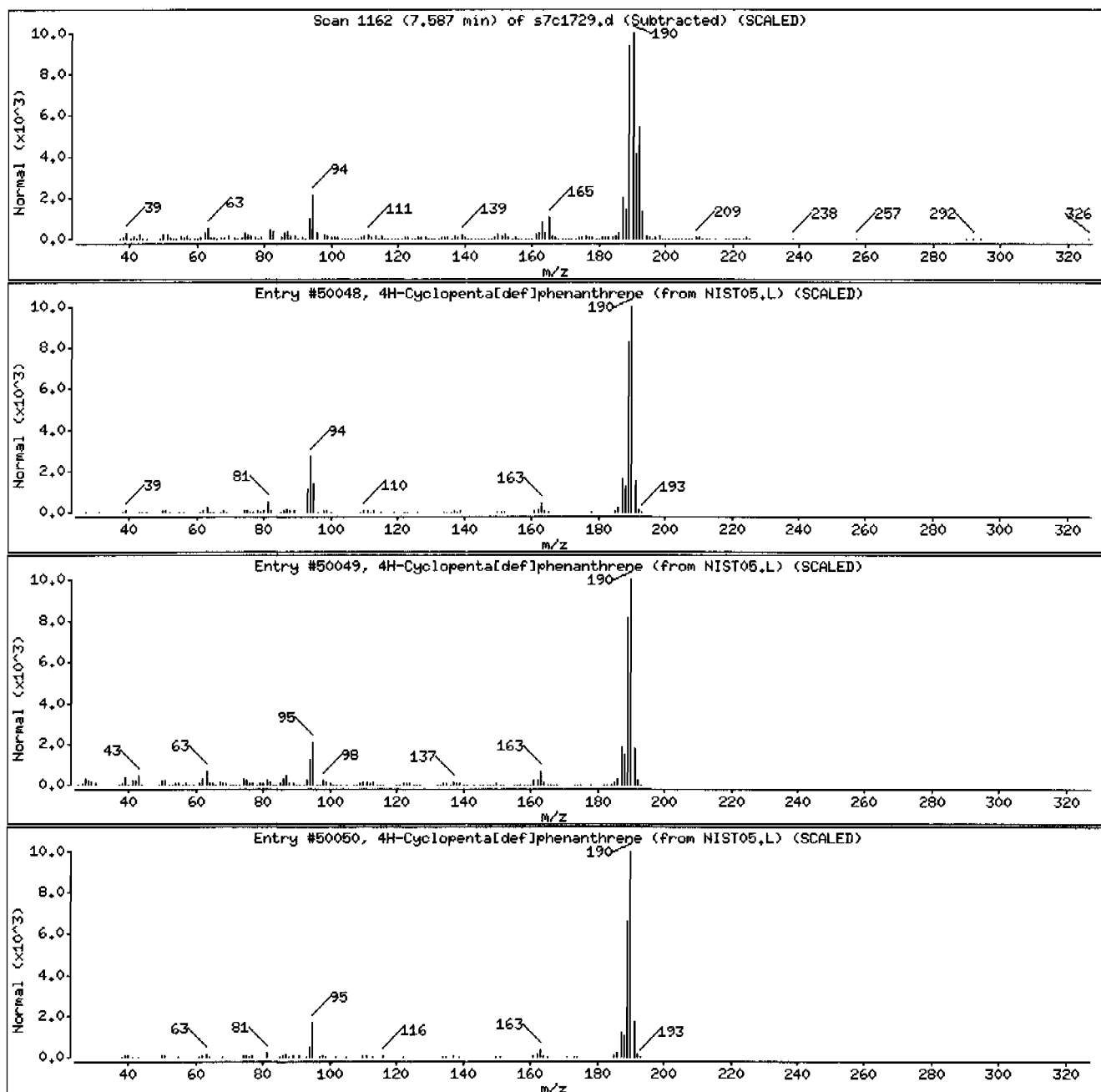
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50048	70	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50049	60	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50050	49	C15H10	190



Date : 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011ISVM131LANL\_rx

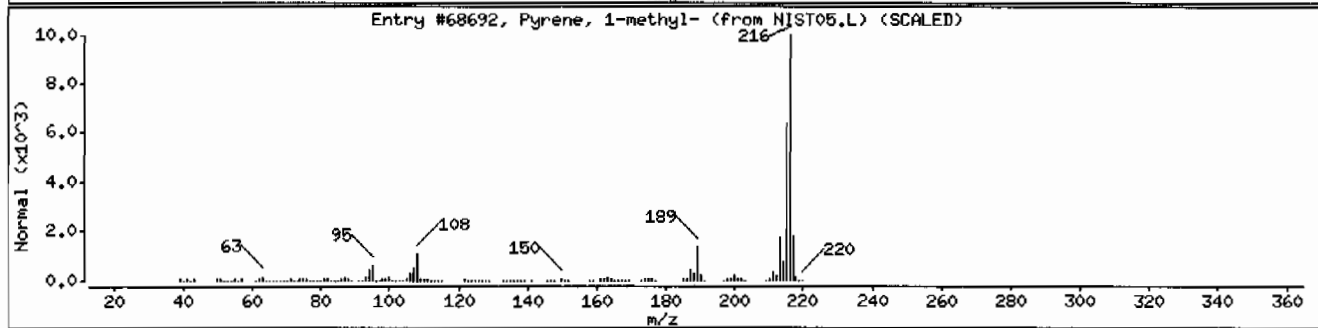
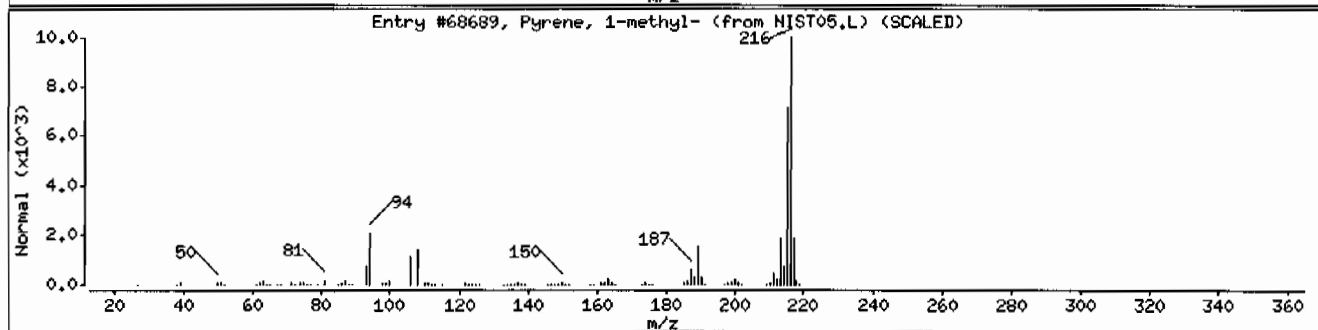
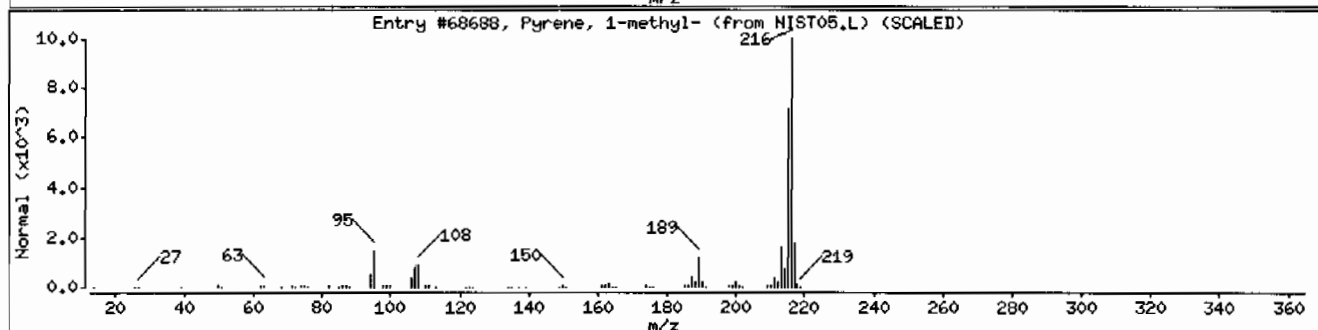
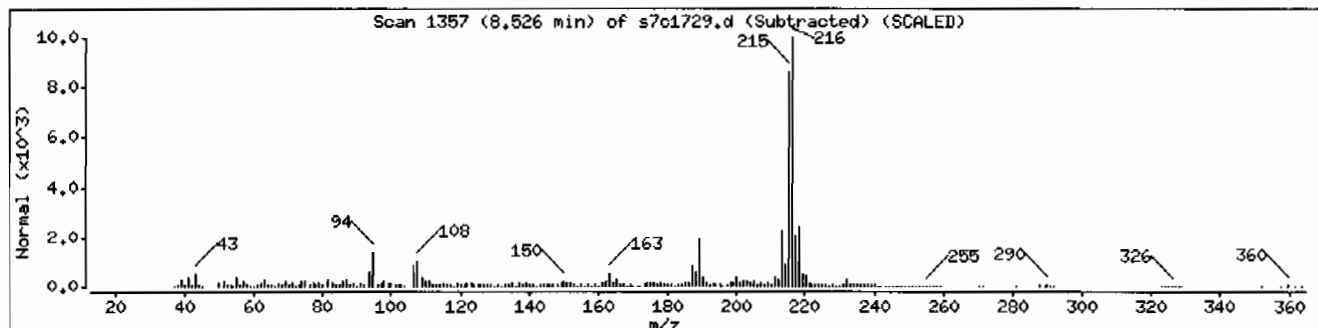
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68688	95	C17H12	216
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68689	95	C17H12	216
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68692	94	C17H12	216



Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011ISVMI3ILANL\_rx

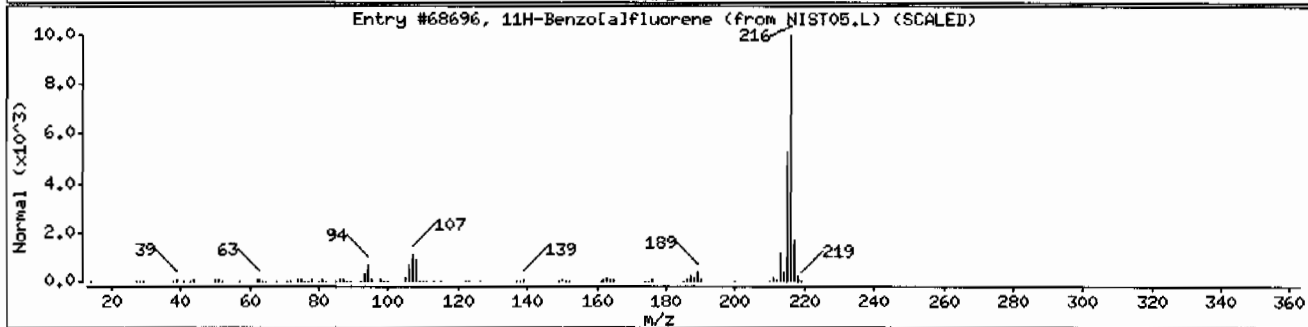
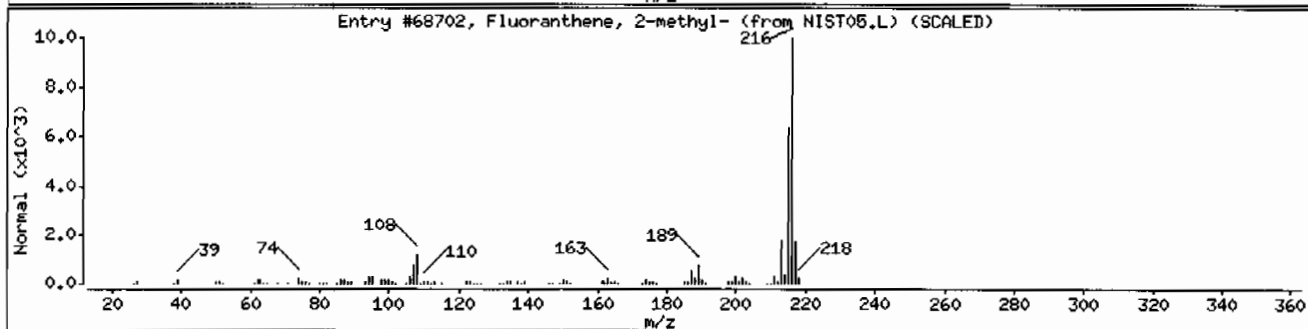
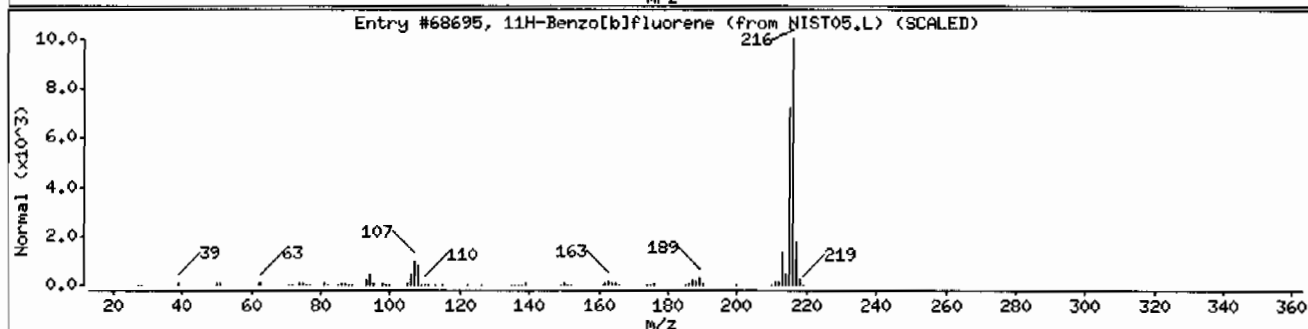
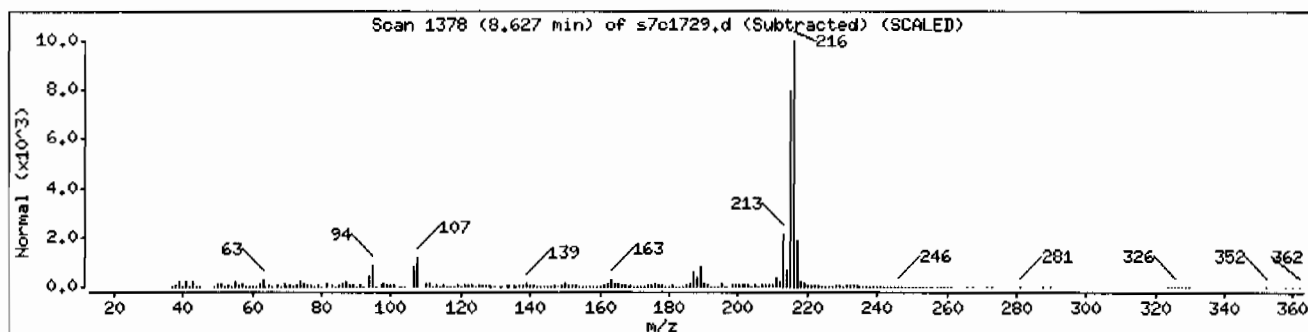
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[b]fluorene	243-17-4	NIST05.L	68695	97	C17H12	216
Fluoranthene, 2-methyl-	33543-31-6	NIST05.L	68702	96	C17H12	216
11H-Benzo[a]fluorene	238-84-6	NIST05.L	68696	95	C17H12	216



Date : 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.1

Sample Info: 1248043004196529011SVH131LANL\_rx

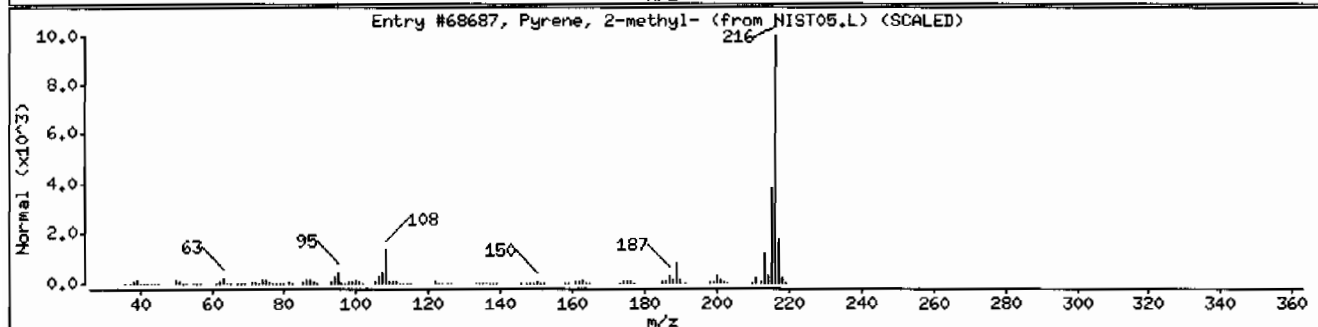
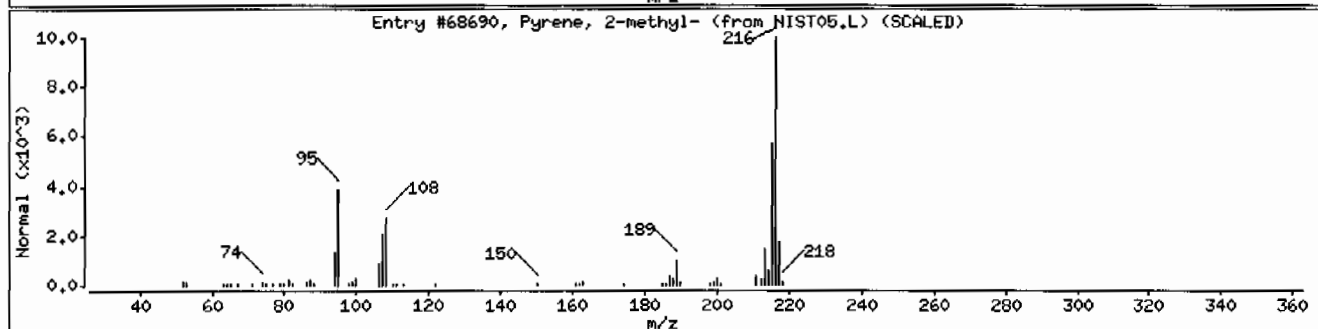
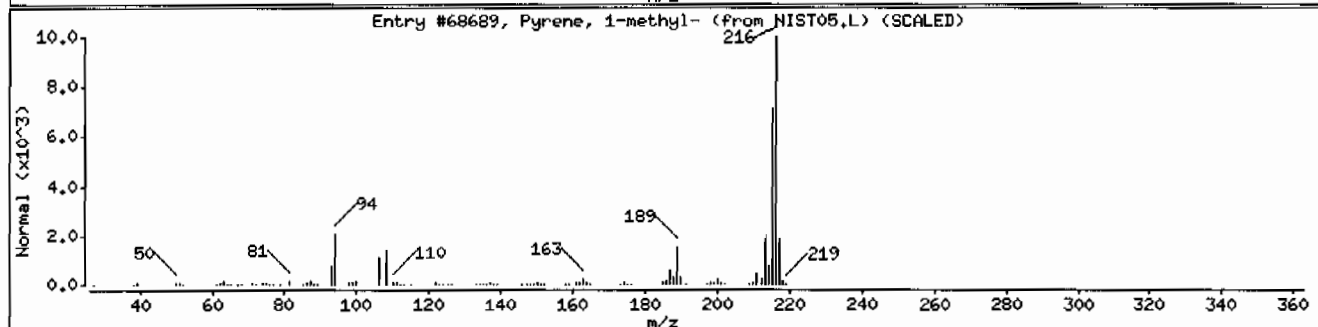
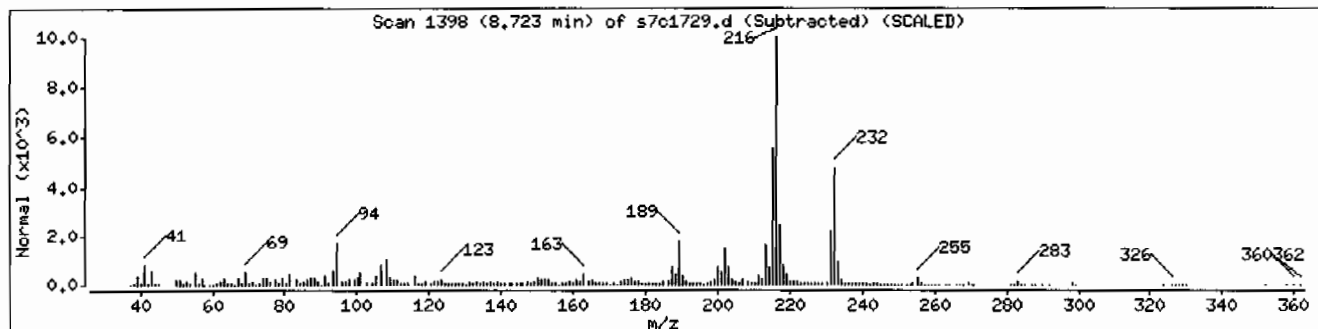
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68689	92	C17H12	216
Pyrene, 2-methyl-	3442-78-2	NIST05.L	68690	78	C17H12	216
Pyrene, 2-methyl-	3442-78-2	NIST05.L	68687	78	C17H12	216





Date : 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: I248043004196529011SVMI3ILANL\_rx

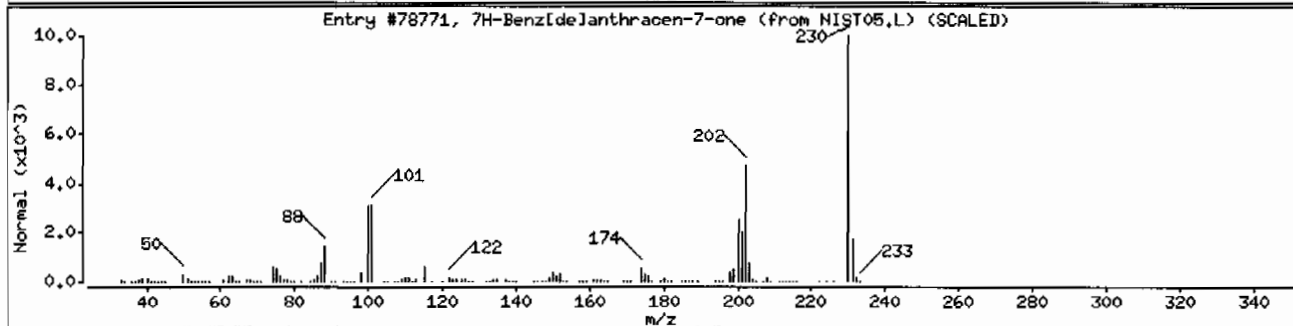
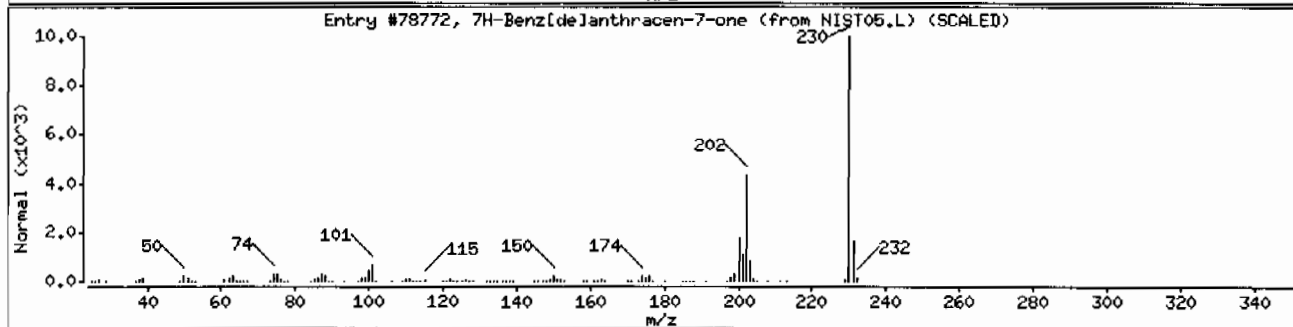
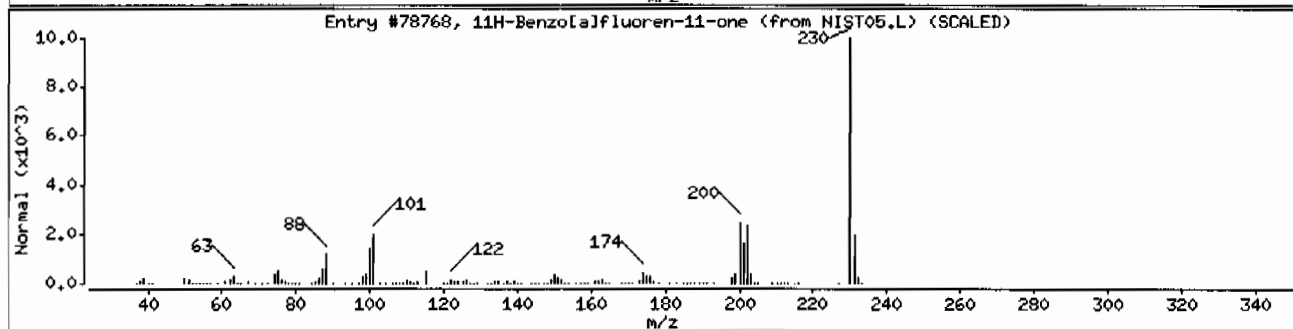
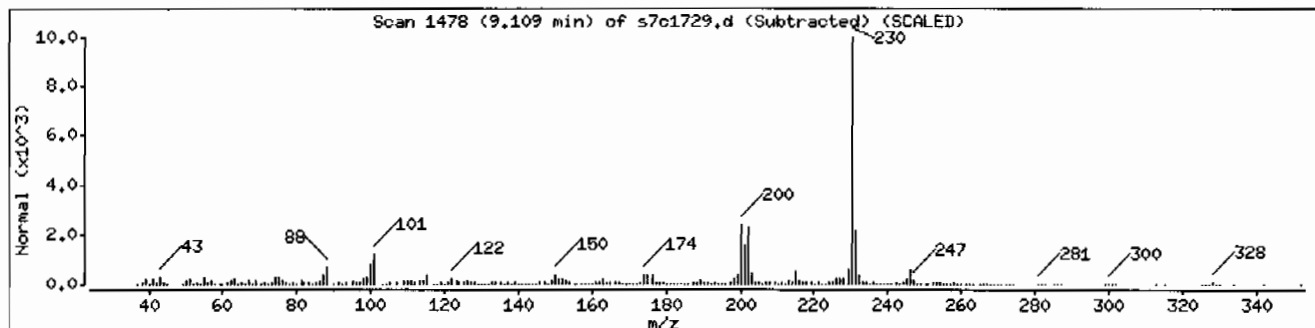
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[a]fluoren-11-one	479-79-8	NIST05.L	78768	97	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78772	90	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78771	83	C17H10O	230



Date: 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011SVH131LANL\_rx

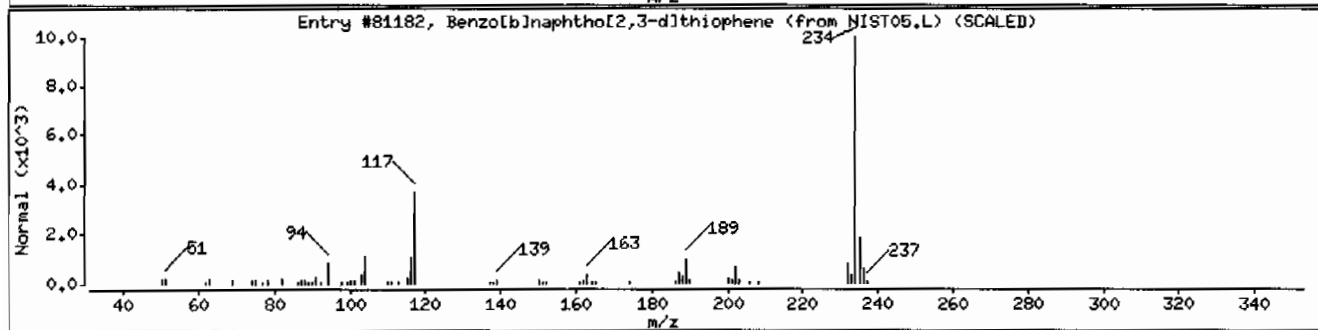
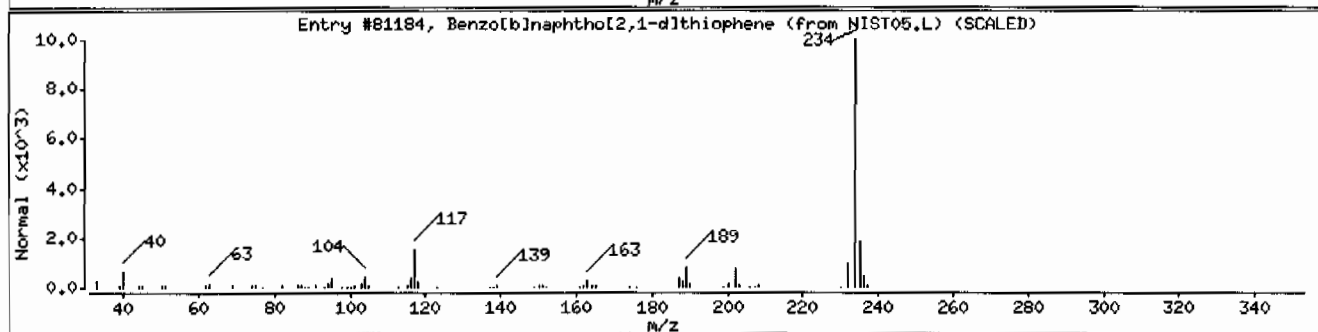
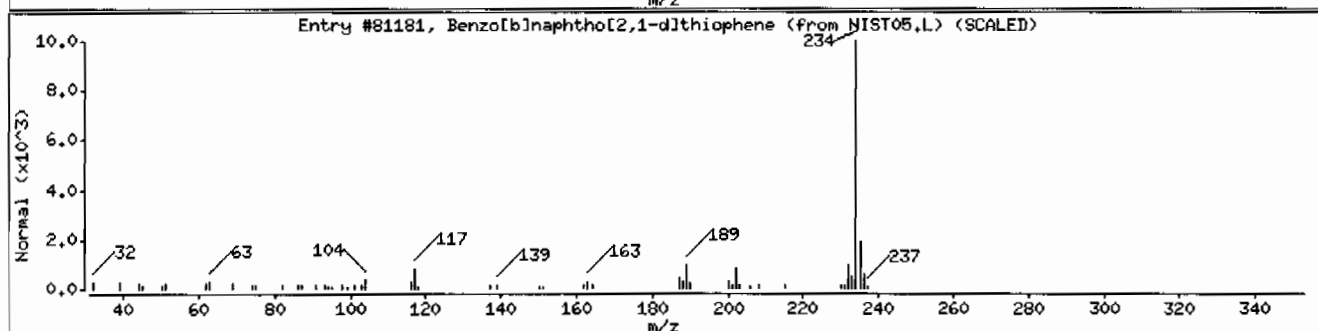
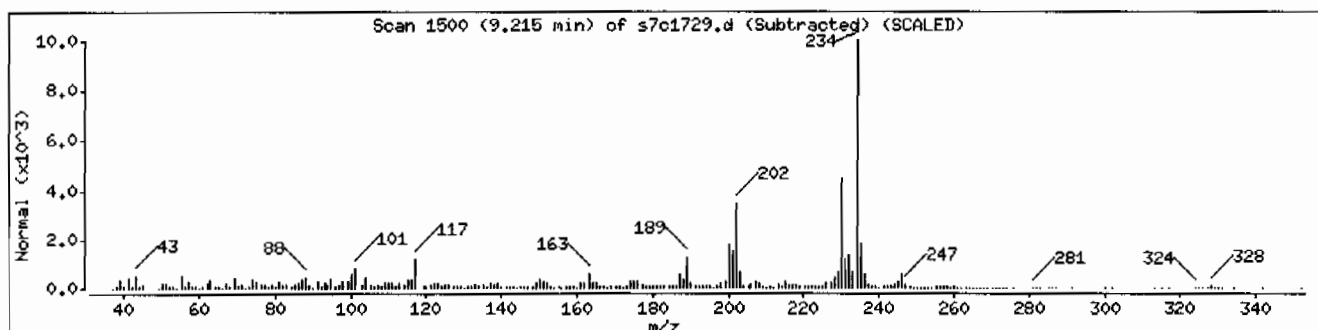
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[b]naphtho[2,1-d]thiophene	239-35-0	NIST05.L	81181	91	C16H10S	234
Benzo[b]naphtho[2,1-d]thiophene	239-35-0	NIST05.L	81184	70	C16H10S	234
Benzo[b]naphtho[2,3-d]thiophene	243-46-9	NIST05.L	81182	60	C16H10S	234



Date : 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: I248043004196529011SVMI3ILANL\_rx

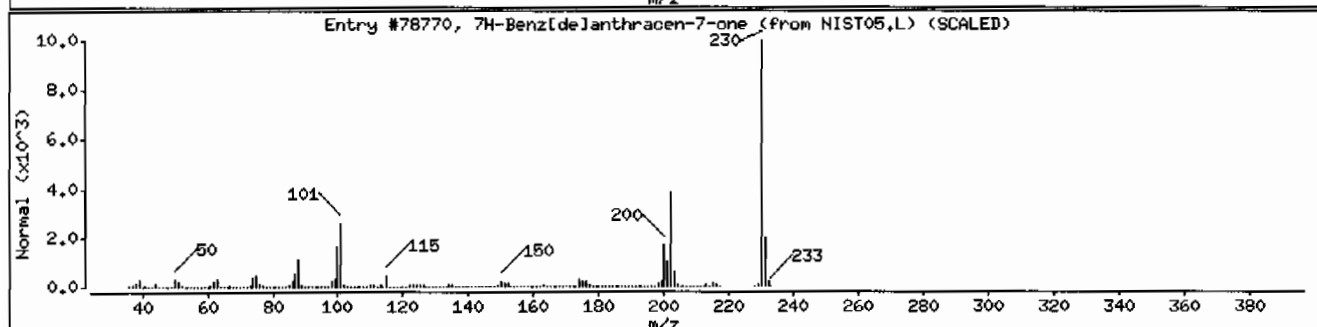
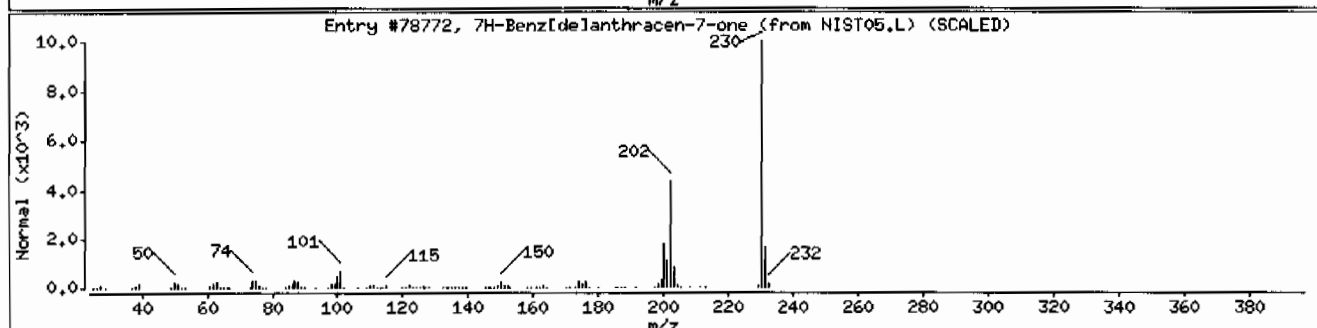
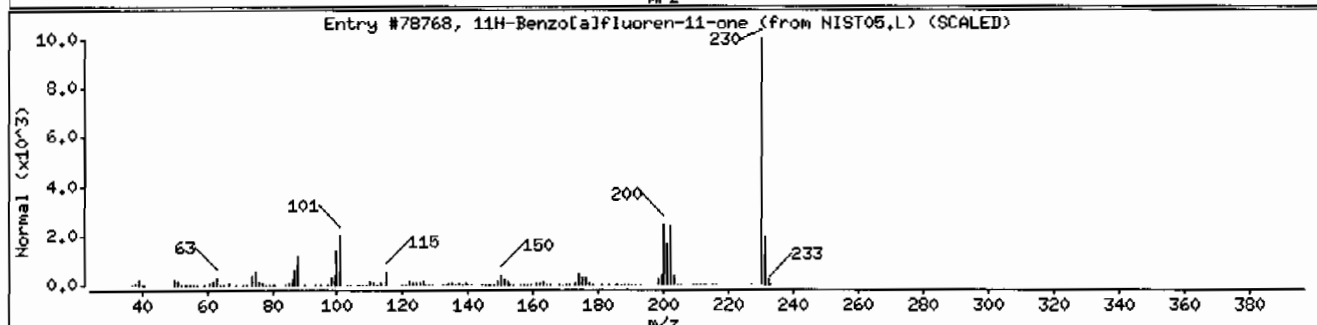
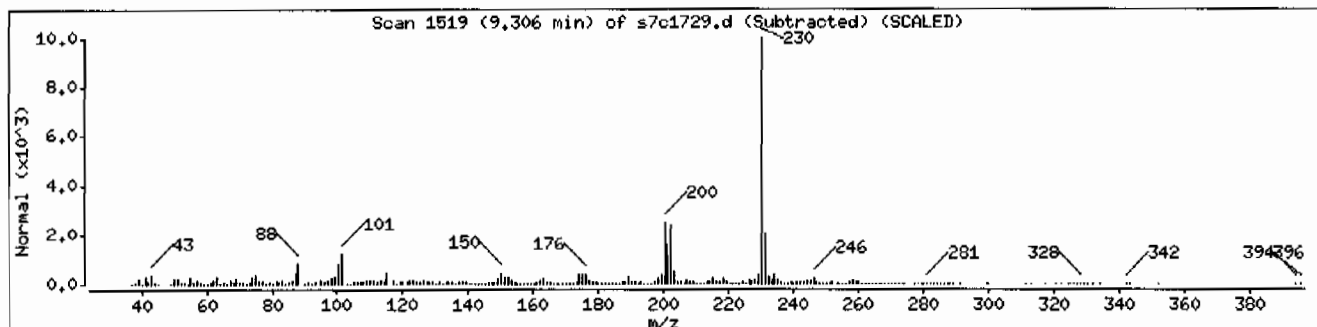
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11H-Benzo[a]fluoren-11-one	479-79-8	NIST05.L	78768	97	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78772	90	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78770	87	C17H10O	230



Date : 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011SVH131LANL\_rx

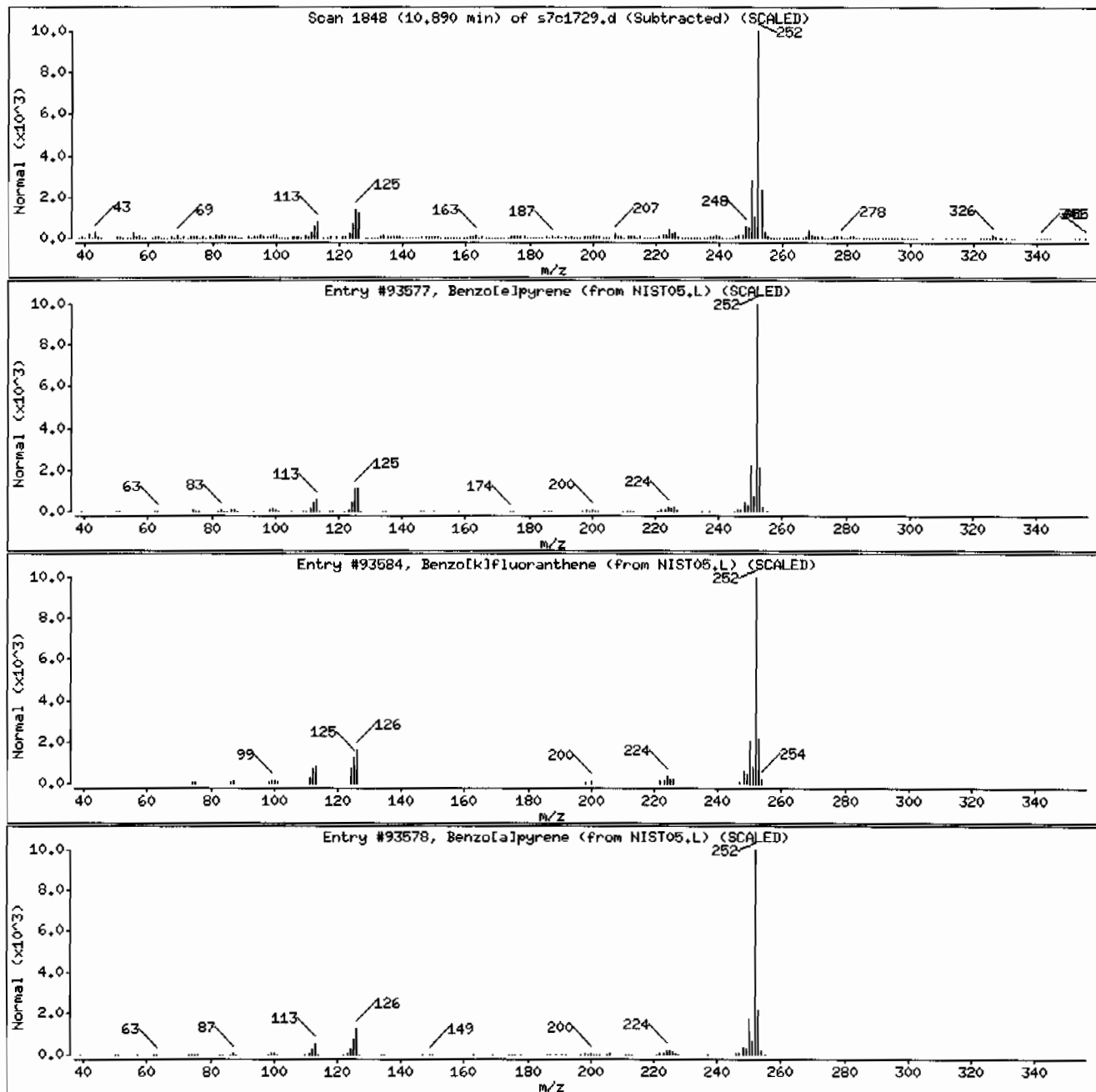
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[ <i>a</i> ]pyrene	192-97-2	NIST05.L	93577	98	C <sub>20</sub> H <sub>12</sub>	252
Benzo[ <i>k</i> ]fluoranthene	207-08-9	NIST05.L	93584	98	C <sub>20</sub> H <sub>12</sub>	252
Benzo[ <i>a</i> ]pyrene	50-32-8	NIST05.L	93578	96	C <sub>20</sub> H <sub>12</sub>	252



Date : 17-MAR-2010 19:55

Client ID: RE36-10-7465RE

Instrument: MSD7.i

Sample Info: 1248043004196529011SVH131LANL\_rx

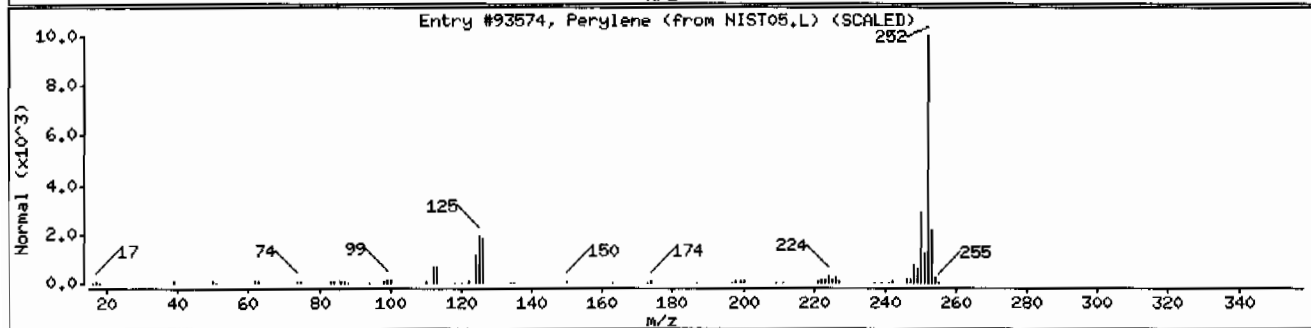
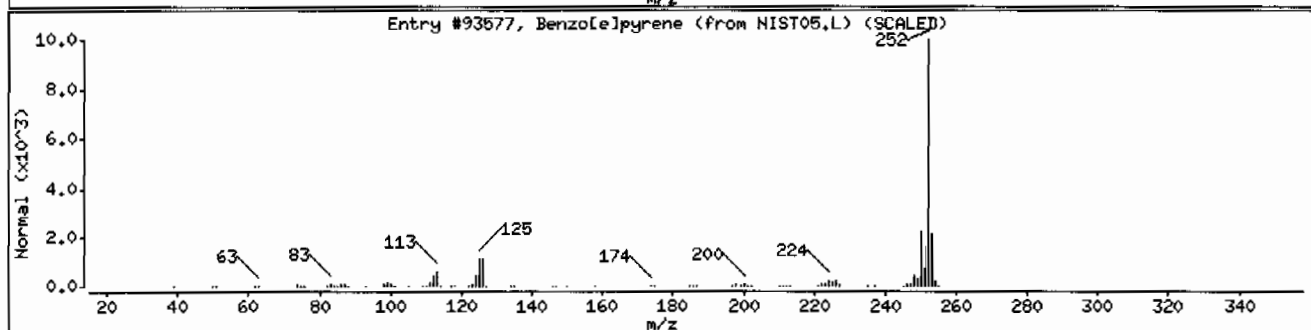
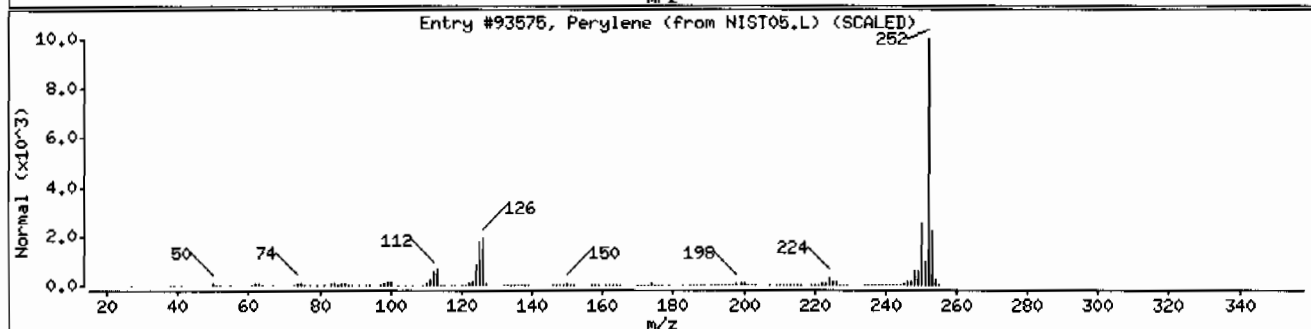
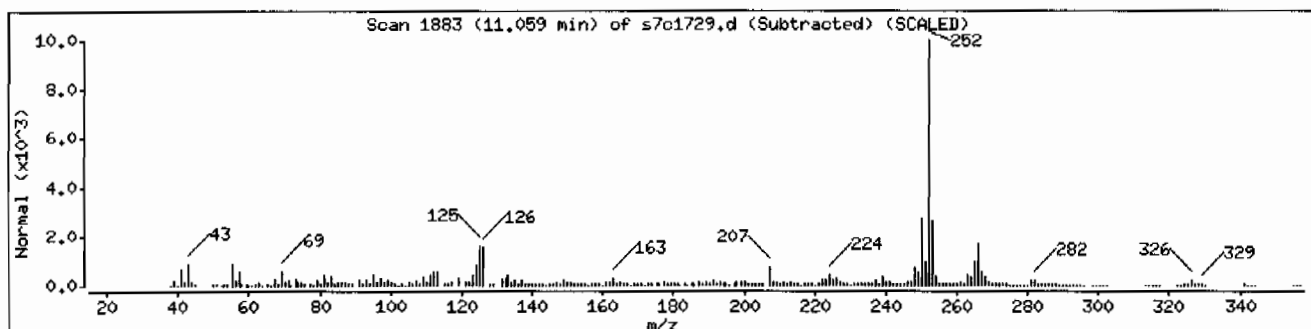
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Perylene	198-55-0	NIST05.L	93575	98	C20H12	252
Benzo[el]pyrene	192-97-2	NIST05.L	93577	97	C20H12	252
Perylene	198-55-0	NIST05.L	93574	96	C20H12	252



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043004

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.18 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
129-00-0	Pyrene	h	9790	ug/kg	51.2	171
85-01-8	Phenanthrene	h	12100	ug/kg	51.2	171
206-44-0	Fluoranthene	h	13600	ug/kg	51.2	171
56-55-3	Benzo(a)anthracene	h	5160	ug/kg	51.2	171
218-01-9	Chrysene	h	5630	ug/kg	51.2	171
205-99-2	Benzo(b)fluoranthene	h	8120	ug/kg	51.2	171

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
86-74-8	Carbazole	7.24	1200	ug/kg	95	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.48	872	ug/kg	98	NJ
832-69-9	Phenanthrene, 1-methyl-	7.5	1140	ug/kg	98	NJ
203-64-5	4H-Cyclopenta[def]phenanthrene	7.58	1810	ug/kg	76	NJ
84-65-1	9,10-Anthracenedione	7.76	1180	ug/kg	99	NJ
238-84-6	11H-Benzo[a]fluorene	8.61	957	ug/kg	95	NJ
477-75-8	9,10[1',2']-Benzenoanthracene, 9,10-dihy	10.35	774	ug/kg	78	NJ
50-32-8	Benzo[a]pyrene	10.65	864	ug/kg	95	NJ
192-97-2	Benzo[e]pyrene	10.87	3380	ug/kg	99	NJ
198-55-0	Perylene	11.04	1140	ug/kg	96	NJ
1000307-30-8	Acetamide, N-(4-fluorophenyl)-2,2,2-trif	12.24	741	ug/kg	42	NJ
13183-70-5	Silane, 1,4-phenylenebis(trimethyl-	14.38	770	ug/kg	46	NJ

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031710.b/s7c1726.d  
Lab Smp Id: 248043004 Client Smp ID: RE36-10-7465REDL  
Inj Date : 17-MAR-2010 18:50  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043004|965290|4|SVM|4|LANL\_rx  
Misc Info : |MSD8270\_S|WBN100310-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 17-Mar-2010 13:51 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 25  
Dil Factor: 4.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.18000	weight of sample
M	22.27460	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.802	3.802	(1.000)	351684	40.0000	
* 29 Naphthalene-d8	136	4.664	4.664	(1.000)	1286995	40.0000	
* 46 Acenaphthene-d10	164	5.907	5.911	(1.000)	695303	40.0000	
* 67 Phenanthrene-d10	188	7.062	7.067	(1.000)	1248504	40.0000	
* 91 Chrysene-d12	240	9.451	9.455	(1.000)	998077	40.0000	
* 98 Perylene-d12	264	11.011	11.016	(1.000)	659834	40.0000	
\$ 3 2-Fluorophenol	112	3.003	2.998	(0.790)	118464	12.9595	2210
\$ 5 Phenol-d5	99	3.523	3.528	(0.927)	137361	11.9851	2040
\$ 20 Nitrobenzene-d5	82	4.159	4.168	(0.892)	69576	7.16768	1220
\$ 39 2-Fluorobiphenyl	172	5.401	5.406	(0.914)	146376	8.44732	1440
\$ 60 2,4,6-Tribromophenol	329	6.499	6.499	(1.100)	24750	12.3132	2100
\$ 81 p-Terphenyl-d14	244	8.425	8.430	(0.891)	149947	8.38594	1430

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
47 Acenaphthene	154	5.931	5.935	(1.004)	94040	6.14487	1050
79 Pyrene	202	8.329	8.329	(0.881)	1811012	57.4360	9790
30 Naphthalene	128	4.679	4.683	(1.003)	50427	2.07420	354
34 2-Methylnaphthalene	142	5.155	5.160	(1.105)	20577	1.17932	201
49 Dibenzofuran	168	6.056	6.061	(1.025)	82132	3.81855	651 (a)
53 Fluorone	166	6.311	6.316	(1.068)	110019	6.09619	1040
68 Phenanthrene	178	7.086	7.086	(1.003)	1820282	71.0495	12100
69 Anthracene	178	7.125	7.130	(1.009)	344952	13.2943	2270
76 Fluoranthene	202	8.117	8.112	(1.149)	2228170	79.9872	13600
89 Benzo(a)anthracene	228	9.436	9.441	(0.998)	724075	30.2621	5160
92 Chrysene	228	9.475	9.480	(1.003)	702479	32.9938	5630
95 Benzo(b)fluoranthene	252	10.539	10.539	(0.957)	880711	47.5944	8120
97 Benzo(a)pyrene	252	10.939	10.943	(0.993)	410501	27.0547	4610
99 Indeno(1,2,3-cd)pyrene	276	12.614	12.629	(1.146)	176049	16.1353	2750
100 Dibenzo(a,h)anthracene	278	12.624	12.643	(1.147)	45953	5.31463	906
101 Benzo(ghi)perylene	276	13.105	13.120	(1.190)	164701	18.1005	3090

#### QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).



## ION RATIO REPORT

## SV REPORT

Data file: s7c1726.d

Report Date: 03/18/2010 09:13

Lab. ID: 248043004

SampleType: SAMPLE

Injection Date: 17-MAR-2010 18:50

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043004|965290|4|SVM|4|LANL\_rx

Miscellaneous Info: |MSD8270\_S|WBN100310-01|

Comment:

Method used: /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 4.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
30 Naphthalene			CAS#: 91-20-3			
128	50427	4.68	4.68	80-120	100	( )
129	5523	4.68	4.68	0- 41	11	( )
127	6363	4.68	4.68	0- 44	13	( )
-----						
34 2-Methylnaphthalene			CAS#: 91-57-6			
142	20577	5.16	5.16	80-120	100	( )
141	17637	5.16	5.16	54-114	86	( )
-----						
43 Dimethylphthalate			CAS#: 131-11-3			
163	124766	5.91	5.68	80-120	100	(T)
164	695303	5.91	5.68	0- 40	557	(QT)
-----						
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	91684	5.91	5.74	80-120	100	(T)
63	2279	5.89	5.74	58-118	2	(QT)
-----						
45 Acenaphthylene			CAS#: 208-96-8			
152	11540	5.89	5.82	80-120	100	(T)
151	3060	5.89	5.82	0- 50	27	(T)
153	11623	5.89	5.82	0- 43	101	(QT)
-----						
47 Acenaphthene			CAS#: 83-32-9			
154	94040	5.93	5.94	80-120	100	( )
153	106714	5.93	5.94	72-132	113	( )
152	46275	5.93	5.94	17- 77	49	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
49 Dibenzofuran			CAS#:	132-64-9		
168	82132	6.06	6.06	80-120	100	( )
139	33858	6.06	6.06	9- 69	41	( )
-----						
50 2,4-Dinitrotoluene			CAS#:	121-14-2		
165	91684	5.91	6.03	80-120	100	(T)
89	2351	5.91	6.03	41-101	3	(QT)
63	2279	5.89	6.03	22- 82	2	(QT)
-----						
52 4-Nitrophenol			CAS#:	100-02-7		
139	33858	6.06	5.96	80-120	100	(T)
109	447	6.06	5.96	49-109	1	(QT)
65	1306	6.05	5.96	83-143	4	(QT)
-----						
53 Fluorene			CAS#:	86-73-7		
166	110019	6.31	6.32	80-120	100	( )
165	96961	6.31	6.32	61-121	88	( )
167	16314	6.31	6.32	0- 43	15	( )
-----						
68 Phenanthrene			CAS#:	85-01-8		
178	1820282	7.09	7.09	80-120	100	( )
179	298522	7.09	7.09	0- 46	16	( )
176	335108	7.09	7.09	0- 49	18	( )
-----						
69 Anthracene			CAS#:	120-12-7		
178	344952	7.12	7.13	80-120	100	( )
179	75633	7.12	7.13	0- 45	22	( )
176	59043	7.12	7.13	0- 47	17	( )
-----						
76 Fluoranthene			CAS#:	206-44-0		
202	2228170	8.12	8.11	80-120	100	( )
203	390572	8.12	8.11	0- 47	18	( )
101	238978	8.12	8.11	0- 40	11	( )
-----						
79 Pyrene			CAS#:	129-00-0		
202	1811012	8.33	8.33	80-120	100	( )
200	366110	8.33	8.33	0- 50	20	( )
101	236473	8.33	8.33	0- 42	13	( )
-----						
89 Benzo(a)anthracene			CAS#:	56-55-3		
228	724075	9.44	9.44	80-120	100	( )
226	193571	9.44	9.44	0- 56	27	( )
229	196740	9.44	9.44	0- 50	27	( )
-----						
92 Chrysene			CAS#:	218-01-9		
228	702479	9.47	9.48	80-120	100	( )
229	161404	9.47	9.48	0- 49	23	( )
226	199015	9.47	9.48	0- 58	28	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	880711	10.54	10.54	80-120	100	( )
253	203949	10.54	10.54	0- 52	23	( )
125	98112	10.54	10.54	0- 41	11	( )
-----						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	880885	10.54	10.57	80-120	100	( )
253	198143	10.54	10.57	0- 52	22	( )
125	98112	10.54	10.57	0- 41	11	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	410501	10.94	10.94	80-120	100	( )
253	98268	10.94	10.94	0- 52	24	( )
125	45626	10.94	10.94	0- 42	11	( )
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	176049	12.61	12.63	80-120	100	( )
138	46020	12.61	12.63	1- 61	26	( )
-----						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	45953	12.62	12.64	80-120	100	( )
139	7730	12.62	12.64	0- 49	17	( )
-----						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	164701	13.11	13.12	80-120	100	( )
138	42717	13.11	13.12	0- 56	26	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031710.b/s7c1726.d  
 Lab Smp Id: 248043004 Client Smp ID: RE36-10-7465REDL  
 Inj Date : 17-MAR-2010 18:50  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043004|965290|4|SVM|4|LANL\_rx  
 Misc Info : |MSD8270\_S|WBN100310-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 17-Mar-2010 13:51 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 25  
 Dil Factor: 4.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.18000	weight of sample
M	22.27460	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 67 Phenanthrene-d10	7.062	3281280	40.000
* 91 Chrysene-d12	9.451	5143570	40.000
* 98 Perylene-d12	11.011	1828641	40.000

CONCENTRATIONS				QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY
=====	=====	=====	=====	=====	=====	=====

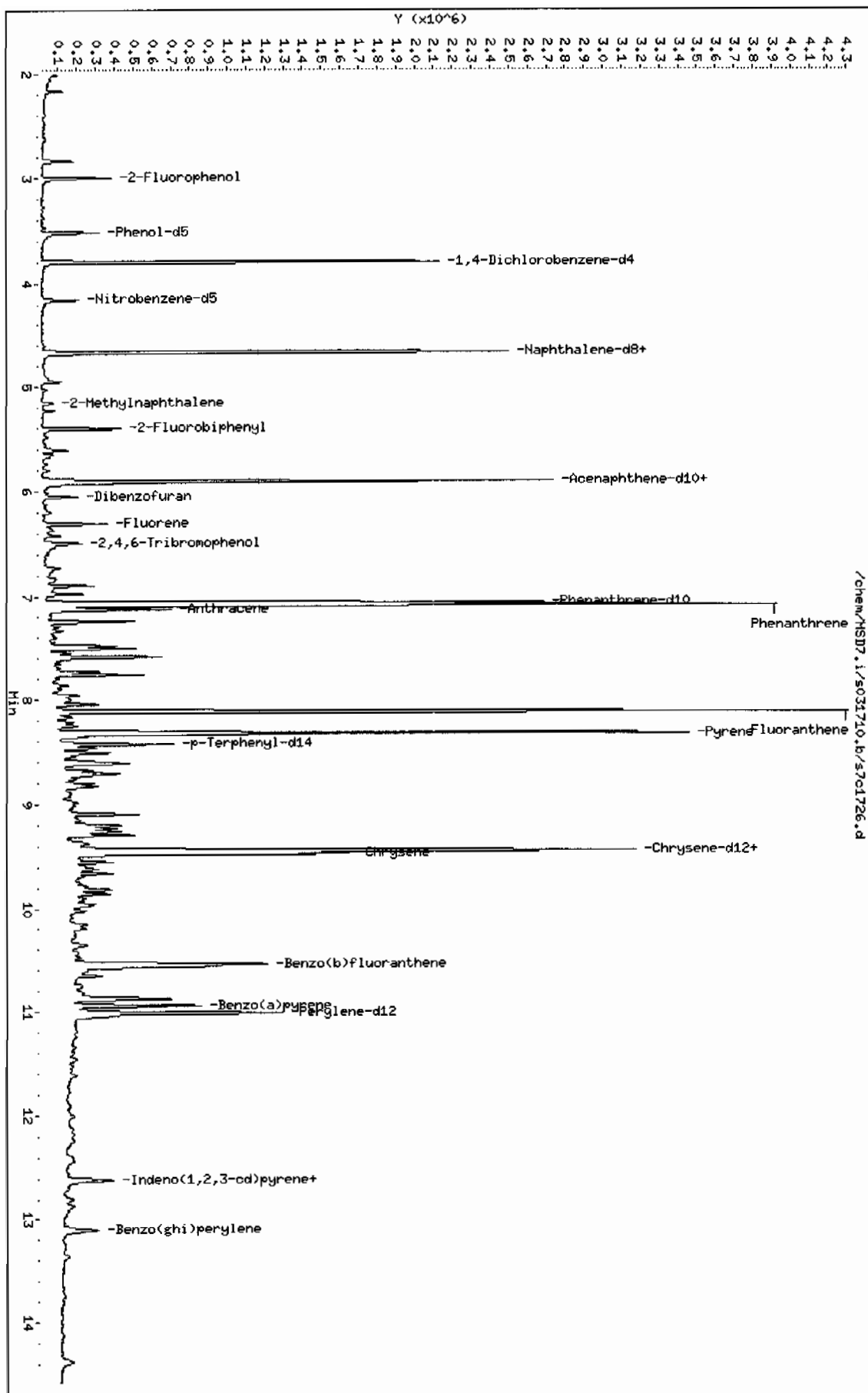
RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
====	====	=====	=====	=====	=====	=====	=====
Carbazole					CAS #: 86-14-8		
7.240	577077	7.03477317	1200	95	NIST05.L	34221	67
Phenanthrene, 2-methyl-					CAS #: 2531-84-2		
7.476	419392	5.11253876	872	98	NIST05.L	51412	67
Phenanthrene, 1-methyl-					CAS #: 832-69-9		
7.500	547720	6.67690133	1140	98	NIST05.L	51408	67
Unknown					CAS #:		
7.582	872768	10.6393628	1810	0		0	67
9,10-Anthracenedione					CAS #: 84-65-1		
7.756	568042	6.92463650	1180	99	NIST05.L	62993	67
11H-Benzo[a]fluorene					CAS #: 238-84-6		
8.613	721601	5.61167314	957	95	NIST05.L	68700	91
Unknown					CAS #:		
10.351	207557	4.54013492	774	0		0	98
Unknown					CAS #:		
10.650	231762	5.06959736	864	0		0	98(L)
Benzo[e]pyrene					CAS #: 192-97-2		
10.871	906142	19.8210941	3380	99	NIST05.L	93577	98
Perylene					CAS #: 198-55-0		
11.040	306172	6.69725456	1140	96	NIST05.L	93574	98
Unknown					CAS #:		
12.239	198791	4.34839027	741	0		0	98
Unknown					CAS #:		
14.377	206437	4.51563338	770	0		0	98

# QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/HSD7.i/s031710.b/s701726.d  
 Date: 17-MAR-2010 18:50  
 Client ID: RE36-10-746REDL  
 Sample Info: 12480430041966290141SVH141LNL.rtx  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: HSD7.i  
 Operator: JHB3  
 Column diameter: 0.20



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: 12480430041965290141SVH141LANL\_rx

Volume Injected (uL): 0.5

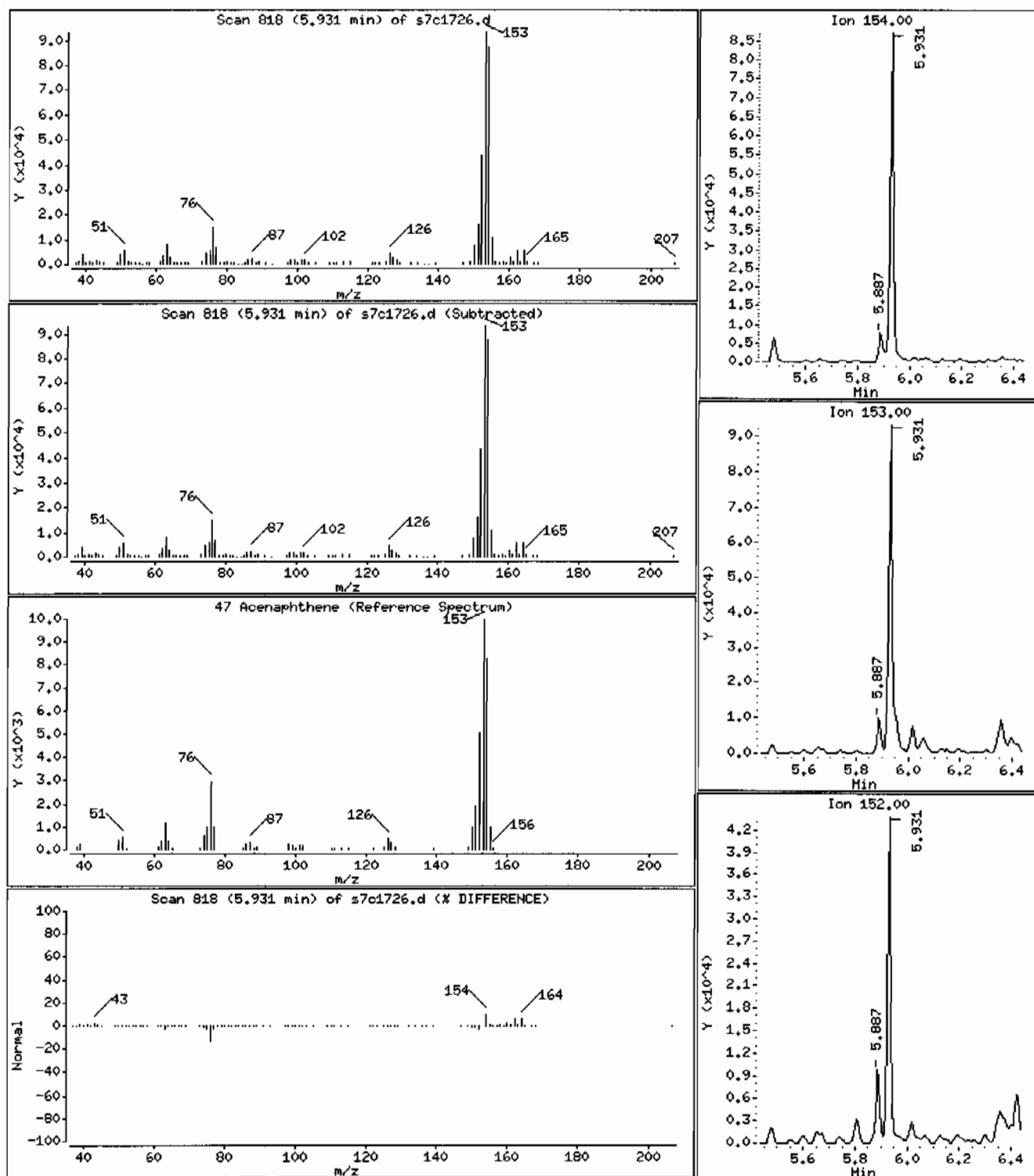
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 1050 ug/Kg



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: 12480430041965290141SVH141LANL\_rx

Volume Injected (uL): 0.5

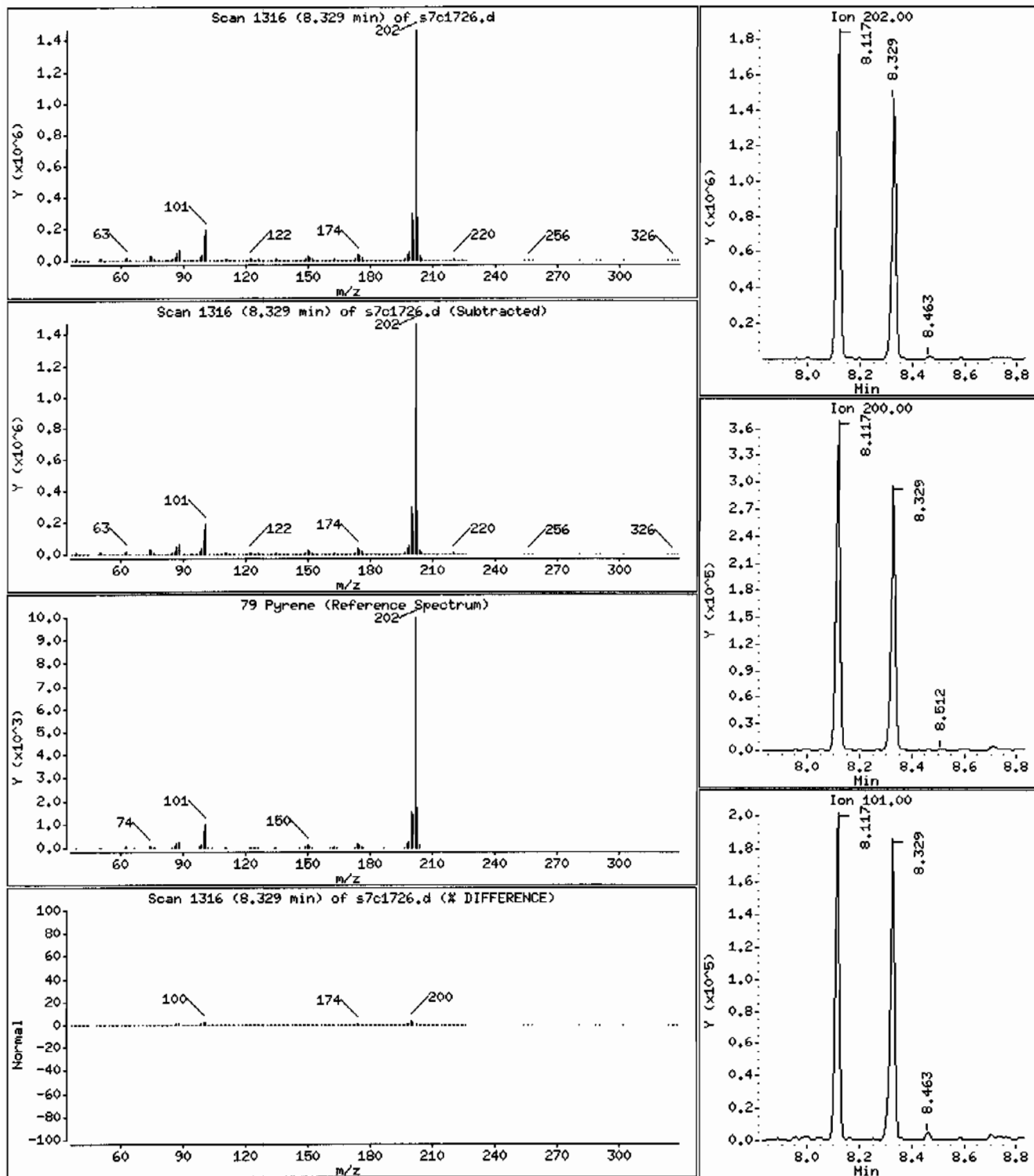
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 9790 ug/Kg





Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: 12480430041965290141SVH141LANL\_rx

Volume Injected (uL): 0.5

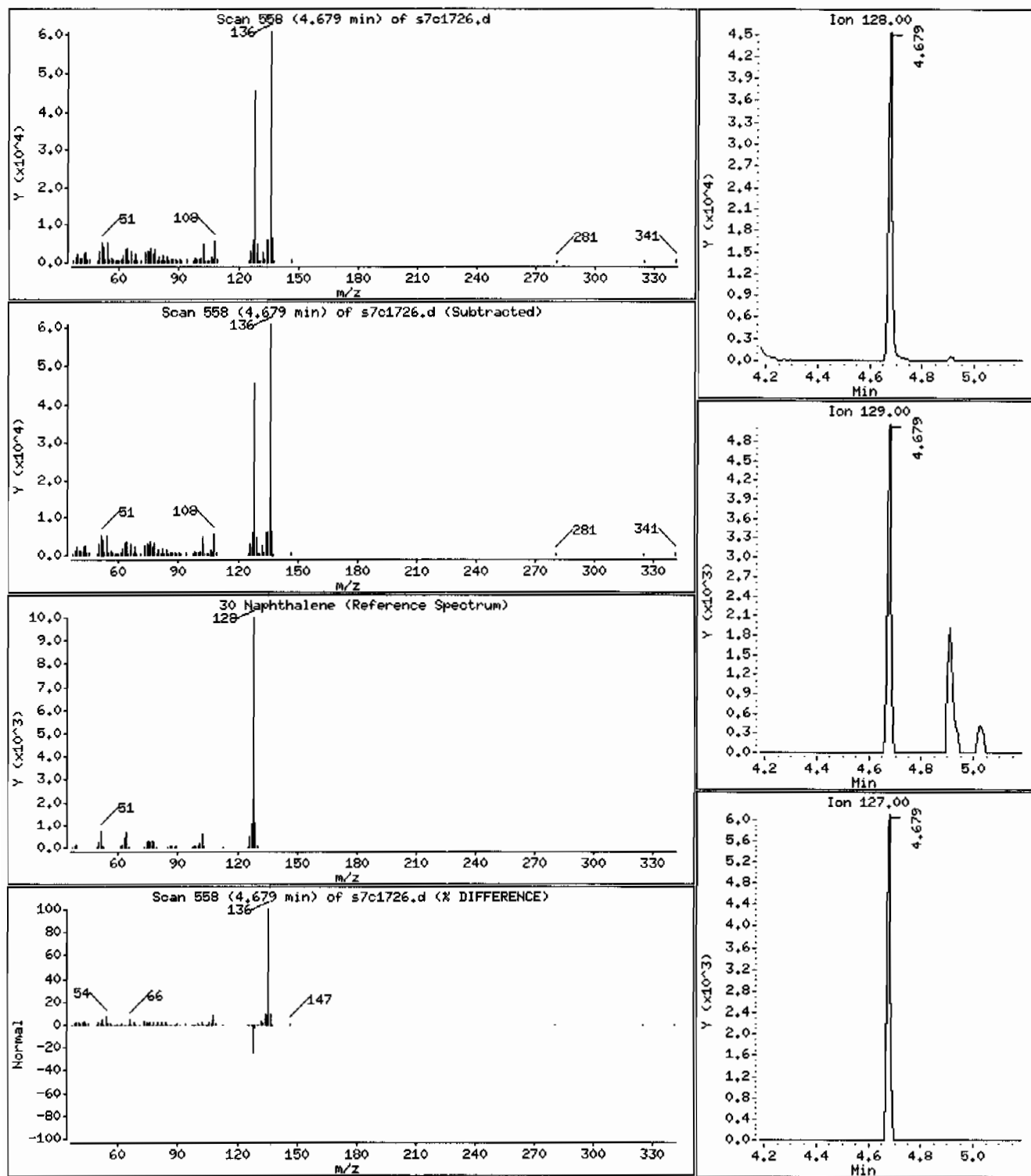
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 354 ug/Kg



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: 12480430041965290141SVH141LANL\_rx

Volume Injected (uL): 0.5

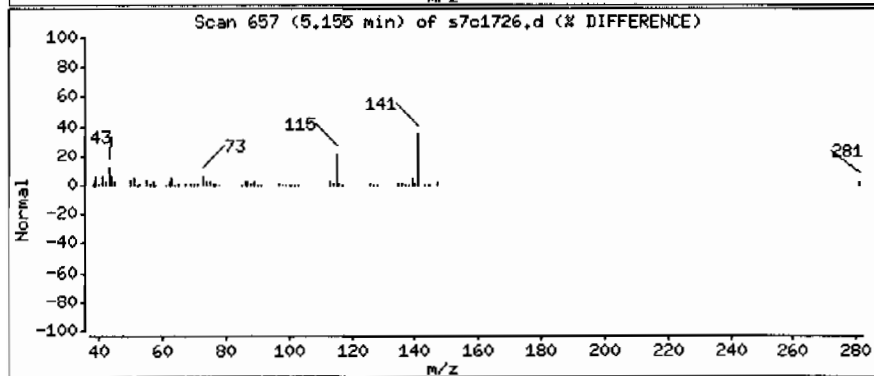
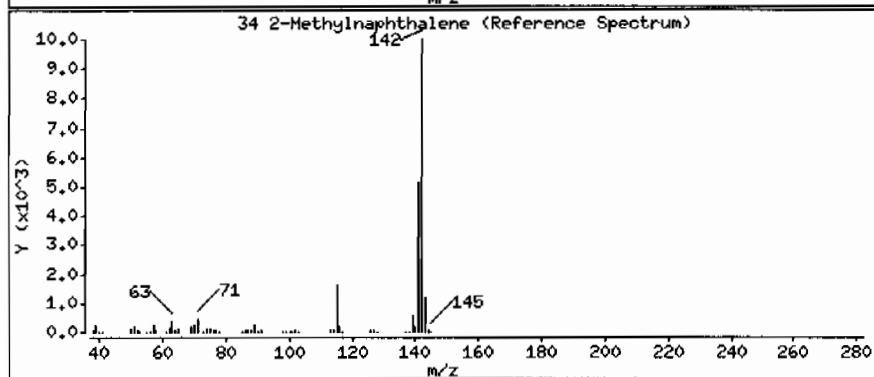
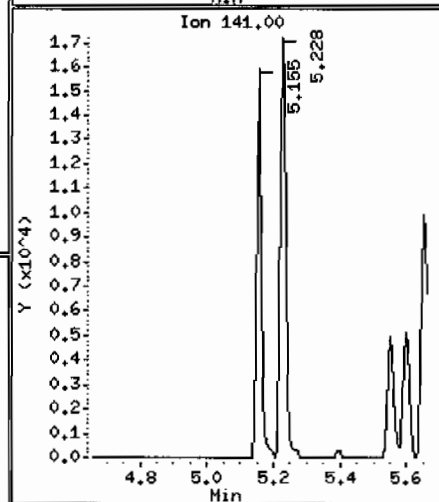
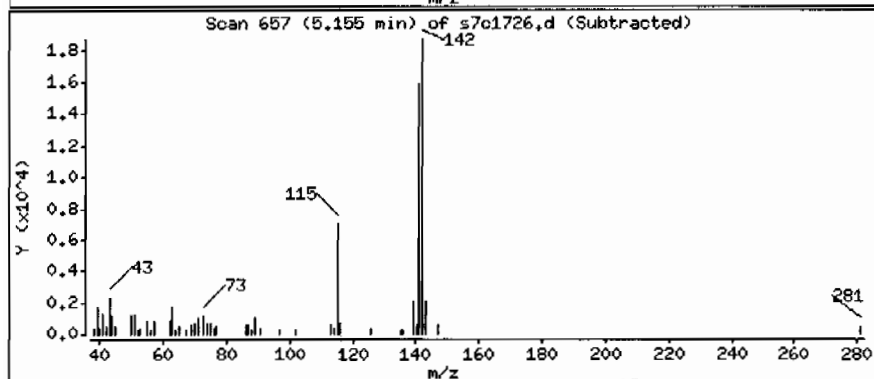
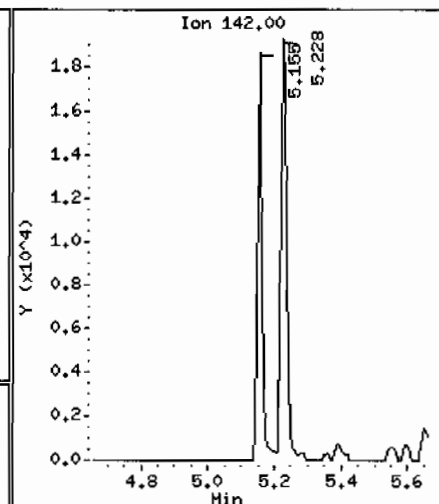
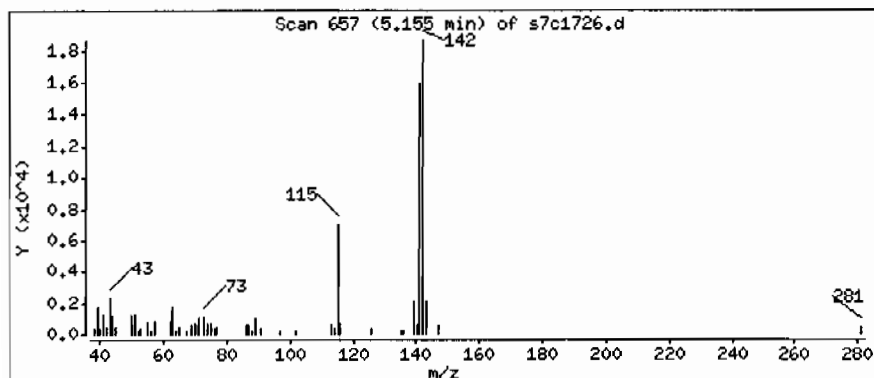
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 201 ug/Kg



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: 12480430041965290141SVMI41LANL\_rx

Volume Injected (uL): 0.5

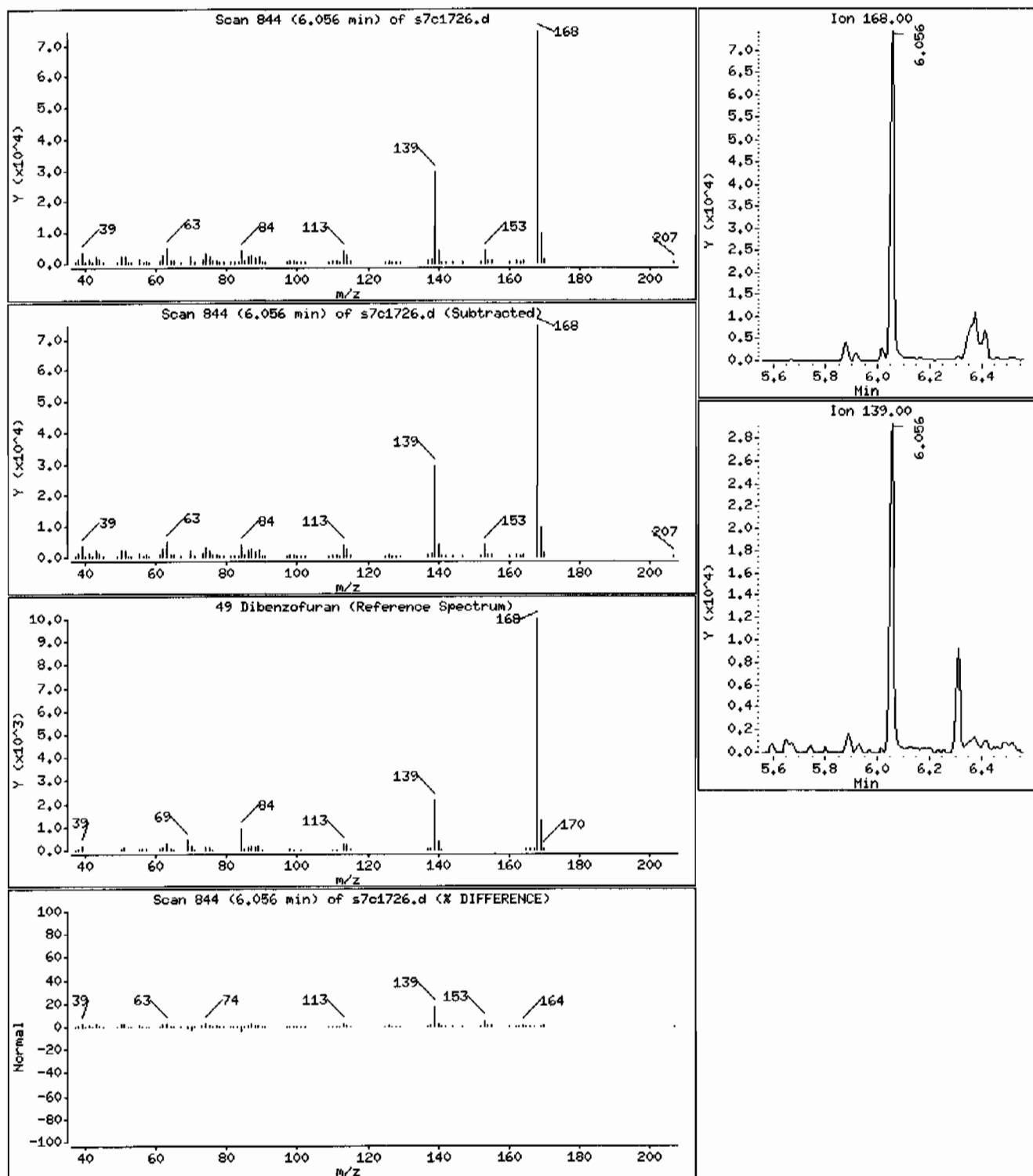
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

49 Dibenzofuran

Concentration: 651 ug/Kg



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: I2480430041965290141SVMI41LANL\_rx

Volume Injected (uL): 0.5

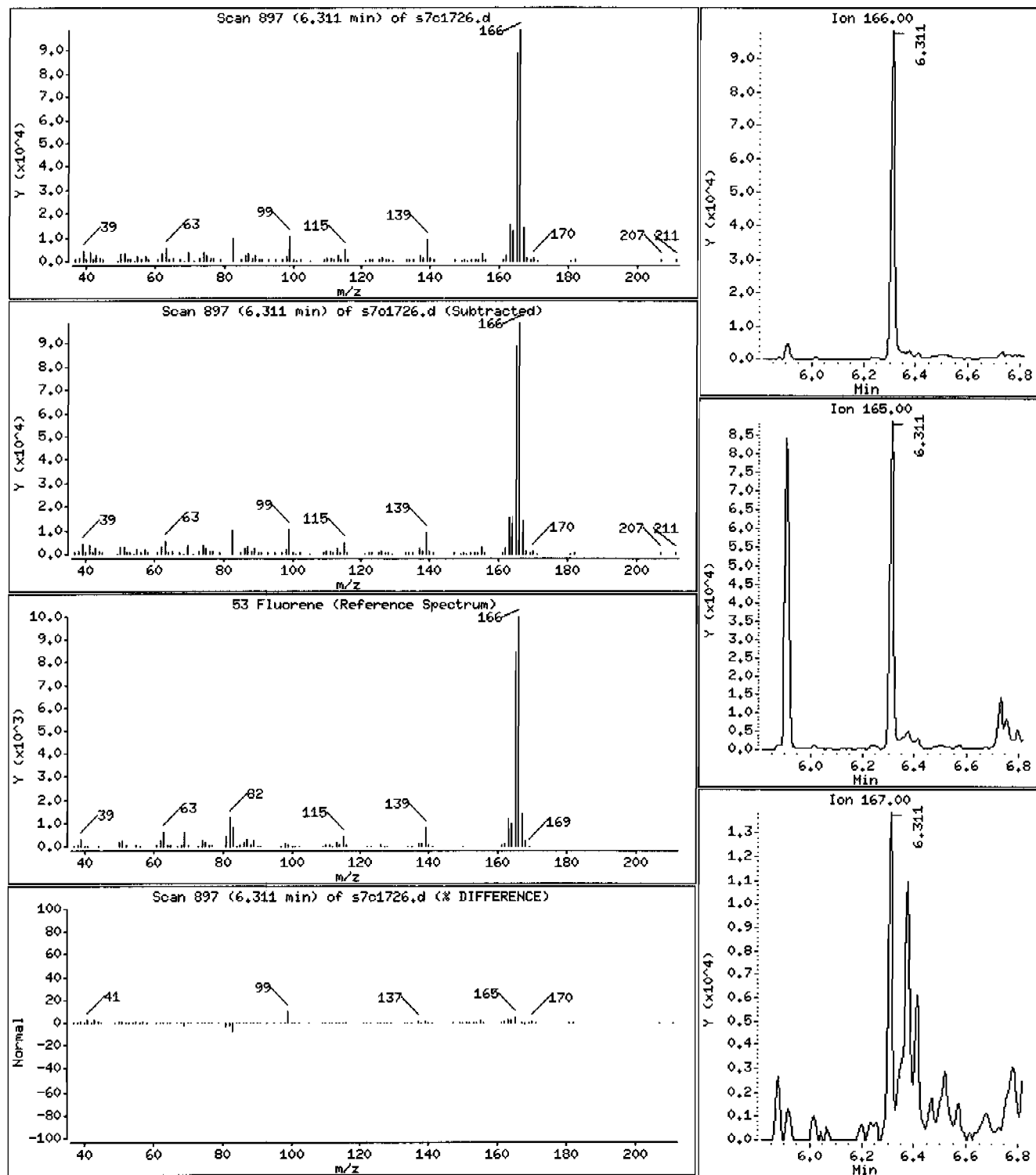
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 1040 ug/Kg



Date: 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: 12480430041965290141SVMI41LANL\_rx

Volume Injected (uL): 0.5

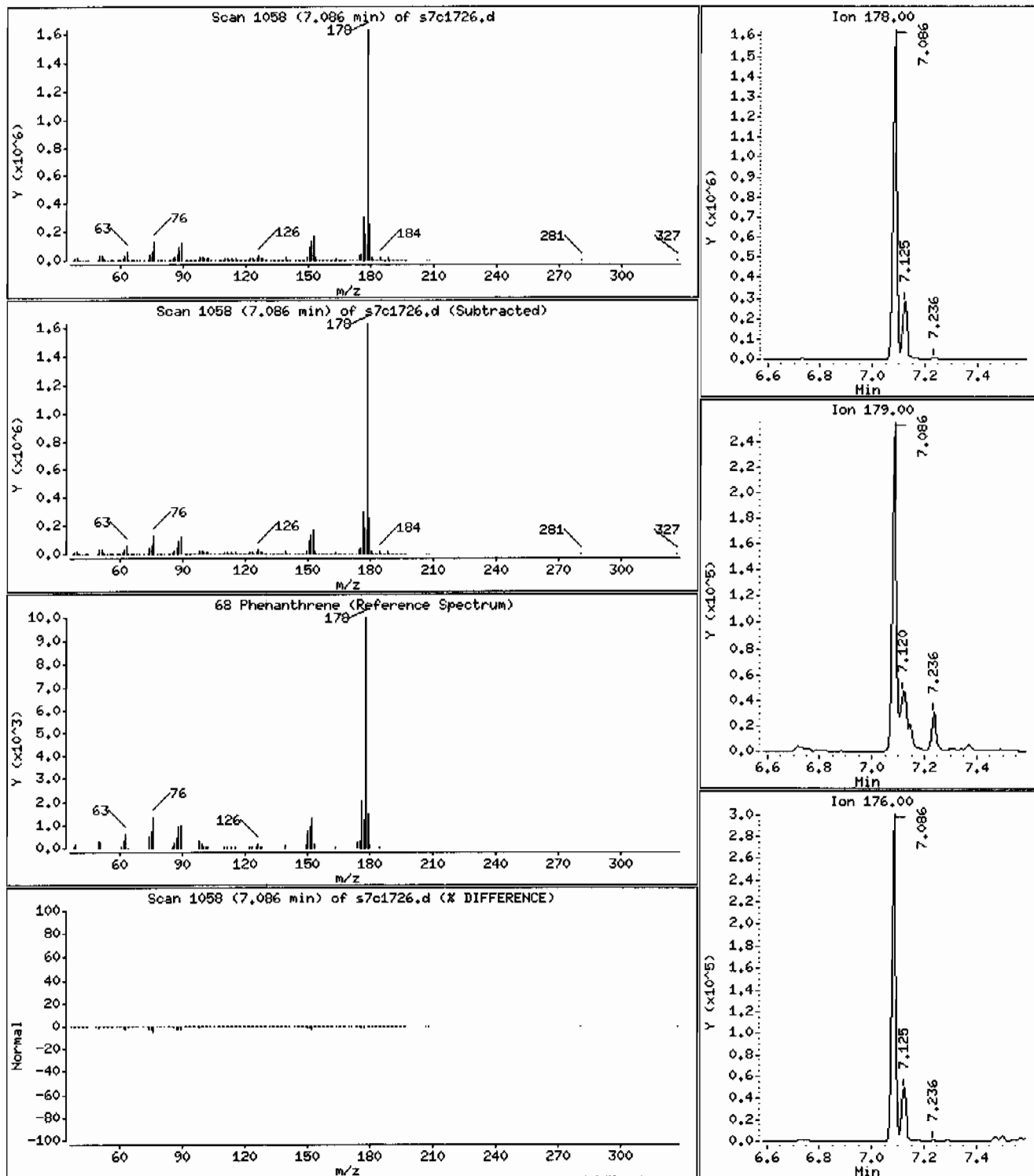
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 12100 ug/Kg



Date: 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: HSD7.i

Sample Info: 12480430041965290141SVH141LANL\_rx

Volume Injected (uL): 0.5

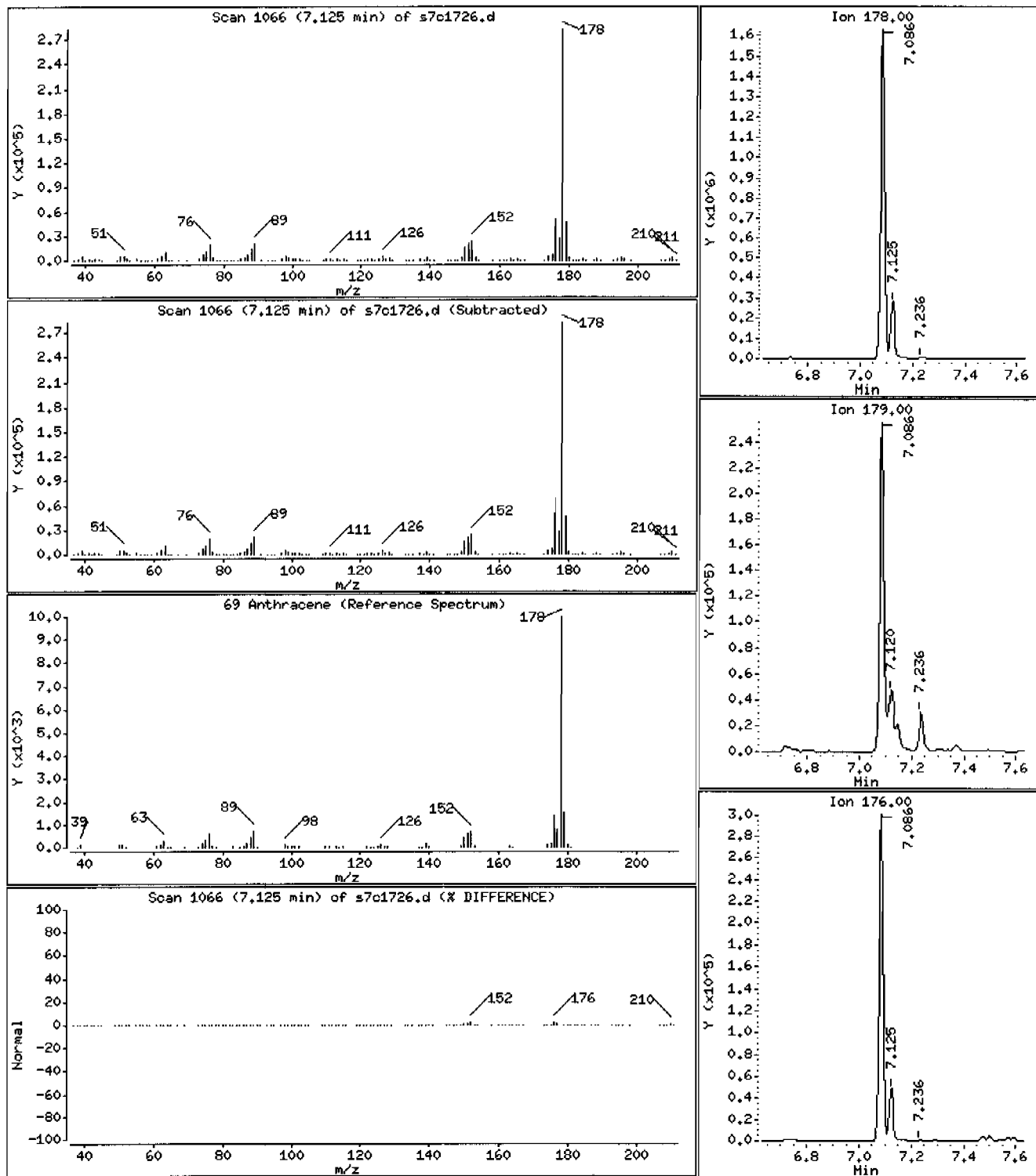
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 2270 ug/Kg



Date: 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: 12480430041965290141SVH141LANL\_rx

Volume Injected (uL): 0.5

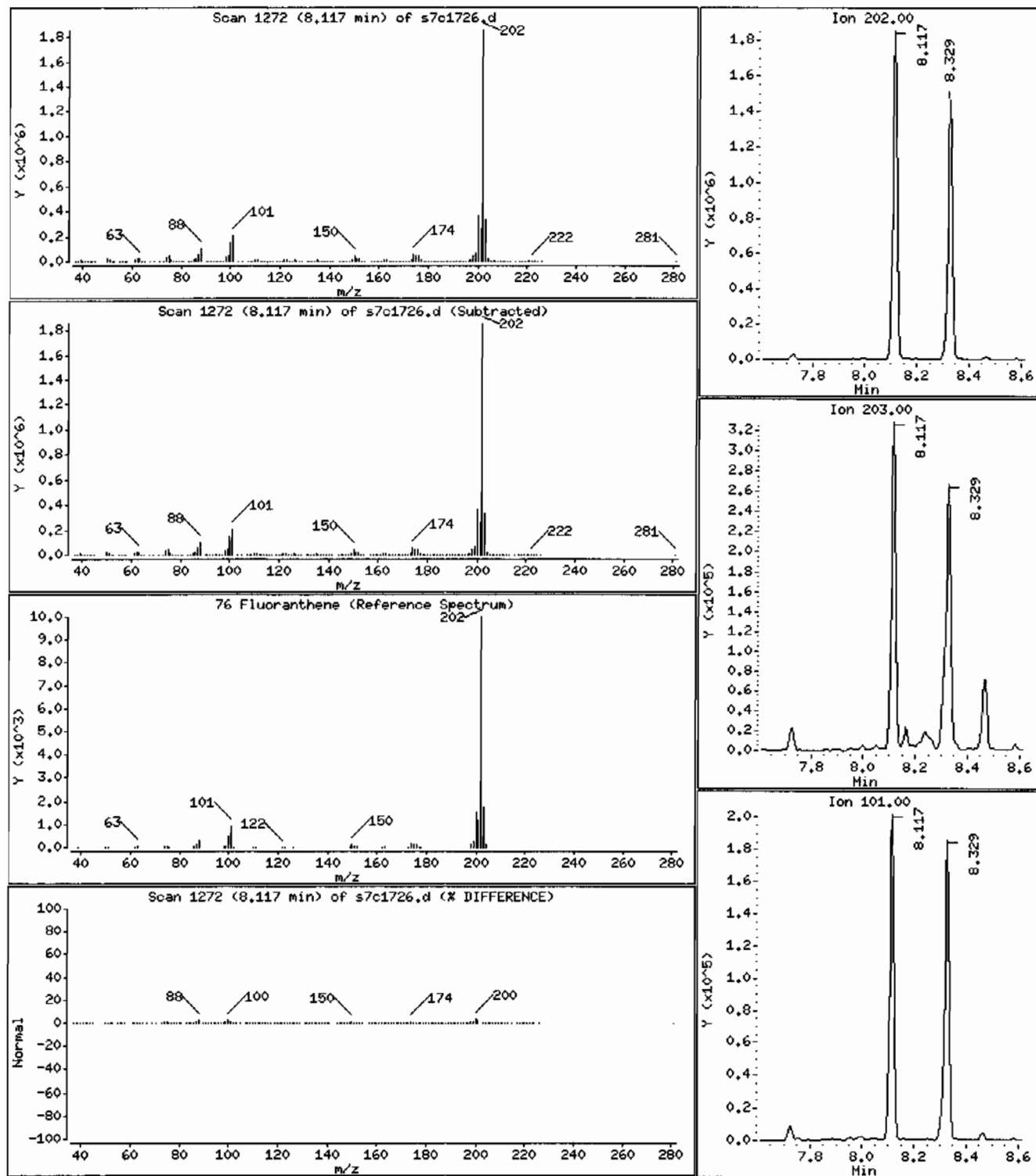
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 13600 ug/Kg



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: I248043004196529014ISVH14ILANL\_rx

Volume Injected (uL): 0.5

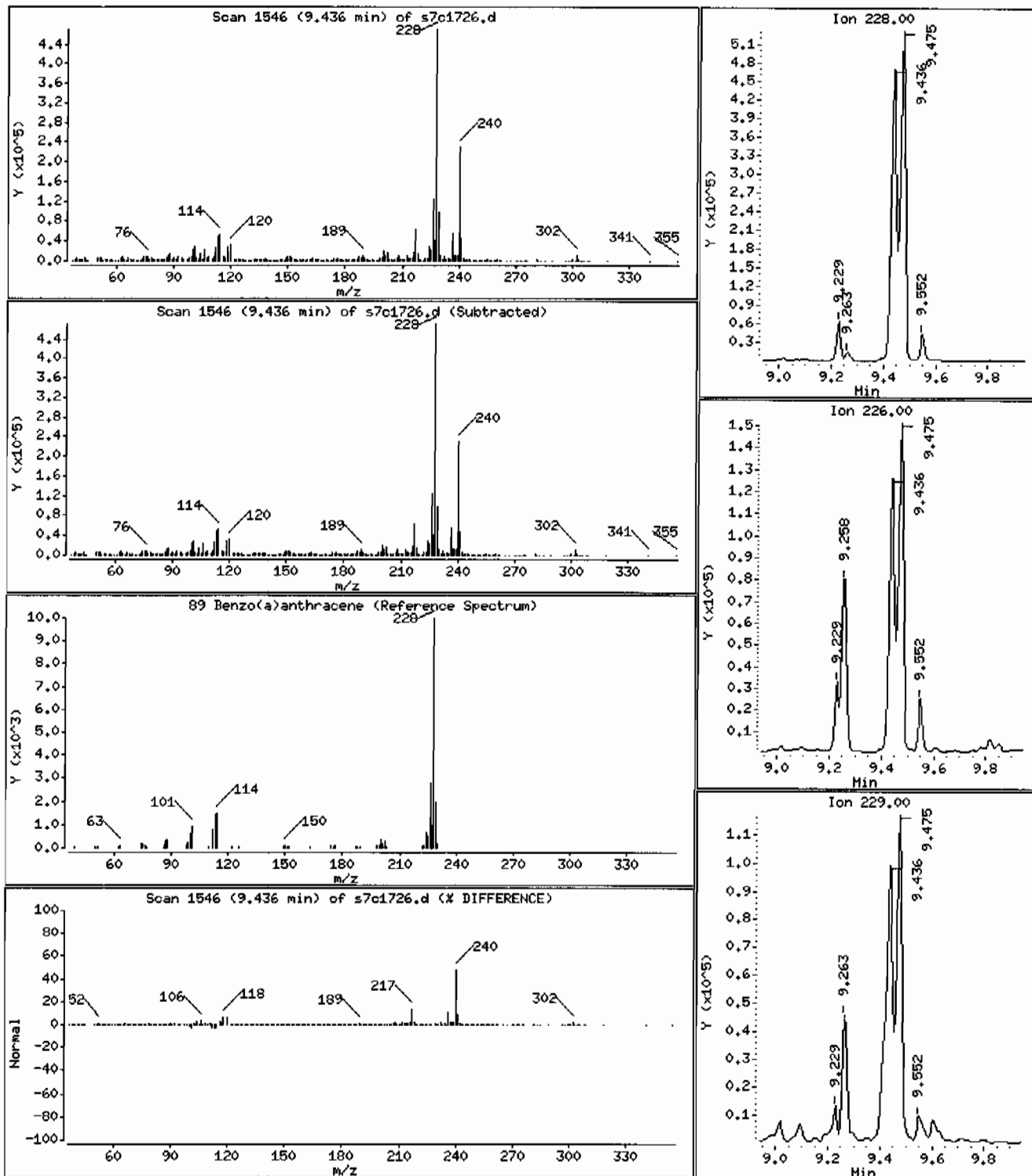
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 5160 ug/Kg





Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: I248043004196529014ISVMI4ILANL\_rx

Volume Injected (uL): 0.5

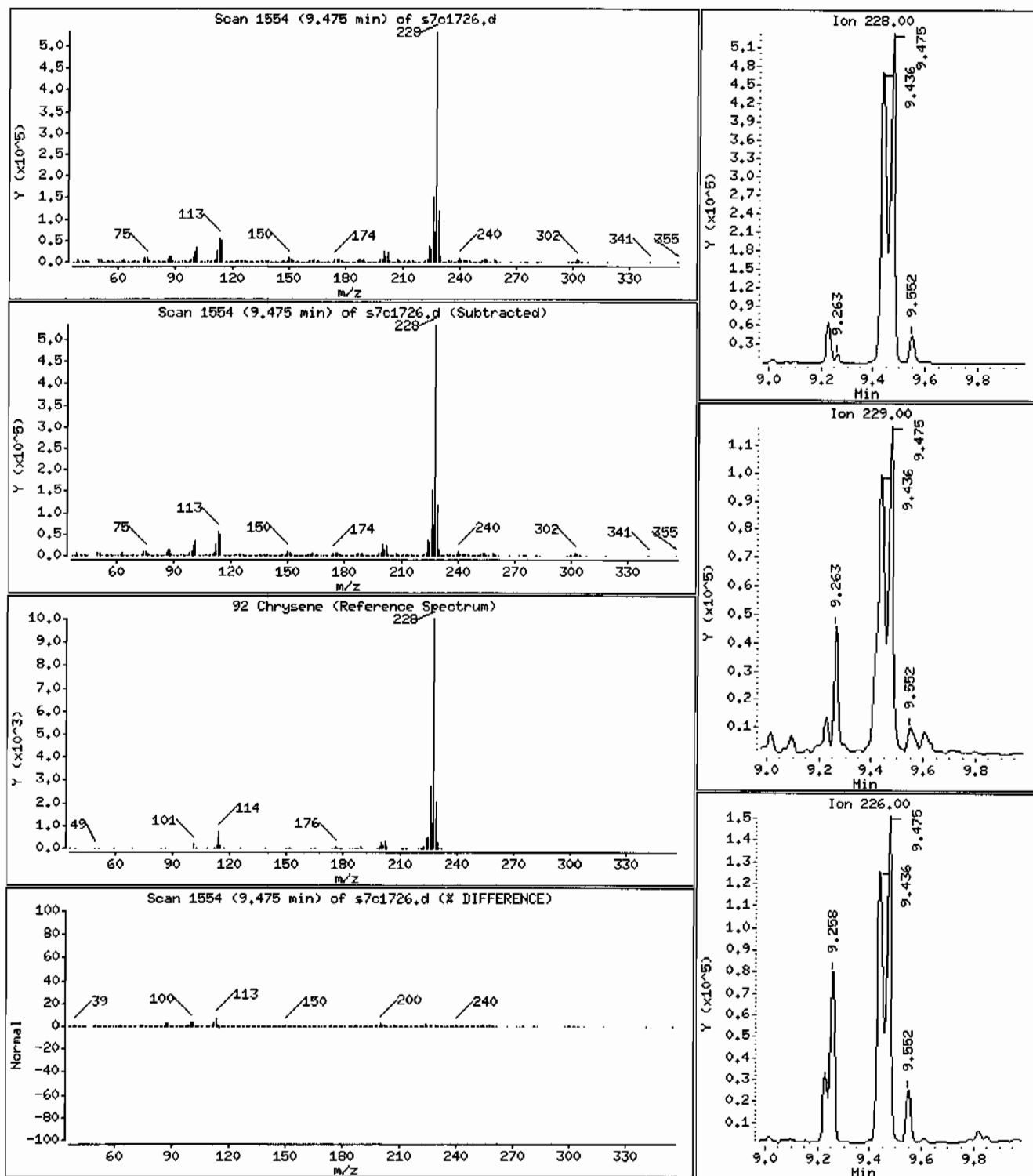
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 5630 ug/Kg



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: I248043004196529014ISVH14ILANL\_rx

Volume Injected (uL): 0.5

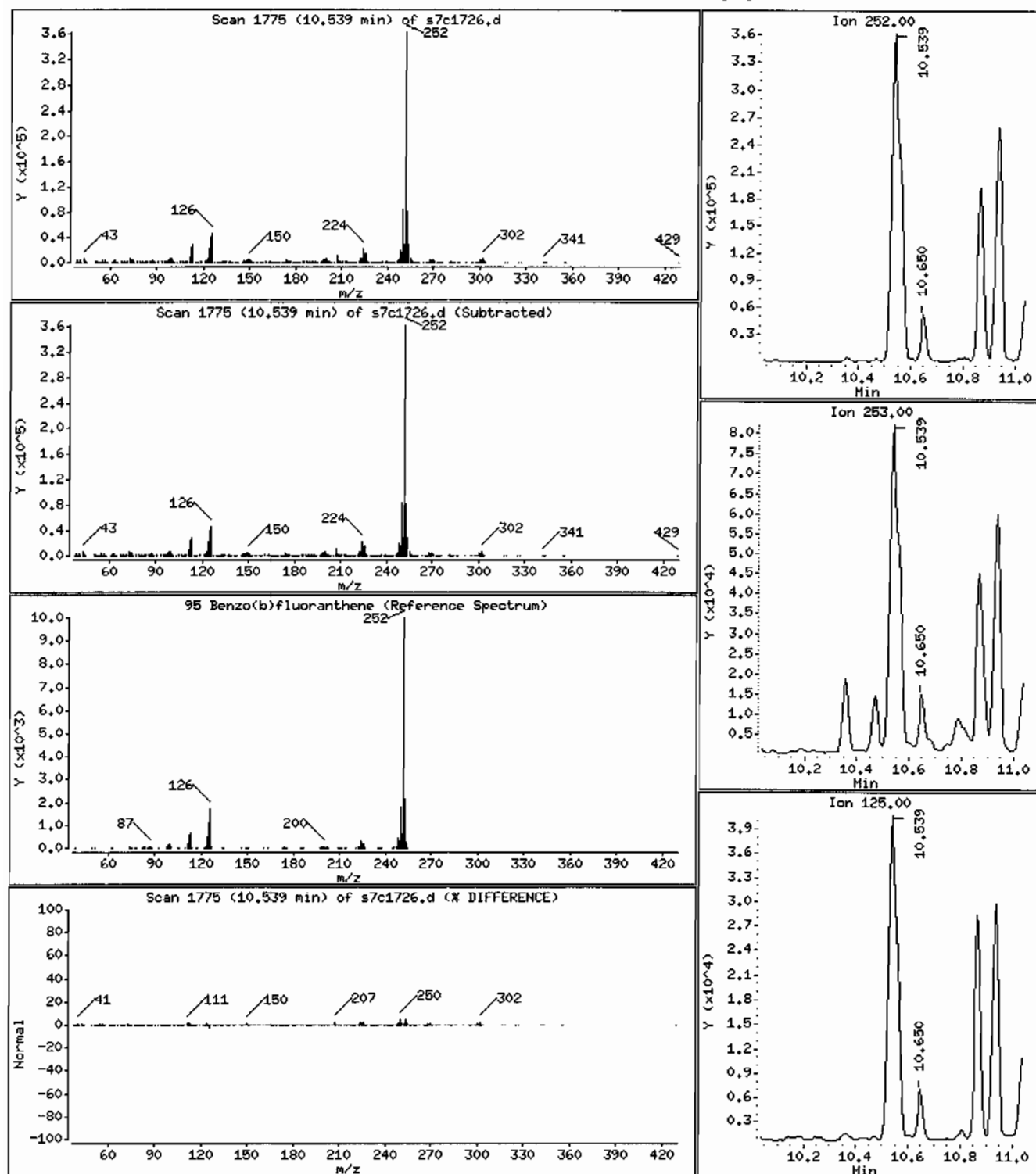
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 8120 ug/Kg



Date: 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: 12480430041965290141SVHI41LANL\_rx

Volume Injected (uL): 0.5

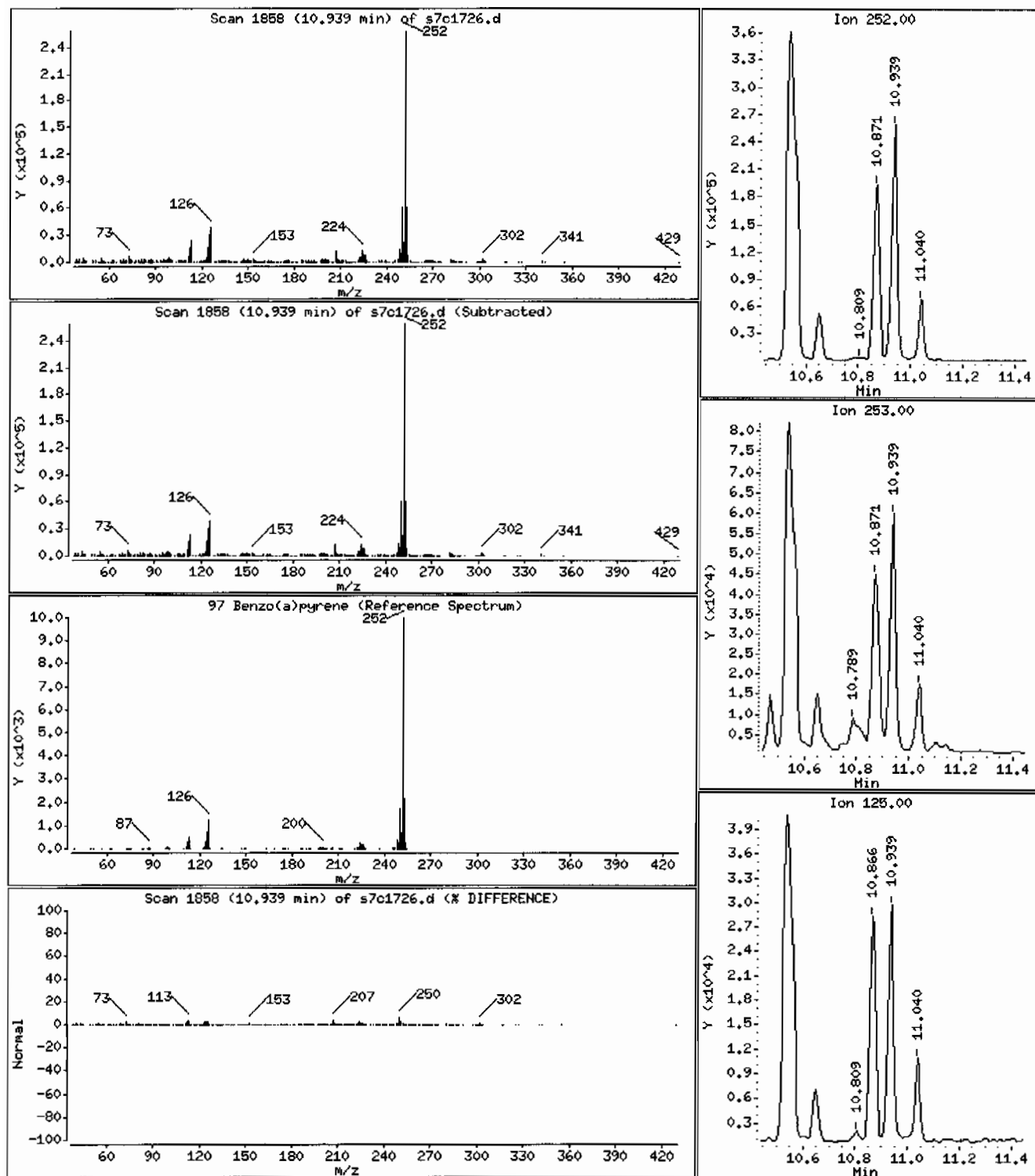
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 4610 ug/Kg



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: HSD7.i

Sample Info: 12480430041965290141SVH141LANL\_rx

Volume Injected (uL): 0.5

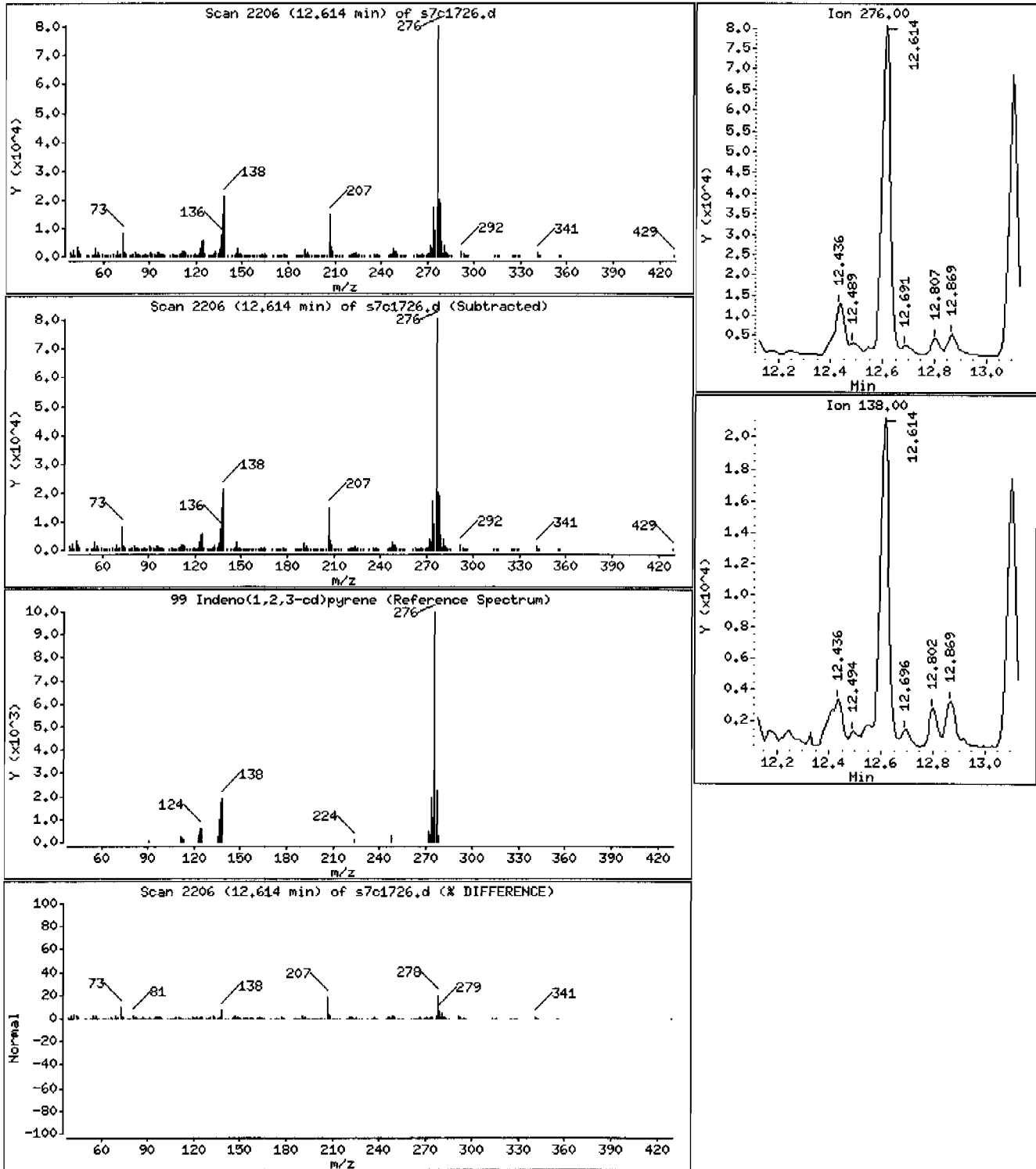
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 2750 ug/Kg



Date: 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: 12480430041965290141SVH141LANL\_rx

Volume Injected (uL): 0.5

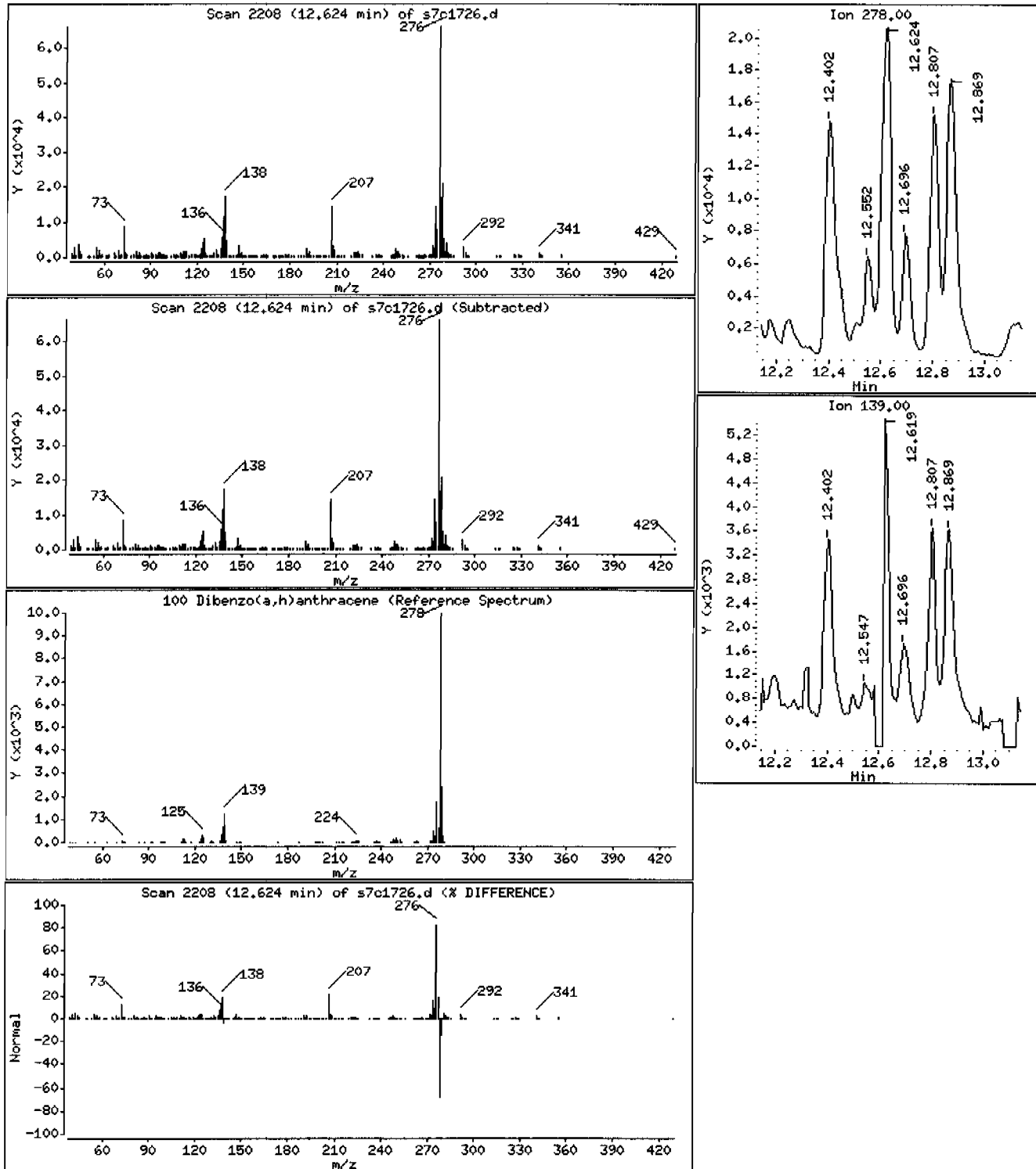
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 906 ug/Kg



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: I248043004196529014ISVH141LANL\_rx

Volume Injected (uL): 0.5

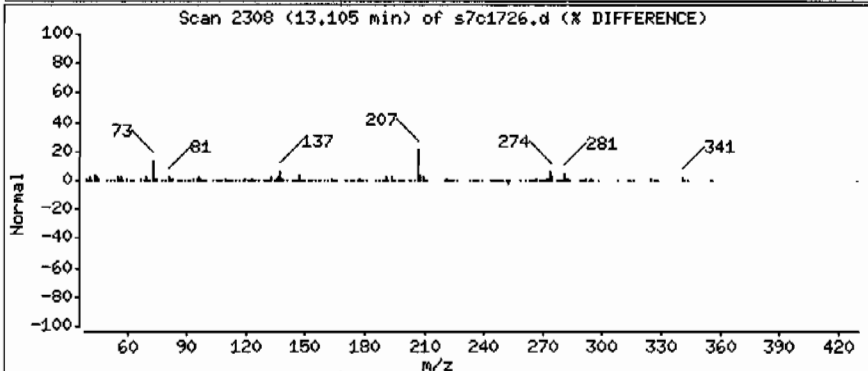
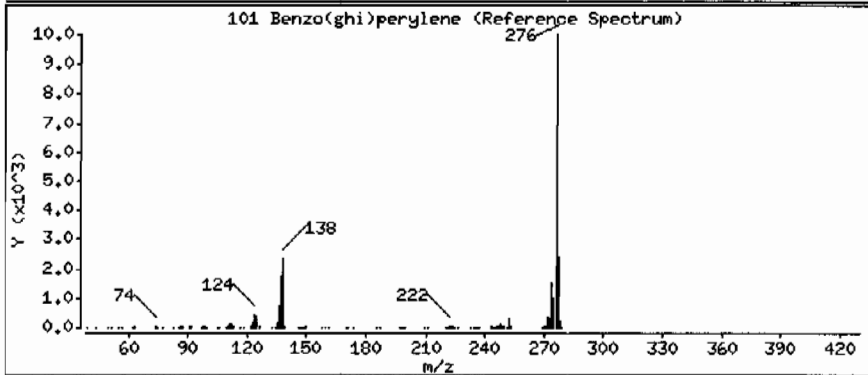
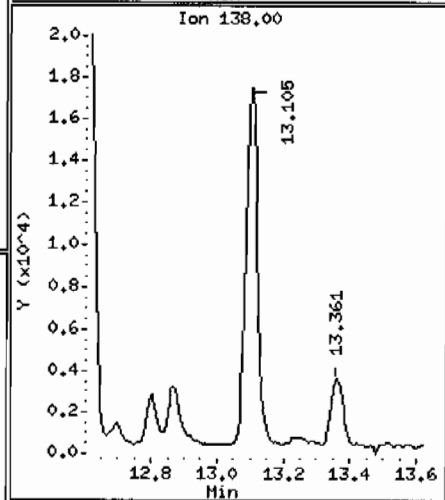
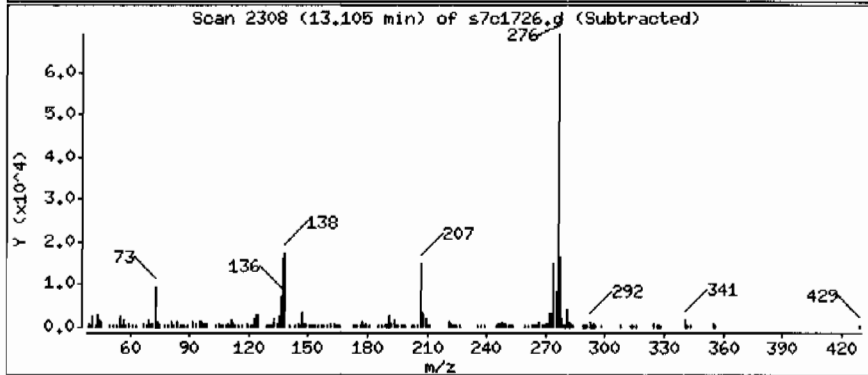
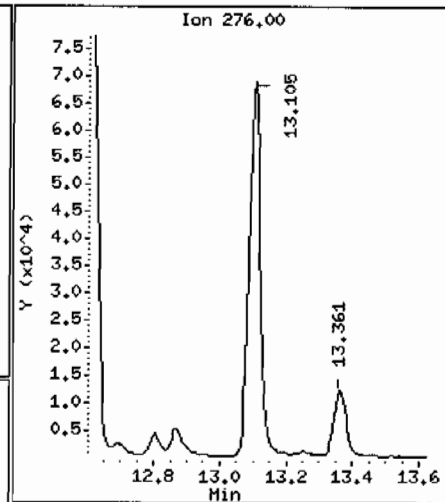
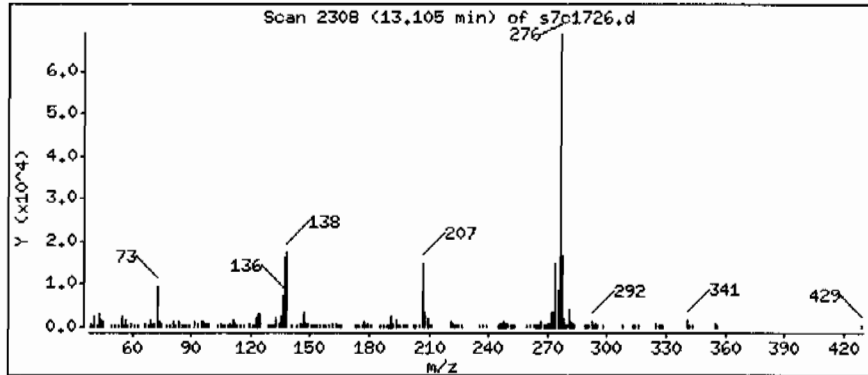
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 3090 ug/Kg



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: I2480430041965290141SVH141LANL\_rx

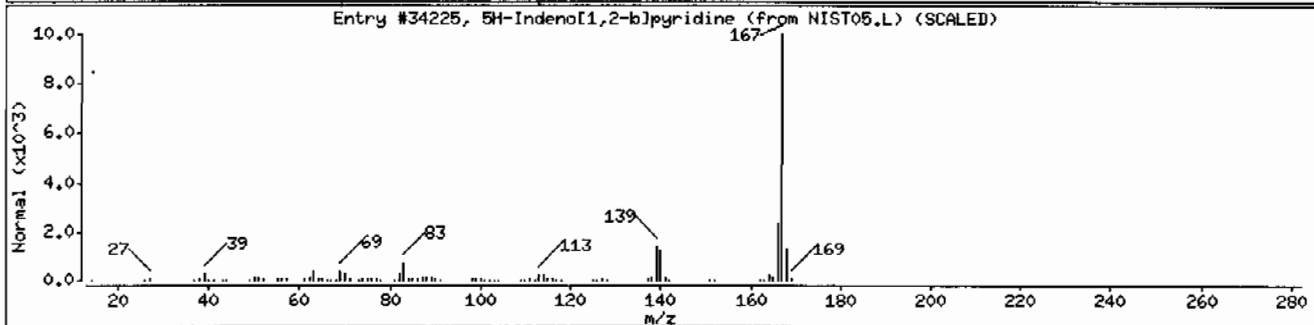
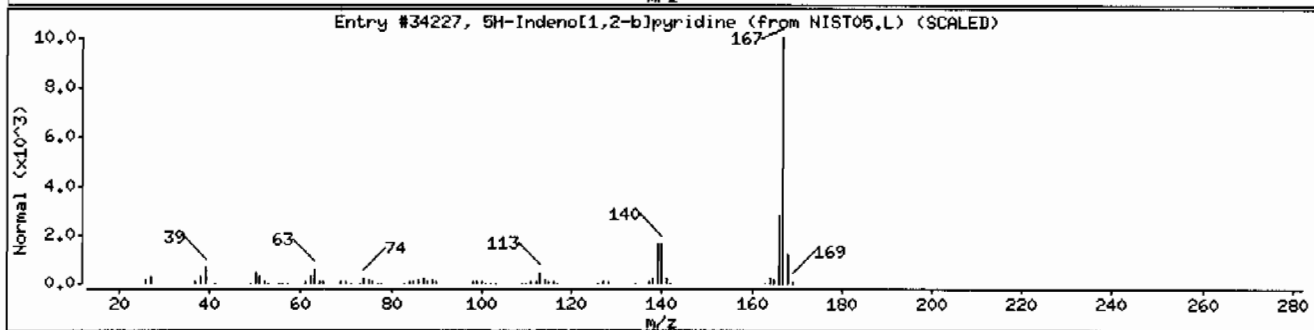
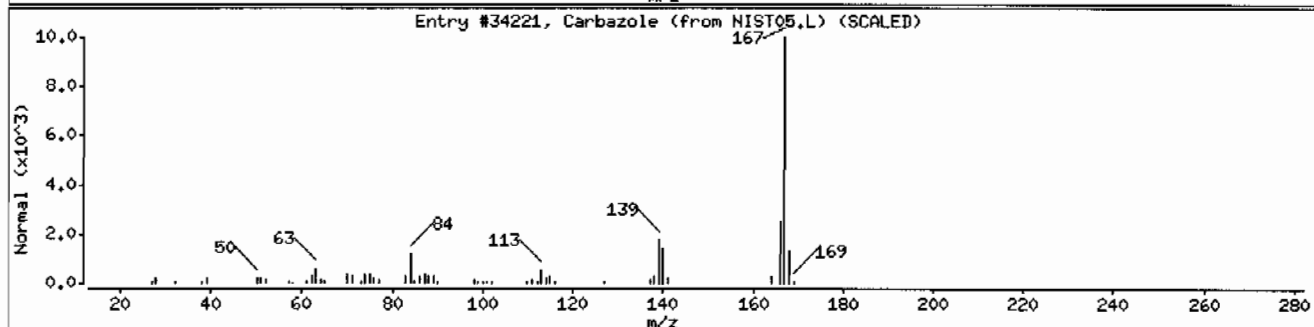
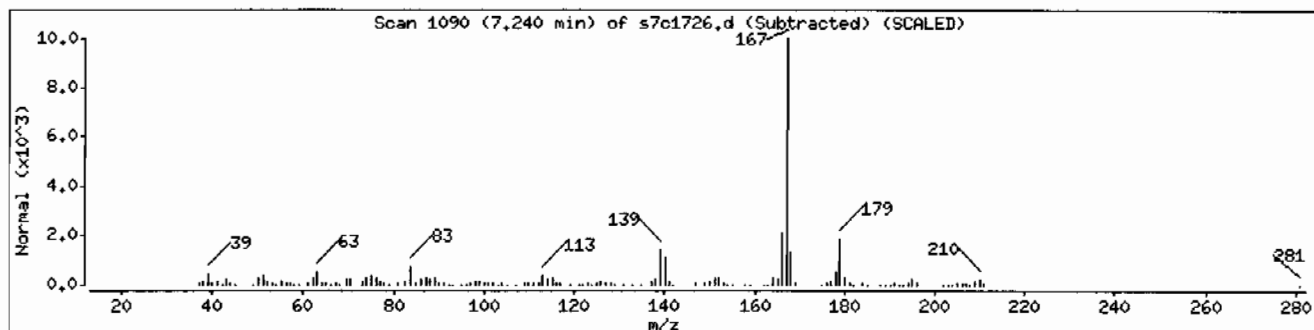
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Carbazole	86-74-8	NIST05.L	34221	95	C12H9N	167
5H-Indeno[1,2-b]pyridine	244-99-5	NIST05.L	34227	94	C12H9N	167
5H-Indeno[1,2-b]pyridine	244-99-5	NIST05.L	34225	94	C12H9N	167



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: I248043004I96529014ISVMH4ILANL\_rx

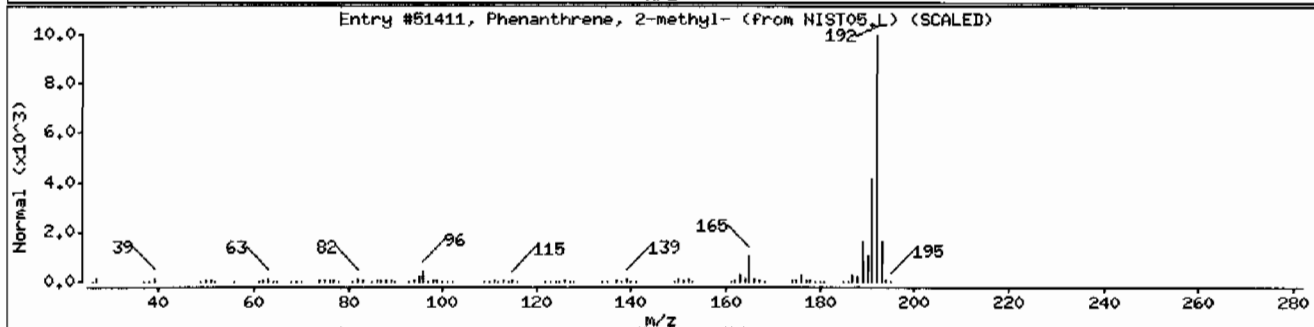
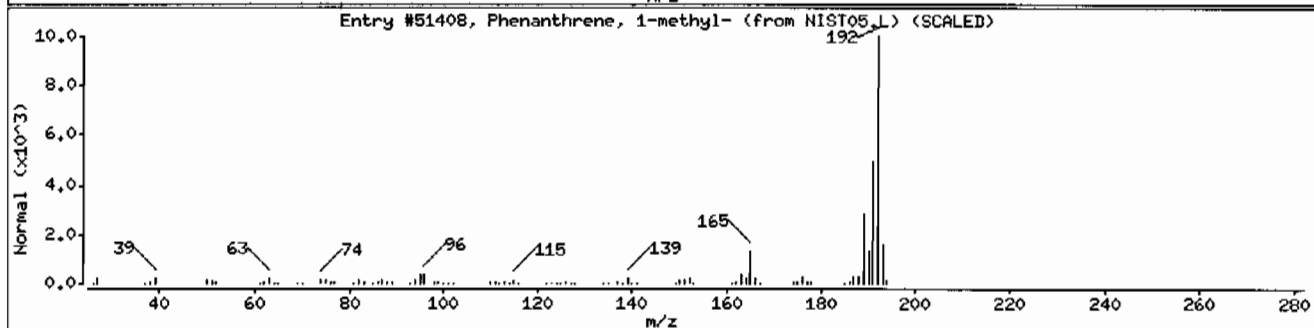
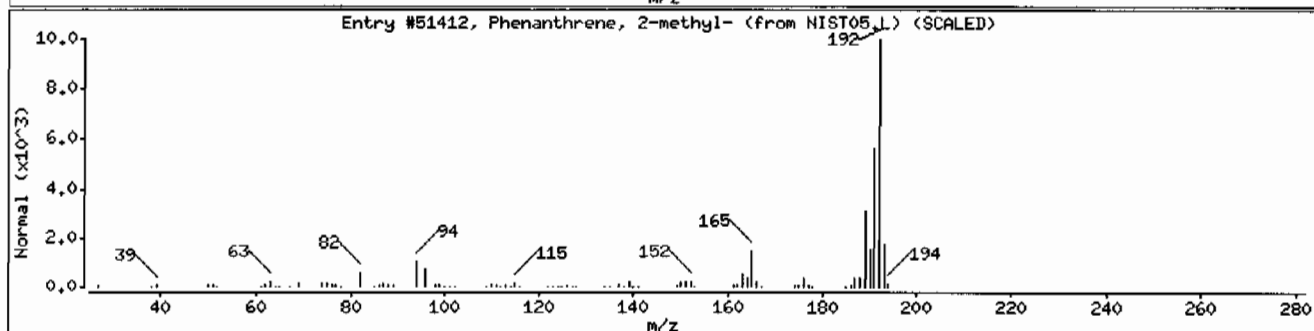
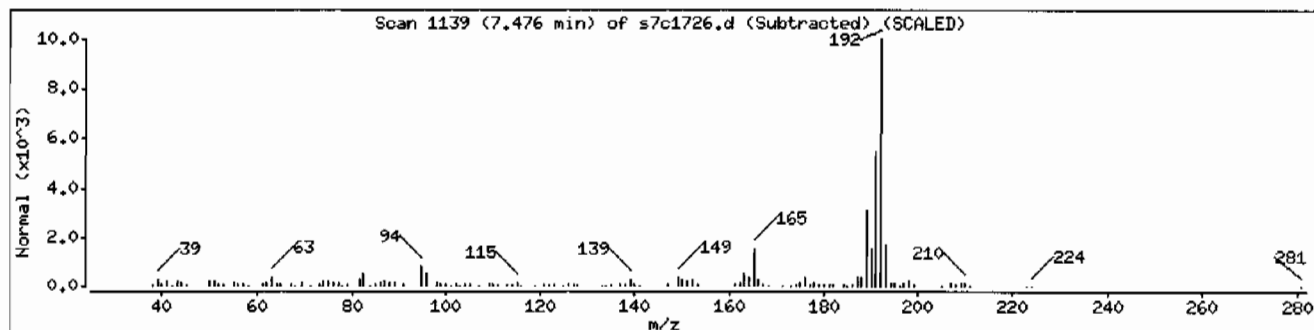
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51412	98	C15H12	192
Phenanthrene, 1-methyl-	832-69-9	NIST05.L	51408	98	C15H12	192
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51411	96	C15H12	192





Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.1

Sample Info: I248043004196529014ISVM14ILANL\_rx

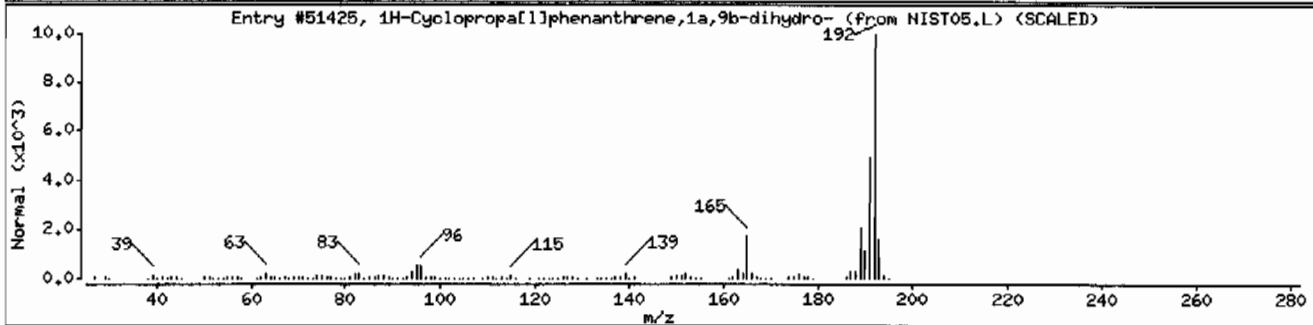
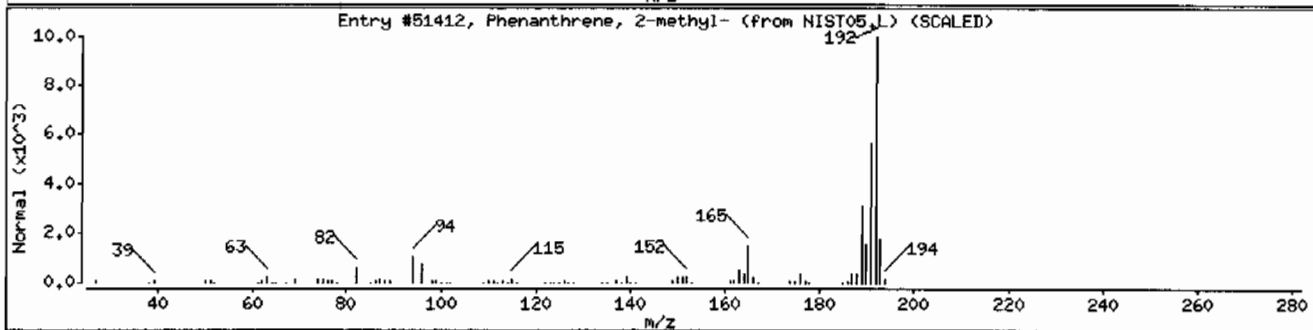
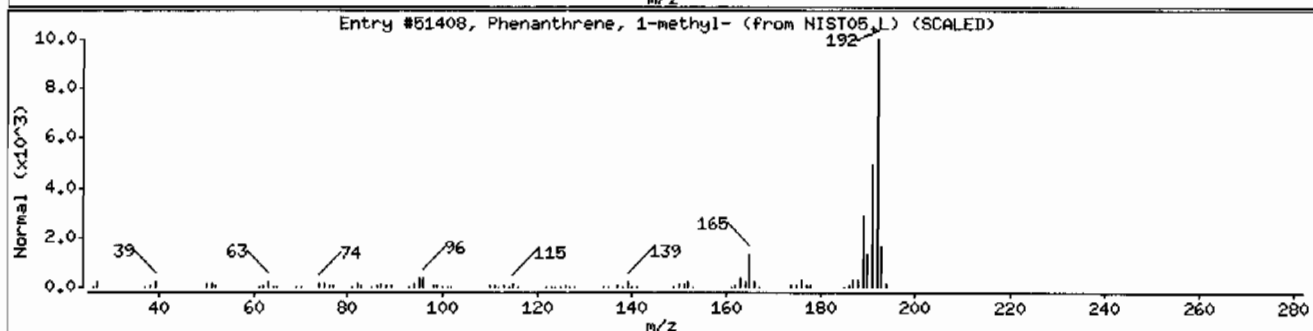
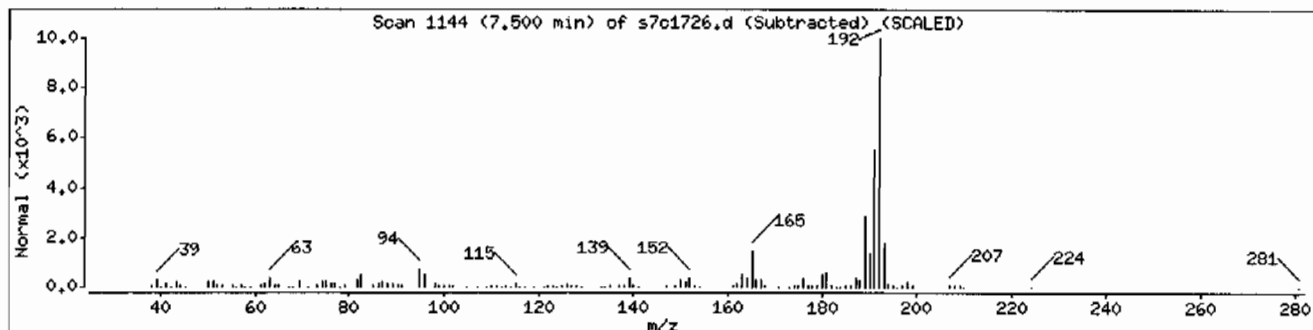
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 1-methyl-	832-69-9	NIST05.L	51408	98	C15H12	192
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51412	98	C15H12	192
1H-Cyclopropa[1]phenanthrene,1a,9b-dihyd	949-41-7	NIST05.L	51425	97	C15H12	192



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: HSD7.i

Sample Info: 1248043004196529014ISVH14ILANL\_rx

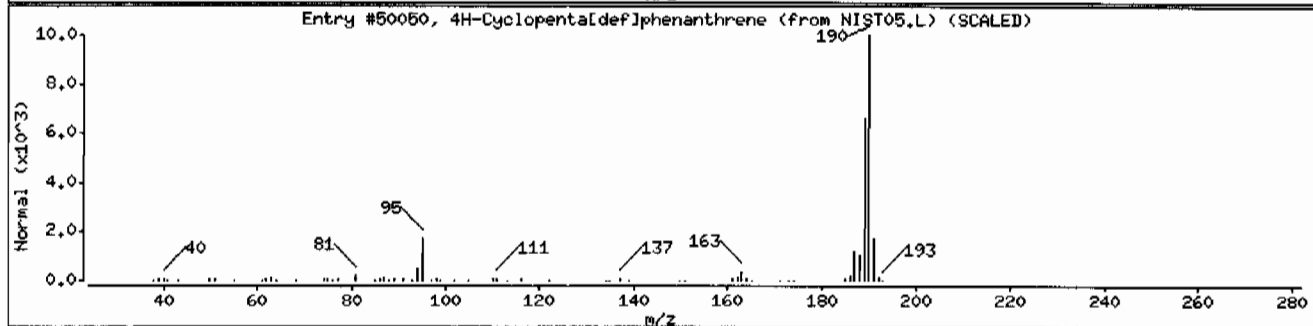
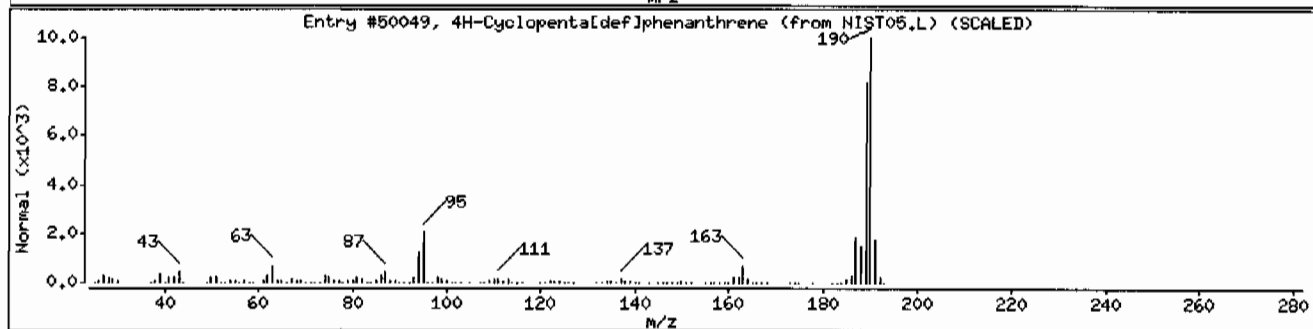
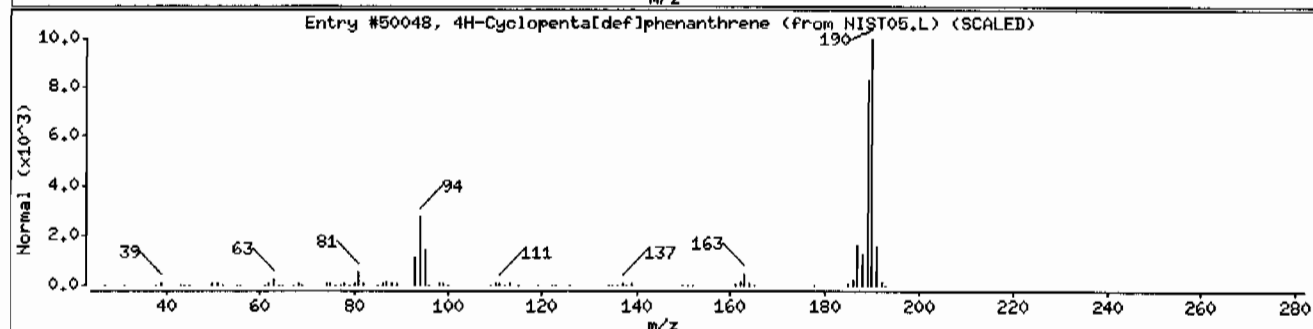
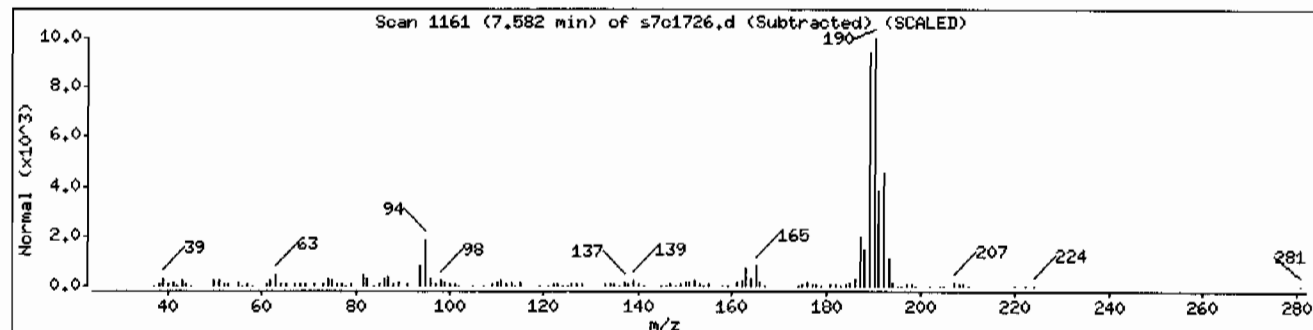
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50048	76	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50049	64	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50050	58	C15H10	190



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: I2480430041965290141SVH141LANL\_rx

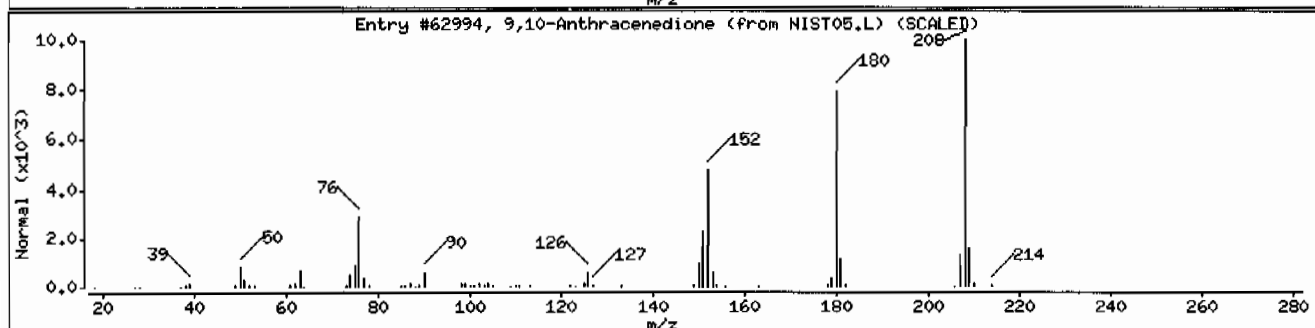
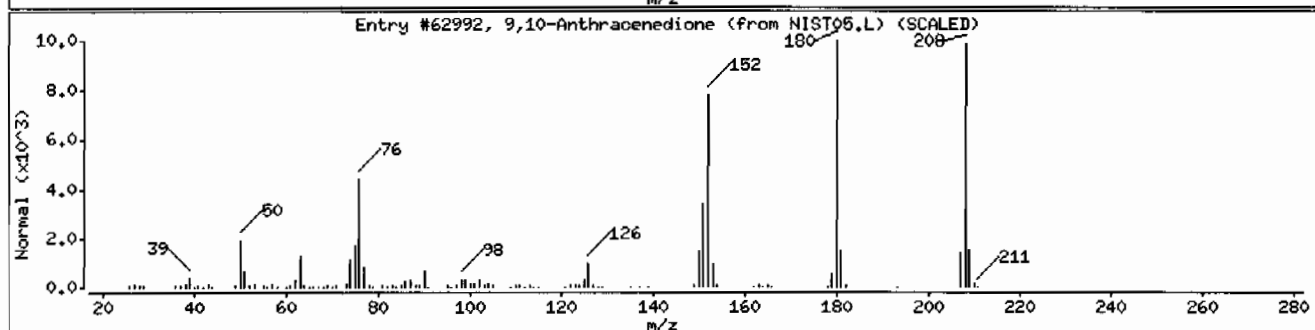
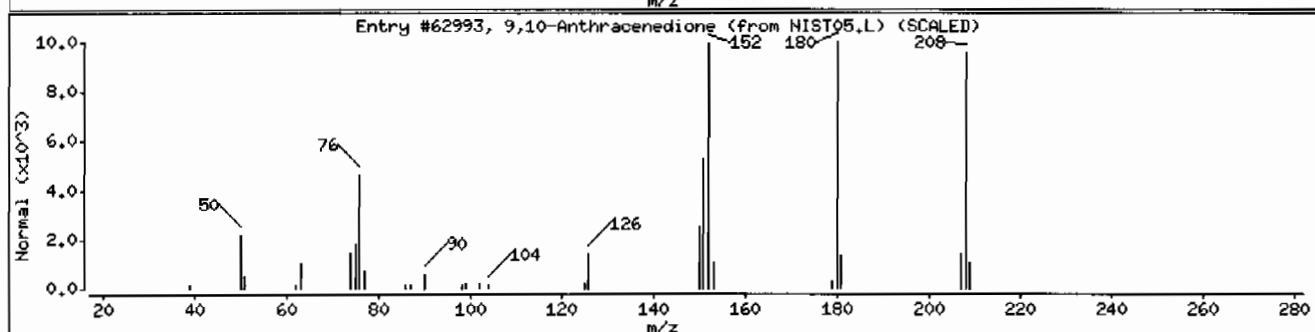
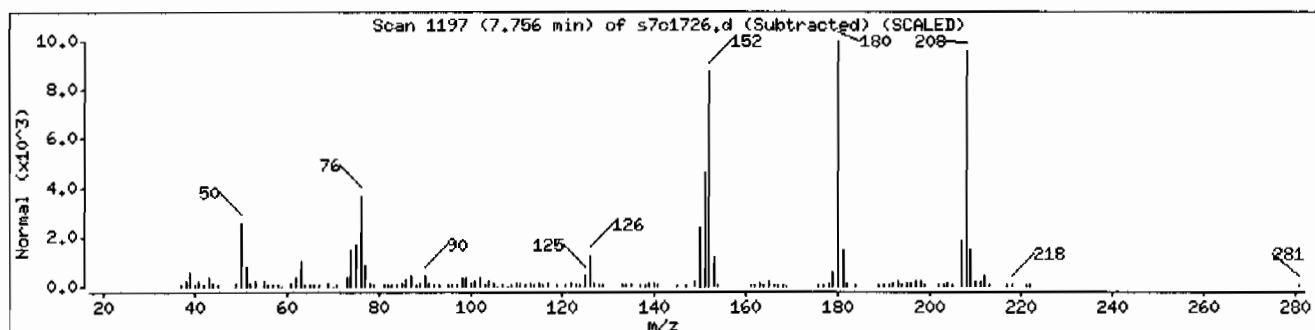
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Hatch	CAS Number	Library	Entry	Quality	Formula	Weight
9,10-Anthracenedione	84-65-1	NIST05.L	62993	99	C14H8O2	208
9,10-Anthracenedione	84-65-1	NIST05.L	62992	96	C14H8O2	208
9,10-Anthracenedione	84-65-1	NIST05.L	62994	94	C14H8O2	208



Date: 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: I2480430041965290141SVH141LANL\_rx

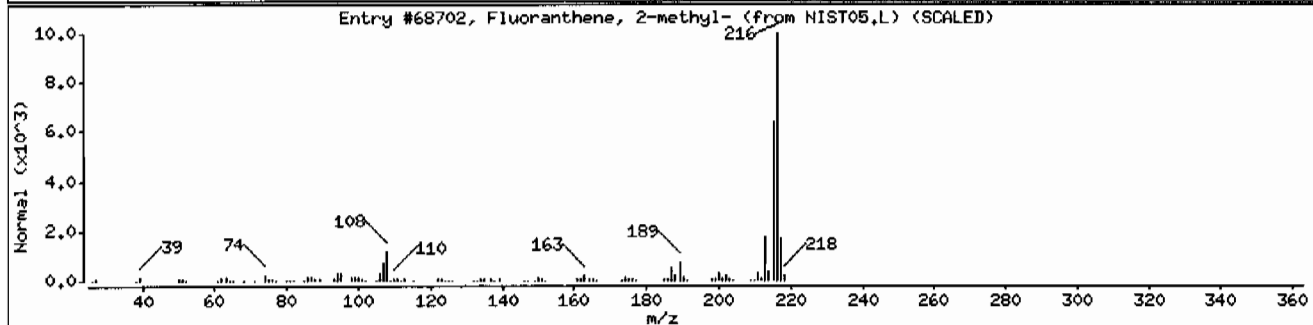
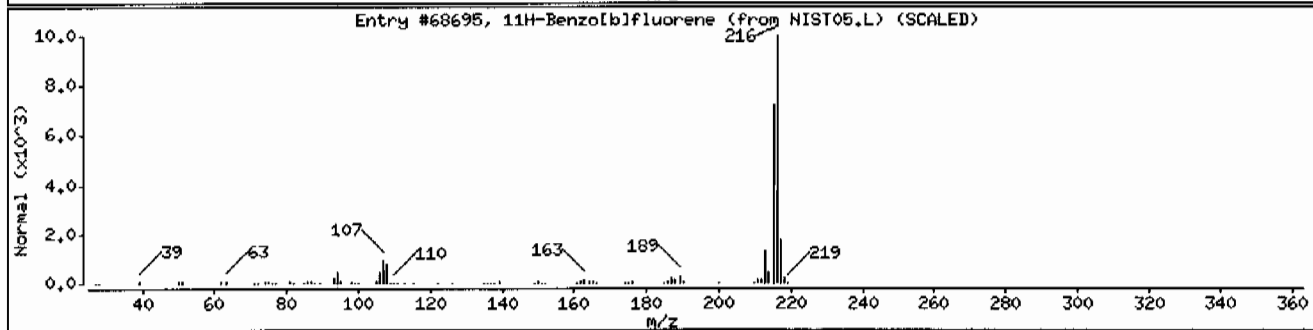
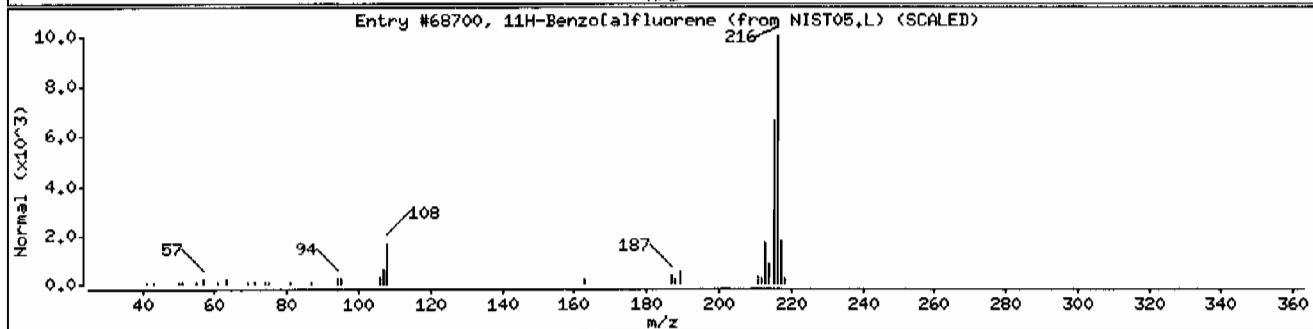
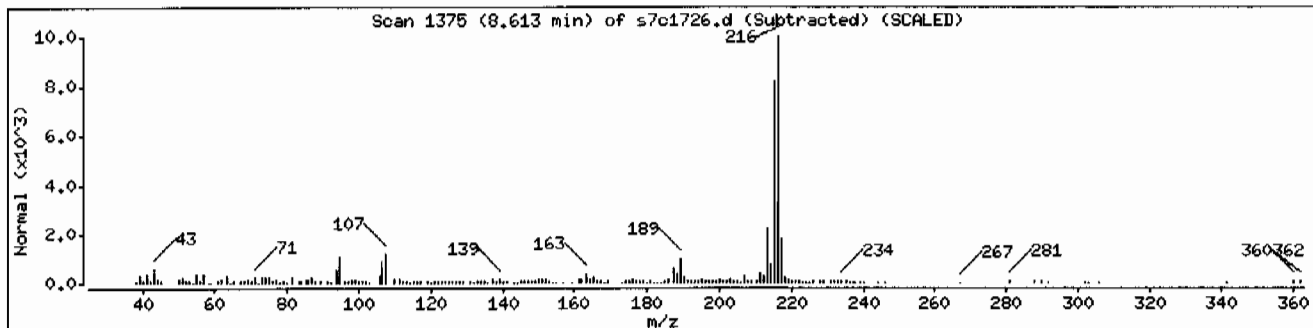
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[a]fluorene	238-84-6	NIST05.L	68700	95	C17H12	216
11H-Benzo[b]fluorene	243-17-4	NIST05.L	68695	95	C17H12	216
Fluoranthene, 2-methyl-	33543-31-6	NIST05.L	68702	94	C17H12	216



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: HSD7.i

Sample Info: I2480430041965290141SVH141LANL\_rx

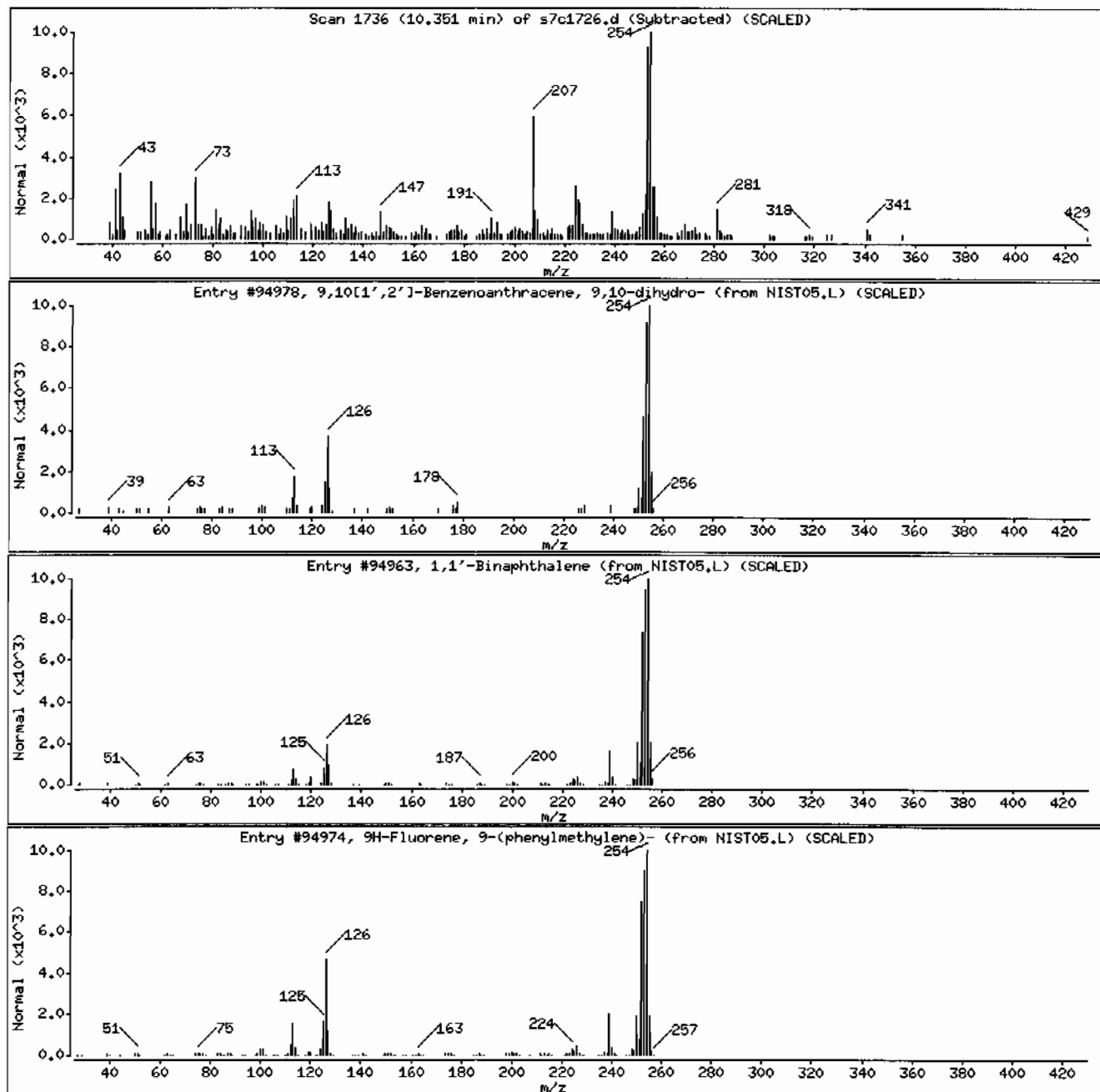
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9,10[1',2']-Benzenoanthracene, 9,10-dihy	477-75-8	NIST05.L	94978	78	C20H14	254
1,1'-Binaphthalene	604-53-5	NIST05.L	94963	60	C20H14	254
9H-Fluorene, 9-(phenylmethylene)-	1836-87-9	NIST05.L	94974	60	C20H14	254



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: HSD7.i

Sample Info: I2480430041965290141SVH141LANL\_rx

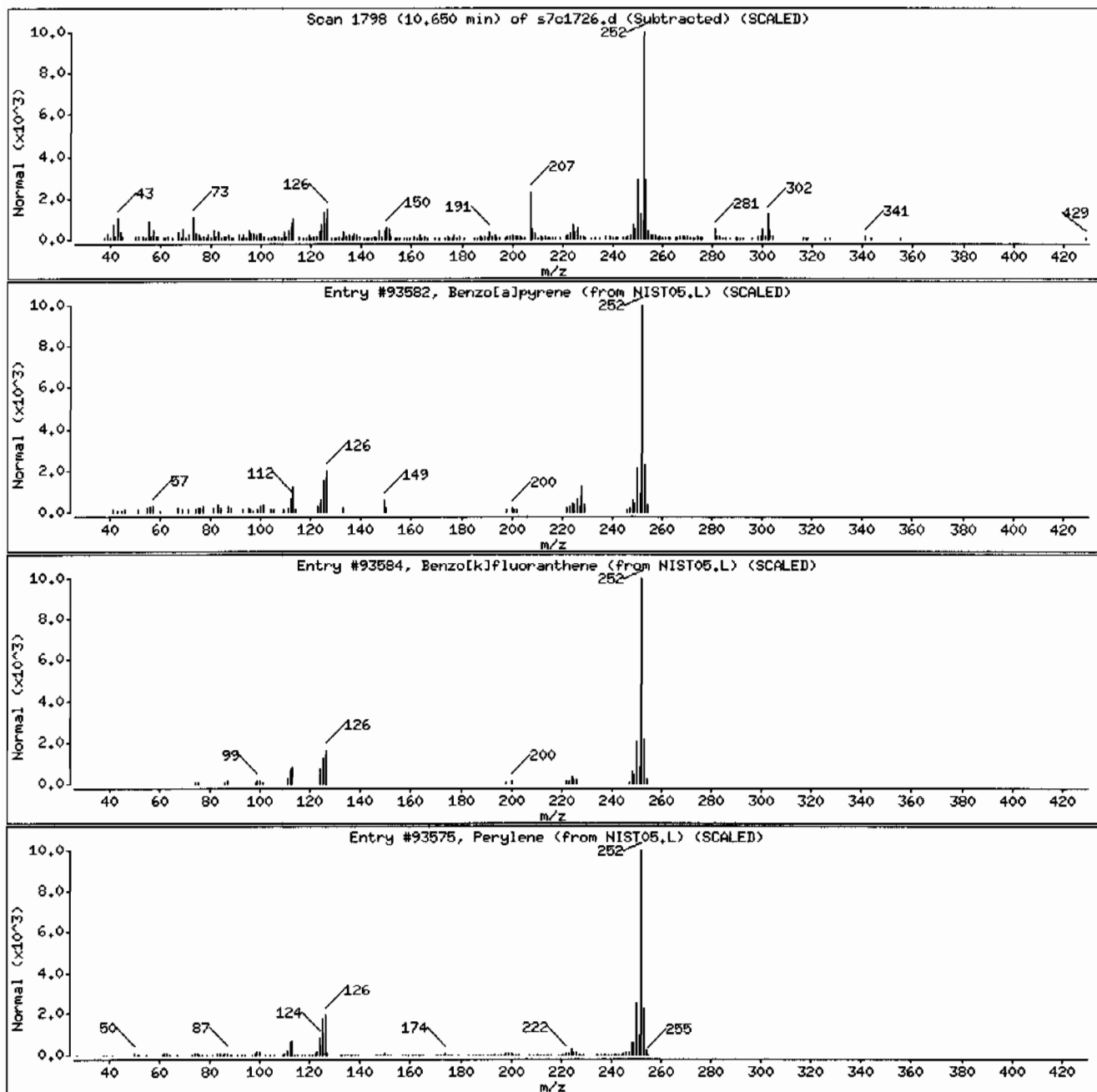
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzo[a]pyrene	50-32-8	NIST05.L	93582	95	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	91	C20H12	252
Perylene	198-55-0	NIST05.L	93575	90	C20H12	252



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: 12480430041965290141SVH141LANL\_rx

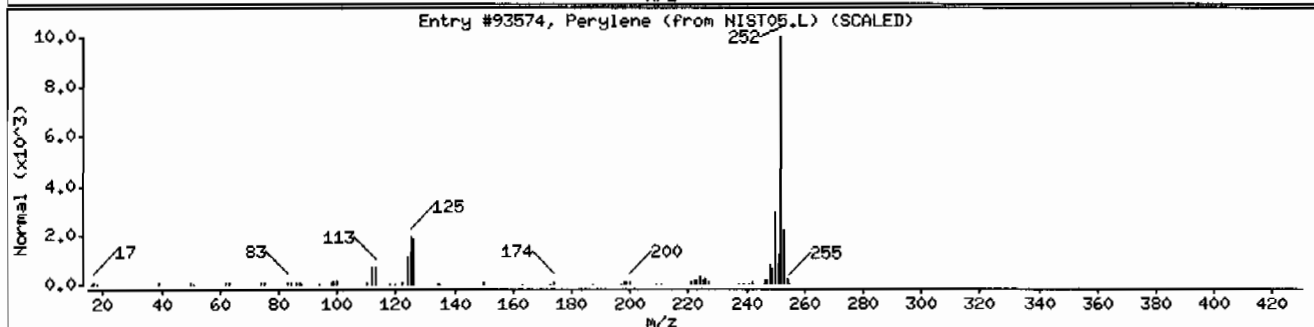
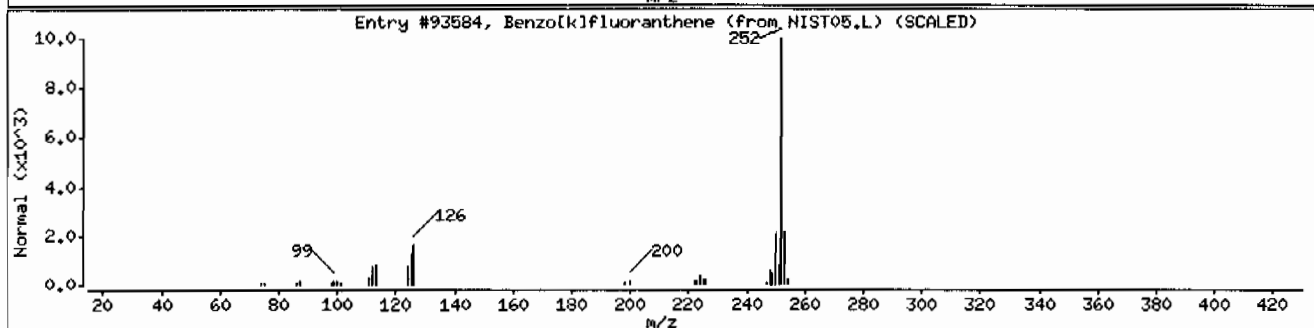
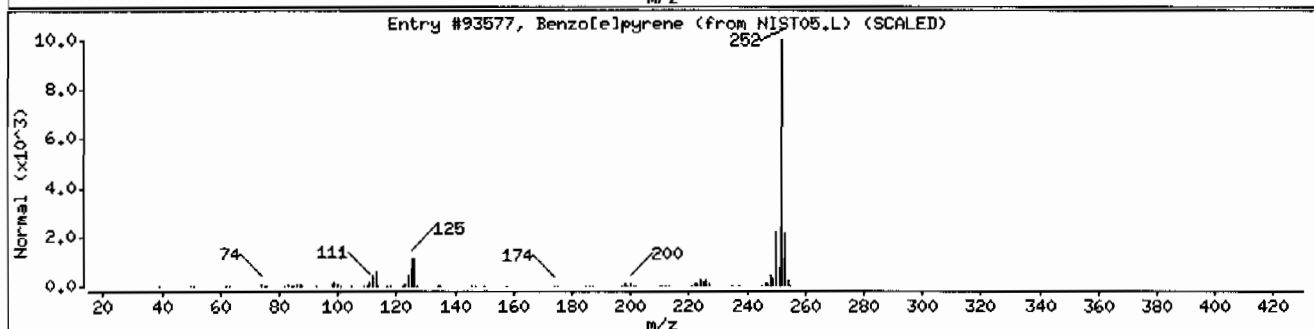
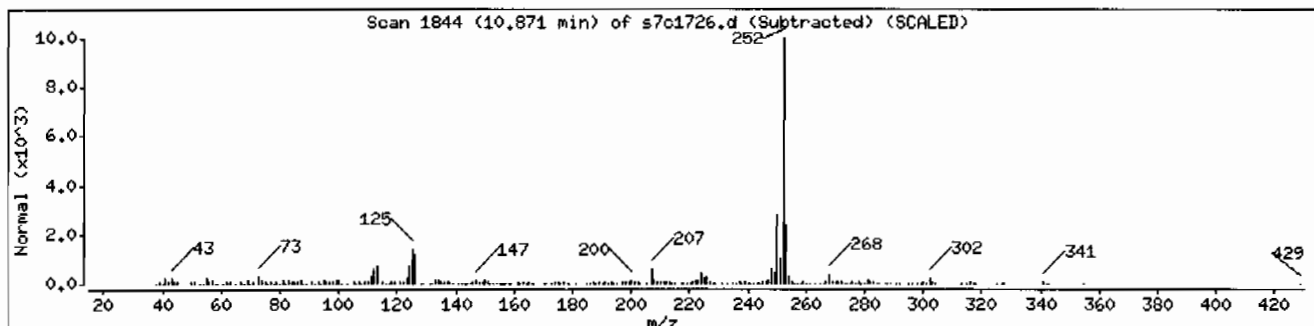
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[e]pyrene	192-97-2	NIST05.L	93577	99	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	98	C20H12	252
Perylene	198-55-0	NIST05.L	93574	96	C20H12	252



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: I248043004I96529014ISVH14ILANL\_rx

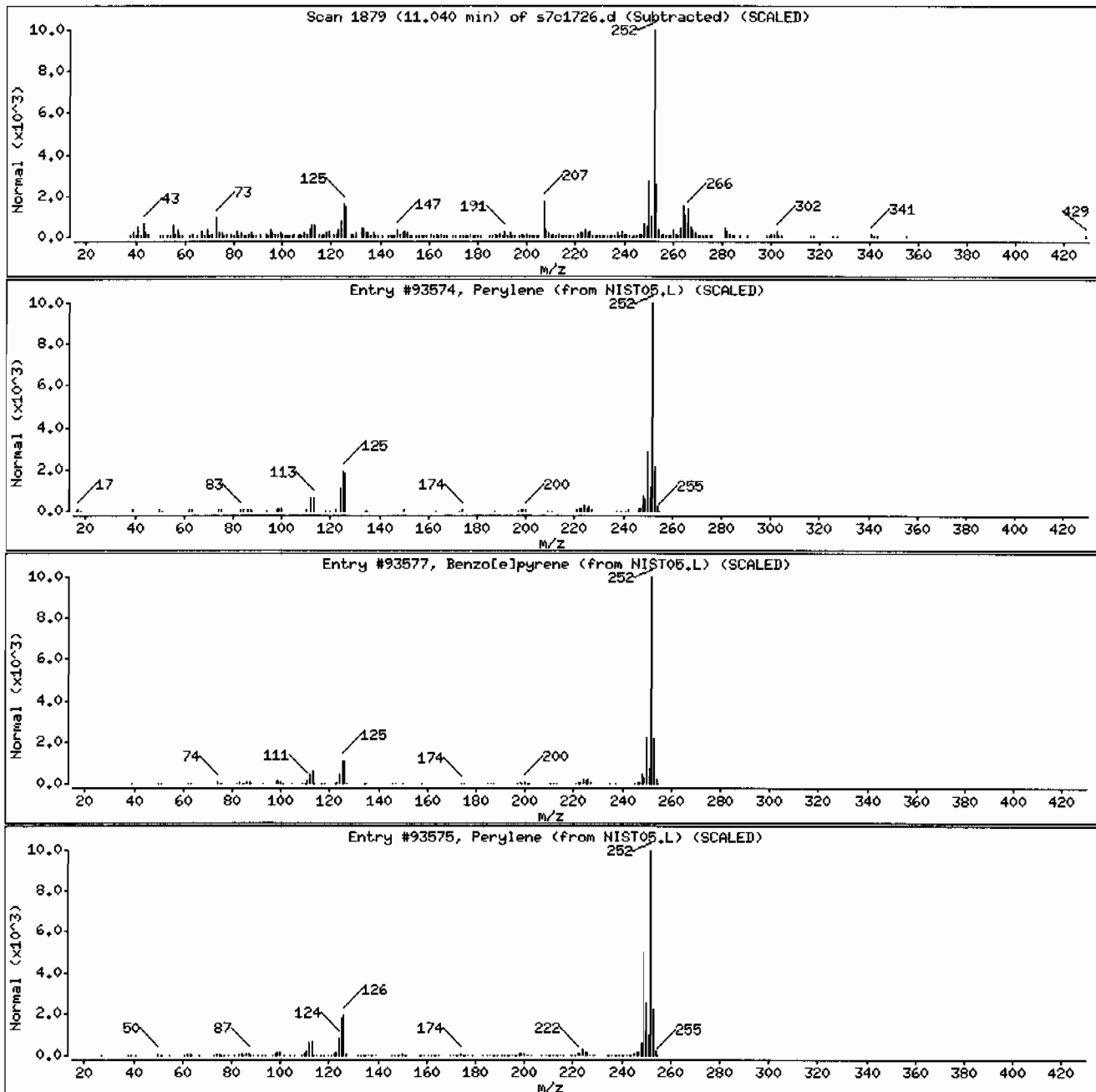
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Perylene	198-55-0	NIST05.L	93574	96	C20H12	252
Benzo[el]pyrene	192-97-2	NIST05.L	93577	95	C20H12	252
Perylene	198-55-0	NIST05.L	93575	95	C20H12	252





Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: I248043004196529014ISVH14ILANL\_rx

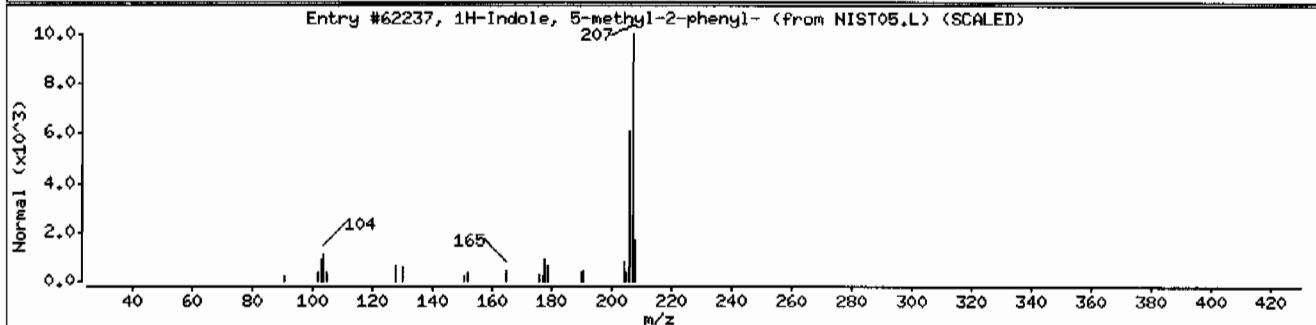
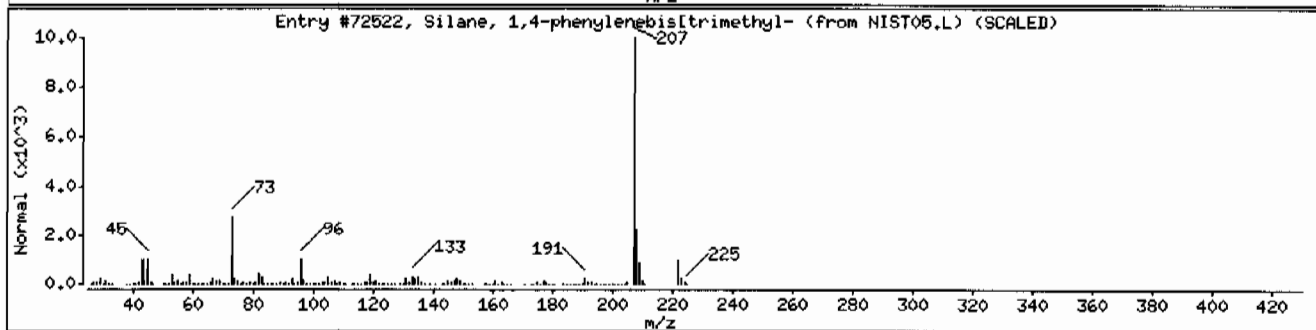
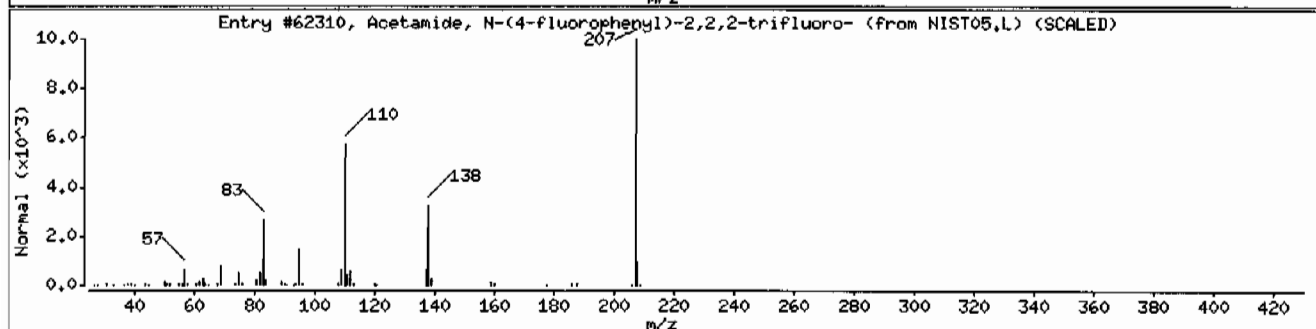
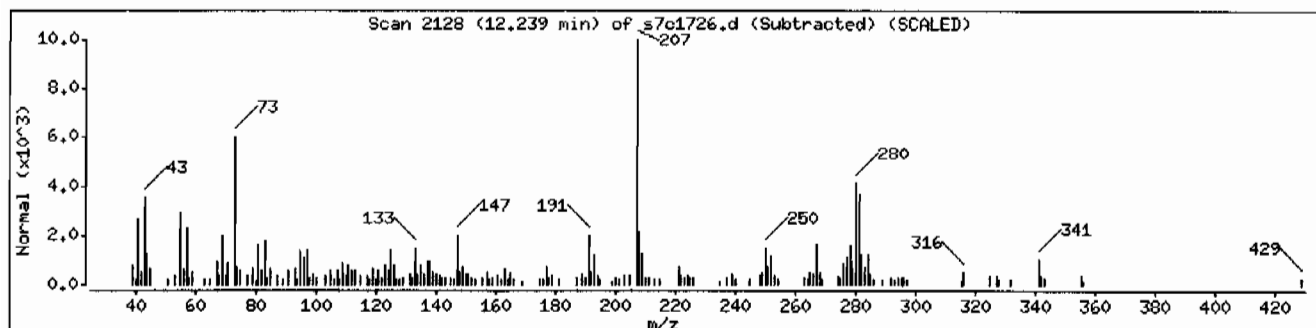
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acetamide, N-(4-fluorophenyl)-2,2,2-trif	1000307-30-8	NIST05.L	62310	42	C8H5F4NO	207
Silane, 1,4-phenylenebis(trimethyl-	13183-70-5	NIST05.L	72522	41	C12H22Si2	222
1H-Indole, 5-methyl-2-phenyl-	13228-36-9	NIST05.L	62237	38	C15H13N	207



Date : 17-MAR-2010 18:50

Client ID: RE36-10-7465REDL

Instrument: MSD7.i

Sample Info: 1248043004196529014ISVH14ILANL\_rx

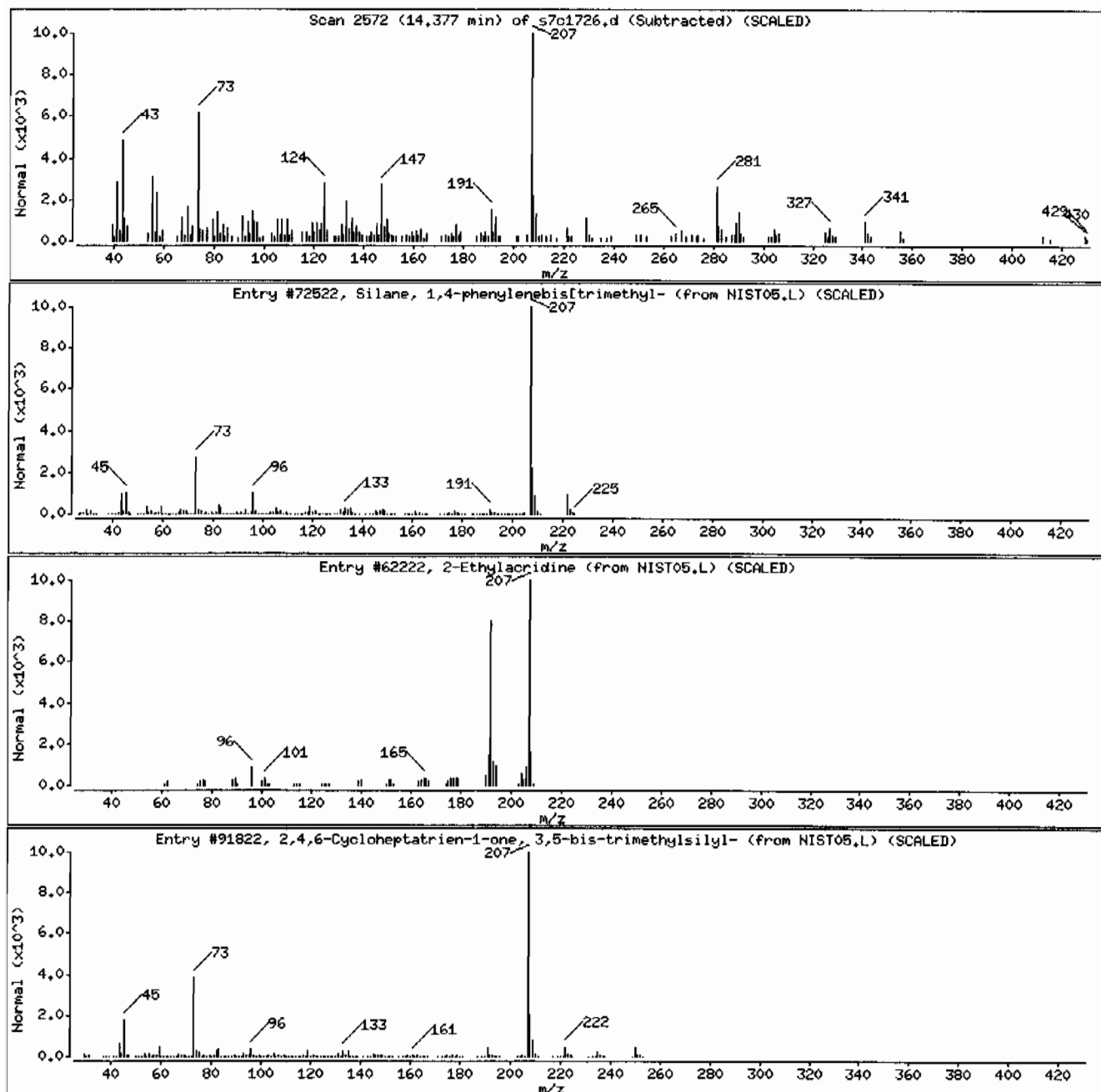
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Silane, 1,4-phenylenebis(trimethyl-	13183-70-5	NIST05.L	72522	46	C12H22Si2	222
2-Ethylacridine	55751-83-2	NIST05.L	62222	45	C15H13N	207
2,4,6-Cycloheptatrien-1-one, 3,5-bis-tri	1000161-21-8	NIST05.L	91822	43	C13H22OSi2	250



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043012

Client ID: RE36-10-7466  
Batch ID: 959623  
Run Date: 03/12/2010 22:39  
Prep Date: 03/02/2010 11:17  
Data File: s7c1229.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQ1/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	418	ug/kg	83.6	418
108-95-2	Phenol	U	418	ug/kg	83.6	418
95-57-8	2-Chlorophenol	U	418	ug/kg	83.6	418
106-46-7	1,4-Dichlorobenzene	U	418	ug/kg	83.6	418
621-64-7	N-Nitrosodipropylamine	U	418	ug/kg	83.6	418
59-50-7	4-Chloro-3-methylphenol	U	418	ug/kg	83.6	418
83-32-9	Acenaphthene		108	ug/kg	13.8	41.8
121-14-2	2,4-Dinitrotoluene	U	418	ug/kg	41.8	418
100-02-7	4-Nitrophenol	U	418	ug/kg	138	418
87-86-5	Pentachlorophenol	U	418	ug/kg	104	418
129-00-0	Pyrene		1360	ug/kg	12.5	41.8
110-86-1	Pyridine	U	418	ug/kg	83.6	418
62-53-3	Aniline	U	418	ug/kg	125	418
111-44-4	bis(2-Chloroethyl) ether	U	418	ug/kg	83.6	418
541-73-1	1,3-Dichlorobenzene	U	418	ug/kg	83.6	418
100-51-6	Benzyl alcohol	U	418	ug/kg	125	418
95-50-1	1,2-Dichlorobenzene	U	418	ug/kg	83.6	418
108-60-1	bis(2-Chloroisopropyl)ether	U	418	ug/kg	83.6	418
95-48-7	o-Cresol	U	418	ug/kg	83.6	418
65794-96-9	m,p-Cresols	U	418	ug/kg	125	418
67-72-1	Hexachloroethane	U	418	ug/kg	83.6	418
98-95-3	Nitrobenzene	U	418	ug/kg	83.6	418
78-59-1	Isophorone	U	418	ug/kg	83.6	418
88-75-5	2-Nitrophenol	U	418	ug/kg	83.6	418
105-67-9	2,4-Dimethylphenol	U	418	ug/kg	146	418
111-91-1	bis(2-Chloroethoxy)methane	U	418	ug/kg	83.6	418
120-83-2	2,4-Dichlorophenol	U	418	ug/kg	83.6	418
65-85-0	Benzoic acid	U	836	ug/kg	209	836
91-20-3	Naphthalene	J	31.5	ug/kg	12.5	41.8
106-47-8	4-Chloroaniline	U	418	ug/kg	83.6	418
87-68-3	Hexachlorobutadiene	U	418	ug/kg	83.6	418
91-57-6	2-Methylnaphthalene	J	20.2	ug/kg	8.36	41.8
77-47-4	Hexachlorocyclopentadiene	U	418	ug/kg	83.6	418
88-06-2	2,4,6-Trichlorophenol	U	418	ug/kg	83.6	418
95-95-4	2,4,5-Trichlorophenol	U	418	ug/kg	83.6	418
91-58-7	2-Chloronaphthalene	U	41.8	ug/kg	13.8	41.8
88-74-4	2-Nitroaniline	U	418	ug/kg	83.6	418
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	418	ug/kg	83.6	418

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043012

Client ID: RE36-10-7466  
Batch ID: 959623  
Run Date: 03/12/2010 22:39  
Prep Date: 03/02/2010 11:17  
Data File: s7c1229.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	418	ug/kg	83.6	418
606-20-2	2,6-Dinitrotoluene	U	418	ug/kg	41.8	418
208-96-8	Acenaphthylene	U	41.8	ug/kg	12.5	41.8
51-28-5	2,4-Dinitrophenol	U	836	ug/kg	159	836
132-64-9	Dibenzofuran	U	418	ug/kg	83.6	418
84-66-2	Diethylphthalate	U	418	ug/kg	83.6	418
86-73-7	Fluorene		102	ug/kg	12.5	41.8
7005-72-3	4-Chlorophenylphenylether	U	418	ug/kg	83.6	418
534-52-1	2-Methyl-4,6-dinitrophenol	U	418	ug/kg	83.6	418
100-01-6	4-Nitroaniline	U	418	ug/kg	125	418
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	418	ug/kg	83.6	418
122-66-7	Azobenzene	U	418	ug/kg	83.6	418
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	418	ug/kg	83.6	418
118-74-1	Hexachlorobenzene	U	418	ug/kg	83.6	418
85-01-8	Phenanthrene		1350	ug/kg	12.5	41.8
120-12-7	Anthracene		205	ug/kg	8.36	41.8
84-74-2	Di-n-butylphthalate	U	418	ug/kg	83.6	418
206-44-0	Fluoranthene		1440	ug/kg	12.5	41.8
85-68-7	Butylbenzylphthalate	U	418	ug/kg	83.6	418
56-55-3	Benzo(a)anthracene		604	ug/kg	12.5	41.8
91-94-1	3,3'-Dichlorobenzidine	U	418	ug/kg	125	418
218-01-9	Chrysene		681	ug/kg	12.5	41.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	418	ug/kg	83.6	418
117-84-0	Di-n-octylphthalate	U	418	ug/kg	83.6	418
205-99-2	Benzo(b)fluoranthene		1010	ug/kg	12.5	41.8
207-08-9	Benzo(k)fluoranthene	U	41.8	ug/kg	12.5	41.8
50-32-8	Benzo(a)pyrene		559	ug/kg	12.5	41.8
193-39-5	Indeno(1,2,3-cd)pyrene		336	ug/kg	12.5	41.8
53-70-3	Dibenzo(a,h)anthracene		122	ug/kg	12.5	41.8
191-24-2	Benzo(ghi)perylene		360	ug/kg	12.5	41.8
120-82-1	1,2,4-Trichlorobenzene	U	418	ug/kg	83.6	418

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.92	456	ug/kg		J
203-64-5	4H-Cyclopenta[def]phenanthrene	7.67	225	ug/kg	81	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043012	Date Received: 02/25/2010 08:45	%Moisture: 20.5
Client ID: RE36-10-7466	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/12/2010 22:39	Inst: MSD7.I	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1229.d	Aliquot: 30.09 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
192-97-2	Benzo[e]pyrene	11	384	ug/kg	98	NJ

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031210.b/s7c1229.d  
Lab Smp Id: 248043012 Client Smp ID: RE36-10-7466  
Inj Date : 12-MAR-2010 22:39  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043012|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 15:38 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 25  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	20.48630	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.884	3.884	(1.000)	417536	40.0000
* 29 Naphthalene-d8	136	4.741	4.751	(1.000)	1582196	40.0000
* 46 Acenaphthene-d10	164	5.993	5.998	(1.000)	893398	40.0000
* 67 Phenanthrene-d10	188	7.154	7.159	(1.000)	1564152	40.0000
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	953053	40.0000
* 98 Perylene-d12	264	11.150	11.160	(1.000)	574399	40.0000
\$ 3 2-Fluorophenol	112	3.085	3.080	(0.794)	388675	1500
\$ 5 Phenol-d5	99	3.600	3.610	(0.927)	562387	1730
\$ 20 Nitrobenzene-d5	82	4.241	4.250	(0.894)	197933	693
\$ 39 2-Fluorobiphenyl	172	5.483	5.488	(0.915)	483832	908
\$ 60 2,4,6-Tribromophenol	329	6.586	6.590	(1.099)	145325	2350
\$ 81 p-Terphenyl-d14	244	8.521	8.526	(0.893)	539211	1320

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng/ul)	(ug/Kg)
47 Acenaphthene	154	6.013	6.022	(1.003)	50911	2.58905	108
79 Pyrene	202	8.420	8.425	(0.882)	978878	32.5116	1360
30 Naphthalene	128	4.761	4.765	(1.004)	22547	0.75438	31.5 (a)
34 2-Methylnaphthalene	142	5.237	5.242	(1.105)	10372	0.48353	20.2 (a)
53 Fluorene	166	6.398	6.403	(1.067)	56581	2.44000	102
68 Phenanthrene	178	7.173	7.178	(1.003)	1033714	32.2058	1350
69 Anthracene	178	7.212	7.221	(1.008)	159065	4.89321	204
76 Fluoranthene	202	8.208	8.208	(1.147)	1201830	34.4371	1440
89 Benzo(a)anthracene	228	9.528	9.537	(0.998)	330207	14.4527	604
92 Chrysene	228	9.566	9.576	(1.003)	331332	16.2971	681
95 Benzo(b)fluoranthene	252	10.659	10.664	(0.956)	391047	24.2757	1010
97 Benzo(a)pyrene	252	11.073	11.083	(0.993)	176596	13.3700	559
99 Indeno(1,2,3-cd)pyrene	276	12.817	12.841	(1.149)	76442	8.04816	336
100 Dibenzo(a,h)anthracene	278	12.821	12.850	(1.150)	21951	2.91632	122
101 Benzo(ghi)perylene	276	13.327	13.351	(1.195)	68320	8.62510	360

#### QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

## ION RATIO REPORT

## SV REPORT

Data file: s7c1229.d

Report Date: 03/13/2010 09:26

Lab. ID: 248043012

SampleType: SAMPLE

Injection Date: 12-MAR-2010 22:39

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043012|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	32407	3.60	3.67	80-120	100	(T)
93	399	3.57	3.67	229-289	1	(QT)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	29930	4.24	4.13	80-120	100	(T)
42	22254	4.24	4.13	63-123	74	(T)
-----						
30 Naphthalene		CAS#: 91-20-3				
128	22547	4.76	4.77	80-120	100	( )
129	2611	4.76	4.77	0- 43	12	( )
127	2842	4.76	4.77	0- 44	13	( )
-----						
34 2-Methylnaphthalene		CAS#: 91-57-6				
142	10372	5.24	5.24	80-120	100	( )
141	8651	5.24	5.24	54-114	83	( )
-----						
43 Dimethylphthalate		CAS#: 131-11-3				
163	159607	5.99	5.76	80-120	100	(T)
164	893398	5.99	5.76	0- 40	560	(QT)
-----						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	119057	5.99	5.82	80-120	100	(T)
63	1798	5.99	5.82	56-116	2	(QT)
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
45 Acenaphthylene		CAS#: 208-96-8				
152	24703	6.01	5.90	80-120	100	(T)
151	9060	6.01	5.90	0- 49	37	(T)
153	56324	6.01	5.90	0- 43	228	(QT)
-----						
47 Acenaphthene		CAS#: 83-32-9				
154	50911	6.01	6.02	80-120	100	( )
153	56324	6.01	6.02	73-133	111	( )
152	24703	6.01	6.02	18- 78	49	( )
-----						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	119057	5.99	6.11	80-120	100	(T)
89	2038	5.99	6.11	39- 99	2	(QT)
63	1798	5.99	6.11	18- 78	2	(QT)
-----						
52 4-Nitrophenol		CAS#: 100-02-7				
139	18397	6.14	6.05	80-120	100	(T)
109	613	6.14	6.05	38- 98	3	(QT)
65	780	6.14	6.05	69-129	4	(QT)
-----						
53 Fluorene		CAS#: 86-73-7				
166	56581	6.40	6.40	80-120	100	( )
165	52368	6.40	6.40	62-122	93	( )
167	9852	6.40	6.40	0- 44	17	( )
-----						
55 2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1				
198	691	6.58	6.42	80-120	100	(T)
105	2057	6.59	6.42	11- 71	298	(QT)
51	2695	6.58	6.42	34- 94	390	(QT)
-----						
68 Phenanthrene		CAS#: 85-01-8				
178	1033714	7.17	7.18	80-120	100	( )
179	167167	7.17	7.18	0- 46	16	( )
176	189624	7.17	7.18	0- 48	18	( )
-----						
69 Anthracene		CAS#: 120-12-7				
178	159065	7.21	7.22	80-120	100	( )
179	38799	7.21	7.22	0- 46	24	( )
176	27701	7.21	7.22	0- 48	17	( )
-----						
76 Fluoranthene		CAS#: 206-44-0				
202	1201830	8.21	8.21	80-120	100	( )
203	210968	8.21	8.21	0- 48	18	( )
101	130739	8.21	8.21	0- 41	11	( )
-----						
79 Pyrene		CAS#: 129-00-0				
202	978878	8.42	8.43	80-120	100	( )
200	198846	8.42	8.43	0- 50	20	( )
101	131887	8.42	8.43	0- 43	13	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	330207	9.53	9.54	80-120	100	( )
226	86382	9.53	9.54	0- 56	26	( )
229	90156	9.53	9.54	0- 50	27	( )
-----						
92 Chrysene				CAS#: 218-01-9		
228	331332	9.57	9.58	80-120	100	( )
229	76929	9.57	9.58	0- 50	23	( )
226	93694	9.57	9.58	0- 58	28	( )
-----						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	391047	10.66	10.66	80-120	100	( )
253	90157	10.66	10.66	0- 52	23	( )
125	45225	10.66	10.66	0- 41	12	( )
-----						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	391047	10.66	10.70	80-120	100	( )
253	90181	10.66	10.70	0- 52	23	( )
125	45202	10.66	10.70	0- 41	12	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	176596	11.07	11.08	80-120	100	( )
253	41535	11.07	11.08	0- 52	24	( )
125	19921	11.07	11.08	0- 42	11	( )
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	76442	12.82	12.84	80-120	100	( )
138	22330	12.81	12.84	2- 62	29	( )
-----						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	21951	12.82	12.85	80-120	100	( )
139	3416	12.82	12.85	0- 50	16	( )
-----						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	68320	13.33	13.35	80-120	100	( )
138	19786	13.33	13.35	0- 57	29	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031210.b/s7c1229.d  
Lab Smp Id: 248043012 Client Smp ID: RE36-10-7466  
Inj Date : 12-MAR-2010 22:39  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043012|959623|1|SVM|1|LANL  
Misc Info : |MSD8270 S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 15:38 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 25  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	20.48630	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.884	2581562	40.000
* 67 Phenanthrene-d10	7.154	4039355	40.000
* 98 Perylene-d12	11.150	1737480	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

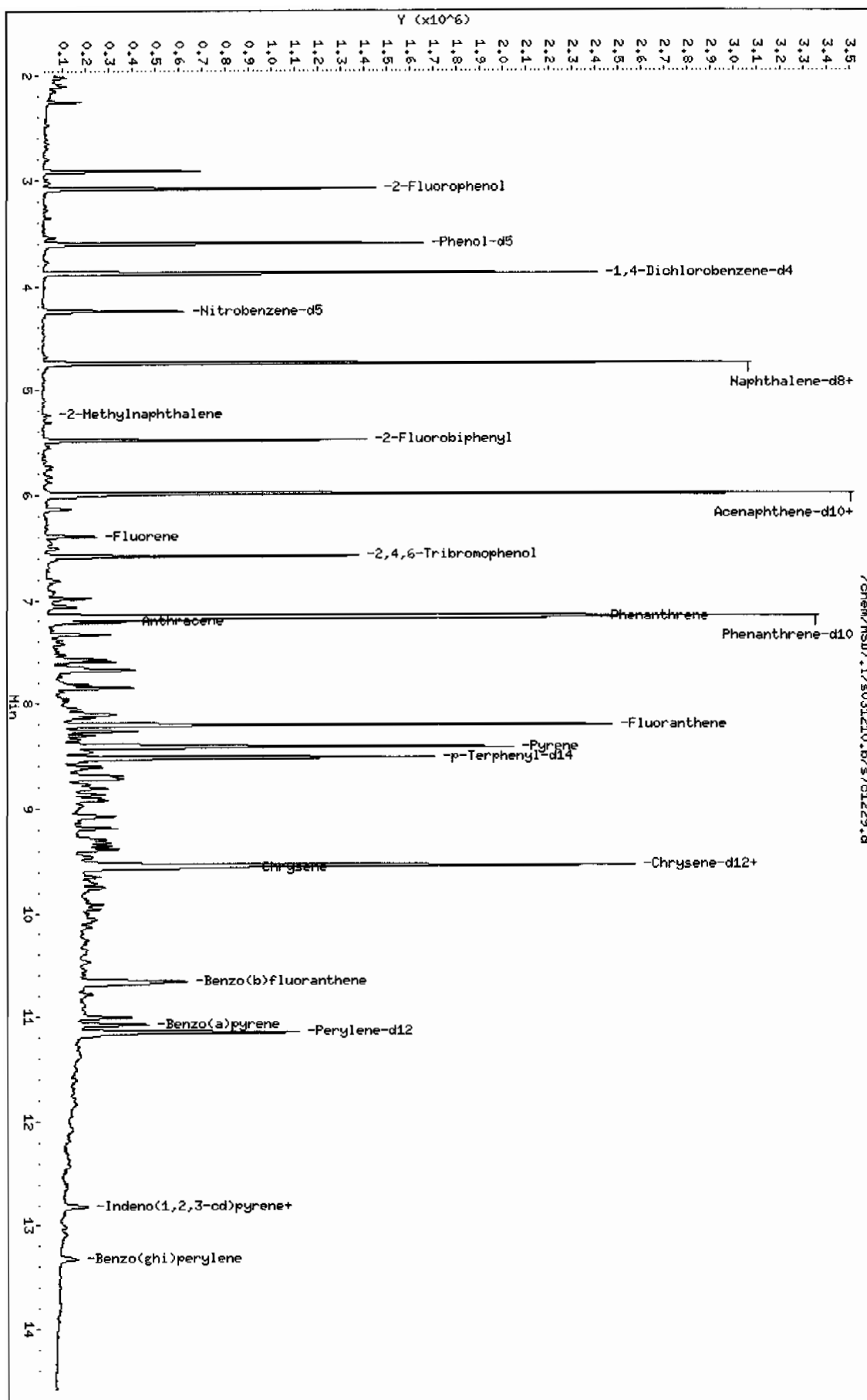
RT	CONCENTRATIONS				QUANT		
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
-----	----	-----	-----	-----	-----	-----	-----
Unknown Aldol Condensate					CAS #:		
2.916	704347	10.9135045	456	0		0	10
4H-Cyclopenta[def]phenanthrene					CAS #: 203-64-5		
7.674	543139	5.37846947	225	81	NIST05.L	50048	67
Benzo[el]pyrene					CAS #: 192-97-2		
11.001	398635	9.17730919	384	98	NIST05.L	93577	98 (L)

# QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/MSD7.i/s031210.b/s701229.d  
 Date: 12-MAR-2010 22:39  
 Client ID: RE36-10-7466  
 Sample Info: 1248043012195962311SVH11L1ANL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5HS

Instrument: MSD7.i  
 Operator: JHE3  
 Column diameter: 0.20



Date: 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: HSD7.i

Sample Info: 1248043012195962311ISVH11ILANL

Volume Injected (uL): 0.5

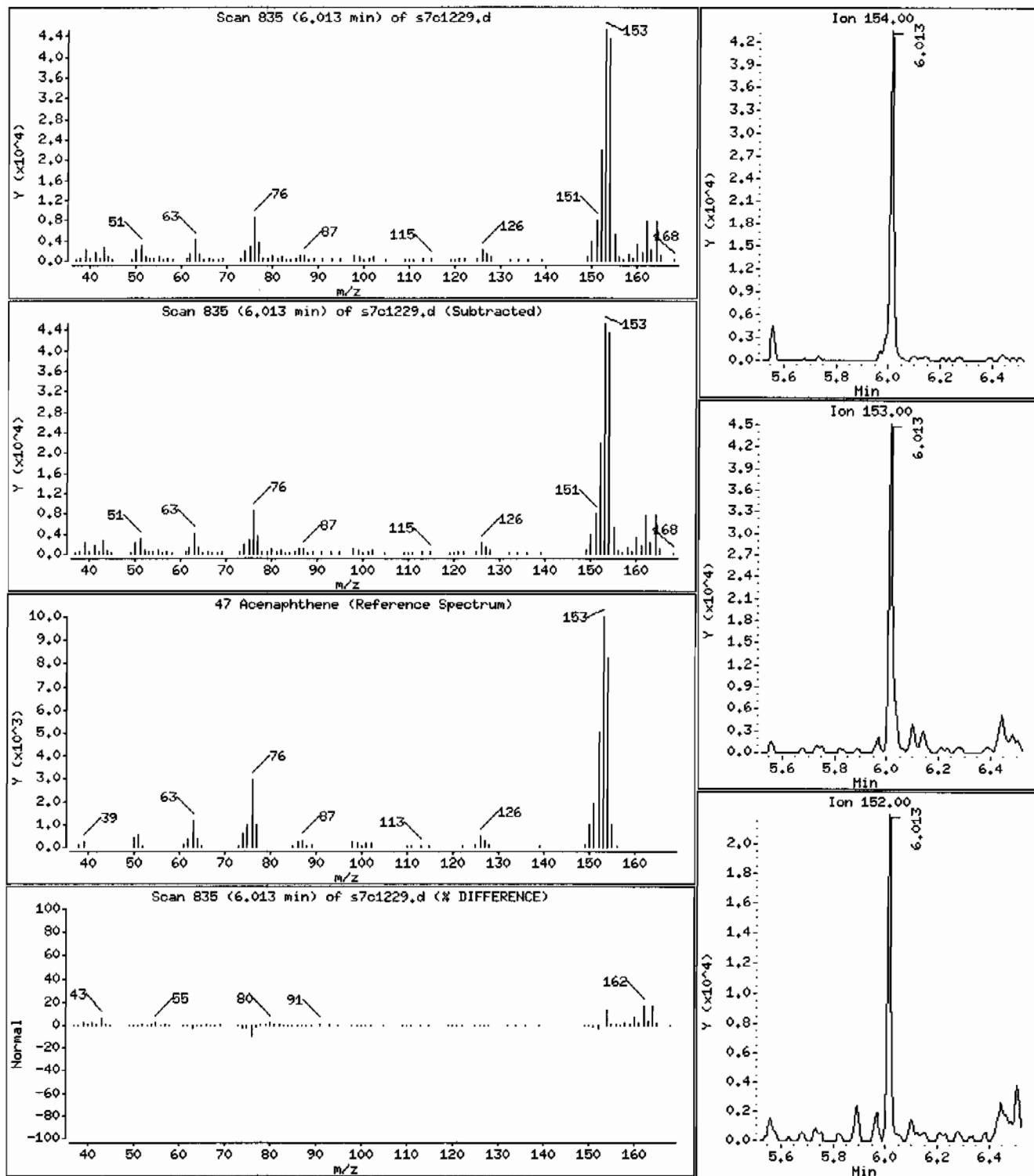
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 108 ug/Kg



Date : 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: MSD7.i

Sample Info: 12480430121959623111SVH111LANL

Volume Injected (uL): 0.5

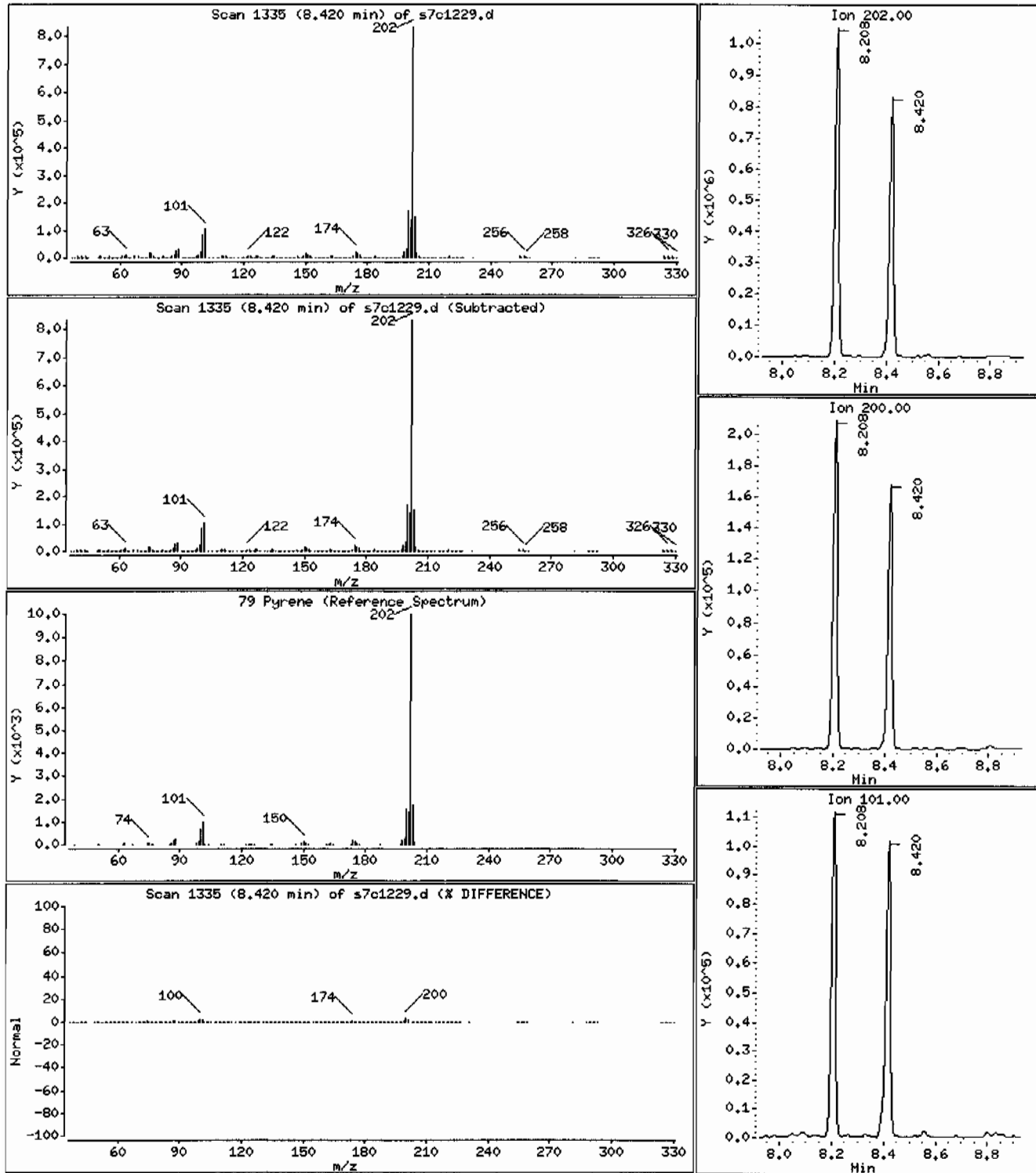
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 1360 ug/Kg



Date : 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: HSD7.i

Sample Info: 1248043012195%2311SVMI1ILANL

Volume Injected (uL): 0.5

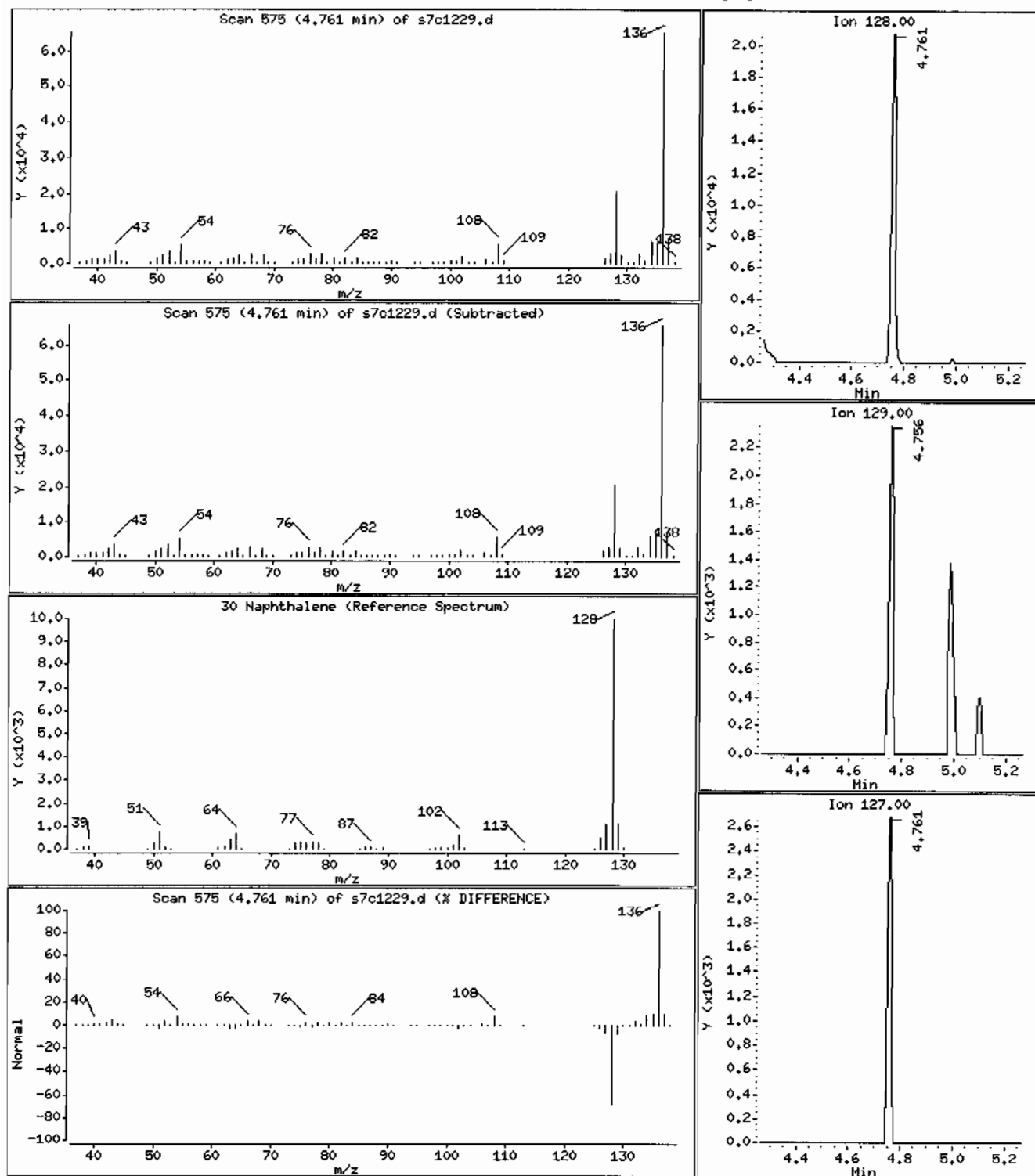
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 31.5 ug/Kg





Date : 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: MSD7.i

Sample Info: 1248043012195962311ISVH11ILANL

Volume Injected (uL): 0.5

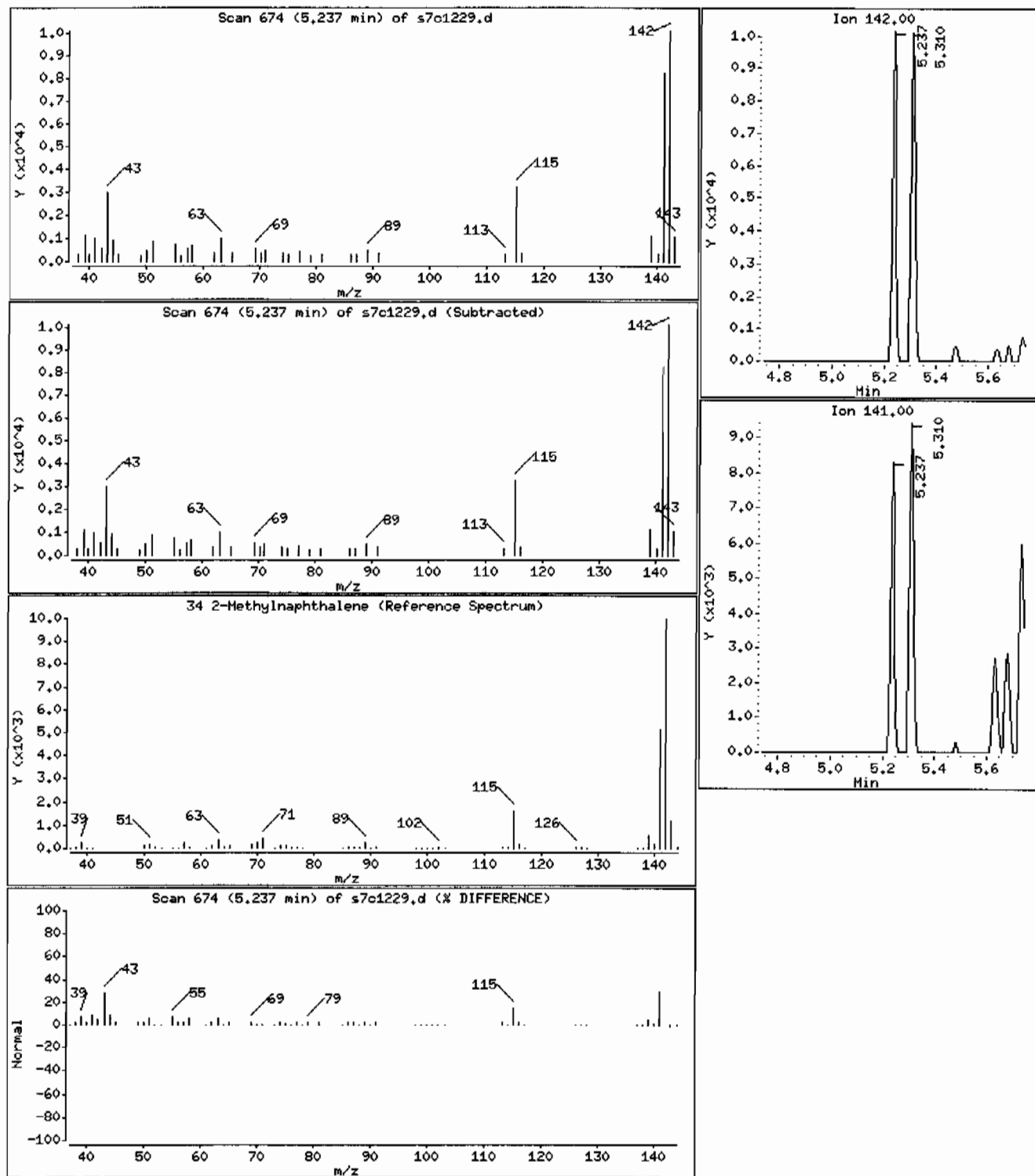
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 20.2 ug/Kg



Date : 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: MSD7.i

Sample Info: I248043012195962311SVH11ILANL

Volume Injected (uL): 0.5

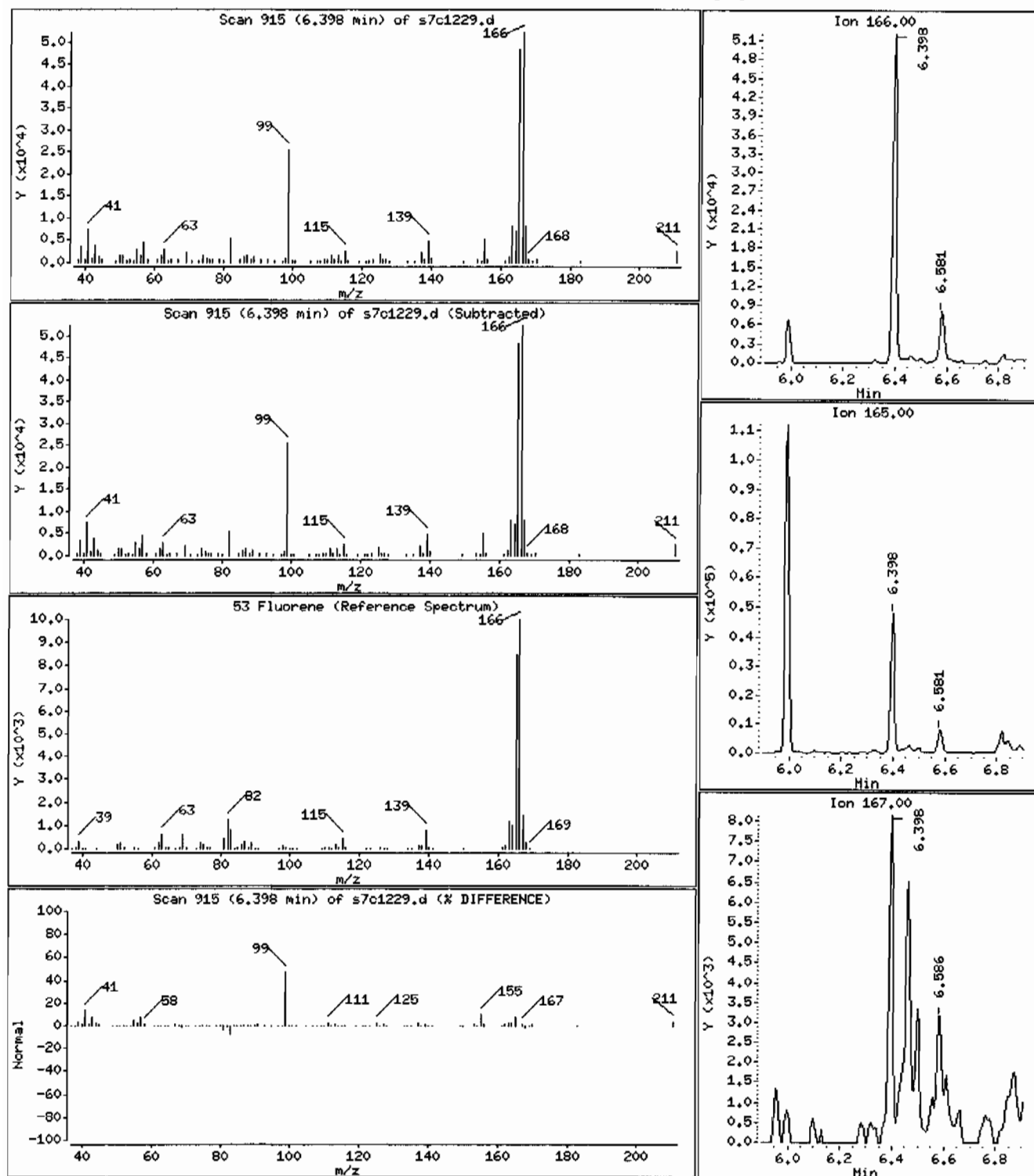
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 102 ug/Kg



Date: 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: MSD7.i

Sample Info: 12480430121959623111SVMI11LANL

Volume Injected (uL): 0.5

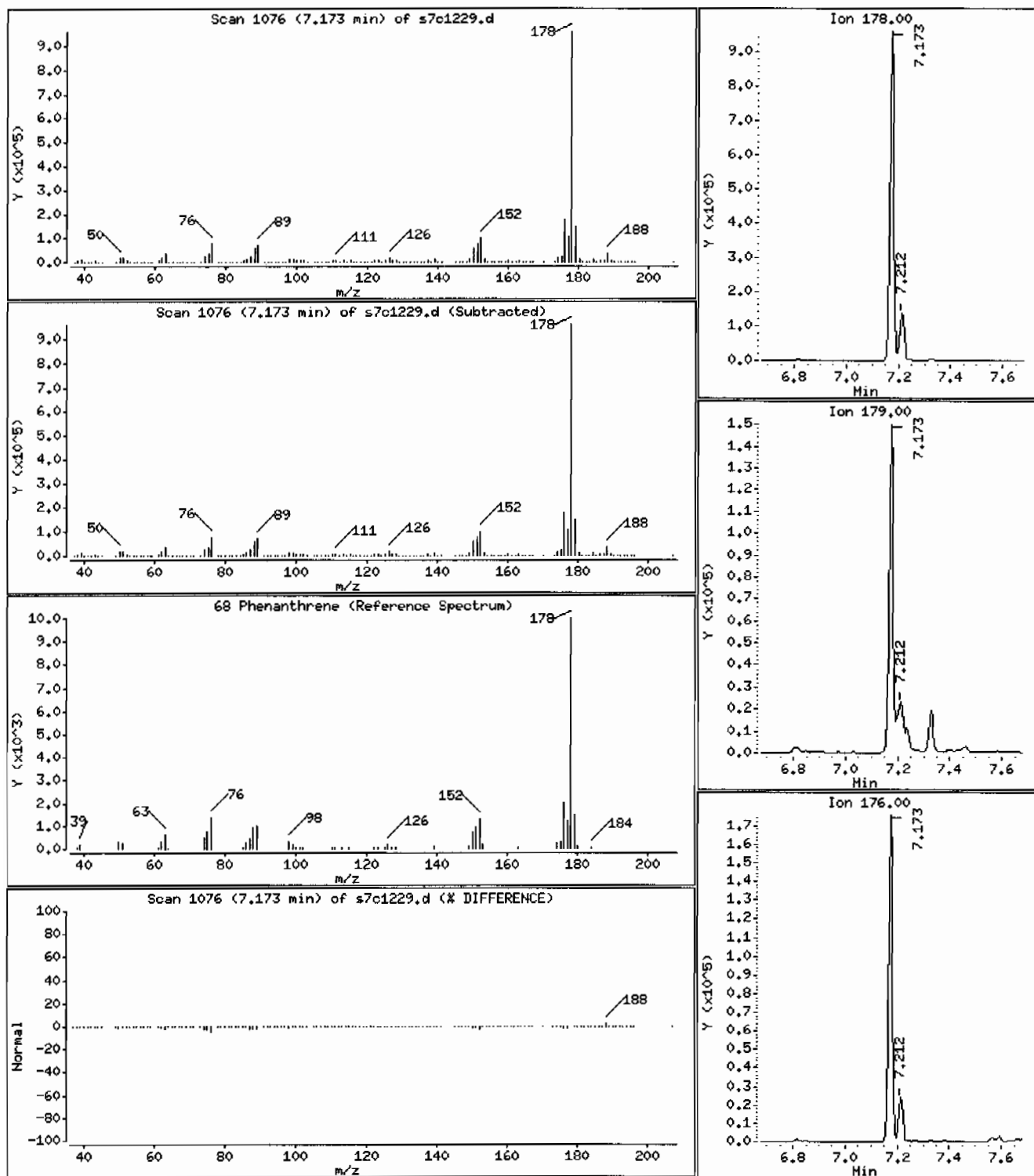
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 1350 ug/Kg



Date : 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: MSD7.i

Sample Info: 12480430121959623111SVH111LANL

Volume Injected (uL): 0.5

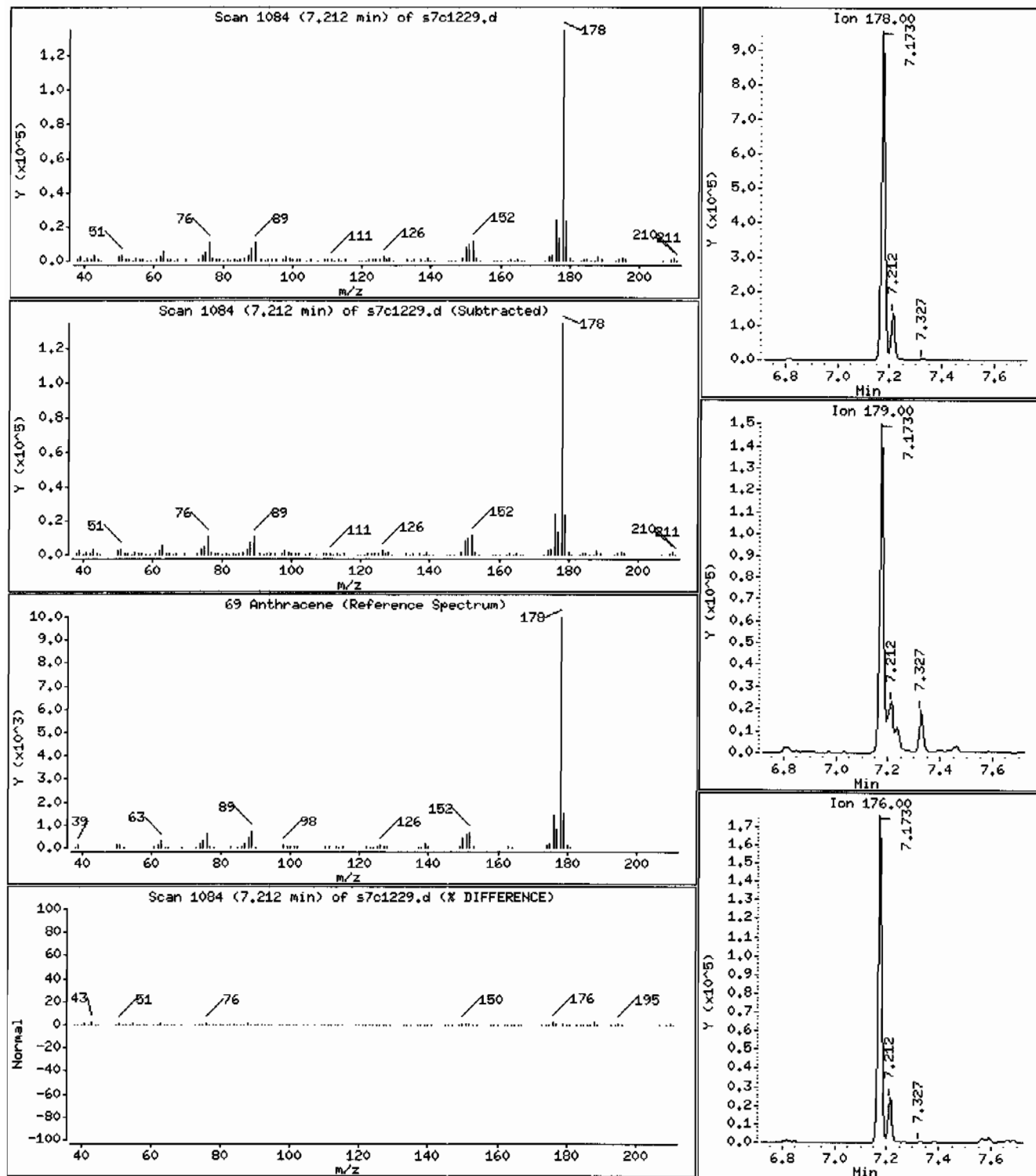
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 204 ug/Kg



Date : 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: MSD7.i

Sample Info: I248043012195962311ISVH11ILANL

Volume Injected (uL): 0.5

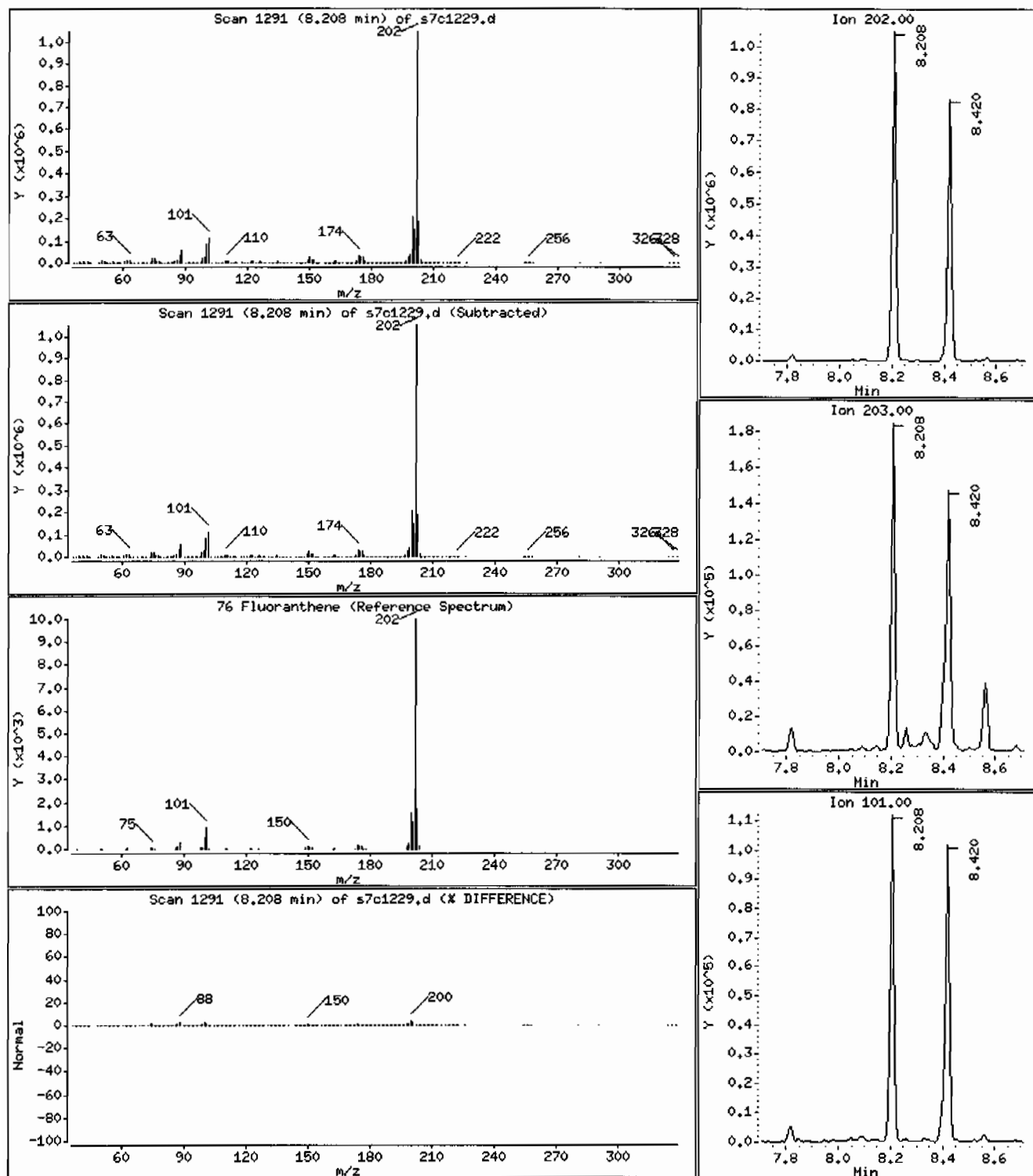
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 1440 ug/Kg



Date : 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: MSD7.i

Sample Info: 1248043012195962311SVMI1ILANL

Volume Injected (uL): 0.5

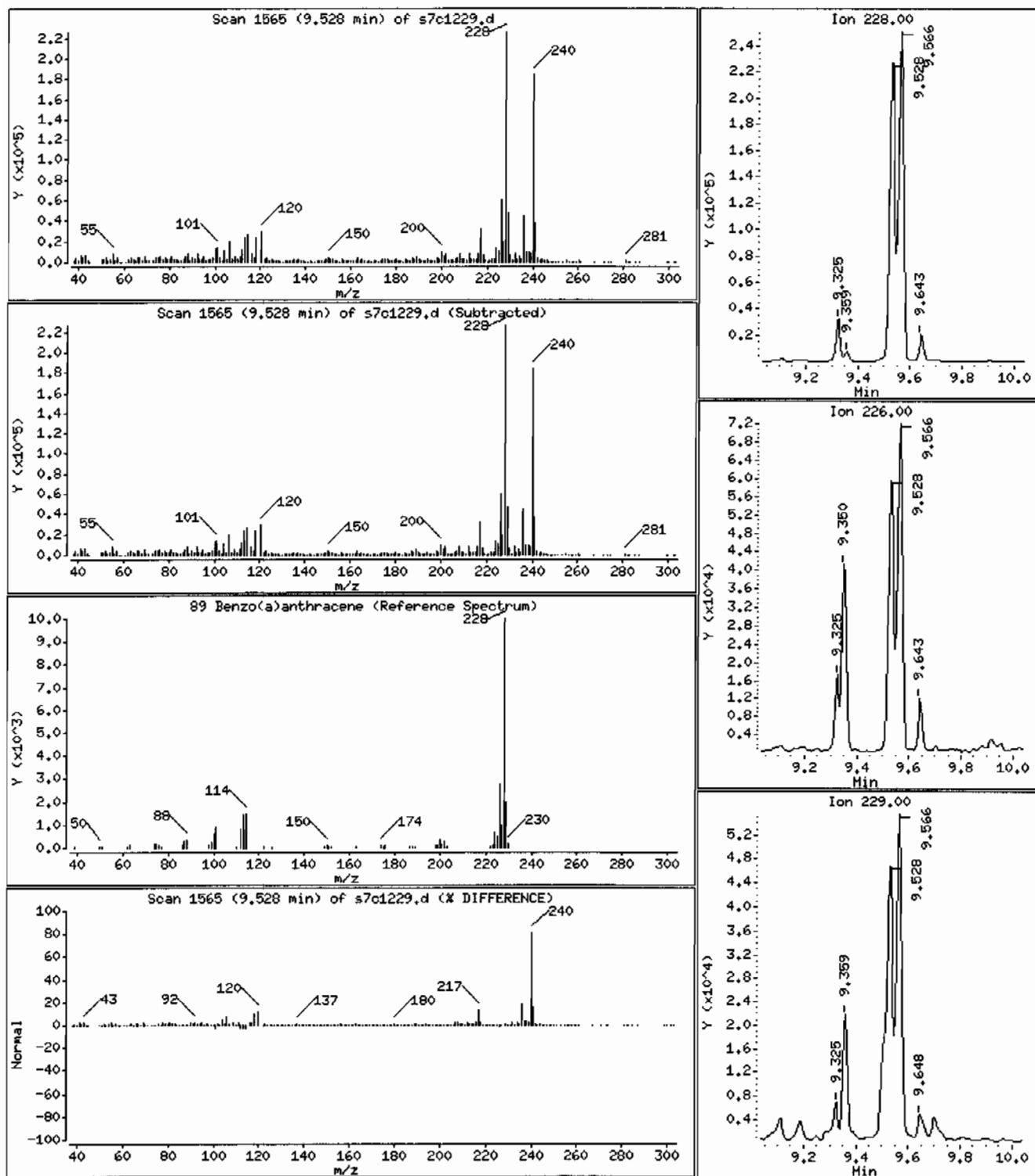
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 604 ug/Kg



Date : 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: HSD7.i

Sample Info: 12480430121959623111SVH111LANL

Volume Injected (uL): 0.5

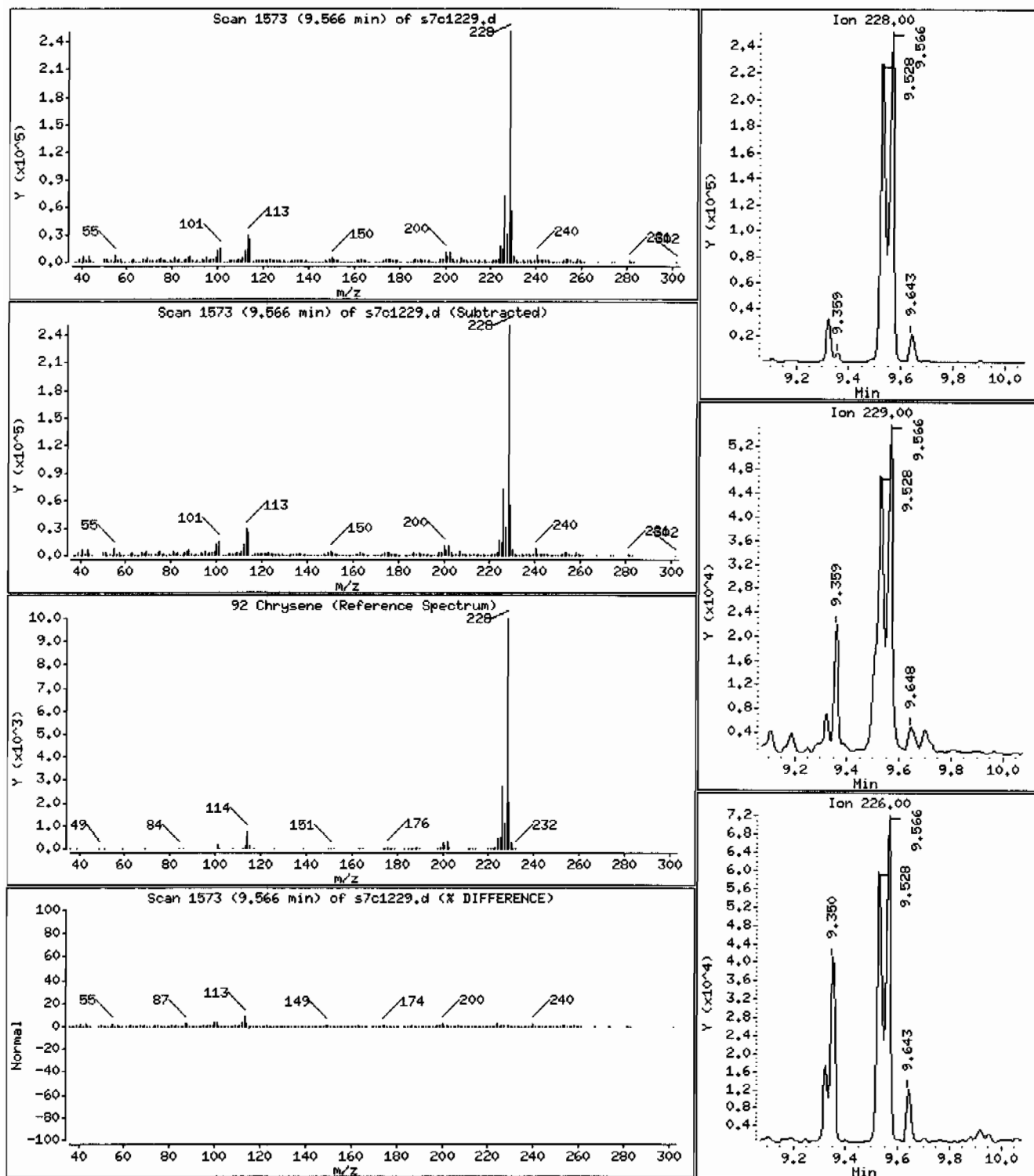
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 681 ug/Kg



Date : 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: MSD7.i

Sample Info: 1248043012195962311SVH11ILANL

Volume Injected (uL): 0.5

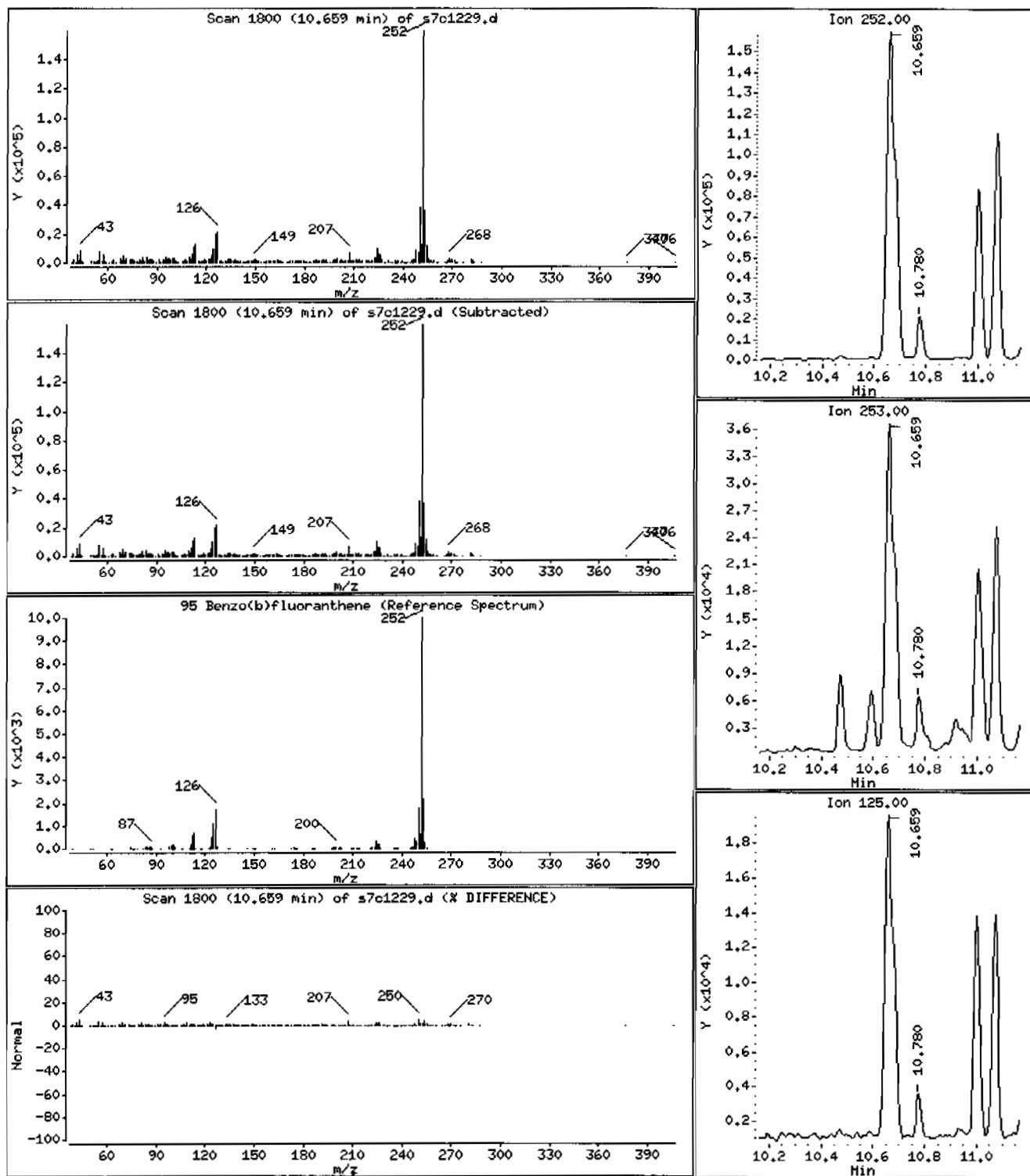
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 1010 ug/Kg





Date : 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: MSD7.i

Sample Info: 12480430121959623111SVH11ILANL

Volume Injected (uL): 0.5

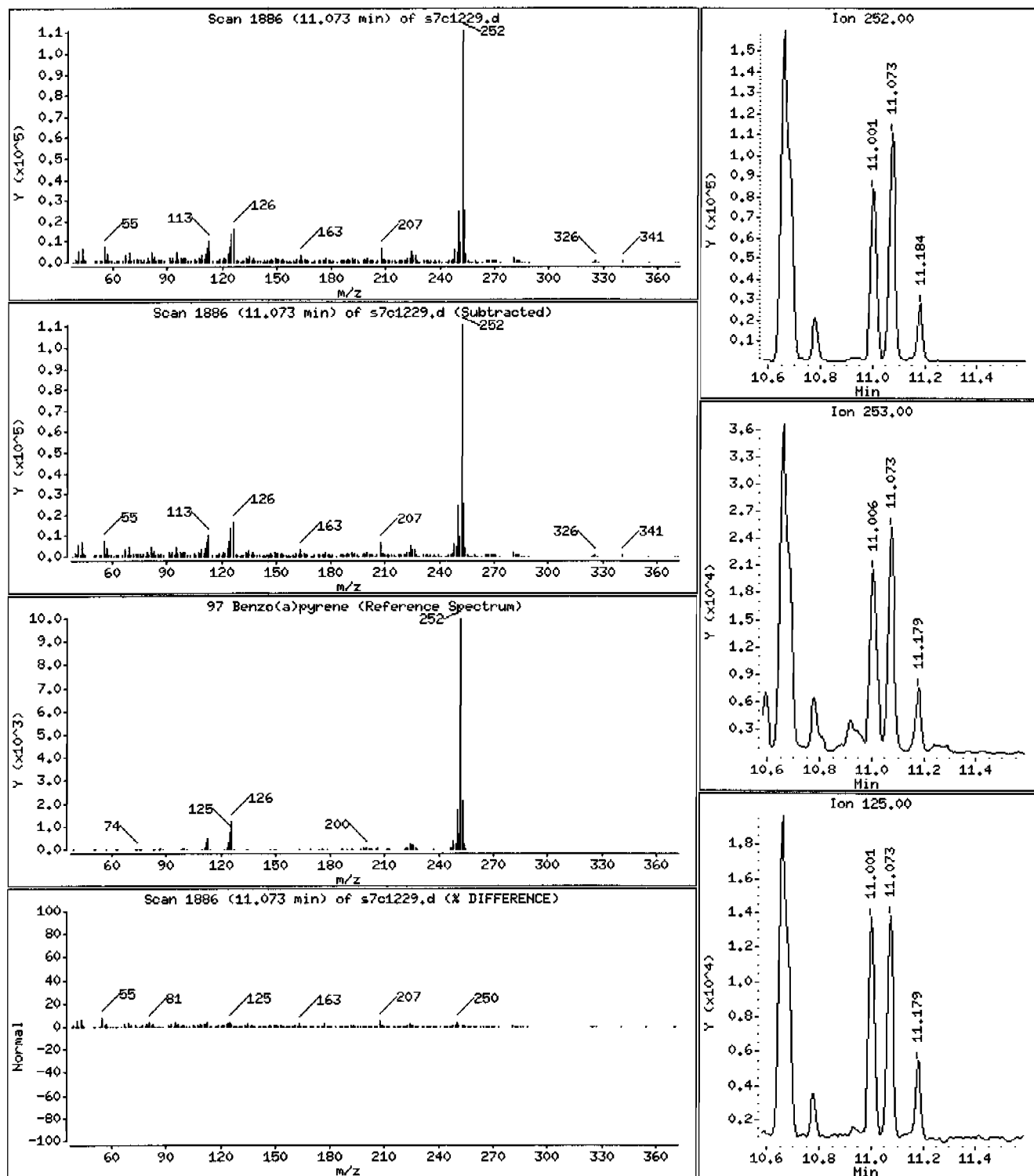
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 559 ug/Kg



Date : 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: HSD7.i

Sample Info: 12480430121959623111SVH111LANL

Volume Injected (uL): 0.5

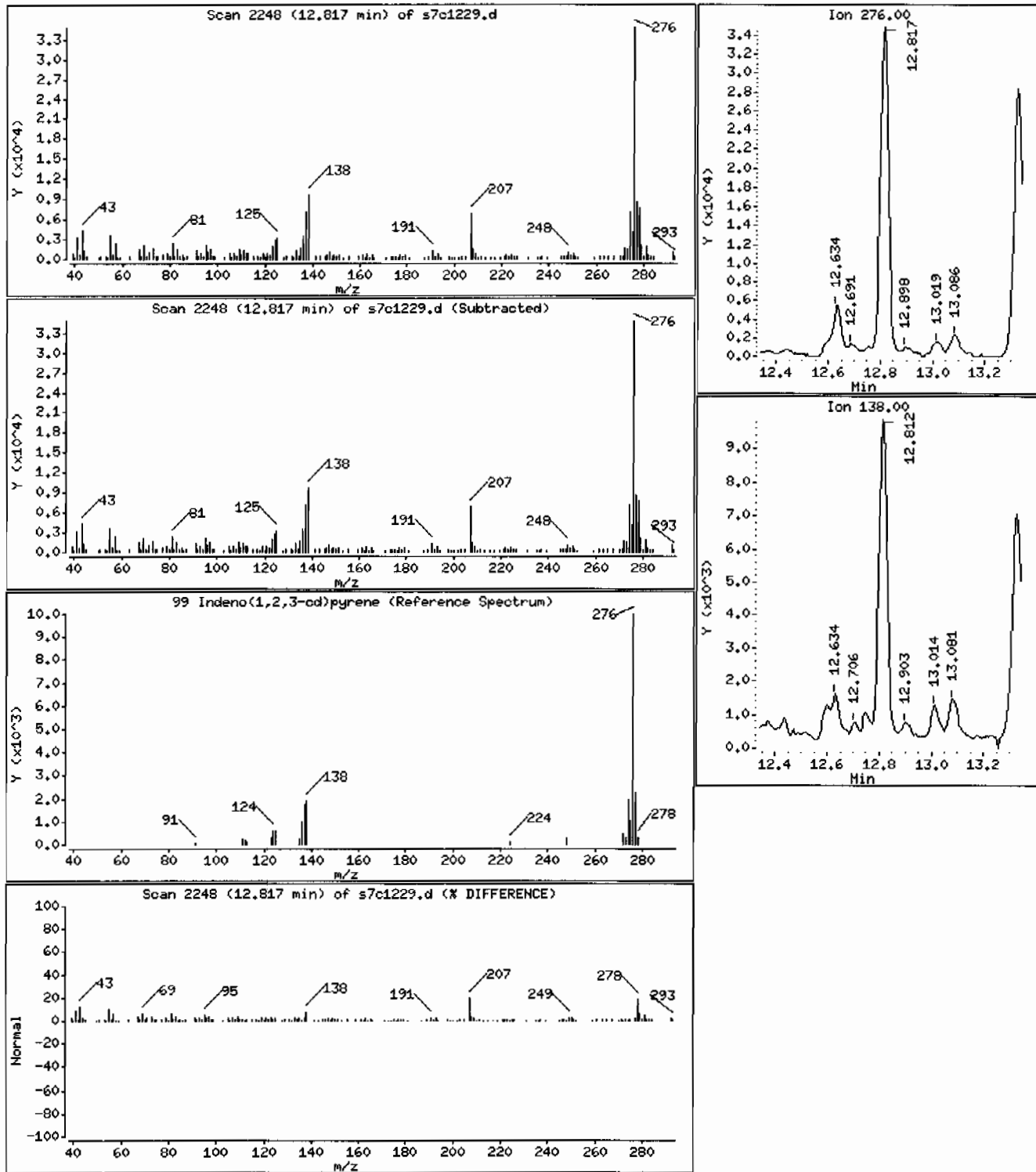
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 336 ug/Kg



Date : 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: MSD7.i

Sample Info: 12480430121959623111SVH111LANL

Volume Injected (uL): 0.5

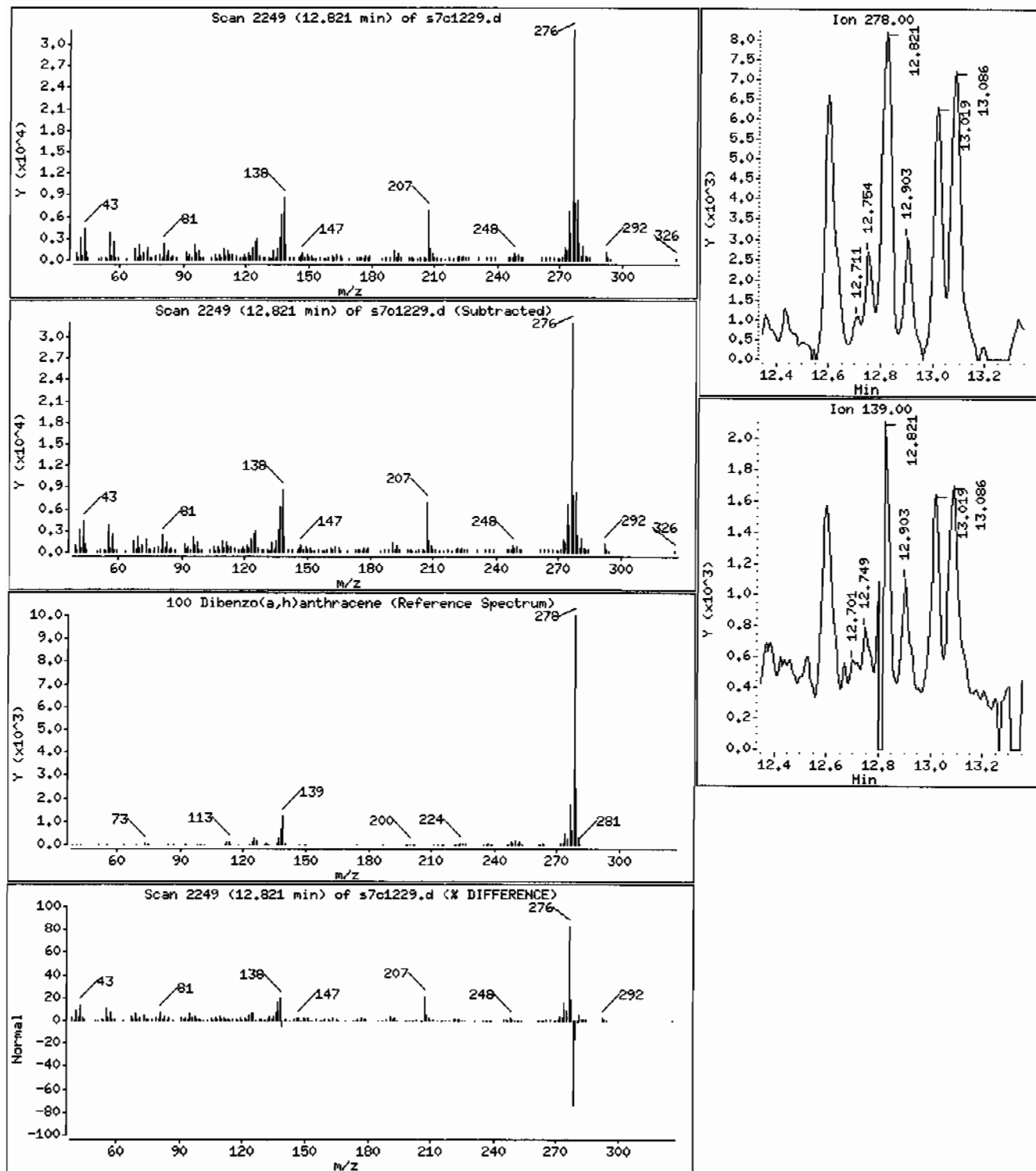
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 122 ug/Kg



Date : 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: MSD7.i

Sample Info: 12480430121959623111SVH111LANL

Volume Injected (uL): 0.5

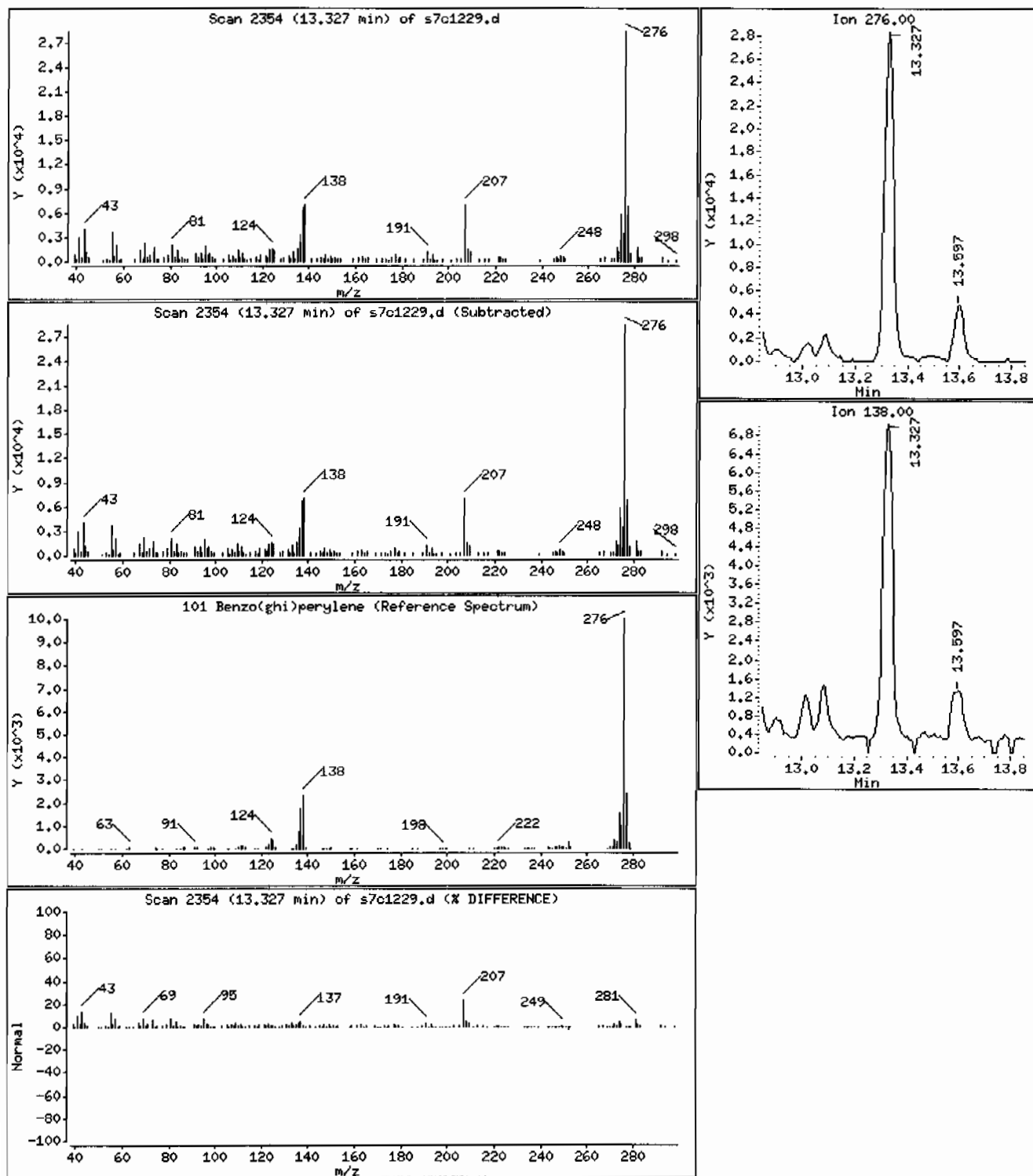
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 360 ug/Kg



Date: 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: HSD7.i

Sample Info: 12480430121959623111SVN111LANL

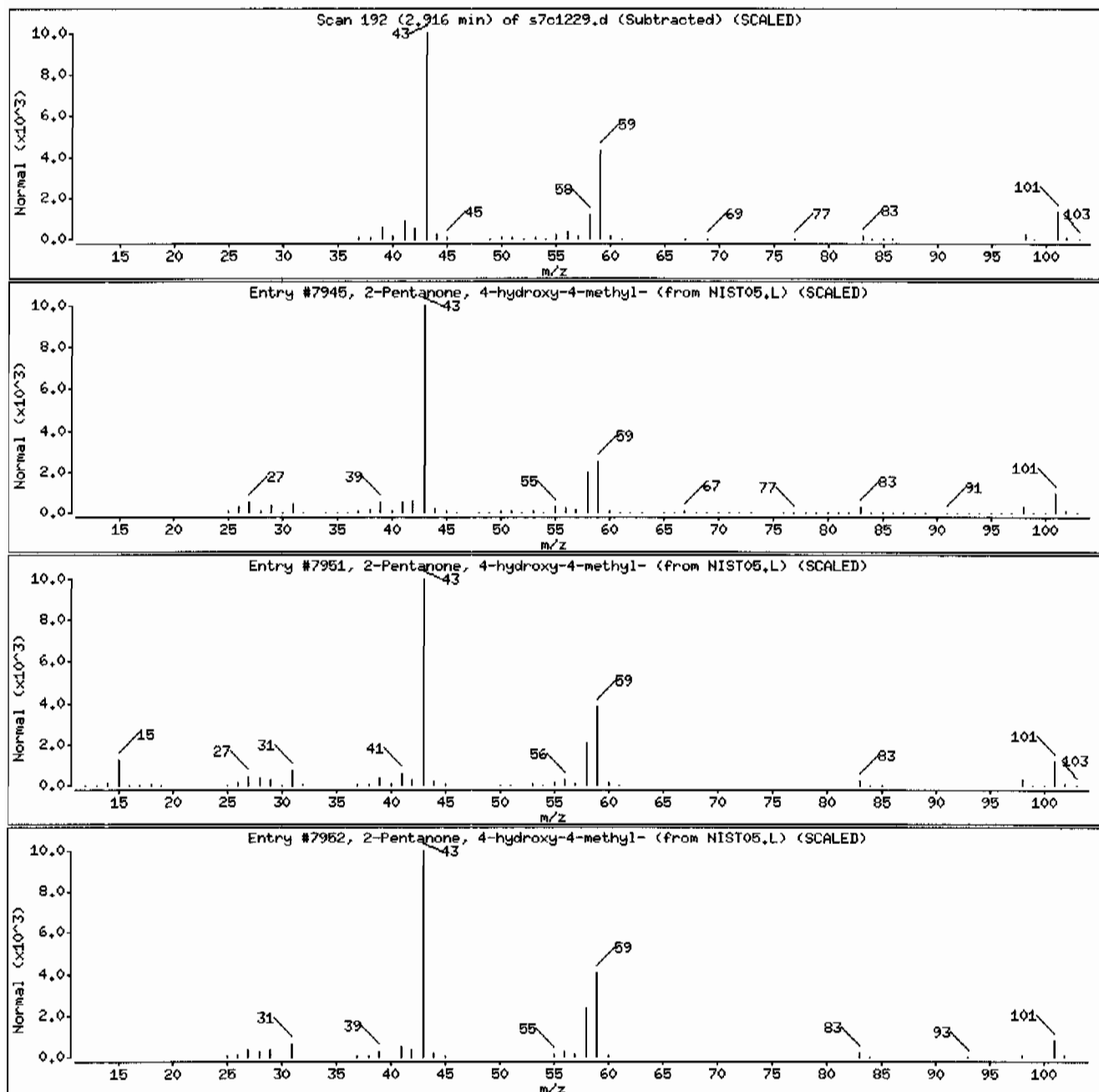
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116



Date: 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: MSD7.i

Sample Info: 12480430121959623111SVMI11LANL

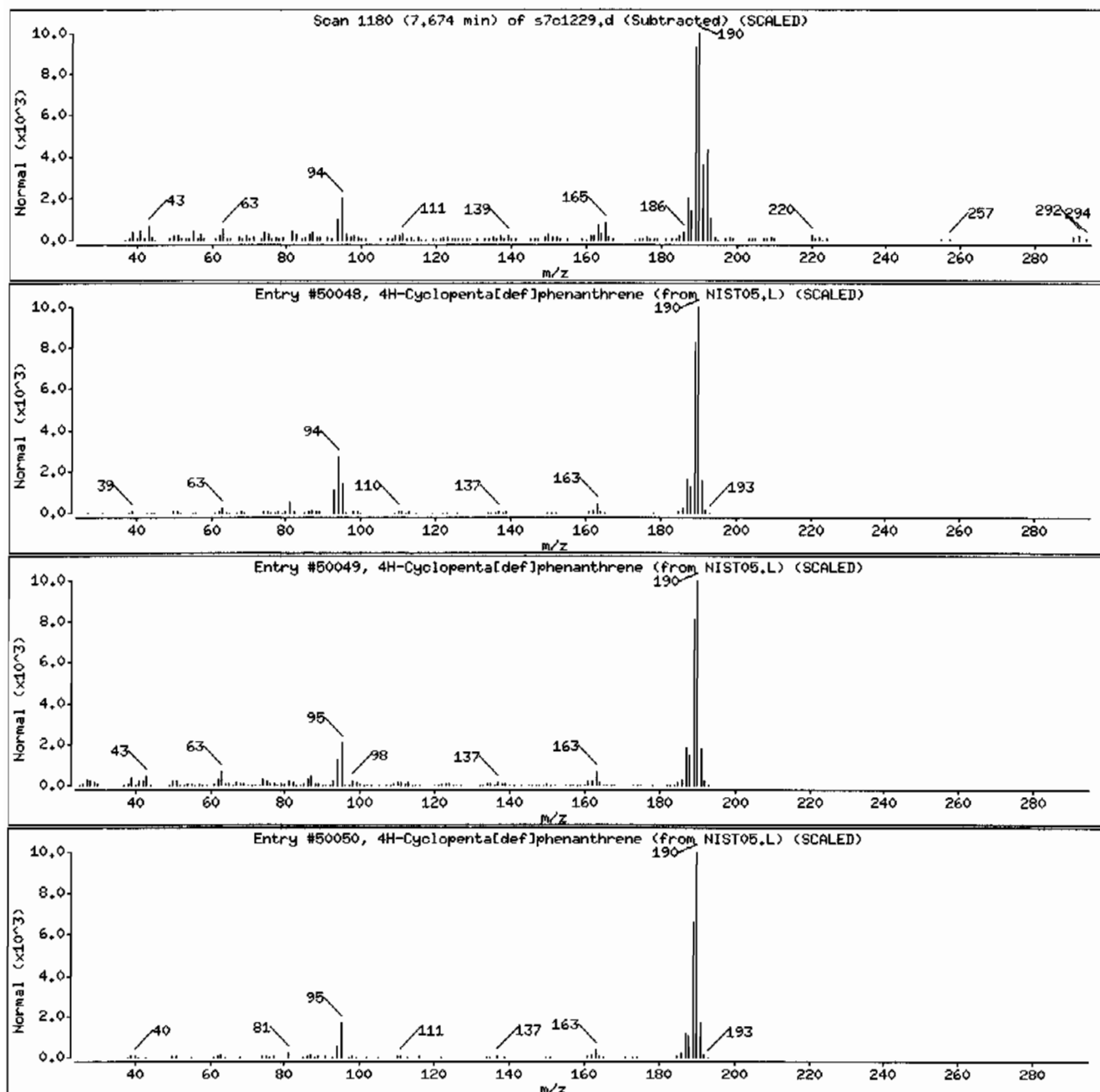
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50048	81	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50049	64	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50050	58	C15H10	190



Date: 12-MAR-2010 22:39

Client ID: RE36-10-7466

Instrument: MSD7.i

Sample Info: 12480430121959623111SVH111LANL

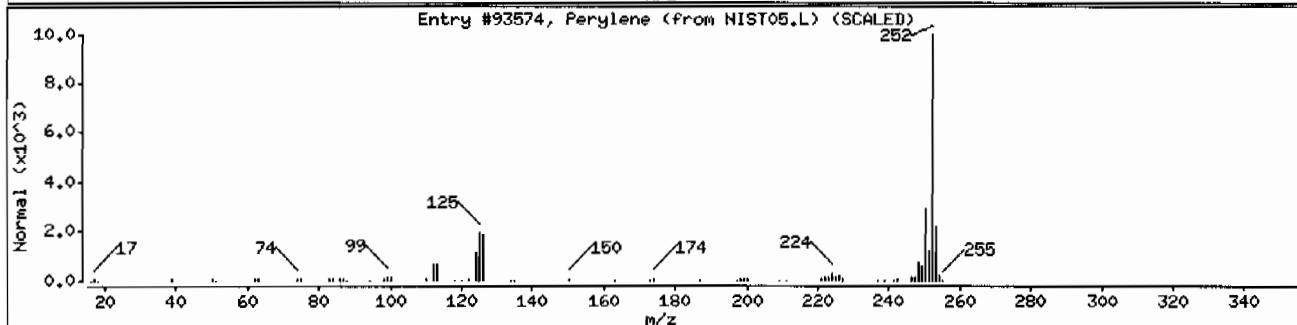
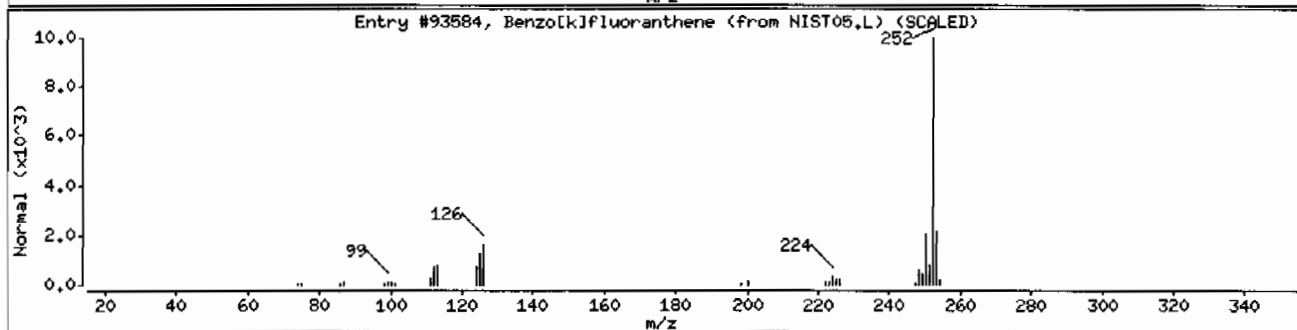
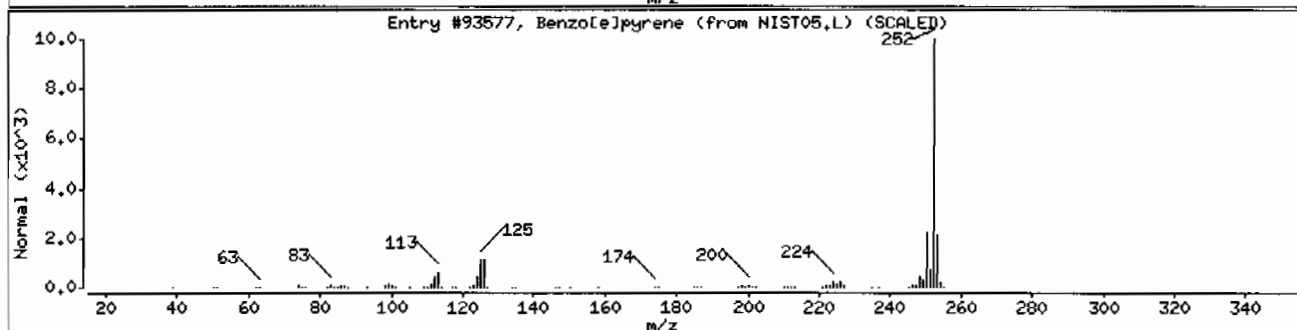
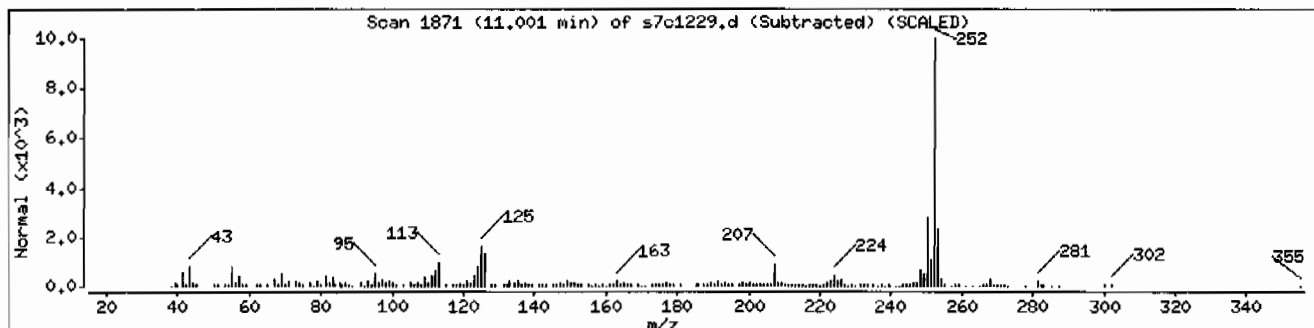
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[e]pyrene	192-97-2	NIST05.L	93577	98	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	98	C20H12	252
Perylene	198-55-0	NIST05.L	93574	98	C20H12	252



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043015

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
% Moisture: 16.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	400	ug/kg	80.0	400
108-95-2	Phenol	U	400	ug/kg	80.0	400
95-57-8	2-Chlorophenol	U	400	ug/kg	80.0	400
106-46-7	1,4-Dichlorobenzene	U	400	ug/kg	80.0	400
621-64-7	N-Nitrosodipropylamine	U	400	ug/kg	80.0	400
59-50-7	4-Chloro-3-methylphenol	U	400	ug/kg	80.0	400
83-32-9	Acenaphthene		60.4	ug/kg	13.2	40.0
121-14-2	2,4-Dinitrotoluene	U	400	ug/kg	40.0	400
100-02-7	4-Nitrophenol	U	400	ug/kg	132	400
87-86-5	Pentachlorophenol	U	400	ug/kg	99.9	400
129-00-0	Pyrene		157	ug/kg	12.0	40.0
110-86-1	Pyridine	U	400	ug/kg	80.0	400
62-53-3	Aniline	U	400	ug/kg	120	400
111-44-4	bis(2-Chloroethyl) ether	U	400	ug/kg	80.0	400
541-73-1	1,3-Dichlorobenzene	U	400	ug/kg	80.0	400
100-51-6	Benzyl alcohol	U	400	ug/kg	120	400
95-50-1	1,2-Dichlorobenzene	U	400	ug/kg	80.0	400
108-60-1	bis(2-Chloroisopropyl)ether	U	400	ug/kg	80.0	400
95-48-7	o-Cresol	U	400	ug/kg	80.0	400
65794-96-9	m,p-Cresols	U	400	ug/kg	120	400
67-72-1	Hexachloroethane	U	400	ug/kg	80.0	400
98-95-3	Nitrobenzene	U	400	ug/kg	80.0	400
78-59-1	Isophorone	U	400	ug/kg	80.0	400
88-75-5	2-Nitrophenol	U	400	ug/kg	80.0	400
105-67-9	2,4-Dimethylphenol	U	400	ug/kg	140	400
111-91-1	bis(2-Chlorooctoxy)methane	U	400	ug/kg	80.0	400
120-83-2	2,4-Dichlorophenol	U	400	ug/kg	80.0	400
65-85-0	Benzoic acid	U	800	ug/kg	200	800
91-20-3	Naphthalene	U	40.0	ug/kg	12.0	40.0
106-47-8	4-Chloroaniline	U	400	ug/kg	80.0	400
87-68-3	Hexachlorobutadiene	U	400	ug/kg	80.0	400
91-57-6	2-Methylnaphthalene	U	40.0	ug/kg	8.00	40.0
77-47-4	Hexachlorocyclopentadiene	U	400	ug/kg	80.0	400
88-06-2	2,4,6-Trichlorophenol	U	400	ug/kg	80.0	400
95-95-4	2,4,5-Trichlorophenol	U	400	ug/kg	80.0	400
91-58-7	2-Chloronaphthalene	U	40.0	ug/kg	13.2	40.0
88-74-4	2-Nitroaniline	U	400	ug/kg	80.0	400
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	400	ug/kg	80.0	400



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043015

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 16.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDI/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	400	ug/kg	80.0	400
606-20-2	2,6-Dinitrotoluene	U	400	ug/kg	40.0	400
208-96-8	Acenaphthylene	U	40.0	ug/kg	12.0	40.0
51-28-5	2,4-Dinitrophenol	U	800	ug/kg	152	800
132-64-9	Dibenzofuran	U	400	ug/kg	80.0	400
84-66-2	Diethylphthalate	U	400	ug/kg	80.0	400
86-73-7	Fluorene	U	40.0	ug/kg	12.0	40.0
7005-72-3	4-Chlorophenylphenylether	U	400	ug/kg	80.0	400
534-52-1	2-Methyl-4,6-dinitrophenol	U	400	ug/kg	80.0	400
100-01-6	4-Nitroaniline	U	400	ug/kg	120	400
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	400	ug/kg	80.0	400
122-66-7	Azobenzene	U	400	ug/kg	80.0	400
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	400	ug/kg	80.0	400
118-74-1	Hexachlorobenzene	U	400	ug/kg	80.0	400
85-01-8	Phenanthrene		136	ug/kg	12.0	40.0
120-12-7	Anthracene	J	21.3	ug/kg	8.00	40.0
84-74-2	Di-n-butylphthalate	J	91.3	ug/kg	80.0	400
206-44-0	Fluoranthene		170	ug/kg	12.0	40.0
85-68-7	Butylbenzylphthalate	U	400	ug/kg	80.0	400
56-55-3	Benzo(a)anthracene		78.0	ug/kg	12.0	40.0
91-94-1	3,3'-Dichlorobenzidine	U	400	ug/kg	120	400
218-01-9	Chrysene		86.8	ug/kg	12.0	40.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	400	ug/kg	80.0	400
117-84-0	Di-n-octylphthalate	U	400	ug/kg	80.0	400
205-99-2	Benzo(b)fluoranthene		144	ug/kg	12.0	40.0
207-08-9	Benzo(k)fluoranthene	U	40.0	ug/kg	12.0	40.0
50-32-8	Benzo(a)pyrene		76.8	ug/kg	12.0	40.0
193-39-5	Indeno(1,2,3-cd)pyrene		50.6	ug/kg	12.0	40.0
53-70-3	Dibenzo(a,h)anthracene	J	18.7	ug/kg	12.0	40.0
191-24-2	Benzo(ghi)perylene		56.2	ug/kg	12.0	40.0
120-82-1	1,2,4-Trichlorobenzene	U	400	ug/kg	80.0	400

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
3724-55-8	Methyl 3-butenate	2.27	365	ug/kg	80	NJ
	Unknown Aldol Condensate	2.92	629	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2074	<b>Date Collected:</b> 02/20/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248043015	<b>Date Received:</b> 02/25/2010 08:45	<b>%Moisture:</b> 16.9
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7467	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 959623	<b>Inst:</b> MSD7.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/12/2010 22:17	<b>Analyst:</b> JMB3	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/02/2010 11:17	<b>Aliquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s7c1228.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
---------	----------	-----------	--------	-------	---------	---------

Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown	3.77	202	ug/kg		J
7773-83-3	1-Docosanethiol	10.87	449	ug/kg	91	NJ
	Unknown	10.99	177	ug/kg		J
	Unknown	11.42	175	ug/kg		J
112-95-8	Eicosane	11.6	553	ug/kg	97	NJ
38651-65-9	Bicyclo[3.1.1]heptan-2-one, 6,6-dimethyl	11.79	221	ug/kg	83	NJ
	Unknown	12.86	172	ug/kg		J
83-46-5	.beta.-Sitosterol	13.69	840	ug/kg	95	NJ

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Data file : /chem/MSD7.i/s031210.b/s7c1228.d  
Lab Smp Id: 248043015 Client Smp ID: RE36-10-7467  
Inj Date : 12-MAR-2010 22:17  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043015|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 15:38 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 24  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	16.86490	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.879	3.884	(1.000)	416906	40.0000	
* 29 Naphthalene-d8	136	4.741	4.751	(1.000)	1611480	40.0000	
* 46 Acenaphthene-d10	164	5.993	5.998	(1.000)	919140	40.0000	
* 67 Phenanthrene-d10	188	7.154	7.159	(1.000)	1627126	40.0000	
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	1023971	40.0000	
* 98 Perylene-d12	264	11.150	11.160	(1.000)	609911	40.0000	
\$ 3 2-Fluorophenol	112	3.085	3.080	(0.795)	541560	49.9762	2000
\$ 5 Phenol-d5	99	3.600	3.610	(0.928)	720762	53.0501	2120
\$ 20 Nitrobenzene-d5	82	4.240	4.250	(0.894)	301085	24.7719	990
\$ 39 2-Fluorobiphenyl	172	5.483	5.488	(0.915)	668661	29.1909	1170
\$ 60 2,4,6-Tribromophenol	329	6.586	6.590	(1.099)	173780	65.4018	2610
\$ 81 p-Terphenyl-d14	244	8.521	8.526	(0.893)	678239	36.9720	1480

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
47 Acenaphthene	154	5.969	6.022	(0.996)	30555	1.51034	60.4 (Q)
79 Pyrene	202	8.415	8.425	(0.882)	127069	3.92807	157
68 Phenanthrene	178	7.168	7.178	(1.002)	113525	3.40003	136
69 Anthracene	178	7.212	7.221	(1.008)	18059	0.53404	21.3 (a)
72 Di-n-butylphthalate	149	7.568	7.578	(1.058)	97160	2.28389	91.3 (a)
76 Fluoranthene	202	8.203	8.208	(1.147)	154086	4.24428	170
89 Benzo(a)anthracene	228	9.528	9.537	(0.998)	47879	1.95046	78.0
92 Chrysene	228	9.561	9.576	(1.002)	47452	2.17235	86.8
95 Benzo(b)fluoranthene	252	10.654	10.664	(0.956)	61569	3.59959	144
97 Benzo(a)pyrene	252	11.069	11.083	(0.993)	26939	1.92078	76.8
99 Indeno(1,2,3-cd)pyrene	276	12.812	12.841	(1.149)	12763	1.26551	50.6
100 Dibenzo(a,h)anthracene	278	12.821	12.850	(1.150)	3729	0.46657	18.6 (a)
101 Benzo(ghi)perylene	276	13.327	13.351	(1.195)	11832	1.40677	56.2

#### QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.

## ION RATIO REPORT

## SV REPORT

Data file: s7c1228.d

Report Date: 03/13/2010 09:26

Lab. ID: 248043015

SampleType: SAMPLE

Injection Date: 12-MAR-2010 22:17

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043015|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	41616	3.60	3.67	80-120	100	(T)
93	981	3.56	3.67	229-289	2	(QT)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	45798	4.24	4.13	80-120	100	(T)
42	34370	4.24	4.13	63-123	75	(T)
-----						
43	Dimethylphthalate	CAS#: 131-11-3				
163	164174	5.99	5.76	80-120	100	(T)
164	919140	5.99	5.76	0- 40	560	(QT)
-----						
44	2,6-Dinitrotoluene	CAS#: 606-20-2				
165	119948	5.99	5.82	80-120	100	(T)
63	1978	5.99	5.82	56-116	2	(QT)
-----						
45	Acenaphthylene	CAS#: 208-96-8				
152	34131	5.97	5.90	80-120	100	(T)
151	9166	5.97	5.90	0- 49	27	(T)
153	36902	5.97	5.90	0- 43	108	(QT)
-----						
47	Acenaphthene	CAS#: 83-32-9				
154	30555	5.97	6.02	80-120	100	( )
153	36902	5.97	6.02	73-133	121	( )
152	34131	5.97	6.02	18- 78	112	(Q)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	119948	5.99	6.11	80-120	100	(T)
89	1934	5.99	6.11	39- 99	2	(QT)
63	1978	5.99	6.11	18- 78	2	(QT)
-----						
53	Fluorene			CAS#: 86-73-7		
166	10969	6.58	6.40	80-120	100	(T)
165	11966	6.58	6.40	62-122	109	(T)
167	4130	6.58	6.40	0- 44	38	(T)
-----						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	715	6.59	6.42	80-120	100	(T)
105	4889	6.59	6.42	11- 71	684	(QT)
51	2191	6.59	6.42	34- 94	306	(QT)
-----						
68	Phenanthrene			CAS#: 85-01-8		
178	113525	7.17	7.18	80-120	100	( )
179	18931	7.17	7.18	0- 46	17	( )
176	21834	7.17	7.18	0- 48	19	( )
-----						
69	Anthracene			CAS#: 120-12-7		
178	18059	7.21	7.22	80-120	100	( )
179	5209	7.21	7.22	0- 46	29	( )
176	3455	7.21	7.22	0- 48	19	( )
-----						
72	Di-n-butylphthalate			CAS#: 84-74-2		
149	97160	7.57	7.58	80-120	100	( )
150	9146	7.57	7.58	0- 39	9	( )
104	5167	7.57	7.58	0- 35	5	( )
-----						
76	Fluoranthene			CAS#: 206-44-0		
202	154086	8.20	8.21	80-120	100	( )
203	26777	8.20	8.21	0- 48	17	( )
101	17057	8.20	8.21	0- 41	11	( )
-----						
79	Pyrene			CAS#: 129-00-0		
202	127069	8.42	8.43	80-120	100	( )
200	26333	8.42	8.43	0- 50	21	( )
101	16798	8.42	8.43	0- 43	13	( )
-----						
89	Benzo(a)anthracene			CAS#: 56-55-3		
228	47879	9.53	9.54	80-120	100	( )
226	12005	9.53	9.54	0- 56	25	( )
229	13409	9.53	9.54	0- 50	28	( )
-----						
92	Chrysene			CAS#: 218-01-9		
228	47452	9.56	9.58	80-120	100	( )
229	11140	9.56	9.58	0- 50	23	( )
226	13503	9.56	9.58	0- 58	28	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	61569	10.65	10.66	80-120	100	( )
253	15821	10.66	10.66	0- 52	26	( )
125	5754	10.66	10.66	0- 41	9	( )
-----						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	61569	10.65	10.70	80-120	100	( )
253	15833	10.66	10.70	0- 52	26	( )
125	5751	10.66	10.70	0- 41	9	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	26939	11.07	11.08	80-120	100	( )
253	6594	11.07	11.08	0- 52	24	( )
125	3921	11.07	11.08	0- 42	15	( )
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	12763	12.81	12.84	80-120	100	( )
138	3202	12.81	12.84	2- 62	25	( )
-----						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	3729	12.82	12.85	80-120	100	( )
139	1096	12.82	12.85	0- 50	29	( )
-----						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	11832	13.33	13.35	80-120	100	( )
138	4613	13.33	13.35	0- 57	39	( )

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD7.i/s031210.b/s7c1228.d  
 Lab Smp Id: 248043015 Client Smp ID: RE36-10-7467  
 Inj Date : 12-MAR-2010 22:17  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043015|959623|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 12-Mar-2010 15:38 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 24  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	16.86490	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.879	2584322	40.000
* 98 Perylene-d12	11.150	1732188	40.000

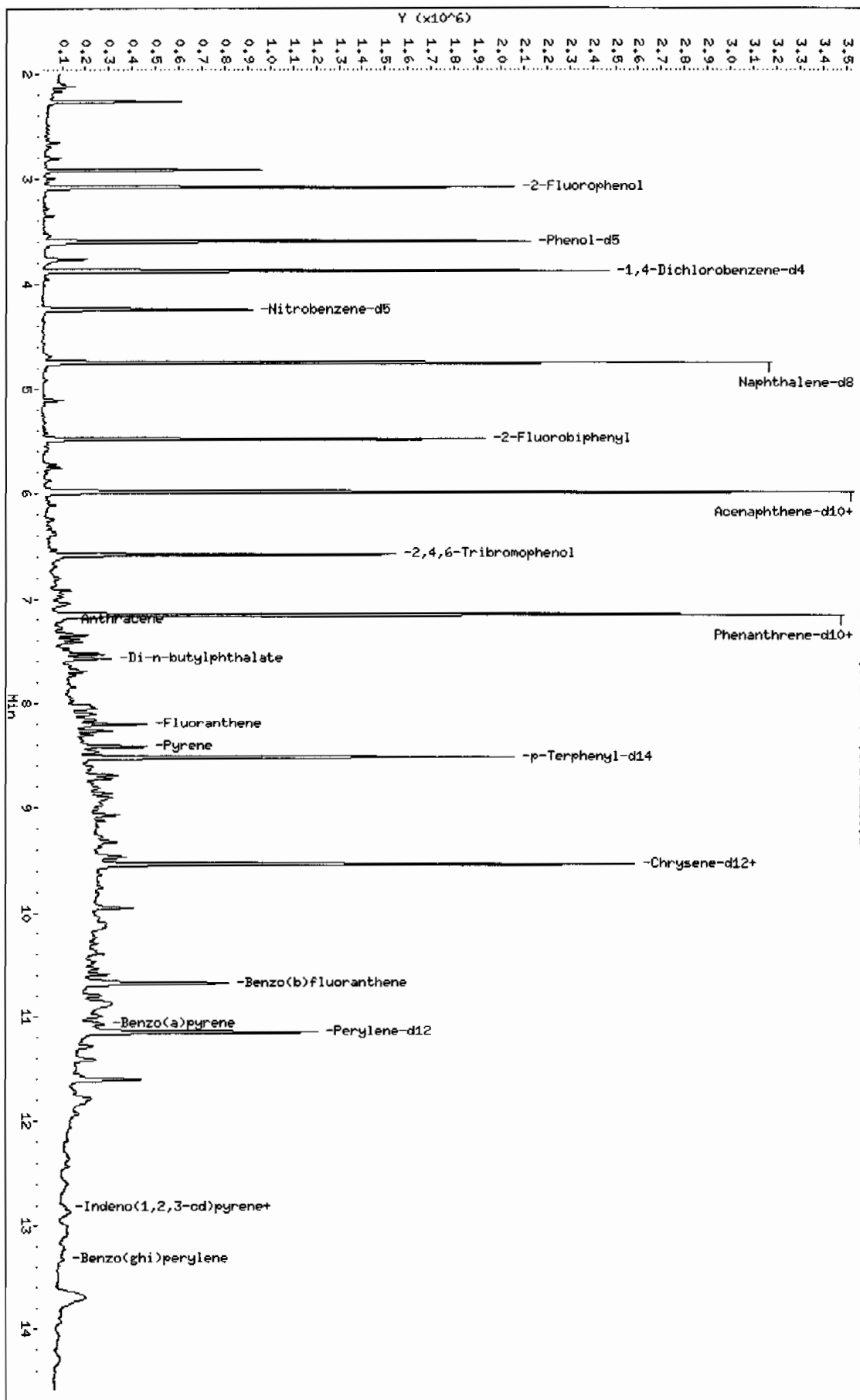
CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
----	----	-----	-----	----	-----	-----	-----
Methyl 3-butenolate					CAS #: 3724-55-8		
2.266	590472	9.13929513	365	80	NIST05.L	3590	10



RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Unknown Aldol Condensate					CAS #:		
2.921	1016902	15.7395579	629	0		0	10
Unknown					CAS #:		
3.769	327176	5.06400753	202	0		0	10
1-Docosanethiol					CAS #: 7773-83-3		
10.871	486830	11.2419707	449	91	NIST05.L	148955	98
Unknown					CAS #:		
10.992	191251	4.41639625	176	0		0	98
Unknown					CAS #:		
11.415	189510	4.37618864	175	0		0	98
Eicosane					CAS #: 112-95-8		
11.603	598567	13.8222187	552	97	NIST05.L	113490	98
Bicyclo[3.1.1]heptan-2-one, 6,6-dimethyl					CAS #: 38651-65-9		
11.791	239884	5.53943987	221	83	NIST05.L	17047	98
Unknown					CAS #:		
12.865	186100	4.29745110	172	0		0	98
.beta.-Sitosterol					CAS #: 83-46-5		
13.693	910373	21.0224906	840	95	NIST05.L	174400	98

Data File: /chem/MSD7.i/s031210.b/s701228.d  
 Date: 12-MAR-2010 22:17  
 Client ID: REC6-10-7467  
 Sample Info: 1248043015195962311SVH11LNL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-SHS

Instrument: MSD7.i  
 Operator: JHB3  
 Column diameter: 0.20



Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: I2480430151959623111SVH111LANL

Volume Injected (uL): 0.5

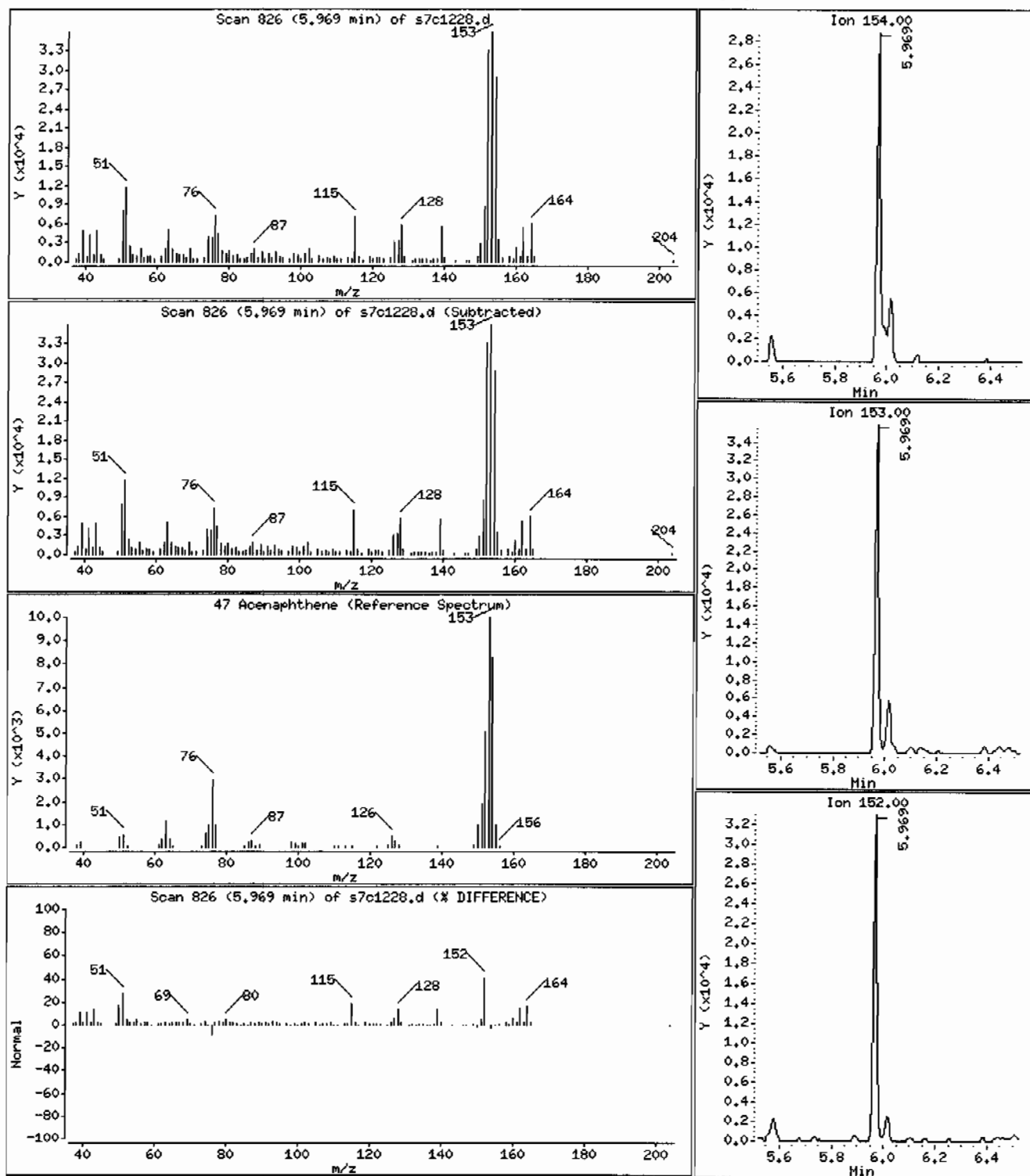
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 60.4 ug/Kg



Date: 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 12480430151959623111SVH111LANL

Volume Injected (uL): 0.5

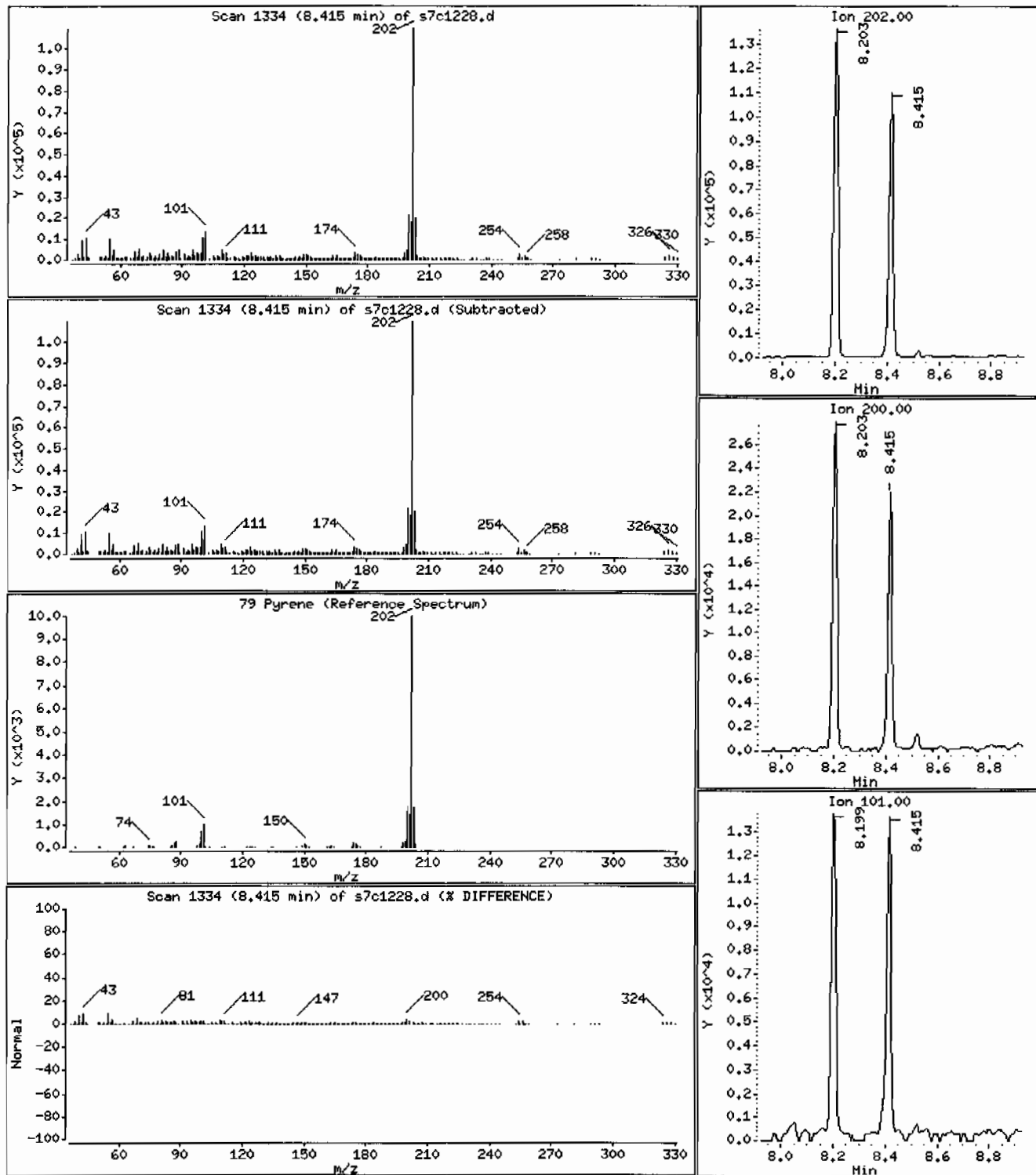
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 157 ug/Kg



Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 1248043015195962311|SVMI1|LANL

Volume Injected (uL): 0.5

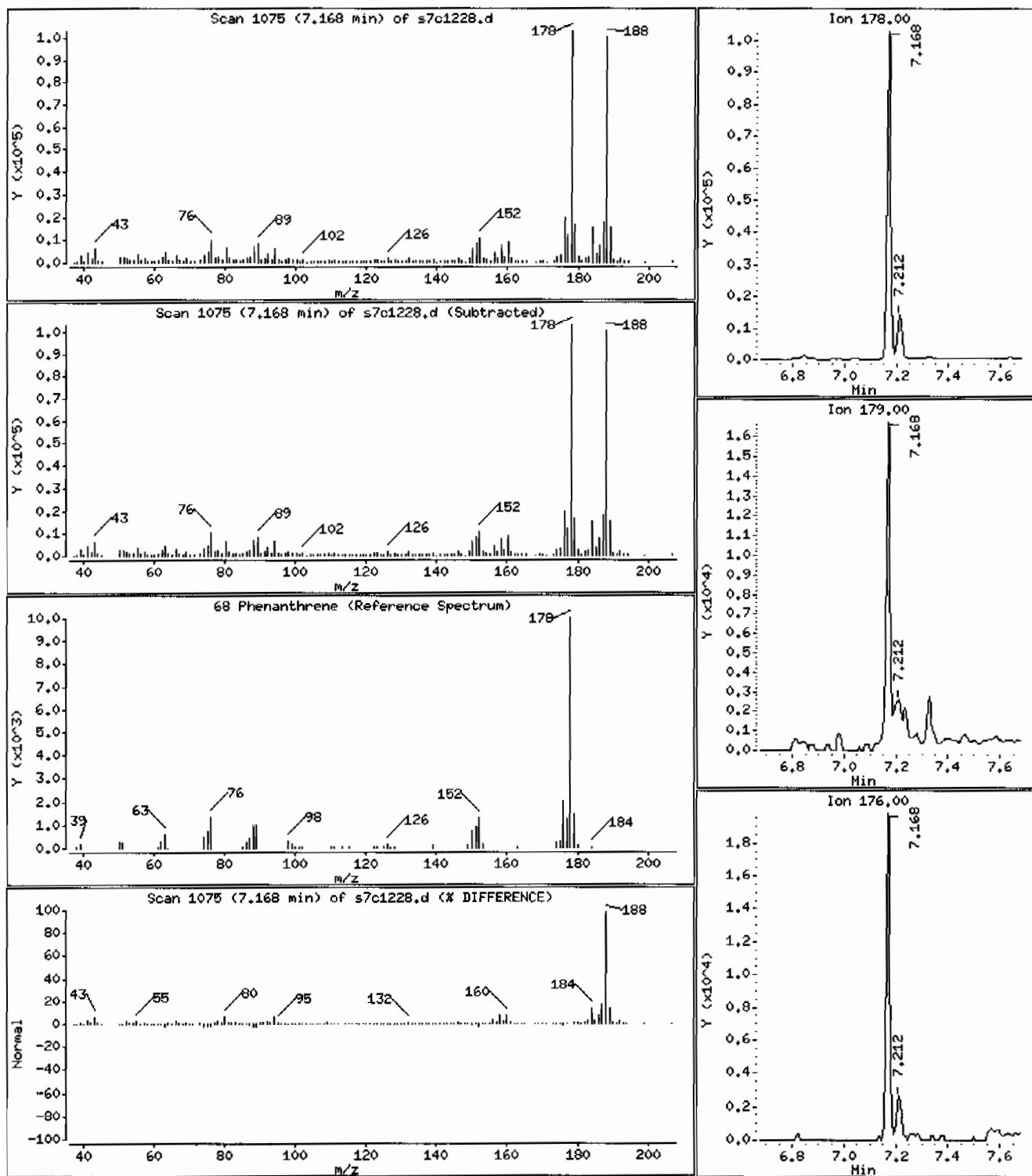
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 136 ug/Kg



Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 12480430151959623111SVMI11LANL

Volume Injected (uL): 0.5

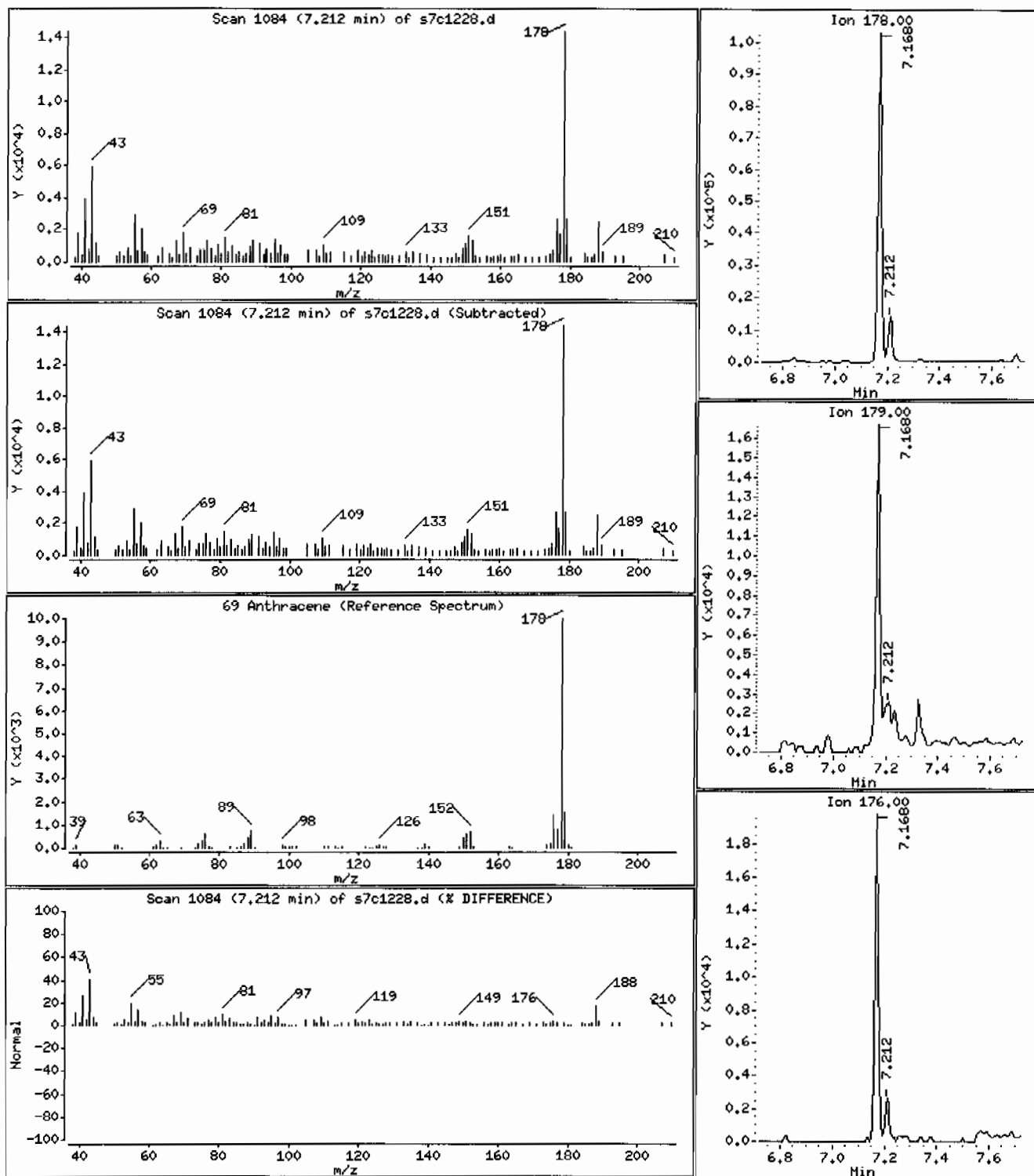
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 21.3 ug/Kg



Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 12480430151959623111SVMI11LANL

Volume Injected (uL): 0.5

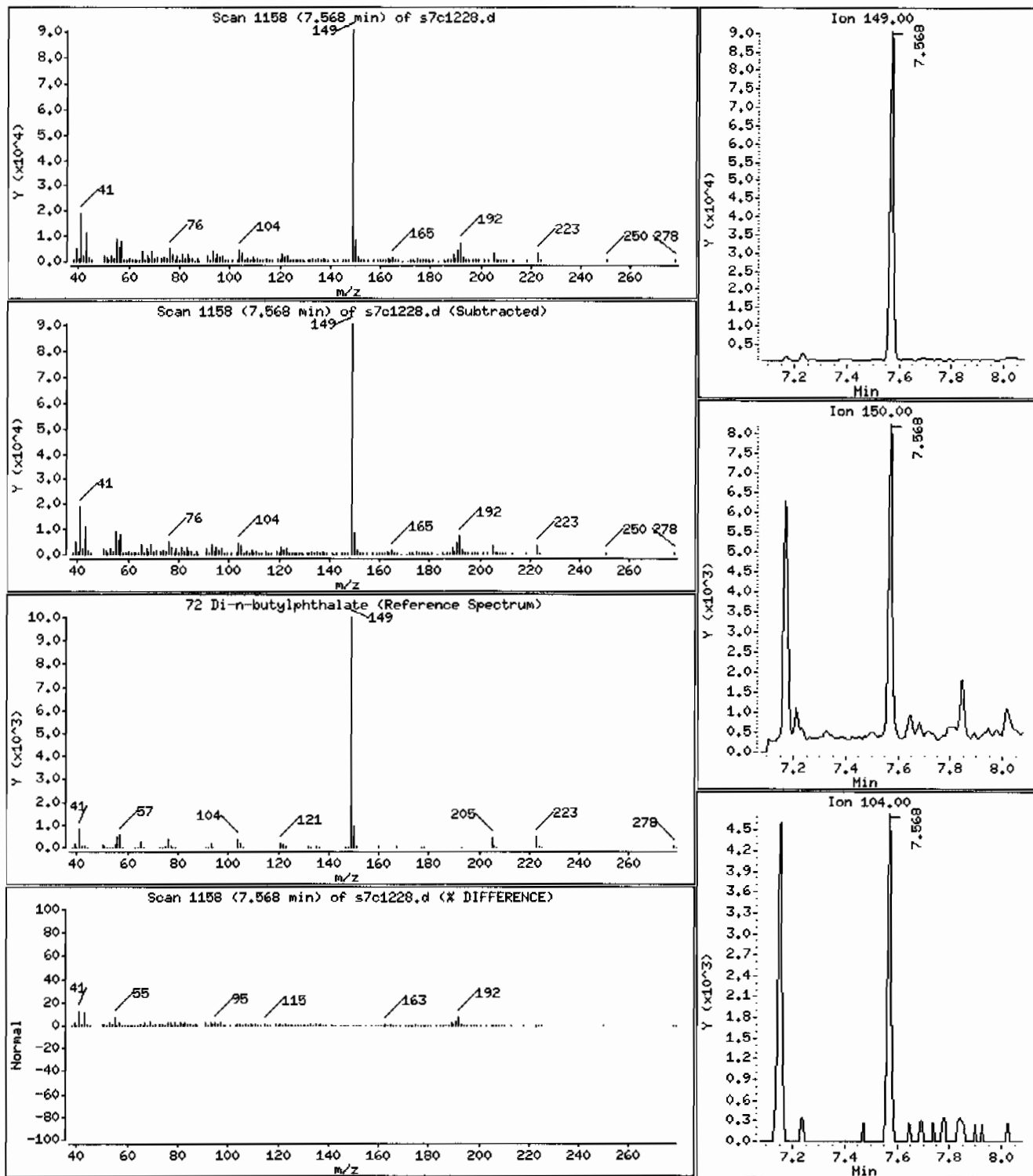
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

72 Di-n-butylphthalate

Concentration: 91.3 ug/Kg



Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.1

Sample Info: 12480430151959623111SVMI11ILANL

Volume Injected (uL): 0.5

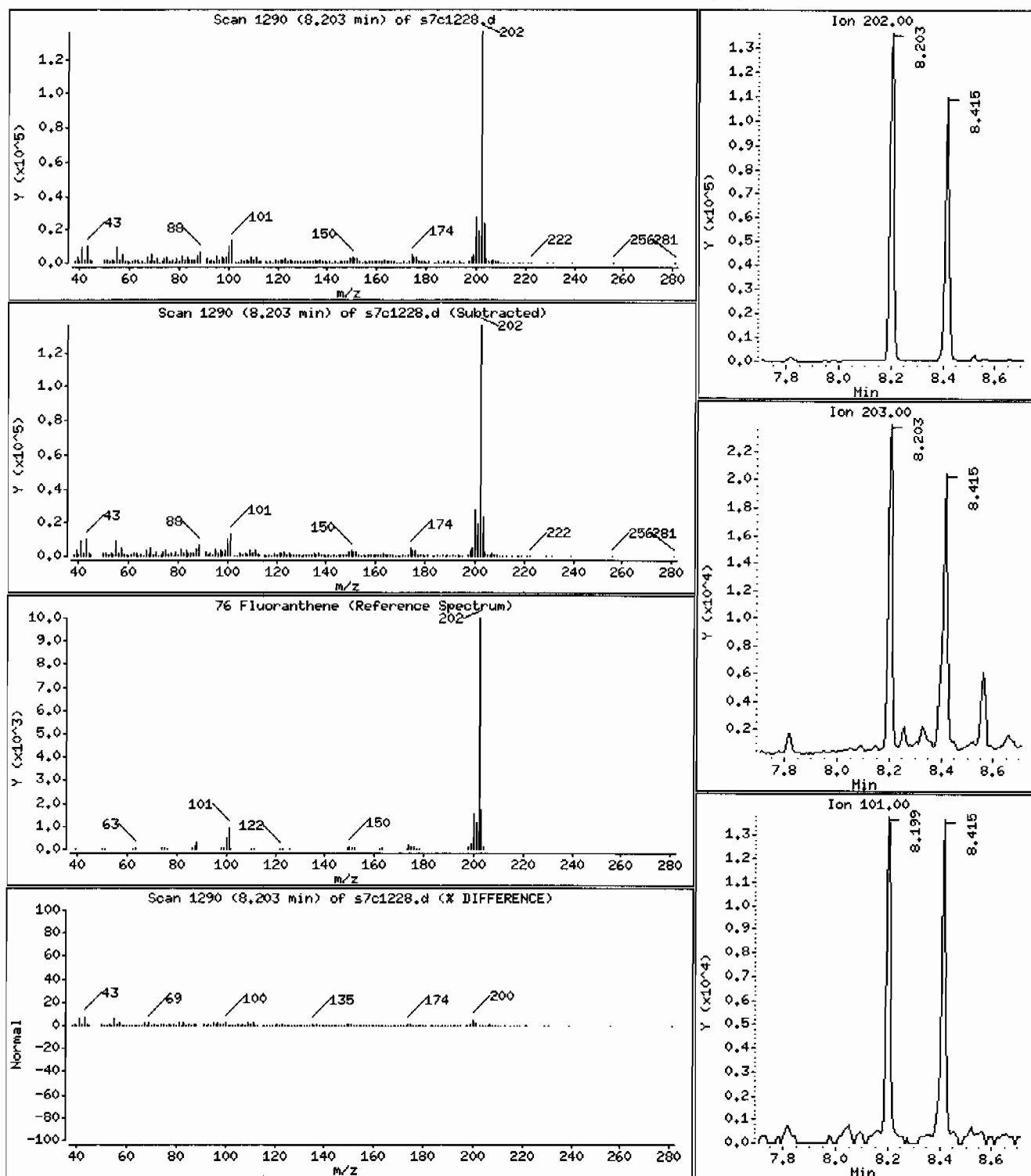
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 170 ug/Kg





Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 1248043015195962311ISVH11ILANL

Volume Injected (uL): 0.5

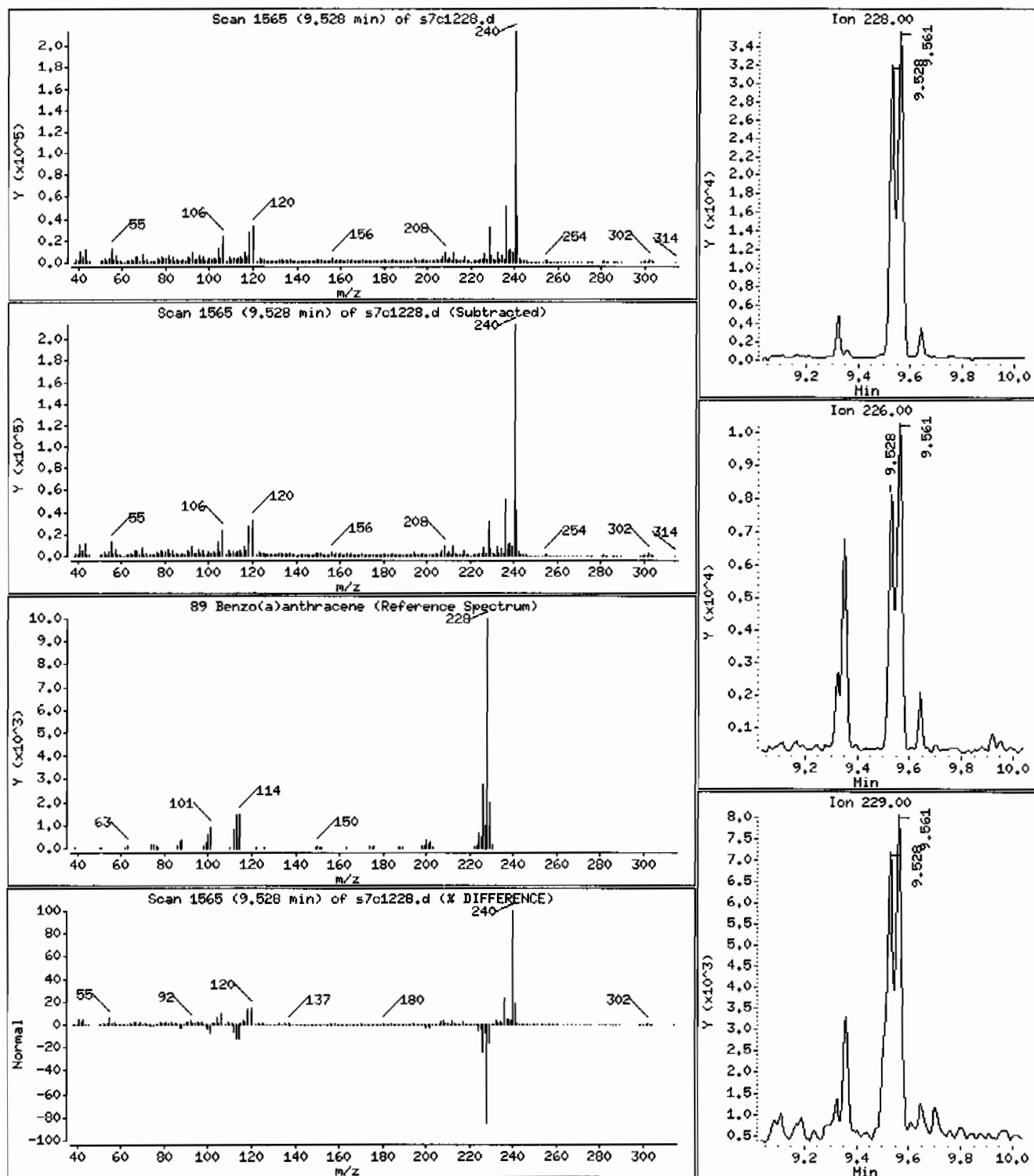
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 78.0 ug/Kg



Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: HSD7.i

Sample Info: 1248043015195962311SVMI1ILANL

Volume Injected (uL): 0.5

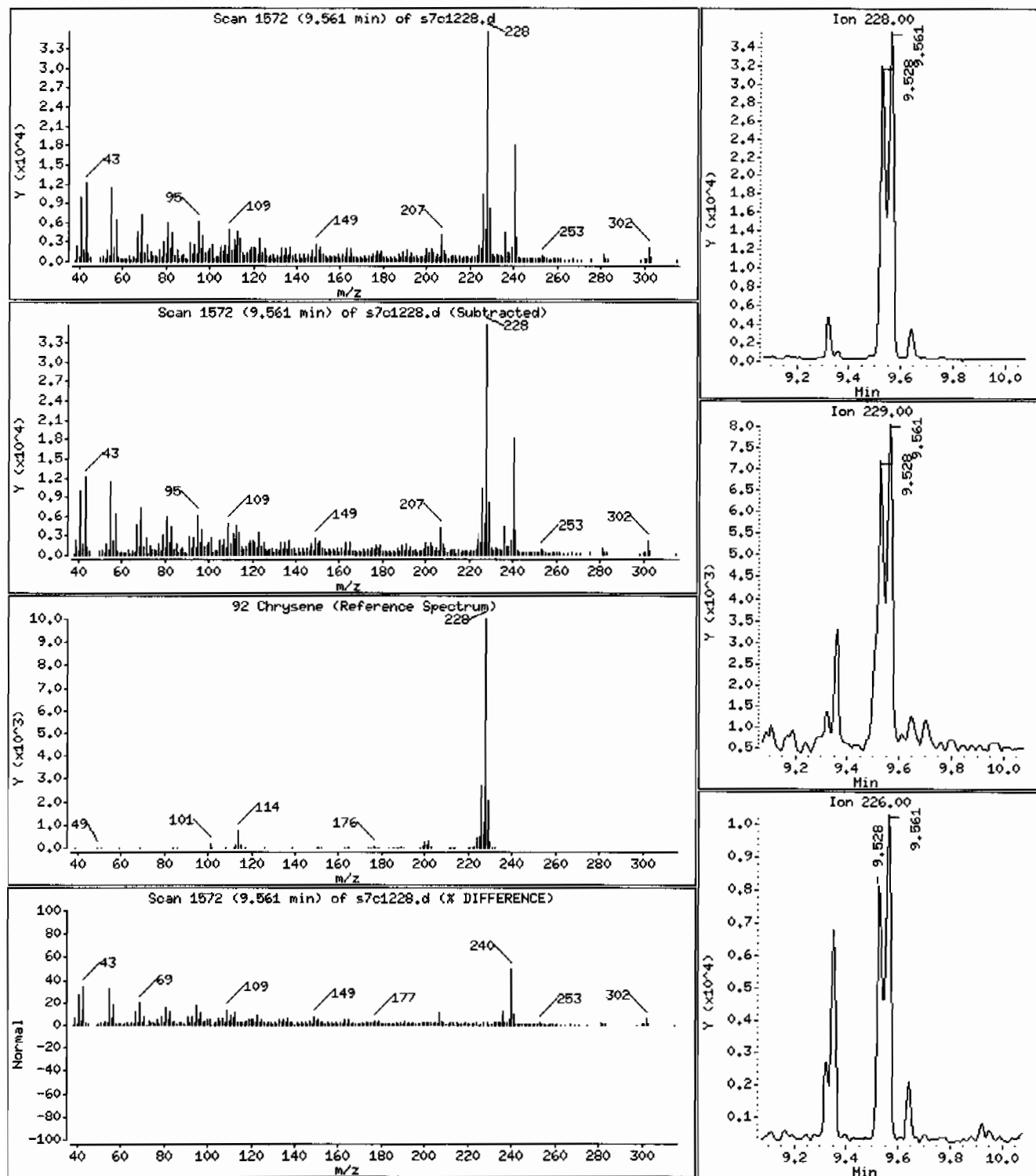
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 86.8 ug/Kg



Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: I248043015195962311SVMI11LANL

Volume Injected (uL): 0.5

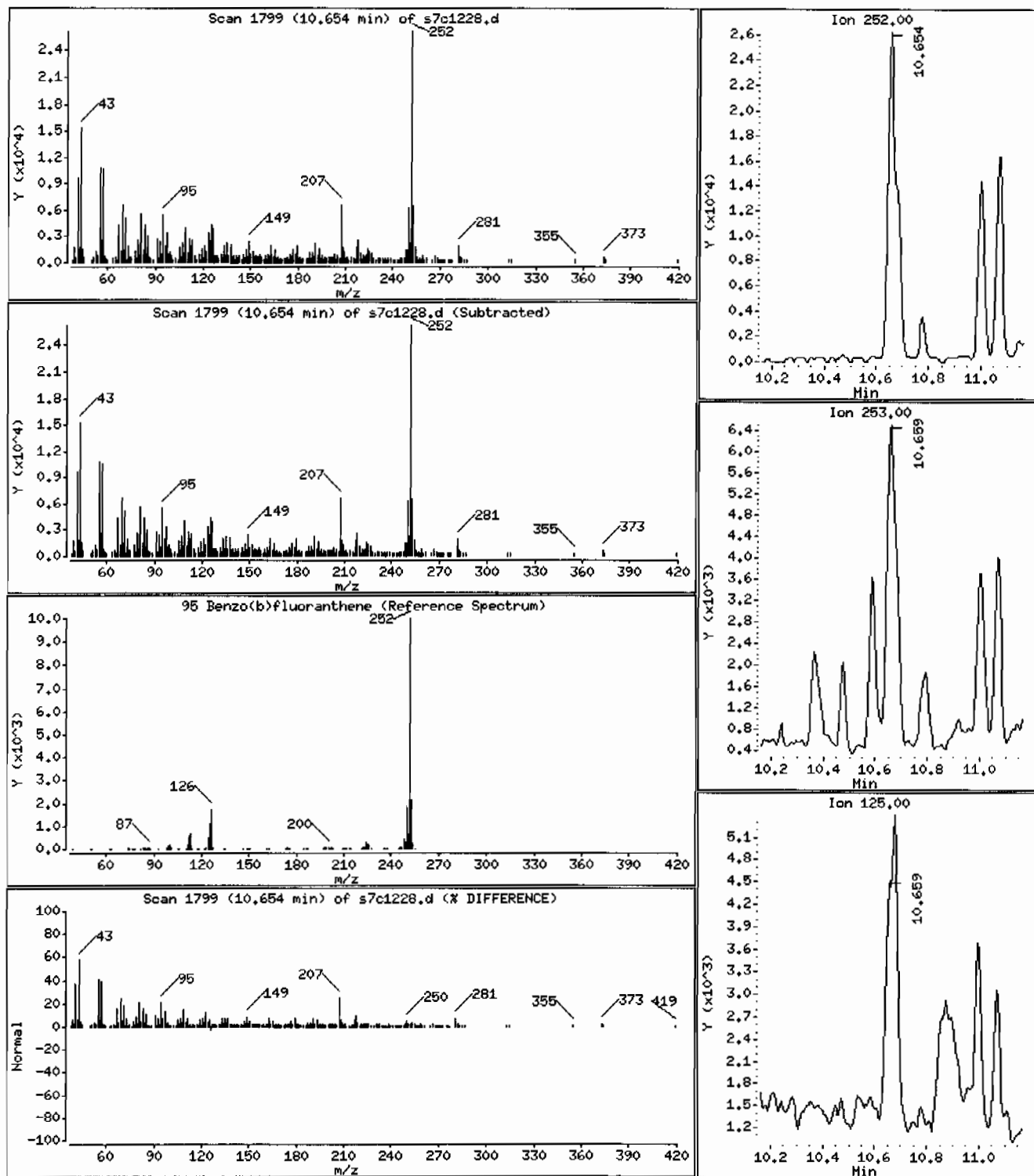
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 144 ug/Kg



Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 1248043015195962311ISVH11ILANL

Volume Injected (uL): 0.5

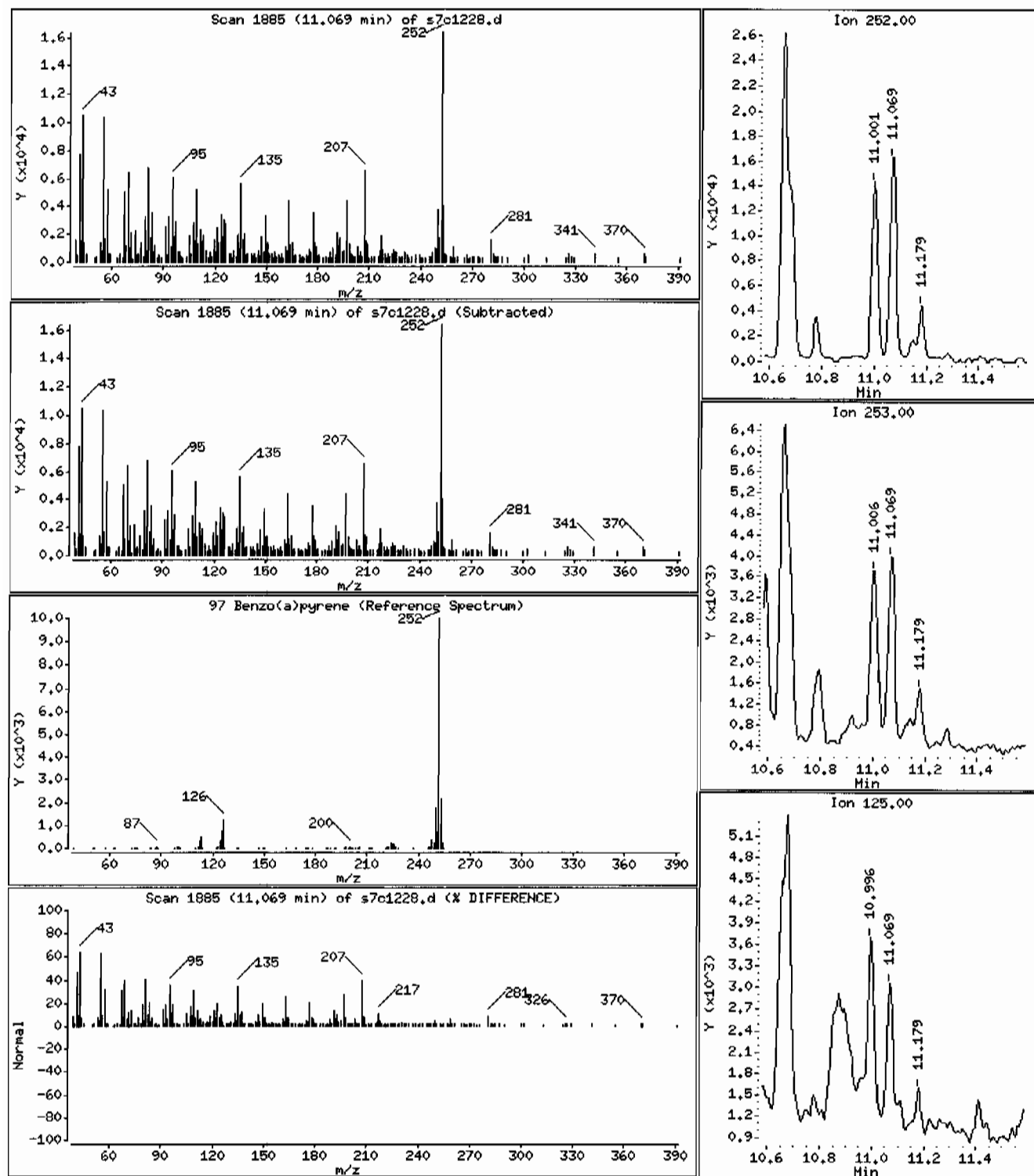
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 76.8 ug/Kg



Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 12480430151959623111SVMI11LANL

Volume Injected (uL): 0.5

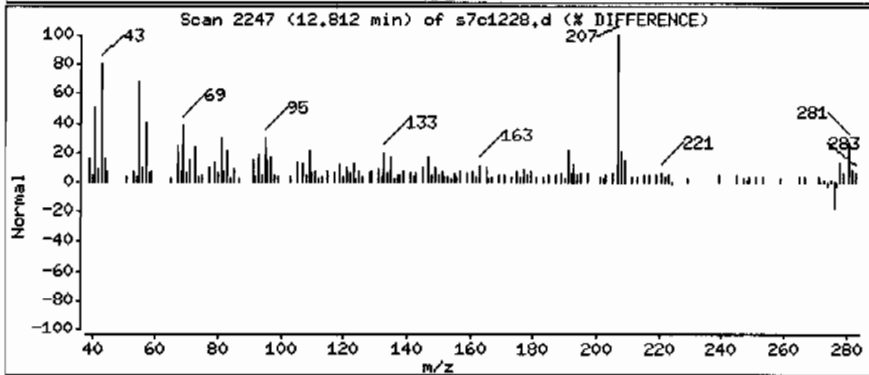
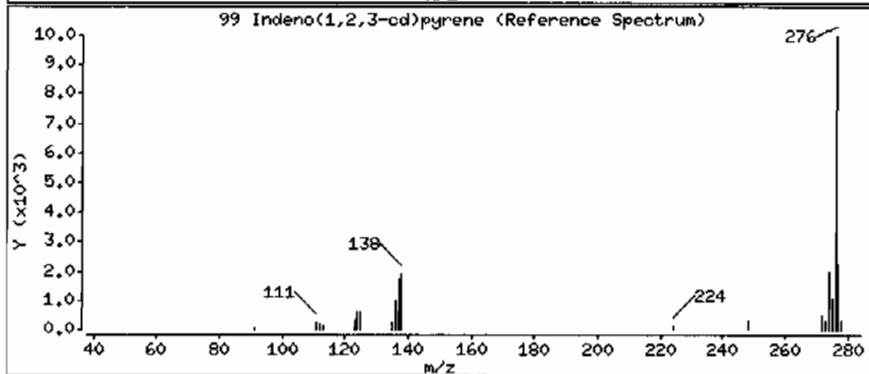
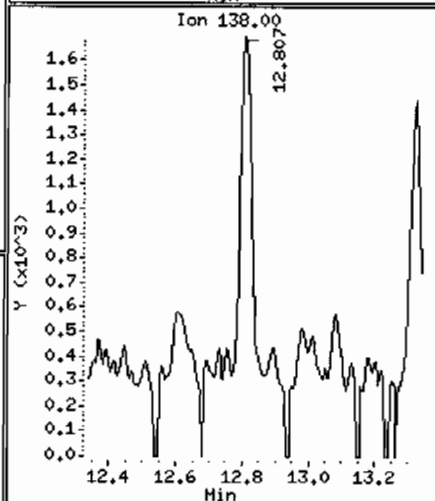
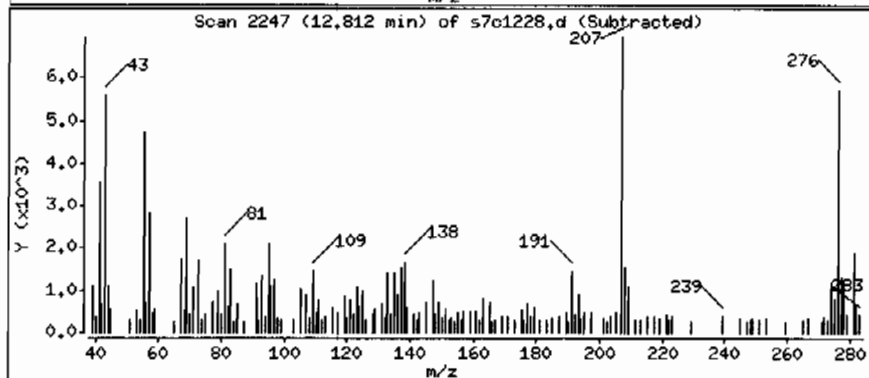
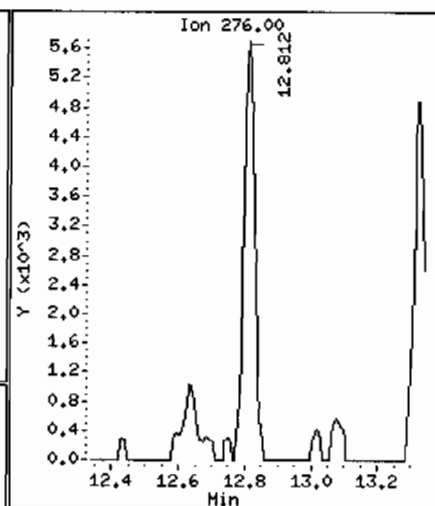
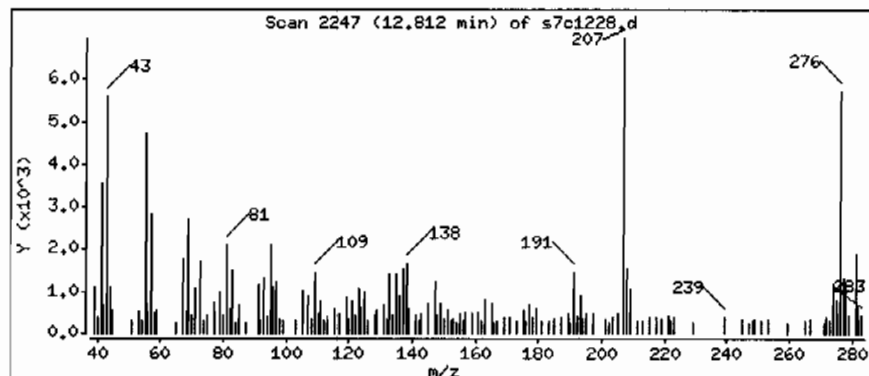
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 50.6 ug/Kg



Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 1248043015195962311ISVH11ILANL

Volume Injected (uL): 0.5

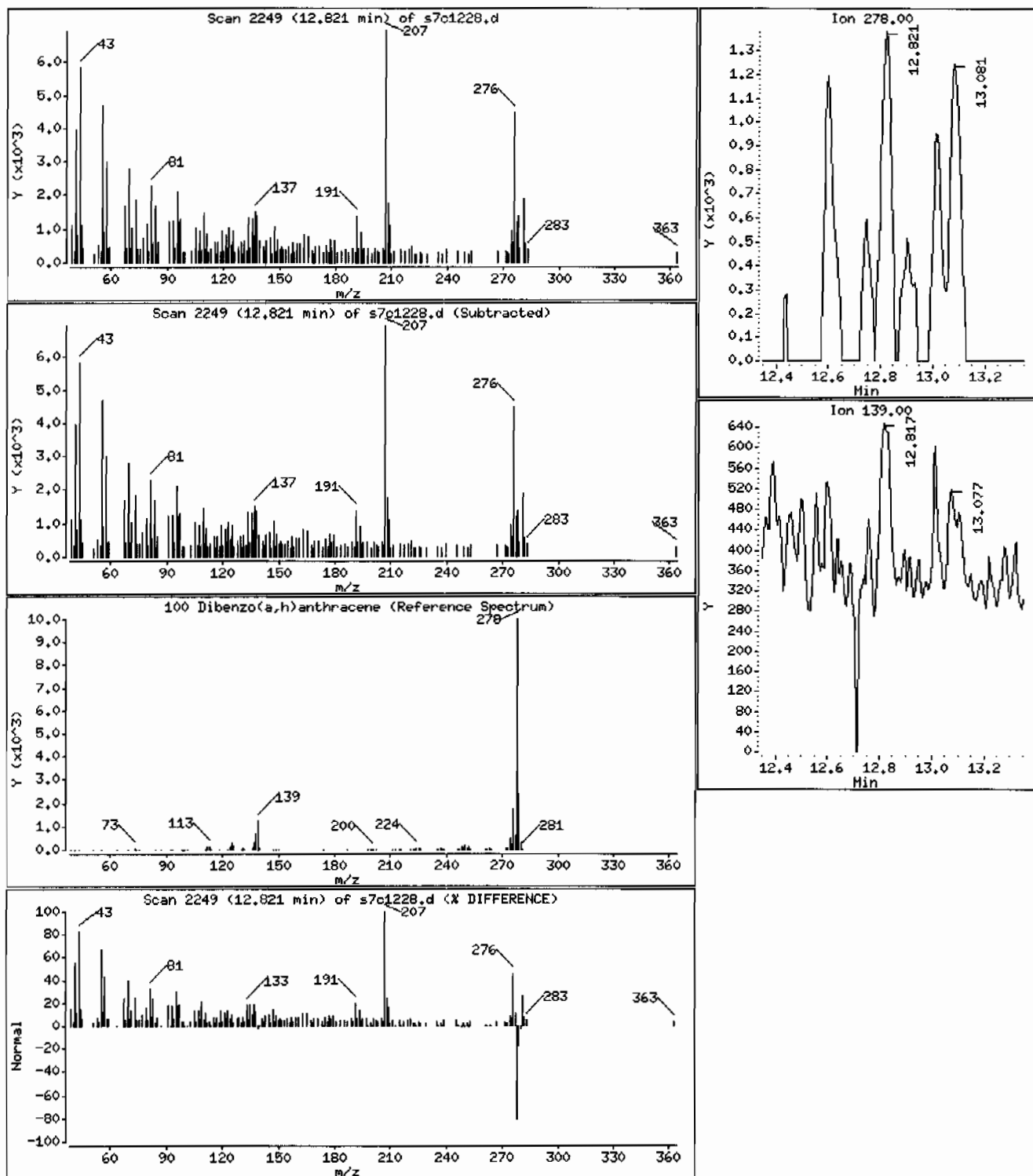
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 18.6 ug/Kg



Date: 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 12480430151959623111SVMI11LANL

Volume Injected (uL): 0.5

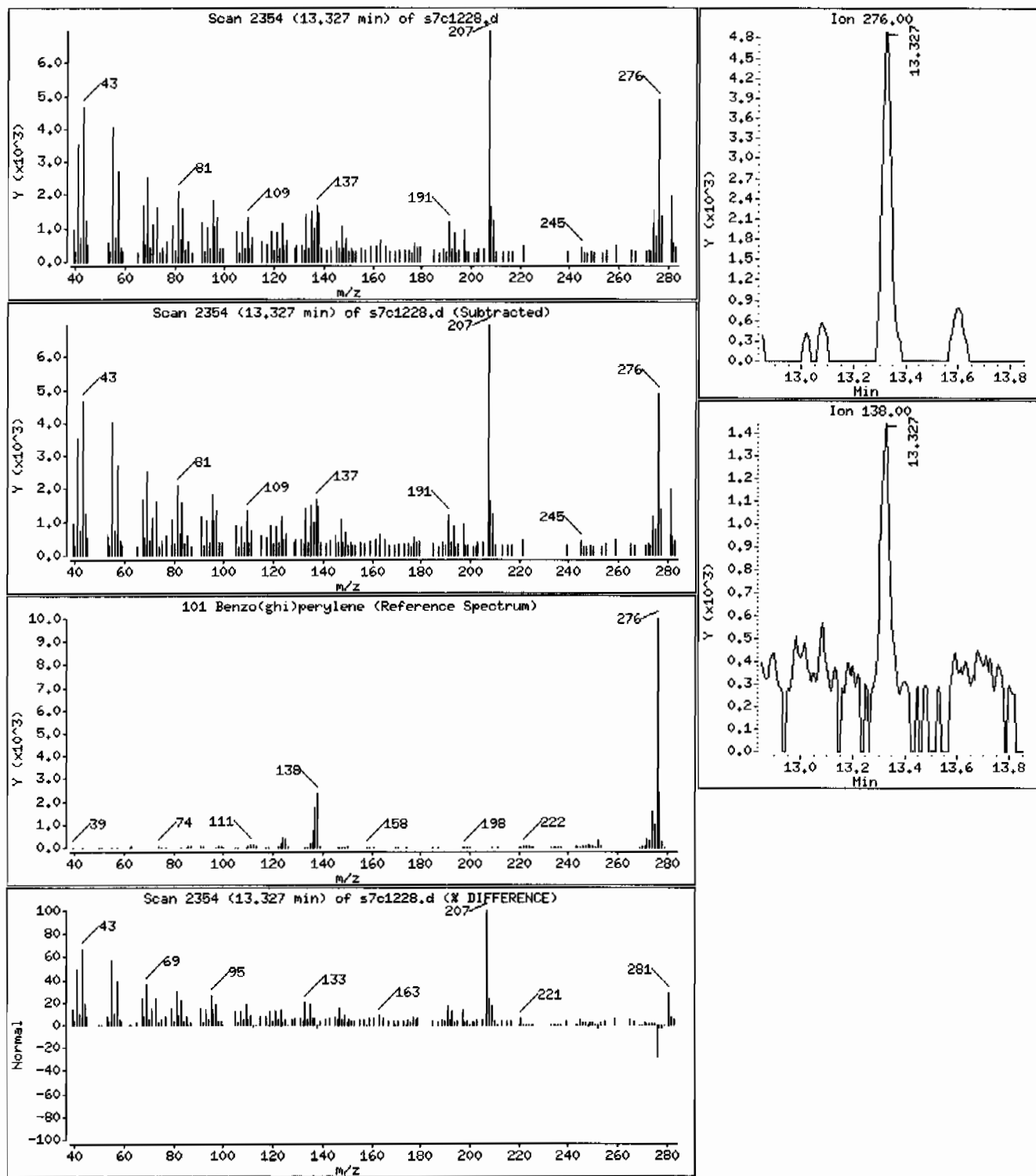
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 56.2 ug/Kg



Date: 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 12480430151959623111SVMI11LANL

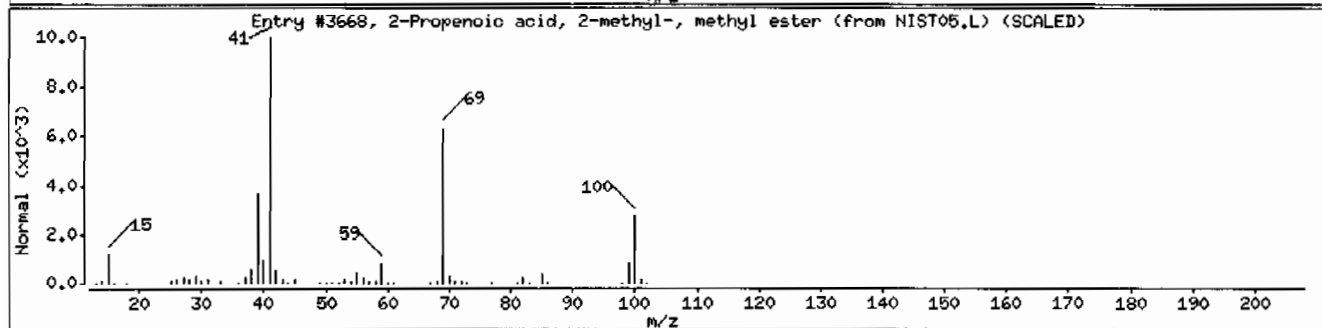
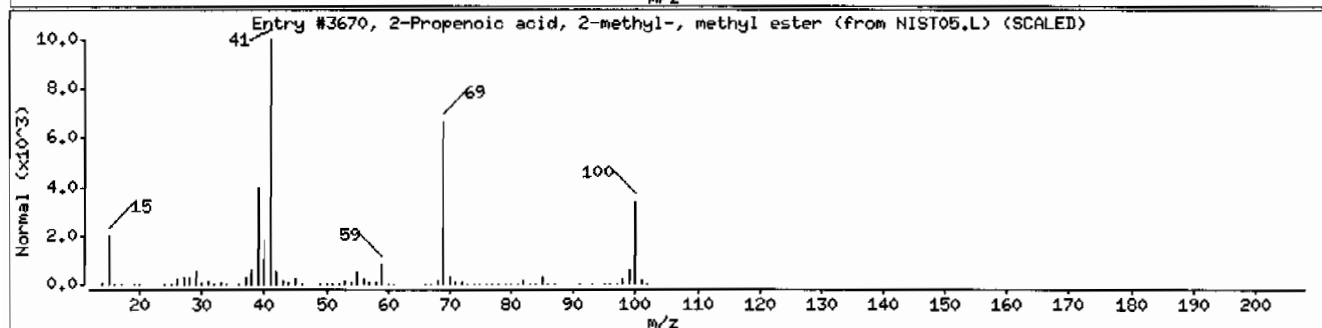
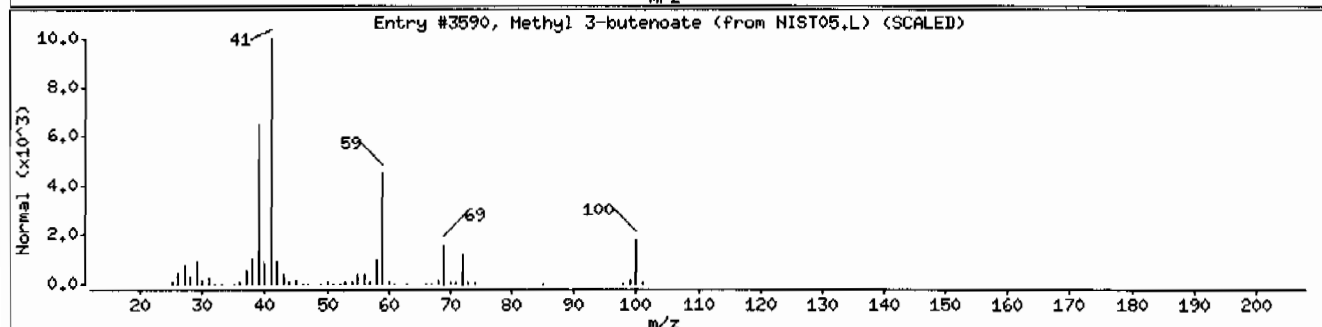
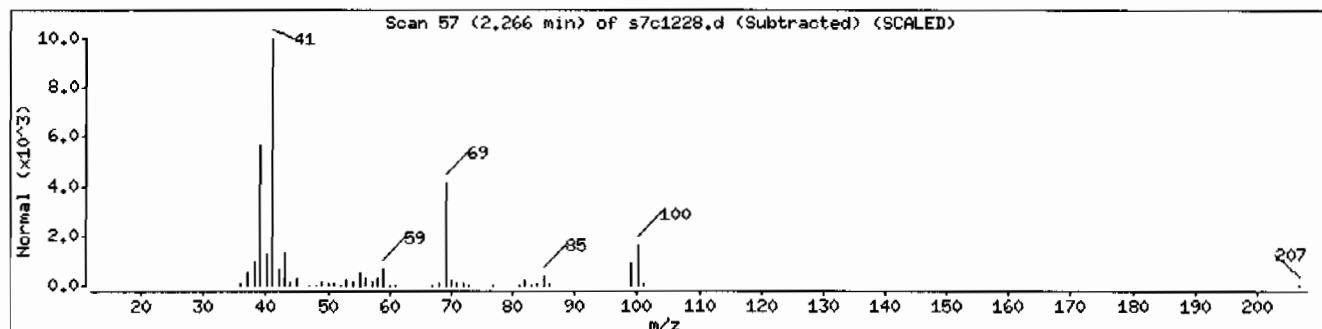
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Methyl 3-butenate	3724-55-8	NIST05.L	3590	80	C5H8O2	100
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	NIST05.L	3670	49	C5H8O2	100
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	NIST05.L	3668	46	C5H8O2	100





Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 1248043015195962311ISVH11ILANL

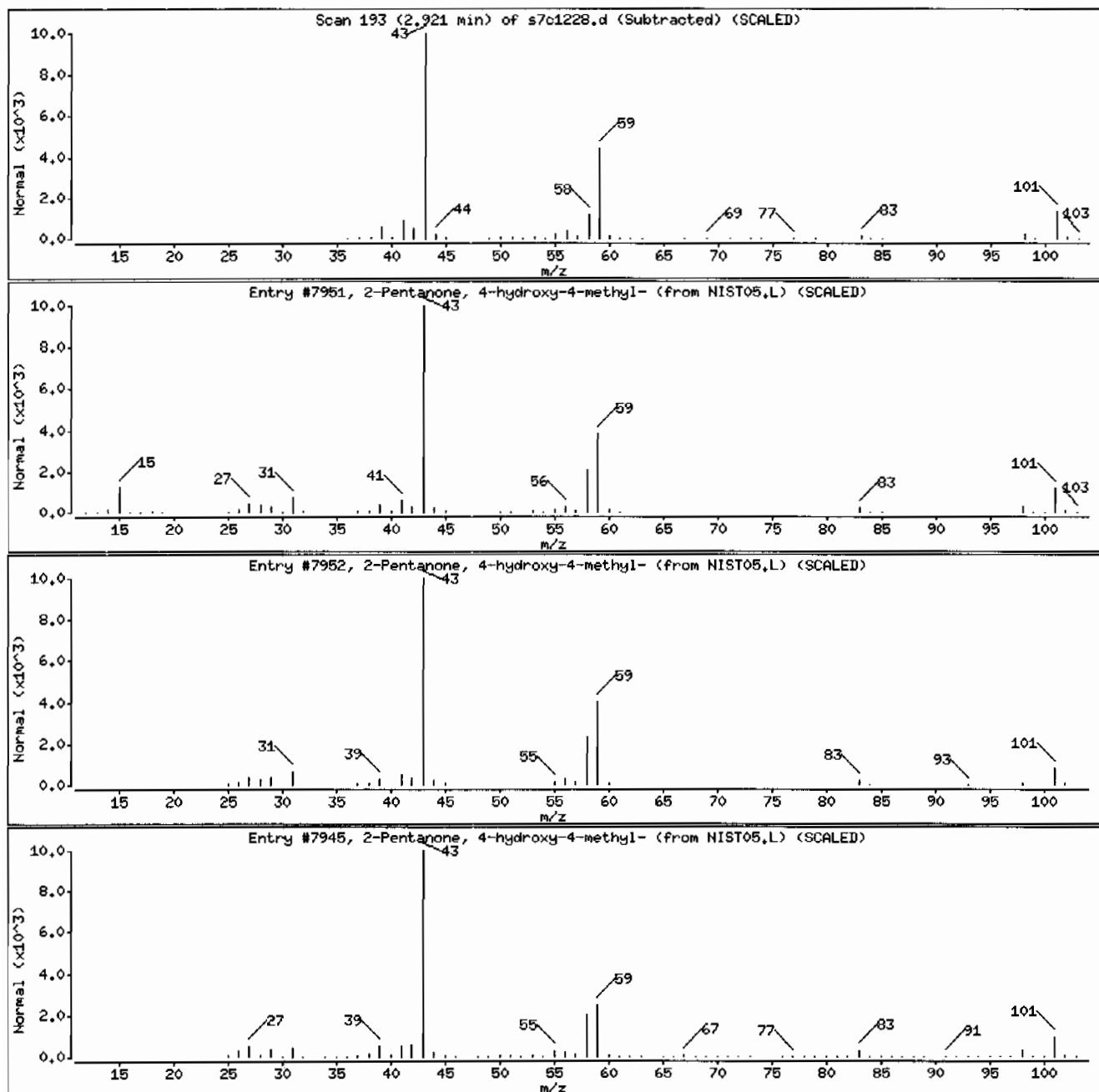
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116



Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 12480430151959623111SVMI11LANL

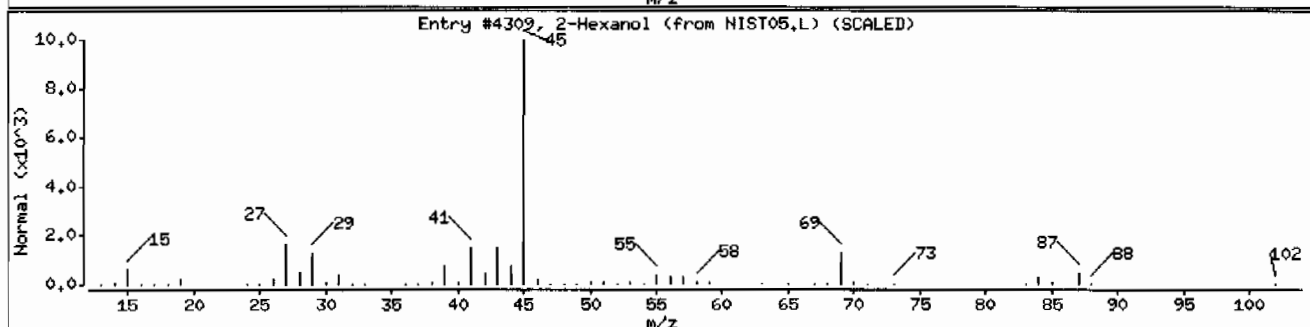
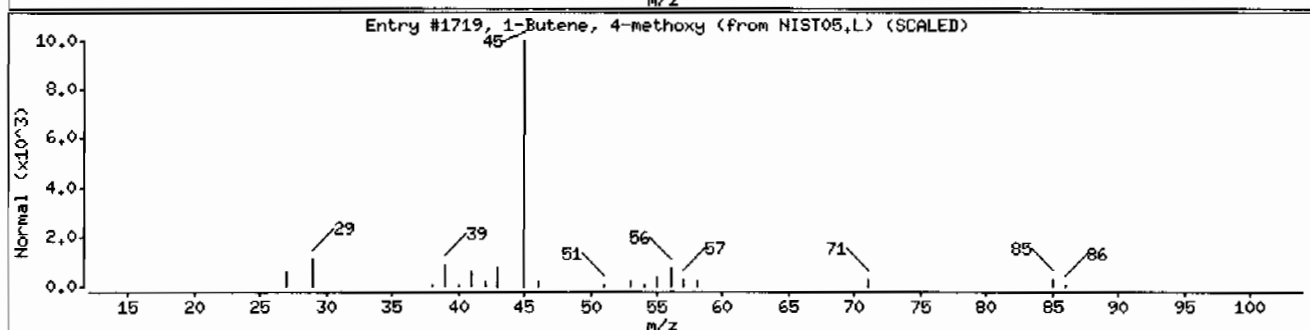
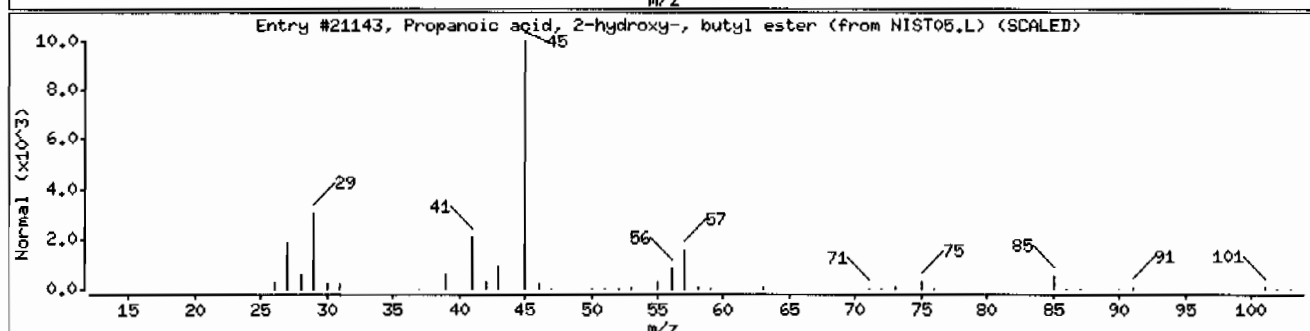
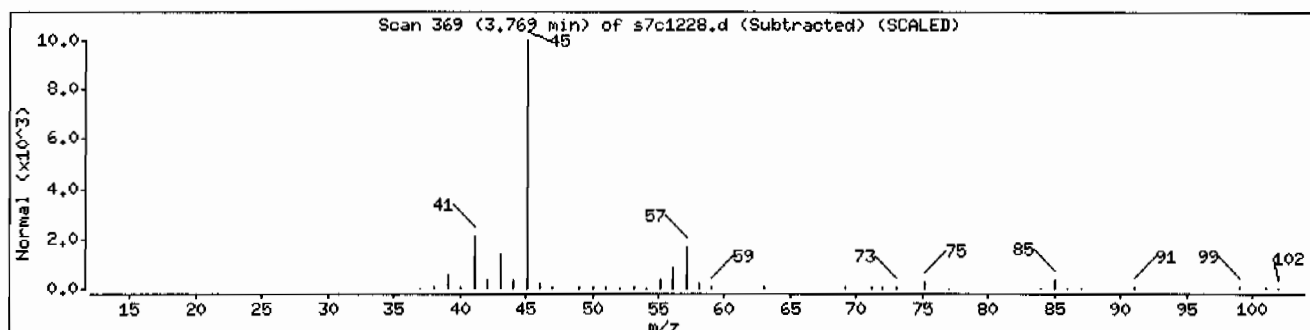
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propanoic acid, 2-hydroxy-, butyl ester	138-22-7	NIST05.L	21143	78	C7H14O3	146
1-Butene, 4-methoxy	4696-30-4	NIST05.L	1719	56	C5H10O	86
2-Hexanol	626-93-7	NIST05.L	4309	50	C6H14O	102



Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 1248043015195962311SVMI1ILANL

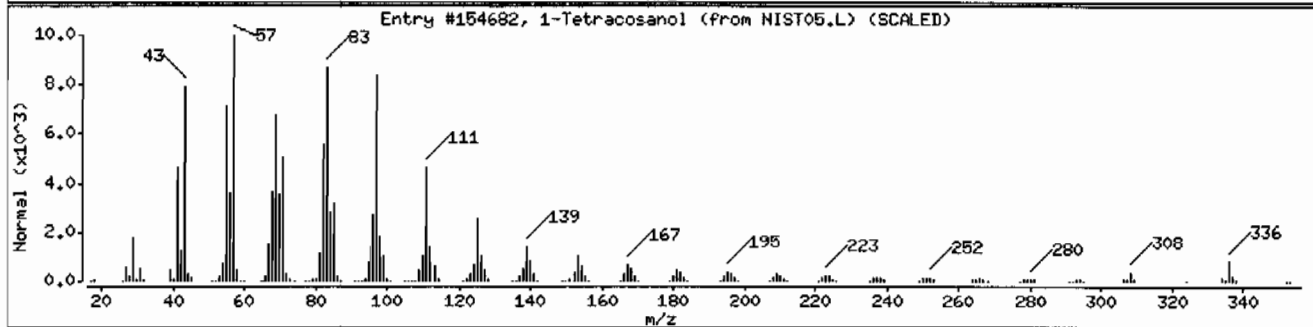
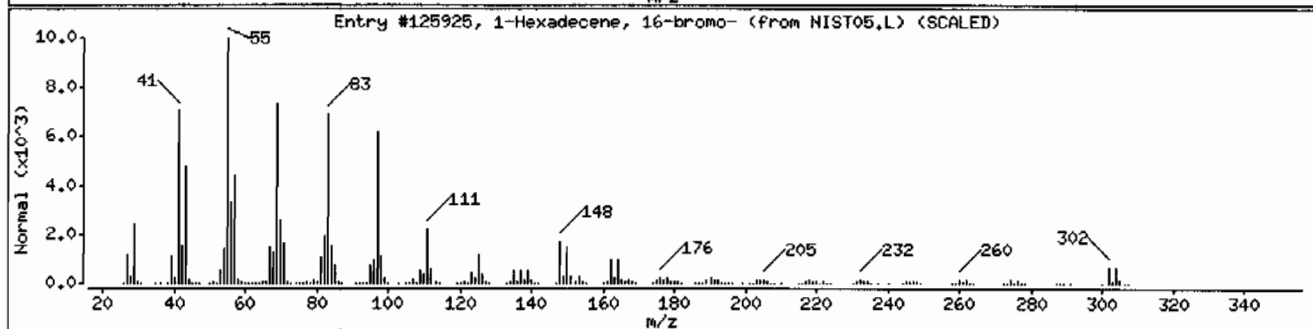
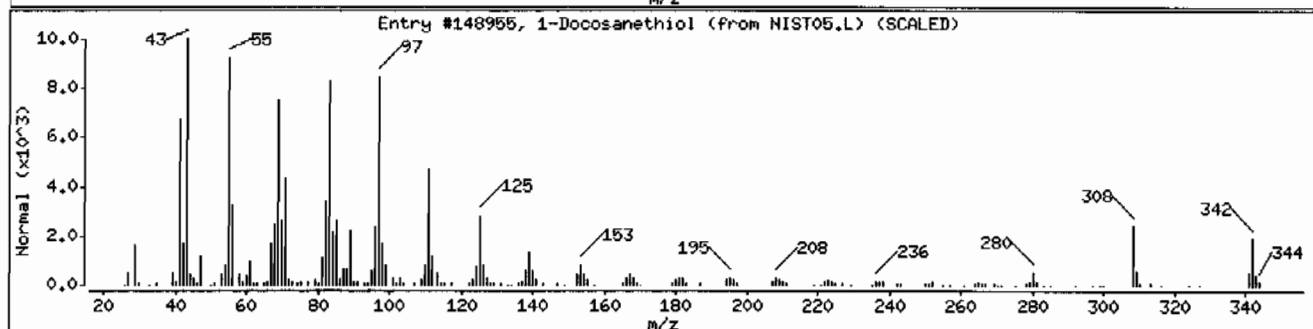
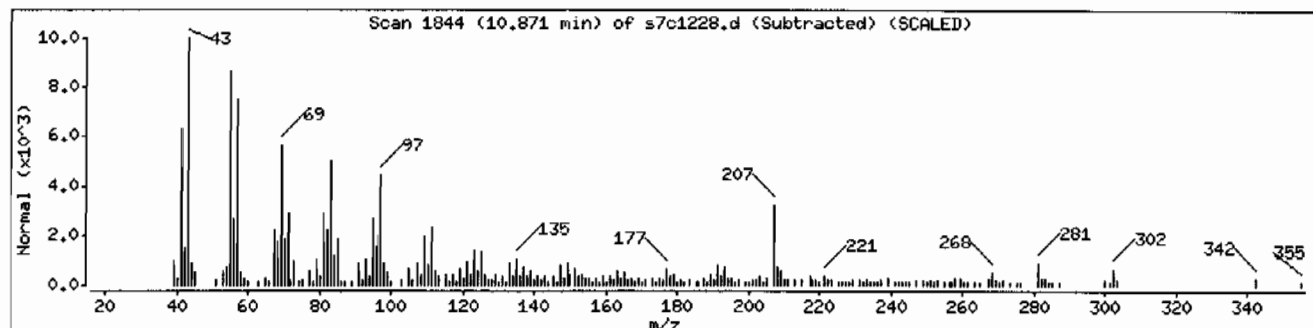
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Docosanethiol	7773-83-3	NIST05.L	148955	91	C22H46S	342
1-Hexadecene, 16-bromo-	118625-56-2	NIST05.L	125925	89	C16H31Br	302
1-Tetracosanol	506-51-4	NIST05.L	154682	55	C24H50O	354



Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.1

Sample Info: 12480430151959623111SVMI1ILANL

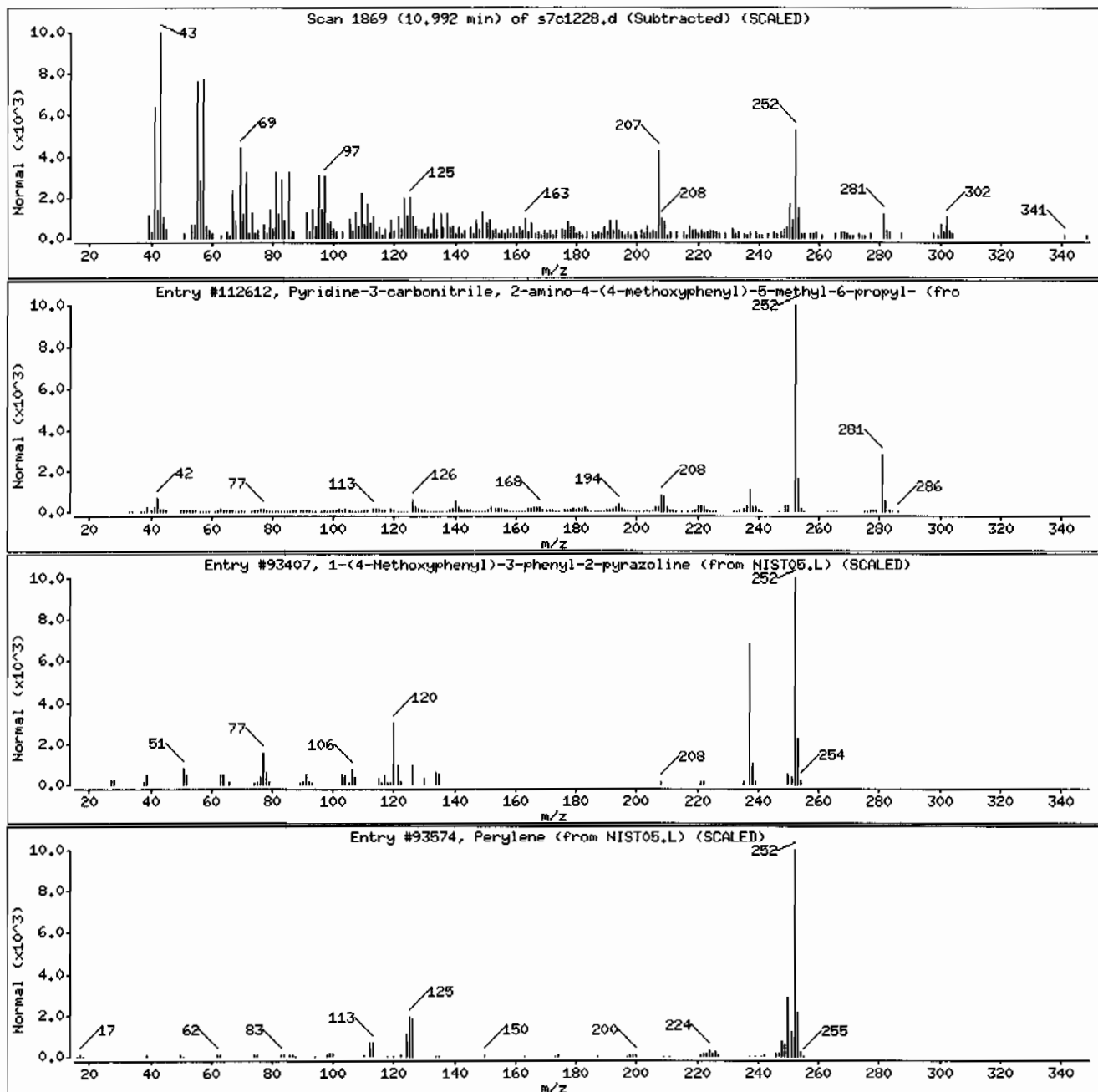
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pyridine-3-carbonitrile, 2-amino-4-(4-me	1000264-87-9	NIST05.L	112612	35	C17H19N3O	281
1-(4-Methoxyphenyl)-3-phenyl-2-pyrazolin	2535-59-3	NIST05.L	93407	25	C16H16N2O	252
Perylene	198-55-0	NIST05.L	93574	25	C20H12	252



Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 1248043015195962311SVMI1ILANL

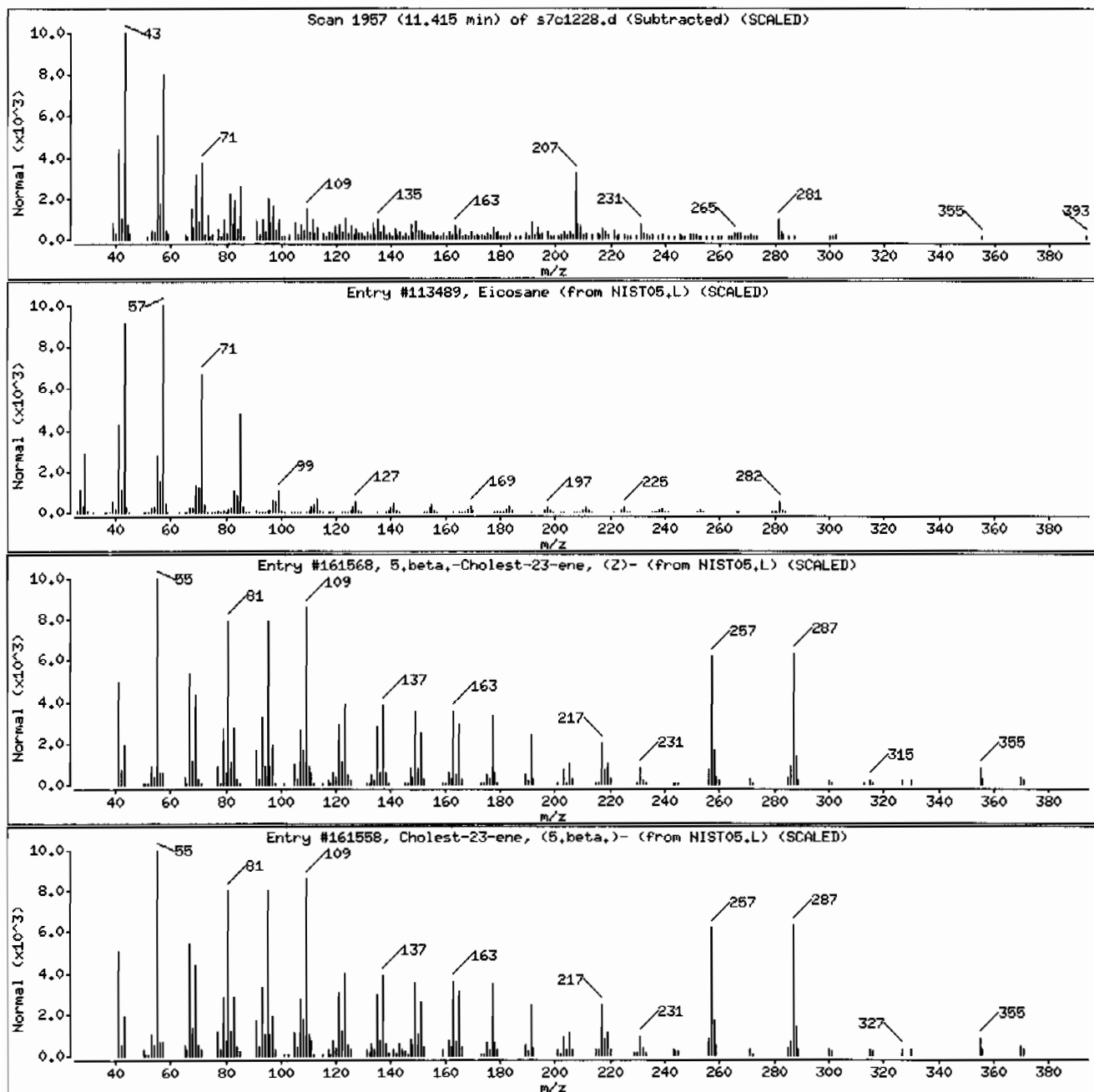
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113489	90	C20H42	282
5,beta,-Cholest-23-ene, (Z)-	14949-12-3	NIST05.L	161568	38	C27H46	370
Cholest-23-ene, (5,beta.)-	30658-62-9	NIST05.L	161558	38	C27H46	370



Date: 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 1248043015195962311SVMI1/LANL

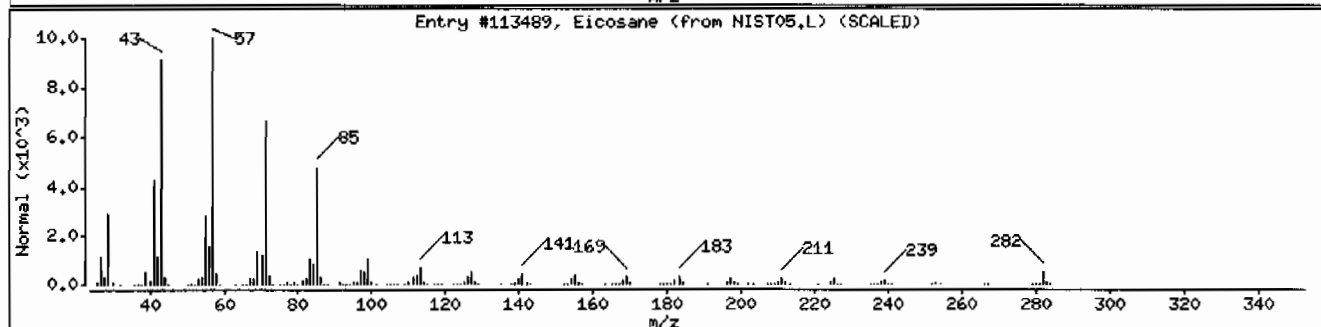
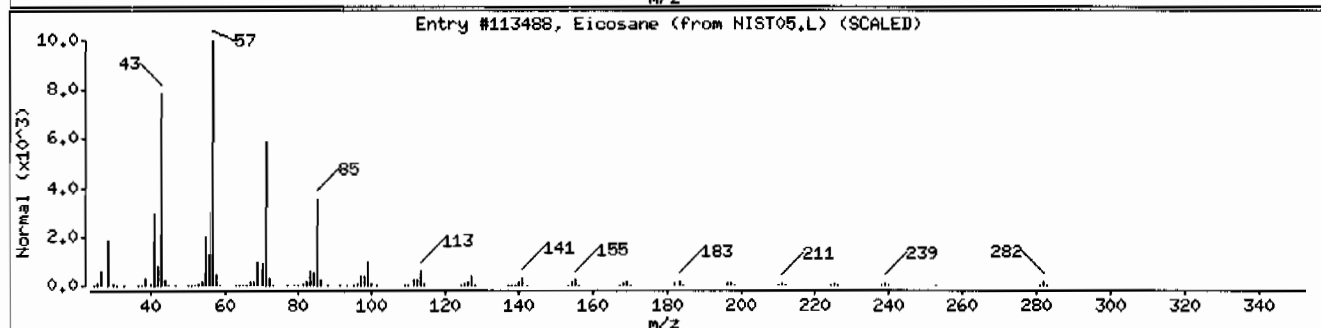
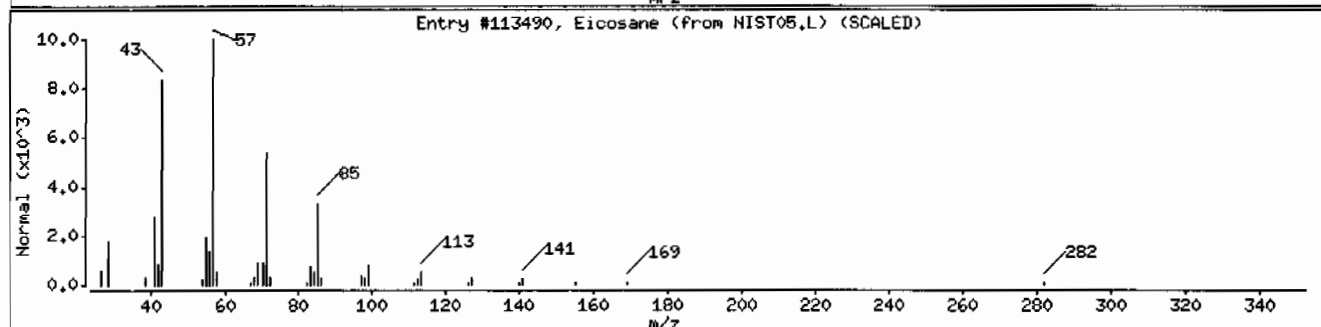
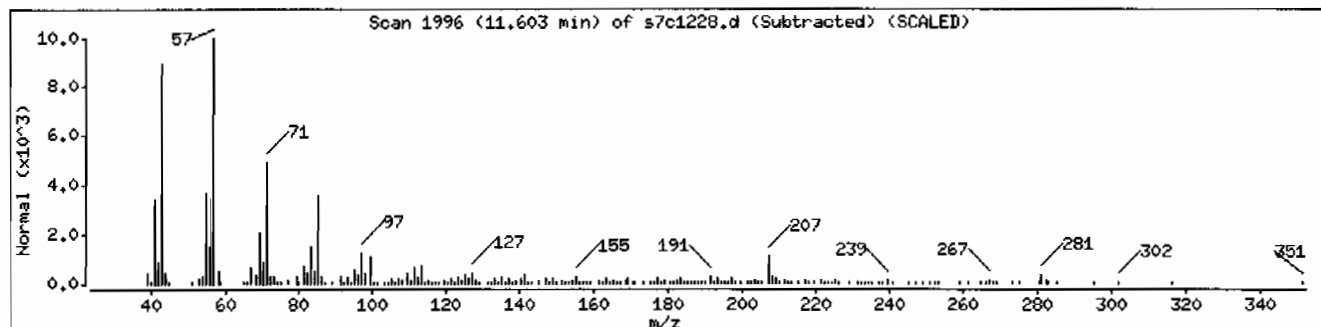
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113490	97	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113488	95	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113489	93	C <sub>20</sub> H <sub>42</sub>	282



Date : 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 1248043015195962311SVMI11LANL

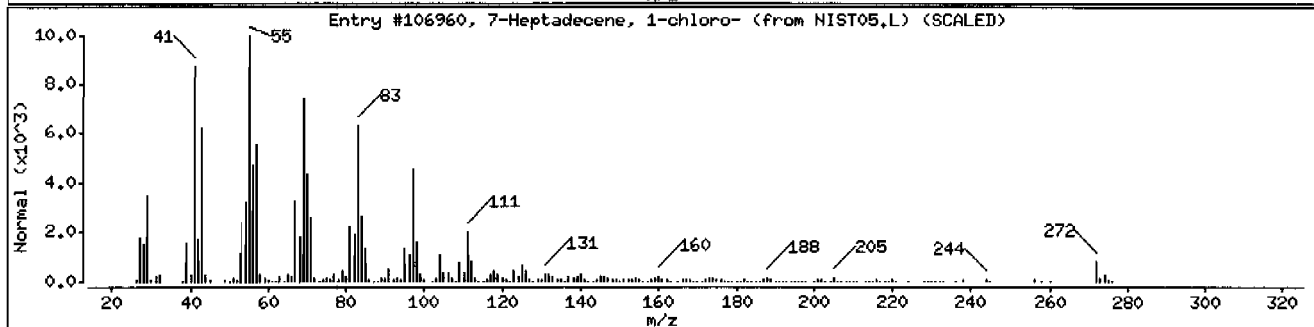
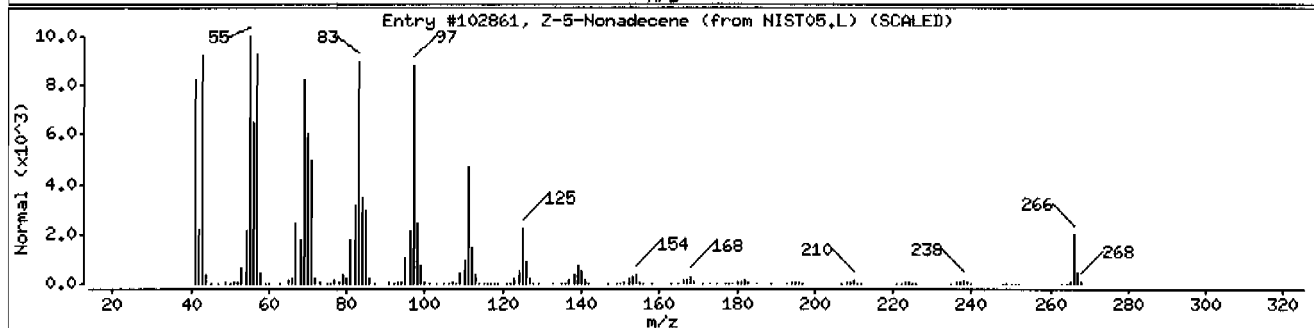
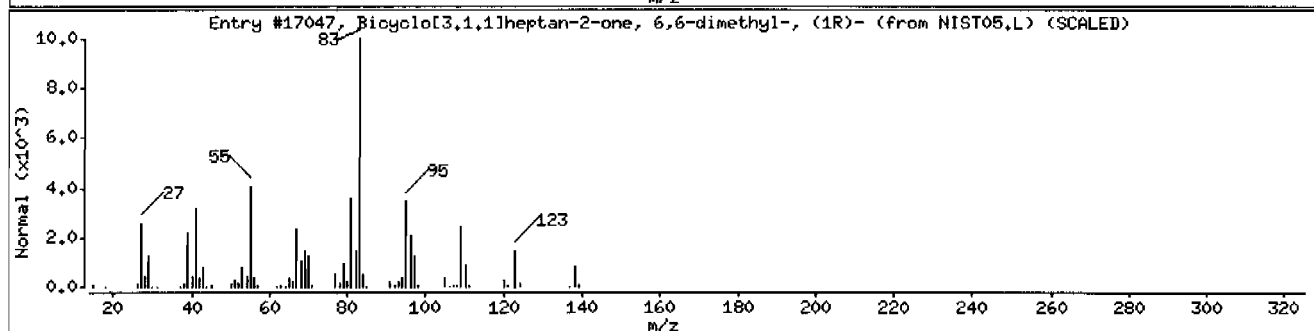
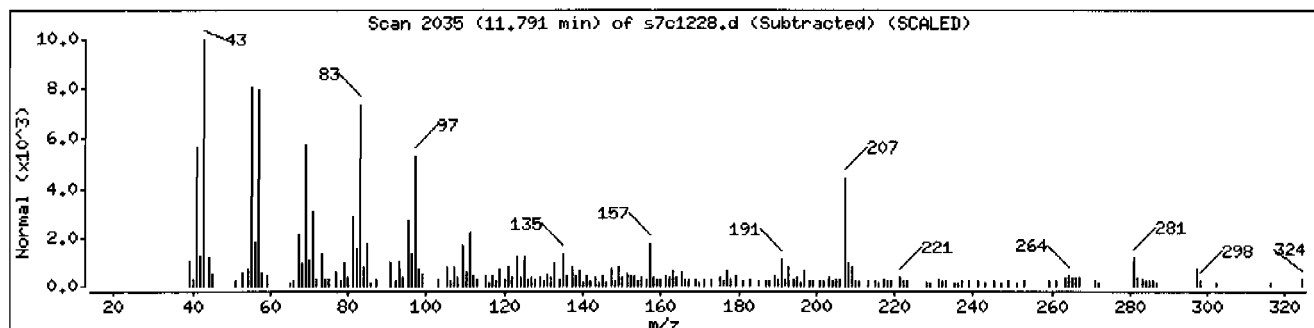
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[3.1.1]heptan-2-one, 6,6-dimethyl	38651-65-9	NIST05.L	17047	83	C9H14O	138
Z-5-Nonadecene	1000131-11-8	NIST05.L	102861	53	C19H38	266
7-Heptadecene, 1-chloro-	56554-78-0	NIST05.L	106960	53	C17H33Cl	272



Date: 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 12480430151959623111SVH111LANL

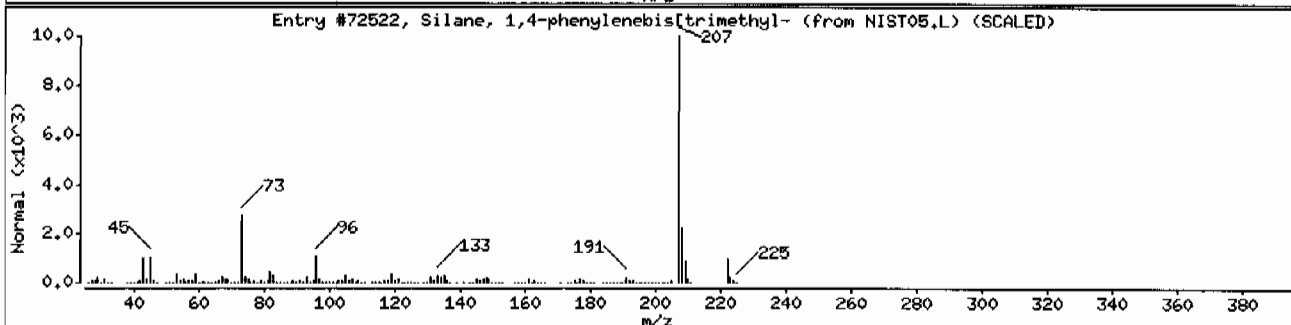
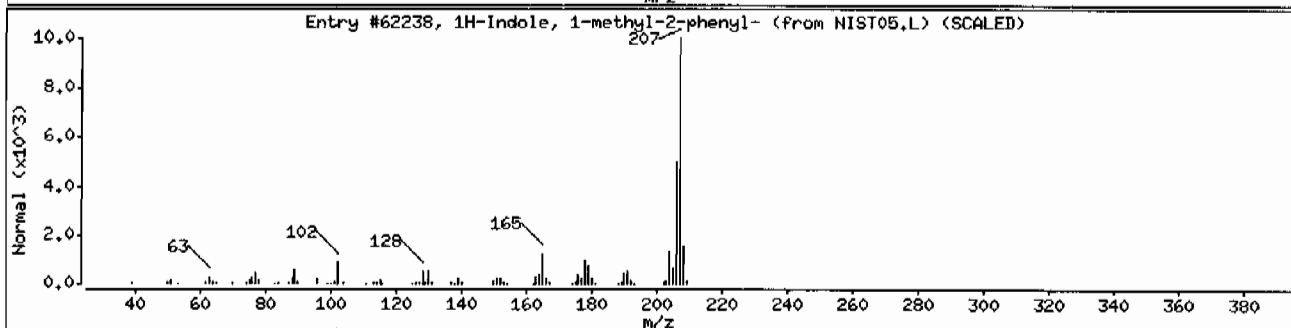
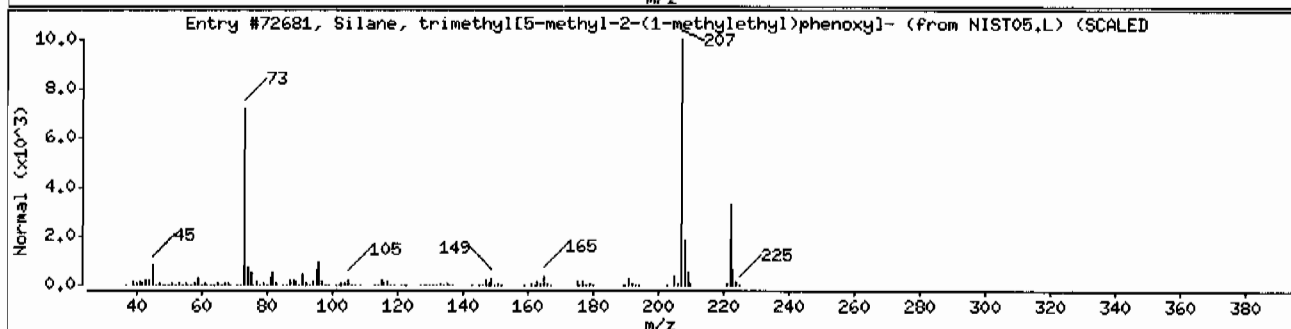
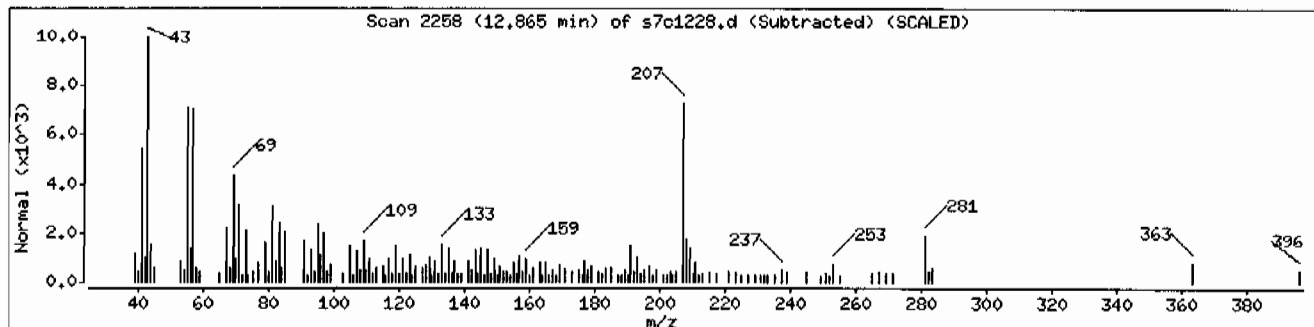
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Silane, trimethyl[5-methyl-2-(1-methylet	55012-80-1	NIST05.L	72681	35	C13H22OSi	222
1H-Indole, 1-methyl-2-phenyl-	3558-24-5	NIST05.L	62238	35	C15H13N	207
Silane, 1,4-phenylenebis[trimethyl-	13183-70-5	NIST05.L	72522	27	C12H22Si2	222





Date: 12-MAR-2010 22:17

Client ID: RE36-10-7467

Instrument: MSD7.i

Sample Info: 1248043015195962311SVH11ILANL

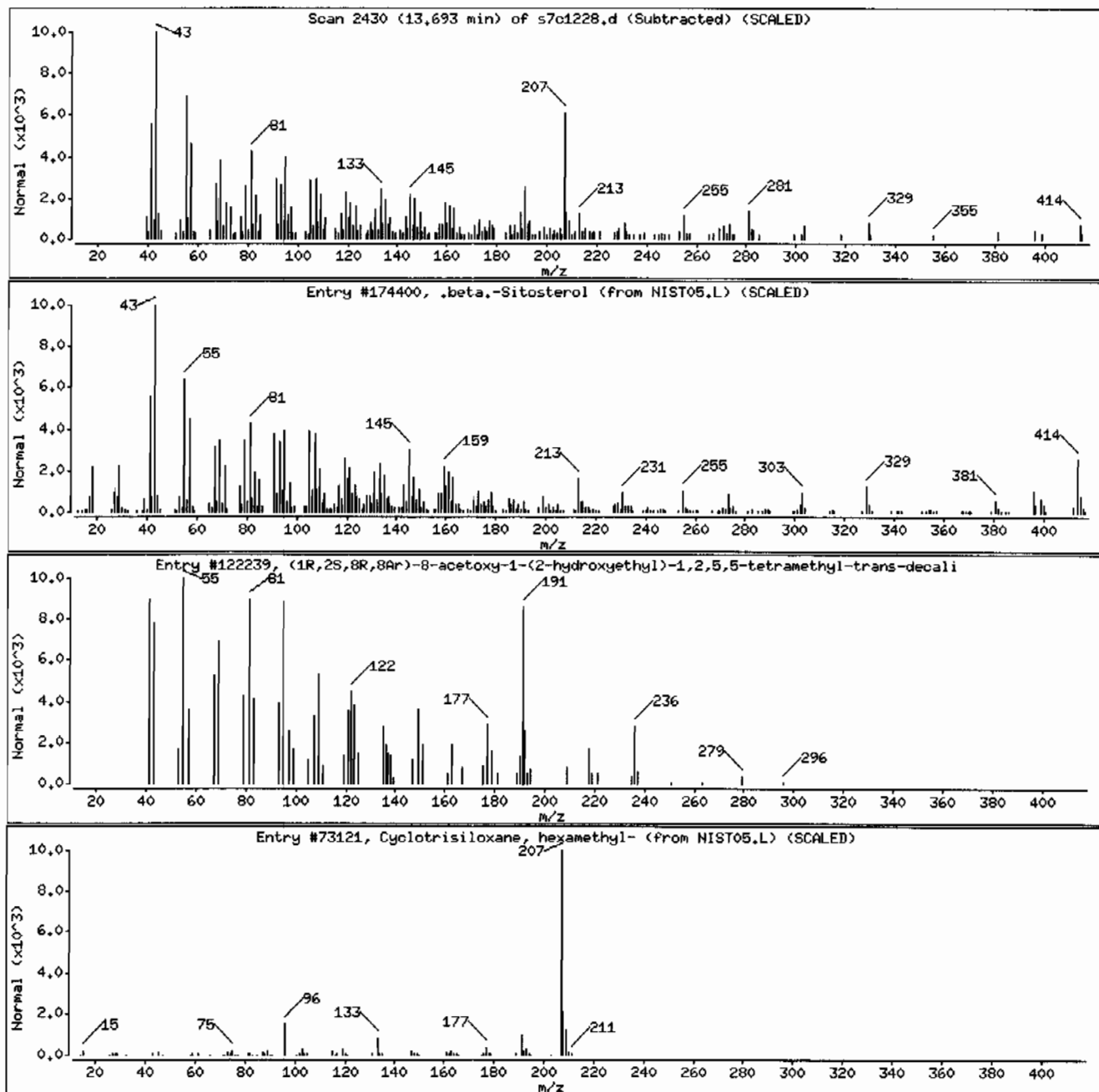
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174400	96	C29H50O	414
(1R,2S,8R,8Ar)-8-acetoxy-1-(2-hydroxyethyl)	1000298-98-4	NIST05.L	122239	30	C18H32O3	296
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73121	27	C6H18O3Si3	222



Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 3

SDG Number: 10-2074  
Lab Sample ID: 248043008

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 26.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/I.OD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	452	ug/kg	90.5	452
108-95-2	Phenol	U	452	ug/kg	90.5	452
95-57-8	2-Chlorophenol	U	452	ug/kg	90.5	452
106-46-7	1,4-Dichlorobenzene	U	452	ug/kg	90.5	452
621-64-7	N-Nitrosodipropylamine	U	452	ug/kg	90.5	452
59-50-7	4-Chloro-3-methylphenol	U	452	ug/kg	90.5	452
83-32-9	Acenaphthene	U	45.2	ug/kg	14.9	45.2
121-14-2	2,4-Dinitrotoluene	U	452	ug/kg	45.2	452
100-02-7	4-Nitrophenol	U	452	ug/kg	149	452
87-86-5	Pentachlorophenol	U	452	ug/kg	113	452
129-00-0	Pyrene	J	37.2	ug/kg	13.6	45.2
110-86-1	Pyridine	U	452	ug/kg	90.5	452
62-53-3	Aniline	U	452	ug/kg	136	452
111-44-4	bis(2-Chloroethyl) ether	U	452	ug/kg	90.5	452
541-73-1	1,3-Dichlorobenzene	U	452	ug/kg	90.5	452
100-51-6	Benzyl alcohol	U	452	ug/kg	136	452
95-50-1	1,2-Dichlorobenzene	U	452	ug/kg	90.5	452
108-60-1	bis(2-Chloroisopropyl)ether	U	452	ug/kg	90.5	452
95-48-7	o-Cresol	U	452	ug/kg	90.5	452
65794-96-9	m,p-Cresols	U	452	ug/kg	136	452
67-72-1	Hexachloroethane	U	452	ug/kg	90.5	452
98-95-3	Nitrobenzene	U	452	ug/kg	90.5	452
78-59-1	Isophorone	U	452	ug/kg	90.5	452
88-75-5	2-Nitrophenol	U	452	ug/kg	90.5	452
105-67-9	2,4-Dimethylphenol	U	452	ug/kg	158	452
111-91-1	bis(2-Chloroethoxy)methane	U	452	ug/kg	90.5	452
120-83-2	2,4-Dichlorophenol	U	452	ug/kg	90.5	452
65-85-0	Benzoic acid	U	905	ug/kg	226	905
91-20-3	Naphthalene	U	45.2	ug/kg	13.6	45.2
106-47-8	4-Chloroaniline	U	452	ug/kg	90.5	452
87-68-3	Hexachlorobutadiene	U	452	ug/kg	90.5	452
91-57-6	2-Methylnaphthalene	U	45.2	ug/kg	9.05	45.2
77-47-4	Hexachlorocyclopentadiene	U	452	ug/kg	90.5	452
88-06-2	2,4,6-Trichlorophenol	U	452	ug/kg	90.5	452
95-95-4	2,4,5-Trichlorophenol	U	452	ug/kg	90.5	452
91-58-7	2-Chloronaphthalene	U	45.2	ug/kg	14.9	45.2
88-74-4	2-Nitroaniline	U	452	ug/kg	90.5	452
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	452	ug/kg	90.5	452

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 2 of 3

SDG Number: 10-2074  
Lab Sample ID: 248043008

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.J  
Analyst: JMB3  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 26.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline Dimethylphthalate	U	452	ug/kg	90.5	452
606-20-2	2,6-Dinitrotoluene	U	452	ug/kg	45.2	452
208-96-8	Acenaphthylene	U	45.2	ug/kg	13.6	45.2
51-28-5	2,4-Dinitrophenol	U	905	ug/kg	172	905
132-64-9	Dibenzofuran	U	452	ug/kg	90.5	452
84-66-2	Diethylphthalate	U	452	ug/kg	90.5	452
86-73-7	Fluorene	U	45.2	ug/kg	13.6	45.2
7005-72-3	4-Chlorophenylphenylether	U	452	ug/kg	90.5	452
534-52-1	2-Methyl-4,6-dinitrophenol	U	452	ug/kg	90.5	452
100-01-6	4-Nitroaniline	U	452	ug/kg	136	452
122-39-4	<i>p</i> -Nitroaniline Diphenylamine	U	452	ug/kg	90.5	452
122-66-7	Azobenzene	U	452	ug/kg	90.5	452
101-55-3	<i>1,2</i> -Diphenylhydrazine 4-Bromophenylphenylether	U	452	ug/kg	90.5	452
118-74-1	Hexachlorobenzene	U	452	ug/kg	90.5	452
85-01-8	Phenanthrene	J	28.0	ug/kg	13.6	45.2
120-12-7	Anthracene	U	45.2	ug/kg	9.05	45.2
84-74-2	Di- <i>n</i> -butylphthalate	U	452	ug/kg	90.5	452
206-44-0	Fluoranthene		48.8	ug/kg	13.6	45.2
85-68-7	Butylbenzylphthalate	U	452	ug/kg	90.5	452
56-55-3	Benzo(a)anthracene	J	26.9	ug/kg	13.6	45.2
91-94-1	3,3'-Dichlorobenzidine	U	452	ug/kg	136	452
218-01-9	Chrysene	J	29.5	ug/kg	13.6	45.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	452	ug/kg	90.5	452
117-84-0	Di- <i>n</i> -octylphthalate	U	452	ug/kg	90.5	452
205-99-2	Benzo(b)fluoranthene	J	35.0	ug/kg	13.6	45.2
207-08-9	Benzo(k)fluoranthene	U	45.2	ug/kg	13.6	45.2
50-32-8	Benzo(a)pyrene	J	24.9	ug/kg	13.6	45.2
193-39-5	Indeno(1,2,3- <i>cd</i> )pyrene	J	22.6	ug/kg	13.6	45.2
53-70-3	Dibenzo(a,h)anthracene	U	45.2	ug/kg	13.6	45.2
191-24-2	Benzo(ghi)perylene	J	25.4	ug/kg	13.6	45.2
120-82-1	1,2,4-Trichlorobenzene	U	452	ug/kg	90.5	452

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	384	ug/kg		J
112-95-8	Eicosane	11.84	349	ug/kg	98	NJ

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number:	10-2074	Date Collected:	02/20/2010 12:00	Matrix:	R
Lab Sample ID:	248043008	Date Received:	02/25/2010 08:45	%Moisture:	26.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE36-10-7468	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	959623	Inst:	MSD7.I	Dilution:	1
Run Date:	03/11/2010 16:47	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	03/02/2010 11:17	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s7c1112.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
Tentatively Identified Compound Summary							
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit	Qual
	Unknown		12.76	187	ug/kg		J

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Data file : /chem/MSD7.i/s031110.b/s7c1112.d  
 Lab Smp Id: 248043008 Client Smp ID: RE36-10-7468  
 Inj Date : 11-MAR-2010 16:47  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043008|959623|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 12  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	26.55030	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN FINAL
					(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.990	3.990	(1.000)	420336	40.0000
* 29 Naphthalene-d8	136	4.852	4.857	(1.000)	1592594	40.0000
* 46 Acenaphthene-d10	164	6.109	6.114	(1.000)	863581	40.0000
* 67 Phenanthrene-d10	188	7.279	7.284	(1.000)	1552702	40.0000
* 91 Chrysene-d12	240	9.682	9.691	(1.000)	1319874	40.0000
* 98 Perylene-d12	264	11.377	11.386	(1.000)	1039305	40.0000
\$ 3 2-Fluorophenol	112	3.186	3.181	(0.798)	359678	32.9209 1490
\$ 5 Phenol-d5	99	3.701	3.706	(0.928)	461304	33.6762 1520
\$ 20 Nitrobenzene-d5	82	4.346	4.356	(0.896)	190219	15.8360 716
\$ 39 2-Fluorobiphenyl	172	5.594	5.598	(0.916)	424387	19.7189 892
\$ 60 2,4,6-Tribromophenol	329	6.706	6.711	(1.098)	120739	48.3633 2190
\$ 81 p-Terphenyl-d14	244	8.651	8.656	(0.894)	537941	22.7499 1030

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	8.550	8.560	(0.883)	34326	0.82322	37.2(a)
68 Phenanthrene	178	7.298	7.308	(1.003)	19701	0.61832	28.0(a)
76 Fluoranthene	202	8.338	8.343	(1.146)	37358	1.07834	48.8
89 Benzo(a)anthracene	228	9.672	9.677	(0.999)	18823	0.59489	26.9(a)
92 Chrysene	228	9.701	9.715	(1.002)	18378	0.65272	29.5(a)
95 Benzo(b)fluoranthene	252	10.847	10.861	(0.953)	22567	0.77426	35.0(a)
97 Benzo(a)pyrene	252	11.290	11.309	(0.992)	13176	0.55132	24.9(a)
99 Indeno(1,2,3-cd)pyrene	276	13.134	13.168	(1.154)	8578	0.49914	22.6(a)
101 Benzo(ghi)perylene	276	13.683	13.712	(1.203)	8034	0.56056	25.4(a)

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

## ION RATIO REPORT

## SV REPORT

Data file: s7c1112.d

Report Date: 03/12/2010 08:15

Lab. ID: 248043008

SampleType: SAMPLE

Injection Date: 11-MAR-2010 16:47

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043008|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	25727	3.70	3.78	80-120	100	(T)
93	6338	3.67	3.78	206-266	25	(QT)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	27821	4.35	4.24	80-120	100	(T)
42	21226	4.35	4.23	61-121	76	(T)
-----						
43 Dimethylphthalate		CAS#: 131-11-3				
163	152746	6.11	5.87	80-120	100	(T)
164	861025	6.11	5.87	0- 40	564	(QT)
-----						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	114416	6.11	5.93	80-120	100	(T)
63	1894	6.10	5.93	52-112	2	(QT)
-----						
45 Acenaphthylene		CAS#: 208-96-8				
152	55724	6.08	6.01	80-120	100	(T)
151	15189	6.08	6.01	0- 49	27	(T)
153	56933	6.08	6.01	0- 43	102	(QT)
-----						
47 Acenaphthene		CAS#: 83-32-9				
154	48383	6.08	6.14	80-120	100	( )
153	56933	6.08	6.14	71-131	118	( )
152	55724	6.08	6.14	17- 77	115	(Q)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	114416	6.11	6.23	80-120	100	(T)
89	1788	6.10	6.23	37- 97	2	(QT)
63	1894	6.10	6.23	17- 77	2	(QT)
<hr/>						
53 Fluorene		CAS#: 86-73-7				
166	7534	6.70	6.53	80-120	100	(T)
165	8045	6.70	6.53	61-121	107	(T)
167	2199	6.71	6.52	0- 44	29	(T)
<hr/>						
55 2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1				
198	441	6.71	6.54	80-120	100	(T)
105	1881	6.71	6.54	10- 70	426	(QT)
51	1413	6.70	6.54	54-114	320	(QT)
<hr/>						
68 Phenanthrene		CAS#: 85-01-8				
178	19701	7.30	7.31	80-120	100	( )
179	4257	7.30	7.31	0- 46	22	( )
176	3503	7.30	7.31	0- 49	18	( )
<hr/>						
69 Anthracene		CAS#: 120-12-7				
178	19701	7.30	7.35	80-120	100	( )
179	4257	7.30	7.35	0- 46	22	( )
176	3503	7.30	7.35	0- 48	18	( )
<hr/>						
76 Fluoranthene		CAS#: 206-44-0				
202	37358	8.34	8.34	80-120	100	( )
203	6459	8.34	8.34	0- 48	17	( )
101	4663	8.33	8.34	0- 41	12	( )
<hr/>						
79 Pyrene		CAS#: 129-00-0				
202	34326	8.55	8.56	80-120	100	( )
200	6695	8.55	8.56	0- 50	20	( )
101	5264	8.55	8.56	0- 44	15	( )
<hr/>						
89 Benzo(a)anthracene		CAS#: 56-55-3				
228	18823	9.67	9.68	80-120	100	( )
226	5394	9.67	9.68	0- 56	29	( )
229	5330	9.67	9.68	0- 50	28	( )
<hr/>						
92 Chrysene		CAS#: 218-01-9				
228	18378	9.70	9.72	80-120	100	( )
229	4212	9.70	9.72	0- 50	23	( )
226	5536	9.70	9.72	0- 59	30	( )
<hr/>						
95 Benzo(b)fluoranthene		CAS#: 205-99-2				
252	22567	10.85	10.86	80-120	100	( )
253	7674	10.85	10.86	0- 52	34	( )
125	6829	10.86	10.86	0- 41	30	( )
<hr/>						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	8868	10.88	10.90	80-120	100	( )
253	7659	10.85	10.90	0- 52	86	(Q)
125	6374	10.86	10.90	0- 42	72	(Q)
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	13176	11.29	11.31	80-120	100	( )
253	4797	11.29	11.31	0- 52	36	( )
125	1582	11.29	11.30	0- 42	12	( )
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	8578	13.13	13.17	80-120	100	( )
138	2789	13.13	13.17	2- 62	33	( )
-----						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	8034	13.68	13.71	80-120	100	( )
138	2726	13.68	13.71	0- 58	34	( )

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD7.i/s031110.b/s7c1112.d  
 Lab Smp Id: 248043008 Client Smp ID: RE36-10-7468  
 Inj Date : 11-MAR-2010 16:47  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043008|959623|1|SVM|1|LANL  
 Misc Info : |MSD8270 S|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 12  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	26.55030	% moisture

Cpnd Variable Local Compound Variable

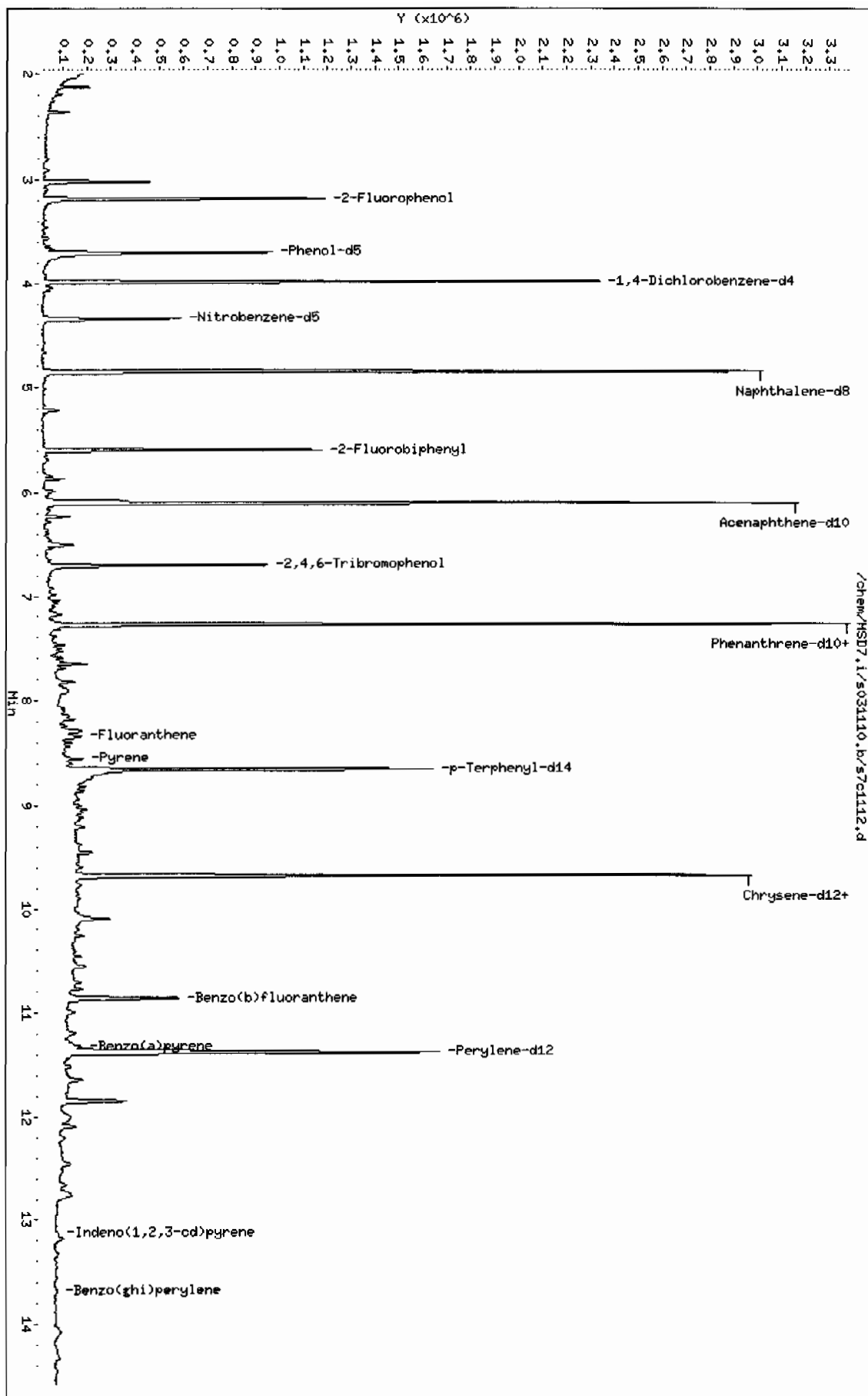
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.990	2546198	40.000
* 98 Perylene-d12	11.377	2888868	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate					CAS #:		
3.022	539941	8.48230761	384	0		0	10

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Eicosane					CAS #: 112-95-8		
11.844	557837	7.72395256	349	98	NIST05.L	113488	98
Unknown					CAS #:		
12.764	297928	4.12518583	187	0		0	98

Data File: /chem/HSD7.i/s031110.b/s7c1112.d  
Date: 11-MAR-2010 16:47  
Client ID: RE36-10-7468  
Sample Info: 1248043008195962311SVH11.LNL  
Volume Injected (uL): 0.5  
Column phase: 3uM DB-EWS

Instrument: HSD7.i  
Operator: JHB3  
Column diameter: 0.20



Date : 11-MAR-2010 16:47

Client ID: RE36-10-7468

Instrument: MSD7.i

Sample Info: I248043008I9596231IISVH11ILANL

Volume Injected (uL): 0.5

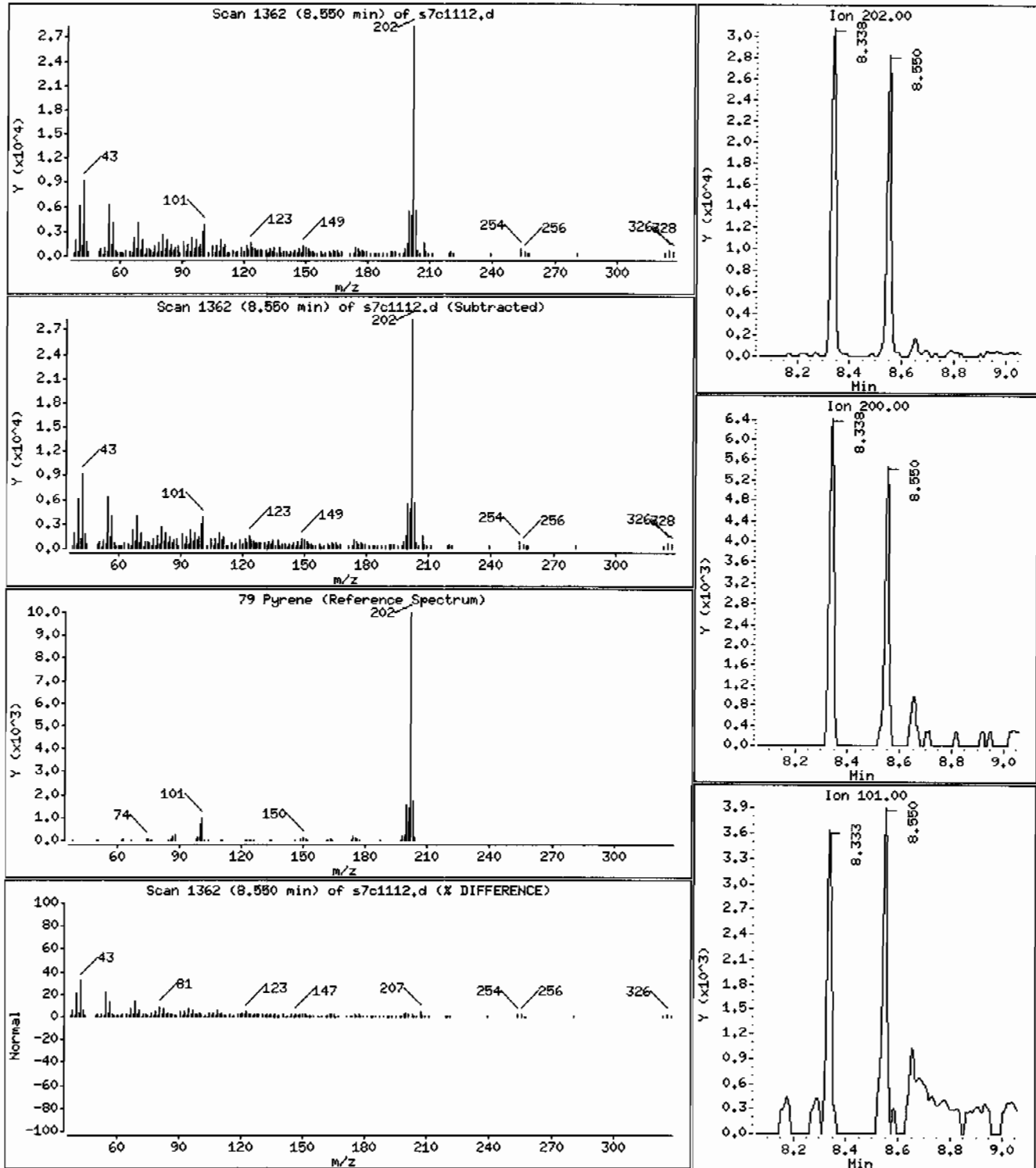
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 37,2 ug/Kg



Date : 11-MAR-2010 16:47

Client ID: RE36-10-7468

Instrument: HSD7.i

Sample Info: I248043008I95962311ISVH11ILANL

Volume Injected (uL): 0.5

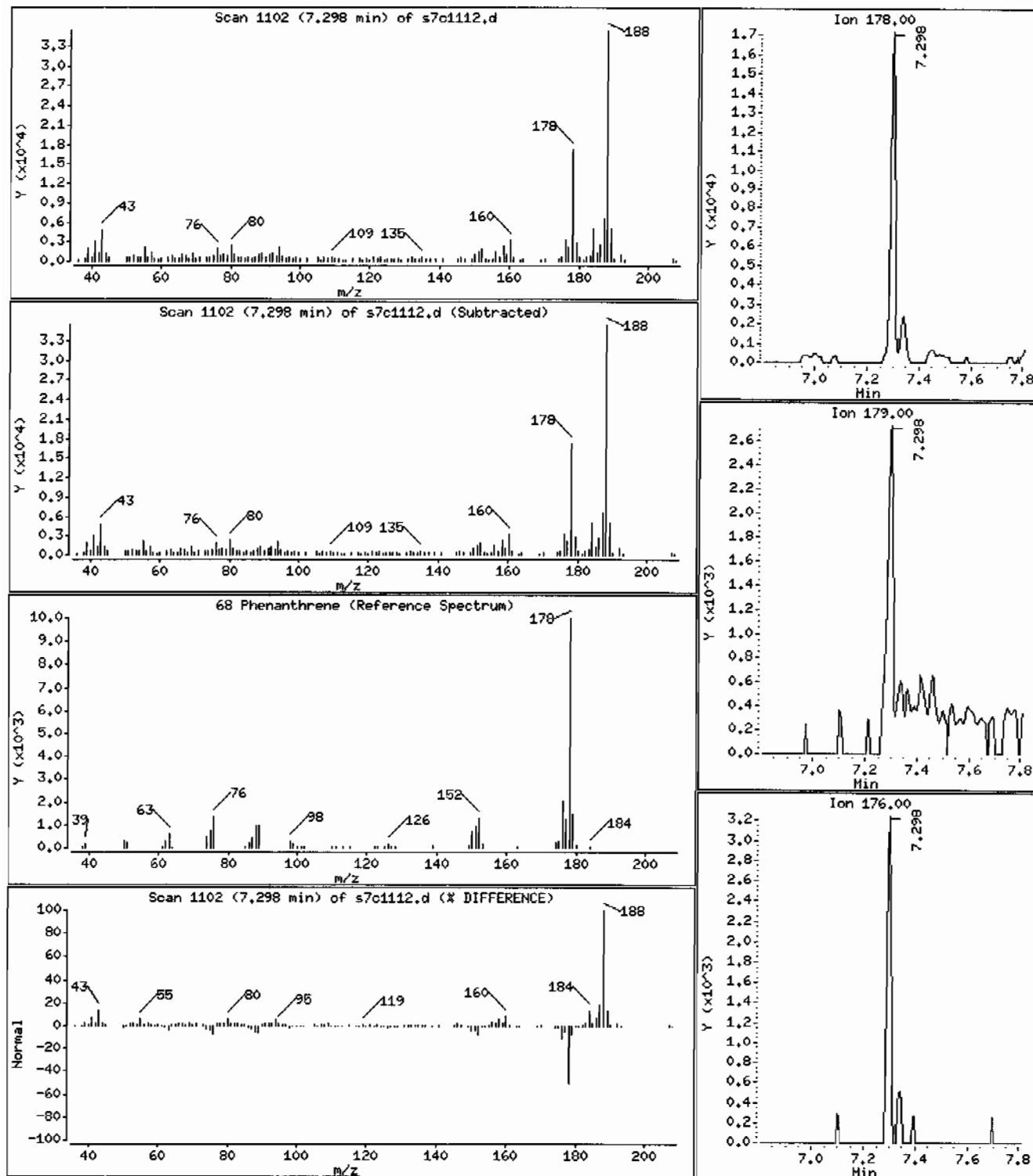
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 28.0 ug/Kg



Date : 11-MAR-2010 16:47

Client ID: RE36-10-7468

Instrument: MSD7.i

Sample Info: I248043008I95962311ISVM11ILANL

Volume Injected (uL): 0.5

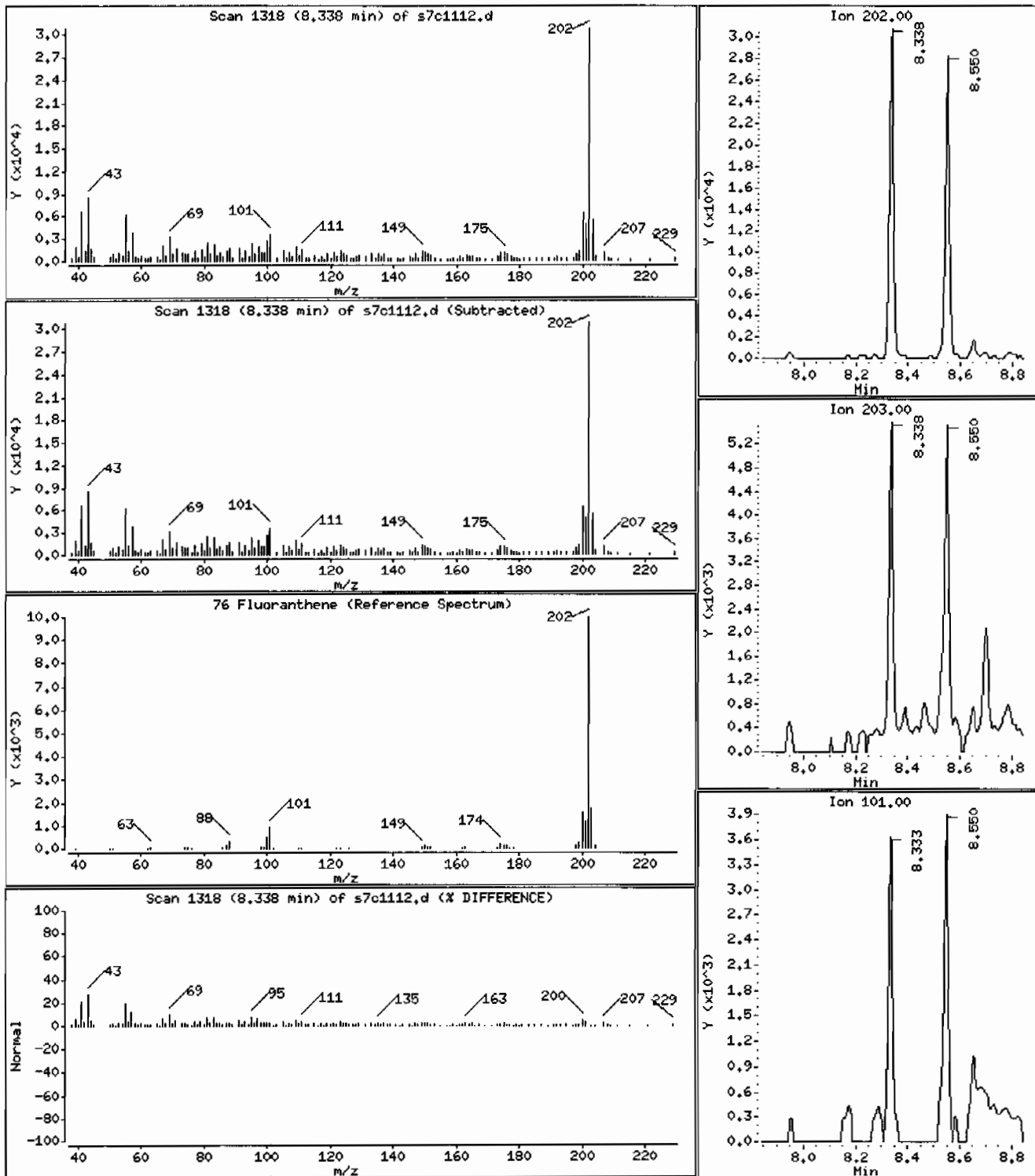
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 48.8 ug/Kg



Date : 11-MAR-2010 16:47

Client ID: RE36-10-7468

Instrument: MSD7.i

Sample Info: I248043008195962311SVMI1ILANL

Volume Injected (uL): 0.5

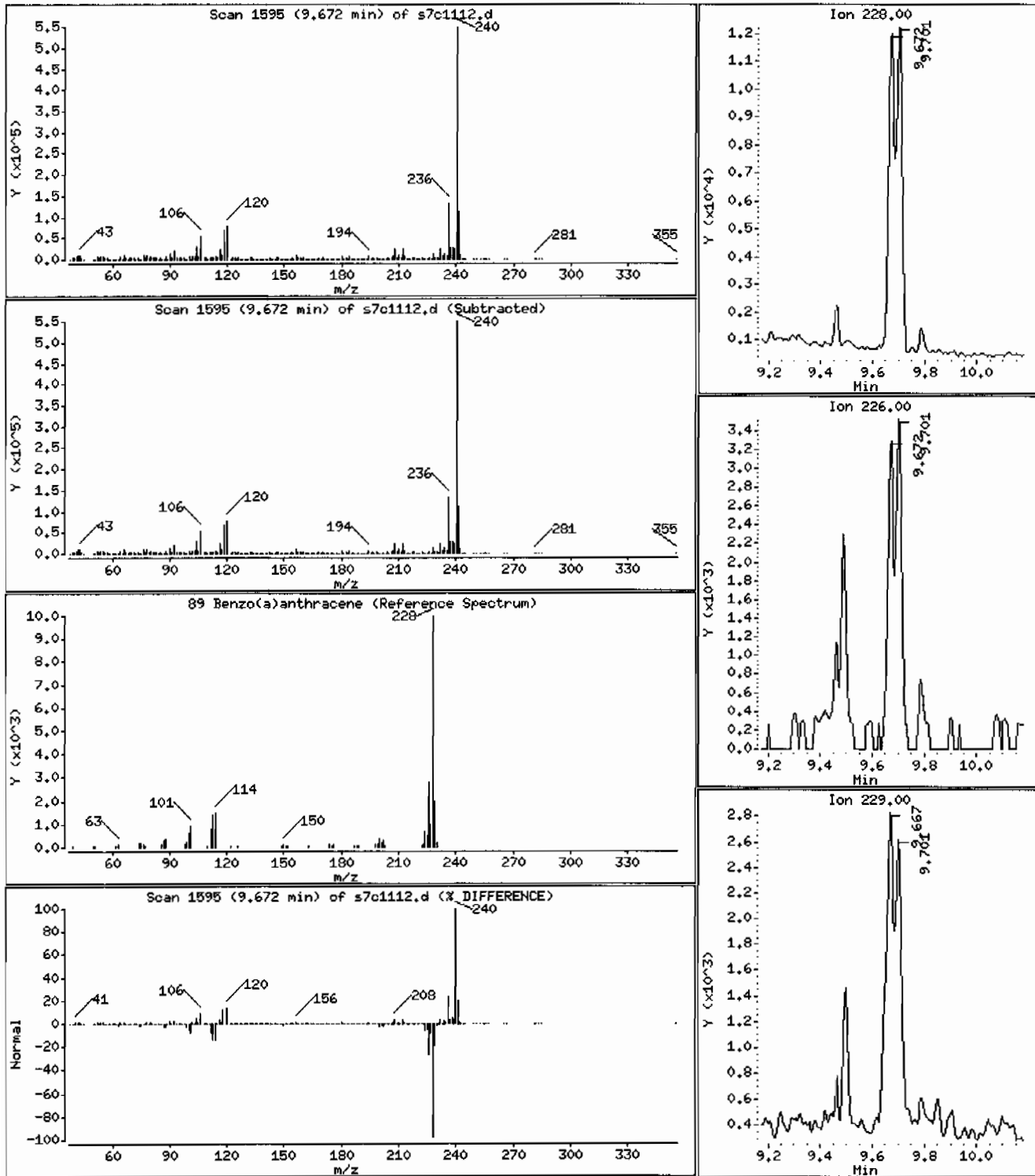
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 26.9 ug/Kg





Date : 11-MAR-2010 16:47

Client ID: RE36-10-7468

Instrument: MSD7.i

Sample Info: I248043008195962311SVH11ILANL

Volume Injected (uL): 0.5

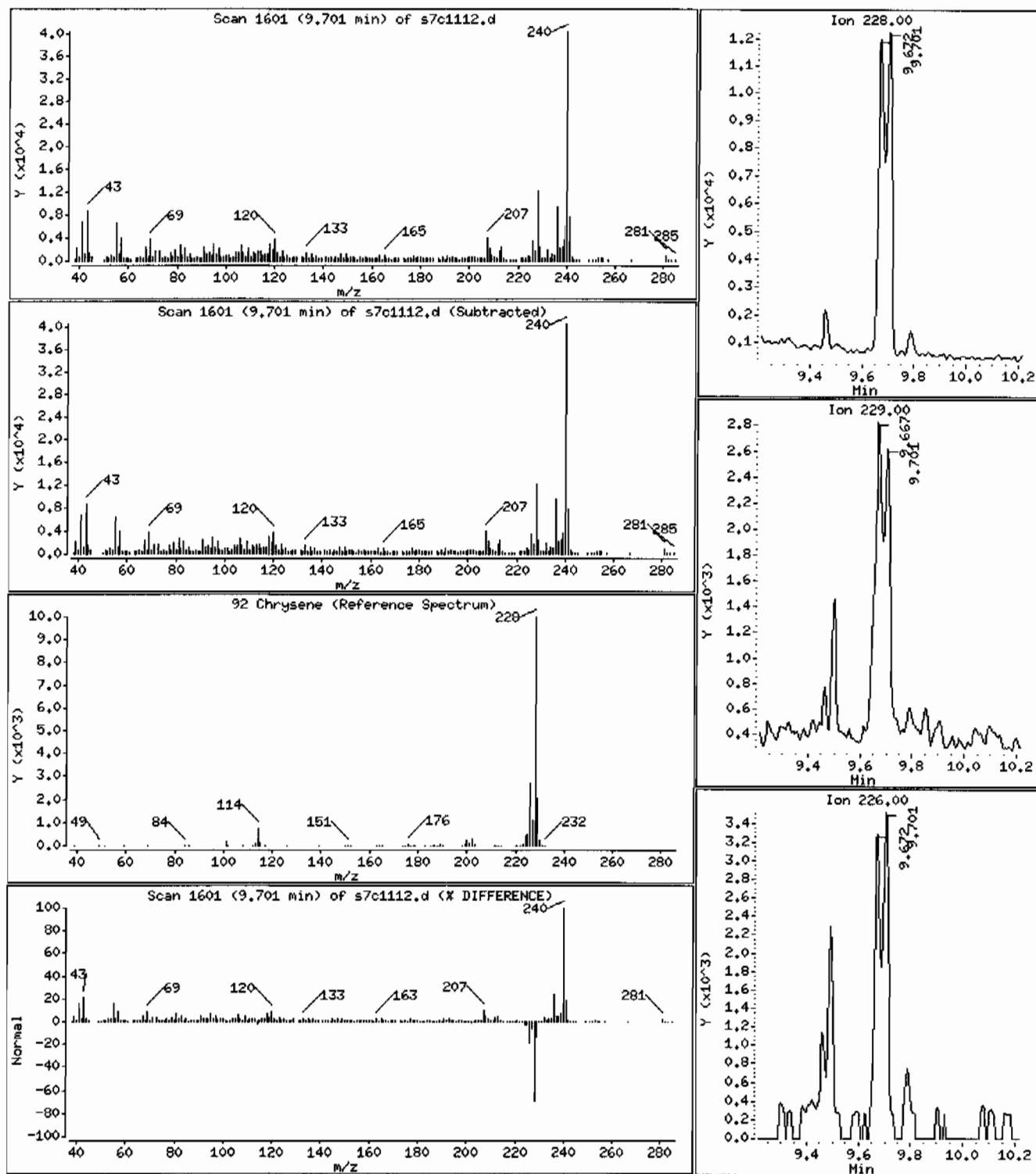
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 29.5 ug/Kg



Date: 11-MAR-2010 16:47

Client ID: RE36-10-7468

Instrument: MSD7.i

Sample Info: 1248043008195962311(SVH111)LANL

Volume Injected (uL): 0.5

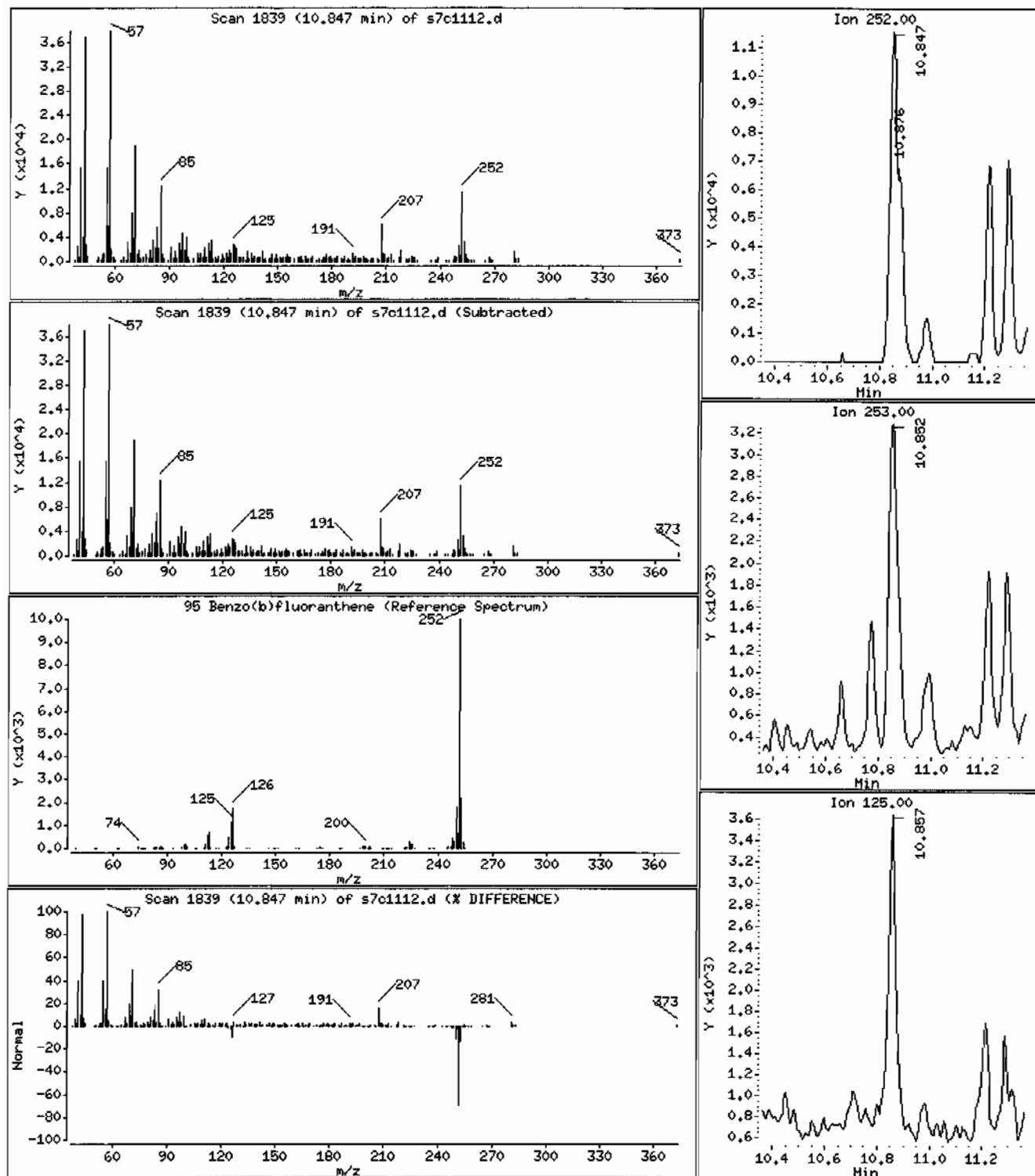
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 35.0 ug/Kg



Date : 11-MAR-2010 16:47

Client ID: RE36-10-7468

Instrument: MSD7.i

Sample Info: 1248043008195962311SVH111LANL

Volume Injected (uL): 0.5

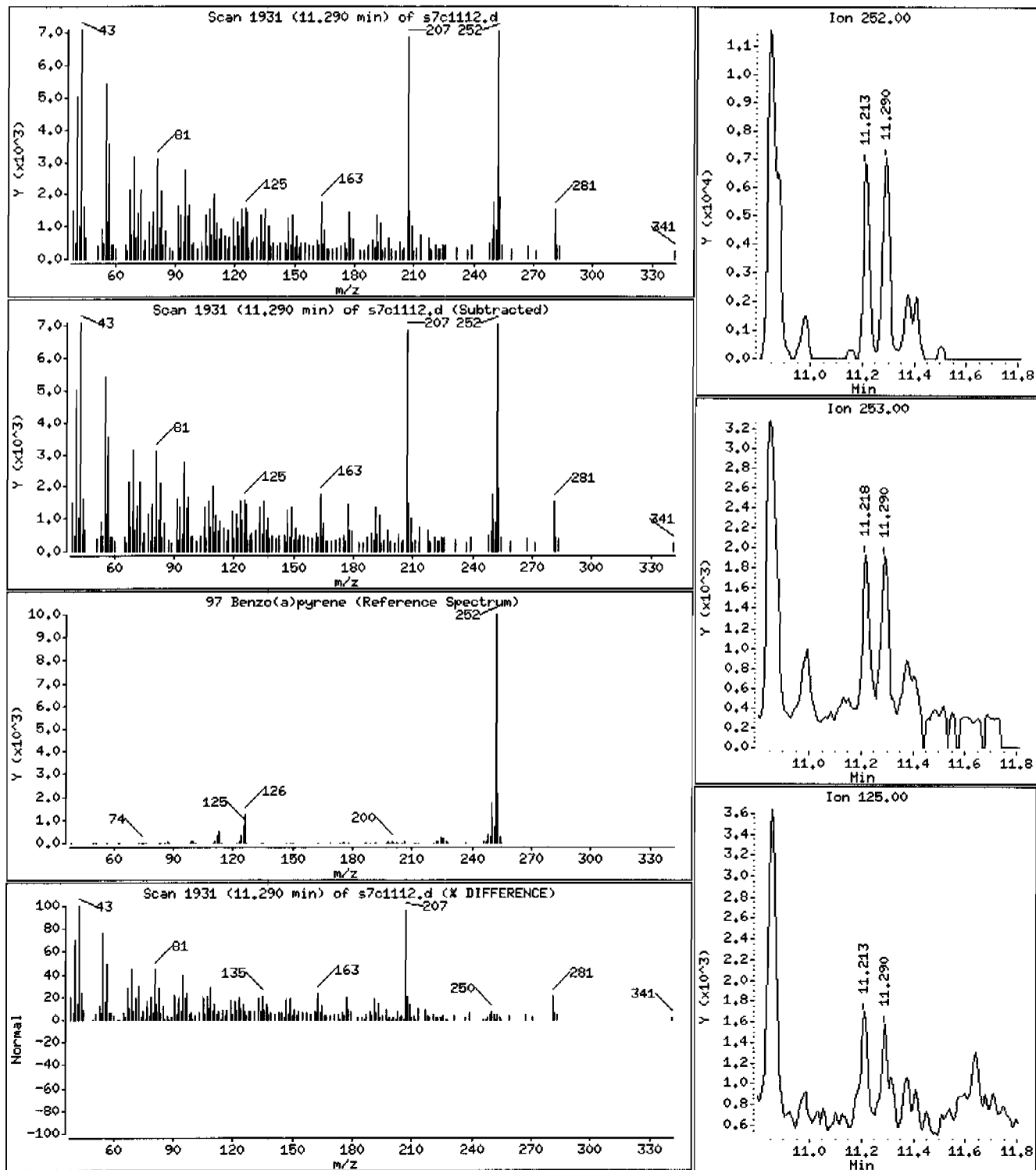
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 24.9 ug/Kg



Date : 11-MAR-2010 16:47

Client ID: RE36-10-7468

Instrument: MSD7.i

Sample Info: I248043008195962311ISVH111LANL

Volume Injected (uL): 0.5

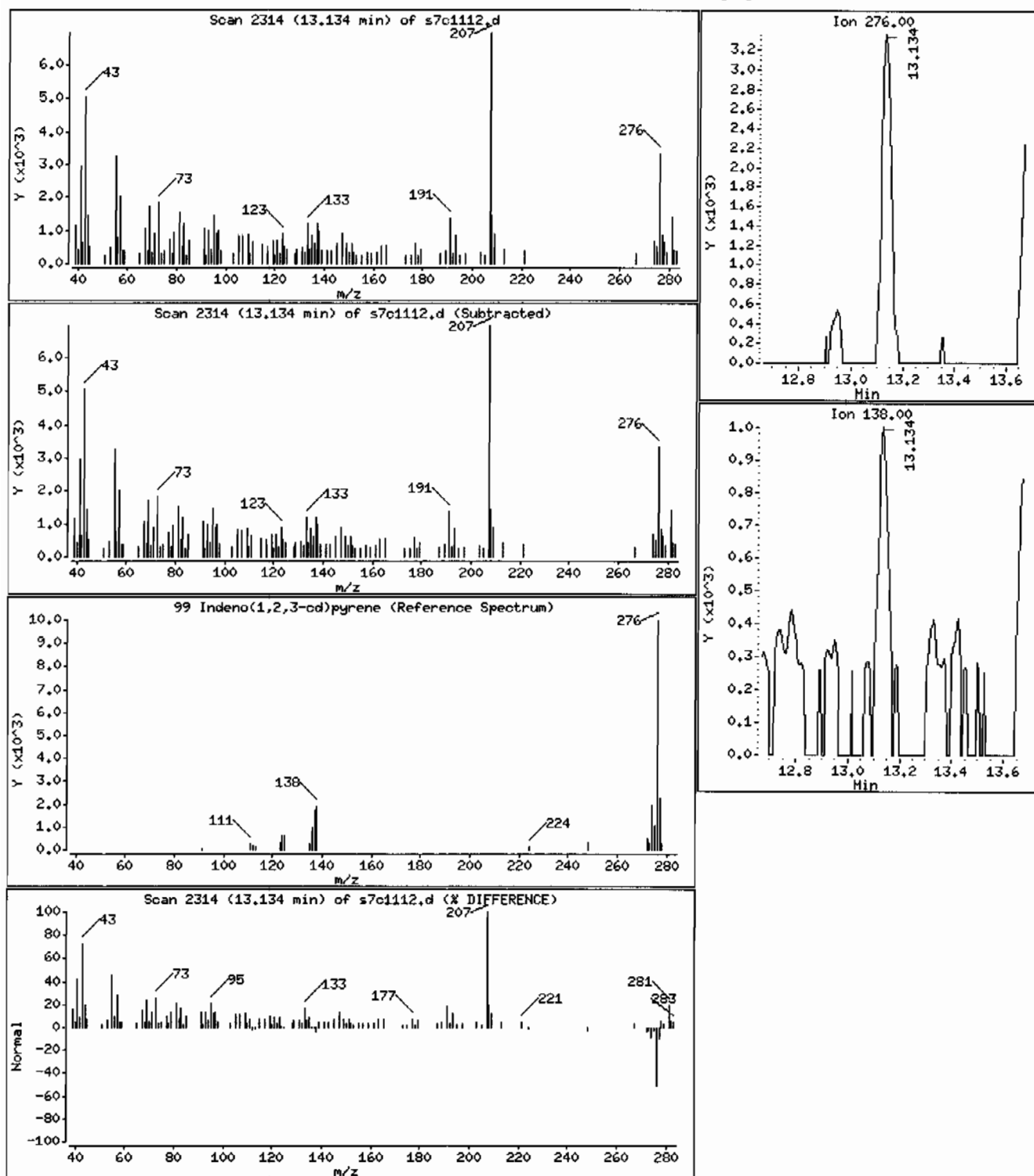
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 22.6 ug/Kg



Date : 11-MAR-2010 16:47

Client ID: RE36-10-7468

Instrument: MSD7.i

Sample Info: 1248043008195962311SVMI11LANL

Volume Injected (ul): 0.5

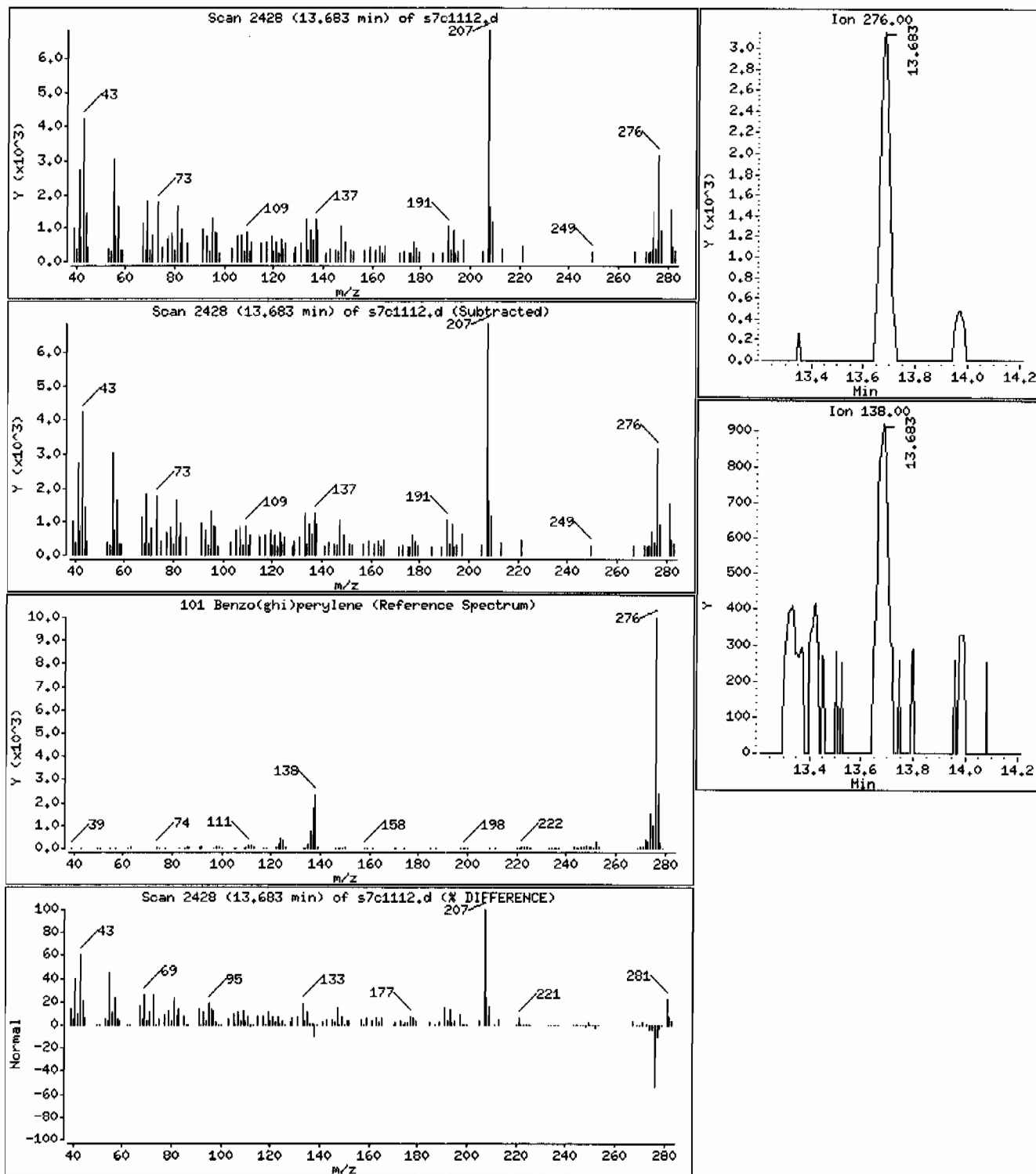
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 25.4 ug/Kg



Date: 11-MAR-2010 16:47

Client ID: RE36-10-7468

Instrument: HSD7.i

Sample Info: 12480430081959623111SVH111LANL

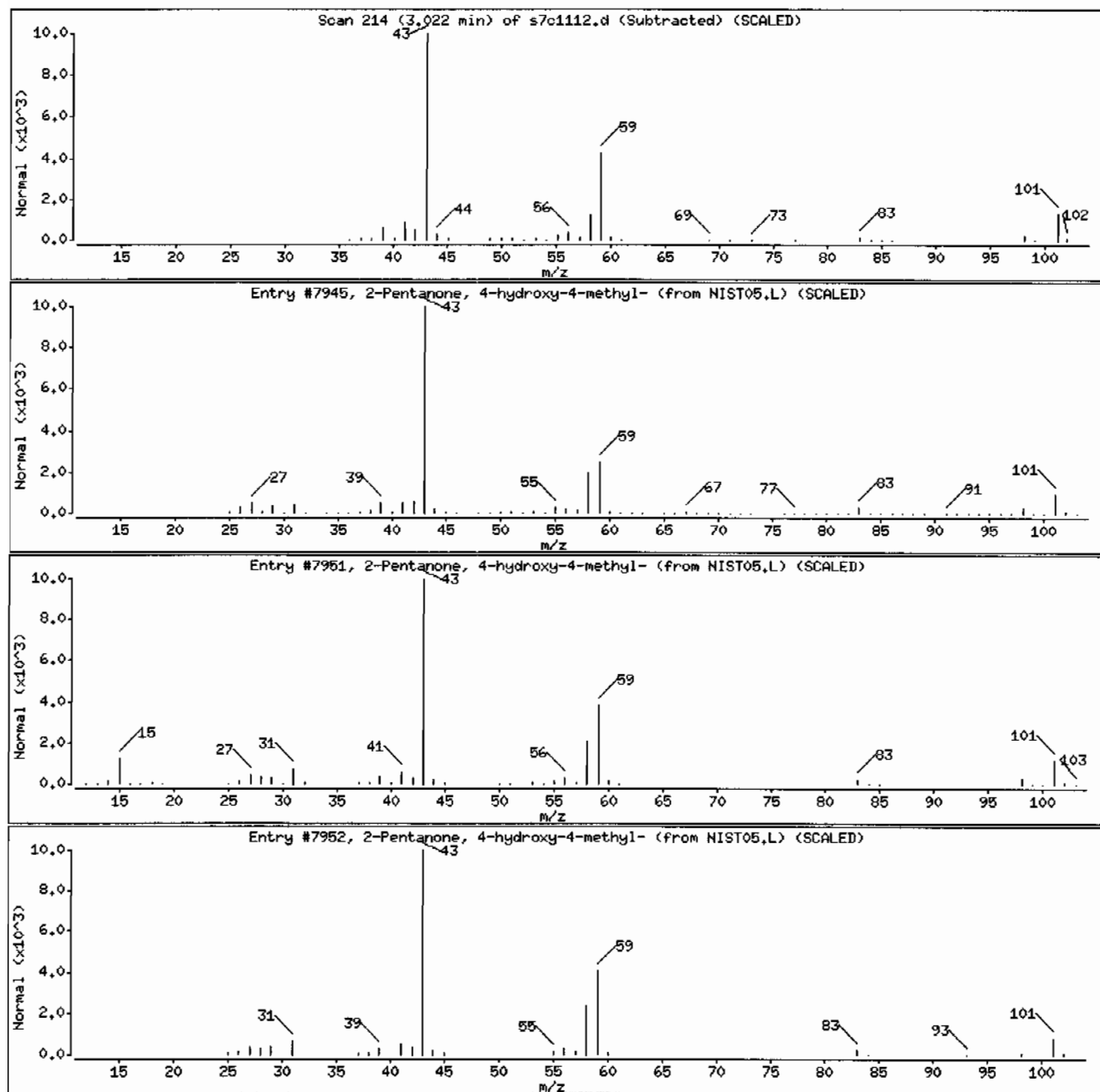
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116



Date : 11-MAR-2010 16:47

Client ID: RE36-10-7468

Instrument: MSD7.i

Sample Info: I248043008I95962311ISVH11ILANL

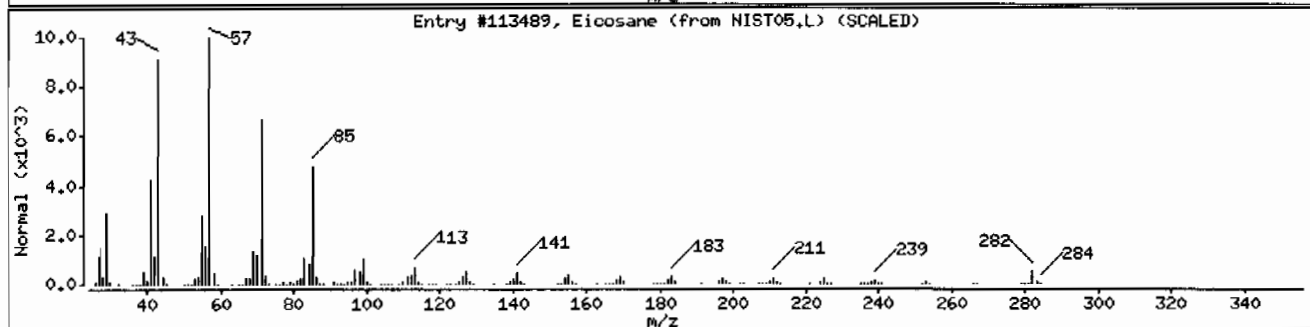
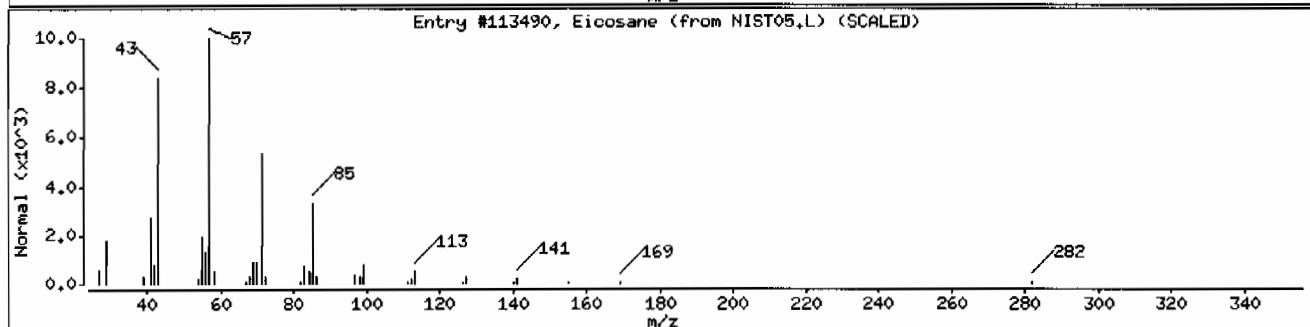
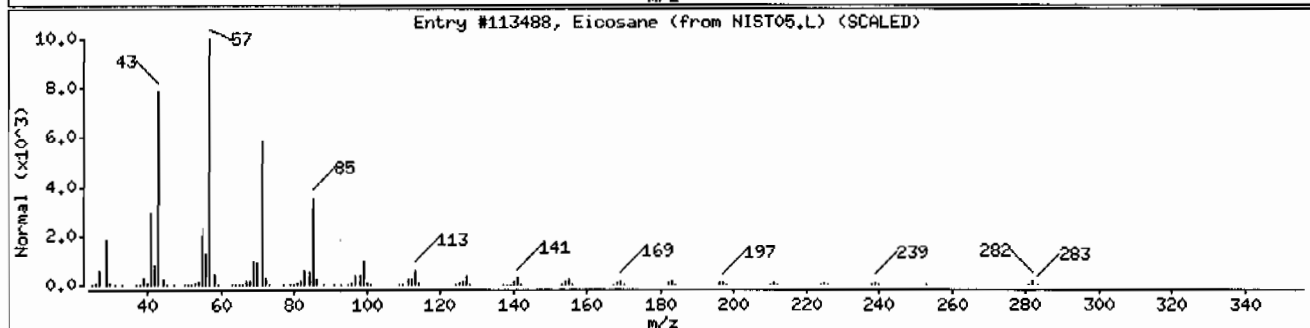
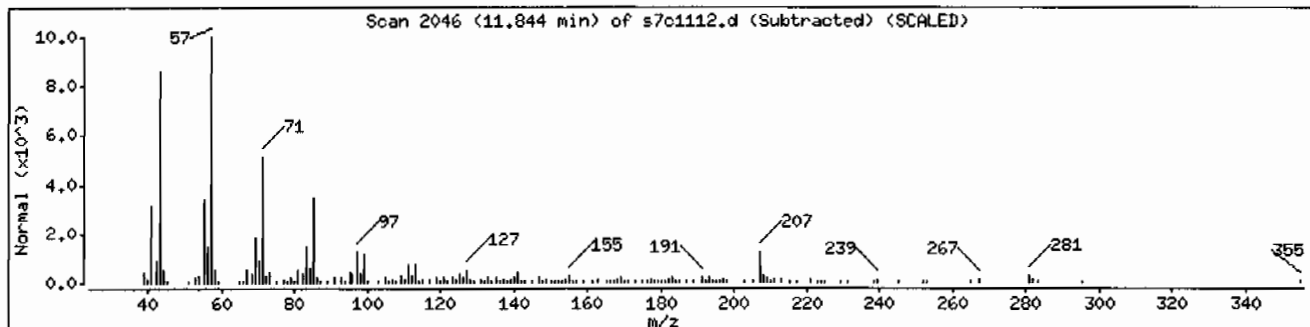
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113488	98	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113490	96	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113489	95	C <sub>20</sub> H <sub>42</sub>	282



Date : 11-MAR-2010 16:47

Client ID: RE36-10-7468

Instrument: MSD7.i

Sample Info: I2480430081959623111SVH111LANL

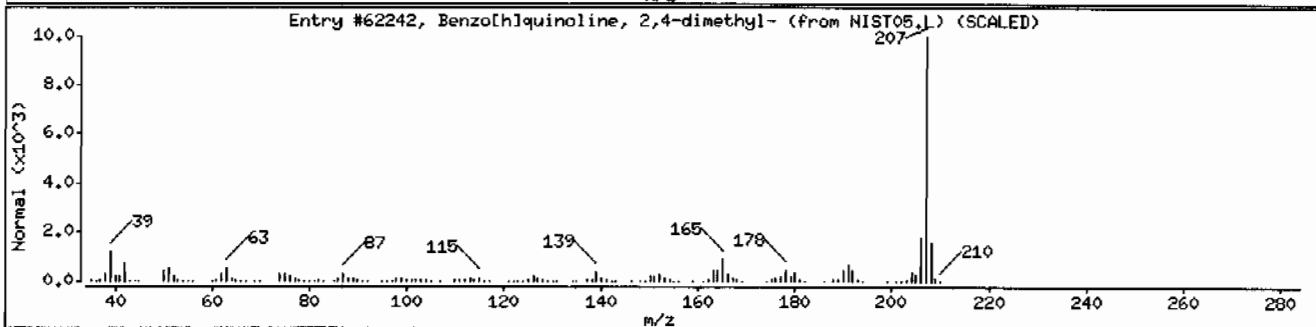
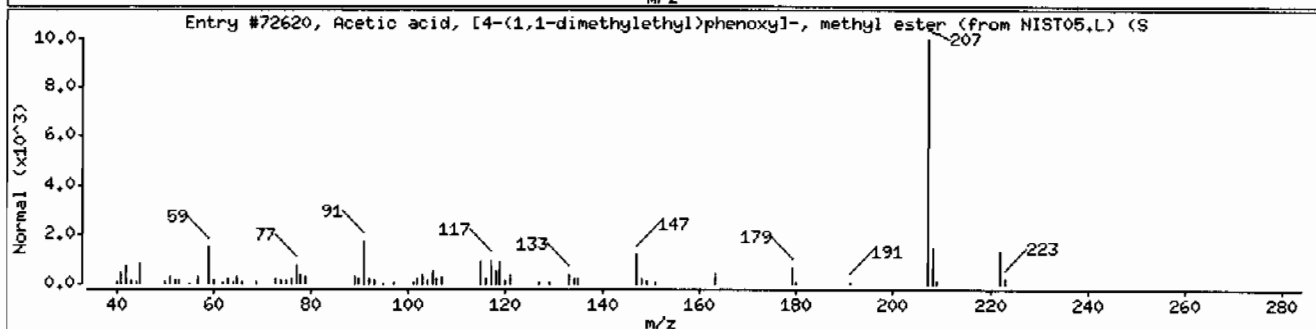
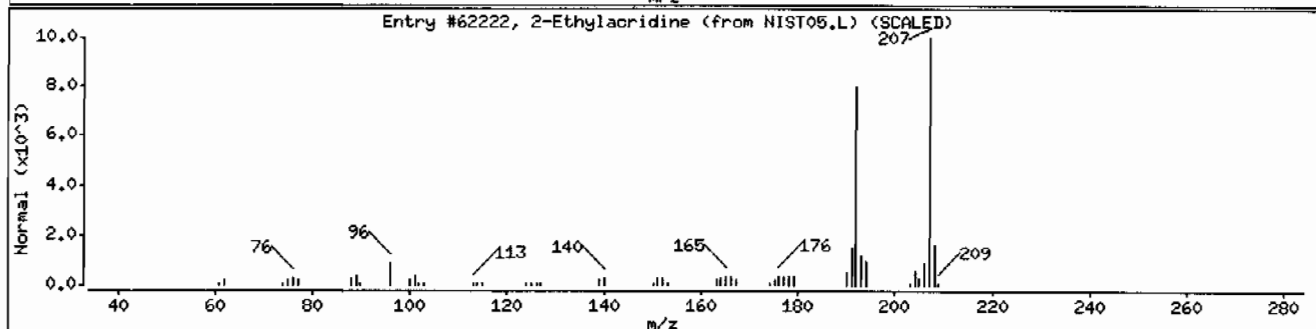
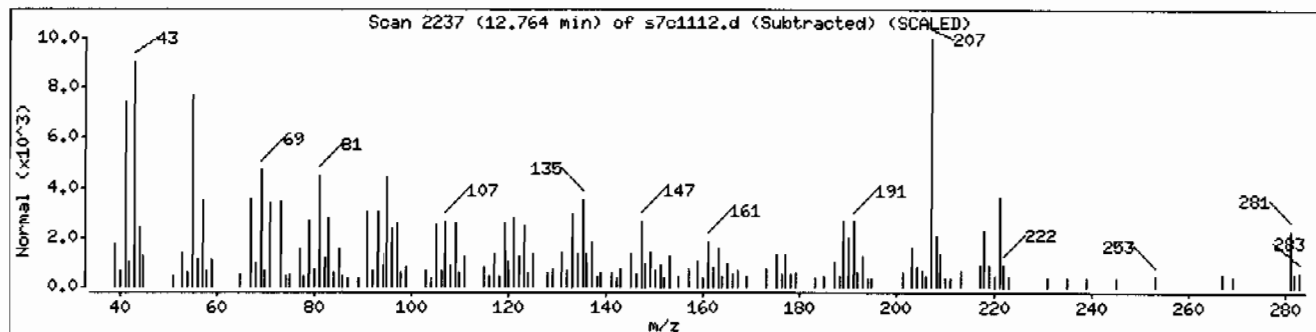
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethylacridine	55751-83-2	NIST05.L	62222	38	C15H13N	207
Acetic acid, [4-(1,1-dimethylethyl)pheno	88530-52-3	NIST05.L	72620	38	C13H18O3	222
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62242	38	C15H13N	207





**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043016

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	381	ug/kg	76.2	381
108-95-2	Phenol	U	381	ug/kg	76.2	381
95-57-8	2-Chlorophenol	U	381	ug/kg	76.2	381
106-46-7	1,4-Dichlorobenzene	U	381	ug/kg	76.2	381
621-64-7	N-Nitrosodipropylamine	U	381	ug/kg	76.2	381
59-50-7	4-Chloro-3-methylphenol	U	381	ug/kg	76.2	381
83-32-9	Acenaphthene	U	38.1	ug/kg	12.6	38.1
121-14-2	2,4-Dinitrotoluene	U	381	ug/kg	38.1	381
100-02-7	4-Nitrophenol	U	381	ug/kg	126	381
87-86-5	Pentachlorophenol	U	381	ug/kg	95.2	381
129-00-0	Pyrene		85.4	ug/kg	11.4	38.1
110-86-1	Pyridine	U	381	ug/kg	76.2	381
62-53-3	Aniline	U	381	ug/kg	114	381
111-44-4	bis(2-Chloroethyl) ether	U	381	ug/kg	76.2	381
541-73-1	1,3-Dichlorobenzene	U	381	ug/kg	76.2	381
100-51-6	Benzyl alcohol	U	381	ug/kg	114	381
95-50-1	1,2-Dichlorobenzene	U	381	ug/kg	76.2	381
108-60-1	bis(2-Chloroisopropyl)ether	U	381	ug/kg	76.2	381
95-48-7	o-Cresol	U	381	ug/kg	76.2	381
65794-96-9	m,p-Cresols	U	381	ug/kg	114	381
67-72-1	Hexachloroethane	U	381	ug/kg	76.2	381
98-95-3	Nitrobenzene	U	381	ug/kg	76.2	381
78-59-1	Isophorone	U	381	ug/kg	76.2	381
88-75-5	2-Nitrophenol	U	381	ug/kg	76.2	381
105-67-9	2,4-Dimethylphenol	U	381	ug/kg	133	381
111-91-1	bis(2-Chloroethoxy)methane	U	381	ug/kg	76.2	381
120-83-2	2,4-Dichlorophenol	U	381	ug/kg	76.2	381
65-85-0	Benzoic acid	U	762	ug/kg	190	762
91-20-3	Naphthalene	U	38.1	ug/kg	11.4	38.1
106-47-8	4-Chloroaniline	U	381	ug/kg	76.2	381
87-68-3	Hexachlorobutadiene	U	381	ug/kg	76.2	381
91-57-6	2-Methylnaphthalene	U	38.1	ug/kg	7.62	38.1
77-47-4	Hexachlorocyclopentadiene	U	381	ug/kg	76.2	381
88-06-2	2,4,6-Trichlorophenol	U	381	ug/kg	76.2	381
95-95-4	2,4,5-Trichlorophenol	U	381	ug/kg	76.2	381
91-58-7	2-Chloronaphthalene	U	38.1	ug/kg	12.6	38.1
88-74-4	2-Nitroaniline	U	381	ug/kg	76.2	381
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	381	ug/kg	76.2	381

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043016	Date Received: 02/25/2010 08:45	%Moisture: 12.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7469	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 18:13	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30 g	Final Volume: 1 mL
Data File: s7c1116.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	381	ug/kg	76.2	381
606-20-2	2,6-Dinitrotoluene	U	381	ug/kg	38.1	381
208-96-8	Acenaphthylene	U	38.1	ug/kg	11.4	38.1
51-28-5	2,4-Dinitrophenol	U	762	ug/kg	145	762
132-64-9	Dibenzofuran	U	381	ug/kg	76.2	381
84-66-2	Diethylphthalate	U	381	ug/kg	76.2	381
86-73-7	Fluorene	U	38.1	ug/kg	11.4	38.1
7005-72-3	4-Chlorophenylphenylether	U	381	ug/kg	76.2	381
534-52-1	2-Methyl-4,6-dinitrophenol	U	381	ug/kg	76.2	381
100-01-6	4-Nitroaniline	U	381	ug/kg	114	381
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	381	ug/kg	76.2	381
122-66-7	Azobenzene	U	381	ug/kg	76.2	381
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	381	ug/kg	76.2	381
118-74-1	Hexachlorobenzene	U	381	ug/kg	76.2	381
85-01-8	Phenanthrene		82.9	ug/kg	11.4	38.1
120-12-7	Anthracene	J	12.7	ug/kg	7.62	38.1
84-74-2	Di-n-butylphthalate	J	211	ug/kg	76.2	381
206-44-0	Fluoranthene		105	ug/kg	11.4	38.1
85-68-7	Butylbenzylphthalate	U	381	ug/kg	76.2	381
56-55-3	Benzo(a)anthracene		42.4	ug/kg	11.4	38.1
91-94-1	3,3'-Dichlorobenzidine	U	381	ug/kg	114	381
218-01-9	Chrysene		50.0	ug/kg	11.4	38.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	381	ug/kg	76.2	381
117-84-0	Di-n-octylphthalate	U	381	ug/kg	76.2	381
205-99-2	Benzo(b)fluoranthene		71.9	ug/kg	11.4	38.1
207-08-9	Benzo(k)fluoranthene	U	38.1	ug/kg	11.4	38.1
50-32-8	Benzo(a)pyrene		38.6	ug/kg	11.4	38.1
193-39-5	Indeno(1,2,3-cd)pyrene	J	31.1	ug/kg	11.4	38.1
53-70-3	Dibenzo(a,h)anthracene	J	12.3	ug/kg	11.4	38.1
191-24-2	Benzo(ghi)perylene	J	35.5	ug/kg	11.4	38.1
120-82-1	1,2,4-Trichlorobenzene	U	381	ug/kg	76.2	381

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	520	ug/kg		J
	Unknown	3.68	299	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043016	Date Received: 02/25/2010 08:45	%Moisture: 12.5
Client ID: RE36-10-7469	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/11/2010 18:13	Inst: MSD7.I	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1116.d	Aliquot: 30 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
4630-07-3	Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	5.84	158	ug/kg	98	NJ
	Unknown	8.18	173	ug/kg		J
	Unknown	9.04	172	ug/kg		J
	Unknown	9.4	796	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.48	810	ug/kg	97	NJ
	Unknown	9.61	348	ug/kg		J
	Unknown	10.38	416	ug/kg		J
1000156-12-8	Alloaromadendrene oxide-(1)	10.9	166	ug/kg	90	NJ
	Unknown	12.11	328	ug/kg		J
	Unknown	12.22	698	ug/kg		J
	Unknown	12.67	173	ug/kg		J
	Unknown	12.75	358	ug/kg		J
83-46-5	.beta.-Sitosterol	14.34	909	ug/kg	94	NJ
	Unknown	14.47	169	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031110.b/s7c1116.d  
Lab Smp Id: 248043016 Client Smp ID: RE36-10-7469  
Inj Date : 11-MAR-2010 18:13  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043016|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 16  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	12.49680	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG			RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT REL RT		ON-COLUMN	FINAL
					(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.990	3.990 (1.000)	364147	40.0000	
* 29 Naphthalene-d8	136	4.857	4.857 (1.000)	1399862	40.0000	
* 46 Acenaphthene-d10	164	6.109	6.114 (1.000)	784259	40.0000	
* 67 Phenanthrene-d10	188	7.284	7.284 (1.000)	1375721	40.0000	
* 91 Chrysene-d12	240	9.691	9.691 (1.000)	997354	40.0000	
* 98 Perylene-d12	264	11.391	11.386 (1.000)	610698	40.0000	
\$ 3 2-Fluorophenol	112	3.191	3.181 (0.800)	527752	55.7581	2120
\$ 5 Phenol-d5	99	3.711	3.706 (0.930)	681063	57.3909	2190
\$ 20 Nitrobenzene-d5	82	4.351	4.356 (0.896)	306111	28.9928	1100
\$ 39 2-Fluorobiphenyl	172	5.594	5.598 (0.916)	643403	32.9190	1250
\$ 60 2,4,6-Tribromophenol	329	6.711	6.711 (1.099)	171269	75.5424	2880
\$ 81 p-Terphenyl-d14	244	8.656	8.656 (0.893)	697422	39.0323	1490

Compounds	QUANT SIG						CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE		ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
79 Pyrene	202	8.555	8.560	(0.883)	70609		2.24098	85.4
68 Phenanthrene	178	7.303	7.308	(1.003)	61418		2.17559	82.9
69 Anthracene	178	7.342	7.351	(1.008)	9541		0.33370	12.7(a)
72 Di-n-butylphthalate	149	7.698	7.703	(1.057)	199511		5.54683	211(a)
76 Fluoranthene	202	8.343	8.343	(1.145)	84975		2.76836	105
89 Benzo(a)anthracene	228	9.677	9.677	(0.998)	26602		1.11262	42.4
92 Chrysene	228	9.711	9.715	(1.002)	27927		1.31262	50.0
95 Benzo(b)fluoranthene	252	10.866	10.861	(0.954)	32310		1.88655	71.9
97 Benzo(a)pyrene	252	11.305	11.309	(0.992)	14230		1.01331	38.6(Q)
99 Indeno(1,2,3-cd)pyrene	276	13.163	13.168	(1.156)	8242		0.81618	31.1(a)
100 Dibenzo(a,h)anthracene	278	13.168	13.182	(1.156)	2588		0.32339	12.3(a)
101 Benzo(ghi)perylene	276	13.712	13.712	(1.204)	7850		0.93212	35.5(a)

#### QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.

## ION RATIO REPORT

## SV REPORT

Data file: s7c1116.d

Report Date: 03/12/2010 08:16

Lab. ID: 248043016

SampleType: SAMPLE

Injection Date: 11-MAR-2010 18:13

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043016|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	38698	3.71	3.78	80-120	100	(T)
93	8764	3.68	3.78	206-266	23	(QT)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	44742	4.35	4.24	80-120	100	(T)
42	33234	4.35	4.23	61-121	74	(T)
-----						
43	Dimethylphthalate	CAS#: 131-11-3				
163	141721	6.11	5.87	80-120	100	(T)
164	784259	6.11	5.87	0- 40	553	(QT)
-----						
44	2,6-Dinitrotoluene	CAS#: 606-20-2				
165	101082	6.11	5.93	80-120	100	(T)
63	2003	6.11	5.93	52-112	2	(QT)
-----						
50	2,4-Dinitrotoluene	CAS#: 121-14-2				
165	101082	6.11	6.23	80-120	100	(T)
89	1671	6.11	6.23	37- 97	2	(QT)
63	1928	6.11	6.23	17- 77	2	(QT)
-----						
53	Fluorene	CAS#: 86-73-7				
166	10759	6.71	6.53	80-120	100	(T)
165	10436	6.71	6.53	61-121	97	(T)
167	4047	6.71	6.52	0- 44	38	(T)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	593	6.71	6.54	80-120	100	(T)
105	2035	6.71	6.54	10- 70	343	(QT)
51	1794	6.71	6.54	54-114	303	(QT)
<hr/>						
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	11855	6.71	6.89	80-120	100	(T)
141	86541	6.71	6.88	48-108	730	(QT)
250	24439	6.71	6.89	68-128	206	(QT)
<hr/>						
68 Phenanthrene				CAS#: 85-01-8		
178	61418	7.30	7.31	80-120	100	( )
179	10691	7.30	7.31	0- 46	17	( )
176	10882	7.30	7.31	0- 49	18	( )
<hr/>						
69 Anthracene				CAS#: 120-12-7		
178	9541	7.34	7.35	80-120	100	( )
179	2139	7.34	7.35	0- 46	22	( )
176	2280	7.34	7.35	0- 48	24	( )
<hr/>						
72 Di-n-butylphthalate				CAS#: 84-74-2		
149	199511	7.70	7.70	80-120	100	( )
150	18367	7.70	7.70	0- 39	9	( )
104	10951	7.70	7.70	0- 35	5	( )
<hr/>						
76 Fluoranthene				CAS#: 206-44-0		
202	84975	8.34	8.34	80-120	100	( )
203	15003	8.34	8.34	0- 48	18	( )
101	9399	8.34	8.34	0- 41	11	( )
<hr/>						
79 Pyrene				CAS#: 129-00-0		
202	70609	8.56	8.56	80-120	100	( )
200	15497	8.56	8.56	0- 50	22	( )
101	8992	8.56	8.56	0- 44	13	( )
<hr/>						
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	26602	9.68	9.68	80-120	100	( )
226	6857	9.68	9.68	0- 56	26	( )
229	8849	9.68	9.68	0- 50	33	( )
<hr/>						
92 Chrysene				CAS#: 218-01-9		
228	27927	9.71	9.72	80-120	100	( )
229	7808	9.71	9.72	0- 50	28	( )
226	7025	9.71	9.72	0- 59	25	( )
<hr/>						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	32310	10.87	10.86	80-120	100	( )
253	8010	10.87	10.86	0- 52	25	( )
125	8593	10.87	10.86	0- 41	27	( )
<hr/>						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	32310	10.87	10.90	80-120	100	( )
253	8010	10.87	10.90	0- 52	25	( )
125	9248	10.87	10.90	0- 42	29	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	14230	11.30	11.31	80-120	100	( )
253	4335	11.30	11.31	0- 52	30	( )
125	7127	11.30	11.30	0- 42	50	(Q)
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	8242	13.16	13.17	80-120	100	( )
138	1694	13.16	13.17	2- 62	21	( )
-----						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	2588	13.17	13.18	80-120	100	( )
139	632	13.19	13.18	0- 50	24	( )
-----						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	7850	13.71	13.71	80-120	100	( )
138	941	13.72	13.71	0- 58	12	( )

Q qualifier indicates ion failed ratio requirement



GEL Laboratories LLC

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Data file : /chem/MSD7.i/s031110.b/s7c1116.d  
 Lab Smp Id: 248043016 Client Smp ID: RE36-10-7469  
 Inj Date : 11-MAR-2010 18:13  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043016|959623|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 16  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	12.49680	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.990	2254798	40.000
* 46 Acenaphthene-d10	6.109	3461313	40.000
* 67 Phenanthrene-d10	7.284	3510787	40.000
* 91 Chrysene-d12	9.691	3232483	40.000
* 98 Perylene-d12	11.391	1722980	40.000

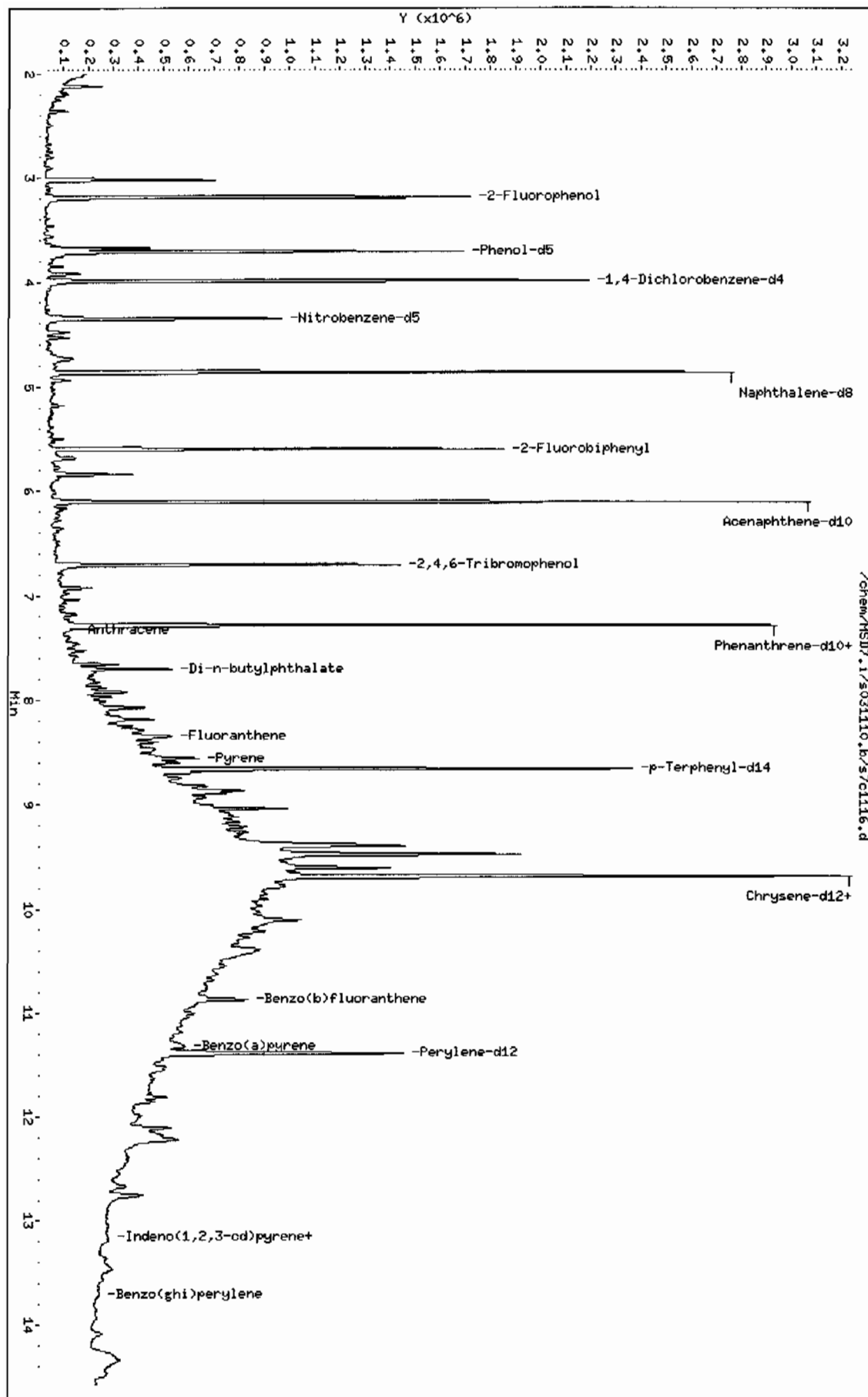
CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	=====	=====	====	=====	=====	=====

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate					CAS #:		
3.022	768805	13.6385674	520	0		0	10
Unknown					CAS #:		
3.682	442362	7.84747084	299	0		0	10
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-					CAS #: 4630-07-3		
5.839	357821	4.13508864	158	98	NIST05.L	60046	46
Unknown					CAS #:		
8.179	398540	4.54074500	173	0		0	67
Unknown					CAS #:		
9.041	365013	4.51681420	172	0		0	91
Unknown					CAS #:		
9.398	1689289	20.9039227	796	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1740-19-8		
9.480	1718757	21.2685658	810	97	NIST05.L	125036	91
Unknown					CAS #:		
9.610	738691	9.14085080	348	0		0	91
Unknown					CAS #:		
10.380	882393	10.9190790	416	0		0	91
Alloaromadendrene oxide-(1)					CAS #: 1000156-12-8		
10.900	187285	4.34791985	166	90	NIST05.L	71377	98
Unknown					CAS #:		
12.109	370613	8.60399046	328	0		0	98
Unknown					CAS #:		
12.224	788748	18.3112361	698	0		0	98
Unknown					CAS #:		
12.672	195971	4.54957137	173	0		0	98
Unknown					CAS #:		
12.754	405101	9.40465976	358	0		0	98
.beta.-Sitosterol					CAS #: 83-46-5		
14.343	1028397	23.8748255	909	94	NIST05.L	174400	98

RT	AREA	CONCENTRATIONS		QUAL	QUANT		CPND #
		ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown							
				CAS #:			
14.473	190952	4.43305321	169	0		0	98

Data File: /chem/MSD7.i/s031110.b/s7c1116.d  
 Date: 11-Mar-2010 18:13  
 Client ID: REC6-10-7469  
 Sample Info: 1248043016|95962311|SVH11|LNL  
 Volume Injected (uL): 0.5  
 Column phase: J&M DB-SMS

Instrument: MSD7.i  
 Operator: JHB3  
 Column diameter: 0.20



Date: 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 12480430161959623111SVH111LANL

Volume Injected (uL): 0.5

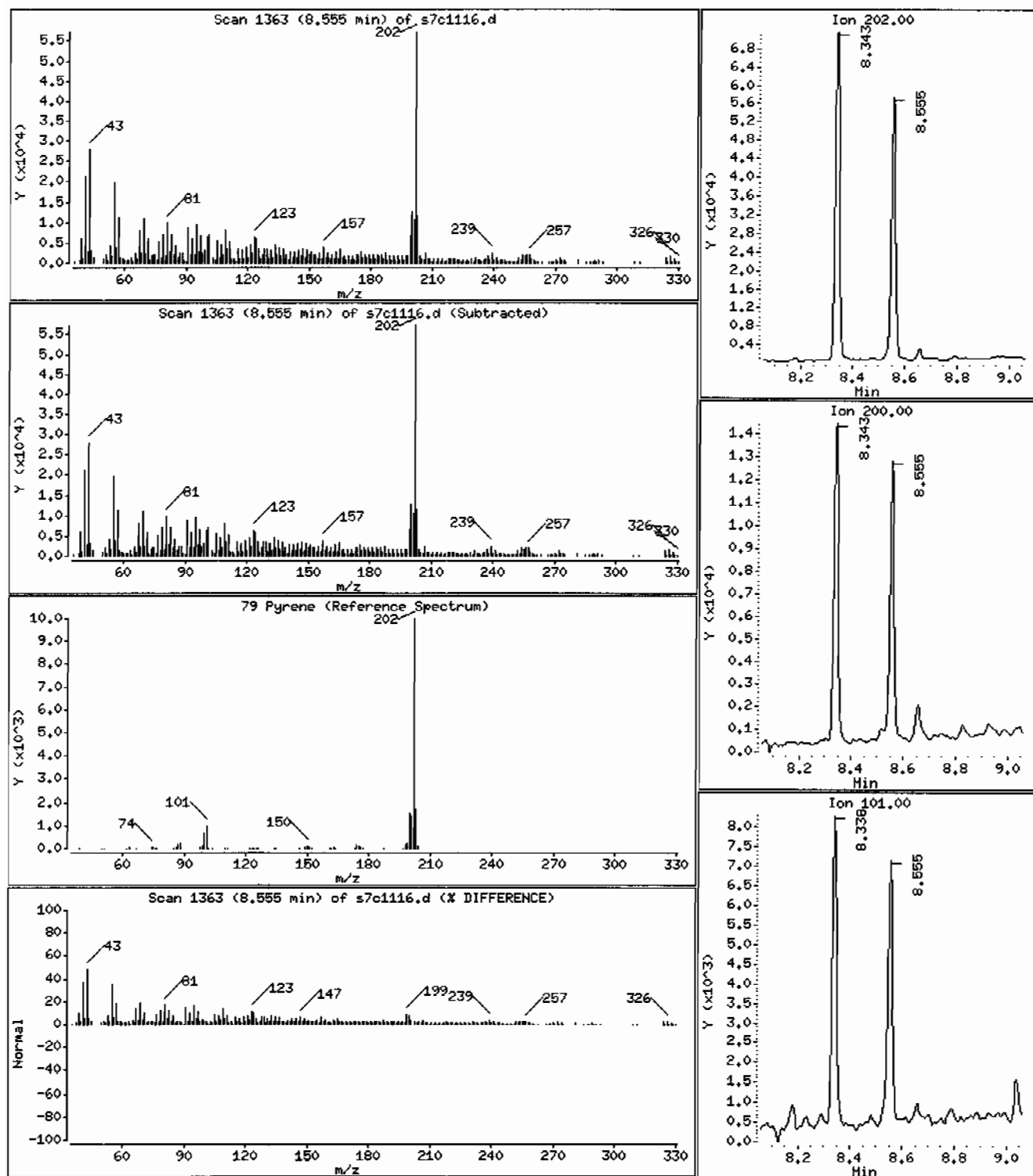
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 85.4 ug/Kg



Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 12480430161959623111SVH111LANL

Volume Injected (uL): 0.5

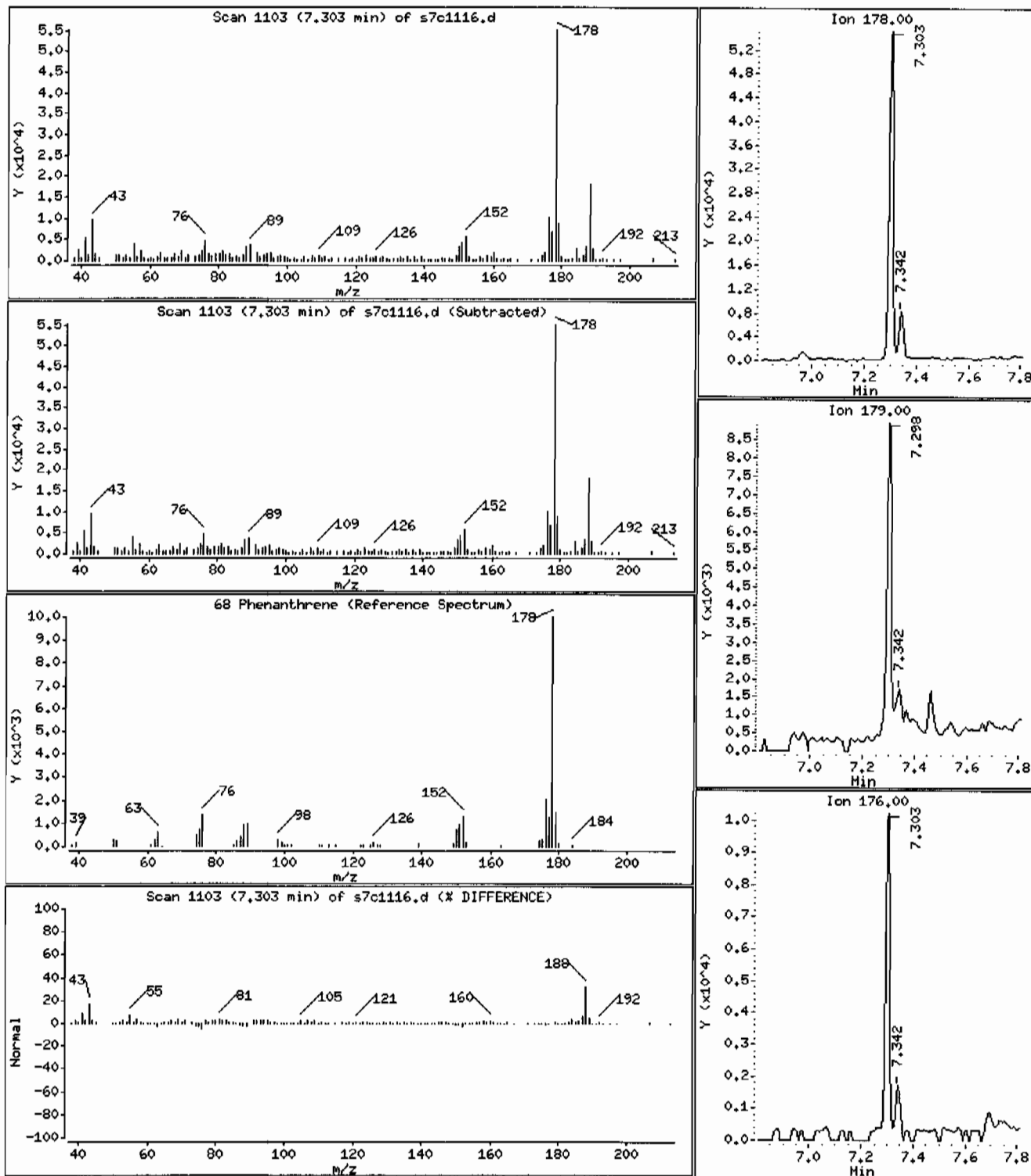
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 82.9 ug/Kg



Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 12480430161959623111SVH111LANL

Volume Injected (uL): 0.5

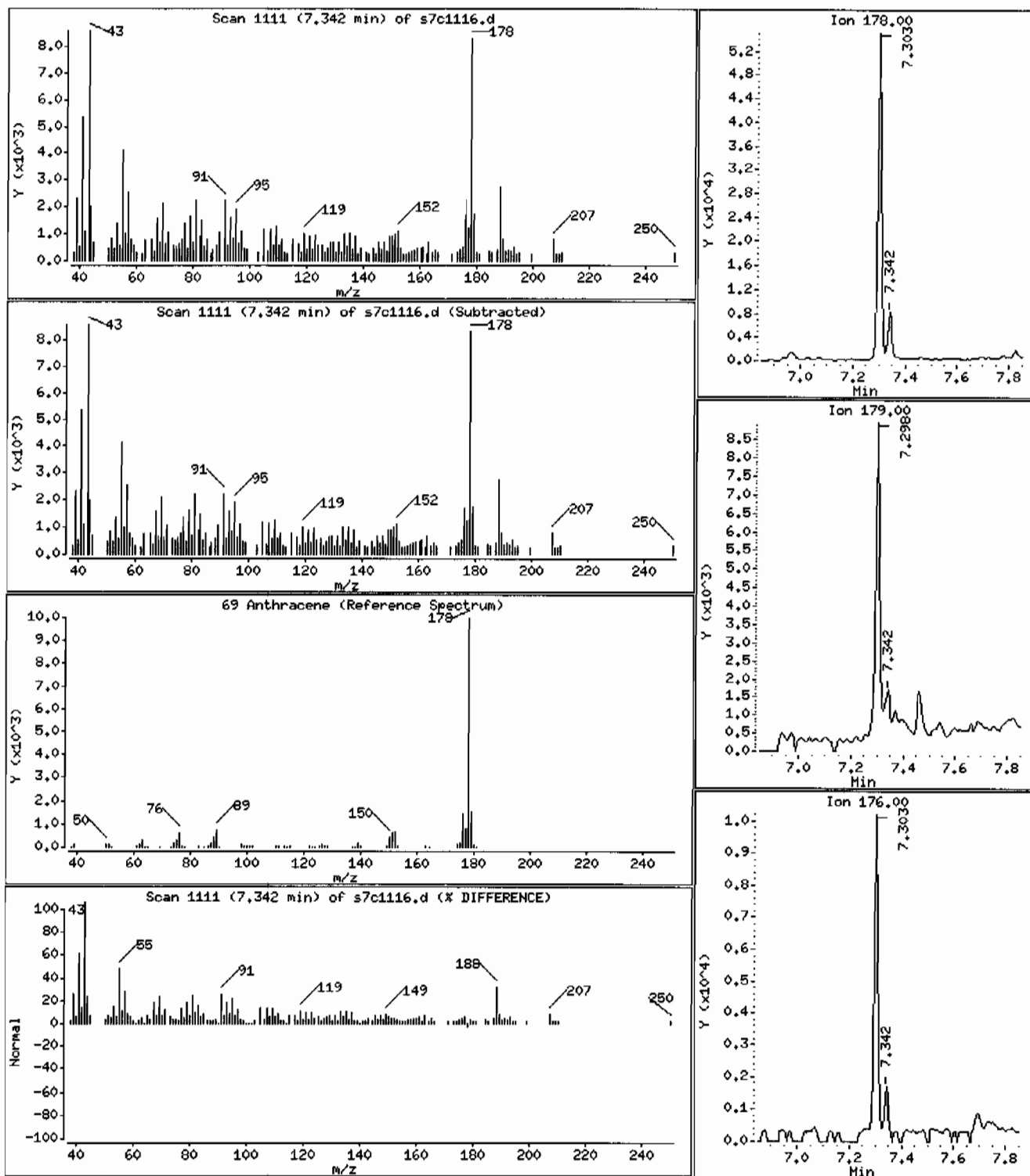
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 12.7 ug/Kg



Date: 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: HSD7.i

Sample Info: 12480430161959623111SVH111LANL

Volume Injected (uL): 0.5

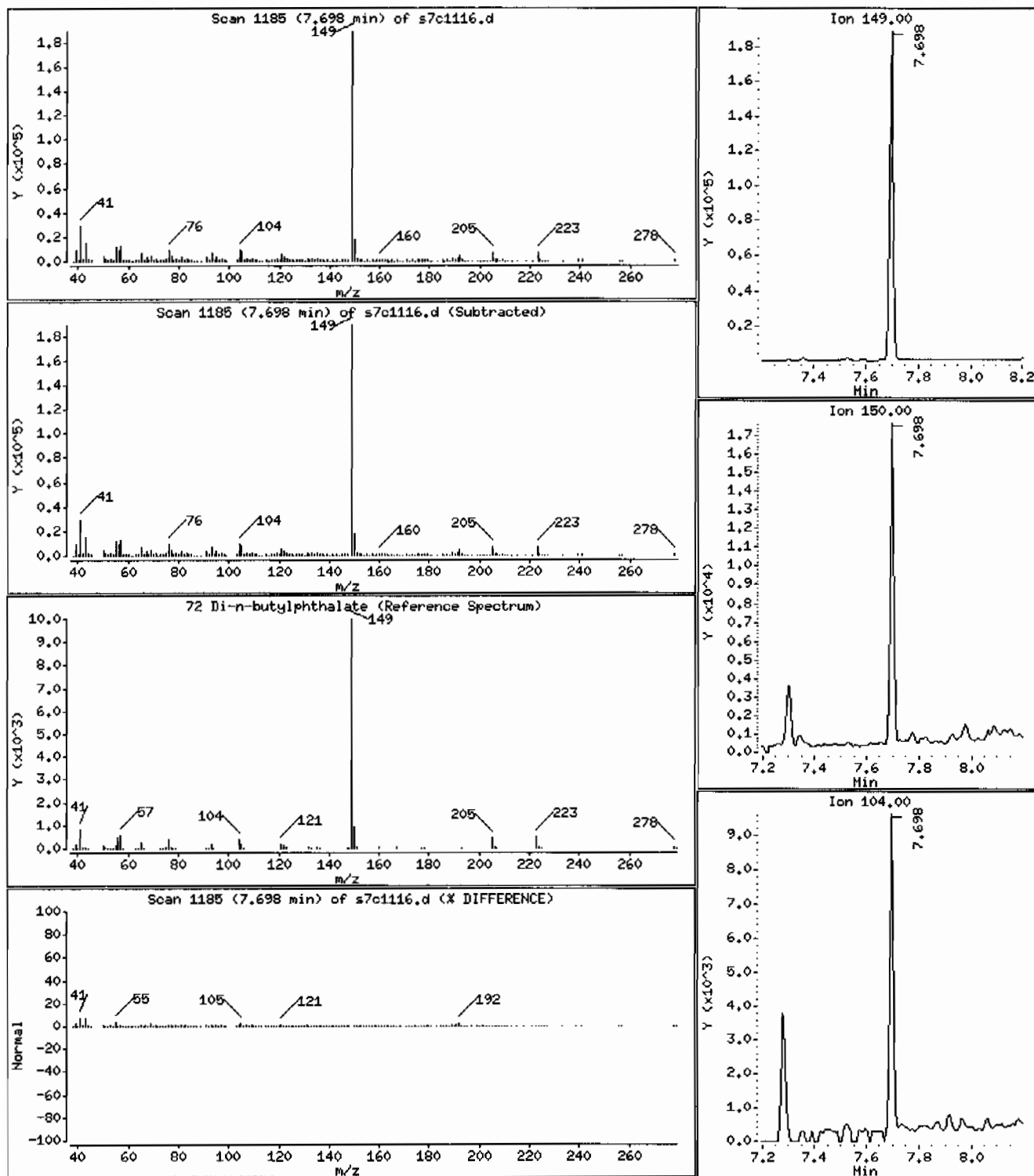
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

72 Di-n-butylphthalate

Concentration: 211 ug/Kg





Date: 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: HSD7.i

Sample Info: 1248043016195962311SVH11ILANL

Volume Injected (uL): 0.5

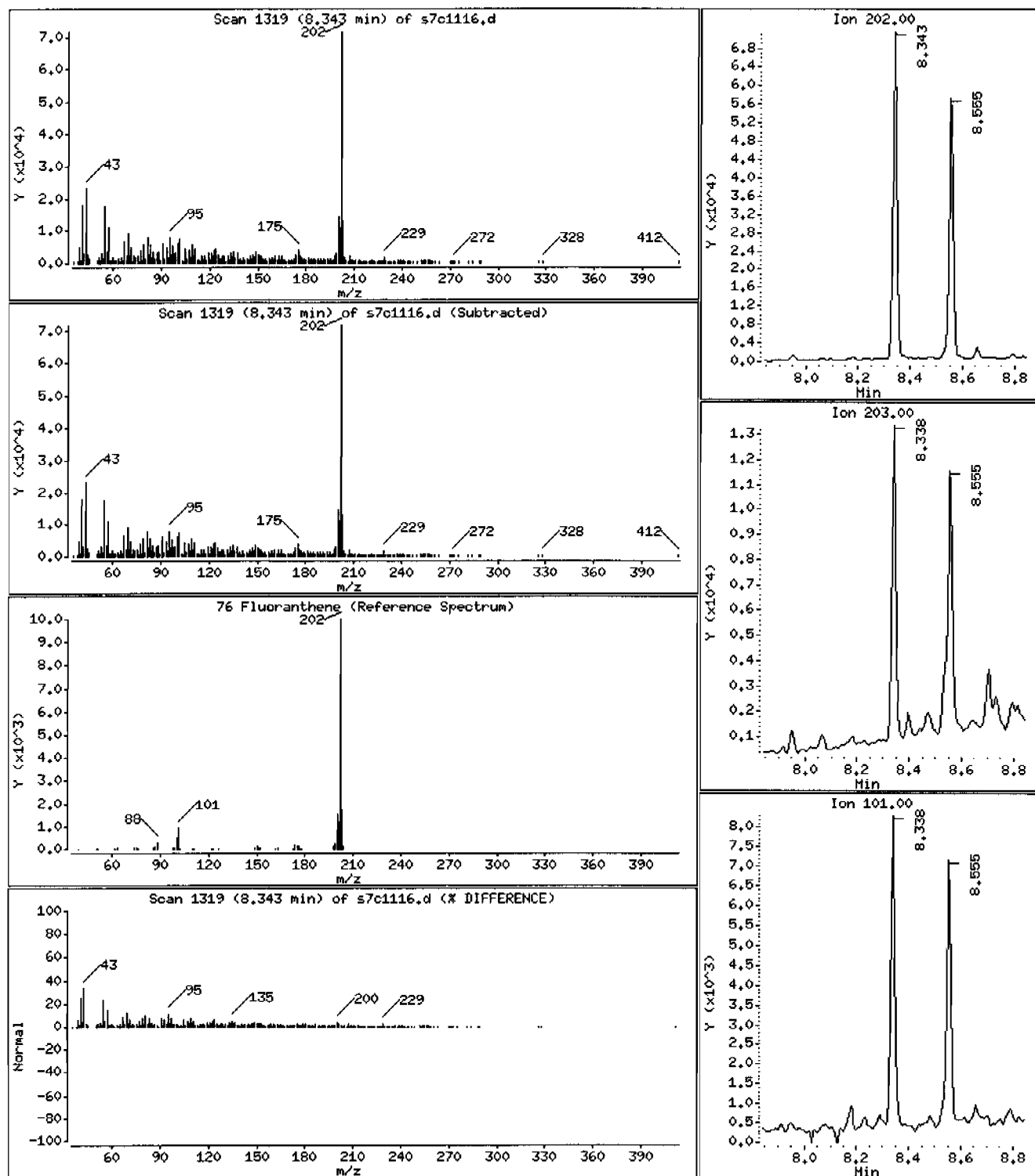
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 105 ug/Kg



Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 12480430161959623111SVH111LANL

Volume Injected (uL): 0.5

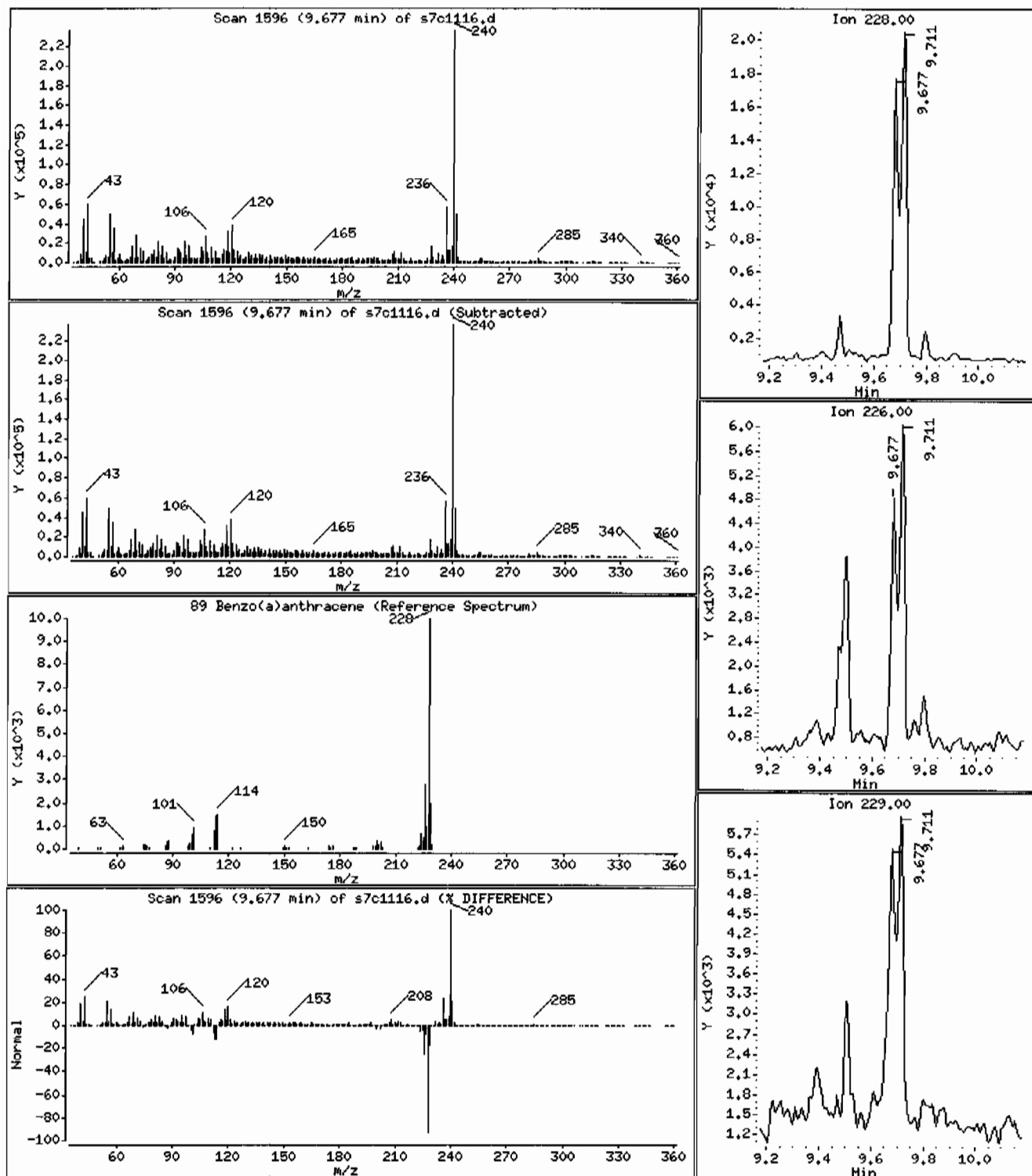
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 42.4 ug/Kg



Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 12480430161959623111SVHI11LANL

Volume Injected (uL): 0,5

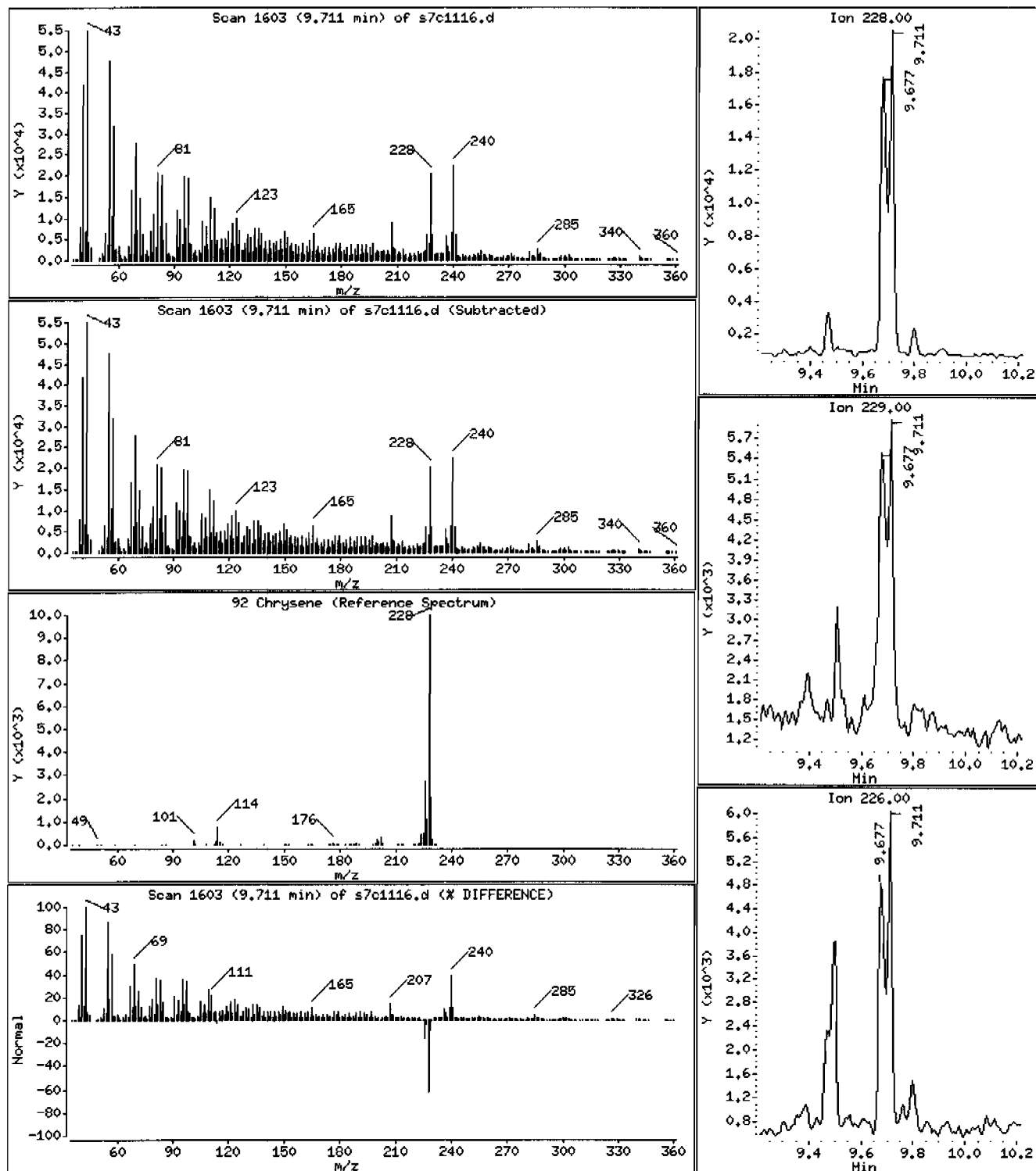
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

92 Chrysene

Concentration: 50,0 ug/Kg



Date: 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 12480430161959623111SVH111LANL

Volume Injected (uL): 0.5

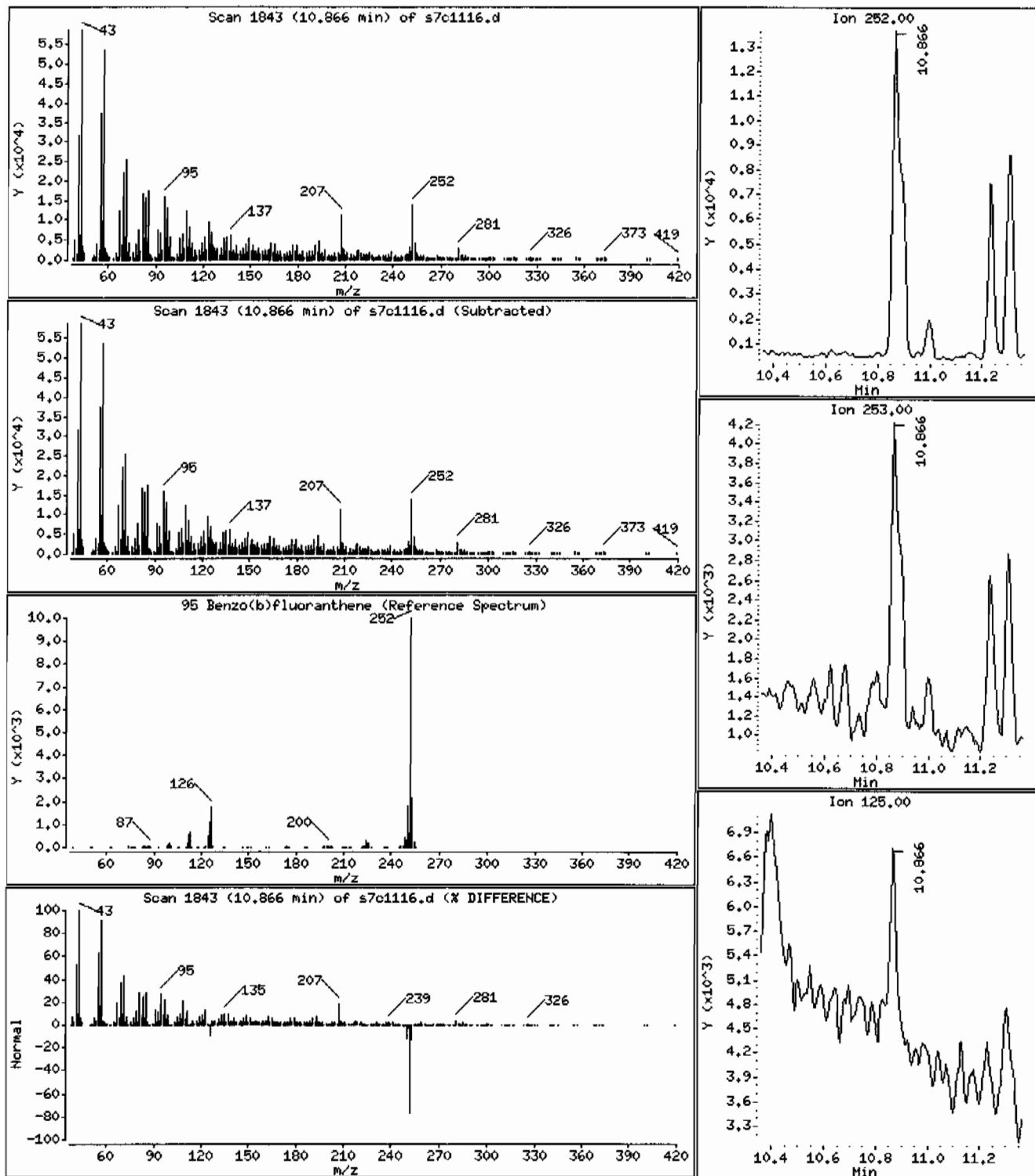
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 71.9 ug/Kg



Date: 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: HSD7.i

Sample Info: 12480430161959623111SVH111LANL

Volume Injected (uL): 0.5

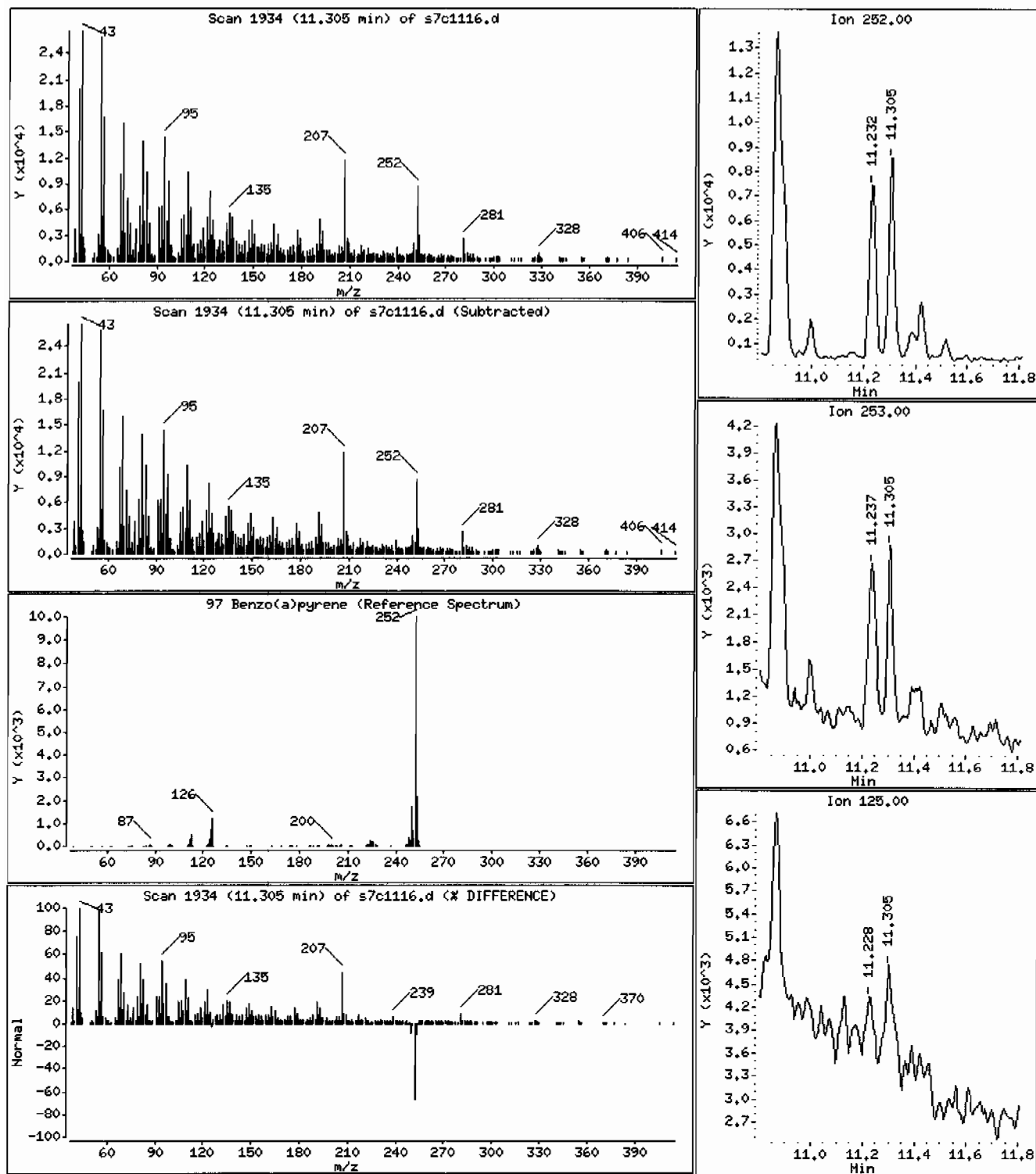
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 38.6 ug/Kg



Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: I2480430161959623111SVMI11LANL

Volume Injected (uL): 0.5

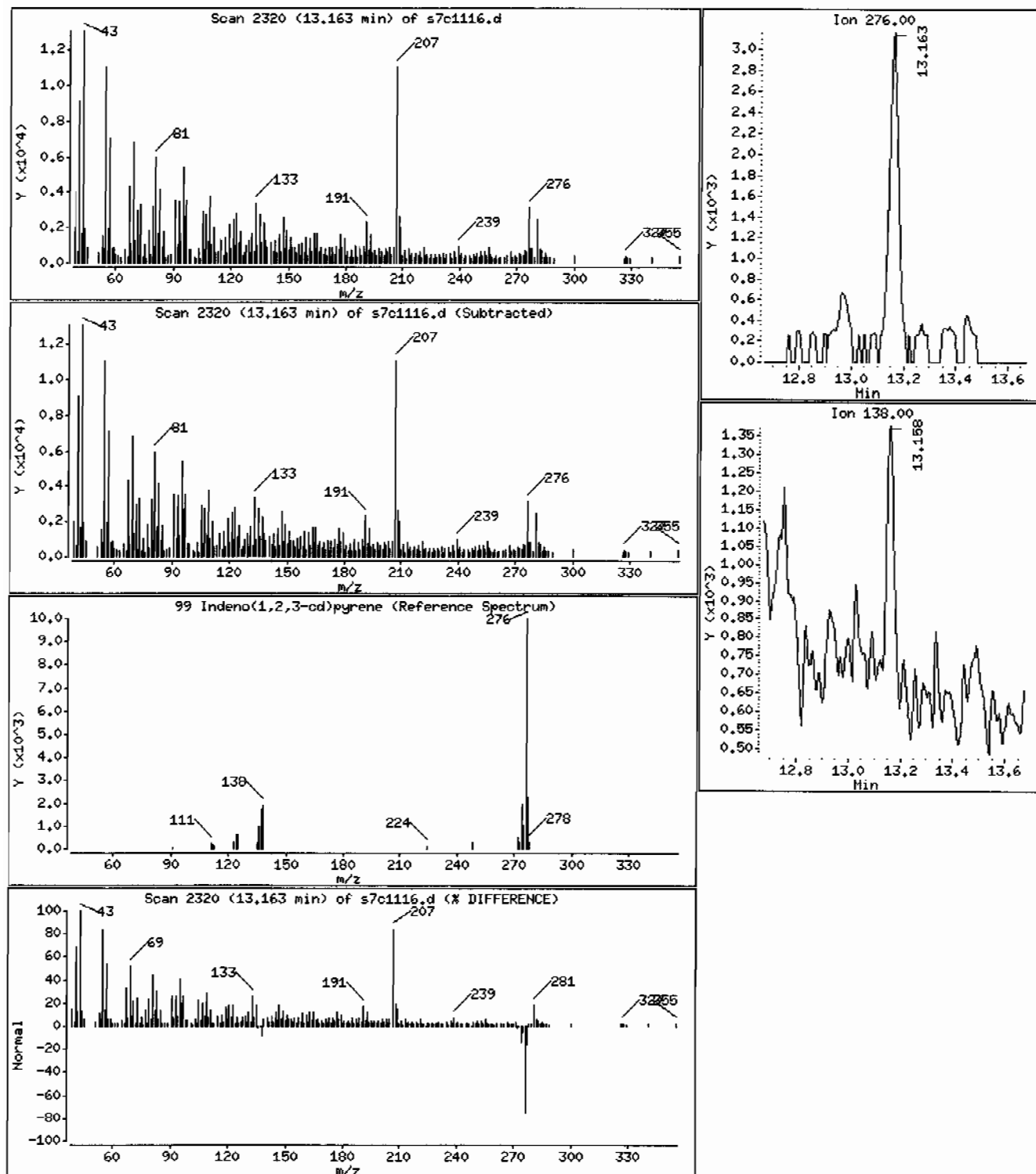
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 31.1 ug/Kg



Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 1248043016195962311SVMI11LANL

Volume Injected (uL): 0.5

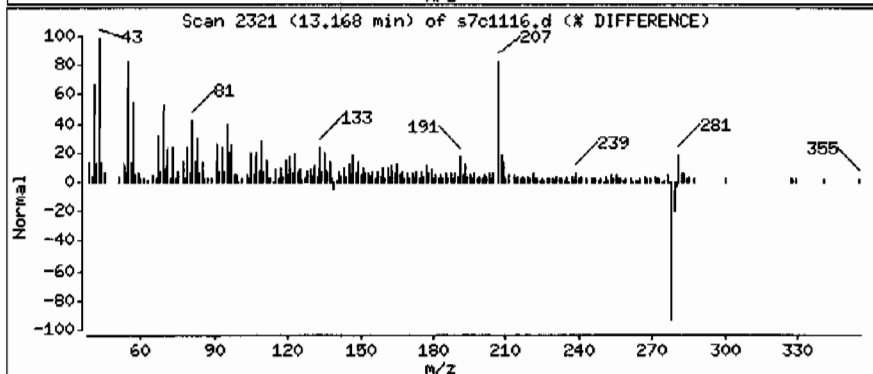
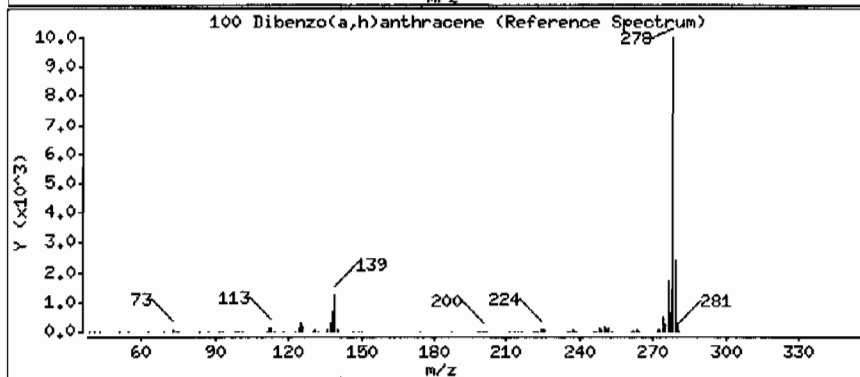
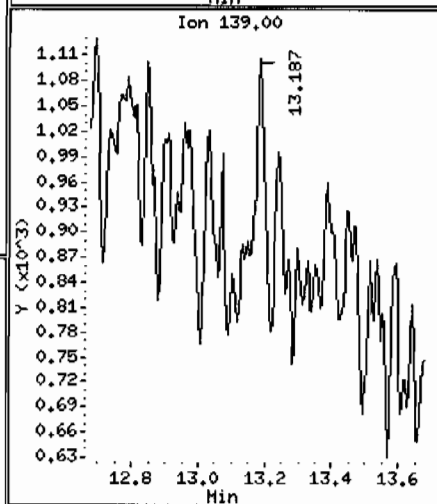
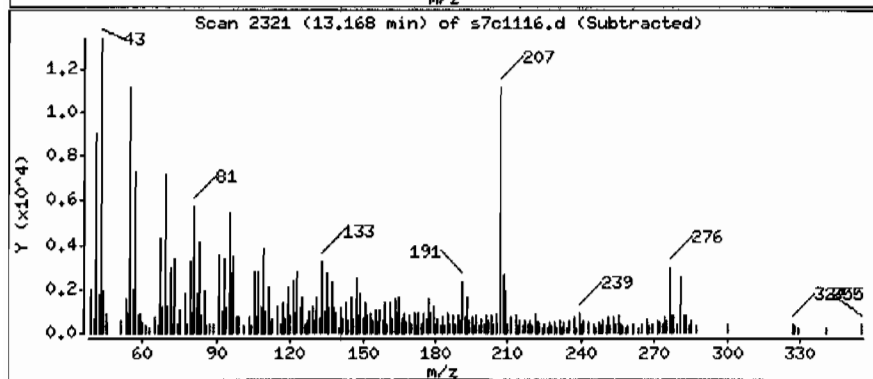
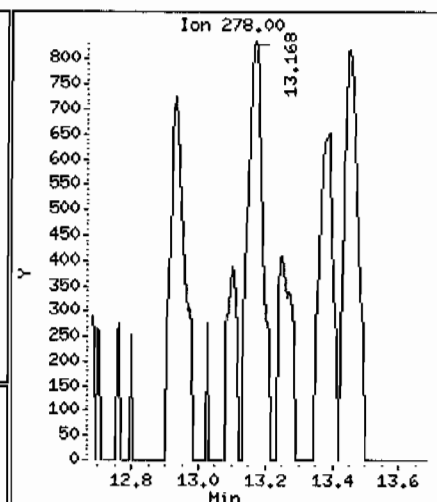
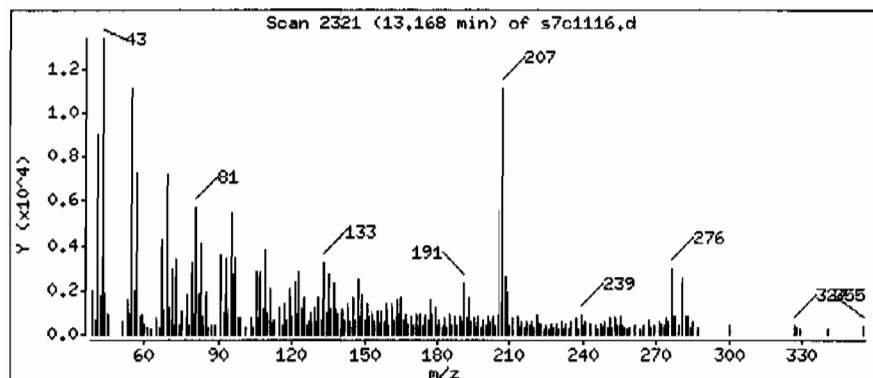
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 12.3 ug/Kg



Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: HSD7.i

Sample Info: 12480430161959623111SVH11ILANL

Volume Injected (uL): 0.5

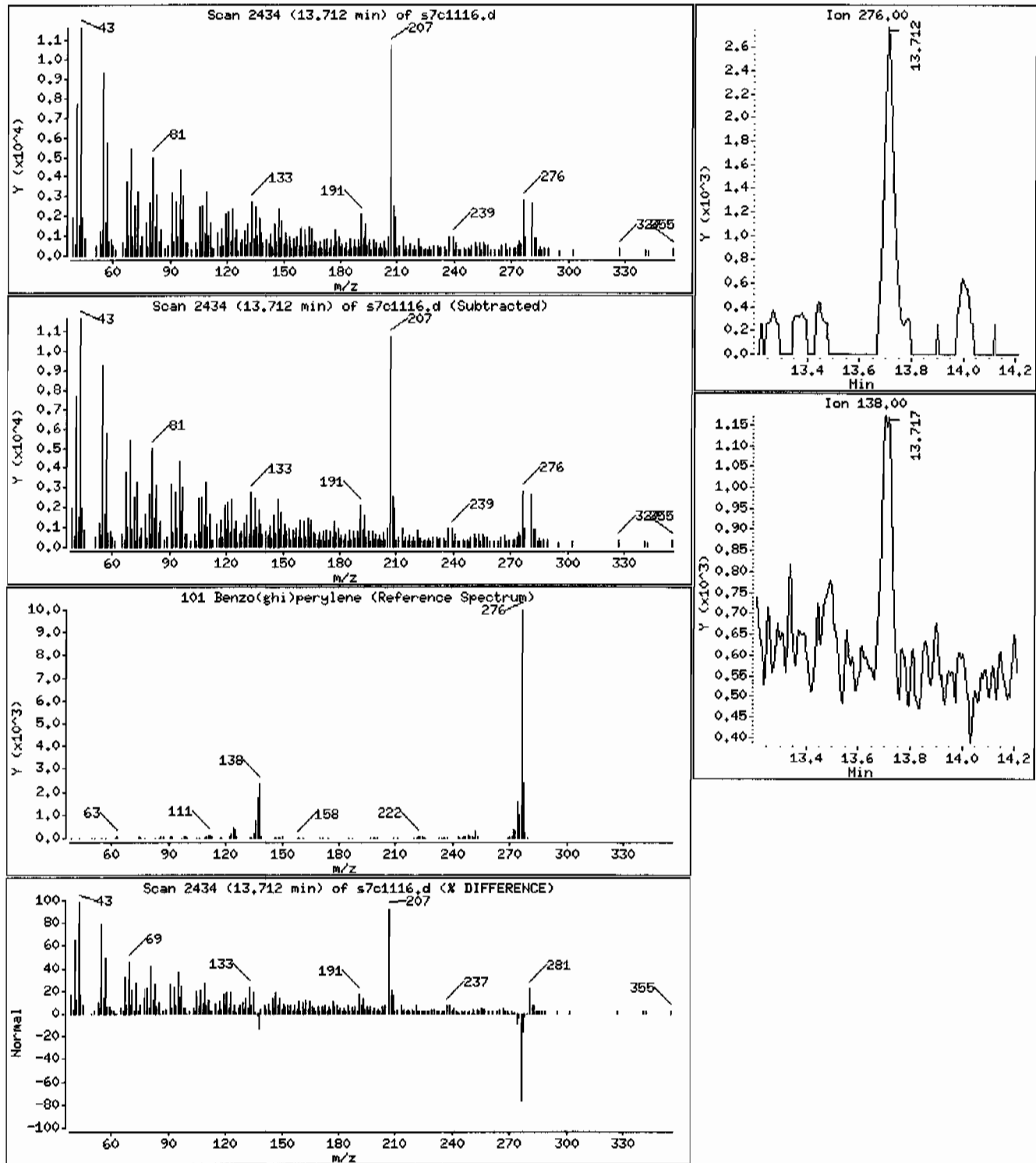
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 35.5 ug/Kg





Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 12480430161959623111SVM111LANL

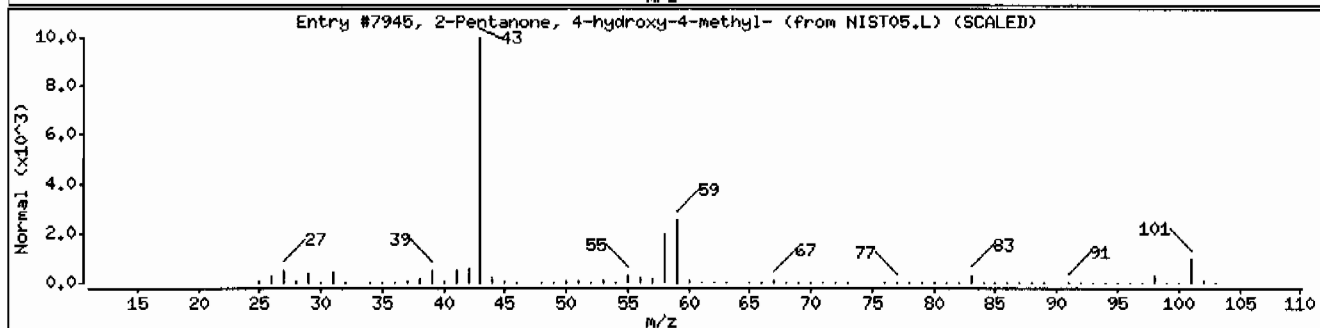
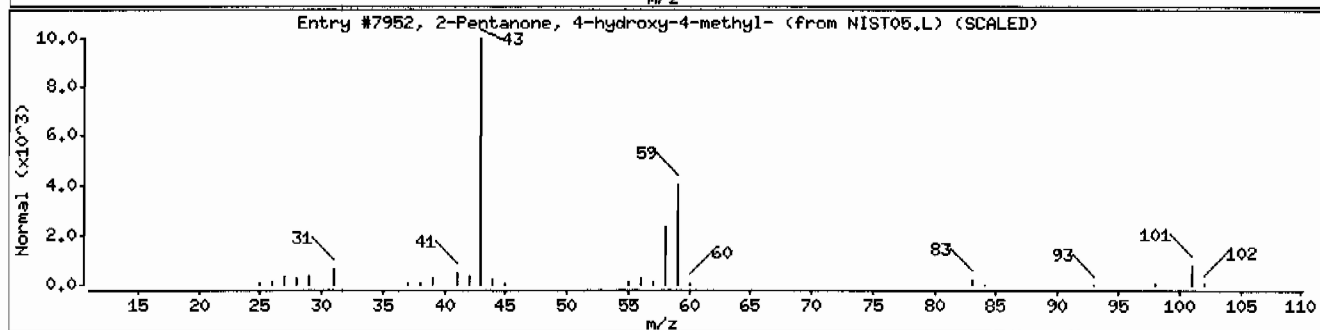
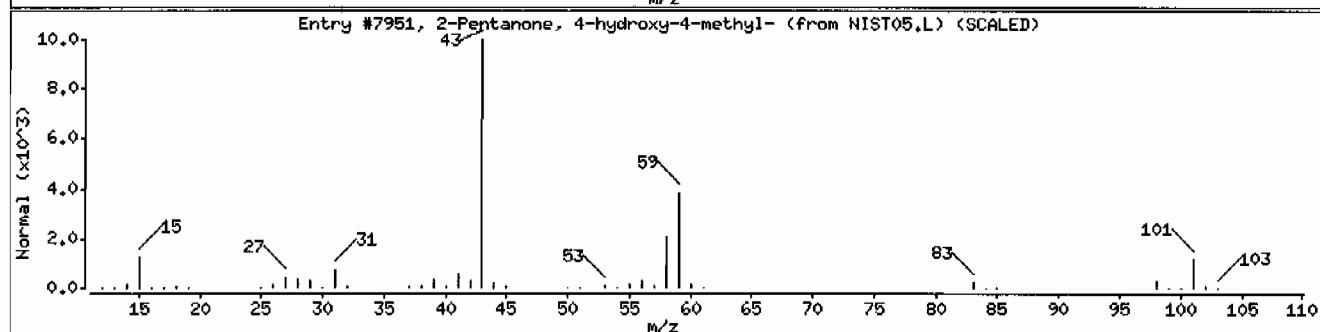
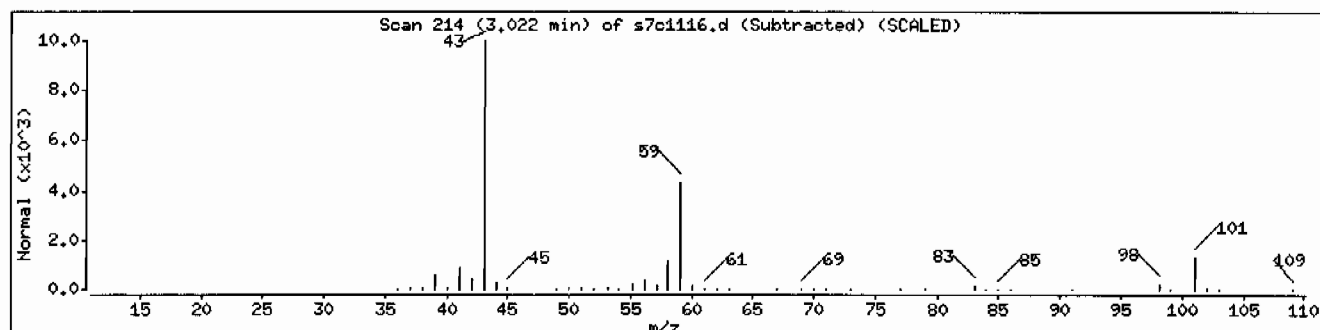
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116



Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 1248043016195962311SVMI1ILANL

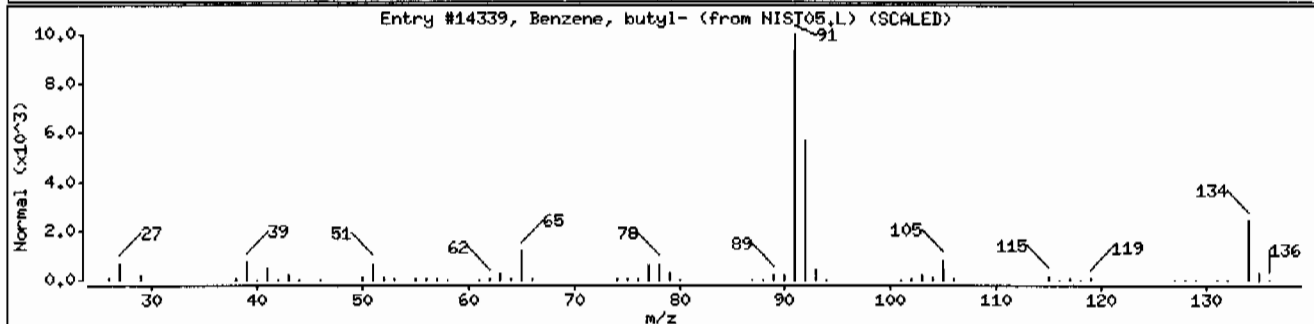
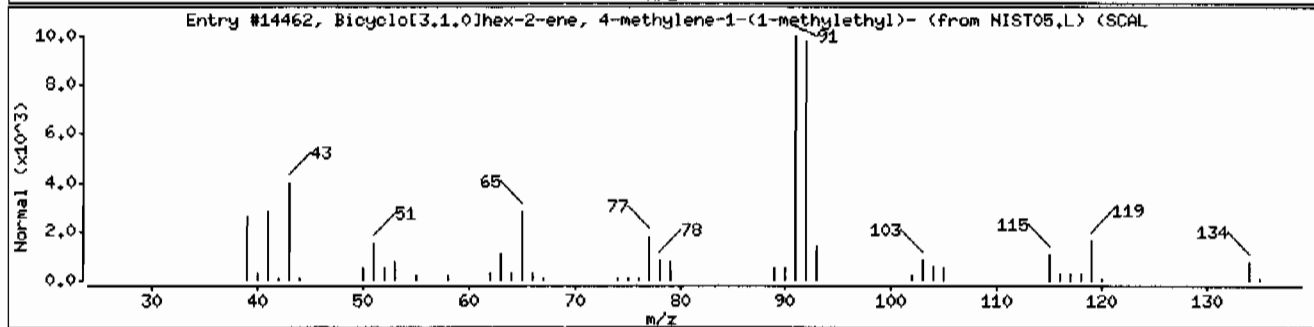
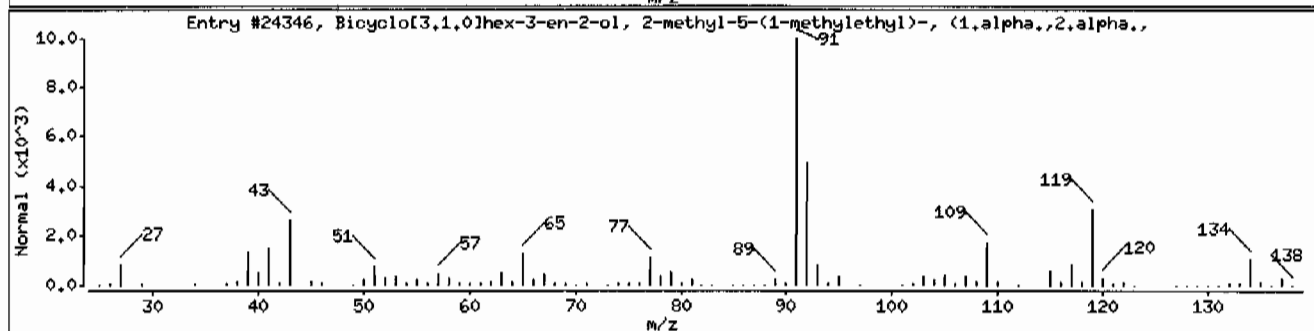
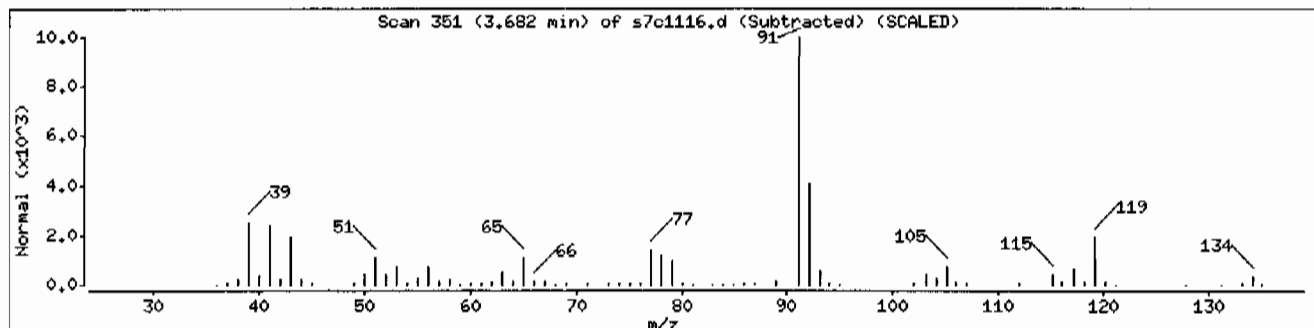
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[3.1.0]hex-3-en-2-ol, 2-methyl-5-	97631-68-0	NIST05.L	24346	64	C10H16O	152
Bicyclo[3.1.0]hex-2-ene, 4-methylene-1-(	36262-09-6	NIST05.L	14462	58	C10H14	134
Benzene, butyl-	104-51-8	NIST05.L	14339	58	C10H14	134



Date: 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 1248043016195962311SVH111LANL

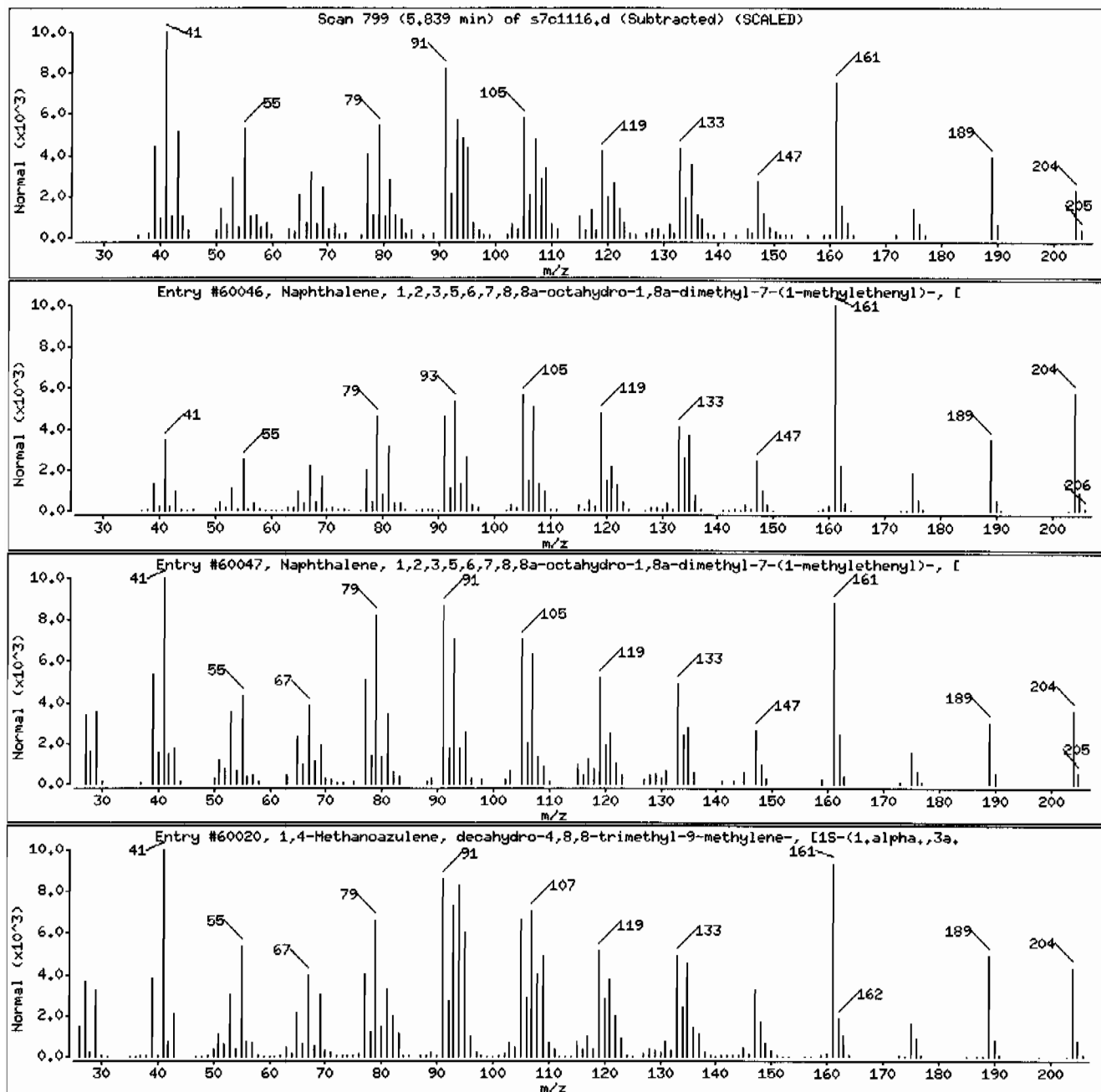
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60046	98	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60047	98	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60020	97	C15H24	204



Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: I248043016195962311SVMI11LANL

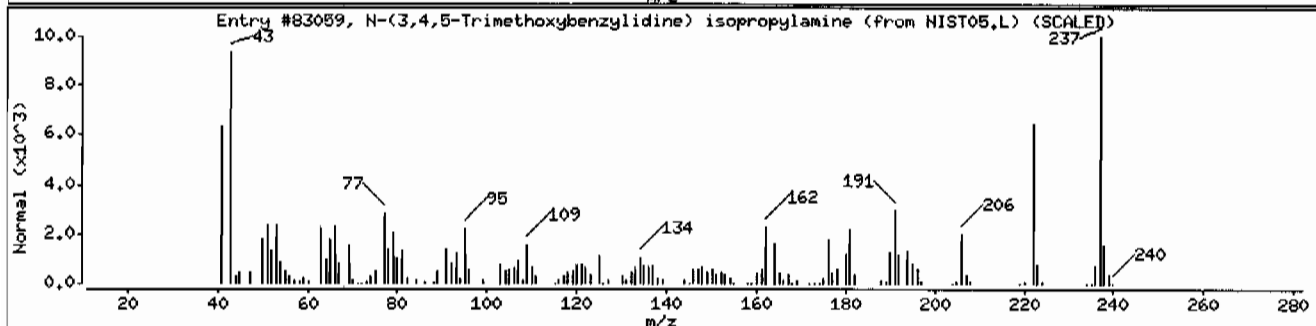
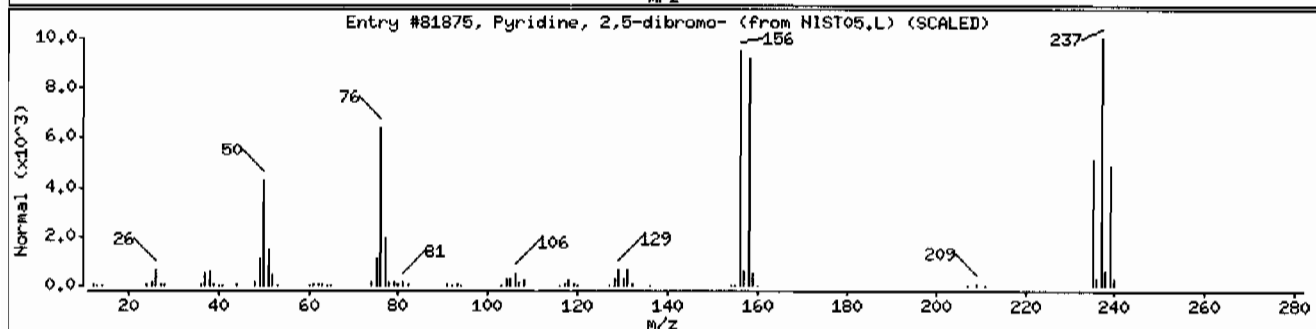
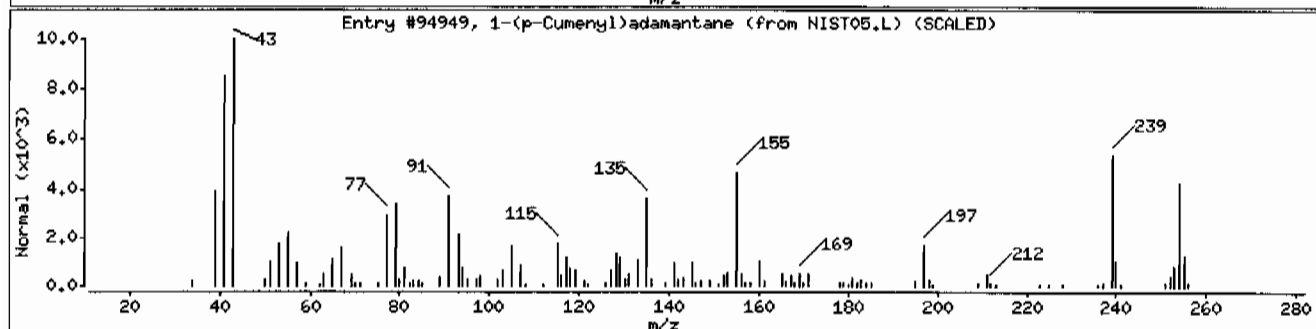
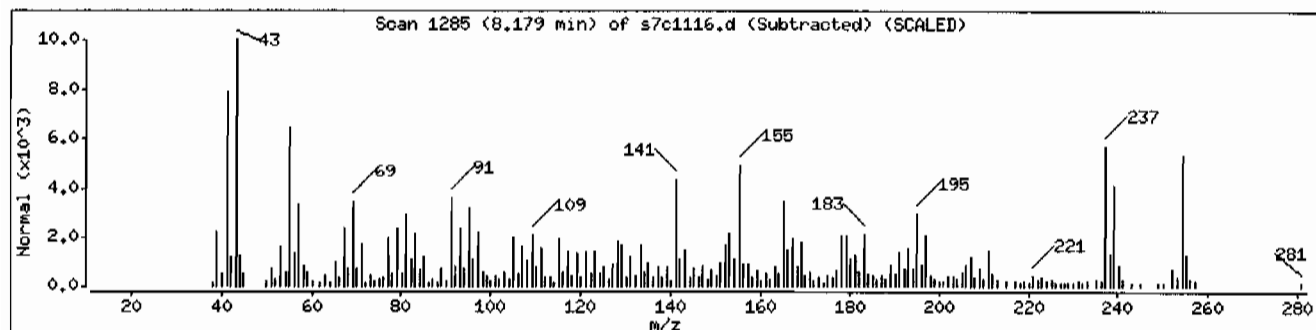
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-(p-Cumenyl)adamantane	51812-98-7	NIST05.L	94949	42	C <sub>19</sub> H <sub>26</sub>	254
Pyridine, 2,5-dibromo-	624-28-2	NIST05.L	81875	35	C <sub>5</sub> H <sub>3</sub> Br <sub>2</sub> N	235
N-(3,4,5-Trimethoxybenzylidene) isopropyl	35967-21-6	NIST05.L	83059	25	C <sub>13</sub> H <sub>19</sub> NO <sub>3</sub>	237



Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 1248043016195962311SVMI11LANL

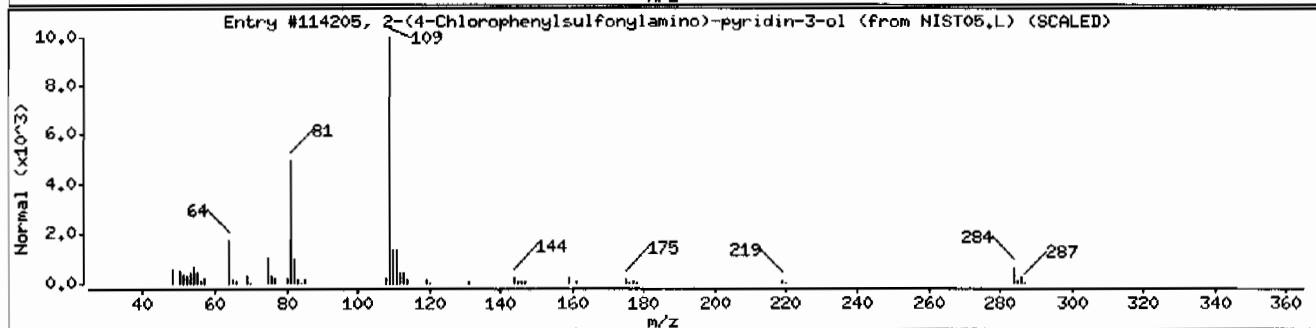
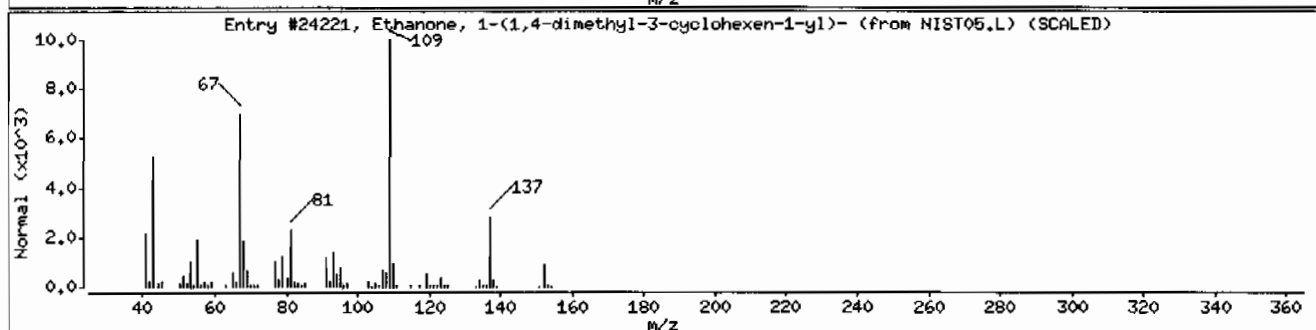
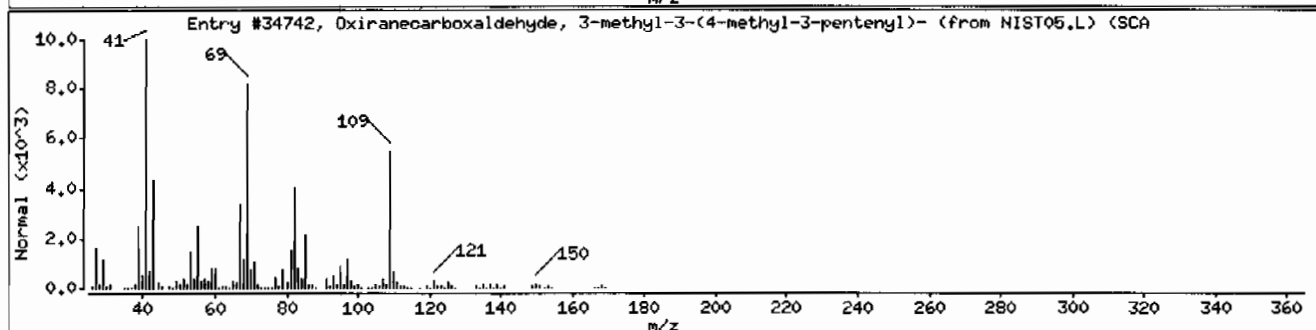
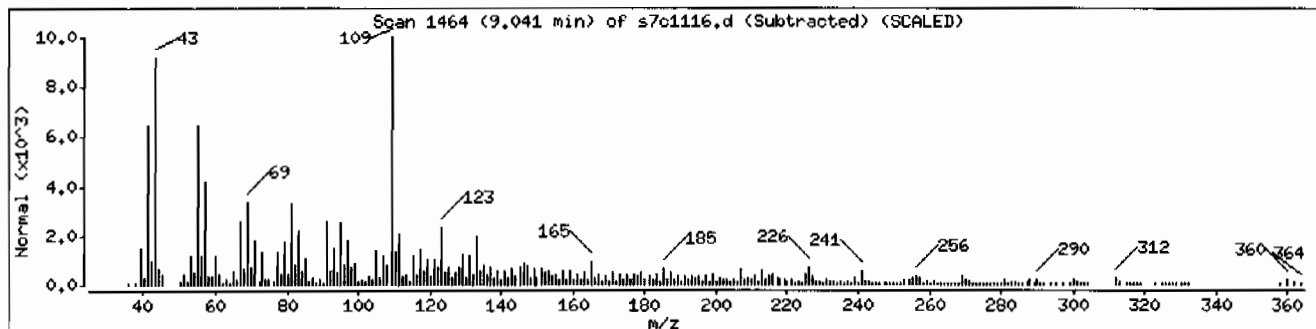
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Oxiranecarboxaldehyde, 3-methyl-3-(4-met	16996-12-6	NIST05.L	34742	38	C10H16O2	168
Ethanone, 1-(1,4-dimethyl-3-cyclohexen-1	43219-68-7	NIST05.L	24221	35	C10H16O	152
2-(4-Chlorophenylsulfonylamino)-pyridin-	296772-59-3	NIST05.L	114205	35	C11H9ClN2O3S	284



Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 1248043016195962311ISVH11ILANL

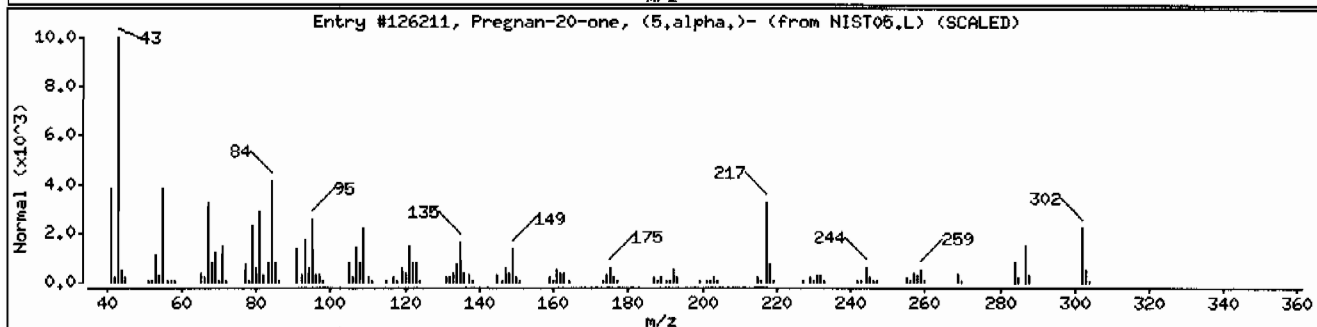
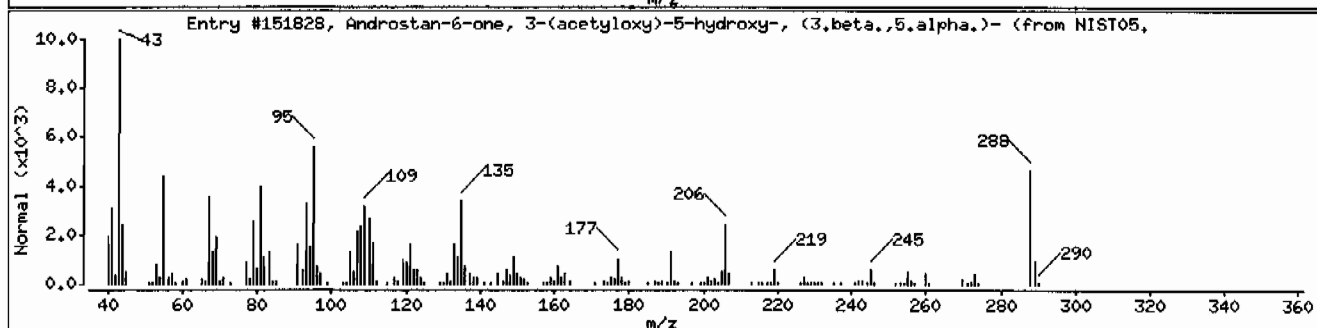
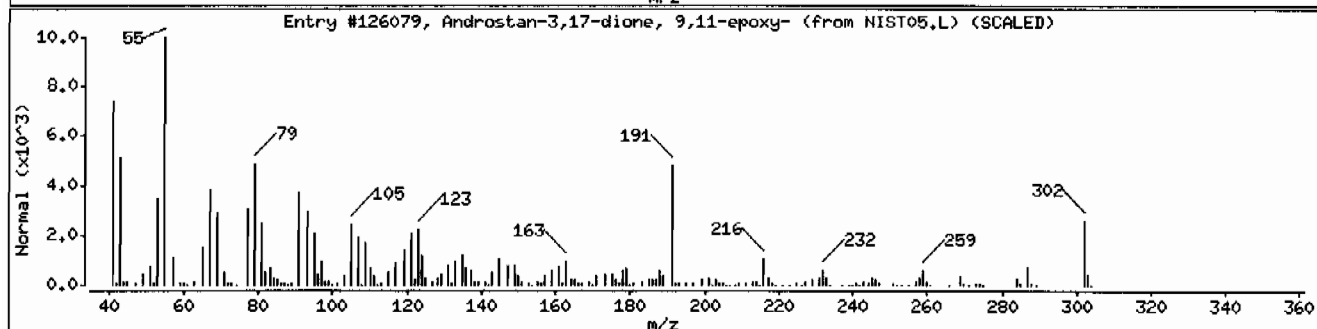
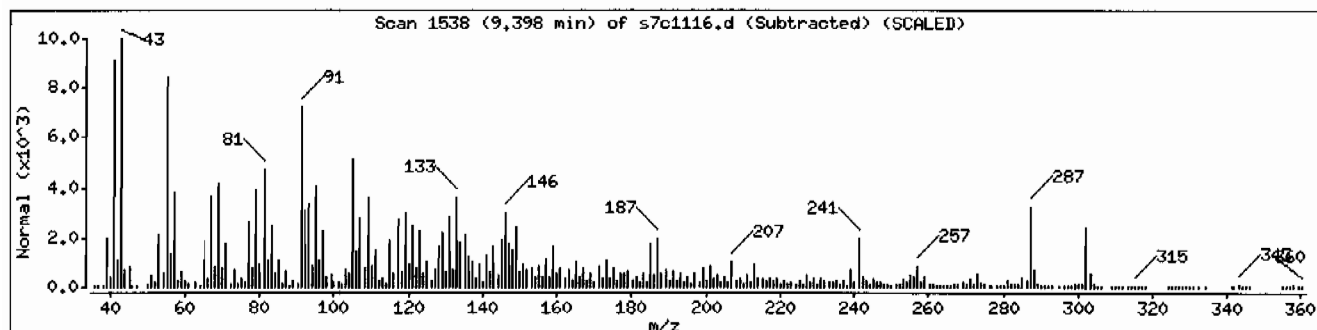
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Androstan-3,17-dione, 9,11-epoxy-	1000128-33-8	NIST05.L	126079	15	C19H26O3	302
Androstan-6-one, 3-(acetyloxy)-5-hydroxy	4725-53-5	NIST05.L	151828	12	C21H32O4	348
Pregnan-20-one, (5.alpha.)-	848-62-4	NIST05.L	126211	10	C21H34O	302



Date: 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 1248043016195962311SVMI11LANL

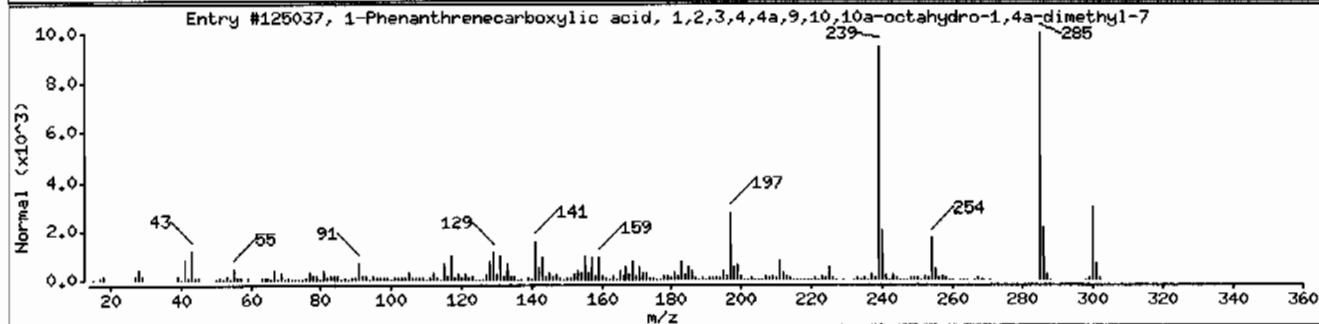
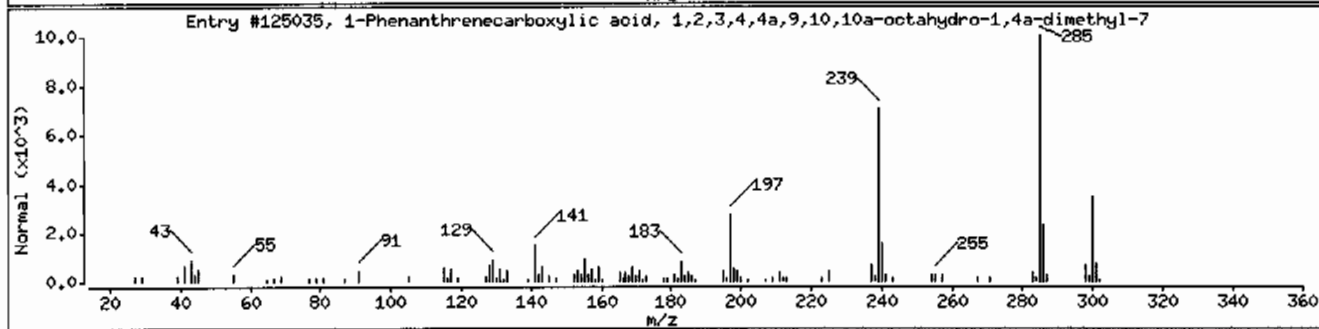
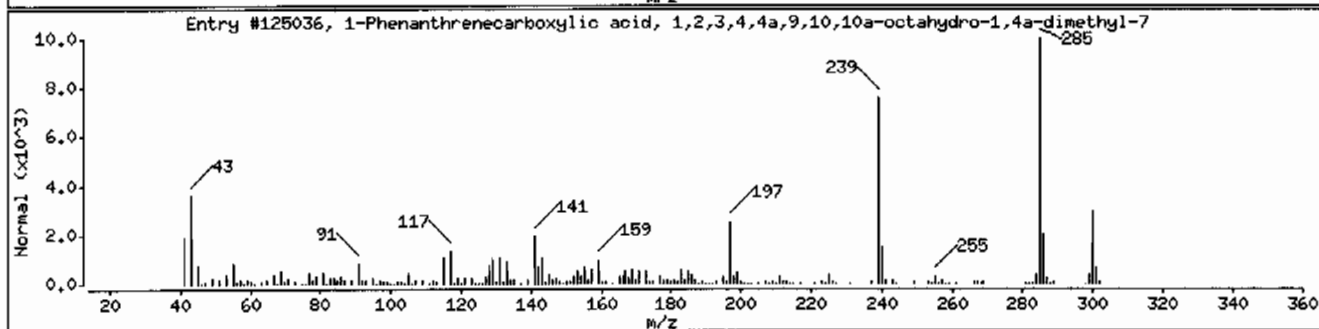
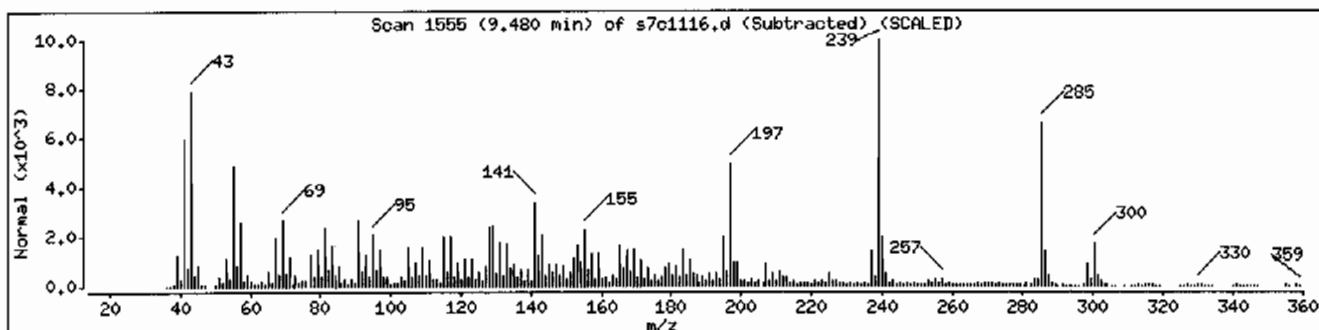
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125036	97	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	5155-70-4	NIST05.L	125035	95	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125037	91	C20H28O2	300



Date: 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 1248043016195962311SVMI11LANL

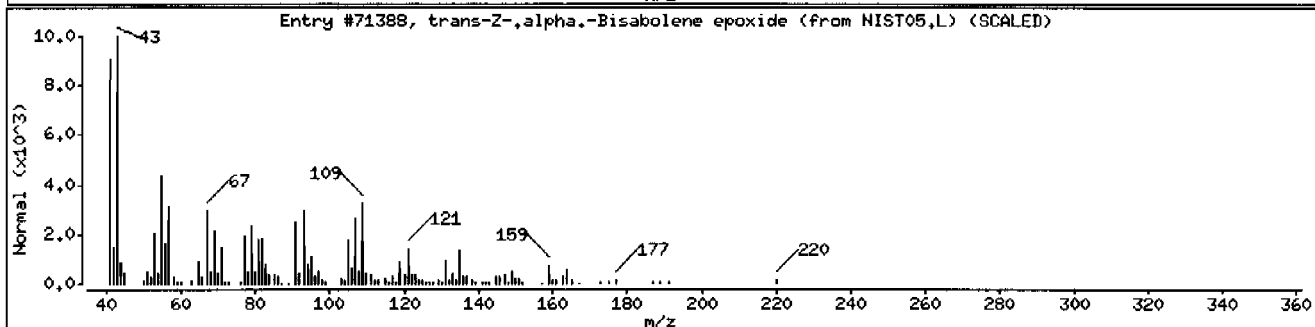
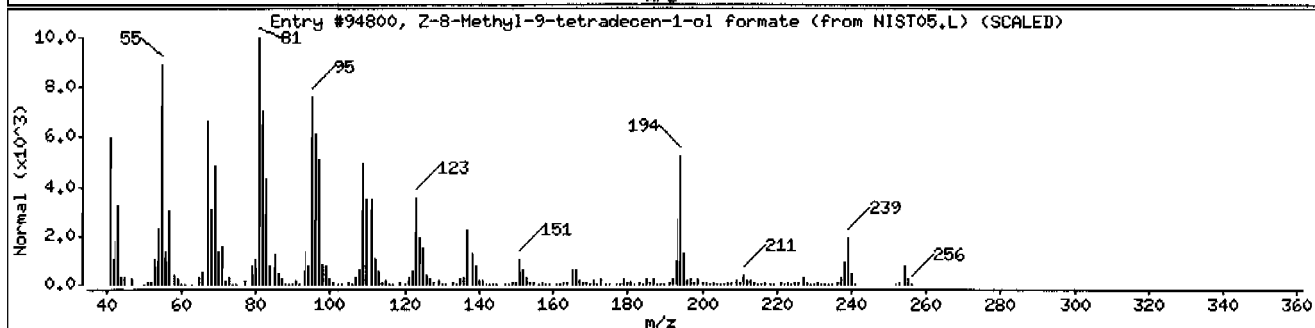
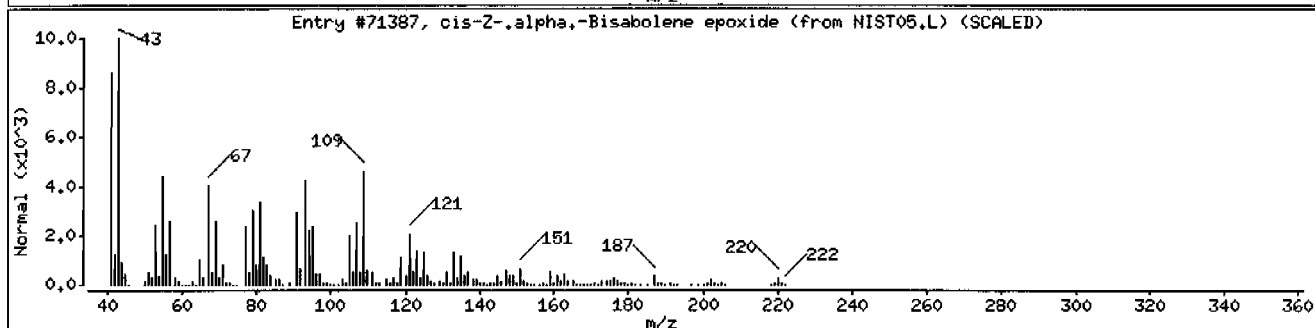
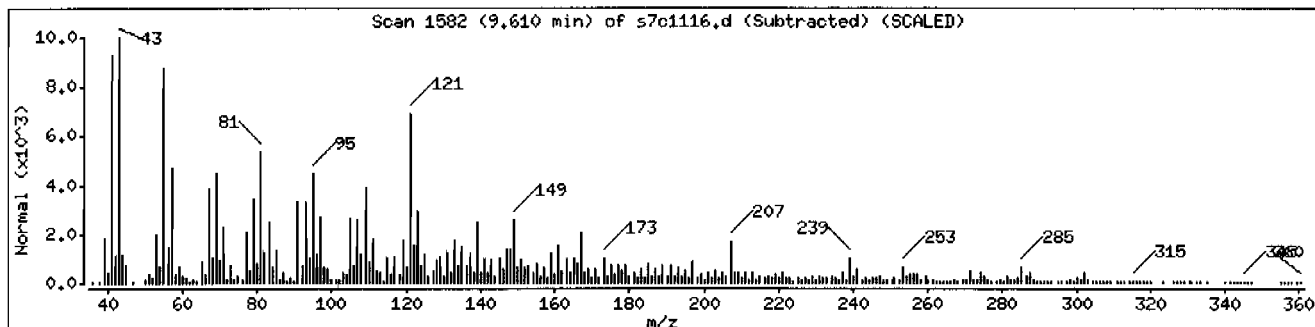
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
cis-Z-.alpha.-Bisabolene epoxide	1000131-71-2	NIST05.L	71387	66	C15H24O	220
Z-8-Methyl-9-tetradecen-1-ol formate	1000130-78-8	NIST05.L	94800	64	C16H30O2	254
trans-Z-.alpha.-Bisabolene epoxide	1000131-71-1	NIST05.L	71388	60	C15H24O	220





Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 1248043016195962311SVMI11LANL

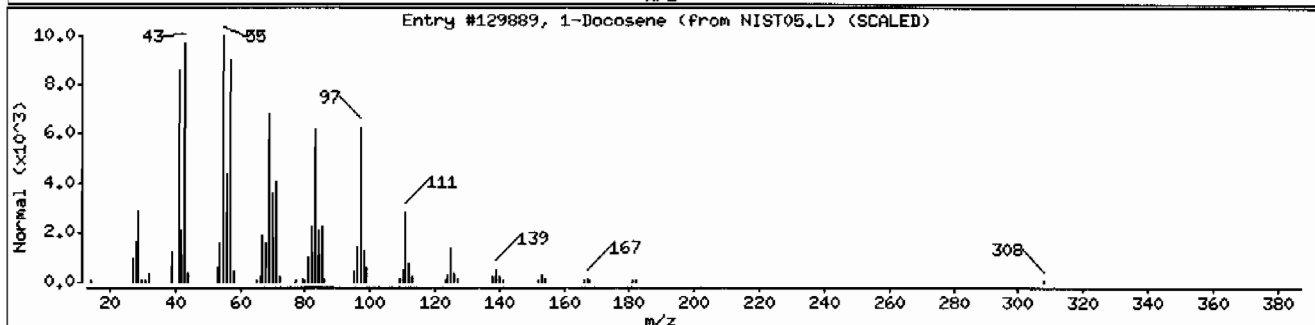
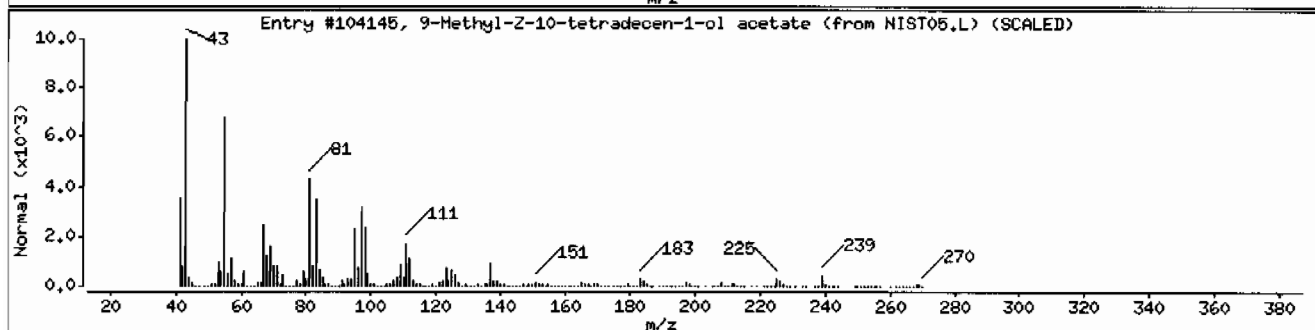
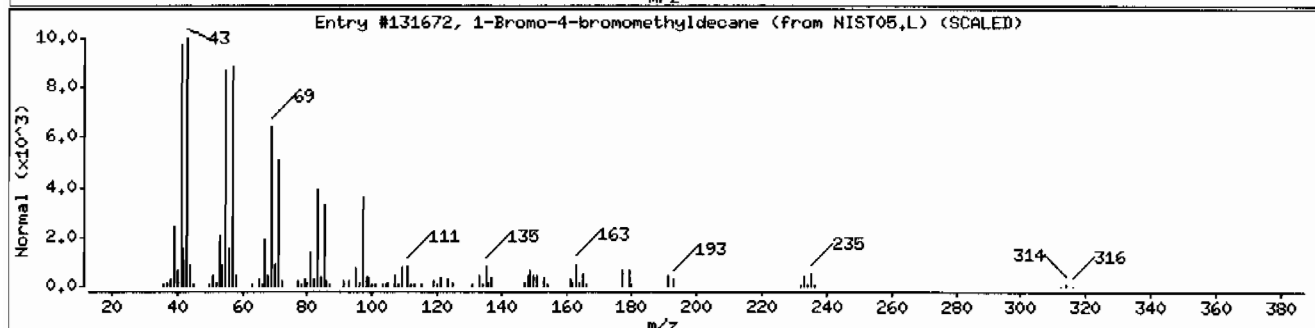
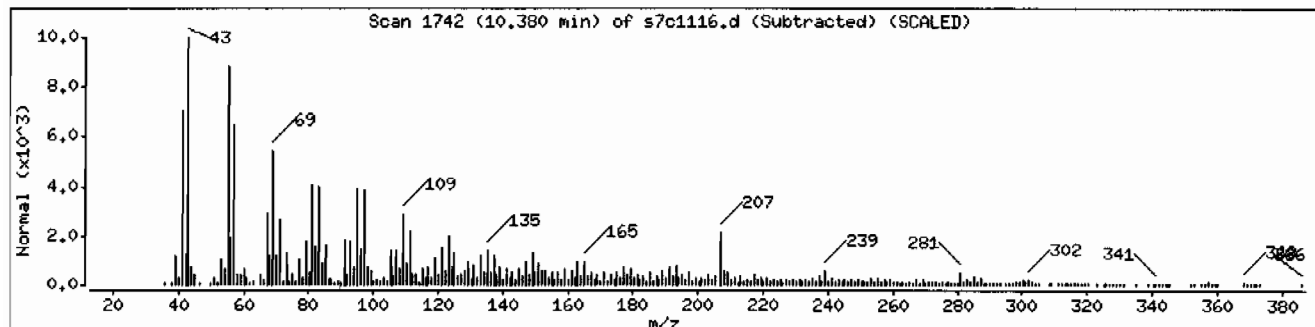
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Bromo-4-bromomethyldecane	61639-11-0	NIST05.L	131672	72	C11H22Br2	312
9-Methyl-2-10-tetradecen-1-ol acetate	1000130-99-4	NIST05.L	104145	60	C17H32O2	268
1-Docosene	1599-67-3	NIST05.L	129889	55	C22H44	308



Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 1248043016195962311ISVMI1ILANL

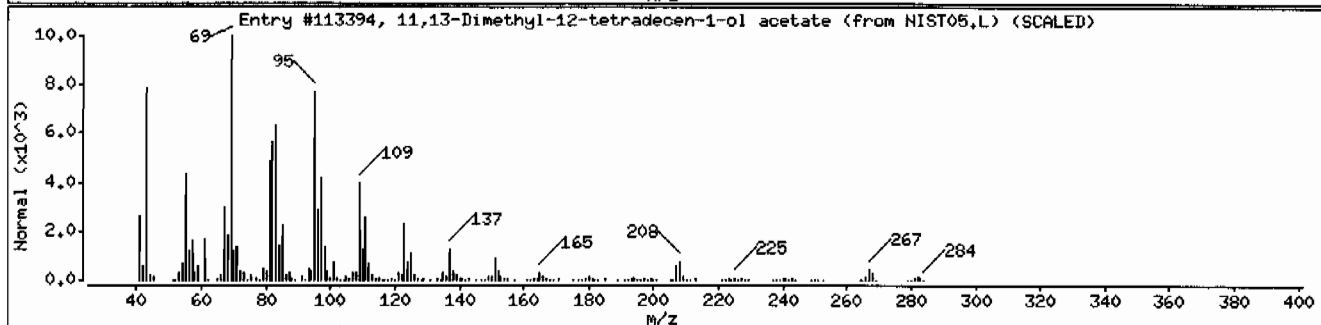
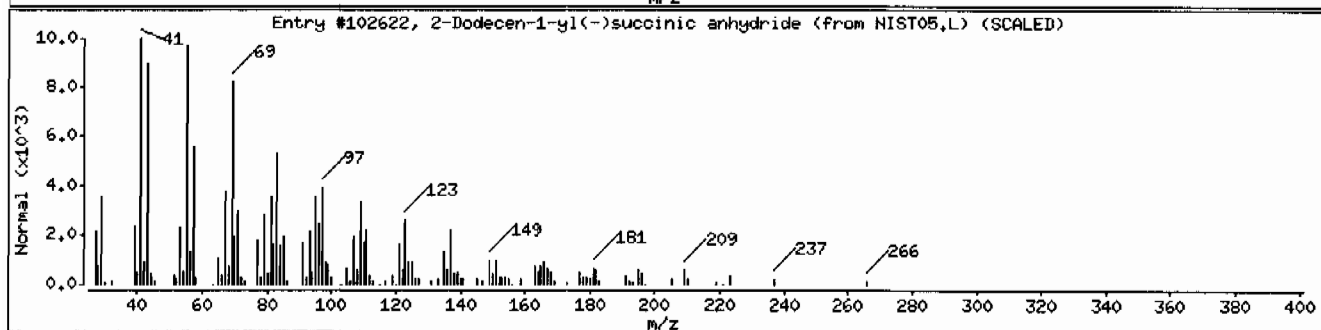
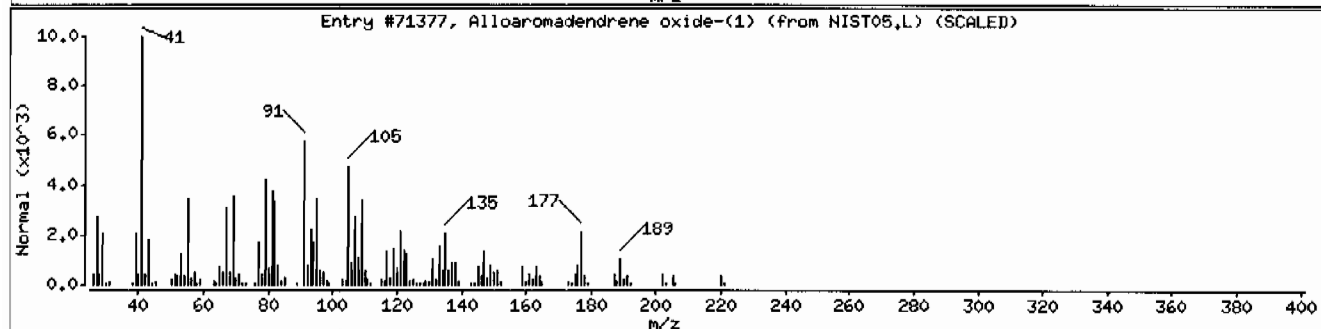
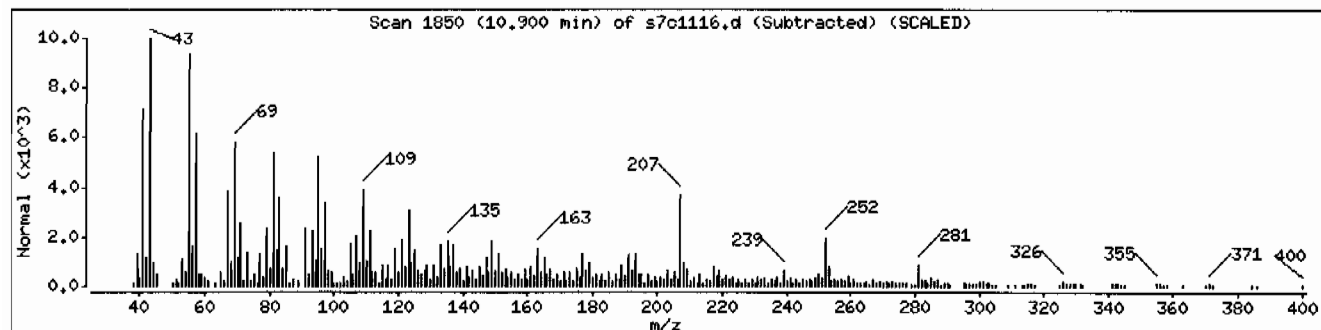
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Alloaromadendrene oxide-(1)	1000156-12-8	NIST05.L	71377	90	C15H24O	220
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	51	C16H26O3	266
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	45	C18H34O2	282



Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: HSD7.i

Sample Info: 1248043016195962311SVMI1ILANL

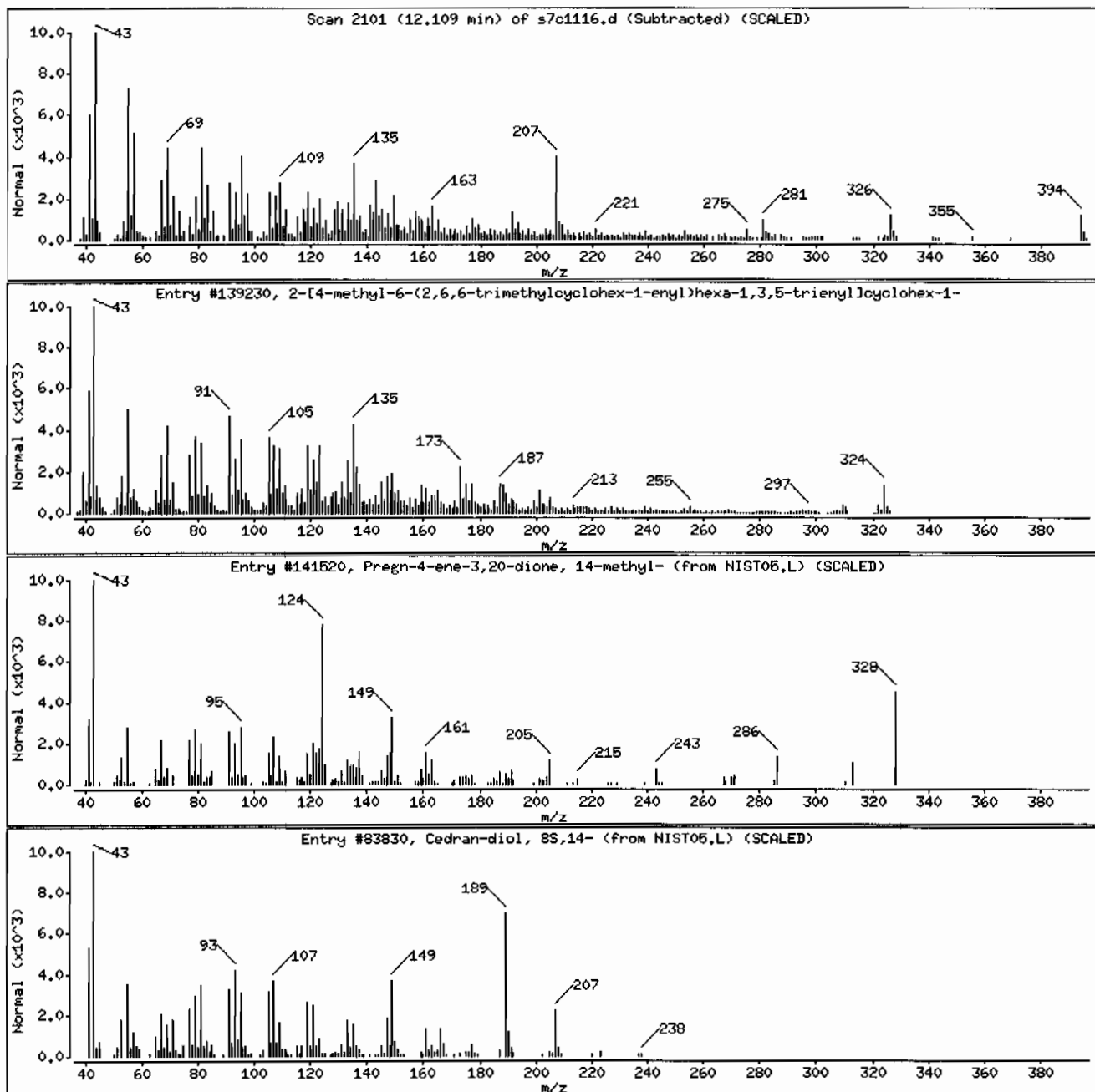
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-enyl)hexa-1,3,5-trienyl]cyclohex-1-	1000216-09-2	NIST05.L	139230	30	C23H32O	324
Pregn-4-ene-3,20-dione, 14-methyl-	55162-96-4	NIST05.L	141520	25	C22H32O2	328
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	15	C15H26O2	238



Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.1

Sample Info: 12480430161959623111SVH11ILANL

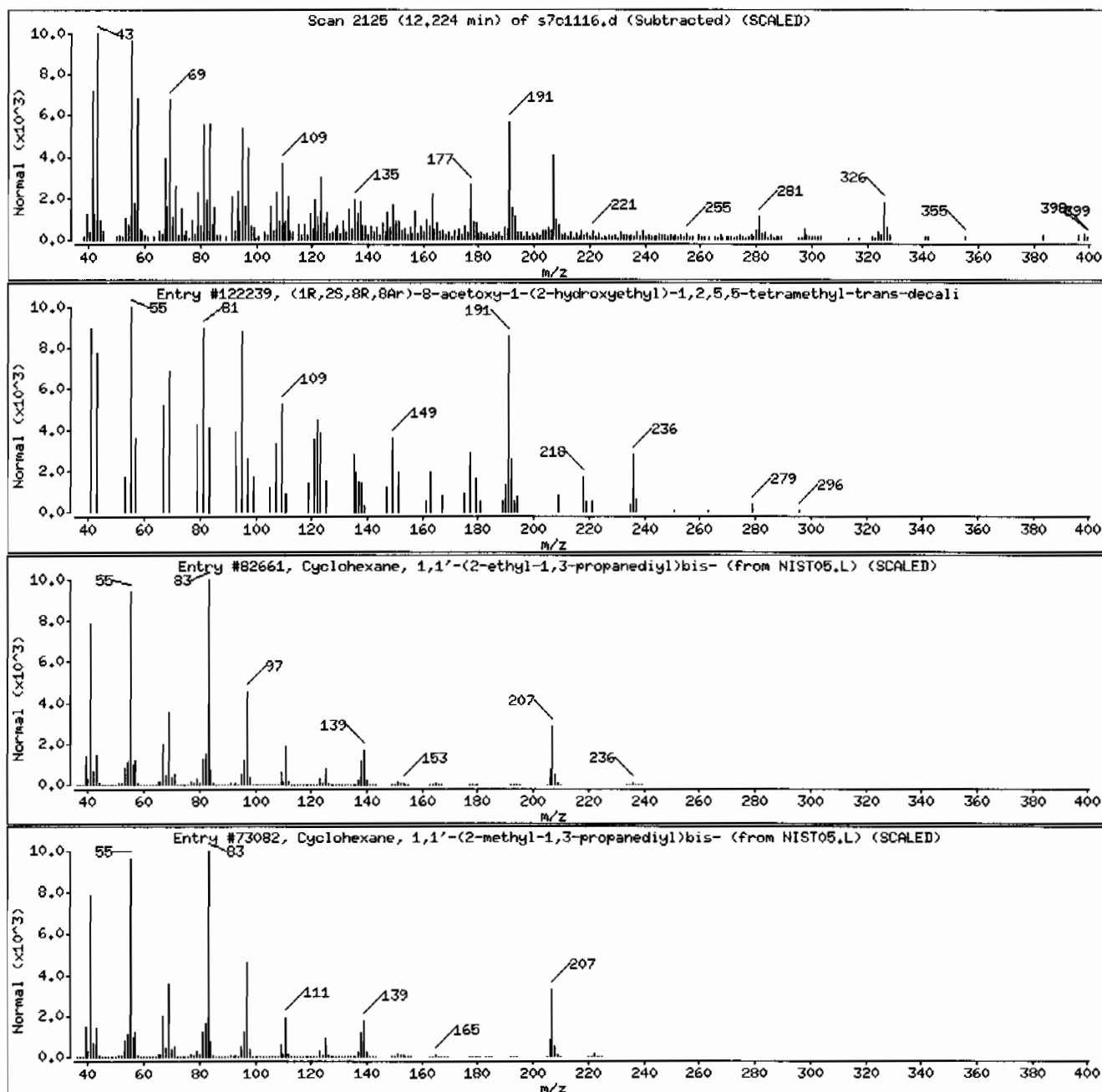
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
(1R,2S,8R,8Ar)-8-acetoxy-1-(2-hydroxyethyl)-2,5,5-tetramethyl-trans-decali	1000298-98-4	NIST05.L	122239	59	C18H32O3	296
Cyclohexane, 1,1'-(2-ethyl-1,3-propanedi	54833-34-0	NIST05.L	82661	55	C17H32	236
Cyclohexane, 1,1'-(2-methyl-1,3-propanedi	2883-08-1	NIST05.L	73082	50	C16H30	222



Date: 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 1248043016195962311ISVH11ILANL

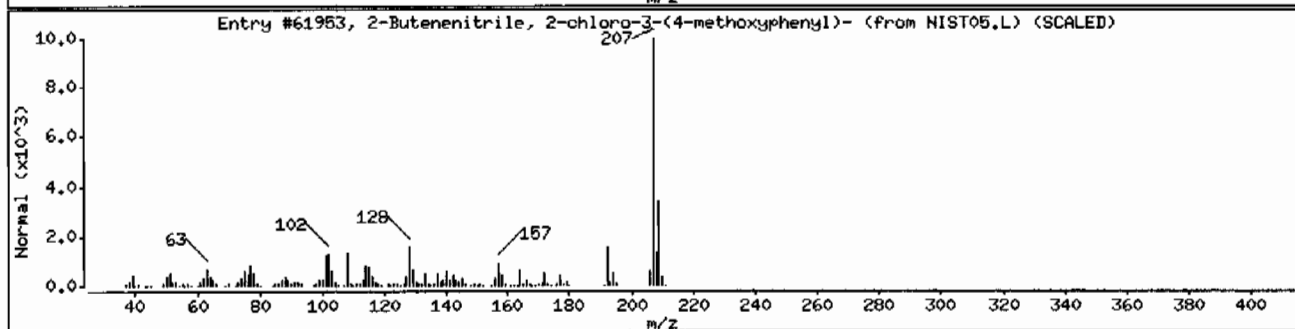
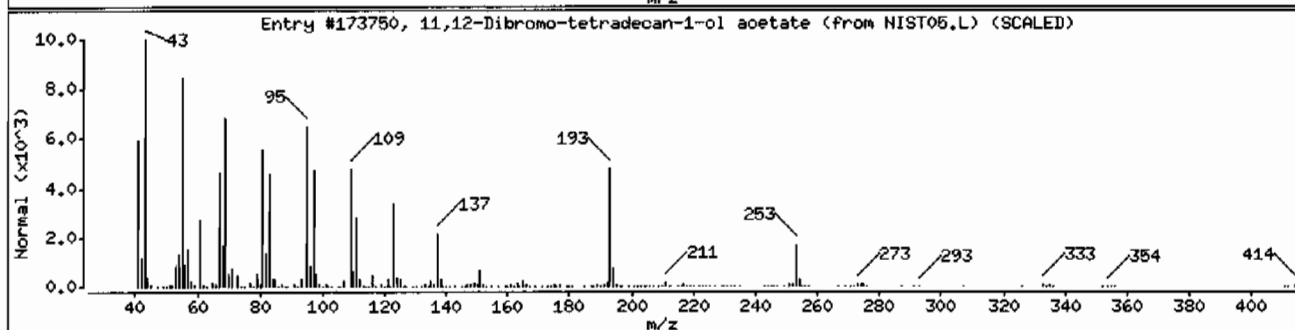
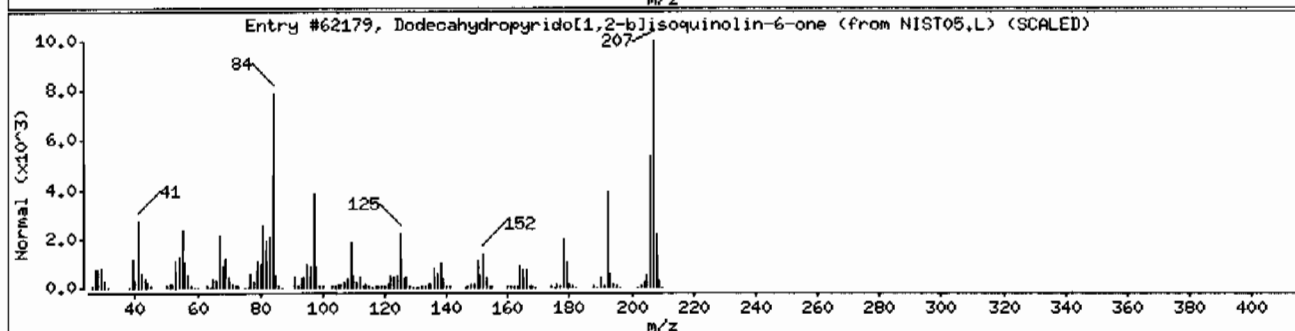
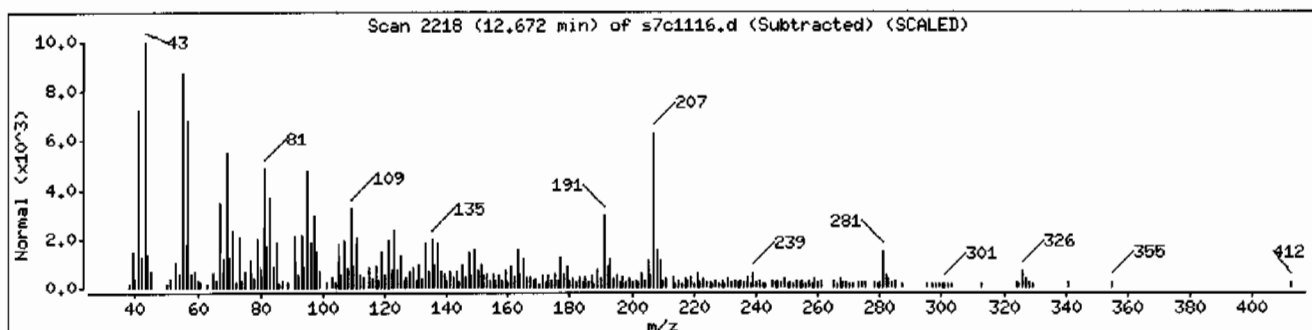
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Dodecahydropyrido[1,2-b]isoquinolin-6-one	108873-36-5	NIST05.L	62179	35	C13H21NO	207
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	35	C16H30Br2O2	412
2-Butenenitrile, 2-chloro-3-(4-methoxyph	1000305-66-7	NIST05.L	61953	25	C11H10ClNO	207



Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: MSD7.i

Sample Info: 1248043016195962311SVMI11LANL

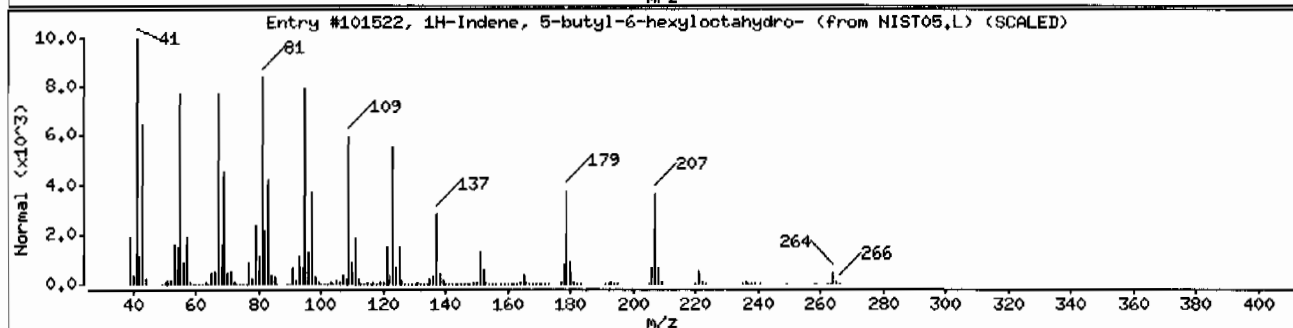
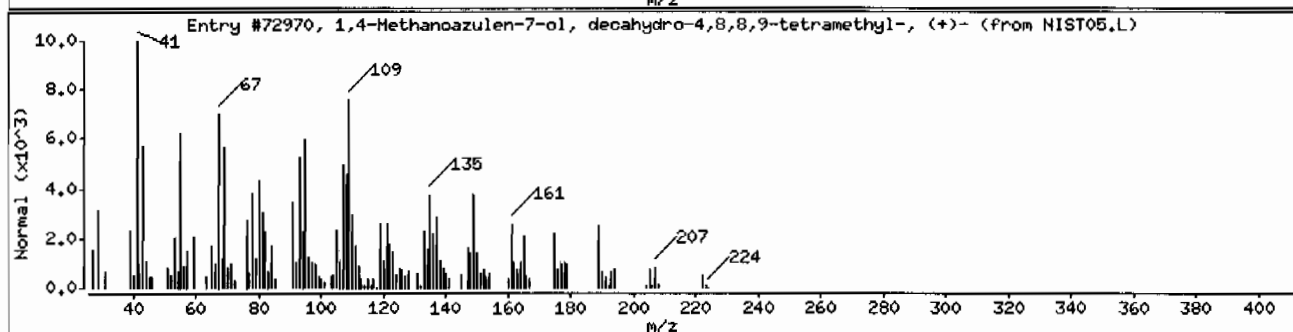
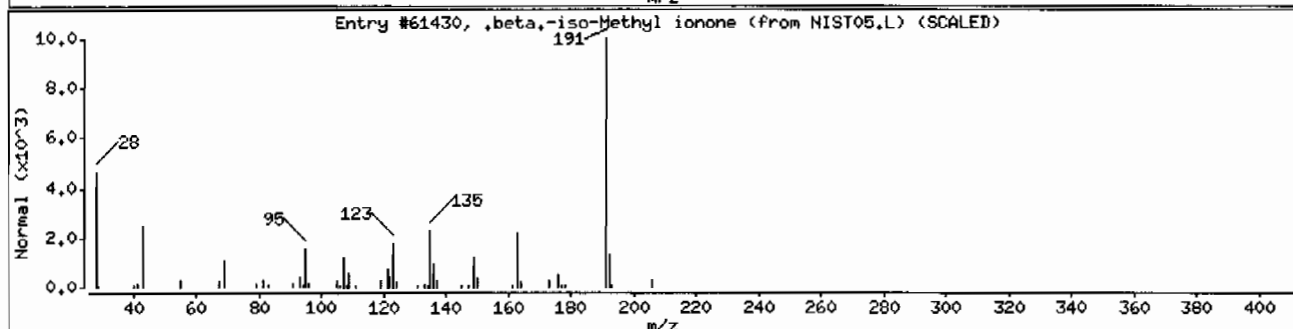
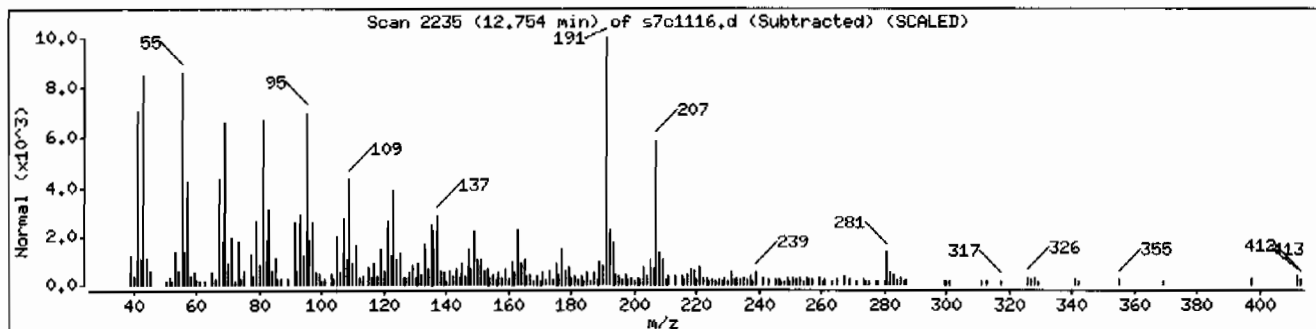
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
,beta,-iso-Methyl ionone	1000285-40-2	NIST05.L	61430	58	C14H22O	206
1,4-Methanoazulen-7-ol, decahydro-4,8,8,	18319-27-2	NIST05.L	72970	41	C15H26O	222
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	38	C19H36	264



Date: 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: HSD7.i

Sample Info: 12480430161959623111SVH111LANL

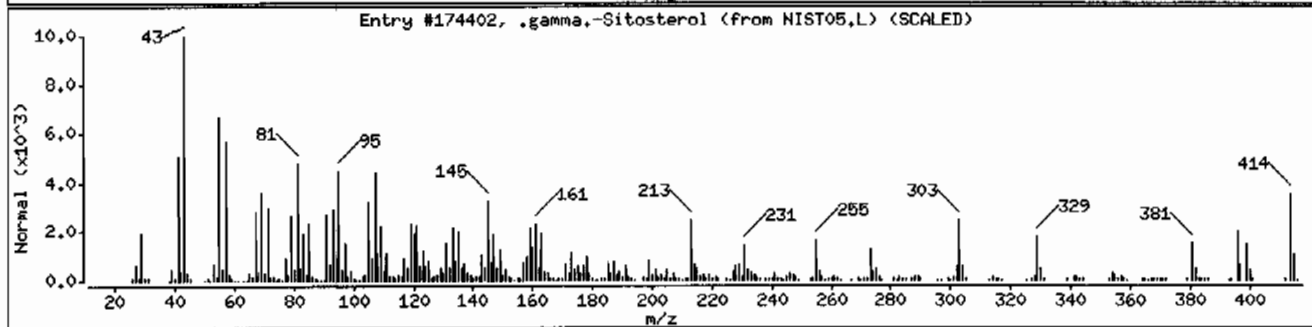
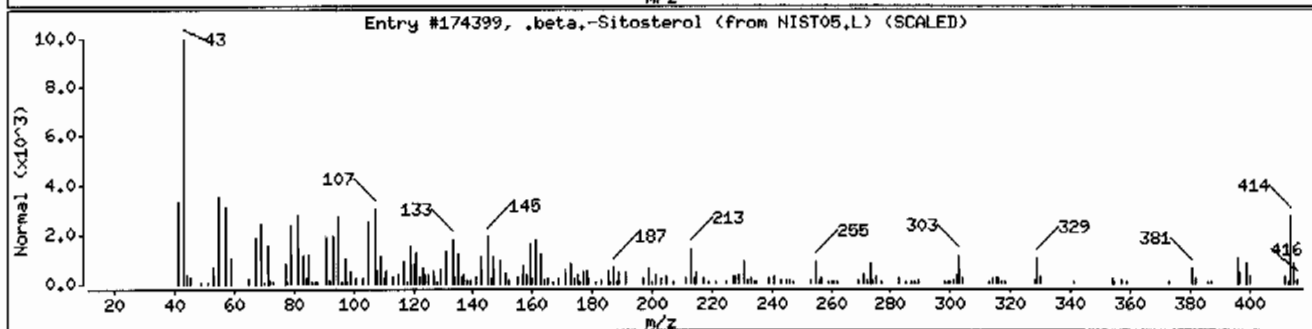
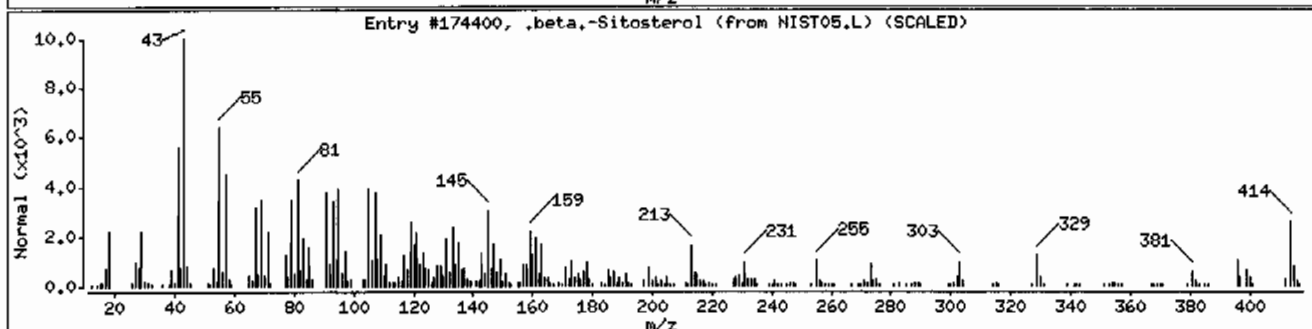
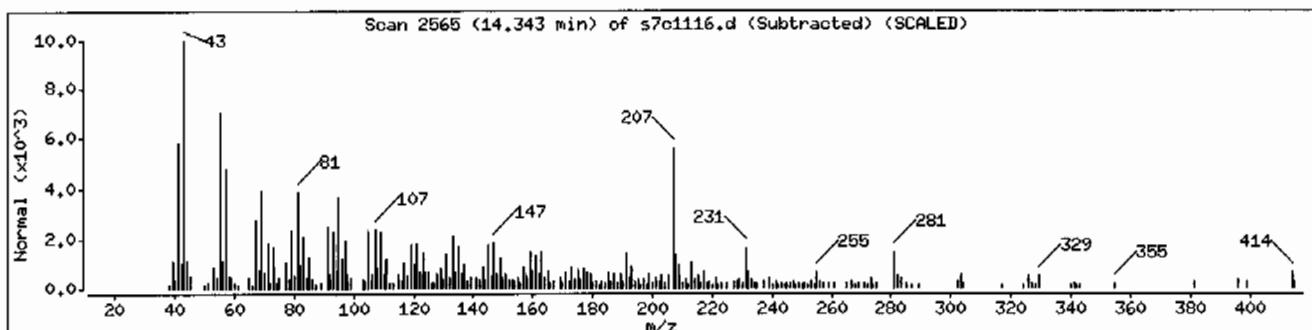
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174400	94	C <sub>29</sub> H <sub>50</sub> O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174399	91	C <sub>29</sub> H <sub>50</sub> O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	86	C <sub>29</sub> H <sub>50</sub> O	414



Date : 11-MAR-2010 18:13

Client ID: RE36-10-7469

Instrument: HSD7.i

Sample Info: I248043016195962311SVH111LANL

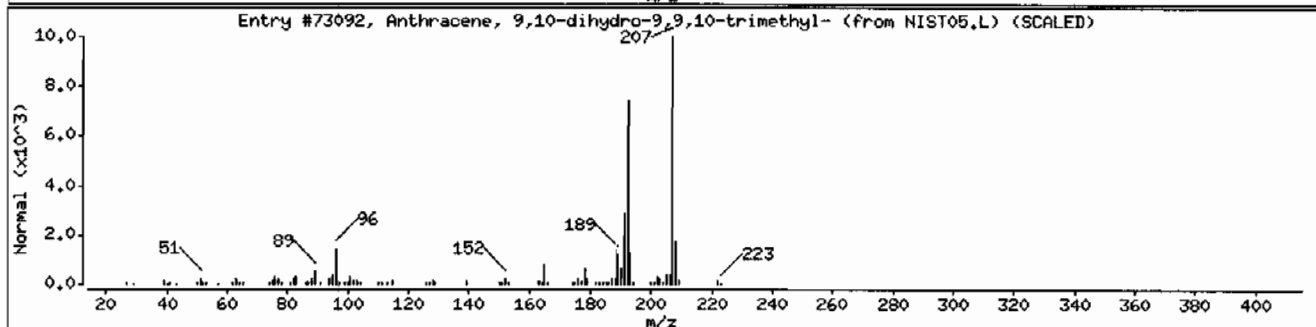
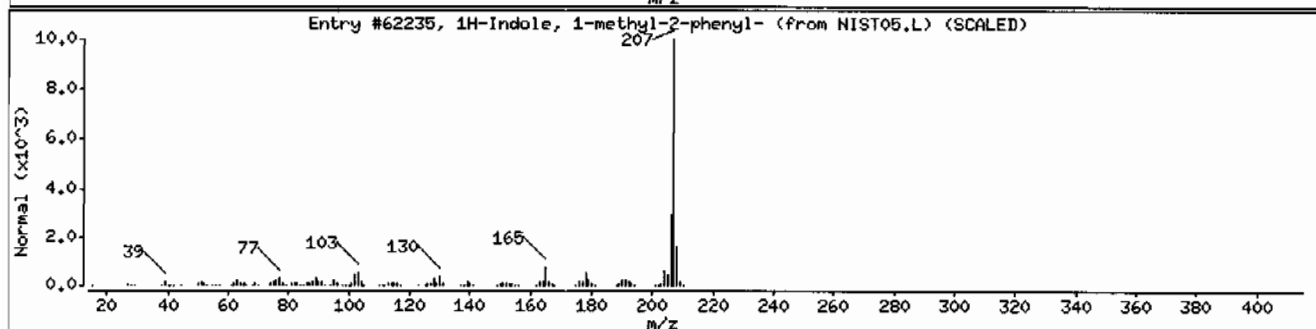
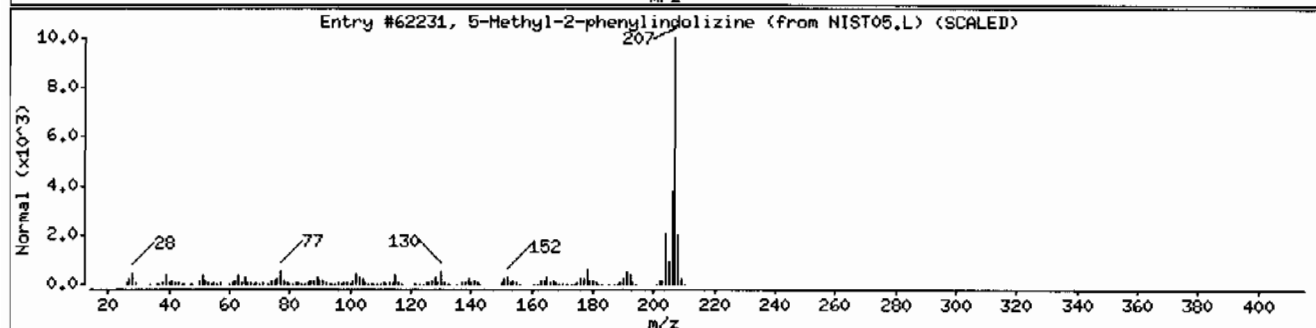
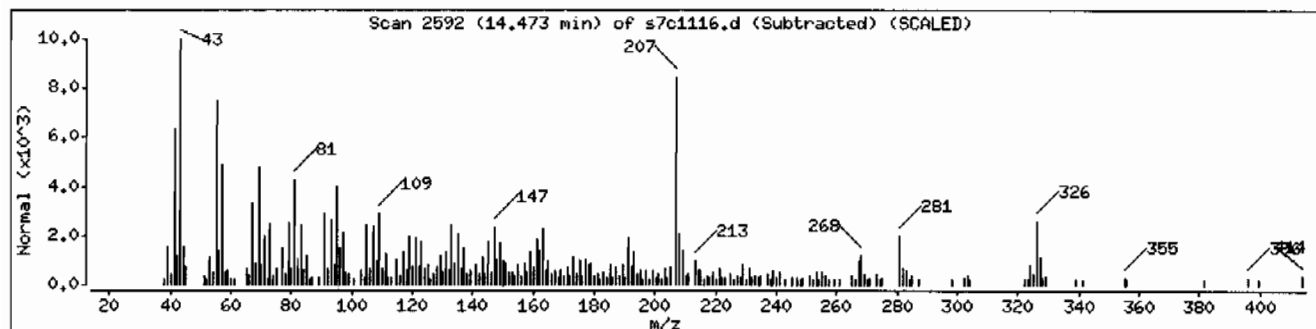
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
5-Methyl-2-phenylindolizine	36944-99-7	NIST05.L	62231	30	C15H13N	207
1H-Indole, 1-methyl-2-phenyl-	3558-24-5	NIST05.L	62235	27	C15H13N	207
Anthracene, 9,10-dihydro-9,9,10-trimethyl-	14923-29-6	NIST05.L	73092	27	C17H18	222





Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 3

SDG Number: 10-2074  
Lab Sample ID: 248043017

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 14.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	389	ug/kg	77.8	389
108-95-2	Phenol	U	389	ug/kg	77.8	389
95-57-8	2-Chlorophenol	U	389	ug/kg	77.8	389
106-46-7	1,4-Dichlorobenzene	U	389	ug/kg	77.8	389
621-64-7	N-Nitrosodipropylamine	U	389	ug/kg	77.8	389
59-50-7	4-Chloro-3-methylphenol	U	389	ug/kg	77.8	389
83-32-9	Acenaphthene		93.1	ug/kg	12.8	38.9
121-14-2	2,4-Dinitrotoluene	U	389	ug/kg	38.9	389
100-02-7	4-Nitrophenol	U	389	ug/kg	128	389
87-86-5	Pentachlorophenol	U	389	ug/kg	97.2	389
129-00-0	Pyrene		453	ug/kg	11.7	38.9
110-86-1	Pyridine	U	389	ug/kg	77.8	389
62-53-3	Aniline	U	389	ug/kg	117	389
111-44-4	bis(2-Chloroethyl) ether	U	389	ug/kg	77.8	389
541-73-1	1,3-Dichlorobenzene	U	389	ug/kg	77.8	389
100-51-6	Benzyl alcohol	U	389	ug/kg	117	389
95-50-1	1,2-Dichlorobenzene	U	389	ug/kg	77.8	389
108-60-1	bis(2-Chloroisopropyl)ether	U	389	ug/kg	77.8	389
95-48-7	o-Cresol	U	389	ug/kg	77.8	389
65794-96-9	m,p-Cresols	U	389	ug/kg	117	389
67-72-1	Hexachloroethane	U	389	ug/kg	77.8	389
98-95-3	Nitrobenzene	U	389	ug/kg	77.8	389
78-59-1	Isophorone	U	389	ug/kg	77.8	389
88-75-5	2-Nitrophenol	U	389	ug/kg	77.8	389
105-67-9	2,4-Dimethylphenol	U	389	ug/kg	136	389
111-91-1	bis(2-Chloroethoxy)methane	U	389	ug/kg	77.8	389
120-83-2	2,4-Dichlorophenol	U	389	ug/kg	77.8	389
65-85-0	Benzoic acid	U	778	ug/kg	194	778
91-20-3	Naphthalene	J	37.0	ug/kg	11.7	38.9
106-47-8	4-Chloroaniline	U	389	ug/kg	77.8	389
87-68-3	Hexachlorobutadiene	U	389	ug/kg	77.8	389
91-57-6	2-Methylnaphthalene	J	22.7	ug/kg	7.78	38.9
77-47-4	Hexachlorocyclopentadiene	U	389	ug/kg	77.8	389
88-06-2	2,4,6-Trichlorophenol	U	389	ug/kg	77.8	389
95-95-4	2,4,5-Trichlorophenol	U	389	ug/kg	77.8	389
91-58-7	2-Chloronaphthalene	U	38.9	ug/kg	12.8	38.9
88-74-4	2-Nitroaniline	U	389	ug/kg	77.8	389
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	389	ug/kg	77.8	389

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043017

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 14.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	389	ug/kg	77.8	389
606-20-2	2,6-Dinitrotoluene	U	389	ug/kg	38.9	389
208-96-8	Acenaphthylene	U	38.9	ug/kg	11.7	38.9
51-28-5	2,4-Dinitrophenol	U	778	ug/kg	148	778
132-64-9	Dibenzofuran	U	389	ug/kg	77.8	389
84-66-2	Diethylphthalate	U	389	ug/kg	77.8	389
86-73-7	Fluorene		112	ug/kg	11.7	38.9
7005-72-3	4-Chlorophenylphenylether	U	389	ug/kg	77.8	389
534-52-1	2-Methyl-4,6-dinitrophenol	U	389	ug/kg	77.8	389
100-01-6	4-Nitroaniline	U	389	ug/kg	117	389
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	389	ug/kg	77.8	389
122-66-7	Azobenzene	U	389	ug/kg	77.8	389
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	389	ug/kg	77.8	389
118-74-1	Hexachlorobenzene	U	389	ug/kg	77.8	389
85-01-8	Phenanthrene		762	ug/kg	11.7	38.9
120-12-7	Anthracene		158	ug/kg	7.78	38.9
84-74-2	Di-n-butylphthalate	U	389	ug/kg	77.8	389
206-44-0	Fluoranthene		614	ug/kg	11.7	38.9
85-68-7	Butylbenzylphthalate	U	389	ug/kg	77.8	389
56-55-3	Benzo(a)anthracene		237	ug/kg	11.7	38.9
91-94-1	3,3'-Dichlorobenzidine	U	389	ug/kg	117	389
218-01-9	Chrysene		255	ug/kg	11.7	38.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	389	ug/kg	77.8	389
117-84-0	Di-n-octylphthalate	U	389	ug/kg	77.8	389
205-99-2	Benzo(b)fluoranthene		325	ug/kg	11.7	38.9
207-08-9	Benzo(k)fluoranthene	U	38.9	ug/kg	11.7	38.9
50-32-8	Benzo(a)pyrene		208	ug/kg	11.7	38.9
193-39-5	Indeno(1,2,3-cd)pyrene		146	ug/kg	11.7	38.9
53-70-3	Dibenzo(a,h)anthracene		51.4	ug/kg	11.7	38.9
191-24-2	Benzo(ghi)perylene		161	ug/kg	11.7	38.9
120-82-1	1,2,4-Trichlorobenzene	U	389	ug/kg	77.8	389

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	436	ug/kg		J
	Unknown	3.68	274	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043017	Date Received: 02/25/2010 08:45	%Moisture: 14.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7470	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 18:35	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.03 g	Final Volume: 1 mL
Data File: s7c1117.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.84	220	ug/kg	99	NJ
120-08-1	2H-1-Benzopyran-2-one, 6,7-dimethoxy-	7.83	210	ug/kg	95	NJ
	Unknown	8.18	158	ug/kg		J
	Unknown	9.03	160	ug/kg		J
	Unknown	9.4	546	ug/kg		J
5155-70-4	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.49	698	ug/kg	99	NJ
1000140-92-3	(1S,2E,4S,5R,7E,11E)-Cembra-2,7,11-trien	9.62	389	ug/kg	89	NJ
	Unknown	10.11	162	ug/kg		J
97094-19-4	Corymbolone	10.22	190	ug/kg	91	NJ
30658-62-9	Cholest-23-ene, (5.beta.)-	10.3	330	ug/kg	92	NJ
1000259-58-5	Pentadec-7-ene, 7-bromomethyl-	10.56	161	ug/kg	83	NJ
	Unknown	11.55	199	ug/kg		J
2097-85-0	Cholestan-3-one, 4,4-dimethyl-, (5.alpha	11.86	157	ug/kg	94	NJ
	Unknown	12.12	672	ug/kg		J
36728-72-0	28-Nor-17.beta.(H)-hopane	12.24	426	ug/kg	93	NJ
	Unknown	12.31	661	ug/kg		J
	Unknown	12.68	228	ug/kg		J
	Unknown	12.77	498	ug/kg		J
	Unknown	13.04	666	ug/kg		J
	Unknown	13.48	186	ug/kg		J
83-46-5	.beta.-Sitosterol	14.12	1000	ug/kg	93	NJ
	Unknown	14.36	169	ug/kg		J

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Data file : /chem/MSD7.i/s031110.b/s7c1117.d  
Lab Smp Id: 248043017 Client Smp ID: RE36-10-7470  
Inj Date : 11-MAR-2010 18:35  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043017|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 17  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	14.36960	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.990	3.990	(1.000)	387010	40.0000	
* 29 Naphthalene-d8	136	4.857	4.857	(1.000)	1467549	40.0000	
* 46 Acenaphthene-d10	164	6.109	6.114	(1.000)	821399	40.0000	
* 67 Phenanthrene-d10	188	7.284	7.284	(1.000)	1440281	40.0000	
* 91 Chrysene-d12	240	9.696	9.691	(1.000)	1089337	40.0000	
* 98 Perylene-d12	264	11.405	11.386	(1.000)	806553	40.0000	
\$ 3 2-Fluorophenol	112	3.191	3.181	(0.800)	476872	47.4061	1840
\$ 5 Phenol-d5	99	3.711	3.706	(0.930)	601191	47.6675	1850
\$ 20 Nitrobenzene-d5	82	4.351	4.356	(0.896)	277388	25.0606	974
\$ 39 2-Fluorobiphenyl	172	5.593	5.598	(0.916)	586890	28.6699	1110
\$ 60 2,4,6-Tribromophenol	329	6.711	6.711	(1.099)	152055	64.0351	2490
\$ 81 p-Terphenyl-d14	244	8.661	8.656	(0.893)	592897	30.3805	1180

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
47 Acenaphthene	154	6.133	6.138	(1.004)	43268	2.39324	93.1
79 Pyrene	202	8.560	8.560	(0.883)	400500	11.6377	452
30 Naphthalene	128	4.871	4.876	(1.003)	26391	0.95198	37.0(aQ)
34 2-Methylnaphthalene	142	5.353	5.353	(1.102)	11589	0.58248	22.6(a)
53 Fluorene	166	6.518	6.528	(1.067)	61556	2.88723	112
68 Phenanthrene	178	7.303	7.308	(1.003)	579237	19.5984	762
69 Anthracene	178	7.346	7.351	(1.009)	121612	4.06282	158
76 Fluoranthene	202	8.343	8.343	(1.145)	507041	15.7782	614
89 Benzo(a)anthracene	228	9.686	9.677	(0.999)	159388	6.10342	237
92 Chrysene	228	9.720	9.715	(1.002)	152258	6.55210	255
95 Benzo(b)fluoranthene	252	10.881	10.861	(0.954)	189020	8.35665	325
97 Benzo(a)pyrene	252	11.324	11.309	(0.993)	99021	5.33898	208
99 Indeno(1,2,3-cd)pyrene	276	13.187	13.168	(1.156)	50158	3.76085	146
100 Dibenzo(a,h)anthracene	278	13.197	13.182	(1.157)	13971	1.32187	51.4
101 Benzo(ghi)perylene	276	13.741	13.712	(1.205)	46054	4.14061	161

#### QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.

## ION RATIO REPORT

## SV REPORT

Data file: s7c1117.d

Report Date: 03/12/2010 08:16

Lab. ID: 248043017

SampleType: SAMPLE

Injection Date: 11-MAR-2010 18:35

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043017|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	34792	3.71	3.78	80-120	100	(T)
93	8648	3.68	3.78	206-266	25	(QT)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	38540	4.35	4.24	80-120	100	(T)
42	29298	4.35	4.23	61-121	76	(T)
-----						
30 Naphthalene		CAS#: 91-20-3				
128	26391	4.87	4.88	80-120	100	( )
129	3235	4.87	4.88	0- 42	12	( )
127	3495	4.87	4.89	19- 79	13	(Q)
-----						
34 2-Methylnaphthalene		CAS#: 91-57-6				
142	11589	5.35	5.35	80-120	100	( )
141	10540	5.35	5.35	54-114	91	( )
-----						
43 Dimethylphthalate		CAS#: 131-11-3				
163	143905	6.11	5.87	80-120	100	(T)
164	821425	6.11	5.87	0- 40	571	(QT)
-----						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	107221	6.11	5.93	80-120	100	(T)
63	1844	6.11	5.93	52-112	2	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
45 Acenaphthylene			CAS#: 208-96-8			
152	20276	6.13	6.01	80-120	100	(T)
151	7599	6.13	6.01	0- 49	37	(T)
153	48807	6.13	6.01	0- 43	241	(QT)
<hr/>						
47 Acenaphthene			CAS#: 83-32-9			
154	43268	6.13	6.14	80-120	100	( )
153	48489	6.13	6.14	71-131	112	( )
152	19894	6.13	6.14	17- 77	46	( )
<hr/>						
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	107218	6.11	6.23	80-120	100	(T)
89	1145	6.11	6.23	37- 97	1	(QT)
63	1235	6.11	6.23	17- 77	1	(QT)
<hr/>						
52 4-Nitrophenol			CAS#: 100-02-7			
139	15989	6.26	6.16	80-120	100	(T)
109	693	6.40	6.16	34- 94	4	(QT)
65	1497	6.25	6.16	64-124	9	(QT)
<hr/>						
53 Fluorene			CAS#: 86-73-7			
166	61556	6.52	6.53	80-120	100	( )
165	57435	6.52	6.53	61-121	93	( )
167	9125	6.52	6.52	0- 44	15	( )
<hr/>						
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	542	6.71	6.54	80-120	100	(T)
105	1470	6.71	6.54	10- 70	271	(QT)
51	1827	6.71	6.54	54-114	337	(QT)
<hr/>						
68 Phenanthrene			CAS#: 85-01-8			
178	579237	7.30	7.31	80-120	100	( )
179	90910	7.30	7.31	0- 46	16	( )
176	105111	7.30	7.31	0- 49	18	( )
<hr/>						
69 Anthracene			CAS#: 120-12-7			
178	121612	7.35	7.35	80-120	100	( )
179	26473	7.35	7.35	0- 46	22	( )
176	20559	7.35	7.35	0- 48	17	( )
<hr/>						
76 Fluoranthene			CAS#: 206-44-0			
202	507041	8.34	8.34	80-120	100	( )
203	89089	8.34	8.34	0- 48	18	( )
101	54074	8.34	8.34	0- 41	11	( )
<hr/>						
79 Pyrene			CAS#: 129-00-0			
202	400500	8.56	8.56	80-120	100	( )
200	85381	8.56	8.56	0- 50	21	( )
101	55761	8.56	8.56	0- 44	14	( )
<hr/>						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	159388	9.69	9.68	80-120	100	( )
226	41017	9.68	9.68	0- 56	26	( )
229	42586	9.68	9.68	0- 50	27	( )
-----						
92 Chrysene				CAS#: 218-01-9		
228	152258	9.72	9.72	80-120	100	( )
229	35667	9.72	9.72	0- 50	23	( )
226	42941	9.72	9.72	0- 59	28	( )
-----						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	189020	10.88	10.86	80-120	100	( )
253	42477	10.88	10.86	0- 52	22	( )
125	23624	10.88	10.86	0- 41	12	( )
-----						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	189020	10.88	10.90	80-120	100	( )
253	46110	10.88	10.90	0- 52	24	( )
125	32460	10.88	10.90	0- 42	17	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	99021	11.32	11.31	80-120	100	( )
253	23698	11.32	11.31	0- 52	24	( )
125	21528	11.32	11.30	0- 42	22	( )
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	50158	13.19	13.17	80-120	100	( )
138	12786	13.19	13.17	2- 62	25	( )
-----						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	13971	13.20	13.18	80-120	100	( )
139	4168	13.20	13.18	0- 50	30	( )
-----						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	46054	13.74	13.71	80-120	100	( )
138	12709	13.74	13.71	0- 58	28	( )

Q qualifier indicates ion failed ratio requirement



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Data file : /chem/MSD7.i/s031110.b/s7c1117.d  
Lab Smp Id: 248043017 Client Smp ID: RE36-10-7470  
Inj Date : 11-MAR-2010 18:35  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043017|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 17  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	14.36960	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.990	2375453	40.000
* 46 Acenaphthene-d10	6.109	3769721	40.000
* 67 Phenanthrene-d10	7.284	4859141	40.000
* 91 Chrysene-d12	9.696	4519809	40.000
* 98 Perylene-d12	11.405	3292118	40.000

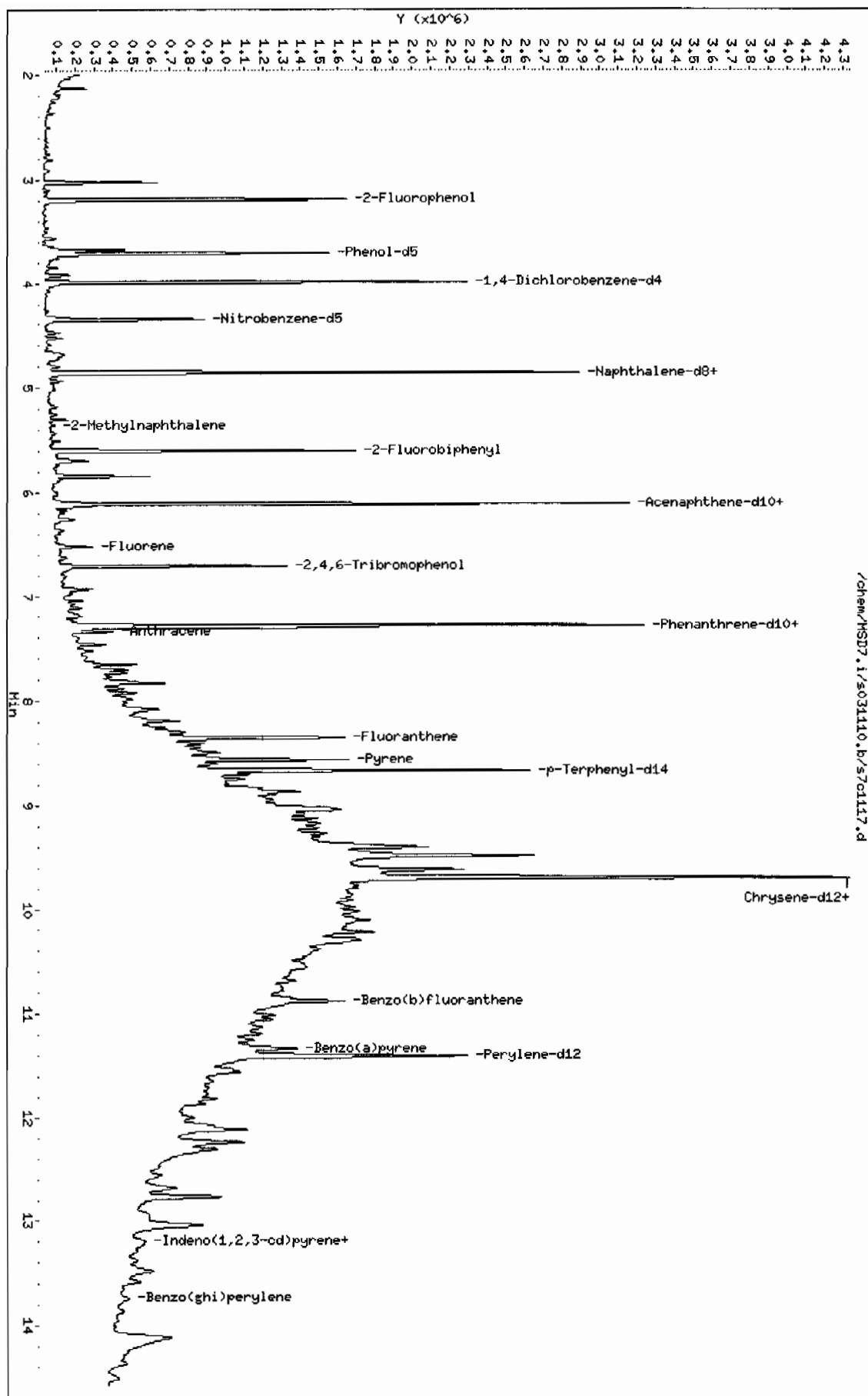
CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

RT	AREA	CONCENTRATIONS		QUAL	QUANT		CPND #
		ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIE ENTRY	
Unknown Aldol Condensate					CAS #:		
3.022	665923	11.2134027	436	0		0	10
Unknown					CAS #:		
3.682	419012	7.05568993	274	0		0	10
1,4-Methanocazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
5.839	532859	5.65409741	220	99	NIST05.L	60024	46
2H-1-Benzopyran-2-one, 6,7-dimethoxy-					CAS #: 120-08-1		
7.828	656208	5.40184152	210	95	NIST05.L	61028	67
Unknown					CAS #:		
8.184	494004	4.06659424	158	0		0	67
Unknown					CAS #:		
9.027	465124	4.11631547	160	0		0	91
Unknown					CAS #:		
9.402	1587264	14.0471800	546	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 5155-70-4		
9.489	2028016	17.9478068	698	99	NIST05.L	125035	91
(1S,2E,4S,5R,7E,11E)-Cembra-2,7,11-trien					CAS #: 1000140-92-3		
9.619	1128887	9.99057087	388	89	NIST05.L	128658	91
Unknown					CAS #:		
10.105	470958	4.16794289	162	0		0	91
Corymbolone					CAS #: 97094-19-4		
10.216	553377	4.89735290	190	91	NIST05.L	82465	91
Cholest-23-ene, (5.beta.)-					CAS #: 30658-62-9		
10.298	958193	8.47994211	330	92	NIST05.L	161558	91
Pentadec-7-ene, 7-bromomethyl-					CAS #: 1000259-58-5		
10.558	339879	4.12961340	160	83	NIST05.L	125926	98
Unknown					CAS #:		
11.555	421060	5.11597971	199	0		0	98
Cholestan-3-one, 4,4-dimethyl-, (5.alpha					CAS #: 2097-85-0		
11.863	332060	4.03460554	157	94	NIST05.L	174416	98

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Unknown					CAS #:		
12.118	1421340	17.2696147	672	0		0	98
28-Nor-17.beta.(H)-hopane					CAS #: 36728-72-0		
12.239	901266	10.9505953	426	93	NIST05.L	170884	98
Unknown					CAS #:		
12.306	1399636	17.0059019	661	0		0	98
Unknown					CAS #:		
12.682	482216	5.85903320	228	0		0	98
Unknown					CAS #:		
12.768	1053426	12.7993680	498	0		0	98
Unknown					CAS #:		
13.038	1409585	17.1267803	666	0		0	98
Unknown					CAS #:		
13.476	394349	4.79143309	186	0		0	98
.beta.-Sitosterol					CAS #: 83-46-5		
14.116	2116602	25.7172099	1000	93	NIST05.L	174400	98
Unknown					CAS #:		
14.362	357329	4.34163162	169	0		0	98

Data File: /chem/HSD7.i/s031110.b/s7c1117.d  
 Date: 11-MAR-2010 18:35  
 Client ID: RE36-10-7470  
 Sample Info: 1248043017195962311SVH11.LANL  
 Volume Injected (µL): 0.5  
 Column phase: 3µm DB-5MS

Instrument: HSD7.i  
 Operator: JHB3  
 Column diameter: 0.20



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 12480430171959623111SVH111LANL

Volume Injected (uL): 0.5

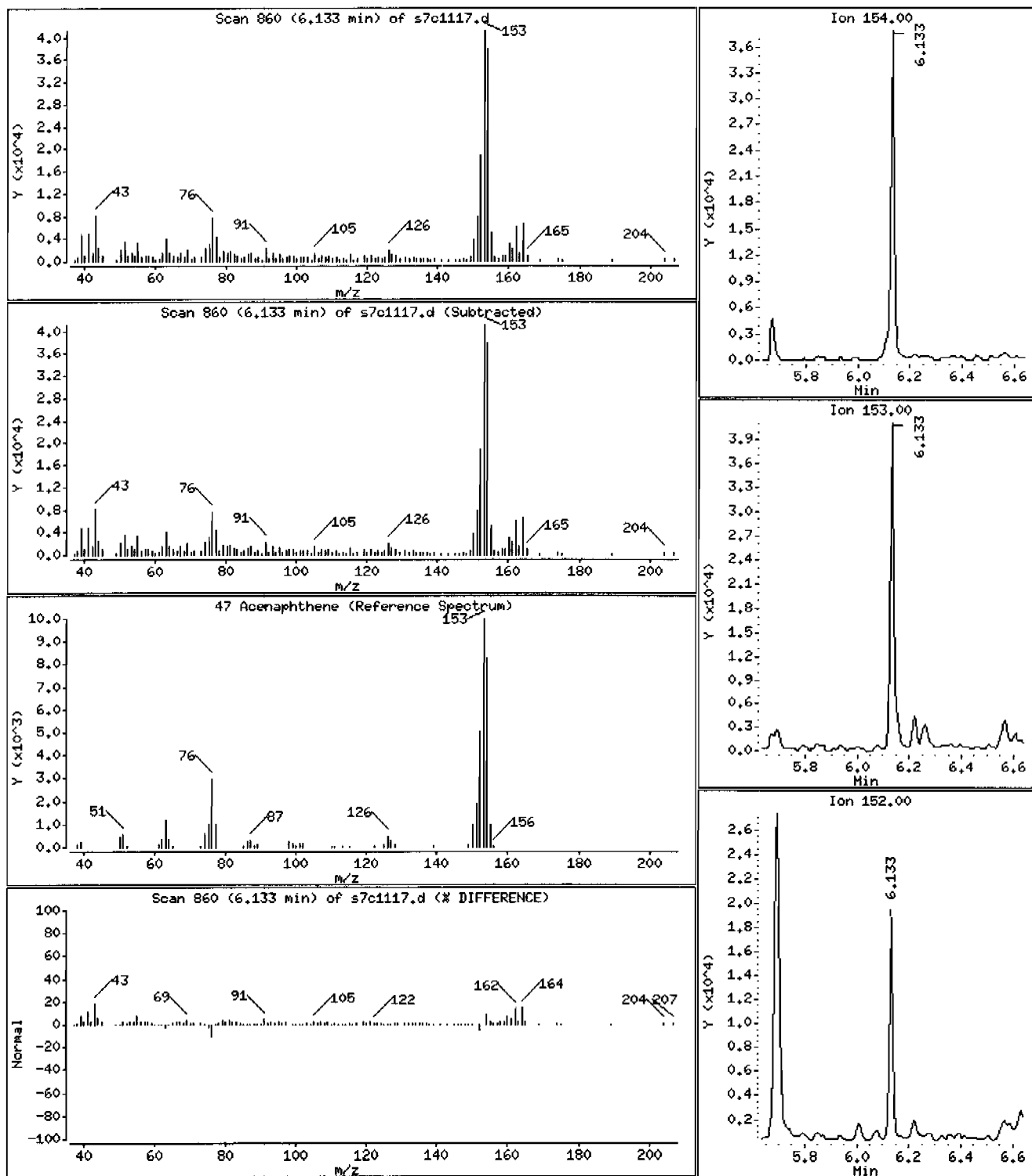
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 93.1 ug/Kg



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 12480430171959623111SVMI11LANL

Volume Injected (uL): 0.5

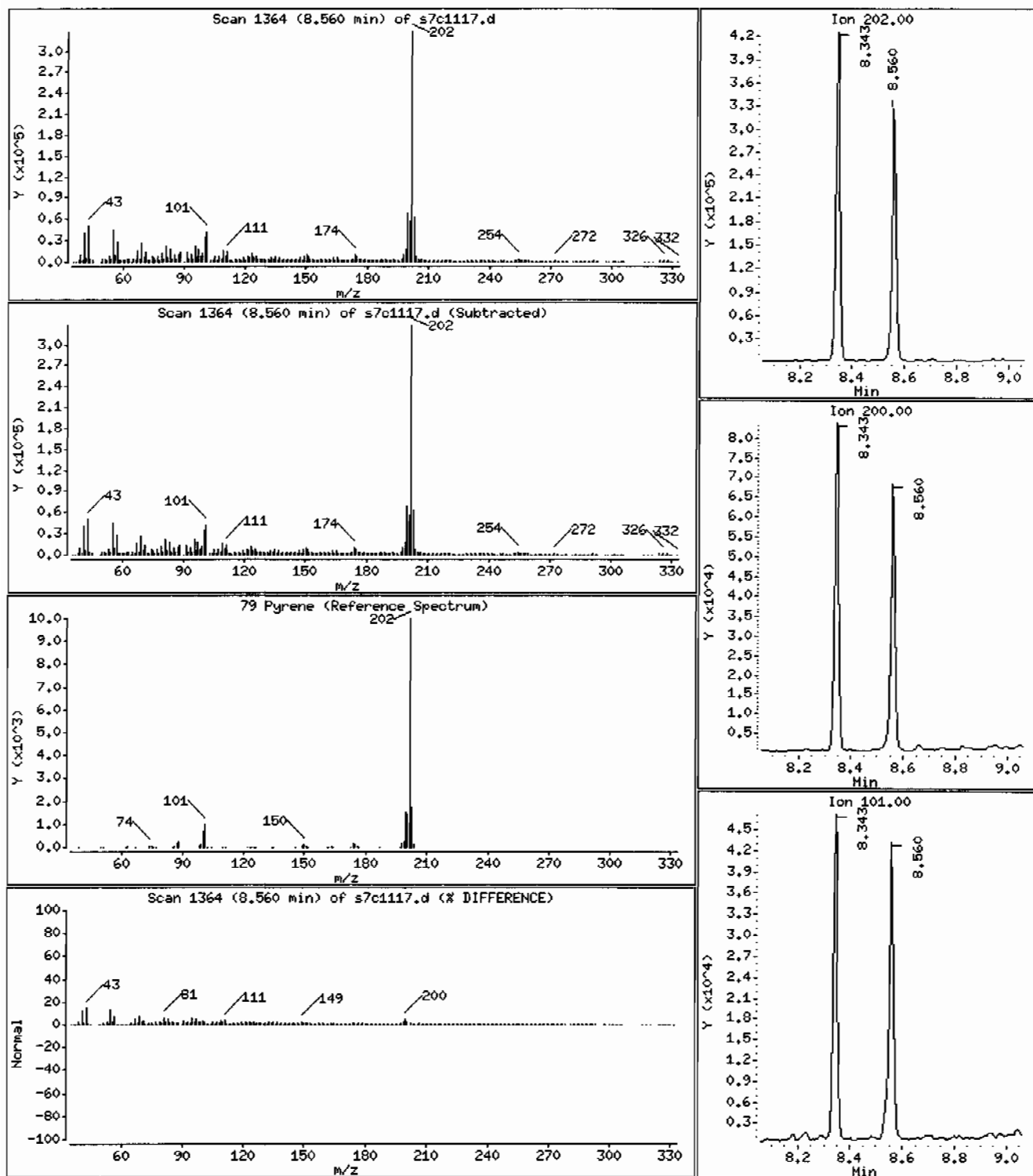
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 452 ug/Kg



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: HSD7.i

Sample Info: 12480430171959623111SVH111LANL

Volume Injected (uL): 0.5

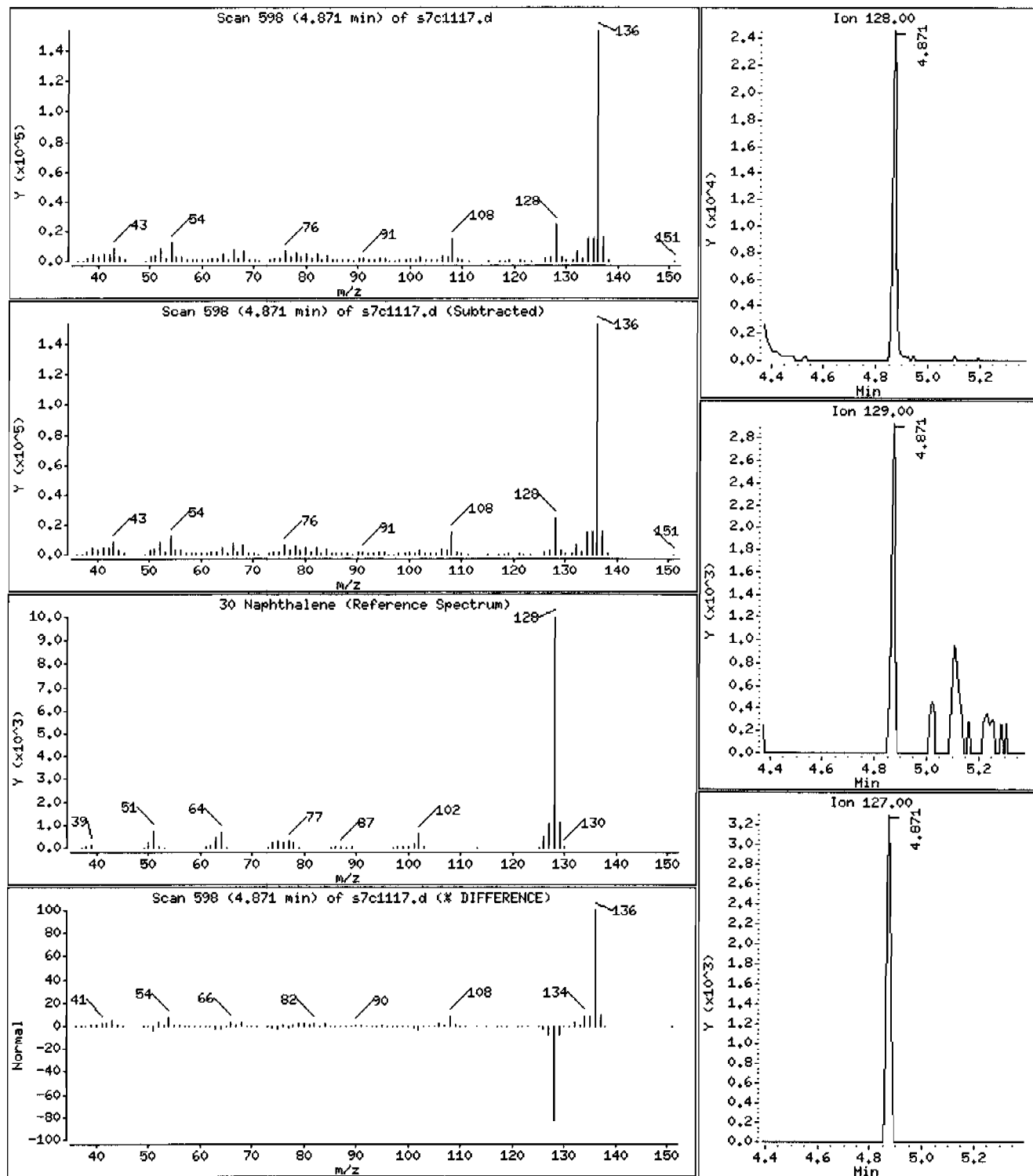
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 37.0 ug/Kg



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVH11ILANL

Volume Injected (uL): 0.5

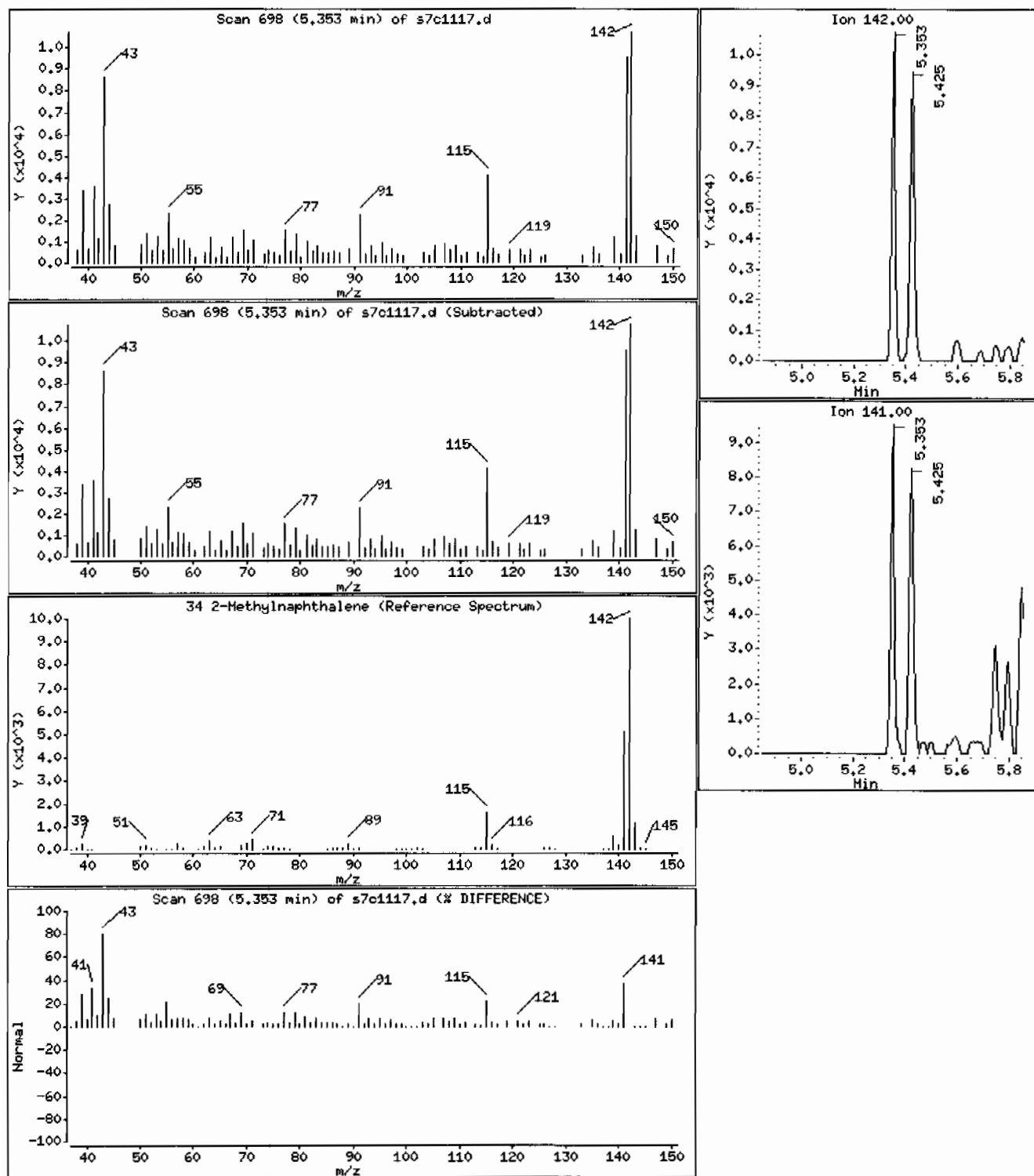
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 22.6 ug/Kg





Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: HSD7.i

Sample Info: 12480430171959623111SVH11ILANL

Volume Injected (uL): 0.5

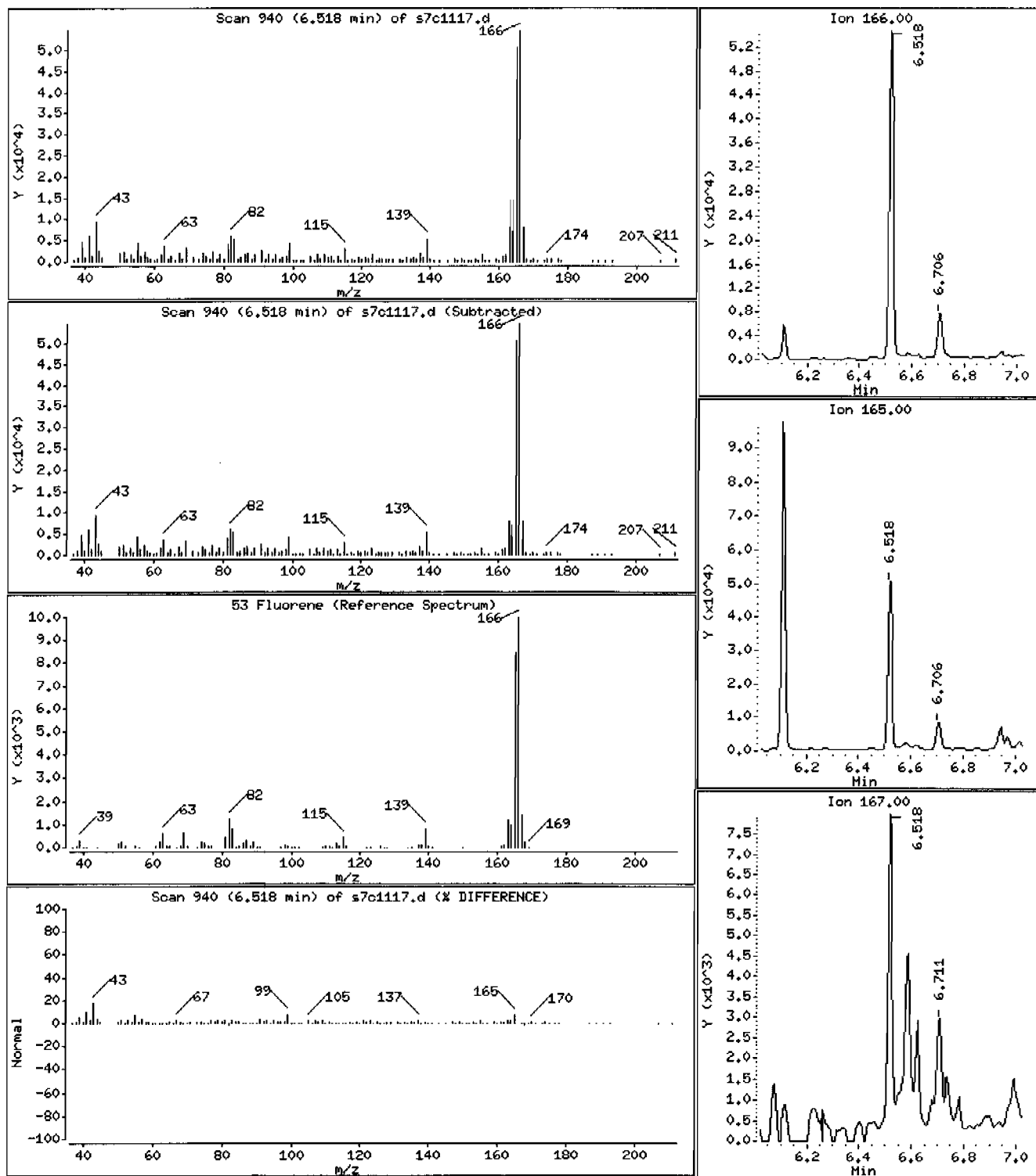
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 112 ug/Kg



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: HSD7,i

Sample Info: 1248043017195962311SVH111LANL

Volume Injected (uL): 0.5

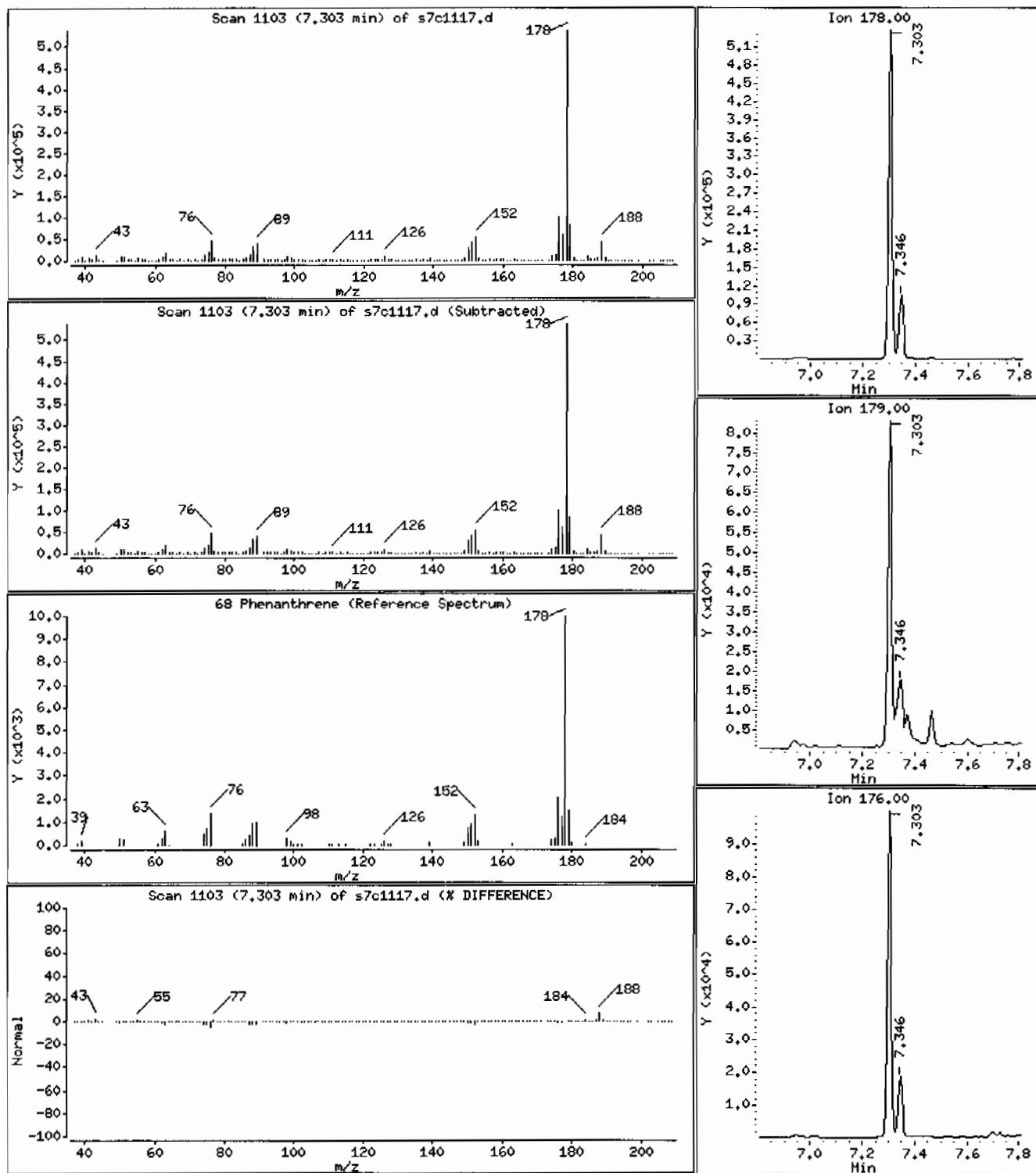
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 762 ug/Kg



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: I248043017195962311ISVH111LANL

Volume Injected (uL): 0.5

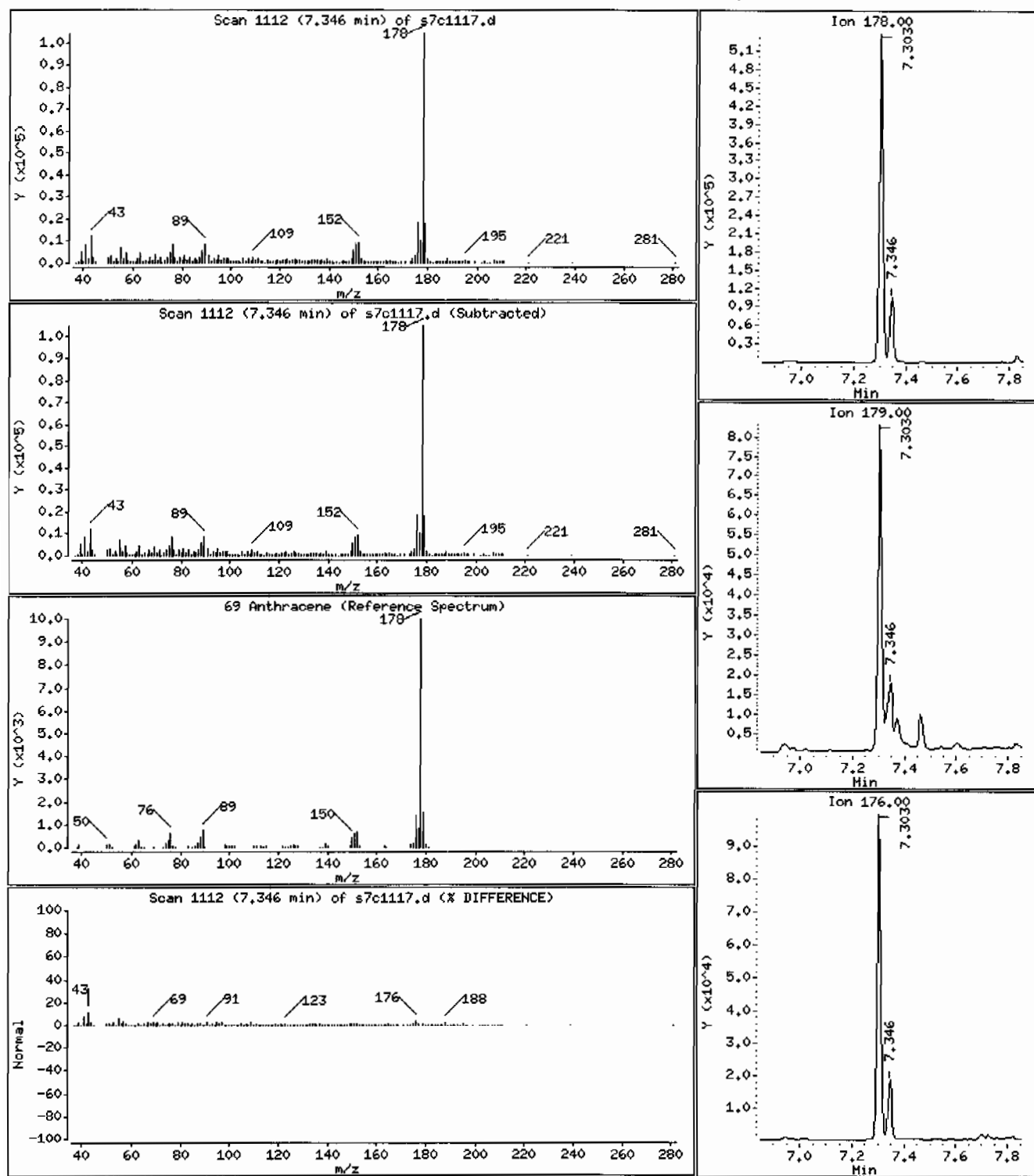
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 158 ug/Kg



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVH111LANL

Volume Injected (uL): 0.5

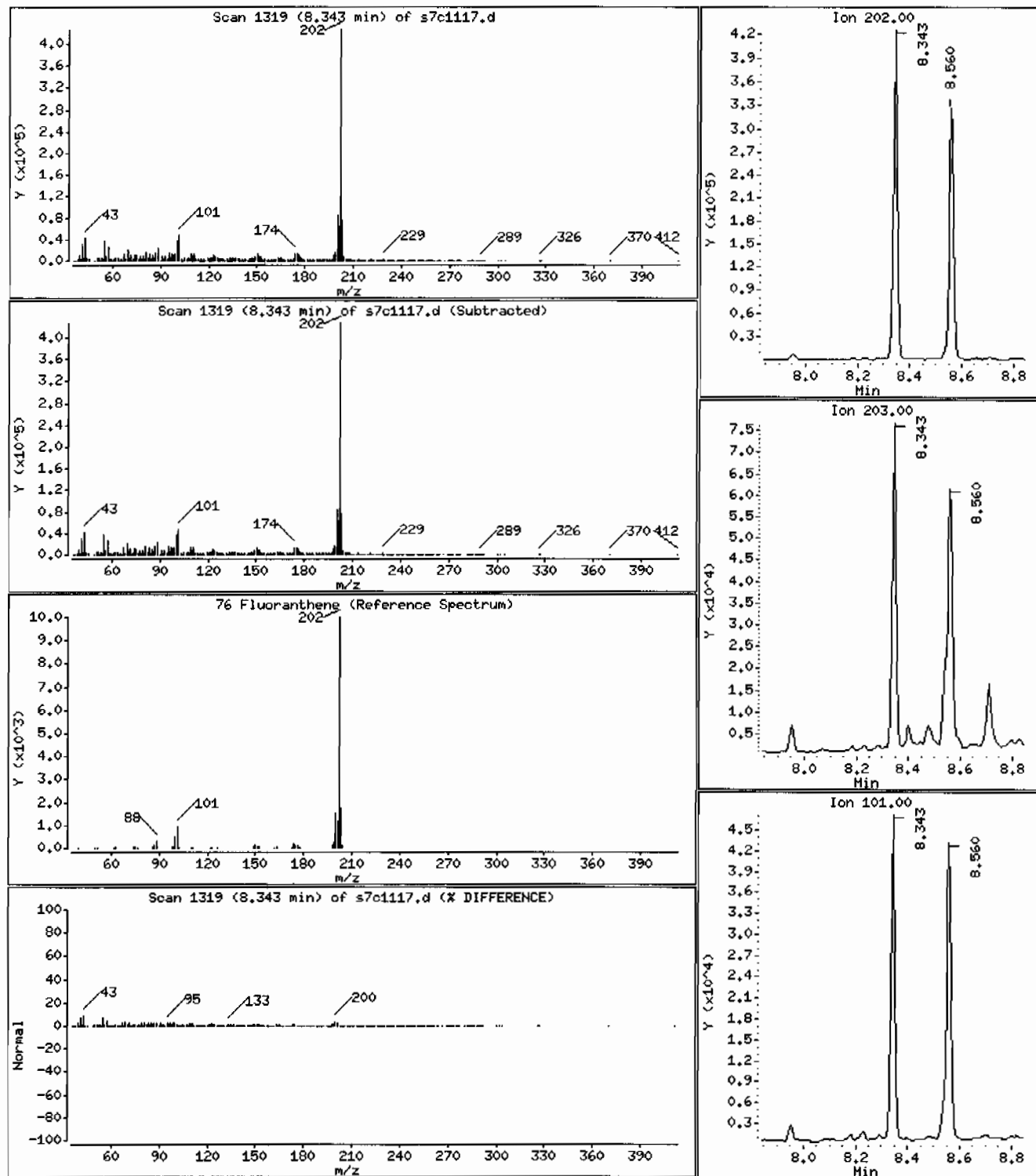
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 614 ug/Kg



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 12480430171959623111SVMI11LANL

Volume Injected (uL): 0.5

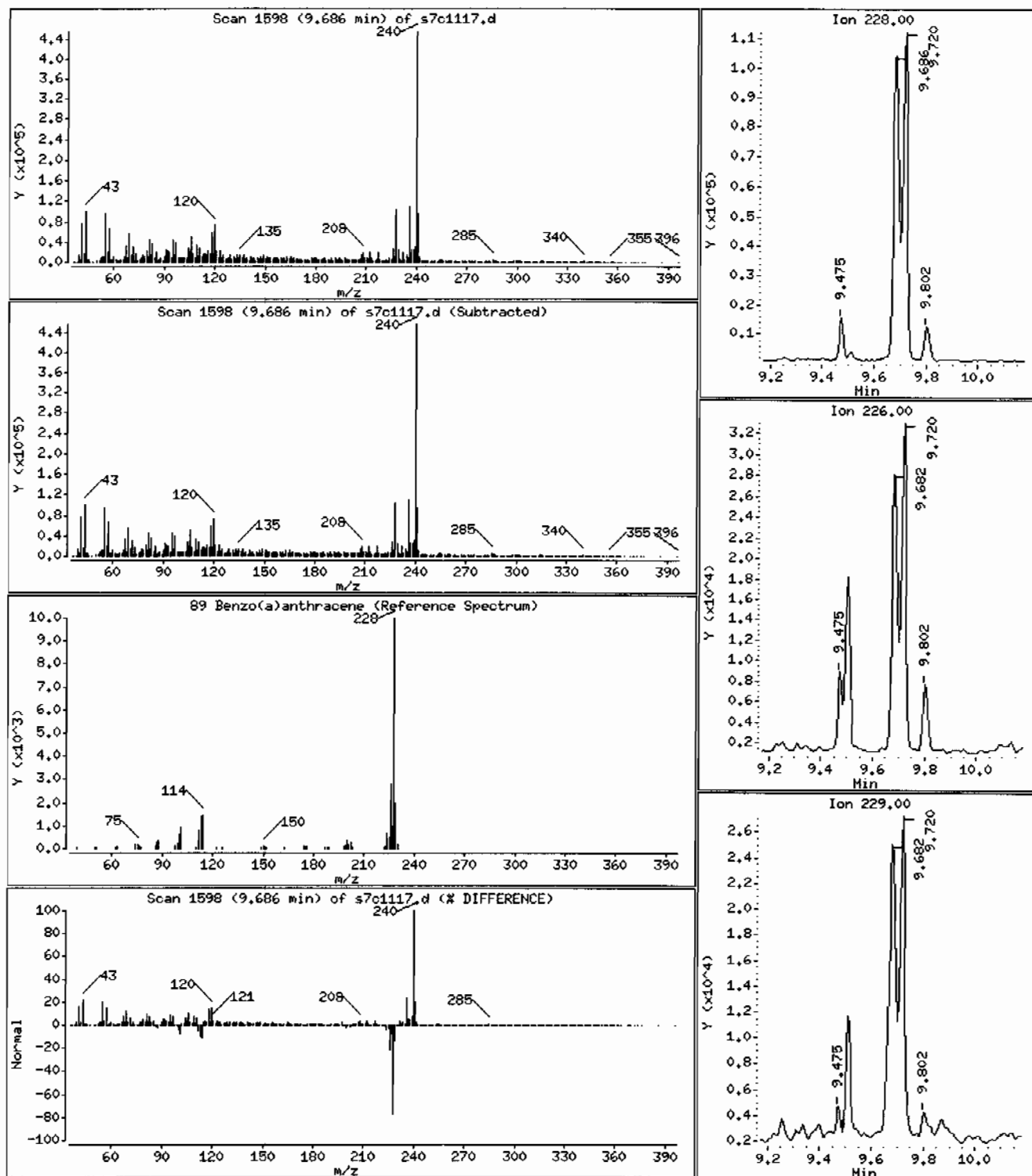
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 237 ug/Kg



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVMI11LANL

Volume Injected (uL): 0.5

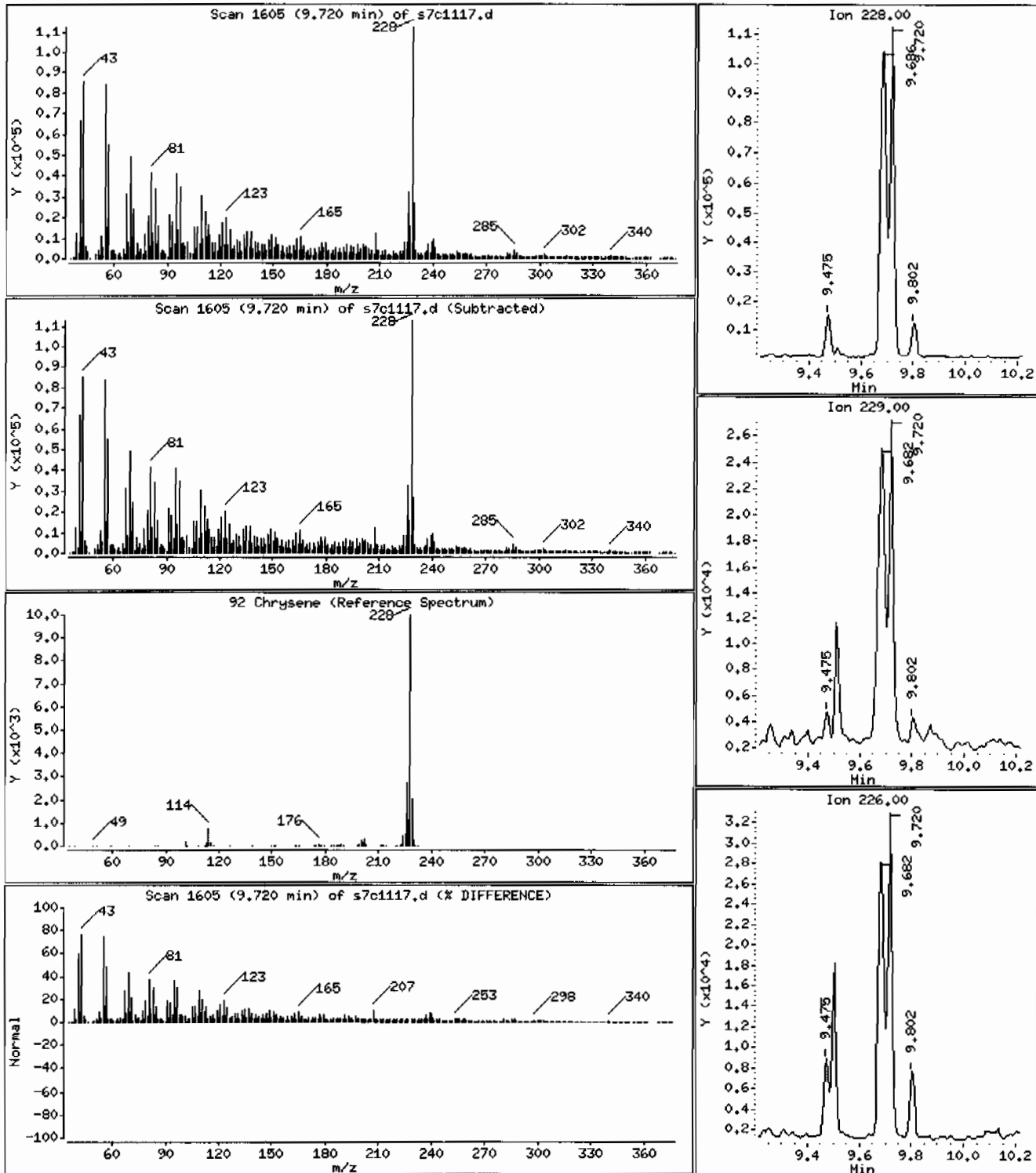
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 255 ug/Kg



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVH111LANL

Volume Injected (uL): 0.5

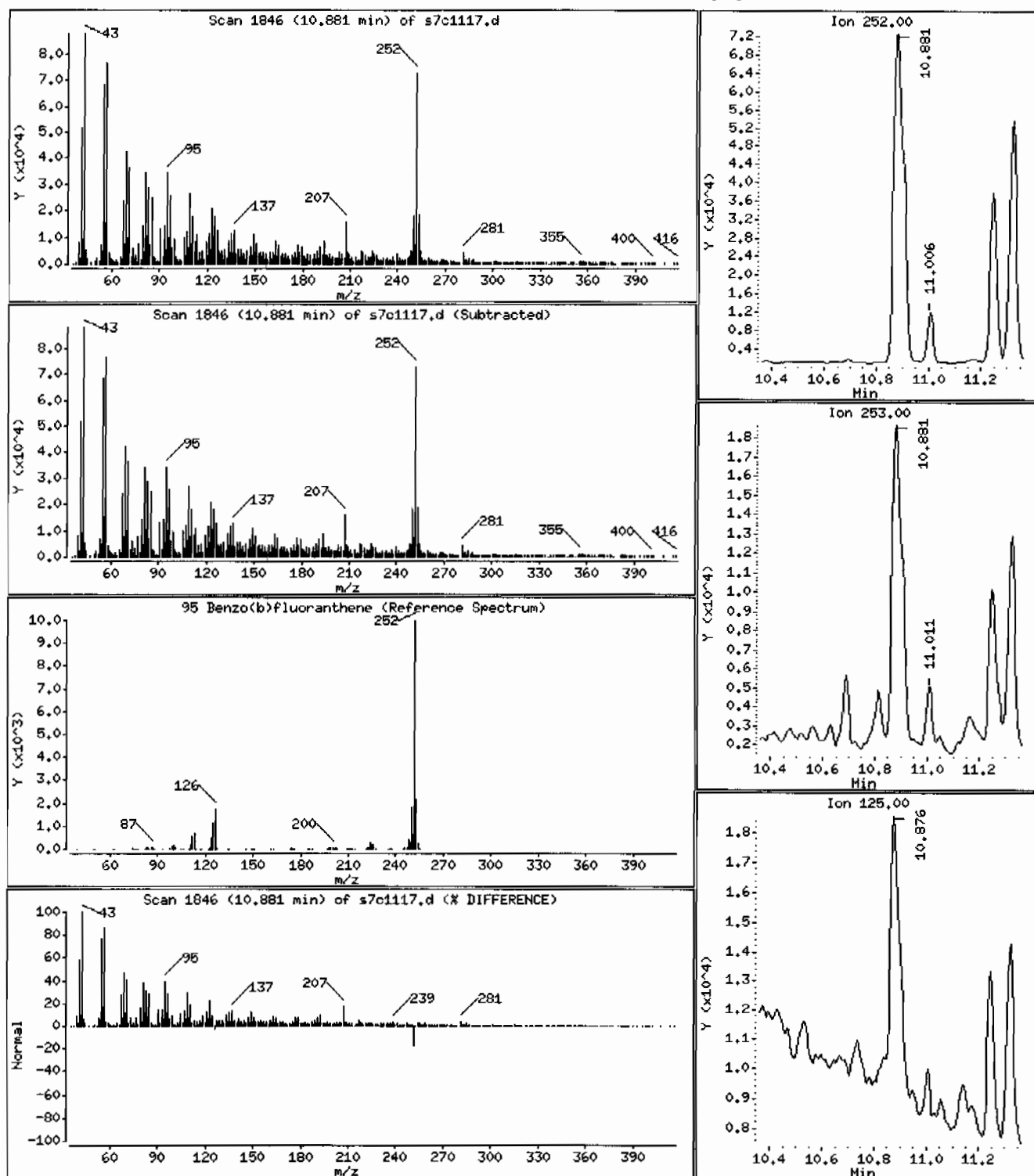
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 325 ug/Kg



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVH111LANL

Volume Injected (uL): 0.5

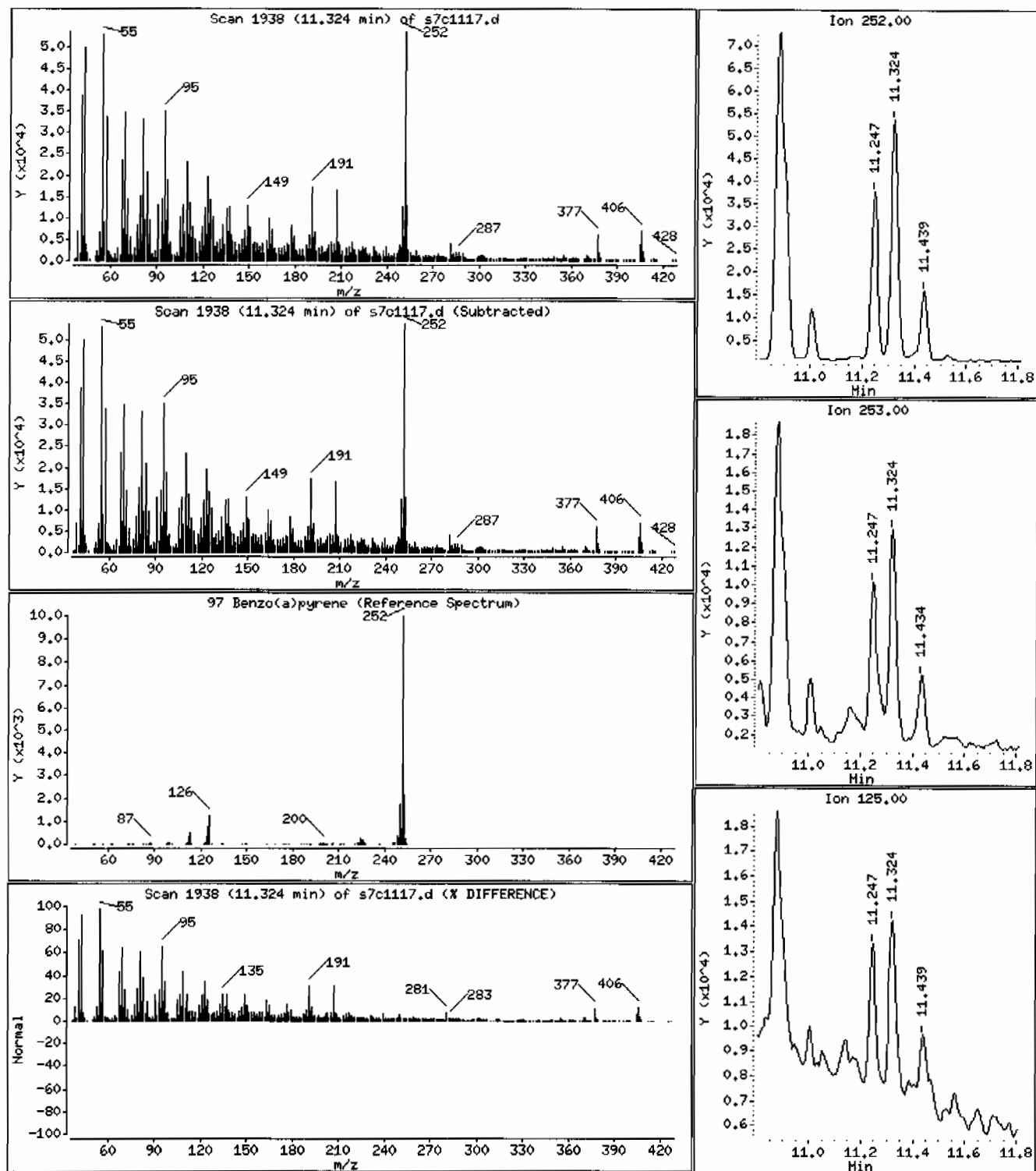
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 208 ug/Kg





Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: HSD7.i

Sample Info: 12480430171959623111SVH111LANL

Volume Injected (uL): 0,5

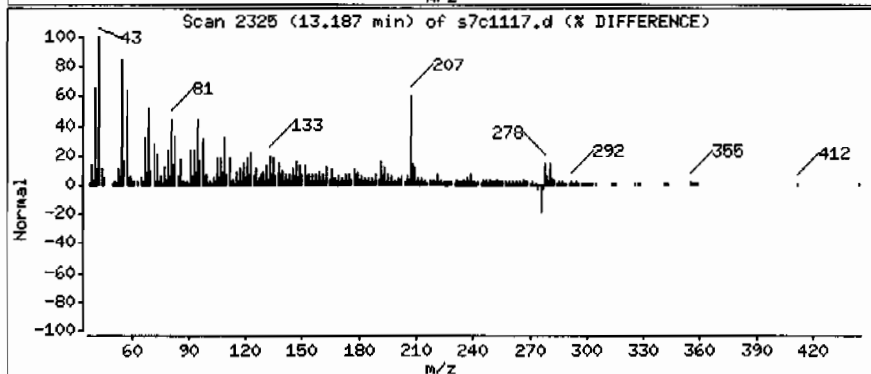
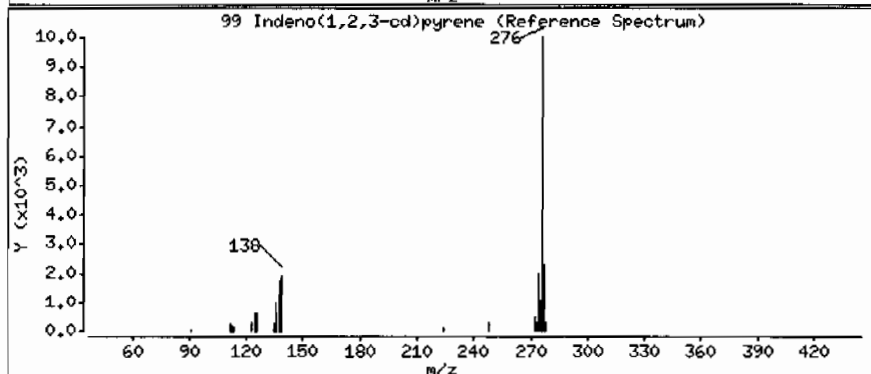
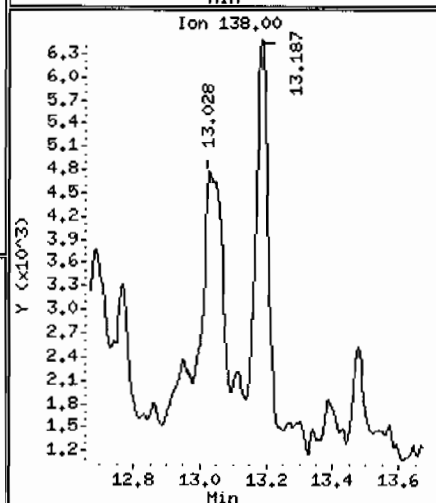
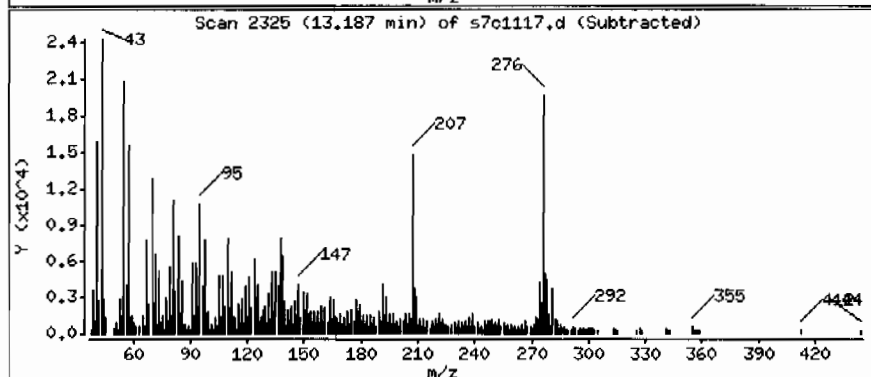
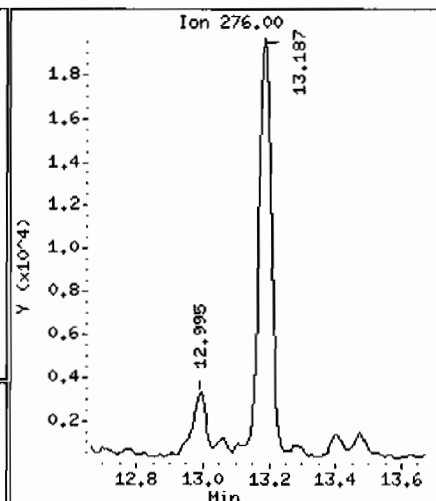
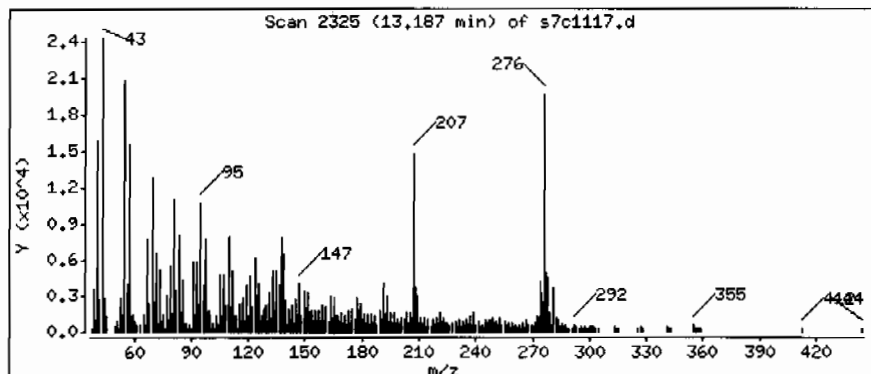
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

99 Indeno(1,2,3-cd)pyrene

Concentration: 146 ug/Kg



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: HSD7.i

Sample Info: 1248043017195962311ISVH111LANL

Volume Injected (uL): 0.5

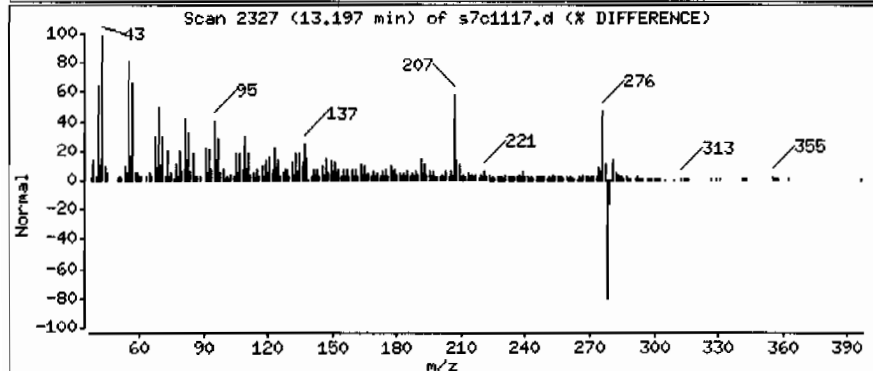
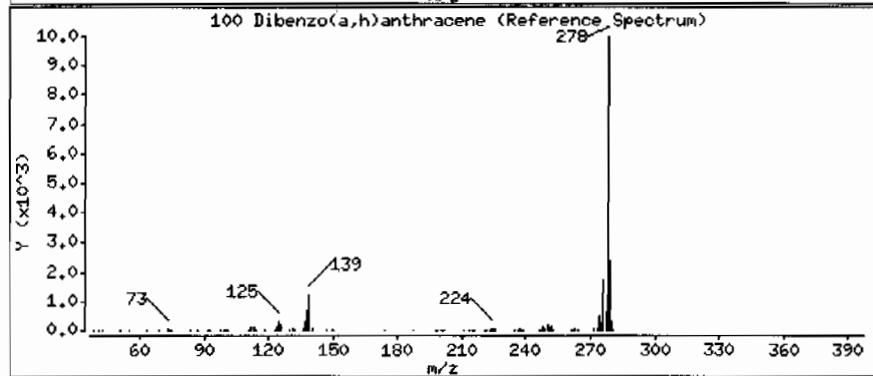
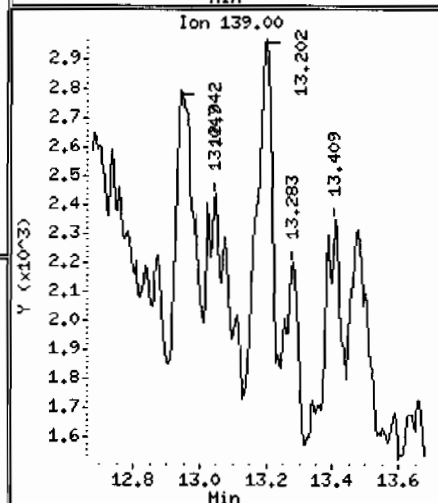
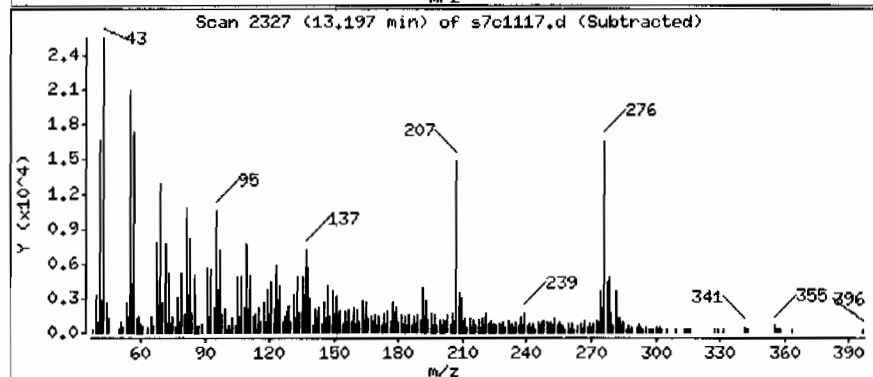
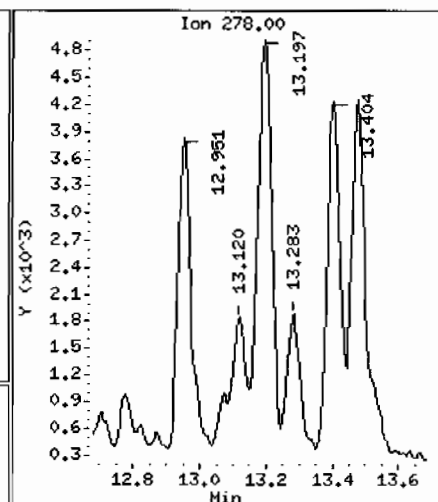
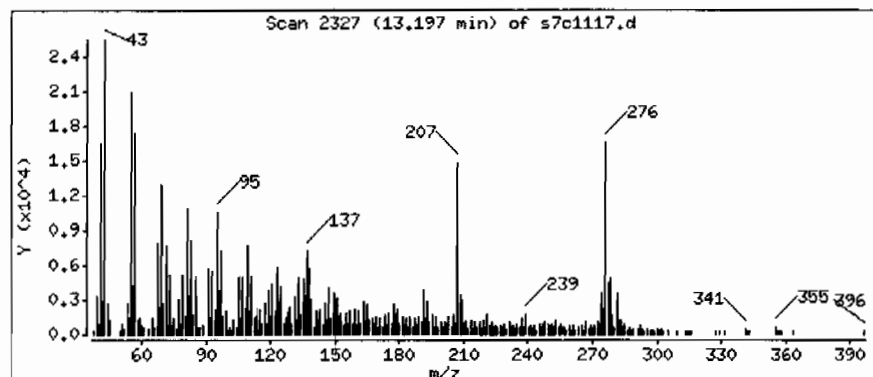
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 51.4 ug/Kg



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: I248043017195962311/SVH111LANL

Volume Injected (uL): 0.5

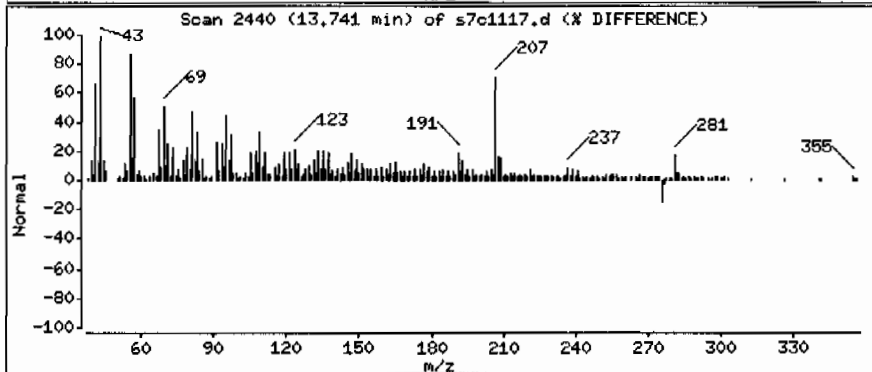
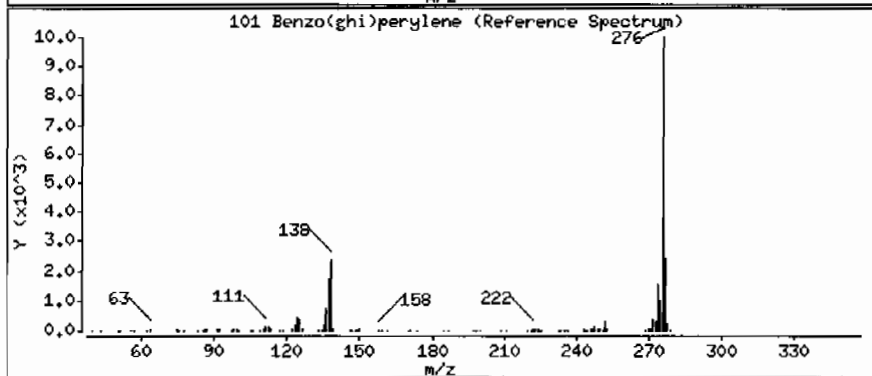
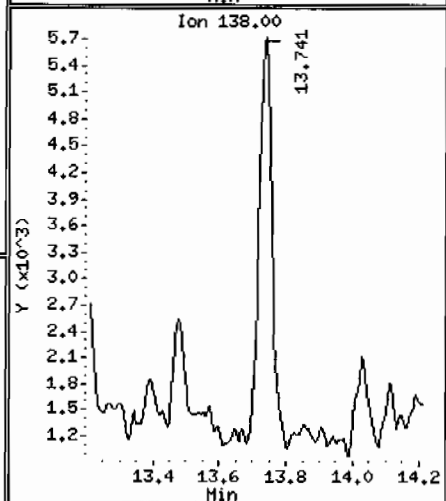
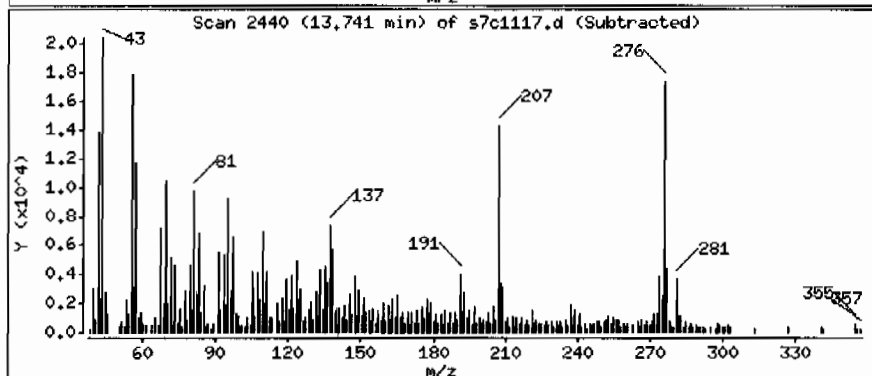
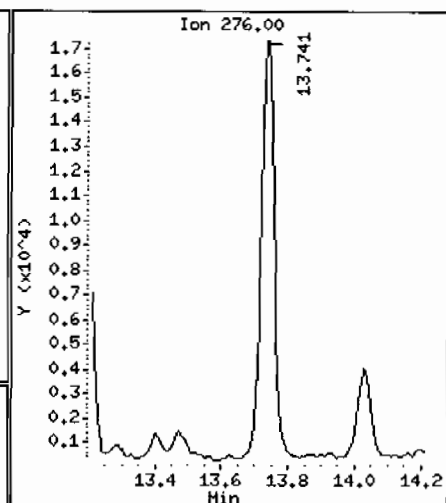
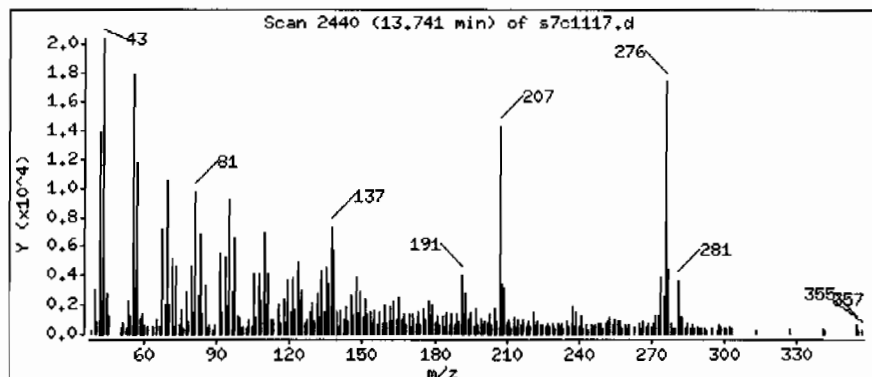
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 161 ug/Kg



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: HSD7.i

Sample Info: 1248043017195962311SVMI1ILANL

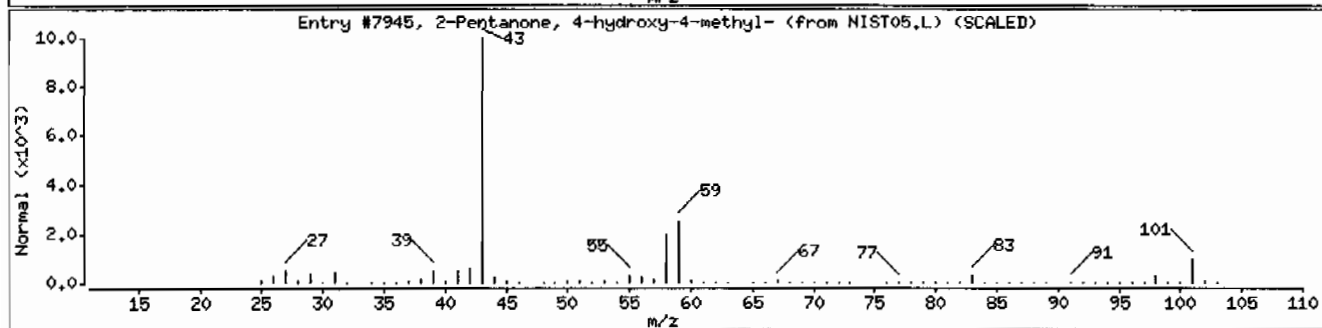
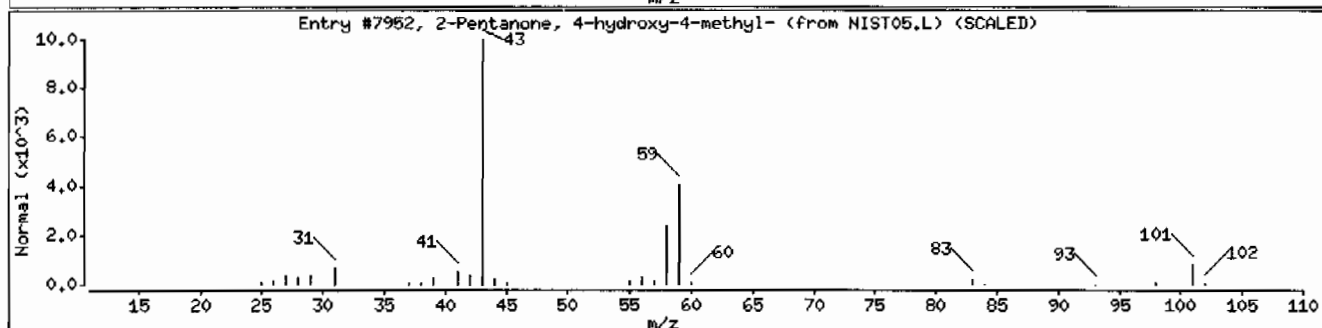
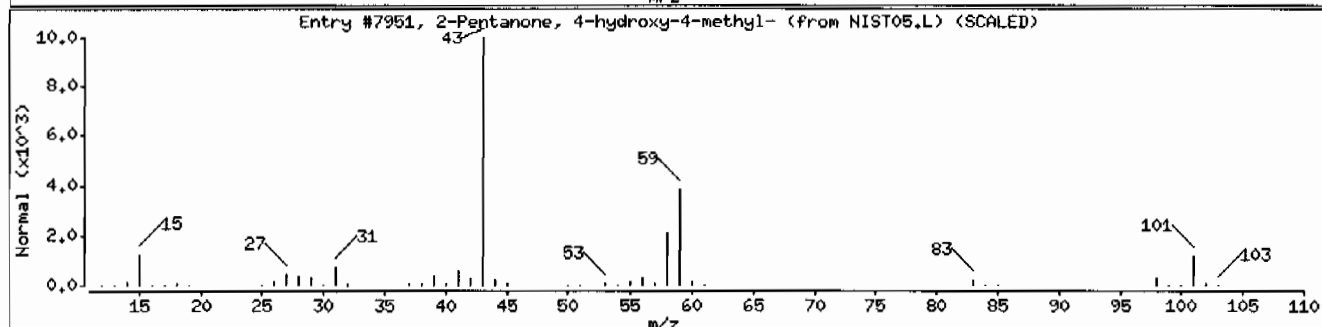
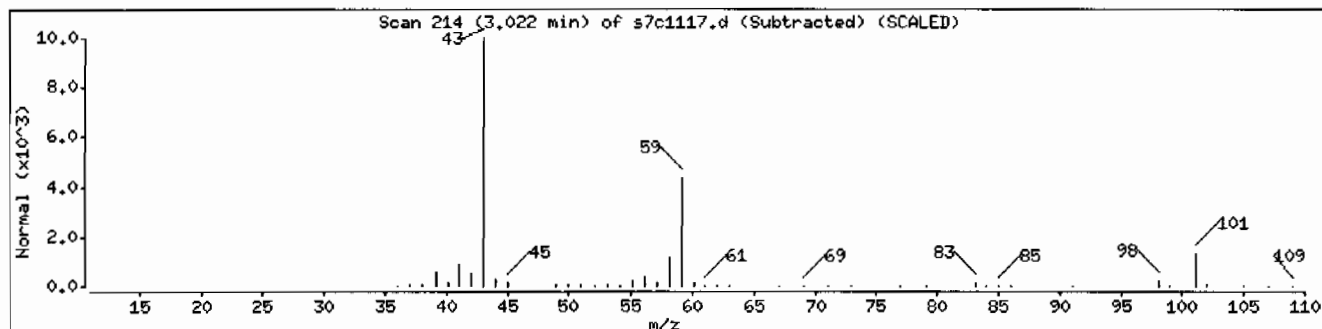
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: I2480430171959623111SVH11ILANL

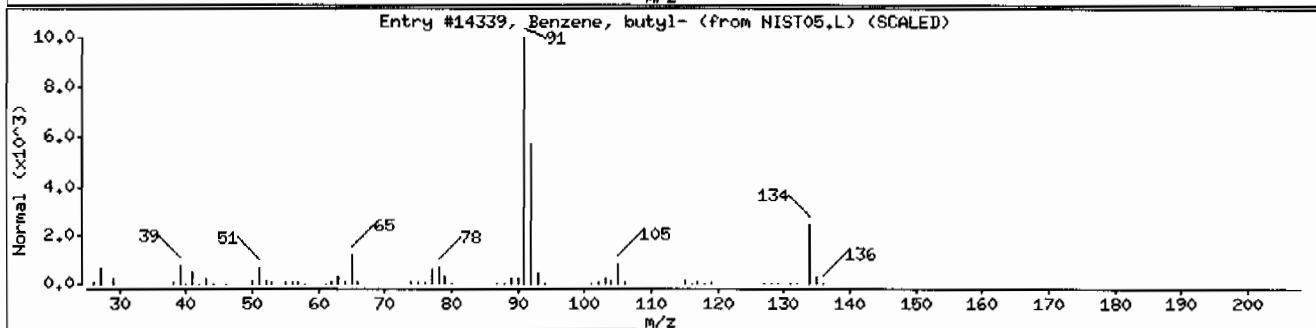
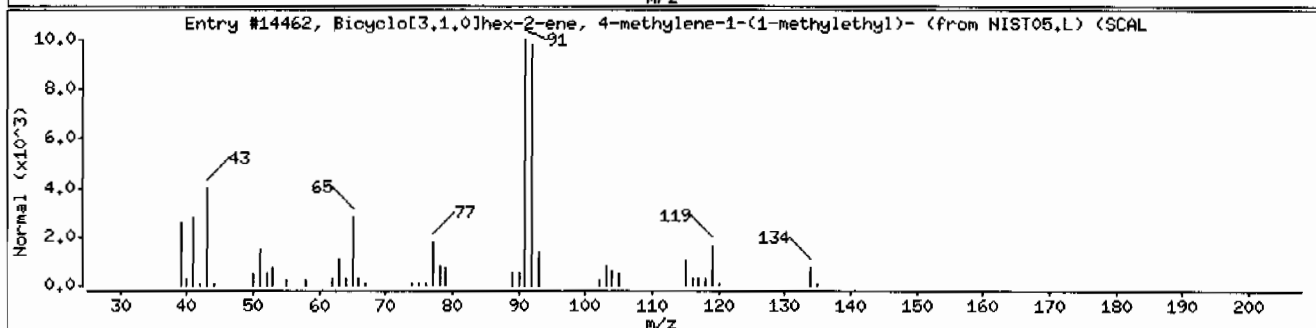
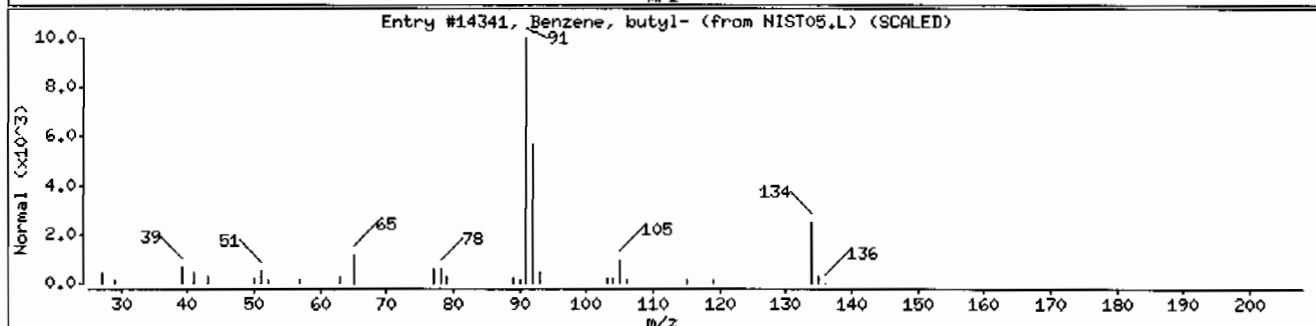
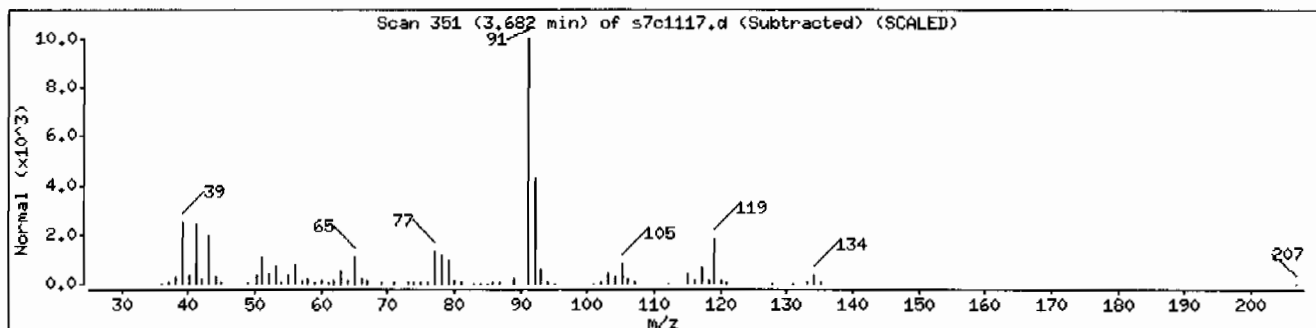
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzene, butyl-	104-51-8	NIST05.L	14341	58	C10H14	134
Bicyclo[3.1.0]hex-2-ene, 4-methylene-1-(	36262-09-6	NIST05.L	14462	58	C10H14	134
Benzene, butyl-	104-51-8	NIST05.L	14339	58	C10H14	134



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVH111LANL

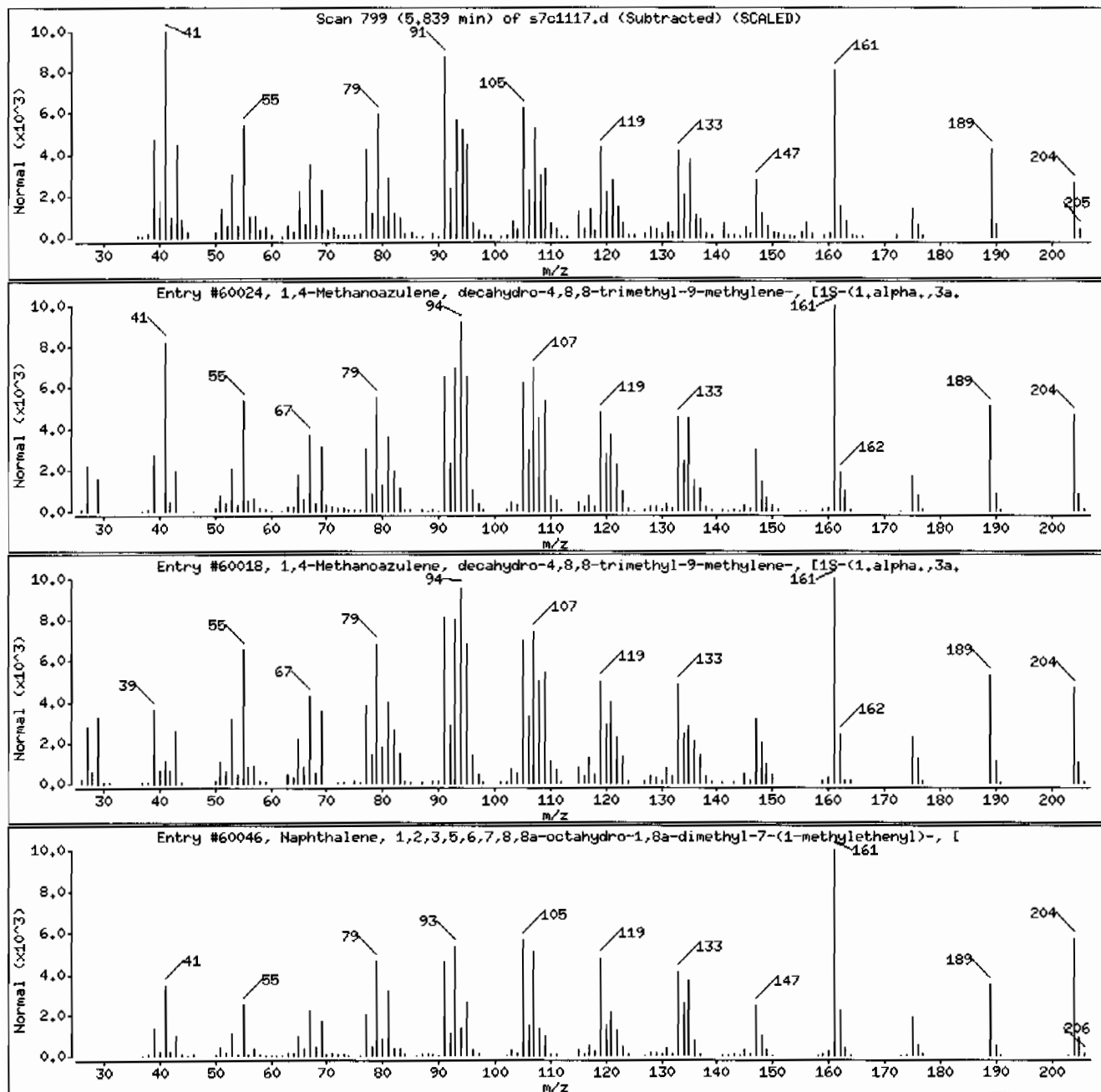
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trimethyl-9-methylene-, [1S-(1.alpha.,3a.	475-20-7	NIST05.L	60024	99	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trimethyl-9-methylene-, [1S-(1.alpha.,3a.	475-20-7	NIST05.L	60018	99	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-1,8a-dimethyl-7-(1-methylethenyl)-, [1S-(1.alpha.,3a.	4630-07-3	NIST05.L	60046	98	C15H24	204



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVMI1ILANL

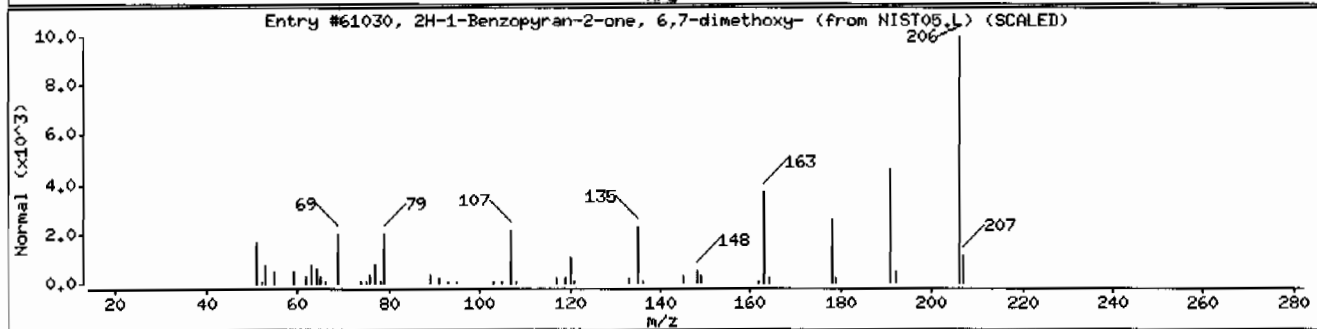
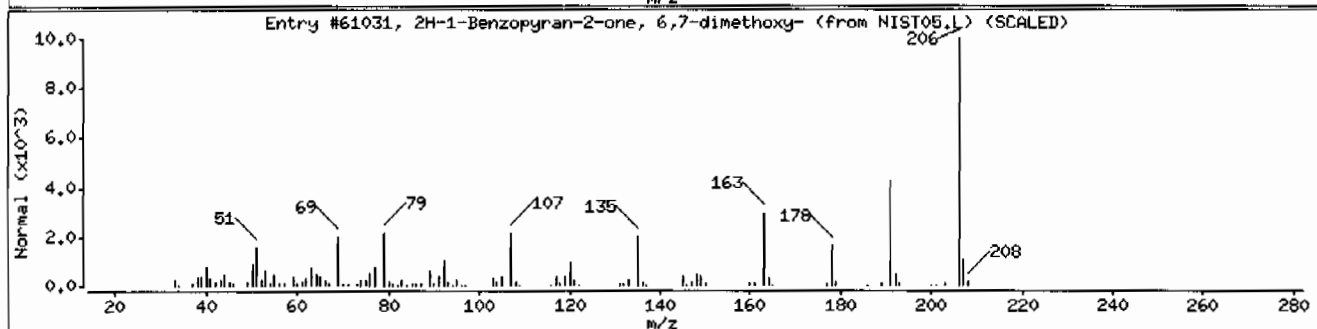
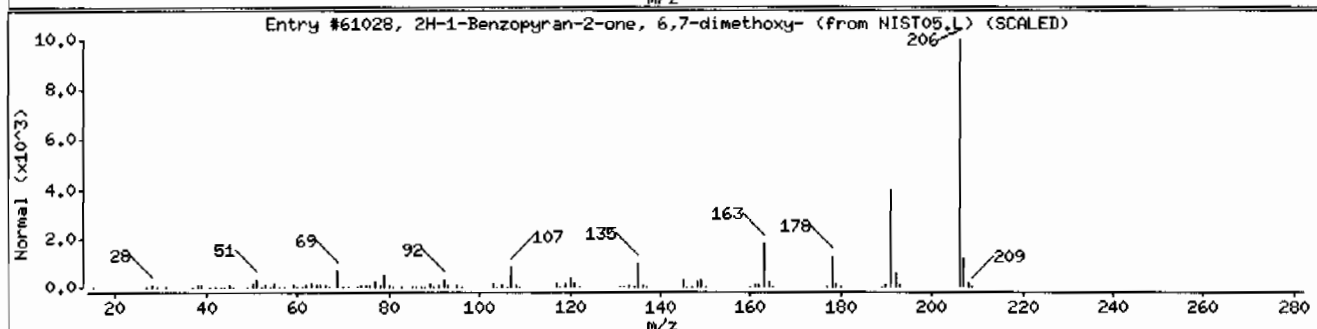
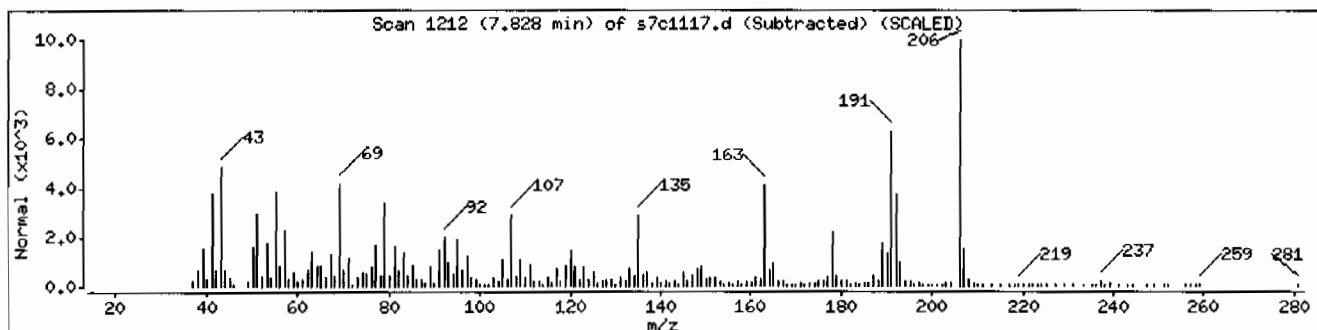
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2H-1-Benzopyran-2-one, 6,7-dimethoxy-	120-08-1	NIST05.L	61028	95	C11H10O4	206
2H-1-Benzopyran-2-one, 6,7-dimethoxy-	120-08-1	NIST05.L	61031	95	C11H10O4	206
2H-1-Benzopyran-2-one, 6,7-dimethoxy-	120-08-1	NIST05.L	61030	93	C11H10O4	206



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: HSD7.i

Sample Info: 1248043017195962311ISVMI1ILANL

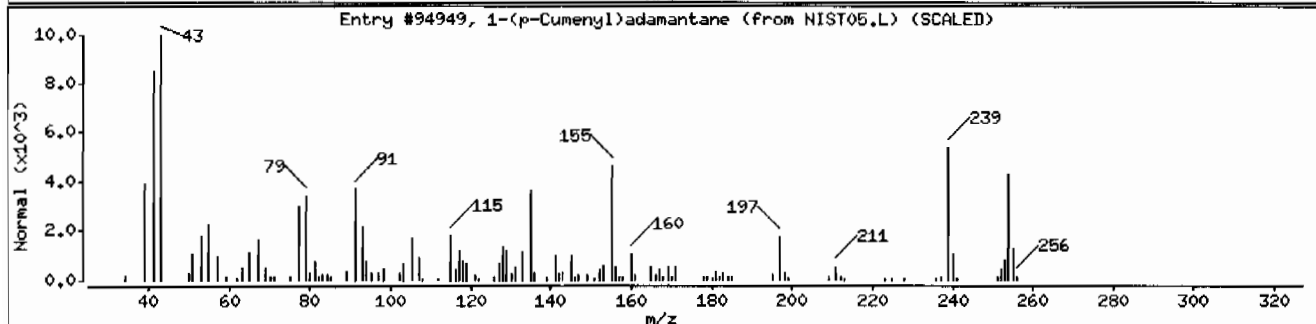
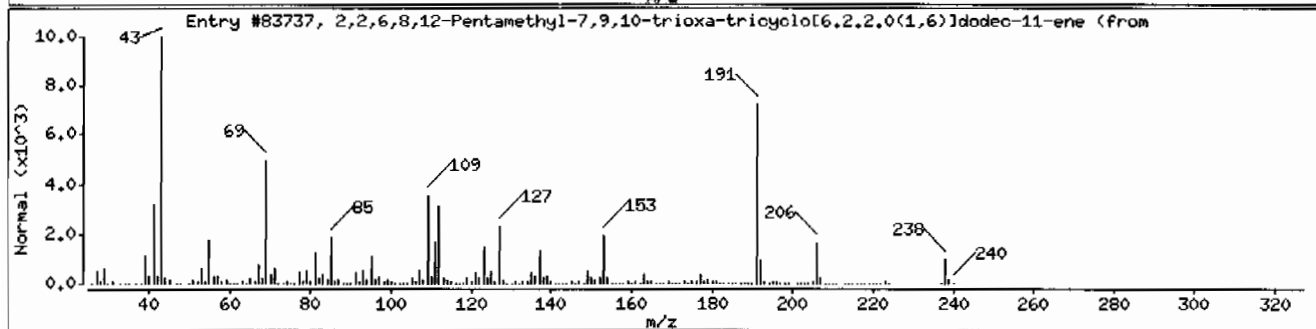
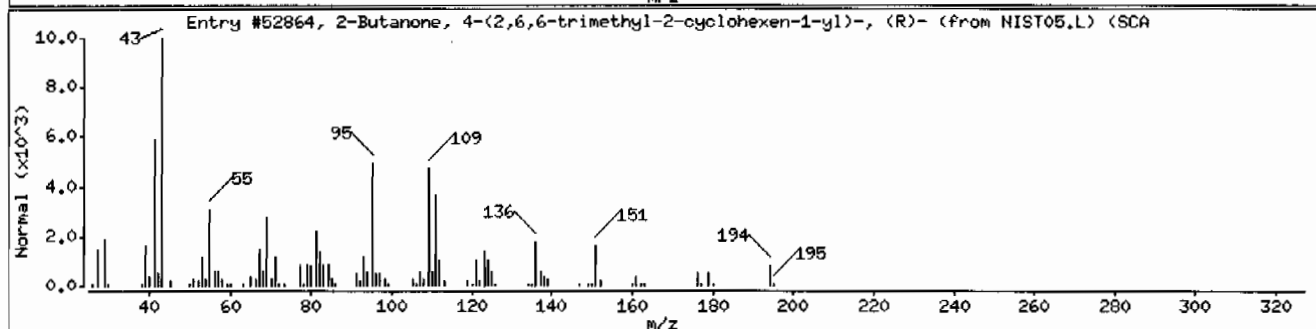
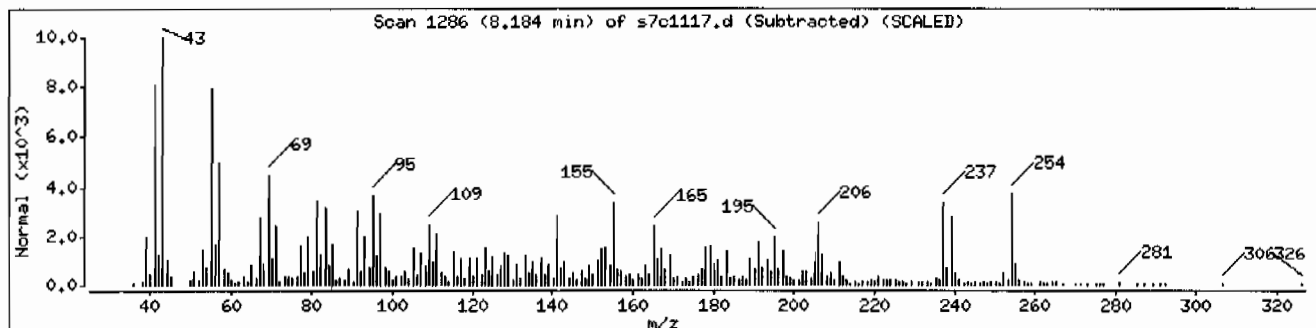
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Butanone, 4-(2,6,6-trimethyl-2-cyclohexyl)-	39721-65-8	NIST05.L	52864	45	C13H22O	194
2,2,6,8,12-Pentamethyl-7,9,10-trioxatri-1-(p-Cumenyl)adamantane	125257-58-1	NIST05.L	83737	25	C14H22O3	238
	51812-98-7	NIST05.L	94949	15	C19H26	254





Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: I2480430171959623111SVMI11LANL

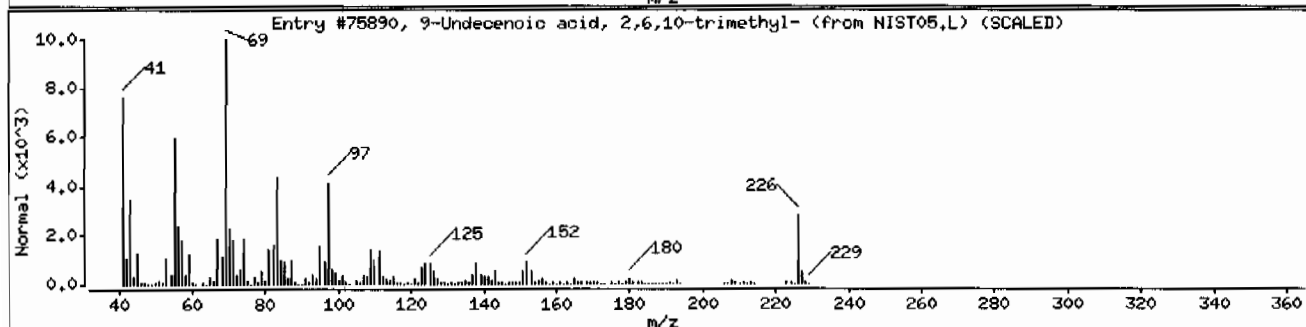
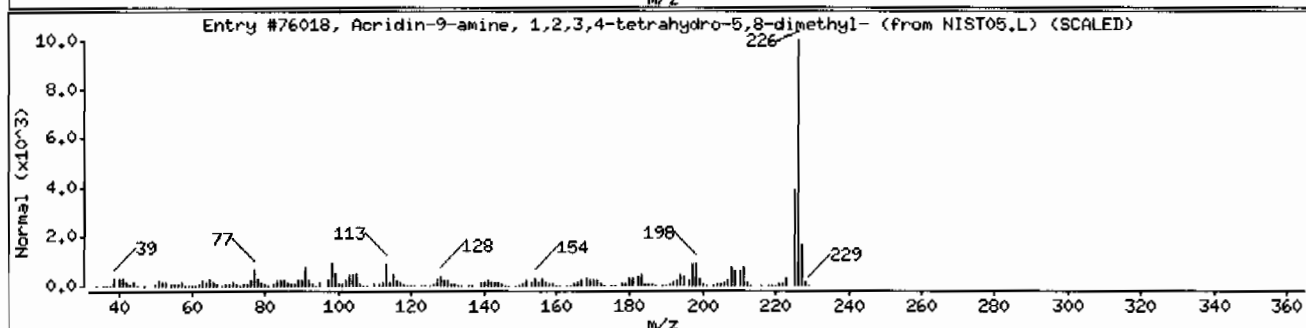
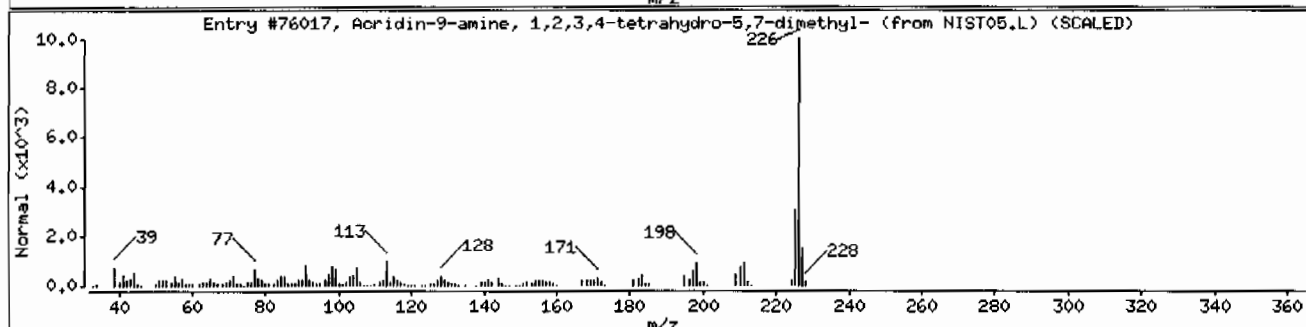
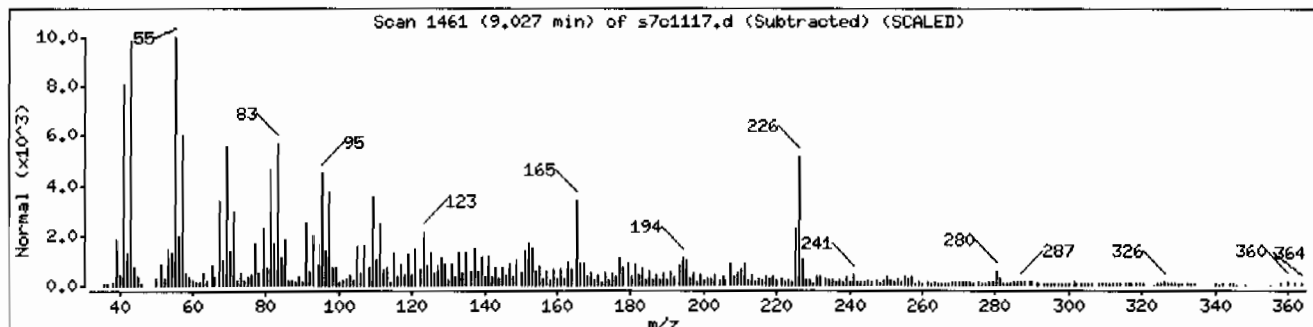
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acridin-9-amine, 1,2,3,4-tetrahydro-5,7-	1000300-57-6	NIST05.L	76017	44	C15H18N2	226
Acridin-9-amine, 1,2,3,4-tetrahydro-5,8-	297758-19-1	NIST05.L	76018	44	C15H18N2	226
9-Undecenoic acid, 2,6,10-trimethyl-	1000131-86-2	NIST05.L	75890	42	C14H26O2	226



Date: 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVH11ILANL

Volume Injected (uL): 0.5

Operator: JMB3

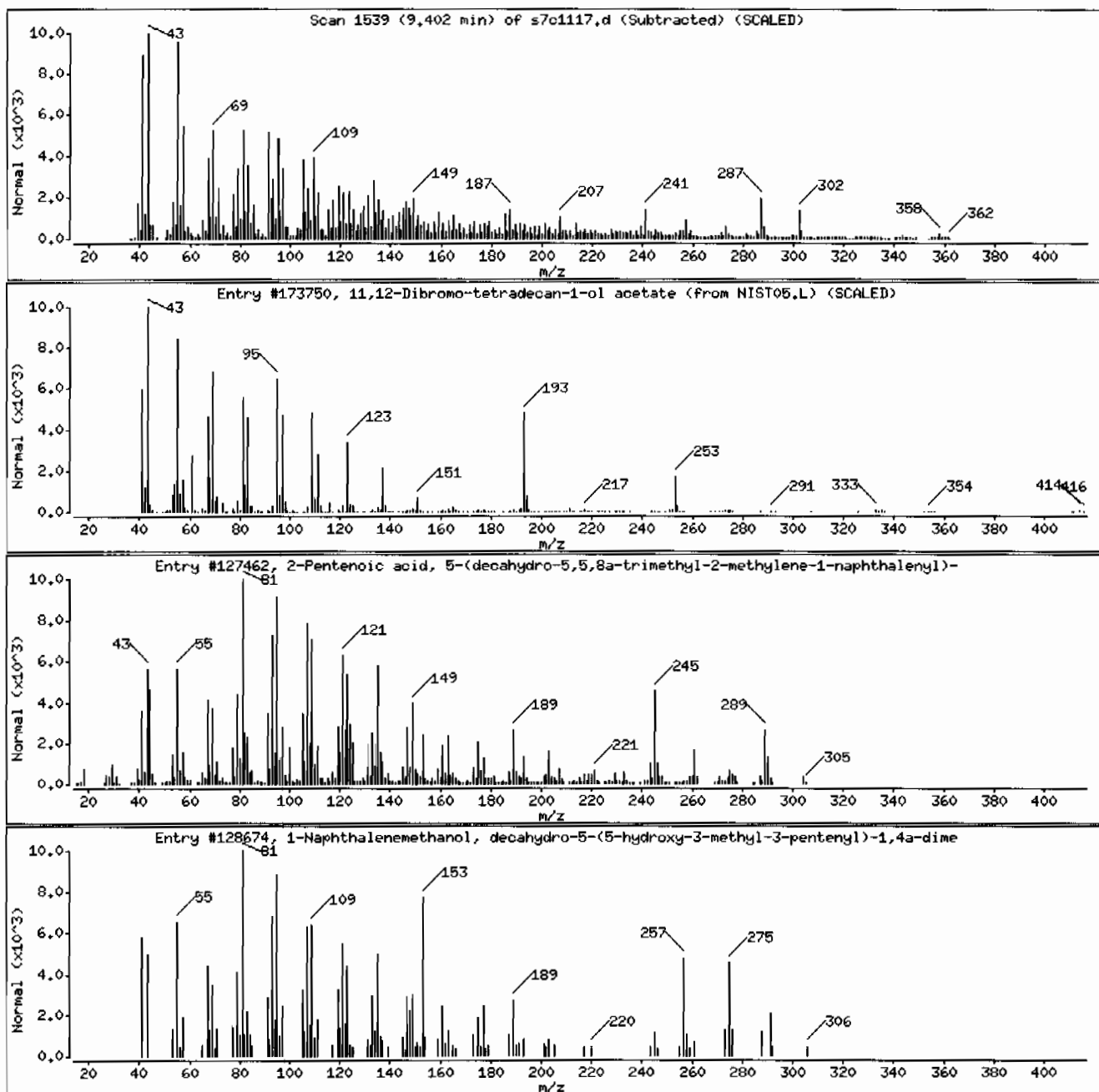
Column phase: J&amp;W DB-5MS

Column diameter: 0.20

## Library Search Compound Match

Unknown

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	46	C16H30Br2O2	412
2-Pentenoic acid, 5-(decahydro-5,5,8a-trimethyl-2-methylene-1-naphthalenyl)-	24470-48-2	NIST05.L	127462	44	C20H32O2	304
1-Naphthalenemethanol, decahydro-5-(5-hydroxy-3-methyl-3-pentenyl)-1,4a-dimethyl-	1857-24-5	NIST05.L	128674	43	C20H34O2	306



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVH111LANL

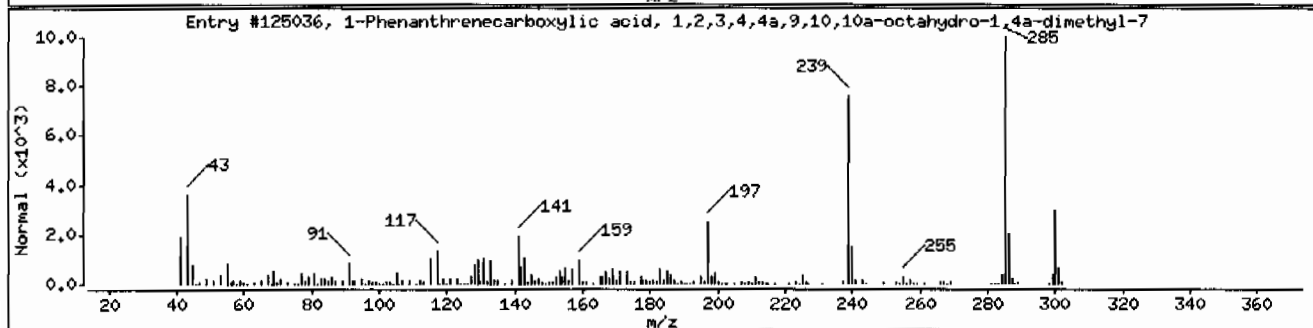
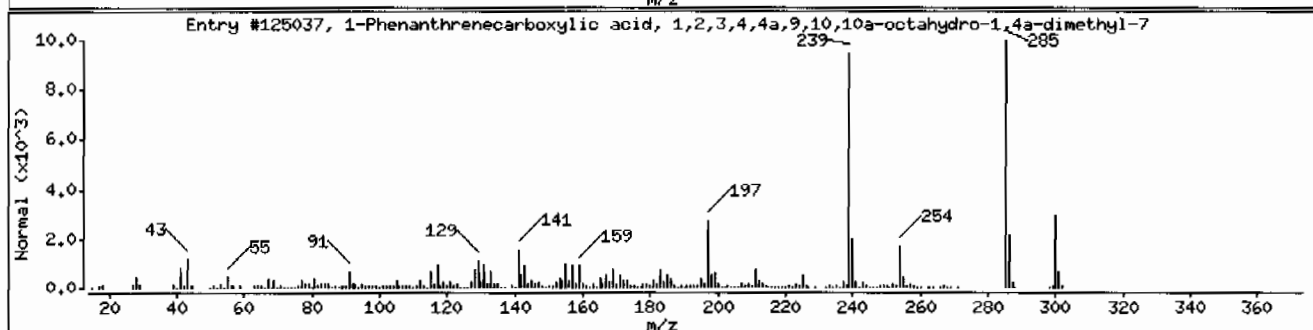
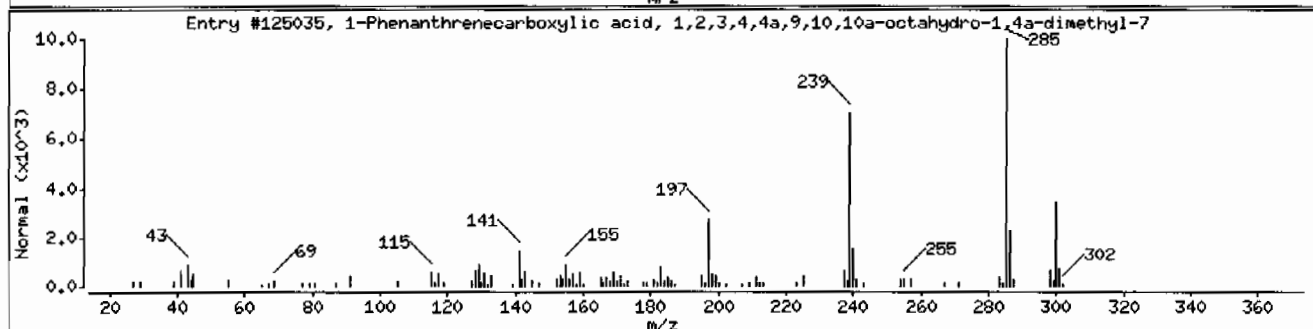
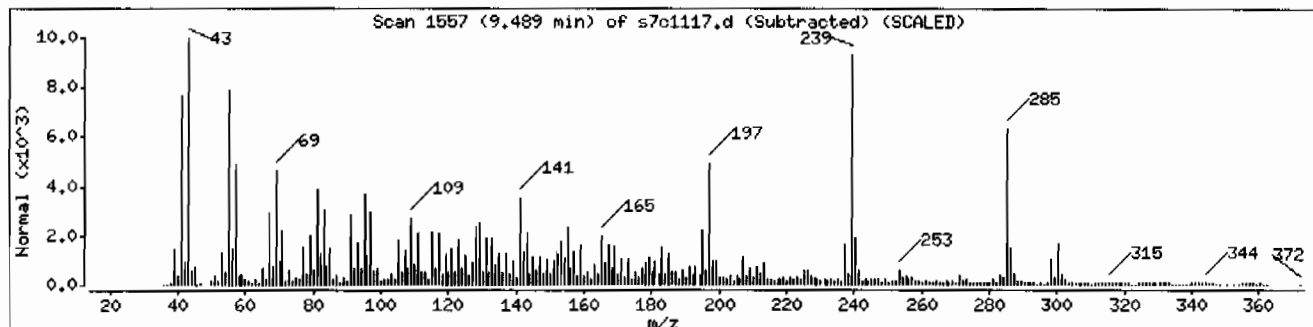
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	5155-70-4	NIST05.L	125035	99	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125037	94	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125036	81	C20H28O2	300



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVMI11LANL

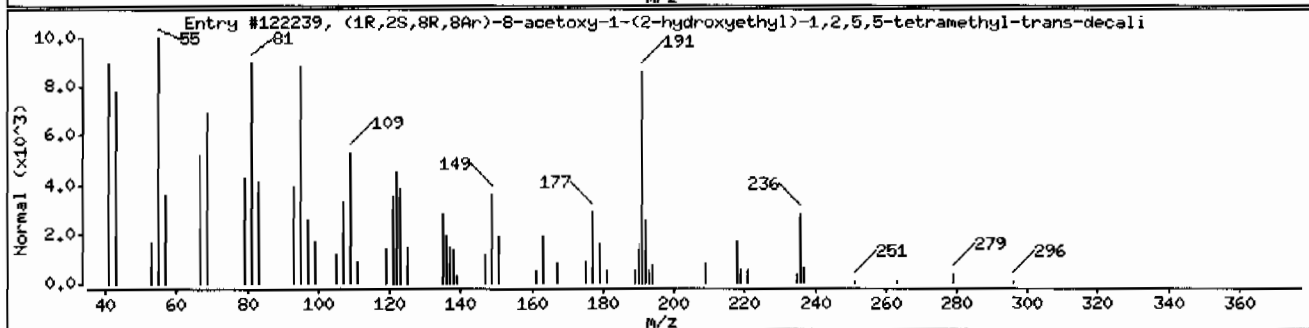
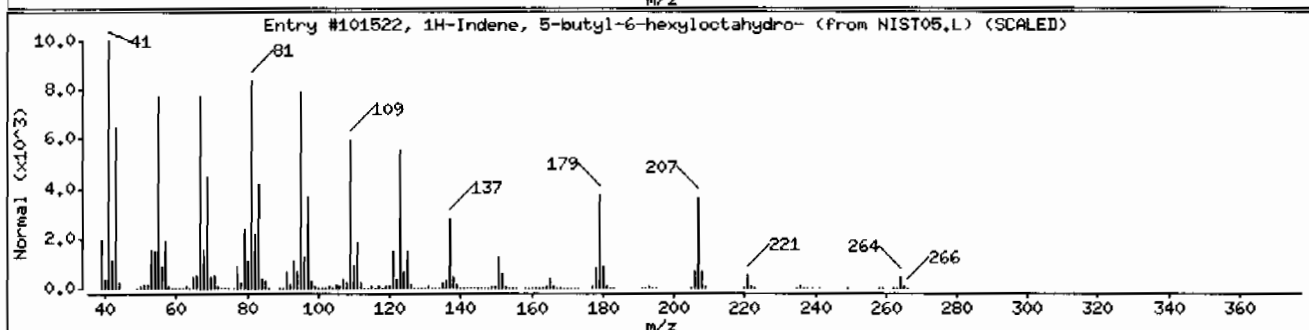
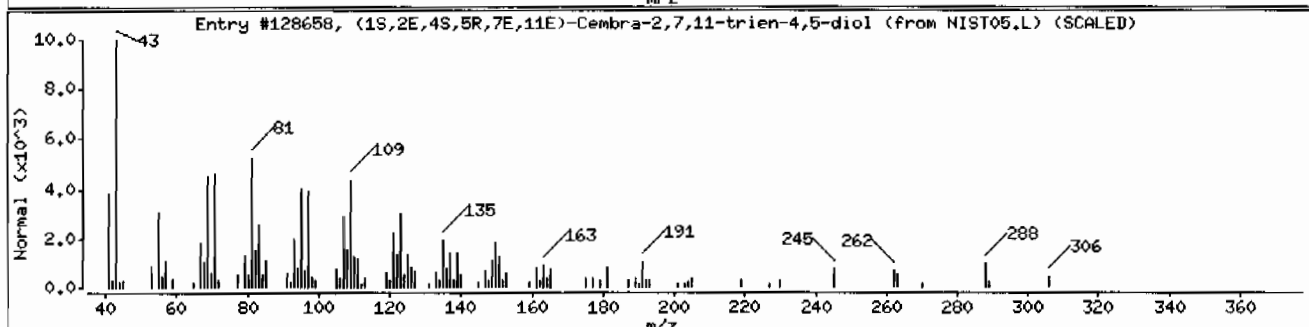
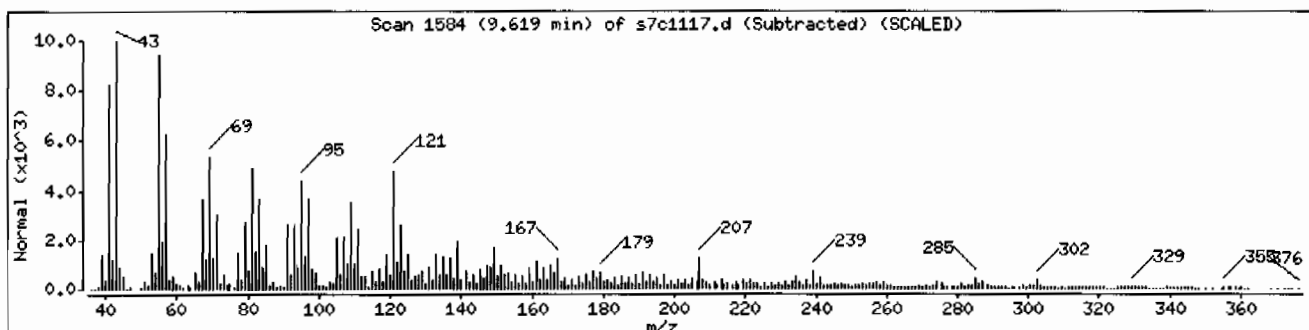
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
(1S,2E,4S,5R,7E,11E)-Cembra-2,7,11-trien	1000140-92-3	NIST05.L	128658	89	C20H34O2	306
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	83	C19H36	264
(1R,2S,8R,8Ar)-8-acetoxy-1-(2-hydroxyethyl	1000298-98-4	NIST05.L	122239	70	C18H32O3	296



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: I2480430171989623111SVH111LANL

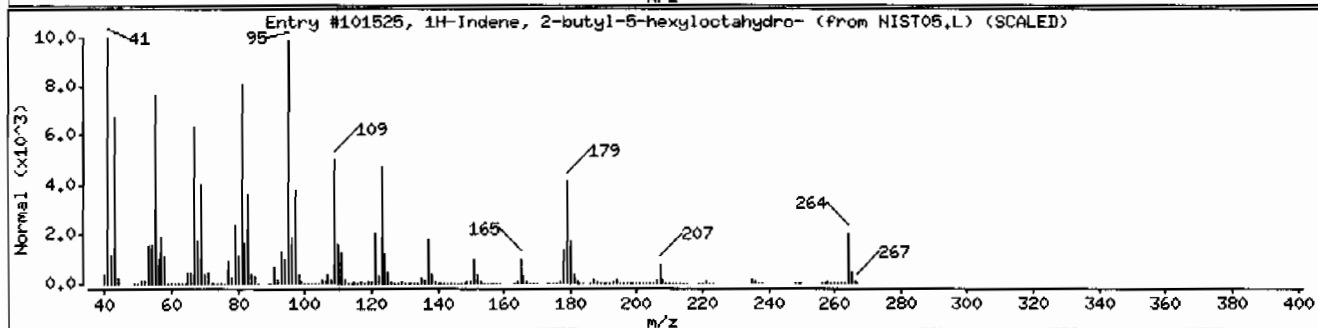
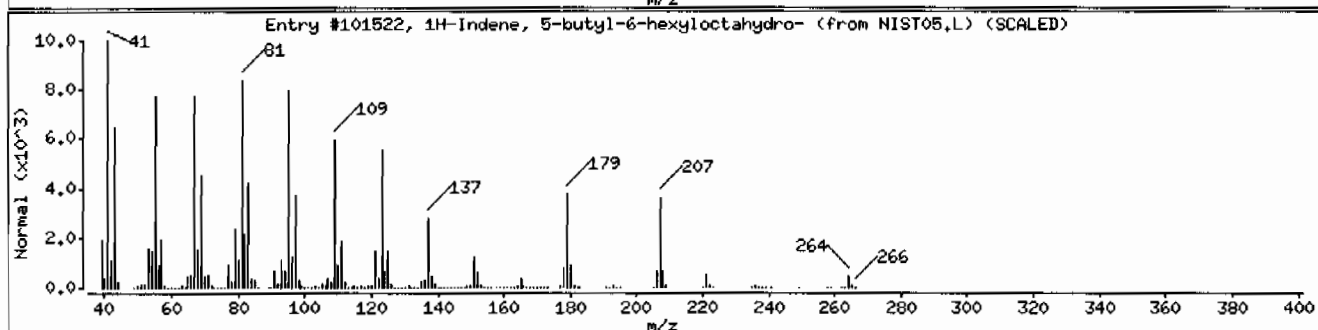
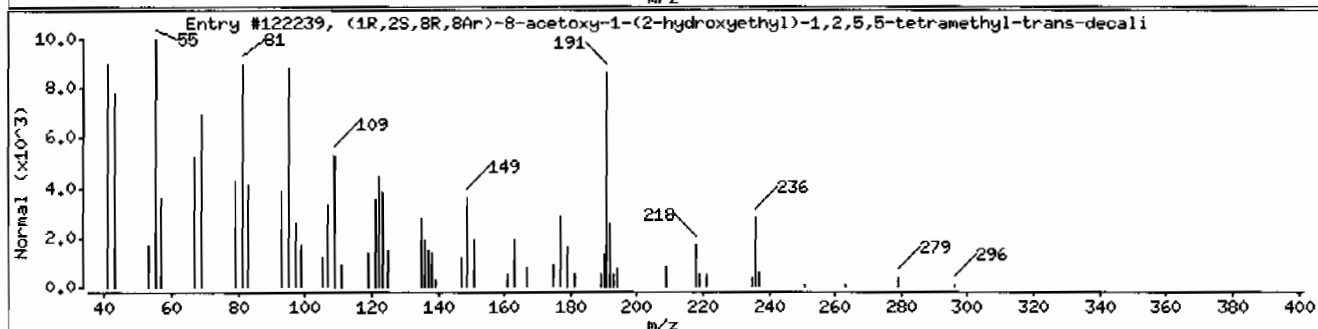
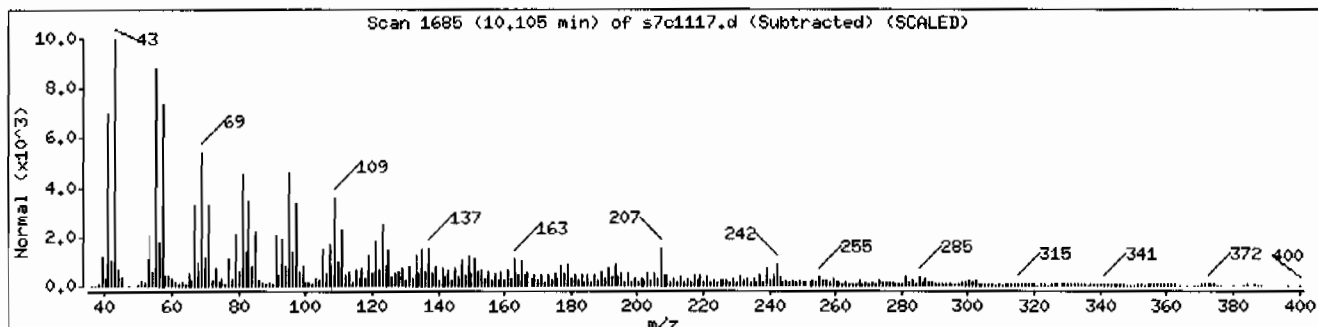
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
(1R,2S,8R,8Ar)-8-acetoxy-1-(2-hydroxyethyl	1000298-98-4	NIST05.L	122239	70	C18H32O3	296
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	64	C19H36	264
1H-Indene, 2-butyl-5-hexyloctahydro-	55044-33-2	NIST05.L	101525	55	C19H36	264



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVH11ILANL

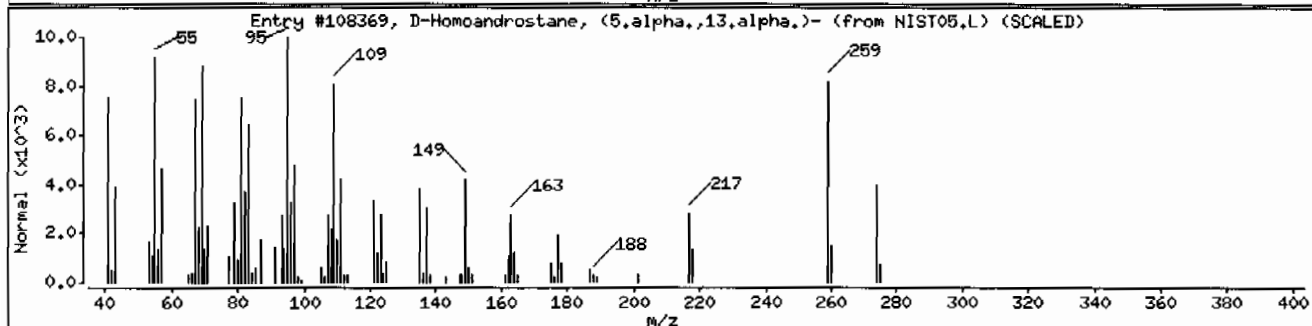
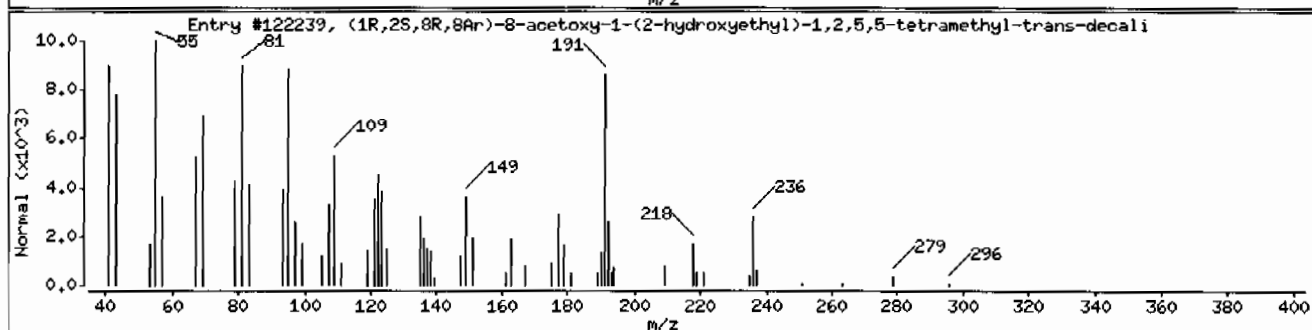
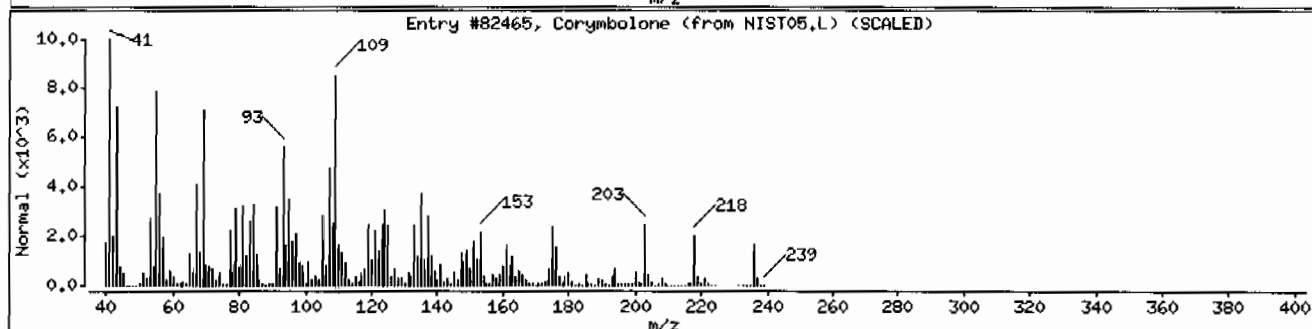
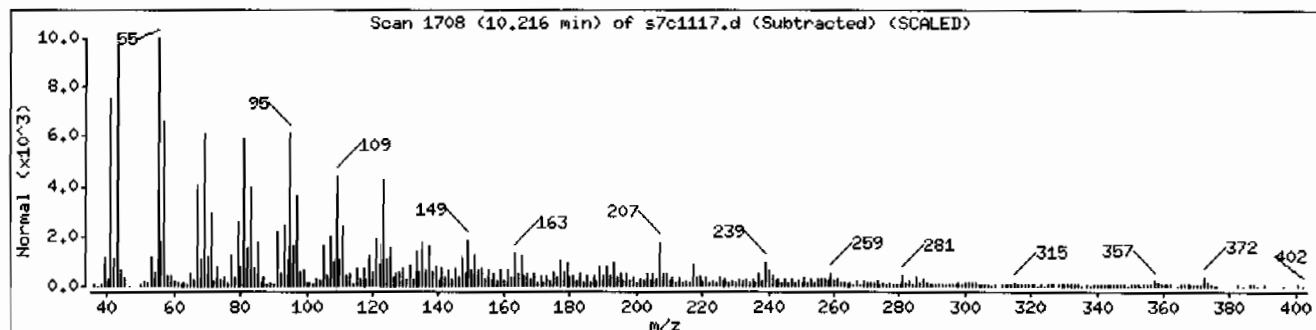
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Corymbolone	97094-19-4	NIST05.L	82465	91	C15H24O2	236
(1R,2S,8R,8Ar)-8-acetoxy-1-(2-hydroxyethyl	1000298-98-4	NIST05.L	122239	86	C18H32O3	296
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	74	C20H34	274



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVH111LANL

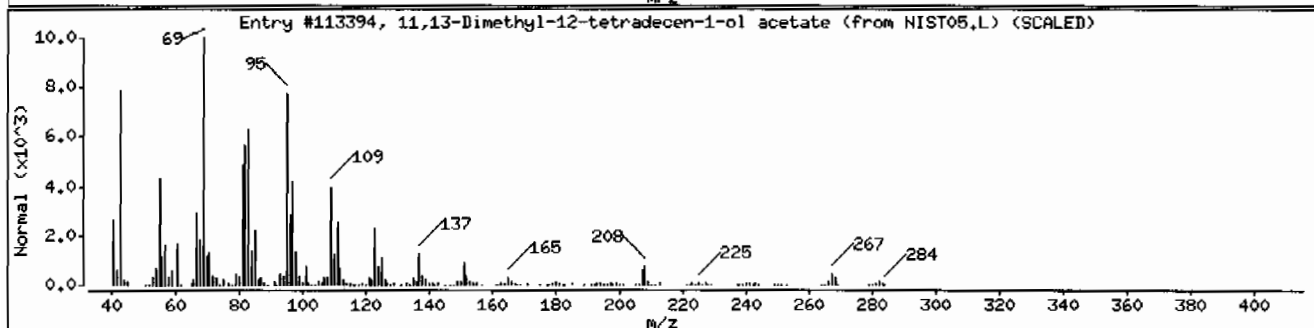
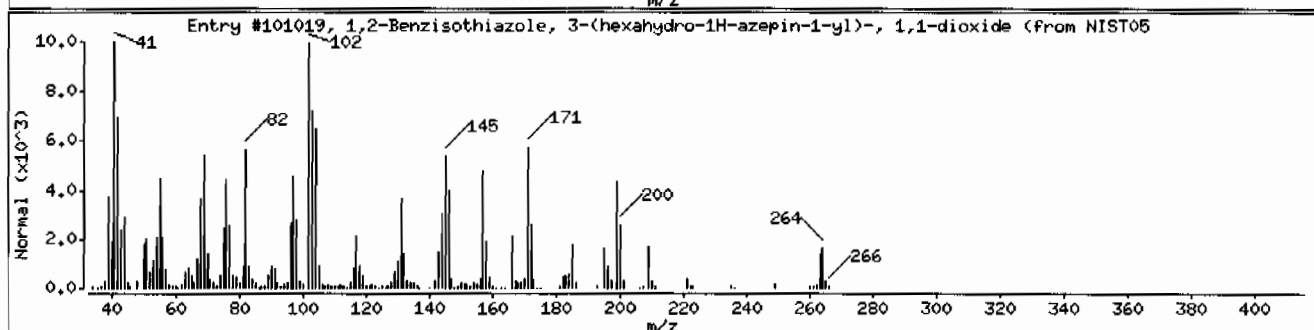
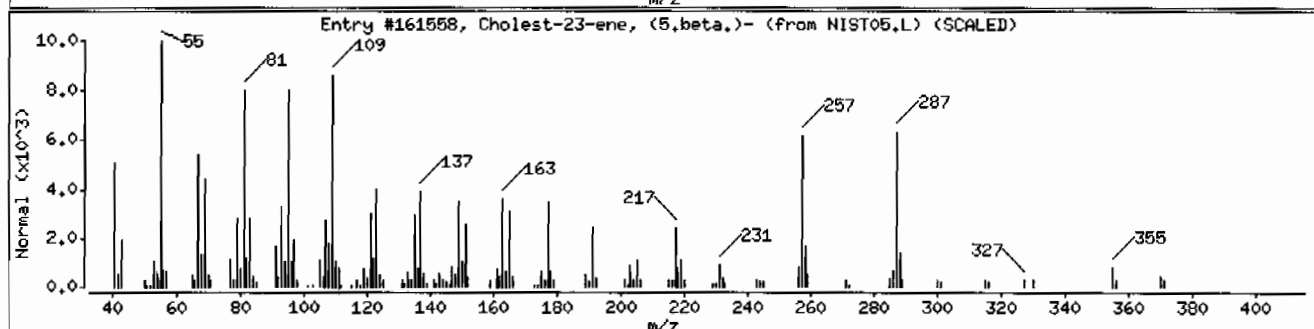
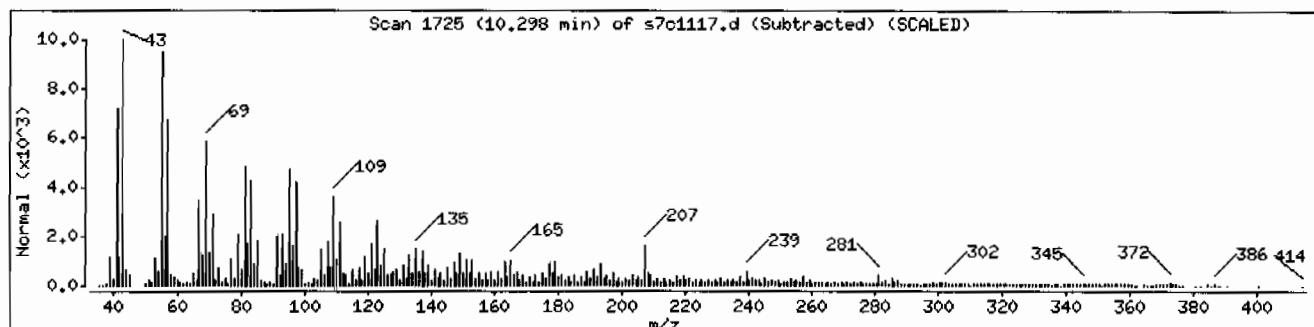
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cholest-23-ene, (5.beta.)-	30658-62-9	NIST05.L	161558	92	C27H46	370
1,2-Benzisothiazole, 3-(hexahydro-1H-aze	309735-29-3	NIST05.L	101019	91	C13H16N2O2S	264
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	86	C18H34O2	282



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 12480430171959623111SVH111LANL

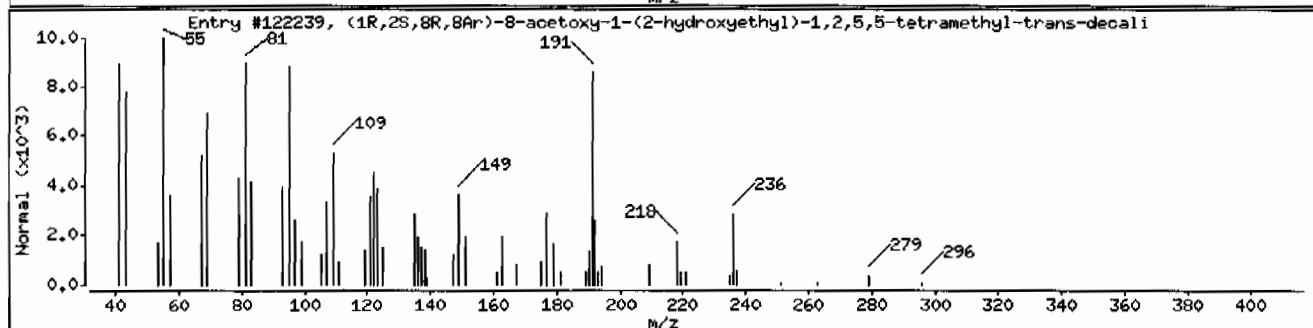
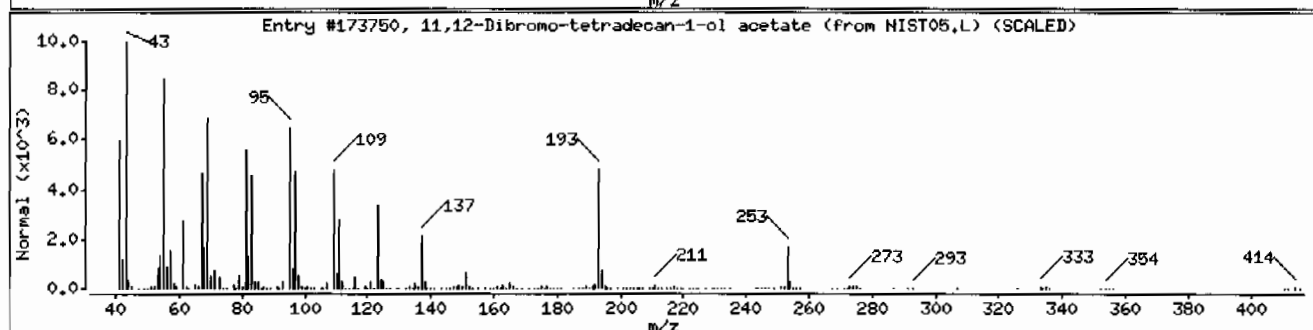
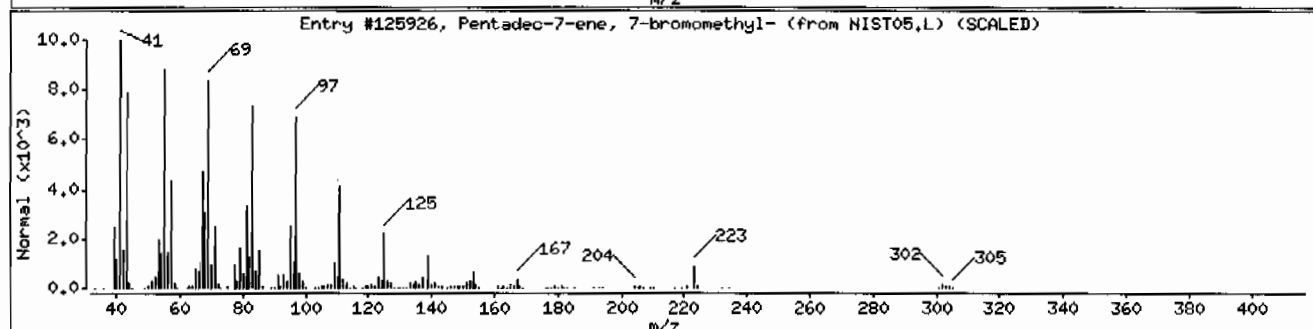
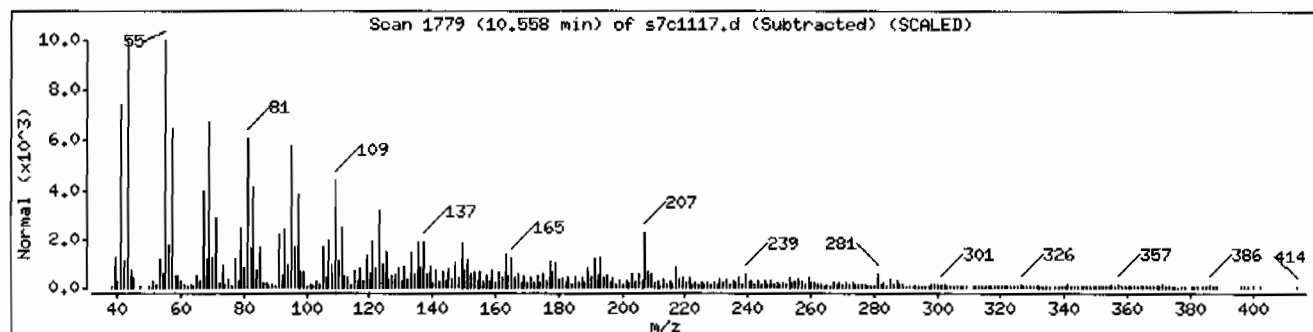
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pentadec-7-ene, 7-bromomethyl-	1000259-58-5	NIST05.L	125926	83	C16H31Br	302
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	83	C16H30Br2O2	412
(1R,2S,8R,8Ar)-8-acetoxy-1-(2-hydroxyethyl)	1000298-98-4	NIST05.L	122239	64	C18H32O3	296





Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: HSD7.1

Sample Info: 1248043017195962311SVMI11LANL

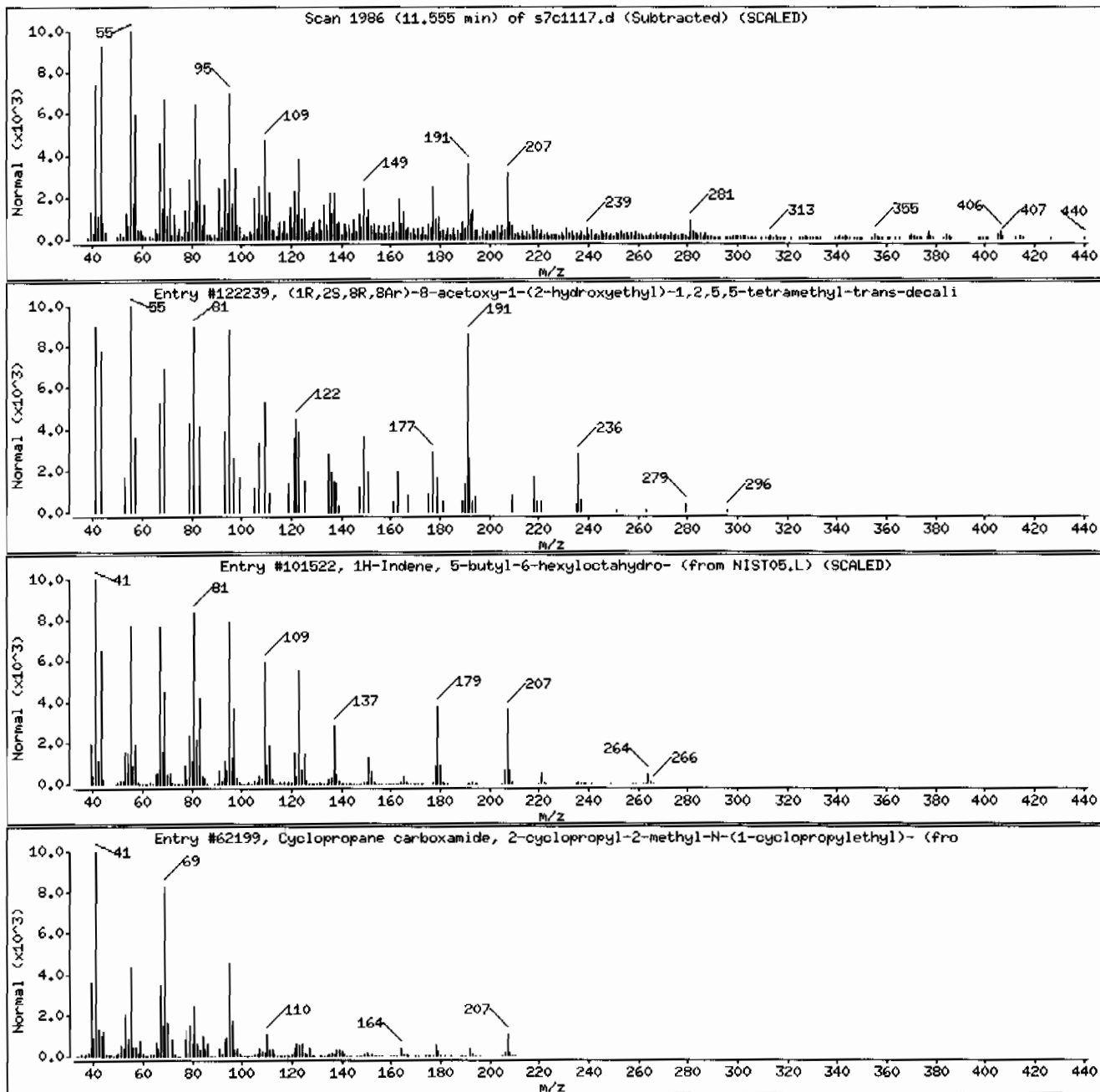
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
(1R,2S,8R,8Ar)-8-acetoxy-1-(2-hydroxyethyl	1000298-98-4	NIST05.L	122239	78	C18H32O3	296
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	70	C19H36	264
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	55	C13H21NO	207



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVH111LANL

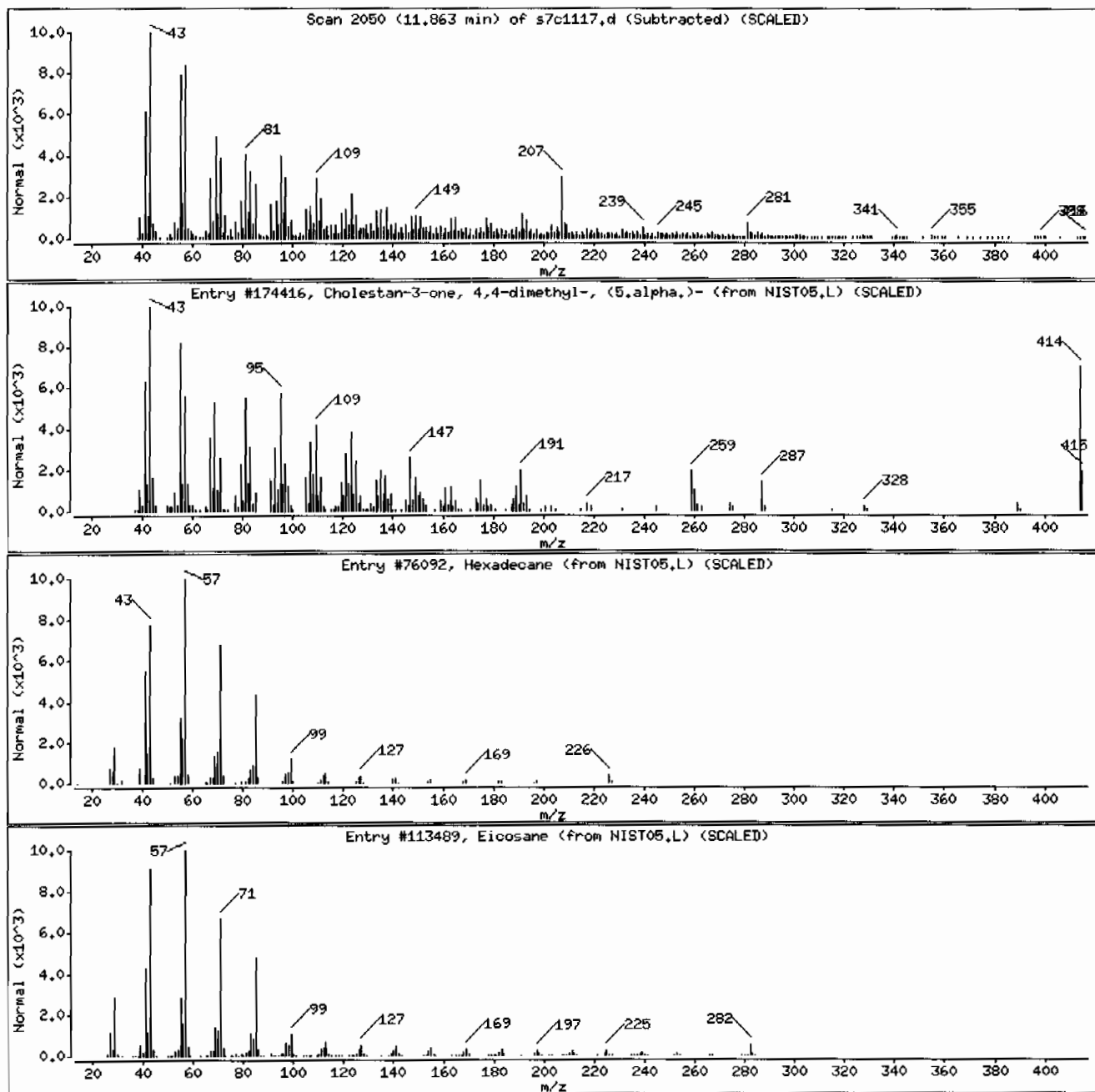
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cholestan-3-one, 4,4-dimethyl-, (5.alpha.	2097-85-0	NIST05.L	174416	94	C29H50O	414
Hexadecane	544-76-3	NIST05.L	76092	64	C16H34	226
Eicosane	112-95-8	NIST05.L	113489	64	C20H42	282



Date: 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVH11ILANL

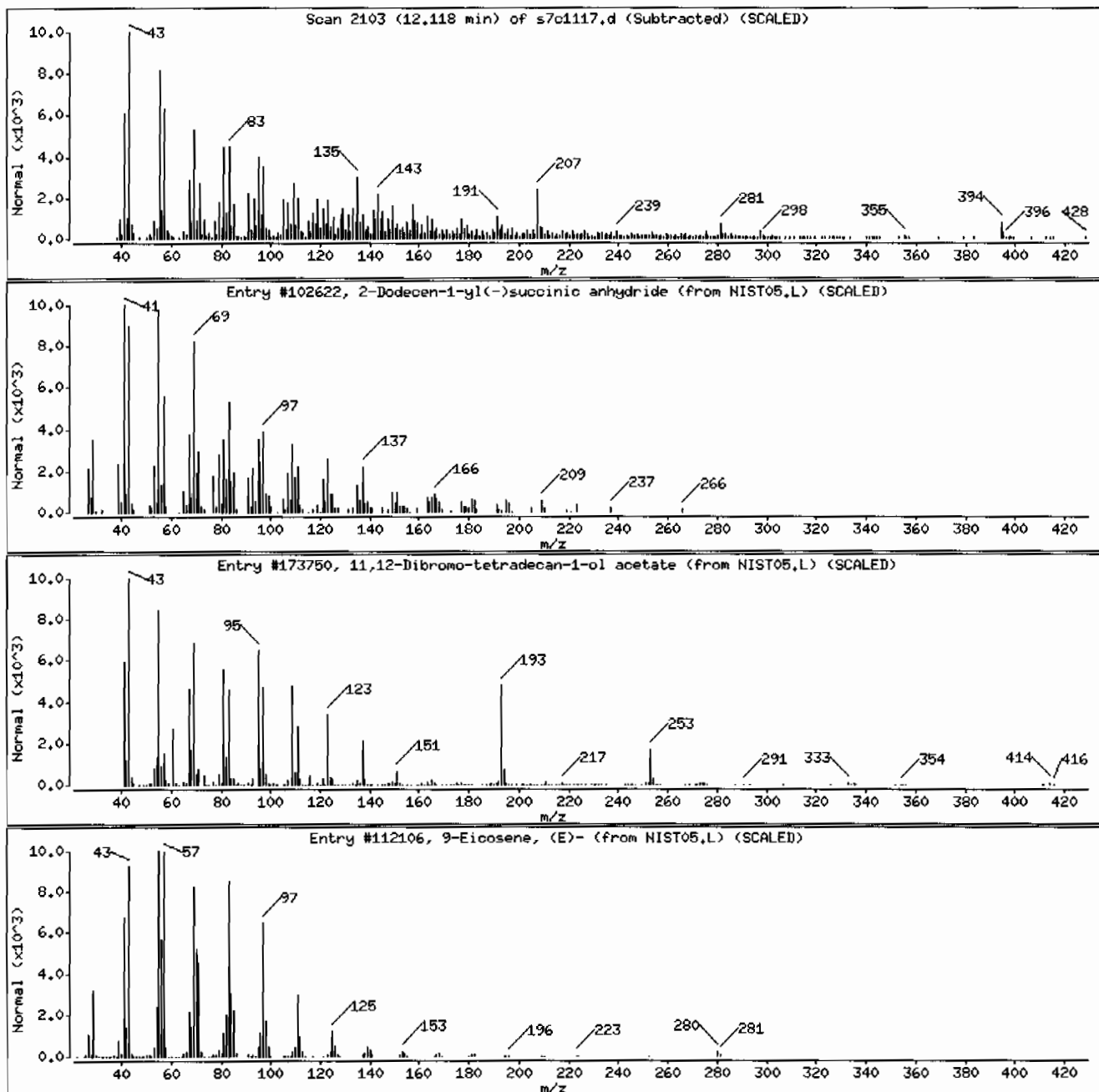
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	70	C16H26O3	266
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	64	C16H30Br2O2	412
9-Eicosene, (E)-	74685-29-3	NIST05.L	112106	55	C20H40	280



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: I248043017195962311SVH111LANL

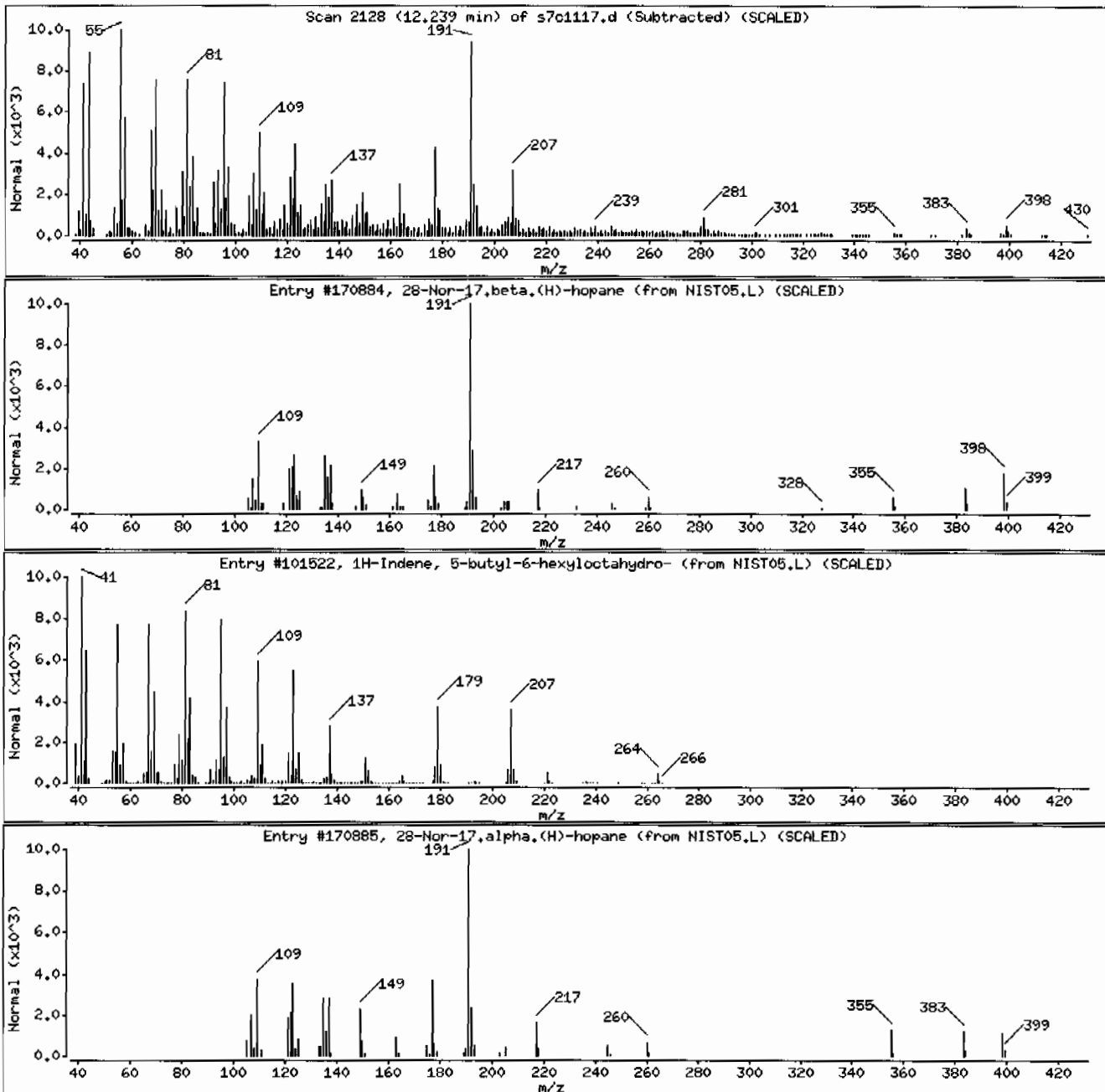
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
28-Nor-17,beta,(H)-hopane	36728-72-0	NIST05.L	170884	93	C29H50	398
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	64	C19H36	264
28-Nor-17,alpha,(H)-hopane	53584-60-4	NIST05.L	170885	60	C29H50	398



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 12480430171959623111SVH111LANL

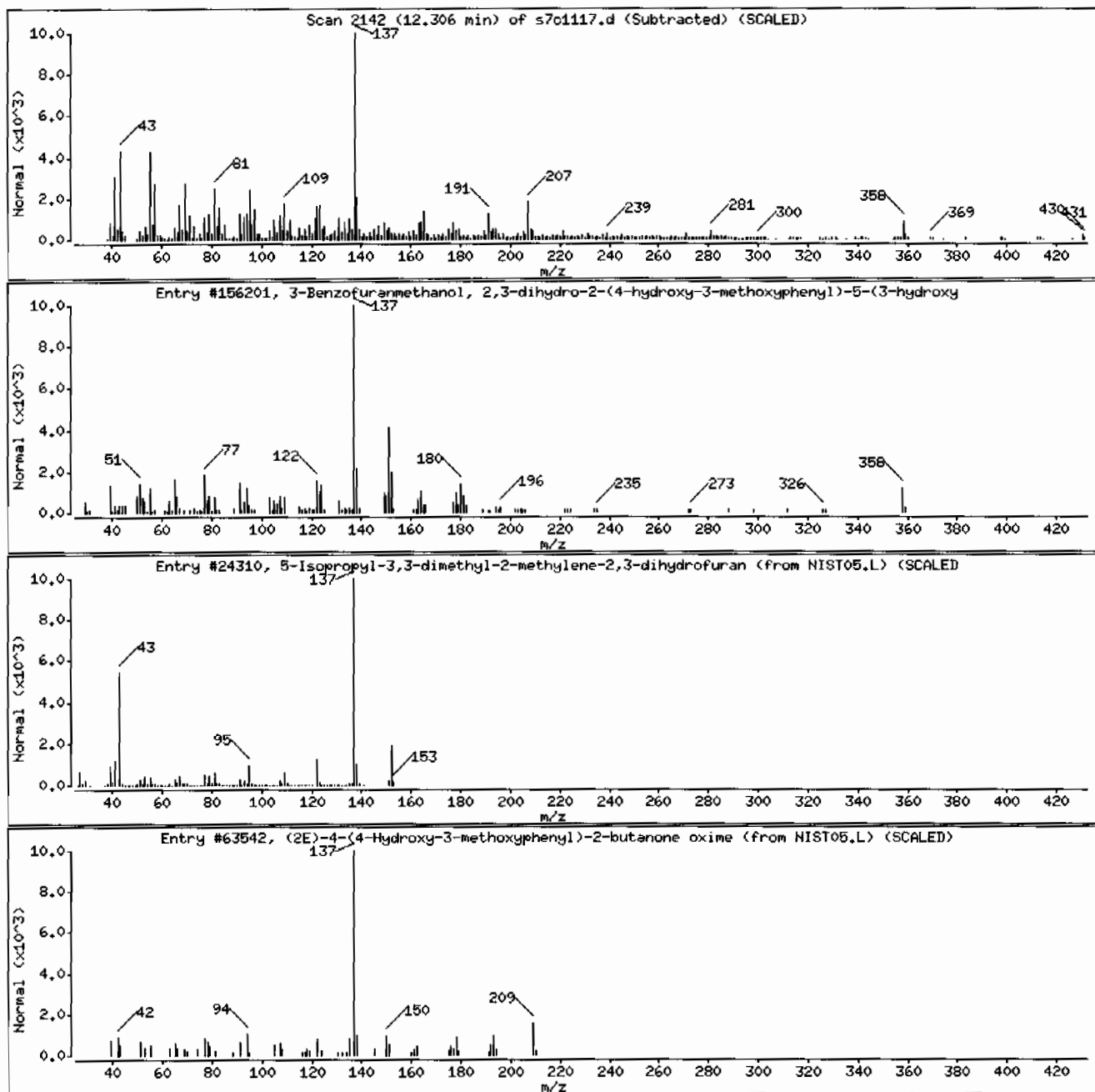
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-Benzofuranmethanol, 2,3-dihydro-2-(4-h	4263-87-0	NIST05.L	156201	64	C20H22O6	358
5-Isopropyl-3,3-dimethyl-2-methylene-2,3	81250-44-4	NIST05.L	24310	52	C10H16O	152
(2E)-4-(4-Hydroxy-3-methoxyphenyl)-2-but	1000297-96-4	NIST05.L	63542	49	C11H15NO3	209



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVMI11LANL

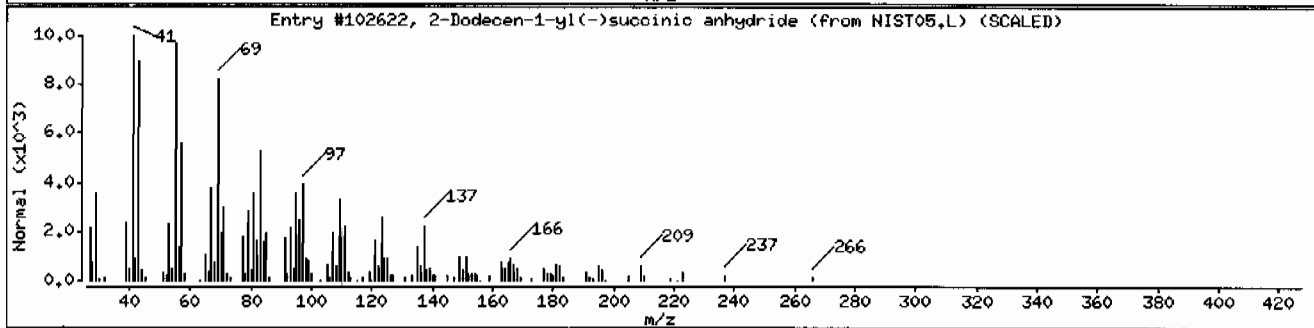
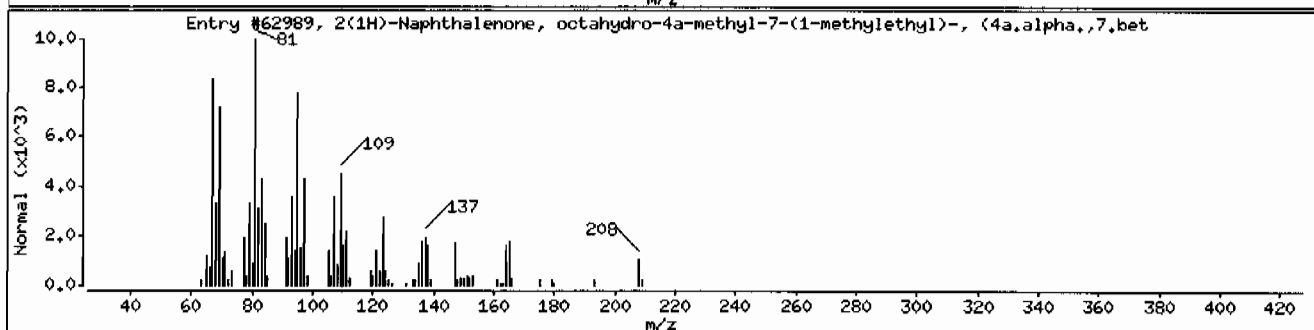
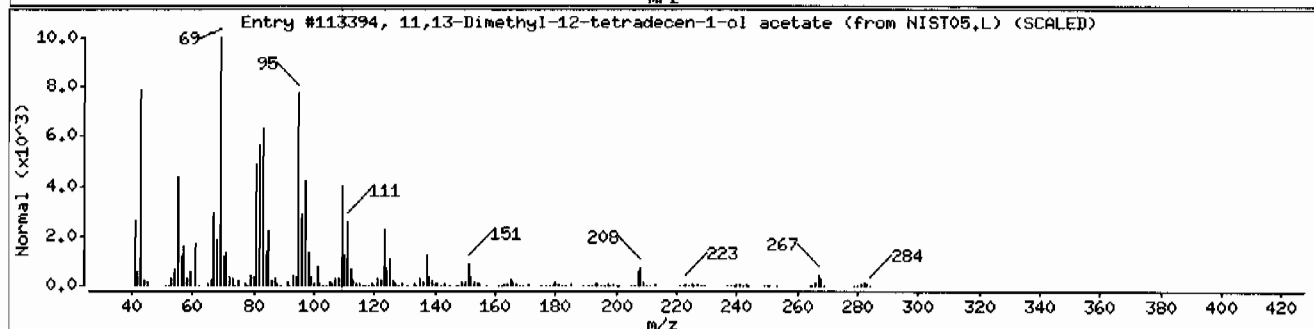
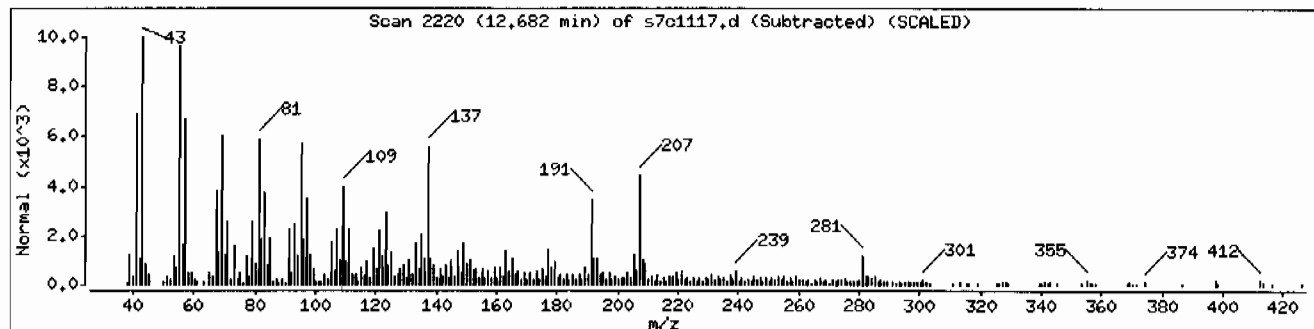
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	53	C18H34O2	282
2(1H)-Naphthalenone, octahydro-4a-methyl	54594-42-2	NIST05.L	62989	49	C14H24O	208
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	42	C16H26O3	266



Date: 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVH111LANL

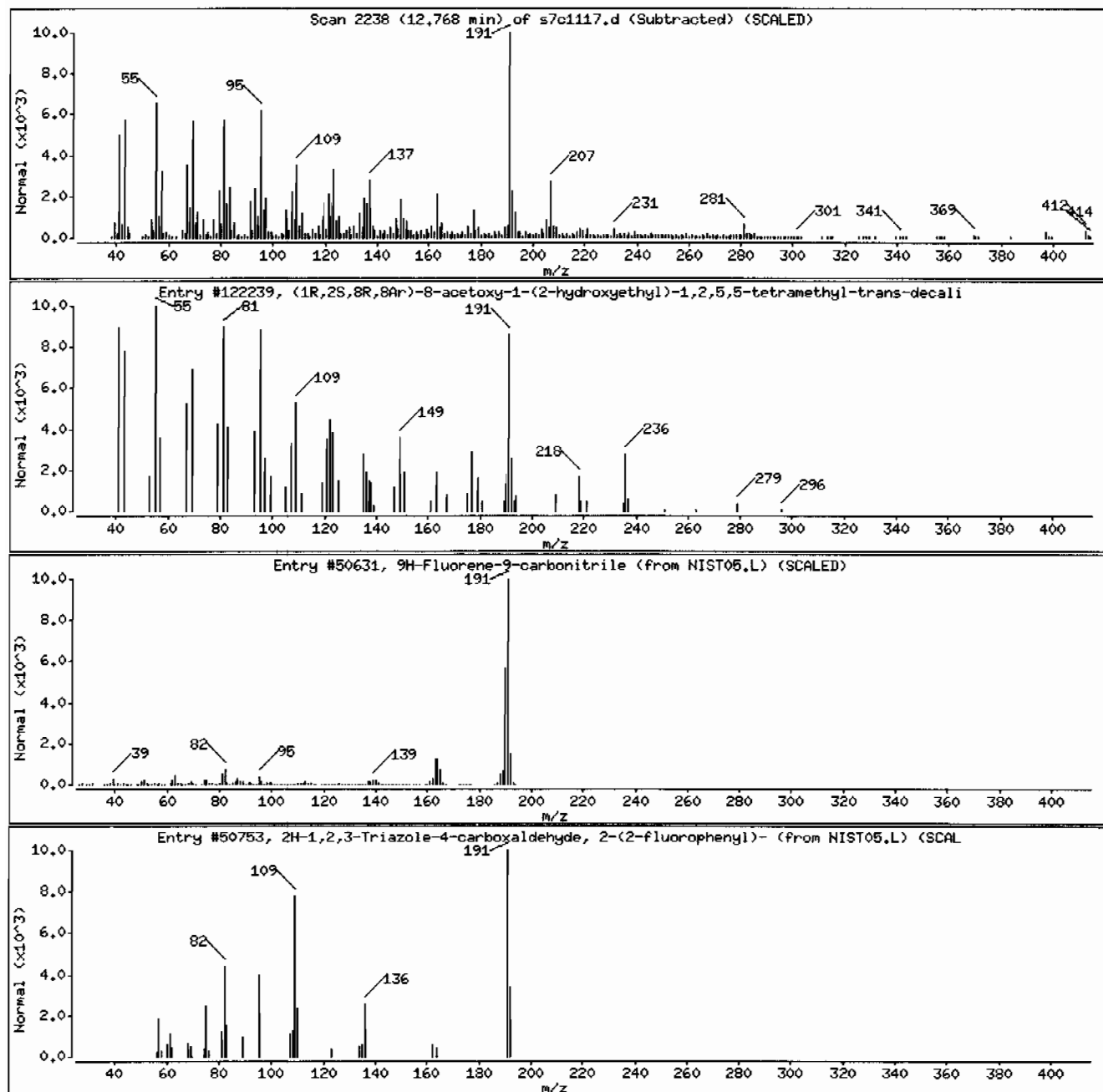
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
(1R,2S,8R,8Ar)-8-acetoxy-1-(2-hydroxyethyl	1000298-98-4	NIST05.L	122239	60	C18H32O3	296
9H-Fluorene-9-carbonitrile	1529-40-4	NIST05.L	50631	46	C14H9N	191
2H-1,2,3-Triazole-4-carboxaldehyde, 2-(2	51306-43-5	NIST05.L	50753	43	C9H6FN3O	191



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.1

Sample Info: 1248043017195962311SVH111LANL

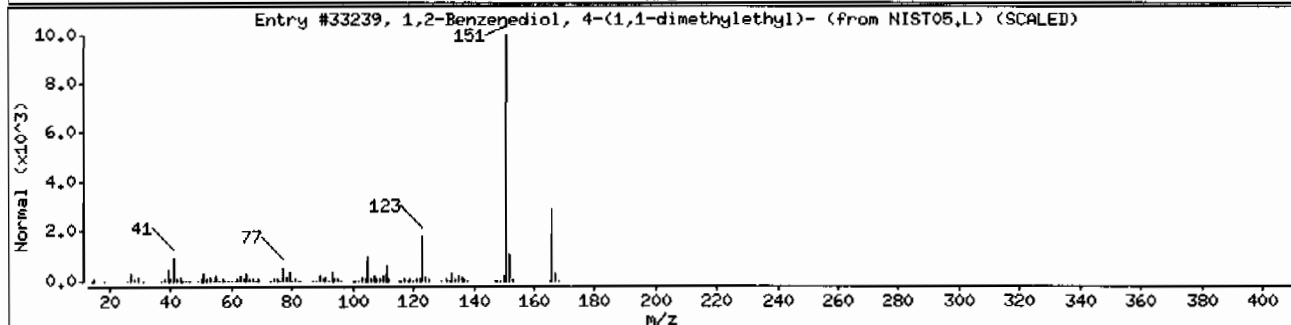
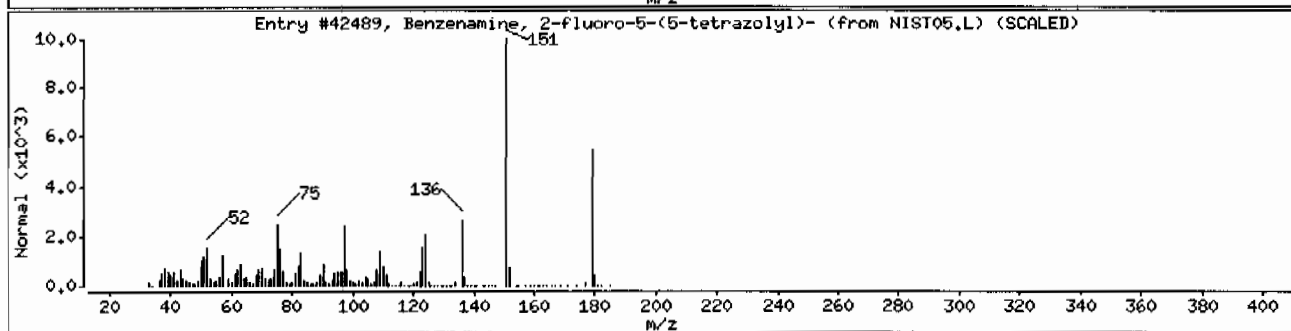
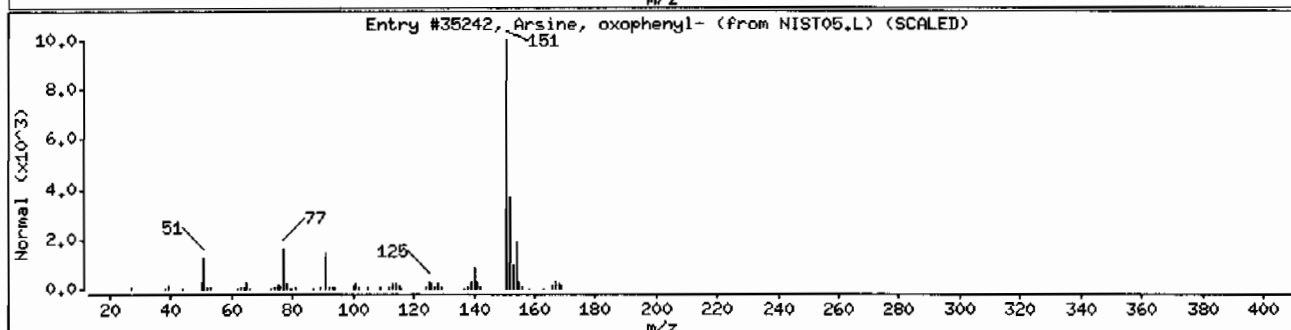
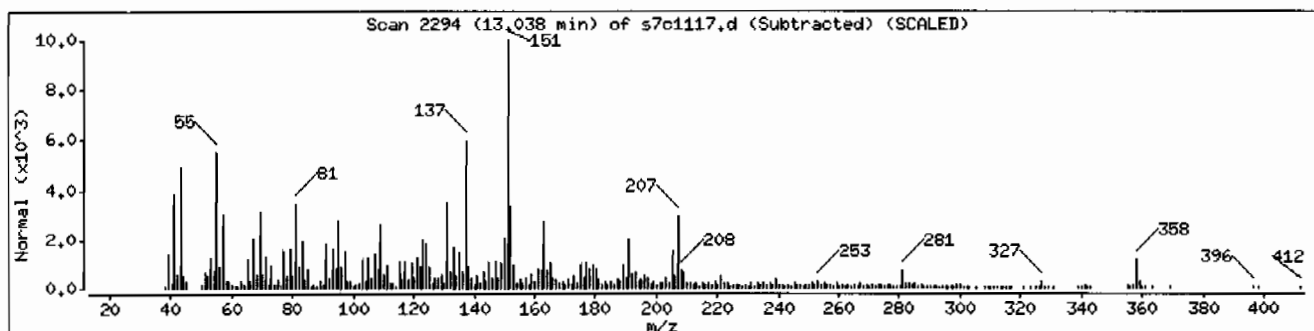
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Arsine, oxophenyl-	637-03-6	NIST05.L	35242	30	C6H5AsO	168
Benzenamine, 2-fluoro-5-(5-tetrazolyl)-	330841-34-4	NIST05.L	42489	30	C7H6FN5	179
1,2-Benzenediol, 4-(1,1-dimethylethyl)-	98-29-3	NIST05.L	33239	27	C10H14O2	166





Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311ISVH11ILANL

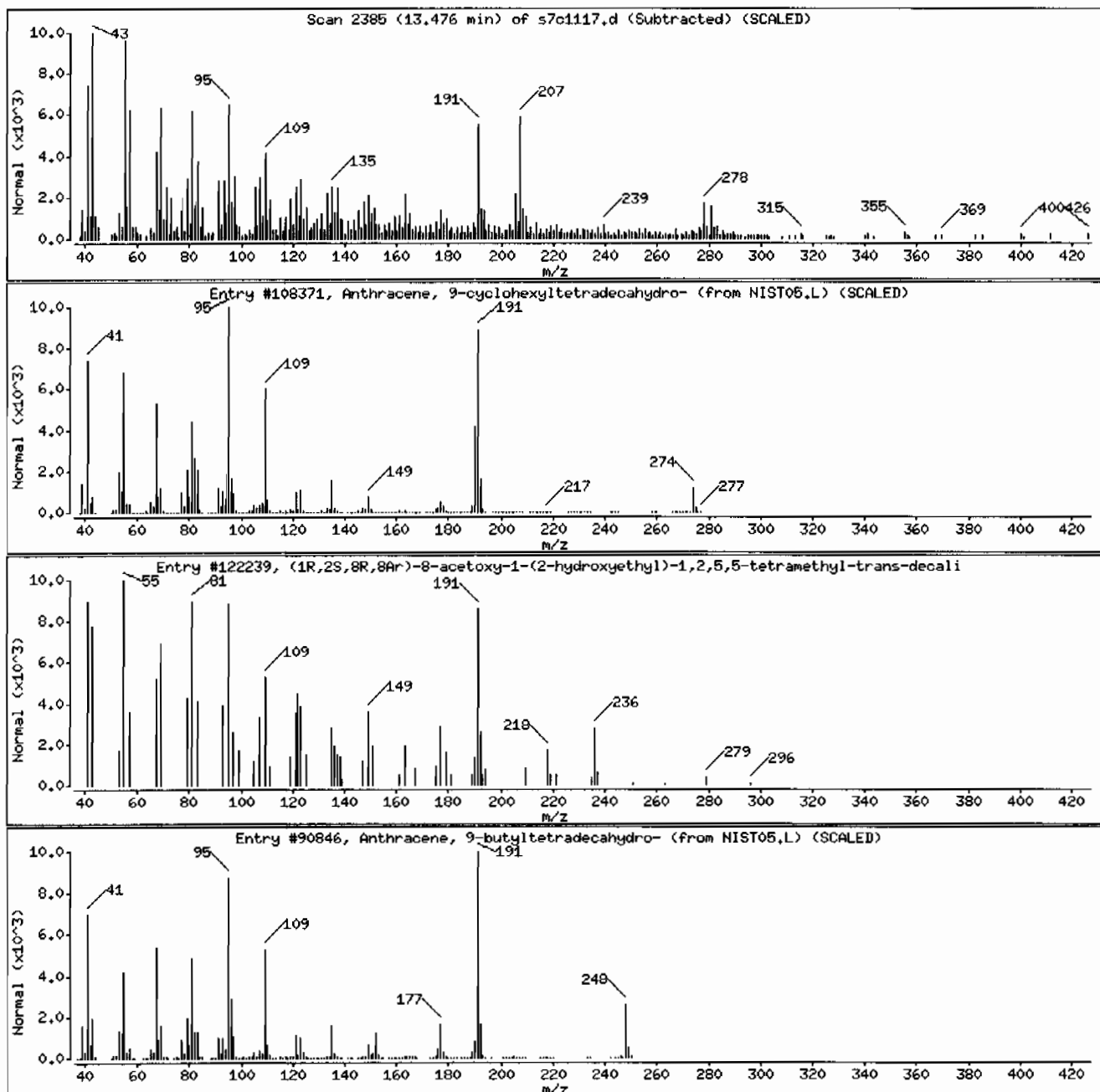
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Anthracene, 9-cyclohexyltetradecahydro-	55255-70-4	NIST05.L	108371	49	C <sub>20</sub> H <sub>34</sub>	274
(1R,2S,8R,8Ar)-8-acetoxy-1-(2-hydroxyeth	1000298-98-4	NIST05.L	122239	49	C <sub>18</sub> H <sub>32</sub> O <sub>3</sub>	296
Anthracene, 9-butyltetradecahydro-	55133-89-6	NIST05.L	90846	46	C <sub>18</sub> H <sub>32</sub>	248



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: I248043017195962311ISVM11ILANL

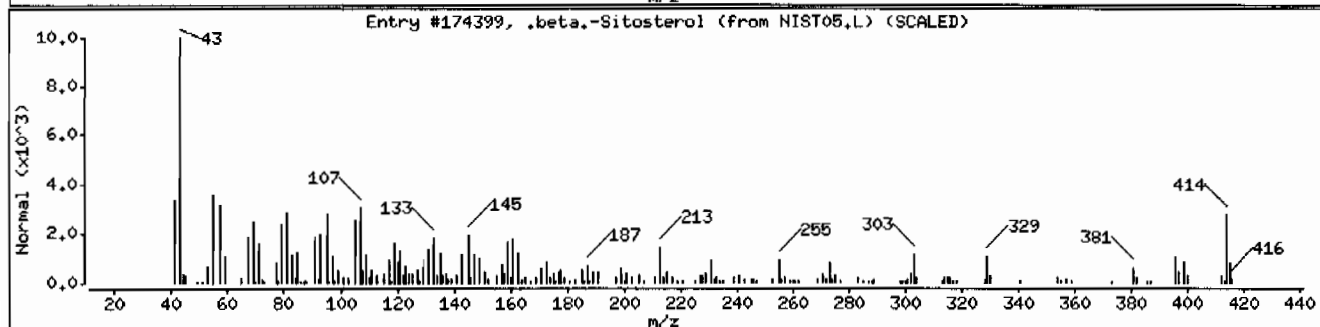
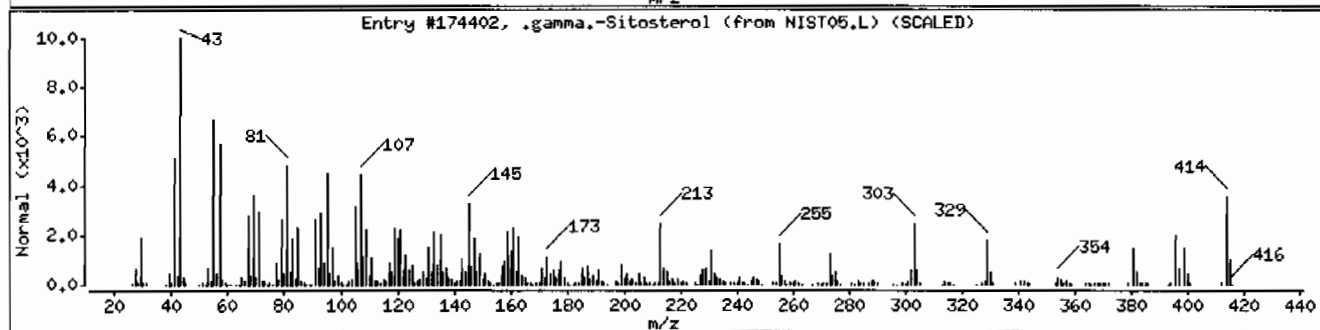
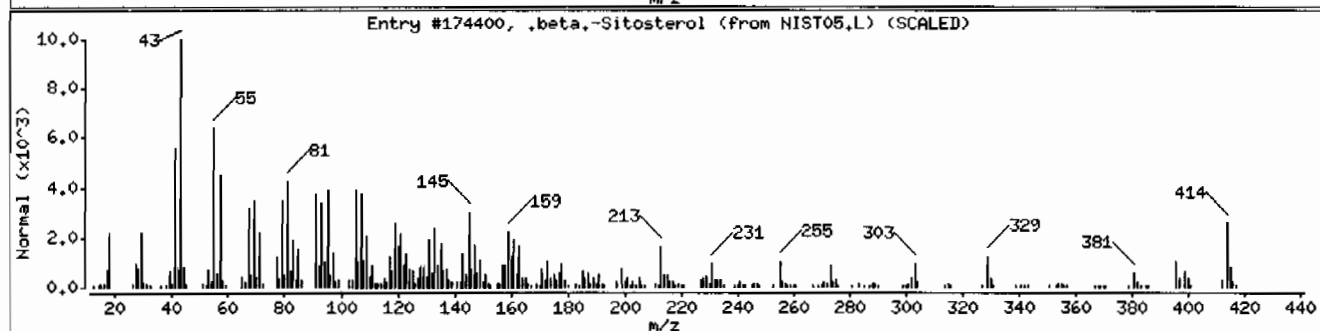
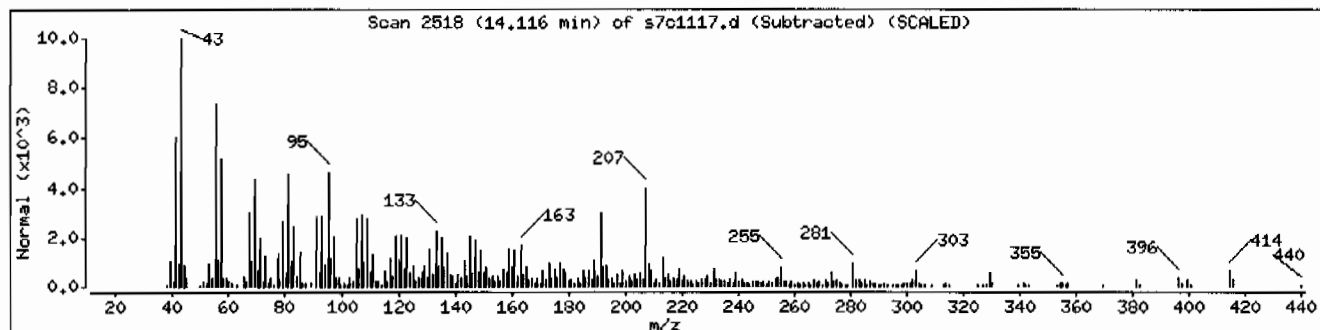
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174400	93	C <sub>29</sub> H <sub>50</sub> O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	91	C <sub>29</sub> H <sub>50</sub> O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174399	91	C <sub>29</sub> H <sub>50</sub> O	414



Date : 11-MAR-2010 18:35

Client ID: RE36-10-7470

Instrument: MSD7.i

Sample Info: 1248043017195962311SVH11ILANL

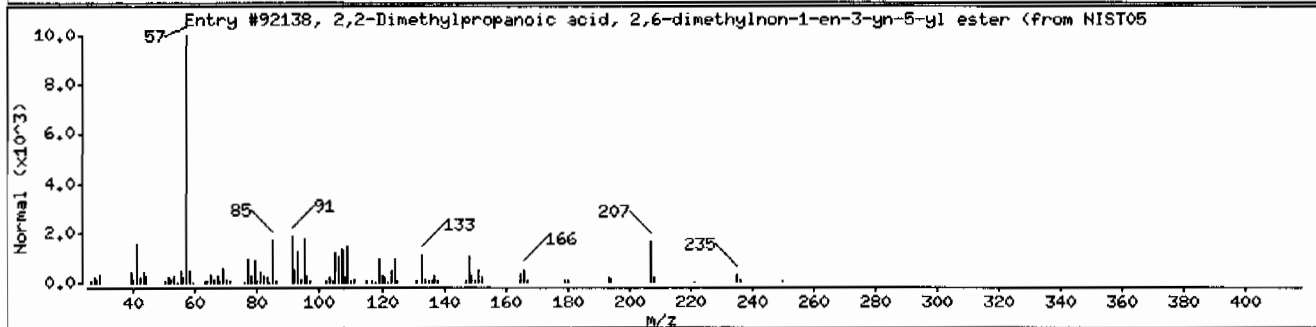
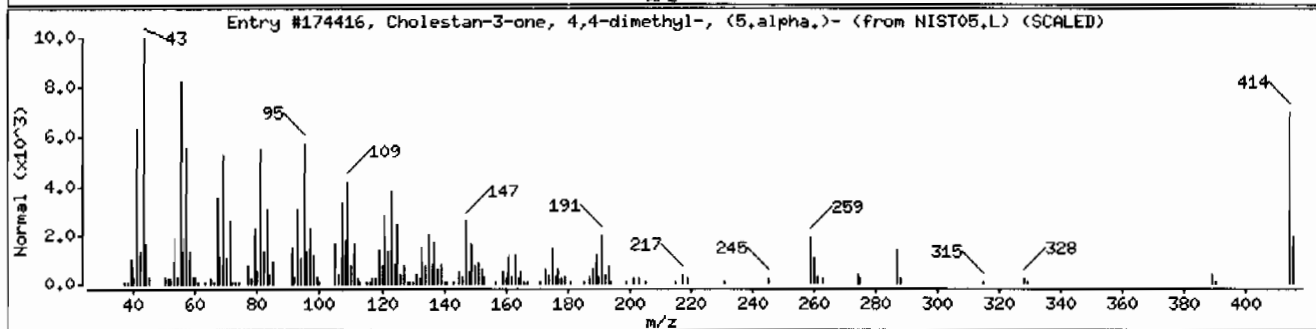
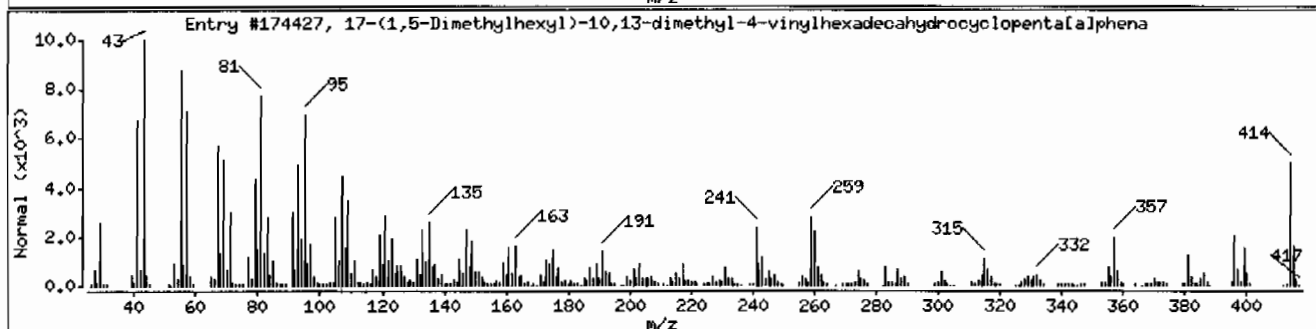
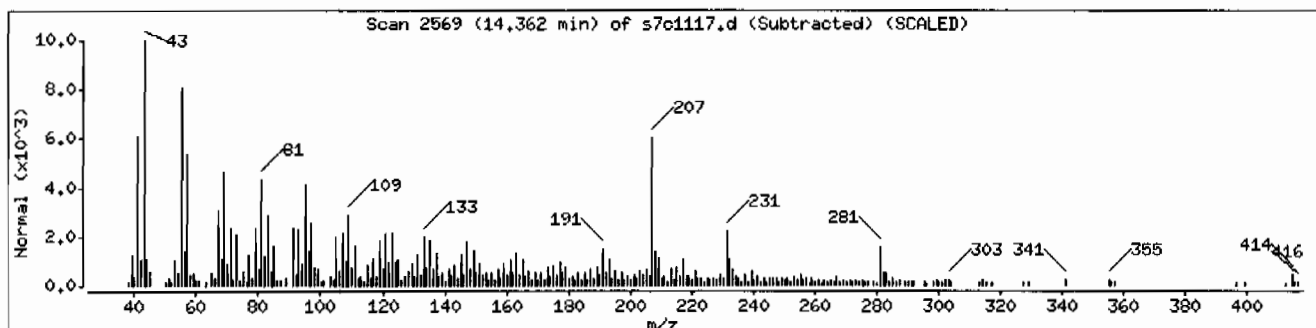
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
17-(1,5-Dimethylhexyl)-10,13-dimethyl-4-	1000210-86-9	NIST05.L	174427	64	C29H50O	414
Cholestan-3-one, 4,4-dimethyl-, (5.alpha.)	2097-85-0	NIST05.L	174416	49	C29H50O	414
2,2-Dimethylpropanoic acid, 2,6-dimethyl	1000299-33-6	NIST05.L	92138	49	C16H26O2	250



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043006	Date Received: 02/25/2010 08:45	%Moisture: 29.8
Client ID: RE36-10-7471	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/11/2010 19:40	Inst: MSD7.J	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1120.d	Aliquot: 30.02 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	474	ug/kg	94.9	474
108-95-2	Phenol	U	474	ug/kg	94.9	474
95-57-8	2-Chlorophenol	U	474	ug/kg	94.9	474
106-46-7	1,4-Dichlorobenzene	U	474	ug/kg	94.9	474
621-64-7	N-Nitrosodipropylamine	U	474	ug/kg	94.9	474
59-50-7	4-Chloro-3-methylphenol	U	474	ug/kg	94.9	474
83-32-9	Acenaphthene		556	ug/kg	15.7	47.4
121-14-2	2,4-Dinitrotoluene	U	474	ug/kg	47.4	474
100-02-7	4-Nitrophenol	U	474	ug/kg	157	474
87-86-5	Pentachlorophenol	U	474	ug/kg	119	474
129-00-0	Pyrene		3980	ug/kg	14.2	47.4
110-86-1	Pyridine	U	474	ug/kg	94.9	474
62-53-3	Aniline	U	474	ug/kg	142	474
111-44-4	bis(2-Chloroethyl) ether	U	474	ug/kg	94.9	474
541-73-1	1,3-Dichlorobenzene	U	474	ug/kg	94.9	474
100-51-6	Benzyl alcohol	U	474	ug/kg	142	474
95-50-1	1,2-Dichlorobenzene	U	474	ug/kg	94.9	474
108-60-1	bis(2-Chloroisopropyl)ether	U	474	ug/kg	94.9	474
95-48-7	o-Cresol	U	474	ug/kg	94.9	474
65794-96-9	m,p-Cresols	U	474	ug/kg	142	474
67-72-1	Hexachloroethane	U	474	ug/kg	94.9	474
98-95-3	Nitrobenzene	U	474	ug/kg	94.9	474
78-59-1	Isophorone	U	474	ug/kg	94.9	474
88-75-5	2-Nitrophenol	U	474	ug/kg	94.9	474
105-67-9	2,4-Dimethylphenol	U	474	ug/kg	166	474
111-91-1	bis(2-Chloroethoxy)methane	U	474	ug/kg	94.9	474
120-83-2	2,4-Dichlorophenol	U	474	ug/kg	94.9	474
65-85-0	Benzoic acid	U	949	ug/kg	237	949
91-20-3	Naphthalene		164	ug/kg	14.2	47.4
106-47-8	4-Chloroaniline	U	474	ug/kg	94.9	474
87-68-3	Hexachlorobutadiene	U	474	ug/kg	94.9	474
91-57-6	2-Methylnaphthalene		115	ug/kg	9.49	47.4
77-47-4	Hexachlorocyclopentadiene	U	474	ug/kg	94.9	474
88-06-2	2,4,6-Trichlorophenol	U	474	ug/kg	94.9	474
95-95-4	2,4,5-Trichlorophenol	U	474	ug/kg	94.9	474
91-58-7	2-Chloronaphthalene	U	47.4	ug/kg	15.7	47.4
88-74-4	2-Nitroaniline	U	474	ug/kg	94.9	474
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	474	ug/kg	94.9	474

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043006	Date Received: 02/25/2010 08:45	%Moisture: 29.8
Client ID: RE36-10-7471	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/11/2010 19:40	Inst: MSD7.I	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1120.d	Aliquot: 30.02 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	474	ug/kg	94.9	474
606-20-2	2,6-Dinitrotoluene	U	474	ug/kg	47.4	474
208-96-8	Acenaphthylene	U	47.4	ug/kg	14.2	47.4
51-28-5	2,4-Dinitrophenol	U	949	ug/kg	180	949
132-64-9	Dibenzofuran	J	341	ug/kg	94.9	474
84-66-2	Diethylphthalate	U	474	ug/kg	94.9	474
86-73-7	Fluorene		637	ug/kg	14.2	47.4
7005-72-3	4-Chlorophenylphenylether	U	474	ug/kg	94.9	474
534-52-1	2-Methyl-4,6-dinitrophenol	U	474	ug/kg	94.9	474
100-01-6	4-Nitroaniline	U	474	ug/kg	142	474
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	474	ug/kg	94.9	474
122-66-7	Azobenzene	U	474	ug/kg	94.9	474
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	474	ug/kg	94.9	474
118-74-1	Hexachlorobenzene	U	474	ug/kg	94.9	474
85-01-8	Phenanthrene		4930	ug/kg	14.2	47.4
120-12-7	Anthracene		1020	ug/kg	9.49	47.4
84-74-2	Di-n-butylphthalate	U	474	ug/kg	94.9	474
206-44-0	Fluoranthene		4740	ug/kg	14.2	47.4
85-68-7	Butylbenzylphthalate	U	474	ug/kg	94.9	474
56-55-3	Benzo(a)anthracene		1950	ug/kg	14.2	47.4
91-94-1	3,3'-Dichlorobenzidine	U	474	ug/kg	142	474
218-01-9	Chrysene		2110	ug/kg	14.2	47.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	474	ug/kg	94.9	474
117-84-0	Di-n-octylphthalate	U	474	ug/kg	94.9	474
205-99-2	Benzo(b)fluoranthene		3040	ug/kg	14.2	47.4
207-08-9	Benzo(k)fluoranthene	U	47.4	ug/kg	14.2	47.4
50-32-8	Benzo(a)pyrene		1740	ug/kg	14.2	47.4
193-39-5	Indeno(1,2,3-cd)pyrene		1010	ug/kg	14.2	47.4
53-70-3	Dibenzo(a,h)anthracene		354	ug/kg	14.2	47.4
191-24-2	Benzo(ghi)perylene		1060	ug/kg	14.2	47.4
120-82-1	1,2,4-Trichlorobenzene	U	474	ug/kg	94.9	474

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	478	ug/kg		J
93-05-0	1,4-Benzenediamine, N,N-diethyl-	5.95	193	ug/kg	98	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043006	Date Received: 02/25/2010 08:45	%Moisture: 29.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7471	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 19:40	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s7c1120.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
---------	----------	-----------	--------	-------	---------	---------

Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
486-25-9	9H-Fluoren-9-one	7.12	220	ug/kg	95	NJ
132-65-0	Dibenzothiophene	7.2	236	ug/kg	97	NJ
86-74-8	Carbazole	7.47	582	ug/kg	95	NJ
832-69-9	Phenanthrene, 1-methyl-	7.7	438	ug/kg	98	NJ
2531-84-2	Phenanthrene, 2-methyl-	7.73	511	ug/kg	98	NJ
	Unknown	7.81	933	ug/kg		J
35465-71-5	2-Phenylnaphthalene	7.95	258	ug/kg	95	NJ
84-65-1	9,10-Anthracenedione	7.99	489	ug/kg	99	NJ
5737-13-3	Cyclopenta(def)phenanthrenone	8.28	199	ug/kg	96	NJ
243-17-4	11H-Benzo[b]fluorene	8.86	370	ug/kg	96	NJ
192-97-2	Benzo[e]pyrene	11.24	1140	ug/kg	98	NJ
	Unknown	11.43	373	ug/kg		J

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Data file : /chem/MSD7.i/s031110.b/s7c1120.d  
Lab Smp Id: 248043006 Client Smp ID: RE36-10-7471  
Inj Date : 11-MAR-2010 19:40  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043006|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 20  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	29.79690	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.990	3.990	(1.000)	374640	40.0000	
* 29 Naphthalene-d8	136	4.857	4.857	(1.000)	1444114	40.0000	
* 46 Acenaphthene-d10	164	6.114	6.114	(1.000)	815683	40.0000	
* 67 Phenanthrene-d10	188	7.289	7.284	(1.000)	1449254	40.0000	
* 91 Chrysene-d12	240	9.696	9.691	(1.000)	983989	40.0000	
* 98 Perylene-d12	264	11.391	11.386	(1.000)	587321	40.0000	
\$ 3 2-Fluorophenol	112	3.191	3.181	(0.800)	380943	39.1202	1860
\$ 5 Phenol-d5	99	3.716	3.706	(0.931)	522765	42.8178	2030
\$ 20 Nitrobenzene-d5	82	4.351	4.356	(0.896)	206622	18.9702	900
\$ 39 2-Fluorobiphenyl	172	5.598	5.598	(0.916)	501073	24.6492	1170
\$ 60 2,4,6-Tribromophenol	329	6.711	6.711	(1.098)	129343	54.8521	2600
\$ 81 p-Terphenyl-d14	244	8.661	8.656	(0.893)	511217	28.9997	1380

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN FINAL (ng/ul) (ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====
47 Acenaphthene	154	6.138	6.138	(1.004)	210350	11.7164	556
79 Pyrene	202	8.569	8.560	(0.884)	2608172	83.9021	3980
30 Naphthalene	128	4.871	4.876	(1.003)	94367	3.45926	164 (Q)
34 2-Methylnaphthalene	142	5.353	5.353	(1.102)	47472	2.42472	115
49 Dibenzofuran	168	6.258	6.263	(1.024)	181296	7.18500	341 (a)
53 Fluorene	166	6.523	6.528	(1.067)	284240	13.4254	637
68 Phenanthrene	178	7.313	7.308	(1.003)	3092594	103.990	4930
69 Anthracene	178	7.351	7.351	(1.009)	650126	21.5849	1020
76 Fluoranthene	202	8.358	8.343	(1.147)	3229361	99.8698	4740
89 Benzo(a)anthracene	228	9.687	9.677	(0.999)	970981	41.1624	1950
92 Chrysene	228	9.720	9.715	(1.002)	931956	44.3985	2110
95 Benzo(b)fluoranthene	252	10.876	10.861	(0.955)	1054788	64.0393	3040
97 Benzo(a)pyrene	252	11.314	11.309	(0.993)	493835	36.5654	1740
99 Indeno(1,2,3-cd)pyrene	276	13.173	13.168	(1.156)	207155	21.3304	1010
100 Dibenzo(a,h)anthracene	278	13.178	13.182	(1.157)	57470	7.46723	354
101 Benzo(ghi)perylene	276	13.722	13.712	(1.205)	180610	22.2996	1060

#### QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.



## ION RATIO REPORT

## SV REPORT

Data file: s7c1120.d

Report Date: 03/12/2010 08:17

Lab. ID: 248043006

SampleType: SAMPLE

Injection Date: 11-MAR-2010 19:40

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043006|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	29945	3.71	3.78	80-120	100	(T)
93	276	3.67	3.78	206-266	1	(QT)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	29858	4.35	4.24	80-120	100	(T)
42	23693	4.35	4.23	61-121	79	(T)
-----						
30	Naphthalene	CAS#: 91-20-3				
128	94367	4.87	4.88	80-120	100	( )
129	10856	4.87	4.88	0- 42	12	( )
127	12263	4.87	4.89	19- 79	13	(Q)
-----						
34	2-Methylnaphthalene	CAS#: 91-57-6				
142	47472	5.35	5.35	80-120	100	( )
141	39974	5.35	5.35	54-114	84	( )
-----						
43	Dimethylphthalate	CAS#: 131-11-3				
163	147893	6.11	5.87	80-120	100	(T)
164	818525	6.11	5.87	0- 40	553	(QT)
-----						
44	2,6-Dinitrotoluene	CAS#: 606-20-2				
165	105675	6.11	5.93	80-120	100	(T)
63	22016	6.13	5.93	52-112	21	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
45 Acenaphthylene			CAS#: 208-96-8			
152	29572	6.08	6.01	80-120	100	(T)
151	8213	6.08	6.01	0- 49	28	(T)
153	31068	6.08	6.01	0- 43	105	(QT)
<hr/>						
47 Acenaphthene			CAS#: 83-32-9			
154	210350	6.14	6.14	80-120	100	( )
153	241271	6.14	6.14	71-131	115	( )
152	102435	6.14	6.14	17- 77	49	( )
<hr/>						
49 Dibenzofuran			CAS#: 132-64-9			
168	181296	6.26	6.26	80-120	100	( )
139	72531	6.26	6.26	8- 68	40	( )
<hr/>						
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	105677	6.11	6.23	80-120	100	(T)
89	2032	6.11	6.23	37- 97	2	(QT)
63	21926	6.13	6.23	17- 77	21	(T)
<hr/>						
52 4-Nitrophenol			CAS#: 100-02-7			
139	72531	6.26	6.16	80-120	100	(T)
109	1441	6.26	6.16	34- 94	2	(QT)
65	2773	6.26	6.16	64-124	4	(QT)
<hr/>						
53 Fluorene			CAS#: 86-73-7			
166	284240	6.52	6.53	80-120	100	( )
165	255652	6.52	6.53	61-121	90	( )
167	41616	6.52	6.52	0- 44	15	( )
<hr/>						
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	435	6.71	6.54	80-120	100	(T)
105	1339	6.71	6.54	10- 70	308	(QT)
51	5634	6.71	6.54	54-114	1294	(QT)
<hr/>						
68 Phenanthrene			CAS#: 85-01-8			
178	3092594	7.31	7.31	80-120	100	( )
179	513629	7.31	7.31	0- 46	17	( )
176	574338	7.31	7.31	0- 49	19	( )
<hr/>						
69 Anthracene			CAS#: 120-12-7			
178	650126	7.35	7.35	80-120	100	( )
179	146915	7.35	7.35	0- 46	23	( )
176	110586	7.35	7.35	0- 48	17	( )
<hr/>						
76 Fluoranthene			CAS#: 206-44-0			
202	3229361	8.36	8.34	80-120	100	( )
203	589115	8.36	8.34	0- 48	18	( )
101	395367	8.35	8.34	0- 41	12	( )
<hr/>						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
79 Pyrene		CAS#: 129-00-0				
202	2608172	8.57	8.56	80-120	100	( )
200	527440	8.57	8.56	0- 50	20	( )
101	384846	8.57	8.56	0- 44	15	( )
-----						
89 Benzo(a)anthracene		CAS#: 56-55-3				
228	970981	9.69	9.68	80-120	100	( )
226	257167	9.69	9.68	0- 56	26	( )
229	266880	9.68	9.68	0- 50	27	( )
-----						
92 Chrysene		CAS#: 218-01-9				
228	931956	9.72	9.72	80-120	100	( )
229	222481	9.72	9.72	0- 50	24	( )
226	265821	9.72	9.72	0- 59	29	( )
-----						
95 Benzo(b)fluoranthene		CAS#: 205-99-2				
252	1054788	10.88	10.86	80-120	100	( )
253	239516	10.88	10.86	0- 52	23	( )
125	122660	10.88	10.86	0- 41	12	( )
-----						
96 Benzo(k)fluoranthene		CAS#: 207-08-9				
252	1054788	10.88	10.90	80-120	100	( )
253	247783	10.88	10.90	0- 52	23	( )
125	122660	10.88	10.90	0- 42	12	( )
-----						
97 Benzo(a)pyrene		CAS#: 50-32-8				
252	493835	11.31	11.31	80-120	100	( )
253	116616	11.31	11.31	0- 52	24	( )
125	59013	11.31	11.30	0- 42	12	( )
-----						
99 Indeno(1,2,3-cd)pyrene		CAS#: 193-39-5				
276	207155	13.17	13.17	80-120	100	( )
138	54624	13.17	13.17	2- 62	26	( )
-----						
100 Dibenzo(a,h)anthracene		CAS#: 53-70-3				
278	57470	13.18	13.18	80-120	100	( )
139	10281	13.17	13.18	0- 50	18	( )
-----						
101 Benzo(ghi)perylene		CAS#: 191-24-2				
276	180610	13.72	13.71	80-120	100	( )
138	48025	13.72	13.71	0- 58	27	( )

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD7.i/s031110.b/s7c1120.d  
Lab Smp Id: 248043006 Client Smp ID: RE36-10-7471  
Inj Date : 11-MAR-2010 19:40  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043006|959623|1|SVM|1|LANL  
Misc Info : |MSD8270 S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 20  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	29.79690	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.990	2317249	40.000
* 46 Acenaphthene-d10	6.114	3213160	40.000
* 67 Phenanthrene-d10	7.289	3209547	40.000
* 91 Chrysene-d12	9.696	5951163	40.000
* 98 Perylene-d12	11.391	1656298	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

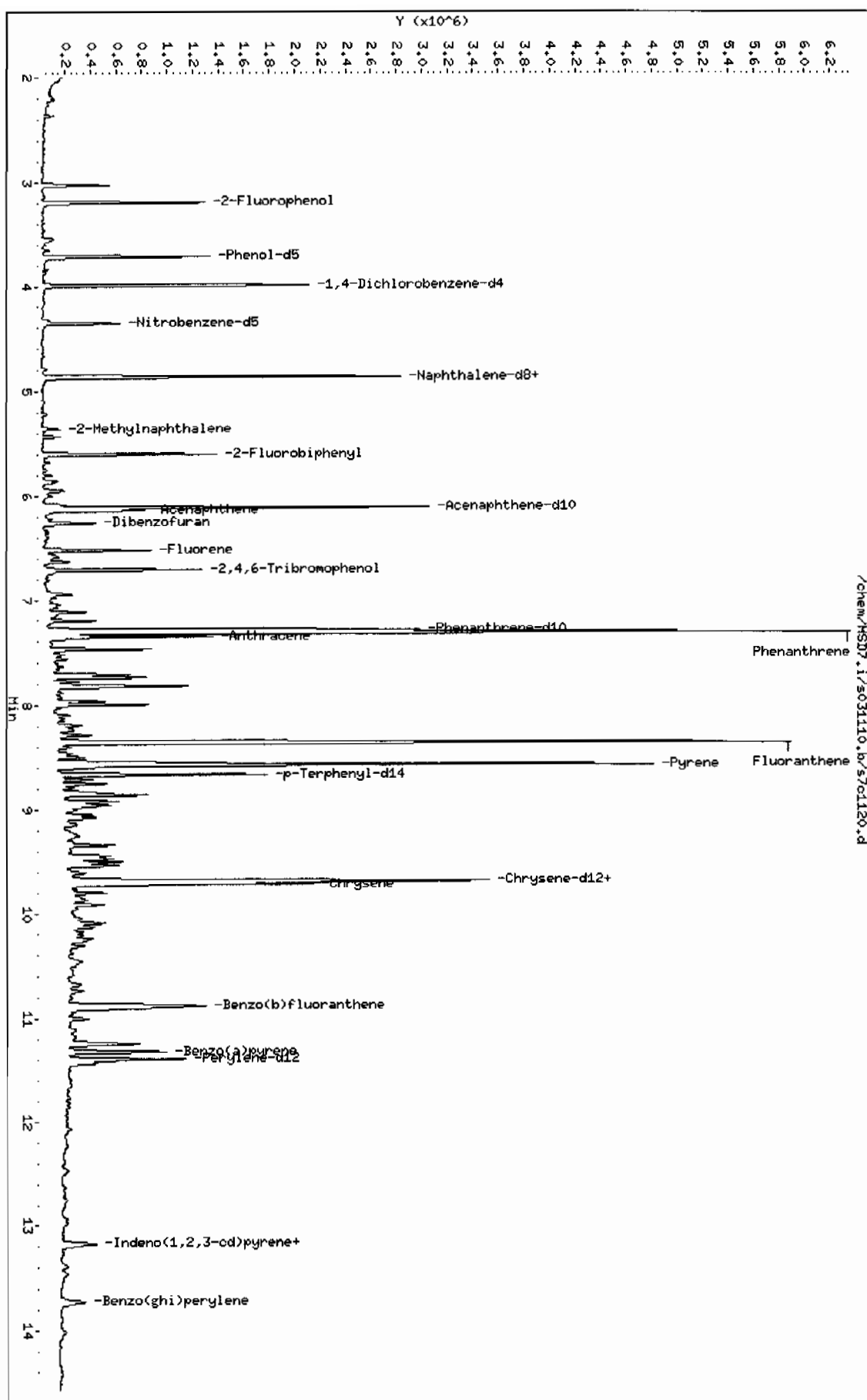
RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate					CAS #:		
3.022	583399	10.0705368	478	0		0	10
1,4-Benzenediamine, N,N-diethyl-					CAS #: 93-05-0		
5.945	326207	4.06088128	193	96	NIST05.L	31981	46
9H-Fluoren-9-one					CAS #: 486-25-9		
7.115	372865	4.64695257	220	95	NIST05.L	43217	67
Dibenzothiophene					CAS #: 132-65-0		
7.197	399515	4.97908504	236	97	NIST05.L	46035	67
Carbazole					CAS #: 86-74-8		
7.467	984869	12.2742461	582	95	NIST05.L	34221	67
Phenanthrene, 1-methyl-					CAS #: 832-69-9		
7.703	740464	9.22826495	438	98	NIST05.L	51408	67
Phenanthrene, 2-methyl-					CAS #: 2531-84-2		
7.732	864810	10.7779690	511	98	NIST05.L	51412	67
Unknown					CAS #:		
7.814	1577995	19.6662606	933	0		0	67
2-Phenylnaphthalene					CAS #: 35465-71-5		
7.953	437049	5.44685613	258	95	NIST05.L	60107	67
9,10-Anthracenedione					CAS #: 84-65-1		
7.987	826781	10.3040214	489	99	NIST05.L	62993	67
Cyclopenta(def)phenanthrenone					CAS #: 5737-13-3		
8.281	336037	4.18796556	199	96	NIST05.L	60105	67
11H-Benzo[b]fluorene					CAS #: 243-17-4		
8.858	1161574	7.80737452	370	96	NIST05.L	68695	91
Benzo[e]pyrene					CAS #: 192-97-2		
11.242	994781	24.0242056	1140	98	NIST05.L	93577	98 (L)
Unknown					CAS #:		
11.430	325506	7.86103771	373	0		0	98

#### QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/HSD7.i/s031110.b/s701120.d  
 Date: 11-MAR-2010 19:40  
 Client ID: REC6-10-7471  
 Sample Info: 1248043006195962311|SWH111LNL  
 Volume Injected (uL): 0.5  
 Column phase: 3M DB-SHS

Instrument: HSD7.i  
 Operator: JMB3  
 Column diameter: 0.20



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 1248043006195962311ISVH11ILANL

Volume Injected (uL): 0.5

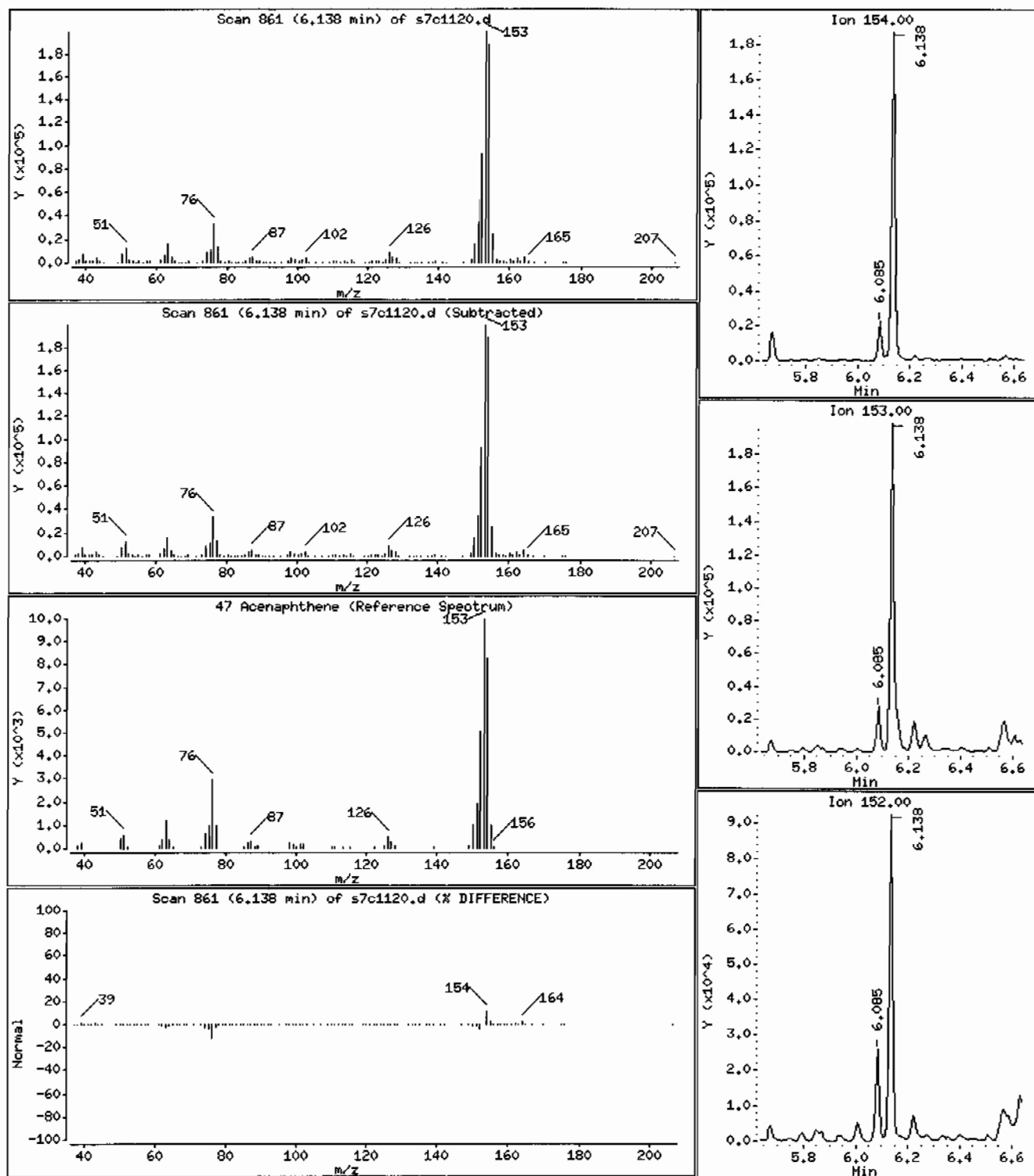
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 556 ug/Kg



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: I248043006I9596231I1SVH11ILANL

Volume Injected (uL): 0.5

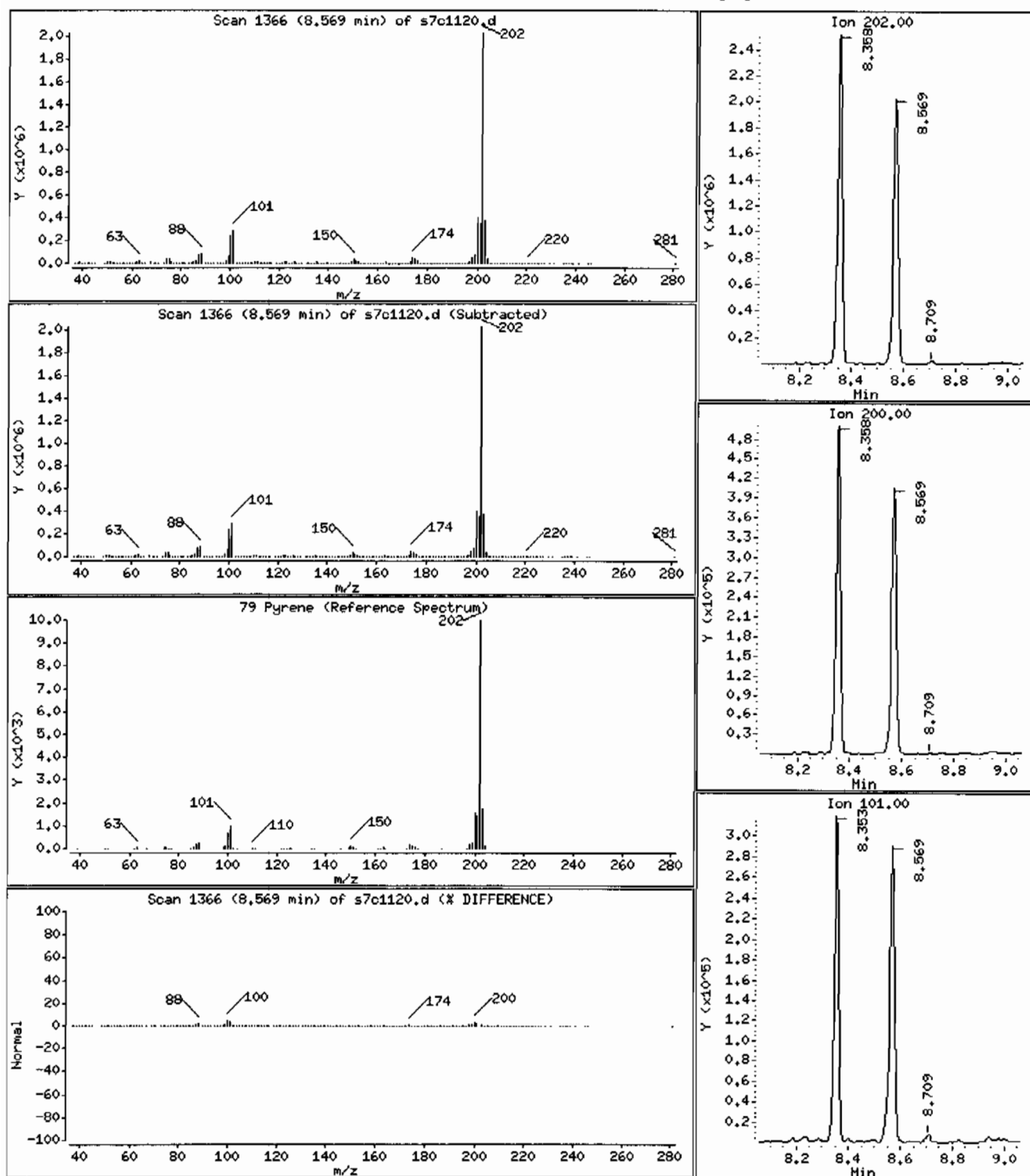
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 3980 ug/Kg





Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: I2480430061959623111SVH111LANL

Volume Injected (uL): 0.5

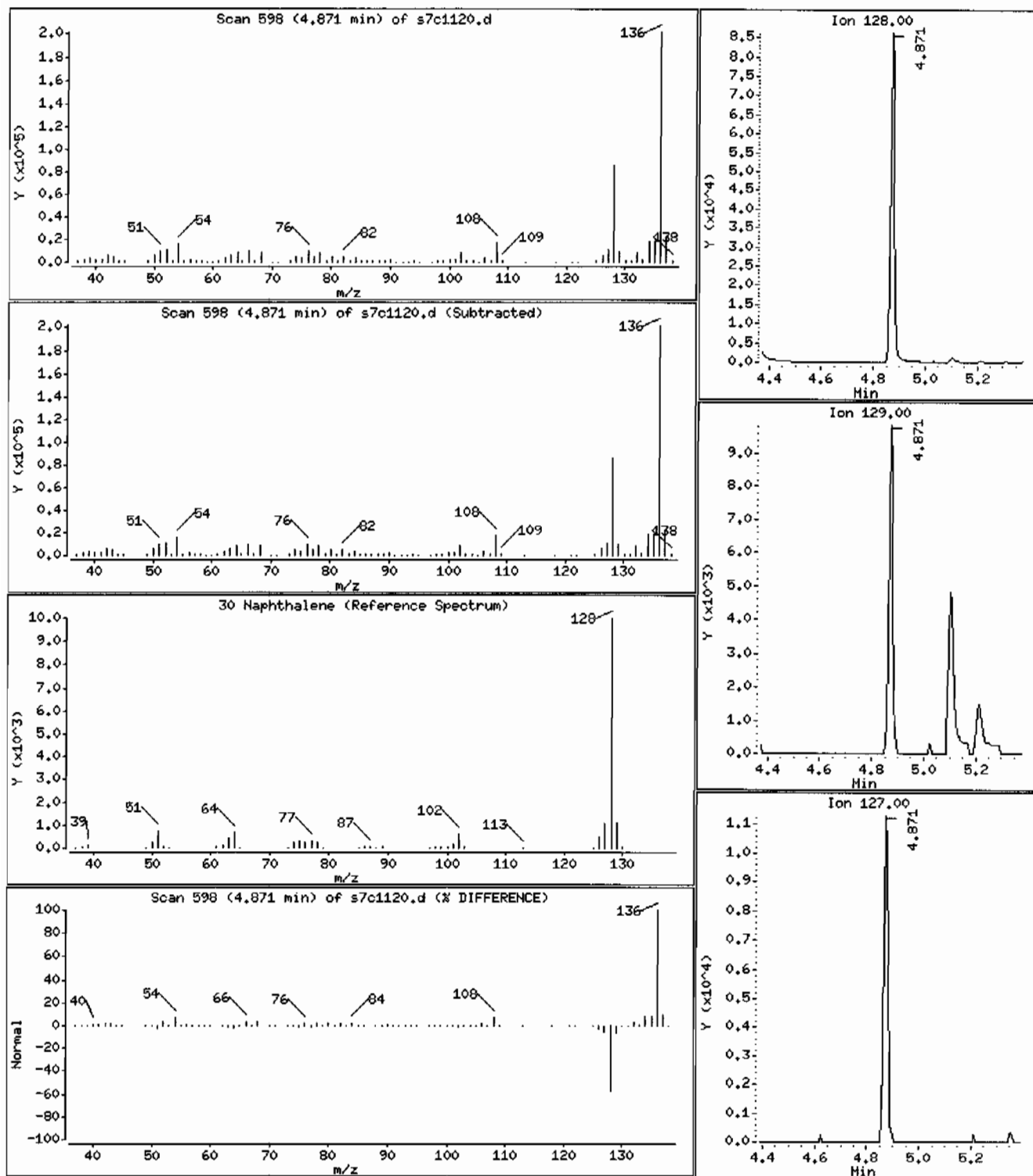
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 164 ug/Kg



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7,i

Sample Info: I248043006I95962311ISVHI1ILANL

Volume Injected (uL): 0.5

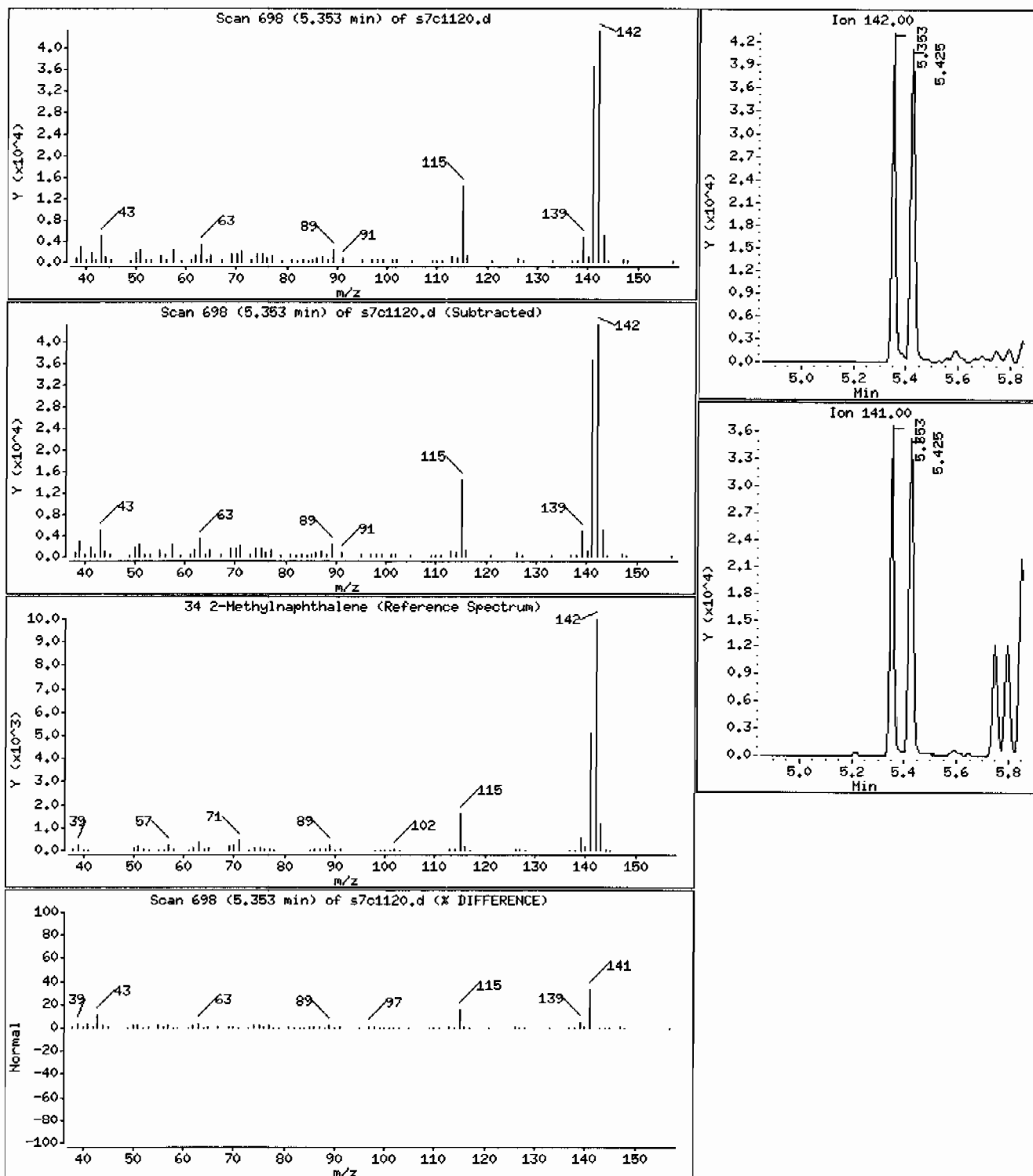
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 115 ug/Kg



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7,i

Sample Info: 1248043006195962311SVH11ILANL

Volume Injected (uL): 0,5

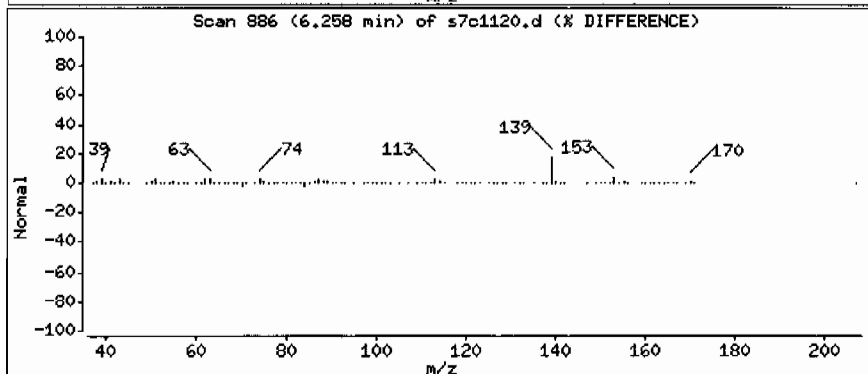
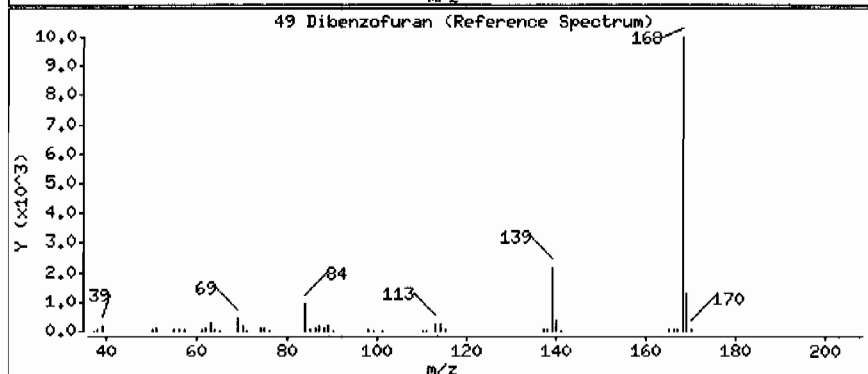
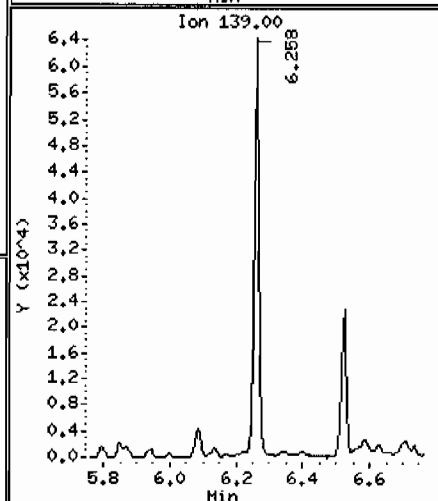
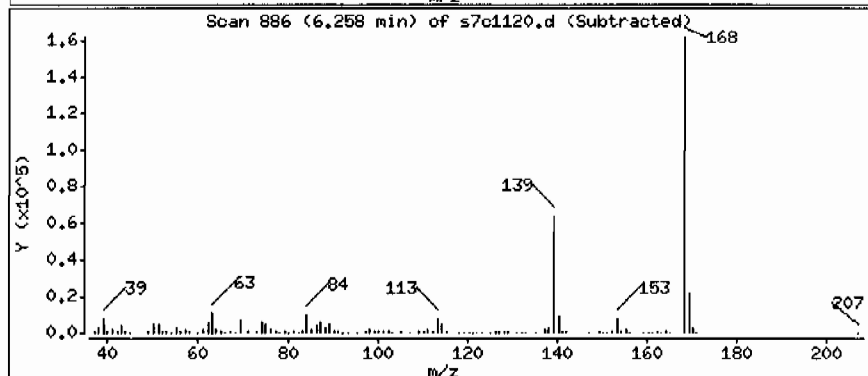
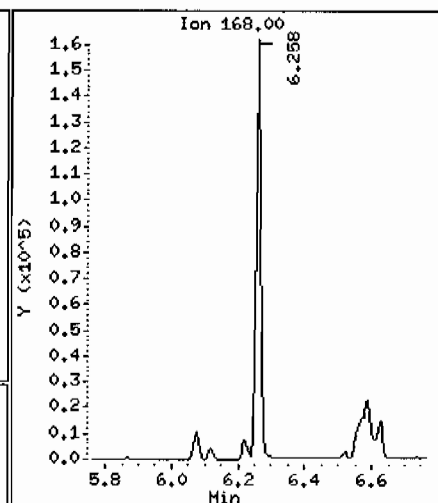
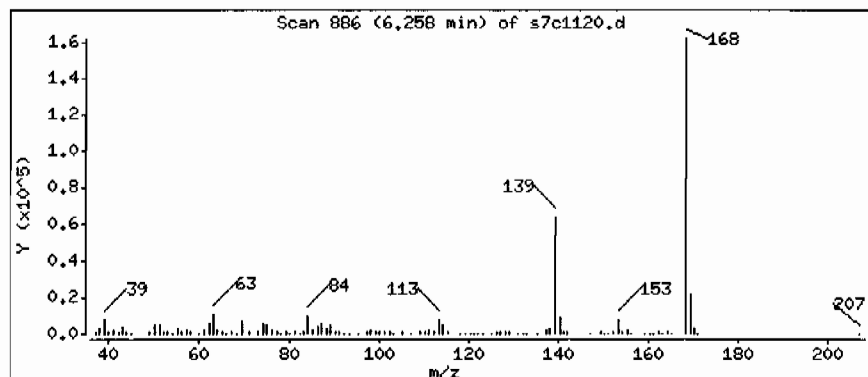
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

49 Dibenzofuran

Concentration: 341 ug/Kg



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 1248043006195962311ISVMI11LANL

Volume Injected (uL): 0.5

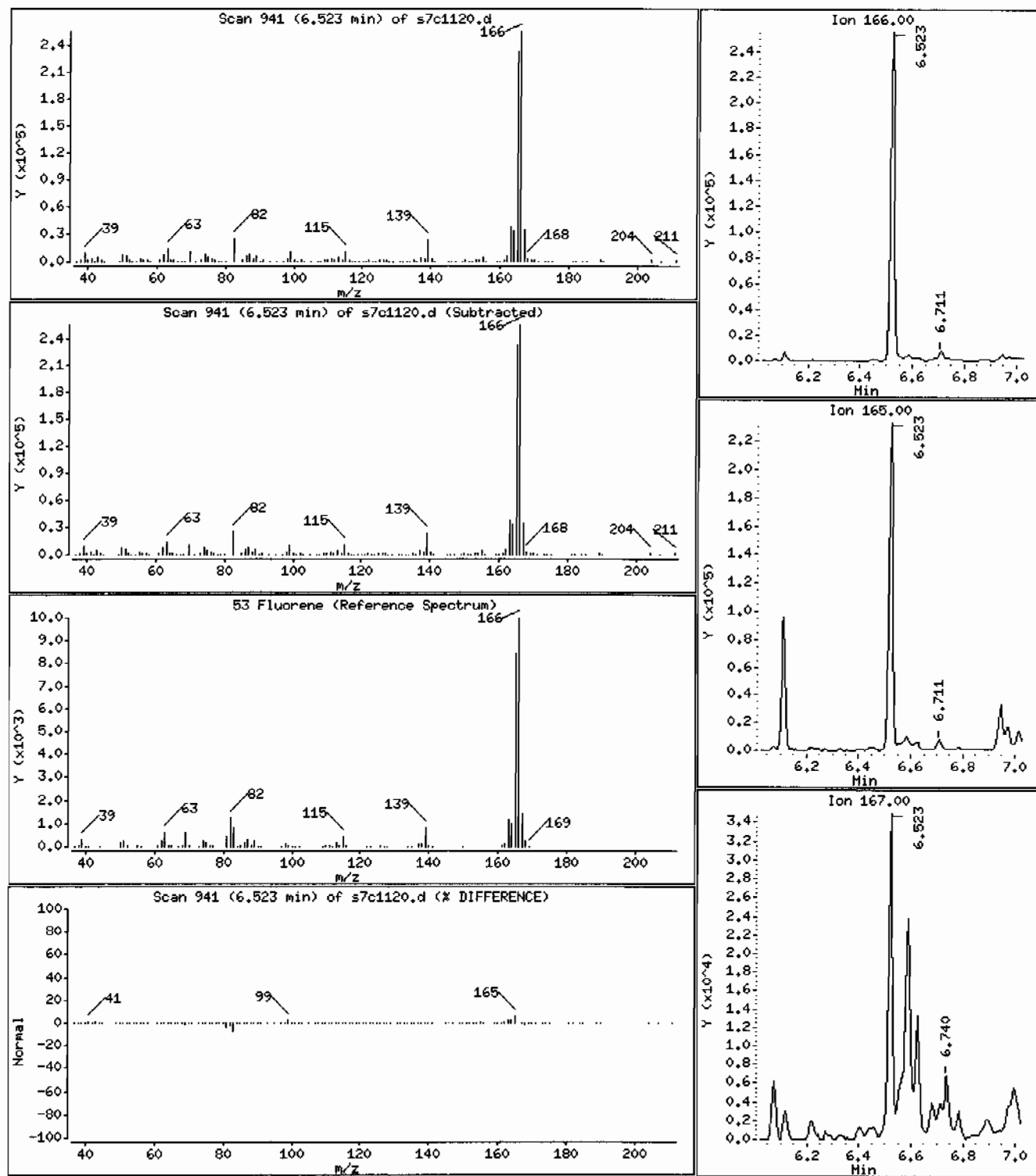
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 637 ug/Kg



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 1248043006195962311ISVH11ILANL

Volume Injected (uL): 0.5

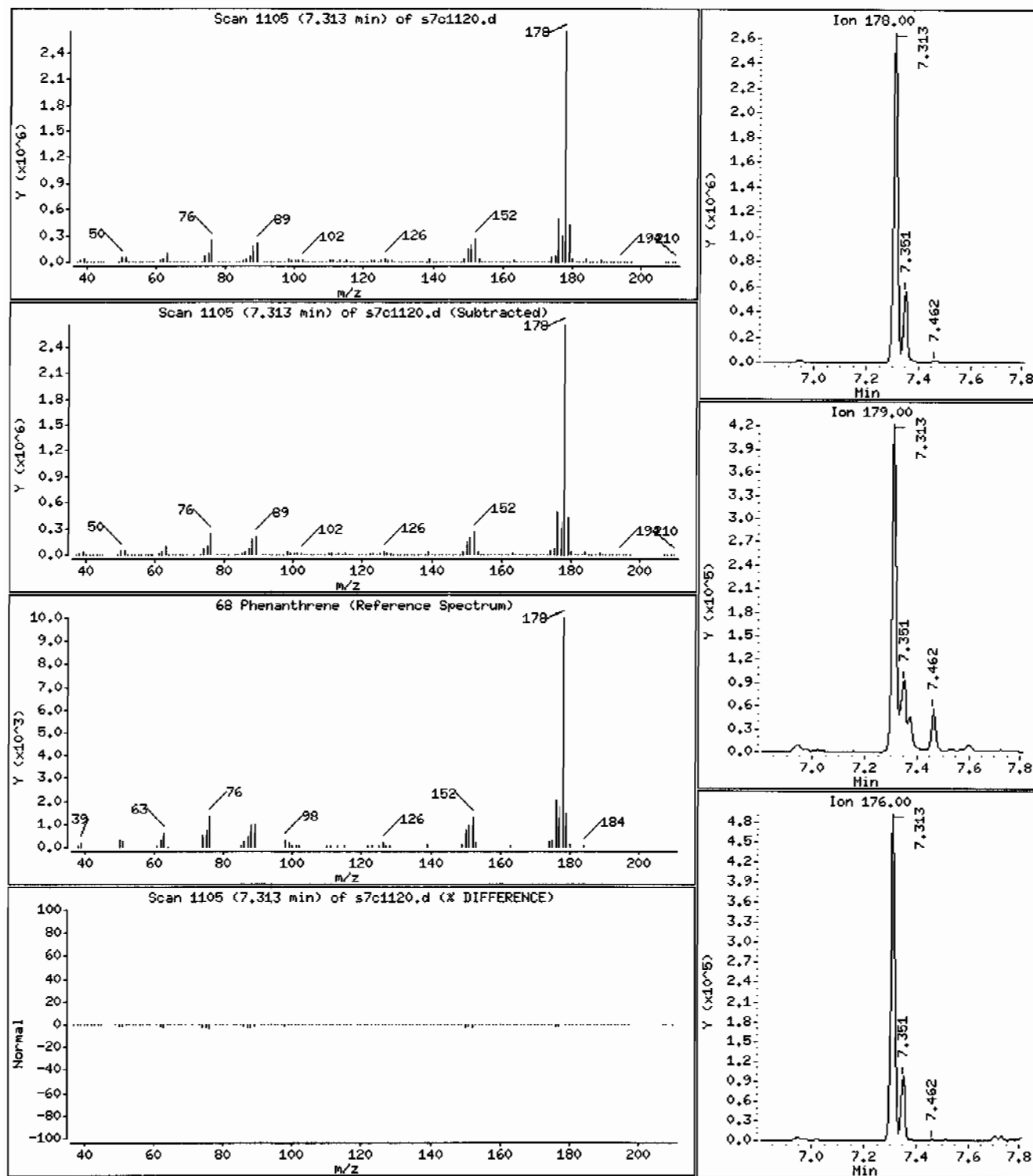
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 4930 ug/Kg



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: I248043006195962311SVH11ILANL

Volume Injected (uL): 0.5

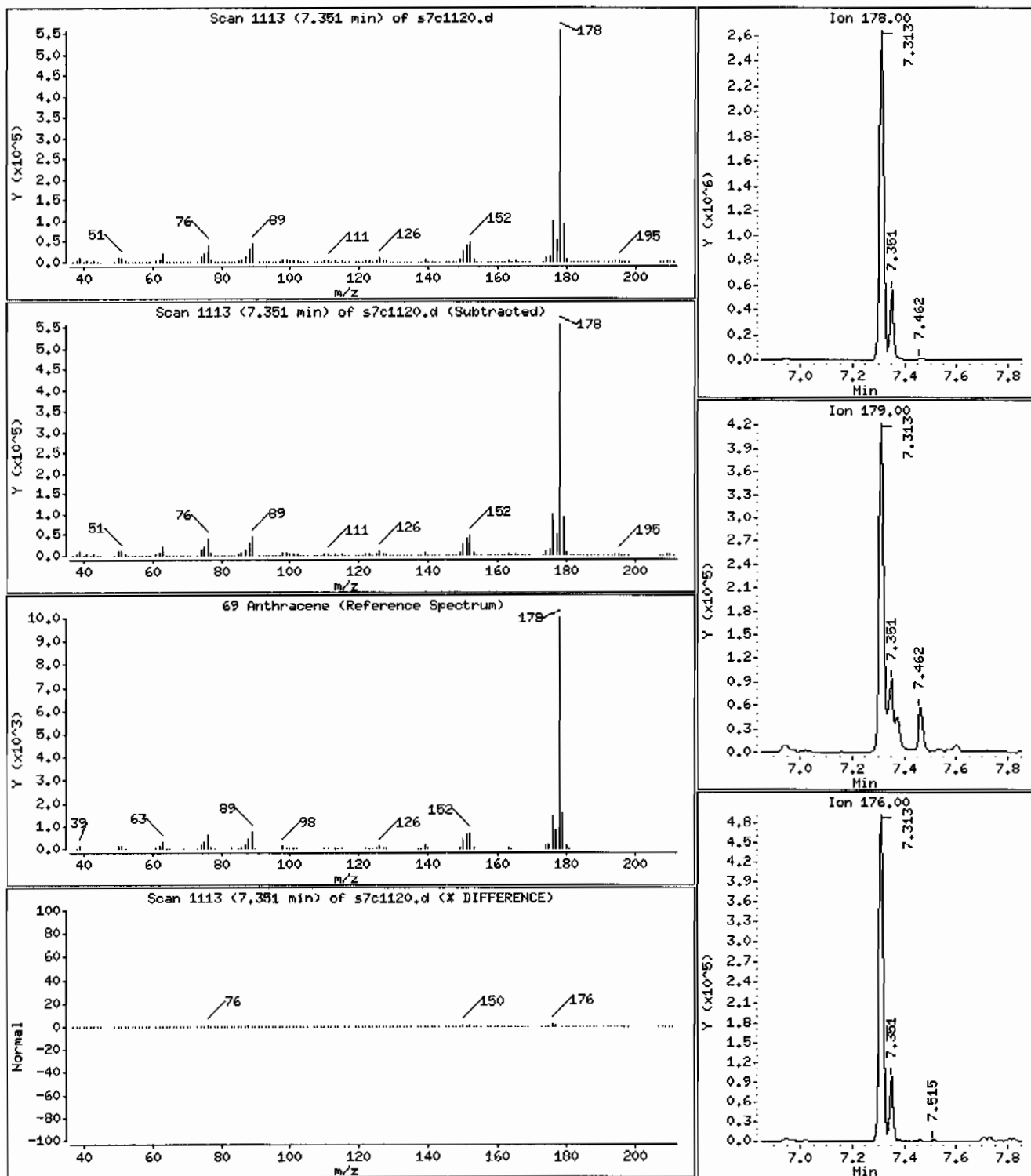
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 1020 ug/Kg



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 1248043006195962311ISVH111LANL

Volume Injected (uL): 0.5

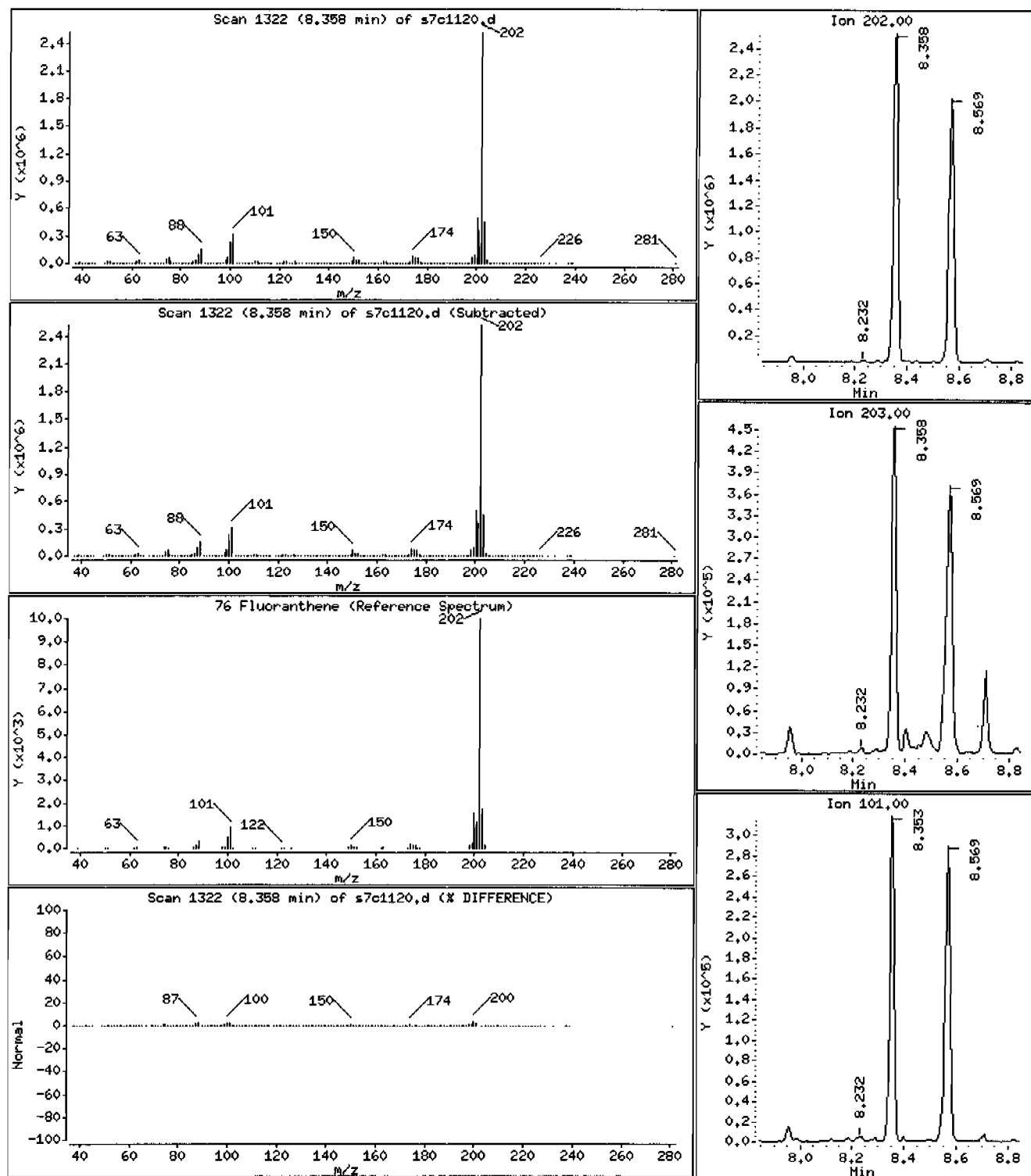
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 4740 ug/Kg



Date: 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 12480430061959623111SVH111LANL

Volume Injected (uL): 0.5

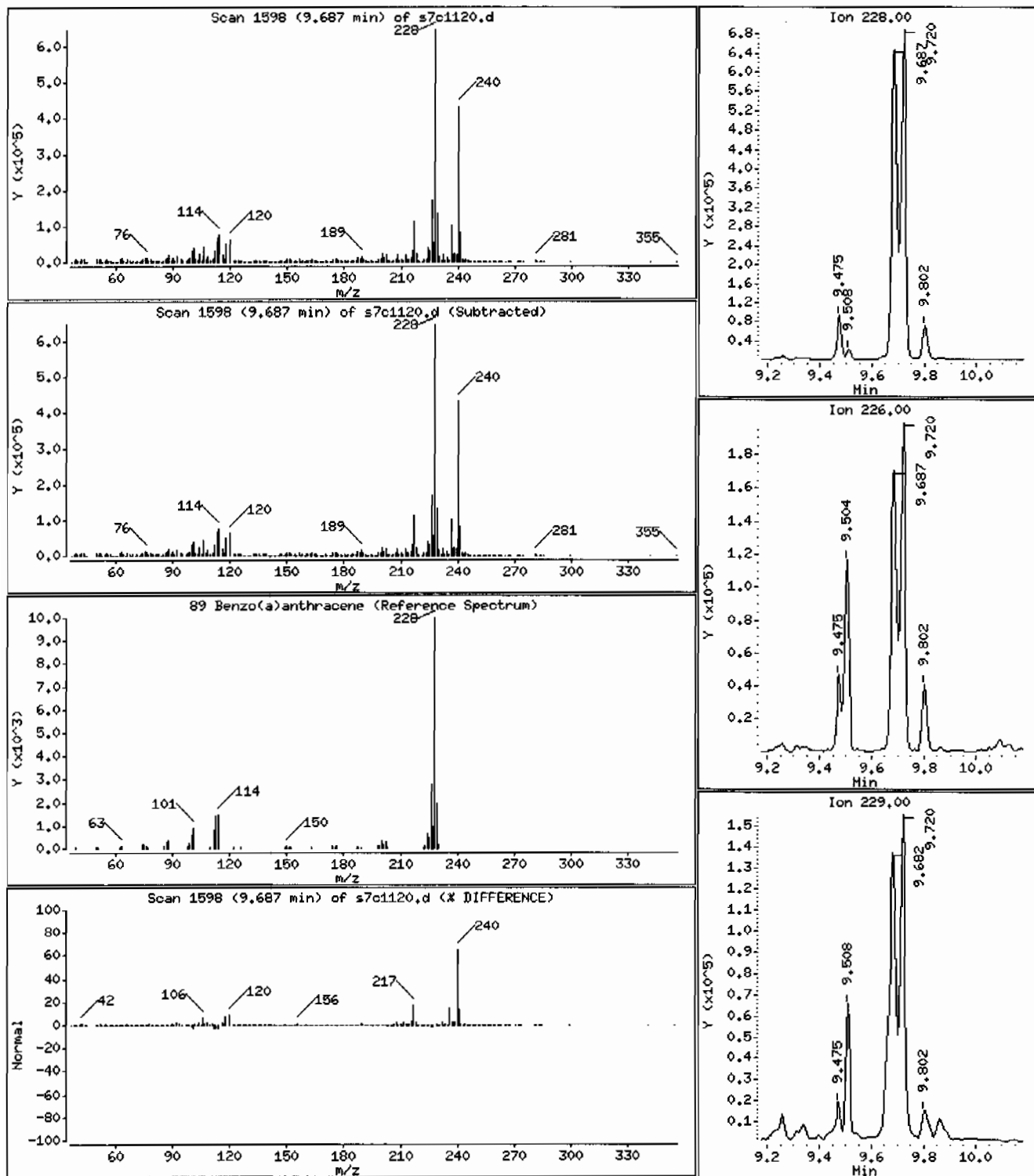
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 1950 ug/Kg





Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: HSD7,i

Sample Info: 1248043006195962311SVH11ILANL

Volume Injected (uL): 0,5

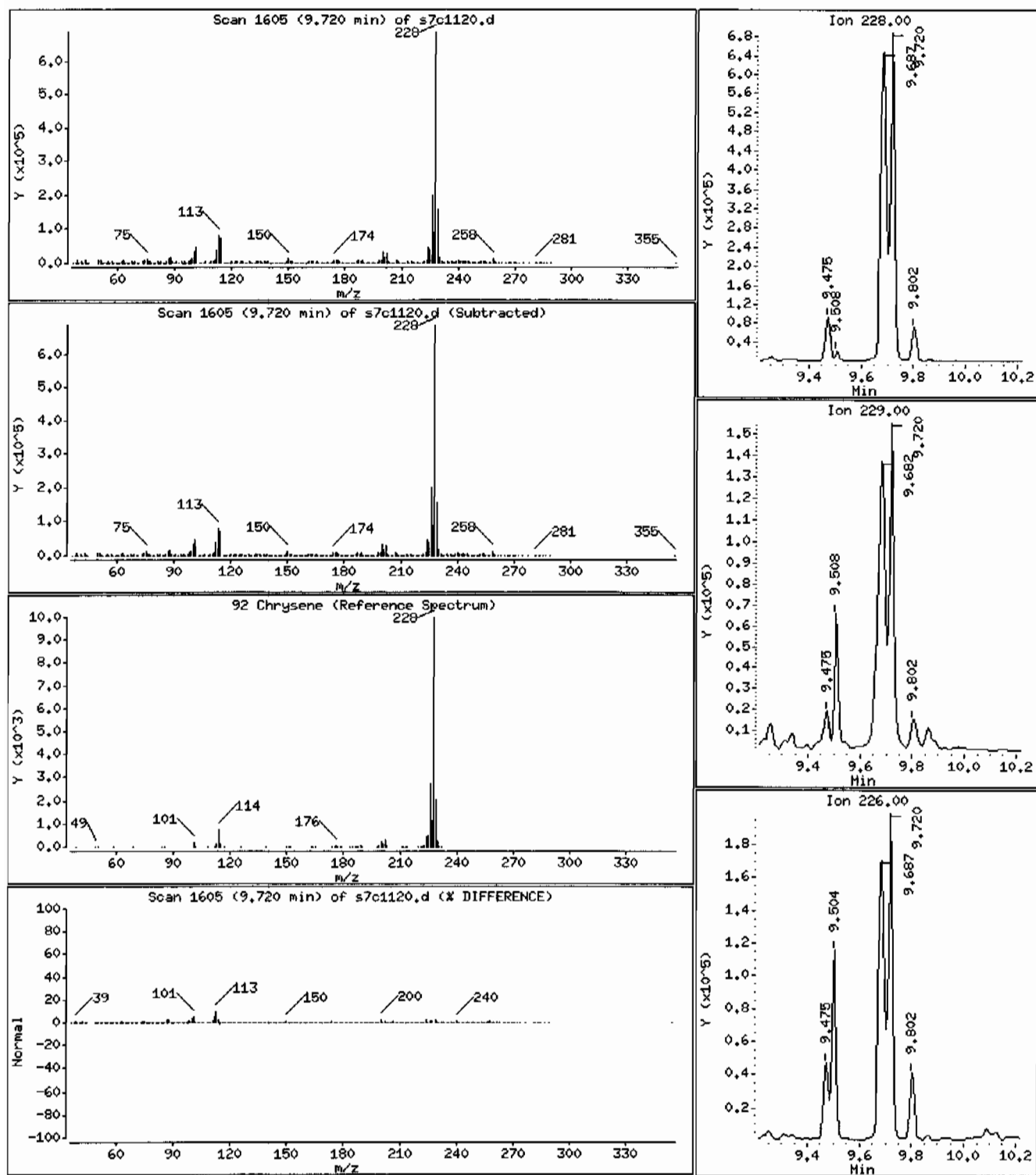
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

92 Chrysene

Concentration: 2110 ug/Kg



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 12480430061959623111SVH111LANL

Volume Injected (ul): 0.5

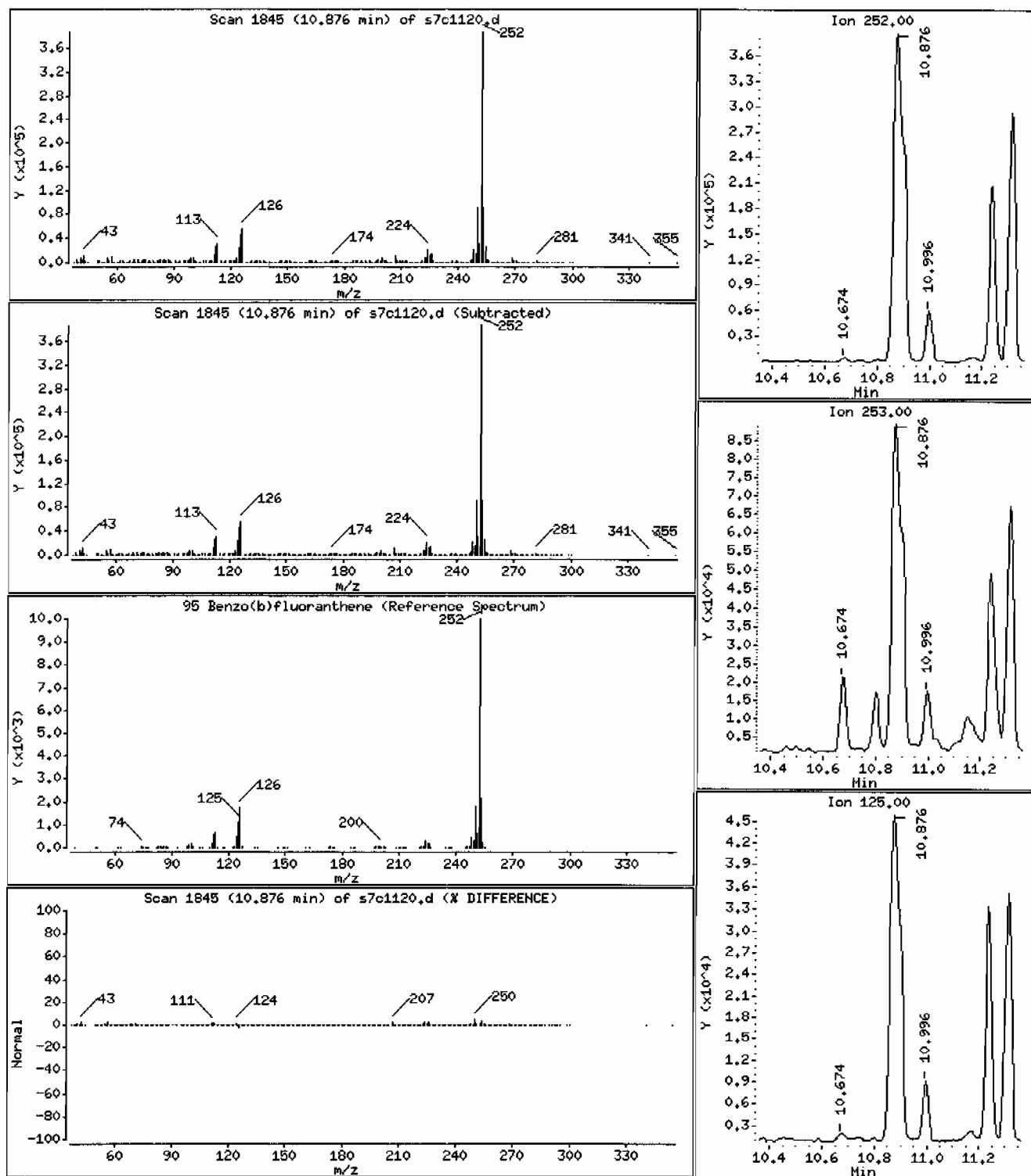
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 3040 ug/Kg



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: I248043006195962311ISVH11ILANL

Volume Injected (uL): 0.5

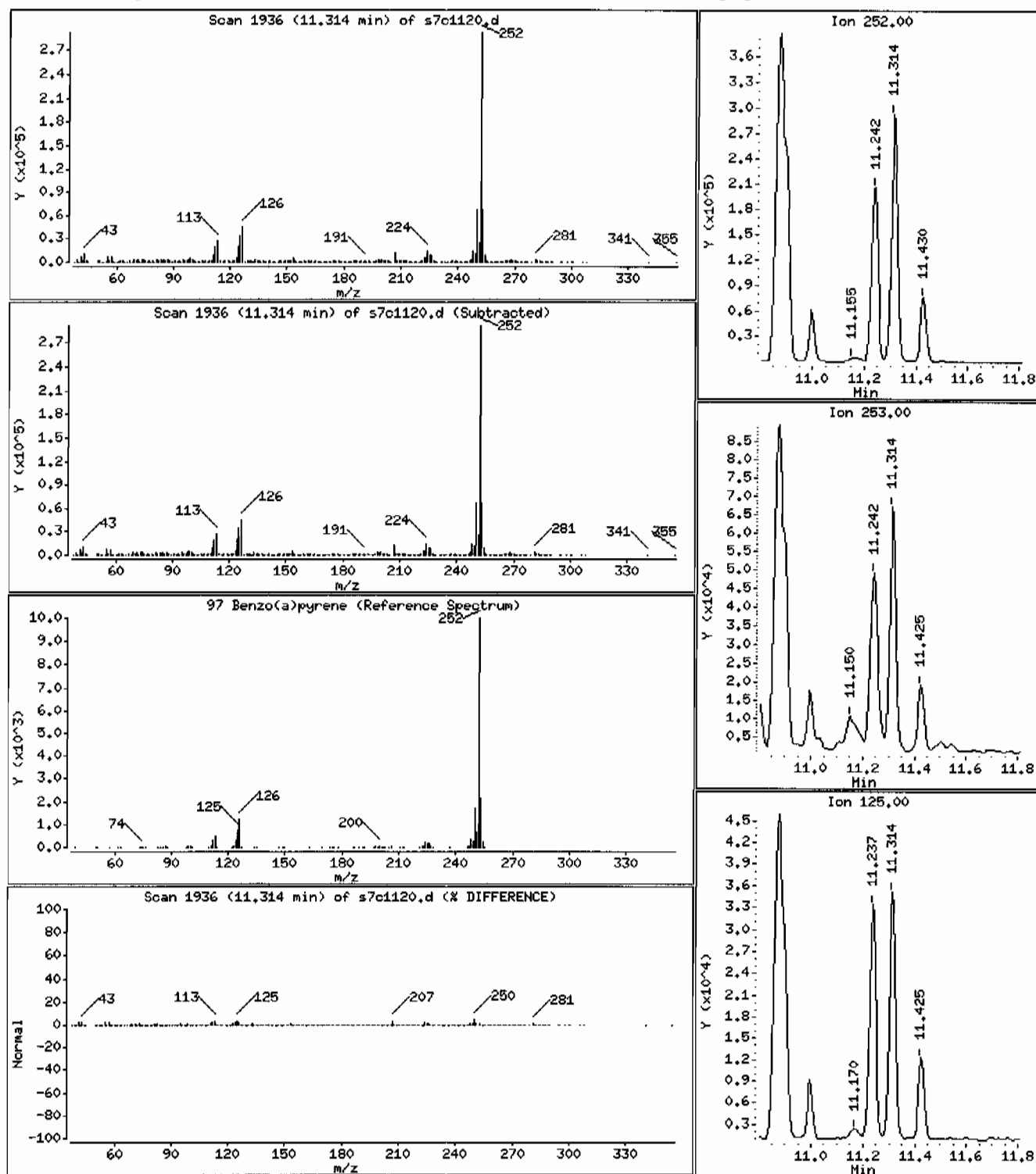
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 1740 ug/Kg



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 12480430061959623111SVH11ILANL

Volume Injected (uL): 0.5

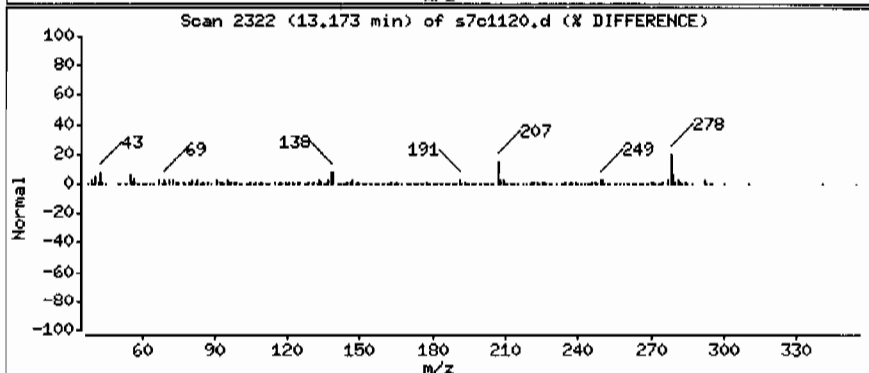
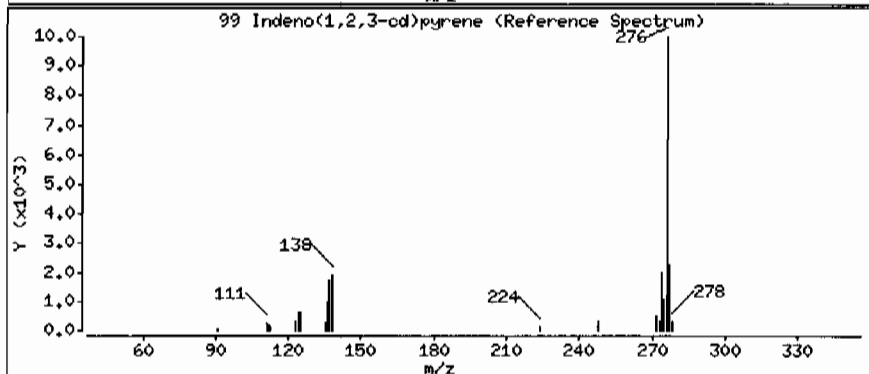
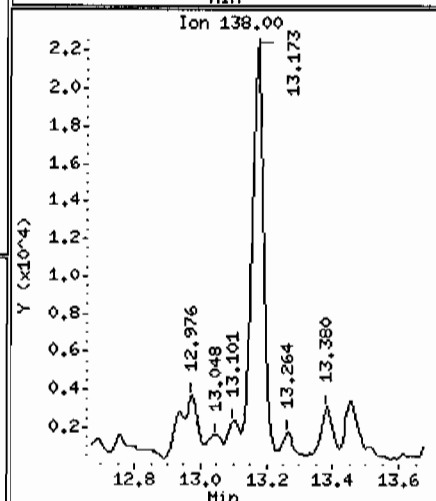
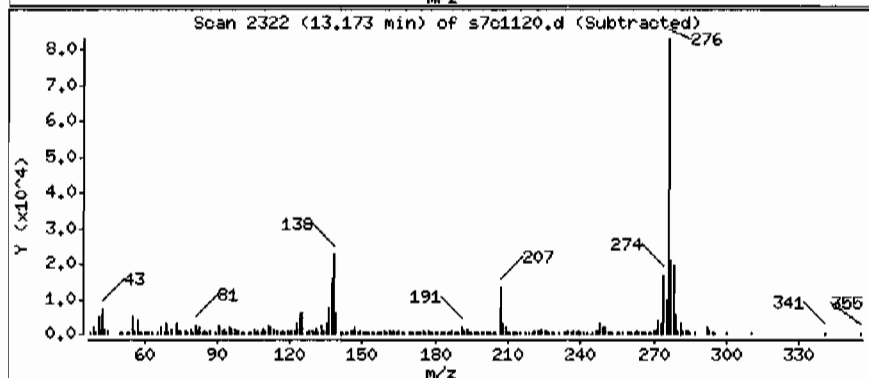
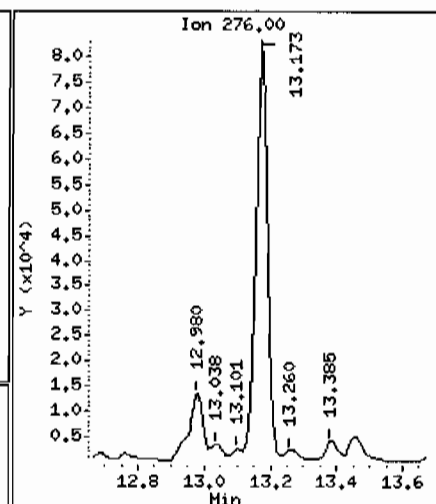
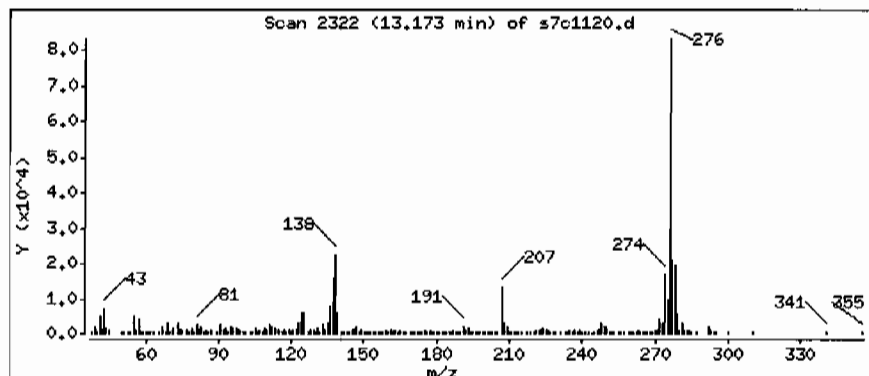
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 1010 ug/Kg



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: HSD7.i

Sample Info: 1248043006195962311SVMI1/LANL

Volume Injected (uL): 0.5

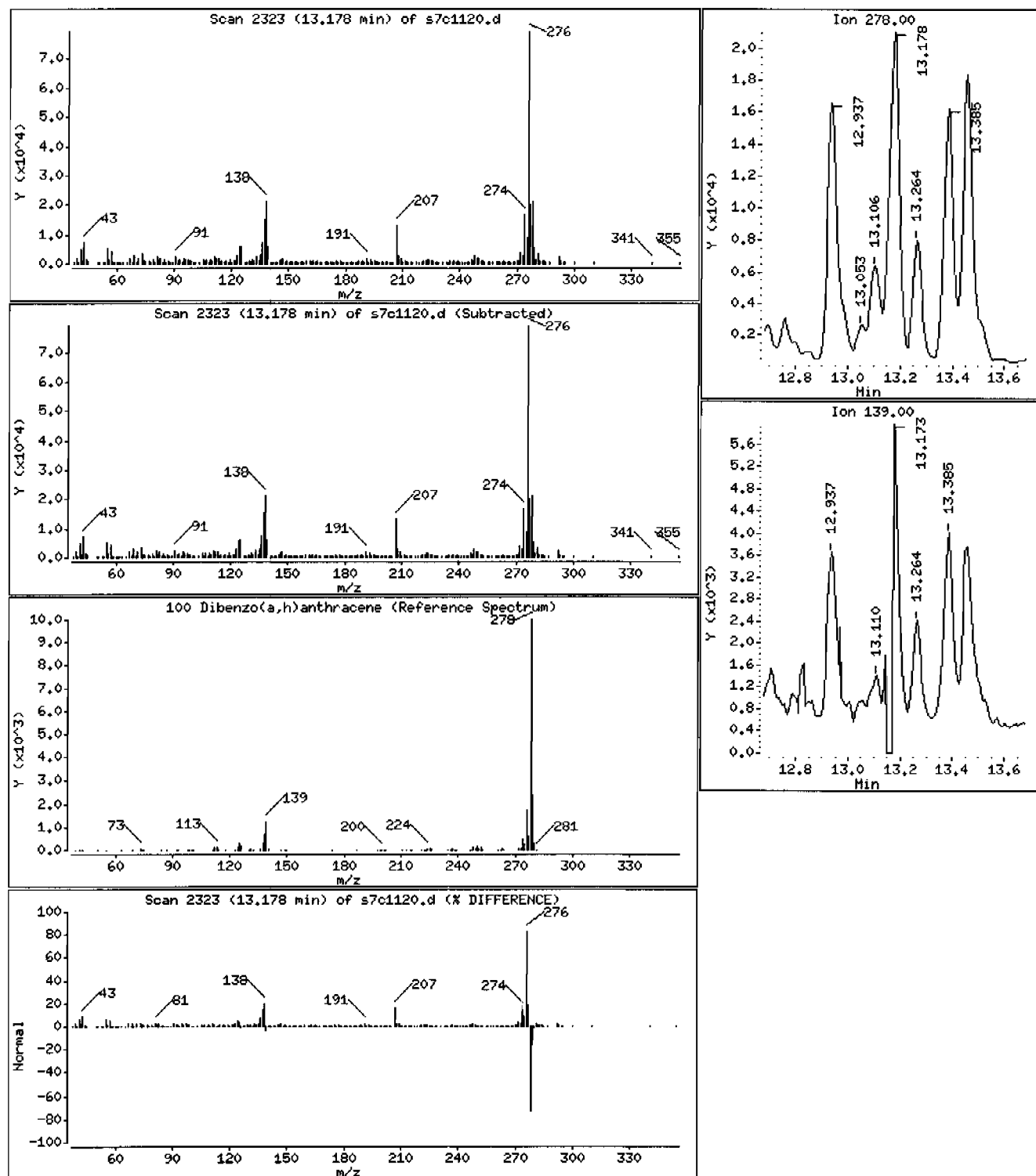
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 354 ug/Kg



Date: 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: HSD7.i

Sample Info: 1248043006195962311SVH11ILANL

Volume Injected (uL): 0.5

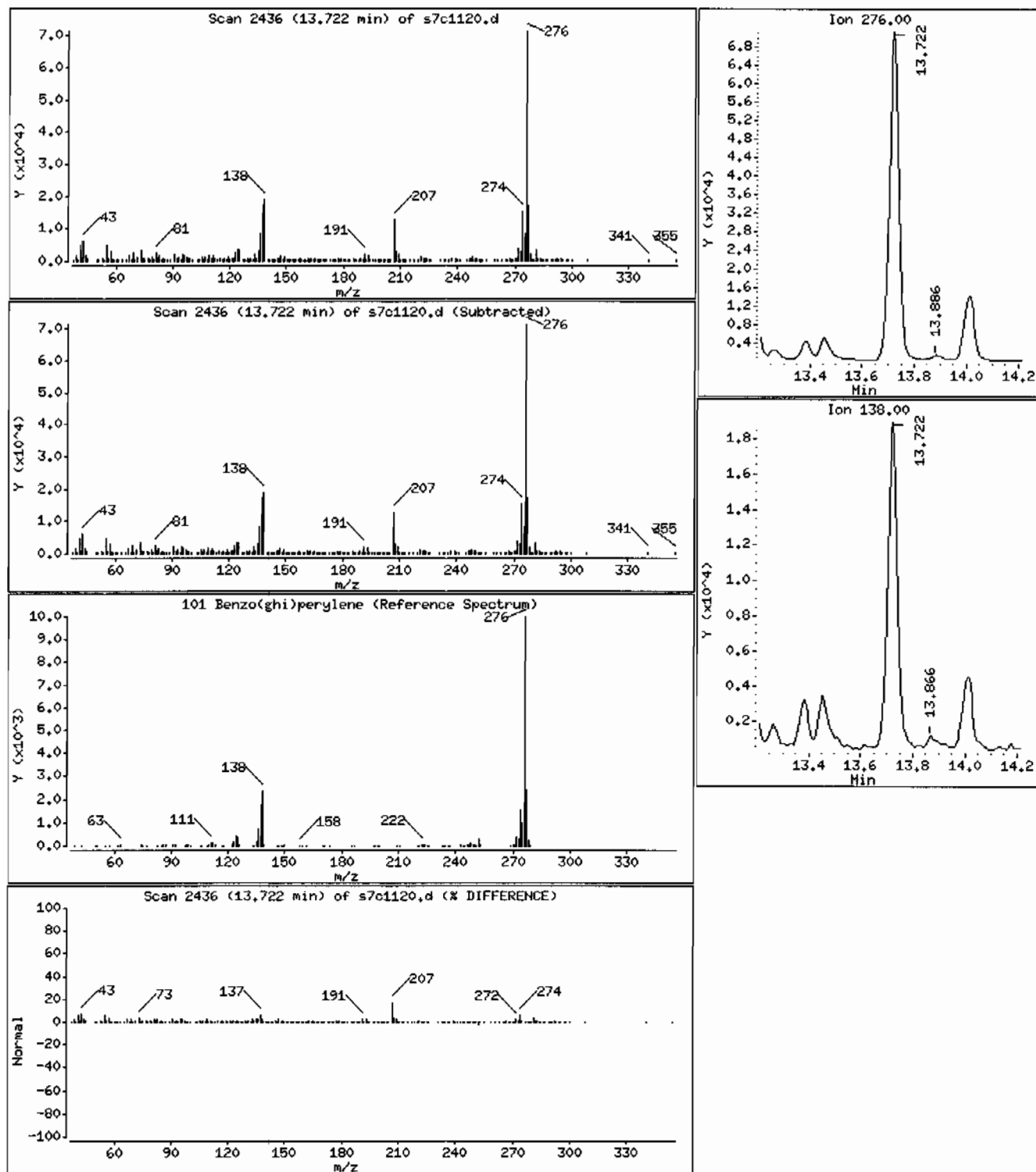
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 1060 ug/Kg



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 1248043006195962311ISVH111LANL

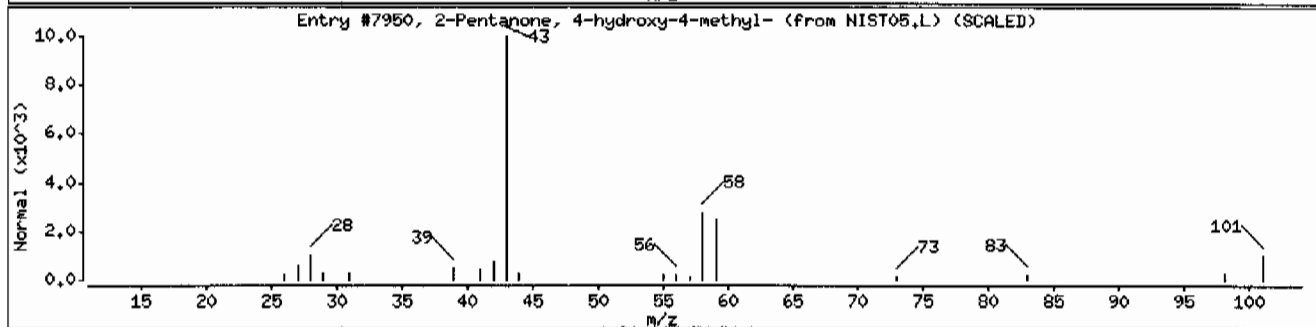
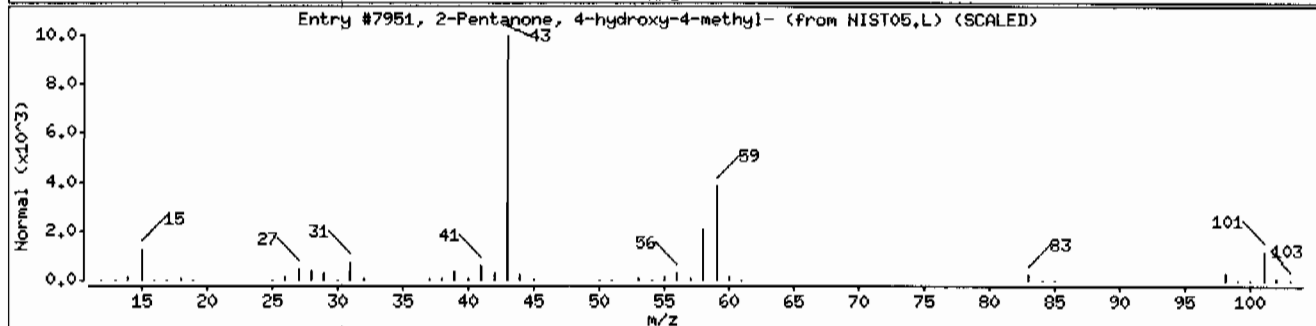
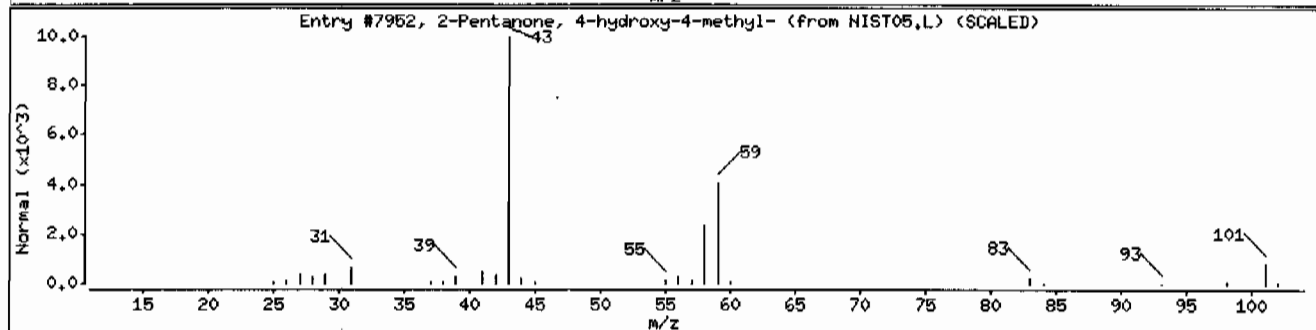
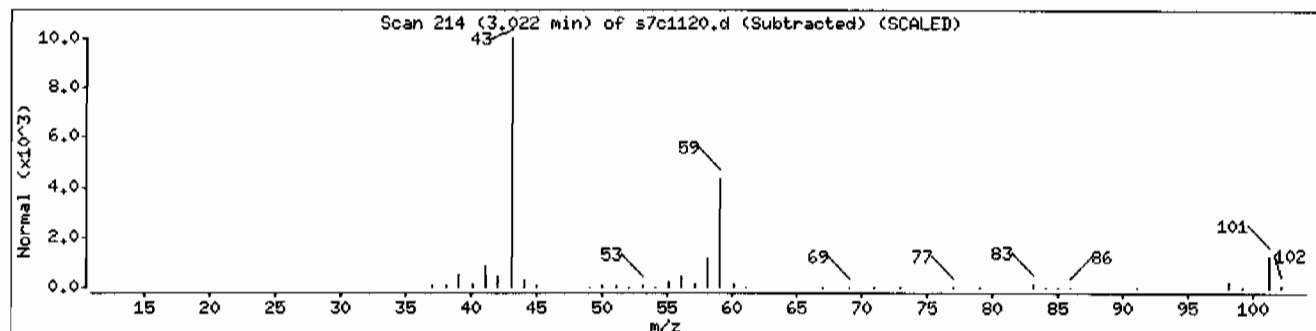
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7950	23	C6H12O2	116



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 1248043006195962311SVMI11LANL

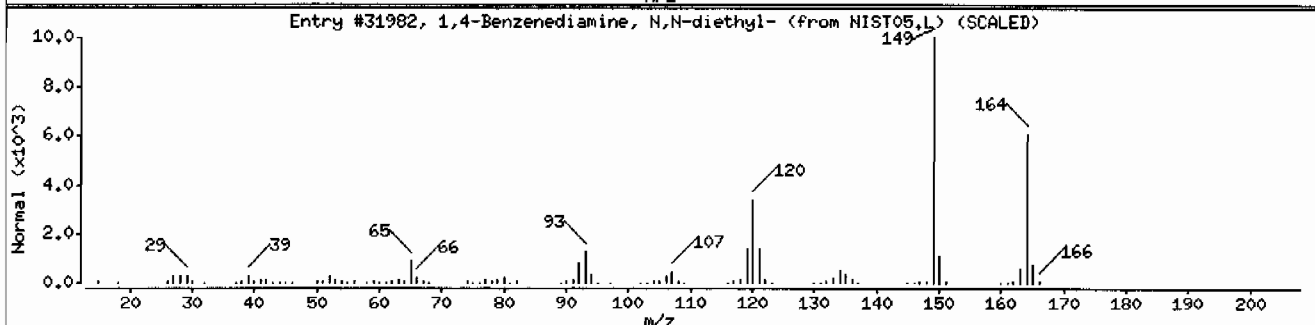
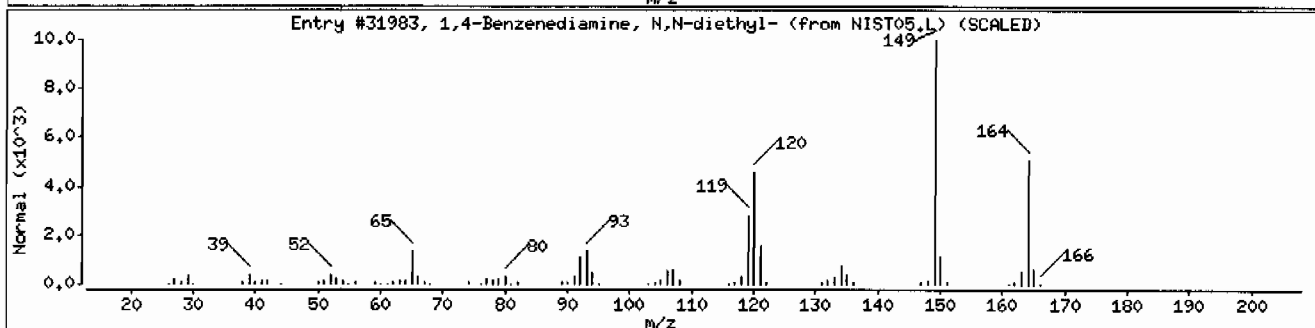
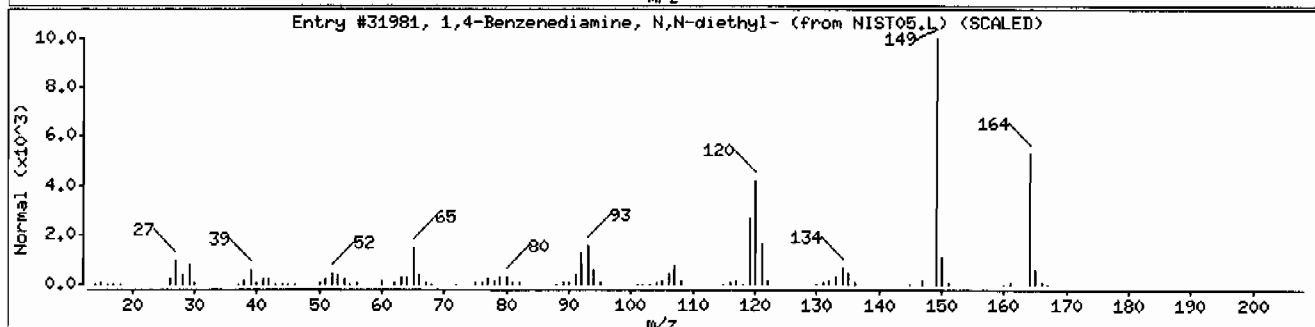
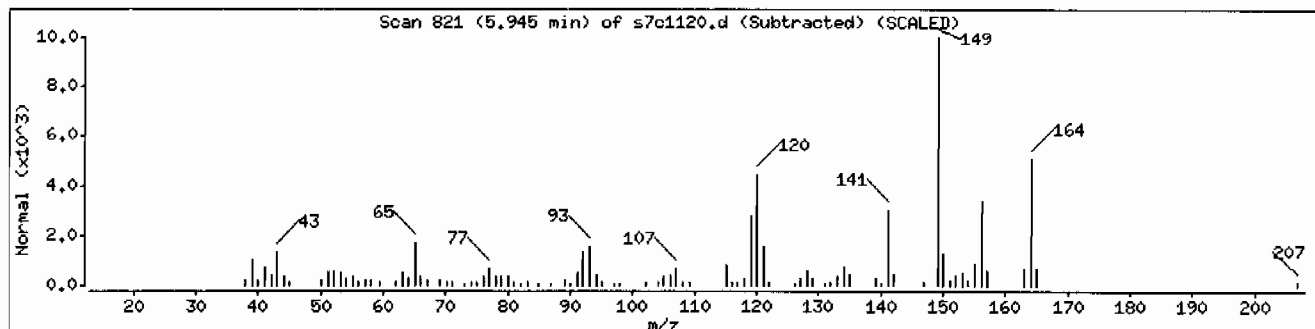
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Benzenediamine, N,N-diethyl-	93-05-0	NIST05.L	31981	98	C10H16N2	164
1,4-Benzenediamine, N,N-diethyl-	93-05-0	NIST05.L	31983	98	C10H16N2	164
1,4-Benzenediamine, N,N-diethyl-	93-05-0	NIST05.L	31982	96	C10H16N2	164





Date: 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 1248043006195962311SVMI11LANL

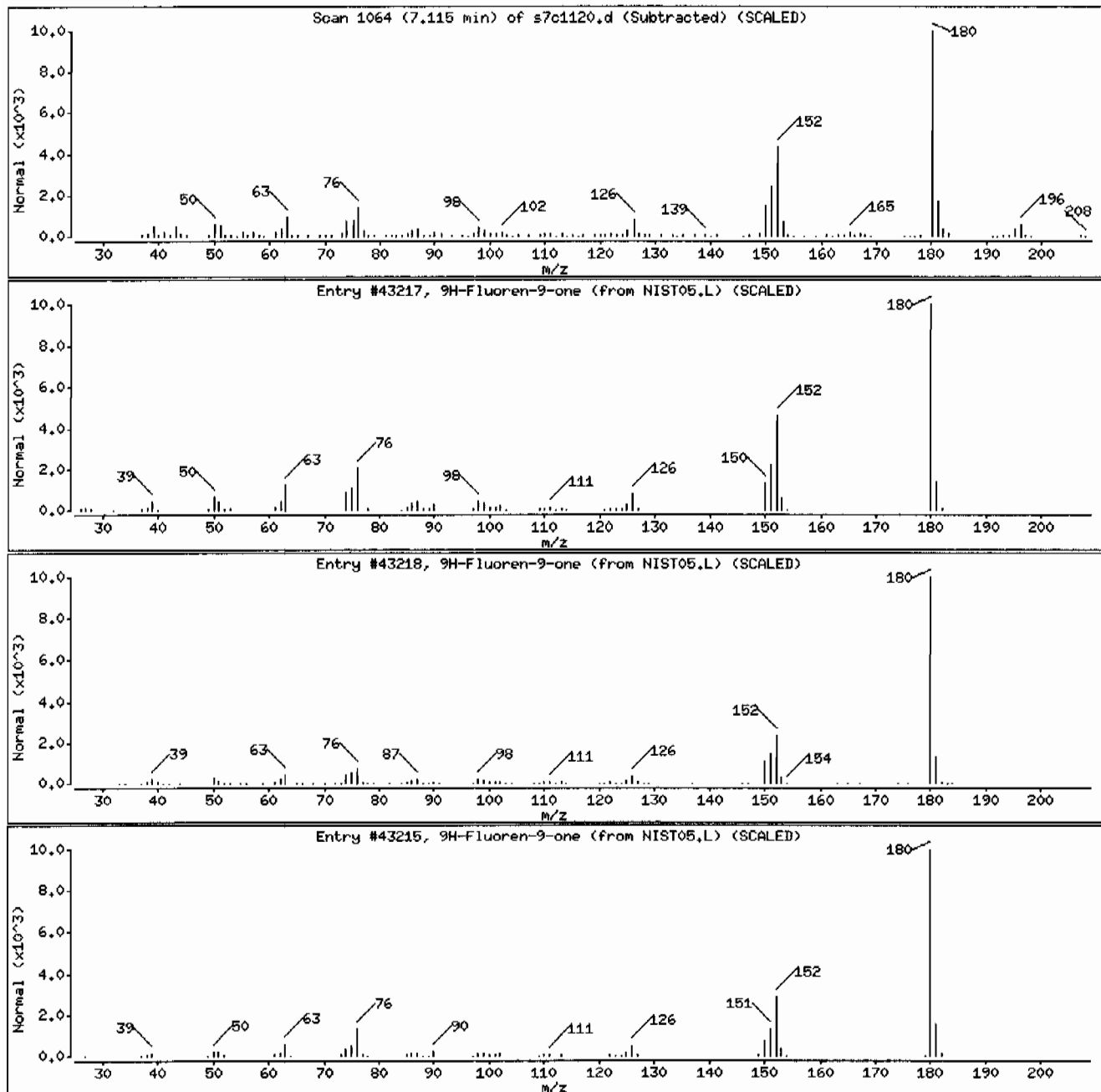
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9H-Fluoren-9-one	486-25-9	NIST05.L	43217	95	C13H8O	180
9H-Fluoren-9-one	486-25-9	NIST05.L	43218	95	C13H8O	180
9H-Fluoren-9-one	486-25-9	NIST05.L	43215	93	C13H8O	180



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 12480430061959623111SVH111LANL

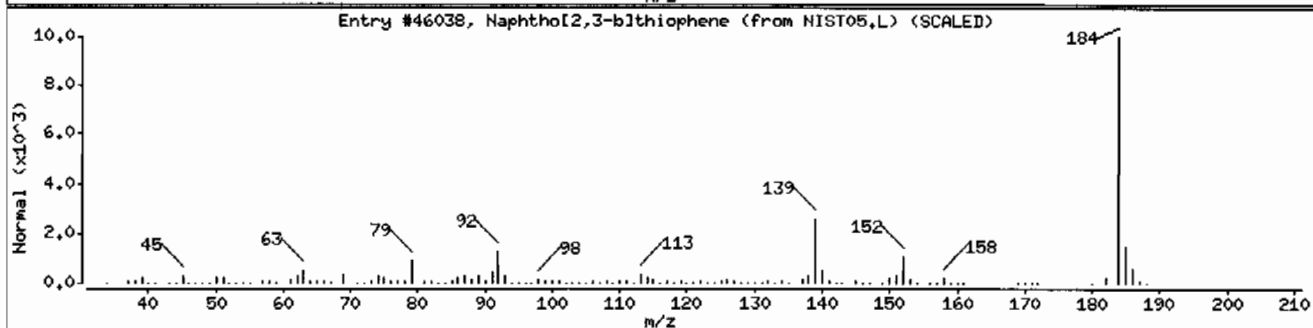
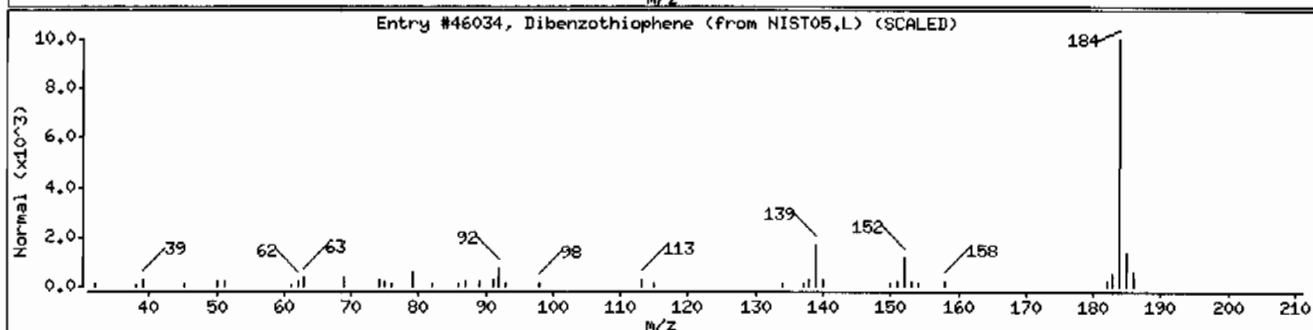
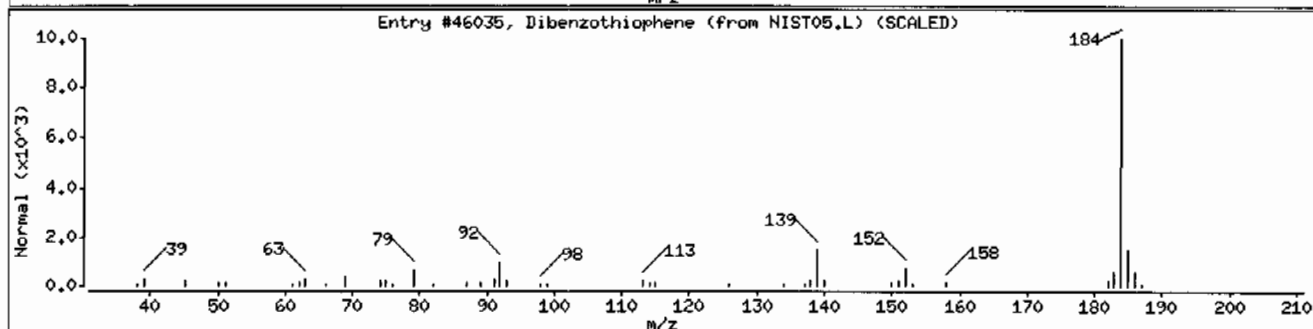
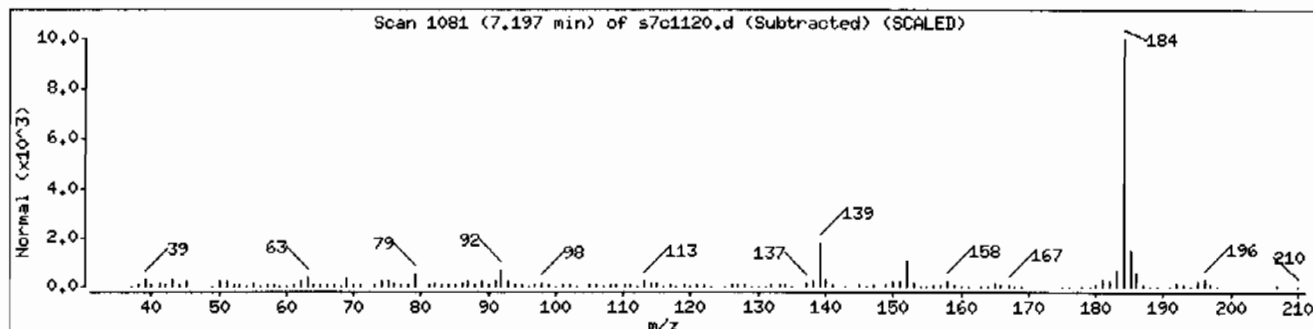
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dibenzothiophene	132-65-0	NIST05.L	46035	97	C <sub>12</sub> H <sub>8</sub> S	184
Dibenzothiophene	132-65-0	NIST05.L	46034	96	C <sub>12</sub> H <sub>8</sub> S	184
Naphtho[2,3-b]thiophene	268-77-9	NIST05.L	46038	95	C <sub>12</sub> H <sub>8</sub> S	184



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 1248043006195962311SVMI11LANL

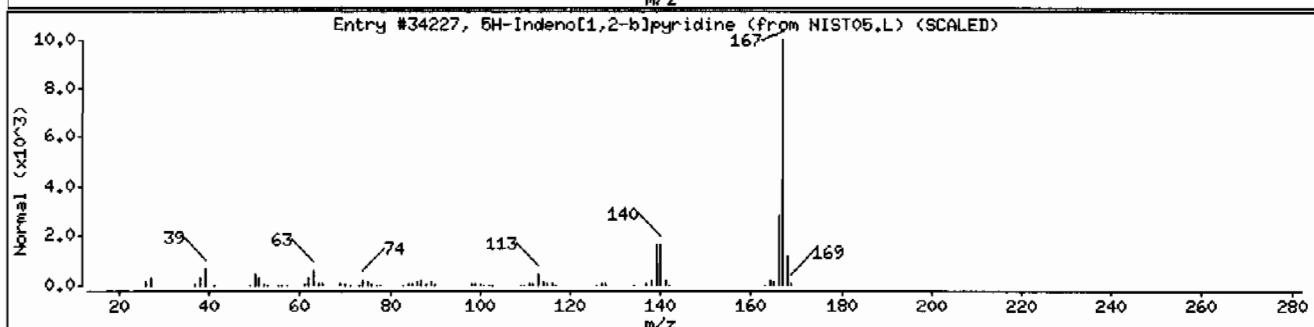
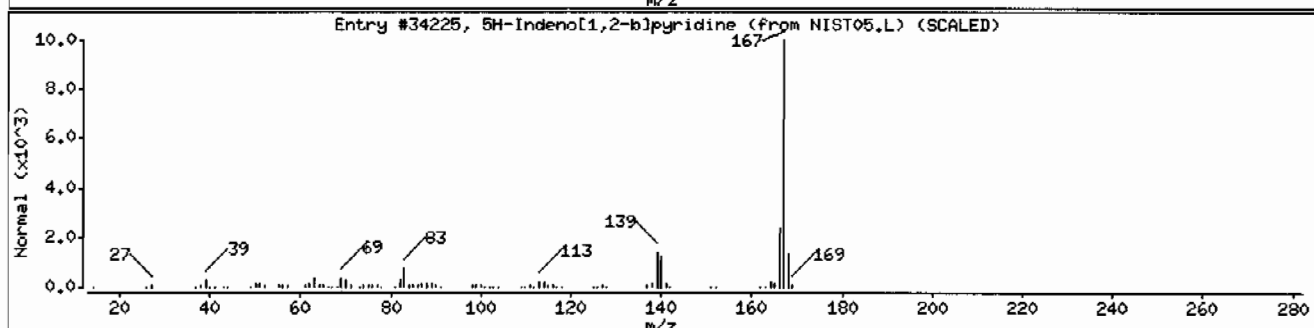
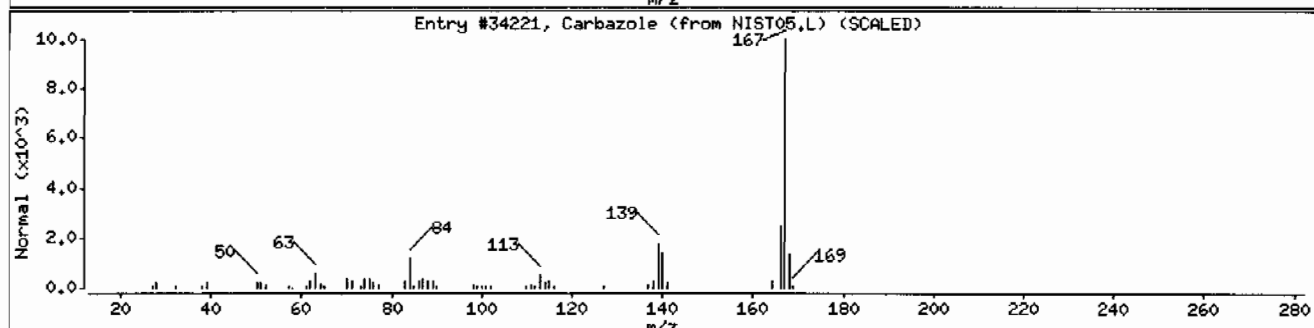
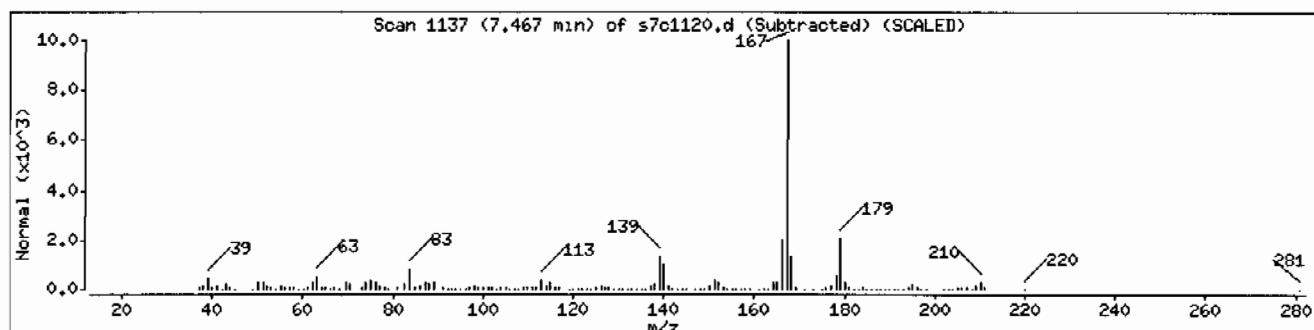
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Carbazole	86-74-8	NIST05.L	34221	95	C12H9N	167
5H-Indeno[1,2-b]pyridine	244-99-5	NIST05.L	34225	94	C12H9N	167
5H-Indeno[1,2-b]pyridine	244-99-5	NIST05.L	34227	81	C12H9N	167



Date: 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 1248043006195962311ISVH11ILANL

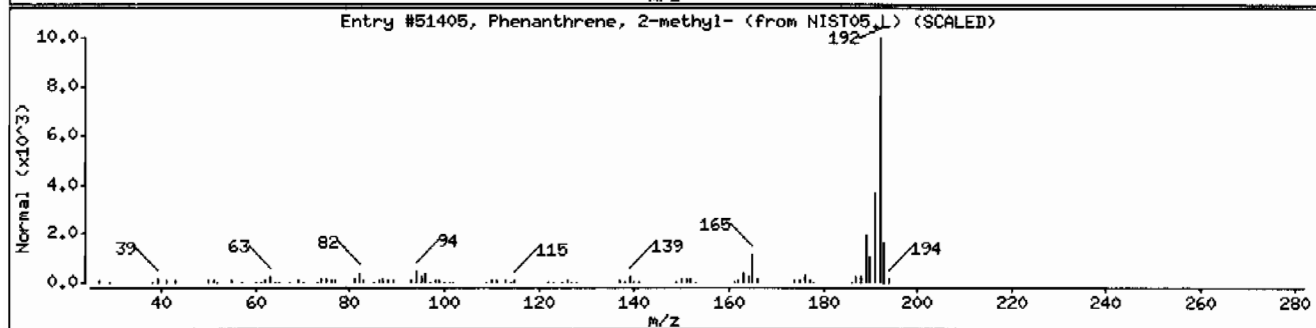
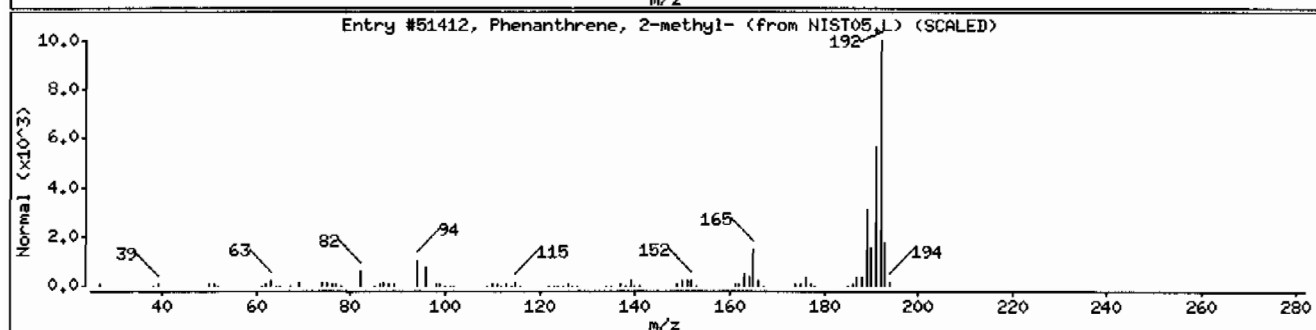
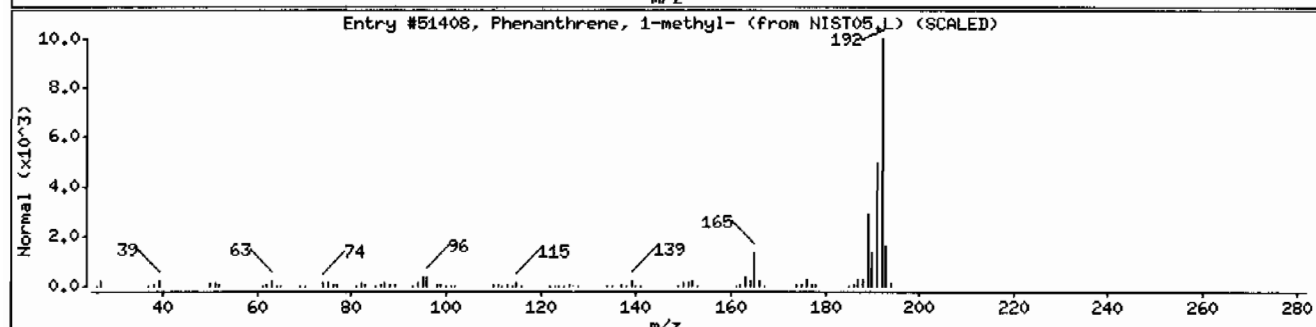
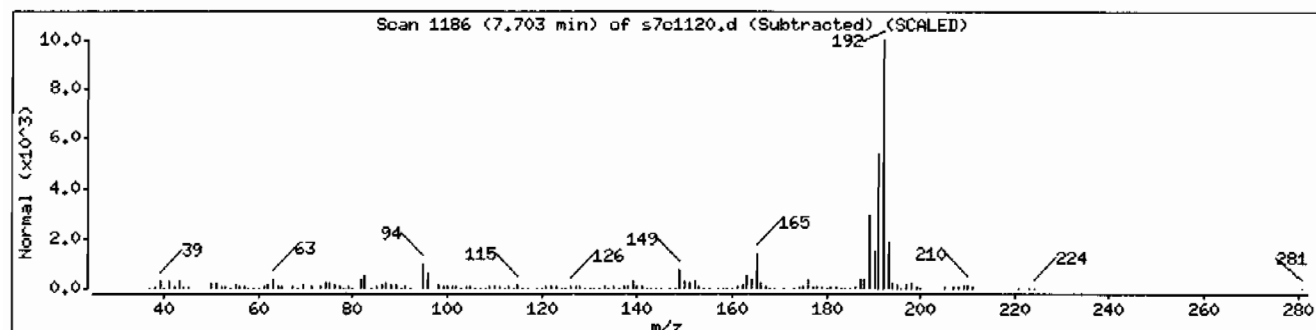
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 1-methyl-	832-69-9	NIST05.L	51408	98	C15H12	192
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51412	98	C15H12	192
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51405	96	C15H12	192



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: I248043006I9596231IISVM11ILANL

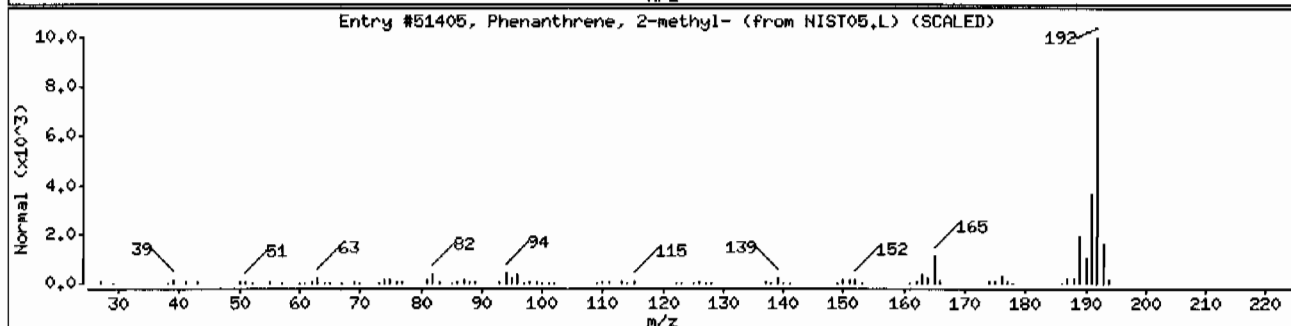
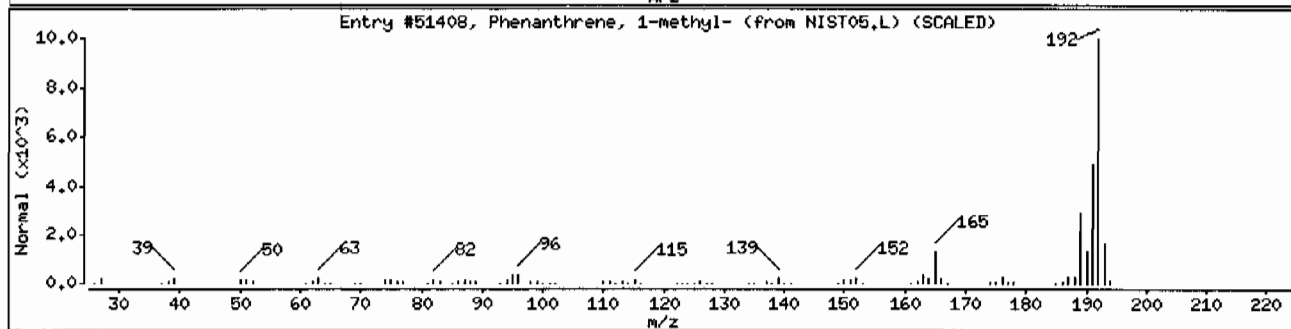
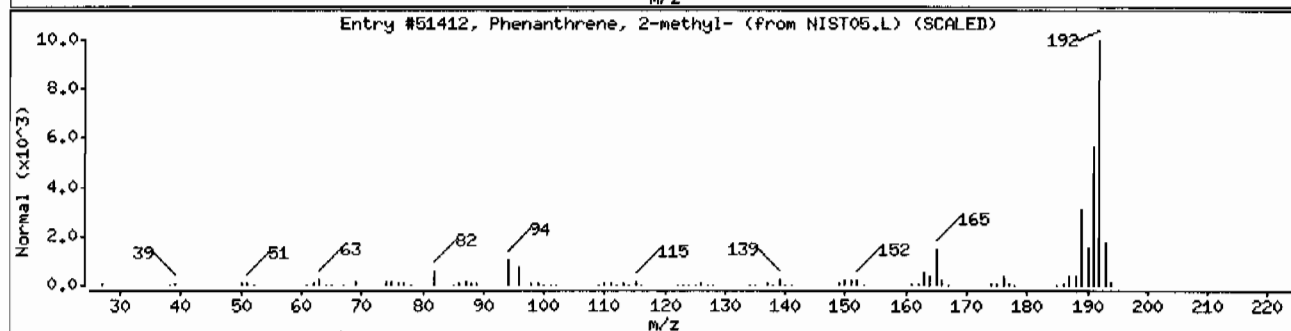
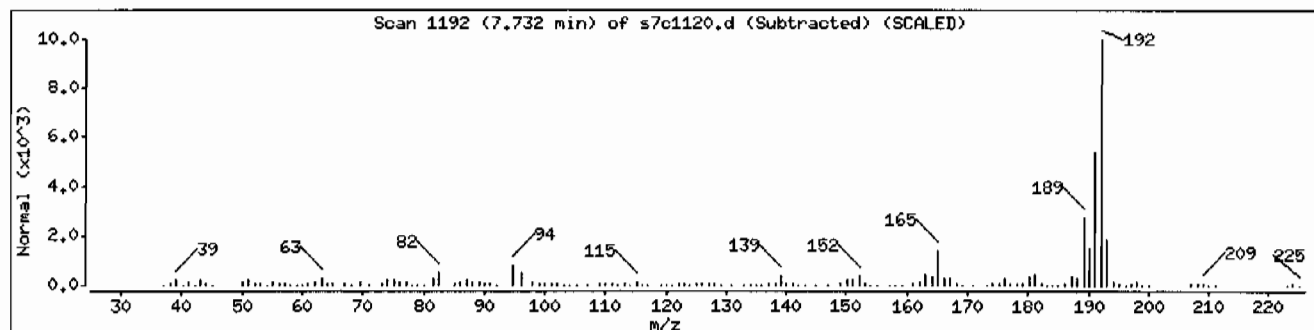
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51412	98	C15H12	192
Phenanthrene, 1-methyl-	832-69-9	NIST05.L	51408	98	C15H12	192
Phenanthrene, 2-methyl-	2531-84-2	NIST05.L	51405	98	C15H12	192



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 1248043006195962311ISVH11LANL

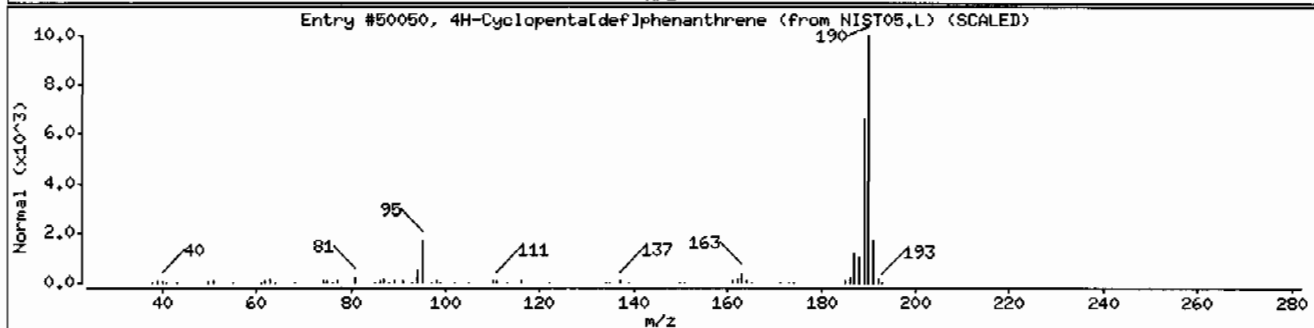
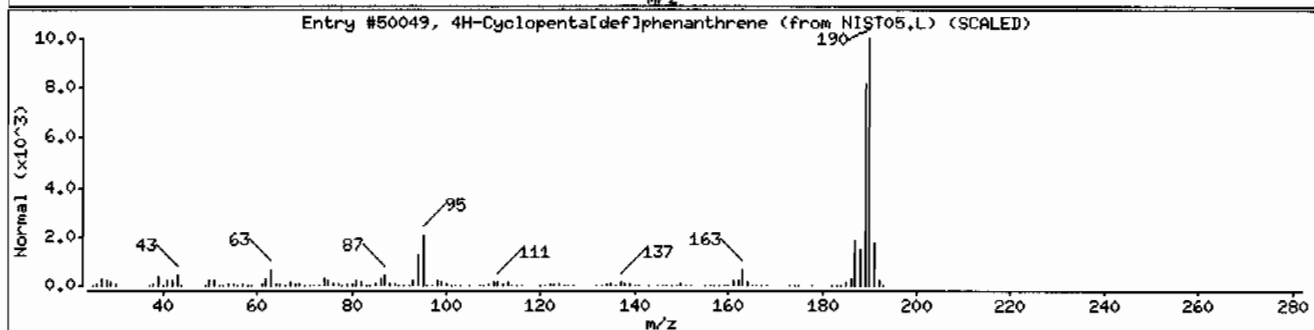
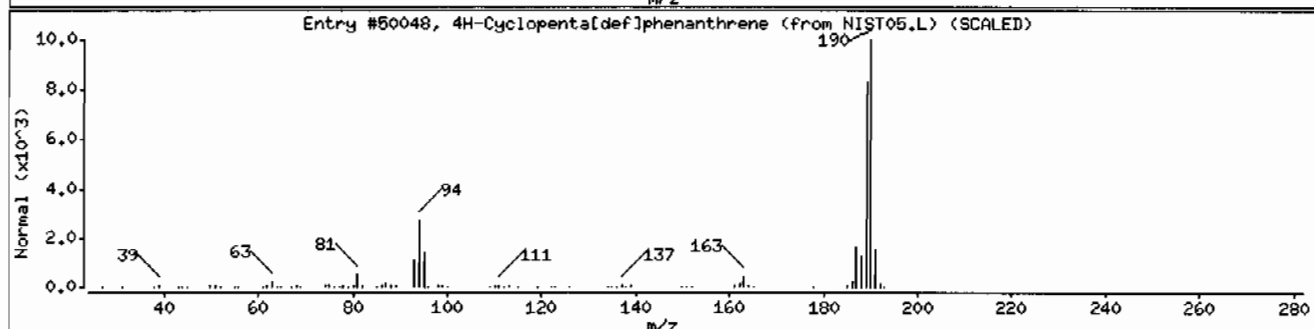
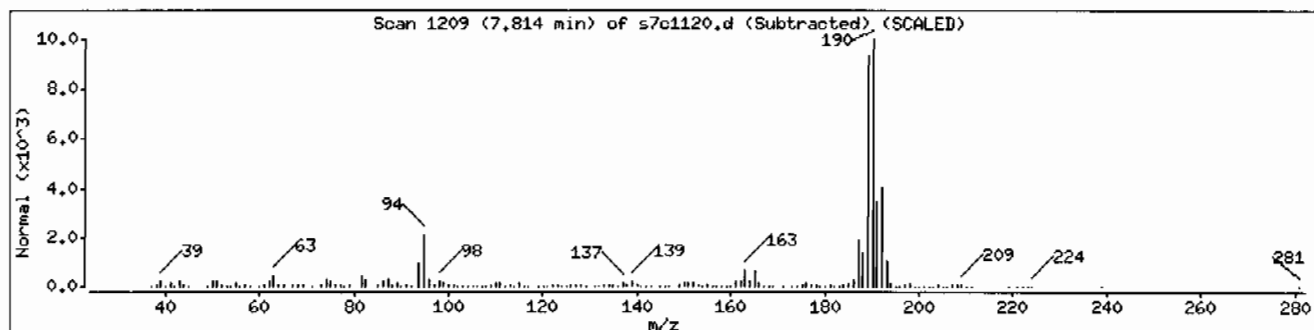
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50048	76	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50049	64	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50050	58	C15H10	190



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 1248043006195962311SVMI1ILANL

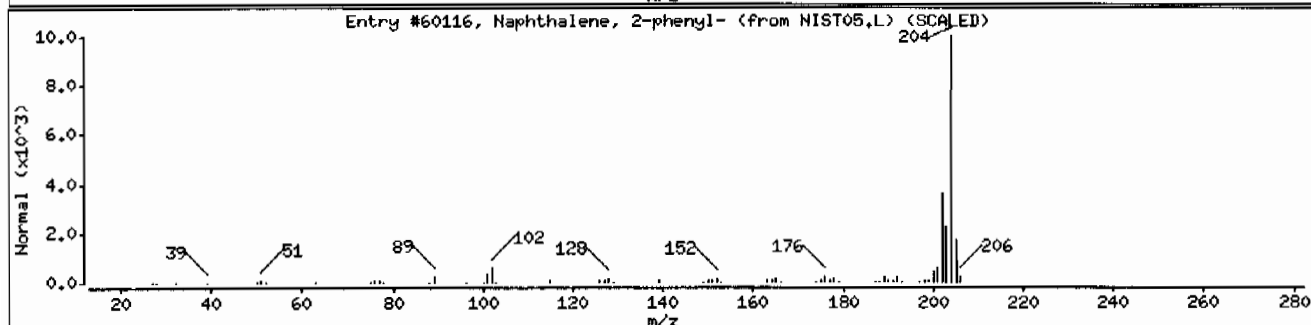
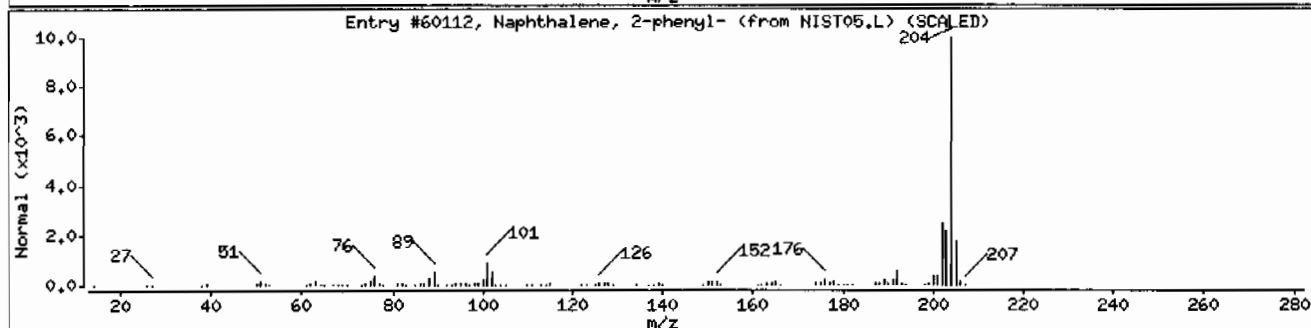
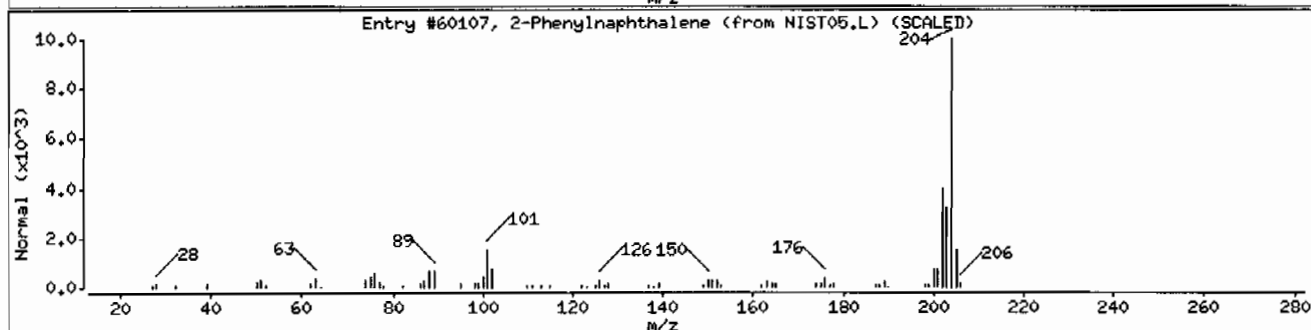
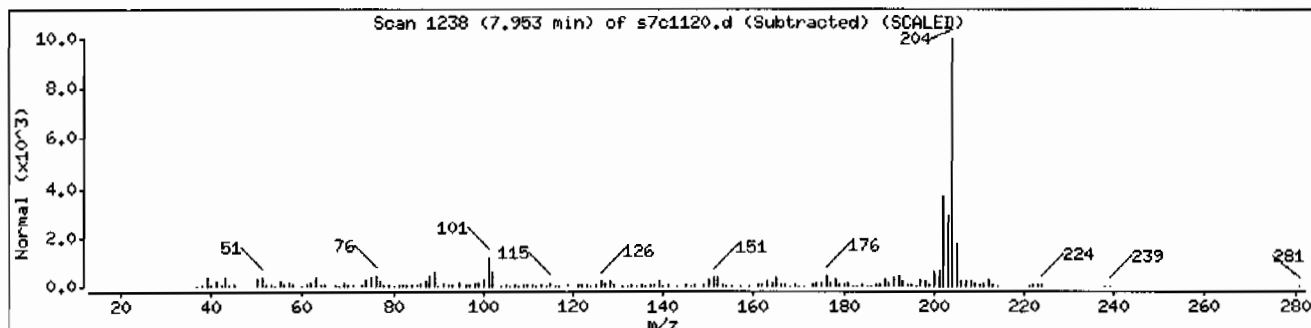
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Phenylnaphthalene	35465-71-5	NIST05.L	60107	95	C <sub>16</sub> H <sub>12</sub>	204
Naphthalene, 2-phenyl-	612-94-2	NIST05.L	60112	95	C <sub>16</sub> H <sub>12</sub>	204
Naphthalene, 2-phenyl-	612-94-2	NIST05.L	60116	91	C <sub>16</sub> H <sub>12</sub>	204



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 1248043006195962311SVH11ILANL

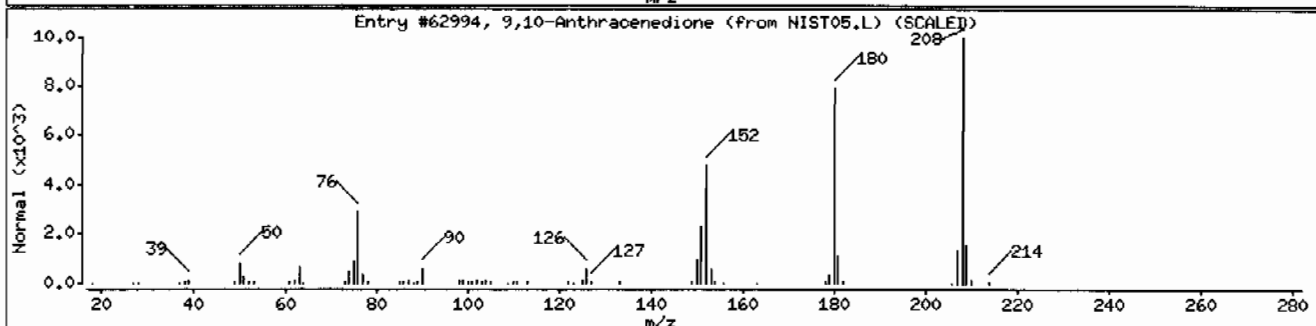
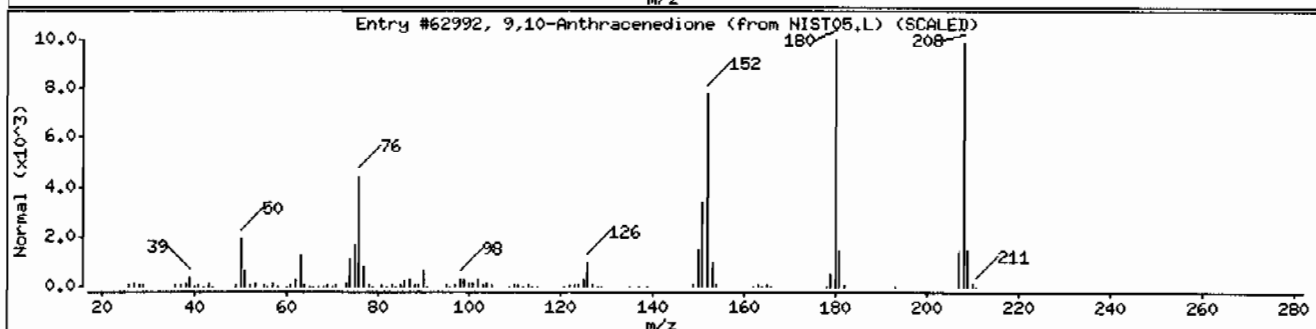
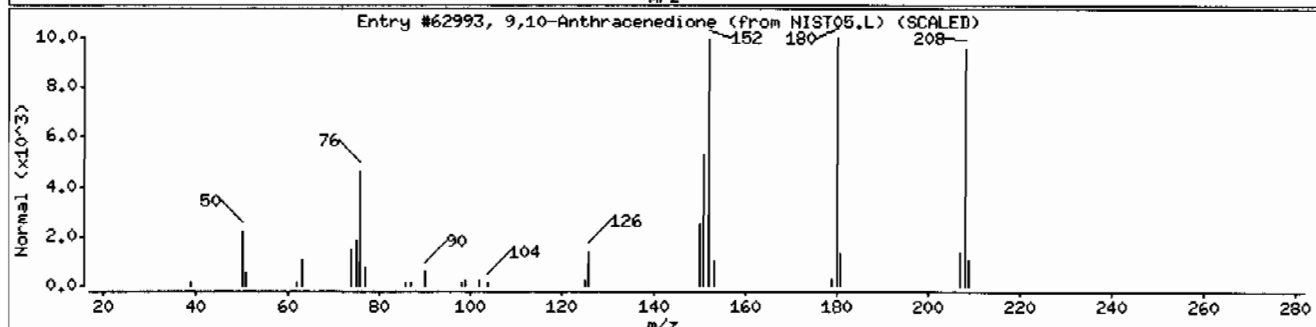
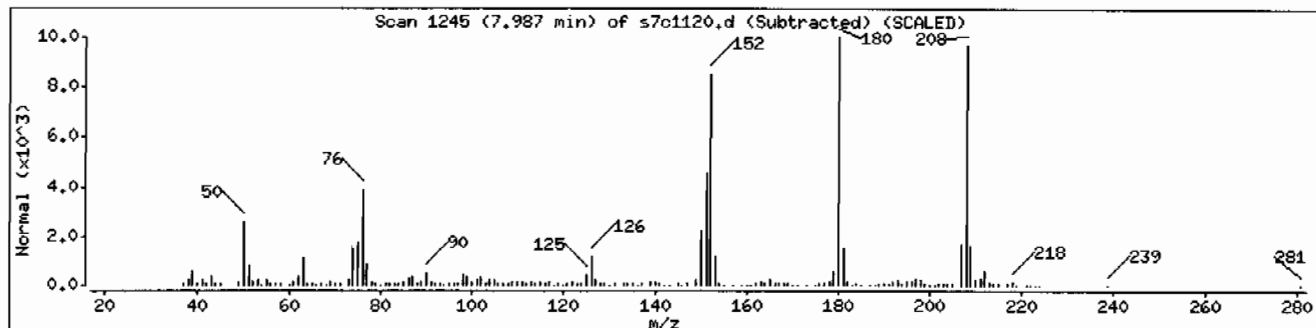
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9,10-Anthracenedione	84-65-1	NIST05.L	62993	99	C14H8O2	208
9,10-Anthracenedione	84-65-1	NIST05.L	62992	98	C14H8O2	208
9,10-Anthracenedione	84-65-1	NIST05.L	62994	95	C14H8O2	208





Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: I248043006I9596231ISVM11ILANL

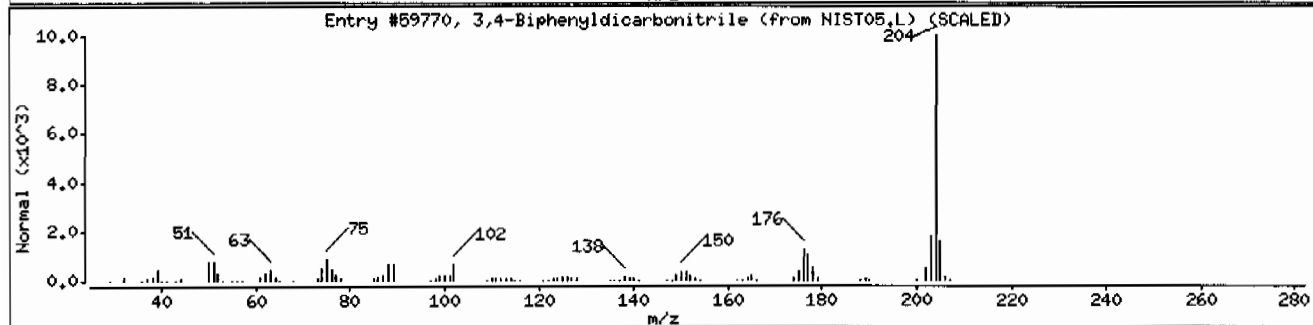
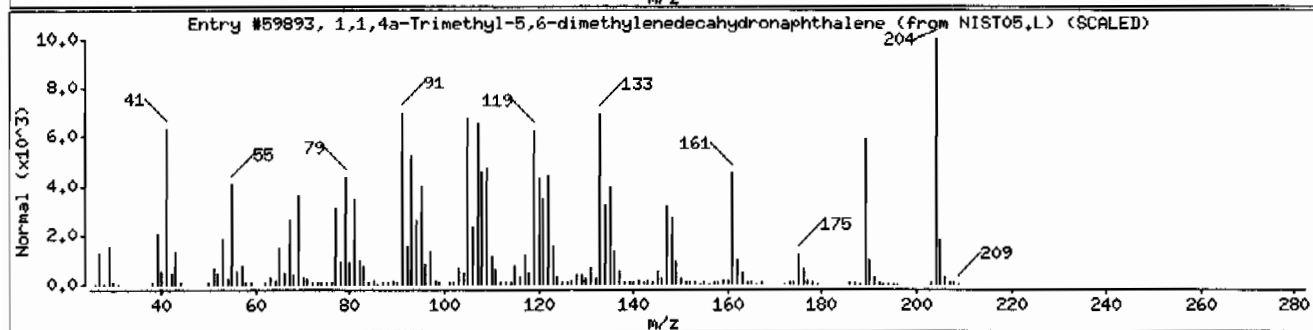
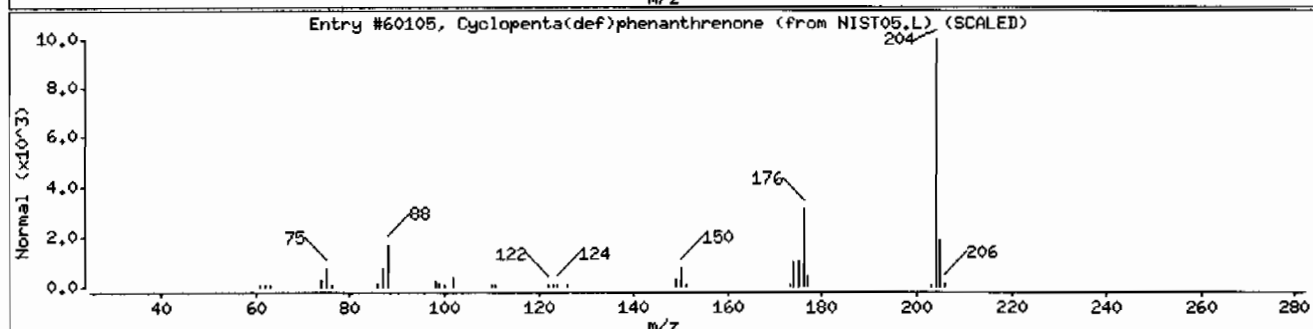
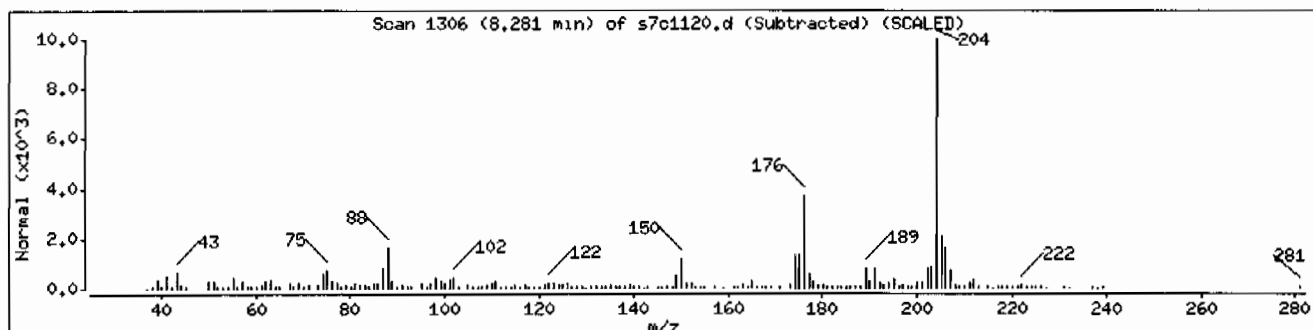
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclopenta(def)phenanthrene	5737-13-3	NIST05.L	60105	96	C15H80	204
1,1,4a-Trimethyl-5,6-dimethylenedecahydr	1000193-60-8	NIST05.L	59893	94	C15H24	204
3,4-Biphenyldicarbonitrile	4128-63-6	NIST05.L	59770	72	C14H8N2	204



Date: 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: MSD7.i

Sample Info: 1248043006195962311SVH111LANL

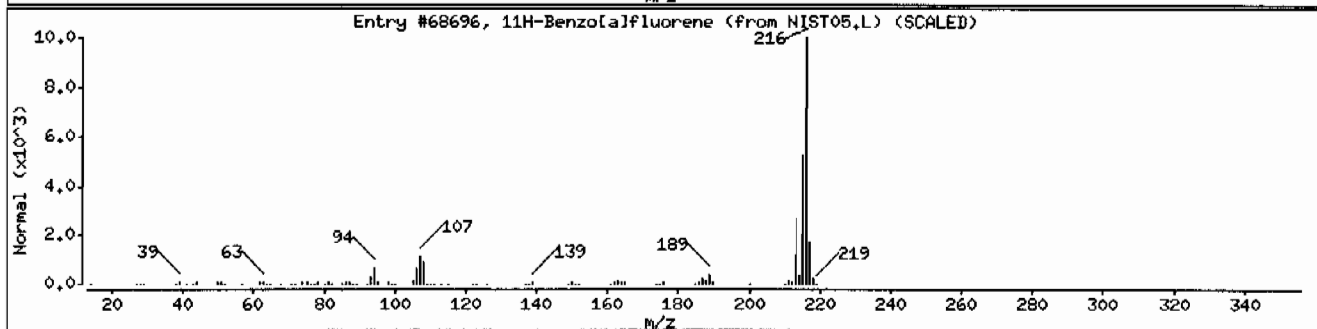
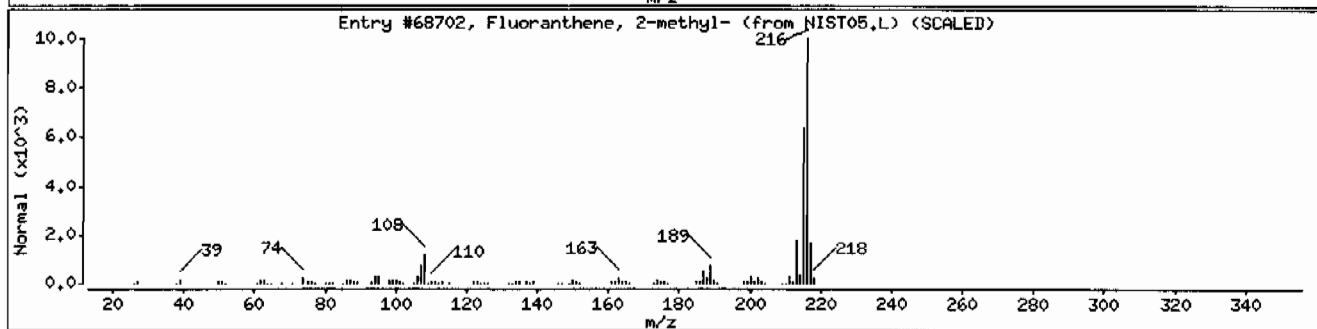
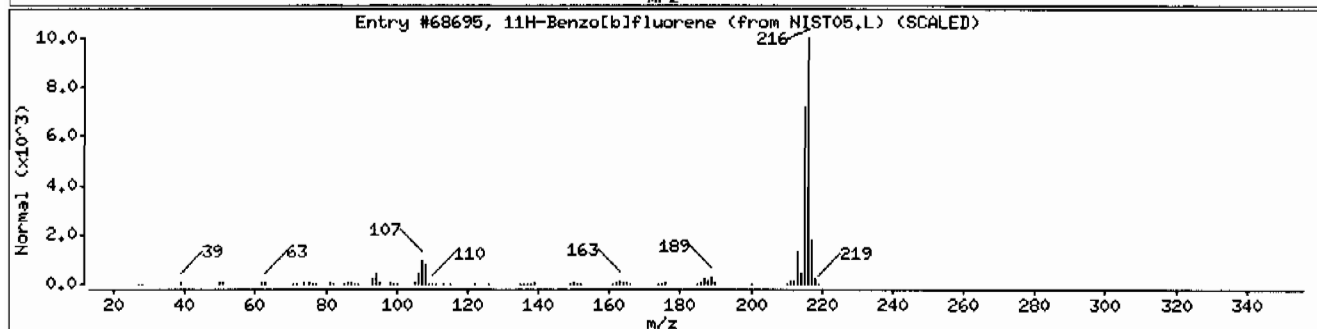
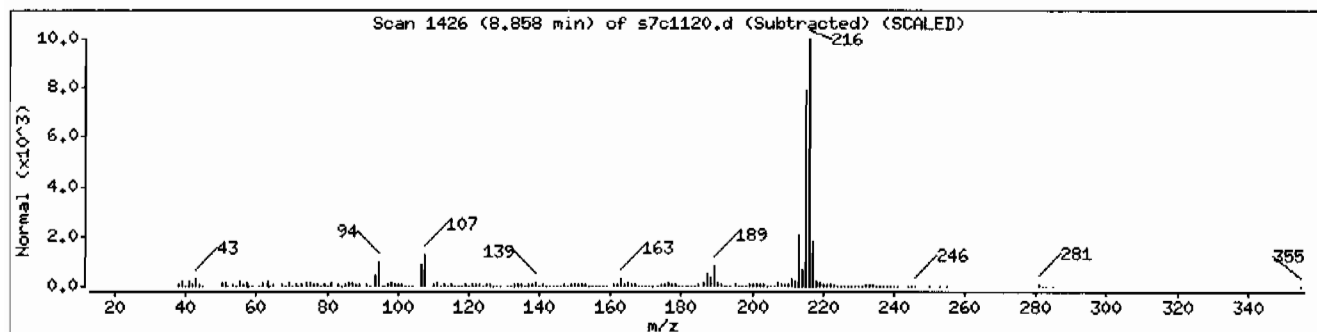
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[b]fluorene	243-17-4	NIST05.L	68695	96	C17H12	216
Fluoranthene, 2-methyl-	33543-31-6	NIST05.L	68702	95	C17H12	216
11H-Benzo[a]fluorene	238-84-6	NIST05.L	68696	93	C17H12	216



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: HSD7.i

Sample Info: I248043006I95962311ISVH11ILANL

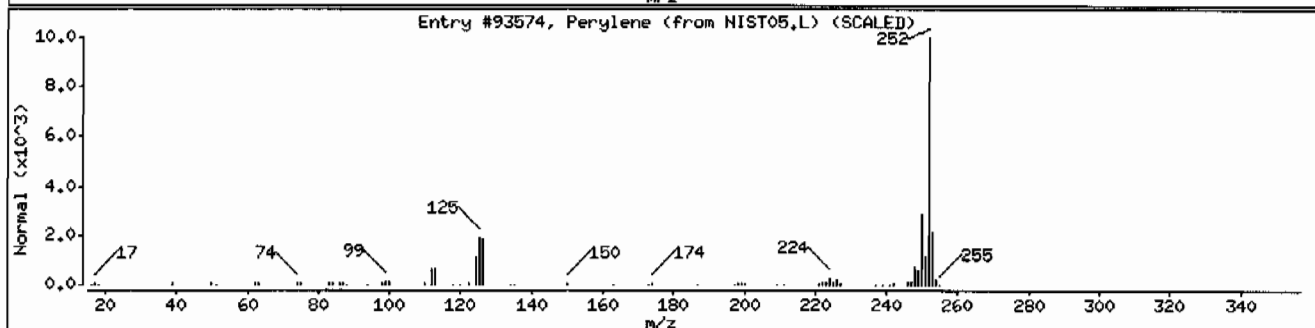
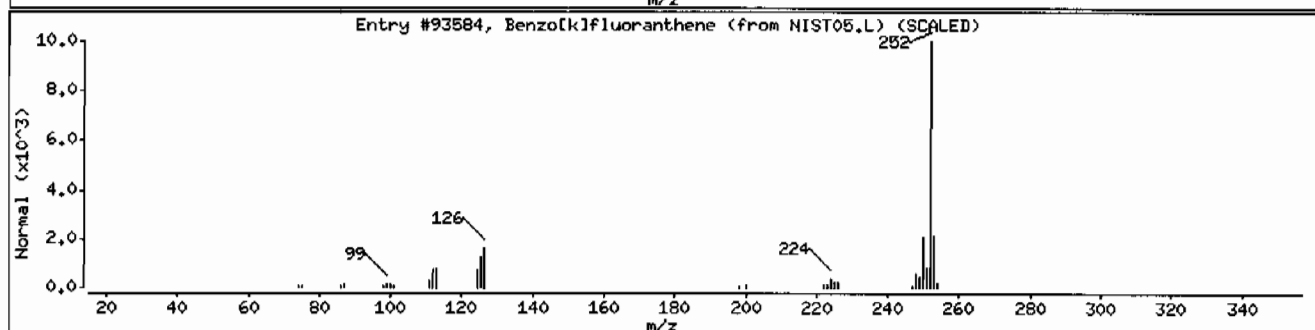
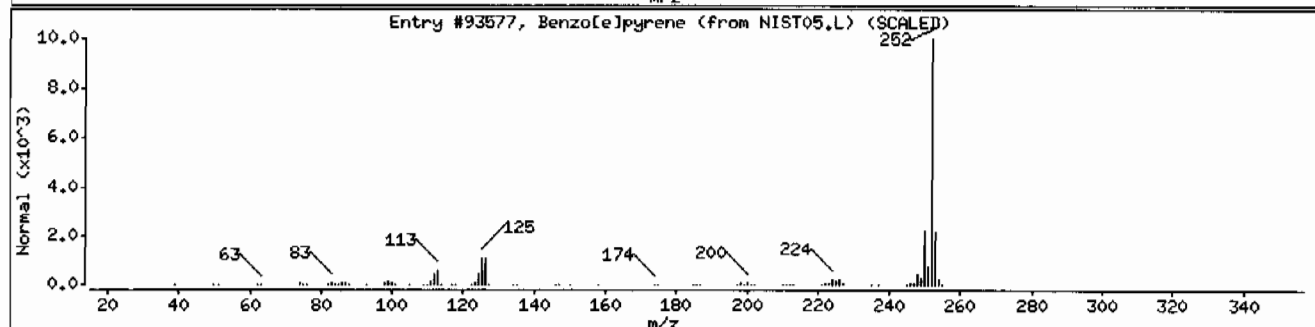
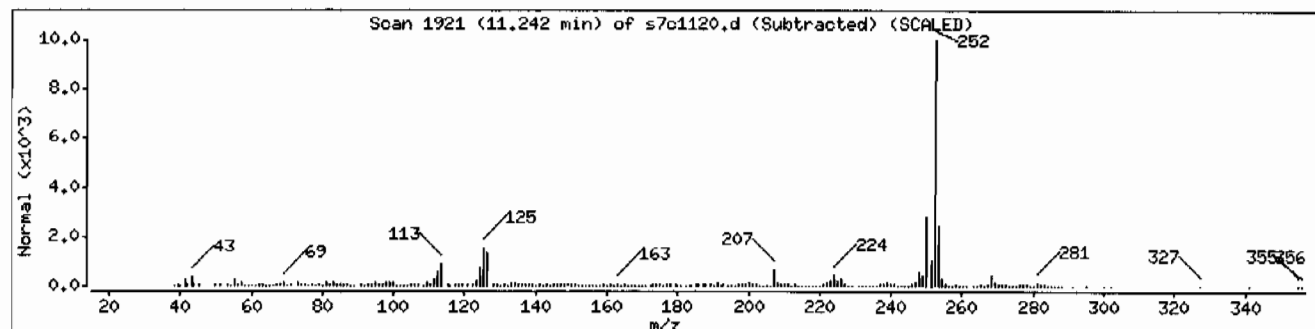
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[e]pyrene	192-97-2	NIST05.L	93577	98	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	98	C20H12	252
Perylene	198-55-0	NIST05.L	93574	98	C20H12	252



Date : 11-MAR-2010 19:40

Client ID: RE36-10-7471

Instrument: HSD7.i

Sample Info: I248043006195962311ISVH11ILANL

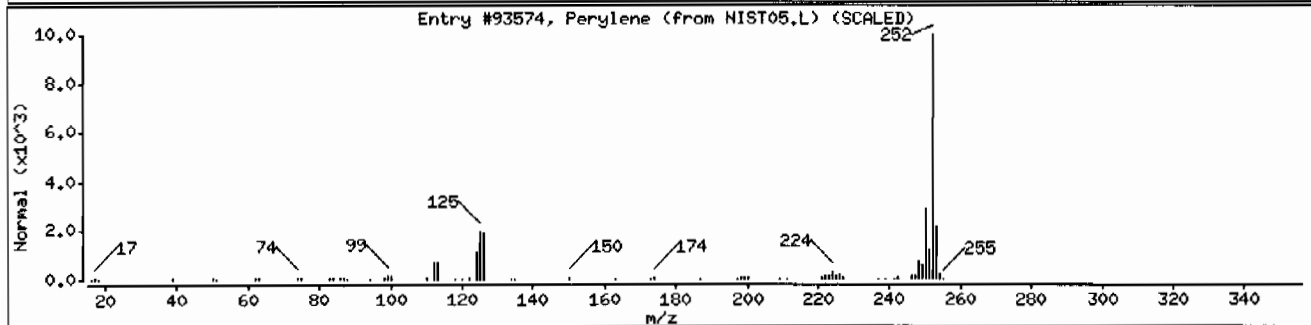
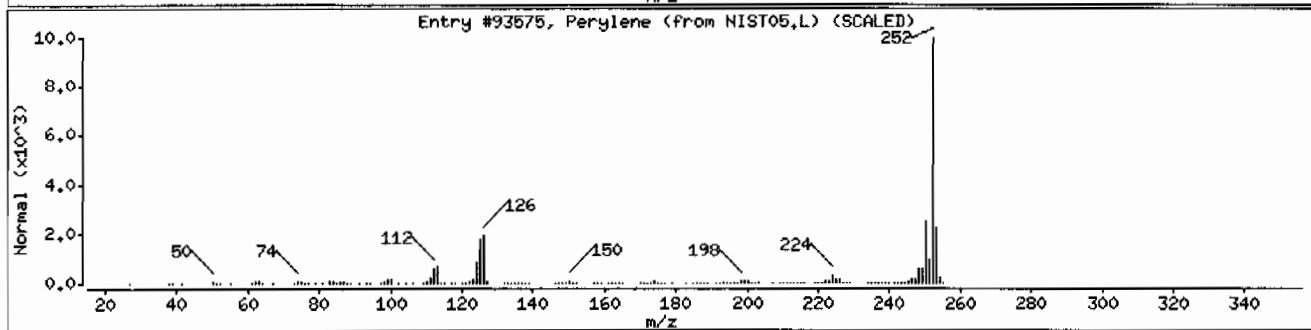
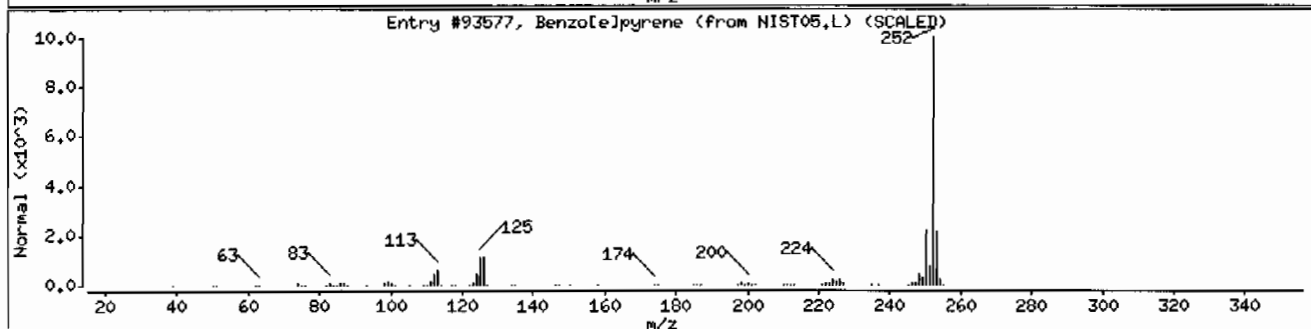
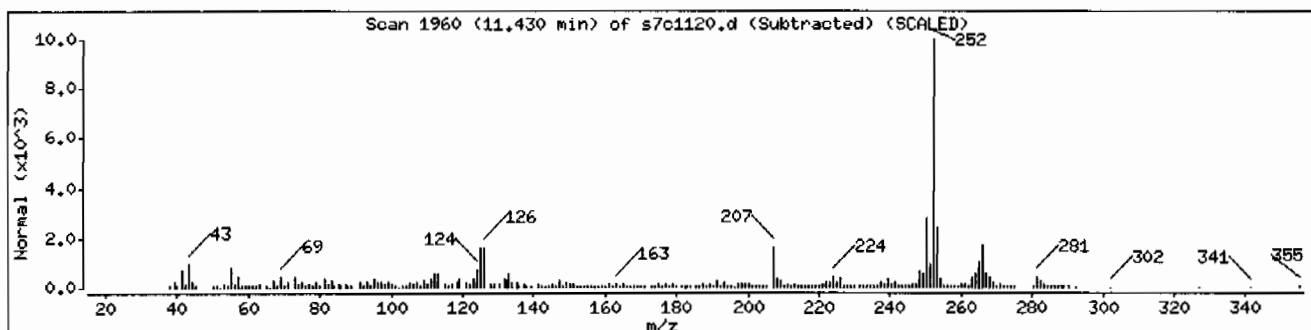
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzo[e]pyrene	192-97-2	NIST05.L	93577	98	C20H12	252
Perylene	198-55-0	NIST05.L	93575	98	C20H12	252
Perylene	198-55-0	NIST05.L	93574	98	C20H12	252



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043007

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.04 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 21.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	426	ug/kg	85.2	426
108-95-2	Phenol	U	426	ug/kg	85.2	426
95-57-8	2-Chlorophenol	U	426	ug/kg	85.2	426
106-46-7	1,4-Dichlorobenzene	U	426	ug/kg	85.2	426
621-64-7	N-Nitrosodipropylamine	U	426	ug/kg	85.2	426
59-50-7	4-Chloro-3-methylphenol	U	426	ug/kg	85.2	426
83-32-9	Acenaphthene	U	42.6	ug/kg	14.1	42.6
121-14-2	2,4-Dinitrotoluene	U	426	ug/kg	42.6	426
100-02-7	4-Nitrophenol	U	426	ug/kg	141	426
87-86-5	Pentachlorophenol	U	426	ug/kg	107	426
129-00-0	Pyrene		68.6	ug/kg	12.8	42.6
110-86-1	Pyridine	U	426	ug/kg	85.2	426
62-53-3	Aniline	U	426	ug/kg	128	426
111-44-4	bis(2-Chloroethyl) ether	U	426	ug/kg	85.2	426
541-73-1	1,3-Dichlorobenzene	U	426	ug/kg	85.2	426
100-51-6	Benzyl alcohol	U	426	ug/kg	128	426
95-50-1	1,2-Dichlorobenzene	U	426	ug/kg	85.2	426
108-60-1	bis(2-Chloroisopropyl)ether	U	426	ug/kg	85.2	426
95-48-7	o-Cresol	U	426	ug/kg	85.2	426
65794-96-9	m,p-Cresols	U	426	ug/kg	128	426
67-72-1	Hexachloroethane	U	426	ug/kg	85.2	426
98-95-3	Nitrobenzene	U	426	ug/kg	85.2	426
78-59-1	Isophorone	U	426	ug/kg	85.2	426
88-75-5	2-Nitrophenol	U	426	ug/kg	85.2	426
105-67-9	2,4-Dimethylphenol	U	426	ug/kg	149	426
111-91-1	bis(2-Chloroethoxy)methane	U	426	ug/kg	85.2	426
120-83-2	2,4-Dichlorophenol	U	426	ug/kg	85.2	426
65-85-0	Benzoic acid	U	852	ug/kg	213	852
91-20-3	Naphthalene	U	42.6	ug/kg	12.8	42.6
106-47-8	4-Chloroaniline	U	426	ug/kg	85.2	426
87-68-3	Hexachlorobutadiene	U	426	ug/kg	85.2	426
91-57-6	2-Methylnaphthalene	U	42.6	ug/kg	8.52	42.6
77-47-4	Hexachlorocyclopentadiene	U	426	ug/kg	85.2	426
88-06-2	2,4,6-Trichlorophenol	U	426	ug/kg	85.2	426
95-95-4	2,4,5-Trichlorophenol	U	426	ug/kg	85.2	426
91-58-7	2-Chloronaphthalene	U	42.6	ug/kg	14.1	42.6
88-74-4	2-Nitroaniline	U	426	ug/kg	85.2	426
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	426	ug/kg	85.2	426

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043007

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.04 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 21.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	426	ug/kg	85.2	426
606-20-2	2,6-Dinitrotoluene	U	426	ug/kg	42.6	426
208-96-8	Acenaphthylene	U	42.6	ug/kg	12.8	42.6
51-28-5	2,4-Dinitrophenol	U	852	ug/kg	162	852
132-64-9	Dibenzofuran	U	426	ug/kg	85.2	426
84-66-2	Diethylphthalate	U	426	ug/kg	85.2	426
86-73-7	Fluorene	U	42.6	ug/kg	12.8	42.6
7005-72-3	4-Chlorophenylphenylether	U	426	ug/kg	85.2	426
534-52-1	2-Methyl-4,6-dinitrophenol	U	426	ug/kg	85.2	426
100-01-6	4-Nitroaniline	U	426	ug/kg	128	426
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	426	ug/kg	85.2	426
122-66-7	Azobenzene	U	426	ug/kg	85.2	426
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	426	ug/kg	85.2	426
118-74-1	Hexachlorobenzene	U	426	ug/kg	85.2	426
85-01-8	Phenanthrene		59.4	ug/kg	12.8	42.6
120-12-7	Anthracene	J	9.70	ug/kg	8.52	42.6
84-74-2	Di-n-butylphthalate	U	426	ug/kg	85.2	426
206-44-0	Fluoranthene		84.9	ug/kg	12.8	42.6
85-68-7	Butylbenzylphthalate	U	426	ug/kg	85.2	426
56-55-3	Benzo(a)anthracene	J	34.8	ug/kg	12.8	42.6
91-94-1	3,3'-Dichlorobenzidine	U	426	ug/kg	128	426
218-01-9	Chrysene	J	36.6	ug/kg	12.8	42.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	426	ug/kg	85.2	426
117-84-0	Di-n-octylphthalate	U	426	ug/kg	85.2	426
205-99-2	Benzo(b)fluoranthene		57.8	ug/kg	12.8	42.6
207-08-9	Benzo(k)fluoranthene	U	42.6	ug/kg	12.8	42.6
50-32-8	Benzo(a)pyrene	J	32.7	ug/kg	12.8	42.6
193-39-5	Indeno(1,2,3-cd)pyrene	J	23.0	ug/kg	12.8	42.6
53-70-3	Dibenzo(a,h)anthracene	U	42.6	ug/kg	12.8	42.6
191-24-2	Benzo(ghi)perylene	J	26.8	ug/kg	12.8	42.6
120-82-1	1,2,4-Trichlorobenzene	U	426	ug/kg	85.2	426

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	526	ug/kg		J
	Unknown	10.1	499	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031110.b/s7c1110.d  
 Lab Smp Id: 248043007 Client Smp ID: RE36-10-7472  
 Inj Date : 11-MAR-2010 16:04  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043007|959623|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 10  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	21.86880	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
*****	----	==	=====	=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	152	3.990	3.990	(1.000)	433158	40.0000	
* 29 Naphthalene-d8	136	4.852	4.857	(1.000)	1642891	40.0000	
* 46 Acenaphthene-d10	164	6.109	6.114	(1.000)	915947	40.0000	
* 67 Phenanthrene-d10	188	7.279	7.284	(1.000)	1613710	40.0000	
* 91 Chrysene-d12	240	9.682	9.691	(1.000)	1159786	40.0000	
* 98 Perylene-d12	264	11.372	11.386	(1.000)	800743	40.0000	
\$ 3 2-Fluorophenol	112	3.186	3.181	(0.798)	423894	37.6501	1600
\$ 5 Phenol-d5	99	3.706	3.706	(0.929)	573593	40.6340	1730
\$ 20 Nitrobenzene-d5	82	4.346	4.356	(0.896)	215540	17.3946	741
\$ 39 2-Fluorobiphenyl	172	5.594	5.598	(0.916)	439860	19.2694	821
\$ 60 2,4,6-Tribromophenol	329	6.706	6.711	(1.098)	135091	51.0185	2170
\$ 81 p-Terphenyl-d14	244	8.651	8.656	(0.894)	595925	28.6808	1220

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN FINAL (ng/ul) (ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====
79 Pyrene	202	8.550	8.560	(0.883)	58988	1.60995	68.6
68 Phenanthrene	178	7.298	7.308	(1.003)	46163	1.39406	59.4
69 Anthracene	178	7.342	7.351	(1.009)	7638	0.22775	9.7 (a)
76 Fluoranthene	202	8.338	8.343	(1.146)	71717	1.99186	84.9
89 Benzo(a)anthracene	228	9.667	9.677	(0.998)	22735	0.81771	34.8 (a)
92 Chrysene	228	9.706	9.715	(1.002)	21246	0.85874	36.6 (a)
95 Benzo(b)fluoranthene	252	10.847	10.861	(0.954)	30485	1.35753	57.8
97 Benzo(a)pyrene	252	11.285	11.309	(0.992)	14148	0.76836	32.7 (a)
99 Indeno(1,2,3-cd)pyrene	276	13.130	13.168	(1.155)	7159	0.54068	23.0 (a)
101 Benzo(ghi)perylene	276	13.674	13.712	(1.202)	6955	0.62985	26.8 (a)

#### QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).



## ION RATIO REPORT

## SV REPORT

Data file: s7c1110.d

Report Date: 03/12/2010 08:14

Lab. ID: 248043007

SampleType: SAMPLE

Injection Date: 11-MAR-2010 16:04

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043007|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	32119	3.71	3.78	80-120	100	(T)
93	1112	3.76	3.78	206-266	3	(Q)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	31311	4.35	4.24	80-120	100	(T)
42	23771	4.35	4.23	61-121	76	(T)
-----						
43 Dimethylphthalate		CAS#: 131-11-3				
163	164336	6.11	5.87	80-120	100	(T)
164	915947	6.11	5.87	0- 40	557	(QT)
-----						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	120102	6.11	5.93	80-120	100	(T)
63	1508	6.11	5.93	52-112	1	(QT)
-----						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	120102	6.11	6.23	80-120	100	(T)
89	1406	6.11	6.23	37- 97	1	(QT)
63	1508	6.11	6.23	17- 77	1	(QT)
-----						
53 Fluorene		CAS#: 86-73-7				
166	8107	6.70	6.53	80-120	100	(T)
165	8666	6.70	6.53	61-121	107	(T)
167	2601	6.70	6.52	0- 44	32	(T)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	418	6.70	6.54	80-120	100	(T)
105	1406	6.71	6.54	10- 70	336	(QT)
51	1396	6.70	6.54	54-114	334	(QT)
<hr/>						
68 Phenanthrene				CAS#: 85-01-8		
178	46163	7.30	7.31	80-120	100	( )
179	8274	7.30	7.31	0- 46	18	( )
176	8526	7.30	7.31	0- 49	18	( )
<hr/>						
69 Anthracene				CAS#: 120-12-7		
178	7638	7.34	7.35	80-120	100	( )
179	2087	7.34	7.35	0- 46	27	( )
176	1126	7.34	7.35	0- 48	15	( )
<hr/>						
76 Fluoranthene				CAS#: 206-44-0		
202	71717	8.34	8.34	80-120	100	( )
203	13179	8.34	8.34	0- 48	18	( )
101	8102	8.34	8.34	0- 41	11	( )
<hr/>						
79 Pyrene				CAS#: 129-00-0		
202	58988	8.55	8.56	80-120	100	( )
200	12166	8.55	8.56	0- 50	21	( )
101	7782	8.55	8.56	0- 44	13	( )
<hr/>						
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	22735	9.67	9.68	80-120	100	( )
226	5893	9.67	9.68	0- 56	26	( )
229	6214	9.67	9.68	0- 50	27	( )
<hr/>						
92 Chrysene				CAS#: 218-01-9		
228	21246	9.71	9.72	80-120	100	( )
229	5469	9.70	9.72	0- 50	26	( )
226	6487	9.71	9.72	0- 59	31	( )
<hr/>						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	30485	10.85	10.86	80-120	100	( )
253	7542	10.85	10.86	0- 52	25	( )
125	4695	10.85	10.86	0- 41	15	( )
<hr/>						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	30485	10.85	10.90	80-120	100	( )
253	7542	10.85	10.90	0- 52	25	( )
125	4695	10.85	10.90	0- 42	15	( )
<hr/>						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	14148	11.29	11.31	80-120	100	( )
253	4020	11.29	11.31	0- 52	28	( )
125	2832	11.29	11.30	0- 42	20	( )
<hr/>						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
99	Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5		
276	7159	13.13	13.17	80-120	100	( )
138	2021	13.13	13.17	2- 62	28	( )

-----						
101	Benzo(ghi)perylene			CAS#: 191-24-2		
276	6955	13.67	13.71	80-120	100	( )
138	1922	13.67	13.71	0- 58	28	( )

-----

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD7.i/s031110.b/s7c1110.d  
 Lab Smp Id: 248043007 Client Smp ID: RE36-10-7472  
 Inj Date : 11-MAR-2010 16:04  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043007|959623|1|SVM|1|LANL  
 Misc Info : |MSD8270 S|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 10  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	21.86880	% moisture

Cpnd Variable Local Compound Variable

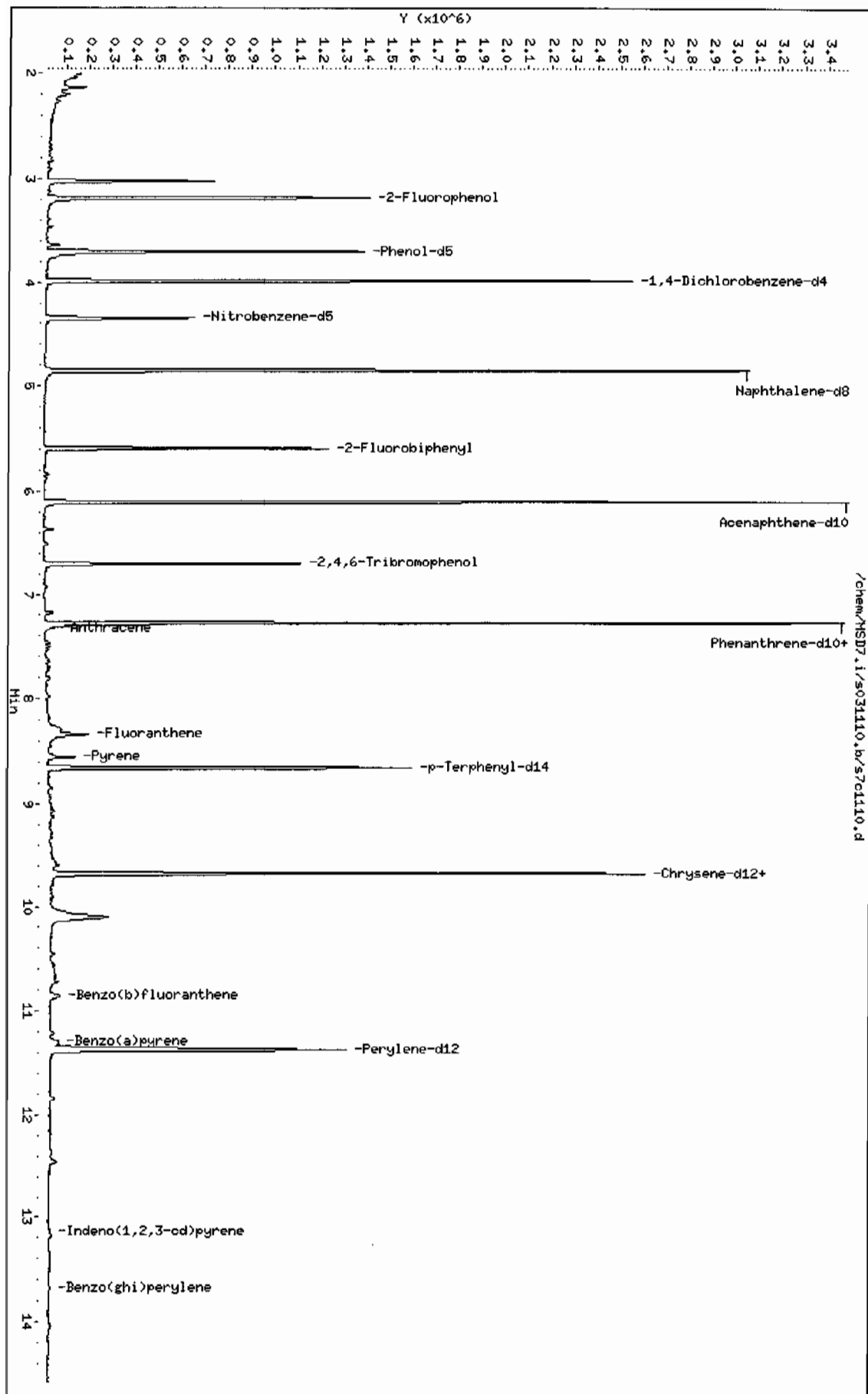
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.990	2637768	40.000
* 91 Chrysene-d12	9.682	3227663	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	=====	=====	====	=====	=====	=====
Unknown Aldol Condensate					CAS #:		
3.022	814813	12.3560955	526	0		0	10

RT	CONCENTRATIONS			QUANT			CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	
10.101	944925	11.7103291	499	0		0	91

Data File: /chem/MSD7.i/s031110.b/s7c1110.d  
 Date: 11-MAR-2010 16:04  
 Client ID: RE36-10-7472  
 Sample Info: 1248043007195962311SVH11LNL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: MSD7.i  
 Operator: JHB3  
 Column diameter: 0.20



Date : 11-MAR-2010 16:04

Client ID: RE36-10-7472

Instrument: MSD7.i

Sample Info: I248043007195962311SVMI1ILANL

Volume Injected (uL): 0.5

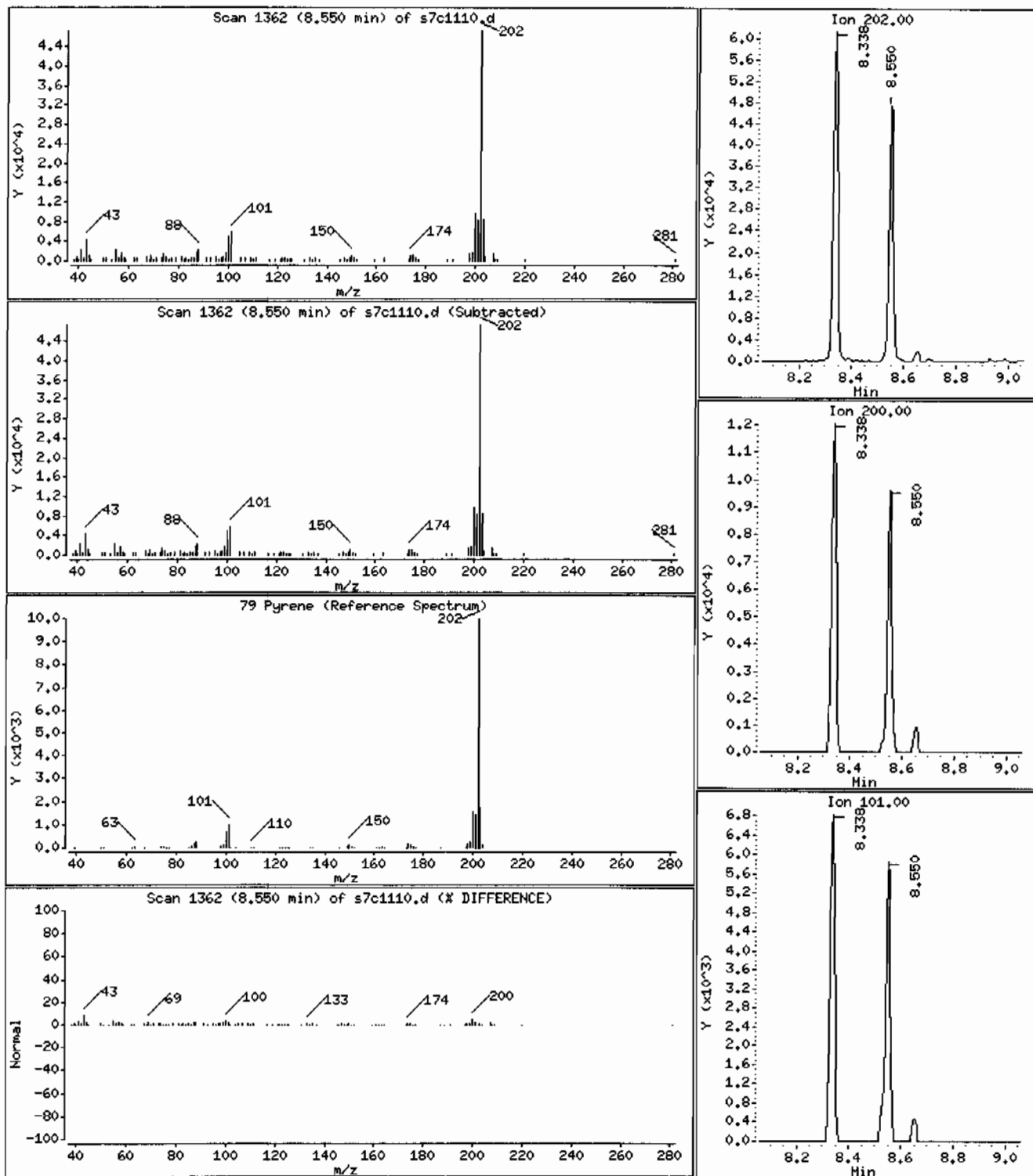
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 68.6 ug/Kg



Date: 11-MAR-2010 16:04

Client ID: RE36-10-7472

Instrument: MSD7.1

Sample Info: 12480430071959623111SVH111LANL

Volume Injected (uL): 0.5

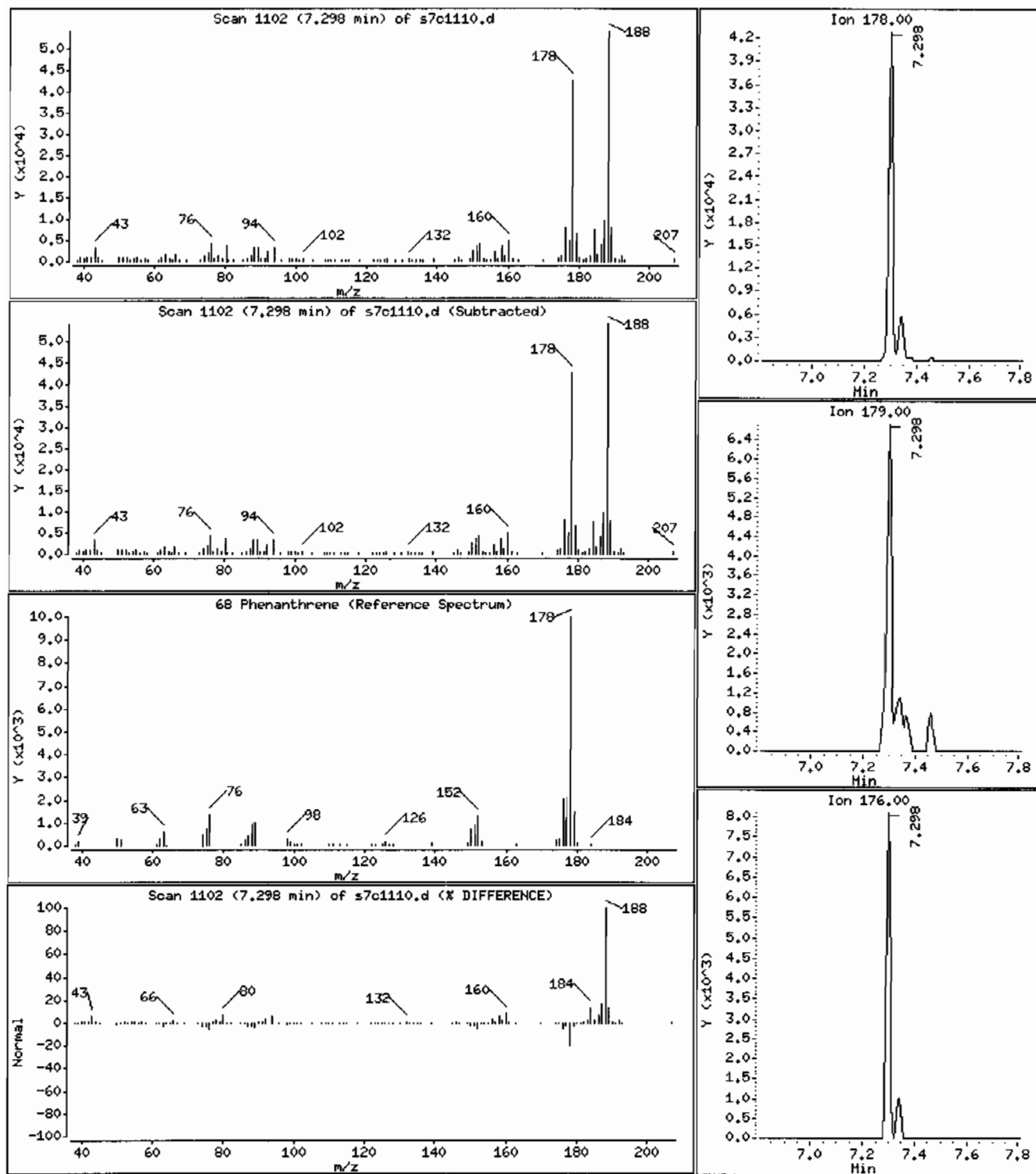
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 59.4 ug/Kg





Date : 11-MAR-2010 16:04

Client ID: RE36-10-7472

Instrument: MSD7.i

Sample Info: I248043007195962311SVMI1ILANL

Volume Injected (uL): 0.5

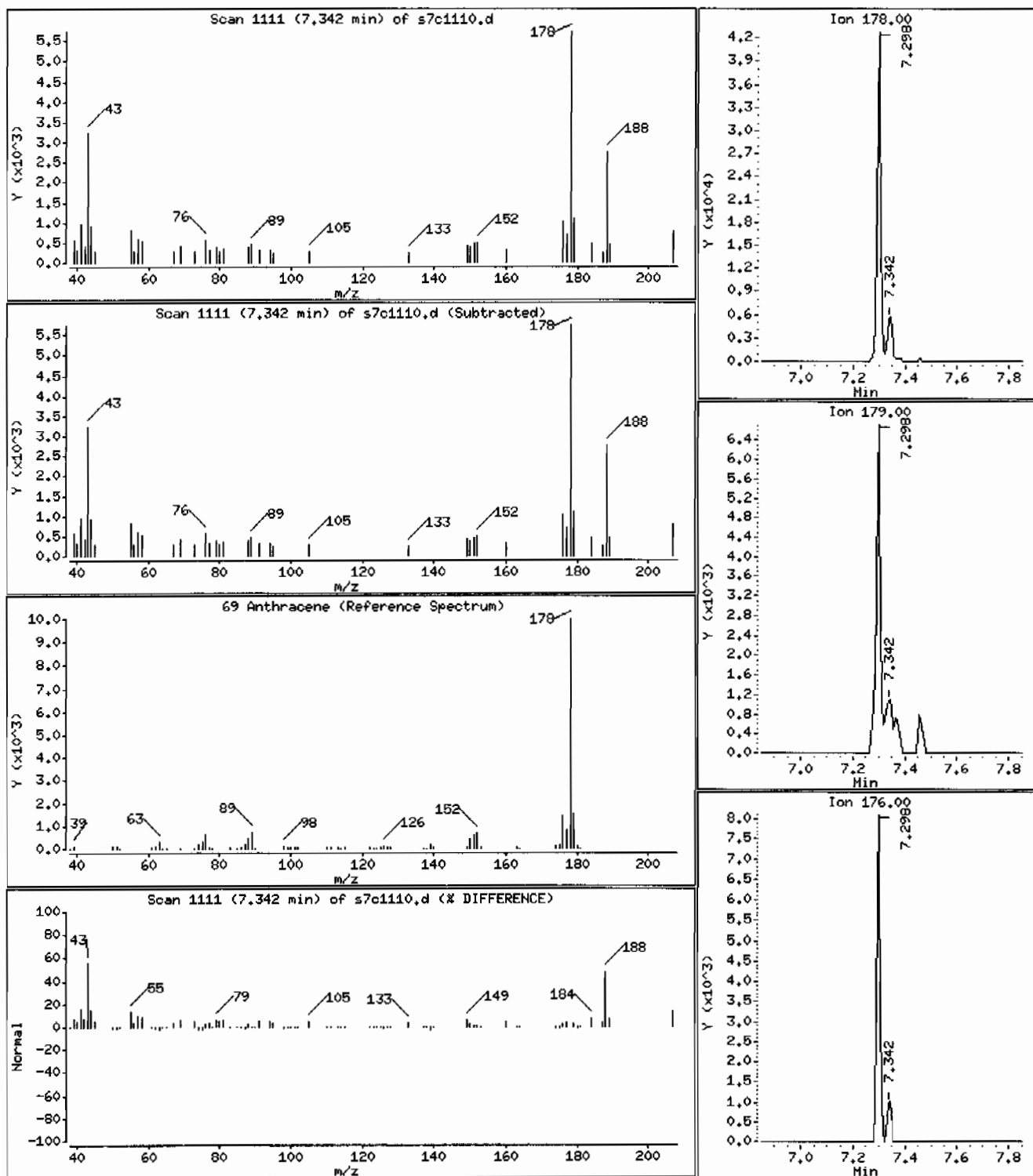
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 9.7 ug/Kg



Date: 11-MAR-2010 16:04

Client ID: RE36-10-7472

Instrument: HSD7.i

Sample Info: 12480430071959623111SVH11ILANL

Volume Injected (uL): 0.5

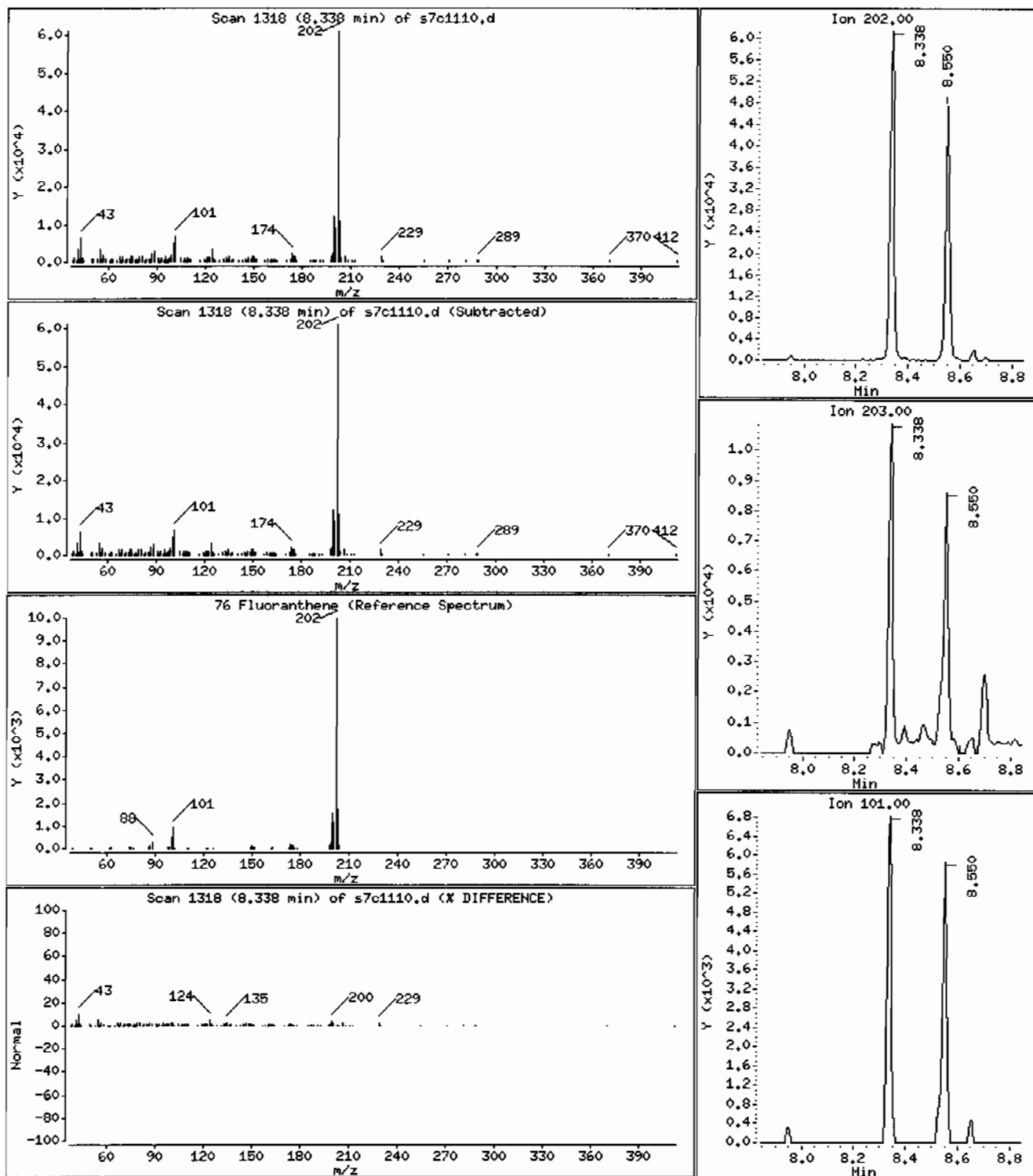
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 84.9 ug/Kg



Date : 11-MAR-2010 16:04

Client ID: RE36-10-7472

Instrument: HSD7.i

Sample Info: 1248043007195962311ISVH11ILANL

Volume Injected (uL): 0.5

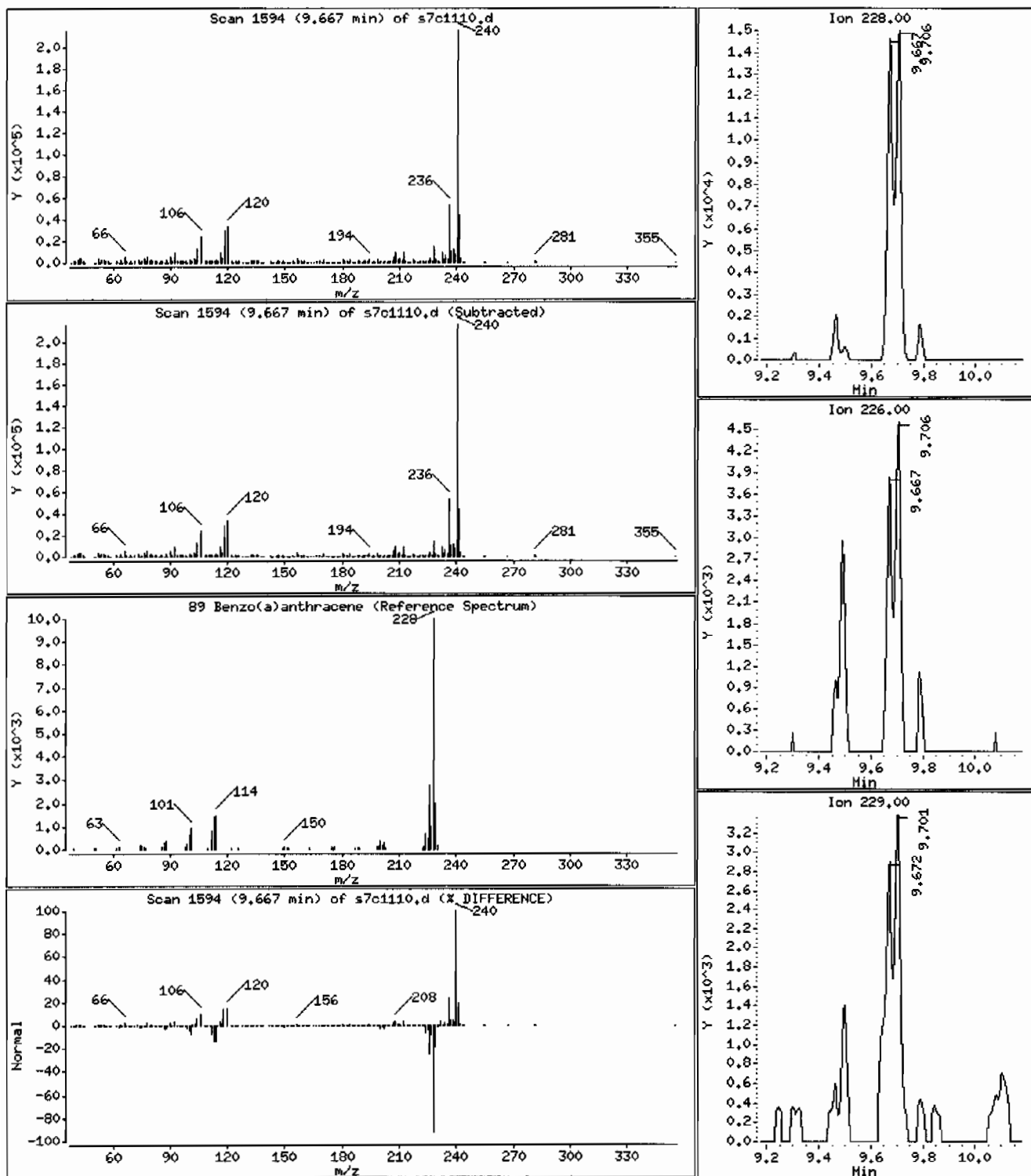
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 34.8 ug/Kg



Date: 11-MAR-2010 16:04

Client ID: RE36-10-7472

Instrument: MSD7.i

Sample Info: 12480430071959623111SVH111LANL

Volume Injected (uL): 0.5

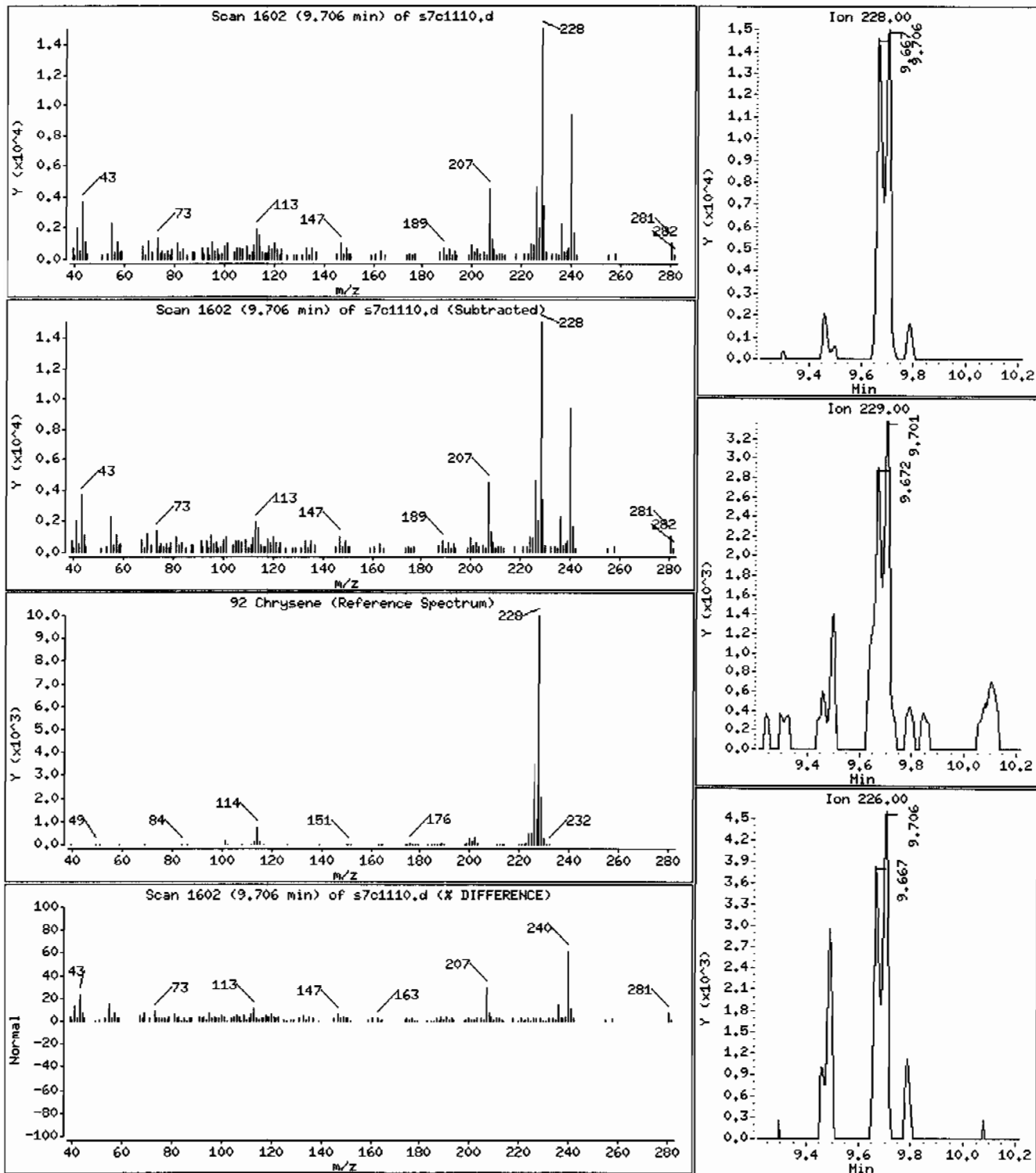
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 36.6 ug/Kg



Date : 11-MAR-2010 16:04

Client ID: RE36-10-7472

Instrument: HSD7.i

Sample Info: 1248043007195962311SVH11ILANL

Volume Injected (uL): 0.5

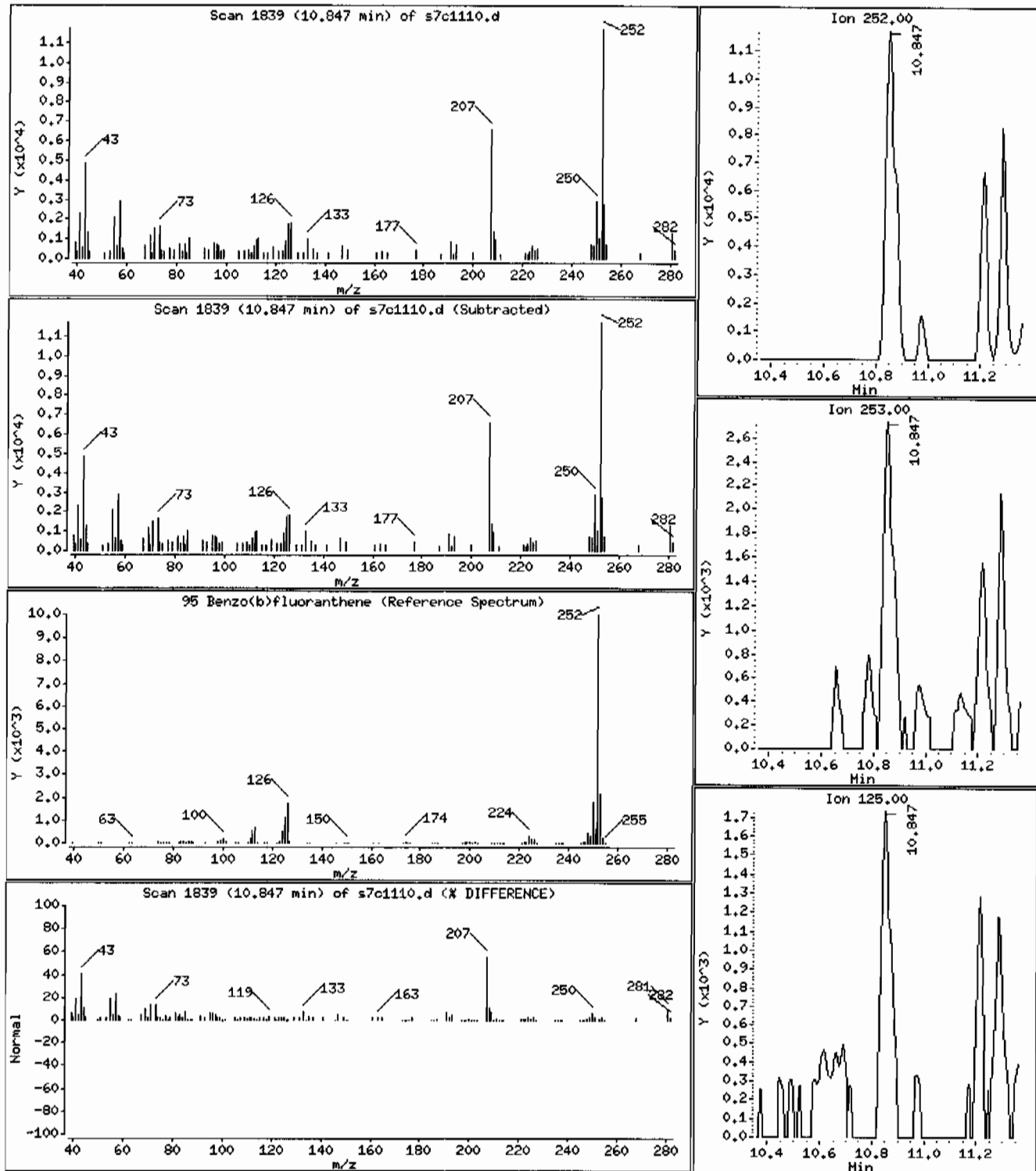
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 57.8 ug/Kg



Date : 11-MAR-2010 16:04

Client ID: RE36-10-7472

Instrument: MSD7.i

Sample Info: 1248043007195962311SVMI11LANL

Volume Injected (uL): 0.5

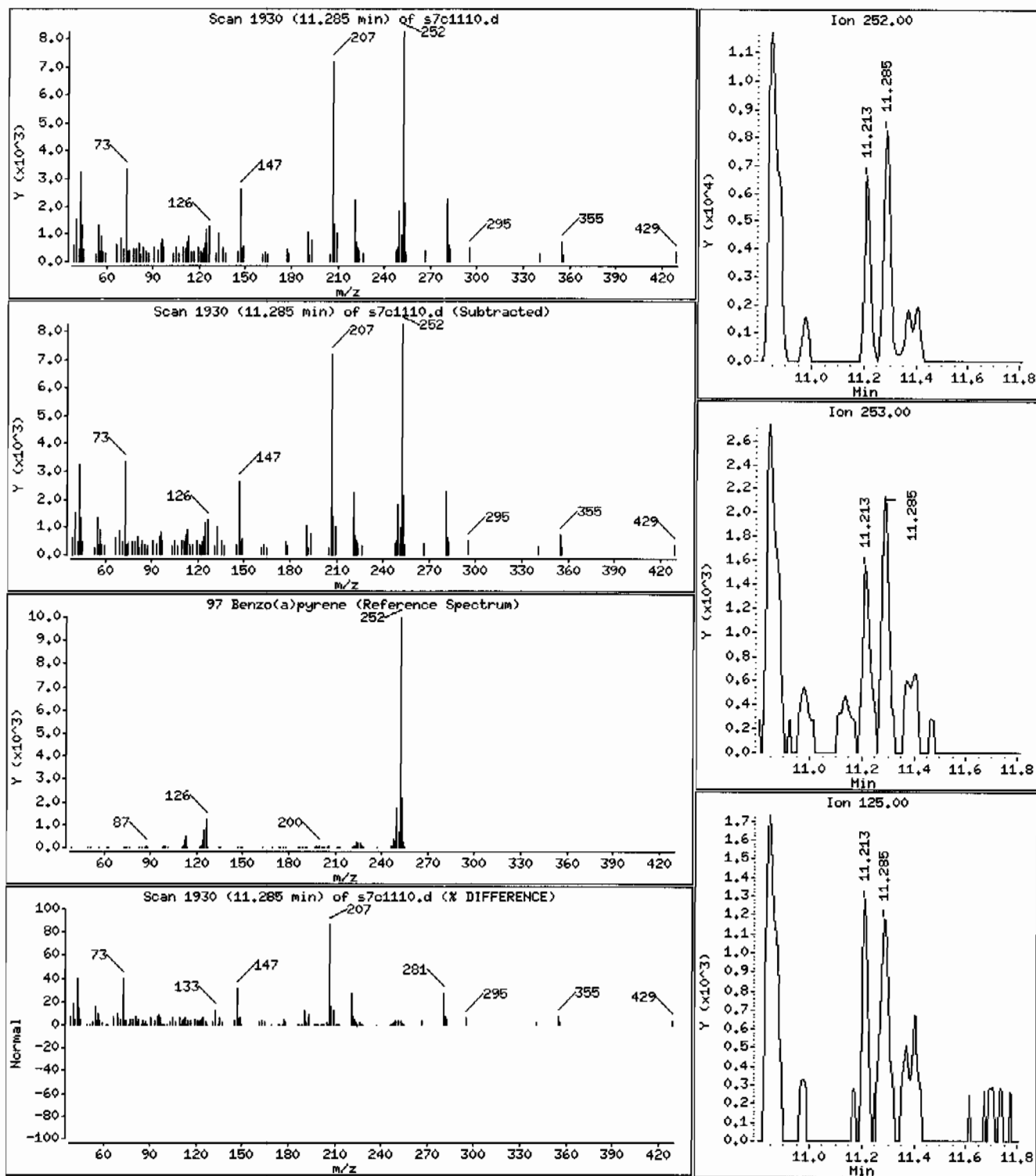
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 32.7 ug/Kg



Date : 11-MAR-2010 16:04

Client ID: RE36-10-7472

Instrument: MSD7.i

Sample Info: I248043007195962311SVH111LANL

Volume Injected (uL): 0.5

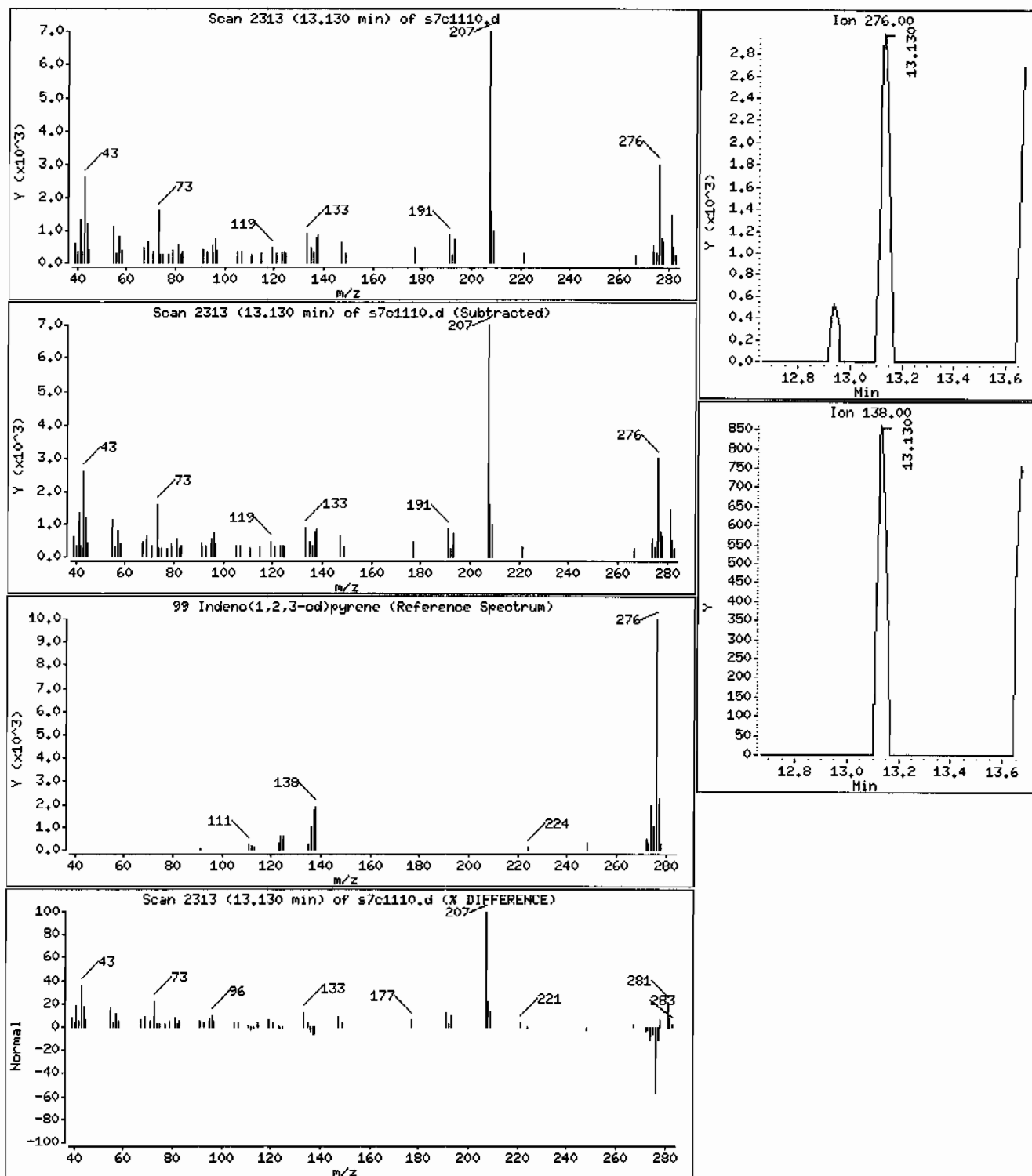
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 23.0 ug/Kg



Date: 11-MAR-2010 16:04

Client ID: RE36-10-7472

Instrument: MSD7.i

Sample Info: 12480430071959623111SVH111LANL

Volume Injected (uL): 0.5

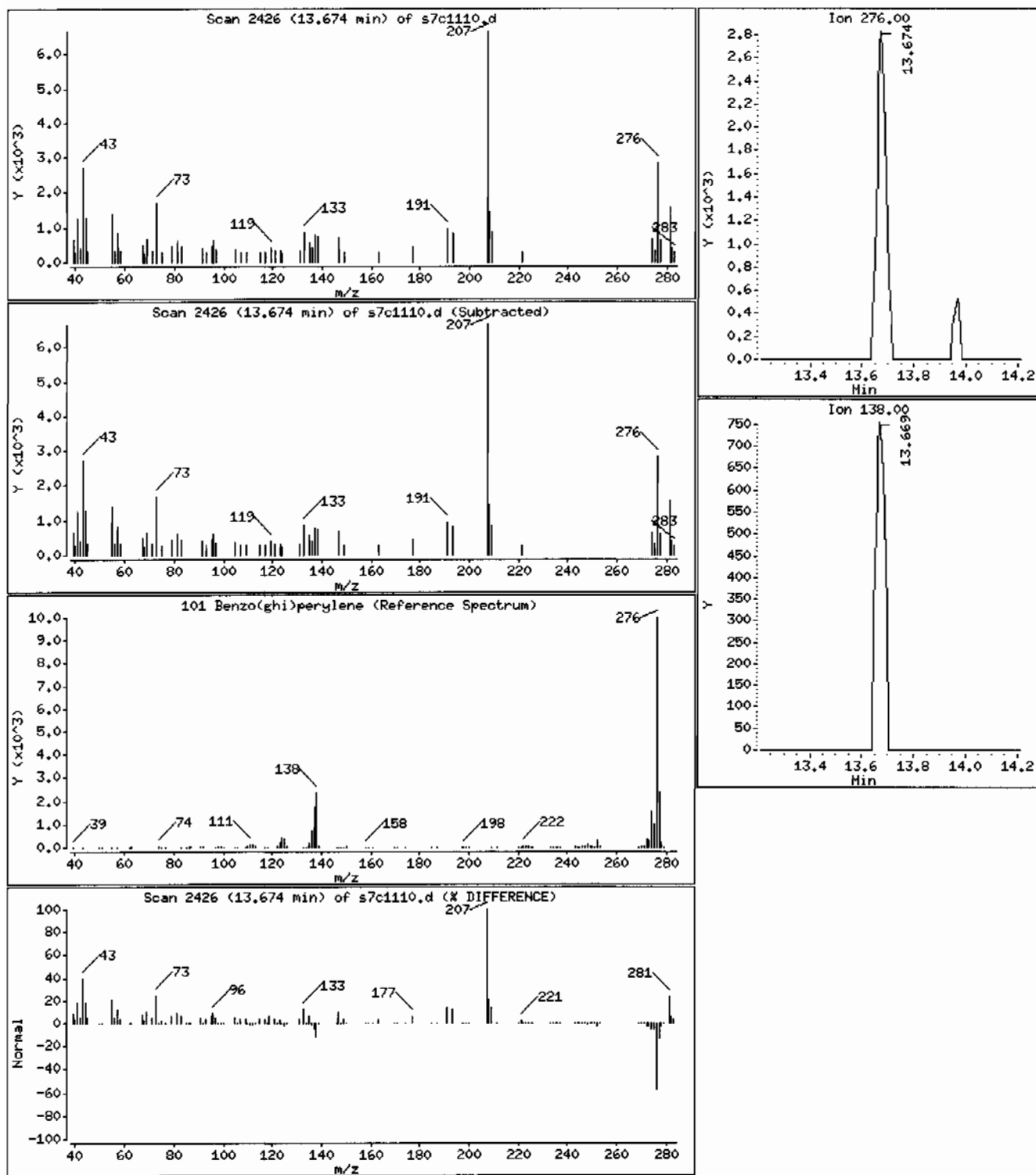
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 26.8 ug/Kg





Date : 11-MAR-2010 16:04

Client ID: RE36-10-7472

Instrument: MSD7.i

Sample Info: 1248043007195962311ISVH11ILANL

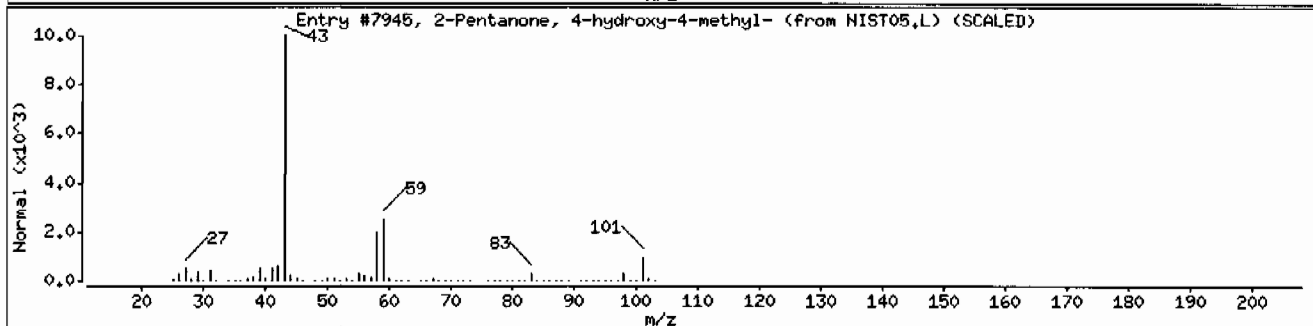
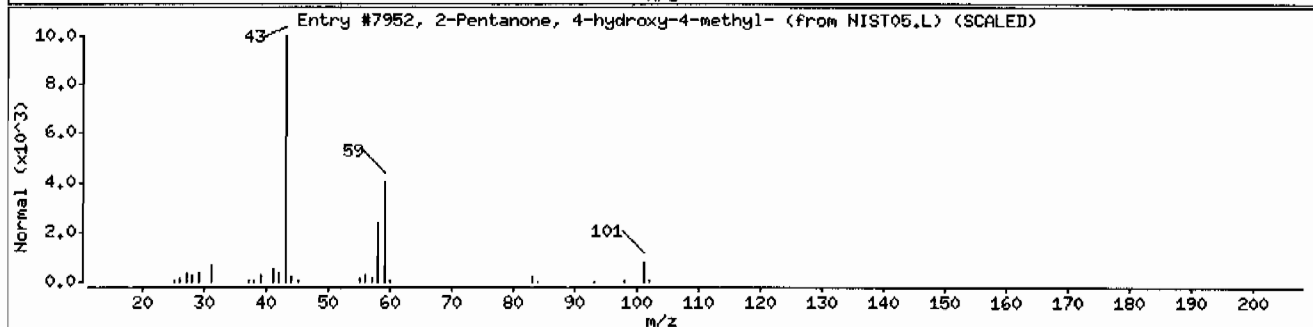
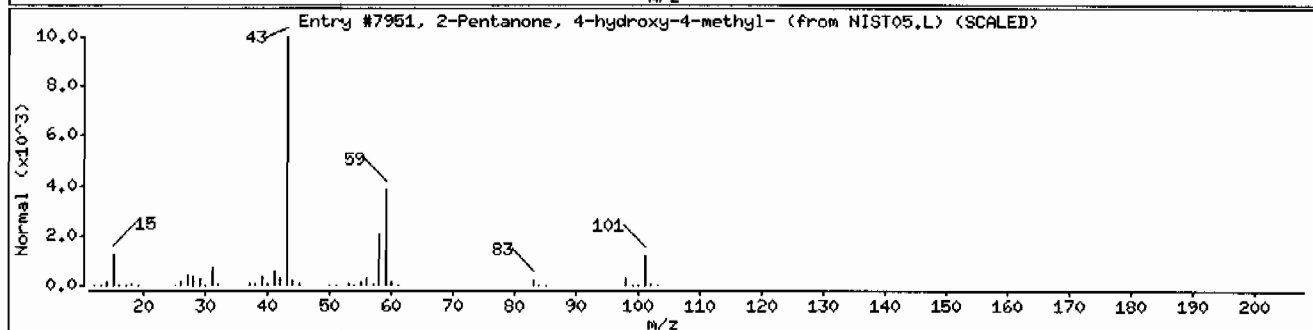
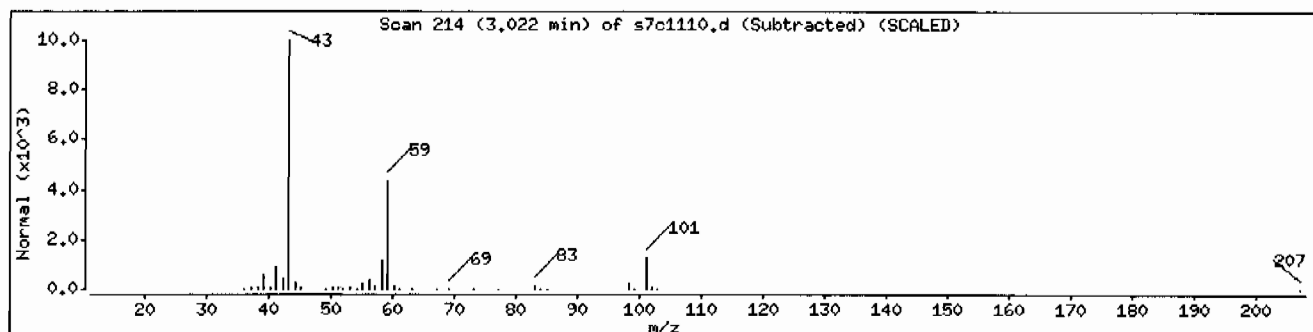
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	45	C6H12O2	116



Date: 11-MAR-2010 16:04

Client ID: RE36-10-7472

Instrument: MSD7.i

Sample Info: 12480430071959623111SVMI11LANL

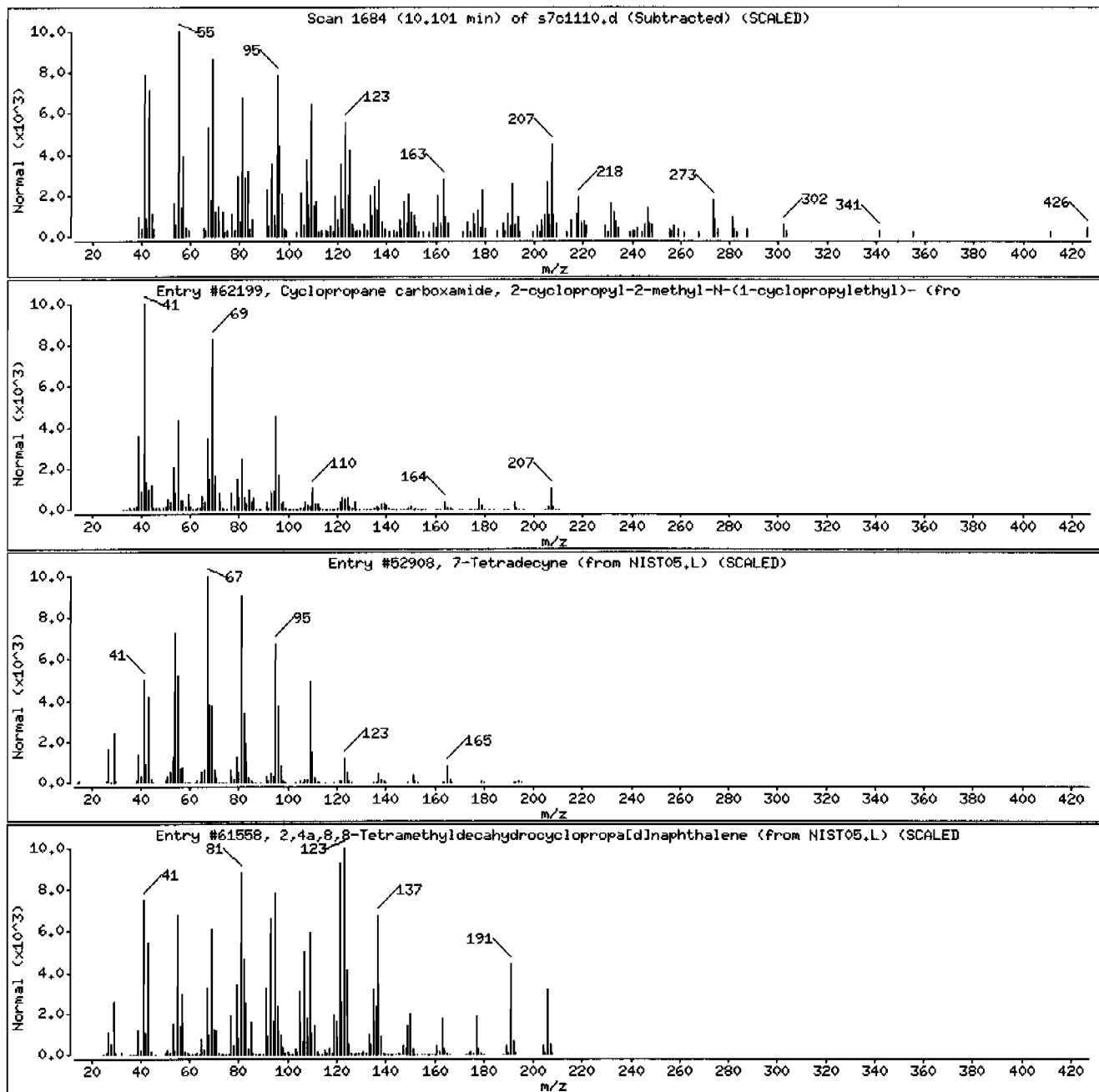
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	49	C13H21NO	207
7-Tetradecyne	35216-11-6	NIST05.L	52908	46	C14H26	194
2,4a,8,8-Tetramethyldecahydrocyclopropa[	74022-04-1	NIST05.L	61558	40	C15H26	206



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043005	Date Received: 02/25/2010 08:45	% Moisture: 23.6
Client ID: RE36-10-7473	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/11/2010 15:43	Inst: MSD7.1	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1109.d	Aliquot: 30.01 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	436	ug/kg	87.2	436
108-95-2	Phenol	U	436	ug/kg	87.2	436
95-57-8	2-Chlorophenol	U	436	ug/kg	87.2	436
106-46-7	1,4-Dichlorobenzene	U	436	ug/kg	87.2	436
621-64-7	N-Nitrosodipropylamine	U	436	ug/kg	87.2	436
59-50-7	4-Chloro-3-methylphenol	U	436	ug/kg	87.2	436
83-32-9	Acenaphthene	U	43.6	ug/kg	14.4	43.6
121-14-2	2,4-Dinitrotoluene	U	436	ug/kg	43.6	436
100-02-7	4-Nitrophenol	U	436	ug/kg	144	436
87-86-5	Pentachlorophenol	U	436	ug/kg	109	436
129-00-0	Pyrene	J	20.6	ug/kg	13.1	43.6
110-86-1	Pyridine	U	436	ug/kg	87.2	436
62-53-3	Aniline	U	436	ug/kg	131	436
111-44-4	bis(2-Chloroethyl) ether	U	436	ug/kg	87.2	436
541-73-1	1,3-Dichlorobenzene	U	436	ug/kg	87.2	436
100-51-6	Benzyl alcohol	U	436	ug/kg	131	436
95-50-1	1,2-Dichlorobenzene	U	436	ug/kg	87.2	436
108-60-1	bis(2-Chloroisopropyl) ether	U	436	ug/kg	87.2	436
95-48-7	o-Cresol	U	436	ug/kg	87.2	436
65794-96-9	m,p-Cresols	U	436	ug/kg	131	436
67-72-1	Hexachloroethane	U	436	ug/kg	87.2	436
98-95-3	Nitrobenzene	U	436	ug/kg	87.2	436
78-59-1	Isophorone	U	436	ug/kg	87.2	436
88-75-5	2-Nitrophenol	U	436	ug/kg	87.2	436
105-67-9	2,4-Dimethylphenol	U	436	ug/kg	153	436
111-91-1	bis(2-Chloroethoxy)methane	U	436	ug/kg	87.2	436
120-83-2	2,4-Dichlorophenol	U	436	ug/kg	87.2	436
65-85-0	Benzoic acid	U	872	ug/kg	218	872
91-20-3	Naphthalene	U	43.6	ug/kg	13.1	43.6
106-47-8	4-Chloroaniline	U	436	ug/kg	87.2	436
87-68-3	Hexachlorobutadiene	U	436	ug/kg	87.2	436
91-57-6	2-Methylnaphthalene	U	43.6	ug/kg	8.72	43.6
77-47-4	Hexachlorocyclopentadiene	U	436	ug/kg	87.2	436
88-06-2	2,4,6-Trichlorophenol	U	436	ug/kg	87.2	436
95-95-4	2,4,5-Trichlorophenol	U	436	ug/kg	87.2	436
91-58-7	2-Chloronaphthalene	U	43.6	ug/kg	14.4	43.6
88-74-4	2-Nitroaniline	U	436	ug/kg	87.2	436
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	436	ug/kg	87.2	436

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 248043005	Date Received: 02/25/2010 08:45	%Moisture: 23.6
Client ID: RE36-10-7473	Client: LANL010	Project: LANL01004
Batch ID: 959623	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/11/2010 15:43	Inst: MSD7.1	Dilution: 1
Prep Date: 03/02/2010 11:17	Analyst: JMB3	Inj. Vol: .5 uL
Data File: s7c1109.d	Aliquot: 30.01 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	436	ug/kg	87.2	436
606-20-2	2,6-Dinitrotoluene	U	436	ug/kg	43.6	436
208-96-8	Accnaphthylene	U	43.6	ug/kg	13.1	43.6
51-28-5	2,4-Dinitrophenol	U	872	ug/kg	166	872
132-64-9	Dibenzofuran	U	436	ug/kg	87.2	436
84-66-2	Diethylphthalate	U	436	ug/kg	87.2	436
86-73-7	Fluorene	U	43.6	ug/kg	13.1	43.6
7005-72-3	4-Chlorophenylphenylether	U	436	ug/kg	87.2	436
534-52-1	2-Methyl-4,6-dinitrophenol	U	436	ug/kg	87.2	436
100-01-6	4-Nitroaniline	U	436	ug/kg	131	436
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	436	ug/kg	87.2	436
122-66-7	Azobenzene	U	436	ug/kg	87.2	436
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	436	ug/kg	87.2	436
118-74-1	Hexachlorobenzene	U	436	ug/kg	87.2	436
85-01-8	Phenanthrene	U	43.6	ug/kg	13.1	43.6
120-12-7	Anthracene	U	43.6	ug/kg	8.72	43.6
84-74-2	Di-n-butylphthalate	U	436	ug/kg	87.2	436
206-44-0	Fluoranthene	J	20.6	ug/kg	13.1	43.6
85-68-7	Butylbenzylphthalate	U	436	ug/kg	87.2	436
56-55-3	Benzo(a)anthracene	J	15.3	ug/kg	13.1	43.6
91-94-1	3,3'-Dichlorobenzidine	U	436	ug/kg	131	436
218-01-9	Chrysene	J	14.8	ug/kg	13.1	43.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	436	ug/kg	87.2	436
117-84-0	Di-n-octylphthalate	U	436	ug/kg	87.2	436
205-99-2	Benzo(b)fluoranthene	J	32.5	ug/kg	13.1	43.6
207-08-9	Benzo(k)fluoranthene	U	43.6	ug/kg	13.1	43.6
50-32-8	Benzo(a)pyrene	J	16.5	ug/kg	13.1	43.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	43.6	ug/kg	13.1	43.6
53-70-3	Dibenzo(a,h)anthracene	U	43.6	ug/kg	13.1	43.6
191-24-2	Benzo(ghi)perylene	U	43.6	ug/kg	13.1	43.6
120-82-1	1,2,4-Trichlorobenzene	U	436	ug/kg	87.2	436

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.14	266	ug/kg		J
	Unknown Aldol Condensate	3.02	374	ug/kg		J

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043005

Client ID: RE36-10-7473  
Batch ID: 959623  
Run Date: 03/11/2010 15:43  
Prep Date: 03/02/2010 11:17  
Data File: s7c1109.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 23.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.17	258	ug/kg		J
	Unknown	10.09	228	ug/kg		J
	Unknown	10.53	388	ug/kg		J
	Unknown	11.04	359	ug/kg		J
	Unknown	11.44	262	ug/kg		J
	Unknown	11.64	342	ug/kg		J
	Unknown	11.8	286	ug/kg		J
	Unknown	12.09	231	ug/kg		J
	Unknown	12.35	935	ug/kg		J
	Unknown	12.66	618	ug/kg		J
	Unknown	13.23	230	ug/kg		J
	Unknown	14.3	397	ug/kg		J

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Data file : /chem/MSD7.i/s031110.b/s7c1109.d  
Lab Smp Id: 248043005 Client Smp ID: RE36-10-7473  
Inj Date : 11-MAR-2010 15:43  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043005|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 9  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	23.57550	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG						CONCENTRATIONS	
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.990	3.990	(1.000)	441911	40.0000		
* 29 Naphthalene-d8	136	4.852	4.857	(1.000)	1657425	40.0000		
* 46 Acenaphthene-d10	164	6.109	6.114	(1.000)	902547	40.0000		
* 67 Phenanthrene-d10	188	7.279	7.284	(1.000)	1591561	40.0000		
* 91 Chrysene-d12	240	9.682	9.691	(1.000)	1053938	40.0000		
* 98 Perylene-d12	264	11.372	11.386	(1.000)	626447	40.0000		
\$ 3 2-Fluorophenol	112	3.186	3.181	(0.798)	503288	43.8164	1910	
\$ 5 Phenol-d5	99	3.706	3.706	(0.929)	624157	43.3402	1890	
\$ 20 Nitrobenzene-d5	82	4.346	4.356	(0.896)	287729	23.0168	1000	
\$ 39 2-Fluorobiphenyl	172	5.593	5.598	(0.916)	588160	26.1486	1140	
\$ 60 2,4,6-Tribromophenol	329	6.706	6.711	(1.098)	131568	50.4257	2200	
\$ 81 p-Terphenyl-d14	244	8.651	8.656	(0.894)	557433	29.5227	1290	

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN FINAL (ng/ul) (ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====
79 Pyrene	202	8.550	8.560	(0.883)	15711	0.47186	20.6(a)
76 Fluoranthene	202	8.338	8.343	(1.146)	16745	0.47155	20.6(a)
89 Benzo(a)anthracene	228	9.677	9.677	(1.000)	8882	0.35154	15.3(a)
92 Chrysene	228	9.706	9.715	(1.002)	7628	0.33928	14.8(a)
95 Benzo(b)fluoranthene	252	10.852	10.861	(0.954)	13078	0.74441	32.4(a)
97 Benzo(a)pyrene	252	11.290	11.309	(0.993)	5442	0.37778	16.5(a)

# QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

## ION RATIO REPORT

## SV REPORT

Data file: s7c1109.d

Report Date: 03/12/2010 08:14

Lab. ID: 248043005

SampleType: SAMPLE

Injection Date: 11-MAR-2010 15:43

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043005|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	36355	3.71	3.78	80-120	100	(T)
93	8963	3.67	3.78	206-266	25	(QT)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	45025	4.35	4.24	80-120	100	(T)
42	33510	4.35	4.23	61-121	74	(T)
-----						
43 Dimethylphthalate		CAS#: 131-11-3				
163	161778	6.11	5.87	80-120	100	(T)
164	902547	6.11	5.87	0- 40	558	(QT)
-----						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	119508	6.11	5.93	80-120	100	(T)
63	1884	6.11	5.93	52-112	2	(QT)
-----						
45 Acenaphthylene		CAS#: 208-96-8				
152	78227	6.08	6.01	80-120	100	(T)
151	21372	6.08	6.01	0- 49	27	(T)
153	81688	6.08	6.01	0- 43	104	(QT)
-----						
47 Acenaphthene		CAS#: 83-32-9				
154	70481	6.08	6.14	80-120	100	( )
153	81688	6.08	6.14	71-131	116	( )
152	78227	6.08	6.14	17- 77	111	(Q)
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	119508	6.11	6.23	80-120	100	(T)
89	1769	6.11	6.23	37- 97	1	(QT)
63	1877	6.11	6.23	17- 77	2	(QT)
-----						
52 4-Nitrophenol		CAS#: 100-02-7				
139	13557	6.08	6.16	80-120	100	(T)
109	4505	6.11	6.16	34- 94	33	(Q)
65	2909	6.08	6.16	64-124	21	(QT)
-----						
53 Fluorene		CAS#: 86-73-7				
166	8924	6.70	6.53	80-120	100	(T)
165	7556	6.70	6.53	61-121	85	(T)
167	2833	6.70	6.52	0- 44	32	(T)
-----						
55 2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1				
198	384	6.71	6.54	80-120	100	(T)
105	1221	6.70	6.54	10- 70	318	(QT)
51	1263	6.70	6.54	54-114	329	(QT)
-----						
69 Anthracene		CAS#: 120-12-7				
178	9658	7.30	7.35	80-120	100	( )
179	2976	7.30	7.35	0- 46	31	( )
176	1943	7.30	7.35	0- 48	20	( )
-----						
76 Fluoranthene		CAS#: 206-44-0				
202	16745	8.34	8.34	80-120	100	( )
203	2773	8.34	8.34	0- 48	17	( )
101	3631	8.34	8.34	0- 41	22	( )
-----						
79 Pyrene		CAS#: 129-00-0				
202	15711	8.55	8.56	80-120	100	( )
200	3633	8.55	8.56	0- 50	23	( )
101	3456	8.55	8.56	0- 44	22	( )
-----						
89 Benzo(a)anthracene		CAS#: 56-55-3				
228	8882	9.68	9.68	80-120	100	( )
226	4337	9.67	9.68	0- 56	49	( )
229	3120	9.67	9.68	0- 50	35	( )
-----						
92 Chrysene		CAS#: 218-01-9				
228	7628	9.71	9.72	80-120	100	( )
229	2341	9.71	9.72	0- 50	31	( )
226	2866	9.71	9.72	0- 59	38	( )
-----						
95 Benzo(b)fluoranthene		CAS#: 205-99-2				
252	13078	10.85	10.86	80-120	100	( )
253	3055	10.85	10.86	0- 52	23	( )
125	4084	10.86	10.86	0- 41	31	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
96	Benzo(k)fluoranthene			CAS#: 207-08-9		
252	13078	10.85	10.90	80-120	100	( )
253	2464	10.85	10.90	0- 52	19	( )
125	3423	10.86	10.90	0- 42	26	( )

-----						
97	Benzo(a)pyrene			CAS#: 50-32-8		
252	5442	11.29	11.31	80-120	100	( )
253	1268	11.29	11.31	0- 52	23	( )
125	808	11.29	11.30	0- 42	15	( )

-----

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031110.b/s7c1109.d  
Lab Smp Id: 248043005 Client Smp ID: RE36-10-7473  
Inj Date : 11-MAR-2010 15:43  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043005|959623|1|SVM|1|LANL  
Misc Info : |MSD8270 S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 9  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	23.57550	% moisture

Cpnd Variable

Local Compound Variable

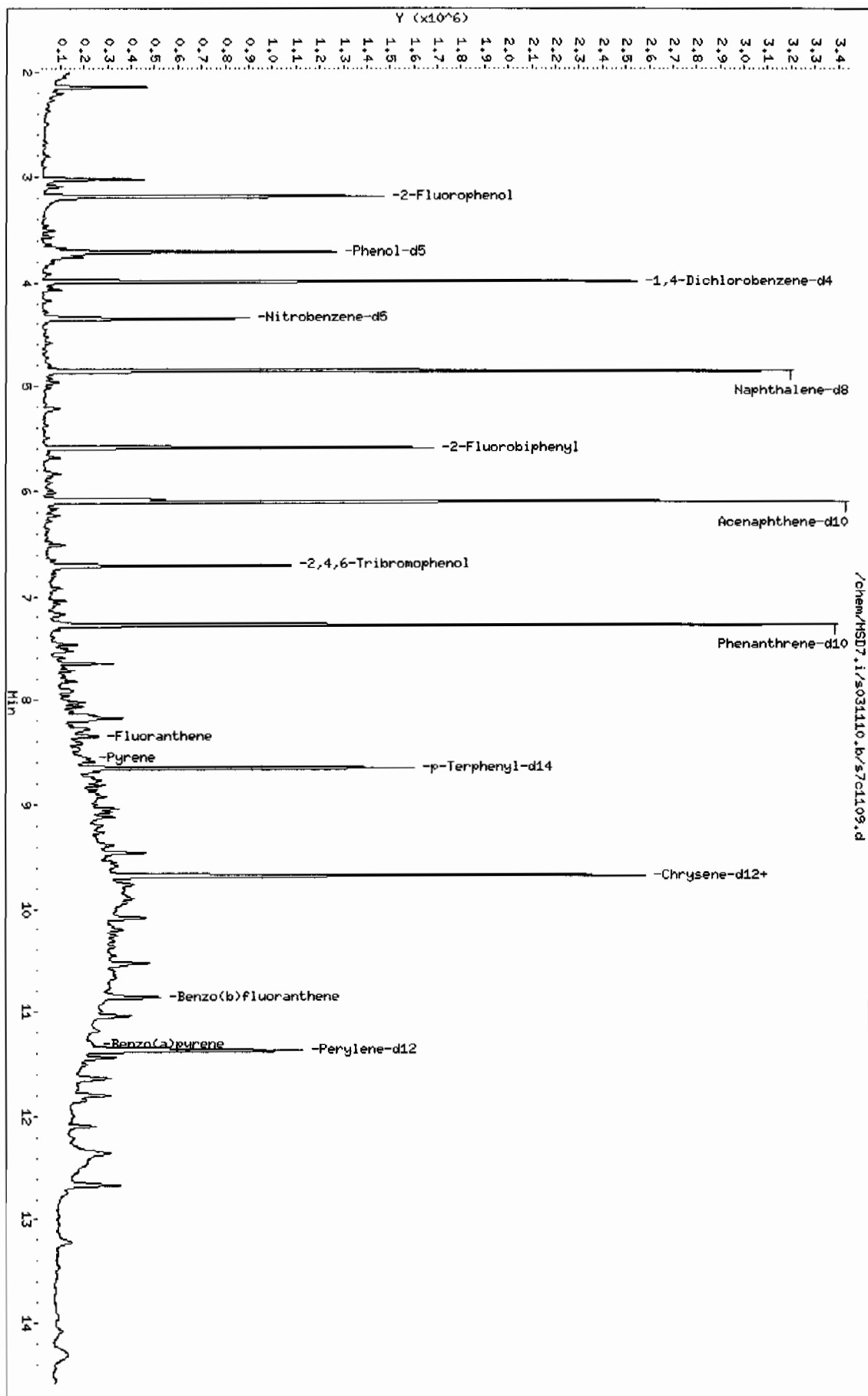
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.990	2761724	40.000
* 67 Phenanthrene-d10	7.279	3999925	40.000
* 91 Chrysene-d12	9.682	3009394	40.000
* 98 Perylene-d12	11.372	1692805	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
-----							

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ng/Kg)		LIBRARY	LIB ENTRY	
====	=====	=====	=====	=====	=====	=====	=====
Unknown				CAS #:			
2.141	421179	6.10023404	266	0		0	10
Unknown Aldol Condensate				CAS #:			
3.022	593003	8.58887764	374	0		0	10
Unknown				CAS #:			
8.174	591889	5.91900520	258	0		0	67
Unknown				CAS #:			
10.086	393550	5.23094939	228	0		0	91
Unknown				CAS #:			
10.534	376720	8.90166113	388	0		0	98
Unknown				CAS #:			
11.044	348514	8.23518264	359	0		0	98
Unknown				CAS #:			
11.444	253953	6.00075778	262	0		0	98
Unknown				CAS #:			
11.641	332130	7.84803291	342	0		0	98
Unknown				CAS #:			
11.800	277891	6.56639034	286	0		0	98
Unknown				CAS #:			
12.094	224409	5.30264548	231	0		0	98
Unknown				CAS #:			
12.354	907604	21.4461389	935	0		0	98
Unknown				CAS #:			
12.662	599677	14.1700049	618	0		0	98
Unknown				CAS #:			
13.226	222764	5.26377473	230	0		0	98
Unknown				CAS #:			
14.299	385332	9.10516010	397	0		0	98

Data File: /chem/HSD7.i/s031110.b/s7c1109.d  
 Date : 11-MAR-2010 15:43  
 Client ID: RE36-10-7473  
 Sample Info: 12480430051959623111SM111LNL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: HSD7.i  
 Operator: JHB3  
 Column diameter: 0.20



Date: 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.i

Sample Info: 12480430051959623111SVMI11LANL

Volume Injected (uL): 0.5

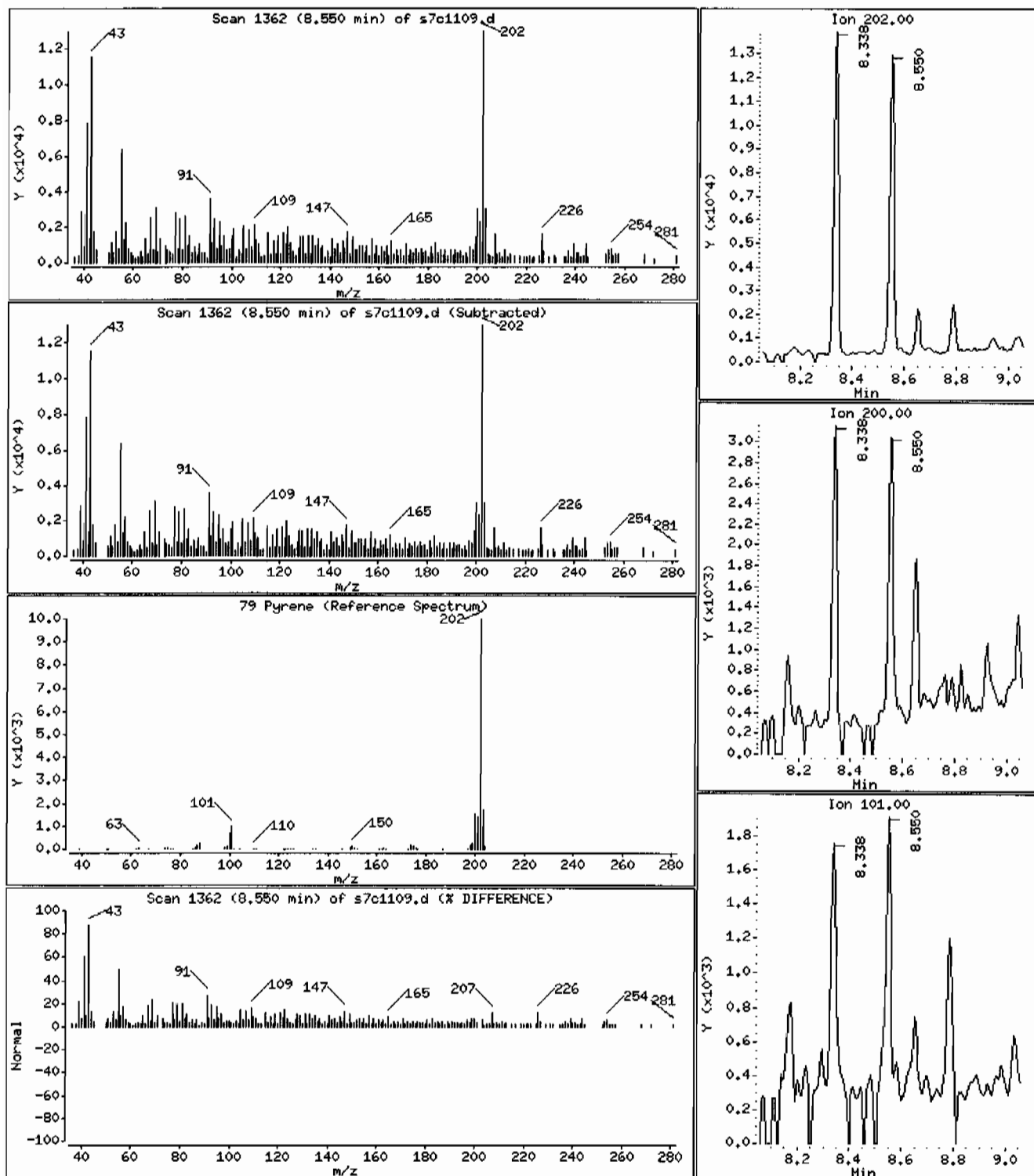
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 20.6 ug/Kg



Date: 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.i

Sample Info: 1248043005195962311SVMI1ILANL

Volume Injected (ul): 0.5

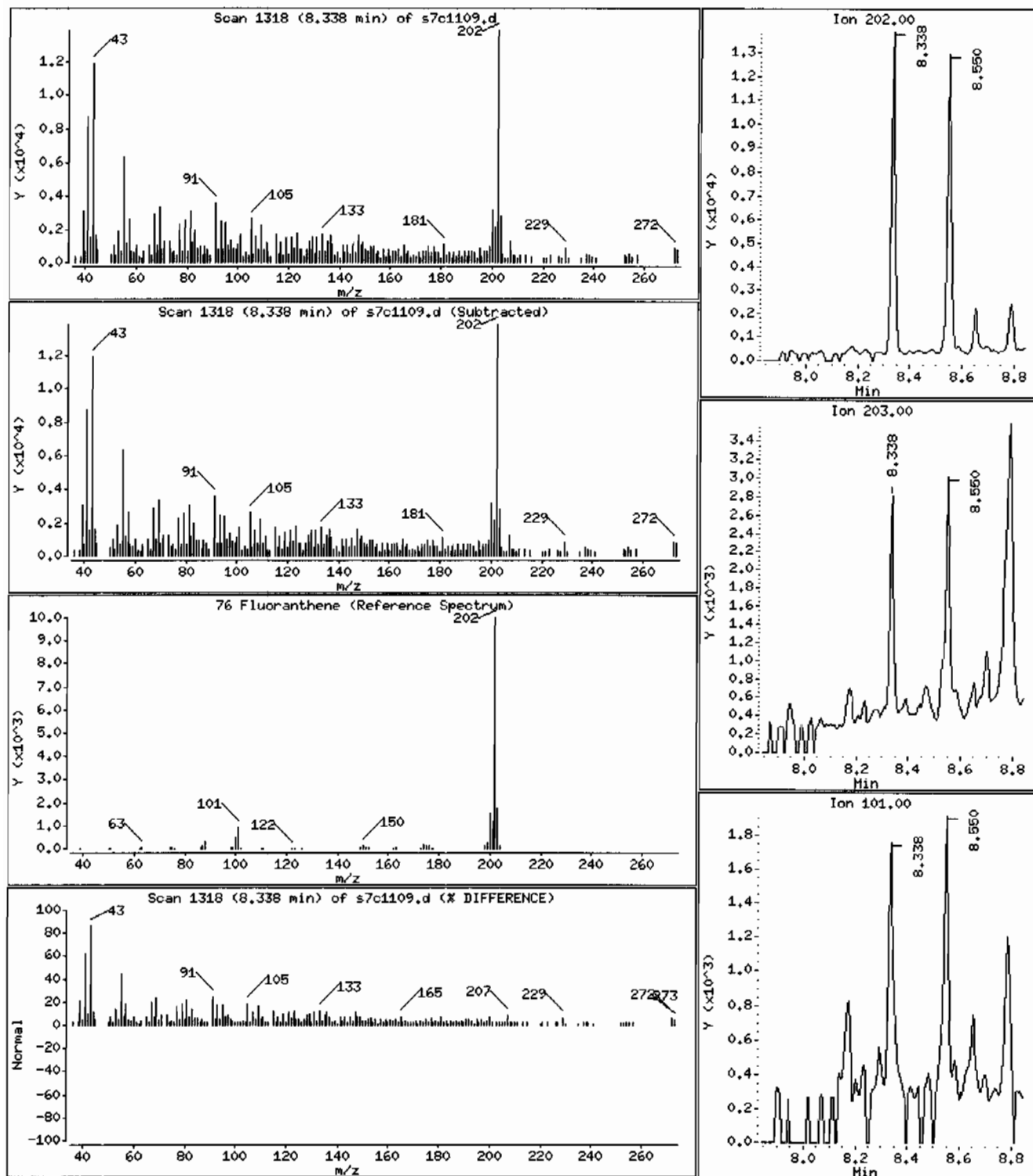
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 20.6 ug/Kg



Date : 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.i

Sample Info: 1248043005195962311SVMI11ILANL

Volume Injected (uL): 0.5

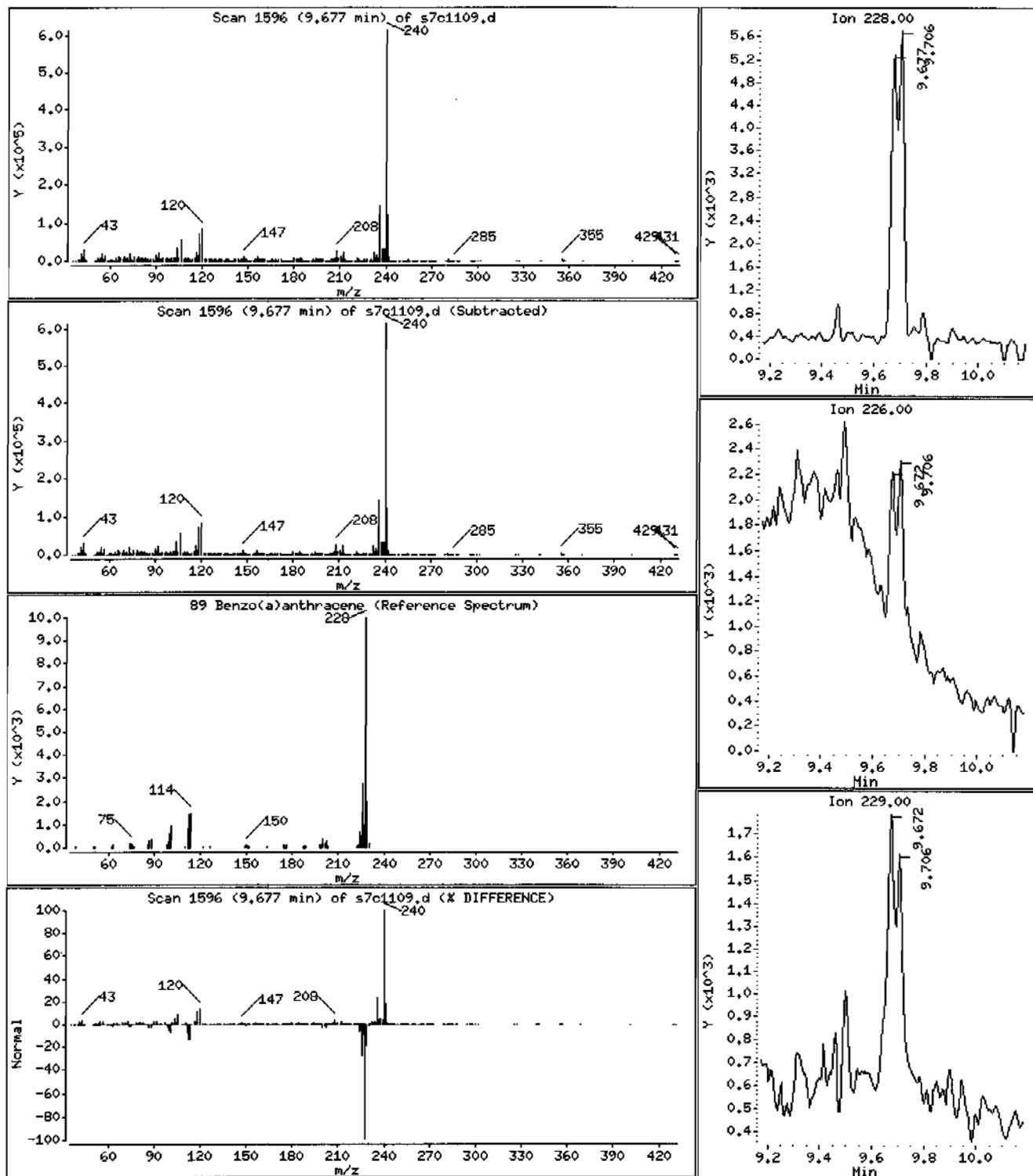
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 15.3 ug/Kg





Date : 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.i

Sample Info: I248043005I9596231IISVM11ILANL

Volume Injected (uL): 0.5

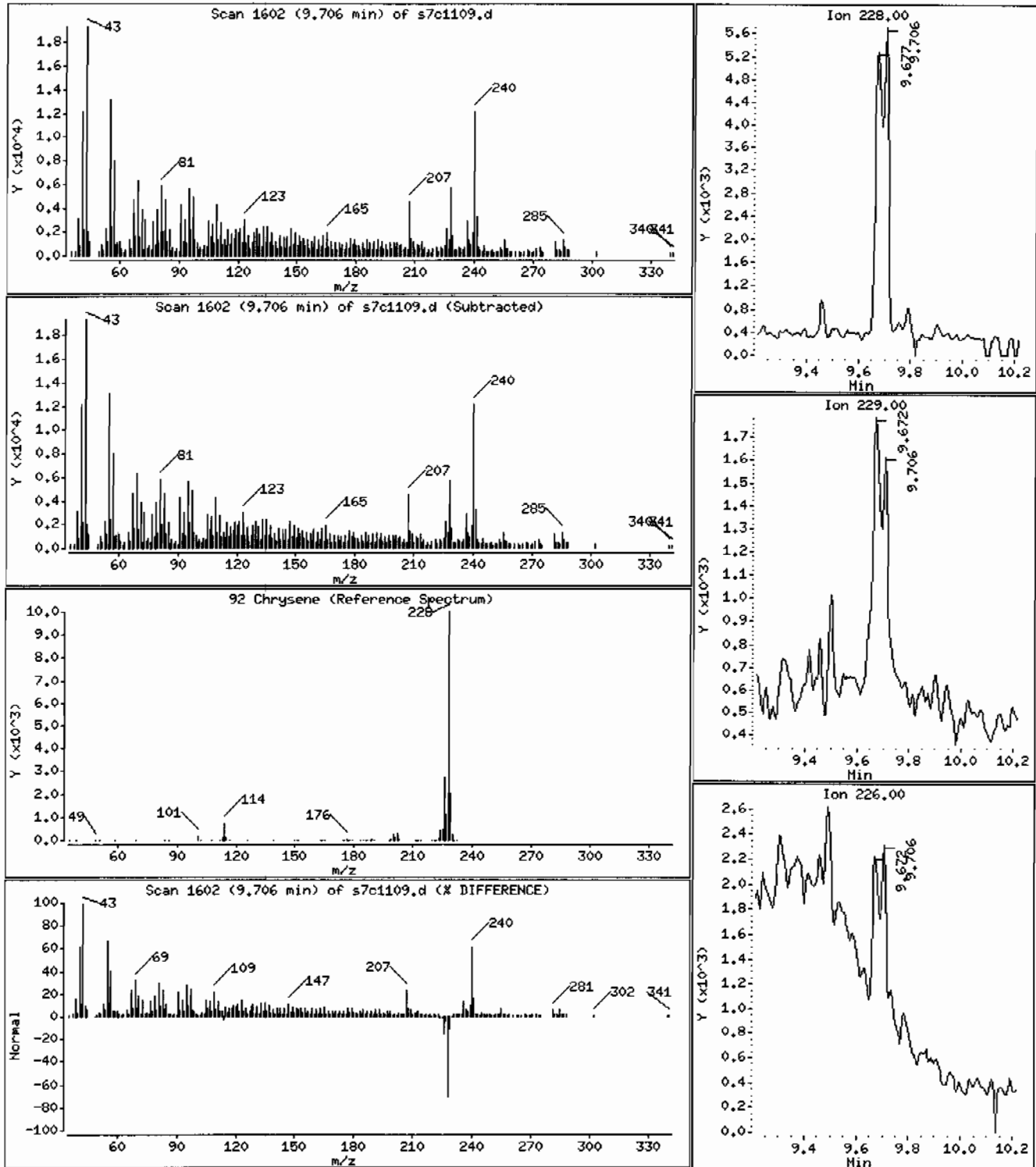
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 14.8 ug/Kg



Date : 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.i

Sample Info: I248043005195962311SVMI11LANL

Volume Injected (ul): 0.5

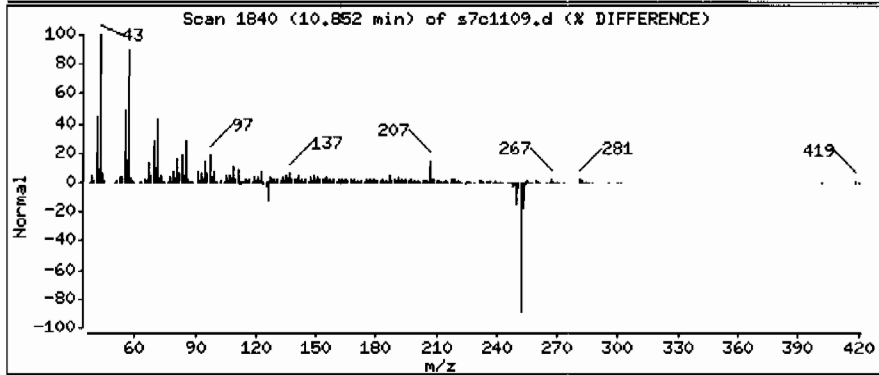
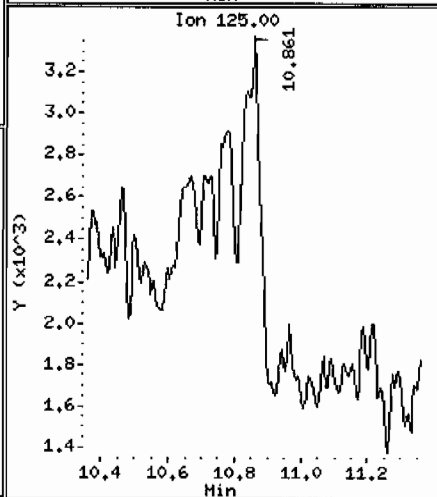
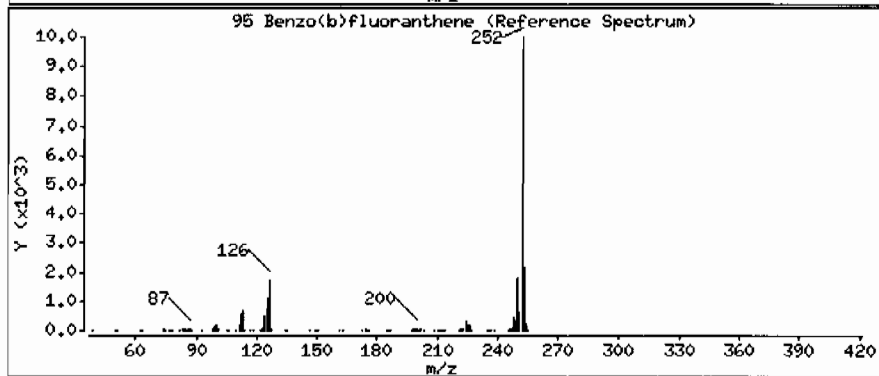
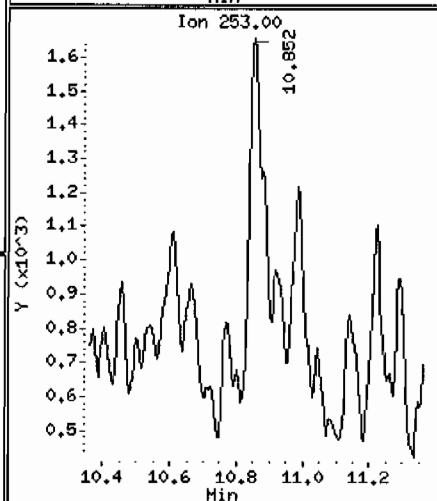
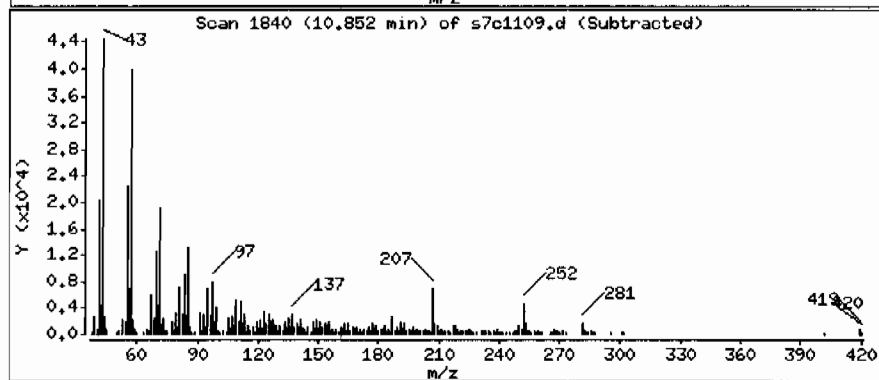
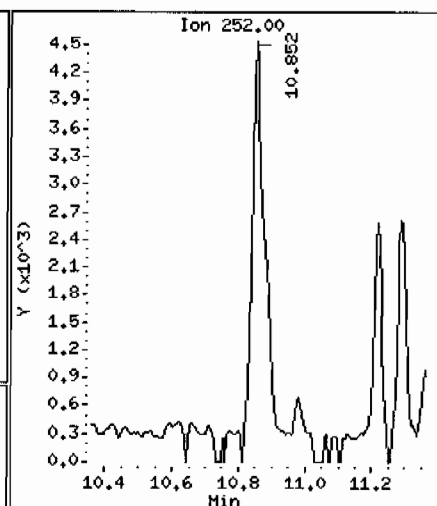
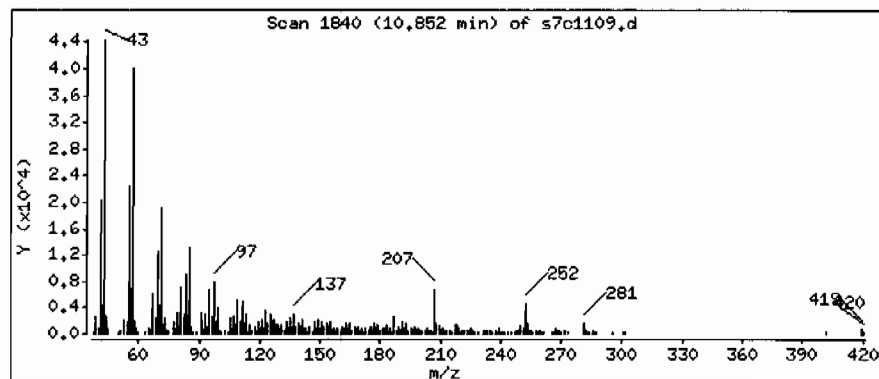
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 32,4 ug/Kg



Date : 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.i

Sample Info: 1248043005195962311ISVM11ILANL

Volume Injected (uL): 0.5

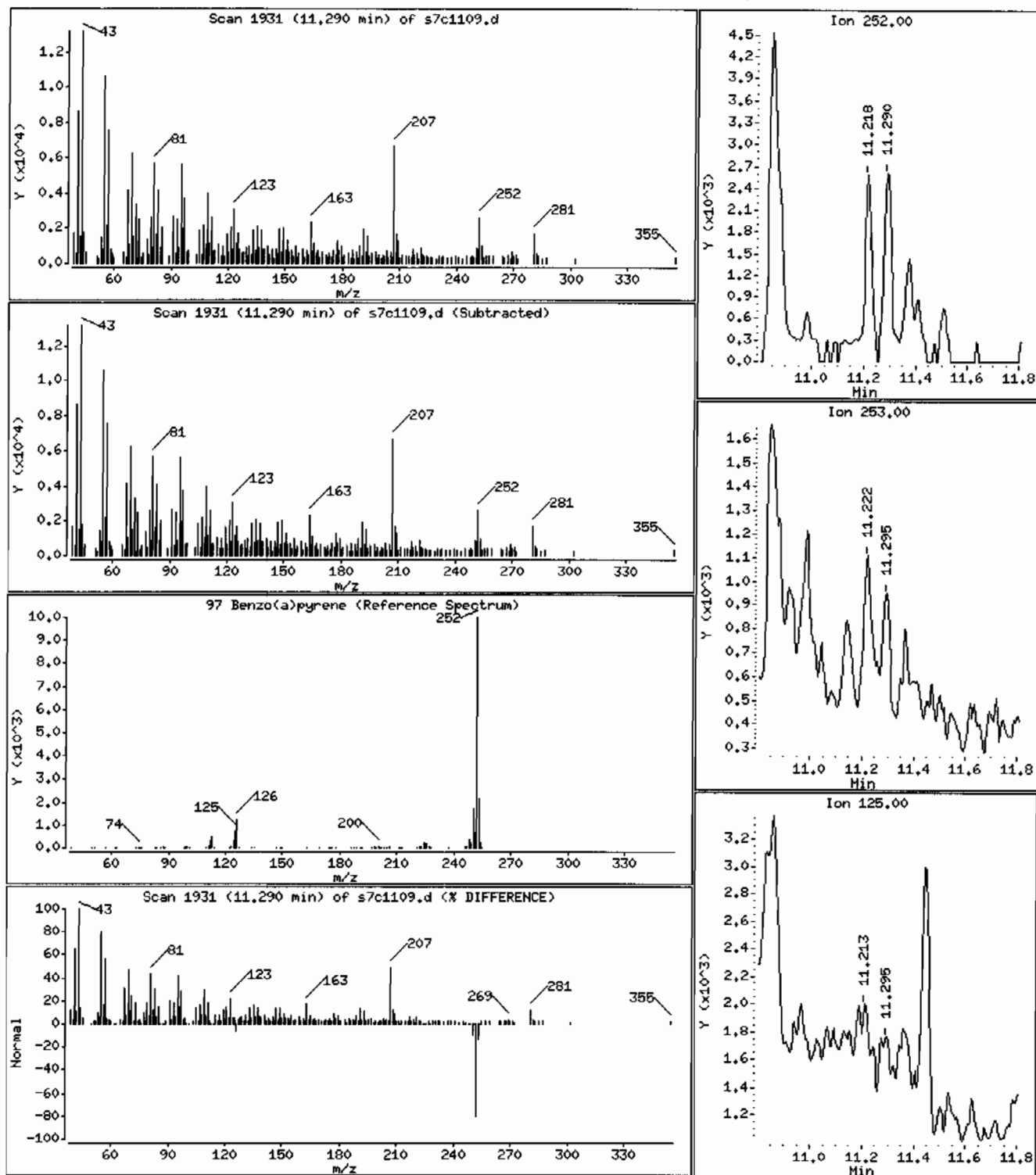
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 16,5 ug/Kg



Date: 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.i

Sample Info: 1248043005195962311SVH111LANL

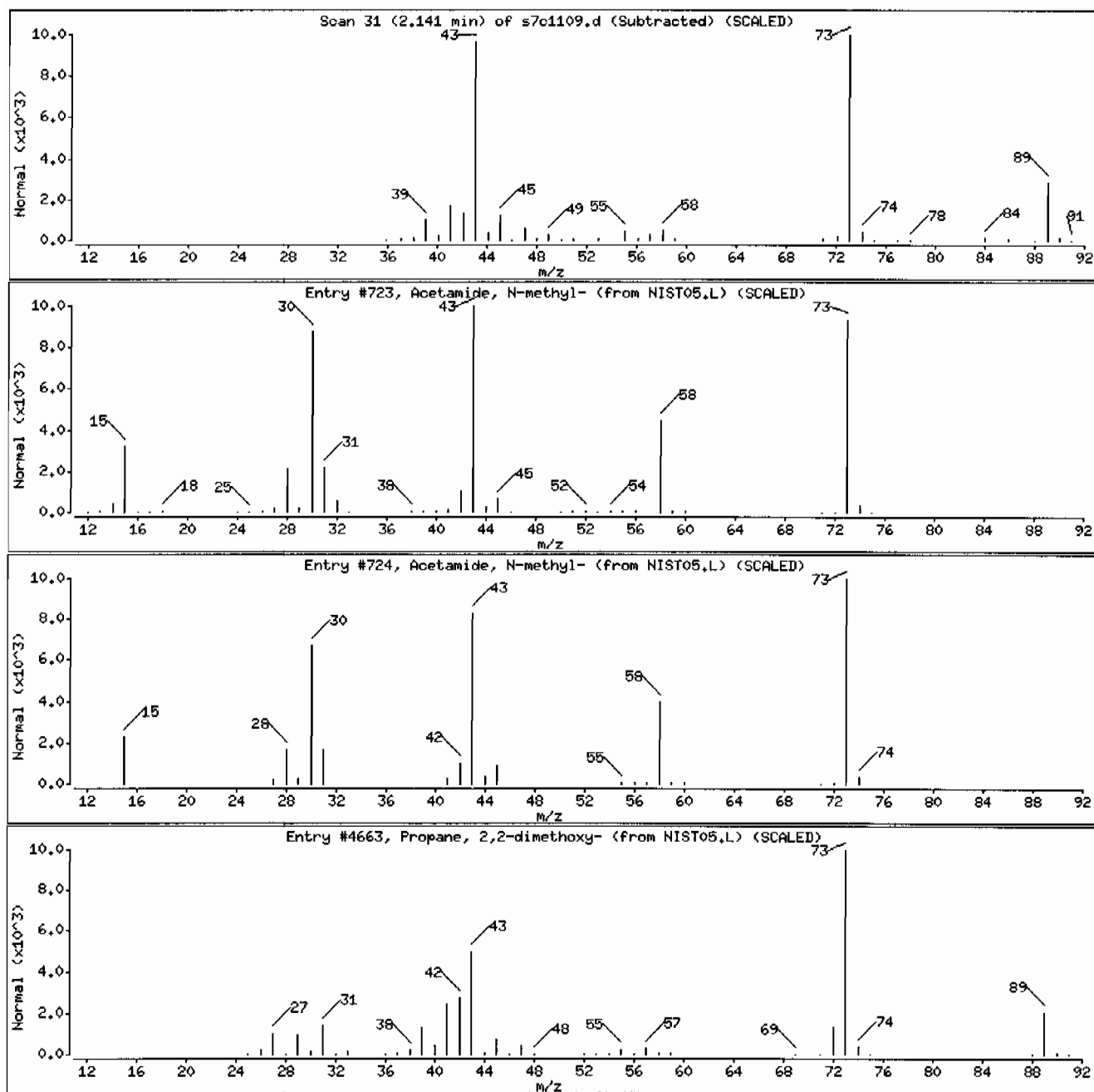
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acetamide, N-methyl-	79-16-3	NIST05.L	723	43	C3H7NO	73
Acetamide, N-methyl-	79-16-3	NIST05.L	724	38	C3H7NO	73
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	33	C5H12O2	104



Date: 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.1

Sample Info: 1248043005195962311SVMI1ILANL

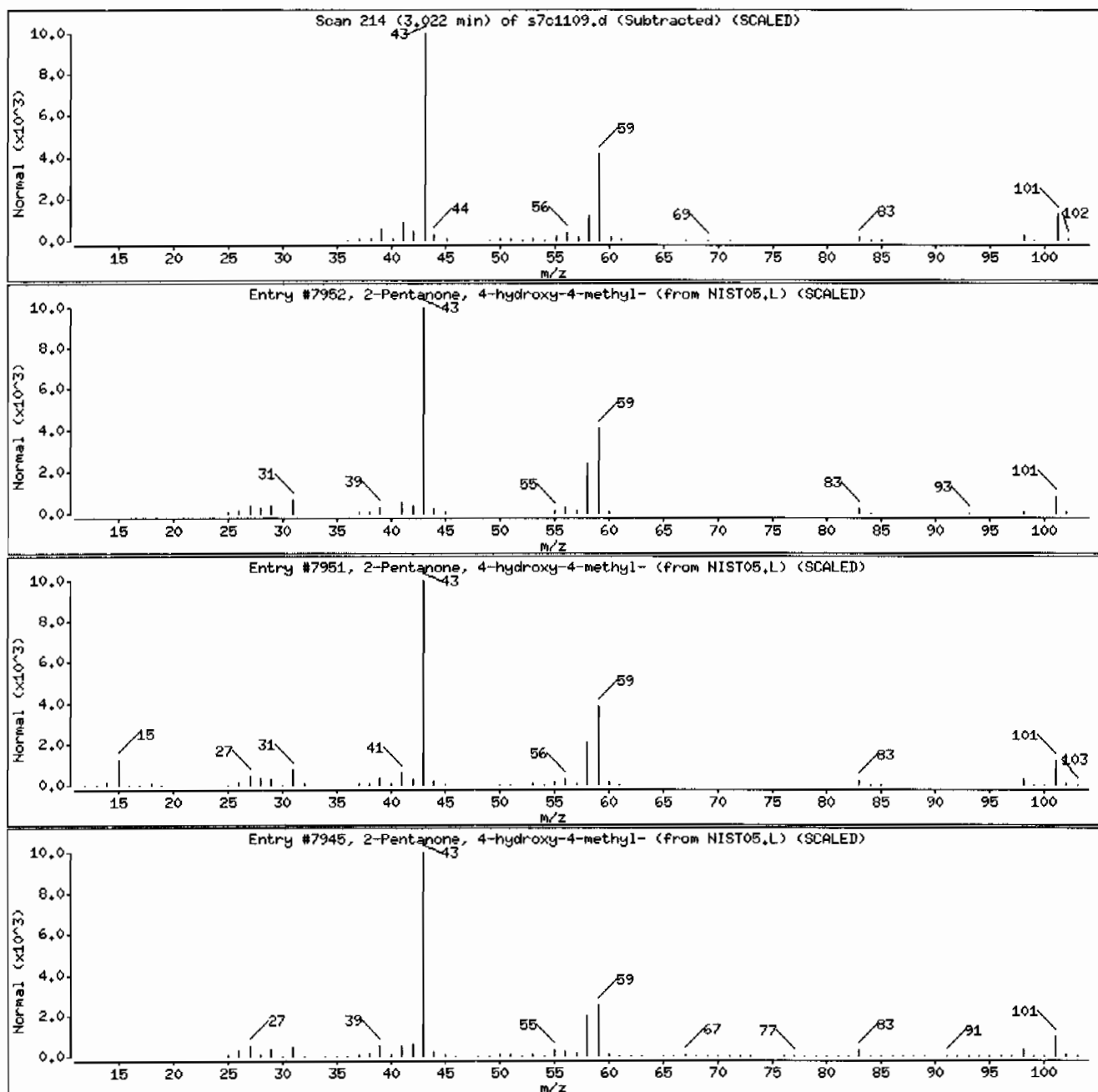
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116



Date : 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.1

Sample Info: 1248043005195962311ISVH11ILANL

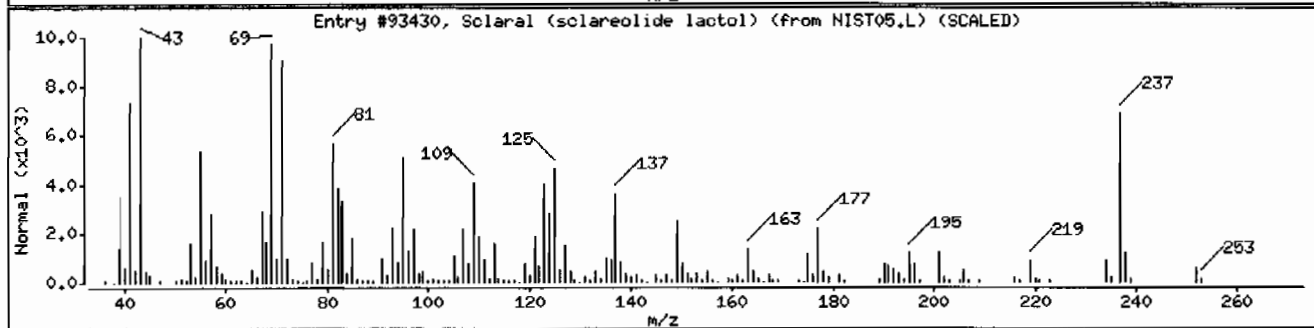
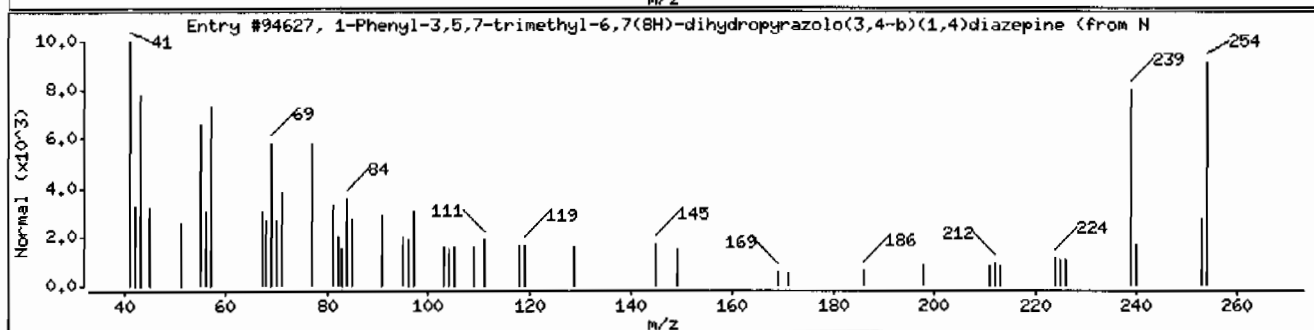
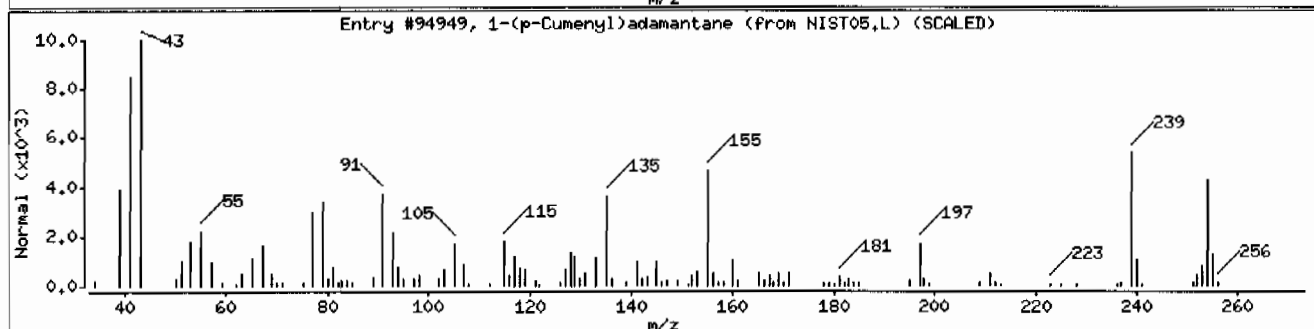
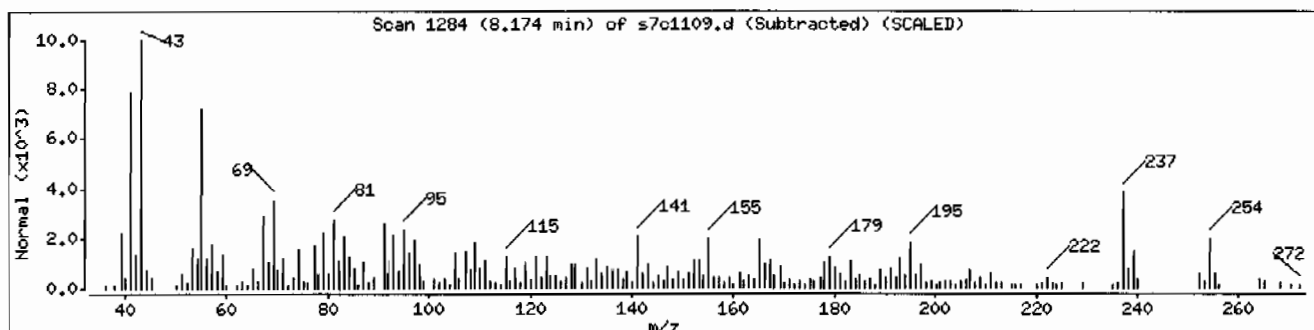
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-(p-Cumenyl)adamantane	51812-98-7	NIST05.L	94949	35	C <sub>19</sub> H <sub>26</sub>	254
1-Phenyl-3,5,7-trimethyl-6,7(8H)-dihydro	64899-23-6	NIST05.L	94627	15	C <sub>15</sub> H <sub>18</sub> N <sub>4</sub>	254
Soleral (solareolide lactol)	52811-62-8	NIST05.L	93430	12	C <sub>16</sub> H <sub>28</sub> O <sub>2</sub>	252



Date : 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.i

Sample Info: 12480430051959623111SVH111LANL

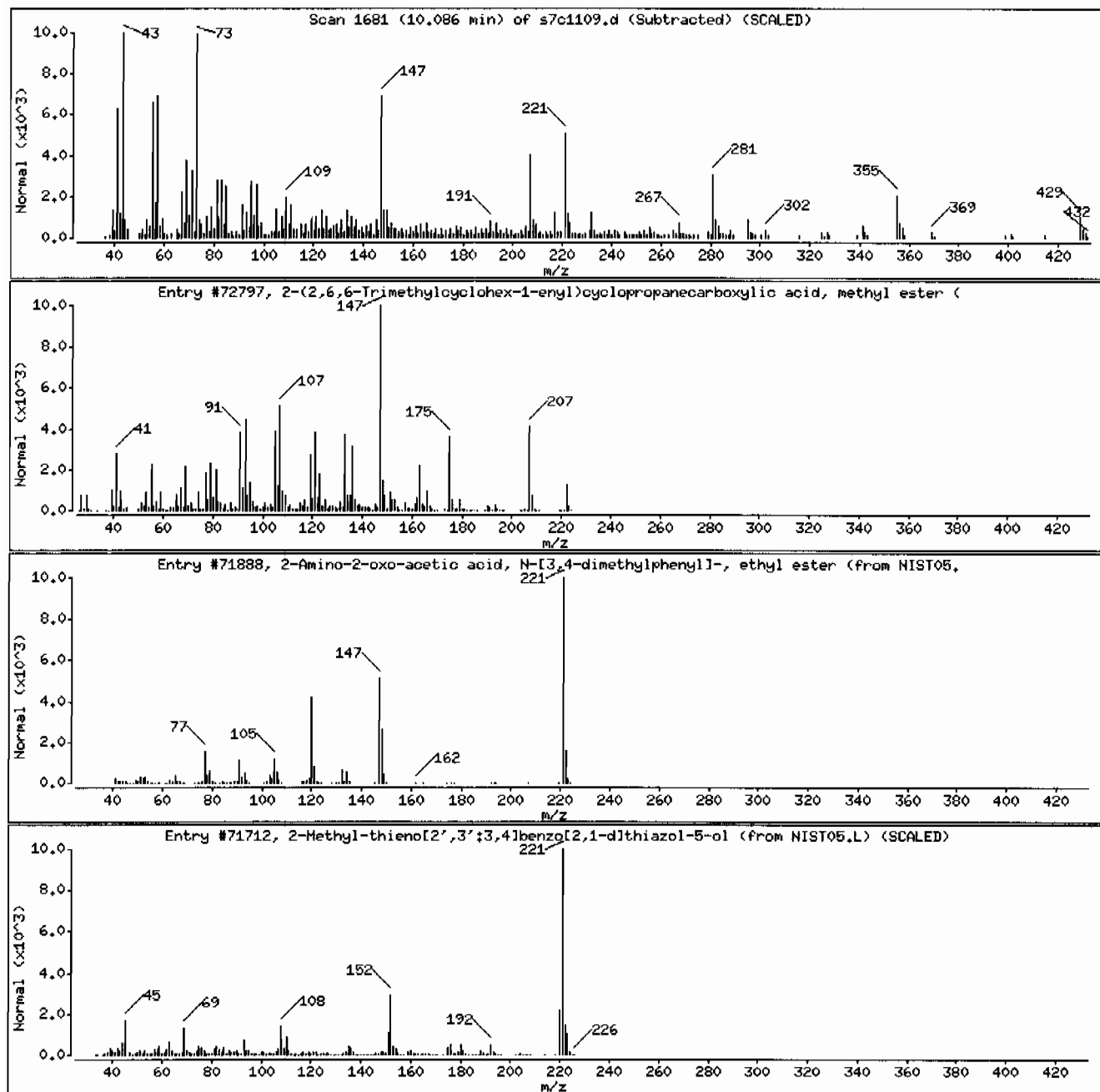
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-(2,6,6-Trimethylcyclohex-1-enyl)cyclop	1000185-64-1	NIST05.L	72797	27	C14H22O2	222
2-Amino-2-oxo-acetic acid, N-[3,4-dimeth	24451-17-0	NIST05.L	71888	25	C12H15NO3	221
2-Methyl-thieno[2',3':3,4]benzo[2,1-d]th	294668-48-7	NIST05.L	71712	25	C10H7NOS2	221



Date : 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.1

Sample Info: 1248043005195962311SVMI11LANL

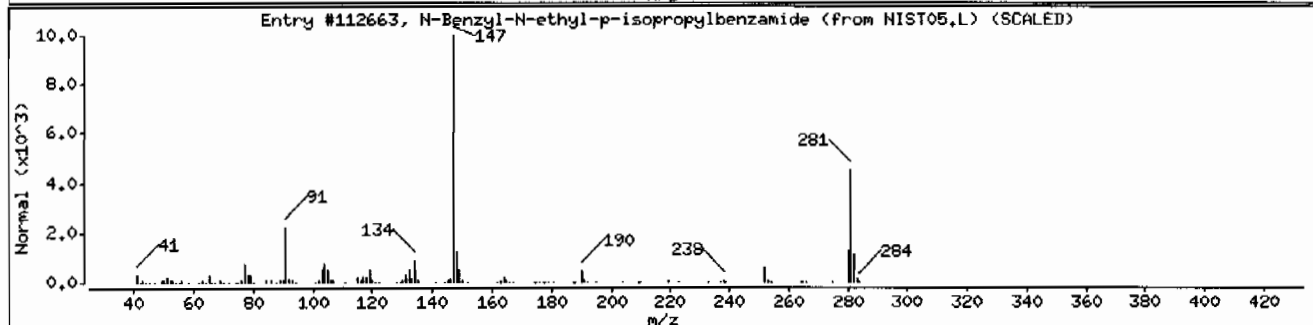
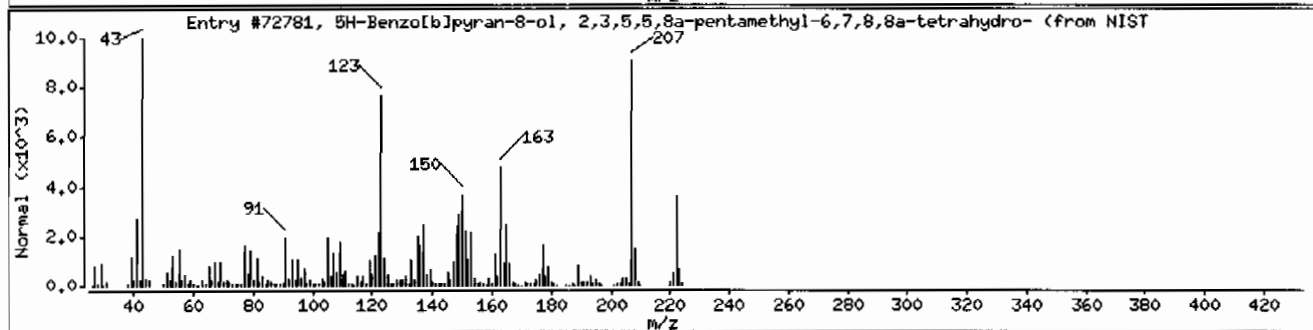
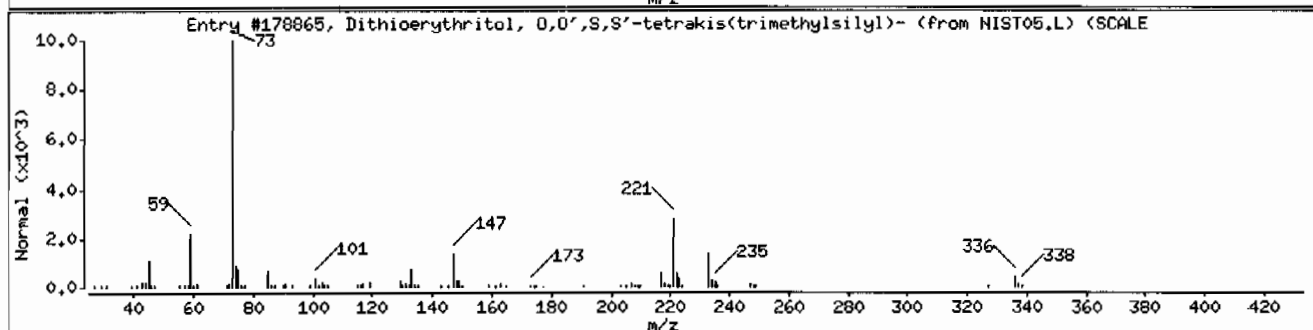
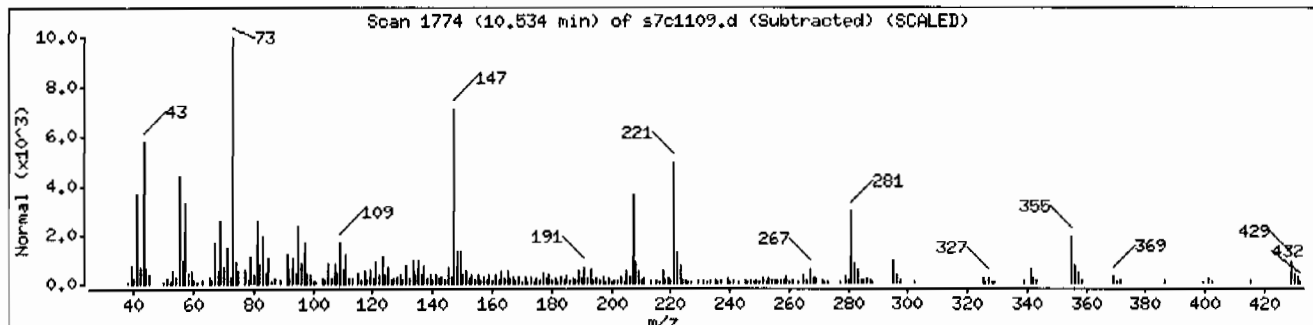
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Dithioerythritol, 0,0',S,S'-tetrakis(trimethylsilyl)-	1000079-30-7	NIST05.L	178865	27	C <sub>16</sub> H <sub>42</sub> O <sub>2</sub> Si <sub>4</sub>	442
5H-Benzo[b]pyran-8-ol, 2,3,5,8a-pentamethyl-6,7,8,8a-tetrahydro-	97306-66-6	NIST05.L	72781	15	C <sub>14</sub> H <sub>22</sub> O	222
N-Benzyl-N-ethyl-p-isopropylbenzamide	15089-22-2	NIST05.L	112663	14	C <sub>19</sub> H <sub>23</sub> NO	281





Date : 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.i

Sample Info: 1248043005195962311SVH11ILANL

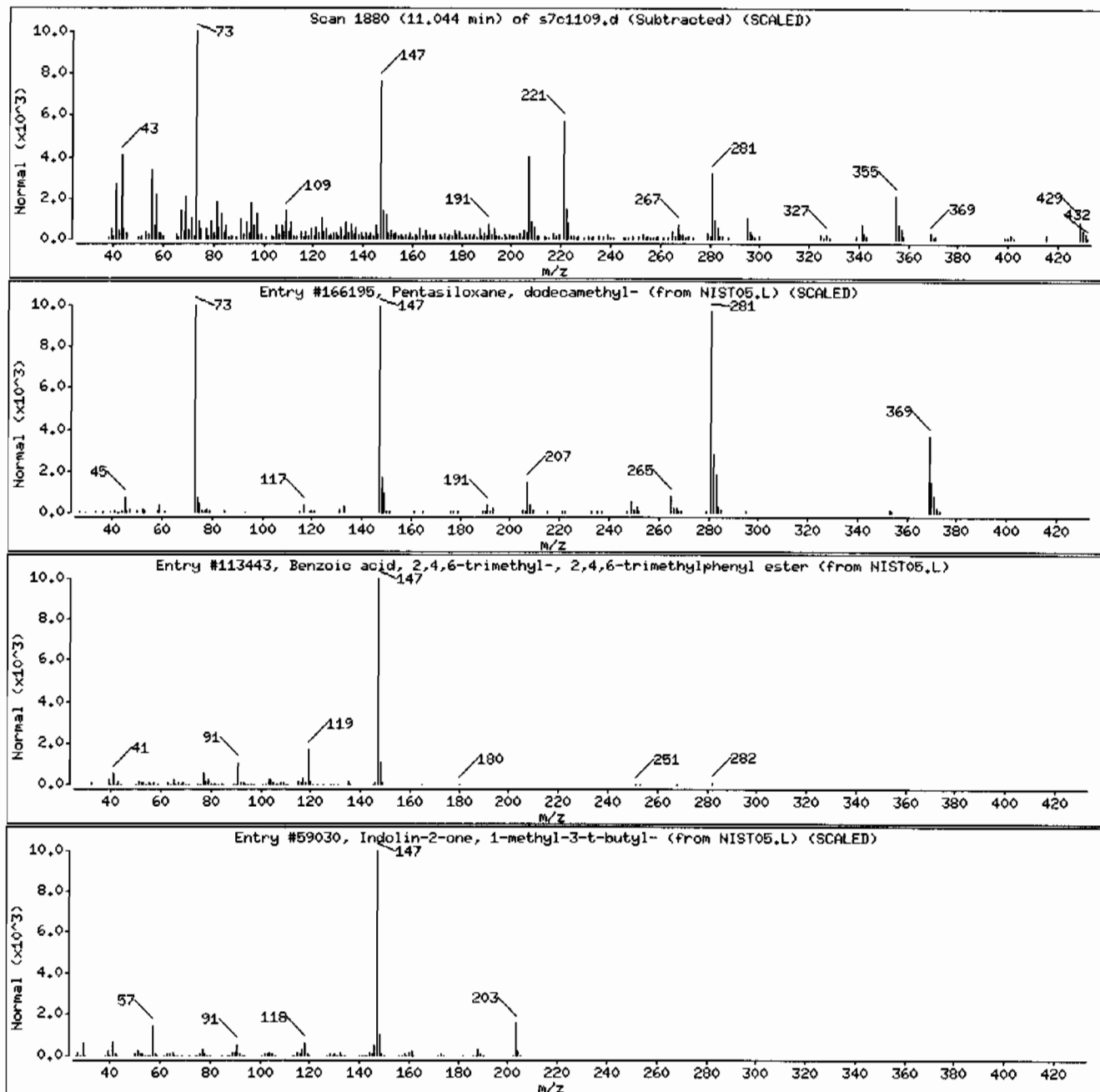
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pentasiloxane, dodecamethyl-	141-63-9	NIST05.L	166195	38	C <sub>12</sub> H <sub>36</sub> O <sub>4</sub> Si <sub>5</sub>	384
Benzoic acid, 2,4,6-trimethyl-, 2,4,6-tr	1504-38-7	NIST05.L	113443	22	C <sub>19</sub> H <sub>22</sub> O <sub>2</sub>	282
Indolin-2-one, 1-methyl-3-t-butyl-	175467-51-3	NIST05.L	59030	20	C <sub>13</sub> H <sub>17</sub> NO	203



Date : 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.i

Sample Info: 1248043005195962311SVH111LANL

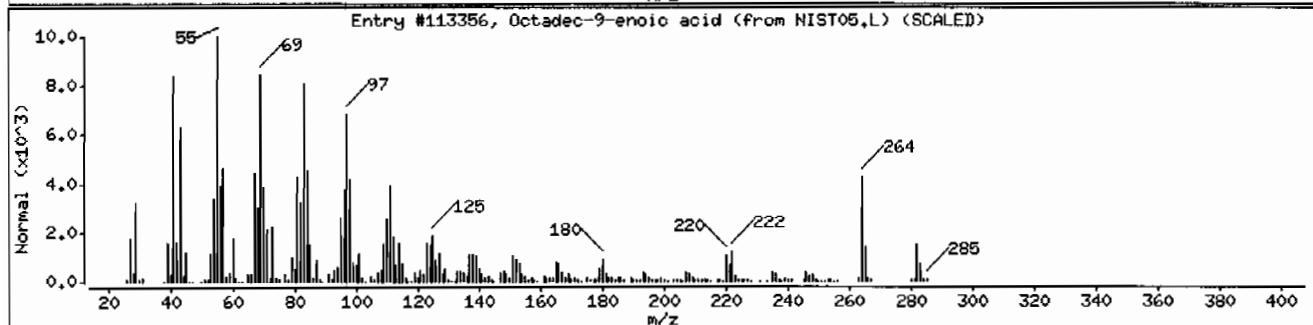
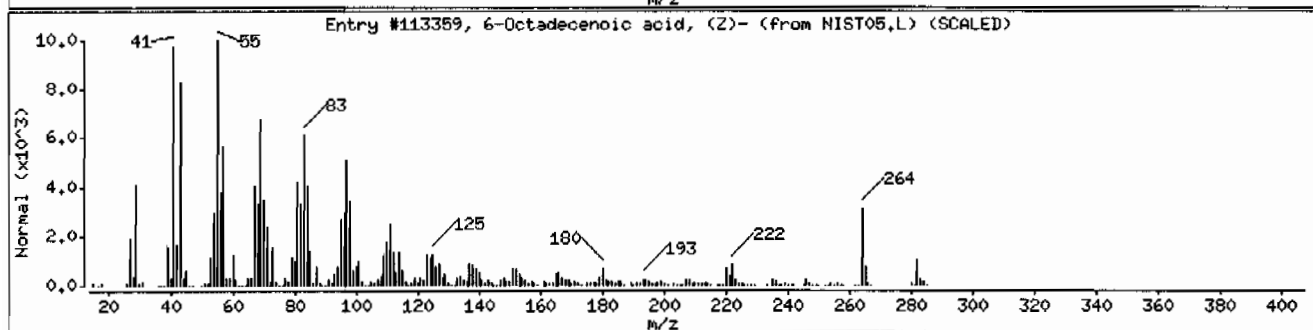
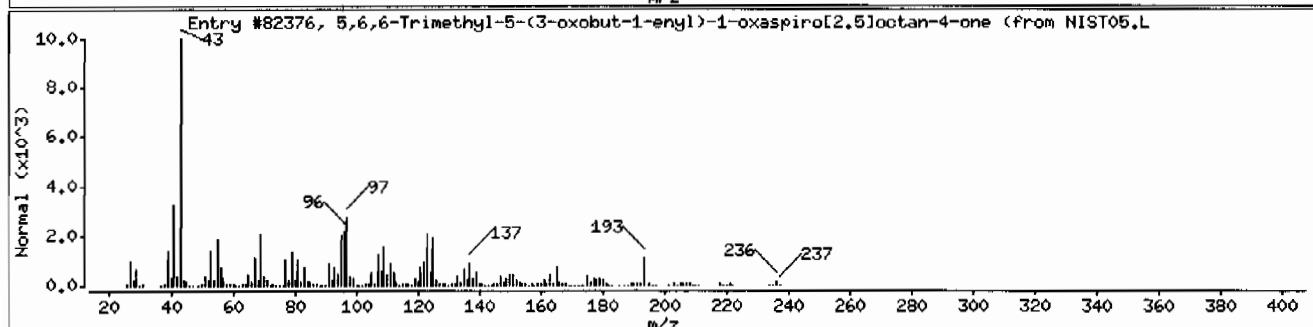
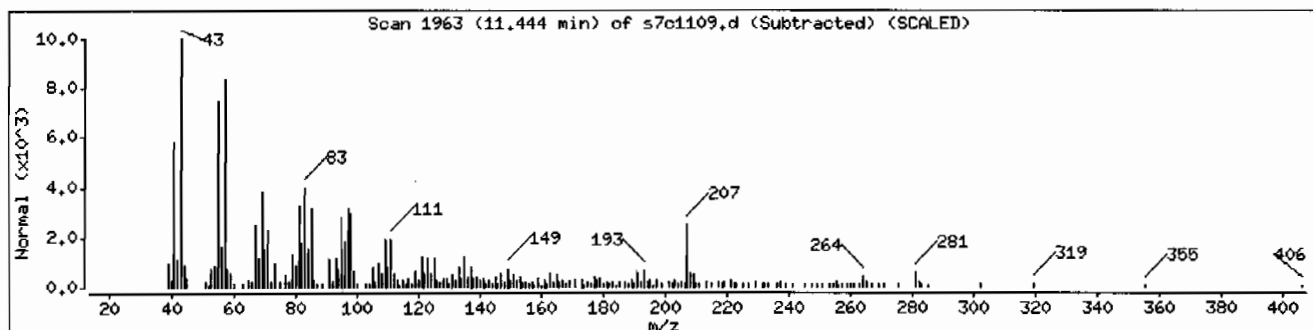
Volume Injected (ul): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
5,6,6-Trimethyl-5-(3-oxobut-1-enyl)-1-ox	1000192-73-9	NIST05.L	82376	59	C14H20O3	236
6-Octadecenoic acid, (Z)-	593-39-5	NIST05.L	113359	49	C18H34O2	282
Octadec-9-enoic acid	1000190-13-7	NIST05.L	113356	46	C18H34O2	282



Date : 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.i

Sample Info: I248043005195962311SVMI1ILANL

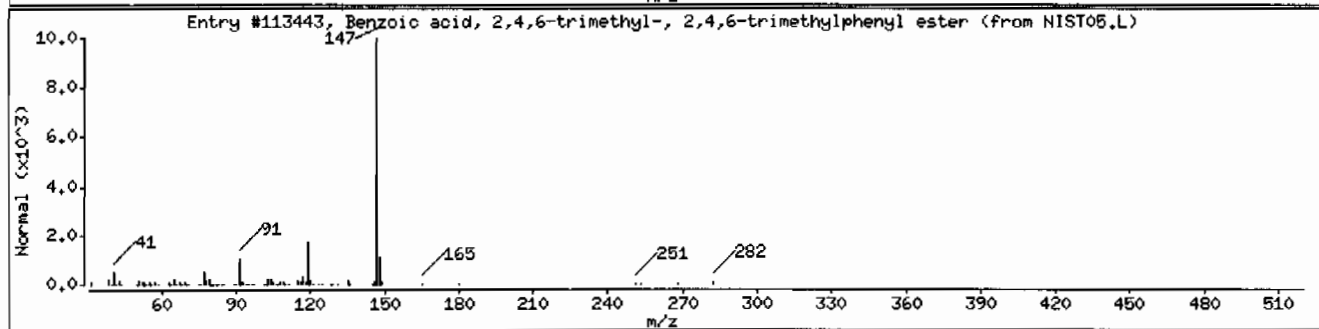
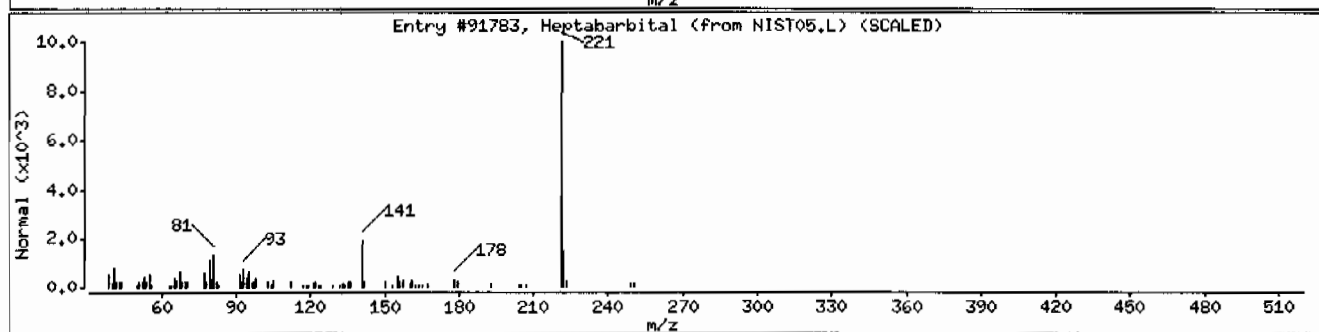
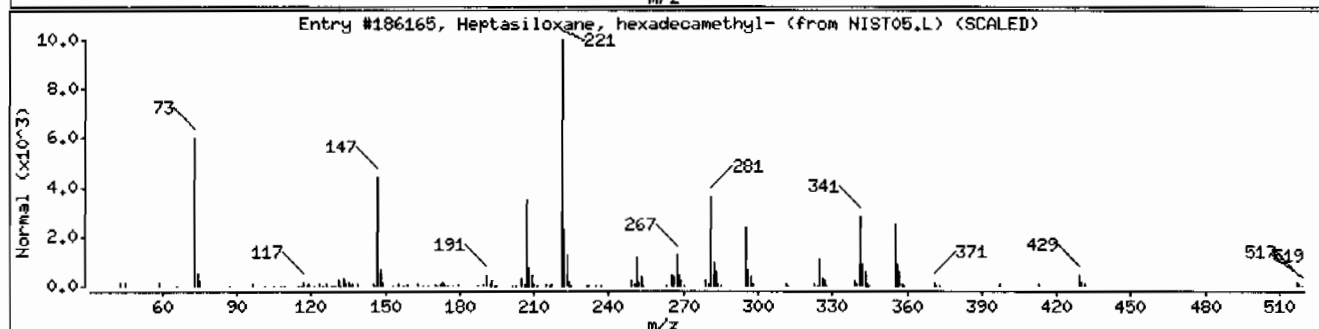
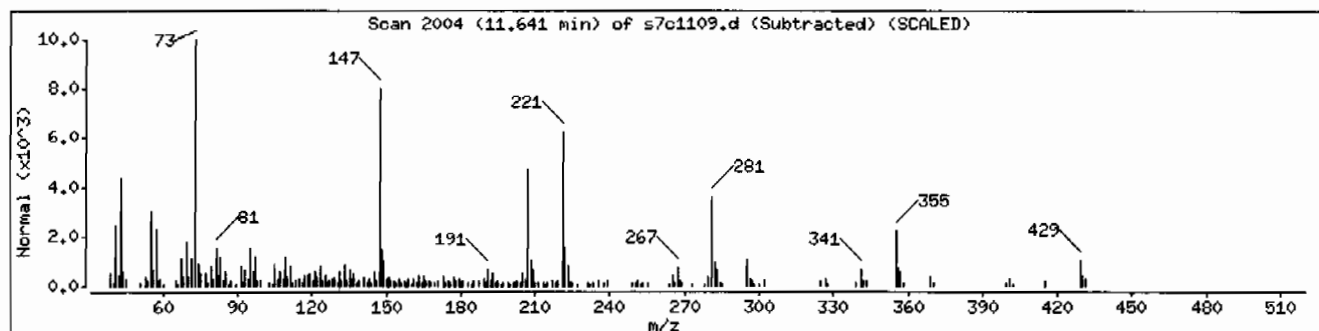
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Heptasiloxane, hexadecamethyl-	541-01-5	NIST05.L	186165	72	C <sub>16</sub> H <sub>48</sub> O <sub>6</sub> Si <sub>7</sub>	532
Heptabarbital	509-86-4	NIST05.L	91783	45	C <sub>13</sub> H <sub>18</sub> N <sub>2</sub> O <sub>3</sub>	250
Benzoic acid, 2,4,6-trimethyl-, 2,4,6-tr	1504-38-7	NIST05.L	113443	25	C <sub>19</sub> H <sub>22</sub> O <sub>2</sub>	282



Date : 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.i

Sample Info: 12480430051959623111SVH111LANL

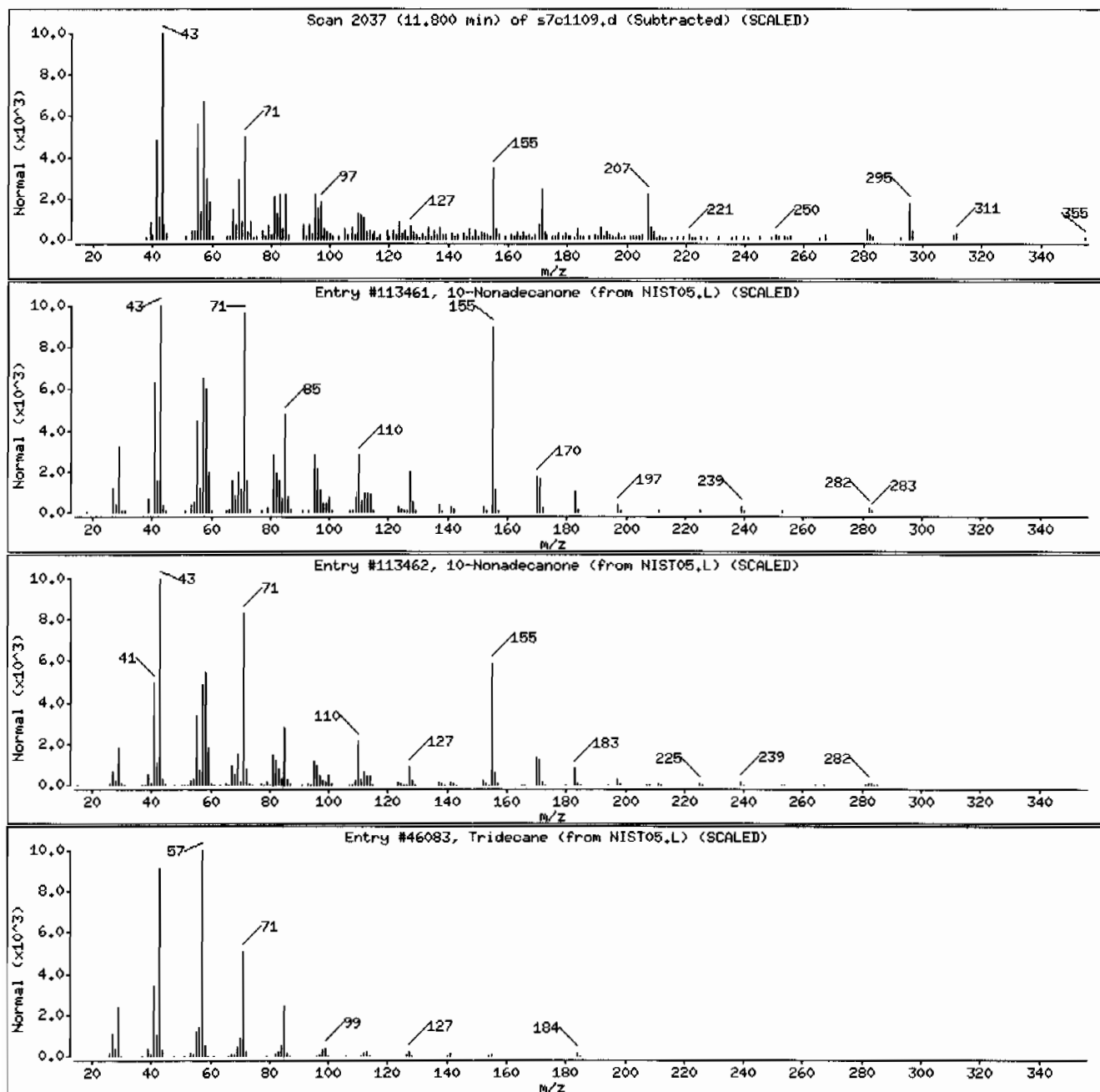
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
10-Nonadecanone	504-57-4	NIST05.L	113461	55	C19H38O	282
10-Nonadecanone	504-57-4	NIST05.L	113462	52	C19H38O	282
Tridecane	629-50-5	NIST05.L	46083	38	C13H28	184



Date : 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.i

Sample Info: 1248043005195962311ISVH11ILANL

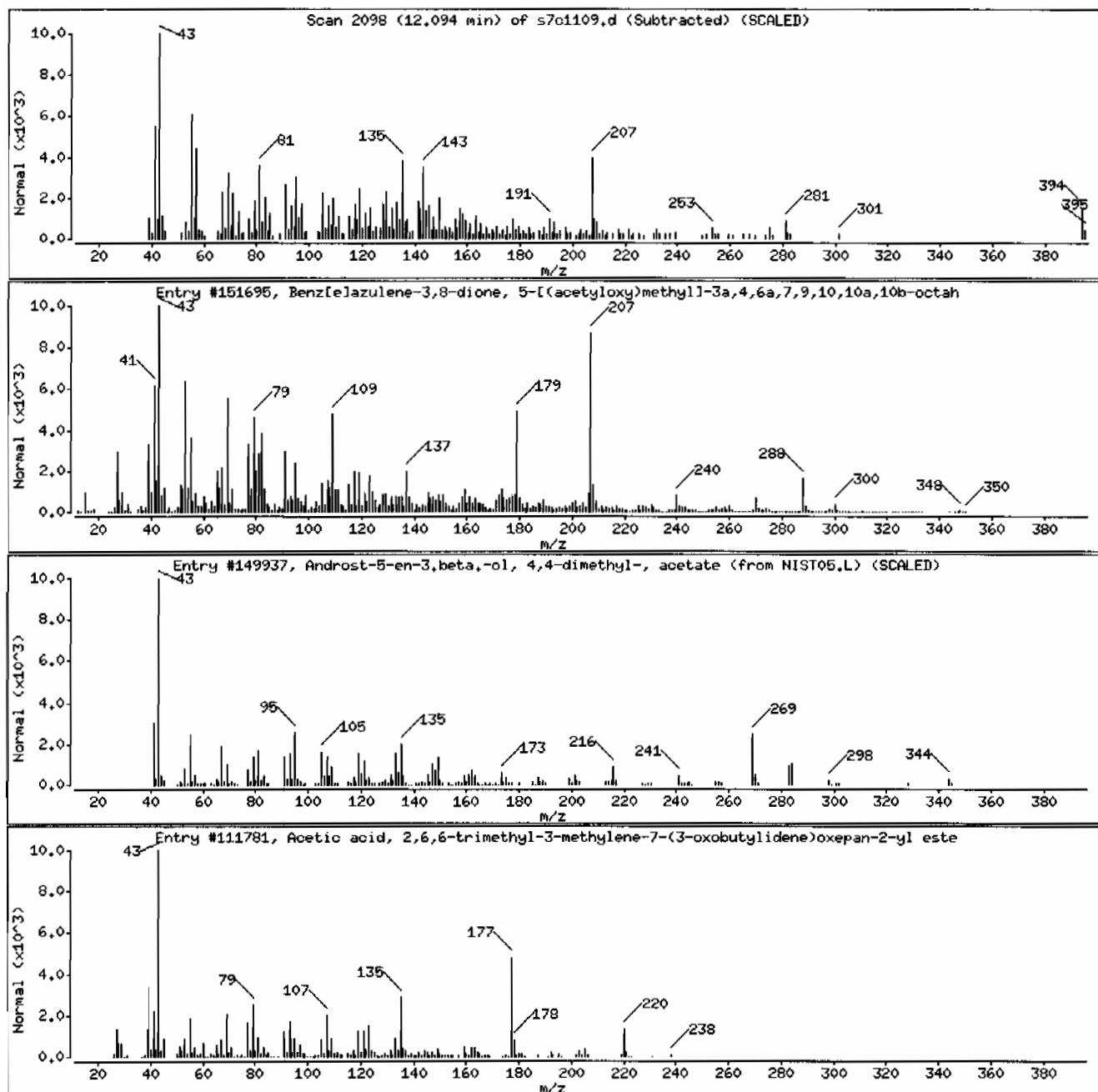
Volume Injected (UL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benz[e]azulene-3,8-dione, 5-[(acetyloxy)methyl]-3a,4,6a,7,9,10,10a,10b-octah	25536-74-7	NIST05.L	151695	10	C19H24O6	348
Androst-5-en-3 $\beta$ -ol, 4,4-dimethyl-, acetate (from NIST05.L)	7673-18-9	NIST05.L	149937	10	C23H36O2	344
Acetic acid, 2,6,6-trimethyl-3-methylene-7-(3-oxobutylidene)oxepan-2-yl este	1000185-41-4	NIST05.L	111781	10	C16H24O4	280



Date : 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.1

Sample Info: 1248043005195962311SVMI11LANL

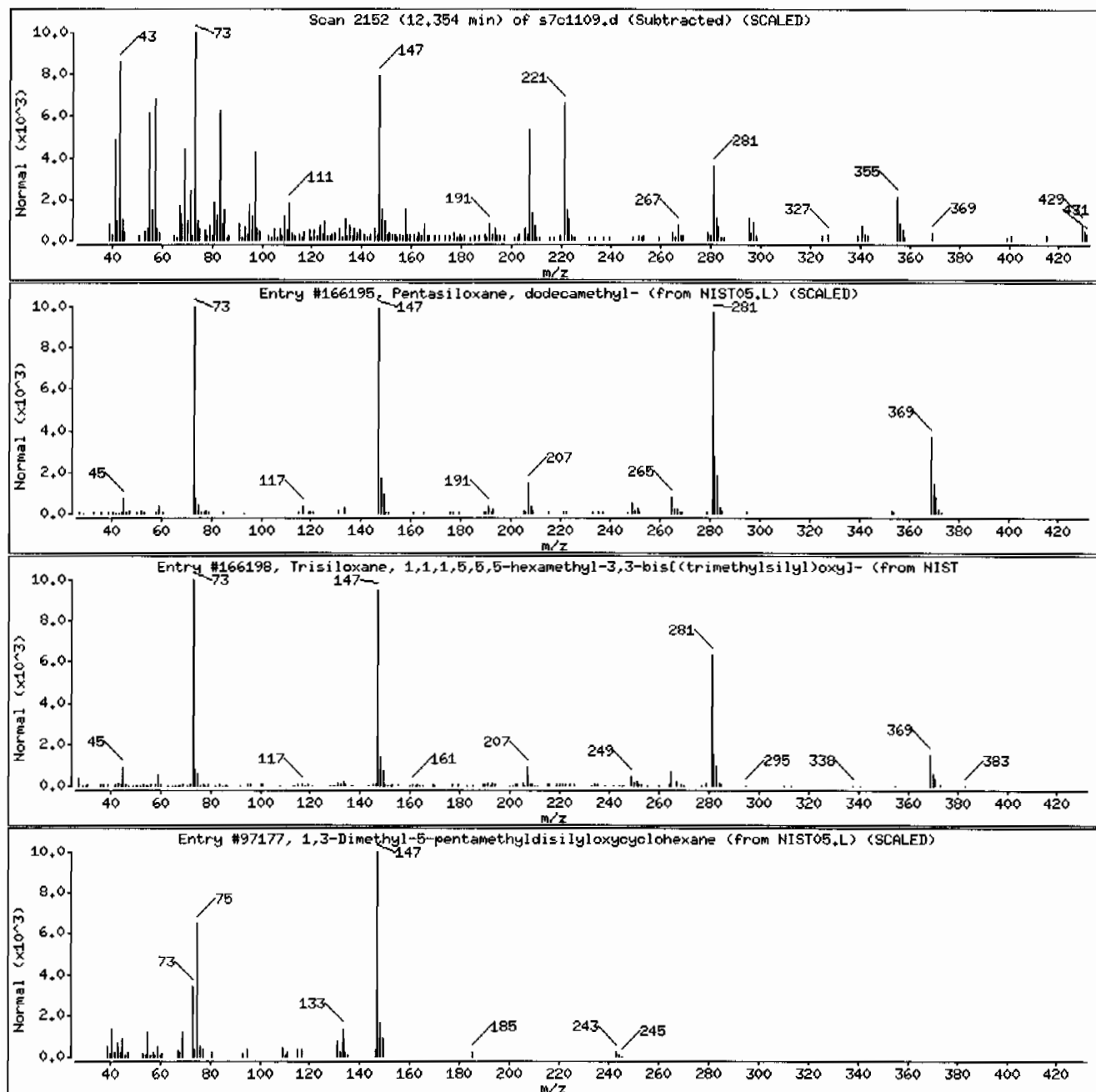
Volume Injected (uL): 0,5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pentasiloxane, dodecamethyl-	141-63-9	NIST05.L	166195	30	C12H36O4Si5	384
Trisiloxane, 1,1,1,5,5,5-hexamethyl-3,3-	3555-47-3	NIST05.L	166198	27	C12H36O4Si5	384
1,3-Dimethyl-5-pentamethyldisilyloxycycl	1000216-94-7	NIST05.L	97177	18	C13H30OSi2	258



Date : 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.i

Sample Info: 1248043005195962311SVH111LANL

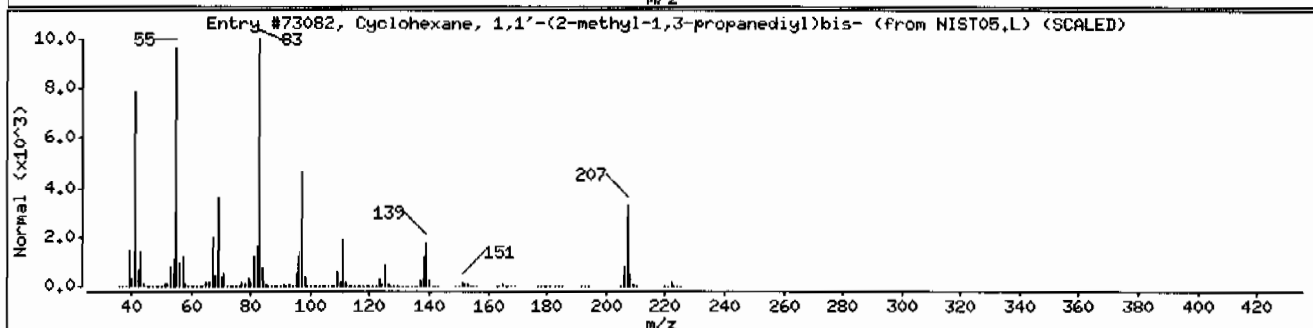
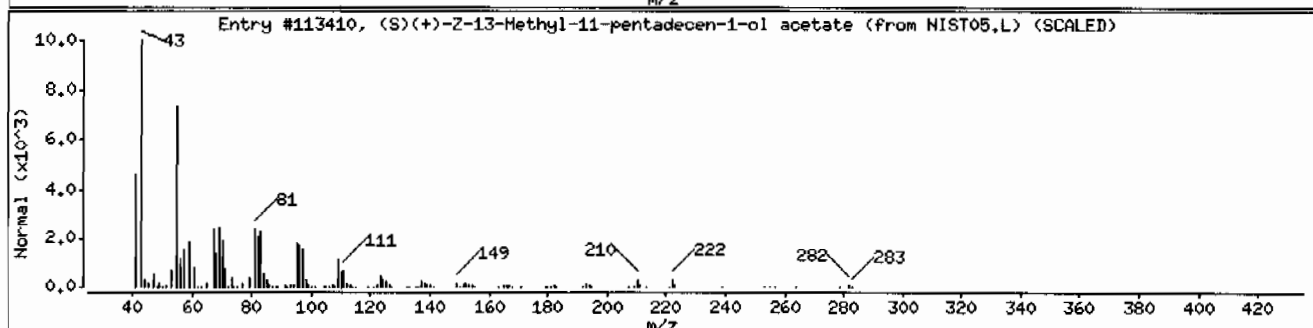
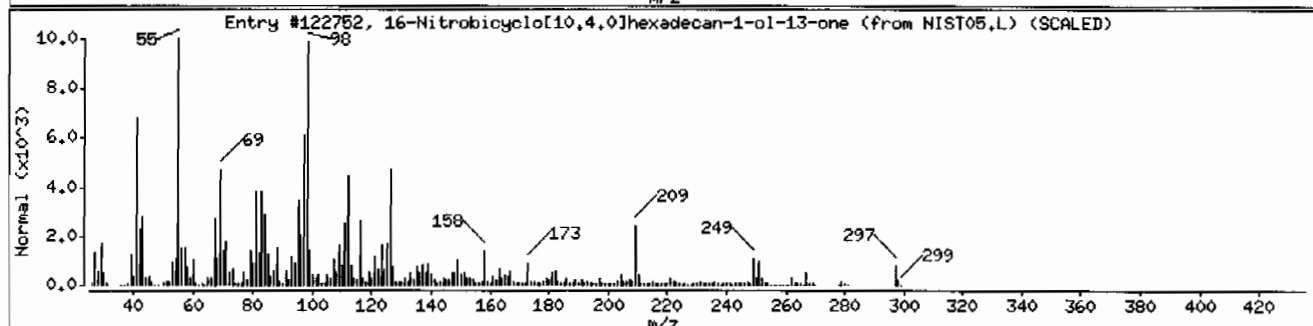
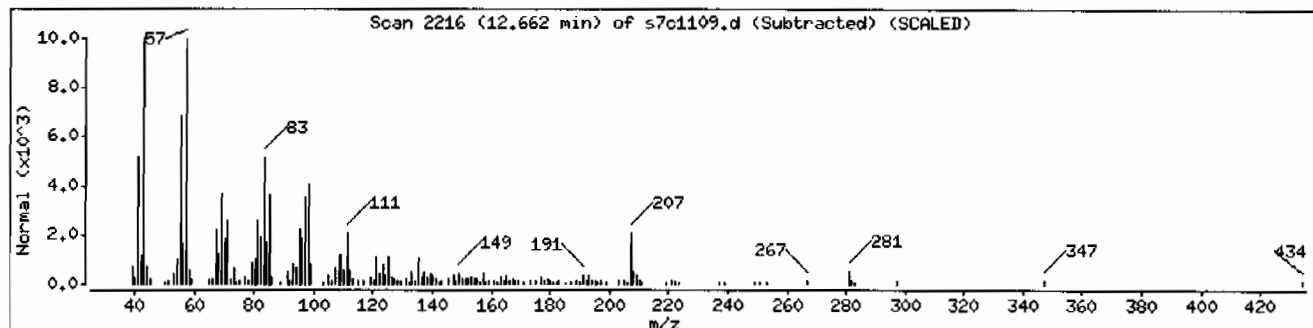
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
16-Nitrobicyclo[10.4.0]hexadecan-1-ol-13	79880-69-6	NIST05.L	122752	46	C16H27NO4	297
(S)(+)-2-13-Methyl-11-pentadecen-1-ol ac	1000130-84-8	NIST05.L	113410	44	C18H34O2	282
Cyclohexane, 1,1'-(2-methyl-1,3-propanedi	2883-08-1	NIST05.L	73082	43	C16H30	222



Date : 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.i

Sample Info: I248043005195962311SVH11ILANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

## Library Search Compound Match

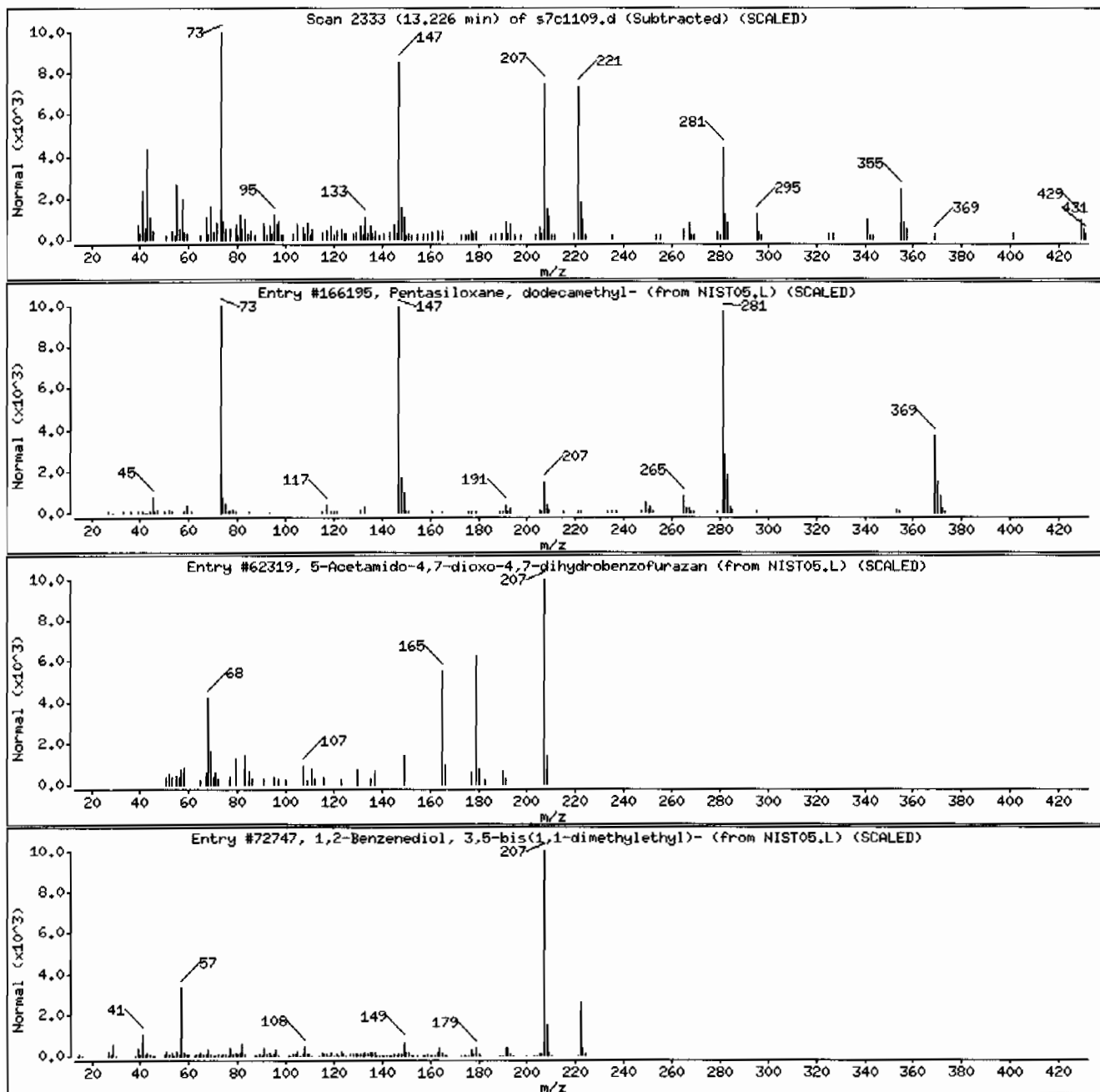
Unknown

Pentasiloxane, dodecamethyl-

5-Acetamido-4,7-dioxo-4,7-dihydrobenzofu

1,2-Benzenediol, 3,5-bis(1,1-dimethyleth

CAS Number	Library	Entry	Quality	Formula	Weight
141-63-9	NIST05.L	166195	30	C12H36O4Si5	384
153136-27-7	NIST05.L	62319	25	C8H5N3O4	207
1020-31-1	NIST05.L	72747	25	C14H22O2	222





Date : 11-MAR-2010 15:43

Client ID: RE36-10-7473

Instrument: MSD7.i

Sample Info: I248043005I959623I1ISVMI1ILANL

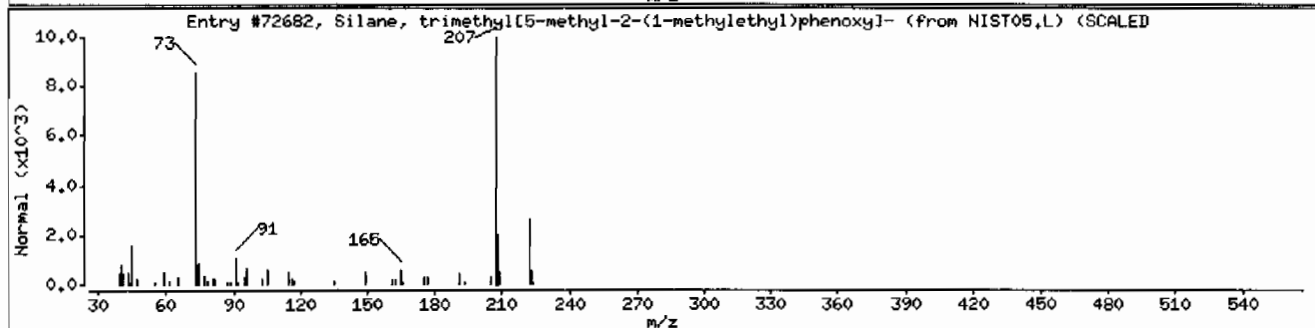
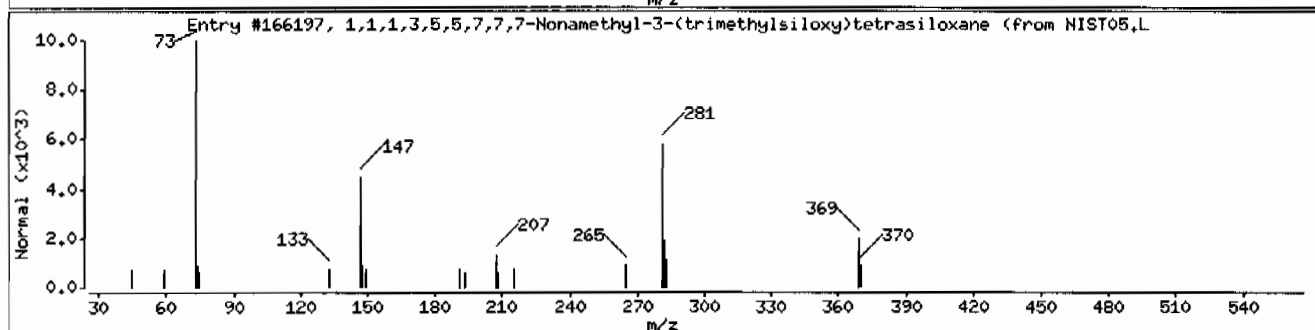
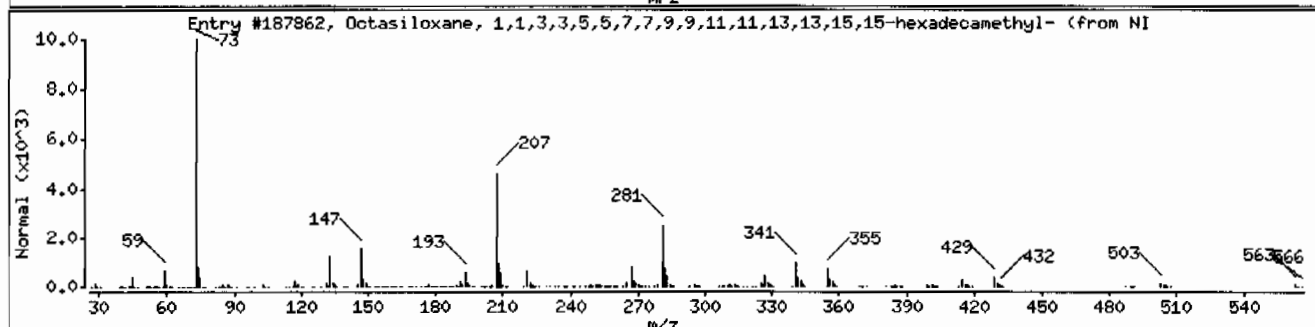
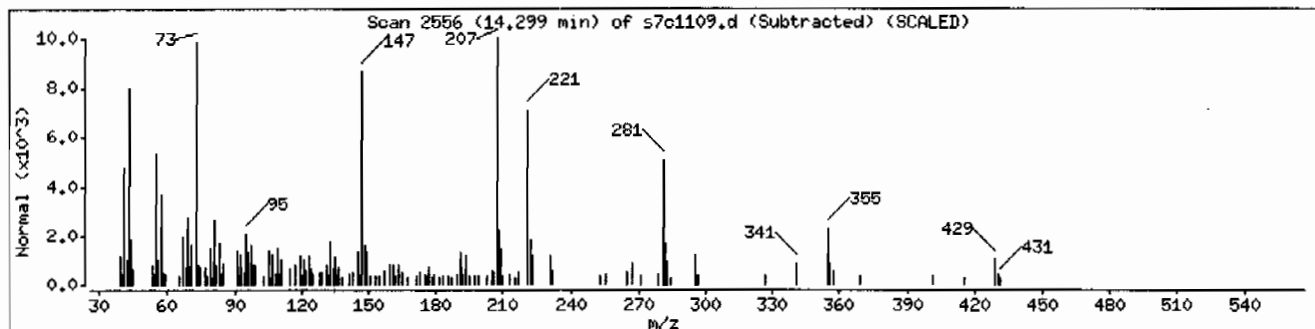
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Octasiloxane, 1,1,3,3,5,5,7,7,9,9,11,11,	19095-24-0	NIST05.L	187862	47	C <sub>16</sub> H <sub>50</sub> O <sub>7</sub> Si <sub>8</sub>	578
1,1,1,3,5,5,7,7,7-Nonamethyl-3-(trimethyl-	38146-99-5	NIST05.L	166197	35	C <sub>12</sub> H <sub>36</sub> O <sub>4</sub> Si <sub>5</sub>	384
Silane, trimethyl[5-methyl-2-(1-methylethyl	55012-80-1	NIST05.L	72682	35	C <sub>13</sub> H <sub>22</sub> O <sub>5</sub> Si	222



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043011

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 27.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	457	ug/kg	91.4	457
108-95-2	Phenol	U	457	ug/kg	91.4	457
95-57-8	2-Chlorophenol	U	457	ug/kg	91.4	457
106-46-7	1,4-Dichlorobenzene	U	457	ug/kg	91.4	457
621-64-7	N-Nitrosodipropylamine	U	457	ug/kg	91.4	457
59-50-7	4-Chloro-3-methylphenol	U	457	ug/kg	91.4	457
83-32-9	Acenaphthene		692	ug/kg	15.1	45.7
121-14-2	2,4-Dinitrotoluene	U	457	ug/kg	45.7	457
100-02-7	4-Nitrophenol	U	457	ug/kg	151	457
87-86-5	Pentachlorophenol	U	457	ug/kg	114	457
129-00-0	Pyrene		3680	ug/kg	13.7	45.7
110-86-1	Pyridine	U	457	ug/kg	91.4	457
62-53-3	Aniline	U	457	ug/kg	137	457
111-44-4	bis(2-Chloroethyl) ether	U	457	ug/kg	91.4	457
541-73-1	1,3-Dichlorobenzene	U	457	ug/kg	91.4	457
100-51-6	Benzyl alcohol	U	457	ug/kg	137	457
95-50-1	1,2-Dichlorobenzene	U	457	ug/kg	91.4	457
108-60-1	bis(2-Chloroisopropyl)ether	U	457	ug/kg	91.4	457
95-48-7	o-Cresol	U	457	ug/kg	91.4	457
65794-96-9	m,p-Cresols	U	457	ug/kg	137	457
67-72-1	Hexachloroethane	U	457	ug/kg	91.4	457
98-95-3	Nitrobenzene	U	457	ug/kg	91.4	457
78-59-1	Isophorone	U	457	ug/kg	91.4	457
88-75-5	2-Nitrophenol	U	457	ug/kg	91.4	457
105-67-9	2,4-Dimethylphenol	U	457	ug/kg	160	457
111-91-1	bis(2-Chloroethoxy)methane	U	457	ug/kg	91.4	457
120-83-2	2,4-Dichlorophenol	U	457	ug/kg	91.4	457
65-85-0	Benzoic acid	U	914	ug/kg	229	914
91-20-3	Naphthalene		410	ug/kg	13.7	45.7
106-47-8	4-Chloroaniline	U	457	ug/kg	91.4	457
87-68-3	Hexachlorobutadiene	U	457	ug/kg	91.4	457
91-57-6	2-Methylnaphthalene		203	ug/kg	9.14	45.7
77-47-4	Hexachlorocyclopentadiene	U	457	ug/kg	91.4	457
88-06-2	2,4,6-Trichlorophenol	U	457	ug/kg	91.4	457
95-95-4	2,4,5-Trichlorophenol	U	457	ug/kg	91.4	457
91-58-7	2-Chloronaphthalene	U	45.7	ug/kg	15.1	45.7
88-74-4	2-Nitroaniline	U	457	ug/kg	91.4	457
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	457	ug/kg	91.4	457

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043011

Client ID: RE36-10-7475  
Batch ID: 959623  
Run Date: 03/11/2010 17:30  
Prep Date: 03/02/2010 11:17  
Data File: s7c1114.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 27.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	457	ug/kg	91.4	457
606-20-2	2,6-Dinitrotoluene	U	457	ug/kg	45.7	457
208-96-8	Acenaphthylene	U	45.7	ug/kg	13.7	45.7
51-28-5	2,4-Dinitrophenol	U	914	ug/kg	174	914
132-64-9	Dibenzofuran		529	ug/kg	91.4	457
84-66-2	Diethylphthalate	U	457	ug/kg	91.4	457
86-73-7	Fluorene		843	ug/kg	13.7	45.7
7005-72-3	4-Chlorophenylphenylether	U	457	ug/kg	91.4	457
534-52-1	2-Methyl-4,6-dinitrophenol	U	457	ug/kg	91.4	457
100-01-6	4-Nitroaniline	U	457	ug/kg	137	457
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	457	ug/kg	91.4	457
122-66-7	Azobenzene	U	457	ug/kg	91.4	457
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	457	ug/kg	91.4	457
118-74-1	Hexachlorobenzene	U	457	ug/kg	91.4	457
120-12-7	Anthracene		1190	ug/kg	9.14	45.7
84-74-2	Di-n-butylphthalate	U	457	ug/kg	91.4	457
85-68-7	Butylbenzylphthalate	U	457	ug/kg	91.4	457
56-55-3	Benzo(a)anthracene		2080	ug/kg	13.7	45.7
91-94-1	3,3'-Dichlorobenzidine	U	457	ug/kg	137	457
218-01-9	Chrysene		2260	ug/kg	13.7	45.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	457	ug/kg	91.4	457
117-84-0	Di-n-octylphthalate	U	457	ug/kg	91.4	457
205-99-2	Benzo(b)fluoranthene		2900	ug/kg	13.7	45.7
207-08-9	Benzo(k)fluoranthene	U	45.7	ug/kg	13.7	45.7
50-32-8	Benzo(a)pyrene		1760	ug/kg	13.7	45.7
193-39-5	Indeno(1,2,3-cd)pyrene		1200	ug/kg	13.7	45.7
53-70-3	Dibenzo(a,h)anthracene	U	45.7	ug/kg	13.7	45.7
191-24-2	Benzo(ghi)perylene		1270	ug/kg	13.7	45.7
120-82-1	1,2,4-Trichlorobenzene	U	457	ug/kg	91.4	457

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	517	ug/kg		J
	Unknown	7.81	281	ug/kg		J
238-84-6	11H-Benzo[a]fluorene	8.85	341	ug/kg	96	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043011

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7J  
Analyst: JMB3  
Aliquot: 30.05 g  
Column: J&W DB-SMS

Matrix: R  
%Moisture: 27.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
Tentatively Identified Compound Summary							
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit	Qual
479-79-8	11H-Benzo[a]fluoren-11-one		9.53	187	ug/kg	98	NJ
604-53-5	1,1'-Binaphthalene		10.66	261	ug/kg	93	NJ
	Unknown		10.99	276	ug/kg		J
192-97-2	Benzo[c]pyrene		11.23	1100	ug/kg	99	NJ
198-55-0	Perylene		11.42	457	ug/kg	99	NJ
215-58-7	Benzo[b]triphenylene		13.37	265	ug/kg	96	NJ

Data File: /chem/MSD7.i/s031110.b/s7c1114.d  
Report Date: 12-Mar-2010 08:53

Page 1

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031110.b/s7c1114.d  
Lab Smp Id: 248043011 Client Smp ID: RE36-10-7475  
Inj Date : 11-MAR-2010 17:30  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043011|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 14  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	27.21660	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.990	3.990	(1.000)	374765	40.0000	
* 29 Naphthalene-d8	136	4.852	4.857	(1.000)	1439605	40.0000	
* 46 Acenaphthene-d10	164	6.109	6.114	(1.000)	805100	40.0000	
* 67 Phenanthrene-d10	188	7.284	7.284	(1.000)	1459695	40.0000	
* 91 Chrysene-d12	240	9.691	9.691	(1.000)	1261481	40.0000	
* 98 Perylene-d12	264	11.391	11.386	(1.000)	993525	40.0000	
\$ 3 2-Fluorophenol	112	3.186	3.181	(0.798)	375433	38.5415	1760
\$ 5 Phenol-d5	99	3.706	3.706	(0.929)	514061	42.0909	1920
\$ 20 Nitrobenzene-d5	82	4.346	4.356	(0.896)	197059	18.1488	830
\$ 39 2-Fluorobiphenyl	172	5.594	5.598	(0.916)	408077	20.3383	930
\$ 60 2,4,6-Tribromophenol	329	6.706	6.711	(1.098)	129893	55.8094	2550
\$ 81 p-Terphenyl-d14	244	8.656	8.656	(0.893)	567888	25.1281	1150

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====		==	=====	=====	=====	=====	=====
47 Acenaphthene	154	6.133	6.138	(1.004)	268212	15.1357	692
79 Pyrene	202	8.569	8.560	(0.884)	3207223	80.4776	3680
30 Naphthalene	128	4.871	4.876	(1.004)	243784	8.96450	410 (Q)
34 2-Methylnaphthalene	142	5.348	5.353	(1.102)	86847	4.44976	203
49 Dibenzofuran	168	6.258	6.263	(1.024)	287924	11.5608	528
53 Fluorene	166	6.518	6.528	(1.067)	385318	18.4389	843
68 Phenanthrene	178	7.308	7.308	(1.003)	4016573	134.093	6130 (A)
69 Anthracene	178	7.346	7.351	(1.009)	789607	26.0284	1190
76 Fluoranthene	202	8.353	8.343	(1.147)	3918565	120.317	5500 (A)
89 Benzo(a)anthracene	228	9.677	9.677	(0.998)	1375649	45.4891	2080
92 Chrysene	228	9.715	9.715	(1.002)	1331837	49.4918	2260
95 Benzo(b)fluoranthene	252	10.871	10.861	(0.954)	1766791	63.4108	2900
97 Benzo(a)pyrene	252	11.309	11.309	(0.993)	881605	38.5886	1760
99 Indeno(1,2,3-cd)pyrene	276	13.168	13.168	(1.156)	430552	26.2075	1200
101 Benzo(ghi)perylene	276	13.712	13.712	(1.204)	380704	27.7868	1270

#### QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- Q - Qualifier signal failed the ratio test.

## ION RATIO REPORT

## SV REPORT

Data file: s7c1114.d

Report Date: 03/12/2010 08:15

Lab. ID: 248043011

SampleType: SAMPLE

Injection Date: 11-MAR-2010 17:30

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043011|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	29970	3.71	3.78	80-120	100	(T)
93	893	3.67	3.78	206-266	3	(QT)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	29436	4.35	4.24	80-120	100	(T)
42	20905	4.35	4.23	61-121	71	(T)
-----						
30	Naphthalene	CAS#: 91-20-3				
128	243784	4.87	4.88	80-120	100	( )
129	27008	4.87	4.88	0- 42	11	( )
127	30697	4.87	4.89	19- 79	13	(Q)
-----						
31	4-Chloroaniline	CAS#: 106-47-8				
127	30697	4.87	4.89	80-120	100	( )
65	4080	4.85	4.89	0- 52	13	( )
-----						
34	2-Methylnaphthalene	CAS#: 91-57-6				
142	86847	5.35	5.35	80-120	100	( )
141	73032	5.35	5.35	54-114	84	( )
-----						
43	Dimethylphthalate	CAS#: 131-11-3				
163	143475	6.11	5.87	80-120	100	(T)
164	808945	6.11	5.87	0- 40	564	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
44	2,6-Dinitrotoluene			CAS#: 606-20-2		
165	8390	5.96	5.93	80-120	100	( )
63	2160	5.96	5.93	52-112	26	(Q)
-----						
45	Acenaphthylene			CAS#: 208-96-8		
152	132513	6.13	6.01	80-120	100	(T)
151	49606	6.13	6.01	0- 49	37	(T)
153	307520	6.13	6.01	0- 43	232	(QT)
-----						
47	Acenaphthene			CAS#: 83-32-9		
154	268212	6.13	6.14	80-120	100	( )
153	307520	6.13	6.14	71-131	115	( )
152	132419	6.13	6.14	17- 77	49	( )
-----						
49	Dibenzofuran			CAS#: 132-64-9		
168	287924	6.26	6.26	80-120	100	( )
139	109804	6.26	6.26	8- 68	38	( )
-----						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	105133	6.11	6.23	80-120	100	(T)
89	1994	6.11	6.23	37- 97	2	(QT)
63	28047	6.13	6.23	17- 77	27	(T)
-----						
52	4-Nitrophenol			CAS#: 100-02-7		
139	109804	6.26	6.16	80-120	100	(T)
109	1729	6.25	6.16	34- 94	2	(QT)
65	2052	6.25	6.16	64-124	2	(QT)
-----						
53	Fluorene			CAS#: 86-73-7		
166	385318	6.52	6.53	80-120	100	( )
165	350139	6.52	6.53	61-121	91	( )
167	56544	6.52	6.52	0- 44	15	( )
-----						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	332	6.71	6.54	80-120	100	(T)
105	1631	6.71	6.54	10- 70	491	(QT)
51	7253	6.70	6.54	54-114	2182	(QT)
-----						
68	Phenanthrene			CAS#: 85-01-8		
178	4016573	7.31	7.31	80-120	100	( )
179	657402	7.31	7.31	0- 46	16	( )
176	738085	7.31	7.31	0- 49	18	( )
-----						
69	Anthracene			CAS#: 120-12-7		
178	789607	7.35	7.35	80-120	100	( )
179	189283	7.35	7.35	0- 46	24	( )
176	132353	7.35	7.35	0- 48	17	( )
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
76 Fluoranthene CAS#: 206-44-0						
202	3918565	8.35	8.34	80-120	100	( )
203	720106	8.35	8.34	0- 48	18	( )
101	484063	8.35	8.34	0- 41	12	( )
-----						
79 Pyrene CAS#: 129-00-0						
202	3207223	8.57	8.56	80-120	100	( )
200	650538	8.57	8.56	0- 50	20	( )
101	484293	8.56	8.56	0- 44	15	( )
-----						
89 Benzo(a)anthracene CAS#: 56-55-3						
228	1375649	9.68	9.68	80-120	100	( )
226	355205	9.68	9.68	0- 56	26	( )
229	374947	9.68	9.68	0- 50	27	( )
-----						
92 Chrysene CAS#: 218-01-9						
228	1331837	9.72	9.72	80-120	100	( )
229	316833	9.72	9.72	0- 50	24	( )
226	374984	9.72	9.72	0- 59	28	( )
-----						
95 Benzo(b)fluoranthene CAS#: 205-99-2						
252	1766791	10.87	10.86	80-120	100	( )
253	393692	10.87	10.86	0- 52	22	( )
125	211082	10.87	10.86	0- 41	12	( )
-----						
96 Benzo(k)fluoranthene CAS#: 207-08-9						
252	1766791	10.87	10.90	80-120	100	( )
253	410842	10.87	10.90	0- 52	23	( )
125	211108	10.87	10.90	0- 42	12	( )
-----						
97 Benzo(a)pyrene CAS#: 50-32-8						
252	881605	11.31	11.31	80-120	100	( )
253	209582	11.31	11.31	0- 52	24	( )
125	104509	11.31	11.30	0- 42	12	( )
-----						
99 Indeno(1,2,3-cd)pyrene CAS#: 193-39-5						
276	430552	13.17	13.17	80-120	100	( )
138	117519	13.16	13.17	2- 62	27	( )
-----						
100 Dibenzo(a,h)anthracene CAS#: 53-70-3						
278	117794	13.17	13.18	80-120	100	( )
139	8408	13.18	13.18	0- 50	7	( )
-----						
101 Benzo(ghi)perylene CAS#: 191-24-2						
276	380704	13.71	13.71	80-120	100	( )
138	104345	13.71	13.71	0- 58	27	( )
-----						

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031110.b/s7c1114.d  
Lab Smp Id: 248043011 Client Smp ID: RE36-10-7475  
Inj Date : 11-MAR-2010 17:30  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043011|959623|1|SVM|1|LANL  
Misc Info : |MSD8270 S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 14  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	27.21660	% moisture

Cpnd Variable

Local Compound Variable

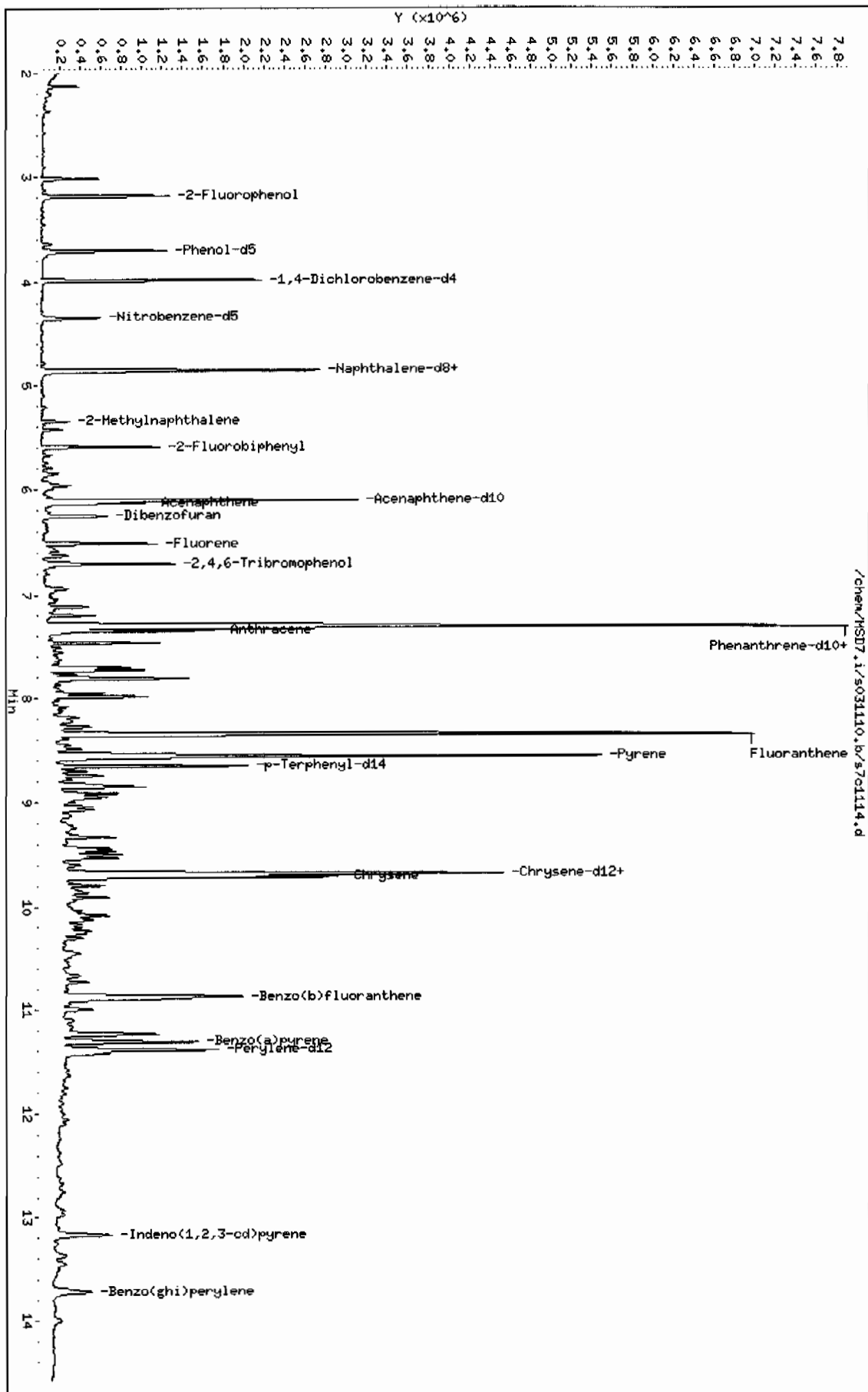
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.990	2305307	40.000
* 67 Phenanthrene-d10	7.284	13183824	40.000
* 91 Chrysene-d12	9.691	8073936	40.000
* 98 Perylene-d12	11.391	2783157	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
----	----	-----	-----	----	-----	-----	-----

CONCENTRATIONS					QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #	
=====	=====	=====	=====	=====	=====	=====	=====	
Unknown Aldol Condensate					CAS #:			
3.022	651588	11.3058805	517	0		0	10	
Unknown					CAS #:			
7.809	2025903	6.14663117	281	0		0	67	
11H-Benzo[a]fluorene					CAS #: 238-84-6			
8.853	1507402	7.46799210	341	96	NIST05.L	68696	91	
11H-Benzo[a]fluorene-11-one					CAS #: 479-79-8			
9.532	827017	4.09721987	187	98	NIST05.L	78768	91	
1,1'-Binaphthalene					CAS #: 604-53-5			
10.664	397643	5.71499579	261	93	NIST05.L	94963	98	
Unknown					CAS #:			
10.991	419486	6.02892610	276	0		0	98	
Benzo[e]pyrene					CAS #: 192-97-2			
11.232	1673970	24.0585720	1100	99	NIST05.L	93577	98	
Perylene					CAS #: 198-55-0			
11.420	694957	9.98803540	457	99	NIST05.L	93575	98	
Benzo[b]triphenylene					CAS #: 215-58-7			
13.365	403406	5.79781297	265	96	NIST05.L	110875	98	

Data File: /chem/MSD7.i/s031110.b/s70114.d  
 Date: 11-MAR-2010 17:30  
 Client ID: RE36-10-7475  
 Sample Info: 124804301195962311SVH11LNL  
 Volume Injected (uL): 0.5  
 Column phase: J&H DB-SMS

Instrument: MSD7.i  
 Operator: JHB3  
 Column diameter: 0.20



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: 1248043011/95962311/ISVH11/LANL

Volume Injected (uL): 0.5

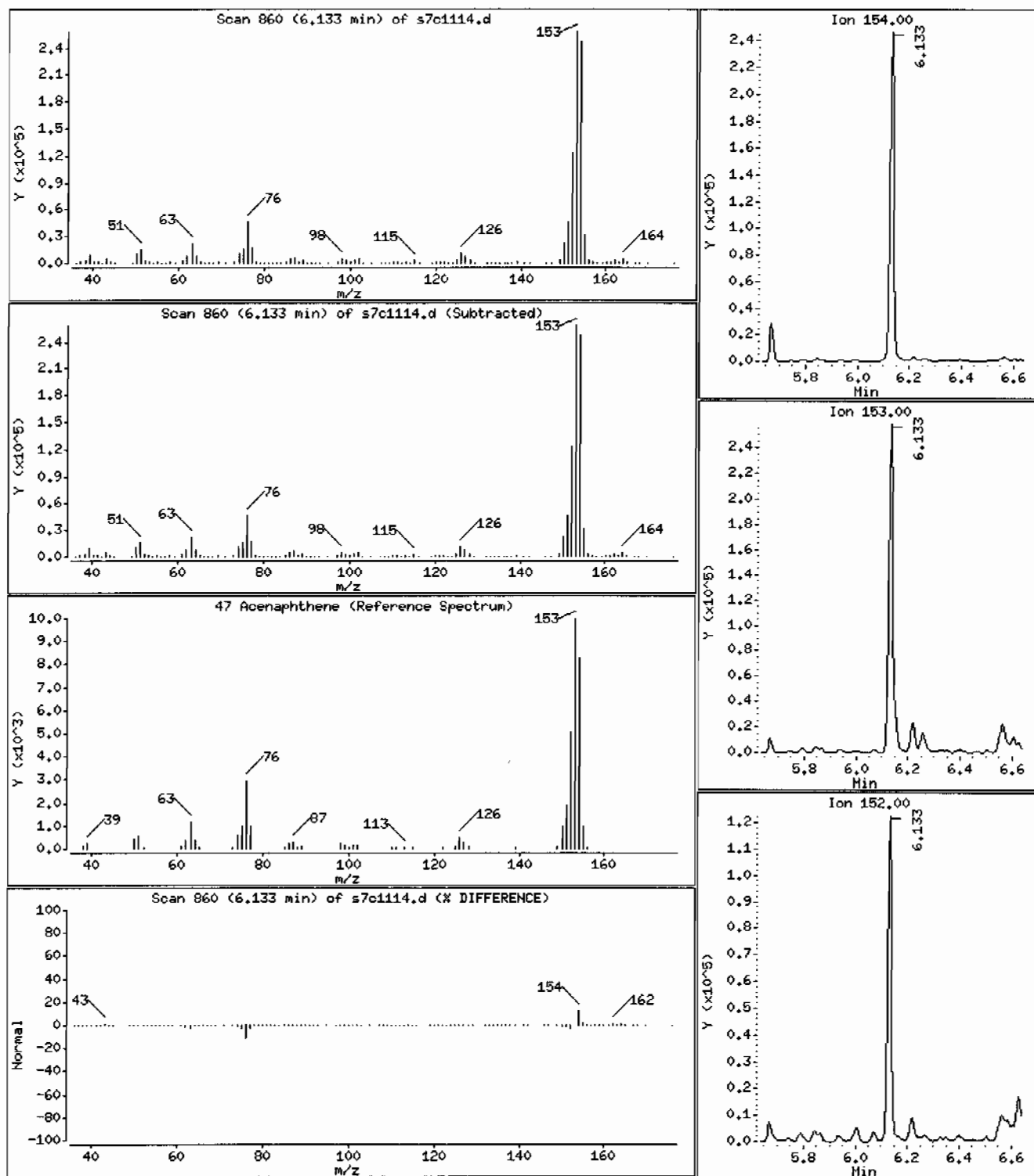
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 692 ug/Kg



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: 12480430111959623111SVH111LANL

Volume Injected (uL): 0.5

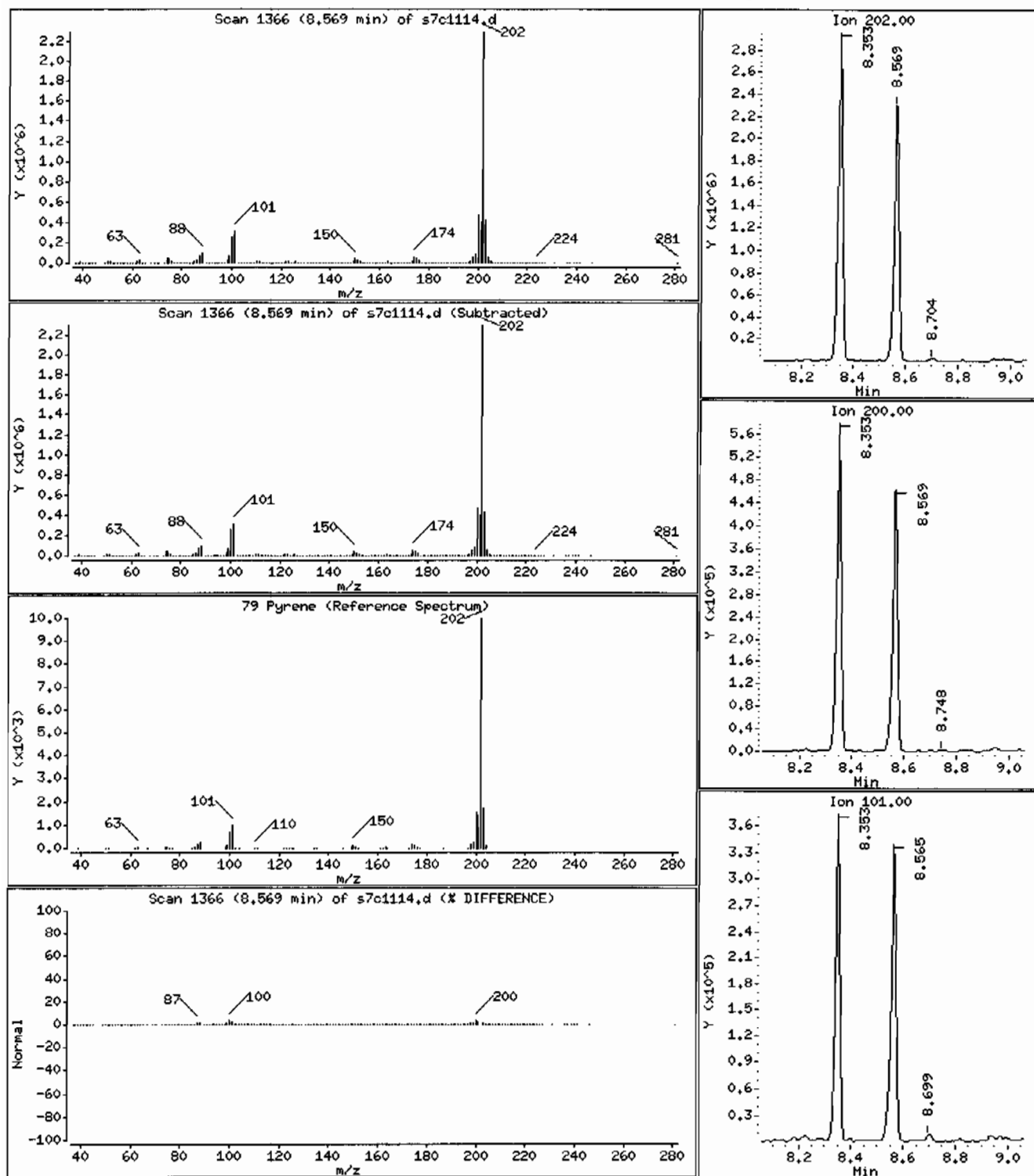
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 3680 ug/Kg



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: I248043011195962311ISVH11ILANL

Volume Injected (uL): 0.5

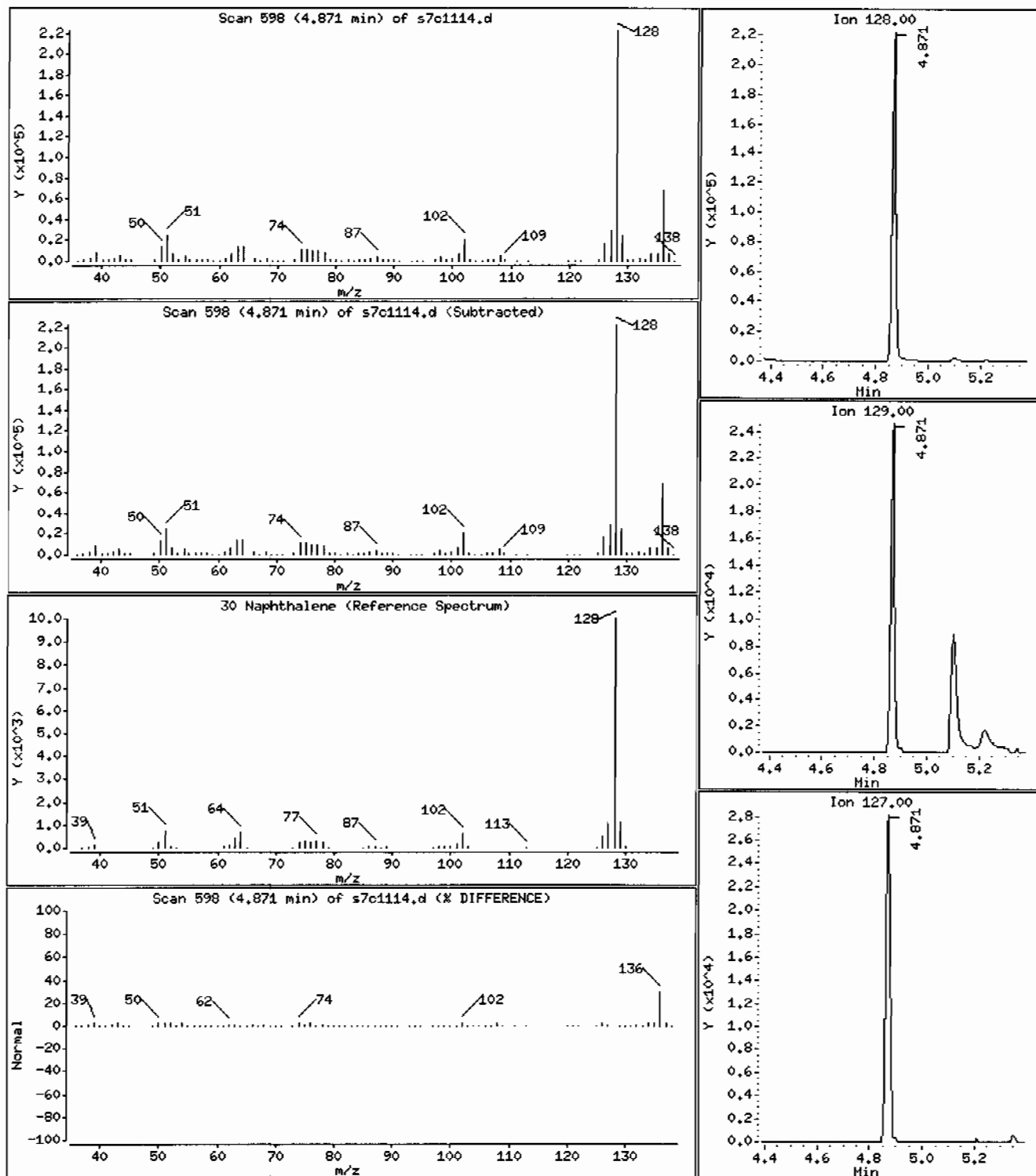
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 410 ug/Kg



Date: 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: HSD7.i

Sample Info: 1248043011|95962311|SVH11|LANL

Volume Injected (uL): 0.5

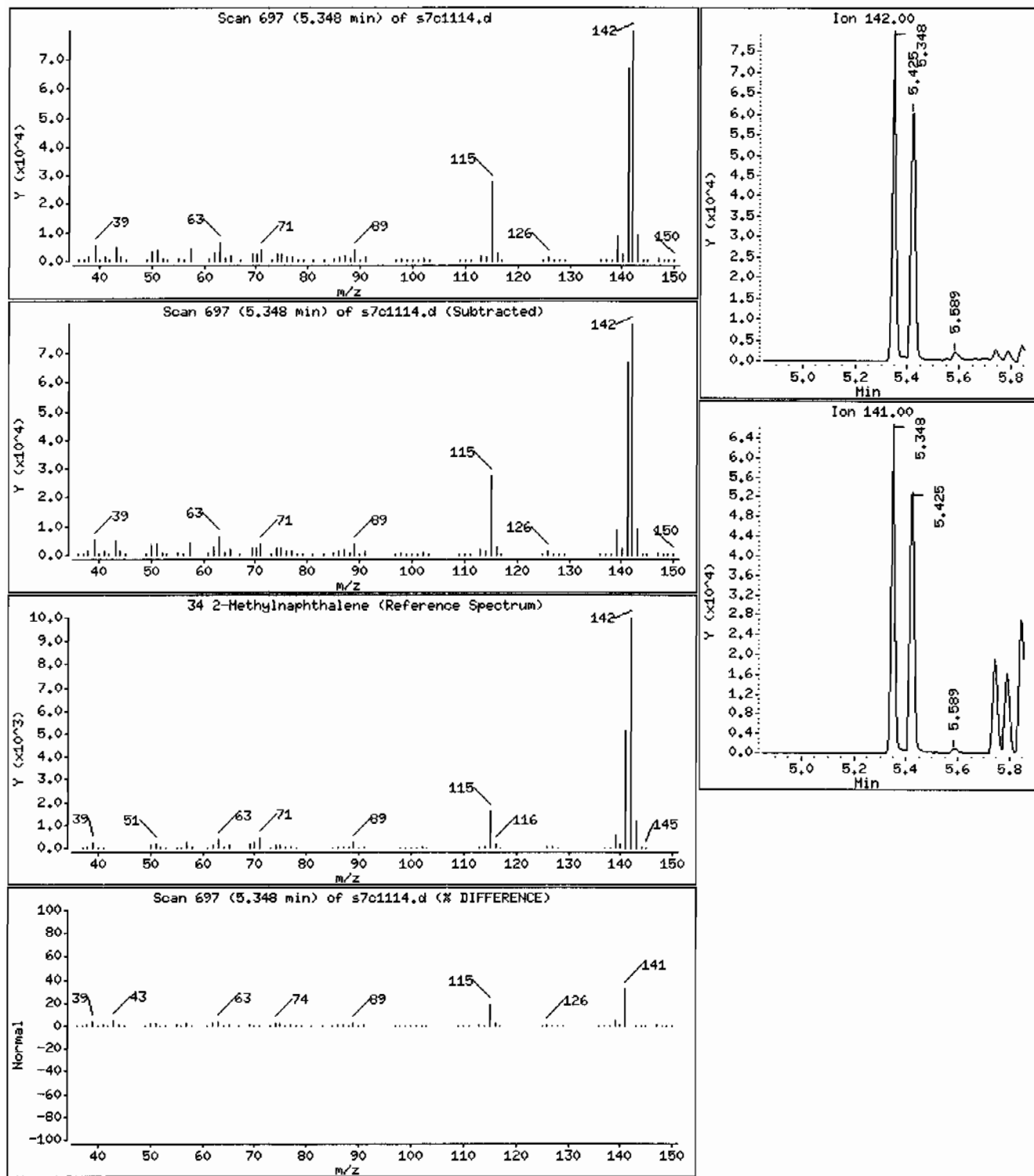
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 203 ug/Kg





Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: I2480430111959623111SVH111LANL

Volume Injected (uL): 0.5

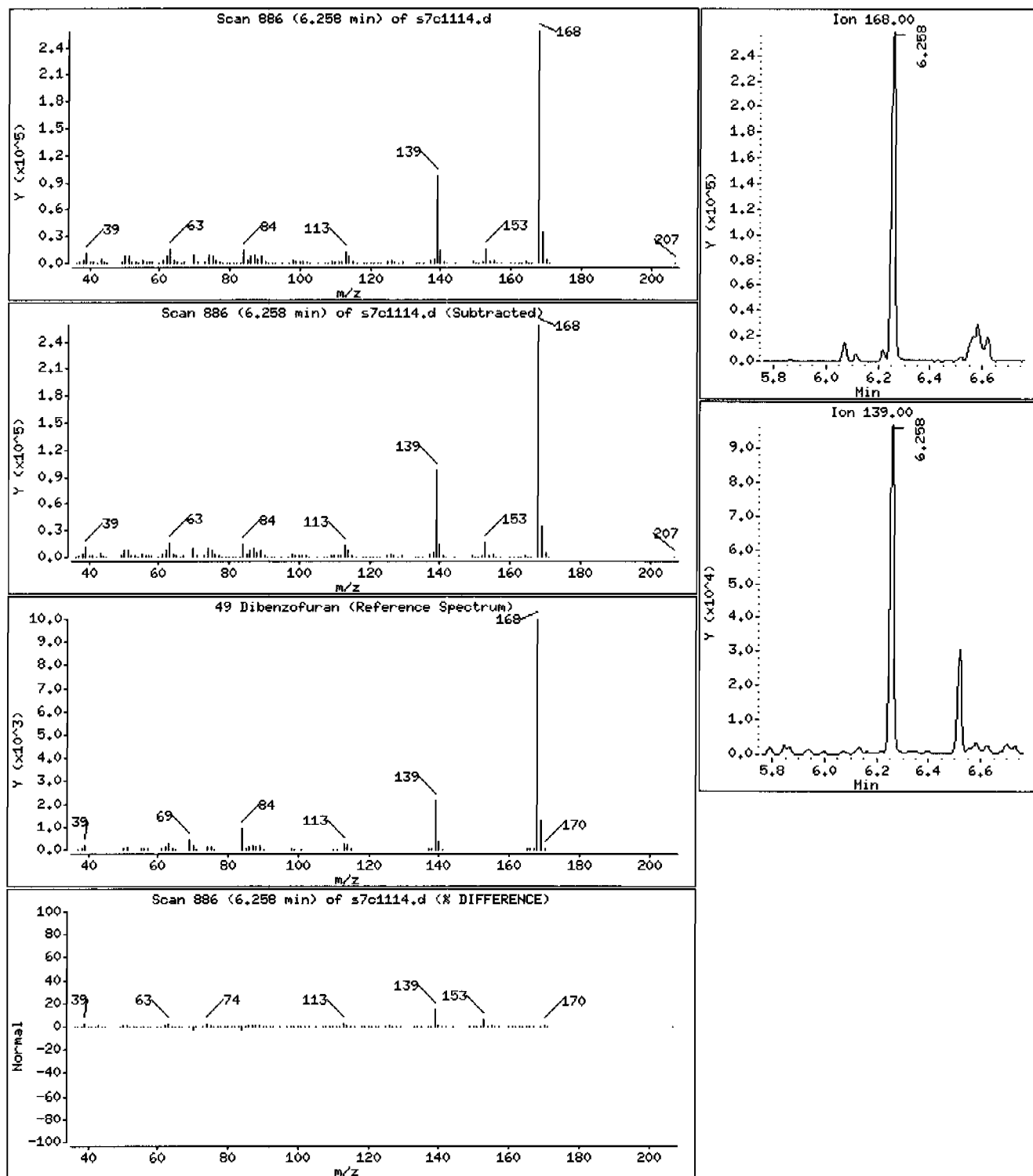
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

49 Dibenzofuran

Concentration: 528 ug/Kg



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: HSD7.i

Sample Info: 1248043011195%23111SVH111LANL

Volume Injected (uL): 0.5

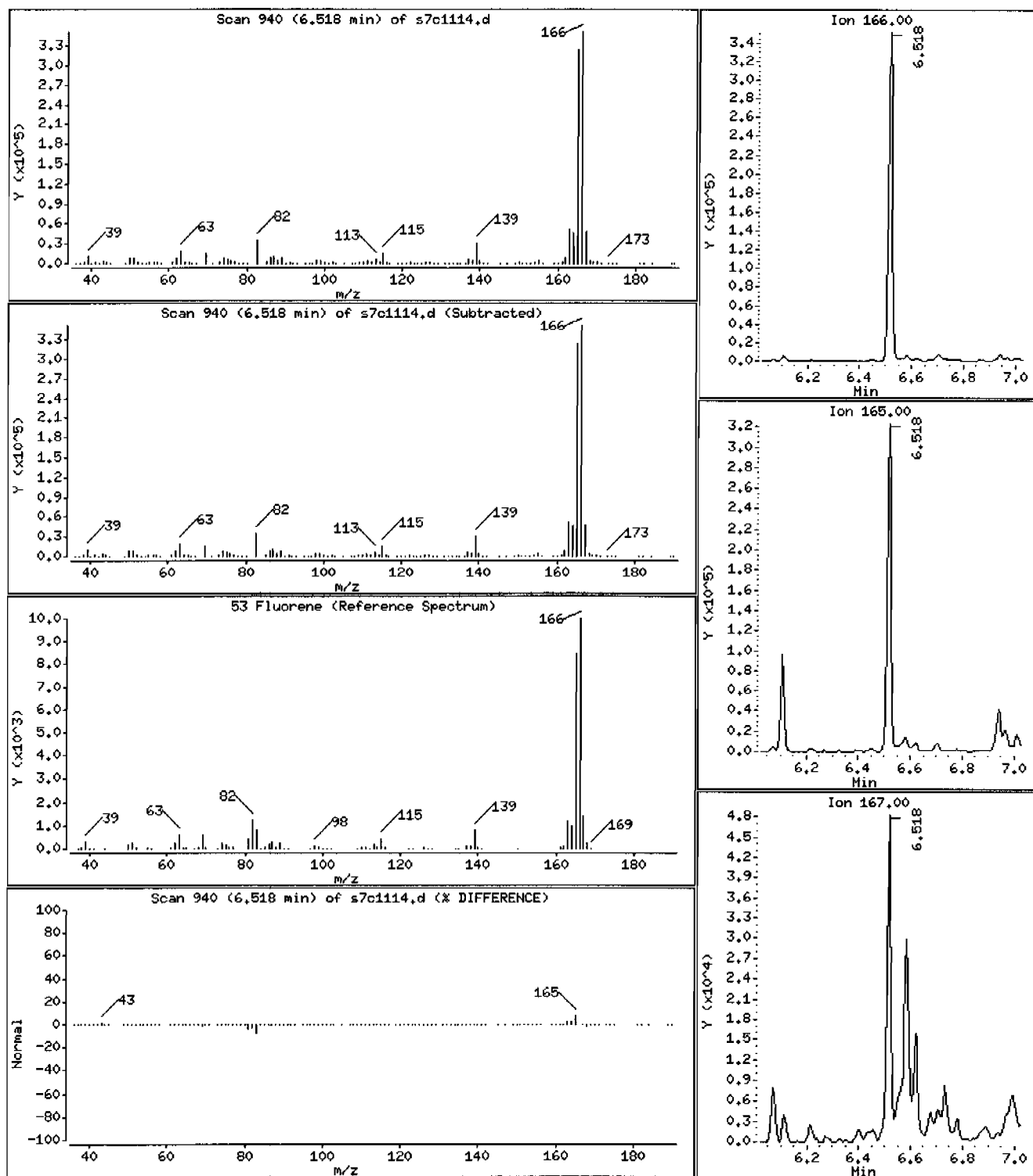
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 843 ug/Kg



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: I24804301195962311SVH11ILANL

Volume Injected (uL): 0.5

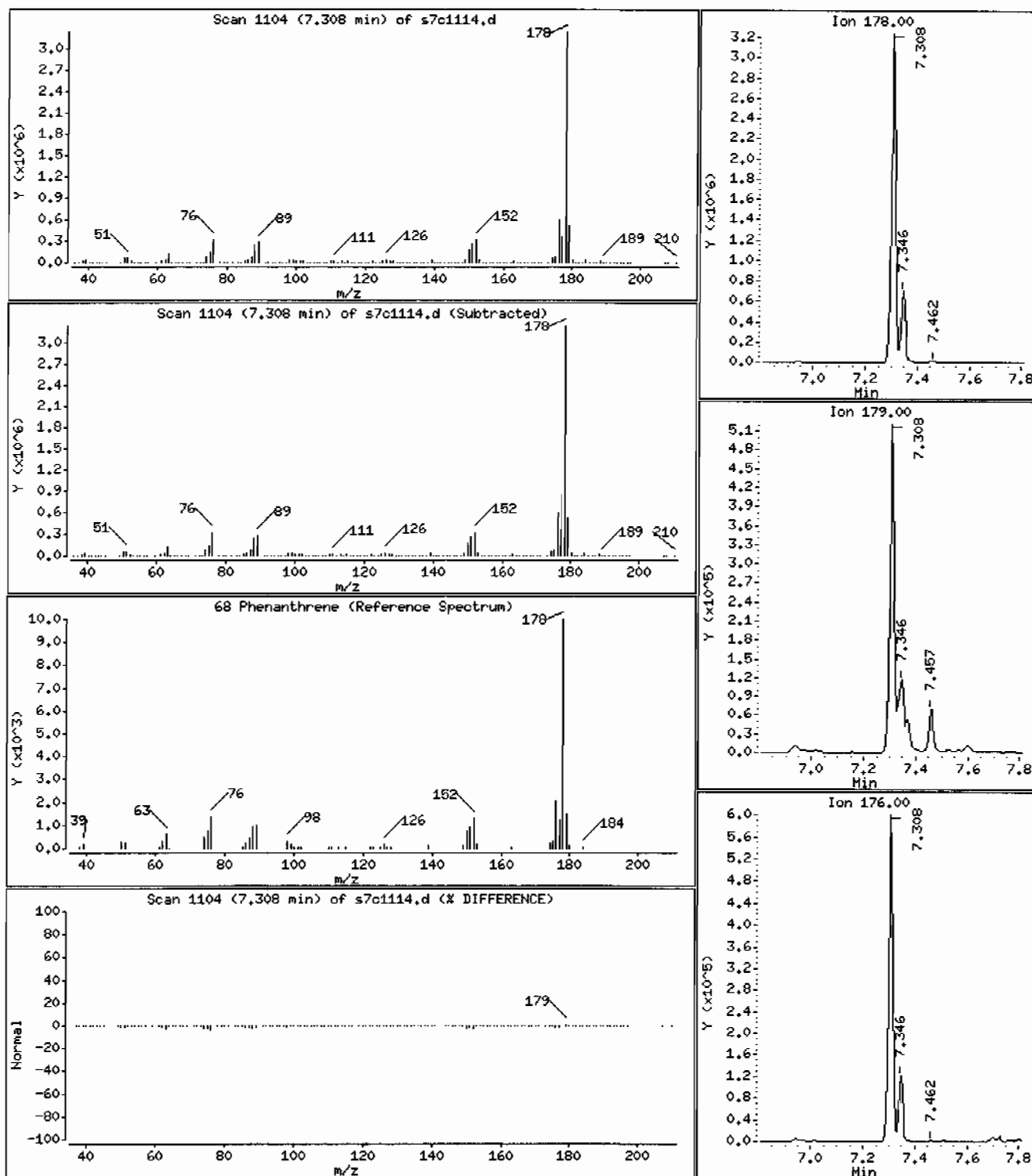
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 6130 ug/Kg



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: 12480430111959623111SVH111LANL

Volume Injected (uL): 0.5

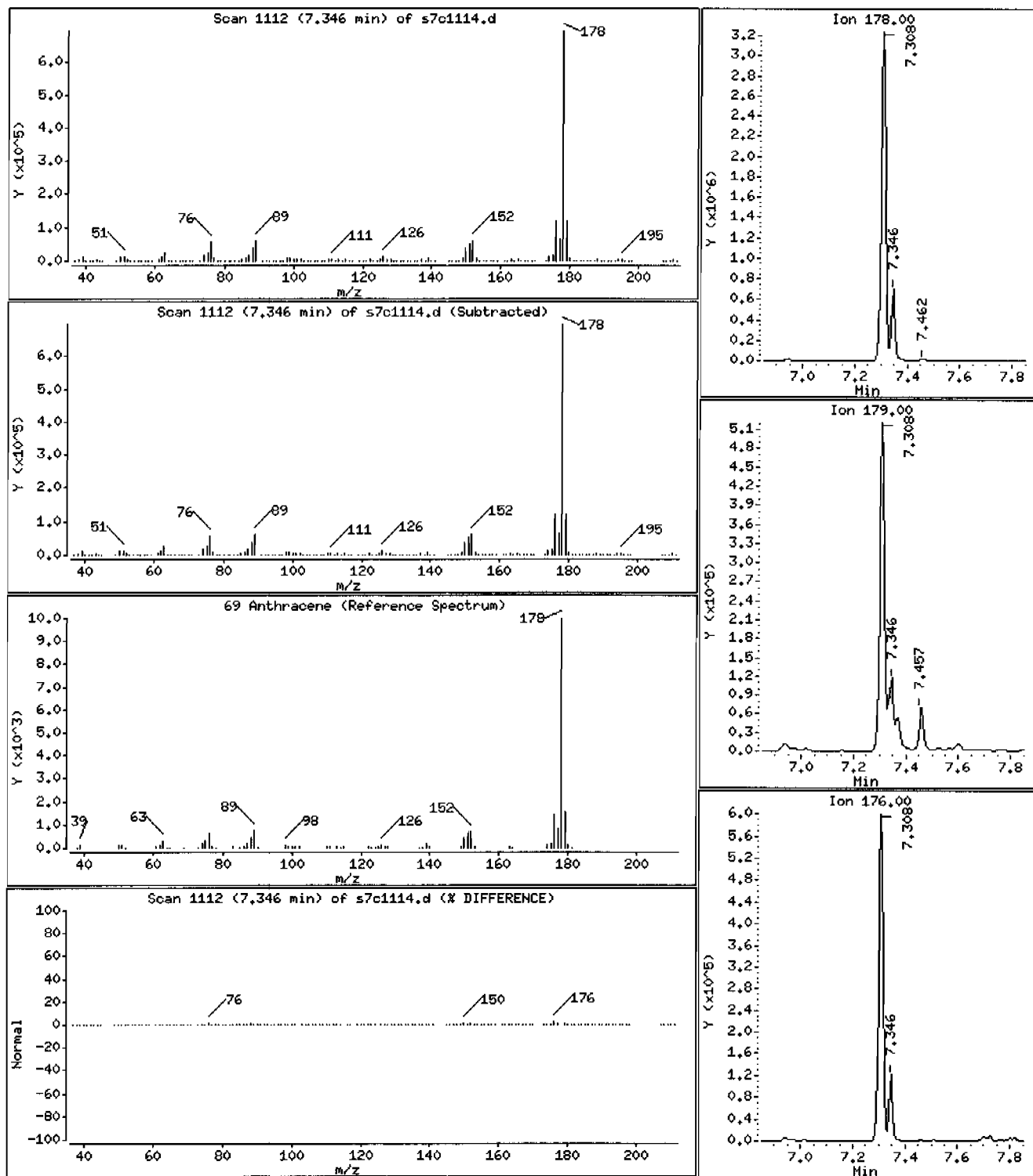
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 1190 ug/Kg



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: I248043011195962311SVH111LANL

Volume Injected (uL): 0.5

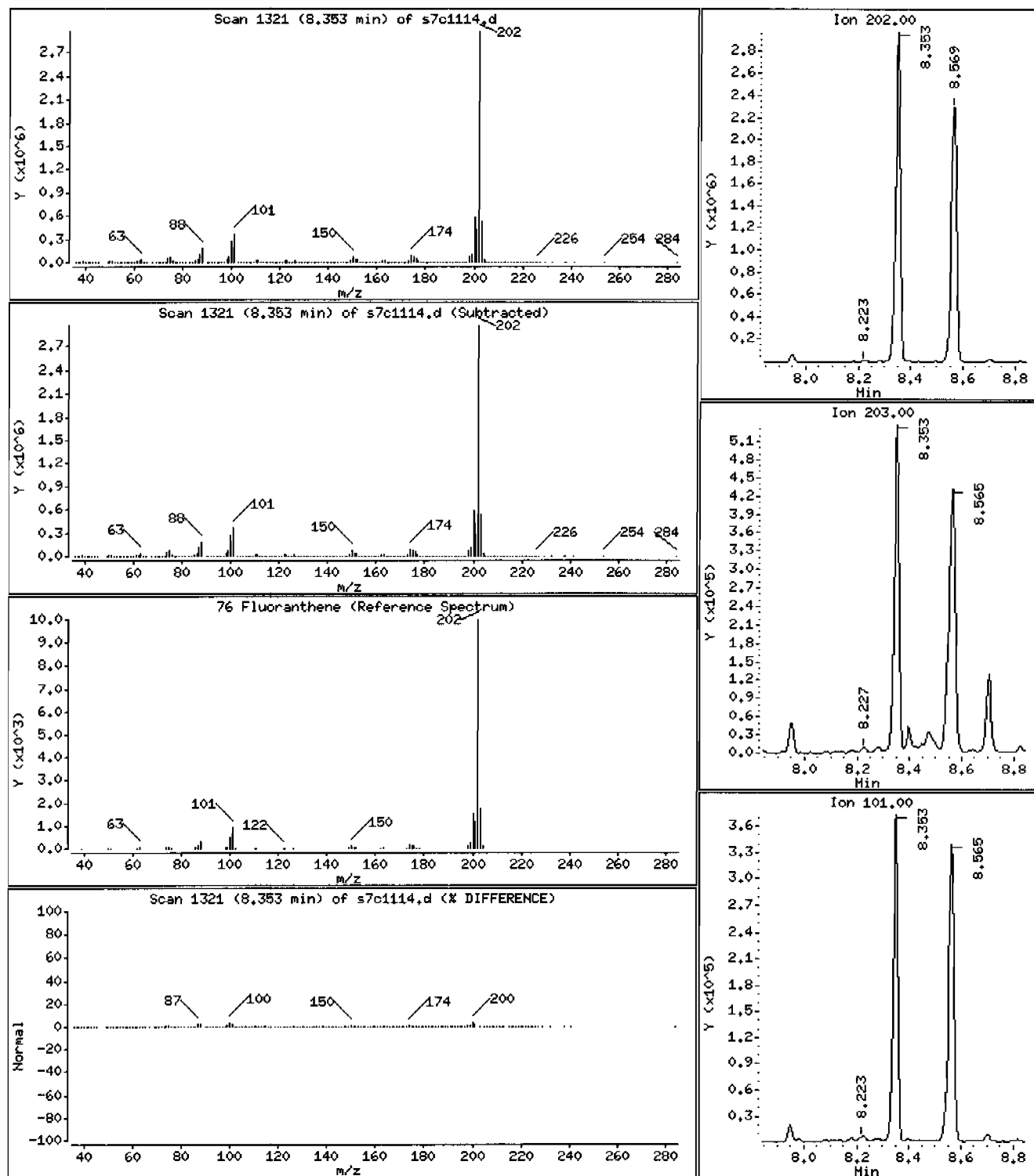
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 5500 ug/Kg



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: I248043011195962311SVH111LANL

Volume Injected (uL): 0.5

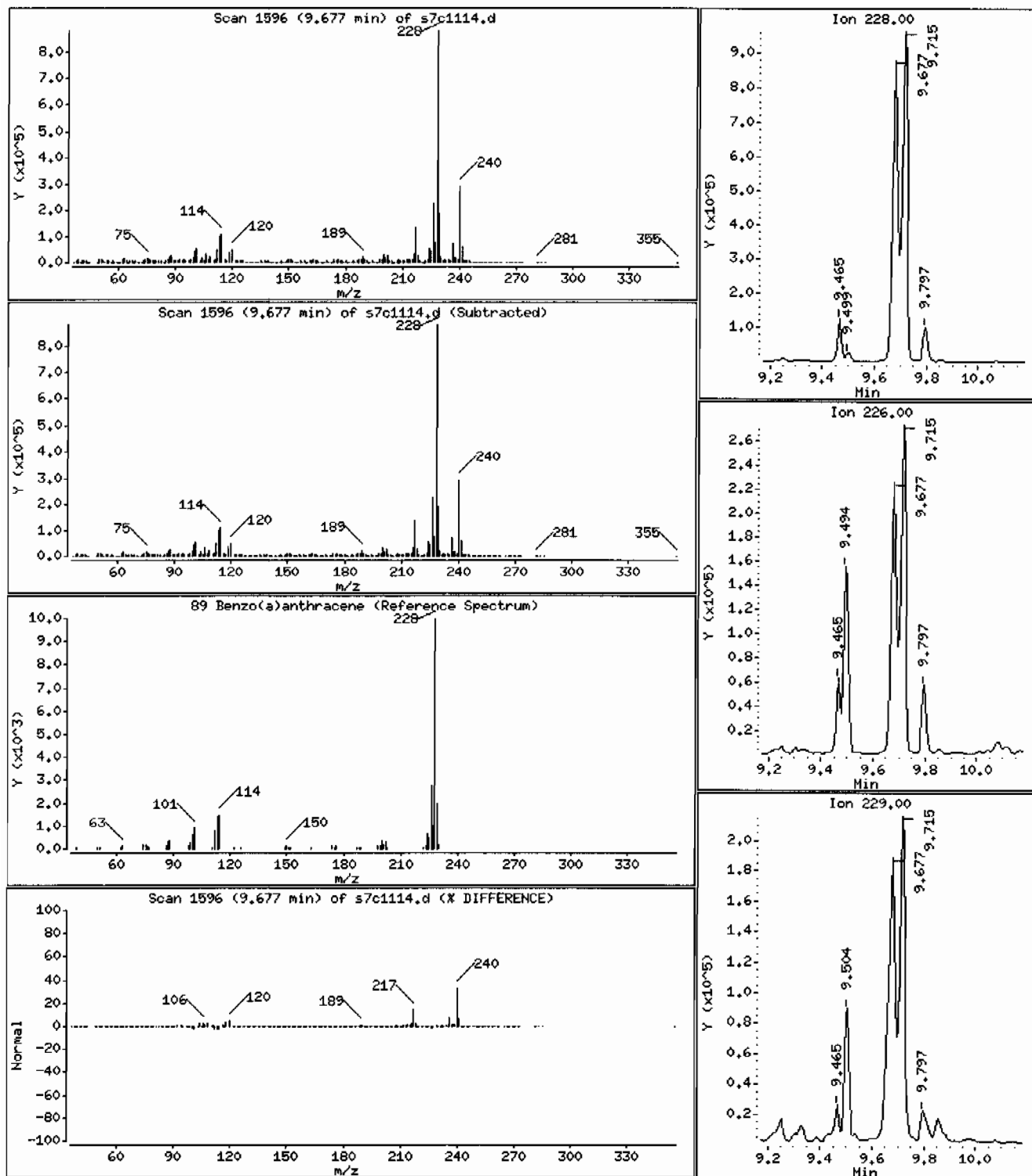
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 2080 ug/Kg



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.1

Sample Info: 12480430111959623111SVMI11LANL

Volume Injected (uL): 0.5

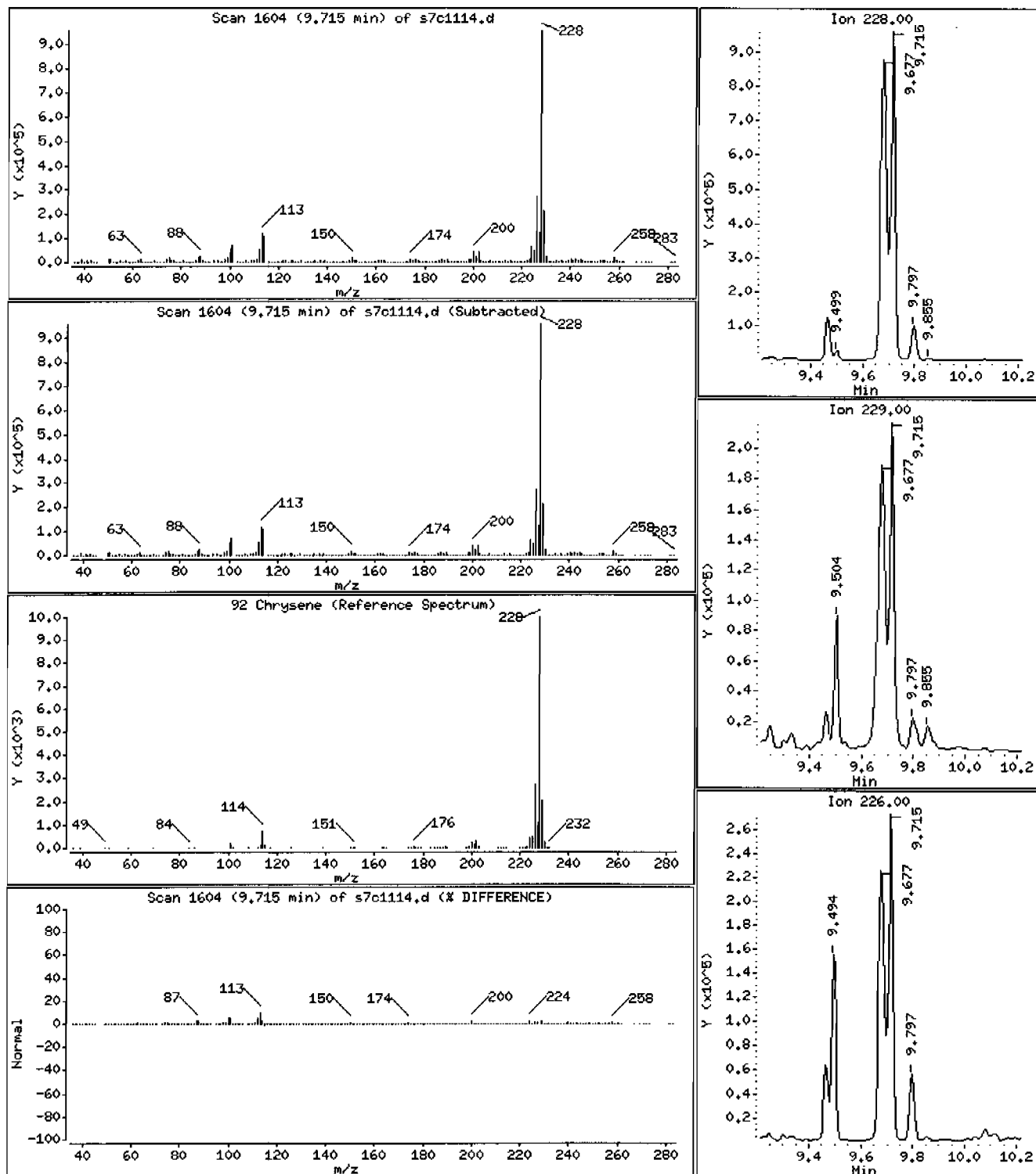
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 2260 ug/Kg



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: 12480430111959623111SVH111LANL

Volume Injected (uL): 0.5

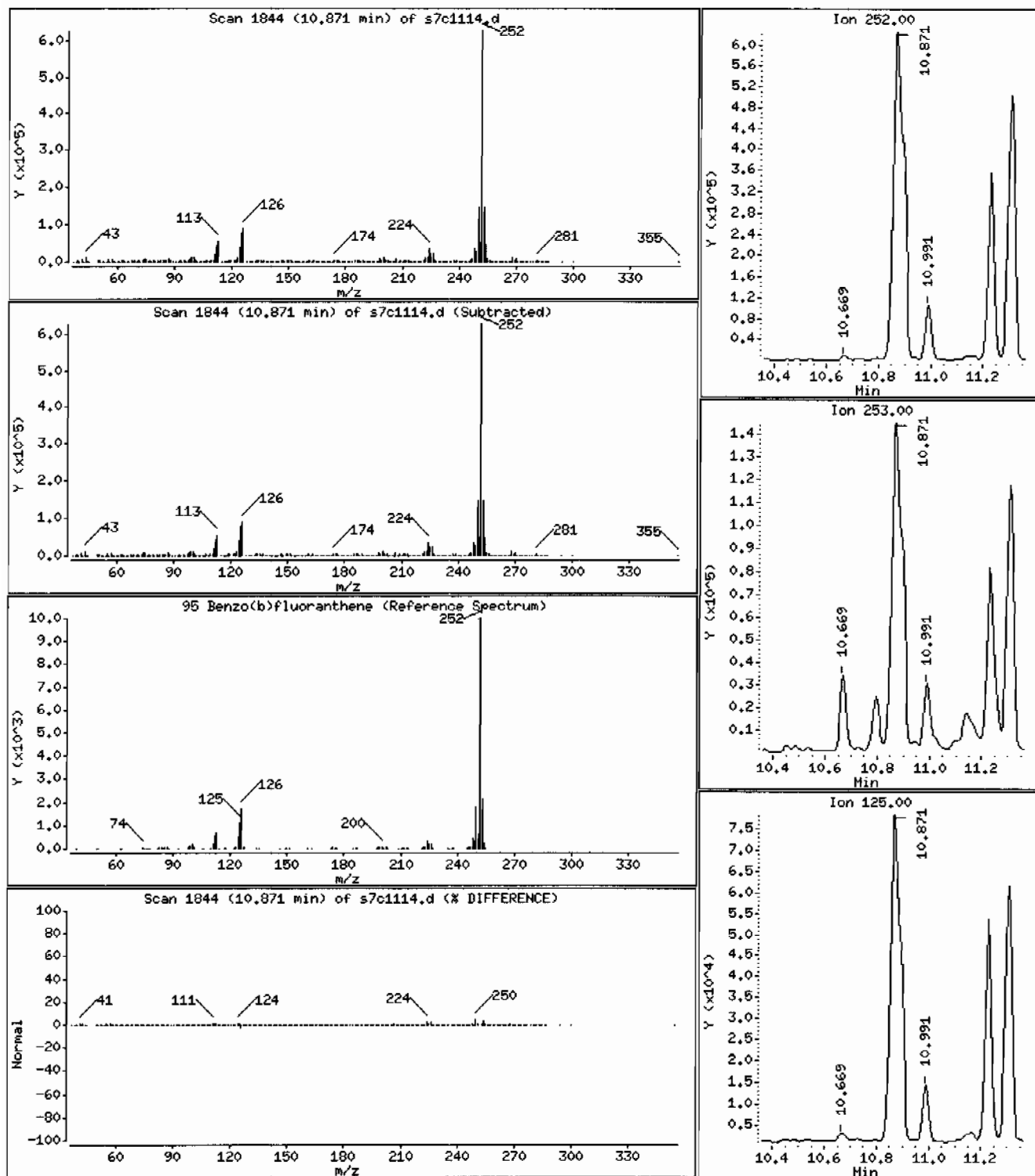
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 2900 ug/Kg





Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: 12480430111959623111SVH111LANL

Volume Injected (uL): 0.5

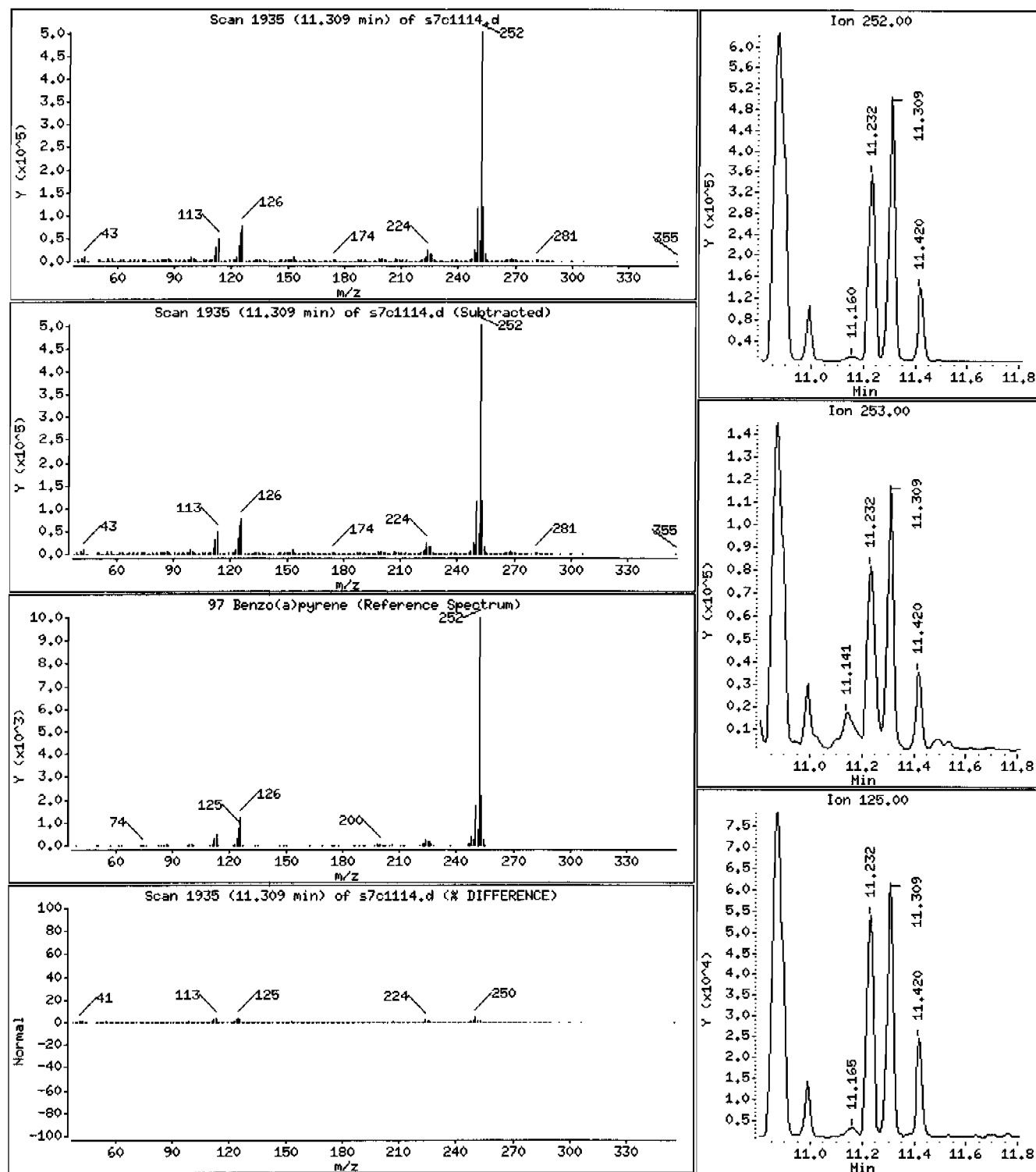
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 1760 ug/Kg



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: I2480430111959623111SVH111LANL

Volume Injected (uL): 0.5

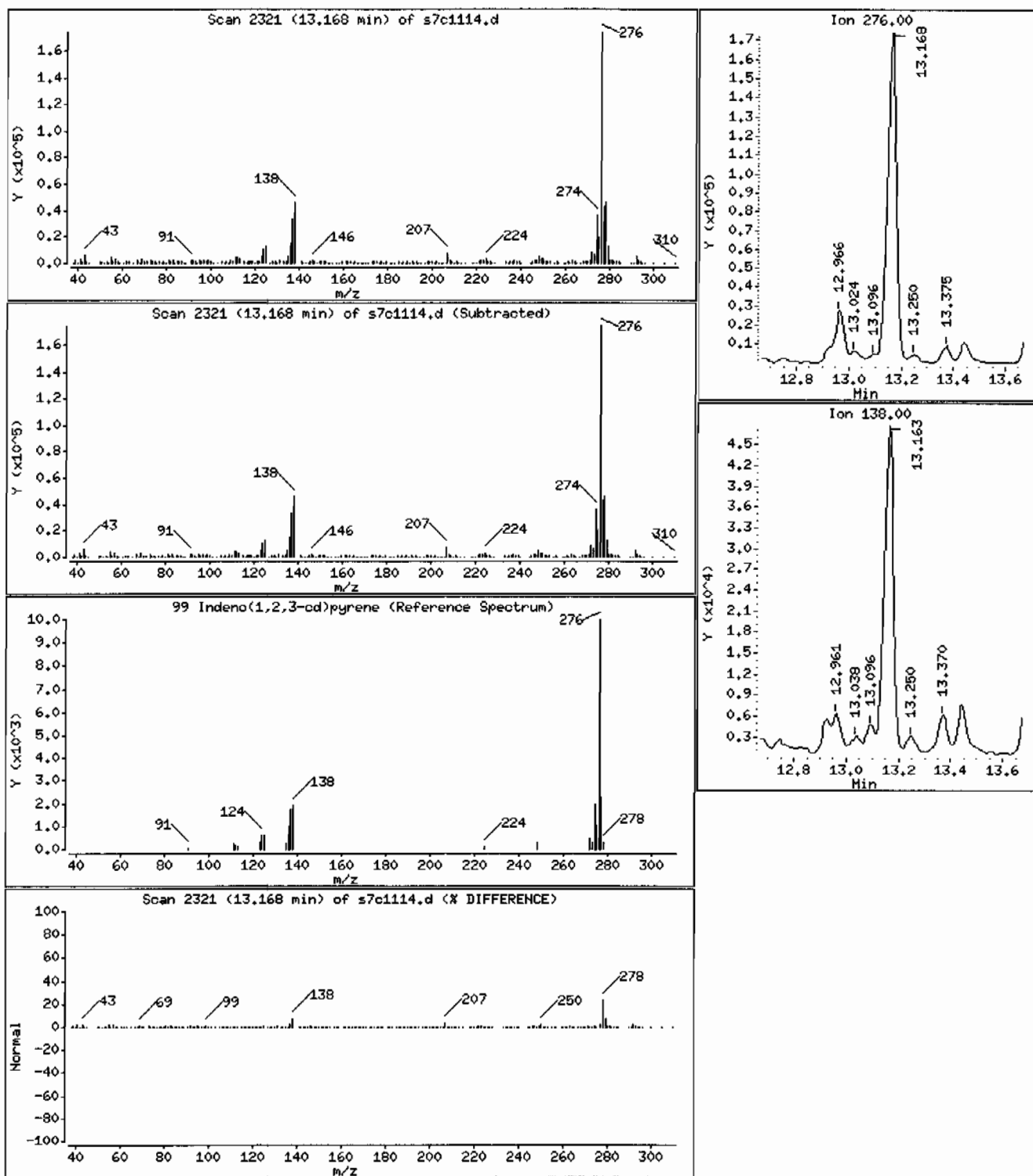
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 1200 ug/Kg



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: 1248043011/95962311/ISVH11/LANL

Volume Injected (uL): 0.5

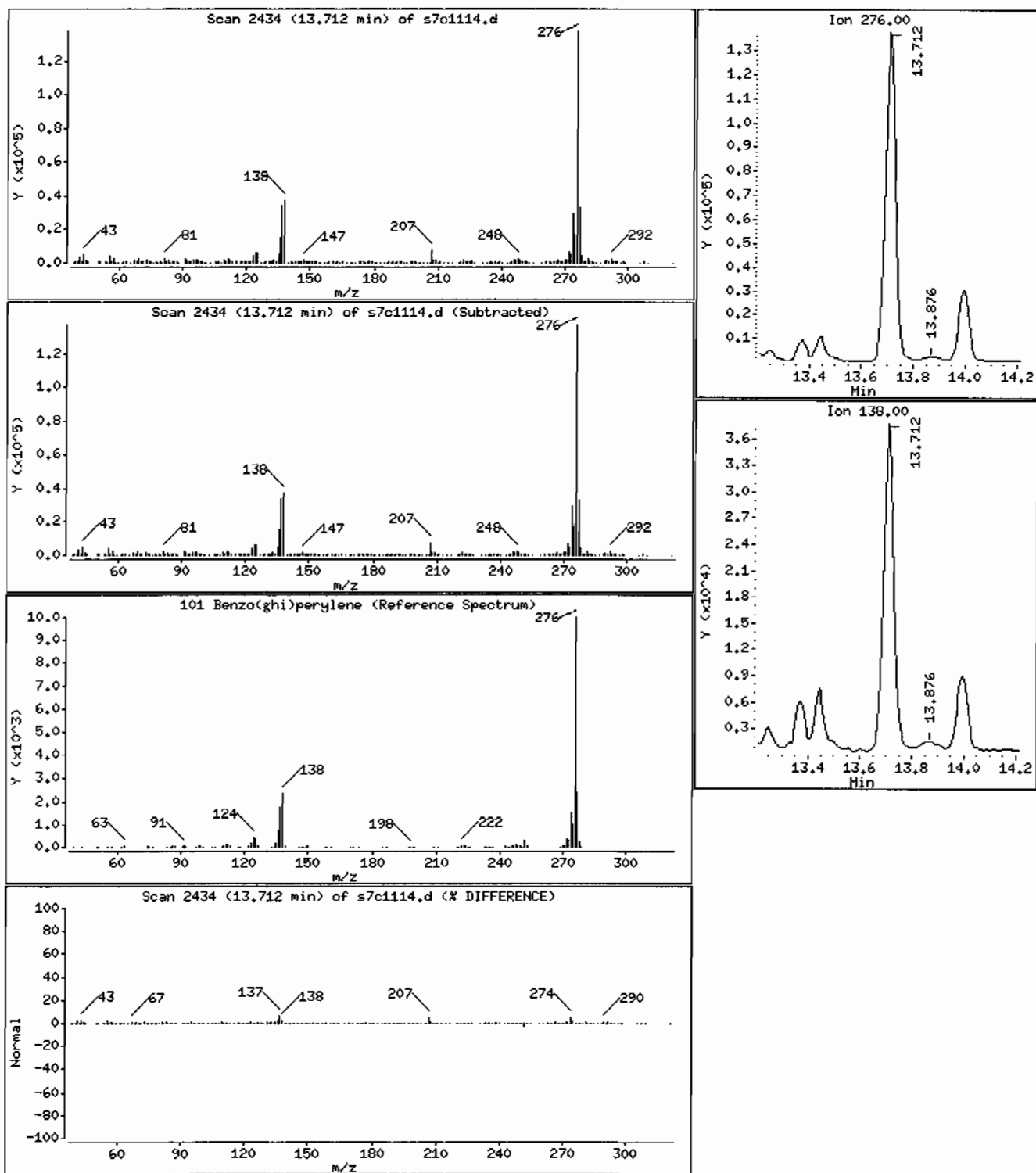
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 1270 ug/Kg



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: I2480430111959623111SVMI11LANL

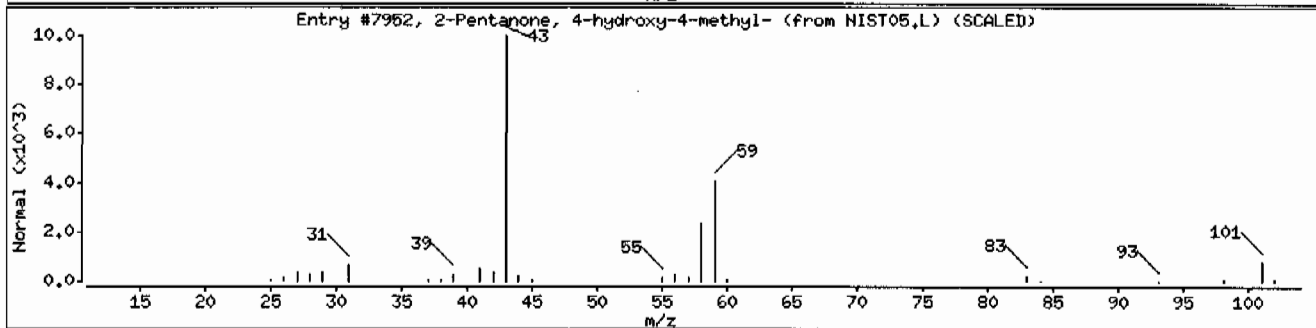
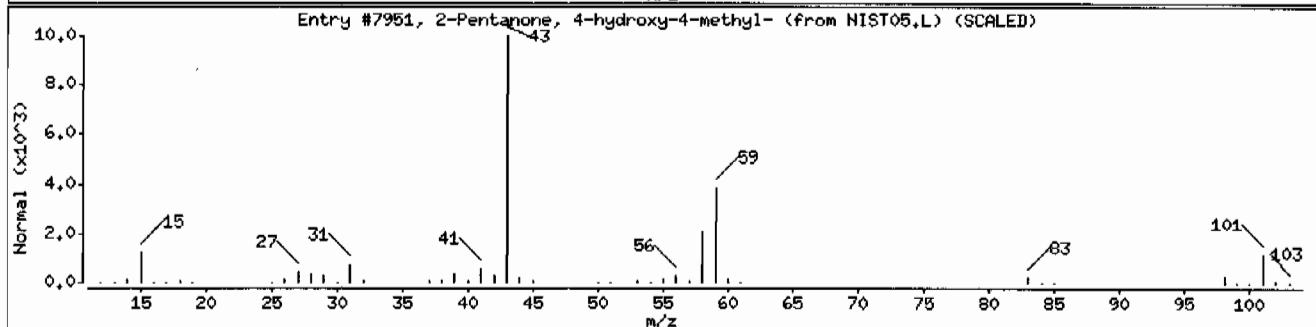
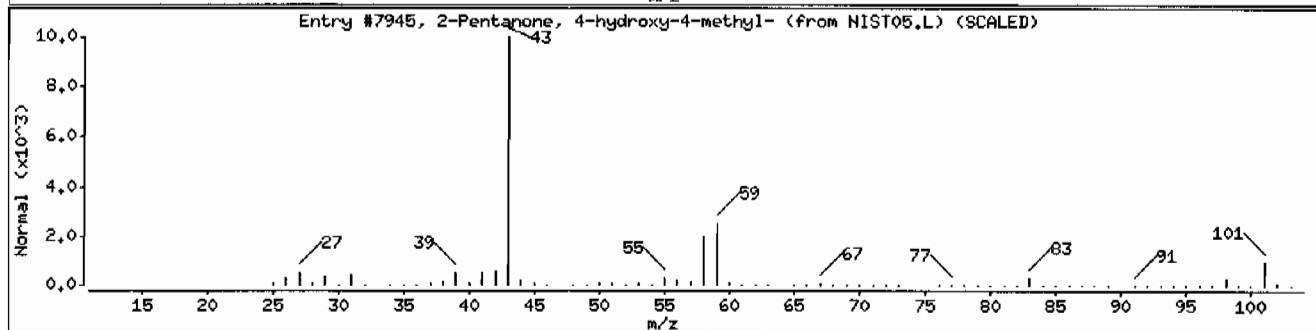
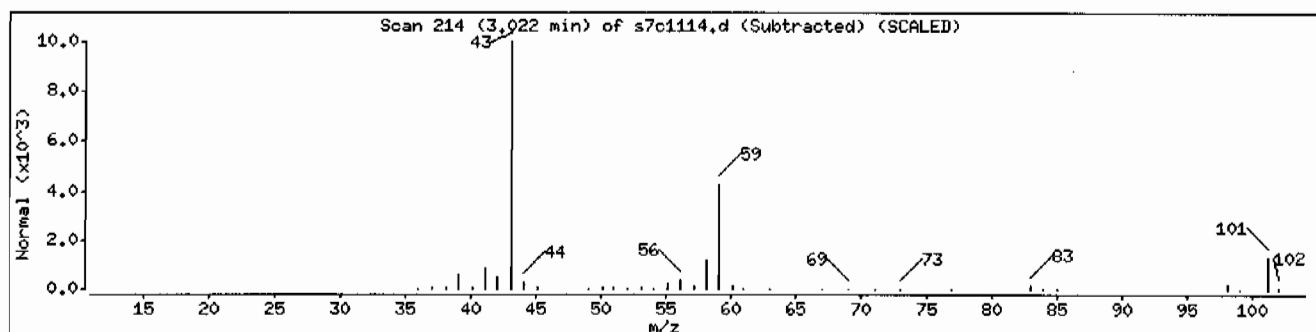
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116



Date: 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: 1248043011195962311SVH111LANL

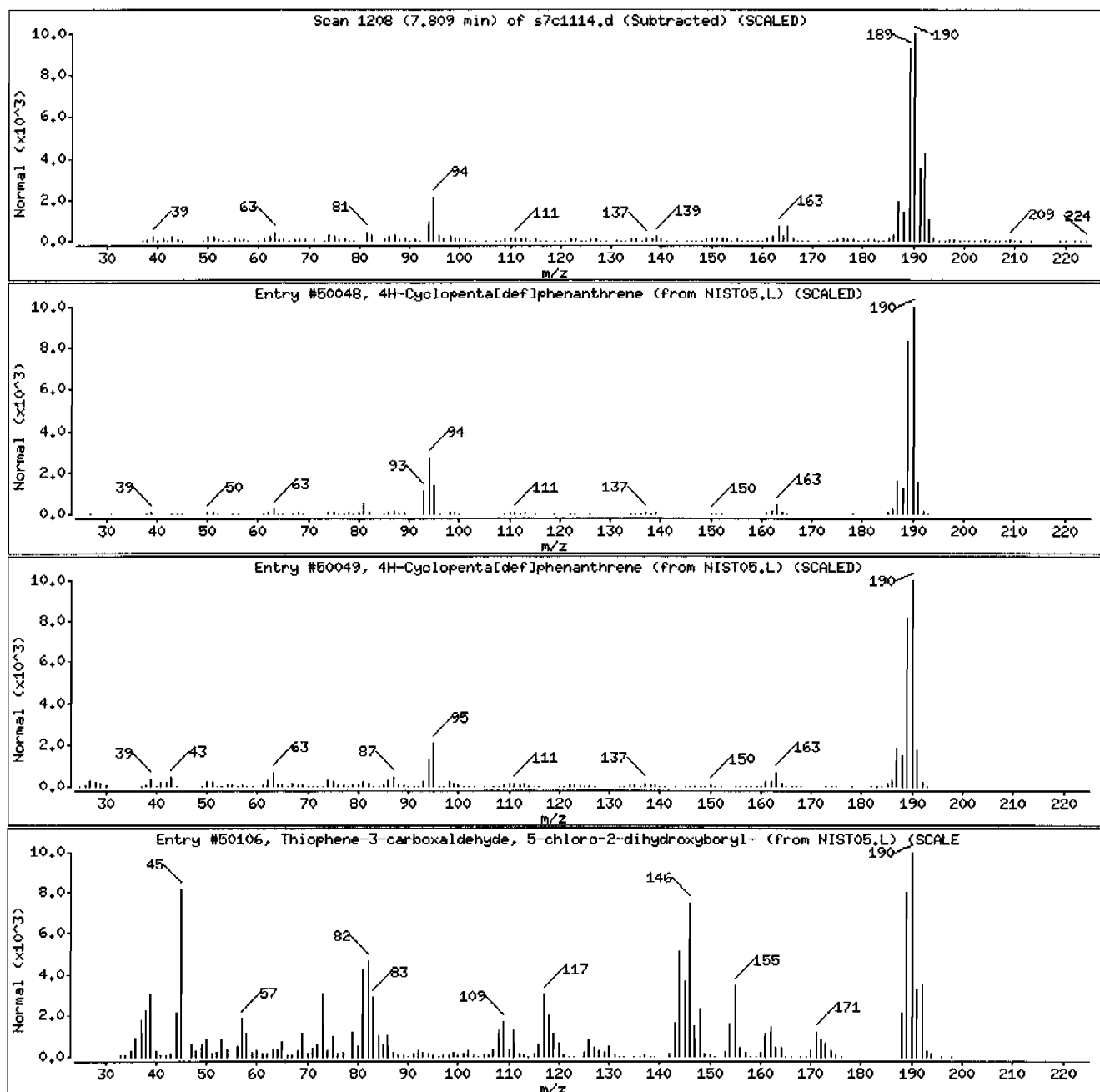
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50048	76	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50049	64	C15H10	190
Thiophene-3-carboxaldehyde, 5-chloro-2-d	36155-87-0	NIST05.L	50106	58	C5H4BClO3S	190



Date: 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: 12480430111959623111SVH111LANL

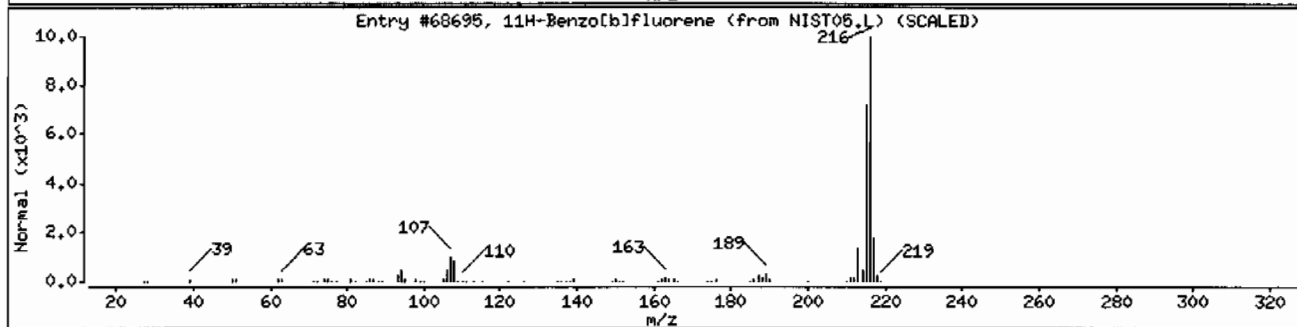
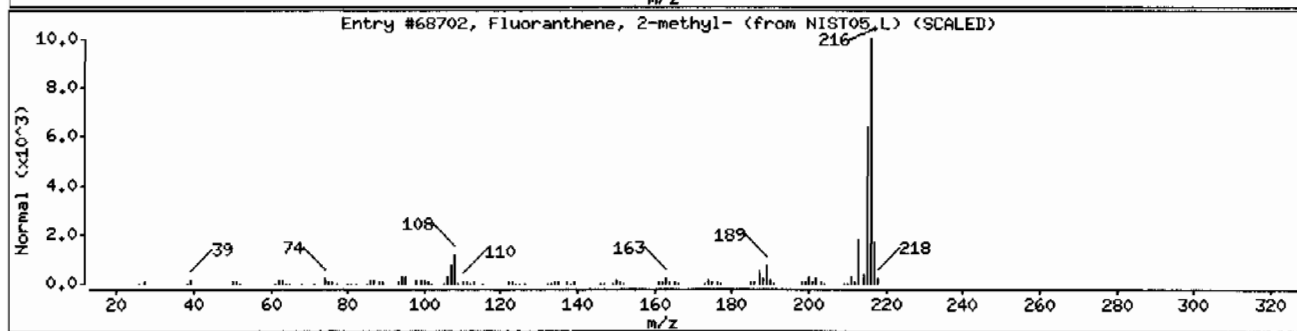
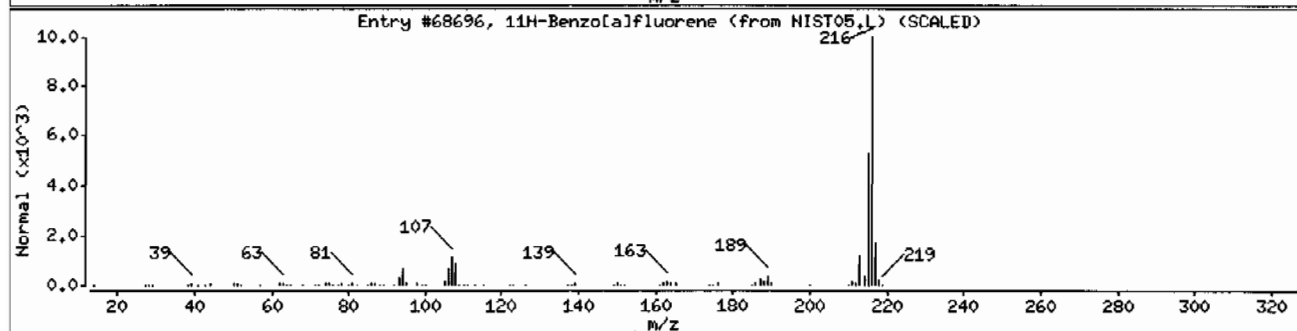
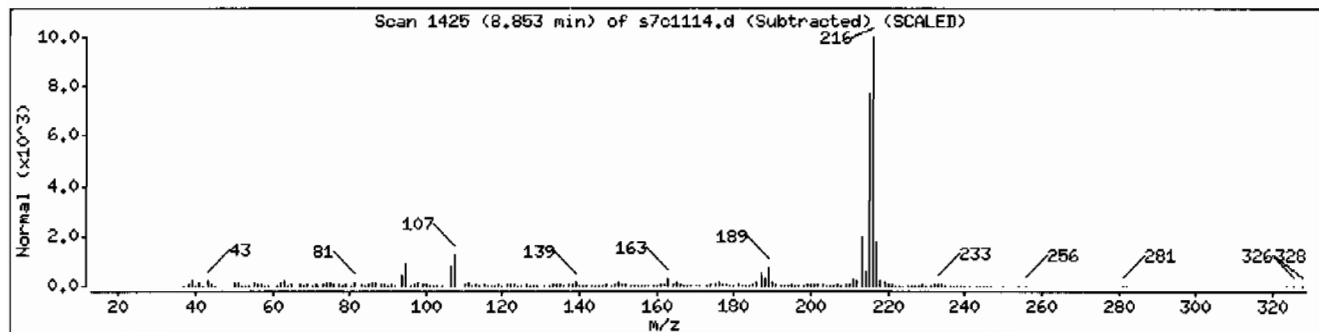
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[a]fluorene	238-84-6	NIST05.L	68696	96	C17H12	216
Fluoranthene, 2-methyl-	33543-31-6	NIST05.L	68702	96	C17H12	216
11H-Benzo[b]fluorene	243-17-4	NIST05.L	68695	95	C17H12	216



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: I2480430111959623111SVMI11LANL

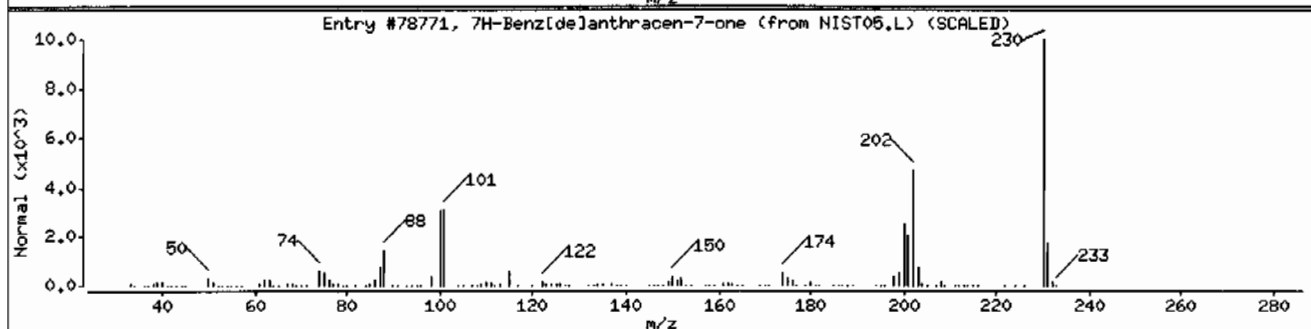
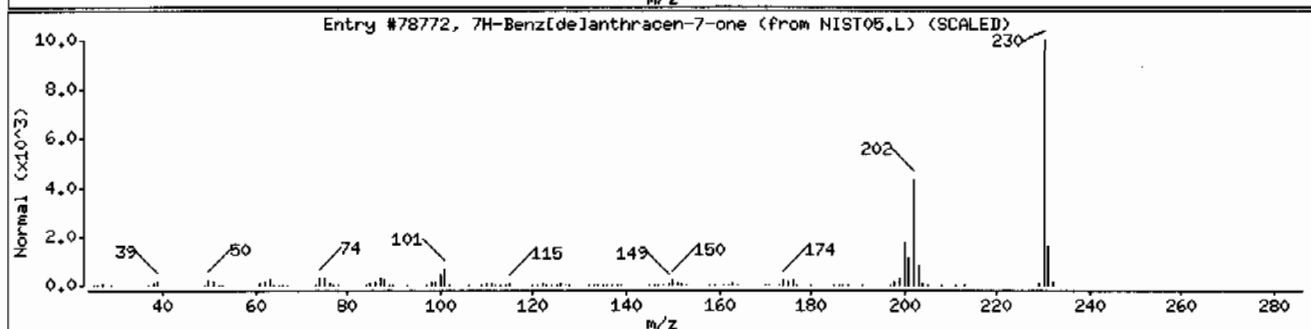
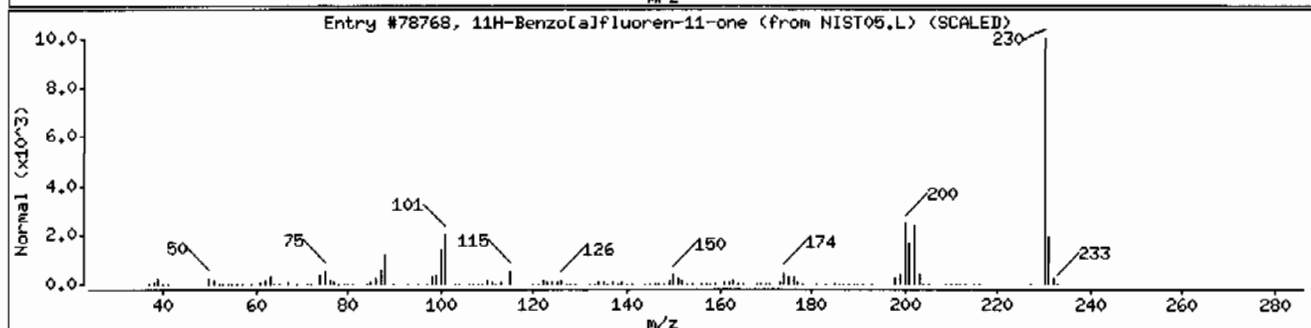
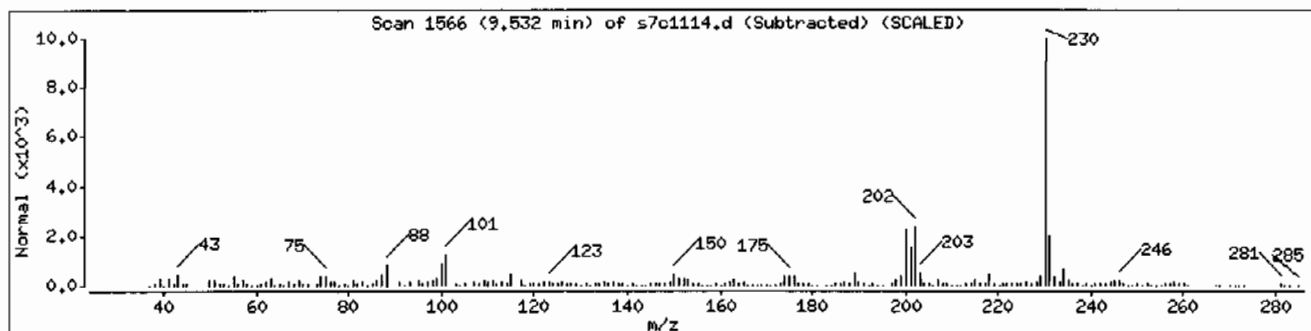
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[a]fluoren-11-one	479-79-8	NIST05.L	78768	98	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78772	90	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78771	83	C17H10O	230



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: 12480430111959623111SVH111LANL

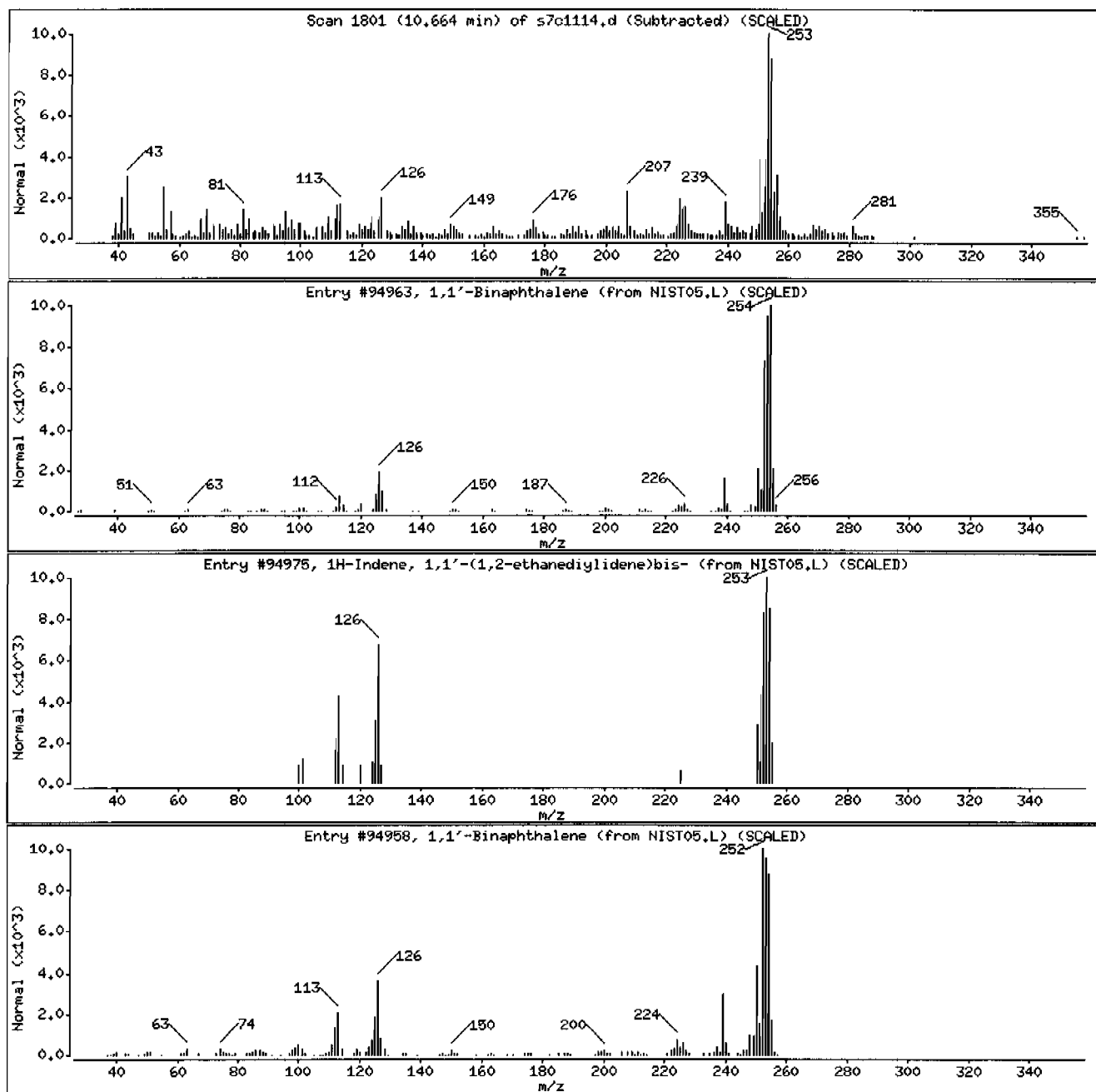
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,1'-Binaphthalene	604-53-5	NIST05.L	94963	93	C <sub>20</sub> H <sub>14</sub>	254
1H-Indene, 1,1'-(1,2-ethanediylidene)bis	72088-04-1	NIST05.L	94975	70	C <sub>20</sub> H <sub>14</sub>	254
1,1'-Binaphthalene	604-53-5	NIST05.L	94958	64	C <sub>20</sub> H <sub>14</sub>	254





Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: 1248043011195962311SVH111LANL

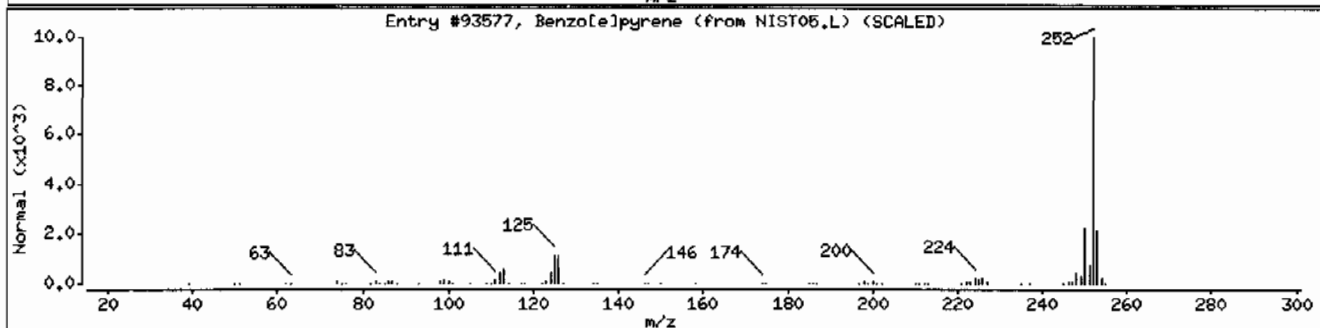
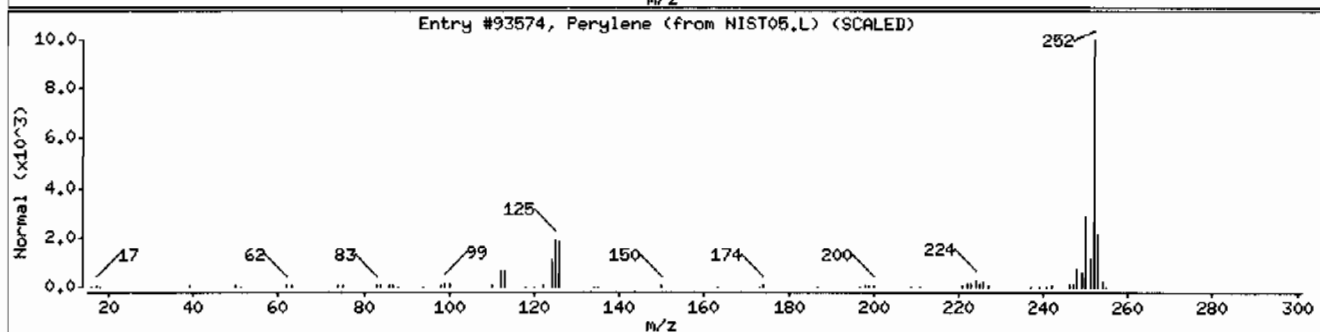
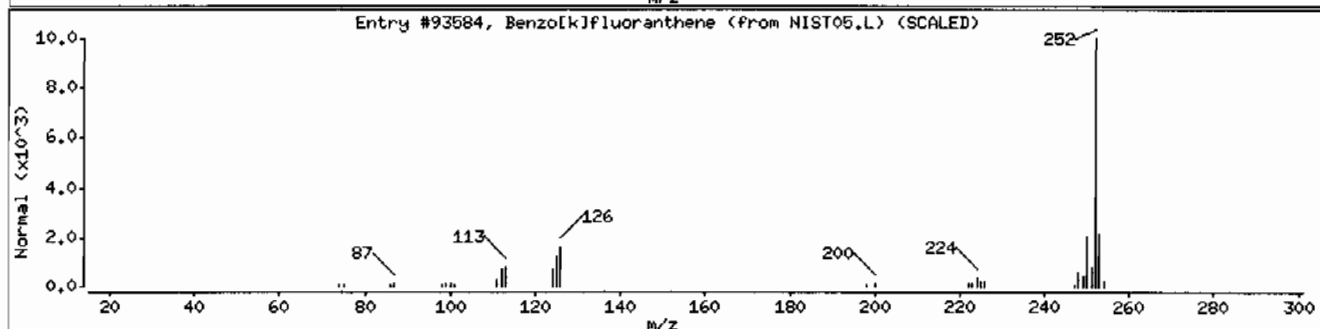
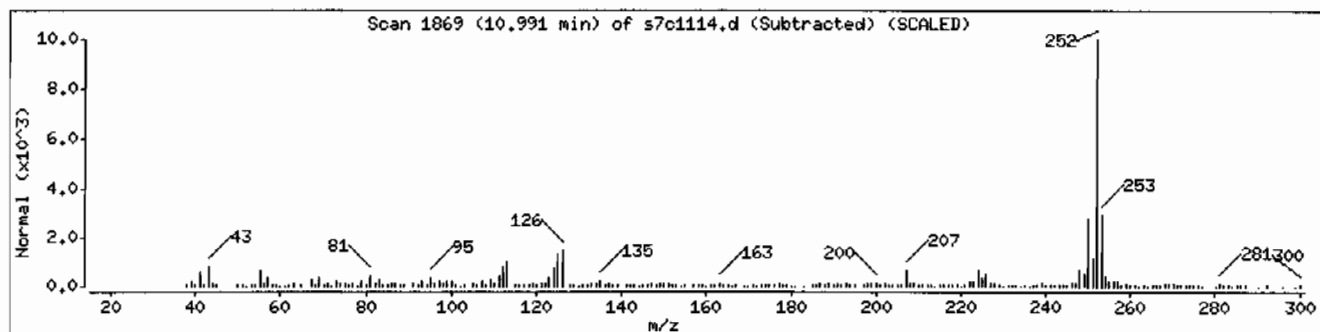
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	97	C <sub>20</sub> H <sub>12</sub>	252
Perylene	198-55-0	NIST05.L	93574	94	C <sub>20</sub> H <sub>12</sub>	252
Benzo[e]pyrene	192-97-2	NIST05.L	93577	94	C <sub>20</sub> H <sub>12</sub>	252



Date: 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: 124804301195962311SVMI11LANL

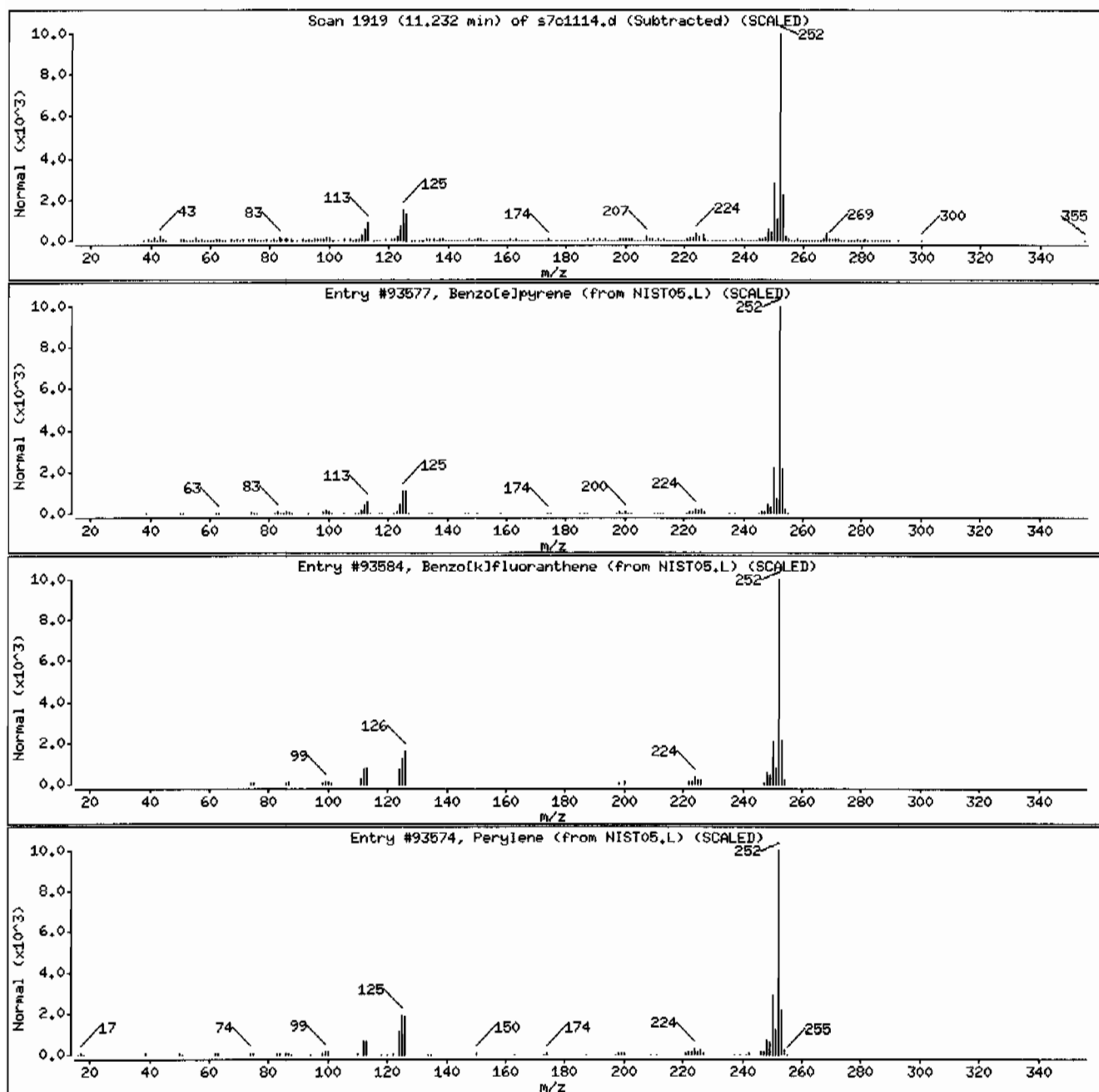
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[e]pyrene	192-97-2	NIST05.L	93577	99	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	98	C20H12	252
Perylene	198-55-0	NIST05.L	93574	98	C20H12	252



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: 12480430111959623111SVMI11LANL

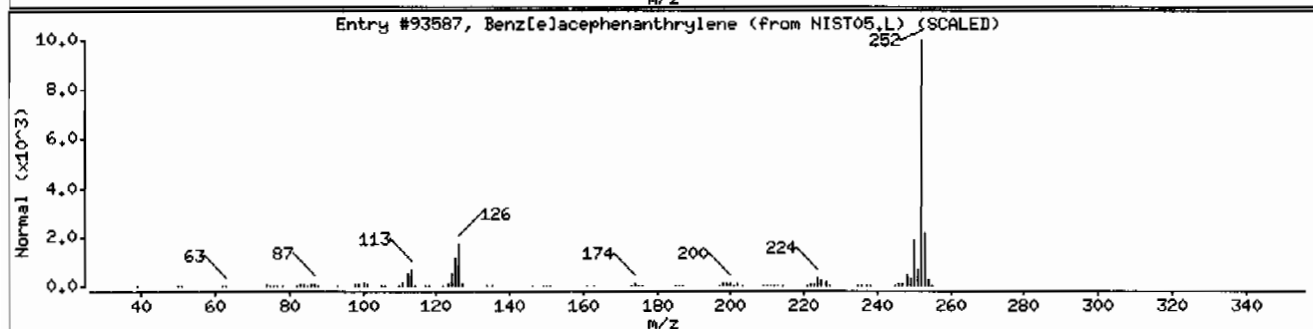
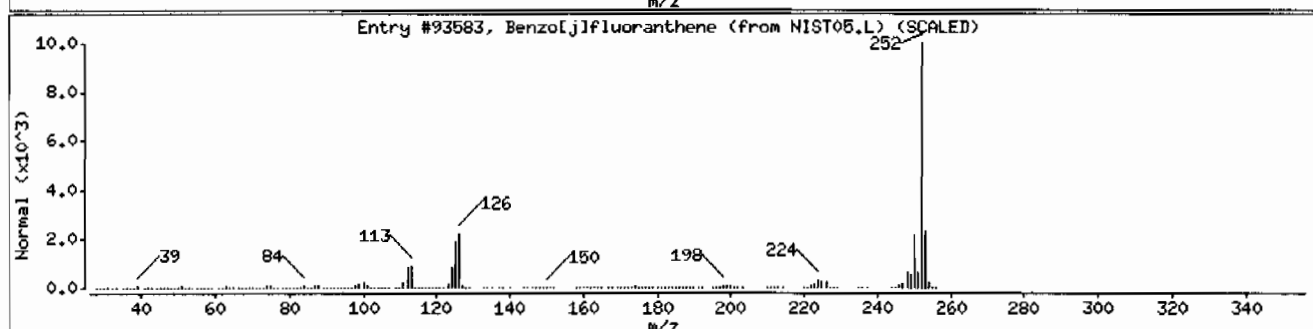
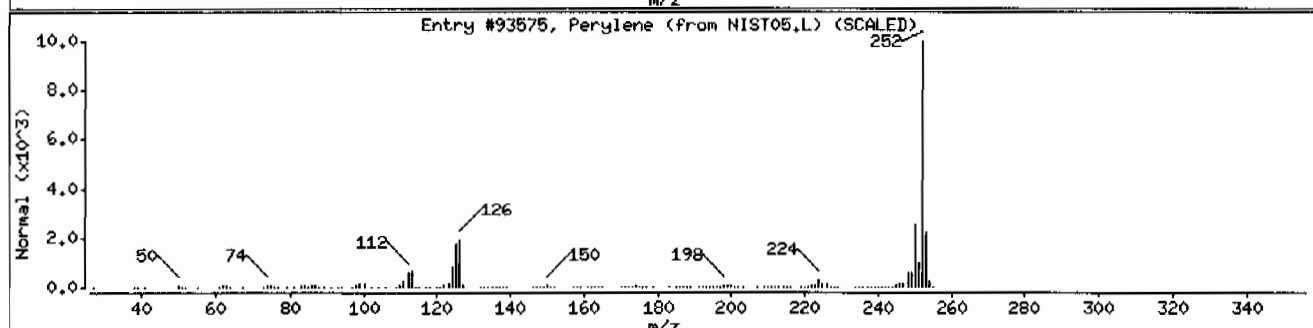
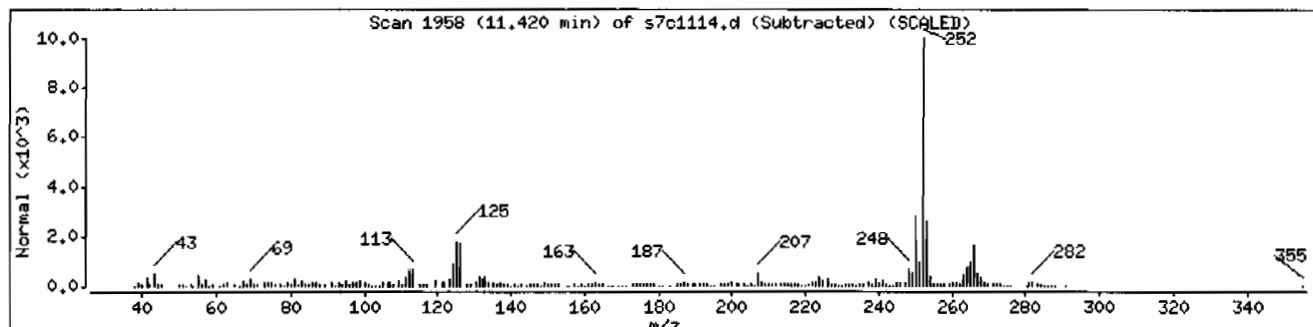
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Perylene	198-55-0	NIST05.L	93575	99	C20H12	252
Benzo[j]fluoranthene	205-82-3	NIST05.L	93583	97	C20H12	252
Benz[e]acephenanthrylene	205-99-2	NIST05.L	93587	97	C20H12	252



Date : 11-MAR-2010 17:30

Client ID: RE36-10-7475

Instrument: MSD7.i

Sample Info: I248043011/95962311SVH11ILANL

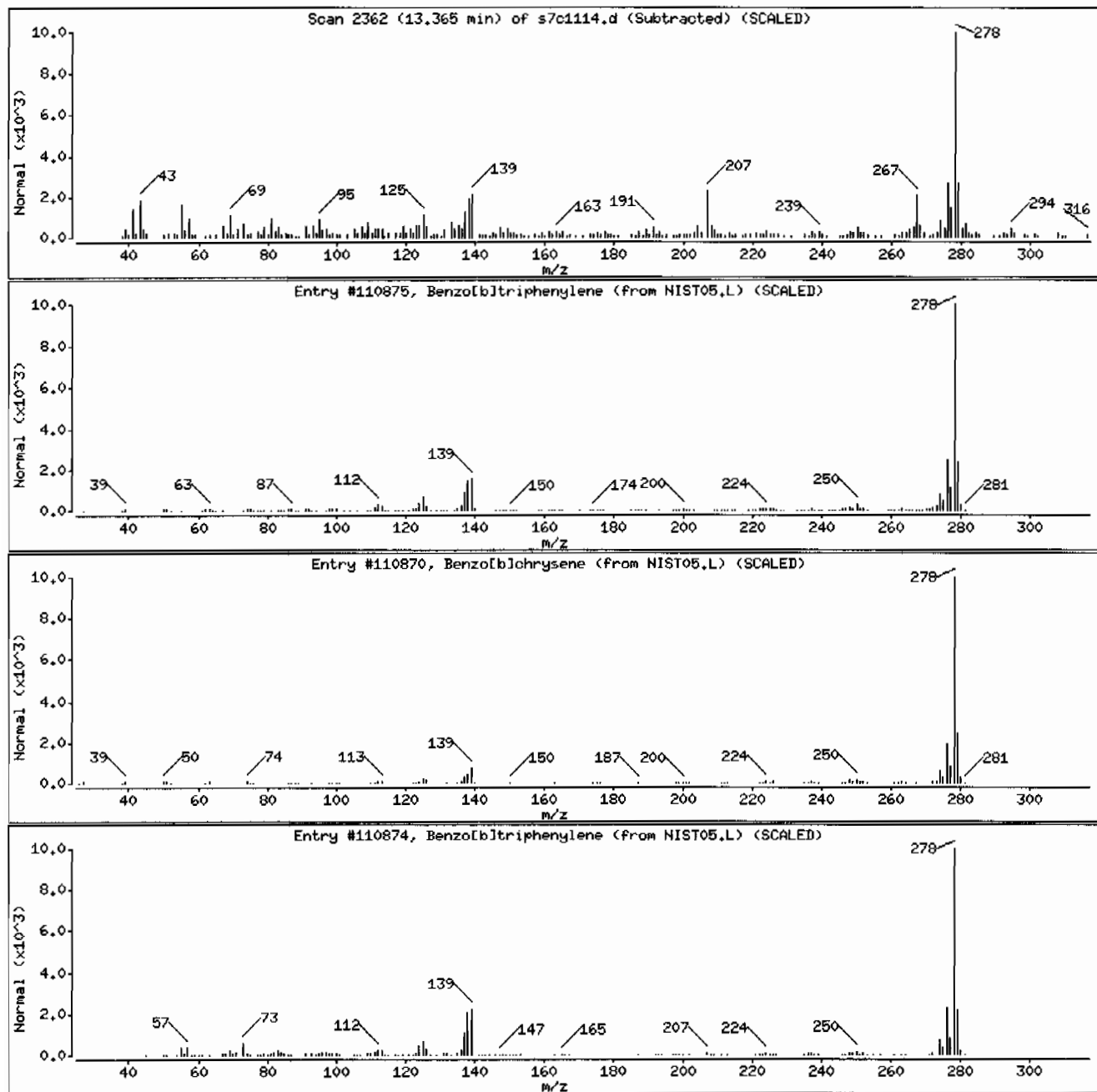
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[bl]triphenylene	215-58-7	NIST05.L	110875	96	C22H14	278
Benzo[bl]chrysene	214-17-5	NIST05.L	110870	96	C22H14	278
Benzo[bl]triphenylene	215-58-7	NIST05.L	110874	96	C22H14	278



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043011

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 27.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
85-01-8	Phenanthrene		6150	ug/kg	54.9	183
206-44-0	Fluoranthene		5470	ug/kg	54.9	183

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
203-64-5	4H-Cyclopenta[def]phenanthrene	7.67	908	ug/kg	93	NJ
192-97-2	Benzo[e]pyrene	11	1160	ug/kg	99	NJ

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Data file : /chem/MSD7.i/s031210.b/s7c1227.d  
 Lab Smp Id: 248043011 Client Smp ID: RE36-10-7475DL  
 Inj Date : 12-MAR-2010 21:55  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043011|959623|4|SVM|2|LANL\_4x  
 Misc Info : |MSD8270\_S|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 12-Mar-2010 15:38 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 23  
 Dil Factor: 4.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	27.21660	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.884	3.884	(1.000)	416043	40.0000
* 29 Naphthalene-d8	136	4.746	4.751	(1.000)	1546997	40.0000
* 46 Acenaphthene-d10	164	5.993	5.998	(1.000)	881155	40.0000
* 67 Phenanthrene-d10	188	7.154	7.159	(1.000)	1574522	40.0000
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	1111662	40.0000
* 98 Perylene-d12	264	11.150	11.160	(1.000)	751438	40.0000
\$ 3 2-Fluorophenol	112	3.080	3.080	(0.793)	97997	1660
\$ 5 Phenol-d5	99	3.600	3.610	(0.927)	134582	1820
\$ 20 Nitrobenzene-d5	82	4.240	4.250	(0.893)	49673	778
\$ 39 2-Fluorobiphenyl	172	5.483	5.488	(0.915)	108902	907
\$ 60 2,4,6-Tribromophenol	329	6.581	6.590	(1.098)	31851	2290
\$ 81 p-Terphenyl-d14	244	8.516	8.526	(0.892)	135120	1240

Compounds	QUANT SIG						CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE		ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
47 Acenaphthene	154	6.017	6.022	(1.004)	72460		3.73611	683
79 Pyrene	202	8.420	8.425	(0.882)	833619		23.7368	4340
30 Naphthalene	128	4.760	4.765	(1.003)	64418		2.20436	403
34 2-Methylnaphthalene	142	5.237	5.242	(1.103)	23248		1.10846	203
49 Dibenzofuran	168	6.138	6.147	(1.024)	77669		2.84941	521 (a)
53 Fluorene	166	6.398	6.403	(1.067)	101768		4.44963	814
68 Phenanthrene	178	7.173	7.178	(1.003)	1085738		33.6038	6140
69 Anthracene	178	7.211	7.221	(1.008)	205876		6.29151	1150
76 Fluoranthene	202	8.203	8.208	(1.147)	1051434		29.9292	5470
89 Benzo(a)anthracene	228	9.528	9.537	(0.998)	296563		11.1282	2040
92 Chrysene	228	9.566	9.576	(1.003)	279357		11.7801	2150
95 Benzo(b)fluoranthene	252	10.654	10.664	(0.956)	338476		16.0617	2940
97 Benzo(a)pyrene	252	11.069	11.083	(0.993)	161798		9.36361	1710
99 Indeno(1,2,3-cd)pyrene	276	12.812	12.841	(1.149)	68283		5.49538	1000
100 Dibenzo(a,h)anthracene	278	12.821	12.850	(1.150)	20512		2.08309	381
101 Benzo(ghi)perylene	276	13.322	13.351	(1.195)	59689		5.76011	1050

#### QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

## ION RATIO REPORT

## SV REPORT

Data file: s7c1227.d

Report Date: 03/13/2010 09:25

Lab. ID: 248043011

SampleType: SAMPLE

Injection Date: 12-MAR-2010 21:55

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043011|959623|4|SVM|2|LANL 4x

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 4.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
30 Naphthalene			CAS#: 91-20-3			
128	64418	4.76	4.77	80-120	100	( )
129	7004	4.76	4.77	0- 43	11	( )
127	8086	4.76	4.77	0- 44	13	( )
-----						
34 2-Methylnaphthalene			CAS#: 91-57-6			
142	23248	5.24	5.24	80-120	100	( )
141	19100	5.24	5.24	54-114	82	( )
-----						
43 Dimethylphthalate			CAS#: 131-11-3			
163	158865	5.99	5.76	80-120	100	(T)
164	881155	5.99	5.76	0- 40	555	(QT)
-----						
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	115543	5.99	5.82	80-120	100	(T)
63	1508	5.99	5.82	56-116	1	(QT)
-----						
45 Acenaphthylene			CAS#: 208-96-8			
152	34456	6.02	5.90	80-120	100	(T)
151	13130	6.02	5.90	0- 49	38	(T)
153	82465	6.02	5.90	0- 43	239	(QT)
-----						
47 Acenaphthene			CAS#: 83-32-9			
154	72460	6.02	6.02	80-120	100	( )
153	82465	6.02	6.02	73-133	114	( )
152	34456	6.02	6.02	18- 78	48	( )
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
49 Dibenzofuran			CAS#: 132-64-9			
168	77669	6.14	6.15	80-120	100	( )
139	30206	6.14	6.15	8- 68	39	( )
-----						
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	115543	5.99	6.11	80-120	100	(T)
89	1800	5.99	6.11	39- 99	2	(QT)
63	1508	5.99	6.11	18- 78	1	(QT)
-----						
52 4-Nitrophenol			CAS#: 100-02-7			
139	30206	6.14	6.05	80-120	100	(T)
109	310	6.14	6.05	38- 98	1	(QT)
65	574	6.14	6.05	69-129	2	(QT)
-----						
53 Fluorene			CAS#: 86-73-7			
166	101768	6.40	6.40	80-120	100	( )
165	92676	6.40	6.40	62-122	91	( )
167	14867	6.40	6.40	0- 44	15	( )
-----						
68 Phenanthrene			CAS#: 85-01-8			
178	1085738	7.17	7.18	80-120	100	( )
179	176524	7.17	7.18	0- 46	16	( )
176	200177	7.17	7.18	0- 48	18	( )
-----						
69 Anthracene			CAS#: 120-12-7			
178	205876	7.21	7.22	80-120	100	( )
179	48596	7.21	7.22	0- 46	24	( )
176	35182	7.21	7.22	0- 48	17	( )
-----						
76 Fluoranthene			CAS#: 206-44-0			
202	1051434	8.20	8.21	80-120	100	( )
203	180250	8.20	8.21	0- 48	17	( )
101	113186	8.20	8.21	0- 41	11	( )
-----						
79 Pyrene			CAS#: 129-00-0			
202	833619	8.42	8.43	80-120	100	( )
200	168751	8.42	8.43	0- 50	20	( )
101	112175	8.42	8.43	0- 43	13	( )
-----						
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	296563	9.53	9.54	80-120	100	( )
226	77234	9.53	9.54	0- 56	26	( )
229	82785	9.53	9.54	0- 50	28	( )
-----						
92 Chrysene			CAS#: 218-01-9			
228	279357	9.57	9.58	80-120	100	( )
229	64614	9.57	9.58	0- 50	23	( )
226	77296	9.57	9.58	0- 58	28	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
95	Benzo(b)fluoranthene			CAS#: 205-99-2		
252	338476	10.65	10.66	80-120	100	( )
253	77974	10.65	10.66	0- 52	23	( )
125	38805	10.65	10.66	0- 41	11	( )
-----						
96	Benzo(k)fluoranthene			CAS#: 207-08-9		
252	338476	10.65	10.70	80-120	100	( )
253	78129	10.65	10.70	0- 52	23	( )
125	38805	10.65	10.70	0- 41	11	( )
-----						
97	Benzo(a)pyrene			CAS#: 50-32-8		
252	161798	11.07	11.08	80-120	100	( )
253	37705	11.07	11.08	0- 52	23	( )
125	17843	11.07	11.08	0- 42	11	( )
-----						
99	Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5		
276	68283	12.81	12.84	80-120	100	( )
138	20203	12.81	12.84	2- 62	30	( )
-----						
100	Dibenzo(a,h)anthracene			CAS#: 53-70-3		
278	20512	12.82	12.85	80-120	100	( )
139	1918	12.83	12.85	0- 50	9	( )
-----						
101	Benzo(ghi)perylene			CAS#: 191-24-2		
276	59689	13.32	13.35	80-120	100	( )
138	16805	13.32	13.35	0- 57	28	( )

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD7.i/s031210.b/s7c1227.d  
Lab Smp Id: 248043011 Client Smp ID: RE36-10-7475DL  
Inj Date : 12-MAR-2010 21:55  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043011|959623|4|SVM|2|LANL\_4x  
Misc Info : |MSD8270 S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 15:38 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 23  
Dil Factor: 4.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	27.21660	% moisture

Cpnd Variable Local Compound Variable

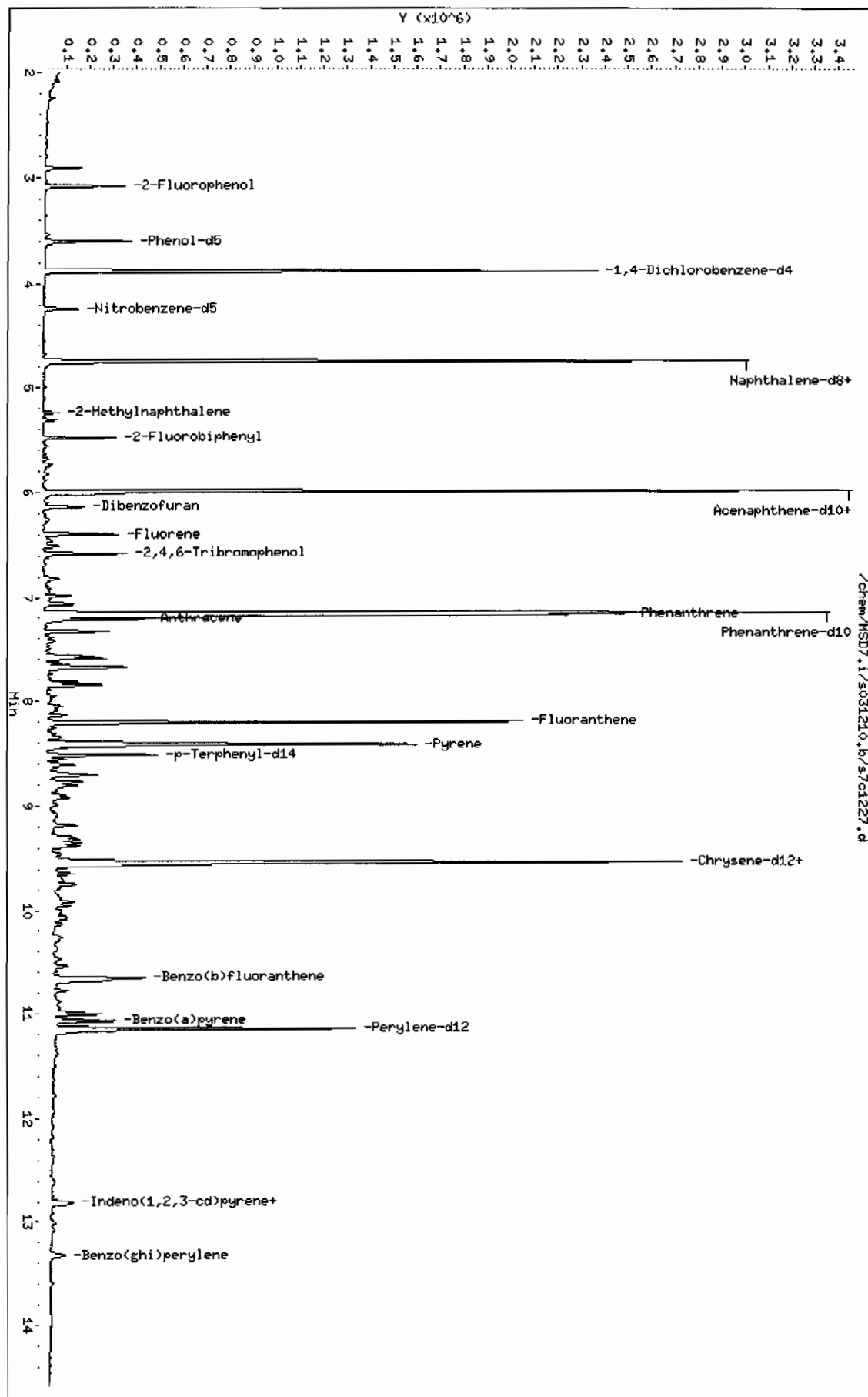
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 67 Phenanthrene-d10	7.154	4110802	40.000
* 98 Perylene-d12	11.150	2181635	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
-----	-----	-----	-----	-----	-----	-----	-----
4H-Cyclopenta[def]phenanthrene					CAS #: 203-64-5		
7.674	510166	4.96415234	908	93	NIST05.L	50048	67

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Benzo[e]pyrene				CAS #: 192-97-2			
11.001	347331	6.36825945	1160	99	NIST05.L	93577	98

Data File: /chem/MSD7.i/s031210.b/s701227.d  
 Date: 12-MAR-2010 21:55  
 Client ID: RE36-10-7475DL  
 Sample Info: 12480430411959623141SVH121LANL\_4x  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: MSD7.i  
 Operator: JHB3  
 Column diameter: 0.20



Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: MSD7.i

Sample Info: 1248043011959623141SVH12ILANL\_4x

Volume Injected (uL): 0.5

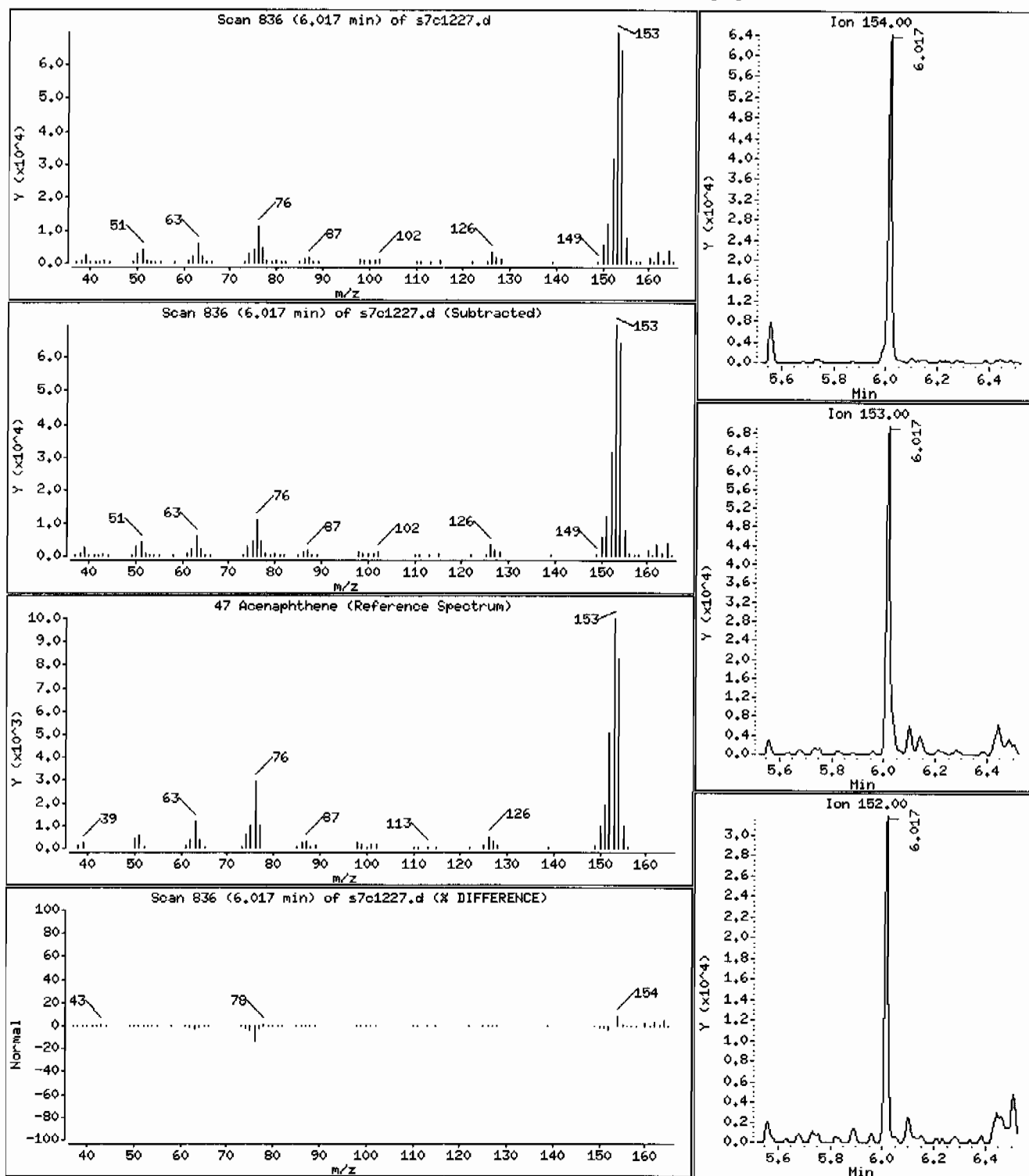
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 683 ug/Kg



Date: 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: MSD7.i

Sample Info: I248043011/95962314/SVM12ILANL\_4x

Volume Injected (uL): 0.5

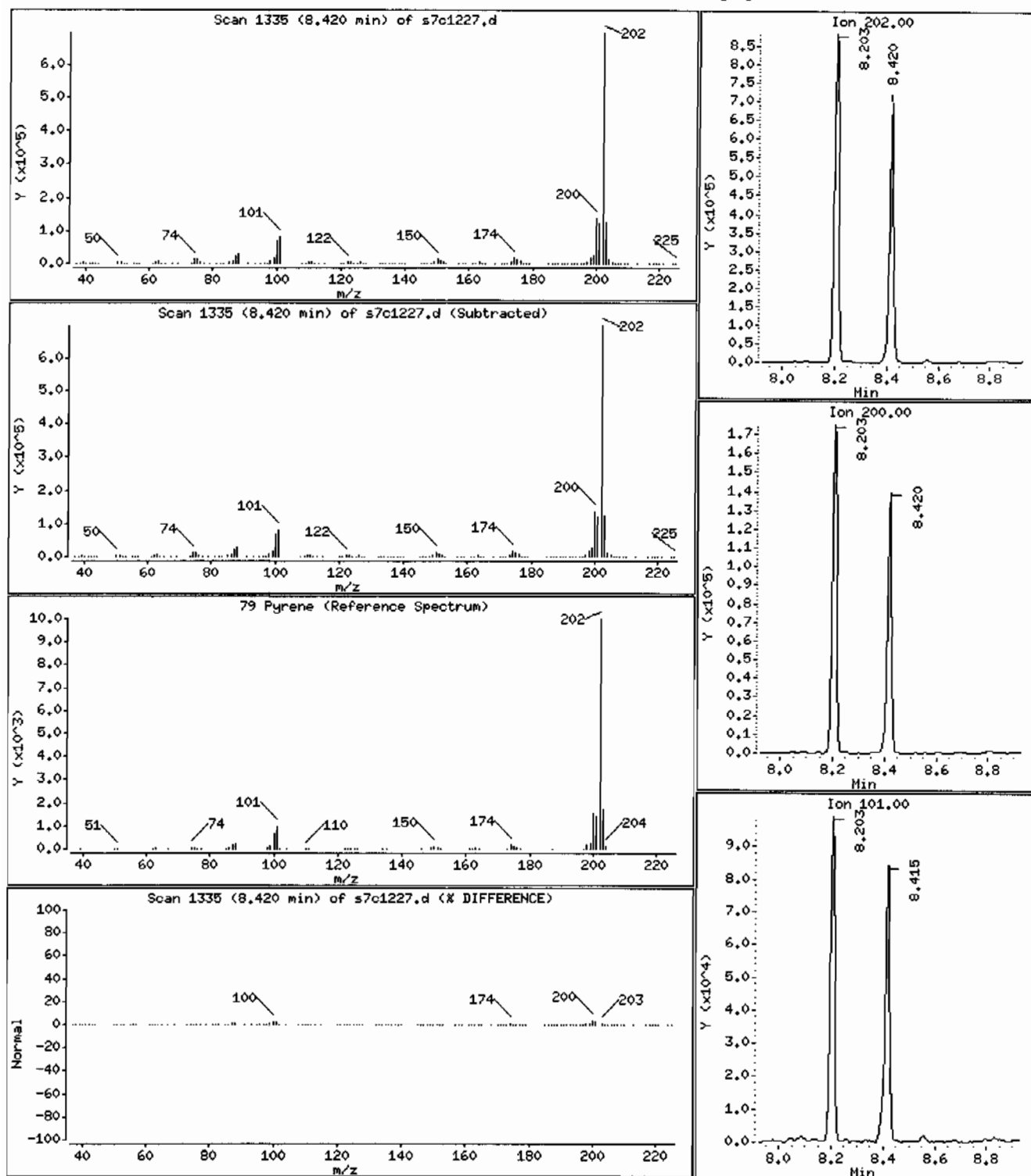
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 4340 ug/Kg



Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: MSD7.i

Sample Info: 1248043011195962314ISVH12ILANL\_4x

Volume Injected (uL): 0.5

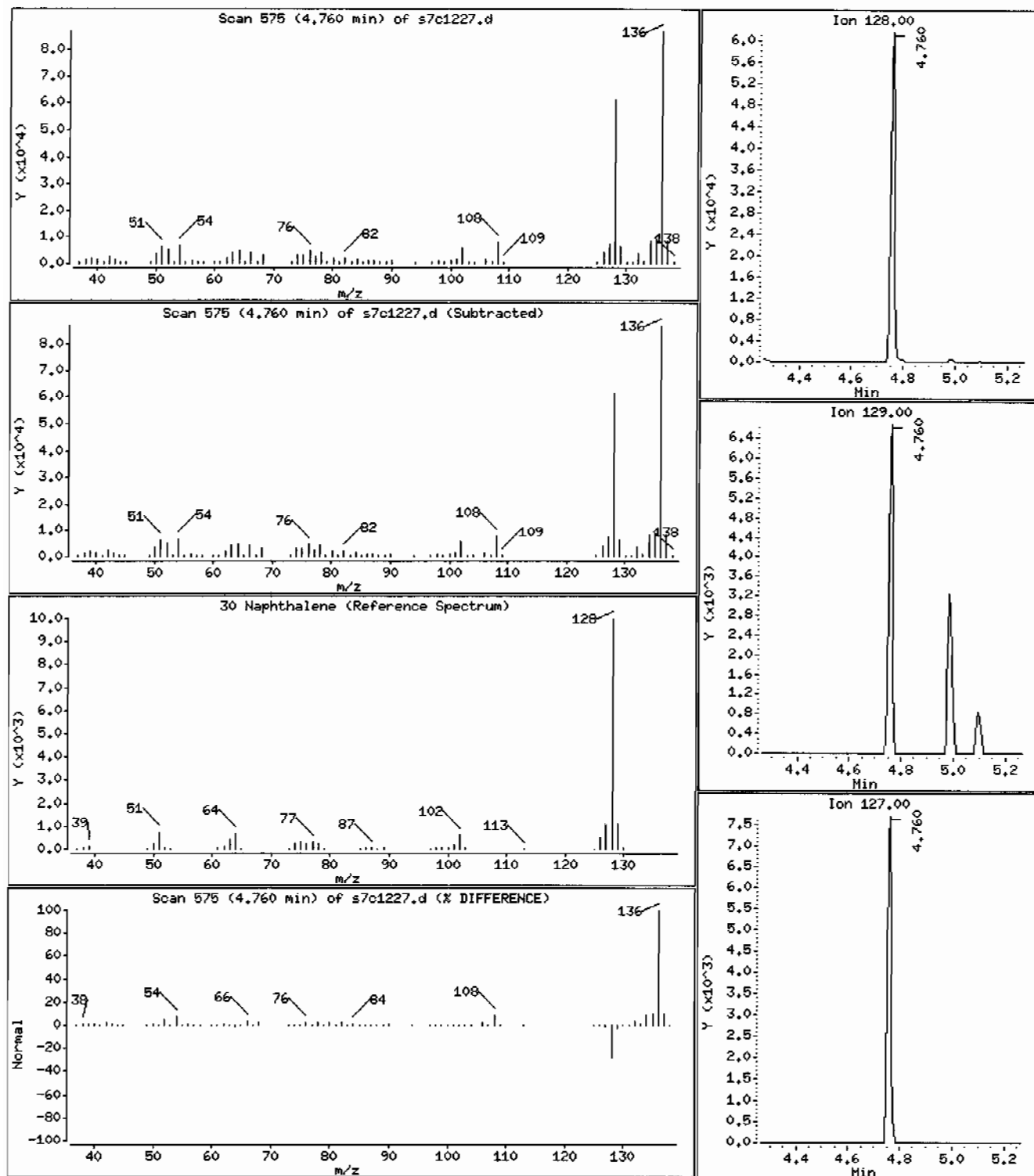
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 403 ug/Kg





Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: MSD7.i

Sample Info: 1248043011195962314ISVH12ILANL\_4x

Volume Injected (uL): 0.5

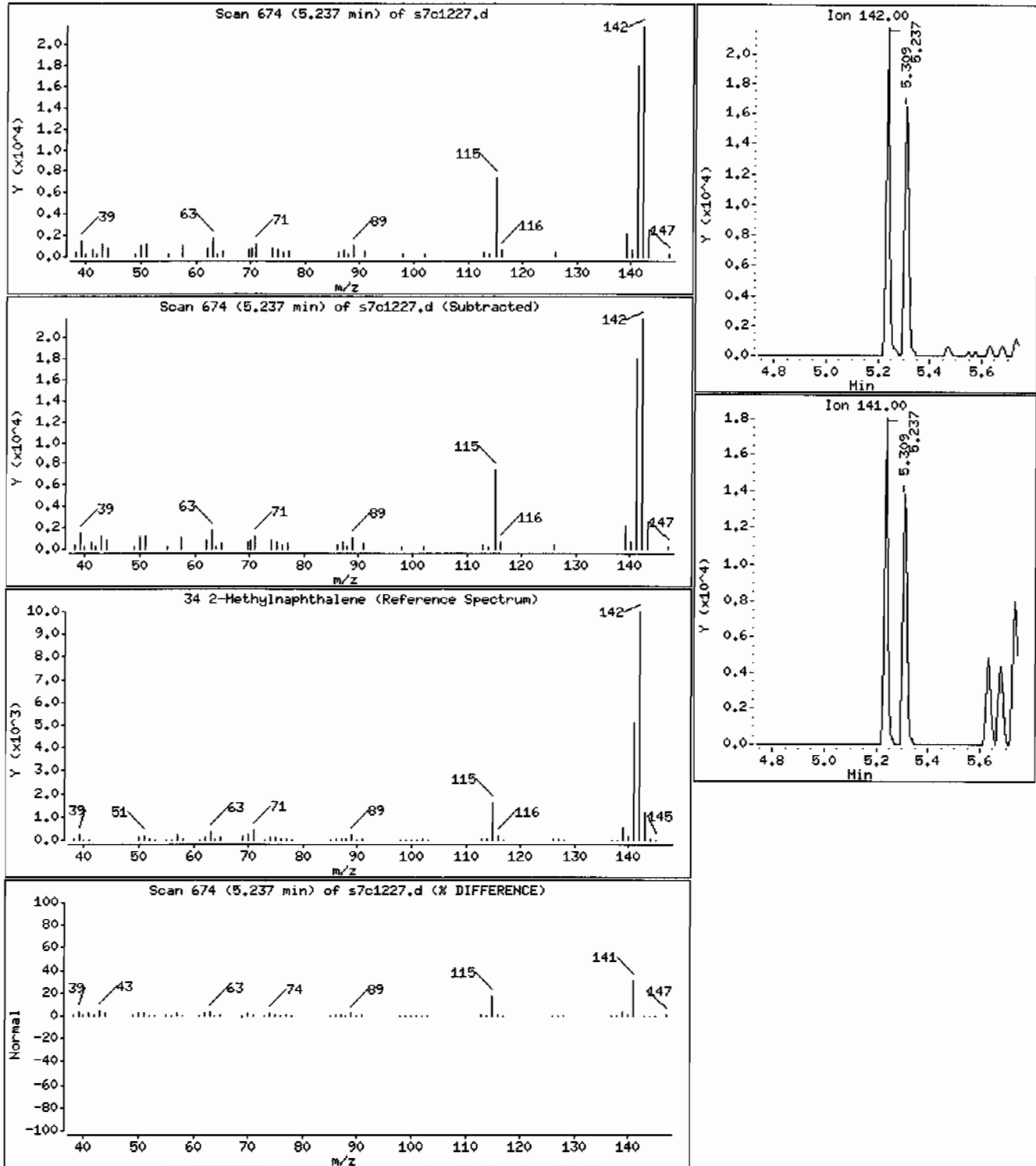
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 203 ug/Kg



Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: MSD7.i

Sample Info: 12480430111959623141SVMI2ILANL\_4x

Volume Injected (uL): 0.5

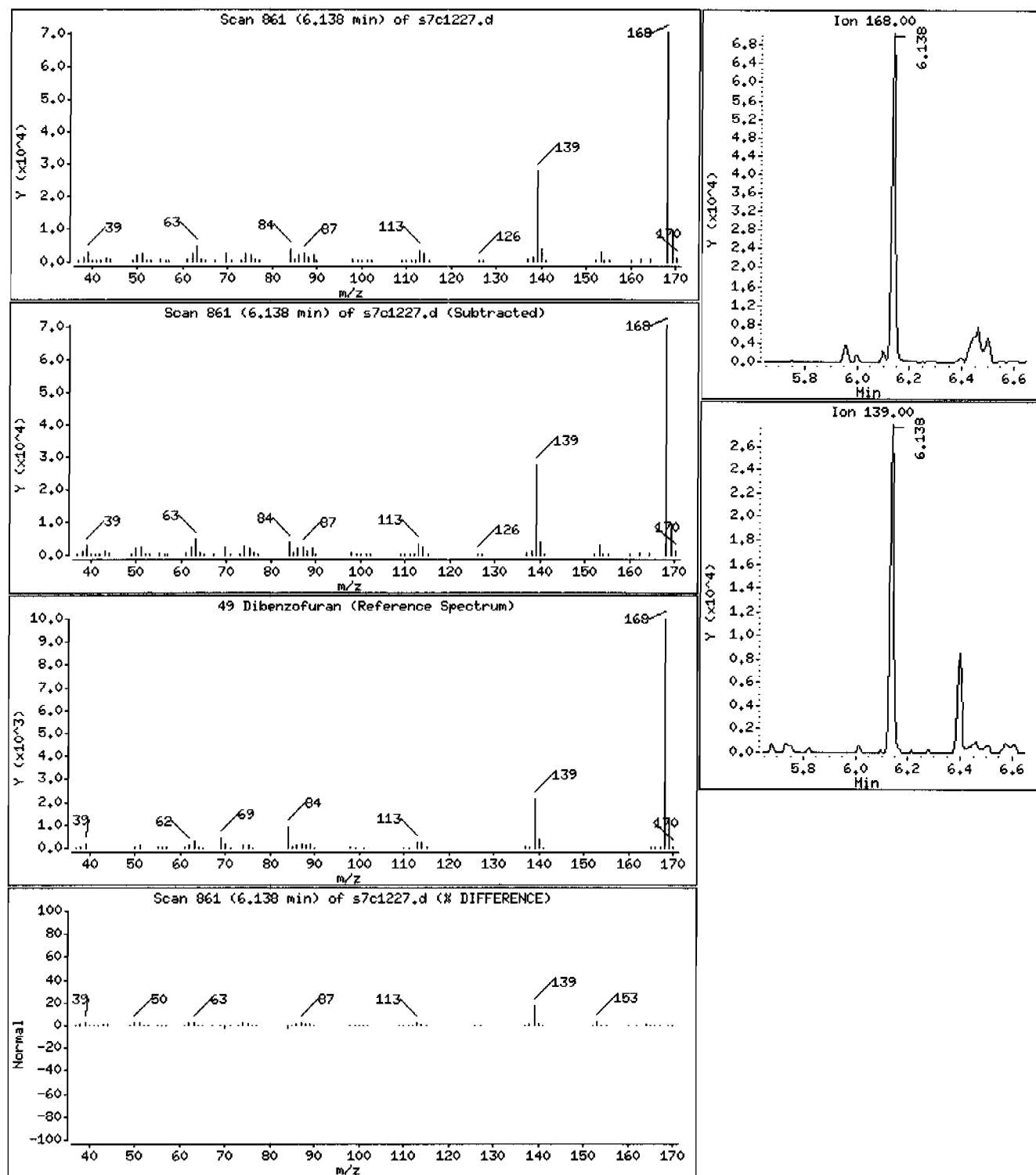
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

49 Dibenzofuran

Concentration: 521 ug/Kg



Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: MSD7.i

Sample Info: 12480430111959623141SVH121LANL\_4x

Volume Injected (uL): 0.5

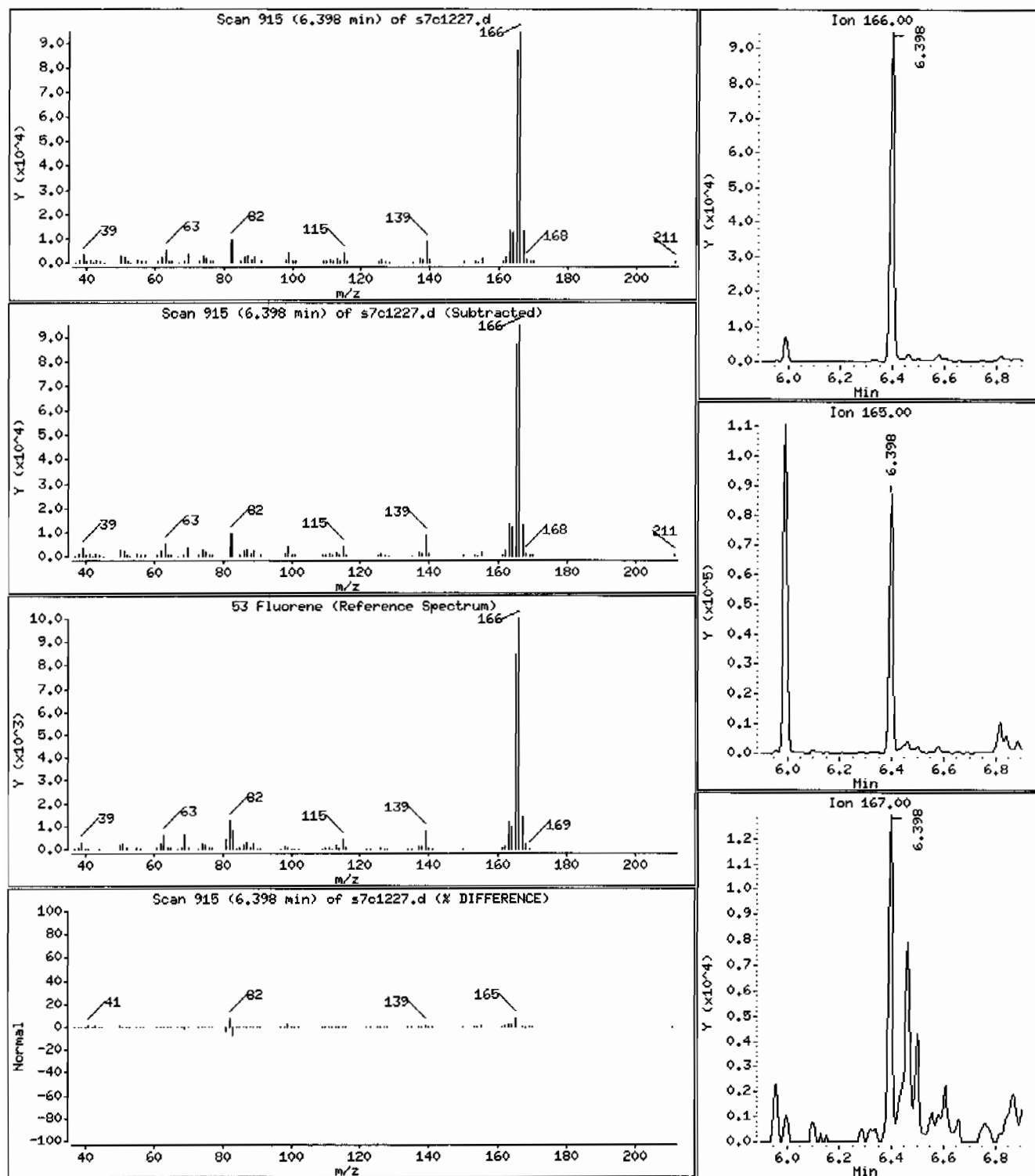
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 814 ug/Kg



Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: MSD7.i

Sample Info: I2480430111959623141SVMI2ILANL\_4x

Volume Injected (uL): 0.5

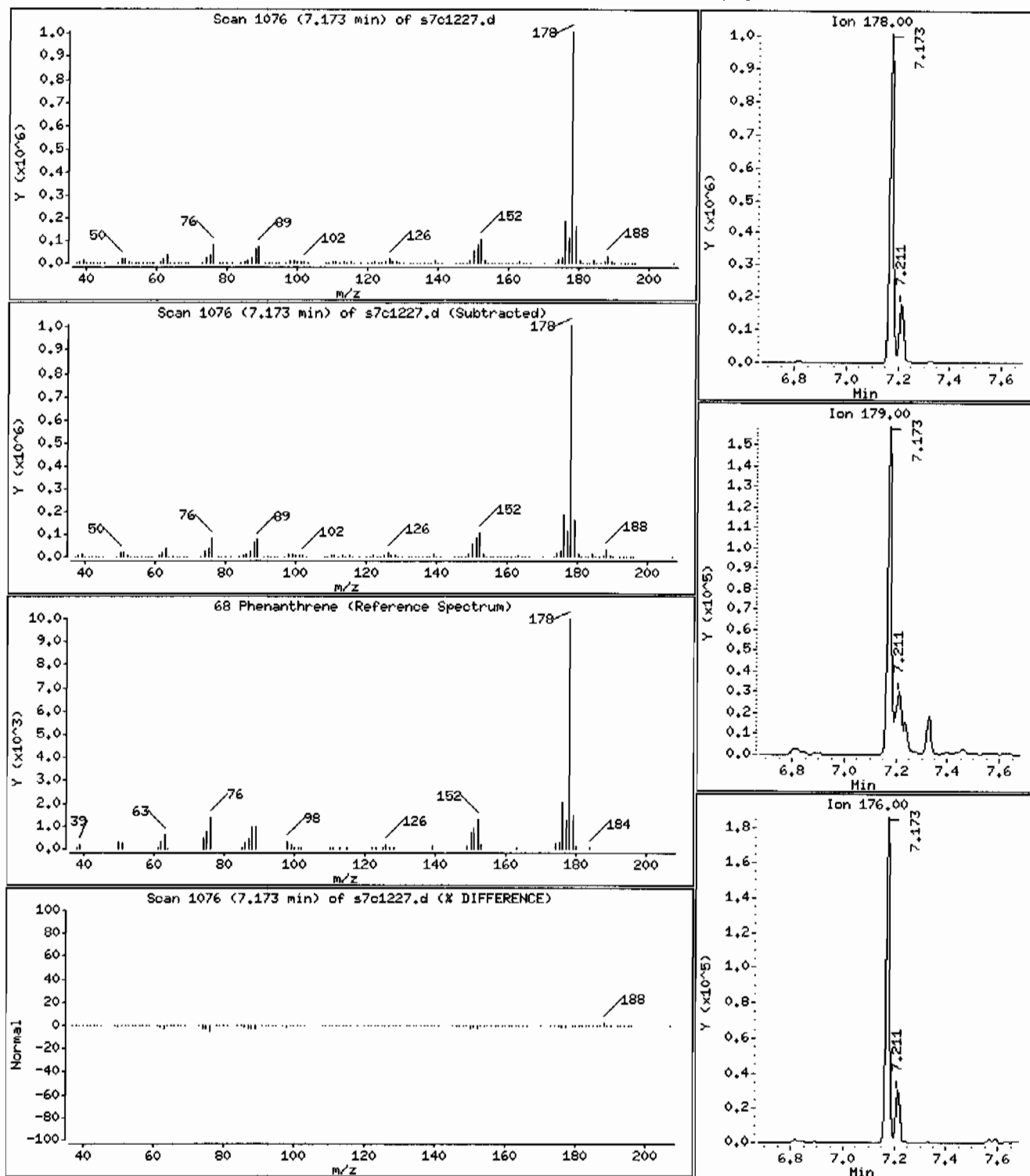
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 6140 ug/Kg



Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: HSD7.i

Sample Info: 1248043011/95962314/ISVH12ILANL\_4x

Volume Injected (uL): 0.5

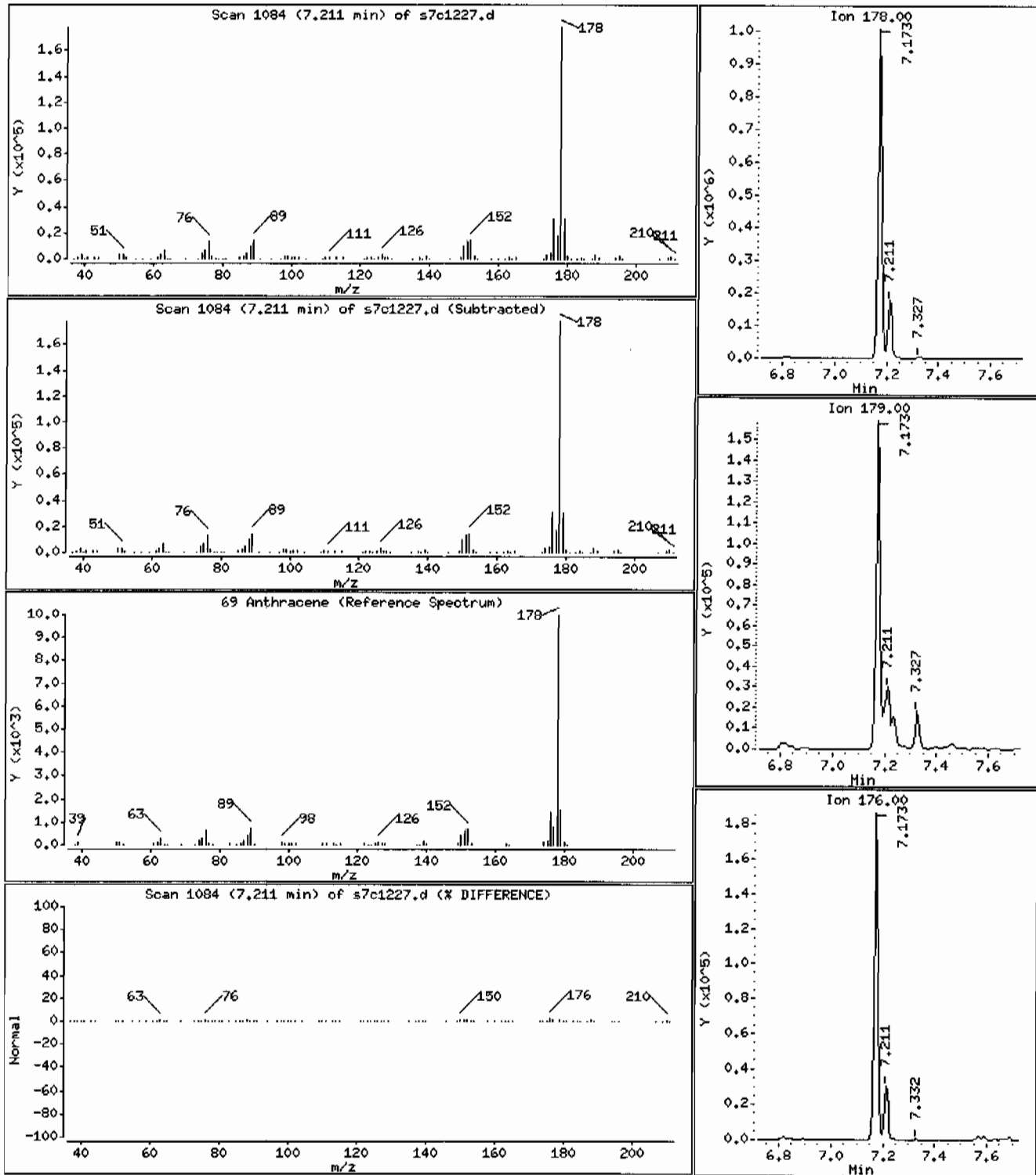
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 1150 ug/Kg



Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: MSD7.i

Sample Info: I2480430111959623141SVH12ILANL\_4x

Volume Injected (ul): 0.5

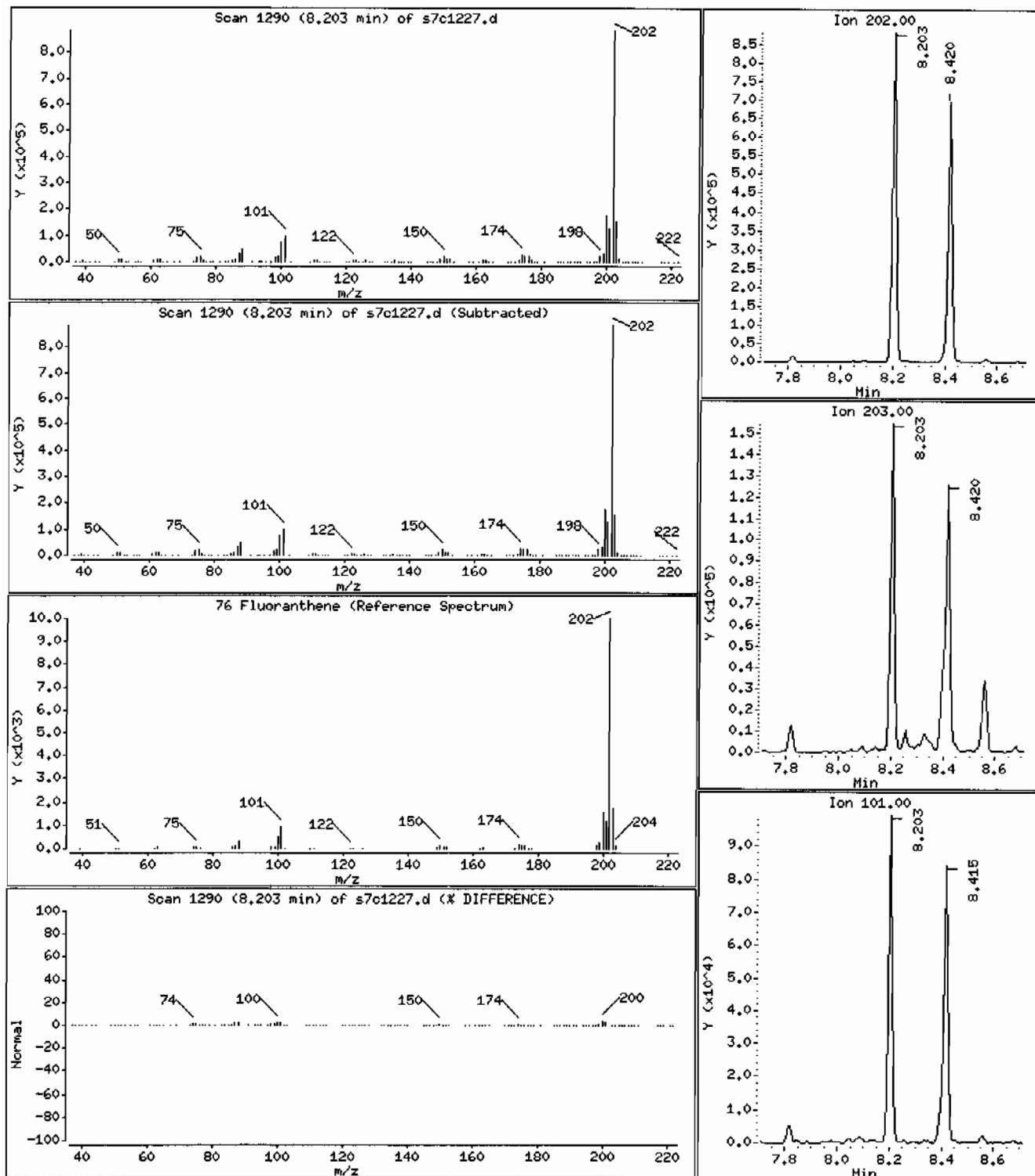
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 5470 ug/Kg



Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: MSD7.i

Sample Info: I2480430111959623141SVH12ILANL\_4x

Volume Injected (uL): 0.5

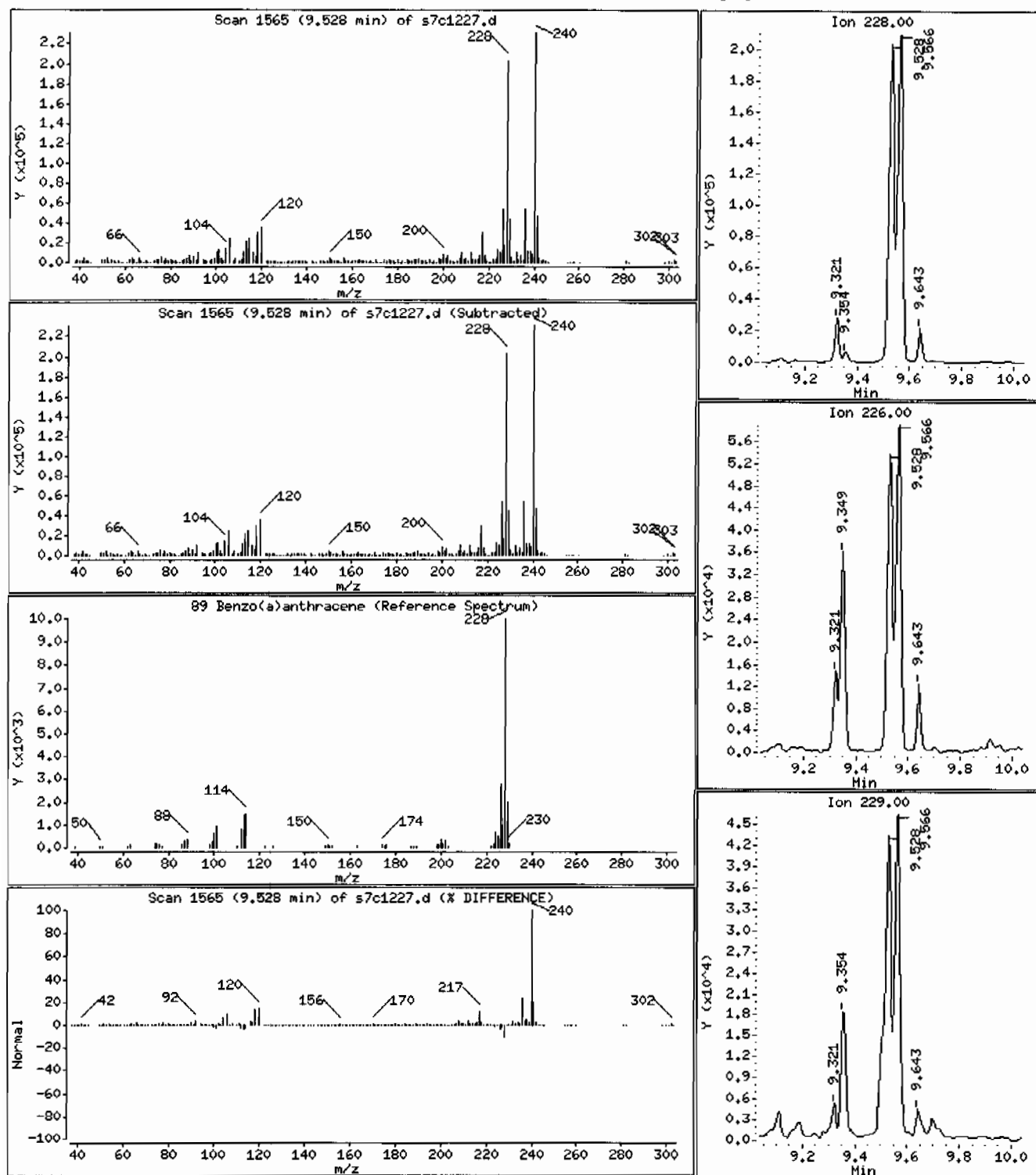
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 2040 ug/Kg



Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: MSD7.i

Sample Info: 12480430111959623141SVH121LANL\_4x

Volume Injected (uL): 0.5

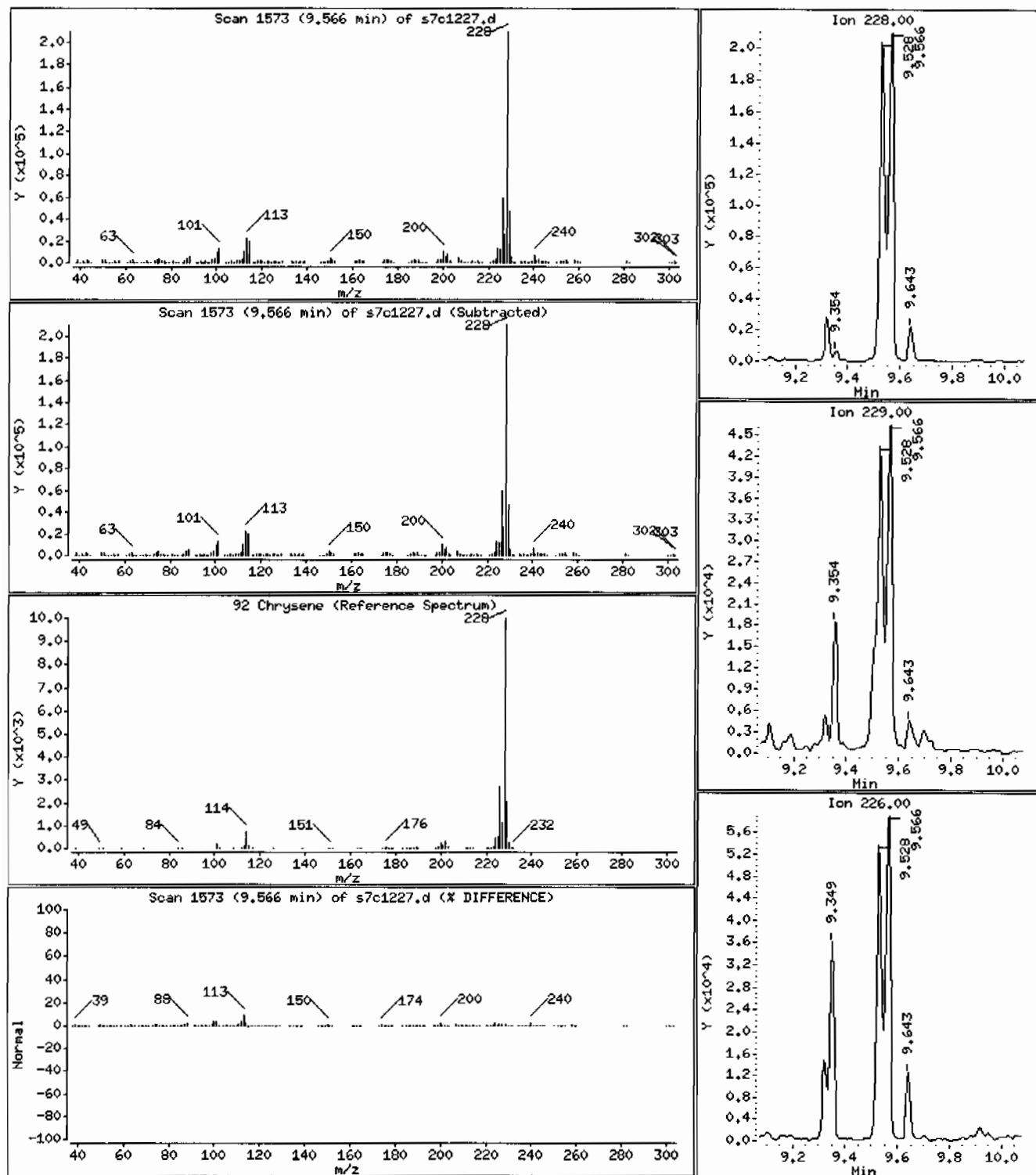
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 2150 ug/Kg





Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: MSD7,i

Sample Info: 1248043011195962314ISVM12ILANL\_4x

Volume Injected (uL): 0.5

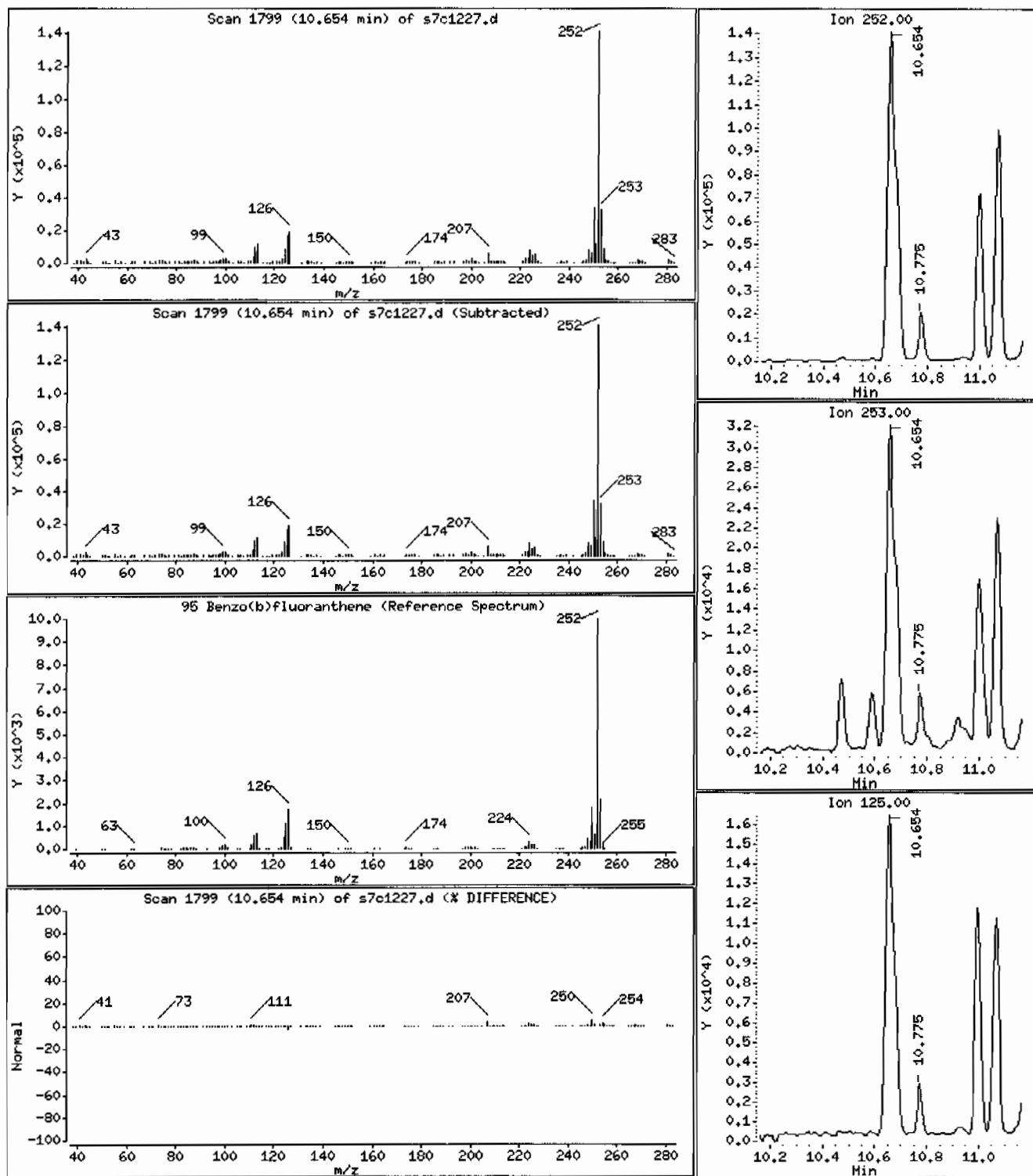
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 2940 ug/Kg



Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: MSD7.i

Sample Info: 1248043011959623141SVH121LANL\_4x

Volume Injected (uL): 0.5

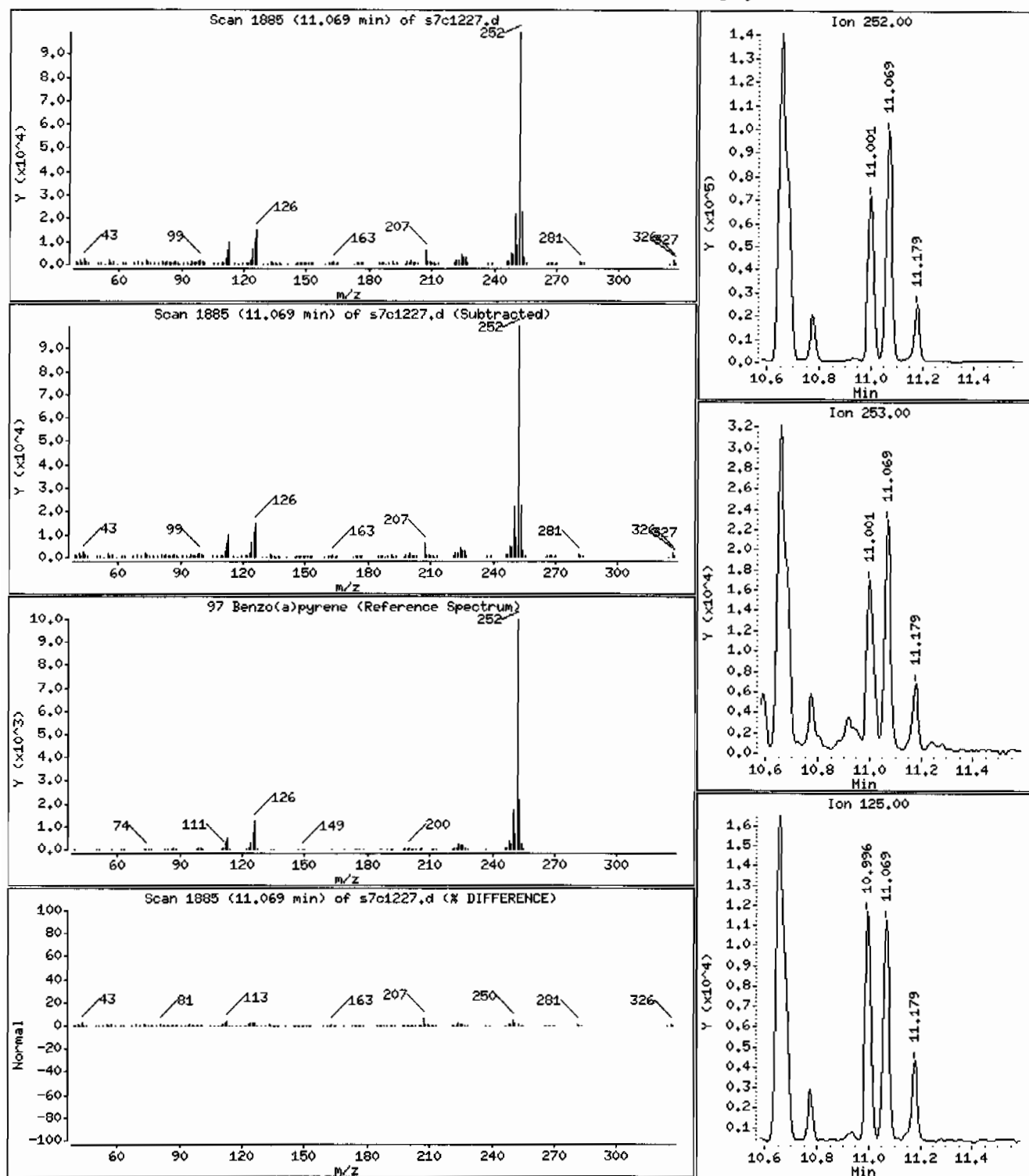
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 1710 ug/Kg



Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: MSD7.i

Sample Info: 1248043011959623141SVH12ILANL\_4x

Volume Injected (uL): 0.5

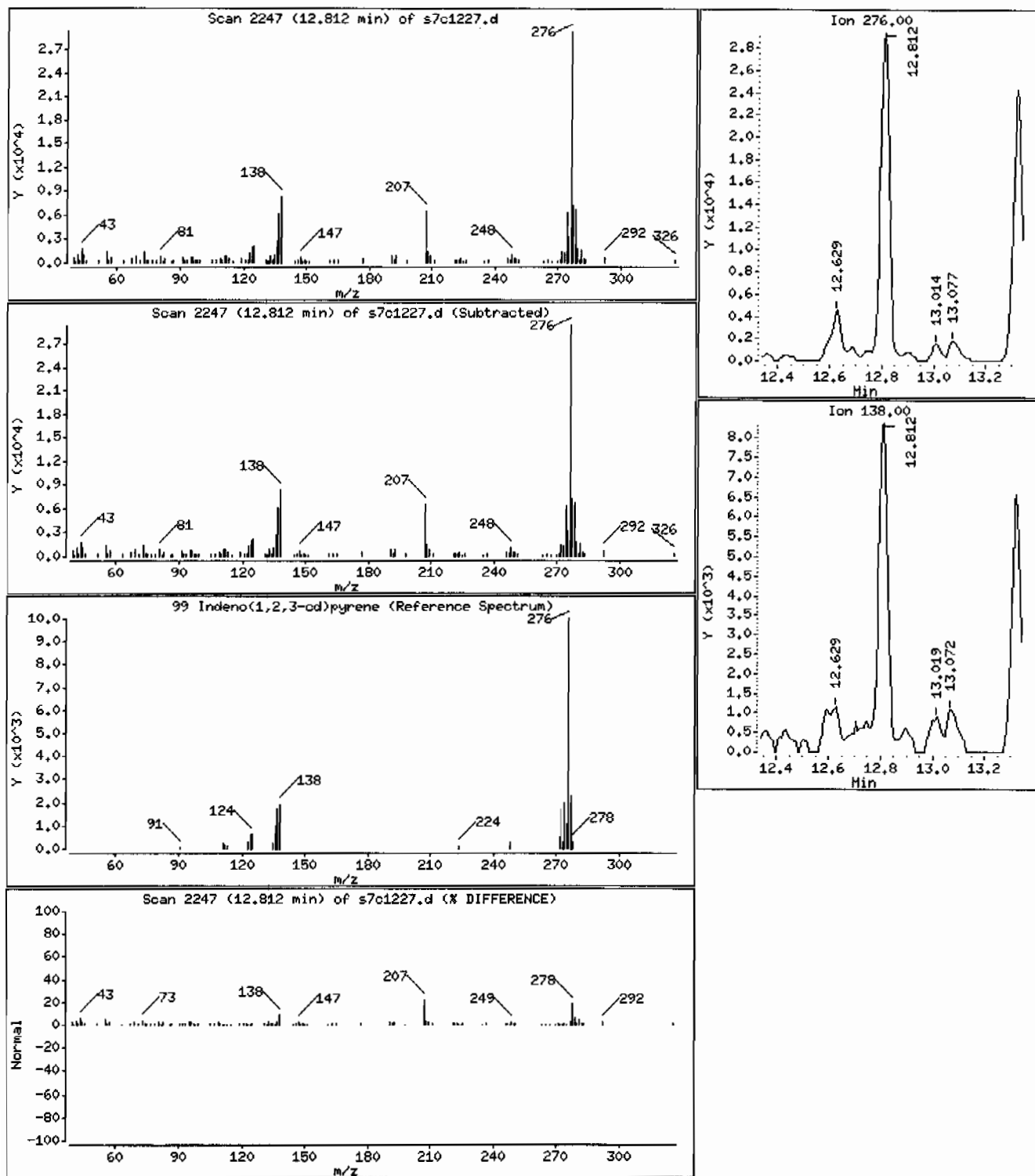
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 1000 ug/Kg



Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: MSD7.1

Sample Info: 12480430111959623141SVM12ILANL\_4x

Volume Injected (uL): 0.5

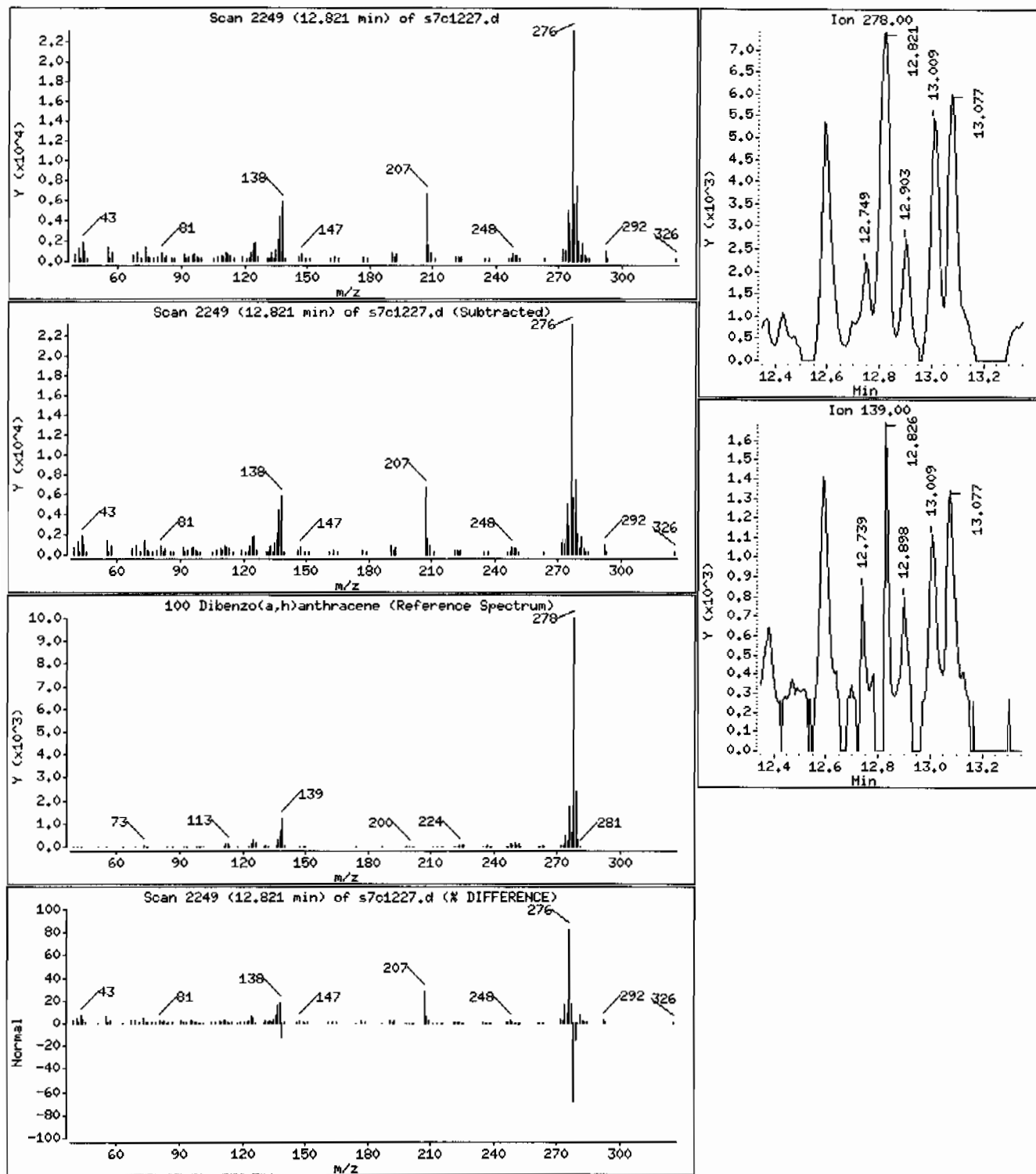
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 381 ug/Kg



Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: MSD7.i

Sample Info: I2480430111959623141SVMI2ILANL\_4x

Volume Injected (uL): 0.5

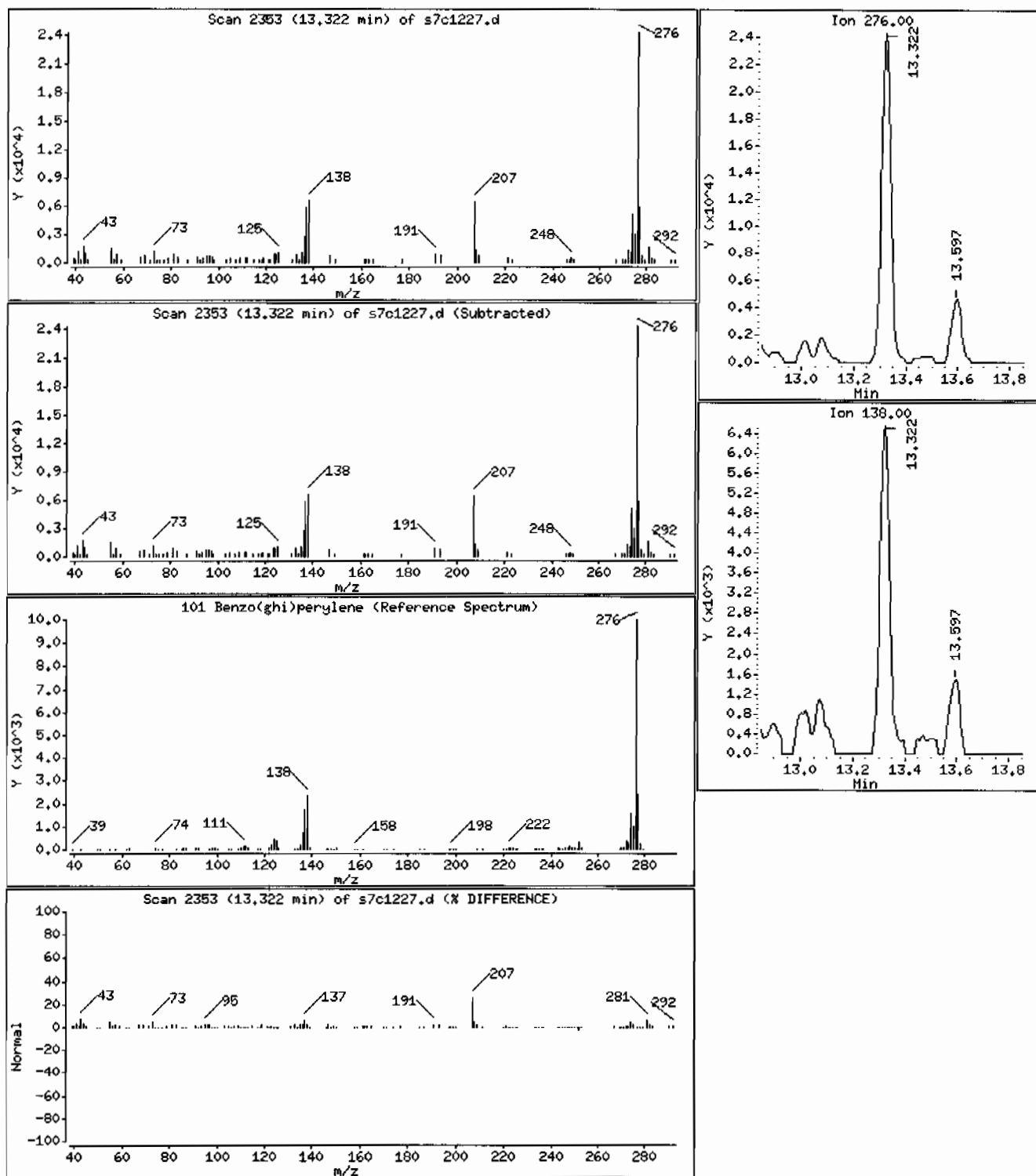
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 1050 ug/Kg



Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: MSD7.i

Sample Info: 1248043011959623141SVH121LANL\_4x

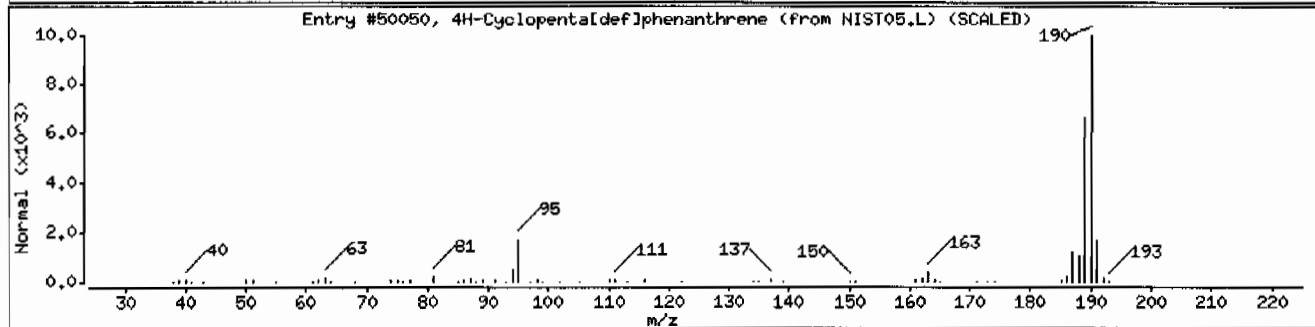
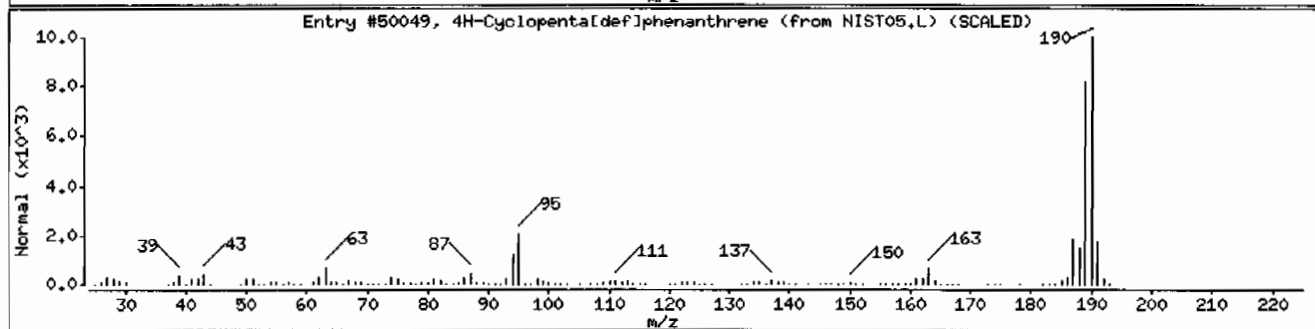
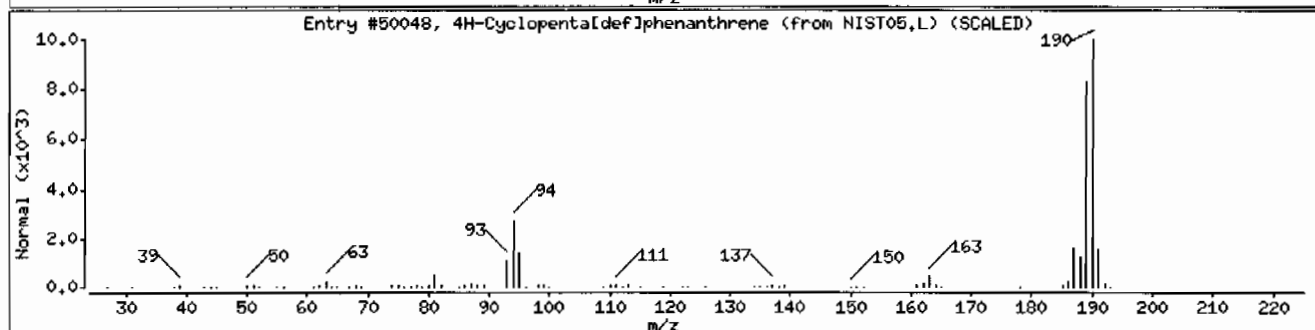
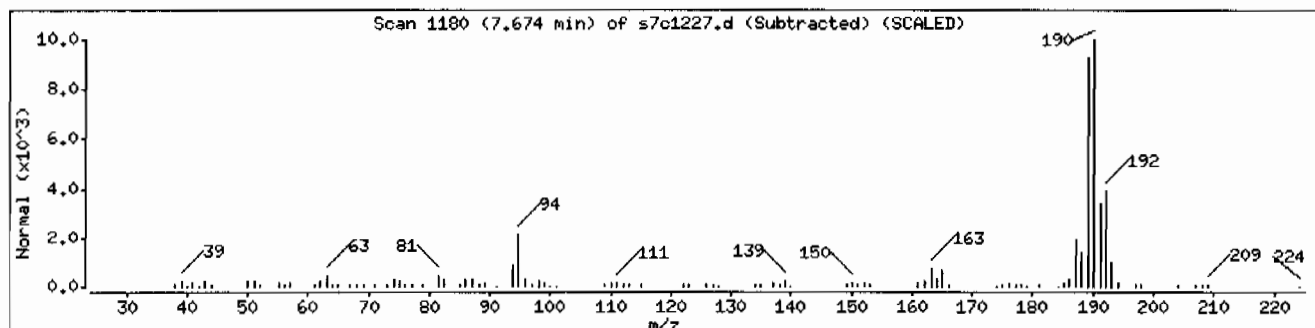
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50048	93	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50049	64	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50050	58	C15H10	190



Date : 12-MAR-2010 21:55

Client ID: RE36-10-7475DL

Instrument: HSD7.i

Sample Info: 12480430111959623141SVMI21LANL\_4x

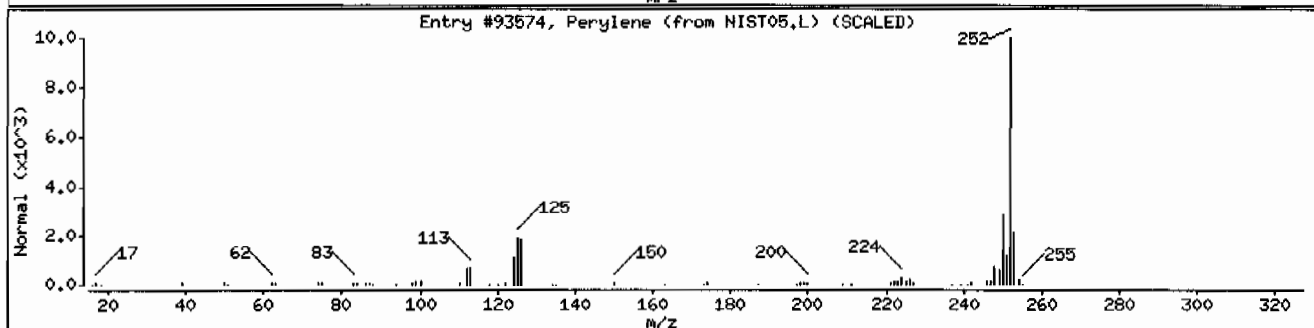
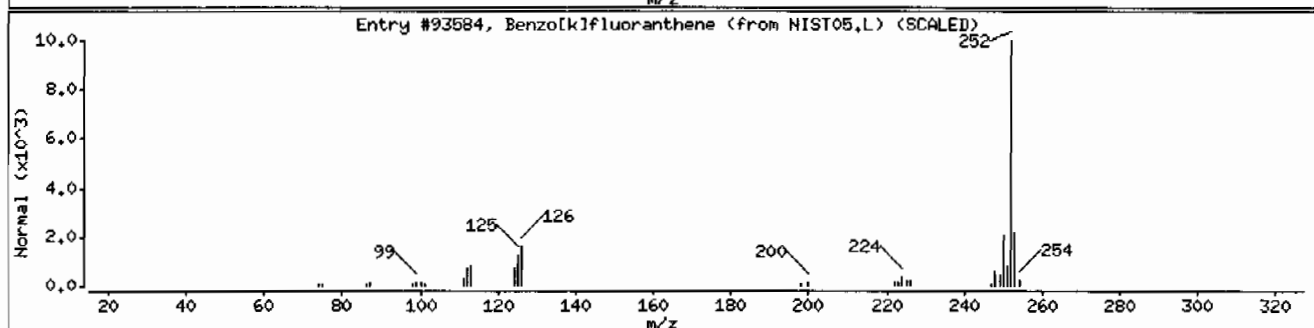
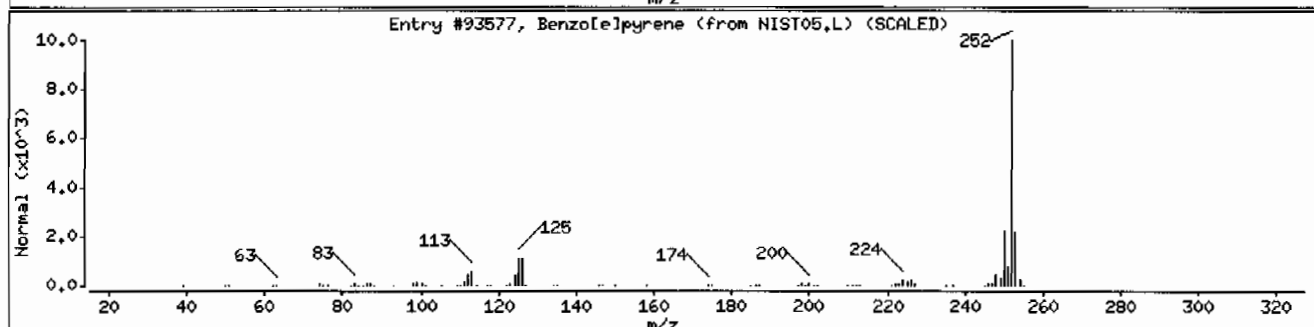
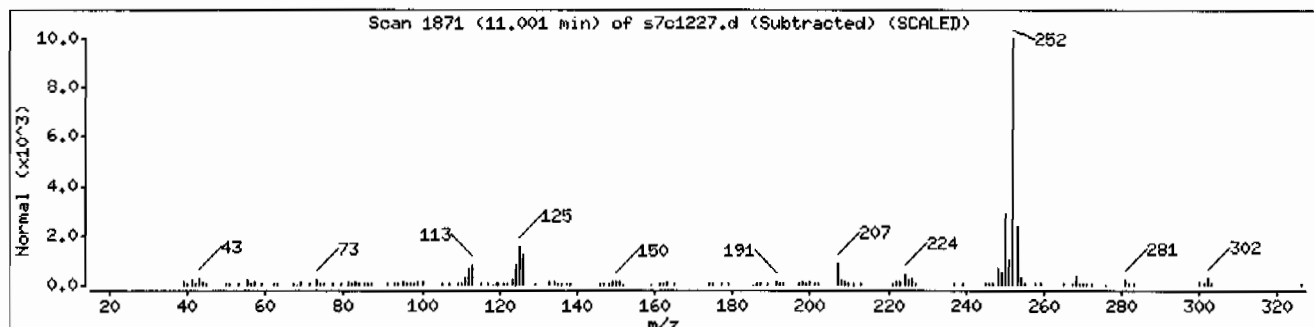
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[e]pyrene	192-97-2	NIST05.L	93577	99	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	98	C20H12	252
Perylene	198-55-0	NIST05.L	93574	98	C20H12	252



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043013

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 17  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	402	ug/kg	80.3	402
108-95-2	Phenol	U	402	ug/kg	80.3	402
95-57-8	2-Chlorophenol	U	402	ug/kg	80.3	402
106-46-7	1,4-Dichlorobenzene	U	402	ug/kg	80.3	402
621-64-7	N-Nitrosodipropylamine	U	402	ug/kg	80.3	402
59-50-7	4-Chloro-3-methylphenol	U	402	ug/kg	80.3	402
83-32-9	Acenaphthene	U	40.2	ug/kg	13.3	40.2
121-14-2	2,4-Dinitrotoluene	U	402	ug/kg	40.2	402
100-02-7	4-Nitrophenol	U	402	ug/kg	133	402
87-86-5	Pentachlorophenol	U	402	ug/kg	100	402
129-00-0	Pyrene		40.4	ug/kg	12.0	40.2
110-86-1	Pyridine	U	402	ug/kg	80.3	402
62-53-3	Aniline	U	402	ug/kg	120	402
111-44-4	bis(2-Chloroethyl) ether	U	402	ug/kg	80.3	402
541-73-1	1,3-Dichlorobenzene	U	402	ug/kg	80.3	402
100-51-6	Benzyl alcohol	U	402	ug/kg	120	402
95-50-1	1,2-Dichlorobenzene	U	402	ug/kg	80.3	402
108-60-1	bis(2-Chloroisopropyl)ether	U	402	ug/kg	80.3	402
95-48-7	o-Cresol	U	402	ug/kg	80.3	402
65794-96-9	m,p-Cresols	U	402	ug/kg	120	402
67-72-1	Hexachloroethane	U	402	ug/kg	80.3	402
98-95-3	Nitrobenzene	U	402	ug/kg	80.3	402
78-59-1	Isophorone	U	402	ug/kg	80.3	402
88-75-5	2-Nitrophenol	U	402	ug/kg	80.3	402
105-67-9	2,4-Dimethylphenol	U	402	ug/kg	141	402
111-91-1	bis(2-Chloroethoxy)methane	U	402	ug/kg	80.3	402
120-83-2	2,4-Dichlorophenol	U	402	ug/kg	80.3	402
65-85-0	Benzoic acid	U	803	ug/kg	201	803
91-20-3	Naphthalene	U	40.2	ug/kg	12.0	40.2
106-47-8	4-Chloroaniline	U	402	ug/kg	80.3	402
87-68-3	Hexachlorobutadiene	U	402	ug/kg	80.3	402
91-57-6	2-Methylnaphthalene	U	40.2	ug/kg	8.03	40.2
77-47-4	Hexachlorocyclopentadiene	U	402	ug/kg	80.3	402
88-06-2	2,4,6-Trichlorophenol	U	402	ug/kg	80.3	402
95-95-4	2,4,5-Trichlorophenol	U	402	ug/kg	80.3	402
91-58-7	2-Chloronaphthalene	U	40.2	ug/kg	13.3	40.2
88-74-4	2-Nitroaniline	U	402	ug/kg	80.3	402
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	402	ug/kg	80.3	402



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043013

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 17  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	402	ug/kg	80.3	402
606-20-2	2,6-Dinitrotoluene	U	402	ug/kg	40.2	402
208-96-8	Acenaphthylene	U	40.2	ug/kg	12.0	40.2
51-28-5	2,4-Dinitrophenol	U	803	ug/kg	153	803
132-64-9	Dibenzofuran	U	402	ug/kg	80.3	402
84-66-2	Diethylphthalate	U	402	ug/kg	80.3	402
86-73-7	Fluorene	U	40.2	ug/kg	12.0	40.2
7005-72-3	4-Chlorophenylphenylether	U	402	ug/kg	80.3	402
534-52-1	2-Methyl-4,6-dinitrophenol	U	402	ug/kg	80.3	402
100-01-6	4-Nitroaniline	U	402	ug/kg	120	402
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	402	ug/kg	80.3	402
122-66-7	Azobenzene	U	402	ug/kg	80.3	402
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	402	ug/kg	80.3	402
118-74-1	Hexachlorobenzene	U	402	ug/kg	80.3	402
85-01-8	Phenanthrene	J	29.9	ug/kg	12.0	40.2
120-12-7	Anthracene	U	40.2	ug/kg	8.03	40.2
84-74-2	Di-n-butylphthalate	U	402	ug/kg	80.3	402
206-44-0	Fluoranthene		50.5	ug/kg	12.0	40.2
85-68-7	Butylbenzylphthalate	U	402	ug/kg	80.3	402
56-55-3	Benzo(a)anthracene	J	24.0	ug/kg	12.0	40.2
91-94-1	3,3'-Dichlorobenzidine	U	402	ug/kg	120	402
218-01-9	Chrysene	J	25.1	ug/kg	12.0	40.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	402	ug/kg	80.3	402
117-84-0	Di-n-octylphthalate	U	402	ug/kg	80.3	402
205-99-2	Benzo(b)fluoranthene		40.2	ug/kg	12.0	40.2
207-08-9	Benzo(k)fluoranthene	U	40.2	ug/kg	12.0	40.2
50-32-8	Benzo(a)pyrene	J	21.7	ug/kg	12.0	40.2
193-39-5	Indeno(1,2,3-cd)pyrene	J	15.9	ug/kg	12.0	40.2
53-70-3	Dibenzo(a,h)anthracene	U	40.2	ug/kg	12.0	40.2
191-24-2	Benzo(ghi)perylene	J	19.4	ug/kg	12.0	40.2
120-82-1	1,2,4-Trichlorobenzene	U	402	ug/kg	80.3	402

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.02	570	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031110.b/s7c1111.d  
Lab Smp Id: 248043013 Client Smp ID: RE36-10-7476  
Inj Date : 11-MAR-2010 16:26  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043013|959623|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 11  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	17.01240	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG			RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT REL RT		ON-COLUMN	FINAL
					(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.990	3.990 (1.000)	391174	40.0000	
* 29 Naphthalene-d8	136	4.852	4.857 (1.000)	1491067	40.0000	
* 46 Acenaphthene-d10	164	6.109	6.114 (1.000)	832389	40.0000	
* 67 Phenanthrene-d10	188	7.279	7.284 (1.000)	1480905	40.0000	
* 91 Chrysene-d12	240	9.682	9.691 (1.000)	1134324	40.0000	
* 98 Perylene-d12	264	11.372	11.386 (1.000)	789377	40.0000	
\$ 3 2-Fluorophenol	112	3.186	3.181 (0.798)	512568	50.4123	2020
\$ 5 Phenol-d5	99	3.706	3.706 (0.929)	683694	53.6320	2150
\$ 20 Nitrobenzene-d5	82	4.346	4.356 (0.896)	270322	24.0370	965
\$ 39 2-Fluorobiphenyl	172	5.593	5.598 (0.916)	548581	26.4446	1060
\$ 60 2,4,6-Tribromophenol	329	6.706	6.711 (1.098)	170694	70.9355	2850
\$ 81 p-Terphenyl-d14	244	8.651	8.656 (0.894)	824331	40.5642	1630

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng/ul)	(ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
79 Pyrene	202	8.550	8.560	(0.883)	36060	1.00627	40.4
68 Phenanthrene	178	7.298	7.308	(1.003)	22638	0.74494	29.9(a)
76 Fluoranthene	202	8.338	8.343	(1.146)	41560	1.25780	50.5
89 Benzo(a)anthracene	228	9.672	9.677	(0.999)	16243	0.59732	24.0(a)
92 Chrysene	228	9.701	9.715	(1.002)	15111	0.62448	25.1(a)
95 Benzo(b)fluoranthene	252	10.847	10.861	(0.954)	22168	1.00138	40.2
97 Benzo(a)pyrene	252	11.285	11.309	(0.992)	9791	0.53939	21.7(a)
99 Indeno(1,2,3-cd)pyrene	276	13.129	13.168	(1.155)	5153	0.39478	15.8(a)
101 Benzo(ghi)perylene	276	13.674	13.712	(1.202)	5267	0.48385	19.4(a)

# QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

## ION RATIO REPORT

## SV REPORT

Data file: s7c1111.d

Report Date: 03/12/2010 08:14

Lab. ID: 248043013

SampleType: SAMPLE

Injection Date: 11-MAR-2010 16:26

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043013|959623|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	37696	3.71	3.78	80-120	100	(T)
93	705	3.76	3.78	206-266	2	(Q)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	38652	4.35	4.24	80-120	100	(T)
42	28292	4.35	4.23	61-121	73	(T)
-----						
43 Dimethylphthalate		CAS#: 131-11-3				
163	148899	6.11	5.87	80-120	100	(T)
164	832389	6.11	5.87	0- 40	559	(QT)
-----						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	107918	6.11	5.93	80-120	100	(T)
63	1358	6.10	5.93	52-112	1	(QT)
-----						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	107918	6.11	6.23	80-120	100	(T)
89	1378	6.11	6.23	37- 97	1	(QT)
63	1358	6.10	6.23	17- 77	1	(QT)
-----						
53 Fluorene		CAS#: 86-73-7				
166	9824	6.71	6.53	80-120	100	(T)
165	10565	6.71	6.53	61-121	108	(T)
167	3242	6.71	6.52	0- 44	33	(T)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	457	6.71	6.54	80-120	100	(T)
105	1430	6.70	6.54	10- 70	312	(QT)
51	1441	6.70	6.54	54-114	315	(QT)
-----						
68 Phenanthrene				CAS#: 85-01-8		
178	22638	7.30	7.31	80-120	100	( )
179	4270	7.30	7.31	0- 46	19	( )
176	4162	7.30	7.31	0- 49	18	( )
-----						
69 Anthracene				CAS#: 120-12-7		
178	22638	7.30	7.35	80-120	100	( )
179	4270	7.30	7.35	0- 46	19	( )
176	4162	7.30	7.35	0- 48	18	( )
-----						
76 Fluoranthene				CAS#: 206-44-0		
202	41560	8.34	8.34	80-120	100	( )
203	7140	8.34	8.34	0- 48	17	( )
101	4578	8.33	8.34	0- 41	11	( )
-----						
79 Pyrene				CAS#: 129-00-0		
202	36060	8.55	8.56	80-120	100	( )
200	7064	8.55	8.56	0- 50	20	( )
101	4699	8.55	8.56	0- 44	13	( )
-----						
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	16243	9.67	9.68	80-120	100	( )
226	4059	9.67	9.68	0- 56	25	( )
229	4535	9.67	9.68	0- 50	28	( )
-----						
92 Chrysene				CAS#: 218-01-9		
228	15111	9.70	9.72	80-120	100	( )
229	3532	9.70	9.72	0- 50	23	( )
226	4440	9.70	9.72	0- 59	29	( )
-----						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	22168	10.85	10.86	80-120	100	( )
253	5221	10.85	10.86	0- 52	24	( )
125	2251	10.85	10.86	0- 41	10	( )
-----						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	22168	10.85	10.90	80-120	100	( )
253	5221	10.85	10.90	0- 52	24	( )
125	2251	10.85	10.90	0- 42	10	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	9791	11.29	11.31	80-120	100	( )
253	2409	11.29	11.31	0- 52	25	( )
125	2599	11.29	11.30	0- 42	27	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
99	Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5		
276	5153	13.13	13.17	80-120	100	( )
138	1242	13.13	13.17	2- 62	24	( )

-----						
101	Benzo(ghi)perylene			CAS#: 191-24-2		
276	5267	13.67	13.71	80-120	100	( )
138	1649	13.68	13.71	0- 58	31	( )

-----

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031110.b/s7c1111.d  
 Lab Smp Id: 248043013 Client Smp ID: RE36-10-7476  
 Inj Date : 11-MAR-2010 16:26  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |248043013|959623|1|SVM|1|LANL  
 Misc Info : |MSD8270 S|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 11  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	17.01240	% moisture

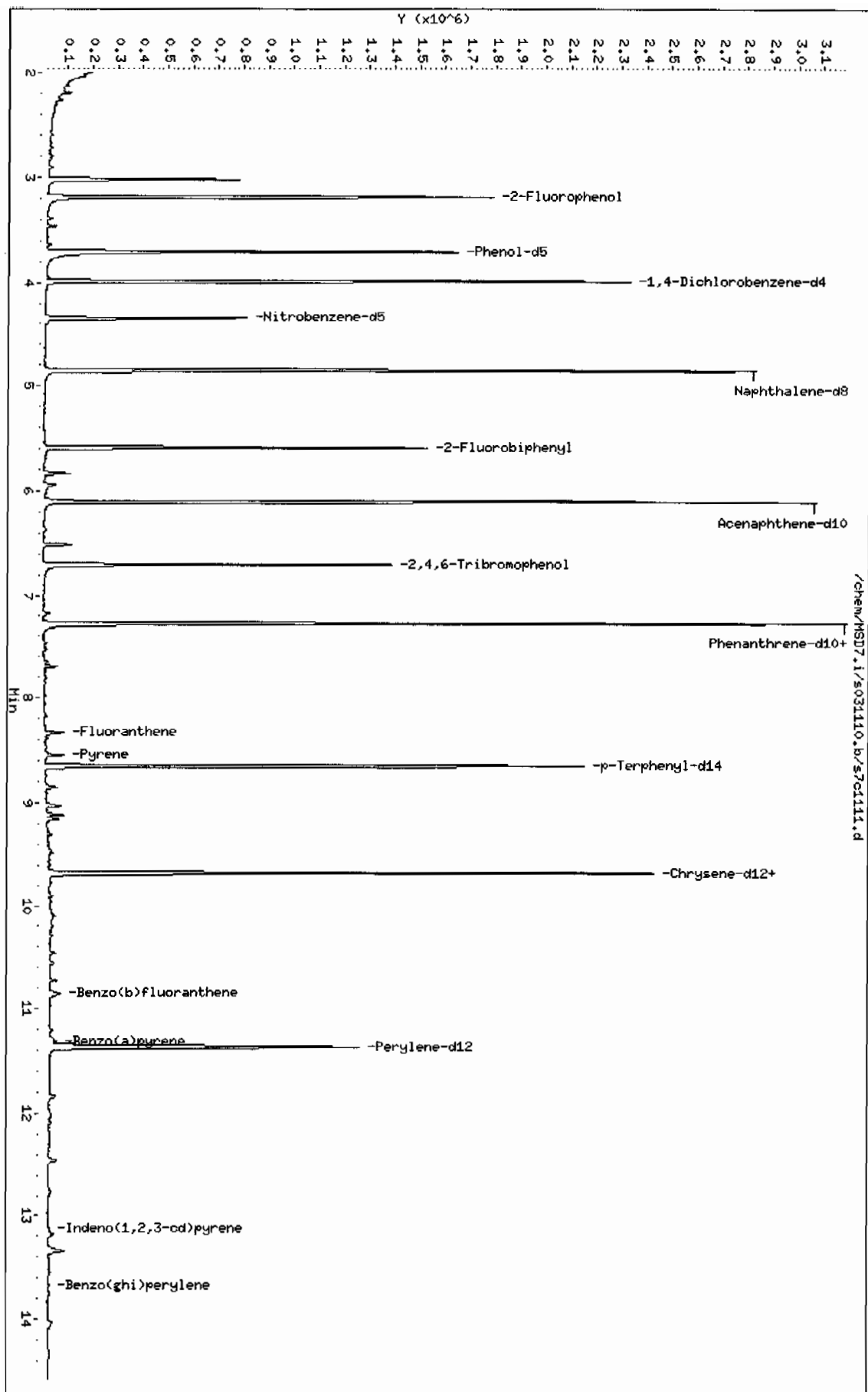
Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.990	2403072	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate				CAS #:			
3.022	852252	14.1860413	570	0		0	10

Instrument: MSD7.1  
Operator: JMB3  
Column diameter: 0.20





Date : 11-MAR-2010 16:26

Client ID: RE36-10-7476

Instrument: MSD7.i

Sample Info: 1248043013195962311SVMI1ILANL

Volume Injected (uL): 0.5

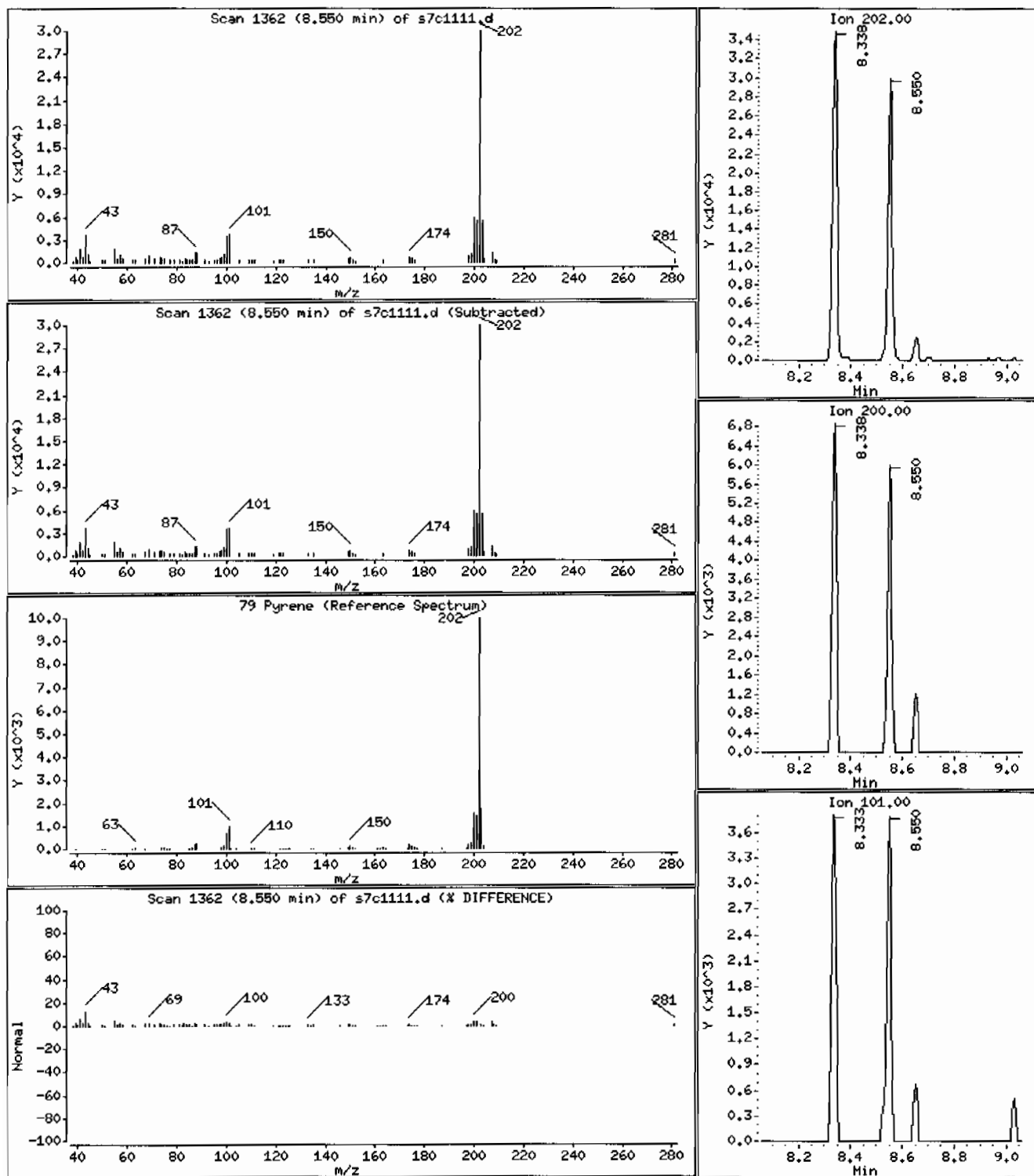
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 40.4 ug/Kg



Date : 11-MAR-2010 16:26

Client ID: RE36-10-7476

Instrument: MSD7.i

Sample Info: 1248043013195962311SVH11/LANL

Volume Injected (uL): 0.5

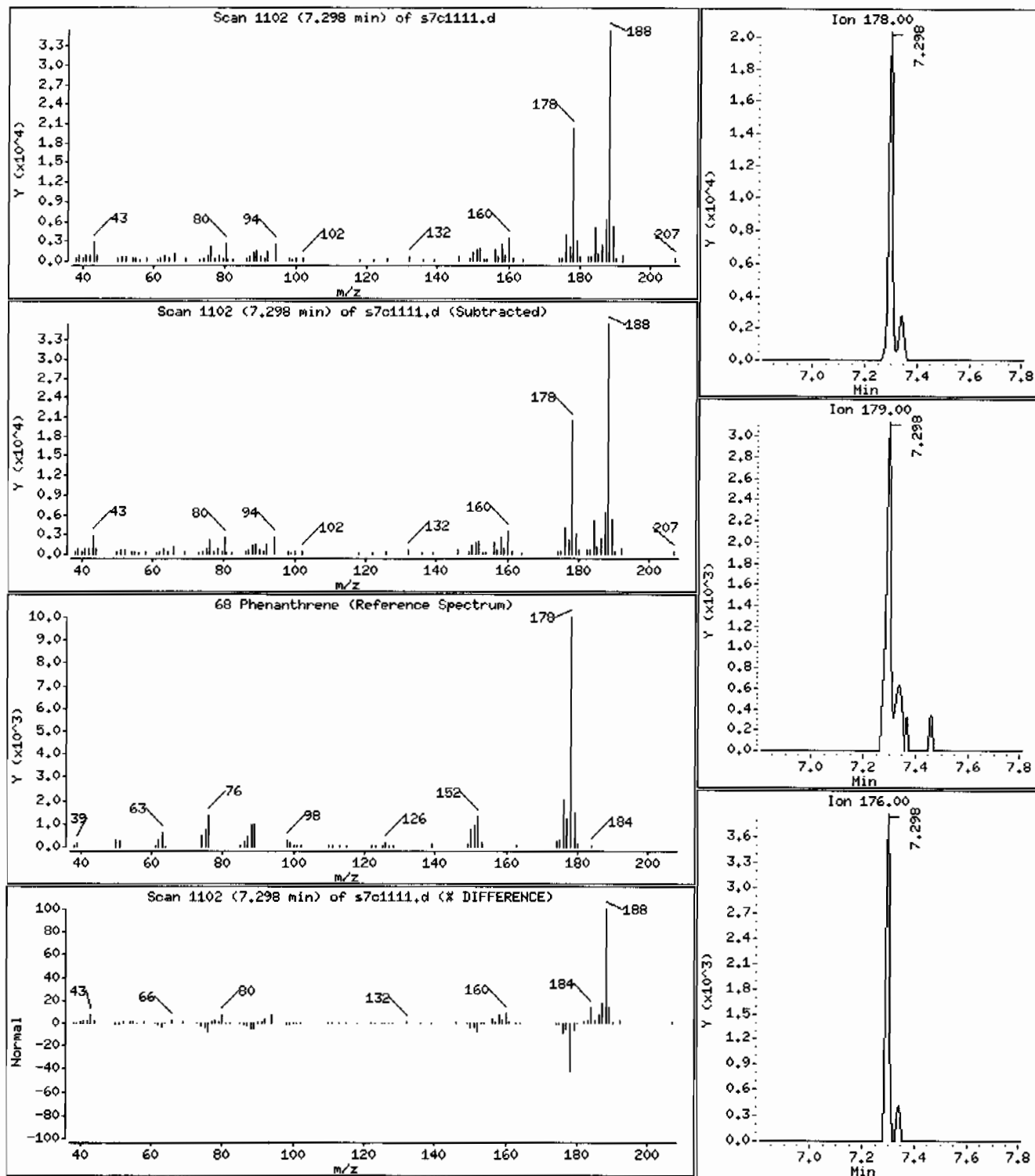
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 29.9 ug/Kg



Date: 11-MAR-2010 16:26

Client ID: RE36-10-7476

Instrument: MSD7.i

Sample Info: 1248043013195962311SVH111LANL

Volume Injected (uL): 0.5

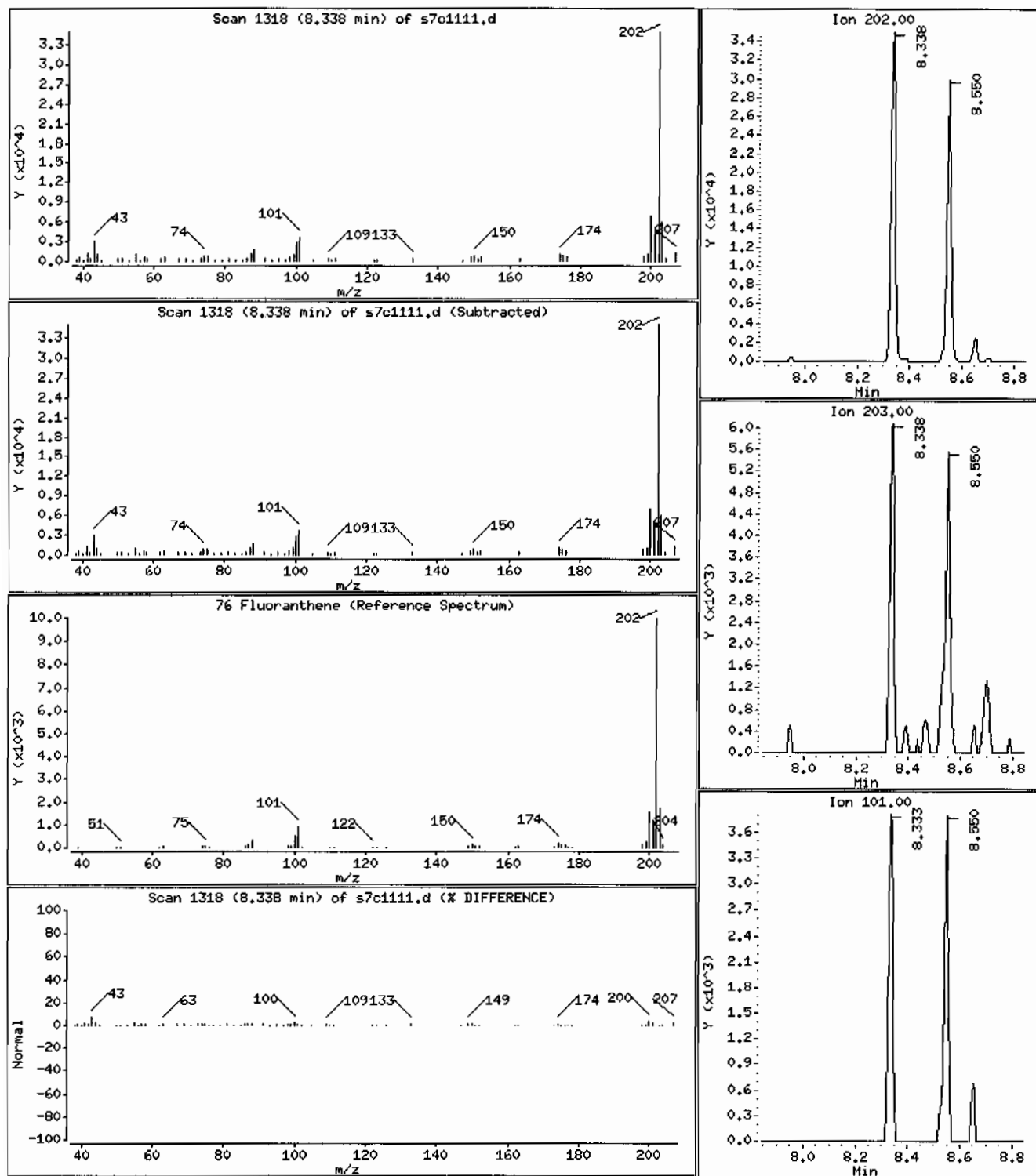
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 50.5 ug/Kg



Date : 11-MAR-2010 16:26

Client ID: RE36-10-7476

Instrument: MSD7.i

Sample Info: I248043013I95962311ISVM11ILANL

Volume Injected (uL): 0.5

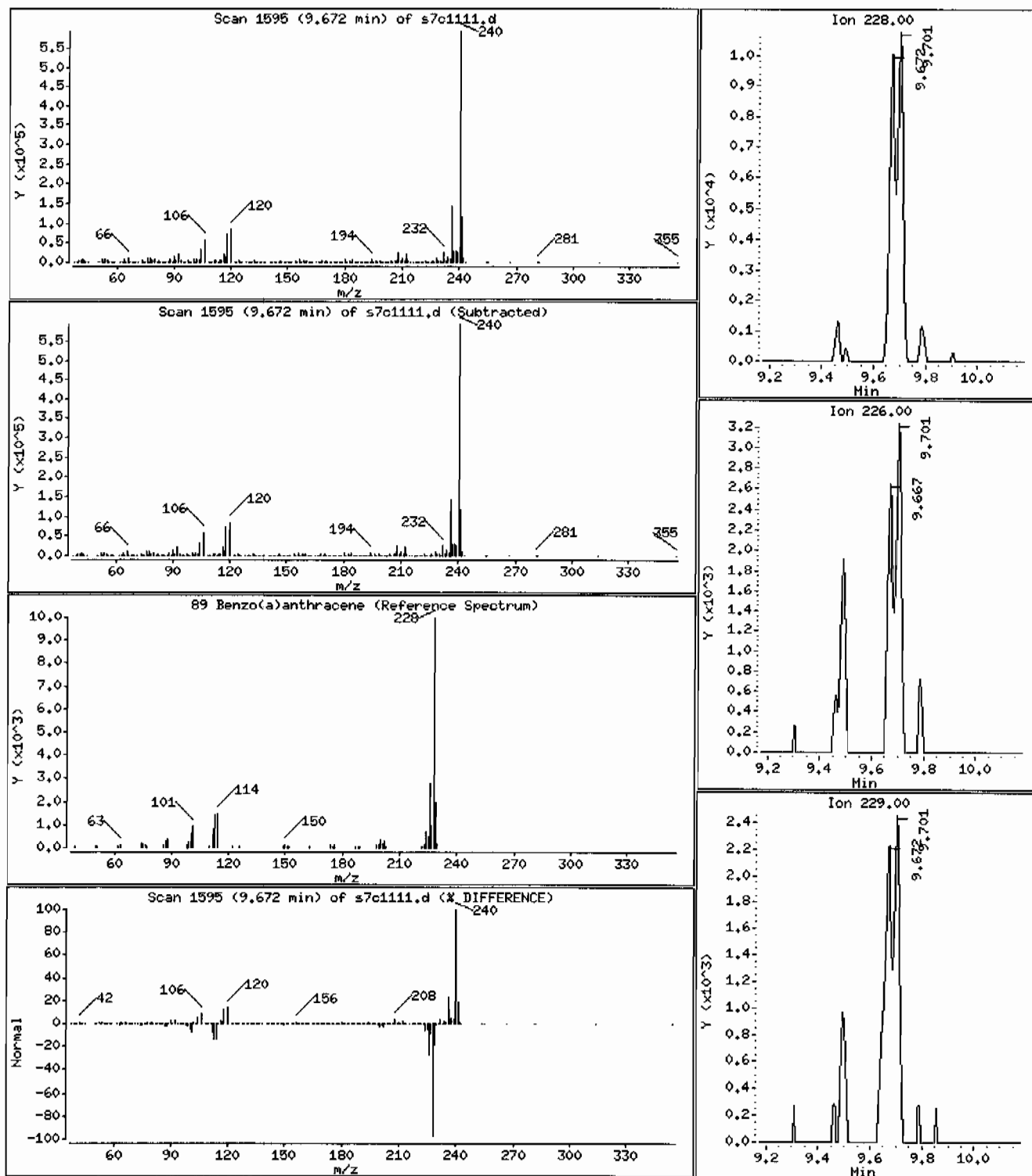
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 24.0 ug/Kg



Date : 11-MAR-2010 16:26

Client ID: RE36-10-7476

Instrument: MSD7.i

Sample Info: 12480430131959623111SVH111LANL

Volume Injected (uL): 0.5

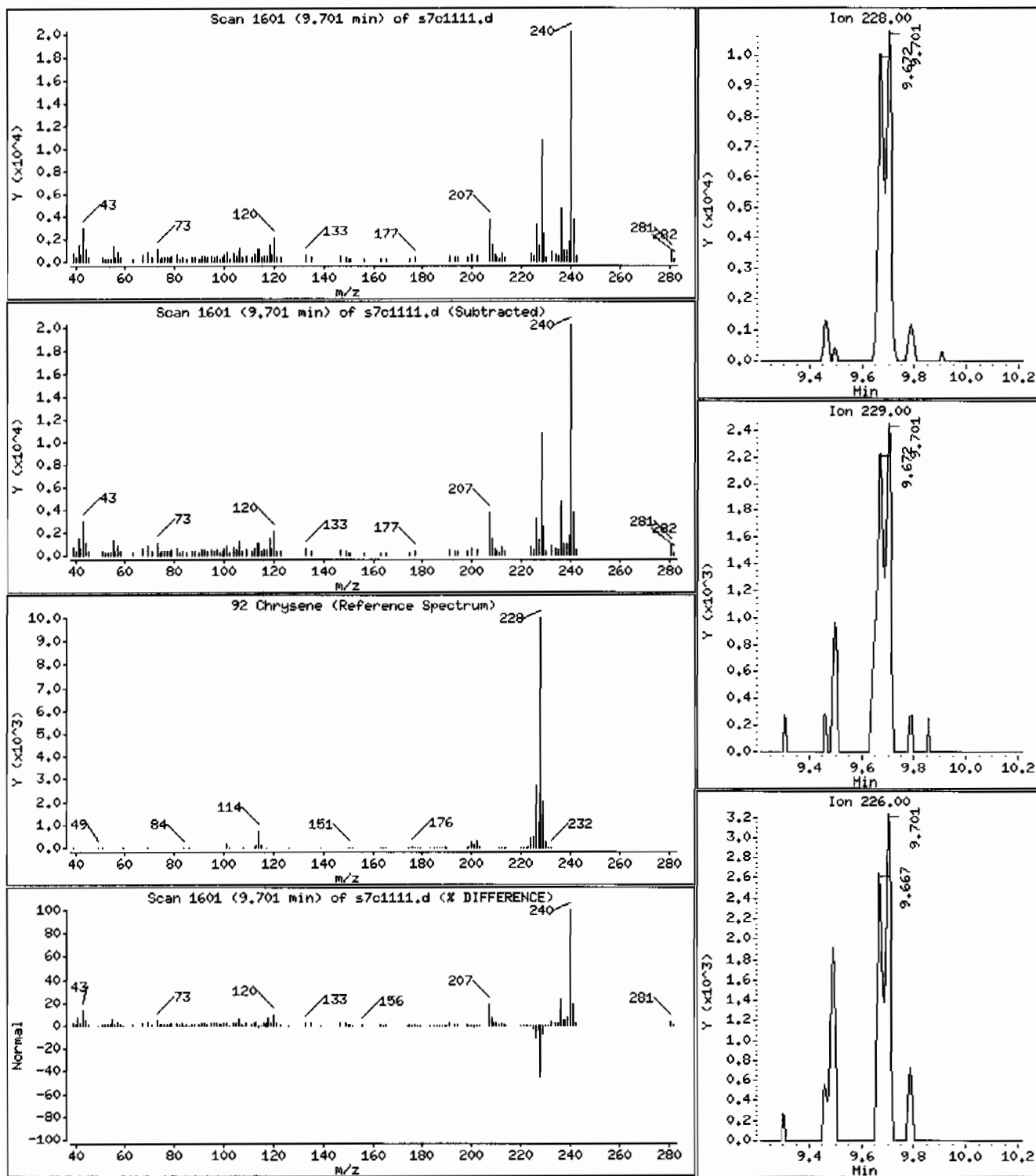
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 25.1 ug/Kg



Date : 11-MAR-2010 16:26

Client ID: RE36-10-7476

Instrument: MSD7.i

Sample Info: 1248043013195962311SVH11ILANL

Volume Injected (uL): 0.5

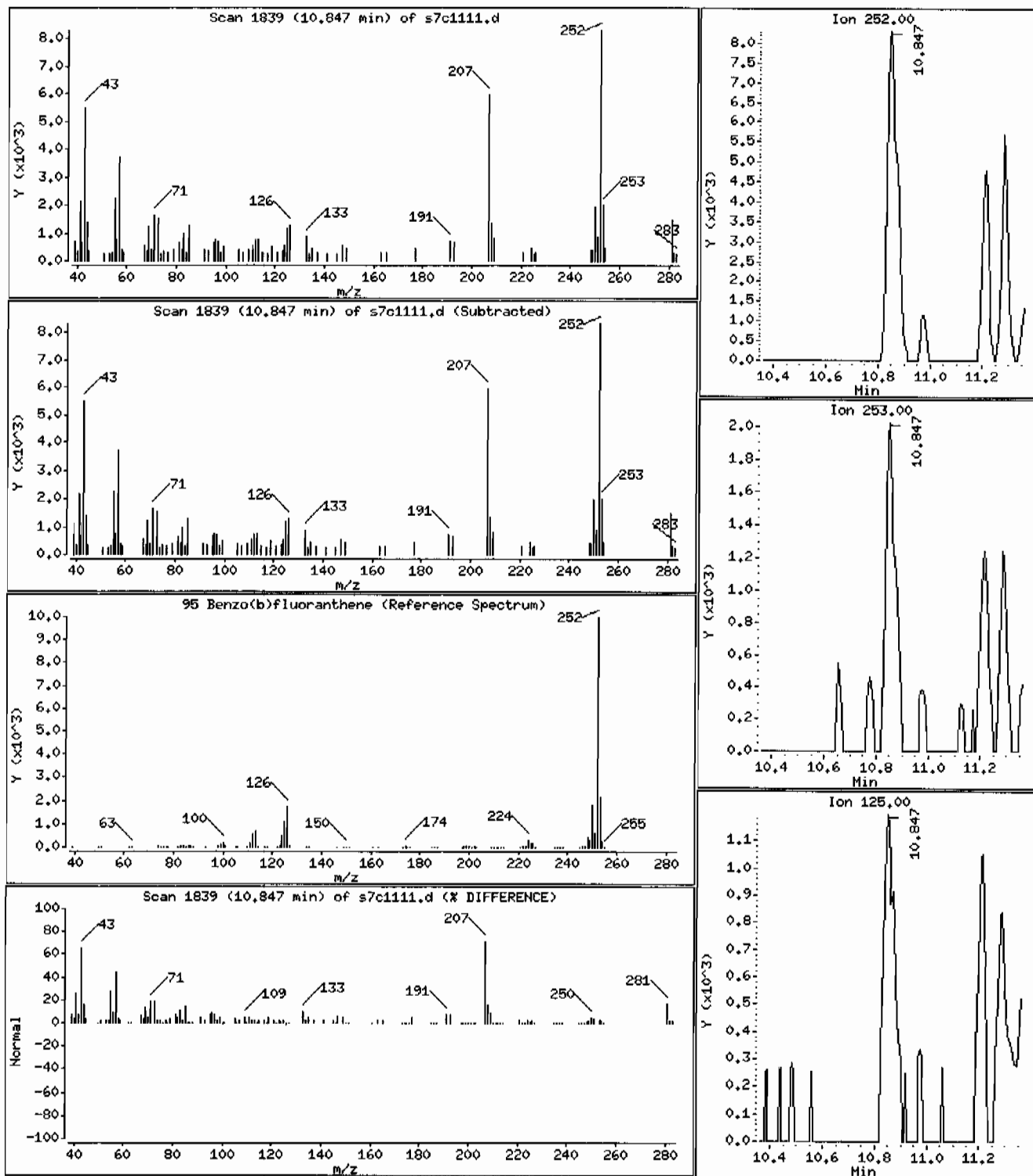
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 40,2 ug/Kg



Date : 11-MAR-2010 16:26

Client ID: RE36-10-7476

Instrument: MSD7.i

Sample Info: 1248043013195962311/SVMH11ILANL

Volume Injected (uL): 0.5

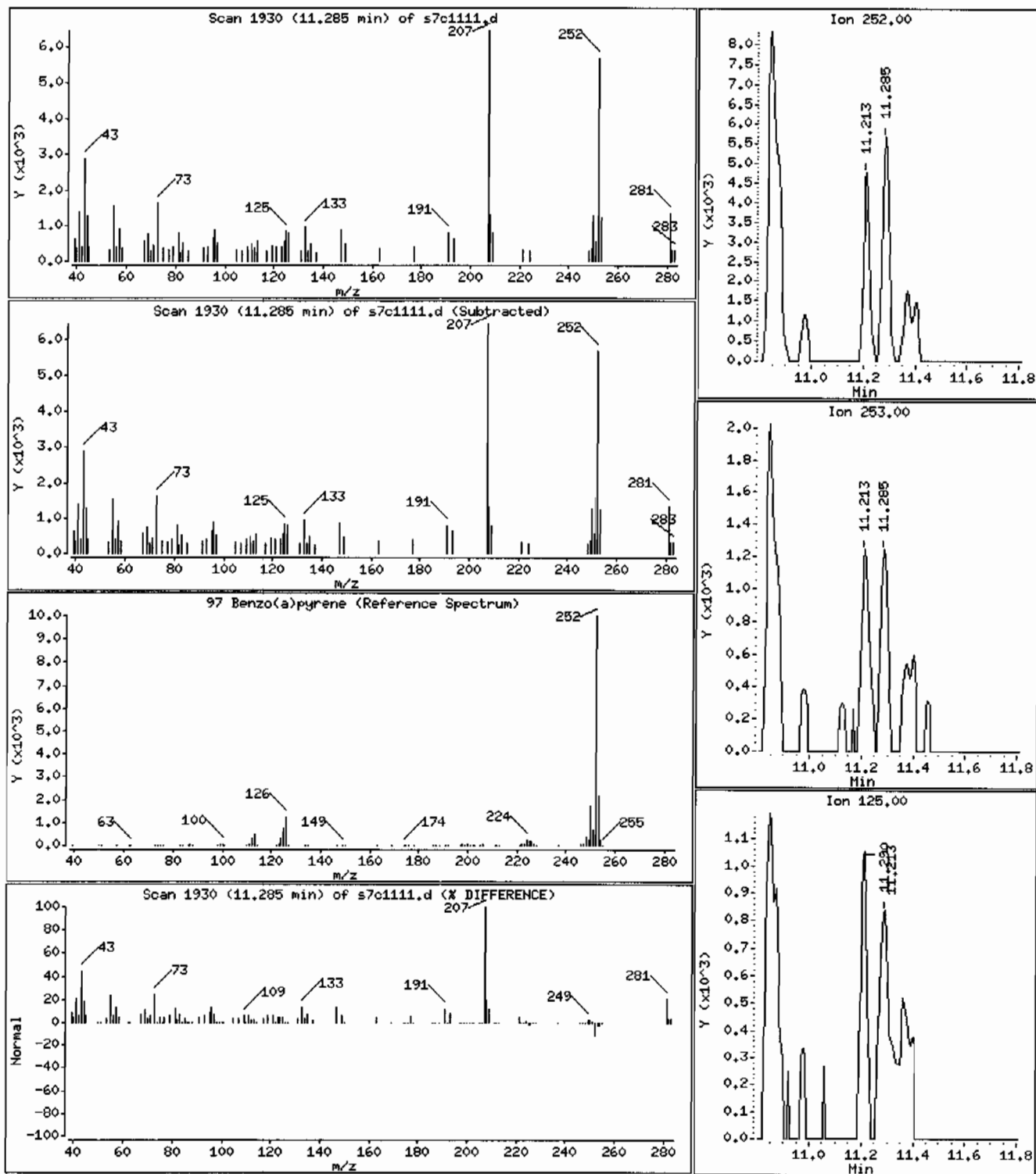
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 21,7 ug/Kg



Date: 11-MAR-2010 16:26

Client ID: RE36-10-7476

Instrument: MSD7.1

Sample Info: 1248043013195962311ISVH11ILANL

Volume Injected (uL): 0.5

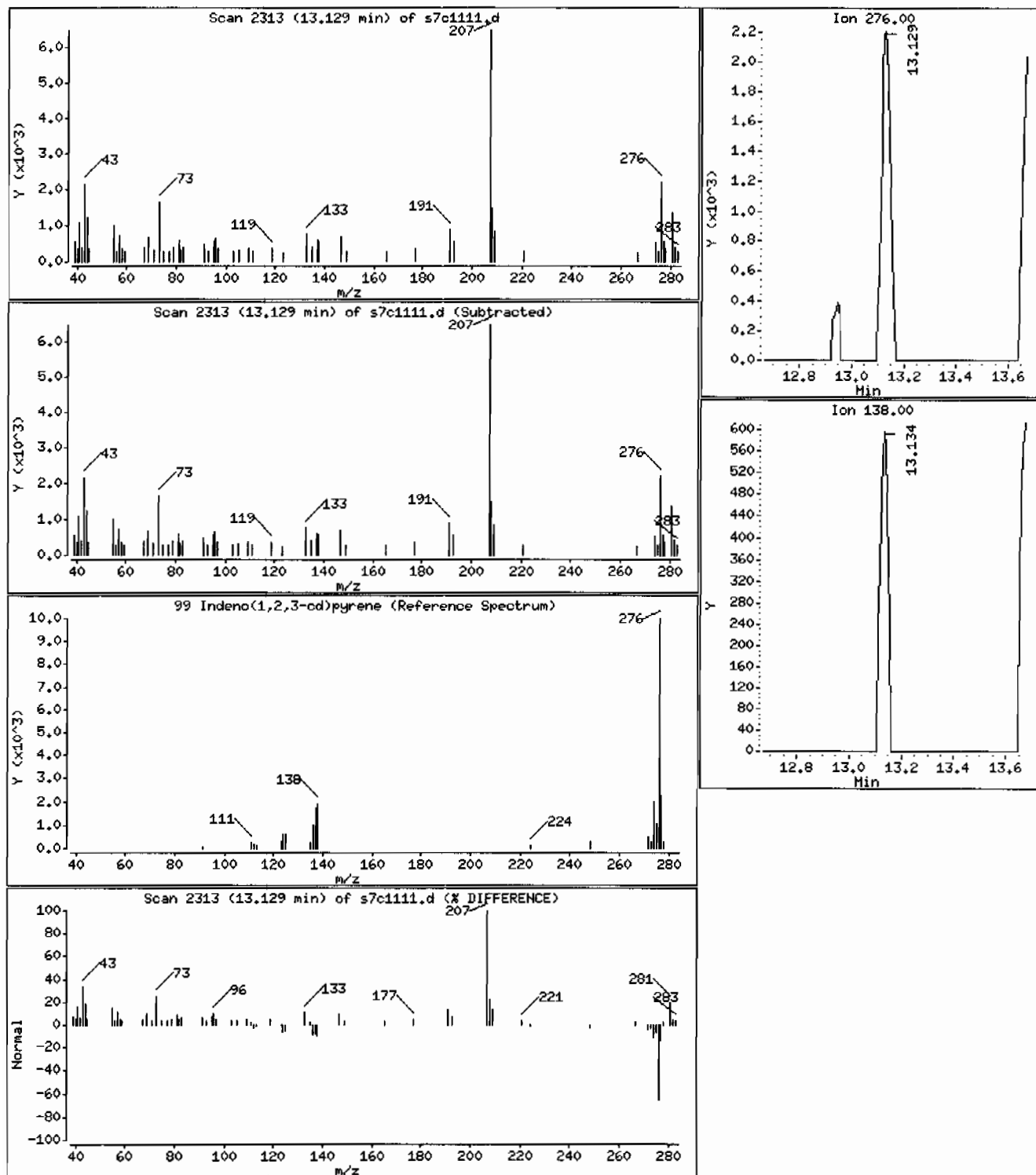
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 15.8 ug/Kg





Date : 11-MAR-2010 16:26

Client ID: RE36-10-7476

Instrument: MSD7.i

Sample Info: 12480430131959623111SVH111LANL

Volume Injected (uL): 0.5

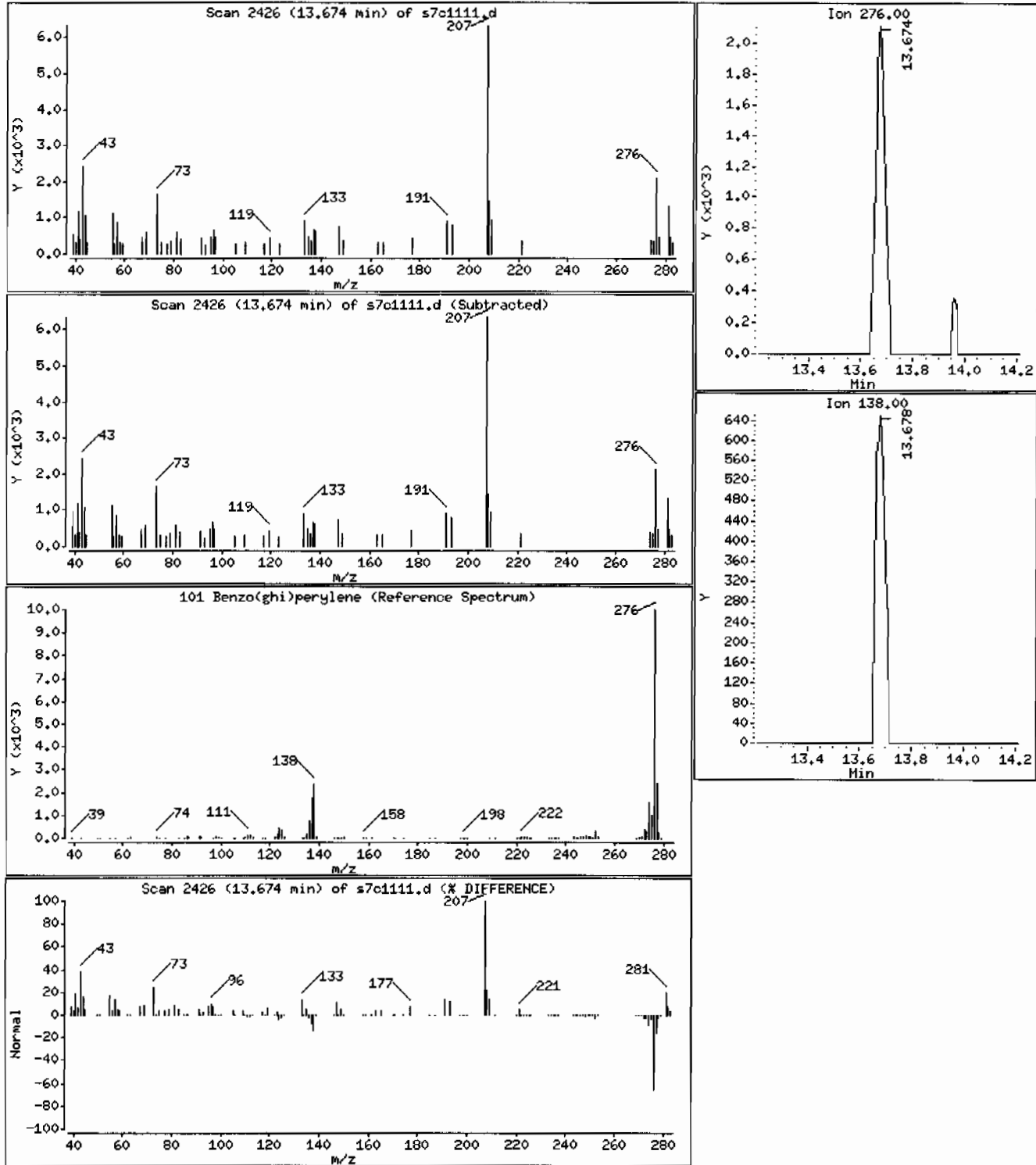
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 19.4 ug/Kg



Date : 11-MAR-2010 16:26

Client ID: RE36-10-7476

Instrument: MSD7.i

Sample Info: 12480430131959623111SVH111LANL

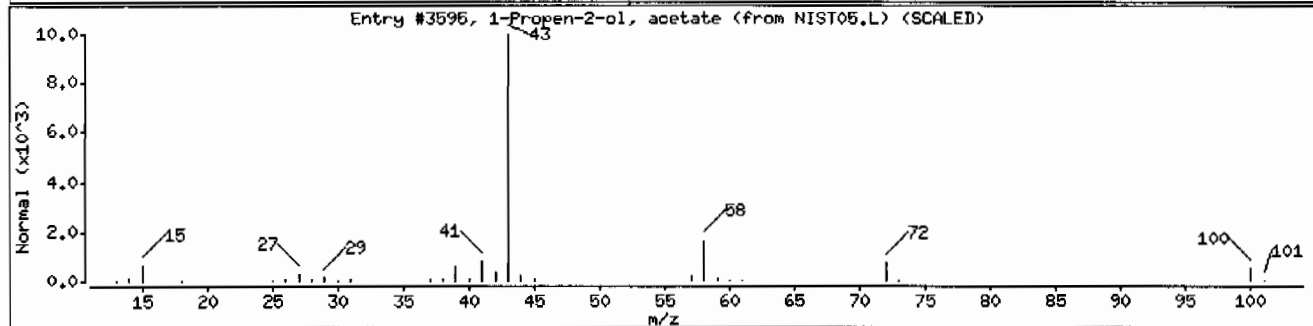
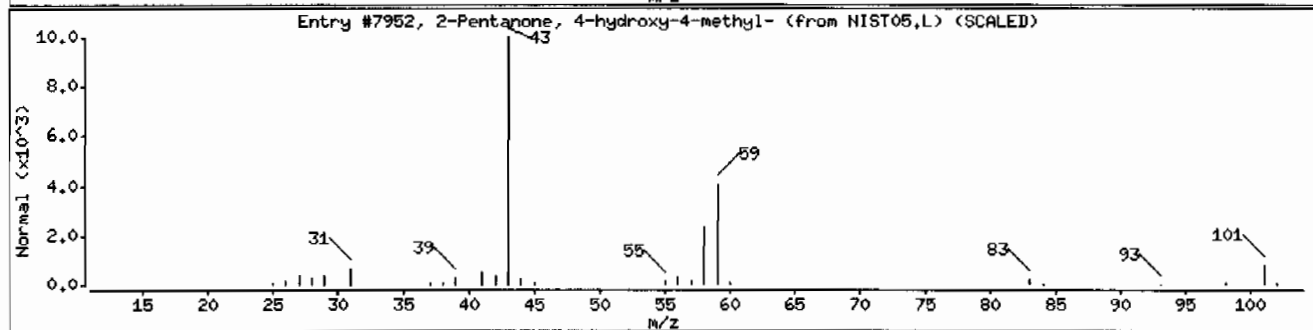
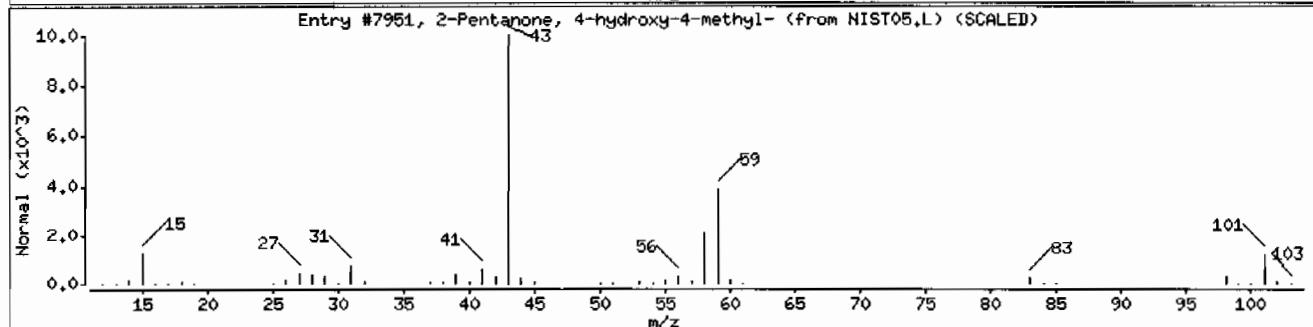
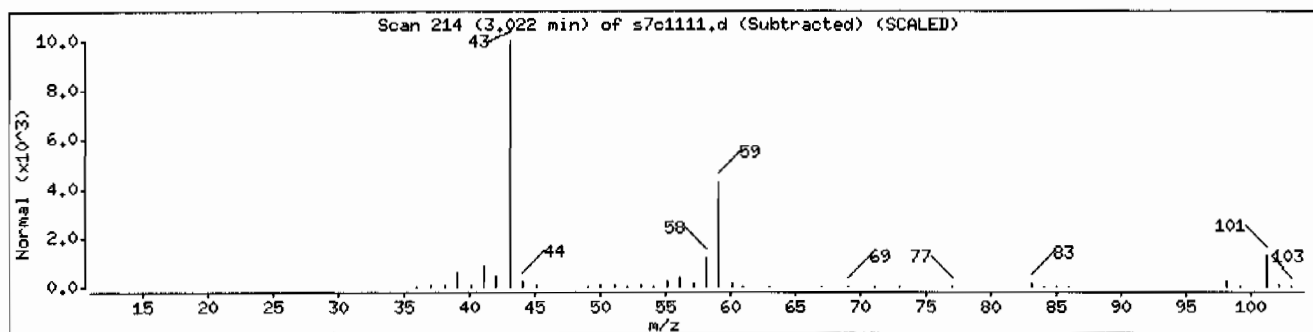
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
1-Propen-2-ol, acetate	108-22-5	NIST05.L	3595	10	C5H8O2	100



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043018

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.08 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 10  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	4200	ug/kg	839	4200
108-95-2	Phenol	U	4200	ug/kg	839	4200
95-57-8	2-Chlorophenol	U	4200	ug/kg	839	4200
106-46-7	1,4-Dichlorobenzene	U	4200	ug/kg	839	4200
621-64-7	N-Nitrosodipropylamine	U	4200	ug/kg	839	4200
59-50-7	4-Chloro-3-methylphenol	U	4200	ug/kg	839	4200
83-32-9	Acenaphthene		948	ug/kg	139	420
121-14-2	2,4-Dinitrotoluene	U	4200	ug/kg	420	4200
100-02-7	4-Nitrophenol	U	4200	ug/kg	1390	4200
87-86-5	Pentachlorophenol	U	4200	ug/kg	1050	4200
129-00-0	Pyrene		9440	ug/kg	126	420
110-86-1	Pyridine	U	4200	ug/kg	839	4200
62-53-3	Aniline	U	4200	ug/kg	1260	4200
111-44-4	bis(2-Chloroethyl) ether	U	4200	ug/kg	839	4200
541-73-1	1,3-Dichlorobenzene	U	4200	ug/kg	839	4200
100-51-6	Benzyl alcohol	U	4200	ug/kg	1260	4200
95-50-1	1,2-Dichlorobenzene	U	4200	ug/kg	839	4200
108-60-1	bis(2-Chloroisopropyl)ether	U	4200	ug/kg	839	4200
95-48-7	o-Cresol	U	4200	ug/kg	839	4200
65794-96-9	m,p-Cresols	U	4200	ug/kg	1260	4200
67-72-1	Hexachloroethane	U	4200	ug/kg	839	4200
98-95-3	Nitrobenzene	U	4200	ug/kg	839	4200
78-59-1	Isophorone	U	4200	ug/kg	839	4200
88-75-5	2-Nitrophenol	U	4200	ug/kg	839	4200
105-67-9	2,4-Dimethylphenol	U	4200	ug/kg	1470	4200
111-91-1	bis(2-Chloroethoxy)methane	U	4200	ug/kg	839	4200
120-83-2	2,4-Dichlorophenol	U	4200	ug/kg	839	4200
65-85-0	Benzoic acid	U	8390	ug/kg	2100	8390
91-20-3	Naphthalene	J	385	ug/kg	126	420
106-47-8	4-Chloroaniline	U	4200	ug/kg	839	4200
87-68-3	Hexachlorobutadiene	U	4200	ug/kg	839	4200
91-57-6	2-Methylnaphthalene	J	214	ug/kg	83.9	420
77-47-4	Hexachlorocyclopentadiene	U	4200	ug/kg	839	4200
88-06-2	2,4,6-Trichlorophenol	U	4200	ug/kg	839	4200
95-95-4	2,4,5-Trichlorophenol	U	4200	ug/kg	839	4200
91-58-7	2-Chloronaphthalene	U	420	ug/kg	139	420
88-74-4	2-Nitroaniline	U	4200	ug/kg	839	4200
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	4200	ug/kg	839	4200

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043018

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30.08 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 10  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	4200	ug/kg	839	4200
606-20-2	2,6-Dinitrotoluene	U	4200	ug/kg	420	4200
208-96-8	Acenaphthylene	U	420	ug/kg	126	420
51-28-5	2,4-Dinitrophenol	U	8390	ug/kg	1590	8390
132-64-9	Dibenzofuran	U	4200	ug/kg	839	4200
84-66-2	Diethylphthalate	U	4200	ug/kg	839	4200
86-73-7	Fluorene		928	ug/kg	126	420
7005-72-3	4-Chlorophenylphenylether	U	4200	ug/kg	839	4200
534-52-1	2-Methyl-4,6-dinitrophenol	U	4200	ug/kg	839	4200
100-01-6	4-Nitroaniline	U	4200	ug/kg	1260	4200
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	4200	ug/kg	839	4200
122-66-7	Azobenzene	U	4200	ug/kg	839	4200
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	4200	ug/kg	839	4200
118-74-1	Hexachlorobenzene	U	4200	ug/kg	839	4200
85-01-8	Phenanthrene		10200	ug/kg	126	420
120-12-7	Anthracene		1850	ug/kg	83.9	420
84-74-2	Di-n-butylphthalate	U	4200	ug/kg	839	4200
206-44-0	Fluoranthene		11300	ug/kg	126	420
85-68-7	Butylbenzylphthalate	U	4200	ug/kg	839	4200
56-55-3	Benzo(a)anthracene		4700	ug/kg	126	420
91-94-1	3,3'-Dichlorobenzidine	U	4200	ug/kg	1260	4200
218-01-9	Chrysene		4900	ug/kg	126	420
117-81-7	bis(2-Ethylhexyl)phthalate	U	4200	ug/kg	839	4200
117-84-0	Di-n-octylphthalate	U	4200	ug/kg	839	4200
205-99-2	Benzo(b)fluoranthene		7410	ug/kg	126	420
207-08-9	Benzo(k)fluoranthene	U	420	ug/kg	126	420
50-32-8	Benzo(a)pyrene		4020	ug/kg	126	420
193-39-5	Indeno(1,2,3-cd)pyrene		2530	ug/kg	126	420
53-70-3	Dibenzo(a,h)anthracene		928	ug/kg	126	420
191-24-2	Benzo(ghi)perylene		2770	ug/kg	126	420
120-82-1	1,2,4-Trichlorobenzene	U	4200	ug/kg	839	4200

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
1058-61-3	Stigmast-4-en-3-one	8.48	2450	ug/kg	95	NJ
	Unknown	10.14	3640	ug/kg		J

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 3 of 3

SDG Number: 10-2074  
Lab Sample ID: 248043018

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30.08 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 10  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit Qual
	Unknown		12.07	3270	ug/kg	J
	Unknown		12.84	4040	ug/kg	J

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Data file : /chem/MSD7.i/s031110.b/s7c1118.d

Lab Smp Id: 248043018

Client Smp ID: RE36-10-7515

Inj Date : 11-MAR-2010 18:57

Operator : JMB3

Inst ID: MSD7.i

Smp Info : |248043018|959623|10|SVM|1|LANL

Misc Info : |MSD8270\_S|WBN100227-01|

Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness

Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD

Cal Date : 26-FEB-2010 22:19

Cal File: s7b2633.d

Als bottle: 18

Dil Factor: 10.00000

Integrator: HP RTE

Compound Sublist: 10-2074.sub

Target Version: 3.50

Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	20.79440	% moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.995	3.990	(1.000)	379916	40.0000	
* 29 Naphthalene-d8	136	4.857	4.857	(1.000)	1422618	40.0000	
* 46 Acenaphthene-d10	164	6.114	6.114	(1.000)	792980	40.0000	
* 67 Phenanthrene-d10	188	7.284	7.284	(1.000)	1364554	40.0000	
* 91 Chrysene-d12	240	9.691	9.691	(1.000)	924364	40.0000	
* 98 Perylene-d12	264	11.386	11.386	(1.000)	563807	40.0000	
\$ 3 2-Fluorophenol	112	3.191	3.181	(0.799)	38300	3.87852	1630
\$ 5 Phenol-d5	99	3.716	3.706	(0.930)	44018	3.55529	1490
\$ 20 Nitrobenzene-d5	82	4.351	4.356	(0.896)	22673	2.11308	887
\$ 39 2-Fluorobiphenyl	172	5.594	5.598	(0.915)	51926	2.62752	1100
\$ 60 2,4,6-Tribromophenol	329	6.711	6.711	(1.008)	11805	5.14962	2160
\$ 81 p-Terphenyl-d14	244	8.656	8.656	(0.893)	50466	3.04743	1280

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	----	-----	-----	-----	-----	-----
47 Acenaphthene	154	6.133	6.138	(1.003)	39432	2.25923	948
79 Pyrene	202	8.560	8.560	(0.883)	656914	22.4953	9440
30 Naphthalene	128	4.871	4.876	(1.003)	24629	0.91648	385 (aQ)
34 2-Methylnaphthalene	142	5.353	5.353	(1.102)	9845	0.51045	214 (a)
53 Fluorene	166	6.523	6.528	(1.067)	45485	2.20989	928
68 Phenanthrene	178	7.303	7.308	(1.003)	679502	24.2668	10200
69 Anthracene	178	7.346	7.351	(1.009)	125049	4.40948	1850
76 Fluoranthene	202	8.348	8.343	(1.146)	821073	26.9683	11300
89 Benzo (a) anthracene	228	9.677	9.677	(0.998)	248022	11.1925	4700
92 Chrysene	228	9.711	9.715	(1.002)	230139	11.6710	4900
95 Benzo (b) fluoranthene	252	10.866	10.861	(0.954)	279176	17.6565	7410
97 Benzo (a) pyrene	252	11.305	11.309	(0.993)	124068	9.56958	4020
99 Indeno (1,2,3-cd) pyrene	276	13.158	13.168	(1.156)	56264	6.03502	2530
100 Dibenzo (a,h) anthracene	278	13.168	13.182	(1.156)	16341	2.21178	928
101 Benzo (ghi) perylene	276	13.707	13.712	(1.204)	51225	6.58842	2760

#### QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation (BLOQ).
- Q - Qualifier signal failed the ratio test.

## ION RATIO REPORT

## SV REPORT

Data file: s7c1118.d

Report Date: 03/12/2010 08:17

Lab. ID: 248043018

SampleType: SAMPLE

Injection Date: 11-MAR-2010 18:57

Operator: JMB3

Instrument: MSD7.i

Sample Info: |248043018|959623|10|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

Dilution Factor= 10.0

Integrator: HP RTE

Compound Sublist: 10-2074

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
30 Naphthalene			CAS#: 91-20-3			
128	24629	4.87	4.88	80-120	100	( )
129	3026	4.87	4.88	0- 42	12	( )
127	3280	4.87	4.89	19- 79	13	(Q)
-----						
34 2-Methylnaphthalene			CAS#: 91-57-6			
142	9845	5.35	5.35	80-120	100	( )
141	8382	5.35	5.35	54-114	85	( )
-----						
43 Dimethylphthalate			CAS#: 131-11-3			
163	141400	6.11	5.87	80-120	100	(T)
164	792980	6.11	5.87	0- 40	561	(QT)
-----						
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	104364	6.11	5.93	80-120	100	(T)
63	1451	6.11	5.93	52-112	1	(QT)
-----						
45 Acenaphthylene			CAS#: 208-96-8			
152	19769	6.13	6.01	80-120	100	(T)
151	7508	6.13	6.01	0- 49	38	(T)
153	44487	6.13	6.01	0- 43	225	(QT)
-----						
47 Acenaphthene			CAS#: 83-32-9			
154	39432	6.13	6.14	80-120	100	( )
153	44487	6.13	6.14	71-131	113	( )
152	19769	6.13	6.14	17- 77	50	( )
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	104364	6.11	6.23	80-120	100	(T)
89	1678	6.11	6.23	37- 97	2	(QT)
63	1451	6.11	6.23	17- 77	1	(QT)
-----						
52 4-Nitrophenol		CAS#: 100-02-7				
139	12994	6.26	6.16	80-120	100	(T)
109	314	6.26	6.16	34- 94	2	(QT)
65	438	6.26	6.16	64-124	3	(QT)
-----						
53 Fluorene		CAS#: 86-73-7				
166	45485	6.52	6.53	80-120	100	( )
165	39772	6.52	6.53	61-121	87	( )
167	7173	6.52	6.52	0- 44	16	( )
-----						
68 Phenanthrene		CAS#: 85-01-8				
178	679502	7.30	7.31	80-120	100	( )
179	107601	7.30	7.31	0- 46	16	( )
176	123824	7.30	7.31	0- 49	18	( )
-----						
69 Anthracene		CAS#: 120-12-7				
178	125049	7.35	7.35	80-120	100	( )
179	30960	7.35	7.35	0- 46	25	( )
176	22474	7.35	7.35	0- 48	18	( )
-----						
76 Fluoranthene		CAS#: 206-44-0				
202	821073	8.35	8.34	80-120	100	( )
203	142293	8.35	8.34	0- 48	17	( )
101	85458	8.35	8.34	0- 41	10	( )
-----						
79 Pyrene		CAS#: 129-00-0				
202	656914	8.56	8.56	80-120	100	( )
200	132260	8.56	8.56	0- 50	20	( )
101	88709	8.56	8.56	0- 44	14	( )
-----						
89 Benzo(a)anthracene		CAS#: 56-55-3				
228	248022	9.68	9.68	80-120	100	( )
226	64506	9.68	9.68	0- 56	26	( )
229	64560	9.68	9.68	0- 50	26	( )
-----						
92 Chrysene		CAS#: 218-01-9				
228	230139	9.71	9.72	80-120	100	( )
229	53853	9.71	9.72	0- 50	23	( )
226	65005	9.71	9.72	0- 59	28	( )
-----						
95 Benzo(b)fluoranthene		CAS#: 205-99-2				
252	279176	10.87	10.86	80-120	100	( )
253	62774	10.86	10.86	0- 52	22	( )
125	32859	10.86	10.86	0- 41	12	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	279176	10.87	10.90	80-120	100	( )
253	63939	10.86	10.90	0- 52	23	( )
125	32859	10.86	10.90	0- 42	12	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	124068	11.30	11.31	80-120	100	( )
253	30587	11.30	11.31	0- 52	25	( )
125	15642	11.30	11.30	0- 42	13	( )
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	56264	13.16	13.17	80-120	100	( )
138	15498	13.16	13.17	2- 62	28	( )
-----						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	16341	13.17	13.18	80-120	100	( )
139	3248	13.16	13.18	0- 50	20	( )
-----						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	51225	13.71	13.71	80-120	100	( )
138	13809	13.71	13.71	0- 58	27	( )
-----						
Q qualifier indicates ion failed ratio requirement						

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031110.b/s7c1118.d  
Lab Smp Id: 248043018 Client Smp ID: RE36-10-7515  
Inj Date : 11-MAR-2010 18:57  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |248043018|959623|10|SVM|1|LANL  
Misc Info : |MSD8270 S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 18  
Dil Factor: 10.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	20.79440	% moisture

Cpnd Variable Local Compound Variable

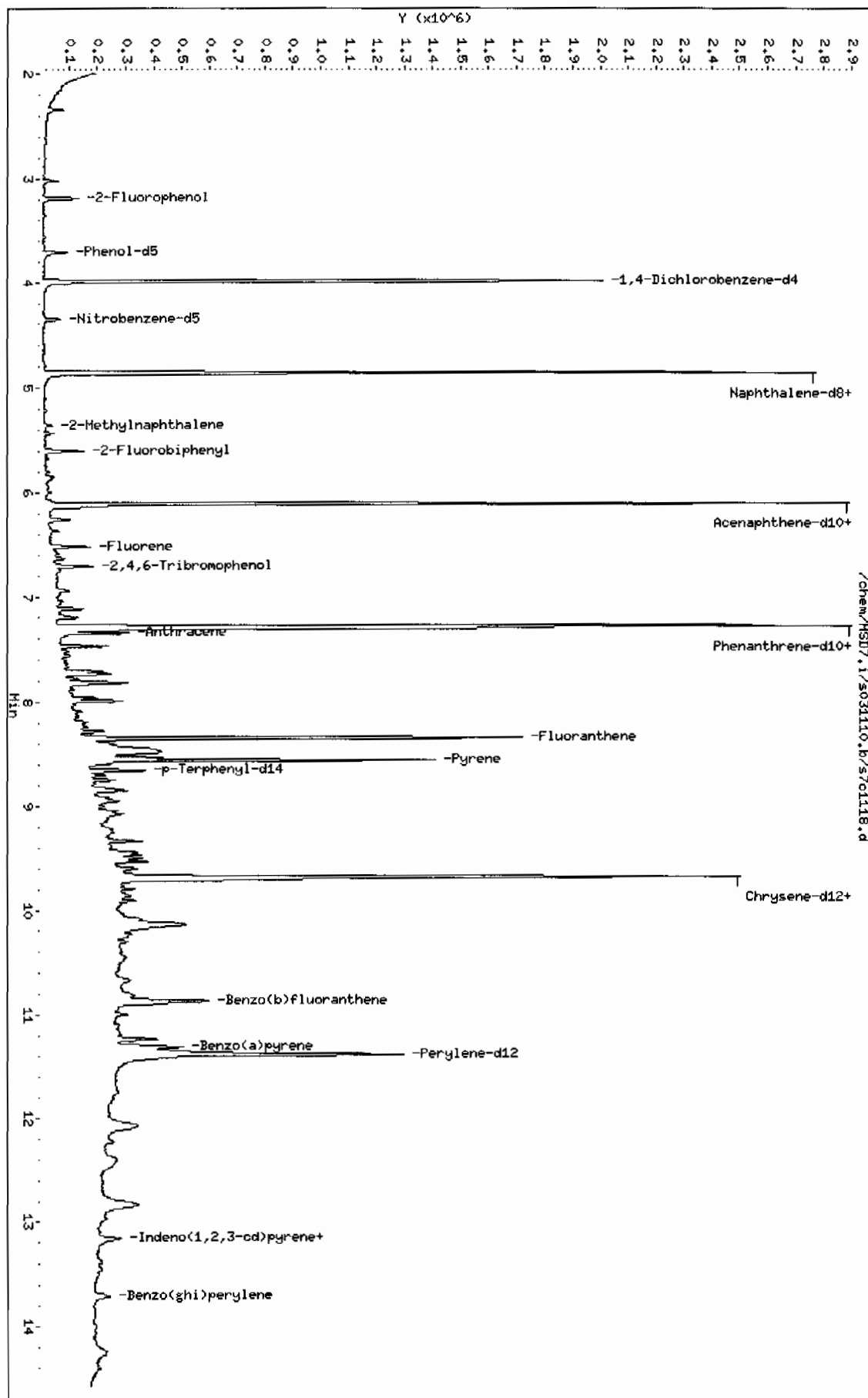
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 67 Phenanthrene-d10	7.284	4994628	40.000
* 91 Chrysene-d12	9.691	3807479	40.000
* 98 Perylene-d12	11.386	2668782	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
====	=====	=====	=====	=====	=====	=====	=====
Stigmast-4-en-3-one					CAS #: 1058-61-3		
8.478	730110	5.84716536	2450	95	NIST05.L	173936	67
Unknown					CAS #:		
10.139	824906	8.66616798	3640	0		0	91
Unknown					CAS #:		
12.075	520253	7.79760223	3270	0		0	98
Unknown					CAS #:		
12.836	642670	9.63241453	4040	0		0	98

Data File: /chem/MSD7.1/s031110.b/s701118.d  
 Date: 11-MAR-2010 18:57  
 Client ID: REC6-10-7515  
 Sample Info: 124804301819596231101SVH111LNL  
 Volume Injected (uL): 0.5  
 Column Phase: J&W DB-SMS

Instrument: MSD7.1  
 Operator: JHB3  
 Column diameter: 0.20



Date: 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: MSD7.i

Sample Info: 124804301819596231101SVH111LANL

Volume Injected (uL): 0.5

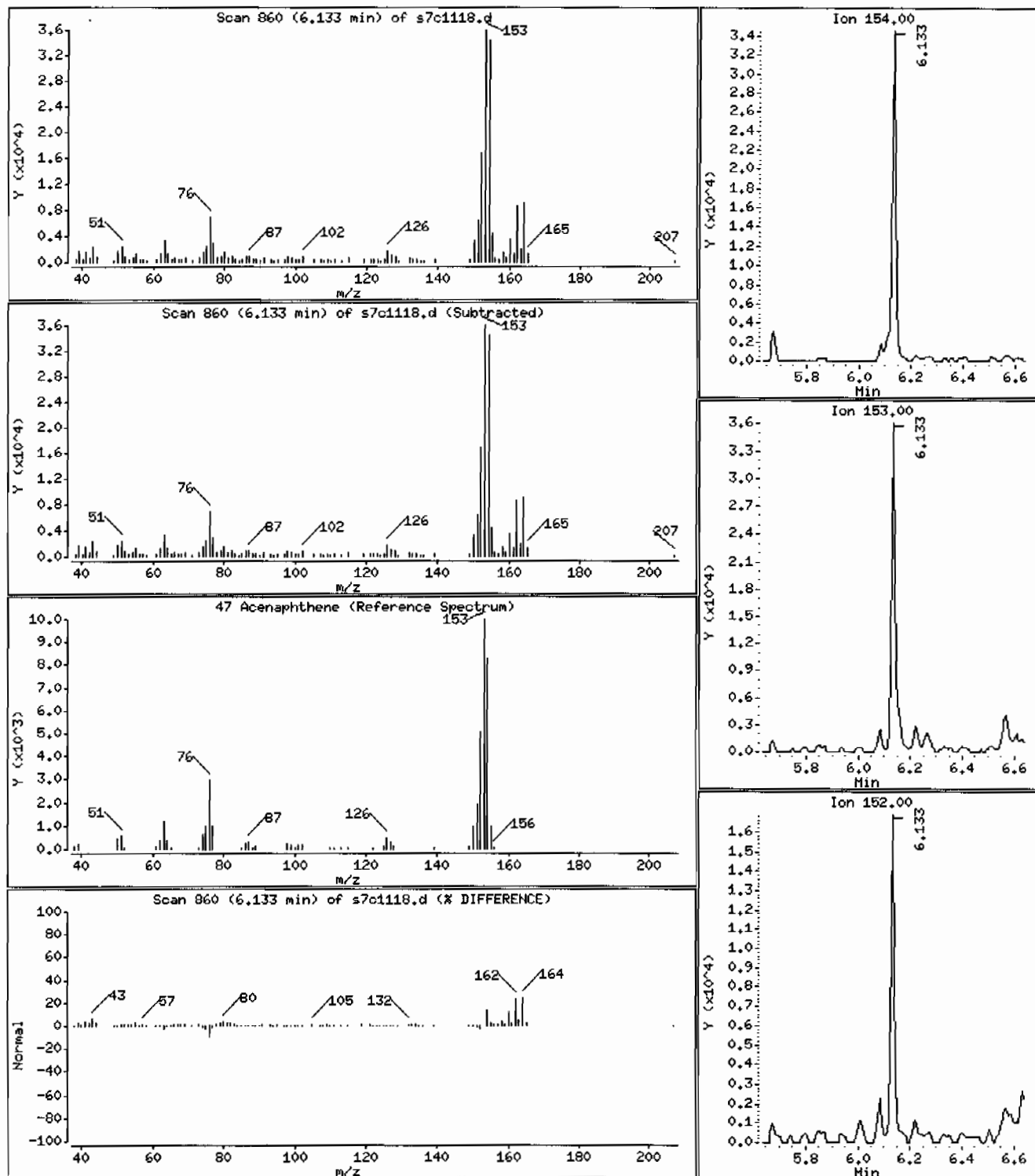
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 948 ug/Kg



Date : 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: HSD7.i

Sample Info: 124804301819596231101SVH111LANL

Volume Injected (uL): 0.5

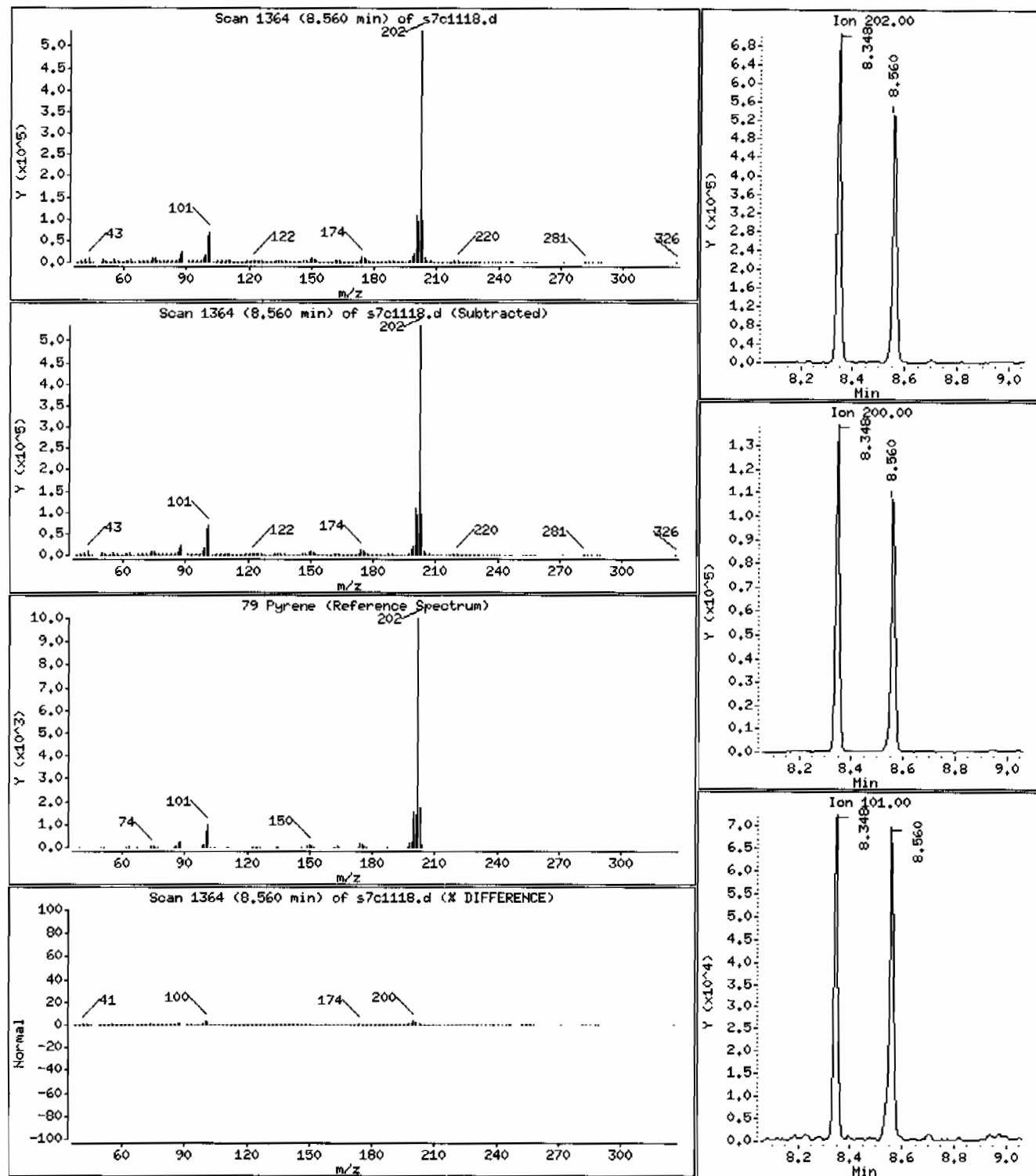
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 9440 ug/Kg



Date : 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: MSD7.i

Sample Info: 124804301819596231101SVH111LANL

Volume Injected (uL): 0.5

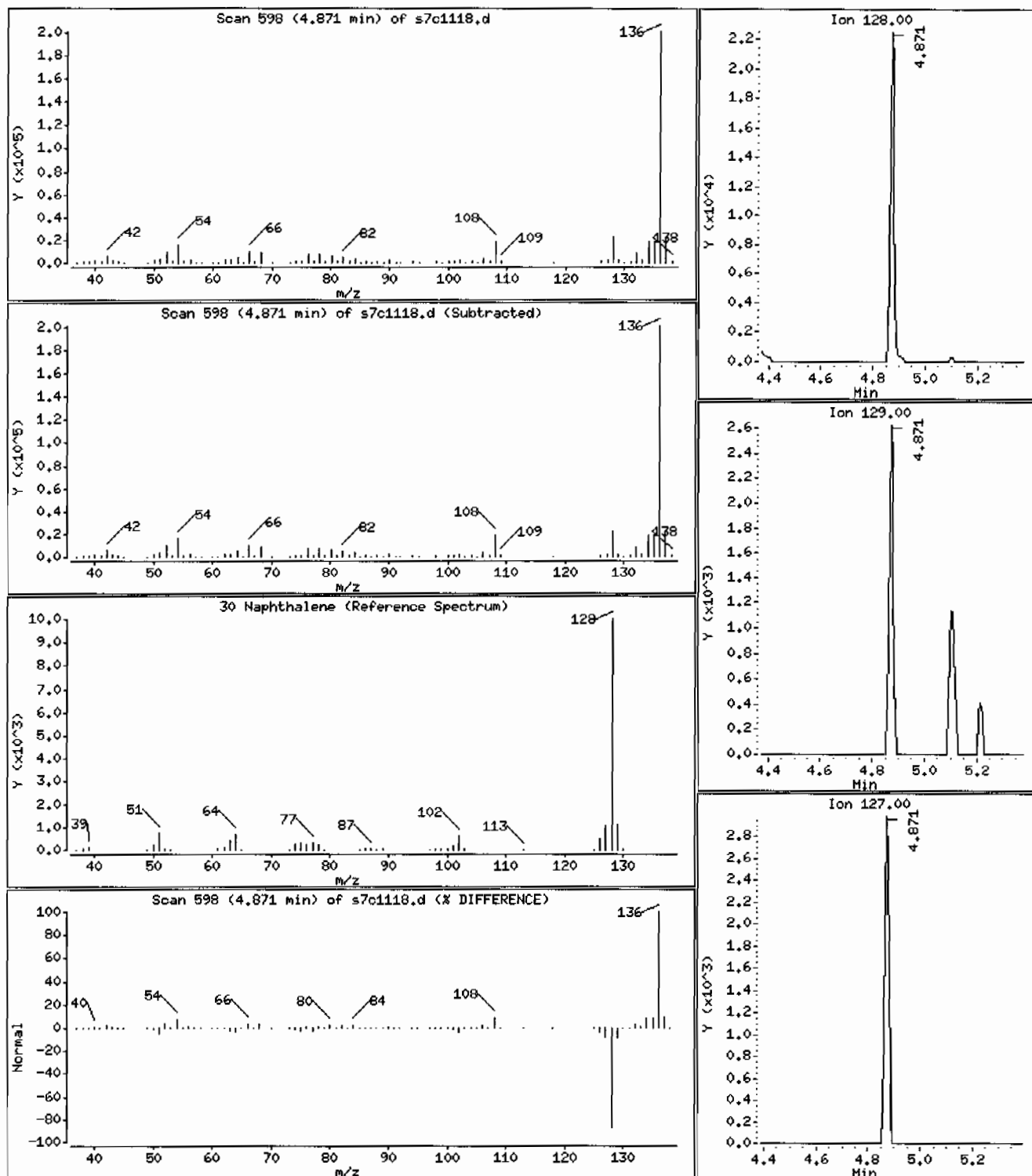
Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 385 ug/Kg





Date : 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: MSD7.i

Sample Info: 124804301819596231101SVH111LANL

Volume Injected (uL): 0.5

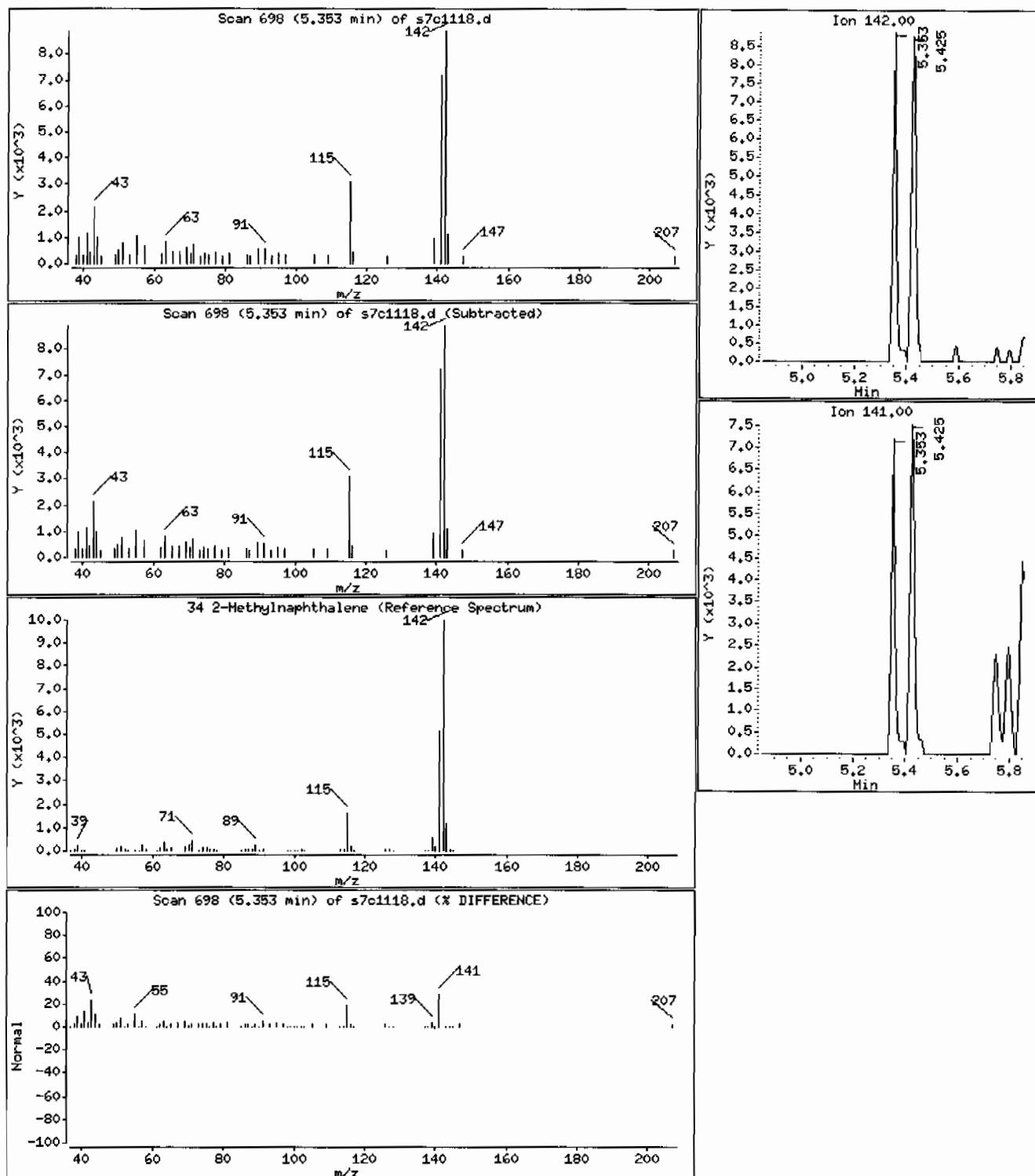
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 214 ug/Kg



Date: 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: MSD7.i

Sample Info: 12480430181959623110|SVH11|LANL

Volume Injected (uL): 0.5

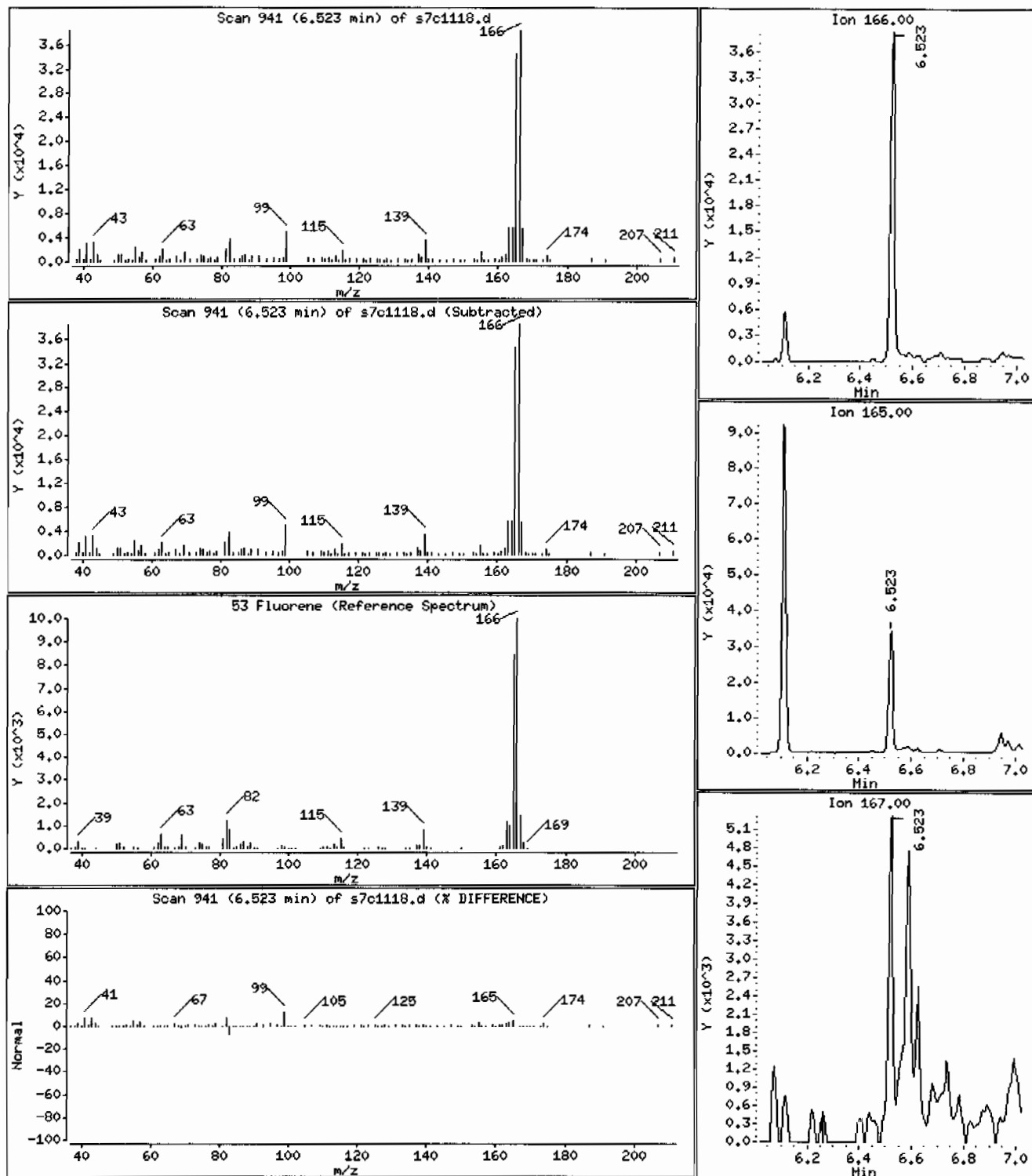
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 928 ug/Kg



Date : 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: HSD7.i

Sample Info: 124804301819596231101SVH111LANL

Volume Injected (uL): 0.5

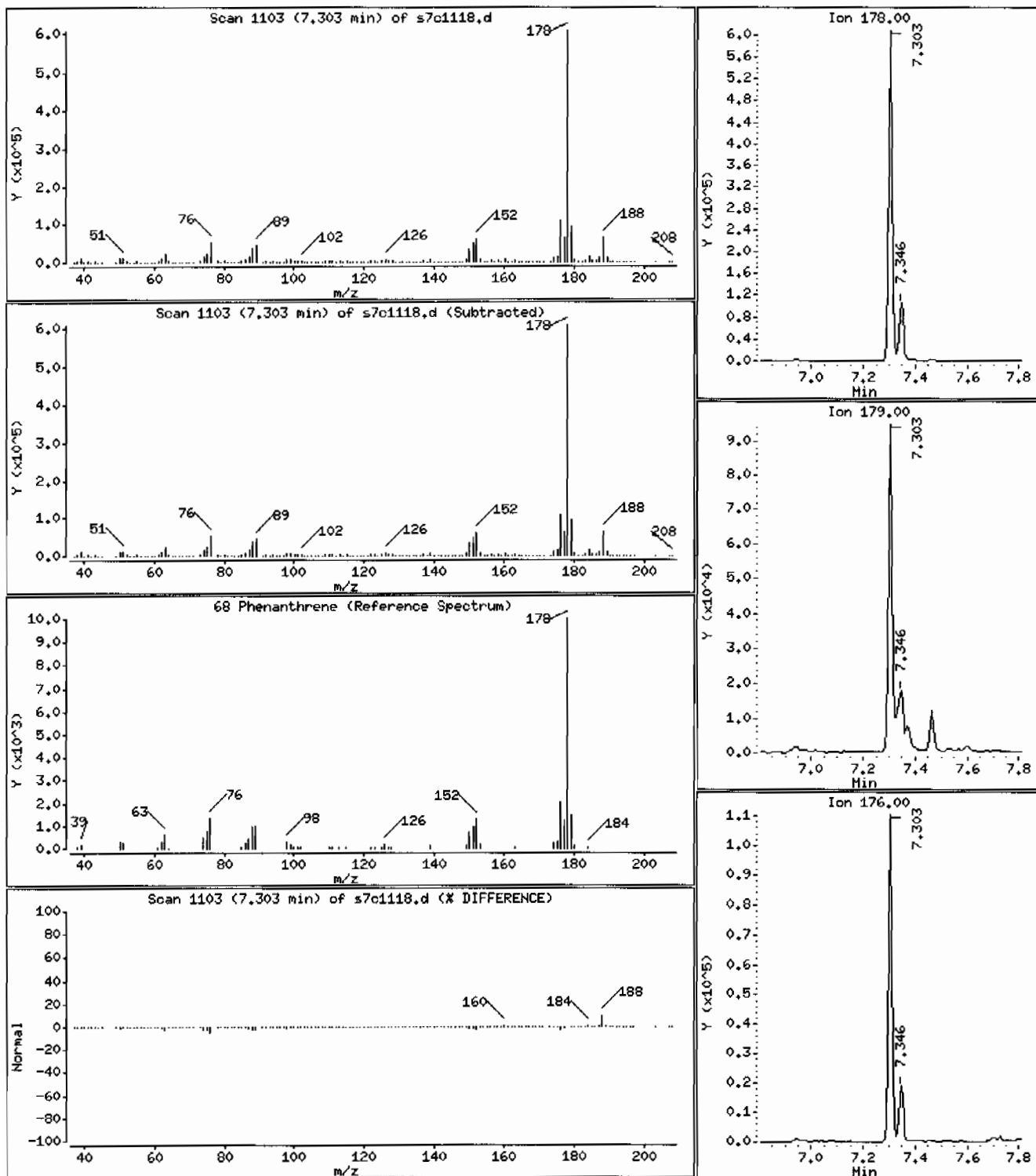
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 10200 ug/Kg



Data File: /chem/MSD7.i/s031110.b/s7c1118.d

Page 8

Date : 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: MSD7.i

Sample Info: 124804301819596231101SVH111LANL

Volume Injected (uL): 0.5

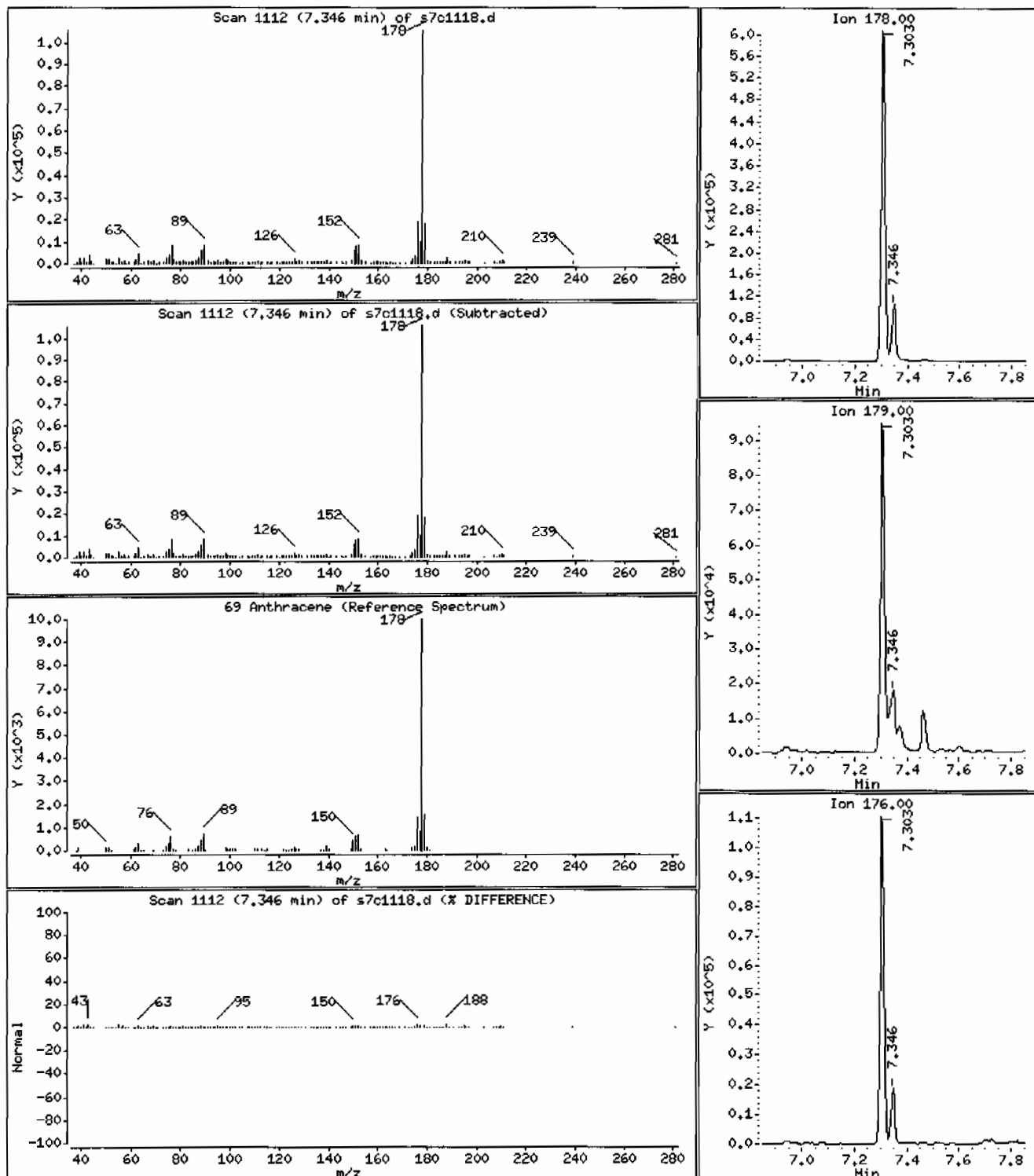
Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 1850 ug/Kg



Date : 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: MSD7.i

Sample Info: 12480430181959623110|SVH11|LANL

Volume Injected (uL): 0.5

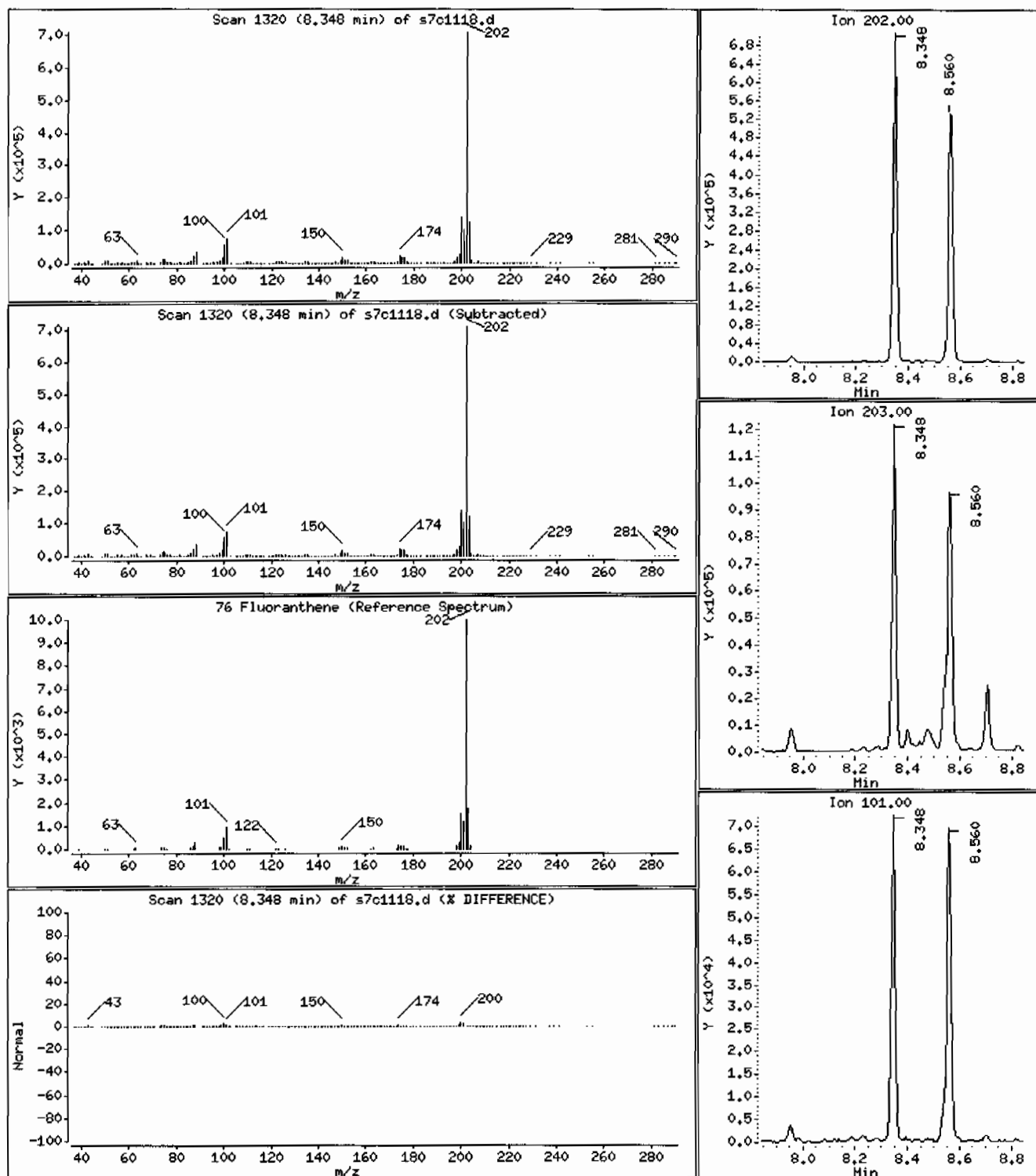
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 11300 ug/Kg



Date: 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: MSD7.i

Sample Info: 12480430181959623101SVH111LANL

Volume Injected (uL): 0.5

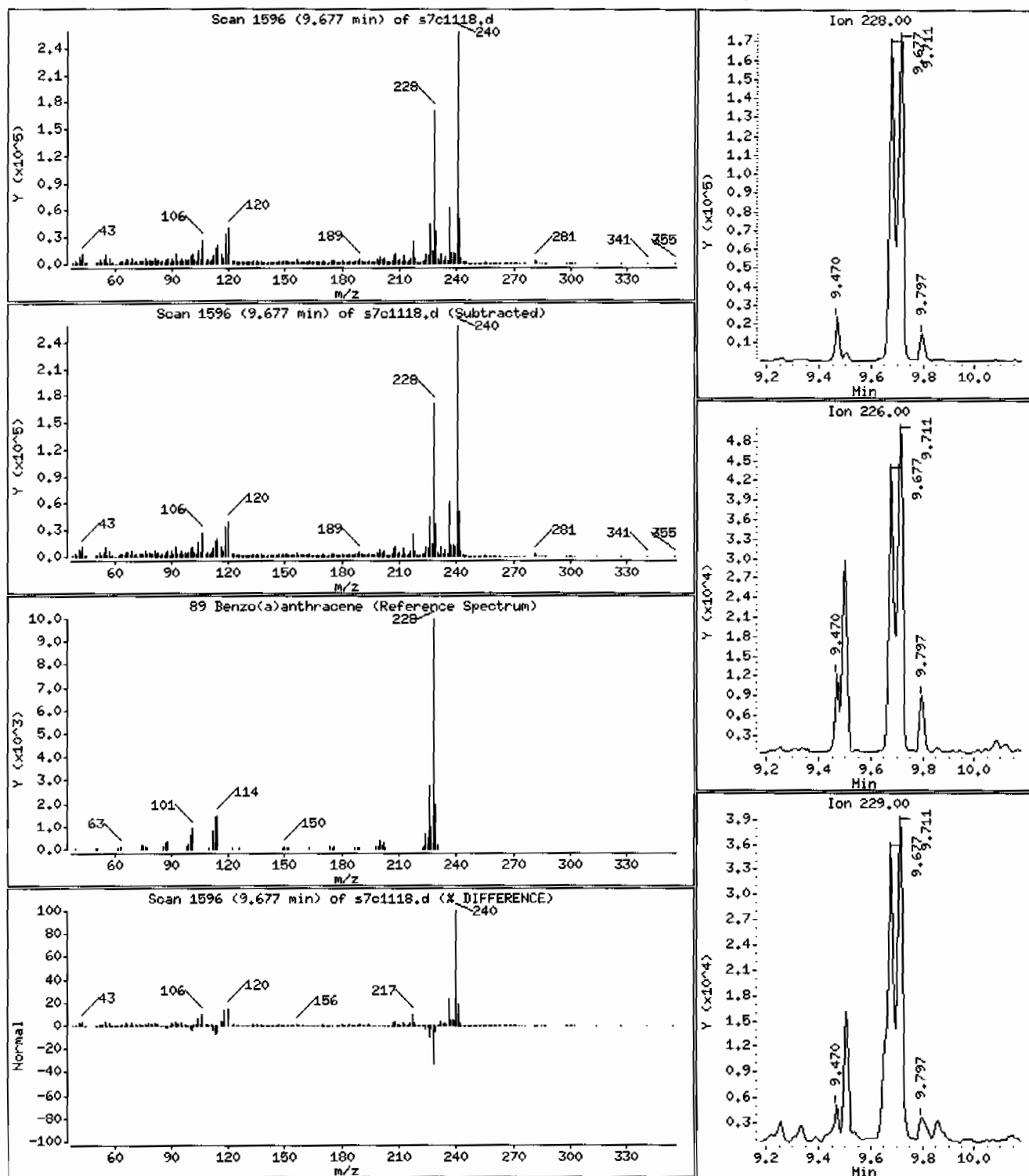
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 4700 ug/Kg



Date: 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: MSD7.i

Sample Info: 124804301819596231101SVH111LANL

Volume Injected (uL): 0.5

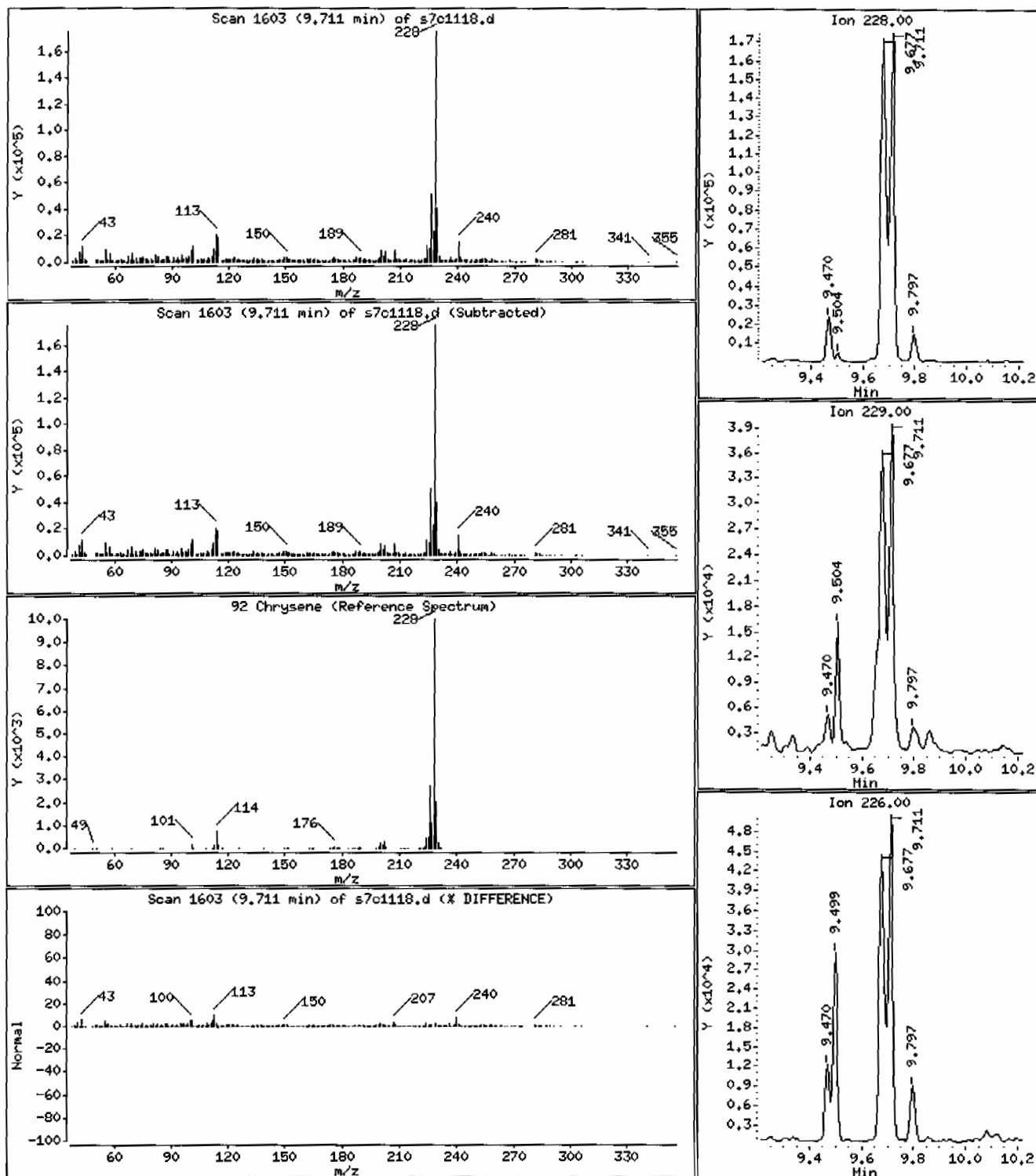
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 4900 ug/Kg



Date: 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: MSD7.i

Sample Info: 124804301819596231101SVMI11LANL

Volume Injected (uL): 0.5

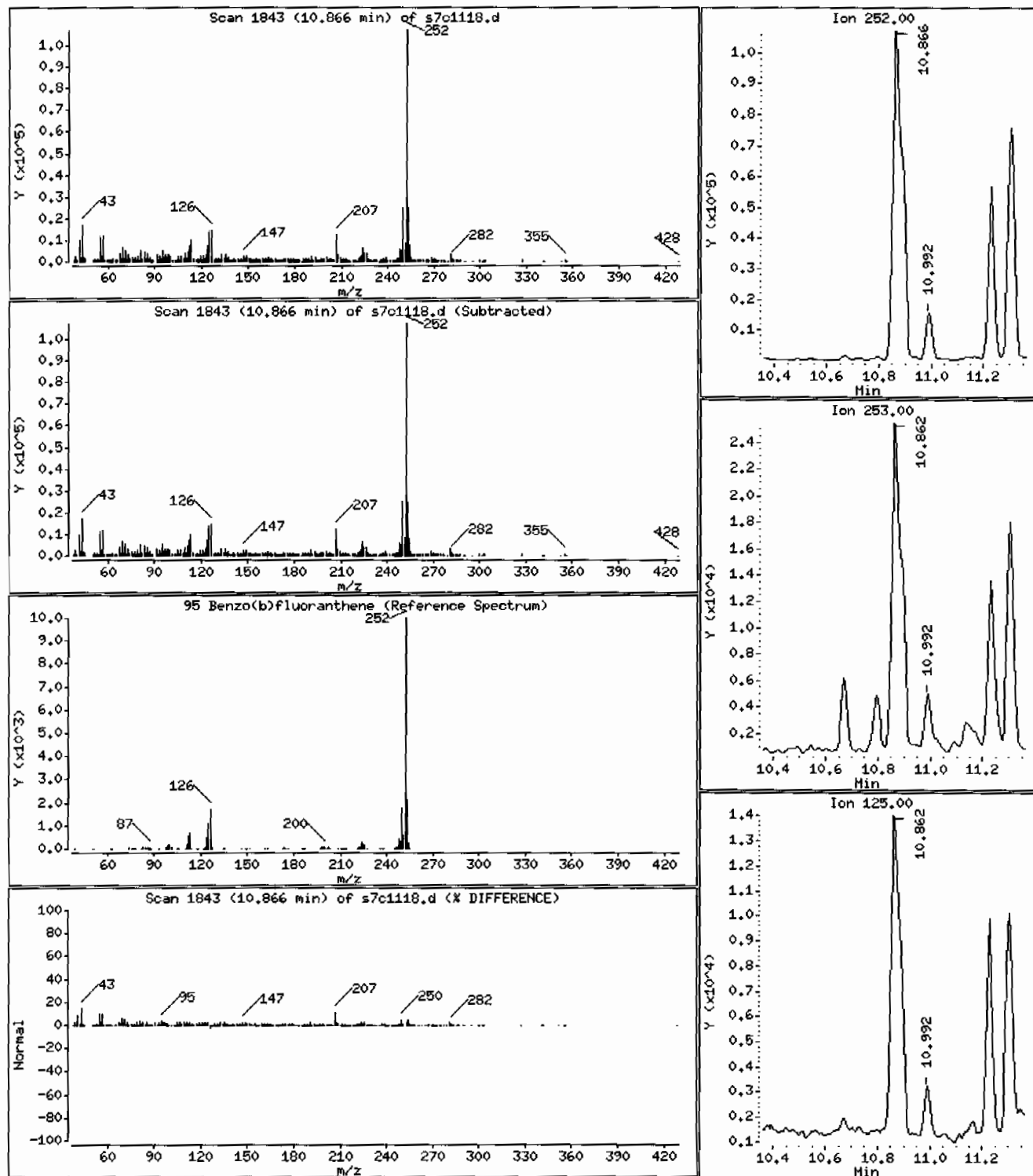
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 7410 ug/Kg





Date : 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: HSD7.i

Sample Info: 124804301819596231101SVH111LANL

Volume Injected (uL): 0.5

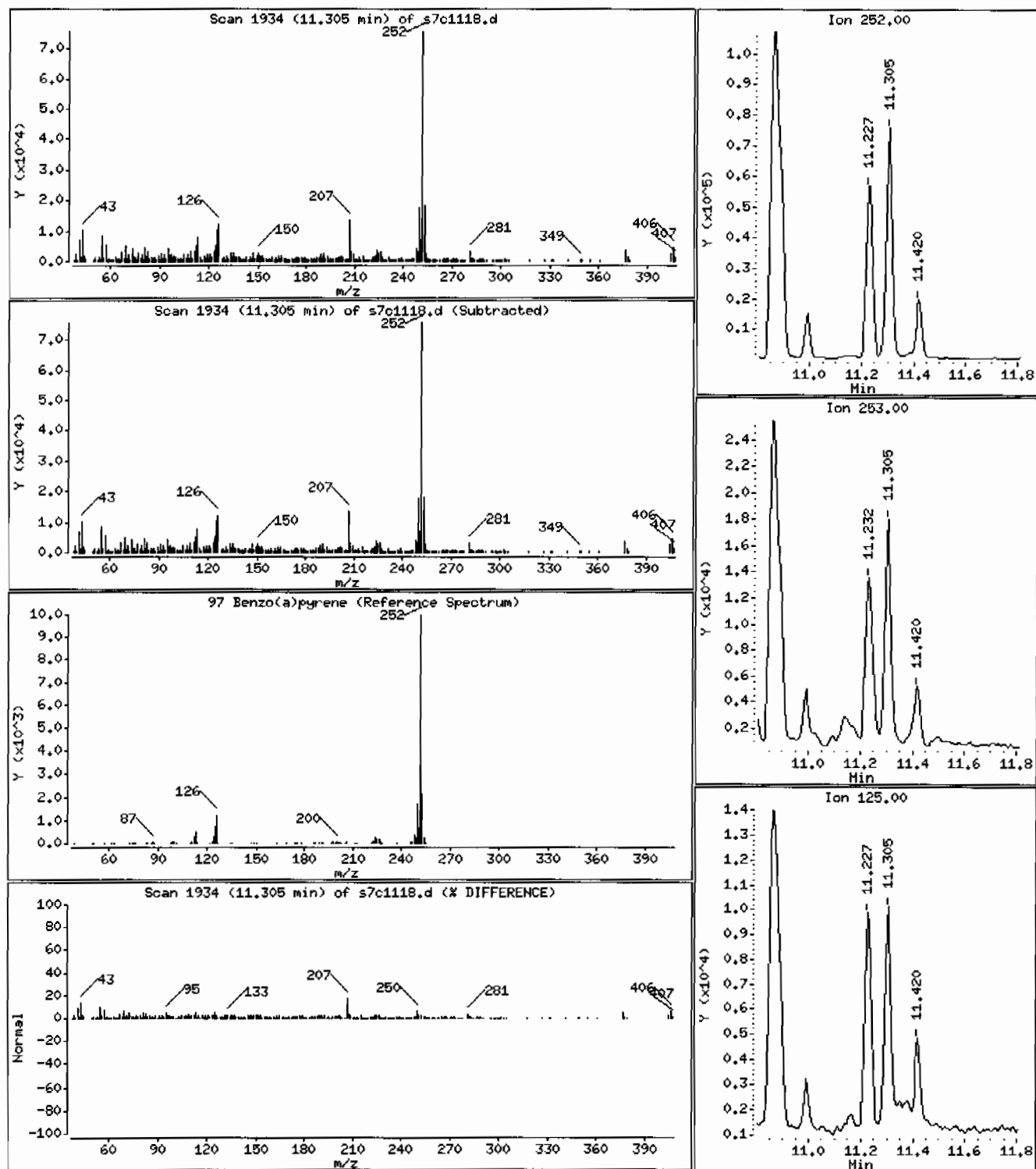
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 4020 ug/Kg



Date : 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: HSD7.i

Sample Info: 1248043018195962310ISVH11ILANL

Volume Injected (uL): 0.5

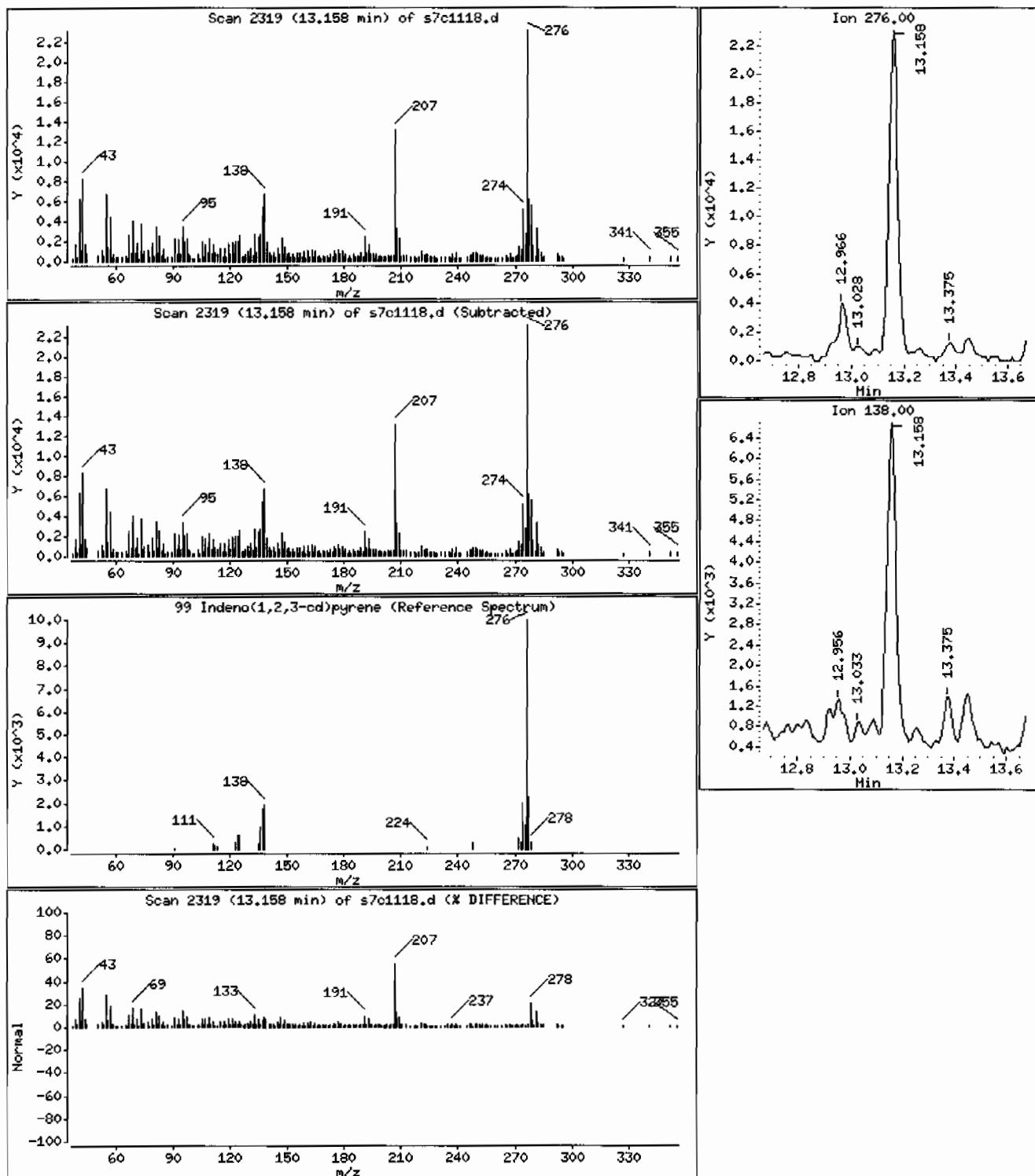
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 2530 ug/Kg



Date : 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: MSD7.i

Sample Info: 124804301819596231101SVH111LANL

Volume Injected (uL): 0.5

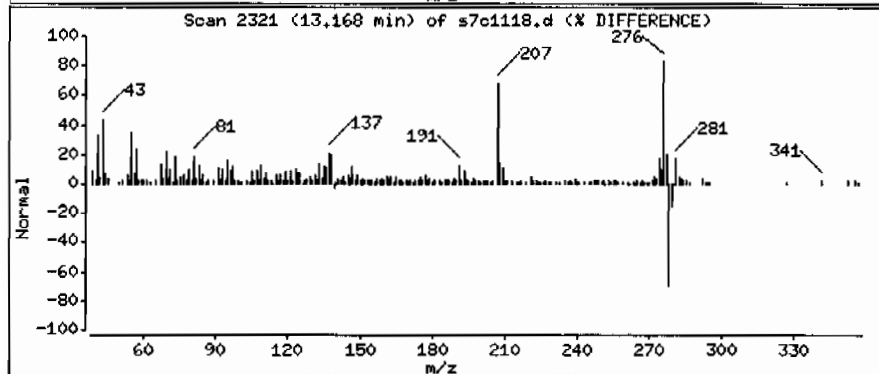
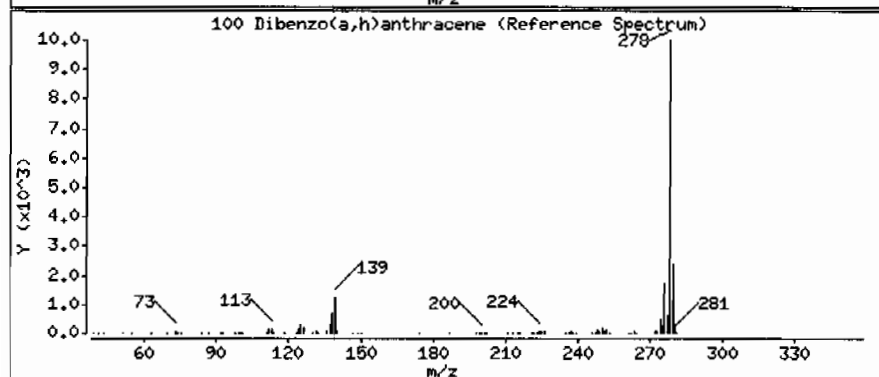
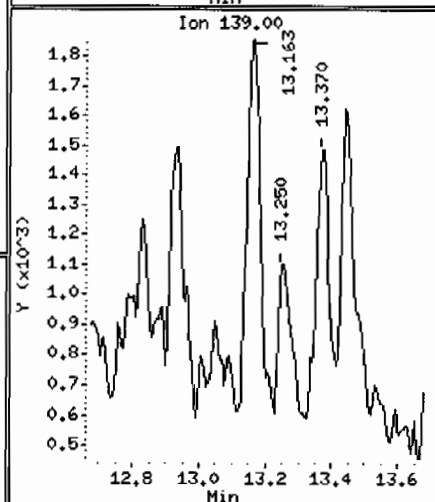
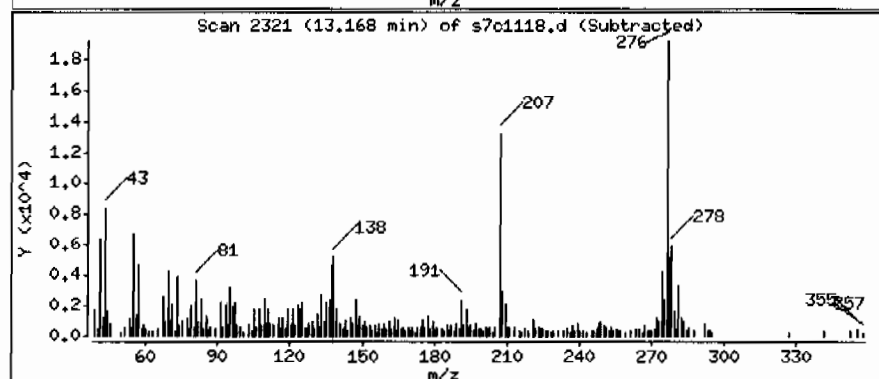
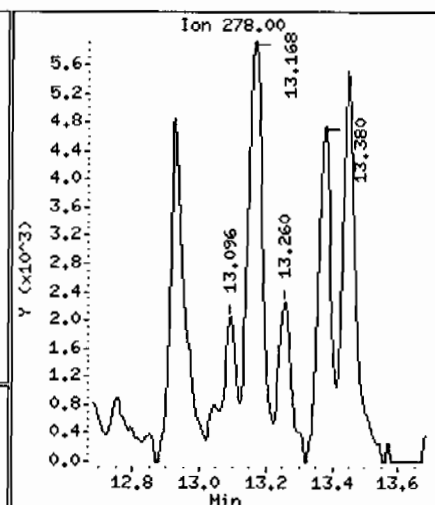
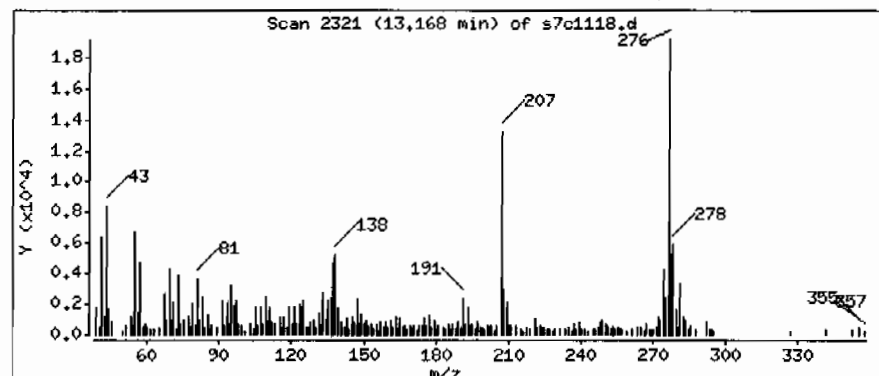
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 928 ug/Kg



Date : 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: HSD7.i

Sample Info: 124804301819596231101SVH111LANL

Volume Injected (uL): 0.5

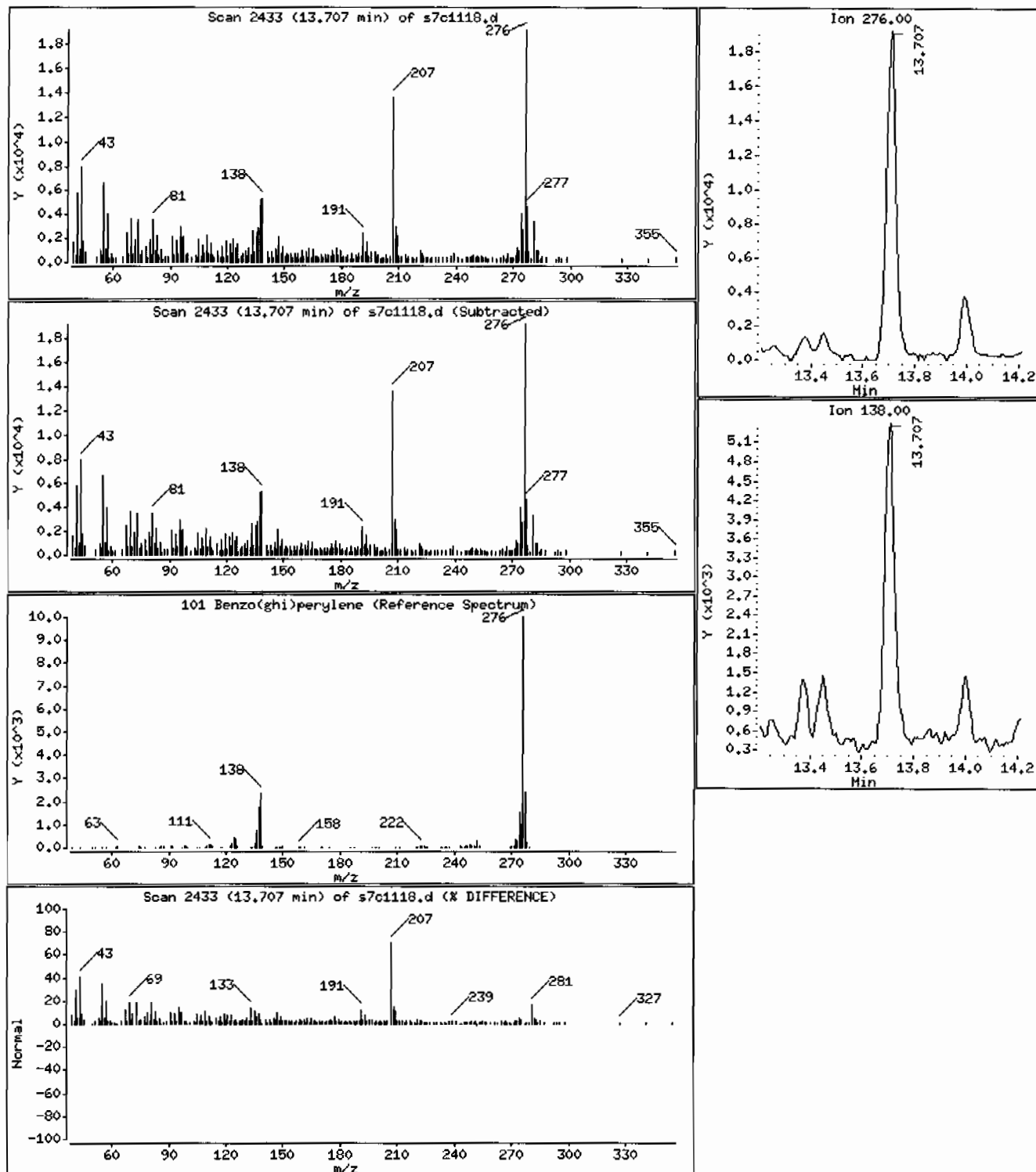
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 2760 ug/Kg



Date: 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: MSD7.i

Sample Info: 12480430181959623110|SVH11|LANL

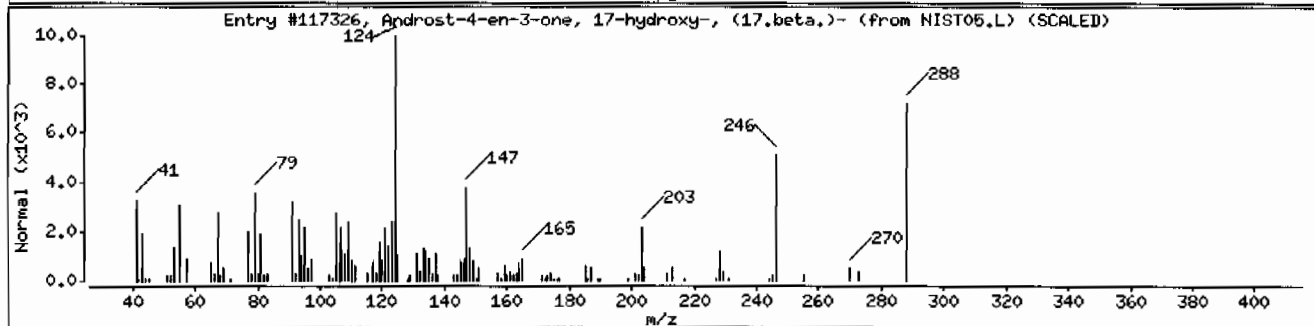
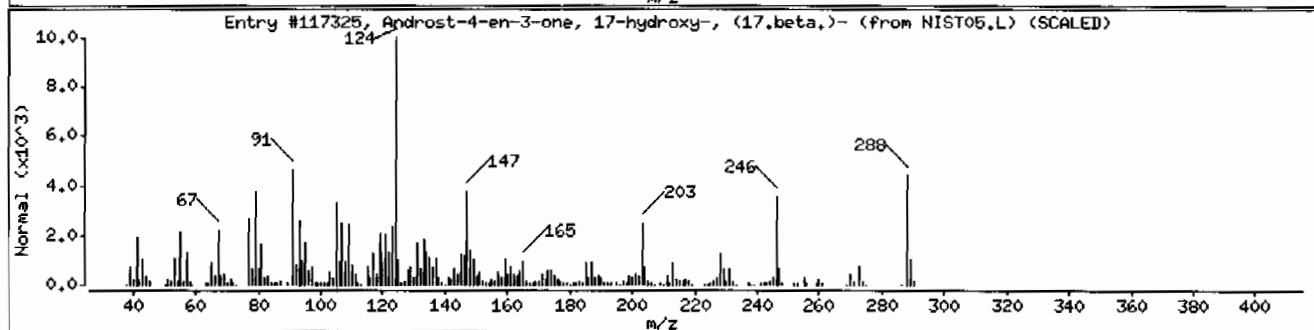
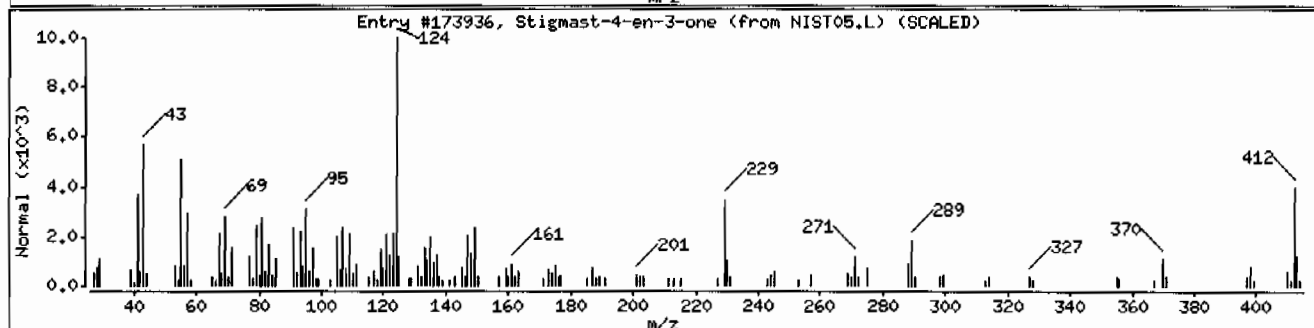
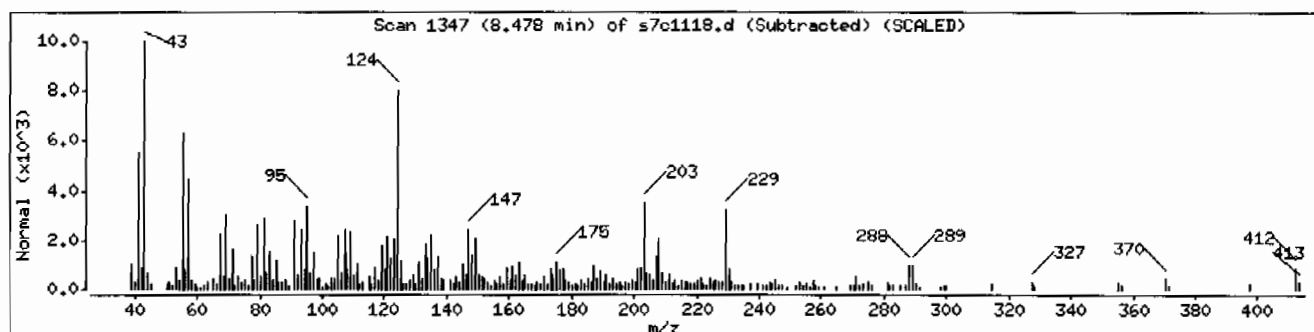
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Stigmast-4-en-3-one	1058-61-3	NIST05.L	173936	95	C29H48O	412
Androst-4-en-3-one, 17-hydroxy-, (17 $\beta$ )	58-22-0	NIST05.L	117325	70	C19H28O2	288
Androst-4-en-3-one, 17-hydroxy-, (17 $\beta$ )	58-22-0	NIST05.L	117326	64	C19H28O2	288



Date: 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: MSD7.i

Sample Info: 124804301819596231101SVMI11LANL

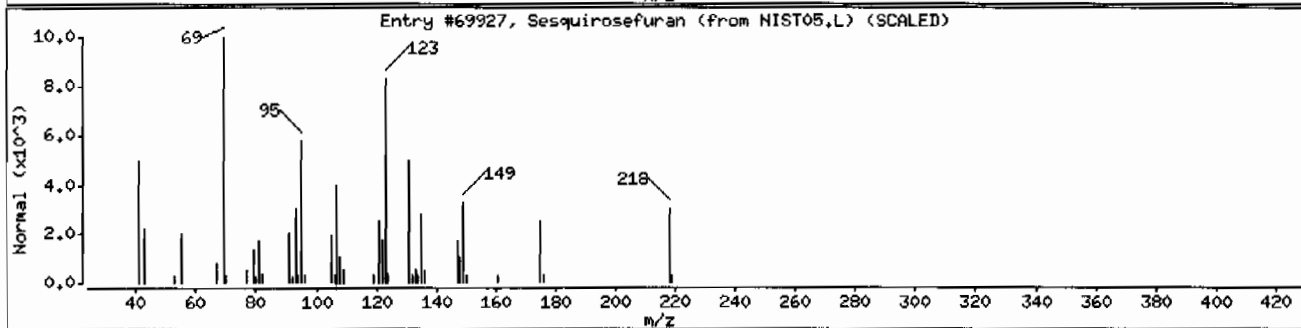
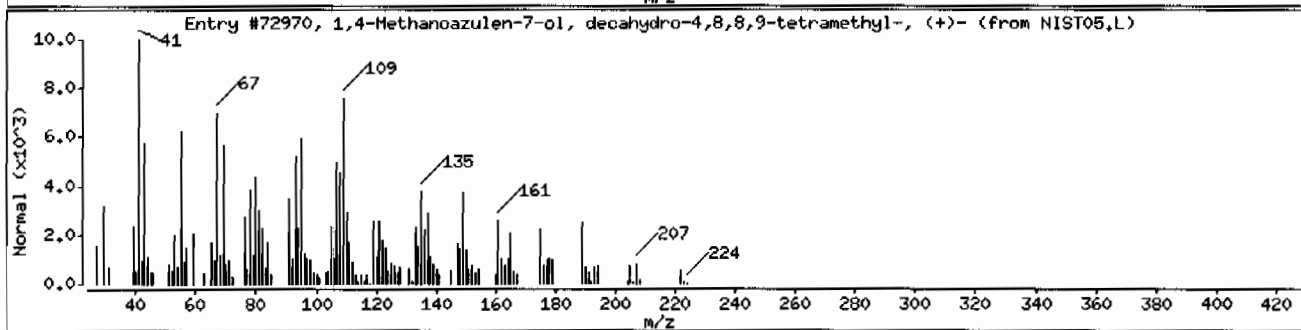
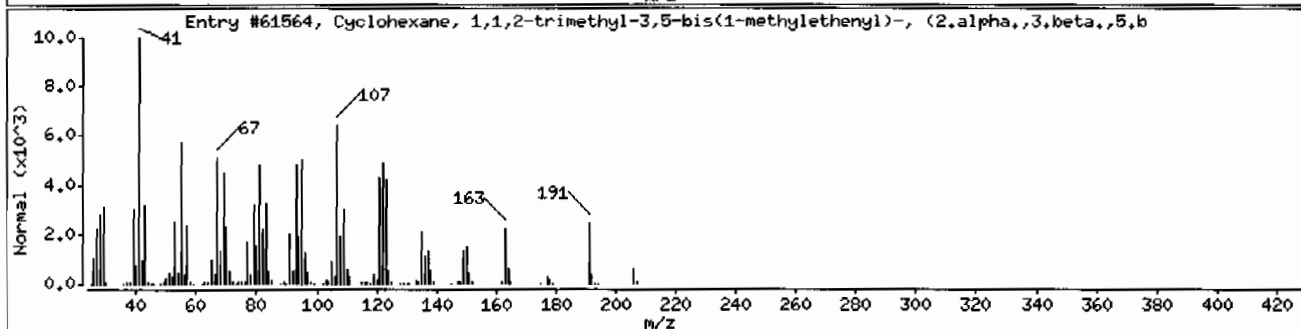
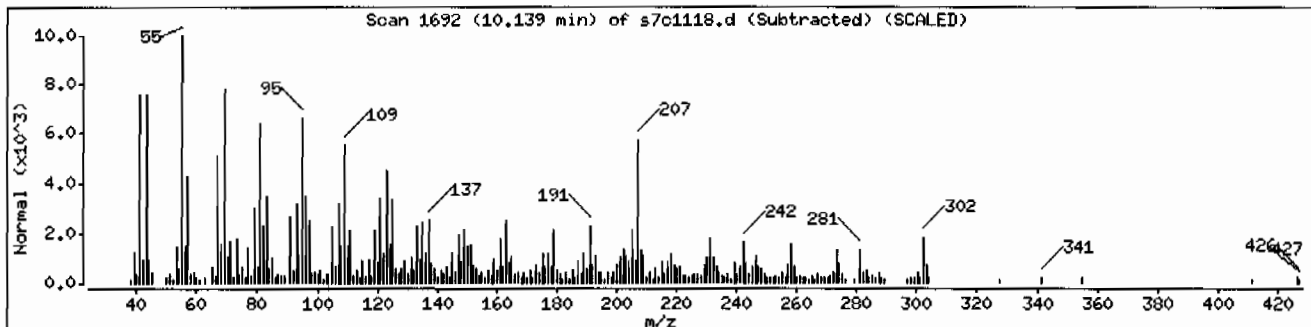
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexane, 1,1,2-trimethyl-3,5-bis(1-m	62337-97-7	NIST05.L	61564	52	C15H26	206
1,4-Methanoazulen-7-ol, decahydro-4,8,8,	18319-27-2	NIST05.L	72970	46	C15H26O	222
Sesquirosefuran	39007-93-7	NIST05.L	69927	41	C15H22O	218



Date : 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: MSD7.i

Sample Info: 124804301819596231101SVMI11LANL

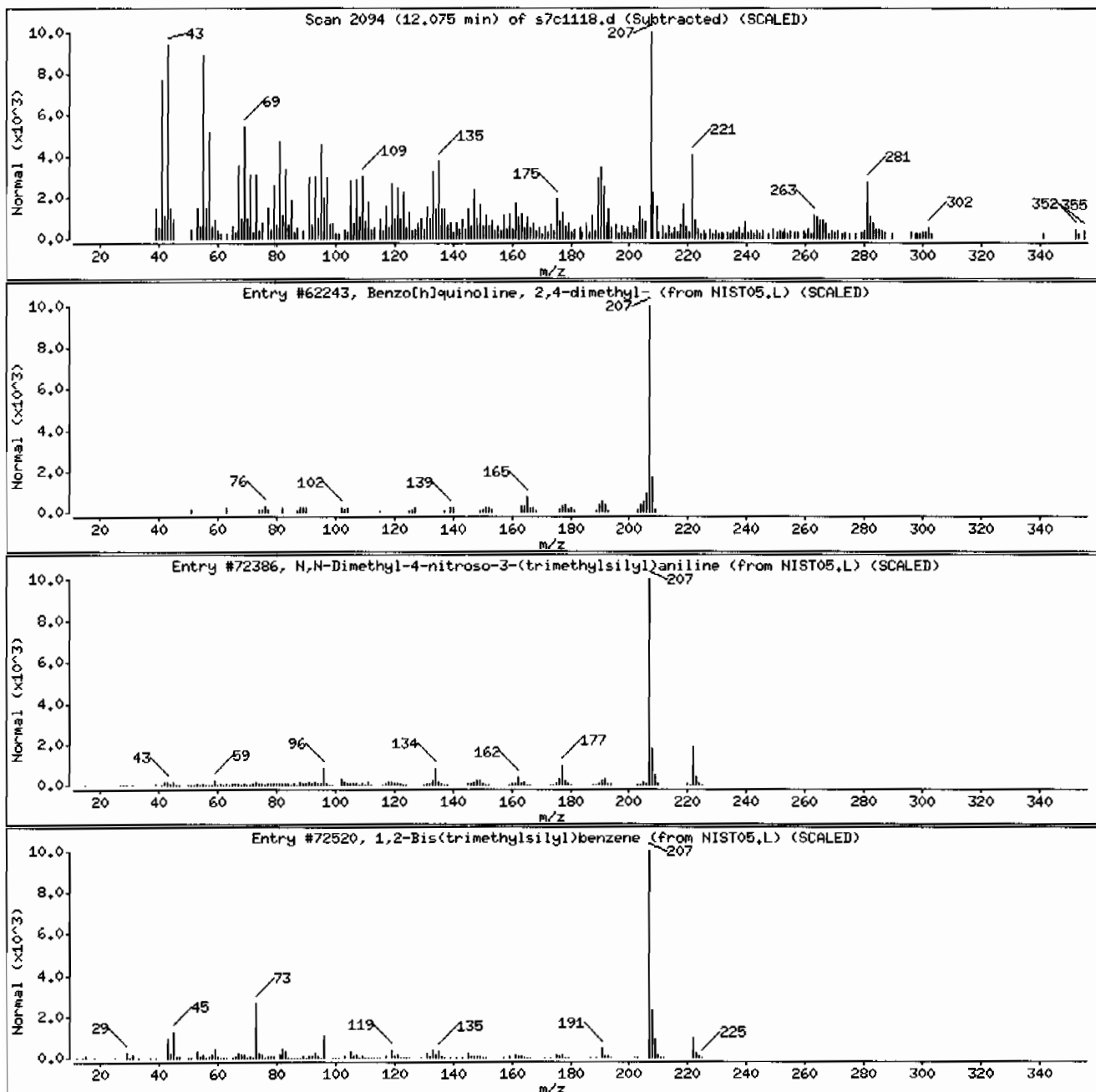
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	42	C15H13N	207
N,N-Dimethyl-4-nitroso-3-(trimethylsilyl)	17993-84-9	NIST05.L	72386	41	C11H18N2OSi	222
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	38	C12H22Si2	222



Date: 11-MAR-2010 18:57

Client ID: RE36-10-7515

Instrument: HSD7.i

Sample Info: 124804301819596231101SVH111LANL

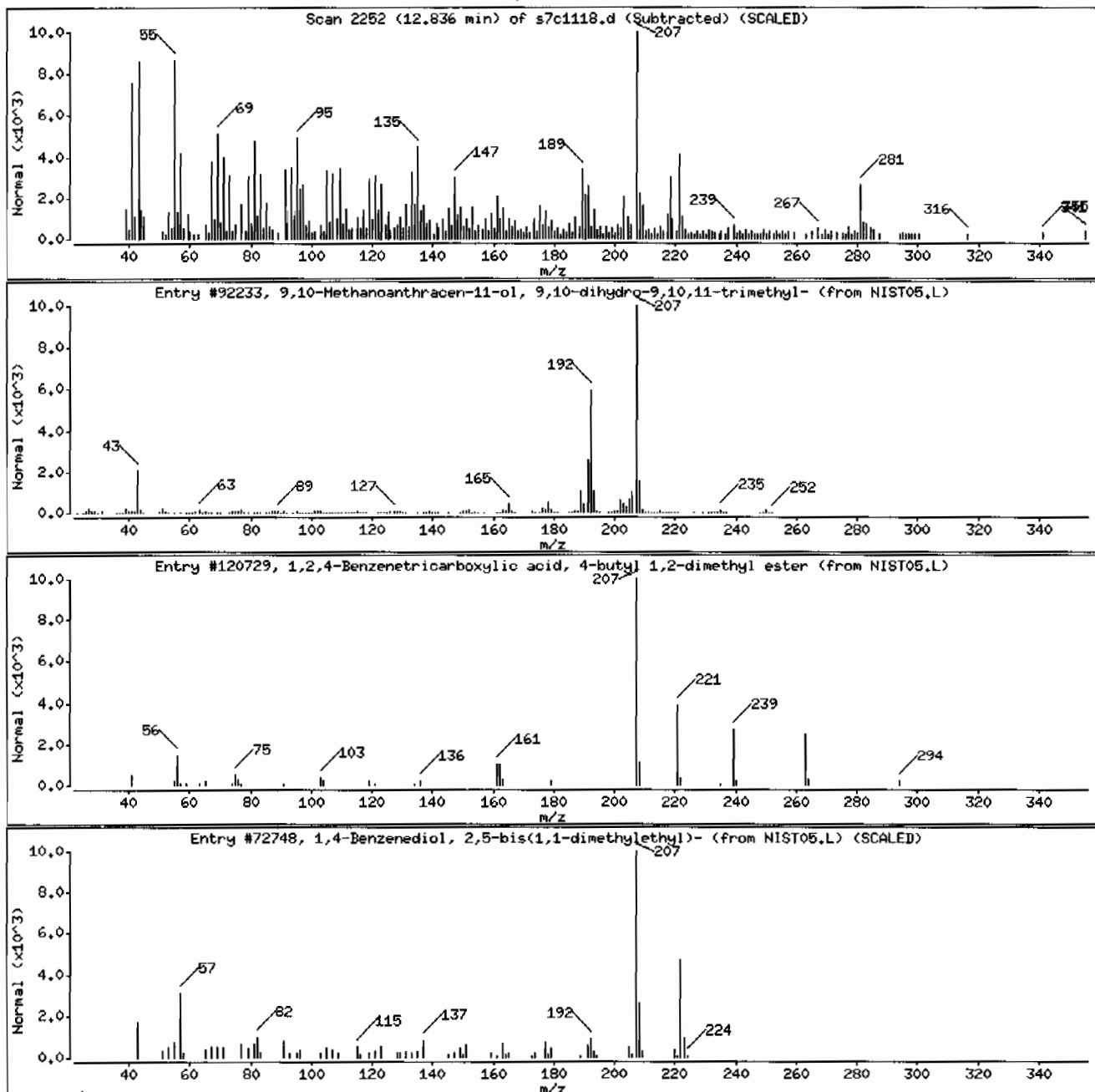
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9,10-Methanoanthracen-11-ol, 9,10-dihydr	126615-74-5	NIST05.L	92233	38	C18H18O	250
1,2,4-Benzenetricarboxylic acid, 4-butyl	43049-07-6	NIST05.L	120729	30	C15H18O6	294
1,4-Benzenediol, 2,5-bis(1,1-dimethyleth	88-58-4	NIST05.L	72748	30	C14H22O2	222





# Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol		10	20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenylether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625									
Calibration Standard Concentration Levels*									
AP MIX		Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120	
Acetophenone		10	20	40	50	80	100	120	
Caprolactam		10	20	40	50	80	100	120	
1,1'-Biphenyl		10	20	40	50	80	100	120	
Atrazine		10	20	40	50	80	100	120	
Benzidine		10	20	40	50	80	100	120	
3,3'-Dichlorobenzidine		10	20	40	50	80	100	120	
1,4-Dioxane		10	20	40	50	80	100	120	
Methyl methacrylate		10	20	40	50	80	100	120	
Ethyl methacrylate		10	20	40	50	80	100	120	
2-Picoline		10	20	40	50	80	100	120	
N-Nitrosomethylethylamine		10	20	40	50	80	100	120	
Methyl methanesulfonate		10	20	40	50	80	100	120	
N-Nitrosodiethylamine		10	20	40	50	80	100	120	
Ethyl methanesulfonate		10	20	40	50	80	100	120	
Pentachloroethane		10	20	40	50	80	100	120	
N-Nitrosopyrrolidine		10	20	40	50	80	100	120	
N-Nitrosomorpholine		10	20	40	50	80	100	120	
o-Toluidine		10	20	40	50	80	100	120	
N-Nitropiperidine		10	20	40	50	80	100	120	
a,a-Dimethylphenethylamine		10	20	40	50	80	100	120	
2,6-Dichlorophenol		10	20	40	50	80	100	120	

SW846 8270/EPA 625									
Calibration Standard Concentration Levels*									
AP MIX		Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120	
p-Phenylenediamine		10	20	40	50	80	100	120	
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120	
Safrole		10	20	40	50	80	100	120	
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120	
Isosafrole		10	20	40	50	80	100	120	
1,4-Naphthoquinone		10	20	40	50	80	100	120	
Pentachlorobenzene		10	20	40	50	80	100	120	
1-Naphthylamine		10	20	40	50	80	100	120	
2-Naphthylamine		10	20	40	50	80	100	120	
5-Nitro-o-toluidine		10	20	40	50	80	100	120	
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120	
Phenacetin		10	20	40	50	80	100	120	
Diallate		10	20	40	50	80	100	120	
cis-Diallate		1.5	3	6	7.5	12	15	18	
trans-Diallate		8.5	17	34	42	68	85	102	
4-Aminobiphenyl		10	20	40	50	80	100	120	

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothiobanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120
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SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.

# Indicates the calibration verification concentration level used

\* Usual calibration levels using SCAN methodology

\*\* This analyte included in this level at special client request.

(0210/Full list)

Report Date: 11-Mar-2010 15:50

### Calibration History

Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Start Cal Date: 26-FEB-2010 11:07  
End Cal Date : 26-FEB-2010 23:46

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
26-FEB-2010 11:07	MEGA	/chem/MSD7.i/s022610.b/s7b2603.d
Cal Level: 2 , Cal Amount: 10.00000		
26-FEB-2010 21:36	NEV	/chem/MSD7.i/s022610.b/s7b2631.d
26-FEB-2010 19:05	PEST	/chem/MSD7.i/s022610.b/s7b2624.d
26-FEB-2010 16:34	AP12	/chem/MSD7.i/s022610.b/s7b2617.d
26-FEB-2010 14:44	MEGA	/chem/MSD7.i/s022610.b/s7b2612.d
Cal Level: 3 , Cal Amount: 20.00000		
26-FEB-2010 21:58	NEV	/chem/MSD7.i/s022610.b/s7b2632.d
26-FEB-2010 19:26	PEST	/chem/MSD7.i/s022610.b/s7b2625.d
26-FEB-2010 16:56	AP12	/chem/MSD7.i/s022610.b/s7b2618.d
26-FEB-2010 15:08	MEGA	/chem/MSD7.i/s022610.b/s7b2613.d
Cal Level: 4 , Cal Amount: 40.00000		
26-FEB-2010 22:19	NEV	/chem/MSD7.i/s022610.b/s7b2633.d
26-FEB-2010 19:48	PEST	/chem/MSD7.i/s022610.b/s7b2626.d
26-FEB-2010 17:17	AP12	/chem/MSD7.i/s022610.b/s7b2619.d
26-FEB-2010 12:19	MEGA	/chem/MSD7.i/s022610.b/s7b2606.d
Cal Level: 5 , Cal Amount: 50.00000		
26-FEB-2010 22:40	NEV	/chem/MSD7.i/s022610.b/s7b2634.d
26-FEB-2010 20:09	PEST	/chem/MSD7.i/s022610.b/s7b2627.d
26-FEB-2010 17:39	AP12	/chem/MSD7.i/s022610.b/s7b2620.d
26-FEB-2010 12:43	MEGA	/chem/MSD7.i/s022610.b/s7b2607.d
Cal Level: 6 , Cal Amount: 80.00000		
26-FEB-2010 23:02	NEV	/chem/MSD7.i/s022610.b/s7b2635.d
26-FEB-2010 20:31	PEST	/chem/MSD7.i/s022610.b/s7b2628.d
26-FEB-2010 18:00	AP12	/chem/MSD7.i/s022610.b/s7b2621.d
26-FEB-2010 13:07	MEGA	/chem/MSD7.i/s022610.b/s7b2608.d
Cal Level: 7 , Cal Amount: 100.00000		
26-FEB-2010 23:24	NEV	/chem/MSD7.i/s022610.b/s7b2636.d
26-FEB-2010 20:52	PEST	/chem/MSD7.i/s022610.b/s7b2629.d
26-FEB-2010 18:22	AP12	/chem/MSD7.i/s022610.b/s7b2622.d
26-FEB-2010 13:32	MEGA	/chem/MSD7.i/s022610.b/s7b2609.d

Cal Level: 8 , Cal Amount: 120.00000		
26-FEB-2010 23:46	NEV	/chem/MSD7.i/s022610.b/s7b2637.d
26-FEB-2010 21:14	PEST	/chem/MSD7.i/s022610.b/s7b2630.d
26-FEB-2010 18:43	AP12	/chem/MSD7.i/s022610.b/s7b2623.d
26-FEB-2010 13:56	MEGA	/chem/MSD7.i/s022610.b/s7b2610.d

# Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
11-MAR-2010 12:51	MEGA	/chem/MSD7.i/s031110.b/s7c1102.d
Ccal Level: 4 , Ccal Amount: 40.0		
11-MAR-2010 13:16	AP12	/chem/MSD7.i/s031110.b/s7c1103.d



## GEL Laboratories LLC

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Start Cal Date : 26-FEB-2010 11:07  
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 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
 Cal Date : 11-Mar-2010 14:30 jos00786

## Calibration File Names:

Level 1: /chem/MSD7.i/s022610.b/s7b2603.d  
 Level 2: /chem/MSD7.i/s022610.b/s7b2631.d  
 Level 3: /chem/MSD7.i/s022610.b/s7b2632.d  
 Level 4: /chem/MSD7.i/s022610.b/s7b2633.d  
 Level 5: /chem/MSD7.i/s022610.b/s7b2634.d  
 Level 6: /chem/MSD7.i/s022610.b/s7b2635.d  
 Level 7: /chem/MSD7.i/s022610.b/s7b2636.d  
 Level 8: /chem/MSD7.i/s022610.b/s7b2637.d

Compound	1	10	20	40	50	80	Curve	b	Coefficients m1	m2	%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6					
	100	120									
	Level 7	Level 8									
1 N-Methyl-N-nitrosomethylamine	++++	0.70129	0.69307	0.69919	0.69205	0.70435	AVRG		0.70001		1.61027
	0.72207	0.68805									
2 Pyridine	++++	0.94944	0.95786	0.97202	0.96726	0.96770					
	0.98956	0.94873					AVRG		0.96465		1.47919
4 Aniline	++++	0.63884	0.62715	0.61554	0.61939	0.61456					
	0.63008	0.60726					AVRG		0.62182		1.73598
209 Benzaldehyde	++++	0.95833	0.92226	0.84939	0.85637	0.79340					
	0.79412	0.72945					AVRG		0.84333		9.38003
6 Phenol	++++	1.32624	1.33308	1.29840	1.28556	1.27125					
	1.30161	1.24826					AVRG		1.29492		2.29936

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
<hr/>											
106	120										
<hr/>											
Level 7	Level 8										
7 bis(2-Chloroethyl) ether	++++	1.10103	1.14462	1.07089	1.07731	1.02082					
	1.03135	0.97582				AVRG			1.06026		5.26596
<hr/>											
8 2-Chlorophenol	++++	1.05514	1.03806	0.97770	0.97692	0.96049					
	0.98254	0.94585				AVRG			0.99096		4.36684
<hr/>											
203 n-Decane	++++	2.18382	2.07044	1.82788	1.73590	1.49542					
	++++					AVRG			1.86209		14.62211
<hr/>											
9 1,3-Dichlorobenzene	++++	1.32145	1.29459	1.24409	1.22768	1.22115					
	1.22709	1.17739				AVRG			1.24478		3.88965
<hr/>											
11 1,4-Dichlorobenzene	++++	1.25354	1.24697	1.20326	1.18250	1.16238					
	1.17850	1.13378				AVRG			1.19442		3.65492
12 Benzyl alcohol	++++	0.67067	0.67376	0.66588	0.67064	0.67714					
	0.69639	0.66876				AVRG			0.67475		1.51022
13 1,2-Dichlorobenzene	++++	1.18780	1.16188	1.10021	1.10063	1.06192					
	1.06520	1.01341				AVRG			1.09872		5.47171
14 bis(2-Chloroisopropyl) ether	++++	2.84346	2.77975	2.54436	2.49732	2.25102					
	2.22248	2.05488				AVRG			2.45618		12.00760
15 o-Cresol	++++	0.82975	0.83763	0.79686	0.80251	0.77550					
	0.77566	0.73522				AVRG			0.79330		4.42431

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
	100	120									
	Level 7	Level 8									
16 Acetophenone	++++ 1.05199	1.19544 1.05015	1.16930 1.09905	1.11939 1.09905	1.06063 1.06063	AVRG 1.06063	AVRG		1.13656		5.25990
17 N-Nitrosodipropylamine	++++ 0.68312	0.78986 0.68292	0.78126 0.68292	0.76761 0.68292	0.76071 0.68292	0.69101 0.68292	AVRG AVRG		0.73664		6.60276
18 m,p-Cresols	++++ 1.09460	1.06688 1.06712	1.08137 1.06712	1.06240 1.06282	1.06282 1.06282	1.06806 1.06806	AVRG AVRG		1.07190		1.10409
19 Hexachloroethane	++++ 0.46127	0.47830 0.44002	0.48853 0.44002	0.45909 0.44002	0.46017 0.44002	0.45910 0.44002	AVRG AVRG		0.46378		3.35369
21 Nitrobenzene	++++ 0.25178	0.32599 0.23936	0.31564 0.23936	0.28441 0.23936	0.27994 0.23936	0.26223 0.23936	AVRG AVRG		0.27987		11.47927
22 Isophorone	++++ 0.50295	0.60055 0.47946	0.58304 0.47946	0.55409 0.47946	0.54916 0.47946	0.51583 0.47946	AVRG AVRG		0.54073		8.06835
23 2-Nitrophenol	++++ 0.12051	0.15519 0.11450	0.14330 0.11450	0.13006 0.11450	0.13093 0.11450	0.12549 0.11450	AVRG AVRG		0.13143		10.52994
24 2,4-Dimethylphenol	++++ 905563	114168 998411	218277 998411	376135 998411	452448 998411	745396 998411	AVRG WLNIR		0.21482		0.99550
25 bis(2-Chloroethoxy)methane	++++ 0.27212	0.33736 0.25761	0.32731 0.25761	0.30205 0.25761	0.29544 0.25761	0.27901 0.25761	AVRG AVRG		0.29584		9.81641

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
	100	120									
	Level 7	Level 8									
26 2,4-Dichlorophenol	++++ 0.19857	0.23284 0.18977	0.23115	0.21499	0.21340	0.20610	AVRG	0.21226			7.61142
27 Benzoic acid	++++ 0.13489	++++ 0.14008	0.09399	0.10823	0.11656	0.13120	AVRG	0.12083			14.68354
28 1,2,4-Trichlorobenzene	++++ 0.2318	0.29769 0.21987	0.28901	0.26508	0.25660	0.24189	AVRG	0.25742			11.9881
30 Naphthalene	0.86793 0.66692	0.85653 0.62198	0.82594	0.76646	0.74263	0.69647	AVRG	0.75561			11.96904
204 alpha-Terpineol	++++ ++++	0.36073 ++++	0.33018	0.30395	0.29238	0.25678	AVRG	0.30890			12.69973
31 4-Chloroaniline	++++ 0.33031	0.39138 0.3443	0.38394	0.36323	0.35125	0.34226	AVRG	0.35383			7.86879
189 Caprolactam	++++ 0.07119	0.07270 0.07132	0.07721	0.07751	0.07660	0.07453	AVRG	0.07444			3.68543
32 Hexachlorobutadiene	++++ 0.12160	0.15432 0.11448	0.14969	0.13784	0.13578	0.12669	AVRG	0.13434			10.80519
33 4-Chloro-3-methylphenol	++++ 0.21618	0.23968 0.20719	0.24055	0.23641	0.23018	0.2256	AVRG	0.22797			5.51338

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients m	m2	RSD or R^2
	100	120								
	Level 7	Level 8								
34 2-Methylnaphthalene	0.607751	0.606941	0.591721	0.553334	0.538601	0.504001	AVRG	0.542291		10.77312
	0.48115	0.454861								
35 1-Methylnaphthalene	0.594541	0.586401	0.560021	0.523891	0.506251	0.474471	AVRG	0.515581		12.048621
	0.453141	0.425901								
36 Hexachlorocyclopentadiene	++++	0.177601	0.203421	0.201611	0.190611	0.220631	AVRG	0.193381		8.549371
	0.187241	0.172531								
208 1,1'-Biphenyl	++++	1.268111	1.221701	1.135381	1.100811	1.022161	AVRG	1.102031		10.361411
	0.998951	0.967091								
205 2,3-Dichloroaniline	++++	0.551671	0.532961	0.491821	0.489551	0.476701	AVRG	0.494621		7.196121
	0.466881	0.452761								
37 2,4,6-Trichlorophenol	++++	0.285911	0.290171	0.283971	0.286421	0.277091	AVRG	0.280641		3.052621
	0.275791	0.265111								
38 2,4,5-Trichlorophenol	++++	0.300671	0.304001	0.274411	0.277251	0.272971	AVRG	0.282251		4.909411
	0.271881	0.274531								
40 2-Chloronaphthalene	0.989681	0.988651	0.969201	0.921811	0.916611	0.889301	AVRG	0.925841		5.616671
	0.879231	0.852231								
42 o-Nitroaniline	++++	0.326501	0.336511	0.326321	0.330651	0.329551	AVRG	0.327781		1.610971
	0.325561	0.319361								

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 Cal Date : 11-Mar-2010 14:30 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	++++ 0.23907	0.22126 0.23834	0.24562 0.23943	0.23943 0.24325	0.24325 0.24756	0.24756 0.23922	AVRG		0.23922		3.62078
43 Dimethylphthalate	++++ 0.02706	1.14209 0.99596	1.13350 0.99596	1.05960 0.99596	1.05899 0.99596	1.02333 0.99596	AVRG		1.06293		5.23993
44 2,6-Dinitrotoluene	++++ 0.23967	0.26499 0.22978	0.26039 0.22978	0.24328 0.24493	0.24493 0.23535	0.23535 0.23535	AVRG		0.24549		5.23468
45 Acenaphthylene	1.61531 1.39129	1.62844 1.34156	1.56002 1.34156	1.45485 1.44949	1.44949 1.39892	1.39892 1.39892	AVRG		1.47998		7.30956
47 Acenaphthene	0.94291 0.85153	0.93284 0.80716	0.92939 0.80716	0.86375 0.80716	0.86944 0.80716	0.84726 0.80716	AVRG		0.88041		5.54006
48 2,4-Dinitrophenol	++++ 192071	++++ 221189	221189 1.33389	530161 1.22166	65432 1.23984	148984 1.19392	AVRG	0.35875	0.10576		3.99409
49 Dibenzofuran	++++ 1.18290	1.35809 1.13131	1.33389 0.33058	1.22166 0.31874	1.23984 0.32457	1.19392 0.32389	AVRG		1.23737		6.61916
50 2,4-Dinitrotoluene	++++ 0.32862	0.32035 0.31863	0.33058 0.31863	0.31874 0.31863	0.32457 0.31863	0.32389 0.31863	AVRG		0.32362		1.46117
51 Diethylphthalate	++++ 1.05225	1.16778 1.02521	1.15242 1.02521	1.07866 1.02521	1.08210 1.02521	1.05762 1.02521	AVRG		1.08801		4.86063

## GEL Laboratories LLC

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Compound	1	10	20	40	50	80	Curve	b	Coefficients m1	m2	%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6					
	100	120									
	Level 7	Level 8									
52 4-Nitrophenol	++++	0.12189	0.15319	0.16924	0.16722	0.17578	AVRG		0.16277		12.22482
	0.17989	0.17224									
53 Fluorene	1.15003	1.14913	1.10994	1.00309	1.00564	0.97807	AVRG		1.03823		8.6853
	0.97276	0.93722									
54 4-Chlorophenylphenylether	++++	0.55230	0.54732	0.51155	0.51738	0.50214	AVRG		0.51596		5.03023
	0.50180	0.47955									
55 2-Methyl-4,6-dinitrophenol	++++	14243	47063	96235	119327	243903	LNIR	0.20375	0.08692		0.99607
	31718	360208									
56 p-Nitroaniline	++++	0.16936	0.20880	0.22492	0.21785	0.23101	AVRG		0.21538		10.12479
	0.23233	0.22347									
133 Diphenylamine	++++	0.52306	0.50517	0.46428	0.46066	0.45126	AVRG		0.47134		6.50344
	0.45503	0.43996									
58 1,2-Diphenylhydrazine	++++	0.65962	0.63737	0.59463	0.58510	0.56518	AVRG		0.59299		7.08469
	0.56834	0.54070									
59 Tributylphosphate	++++	1.33867	1.16678	1.14080	1.10893	1.04610	AVRG		1.11666		10.42895
	1.01650	0.99882									
61 4-Bromophenylphenylether	++++	0.77551	0.17375	0.16278	0.16189	0.15944	AVRG		0.16450		4.82846
	0.16098	0.15611									

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Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	ml	m2	%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6					
	100	120									
	Level 7	Level 8									
63 Hexachlorobenzene	++++	0.17131	0.16786	0.15738	0.15772	0.15513	AVRG		0.15982		4.34833
	0.15658	0.15273									
207 Atrazine	++++	0.04508	0.04317	0.03751	0.03999	0.03673	AVRG		0.03853		12.10180
	0.03600	0.03123									
65 Pentachlorophenol	++++	0.05499	0.07351	0.07546	0.07788	0.08148	AVRG		0.07563		12.99894
	0.08346	0.08259									
206 n-Octadecane	++++	0.66517	0.62877	0.54339	0.51312	0.41990	AVRG		0.50130		23.99535
	0.38282	0.35591									
68 Phenanthrene	0.92440	0.87829	0.87153	0.80635	0.79576	0.77327	AVRG		0.82082		7.68182
	0.77180	0.74515									
69 Anthracene	0.90443	0.90373	0.89117	0.81712	0.81109	0.79018	AVRG		0.83131		7.25516
	0.78315	0.74963									
72 Di-n-butylphthalate	++++	1.13584	1.12517	1.05910	1.04864	1.00051	AVRG		1.04581		6.45939
	0.99703	0.95438									
76 Fluoranthene	0.90224	0.97031	0.96017	0.89278	0.88802	0.86786	AVRG		0.89248		6.00409
	0.84840	0.81005									
77 Benzidine	++++	0.40653	0.36246	0.36565	0.35403	0.36544	AVRG		0.37412		6.64046
	0.41263	0.35213									



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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	SRSD or R <sup>2</sup>
	100	120									
	Level 7	Level 8									
79 Pyrene	1.32405	1.35159	1.31284	1.20723	1.21760	1.15073					
	1.26280	1.28250					AVRG		1.26367		5.36819
85 Butylbenzylphthalate	++++	0.59662	0.60220	0.59072	0.60132	0.58013					
	0.61922	0.61621					AVRG		0.60092		2.27892
89 Benzo(a)anthracene	1.05093	0.96816	0.96328	0.93178	0.93105	0.93332					
	0.96025	0.93255					AVRG		0.95891		4.21524
90 3,3'-Dichlorobenzidine	++++	0.26682	0.28620	0.29510	0.27316	0.27699					
	0.29106	0.26436					AVRG		0.27910		4.28355
92 Chrysene	0.89020	0.89976	0.89113	0.83925	0.84009	0.82315					
	0.84100	0.80174					AVRG		0.85329		4.21177
93 bis(2-Ethylhexyl)phthalate	++++	0.80809	0.78600	0.73624	0.76057	0.74158					
	0.75155	0.74362					AVRG		0.76109		3.48672
94 Di-n-octylphthalate	++++	1.52295	1.51090	1.49260	1.57749	1.70881					
	1.68585	1.74490					AVRG		1.60621		6.52248
95 Benzo(b)fluoranthene	1.02704	1.09919	1.10279	1.13249	1.13619	1.13403					
	1.17324	1.16918					AVRG		1.12177		4.15603
96 Benzo(k)fluoranthene	1.03689	1.14562	1.11676	0.99048	1.02425	1.04585					
	1.04682	1.02719					AVRG		1.05423		4.86067

## GEL Laboratories LLC

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 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
 Cal Date : 11-Mar-2010 14:30 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
97 Benzo(a)pyrene	0.82018 0.94872	0.92251 0.92614	0.95324	0.92574	0.93085	0.93108	AVRG		0.91981		4.54058
99 Indeno(1,2,3-cd)pyrene	0.61793 0.68582	0.62224 0.64752	0.69390	0.69944	0.67832	0.64625	AVRG		0.66143		4.85925
100 Dibenzo(a,h)anthracene	0.47565 0.55040	0.47818 0.52332	0.54251	0.56597	0.53673	0.52054	AVRG		0.52416		6.20836
101 Benzo(ghi)perylene	0.56533 0.55186	0.53785 0.52150	0.58606	0.57992	0.55056	0.51978	AVRG		0.55161		4.48630
102 1,4-Dioxane	++++ 0.31717	0.36384 0.31403	0.36610	0.33417	0.33077	0.31979	AVRG		0.33513		6.45342
103 Methyl methacrylate	++++ 0.18592	0.21020 0.18875	0.20726	0.19621	0.19212	0.18889	AVRG		0.19562		4.88183
104 Ethyl methacrylate	++++ 0.71755	0.79610 0.72015	0.79733	0.75341	0.75358	0.72166	AVRG		0.75140		4.58534
105 2-Picoline	++++ 1.07670	1.22561 1.07757	1.21665	1.13966	1.12899	1.08441	AVRG		1.13566		5.59082
106 N-Nitrosomethylethylamine	++++ 0.42281	0.47452 0.42081	0.46462	0.43928	0.44021	0.42769	AVRG		0.44142		4.75011

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
107 Methyl methanesulfonate	++++ 0.49709	0.54758 0.45892	0.54286 0.45892	0.49884 0.45892	0.5161 0.45892	0.49538 0.45892	AVRG	0.50747	6.00086		
108 N-Nitrosodiethylamine	++++ 0.45400	0.49539 0.45358	0.49681 0.45358	0.46847 0.45358	0.46768 0.45358	0.45500 0.45358	AVRG	0.47013	3.99967		
109 Ethyl Methanesulfonate	++++ 0.60616	0.65591 0.59583	0.64231 0.59583	0.61640 0.59583	0.62051 0.59583	0.60576 0.59583	AVRG	0.62041	3.46816		
110 Pentachloroethane	++++ 0.29355	0.33091 0.28904	0.32767 0.28904	0.30927 0.28904	0.31189 0.28904	0.29650 0.28904	AVRG	0.30840	5.34098		
111 N-Nitrosopyrrolidine	++++ 0.47931	0.51068 0.47906	0.50360 0.47906	0.49590 0.47906	0.49956 0.47906	0.48726 0.47906	AVRG	0.49363	2.46520		
113 N-Nitrosomorpholine	++++ 0.74142	0.93269 0.69563	0.89548 0.69563	0.84559 0.69563	0.81841 0.69563	0.76963 0.69563	AVRG	0.81412	10.39747		
114 o-Toluidine	++++ 1.45788	1.66749 1.43454	1.62690 1.43454	1.57357 1.43454	1.54322 1.43454	1.47535 1.43454	AVRG	1.53985	5.74695		
115 N-Nitrosopiperidine	++++ 0.12960	0.13839 0.12740	0.13649 0.12740	0.13206 0.12740	0.12980 0.12740	0.12760 0.12740	AVRG	0.13162	3.26869		
116 a,a-Dimethylphenethylamine	++++ 1.00353	0.92907 0.99978	0.96417 0.99978	0.99553 0.99978	0.99366 0.99978	0.99806 0.99978	AVRG	0.98197	3.20631		

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Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
117 Triethylphosphorothioate	++++ 0.12191	0.13478 0.12398	0.13459	0.13266	0.13072	0.12464	AVRG		0.12904		4.19259
118 2,6-Dichlorophenol	++++ 0.20199	0.20253 0.19907	0.20749	0.20261	0.20410	0.20112	AVRG		0.20270		1.29027
119 Hexachloropropene	++++ 0.10645	0.10438 0.09827	0.10831	0.10725	0.10671	0.10478	AVRG		0.10516		3.16694
120 p-Phenylenediamine	++++ 0.19547	0.25668 ++++	0.25068	0.22690	0.21252	0.19855	AVRG		0.22347		11.63559
121 N-Nitrosodi-n-butylamine	++++ 0.18394	0.23441 0.17781	0.23451	0.20097	0.18967	0.18327	AVRG		0.20065		12.05548
122 Safrrole	++++ 0.17654	0.20181 0.17363	0.19524	0.18624	0.18455	0.17874	AVRG		0.18525		5.52554
123 1,2,4,5-Tetrachlorobenzene	++++ 0.36184	0.44061 0.35421	0.42948	0.40210	0.39235	0.37114	AVRG		0.39310		8.45898
124 Isosafrole	++++ 0.31016	0.35170 0.30561	0.34949	0.33088	0.32487	0.31439	AVRG		0.32673		5.63612
125 1,4-Naphthoquinone	++++ ++++	84638 ++++	151030	288344	333563	495061	AVRG		0.24057		0.99067
							LNIR	-C.21821			

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
	Level 7	Level 8									
126 m-Dinitrobenzene	++++ 0.16971	0.16835 0.16651	0.17531 0.16597	0.16597 0.17132	0.16597 0.17132	0.16929 0.16929	AVRG		0.16950		1.86258
127 Pentachlorobenzene	++++ 0.33507	0.37874 0.33064	0.37429 0.35898	0.35898 0.34124	0.35476 0.34124		AVRG		0.35339		5.3102
128 1-Naphthylamine	++++ 0.81523	0.93808 0.76509	0.91662 0.76509	0.87727 0.86662	0.86662 0.82419	0.82419	AVRG		0.85758		7.04454
129 2-Naphthylamine	++++ 0.87021	1.00958 0.81954	0.98980 0.81954	0.95445 0.81954	0.92796 0.81954	0.89640	AVRG		0.92399		7.28200
130 2,3,4,6-Tetrachlorophenol	++++ 0.24128	0.21848 0.23864	0.23607 0.23864	0.22847 0.23258	0.23258 0.23782		AVRG		0.23333		3.33623
131 5-Nitro-o-toluidine	++++ 0.27596	0.26504 0.26950	0.27296 0.26950	0.28000 0.27202	0.27202 0.27408	0.27408	AVRG		0.27279		1.74037
132 Thionazin	++++ 0.15093	0.15991 0.15034	0.16333 0.15034	0.16225 0.15716	0.15716 0.15263	0.15263	AVRG		0.15651		3.35420
134 Sulfotepp	++++ 0.08302	0.08069 0.08521	0.08457 0.08521	0.08225 0.08109	0.08109 0.08247	0.08247	AVRG		0.08276		2.01929
135 Phorate	++++ 0.35368	0.38094 0.35136	0.39212 0.35136	0.38013 0.37064	0.37064 0.35768	0.35768	AVRG		0.36950		4.24438

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
	100	120									
	Level 7	Level 8									
136 1,3,5-Trinitrobenzene	++++ 0.2517	0.09043 0.12301	0.10798 0.11408	0.11736 0.11408	0.11408	0.12051	AVRG	0.11408			10.44181
137 Phenacetin	++++ 0.25182	0.25499 0.24676	0.26314 0.25425	0.25425 0.24643	0.24643	0.24758	AVRG	0.25171			2.03791
138 Diallate	++++ 0.20757	0.24308 0.20177	0.23259 0.21969	0.21969	0.22000	0.21354	AVRG	0.21975			6.48800
139 Dimethoate	++++ 0.21588	0.19708 0.21951	0.21294 0.21294	0.21294	0.21356	0.21259	AVRG	0.21276			3.47043
140 4-Aminobiphenyl	++++ 0.51979	0.52229 0.49365	0.52744 0.52744	0.56450	0.55560	0.53372	AVRG	0.53100			4.44590
141 Pentachloronitrobenzene	++++ 0.04994	0.06861 0.04776	0.06544 0.06559	0.05979	0.05907	0.05327	AVRG	0.05770			13.49738
142 Pronamide	++++ 0.19922	0.27668 0.18795	0.26559	0.24232	0.23613	0.21408	AVRG				
143 Dinoseb	++++ 493335	21314 540450	69548	148150	183225	380967	AVRG	0.23171			14.29562
144 Disulfoton	++++ 0.26930	0.27927 0.27042	0.28869	0.28141	0.27781	0.27141	AVRG	0.23422	0.13388		0.99412
							AVRG	0.27690			2.53496

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m <sup>1</sup>	m <sup>2</sup>	%RSD or R <sup>2</sup>
	100 Level 7	120 Level 8									
145 Methyl parathion	++++ 0.19781	0.16580 0.20132	0.18496 0.20132	0.19619	0.19321	0.19447	AVRG		0.19054		6.30793
146 4-Nitroquinoline-1-oxide	++++ 0.01632	0.02797 0.01115	0.02417 0.01115	0.02069	0.01676	0.01596	AVRG		0.01900		29.85349
147 Methapyralene	++++ 0.4014	0.53870 0.36742	0.51095 0.36742	0.46211	0.46851	0.42818	AVRG		0.45514		12.92653
148 Isodrin	++++ 0.09427	0.11198 0.09263	0.10591 0.09263	0.10106	0.10099	0.09653	AVRG		0.10048		6.77327
149 Aramite	++++ 0.04216	0.04288 0.03955	0.04473 0.03955	0.04328	0.04492	0.04294	AVRG		0.04292		4.18340
150 Kepone	++++ 0.06429	0.06821 0.06037	0.06688 0.06037	0.06300	0.06292	0.06376	AVRG		0.06421		4.07909
151 p-(Dimethylamino)azobenzene	++++ 0.29295	0.31886 0.31135	0.31858 0.31135	0.30561	0.32564	0.30896	AVRG		0.31172		3.43876
152 Chlorobenzilate	++++ 0.25667	0.28015 0.28081	0.27293 0.28081	0.26692	0.28307	0.27552	AVRG		0.27373		3.40032
153 3,3'-Dimethylbenzidine	++++ 0.53500	0.54411 0.48082	0.53267 0.48082	0.52587	0.52765	0.52481	AVRG		0.52442		3.87777

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
154 Pamphur	++++ 0.40965	0.39508 0.43249	0.41129	0.40963	0.41295	0.41166	AVRG	0.41166	0.41166	2.65732	
155 2-Acety-aminofluorene	++++ 0.33855	0.26940 0.30308	0.30220	0.33126	0.30846	0.31630	AVRG	0.30846	0.30846	7.29418	
157 7,7-Dimethylbenz(a)anthracene	++++ 0.48120	0.52071 0.52556	0.52087	0.48902	0.53422	0.51784	AVRG	0.51784	0.51277	3.85020	
158 3-Methylcholanthrene	++++ 0.36907	0.37699 0.35258	0.38496	0.38662	0.36457	0.36689	AVRG	0.36689	0.37167	3.24545	
26 Phthalic anhydride	++++ 44482	19947 524437	70183	158750	199408	349686	LINR	0.08827	0.11204	0.99920	
173 Carbazole	0.74030	0.66266	0.66768	0.67537	0.66904	0.68801	AVRG	0.68801	0.68135	3.83434	
174 Hexachlorophene	++++ ++++ ++++	++++ ++++ ++++	++++ ++++ ++++	++++ ++++ ++++	++++ ++++ ++++	++++ ++++ ++++	AVRG	0.000e+00	0.000e+00	0.000e+00	
179 Dibenzo(a,e)pyrene	++++ ++++ ++++	++++ ++++ ++++	++++ ++++ ++++	++++ ++++ ++++	++++ ++++ ++++	++++ ++++ ++++	AVRG	0.000e+00	0.000e+00	0.000e+00	
185 (2,3-Dibromopropyl)phosphate	++++ ++++ ++++	++++ ++++ ++++	++++ ++++ ++++	++++ ++++ ++++	++++ ++++ ++++	++++ ++++ ++++	AVRG	0.000e+00	0.000e+00	0.000e+00	



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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
184 p-Benzquinone	++++ 0.32801	0.19714 0.30125	0.23527	0.25694	0.31440	0.23557	AVRG		0.26551		17.519971<-
191 Parathion	++++ 0.06192	0.05144 0.06233	0.05751	0.06005	0.05987	0.06048	AVRG		0.05908		6.29535
192 Methoxychlor	++++ 0.60284	0.56403 0.57646	0.62279	0.57547	0.58466	0.59921	AVRG		0.58935		3.40697
210 m-Toluidine	++++ 1.57819	1.18361 1.58735	1.14196	1.27790	1.40428	1.45000	AVRG		1.37475		3.05381
211 p-Toluidine	++++ 1.05038	1.19395 0.88521	1.14859	1.22108	1.12140	1.12246	AVRG		1.10616		10.11699
212 Cis Diallate	++++ 0.22207	0.24942 0.21823	0.23954	0.22264	0.22308	0.21957	AVRG		0.22751		5.34742
213 Trans Diallate	++++ 0.24420	0.28598 0.23737	0.27364	0.25845	0.25883	0.25122	AVRG		0.25853		6.48800
214 1,4-Dinitrobenzene	++++ 0.20200	0.18254 0.19895	0.19379	0.19206	0.19366	0.19651	AVRG		0.19422		3.18627
215 2-Ethoxyethanol	++++ 0.95789	0.93089 0.91578	0.91998	0.93387	0.92416	0.93722	AVRG		0.93140		1.49848

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	RSD or R^2
216 Methylenedis(2-chloroaniline)	++++ 0.1440	0.12024 0.13627	0.12176	0.13402	0.13327	0.14612	AVRG		0.13367		7.42615
226 2,2'-Dichlorobenzil	++++ 0.68011	0.74065 0.68665	0.73565	0.70509	++++	0.72929	AVRG		0.71291		3.64786
227 4-Chlorothioanisole	++++ 0.23939	0.24526 0.23754	0.24532	0.24448	++++	0.24005	AVRG		0.24201		1.41023
228 4-Chlorothiophenol	++++ 861327	44415 1051275	134478	332577	++++	710506	LINEAR	0.12298	0.22403		0.99993
229 bis(p-Chlorophenyl)sulfone	++++ 0.37609	0.43969 0.37535	0.42531	0.39518	++++	0.40060	AVRG		0.40204		6.48066
230 bis(p-Chlorophenyl)disulfide	++++ 0.15153	0.15840 0.15686	0.15651	0.15172	++++	0.15893	AVRG		0.15566		2.08939
231 Diphenyl disulfide	++++ 0.19738	0.21133 0.19820	0.20952	0.20464	++++	0.20130	AVRG		0.20371		2.86119
232 Diphenyl sulfide	++++ 0.70255	0.80314 0.67955	0.78782	0.74734	++++	0.71349	AVRG		0.73898		6.65171
233 Phenyl sulfone	++++ 0.38088	0.41846 0.37013	0.41107	0.39335	++++	0.38576	AVRG		0.39328		4.68458

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Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	Coefficients ml	m2	ARSD or R^2
	Level 7	Level 8									
234 Hydroxymethyl phthalimide	+++ 238854	34368 310774	69527	111795	+++	219245	LINEAR	-0.1768	0.10332		0.99434
235 Phthalic acid	+++ 37273	10272	35793	103964	+++	317426	LINEAR	0.28377	0.10603		0.99240
236 Thiophenol	+++ 1.04045	0.72677 1.04474	0.87316	0.98094	+++	1.05176	AVRG		0.95297		13.61346
237 bis(Chloromethyl)ether	+++ 0.78408	0.87445 0.78451	0.86289	0.81012	+++	0.81952	AVRG		0.82259		4.68064
238 Octachlorostyrene	+++ 0.05255	0.05791 0.05173	0.05657	0.05363	+++	0.05348	AVRG		0.05431		4.42948
239 Dibenzo(a,h)pyrene	+++ +++	+++ +++	+++	+++	+++	+++	AVRG		0.009e+00		0.000e+00
240 Benzo(j)fluoranthene	+++ +++	+++ +++	+++	+++	+++	+++	AVRG		0.000e+00		0.000e+00
241 Dibenzo(a,j)acridine	+++ +++	+++ +++	+++	+++	+++	+++	AVRG		0.000e+00		0.000e+00
242 Dibenzo(a,h)acridine	+++ +++	+++ +++	+++	+++	+++	+++	AVRG		0.000e+00		0.000e+00

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Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	Coefficients	m2	MSD or R^2
	100	120									
	Level 7	Level 8									
243 Quinoline	++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
244 2,4-Toluene Diisocyanate	++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
245 Dibenzo(a,l)pyrene	++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
246 1-Nitropyrene	++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
247 5-Methylchrysene	++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
248 Dibenzo(a,l)pyrene	++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
249 7H-Dibenzo(c,g)carbazole	++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
250 1-Hexanol	++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
251 Propylene glycol	++++	++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07  
 End Cal Date : 26-FEB-2010 23:46  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
 Cal Date : 11-Mar-2010 14:30 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
	100 Level 7	120 Level 8									
M 222 Trichlorophenols	++++ 0.27383	0.29329 0.26982	0.29709	0.27919	0.28184	0.27503	AVRG	0.28144			3.62457
M 223 Tetrachlorophenols	++++ 0.24128	0.21848 0.23864	0.23607	0.22847	0.23258	0.23782	AVRG	0.23333			3.33623
M 224 Benzo(b,k)fluoranthene	1.03196 1.11003	1.12240 1.09819	1.10977	1.06149	1.08022	1.08994	AVRG	1.08800			2.72527
M 225 TTO Sum Semivolatiles	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG	0.000e+00			0.000e+00
S 3 2-Fluorophenol	++++ 1.06812	1.02520 1.03245	1.04766	1.03008	1.03008	1.04425	AVRG	1.03969			1.43708
S 5 Phenol-d5	++++ 1.33151	1.28367 1.28181	1.32223	1.29638	1.30385	1.30539	AVRG	1.30355			1.41909
S 187 2-Chlorophenol-d4	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG	0.000e+00			0.000e+00
S 188 1,2-Dichlorobenzene-d4	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG	0.000e+00			0.000e+00
S 20 Nitrobenzene-d5	++++ 0.27238	0.34547 0.26228	0.33539	0.30609	0.30256	0.28769	AVRG	0.30169			10.19977

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07  
 End Cal Date : 26-FEB-2010 23:46  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
 Cal Date : 11-Mar-2010 14:30 jos00786

Compound	1 Level 1	13 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
	100	120									
	Level 7	Level 8									
\$ 39 2-Fluorobiphenyl	++++ 0.93181	1.14787 0.99582	1.07616	0.99829	0.98540	0.94271	AVRG		0.99687		8.84048
\$ 60 2,4,6-Tribromophenol	++++ 0.12293	0.10553 0.12210	0.11240	0.11152	0.11625	0.11870	AVRG		0.11563		5.40333
\$ 81 p-Terphenyl-di4	++++ 0.74275	0.74292 0.74998	0.72004	0.68997	0.69903	0.67156	AVRG		0.71661		4.24404

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07  
 End Cal Date : 26-FEB-2010 23:46  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
 Cal Date : 11-Mar-2010 14:30 jos00786

Curve	Formula	Units
Averaged	Ant = Rsp/ml	Response
Linear	Ant = b + Rsp/ml	Response
Wt Linear	Ant = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 26-FEB-2010 15:33  
Lab File ID: s7b2614.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
Analysis Type: Init. Cal. Times: 11:07 23:46  
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD  
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
3 2-Fluorophenol	1.03969	1.02471	1.02471	0.000	-1.44120	Averaged
5 Phenol-d5	1.30355	1.24864	1.24864	0.000	-4.21259	Averaged
20 Nitrobenzene-d5	0.30169	0.31799	0.31799	0.000	5.40220	Averaged
39 2-Fluorobiphenyl	0.99687	1.05207	1.05207	0.000	5.53779	Averaged
60 2,4,6-Tribromophenol	0.11563	0.11567	0.11567	0.000	0.03425	Averaged
81 p-Terphenyl-d14	0.71661	0.79589	0.79589	0.000	11.06334	Averaged
1 N-Methyl-N-nitrosomethylami	0.70001	0.65798	0.65798	0.000	-6.00450	Averaged
2 Pyridine	0.96465	0.72626	0.72626	0.000	-24.71254	Averaged
4 Aniline	0.62182	0.56215	0.56215	0.000	-9.59489	Averaged
6 Phenol	1.29492	1.27998	1.27998	0.001	-1.15360	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06026	0.99193	0.99193	0.000	-6.44459	Averaged
8 2-Chlorophenol	0.99096	0.96977	0.96977	0.000	-2.13776	Averaged
203 n-Decane	1.86209	1.65806	1.65806	0.000	-10.95712	Averaged
9 1,3-Dichlorobenzene	1.24478	1.24430	1.24430	0.000	-0.03834	Averaged
11 1,4-Dichlorobenzene	1.19442	1.15499	1.15499	0.001	-3.30123	Averaged ccc
13 1,2-Dichlorobenzene	1.09872	1.05382	1.05382	0.000	-4.08631	Averaged
14 bis(2-Chloroisopropyl)ether	2.45618	2.41690	2.41690	0.000	-1.59921	Averaged
12 Benzyl alcohol	0.67475	0.65730	0.65730	0.000	-2.58575	Averaged
15 o-Cresol	0.79330	0.75691	0.75691	0.000	-4.58754	Averaged
18 m,p-Cresols	1.07190	1.06639	1.06639	0.000	-0.51397	Averaged
17 N-Nitrosodipropylamine	0.73664	0.73992	0.73992	0.050	0.44576	Averaged spcc
19 Hexachloroethane	0.46378	0.45091	0.45091	0.000	-2.77548	Averaged
21 Nitrobenzene	0.27987	0.28434	0.28434	0.000	1.60052	Averaged
22 Isophorone	0.54073	0.52607	0.52607	0.000	-2.71011	Averaged
23 2-Nitrophenol	0.13143	0.13812	0.13812	0.001	5.09665	Averaged ccc
24 2,4-Dimethylphenol	43.02153	40.00000	0.25793	0.000	7.55381	Wt Linear
25 bis(2-Chloroethoxy)methane	0.29584	0.27846	0.27846	0.000	-5.87687	Averaged
26 2,4-Dichlorophenol	0.21226	0.22457	0.22457	0.001	5.80057	Averaged ccc
27 Benzoic acid	0.12083	0.13464	0.13464	0.000	11.43046	Averaged
28 1,2,4-Trichlorobenzene	0.25742	0.26054	0.26054	0.000	1.21085	Averaged
30 Naphthalene	0.75561	0.72974	0.72974	0.000	-3.42291	Averaged
204 alpha-Terpinol	0.30880	0.27565	0.27565	0.000	-10.73794	Averaged
31 4-Chloroaniline	0.35383	0.33113	0.33113	0.000	-6.41578	Averaged
32 Hexachlorobutadiene	0.13434	0.14044	0.14044	0.001	4.53770	Averaged ccc
33 4-Chloro-3-methylphenol	0.22797	0.23911	0.23911	0.001	4.88549	Averaged ccc
34 2-Methylnaphthalene	0.54229	0.55783	0.55783	0.000	2.86468	Averaged



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 26-FEB-2010 15:33  
Lab File ID: s7b2614.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
Analysis Type: Init. Cal. Times: 11:07 23:46  
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD  
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
RRF	%D	%D	%D	%D	%D	
35 1-Methylnaphthalene	0.51558	0.51162	0.51162	0.000	-0.76796	Averaged
36 Hexachlorocyclopentadiene	0.19338	0.18004	0.18004	0.050	-6.89835	Averaged spcc
205 2,3-Dichloroaniline	0.49462	0.48886	0.48886	0.000	-1.16475	Averaged
37 2,4,6-Trichlorophenol	0.28064	0.29372	0.29372	0.001	4.66295	Averaged ccc
38 2,4,5-Trichlorophenol	0.28225	0.31248	0.31248	0.000	10.71318	Averaged
40 2-Chloronaphthalene	0.92584	0.93034	0.93034	0.000	0.48600	Averaged
42 o-Nitroaniline	0.32778	0.32450	0.32450	0.000	-1.00006	Averaged
41 m-Nitroaniline	0.23922	0.23795	0.23795	0.000	-0.52859	Averaged
43 Dimethylphthalate	1.06293	1.06181	1.06181	0.000	-0.10595	Averaged
44 2,6-Dinitrotoluene	0.24549	0.24572	0.24572	0.000	0.09588	Averaged
50 2,4-Dinitrotoluene	0.32362	0.32061	0.32061	0.000	-0.93059	Averaged
45 Acenaphthylene	1.47998	1.47925	1.47925	0.000	-0.04942	Averaged
47 Acenaphthene	0.88041	0.84456	0.84456	0.001	-4.07267	Averaged ccc
48 2,4-Dinitrophenol	40.39092	40.00000	0.06885	0.050	0.97730	Linear spcc
49 Dibenzofuran	1.23737	1.25843	1.25843	0.000	1.70156	Averaged
51 Diethylphthalate	1.08801	1.08709	1.08709	0.000	-0.08413	Averaged
52 4-Nitrophenol	0.16277	0.17018	0.17018	0.050	4.55207	Averaged spcc
53 Fluorene	1.03823	0.98765	0.98765	0.000	-4.87233	Averaged
54 4-Chlorophenylphenylether	0.51596	0.50557	0.50557	0.000	-2.01472	Averaged
55 2-Methyl-4,6-dinitrophenol	49.60025	40.00000	0.09008	0.000	24.00062	Linear
56 p-Nitroaniline	0.21538	0.21035	0.21035	0.000	-2.33542	Averaged
133 Diphenylamine	0.47134	0.46815	0.46815	0.001	-0.67705	Averaged ccc
58 1,2-Diphenylhydrazine	0.59299	0.59852	0.59852	0.000	0.93248	Averaged
61 4-Bromophenylphenylether	0.16450	0.15861	0.15861	0.000	-3.58149	Averaged
63 Hexachlorobenzene	0.15982	0.15792	0.15792	0.000	-1.18714	Averaged
65 Pentachlorophenol	0.07563	0.08477	0.08477	0.001	12.08882	Averaged ccc
206 n-Octadecane	0.50130	0.54494	0.54494	0.000	8.70577	Averaged
68 Phenanthrene	0.82082	0.79129	0.79129	0.000	-3.59795	Averaged
69 Anthracene	0.83131	0.80745	0.80745	0.000	-2.86980	Averaged
72 Di-n-butylphthalate	1.04581	1.05484	1.05484	0.000	0.86325	Averaged
76 Fluoranthene	0.89248	0.89895	0.89895	0.001	0.72511	Averaged ccc
79 Pyrene	1.26367	1.20352	1.20352	0.000	-4.76014	Averaged
85 Butylbenzylphthalate	0.60092	0.60984	0.60984	0.000	1.48432	Averaged
89 Benzo(a)anthracene	0.95891	0.88471	0.88471	0.000	-7.73823	Averaged
92 Chrysene	0.85329	0.81713	0.81713	0.000	-4.23770	Averaged
93 bis(2-Ethylhexyl)phthalate	0.76109	0.74913	0.74913	0.000	-1.57123	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 26-FEB-2010 15:33  
Lab File ID: s7b2614.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
Analysis Type: Init. Cal. Times: 11:07 23:46  
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD  
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
94 Di-n-octylphthalate	1.60621	1.58412	1.58412	0.001	-1.37539	20.00000	Averaged ccc
95 Benzo(b)fluoranthene	1.12177	1.06463	1.06463	0.000	-5.09364	60.00000	Averaged
96 Benzo(k)fluoranthene	1.05423	1.04564	1.04564	0.000	-0.81471	60.00000	Averaged
97 Benzo(a)pyrene	0.91981	0.90053	0.90053	0.001	-2.09622	20.00000	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.66143	0.60388	0.60388	0.000	-8.69961	60.00000	Averaged
100 Dibenzo(a,h)anthracene	0.52416	0.47011	0.47011	0.000	-10.31204	60.00000	Averaged
101 Benzo(ghi)perylene	0.55161	0.49780	0.49780	0.000	-9.75514	60.00000	Averaged
126 m-Dinitrobenzene	0.16950	0.17152	0.17152	0.000	1.19636	60.00000	Averaged
130 2,3,4,6-Tetrachlorophenol	0.23333	0.23665	0.23665	0.000	1.42249	60.00000	Averaged
143 Dinoseb	41.77834	40.00000	0.11249	0.000	4.44585	60.00000	Linear
173 Carbazole	0.68135	0.69533	0.69533	0.000	2.05237	60.00000	Averaged
184 p-Benzoquinone	0.26551	0.19230	0.19230	0.000	-27.57330	60.00000	Averaged
192 Methoxychlor	0.58935	0.62587	0.62587	0.000	6.19688	60.00000	Averaged
211 p-Toluidine	1.10616	0.97036	0.97036	0.000	-12.27617	60.00000	Averaged
210 m-Toluidine	1.37475	1.21251	1.21251	0.000	-11.80169	60.00000	Averaged
215 2-Ethoxyethanol	0.93140	0.93581	0.93581	0.000	0.47324	60.00000	Averaged
26 Phthalic anhydride	51.56333	40.00000	0.13454	0.000	28.90832	60.00000	Linear
214 1,4-Dinitrobenzene	0.19422	0.19244	0.19244	0.000	-0.91506	60.00000	Averaged
216 Methylenebis(2-chloroanilin	0.13367	0.13777	0.13777	0.000	3.06814	60.00000	Averaged
M 222 Trichlorophenols	0.28144	0.30310	0.30310	0.000	7.69664	60.00000	Averaged
M 223 Tetrachlorophenols	0.23333	0.23665	0.23665	0.000	1.42249	60.00000	Averaged
M 224 Benzo(b,k)fluoranthene	1.08800	1.05514	1.05514	0.000	-3.02057	60.00000	Averaged

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Data file : /chem/MSD7.i/s022610.b/s7b2614.d  
Lab Smp Id: WBN100225-09.1 Client Smp ID: MEGAICV  
Inj Date : 26-FEB-2010 15:33  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |WBN100225-09.1|ICV|1|SVMF|1|MEGAICV  
Misc Info : |MSD8270|WBN100217-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 27-Feb-2010 08:41 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 15:08 Cal File: s7b2613.d  
Als bottle: 14 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: MEGA.sub  
Target Version: 3.50

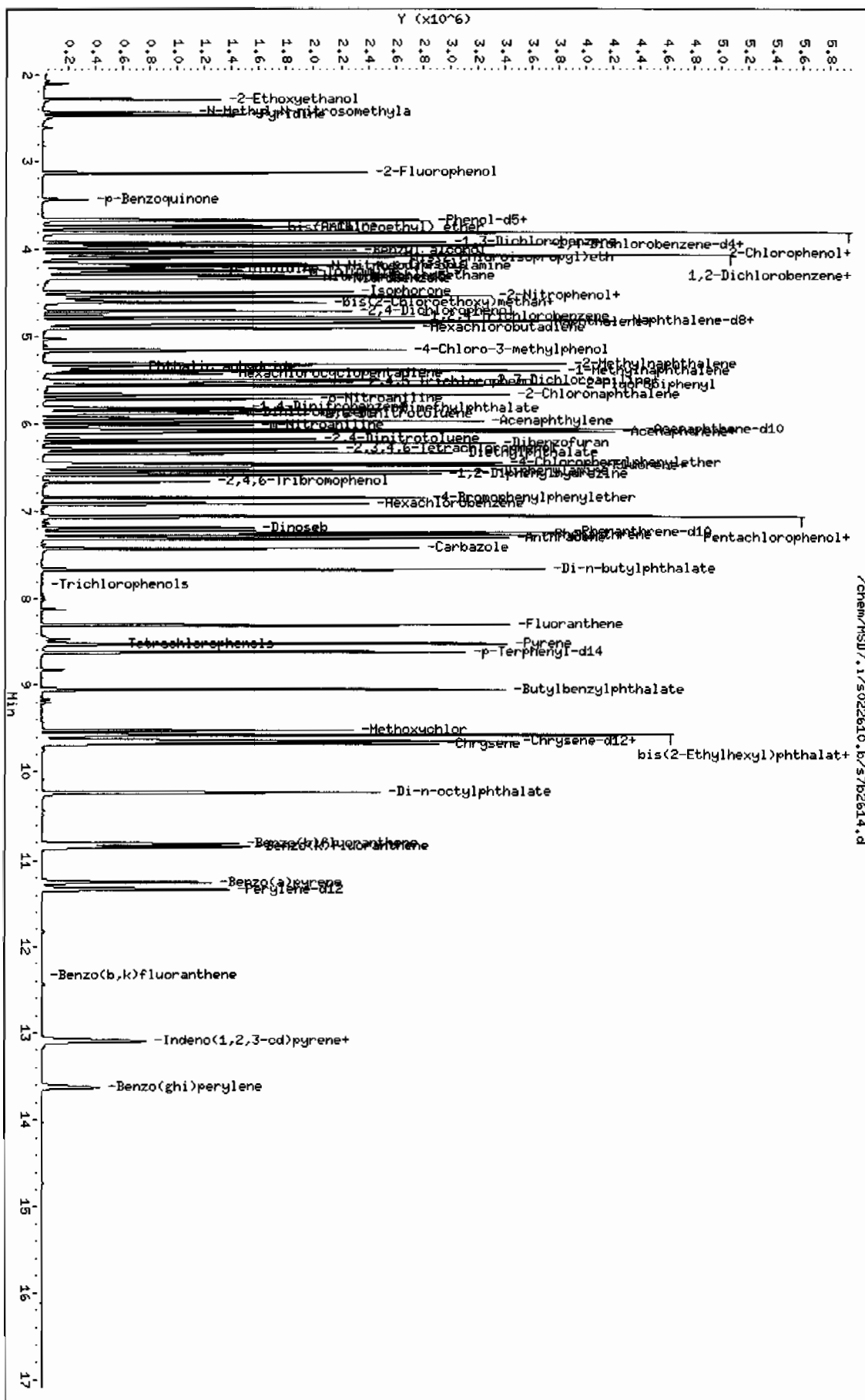
Compounds	QUANT SIG				AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)
						ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.951	3.947	(1.000)	398783	40.0000
* 29 Naphthalene-d8	136	4.818	4.818	(1.000)	1519686	40.0000
* 46 Acenaphthene-d10	164	6.075	6.070	(1.000)	819814	40.0000
* 67 Phenanthrene-d10	188	7.250	7.245	(1.000)	1483884	40.0000
* 91 Chrysene-d12	240	9.658	9.653	(1.000)	1119677	40.0000
* 98 Perylene-d12	264	11.338	11.333	(1.000)	753913	40.0000
\$ 3 2-Fluorophenol	112	3.133	3.133	(0.793)	408636	40.0000 39.4
\$ 5 Phenol-d5	99	3.663	3.658	(0.927)	497935	40.0000 38.3
\$ 20 Nitrobenzene-d5	82	4.313	4.312	(0.895)	483245	40.0000 42.2
\$ 39 2-Fluorobiphenyl	172	5.560	5.560	(0.915)	862503	40.0000 42.2
\$ 60 2,4,6-Tribromophenol	329	6.672	6.672	(1.098)	94831	40.0000 40.0
\$ 81 p-Terphenyl-d14	244	8.622	8.622	(0.893)	891139	40.0000 44.4
1 N-Methyl-N-nitrosomethylamine	74	2.444	2.444	(0.619)	262390	40.0000 37.6
2 Pyridine	79	2.473	2.478	(0.626)	289621	40.0000 30.1
4 Aniline	66	3.735	3.735	(0.945)	224177	40.0000 36.2
6 Phenol	94	3.672	3.667	(0.929)	510433	40.0000 39.5
7 bis(2-Chloroethyl) ether	63	3.749	3.749	(0.949)	395566	40.0000 37.4
8 2-Chlorophenol	128	3.817	3.812	(0.966)	386729	40.0000 39.1
203 n-Decane	43	3.802	3.802	(0.962)	661206	40.0000 35.6
9 1,3-Dichlorobenzene	146	3.918	3.918	(0.991)	496206	40.0000 40.0
11 1,4-Dichlorobenzene	146	3.966	3.961	(1.004)	460590	40.0000 38.7
13 1,2-Dichlorobenzene	146	4.067	4.067	(1.029)	420246	40.0000 38.4
14 bis(2-Chloroisopropyl) ether	45	4.096	4.096	(1.037)	963819	40.0000 39.4
12 Benzyl alcohol	108	4.014	4.014	(1.016)	262120	40.0000 39.0
15 o-Cresol	107	4.067	4.067	(1.029)	301843	40.0000 38.2
18 m,p-Cresols	107	4.168	4.168	(1.055)	425256	40.0000 39.8
17 N-Nitrosodipropylamine	70	4.192	4.192	(1.061)	295069	40.0000 40.2

Compounds	QUANT SIG			REL RT	RESPONSE	AMOUNTS	
	MASS	RT	EXP RT			CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
19 Hexachloroethane	117	4.298	4.298	(1.088)	179815	40.0000	38.9
21 Nitrobenzene	77	4.327	4.327	(0.898)	432114	40.0000	40.6
22 Isophorone	82	4.481	4.486	(0.930)	799464	40.0000	38.9
23 2-Nitrophenol	139	4.544	4.544	(0.943)	209904	40.0000	42.0
24 2,4-Dimethylphenol	122	4.534	4.534	(0.941)	391978	40.0000	43.0
25 bis(2-Chloroethoxy)methane	93	4.601	4.601	(0.955)	423168	40.0000	37.6
26 2,4-Dichlorophenol	162	4.703	4.703	(0.976)	341282	40.0000	42.3
27 Benzoic acid	105	4.592	4.592	(0.953)	204606	40.0000	44.6
28 1,2,4-Trichlorobenzene	180	4.770	4.770	(0.990)	395939	40.0000	40.5
30 Naphthalene	128	4.837	4.837	(1.004)	1108980	40.0000	38.6
204 alpha-Terpineol	59	4.809	4.808	(0.998)	418894	40.0000	35.7
31 4-Chloroaniline	127	4.847	4.847	(1.006)	503209	40.0000	37.4
32 Hexachlorobutadiene	225	4.900	4.900	(1.017)	213421	40.0000	41.8
33 4-Chloro-3-methylphenol	107	5.155	5.155	(1.070)	363372	40.0000	42.0
34 2-Methylnaphthalene	142	5.314	5.314	(1.103)	847725	40.0000	41.1
35 1-Methylnaphthalene	142	5.391	5.391	(1.119)	777496	40.0000	39.7
36 Hexachlorocyclopentadiene	237	5.420	5.420	(0.892)	147596	40.0000	37.2
205 2,3-Dichloroaniline	161	5.512	5.512	(0.907)	400773	40.0000	39.5
37 2,4,6-Trichlorophenol	196	5.502	5.502	(0.906)	240799	40.0000	41.9
38 2,4,5-Trichlorophenol	196	5.526	5.526	(0.910)	256177	40.0000	44.3
40 2-Chloronaphthalene	162	5.670	5.670	(0.933)	762704	40.0000	40.2
42 o-Nitroaniline	65	5.723	5.723	(0.942)	266029	40.0000	39.6
41 m-Nitroaniline	138	6.022	6.022	(0.991)	195077	40.0000	39.8
43 Dimethylphthalate	163	5.839	5.839	(0.961)	870483	40.0000	40.0
44 2,6-Dinitrotoluene	165	5.892	5.892	(0.970)	201445	40.0000	40.0
50 2,4-Dinitrotoluene	165	6.186	6.186	(1.018)	262842	40.0000	39.6
45 Acenaphthylene	152	5.974	5.974	(0.983)	1212713	40.0000	40.0
47 Acenaphthene	154	6.099	6.099	(1.004)	692379	40.0000	38.4
48 2,4-Dinitrophenol	184	6.089	6.089	(1.002)	56443	40.0000	40.4
49 Dibenzofuran	168	6.224	6.224	(1.025)	1031677	40.0000	40.7
51 Diethylphthalate	149	6.345	6.345	(1.044)	891212	40.0000	40.0
52 4-Nitrophenol	139	6.104	6.104	(1.005)	139513	40.0000	41.8
53 Fluorene	166	6.489	6.489	(1.068)	809688	40.0000	38.0
54 4-Chlorophenylphenylether	204	6.460	6.460	(1.063)	414472	40.0000	39.2
55 2-Methyl-4,6-dinitrophenol	198	6.499	6.499	(0.896)	133661	40.0000	49.6
56 p-Nitroaniline	138	6.479	6.484	(1.067)	172445	40.0000	39.1
133 Diphenylamine	169	6.552	6.552	(0.904)	694684	40.0000	39.7
58 1,2-Diphenylhydrazine	77	6.590	6.585	(0.909)	888138	40.0000	40.4
61 4-Bromophenylphenylether	218	6.850	6.850	(0.945)	235353	40.0000	38.6
63 Hexachlorobenzene	284	6.922	6.922	(0.955)	234334	40.0000	39.5
65 Pentachlorophenol	266	7.072	7.067	(0.975)	125785	40.0000	44.8
206 n-Octadecane	57	7.062	7.062	(0.974)	808626	40.0000	43.5
68 Phenanthrene	178	7.269	7.269	(1.003)	1174179	40.0000	38.6
69 Anthracene	178	7.313	7.312	(1.009)	1198165	40.0000	38.8
72 Di-n-butylphthalate	149	7.669	7.669	(1.058)	1565255	40.0000	40.3
76 Fluoranthene	202	8.309	8.309	(1.146)	1333938	40.0000	40.3
79 Pyrene	202	8.526	8.526	(0.883)	1347549	40.0000	38.1

Compounds	QUANT SIG			REL RT	RESPONSE	AMOUNTS	
	MASS	RT	EXP RT			CAL-AMT (ng/ul)	ON-COL (ng/ul)
85 Butylbenzylphthalate	149	9.056	9.056	(0.938)	682818	40.0000	40.6
89 Benzo(a)anthracene	228	9.643	9.643	(0.998)	990591	40.0000	36.9
92 Chrysene	228	9.682	9.682	(1.002)	914923	40.0000	38.3
93 bis(2-Ethylhexyl)phthalate	149	9.581	9.580	(0.992)	838787	40.0000	39.4
94 Di-n-octylphthalate	149	10.235	10.240	(0.903)	1194290	40.0000	39.4
95 Benzo(b)fluoranthene	252	10.818	10.818	(0.954)	802637	40.0000	38.0
96 Benzo(k)fluoranthene	252	10.852	10.857	(0.957)	788325	40.0000	39.7
97 Benzo(a)pyrene	252	11.256	11.256	(0.993)	678918	40.0000	39.2
99 Indeno(1,2,3-cd)pyrene	276	13.091	13.096	(1.155)	455276	40.0000	36.5
100 Dibenzo(a,h)anthracene	278	13.105	13.110	(1.156)	354422	40.0000	35.9
101 Benzo(ghi)perylene	276	13.625	13.635	(1.202)	375295	40.0000	36.1
126 m-Dinitrobenzene	168	5.873	5.873	(0.967)	140617	40.0000	40.5
130 2,3,4,6-Tetrachlorophenol	232	6.301	6.301	(1.037)	194010	40.0000	40.6
143 Dinoseb	211	7.192	7.192	(0.992)	166919	40.0000	41.8
173 Carbazole	167	7.423	7.428	(1.024)	1031789	40.0000	40.8
184 p-Benzoquinone	54	3.431	3.431	(0.868)	76686	40.0000	29.0
192 Methoxychlor	227	9.528	9.527	(0.987)	700776	40.0000	42.5
211 p-Toluidine	106	4.226	4.226	(1.069)	386963	40.0000	35.1
210 m-Toluidine	106	4.250	4.250	(1.076)	483528	40.0000	35.3
215 2-Ethoxyethanol	59	2.290	2.290	(0.580)	373183	40.0000	40.2
26 Phthalic anhydride	104	5.348	5.348	(1.110)	204452	40.0000	51.6
214 1,4-Dinitrobenzene	75	5.815	5.815	(0.957)	157765	40.0000	39.6
216 Methylenebis(2-chloroaniline)	231	9.585	9.585	(0.993)	154259	40.0000	41.2
M 222 Trichlorophenols	196				496977	80.0000	86.2
M 223 Tetrachlorophenols	232				194010	40.0000	40.6
M 224 Benzo(b,k)fluoranthene	252				1590962	80.0000	77.6

Data File: /chem/MSD7.i/5022610.b/s7b2614.d  
 Date: 26-FEB-2010 15:33  
 Client ID: MEGACV  
 Sample Info: IWBNA00225-09.11CV111SVH11.MEGACV  
 Column phase: J&M DB-SMS

Instrument: MSD7.i  
 Operator: JMB3  
 Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 27-FEB-2010 00:07  
Lab File ID: s7b2638.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
Analysis Type: Init. Cal. Times: 11:07 23:46  
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD  
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84333	0.72762	0.72762	0.000	-13.72062	60.00000	Averaged
16 Acetophenone	1.10656	1.09035	1.09035	0.000	-1.46517	60.00000	Averaged
189 Caprolactam	0.07444	0.08269	0.08269	0.000	11.09028	60.00000	Averaged
208 1,1'-Biphenyl	1.10203	1.18702	1.18702	0.000	7.71210	60.00000	Averaged
207 Atrazine	0.03853	0.04597	0.04597	0.000	19.30469	60.00000	Averaged
77 Benzidine	0.37412	0.37290	0.37290	0.000	-0.32808	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27910	0.28354	0.28354	0.000	1.59226	60.00000	Averaged
102 1,4-Dioxane	0.33513	0.40939	0.40939	0.000	22.16131	60.00000	Averaged
103 Methyl methacrylate	0.19562	0.23961	0.23961	0.000	22.48803	60.00000	Averaged
104 Ethyl methacrylate	0.75140	0.90901	0.90901	0.000	20.97589	60.00000	Averaged
105 2-Picoline	1.13566	1.16769	1.16769	0.000	2.82042	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44142	0.47438	0.47438	0.000	7.46654	60.00000	Averaged
107 Methyl methanesulfonate	0.50747	0.54617	0.54617	0.000	7.62707	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47013	0.49911	0.49911	0.000	6.16504	60.00000	Averaged
109 Ethyl Methanesulfonate	0.62041	0.76141	0.76141	0.000	22.72687	60.00000	Averaged
110 Pentachloroethane	0.30840	0.42036	0.42036	0.000	36.30233	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49363	0.51936	0.51936	0.000	5.21438	60.00000	Averaged
113 N-Nitrosomorpholine	0.81412	0.89271	0.89271	0.000	9.65373	60.00000	Averaged
114 o-Toluidine	1.53985	1.58233	1.58233	0.000	2.75855	60.00000	Averaged
115 N-Nitrosopiperidine	0.13162	0.14324	0.14324	0.000	8.82907	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.98197	1.03595	1.03595	0.000	5.49667	60.00000	Averaged
118 2,6-Dichlorophenol	0.20270	0.18717	0.18717	0.000	-7.66350	60.00000	Averaged
119 Hexachloropropene	0.10516	0.16353	0.16353	0.000	55.49743	60.00000	Averaged
120 p-Phenylenediamine	0.22347	0.22273	0.22273	0.000	-0.33095	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.20065	0.21517	0.21517	0.000	7.23239	60.00000	Averaged
122 Safrole	0.18525	0.22522	0.22522	0.000	21.57952	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.39310	0.44447	0.44447	0.000	13.06636	60.00000	Averaged
124 Isosafrole	0.32673	0.44824	0.44824	0.000	37.18926	60.00000	Averaged
125 1,4-Naphthoquinone	42.42497	40.00000	0.30765	0.000	6.06244	60.00000	Linear
127 Pentachlorobenzene	0.35339	0.38326	0.38326	0.000	8.45157	60.00000	Averaged
128 1-Naphthylamine	0.85758	0.95943	0.95943	0.000	11.87595	60.00000	Averaged
129 2-Naphthylamine	0.92399	1.06906	1.06906	0.000	15.70067	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27279	0.29252	0.29252	0.000	7.23152	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11408	0.15190	0.15190	0.000	33.15347	60.00000	Averaged
137 Phenacetin	0.25171	0.26740	0.26740	0.000	6.23101	60.00000	Averaged
138 Diallate	0.21975	0.22151	0.22151	0.000	0.80197	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 27-FEB-2010 00:07  
 Lab File ID: s7b2638.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
 Analysis Type: Init. Cal. Times: 11:07 23:46  
 Lab Sample ID: WBN100218-08.1 Quant Type: ISTD  
 Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
			RRF40	RRF	%D / %DRIFT	
212 Cis Diallate	0.22751	0.29963	0.29963	0.000	31.70163	Averaged
213 Trans Diallate	0.25853	0.26060	0.26060	0.000	0.80197	Averaged
140 4-Aminobiphenyl	0.53100	0.61459	0.61459	0.000	15.74304	Averaged
141 Pentachloronitrobenzene	0.05770	0.06484	0.06484	0.000	12.37888	Averaged
142 Pronamide	0.23171	0.26428	0.26428	0.000	14.05423	Averaged
146 4-Nitroquinoline-1-oxide	0.01900	0.02204	0.02204	0.000	15.97890	Averaged
147 Methapyrilene	0.45514	0.56955	0.56955	0.000	25.13562	Averaged
148 Isodrin	0.10048	0.10103	0.10103	0.000	0.54771	Averaged
149 Aramite	0.04292	0.04771	0.04771	0.000	11.14909	Averaged
150 Kepone	0.06421	0.06503	0.06503	0.000	1.28262	Averaged
151 p-(Dimethylamino)azobenzene	0.31171	0.34212	0.34212	0.000	9.75602	Averaged
152 Chlorobenzilate	0.27373	0.25521	0.25521	0.000	-6.76399	Averaged
153 3,3'-Dimethylbenzidine	0.52442	0.55141	0.55141	0.000	5.14612	Averaged
155 2-Acetylaminofluorene	0.30989	0.30947	0.30947	0.000	-0.13679	Averaged
157 7,12Dimethylbenz(a)anthracene	0.51277	0.54729	0.54729	0.000	6.73130	Averaged
158 3-Methylcholanthrene	0.37167	0.40941	0.40941	0.000	10.15366	Averaged



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Data file : /chem/MSD7.i/s022610.b/s7b2638.d  
 Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV  
 Inj Date : 27-FEB-2010 00:07  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |WBN100218-08.1|ICV|1|SVMF|1|APICV  
 Misc Info : |MSD8270|WBN100217-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 01-Mar-2010 10:44 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 38 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AP12.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.952	3.952	(1.000)	457703	40.0000	
* 29 Naphthalene-d8	136	4.818	4.818	(1.000)	1628008	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.070	(1.000)	931821	40.0000	
* 67 Phenanthrene-d10	188	7.245	7.245	(1.000)	1617850	40.0000	
* 91 Chrysene-d12	240	9.653	9.653	(1.000)	1288003	40.0000	
* 98 Perylene-d12	264	11.333	11.333	(1.000)	857015	40.0000	
209 Benzaldehyde	77	3.672	3.672	(0.929)	333034	40.0000	34.5
16 Acetophenone	105	4.202	4.202	(1.063)	499057	40.0000	39.4
189 Caprolactam	113	5.093	5.093	(1.057)	134623	40.0000	44.4
208 1,1'-Biphenyl	154	5.642	5.642	(0.929)	1106090	40.0000	43.1
207 Atrazine	173	6.947	6.947	(0.959)	74372	40.0000	47.7
77 Benzidine	184	8.396	8.396	(0.870)	480291	40.0000	39.9
90 3,3'-Dichlorobenzidine	252	9.590	9.590	(0.994)	365203	40.0000	40.6
102 1,4-Dioxane	88	2.290	2.290	(0.580)	187381	40.0000	48.9
103 Methyl methacrylate	100	2.285	2.285	(0.578)	109670	40.0000	49.0
104 Ethyl methacrylate	69	2.656	2.656	(0.672)	416056	40.0000	48.4
105 2-Picoline	93	2.844	2.844	(0.720)	534455	40.0000	41.1
106 N-Nitrosomethylethylamine	88	2.887	2.887	(0.731)	217124	40.0000	43.0
107 Methyl methanesulfonate	80	3.042	3.042	(0.770)	249986	40.0000	43.0
108 N-Nitrosodiethylamine	102	3.277	3.277	(0.829)	228446	40.0000	42.5
109 Ethyl Methanesulfonate	79	3.436	3.436	(0.870)	348500	40.0000	49.1
110 Pentachloroethane	167	3.773	3.773	(0.955)	192400	40.0000	54.5
111 N-Nitrosopyrrolidine	100	4.188	4.188	(1.060)	237715	40.0000	42.1
113 N-Nitrosomorpholine	56	4.212	4.212	(1.066)	408598	40.0000	43.9
114 o-Toluidine	106	4.226	4.226	(1.069)	724237	40.0000	41.1
115 N-Nitrosopiperidine	114	4.428	4.428	(0.919)	233195	40.0000	43.5

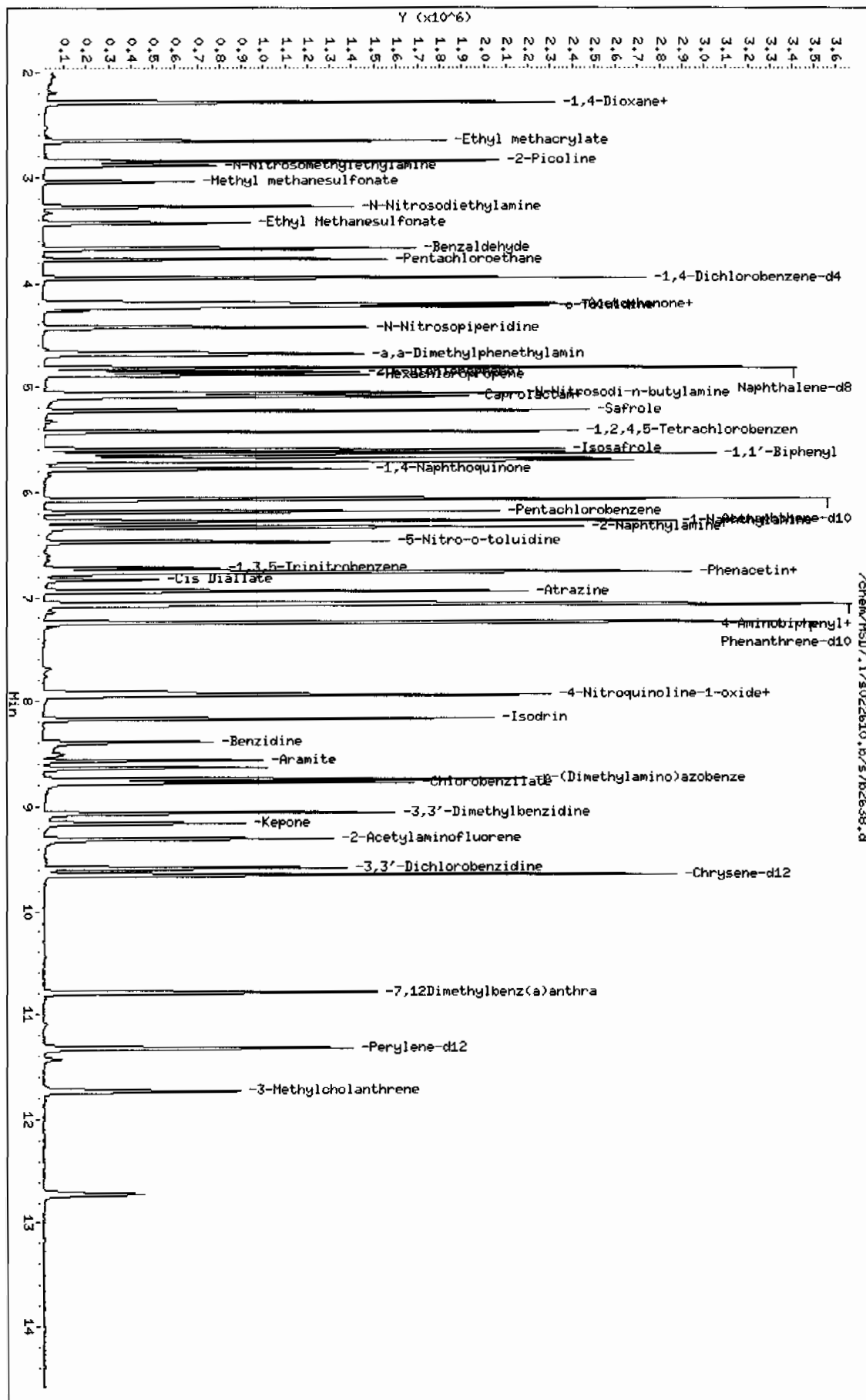
Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	-	=====	=====	=====	=====	=====
116 a,a-Dimethylphenethylamine	58	4.684	4.684	(0.972)	1686530	40.0000	42.2
118 2,6-Dichlorophenol	162	4.857	4.857	(1.008)	304708	40.0000	36.9
119 Hexachloropropene	213	4.891	4.891	(1.015)	266225	40.0000	62.2
120 p-Phenylenediamine	108	5.093	5.093	(1.057)	362600	40.0000	39.9
121 N-Nitrosodi-n-butylamine	84	5.064	5.064	(1.051)	350292	40.0000	42.9
122 Safrole	162	5.228	5.228	(1.085)	366667	40.0000	48.6
123 1,2,4,5-Tetrachlorobenzene	216	5.430	5.430	(0.894)	414165	40.0000	45.2
124 Isosafrole	162	5.598	5.598	(0.922)	417676	40.0000	54.9
125 1,4-Naphthoquinone	158	5.786	5.786	(0.953)	286671	40.0000	42.4
127 Pentachlorobenzene	250	6.191	6.191	(1.020)	357126	40.0000	43.4
128 1-Naphthylamine	143	6.277	6.277	(1.034)	894018	40.0000	44.8
129 2-Naphthylamine	143	6.335	6.335	(1.044)	996175	40.0000	46.3
131 5-Nitro-o-toluidine	152	6.475	6.475	(1.067)	272578	40.0000	42.9
136 1,3,5-Trinitrobenzene	75	6.720	6.720	(0.928)	245746	40.0000	53.3
137 Phenacetin	108	6.769	6.769	(0.934)	432605	40.0000	42.5 (Q)
138 Diallate	86	6.759	6.759	(0.933)	358370	40.0000	40.3
212 Cis Diallate	86	6.836	6.836	(0.944)	72714	6.00000	7.9
213 Trans Diallate	86	6.759	6.759	(0.933)	358370	34.0000	34.3
140 4-Aminobiphenyl	169	7.062	7.062	(0.975)	994319	40.0000	46.3
141 Pentachloronitrobenzene	237	7.082	7.082	(0.977)	104897	40.0000	45.0 (Q)
142 Pronamide	173	7.077	7.077	(0.977)	427557	40.0000	45.6
146 4-Nitroquinoline-1-oxide	101	7.910	7.910	(1.092)	35650	40.0000	46.4
147 Methapyrilene	58	7.948	7.948	(1.097)	921442	40.0000	50.0
148 Isodrin	193	8.175	8.175	(1.128)	163454	40.0000	40.2
149 Aramite	185	8.569	8.569	(1.183)	77182	40.0000	44.4
150 Kepone	272	9.162	9.162	(1.264)	105206	40.0000	40.5
151 p-(Dimethylamino)azobenzene	120	8.752	8.752	(0.907)	440648	40.0000	43.9
152 Chlorobenzilate	251	8.781	8.781	(0.910)	328712	40.0000	37.3
153 3,3'-Dimethylbenzidine	212	9.065	9.065	(0.939)	710215	40.0000	42.0
155 2-Acetylaminofluorene	181	9.311	9.311	(0.965)	398598	40.0000	39.9
157 7,12Dimethylbenz(a)anthracene	256	10.794	10.794	(0.952)	469035	40.0000	42.7
158 3-Methylcholanthrene	268	11.738	11.738	(1.036)	350866	40.0000	44.1

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/HSD7.1/5022610.b/s7b2638.d  
 Date: 27-FEB-2010 00:07  
 Client ID: RPICV  
 Sample Info: IUBN00218-08.11CV11SVH11RPICV  
 Column phase: J&W DB-SHS

Instrument: HSD7.1  
 Operator: JMB3  
 Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 11-MAR-2010 12:51  
 Lab File ID: s7c1102.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
 Analysis Type: Init. Cal. Times: 11:07 23:46  
 Lab Sample ID: WBN100309-05.2 Quant Type: ISTD  
 Method: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF %D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
3 2-Fluorophenol	1.03969	1.00728	1.00728 0.000	-3.11802	60.00000	Averaged
5 Phenol-d5	1.30355	1.28816	1.28816 0.000	-1.18093	60.00000	Averaged
20 Nitrobenzene-d5	0.30169	0.25434	0.25434 0.000	-15.69574	60.00000	Averaged
39 2-Fluorobiphenyl	0.99687	1.00397	1.00397 0.000	0.71257	60.00000	Averaged
60 2,4,6-Tribromophenol	0.11563	0.11634	0.11634 0.000	0.60556	60.00000	Averaged
81 p-Terphenyl-d14	0.71661	0.70790	0.70790 0.000	-1.21531	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.70001	0.65176	0.65176 0.000	-6.89287	60.00000	Averaged
2 Pyridine	0.96465	0.89976	0.89976 0.000	-6.72745	60.00000	Averaged
4 Aniline	0.62182	0.56464	0.56464 0.000	-9.19543	60.00000	Averaged
6 Phenol	1.29492	1.22065	1.22065 0.001	-5.73549	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06026	0.91215	0.91215 0.000	-13.96924	60.00000	Averaged
8 2-Chlorophenol	0.99096	0.99032	0.99032 0.000	-0.06489	60.00000	Averaged
203 n-Decane	1.86209	1.66048	1.66048 0.000	-10.82739	60.00000	Averaged
9 1,3-Dichlorobenzene	1.24478	1.19454	1.19454 0.000	-4.03557	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19442	1.17827	1.17827 0.001	-1.35227	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.09872	1.10658	1.10658 0.000	0.71582	60.00000	Averaged
14 bis(2-Chloroisopropyl) ether	2.45618	2.11101	2.11101 0.000	-14.05318	60.00000	Averaged
12 Benzyl alcohol	0.67475	0.33594	0.33594 0.000	-50.21236	60.00000	Averaged
15 o-Cresol	0.79330	0.81345	0.81345 0.000	2.53972	60.00000	Averaged
18 m,p-Cresols	1.07190	0.95226	0.95226 0.000	-11.16129	60.00000	Averaged
17 N-Nitrosodipropylamine	0.73664	0.71371	0.71371 0.050	-3.11235	60.00000	Averaged spcc
19 Hexachloroethane	0.46378	0.45530	0.45530 0.000	-1.82893	60.00000	Averaged
21 Nitrobenzene	0.27987	0.25667	0.25667 0.000	-8.28659	60.00000	Averaged
22 Isophorone	0.54073	0.50890	0.50890 0.000	-5.88668	60.00000	Averaged
23 2-Nitrophenol	0.13143	0.13696	0.13696 0.001	4.21444	20.00000	Averaged ccc
24 2,4-Dimethylphenol	42.10642	40.00000	0.25302 0.000	5.26605	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.29584	0.27553	0.27553 0.000	-6.86808	60.00000	Averaged
26 2,4-Dichlorophenol	0.21226	0.20664	0.20664 0.001	-2.65083	20.00000	Averaged ccc
27 Benzoic acid	0.12083	0.11466	0.11466 0.000	-5.10288	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.25742	0.25149	0.25149 0.000	-2.30631	60.00000	Averaged
30 Naphthalene	0.75561	0.71493	0.71493 0.000	-5.38293	60.00000	Averaged
204 alpha-Terpineol	0.30880	0.24518	0.24518 0.000	-20.60255	60.00000	Averaged
31 4-Chloroaniline	0.35383	0.34764	0.34764 0.000	-1.74903	60.00000	Averaged
32 Hexachlorobutadiene	0.13434	0.13402	0.13402 0.001	-0.23897	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.22797	0.21807	0.21807 0.001	-4.34291	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54229	0.52318	0.52318 0.000	-3.52422	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 11-MAR-2010 12:51  
Lab File ID: s7c1102.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
Analysis Type: Init. Cal. Times: 11:07 23:46  
Lab Sample ID: WBN100309-05.2 Quant Type: ISTD  
Method: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
			RRF40	RRF	%D / %DRIFT	
35 1-Methylnaphthalene	0.51558	0.50168	0.50168	0.000	-2.69607	Averaged
36 Hexachlorocyclopentadiene	0.19338	0.21429	0.21429	0.050	10.81335	Averaged spcc
205 2,3-Dichloroaniline	0.49462	0.50458	0.50458	0.000	2.01407	Averaged
37 2,4,6-Trichlorophenol	0.28064	0.28552	0.28552	0.001	1.74113	Averaged ccc
38 2,4,5-Trichlorophenol	0.28225	0.31420	0.31420	0.000	11.32130	Averaged
40 2-Chloronaphthalene	0.92584	0.91378	0.91378	0.000	-1.30265	Averaged
42 o-Nitroaniline	0.32778	0.28770	0.28770	0.000	-12.22591	Averaged
41 m-Nitroaniline	0.23922	0.22624	0.22624	0.000	-5.42497	Averaged
43 Dimethylphthalate	1.06293	1.04981	1.04981	0.000	-1.23468	Averaged
44 2,6-Dinitrotoluene	0.24549	0.24979	0.24979	0.000	1.75401	Averaged
50 2,4-Dinitrotoluene	0.32362	0.32311	0.32311	0.000	-0.15922	Averaged
45 Acenaphthylene	1.47998	1.45078	1.45078	0.000	-1.97316	Averaged
47 Acenaphthene	0.88041	0.89970	0.89970	0.001	2.19041	Averaged ccc
48 2,4-Dinitrophenol	54.23763	40.00000	0.10546	0.050	35.59409	Linear spcc
49 Dibenzofuran	1.23737	1.24158	1.24158	0.000	0.34034	Averaged
51 Diethylphthalate	1.08801	1.08093	1.08093	0.000	-0.65070	Averaged
52 4-Nitrophenol	0.16277	0.16855	0.16855	0.050	3.55456	Averaged spcc
53 Fluorene	1.03823	1.05516	1.05516	0.000	1.62986	Averaged
54 4-Chlorophenylphenylether	0.51596	0.52812	0.52812	0.000	2.35691	Averaged
55 2-Methyl-4,6-dinitrophenol	51.22170	40.00000	0.09360	0.000	28.05426	Linear
56 p-Nitroaniline	0.21538	0.19539	0.19539	0.000	-9.28024	Averaged
133 Diphenylamine	0.47134	0.47530	0.47530	0.001	0.83856	Averaged ccc
58 1,2-Diphenylhydrazine	0.59299	0.57182	0.57182	0.000	-3.57042	Averaged
61 4-Bromophenylphenylether	0.16450	0.17319	0.17319	0.000	5.28204	Averaged
63 Hexachlorobenzene	0.15982	0.16793	0.16793	0.000	5.07372	Averaged
65 Pentachlorophenol	0.07563	0.08194	0.08194	0.001	8.35441	Averaged ccc
206 n-Octadecane	0.50130	0.47804	0.47804	0.000	-4.63899	Averaged
68 Phenanthrene	0.82082	0.82470	0.82470	0.000	0.47256	Averaged
69 Anthracene	0.83131	0.84165	0.84165	0.000	1.24392	Averaged
72 Di-n-butylphthalate	1.04581	1.07411	1.07411	0.000	2.70581	Averaged
76 Fluoranthene	0.89248	0.93992	0.93992	0.001	5.31532	Averaged ccc
79 Pyrene	1.26367	1.24189	1.24189	0.000	-1.72318	Averaged
85 Butylbenzylphthalate	0.60092	0.60293	0.60293	0.000	0.33443	Averaged
89 Benzo(a)anthracene	0.95891	0.89856	0.89856	0.000	-6.29412	Averaged
92 Chrysene	0.85329	0.82823	0.82823	0.000	-2.93740	Averaged
93 bis(2-Ethylhexyl)phthalate	0.76109	0.81247	0.81247	0.000	6.75023	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 11-MAR-2010 12:51  
Lab File ID: s7c1102.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
Analysis Type: Init. Cal. Times: 11:07 23:46  
Lab Sample ID: WBN100309-05.2 Quant Type: ISTD  
Method: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
			RRF40	RRF	%D / %DRIFT	
94 Di-n-octylphthalate	1.60621	1.62818	1.62818	0.001	1.36728	Averaged ccc
95 Benzo(b)fluoranthene	1.12177	1.06650	1.06650	0.000	-4.92671	Averaged
96 Benzo(k)fluoranthene	1.05423	0.96771	0.96771	0.000	-8.20714	Averaged
97 Benzo(a)pyrene	0.91981	0.90533	0.90533	0.001	-1.57410	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.66143	0.79640	0.79640	0.000	20.40632	Averaged
100 Dibenzo(a,h)anthracene	0.52416	0.62889	0.62889	0.000	19.98014	Averaged
101 Benzo(ghi)perylene	0.55161	0.67591	0.67591	0.000	22.53419	Averaged
126 m-Dinitrobenzene	0.16950	0.17510	0.17510	0.000	3.30875	Averaged
130 2,3,4,6-Tetrachlorophenol	0.23333	0.27680	0.27680	0.000	18.62912	Averaged
143 Dinoseb	52.4214	40.00000	0.14811	0.000	31.05353	Linear
173 Carbazole	0.68135	0.65943	0.65943	0.000	-3.21665	Averaged
184 p-Benzoquinone	0.26551	0.11299	0.11299	0.000	-57.44596	Averaged
192 Methoxychlor	0.58935	0.71889	0.71889	0.000	21.98044	Averaged
211 p-Toluidine	1.10616	1.02304	1.02304	0.000	-7.51386	Averaged
210 m-Toluidine	1.37475	1.17501	1.17501	0.000	-14.52979	Averaged
215 2-Ethoxyethanol	0.93140	0.44467	0.44467	0.000	-52.25786	Averaged
26 Phthalic anhydride	26.69292	40.00000	0.06488	0.000	-33.26769	Linear
214 1,4-Dinitrobenzene	0.19422	0.19338	0.19338	0.000	-0.43109	Averaged
216 Methylenebis(2-chloroanilin	0.13367	0.09750	0.09750	0.000	-27.06161	Averaged
M 222 Trichlorophenols	0.28144	0.29986	0.29986	0.000	6.54483	Averaged
M 223 Tetrachlorophenols	0.23333	0.27680	0.27680	0.000	18.62912	Averaged
M 224 Benzo(b,k)fluoranthene	1.08800	1.01711	1.01711	0.000	-6.51602	Averaged

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Data file : /chem/MSD7.i/s031110.b/s7c1102.d  
Lab Smp Id: WBN100309-05.2 Client Smp ID: MEGACVS  
Inj Date : 11-MAR-2010 12:51  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |WBN100309-05.2|CVS|1|SVMF|1|MEGACVS  
Misc Info : |MSD8270|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 2 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: MEGA.sub  
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.990	3.990	(1.000)	413051	40.0000	
* 29 Naphthalene-d8	136	4.857	4.857	(1.000)	1673712	40.0000	
* 46 Accnaphthene-d10	164	6.114	6.114	(1.000)	875652	40.0000	
* 67 Phenanthrene-d10	188	7.284	7.284	(1.000)	1577491	40.0000	
* 91 Chrysene-d12	240	9.691	9.691	(1.000)	1230121	40.0000	
* 98 Perylene-d12	264	11.386	11.386	(1.000)	963725	40.0000	
\$ 3 2-Fluorophenol	112	3.181	3.181	(0.797)	416056	40.0000	38.8
\$ 5 Phenol-d5	99	3.706	3.706	(0.929)	532074	40.0000	39.5
\$ 20 Nitrobenzene-d5	82	4.356	4.356	(0.897)	425691	40.0000	33.7
\$ 39 2-Fluorobiphenyl	172	5.598	5.598	(0.916)	879128	40.0000	40.3
\$ 60 2,4,6-Tribromophenol	329	6.711	6.711	(1.098)	101869	40.0000	40.2
\$ 81 p-Terphenyl-d14	244	8.656	8.656	(0.893)	870802	40.0000	39.5
1 N-Methyl-N-nitrosomethylamine	74	2.497	2.497	(0.626)	269210	40.0000	37.2
2 Pyridine	79	2.531	2.531	(0.634)	371645	40.0000	37.3
4 Aniline	66	3.778	3.778	(0.947)	233224	40.0000	36.3 (H)
6 Phenol	94	3.716	3.716	(0.931)	504189	40.0000	37.7
7 bis(2-Chloroethyl) ether	63	3.793	3.793	(0.951)	376766	40.0000	34.4
8 2-Chlorophenol	128	3.860	3.860	(0.967)	409051	40.0000	40.0
203 n-Decane	43	3.836	3.836	(0.961)	685862	40.0000	35.7
9 1,3-Dichlorobenzene	146	3.956	3.956	(0.992)	493408	40.0000	38.4
11 1,4-Dichlorobenzene	146	4.004	4.004	(1.004)	486685	40.0000	39.4
13 1,2-Dichlorobenzene	146	4.106	4.106	(1.029)	457076	40.0000	40.3
14 bis(2-Chloroisopropyl) ether	45	4.134	4.134	(1.036)	871955	40.0000	34.4
12 Benzyl alcohol	108	4.057	4.057	(1.017)	138761	40.0000	19.9
15 o-Cresol	107	4.110	4.110	(1.030)	335997	40.0000	41.0
18 m,p-Cresols	107	4.211	4.211	(1.056)	393331	40.0000	35.5
17 N-Nitrosodipropylamine	70	4.236	4.236	(1.062)	294800	40.0000	38.8

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
19 Hexachloroethane	117	4.337	4.337	(1.087)	188062	40.0000	39.3
21 Nitrobenzene	77	4.370	4.370	(0.900)	429598	40.0000	36.7
22 Isophorone	82	4.524	4.524	(0.932)	851745	40.0000	37.6
23 2-Nitrophenol	139	4.582	4.582	(0.943)	229239	40.0000	41.7
24 2,4-Dimethylphenol	122	4.573	4.573	(0.942)	423481	40.0000	42.1
25 bis(2-Chloroethoxy)methane	93	4.640	4.640	(0.955)	461150	40.0000	37.2
26 2,4-Dichlorophenol	162	4.746	4.746	(0.977)	345848	40.0000	38.9
27 Benzoic acid	105	4.630	4.630	(0.953)	191909	40.0000	38.0
28 1,2,4-Trichlorobenzene	180	4.809	4.809	(0.990)	420916	40.0000	39.1
30 Naphthalene	128	4.876	4.876	(1.004)	1196592	40.0000	37.8
204 alpha-Terpineol	59	4.852	4.852	(0.999)	410366	40.0000	31.8
31 4-Chloroaniline	127	4.890	4.890	(1.007)	581848	40.0000	39.3
32 Hexachlorobutadiene	225	4.939	4.939	(1.017)	224312	40.0000	39.9
33 4-Chloro-3-methylphenol	107	5.199	5.199	(1.070)	364990	40.0000	38.3
34 2-Methylnaphthalene	142	5.353	5.353	(1.102)	875657	40.0000	38.6
35 1-Methylnaphthalene	142	5.425	5.425	(1.117)	839660	40.0000	38.9
36 Hexachlorocyclopentadiene	237	5.454	5.454	(0.892)	187641	40.0000	44.3
205 2,3-Dichloroaniline	161	5.550	5.550	(0.908)	441838	40.0000	40.8
37 2,4,6-Trichlorophenol	196	5.540	5.540	(0.906)	250020	40.0000	40.7
38 2,4,5-Trichlorophenol	196	5.569	5.569	(0.911)	275129	40.0000	44.5
40 2-Chloronaphthalene	162	5.704	5.704	(0.933)	800151	40.0000	39.5
42 o-Nitroaniline	65	5.762	5.762	(0.942)	251928	40.0000	35.1
41 m-Nitroaniline	138	6.061	6.061	(0.991)	198108	40.0000	37.8
43 Dimethylphthalate	163	5.873	5.873	(0.961)	919266	40.0000	39.5
44 2,6-Dinitrotoluene	165	5.931	5.931	(0.970)	218730	40.0000	40.7
50 2,4-Dinitrotoluene	165	6.229	6.229	(1.019)	282930	40.0000	39.9
45 Acenaphthylene	152	6.012	6.012	(0.983)	1270380	40.0000	39.2
47 Acenaphthene	154	6.138	6.138	(1.004)	787821	40.0000	40.9
48 2,4-Dinitrophenol	184	6.133	6.133	(1.003)	92345	40.0000	54.2
49 Dibenzofuran	168	6.263	6.263	(1.024)	1087195	40.0000	40.1
51 Diethylphthalate	149	6.383	6.383	(1.044)	946515	40.0000	39.7
52 4-Nitrophenol	139	6.157	6.157	(1.007)	147594	40.0000	41.4
53 Fluorene	166	6.528	6.528	(1.068)	923949	40.0000	40.6
54 4-Chlorophenylphenylether	204	6.499	6.499	(1.063)	462453	40.0000	40.9
55 2-Methyl-4,6-dinitrophenol	198	6.542	6.542	(0.898)	147651	40.0000	51.2
56 p-Nitroaniline	138	6.523	6.523	(1.067)	171093	40.0000	36.3
133 Diphenylamine	169	6.585	6.585	(0.904)	749776	40.0000	40.3
58 1,2-Diphenylhydrazine	77	6.624	6.624	(0.909)	902042	40.0000	38.6
61 4-Bromophenylphenylether	248	6.889	6.889	(0.946)	273200	40.0000	42.1
63 Hexachlorobenzene	284	6.961	6.961	(0.956)	264901	40.0000	42.0
65 Pentachlorophenol	266	7.110	7.110	(0.976)	129265	40.0000	43.3
206 n-Octadecane	57	7.091	7.091	(0.974)	754107	40.0000	38.1
68 Phenanthrene	178	7.308	7.308	(1.003)	1300955	40.0000	40.2
69 Anthracene	178	7.351	7.351	(1.009)	1327694	40.0000	40.5
72 Di-n-butylphthalate	149	7.703	7.703	(1.058)	1694392	40.0000	41.1
76 Fluoranthene	202	8.343	8.343	(1.145)	1482710	40.0000	42.1
79 Pyrene	202	8.560	8.560	(0.883)	1527679	40.0000	39.3



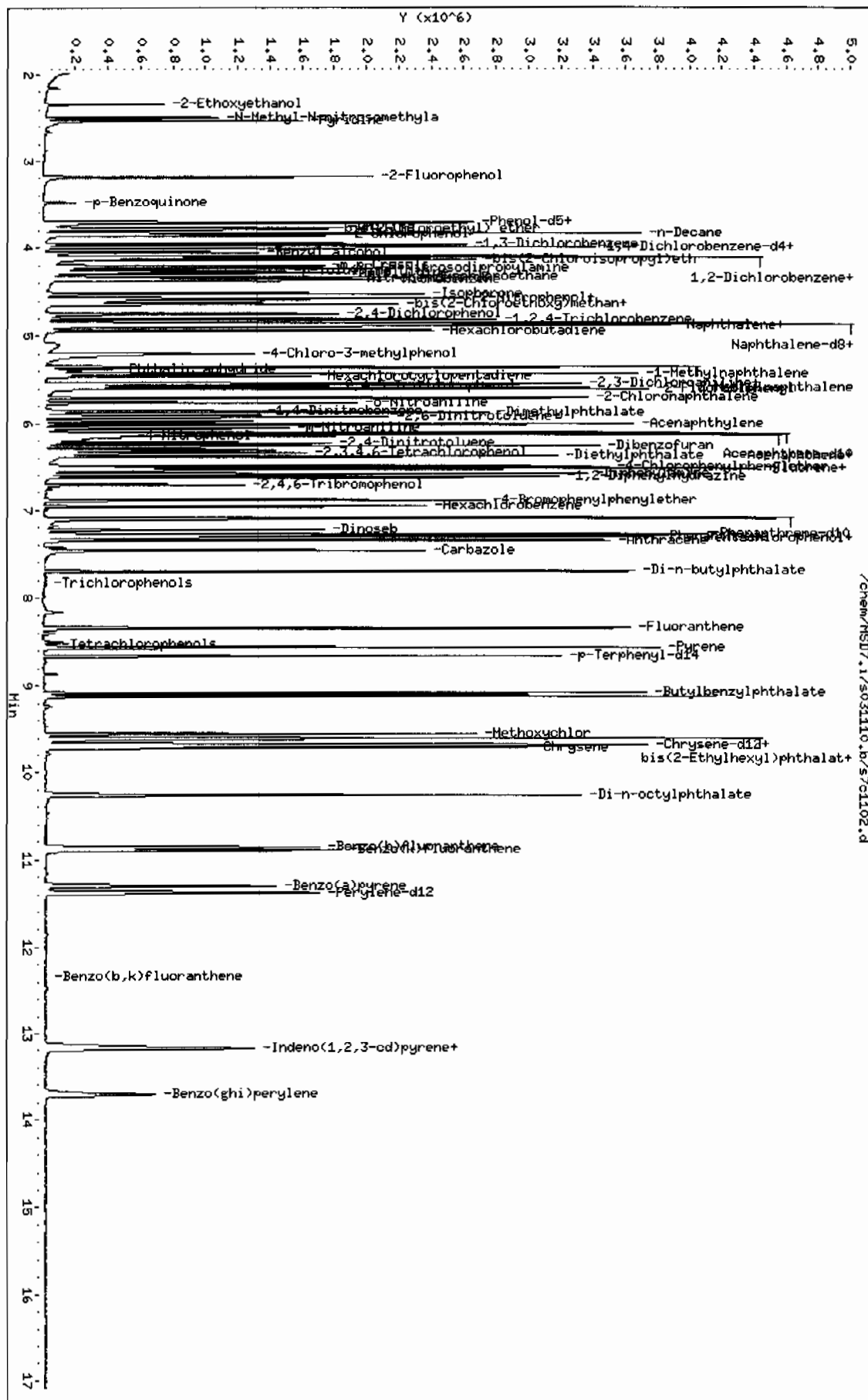
Compounds	QUANT SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
85 Butylbenzylphthalate	149	9.085	9.085 (0.937)	741671	40.0000	40.1
89 Benzo(a)anthracene	228	9.677	9.677 (0.998)	1105337	40.0000	37.5
92 Chrysene	228	9.715	9.715 (1.002)	1018819	40.0000	38.8
93 bis(2-Ethylhexyl)phthalate	149	9.605	9.605 (0.991)	999433	40.0000	42.7
94 Di-n-octylphthalate	149	10.264	10.264 (0.901)	1569113	40.0000	40.5
95 Benzo(b)fluoranthene	252	10.861	10.861 (0.954)	1027814	40.0000	38.0
96 Benzo(k)fluoranthene	252	10.900	10.900 (0.957)	932607	40.0000	36.7
97 Benzo(a)pyrene	252	11.309	11.309 (0.993)	872487	40.0000	39.4
99 Indeno(1,2,3-cd)pyrene	276	13.168	13.168 (1.156)	767510	40.0000	48.2
100 Dibenzo(a,h)anthracene	278	13.182	13.182 (1.158)	606078	40.0000	48.0
101 Benzo(ghi)perylene	276	13.712	13.712 (1.204)	651389	40.0000	49.0
126 m-Dinitrobenzene	168	5.911	5.911 (0.967)	153330	40.0000	41.3
130 2,3,4,6-Tetrachlorophenol	232	6.345	6.345 (1.038)	242381	40.0000	47.4
143 Dinoseb	211	7.231	7.231 (0.993)	233641	40.0000	52.4
173 Carbazole	167	7.467	7.467 (1.025)	1040244	40.0000	38.7
184 p-Benzquinone	54	3.480	3.480 (0.872)	46669	40.0000	17.0
192 Methoxychlor	227	9.556	9.556 (0.986)	884327	40.0000	48.8
211 p-Toluidine	106	4.269	4.269 (1.070)	422568	40.0000	37.0
210 m-Toluidine	106	4.293	4.293 (1.076)	485337	40.0000	34.2
215 2-Ethoxyethanol	59	2.343	2.343 (0.587)	183671	40.0000	19.1
26 Phthalic anhydride	104	5.386	5.386 (1.109)	108583	40.0000	26.7
214 1,4-Dinitrobenzene	75	5.853	5.853 (0.957)	169334	40.0000	39.8
216 Methylenebis(2-chloroaniline)	231	9.619	9.619 (0.993)	119933	40.0000	29.2
M 222 Trichlorophenols	196			525149	80.0000	85.2
M 223 Tetrachlorophenols	232			242381	40.0000	47.4
M 224 Benzo(b,k)fluoranthene	252			1960421	80.0000	74.8

# QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD7.i/s031110.b/s7c1102.d  
 Date: 11-MAR-2010 12:51  
 Client ID: HECACVS  
 Sample Info: IABN100309-05.21CVS111SMF111HECACVS  
 Column phase: 3M DB-5MS

Instrument: MSD7.i  
 Operator: JHB3  
 Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 11-MAR-2010 13:16  
Lab File ID: s7c1103.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
Analysis Type: Init. Cal. Times: 11:07 23:46  
Lab Sample ID: WBN100218-08.2 Quant Type: ISTD  
Method: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84333	0.75333	0.75333	0.000	-10.67205	60.00000	Averaged
16 Acetophenone	1.10656	1.03525	1.03525	0.000	-6.44483	60.00000	Averaged
189 Caprolactam	0.07444	0.07030	0.07030	0.000	-5.55442	60.00000	Averaged
208 1,1'-Biphenyl	1.10203	1.07672	1.07672	0.000	-2.29697	60.00000	Averaged
207 Atrazine	0.03853	0.03953	0.03953	0.000	2.60256	60.00000	Averaged
77 Benzidine	0.37412	0.30173	0.30173	0.000	-19.35116	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27910	0.26966	0.26966	0.000	-3.38271	60.00000	Averaged
102 1,4-Dioxane	0.33513	0.29621	0.29621	0.000	-11.61348	60.00000	Averaged
103 Methyl methacrylate	0.19562	0.16622	0.16622	0.000	-15.03059	60.00000	Averaged
104 Ethyl methacrylate	0.75140	0.65571	0.65571	0.000	-12.73502	60.00000	Averaged
105 2-Picoline	1.13566	1.01768	1.01768	0.000	-10.38888	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44142	0.38324	0.38324	0.000	-13.17976	60.00000	Averaged
107 Methyl methanesulfonate	0.50747	0.44352	0.44352	0.000	-12.60089	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47013	0.41703	0.41703	0.000	-11.29502	60.00000	Averaged
109 Ethyl Methanesulfonate	0.62041	0.54564	0.54564	0.000	-12.05226	60.00000	Averaged
110 Pentachloroethane	0.30840	0.29438	0.29438	0.000	-4.54634	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49363	0.45322	0.45322	0.000	-8.18538	60.00000	Averaged
113 N-Nitrosomorpholine	0.81412	0.65412	0.65412	0.000	-19.65346	60.00000	Averaged
114 o-Toluidine	1.53985	1.44403	1.44403	0.000	-6.22262	60.00000	Averaged
115 N-Nitrosopiperidine	0.13162	0.12183	0.12183	0.000	-7.43462	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.98197	0.74887	0.74887	0.000	-23.73852	60.00000	Averaged
118 2,6-Dichlorophenol	0.20270	0.19641	0.19641	0.000	-3.10148	60.00000	Averaged
119 Hexachloropropene	0.10516	0.10803	0.10803	0.000	2.72726	60.00000	Averaged
120 p-Phenylenediamine	0.22347	0.20519	0.20519	0.000	-8.17925	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.20065	0.17391	0.17391	0.000	-13.32988	60.00000	Averaged
122 Safrole	0.18525	0.17653	0.17653	0.000	-4.70553	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.39310	0.39958	0.39958	0.000	1.64611	60.00000	Averaged
124 Isosafrole	0.32673	0.30771	0.30771	0.000	-5.82191	60.00000	Averaged
125 1,4-Naphthoquinone	34.96056	40.00000	0.26275	0.000	-12.59861	60.00000	Linear
127 Pentachlorobenzene	0.35339	0.34948	0.34948	0.000	-1.10491	60.00000	Averaged
128 1-Naphthylamine	0.85758	0.83008	0.83008	0.000	-3.20664	60.00000	Averaged
129 2-Naphthylamine	0.92399	0.88981	0.88981	0.000	-3.69971	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27279	0.26111	0.26111	0.000	-4.28458	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11408	0.13154	0.13154	0.000	15.30696	60.00000	Averaged
137 Phenacetin	0.25171	0.23666	0.23666	0.000	-5.97926	60.00000	Averaged
138 Diallate	0.21975	0.21321	0.21321	0.000	-2.97437	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 11-MAR-2010 13:16  
Lab File ID: s7c1103.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
Analysis Type: Init. Cal. Times: 11:07 23:46  
Lab Sample ID: WBN100218-08.2 Quant Type: ISTD  
Method: /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
RRF	%D	%DRIFT	%D	%DRIFT		
212 Cis Diallate	0.22751	0.20495	0.20495	0.000	-9.91556	60.00000 Averaged
213 Trans Diallate	0.25853	0.25084	0.25084	0.000	-2.97437	60.00000 Averaged
140 4-Aminobiphenyl	0.53100	0.53186	0.53186	0.000	0.16194	60.00000 Averaged
141 Pentachloronitrobenzene	0.05770	0.06292	0.06292	0.000	9.06300	60.00000 Averaged
142 Pronamide	0.23171	0.24522	0.24522	0.000	5.83080	60.00000 Averaged
146 4-Nitroquinoline-1-oxide	0.01900	0.01536	0.01536	0.000	-19.16751	60.00000 Averaged
147 Methapyrilene	0.45514	0.35239	0.35239	0.000	-22.57661	60.00000 Averaged
148 Isodrin	0.10048	0.09950	0.09950	0.000	-0.97658	60.00000 Averaged
149 Aramite	0.04292	0.04605	0.04605	0.000	7.28152	60.00000 Averaged
150 Kepone	0.06421	0.06844	0.06844	0.000	6.59999	60.00000 Averaged
151 p-(Dimethylamino)azobenzene	0.31171	0.28592	0.28592	0.000	-8.27154	60.00000 Averaged
152 Chlorobenzilate	0.27373	0.27847	0.27847	0.000	1.73360	60.00000 Averaged
153 3,3'-Dimethylbenzidine	0.52442	0.47717	0.47717	0.000	-9.01083	60.00000 Averaged
155 2-Acetylaminofluorene	0.30989	0.30254	0.30254	0.000	-2.37379	60.00000 Averaged
157 7,12Dimethylbenz(a)anthrace	0.51277	0.51753	0.51753	0.000	0.92710	60.00000 Averaged
158 3-Methylcholanthrene	0.37167	0.37543	0.37543	0.000	1.01152	60.00000 Averaged

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Data file : /chem/MSD7.i/s031110.b/s7c1103.d  
 Lab Smp Id: WBN100218-08.2 Client Smp ID: APCVS  
 Inj Date : 11-MAR-2010 13:16  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |WBN100218-08.2|CVS|1|SVMF|1|APCVS  
 Misc Info : |MSD8270|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 11-Mar-2010 15:51 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 3 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AP12.sub  
 Target Version: 3.50

Compounds	QUANT SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	152	3.990	3.990 (1.000)	423344	40.0000	
* 29 Naphthalene-d8	136	4.857	4.857 (1.000)	1549356	40.0000	
* 46 Acenaphthene-d10	164	6.109	6.114 (1.000)	885060	40.0000	
* 67 Phenanthrene-d10	188	7.284	7.284 (1.000)	1555334	40.0000	
* 91 Chrysene-d12	240	9.687	9.691 (1.000)	1347608	40.0000	
* 98 Perylene-d12	264	11.377	11.386 (1.000)	1010716	40.0000	
209 Benzaldehyde	77	3.716	3.716 (0.931)	318918	40.0000	35.7
16 Acetophenone	105	4.240	4.240 (1.063)	438266	40.0000	37.4
189 Caprolactam	113	5.131	5.131 (1.056)	108923	40.0000	37.8
208 1,1'-Biphenyl	154	5.675	5.675 (0.929)	952959	40.0000	39.1(H)
207 Atrazine	173	6.980	6.980 (0.958)	61489	40.0000	41.0(H)
77 Benzidine	184	8.435	8.435 (0.871)	406609	40.0000	32.2(H)
90 3,3'-Dichlorobenzidine	252	9.619	9.619 (0.993)	363392	40.0000	38.6
102 1,4-Dioxane	88	2.343	2.343 (0.587)	125397	40.0000	35.4(H)
103 Methyl methacrylate	100	2.338	2.338 (0.586)	70367	40.0000	34.0
104 Ethyl methacrylate	69	2.700	2.700 (0.677)	277589	40.0000	34.9
105 2-Picoline	93	2.892	2.892 (0.725)	430827	40.0000	35.8
106 N-Nitrosomethylethylamine	88	2.936	2.936 (0.736)	162243	40.0000	34.7
107 Methyl methanesulfonate	80	3.090	3.090 (0.774)	187763	40.0000	35.0
108 N-Nitrosodiethylamine	102	3.321	3.321 (0.832)	176547	40.0000	35.5
109 Ethyl Methanesulfonate	79	3.475	3.475 (0.871)	230992	40.0000	35.2
110 Pentachloroethane	167	3.817	3.817 (0.957)	124625	40.0000	38.2
111 N-Nitrosopyrrolidine	100	4.231	4.231 (1.060)	191868	40.0000	36.7
113 N-Nitrosomorpholine	56	4.250	4.250 (1.065)	276917	40.0000	32.1
114 o-Toluidine	106	4.265	4.265 (1.069)	611322	40.0000	37.5
115 N-Nitrosopiperidine	114	4.467	4.467 (0.920)	188764	40.0000	37.0
116 a,a-Dimethylphenethylamine	58	4.712	4.712 (0.970)	1160260	40.0000	30.5

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE		CAL-AMT (ng/ul)	ON-COL (ng/ul)
118 2,6-Dichlorophenol	162	4.895	4.895	(1.008)	304315		40.0000	38.8
119 Hexachloropropene	213	4.924	4.924	(1.014)	167381		40.0000	41.1
120 p-Phenylenediamine	108	5.131	5.131	(1.056)	317910		40.0000	36.7 (H)
121 N-Nitrosodi-n-butylamine	84	5.098	5.098	(1.050)	269444		40.0000	34.7 (H)
122 Safrole	162	5.266	5.266	(1.084)	273511		40.0000	38.1 (H)
123 1,2,4,5-Tetrachlorobenzene	216	5.468	5.468	(0.895)	353648		40.0000	40.6
124 Isosafrole	162	5.632	5.632	(0.922)	272339		40.0000	37.7 (H)
125 1,4-Naphthoquinone	158	5.820	5.820	(0.953)	232553		40.0000	35.0
127 Pentachlorobenzene	250	6.224	6.224	(1.019)	309315		40.0000	39.6
128 1-Naphthylamine	143	6.316	6.316	(1.034)	734675		40.0000	38.7 (H)
129 2-Naphthylamine	143	6.374	6.374	(1.043)	787531		40.0000	38.5 (H)
131 5-Nitro-o-toluidine	152	6.508	6.508	(1.065)	231095		40.0000	38.3
136 1,3,5-Trinitrobenzene	75	6.764	6.764	(0.929)	204586		40.0000	46.1 (H)
137 Phenacetin	108	6.802	6.802	(0.934)	368086		40.0000	37.6 (Q)
138 Diallate	86	6.793	6.793	(0.933)	331616		40.0000	38.8
212 Cis Diallate	86	6.870	6.870	(0.943)	47815	6.00000		5.4 (H)
213 Trans Diallate	86	6.793	6.793	(0.933)	331616	34.0000		33.0
140 4-Aminobiphenyl	169	7.096	7.096	(0.974)	827216		40.0000	40.1 (H)
141 Pentachloronitrobenzene	237	7.115	7.115	(0.977)	97869		40.0000	43.6 (Q)
142 Pronamide	173	7.110	7.110	(0.976)	381400		40.0000	42.3 (H)
146 4-Nitroquinoline-1-oxide	101	7.948	7.948	(1.091)	23887		40.0000	32.3 (H)
147 Methapyrilene	58	7.982	7.982	(1.096)	548081		40.0000	31.0 (H)
148 Isodrin	193	8.203	8.203	(1.126)	154756		40.0000	39.6 (H)
149 Aramite	185	8.598	8.598	(1.180)	71618		40.0000	42.9 (H)
150 Kepone	272	9.191	9.191	(1.262)	106451		40.0000	42.6
151 p-(Dimethylamino)azobenzene	120	8.781	8.781	(0.907)	385314		40.0000	36.7 (H)
152 Chlorobenzilate	251	8.810	8.810	(0.910)	375269		40.0000	40.7
153 3,3'-Dimethylbenzidine	212	9.099	9.099	(0.939)	643033		40.0000	36.4
155 2-Acetylaminofluorene	181	9.345	9.345	(0.965)	407702		40.0000	39.0 (H)
157 7,12Dimethylbenz(a)anthracene	256	10.833	10.833	(0.952)	523073		40.0000	40.4 (H)
158 3-Methylcholanthrene	268	11.786	11.786	(1.036)	379450		40.0000	40.4

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.  
H - Operator selected an alternate compound hit.

Data File: /chem/MSD7.1/s031110.b/s701103.d

Date: 11-MAR-2010 13:16

Client ID: APCVS

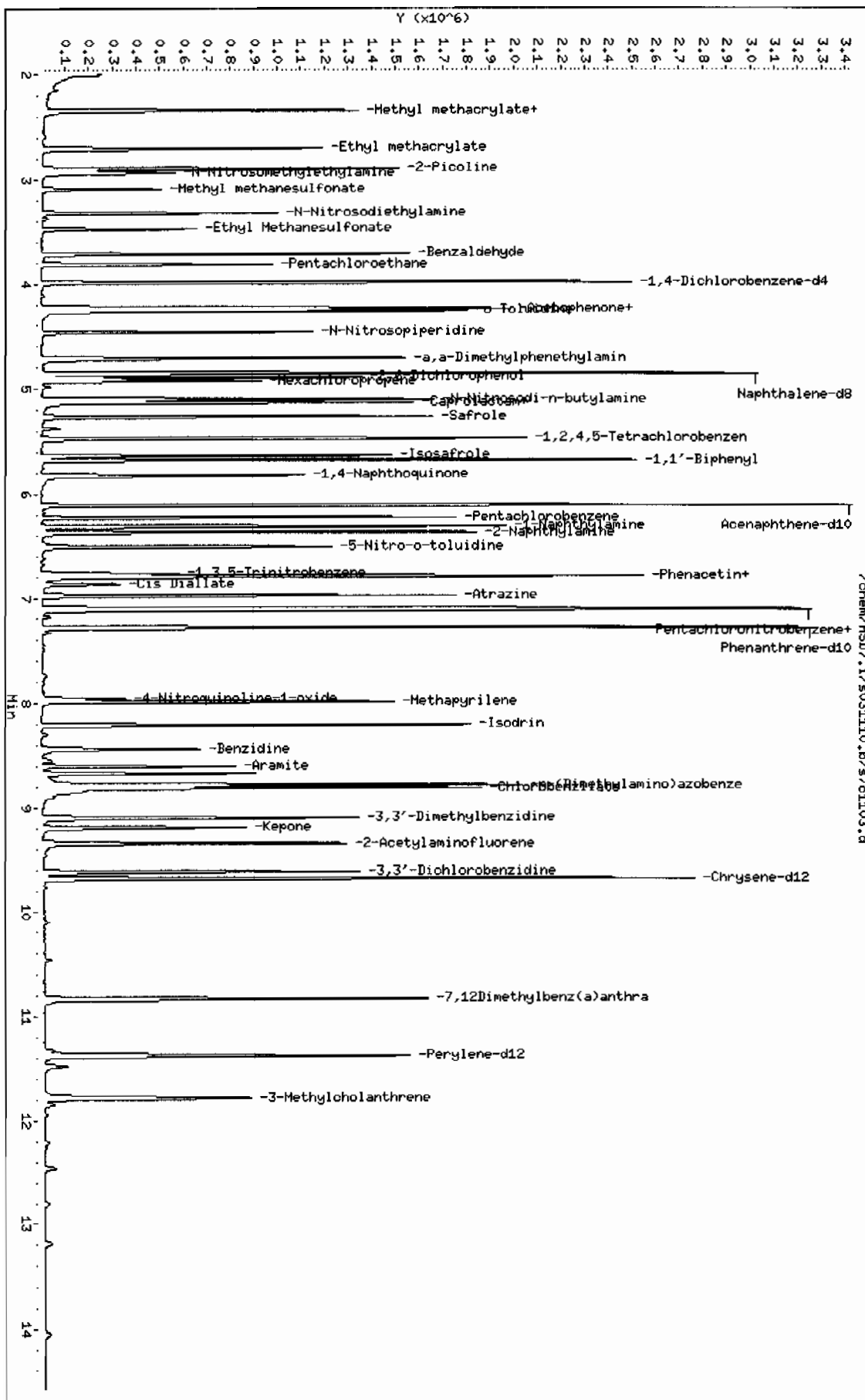
Sample Info: IABN100218-08.21 CVS111SNF111APCVS

Column Phase: J&M DB-5MS

Instrument: MSD7.1

Operator: JMB3

Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 12-MAR-2010 14:19  
Lab File ID: s7c1206.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
Analysis Type: Init. Cal. Times: 11:07 23:46  
Lab Sample ID: WBN100309-05.2 Quant Type: ISTD  
Method: /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MTN	RRF	%D / %DRIFT	MAX	%D / %DRIFT	CURVE TYPE
3 2-Fluorophenol	1.03969	0.95412	0.95412	0.000	-8.23032	60.00000	Averaged		
5 Phenol-d5	1.30355	1.24458	1.24458	0.000	-4.52355	60.00000	Averaged		
20 Nitrobenzene-d5	0.30169	0.25336	0.25336	0.000	-16.01961	60.00000	Averaged		
39 2-Fluorobiphenyl	0.99687	0.98792	0.98792	0.000	-0.89732	60.00000	Averaged		
60 2,4,6-Tribromophenol	0.11563	0.11936	0.11936	0.000	3.22333	60.00000	Averaged		
81 p-Terphenyl-d14	0.71661	0.71988	0.71988	0.000	0.45666	60.00000	Averaged		
1 N-Methyl-N-nitrosomethylami	0.70001	0.61956	0.61956	0.000	-11.49306	60.00000	Averaged		
2 Pyridine	0.96465	0.86293	0.86293	0.000	-10.54501	60.00000	Averaged		
4 Aniline	0.62182	0.52267	0.52267	0.000	-15.94474	60.00000	Averaged		
6 Phenol	1.29492	1.21399	1.21399	0.001	-6.24922	20.00000	Averaged	ccc	
7 bis(2-Chloroethyl) ether	1.06026	0.82266	0.82266	0.000	-22.40989	60.00000	Averaged		
8 2-Chlorophenol	0.99096	0.96280	0.96280	0.000	-2.84187	60.00000	Averaged		
203 n-Decane	1.86209	1.60901	1.60901	0.000	-13.59114	60.00000	Averaged		
9 1,3-Dichlorobenzene	1.24478	1.17102	1.17102	0.000	-5.92566	60.00000	Averaged		
11 1,4-Dichlorobenzene	1.19442	1.13694	1.13694	0.001	-4.81225	20.00000	Averaged	ccc	
13 1,2-Dichlorobenzene	1.09872	1.08711	1.08711	0.000	-1.05625	60.00000	Averaged		
14 bis(2-Chloroisopropyl)ether	2.45618	2.04304	2.04304	0.000	-16.82054	60.00000	Averaged		
12 Benzyl alcohol	0.67475	0.60958	0.60958	0.000	-9.65827	60.00000	Averaged		
15 o-Cresol	0.79330	0.73955	0.73955	0.000	-6.77576	60.00000	Averaged		
18 m,p-Cresols	1.07190	0.98517	0.98517	0.000	-8.09115	60.00000	Averaged		
17 N-Nitrosodipropylamine	0.73664	0.68397	0.68397	0.050	-7.15026	60.00000	Averaged	spcc	
19 Hexachloroethane	0.46378	0.42915	0.42915	0.000	-7.46678	60.00000	Averaged		
21 Nitrobenzene	0.27987	0.25927	0.25927	0.000	-7.35986	60.00000	Averaged		
22 Isophorone	0.54073	0.50181	0.50181	0.000	-7.19706	60.00000	Averaged		
23 2-Nitrophenol	0.13143	0.12723	0.12723	0.001	-3.19540	20.00000	Averaged	ccc	
24 2,4-Dimethylphenol	37.79269	40.00000	0.22985	0.000	-5.51828	60.00000	Wt Linear		
25 bis(2-Chloroocthoxy)methane	0.29584	0.27911	0.27911	0.000	-5.65803	60.00000	Averaged		
26 2,4-Dichlorophenol	0.21226	0.20941	0.20941	0.001	-1.34241	20.00000	Averaged	ccc	
27 Benzoic acid	0.12083	0.06583	0.06583	0.000	-45.51721	60.00000	Averaged		
28 1,2,4-Trichlorobenzene	0.25742	0.25230	0.25230	0.000	-1.99085	60.00000	Averaged		
30 Naphthalene	0.75561	0.71252	0.71252	0.000	-5.70212	60.00000	Averaged		
204 alpha-Terpineol	0.30880	0.24365	0.24365	0.000	-21.09753	60.00000	Averaged		
31 4-Chloroaniline	0.35383	0.28301	0.28301	0.000	-20.01598	60.00000	Averaged		
32 Hexachlorobutadiene	0.13434	0.13508	0.13508	0.001	0.55192	20.00000	Averaged	ccc	
33 4-Chloro-3-methylphenol	0.22797	0.22092	0.22092	0.001	-3.09192	20.00000	Averaged	ccc	
34 2-Methylnaphthalene	0.54229	0.52882	0.52882	0.000	-2.48491	60.00000	Averaged		



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 12-MAR-2010 14:19  
Lab File ID: s7c1206.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
Analysis Type: Init. Cal. Times: 11:07 23:46  
Lab Sample ID: WBN100309-05.2 Quant Type: ISTD  
Method: /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
			RRF40	RRF	%D / %DRIFT	
35 1-Methylnaphthalene	0.51558	0.49854	0.49854	0.000	-3.30323	Averaged
36 Hexachlorocyclopentadiene	0.19338	0.14347	0.14347	0.050	-25.80841	Averaged spcc
205 2,3-Dichloroaniline	0.49462	0.50172	0.50172	0.000	1.43601	Averaged
37 2,4,6-Trichlorophenol	0.28064	0.29246	0.29246	0.001	4.21340	Averaged ccc
38 2,4,5-Trichlorophenol	0.28225	0.29817	0.29817	0.000	5.64371	Averaged
40 2-Chloronaphthalene	0.92584	0.90526	0.90526	0.000	-2.22263	Averaged
42 o-Nitroaniline	0.32778	0.28408	0.28408	0.000	-13.33283	Averaged
41 m-Nitroaniline	0.23922	0.22581	0.22581	0.000	-5.60439	Averaged
43 Dimethylphthalate	1.06293	1.02959	1.02959	0.000	-3.13675	Averaged
44 2,6-Dinitrotoluene	0.24549	0.23813	0.23813	0.000	-2.99578	Averaged
50 2,4-Dinitrotoluene	0.32362	0.31149	0.31149	0.000	-3.74907	Averaged
45 Acenaphthylene	1.47998	1.41976	1.41976	0.000	-4.06953	Averaged
47 Acenaphthene	0.88041	0.86460	0.86460	0.001	-1.79619	Averaged ccc
48 2,4-Dinitrophenol	33.99988	40.00000	0.05195	0.050	-15.00029	Linear spcc
49 Dibenzofuran	1.23737	1.22130	1.22130	0.000	-1.29891	Averaged
51 Diethylphthalate	1.08801	1.05085	1.05085	0.000	-3.41516	Averaged
52 4-Nitrophenol	0.16277	0.15310	0.15310	0.050	-5.93986	Averaged spcc
53 Fluorene	1.03823	1.02852	1.02852	0.000	-0.93530	Averaged
54 4-Chlorophenylphenylether	0.51596	0.51798	0.51798	0.000	0.38998	Averaged
55 2-Methyl-4,6-dinitrophenol	33.46735	40.00000	0.05502	0.000	-16.33162	Linear
56 p-Nitroaniline	0.21538	0.17884	0.17884	0.000	-16.96578	Averaged
133 Diphenylamine	0.47134	0.46027	0.46027	0.001	-2.35011	Averaged ccc
58 1,2-Diphenylhydrazine	0.59299	0.53900	0.53900	0.000	-9.10470	Averaged
61 4-Bromophenylphenylether	0.16450	0.16621	0.16621	0.000	1.03809	Averaged
63 Hexachlorobenzene	0.15982	0.16270	0.16270	0.000	1.80594	Averaged
65 Pentachlorophenol	0.07563	0.07546	0.07546	0.001	-0.22133	Averaged ccc
206 n-Octadecane	0.50130	0.45305	0.45305	0.000	-9.62454	Averaged
68 Phenanthrene	0.82082	0.79028	0.79028	0.000	-3.72010	Averaged
69 Anthracene	0.83131	0.80332	0.80332	0.000	-3.36671	Averaged
72 Di-n-butylphthalate	1.04581	1.03006	1.03006	0.000	-1.50553	Averaged
76 Fluoranthene	0.89248	0.87398	0.87398	0.001	-2.07305	Averaged ccc
79 Pyrene	1.26367	1.24642	1.24642	0.000	-1.36523	Averaged
85 Butylbenzylphthalate	0.60092	0.59874	0.59874	0.000	-0.36244	Averaged
89 Benzo(a)anthracene	0.95891	0.89298	0.89298	0.000	-6.87608	Averaged
92 Chrysene	0.85329	0.79992	0.79992	0.000	-6.25422	Averaged
93 bis(2-Ethylhexyl)phthalate	0.76109	0.78044	0.78044	0.000	2.54240	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 12-MAR-2010 14:19  
Lab File ID: s7c1206.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
Analysis Type: Init. Cal. Times: 11:07 23:46  
Lab Sample ID: WBN100309-05.2 Quant Type: ISTD  
Method: /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
	RRF	RF40	RRF40	RRF	%D / %DRIFT	%D / %DRIFT
94 Di-n-octylphthalate	1.60621	1.67179	1.67179	0.001	4.08246	20.00000
95 Benzo(b)fluoranthene	1.12177	1.02529	1.02529	0.000	-8.60081	60.00000
96 Benzo(k)fluoranthene	1.05423	1.03667	1.03667	0.000	-1.66553	60.00000
97 Benzo(a)pyrene	0.91981	0.89659	0.89659	0.001	-2.52442	20.00000
99 Indeno(1,2,3-cd)pyrene	0.66143	0.75169	0.75169	0.000	13.64641	60.00000
100 Dibenzo(a,h)anthracene	0.52416	0.60450	0.60450	0.000	15.32655	60.00000
101 Benzo(ghi)perylene	0.55161	0.63127	0.63127	0.000	14.44153	60.00000
126 m-Dinitrobenzene	0.16950	0.16842	0.16842	0.000	-0.63693	60.00000
130 2,3,4,6-Tetrachlorophenol	0.23333	0.24673	0.24673	0.000	5.74133	60.00000
143 Dinoseb	33.12947	40.00000	0.08354	0.000	-17.17632	60.00000
173 Carbazole	0.68135	0.54100	0.54100	0.000	-20.59761	60.00000
184 p-Benzoquinone	0.26551	0.24547	0.24547	0.000	-7.54869	60.00000
192 Methoxychlor	0.58935	0.63090	0.63090	0.000	7.04974	60.00000
211 p-Toluidine	1.10616	0.98092	0.98092	0.000	-11.32168	60.00000
210 m-Toluidine	1.37475	1.19112	1.19112	0.000	-13.35763	60.00000
215 2-Ethoxyethanol	0.93140	0.68182	0.68182	0.000	-26.79603	60.00000
26 Phthalic anhydride	31.45551	40.00000	0.07822	0.000	-21.36122	60.00000
214 1,4-Dinitrobenzene	0.19422	0.18449	0.18449	0.000	-5.00957	60.00000
216 Methylenebis(2-chloroanilin	0.13367	0.11943	0.11943	0.000	-10.65256	60.00000
M 222 Trichlorophenols	0.28144	0.29532	0.29532	0.000	4.93054	60.00000
M 223 Tetrachlorophenols	0.23333	0.24673	0.24673	0.000	5.74133	60.00000
M 224 Benzo(b,k)fluoranthene	1.08800	1.03098	1.03098	0.000	-5.24079	60.00000

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Data file : /chem/MSD7.i/s031210.b/s7c1206.d  
Lab Smp Id: WBN100309-05.2 Client Smp ID: MEGACVS  
Inj Date : 12-MAR-2010 14:19  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |WBN100309-05.2|CVS|1|SVMF|1|MEGACVS  
Misc Info : |MSD8270|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 15:24 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 2 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: MEGA.sub  
Target Version: 3.50  
Processing Host: kilroy

Compounds	QUANT SIG				AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)
						ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.884	3.884	(1.000)	411905	40.0000
* 29 Naphthalene-d8	136	4.751	4.751	(1.000)	1624377	40.0000
* 46 Acenaphthene-d10	164	5.998	5.998	(1.000)	868207	40.0000
* 67 Phenanthrene-d10	188	7.159	7.159	(1.000)	1600732	40.0000
* 91 Chrysene-d12	240	9.552	9.552	(1.000)	1168014	40.0000
* 98 Perylene-d12	264	11.160	11.160	(1.000)	806637	40.0000
\$ 3 2-Fluorophenol	112	3.080	3.080	(0.793)	393008	36.7
\$ 5 Phenol-d5	99	3.610	3.610	(0.929)	512650	38.2
\$ 20 Nitrobenzene-d5	82	4.250	4.250	(0.895)	411556	33.6
\$ 39 2-Fluorobiphenyl	172	5.488	5.488	(0.915)	857720	39.6
\$ 60 2,4,6-Tribromophenol	329	6.590	6.590	(1.099)	103631	41.3
\$ 81 p-Terphenyl-d14	244	8.526	8.526	(0.893)	840831	40.2
1 N-Methyl-N-nitrosomethylamine	74	2.396	2.396	(0.617)	255199	35.4
2 Pyridine	79	2.430	2.430	(0.626)	355445	35.8
4 Aniline	66	3.672	3.672	(0.945)	215290	33.6
6 Phenol	94	3.619	3.619	(0.932)	500050	37.5
7 bis(2-Chloroethyl) ether	63	3.687	3.687	(0.949)	338858	31.0
8 2-Chlorophenol	128	3.754	3.754	(0.967)	396581	38.9
203 n-Decane	43	3.735	3.735	(0.962)	662761	34.6
9 1,3-Dichlorobenzene	146	3.855	3.855	(0.993)	482348	37.6
11 1,4-Dichlorobenzene	146	3.899	3.899	(1.004)	468312	38.1
13 1,2-Dichlorobenzene	146	4.000	4.000	(1.030)	447788	39.6
14 bis(2-Chloroisopropyl)ether	45	4.029	4.029	(1.037)	841538	33.3
12 Benzyl alcohol	108	3.956	3.956	(1.019)	251089	36.1
15 o-Cresol	107	4.009	4.009	(1.032)	304625	37.3
18 m,p-Cresols	107	4.110	4.110	(1.058)	405795	36.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/ul)	ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.130	4.130	(1.063)	281730	40.0000	37.1
19 Hexachloroethane	117	4.226	4.226	(1.088)	176770	40.0000	37.0
21 Nitrobenzene	77	4.265	4.265	(0.898)	421148	40.0000	37.0
22 Isophorone	82	4.414	4.414	(0.929)	815129	40.0000	37.1
23 2-Nitrophenol	139	4.472	4.472	(0.941)	206663	40.0000	38.7
24 2,4-Dimethylphenol	122	4.472	4.472	(0.941)	373367	40.0000	37.8
25 bis(2-Chloroethoxy)methane	93	4.534	4.534	(0.954)	453372	40.0000	37.7
26 2,4-Dichlorophenol	162	4.635	4.635	(0.976)	340165	40.0000	39.5
27 Benzoic acid	105	4.534	4.534	(0.954)	106932	40.0000	21.8
28 1,2,4-Trichlorobenzene	180	4.698	4.698	(0.989)	409828	40.0000	39.2
30 Naphthalene	128	4.765	4.765	(1.003)	1157403	40.0000	37.7
204 alpha-Terpineol	59	4.741	4.741	(0.998)	395787	40.0000	31.6
31 4-Chloroaniline	127	4.780	4.780	(1.006)	459708	40.0000	32.0
32 Hexachlorobutadiene	225	4.828	4.828	(1.016)	219426	40.0000	40.2
33 4-Chloro-3-methylphenol	107	5.093	5.093	(1.072)	358864	40.0000	38.8
34 2-Methylnaphthalene	142	5.242	5.242	(1.103)	859001	40.0000	39.0
35 1-Methylnaphthalene	142	5.314	5.314	(1.119)	809825	40.0000	38.7
36 Hexachlorocyclopentadiene	237	5.343	5.343	(0.891)	124561	40.0000	29.7
205 2,3-Dichloroaniline	161	5.440	5.440	(0.907)	435599	40.0000	40.6
37 2,4,6-Trichlorophenol	196	5.435	5.435	(0.906)	253918	40.0000	41.7
38 2,4,5-Trichlorophenol	196	5.464	5.464	(0.911)	258877	40.0000	42.2
40 2-Chloronaphthalene	162	5.594	5.594	(0.933)	785953	40.0000	39.1
42 o-Nitroaniline	65	5.651	5.651	(0.942)	246636	40.0000	34.7
41 m-Nitroaniline	138	5.950	5.950	(0.992)	196051	40.0000	37.8
43 Dimethylphthalate	163	5.762	5.762	(0.961)	893897	40.0000	38.7
44 2,6-Dinitrotoluene	165	5.820	5.820	(0.970)	206747	40.0000	38.8
50 2,4-Dinitrotoluene	165	6.114	6.114	(1.019)	270438	40.0000	38.5
45 Acenaphthylene	152	5.897	5.897	(0.983)	1232642	40.0000	38.4
47 Acenaphthene	154	6.022	6.022	(1.004)	750650	40.0000	39.3
48 2,4-Dinitrophenol	184	6.022	6.022	(1.004)	45105	40.0000	34.0
49 Dibenzofuran	168	6.147	6.147	(1.025)	1060341	40.0000	39.5
51 Diethylphthalate	149	6.268	6.268	(1.045)	912354	40.0000	38.6
52 4-Nitrophenol	139	6.046	6.046	(1.008)	132922	40.0000	37.6
53 Fluorene	166	6.403	6.403	(1.067)	892971	40.0000	39.6
54 4-Chlorophenylphenylether	204	6.378	6.378	(1.063)	449710	40.0000	40.2
55 2-Methyl-4,6-dinitrophenol	198	6.422	6.422	(0.897)	88067	40.0000	33.5
56 p-Nitroaniline	138	6.407	6.407	(1.068)	155267	40.0000	33.2
133 Diphenylamine	169	6.470	6.470	(0.904)	736764	40.0000	39.0
58 1,2-Diphenylhydrazine	77	6.504	6.504	(0.909)	862799	40.0000	36.4
61 4-Bromophenylphenylether	248	6.764	6.764	(0.945)	266050	40.0000	40.4
63 Hexachlorobenzene	284	6.836	6.836	(0.955)	260444	40.0000	40.7
65 Pentachlorophenol	266	6.985	6.985	(0.976)	120788	40.0000	39.9
206 n-Octadecane	57	6.971	6.971	(0.974)	725211	40.0000	36.2
68 Phenanthrene	178	7.178	7.178	(1.003)	1265034	40.0000	38.5
69 Anthracene	178	7.221	7.221	(1.009)	1285901	40.0000	38.6
72 Di-n-butylphthalate	149	7.578	7.578	(1.059)	1648855	40.0000	39.4
76 Fluoranthene	202	8.208	8.208	(1.147)	1399003	40.0000	39.2

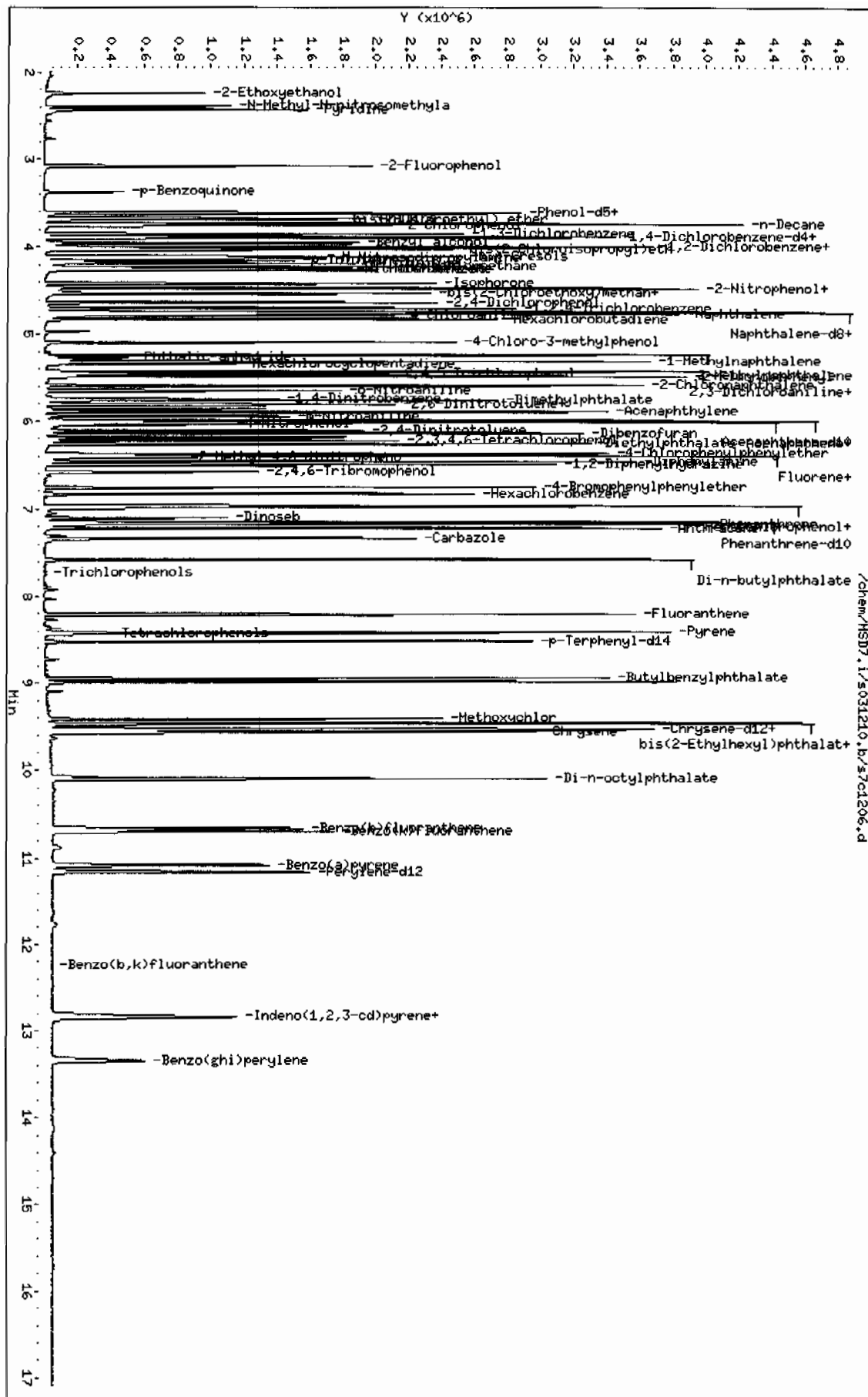
Compounds	QUANT SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
79 Pyrene	202	8.425	8.425 (0.882)	1455832	40.0000	39.4
85 Butylbenzylphthalate	149	8.950	8.950 (0.937)	699334	40.0000	39.8
89 Benzo(a)anthracene	228	9.537	9.537 (0.998)	1043012	40.0000	37.2
92 Chrysene	228	9.576	9.576 (1.003)	934323	40.0000	37.5
93 bis(2-Ethylhexyl)phthalate	149	9.470	9.470 (0.991)	911567	40.0000	41.0
94 Di-n-octylphthalate	149	10.106	10.106 (0.906)	1348525	40.0000	41.6
95 Benzo(b)fluoranthene	252	10.664	10.664 (0.956)	827034	40.0000	36.6
96 Benzo(k)fluoranthene	252	10.698	10.698 (0.959)	836220	40.0000	39.3
97 Benzo(a)pyrene	252	11.083	11.083 (0.993)	723220	40.0000	39.0
99 Indeno(1,2,3-cd)pyrene	276	12.841	12.841 (1.151)	606339	40.0000	45.4
100 Dibenzo(a,h)anthracene	278	12.850	12.850 (1.151)	487611	40.0000	46.1
101 Benzo(ghi)perylene	276	13.351	13.351 (1.196)	509204	40.0000	45.8
126 m-Dinitrobenzene	168	5.805	5.805 (0.968)	146220	40.0000	39.7
130 2,3,4,6-Tetrachlorophenol	232	6.224	6.224 (1.038)	214212	40.0000	42.3
143 Dinoseb	211	7.106	7.106 (0.993)	133727	40.0000	33.1
173 Carbazole	167	7.337	7.337 (1.025)	866004	40.0000	31.8
184 p-Benzoquinone	54	3.374	3.374 (0.869)	101110	40.0000	37.0
192 Methoxychlor	227	9.422	9.422 (0.986)	736900	40.0000	42.8
211 p-Toluidine	106	4.163	4.163 (1.072)	404046	40.0000	35.5
210 m-Toluidine	106	4.188	4.188 (1.078)	490628	40.0000	34.6
215 2-Ethoxyethanol	59	2.247	2.247 (0.578)	280845	40.0000	29.3
26 Phthalic anhydride	104	5.276	5.276 (1.110)	127051	40.0000	31.4
214 1,4-Dinitrobenzene	75	5.748	5.748 (0.958)	160174	40.0000	38.0
216 Methylenebis(2-chloroaniline)	231	9.480	9.480 (0.992)	139497	40.0000	35.7
M 222 Trichlorophenols	196			512795	80.0000	83.9
M 223 Tetrachlorophenols	232			214212	40.0000	42.3
M 224 Benzo(b,k)fluoranthene	252			1663254	80.0000	75.8

Data File: /chem/HSD7.i/s031210.b/s7c1206.d  
 Date: 12-MAR-2010 14:19  
 Client ID: HECACVS  
 Sample Info: ILMN100309-05.2/CVS11/SNH11/HECACVS

Instrument: HSD7.1  
 Operator: JHB3  
 Column diameter: 0.20

Column phase: J&W DB-5MS

/chem/HSD7.i/s031210.b/s7c1206.d



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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 12-MAR-2010 14:43  
 Lab File ID: s7c1207.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
 Analysis Type: Init. Cal. Times: 11:07 23:46  
 Lab Sample ID: WBN100218-08.2 Quant Type: ISTD  
 Method: /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRE	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84333	0.61261	0.61261	0.000	-27.35798	60.00000	Averaged
16 Acetophenone	1.10656	1.02890	1.02890	0.000	-7.01815	60.00000	Averaged
189 Caprolactam	0.07444	0.07415	0.07415	0.000	-0.38609	60.00000	Averaged
208 1,1'-Biphenyl	1.10203	1.11850	1.11850	0.000	1.49482	60.00000	Averaged
207 Atrazine	0.03853	0.04047	0.04047	0.000	5.03424	60.00000	Averaged
77 Benzidine	0.37412	0.31729	0.31729	0.000	-15.19184	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27910	0.29032	0.29032	0.000	4.02189	60.00000	Averaged
102 1,4-Dioxane	0.33513	0.36746	0.36746	0.000	9.64943	60.00000	Averaged
103 Methyl methacrylate	0.19562	0.21189	0.21189	0.000	8.31762	60.00000	Averaged
104 Ethyl methacrylate	0.75140	0.81237	0.81237	0.000	8.11417	60.00000	Averaged
105 2-Picoline	1.13566	1.03770	1.03770	0.000	-8.62593	60.00000	Averaged
106 N-Nitrosomethylcetylamine	0.44142	0.40206	0.40206	0.000	-8.91697	60.00000	Averaged
107 Methyl methanesulfonate	0.50747	0.47122	0.47122	0.000	-7.14289	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47013	0.44990	0.44990	0.000	-4.30222	60.00000	Averaged
109 Ethyl Methanesulfonate	0.62041	0.65881	0.65881	0.000	6.18992	60.00000	Averaged
110 Pentachloroethane	0.30840	0.39897	0.39897	0.000	29.36691	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49363	0.46902	0.46902	0.000	-4.98436	60.00000	Averaged
113 N-Nitrosomorpholine	0.81412	0.68470	0.68470	0.000	-15.89675	60.00000	Averaged
114 o-Toluidine	1.53985	1.50769	1.50769	0.000	-2.08854	60.00000	Averaged
115 N-Nitrosopiperidine	0.13162	0.12510	0.12510	0.000	-4.95528	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.98197	0.73146	0.73146	0.000	-25.51072	60.00000	Averaged
118 2,6-Dichlorophenol	0.20270	0.18906	0.18906	0.000	-6.72967	60.00000	Averaged
119 Hexachloropropene	0.10516	0.12965	0.12965	0.000	23.28682	60.00000	Averaged
120 p-Phenylenediamine	0.22347	0.21990	0.21990	0.000	-1.59636	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.20065	0.18098	0.18098	0.000	-9.80328	60.00000	Averaged
122 Safrole	0.18525	0.20683	0.20683	0.000	11.64832	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.39310	0.44346	0.44346	0.000	12.80947	60.00000	Averaged
124 Isosafrole	0.32673	0.42093	0.42093	0.000	28.83083	60.00000	Averaged
125 1,4-Naphthoquinone	33.92295	40.00000	0.25651	0.000	-15.19263	60.00000	Linear
127 Pentachlorobenzene	0.35339	0.36589	0.36589	0.000	3.53852	60.00000	Averaged
128 1-Naphthylamine	0.85758	0.89998	0.89998	0.000	4.94386	60.00000	Averaged
129 2-Naphthylamine	0.92399	0.96736	0.96736	0.000	4.69350	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27279	0.28198	0.28198	0.000	3.36731	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11408	0.13316	0.13316	0.000	16.73034	60.00000	Averaged
137 Phenacetin	0.25171	0.24870	0.24870	0.000	-1.19602	60.00000	Averaged
138 Diallate	0.21975	0.19592	0.19592	0.000	-10.84266	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 12-MAR-2010 14:43  
 Lab File ID: s7c1207.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
 Analysis Type: Init. Cal. Times: 11:07 23:46  
 Lab Sample ID: WBN100218-08.2 Quant Type: ISTD  
 Method: /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
			RRF40	RRF %D / %DRIFT	%D / %DRIFT	
212 Cis Diallate	0.22751	0.25609	0.25609	0.000	12.56162	60.00000 Averaged
213 Trans Diallate	0.25853	0.23050	0.23050	0.000	-10.84266	60.00000 Averaged
140 4-Aminobiphenyl	0.53100	0.58788	0.58788	0.000	10.71242	60.00000 Averaged
141 Pentachloronitrobenzene	0.05770	0.06383	0.06383	0.000	10.63413	60.00000 Averaged
142 Pronamide	0.23171	0.25539	0.25539	0.000	10.22142	60.00000 Averaged
146 4-Nitroquinoline-1-oxide	0.01900	0.01337	0.01337	0.000	-29.64503	60.00000 Averaged
147 Methapyrilene	0.45514	0.41221	0.41221	0.000	-9.43379	60.00000 Averaged
148 Isodrin	0.10048	0.09078	0.09078	0.000	-9.65379	60.00000 Averaged
149 Aramite	0.04292	0.04348	0.04348	0.000	1.31019	60.00000 Averaged
150 Kepone	0.06421	0.06085	0.06085	0.000	-5.23025	60.00000 Averaged
151 p-(Dimethylamino)azobenzene	0.31171	0.30856	0.30856	0.000	-1.00932	60.00000 Averaged
152 Chlorobenzilate	0.27373	0.29850	0.29850	0.000	9.05143	60.00000 Averaged
153 3,3'-Dimethylbenzidine	0.52442	0.49687	0.49687	0.000	-5.25386	60.00000 Averaged
155 2-Acetylaminofluorene	0.30989	0.34251	0.34251	0.000	10.52360	60.00000 Averaged
157 7,12Dimethylbenz(a)anthrace	0.51277	0.47139	0.47139	0.000	-8.06978	60.00000 Averaged
158 3-Methylcholanthrene	0.37167	0.40029	0.40029	0.000	7.69997	60.00000 Averaged



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Data file : /chem/MSD7.i/s031210.b/s7c1207.d

Lab Smp Id: WBN100218-08.2

Client Smp ID: APCVS

Inj Date : 12-MAR-2010 14:43

Operator : JMB3

Inst ID: MSD7.i

Smp Info : |WBN100218-08.2|CVS|1|SVMF|1|APCVS

Misc Info : |MSD8270|WBN100227-01|

Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness

Method : /chem/MSD7.i/s031210.b/MSD7-M8270C-AQA-022610.m

Meth Date : 12-Mar-2010 15:12 jos00786 Quant Type: ISTD

Cal Date : 26-FEB-2010 22:19

Cal File: s7b2633.d

Als bottle: 3

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: AP12.sub

Target Version: 3.50

Processing Host: kilroy

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT	ON-COL
=====	=====	==	=====	=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	152	3.884	3.884	(1.000)	444545	40.0000	
* 29 Naphthalene-d8	136	4.746	4.746	(1.000)	1627879	40.0000	
* 46 Acenaphthene-d10	164	5.993	5.993	(1.000)	916049	40.0000	
* 67 Phenanthrene-d10	188	7.154	7.154	(1.000)	1631208	40.0000	
* 91 Chrysene-d12	240	9.542	9.542	(1.000)	1271459	40.0000	
* 98 Perylene-d12	264	11.150	11.150	(1.000)	899465	40.0000	
209 Benzaldehyde	77	3.610	3.610	(0.929)	272334	40.0000	29.0
16 Acetophenone	105	4.134	4.134	(1.064)	457394	40.0000	37.2
189 Caprolactam	113	5.025	5.025	(1.059)	120706	40.0000	39.8
208 1,1'-Biphenyl	154	5.565	5.565	(0.928)	1024604	40.0000	40.6
207 Atrazine	173	6.865	6.865	(0.960)	66017	40.0000	42.0
77 Benzidine	184	8.295	8.295	(0.869)	403418	40.0000	33.9
90 3,3'-Dichlorobenzidine	252	9.479	9.479	(0.993)	369134	40.0000	41.6
102 1,4-Dioxane	88	2.252	2.252	(0.580)	163354	40.0000	43.8
103 Methyl methacrylate	100	2.242	2.242	(0.577)	94195	40.0000	43.3
104 Ethyl methacrylate	69	2.603	2.603	(0.670)	361133	40.0000	43.2
105 2-Picoline	93	2.796	2.796	(0.720)	461303	40.0000	36.5
106 N-Nitrosomethylethylamine	88	2.834	2.834	(0.730)	178733	40.0000	36.4
107 Methyl methanesulfonate	80	2.988	2.988	(0.769)	209479	40.0000	37.1
108 N-Nitrosodiethylamine	102	3.220	3.220	(0.829)	200003	40.0000	38.3
109 Ethyl Methanesulfonate	79	3.374	3.374	(0.869)	292872	40.0000	42.5
110 Pentachloroethane	167	3.711	3.711	(0.955)	177361	40.0000	51.7
111 N-Nitrosopyrrolidine	100	4.125	4.125	(1.062)	208501	40.0000	38.0
113 N-Nitrosomorpholine	56	4.144	4.144	(1.067)	304381	40.0000	33.6
114 o-Toluidine	106	4.159	4.159	(1.071)	670236	40.0000	39.2
115 N-Nitrosopiperidine	114	4.361	4.361	(0.919)	203643	40.0000	38.0

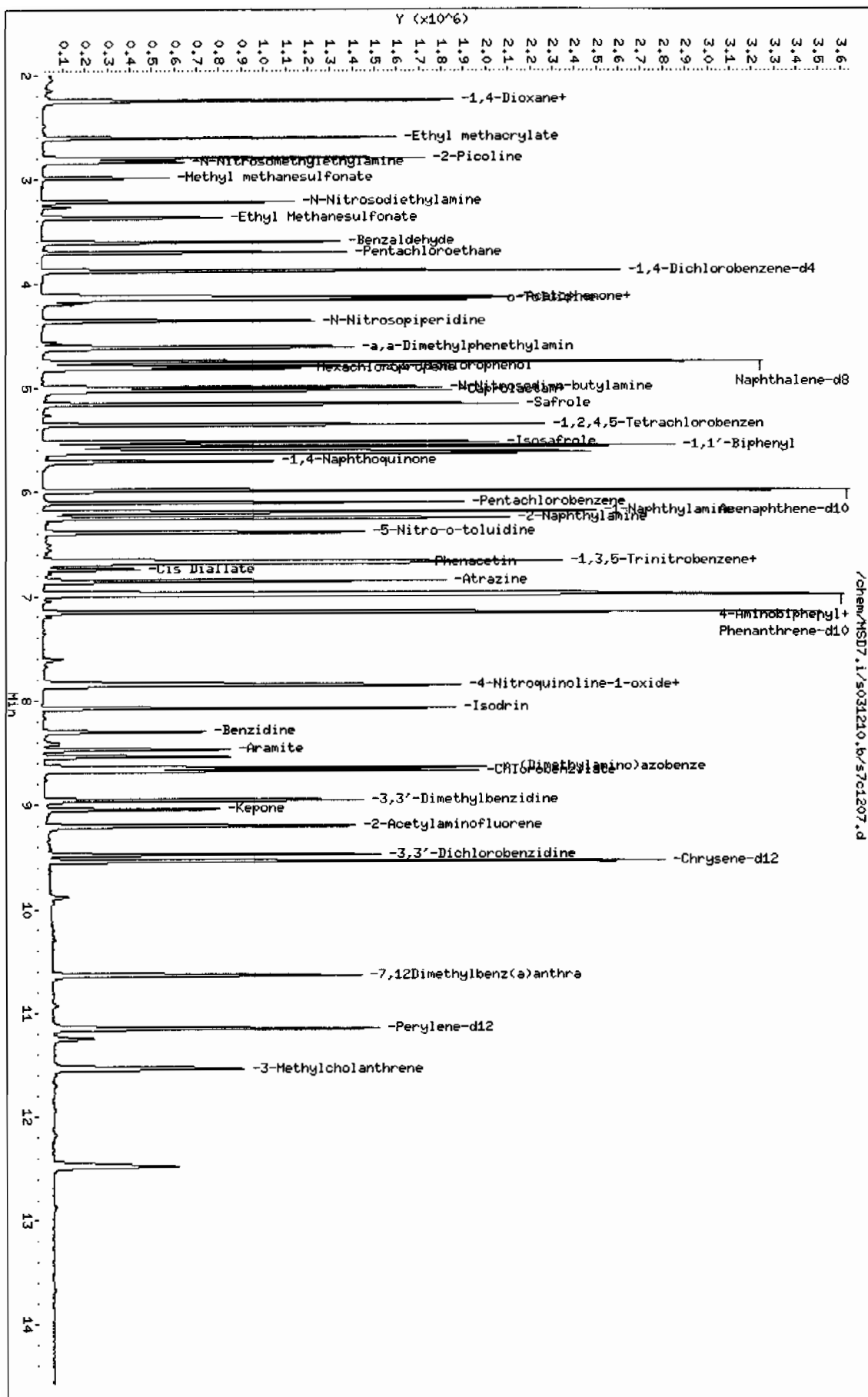
Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.606	4.606	(0.971)	1190734	40.0000	29.8
118 2,6-Dichlorophenol	162	4.789	4.789	(1.009)	307766	40.0000	37.3
119 Hexachloropropene	213	4.813	4.813	(1.014)	211061	40.0000	49.3
120 p-Phenylenediamine	108	5.025	5.025	(1.059)	357969	40.0000	39.4
121 N-Nitrosodi-n-butylamine	84	4.992	4.992	(1.052)	294619	40.0000	36.1
122 Safrole	162	5.155	5.155	(1.086)	336690	40.0000	44.6
123 1,2,4,5-Tetrachlorobenzene	216	5.358	5.358	(0.894)	406230	40.0000	45.1
124 Isosafrole	162	5.526	5.526	(0.922)	385590	40.0000	51.5
125 1,4-Naphthoquinone	158	5.714	5.714	(0.953)	234979	40.0000	33.9
127 Pentachlorobenzene	250	6.109	6.109	(1.019)	335177	40.0000	41.4
128 1-Naphthylamine	143	6.200	6.200	(1.035)	824428	40.0000	42.0
129 2-Naphthylamine	143	6.258	6.258	(1.044)	886147	40.0000	41.9
131 5-Nitro-o-toluidine	152	6.393	6.393	(1.067)	258308	40.0000	41.3
136 1,3,5-Trinitrobenzene	75	6.658	6.658	(0.931)	217215	40.0000	46.7
137 Phenacetin	108	6.691	6.691	(0.935)	405682	40.0000	39.5(Q)
138 Diallate	86	6.672	6.672	(0.933)	319589	40.0000	35.7
212 Cis Diallate	86	6.749	6.749	(0.943)	62660	6.00000	6.8
213 Trans Diallate	86	6.672	6.672	(0.933)	319589	34.0000	30.3
140 4-Aminobiphenyl	169	6.975	6.975	(0.975)	958955	40.0000	44.3
141 Pentachloronitrobenzene	237	6.995	6.995	(0.978)	104122	40.0000	44.2(Q)
142 Pronamide	173	6.990	6.990	(0.977)	416601	40.0000	44.1
146 4-Nitroquinoline-1-oxide	101	7.818	7.818	(1.093)	21805	40.0000	28.1
147 Methapyrilene	58	7.852	7.852	(1.098)	672395	40.0000	36.2
148 Isodrin	193	8.069	8.069	(1.128)	148083	40.0000	36.1
149 Aramite	185	8.468	8.468	(1.184)	70931	40.0000	40.5
150 Kepone	272	9.051	9.051	(1.265)	99254	40.0000	37.9
151 p-(Dimethylamino)azobenzene	120	8.646	8.646	(0.906)	392323	40.0000	39.6
152 Chlorobenzilate	251	8.675	8.675	(0.909)	379532	40.0000	43.6(H)
153 3,3'-Dimethylbenzidine	212	8.959	8.959	(0.939)	631748	40.0000	37.9
155 2-Acetylaminofluorene	181	9.205	9.205	(0.965)	435482	40.0000	44.2
157 7,12Dimethylbenz(a)anthracene	256	10.635	10.635	(0.954)	424002	40.0000	36.8(H)
158 3-Methylcholanthrene	268	11.540	11.540	(1.035)	360043	40.0000	43.1(H)

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.  
 H - Operator selected an alternate compound hit.

Data File: /chem/HSD7.1/s031210.b/s7c1207.d  
 Date: 12-MAR-2010 14:43  
 Client ID: APCVS  
 Sample Info: IWBK00218-08.21CWS11SWH11APCVS  
 Column Phase: J&W DB-SHS

Instrument: MSD7.1  
 Operator: JHB3  
 Column diameter: 0.20



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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 17-MAR-2010 10:13  
Lab File ID: s7c1702.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
Analysis Type: Init. Cal. Times: 11:07 23:46  
Lab Sample ID: WBN100309-05.2 Quant Type: ISTD  
Method: /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
			RRF40	RRF	%D / %DRIFT	
3 2-Fluorophenol	1.03969	0.94514	0.94514	0.000	-9.09447	Averaged
5 Phenol-d5	1.30355	1.22437	1.22437	0.000	-6.07455	Averaged
20 Nitrobenzene-d5	0.30169	0.26984	0.26984	0.000	-10.55918	Averaged
39 2-Fluorobiphenyl	0.99687	1.03163	1.03163	0.000	3.48719	Averaged
60 2,4,6-Tribromophenol	0.11563	0.12574	0.12574	0.000	8.73526	Averaged
81 p-Terphenyl-d14	0.71661	0.66671	0.66671	0.000	-6.96317	Averaged
1 N-Methyl-N-nitrosomethylami	0.70001	0.59971	0.59971	0.000	-14.32859	Averaged
2 Pyridine	0.96465	0.85921	0.85921	0.000	-10.93068	Averaged
4 Aniline	0.62182	0.52558	0.52558	0.000	-15.47614	Averaged
6 Phenol	1.29492	1.21423	1.21423	0.001	-6.23102	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06026	0.82835	0.82835	0.000	-21.87362	Averaged
8 2-Chlorophenol	0.99096	0.99565	0.99565	0.000	0.47384	Averaged
203 n-Decane	1.86209	1.71759	1.71759	0.000	-7.76021	Averaged
9 1,3-Dichlorobenzene	1.24478	1.22195	1.22195	0.000	-1.83418	Averaged
11 1,4-Dichlorobenzene	1.19442	1.22231	1.22231	0.001	2.33518	Averaged ccc
13 1,2-Dichlorobenzene	1.09872	1.13128	1.13128	0.000	2.96378	Averaged
14 bis(2-Chloroisopropyl) ether	2.45618	2.11256	2.11256	0.000	-13.99005	Averaged
12 Benzyl alcohol	0.67475	0.51714	0.51714	0.000	-23.35889	Averaged
15 o-Cresol	0.79330	0.81612	0.81612	0.000	2.87558	Averaged
18 m,p-Cresols	1.07190	0.98072	0.98072	0.000	-8.50581	Averaged
17 N-Nitrosodipropylamine	0.73664	0.68180	0.68180	0.050	-7.44417	Averaged spcc
19 Hexachloroethane	0.46378	0.46093	0.46093	0.000	-0.61584	Averaged
21 Nitrobenzene	0.27987	0.26404	0.26404	0.000	-5.65575	Averaged
22 Isophorone	0.54073	0.51297	0.51297	0.000	-5.13237	Averaged
23 2-Nitrophenol	0.13143	0.13052	0.13052	0.001	-0.69152	Averaged ccc
24 2,4-Dimethylphenol	38.07788	40.00000	0.23138	0.000	-4.80531	Wt Linear
25 bis(2-Chloroethoxy)methane	0.29584	0.27604	0.27604	0.000	-6.69400	Averaged
26 2,4-Dichlorophenol	0.21226	0.21752	0.21752	0.001	2.47710	Averaged ccc
27 Benzoic acid	0.12083	0.10258	0.10258	0.000	-15.09831	Averaged
28 1,2,4-Trichlorobenzene	0.25742	0.25876	0.25876	0.000	0.52105	Averaged
30 Naphthalene	0.75561	0.73296	0.73296	0.000	-2.99655	Averaged
204 alpha-Terpinol	0.30880	0.25539	0.25539	0.000	-17.29798	Averaged
31 4-Chloroaniline	0.35383	0.26850	0.26850	0.000	-24.11520	Averaged
32 Hexachlorobutadiene	0.13434	0.14604	0.14604	0.001	8.70828	Averaged ccc
33 4-Chloro-3-methylphenol	0.22797	0.22523	0.22523	0.001	-1.20229	Averaged ccc
34 2-Methylnaphthalene	0.54229	0.54230	0.54230	0.000	0.00197	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 17-MAR-2010 10:13  
Lab File ID: s7c1702.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
Analysis Type: Init. Cal. Times: 11:07 23:46  
Lab Sample ID: WBN100309-05.2 Quant Type: ISTD  
Method: /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.51558	0.51445	0.51445	0.000	-0.21738	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.19338	0.19966	0.19966	0.050	3.24845	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.49462	0.51907	0.51907	0.000	4.94360	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.28064	0.29619	0.29619	0.001	5.54208	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.28225	0.31606	0.31606	0.000	11.98205	60.00000	Averaged
40 2-Chloronaphthalene	0.92584	0.91914	0.91914	0.000	-0.72292	60.00000	Averaged
42 o-Nitroaniline	0.32778	0.29338	0.29338	0.000	-10.49331	60.00000	Averaged
41 m-Nitroaniline	0.23922	0.22153	0.22153	0.000	-7.39587	60.00000	Averaged
43 Dimethylphthalate	1.06293	1.09317	1.09317	0.000	2.84439	60.00000	Averaged
44 2,6-Dinitrotoluene	0.24549	0.24781	0.24781	0.000	0.94586	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32362	0.32071	0.32071	0.000	-0.90065	60.00000	Averaged
45 Acenaphthylene	1.47998	1.47189	1.47189	0.000	-0.54705	60.00000	Averaged
47 Acenaphthene	0.88041	0.91652	0.91652	0.001	4.10090	20.00000	Averaged ccc
48 2,4-Dinitrophenol	49.71085	40.00000	0.09349	0.050	24.27714	60.00000	Linear spcc
49 Dibenzofuran	1.23737	1.27788	1.27788	0.000	3.27388	60.00000	Averaged
51 Diethylphthalate	1.08801	1.12760	1.12760	0.000	3.63958	60.00000	Averaged
52 4-Nitrophenol	0.16277	0.14042	0.14042	0.050	-13.73067	60.00000	Averaged spcc
53 Fluorene	1.03823	1.09366	1.09366	0.000	5.33877	60.00000	Averaged
54 4-Chlorophenylphenylether	0.51596	0.54104	0.54104	0.000	4.85989	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	47.78947	40.00000	0.08614	0.000	19.47368	60.00000	Linear
56 p-Nitroaniline	0.21538	0.16461	0.16461	0.000	-23.57163	60.00000	Averaged
133 Diphenylamine	0.47134	0.46055	0.46055	0.001	-2.29084	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.59299	0.57242	0.57242	0.000	-3.46891	60.00000	Averaged
61 4-Bromophenylphenylether	0.16450	0.17564	0.17564	0.000	6.77064	60.00000	Averaged
63 Hexachlorobenzene	0.15982	0.16810	0.16810	0.000	5.18579	60.00000	Averaged
65 Pentachlorophenol	0.07563	0.08966	0.08966	0.001	18.56231	20.00000	Averaged ccc
206 n-Octadecane	0.50130	0.49121	0.49121	0.000	-2.01221	60.00000	Averaged
68 Phenanthrene	0.82082	0.84708	0.84708	0.000	3.19931	60.00000	Averaged
69 Anthracene	0.83131	0.86936	0.86936	0.000	4.57782	60.00000	Averaged
72 Di-n-butylphthalate	1.04581	1.11653	1.11653	0.000	6.76204	60.00000	Averaged
76 Fluoranthene	0.89248	0.95315	0.95315	0.001	6.79785	20.00000	Averaged ccc
79 Pyrene	1.26367	1.18657	1.18657	0.000	-6.10089	60.00000	Averaged
85 Butylbenzylphthalate	0.60092	0.57161	0.57161	0.000	-4.87700	60.00000	Averaged
89 Benzo(a)anthracene	0.95891	0.90764	0.90764	0.000	-5.34750	60.00000	Averaged
92 Chrysene	0.85329	0.84162	0.84162	0.000	-1.36824	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.76109	0.77416	0.77416	0.000	1.71639	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 17-MAR-2010 10:13  
Lab File ID: s7c1702.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
Analysis Type: Init. Cal. Times: 11:07 23:46  
Lab Sample ID: WBN100309-05.2 Quant Type: ISTD  
Method: /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
94 Di-n-octylphthalate	1.60621	1.50036	1.50036	0.001	-6.59040	20.00000	Averaged ccc
95 Benzo(b)fluoranthene	1.12177	1.03835	1.03835	0.000	-7.43604	60.00000	Averaged
96 Benzo(k)fluoranthene	1.05423	1.04202	1.04202	0.000	-1.15881	60.00000	Averaged
97 Benzo(a)pyrene	0.91981	0.92718	0.92718	0.001	0.80133	20.00000	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.66143	0.82375	0.82375	0.000	24.54068	60.00000	Averaged
100 Dibenzo(a,h)anthracene	0.52416	0.67006	0.67006	0.000	27.83386	60.00000	Averaged
101 Benzo(ghi)perylene	0.55161	0.68281	0.68281	0.000	23.78532	60.00000	Averaged
126 m-Dinitrobenzene	0.16950	0.17032	0.17032	0.000	0.48413	60.00000	Averaged
130 2,3,4,6-Tetrachlorophenol	0.23333	0.26353	0.26353	0.000	12.94077	60.00000	Averaged
143 Dinoseb	49.77740	40.00000	0.13926	0.000	24.44350	60.00000	Linear
173 Carbazole	0.68135	0.59053	0.59053	0.000	-13.32880	60.00000	Averaged
184 p-Benzquinone	0.26551	0.06308	0.06308	0.000	-76.24078	60.00000	Averaged <-
192 Methoxychlor	0.58935	0.67943	0.67943	0.000	15.28344	60.00000	Averaged
211 p-Toluidine	1.10616	0.92576	0.92576	0.000	-16.30841	60.00000	Averaged
210 m-Toluidine	1.37475	1.07856	1.07856	0.000	-21.54535	60.00000	Averaged
215 2-Ethoxyethanol	0.93140	0.64389	0.64389	0.000	-30.86810	60.00000	Averaged
179 Dibenzo(a,c)pyrene	+++	0.32103	0.32103	0.000	+++	60.00000	Averaged <-
26 Phthalic anhydride	38.64831	40.00000	0.09836	0.000	-3.37922	60.00000	Linear
214 1,4-Dinitrobenzene	0.19422	0.18707	0.18707	0.000	-3.68031	60.00000	Averaged
216 Methylenebis(2-chloroanilin	0.13367	0.11970	0.11970	0.000	-10.44769	60.00000	Averaged
M 222 Trichlorophenols	0.28144	0.30613	0.30613	0.000	8.77119	60.00000	Averaged
M 223 Tetrachlorophenols	0.23333	0.26353	0.26353	0.000	12.94077	60.00000	Averaged
M 224 Benzo(b,k)fluoranthene	1.08800	1.04018	1.04018	0.000	-4.39484	60.00000	Averaged

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Data file : /chem/MSD7.i/s031710.b/s7c1702.d  
 Lab Smp Id: WBN100309-05.2 Client Smp ID: MEGACVS  
 Inj Date : 17-MAR-2010 10:13  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |WBN100309-05.2|CVS|1|SVMF|1|MEGACVS  
 Misc Info : |MSD8270|WBN100310-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 17-Mar-2010 13:51 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 2 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: MEGA.sub  
 Target Version: 3.50

Compounds	QUANT SIG				AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)
						ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.802	3.802	(1.000)	287888	40.0000
* 29 Naphthalene-d8	136	4.664	4.664	(1.000)	1131487	40.0000
* 46 Acenaphthene-d10	164	5.911	5.911	(1.000)	603090	40.0000
* 67 Phenanthrene-d10	188	7.067	7.067	(1.000)	1094485	40.0000
* 91 Chrysene-d12	240	9.455	9.455	(1.000)	918635	40.0000
* 98 Perylene-d12	264	11.016	11.016	(1.000)	715600	40.0000
\$ 3 2-Fluorophenol	112	2.998	2.998	(0.788)	272094	40.0000 36.4
\$ 5 Phenol-d5	99	3.528	3.528	(0.928)	392480	40.0000 37.6
\$ 20 Nitrobenzene-d5	82	4.168	4.168	(0.894)	305316	40.0000 35.8
\$ 39 2-Fluorobiphenyl	172	5.406	5.406	(0.914)	622165	40.0000 41.4
\$ 60 2,4,6-Tribromophenol	329	6.499	6.499	(1.099)	75830	40.0000 43.5
\$ 81 p-Terphenyl-d14	244	8.430	8.430	(0.892)	612463	40.0000 37.2
1 N-Methyl-N-nitrosomethylamine	74	2.314	2.314	(0.609)	172649	40.0000 34.3
2 Pyridine	79	2.343	2.343	(0.616)	247356	40.0000 35.6
4 Aniline	66	3.590	3.590	(0.944)	151309	40.0000 33.8
6 Phenol	94	3.537	3.537	(0.930)	349562	40.0000 37.5
7 bis(2-Chloroethyl) ether	63	3.610	3.610	(0.949)	238471	40.0000 31.2
8 2-Chlorophenol	128	3.672	3.672	(0.966)	286637	40.0000 40.2
203 n-Decane	43	3.658	3.658	(0.962)	494474	40.0000 36.9
9 1,3-Dichlorobenzene	146	3.769	3.769	(0.991)	351784	40.0000 39.3
11 1,4-Dichlorobenzene	146	3.817	3.817	(1.004)	351889	40.0000 40.9
13 1,2-Dichlorobenzene	146	3.918	3.918	(1.030)	325683	40.0000 41.2
14 bis(2-Chloroisopropyl) ether	45	3.952	3.952	(1.039)	608181	40.0000 34.4
12 Benzyl alcohol	108	3.875	3.875	(1.019)	148877	40.0000 30.6
15 o-Cresol	107	3.927	3.927	(1.033)	234950	40.0000 41.2
18 m,p-Cresols	107	4.029	4.029	(1.060)	282338	40.0000 36.6
17 N-Nitrosodipropylamine	70	4.043	4.043	(1.063)	196283	40.0000 37.0

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
19 Hexachloroethane	117	4.144	4.144	(1.090)	132695	40.0000	39.8
21 Nitrobenzene	77	4.178	4.178	(0.896)	298754	40.0000	37.7
22 Isophorone	82	4.332	4.332	(0.929)	580424	40.0000	37.9
23 2-Nitrophenol	139	4.390	4.390	(0.941)	147678	40.0000	39.7
24 2,4-Dimethylphenol	122	4.390	4.390	(0.941)	261808	40.0000	38.1
25 bis(2-Chloroethoxy)methane	93	4.452	4.452	(0.955)	312336	40.0000	37.3
26 2,4-Dichlorophenol	162	4.553	4.553	(0.976)	246121	40.0000	41.0
27 Benzoic acid	105	4.448	4.448	(0.954)	116072	40.0000	34.0
28 1,2,4-Trichlorobenzene	180	4.616	4.616	(0.990)	292789	40.0000	40.2
30 Naphthalene	128	4.683	4.683	(1.004)	829340	40.0000	38.8
204 alpha-Terpineol	59	4.659	4.659	(0.999)	288968	40.0000	33.1
31 4-Chloroaniline	127	4.698	4.698	(1.007)	303806	40.0000	30.4
32 Hexachlorobutadiene	225	4.746	4.746	(1.018)	165243	40.0000	43.5 (H)
33 4-Chloro-3-methylphenol	107	5.016	5.016	(1.075)	254847	40.0000	39.5
34 2-Methylnaphthalene	142	5.160	5.160	(1.106)	613611	40.0000	40.0
35 1-Methylnaphthalene	142	5.232	5.232	(1.122)	582099	40.0000	39.9
36 Hexachlorocyclopentadiene	237	5.261	5.261	(0.890)	120412	40.0000	41.3
205 2,3-Dichloroaniline	161	5.358	5.358	(0.906)	313047	40.0000	42.0
37 2,4,6-Trichlorophenol	196	5.348	5.348	(0.905)	178630	40.0000	42.2 (H)
38 2,4,5-Trichlorophenol	196	5.377	5.377	(0.910)	190615	40.0000	44.8
40 2-Chloronaphthalene	162	5.512	5.512	(0.932)	554327	40.0000	39.7
42 o-Nitroaniline	65	5.569	5.569	(0.942)	176936	40.0000	35.8
41 m-Nitroaniline	138	5.863	5.863	(0.992)	133600	40.0000	37.0
43 Dimethylphthalate	163	5.680	5.680	(0.961)	659277	40.0000	41.1
44 2,6-Dinitrotoluene	165	5.738	5.738	(0.971)	149450	40.0000	40.4
50 2,4-Dinitrotoluene	165	6.032	6.032	(1.020)	193416	40.0000	39.6
45 Acenaphthylene	152	5.815	5.815	(0.984)	887681	40.0000	39.8
47 Acenaphthene	154	5.935	5.935	(1.004)	552742	40.0000	41.6
48 2,4-Dinitrophenol	184	5.940	5.940	(1.005)	56383	40.0000	49.7
49 Dibenzofuran	168	6.061	6.061	(1.025)	770678	40.0000	41.3
51 Diethylphthalate	149	6.186	6.186	(1.046)	680047	40.0000	41.4
52 4-Nitrophenol	139	5.964	5.964	(1.009)	84685	40.0000	34.5
53 Fluorene	166	6.316	6.316	(1.068)	659577	40.0000	42.1
54 4-Chlorophenylphenylether	204	6.297	6.297	(1.065)	326295	40.0000	41.9
55 2-Methyl-4,6-dinitrophenol	198	6.340	6.340	(0.897)	94279	40.0000	47.8
56 p-Nitroaniline	138	6.316	6.316	(1.068)	99274	40.0000	30.6
133 Diphenylamine	169	6.383	6.383	(0.903)	504061	40.0000	39.1
58 1,2-Diphenylhydrazine	77	6.417	6.417	(0.908)	626508	40.0000	38.6
61 4-Bromophenylphenylether	248	6.677	6.677	(0.945)	192230	40.0000	42.7
63 Hexachlorobenzene	284	6.749	6.749	(0.955)	183988	40.0000	42.1
65 Pentachlorophenol	266	6.894	6.894	(0.975)	98135	40.0000	47.4
206 n-Octadecane	57	6.889	6.889	(0.975)	537622	40.0000	39.2 (H)
68 Phenanthrene	178	7.086	7.086	(1.003)	927117	40.0000	41.3
69 Anthracene	178	7.130	7.130	(1.009)	951506	40.0000	41.8
72 Di-n-butylphthalate	149	7.486	7.486	(1.059)	1222021	40.0000	42.7
76 Fluoranthene	202	8.112	8.112	(1.148)	1043206	40.0000	42.7
79 Pyrene	202	8.329	8.329	(0.881)	1090028	40.0000	37.6



Compounds	QUANT SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
85 Butylbenzylphthalate	149	8.863	8.863 (0.937)	525100	40.0000	38.0
89 Benzo(a)anthracene	228	9.441	9.441 (0.998)	833787	40.0000	37.9
92 Chrysene	228	9.480	9.480 (1.003)	773138	40.0000	39.4
93 bis(2-Ethylhexyl)phthalate	149	9.383	9.383 (0.992)	711166	40.0000	40.7
94 Di-n-octylphthalate	149	10.004	10.004 (0.908)	1073656	40.0000	37.4
95 Benzo(b)fluoranthene	252	10.539	10.539 (0.957)	743045	40.0000	37.0(H)
96 Benzo(k)fluoranthene	252	10.573	10.573 (0.960)	745667	40.0000	39.5
97 Benzo(a)pyrene	252	10.943	10.943 (0.993)	663488	40.0000	40.3
99 Indeno(1,2,3-cd)pyrene	276	12.629	12.629 (1.146)	589472	40.0000	49.8
100 Dibenzo(a,h)anthracene	278	12.643	12.643 (1.148)	479493	40.0000	51.1
101 Benzo(ghi)perylene	276	13.120	13.120 (1.191)	488618	40.0000	49.5
126 m-Dinitrobenzene	168	5.724	5.724 (0.968)	102716	40.0000	40.2
130 2,3,4,6-Tetrachlorophenol	232	6.143	6.143 (1.039)	158931	40.0000	45.2
143 Dinoseb	211	7.019	7.019 (0.993)	152418	40.0000	49.8
173 Carbazole	167	7.245	7.245 (1.025)	646327	40.0000	34.7
184 p-Benzoquinone	54	3.297	3.297 (0.867)	18161	40.0000	9.5
192 Methoxychlor	227	9.330	9.330 (0.987)	624144	40.0000	46.1
211 p-Toluidine	106	4.082	4.082 (1.073)	266515	40.0000	33.5(H)
210 m-Toluidine	106	4.106	4.106 (1.080)	310504	40.0000	31.4
215 2-Ethoxyethanol	59	2.155	2.155 (0.567)	185369	40.0000	27.6
179 Dibenzo(a,c)pyrene	302	16.847	16.847 (1.529)	229728	40.0000	
26 Phthalic anhydride	104	5.199	5.199 (1.115)	111295	40.0000	38.6
214 1,4-Dinitrobenzene	75	5.666	5.666 (0.958)	112820	40.0000	38.5(H)
216 Methylenebis(2-chloroaniline)	231	9.388	9.388 (0.993)	109965	40.0000	35.8
M 222 Trichlorophenols	196			369245	80.0000	87.0
M 223 Tetrachlorophenols	232			158931	40.0000	45.2
M 224 Benzo(b,k)fluoranthene	252			1488712	80.0000	76.5

#### QC Flag Legend

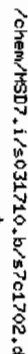
H - Operator selected an alternate compound hit.

Page 1

Client ID: MEGACV5

Instrument: MSD7.1

Operator: JMB3  
Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 17-MAR-2010 10:37  
 Lab File ID: s7c1703.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
 Analysis Type: Init. Cal. Times: 11:07 23:46  
 Lab Sample ID: WBN100312-03.2 Quant Type: ISTD  
 Method: /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
RRF	%D	%DRIFT	%D	%DRIFT		
209 Benzaldehyde	0.84333	0.78673	0.78673	0.000	-6.71145	60.00000 Averaged
16 Acetophenone	1.10656	1.06023	1.06023	0.000	-4.18760	60.00000 Averaged
189 Caprolactam	0.07444	0.07105	0.07105	0.000	-4.55071	60.00000 Averaged
208 1,1'-Biphenyl	1.10203	1.11649	1.11649	0.000	1.31196	60.00000 Averaged
207 Atrazine	0.03853	0.04138	0.04138	0.000	7.39067	60.00000 Averaged
77 Benzidine	0.37412	0.29181	0.29181	0.000	-22.00110	60.00000 Averaged
90 3,3'-Dichlorobenzidine	0.27910	0.29975	0.29975	0.000	7.40017	60.00000 Averaged
102 1,4-Dioxane	0.33513	0.32115	0.32115	0.000	-4.17129	60.00000 Averaged
103 Methyl methacrylate	0.19562	0.17991	0.17991	0.000	-8.03027	60.00000 Averaged
104 Ethyl methacrylate	0.75140	0.68724	0.68724	0.000	-8.53818	60.00000 Averaged
105 2-Picoline	1.13566	1.04896	1.04896	0.000	-7.63387	60.00000 Averaged
106 N-Nitrosomethylethylamine	0.44142	0.39334	0.39334	0.000	-10.89260	60.00000 Averaged
107 Methyl methanesulfonate	0.50747	0.46925	0.46925	0.000	-7.53198	60.00000 Averaged
108 N-Nitrosodiethylamine	0.47013	0.42489	0.42489	0.000	-9.62322	60.00000 Averaged
109 Ethyl Methanesulfonate	0.62041	0.53876	0.53876	0.000	-13.16082	60.00000 Averaged
110 Pentachloroethane	0.30840	0.31310	0.31310	0.000	1.52262	60.00000 Averaged
111 N-Nitrosopyrrolidine	0.49363	0.44703	0.44703	0.000	-9.43954	60.00000 Averaged
113 N-Nitrosomorpholine	0.81412	0.65423	0.65423	0.000	-19.63952	60.00000 Averaged
114 o-Toluidine	1.53985	1.41022	1.41022	0.000	-8.41826	60.00000 Averaged
115 N-Nitrosopiperidine	0.13162	0.11962	0.11962	0.000	-9.11877	60.00000 Averaged
116 a,a-Dimethylphenethylamine	0.98197	0.70217	0.70217	0.000	-28.49396	60.00000 Averaged
118 2,6-Dichlorophenol	0.20270	0.19803	0.19803	0.000	-2.30481	60.00000 Averaged
119 Hexachloropropene	0.10516	0.11662	0.11662	0.000	10.89139	60.00000 Averaged
120 p-Phenylenediamine	0.22347	0.23152	0.23152	0.000	3.60615	60.00000 Averaged
121 N-Nitrosodi-n-butylamine	0.20065	0.17876	0.17876	0.000	-10.90887	60.00000 Averaged
122 Saffrole	0.18525	0.18935	0.18935	0.000	2.21274	60.00000 Averaged
123 1,2,4,5-Tetrachlorobenzene	0.39310	0.41099	0.41099	0.000	4.54888	60.00000 Averaged
124 Isosaffrole	0.32673	0.31597	0.31597	0.000	-3.29324	60.00000 Averaged
125 1,4-Naphthoquinone	38.56570	40.00000	0.28444	0.000	-3.58576	60.00000 Linear
127 Pentachlorobenzene	0.35339	0.36084	0.36084	0.000	2.10838	60.00000 Averaged
128 1-Naphthylamine	0.85758	0.87786	0.87786	0.000	2.36386	60.00000 Averaged
129 2-Naphthylamine	0.92399	0.89742	0.89742	0.000	-2.87579	60.00000 Averaged
131 5-Nitro-o-toluidine	0.27279	0.26370	0.26370	0.000	-3.33327	60.00000 Averaged
136 1,3,5-Trinitrobenzene	0.11408	0.13757	0.13757	0.000	20.59057	60.00000 Averaged
137 Phenacetin	0.25171	0.23781	0.23781	0.000	-5.52436	60.00000 Averaged
138 Diallate	0.21975	0.21575	0.21575	0.000	-1.81741	60.00000 Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 17-MAR-2010 10:37  
Lab File ID: s7c1703.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010  
Analysis Type: Init. Cal. Times: 11:07 23:46  
Lab Sample ID: WBN100312-03.2 Quant Type: ISTD  
Method: /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
212 Cis Diallate	0.22751	0.20752	0.20752	0.000	-8.78447	Averaged
213 Trans Diallate	0.25853	0.25383	0.25383	0.000	-1.81741	Averaged
140 4-Aminobiphenyl	0.53100	0.53038	0.53038	0.000	-0.11607	Averaged
141 Pentachloronitrobenzene	0.05770	0.07033	0.07033	0.000	21.89678	Averaged
142 Pronamide	0.23171	0.26412	0.26412	0.000	13.98648	Averaged
146 4-Nitroquinoline-1-oxide	0.01900	0.01569	0.01569	0.000	-17.41055	Averaged
147 Methapyrilene	0.45514	0.44164	0.44164	0.000	-2.96651	Averaged
148 Isodrin	0.10048	0.10354	0.10354	0.000	3.04179	Averaged
149 Aramite	0.04292	0.04187	0.04187	0.000	-2.45895	Averaged
150 Kepone	0.06421	0.07191	0.07191	0.000	11.99456	Averaged
151 p-(Dimethylamino)azobenzene	0.31171	0.29906	0.29906	0.000	-4.05794	Averaged
152 Chlorobenzilate	0.27373	0.30384	0.30384	0.000	11.00102	Averaged
153 3,3'-Dimethylbenzidine	0.52442	0.48937	0.48937	0.000	-6.68301	Averaged
155 2-Acetylaminofluorene	0.30989	0.35747	0.35747	0.000	15.35139	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51277	0.48435	0.48435	0.000	-5.54379	Averaged
158 3-Methylcholanthrene	0.37167	0.39454	0.39454	0.000	6.15275	Averaged

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Data file : /chem/MSD7.i/s031710.b/s7c1703.d  
 Lab Smp Id: WBN100312-03.2 Client Smp ID: APCVS  
 Inj Date : 17-MAR-2010 10:37  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |WBN100312-03.2|CVS|1|SVMF|1|APCVS  
 Misc Info : |MSD8270|WBN100310-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 17-Mar-2010 13:51 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 3 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AP12.sub  
 Target Version: 3.50

						AMOUNTS	
QUANT SIG						CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng/ul)	(ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	152	3.802	3.802	(1.000)	335638	40.0000	
* 29 Naphthalene-d8	136	4.664	4.664	(1.000)	1206825	40.0000	
* 46 Acenaphthene-d10	164	5.911	5.911	(1.000)	704345	40.0000	
* 67 Phenanthrene-d10	188	7.062	7.067	(1.000)	1218269	40.0000	
* 91 Chrysene-d12	240	9.446	9.455	(1.000)	977772	40.0000	
* 98 Perylene-d12	264	11.011	11.016	(1.000)	763615	40.0000	
209 Benzaldehyde	77	3.533	3.533	(0.929)	264057	40.0000	37.3
16 Acetophenone	105	4.053	4.053	(1.066)	355852	40.0000	38.3
189 Caprolactam	113	4.939	4.939	(1.059)	85744	40.0000	38.2
208 1,1'-Biphenyl	154	5.483	5.483	(0.928)	786393	40.0000	40.5
207 Atrazine	173	6.778	6.778	(0.960)	50411	40.0000	43.0
77 Benzidine	184	8.204	8.204	(0.868)	285326	40.0000	31.2
90 3,3'-Dichlorobenzidine	252	9.388	9.388	(0.994)	293089	40.0000	43.0
102 1,4-Dioxane	88	2.160	2.160	(0.568)	107789	40.0000	38.3
103 Methyl methacrylate	100	2.156	2.156	(0.567)	60385	40.0000	36.8
104 Ethyl methacrylate	69	2.521	2.521	(0.663)	230664	40.0000	36.6
105 2-Picoline	93	2.714	2.714	(0.714)	352072	40.0000	36.9
106 N-Nitrosomethylethylamine	88	2.753	2.753	(0.724)	132019	40.0000	35.6
107 Methyl methanesulfonate	80	2.912	2.912	(0.766)	157497	40.0000	37.0
108 N-Nitrosodiethylamine	102	3.138	3.138	(0.825)	142609	40.0000	36.2
109 Ethyl Methanesulfonate	79	3.297	3.297	(0.867)	180828	40.0000	34.7
110 Pentachloroethane	167	3.629	3.629	(0.954)	105088	40.0000	40.6
111 N-Nitrosopyrrolidine	100	4.043	4.043	(1.063)	150040	40.0000	36.2
113 N-Nitrosomorpholine	56	4.062	4.062	(1.068)	219585	40.0000	32.1
114 o-Toluidine	106	4.077	4.077	(1.072)	473324	40.0000	36.6
115 N-Nitrosopiperidine	114	4.279	4.279	(0.917)	144357	40.0000	36.4
116 a,a-Dimethylphenethylamine	58	4.520	4.520	(0.969)	847395	40.0000	28.6

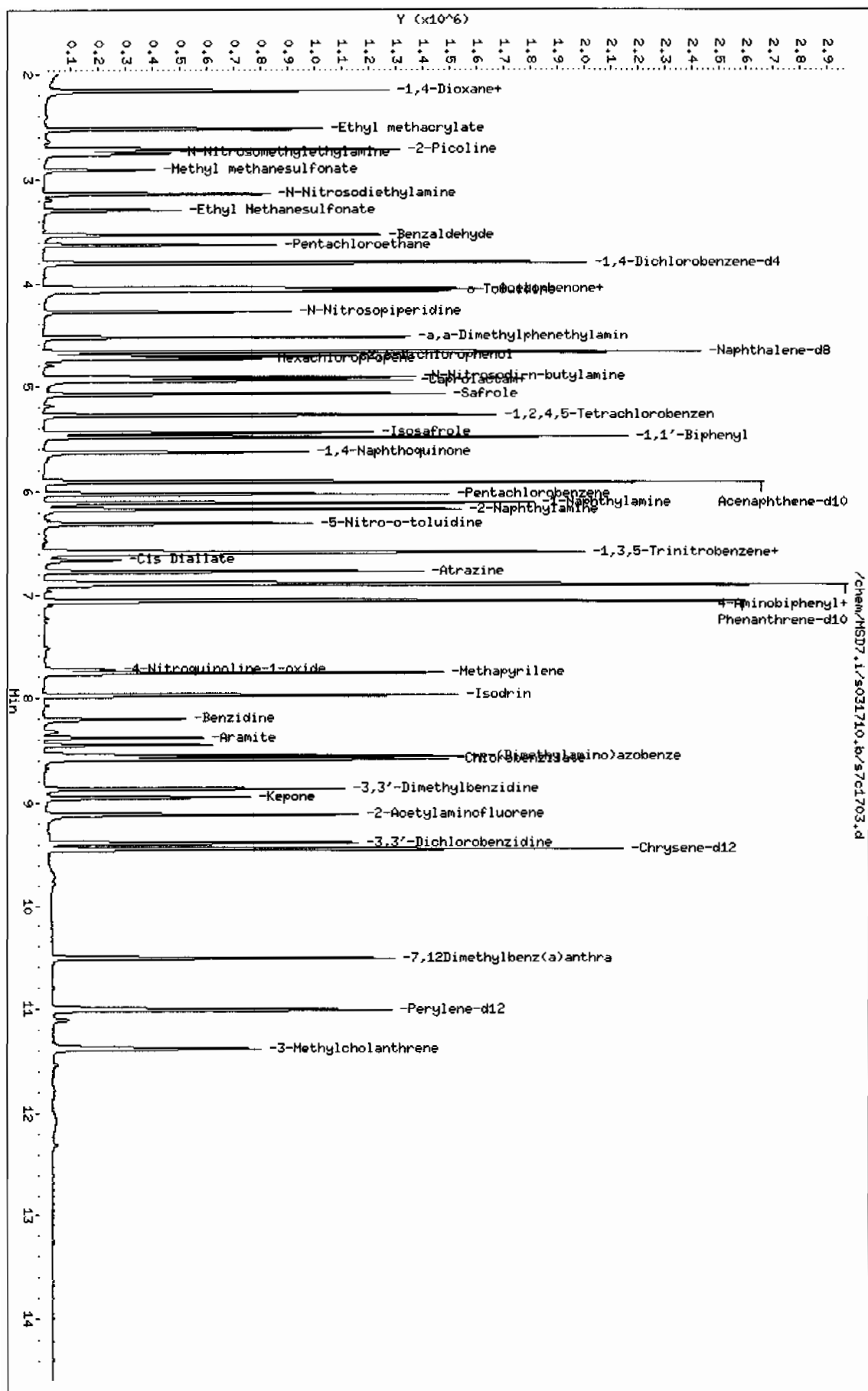
Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
118 2,6-Dichlorophenol	162	4.708	4.708	(1.009)	238986	40.0000	39.1
119 Hexachloropropene	213	4.732	4.732	(1.014)	140738	40.0000	44.4
120 p-Phenylenediamine	108	4.944	4.944	(1.060)	279410	40.0000	41.4
121 N-Nitrosodi-n-butylamine	84	4.910	4.910	(1.053)	215738	40.0000	35.6(H)
122 Safrole	162	5.074	5.074	(1.088)	228510	40.0000	40.9
123 1,2,4,5-Tetrachlorobenzene	216	5.276	5.276	(0.892)	289476	40.0000	41.8
124 Isosafrole	162	5.444	5.444	(0.921)	222551	40.0000	38.7
125 1,4-Naphthoquinone	158	5.632	5.632	(0.953)	200341	40.0000	38.6
127 Pentachlorobenzene	250	6.027	6.027	(1.020)	254156	40.0000	40.8
128 1-Naphthylamine	143	6.114	6.114	(1.034)	618314	40.0000	40.9
129 2-Naphthylamine	143	6.171	6.171	(1.044)	632092	40.0000	38.8
131 5-Nitro-o-toluidine	152	6.306	6.306	(1.067)	185737	40.0000	38.7
136 1,3,5-Trinitrobenzene	75	6.576	6.576	(0.931)	167592	40.0000	48.2
137 Phenacetin	108	6.605	6.605	(0.935)	289711	40.0000	37.8(Q)
138 Diallylate	86	6.586	6.586	(0.932)	262847	40.0000	39.3
212 Cis Diallylate	86	6.663	6.663	(0.943)	37923	6.00000	5.5
213 Trans Diallylate	86	6.586	6.586	(0.932)	262847	34.0000	33.4
140 4-Aminobiphenyl	169	6.884	6.884	(0.975)	646147	40.0000	40.0
141 Pentachloronitrobenzene	237	6.903	6.903	(0.977)	85680	40.0000	48.8(Q)
142 Pronamide	173	6.903	6.903	(0.977)	321767	40.0000	45.6
146 4-Nitroquinoline-1-oxide	101	7.727	7.727	(1.094)	19117	40.0000	33.0
147 Methapyrilene	58	7.761	7.761	(1.099)	538039	40.0000	38.8
148 Isodrin	193	7.977	7.977	(1.130)	126137	40.0000	41.2
149 Aramite	185	8.382	8.382	(1.187)	51004	40.0000	39.0
150 Kepone	272	8.950	8.950	(1.267)	87601	40.0000	44.8
151 p-(Dimethylamino)azobenzene	120	8.555	8.555	(0.906)	292411	40.0000	38.4
152 Chlorobenzilate	251	8.589	8.589	(0.909)	297084	40.0000	44.4
153 3,3'-Dimethylbenzidine	212	8.868	8.868	(0.939)	478496	40.0000	37.3
155 2-Acetylaminofluorene	181	9.114	9.114	(0.965)	349521	40.0000	46.1
157 7,12Dimethylbenz(a)anthracene	256	10.510	10.510	(0.955)	369854	40.0000	37.8
158 3-Methylcholanthrene	268	11.382	11.382	(1.034)	301273	40.0000	42.5

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.  
 H - Operator selected an alternate compound hit.

Data File: /chem/MSD7.1/s031710.b/s7c1703.d  
 Date: 17-Mar-2010 10:37  
 Client ID: APCVS  
 Sample Info: ILMN100312-03.2/CVS111SWH11APCVS  
 Column phase: 3%M DB-SHS

Instrument: MSD7.1  
 Operator: JHB3  
 Column diameter: 0.20



# QC Data



Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Page 1

Date : 26-FEB-2010 10:23

Client ID: DFTPP

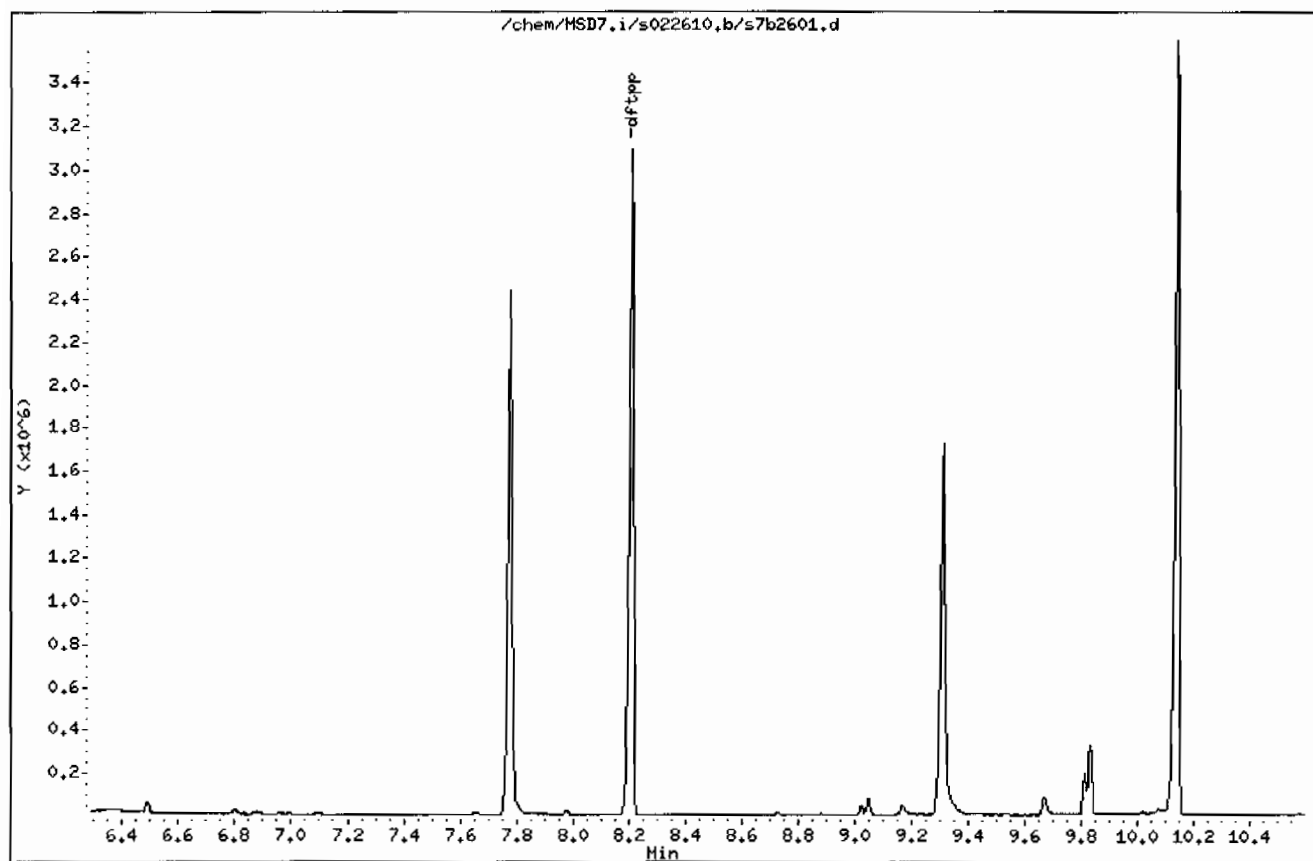
Instrument: MSD7.i

Sample Info: HWBN100207-01IDFTPP11SVHF11IDFTPP

Operator: JMB3

Column phase: Phenomenex ZB-SHS

Column diameter: 0,20



Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

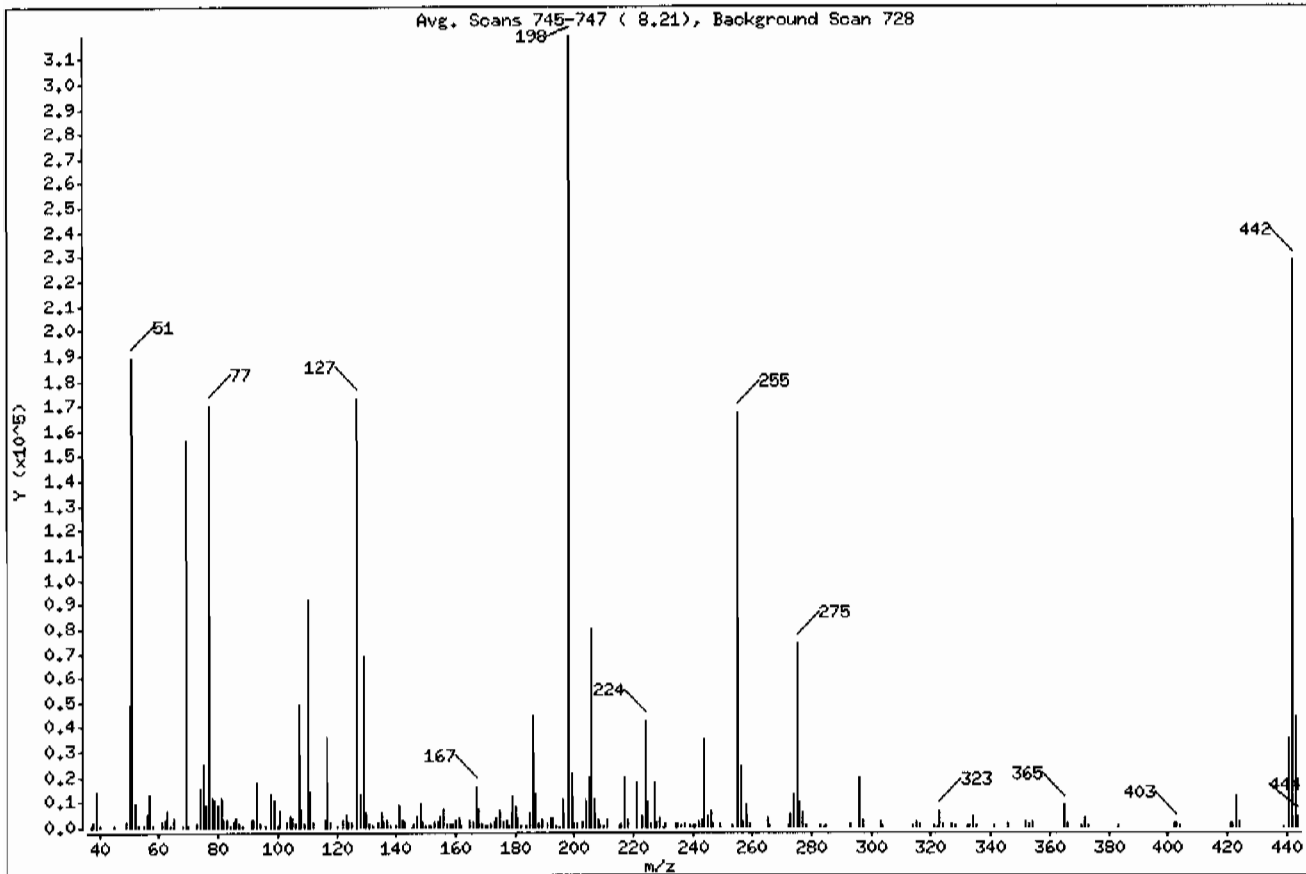
Sample Info: IWBNI00207-01|DFTPP|1|SVHF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	59.41
68	Less than 2.00% of mass 69	0.28 ( 0.57)
69	Mass 69 relative abundance	48.94
70	Less than 2.00% of mass 69	0.28 ( 0.58)
127	40.00 - 60.00% of mass 198	54.14
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.65
275	10.00 - 30.00% of mass 198	23.16
365	Greater than 1.00% of mass 198	2.69
441	Present, but less than mass 443	10.95
442	Greater than 40.00% of mass 198	71.59
443	17.00 - 23.00% of mass 442	13.73 ( 19.18)

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: IWBNI00207-01|DFTPP|1|SVHF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2601.d

Spectrum: Avg. Scans 745-747 ( 8.21), Background Scan 728

Location of Maximum: 198.00

Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	852	117.00	35928	184.00	921	259.00	1456
38.00	2311	118.00	2505	185.00	5984	265.00	3673
39.00	13932	120.00	682	186.00	44920	266.00	602
40.00	778	122.00	3034	187.00	13079	272.00	686
45.00	617	123.00	4902	188.00	1326	273.00	5148
49.00	1836	124.00	2350	189.00	2753	274.00	13060
50.00	49024	125.00	2075	191.00	1303	275.00	73880
51.00	189504	127.00	172736	192.00	3677	276.00	10097
52.00	9606	128.00	13398	193.00	3924	277.00	5801
53.00	380	129.00	68952	194.00	852	278.00	937
55.00	641	130.00	5708	195.00	213	283.00	683
56.00	5212	131.00	1162	196.00	10681	284.00	363
57.00	12872	132.00	774	198.00	319040	285.00	980
58.00	597	134.00	2028	199.00	21208	293.00	1331
61.00	2326	135.00	5642	200.00	1647	296.00	19728
62.00	2698	136.00	2275	201.00	1773	297.00	2776
63.00	6781	137.00	2609	203.00	2366	303.00	2464
64.00	1046	138.00	715	204.00	10630	304.00	574
65.00	3631	140.00	969	205.00	19512	314.00	904
68.00	888	141.00	8721	206.00	79824	315.00	2209
69.00	156160	142.00	2698	207.00	10932	316.00	1138
70.00	900	143.00	1961	208.00	3049	321.00	715
73.00	1515	145.00	363	209.00	797	322.00	167
74.00	15266	146.00	1578	210.00	844	323.00	6440
75.00	24672	147.00	4519	211.00	3224	324.00	1313
76.00	8506	148.00	9607	215.00	827	327.00	1174
77.00	169984	149.00	1988	216.00	1701	328.00	565
78.00	11795	150.00	396	217.00	20024	332.00	397
79.00	11177	151.00	1094	218.00	2713	333.00	714
80.00	8792	152.00	647	221.00	17472	334.00	4276
81.00	12077	153.00	2565	223.00	4593	335.00	1100
82.00	3170	154.00	2159	224.00	42376	341.00	531
83.00	3008	155.00	4724	225.00	10621	346.00	1286
84.00	636	156.00	7141	226.00	1169	352.00	1989
85.00	2044	157.00	1513	227.00	17440	353.00	1401

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: IWBNI00207-01|DFTPP|1|SVHF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2601.d

Spectrum: Avg. Scans 745-747 ( 8.21), Background Scan 728

Location of Maximum: 198.00

Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	3508	158.00	1749	228.00	2469	354.00	2183
87.00	1630	159.00	1243	229.00	3883	365.00	8577
88.00	419	160.00	2579	230.00	356	366.00	1114
91.00	2741	161.00	3950	231.00	1525	371.00	644
92.00	3230	162.00	1019	234.00	1203	372.00	3384
93.00	17792	165.00	2876	235.00	1368	373.00	853
94.00	1291	166.00	2290	236.00	770	383.00	796
96.00	998	167.00	15920	237.00	1366	402.00	1481
98.00	13554	168.00	7335	239.00	754	403.00	1754
99.00	10824	169.00	1371	240.00	398	404.00	734
100.00	976	170.00	409	241.00	1037	421.00	1467
101.00	6705	171.00	753	242.00	2373	422.00	1498
103.00	2265	172.00	1523	243.00	2625	423.00	12418
104.00	4074	173.00	1979	244.00	35000	424.00	2370
105.00	3826	174.00	3403	245.00	4542	439.00	178
106.00	1433	175.00	6519	246.00	6439	441.00	34928
107.00	49056	176.00	1866	247.00	1293	442.00	228416
108.00	7671	177.00	3004	249.00	1244	443.00	43808
109.00	1301	178.00	1078	253.00	913	444.00	4114
110.00	91472	179.00	12442	255.00	167552		
111.00	13914	180.00	8233	256.00	24184		
112.00	1881	181.00	3774	257.00	1884		
116.00	2779	182.00	632	258.00	9098		

Data File: /chem/HSD7,i/s022610,b/s7b2615,d

Page 1

Date : 26-FEB-2010 16:00

Client ID: DFTPP

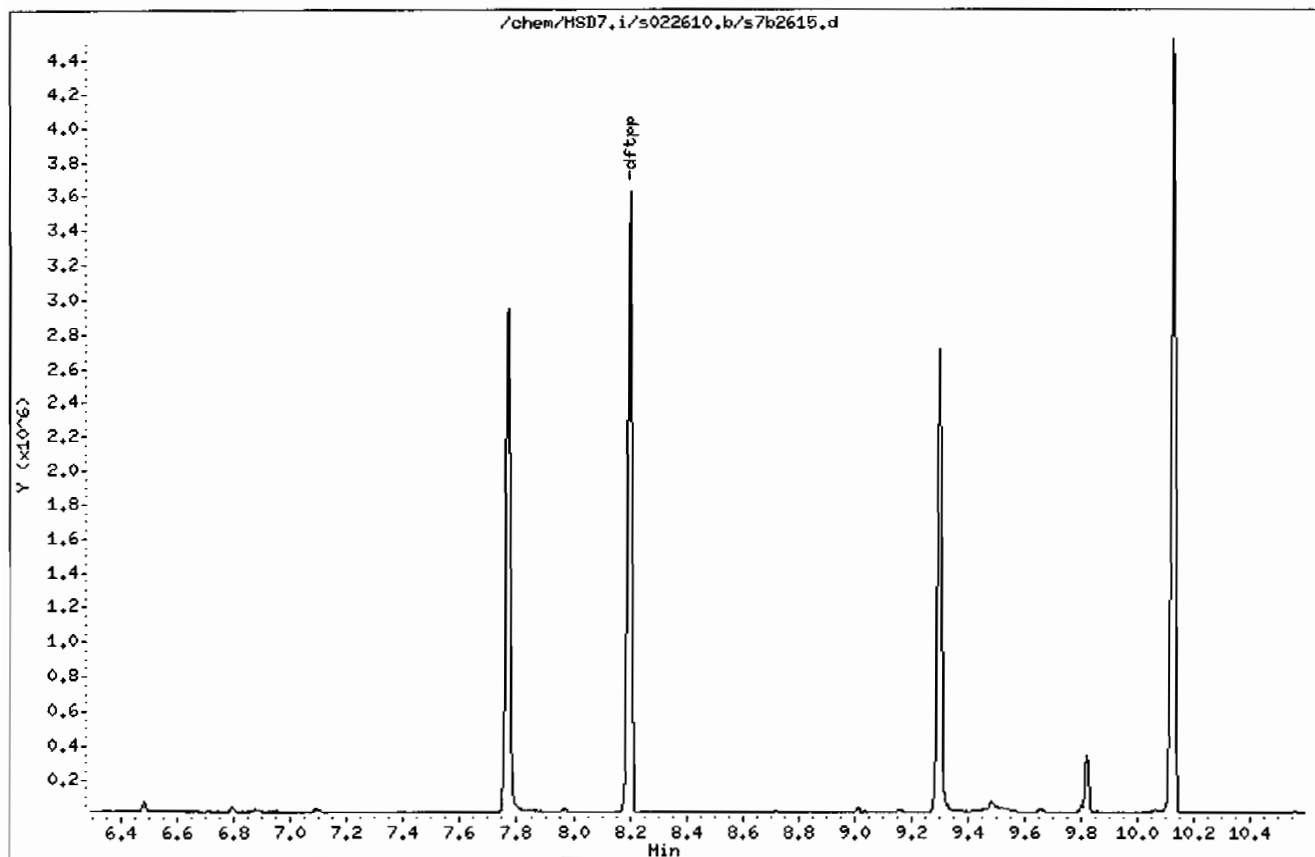
Instrument: HSD7.i

Sample Info: IWBH100207-01|DFTPP|1|SVHF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20



Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: HSD7.i

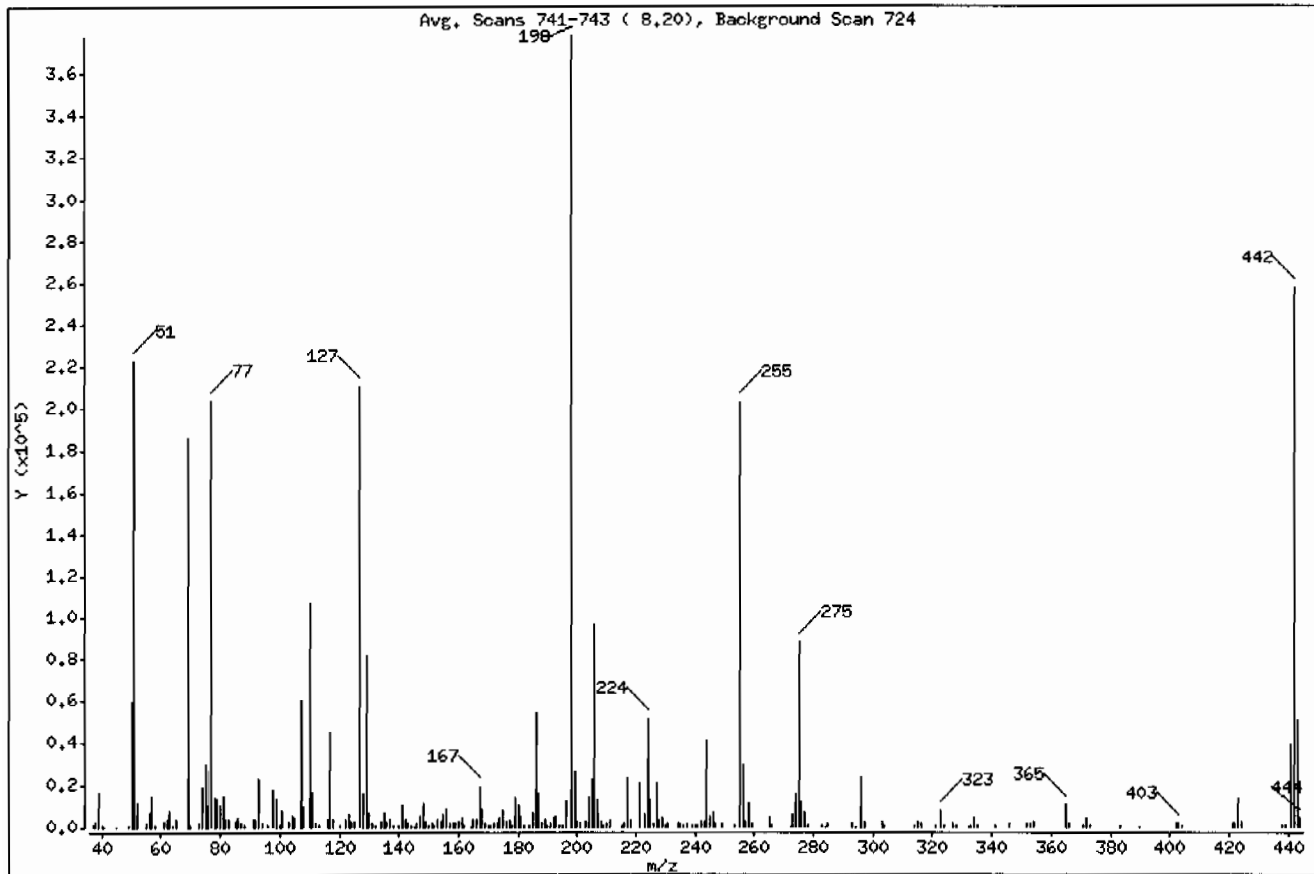
Sample Info: IWBNI00207-01.DFTPP11SVHF11.DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	58.98
68	Less than 2.00% of mass 69	0.00 ( 0.00)
69	Mass 69 relative abundance	49.16
70	Less than 2.00% of mass 69	0.23 ( 0.48)
127	40.00 - 60.00% of mass 198	55.53
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.90
275	10.00 - 30.00% of mass 198	23.32
365	Greater than 1.00% of mass 198	2.65
441	Present, but less than mass 443	10.42
442	Greater than 40.00% of mass 198	68.13
443	17.00 - 23.00% of mass 442	13.23 ( 19.42)

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: IWBNI00207-01IDFTPP11SVHF11IDFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2615.d

Spectrum: Avg. Scans 741-743 ( 8.20), Background Scan 724

Location of Maximum: 198.00

Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
-----							
37.00	1029	122.00	3738	185.00	6817	259.00	1573
38.00	2784	123.00	5796	186.00	54064	265.00	4325
39.00	16736	124.00	2600	187.00	15706	266.00	746
40.00	804	125.00	2612	188.00	1673	272.00	197
41.00	215	127.00	209728	189.00	3494	273.00	6106
-----							
45.00	168	128.00	15827	190.00	586	274.00	15839
49.00	1187	129.00	81240	191.00	1632	275.00	88080
50.00	59008	130.00	6686	192.00	4589	276.00	11832
51.00	222720	131.00	1427	193.00	4997	277.00	7181
52.00	11067	132.00	774	194.00	1040	278.00	1002
-----							
55.00	1479	134.00	2449	195.00	704	283.00	768
56.00	6807	135.00	6597	196.00	12441	284.00	411
57.00	14992	136.00	2742	198.00	377728	285.00	1383
58.00	682	137.00	3143	199.00	26056	293.00	1754
61.00	2681	138.00	765	200.00	2198	294.00	170
-----							
62.00	3163	140.00	1042	201.00	1902	296.00	23352
63.00	8062	141.00	10317	203.00	2941	297.00	3003
64.00	939	142.00	3584	204.00	13735	303.00	2912
65.00	3873	143.00	2145	205.00	22256	304.00	698
69.00	185664	144.00	648	206.00	96224	314.00	1230
-----							
70.00	883	145.00	345	207.00	12868	315.00	2658
73.00	1613	146.00	1896	208.00	3012	316.00	1427
74.00	18712	147.00	5046	209.00	1028	321.00	683
75.00	29592	148.00	11656	210.00	1417	323.00	8017
76.00	10277	149.00	2428	211.00	3685	324.00	1216
-----							
77.00	203520	150.00	602	215.00	982	327.00	1441
78.00	14043	151.00	1527	216.00	2051	328.00	748
79.00	13422	152.00	713	217.00	23848	332.00	363
80.00	10653	153.00	3096	218.00	3211	333.00	806
81.00	14622	154.00	2344	221.00	20792	334.00	4623
-----							
82.00	3466	155.00	5720	223.00	5862	335.00	1233
83.00	3303	156.00	8256	224.00	50920	341.00	795
85.00	2661	157.00	1579	225.00	13061	346.00	1522
86.00	3911	158.00	1721	226.00	1598	352.00	1965
87.00	1716	159.00	1403	227.00	20944	353.00	1542

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: IWBH100207-01IDFTPP11SVHF11IDFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2615.d

Spectrum: Avg. Scans 741-743 ( 8.20), Background Scan 724

Location of Maximum: 198.00

Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	720	160.00	3002	228.00	3044	354.00	2372
91.00	3449	161.00	4728	229.00	4594	365.00	10014
92.00	3788	162.00	1233	230.00	617	366.00	1587
93.00	22184	164.00	176	231.00	1861	371.00	636
94.00	1680	165.00	3703	234.00	1383	372.00	3986
96.00	1049	166.00	3066	235.00	1556	373.00	896
98.00	17120	167.00	18856	236.00	1121	383.00	902
99.00	13353	168.00	9050	237.00	1622	390.00	167
100.00	1116	169.00	1603	239.00	883	402.00	1434
101.00	7543	170.00	665	240.00	677	403.00	2148
103.00	2685	171.00	809	241.00	1127	404.00	602
104.00	5030	172.00	1695	242.00	2573	421.00	1921
105.00	4545	173.00	2042	243.00	2934	422.00	1955
107.00	59544	174.00	4069	244.00	40392	423.00	14077
108.00	9676	175.00	7514	245.00	5448	424.00	2851
110.00	106720	176.00	2522	246.00	7235	438.00	613
111.00	16672	177.00	3771	247.00	1622	439.00	1021
112.00	2022	178.00	1302	249.00	1526	441.00	39344
113.00	647	179.00	14261	253.00	985	442.00	257344
116.00	3383	180.00	9998	255.00	202432	443.00	49984
117.00	44664	181.00	4790	256.00	29912	444.00	4586
118.00	3115	182.00	817	257.00	2724		
120.00	706	184.00	1225	258.00	11156		



Data File: /chem/MSD7.i/s031110.b/s7c1101.d

Page 1

Date : 11-MAR-2010 12:39

Client ID: DFTPP

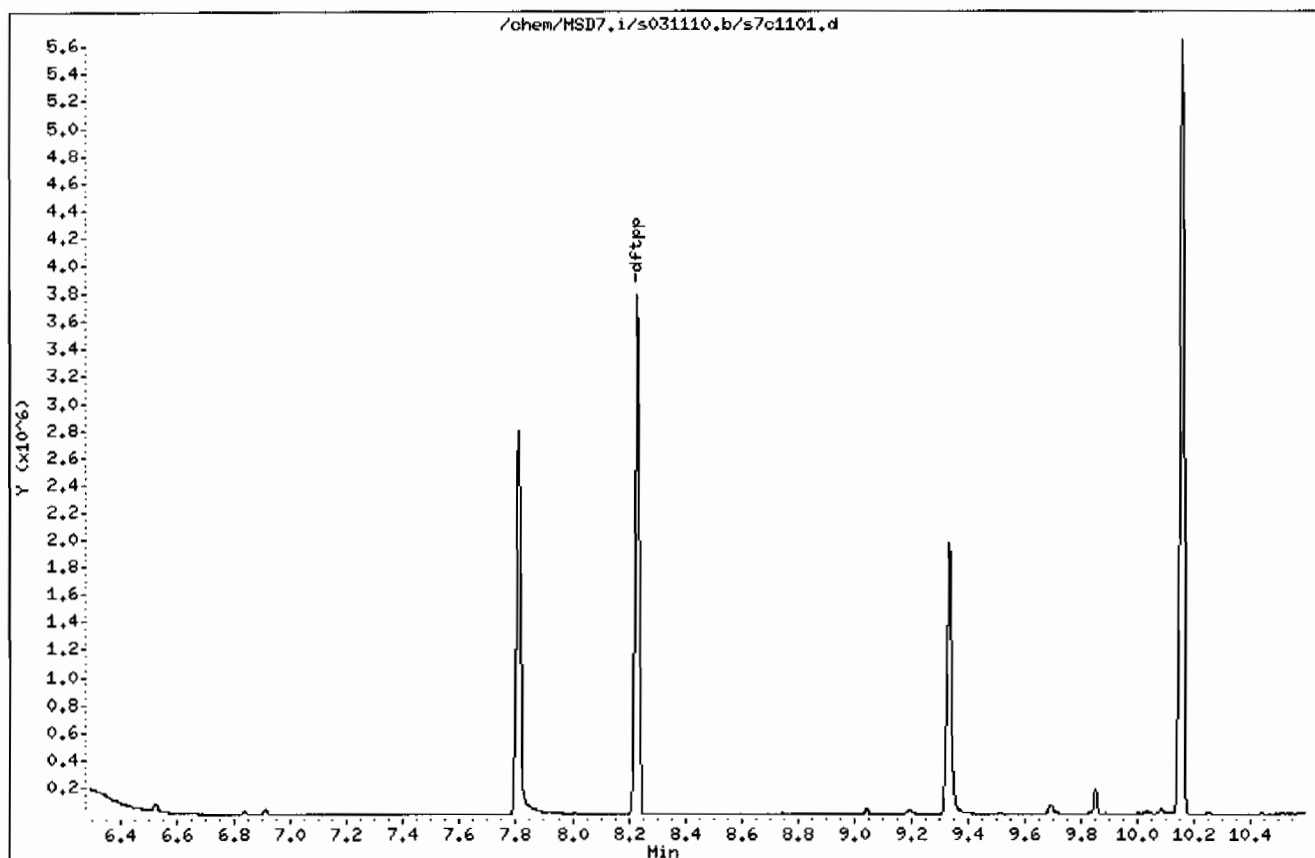
Instrument: HSD7.i

Sample Info: 1WBN100306-01.2\DFTPP\1\SVHF\1\1\DFTPP

Operator: JHB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20



Date : 11-MAR-2010 12:39

Client ID: DFTPP

Instrument: MSD7.i

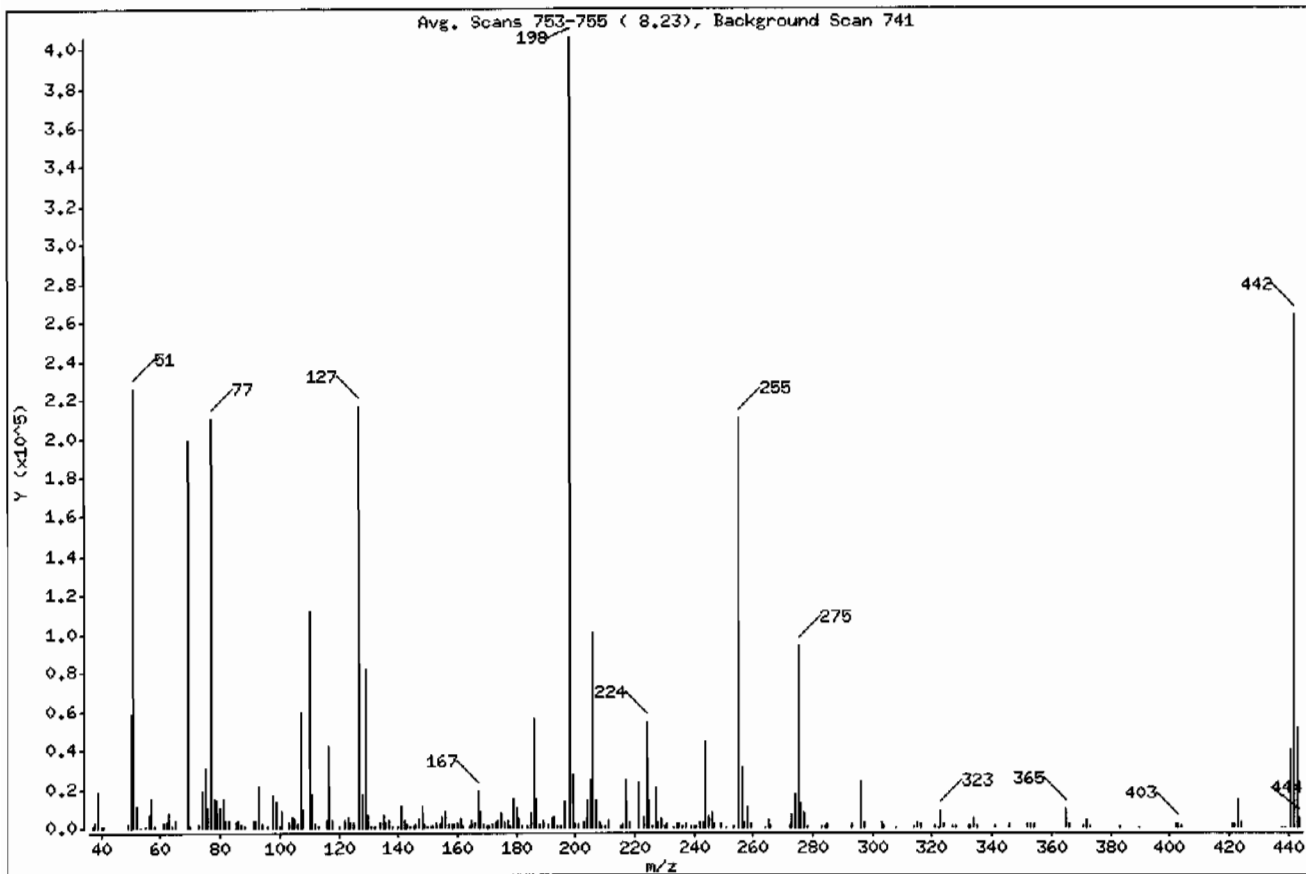
Sample Info: IWBNI00306-01.2\DFTPP\1\SVMF\1\1DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	55.70
68	Less than 2.00% of mass 69	0.00 ( 0.00)
69	Mass 69 relative abundance	49.03
70	Less than 2.00% of mass 69	0.22 ( 0.46)
127	40.00 - 60.00% of mass 198	53.39
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.76
275	10.00 - 30.00% of mass 198	22.96
365	Greater than 1.00% of mass 198	2.38
441	Present, but less than mass 443	9.80
442	Greater than 40.00% of mass 198	64.84
443	17.00 - 23.00% of mass 442	12.63 ( 19.47)

Date : 11-MAR-2010 12:39

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: IWBH100306-01.2IDFTPP11SVMF11IDFTPP

Operator: JHB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7c1101.d

Spectrum: Avg. Scans 753-755 ( 8,23), Background Scan 741

Location of Maximum: 198.00

Number of points: 234

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1059	122.00	3935	186.00	55736	264.00	363
38.00	3224	123.00	5973	187.00	15267	265.00	4187
39.00	18800	124.00	2620	188.00	1758	266.00	963
40.00	919	125.00	2654	189.00	3380	272.00	545
41.00	915	127.00	216576	191.00	1553	273.00	6147
49.00	1780	128.00	16680	192.00	4612	274.00	16584
50.00	59032	129.00	82312	193.00	5332	275.00	93160
51.00	225984	130.00	6842	194.00	1108	276.00	12162
52.00	11089	131.00	1332	195.00	869	277.00	7258
53.00	397	132.00	739	196.00	12674	278.00	1181
55.00	1239	134.00	2393	198.00	405696	283.00	859
56.00	6530	135.00	6620	199.00	27408	284.00	558
57.00	15239	136.00	2724	200.00	2308	285.00	1514
58.00	635	137.00	3311	201.00	1880	293.00	1763
61.00	2530	138.00	747	203.00	2792	296.00	23680
62.00	2925	140.00	1063	204.00	13914	297.00	3161
63.00	7540	141.00	10922	205.00	23960	303.00	2986
64.00	1128	142.00	3432	206.00	100288	304.00	820
65.00	3980	143.00	2165	207.00	13858	308.00	364
69.00	198912	144.00	627	208.00	3156	314.00	1365
70.00	911	145.00	601	209.00	1218	315.00	2503
73.00	1598	146.00	1863	210.00	1157	316.00	1563
74.00	18720	147.00	5123	211.00	3731	321.00	735
75.00	30376	148.00	11064	215.00	1064	322.00	387
76.00	10274	149.00	2309	216.00	2073	323.00	8214
77.00	209984	150.00	700	217.00	24592	324.00	1519
78.00	14535	151.00	1371	218.00	3232	327.00	1364
79.00	13621	152.00	991	221.00	23168	328.00	627
80.00	10259	153.00	3088	223.00	5873	332.00	594
81.00	14907	154.00	2285	224.00	54216	333.00	857
82.00	3656	155.00	5805	225.00	14335	334.00	4754
83.00	3385	156.00	8093	226.00	1239	335.00	1181
85.00	2412	157.00	1808	227.00	20768	341.00	758
86.00	3969	158.00	1894	228.00	2914	346.00	1466
87.00	2078	159.00	1403	229.00	4454	352.00	2257

Date : 11-MAR-2010 12:39

Client ID: DFTPP

Instrument: HSD7.i

Sample Info: IWBNI00306-01,2IDFTPP11ISVMF11IDFTPP

Operator: JHB3

Column phase: Phenomenex ZB-5HS

Column diameter: 0.20

Data File: s7c1101.d

Spectrum: Avg. Scans 753-755 ( 8.23), Background Scan 741

Location of Maximum: 198.00

Number of points: 234

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	684	160.00	3085	230.00	683	353.00	1849
91.00	3442	161.00	4499	231.00	1996	354.00	2263
92.00	3716	162.00	1233	233.00	186	365.00	9649
93.00	21896	164.00	595	234.00	1441	366.00	1498
94.00	1488	165.00	4057	235.00	1715	371.00	707
96.00	1010	166.00	2983	236.00	1000	372.00	4044
98.00	16544	167.00	18352	237.00	1848	373.00	839
99.00	12959	168.00	8559	239.00	784	383.00	1050
100.00	1174	169.00	1538	240.00	701	390.00	366
101.00	8057	170.00	657	241.00	1293	402.00	1450
103.00	2831	171.00	881	242.00	2782	403.00	2164
104.00	5252	172.00	1705	243.00	3027	404.00	667
105.00	4787	173.00	2360	244.00	43592	421.00	2106
106.00	1825	174.00	4067	245.00	5776	422.00	1820
107.00	59760	175.00	7916	246.00	7753	423.00	14173
108.00	9506	176.00	2613	247.00	1617	424.00	2835
110.00	111672	177.00	3588	249.00	1577	438.00	384
111.00	17184	178.00	1260	251.00	345	439.00	415
112.00	2101	179.00	14555	253.00	1012	441.00	39768
113.00	669	180.00	9878	255.00	210240	442.00	263040
116.00	3448	181.00	4551	256.00	30408	443.00	51224
117.00	42112	182.00	781	257.00	2342	444.00	4620
118.00	3265	184.00	1256	258.00	10642		
120.00	752	185.00	7134	259.00	1656		

Data File: /chem/HSD7.i/s031210,b/s7c1205.d

Page 1

Date : 12-MAR-2010 14:06

Client ID: DFTPP

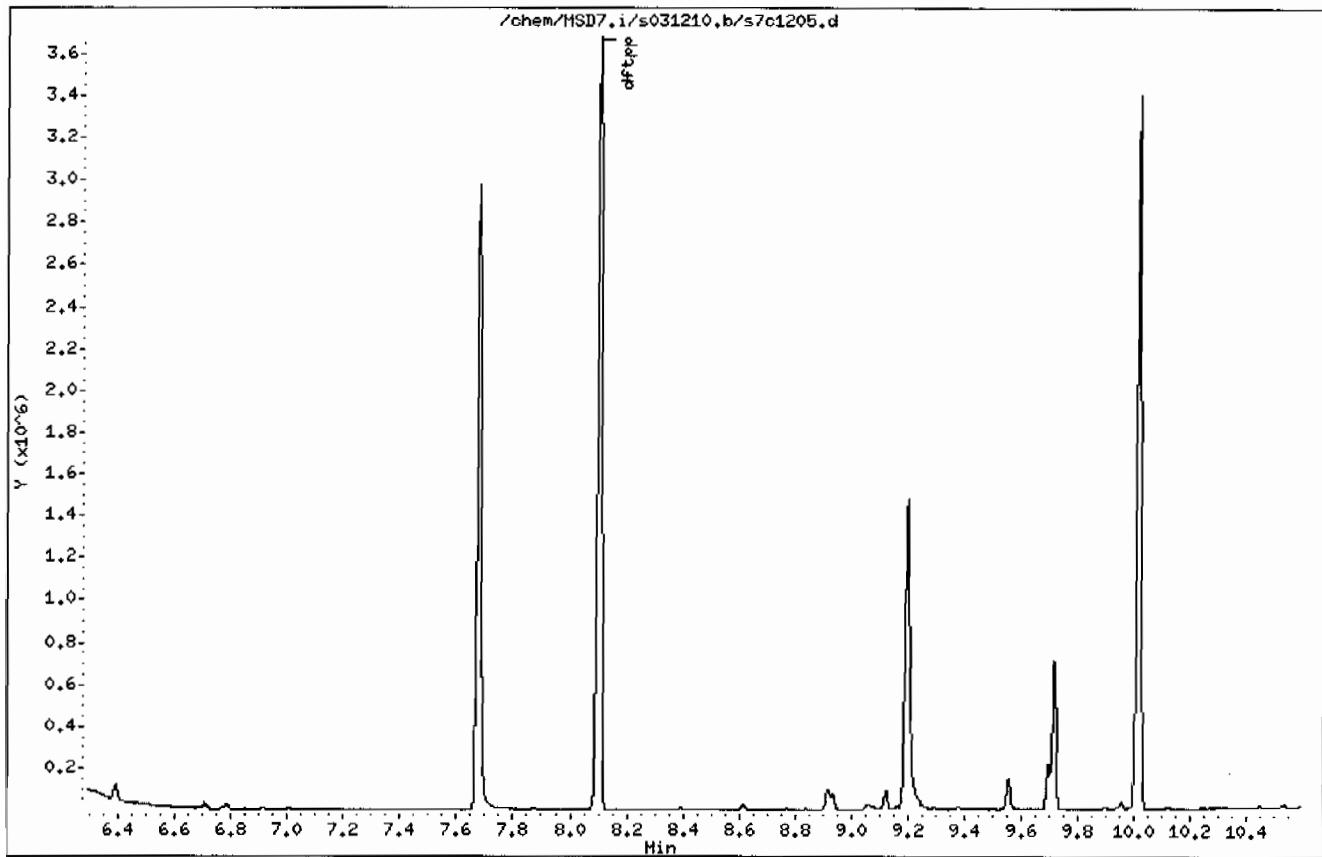
Instrument: HSD7.i

Sample Info: IWBNI00306-01,2IDFTPP11|SMHF11IDFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5HS

Column diameter: 0.20



Date : 12-MAR-2010 14:06

Client ID: DFTPP

Instrument: HSD7.i

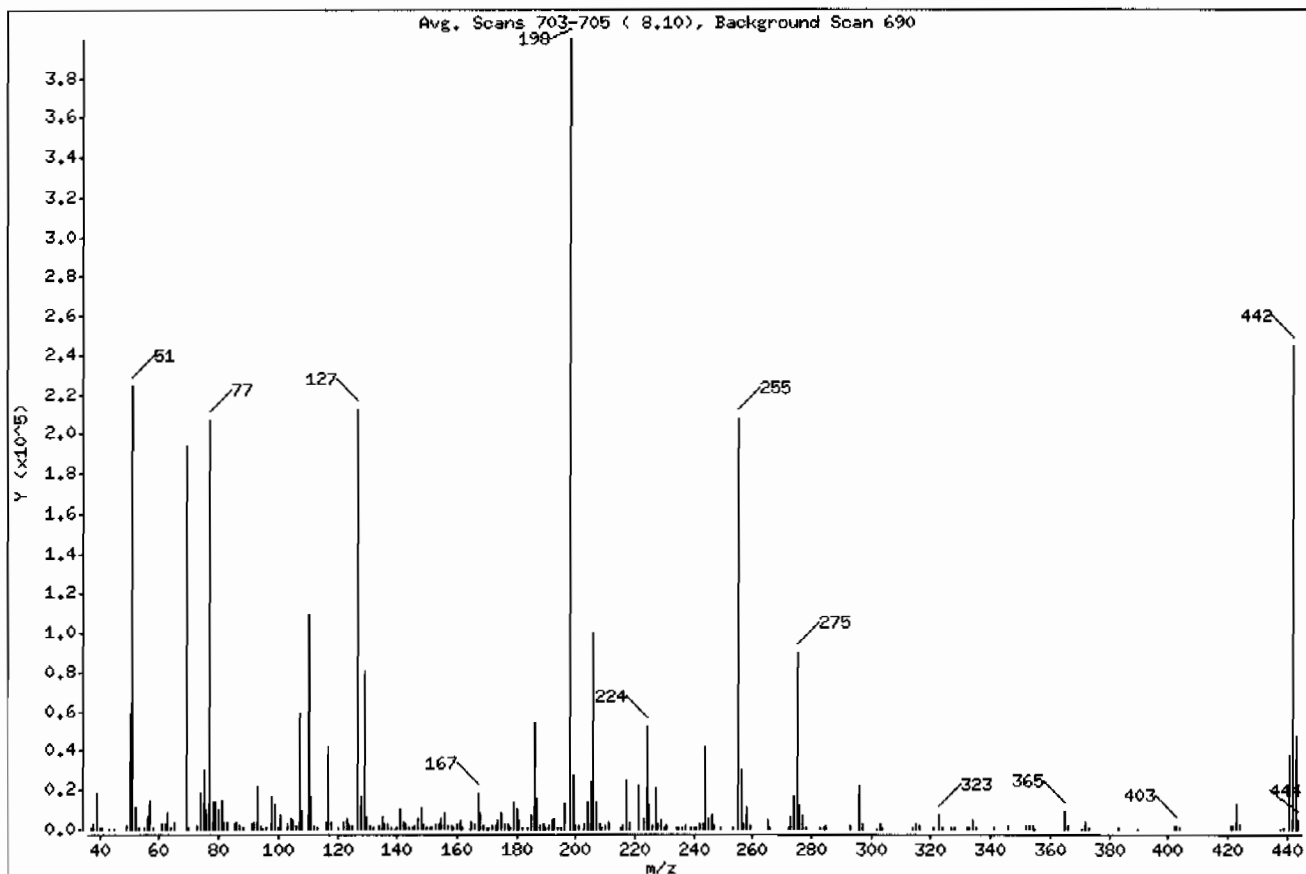
Sample Info: IWBNI00306-01,2\|DFTPP\|1\|SVHF\|1\|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	56.09
68	Less than 2.00% of mass 69	0.00 ( 0.00)
69	Mass 69 relative abundance	48.49
70	Less than 2.00% of mass 69	0.23 ( 0.47)
127	40.00 - 60.00% of mass 198	53.20
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.84
275	10.00 - 30.00% of mass 198	22.48
365	Greater than 1.00% of mass 198	2.37
441	Present, but less than mass 443	9.35
442	Greater than 40.00% of mass 198	61.17
443	17.00 - 23.00% of mass 442	12.05 ( 19.71)

Date : 12-MAR-2010 14:06

Client ID: DFTPP

Instrument: HSD7.i

Sample Info: IWBH100306-01,2IDFTPP|1ISVMF|1IDFTPP

Operator: JHB3

Column phase: Phenomenex ZB-5HS

Column diameter: 0.20

Data File: s7c1205.d

Spectrum: Avg. Scans 703-705 ( 8.10), Background Scan 690

Location of Maximum: 198.00

Number of points: 236

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1110	118.00	3271	184.00	1062	265.00	4376
38.00	2900	120.00	749	185.00	7019	266.00	833
39.00	18768	122.00	3570	186.00	54280	272.00	613
40.00	964	123.00	5607	187.00	15732	273.00	6345
41.00	468	124.00	2592	188.00	1639	274.00	16340
43.00	52	125.00	2289	189.00	3002	275.00	89864
45.00	373	127.00	212672	190.00	530	276.00	12227
49.00	1824	128.00	16303	191.00	1888	277.00	7167
50.00	58448	129.00	80488	192.00	4350	278.00	1231
51.00	224256	130.00	6808	193.00	5067	283.00	767
52.00	10672	131.00	1431	194.00	1056	284.00	574
53.00	552	132.00	836	195.00	561	285.00	1620
55.00	751	134.00	2263	196.00	13073	293.00	1627
56.00	6523	135.00	6630	198.00	399808	296.00	22448
57.00	15080	136.00	2697	199.00	27344	297.00	2937
58.00	770	137.00	3069	200.00	2182	302.00	359
61.00	2619	138.00	748	201.00	2131	303.00	2601
62.00	2849	139.00	178	203.00	2541	304.00	648
63.00	8065	140.00	915	204.00	14041	314.00	1233
64.00	1019	141.00	9905	205.00	23440	315.00	2475
65.00	3929	142.00	3329	206.00	99744	316.00	1426
69.00	193856	143.00	2303	207.00	13639	321.00	943
70.00	902	144.00	610	208.00	3030	323.00	7657
73.00	1593	145.00	617	209.00	1113	324.00	1344
74.00	18776	146.00	1649	210.00	1657	327.00	1322
75.00	30256	147.00	5387	211.00	3690	328.00	654
76.00	10461	148.00	11117	215.00	1038	332.00	666
77.00	207040	149.00	2390	216.00	2023	333.00	652
78.00	13706	150.00	595	217.00	24760	334.00	4723
79.00	13901	151.00	1287	218.00	3274	335.00	1048
80.00	10144	152.00	792	221.00	21856	341.00	777
81.00	15090	153.00	3084	223.00	5745	346.00	1562
82.00	3636	154.00	2517	224.00	52432	352.00	2066
83.00	3468	155.00	5564	225.00	13097	353.00	1524
85.00	2419	156.00	8100	226.00	1482	354.00	2233

Date : 12-MAR-2010 14:06

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: IWBNI00306-01,2IDFTPP11SVMF11IDFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7c1205.d

Spectrum: Avg. Scans 703-705 ( 8.10), Background Scan 690

Location of Maximum: 198.00

Number of points: 236

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	3930	157.00	1880	227.00	20896	355.00	171
87.00	1926	158.00	1728	228.00	3071	365.00	9491
88.00	698	159.00	1360	229.00	4480	366.00	1396
91.00	3174	160.00	3111	230.00	661	371.00	407
92.00	3544	161.00	4469	231.00	2053	372.00	3899
93.00	21704	162.00	1344	234.00	1354	373.00	992
94.00	1509	164.00	363	235.00	1291	383.00	786
95.00	173	165.00	3700	236.00	1116	390.00	168
96.00	1083	166.00	2961	237.00	1588	402.00	1404
98.00	16576	167.00	18632	239.00	844	403.00	1926
99.00	13081	168.00	8411	240.00	847	404.00	772
100.00	1101	169.00	1574	241.00	1250	421.00	1983
101.00	7730	170.00	598	242.00	2906	422.00	1868
103.00	2554	171.00	1096	243.00	3129	423.00	13242
104.00	5192	172.00	1887	244.00	42392	424.00	2480
105.00	4658	173.00	2223	245.00	5817	438.00	169
106.00	1787	174.00	4239	246.00	7606	439.00	904
107.00	58912	175.00	7940	247.00	1388	441.00	37368
108.00	9404	176.00	2497	249.00	1365	442.00	244544
110.00	109416	177.00	3178	253.00	966	443.00	48192
111.00	16584	178.00	1089	255.00	207744	444.00	4316
112.00	2027	179.00	13603	256.00	30256		
113.00	653	180.00	10053	257.00	2492		
116.00	3688	181.00	5014	258.00	11034		
117.00	42168	182.00	802	259.00	1752		



Data File: /chem/MSD7.i/s031710.b/s7c1701.d

Page 1

Date : 17-MAR-2010 10:00

Client ID: DFTPP

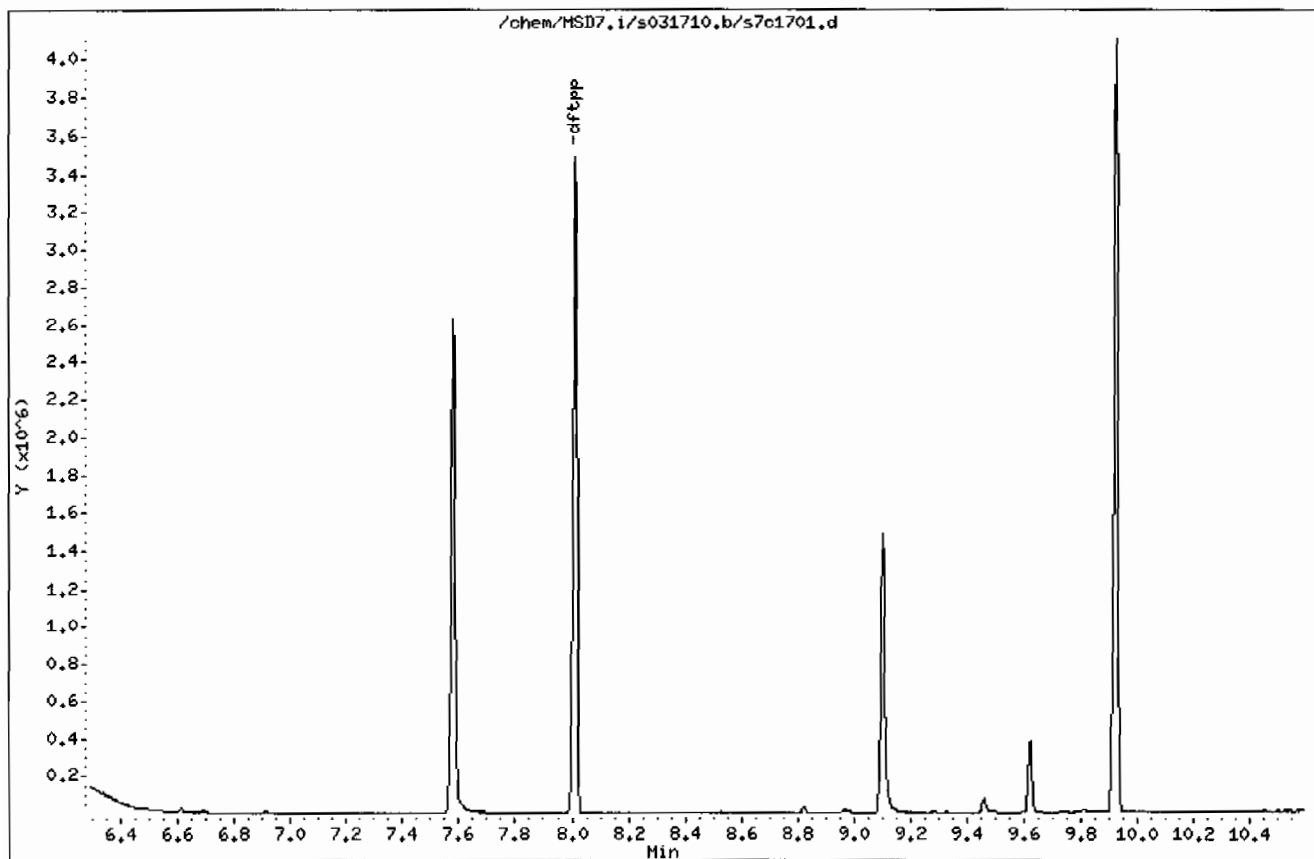
Instrument: MSD7.i

Sample Info: 1WBN100306-01.2\DFTPP\1\SVHF\1\1\DFTPP

Operator: JHB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20



Date : 17-MAR-2010 10:00

Client ID: DFTPP

Instrument: HSD7.i

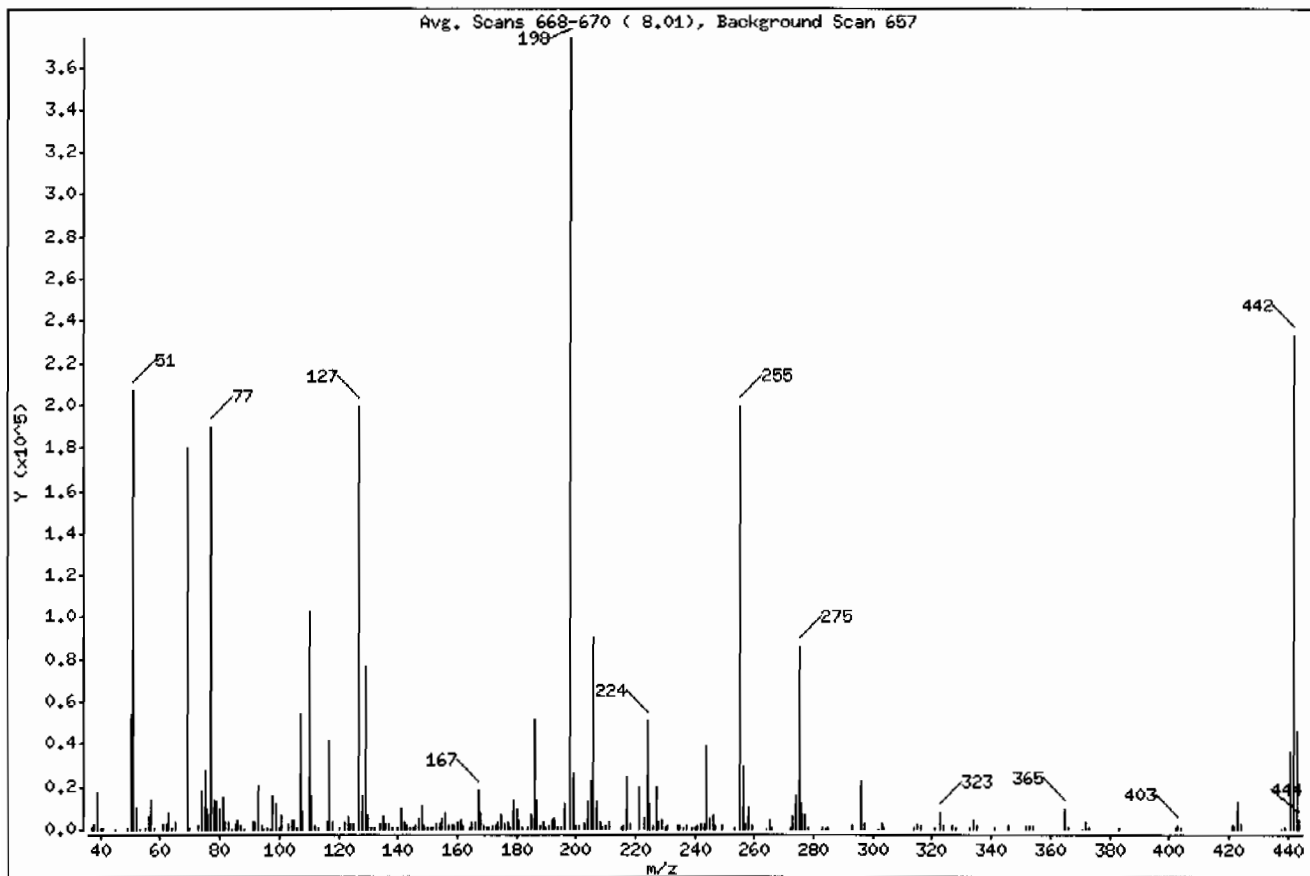
Sample Info: IWBH100306-01.2IDFTPP11SVMF11IDFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	55.34
68	Less than 2.00% of mass 69	0.00 ( 0.00)
69	Mass 69 relative abundance	48.27
70	Less than 2.00% of mass 69	0.23 ( 0.48)
127	40.00 - 60.00% of mass 198	53.31
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.86
275	10.00 - 30.00% of mass 198	23.06
365	Greater than 1.00% of mass 198	2.53
441	Present, but less than mass 443	9.56
442	Greater than 40.00% of mass 198	62.39
443	17.00 - 23.00% of mass 442	12.17 ( 19.52)

Date : 17-MAR-2010 10:00

Client ID: DFTPP

Instrument: HSD7.i

Sample Info: IWBNI00306-01.21DFTPP11SVHF11DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7c1701.d

Spectrum: Avg. Scans 668-670 ( 8.01), Background Scan 657

Location of Maximum: 198.00

Number of points: 234

m/z	Y	m/z	Y	m/z	Y	m/z	Y
-----							
37.00	917	116.00	3303	181.00	4401	257.00	2318
38.00	2954	117.00	40776	182.00	670	258.00	10137
39.00	17104	118.00	3014	184.00	1089	259.00	1609
40.00	844	120.00	769	185.00	6742	264.00	167
41.00	725	122.00	3493	186.00	51416	265.00	4360
-----							
45.00	373	123.00	5583	187.00	14109	266.00	836
49.00	1279	124.00	2477	188.00	1456	272.00	685
50.00	53944	125.00	2371	189.00	3589	273.00	5837
51.00	206592	127.00	199040	190.00	607	274.00	15332
52.00	10075	128.00	15726	191.00	1587	275.00	86112
-----							
53.00	364	129.00	76032	192.00	4278	276.00	12114
55.00	960	130.00	6687	193.00	4788	277.00	6966
56.00	6064	131.00	1239	194.00	1073	278.00	1174
57.00	14067	132.00	728	195.00	748	283.00	843
58.00	692	134.00	2287	196.00	11934	284.00	367
-----							
61.00	2459	135.00	6097	198.00	373376	285.00	1266
62.00	2555	136.00	2284	199.00	25624	293.00	1447
63.00	7363	137.00	2995	200.00	2113	296.00	22264
64.00	968	138.00	751	201.00	2085	297.00	2832
65.00	3467	140.00	998	203.00	2918	302.00	169
-----							
69.00	180224	141.00	9769	204.00	13059	303.00	2822
70.00	869	142.00	3289	205.00	22272	304.00	608
73.00	1383	143.00	2047	206.00	90376	314.00	1090
74.00	17984	144.00	572	207.00	12595	315.00	2509
75.00	27576	145.00	583	208.00	3235	316.00	1418
-----							
76.00	9701	146.00	1575	209.00	937	321.00	779
77.00	189440	147.00	4781	210.00	1501	323.00	7310
78.00	13524	148.00	10919	211.00	3408	324.00	1383
79.00	12693	149.00	2040	215.00	885	327.00	1467
80.00	9482	150.00	620	216.00	1957	328.00	737
-----							
81.00	14315	151.00	1179	217.00	24192	333.00	775
82.00	3365	152.00	795	218.00	2792	334.00	4343
83.00	3431	153.00	2853	221.00	19384	335.00	1310
84.00	174	154.00	2314	223.00	5457	341.00	707
85.00	2267	155.00	5233	224.00	50688	346.00	1616

Date : 17-MAR-2010 10:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: IWBNI00306-01.2\DFTPP\1\SVMF\1\IDFTPP

Operator: JMR3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7c1701.d

Spectrum: Avg. Scans 668-670 ( 8.01), Background Scan 657

Location of Maximum: 198.00

Number of points: 234

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	3893	156.00	8114	225.00	12225	352.00	1889
87.00	1740	157.00	1701	226.00	1390	353.00	1450
88.00	383	158.00	1654	227.00	19824	354.00	2145
91.00	3173	159.00	1429	228.00	3244	365.00	9457
92.00	3327	160.00	3089	229.00	4575	366.00	1234
93.00	20440	161.00	3975	230.00	619	371.00	399
94.00	1337	162.00	1307	231.00	1956	372.00	3473
95.00	168	164.00	544	234.00	1436	373.00	929
96.00	879	165.00	3420	235.00	1482	383.00	676
97.00	356	166.00	3006	236.00	978	402.00	1257
98.00	15802	167.00	18336	237.00	1867	403.00	2001
99.00	11852	168.00	7846	239.00	853	404.00	575
100.00	958	169.00	1497	240.00	660	421.00	1830
101.00	7185	170.00	811	241.00	1311	422.00	1747
103.00	2315	171.00	755	242.00	2706	423.00	12696
104.00	4497	172.00	1658	243.00	2855	424.00	2459
105.00	4505	173.00	2025	244.00	38544	438.00	178
106.00	468	174.00	3647	245.00	5281	439.00	593
107.00	53992	175.00	7249	246.00	7186	441.00	35696
108.00	8892	176.00	2537	247.00	1384	442.00	232896
110.00	102944	177.00	3620	249.00	1322	443.00	45456
111.00	15684	178.00	1131	253.00	968	444.00	4423
112.00	2037	179.00	14104	255.00	198720		
113.00	749	180.00	9708	256.00	29120		

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 1202058129  
Client Sample: QC for batch 959622  
Client ID: MB for batch 959622  
Batch ID: 959623  
Run Date: 03/11/2010 13:56  
Prep Date: 03/02/2010 11:17  
Data File: s7c1104.d

Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: SOIL  
Project: QC  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
99-09-2	o-Nitroaniline	U	333	ug/kg	66.7	333
	3-Nitroaniline					

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

Page 2 of 2

SDG Number: 10-2074  
Lab Sample ID: 1202058129  
Client Sample: QC for batch 959622  
Client ID: MB for batch 959622  
Batch ID: 959623  
Run Date: 03/11/2010 13:56  
Prep Date: 03/02/2010 11:17  
Data File: s7c1104.d

Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.I  
Analyst: JMB3  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: SOIL  
Project: QC  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	3.02	553	ug/kg	64	NJ

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Data file : /chem/MSD7.i/s031110.b/s7c1104.d  
Lab Smp Id: 1202058129 Client Smp ID: SBLK01  
Inj Date : 11-MAR-2010 13:56  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |1202058129|959623|1|SVM|1|MB  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 11-Mar-2010 15:51 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 4 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG						CONCENTRATIONS	
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.990	3.990	(1.000)	387395	40.0000		
* 29 Naphthalene-d8	136	4.857	4.857	(1.000)	1480154	40.0000		
* 46 Acenaphthene-d10	164	6.114	6.114	(1.000)	819738	40.0000		
* 67 Phenanthrene-d10	188	7.284	7.284	(1.000)	1412238	40.0000		
* 91 Chrysene-d12	240	9.691	9.691	(1.000)	942845	40.0000		
* 98 Perylene-d12	264	11.386	11.386	(1.000)	632256	40.0000		
\$ 3 2-Fluorophenol	112	3.186	3.181	(0.798)	623933	61.9639		2060
\$ 5 Phenol-d5	99	3.701	3.706	(0.928)	770319	61.0167		2030
\$ 20 Nitrobenzene-d5	82	4.346	4.356	(0.895)	339210	30.3849		1010
\$ 39 2-Fluorobiphenyl	172	5.594	5.598	(0.915)	708070	34.6597		1160
\$ 60 2,4,6-Tribromophenol	329	6.711	6.711	(1.098)	162080	68.3952		2280
\$ 81 p-Terphenyl-d14	244	8.661	8.656	(0.894)	759415	44.9590		1500

Data File: /chem/MSD7.i/s031110.b/s7c1104.d  
Report Date: 11-Mar-2010 15:52

Page 1

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Data file : /chem/MSD7.i/s031110.b/s7c1104.d  
Lab Smp Id: 1202058129 Client Smp ID: SBLK01  
Inj Date : 11-MAR-2010 13:56  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |1202058129|959623|1|SVM|1|MB  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 11-Mar-2010 15:51 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 4 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

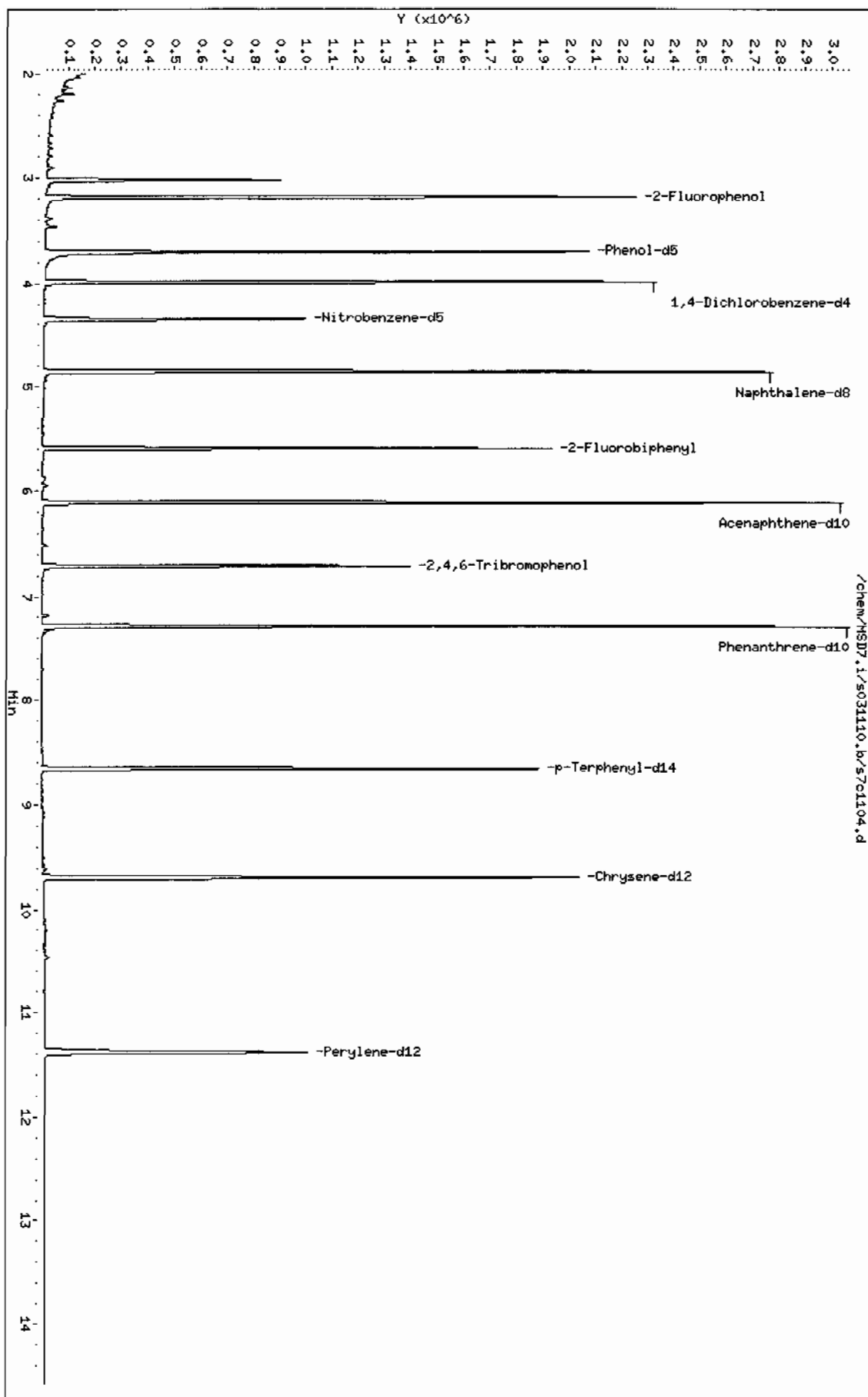
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.990	2397444	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate					CAS #:		
3.022	993904	16.5827209	553	0		0	10



Data File: /chem/HSD7.1/s031110.b/s7c1104.d  
 Date: 11-MAR-2010 13:56  
 Client ID: SBLK01  
 Sample Info: 11202058129195962311SVH111NB  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: HSD7.1  
 Operator: JMB3  
 Column diameter: 0.20



Date : 11-MAR-2010 13:56

Client ID: SBLK01

Instrument: MSD7.i

Sample Info: I1202058129195962311SVMI11NB

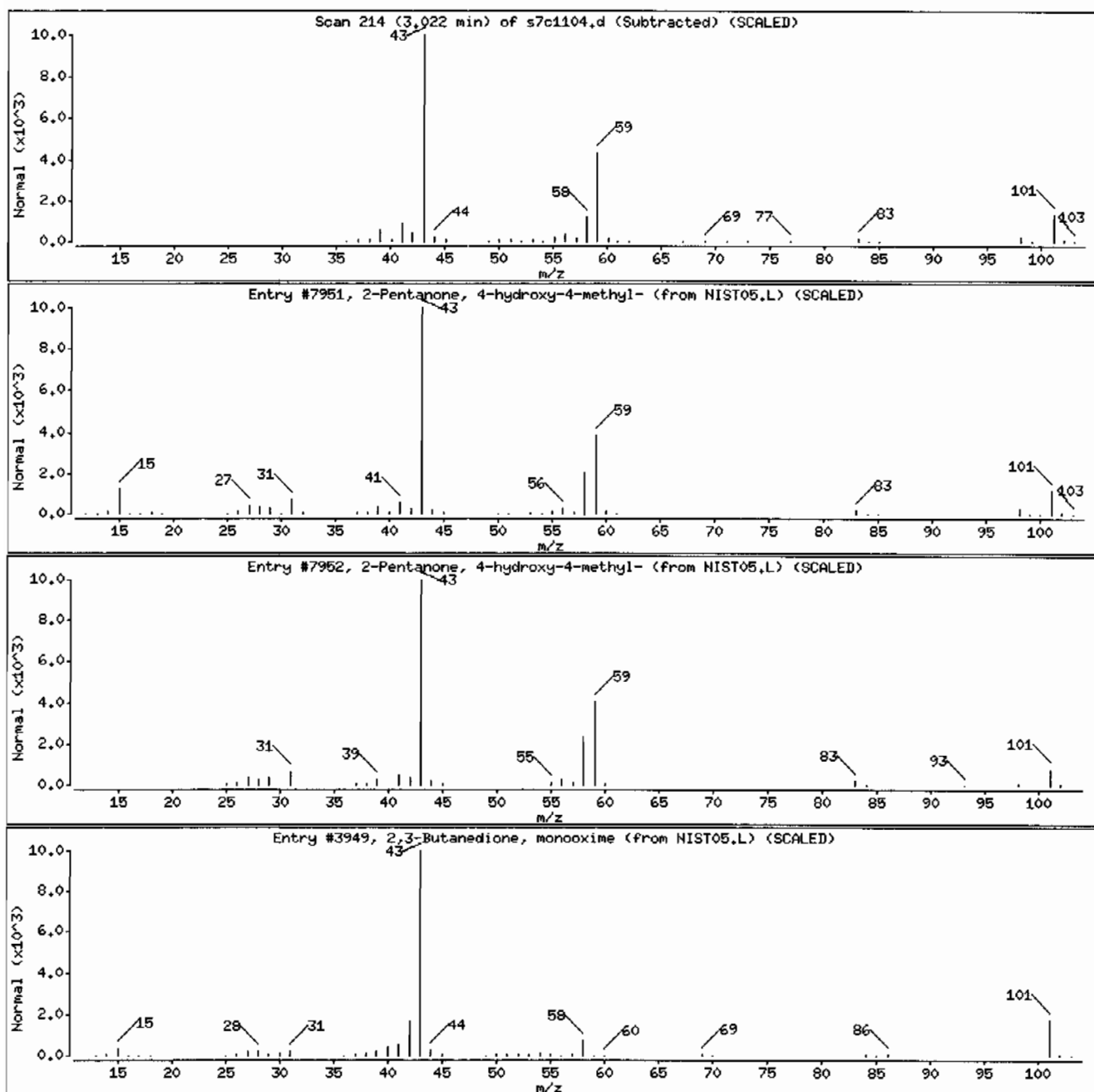
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	16	C4H7NO2	101



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074

Matrix: SOIL

Lab Sample ID: 1202071125

Client Sample: QC for batch 965289

Client: LANI.010

Project: QC

Client ID: MB for batch 965289

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Batch ID: 965290

Inst: MSD7.I

Dilution: 1

Run Date: 03/17/2010 11:41

Analyst: JMB3

Inj. Vol: .5 uL

Prep Date: 03/16/2010 21:34

Aliquot: 30 g

Final Volume: 1 mL

Data File: s7c1706.d

Column: J&amp;W DB-5MS

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
99-09-2	<i>o</i> -Nitroaniline	U	333	ug/kg	66.7	333
	3-Nitroaniline					

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 2 of 2

SDG Number: 10-2074  
Lab Sample ID: 1202071125  
Client Sample: QC for batch 965289  
Client ID: MB for batch 965289  
Batch ID: 965290  
Run Date: 03/17/2010 11:41  
Prep Date: 03/16/2010 21:34  
Data File: s7c1706.d

Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: SOIL  
Project: QC  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.84	496	ug/kg		J

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Data file : /chem/MSD7.i/s031710.b/s7c1706.d  
 Lab Smp Id: 1202071125 Client Smp ID: SBLK02  
 Inj Date : 17-MAR-2010 11:41  
 Operator : JMB3 Inst ID: MSD7.i  
 Smp Info : |1202071125|965290|1|SVM|1|MB  
 Misc Info : |MSD8270\_S|WBN100310-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m  
 Meth Date : 17-Mar-2010 13:51 jos00786 Quant Type: ISTD  
 Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
 Als bottle: 6 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2074.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN FINAL (ng/ul) (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.802	3.802	(1.000)	295371	40.0000	
* 29 Naphthalene-d8	136	4.659	4.664	(1.000)	1094749	40.0000	
* 46 Acenaphthene-d10	164	5.906	5.911	(1.000)	628213	40.0000	
* 67 Phenanthrene-d10	188	7.057	7.067	(1.000)	1104366	40.0000	
* 91 Chrysene-d12	240	9.441	9.455	(1.000)	920415	40.0000	
* 98 Perylene-d12	264	11.006	11.016	(1.000)	708155	40.0000	
\$ 3 2-Fluorophenol	112	3.003	2.998	(0.790)	481487	62.7150	2090
\$ 5 Phenol-d5	99	3.523	3.528	(0.927)	585776	60.8550	2030
\$ 20 Nitrobenzene-d5	82	4.159	4.168	(0.893)	279979	33.9084	1130
\$ 39 2-Fluorobiphenyl	172	5.401	5.406	(0.914)	573440	36.6272	1220
\$ 60 2,4,6-Tribromophenol	329	6.499	6.499	(1.100)	129010	71.0375	2370
\$ 81 p-Terphenyl-d14	244	8.425	8.430	(0.892)	668050	40.5138	1350

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Data file : /chem/MSD7.i/s031710.b/s7c1706.d  
Lab Smp Id: 1202071125 Client Smp ID: SBLK02  
Inj Date : 17-MAR-2010 11:41  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |1202071125|965290|1|SVM|1|MB  
Misc Info : |MSD8270\_S|WBN100310-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 17-Mar-2010 13:51 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 6 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

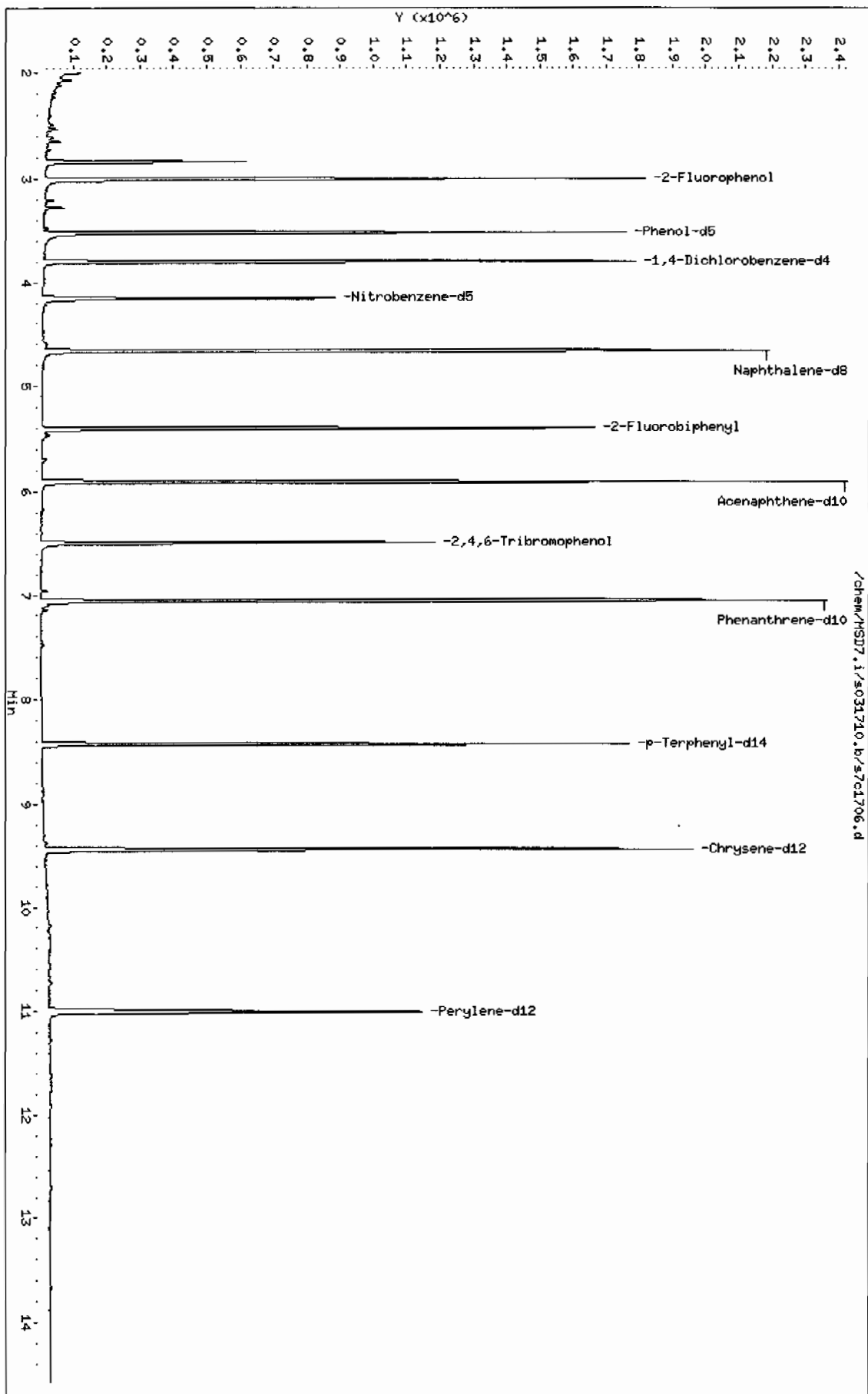
Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.802	1849270	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate				CAS #:			
2.839	688060	14.8828385	496	0		0	10

Data File: /chem/MSD7.i/s031710.b/s7c1706.d  
Date: 17-MAR-2010 11:41  
Client ID: SRLK02  
Sample Info: 11202071125196529011|SVH111MB  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5MS

Instrument: MSD7.i  
Operator: JHB3  
Column diameter: 0.20



Date: 17-MAR-2010 11:41

Client ID: SBLK02

Instrument: MSD7.i

Sample Info: I1202071125196529011SVH111MB

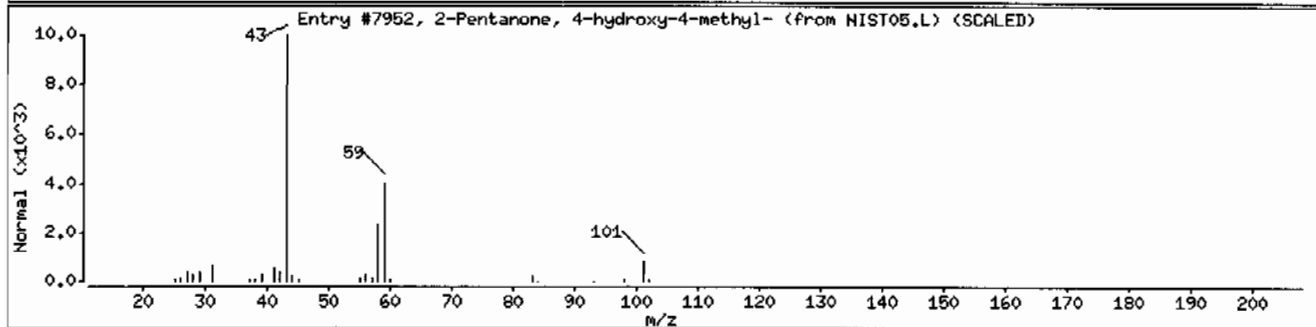
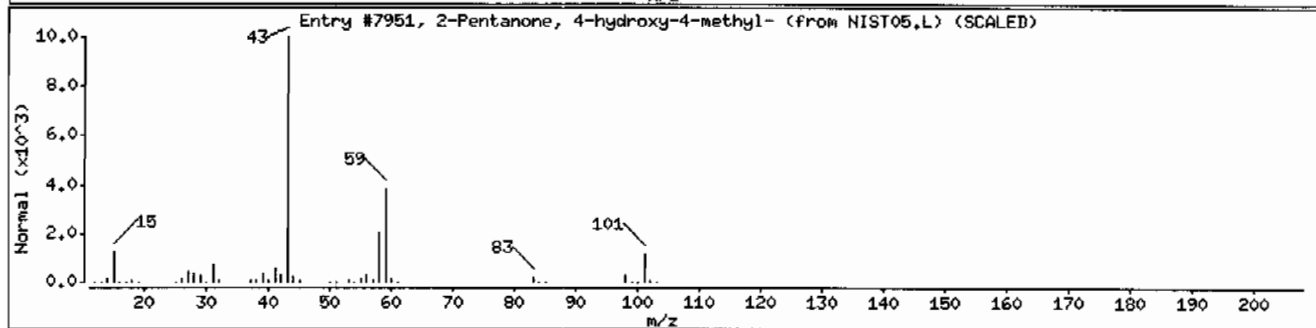
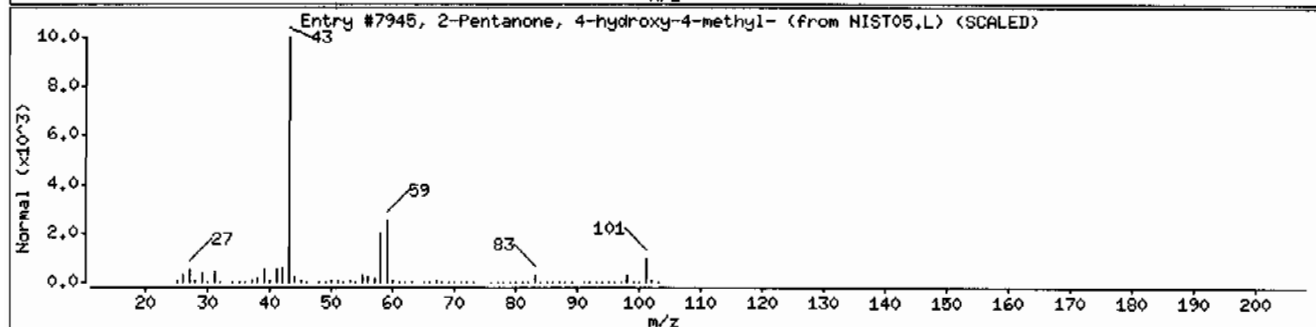
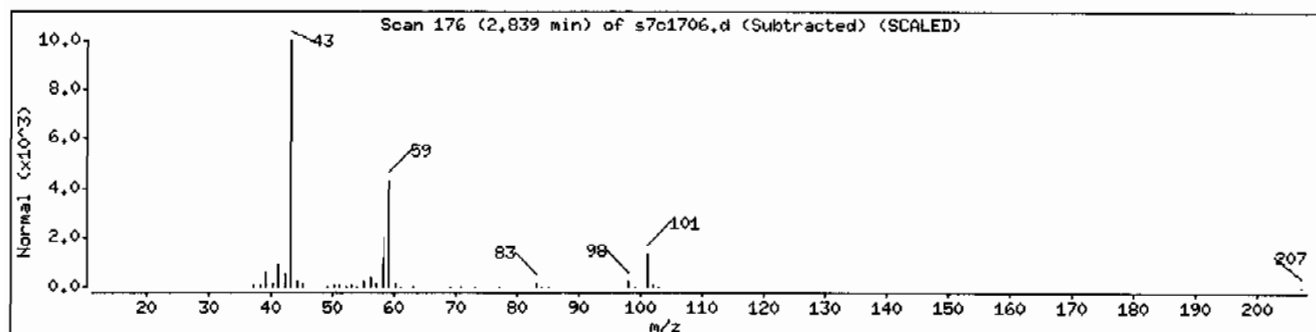
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116





**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074

Matrix: SOIL

Lab Sample ID: 1202058130

Client Sample: QC for batch 959622

Client: LANL010

Project: QC

Client ID: LCS for batch 959622

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Batch ID: 959623

Inst: MSD7.1

Dilution: 1

Run Date: 03/11/2010 14:17

Analyst: JMB3

Inj. Vol: .5 uL

Prep Date: 03/02/2010 11:17

Aliquot: 30 g

Final Volume: 1 mL

Data File: s7c1105.d

Column: J&amp;W DB-5MS

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		903	ug/kg	66.7	333
108-95-2	Phenol		1060	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1220	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1040	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1230	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1180	ug/kg	66.7	333
83-32-9	Acenaphthene		1230	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1310	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1150	ug/kg	110	333
87-86-5	Pentachlorophenol		1380	ug/kg	83.3	333
129-00-0	Pyrene		1180	ug/kg	10.0	33.3
110-86-1	Pyridine		880	ug/kg	66.7	333
62-53-3	Aniline		1030	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		940	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		980	ug/kg	66.7	333
100-51-6	Benzyl alcohol		424	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1100	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1040	ug/kg	66.7	333
95-48-7	o-Cresol		1100	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1420	ug/kg	100	333
67-72-1	Hexachloroethane		1020	ug/kg	66.7	333
98-95-3	Nitrobenzene		1150	ug/kg	66.7	333
78-59-1	Isophorone		1110	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1220	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		624	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1100	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1200	ug/kg	66.7	333
65-85-0	Benzoic acid		3080	ug/kg	167	667
91-20-3	Naphthalene		1120	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1110	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1140	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1160	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1250	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1270	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1430	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1150	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1080	ug/kg	66.7	333
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline		1210	ug/kg	66.7	333

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074

Matrix: SOIL

Lab Sample ID: 1202058130

Client Sample: QC for batch 959622

Client: LANL010

Project: QC

Client ID: LCS for batch 959622

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Batch ID: 959623

Inst: MSD7.I

Dilution: 1

Run Date: 03/11/2010 14:17

Analyst: JMB3

Inj. Vol: .5 uL

Prep Date: 03/02/2010 11:17

Aliquot: 30 g

Final Volume: 1 mL

Data File: s7c1105.d

Column: J&amp;W DB-5MS

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate		1320	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1300	ug/kg	33.3	333
208-96-8	Acenaphthylene		1240	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1620	ug/kg	127	667
132-64-9	Dibenzofuran		1250	ug/kg	66.7	333
84-66-2	Diethylphthalate		1370	ug/kg	66.7	333
86-73-7	Fluorene		1240	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1310	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1530	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1330	ug/kg	100	333
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine		1360	ug/kg	66.7	333
122-66-7	Azobenzene		1290	ug/kg	66.7	333
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1290	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1290	ug/kg	66.7	333
85-01-8	Phenanthrene		1270	ug/kg	10.0	33.3
120-12-7	Anthracene		1280	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1400	ug/kg	66.7	333
206-44-0	Fluoranthene		1330	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1370	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1260	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1200	ug/kg	100	333
218-01-9	Chrysene		1300	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1510	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1430	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1290	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1230	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1300	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1610	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1630	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1620	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1130	ug/kg	66.7	333

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031110.b/s7c1105.d  
Lab Smp Id: 1202058130 Client Smp ID: SBLK01LCS  
Inj Date : 11-MAR-2010 14:17  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |1202058130|959623|1|SVM|1|LCS  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 5 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG			RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT REL RT		ON-COLUMN	FINAL
					(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.990	3.990 (1.000)	345433	40.0000	
* 29 Naphthalene-d8	136	4.852	4.857 (1.000)	1390294	40.0000	
* 46 Acenaphthene-d10	164	6.109	6.114 (1.000)	743711	40.0000	
* 67 Phenanthrene-d10	188	7.279	7.284 (1.000)	1370988	40.0000	
* 91 Chrysene-d12	240	9.686	9.691 (1.000)	1099776	40.0000	
* 98 Perylene-d12	264	11.377	11.386 (1.000)	854020	40.0000	
\$ 3 2-Fluorophenol	112	3.186	3.181 (0.798)	579414	64.5327	2150
\$ 5 Phenol-d5	99	3.706	3.706 (0.929)	713991	63.4251	2110
\$ 20 Nitrobenzene-d5	82	4.351	4.356 (0.897)	340252	32.4481	1080
\$ 39 2-Fluorobiphenyl	172	5.593	5.598 (0.916)	642367	34.6579	1160
\$ 60 2,4,6-Tribromophenol	329	6.711	6.711 (1.099)	164012	76.2857	2540
\$ 81 p-Terphenyl-d14	244	8.656	8.656 (0.894)	810835	41.1535	1370

Compounds	QUANT SIG							CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL	(ng/ul)	(ug/Kg)
-----	----	---	-----	-----	-----	-----	-----	-----	-----
6 Phenol	94	3.715	3.716	(0.931)	356270	31.8591	1060		
8 2-Chlorophenol	128	3.855	3.860	(0.966)	312756	36.5465	1220		
11 1,4-Dichlorobenzene	146	4.000	4.004	(1.002)	322027	31.2199	1040		
17 N-Nitrosodipropylamine	70	4.221	4.236	(1.058)	235169	36.9676	1230 (Q)		
28 1,2,4-Trichlorobenzene	180	4.804	4.809	(0.990)	303013	33.8662	1130		
33 4-Chloro-3-methylphenol	107	5.208	5.199	(1.073)	281075	35.4726	1180		
47 Acenaphthene	154	6.133	6.138	(1.004)	605414	36.9847	1230		
50 2,4-Dinitrotoluene	165	6.219	6.229	(1.018)	236636	39.3276	1310		
52 4-Nitrophenol	139	6.166	6.157	(1.009)	104646	34.5788	1150		
65 Pentachlorophenol	266	7.110	7.110	(0.977)	107276	41.3868	1380		
79 Pyrene	202	8.555	8.560	(0.883)	1233606	35.5058	1180		
2 Pyridine	79	2.550	2.531	(0.639)	219818	26.3869	880		
4 Aniline	66	3.773	3.778	(0.946)	165814	30.8784	1030 (Q)		
7 bis(2-Chloroethyl) ether	63	3.783	3.793	(0.948)	258180	28.1971	940 (Q)		
9 1,3-Dichlorobenzene	146	3.956	3.956	(0.992)	316045	29.4004	980		
12 Benzyl alcohol	108	4.053	4.057	(1.016)	74158	12.7266	424 (R)		
13 1,2-Dichlorobenzene	146	4.101	4.106	(1.028)	312412	32.9258	1100		
14 bis(2-Chloroisopropyl) ether	45	4.130	4.134	(1.035)	664608	31.3329	1040		
15 o-Cresol	107	4.106	4.110	(1.029)	225103	32.8578	1100		
18 m,p-Cresols	107	4.207	4.211	(1.054)	393118	42.4685	1420		
19 Hexachloroethane	117	4.332	4.337	(1.086)	122149	30.4981	1020		
21 Nitrobenzene	77	4.361	4.370	(0.899)	334453	34.3827	1150		
22 Isophorone	82	4.515	4.524	(0.931)	626542	33.3369	1110		
23 2-Nitrophenol	139	4.577	4.582	(0.943)	167496	36.6672	1220		
24 2,4-Dimethylphenol	122	4.573	4.573	(0.942)	177193	18.7249	624 (Q)		
25 bis(2-Chloroethoxy)methane	93	4.635	4.640	(0.955)	338964	32.9643	1100		
26 2,4-Dichlorophenol	162	4.746	4.746	(0.978)	266052	36.0618	1200		
27 Benzoic acid	105	4.640	4.630	(0.956)	387526	92.2768	3080		
30 Naphthalene	128	4.871	4.876	(1.004)	884105	33.6637	1120		
31 4-Chloroaniline	127	4.886	4.890	(1.007)	408891	33.2483	1110		
32 Hexachlorobutadiene	225	4.934	4.939	(1.017)	160321	34.3347	1140		
34 2-Methylnaphthalene	142	5.348	5.353	(1.102)	656630	34.8369	1160		
36 Hexachlorocyclopentadiene	237	5.454	5.454	(0.893)	135103	37.5765	1250		
37 2,4,6-Trichlorophenol	196	5.540	5.540	(0.907)	198819	38.1037	1270		
38 2,4,5-Trichlorophenol	196	5.574	5.569	(0.912)	225674	43.0042	1430		
40 2-Chloronaphthalene	162	5.704	5.704	(0.934)	591478	34.3605	1140		
42 o-Nitroaniline	65	5.757	5.762	(0.942)	197776	32.4527	1080		
41 m-Nitroaniline	138	6.056	6.061	(0.991)	161698	36.3552	1210		
43 Dimethylphthalate	163	5.863	5.873	(0.960)	781487	39.5433	1320		
44 2,6-Dinitrotoluene	165	5.921	5.931	(0.969)	178216	39.0461	1300		
45 Acenaphthylene	152	6.008	6.012	(0.983)	1019994	37.0678	1240		
48 2,4-Dinitrophenol	184	6.128	6.133	(1.003)	67338	48.5962	1620 (Q)		
49 Dibenzofuran	168	6.258	6.263	(1.024)	863531	37.5347	1250		
51 Diethylphthalate	149	6.378	6.383	(1.044)	834106	41.2331	1370		
53 Fluorene	166	6.518	6.528	(1.067)	719879	37.2924	1240		
54 4-Chlorophenylphenylether	204	6.494	6.499	(1.063)	378400	39.4446	1310		
55 2-Methyl-4,6-dinitrophenol	198	6.537	6.542	(0.898)	112251	45.8273	1530		

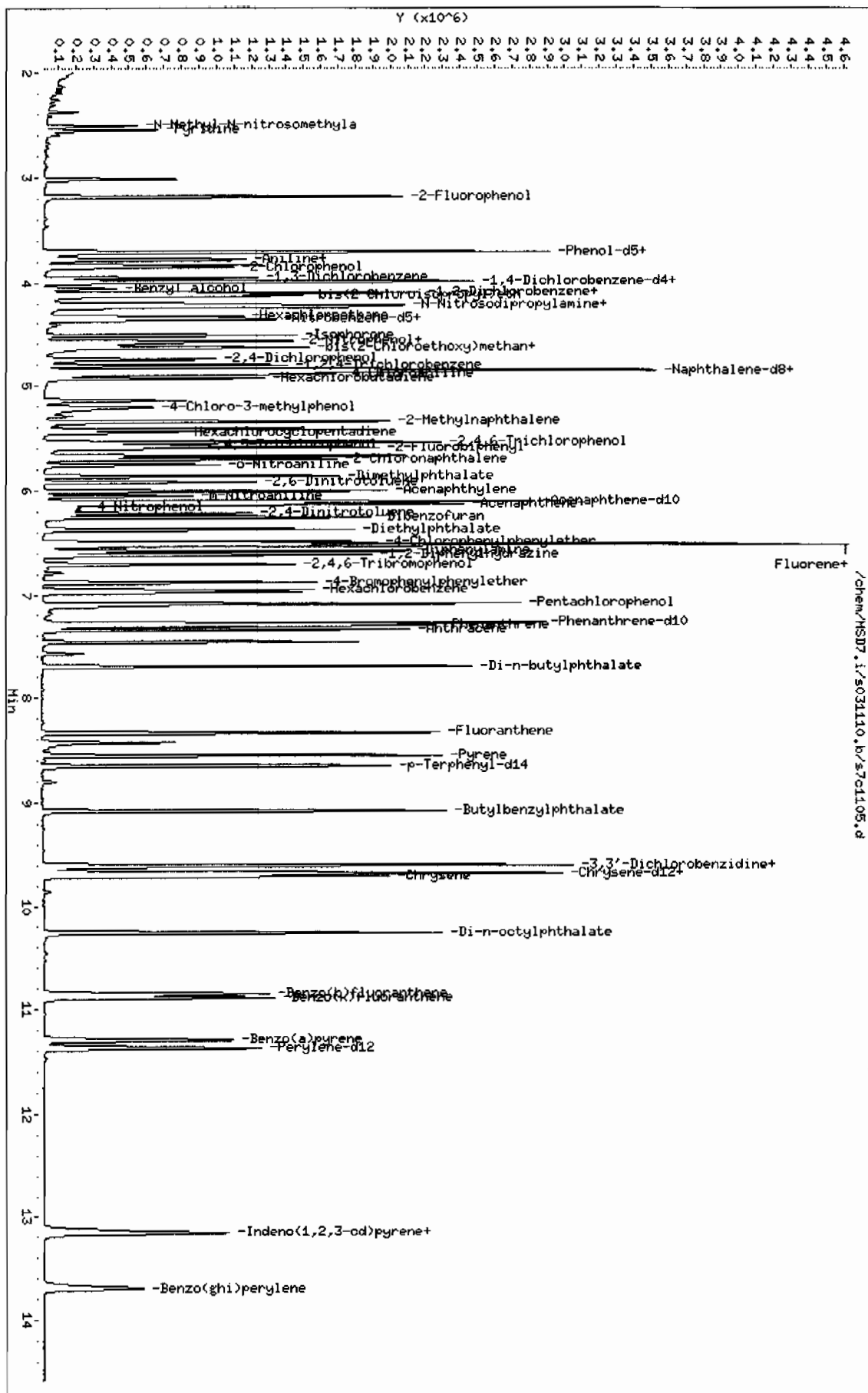
Compounds	QUANT SIG						CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE		ON-COLUMN	FINAL
-----	----	==	=====	=====	-----		-----	-----
56 p-Nitroaniline	138	6.518	6.523	(1.067)	159247		39.7675	1320
133 Diphenylamine	169	6.585	6.585	(0.905)	657015		40.6690	1360
58 1,2-Diphenylhydrazine	77	6.619	6.624	(0.909)	784384		38.5927	1290
61 4-Bromophenylphenylether	248	6.884	6.889	(0.946)	218682		38.7864	1290
63 Hexachlorobenzene	284	6.956	6.961	(0.956)	212767		38.8426	1290
68 Phenanthrene	178	7.303	7.308	(1.003)	1073294		38.1502	1270
69 Anthracene	178	7.346	7.351	(1.009)	1094274		38.4052	1280
72 Di-n-butylphthalate	149	7.698	7.703	(1.058)	1507970		42.0695	1400
76 Fluoranthene	202	8.338	8.343	(1.146)	1223200		39.9877	1330
85 Butylbenzylphthalate	149	9.080	9.085	(0.937)	679550		41.1305	1370
89 Benzo(a)anthracene	228	9.672	9.677	(0.998)	999136		37.8966	1260
90 3,3'-Dichlorobenzidine	252	9.619	9.619	(0.993)	275413		35.8908	1200
92 Chrysene	228	9.711	9.715	(1.002)	916610		39.0700	1300
93 bis(2-Ethylhexyl)phthalate	149	9.600	9.605	(0.991)	946187		45.2164	1510
94 Di-n-octylphthalate	149	10.259	10.264	(0.902)	1472456		42.9369	1430
95 Benzo(b)fluoranthene	252	10.852	10.861	(0.954)	924199		38.5882	1290
96 Benzo(k)fluoranthene	252	10.890	10.900	(0.957)	827237		36.7524	1220
97 Benzo(a)pyrene	252	11.300	11.309	(0.993)	768402		39.1277	1300
99 Indeno(1,2,3-cd)pyrene	276	13.153	13.168	(1.156)	682045		48.2974	1610
100 Dibenzo(a,h)anthracene	278	13.163	13.182	(1.157)	548585		49.0196	1630
101 Benzo(ghi)perylene	276	13.698	13.712	(1.204)	573636		48.7078	1620
1 N-Methyl-N-nitrosomethylamine	74	2.512	2.497	(0.629)	163753		27.0882	903

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.  
R - Spike/Surrogate failed recovery limits.

Data File: /chem/HSD7.i/s031110.b/s7c1105.d  
 Date: 11-MAR-2010 14:17  
 Client ID: SRLKOLCS  
 Sample Info: 11202058130195962311SVH11LCS  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: HSD7.i  
 Operator: JHB3  
 Column diameter: 0.20



Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2074

Matrix: SOIL

Lab Sample ID: 1202071126

Client Sample: QC for batch 965289

Client: LANL010

Project: QC

Client ID: LCS for batch 965289

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Batch ID: 965290

Inst: MSD7.1

Dilution: 1

Run Date: 03/17/2010 12:02

Analyst: JMB3

Inj. Vol: .5 uL

Prep Date: 03/16/2010 21:34

Aliquot: 30 g

Final Volume: 1 mL

Data File: s7c1707.d

Column: J&amp;W DB-5MS

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		973	ug/kg	66.7	333
108-95-2	Phenol		1180	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1320	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1230	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1250	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1250	ug/kg	66.7	333
83-32-9	Acenaphthene		1400	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1420	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1410	ug/kg	110	333
87-86-5	Pentachlorophenol		1670	ug/kg	83.3	333
129-00-0	Pyrene		1130	ug/kg	10.0	33.3
110-86-1	Pyridine		956	ug/kg	66.7	333
62-53-3	Aniline		895	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1010	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1170	ug/kg	66.7	333
100-51-6	Benzyl alcohol		635	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1260	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl) ether		1110	ug/kg	66.7	333
95-48-7	o-Cresol		1310	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1460	ug/kg	100	333
67-72-1	Hexachloroethane		1210	ug/kg	66.7	333
98-95-3	Nitrobenzene		1200	ug/kg	66.7	333
78-59-1	Isophorone		1170	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1340	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1230	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1160	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1290	ug/kg	66.7	333
65-85-0	Benzoic acid		2980	ug/kg	167	667
91-20-3	Naphthalene		1220	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		796	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1290	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1270	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1500	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1470	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1590	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1250	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1230	ug/kg	66.7	333
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline		1240	ug/kg	66.7	333

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 1202071126  
Client Sample: QC for batch 965289  
Client ID: LCS for batch 965289  
Batch ID: 965290  
Run Date: 03/17/2010 12:02  
Prep Date: 03/16/2010 21:34  
Data File: s7c1707.d

Client: LANL010  
Method: SW846 8270C  
Inst: MSD7.1  
Analyst: JMB3  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: SOIL  
Project: QC  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate		1460	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1410	ug/kg	33.3	333
208-96-8	Acenaphthylene		1380	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1960	ug/kg	127	667
132-64-9	Dibenzofuran		1380	ug/kg	66.7	333
84-66-2	Diethylphthalate		1510	ug/kg	66.7	333
86-73-7	Fluorene		1400	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1450	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1680	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1640	ug/kg	100	333
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine		1360	ug/kg	66.7	333
122-66-7	Azobenzene		1360	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1380	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1340	ug/kg	66.7	333
85-01-8	Phenanthrene		1370	ug/kg	10.0	33.3
120-12-7	Anthracene		1390	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1470	ug/kg	66.7	333
206-44-0	Fluoranthene		1430	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1270	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1280	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1500	ug/kg	100	333
218-01-9	Chrysene		1400	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1380	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1240	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1300	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1310	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1390	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1800	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1870	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1750	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1230	ug/kg	66.7	333



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Data file : /chem/MSD7.i/s031710.b/s7c1707.d  
Lab Smp Id: 1202071126 Client Smp ID: SBLK02LCS  
Inj Date : 17-MAR-2010 12:02  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |1202071126|965290|1|SVM|1|LCS  
Misc Info : |MSD8270\_S|WBN100310-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 17-Mar-2010 13:51 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 7 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.802	3.802	(1.000)	302419	40.0000
* 29 Naphthalene-d8	136	4.664	4.664	(1.000)	1227174	40.0000
* 46 Acenaphthene-d10	164	5.911	5.911	(1.000)	625321	40.0000
* 67 Phenanthrene-d10	188	7.062	7.067	(1.000)	1188131	40.0000
* 91 Chrysene-d12	240	9.451	9.455	(1.000)	1060536	40.0000
* 98 Perylene-d12	264	11.011	11.016	(1.000)	858190	40.0000
\$ 3 2-Fluorophenol	112	3.008	2.998	(0.791)	560442	71.2979
\$ 5 Phenol-d5	99	3.528	3.528	(0.928)	695390	70.5589
\$ 20 Nitrobenzene-d5	82	4.163	4.168	(0.893)	333975	36.0831
\$ 39 2-Fluorobiphenyl	172	5.406	5.406	(0.914)	615360	39.4866
\$ 60 2,4,6-Tribromophenol	329	6.504	6.499	(1.100)	162731	90.0199
\$ 81 p-Terphenyl-d14	244	8.430	8.430	(0.892)	758348	39.9136

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.537	3.537	(0.930)	348001	35.5459	1180
8 2-Chlorophenol	128	3.672	3.672	(0.966)	296315	39.5502	1320
11 1,4-Dichlorobenzene	146	3.812	3.817	(1.003)	333156	36.8928	1230
17 N-Nitrosodipropylamine	70	4.038	4.043	(1.062)	208708	37.4744	1250 (Q)
28 1,2,4-Trichlorobenzene	180	4.616	4.616	(0.990)	290713	36.8104	1230
33 4-Chloro-3-methylphenol	107	5.021	5.016	(1.076)	261925	37.4496	1250
47 Acenaphthene	154	5.935	5.935	(1.004)	577145	41.9330	1400
50 2,4-Dinitrotoluene	165	6.027	6.032	(1.020)	214769	42.4511	1420
52 4-Nitrophenol	139	5.969	5.964	(1.010)	107911	42.4087	1410
65 Pentachlorophenol	266	6.898	6.894	(0.977)	112760	50.1976	1670
79 Pyrene	202	8.324	8.329	(0.881)	1140559	34.0423	1130
2 Pyridine	79	2.372	2.343	(0.624)	209087	28.6686	956
4 Aniline	66	3.586	3.590	(0.943)	126231	26.8507	895 (Q)
7 bis(2-Chloroethyl) ether	63	3.605	3.610	(0.948)	243765	30.4094	1010 (Q)
9 1,3-Dichlorobenzene	146	3.769	3.769	(0.991)	330000	35.0649	1170
12 Benzyl alcohol	108	3.874	3.875	(1.019)	97246	19.0625	635
13 1,2-Dichlorobenzene	146	3.913	3.918	(1.029)	314397	37.8479	1260
14 bis(2-Chloroisopropyl) ether	45	3.947	3.952	(1.038)	616618	33.2052	1110
15 o-Cresol	107	3.927	3.927	(1.033)	235802	39.3150	1310 (Q)
18 m,p-Cresols	107	4.024	4.029	(1.058)	355876	43.9134	1460
19 Hexachloroethane	117	4.139	4.144	(1.089)	126924	36.1977	1210
21 Nitrobenzene	77	4.178	4.178	(0.896)	309350	36.0293	1200
22 Isophorone	82	4.327	4.332	(0.928)	582022	35.0845	1170
23 2-Nitrophenol	139	4.390	4.390	(0.941)	161714	40.1071	1340
24 2,4-Dimethylphenol	122	4.385	4.390	(0.940)	275458	36.7896	1230
25 bis(2-Chloroethoxy)methane	93	4.452	4.452	(0.955)	315104	34.7172	1160
26 2,4-Dichlorophenol	162	4.553	4.553	(0.976)	252692	38.8037	1290
27 Benzoic acid	105	4.467	4.448	(0.958)	331012	89.2968	2980
30 Naphthalene	128	4.679	4.683	(1.003)	851106	36.7148	1220
31 4-Chloroaniline	127	4.698	4.698	(1.007)	259289	23.8861	796
32 Hexachlorobutadiene	225	4.741	4.746	(1.017)	159666	38.7396	1290
34 2-Methylnaphthalene	142	5.160	5.160	(1.106)	635009	38.1679	1270
36 Hexachlorocyclopentadiene	237	5.261	5.261	(0.890)	135639	44.8681	1500
37 2,4,6-Trichlorophenol	196	5.348	5.348	(0.905)	193794	44.1724	1470
38 2,4,5-Trichlorophenol	196	5.382	5.377	(0.910)	211044	47.8303	1590
40 2-Chloronaphthalene	162	5.512	5.512	(0.932)	542798	37.5025	1250
42 o-Nitroaniline	65	5.569	5.569	(0.942)	189196	36.9224	1230
41 m-Nitroaniline	138	5.863	5.863	(0.992)	139437	37.2856	1240
43 Dimethylphthalate	163	5.675	5.680	(0.960)	728200	43.8230	1460
44 2,6-Dinitrotoluene	165	5.733	5.738	(0.970)	162149	42.2519	1410
45 Acenaphthylene	152	5.810	5.815	(0.983)	954851	41.2701	1380
48 2,4-Dinitrophenol	184	5.935	5.940	(1.004)	73504	58.8095	1960 (Q)
49 Dibenzofuran	168	6.061	6.061	(1.025)	801226	41.4202	1380
51 Diethylphthalate	149	6.181	6.186	(1.046)	772137	45.3963	1510
53 Fluorene	166	6.316	6.316	(1.068)	680405	41.9208	1400
54 4-Chlorophenylphenylether	204	6.292	6.297	(1.064)	349807	43.3677	1440
55 2-Methyl-4,6-dinitrophenol	198	6.340	6.340	(0.898)	109018	50.3737	1680

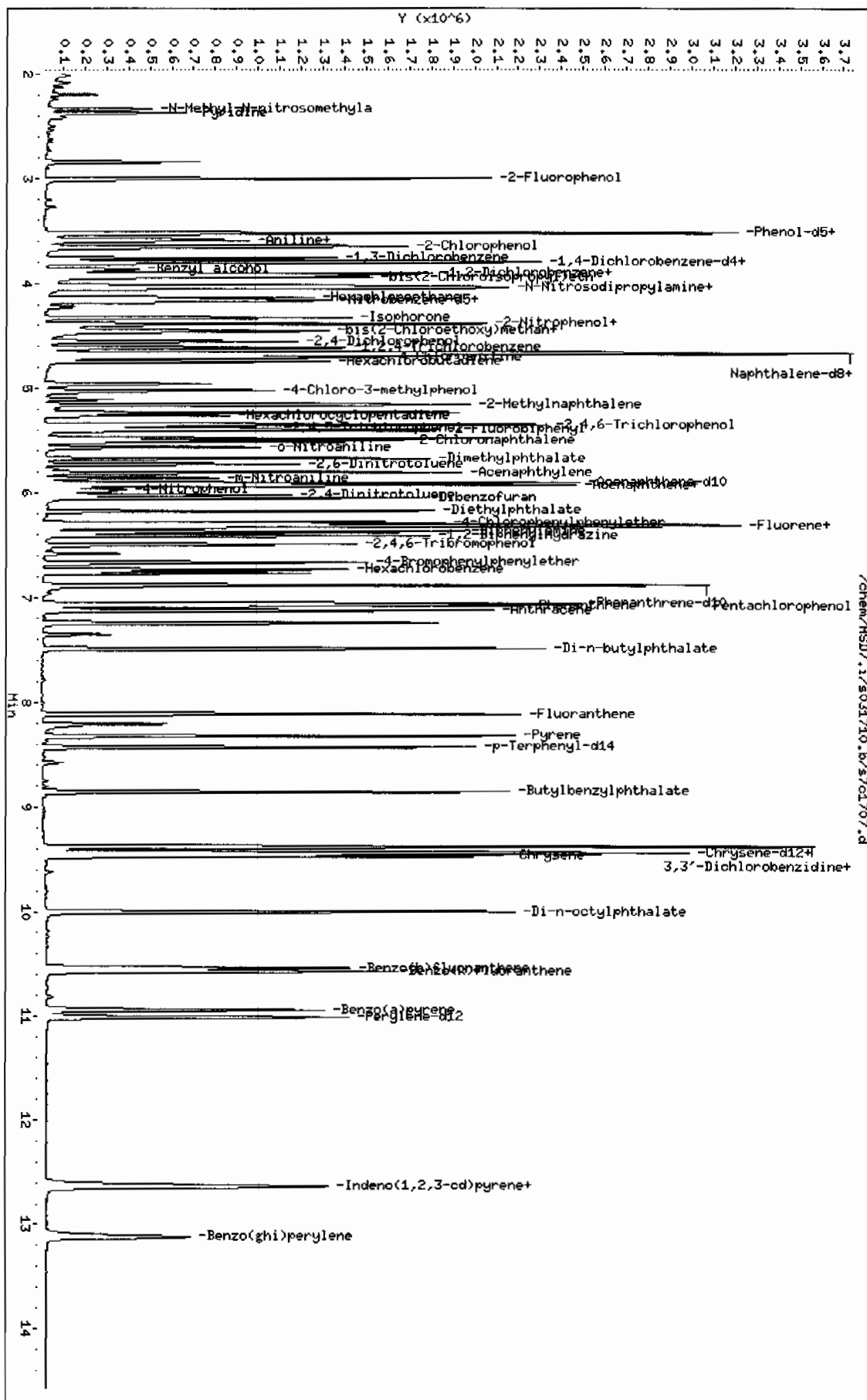
Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====	=====
56 p-Nitroaniline	138	6.321	6.316	(1.069)	165457	49.1409	1640	
133 Diphenylamine	169	6.383	6.383	(0.904)	570887	40.7763	1360	
58 1,2-Diphenylhydrazine	77	6.417	6.417	(0.909)	721208	40.9455	1360	
61 4-Bromophenylphenylether	248	6.677	6.677	(0.945)	202272	41.3973	1380	
63 Hexachlorobenzene	284	6.744	6.749	(0.955)	191479	40.3361	1340	
68 Phenanthrene	178	7.086	7.086	(1.003)	1002480	41.1172	1370	
69 Anthracene	178	7.125	7.130	(1.009)	1026259	41.5614	1380	
72 Di-n-butylphthalate	149	7.486	7.486	(1.060)	1367847	44.0333	1470	
76 Fluoranthene	202	8.112	8.112	(1.149)	1138211	42.9359	1430	
85 Butylbenzylphthalate	149	8.858	8.863	(0.937)	605714	38.0179	1270	
89 Benzo(a)anthracene	228	9.436	9.441	(0.998)	977957	38.4658	1280	
90 3,3'-Dichlorobenzidine	252	9.388	9.388	(0.993)	332710	44.9618	1500	
92 Chrysene	228	9.475	9.480	(1.003)	951453	42.0557	1400	
93 bis(2-Ethylhexyl)phthalate	149	9.383	9.383	(0.993)	838029	41.5295	1380	
94 Di-n-octylphthalate	149	10.004	10.004	(0.909)	1281658	37.1916	1240	
95 Benzo(b)fluoranthene	252	10.539	10.539	(0.957)	935549	38.8723	1300	
96 Benzo(k)fluoranthene	252	10.568	10.573	(0.960)	892019	39.4379	1310	
97 Benzo(a)pyrene	252	10.943	10.943	(0.994)	825727	41.8424	1390	
99 Indeno(1,2,3-cd)pyrene	276	12.629	12.629	(1.147)	767849	54.1092	1800	
100 Dibenzo(a,h)anthracene	278	12.643	12.643	(1.148)	632111	56.2087	1870	
101 Benzo(ghi)perylene	276	13.120	13.120	(1.192)	620981	52.4717	1750	
1 N-Methyl-N-nitrosomethylamine	74	2.334	2.314	(0.614)	154449	29.1831	973	

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.1/s031710.b/s7c1707.d  
 Date: 17-MAR-2010 12:02  
 Client ID: SELK02LCS  
 Sample Info: 1202071126196529011SVH11LCS  
 Volume Injected (uL): 0.5  
 Column phase: JMW DB-SMS

Instrument: MSD7.1  
 Operator: JHB3  
 Column diameter: 0.20



Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2074

Matrix: SOIL

Lab Sample ID: 1202071127

Client Sample: QC for batch 965289

Client: LANL010

Project: QC

Client ID: LCSD for batch 965289

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Batch ID: 965290

Inst: MSD7.1

Dilution: 1

Run Date: 03/17/2010 12:24

Analyst: JMB3

Inj. Vol: .5 uL

Prep Date: 03/16/2010 21:34

Aliquot: 30 g

Final Volume: 1 mL

Data File: s7c1708.d

Column: J&amp;W DB-5MS

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		982	ug/kg	66.7	333
108-95-2	Phenol		1180	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1340	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1220	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1240	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1250	ug/kg	66.7	333
83-32-9	Acenaphthene		1380	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1360	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1210	ug/kg	110	333
87-86-5	Pentachlorophenol		1710	ug/kg	83.3	333
129-00-0	Pyrene		1250	ug/kg	10.0	33.3
110-86-1	Pyridine		994	ug/kg	66.7	333
62-53-3	Aniline		871	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1020	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1170	ug/kg	66.7	333
100-51-6	Benzyl alcohol		519	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1280	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1120	ug/kg	66.7	333
95-48-7	o-Cresol		1300	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1490	ug/kg	100	333
67-72-1	Hexachloroethane		1210	ug/kg	66.7	333
98-95-3	Nitrobenzene		1210	ug/kg	66.7	333
78-59-1	Isophorone		1170	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1360	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1250	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1170	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1280	ug/kg	66.7	333
65-85-0	Benzoic acid		3090	ug/kg	167	667
91-20-3	Naphthalene		1190	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		678	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1320	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1270	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1410	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1440	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1590	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1250	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1180	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline		1130	ug/kg	66.7	333

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074

Matrix: SOIL

Lab Sample ID: 1202071127

Client Sample: QC for batch 965289

Client: LANL010

Project: QC

Client ID: LCSD for batch 965289

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Batch ID: 965290

Inst: MSD7.I

Dilution: 1

Run Date: 03/17/2010 12:24

Analyst: JMB3

Inj. Vol: .5 uL

Prep Date: 03/16/2010 21:34

Aliquot: 30 g

Final Volume: 1 mL

Data File: s7c1708.d

Column: J&amp;W DB-5MS

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate		1450	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1370	ug/kg	33.3	333
208-96-8	Acenaphthylene		1370	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1830	ug/kg	127	667
132-64-9	Dibenzofuran		1360	ug/kg	66.7	333
84-66-2	Diethylphthalate		1480	ug/kg	66.7	333
86-73-7	Fluorene		1390	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1400	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1630	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1440	ug/kg	100	333
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine		1380	ug/kg	66.7	333
122-66-7	Azobenzene		1370	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1420	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1360	ug/kg	66.7	333
85-01-8	Phenanthrene		1380	ug/kg	10.0	33.3
120-12-7	Anthracene		1390	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1500	ug/kg	66.7	333
206-44-0	Fluoranthene		1400	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1390	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1290	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1390	ug/kg	100	333
218-01-9	Chrysene		1390	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1490	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1320	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1350	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1280	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1380	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1810	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1830	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1750	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1240	ug/kg	66.7	333

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s031710.b/s7c1708.d  
Lab Smp Id: 1202071127 Client Smp ID: SBLK02LCSD  
Inj Date : 17-MAR-2010 12:24  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |1202071127|965290|1|SVM|1|LCSD  
Misc Info : |MSD8270\_S|WBN100310-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031710.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 17-Mar-2010 13:51 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 8 QC Sample: LCSD  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG						CONCENTRATIONS	
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.802	3.802	(1.000)	339081	40.0000		
* 29 Naphthalene-d8	136	4.664	4.664	(1.000)	1380968	40.0000		
* 46 Acenaphthene-d10	164	5.911	5.911	(1.000)	713588	40.0000		
* 67 Phenanthrene-d10	188	7.062	7.067	(1.000)	1312947	40.0000		
* 91 Chrysene-d12	240	9.451	9.455	(1.000)	1049359	40.0000		
* 98 Perylene-d12	264	11.011	11.016	(1.000)	832012	40.0000		
\$ 3 2-Fluorophenol	112	3.008	2.998	(0.791)	638275	72.4201		2410
\$ 5 Phenol-d5	99	3.528	3.528	(0.928)	786009	71.1306		2370
\$ 20 Nitrobenzene-d5	82	4.163	4.168	(0.893)	377436	36.2373		1210
\$ 39 2-Fluorobiphenyl	172	5.406	5.406	(0.914)	699911	39.3567		1310
\$ 60 2,4,6-Tribromophenol	329	6.504	6.499	(1.100)	187161	90.7276		3020
\$ 81 p-Terphenyl-d14	244	8.430	8.430	(0.892)	807390	42.9474		1430

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.537	3.537	(0.930)	389187	35.4547	1180
8 2-Chlorophenol	128	3.672	3.672	(0.966)	337308	40.1539	1340
11 1,4-Dichlorobenzene	146	3.817	3.817	(1.004)	370961	36.6377	1220
17 N-Nitrosodipropylamine	70	4.043	4.043	(1.063)	231606	37.0895	1240 (Q)
28 1,2,4-Trichlorobenzene	180	4.616	4.616	(0.990)	331903	37.3456	1240
33 4-Chloro-3-methylphenol	107	5.025	5.016	(1.077)	294195	37.3791	1240
47 Acenaphthene	154	5.935	5.935	(1.004)	649261	41.3377	1380
50 2,4-Dinitrotoluene	165	6.027	6.032	(1.020)	235749	40.8341	1360
52 4-Nitrophenol	139	5.974	5.964	(1.011)	105606	36.3691	1210
65 Pentachlorophenol	266	6.898	6.894	(0.977)	127165	51.2287	1710
79 Pyrene	202	8.324	8.329	(0.881)	1244373	37.5365	1250
2 Pyridine	79	2.372	2.343	(0.624)	243840	29.8188	994
4 Aniline	66	3.590	3.590	(0.944)	137768	26.1362	871 (Q)
7 bis(2-Chloroethyl) ether	63	3.605	3.610	(0.948)	274019	30.4876	1020 (Q)
9 1,3-Dichlorobenzene	146	3.768	3.769	(0.991)	369522	35.0191	1170
12 Benzyl alcohol	108	3.879	3.875	(1.020)	89105	15.5782	519
13 1,2-Dichlorobenzene	146	3.918	3.918	(1.030)	357692	38.4042	1280
14 bis(2-Chloroisopropyl)ether	45	3.947	3.952	(1.038)	697850	33.5165	1120
15 o-Cresol	107	3.927	3.927	(1.033)	262937	39.0993	1300 (Q)
18 m,p-Cresols	107	4.029	4.029	(1.060)	405306	44.6054	1490
19 Hexachloroethane	117	4.144	4.144	(1.090)	142327	36.2018	1210
21 Nitrobenzene	77	4.178	4.178	(0.896)	351365	36.3652	1210
22 Isophorone	82	4.327	4.332	(0.928)	654281	35.0480	1170
23 2-Nitrophenol	139	4.390	4.390	(0.941)	184735	40.7142	1360
24 2,4-Dimethylphenol	122	4.390	4.390	(0.941)	314549	37.4057	1250
25 bis(2-Chloroethoxy)methane	93	4.452	4.452	(0.955)	357946	35.0454	1170
26 2,4-Dichlorophenol	162	4.553	4.553	(0.976)	281958	38.4759	1280
27 Benzoic acid	105	4.467	4.448	(0.958)	387109	92.8000	3090
30 Naphthalene	128	4.679	4.683	(1.003)	933029	35.7664	1190
31 4-Chloroaniline	127	4.698	4.698	(1.007)	248466	20.3400	678
32 Hexachlorobutadiene	225	4.746	4.746	(1.018)	183297	39.5204	1320
34 2-Methylnaphthalene	142	5.160	5.160	(1.106)	714821	38.1802	1270
36 Hexachlorocyclopentadiene	237	5.261	5.261	(0.890)	146125	42.3577	1410
37 2,4,6-Trichlorophenol	196	5.348	5.348	(0.905)	215910	43.1259	1440
38 2,4,5-Trichlorophenol	196	5.382	5.377	(0.910)	240001	47.6649	1590
40 2-Chloronaphthalene	162	5.512	5.512	(0.932)	618861	37.4689	1250
42 o-Nitroaniline	65	5.569	5.569	(0.942)	207534	35.4914	1180
41 m-Nitroaniline	138	5.863	5.863	(0.992)	144306	33.8145	1130
43 Dimethylphthalate	163	5.675	5.680	(0.960)	825291	43.5226	1450
44 2,6-Dinitrotoluene	165	5.733	5.738	(0.970)	179926	41.0848	1370
45 Acenaphthylene	152	5.810	5.815	(0.983)	1083930	41.0541	1370
48 2,4-Dinitrophenol	184	5.935	5.940	(1.004)	76291	54.7873	1830 (Q)
49 Dibenzofuran	168	6.061	6.061	(1.025)	901014	40.8172	1360
51 Diethylphthalate	149	6.181	6.186	(1.046)	864149	44.5215	1480
53 Fluorene	166	6.316	6.316	(1.068)	770545	41.6021	1390
54 4-Chlorophenylphenylether	204	6.292	6.297	(1.064)	386200	41.9571	1400
55 2-Methyl-4,6-dinitrophenol	198	6.340	6.340	(0.898)	116500	48.9821	1630



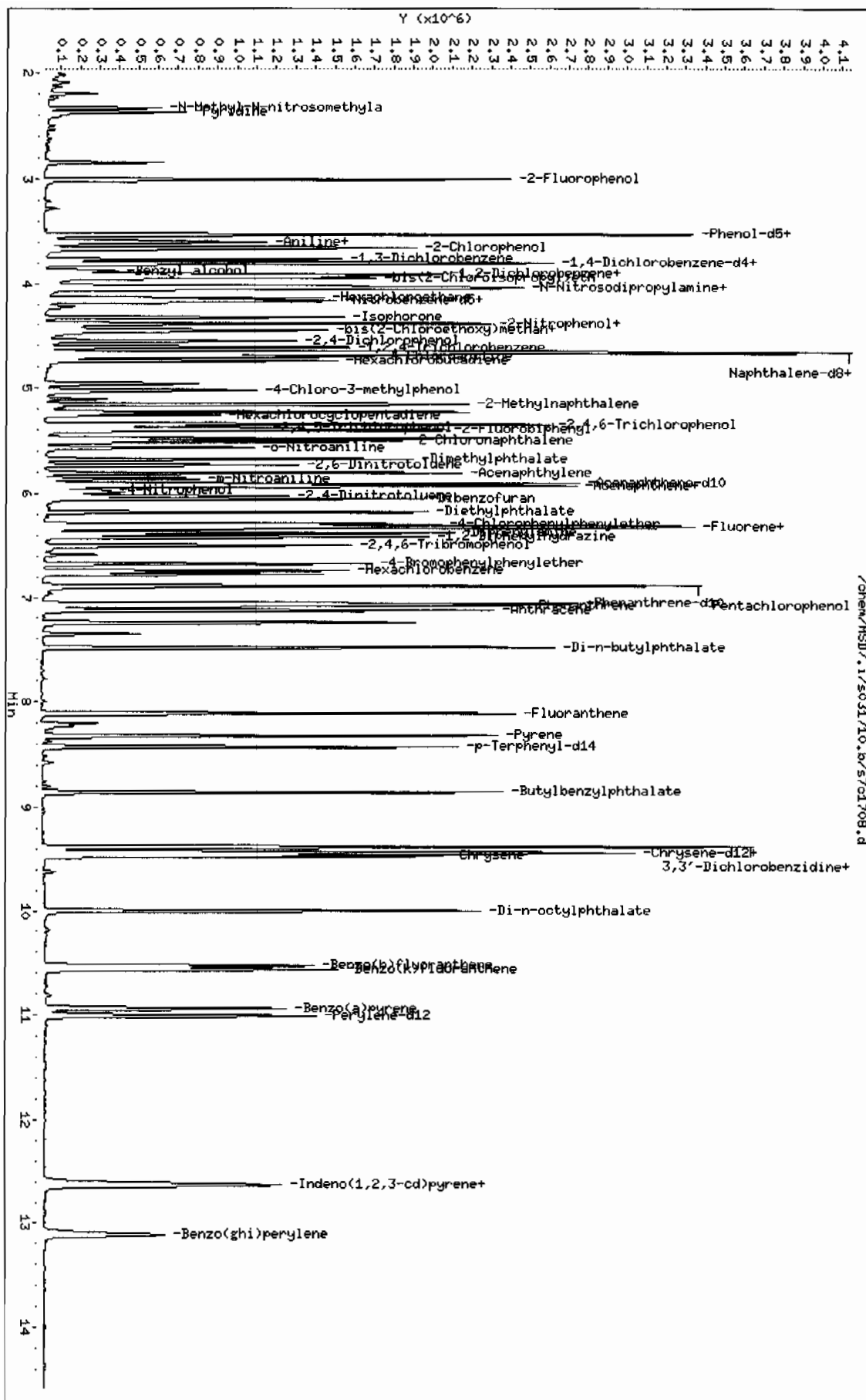
Compounds	QUANT SIG						CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE		ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
56 p-Nitroaniline	138	6.321	6.316	(1.069)	166558		43.3490	1440
133 Diphenylamine	169	6.383	6.383	(0.904)	642275		41.5141	1380
58 1,2-Diphenylhydrazine	77	6.417	6.417	(0.909)	800356		41.1194	1370
61 4-Bromophenylphenylether	248	6.677	6.677	(0.945)	230573		42.7033	1420
63 Hexachlorobenzene	284	6.744	6.749	(0.955)	214574		40.9041	1360
68 Phenanthrene	178	7.086	7.086	(1.003)	1113555		41.3311	1380
69 Anthracene	178	7.125	7.130	(1.009)	1134010		41.5592	1380
72 Di-n-butylphthalate	149	7.486	7.486	(1.060)	1542074		44.9227	1500
76 Fluoranthene	202	8.112	8.112	(1.149)	1226142		41.8558	1400
85 Butylbenzylphthalate	149	8.858	8.863	(0.937)	657177		41.6874	1390
89 Benzo(a)anthracene	228	9.436	9.441	(0.998)	972274		38.6496	1290
90 3,3'-Dichlorobenzidine	252	9.388	9.388	(0.993)	304846		41.6351	1390
92 Chrysene	228	9.475	9.480	(1.003)	931217		41.5996	1390
93 bis(2-Ethylhexyl)phthalate	149	9.383	9.383	(0.993)	894778		44.8140	1490
94 Di-n-octylphthalate	149	10.004	10.004	(0.909)	1320099		39.5124	1320
95 Benzo(b)fluoranthene	252	10.534	10.539	(0.957)	944683		40.4868	1350
96 Benzo(k)fluoranthene	252	10.568	10.573	(0.960)	839436		38.2808	1280
97 Benzo(a)pyrene	252	10.938	10.943	(0.993)	791111		41.3496	1380
99 Indeno(1,2,3-cd)pyrene	276	12.629	12.629	(1.147)	746749		54.2779	1810
100 Dibenzo(a,h)anthracene	278	12.638	12.643	(1.148)	599842		55.0175	1830
101 Benzo(ghi)perylene	276	13.120	13.120	(1.192)	604083		52.6498	1750
1 N-Methyl-N-nitrosomethylamine	74	2.334	2.314	(0.614)	174812		29.4594	982

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/HSD7.i/s031710.b/s7c1708.d  
 Date: 17-MAR-2010 12:24  
 Client ID: SBLK02LCSD  
 Sample Info: 11202071127196529011SVH11LLCSD  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-SMS

Instrument: HSD7.i  
 Operator: JHB3  
 Column diameter: 0.20



Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 1202058131	Date Received: 02/25/2010 08:45	%Moisture: 21.1
Client Sample: QC for batch 959622	Client: LANL010	Project: QC
Client ID: RE36-10-7414MS	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 15:00	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1107.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		480	ug/kg	84.3	421
108-95-2	Phenol		584	ug/kg	84.3	421
95-57-8	2-Chlorophenol		702	ug/kg	84.3	421
106-46-7	1,4-Dichlorobenzene	J	341	ug/kg	84.3	421
621-64-7	N-Nitrosodipropylamine		698	ug/kg	84.3	421
59-50-7	4-Chloro-3-methylphenol		793	ug/kg	84.3	421
83-32-9	Acenaphthene		762	ug/kg	13.9	42.1
121-14-2	2,4-Dinitrotoluene		949	ug/kg	42.1	421
100-02-7	4-Nitrophenol		692	ug/kg	139	421
87-86-5	Pentachlorophenol		926	ug/kg	105	421
129-00-0	Pyrene		986	ug/kg	12.6	42.1
110-86-1	Pyridine		490	ug/kg	84.3	421
62-53-3	Aniline		521	ug/kg	126	421
111-44-4	bis(2-Chloroethyl) ether		510	ug/kg	84.3	421
541-73-1	1,3-Dichlorobenzene	J	308	ug/kg	84.3	421
100-51-6	Benzyl alcohol	U	421	ug/kg	126	421
95-50-1	1,2-Dichlorobenzene	J	400	ug/kg	84.3	421
108-60-1	bis(2-Chloroisopropyl)ether		537	ug/kg	84.3	421
95-48-7	o-Cresol		659	ug/kg	84.3	421
65794-96-9	m,p-Cresols		804	ug/kg	126	421
67-72-1	Hexachloroethane	J	280	ug/kg	84.3	421
98-95-3	Nitrobenzene		672	ug/kg	84.3	421
78-59-1	Isophorone		670	ug/kg	84.3	421
88-75-5	2-Nitrophenol		732	ug/kg	84.3	421
105-67-9	2,4-Dimethylphenol	J	226	ug/kg	147	421
111-91-1	bis(2-Chloroethoxy)methane		667	ug/kg	84.3	421
120-83-2	2,4-Dichlorophenol		742	ug/kg	84.3	421
65-85-0	Benzoic acid		1560	ug/kg	211	843
91-20-3	Naphthalene		579	ug/kg	12.6	42.1
106-47-8	4-Chloroaniline		627	ug/kg	84.3	421
87-68-3	Hexachlorobutadiene		434	ug/kg	84.3	421
91-57-6	2-Methylnaphthalene		652	ug/kg	8.43	42.1
77-47-4	Hexachlorocyclopentadiene	J	421	ug/kg	84.3	421
88-06-2	2,4,6-Trichlorophenol		762	ug/kg	84.3	421
95-95-4	2,4,5-Trichlorophenol		1030	ug/kg	84.3	421
91-58-7	2-Chloronaphthalene		667	ug/kg	13.9	42.1
88-74-4	2-Nitroaniline		746	ug/kg	84.3	421
	o-Nitroaniline					
99-09-2	3-Nitroaniline		835	ug/kg	84.3	421

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 2 of 2

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 1202058131	Date Received: 02/25/2010 08:45	% Moisture: 21.1
Client Sample: QC for batch 959622	Client: LANL010	Project: QC
Client ID: RE36-10-7414MS	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 15:00	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1107.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate		915	ug/kg	84.3	421
606-20-2	2,6-Dinitrotoluene		884	ug/kg	42.1	421
208-96-8	Acenaphthylene		775	ug/kg	12.6	42.1
51-28-5	2,4-Dinitrophenol		1250	ug/kg	160	843
132-64-9	Dibenzofuran		808	ug/kg	84.3	421
84-66-2	Diethylphthalate		1010	ug/kg	84.3	421
86-73-7	Fluorene		848	ug/kg	12.6	42.1
7005-72-3	4-Chlorophenylphenylether		867	ug/kg	84.3	421
534-52-1	2-Methyl-4,6-dinitrophenol		1200	ug/kg	84.3	421
100-01-6	4-Nitroaniline		1000	ug/kg	126	421
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine		954	ug/kg	84.3	421
122-66-7	Azobenzene		888	ug/kg	84.3	421
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		911	ug/kg	84.3	421
118-74-1	Hexachlorobenzene		971	ug/kg	84.3	421
85-01-8	Phenanthrene		1070	ug/kg	12.6	42.1
120-12-7	Anthracene		991	ug/kg	8.43	42.1
84-74-2	Di-n-butylphthalate		1050	ug/kg	84.3	421
206-44-0	Fluoranthene		1220	ug/kg	12.6	42.1
85-68-7	Butylbenzylphthalate		946	ug/kg	84.3	421
56-55-3	Benzo(a)anthracene		1010	ug/kg	12.6	42.1
91-94-1	3,3'-Dichlorobenzidine		842	ug/kg	126	421
218-01-9	Chrysene		1070	ug/kg	12.6	42.1
117-81-7	bis(2-Ethylhexyl)phthalate		1180	ug/kg	84.3	421
117-84-0	Di-n-octylphthalate		880	ug/kg	84.3	421
205-99-2	Benzo(b)fluoranthene		950	ug/kg	12.6	42.1
207-08-9	Benzo(k)fluoranthene		1010	ug/kg	12.6	42.1
50-32-8	Benzo(a)pyrene		1040	ug/kg	12.6	42.1
193-39-5	Indeno(1,2,3-cd)pyrene		1220	ug/kg	12.6	42.1
53-70-3	Dibenzo(a,h)anthracene		1240	ug/kg	12.6	42.1
191-24-2	Benzo(ghi)perylene		1170	ug/kg	12.6	42.1
120-82-1	1,2,4-Trichlorobenzene		534	ug/kg	84.3	421

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Data file : /chem/MSD7.i/s031110.b/s7c1107.d  
Lab Smp Id: 1202058131 Client Smp ID: RE36-10-7414MS  
Inj Date : 11-MAR-2010 15:00  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |1202058131|959623|1|SVM|1|MS\_LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 7 QC Sample: MS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	21.13440	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4		152	3.990	3.990	(1.000)	378493	40.0000	
* 29 Naphthalene-d8		136	4.857	4.857	(1.000)	1442219	40.0000	
* 46 Acenaphthene-d10		164	6.109	6.114	(1.000)	782579	40.0000	
* 67 Phenanthrene-d10		188	7.279	7.284	(1.000)	1457322	40.0000	
* 91 Chrysene-d12		240	9.682	9.691	(1.000)	1263223	40.0000	
* 98 Perylene-d12		264	11.377	11.386	(1.000)	1090461	40.0000	
\$ 3 2-Fluorophenol		112	3.186	3.181	(0.798)	296925	30.1817	1270
\$ 5 Phenol-d5		99	3.706	3.706	(0.929)	366725	29.7314	1250 (R)
\$ 20 Nitrobenzene-d5		82	4.346	4.356	(0.895)	162960	14.9812	631 (R)
\$ 39 2-Fluorobiphenyl		172	5.594	5.598	(0.916)	318767	16.3444	689
\$ 60 2,4,6-Tribromophenol		329	6.706	6.711	(1.098)	103662	45.8208	1930
\$ 81 p-Terphenyl-d14		244	8.651	8.656	(0.894)	544842	24.0751	1010

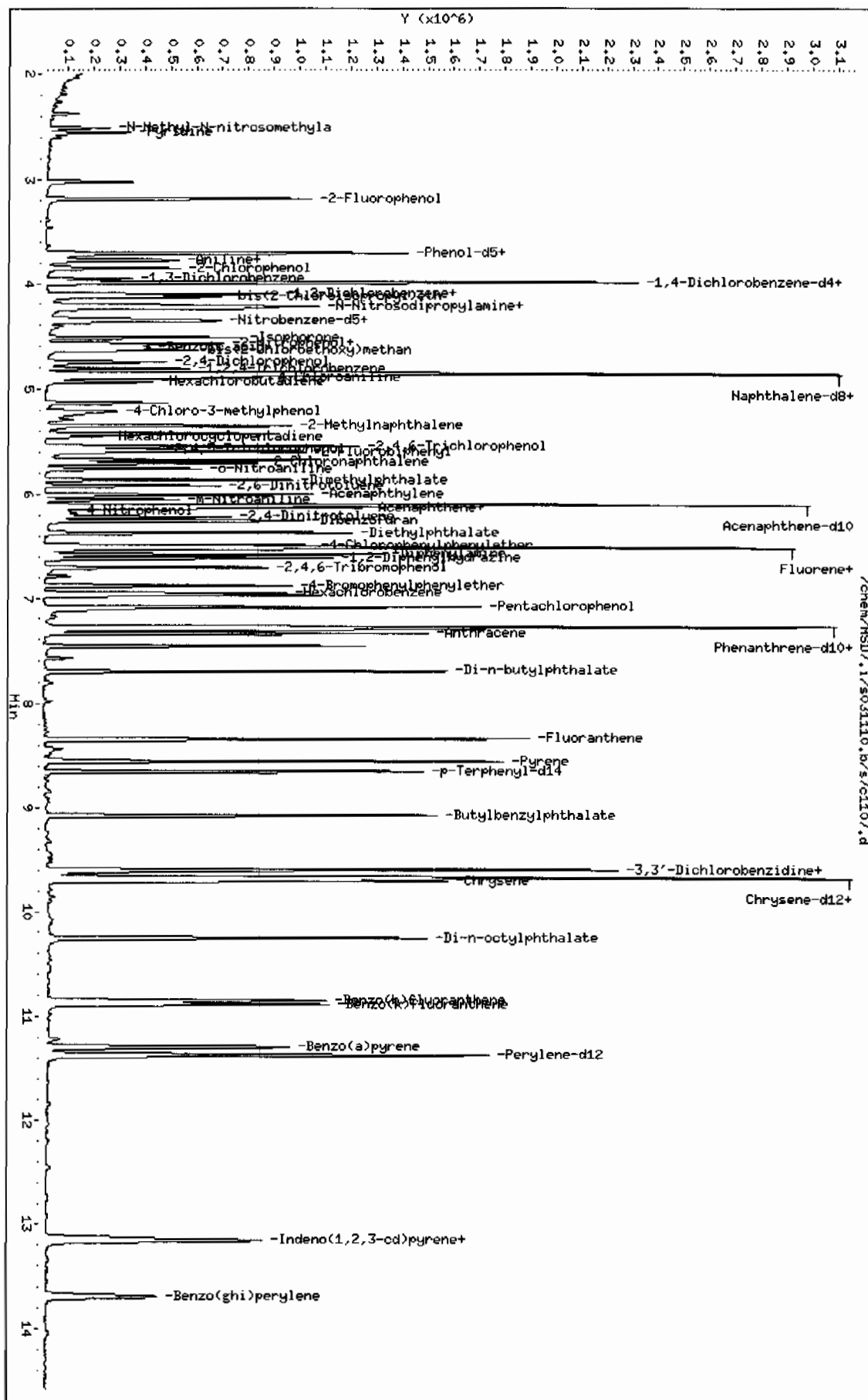
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
6 Phenol	94	3.711	3.716	(0.930)	169792	13.8573	584 (R)
8 2-Chlorophenol	128	3.855	3.860	(0.966)	156143	16.6521	702
11 1,4-Dichlorobenzene	146	4.000	4.004	(1.002)	91496	8.09556	341 (aR)
17 N-Nitrosodipropylamine	70	4.221	4.236	(1.058)	115450	16.5631	698 (Q)
28 1,2,4-Trichlorobenzene	180	4.804	4.809	(0.989)	117564	12.6665	534 (R)
33 4-Chloro-3-methylphenol	107	5.208	5.199	(1.072)	154588	18.8071	792
47 Acenaphthene	154	6.133	6.138	(1.004)	311512	18.0851	762
50 2,4-Dinitrotoluene	165	6.220	6.229	(1.018)	142527	22.5107	948
52 4-Nitrophenol	139	6.167	6.157	(1.009)	52301	16.4238	692
65 Pentachlorophenol	266	7.106	7.110	(0.976)	60542	21.9732	926
79 Pyrene	202	8.555	8.560	(0.884)	934172	23.4085	986
2 Pyridine	79	2.550	2.531	(0.639)	106171	11.6315	490 (R)
4 Aniline	66	3.773	3.778	(0.946)	72726	12.3603	521 (Q)
7 bis(2-Chloroethyl) ether	63	3.783	3.793	(0.948)	121496	12.1102	510 (QR)
9 1,3-Dichlorobenzene	146	3.956	3.956	(0.992)	86179	7.31663	308 (aR)
13 1,2-Dichlorobenzene	146	4.106	4.106	(1.029)	98801	9.50334	400 (aR)
14 bis(2-Chloroisopropyl) ether	45	4.130	4.134	(1.035)	296131	12.7416	537 (R)
15 o-Cresol	107	4.106	4.110	(1.029)	117369	15.6356	659
18 m,p-Cresols	107	4.202	4.211	(1.053)	193575	19.0853	804
19 Hexachloroethane	117	4.332	4.337	(1.086)	29133	6.63855	280 (aR)
21 Nitrobenzene	77	4.361	4.370	(0.898)	160905	15.9459	672
22 Isophorone	82	4.510	4.524	(0.929)	310148	15.9082	670
23 2-Nitrophenol	139	4.578	4.582	(0.942)	82348	17.3781	732
24 2,4-Dimethylphenol	122	4.568	4.573	(0.940)	80327	5.36410	226 (aR)
25 bis(2-Chloroethoxy)methane	93	4.635	4.640	(0.954)	168892	15.8334	667
26 2,4-Dichlorophenol	162	4.741	4.746	(0.976)	134721	17.6032	742
27 Benzoic acid	105	4.616	4.630	(0.950)	161148	36.9907	1560 (Q)
30 Naphthalene	128	4.871	4.876	(1.003)	374214	13.7358	579
31 4-Chloroaniline	127	4.881	4.890	(1.005)	189878	14.8837	627
32 Hexachlorobutadiene	225	4.934	4.939	(1.016)	49928	10.3077	434 (R)
34 2-Methylnaphthalene	142	5.348	5.353	(1.101)	302575	15.4749	652
36 Hexachlorocyclopentadiene	237	5.454	5.454	(0.893)	37793	9.98939	421 (aR)
37 2,4,6-Trichlorophenol	196	5.536	5.540	(0.906)	99324	18.0900	762
38 2,4,5-Trichlorophenol	196	5.570	5.569	(0.912)	135461	24.5312	1030
40 2-Chloronaphthalene	162	5.704	5.704	(0.934)	286913	15.8397	667
42 o-Nitroaniline	65	5.757	5.762	(0.942)	113521	17.7023	746 (R)
41 m-Nitroaniline	138	6.051	6.061	(0.991)	92765	19.8208	835
43 Dimethylphthalate	163	5.863	5.873	(0.960)	451455	21.7091	915
44 2,6-Dinitrotoluene	165	5.921	5.931	(0.969)	100764	20.9803	884
45 Acenaphthylene	152	6.008	6.012	(0.983)	532430	18.3881	775
48 2,4-Dinitrophenol	184	6.128	6.133	(1.003)	31654	29.6489	1250 (Q)
49 Dibenzofuran	168	6.258	6.263	(1.024)	464390	19.1829	808
51 Diethylphthalate	149	6.374	6.383	(1.043)	507946	23.8626	1000
53 Fluorene	166	6.518	6.528	(1.067)	408893	20.1301	848
54 4-Chlorophenylphenylether	204	6.494	6.499	(1.063)	207619	20.5674	867
55 2-Methyl-4,6-dinitrophenol	198	6.533	6.542	(0.897)	64040	28.3718	1200
56 p-Nitroaniline	138	6.513	6.523	(1.066)	100183	23.7754	1000

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
133 Diphenylamine		169	6.581	6.585	(0.904)	388574	22.6277	954
58 1,2-Diphenylhydrazine		77	6.619	6.624	(0.909)	455441	21.0808	888
61 4-Bromophenylphenylether		248	6.884	6.889	(0.946)	129529	21.6128	911
63 Hexachlorobenzene		284	6.956	6.961	(0.956)	134109	23.0324	970
68 Phenanthrene		178	7.298	7.308	(1.003)	755884	25.2762	1060
69 Anthracene		178	7.342	7.351	(1.009)	712164	23.5138	991
72 Di-n-butylphthalate		149	7.698	7.703	(1.058)	948186	24.8855	1050
76 Fluoranthene		202	8.338	8.343	(1.146)	941258	28.9478	1220
85 Butylbenzylphthalate		149	9.080	9.085	(0.938)	425994	22.4476	946
89 Benzo(a)anthracene		228	9.667	9.677	(0.998)	729400	24.0861	1010
90 3,3'-Dichlorobenzidine		252	9.619	9.619	(0.994)	176059	19.9747	842
92 Chrysene		228	9.711	9.715	(1.003)	686581	25.4785	1070
93 bis(2-Ethylhexyl)phthalate		149	9.600	9.605	(0.992)	674075	28.0447	1180
94 Di-n-octylphthalate		149	10.255	10.264	(0.901)	914223	20.8785	880
95 Benzo(b)fluoranthene		252	10.852	10.861	(0.954)	689212	22.5372	950
96 Benzo(k)fluoranthene		252	10.886	10.900	(0.957)	689239	23.9819	1010
97 Benzo(a)pyrene		252	11.295	11.309	(0.993)	618185	24.6531	1040
99 Indeno(1,2,3-cd)pyrene		276	13.149	13.168	(1.156)	524151	29.0686	1220
100 Dibenzo(a,h)anthracene		278	13.163	13.182	(1.157)	419179	29.3348	1240
101 Benzo(ghi)perylene		276	13.688	13.712	(1.203)	415919	27.6585	1160
1 N-Methyl-N-nitrosomethylamine		74	2.507	2.497	(0.628)	75440	11.3894	480 (R)

#### QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.

Instrument: MSD7.i  
Operator: JMB3  
Column diameter: 0.20





**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 1202058132	Date Received: 02/25/2010 08:45	%Moisture: 21.1
Client Sample: QC for batch 959622	Client: LANL010	Project: QC
Client ID: RE36-10-7414MSD	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.1	Dilution: 1
Run Date: 03/11/2010 15:21	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1108.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		529	ug/kg	84.3	421
108-95-2	Phenol		616	ug/kg	84.3	421
95-57-8	2-Chlorophenol		702	ug/kg	84.3	421
106-46-7	1,4-Dichlorobenzene	J	326	ug/kg	84.3	421
621-64-7	N-Nitrosodipropylamine		711	ug/kg	84.3	421
59-50-7	4-Chloro-3-methylphenol		775	ug/kg	84.3	421
83-32-9	Acenaphthene		743	ug/kg	13.9	42.1
121-14-2	2,4-Dinitrotoluene		830	ug/kg	42.1	421
100-02-7	4-Nitrophenol		656	ug/kg	139	421
87-86-5	Pentachlorophenol		815	ug/kg	105	421
129-00-0	Pyrene		1010	ug/kg	12.6	42.1
110-86-1	Pyridine		550	ug/kg	84.3	421
62-53-3	Aniline		566	ug/kg	126	421
111-44-4	bis(2-Chloroethyl) ether		517	ug/kg	84.3	421
541-73-1	1,3-Dichlorobenzene	J	306	ug/kg	84.3	421
100-51-6	Benzyl alcohol	J	130	ug/kg	126	421
95-50-1	1,2-Dichlorobenzene	J	391	ug/kg	84.3	421
108-60-1	bis(2-Chloroisopropyl)ether		527	ug/kg	84.3	421
95-48-7	o-Cresol		655	ug/kg	84.3	421
65794-96-9	m,p-Cresols		848	ug/kg	126	421
67-72-1	Hexachloroethane	J	280	ug/kg	84.3	421
98-95-3	Nitrobenzene		682	ug/kg	84.3	421
78-59-1	Isophorone		685	ug/kg	84.3	421
88-75-5	2-Nitrophenol		724	ug/kg	84.3	421
105-67-9	2,4-Dimethylphenol		1130	ug/kg	147	421
111-91-1	bis(2-Chloroethoxy)methane		675	ug/kg	84.3	421
120-83-2	2,4-Dichlorophenol		739	ug/kg	84.3	421
65-85-0	Benzoic acid		1430	ug/kg	211	843
91-20-3	Naphthalene		578	ug/kg	12.6	42.1
106-47-8	4-Chloroaniline		694	ug/kg	84.3	421
87-68-3	Hexachlorobutadiene		433	ug/kg	84.3	421
91-57-6	2-Methylnaphthalene		646	ug/kg	8.43	42.1
77-47-4	Hexachlorocyclopentadiene		433	ug/kg	84.3	421
88-06-2	2,4,6-Trichlorophenol		833	ug/kg	84.3	421
95-95-4	2,4,5-Trichlorophenol		950	ug/kg	84.3	421
91-58-7	2-Chloronaphthalene		676	ug/kg	13.9	42.1
88-74-4	2-Nitroaniline		699	ug/kg	84.3	421
	o-Nitroaniline					
99-09-2	3-Nitroaniline		778	ug/kg	84.3	421

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 2 of 2

SDG Number: 10-2074	Date Collected: 02/20/2010 12:00	Matrix: R
Lab Sample ID: 1202058132	Date Received: 02/25/2010 08:45	%Moisture: 21.1
Client Sample: QC for batch 959622	Client: LANL010	Project: QC
Client ID: RE36-10-7414MSD	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 959623	Inst: MSD7.I	Dilution: 1
Run Date: 03/11/2010 15:21	Analyst: JMB3	Inj. Vol: .5 uL
Prep Date: 03/02/2010 11:17	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s7c1108.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate		863	ug/kg	84.3	421
606-20-2	2,6-Dinitrotoluene		836	ug/kg	42.1	421
208-96-8	Acenaphthylene		753	ug/kg	12.6	42.1
51-28-5	2,4-Dinitrophenol		1090	ug/kg	160	843
132-64-9	Dibenzofuran		791	ug/kg	84.3	421
84-66-2	Diethylphthalate		918	ug/kg	84.3	421
86-73-7	Fluorene		816	ug/kg	12.6	42.1
7005-72-3	4-Chlorophenylphenylether		819	ug/kg	84.3	421
534-52-1	2-Methyl-4,6-dinitrophenol		1040	ug/kg	84.3	421
100-01-6	4-Nitroaniline		830	ug/kg	126	421
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine		846	ug/kg	84.3	421
122-66-7	Azobenzene		831	ug/kg	84.3	421
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		841	ug/kg	84.3	421
118-74-1	Hexachlorobenzene		883	ug/kg	84.3	421
85-01-8	Phenanthrene		1020	ug/kg	12.6	42.1
120-12-7	Anthracene		873	ug/kg	8.43	42.1
84-74-2	Di-n-butylphthalate		918	ug/kg	84.3	421
206-44-0	Fluoranthene		1120	ug/kg	12.6	42.1
85-68-7	Butylbenzylphthalate		873	ug/kg	84.3	421
56-55-3	Benzo(a)anthracene		905	ug/kg	12.6	42.1
91-94-1	3,3'-Dichlorobenzidine		648	ug/kg	126	421
218-01-9	Chrysene		977	ug/kg	12.6	42.1
117-81-7	bis(2-Ethylhexyl)phthalate		1010	ug/kg	84.3	421
117-84-0	Di-n-octylphthalate		912	ug/kg	84.3	421
205-99-2	Benzo(b)fluoranthene		968	ug/kg	12.6	42.1
207-08-9	Benzo(k)fluoranthene		882	ug/kg	12.6	42.1
50-32-8	Benzo(a)pyrene		927	ug/kg	12.6	42.1
193-39-5	Indeno(1,2,3-cd)pyrene		1030	ug/kg	12.6	42.1
53-70-3	Dibenzo(a,h)anthracene		1040	ug/kg	12.6	42.1
191-24-2	Benzo(ghi)perylene		989	ug/kg	12.6	42.1
120-82-1	1,2,4-Trichlorobenzene		518	ug/kg	84.3	421

GEL Laboratories LLC

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Data file : /chem/MSD7.i/s031110.b/s7c1108.d  
Lab Smp Id: 1202058132 Client Smp ID: RE36-10-7414MSD  
Inj Date : 11-MAR-2010 15:21  
Operator : JMB3 Inst ID: MSD7.i  
Smp Info : |1202058132|959623|1|SVM|1|MSD\_LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD7.i/s031110.b/MSD7-M8270C-AQA-022610.m  
Meth Date : 12-Mar-2010 08:10 jos00786 Quant Type: ISTD  
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d  
Als bottle: 8 QC Sample: MSD  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2074.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	21.13440	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG						CONCENTRATIONS	
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.985	3.990	(1.000)	403199	40.0000		
* 29 Naphthalene-d8	136	4.852	4.857	(1.000)	1530224	40.0000		
* 46 Acenaphthene-d10	164	6.109	6.114	(1.000)	833584	40.0000		
* 67 Phenanthrene-d10	188	7.279	7.284	(1.000)	1504015	40.0000		
* 91 Chrysene-d12	240	9.682	9.691	(1.000)	1142837	40.0000		
* 98 Perylene-d12	264	11.372	11.386	(1.000)	826530	40.0000		
\$ 3 2-Fluorophenol	112	3.186	3.181	(0.799)	327756	31.2743		1320
\$ 5 Phenol-d5	99	3.701	3.706	(0.929)	413406	31.4623		1320(R)
\$ 20 Nitrobenzene-d5	82	4.346	4.356	(0.896)	180044	15.5999		657(R)
\$ 39 2-Fluorobiphenyl	172	5.594	5.598	(0.916)	349499	16.8237		709
\$ 60 2,4,6-Tribromophenol	329	6.706	6.711	(1.098)	100455	41.6867		1760
\$ 81 p-Terphenyl-d14	244	8.651	8.656	(0.894)	476054	23.2515		980

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.711	3.716	(0.931)	190831	14.6201	616 (R)
8 2-Chlorophenol	128	3.850	3.860	(0.966)	166427	16.6613	702
11 1,4-Dichlorobenzene	146	3.995	4.004	(1.002)	93095	7.73235	326 (aR)
17 N-Nitrosodipropylamine	70	4.216	4.236	(1.058)	125367	16.8838	711 (Q)
28 1,2,4-Trichlorobenzene	180	4.799	4.809	(0.989)	121136	12.3007	518 (R)
33 4-Chloro-3-methylphenol	107	5.203	5.199	(1.072)	160345	18.3857	775
47 Acenaphthene	154	6.133	6.138	(1.004)	323386	17.6257	743
50 2,4-Dinitrotoluene	165	6.220	6.229	(1.018)	132842	19.6973	830
52 4-Nitrophenol	139	6.162	6.157	(1.009)	52830	15.5750	656
65 Pentachlorophenol	266	7.106	7.110	(0.976)	54993	19.3399	815
79 Pyrene	202	8.555	8.560	(0.884)	861541	23.8626	1000
2 Pyridine	79	2.555	2.531	(0.641)	126959	13.0567	550
4 Aniline	66	3.769	3.778	(0.946)	84212	13.4356	566 (Q)
7 bis(2-Chloroethyl) ether	63	3.783	3.793	(0.949)	130995	12.2570	516 (QR)
9 1,3-Dichlorobenzene	146	3.951	3.956	(0.992)	91113	7.26158	306 (aR)
12 Benzyl alcohol	108	4.053	4.057	(1.017)	20961	3.08191	130 (aR)
13 1,2-Dichlorobenzene	146	4.101	4.106	(1.029)	102790	9.28126	391 (aR)
14 bis(2-Chloroisopropyl)ether	45	4.125	4.134	(1.035)	309823	12.5139	527 (R)
15 o-Cresol	107	4.106	4.110	(1.030)	124377	15.5540	655
18 m,p-Cresols	107	4.202	4.211	(1.054)	217512	20.1313	848
19 Hexachloroethane	117	4.332	4.337	(1.087)	31072	6.64668	280 (aR)
21 Nitrobenzene	77	4.361	4.370	(0.899)	173325	16.1890	682
22 Isophorone	82	4.510	4.524	(0.930)	336495	16.2670	685
23 2-Nitrophenol	139	4.573	4.582	(0.942)	86432	17.1910	724
24 2,4-Dimethylphenol	122	4.597	4.573	(0.947)	260920	26.7431	1130 (Q)
25 bis(2-Chloroethoxy)methane	93	4.630	4.640	(0.954)	181270	16.0166	675
26 2,4-Dichlorophenol	162	4.741	4.746	(0.977)	142476	17.5459	739
27 Benzoic acid	105	4.611	4.630	(0.950)	156998	33.9655	1430 (Q)
30 Naphthalene	128	4.866	4.876	(1.003)	396821	13.7279	578
31 4-Chloroaniline	127	4.881	4.890	(1.006)	223009	16.4754	694
32 Hexachlorobutadiene	225	4.929	4.939	(1.016)	52774	10.2689	433 (R)
34 2-Methylnaphthalene	142	5.348	5.353	(1.102)	318144	15.3354	646
36 Hexachlorocyclopentadiene	237	5.449	5.454	(0.892)	41393	10.2715	433 (R)
37 2,4,6-Trichlorophenol	196	5.536	5.540	(0.906)	115613	19.7685	833
38 2,4,5-Trichlorophenol	196	5.569	5.569	(0.912)	132664	22.5547	950
40 2-Chloronaphthalene	162	5.699	5.704	(0.933)	309593	16.0460	676
42 o-Nitroaniline	65	5.757	5.762	(0.942)	113351	16.5943	699 (R)
41 m-Nitroaniline	138	6.051	6.061	(0.991)	92034	18.4615	778
43 Dimethylphthalate	163	5.858	5.873	(0.959)	453668	20.4807	863
44 2,6-Dinitrotoluene	165	5.921	5.931	(0.969)	101497	19.8399	836
45 Acenaphthylene	152	6.008	6.012	(0.983)	551089	17.8680	753
48 2,4-Dinitrophenol	184	6.128	6.133	(1.003)	25484	25.9136	1090 (Q)
49 Dibenzofuran	168	6.258	6.263	(1.024)	484033	18.7709	791
51 Diethylphthalate	149	6.374	6.383	(1.043)	493796	21.7785	918
53 Fluorene	166	6.518	6.528	(1.067)	418866	19.3594	816
54 4-Chlorophenylphenylether	204	6.494	6.499	(1.063)	208973	19.4349	819
55 2-Methyl-4,6-dinitrophenol	198	6.532	6.542	(0.897)	54219	24.7393	1040

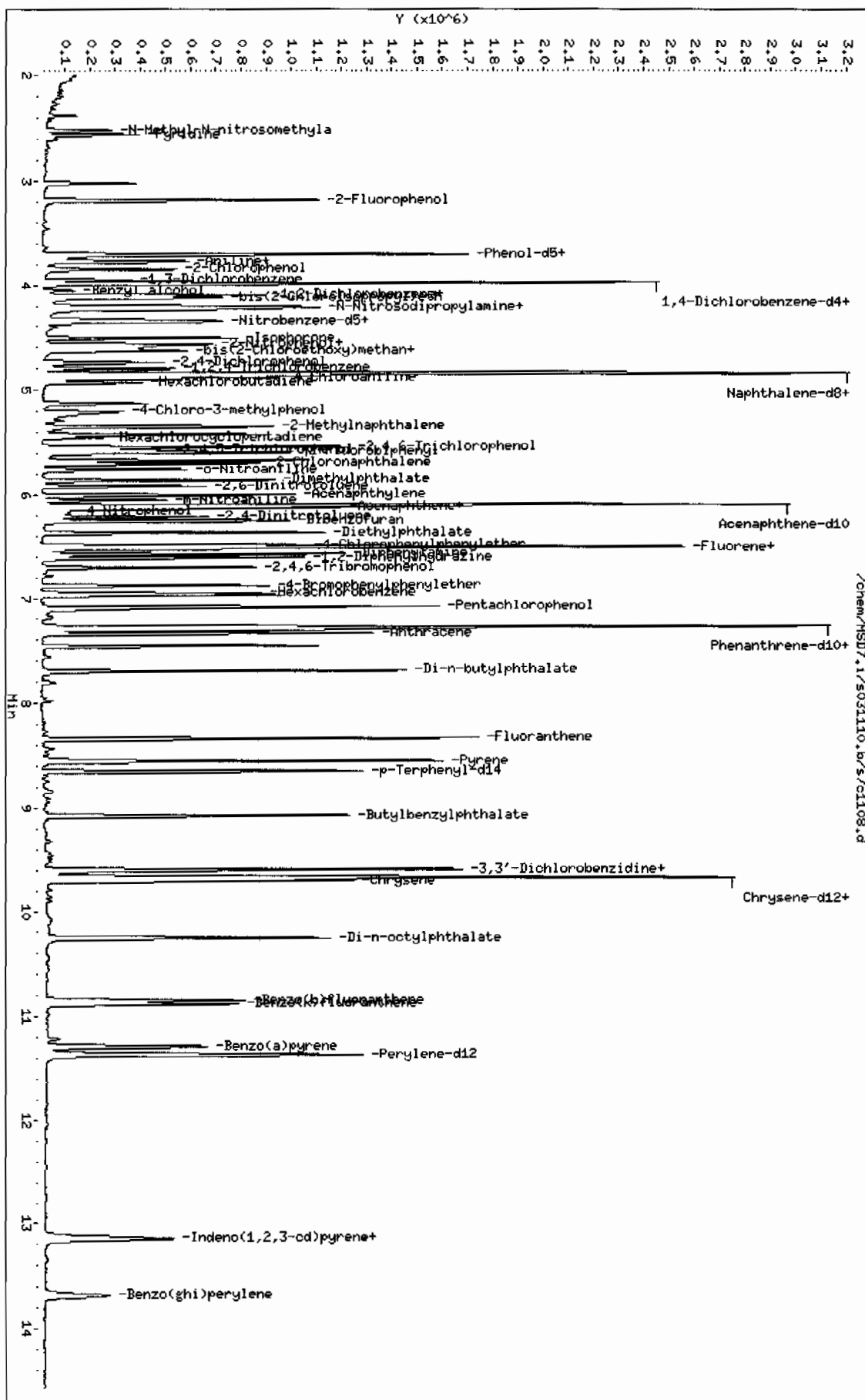
Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ml)	FINAL (ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====	=====
56 p-Nitroaniline	138	6.513	6.523	(1.066)	88366	19.6880	830	
133 Diphenylamine	169	6.581	6.585	(0.904)	355915	20.0825	846	
58 1,2-Diphenylhydrazine	77	6.619	6.624	(0.909)	439541	19.7132	831	
61 4-Bromophenylphenylether	248	6.879	6.889	(0.945)	123424	19.9549	841	
63 Hexachlorobenzene	284	6.956	6.961	(0.956)	125984	20.9654	883	
68 Phenanthrene	178	7.298	7.308	(1.003)	750618	24.3209	1020	
69 Anthracene	178	7.341	7.351	(1.009)	647701	20.7215	873	
72 Di-n-butylphthalate	149	7.693	7.703	(1.057)	856733	21.7872	918	
76 Fluoranthene	202	8.338	8.343	(1.146)	895475	26.6848	1120	
85 Butylbenzylphthalate	149	9.080	9.085	(0.938)	355700	20.7179	873	
89 Benzo(a)anthracene	228	9.667	9.677	(0.998)	588676	21.4868	905	
90 3,3'-Dichlorobenzidine	252	9.614	9.619	(0.993)	122605	15.3754	648	
92 Chrysene	228	9.706	9.715	(1.002)	565042	23.1771	977	
93 bis(2-Ethylhexyl)phthalate	149	9.600	9.605	(0.992)	520684	23.9449	1010	
94 Di-n-octylphthalate	149	10.255	10.264	(0.902)	718314	21.6427	912	
95 Benzo(b)fluoranthene	252	10.847	10.861	(0.954)	532388	22.9682	968	
96 Benzo(k)fluoranthene	252	10.881	10.900	(0.957)	456085	20.9368	882	
97 Benzo(a)pyrene	252	11.290	11.309	(0.993)	418133	21.9998	927	
99 Indeno(1,2,3-cd)pyrene	276	13.139	13.168	(1.155)	333616	24.4100	1030	
100 Dibenzo(a,h)anthracene	278	13.154	13.182	(1.157)	266059	24.5648	1040	
101 Benzo(ghi)perylene	276	13.683	13.712	(1.203)	267397	23.4600	988	
1 N-Methyl-N-nitrosomethylamine	74	2.517	2.497	(0.631)	88581	12.5538	529(R)	

#### QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.

Data File: /chem/HSD7.1/s031110.b/s7c1108.d  
 Date: 11-MAR-2010 15:21  
 Client ID: REC6-10-7414HSD  
 Sample Info: 11202058132195962311SVH11HSD.LANL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-SHS

Instrument: HSD7.1  
 Operator: JHB3  
 Column diameter: 0.20



# Miscellaneous Data

# Prep Logbook

## Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 959622      Verified by: \_\_\_\_\_      Lab SOP: GL-OA-E-010 REV# 18  
 Analyst: Robin Hunt      Instrument: Semi-Volatiles Manual  
 Method: SW846 3550B

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202058129 MB	02-MAR-2010 11:17:00	30	1	0.03333
1202058130 LCS	02-MAR-2010 11:17:00	30	1	0.03333
248043001	02-MAR-2010 11:17:00	30.09	1	0.03323
1202058131 MS (248043001)	02-MAR-2010 11:17:00	30.09	1	0.03323
1202058132 MSD (248043001)	02-MAR-2010 11:17:00	30.09	1	0.03323
248043002	02-MAR-2010 11:17:00	30.07	1	0.03326
248043003	02-MAR-2010 11:17:00	30.05	1	0.03328
248043004	02-MAR-2010 11:17:00	30.09	1	0.03323
248043005	02-MAR-2010 11:17:00	30.01	1	0.03332
248043006	02-MAR-2010 11:17:00	30.02	1	0.03331
248043007	02-MAR-2010 11:17:00	30.04	1	0.03329
248043008	02-MAR-2010 11:17:00	30.09	1	0.03323
248043009	02-MAR-2010 11:17:00	30.01	1	0.03332
248043010	02-MAR-2010 11:17:00	30.02	1	0.03331
248043011	02-MAR-2010 11:17:00	30.05	1	0.03328
248043012	02-MAR-2010 11:17:00	30.09	1	0.03323
248043013	02-MAR-2010 11:17:00	30	1	0.03333
248043014	02-MAR-2010 11:17:00	30.09	1	0.03323
248043015	02-MAR-2010 11:17:00	30.09	1	0.03323
248043016	02-MAR-2010 11:17:00	30	1	0.03333
248043017	02-MAR-2010 11:17:00	30.03	1	0.0333
248043018	02-MAR-2010 11:17:00	30.08	1	0.03324

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202058130	BNA LCS w/o Benzidine 50ppm	UE100222-14	1	mL	Verified By: JAM
LCS	1202058130	BENZIDINE LCS	UE100222-22	1	mL	Final Solvent: CH2Cl2
MS	1202058131	BNA LCS w/o Benzidine 50ppm	UE100222-14	1	mL	
MS	1202058131	BENZIDINE LCS	UE100222-22	1	mL	
MSD	1202058132	BNA LCS w/o Benzidine 50ppm	UE100222-14	1	mL	
MSD	1202058132	BENZIDINE LCS	UE100222-22	1	mL	
SURR	All	BNA for all Surrogate	UE100301-10	1	mL	
REGNT	All	Acetone	1273739-B)	150	mL	
REGNT	All	Methylene Chloride	1274843-D	150	mL	
SOURC	All	SODIUM SULFATE	1274910	30	g	



# Prep Logbook

## Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 965289      Verified by: \_\_\_\_\_  
 Analyst: Alberto Velasco      Lab SOP: GL-OA-E-010 REV# 18  
 Method: SW846 3550B      Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)	Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments
1202071125 MB	16-MAR-2010 21:34:00	30	1	0.03333	LCS	1202071126	BNA LCS w/o Benzidine 50ppm	UEI00310-15	1	mL	Verified By: AJS
1202071126 LCS	16-MAR-2010 21:34:00	30	1	0.03333	LCS	1202071126	BENZIDINE LCS	UEI00310-23	1	mL	Final Solvent: CH2Cl2
1202071127 LCSD	16-MAR-2010 21:34:00	30	1	0.03333	LCSD	1202071127	BNA LCS w/o Benzidine 50ppm	UEI00310-15	1	mL	
248043002 - 2	16-MAR-2010 21:34:00	30.13	1	0.03319	LCSD	1202071127	BENZIDINE LCS	UEI00310-23	1	mL	
248043004 - 2	16-MAR-2010 21:34:00	30.18	1	0.03313	SURR	All	BNA for all Surrogate	UEI00310-10	1	mL	
					REGNT	All	Acetone	1273823-B1	150	mL	
					REGNT	All	Methylene Chloride	1286042-D	150	mL	
					SOURC	All	SODIUM SULFATE	1274910	30	g	

## GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD /

DATE: 03/11/2010

METHOD: See raw data

OPERATOR: JMB3

REVIEWED BY:

DATE: \_\_\_\_\_

HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1

Multiplier Voltage: 1965 Emv Extr. Injection Volume: 0.5, 1.0 ul

DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100227-01

CALIBRATION &amp; QC INFORMATION:

Initial Calibration Dates: See Calibration History and Standard Logbook.

Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s031110.b

Data File	GE Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7c1101.d	WBN100306-01.2	JMB3	11-MAR-2010 12:39	DFTPP	s031110	1.0	DFTPP	8270c TUNE: PASSES
s7c1102.d	WBN100309-05.2	JMB3	11-MAR-2010 12:51	CVS	s031110	1.0	MEGACVS	8270c MEGA CVS (ISI: 413051)
s7c1103.d	WBN100218-08.2	JMB3	11-MAR-2010 13:16	CVS	s031110	1.0	APCVS	8270c AP CVS
s7c1104.d	1202058129	JMB3	11-MAR-2010 13:56	959623	10-2074	1.0	MB	
s7c1105.d	1202058130	JMB3	11-MAR-2010 14:17	959623	10-2074	1.0	LCS	
s7c1106.d	248043001	JMB3	11-MAR-2010 14:39	959623	10-2074	1.0	LANL	
s7c1107.d	1202058131	JMB3	11-MAR-2010 15:00	959623	10-2074	1.0	MS_LANL	
s7c1108.d	1202058132	JMB3	11-MAR-2010 15:21	959623	10-2074	1.0	MS_LANL	
s7c1109.d	248043005	JMB3	11-MAR-2010 15:43	959623	10-2074	1.0	LANL	
s7c1110.d	248043007	JMB3	11-MAR-2010 16:04	959623	10-2074	1.0	LANL	
s7c1111.d	248043013	JMB3	11-MAR-2010 16:26	959623	10-2074	1.0	LANL	
s7c1112.d	248043008	JMB3	11-MAR-2010 16:47	959623	10-2074	1.0	LANL	
s7c1113.d	248043009	JMB3	11-MAR-2010 17:09	959623	10-2074	1.0	LANL	
s7c1114.d	248043011	JMB3	11-MAR-2010 17:30	959623	10-2074	1.0	LANL	REPORT: all except c68/76 (OR - rerun @ 4x - see s7c1227)
s7c1115.d	248043015	JMB3	11-MAR-2010 17:52	959623	10-2074	1.0	LANL	DUSE: possible carryover - rerun - see s7c1228
s7c1116.d	248043016	JMB3	11-MAR-2010 18:13	959623	10-2074	1.0	LANL	
s7c1117.d	248043017	JMB3	11-MAR-2010 18:35	959623	10-2074	1.0	LANL	
s7c1118.d	248043018	JMB3	11-MAR-2010 18:57	959623	10-2074	1.0	LANL	
s7c1119.d	248043003	JMB3	11-MAR-2010 19:18	959623	10-2074	1.0	LANL	

s7cl120.d	1248043006	JMB3	11-MAR-2010 19:40	959623	10-2074	1.0	LANL	
s7cl121.d	1248043010	JMB3	11-MAR-2010 20:01	959623	10-2074	1.0	LANL	
s7cl122.d	1248043002	JMB3	11-MAR-2010 20:23	959623	10-2074	1.0	LANL	DUSE: see reruns s7cl225 (4x) and s7cl230 (neat)
s7cl123.d	1248043004	JMB3	11-MAR-2010 20:45	959623	10-2074	1.0	LANL	DUSE: see reruns s7cl226 (4x) and s7cl232 (neat)
s7cl124.d	1248043012	JMB3	11-MAR-2010 21:06	959623	10-2074	1.0	LANL	DUSE: possible carryover - rerun - see s7cl229
s7cl125.d	1248043014	JMB3	11-MAR-2010 21:28	959623	10-2074	1.0	LANL	
s7cl126.d	1248043003	JMB3	11-MAR-2010 21:49	959623	10-2074	1.0	LANL	DUSE: rerun not needed - see s7cl119
s7cl127.d	1248043006	JMB3	11-MAR-2010 22:11	959623	10-2074	1.0	LANL	DUSE: rerun not needed - see s7cl120
s7cl128.d	1248043010	JMB3	11-MAR-2010 22:33	959623	10-2074	1.0	LANL	DUSE: rerun not needed - see s7cl121
s7cl129.d	1248043002	JMB3	11-MAR-2010 22:55	959623	10-2074	1.0	LANL	DUSE: rerun not needed - see s7cl122
s7cl130.d	1248043004	JMB3	11-MAR-2010 23:16	959623	10-2074	1.0	LANL	DUSE: rerun not needed - see s7cl123
s7cl131.d	1248043012	JMB3	11-MAR-2010 23:38	959623	10-2074	1.0	LANL	DUSE: rerun not needed - possible carryover - see s7cl123
s7cl132.d	1248043014	JMB3	11-MAR-2010 23:59	959623	10-2074	1.0	LANL	DUSE: rerun not needed - see s7cl125

Instrument Batch: /chem/MSD7.i/s031110.b

## GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD /

DATE: 03/17/2010

METHOD: See raw data

OPERATOR: JMB3

REVIEWED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT: 1239699-D

Multiplier Voltage: 1965 Emv Extr. Injection Volume: 0.5, 1.0 ul

DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01

CALIBRATION &amp; QC INFORMATION:

Initial Calibration Dates: See Calibration History and Standard Logbook.

Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s031710.b

Data file	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7c1701.d	WBN100306-01.2	JMB3	17-MAR-2010 10:00	DFTPP	s031710	1.0	DFTPP	8270c TUNE: PASSES (IS1: 287888)
s7c1702.d	WBN100309-05.2	JMB3	17-MAR-2010 10:13	ICVS	s031710	1.0	MEGACVS	8270c MEGA CVS
s7c1703.d	WBN100312-03.2	JMB3	17-MAR-2010 10:37	ICVS	s031710	1.0	APCVS	8270c AP CVS
s7c1704.d	WBN100127-08.1	JMB3	17-MAR-2010 10:58	ICVS	s031710	1.0	NEVCVS	8270c NEV CVS
s7c1705.d	WBN100304-23.2	JMB3	17-MAR-2010 11:19	ICVS	s031710	1.0	PESTCVS	8270c PEST CVS
s7c1706.d	1202071125	JMB3	17-MAR-2010 11:41	965290	10-2074	1.0	MB	
s7c1707.d	1202071126	JMB3	17-MAR-2010 12:02	965290	10-2074	1.0	LCS	
s7c1708.d	1202071127	JMB3	17-MAR-2010 12:24	965290	10-2074	1.0	LCS	
s7c1709.d	1202069984	JMB3	17-MAR-2010 12:45	964853	1248311	1.0	MB	REPORT
s7c1710.d	1202069990	JMB3	17-MAR-2010 13:06	964853	1248311	1.0	LCS	REPORT
s7c1711.d	1248311001	JMB3	17-MAR-2010 13:28	964853	1248311	1.0	BRCM	REPORT: w/ rx s7c2115 (out of hold) - MS/MSD did not confirm
s7c1712.d	1202069986	JMB3	17-MAR-2010 13:49	964853	1248311	1.0	MS_BRCM	REPORT: MS/MSD did not confirm - rx's out of hold
s7c1713.d	1202069988	JMB3	17-MAR-2010 14:10	964853	1248311	1.0	MSD_BRCM	REPORT: MS/MSD did not confirm - rx's out of hold
s7c1714.d	1248311002	JMB3	17-MAR-2010 14:32	964853	1248311	1.0	BRCM	REPORT: w/ rx s7c2116 (out of hold) - MS/MSD did not confirm
s7c1715.d	1248311003	JMB3	17-MAR-2010 14:53	964853	1248311	1.0	BRCM	REPORT: w/ rx s7c2117 (out of hold) - MS/MSD did not confirm
s7c1716.d	1202069985	JMB3	17-MAR-2010 15:15	964853	1248311	1.0	DUP_BRCM	REPORT: w/ rx s7c2118 (out of hold) - MS/MSD did not confirm
s7c1717.d	1248311004	JMB3	17-MAR-2010 15:36	964853	1248311	1.0	BRCM	REPORT: w/ rx s7c2119 (out of hold) - MS/MSD did not confirm
s7c1718.d	1248311005	JMB3	17-MAR-2010 15:57	964853	1248311	1.0	BRCM	REPORT: w/ rx s7c2120 (out of hold) - MS/MSD did not confirm
s7c1719.d	1248311006	JMB3	17-MAR-2010 16:19	964853	1248311	1.0	BRCM	REPORT: w/ rx s7c2121 (out of hold) - MS/MSD did not confirm

s7c1720.d	248311007	JMB3	17-MAR-2010 16:41	1964853	1248311	1.0 BRCM	REPORT: w/ rx s7c2122 (out of hold) - MS/MSD did not confirm
s7c1721.d	248311008	JMB3	17-MAR-2010 17:02	1964853	1248311	1.0 BRCM	REPORT: w/ rx s7c2123 (out of hold) - MS/MSD did not confirm
s7c1722.d	248311009	JMB3	17-MAR-2010 17:24	1964853	1248311	1.0 BRCM	REPORT: w/ rx s7c2124 (out of hold) - MS/MSD did not confirm
s7c1723.d	248311010	JMB3	17-MAR-2010 17:45	1964853	1248311	1.0 BRCM	REPORT: w/ rx s7c2127 (out of hold) - MS/MSD did not confirm
s7c1724.d	1202069988	JMB3	17-MAR-2010 18:07	1964853	1248311	1.0 MSD_BRCM	DUSE: see s7c1713
s7c1725.d	248043002	JMB3	17-MAR-2010 18:28	965290	110-2074	4.0 LANL_rx	REPORT: dilution of s7c1727 for OR hits
s7c1726.d	248043004	JMB3	17-MAR-2010 18:50	965290	110-2074	4.0 LANL_rx	REPORT: dilution of s7c1729 for OR hits
s7c1727.d	248043002	JMB3	17-MAR-2010 19:12	965290	110-2074	1.0 LANL_rx	REPORT: rx of s7c1230 (paas out of hold) - see s7c1725 (4x)
s7c1728.d	INSTBLANK	JMB3	17-MAR-2010 19:33	11B	s031710	1.0 INSTBLANK	
s7c1729.d	248043004	JMB3	17-MAR-2010 19:55	965290	110-2074	1.0 LANL_rx	REPORT: rx of s7c1232 (paas out of hold) - see s7c1726 (4x)
s7c1730.d	INSTBLANK	JMB3	17-MAR-2010 20:16	11B	s031710	1.0 INSTBLANK	
s7c1731.d	1202063304	JMB3	17-MAR-2010 20:37	961944	110-2166	4.0 MS_LANL	
s7c1732.d	1202063305	JMB3	17-MAR-2010 20:59	961944	110-2166	4.0 MSD_LANL	
s7c1733.d	248377002	JMB3	17-MAR-2010 21:21	961944	110-2157	1.0 LANL	
s7c1734.d	248377002	JMB3	17-MAR-2010 21:42	961944	110-2157	1.0 LANL	DUSE: rerun not needed - see s7c1733

Instrument Batch: /chem/MSD7.i/s031710.b

## GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD/

DATE: 02/25/2010

METHOD: See raw data

OPERATOR: JMB3

REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT: 1239699-D

Multiplier Voltage: 1965 Emv Extr. Injection Volume: 0.5, 1.0 ul

DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100217-01

CALIBRATION &amp; QC INFORMATION:

Initial Calibration Dates: See Calibration History and Standard Logbook.

Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s022610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7b2601.d	WBN100207-01	JMB3	126-FEB-2010 10:23	1DFTPP	s022610	1.0	1.0 DFTPP	8270d TUNE: MEGA
s7b2601.d	WBN100207-01	JMB3	126-FEB-2010 10:23	1DFTPP	s022610	1.0	1.0 DFTPP	8270c TUNE: MEGA
s7b2602.d	INSTBLANK	JMB3	126-FEB-2010 10:35	1IB	s022610	1.0	1.0 INSTBLANK	
s7b2603.d	WBN100225-08	JMB3	26-FEB-2010 11:07	1ICAL	s022610	1.0	1.0 MEGA001	
s7b2604.d	WBN100225-07	JMB3	126-FEB-2010 11:31	1ICAL	s022610	1.0	1.0 MEGA010	DUSE: see s7b2612
s7b2605.d	WBN100225-06	JMB3	126-FEB-2010 11:55	1ICAL	s022610	1.0	1.0 MEGA020	DUSE: see s7b2613
s7b2606.d	WBN100225-05.1	JMB3	126-FEB-2010 12:19	1ICAL	s022610	1.0	1.0 MEGA040	
s7b2607.d	WBN100225-04	JMB3	126-FEB-2010 12:43	1ICAL	s022610	1.0	1.0 MEGA050	
s7b2608.d	WBN100225-03	JMB3	126-FEB-2010 13:07	1ICAL	s022610	1.0	1.0 MEGA080	
s7b2609.d	WBN100225-02	JMB3	126-FEB-2010 13:32	1ICAL	s022610	1.0	1.0 MEGA100	
s7b2610.d	WBN100225-01	JMB3	126-FEB-2010 13:56	1ICAL	s022610	1.0	1.0 MEGA120	
s7b2611.d	INSTBLANK	JMB3	26-FEB-2010 14:19	1IB	s022610	1.0	1.0 INSTBLANK	
s7b2612.d	WBN100225-07	JMB3	126-FEB-2010 14:44	1ICAL	s022610	1.0	1.0 MEGA010	8270d
s7b2612.d	WBN100225-07	JMB3	126-FEB-2010 14:44	1ICAL	s022610	1.0	1.0 MEGA010	
s7b2613.d	WBN100225-06	JMB3	126-FEB-2010 15:08	1ICAL	s022610	1.0	1.0 MEGA020	8270d
s7b2613.d	WBN100225-06	JMB3	126-FEB-2010 15:08	1ICAL	s022610	1.0	1.0 MEGA020	
s7b2614-625.d	WBN100225-09.1	JMB3	126-FEB-2010 15:33	1ICV	s022610	1.0	1.0 MEGA1CV	625 MEGA 1CV
s7b2614-D.d	WBN100225-09.1	JMB3	26-FEB-2010 15:33	1ICV	s022610	1.0	1.0 MEGA1CV	8270d MEGA 1CV
s7b2614.d	WBN100225-09.1	JMB3	126-FEB-2010 15:33	1ICV	s022610	1.0	1.0 MEGA1CV	8270c MEGA 1CV

ls7b2615-D.d	WBN100207-01	JMB3	126-FEB-2010 16:00	!DFTPP	!s022610	!	1.0!DFTPP	!	8270d TCNE: AP - PEST - NEV	!
ls7b2615.d	WBN100207-01	JMB3	26-FEB-2010 16:00	!DFTPP	!s022610	!	1.0!DFTPP	!	8270c TCNE: AP - PEST - NEV	!
ls7b2616.d	INSTBLANK	JMB3	126-FEB-2010 16:13	!B	!s022610	!	1.0!INSTBLANK	!		!
ls7b2617-D.d	WBN100218-01	JMB3	126-FEB-2010 16:34	!ICAL	!s022610	!	1.0!AP010	!	8270d	!
ls7b2617.d	WBN100218-01	JMB3	126-FEB-2010 16:34	!ICAL	!s022610	!	1.0 AP010	!		!
ls7b2618.d	WBN100218-02	JMB3	126-FEB-2010 16:56	!ICAL	!s022610	!	1.0!AP020	!		!
ls7b2619.d	WBN100218-03.1	JMB3	126-FEB-2010 17:17	!ICAL	!s022610	!	1.0!AP040	!		!
ls7b2620.d	WBN100218-04	JMB3	126-FEB-2010 17:39	!ICAL	!s022610	!	1.0!AP050	!		!
ls7b2621.d	WBN100218-05	JMB3	126-FEB-2010 18:00	!ICAL	!s022610	!	1.0!AP080	!		!
ls7b2622.d	WBN100218-06	JMB3	126-FEB-2010 18:22	!ICAL	!s022610	!	1.0!AP100	!		!
ls7b2623.d	WBN100218-07	JMB3	126-FEB-2010 18:43	!ICAL	!s022610	!	1.0 AP:20	!		!
ls7b2624.d	WBN100205-25	JMB3	126-FEB-2010 19:05	!ICAL	!s022610	!	1.0!PEST010	!		!
ls7b2625.d	WBN100205-24	JMB3	126-FEB-2010 19:26	!ICAL	!s022610	!	1.0!PEST020	!		!
ls7b2626.d	WBN100205-23.1	JMB3	126-FEB-2010 19:48	!ICAL	!s022610	!	1.0!PEST040	!		!
ls7b2627.d	WBN100205-22	JMB3	126-FEB-2010 20:09	!ICAL	!s022610	!	1.0!PEST050	!		!
ls7b2628.d	WBN100205-21	JMB3	126-FEB-2010 20:31	!ICAL	!s022610	!	1.0-PEST080	!		!
ls7b2629.d	WBN100205-20	JMB3	126-FEB-2010 20:52	!ICAL	!s022610	!	1.0!PEST100	!		!
ls7b2630.d	WBN100205-19	JMB3	126-FEB-2010 21:14	!ICAL	!s022610	!	1.0!PEST120	!		!
ls7b2631.d	UBN100127-01	JMB3	126-FEB-2010 21:36	!ICAL	!s022610	!	1.0 NEV010	!		!
ls7b2632.d	UBN100127-02	JMB3	126-FEB-2010 21:58	!ICAL	!s022610	!	1.0!NEV020	!		!
ls7b2633.d	UBN100127-03	JMB3	126-FEB-2010 22:19	!ICAL	!s022610	!	1.0!NEV040	!		!
ls7b2634.d	UBN100127-04	JMB3	126-FEB-2010 22:40	!ICAL	!s022610	!	1.0!NEV050	!		!
ls7b2635.d	UBN100127-05	JMB3	126-FEB-2010 23:02	!ICAL	!s022610	!	1.0!NEV080	!		!
ls7b2636.d	UBN100127-06	JMB3	126-FEB-2010 23:24	!ICAL	!s022610	!	1.0!NEV100	!		!
ls7b2637.d	UBN100127-07	JMB3	126-FEB-2010 23:46	!ICAL	!s022610	!	1.0-NEV120	!		!
ls7b2638-625.d	WBN100218-08.1	JMB3	127-FEB-2010 00:07	!ICV	!s022610	!	1.0!APICV	!	625 AP ICV	!
ls7b2638-2.d	WBN100218-08.1	JMB3	127-FEB-2010 00:07	!ICV	!s022610	!	1.0!APICV	!	8270d AP ICV	!

s7b2638.d	WBN100218-08.1	JMB3	27-FEB-2010 00:07	ICV	s022610		1.0 APICV		8270d AP ICV	:
s7b2639-625.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610		1.0 PEST:CV		625 PEST ICV	
s7b2639-D.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610		1.0 PESTICV		8270d PEST ICV	
s7b2639.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610		1.0 PESTICV		8270c PEST ICV	
s7b2640-625.d	WBN100225-05.2	JMB3	27-FEB-2010 00:50	CVS	s022610		1.0 MEGACVS		DUSE: 625 MEGA CVS - fails some analytes >20%	
s7b2641-625.d	WBN100218-03.1	JMB3	27-FEB-2010 01:15	CVS	s022610		1.0 APCVS		DUSE: 625 AP CVS	:
s7b2642-625.d	WBN100225-05.1	JMB3	27-FEB-2010 08:38	CVS	s022610		1.0 MEGACVS		DUSE: 625 MEGA CVS - fails some analytes >20%	:

Instrument Batch: /chem/MSD7.i/s022610.b



### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 15-MAR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> SEM/VOA GC/MS	<b>Test / Method:</b> SW846 8270C	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 959623	<b>Sample Numbers:</b> See Below		

Potentially affected work order(s)(SDG): 248043(10-2074)

**Application Issues:**

Failed Recovery for MS/PS  
Failed RPD for MS/MSD, or PS/PSD  
Failed Recovery for LCS/LCSD  
Failed Recovery for MSD/PSD  
Failed Yield for Surrogates

**Specification and Requirements  
Exception Description:**

**DER Disposition:**

1. Samples 248043002 and 248043004 recovered surrogates outside of the established acceptance limits. Please see the QC summary report for specific failures.
2. The LCS(1202058130) recovered Benzyl alcohol at 25%. The limits are 27%-108%.
3. The MS(1202058131) and MSD(1202058132) recovered multiple surrogates outside of the established acceptance limits. Please see the QC summary report for specific failures.
4. The MS(1202058131) and MSD(1202058132) recovered multiple spike analytes outside of the established acceptance limits. Please see the QC summary report for specific failures.
5. The MS(1202058131)/MSD(1202058132) RPD value for 2,4-Dimethylphenol was 133% (limit: 30%) and for Benzyl alcohol was 200% (limit: 30%).

1. Since the samples were re-extracted out of holding in batch 965290 and passed for all surrogate recoveries, both sets of data results have been reported.
2. The Benzyl alcohol failure represents less than 5% of the total requested spike analyte list. That satisfied the acceptance criteria for the client and the data results have been reported. Please note that Benzyl alcohol is a poor responder that is subject to erratic chromatography behavior. This may account for the low recovery of the analyte in the LCS (as well as the MS and MSD).
3. Since the MS and MSD displayed surrogate similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.
4. Since the MS and MSD displayed spike similar recoveries, the failures were attributed to sample matrix interference and the data have been reported. Please note that Benzyl alcohol is a poor responder that is subject to erratic chromatography behavior. This may account for the low recovery of the analyte in the MS and MSD (as well as the LCS).
5. The RPD failures were attributed to matrix interference and the data have been reported.

**Originator's Name:**

Josh Brooks 18-MAR-10

**Data Validator/Group Leader:**

Barbara Bailey 23-MAR-10

### DATA EXCEPTION REPORT

**Mo.Day Yr.**  
23-MAR-10

**Division:**  
Industrial

**Quality Criteria:**  
Specifications

**Type:**  
Process

**Instrument Type:**  
SEMIVOA GC/MS

**Test / Method:**  
SW846 8270C

**Matrix Type:**  
Solid

**Client Code:**  
LANL

**Batch ID:**  
965290

**Sample Numbers:**  
See Below

**Potentially affected work order(s)(SDG):** 248043(10-2074)

**Application Issues:**

Other

**Specification and Requirements**  
**Exception Description:**

**DER Disposition:**

1. Samples 248043002 and 248043004 were re-extracted out of holding from batch 959623 due to surrogate failures.

1. Since the re-extractions were within the acceptance limits for all surrogate recoveries, both sets of data results have been reported.

**Originator's Name:**

Barbara Bailey

23-MAR-10

**Data Validator/Group Leader:**

Daniel Beacham

23-MAR-10

# LC/MS/MS EXPLOSIVES ANALYSIS

**LC/MS/MS Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2074**

**Method/Analysis Information**

**Procedure:** Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)

**Analytical Method:** SW846 8321A Modified

**Prep Method:** SW846 8330 PREP

**Analytical Batch Number:** 958262

**Prep Batch Number:** 958260

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

<b>Sample ID</b>	<b>Client ID</b>
248043001	RE36-10-7414
248043002	RE36-10-7413
248043003	RE36-10-7462
248043004	RE36-10-7465
248043005	RE36-10-7473
248043006	RE36-10-7471
248043007	RE36-10-7472
248043008	RE36-10-7468
248043009	RE36-10-7464
248043010	RE36-10-7463
248043011	RE36-10-7475
248043012	RE36-10-7466
248043013	RE36-10-7476
248043014	RE36-10-7461
248043015	RE36-10-7467
248043016	RE36-10-7469
248043017	RE36-10-7470
248043018	RE36-10-7515
1202055034	Method Blank (MB)
1202055035	Laboratory Control Sample (LCS)
1202055036	248043001(RE36-10-7414) Matrix Spike (MS)
1202055037	248043001(RE36-10-7414) Matrix Spike Duplicate (MSD)

### **Preparation/Analytical Method Verification**

#### **SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

#### **Primary Analyte Analysis**

### **Calibration Information**

#### **Initial Calibration**

All initial calibration requirements for this analysis have been met for this SDG.

#### **Calibration Verification Standard Requirements**

All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

#### **Calibration Blank Requirements**

All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

#### **CRI Requirements**

All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

### **Quality Control (QC) Information**

#### **Method Blank (MB) Statement**

The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

#### **Surrogate Recoveries**

All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

#### **Laboratory Control Sample (LCS) Recovery**

The LCS recovered Tetryl at 30.7% with limits of 51-112% and 4-Amino-2,6-dinitrotoluene at 83.0% with limits of 84-130%. Since both the MS and MSD met acceptance limits for the stated analytes, the data are reported. Please see data exception report 817809.

#### **QC Sample Designation**

Sample 248043001 (RE36-10-7414) was chosen for matrix spike and matrix spike duplicate analysis.

#### **Matrix Spike (MS) Recovery Statement**

The MS recovered 2-Amino-4,6-dinitrotoluene at 78.6%. The recovery limits are 85-137%. Since all other spike recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical and/or extraction process. The data are reported. Please see data exception report 817809.

#### **Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD spike recoveries were within the established acceptance limits.

#### **MS/MSD Relative Percent Difference (RPD) Statement**

The MS/MSD RPD for PETN was 32.6%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical and/or extraction process. The data are reported. Please see data exception report 817809.

#### **Internal Standard (ISTD) Acceptance**

Samples 248043006 (RE36-10-7471) and 248043008 (RE36-10-7468) failed ISTD acceptance criteria. They were re-analyzed and confirmed the failure. The re-analysis data are reported. The confirmation raw data are located in the Miscellaneous Section. Please see data exception report 817809.

Since similar recoveries were obtained between matrix spikes 1202055036 (RE36-10-7414MS) and 1202055037 (RE36-10-7414MSD), the noted exceptions are attributed to sample matrix interference. Sample re-analysis was not required and the data are reported. Please see data exception report 817809.

#### **Technical Information**

##### **Holding Time Specifications**

Samples 248043001(RE36-10-7414), 248043002(RE36-10-7413), 248043003(RE36-10-7462), 248043004(RE36-10-7465), 248043005(RE36-10-7473), 248043006(RE36-10-7471), 248043007(RE36-10-7472), 248043008(RE36-10-7468), 248043009(RE36-10-7464), 248043010(RE36-10-7463), 248043011(RE36-10-7475), 248043012(RE36-10-7466), 248043013(RE36-10-7476), 248043014(RE36-10-7461), 248043015(RE36-10-7467), 248043016(RE36-10-7469), 248043017(RE36-10-7470), 248043018(RE36-10-7515), 1202055036(RE36-10-7414MS) and 1202055037(RE36-10-7414MSD) were analyzed out of holding for the Primary analyte analysis. The analytical holding times for the samples in this batch were exceeded due to limitations of instrument capacity. However, these samples were analyzed within two times the analytical holding time of the method. The client was notified of this situation and is in agreement to receive these qualified data. The data are reported. Please see data exception report 817809. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

##### **Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

##### **Sample Dilutions**

According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

##### **Sample Re-extraction/Re-analysis**

Samples 248043006 (RE36-10-7471) and 248043008 (RE36-10-7468) failed ISTD acceptance criteria. They were re-analyzed and confirmed the failure. The re-analysis data are reported. The confirmation raw data are located in the Miscellaneous Section. Please see data exception report 817809.

Sample 248043016 (RE36-10-7469) failed ISTD acceptance criteria. It was re-analyzed and passed acceptance criteria. The re-analysis is reported.

##### **Secondary Analyte Analysis**

#### **Calibration Information**

##### **Initial Calibration**

All initial calibration requirements for this analysis have been met for this SDG.

**Calibration Verification Standard Requirements**

All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

**Calibration Blank Requirements**

All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

**CRI Requirements**

All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

**Quality Control (QC) Information****Method Blank (MB) Statement**

The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

**Surrogate Recoveries**

All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

**Laboratory Control Sample (LCS) Recovery**

The LCS recovered 2,6-Diamino-4-nitrotoluene at 124% with limits of 64-122%. Since both the MS and MSD met acceptance limits for the stated analyte, the data are reported. Please see data exception report 817809.

**QC Sample Designation**

Sample 248043001 (RE36-10-7414) was chosen for matrix spike and matrix spike duplicate analysis.

**Matrix Spike (MS) Recovery Statement**

The MS spike recoveries were within the established acceptance limits.

**Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD spike recoveries were within the established acceptance limits.

**MS/MSD Relative Percent Difference (RPD) Statement**

The RPD(s) between the MS and MSD met the acceptance limits.

**Internal Standard (ISTD) Acceptance**

The internal standards were not added to the secondary analyte extracts.

**Technical Information****Holding Time Specifications**

All samples in this SDG in this analytical batch for this analysis met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

**Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

#### **Sample Dilutions**

According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

#### **Sample Re-extraction/Re-analysis**

Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

#### **Miscellaneous Information**

##### **Data Exception (DER) Documentation**

Data exception report 817809 was generated for this SDG.

The LCS recovered Tetraol at 30.7% with limits of 51-112% and 4-Amino-2,6-dinitrotoluene at 83.0% with limits of 84-130%. The LCS recovered 2,6-Diamino-4-nitrotoluene at 124% with limits of 64-122%. Since both the MS and MSD met acceptance limits for the stated analytes, the data are reported. Please see data exception report 817809.

The MS recovered 2-Amino-4,6-dinitrotoluene at 78.6%. The recovery limits are 85-137%. Since all other spike recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical and/or extraction process. The data are reported.

The MS/MSD RPD for PETN was 32.6%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical and/or extraction process. The data are reported.

Samples 248043006 (RE36-10-7471) and 248043008 (RE36-10-7468) failed ISTD acceptance criteria. They were re-analyzed and confirmed the failure. The re-analysis data are reported. The confirmation raw data are located in the Miscellaneous Section.

Since similar recoveries were obtained between matrix spikes 1202055036 (RE36-10-7414MS) and 1202055037 (RE36-10-7414MSD), the noted exceptions are attributed to sample matrix interference. Sample re-analysis was not required and the data are reported.

Samples 248043001(RE36-10-7414), 248043002(RE36-10-7413), 248043003(RE36-10-7462), 248043004(RE36-10-7465), 248043005(RE36-10-7473), 248043006(RE36-10-7471), 248043007(RE36-10-7472), 248043008(RE36-10-7468), 248043009(RE36-10-7464), 248043010(RE36-10-7463), 248043011(RE36-10-7475), 248043012(RE36-10-7466), 248043013(RE36-10-7476), 248043014(RE36-10-7461), 248043015(RE36-10-7467), 248043016(RE36-10-7469), 248043017(RE36-10-7470), 248043018(RE36-10-7515), 1202055036(RE36-10-7414MS) and 1202055037(RE36-10-7414MSD) were analyzed out of holding for the Primary analyte analysis. The analytical holding times for the samples in this batch were exceeded due to limitations of instrument capacity. However, these samples were analyzed within two times the analytical holding time of the method. The client was notified of this situation and is in agreement to receive these qualified data. The data are reported.

#### **Manual Integrations**

Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

#### **Flagging Convention**

The samples were not originally analyzed using SW-846 Method 8330.



#### **Additional Comments**

Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

#### **System Configuration**

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

#### **Chromatographic Columns**

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

#### **Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

#### **Review Validation:**

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather Mauer Date: 04/16/10

# SAMPLE DATA SUMMARY

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7414

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043001

Sample Amount 2

Moisture: 21.1

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412078a

Date Analyzed: 14-APR-10 05:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7414

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043001

Sample Amount 2

Moisture: 21.1

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310092.wiff

Date Analyzed: 01-APR-10 08:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7413

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043002

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412081a

Date Analyzed: 14-APR-10 07:00

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7413

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043002

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310095.wiff

Date Analyzed: 01-APR-10 09:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	331	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7462

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043003

Sample Amount 2

Moisture: 7.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412083a

Date Analyzed: 14-APR-10 07:59

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7462

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043003

Sample Amount 2

Moisture: 7.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310096.wiff

Date Analyzed: 01-APR-10 09:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7465

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043004

Sample Amount 2

Moisture: 22.3

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412084a

Date Analyzed: 14-APR-10 08:29

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7465

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043004

Sample Amount 2

Moisture: 22.3

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310097.wiff

Date Analyzed: 01-APR-10 09:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7473

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043005

Sample Amount 2

Moisture: 23.6

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412089a

Date Analyzed: 14-APR-10 10:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7473

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043005

Sample Amount 2

Moisture: 23.6

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310098.wiff

Date Analyzed: 01-APR-10 10:04

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7471

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043006

Sample Amount 2

Moisture: 29.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412108a

Date Analyzed: 14-APR-10 20:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7471

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043006

Sample Amount 2

Moisture: 29.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310099.wiff

Date Analyzed: 01-APR-10 10:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7472

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043007

Sample Amount 2

Moisture: 21.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412092a

Date Analyzed: 14-APR-10 12:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7472

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043007

Sample Amount 2

Moisture: 21.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310103.wiff

Date Analyzed: 01-APR-10 11:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7468

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043008

Sample Amount 2

Moisture: 26.6

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412109a

Date Analyzed: 14-APR-10 20:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7468

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043008

Sample Amount 2

Moisture: 26.6

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310104.wiff

Date Analyzed: 01-APR-10 11:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7464

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043009

Sample Amount 2

Moisture: 7.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412094a

Date Analyzed: 14-APR-10 13:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7464

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043009

Sample Amount 2

Moisture: 7.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310105.wiff

Date Analyzed: 01-APR-10 11:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7463

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043010

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412095a

Date Analyzed: 14-APR-10 13:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7463

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043010

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310106.wiff

Date Analyzed: 01-APR-10 12:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7475

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043011

Sample Amount 2

Moisture: 27.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412096a

Date Analyzed: 14-APR-10 14:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7475

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043011

Sample Amount 2

Moisture: 27.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310107.wiff

Date Analyzed: 01-APR-10 12:26

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7466

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043012

Sample Amount 2

Moisture: 20.5

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412097a

Date Analyzed: 14-APR-10 14:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7466

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043012

Sample Amount 2

Moisture: 20.5

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310108.wiff

Date Analyzed: 01-APR-10 12:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7476

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043013

Sample Amount 2

Moisture: 17.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412102a

Date Analyzed: 14-APR-10 17:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7476

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043013

Sample Amount 2

Moisture: 17.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310109.wiff

Date Analyzed: 01-APR-10 12:57

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7461

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043014

Sample Amount 2

Moisture: 12.7

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412103a

Date Analyzed: 14-APR-10 17:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7461

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043014

Sample Amount 2

Moisture: 12.7

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310110.wiff

Date Analyzed: 01-APR-10 13:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	303	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7467

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043015

Sample Amount 2

Moisture: 16.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412104a

Date Analyzed: 14-APR-10 18:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7467

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043015

Sample Amount 2

Moisture: 16.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310111.wiff

Date Analyzed: 01-APR-10 13:29

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7469

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043016

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412138a

Date Analyzed: 15-APR-10 11:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7469

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043016

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310112.wiff

Date Analyzed: 01-APR-10 13:44

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7470

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043017

Sample Amount 2

Moisture: 14.4

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412106a

Date Analyzed: 14-APR-10 19:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7470

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043017

Sample Amount 2

Moisture: 14.4

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310116.wiff

Date Analyzed: 01-APR-10 14:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7515

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043018

Sample Amount 2

Moisture: 20.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412107a

Date Analyzed: 14-APR-10 19:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7515

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043018

Sample Amount 2

Moisture: 20.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310117.wiff

Date Analyzed: 01-APR-10 15:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument X Concentrated Extract Volume X Dilution  
Value Sample Amount Factor

# QUALITY CONTROL SUMMARY

# High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
248043001	RE36-10-7414	113	70 - 144	
248043001	RE36-10-7414	118	70 - 144	
248043002	RE36-10-7413	102	70 - 144	
248043002	RE36-10-7413	126	70 - 144	
248043003	RE36-10-7462	102	70 - 144	
248043003	RE36-10-7462	112	70 - 144	
248043004	RE36-10-7465	94.9	70 - 144	
248043004	RE36-10-7465	123	70 - 144	
248043005	RE36-10-7473	109	70 - 144	
248043005	RE36-10-7473	116	70 - 144	
248043006	RE36-10-7471	108	70 - 144	
248043006	RE36-10-7471	120	70 - 144	
248043007	RE36-10-7472	108	70 - 144	
248043007	RE36-10-7472	120	70 - 144	
248043008	RE36-10-7468	114	70 - 144	
248043008	RE36-10-7468	114	70 - 144	
248043009	RE36-10-7464	99.2	70 - 144	
248043009	RE36-10-7464	120	70 - 144	
248043010	RE36-10-7463	101	70 - 144	
248043010	RE36-10-7463	113	70 - 144	
248043011	RE36-10-7475	95.1	70 - 144	
248043011	RE36-10-7475	118	70 - 144	
248043012	RE36-10-7466	102	70 - 144	
248043012	RE36-10-7466	117	70 - 144	
248043013	RE36-10-7476	99.4	70 - 144	
248043013	RE36-10-7476	111	70 - 144	
248043014	RE36-10-7461	103	70 - 144	
248043014	RE36-10-7461	116	70 - 144	
248043015	RE36-10-7467	119	70 - 144	
248043015	RE36-10-7467	112	70 - 144	
248043016	RE36-10-7469	134	70 - 144	
248043016	RE36-10-7469	111	70 - 144	
248043017	RE36-10-7470	109	70 - 144	
248043017	RE36-10-7470	114	70 - 144	
248043018	RE36-10-7515	103	70 - 144	
248043018	RE36-10-7515	112	70 - 144	
1202055034	MB for batch 958260	104	70 - 144	



# High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
1202055034	MB for batch 958260	115	70 - 144	
1202055035	LCS for batch 958260	90.2	70 - 144	
1202055035	LCS for batch 958260	116	70 - 144	
1202055036	RE36-10-7414(248043001MS)	77.4	70 - 144	
1202055036	RE36-10-7414(248043001MS)	116	70 - 144	
1202055037	RE36-10-7414(248043001MSD)	121	70 - 144	
1202055037	RE36-10-7414(248043001MSD)	120	70 - 144	

DNT = 3,4-Dinitrotoluene

3B  
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-2074

Extract Batch Code: 958260

Date Extracted: 03-MAR-10

GEL LCS ID: 1202055035

GEL LCSDUP ID:

Analysis Date/Time: 14-APR-10 05:02

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
1,3,5-Trinitrobenzene	5000	3780	75.6								69 – 126
2,4,6-Trinitrotoluene	5000	4020	80.4								73 – 149
2,4-Dinitrotoluene	5000	4780	95.6								87 – 137
2,6-Dinitrotoluene	5000	4530	90.7								89 – 120
2-Amino-4,6-dinitrotoluene	5000	5120	102								90 – 130
4-Amino-2,6-dinitrotoluene	5000	4150	83	*							84 – 130
HMX	5000	4600	92.1								58 – 138
Nitrobenzene	5000	4710	94.3								71 – 122
PETN	5000	4580	91.7								64 – 137
RDX	5000	5310	106								81 – 137
Tetryl	5000	1530	30.7	*							51 – 112
m-Dinitrobenzene	5000	4760	95.1								83 – 122
m-Nitrotoluene	5000	4750	94.9								73 – 118
o-Nitrotoluene	5000	4260	85.1								72 – 119
p-Nitrotoluene	5000	5180	104								67 – 131

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

3B  
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-2074

Extract Batch Code: 958260

Date Extracted: 03-MAR-10

GEL LCS ID: 1202055035

GEL LCSDUP ID:

Analysis Date/Time: 01-APR-10 08:14

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,4-Diamino-6-nitrotoluene	5000	5520	110					52 - 114
2,6-Diamino-4-nitrotoluene	5000	6190	124 *					64 - 122
3,5-Dinitroaniline	5000	5630	113					70 - 127
tris(o-cresyl) phosphate	5000	4740	94.8					84 - 119
TATB	7500	8370	112					28 - 162

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

# High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE36-10-7414

Lab Code: GEL

GEL Job No (SDG) 10-2074

Extract Batch Code: 958260

Date Extracted: 03-MAR-10

GEL Spike ID: 1202055036

GEL SpikeDup ID: 1202055037

Analysis Date/Time: 14-APR-10 06:01

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2-Amino-4,6-dinitrotoluene	5000	0	3930	78.6 *	4740	94.8	18.7	30	85 - 137
4-Amino-2,6-dinitrotoluene	5000	0	4310	86.2	5270	106	20.2	30	72 - 143
HMX	5000	0	4080	81.6	3950	79	3.32	30	51 - 144
Nitrobenzene	5000	0	4980	99.6	3980	79.6	22.4	30	70 - 122
2,6-Dinitrotoluene	5000	0	4720	94.4	4730	94.5	.169	30	90 - 118
2,4-Dinitrotoluene	5000	0	5110	102	5250	105	2.73	30	86 - 135
2,4,6-Trinitrotoluene	5000	0	4730	94.6	6010	120	23.7	30	76 - 144
1,3,5-Trinitrobenzene	5000	0	3960	79.3	3230	64.5	20.5	30	50 - 140
PETN	5000	0	3870	77.3	5370	107	32.6 *	30	60 - 140
RDX	5000	0	4700	94.1	4030	80.7	15.3	30	59 - 152
Tetryl	5000	0	4170	83.5	3500	70	17.5	30	36 - 124
m-Dinitrobenzene	5000	0	4860	97.2	4750	95	2.25	30	85 - 118
m-Nitrotoluene	5000	0	3530	70.6	4250	85.1	18.5	30	70 - 120
o-Nitrotoluene	5000	0	3570	71.3	4490	89.7	22.9	30	69 - 123
p-Nitrotoluene	5000	0	4150	83	4840	96.7	15.3	30	65 - 133

#Column to be used to flag recovery and RPD values with an asterisk

# High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE36-10-7414

Lab Code: GEL

GEL Job No (SDG) 10-2074

Extract Batch Code: 958260

Date Extracted:03-MAR-10

GEL Spike ID: 1202055036

GEL SpikeDup ID: 1202055037

Analysis Date/Time: 01-APR-10 08:46

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	5000	0	4650	93	4800	96	3.18	26	34 - 135
2,6-Diamino-4-nitrotoluene	5000	0	5990	120	5750	115	4.09	30	55 - 130
TATB	7500	0	6470	86.3	5770	76.9	11.4	30	29 - 155
3,5-Dinitroaniline	5000	0	5620	112	5610	112	.178	30	73 - 129
tris(o-cresyl) phosphate	5000	0	4770	95.4	4730	94.6	.842	30	72 - 127

#Column to be used to flag recovery and RPD values with an asterisk

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 12-APR-10 15:40

GEL Data File: EXP0412001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	440.355
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	475.584
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0

**Quantify Sample Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Method: C:\MASSLYNX\New\_Exp.PRO\MethDB\041210expa.mdb, Time: Tue Apr 13 09:03:30 2010  
 Calibration: Untitled, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412001a

Date: 12-Apr-2010

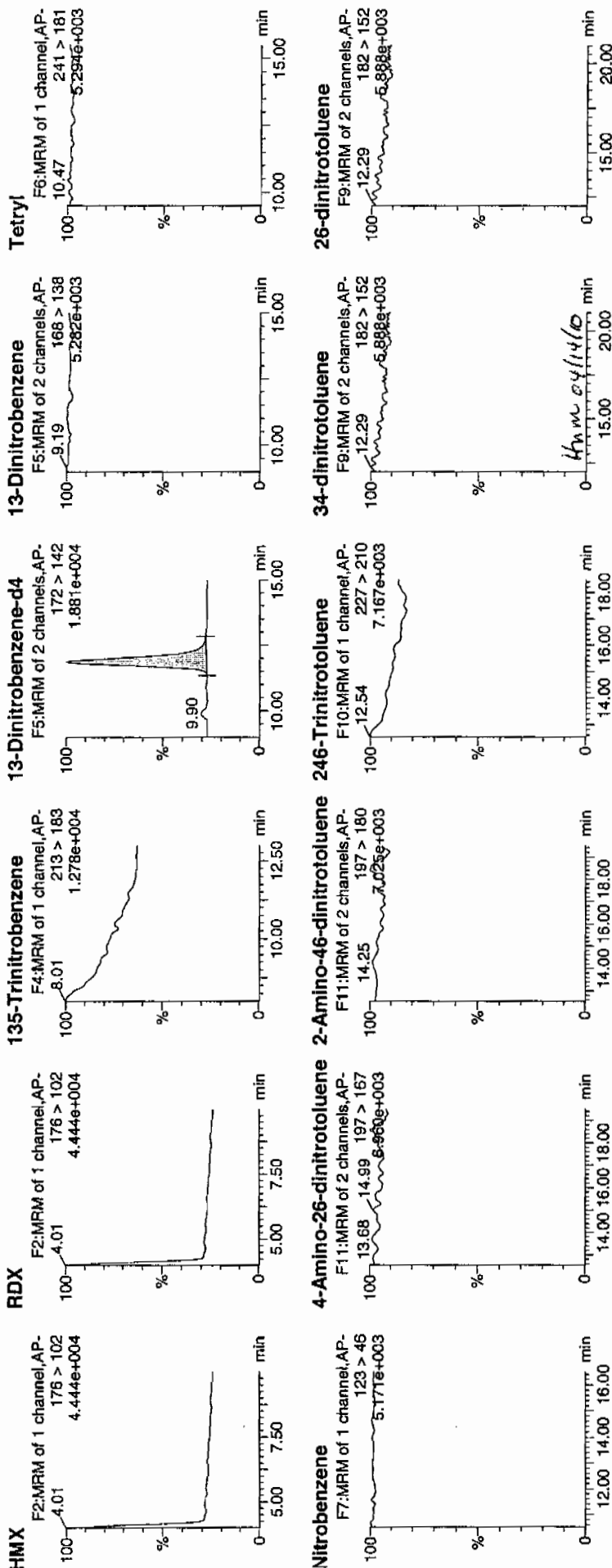
Time: 15:40:40

ID: X\BLK01

Vial: 1:1.A

Page 1523 of 2211

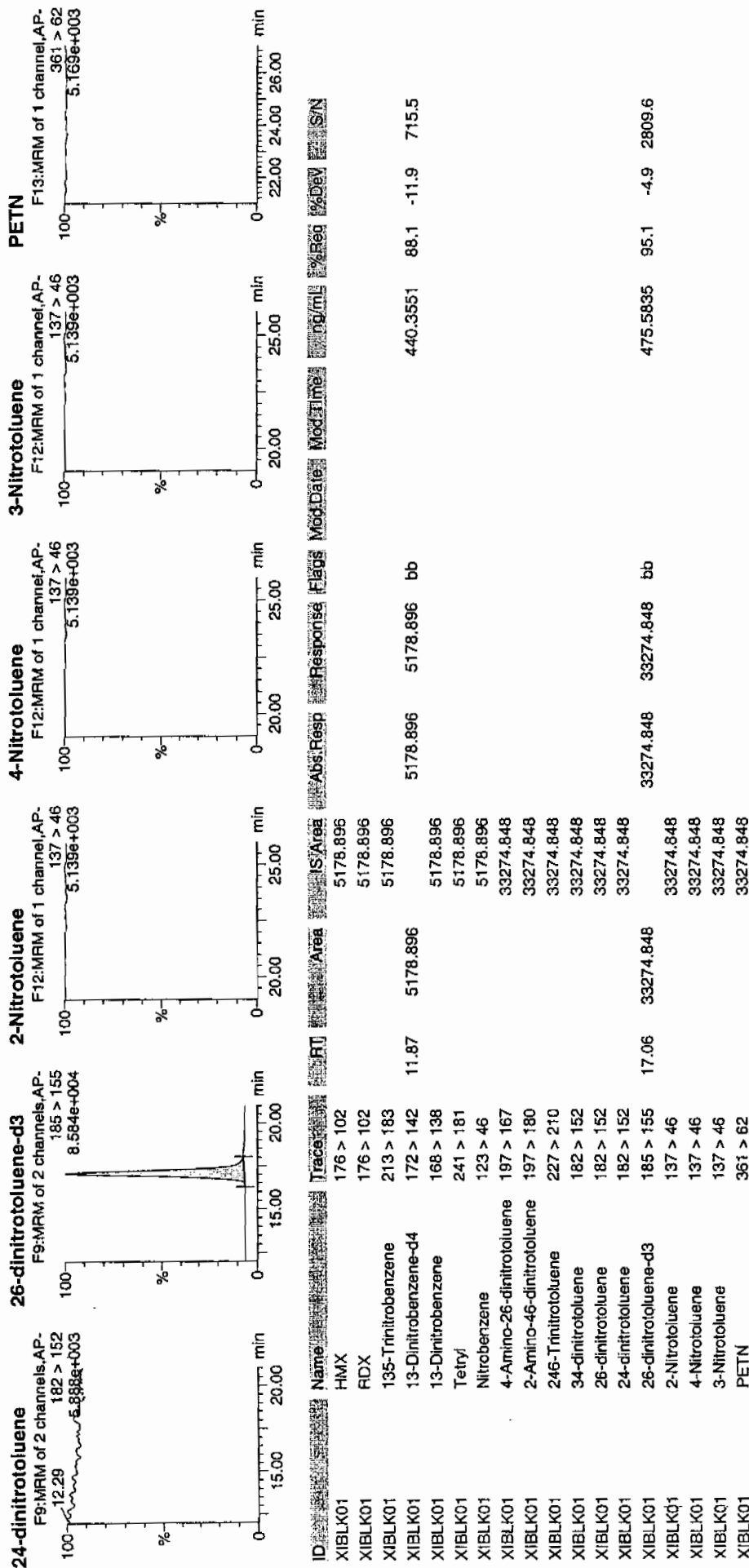
MMT  
4/13/10



Printed: Tue Apr 13 11:14:26 2010, Page 2 of 77

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010





Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 12-APR-10 16:10

GEL Data File: EXP0412002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	473.054
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	498.176
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 3 of 77

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412002a

Date: 12-Apr-2010

Time: 16:10:12

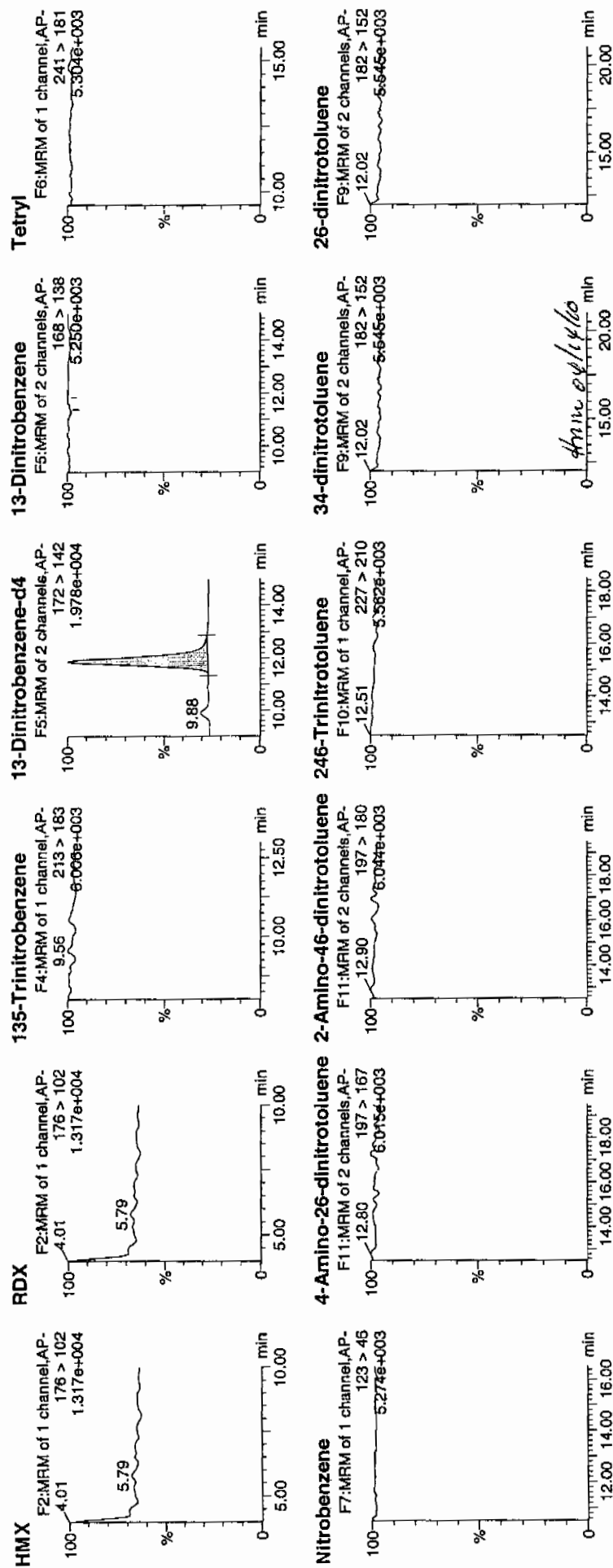
ID: XIBLK01

Vial: 1:1,A

4/13/10

Page 1526 of 2211

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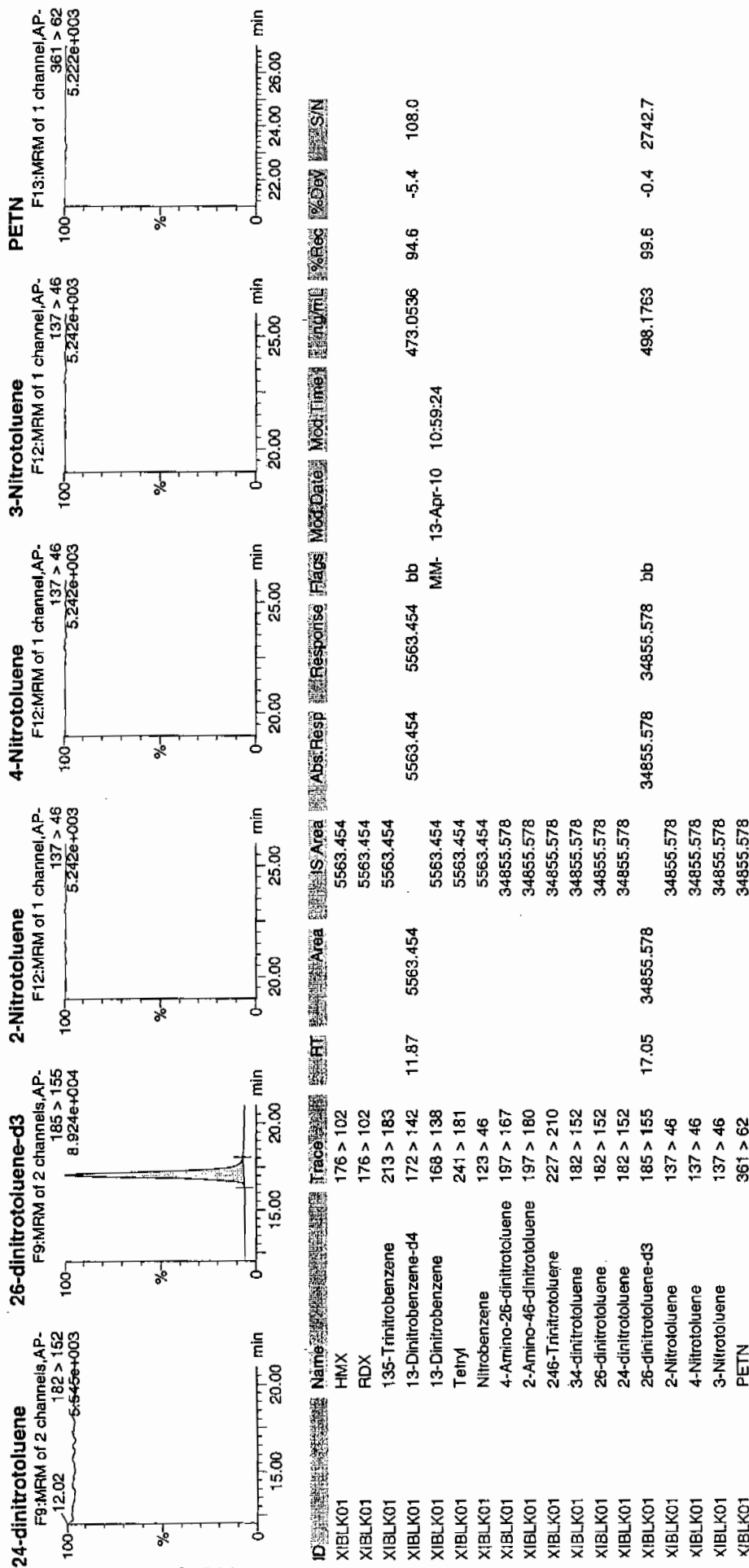


# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 4 of 77

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 31-MAR-10 08:40

GEL Data File: EXS03310001.wiff

Instrument ID: LCMSMS

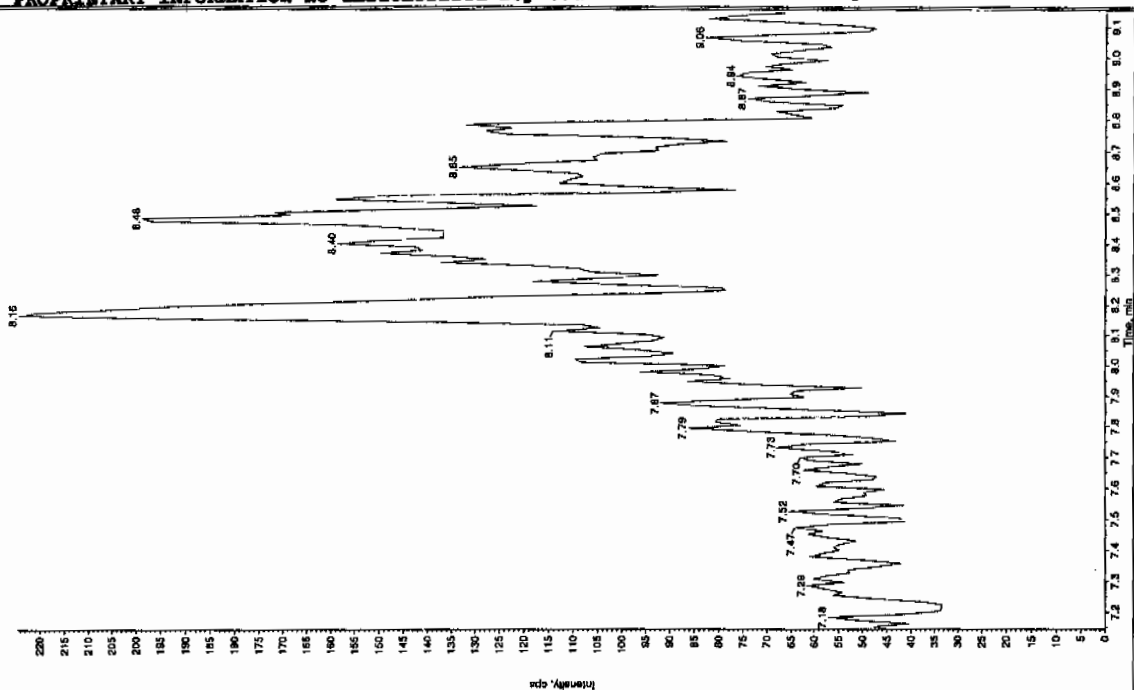
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lex 4/5/10

Sample Name: XIBLK01 Sample ID: 11111111 File: EXS03310001.wiff  
Peak Name: 35-Dinitroaniline Mass(es): 182.046.0 amu  
Comment: LCMSEXP\_B Annotation: "

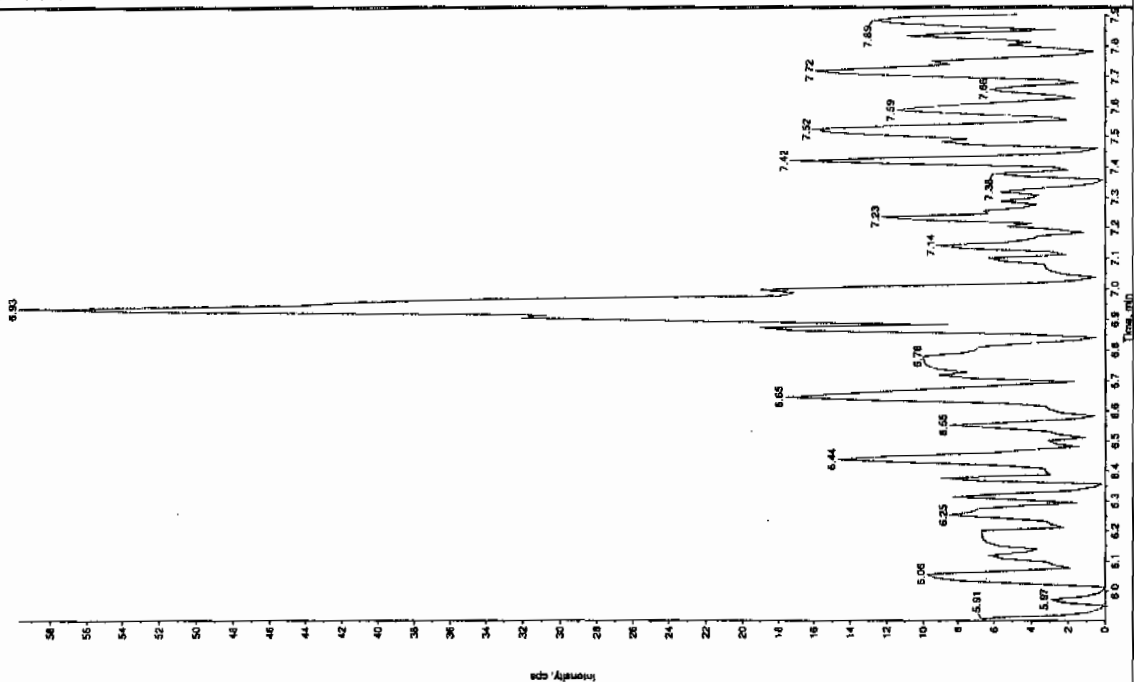
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 3/31/2010  
Acq. Time: 8:40:32 AM  
Modified: No



Ann 04/05/10

Sample Name: XIBLK01 Sample ID: 11111111 File: EXS03310001.wiff  
Peak Name: 35-Dinitroaniline Mass(es): 257.2204.9 amu  
Comment: LCMSEXP\_B Annotation: "

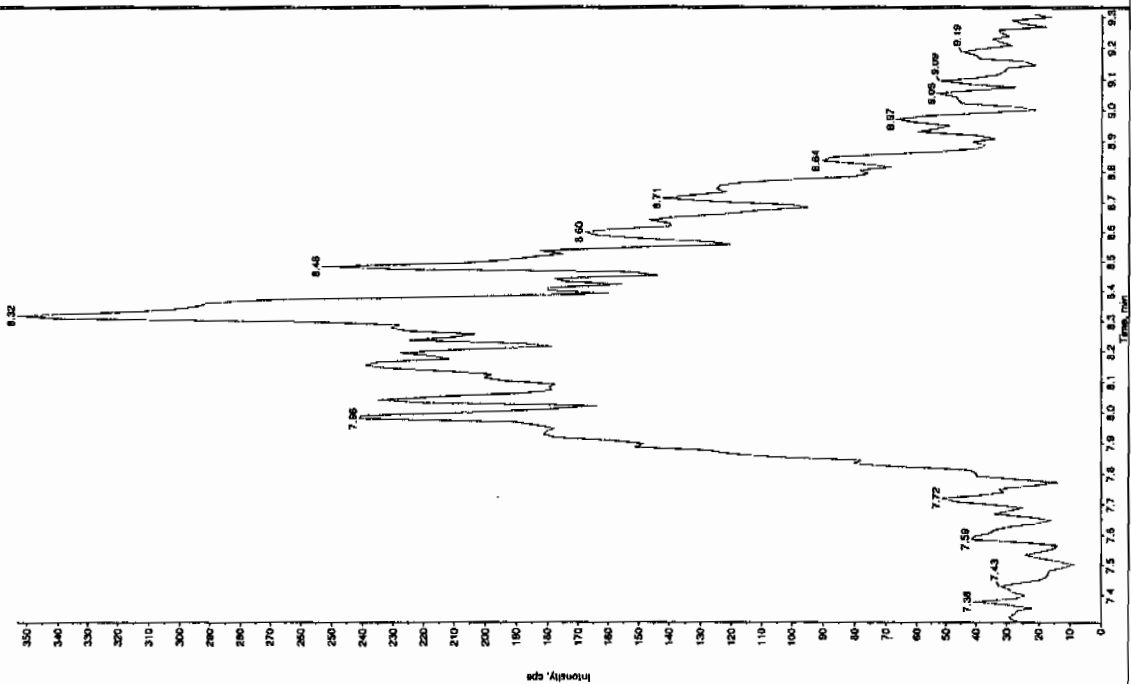
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 3/31/2010  
Acq. Time: 8:40:32 AM  
Modified: No



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

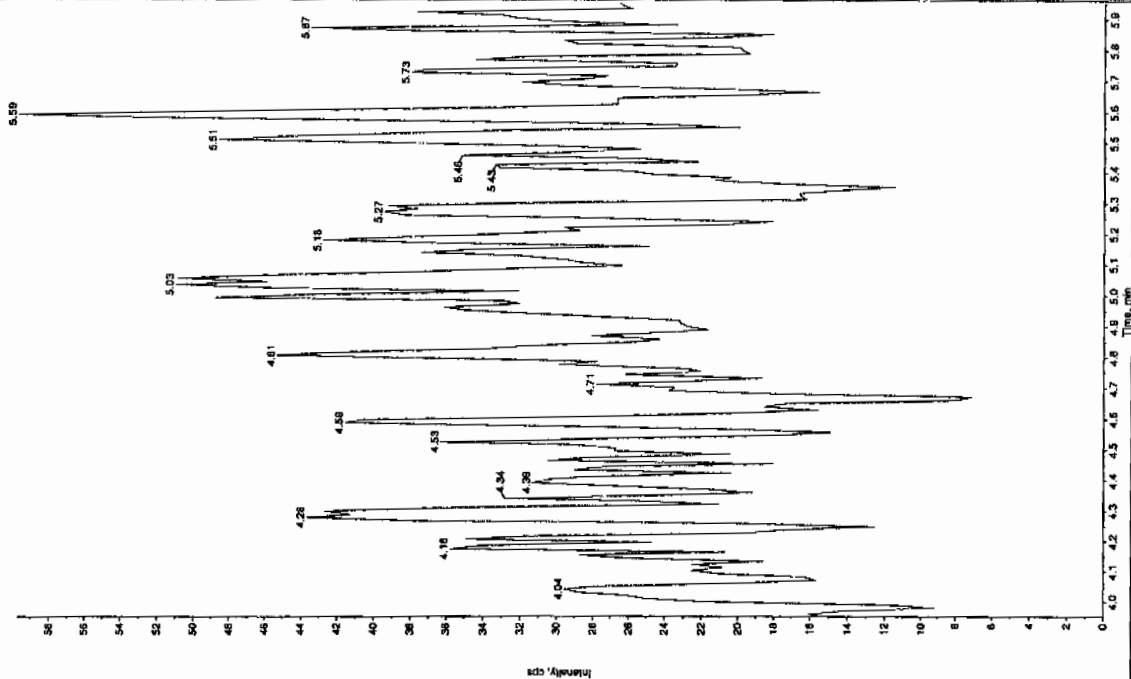
Sample Name: "XIBLK01" Sample ID: "111ER" File: "EXS0310001.will"  
 Peak Name: "34-Dinitrobenzene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Date: 3/31/2010  
 Time: 8:40:32 AM  
 Modified: No



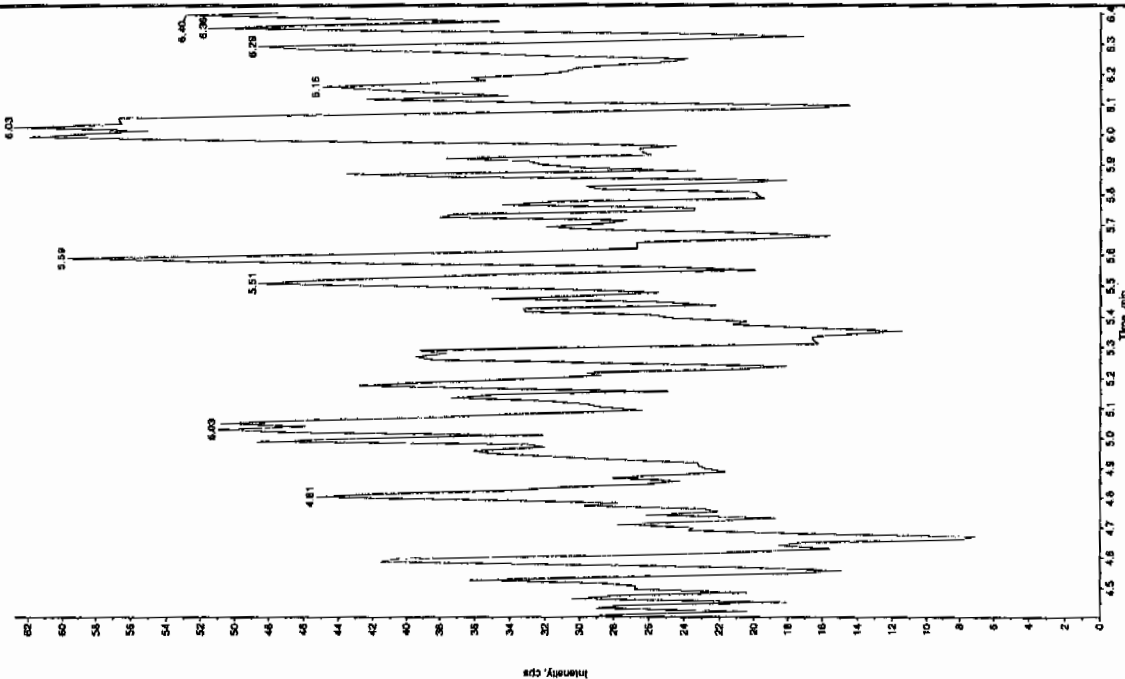
Sample Name: "XIBLK01" Sample ID: "111ER" File: "EXS0310001.will"  
 Peak Name: "26-Diamino-4-nitrobenzene" Mass(es): "186.0/146.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Date: 3/31/2010  
 Time: 8:40:32 AM  
 Modified: No

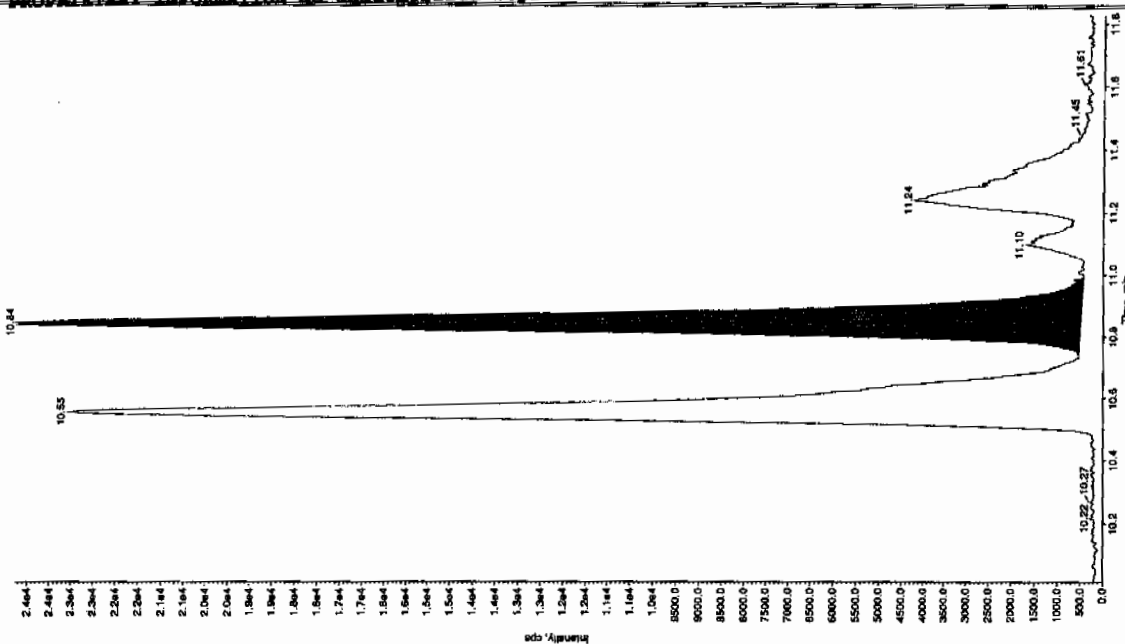


L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBUK01" Sample ID: "TILER" File: "EXS0310001.wif"  
 Peak Name: "24-Diamino-5-nitrothiophene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 8:40:32 AM  
 Labeled: No



Sample Name: "XIBUK01" Sample ID: "TILER" File: "EXS0310001.wif"  
 Peak Name: "triso-cresyl phosphate" Mass(es): "369.191.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: No Intercept  
 Acq. Date: 3/31/2010  
 Acq. Time: 8:40:32 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 3 0.00 sec  
 Smoothing Width: 3 30.0 points  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 1.01e+005 counts  
 Height: 23759.306 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 31-MAR-10 08:56

GEL Data File: EXS03310002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



Run 415110

Sample Name: "XIBLK01" Sample ID: "JILER" File: "EXS0310002.wif"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

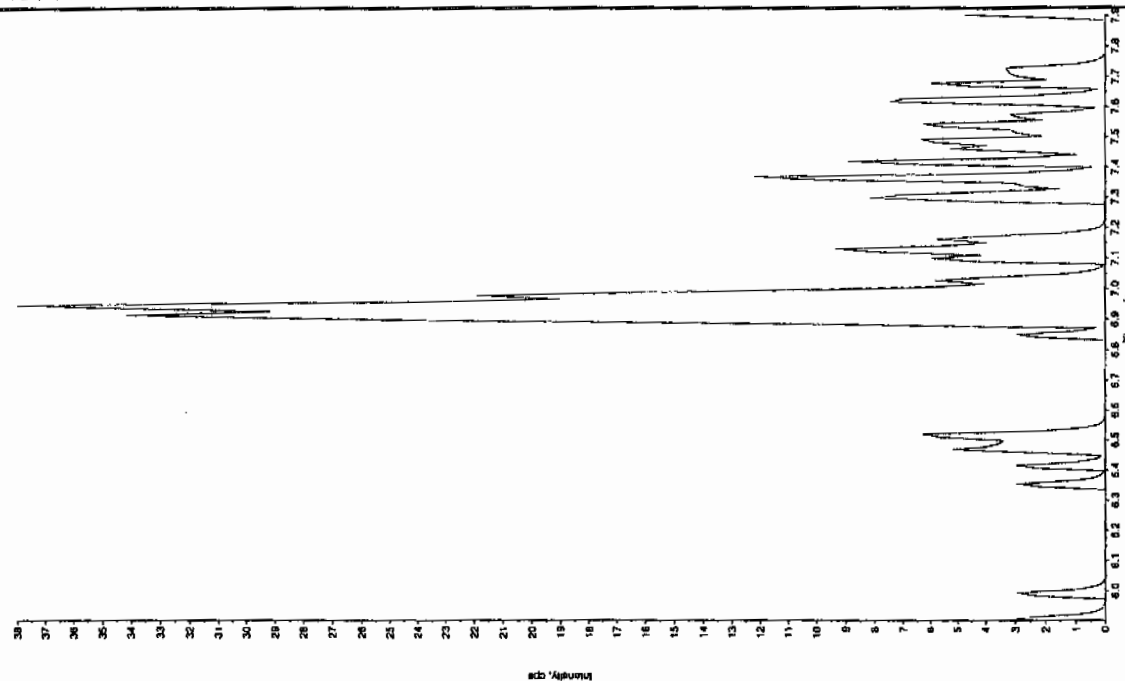
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 3/31/2010

Acq. Time: 8:56:19 AM

Modified: No



Sample Name: "XIBLK01" Sample ID: "JILER" File: "EXS0310002.wif"

Peak Name: "35-Dinitroanisole" Mass(es): "182.046.0 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

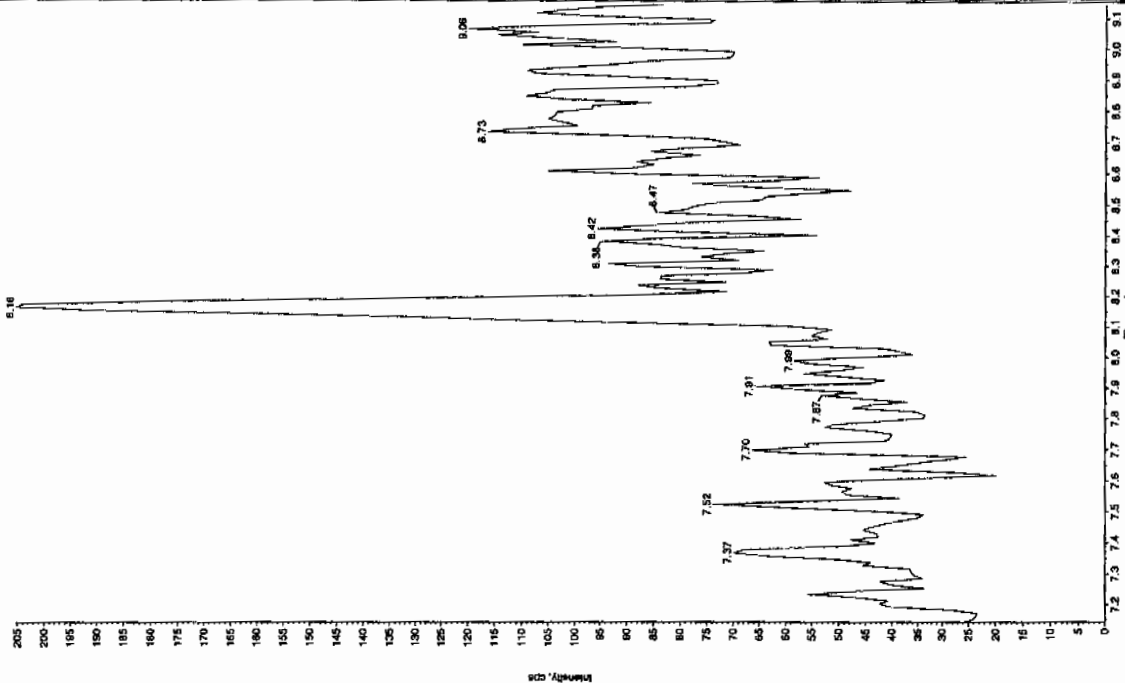
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 3/31/2010

Acq. Time: 8:56:19 AM

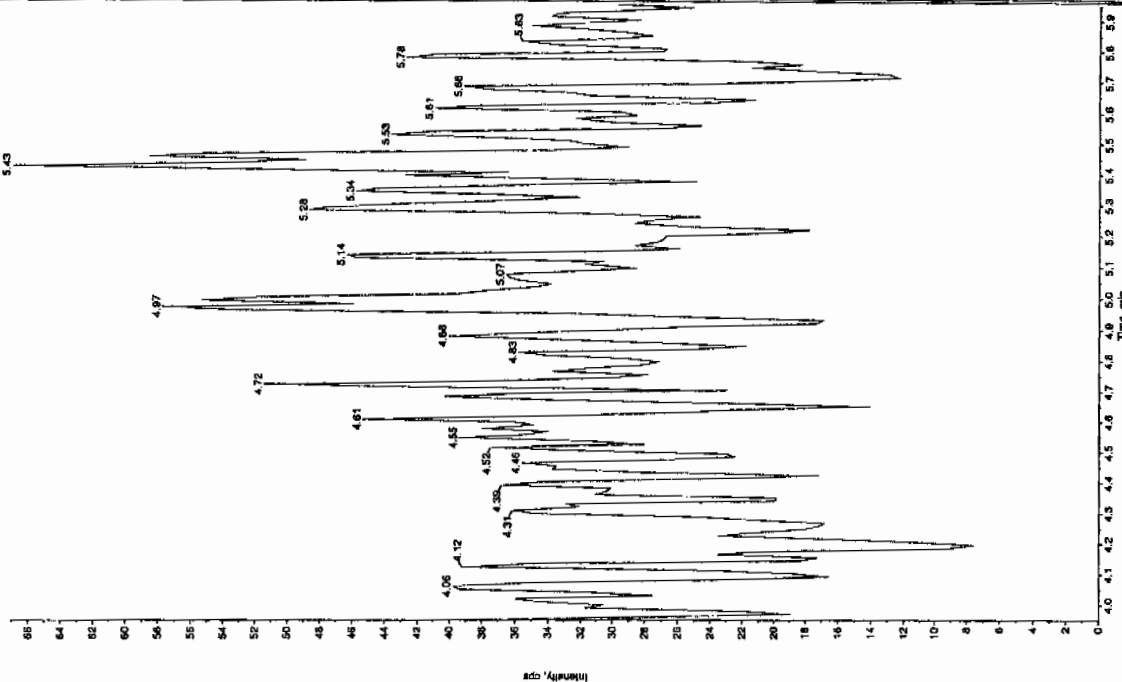
Modified: No



Run 415110

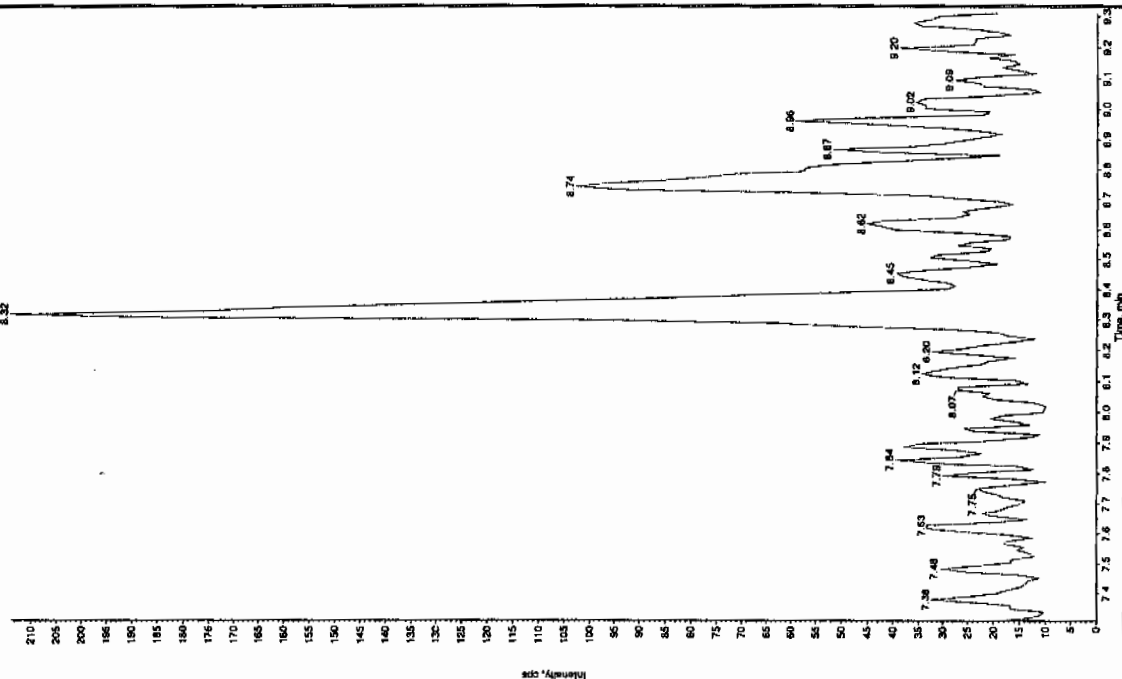
Sample Name: "XIBLX01" Sample ID: "JILER" File: "EX503310002.wif"  
 Peak Name: "26-Dianth-4-nitrobenzo" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 8:56:19 AM  
 Modified: No



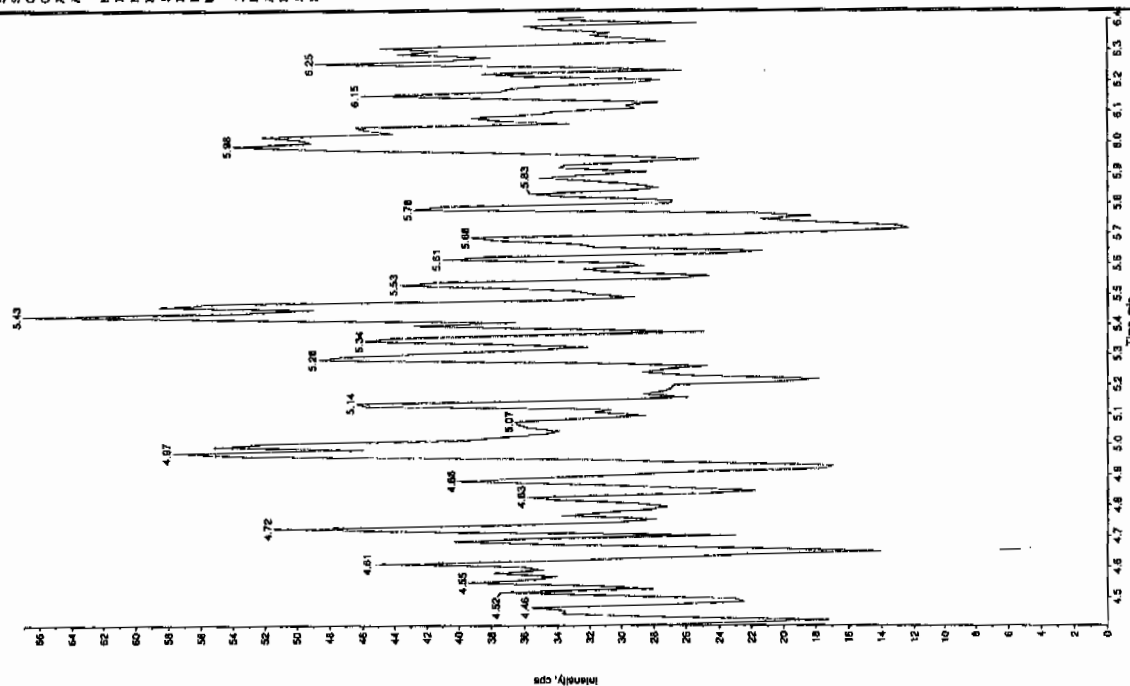
Sample Name: "XIBLX01" Sample ID: "JILER" File: "EX503310002.wif"  
 Peak Name: "34-Dinitrobenzo" Mass(es): "182.1451.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 8:56:19 AM  
 Modified: No

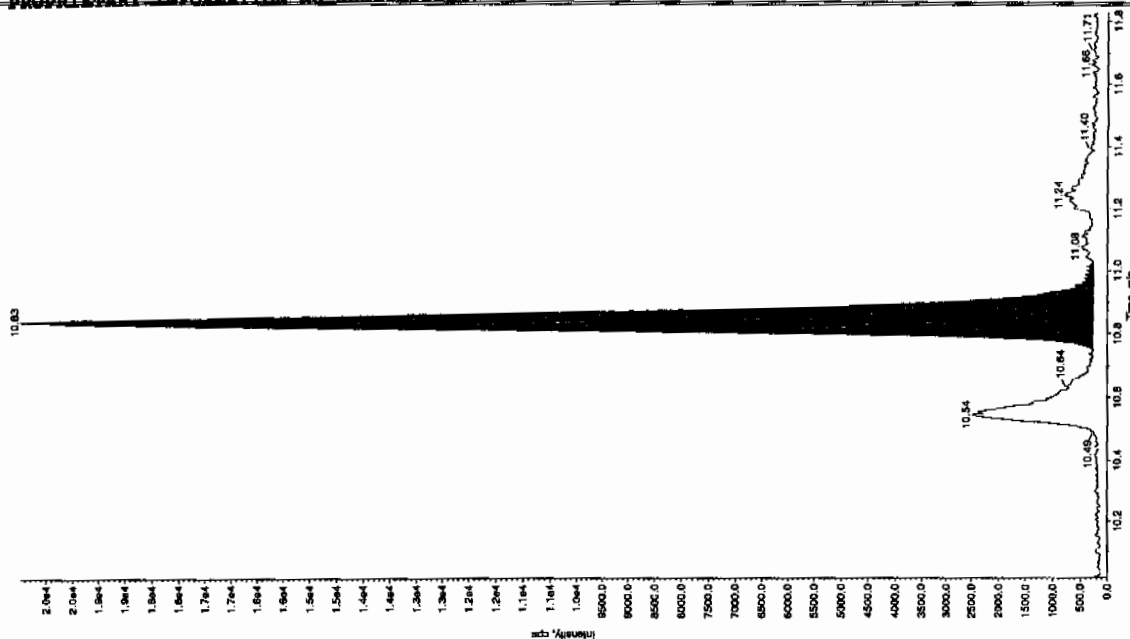


L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XBLK01" Sample ID: "HILLER" File: "EXS0310002.wit"  
 Peak Name: "24-Diethyl-6-nitroindole" Mass(es): "166.045.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 8:56:19 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 3.00 sec  
 Smoothing Width: 3.00 points  
 Expected RT: 50.0 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 8.18e+004 counts  
 Height: 20231.262 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: "XBLK01" Sample ID: "HILLER" File: "EXS0310002.wit"  
 Peak Name: "Tri(o-cresyl) phosphate" Mass(es): "359.191.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: No Intercept  
 Acq. Date: 3/31/2010  
 Acq. Time: 8:56:19 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 3.00 sec  
 Smoothing Width: 3.00 points  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 8.18e+004 counts  
 Height: 20231.262 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 12-APR-10 19:36

GEL Data File: EXP0412009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	566.025
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	597.817
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 17 of 77

Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0412009a

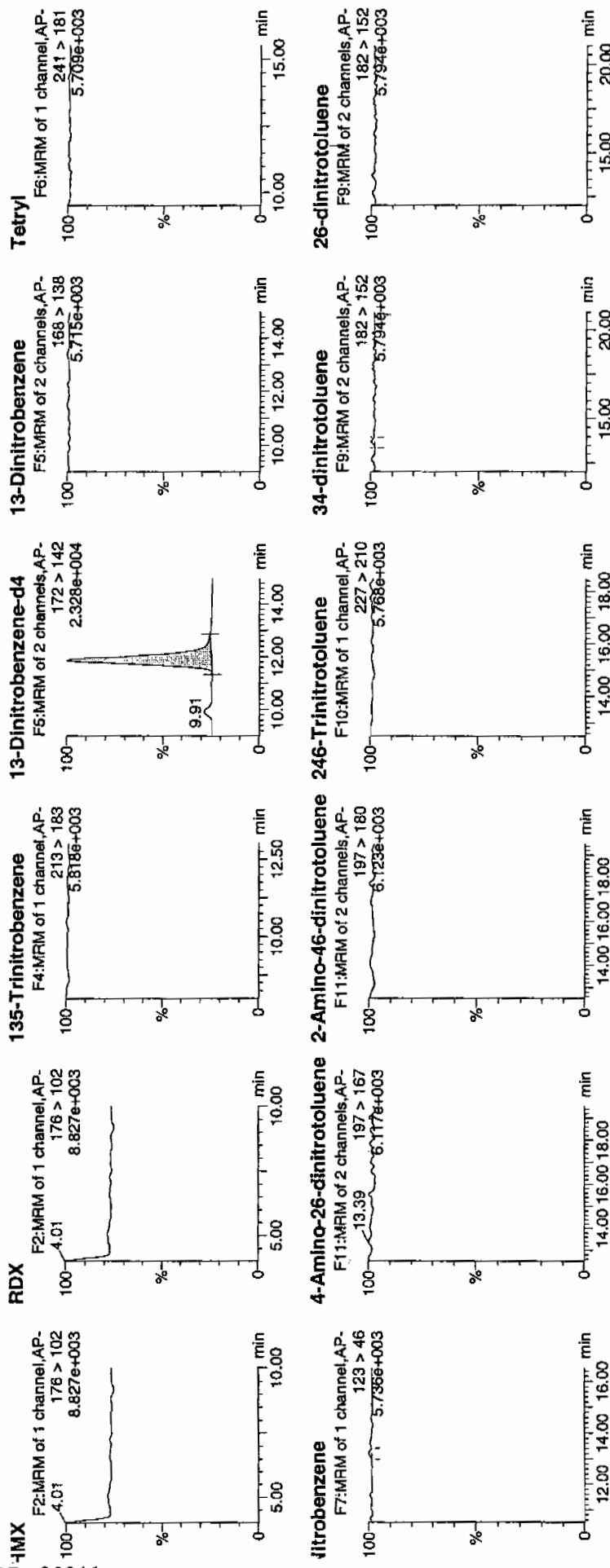
Date: 12-Apr-2010

Time: 19:36:32

ID: XIBLK02

Vial: 1:1,A

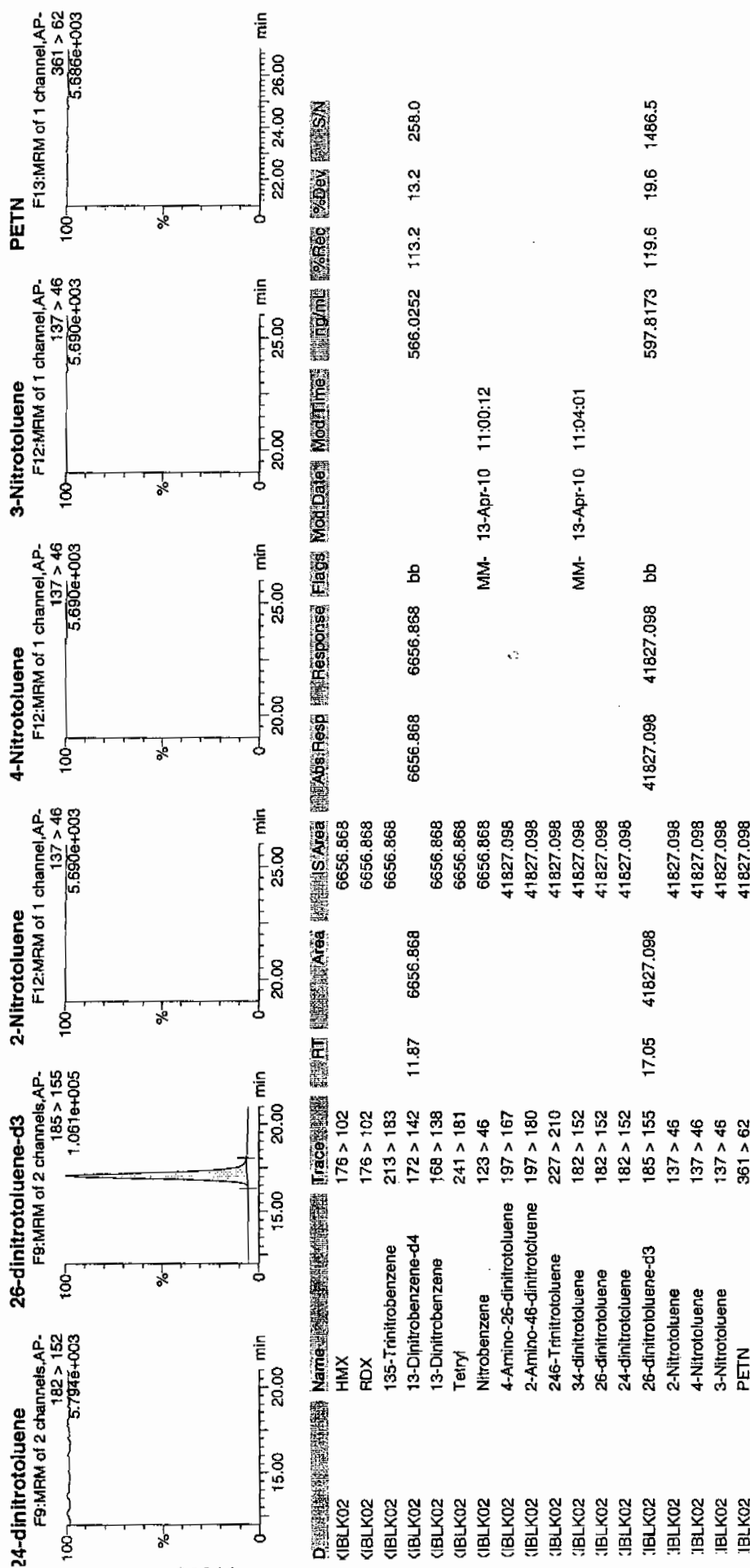
WRT  
4/13/10



from 04/16/10

**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 12-APR-10 20:35

GEL Data File: EXP0412011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	547.706
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	578.822
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412011a

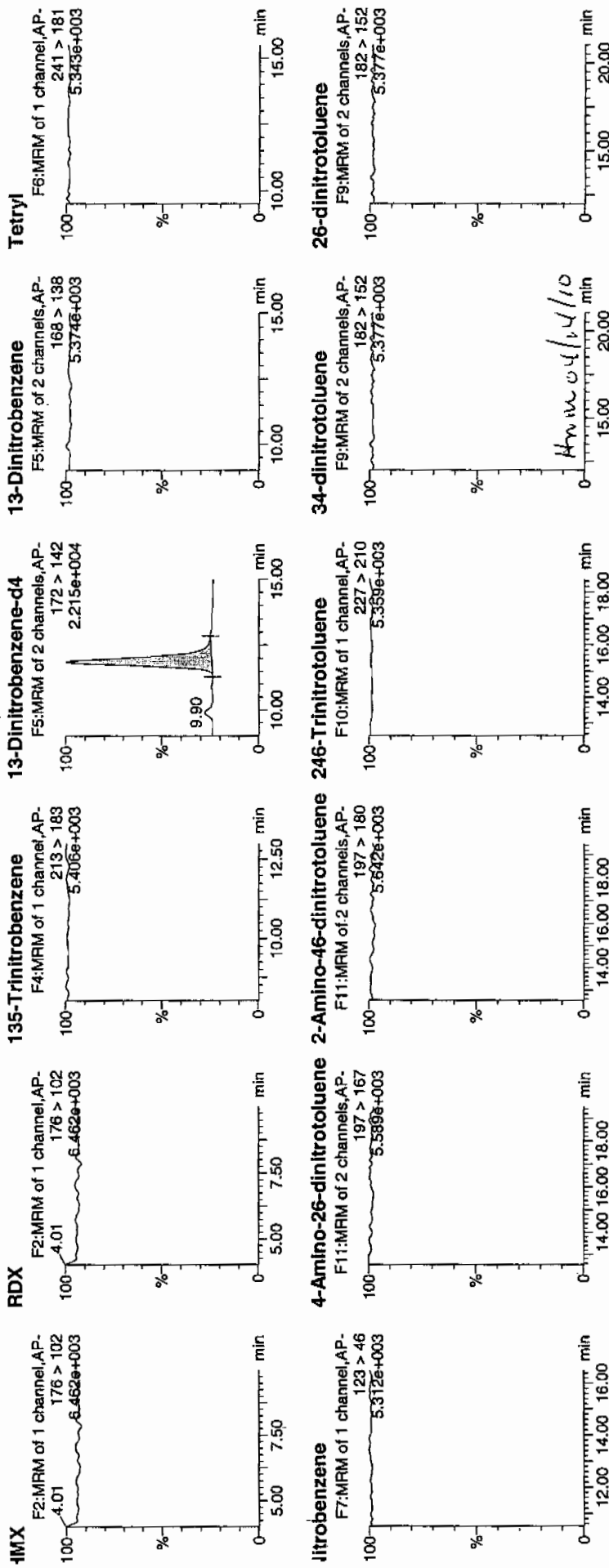
Date: 12-Apr-2010

Time: 20:35:28

Sample: D: XIBLK03

Label: 1:1,A

135  
 135



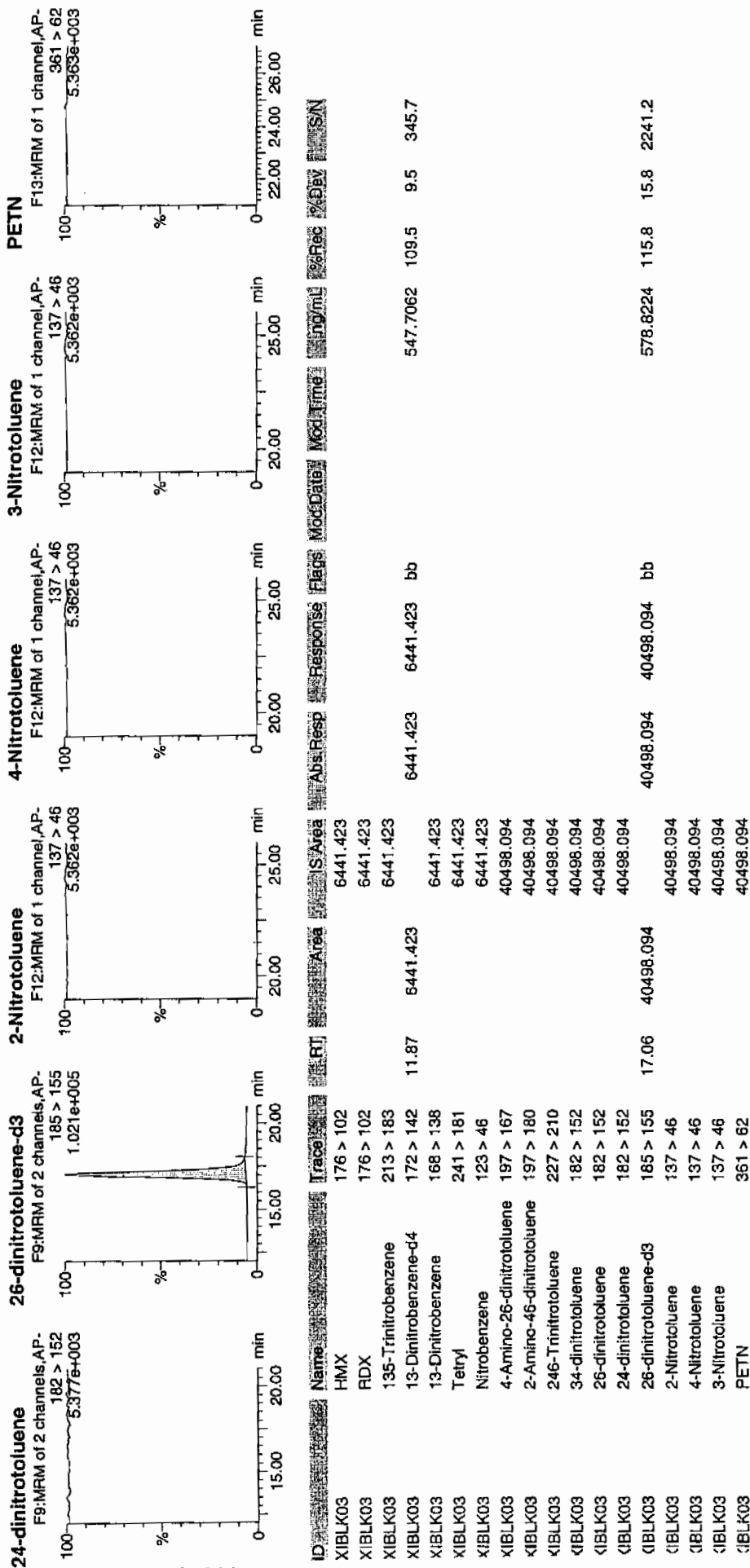


# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 22 of 77

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 13-APR-10 02:58

GEL Data File: EXP0412024a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	493.141
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	499.061
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0

Quantify Sample Report  
 iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412024a

Date: 13-Apr-2010

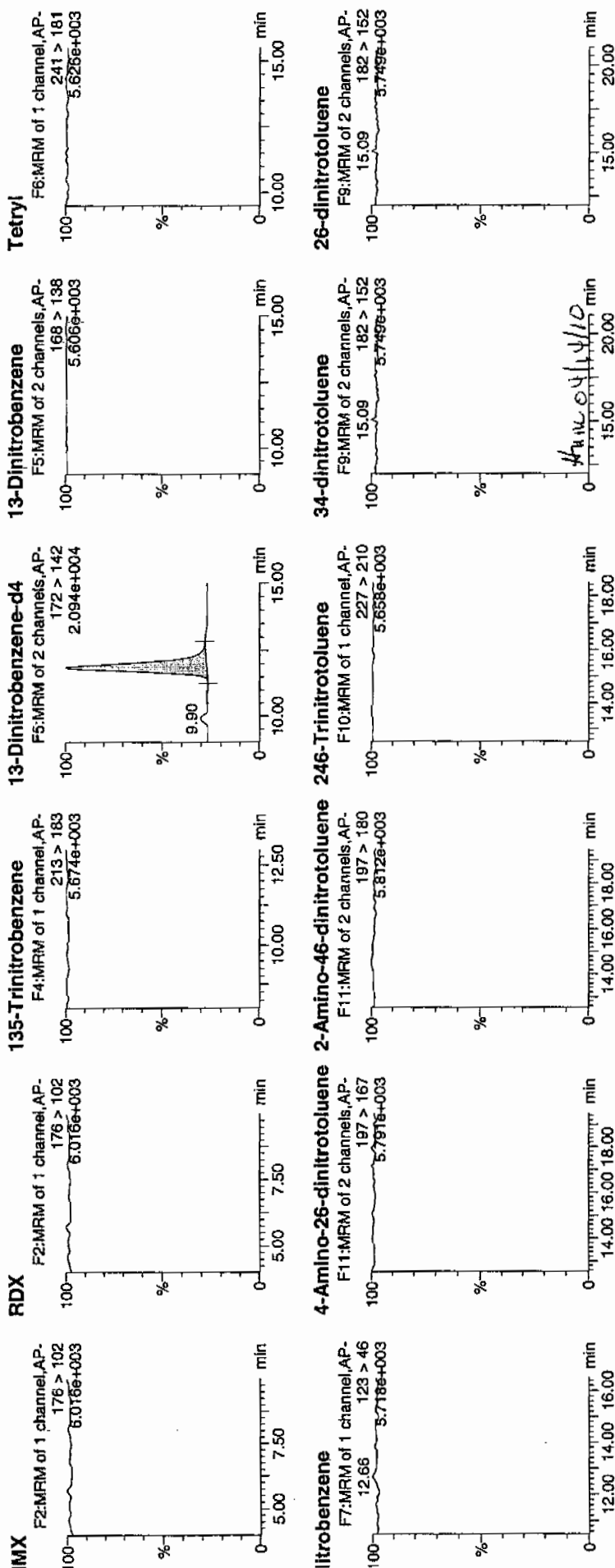
Time: 02:58:51

ID: XIBLK04

Ratio: 1:1,A

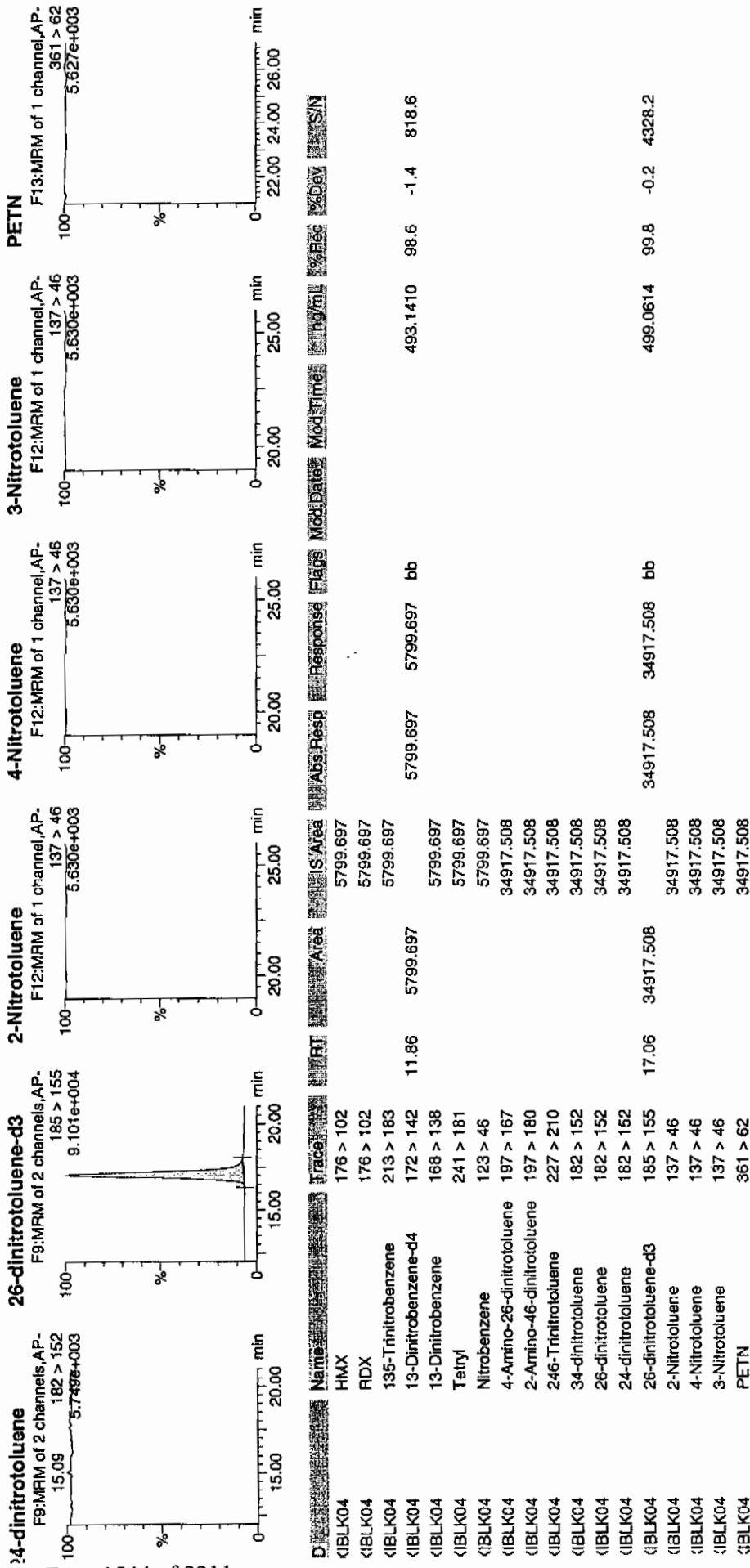
10/11/10

Page 1543 of 2211



**Quantify Sample Report**  
 SEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 13-APR-10 09:22

GEL Data File: EXP0412037a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	510.743
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	501.204
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

# Quantify Sample Report

3EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 73 of 77

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:22:22 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412037a

Date: 13-Apr-2010

Time: 09:22:18

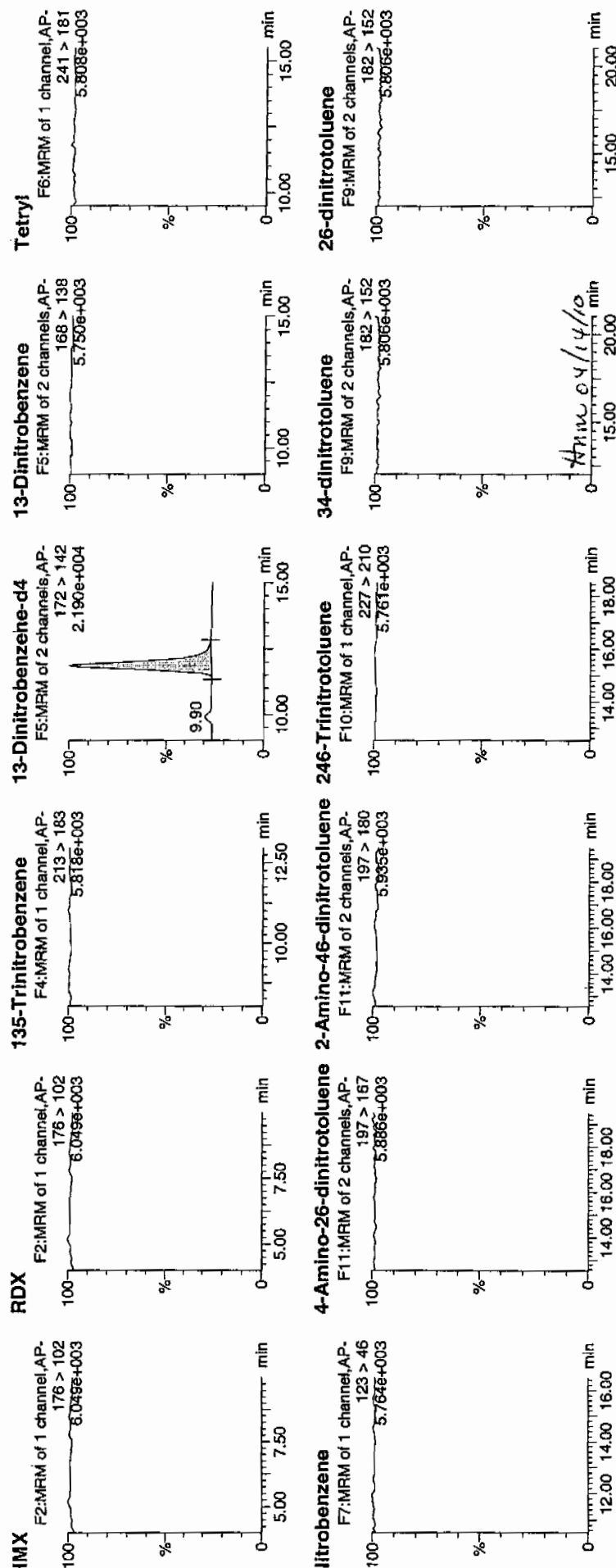
D: XIBLK05

/ial: 1:1,A

17  
4/13/10

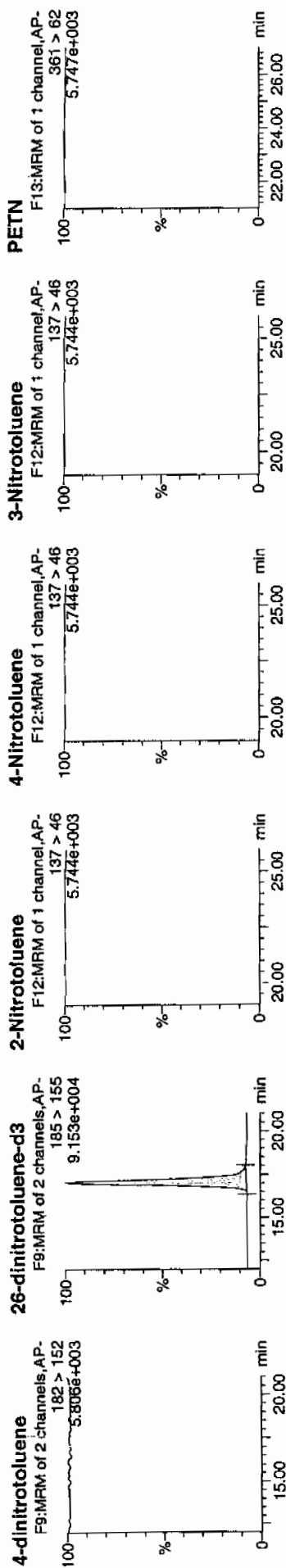
Page 1546 of 2211

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# Quantify Sample Report iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010



Name	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	% Rec	% Dev
1BLK05	176 > 102		6006.704							
1BLK05	176 > 102		6006.704							
1BLK05	213 > 183		6006.704							
1BLK05	172 > 142	11.87	6006.704		6006.704	bb			510.7425	102.1
1BLK05	168 > 138		6006.704							
1BLK05	241 > 181		6006.704							
1BLK05	123 > 46		35067.418							
1BLK05	197 > 167		35067.418							
1BLK05	197 > 180		35067.418							
1BLK05	227 > 210		35067.418							
1BLK05	182 > 152		35067.418							
1BLK05	182 > 152		35067.418							
1BLK05	182 > 152		35067.418							
1BLK05	185 > 155	17.06	35067.418		35067.418	bb			501.2040	100.2
1BLK05	137 > 46		35067.418							
1BLK05	137 > 46		35067.418							
1BLK05	137 > 46		35067.418							
1BLK05	361 > 62		35067.418							
PETN										

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 13-APR-10 11:20

GEL Data File: EXP0412041a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	648.08
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	519.054
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0



# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Wed Apr 14 09:18:04 2010, Page 5 of 75

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412041a

Date: 13-Apr-2010

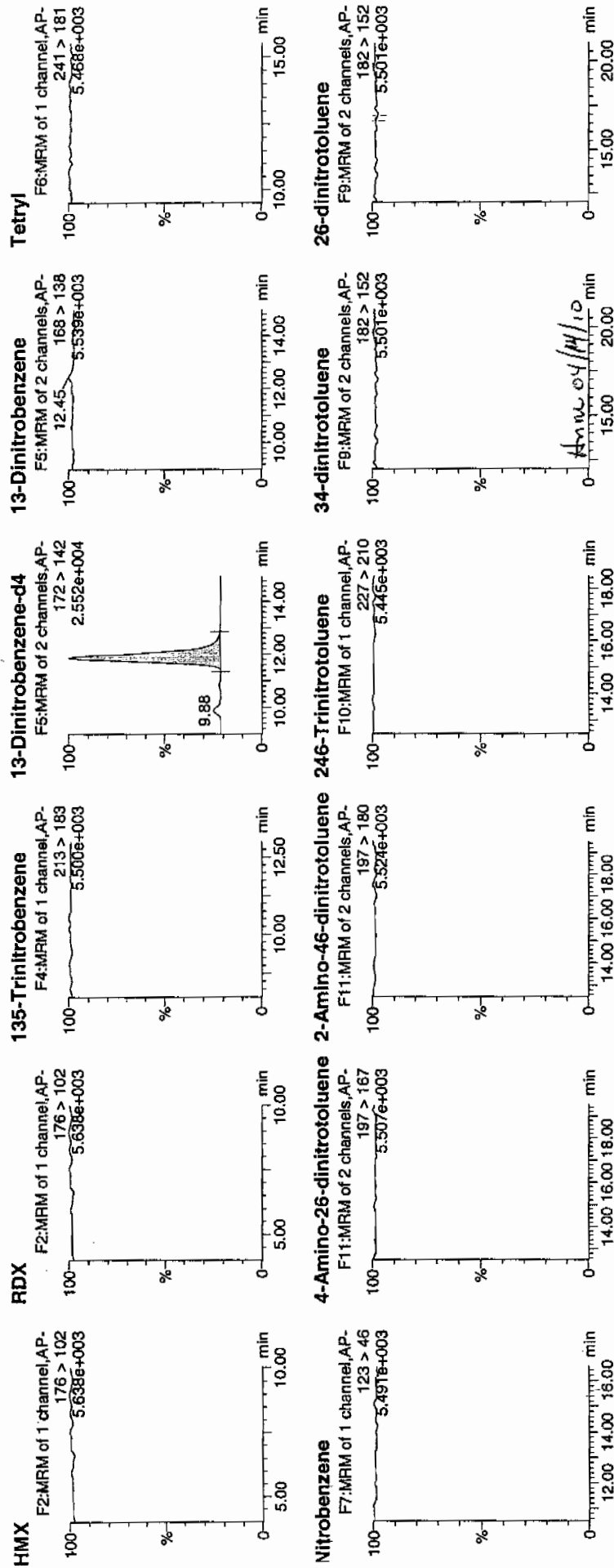
Time: 11:20:19

ID: XIBLK06

Vial: 1:1,A

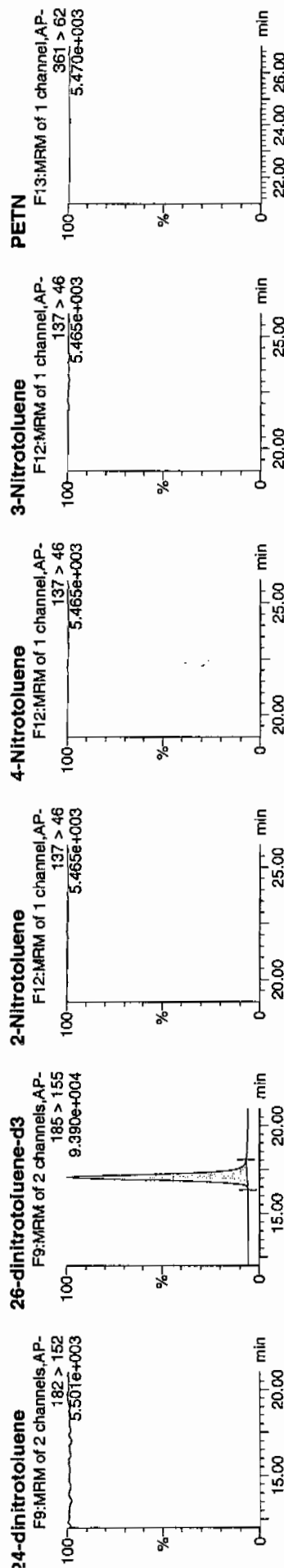
WAT  
4/14/10

Page 1549 of 2211



Quantify Sample Report  
3EL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010



ID	Name	Trace	Area	IS Area	Abs:Resp	Flags	Mod:Date	Mod:Time	Conc:mg/ml	%Rec	%Dev	SN
XIBLK06	HMX	176 > 102		7621.890								
XIBLK06	RDX	176 > 102		7621.890								
XIBLK06	135-Trinitrobenzene	213 > 183		7621.890								
XIBLK06	13-Dinitrobenzene-d4	172 > 142	11.87	7621.890								
XIBLK06	13-Dinitrobenzene	168 > 138		7621.890								
XIBLK06	Tetryl	241 > 181		7621.890								
XIBLK06	Nitrobenzene	123 > 46		7621.890								
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167		36316.328								
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180		36316.328								
XIBLK06	246-Trinitrotoluene	227 > 210		36316.328								
XIBLK06	34-dinitrotoluene	182 > 152		36316.328								
XIBLK06	26-dinitrotoluene	182 > 152		36316.328								
XIBLK06	24-dinitrotoluene	182 > 152		36316.328								
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.05	36316.328								
XIBLK06	2-Nitrotoluene	137 > 46		36316.328								
XIBLK06	4-Nitrotoluene	137 > 46		36316.328								
XIBLK06	3-Nitrotoluene	137 > 46		36316.328								
XIBLK06	PETN	361 > 62		36316.328								
					7621.890				648.0798	129.6	29.6	880.4
					36316.328				519.0541	103.8	3.8	1500.7

MM- 14-Apr-10 09:11:01

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 13-APR-10 15:46

GEL Data File: EXP0412050a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	555.622
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	595.796
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

# Quantify Sample Report

3EL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Apr 14 09:18:04 2010, Page 23 of 75

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412050a

Date: 13-Apr-2010

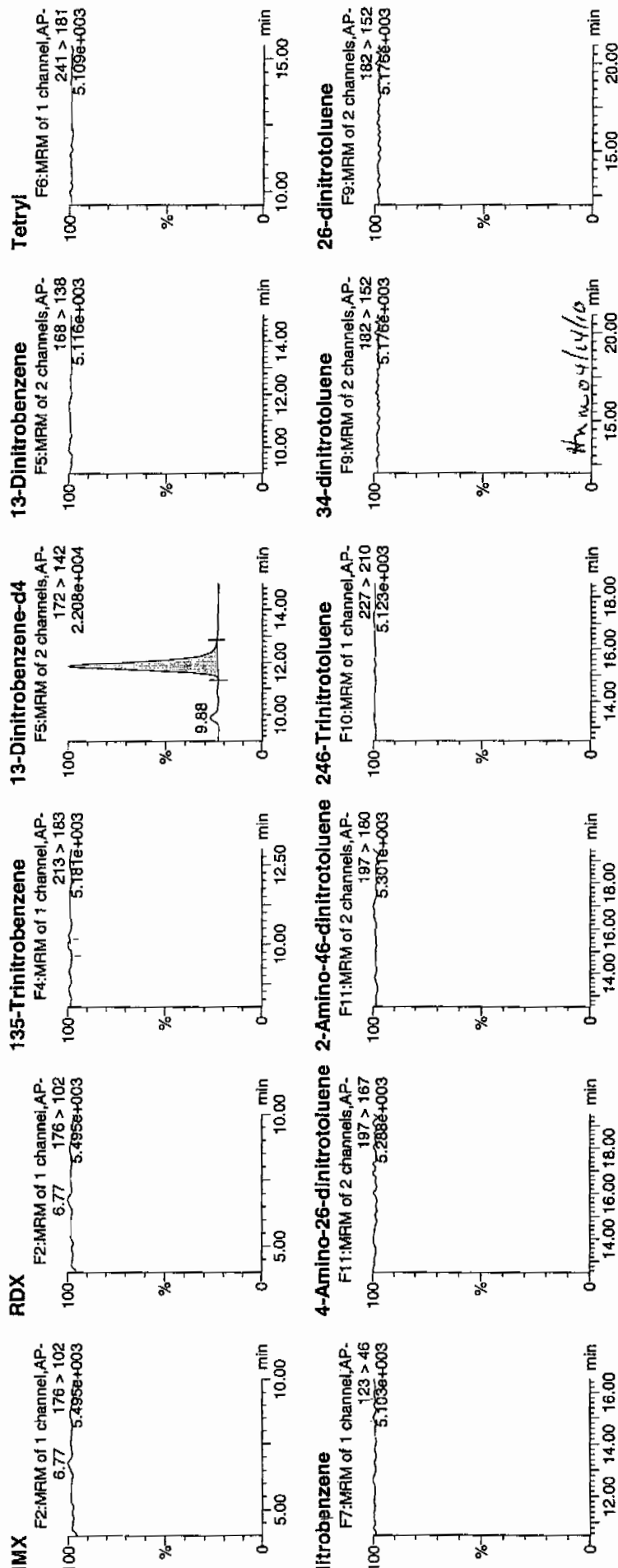
Time: 15:46:11

D: XIBLK07

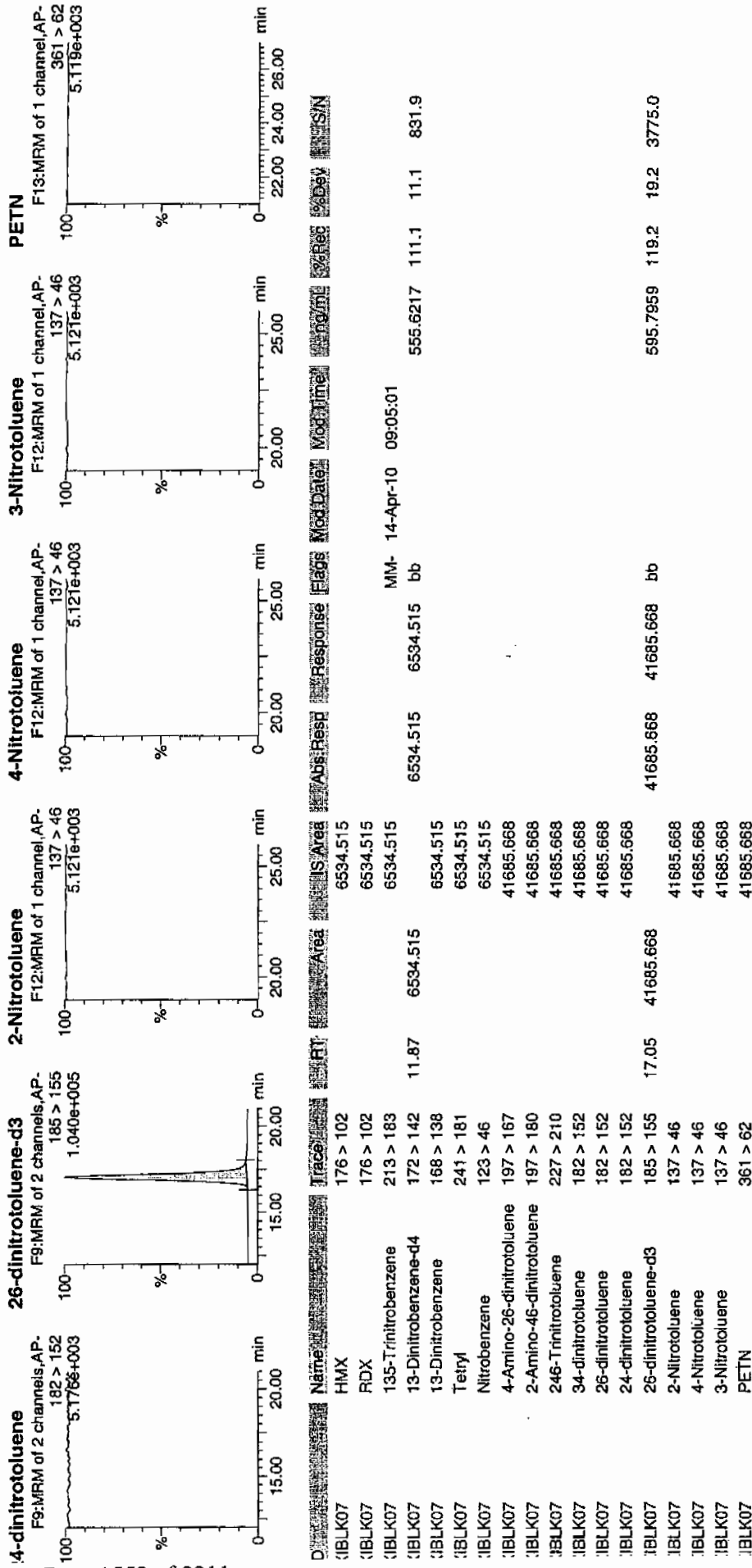
/ial: 1:1,A

MTT  
4/14/10

Page 1552 of 2211



Dataset: C:\MASSLYNX\New\_Exp\PRO1041210expA1.qld, Time: Wed Apr 14 09:16:31 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 13-APR-10 21:10

GEL Data File: EXP0412061a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	531.786
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	563.322
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412061a

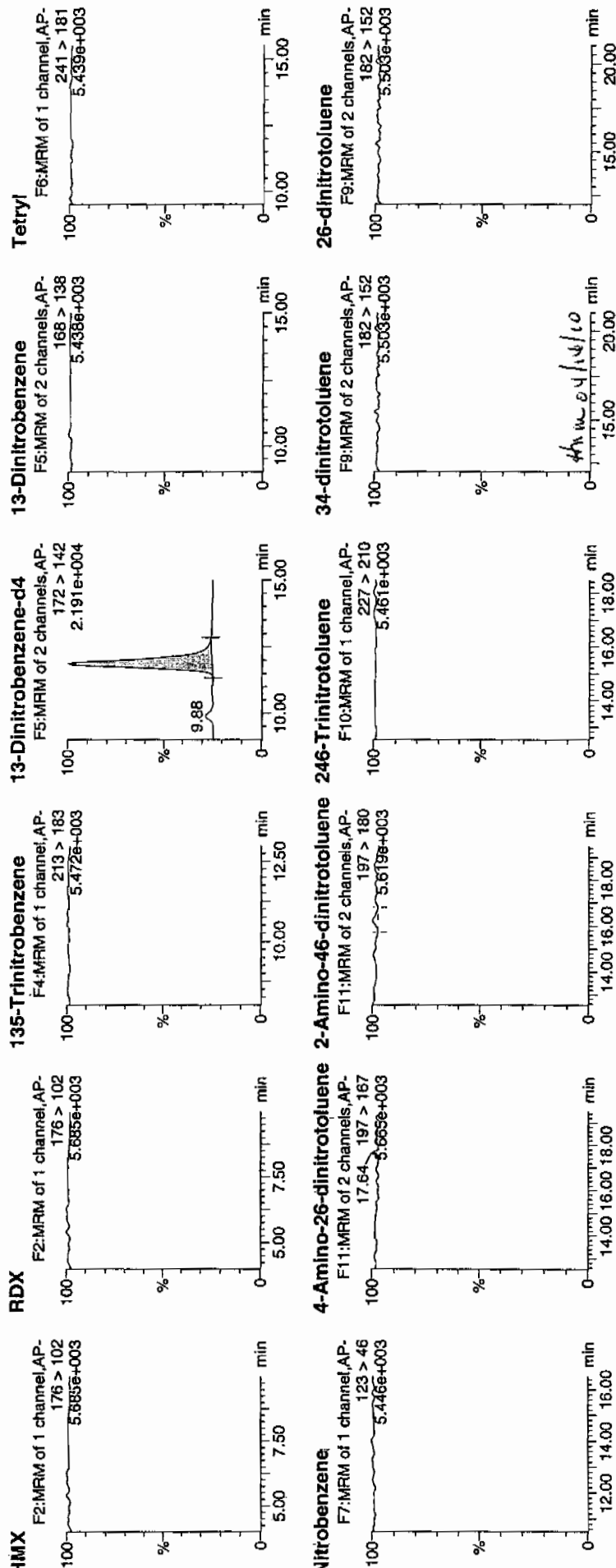
Date: 13-Apr-2010

Time: 21:10:49

ID: XIBLK08

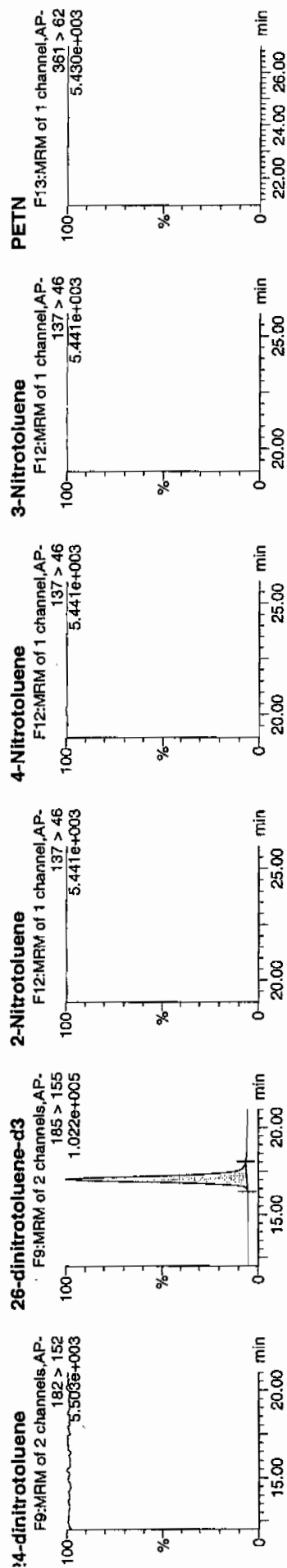
Vial: 1:1,A

1007  
4/14/10



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

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4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 14-APR-10 03:34

GEL Data File: EXP0412074a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	496.797
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	587.81
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Apr 14 09:18:04 2010, Page 71 of 75

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0412074a

Date: 14-Apr-2010

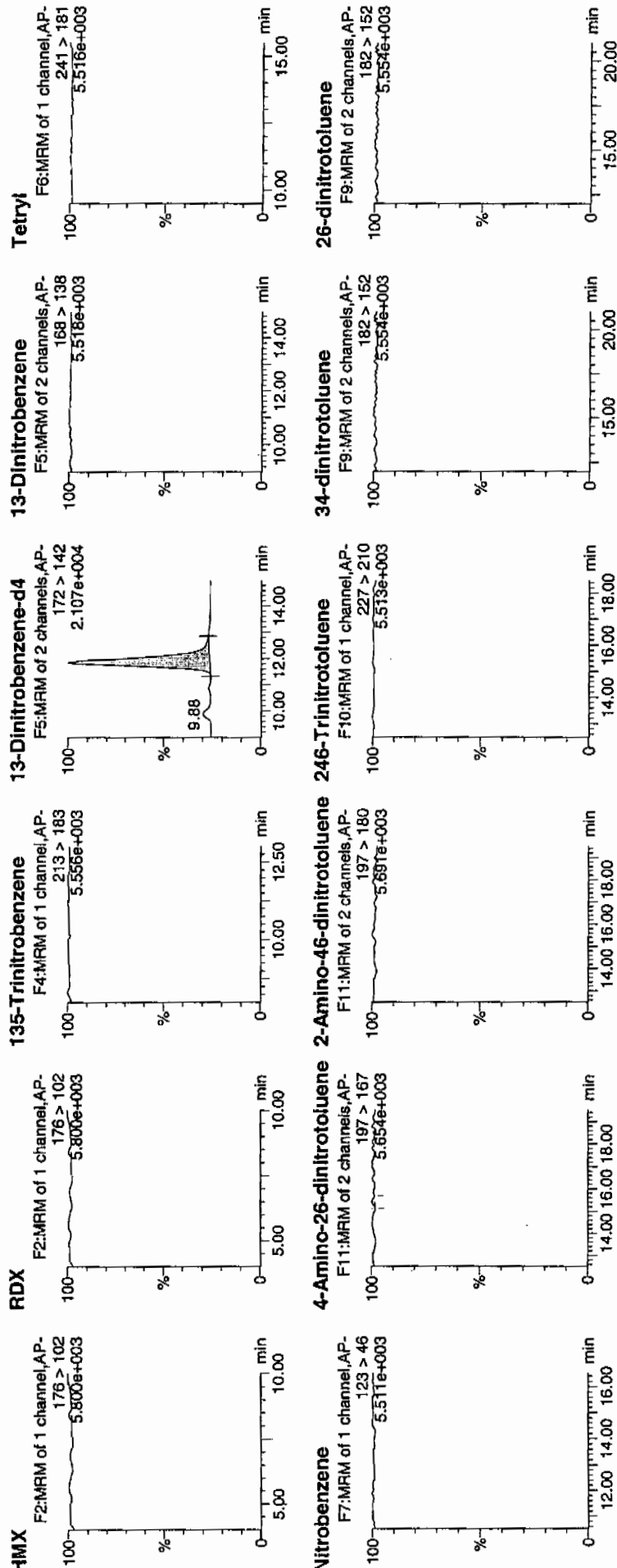
Time: 03:34:13

Page ID: XIBLK09

Vial: 1:1,A

MAA  
4/14/10

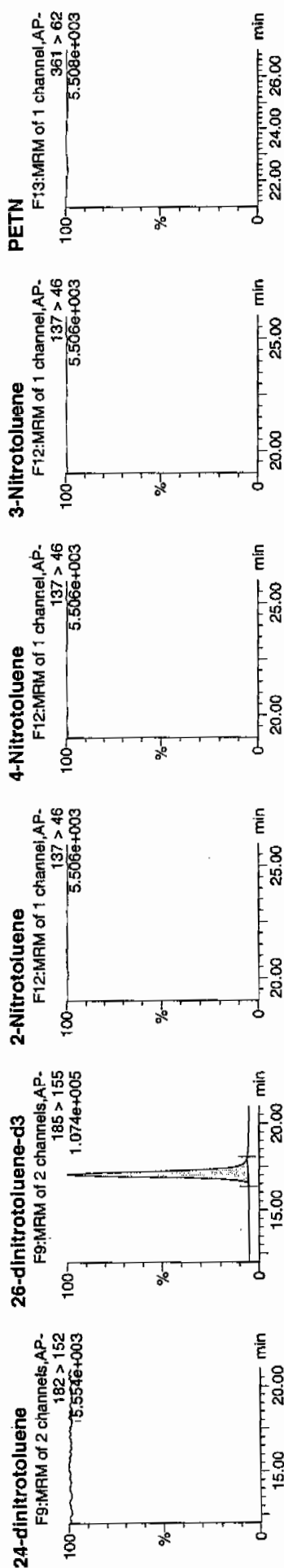
Page 1558 of 2211



MAA  
04/14/10

Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

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ID	Name	Trace	RT	Area	SArea	Abs Resp	Response	Flags	Mod Date	Mod Time	%Rec	%Dev	S/N
XIBLK09	HMX	176 > 102		5842.696									
XIBLK09	RDX	176 > 102		5842.696									
XIBLK09	135-Trinitrobenzene	213 > 183		5842.696									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	11.87	5842.696									
XIBLK09	13-Dinitrobenzene	168 > 138		5842.696									
XIBLK09	Tetryl	241 > 181		5842.696									
XIBLK09	Nitrobenzene	123 > 46		5842.696									
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167		5842.696									
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180		41126.906					MM-	14-Apr-10	09:09:05		
XIBLK09	246-Trinitrotoluene	227 > 210		41126.906									
XIBLK09	34-dinitrotoluene	182 > 152		41126.906									
XIBLK09	26-dinitrotoluene	182 > 152		41126.906									
XIBLK09	24-dinitrotoluene	182 > 152		41126.906									
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.05	41126.906					MM-	14-Apr-10	09:13:30		
XIBLK09	2-Nitrotoluene	137 > 46		41126.906									
XIBLK09	4-Nitrotoluene	137 > 46		41126.906									
XIBLK09	3-Nitrotoluene	137 > 46		41126.906									
XIBLK09	PETN	361 > 62											
						5842.696	5842.696	bb			99.4	-0.6	724.2
						41126.906	41126.906	bb			117.6	17.6	1849.8

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 14-APR-10 07:30

GEL Data File: EXP0412082a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	517.729
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	520.204
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0

**Quantify Sample Report**  
 GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412082a

Date: 14-Apr-2010

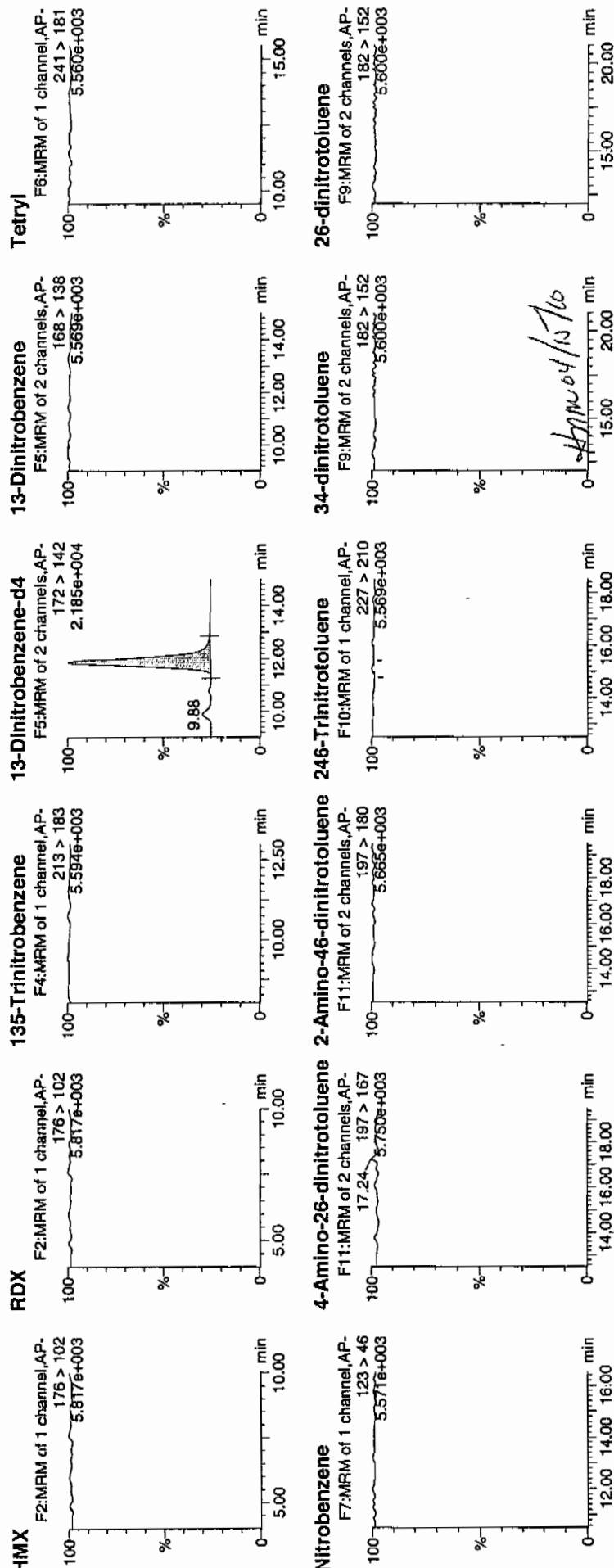
Time: 07:30:08

ID: XIBLK10

Vial: 1:1,F

WFT  
 4/15/10

Page 1561 of 2211

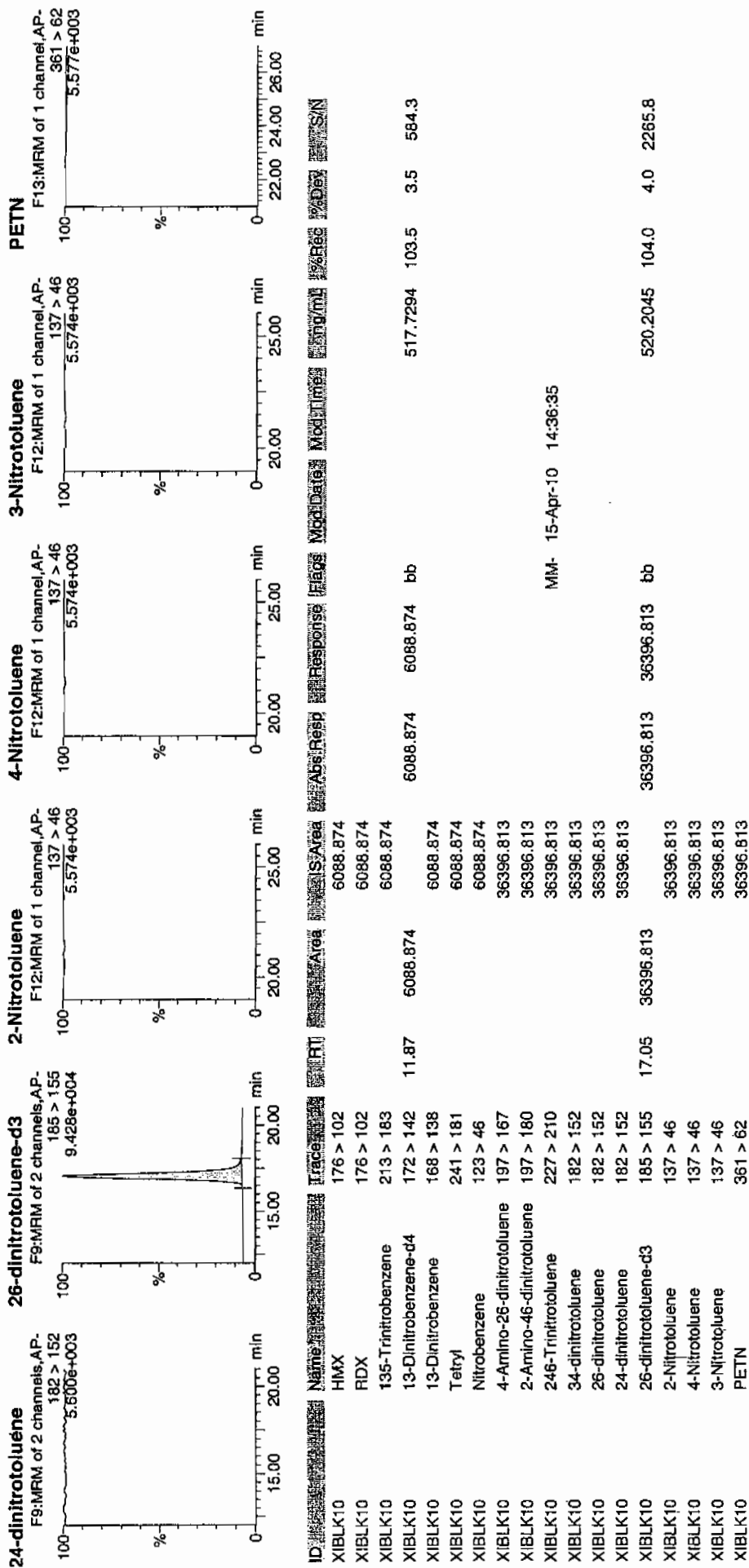


# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 14 of 137

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 14-APR-10 08:58

GEL Data File: EXP0412085a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	553.174
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	549.729
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report  
 iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Sample Name: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0412085a

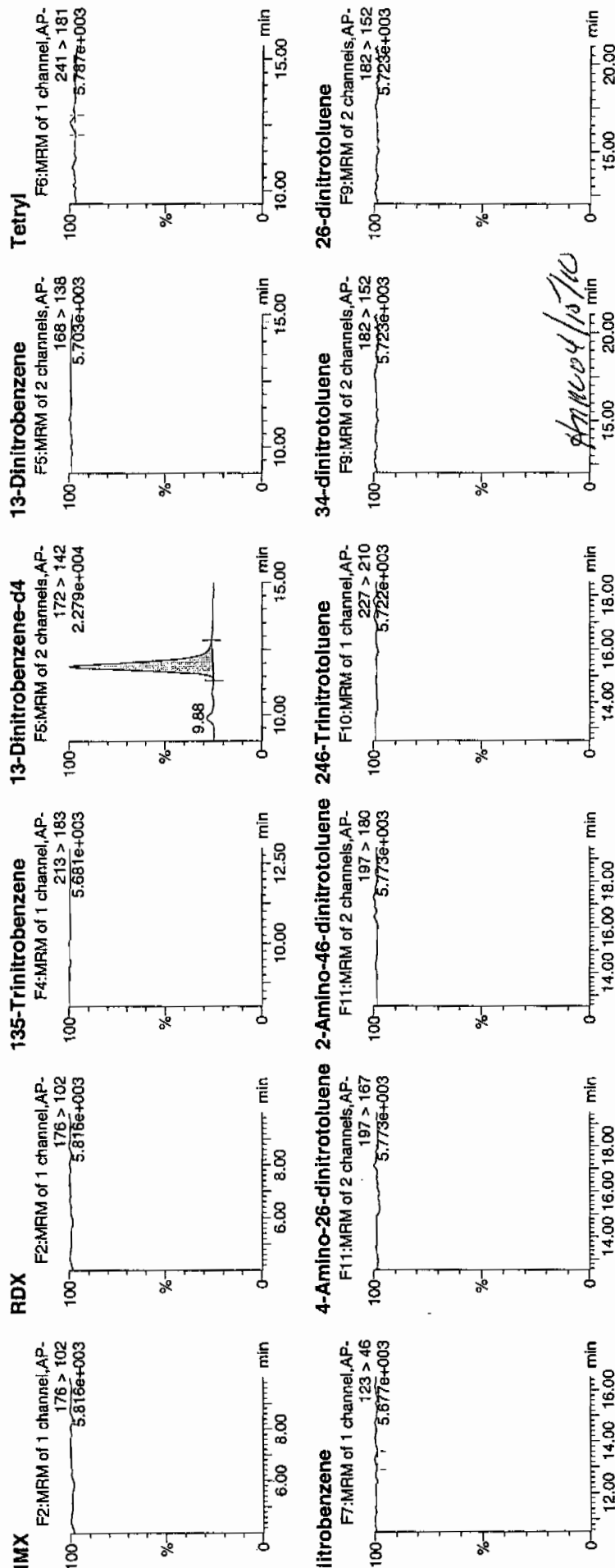
Date: 14-Apr-2010

Time: 08:58:45

D: XIBLK11

File: 1:1,F

17  
 4/15/10



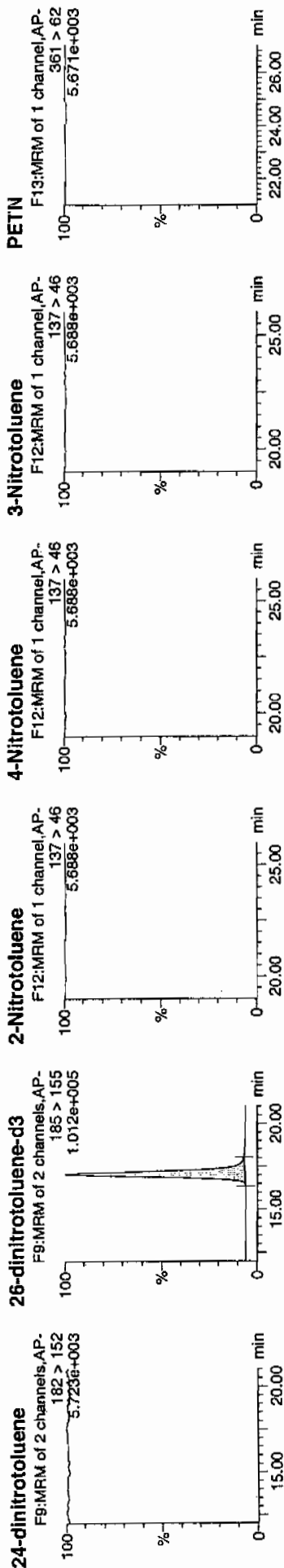


# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 20 of 137

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc	%Rec	%Dev	S/N
XIBLK11	HMx	176 > 102		6505.727										
XIBLK11	RDX	176 > 102		6505.727										
XIBLK11	135-Trinitrobenzene	213 > 183		6505.727										
XIBLK11	13-Dinitrobenzene-d4	172 > 142	11.87	6505.727										
XIBLK11	13-Dinitrobenzene	168 > 138		6505.727										
XIBLK11	Tetryl	241 > 181		6505.727										
XIBLK11	Nitrobenzene	123 > 46		6505.727										
XIBLK11	4-Amino-26-dinitrotoluene	197 > 167		38462.531										
XIBLK11	2-Amino-46-dinitrotoluene	197 > 180		38462.531										
XIBLK11	246-Trinitrotoluene	227 > 210		38462.531										
XIBLK11	34-dinitrotoluene	182 > 152		38462.531										
XIBLK11	26-dinitrotoluene	182 > 152		38462.531										
XIBLK11	24-dinitrotoluene	182 > 152		38462.531										
XIBLK11	26-dinitrotoluene-d3	185 > 155	17.06	38462.531										
XIBLK11	2-Nitrotoluene	137 > 46		38462.531										
XIBLK11	4-Nitrotoluene	137 > 46		38462.531										
XIBLK11	3-Nitrotoluene	137 > 46		38462.531										
XIBLK11	PETN	361 > 62		38462.531										
						6505.727	6505.727	bb			553.1738	110.6	10.6	555.0
									MM-	15-Apr-10	14:30:27			
									MM-	15-Apr-10	14:30:41			
						38462.531	38462.531	bb			549.7289	109.9	9.9	2944.0

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 14-APR-10 09:57

GEL Data File: EXP0412087a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	561.908
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	512.757
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0

# Quantify Sample Report

3EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 23 of 137

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412087a

Date: 14-Apr-2010

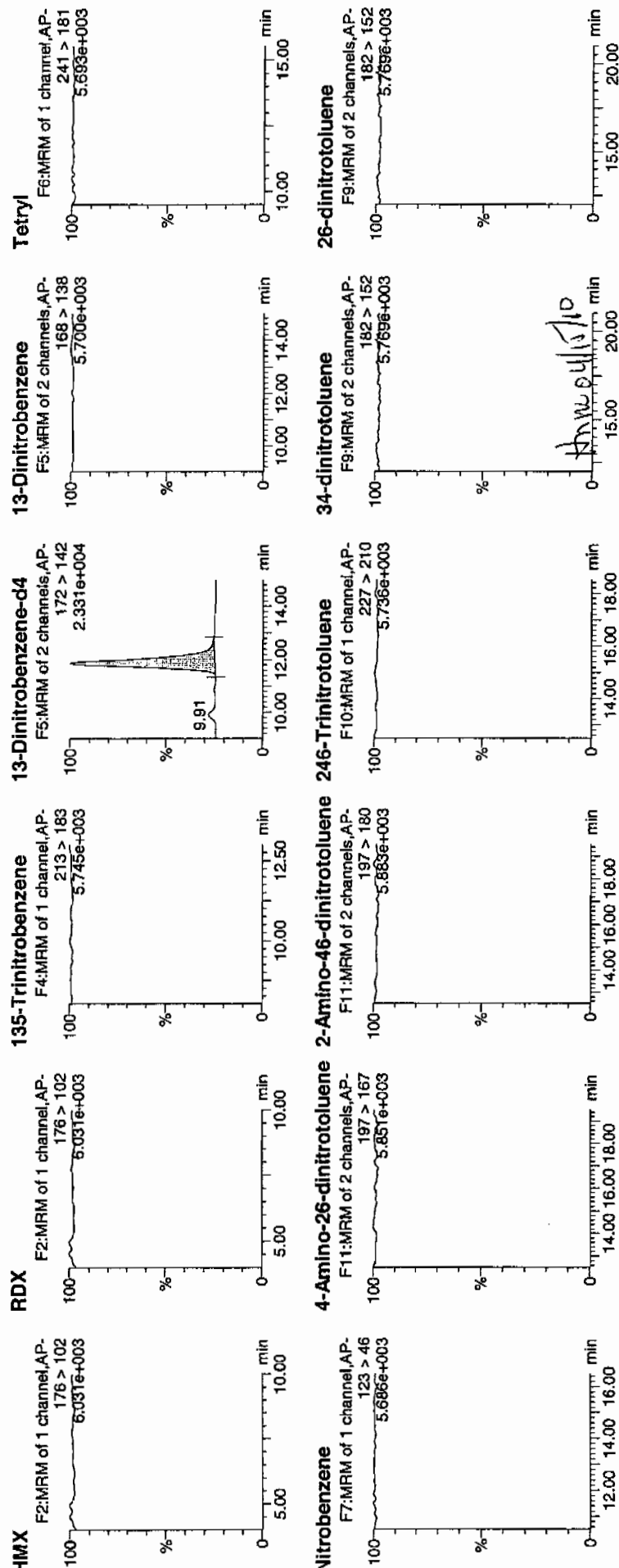
Time: 09:57:47

D: XIBLK12

Vial: 1:1,A

WFF  
4/15/10

Page 1567 of 2211

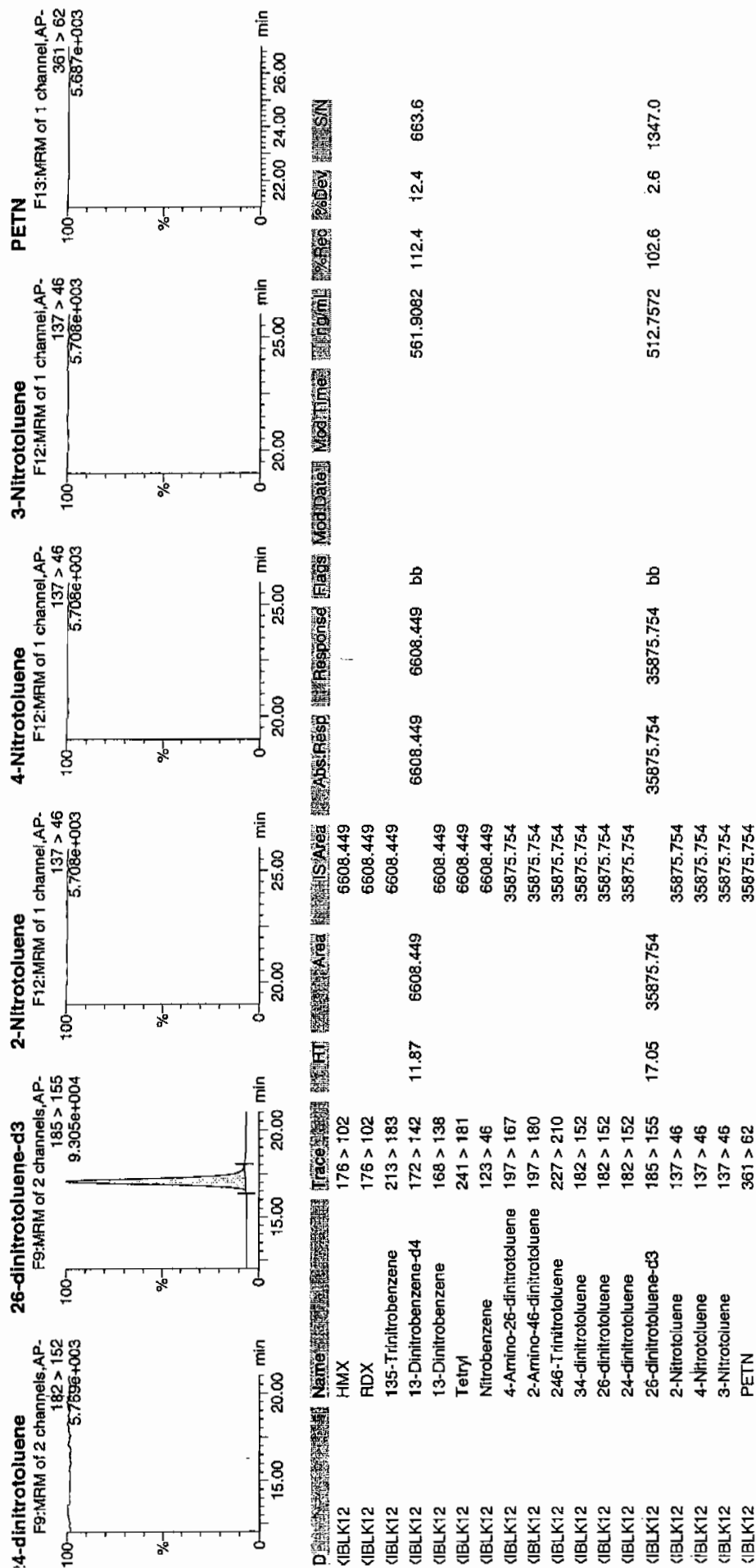


# Quantify Sample Report

IEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 24 of 137

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 14-APR-10 11:55

GEL Data File: EXP0412091a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	597.515
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	554.34
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412091a

Date: 14-Apr-2010

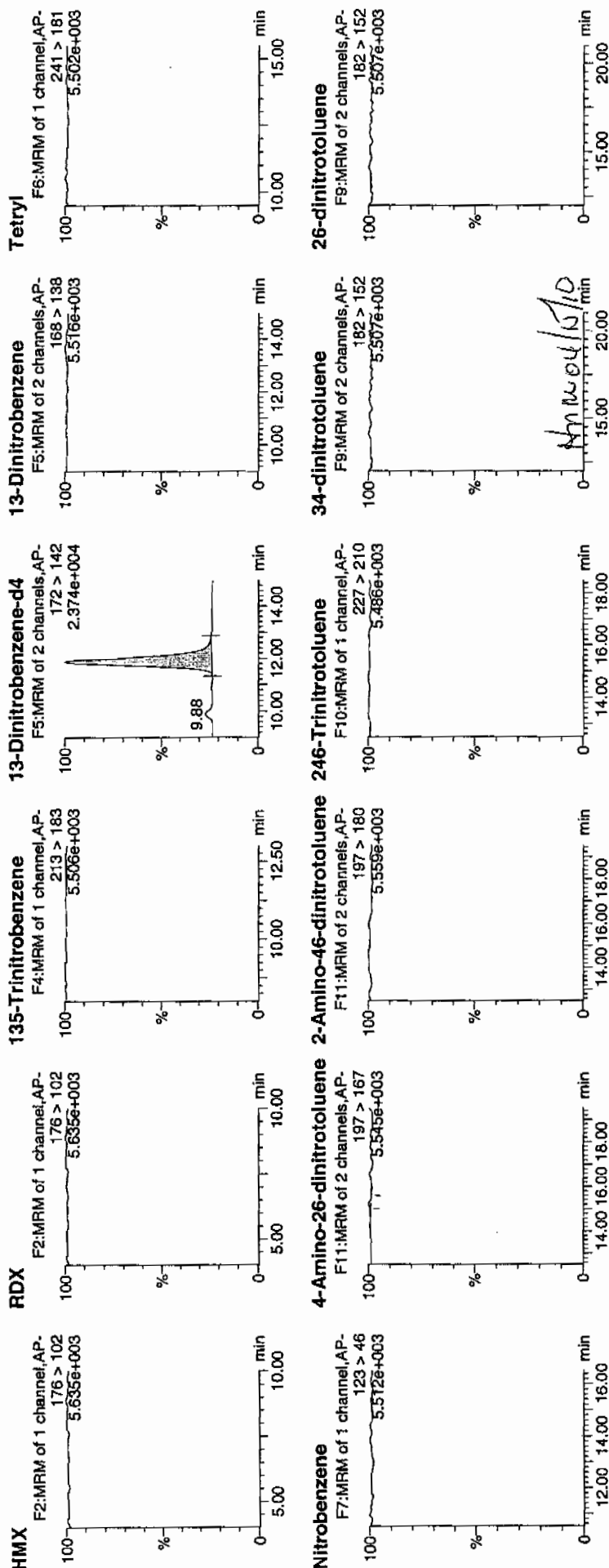
Time: 11:55:46

ID: XIBLK13

Vial: 1:1,F

4/15/10

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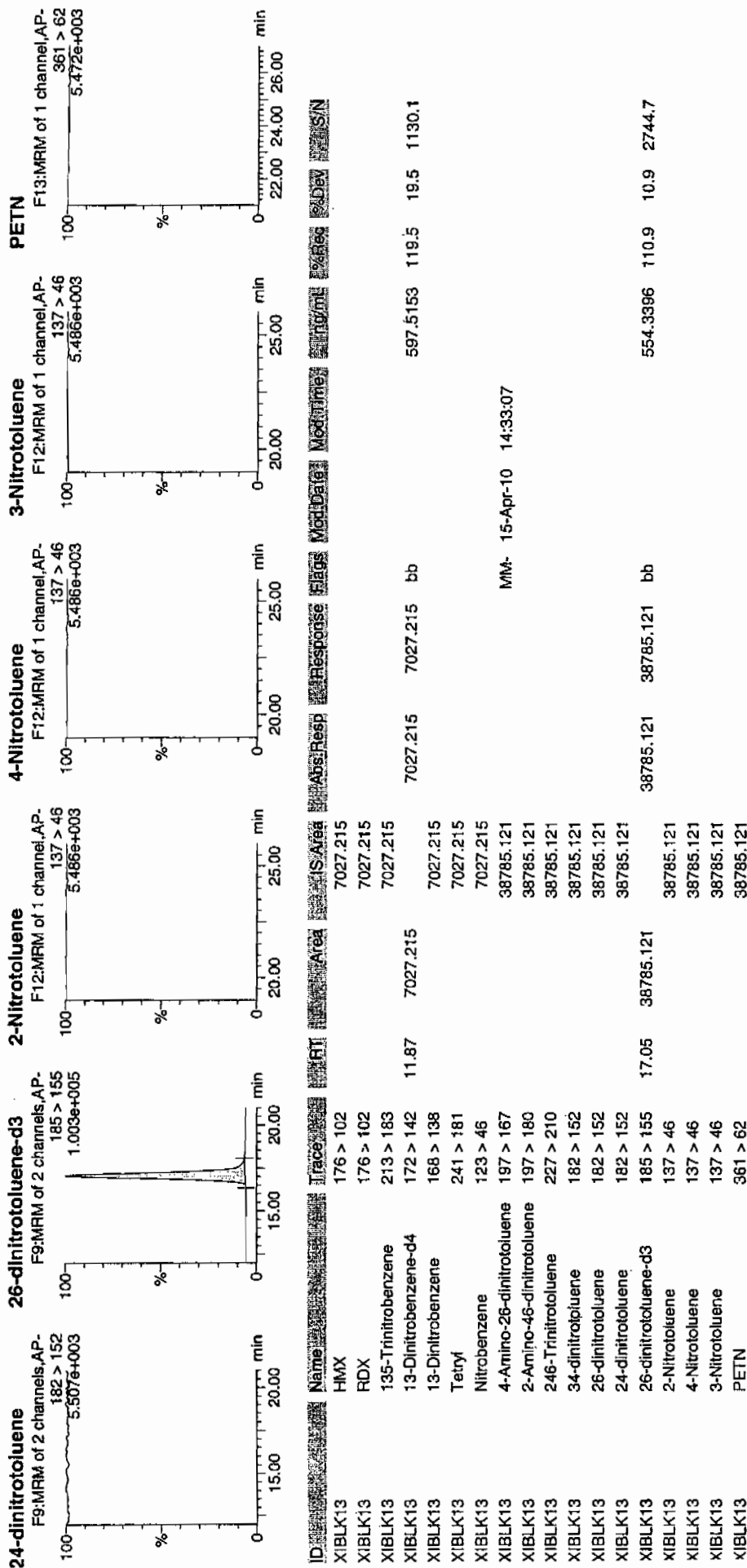


# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 32 of 137

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 14-APR-10 15:22

GEL Data File: EXP0412098a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	482.542
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	530.198
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0



# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 45 of 137

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412098a

Date: 14-Apr-2010

Time: 15:22:16

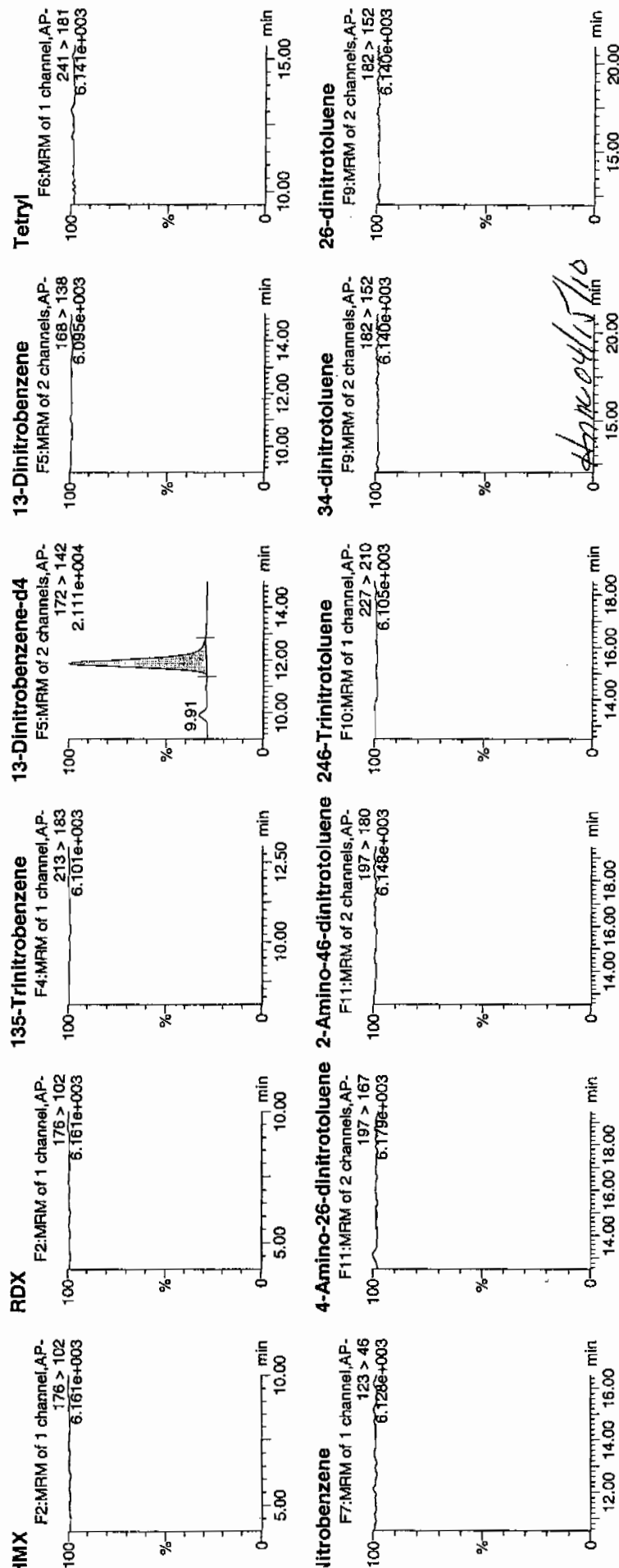
D: XIBLK14

/fal: 1:1,F

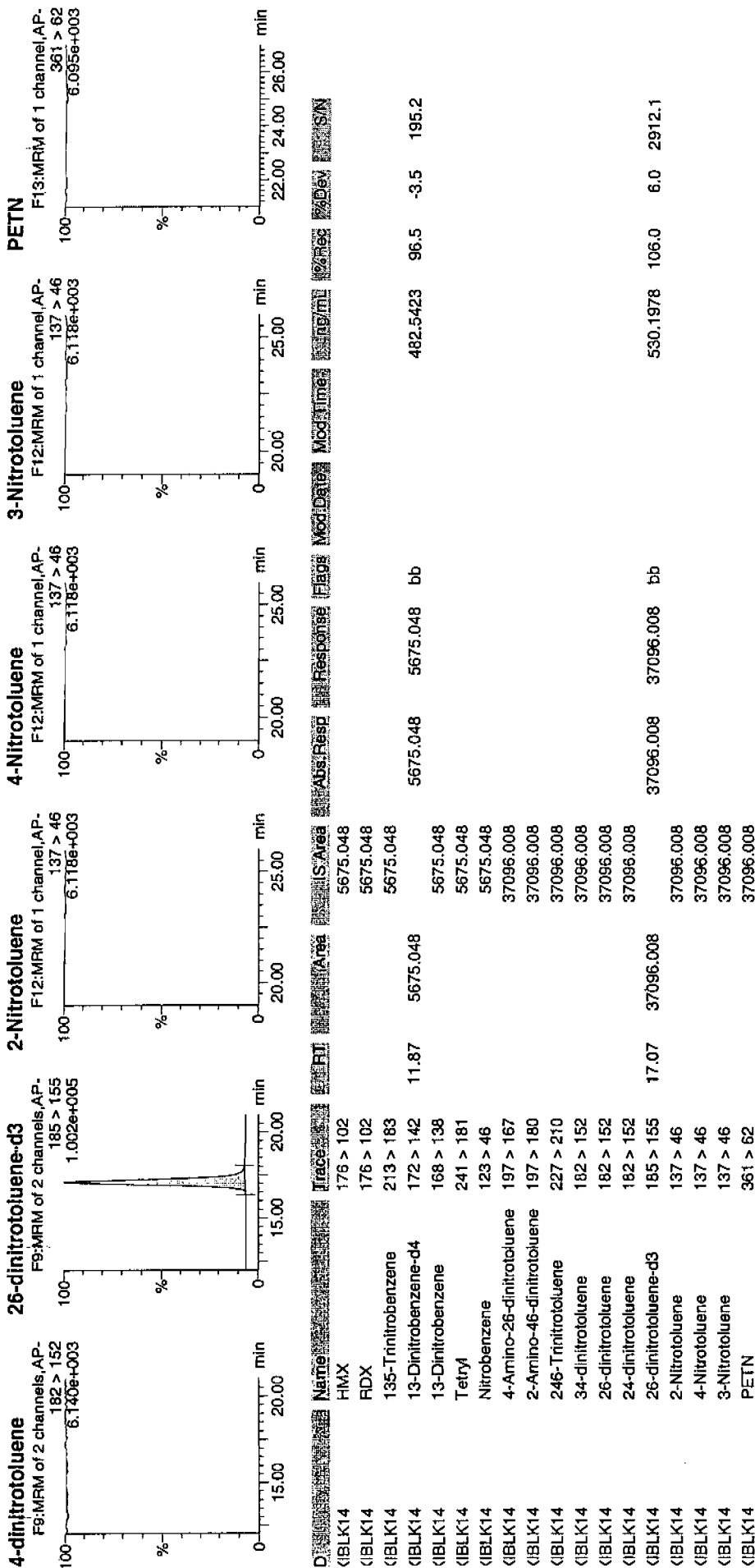
10/11/10  
4/15/10

Page 1573 of 2211

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Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK15

Analysis Date: 14-APR--10 16:21

GEL Data File: EXP0412100a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	528.222
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	547.698
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report  
 3EL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412100a

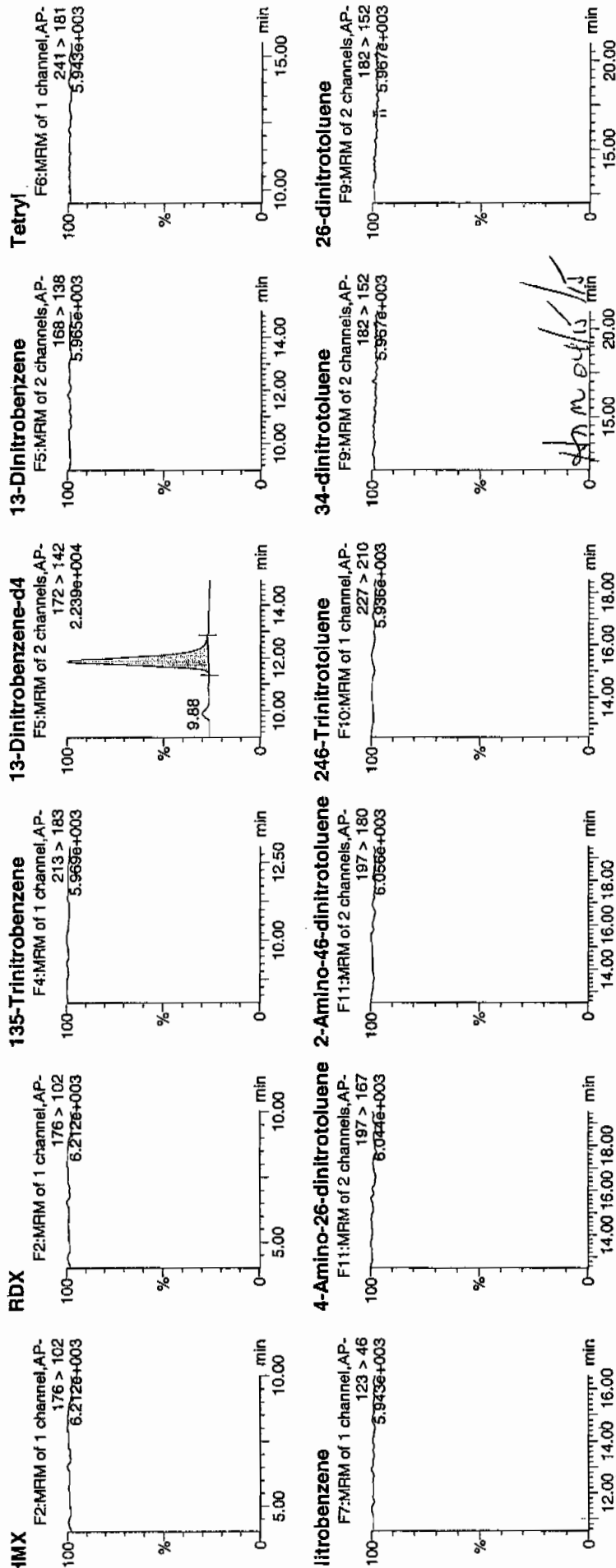
Date: 14-Apr-2010

Time: 16:21:17

D: XIBLK15

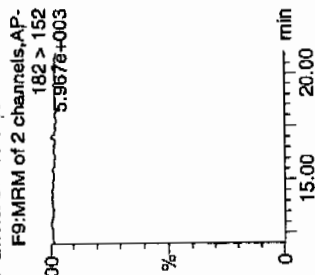
/Inlet: 1:1,A

4/15/10

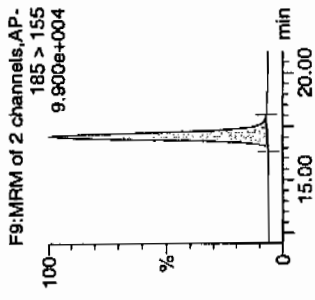


Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

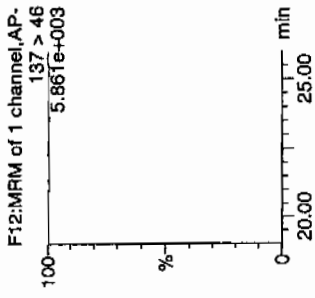
## 4-dinitrotoluene



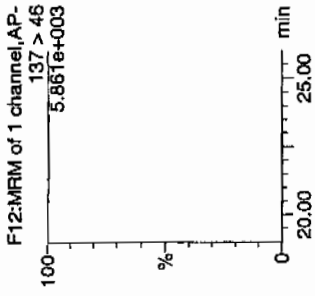
## 26-dinitrotoluene-d3



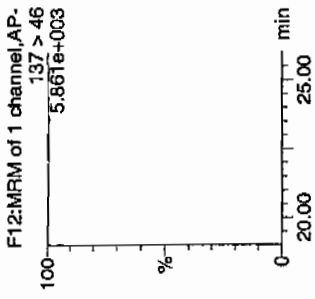
## 2-Nitrotoluene



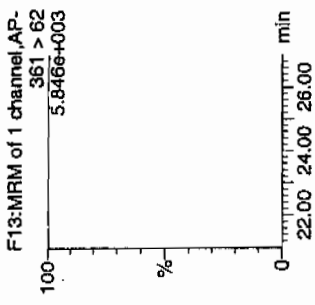
## 4-Nitrotoluene



### 3-Nitrotoluene



**NETN**

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4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK16

Analysis Date: 14-APR-10 21:45

GEL Data File: EXP0412111a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	578.061
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	585.843
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report  
 JEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP041211a

Date: 14-Apr-2010

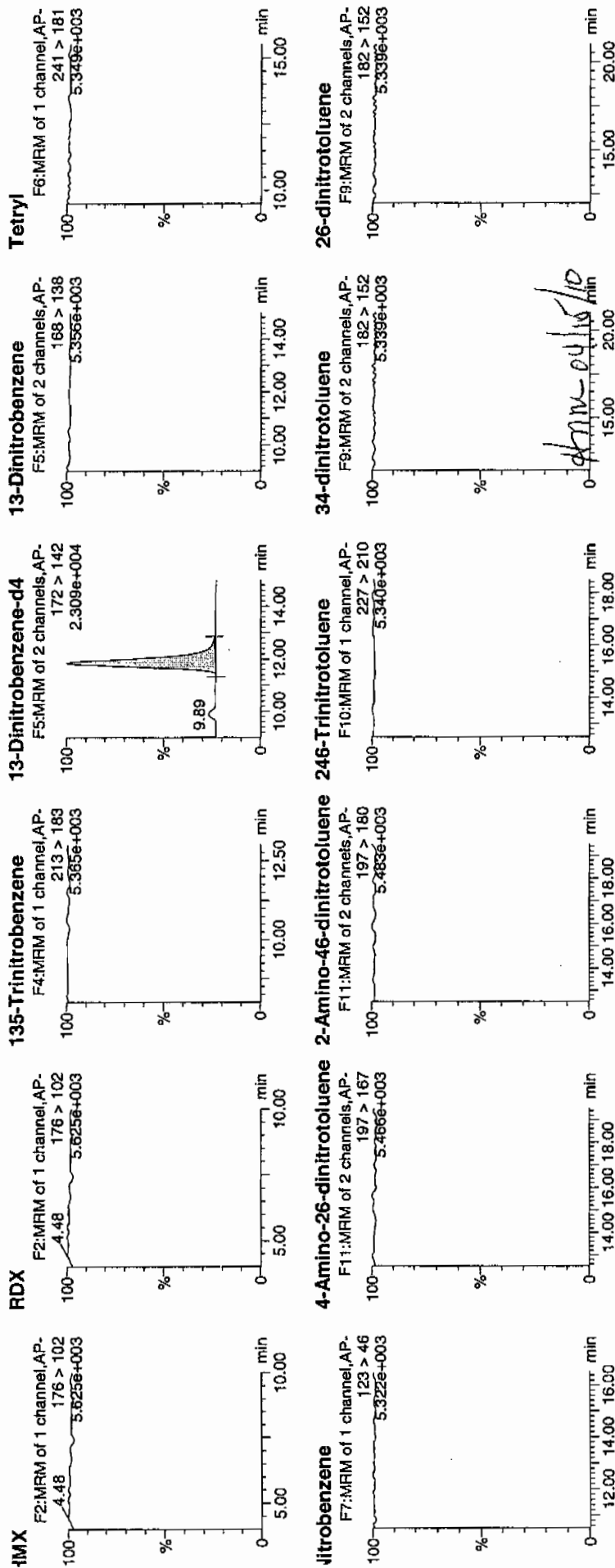
Time: 21:45:50

D: XIBLK16

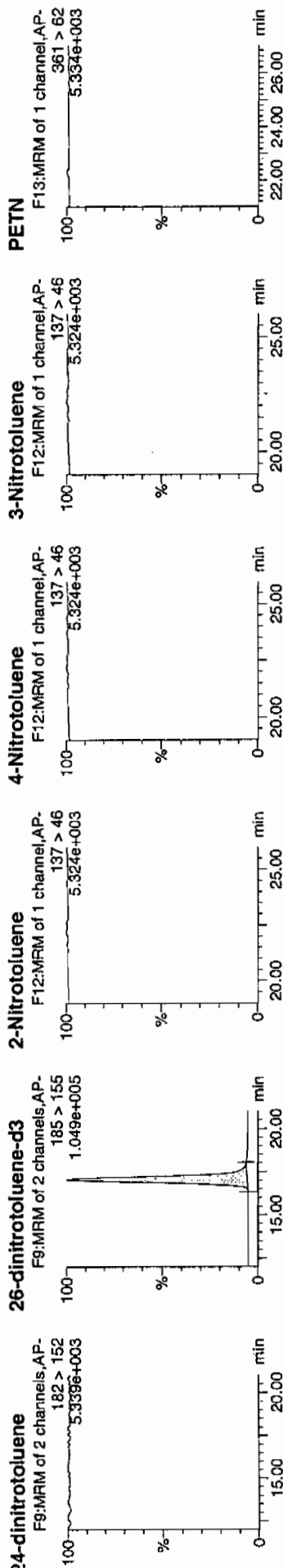
/ial: 1:1,A

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Page 1579 of 2211



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



ID	Name	Trace	RT	Area	S-Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	%Rec	%Dev	SIN
XIBLK16	HMx	176 > 102		6798.419									
XIBLK16	RDX	176 > 102		6798.419									
XIBLK16	135-Trinitrobenzene	213 > 183		6798.419									
XIBLK16	13-Dinitrobenzene-d4	172 > 142	11.87	6798.419		6798.419	6798.419	bb			578.0611	115.6	426.8
XIBLK16	13-Dinitrobenzene	168 > 138		6798.419									
XIBLK16	Tetryl	241 > 181		6798.419									
XIBLK16	Nitrobenzene	123 > 46		6798.419									
XIBLK16	4-Amino-26-dinitrotoluene	197 > 167		40989.270									
XIBLK16	2-Amino-46-dinitrotoluene	197 > 180		40989.270									
XIBLK16	246-Trinitrotoluene	227 > 210		40989.270									
XIBLK16	34-dinitrotoluene	182 > 152		40989.270									
XIBLK16	26-dinitrotoluene	182 > 152		40989.270									
XIBLK16	24-dinitrotoluene	182 > 152		40989.270									
XIBLK16	26-dinitrotoluene-d3	185 > 155	17.05	40989.270		40989.270	40989.270	bb			585.8426	117.2	1633.6
XIBLK16	2-Nitrotoluene	137 > 46		40989.270									
XIBLK16	4-Nitrotoluene	137 > 46		40989.270									
XIBLK16	3-Nitrotoluene	137 > 46		40989.270									
XIBLK16	PETN	361 > 62											



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK17

Analysis Date: 15-APR-10 04:09

GEL Data File: EXP0412124a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6-Dinitrotoluene-d3	500	556.693
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	558.188
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0

Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0412124a

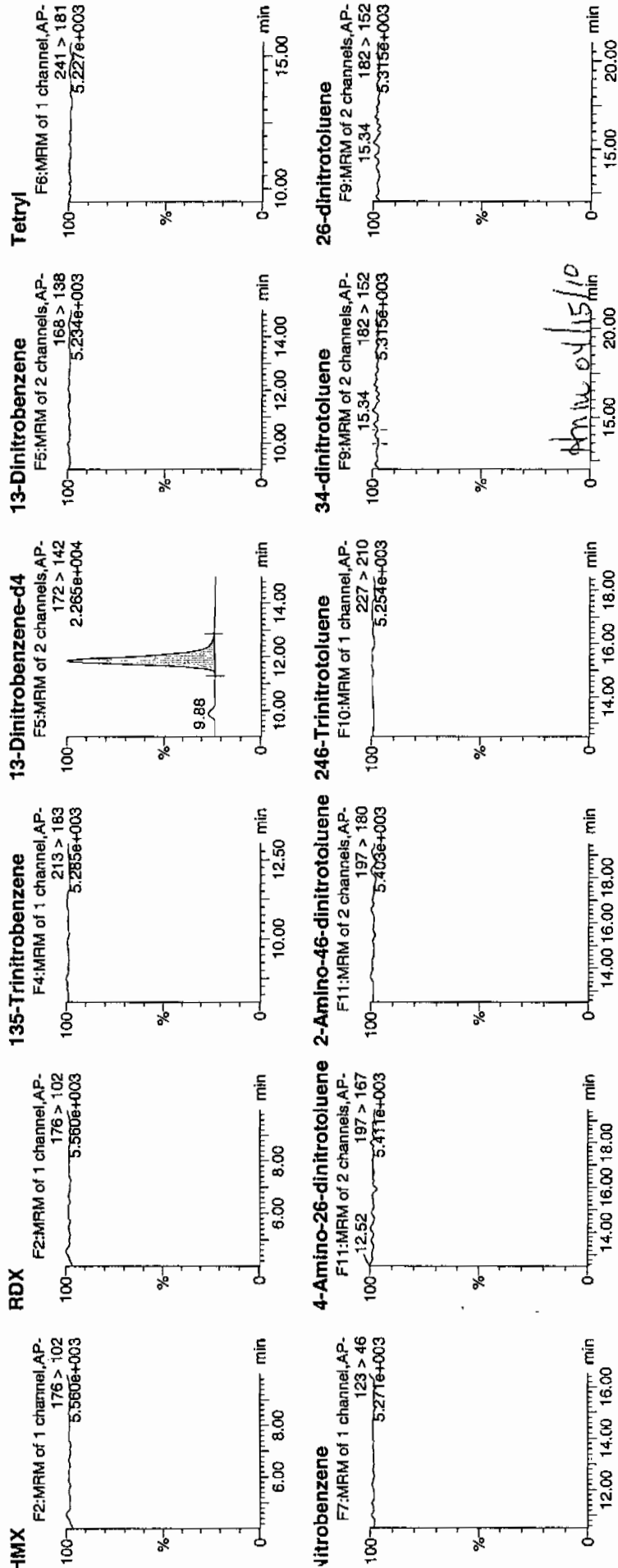
Date: 15-Apr-2010

Time: 04:09:26

D: XIBLK17

Val: 1:1,A

10/15/10

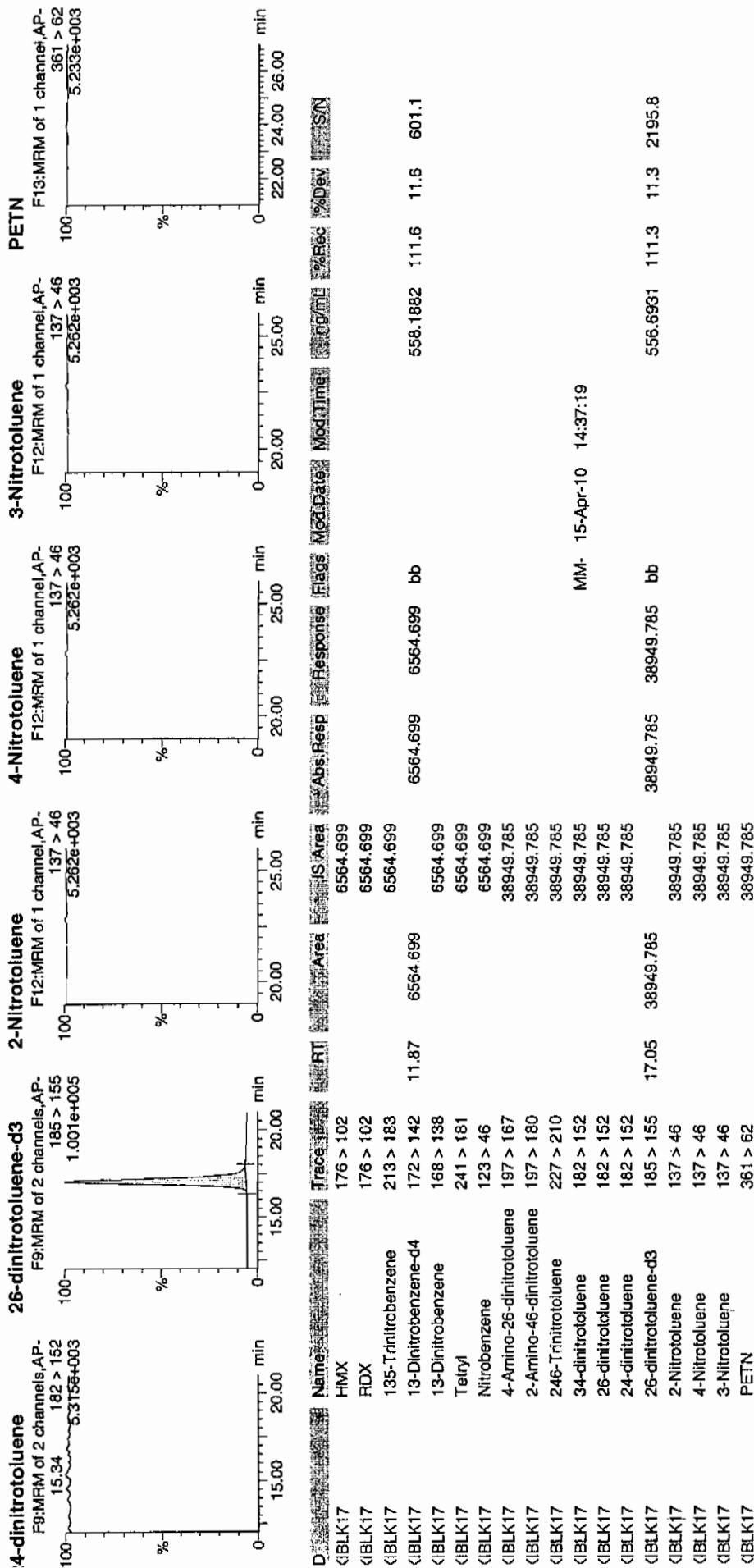


# Quantify Sample Report

IEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 98 of 137

Dataset: C:\MASSL\YXX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK18

Analysis Date: 15-APR-10 10:03

GEL Data File: EXP0412136a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	541.68
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	563.838
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412136a

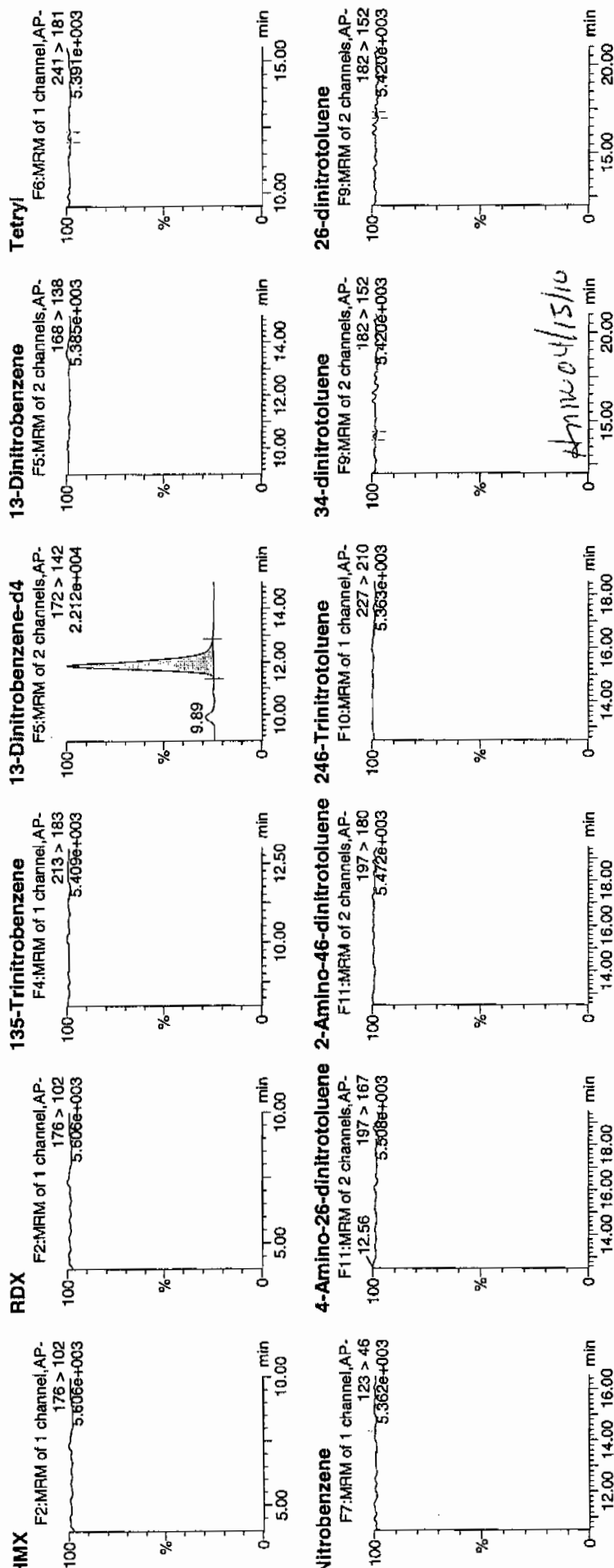
Date: 15-Apr-2010

Time: 10:03:32

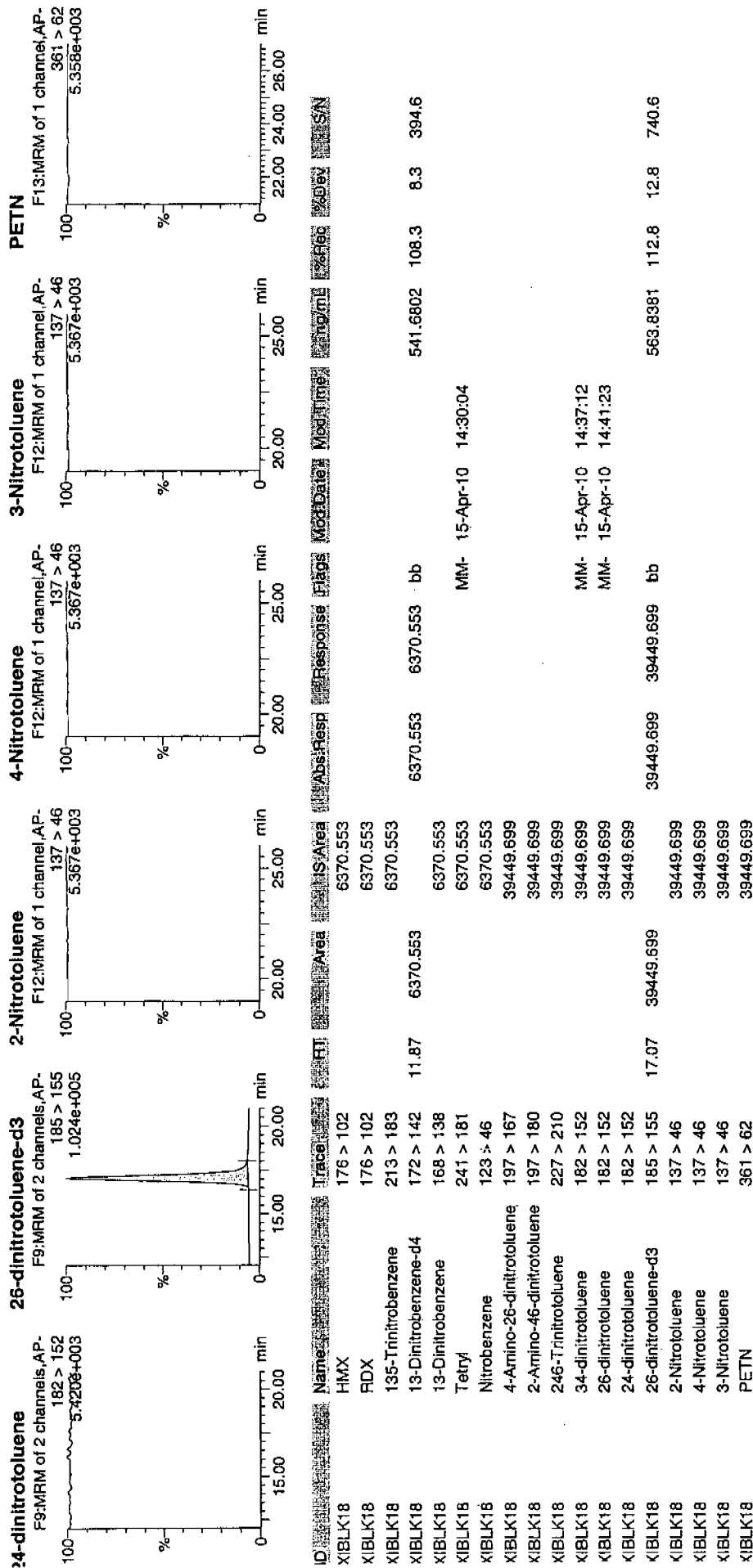
ID: XIBLK18

Vial: 1:1,A

10/15/10



Dataset: C:\MASSLYN\New\_Exp\PRO041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK19

Analysis Date: 15-APR-10 13:00

GEL Data File: EXP0412142a

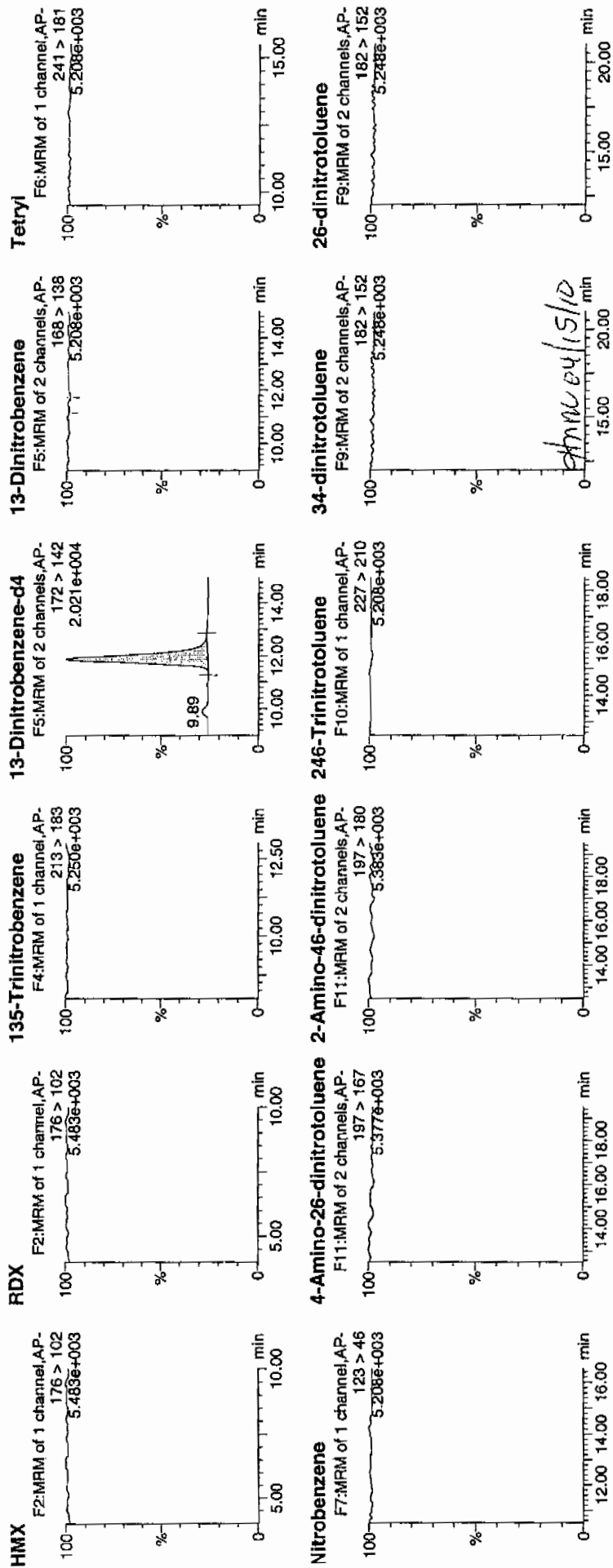
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	473.748
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	449.474
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

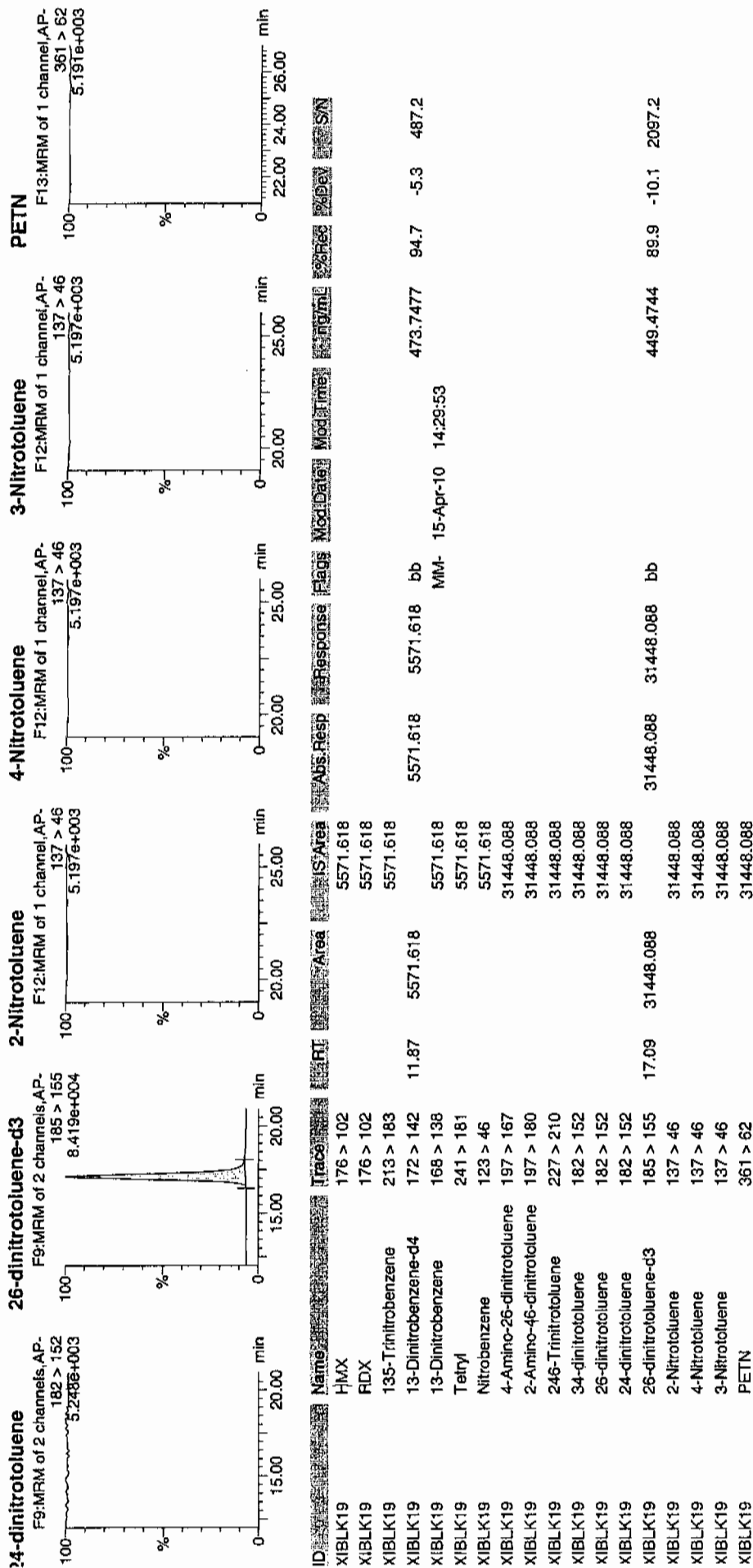
Printed: Thu Apr 15 14:53:43 2010, Page 133 of 137

15/4/10





Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 31-MAR-10 11:01

GEL Data File: EXS03310010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	5.19
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ken 4/15/10

Sample Name: "XIBL002" Sample ID: "111ER" File: "EXS03310010.wif"

Peak Name: "3S-204.9 amu" Mass(es): "182.0460 amu"

Comment: "LONEXP\_B" Annotation: "

Sample Index: 1

Sample Type: Unknown

Concentration: 0.00 ng/mL

Acq. Date: 3/31/2010

Acq. Time: 11:01:59 AM

Modified: No

Sample Name: "XIBL002" Sample ID: "111ER" File: "EXS03310010.wif"

Peak Name: "3S-204.9 amu" Mass(es): "182.0460 amu"

Comment: "LONEXP\_B" Annotation: "

Sample Index: 1

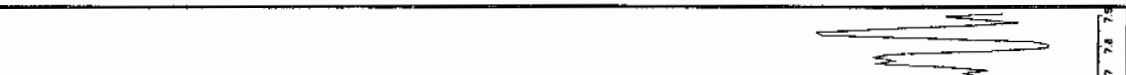
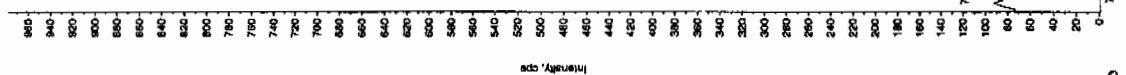
Sample Type: Unknown

Concentration: 0.00 ng/mL

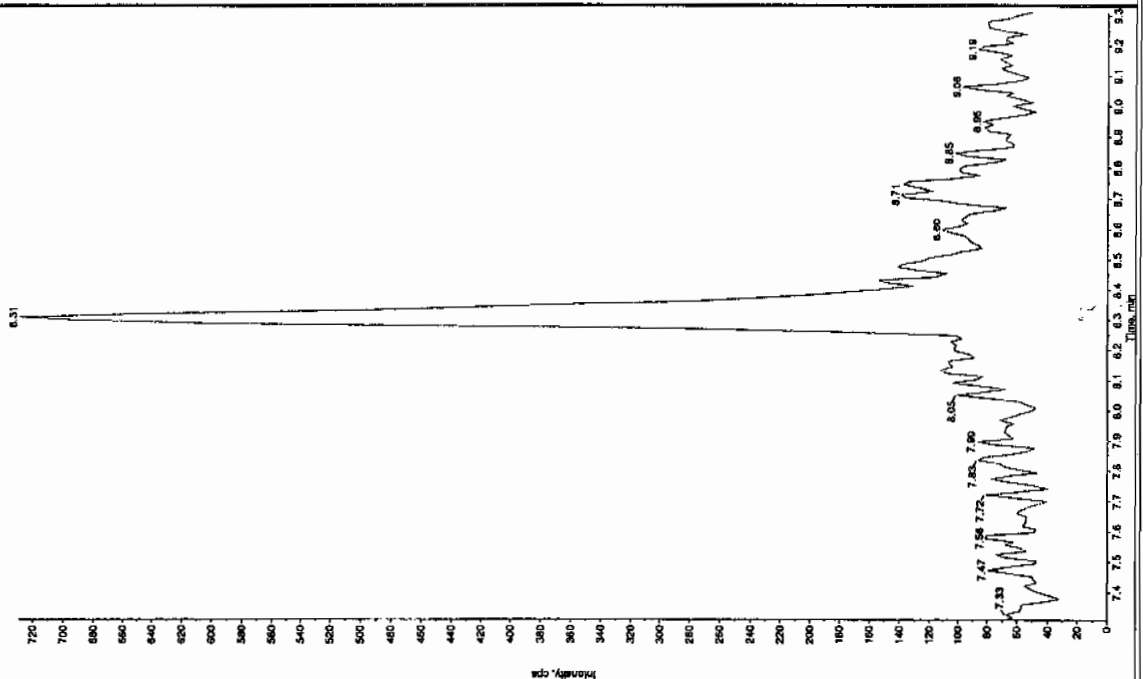
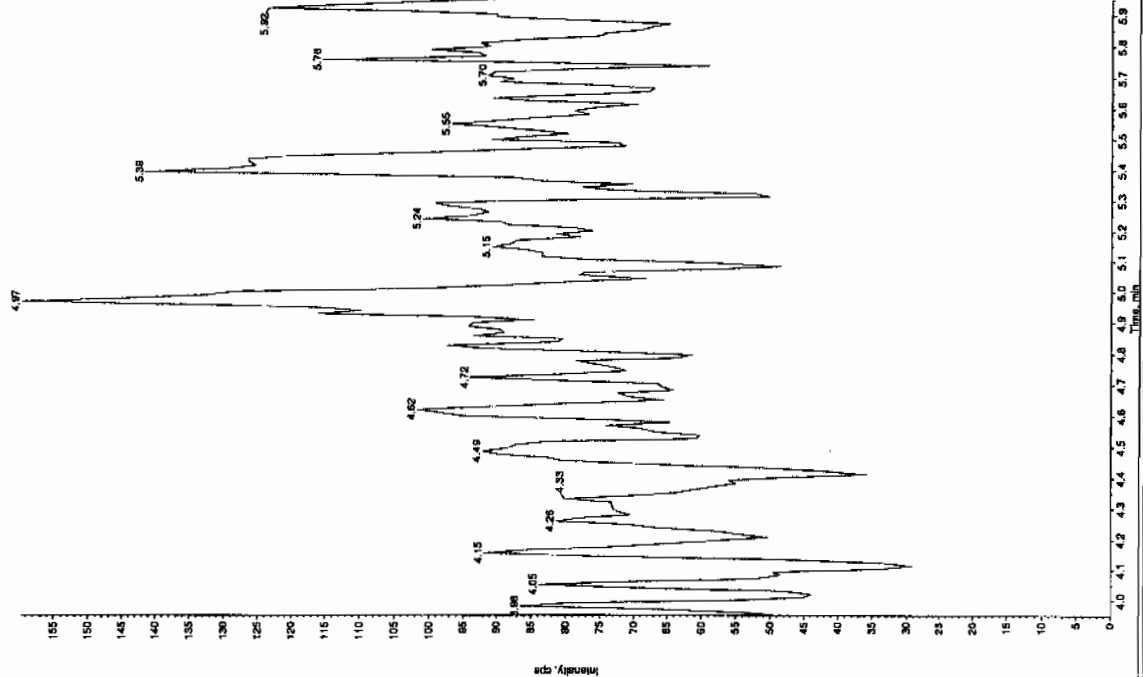
Acq. Date: 3/31/2010

Acq. Time: 11:01:59 AM

Modified: No



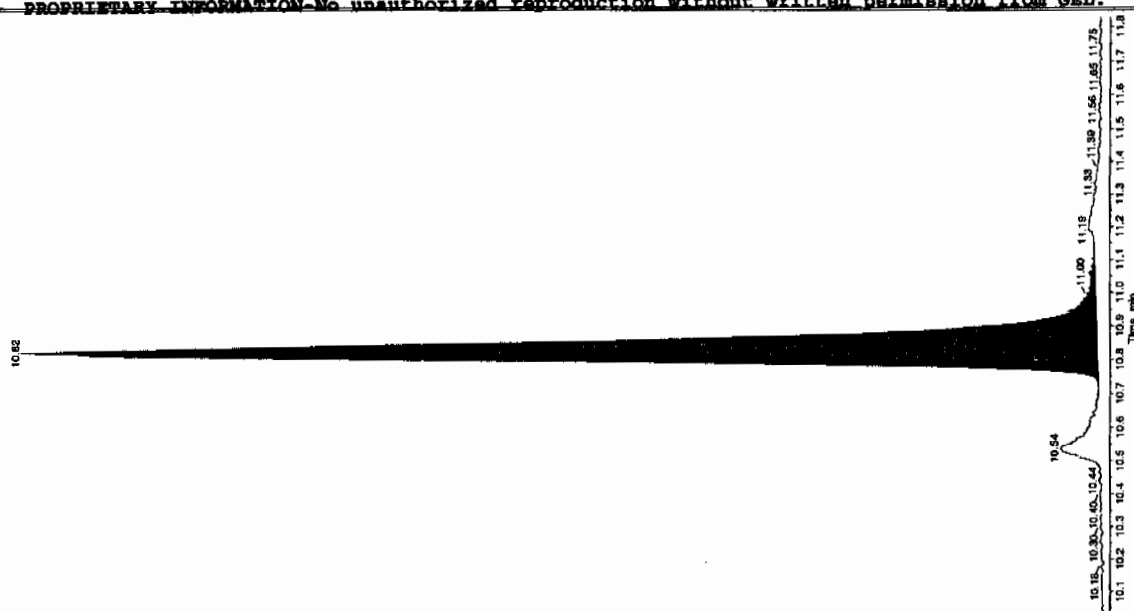
Amo 4/05/10



Sample Name: "XIBLK02" Sample ID: "JILER" File: "EXS03310010.wif"  
 Peak Name: "tris(2-creyl) phosphate" Mass(es): "369.181.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 5.19 ng/mL  
 Calculated Conc: 3/31/2010  
 Acq. Date: 11:01:59 AM  
 Acq. Time: 11:01:59 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 2.48e+05 counts  
 Height: 59729.719 cps  
 Start Time: 10.7 min  
 End Time: 11.1 min

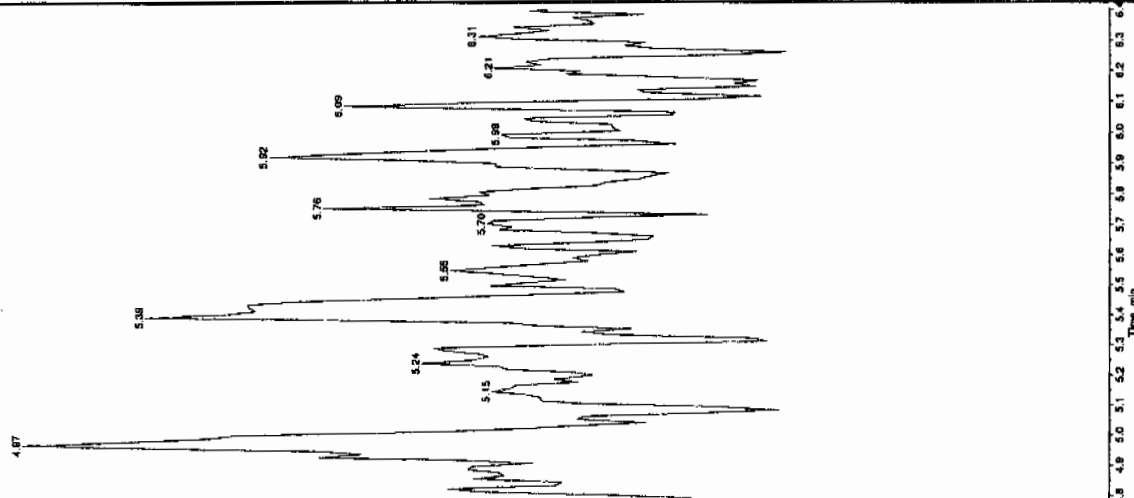
Intensity, cps



Sample Name: "XIBLK02" Sample ID: "JILER" File: "EXS03310010.wif"  
 Peak Name: "24-Diamino-6-nitrobenzene" Mass(es): "188.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 5.19 ng/mL  
 Calculated Conc: 3/31/2010  
 Acq. Date: 11:01:59 AM  
 Acq. Time: 11:01:59 AM  
 Modified: No

Intensity, cps



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK03

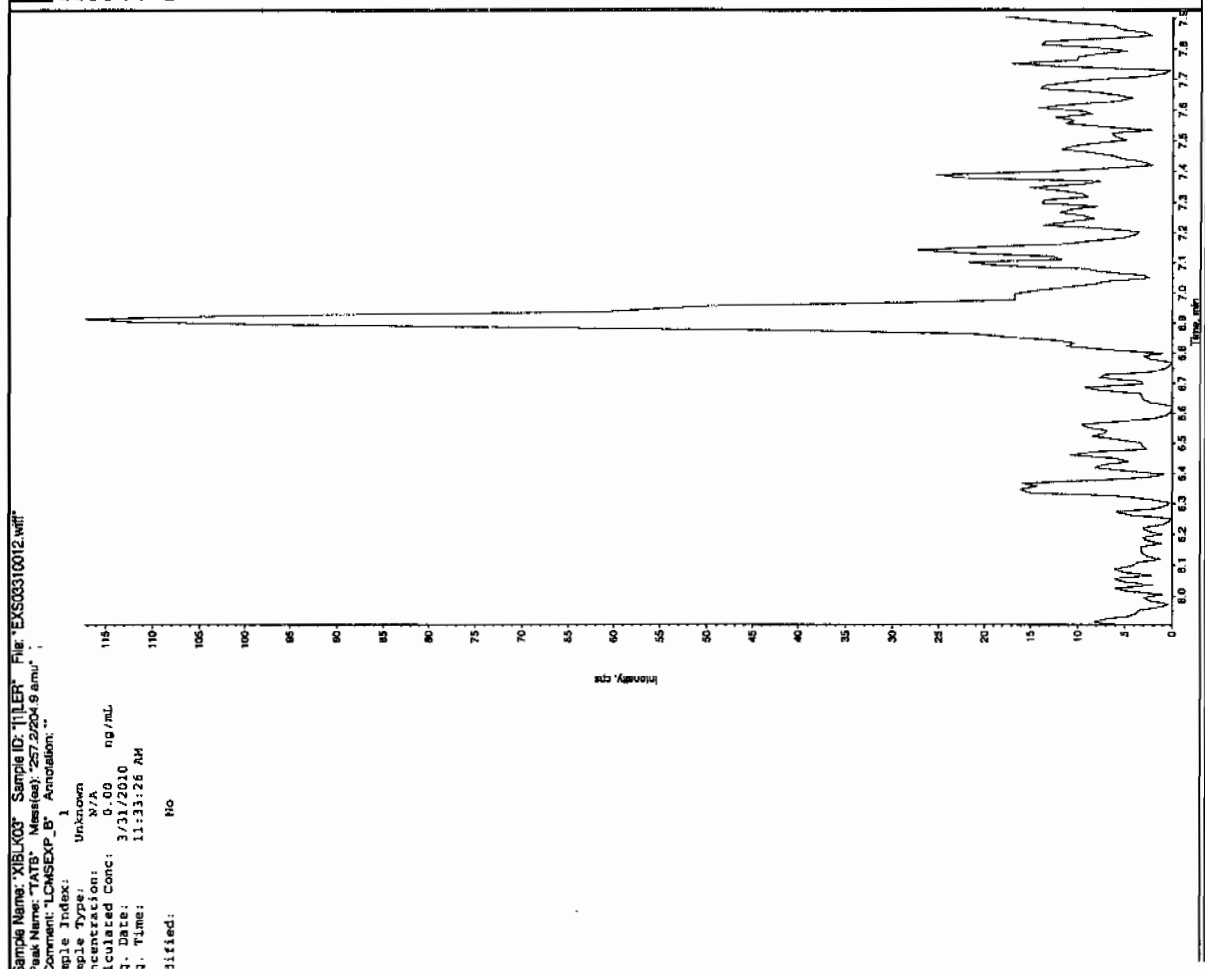
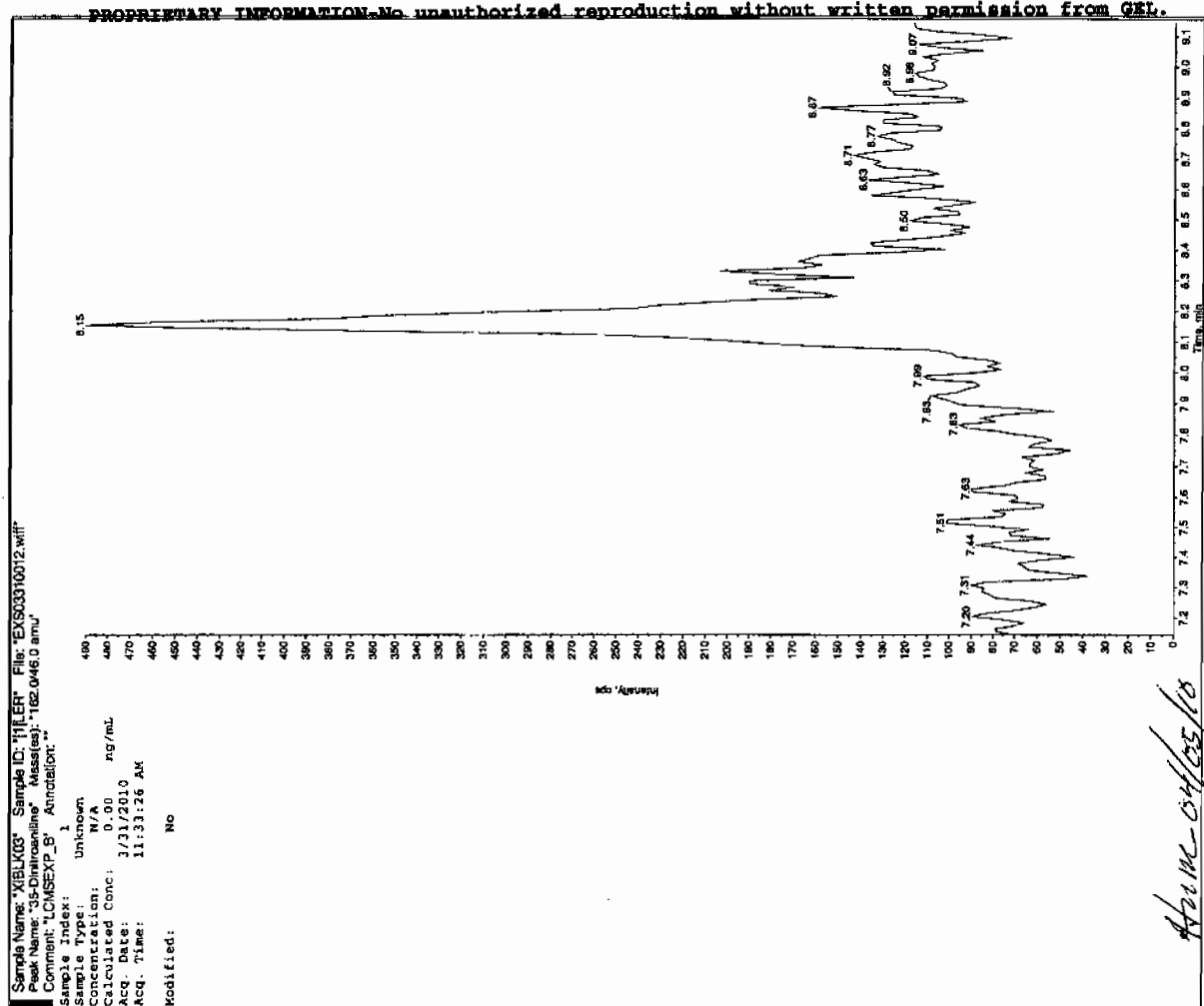
Analysis Date: 31-MAR-10 11:33

GEL Data File: EXS03310012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

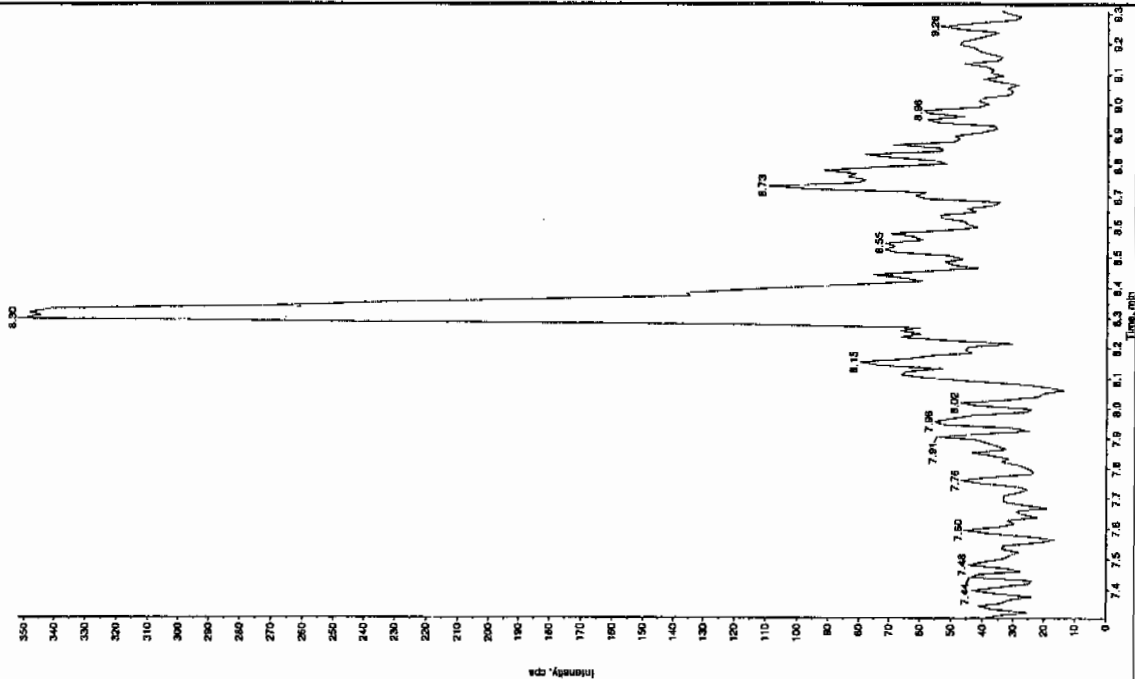
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	.384
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



*Home-04/05/10*

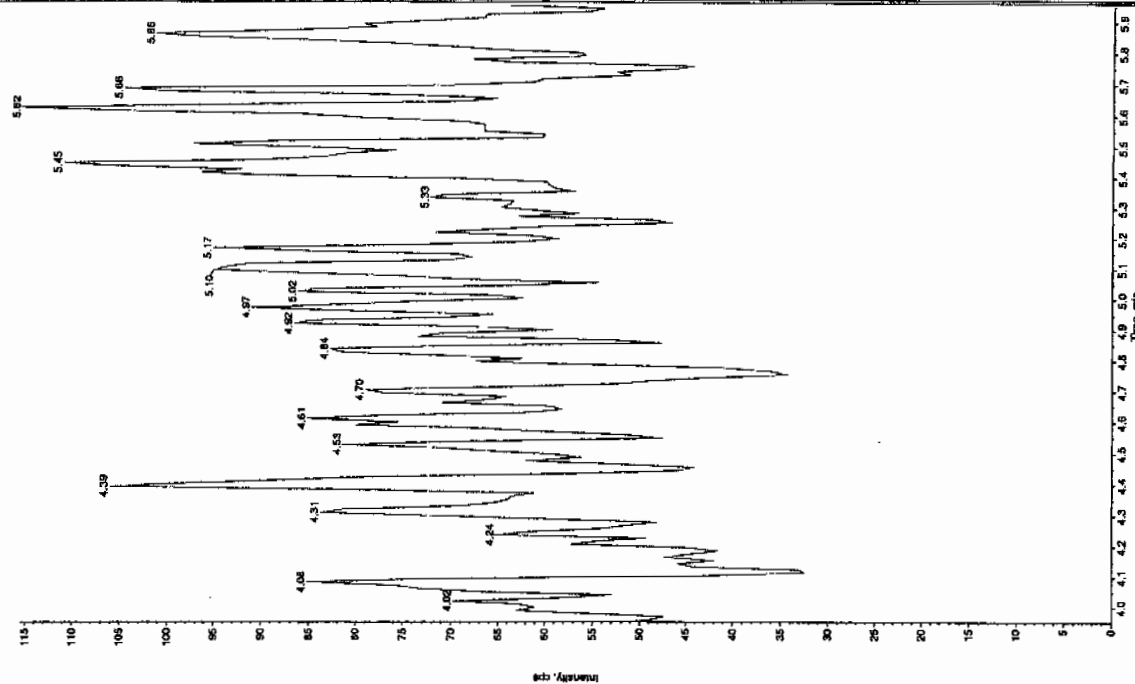
Sample Name: "XIBLK03" Sample ID: "HILIR" File: "EXS03310012.wif"  
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.1751.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 11:33:26 AM  
 Modified: No



Sample Name: "XIBLK03" Sample ID: "HILIR" File: "EXS03310012.wif"  
 Peak Name: "26-Dinitro-4-nitrochlorobenzene" Mass(es): "168.0448.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

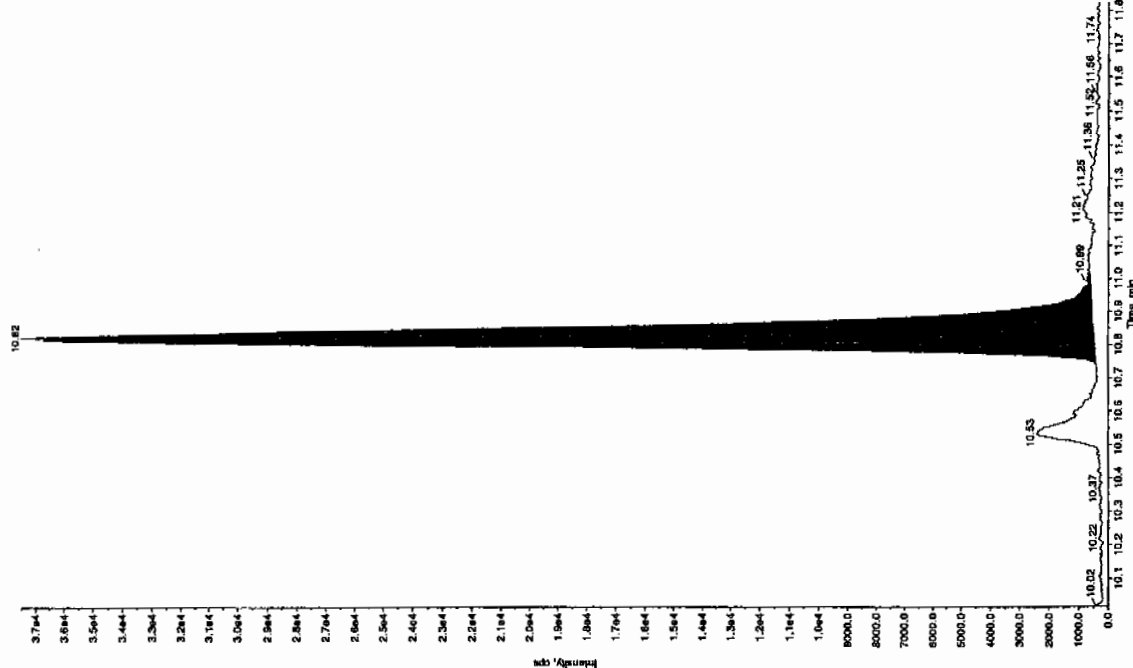
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 11:33:26 AM  
 Modified: No





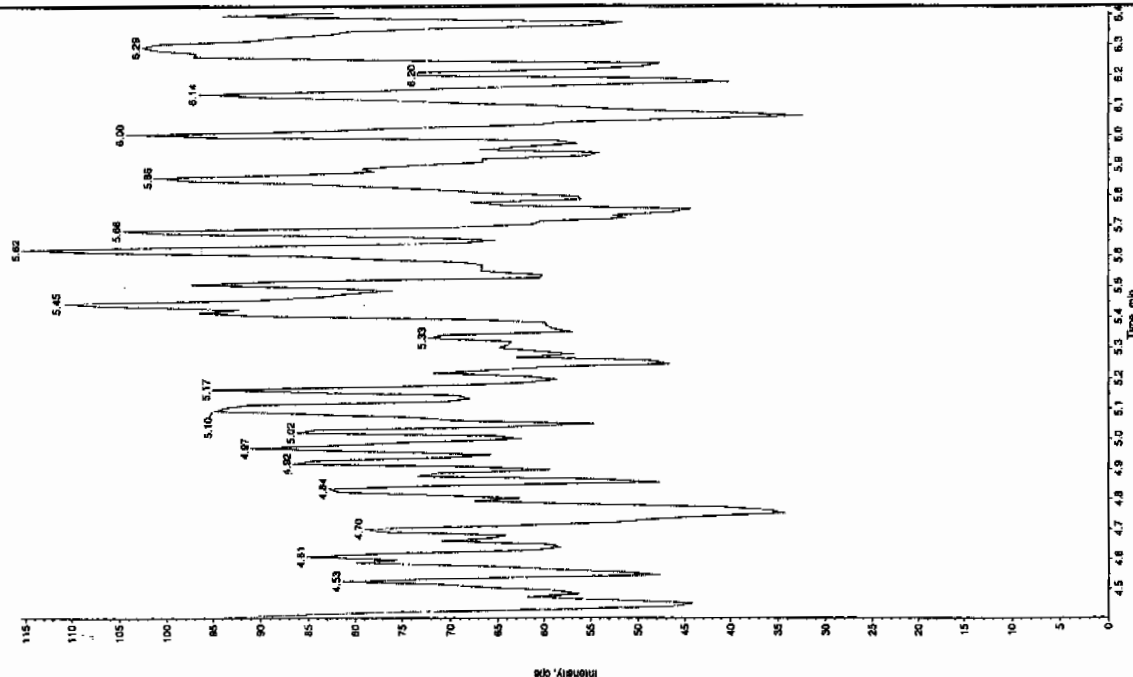
Sample Name: "XIBLK03" Sample ID: "11LER" File: "XS03310012.will"  
 Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1910 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.384 ng/mL  
 Calculated Conc: 3/31/2010  
 Acq. Date: 11:33:26 AM  
 Acq. Time: 11:33:26 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 1.54e+005 counts  
 Height: 37054.707 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: "XIBLK03" Sample ID: "11LER" File: "XS03310012.will"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 3/31/2010  
 Acq. Date: 11:33:26 AM  
 Acq. Time: 11:33:26 AM  
 Modified: No



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 31-MAR-10 14:57

GEL Data File: EXS03310025.wiff

Instrument ID: LCMSMS

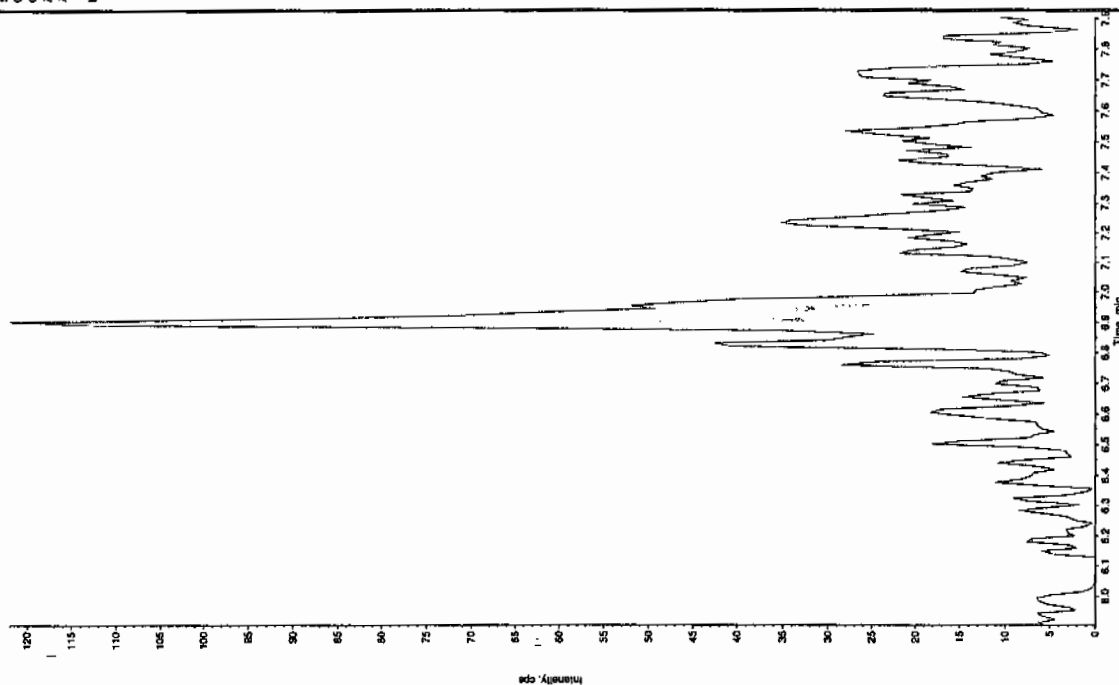
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

San 415710

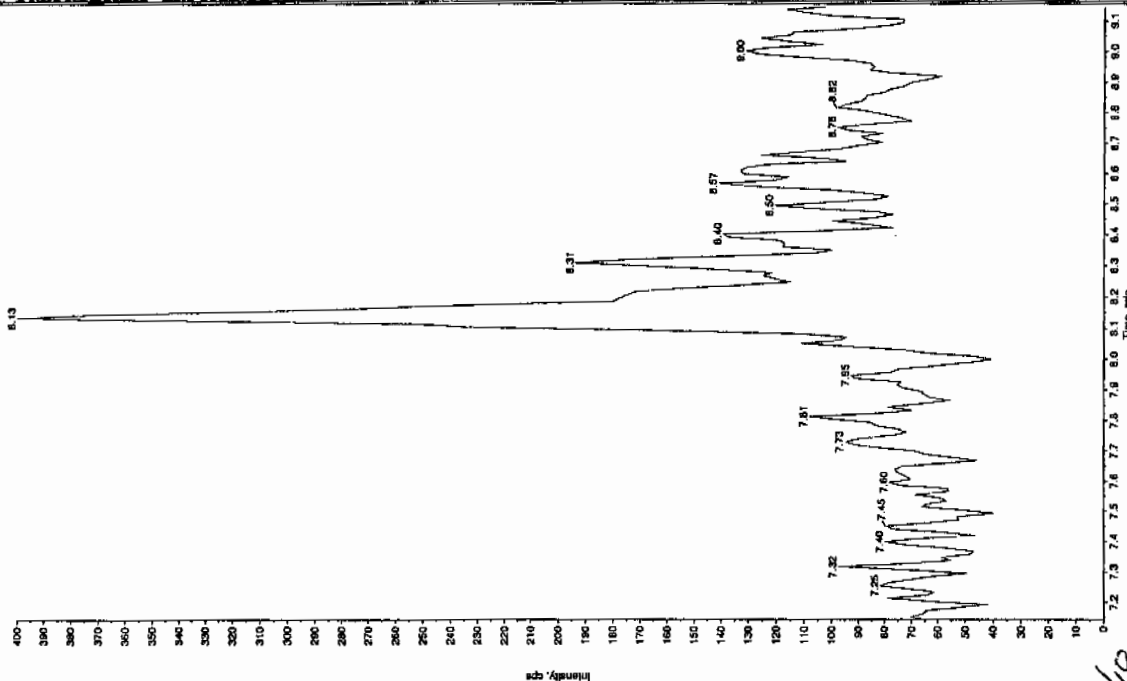
Sample Name: "XIBLX04" Sample ID: "JILLER" File: "EXS03310025.wif"  
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 3/31/2010  
 Acq. Date: 2:57:37 PM  
 Acq. Time: 2:57:37 PM  
 Modified: No



Sample Name: "XIBLX04" Sample ID: "JILLER" File: "EXS03310025.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

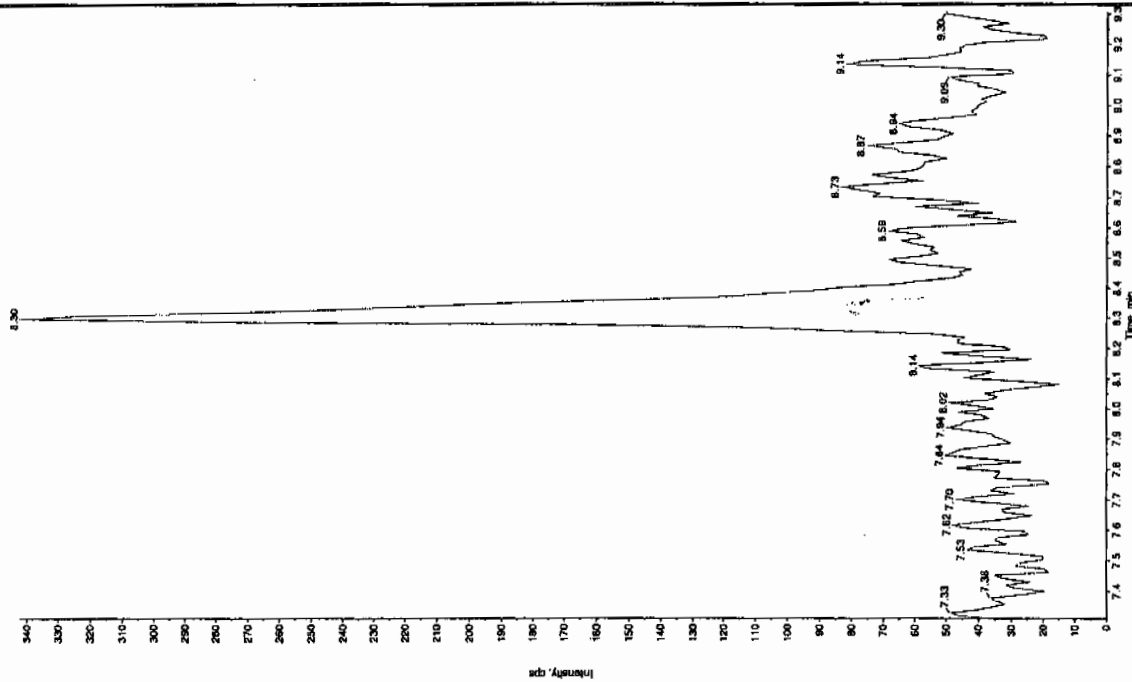
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 3/31/2010  
 Acq. Date: 2:57:37 PM  
 Acq. Time: 2:57:37 PM  
 Modified: No



San 0415710

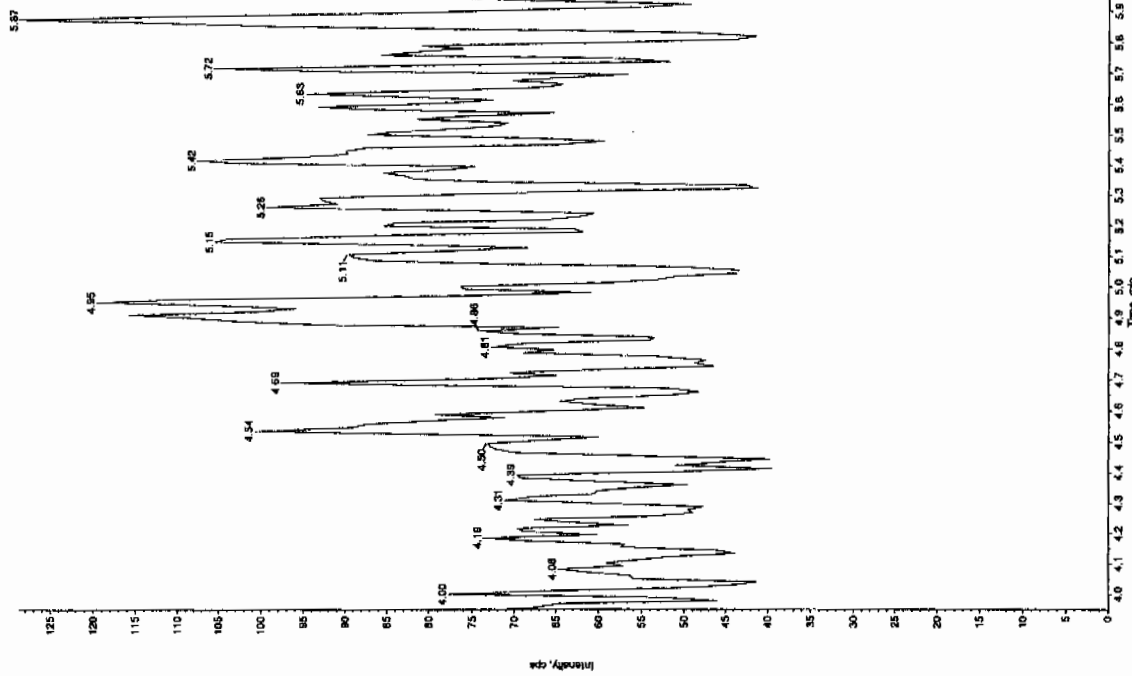
Sample Name: "XIBLX04" Sample ID: "111ER" File: "EXS03310025.will"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 3/31/2010 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 2:57:37 PM  
 Modified: No



Sample Name: "XIBLX04" Sample ID: "111ER" File: "EXS03310025.will"  
 Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "186.0/166.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 3/31/2010 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 2:57:37 PM  
 Modified: No





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 31-MAR-10 18:06

GEL Data File: EXS03310037.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Run 415710

Sample Name: 'XIBLK05' Sample ID: '111ER' File: 'EXS03310037.wif'

Peak Name: '35-Dinitroaniline' Mass(es): '182.046.0 amu'

Comment: 'LCMSEXP\_B' Annotation: ''

Sample Index: 1

Sample Type: Unknown

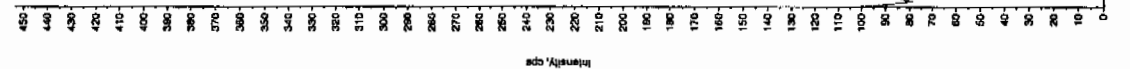
Concentration: N/A

Calculated Conc: 0.00 mg/mL

Acq. Date: 3/31/2010

Acq. Time: 6:06:13 PM

Modified: No



Run 04165710

Sample Name: 'XIBLK05' Sample ID: '111ER' File: 'EXS03310037.wif'

Peak Name: '7ATB' Mass(es): '257.2304.9 amu'

Comment: 'LCMSEXP\_B' Annotation: ''

Sample Index: 1

Sample Type: Unknown

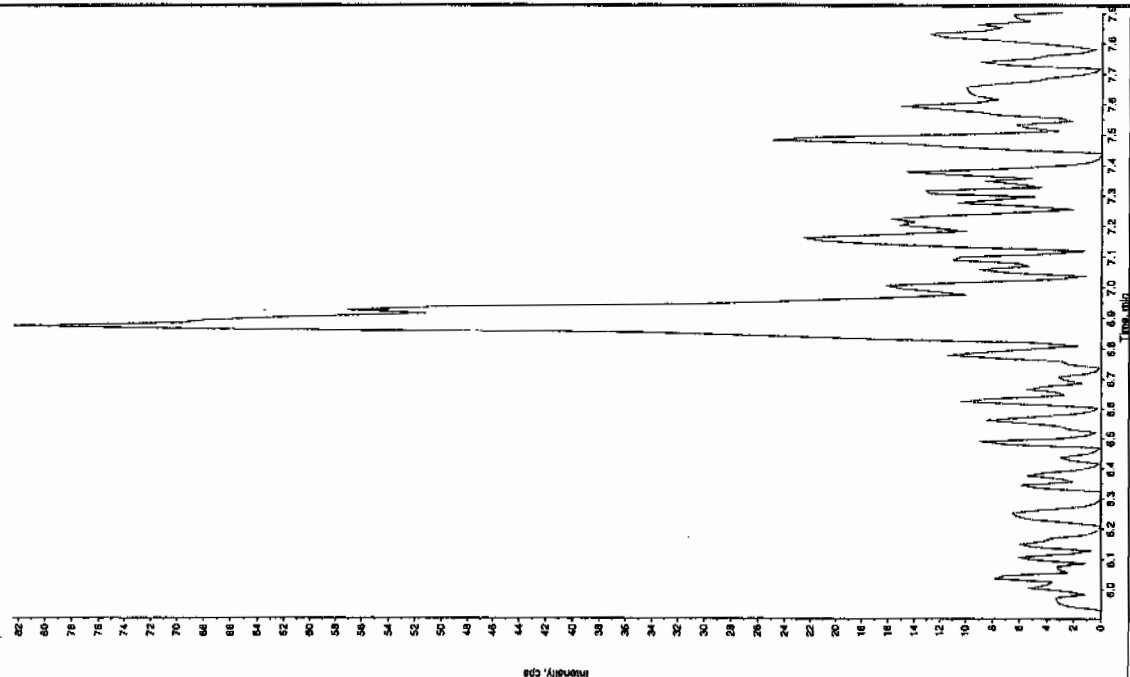
Concentration: N/A

Calculated Conc: 0.00 mg/mL

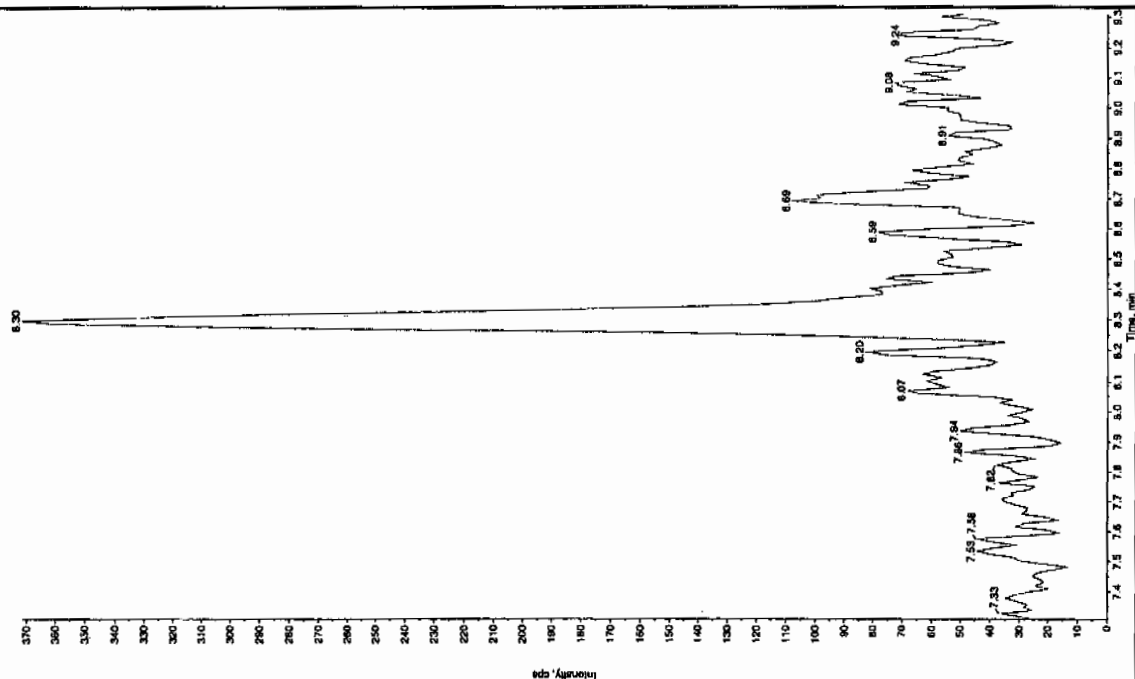
Acq. Date: 3/31/2010

Acq. Time: 6:06:13 PM

Modified: No



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

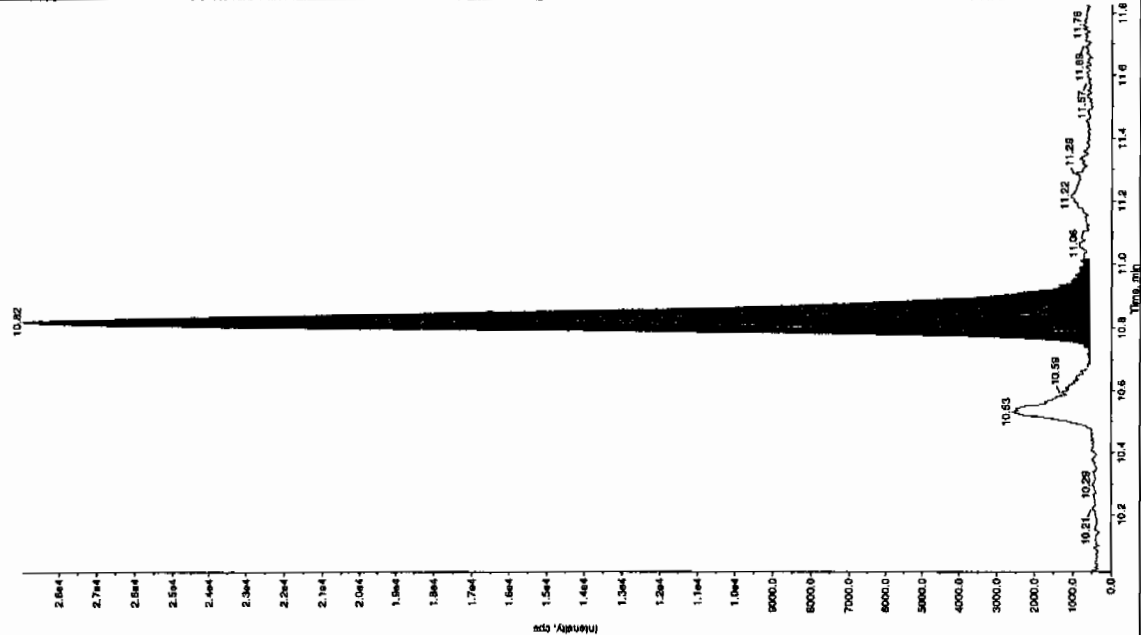


Page 1604 of 2211



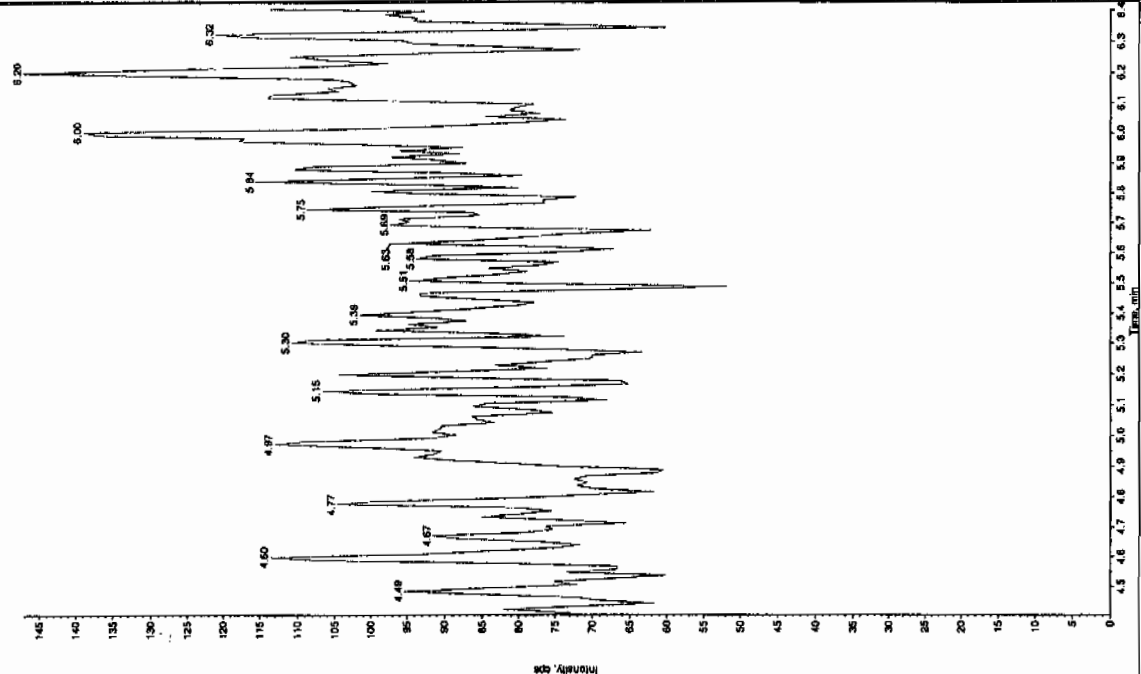
Sample Name: "XIBLK05" Sample ID: "111ER" File: "EXS03310037.wif"  
 Peak Name: "bis(o-cresyl) phosphate" Mass(es): "369.161.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: No Intercept  
 Acq. Date: 3/31/2010  
 Acq. Time: 6:06:13 PM  
 Modified: No  
 Pic. Algorithm: IntelliQuan - ION  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 1.20e+005 counts  
 Height: 28429.373 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: "XIBLK05" Sample ID: "111ER" File: "EXS03310037.wif"  
 Peak Name: "24-Diamino-6-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 mg/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 6:06:13 PM  
 Modified: No



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 31-MAR-10 21:14

GEL Data File: EXS03310049.wiff

Instrument ID: LCMSMS

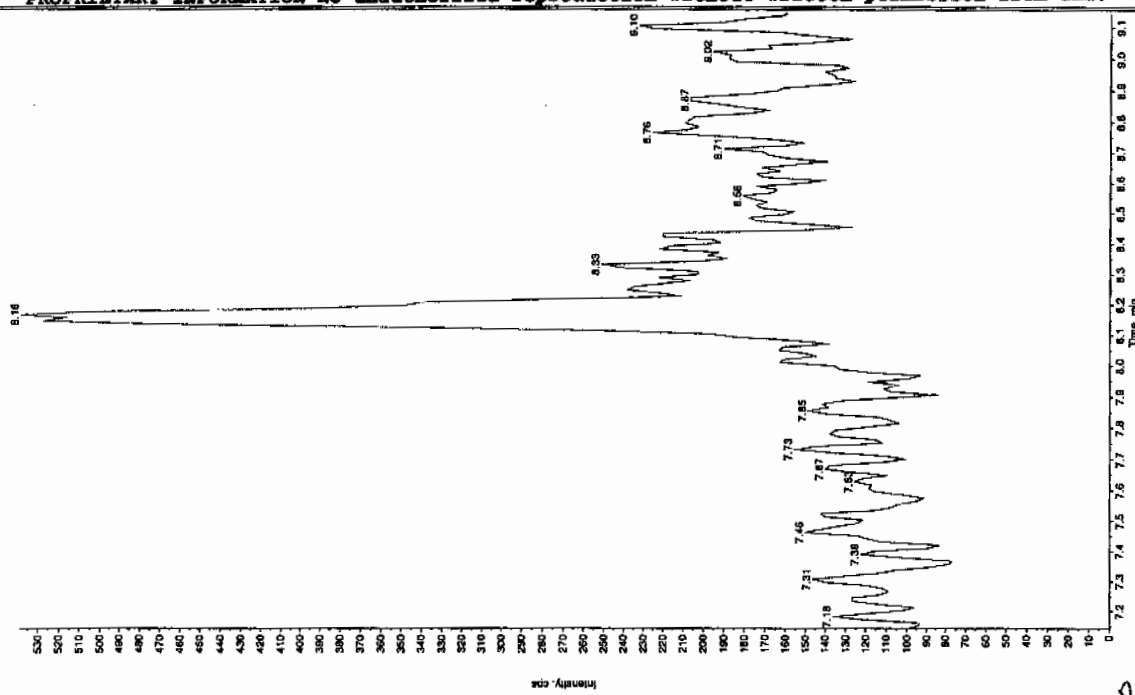
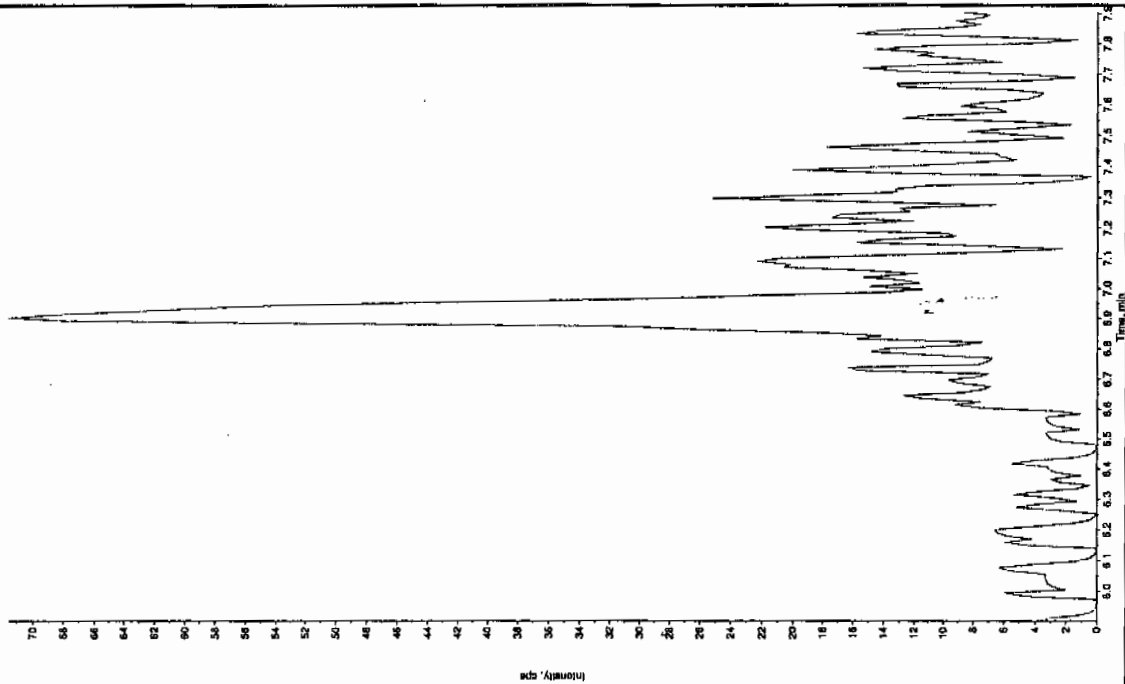
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

for 4/5/10

Sample Name: "XBLK05" Sample ID: "111EP" File: "EXS0310049.wif"  
 Peak Name: "8.16" Retention Time: 8.16 min  
 Concentration: 0.00 ng/mL  
 Acquisition Date: 3/31/2010  
 Acquisition Time: 9:14:49 PM  
 Modified: No

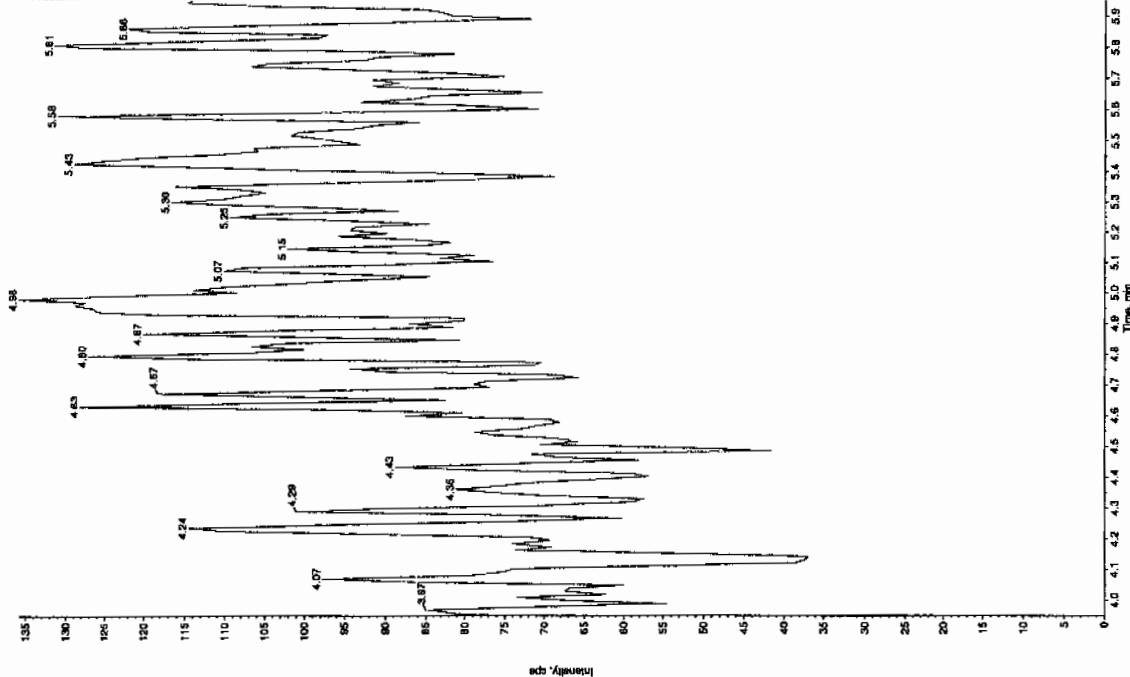
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acquisition Date: 3/31/2010  
 Acquisition Time: 9:14:49 PM  
 Modified: No



Am-04/05/10

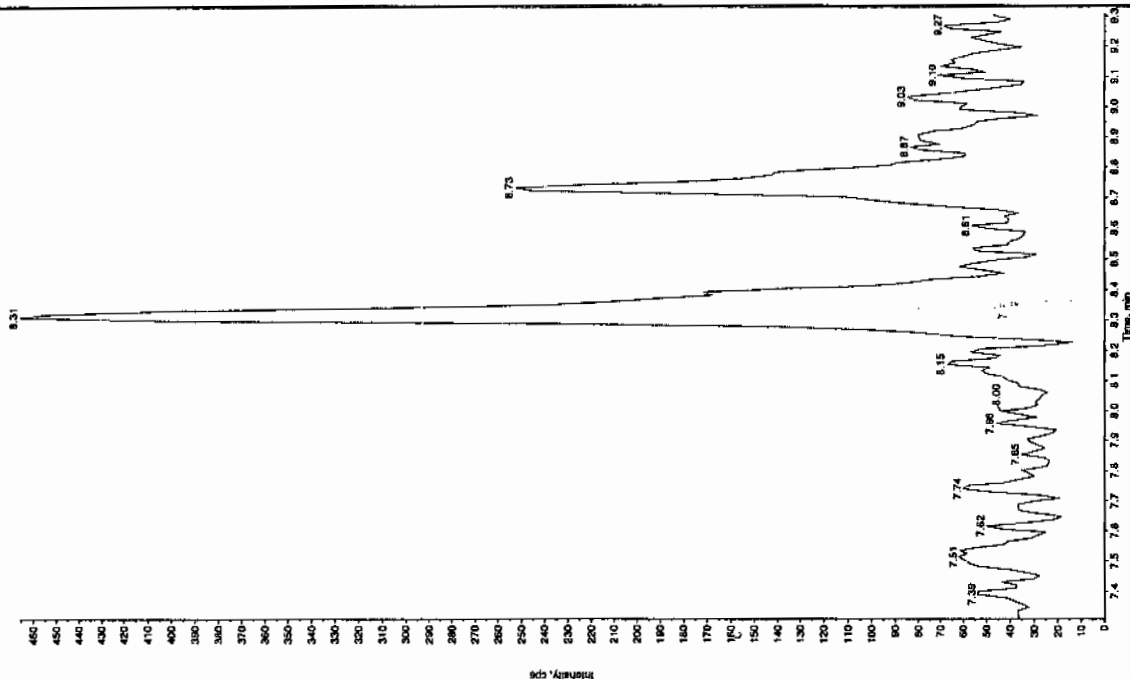
Sample Name: "XIBLK06" Sample ID: "TILER" File: "EXS03310049.wif"  
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 9:14:49 PM  
 Modified: No



Sample Name: "XIBLK06" Sample ID: "TILER" File: "EXS03310049.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

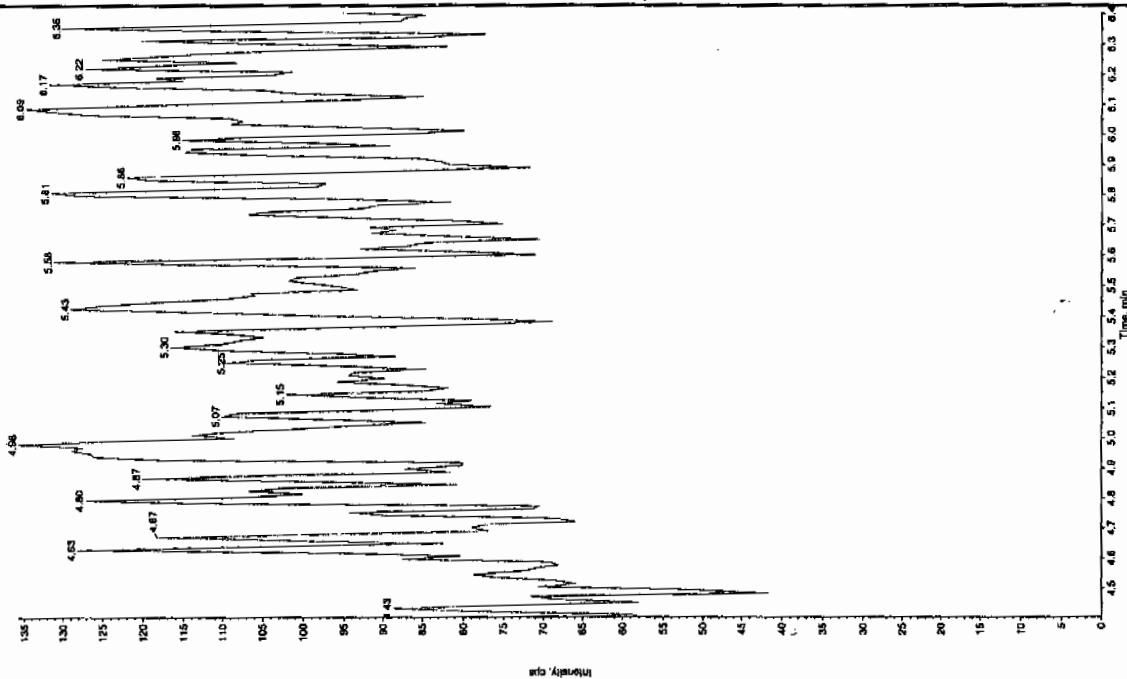
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 9:14:49 PM  
 Modified: No



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

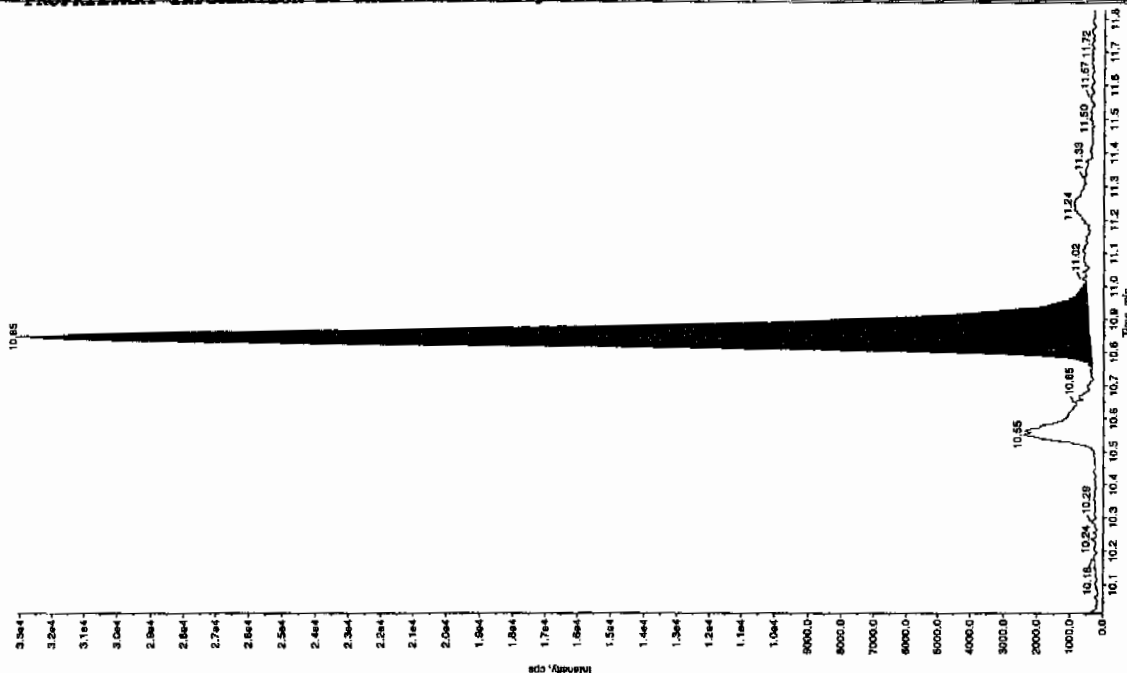
Sample Name: "XBLK06" Sample ID: "TILER" File: "EXS03310049.wif"  
 Peak Name: "24-Diamino-6-nitrofolane" Mass(es): "165.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 9:14:49 PM  
 Diluted: No



Sample Name: "XBLK06" Sample ID: "TILER" File: "EXS03310049.wif"  
 Peak Name: "Is(o-cresyl) phosphate" Mass(es): "359.191.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Acq. Date: 3/31/2010  
 Acq. Time: 9:14:49 PM  
 Diluted: No  
 Modified: No  
 Proc. Algorithm: Isotopologue - IOA  
 Min. Peak Height: 6000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 10.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 1.37e+005 counts  
 Height: 32656.234 cps  
 Start Time: 10.8 min  
 End Time: 11.0 min



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 01-APR-10 00:39

GEL Data File: EXS03310062.wiff

Instrument ID: LCMSMS

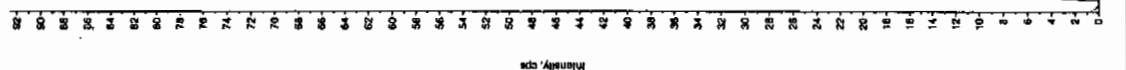
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

See 415710

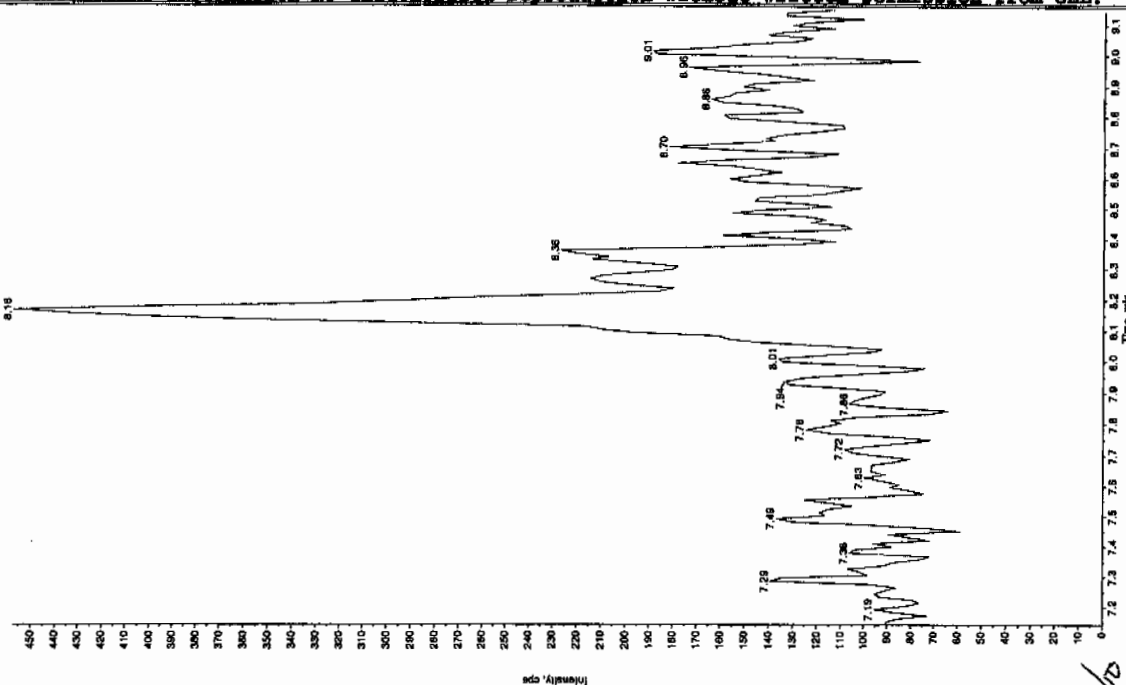
Sample Name: "XBLK07" Sample ID: "1111ER" File: "EXS03310062.wiff"  
 Peak Name: "TATB" Mass(es): "257.2/204.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/1/2010  
 Acq. Time: 12:39:08 AM  
 Modified: No



Sample Name: "XBLK07" Sample ID: "1111ER" File: "EXS03310062.wiff"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.0/146.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

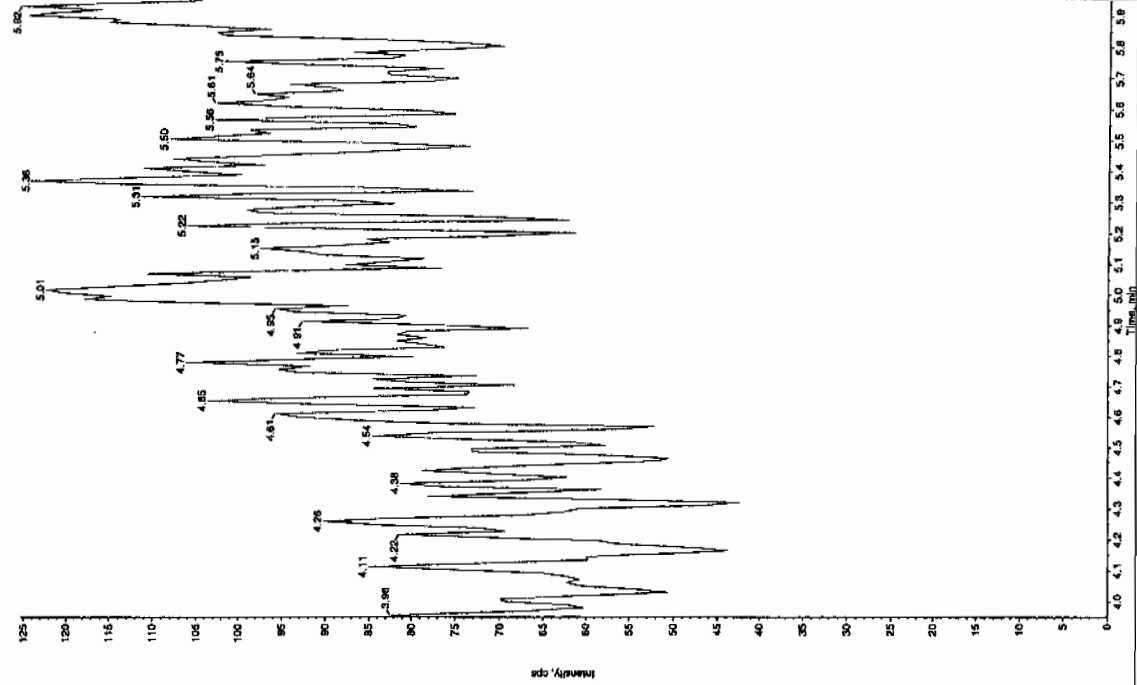
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/1/2010  
 Acq. Time: 12:39:08 AM  
 Modified: No



See 041010

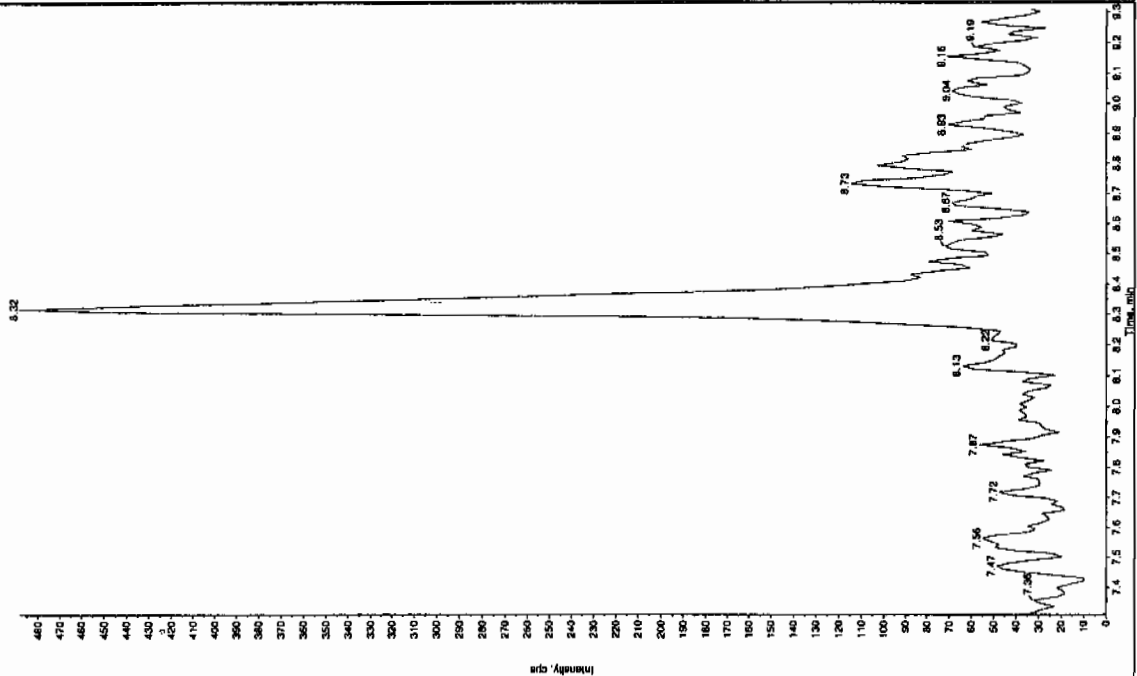
Sample Name: 'XBLK07' Sample ID: '111ER' File: 'EXS03310062.wif'  
 Peak Name: '26-Dinitro-4-nitrobenzene' Mass(es): '166.046.0 amu'  
 Comment: 'LCMSEXP\_B' Annotation: ''

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/1/2010  
 Acq. Time: 12:39:08 AM  
 Modified: No



Sample Name: 'XBLK07' Sample ID: '111ER' File: 'EXS03310062.wif'  
 Peak Name: '34-Dinitrobenzene' Mass(es): '182.151.9 amu'  
 Comment: 'LCMSEXP\_B' Annotation: ''

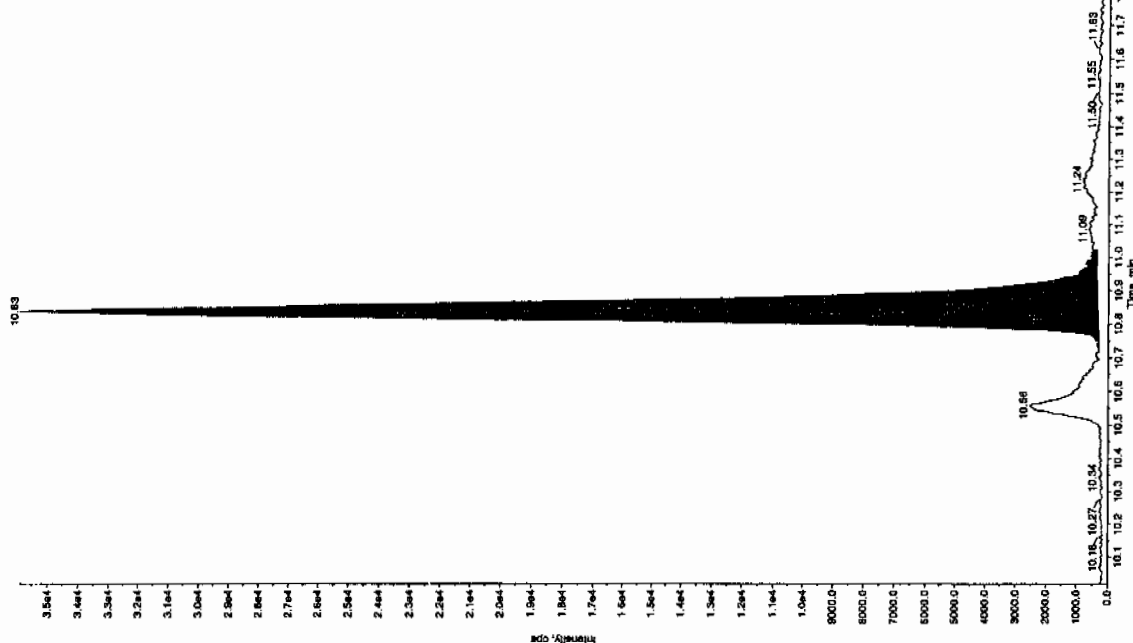
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/1/2010  
 Acq. Time: 12:39:08 AM  
 Modified: No





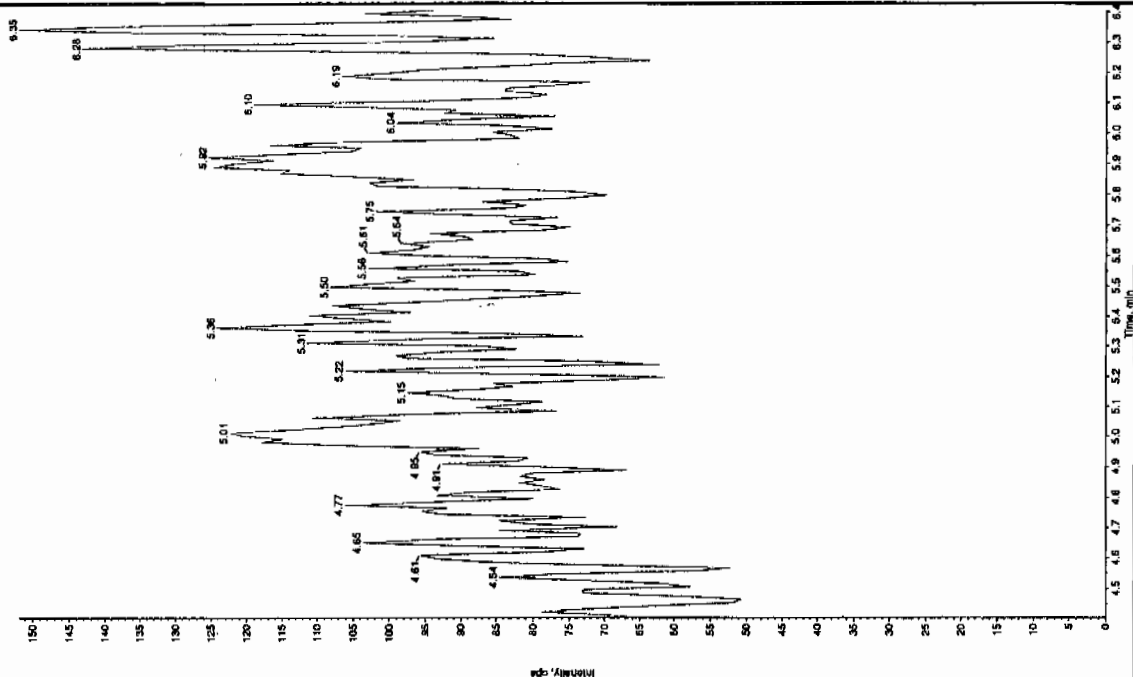
Sample Name: "XIBLK07" Sample ID: "J1LER" File: "EXS03310032.will"  
 Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1/51.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: W/A  
 Calculated Conc: < 0  
 Acq. Date: 4/1/2010  
 Acq. Time: 12:39:08 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 points  
 Smoothing Width: 3  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 1.39e+005 counts  
 Height: 35531.734 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: "XIBLK07" Sample ID: "J1LER" File: "EXS03310032.will"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 12:39:08 AM  
 Modified: No



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 01-APR-10 04:03

GEL Data File: EXS03310075.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

See 415710

Sample Name: "XBLK08" Sample ID: "111LER" File: "EXS03310075.wiff"

Peak Name: "35-Dinitroaniline" Mass(es): "182.048.0 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/1/2010

Acq. Time: 4:03:21 AM

Modified: No

Sample Name: "XBLK08" Sample ID: "111LER" File: "EXS03310075.wiff"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

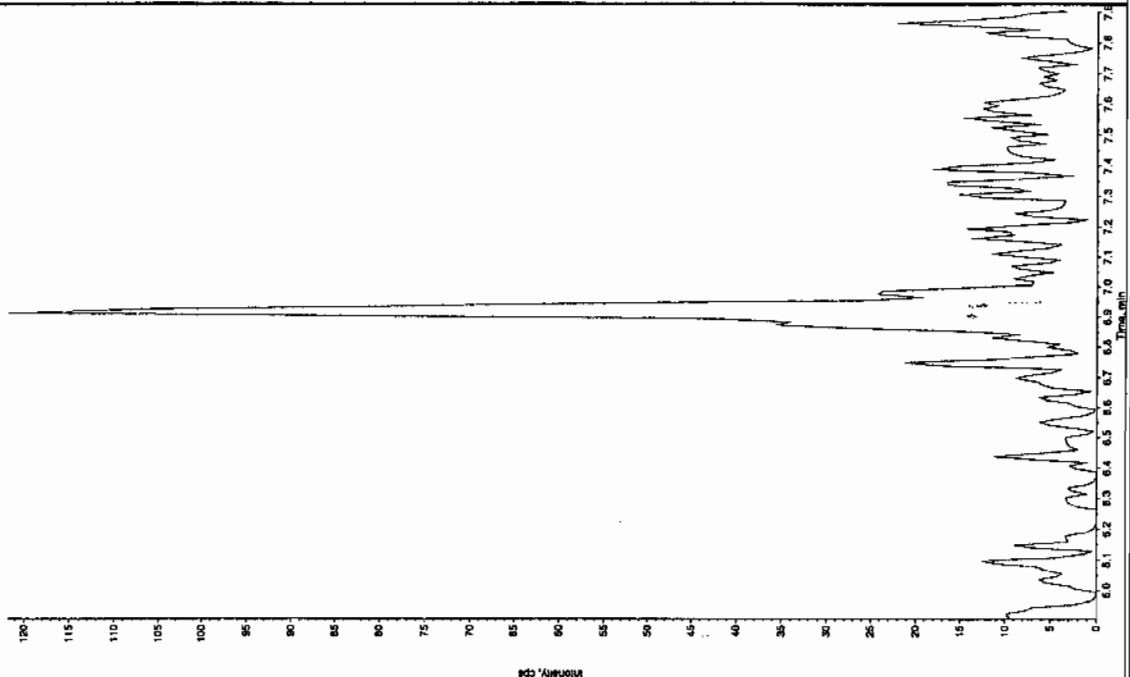
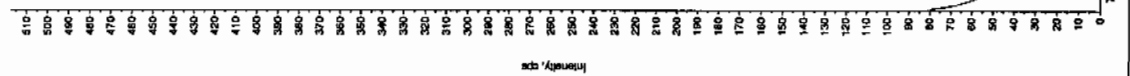
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/1/2010

Acq. Time: 4:03:21 AM

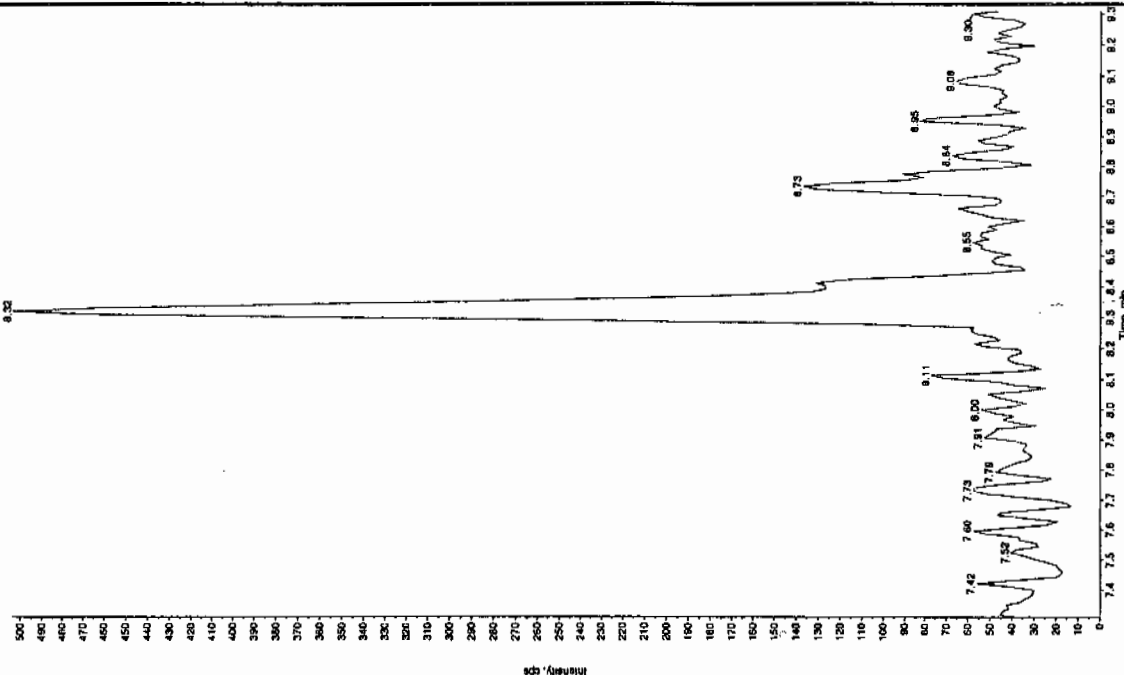
Modified: No



4/1/2010

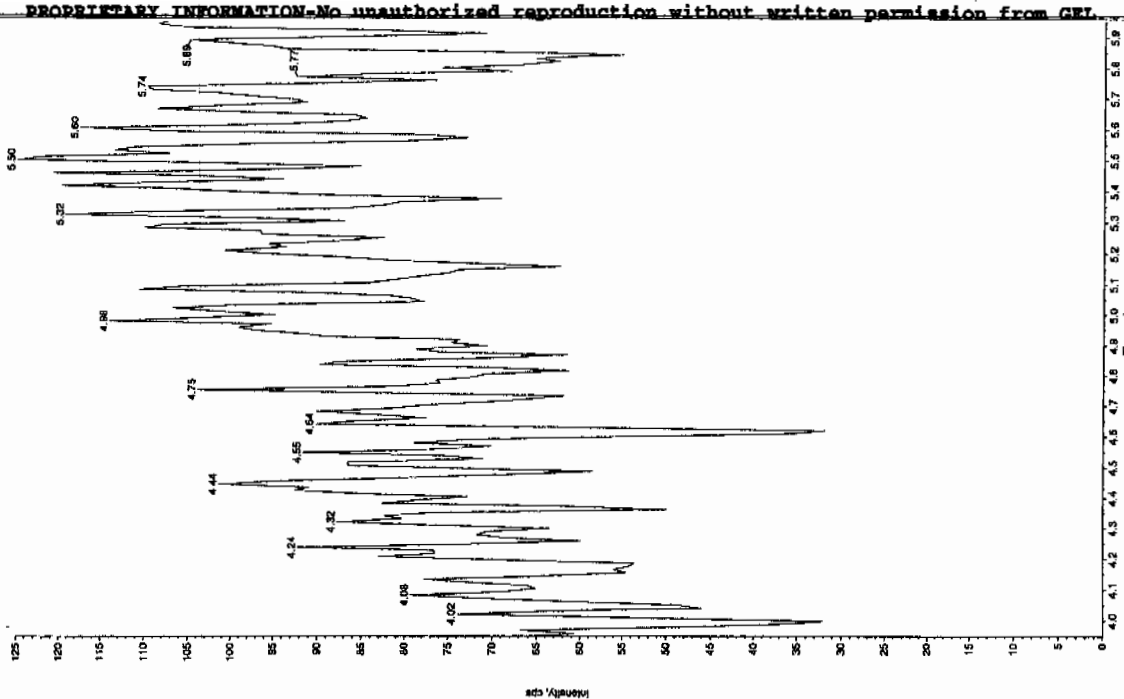
Sample Name: "XIBLK08" Sample ID: "J1LER" File: "EXS03310075.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1751.9 amu"  
 Comment: "LCMS EXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/13/2019  
 Acq. Time: 4:03:21 AM  
 Modified: No



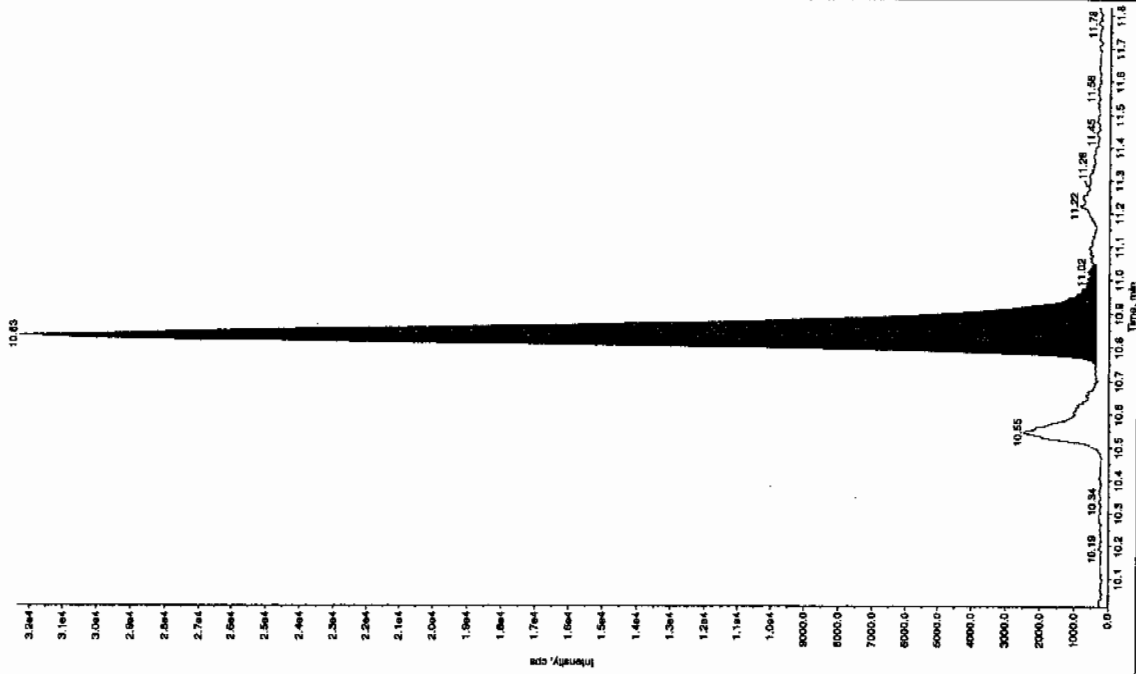
Sample Name: "XIBLK08" Sample ID: "J1LER" File: "EXS03310075.wif"  
 Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "186.046.0 amu"  
 Comment: "LCMS EXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/13/2019  
 Acq. Time: 4:03:21 AM  
 Modified: No



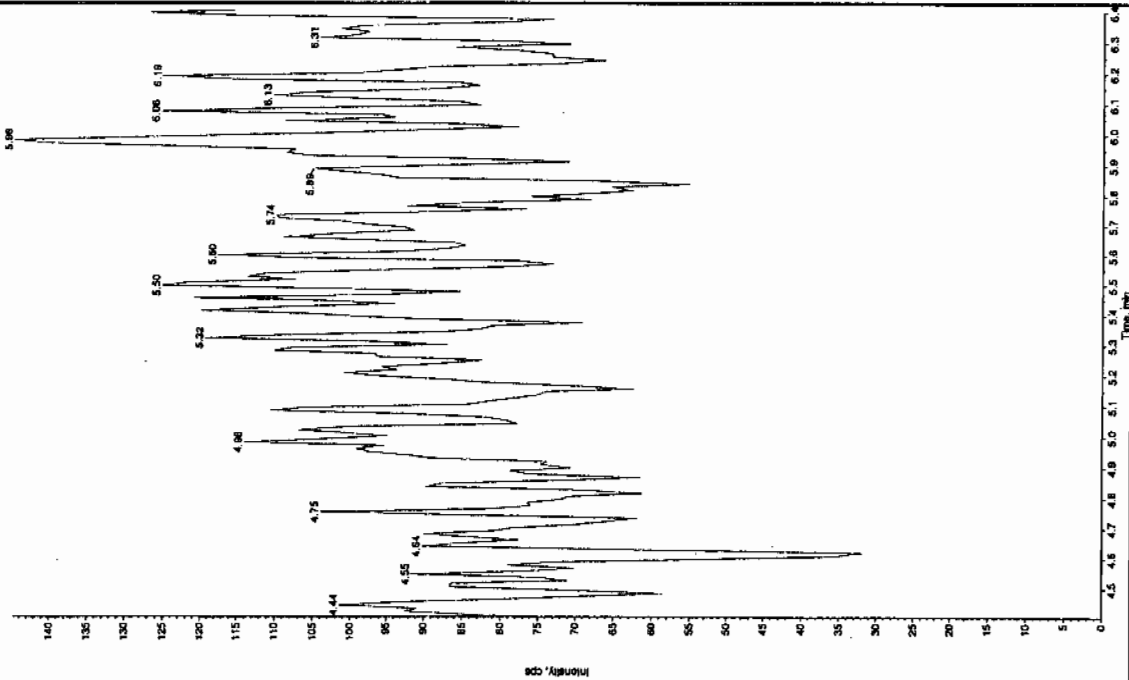
Sample Name: "XBLK08" Sample ID: "11LER" File: "EXS03310075.will"  
 Peak Name: "bis(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: < 0  
 Acq. Date: 4/1/2010  
 Acq. Time: 4:03:21 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 1.31e+005 counts  
 Height: 31972.174 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: "XBLK08" Sample ID: "11LER" File: "EXS03310075.will"  
 Peak Name: "24-Diamino-6-nitrofluorene" Mass(es): "186.0/46.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/1/2010  
 Acq. Time: 4:03:21 AM  
 Modified: No



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSEXP#4

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 01-APR-10 04:50

GEL Data File: EXS03310078.wiff

Instrument ID: LCMSMS

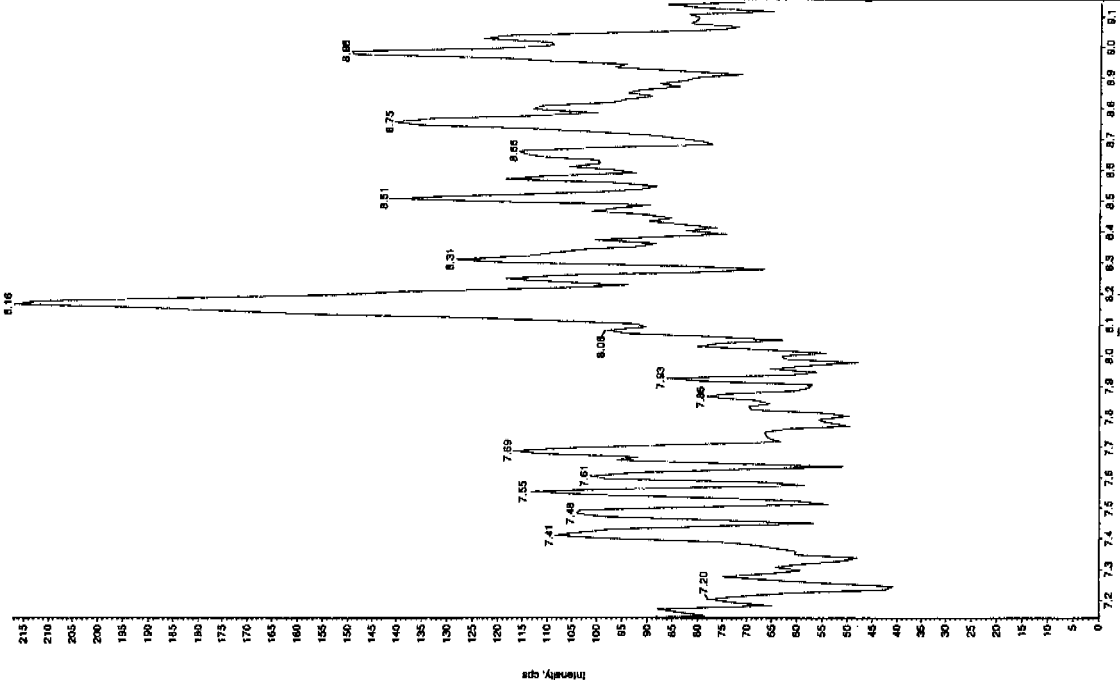
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

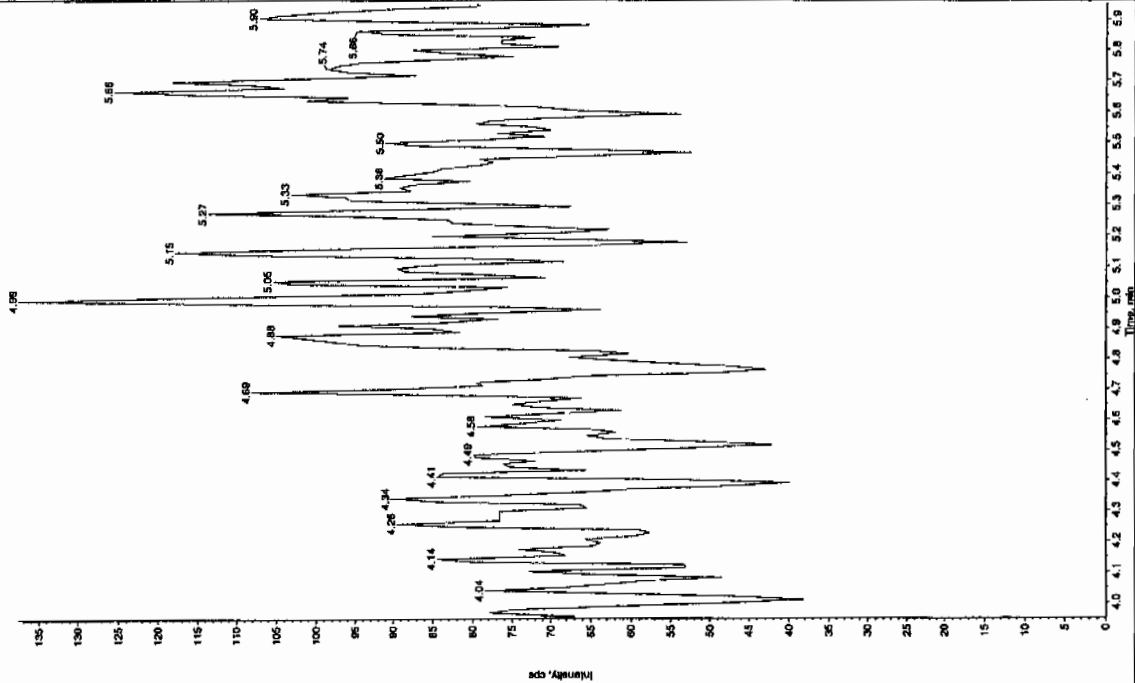
plate type:	Unknown
concentration:	N/A
calculated Conc:	0.00 ng/mL
Date:	4/1/2010
Time:	4:50:29 AM
lifted:	No



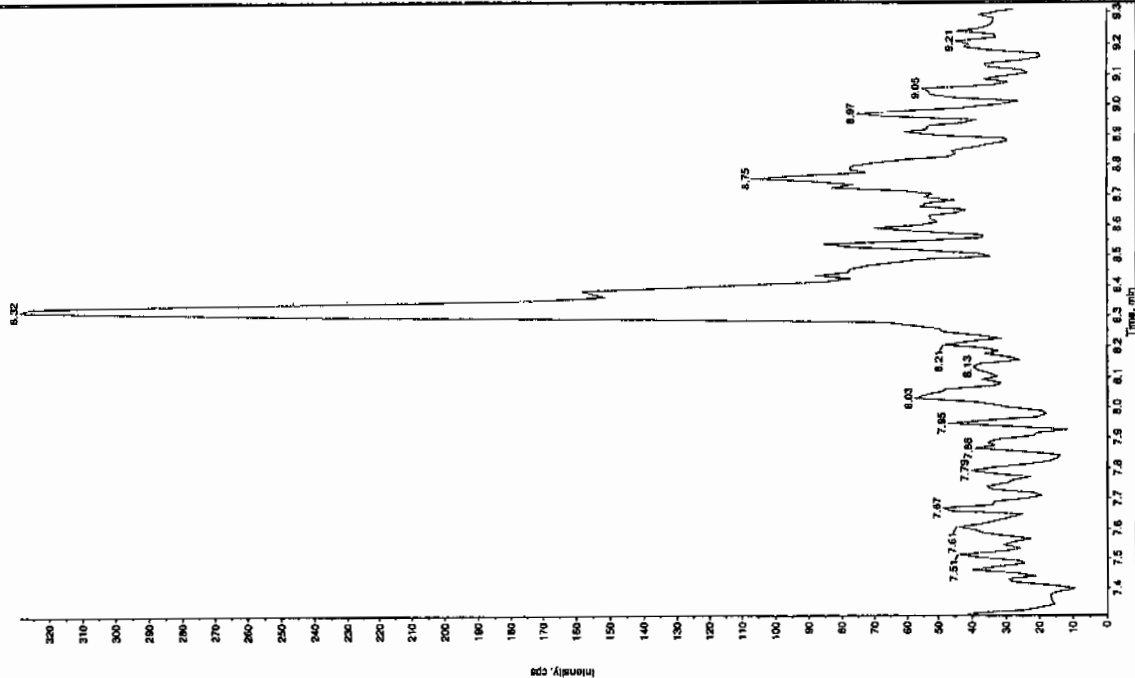
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	4/1/2010
Acq. Time:	4:50:29 AM
Modified:	No



Sample Name: "XBLK09" Sample ID: "TILER" File: "EX503310078.wiff"  
 Peak Name: "26-Diamino-4-nitroindane" Mass(es): "168.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 4:50:29 AM  
 Modified: No



Sample Name: "XBLK08" Sample ID: "TILER" File: "EX503310078.wiff"  
 Peak Name: "34-Dinitroindane" Mass(es): "182.1151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: "  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 4:50:29 AM  
 Modified: No

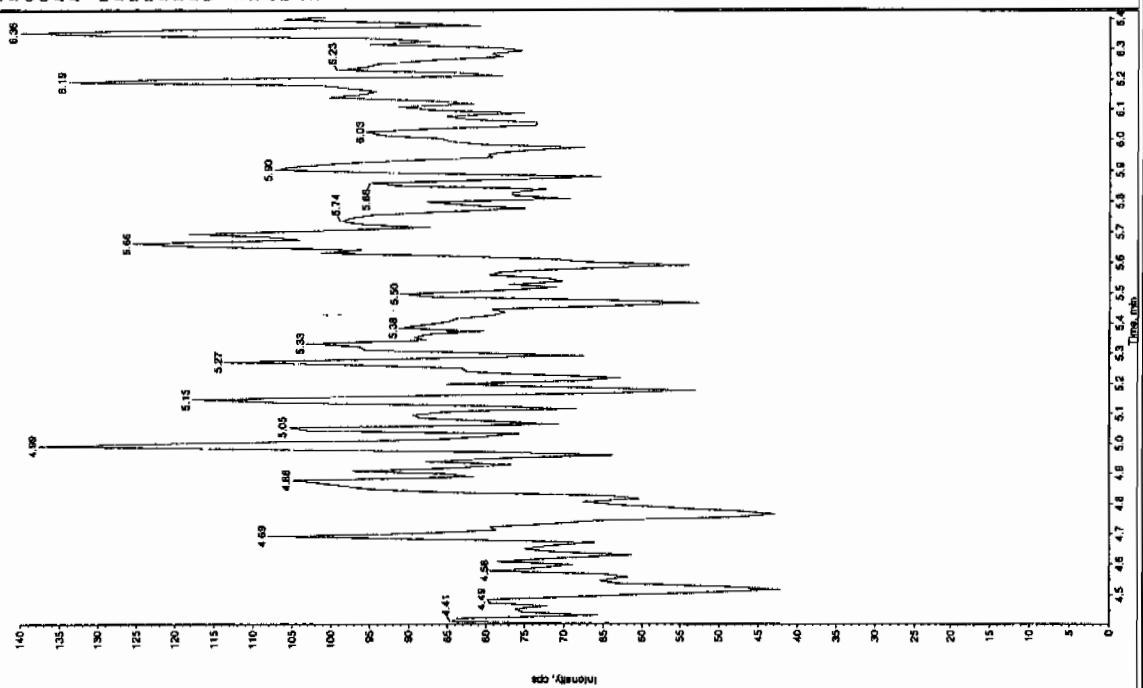


EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



Sample Name: 'XBLK09' Sample ID: '1111ER' File: 'EXSG0310078.wif'  
 Peak Name: '24-Diamino-Phenol' Mass(es): '166.046.0 amu'  
 Comment: 'LCMSEXP\_B' Annotation: ''

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: No Intercept  
 Acq. Date: 4/1/2010  
 Acq. Time: 4:50:29 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 8.99e+004 counts  
 Height: 21950.609 cps  
 Start Time: 10.8 min  
 End Time: 11.0 min



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 01-APR-10 07:27

GEL Data File: EXS03310088.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

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Sample Name: "XIBLK10" Sample ID: "111ER" File: "EX503310088.wif"

Peak Name: "35-Dinitroarsine" Mass(es): "182.04610 amu"

Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1

Sample Type: Unknown

Concentration: N/A ng/mL

Calculated Conc: 0.00

Acq. Date: 4/17/2010

Acq. Time: 7:27:35 AM

Modified: No

Sample Name: "XIBLK10" Sample ID: "111ER" File: "EX503310088.wif"

Peak Name: "TATB" Mass(es): "257.22049 amu"

Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1

Sample Type: Unknown

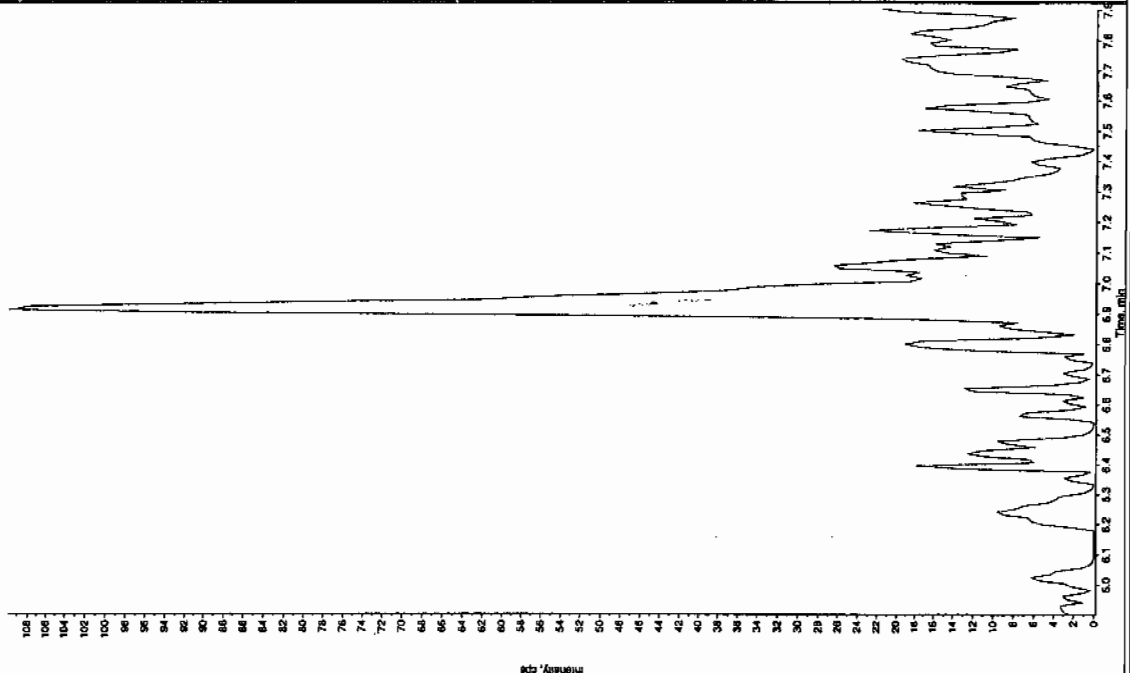
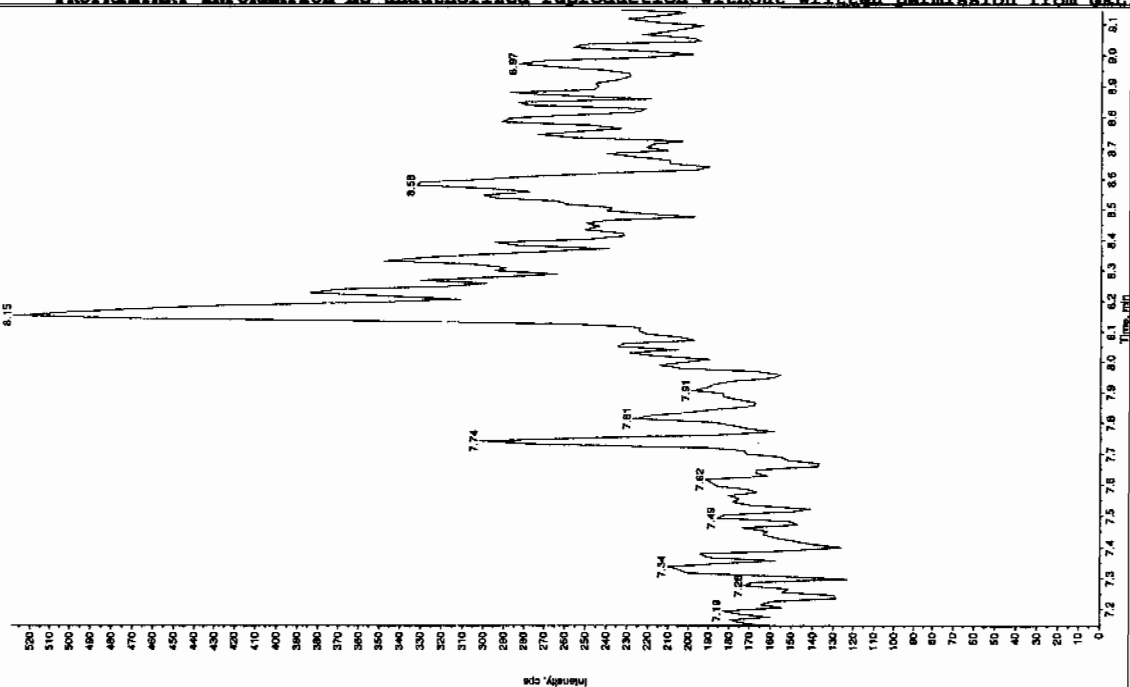
Concentration: N/A ng/mL

Calculated Conc: 0.00

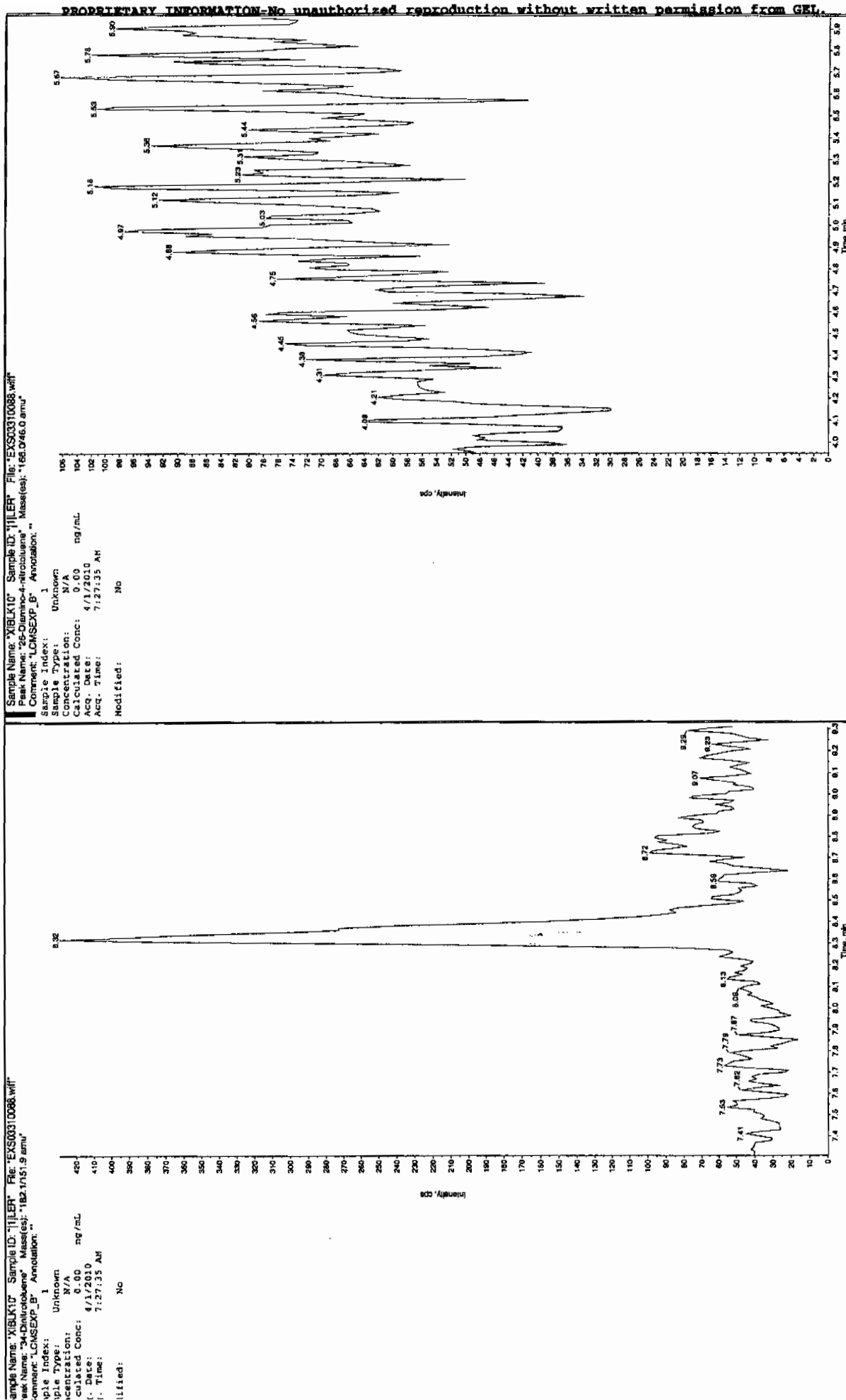
Acq. Date: 4/17/2010

Acq. Time: 7:27:35 AM

Modified: No



4/17/2010

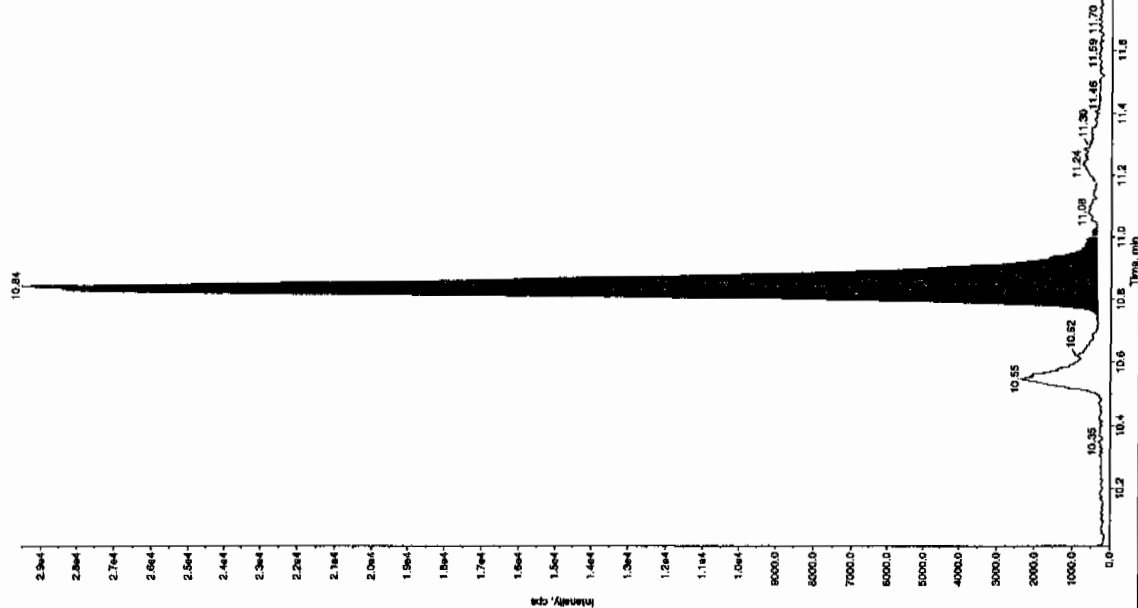


EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK10" Sample ID: "11LER" File: "EXS03310088.wif"  
 Peak Name: "tris(o-cresyl) phosphite" Mass(es): "389.151.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: No Intercept  
 Acq. Date: 4/17/2010  
 Acq. Time: 7:27:35 AM

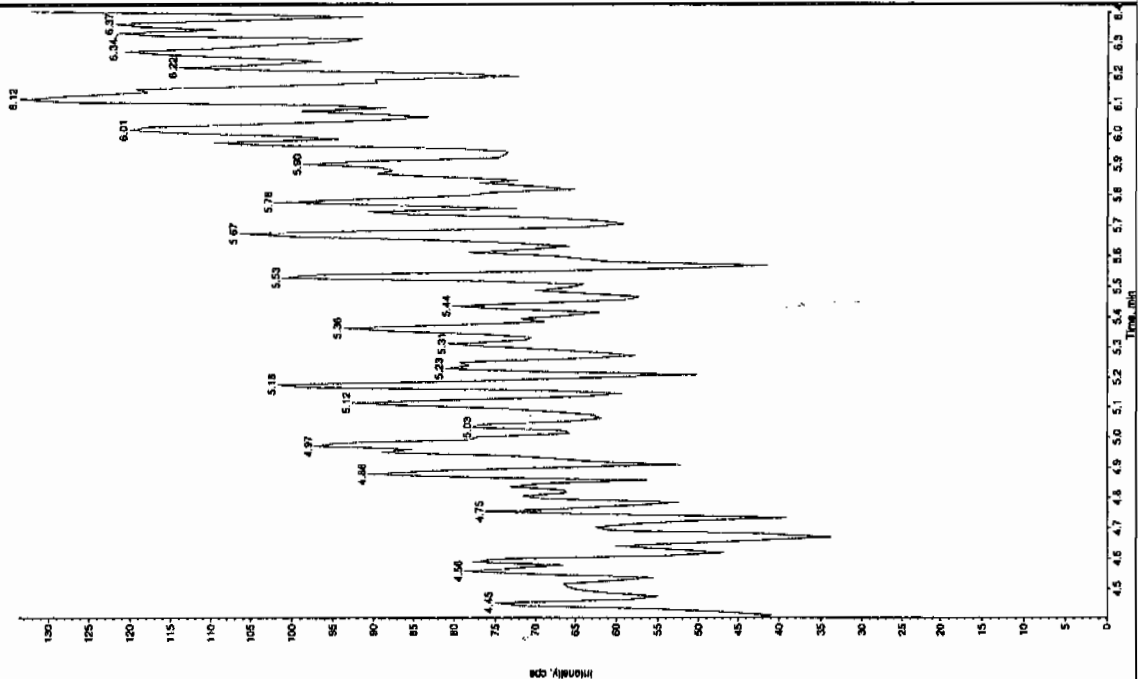
Modified: No  
 Proc. Algorithm: IntelliQuan - IQR  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 1.19e+005 counts  
 Weight: 25201.551 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: "XIBLK10" Sample ID: "11LER" File: "EXS03310088.wif"  
 Peak Name: "24-Diamino-6-nitrobenzene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: No Intercept  
 Acq. Date: 4/17/2010  
 Acq. Time: 7:27:35 AM

Modified: No



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 01-APR-10 10:52

GEL Data File: EXS03310101.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Jan 4/15/10

Sample Name: 'XIBLK11' Sample ID: 'HILER' File: 'EXS03310101.wiff'

Peak Name: '35-Dinitroaniline' Mass(es): '182.046.0 amu'

Comment: 'LCMSEXP\_B' Annotation: ''

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/1/2010

Acq. Time: 10:52:00 AM

Modified: No

Sample Name: 'XIBLK11' Sample ID: 'HILER' File: 'EXS03310101.wiff'

Peak Name: '35-Dinitroaniline' Mass(es): '257.2204.9 amu'

Comment: 'LCMSEXP\_B' Annotation: ''

Sample Index: 1

Sample Type: Unknown

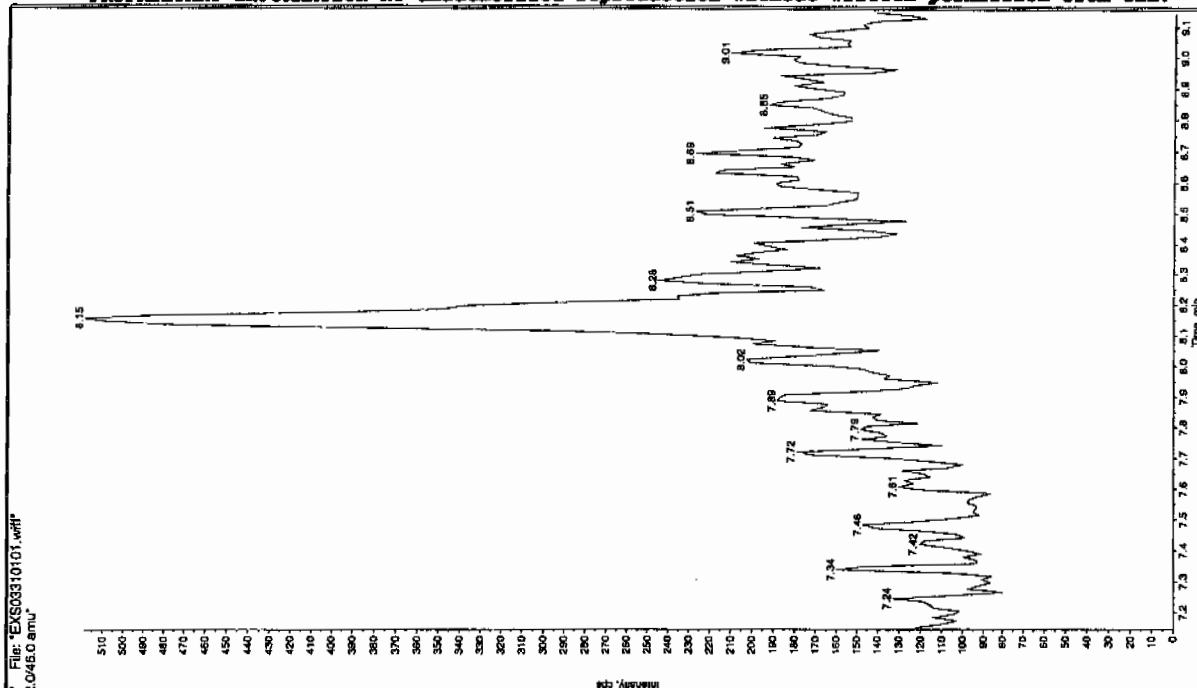
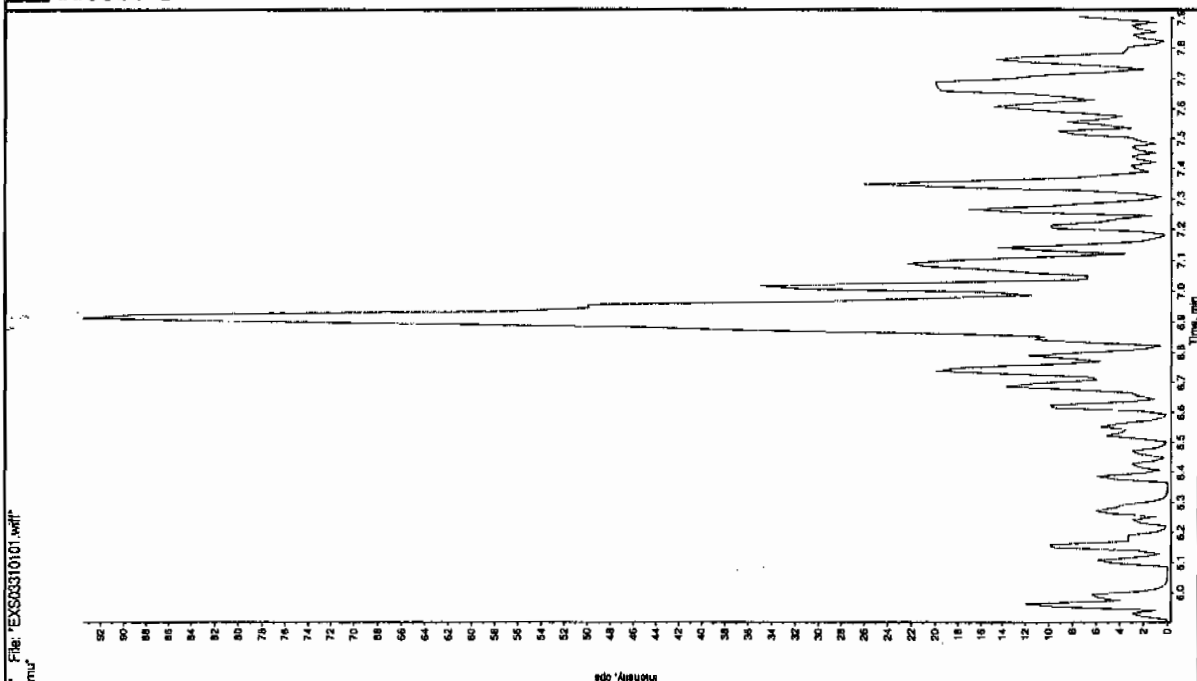
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/1/2010

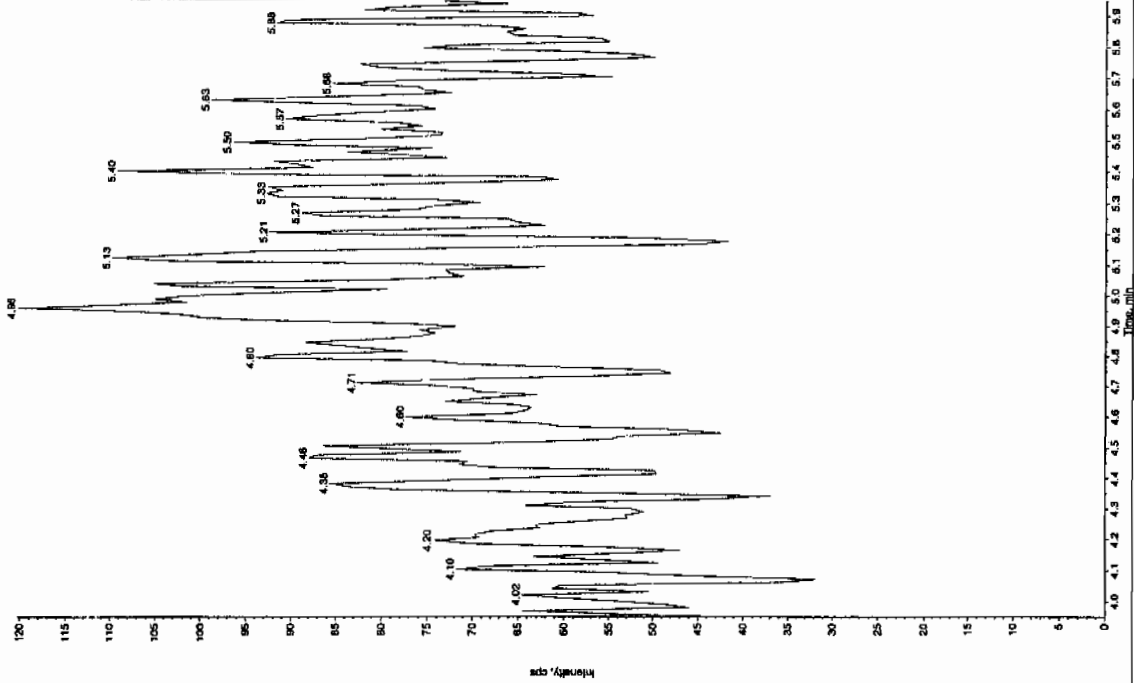
Acq. Time: 10:52:00 AM

Modified: No

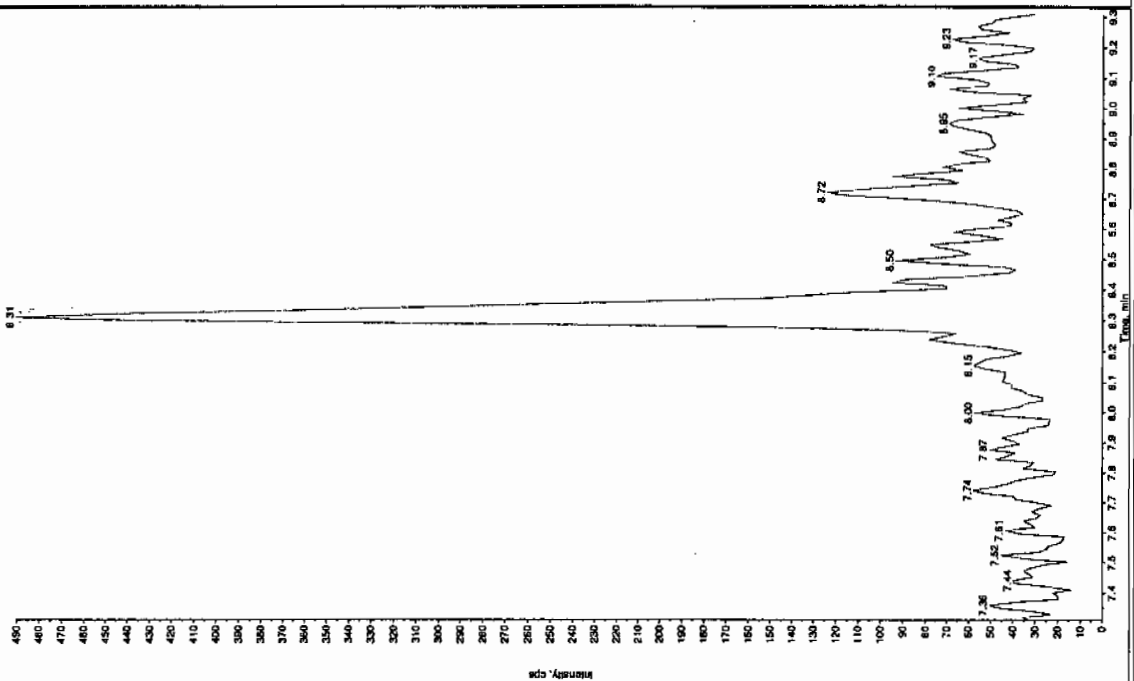


Jan 4/15/10

Sample Name: "XIBLK11" Sample ID: "TILER" File: "EXS03310101.wif"  
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "185.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "--"  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/17/2010  
 Acq. Time: 10:52:00 AM  
 Modified: NO



Sample Name: "XIBLK11" Sample ID: "TILER" File: "EXS03310101.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: "--"  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/17/2010  
 Acq. Time: 10:52:00 AM  
 Modified: NO

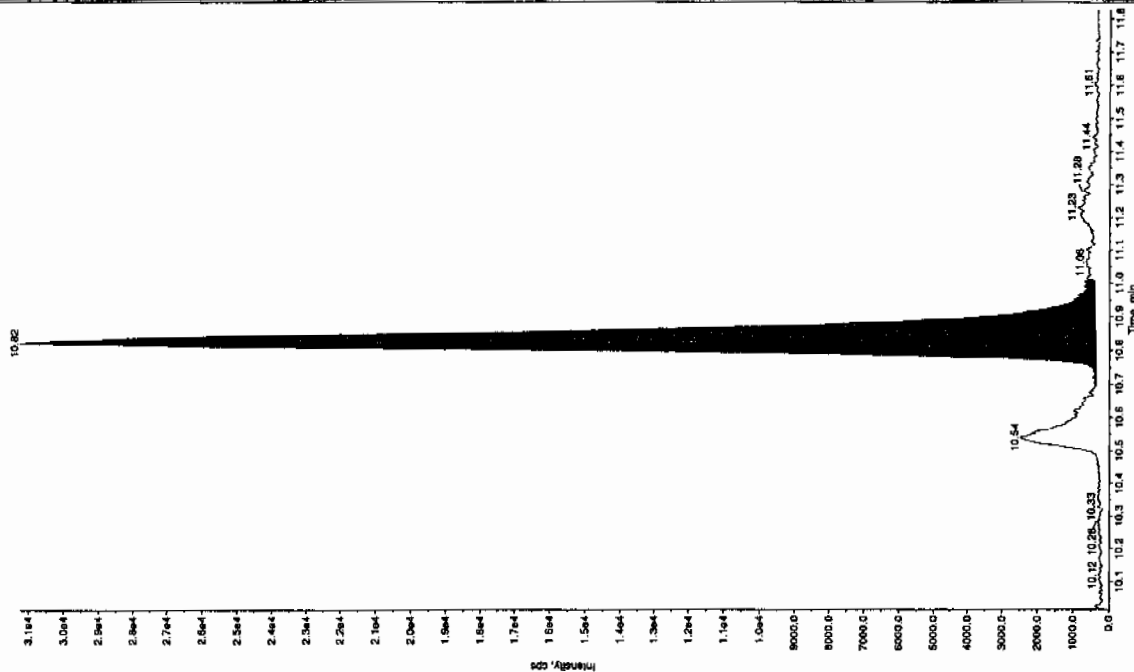


EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



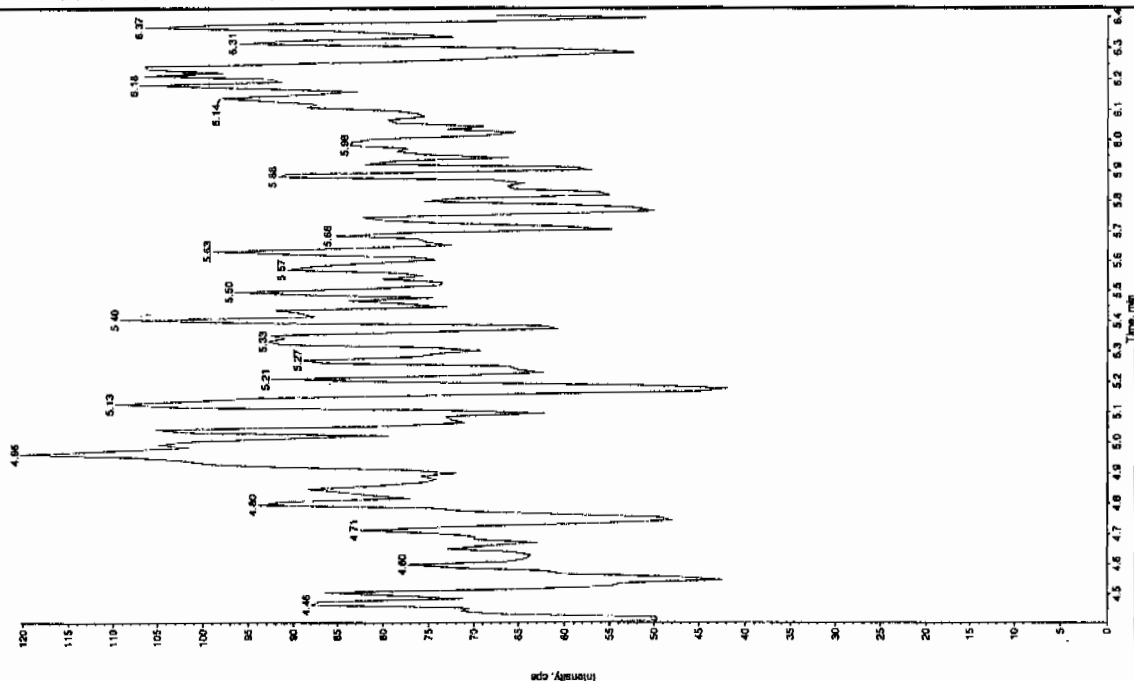
Sample Name: "XIBLK11" Sample ID: "JILLER" File: "EXS03310101.wif"  
 Peak Name: "tris-(o-cresyl) phosphata" Mass(es): "359.1/591.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4.0  
 Acq. Date: 4/1/2010  
 Acq. Time: 10:52:00 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - ION  
 Min. Peak Weight: 800.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 1.27e+005 counts  
 Height: 30857.306 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: "XIBLK11" Sample ID: "JILLER" File: "EXS03310101.wif"  
 Peak Name: "24-Dinitro-6-nitrobenzene" Mass(es): "156.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 10:52:00 AM  
 Modified: No



EL SOP GL-OA-E-056, Method 8321A-Modified LCM SMS#4

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 01-APR-10 14:16

GEL Data File: EXS03310114.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

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Sample Name: "XIBLK12" Sample ID: "11111" File: "EXS03310114.wiff"

Peak Name: "35-Dichloroaniline" Mass(es): "182.046.0 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/1/2010

Acq. Time: 2:16:13 PM

Modified: NO

Sample Name: "XIBLK12" Sample ID: "11111" File: "EXS03310114.wiff"

Peak Name: "TATB" Mass(es): "257.2/204.9 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

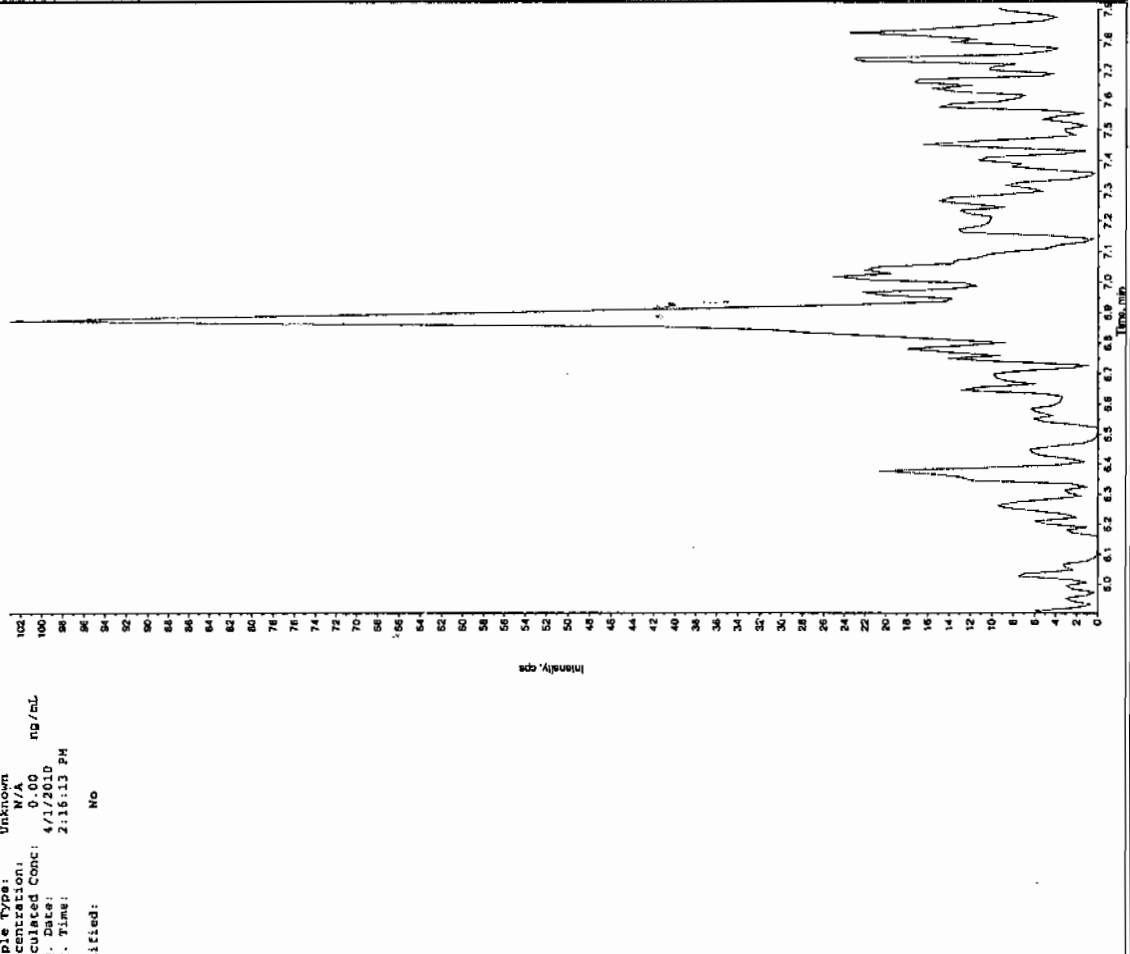
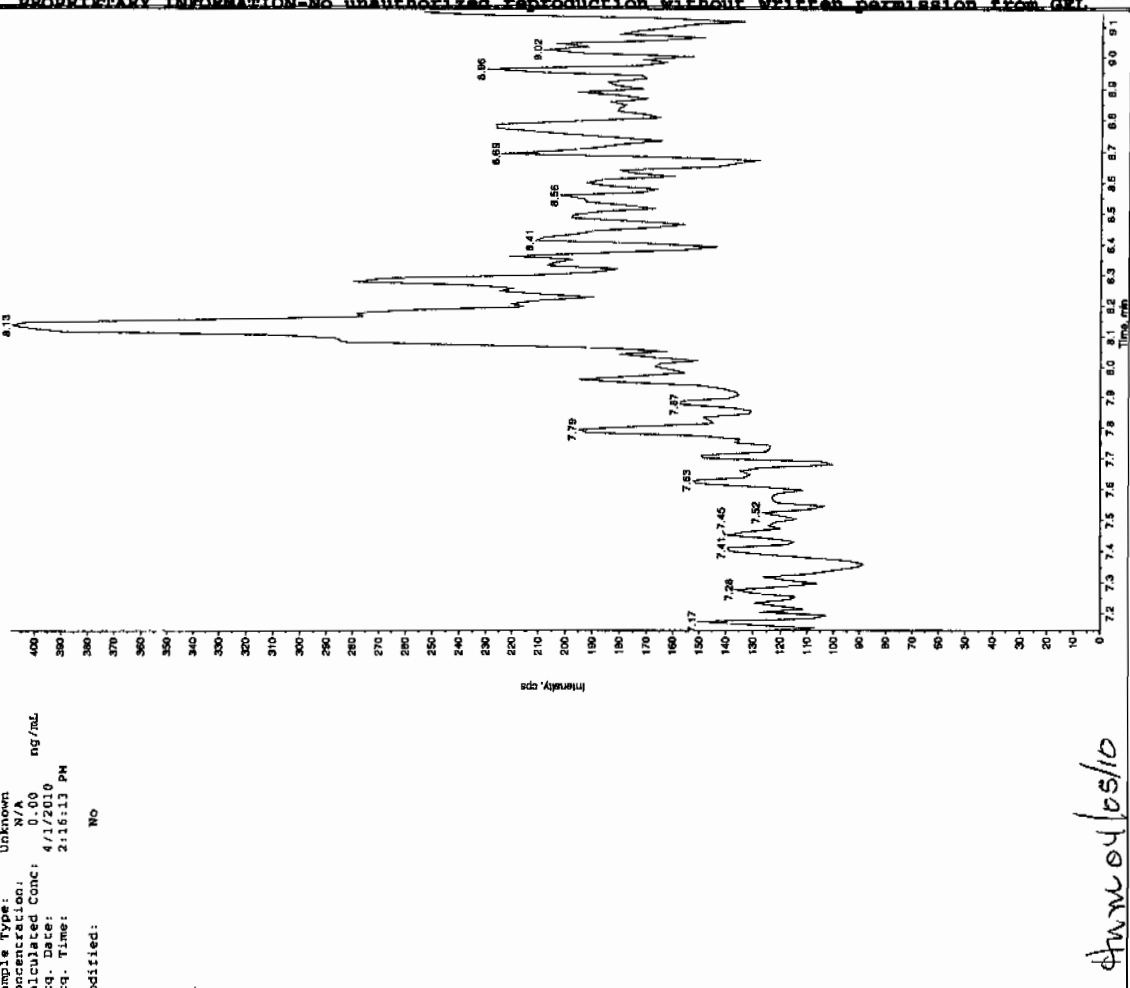
Concentration: N/A

Calculated Conc: 0.00 ng/mL

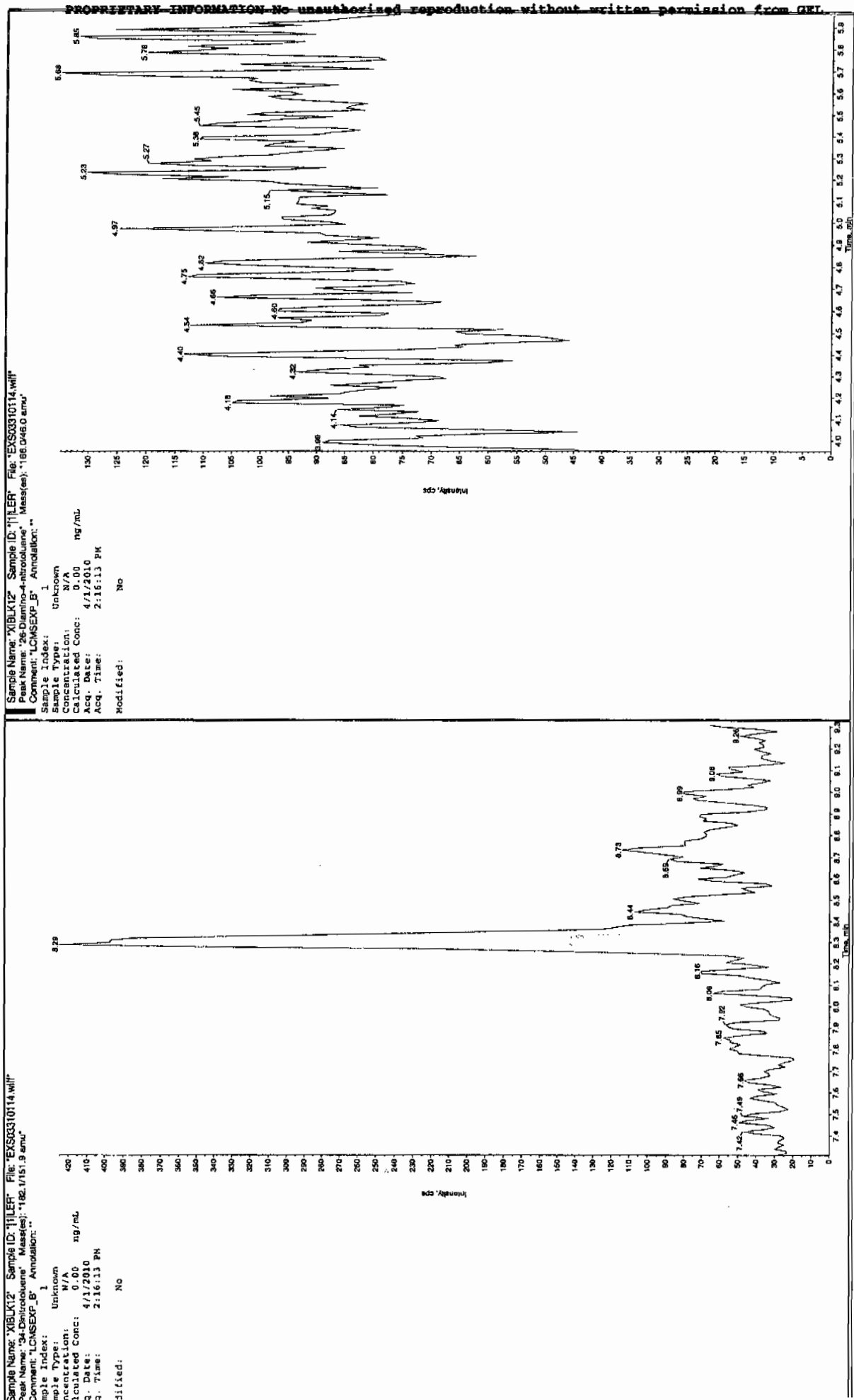
Acq. Date: 4/1/2010

Acq. Time: 2:16:13 PM

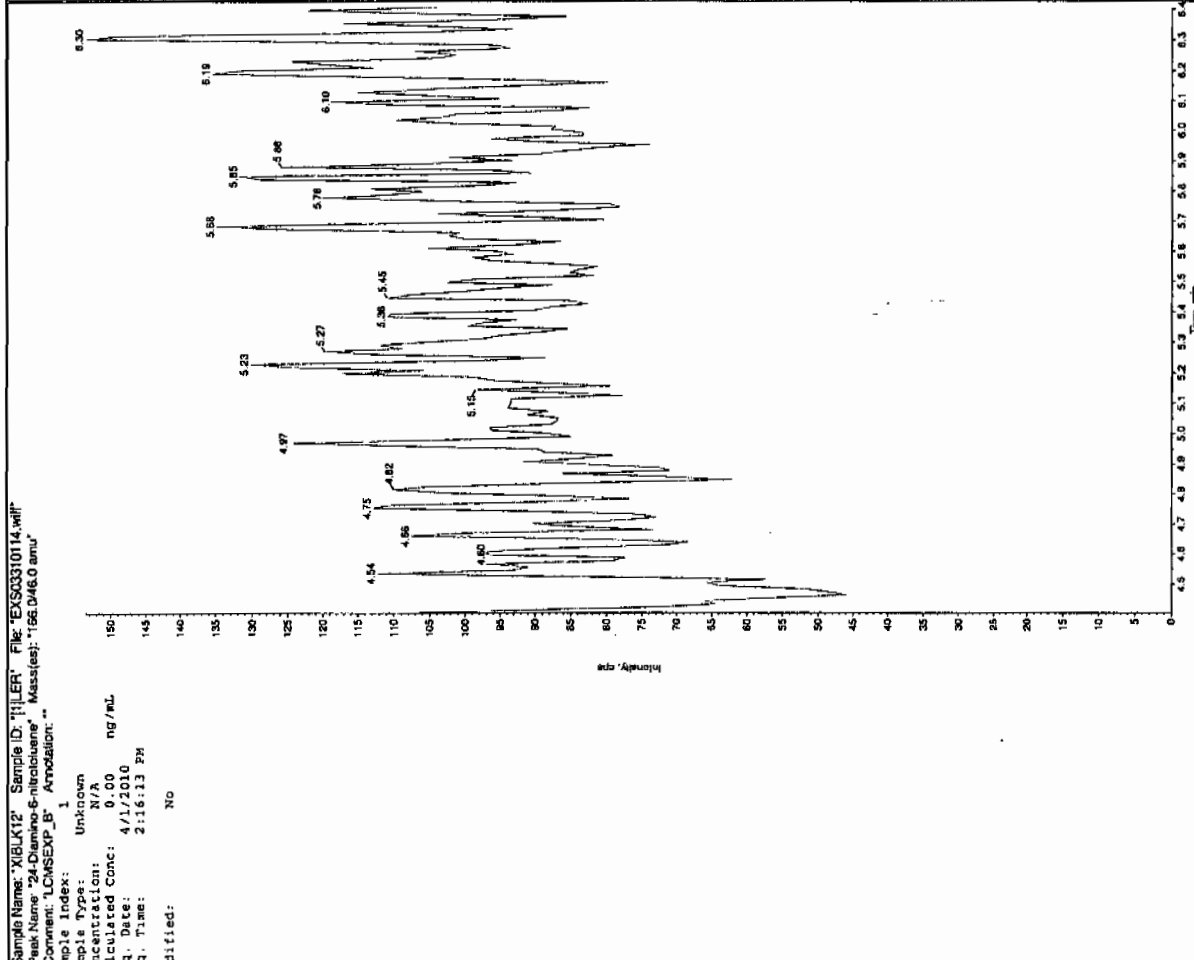
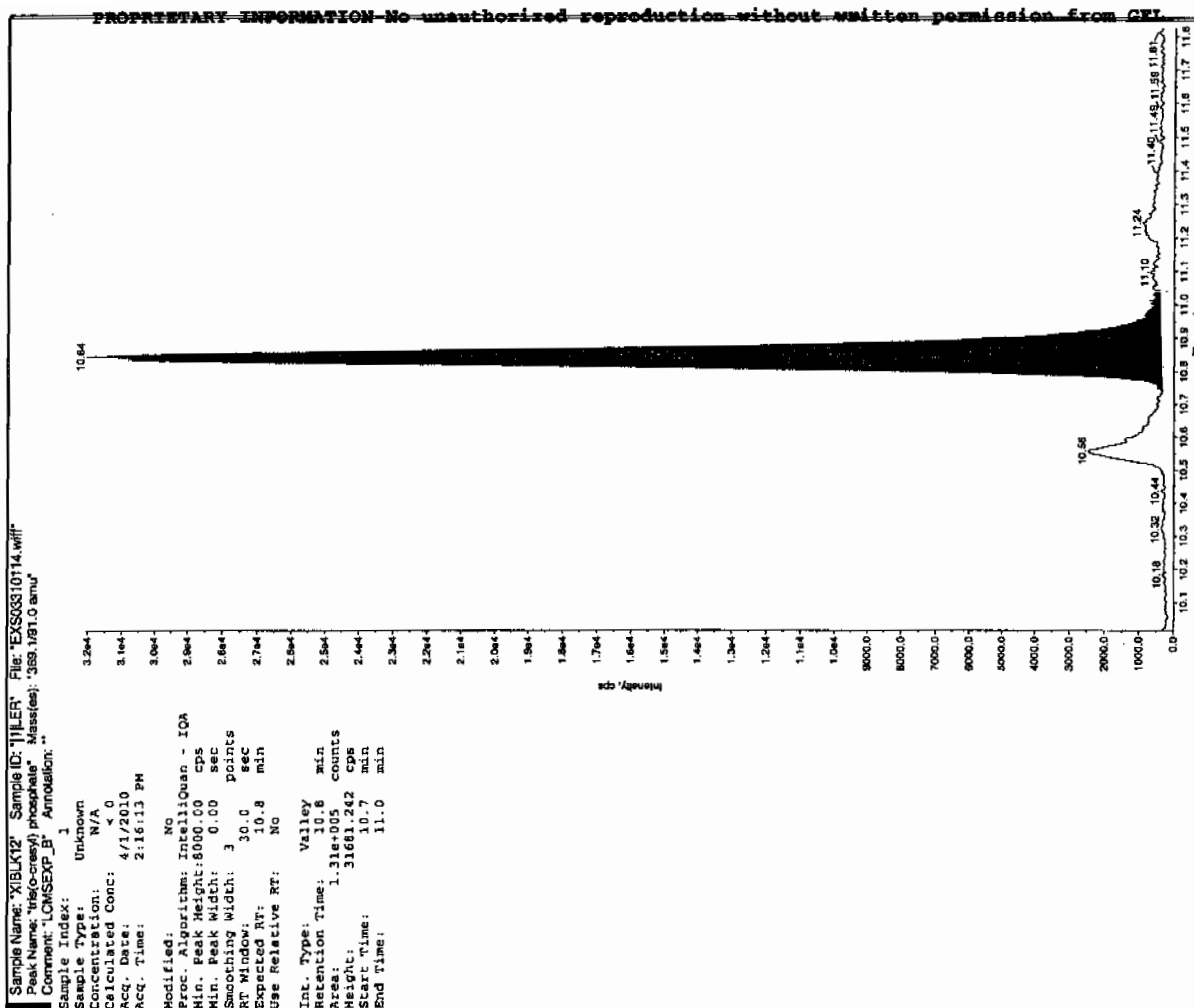
Modified: NO



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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 01-APR-10 15:19

GEL Data File: EXS03310118.wiff

Instrument ID: LCMSMS

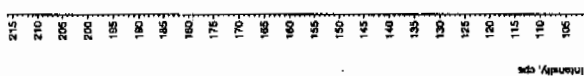
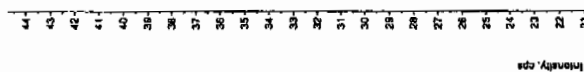
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

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Sample Name: "XIBLK13" Sample ID: "T1LER" File: "EXS03310118.will"  
Peak Name: "ATB" Mass(es): "257.2/204.9 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

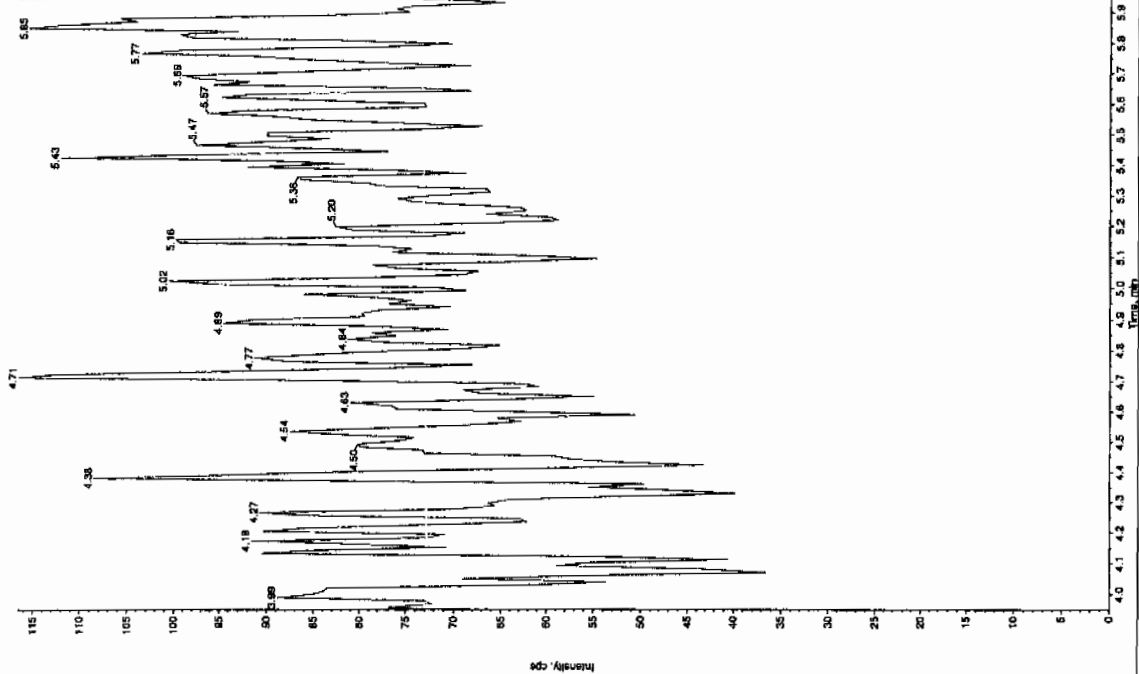
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 100 ng/mL  
Acq. Date: 4/1/2010  
Acq. Time: 3:19:02 PM  
Modified: NO



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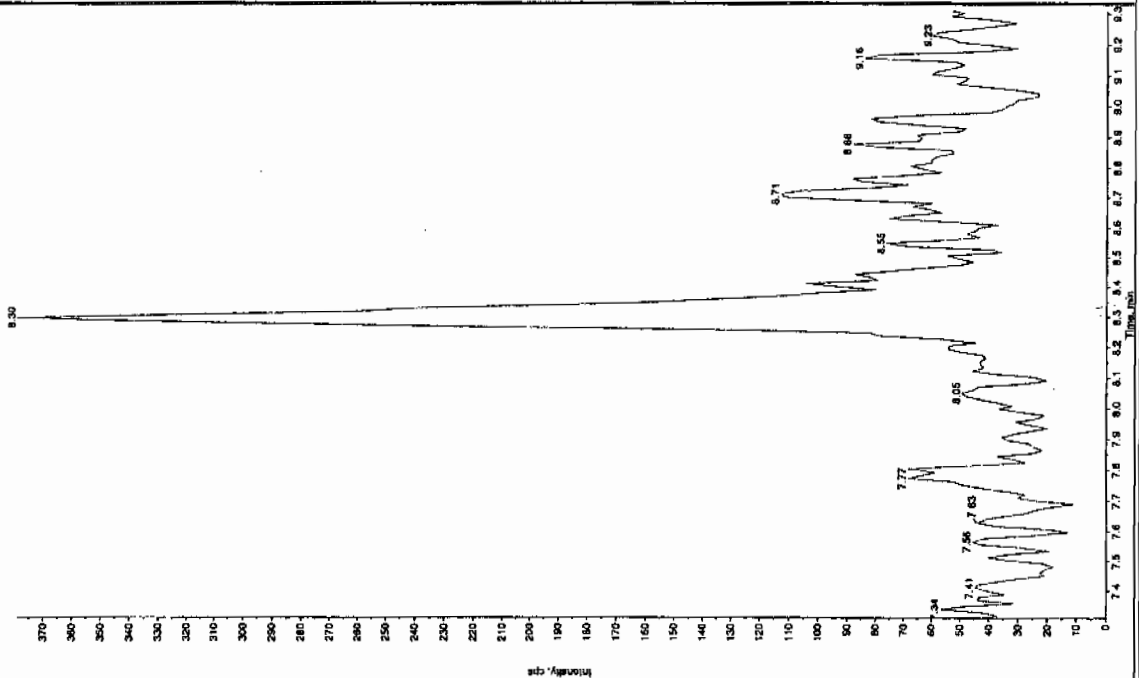
Sample Name: "XIBLK13" Sample ID: "HILIR" File: "EXS03310118.wif"  
 Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4.71/2010  
 Acq. Date: 3.19.02 PM  
 Acq. Time: 3.19.02 PM  
 Modified: No

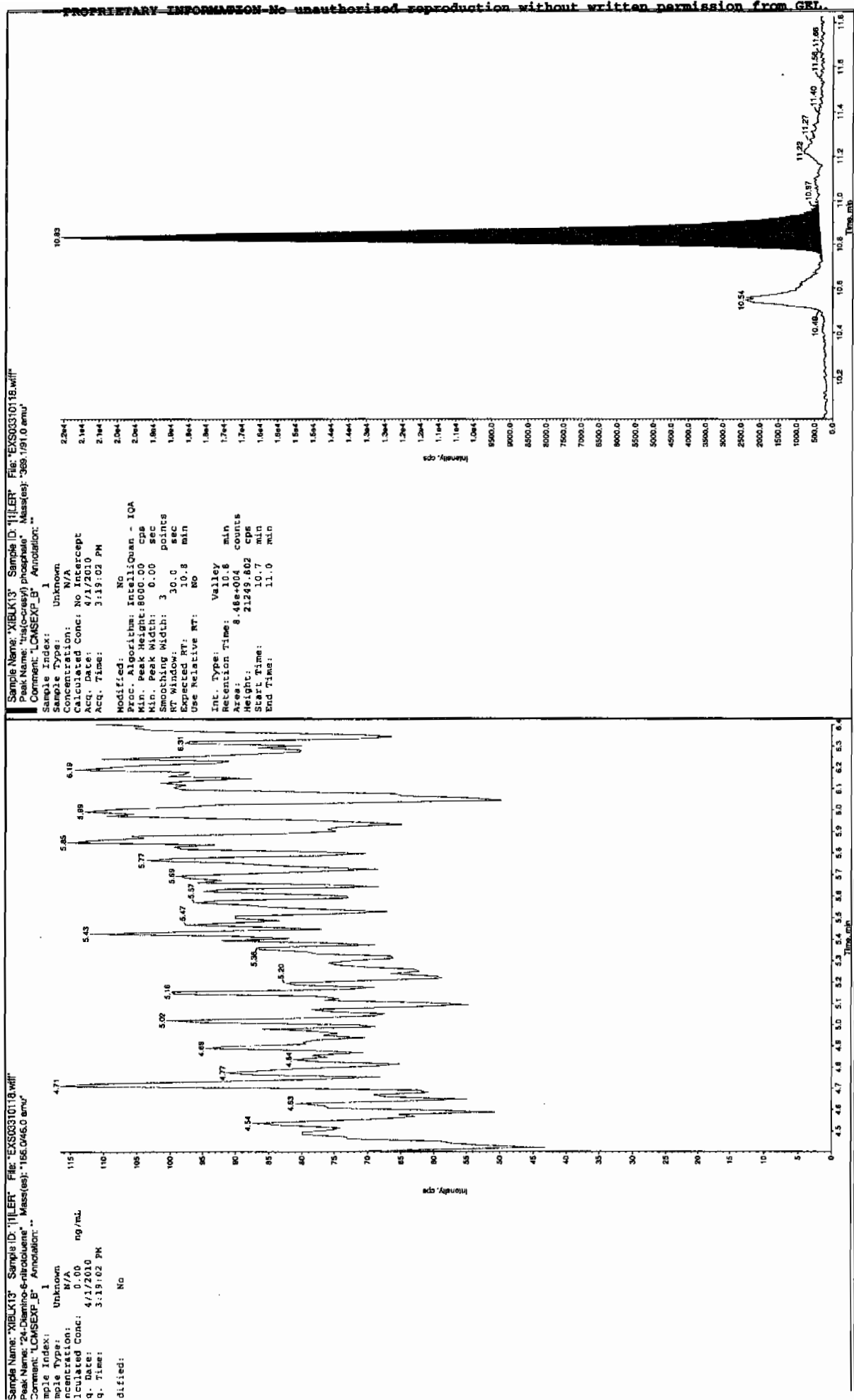


Sample Name: "XIBLK13" Sample ID: "HILIR" File: "EXS03310118.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.115.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4.71/2010  
 Acq. Date: 3.19.02 PM  
 Acq. Time: 3.19.02 PM  
 Modified: No







4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2074

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 01-APR-10 17:40

GEL Data File: EXS03310127.wiff

Instrument ID: LCMSMS

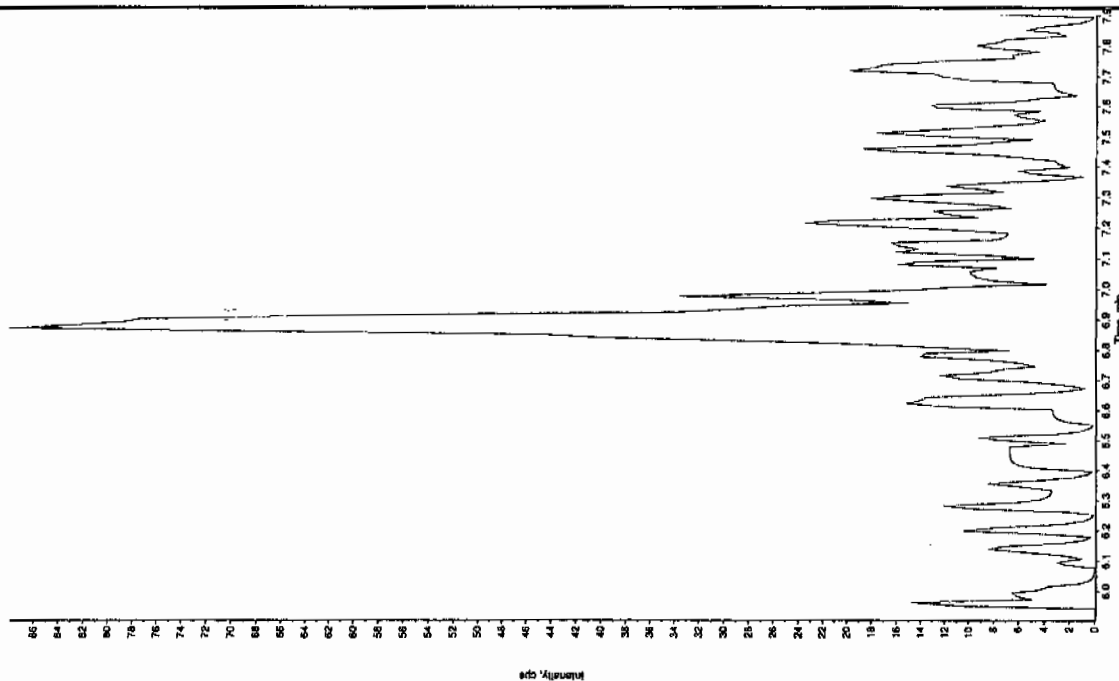
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

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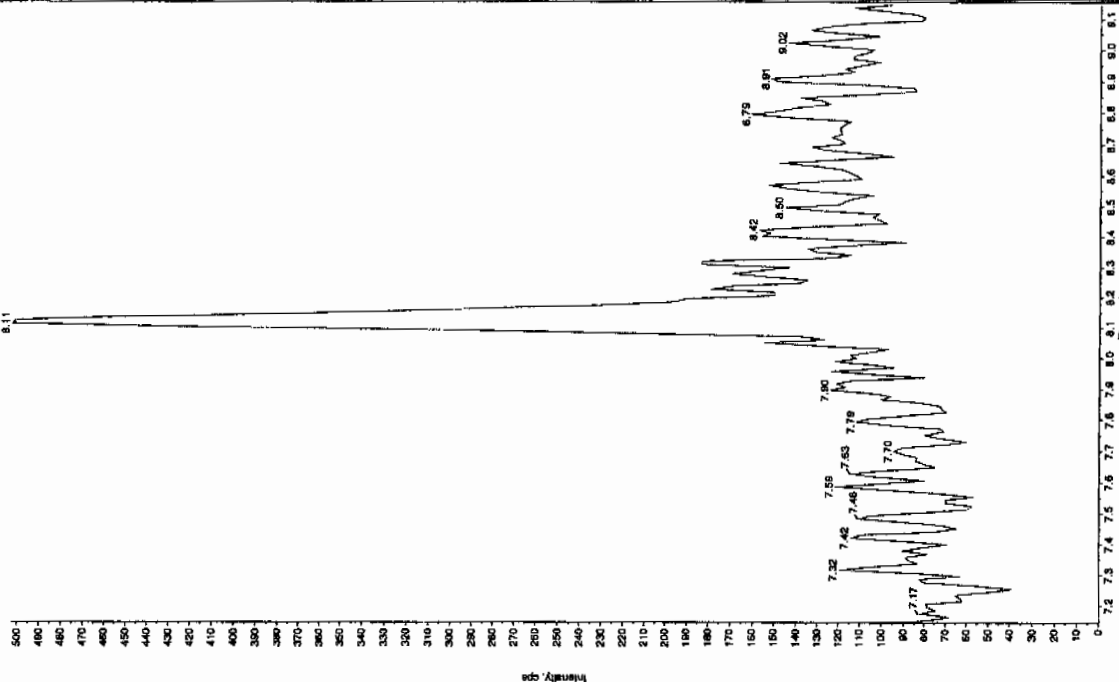
Sample Name: "XIBLK14" Sample ID: "111ER" File: "EXS03310127.wif"  
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 4.712010  
 Acq. Date: 4/1/2010  
 Acq. Time: 5:40:22 PM  
 Modified: No



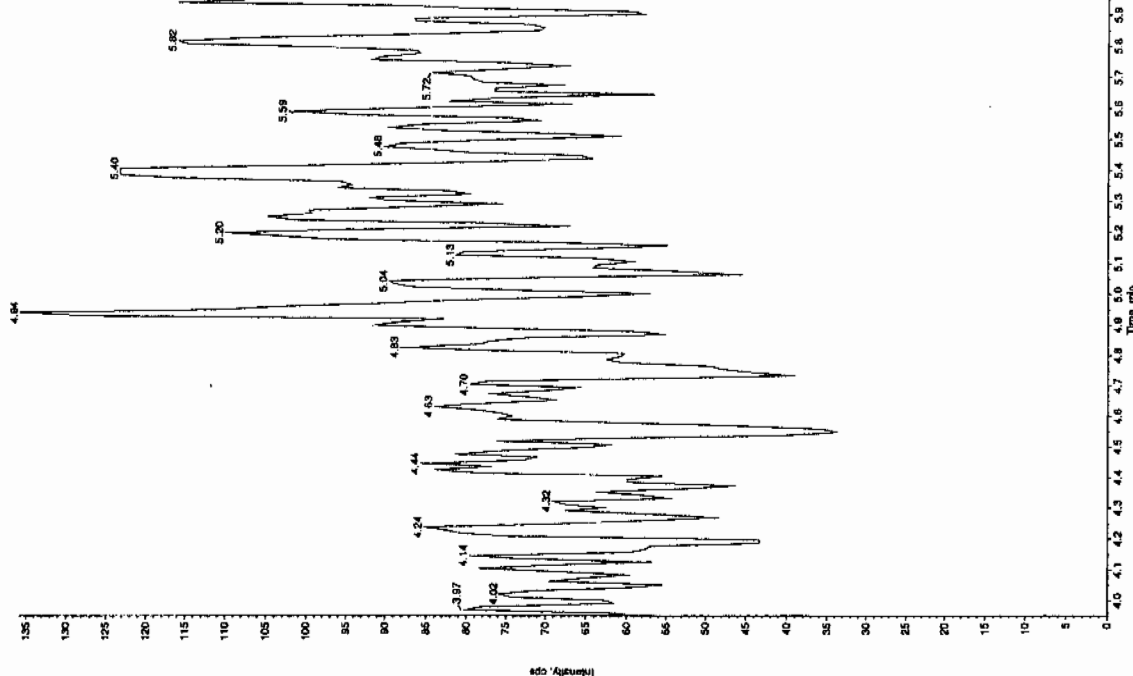
Sample Name: "XIBLK14" Sample ID: "111ER" File: "EXS03310127.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 4.712010  
 Acq. Date: 4/1/2010  
 Acq. Time: 5:40:22 PM  
 Modified: No

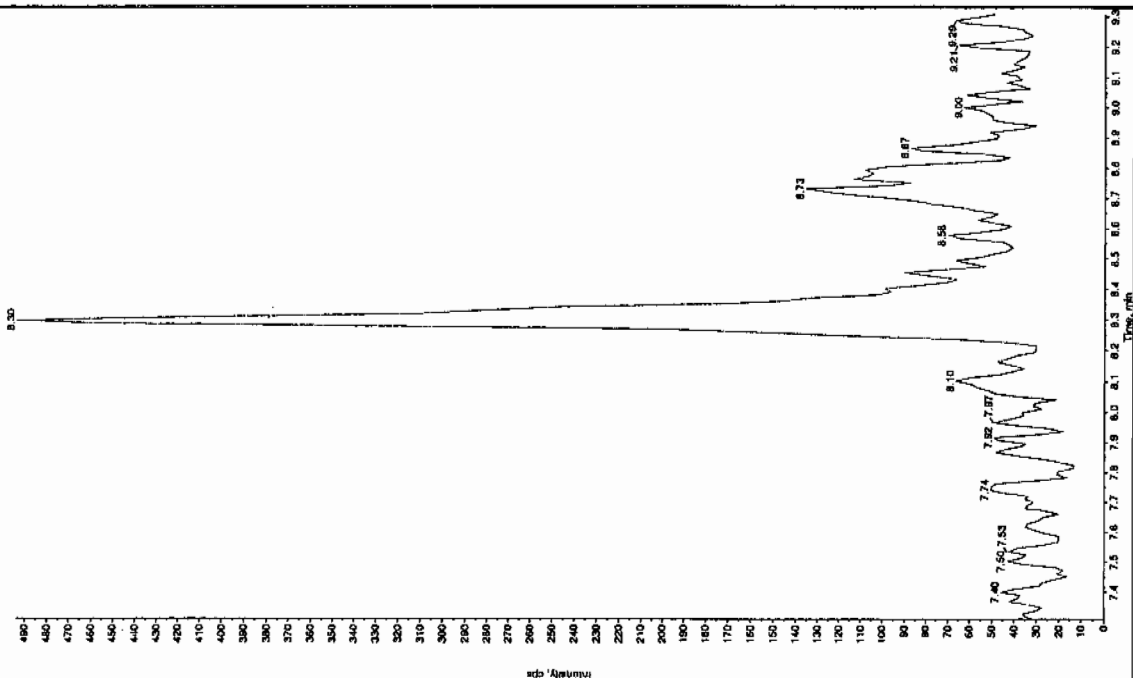


4/1/10 04/05/10

Sample Name: 'XIBLK14' Sample ID: '111ER' File: 'EXS03310127.wif'  
 Peak Name: '26-Dienio-4-nitrobenzene' Mass(es): '166.046.0 amu'  
 Comment: 'LCMSEXP\_B' Annotation: '-'  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 4.11/2010  
 Acq. Date: 4/1/2010  
 Acq. Time: 5:40:22 PM  
 Modified: No



Sample Name: 'XIBLK14' Sample ID: '111ER' File: 'EXS03310127.wif'  
 Peak Name: '34-Dinitrobenzene' Mass(es): '182.14151.9 amu'  
 Comment: 'LCMSEXP\_B' Annotation: '-'  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4.11/2010  
 Acq. Date: 4/1/2010  
 Acq. Time: 5:40:22 PM  
 Modified: No

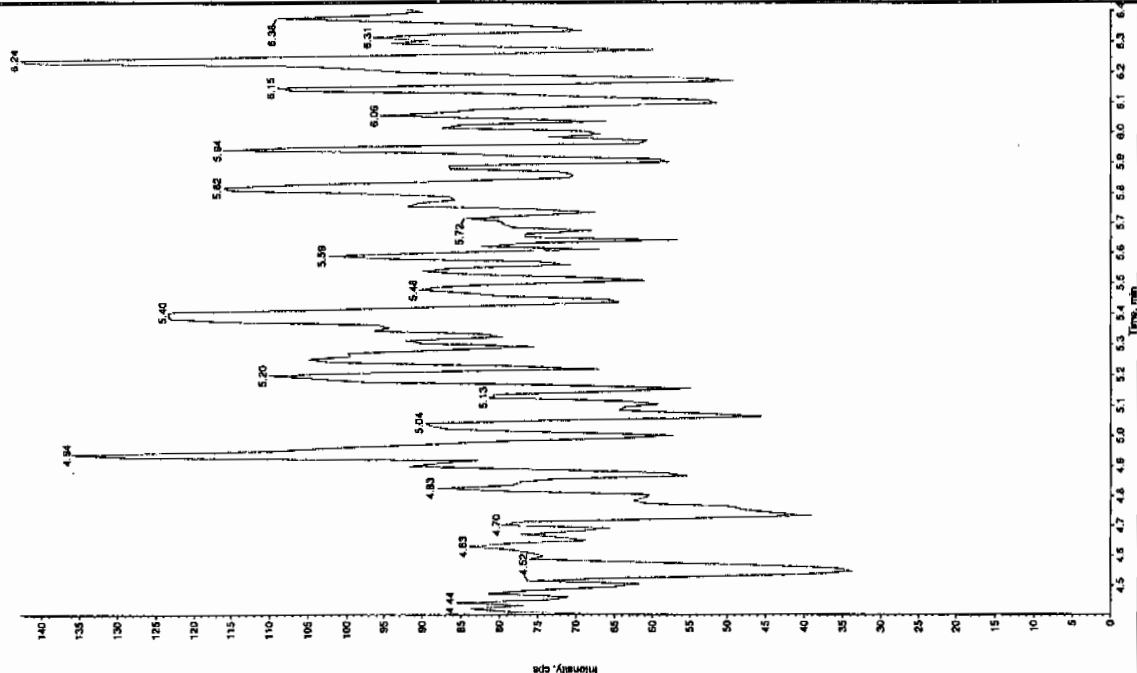
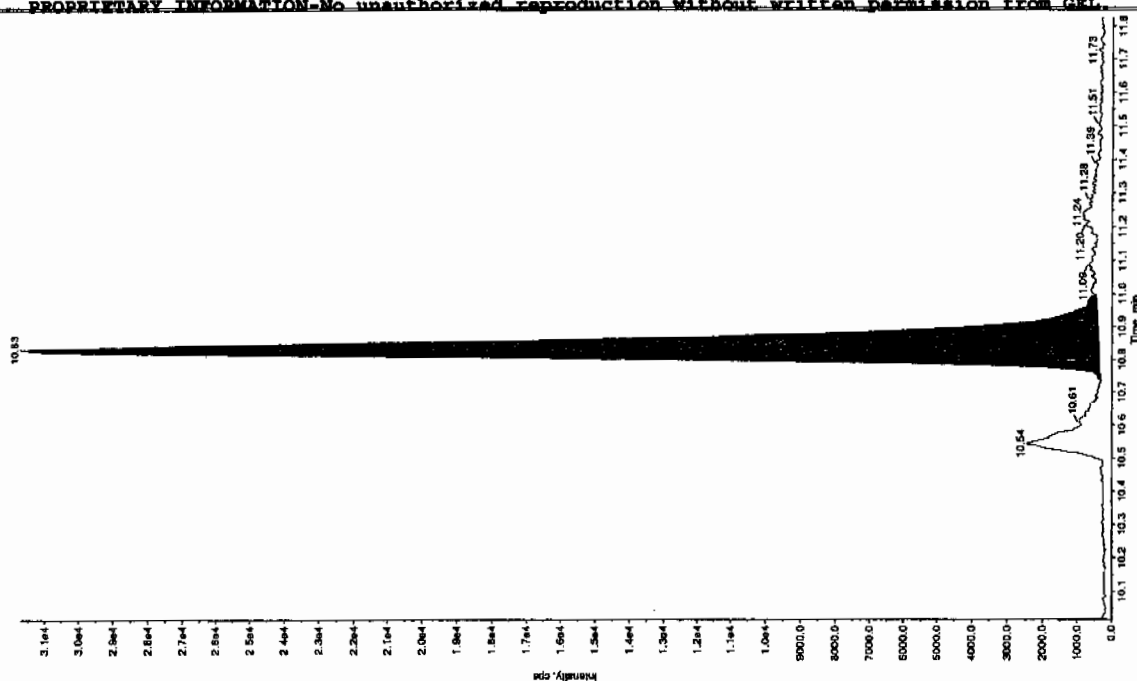


Sample Name: "XIBLK14" Sample ID: "11LER" File: "EXS0310127.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Date: 4/1/2010  
 Time: 5:40:22 PM  
 Modified: NO

Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: NO

Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 1.29e+05 cps  
 Height: 3359.833 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Nairb.ref

;Positive ion monoisotopic and average masses from solution  
 ;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H<sub>2</sub>O.  
 ;Most useful general purpose calibrant for all low  
 ;MW applications, including MS/MS work.  
 ;At high resolution, readily covers from m/z 50-2000.  
 ;At reduced resolution, can be used to over m/z 3000.  
 ;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.  
 Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

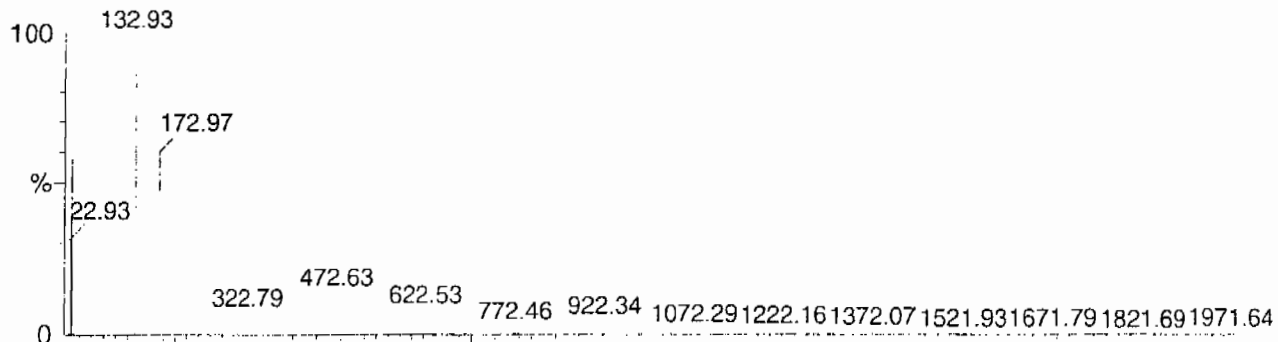
Calibration Report - MS1 Static

Page 1 of 1

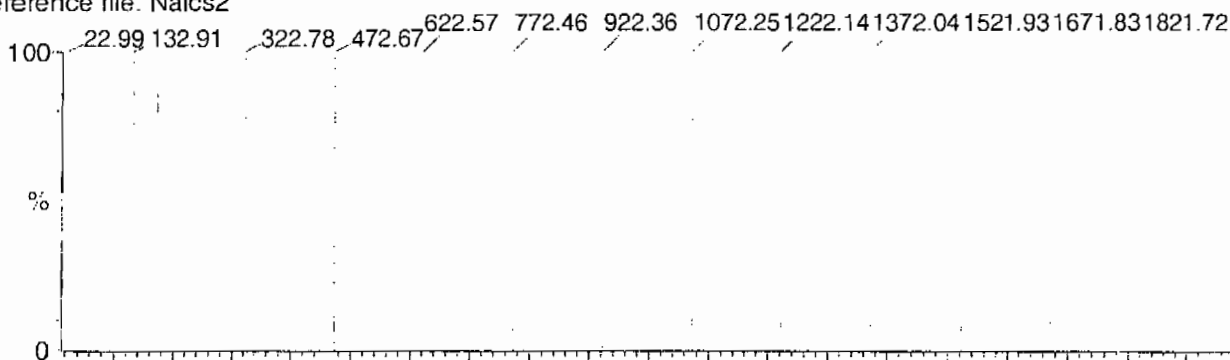
Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

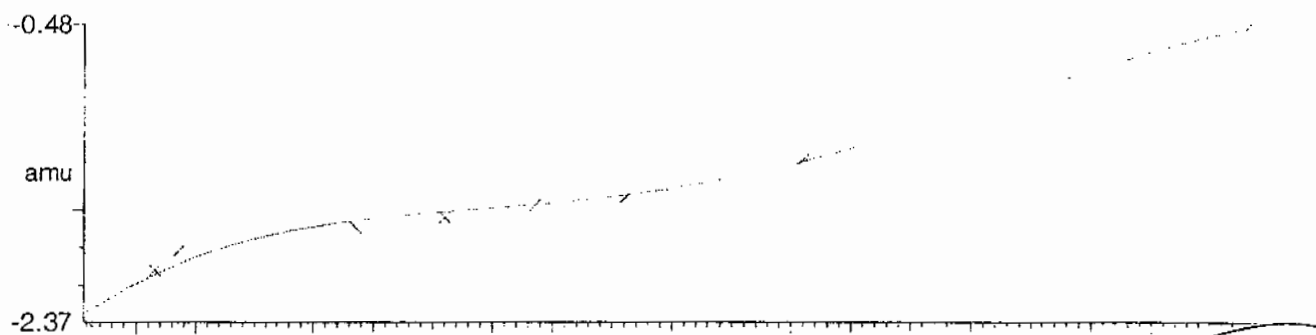
15 matches of 15 tested references



Reference file: Naics2

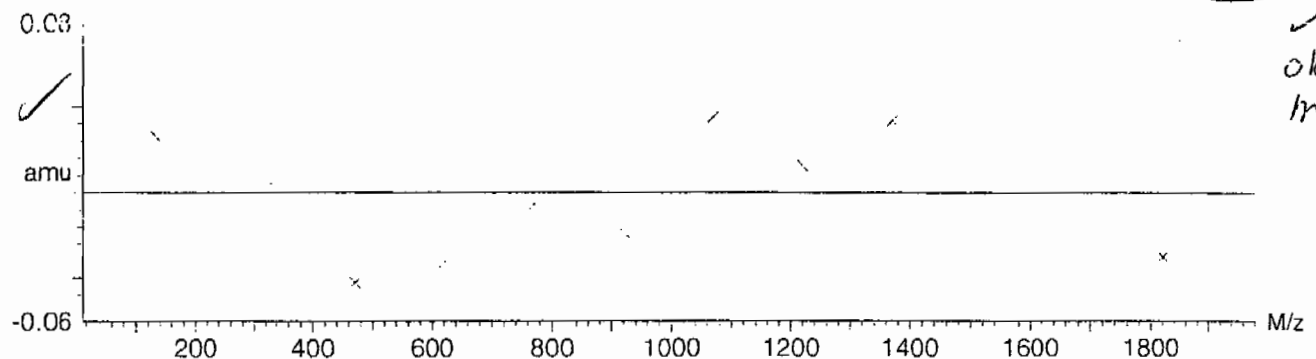


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-1.673470 \times 10^{-9} \pm 0.036953$



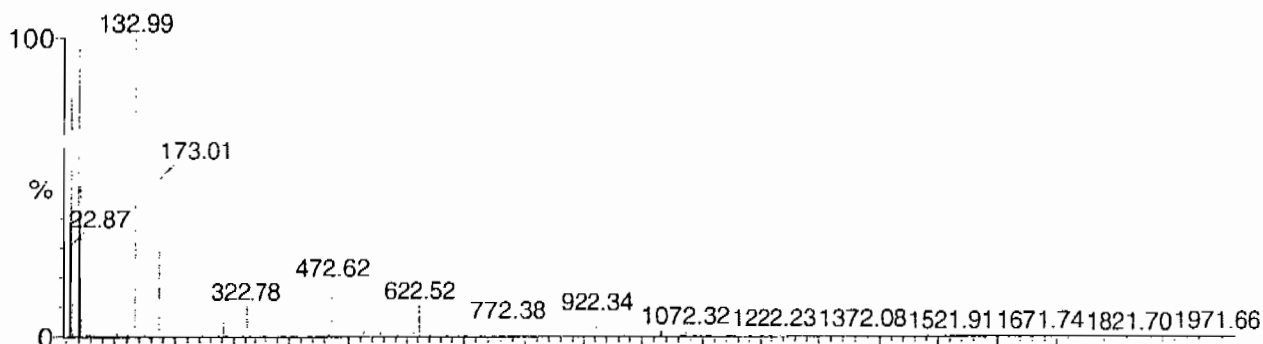
Calibration Report - MS1 Scanning

Page 1 of 1

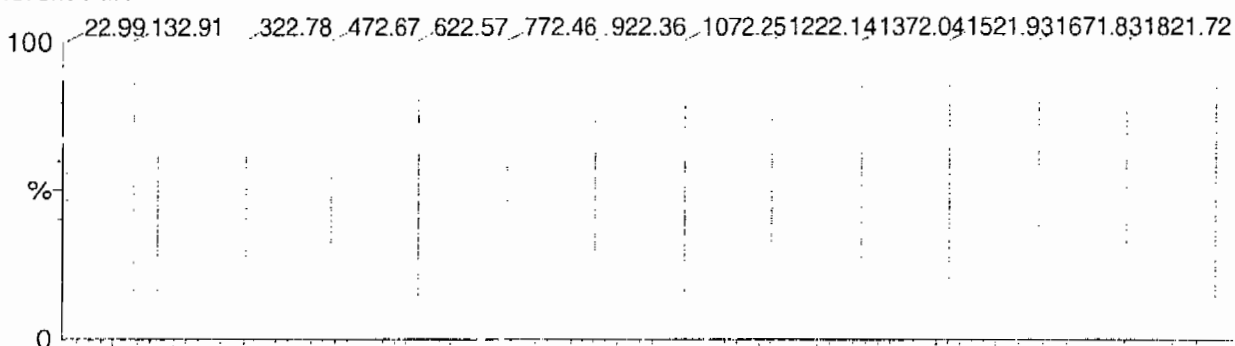
Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

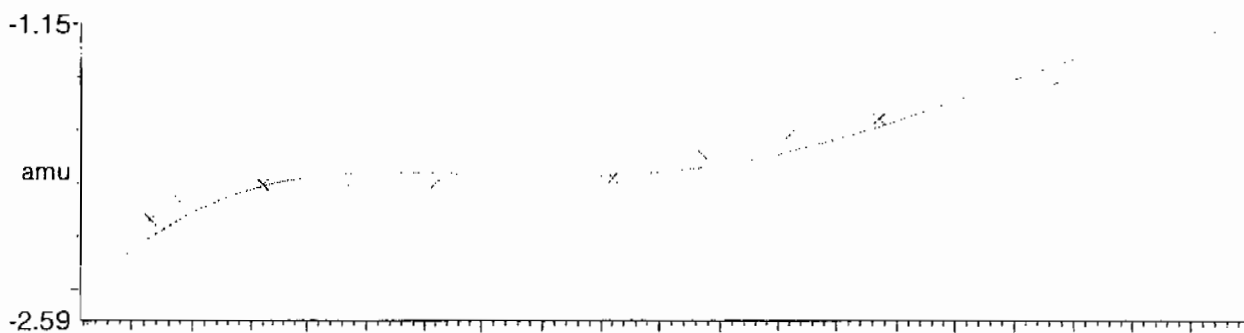
15 matches of 15 tested references



Reference file: Naics2



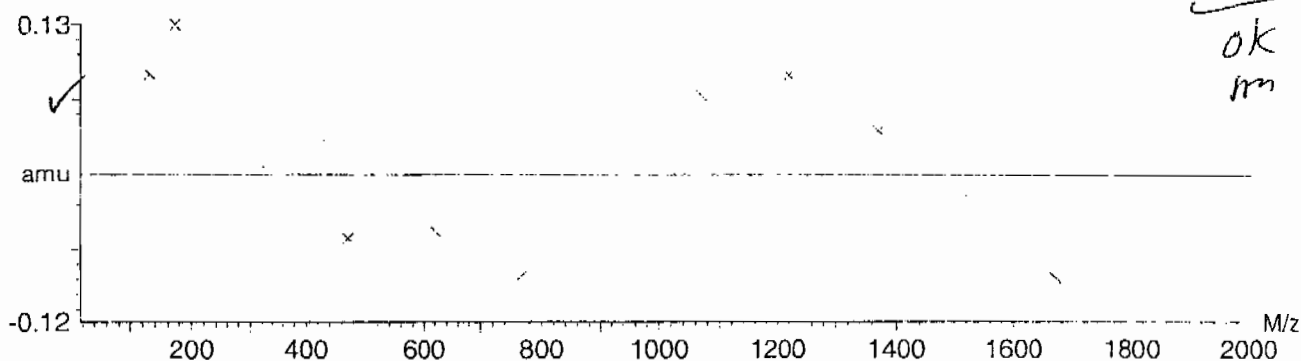
Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-5.432715 \times 10^{-9} \pm 0.069858$

ok  
m





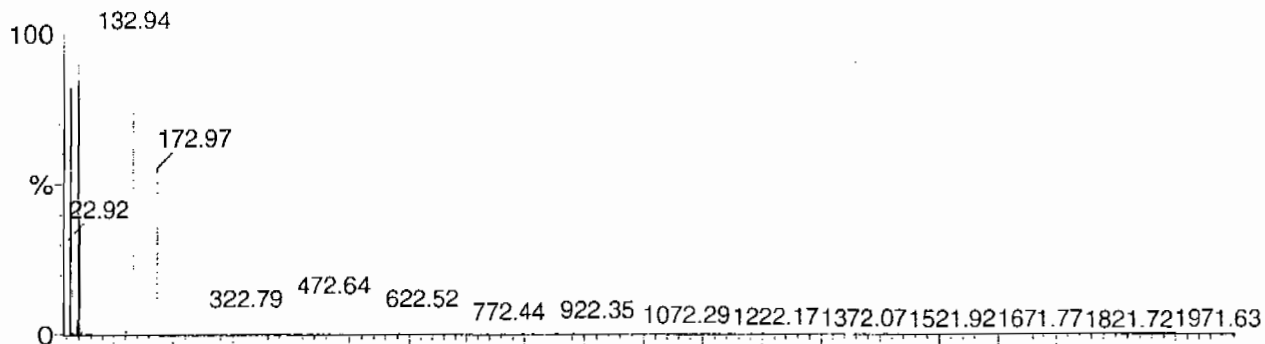
Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

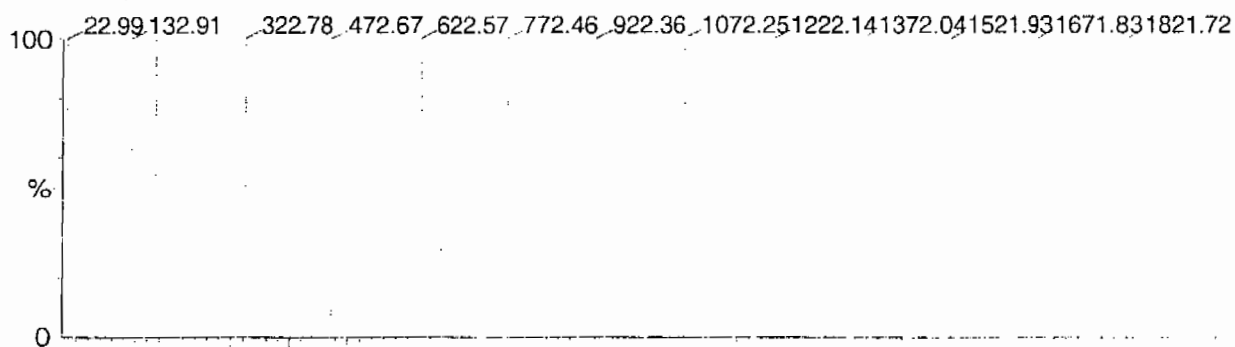
Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

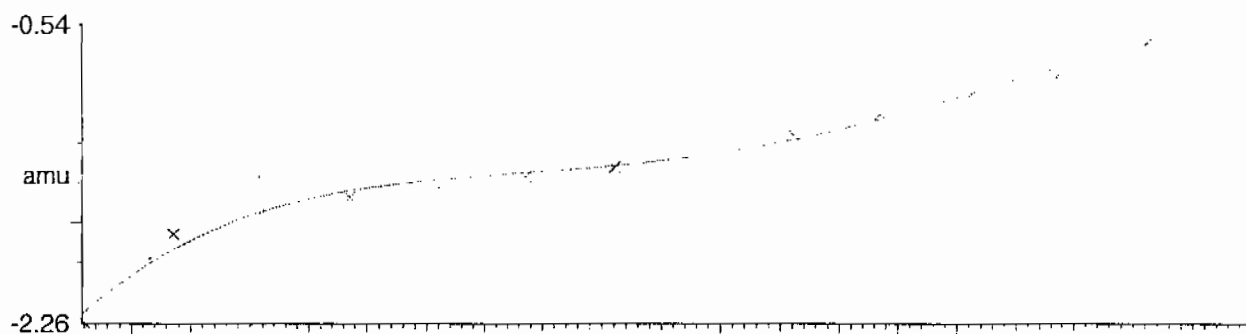
15 matches of 15 tested references



Reference file: Naics2

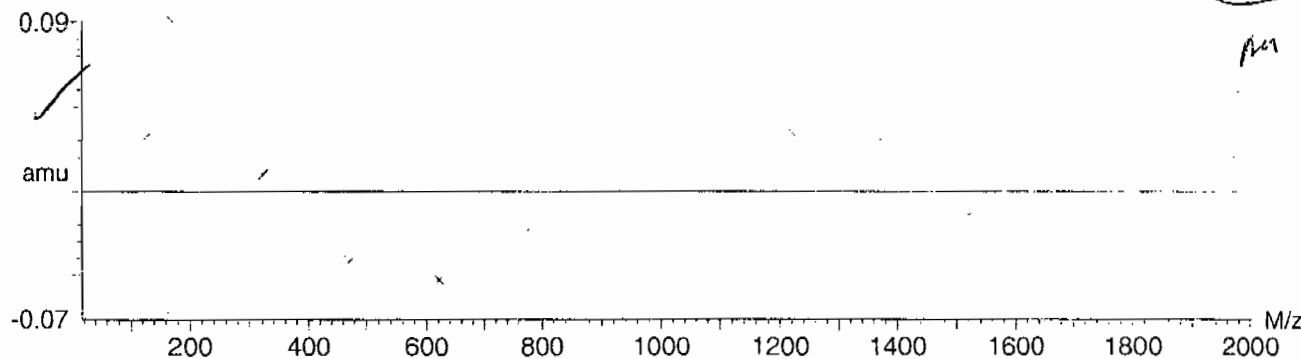


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $3.486639 \times 10^{-9} \pm 0.040487$



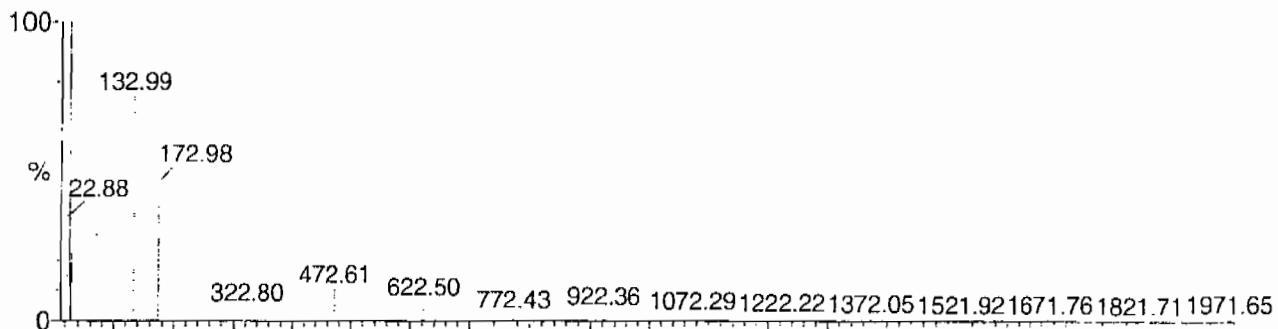
Calibration Report - MS2 Static

Page 1 of 1

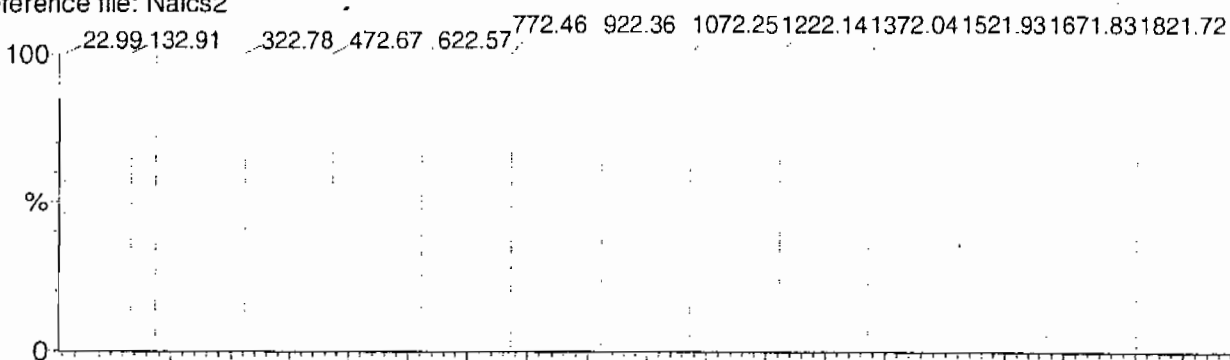
Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

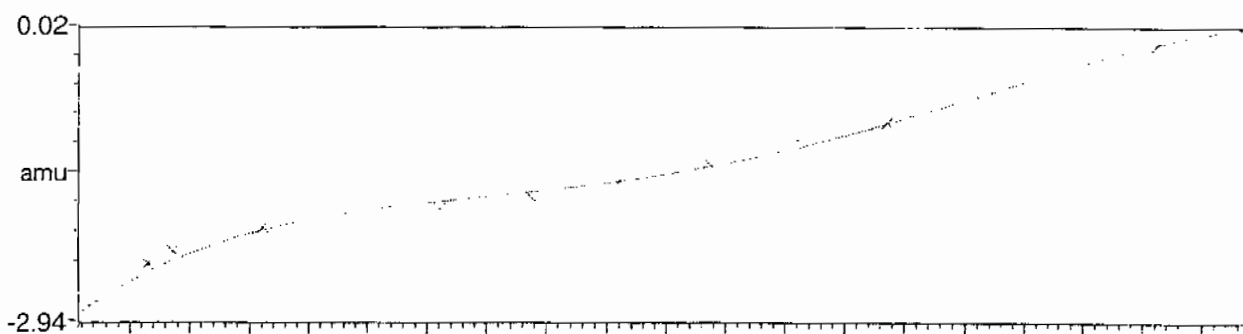
15 matches of 15 tested references



Reference file: Naics2

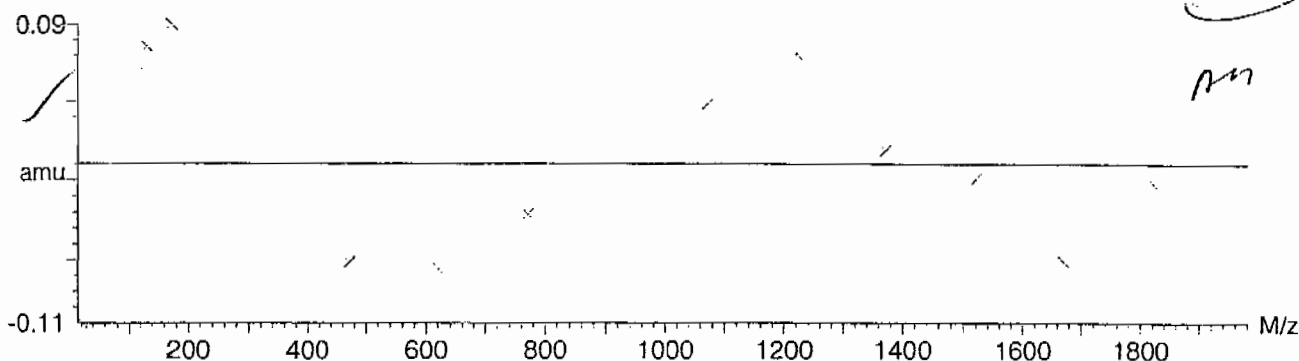


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $2.048910 \times 10^{-9} \pm 0.057803$



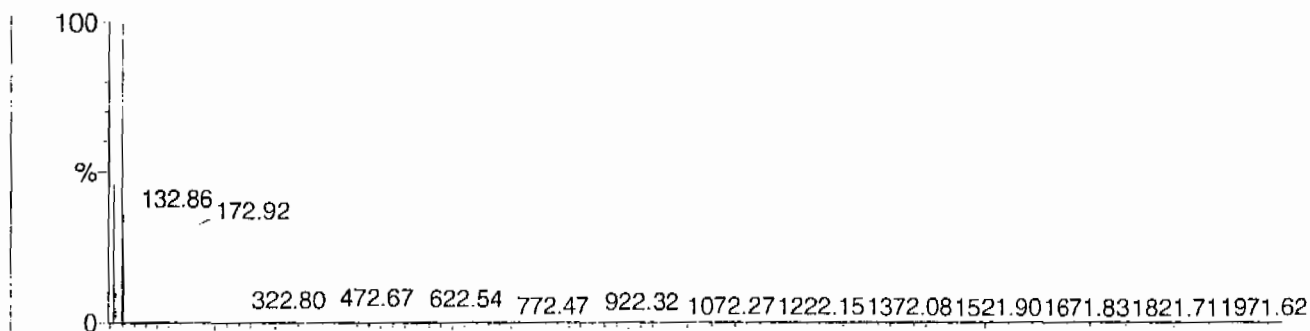
Calibration Report - MS2 Scanning

Page 1 of 1

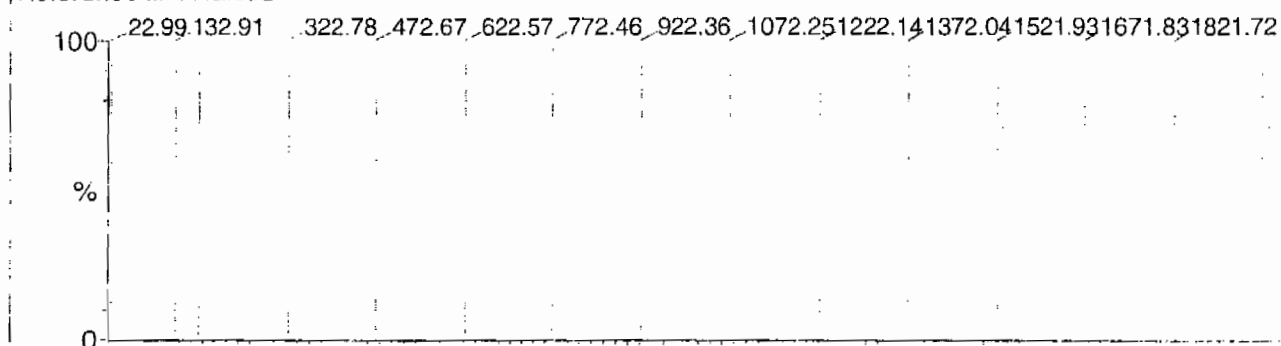
Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

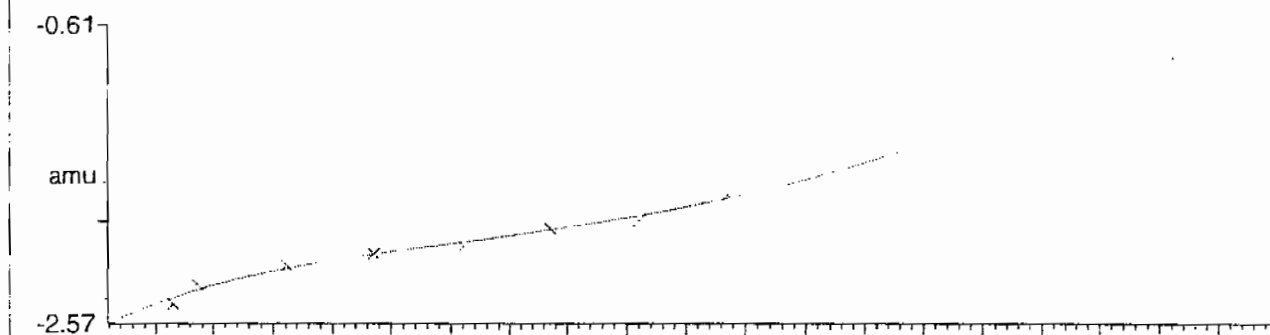
14 matches of 15 tested references



Reference file: Naics2

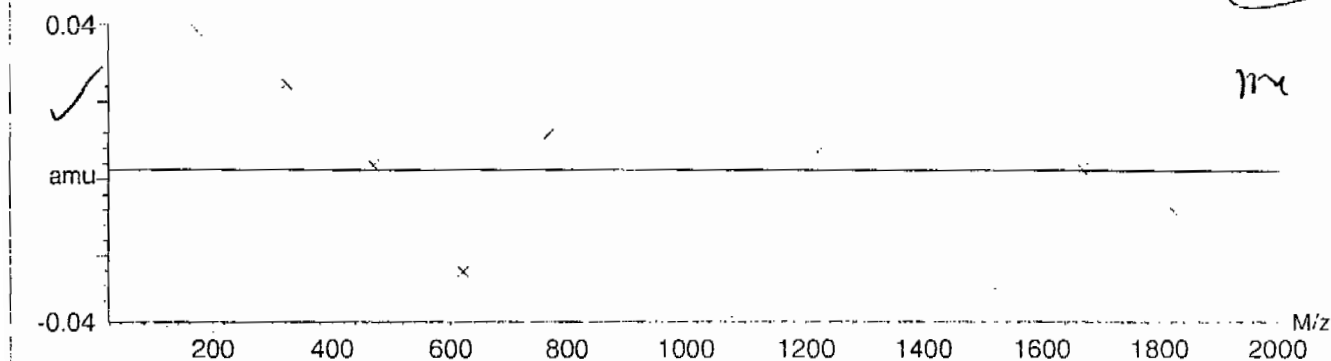


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-2.623502e-9 \pm 0.025622$



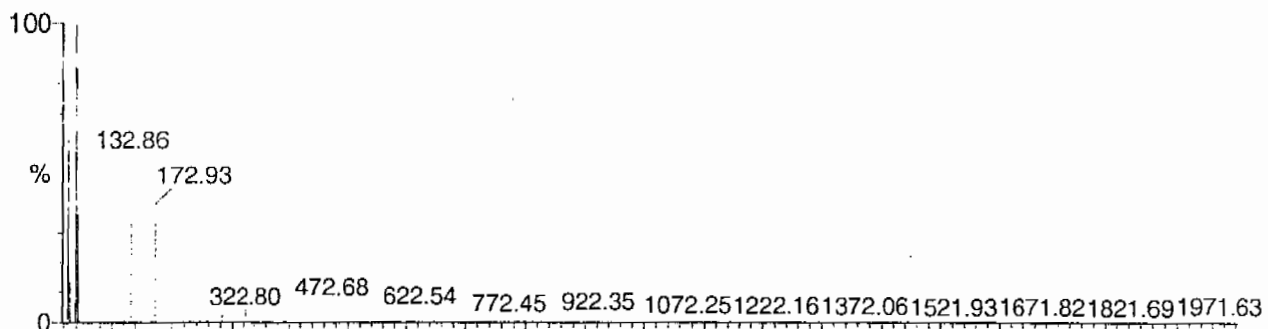
Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

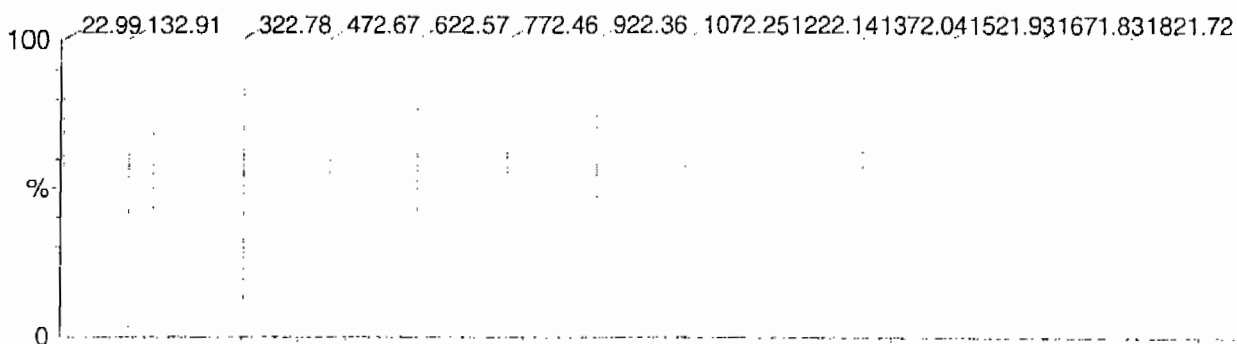
Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

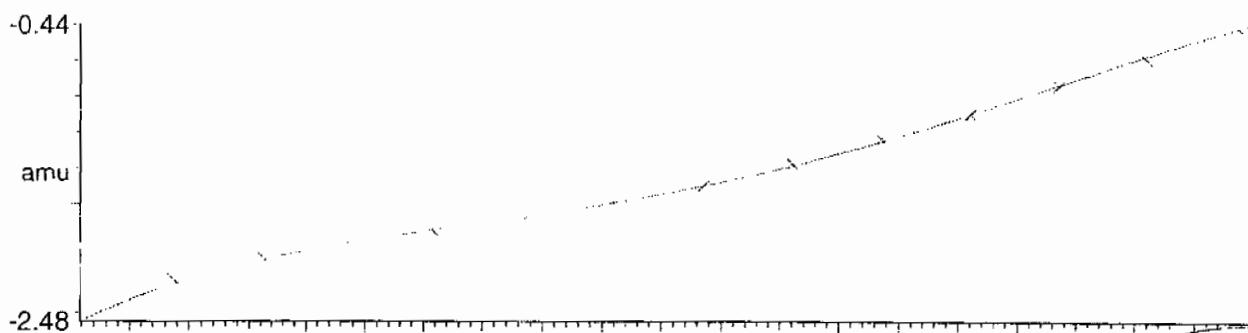
14 matches of 15 tested references



Reference file: Naics2

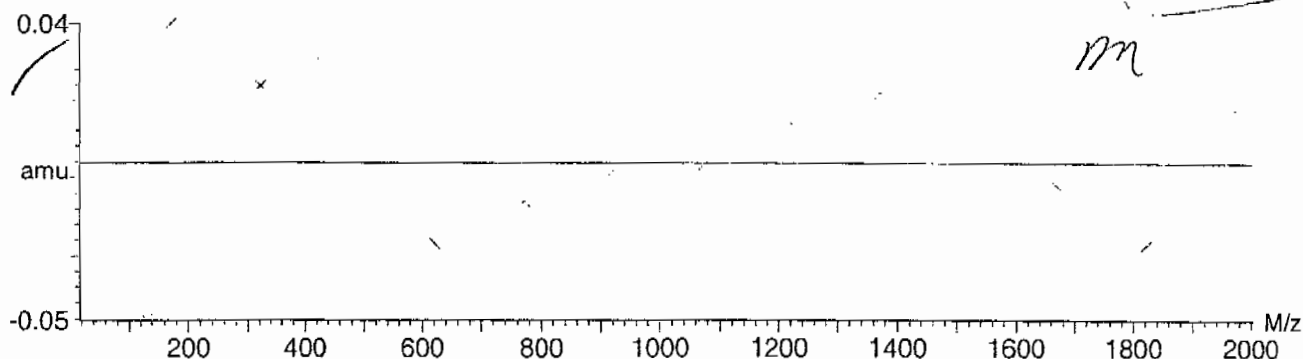


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-6.785350 \times 10^{-9} \pm 0.023134$

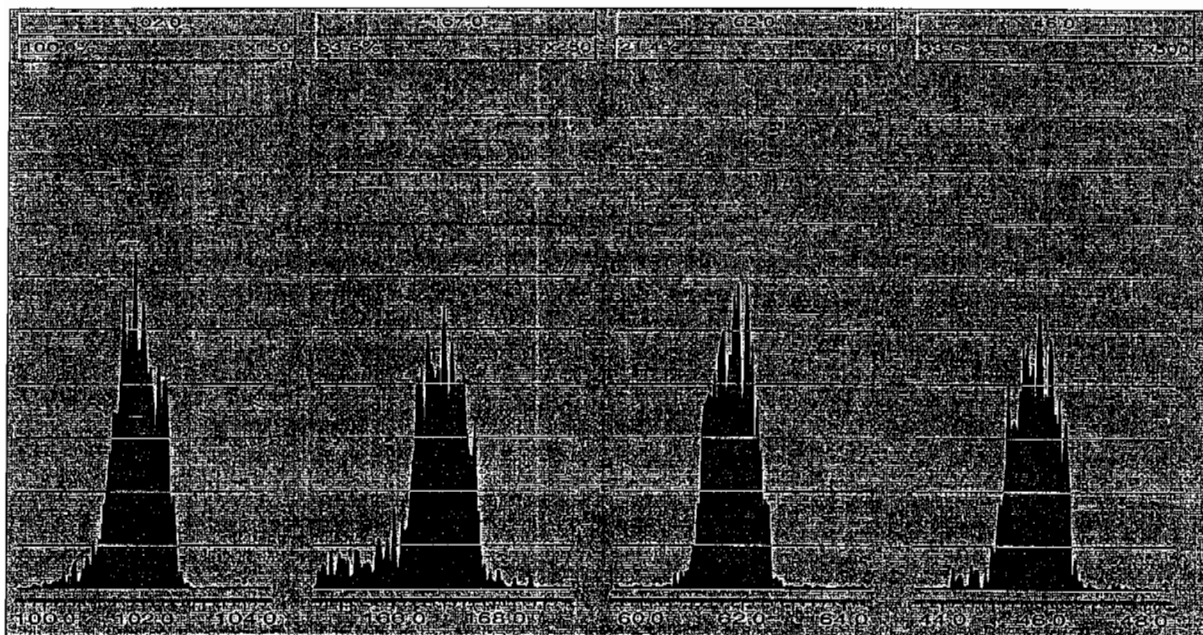


## Quattro Micro Tune Parameters

Page 1

Parameter File: C:\MASSLYNX\NEW\_EXP.PROVACQUDB\explosives04.IPR

Printed : Mon Apr 12 14:40:37 2010



# High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			5880.363	11.868	34983.183	17.054
Upper Limit			7644.4719	12.368	45478.1379	17.554
Lower Limit			4116.2541	11.368	24488.2281	16.554
MB for batch 958260	14-apr-10 04:33	EXP0412076a	6157.65	11.867	36759.7	17.05
LCS for batch 958260	14-apr-10 05:02	EXP0412077a	6540.94	11.868	43696.2	17.051
RE36-10-7414	14-apr-10 05:32	EXP0412078a	7350.88	11.865	38158.8	17.061
RE36-10-7414(248043001MS)	14-apr-10 06:01	EXP0412079a	7130.92	11.868	48406.3 *	17.051
RE36-10-7414(248043001MSD)	14-apr-10 06:31	EXP0412080a	8148.15 *	11.867	37078.9	17.05
RE36-10-7413	14-apr-10 07:00	EXP0412081a	6332.1	11.867	36675	17.05
RE36-10-7462	14-apr-10 07:59	EXP0412083a	6199.3	11.868	36721	17.051
RE36-10-7465	14-apr-10 08:29	EXP0412084a	6256.87	11.868	38505.7	17.051
RE36-10-7473	14-apr-10 10:56	EXP0412089a	6980.18	11.865	40881	17.062
RE36-10-7472	14-apr-10 12:25	EXP0412092a	7271.91	11.868	39296.2	17.05
RE36-10-7464	14-apr-10 13:24	EXP0412094a	6591.86	11.868	43329.4	17.029
RE36-10-7463	14-apr-10 13:53	EXP0412095a	6487.43	11.868	36419.9	17.051
RE36-10-7475	14-apr-10 14:23	EXP0412096a	6043.78	11.868	40376.4	17.073
RE36-10-7466	14-apr-10 14:52	EXP0412097a	6313.03	11.868	40183.7	17.073
RE36-10-7476	14-apr-10 17:20	EXP0412102a	6909.64	11.869	40002.1	17.048
RE36-10-7461	14-apr-10 17:49	EXP0412103a	6547.34	11.866	39044.3	17.063
RE36-10-7467	14-apr-10 18:19	EXP0412104a	6476.75	11.868	39981.9	17.047
RE36-10-7470	14-apr-10 19:18	EXP0412106a	6878.97	11.869	43099.9	17.048
RE36-10-7515	14-apr-10 19:47	EXP0412107a	6937.74	11.843	41952.5	17.049
RE36-10-7471	14-apr-10 20:17	EXP0412108a	8243.42 *	11.866	45132.5	17.041
RE36-10-7468	14-apr-10 20:46	EXP0412109a	7570.44	11.866	45594.1 *	17.05
RE36-10-7469	15-apr-10 11:02	EXP0412138a	6843.21	11.894	42094.4	17.093

IS1 (DNB) = 1,3-Dinitrobenzene-d4

IS2 (DNT) = 2,6-Dinitrotoluene-d3

Area Upper Limit = + 30% of average IS area from multipoint calibration

Area Lower Limit = - 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT

RT Lower Limit = -0.5 of average multipoint RT

# Column used to flag values outside QC limits with an asterisk

\* Values outside of QC limits

8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

IS1 (DNB) = 1,3-Dinitrobenzene-d<sub>4</sub>

IS2 (DNT) = 2,6-Dinitrotoluene-d<sub>3</sub>

Area Upper Limit = + 30% of average IS area from multipoint calibration

Area Lower Limit = - 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT

RT Lower Limit = -0.5 of average multipoint RT

# Column used to flag values outside QC limits with an asterisk

\* Values outside of QC limits

# SAMPLE DATA



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7414

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043001

Sample Amount 2

Moisture: 21.1

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412078a

Date Analyzed: 14-APR-10 05:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412078a

Date: 14-Apr-2010

Time: 05:32:17

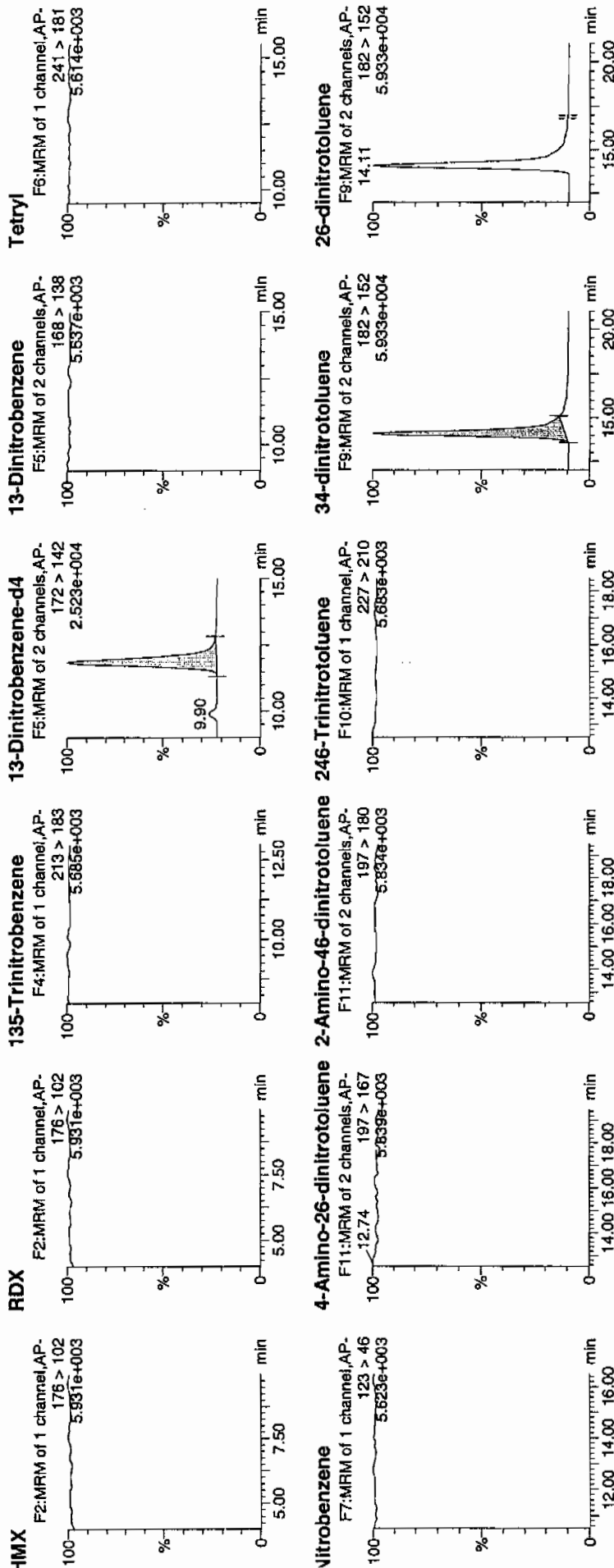
D: 248043001

Vial: 3:1,C

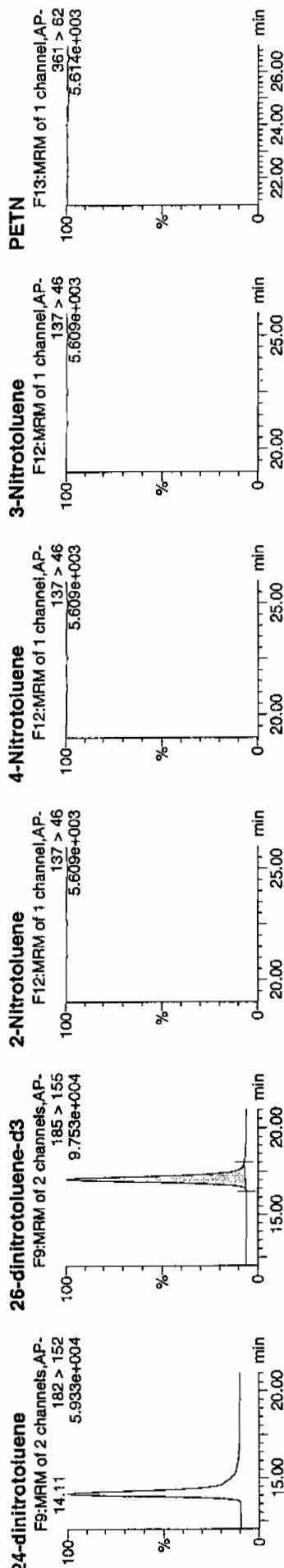
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4/15/10

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Page 1654 of 2211



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 4/15/10

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1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7414

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043001

Sample Amount 2

Moisture: 21.1

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310092.wiff

Date Analyzed: 01-APR-10 08:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

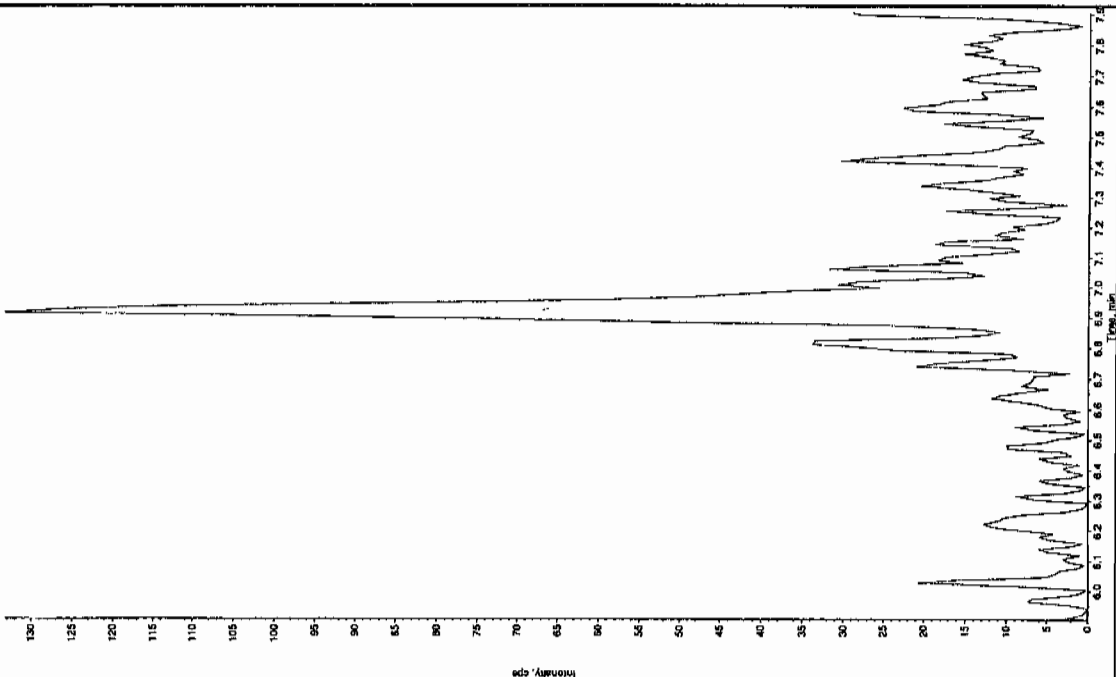
\*Concentration =

Instrument	X	<u>Concentrated Extract Volume</u>	X	Dilution
Value		<u>Sample Amount</u>		Factor

See 4/15/10

Sample Name: "248043001" Sample ID: "95826221.ER" File: "EX503310082.wif"  
 Peak Name: "TATB" Mass(es): "257.2/204.9 amu"  
 Comment: "LCX83212S" Annotation: ""

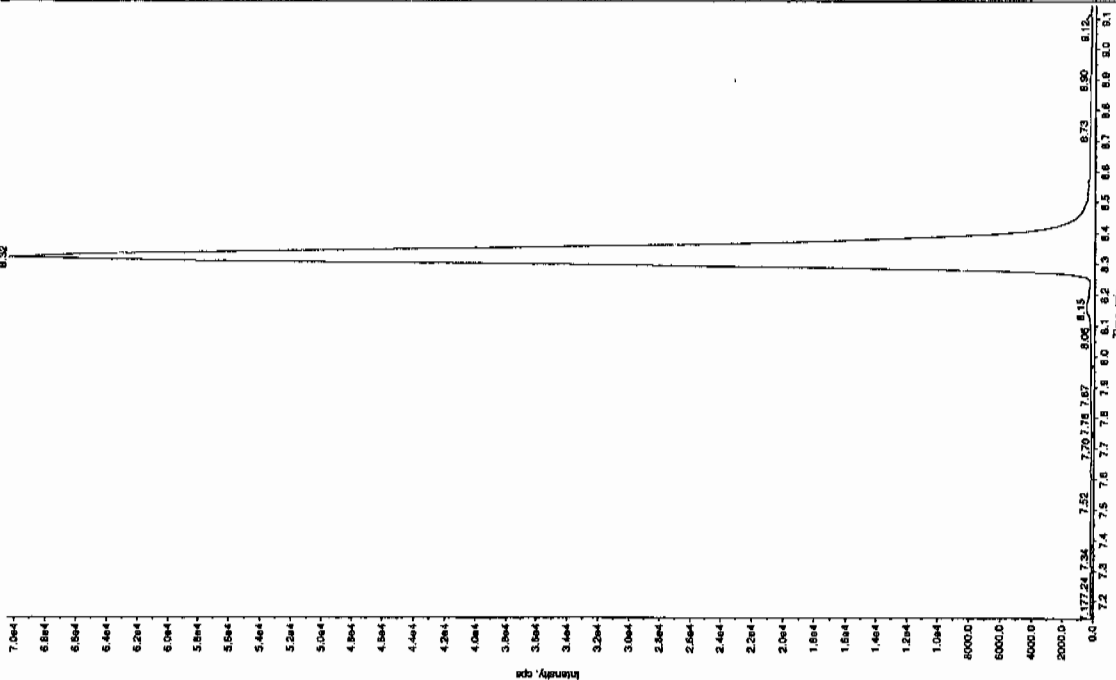
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 8:30:32 AM  
 Modified: No



4/15/10

Sample Name: "248043001" Sample ID: "95826221.ER" File: "EX503310082.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.0/165.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 8:30:32 AM  
 Modified: No



GL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

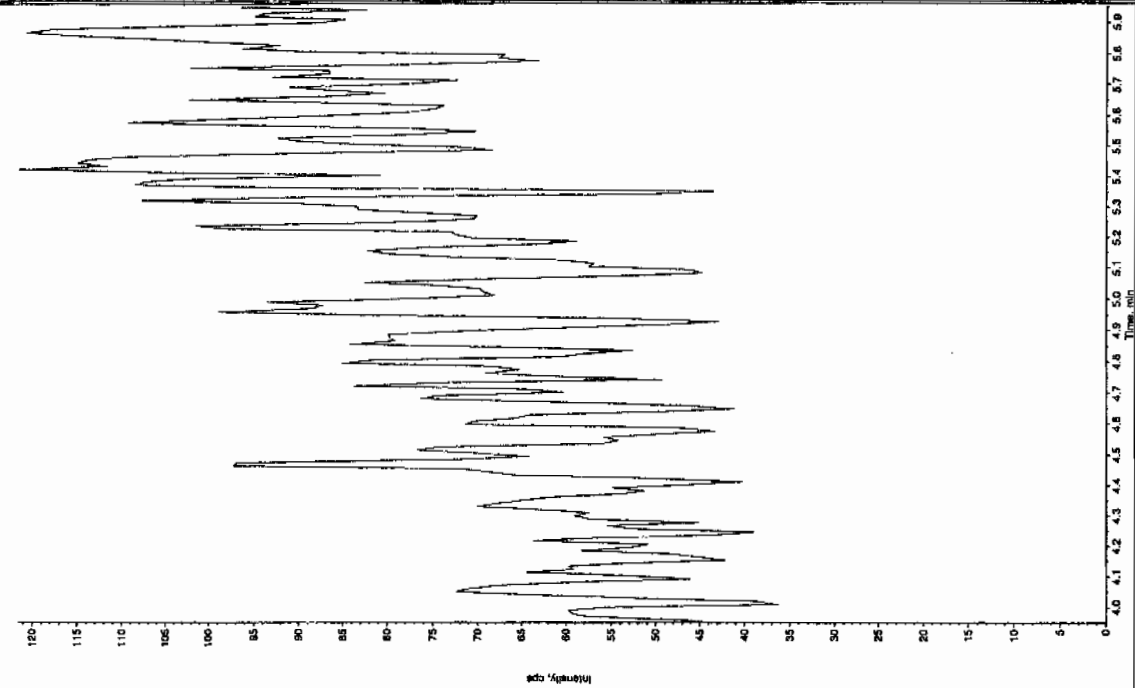
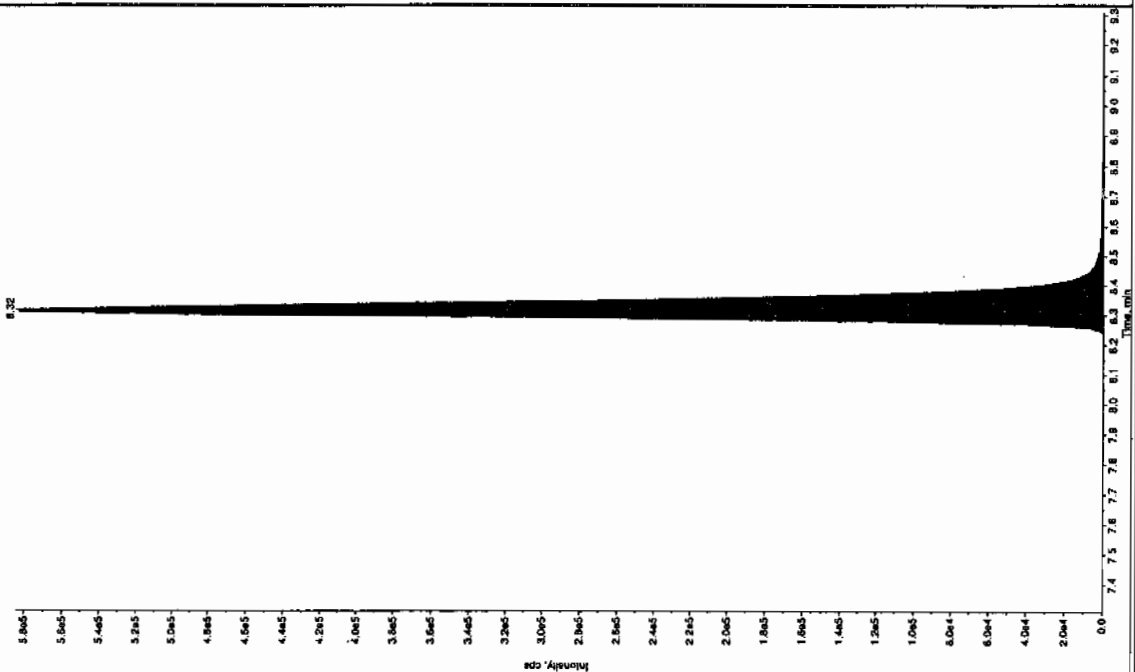
Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00
Acq. Date:	4/1/2010
Acq. Time:	8:30:32 AM
Modified:	No

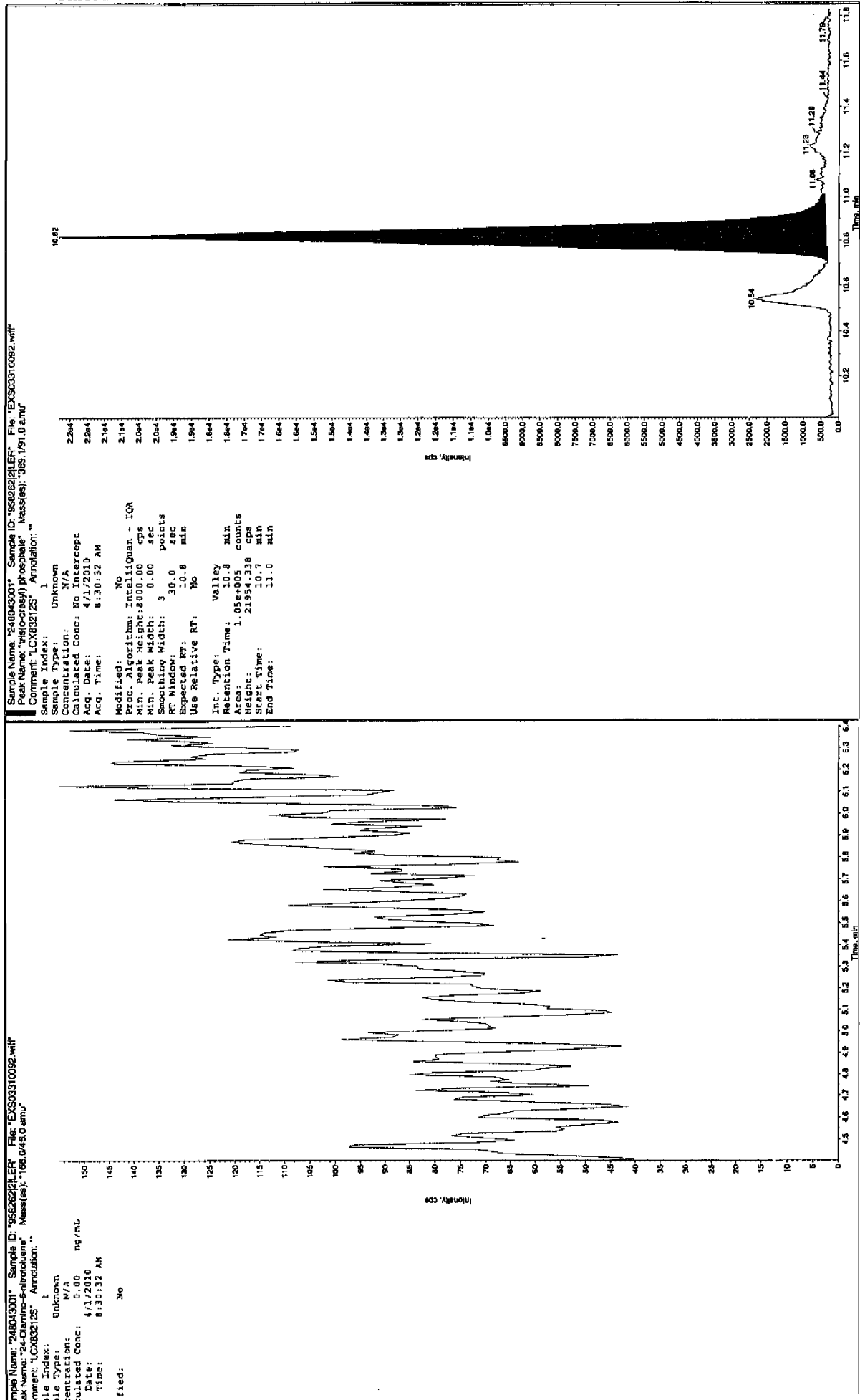
Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Cultured Conc:	296. ng/mL
Date:	4/1/2010
Time:	8:30:32 AM

```

ified: No
C Algorithm: IntelliQuan - IGA
Peak Width: 1469.00 cps
Peak Height: 3.00 sec
Scheduling Width: 3.00 points
Window: 8.31 min
Selected RT: 8.31 min
Reactive RT: No
Type: Valley
Injection Time: 8.32 min
Count: 2.36e+006 counts
Height: 584125.122 cps
Retention Time: 8.21 min
Time: 8.67 min

```





IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7413

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043002

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412081a

Date Analyzed: 14-APR-10 07:00

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412081a

Date: 14-Apr-2010

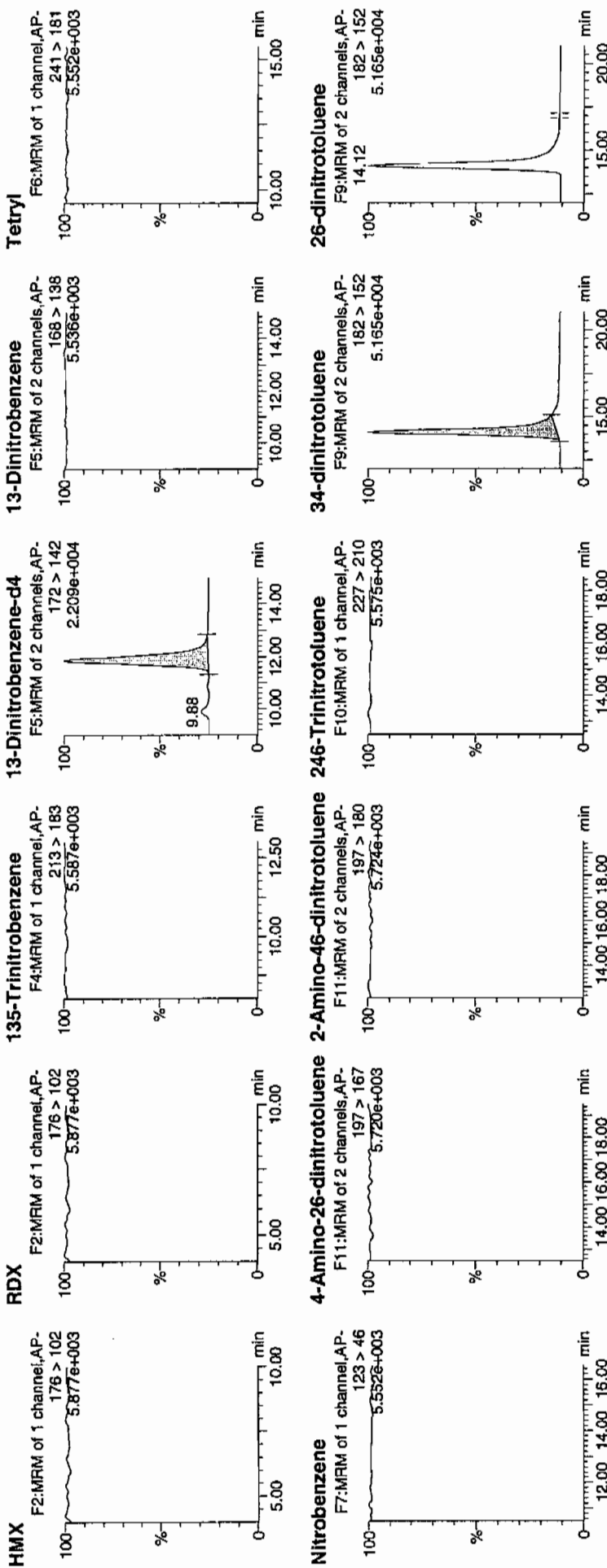
Time: 07:00:41

ID: 248043002

Vial: 3:1,F

4/15/10  
4/15/10

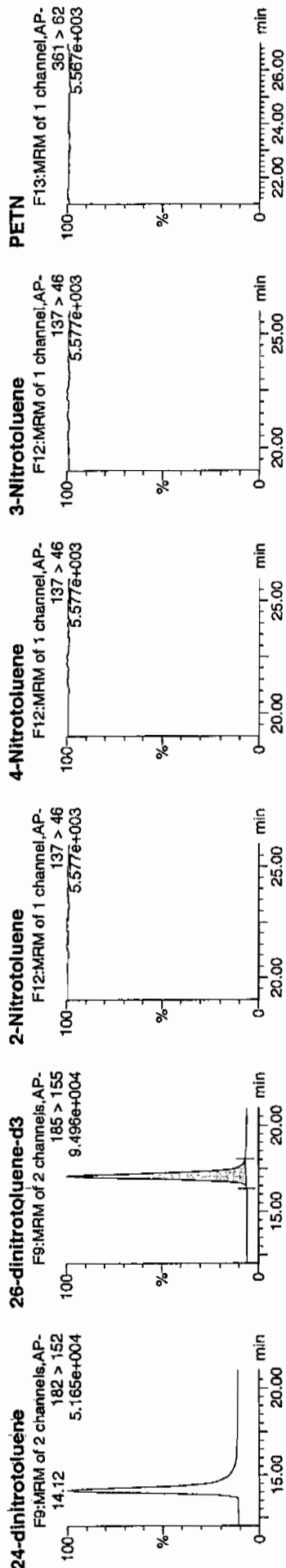
121  
93262/8023/21



4/15/10

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
248043002	HMX	176 > 102		6332.095										
248043002	RDX	176 > 102		6332.095										
248043002	135-Trinitrobenzene	213 > 183		6332.095										
248043002	13-Dinitrobenzene-d4	172 > 142	11.87	6332.095		6332.095	6332.095	bb			536.4101	107.7	7.7	621.5
248043002	13-Dinitrobenzene	168 > 138		6332.095										
248043002	Tetryl	241 > 181		6332.095										
248043002	Nitrobenzene	123 > 46		6332.095										
248043002	4-Amino-26-dinitrotoluene	197 > 167		36674.996										
248043002	2-Amino-46-dinitrotoluene	197 > 180		36674.996										
248043002	246-Trinitrotoluene	227 > 210		36674.996										
248043002	34-dinitrotoluene	182 > 152	14.12	19272.582		19272.582	262.748	bb			254.8164	101.9	1.9	519.9
248043002	26-dinitrotoluene	182 > 152		36674.996					MM-	15-Apr-10	14:38:31			
248043002	24-dinitrotoluene	182 > 152		36674.996										
248043002	26-dinitrotoluene-d3	185 > 155	17.05	36674.996		36674.996	36674.996	bb			524.1804	104.8	4.8	2962.0
248043002	2-Nitrotoluene	137 > 46		36674.996										
248043002	4-Nitrotoluene	137 > 46		36674.996										
248043002	3-Nitrotoluene	137 > 46		36674.996										
248043002	PETN	361 > 62		36674.996										

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7413

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043002

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310095.wiff

Date Analyzed: 01-APR-10 09:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	331	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

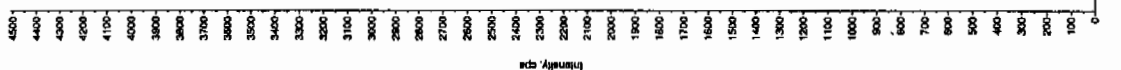
Jan 4/1/10

Sample Name: "248043002" Sample ID: "958282121" File: "EX503310055.wif"  
 Peak Name: "TA1B" Mass(es): "257.2204.9 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 9:17:43 AM  
 Modified: No

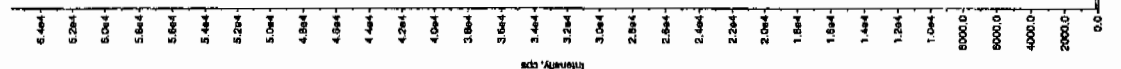
Algorithm: IntelliQuan - IQA  
 Peak Height: 2500.00 cps  
 Peak Width: 0.00 sec  
 Peak Area: 30.0 points  
 Peak RT: 6.90 min  
 Relative RT: No

Type: Valley  
 Retention Time: 6.90 min  
 Height: 1.81e+004 counts  
 W Time: 4482.294 cps  
 T Time: 6.78 min  
 Time: 7.13 min



Sample Name: "248043002" Sample ID: "958282121" File: "EX503310055.wif"  
 Peak Name: "35-Oxalocolline" Mass(es): "182.0460 amu"  
 Comment: "LCX83212S" Annotation: ""

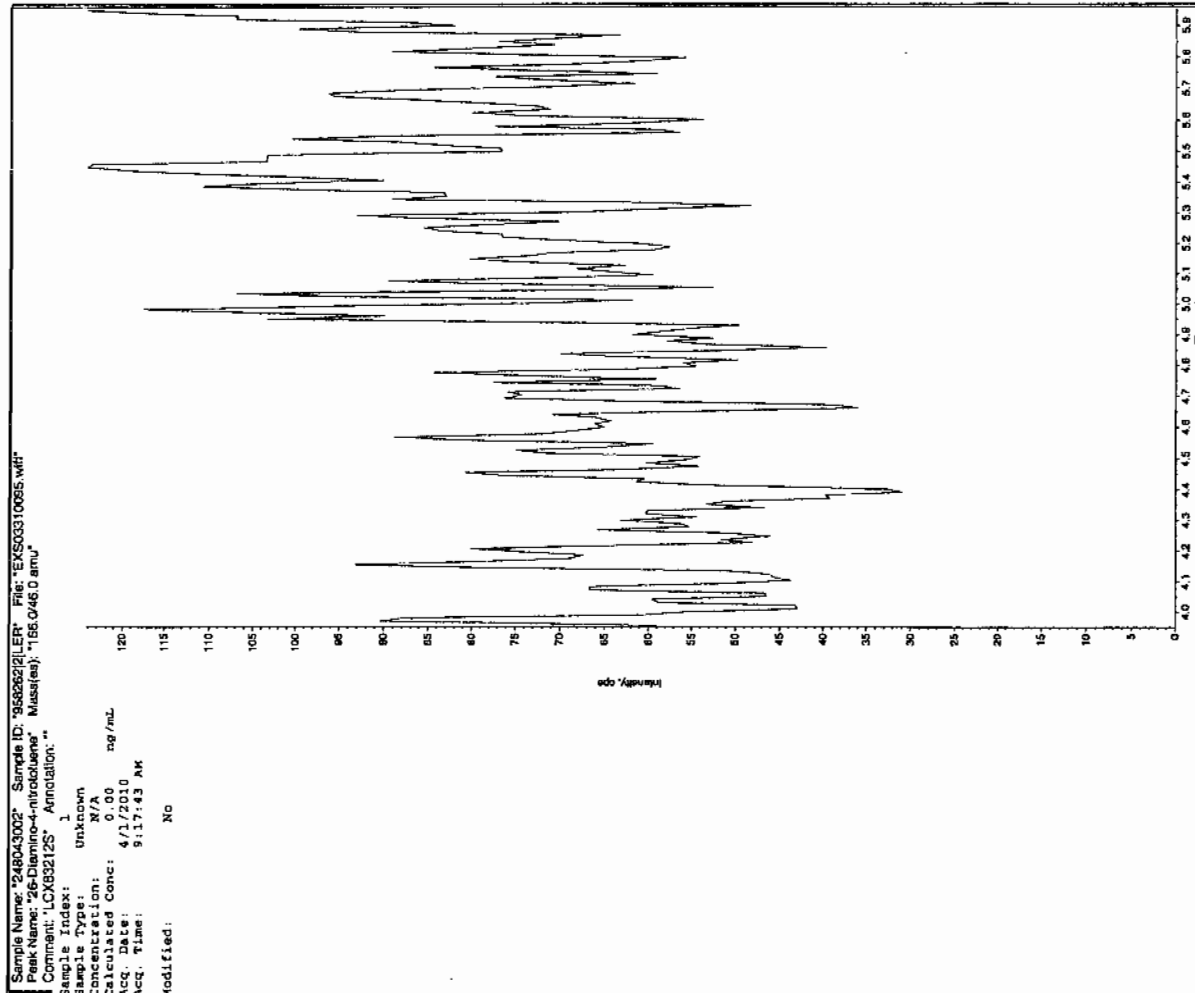
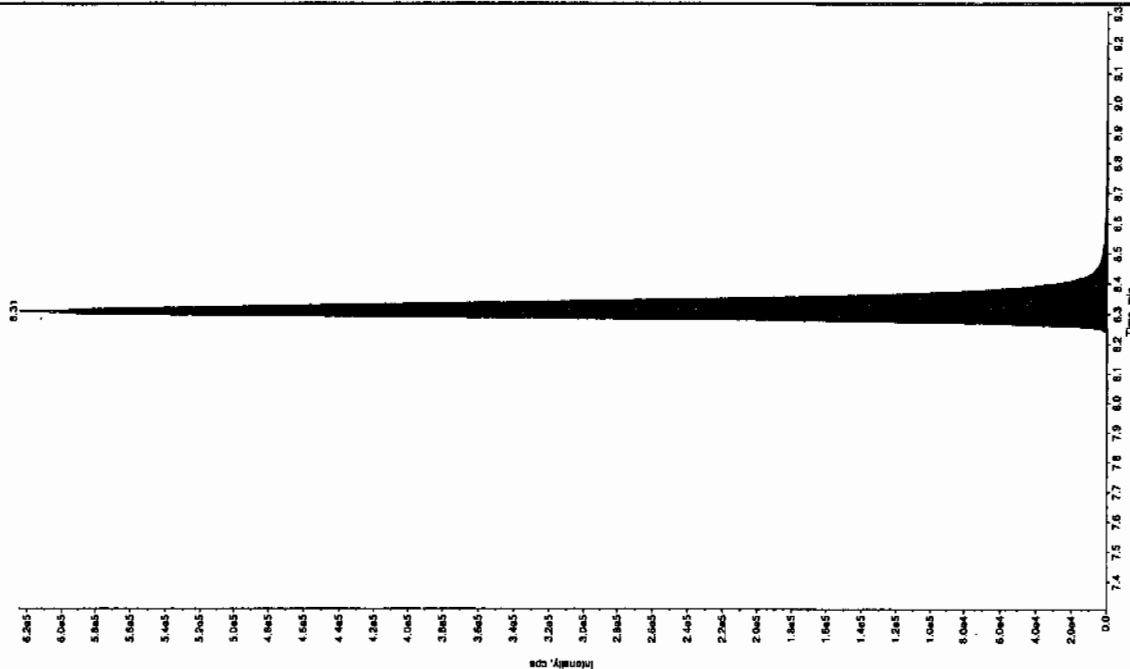
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 9:17:43 AM  
 Modified: No



Jan 4/1/10

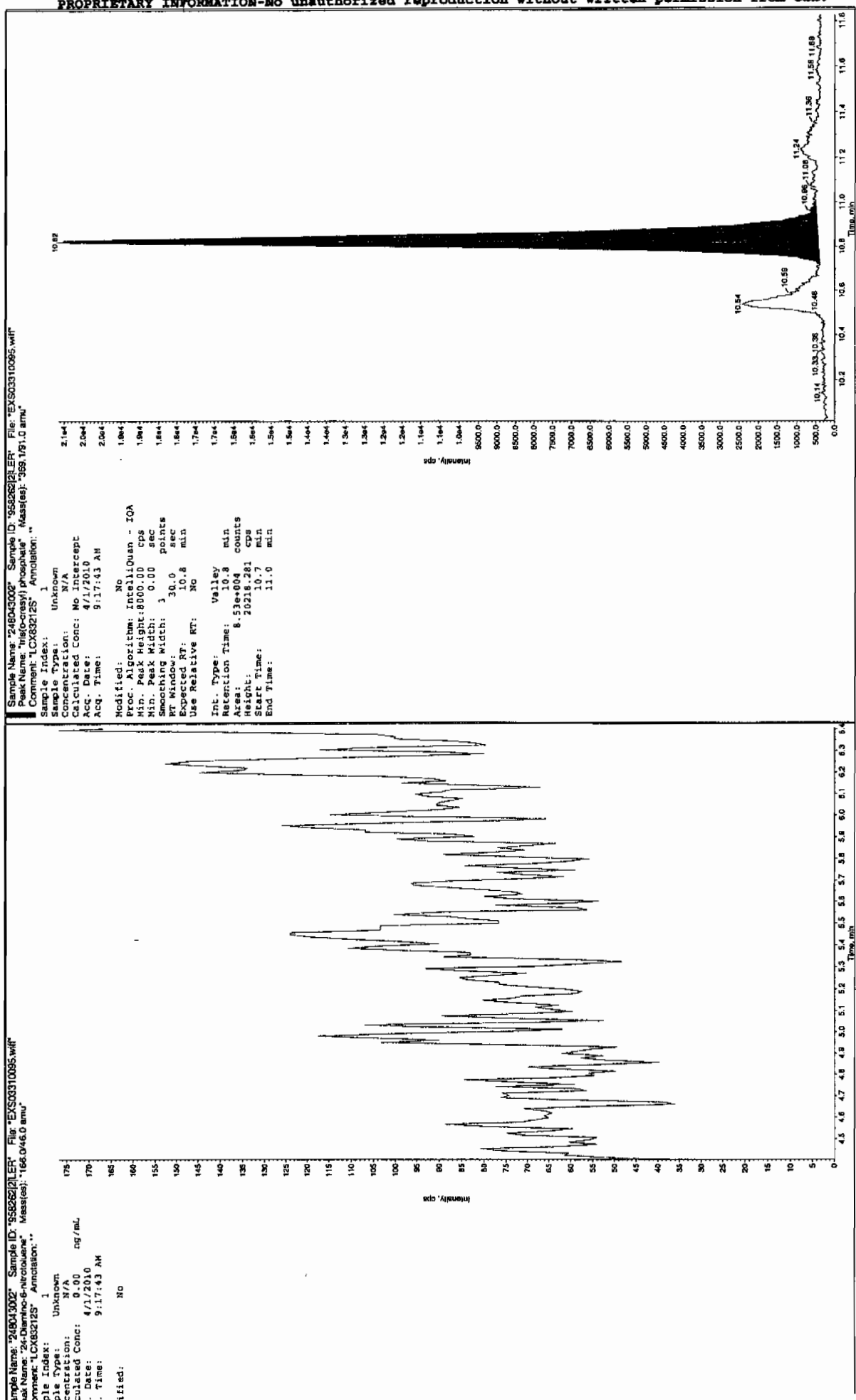
File Name: "248043002" Sample ID: "958262121.ER" File: "EXS0310055.wiff"  
 Peak Name: "34-Dinitrochlorobenzene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCX83212S" Annotation: ""

1e Index: 1  
 1e Type: Unknown  
 1e Concentration: 316. ng/mL  
 Date: 4/1/2010  
 Time: 9:17:43 AM  
 1e Index: 1  
 1e Type: Unknown  
 1e Concentration: 0.00  
 Date: 4/1/2010  
 Time: 9:17:43 AM  
 Modified: No  
 Algorithm: IntelliQuan - IOL  
 Peak Height: 1460.00 cps  
 Peak Width: 0.00 sec  
 Peak Area: 15.0 points  
 Peak RT: 8.31 min  
 Relative RT: No  
 Type: Valley  
 Retention Time: 8.31 min  
 Height: 2.53e+006 counts  
 Time: 8.22 min  
 Time: 8.69 min



Sample Name: "248043002" Sample ID: "958262121.ER" File: "EXS0310055.wiff"  
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "156.0/46.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 mg/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 9:17:43 AM  
 Modified: No



3L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7462

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043003

Sample Amount 2

Moisture: 7.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412083a

Date Analyzed: 14-APR-10 07:59

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412083a

Date: 14-Apr-2010

Time: 07:59:41

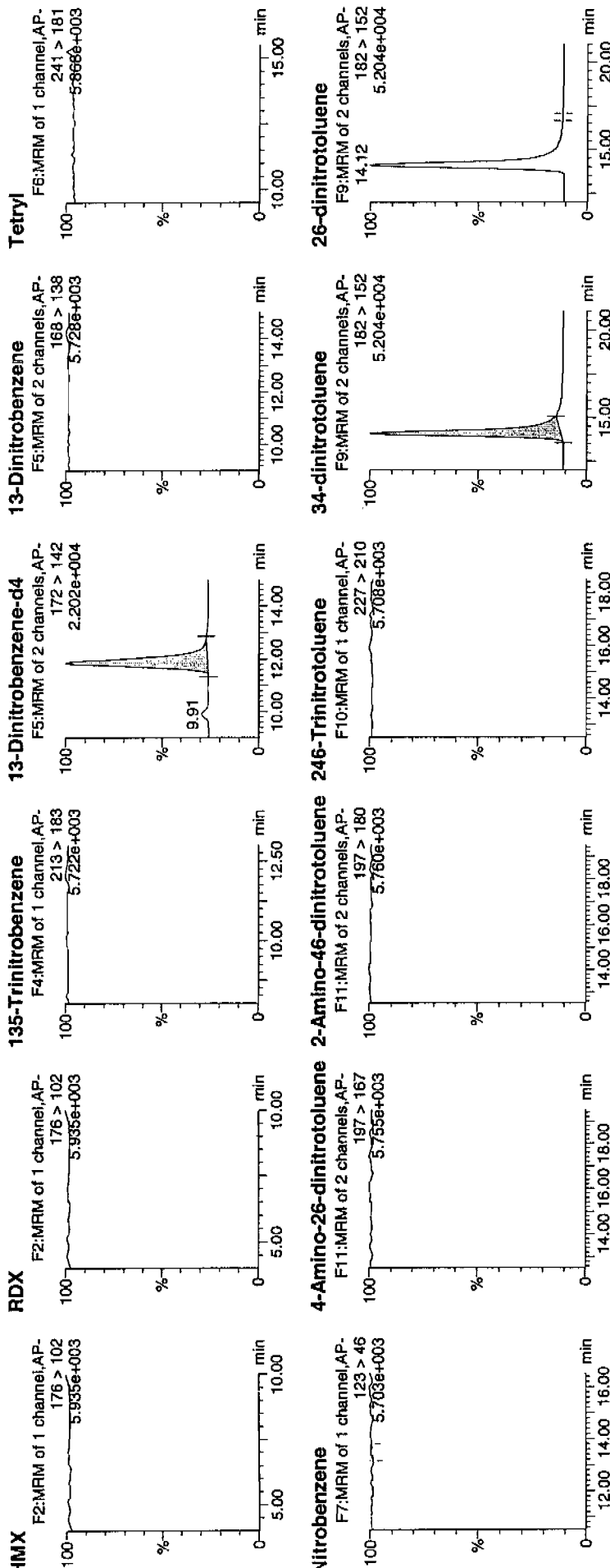
D: 248043003

Val: 3:2,A

1071  
4/15/10

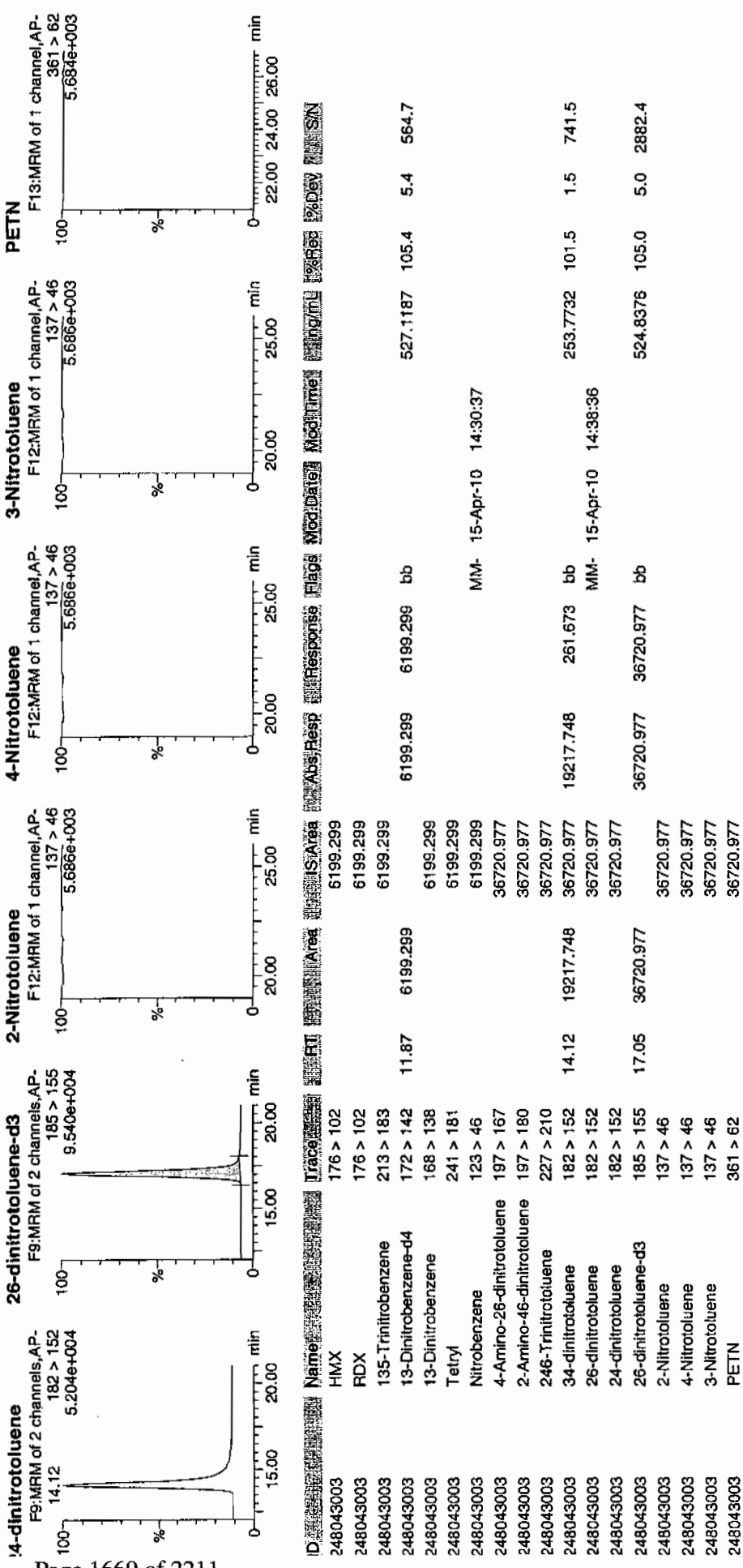
121  
93266 / 80222

Page 1668 of 2211



4/15/10





1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7462

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043003

Sample Amount 2

Moisture: 7.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310096.wiff

Date Analyzed: 01-APR-10 09:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

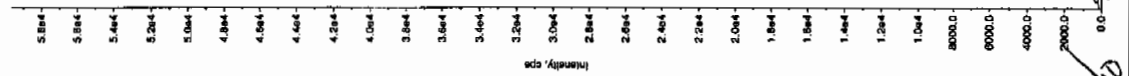
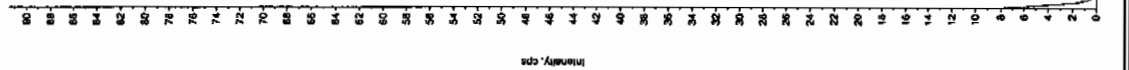
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Jan 4/5/10

Sample Name: "248043003" Sample ID: "95826221" File: "EXS03310096.wiff"  
 Peak Name: "95-Dinitrobenzine" Mass(es): "182.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

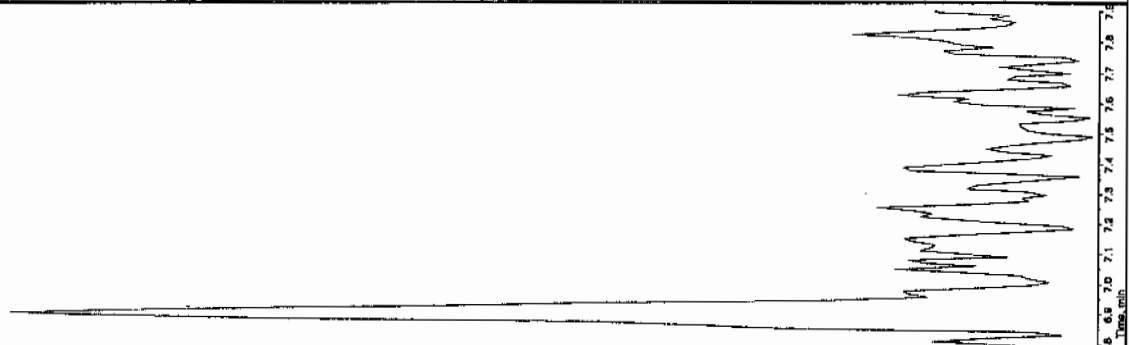
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4/1/2010  
 Acq. Date: 9/31/26 AM  
 Acq. Time: 9:31:26 AM  
 Modified: No



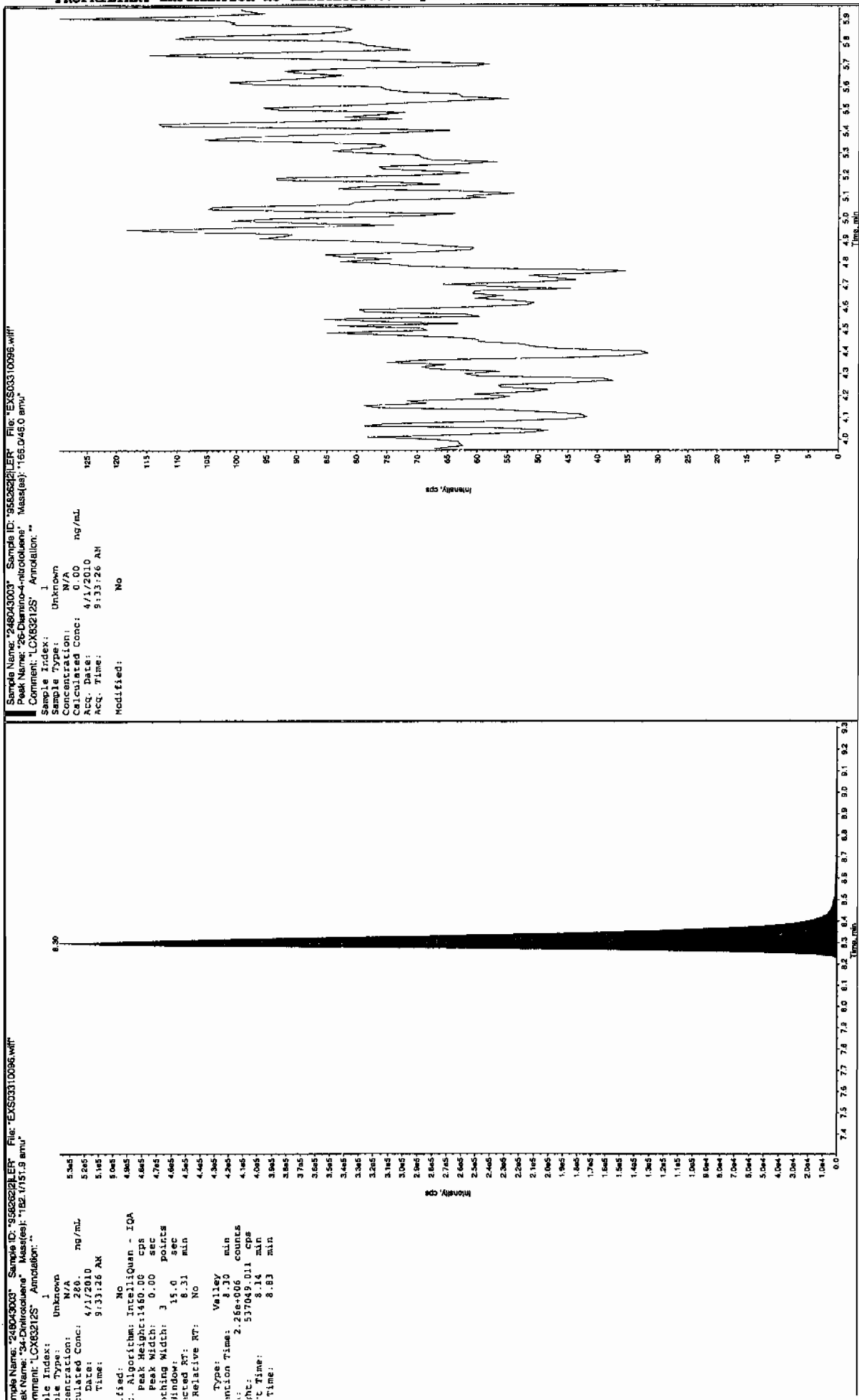
Jan 4/5/10

Sample Name: "248043003" Sample ID: "95826221" File: "EXS03310096.wiff"  
 Peak Name: "95-Dinitrobenzine" Mass(es): "182.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

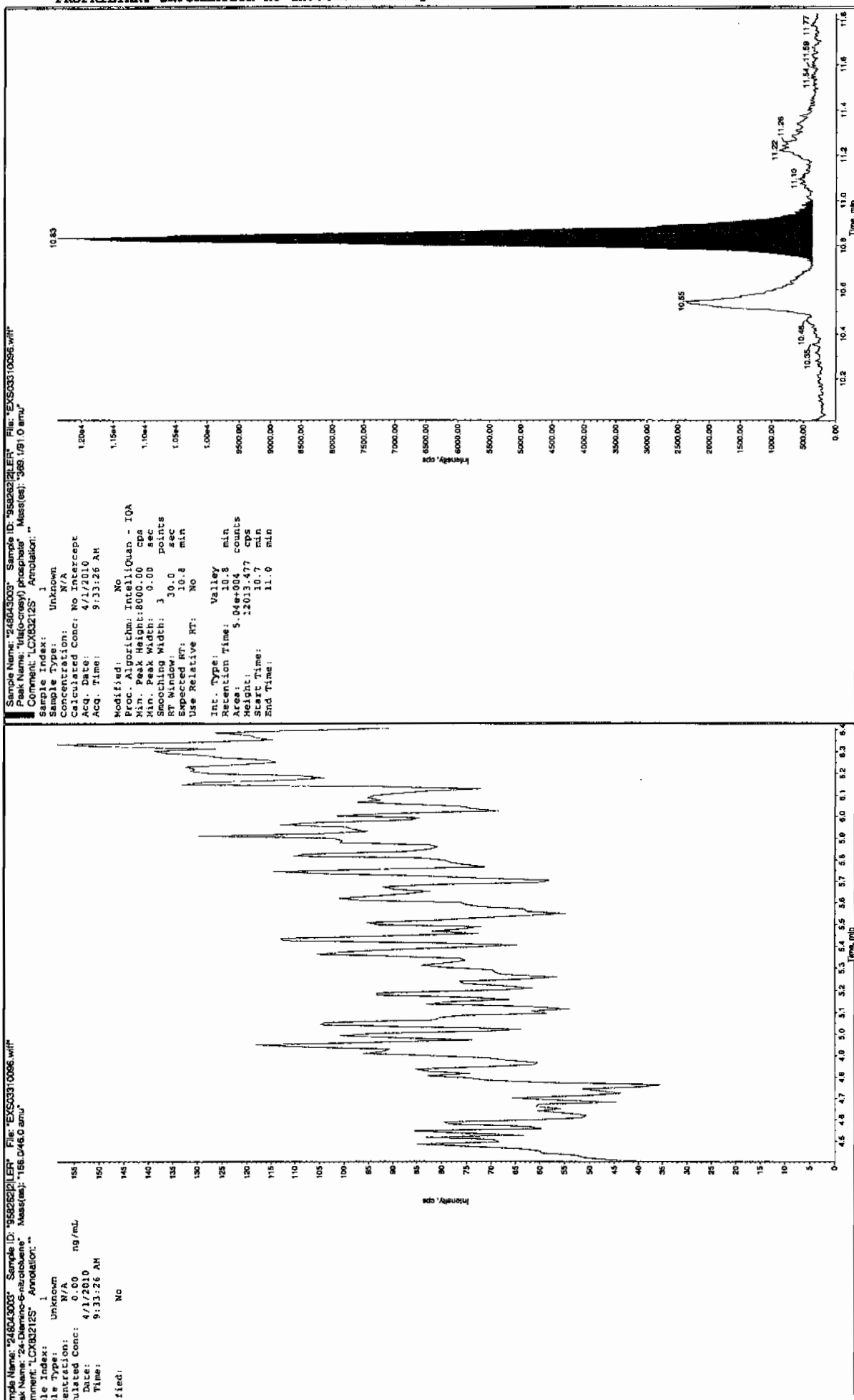
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4/1/2010  
 Acq. Date: 9/31/26 AM  
 Acq. Time: 9:31:26 AM  
 Modified: No



Method 8321A-Modified LCMSMS#4



3L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7465

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043004

Sample Amount 2

Moisture: 22.3

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412084a

Date Analyzed: 14-APR-10 08:29

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412084a

Date: 14-Apr-2010

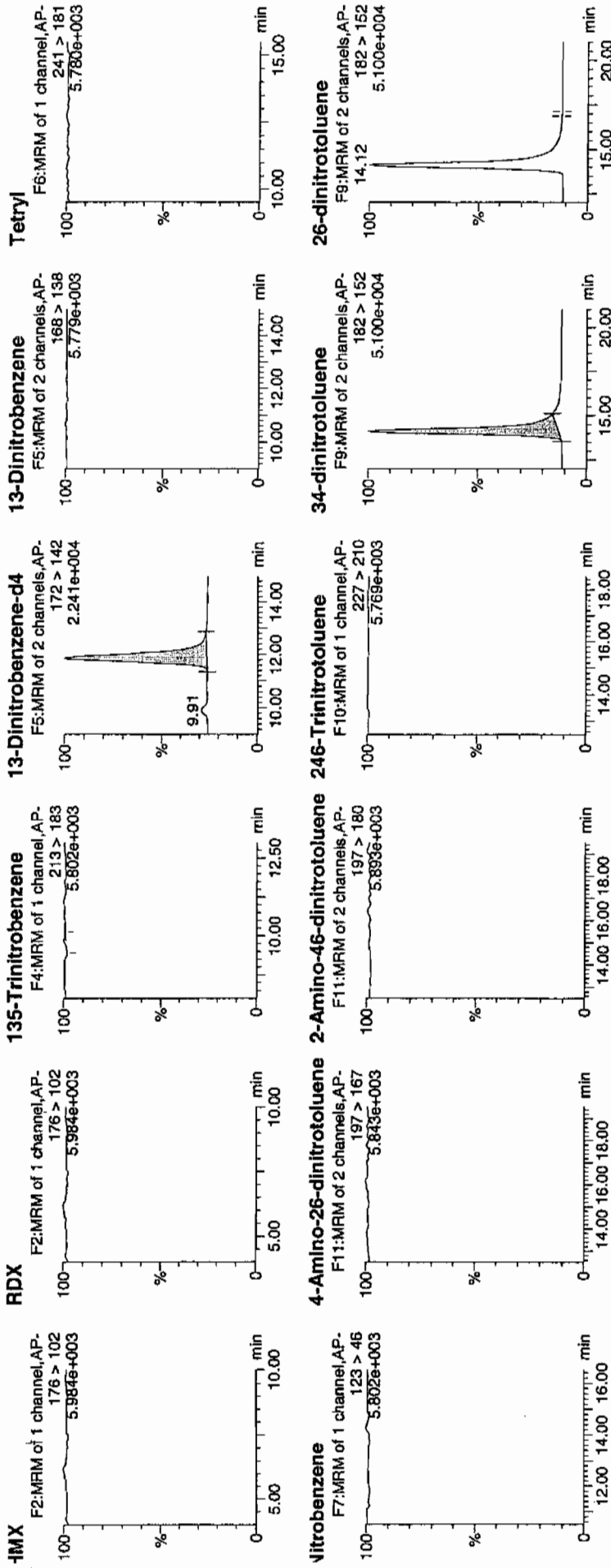
Time: 08:29:16

D: 248043004

Vial: 3:2,B

147P  
 4/15/10

147P  
 4/15/10



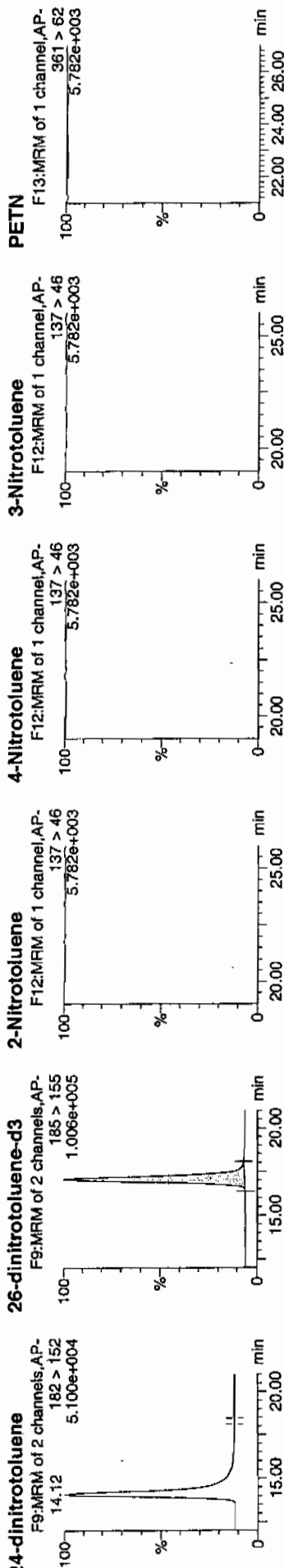
4/15/10

# Quantify Sample Report

EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 18 of 137

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



ID	Name	Trace	RT	Area	IS:Area	Abs:Resp	Response	Flags	Mod:Date	Mod:Time	Conc:mg/mL	%Rec	%Dev	SN
248043004	HMx	176 > 102		6256.872										
248043004	RDX	176 > 102		6256.872										
248043004	135-Trinitrobenzene	213 > 183		6256.872										
248043004	13-Dinitrobenzene-d4	172 > 142	11.87	6256.872					MM-	15-Apr-10	14:28:31	532.0140	106.4	6.4
248043004	13-Dinitrobenzene	166 > 138							bb					916.9
248043004	Tetryl	241 > 181												
248043004	Nitrobenzene	123 > 46												
248043004	4-Amino-26-dinitrotoluene	197 > 167												
248043004	2-Amino-46-dinitrotoluene	197 > 180												
248043004	246-Trinitrotoluene	227 > 210												
248043004	34-dinitrotoluene	182 > 152	14.12	18838.652					bb			237.2368	94.9	-5.1
248043004	26-dinitrotoluene	182 > 152							MM-	15-Apr-10	14:38:40			
248043004	24-dinitrotoluene	182 > 152							MM-	15-Apr-10	14:47:24			
248043004	26-dinitrotoluene-d3	185 > 155	17.05	38505.723					bb			550.3463	110.1	10.1
248043004	2-Nitrotoluene	137 > 46												2383.2
248043004	4-Nitrotoluene	137 > 46												
248043004	3-Nitrotoluene	137 > 46												
248043004	PETN	361 > 62												



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7465

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043004

Sample Amount 2

Moisture: 22.3

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310097.wiff

Date Analyzed: 01-APR-10 09:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

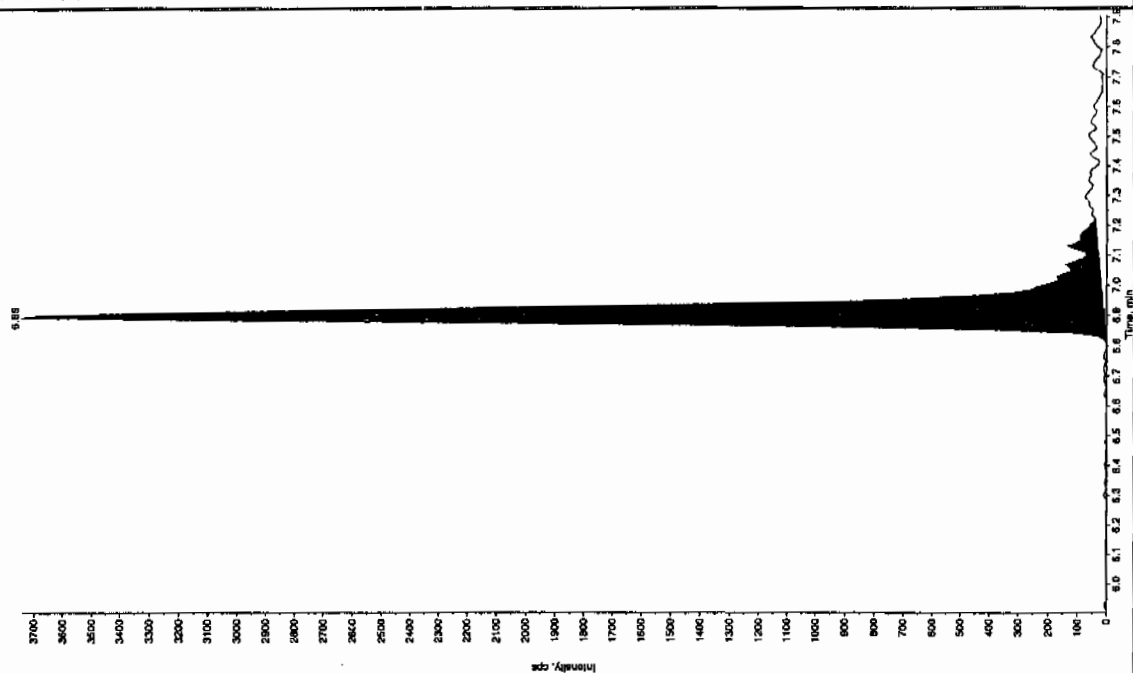
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

San 4/15/10

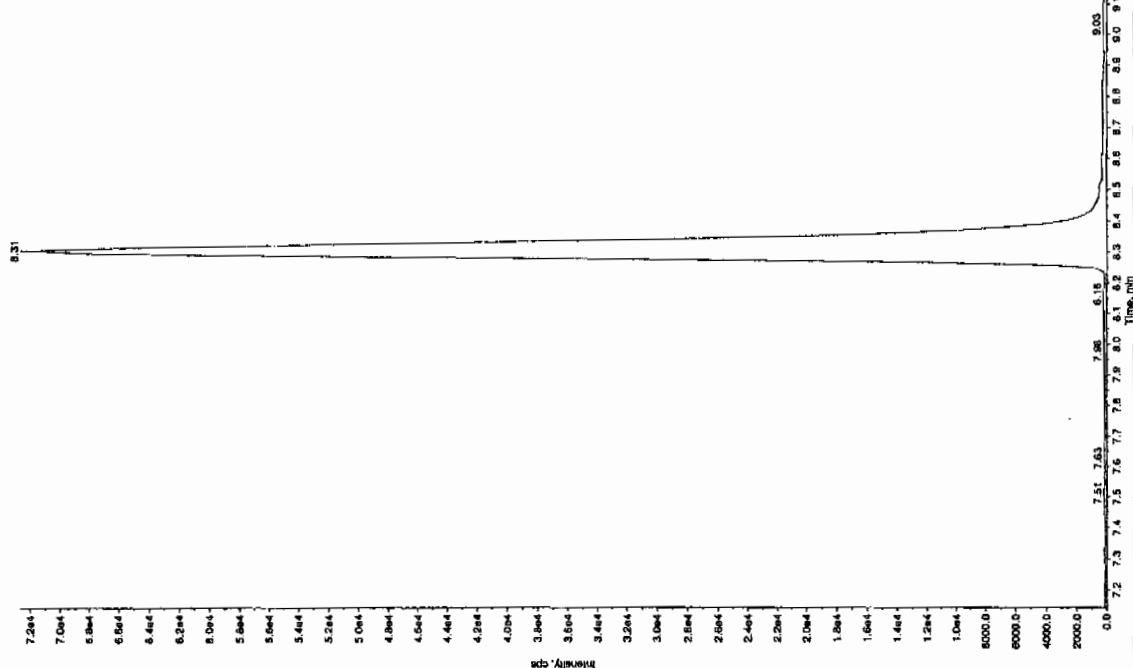
Sample Name: "248043004" Sample ID: "958282121" File: "EXS03310067.wif"  
 Peak Name: "TATP" Mass(es): "257.2/204.9 amu"  
 Comment: "LCX832125" Annotation: ""

File Index: 1  
 Sample Type: Unknown  
 Concentration: 29.9 ng/mL  
 Date: 4/1/2010  
 Time: 9:49:09 AM  
 Method: Intelliquan - IQA  
 Peak Height: 2500.00 cps  
 Peak Width: 0.00 sec  
 Window Width: 30.0 points  
 Window: 30.0 sec  
 Retention Time: 6.89 min  
 Relative RT: No  
 Type: Valley  
 Retention Time: 6.89 min  
 Intensity: 1.59e+004 counts  
 Time: 3732.200 cps  
 Time: 6.81 min  
 Time: 7.22 min



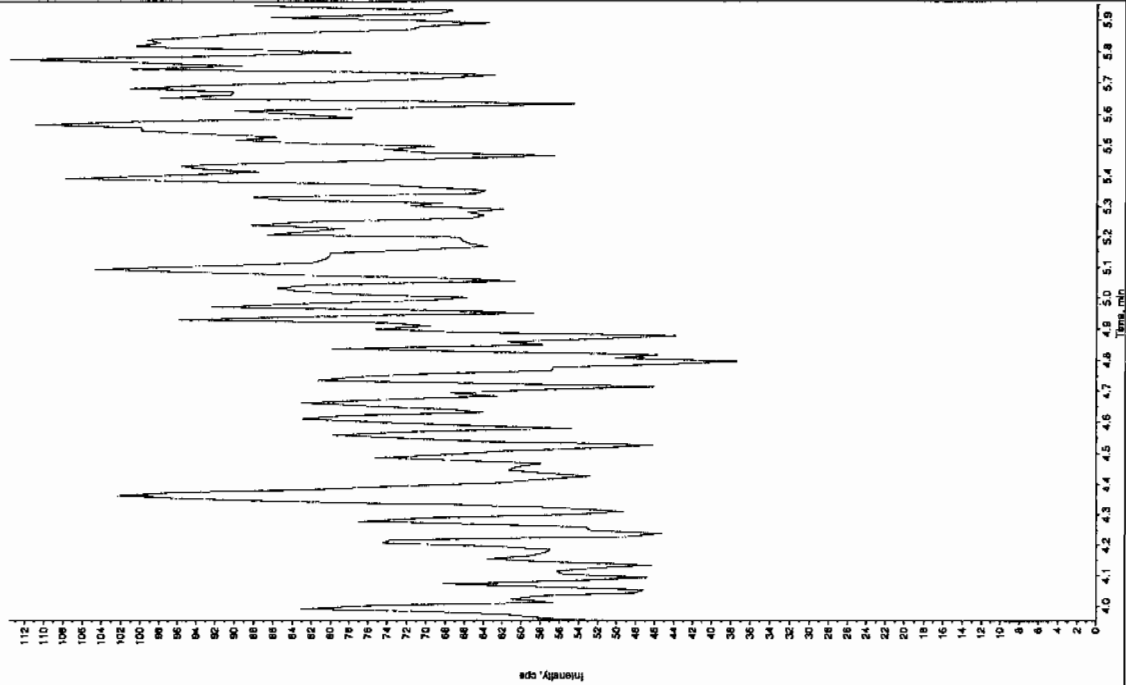
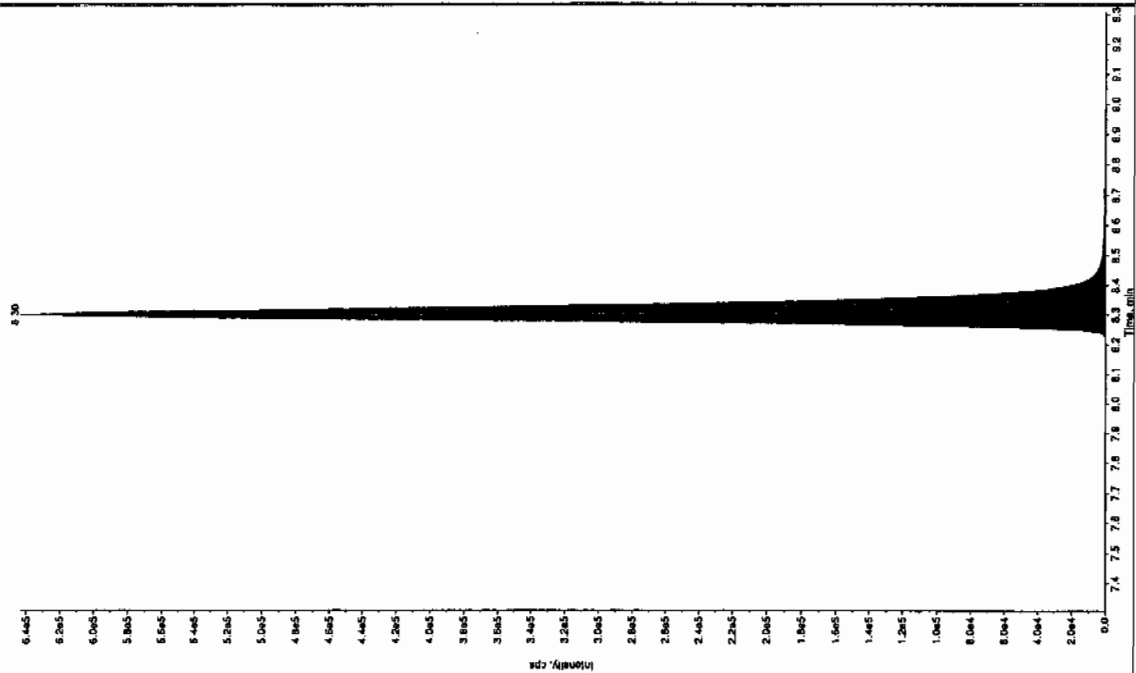
Sample Name: "248043004" Sample ID: "958282121" File: "EXS03310067.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

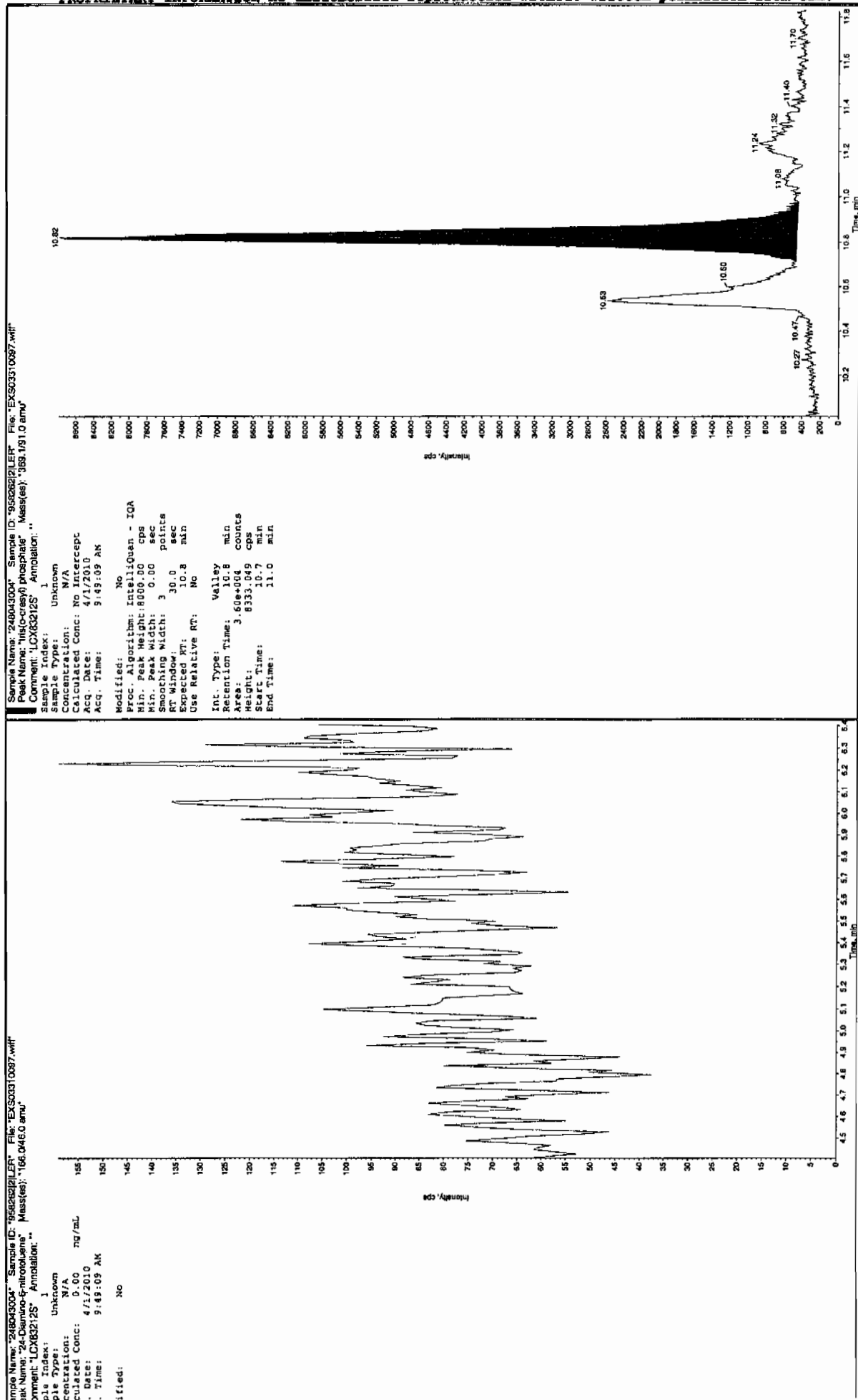
File Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 mg/mL  
 Date: 4/1/2010  
 Time: 9:49:09 AM  
 Method: Intelliquan - IQA  
 Peak Height: 2500.00 cps  
 Peak Width: 0.00 sec  
 Window Width: 30.0 points  
 Window: 30.0 sec  
 Retention Time: 6.89 min  
 Relative RT: No  
 Type: Valley  
 Retention Time: 6.89 min  
 Intensity: 1.59e+004 counts  
 Time: 3732.200 cps  
 Time: 6.81 min  
 Time: 7.22 min



Sample Name: "248043004" Sample ID: 958262[2]LER File: EXS0310097.wif  
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.046.0 amu"

Sample Name:	1	Parameter:
Reagent Lot:	Unknown	
Concentration:	N/A	
Calculated Conc:	308	
Date:	4/12/2010	
Time:	9:49:09 AM	
Method:	No	
Algorithm:	InterQuan - IQR	
Peak Width:	166.00 cps	
Peak Width:	3.00 sec	
Threshold Width:	15.0 sec	
Window:	8.31 min	
Relucted RT:	No	
Type:	Valley	
Integration Time:	2.48e+003 counts	
Height:	643598.501 cps	
Time:	8.20 min	
Time:	8.67 min	





EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7473

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043005

Sample Amount 2

Moisture: 23.6

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412089a

Date Analyzed: 14-APR-10 10:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value	X	<u>Concentrated Extract Volume</u>	X	Dilution Factor
		<u>Sample Amount</u>		

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412089a

Date: 14-Apr-2010

Time: 10:56:43

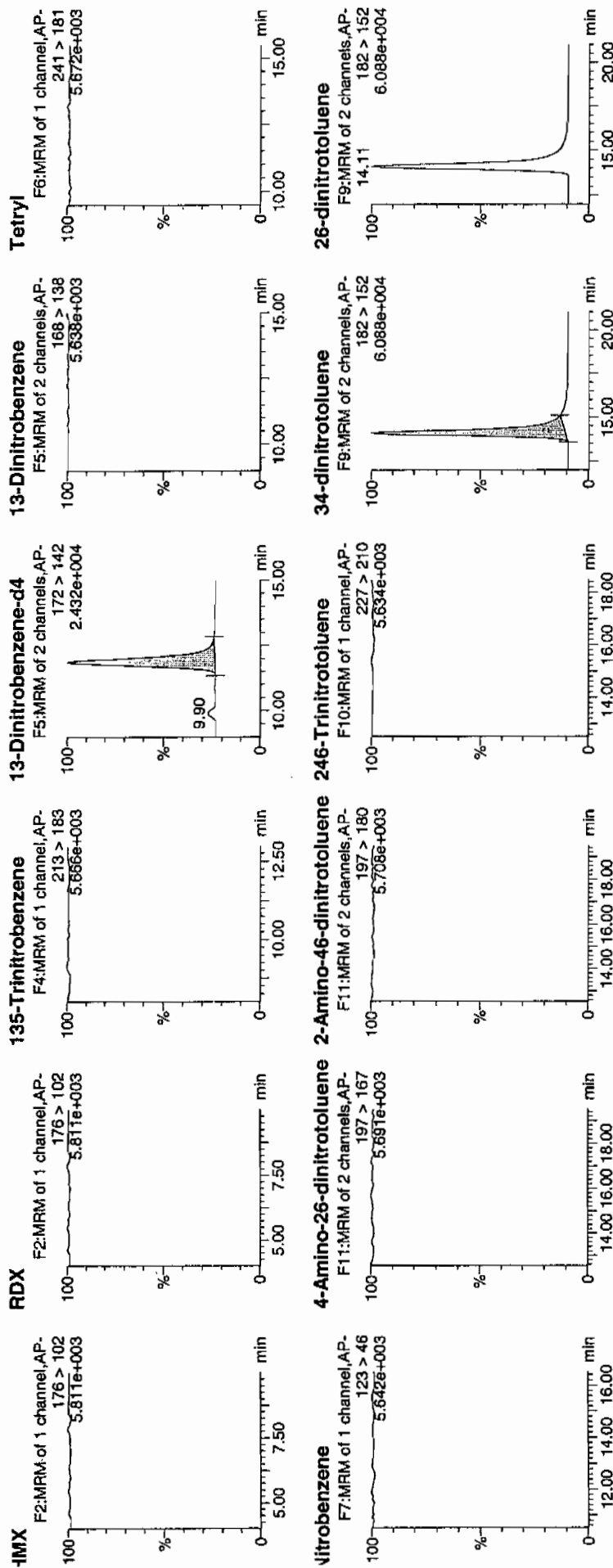
D: 248043005

/ial: 3:2,C

4.571  
4/15/10

LAU/98866/SOL/12/

Page 1682 of 2211



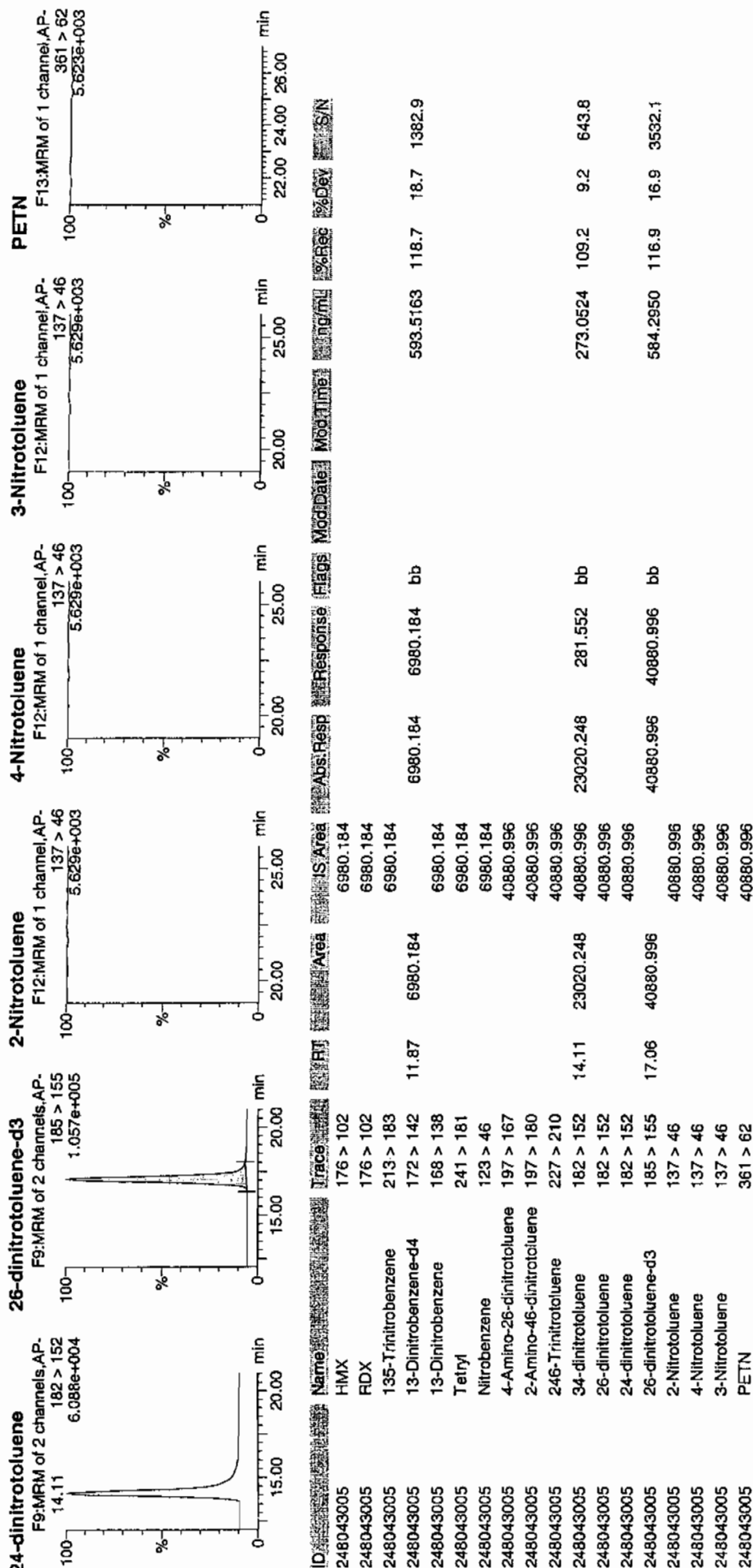
4/15/10

# Quantify Sample Report

3EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 28 of 137

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7473

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043005

Sample Amount 2

Moisture: 23.6

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310098.wiff

Date Analyzed: 01-APR-10 10:04

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



San 415710

Sample Name: "248043005" Sample ID: "95828221LER" File: "EXS0310098.wif"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCX832125" Annotation: "

Sample Index: 1

Sample Type: Unknown

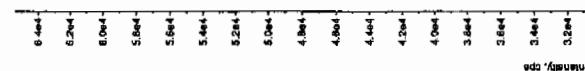
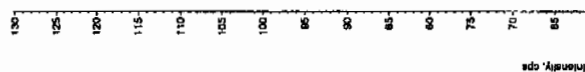
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/17/2010

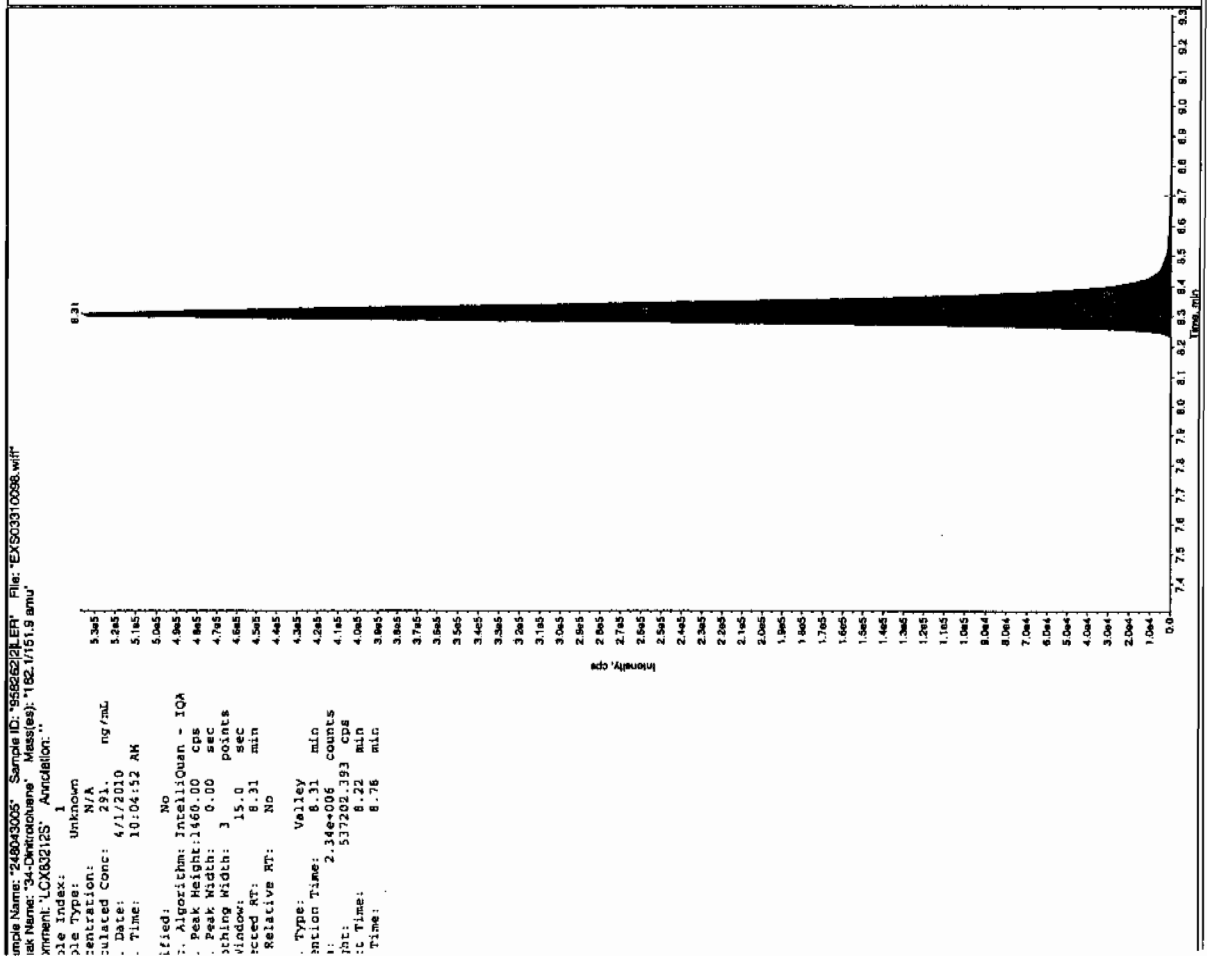
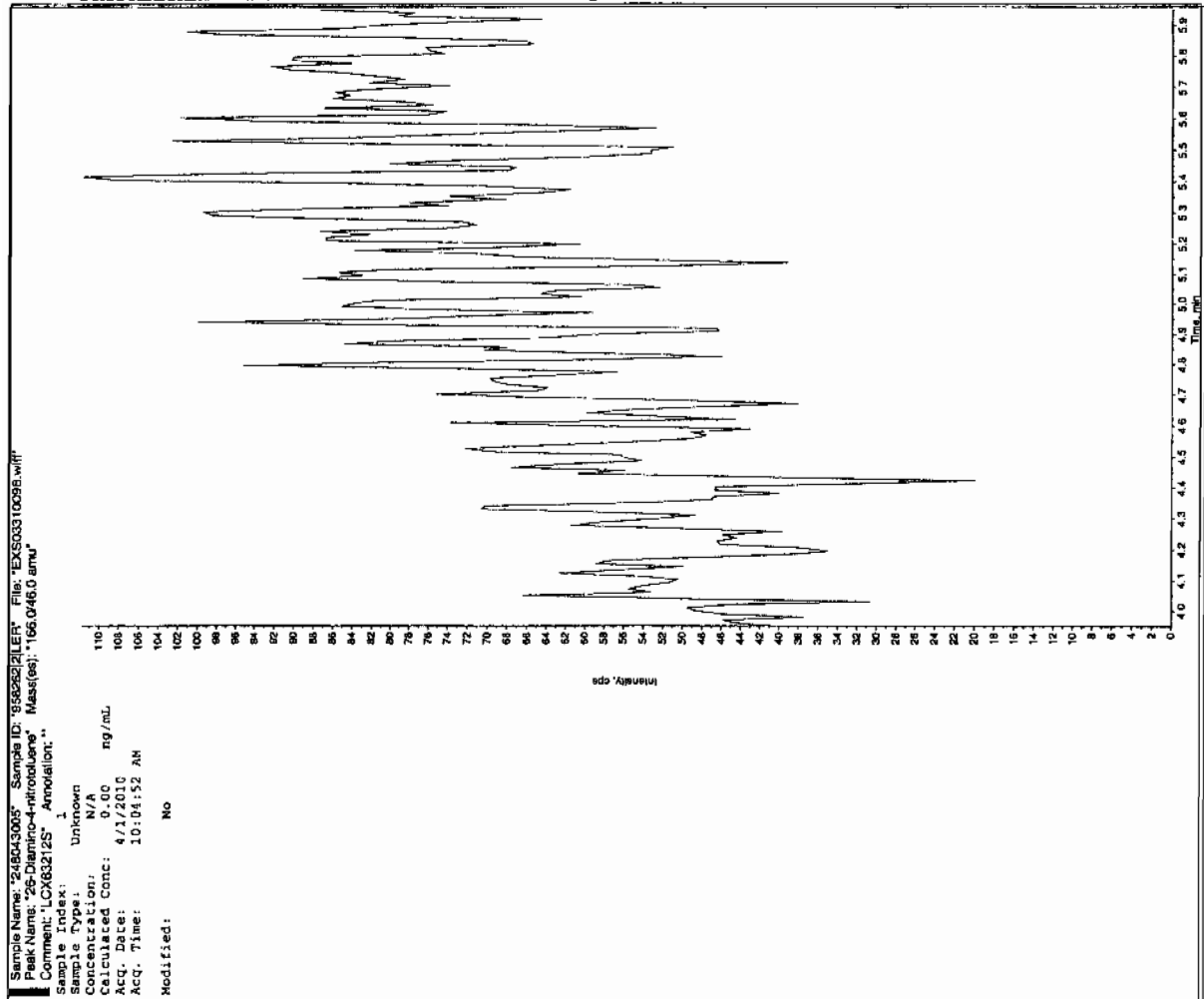
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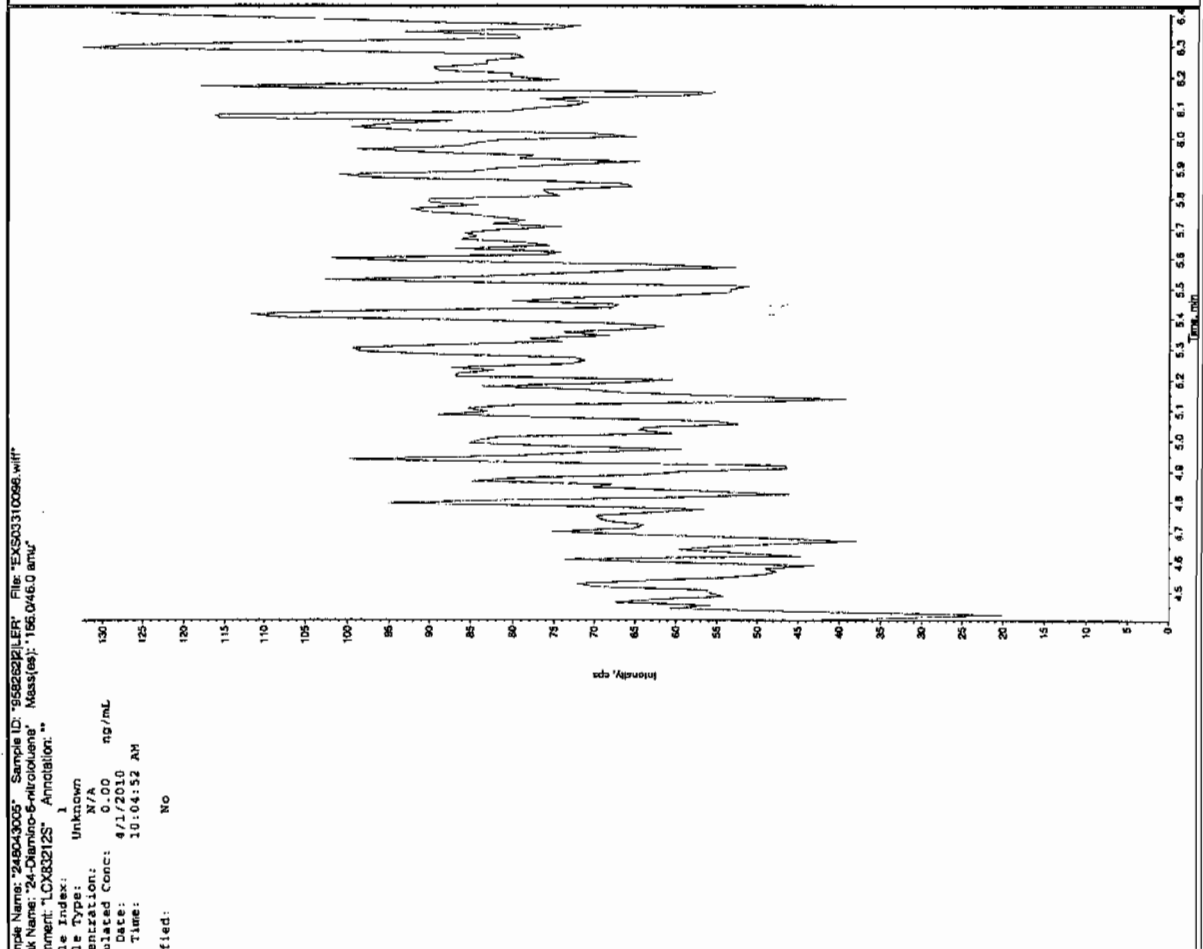
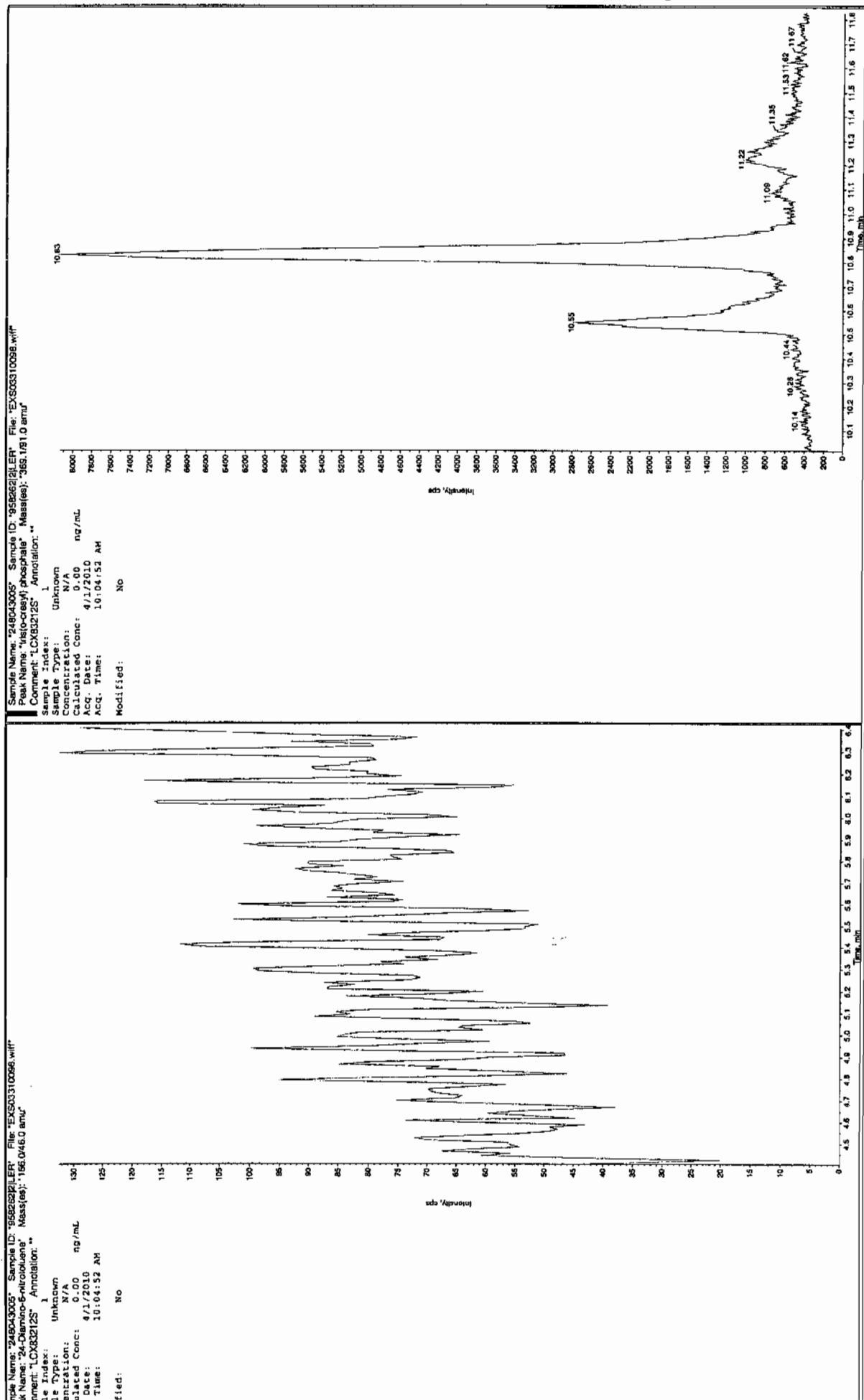
Modified: NO



IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Amended





IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7471

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043006

Sample Amount 2

Moisture: 29.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412108a

Date Analyzed: 14-APR-10 20:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Printed: Thu Apr 15 14:53:43 2010, Page 65 of 137

Quantify Sample Report  
 3EL Laboratories, LLC / Analyst : Michael A. Penny  
 Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Sample Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0412108a

Date: 14-Apr-2010

Time: 20:17:20

ID: 248043006

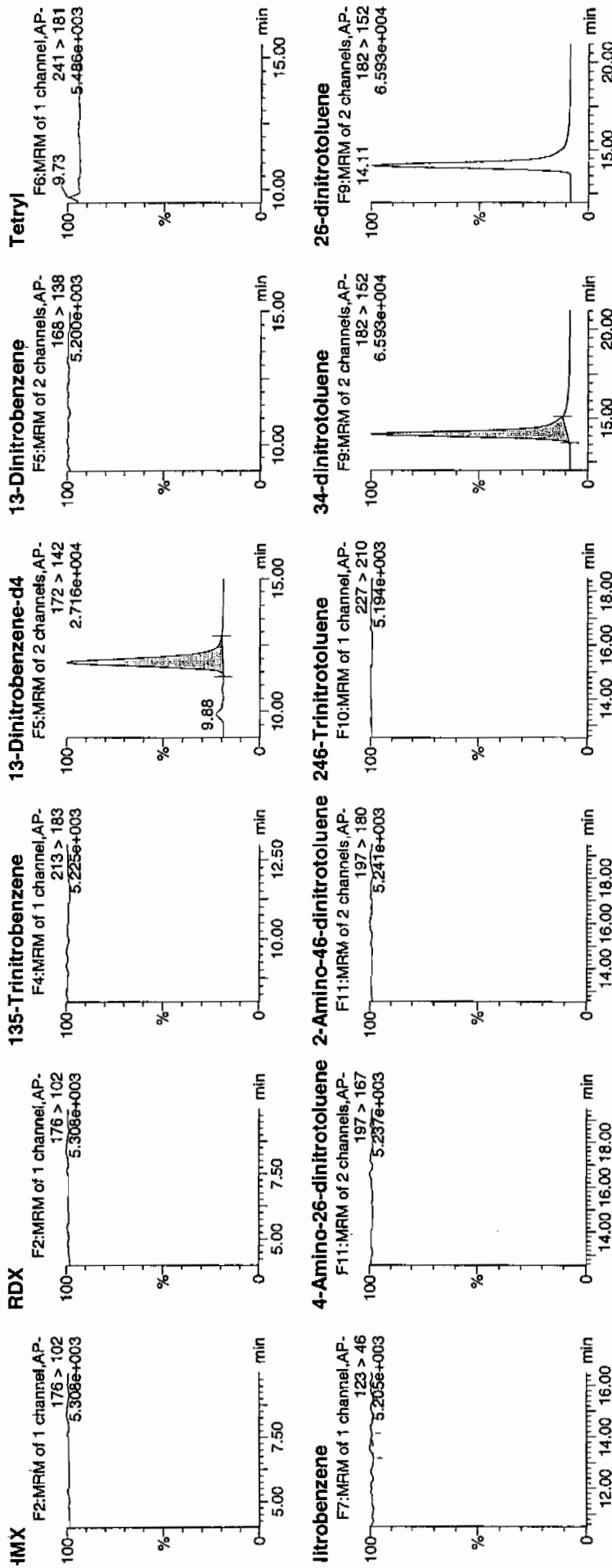
/lal: 3:2,D

P2841

Comments By 04/15/10

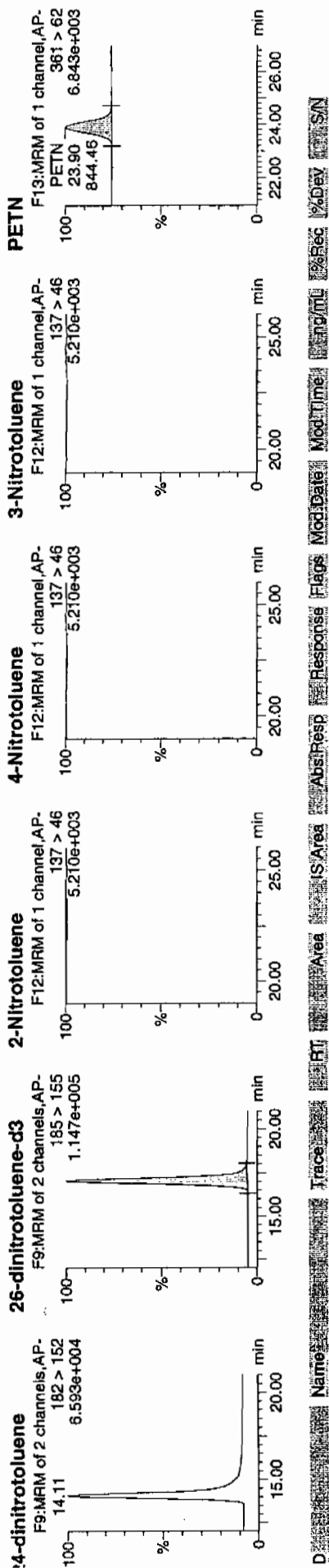
4/15/10

121



4/15/10

Dataset: C:\MASSLYNX\New\_Exp\PROJ041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Area/mu	%Rec	%Dev	S/N
48043006	HMZ	176 > 102		8243.421	8243.421									
48043006	RDX	176 > 102		8243.421	8243.421									
48043006	135-Trinitrobenzene	213 > 183		8243.421	8243.421									
48043006	13-Dinitrobenzene-d4	172 > 142	11.87	8243.421	8243.421	8243.421	8243.421	bb	MM-	15-Apr-10	14:31:00	700.9278	140.2	1524.6
48043006	13-Dinitrobenzene	168 > 138		8243.421	8243.421									
48043006	Tetryl	241 > 181		8243.421	8243.421									
48043006	Nitrobenzene	123 > 46		45132.500	45132.500									
48043006	4-Amino-26-dinitrotoluene	197 > 167		45132.500	45132.500									
48043006	2-Amino-46-dinitrotoluene	197 > 180		45132.500	45132.500									
48043006	246-Trinitrotoluene	227 > 210		45132.500	45132.500									
48043006	34-dinitrotoluene	182 > 152	14.11	25043.092	45132.500	25043.092	277.440	bb				269.0643	107.6	7.6
48043006	26-dinitrotoluene	182 > 152		45132.500	45132.500									
48043006	24-dinitrotoluene	182 > 152		45132.500	45132.500									
48043006	26-dinitrotoluene-d3	185 > 155	17.04	45132.500	45132.500	45132.500	45132.500	bb				645.0600	129.0	29.0
48043006	2-Nitrotoluene	137 > 46		45132.500	45132.500									
48043006	4-Nitrotoluene	137 > 46		45132.500	45132.500									
48043006	3-Nitrotoluene	137 > 46		45132.500	45132.500									
48043006	PETN	361 > 62	23.90	844.464	45132.500	844.464	9.355	bb				0.0000		271.2

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7471

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043006

Sample Amount 2

Moisture: 29.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310099.wiff

Date Analyzed: 01-APR-10 10:20

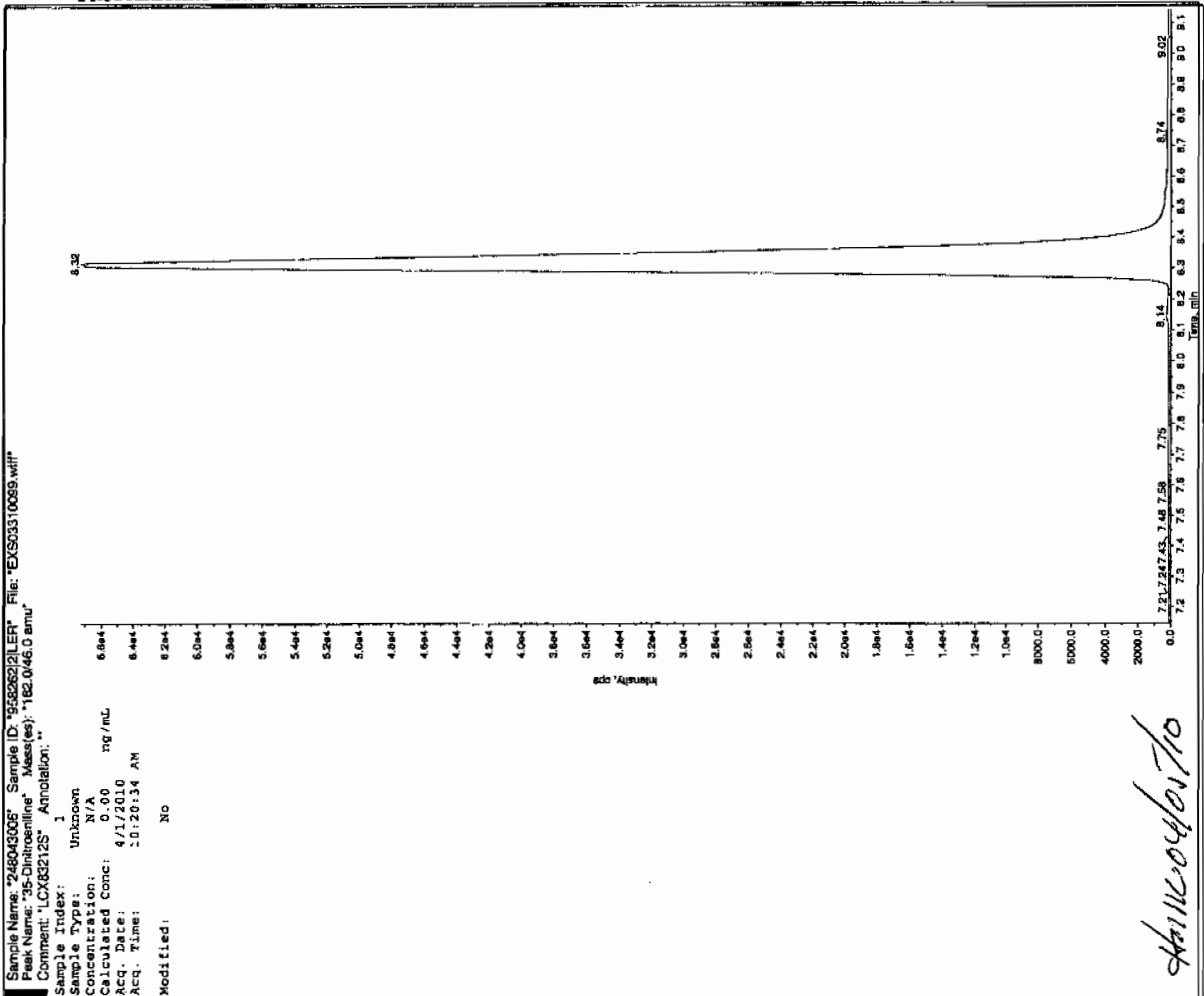
Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

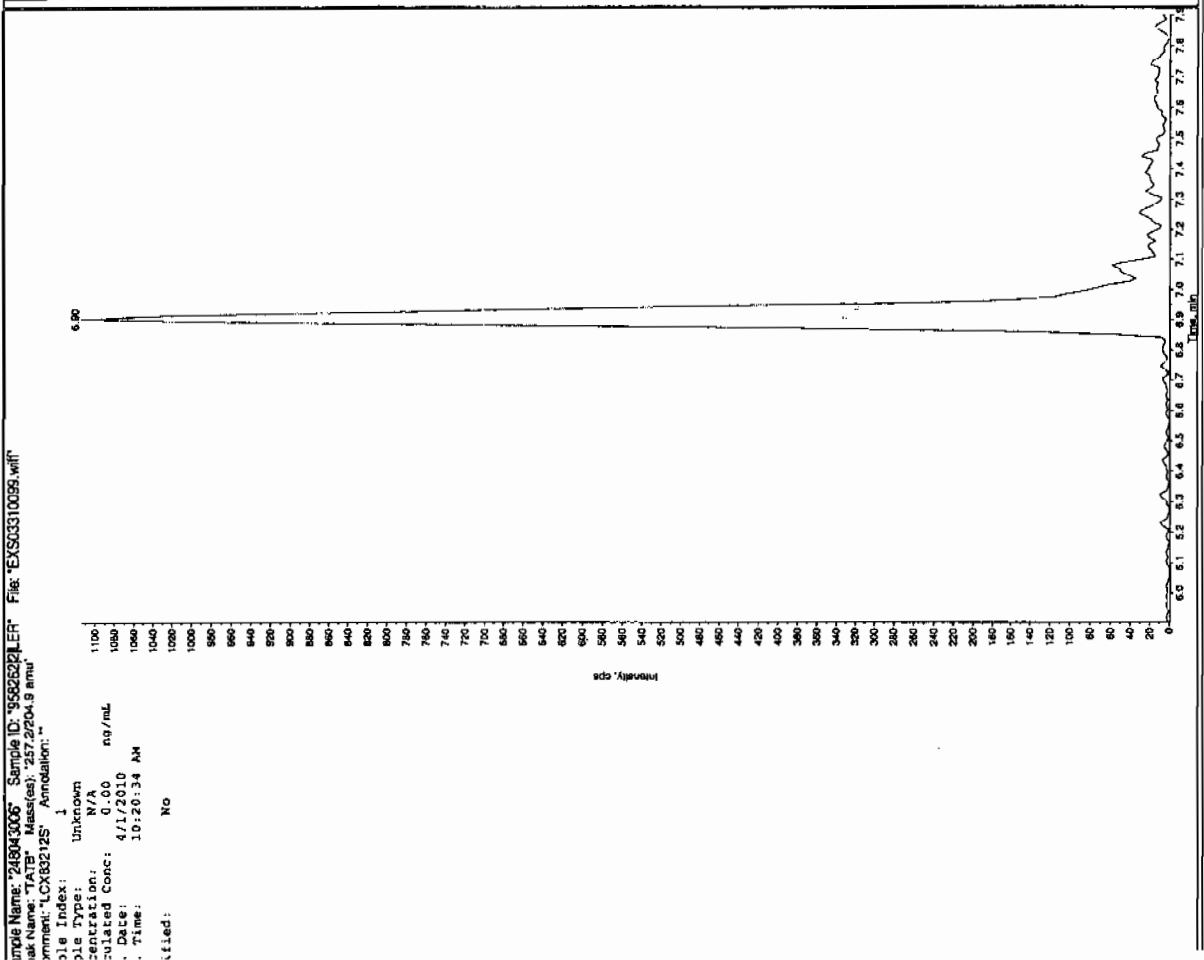
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

See 41510

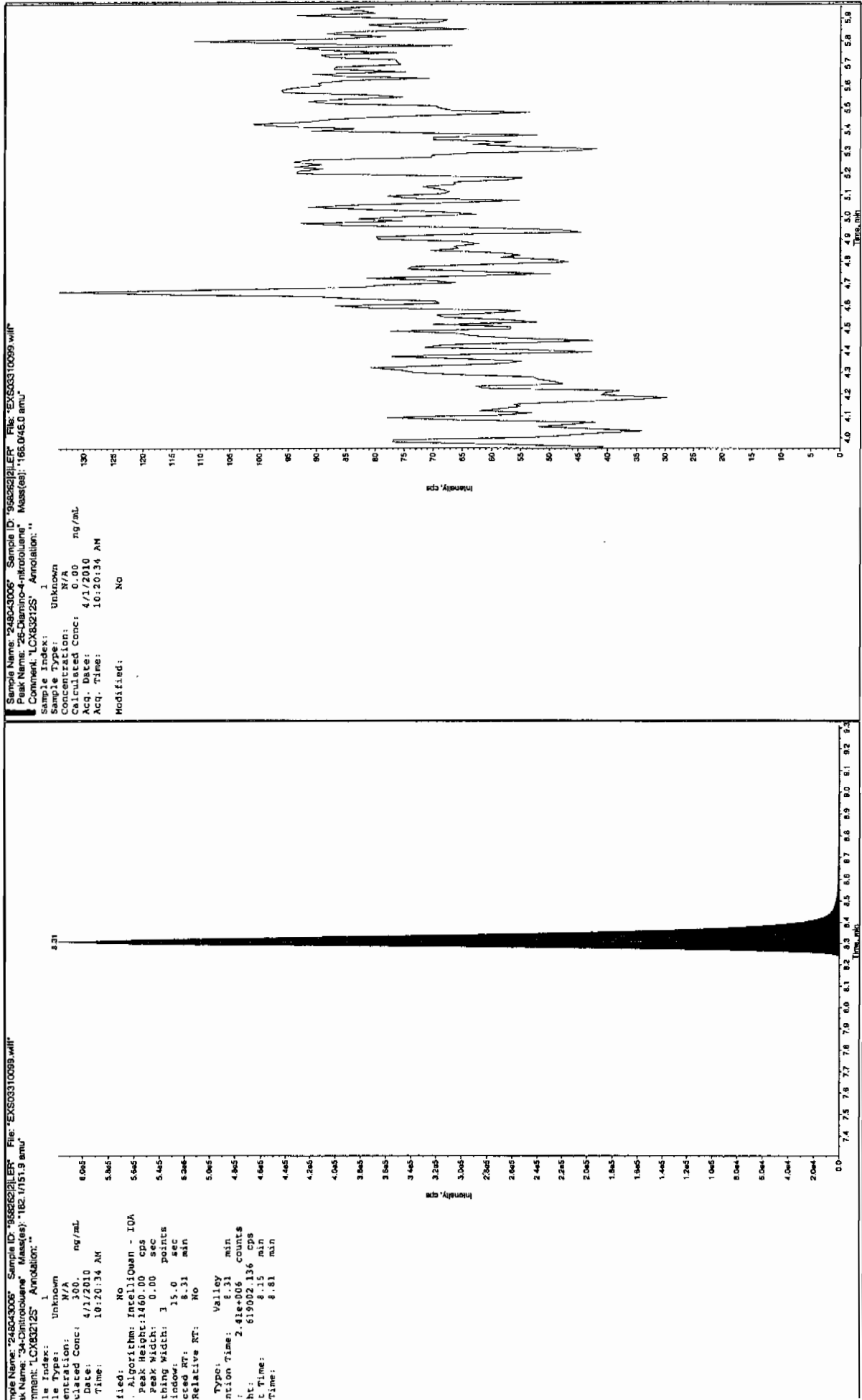


Handwritten signature/initials



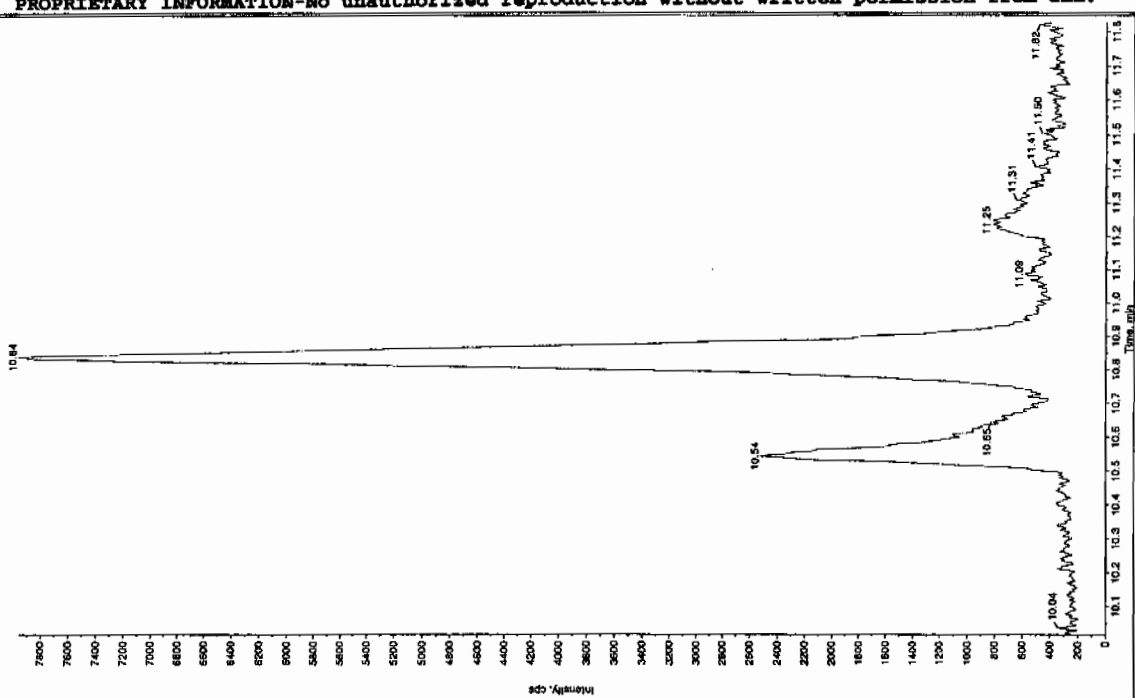
IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





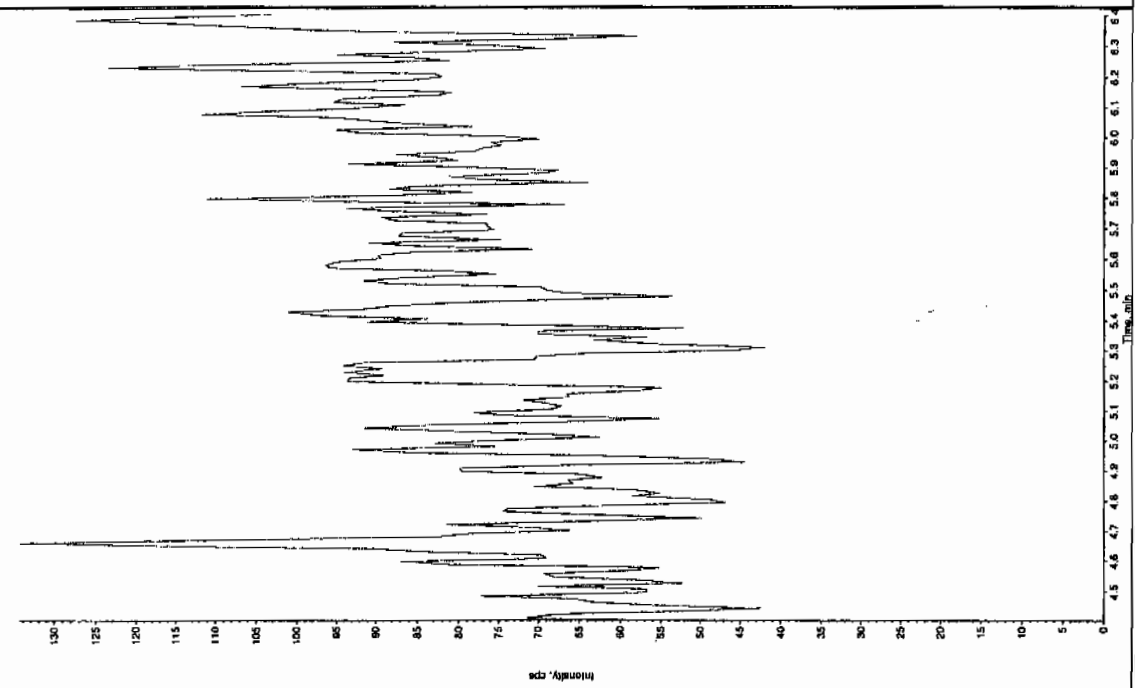
Sample Name: "246043006" Sample ID: "958262121.ER" File: "EX503310099.wif"  
 Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.191.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 10:20:34 AM  
 Modified: No



Sample Name: "246043006" Sample ID: "958262121.ER" File: "EX503310099.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 10:20:34 AM  
 Modified: No



IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7472

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043007

Sample Amount 2

Moisture: 21.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412092a

Date Analyzed: 14-APR-10 12:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Printed: Thu Apr 15 14:53:43 2010, Page 33 of 137

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412092a

Date: 14-Apr-2010

Time: 12:25:18

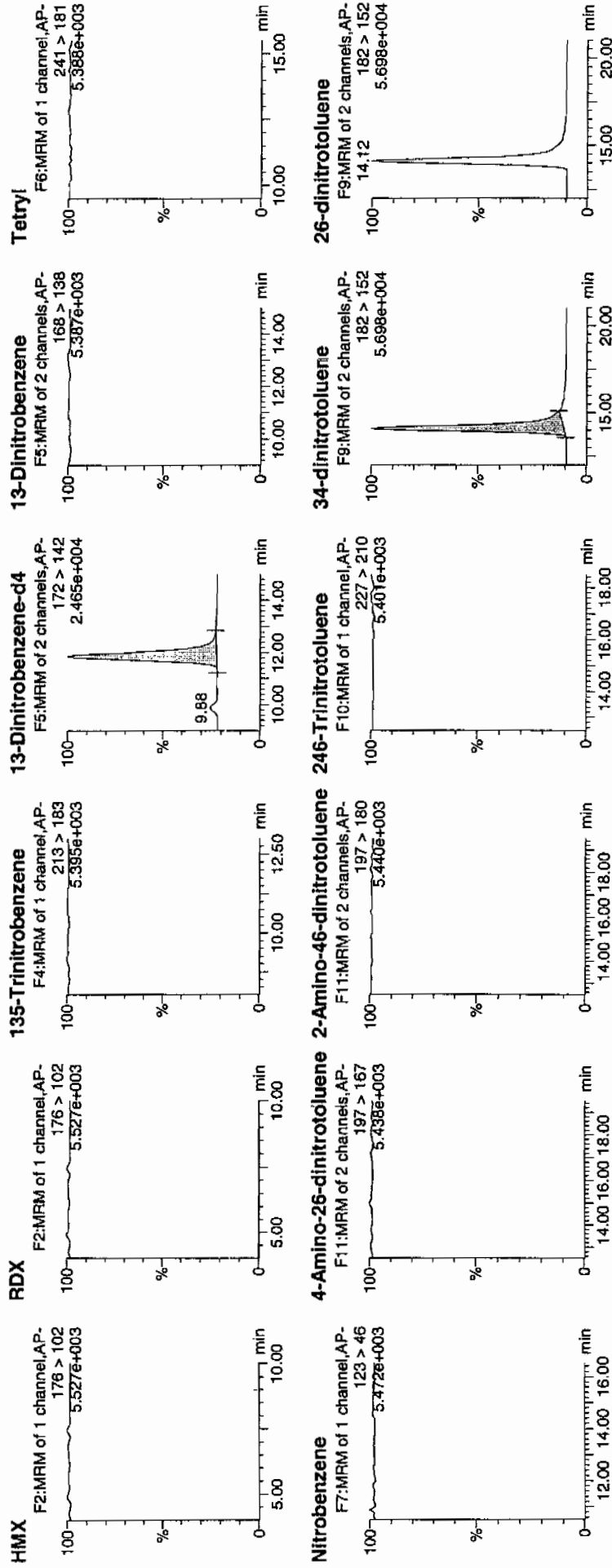
ID: 248043007

Vial: 3:2,E

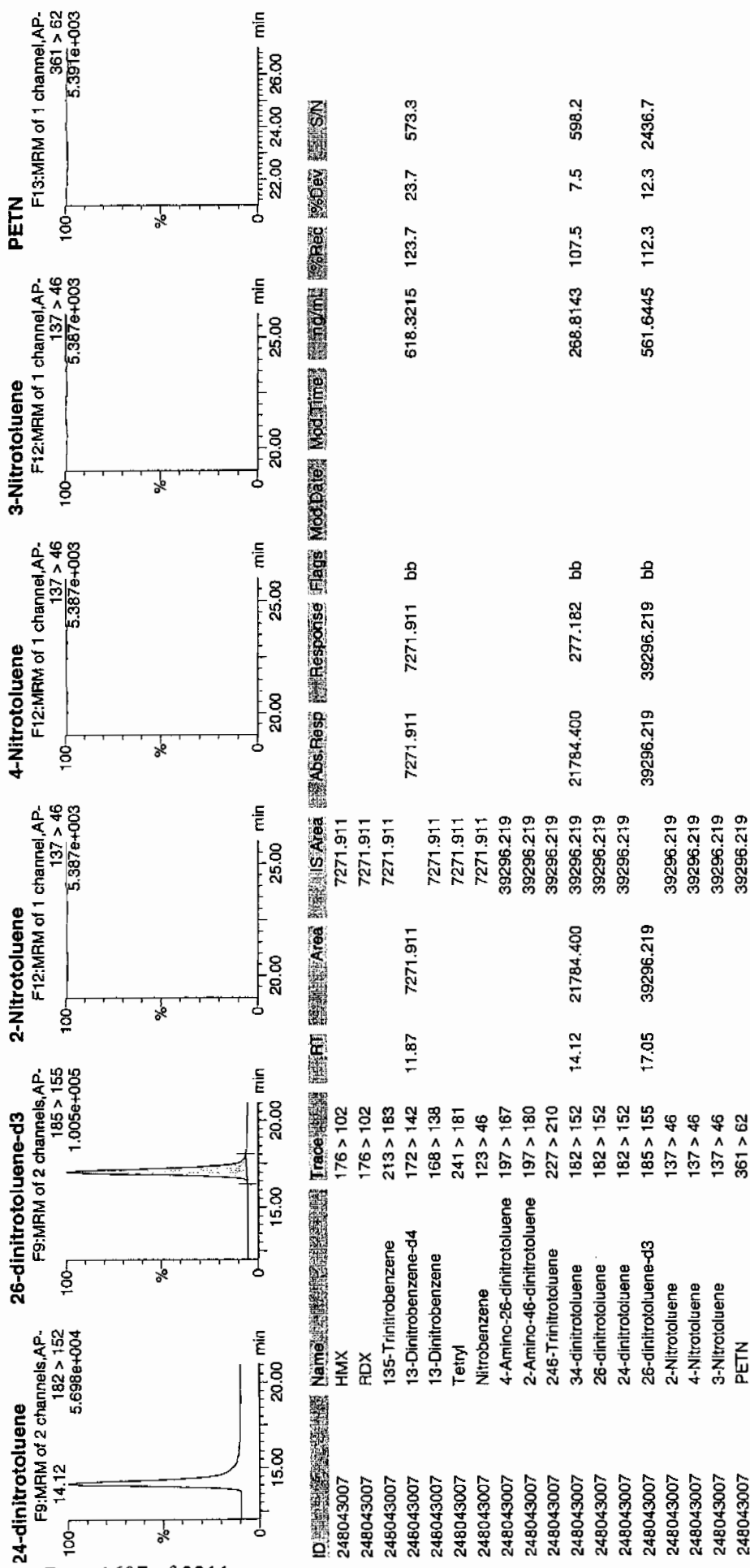
14/5/10  
4/15/10

ANALYST: [Signature]  
953662/8022/21

Page 1696 of 2211



4/15/10



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1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7472

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043007

Sample Amount 2

Moisture: 21.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310103.wiff

Date Analyzed: 01-APR-10 11:23

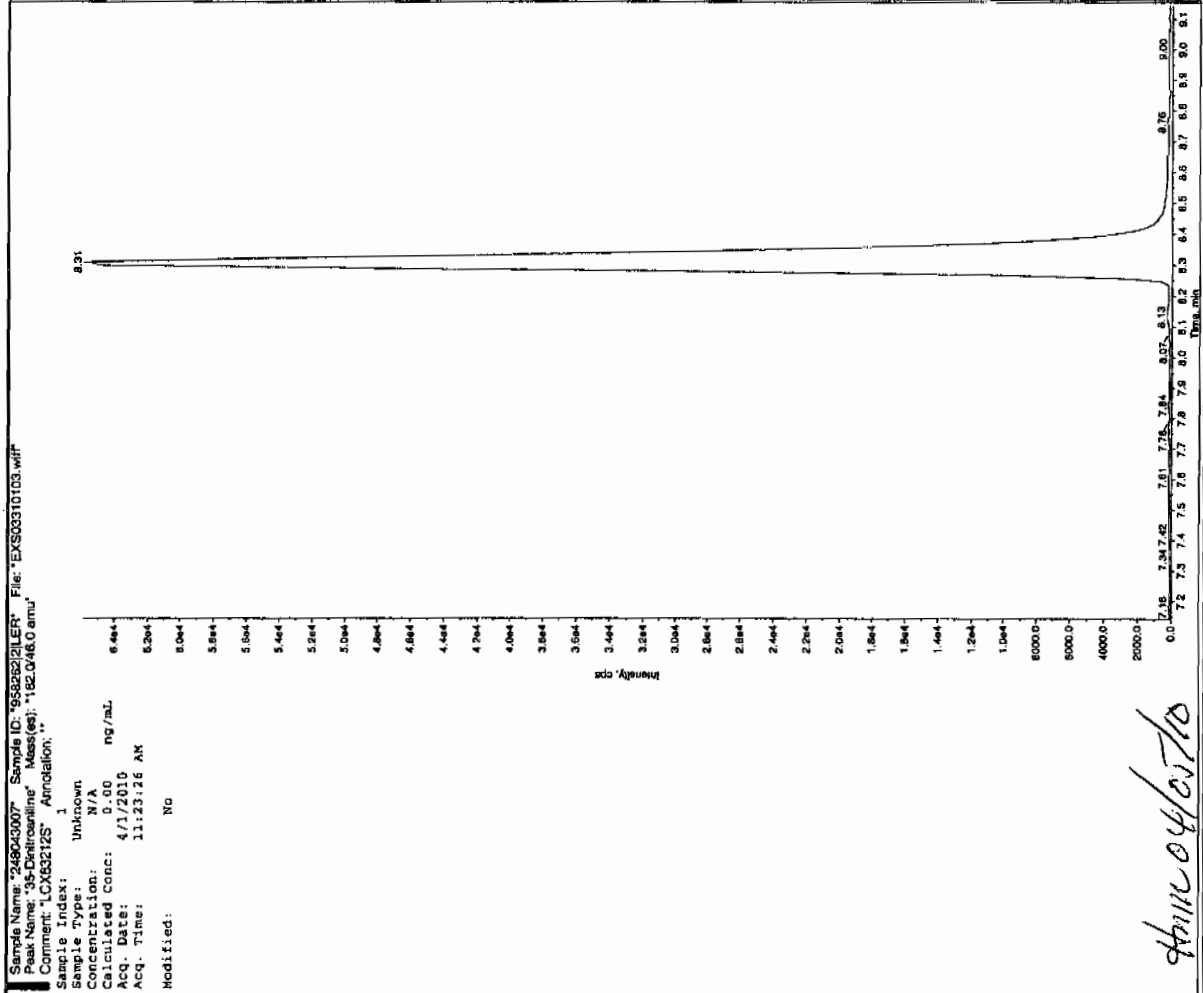
Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

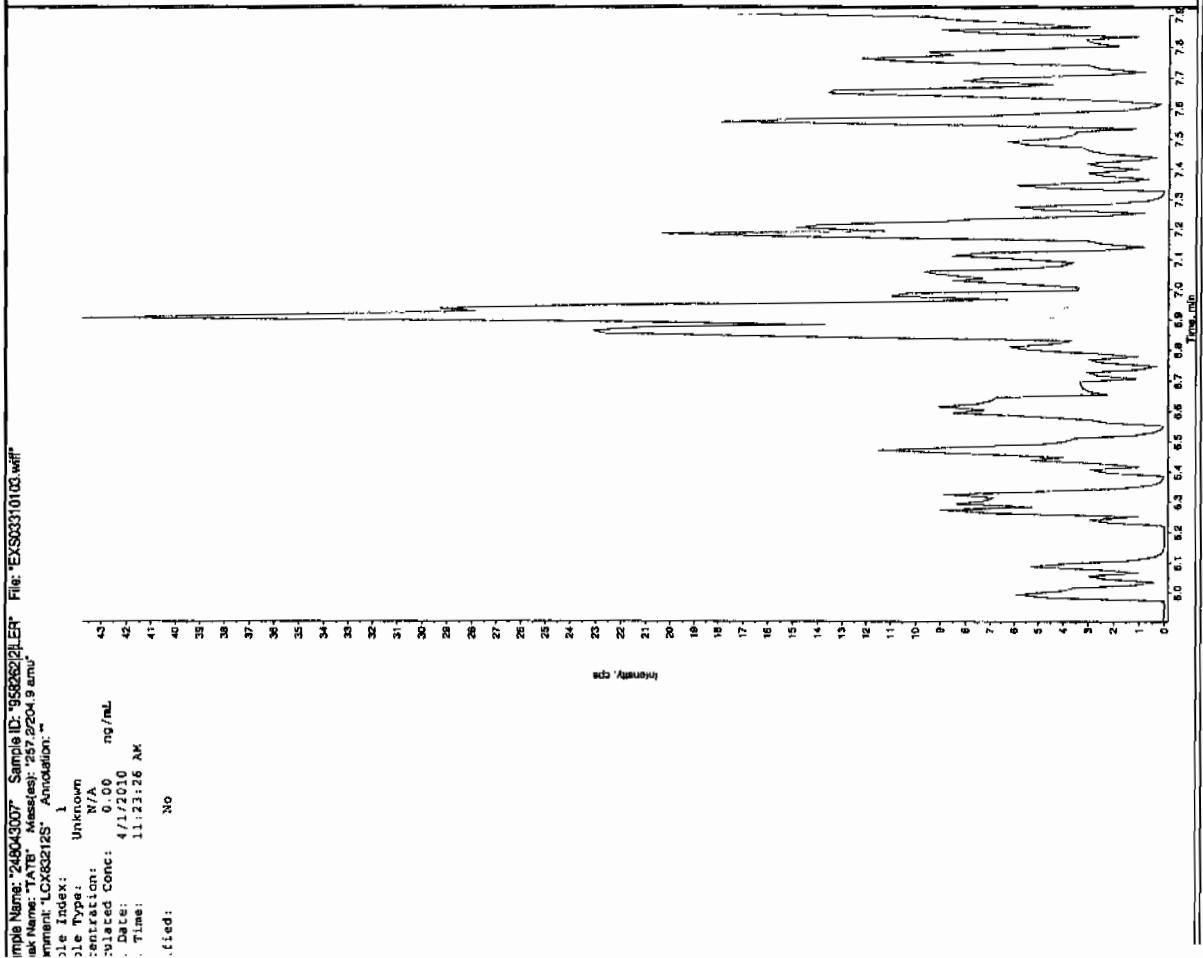
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

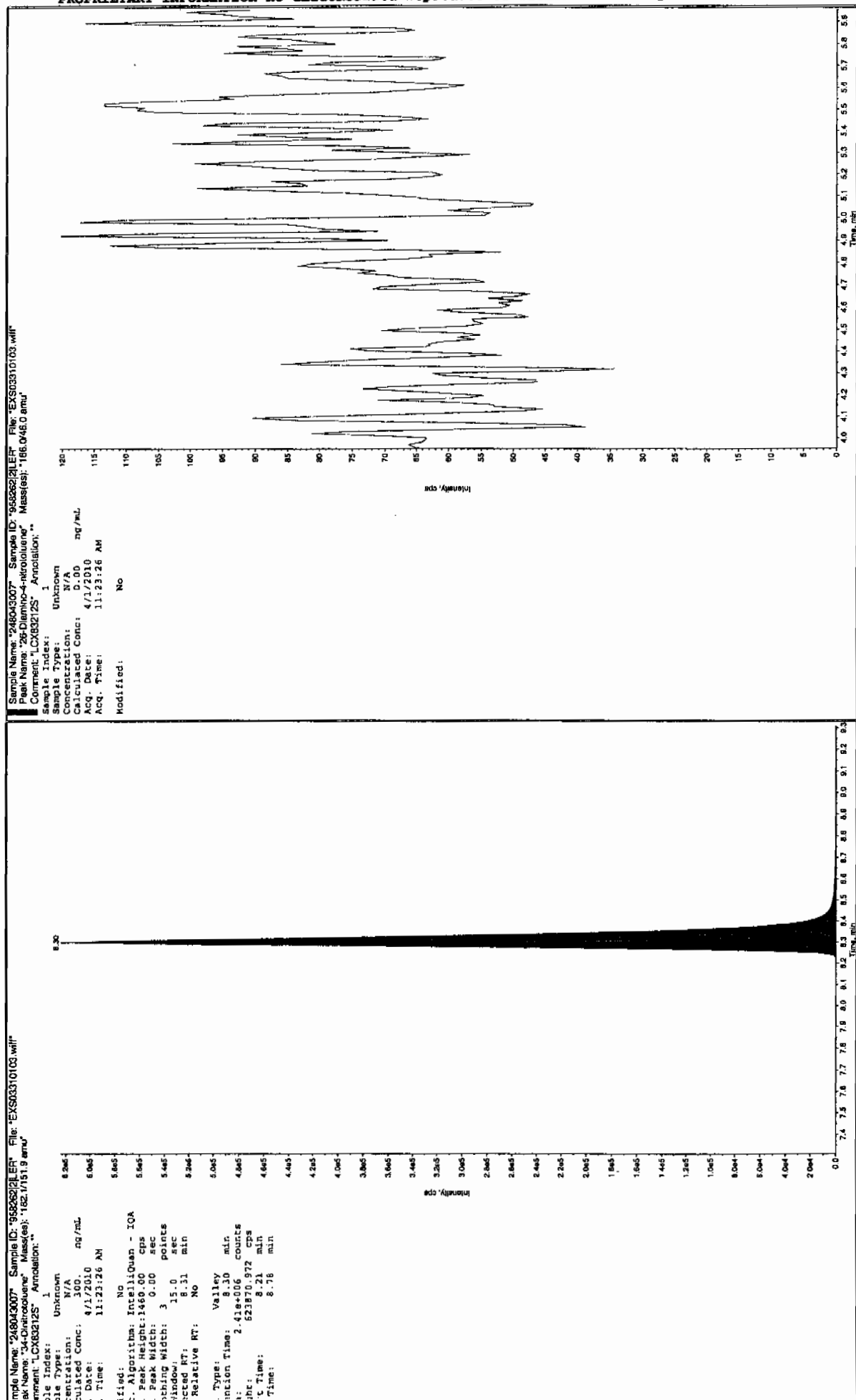
Scan 415710



Scan 0415710



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

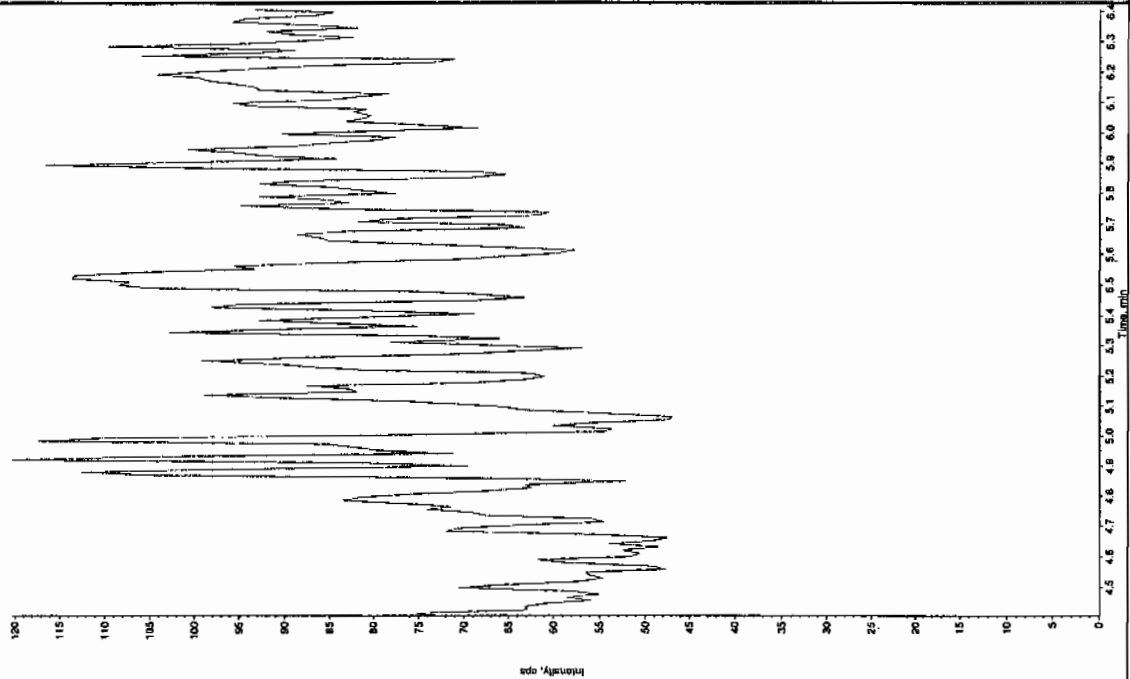


GL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



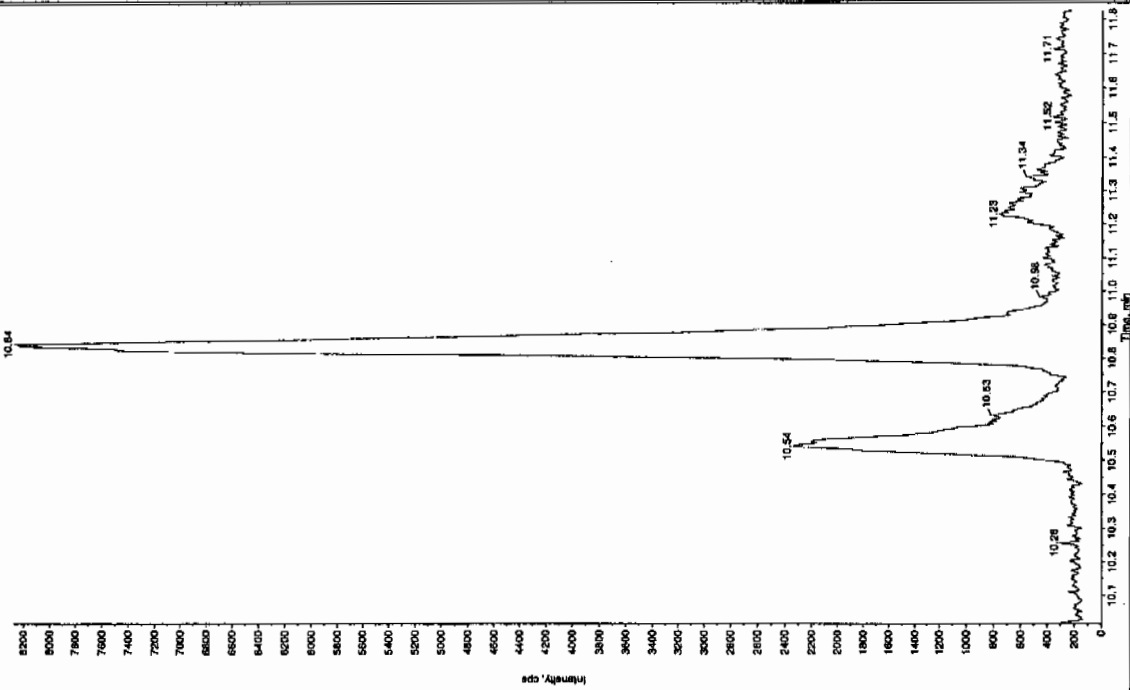
Sample Name: "246043007" Sample ID: "958262121" File: "EXS03310103.wif"  
 Peak Name: "24-Diamino-6-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: ""  
 Sample Index: 1

Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 11:23:26 AM  
 Modified: No



Sample Name: "246043007" Sample ID: "958262121" File: "EXS03310103.wif"  
 Peak Name: "10-(p-cresyl) phosphates" Mass(es): "169.1/91.0 amu"  
 Comment: "LCX832125" Annotation: ""  
 Sample Index: 1

Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 11:23:26 AM  
 Modified: No



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7468

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043008

Sample Amount 2

Moisture: 26.6

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412109a

Date Analyzed: 14-APR-10 20:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Quantify Sample Report  
 3EL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412109a

Date: 14-Apr-2010

Time: 20:46:48

D: 248043008

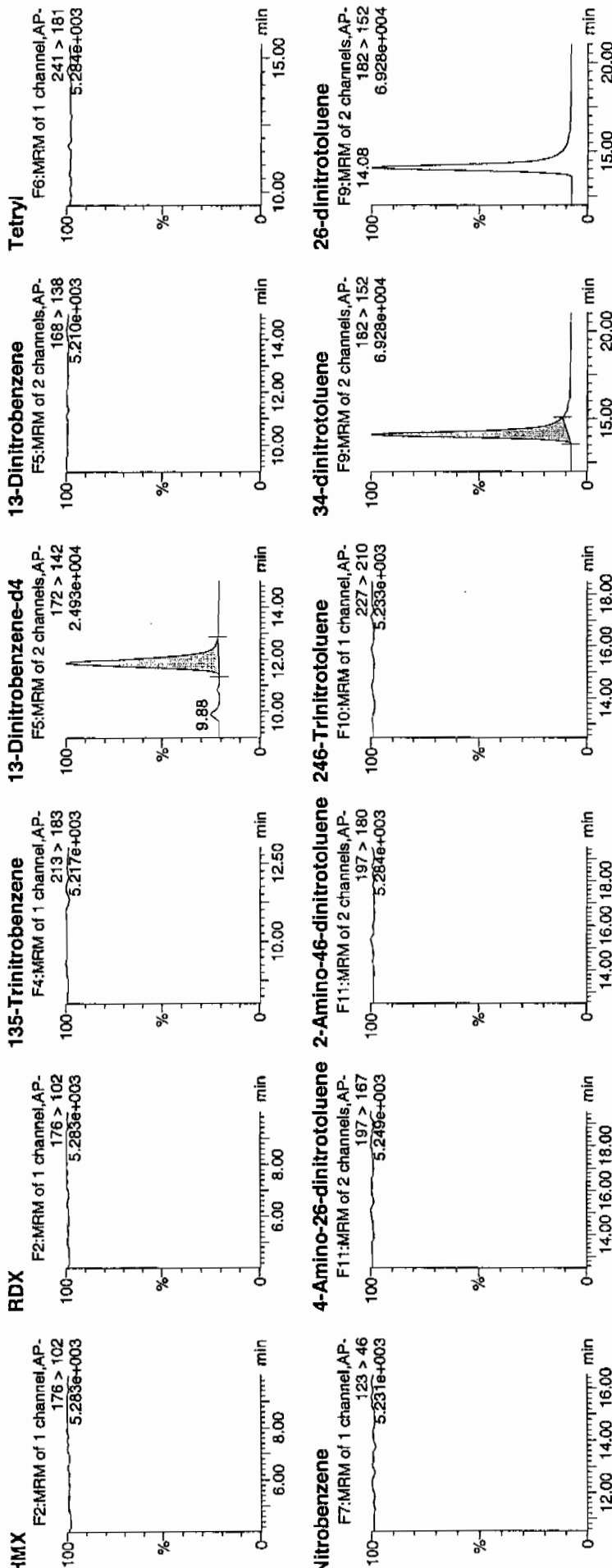
/lat: 3:2,F

A2842

Confirmed By EXP0412093a

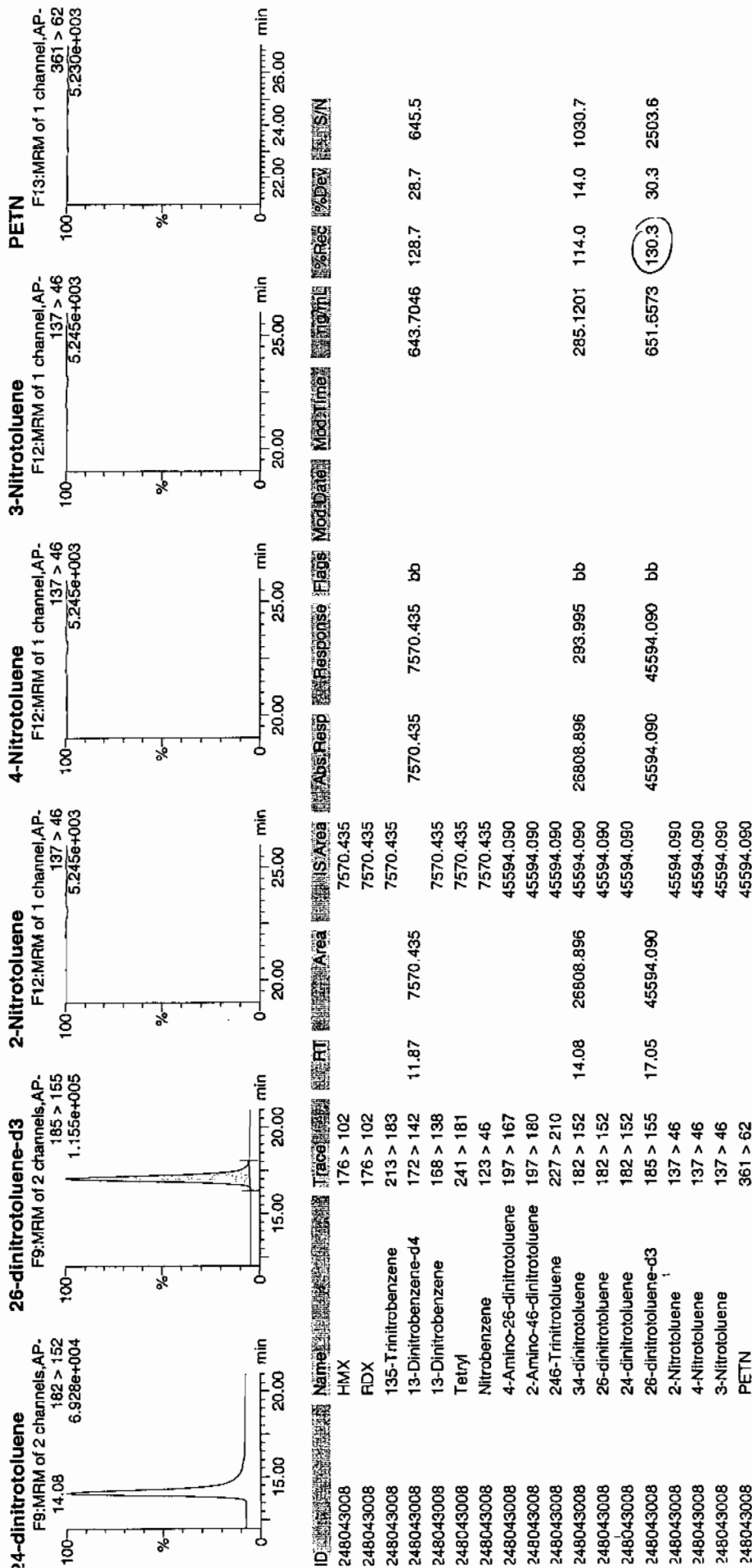
1477  
 4/15/10

WAVE 953622 / 5022 / 21



4/15/10

Dataset: C:\MASSLYNX\New\_Exp\PROV041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7468

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043008

Sample Amount 2

Moisture: 26.6

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310104.wiff

Date Analyzed: 01-APR-10 11:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Ken 4/15/10

Sample Name: "248043008" Sample ID: "958282125" File: "EXS03310104.wif"

Peak Name: "35-Diethanolamine" Mass(es): "182.046.0 amu"

Comment: "LCX832125" Annotation: "

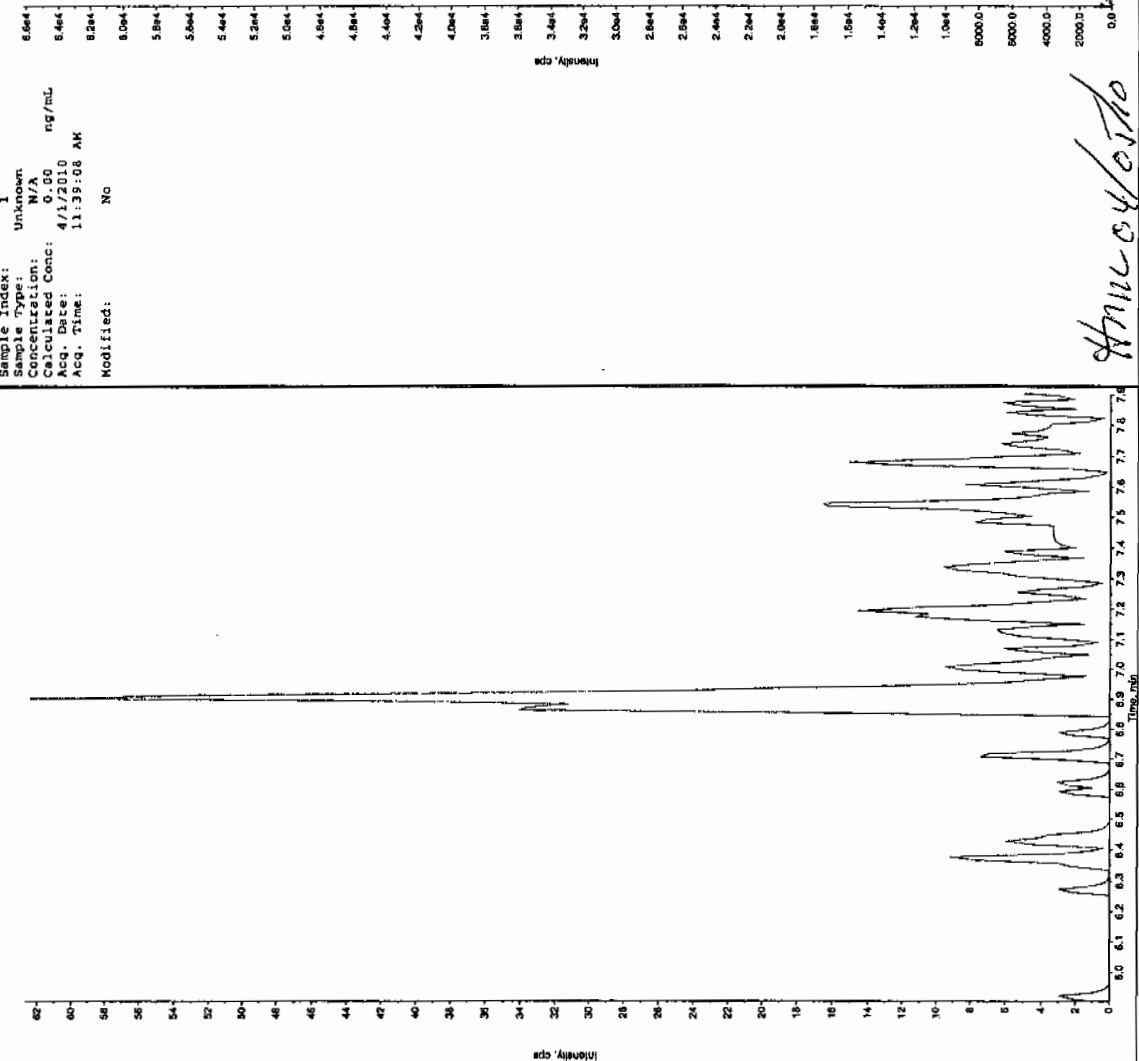
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 11:39:08 AM  
 Modified: NO

Sample Name: "248043008" Sample ID: "958282125" File: "EXS03310104.wif"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 11:39:08 AM  
 Modified: NO



Amc 04/05/10

Sample Name: "248043006" Sample ID: "959252121" File: "EXS03310104.wif"

Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"

Comment: "LCX83212S" Annotation: ""

Sample Index: 1

Sample Type: Unknown

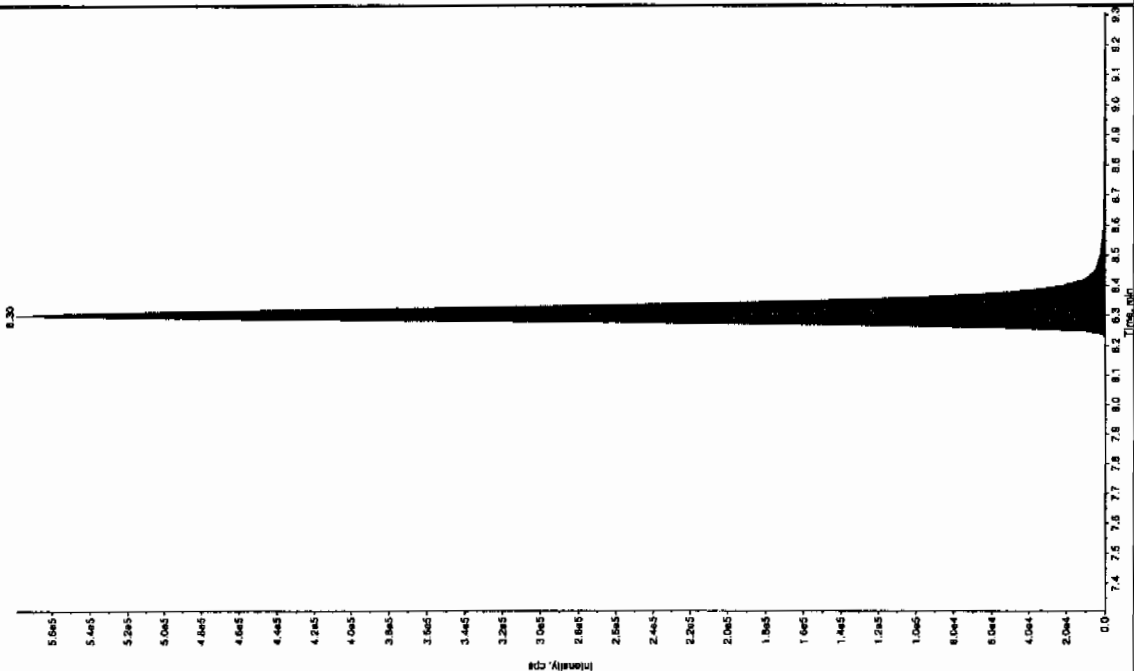
Concentration: N/A ng/mL

Calculated Conc: 0.00

Acq. Date: 4/1/2010

Acq. Time: 11:39:08 AM

Modified: No



File Index: 1

File Type: Unknown

Integration: 285

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/1/2010

Acq. Time: 11:39:08 AM

Modified: No

Algorithm: IntelliQuan - IQA

Peak Height: 1860.00 cps

Peak Width: 0.00 sec

Chrom Width: 3 points

Window: 15.0 sec

Detected RT: 8.31 min

Relative RT: No

Type: Valley

Retention Time: 8.30 min

Counts: 2.30e+006

Height: 57907.158 cps

Time: 8.21 min

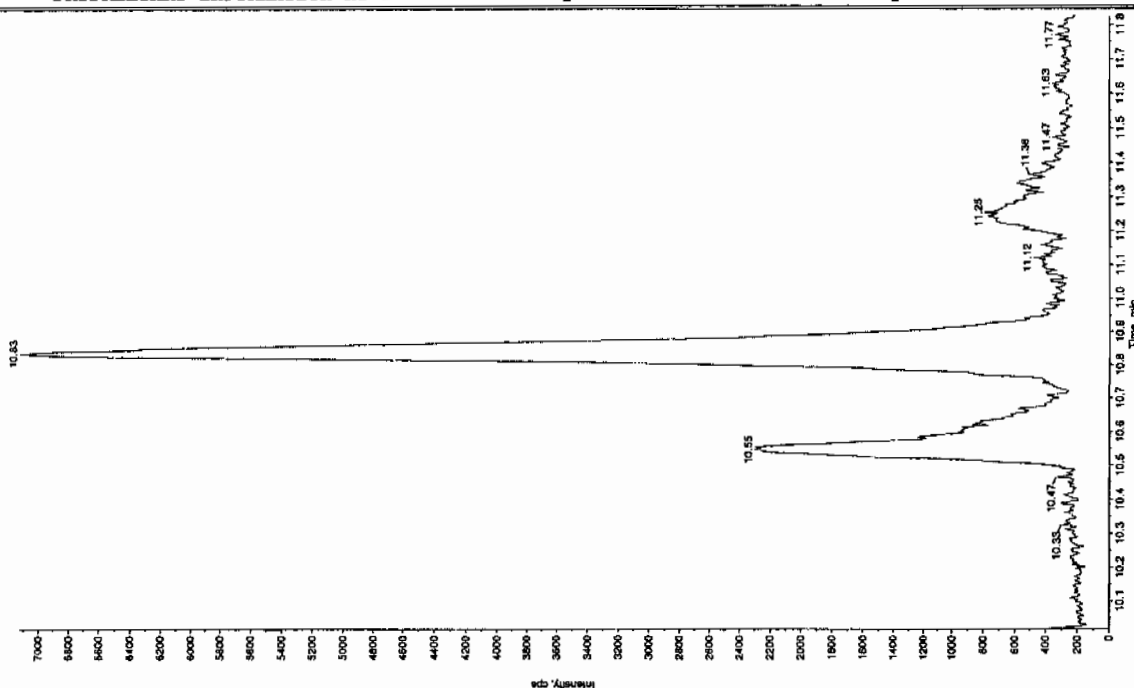
Time: 8.81 min

IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "248043008" Sample ID: "95562821LIER" File: "EX503310104.wif"  
 Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.191.0 amu"

Comment: "LCX83212S" Annotation: ""

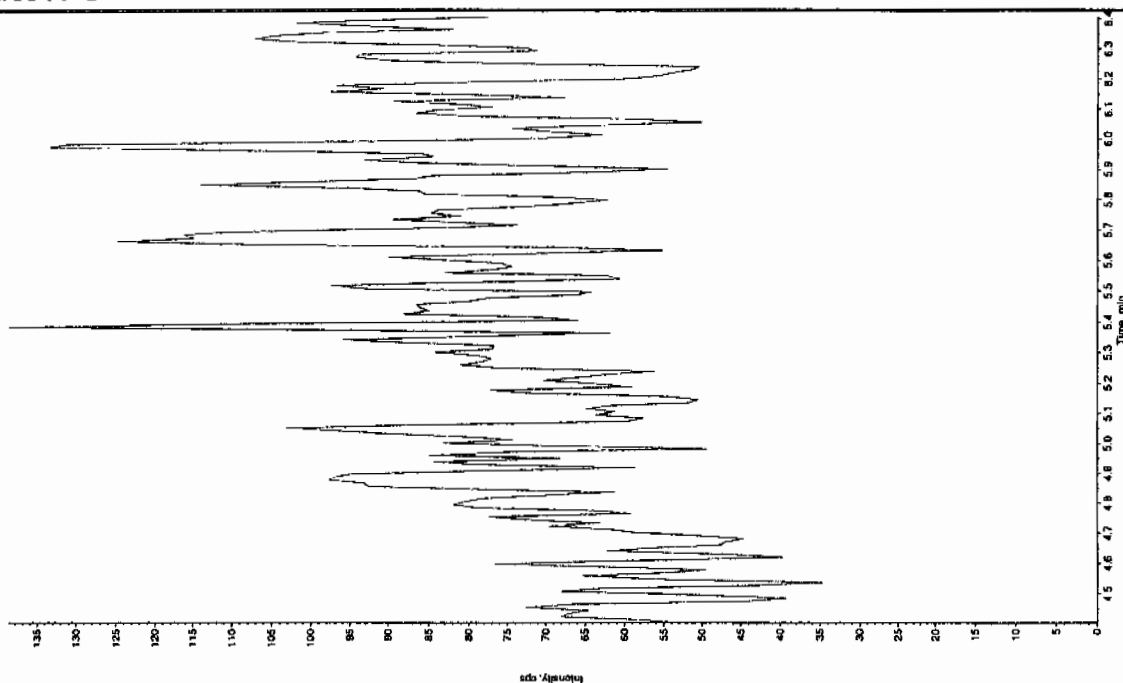
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 11:39:08 AM  
 Modified: No



Sample Name: "248043008" Sample ID: "95562821LIER" File: "EX503310104.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.046.0 amu"

Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 11:39:08 AM  
 Modified: No





1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7464

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043009

Sample Amount 2

Moisture: 7.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412094a

Date Analyzed: 14-APR-10 13:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value	X	$\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$	X	Dilution Factor
------------------	---	---	---	-----------------

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412094a

Date: 14-Apr-2010

Time: 13:24:20

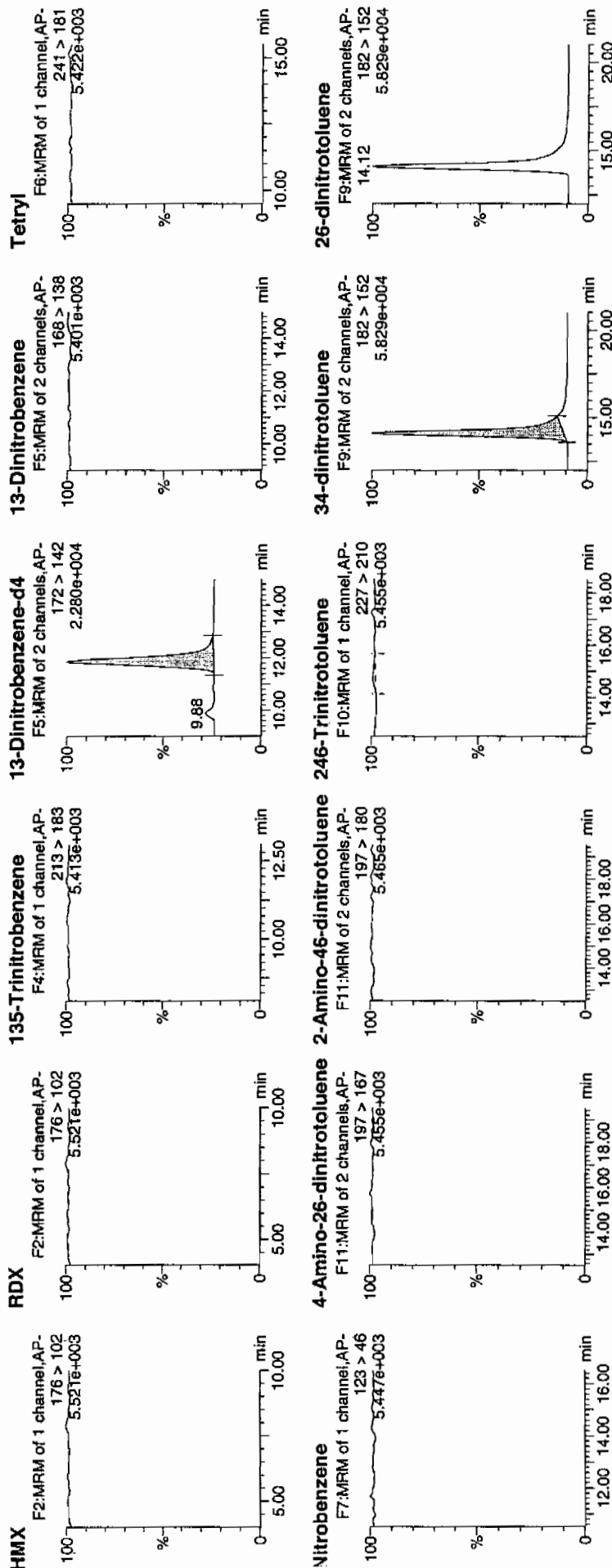
ID: 248043009

Vial: 3:3,A

4/15/10

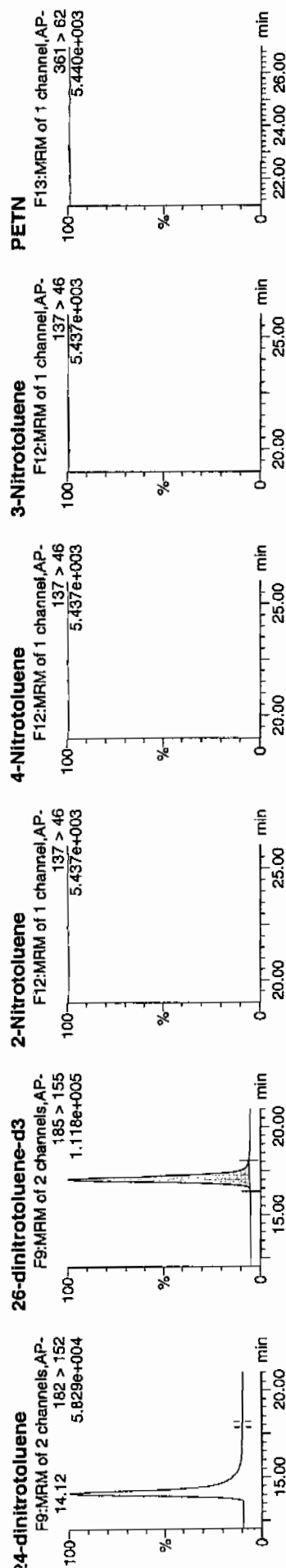
WAV/958262/8022/21

Page 17110 of 22111



4/15/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



Name	RT	Area	SArea	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc	% Rec	% Dev	SN
248043009	176 > 102	6591.858	6591.858									
248043009	176 > 102	6591.858	6591.858									
248043009	213 > 183	6591.858	6591.858									
248043009	172 > 142	6591.858	6591.858									
248043009	168 > 138	6591.858	6591.858									
248043009	241 > 181	6591.858	6591.858									
248043009	123 > 46	6591.858	6591.858									
248043009	197 > 167	43329.355	43329.355									
248043009	197 > 180	43329.355	43329.355									
248043009	227 > 210	43329.355	43329.355									
248043009	182 > 152	22168.717	43329.355									
248043009	182 > 152	43329.355	43329.355									
248043009	182 > 152	43329.355	43329.355									
248043009	185 > 155	43329.355	43329.355									
248043009	137 > 46	43329.355	43329.355									
248043009	137 > 46	43329.355	43329.355									
248043009	137 > 46	43329.355	43329.355									
248043009	361 > 62	43329.355	43329.355									
PETN												

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7464

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043009

Sample Amount 2

Moisture: 7.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310105.wiff

Date Analyzed: 01-APR-10 11:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument	X	<u>Concentrated Extract Volume</u>	X	Dilution
Value		<u>Sample Amount</u>		Factor

KAR 4/5/10

Sample Name: "248043009" Sample ID: "968662121" File: "EX503310105.wif"

Peak Name: "35-Diuroniline" Mass(es): "182.0460 amu"

Compound: "CX832125" Annotation: "1"

Sample Index: "1"

Sample Type: "Unknown"

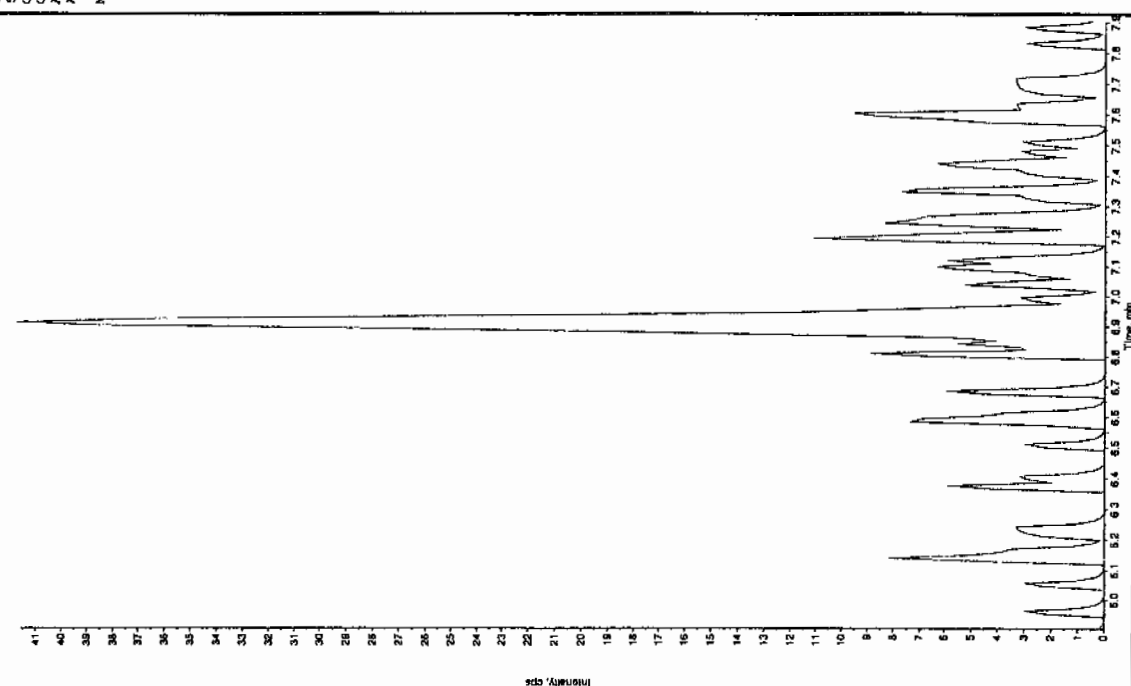
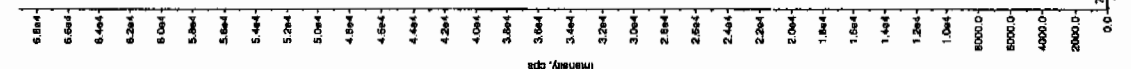
Concentration: "N/A"

Calculated Conc: "0.00 ng/mL"

Acq. Date: "4/1/2010"

Acq. Time: "11:54:50 AM"

Modified: "No"



KAR 4/5/10

Sample Name: "248043009" Sample ID: "968662121" File: "EX503310105.wif"

Peak Name: "35-Diuroniline" Mass(es): "257.2204 amu"

Compound: "CX832125" Annotation: "1"

Sample Index: "1"

Sample Type: "Unknown"

Concentration: "N/A"

Calculated Conc: "0.00 ng/mL"

Acq. Date: "4/1/2010"

Acq. Time: "11:54:50 AM"

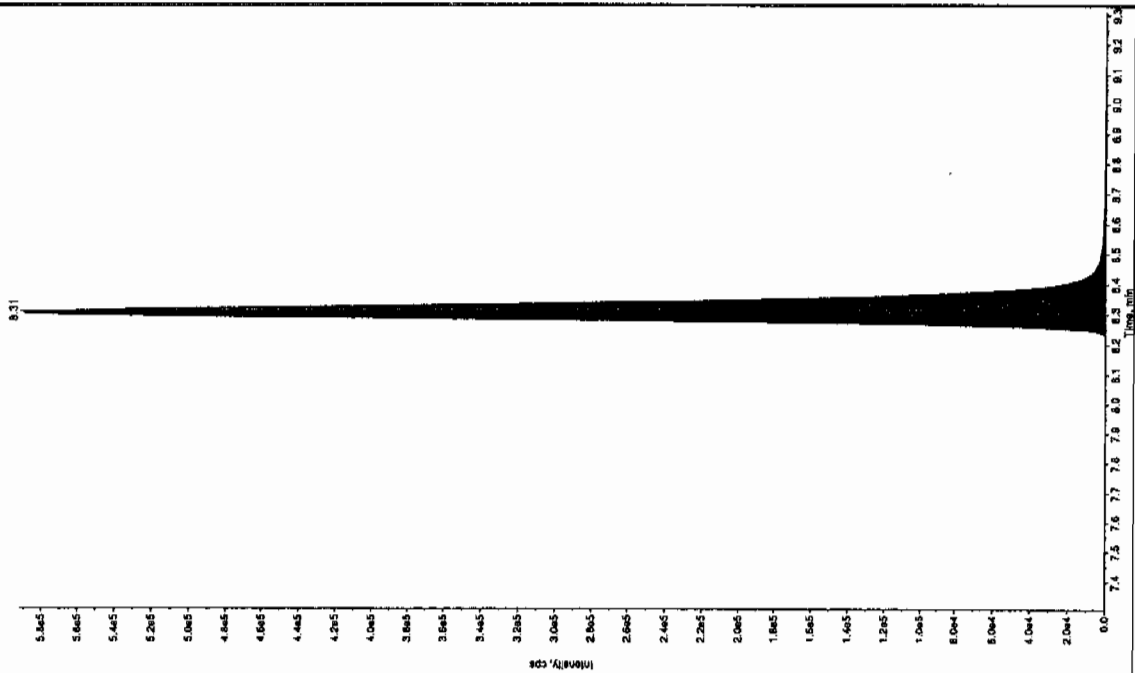
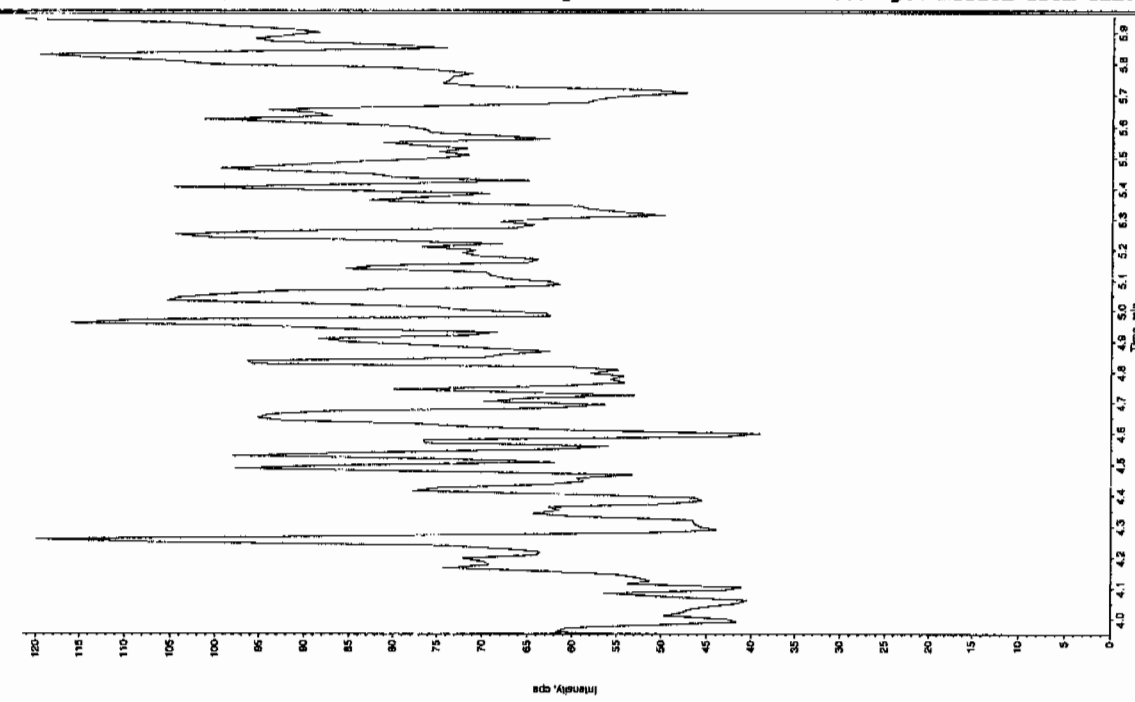
Modified: "No"



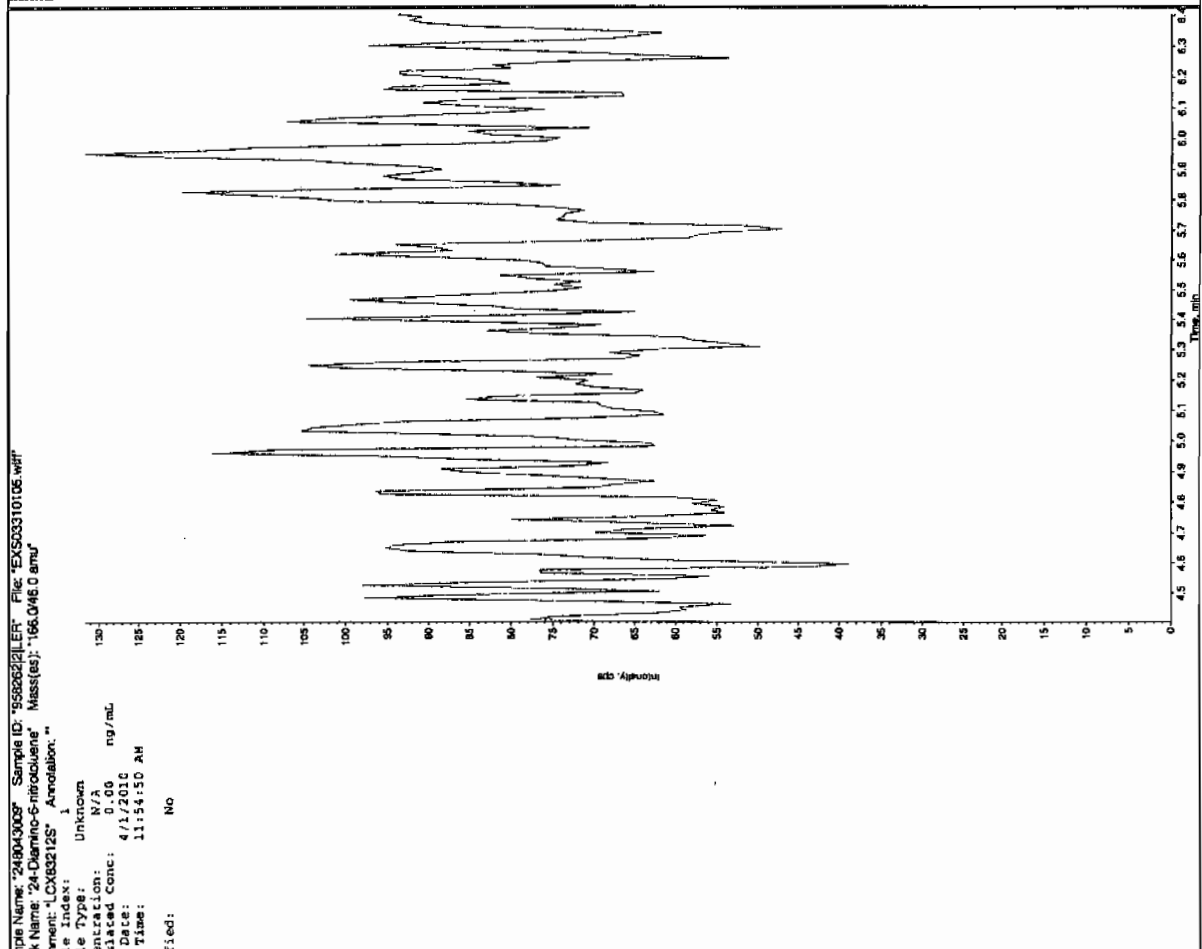
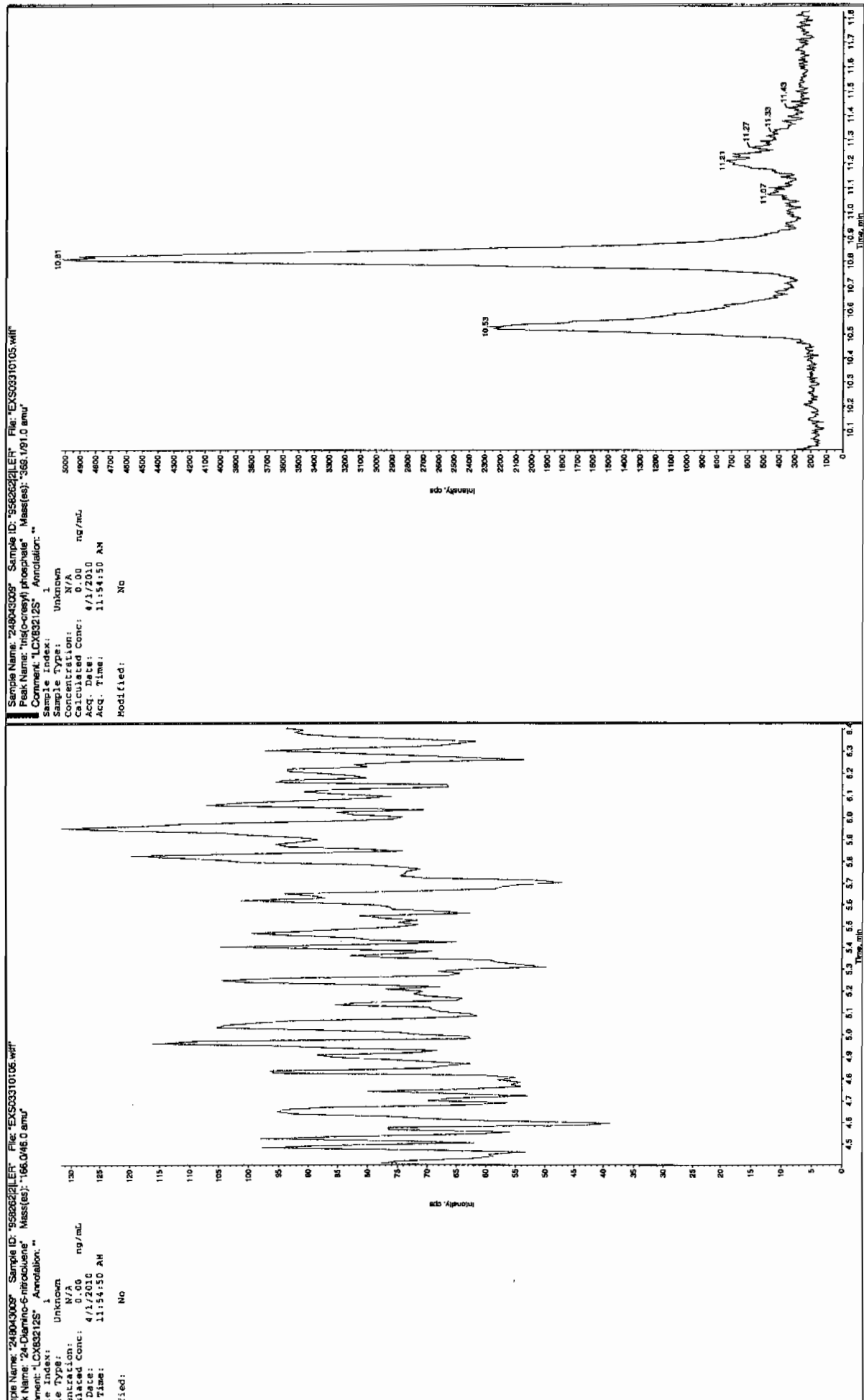
L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "248043009" Sample ID: "95828221LFR" File: "EXS00310105.wif"  
 Peak Name: "34-Dinitrophenol" Mass(es): "182.17151.9 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 11:54:50 AM  
 Modified: No



Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 299. ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 11:54:50 AM  
 Modified: No  
 Algorithm: IntelliQuan - IOA  
 Peak Height: 1460.00 cps  
 Peak Width: 0.00 sec  
 Window: 15.0 sec  
 Ret. RT: 8.31 min  
 Relative RT: No  
 Type: Valley  
 Action Time: 8.31 min  
 Count: 2.40e+005 counts  
 Height: 591922.668 cps  
 Time: 8.21 min  
 Time: 8.71 min



IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7463

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043010

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412095a

Date Analyzed: 14-APR-10 13:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



Quantify Sample Report  
 EL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412095a

Date: 14-Apr-2010

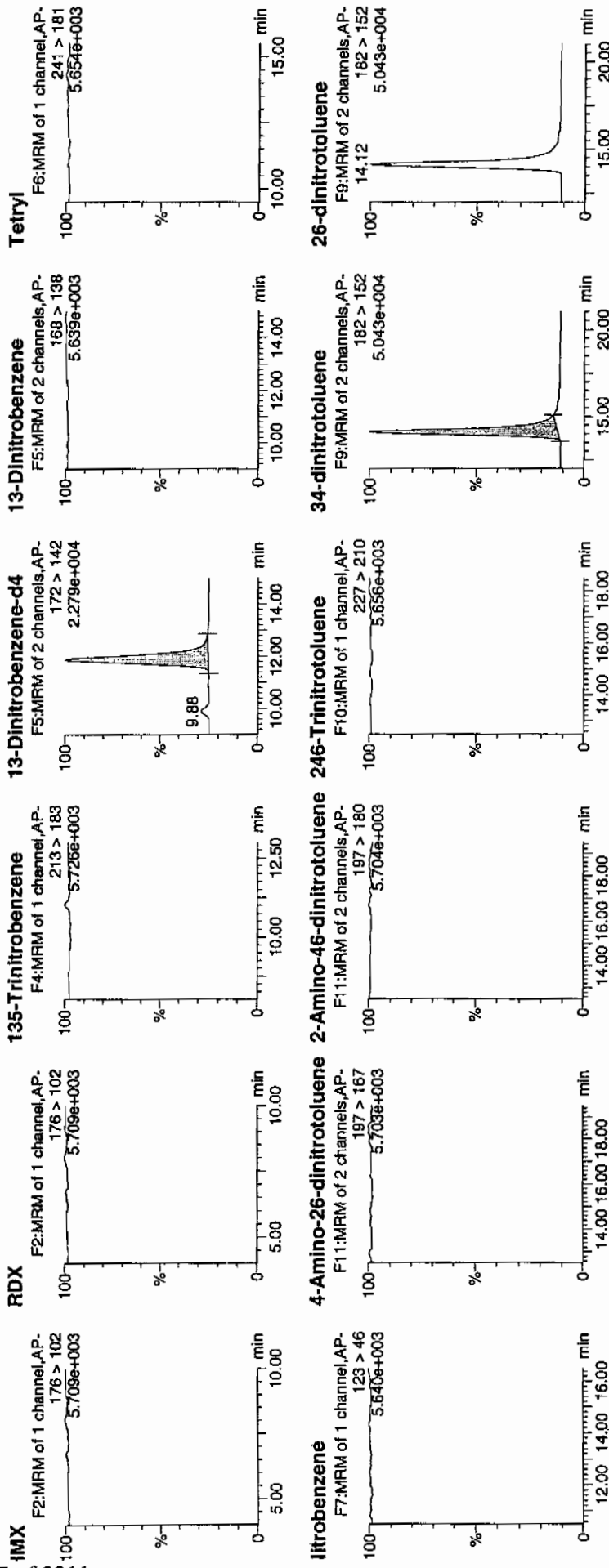
Time: 13:53:49

ID: 248043010

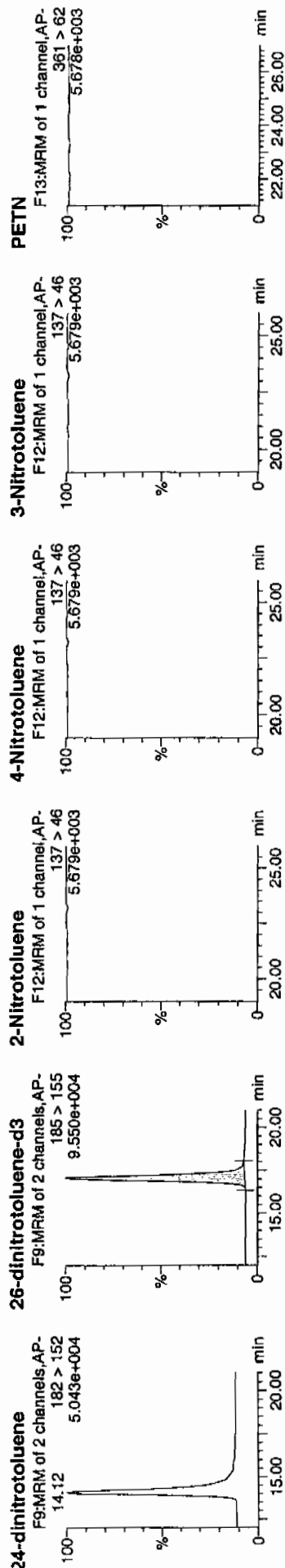
File: 3:3,B

4/15/10

198262 / 121



4/15/10



ID	Name	Trace	RTJ	Area	S Area	Abs. Resp	Response	Flags	Mod Date	Mod Time	Inj mg	% Rec	% Dev	SN
248043010	HMx	176 > 102			6487.427									
248043010	RDX	176 > 102			6487.427									
248043010	135-Trinitrobenzene	213 > 183			6487.427									
248043010	13-Dinitrobenzene-d4	172 > 142	11.87	6487.427		6487.427	6487.427	bb			551.6178	110.3	10.3	1082.7
248043010	13-Dinitrobenzene	158 > 138			6487.427									
248043010	Tetryl	241 > 181			6487.427									
248043010	Nitrobenzene	123 > 46			6487.427									
248043010	4-Amino-26-dinitrotoluene	197 > 167			36419.902									
248043010	2-Amino-46-dinitrotoluene	197 > 180			36419.902									
248043010	246-Trinitrotoluene	227 > 210			36419.902									
248043010	34-dinitrotoluene	182 > 152	14.12	18949.480	36419.902	18949.480	260.153	bb			252.2993	100.9	0.9	650.4
248043010	26-dinitrotoluene	182 > 152			36419.902									
248043010	24-dinitrotoluene	182 > 152			36419.902									
248043010	26-dinitrotoluene-d3	185 > 155	17.05	36419.902		36419.902	36419.902	bb			520.5345	104.1	4.1	1747.0
248043010	2-Nitrotoluene	137 > 46			36419.902									
248043010	4-Nitrotoluene	137 > 46			36419.902									
248043010	3-Nitrotoluene	137 > 46			36419.902									
248043010	PETN	361 > 62			36419.902									

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7463

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043010

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310106.wiff

Date Analyzed: 01-APR-10 12:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Scan 415710

File: "EX903310106.wif"

Sample Name: "248043010" Sample ID: "95828221ER"

Peak Name: "TATB" Mass(es): "257.2/204.9 amu"

Comment: "LCX83212S" Annotation: ""

Sample Index: 1

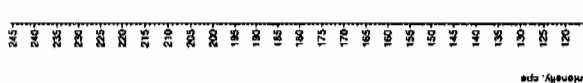
Sample Type: Unknown

Concentration: 0.00 mg/mL

Acq. Date: 4/1/2010

Acq. Time: 12:10:33 PM

Modified: No



File: "EX903310106.wif"

Sample Name: "248043010" Sample ID: "95828221ER"

Peak Name: "35-Dinitroaniline" Mass(es): "182.0/16.0 amu"

Comment: "LCX83212S" Annotation: ""

Sample Index: 1

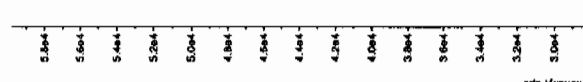
Sample Type: Unknown

Concentration: 0.00 ng/mL

Acq. Date: 4/1/2010

Acq. Time: 12:10:33 PM

Modified: No

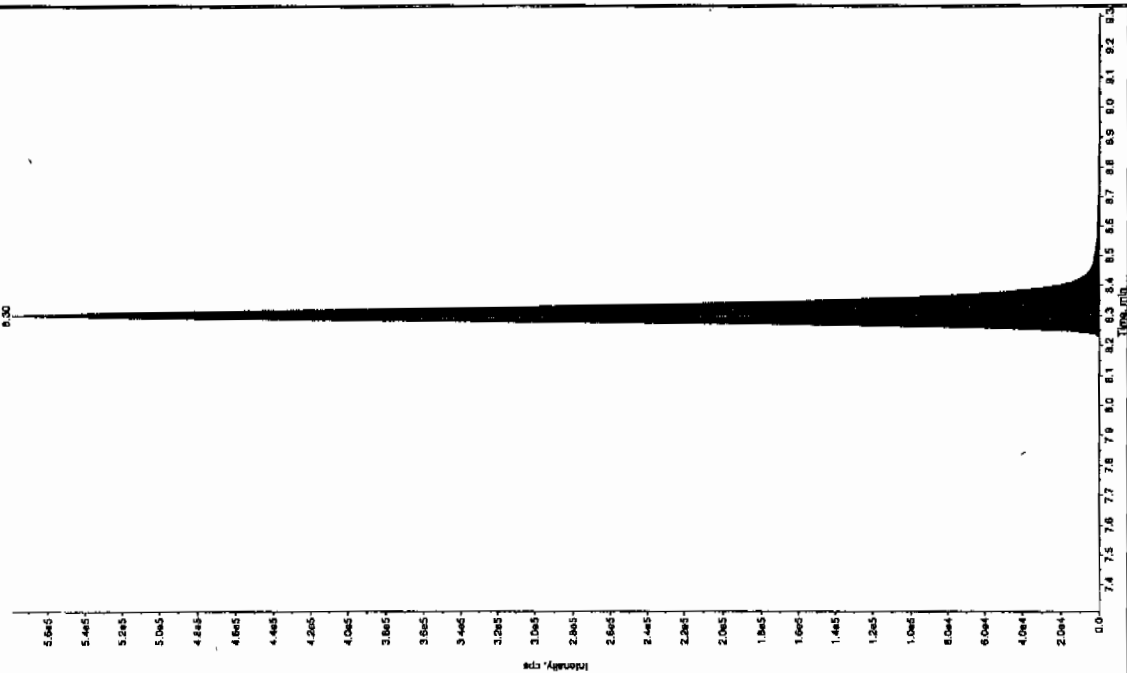


Sample Name: "248043010" Sample ID: "958262121" File: "EX803310106.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1151.9 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1

Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Date: 4/1/2010  
 Time: 12:10:33 PM

Method: LCX83212S  
 Algorithm: IntelliQuan - IOA  
 Peak Height: 1469.00 cps  
 Peak Width: 0.00 sec  
 Window: 15.0 sec  
 Retention Time: 8.31 min  
 Relative RT: No  
 Type: Valley  
 Retention Time: 8.30 min  
 Counts: 2.29e+006  
 RT Time: 578574.646 cps  
 Time: 8.20 min  
 Time: 9.87 min

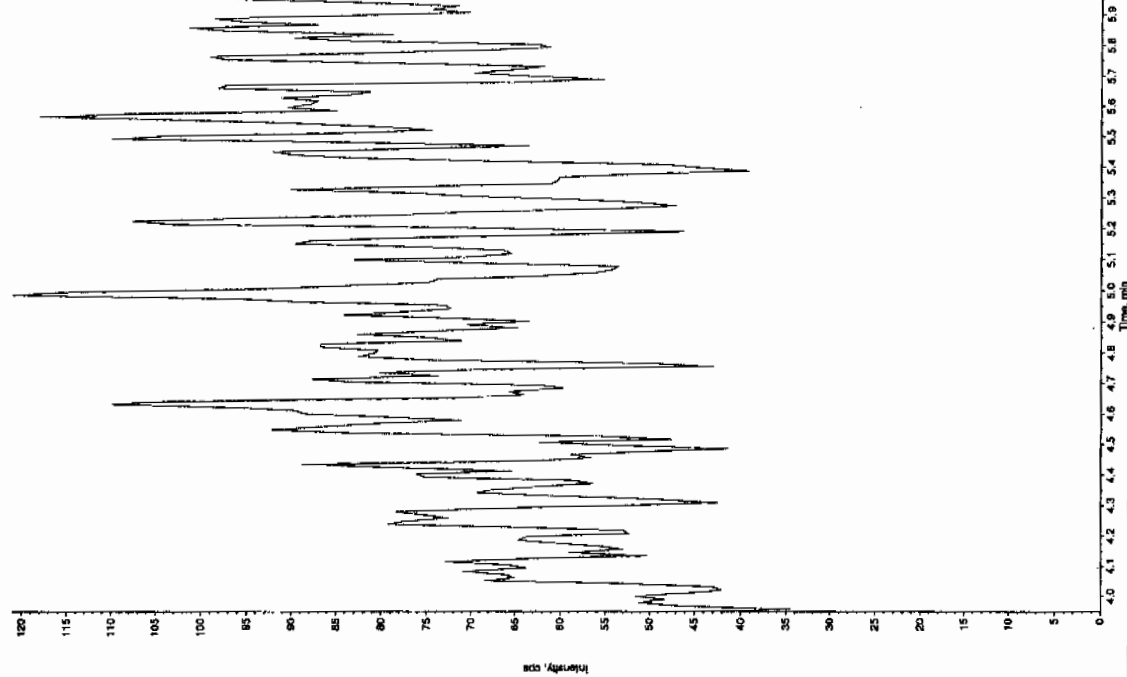


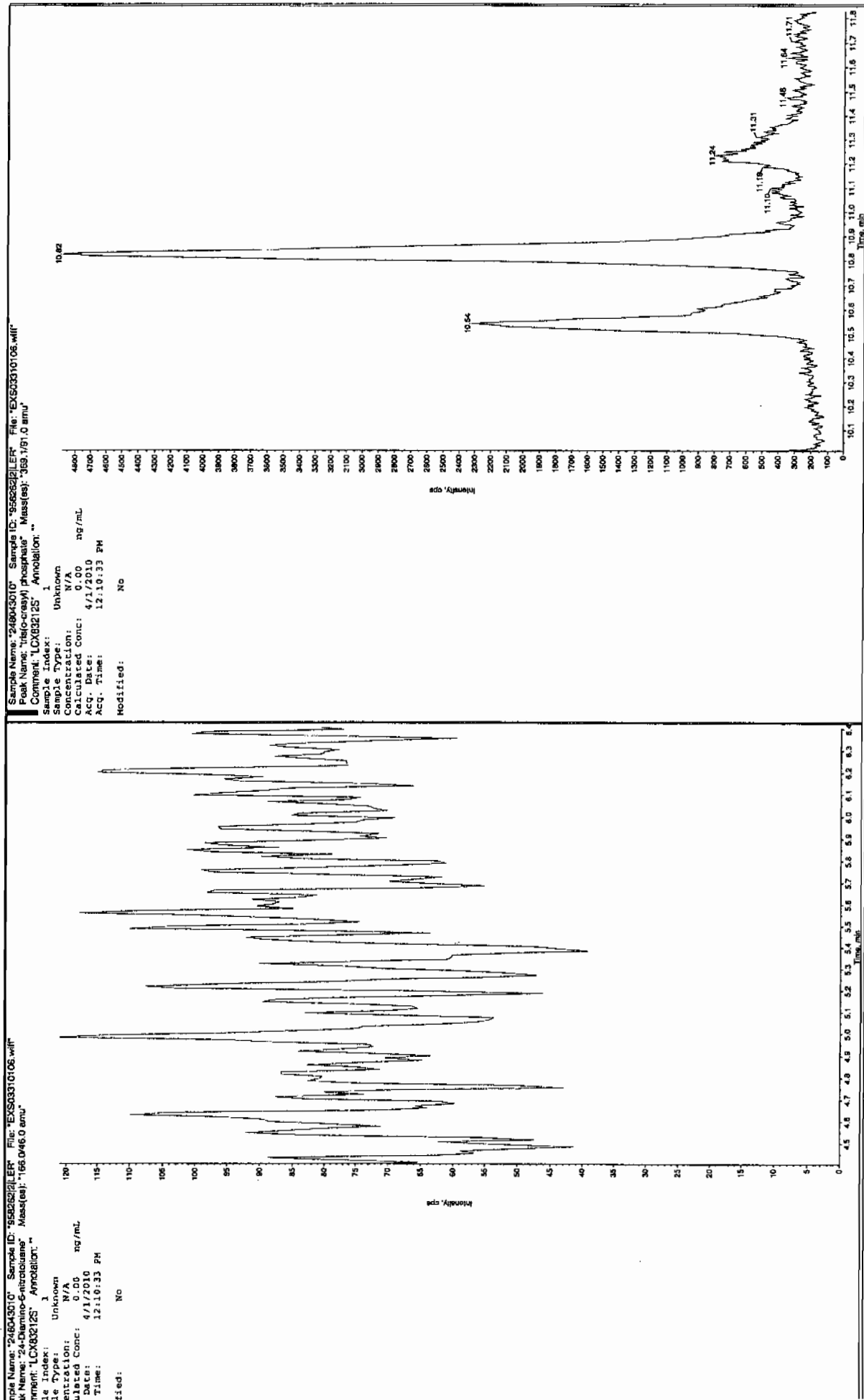
Sample Name: "248043010" Sample ID: "958262121" File: "EX803310106.wif"  
 Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "186.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1

Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Date: 4/1/2010  
 Time: 12:10:33 PM

Method: LCX83212S  
 Algorithm: IntelliQuan - IOA  
 Peak Height: 1469.00 cps  
 Peak Width: 0.00 sec  
 Window: 15.0 sec  
 Retention Time: 8.31 min  
 Relative RT: No





L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7475

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043011

Sample Amount 2

Moisture: 27.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412096a

Date Analyzed: 14-APR-10 14:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value	X	Concentrated Extract Volume	X	Dilution Factor
		Sample Amount		

Quantify Sample Report  
 iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412096a

Date: 14-Apr-2010

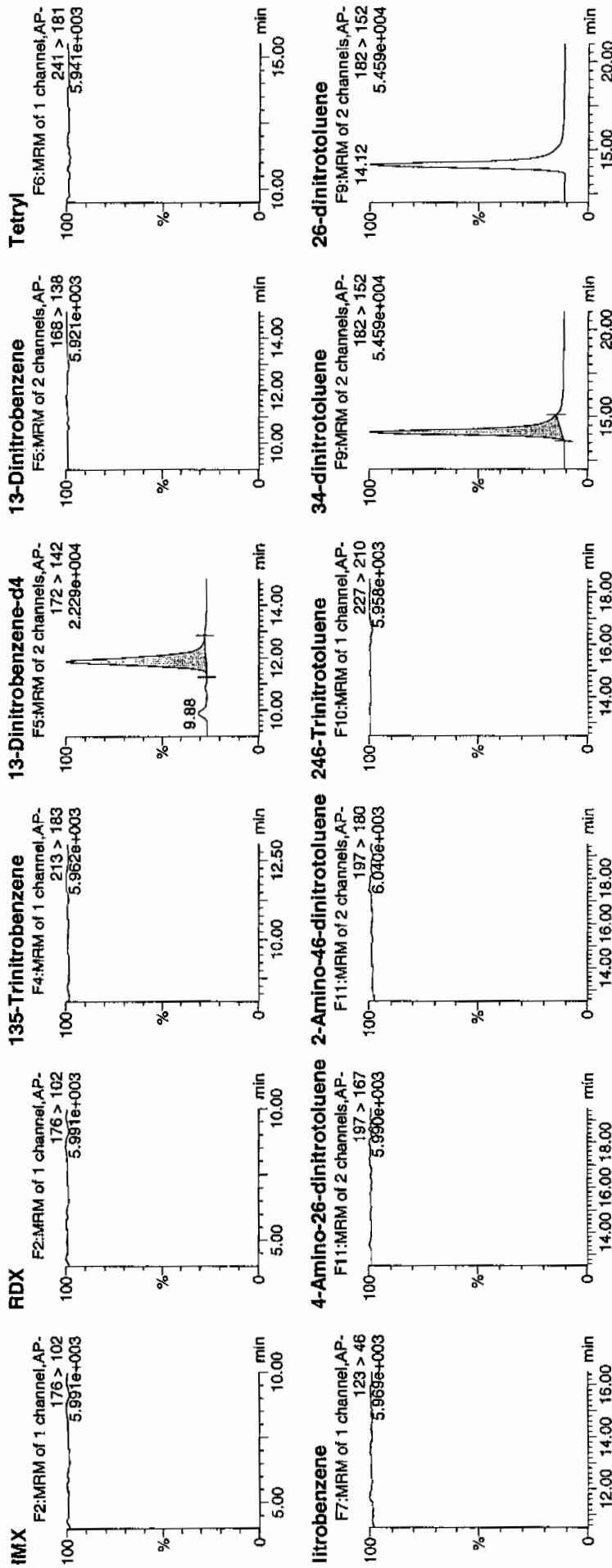
Time: 14:23:19

ID: D:248043011

Vial: 3:3,C

4/15/10

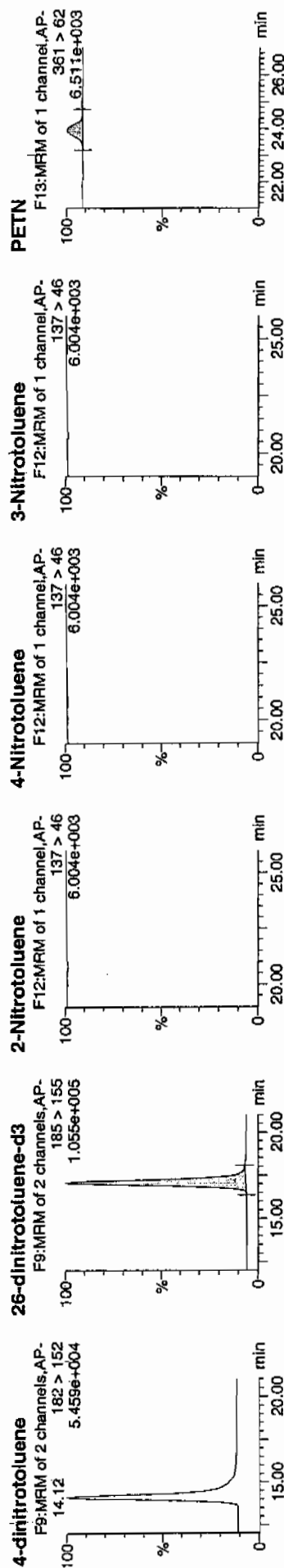
WAX 95862 / 80-22 / 21



4/15/10



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



D	Name	Trace	RT	Area	SI Area	Abs. Resp	Response	Flags	Mod Date	Mod Time	%Rec	%Dev	SN
248043011	HMX	176 > 102		6043.779	6043.779								
248043011	RDX	176 > 102		6043.779	6043.779								
248043011	135-Trinitrobenzene	213 > 183		6043.779	6043.779								
248043011	13-Dinitrobenzene-d4	172 > 142	11.87	6043.779	6043.779	6043.779	6043.779	bb			513.8950	102.8	2.8
248043011	13-Dinitrobenzene	168 > 138		6043.779	6043.779								
248043011	Tetryl	241 > 181		6043.779	6043.779								
248043011	Nitrobenzene	123 > 46		6043.779	6043.779								
248043011	4-Amino-26-dinitrotoluene	197 > 167		40376.367	40376.367								
248043011	2-Amino-46-dinitrotoluene	197 > 180		40376.367	40376.367								
248043011	246-Trinitrotoluene	227 > 210		40376.367	40376.367								
248043011	34-dinitrotoluene	182 > 152	14.12	19789.793	40376.367	19789.793	245.067	bb			237.6684	95.1	-4.9
248043011	26-dinitrotoluene	182 > 152		40376.367	40376.367								
248043011	24-dinitrotoluene	182 > 152		40376.367	40376.367								
248043011	26-dinitrotoluene-d3	185 > 155	17.07	40376.367	40376.367	40376.367	40376.367	bb			577.0826	115.4	15.4
248043011	2-Nitrotoluene	137 > 46		40376.367	40376.367								
248043011	4-Nitrotoluene	137 > 46		40376.367	40376.367								
248043011	3-Nitrotoluene	137 > 46		40376.367	40376.367								
248043011	PETN	361 > 62	23.96	268.942	40376.367	268.942	3.330	bb			0.0000		32.2

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7475

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043011

Sample Amount 2

Moisture: 27.2

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310107.wiff

Date Analyzed: 01-APR-10 12:26

Units: ug/kg

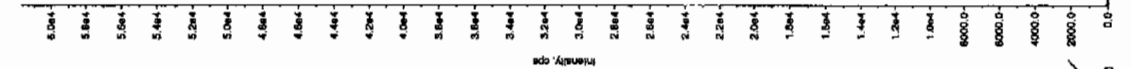
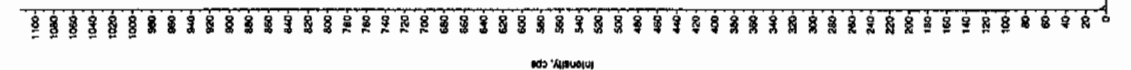
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Sam 415710

Sample Name: 248043011\* Sample ID: 958282121LER\* File: EXS03310107.wif  
 Peak Name: 35-Dinitrophenol\* Mass(es): 182.0460 amu\*  
 Comment: LCX83212S\* Annotation: 1  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 12:26:16 PM  
 Modified: No

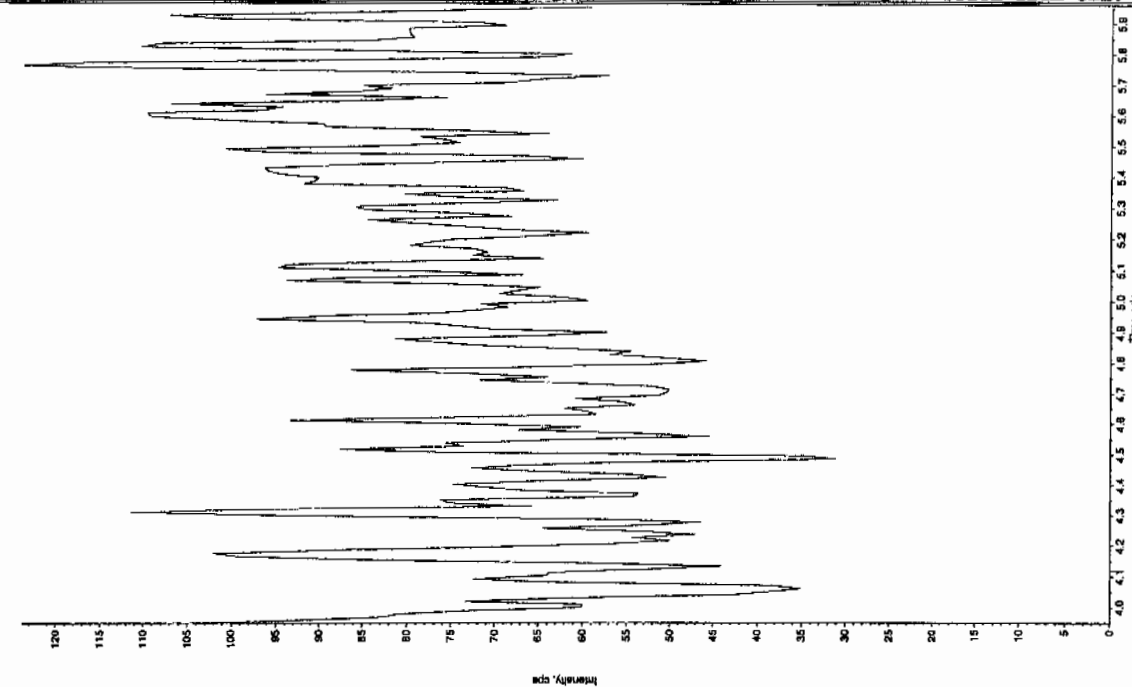


Sam 04/01/10

GL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

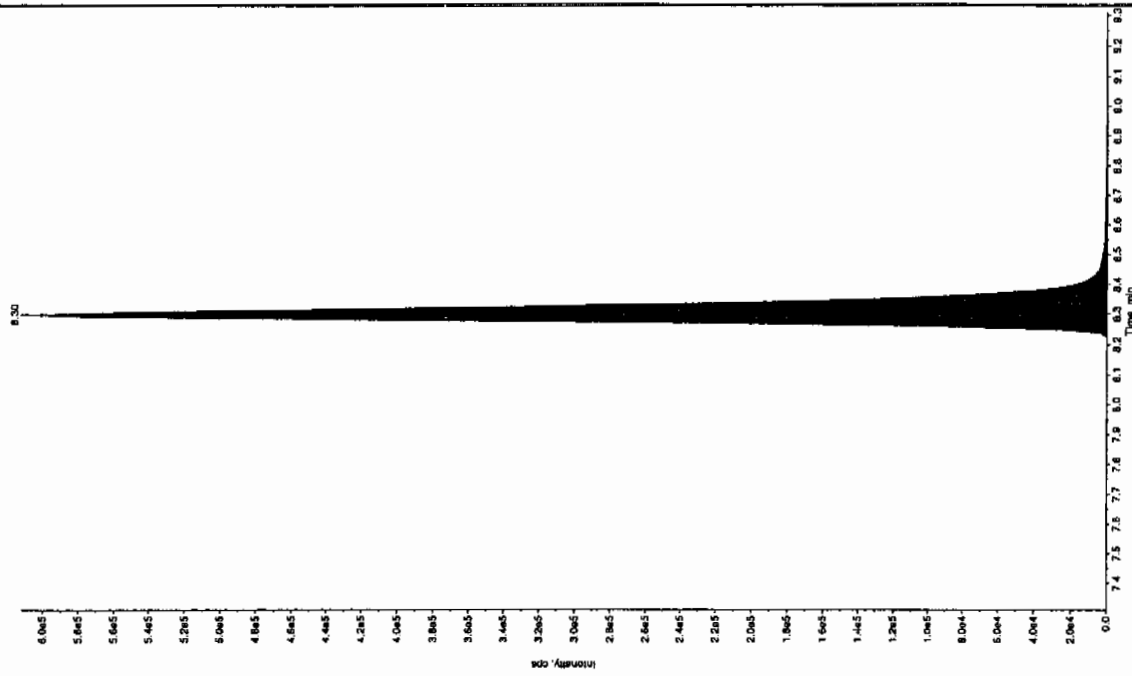
Sample Name: "248043011" Sample ID: "558262125" File: "EXS03310107.wif"  
 Peak Name: "26-Diamino-4-Hydroxyluene" Mass(es): "166 046 0 amu"  
 Comment: "LCX032125" Annotation: "

Sample Index: Unknown  
 Sample Type: N/A  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/1/2010  
 Acq. Date: 12:26:16 PM  
 Acq. Time: No  
 Modified: No



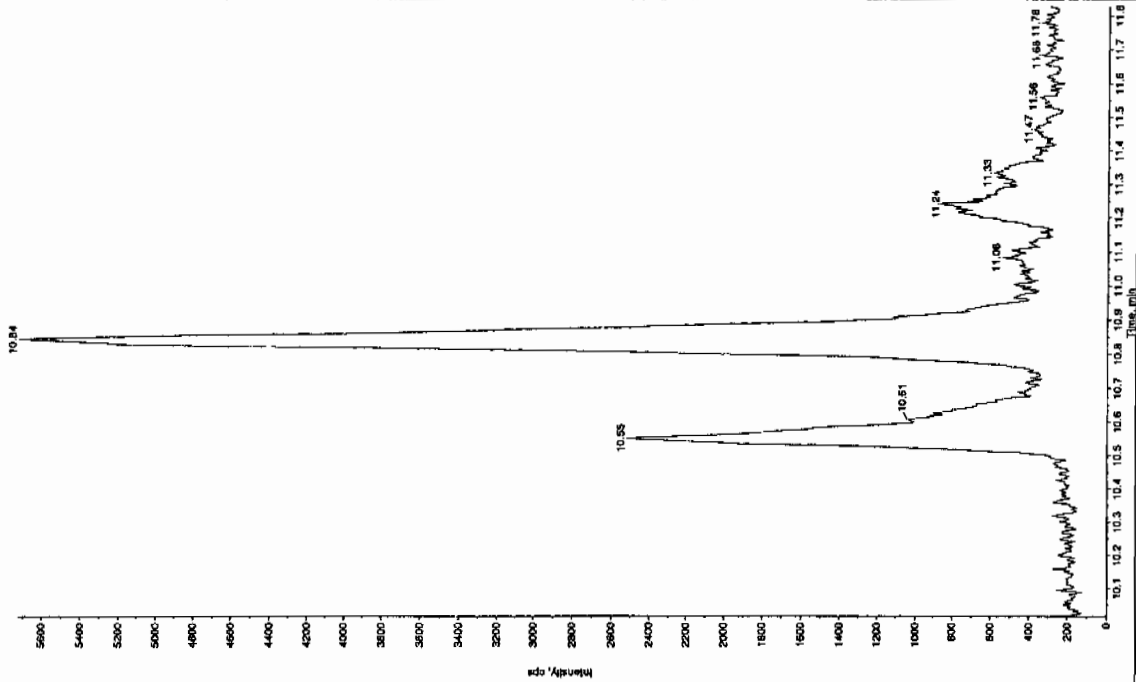
Sample Name: "248043011" Sample ID: "558262125" File: "EXS03310107.wif"  
 Peak Name: "34-Diamino-4-Hydroxyluene" Mass(es): "182 171 151 9 amu"  
 Comment: "LCX032125" Annotation: "

Sample Index: Unknown  
 Sample Type: N/A  
 Concentration: 294. ng/mL  
 Calculated Conc: 4/1/2010  
 Acq. Date: 12:26:16 PM  
 Acq. Time: No  
 Modified: No  
 2. Algorithm: IntelliQuan - IOA  
 Peak Height: 1460.00 cps  
 Peak Width: 0.00 sec  
 Ching Width: 3 points  
 Window: 15.0 sec  
 Selected RT: 8.31 min  
 Relative RT: No  
 Type: Valley  
 Section Time: 8.30 min  
 i: 2.37e+006 counts  
 hct: 611984.070 cps  
 cc Time: 8.21 min  
 Time: 8.78 min

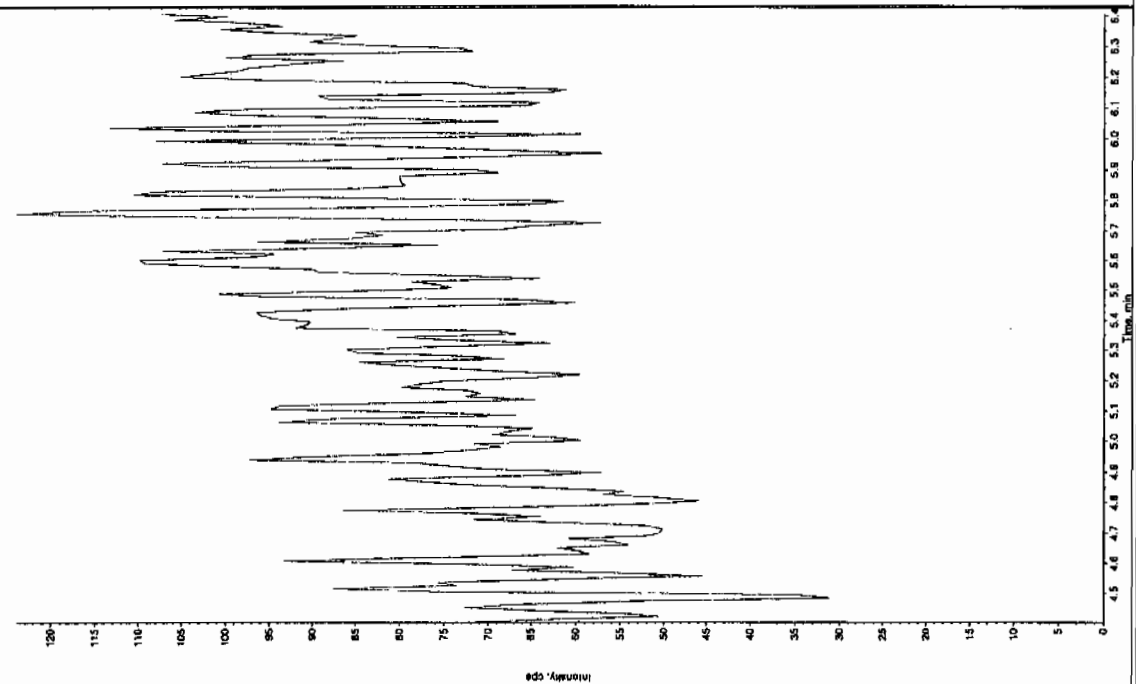


EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: 248043011 Sample ID: 958222[LER] File: EX503310107.wiff  
 Peak Name: (R)-cristy phosphate Mass(es): 389.191.0 amu  
 Comment: CX832125 Annotation: -  
 Sample Index: Unknown  
 Sample Type: N/A  
 Concentration: 0.00 ng/mL  
 Calculated Conc.: 4/1/2010  
 Acq. Date: 12:26:16 PM  
 Acq. Time: No  
 Modified: No



Sample Name: 248043011 Sample ID: 958222[LER] File: EX503310107.wiff  
 Peak Name: 24-Oxamino-6-ethyloung Mass(es): 166.048.0 amu  
 Comment: CX832125 Annotation: -  
 Sample Index: Unknown  
 Sample Type: N/A  
 Concentration: 0.00 ng/mL  
 Calculated Conc.: 4/1/2010  
 Acq. Date: 12:26:16 PM  
 Acq. Time: No  
 Modified: No



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7466

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043012

Sample Amount 2

Moisture: 20.5

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412097a

Date Analyzed: 14-APR-10 14:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument				
Value	X	<u>Concentrated Extract Volume</u>	X	Dilution
		<u>Sample Amount</u>		Factor

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412097a

Date: 14-Apr-2010

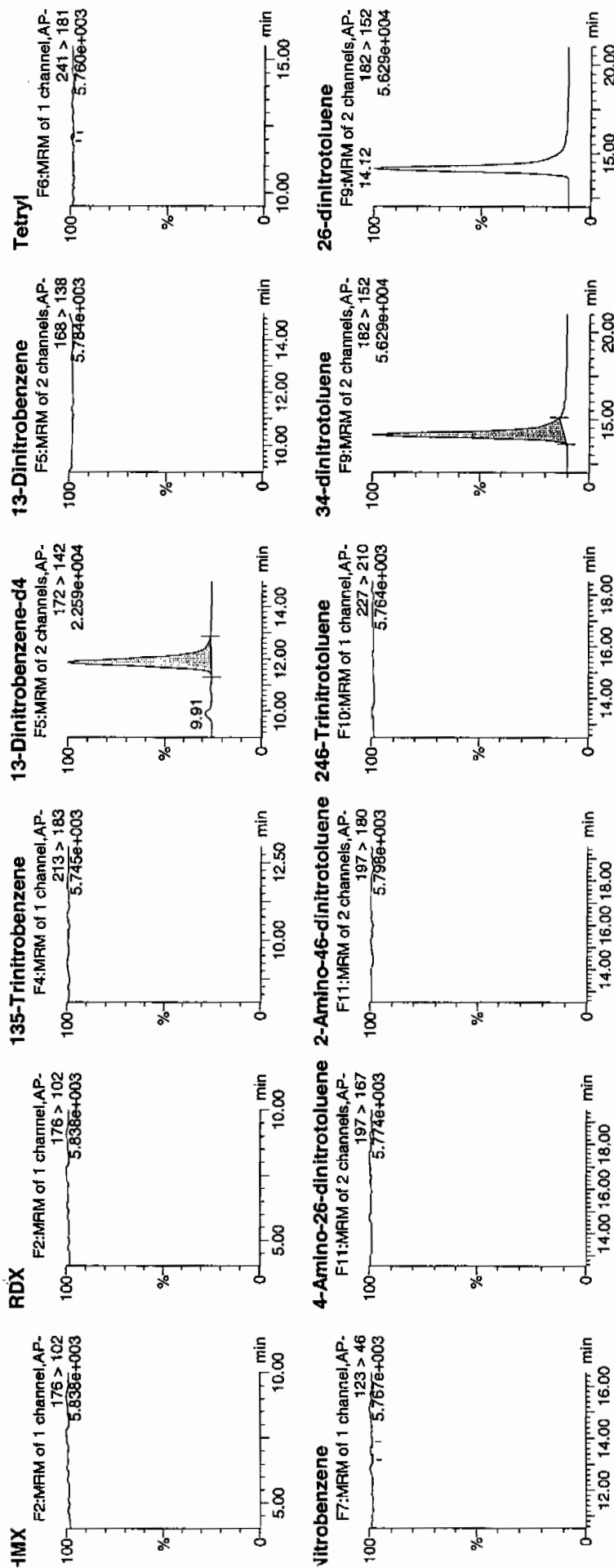
Time: 14:52:47

D: 248043012

Vial: 3:3,D

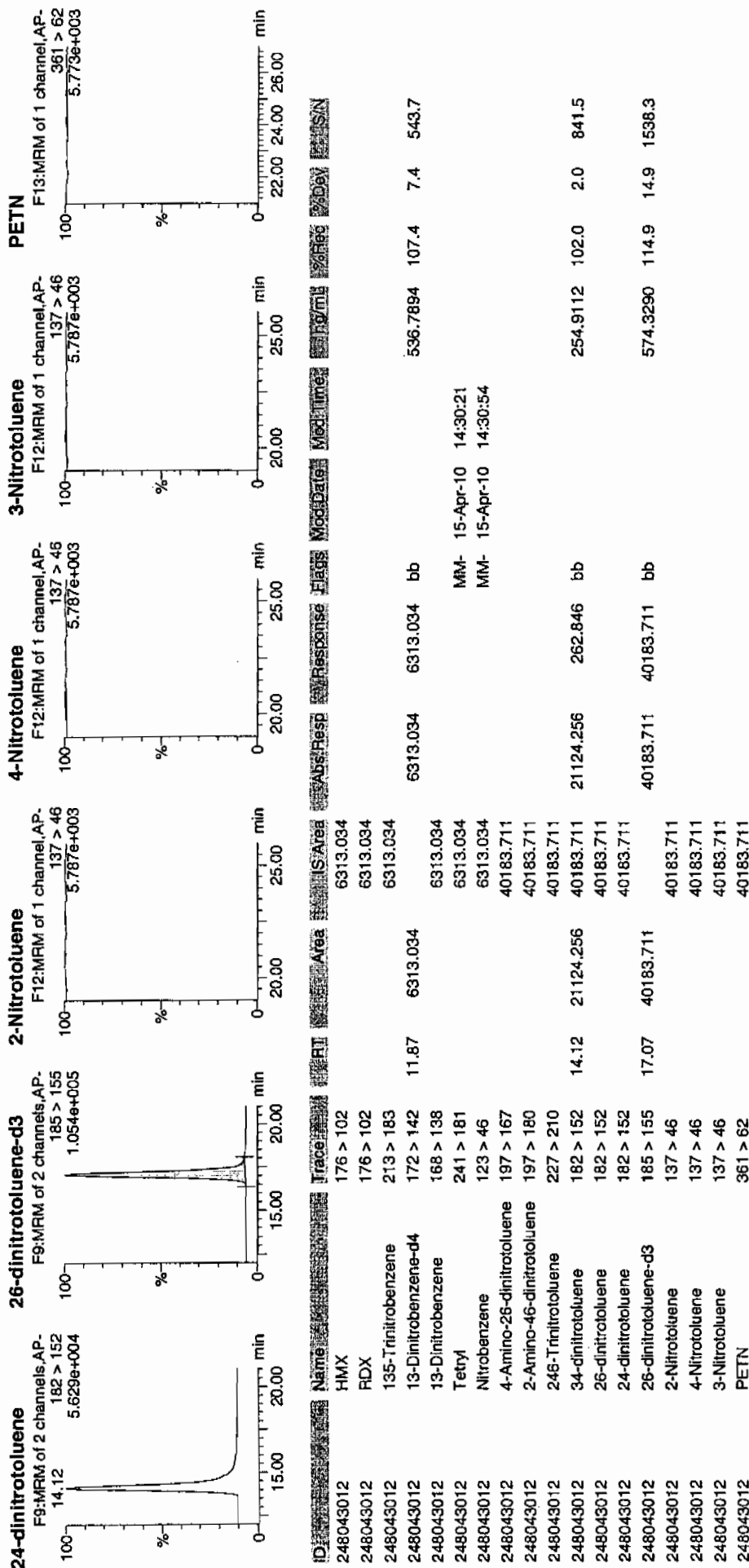
1477  
4/15/10

CAU 958262 / Souza / 21



4/15/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010





1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7466

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043012

Sample Amount 2

Moisture: 20.5

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310108.wiff

Date Analyzed: 01-APR-10 12:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

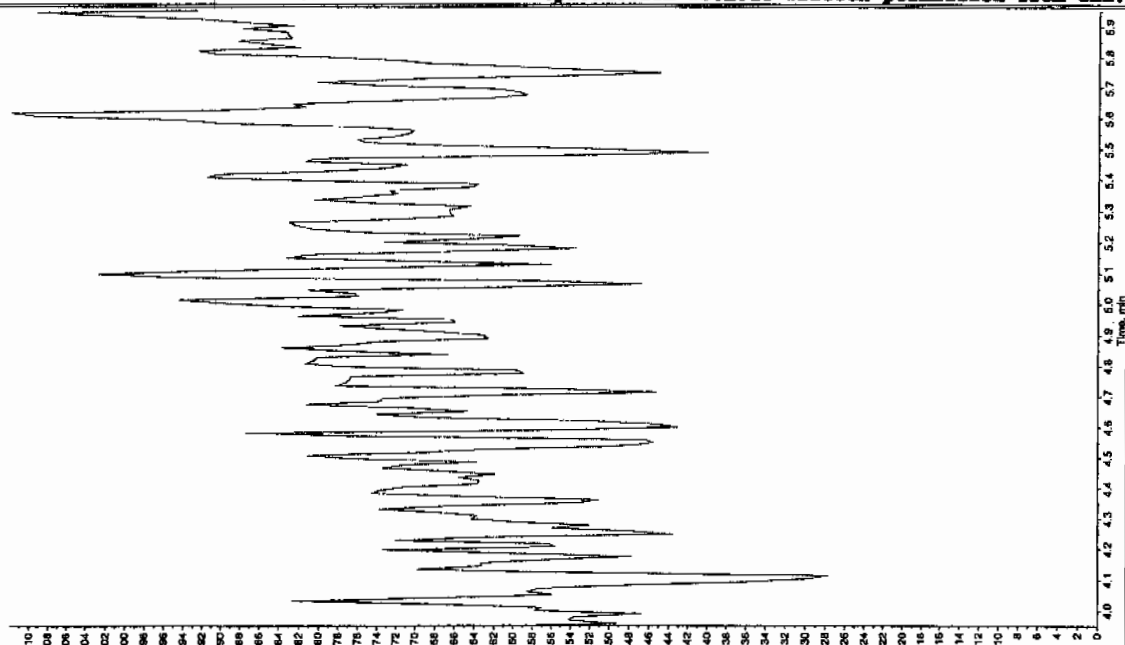
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



Sample Name: "248043012" Sample ID: "952822121ER" File: "EXS03310108.wif"  
 Peak Name: "26-Diamino-4-nitroclouene" Mass(es): "186.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4.17200 ng/mL  
 Acq. Date: 4/12/200  
 Acq. Time: 12:41:57 PM  
 Modified: No

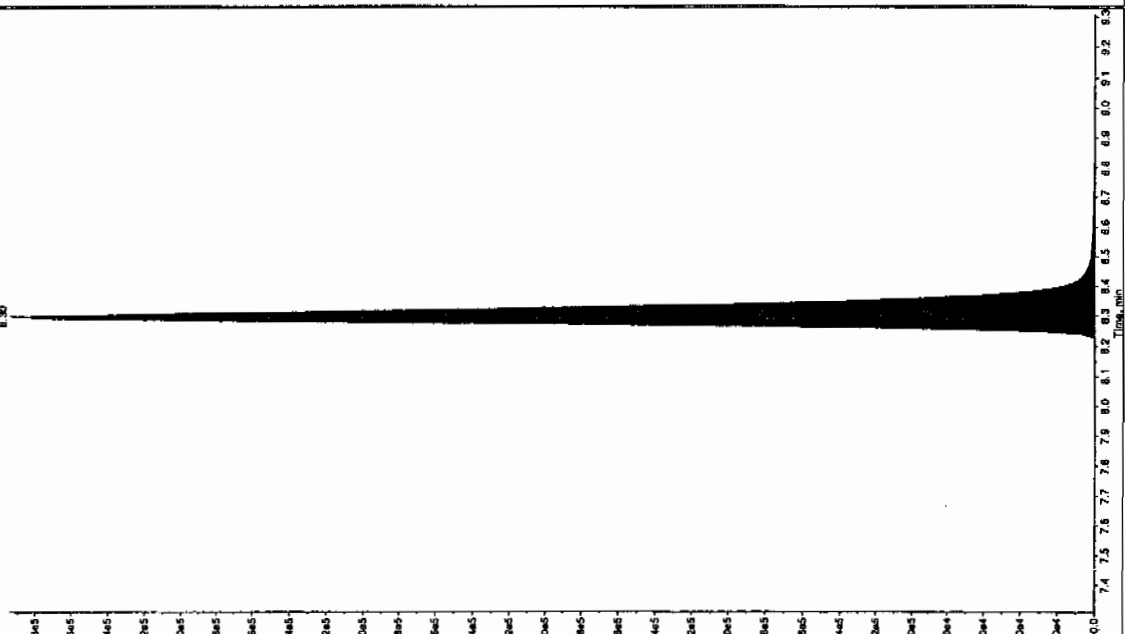
Intensity, cps



Sample Name: "248043012" Sample ID: "952822121ER" File: "EXS03310108.wif"  
 Peak Name: "34-Dinitroclouene" Mass(es): "182.1151.9 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 2.331 ng/mL  
 Acq. Date: 4/12/200  
 Acq. Time: 12:41:57 PM  
 Modified: No  
 Algorithm: IntelliQuan - IQA  
 Peak Height: 1460.00 cps  
 Peak Width: 0.00 sec  
 Window Width: 3 points  
 Window: 15.0 sec  
 Ret. Time: 8.31 min  
 Relative RT: No  
 Type: Valley  
 Retention Time: 8.30 min  
 Height: 2.36e+006 counts  
 Width: 594498.718 cps  
 Time: 8.20 min  
 Time: 8.82 min

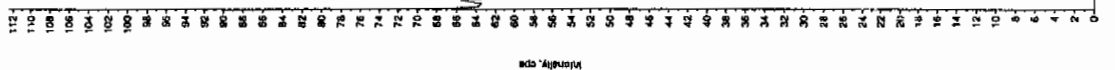
Intensity, cps



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

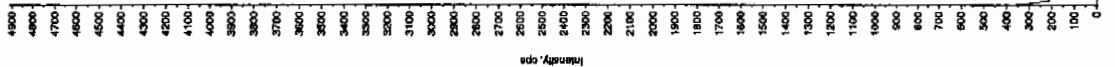
Sample Name: "246043012" Sample ID: "958262121ER" File: "EXS0310108.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "186.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4.71/2010 ng/mL  
 Acq. Date: 4/17/2010  
 Acq. Time: 12:41:57 PM  
 Modified: NO



Sample Name: "246043012" Sample ID: "958262121ER" File: "EXS0310108.wif"  
 Peak Name: "tris(O-allyl) phosphite" Mass(es): "369.191.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4.71/2010 ng/mL  
 Acq. Date: 4/17/2010  
 Acq. Time: 12:41:57 PM  
 Modified: NO



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7476

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043013

Sample Amount 2

Moisture: 17.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412102a

Date Analyzed: 14-APR-10 17:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Sample: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412102a

Date: 14-Apr-2010

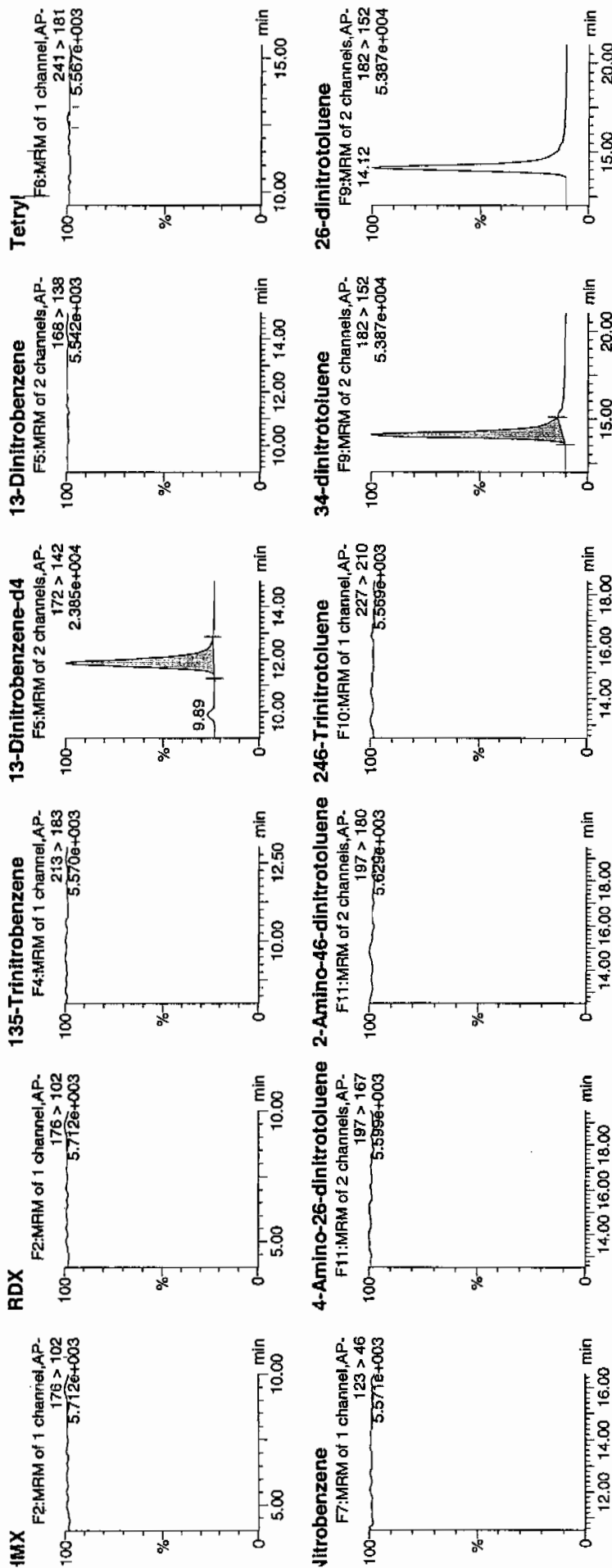
Time: 17:20:21

D: 248043013

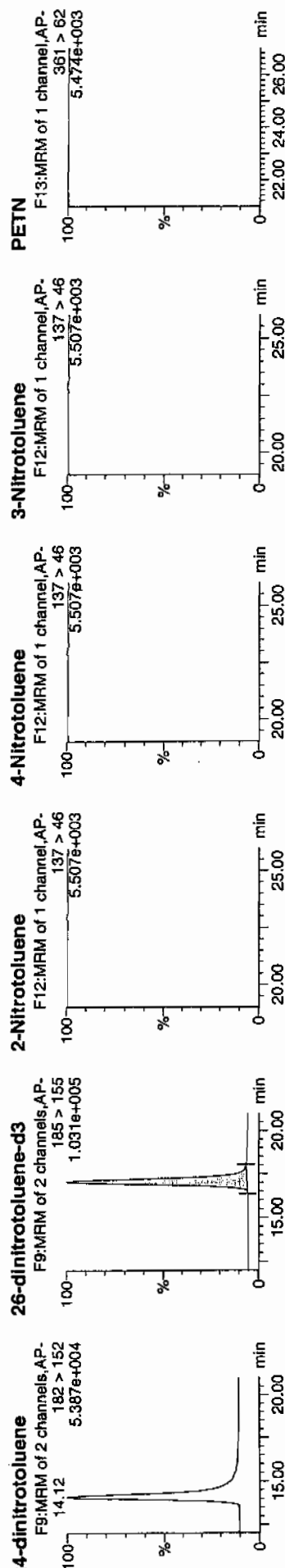
File: 3:3,E

1047  
4/15/10

198262 / 21  
Sera / 21



Amr  
4/15/10

[illegible]

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7476

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043013

Sample Amount 2

Moisture: 17.0

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310109.wiff

Date Analyzed: 01-APR-10 12:57

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

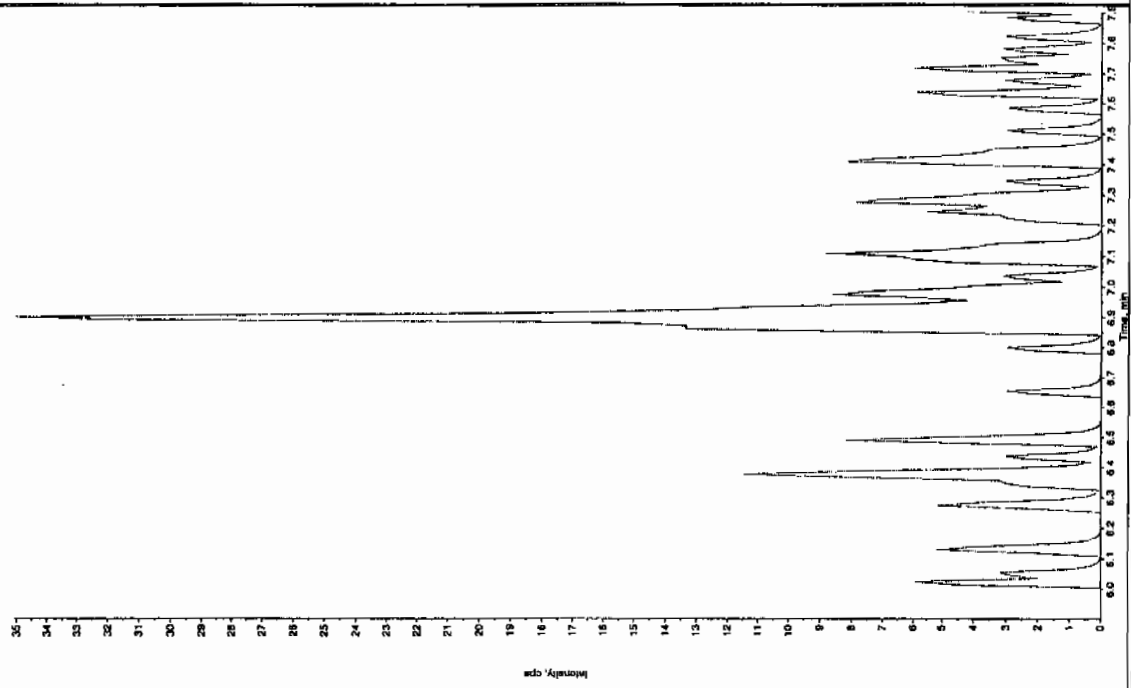
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

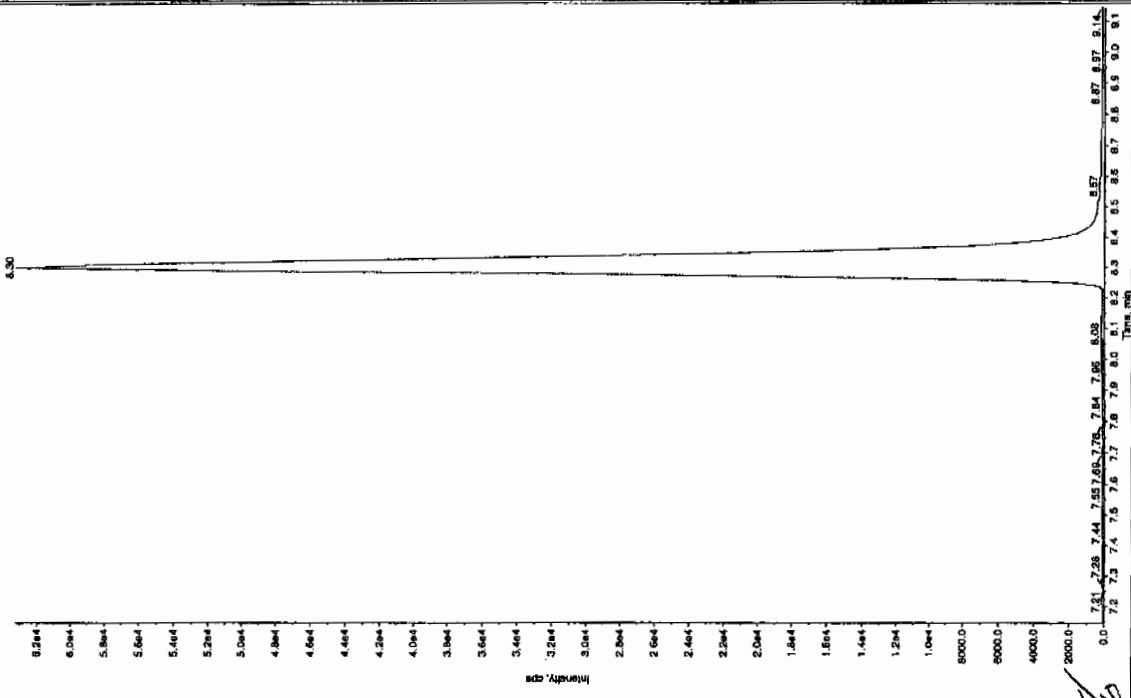


Scan 415710

Sample Name: "248043013" Sample ID: "956262121" File: "EX9303310109.wif"  
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
 Comment: "LCX832125" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Date: 4/17/2010  
 Time: 12:57:33 PM  
 Modified: No



Sample Name: "248043013" Sample ID: "956262121" File: "EX9303310109.wif"  
 Peak Name: "35-Dinitroanisole" Mass(es): "182.046.0 amu"  
 Comment: "LCX832125" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Date: 4/17/2010  
 Time: 12:57:33 PM  
 Modified: No



GL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "248043013" Sample ID: "95828221LER" File: "EX503310109.whi"  
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/17/2010  
 Acq. Time: 12:57:39 PM  
 Modified: No

Intensity, cps



Sample Name: "248043013" Sample ID: "95828221LER" File: "EX503310109.whi"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1151.9 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 276.  
 Acq. Date: 4/17/2010  
 Acq. Time: 12:57:39 PM  
 Modified: No

Algorithm: IntelliQuan - ICA

Peak Height: 1490.00 cps

Peak Width: 0.00 sec

Peak Midch: 3.00 sec

Peak Width: 15.0 sec

Peak RT: 8.31 min

Relative RT: No

Type: Valley

Retention Time: 8.30 min

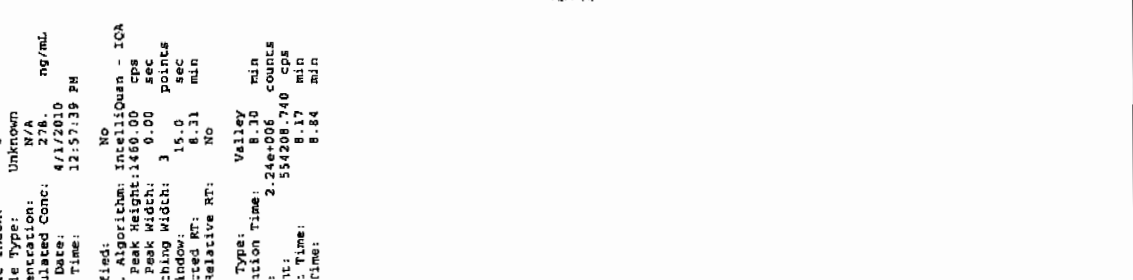
Counts: 2.24e+006 counts

Time: 554208.740 cps

Time: 8.17 min

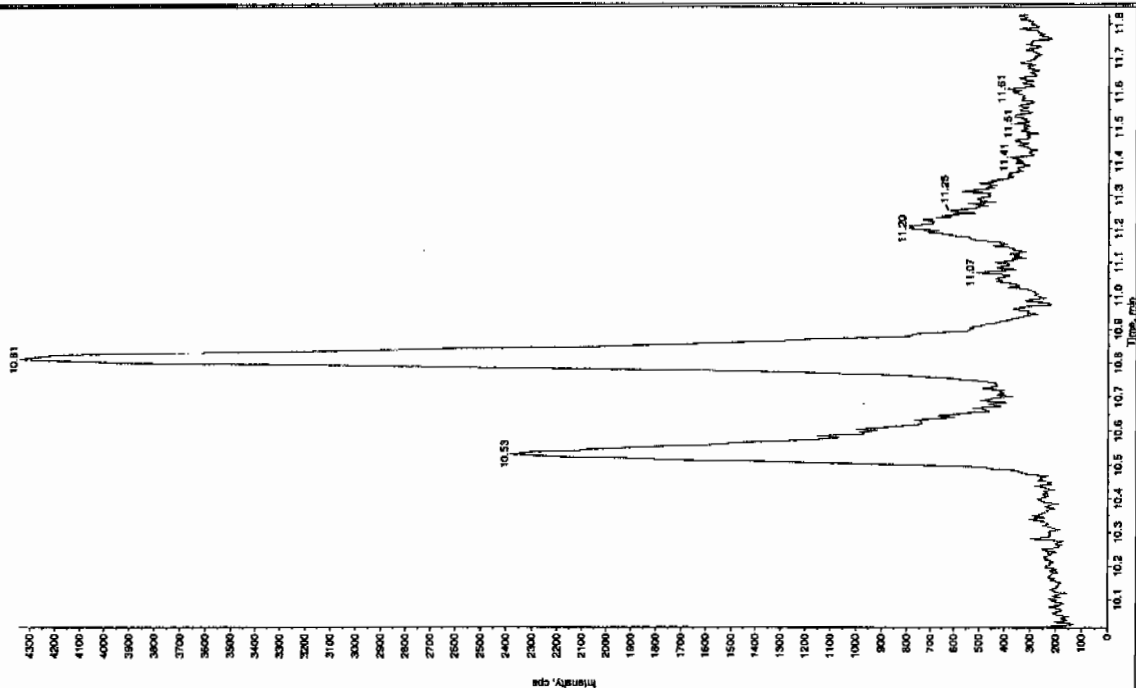
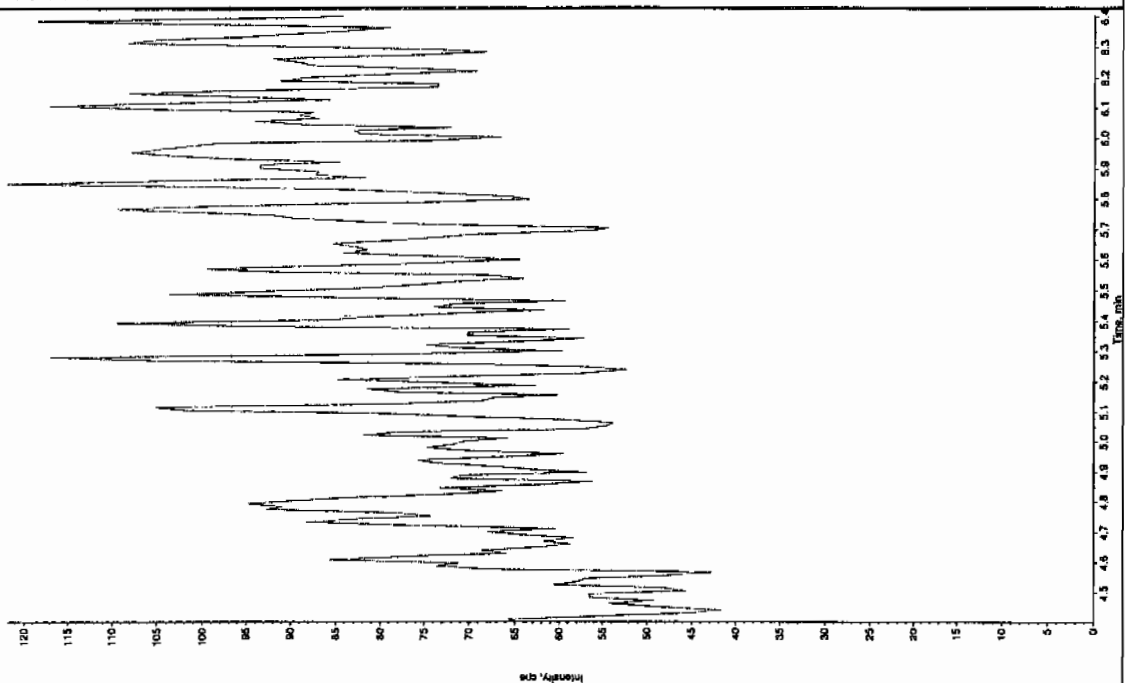
Time: 8.84 min

Intensity, cps



Sample Name: "248043013" Sample ID: "958283212" File: "EX503310108.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0460 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/11/2010  
 Acq. Time: 12:57:39 PM  
 Modified: No



3L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7461

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043014

Sample Amount 2

Moisture: 12.7

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412103a

Date Analyzed: 14-APR-10 17:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Dataset: C:\MASSL\YNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYN\NEW\_EXP.PRO\Data\EXP0412103a

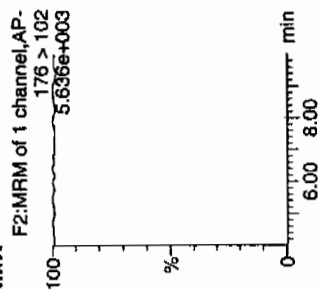
Date: 14-Apr-2010

Time: 17:49:54

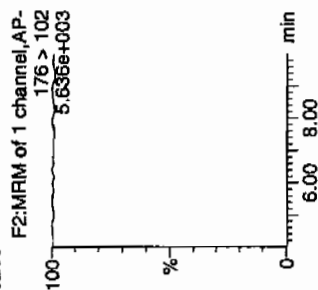
ID: 248043014

Vial: 3:3,F

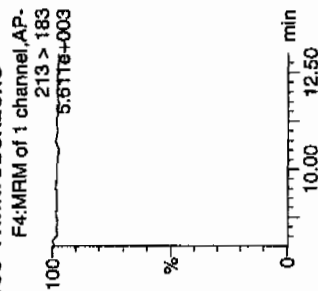
**XIII**



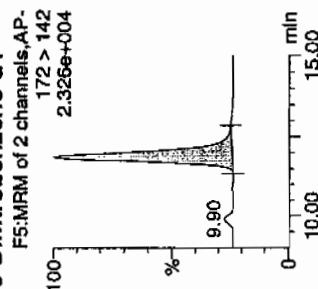
**RDX**



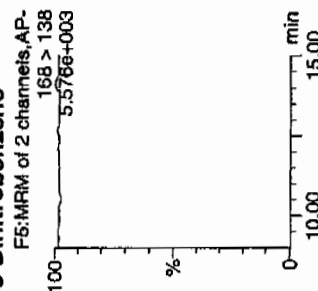
## 135-Trinitrobenzene



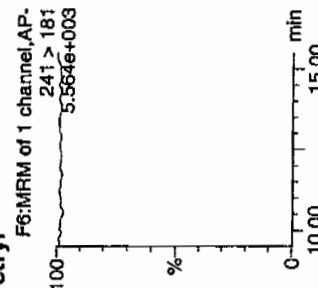
13-Dinitrobenzene-d4



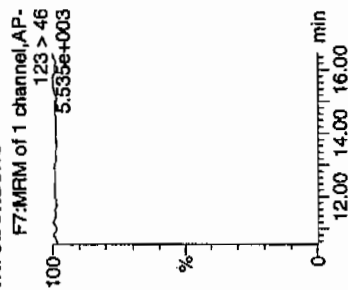
### 1,3-Dinitrobenzene



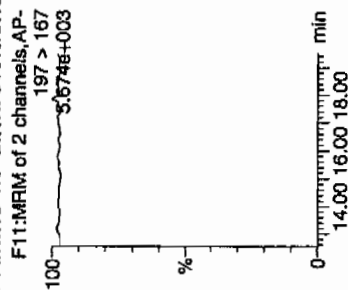
**Tetryl**



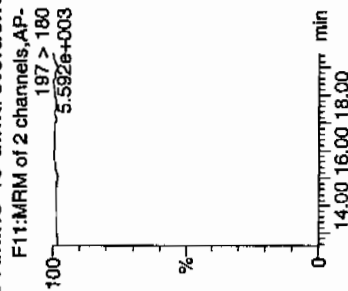
## Nitrobenzene



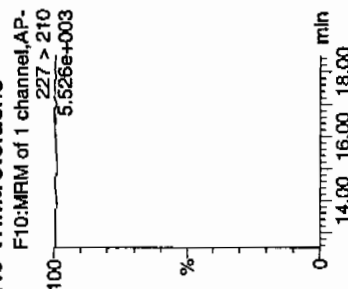
## 4-Amino-2,6-dinitrotoluene



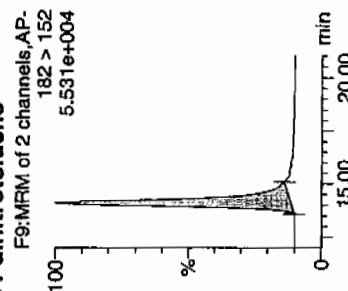
## 2-Amino-4,6-dinitrotoluene



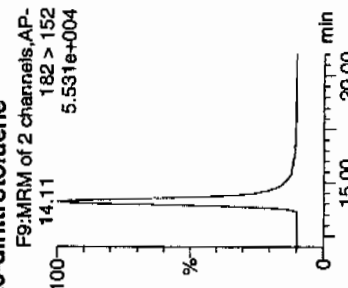
2-Amino-4,6-dinitrotoluene 246-Trinitrotoluene



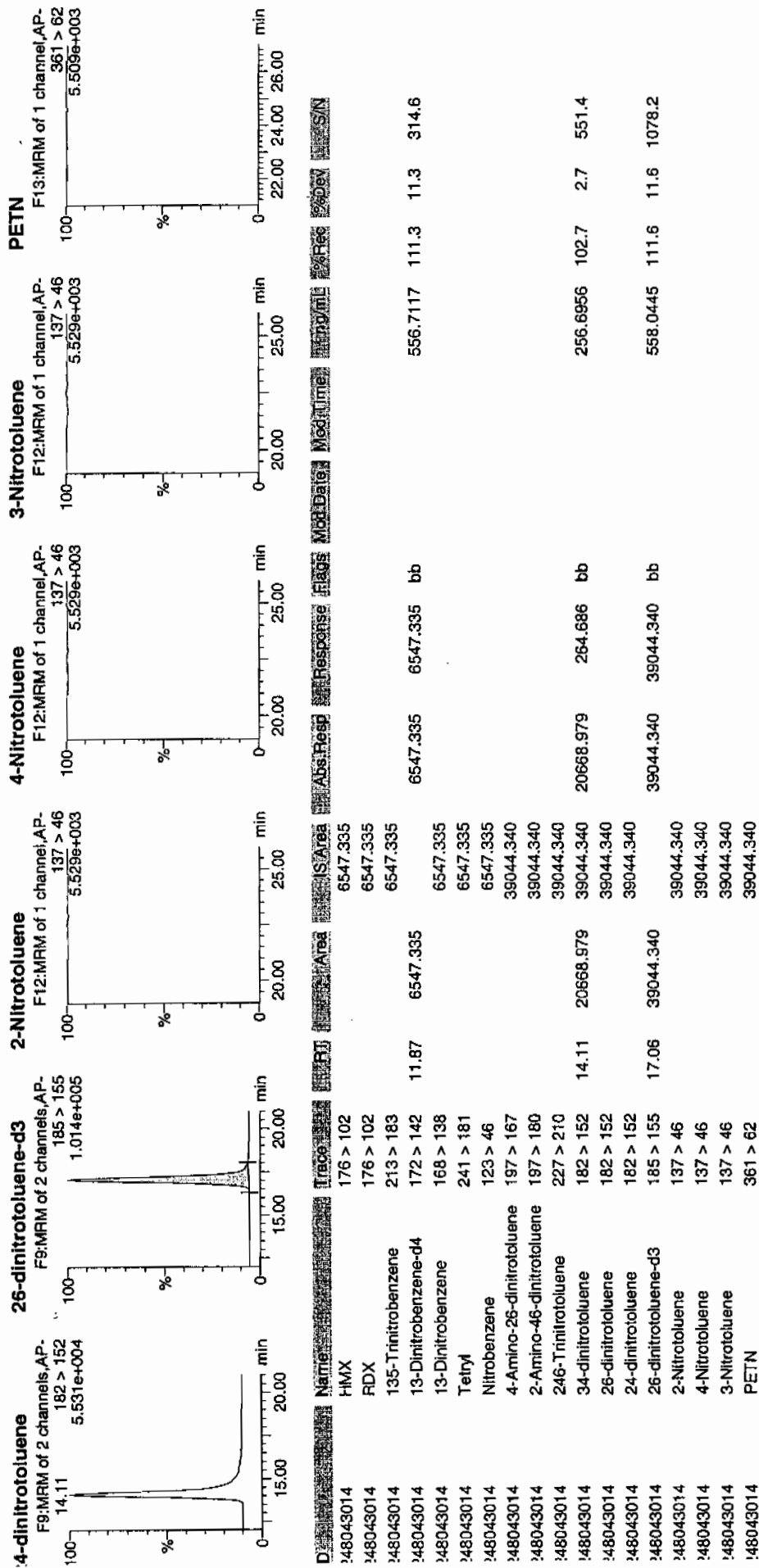
3,4-dinitrotoluene



2,6-dinitrotoluene



Done 11/15/10



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7461

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043014

Sample Amount 2

Moisture: 12.7

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310110.wiff

Date Analyzed: 01-APR-10 13:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	303	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Scan 415710

Sample Name: '248043014' Sample ID: '95826221.ERP' File: 'EX503310110.wif'

Peak Name: '35-Dinitroanisole' Mass(es): '182.046.0 amu'

Comment: 'LCX83212S' Annotation: ''

Sample Index: 1

Sample Type: Unknown

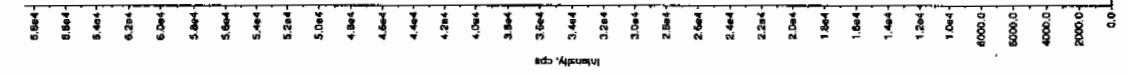
Concentration: 0.00 ng/mL

Calculated Conc: 0.00

Acq. Date: 4/1/2010

Acq. Time: 1:13:22 PM

Modified: No



Ammonia

Sample Name: '248043014' Sample ID: '95826221.ERP' File: 'EX503310110.wif'

Peak Name: '35-Dinitroanisole' Mass(es): '182.046.0 amu'

Comment: 'LCX83212S' Annotation: ''

Sample Index: 1

Sample Type: Unknown

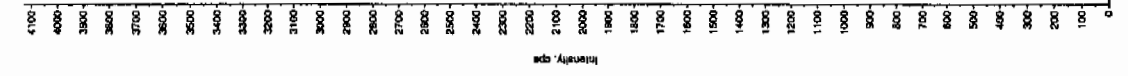
Concentration: 30.3 ng/mL

Calculated Conc: 30.3

Acq. Date: 4/1/2010

Acq. Time: 1:13:22 PM

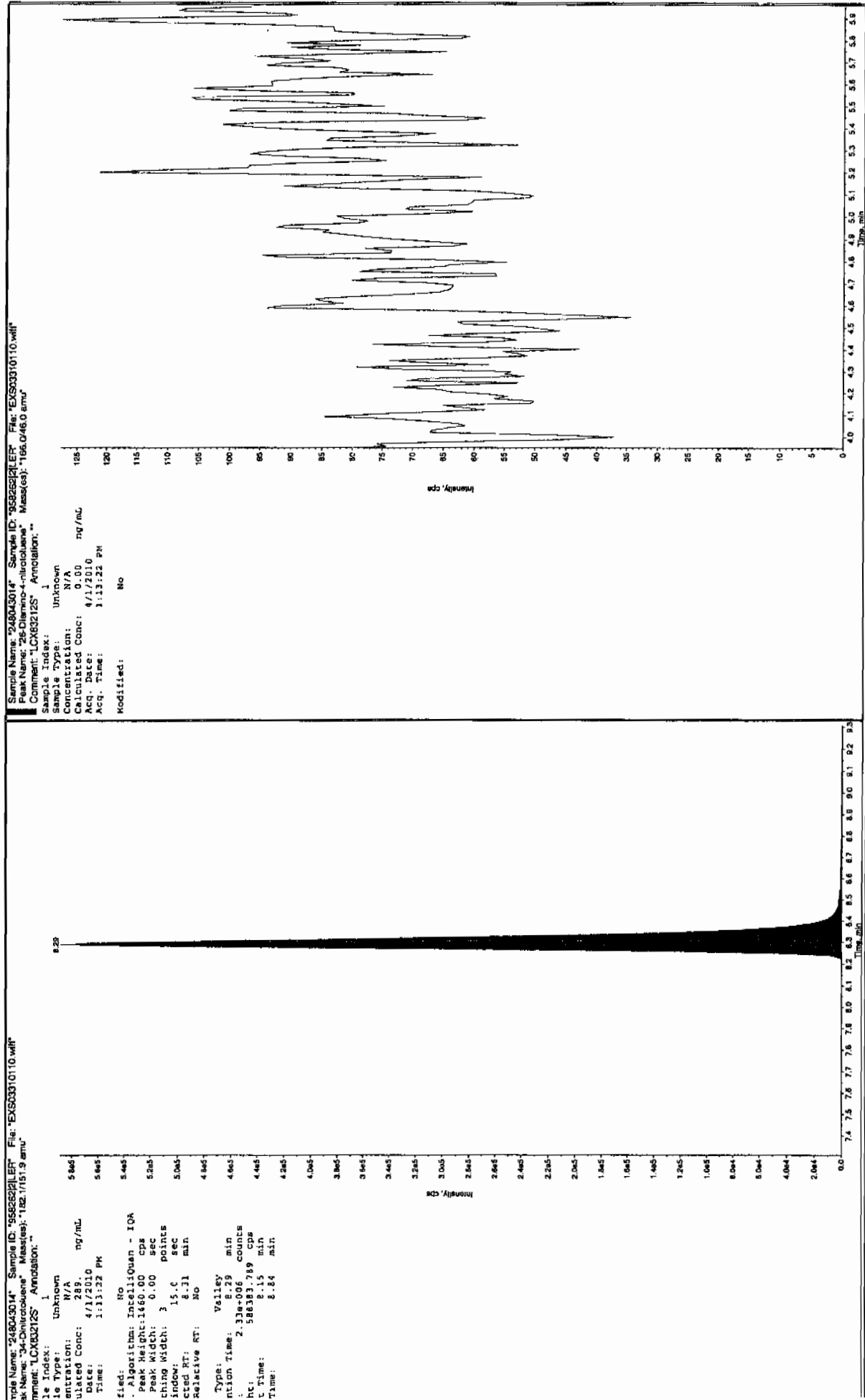
Modified: No



Algorithm: IntelliQuan - IOA  
 Peak Height: 2500.00 cps  
 Peak Width: 0.00 sec  
 Peak Width: 3 points  
 Window: 30.0 sec  
 Ret. Time: 6.90 min  
 Relative RT: No  
 Type: Valley  
 Ret. Time: 6.88 min  
 Ret. Time: 1.62e+004 counts  
 Ret. Time: 4116.00 cps  
 Ret. Time: 6.81 min  
 Ret. Time: 7.17 min

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

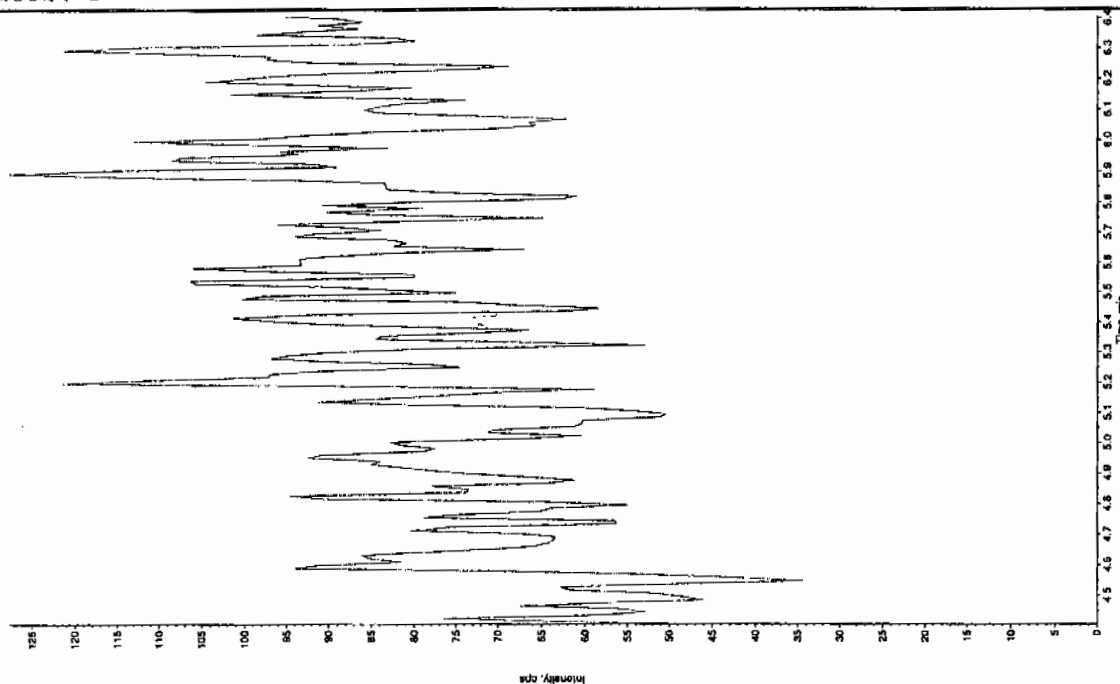




IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

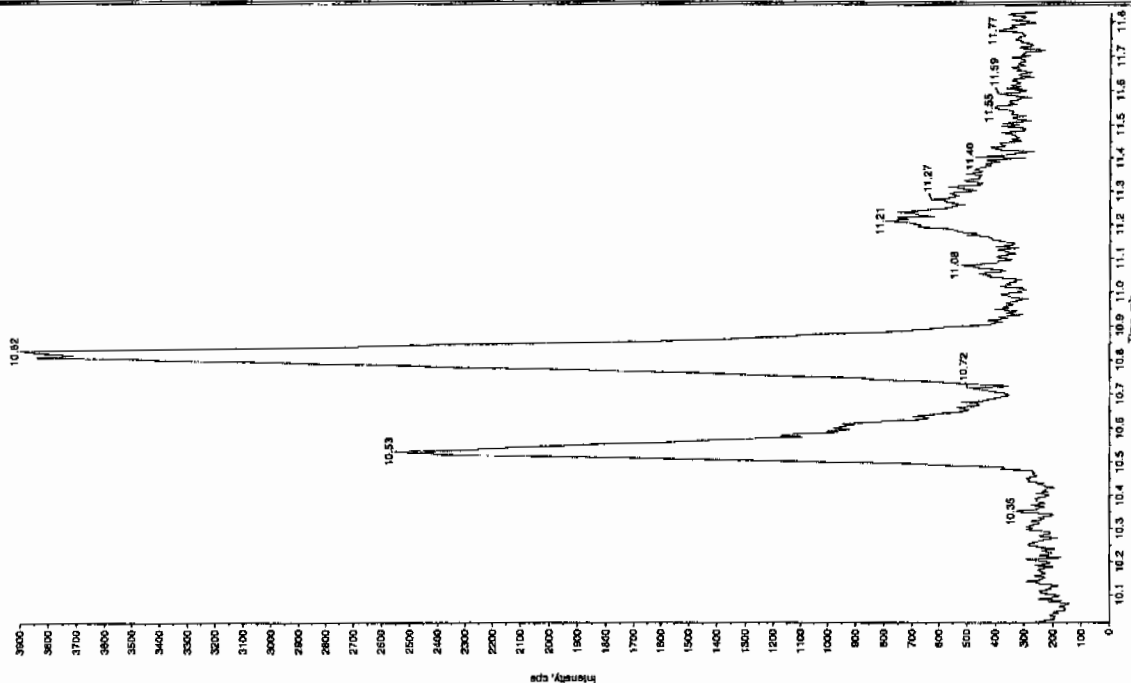
Sample Name: "246043014" Sample ID: "95826221.ER" File: "EX803310110.wif"  
 Peak Name: "24-Diethyl-5-nitrophenyl phosphate" Mass(es): "166.046.0 amu"  
 Comment: "LCMS83212S" Amulation: "1"

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Date: 4/1/2010  
 Time: 1:13:22 PM  
 Modified: NO



Sample Name: "246043014" Sample ID: "95826221.ER" File: "EX803310110.wif"  
 Peak Name: "24-Diethyl-5-nitrophenyl phosphate" Mass(es): "369.191.0 amu"  
 Comment: "LCMS83212S" Amulation: "1"

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Date: 4/1/2010  
 Time: 1:13:22 PM  
 Modified: NO



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7467

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043015

Sample Amount 2

Moisture: 16.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412104a

Date Analyzed: 14-APR-10 18:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412104a

Date: 14-Apr-2010

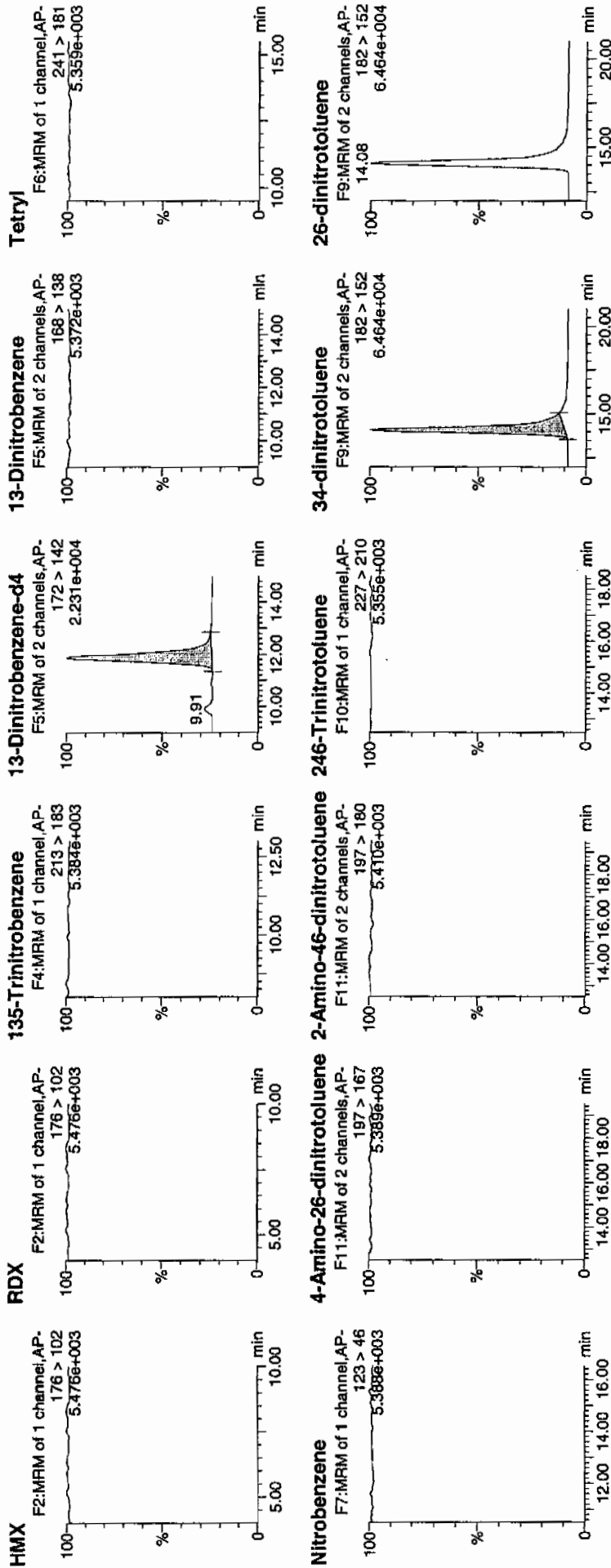
Time: 18:19:23

ID: 248043015

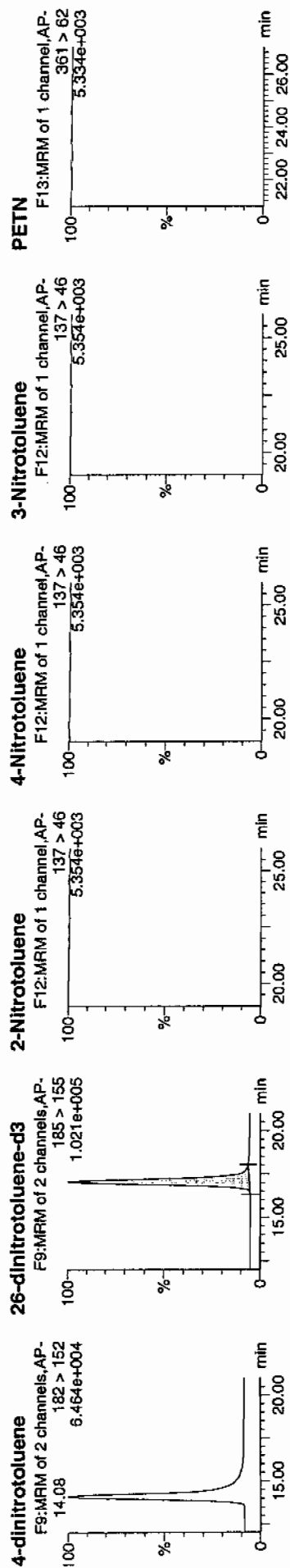
Vial: 3:4,A

10/17  
4/15/10

LAU-98822 / Saxa / 21



4/15/10

[illegible]

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7467

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043015

Sample Amount 2

Moisture: 16.9

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310111.wiff

Date Analyzed: 01-APR-10 13:29

Units: ug/kg

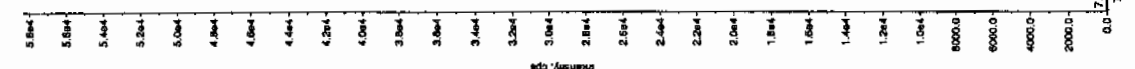
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Jan 4/10

Sample Name: 248043015 Sample ID: 98826221.ER File: EXS03310111.will  
 Peak Name: 35-Ornicaridine Mass(es): 182.046.0 amu  
 Comment: LCK832125 Annotation: 1  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/1/2010  
 Acq. Date: 1:29:05 PM  
 Acq. Time: 1:29:05 PM  
 Modified: NO



Jan 04/10

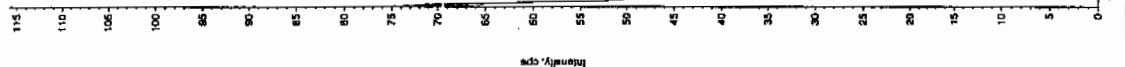
Sample Name: 248043015 Sample ID: 98826221.ER File: EXS03310111.will  
 Peak Name: 35-Ornicaridine Mass(es): 182.046.0 amu  
 Comment: LCK832125 Annotation: 1  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/1/2010  
 Acq. Date: 1:29:05 PM  
 Acq. Time: 1:29:05 PM  
 Modified: NO



IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

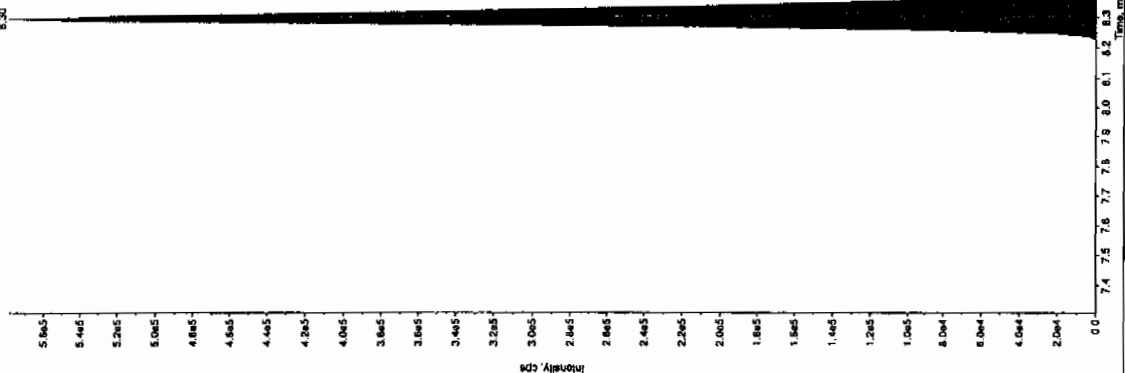
Sample Name: "248043015" Sample ID: "96826221.ER" File: "EXS03310111.wiff"  
 Peak Name: "26-Diamino-4-nitrophenol" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 471.250 ng/mL  
 Acq. Date: 4/17/2010  
 Acq. Time: 1:29:05 PM  
 Modified: NO



Sample Name: "248043015" Sample ID: "96826221.ER" File: "EXS03310111.wiff"  
 Peak Name: "34-Dinitrophenol" Mass(es): "182.115.9 amu"  
 Comment: "LCX832125" Annotation: "

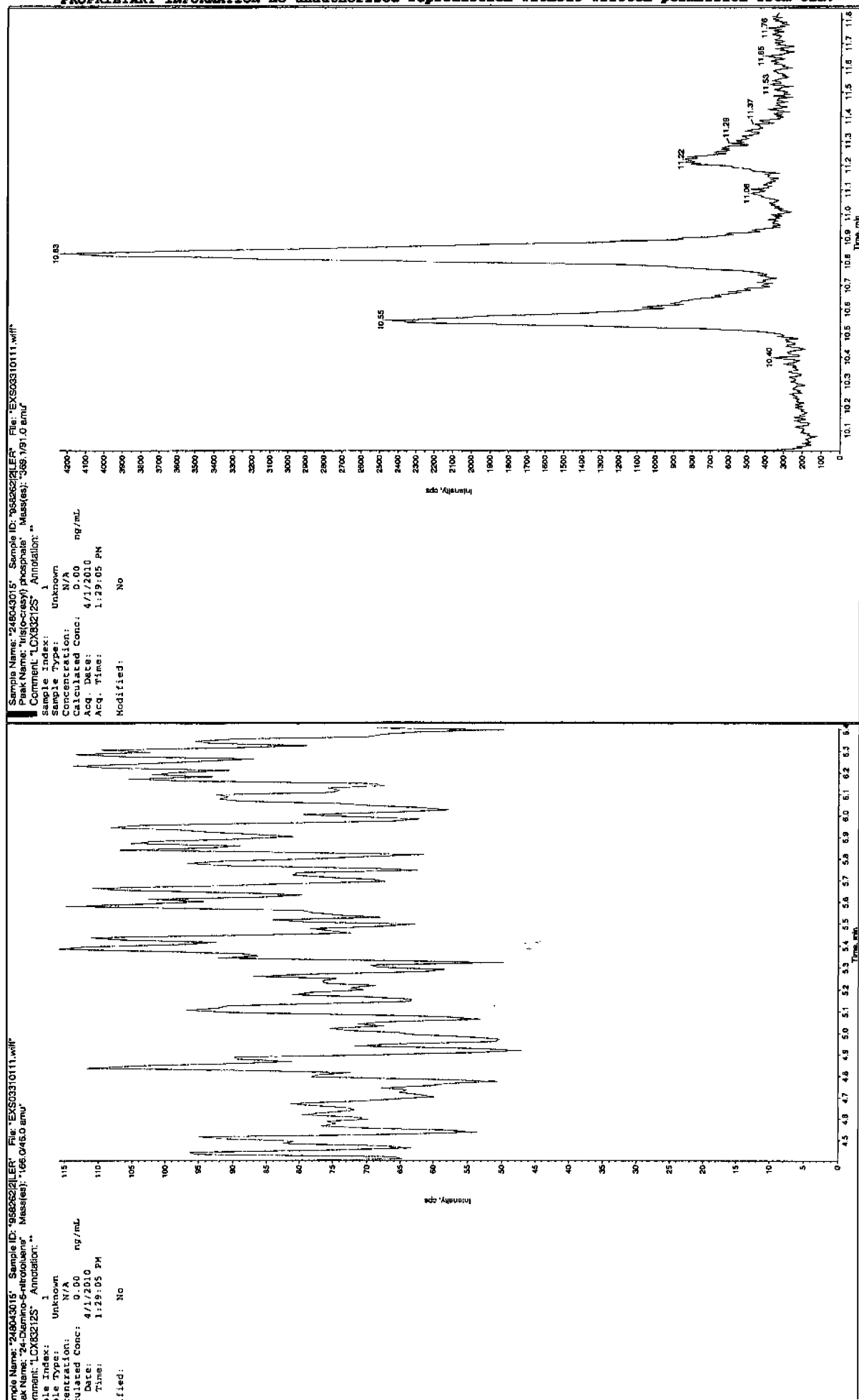
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 471.250 ng/mL  
 Acq. Date: 4/17/2010  
 Acq. Time: 1:29:05 PM  
 Modified: NO



Algorithm: IntelliQuan - IOA  
 Peak Height: 1460.00 cps  
 Peak Width: 0.00 sec  
 Peak Width: 3 points  
 Peak Width: 15.0 sec  
 Peak Width: 8.31 min  
 Relative RT: NO  
 Type: Valley  
 Retention Time: 8.30 min  
 Counts: 2.26e+006  
 Height: 578632.141 cps  
 Time: 8.21 min  
 Time: 8.70 min

GL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7469

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043016

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412138a

Date Analyzed: 15-APR-10 11:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

name: C:\MASSLYN\NEW\_EXP.PRO\Data\EXP0412138a

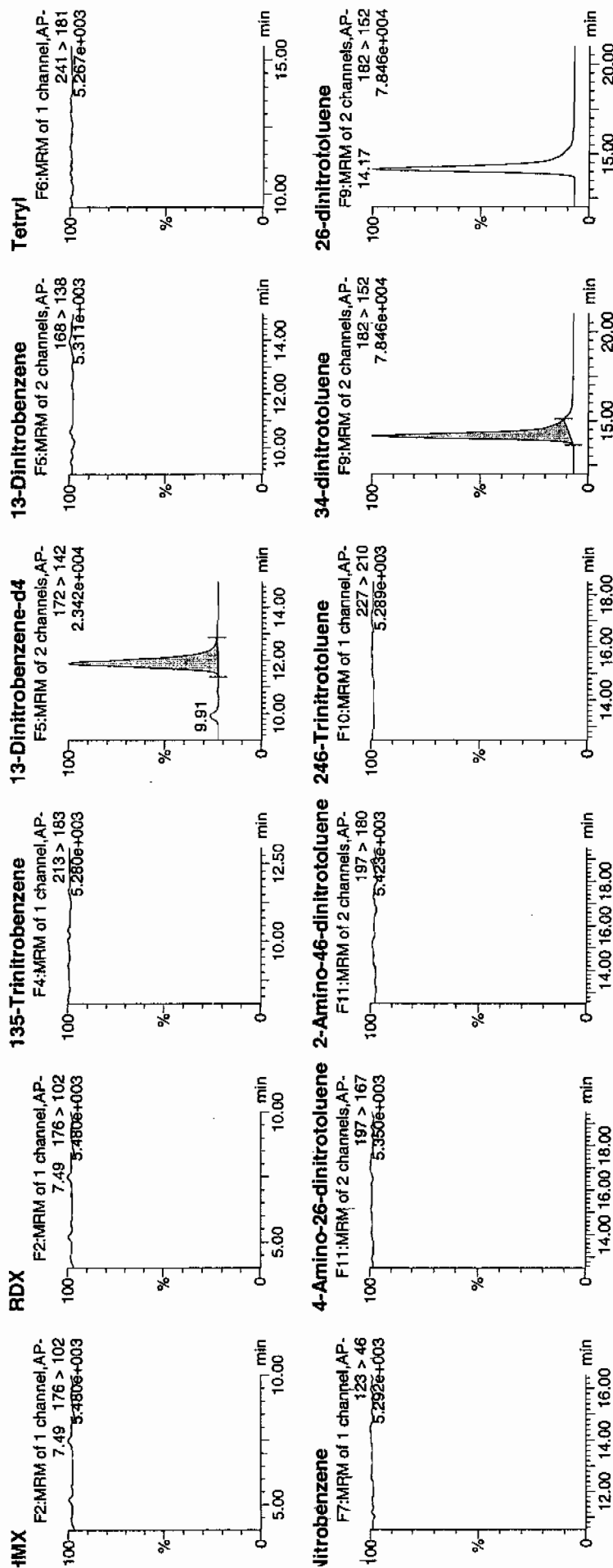
Date: 15-Apr-2010

Time: 11:02:31

**D: 248043016**

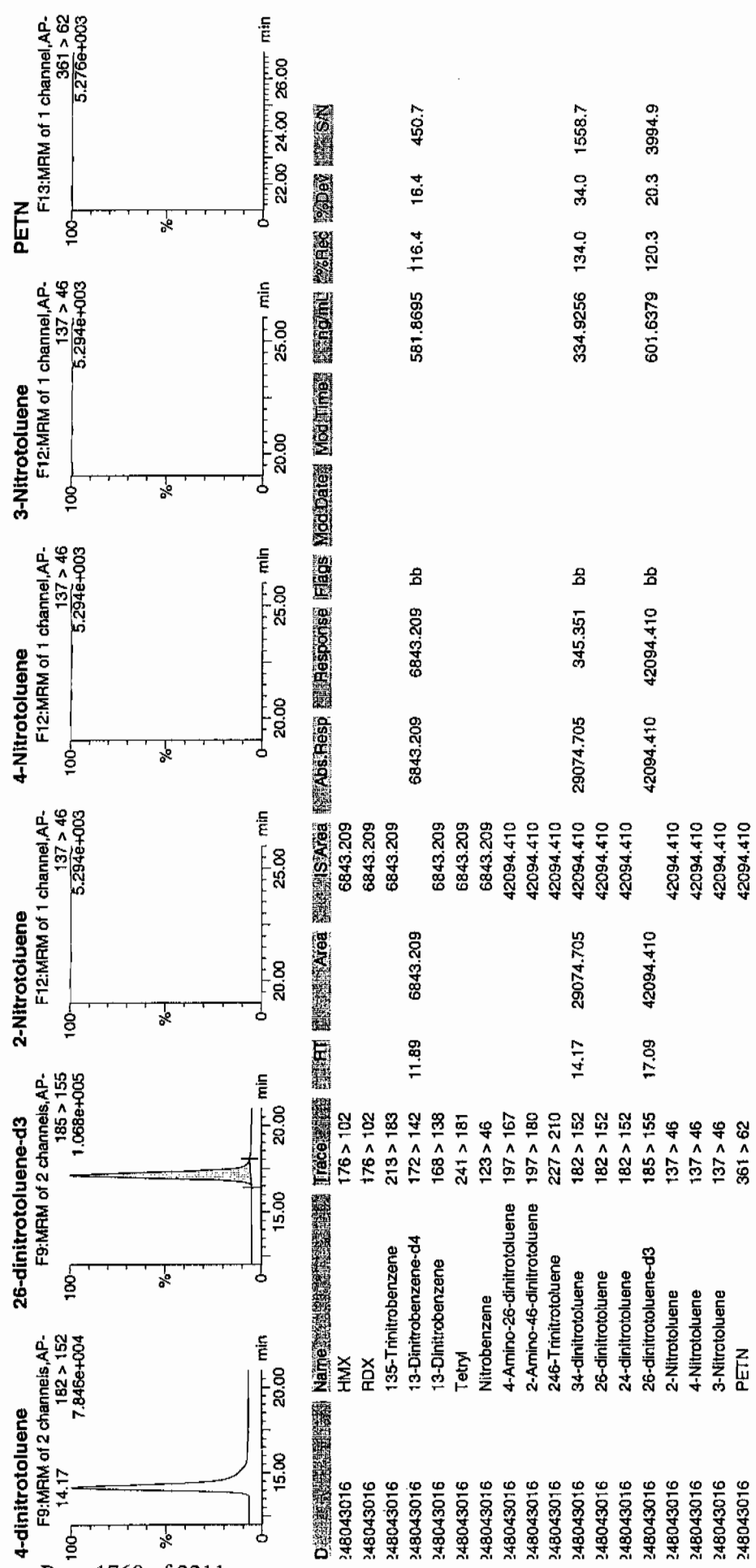
**Vial: 3:4,B**

4/15/20



4/4/15/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7469

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043016

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310112.wiff

Date Analyzed: 01-APR-10 13:44

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

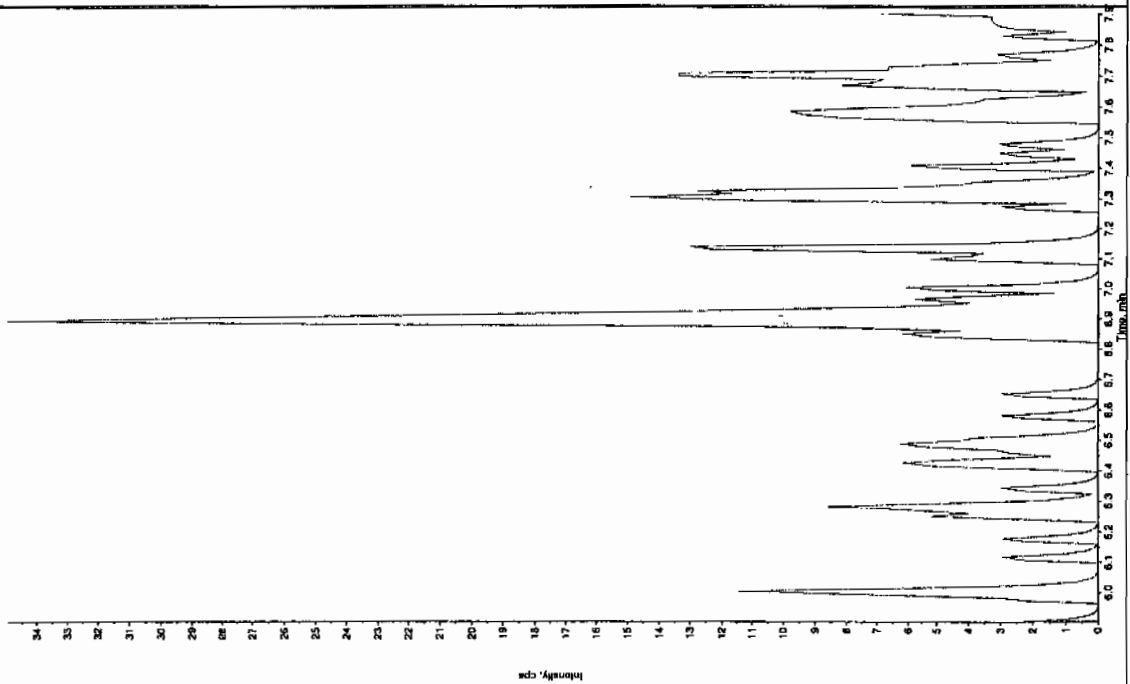
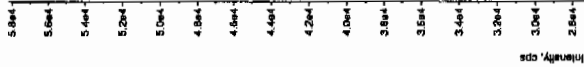
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

San 4/15/10

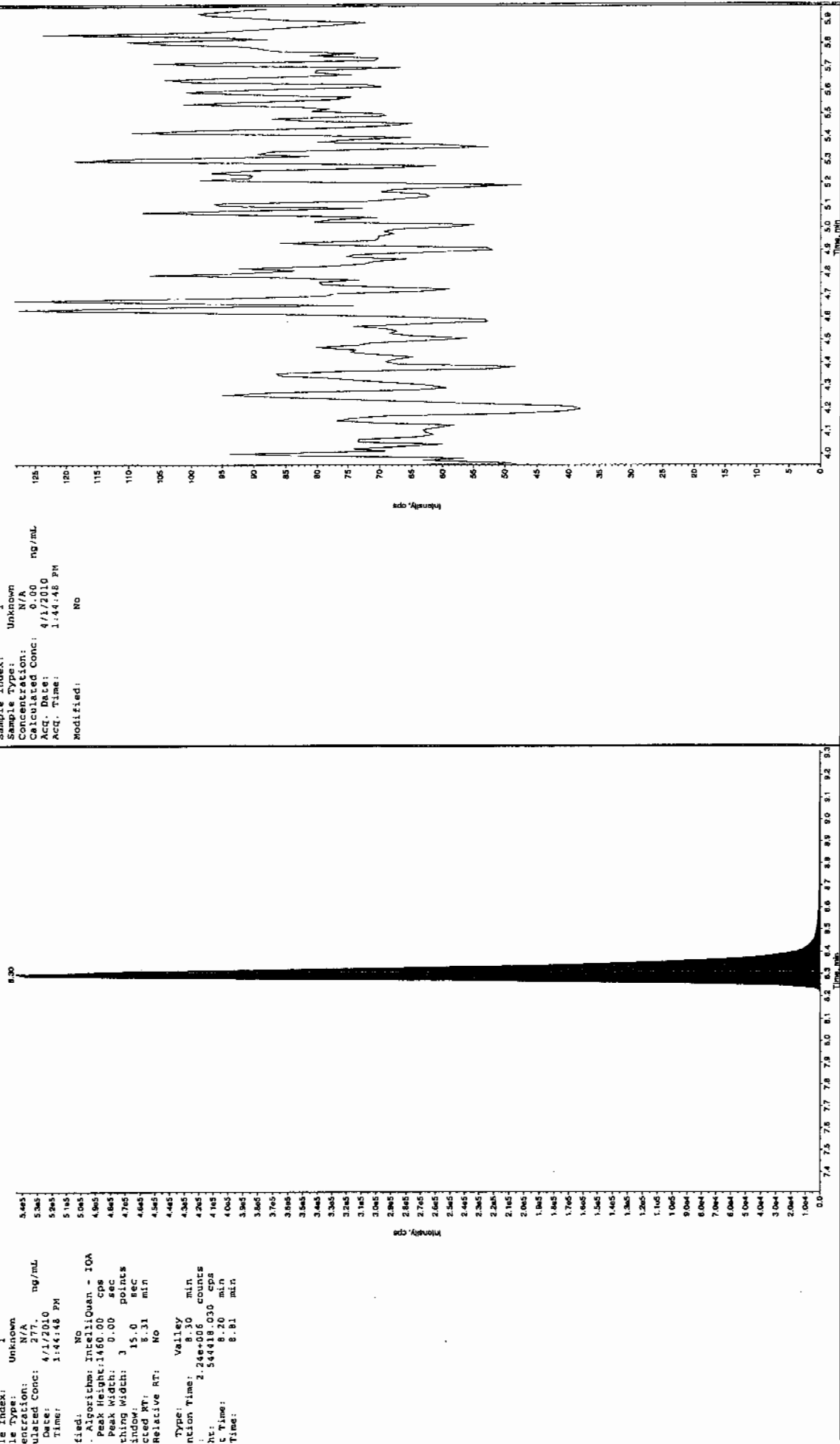
Sample Name: "248043016" Sample ID: "95526221.LER" File: "EX503310112.wif"  
 Peak Name: "35-Dihydroquinoline" Mass(es): "182.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 1:44:48 PM  
 Modified: No

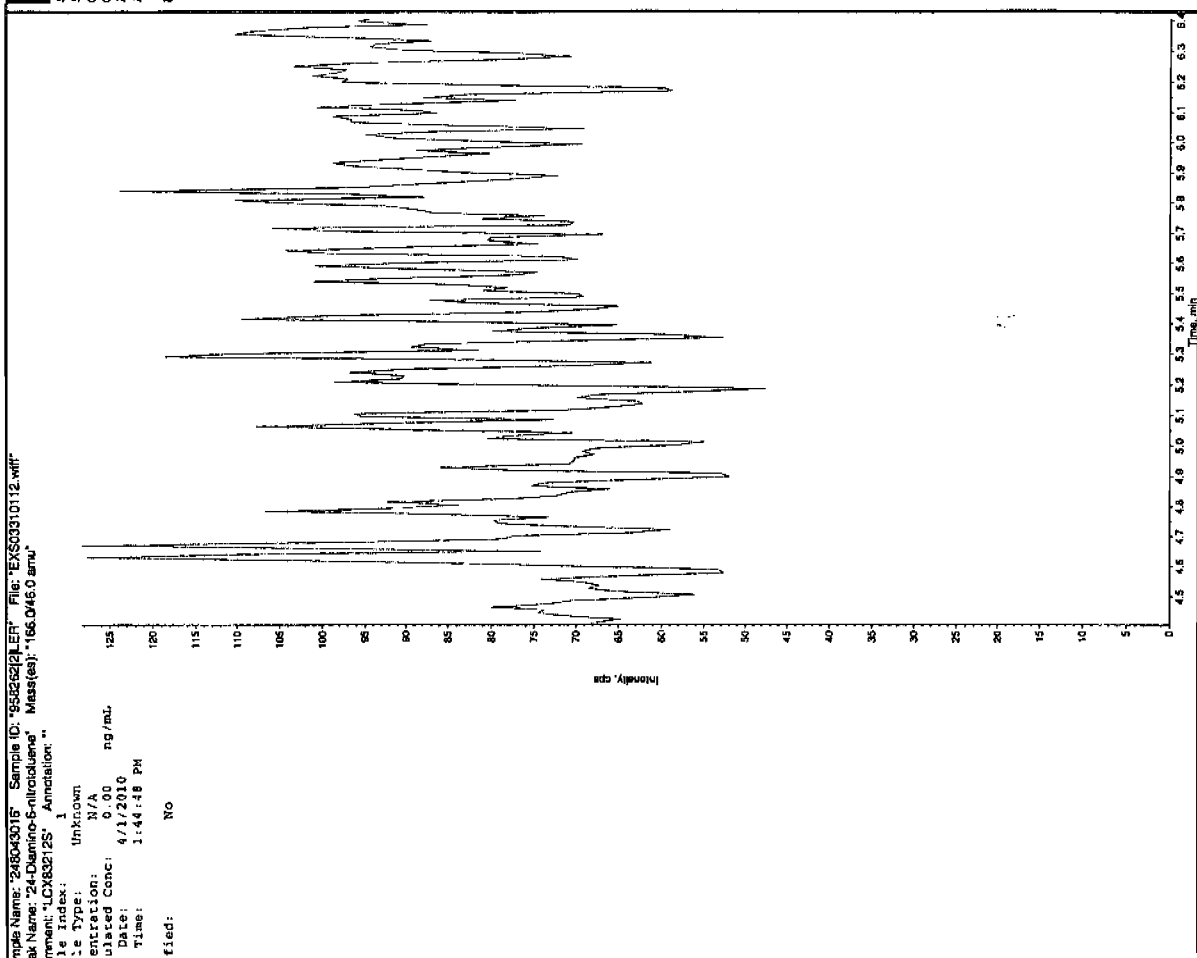
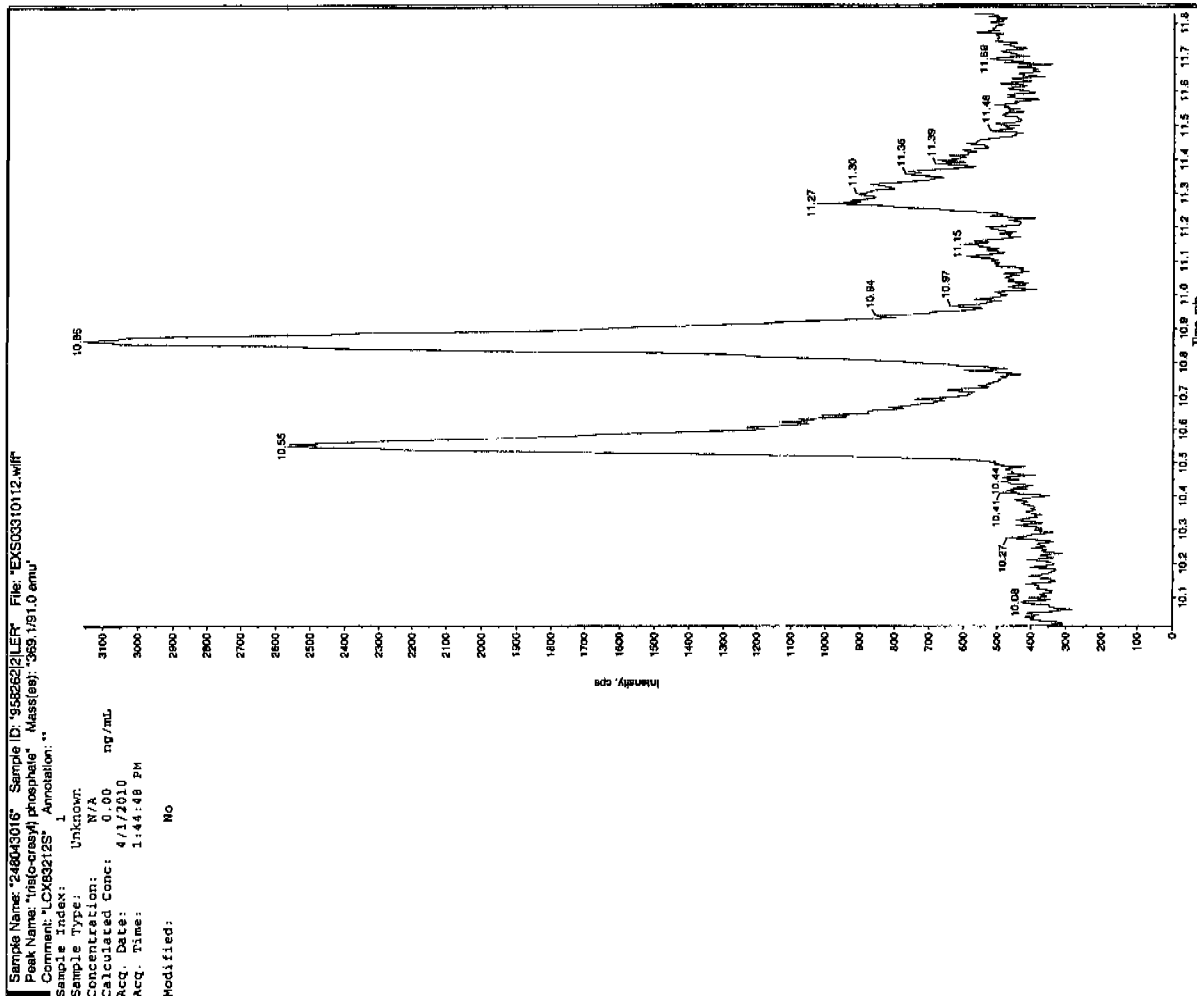
Sample Name: "248043016" Sample ID: "95526221.LER" File: "EX503310112.wif"  
 Peak Name: "TAIB" Mass(es): "257.2/204.9 amu"  
 Comment: "LCX83212S" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 1:44:48 PM  
 Modified: No



San 11/10/04/10

IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7470

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043017

Sample Amount 2

Moisture: 14.4

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412106a

Date Analyzed: 14-APR-10 19:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Quantify Sample Report  
 JEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0412106a

Date: 14-Apr-2010

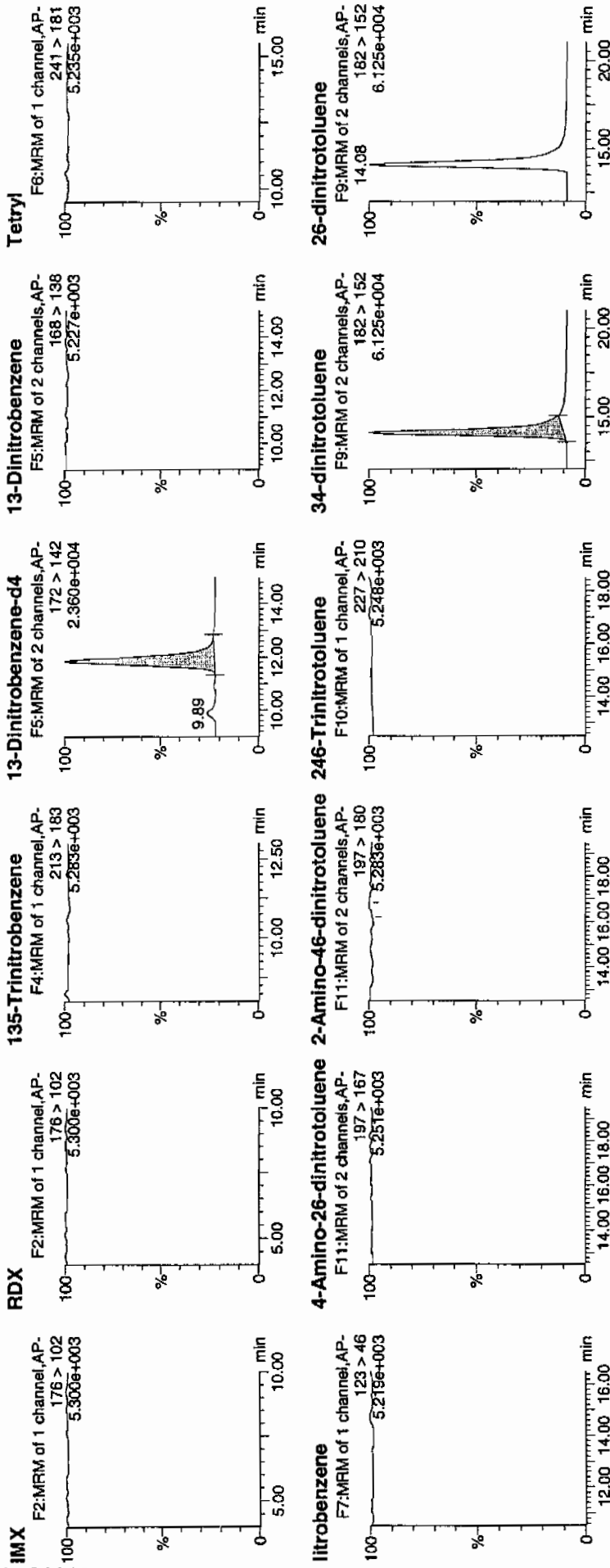
Time: 19:18:22

ID: 248043017

File: 3-4.C

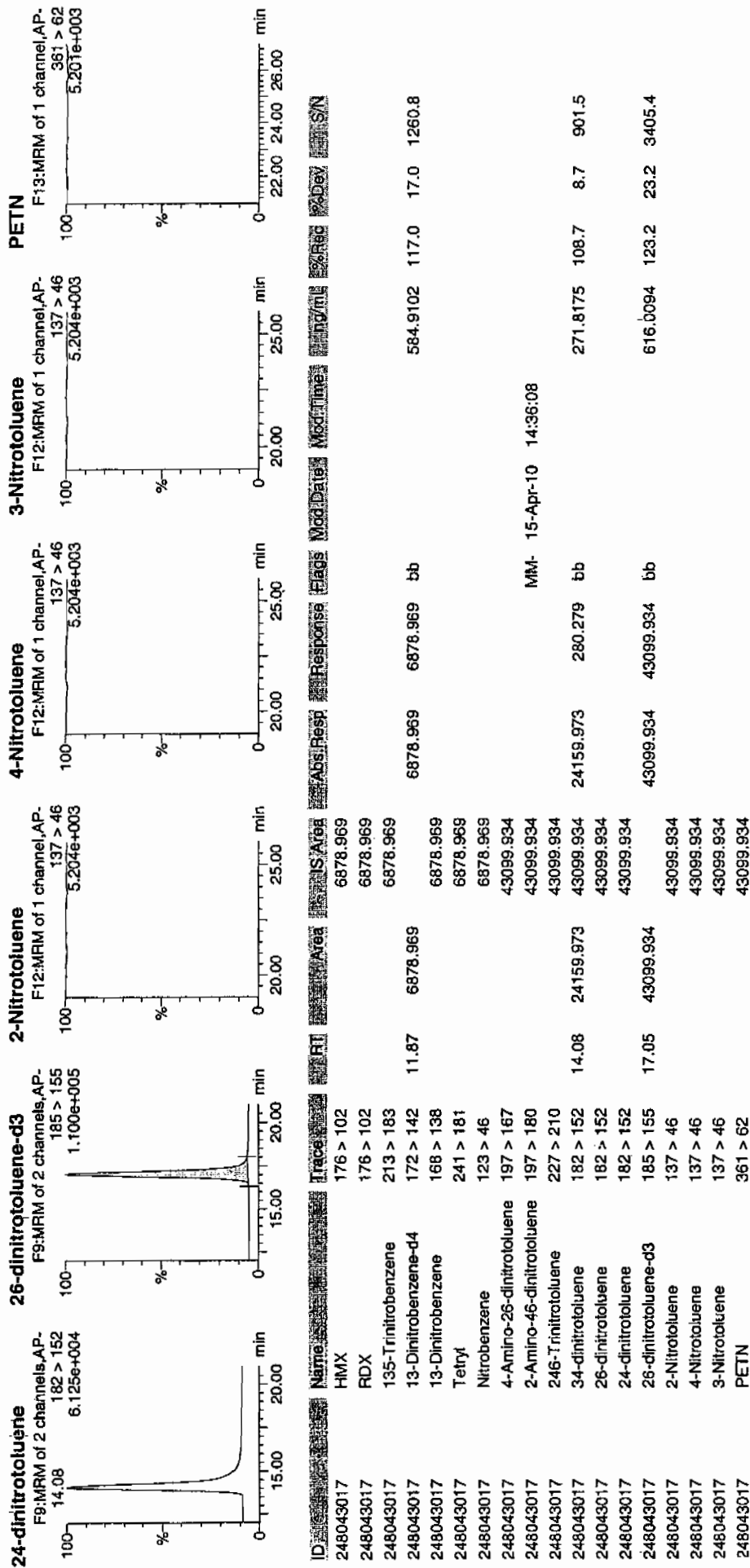
4/15/10  
 4/15/10

CAVU-983262 / 8025 / 21



4/15/10

Dataset: C:\MASSL\YNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7470

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043017

Sample Amount 2

Moisture: 14.4

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310116.wiff

Date Analyzed: 01-APR-10 14:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Jan 4/5/10

Sample Name: "248043017" Sample ID: "956262121.ER" File: "EXS03310116.will"

Peak Name: "TATS" Mass(es): "257.2/204.9 amu"

Comment: "LCX83212S" Annotation: "

Sample Index: 1

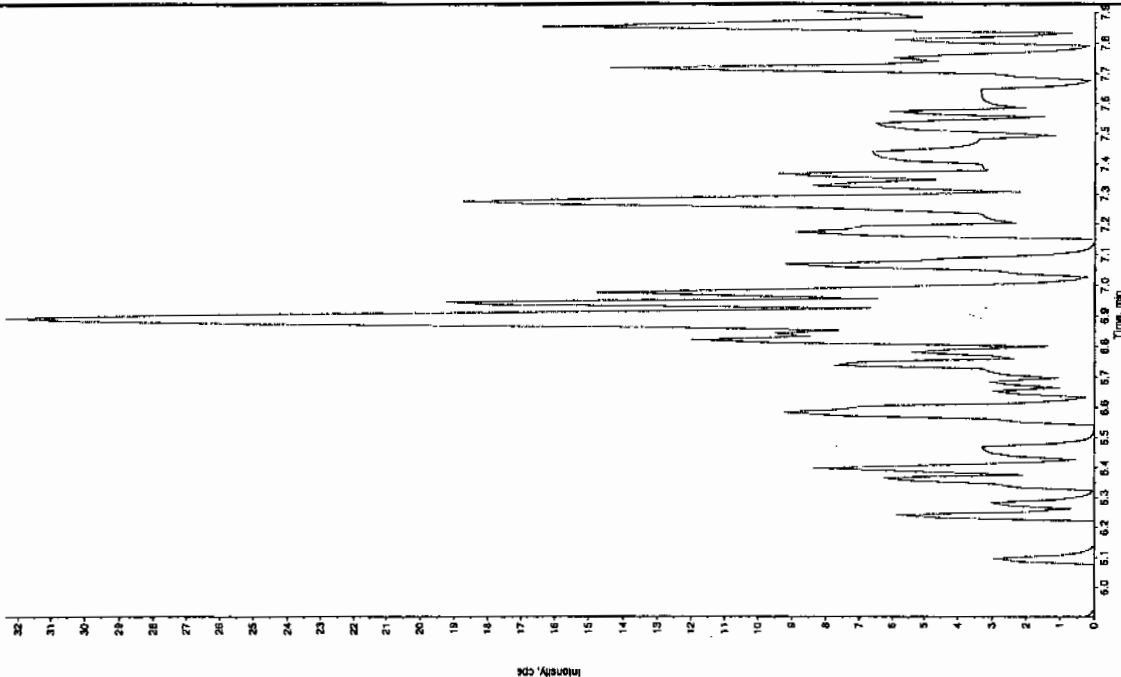
Sample Type: Unknown

Concentration: N/A ng/mL

Acq. Date: 4/1/2010

Acq. Time: 2:47:38 PM

Modified: NO



Sample Name: "248043017" Sample ID: "956262121.ER" File: "EXS03310116.will"

Peak Name: "95-Dinitrofuriline" Mass(es): "182.0/46.0 amu"

Comment: "LCX83212S" Annotation: "

Sample Index: 1

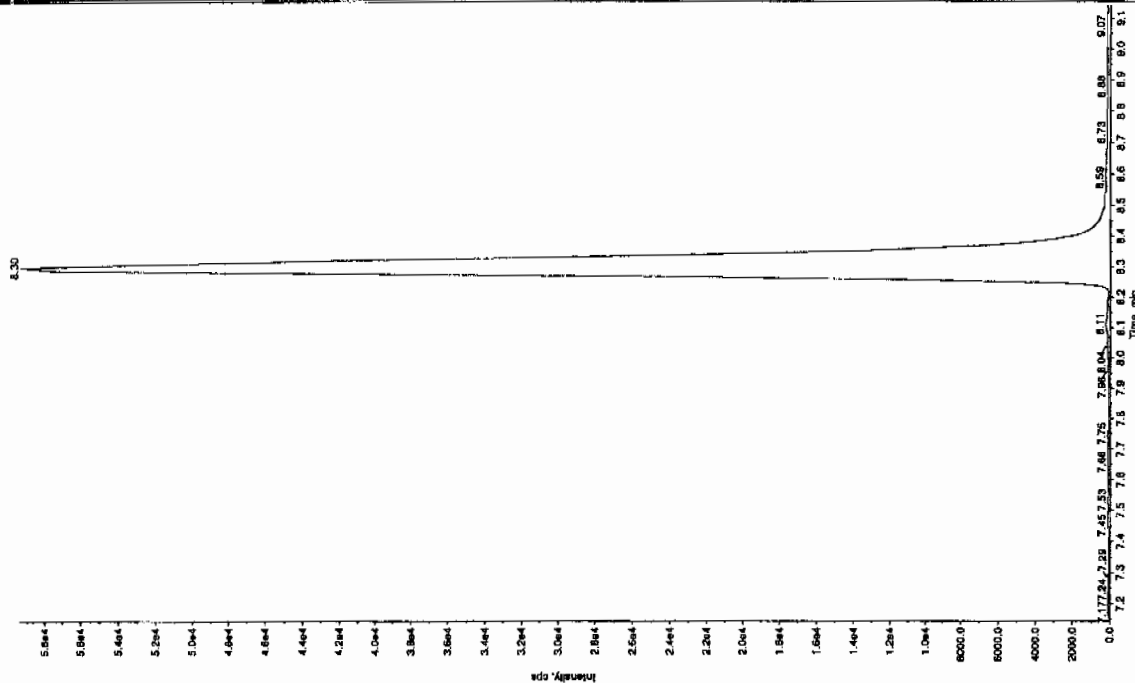
Sample Type: Unknown

Concentration: N/A ng/mL

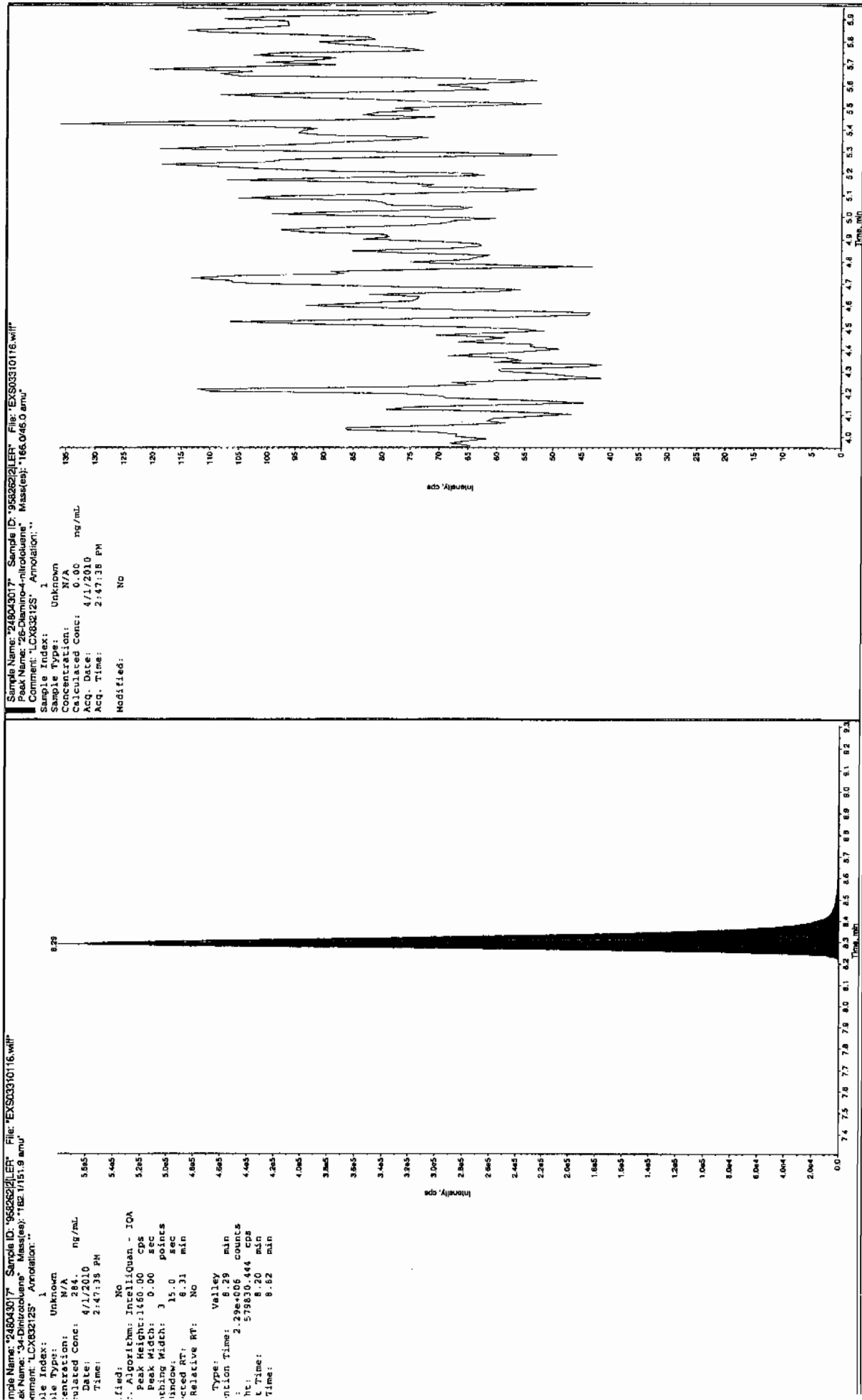
Acq. Date: 4/1/2010

Acq. Time: 2:47:38 PM

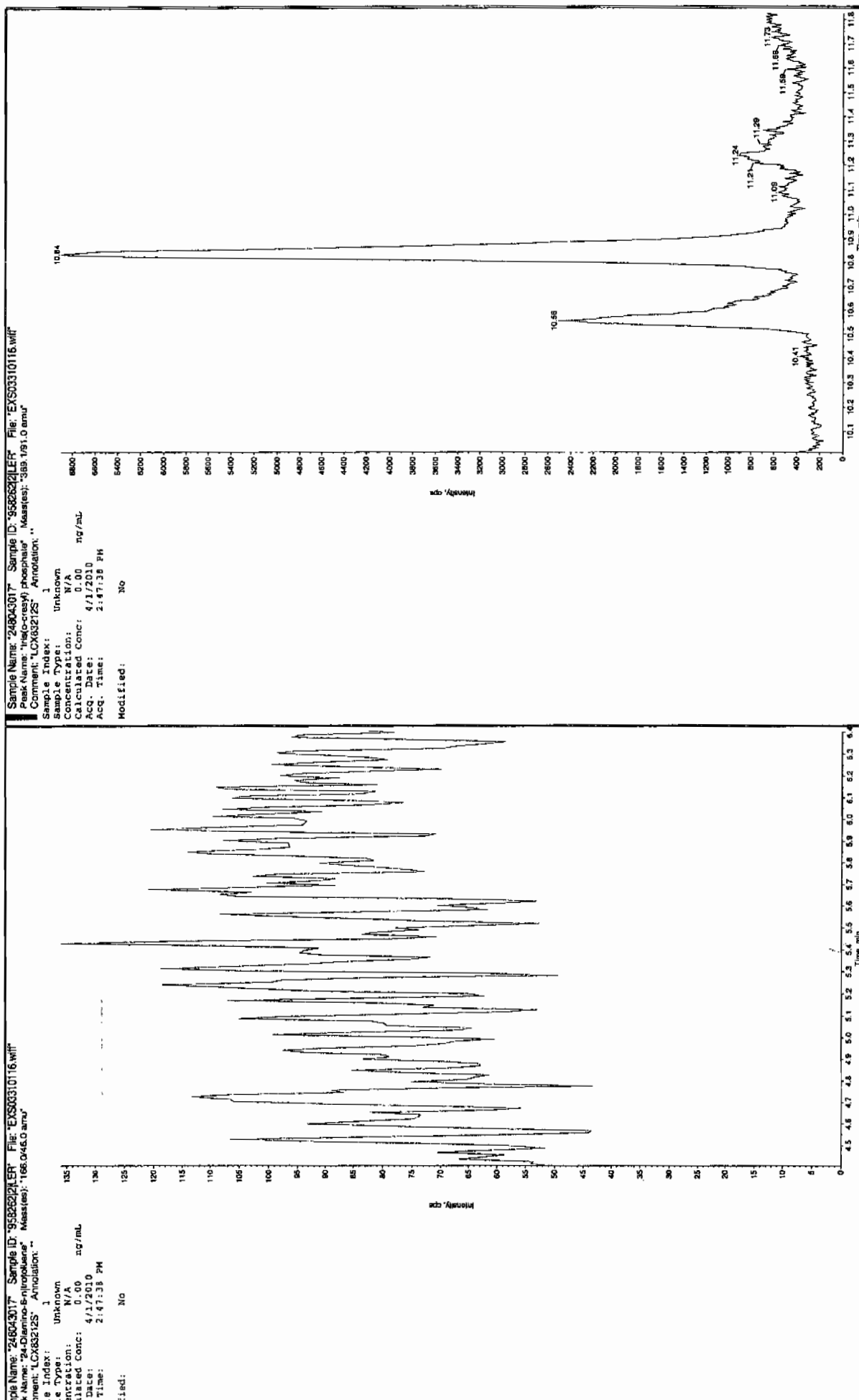
Modified: NO



Jan 4/5/10



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7515

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043018

Sample Amount 2

Moisture: 20.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412107a

Date Analyzed: 14-APR-10 19:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	HU
121-14-2	2,4-Dinitrotoluene	500	HU
121-82-4	RDX	500	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	500	HU
2691-41-0	HMX	500	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	500	HU
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	500	HU
78-11-5	PETN	1000	HU
88-72-2	o-Nitrotoluene	500	HU
98-95-3	Nitrobenzene	500	HU
99-08-1	m-Nitrotoluene	500	HU
99-35-4	1,3,5-Trinitrobenzene	500	HU
99-65-0	m-Dinitrobenzene	500	HU
99-99-0	p-Nitrotoluene	500	HU

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



Quantify Sample Report  
iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Sample Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0412107a

Date: 14-Apr-2010

Time: 19:47:51

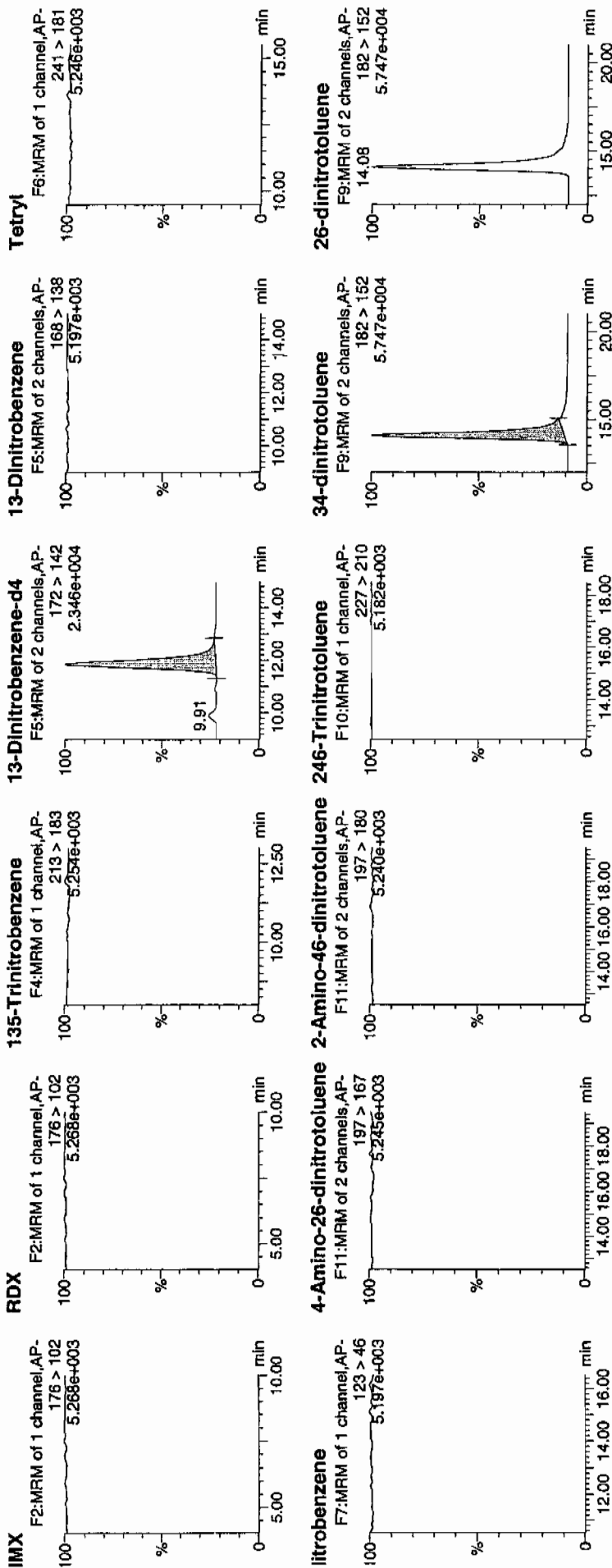
ID: 248043018

Label: 3:4,D

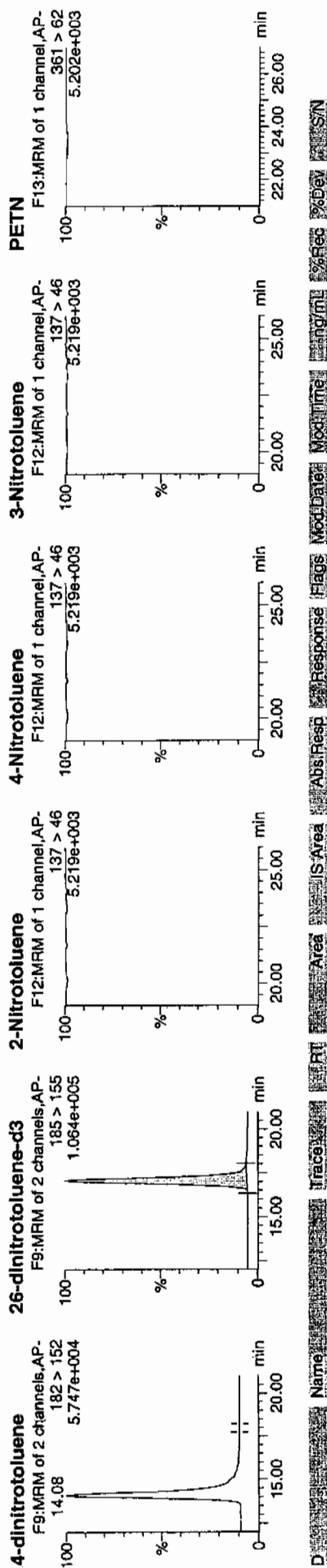
147  
4/15/10

195362 / 8022 / 21

Page 1773 of 2211



Amu 04/15/10



D	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc mg/ml	% Rec	% Dev	SN
:48043018	HMX	176 > 102			6937.741									
:48043018	RDX	176 > 102			6937.741									
:48043018	135-Trinitrobenzene	213 > 183			6937.741									
:48043018	13-Dinitrobenzene-d4	172 > 142	11.84	6937.741		6937.741	6937.741	bb			589.9075	118.0	18.0	271.4
:48043018	13-Dinitrobenzene	168 > 138			6937.741									
:48043018	Tetyl	241 > 181			6937.741									
:48043018	Nitrobenzene	123 > 46			6937.741									
:48043018	4-Amino-26-dinitrotoluene	197 > 167			41952.527									
:48043018	2-Amino-46-dinitrotoluene	197 > 180			41952.527									
:48043018	246-Trinitrotoluene	227 > 210			41952.527									
:48043018	34-dinitrotoluene	182 > 152	14.08	22183.732	41952.527	22183.732	264.391	bb			256.4094	102.6	2.6	841.4
:48043018	26-dinitrotoluene	182 > 152			41952.527									
:48043018	24-dinitrotoluene	182 > 152			41952.527									
:48043018	26-dinitrotoluene-d3	185 > 155	17.05	41952.527		41952.527	41952.527	bb	MM- 15-Apr-10	14:46:04	599.6100	119.9	19.9	2479.0
:48043018	2-Nitrotoluene	137 > 46			41952.527									
:48043018	4-Nitrotoluene	137 > 46			41952.527									
:48043018	3-Nitrotoluene	137 > 46			41952.527									
:48043018	PETN	361 > 62			41952.527									

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7515

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 248043018

Sample Amount 2

Moisture: 20.8

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310117.wiff

Date Analyzed: 01-APR-10 15:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument	X	<u>Concentrated Extract Volume</u>	X	Dilution
Value		<u>Sample Amount</u>		Factor

Run 415710

Sample Name: "248043018" Sample ID: "958262121" File: "EXS03310117.wiff"

Peak Name: "ATB" Mass(es): "257.2/204.9 amu"

Comment: "LCX83212S" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: 25.4 ng/mL

Date: 4/1/2010

Time: 3:03:20 PM

Method: No

Algorithm: IntelliQuan - IQA

Peak Height: 2500.00 cps

Peak Width: 0.00 sec

Chirp Width: 3 points

Window: 30.0 sec

Start RT: 6.90 min

Relative RT: No

Type: Valley

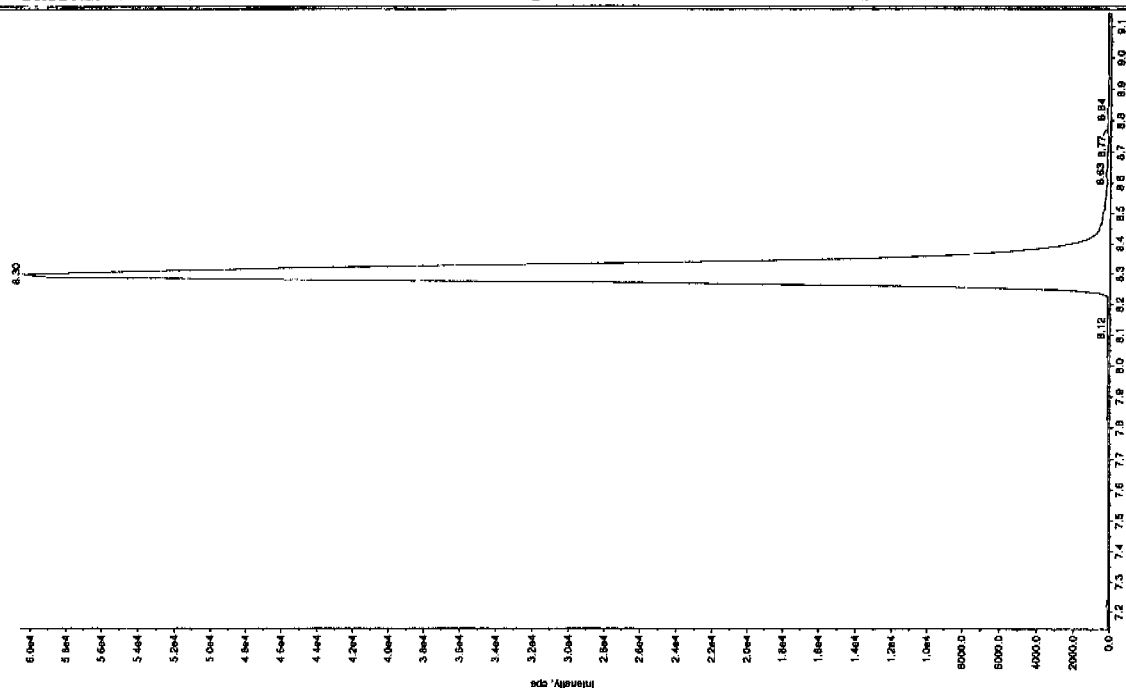
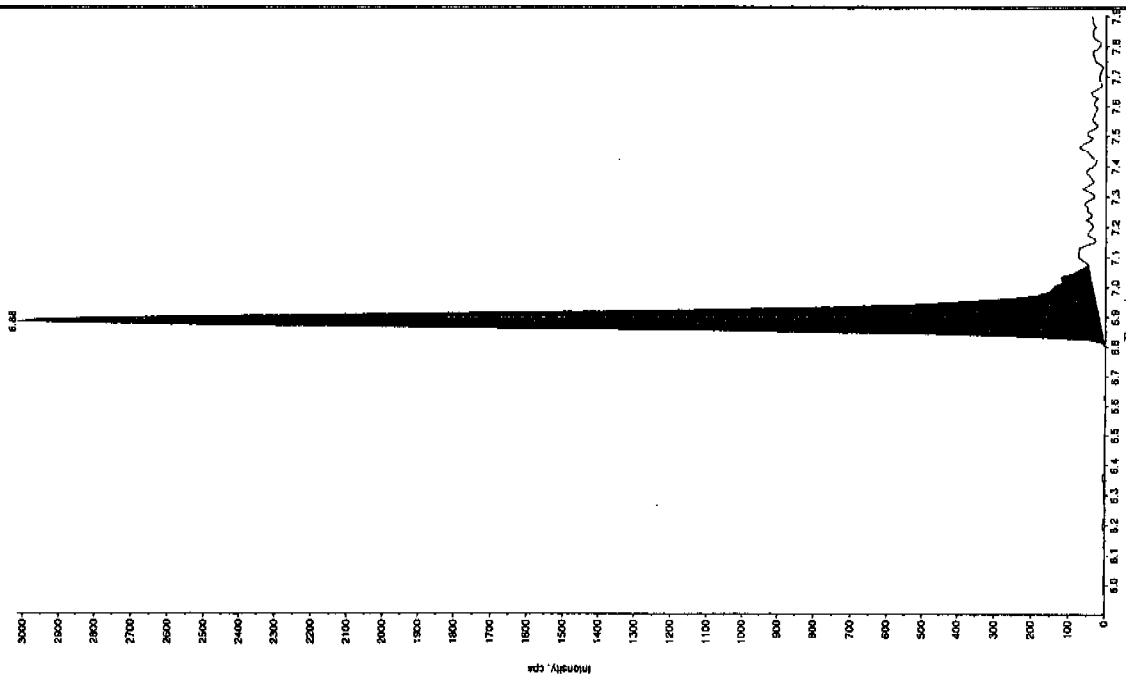
Retention Time: 6.88 min

Height: 1.25e+004 counts

Count Rate: 2997.778 cps

Count Time: 6.80 min

Count Rate: 7.08 min



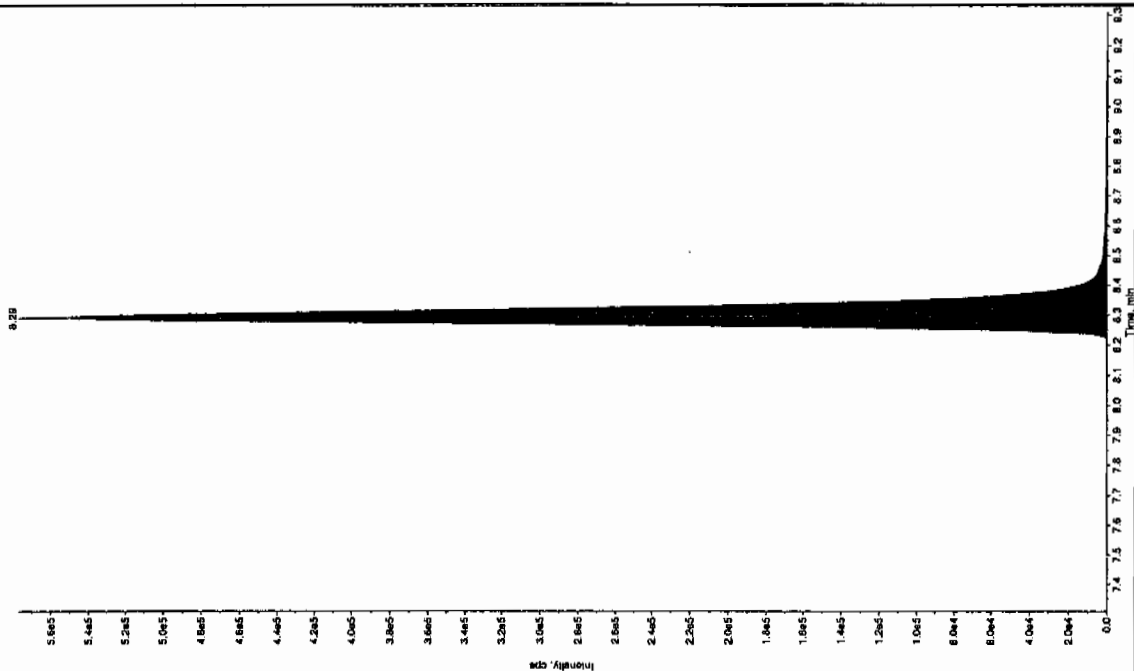
Run 415710

Sample Name: "248043018" Sample ID: "956262121.ER" File: "EXS03310117.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1715.9 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 3:03:20 PM  
 Modified: No

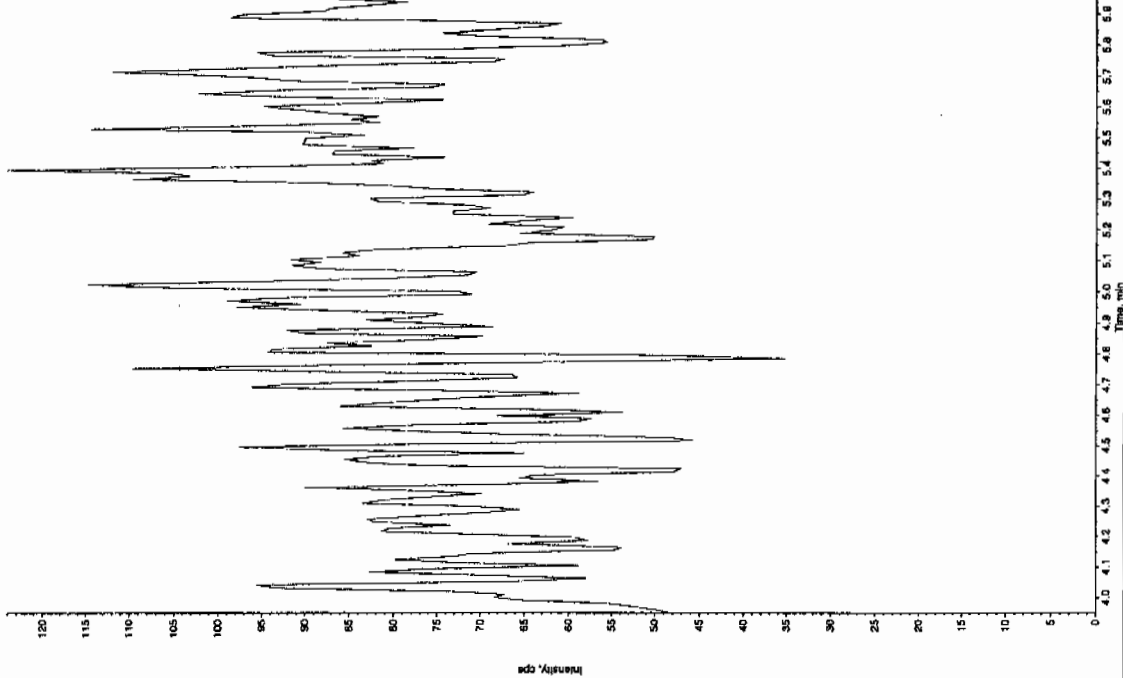
1. Algorithm: Inet110000 - IOA  
 Peak Height: 1460.00 cps  
 Peak Width: 3.00 points  
 Window: 15.0 sec  
 Retention Time: 8.31 min  
 Relative RT: No

2. Type: Valley  
 Retention Time: 8.29 min  
 Peak Height: 2.25e+006 counts  
 Peak Width: 576931.580 cps  
 Window: 8.19 min  
 Retention Time: 8.64 min



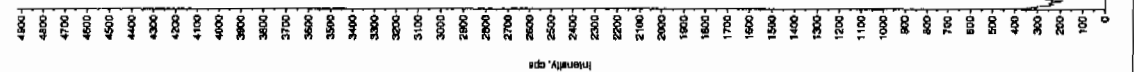
Sample Name: "248043018" Sample ID: "956262121.ER" File: "EXS03310117.wif"  
 Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "186.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 3:03:20 PM  
 Modified: No



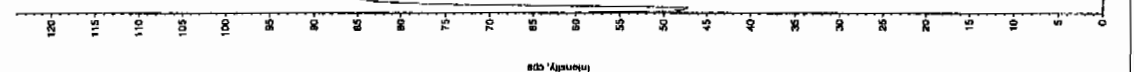
Sample Name: "248043018" Sample ID: "55020221.ER" File: "EX030310117.wif"  
 Peak Name: "tris(O-crestyl) phosphate" Mass(es): "353.191.0 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/1/2010  
 Acq. Date: 3:03:20 PM  
 Acq. Time: 3:03:20 PM  
 Modified: No



Sample Name: "248043018" Sample ID: "55020221.ER" File: "EX030310117.wif"  
 Peak Name: "24-Diamino-6-nitrobenzene" Mass(es): "166.046.0 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/1/2010  
 Acq. Date: 3:03:20 PM  
 Acq. Time: 3:03:20 PM  
 Modified: No



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

# STANDARDS DATA

SW846 8321A Modified-Explosives  
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
<b>Primary Analytes</b>								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MXN	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	na	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
<b>Secondary Analytes</b>								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

Calibration Levels 8321A-Modified-EXPL.xls



Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2074

Lab Code: GEL

Run Date: 12-APR-10 31-MAR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Paramname	1	2	3	4	5	6	Ave RF	RSD	Q
Calibration Level:	EXP0412003a	EXP0412004a	EXP0412005a	EXP0412006a	EXP0412007a	EXP0412008a			
Data File:									
1,3,5-Trinitrobenzene	4.711	4.33	4.184	4.118	4.135	4.46	4.323	5.342	
1,3-Dinitrobenzene-d4	11.467	12.345	11.86	12.536	12.341	10.015	11.761	7.996	
2,4,6-Trinitrotoluene	.41	.394	.427	.449	.461	.469	0.435	6.752	
2,4-Dinitrotoluene	.262	.241	.266	.256	.262	.279	0.261	4.785	
2,6-Dinitrotoluene	1.228	1.123	1.137	1.119	1.203	1.22	1.184	3.683	
2,6-Dinitrotoluene-d3	63.991	74.817	73.595	74.921	70.943	61.531	69.966	8.311	
2-Amino-4,6-dinitrotoluene	.484	.481	.503	.515	.535	.556	0.512	5.686	
3,4-Dinitrotoluene	1.117	.974	.984	1.041	1.027	1.044	1.031	4.983	
4-Amino-2,6-dinitrotoluene	.361	.326	.32	.335	.34	.344	0.338	4.22	
HMX	3.896	4.064	4.283	4.375	4.325	4.489	4.239	5.149	
Nitrobenzene	.565	.604	.633	.662	.625	.674	0.627	6.339	
RDX	2.18	2.427	3.051	3.081	3.073	3.36	2.862	15.868	
Tetryl	1.226	1.243	1.421	1.278	1.24	1.37	1.296	6.198	
m-Dinitrobenzene	1.304	1.349	1.33	1.336	1.312	1.391	1.337	2.342	
m-Nitrotoluene	.055	.071	.054	.053	.061	.056	0.058	11.551	
o-Nitrotoluene	.105	.086	.078	.084	.079	.088	0.087	11.254	
p-Nitrotoluene	.042	.041	.038	.043	.042	.044	0.042	5.194	

Q column used to flag RSD values outside of Limit (>20%)

\* Values outside of QC Limit

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2074

Lab Code: GEL

Run Date: 12-APR-10.31-MAR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0412003a	EXP0412004a	EXP0412005a	EXP0412006a	EXP0412007a	EXP0412008a					
Parname:											
PETN	2009.76	4470.27	14910.6	28870.8	46927.1	49397.1	1.007	-00022	9.637	.9994	

Quadratic Fit:  $y = Ax^2 + Bx + C$   
 where  $X^2$  column above is coefficient A  
 X column above is coefficient B  
 intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)

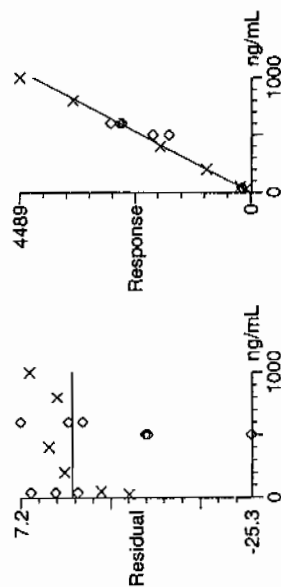
\* Values outside of QC Limit

**Quantify Calibration Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

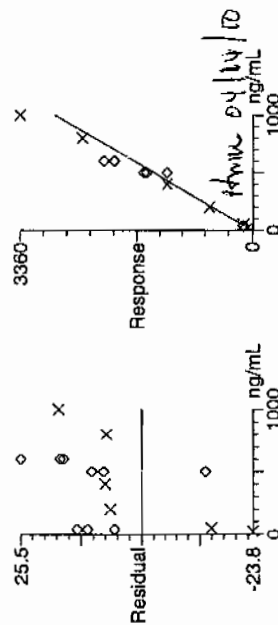
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Method: C:\MASSLYNX\New\_Exp\PRO\MethDB\041210expa.mdb, Time: Tue Apr 13 09:03:30 2010  
 Calibration: Untitled, Time: Tue Apr 13 11:12:22 2010

Compound name: HMX  
 Response Factor: 4.23867  
 RRF SD: 0.218263, % Relative SD: 5.14933  
 Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

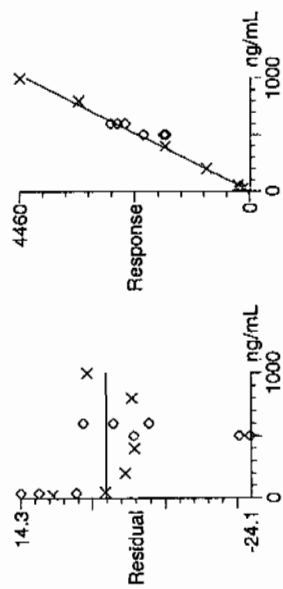


Compound name: RDX  
 Response Factor: 2.8622  
 RRF SD: 0.454164, % Relative SD: 15.8676  
 Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



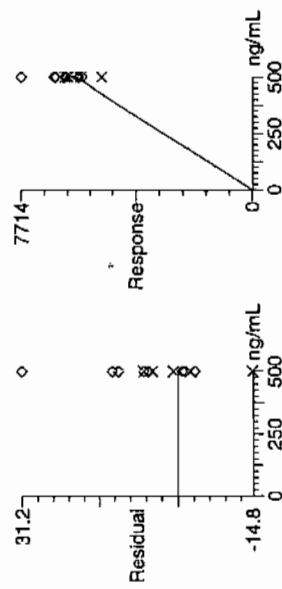
Dataset: C:\MASSLYN\New\_Exp\PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 135-Trinitrobenzene  
 Response Factor: 4.32298  
 RRF SD: 0.230915, % Relative SD: 5.34157  
 Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



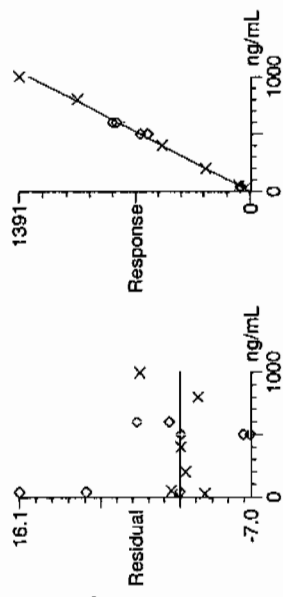
Page 1784 of 2211

Compound name: 13-Dinitrobenzene-d4  
 Response Factor: 11.7607  
 RRF SD: 0.940441, % Relative SD: 7.99645  
 Response type: External Std, Area  
 Curve type: RF



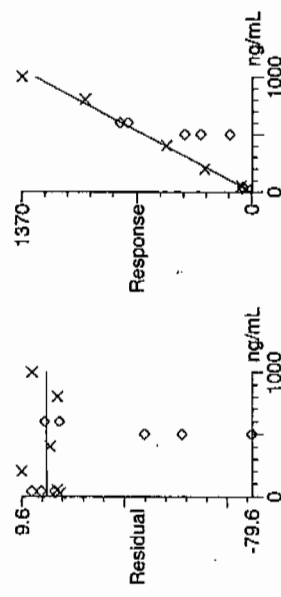
Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 13-Dinitrobenzene  
 Response Factor: 1.33707  
 RRF SD: 0.0313205, % Relative SD: 2.34247  
 Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RIF



Page 1785 of 2211

Compound name: Tetra  
 Response Factor: 1.29627  
 RRF SD: 0.0803478, % Relative SD: 6.19837  
 Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RIF

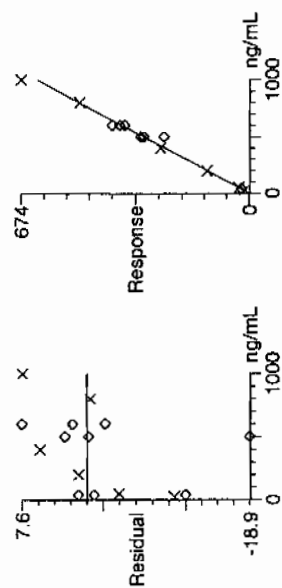


# Quantity Calibration Report

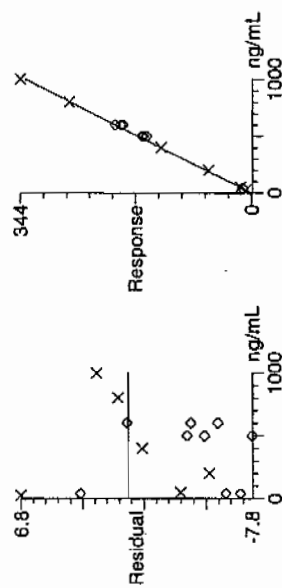
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYN\New\_Exp\PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: Nitrobenzene  
 Response Factor: 0.627297  
 RRF SD: 0.0397666, % Relative SD: 6.33936  
 Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



Compound name: 4-Amino-26-dinitrotoluene  
 Response Factor: 0.337763  
 RRF SD: 0.014254, % Relative SD: 4.22013  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

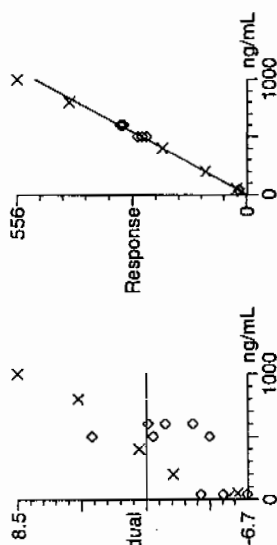


**Quantify Calibration Report**  
 3EL Laboratories, LLC / Analyst: Michael A. Penny

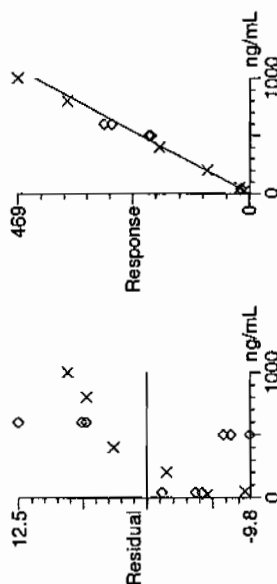
Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 2-Amino-46-dinitrotoluene  
 Response Factor: 0.512197  
 RF SD: 0.0291218, % Relative SD: 5.68567  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

Page 1787 of 2211



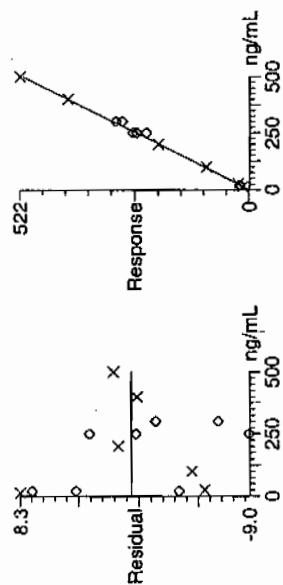
Compound name: 246-Trinitrotoluene  
 Response Factor: 0.435033  
 RF SD: 0.0293746, % Relative SD: 6.75226  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



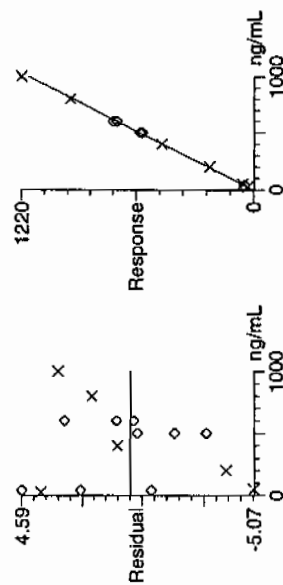
**Quantify Calibration Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 34-dinitrotoluene  
 Response Factor: 1.03113  
 RRF SD: 0.0513762, % Relative SD: 4.98253  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



Compound name: 26-dinitrotoluene  
 Response Factor: 1.18354  
 RRF SD: 0.0435946, % Relative SD: 3.68342  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

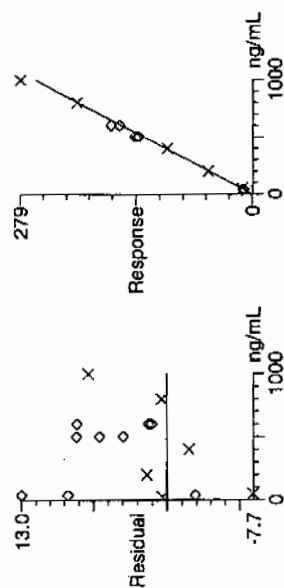




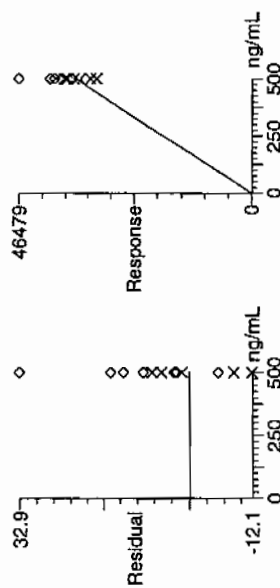
**Quantify Calibration Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 24-dinitrotoluene  
 Response Factor: 0.261004  
 RRF SD: 0.0124888, % Relative SD: 4.7849  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



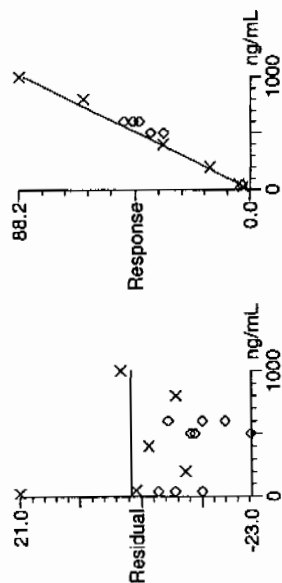
Compound name: 26-dinitrotoluene-d3  
 Response Factor: 69.9664  
 RRF SD: 5.81467, % Relative SD: 8.31066  
 Response type: External Std, Area  
 Curve type: RF



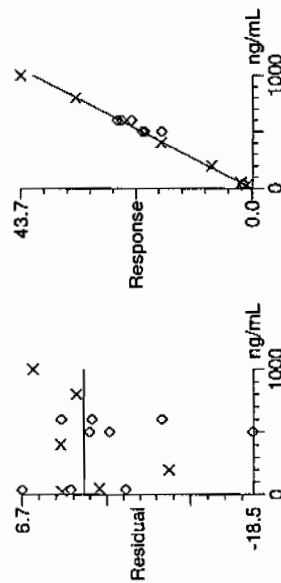
# Quantify Calibration Report GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 2-Nitrotoluene  
Response Factor: 0.0865882  
RRF SD: 0.00974436, % Relative SD: 11.2537  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



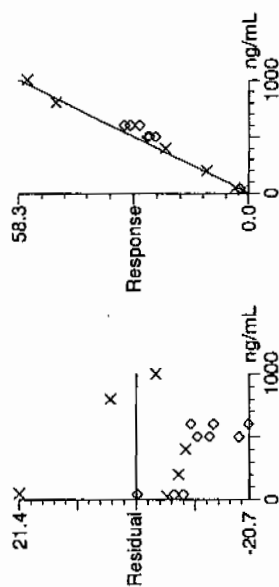
Compound name: 4-Nitrotoluene  
Response Factor: 0.0414794  
RRF SD: 0.00215463, % Relative SD: 5.19445  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



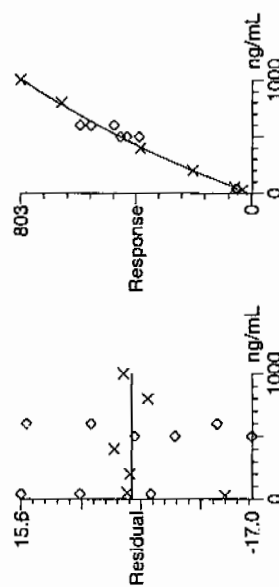
**Quantify Calibration Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 3-Nitrotoluene  
Response Factor: 0.058302  
RRF SD: 0.00673426, % Relative SD: 11.5507  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



Compound name: PETN  
Coefficient of Determination: 0.999447  
Calibration curve:  $-0.000220026 \cdot x^2 + 1.0065 \cdot x + 9.6373$   
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None



Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0412010a

Analysis Date: 12-APR-10 20:06

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	600	475.553	79	*
o-Nitrotoluene	600	492.414	82	
p-Nitrotoluene	600	547.628	91	
1,3,5-Trinitrobenzene	600	593.013	99	
1,3-Dinitrobenzene-d4	500	528.009	106	
2,4,6-Trinitrotoluene	600	674.734	112	
2,4-Dinitrotoluene	600	608.204	101	
2,6-Dinitrotoluene	600	599.148	100	
2,6-Dinitrotoluene-d3	500	574.331	115	
2-Amino-4,6-dinitrotoluene	600	592.511	99	
3,4-Dinitrotoluene	300	280.228	93	
4-Amino-2,6-dinitrotoluene	600	600.345	100	
HMX	600	642.971	107	
Nitrobenzene	600	610.074	102	
PETN	600	527.609	88	
RDX	600	753.124	126	*
Tetryl	600	604.19	101	
m-Dinitrobenzene	600	606.979	101	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 19 of 77

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412010a

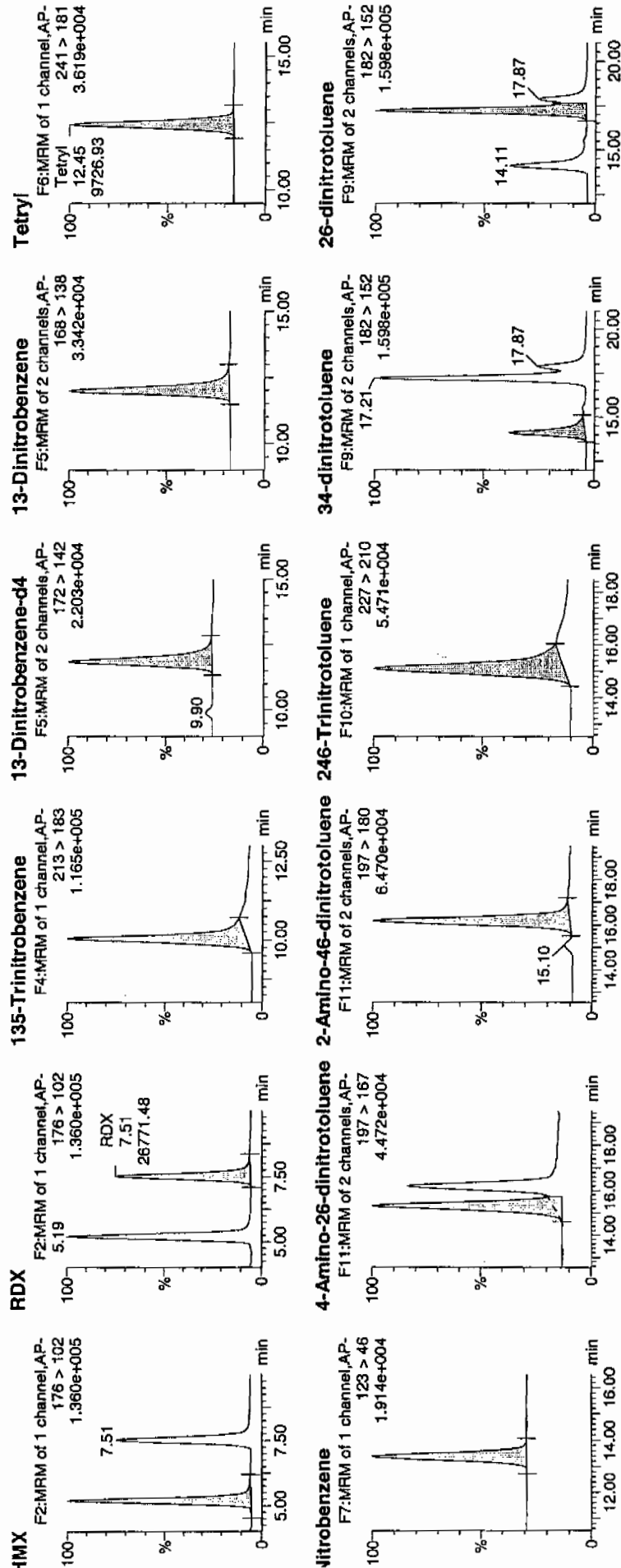
Date: 12-Apr-2010

Time: 20:06:00

ID: WXX100412-07ICV

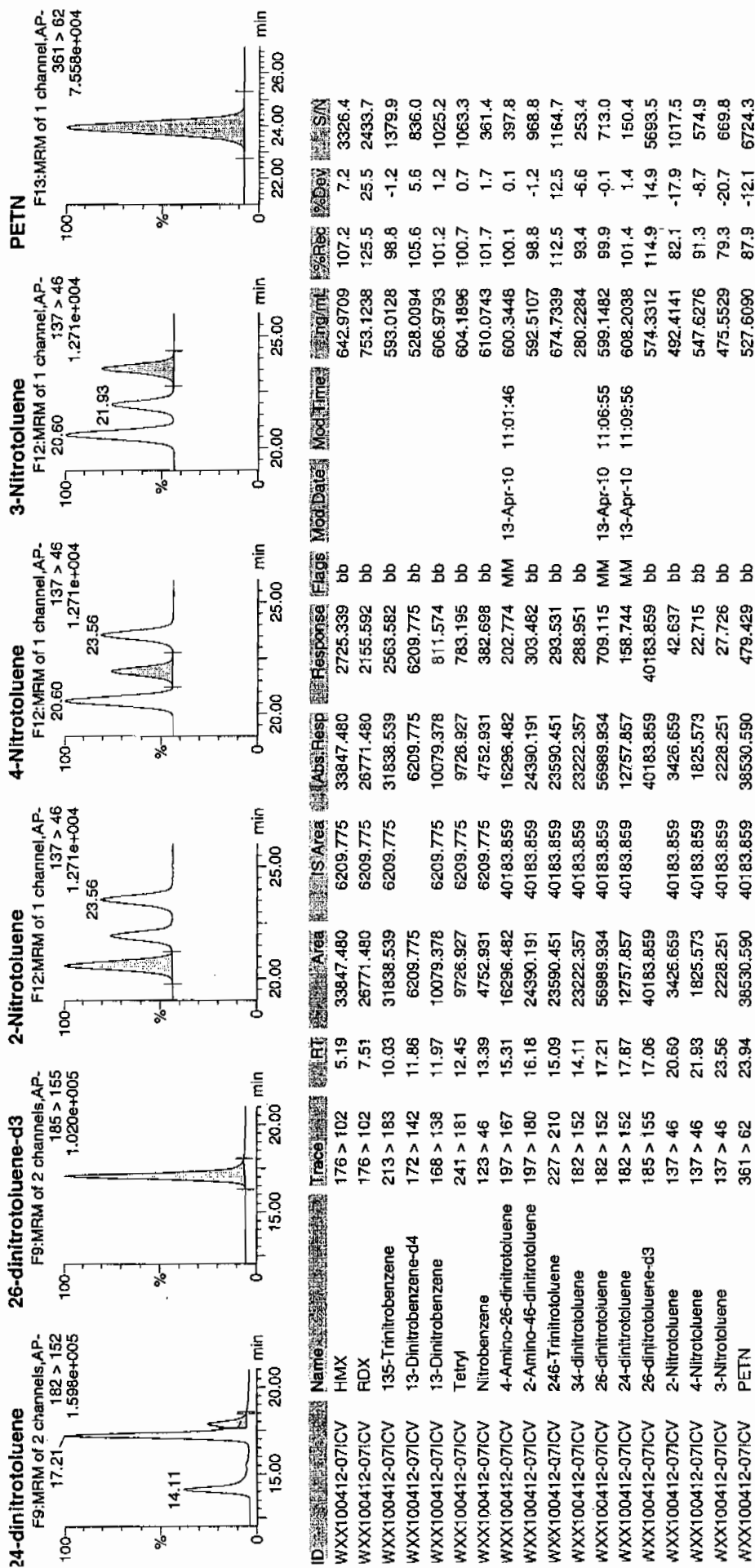
Vial: 1:1,B

4/13/10



4/13/10

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/12/10  
 Time of Injection: 2006  
 Standard Number: WXX100412-07ICV  
 Data File: EXP0412010a

HMX	107.2
RDX	125.5
135-TNB	98.8
13-DNB	101.2
Tetryl	100.7
Nitrobenzene	101.7
4A-26-DNT	100.1
2A-46-DNT	98.8
246-TNT	112.5
34-DNT(surr)	93.4
26-DNT	99.9
24-DNT	101.4
2-NT	82.1
4-NT	91.3
3-NT	79.3
PETN	87.9

*WXX  
+13/10*

Total 1581.8

Average 98.9

*WXX 04/14/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2074

Lab Code: GEL

Run Date: 12-APR-10.31-MAR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphers ODS-H8Q

Calibration Type: Linear

Calibration Level:	19	20	21	22	23	24	25	Slope	Intercept	COD	Q
Data File:	EXS03310003.W	EXS03310004.W	EXS03310005.W	EXS03310006.W	EXS03310007.W	EXS03310008.W	EXS03310009.W				
Parname											
2,6-Diamino-4-nitrotoluene	116000	252000	620000	1100000	1520000	2110000	4370000	2150	10600	.9991	

Linear fit :  $Y=mx +b$   
where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)

\* Values outside of QC Limit



# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2074

Lab Code: GEL

Run Date: 12-APR-10.31-MAR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC.J-Sphere ODS-H8Q

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS03310003.wif	EXS03310004.wif	EXS03310005.wif	EXS03310006.wif	EXS03310007.wif	EXS03310008.wif	EXS03310009.wif					
Parname:												
2,4-Diamiso-6-nitrotoluene	100000	212000	510000	954000	1540000	1660000	3440000	36100	1860	-.085	.997	
3,4-Dinitrotoluene	197000	416000	981000	1900000	2870000	3740000	6880000	-24900	8650	-1.76	.9984	
3,5-Dinitroaniline	327000	689000	1570000	2920000	4950000	5840000	10100000	-47600	6910	-.908	.9987	
TATB	33600	68300	180000	356000	588000	726000	1480000	-6740	757	-.007	.9995	
tris(o-cresyl) phosphate	1070000	2110000	4990000	9200000	13600000	16900000	28300000	146000	19800	-2.85	.9999	

Quadratic Fit:  $y = Ax^2 + Bx + C$   
 where  $X^2$  column above is coefficient A  
 X column above is coefficient B  
 intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)

\* Values outside of QC Limit

033110ICAL

Peak Name: TATB  
No Internal Standard  
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	weighting	None	Iterate No
a0	-6.74e+003			
a1	757			
a2	-0.00697			
Correlation coefficient 0.9995				
Use Area				

Peak Name: 35-Dinitroaniline  
No Internal Standard  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	weighting	None	Iterate No
a0	-4.76e+004			
a1	6.91e+003			
a2	-0.908			
Correlation coefficient 0.9987				
Use Area				

Peak Name: 34-Dinitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	weighting	None	Iterate No
a0	-2.49e+004			
a1	8.65e+003			
a2	-1.76			
Correlation coefficient 0.9984				
Use Area				

Peak Name: 26-Diamino-4-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Linear	weighting	None	Iterate No
Intercept	1.06e+004			
Slope	2.15e+003			
Correlation coefficient 0.9991				
Use Area				

Peak Name: 24-Diamino-6-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

*han*  
*4/5/10*

*han*  
*04/05/10*

033110ICAL  
Iterate No

None

weighting

Fit Quadratic  
a0 3.61e+004  
a1 1.86e+003  
a2 -0.0854

Correlation coefficient 0.9970  
Use Area

Peak Name: tris(o-cresyl) phosphate  
No Internal Standard  
Q1/Q3 Masses: 369.15/91.00 amu

Iterate No

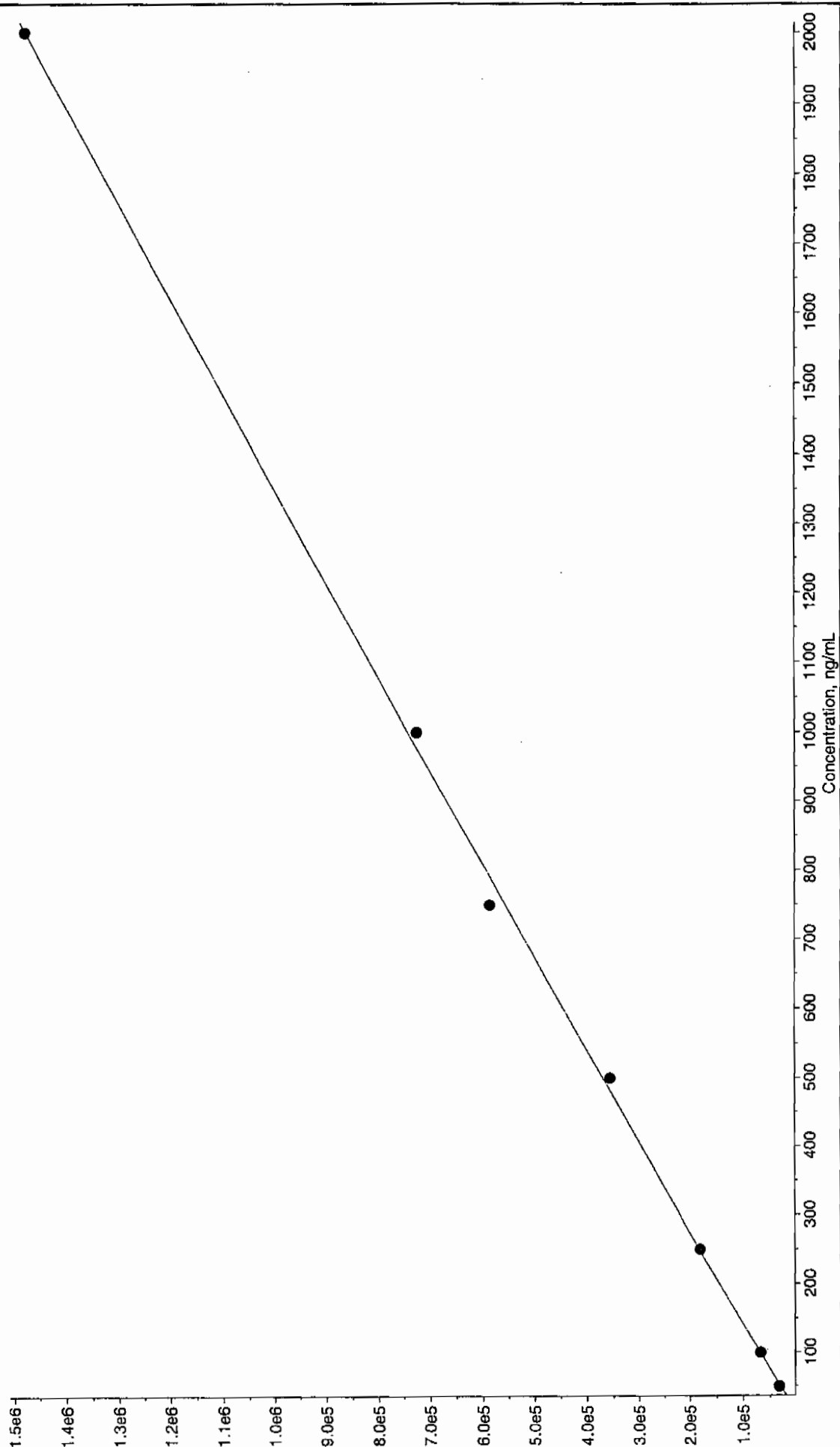
None

weighting

Fit Quadratic  
a0 1.46e+005  
a1 1.98e+004  
a2 -2.85

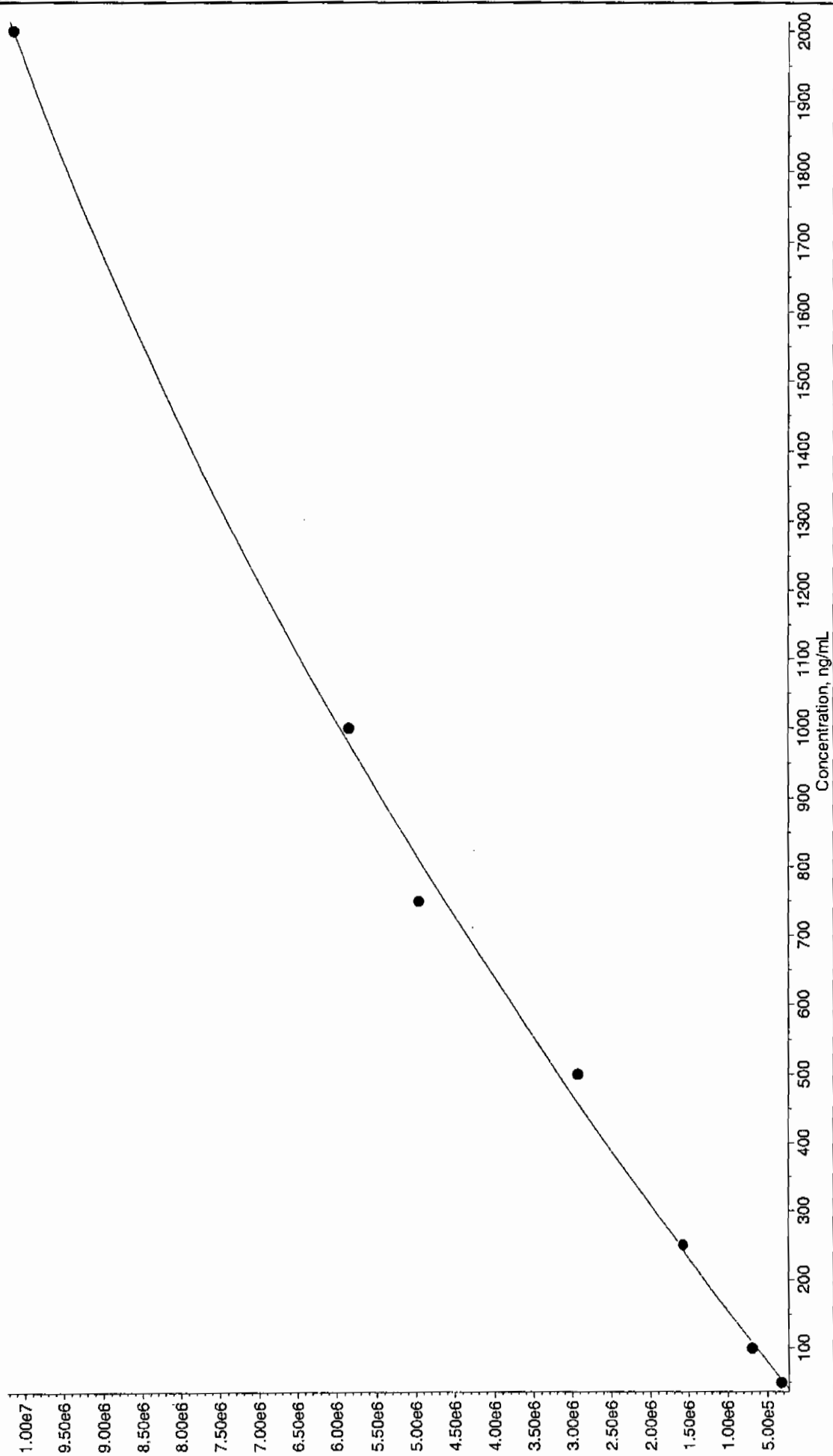
Correlation coefficient 0.9999  
Use Area

033110.rdb (TATB): "Quadratic" Regression ("No" weighting):  $y = -0.00697 x^2 + 757 x + -6.74e+003$  ( $r = 0.9995$ )



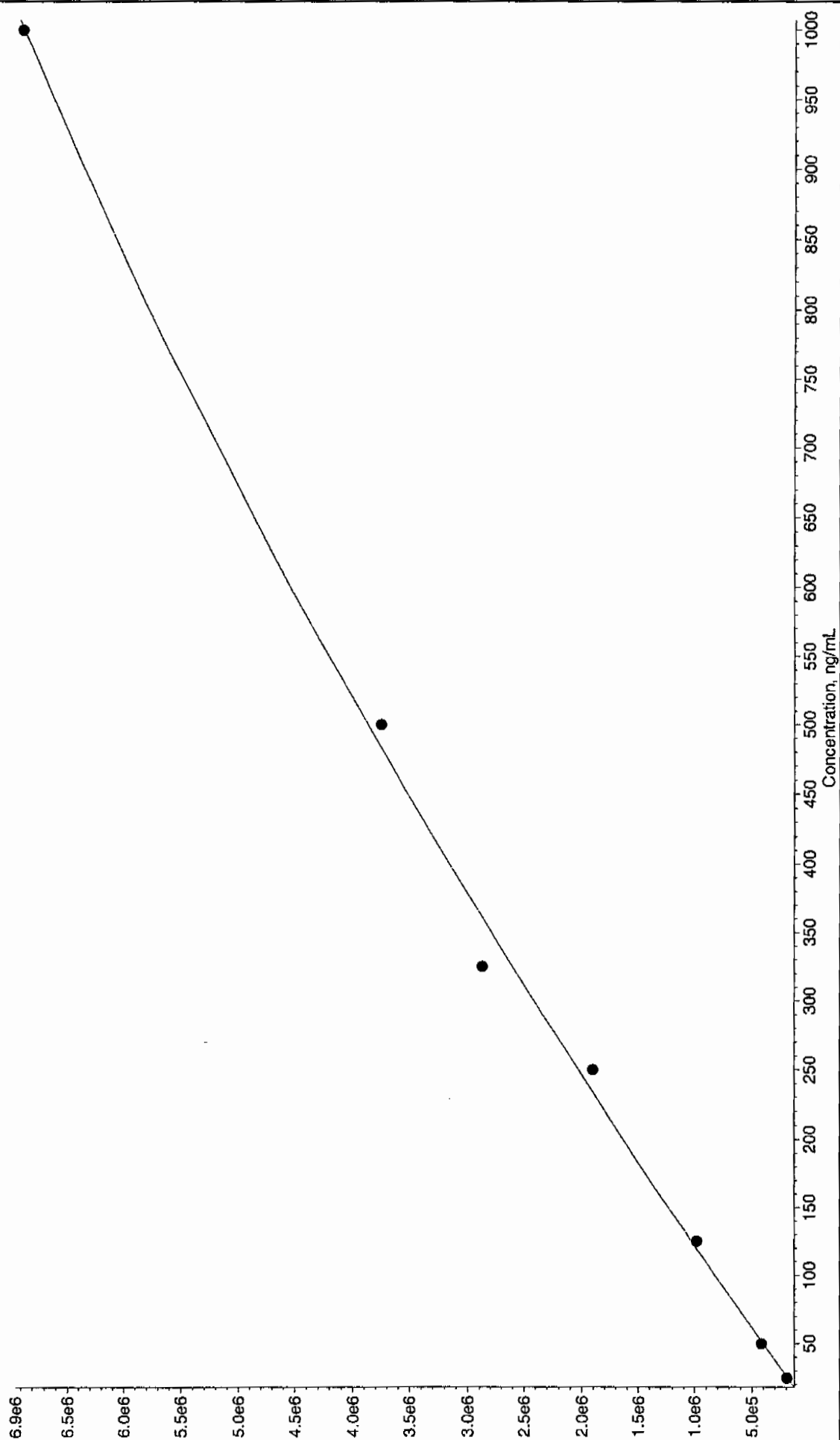
L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

033110.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting):  $y = -0.908 x^2 + 6.91e+003 x + -4.76e+004$  ( $r = 0.9987$ )



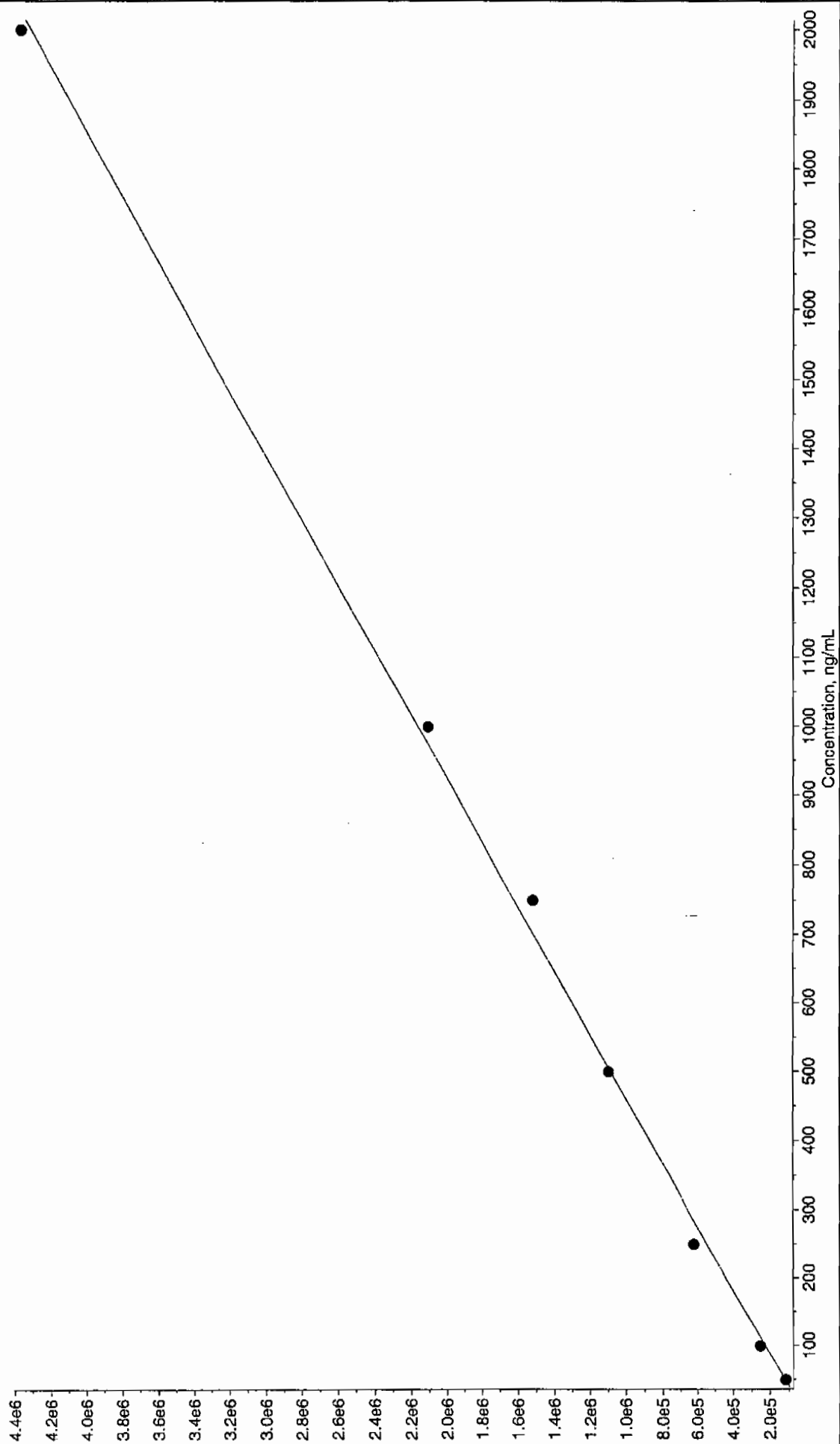
L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

033110.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -1.76 x^2 + 8.65e+003 x + -2.49e+004$  ( $r = 0.9984$ )



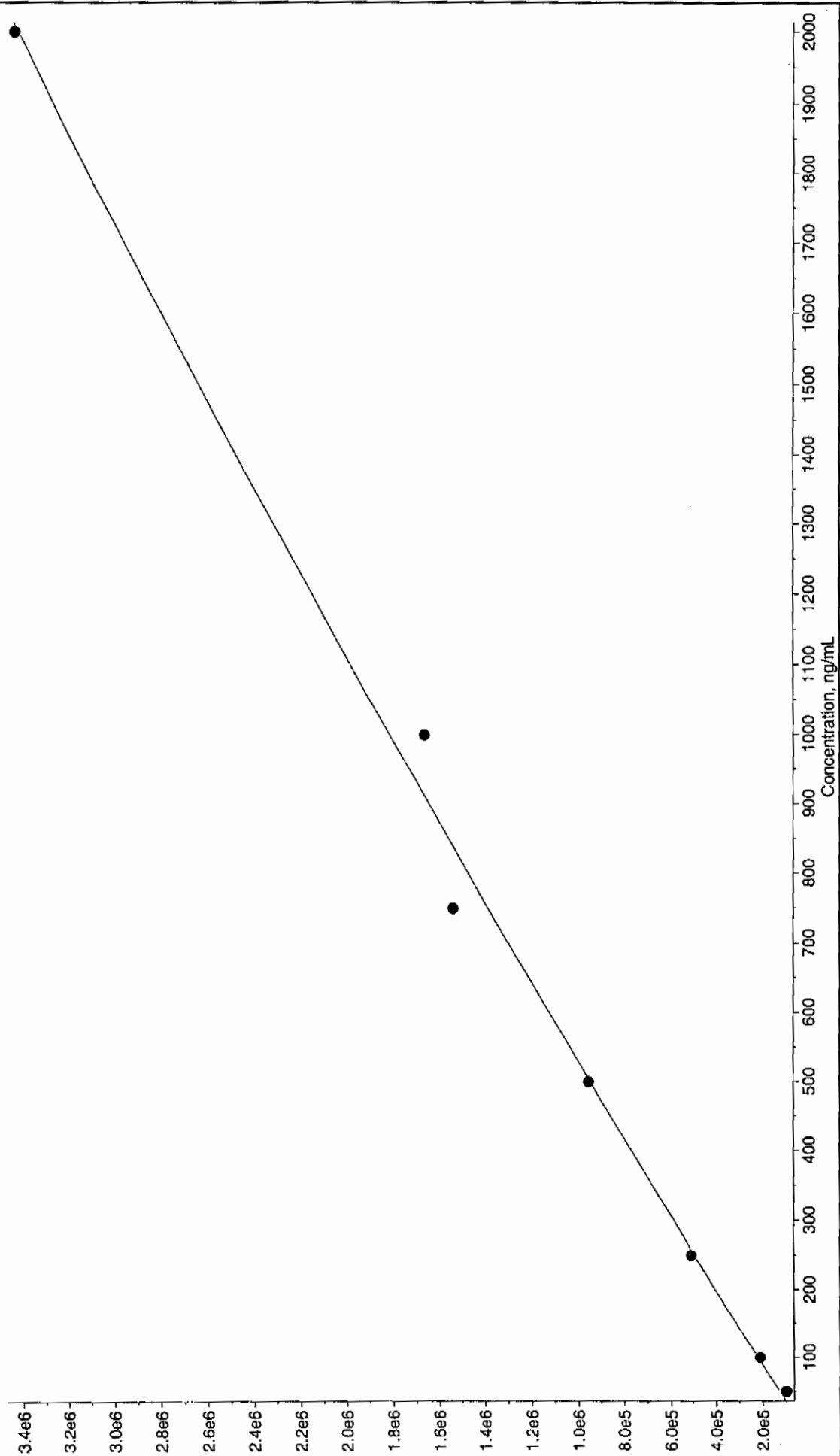
L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

033110.rdb (26-Diamino-4-nitrotoluene): "Linear" Regression ("No" weighting):  $y = 2.15e+003 x + 1.06e+004$  ( $r = 0.9991$ )



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

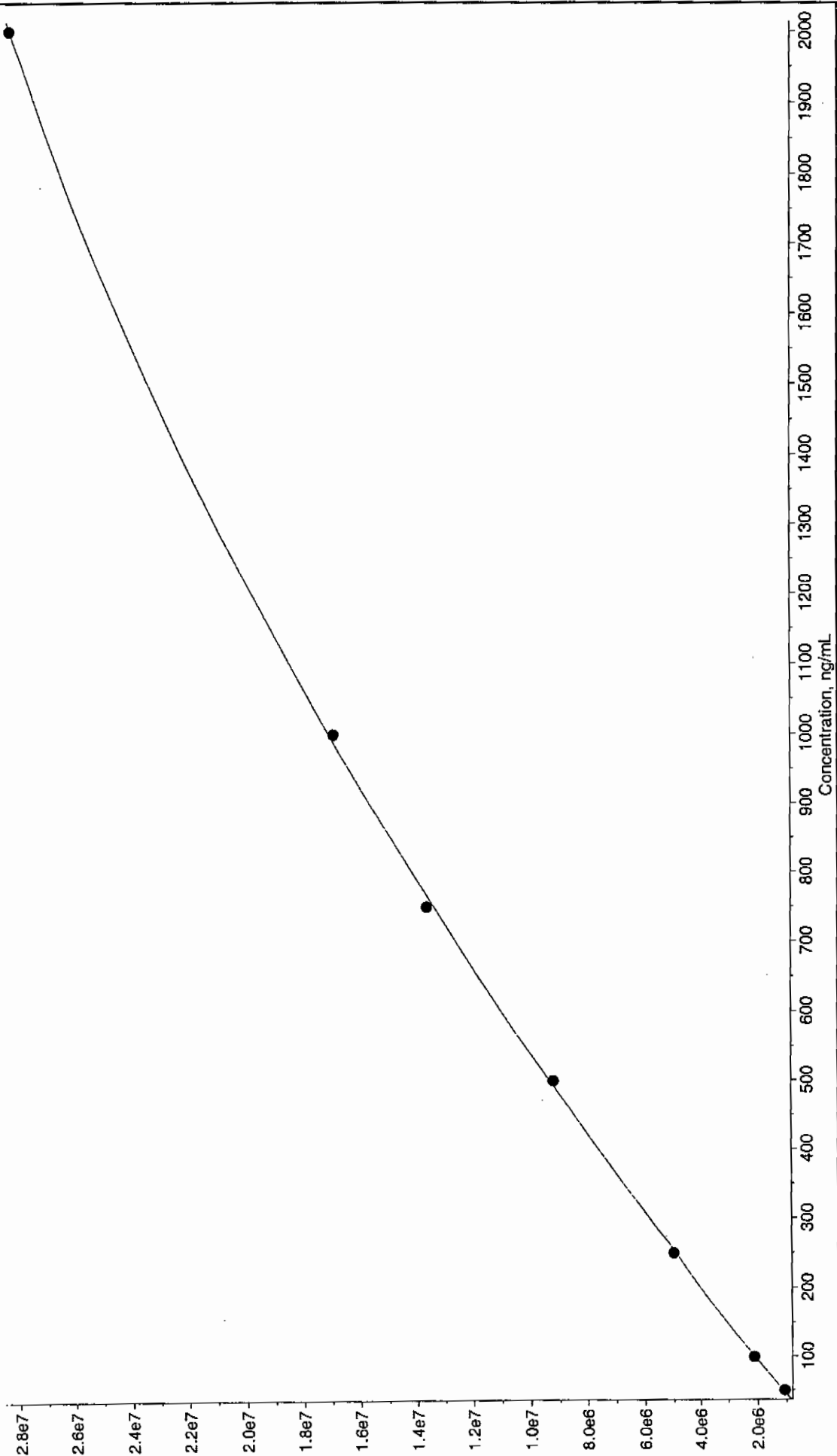
033110.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -0.0854 x^2 + 1.86e+003 x + 3.61e+004$  ( $r = 0.9970$ )



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



033110.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting):  $y = -2.85 x^2 + 1.98e+004 x + 1.46e+005$  ( $r = 0.9999$ )



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS03310011.wiff

Analysis Date: 31-MAR-10 11:17

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	461	92	
2,6-Diamino-4-nitrotoluene	500	505	101	
3,4-Dinitrotoluene	250	221	88	
3,5-Dinitroaniline	500	463	93	
TATB	500	483	97	
tris(o-cresyl) phosphate	500	481	96	

Recovery Limits:

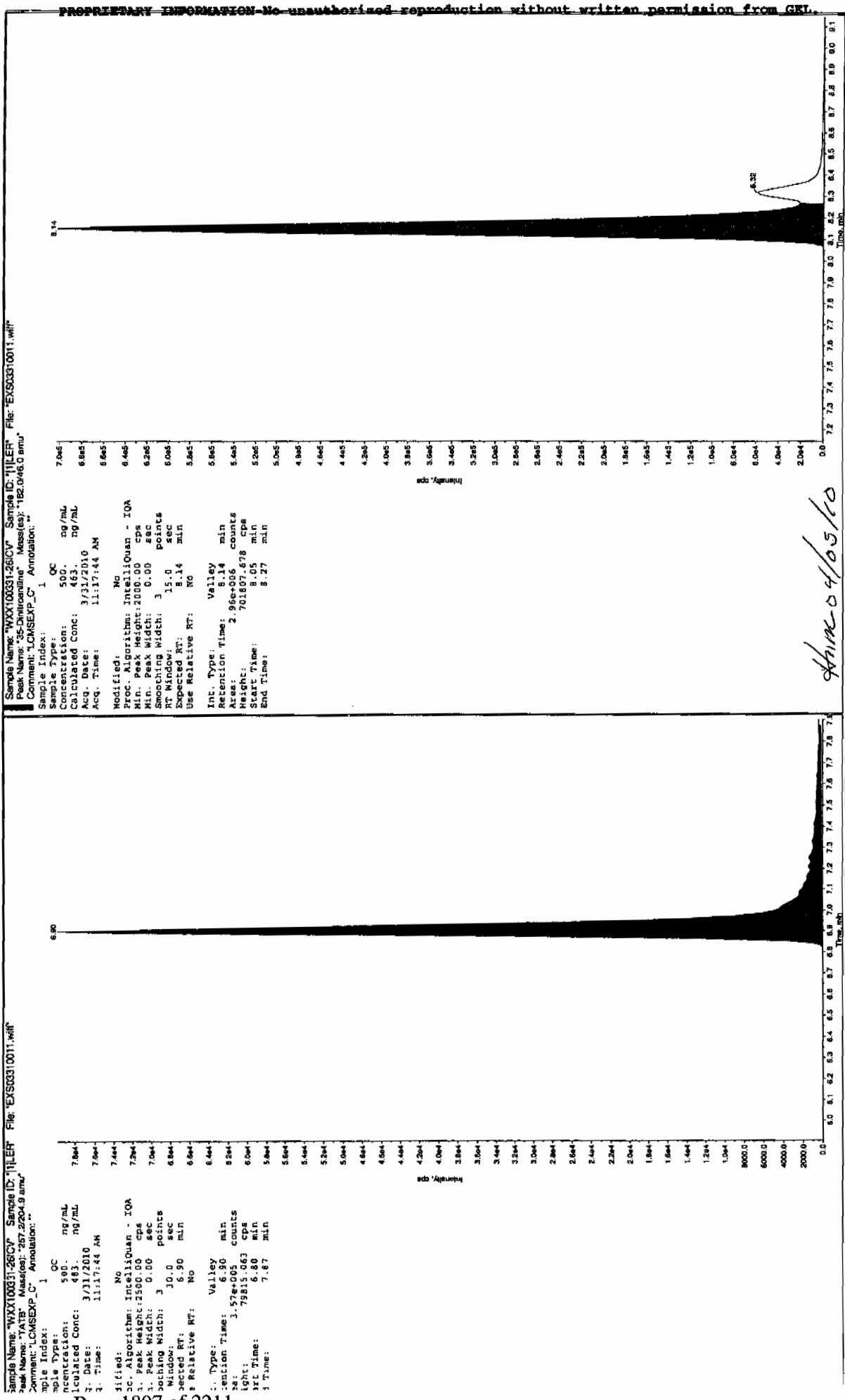
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

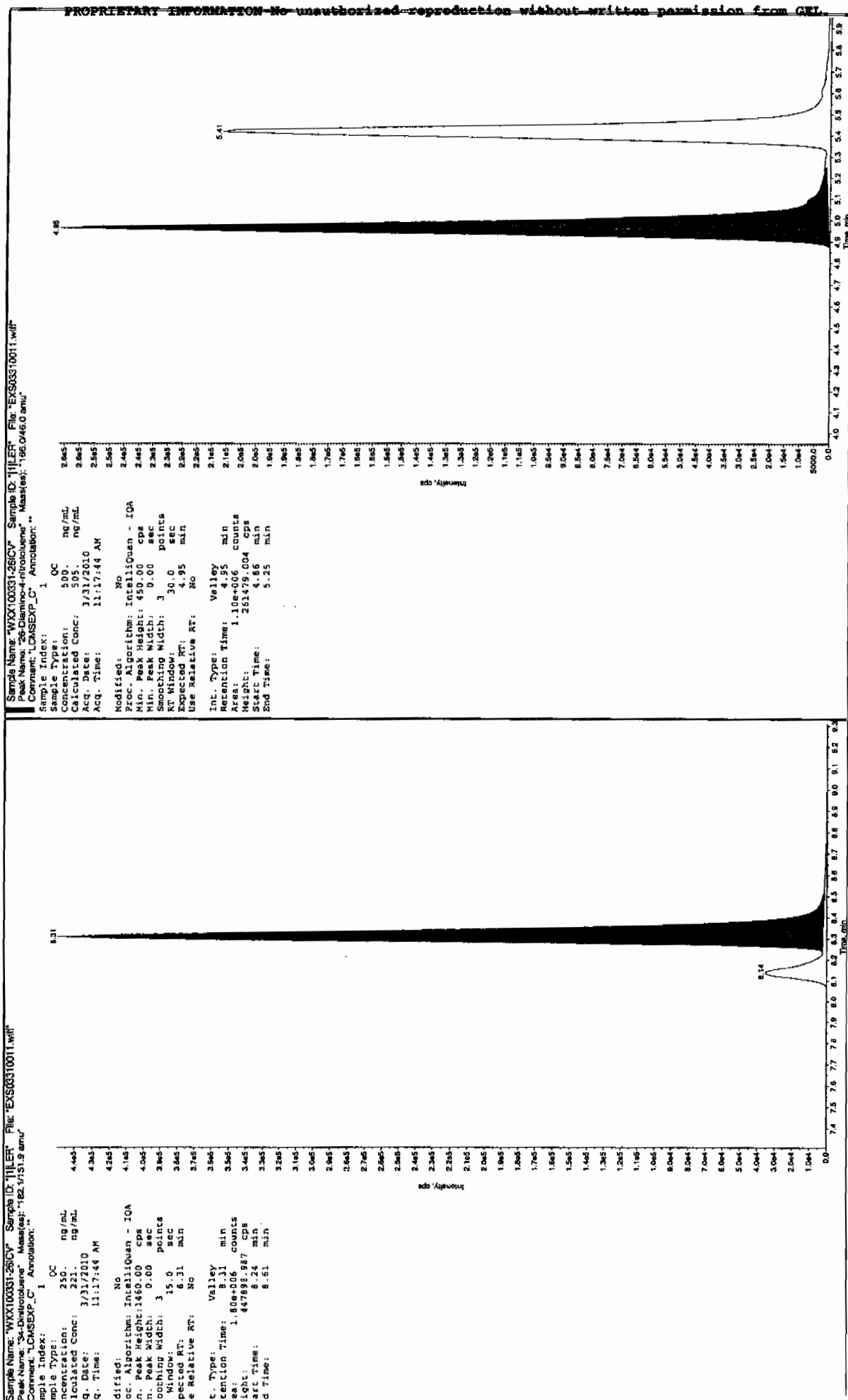
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

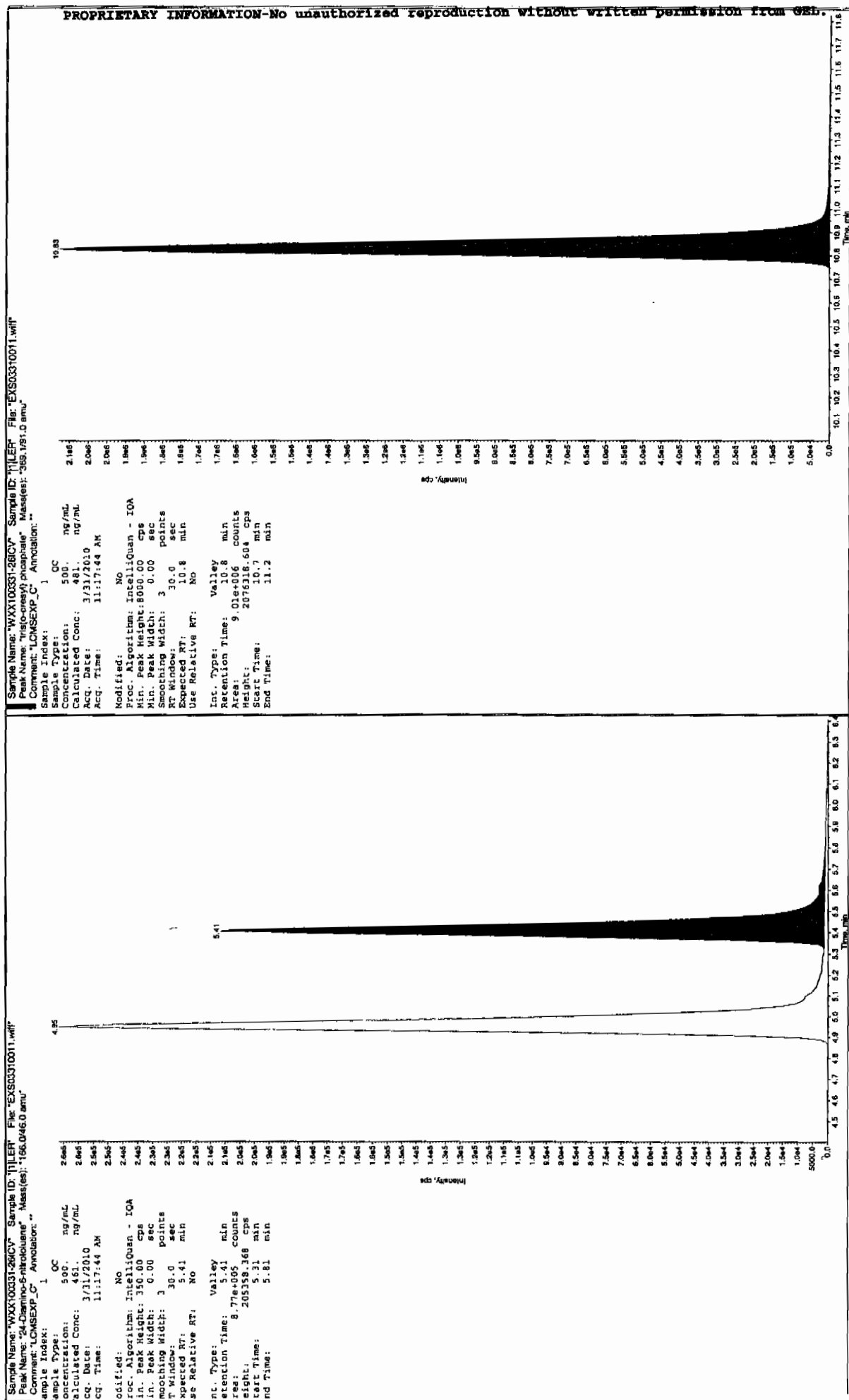
See 4/5/10



4/16/05/10



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412012a

Analysis Date: 12-APR-10 21:04

LCMSMS ID: 903

Column ID: Phenomenex Ultra carb 5u ODS(20)

Compound	True	Found	Recovery	Q
4-Amino-2,6-dinitrotoluene	40	41.22	103	
HMX	40	40.936	102	
Nitrobenzene	40	40.412	101	
PETN	40	38.904	97	
RDX	40	42.279	106	
Tetryl	40	38.735	97	
m-Dinitrobenzene	40	40.013	100	
m-Nitrotoluene	40	37.251	93	
o-Nitrotoluene	40	34.615	87	
p-Nitrotoluene	40	40.573	101	
1,3,5-Trinitrobenzene	40	42.014	105	
1,3-Dinitrobenzene-d4	500	533.484	107	
2,4,6-Trinitrotoluene	40	37.92	95	
2,4-Dinitrotoluene	40	39.009	98	
2,6-Dinitrotoluene	40	41.835	105	
2,6-Dinitrotoluene-d3	500	543.299	109	
2-Amino-4,6-dinitrotoluene	40	37.957	95	
3,4-Dinitrotoluene	20	20.822	104	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412012a

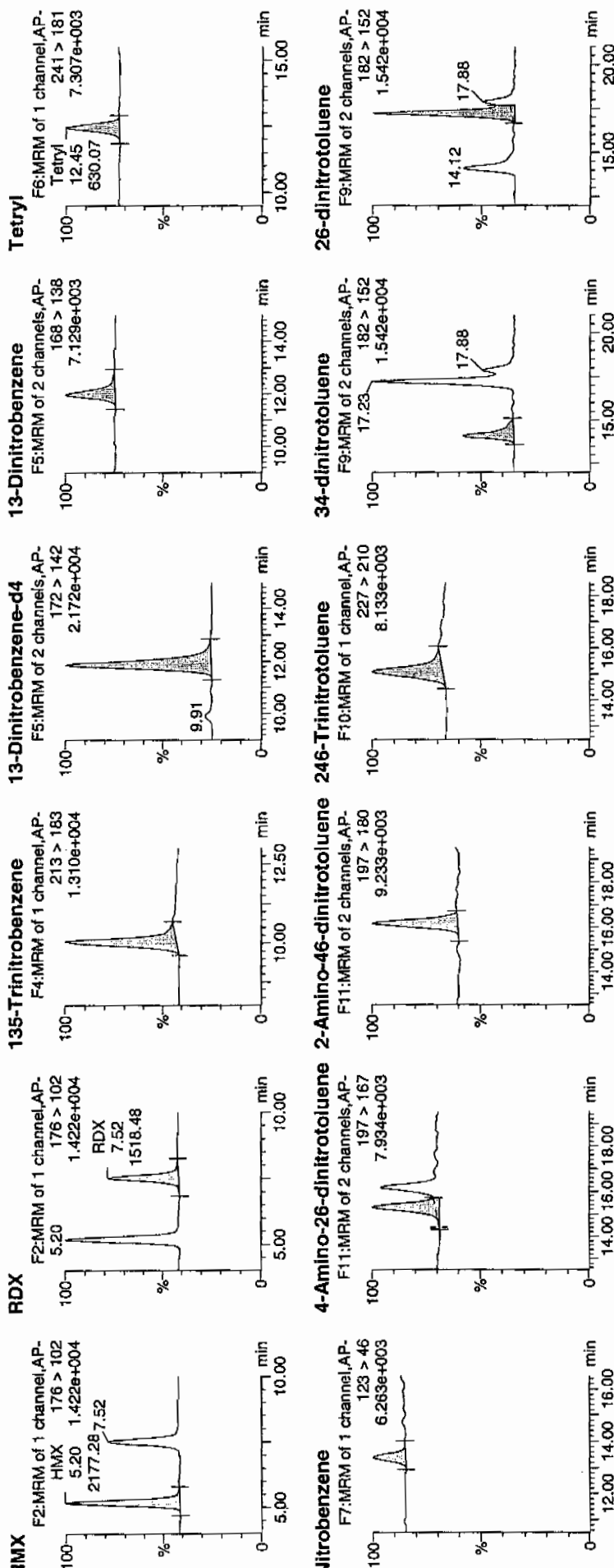
Date: 12-Apr-2010

Time: 21:04:58

Page D: WXX100412-08CRI

/lat: 1:1,C

WAT  
4/13/10



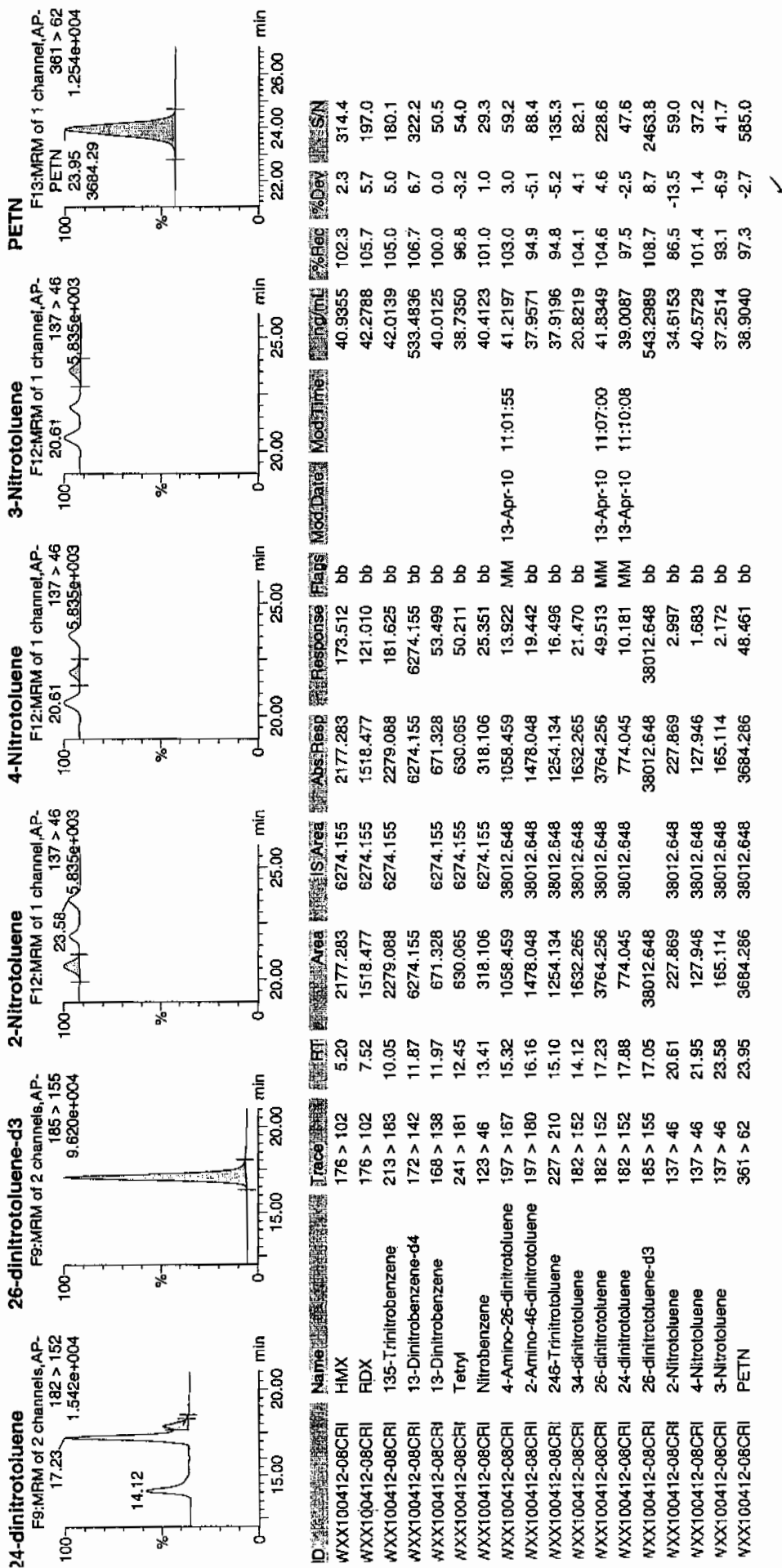
4/14/10

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 24 of 77

Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010





# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/12/10  
 Time of Injection 2104  
 Standard Number WXX100412-08CRI  
 Data File EXP0412012a

HMX	102.3
RDX	105.7
135-TNB	105.0
13-DNB	100.0
Tetryl	96.8
Nitrobenzene	101.0
4A-26-DNT	103.0
2A-46-DNT	94.9
246-TNT	94.8
34-DNT(surr)	104.1
26-DNT	104.6
24-DNT	97.5
2-NT	86.5
4-NT	101.4
3-NT	93.1
PETN	97.3

mtf  
4/13/10

Total 1588.0

Average 99.3

mtf 04/14/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412023a

Analysis Date: 13-APR-10 02:29

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3-Dinitrobenzene-d4	500	483.478	97	
2,4,6-Trinitrotoluene	600	638.191	106	
2,4-Dinitrotoluene	600	647.757	108	
2,6-Dinitrotoluene	600	603.464	101	
2,6-Dinitrotoluene-d3	500	472.429	94	
2-Amino-4,6-dinitrotoluene	600	581.719	97	
3,4-Dinitrotoluene	300	294.567	98	
4-Amino-2,6-dinitrotoluene	600	565.953	94	
HMX	600	591.074	99	
Nitrobenzene	600	587.411	98	
PETN	600	688.871	115	
RDX	600	698.421	116	
Tetryl	600	569.67	95	
m-Dinitrobenzene	600	606.197	101	
m-Nitrotoluene	600	540.313	90	
o-Nitrotoluene	600	558.159	93	
p-Nitrotoluene	600	614.491	102	
1,3,5-Trinitrobenzene	600	557.713	93	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

# Quantify Sample Report

SEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 45 of 77

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412023a

Date: 13-Apr-2010

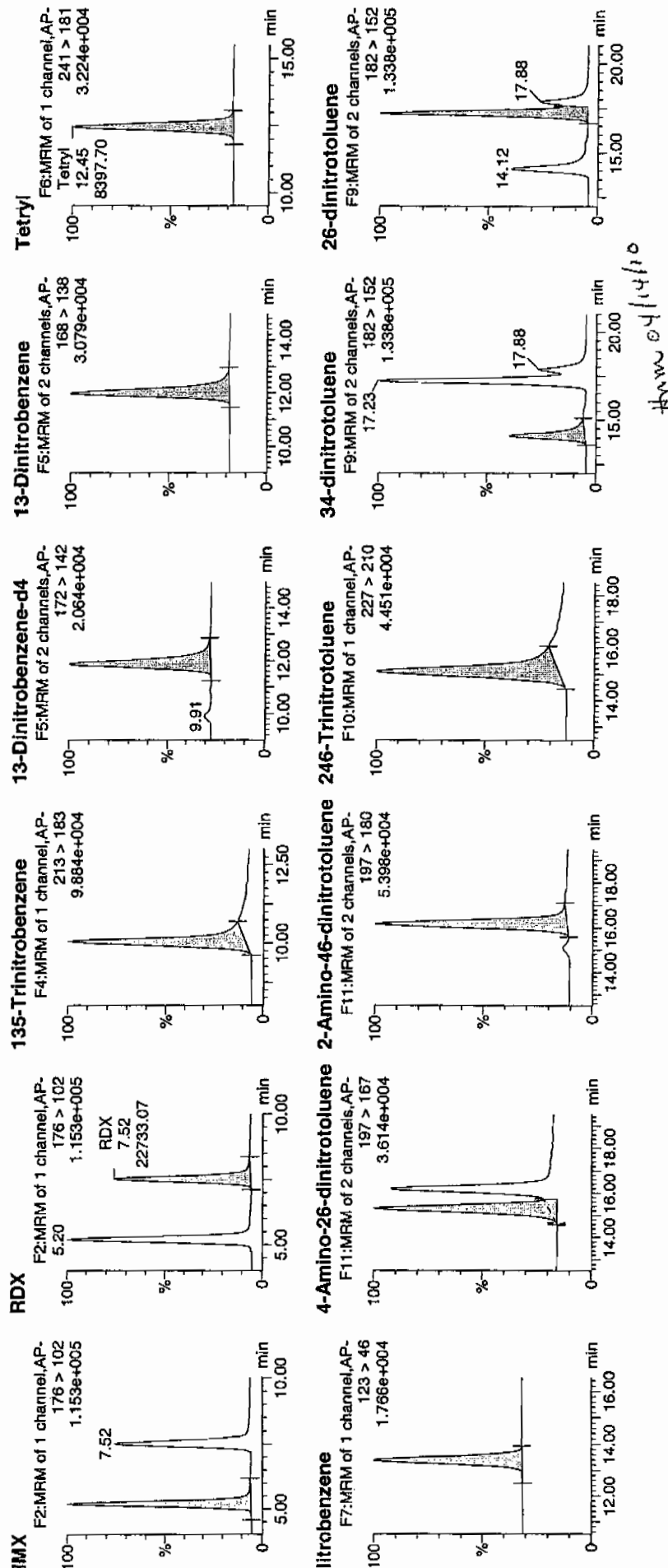
Time: 02:29:16

D: WXX100412-07CCV

/ial: 1:1,B

Page 1815 of 2211

μM  
4/13/10



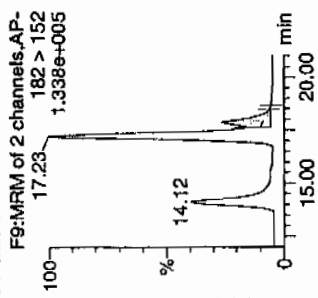
# Quantify Sample Report

3EL Laboratories, LLC / Analyst: Michael A. Penny

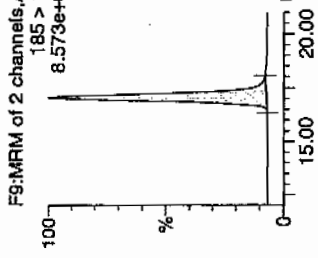
Printed: Tue Apr 13 11:14:26 2010, Page 46 of 77

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qtd, Time: Tue Apr 13 11:12:22 2010

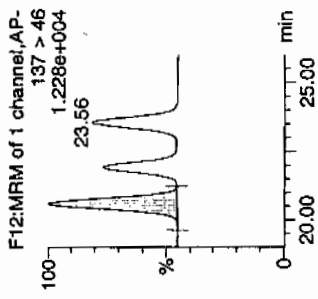
## 24-dinitrotoluene



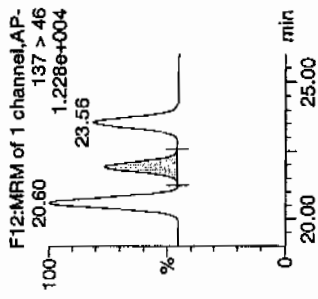
## 26-dinitrotoluene-d3



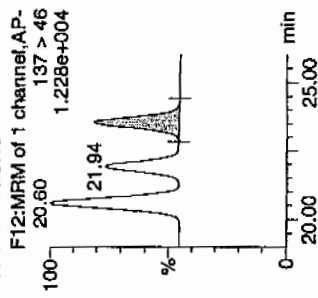
## 2-Nitrotoluene



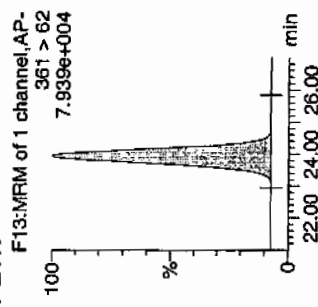
## 4-Nitrotoluene



## 3-Nitrotoluene



## PETN



Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	% Rec	% Dev	SN
NXX100412-07CCV HMX	176 > 102	5.20	28491.268	5686.049	28491.268	2505.366	bb			98.5	-1.5	2424.2
NXX100412-07CCV RDX	176 > 102	7.52	27417.908	5686.049	27417.908	1999.022	bb			116.4	16.4	1800.1
NXX100412-07CCV 135-Trinitrobenzene	213 > 183	10.05	27417.908	5686.049	27417.908	2410.981	bb			93.0	-7.0	985.8
NXX100412-07CCV 13-Dinitrobenzene-d4	172 > 142	11.87	5686.049		5686.049	5686.049	bb			96.7	-3.3	419.8
NXX100412-07CCV 13-Dinitrobenzene	168 > 138	11.97	9217.395	5686.049	9217.395	810.527	bb			101.0	1.0	1027.7
NXX100412-07CCV Tetryl	241 > 181	12.45	8397.697	5686.049	8397.697	738.447	bd			94.9	-5.1	1109.4
NXX100412-07CCV Nitrobenzene	123 > 46	13.37	4190.401	5686.049	4190.401	368.481	bd			97.9	-2.1	482.0
NXX100412-07CCV 4-Amino-26-dinitrotoluene	197 > 167	15.32	12637.104	33054.137	12637.104	191.158	MM	13-Apr-10	11:02:49	94.3	-5.7	550.6
NXX100412-07CCV 2-Amino-46-dinitrotoluene	197 > 180	16.16	19697.299	33054.137	19697.299	297.955	bb			97.0	-3.0	507.4
NXX100412-07CCV 246-Trinitrotoluene	227 > 210	15.10	18353.908	33054.137	18353.908	277.634	bb			106.4	6.4	574.4
NXX100412-07CCV 34-dinitrotoluene	182 > 152	14.12	20079.451	33054.137	20079.451	303.796	bb			98.2	-1.8	472.2
NXX100412-07CCV 26-dinitrotoluene	182 > 152	17.23	47216.063	33054.137	47216.063	714.223	MM	13-Apr-10	11:07:54	100.6	0.6	1300.6
NXX100412-07CCV 26-dinitrotoluene	182 > 152	17.88	11176.726	33054.137	11176.726	169.067	MM	13-Apr-10	11:10:49	108.0	8.0	280.1
NXX100412-07CCV 26-dinitrotoluene-d3	185 > 155	17.05	33054.137		33054.137	33054.137	bb			94.5	-5.5	2808.6
NXX100412-07CCV 2-Nitrotoluene	137 > 46	20.60	3195.010	33054.137	3195.010	48.330	bb			93.0	-7.0	343.3
NXX100412-07CCV 4-Nitrotoluene	137 > 46	21.94	1685.013	33054.137	1685.013	25.489	bb			102.4	2.4	193.2
NXX100412-07CCV 3-Nitrotoluene	137 > 46	23.56	2082.501	33054.137	2082.501	31.501	bb			90.1	-9.9	224.9
NXX100412-07CCV PETN	361 > 62	23.94	39570.852	33054.137	39570.852	598.576	bb			114.8	14.8	6418.5

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/13/10  
 Time of Injection: 0229  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412023a

HMX	98.5
RDX	116.4
135-TNB	93.0
13-DNB	101.0
Tetryl	94.9
Nitrobenzene	97.9
4A-26-DNT	94.3
2A-46-DNT	97.0
246-TNT	106.4
34-DNT(surr)	98.2
26-DNT	100.6
24-DNT	108.0
2-NT	93.0
4-NT	102.4
3-NT	90.1
PETN	114.8

*WAT  
4/13/10*

Total 1606.5

Average 100.4

*Handed off 4/14/10*

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412025a

Analysis Date: 13-APR-10 03:28

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	44.517	111	
1,3-Dinitrobenzene-d4	500	492.919	99	
2,4,6-Trinitrotoluene	40	39.436	99	
2,4-Dinitrotoluene	40	43.525	109	
2,6-Dinitrotoluene	40	39.656	99	
2,6-Dinitrotoluene-d3	500	514.01	103	
2-Amino-4,6-dinitrotoluene	40	37.309	93	
3,4-Dinitrotoluene	20	19.281	96	
4-Amino-2,6-dinitrotoluene	40	37.529	94	
HMX	40	42.31	106	
Nitrobenzene	40	35.496	89	
PETN	40	42.974	107	
RDX	40	45.439	114	
Tetryl	40	42.386	106	
m-Dinitrobenzene	40	46.427	116	
m-Nitrotoluene	40	39.933	100	
o-Nitrotoluene	40	37.946	95	
p-Nitrotoluene	40	42.692	107	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

# Quantify Sample Report

SEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 49 of 77

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412025a

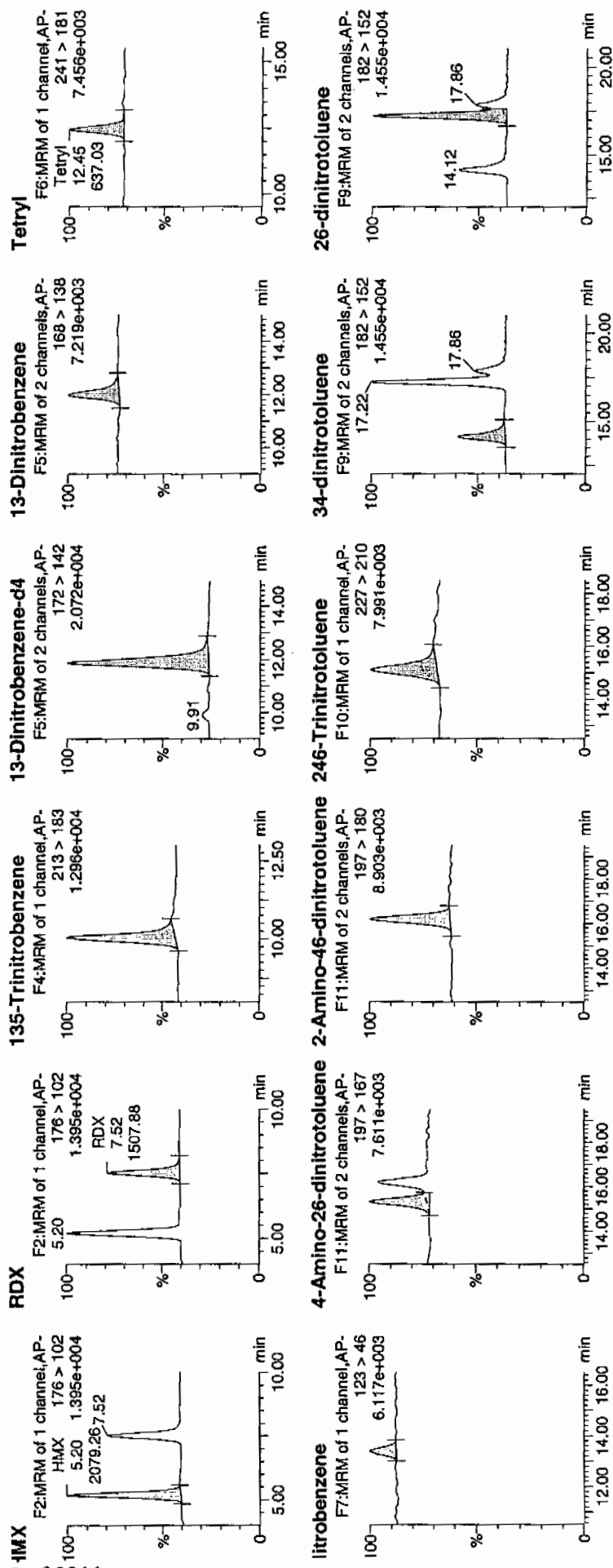
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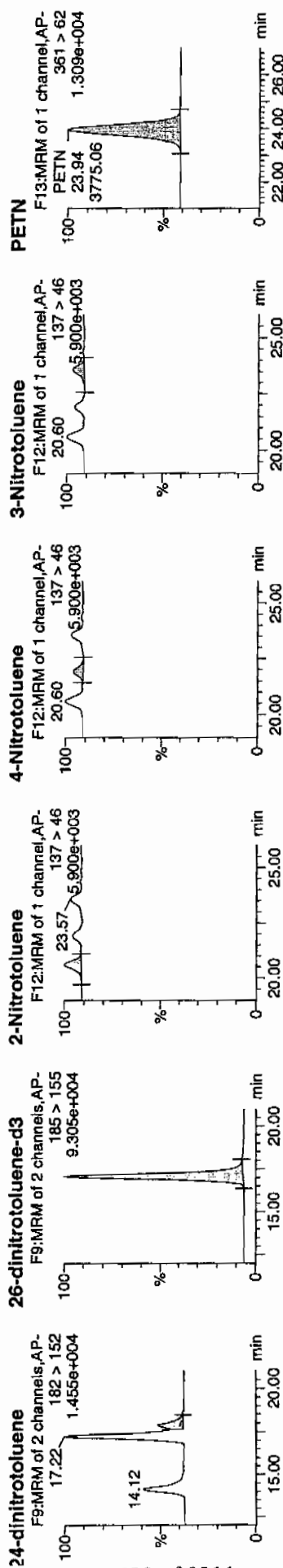
10/17  
4/13/10



10/17  
4/13/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

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Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Int	Rec	Dev	S/N
HMX	176 > 102	5.20	2079.264	5797.090	2079.264	179.337	bb			42.3097	105.8	5.8	348.3
RDX	176 > 102	7.52	1507.980	5797.090	1507.880	130.055	bb			45.4388	113.6	13.6	225.5
135-Trinitrobenzene	213 > 183	10.05	2231.265	5797.090	2231.265	192.447	bb			44.5172	111.3	11.3	130.5
13-Dinitrobenzene-d4	172 > 142	11.87	5797.090		5797.090	5797.090	bb			492.9193	98.6	-1.4	771.9
13-Dinitrobenzene	168 > 138	11.97	719.725	5797.090	719.725	62.076	bb			46.4272	116.1	16.1	67.2
Tetryl	241 > 181	12.45	637.032	5797.090	637.032	54.944	bb			42.3862	106.0	6.0	45.1
Nitrobenzene	123 > 46	13.41	258.161	5797.090	258.161	22.266	bb			35.4959	88.7	-11.3	32.0
4-Amino-26-dinitrotoluene	197 > 167	15.32	911.734	35963.441	911.734	12.676	MM	13-Apr-10	11:02:58	37.5289	93.8	-6.2	44.8
2-Amino-46-dinitrotoluene	197 > 180	16.19	1374.488	35963.441	1374.488	19.110	bb			37.3089	93.3	-6.7	102.4
246-Trinitrotoluene	227 > 210	15.10	1233.959	35963.441	1233.959	17.156	bb			39.4355	96.6	-1.4	52.3
34-dinitrotoluene	182 > 152	14.12	1430.000	35963.441	1430.000	19.881	bb			19.2811	96.4	-3.6	68.9
26-dinitrotoluene	182 > 152	17.22	3375.872	35963.441	3375.872	46.935	MM	13-Apr-10	11:08:02	39.6563	99.1	-0.9	198.4
24-dinitrotoluene	182 > 152	17.86	817.109	35963.441	817.109	11.360	MM	13-Apr-10	11:10:56	43.5253	108.8	8.8	43.1
26-dinitrotoluene-d3	185 > 155	17.05	35963.441		35963.441	35963.441	bb			514.0105	102.8	2.8	1763.8
2-Nitrotoluene	137 > 46	20.60	236.329	35963.441	236.329	3.286	bb			37.9461	94.9	-5.1	26.8
4-Nitrotoluene	137 > 46	21.92	127.371	35963.441	127.371	1.771	bb			42.6921	106.7	6.7	14.4
3-Nitrotoluene	137 > 46	23.57	167.459	35963.441	167.459	2.328	bb			39.9332	99.8	-0.2	17.3
PETN	361 > 62	23.94	3775.057	35963.441	3775.057	52.485	bb			42.9742	107.4	7.4	1684.5



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/13/10  
 Time of Injection 0328  
 Standard Number WXX100412-08CRI  
 Data File EXP0412025a

HMX	105.8
RDX	113.6
135-TNB	111.3
13-DNB	116.1
Tetryl	106.0
Nitrobenzene	88.7
4A-26-DNT	93.8
2A-46-DNT	93.3
246-TNT	98.6
34-DNT(surr)	96.4
26-DNT	99.1
24-DNT	108.8
2-NT	94.9
4-NT	106.7
3-NT	99.8
PETN	107.4

WXX  
4/13/10

Total 1640.3

Average 102.5

HMX on 4/14/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412036a

Analysis Date: 13-APR-10 08:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	600	702.566	117	
Tetryl	600	604.875	101	
m-Dinitrobenzene	600	626.308	104	
m-Nitrotoluene	600	515.069	86	
o-Nitrotoluene	600	519.467	87	
p-Nitrotoluene	600	594.454	99	
PETN	600	634.783	106	
1,3,5-Trinitrobenzene	600	622.986	104	
1,3-Dinitrobenzene-d4	500	495.434	99	
2,4,6-Trinitrotoluene	600	635.68	106	
2,4-Dinitrotoluene	600	609.665	102	
2,6-Dinitrotoluene	600	616.741	103	
2,6-Dinitrotoluene-d3	500	514.162	103	
2-Amino-4,6-dinitrotoluene	600	599.331	100	
3,4-Dinitrotoluene	300	294.405	98	
4-Amino-2,6-dinitrotoluene	600	576.117	96	
HMX	600	602.928	100	
Nitrobenzene	600	645.578	108	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Quantify Sample Report  
 3EL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qtd, Time: Tue Apr 13 11:12:22 2010

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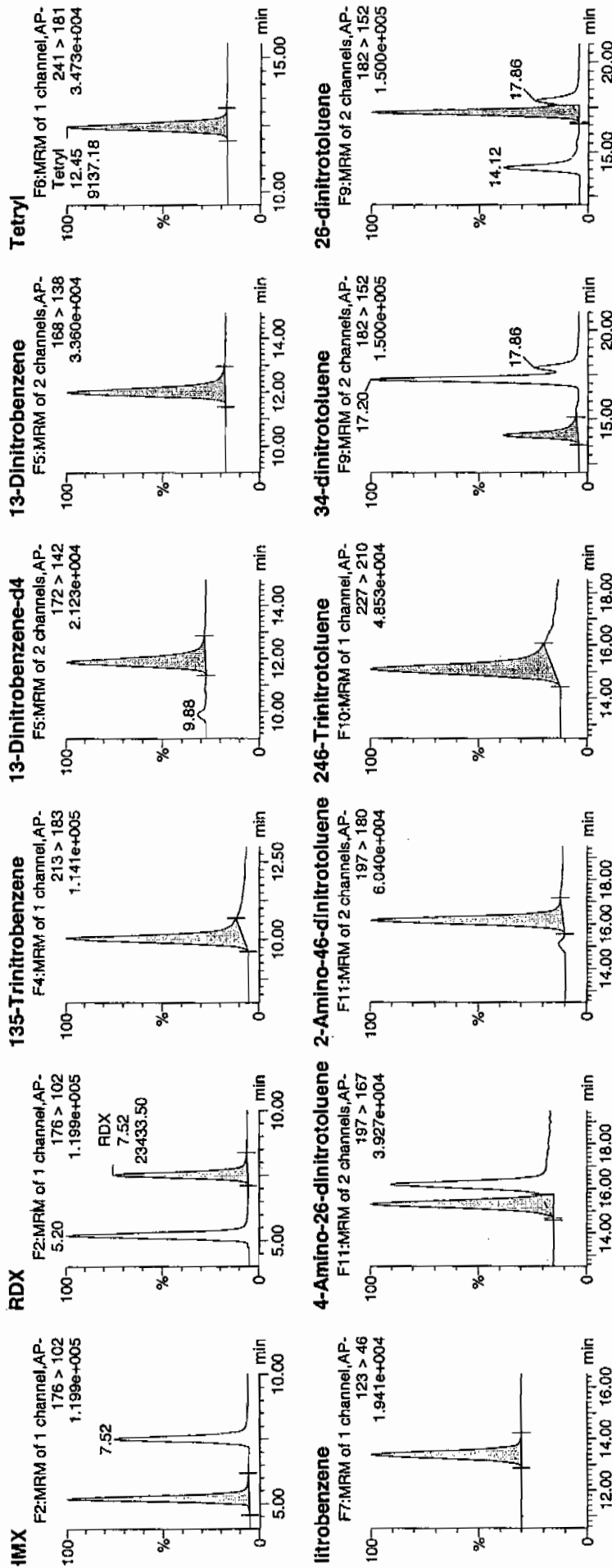
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11/13/10



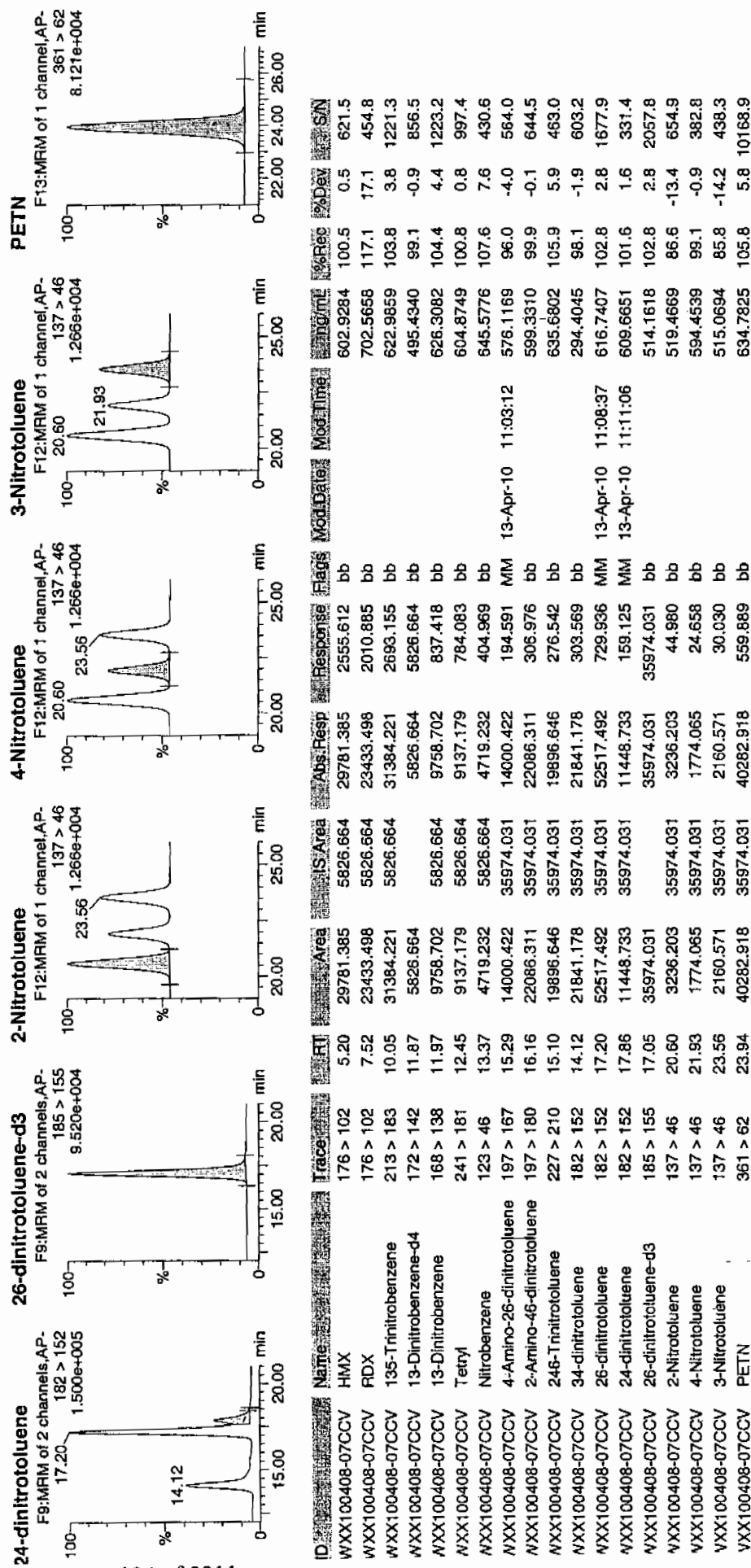
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# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 72 of 77

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/13/10  
 Time of Injection: 0852  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412036a

HMX	100.5
RDX	117.1
135-TNB	103.8
13-DNB	104.4
Tetryl	100.8
Nitrobenzene	107.6
4A-26-DNT	96.0
2A-46-DNT	99.9
246-TNT	105.9
34-DNT(surr)	98.1
26-DNT	102.8
24-DNT	101.6
2-NT	86.6
4-NT	99.1
3-NT	85.8
PETN	105.8

*WAT*  
*4/13/10*

Total 1615.8

Average 101.0

*WAT*  
*4/14/10*

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412038a

Analysis Date: 13-APR-10 09:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3-Dinitrobenzene-d4	500	533	107	
2,4,6-Trinitrotoluene	40	38.169	95	
2,4-Dinitrotoluene	40	45.21	113	
2,6-Dinitrotoluene	40	40.851	102	
2,6-Dinitrotoluene-d3	500	511.74	102	
2-Amino-4,6-dinitrotoluene	40	38.558	96	
3,4-Dinitrotoluene	20	21.488	107	
4-Amino-2,6-dinitrotoluene	40	37.158	93	
HMX	40	39.698	99	
Nitrobenzene	40	39.676	99	
PETN	40	46.251	116	
RDX	40	44.563	111	
Tetryl	40	40.879	102	
m-Dinitrobenzene	40	43.824	110	
m-Nitrotoluene	40	36.581	91	
o-Nitrotoluene	40	36.682	92	
p-Nitrotoluene	40	38.153	95	
1,3,5-Trinitrobenzene	40	45.739	114	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Quantify Sample Report  
 GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

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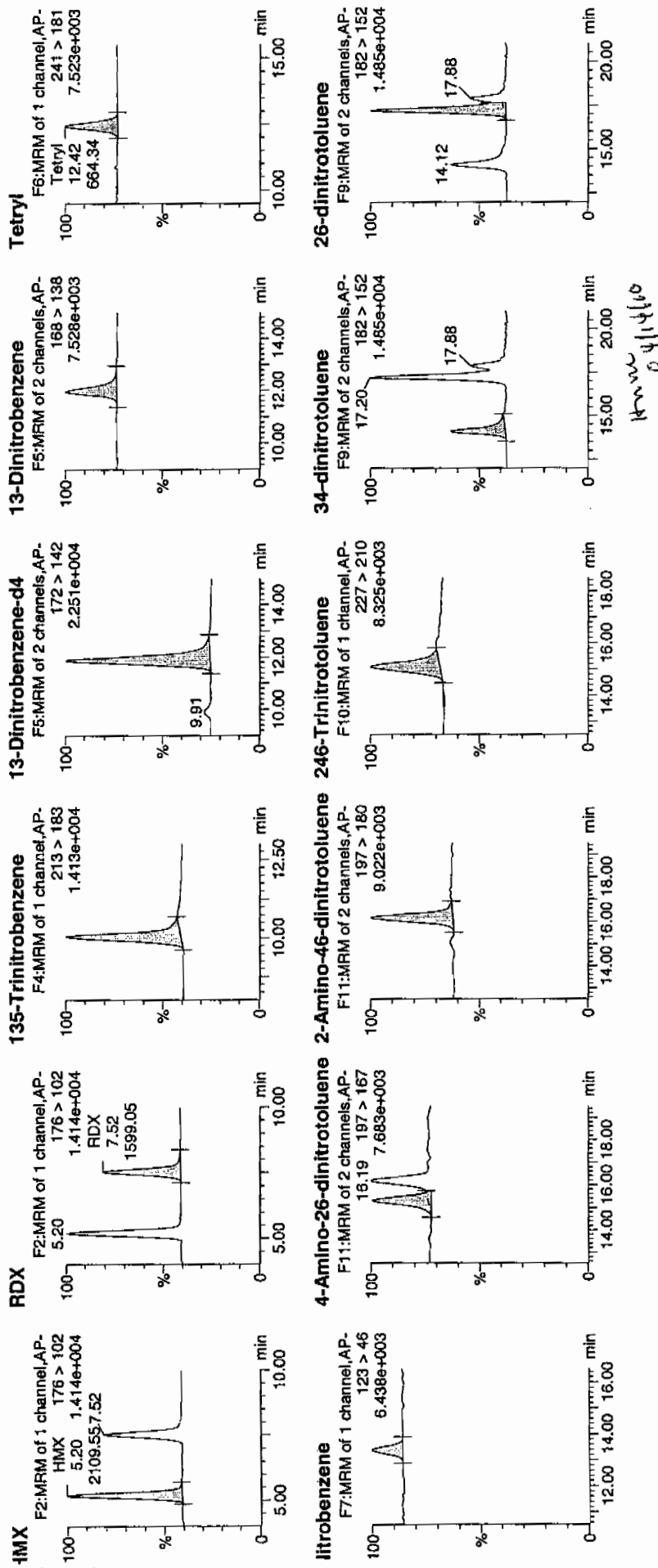
Date: 13-Apr-2010

Time: 09:51:47

D: WXX100408-08CRI

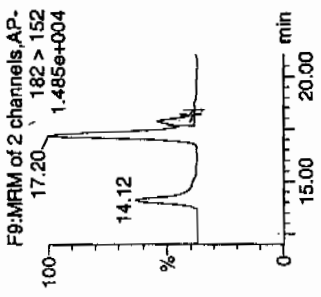
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pur  
 4/13/10

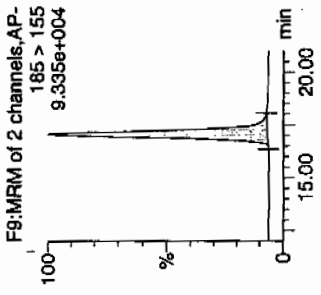


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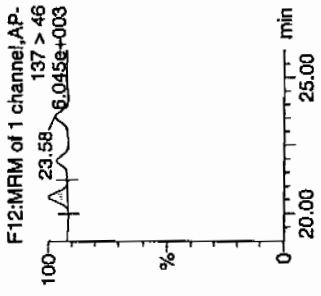
## 2,4-dinitrotoluene



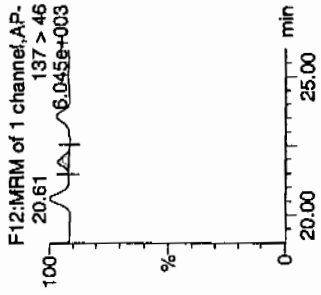
**26-dinitrotoluene-d3**



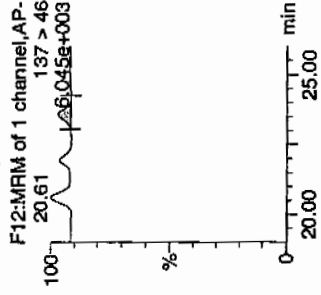
## 2-Nitrotoluene



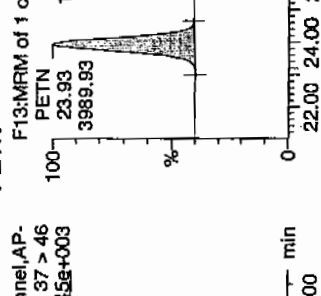
### 4-Nitrotoluene



### 3-Nitrotoluene



## PETN



ID	Name	Trace	RT	Area	S Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	Conc./mL	PreRec	Day	Time
WXX100408-08CRI	HMX	176 > 102	5.20	2109.553	6268.472	2109.553	168.267	bb			39.6981	99.2	-0.8	344.7
WXX100408-08CRI	RDX	176 > 102	7.52	1599.046	6268.472	1599.046	127.547	bb			44.5825	111.4	11.4	232.6
WXX100408-08CRI	135-Trinitrobenzene	213 > 183	10.05	2478.890	6268.472	2478.890	197.727	bb			45.7385	114.3	14.3	445.4
WXX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6268.472		6268.472	6268.472	bb			533.0004	106.6	6.6	316.8
WXX100408-08CRI	13-Dinitrobenzene	168 > 138	11.97	734.612	6268.472	734.612	58.596	bb			43.8240	109.6	9.6	56.6
WXX100408-08CRI	Tetryl	241 > 181	12.42	664.339	6268.472	664.339	52.991	bb			40.8791	102.2	2.2	77.0
WXX100408-08CRI	Nitrobenzene	123 > 46	13.37	312.027	6268.472	312.027	24.889	bb			39.6760	99.2	-0.8	26.2
WXX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.32	898.733	35804.613	898.733	12.551	MM	13-Apr-10	11:03:18	37.1578	92.9	-7.1	46.5
WXX100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.16	1414.235	35804.613	1414.235	19.749	bb			38.5581	96.4	-3.6	64.1
WXX100408-08CRI	246-Trinitrotoluene	227 > 210	15.10	1189.063	35804.613	1189.063	16.605	bb			38.1693	95.4	-4.6	105.0
WXX100408-08CRI	34-dinitrotoluene	182 > 152	14.12	1586.630	35804.613	1586.630	22.157	bb			21.4879	107.4	7.4	45.9
WXX100408-08CRI	26-dinitrotoluene	182 > 152	17.20	3462.203	35804.613	3462.203	48.349	MM	13-Apr-10	11:08:46	40.8509	102.1	2.1	112.8
WXX100408-08CRI	24-dinitrotoluene	182 > 152	17.88	844.986	35804.613	844.986	11.800	MM	13-Apr-10	11:11:14	45.2099	113.0	13.0	28.2
WXX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	35804.613		35804.613	35804.613	bb			511.7404	102.3	2.3	2742.4
WXX100408-08CRI	2-Nitrotoluene	137 > 46	20.61	227.450	35804.613	227.450	3.176	bb			36.6824	91.7	-8.3	42.8
WXX100408-08CRI	4-Nitrotoluene	137 > 46	21.94	113.326	35804.613	113.326	1.583	bb			38.1530	95.4	-4.6	23.5
WXX100408-08CRI	3-Nitrotoluene	137 > 46	23.58	152.725	35804.613	152.725	2.133	bb			36.5812	91.5	-8.5	27.1
WXX100408-08CRI	PETN	361 > 62	23.93	3989.934	35804.613	3989.934	55.718	bb			46.2507	115.6	15.6	239.5



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/13/10  
 Time of Injection 0951  
 Standard Number WXX100412-08CRI  
 Data File EXP0412038a

HMX	99.2
RDX	111.4
135-TNB	114.3
13-DNB	109.6
Tetryl	102.2
Nitrobenzene	99.2
4A-26-DNT	92.9
2A-46-DNT	96.4
246-TNT	95.4
34-DNT(surr)	107.4
26-DNT	102.1
24-DNT	113.0
2-NT	91.7
4-NT	95.4
3-NT	91.5
PETN	115.6

*WTF  
4/13/10*

Total 1637.3

Average 102.3

*Home 04/14/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412049a

Analysis Date: 13-APR-10 15:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	571.573	95	
1,3-Dinitrobenzene-d4	500	506.928	101	
2,4,6-Trinitrotoluene	600	673.095	112	
2,4-Dinitrotoluene	600	690.861	115	
2,6-Dinitrotoluene	600	617.582	103	
2,6-Dinitrotoluene-d3	500	498.886	100	
2-Amino-4,6-dinitrotoluene	600	607.095	101	
3,4-Dinitrotoluene	300	303.099	101	
4-Amino-2,6-dinitrotoluene	600	604.473	101	
HMX	600	617.414	103	
Nitrobenzene	600	582.952	97	
PETN	600	664.135	111	
RDX	600	727.871	121	*
Tetryl	600	602.021	100	
m-Dinitrobenzene	600	604.378	101	
m-Nitrotoluene	600	551.203	92	
o-Nitrotoluene	600	525.761	88	
p-Nitrotoluene	600	663.98	111	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412049a

Date: 13-Apr-2010

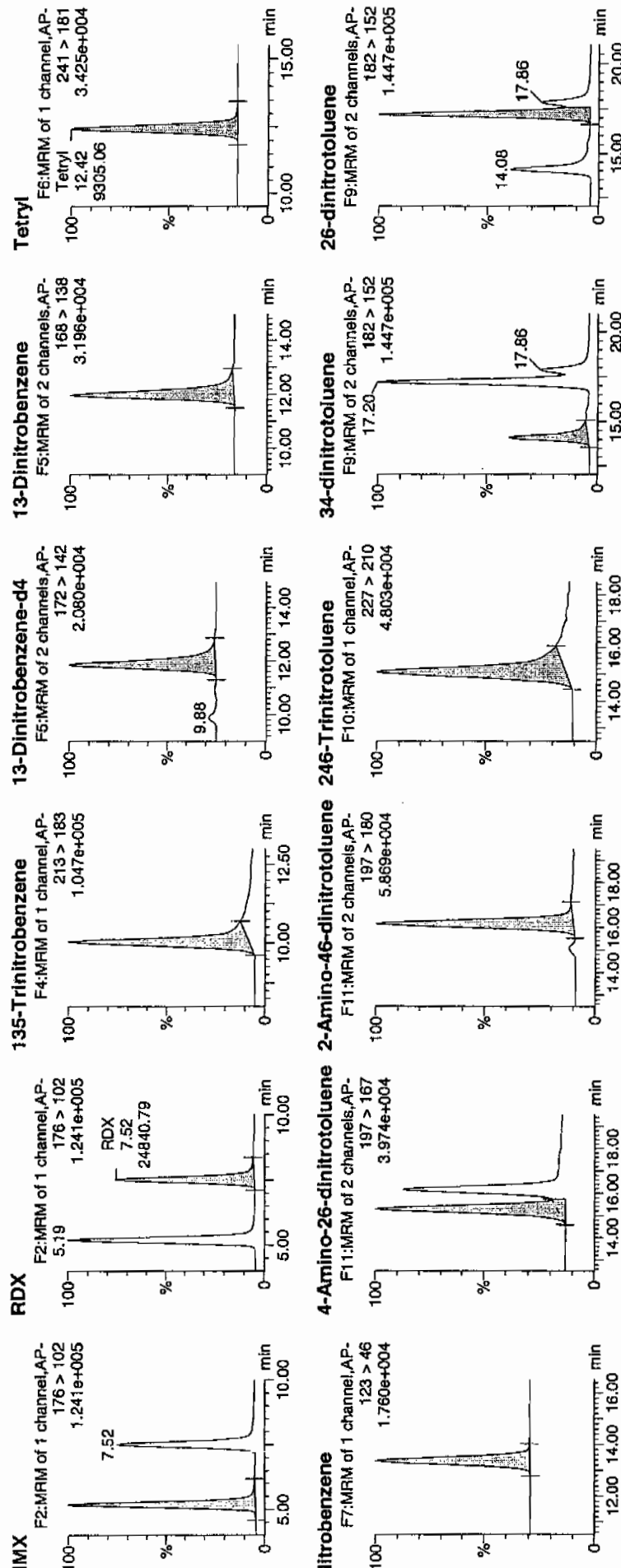
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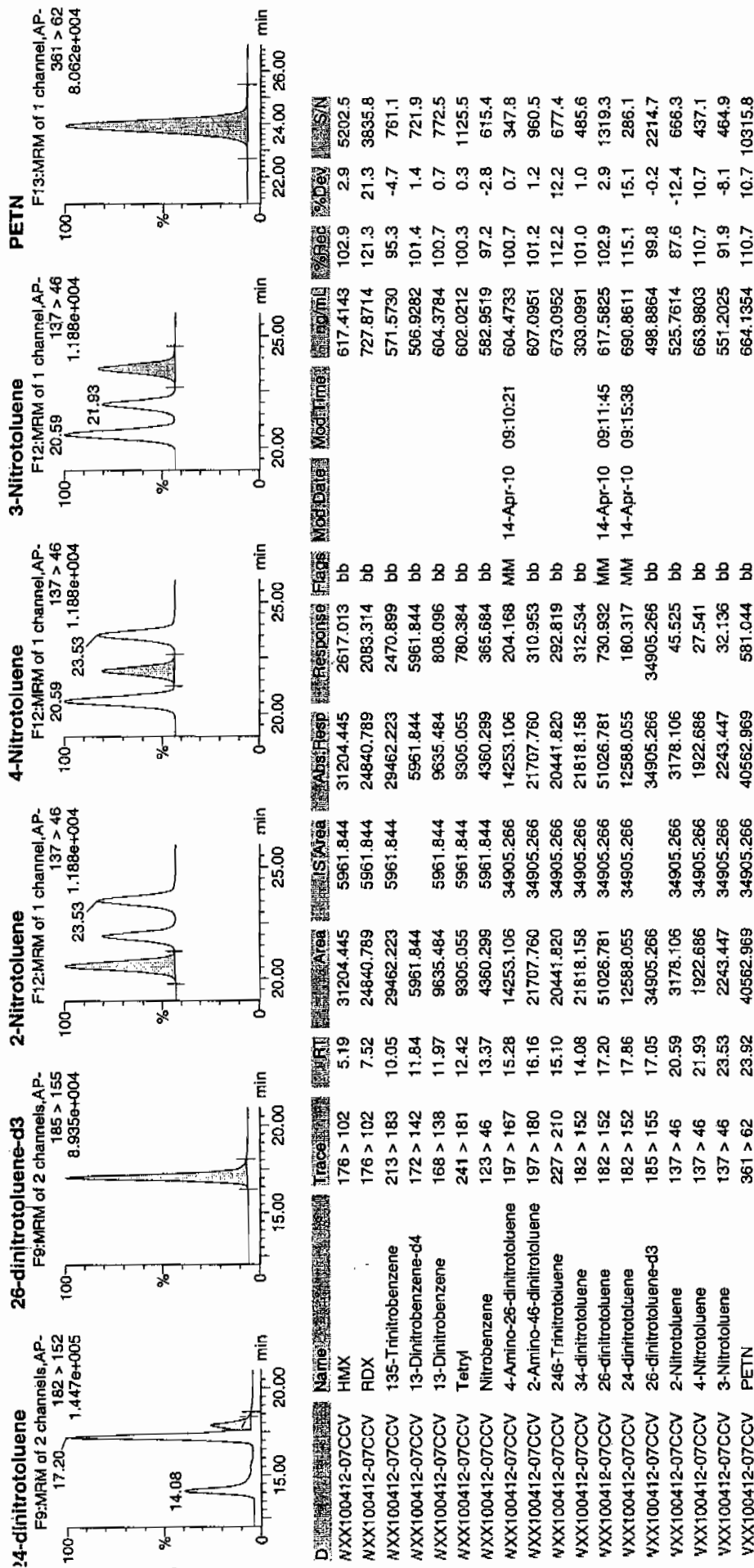
MT  
 4/14/10

Page 1831 of 2211



4/14/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/13/10  
 Time of Injection: 1516  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412049a

HMX	102.9
RDX	121.3
135-TNB	95.3
13-DNB	100.7
Tetryl	100.3
Nitrobenzene	97.2
4A-26-DNT	100.7
2A-46-DNT	101.2
246-TNT	112.2
34-DNT(surr)	101.0
26-DNT	102.9
24-DNT	115.1
2-NT	87.6
4-NT	110.7
3-NT	91.9
PETN	110.7

*MTT  
4/14/10*

Total 1651.7

*Sum 04/14/10*

Average 103.2

ICV Limits 85-115%

CRl Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412051a

Analysis Date: 13-APR-10 16:15

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	40	48.006	120	
RDX	40	40.505	101	
Tetryl	40	40.745	102	
m-Dinitrobenzene	40	41.507	104	
m-Nitrotoluene	40	38.882	97	
o-Nitrotoluene	40	38.71	97	
p-Nitrotoluene	40	41.261	103	
1,3,5-Trinitrobenzene	40	43.445	109	
1,3-Dinitrobenzene-d4	500	578.682	116	
2,4,6-Trinitrotoluene	40	41.977	105	
2,4-Dinitrotoluene	40	41.352	103	
2,6-Dinitrotoluene	40	41.013	103	
2,6-Dinitrotoluene-d3	500	540.214	108	
2-Amino-4,6-dinitrotoluene	40	38.681	97	
3,4-Dinitrotoluene	20	22.076	110	
4-Amino-2,6-dinitrotoluene	40	40.59	101	
HMX	40	38.797	97	
Nitrobenzene	40	39.951	100	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Sample: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412051a

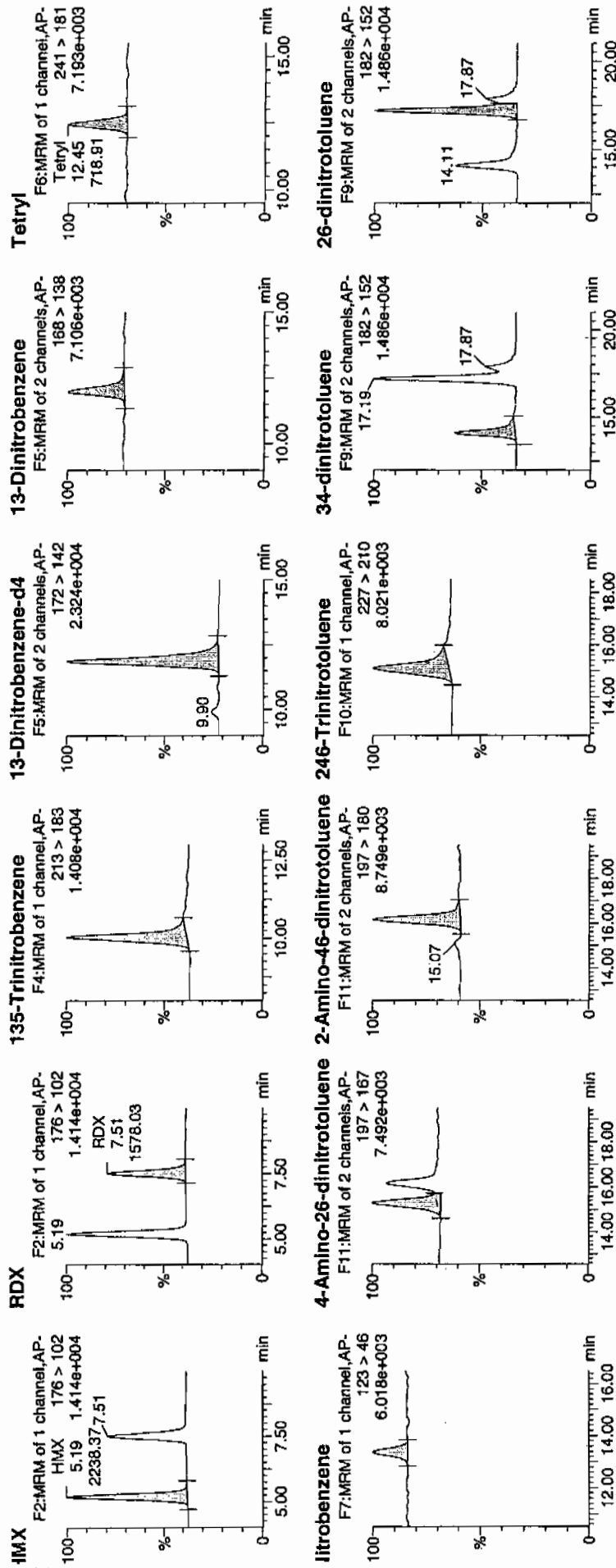
Date: 13-Apr-2010

Time: 16:15:40

Page: D: WXX100412-08CRI

File: 1:1,C

AP  
4/14/10



AP  
4/14/10

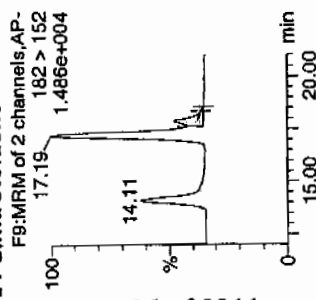
# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

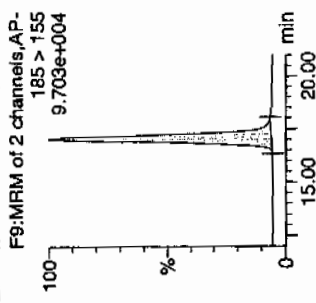
Printed: Wed Apr 14 09:18:04 2010, Page 26 of 75

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

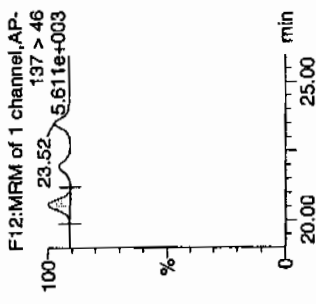
## 24-dinitrotoluene



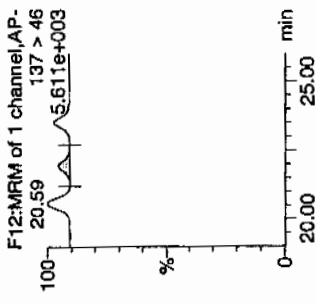
## 26-dinitrotoluene-d3



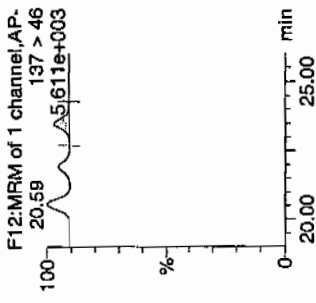
## 2-Nitrotoluene



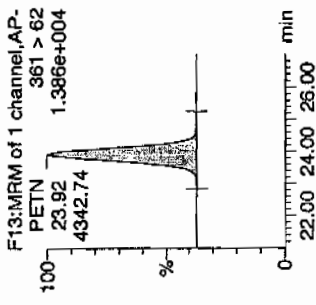
## 4-Nitrotoluene



## 3-Nitrotoluene



## PETN



ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Area	Norm	% Rec	% Dev	S/N
WXX100412-08CRI	HMX	176 > 102	5.19	2238.372	6805.720	2238.372	164.448	bb			38.7971	97.0	-3.0	208.5	
WXX100412-08CRI	RDX	176 > 102	7.51	1578.030	6805.720	1578.030	115.934	bb			40.5052	101.3	1.3	135.6	
WXX100412-08CRI	135-Trinitrobenzene	213 > 183	10.03	2556.376	6805.720	2556.376	187.811	bb			43.4448	108.6	8.6	179.0	
WXX100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6805.720	6805.720	6805.720	6805.720	bb			578.6819	115.7	15.7	507.4	
WXX100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	755.409	6805.720	755.409	55.498	bb			41.5073	103.8	3.8	74.5	
WXX100412-08CRI	Tetryl	241 > 181	12.45	718.910	6805.720	718.910	52.817	bb			40.7450	101.9	1.9	73.1	
WXX100412-08CRI	Nitrobenzene	123 > 46	13.35	341.116	6805.720	341.116	25.061	bb			39.9508	99.9	-0.1	27.5	
WXX100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.27	1036.367	37796.773	1036.367	13.710	MM	14-Apr-10	09:10:14	40.5898	101.5	1.5	59.1	
WXX100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.15	1497.691	37796.773	1497.691	19.812	bb			38.6812	96.7	-3.3	67.3	
WXX100412-08CRI	246-Trinitrotoluene	227 > 210	15.09	1380.441	37796.773	1380.441	18.261	bb			41.9770	104.9	4.9	85.1	
WXX100412-08CRI	34-dinitrotoluene	182 > 152	14.11	1720.770	37796.773	1720.770	22.763	bb			22.0763	110.4	10.4	91.2	
WXX100412-08CRI	26-dinitrotoluene	182 > 152	17.19	3669.359	37796.773	3669.359	48.541	MM	14-Apr-10	09:11:53	41.0132	102.5	2.5	216.3	
WXX100412-08CRI	24-dinitrotoluene	182 > 152	17.87	815.884	37796.773	815.884	10.793	MM	14-Apr-10	09:15:28	41.3520	103.4	3.4	43.1	
WXX100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.04	37796.773	37796.773	37796.773	37796.773	bb			540.2135	108.0	8.0	1682.3	
WXX100412-08CRI	2-Nitrotoluene	137 > 46	20.59	253.376	37796.773	253.376	3.352	bb			38.7099	96.8	-3.2	70.2	
WXX100412-08CRI	4-Nitrotoluene	137 > 46	21.96	129.377	37796.773	129.377	1.711	bb			41.2610	103.2	3.2	35.2	
WXX100412-08CRI	3-Nitrotoluene	137 > 46	23.52	171.362	37796.773	171.362	2.267	bb			38.8818	97.2	-2.8	48.1	
WXX100412-08CRI	PETN	361 > 62	23.92	4342.742	37796.773	4342.742	57.449	bb			48.0061	120.0	20.0	1612.5	



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/13/10  
 Time of Injection 1615  
 Standard Number WXX100412-08CRI  
 Data File EXP0412051a

HMX	97.0
RDX	101.3
135-TNB	108.6
13-DNB	103.8
Tetryl	101.9
Nitrobenzene	99.9
4A-26-DNT	101.5
2A-46-DNT	96.7
246-TNT	104.9
34-DNT(surr)	110.4
26-DNT	102.5
24-DNT	103.4
2-NT	96.8
4-NT	103.2
3-NT	97.2
PETN	120.0

Handwritten: 103.1  
4/14/10

Total 1649.1

Average 103.1

Handwritten: 103.1  
4/14/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412060a

Analysis Date: 13-APR-10 20:41

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	600	684.197	114	
2,6-Dinitrotoluene	600	612.271	102	
2,6-Dinitrotoluene-d3	500	510.451	102	
2-Amino-4,6-dinitrotoluene	600	614.276	102	
3,4-Dinitrotoluene	300	313.494	104	
4-Amino-2,6-dinitrotoluene	600	595.541	99	
HMX	600	611.301	102	
Nitrobenzene	600	608.894	101	
PETN	600	646.401	108	
RDX	600	735.804	123	*
Tetryl	600	668.888	111	
m-Dinitrobenzene	600	610.208	102	
m-Nitrotoluene	600	514.808	86	
o-Nitrotoluene	600	527.178	88	
p-Nitrotoluene	600	571.151	95	
1,3,5-Trinitrobenzene	600	599.334	100	
1,3-Dinitrobenzene-d4	500	499.969	100	
2,4,6-Trinitrotoluene	600	660.453	110	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

# Quantify Sample Report

CEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Wed Apr 14 09:18:04 2010, Page 43 of 75

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

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Date: 13-Apr-2010

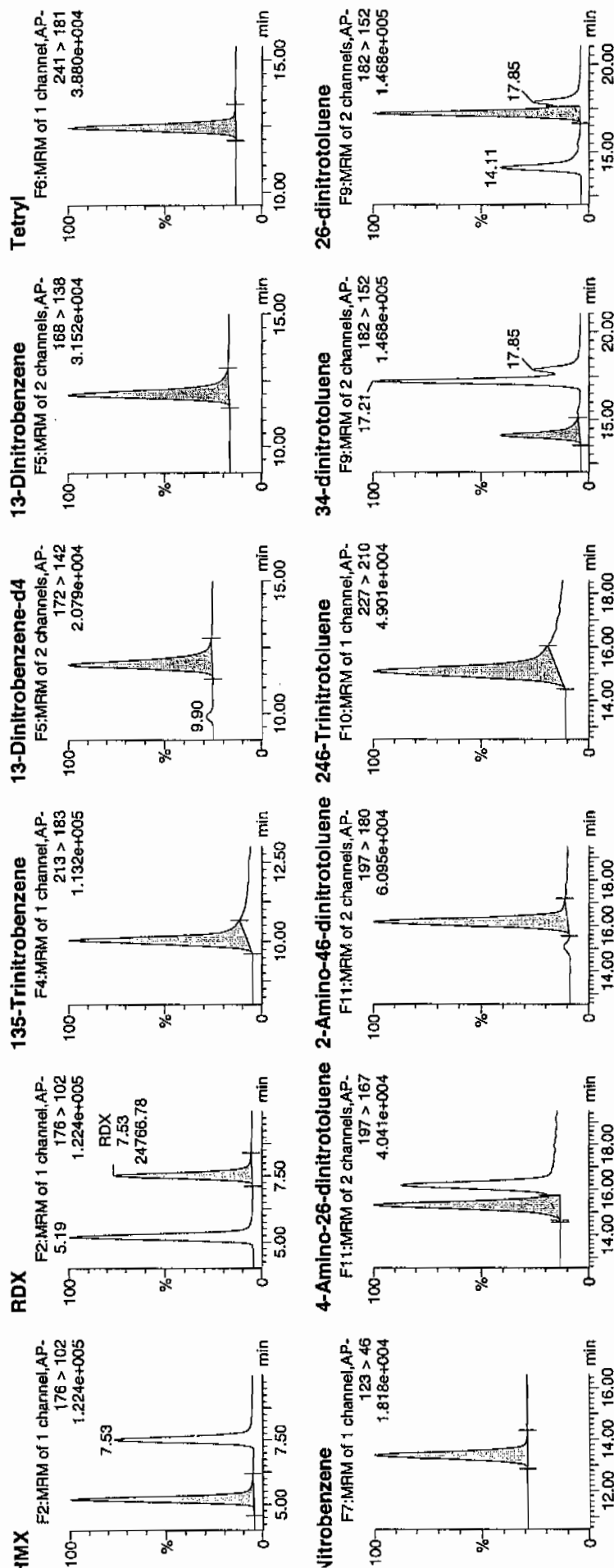
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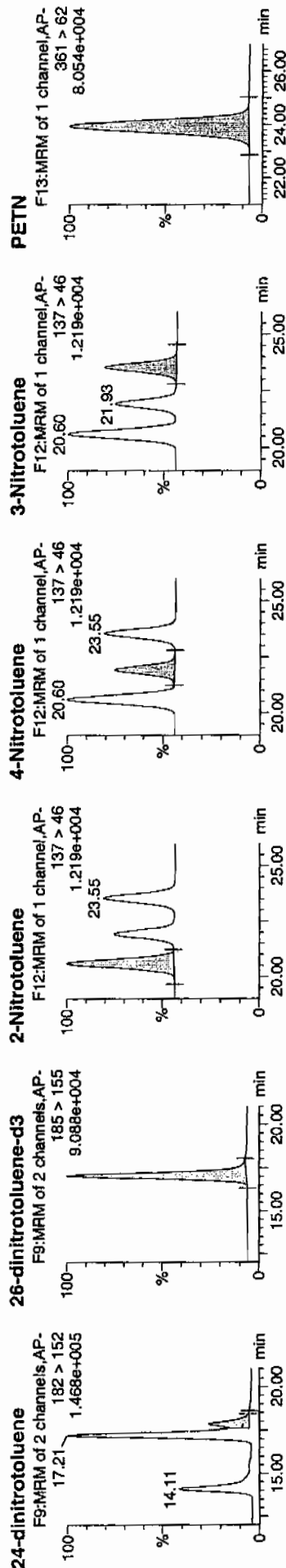
Vial: 1:1,B

11/1/10  
11/1/10

Page 1839 of 2211



11/1/10  
11/1/10



ID	Name	Trace	RT	Area	US Area	Abs. Resp	Response	Flags	Mod Date	Mod Time	Int. M	% Rec	AbDev	S/N
W\XX100412-07CCV	HMx	176 > 102	5.19	30471.305	5879.997	30471.305	2591.099	bb			611.3005	101.9	1.9	4888.6
W\XX100412-07CCV	RDX	176 > 102	7.53	24766.781	5879.997	24766.781	2106.020	bb			735.8043	122.6	22.6	3683.0
W\XX100412-07CCV	135-Trinitrobenzene	213 > 183	10.03	30469.059	5879.997	30469.059	2590.908	bb			599.3338	99.9	-0.1	527.0
W\XX100412-07CCV	13-Dinitrobenzene-d4	172 > 142	11.86	5879.997	5879.997	5879.997	5879.997	bb			499.9688	100.0	-0.0	312.1
W\XX100412-07CCV	13-Dinitrobenzene	168 > 138	11.97	9594.861	5879.997	9594.861	815.890	bb			610.2076	101.7	1.7	589.3
W\XX100412-07CCV	Tetryl	241 > 181	12.45	10196.647	5879.997	10196.647	867.082	bb			668.8885	111.5	11.5	787.0
W\XX100412-07CCV	Nitrobenzene	123 > 46	13.39	4491.814	5879.997	4491.814	381.957	bb			608.8941	101.5	1.5	423.9
W\XX100412-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.31	14368.022	35714.422	14368.022	201.152	MM	14-Apr-10	09:10:06	595.5413	99.3	-0.7	278.9
W\XX100412-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.18	22473.705	35714.422	22473.705	314.631	bb			614.2762	102.4	2.4	791.6
W\XX100412-07CCV	246-Trinitrotoluene	227 > 210	15.09	20522.861	35714.422	20522.861	287.319	bb			660.4534	110.1	10.1	1440.2
W\XX100412-07CCV	34-dinitrotoluene	182 > 152	14.11	23089.531	35714.422	23089.531	323.252	bb			313.4938	104.5	4.5	574.1
W\XX100412-07CCV	26-dinitrotoluene	182 > 152	17.21	51760.656	35714.422	51760.656	724.646	MM	14-Apr-10	09:12:05	612.2713	102.0	2.0	1480.7
W\XX100412-07CCV	24-dinitrotoluene	182 > 152	17.85	12755.632	35714.422	12755.632	178.578	MM	14-Apr-10	09:15:11	684.1974	114.0	14.0	325.1
W\XX100412-07CCV	26-dinitrotoluene-d3	185 > 165	17.04	35714.422	35714.422	35714.422	35714.422	bb			510.4514	102.1	2.1	1565.0
W\XX100412-07CCV	2-Nitrotoluene	137 > 46	20.60	3260.543	35714.422	3260.543	45.647	bb			527.1784	87.9	-12.1	489.2
W\XX100412-07CCV	4-Nitrotoluene	137 > 46	21.93	1692.219	35714.422	1692.219	23.691	bb			571.1507	95.2	-4.8	274.5
W\XX100412-07CCV	3-Nitrotoluene	137 > 46	23.55	2143.889	35714.422	2143.889	30.014	bb			514.8077	85.8	-14.2	326.3
W\XX100412-07CCV	PETN	361 > 62	23.93	40593.559	35714.422	40593.559	568.308	bb			646.4009	107.7	7.7	8856.6

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/13/10  
 Time of Injection: 2041  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412060a

HMX	101.9
RDX	122.6
135-TNB	99.9
13-DNB	101.7
Tetryl	111.5
Nitrobenzene	101.5
4A-26-DNT	99.3
2A-46-DNT	102.4
246-TNT	110.1
34-DNT(surr)	104.5
26-DNT	102.0
24-DNT	114.0
2-NT	87.9
4-NT	95.2
3-NT	85.8
PETN	107.7

*4/14/10*

Total 1648.0

Average 103.0

*4/14/10*

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412062a

Analysis Date: 13-APR-10 21:40

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	44.068	110	
1,3-Dinitrobenzene-d4	500	557.026	111	
2,4,6-Trinitrotoluene	40	47.263	118	
2,4-Dinitrotoluene	40	43.24	108	
2,6-Dinitrotoluene	40	42.432	106	
2,6-Dinitrotoluene-d3	500	543.492	109	
2-Amino-4,6-dinitrotoluene	40	41.373	103	
3,4-Dinitrotoluene	20	20.458	102	
4-Amino-2,6-dinitrotoluene	40	42.964	107	
HMX	40	45.559	114	
Nitrobenzene	40	43.255	108	
PETN	40	44.881	112	
RDX	40	44.011	110	
Tetryl	40	38.121	95	
m-Dinitrobenzene	40	42.827	107	
m-Nitrotoluene	40	31.848	80	
o-Nitrotoluene	40	44.099	110	
p-Nitrotoluene	40	40.569	101	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Wed Apr 14 09:18:04 2010, Page 47 of 75

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

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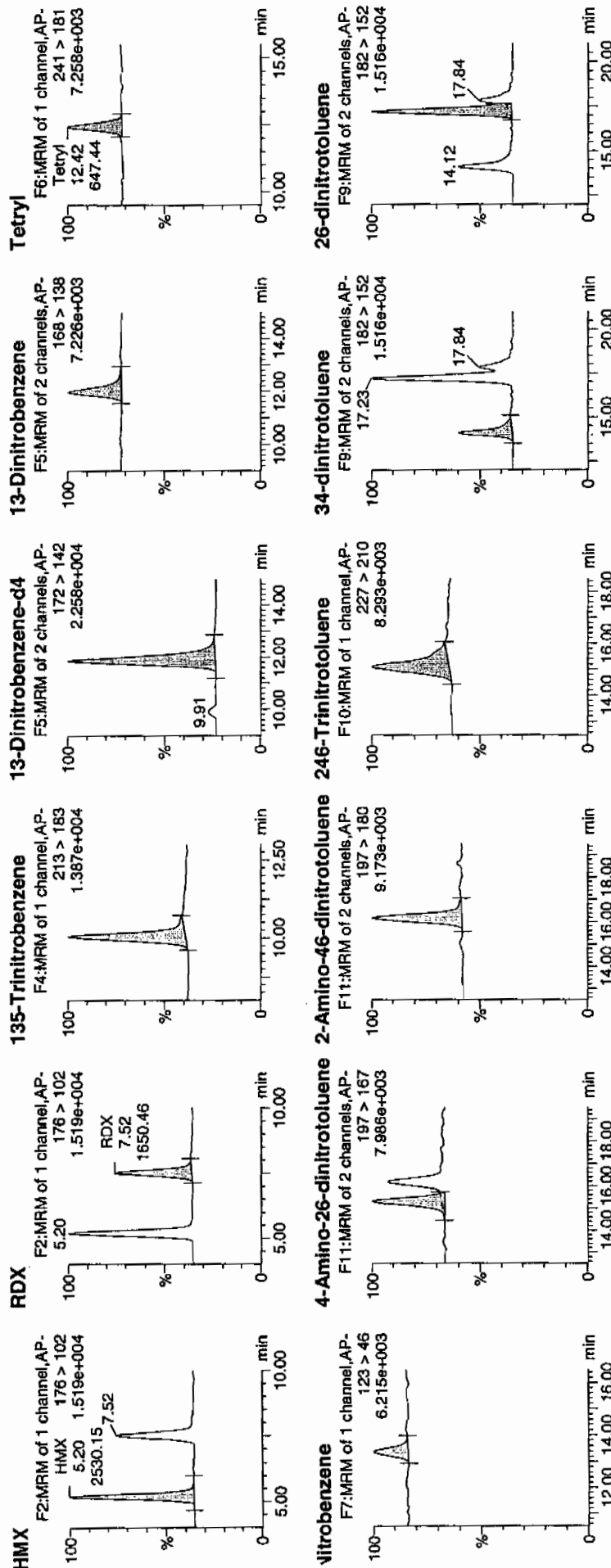
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Time: 21:40:18

ID: WXX100412-08CRI

Vial: 1:1,C

WFF  
4/14/10



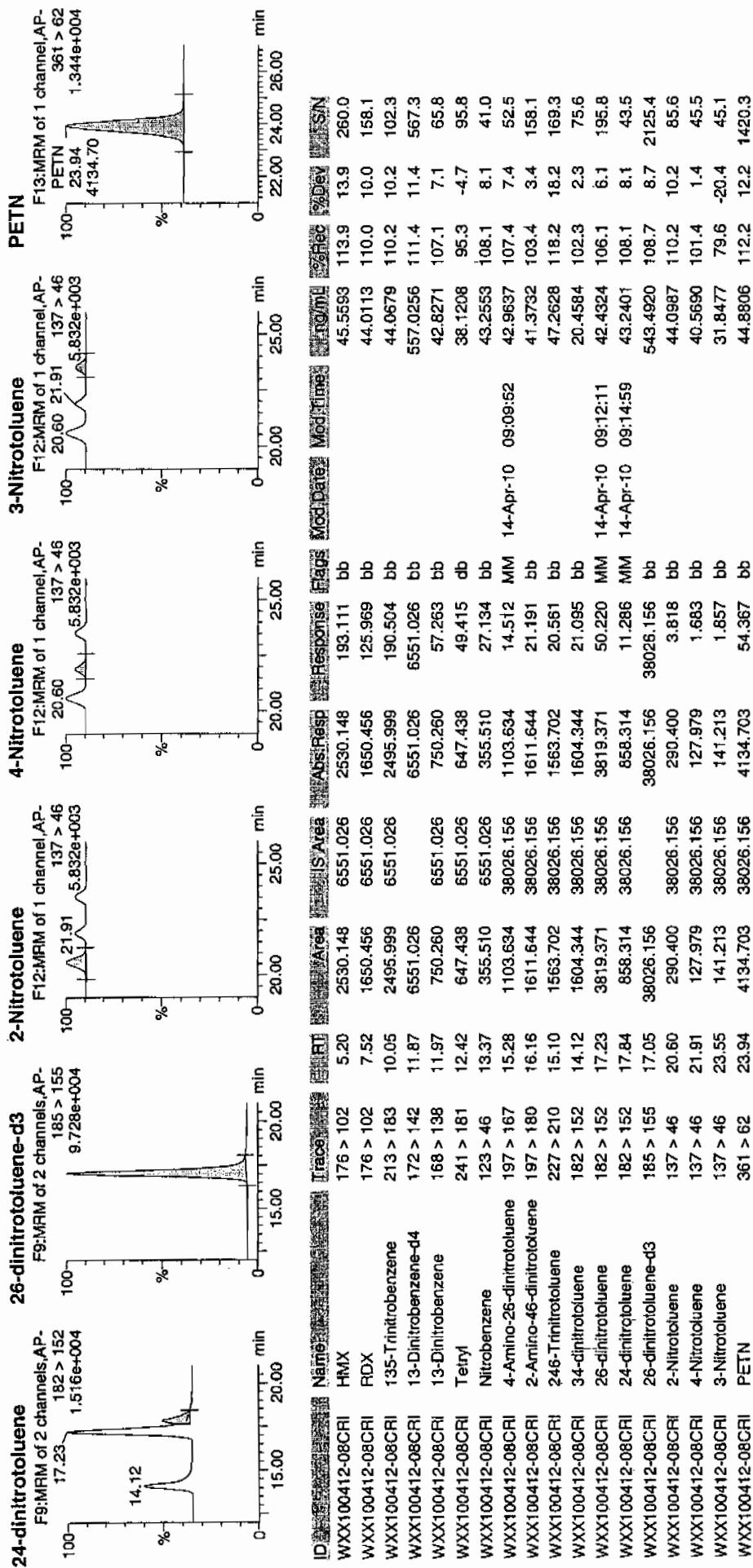
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# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Wed Apr 14 09:18:04 2010, Page 48 of 75

Dataset: C:\MASSLYNX\New\_Exp\PRO1041210expA1.qld, Time: Wed Apr 14 09:16:31 2010





# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/13/10  
 Time of Injection 2140  
 Standard Number WXX100412-08CRI  
 Data File EXP0412062a

HMX	113.9
RDX	110.0
135-TNB	100.2
13-DNB	107.1
Tetryl	95.3
Nitrobenzene	108.1
4A-26-DNT	107.4
2A-46-DNT	103.4
246-TNT	118.2
34-DNT(surr)	102.3
26-DNT	106.1
24-DNT	108.1
2-NT	110.2
4-NT	101.4
3-NT	79.6
PETN	112.2

*MTT  
4/14/10*

Total 1683.5

Average 105.2

*done 04/14/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412073a

Analysis Date: 14-APR-10 03:04

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	600	597.924	100	
m-Nitrotoluene	600	459.65	77	*
o-Nitrotoluene	600	486.57	81	
p-Nitrotoluene	600	543.675	91	
Tetryl	600	547.985	91	
1,3,5-Trinitrobenzene	600	472.089	79	*
1,3-Dinitrobenzene-d4	500	626.494	125	*
2,4,6-Trinitrotoluene	600	708.507	118	
2,4-Dinitrotoluene	600	663.973	111	
2,6-Dinitrotoluene	600	597.091	100	
2,6-Dinitrotoluene-d3	500	580.114	116	
2-Amino-4,6-dinitrotoluene	600	639.825	107	
3,4-Dinitrotoluene	300	311.029	104	
4-Amino-2,6-dinitrotoluene	600	618.565	103	
HMX	600	509.641	85	
Nitrobenzene	600	538.682	90	
PETN	600	487.21	81	
RDX	600	549.332	92	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0412073a

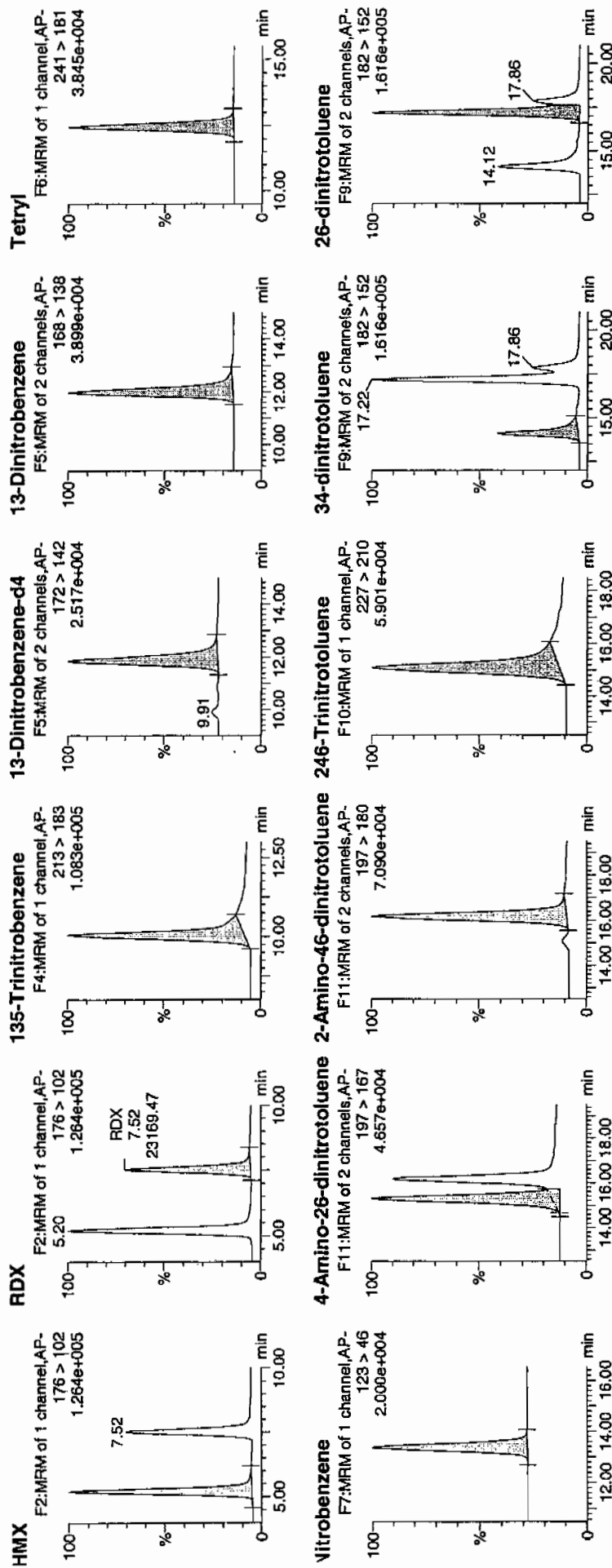
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Time: 03:04:45

ID: WXX100412-07CCV

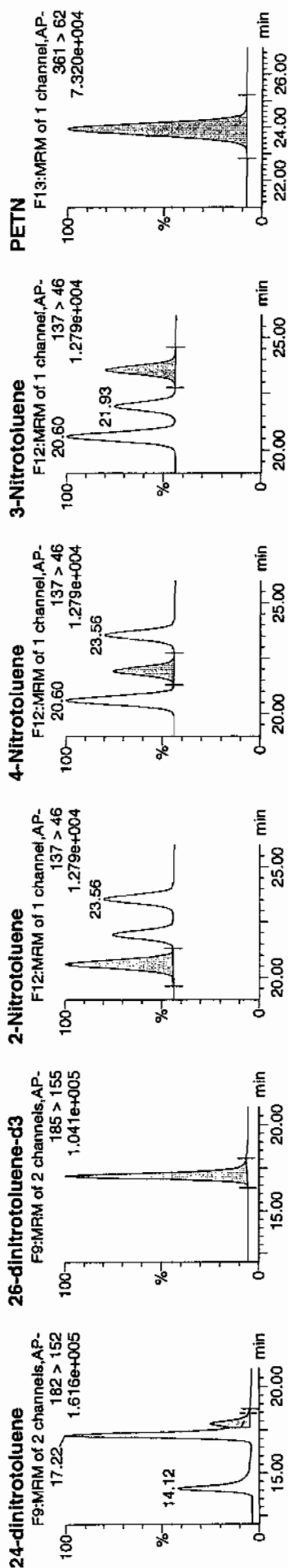
Vial: 1:1,B

10/17  
4/14/10



4/14/10

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010



ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Area	Norm	Peak	Dev	SN
WXX100412-07CCV	HMX	176 > 102	5.20	31832.770	7368.023	31832.770	2160.198	bb			509.6409	84.9	-15.1	1916.2	
WXX100412-07CCV	RDX	176 > 102	7.52	23169.469	7368.023	23169.469	1572.299	bb			549.3321	91.6	-8.4	1306.0	
WXX100412-07CCV	135-Trinitrobenzene	213 > 183	10.05	30073.756	7368.023	30073.756	2040.829	bb			472.0886	78.7	-21.3	986.1	
WXX100412-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	7368.023		7368.023	7368.023	bb			626.4938	125.3	25.3	1409.6	
WXX100412-07CCV	13-Dinitrobenzene	168 > 138	11.97	11780.970	7368.023	11780.970	799.466	bb			597.9242	99.7	-0.3	1288.9	
WXX100412-07CCV	Tetryl	241 > 181	12.45	10467.578	7368.023	10467.578	710.338	bb			547.9850	91.3	-8.7	772.4	
WXX100412-07CCV	Nitrobenzene	123 > 46	13.37	4979.505		4979.505	337.913	bb			538.6818	89.8	-10.2	292.9	
WXX100412-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.32	16960.145	40588.496	16960.145	208.928	MM	14-Apr-10	09:09:15	618.5647	103.1	3.1	633.7	
WXX100412-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.16	26603.059	40588.496	26603.059	327.717	bb			639.8251	106.6	6.6	986.9	
WXX100412-07CCV	245-Trinitrotoluene	227 > 210	15.10	25020.701	40588.496	25020.701	308.224	bb			708.5074	118.1	18.1	796.5	
WXX100412-07CCV	34-dinitrotoluene	182 > 152	14.12	26034.324	40588.496	26034.324	320.711	bb			311.0290	103.7	3.7	890.6	
WXX100412-07CCV	26-dinitrotoluene	182 > 152	17.22	57966.180	40588.496	57966.180	706.680	MM	14-Apr-10	09:13:05	597.0912	99.5	-0.5	2275.1	
WXX100412-07CCV	24-dinitrotoluene	182 > 152	17.86	14067.942	40588.496	14067.942	173.300	MM	14-Apr-10	09:13:38	663.9733	110.7	10.7	492.2	
WXX100412-07CCV	26-dinitrotoluene-d3	185 > 155	17.05	40588.496		40588.496	40588.496	bb			580.1145	116.0	16.0	2359.9	
WXX100412-07CCV	2-Nitrotoluene	137 > 46	20.60	3420.089	40588.496	3420.089	42.131	bb			486.5704	81.1	-18.9	455.8	
WXX100412-07CCV	4-Nitrotoluene	137 > 46	21.93	1830.648	40588.496	1830.648	22.551	bb			543.6754	90.6	-9.4	255.7	
WXX100412-07CCV	3-Nitrotoluene	137 > 46	23.56	2175.422	40588.496	2175.422	26.799	bb			459.6496	76.6	-23.4	292.3	
WXX100412-07CCV	PETN	361 > 62	23.94	36350.066	40588.496	36350.066	447.788	bb			487.2104	81.2	-18.8	8314.8	

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/14/10  
 Time of Injection: 0304  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412073a

HMX	84.9
RDX	91.6
135-TNB	78.7
13-DNB	99.7
Tetryl	91.3
Nitrobenzene	89.8
4A-26-DNT	103.1
2A-46-DNT	106.6
246-TNT	118.1
34-DNT(surr)	103.7
26-DNT	99.5
24-DNT	110.7
2-NT	81.1
4-NT	90.6
3-NT	76.6
PETN	81.2

*1477  
4/14/10*

Total 1507.2

Average 94.2

*Handwritten: 4/14/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412075a

Analysis Date: 14-APR-10 04:03

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene	40	42.183	105	
2,6-Dinitrotoluene-d3	500	507.877	102	
2-Amino-4,6-dinitrotoluene	40	34.458	86	
3,4-Dinitrotoluene	20	20.138	101	
4-Amino-2,6-dinitrotoluene	40	39.725	99	
HMX	40	43.75	109	
Nitrobenzene	40	38.532	96	
PETN	40	44.475	111	
RDX	40	45.796	114	
Tetryl	40	45.012	113	
m-Dinitrobenzene	40	43.704	109	
m-Nitrotoluene	40	41.256	103	
o-Nitrotoluene	40	41.975	105	
p-Nitrotoluene	40	32.405	81	
1,3,5-Trinitrobenzene	40	45.32	113	
1,3-Dinitrobenzene-d4	500	496.282	99	
2,4,6-Trinitrotoluene	40	44.024	110	
2,4-Dinitrotoluene	40	41.479	104	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Apr 14 09:18:04 2010, Page 73 of 75

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

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Date: 14-Apr-2010

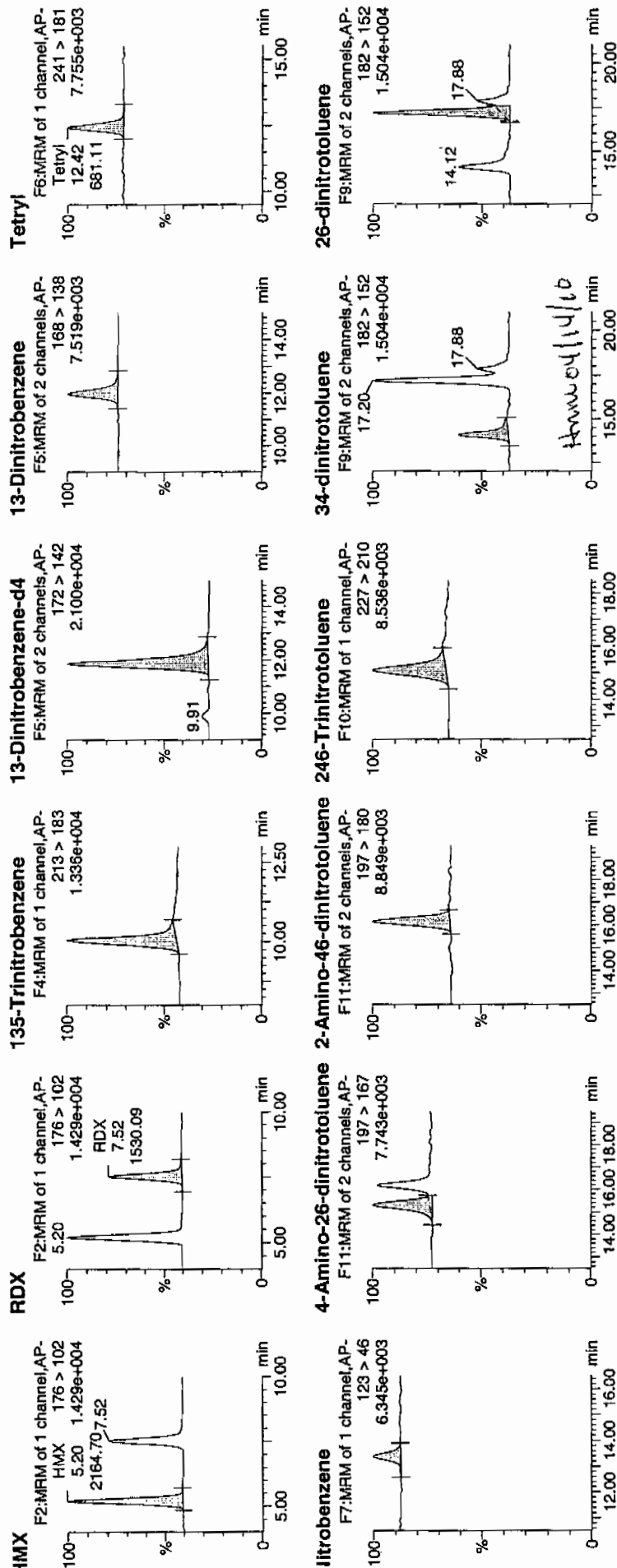
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D: WXX100412-08CRI

Vial: 1:1,C

10/17  
4/14/10

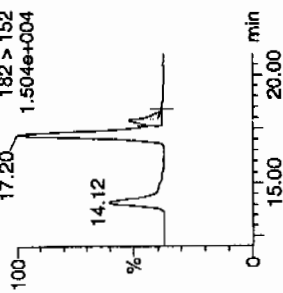
Page 1851 of 2211



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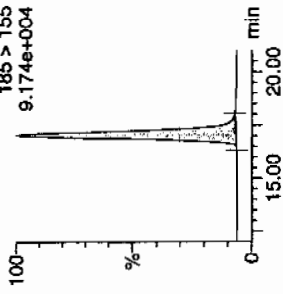
14-dinitrotoluene

F9:MFM of 2 channels,AP-  
182 > 152  
1.504e+004



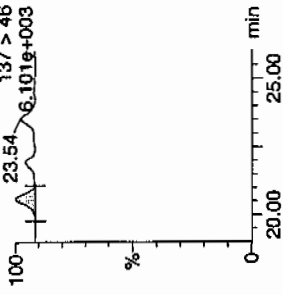
26-dinitrotoluene-d3

F9:MFM of 2 channels,AP-  
185 > 155  
9.174e+004



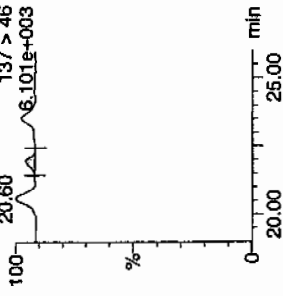
2-Nitrotoluene

F12:MFM of 1 channel,AP-  
137 > 46  
6.101e+003



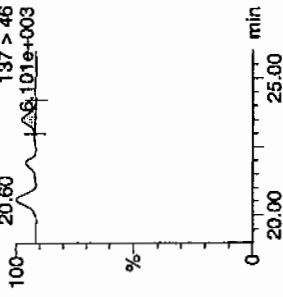
4-Nitrotoluene

F12:MFM of 1 channel,AP-  
137 > 46  
6.101e+003



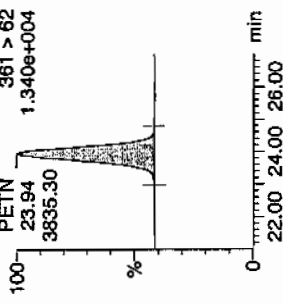
3-Nitrotoluene

F12:MFM of 1 channel,AP-  
137 > 46  
6.101e+003



PETN

F13:MFM of 1 channel,AP-  
361 > 62  
1.340e+004



D	Name	Trace	RT	Area	SArea	AbsResp	Response	Flag	Mod	Date	Time	Mod	Time	Rec	Dev	SN
NXX100412-08CRI	HMX	176 > 102	5.20	2164.698	5836.638	2164.698	185.440	bb	43.7497	109.4	9.4	227.3				
NXX100412-08CRI	RDX	176 > 102	7.52	1530.086	5836.638	1530.086	131.076	bb	45.7955	114.5	14.5	146.7				
NXX100412-08CRI	135-Trinitrobenzene	213 > 183	10.05	2287.016	5836.638	2287.016	195.919	bb	45.3204	113.3	13.3	203.2				
NXX100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	5836.638	5836.638	5836.638	583.638	bb	496.2820	99.3	-0.7	961.4				
NXX100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	5836.638	5836.638	5836.638	583.638	bb	43.7035	109.3	9.3	83.6				
NXX100412-08CRI	Tetryl	241 > 181	12.42	681.107	5836.638	681.107	58.348	bb	45.0118	112.5	12.5	100.8				
NXX100412-08CRI	Nitrobenzene	123 > 46	13.37	282.153	5836.638	282.153	24.171	bb	38.5318	96.3	-3.7	23.5				
NXX100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.32	953.577	35534.277	953.577	13.418	MM	39.7253	99.3	-0.7	57.5				
NXX100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.16	1254.325	35534.277	1254.325	17.650	bb	34.4584	86.1	-13.9	90.0				
NXX100412-08CRI	246-Trinitrotoluene	227 > 210	15.10	1361.084	35534.277	1361.084	19.152	bb	44.0236	110.1	10.1	47.0				
NXX100412-08CRI	34-dinitrotoluene	182 > 152	14.12	1475.733	35534.277	1475.733	20.765	bb	20.1381	100.7	0.7	71.1				
NXX100412-08CRI	26-dinitrotoluene	182 > 152	17.20	3548.120	35534.277	3548.120	49.925	MM	42.1831	105.5	5.5	195.5				
NXX100412-08CRI	24-dinitrotoluene	182 > 152	17.88	769.393	35534.277	769.393	10.826	MM	41.4786	103.7	3.7	43.1				
NXX100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	35534.277	35534.277	35534.277	35534.277	bb	507.8766	101.6	1.6	2476.2				
NXX100412-08CRI	2-Nitrotoluene	137 > 46	20.60	258.301	35534.277	258.301	3.635	bb	41.9749	104.9	4.9	51.8				
NXX100412-08CRI	4-Nitrotoluene	137 > 46	21.97	95.525	35534.277	95.525	1.344	bb	32.4046	81.0	-19.0	24.9				
NXX100412-08CRI	3-Nitrotoluene	137 > 46	23.54	170.943	35534.277	170.943	2.405	bb	41.2563	103.1	3.1	35.7				
NXX100412-08CRI	PETN	361 > 62	23.94	3835.305	35534.277	3835.305	53.966	bb	44.4749	111.2	11.2	290.1				



GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/14/10  
 Time of Injection 0403  
 Standard Number WXX100412-08CRI  
 Data File EXP0412075a

HMX	109.4
RDX	114.5
135-TNB	113.3
13-DNB	109.3
Tetryl	112.5
Nitrobenzene	96.3
4A-26-DNT	99.3
2A-46-DNT	86.1
246-TNT	110.1
34-DNT(surr)	100.7
26-DNT	105.5
24-DNT	103.7
2-NT	104.9
4-NT	81.0
3-NT	103.1
PETN	111.2

*Handwritten:* 4/14/10

Total 1660.9

Average 103.8

*Handwritten:* 4/14/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412086a

Analysis Date: 14-APR-10 09:28

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	640.11	107	
1,3-Dinitrobenzene-d4	500	503.847	101	
2,4,6-Trinitrotoluene	600	719.661	120	
2,4-Dinitrotoluene	600	682.456	114	
2,6-Dinitrotoluene	600	634.981	106	
2,6-Dinitrotoluene-d3	500	526.626	105	
2-Amino-4,6-dinitrotoluene	600	583.91	97	
3,4-Dinitrotoluene	300	338.999	113	
4-Amino-2,6-dinitrotoluene	600	625.449	104	
HMX	600	728.534	121	*
Nitrobenzene	600	648.848	108	
PETN	600	598.437	100	
RDX	600	758.439	126	*
Tetryl	600	659.961	110	
m-Dinitrobenzene	600	630.18	105	
m-Nitrotoluene	600	494.168	82	
o-Nitrotoluene	600	509.293	85	
p-Nitrotoluene	600	568.664	95	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

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Date: 14-Apr-2010

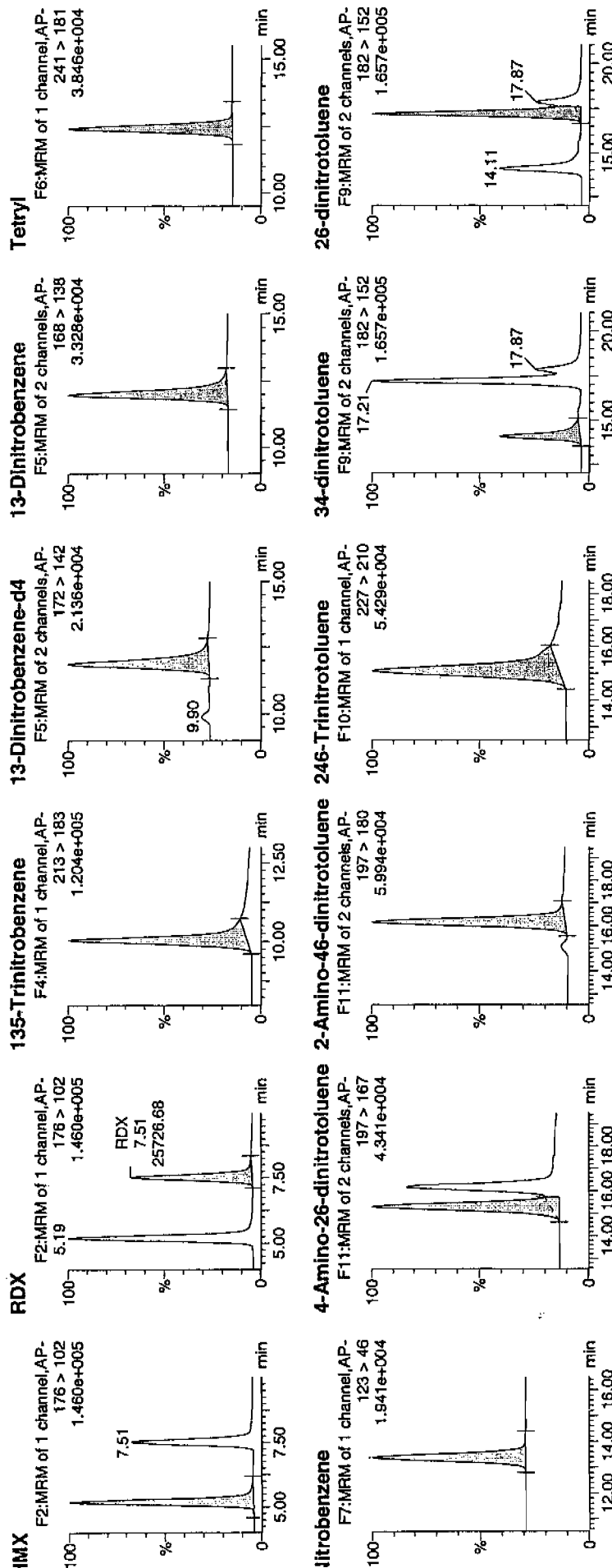
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D: WXX100412-07CCV

/ial: 1:1,B

100%  
-1/15/10

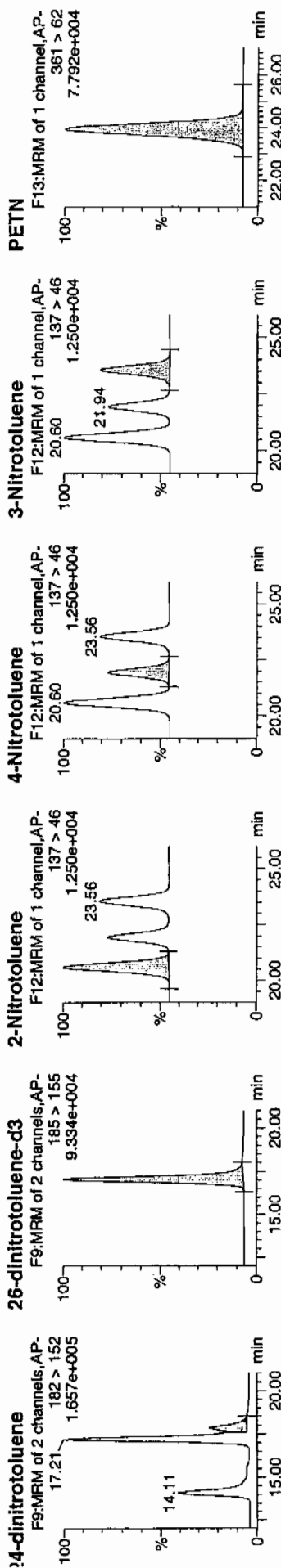
Page 1855 of 2211



Handwritten signature: 10/15/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

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ID	Name	Trace	RT	Area	S Area	Abs. Resp	Response	Flags	Mod Date	Mod Time	Ind/mL	%Rec	%Dev	SN
WX100412-07CCV	HMx	176 > 102	5.19	36596.680	5925.609	36596.680	3088.010	bb			728.5935	121.4	21.4	5141.8
WX100412-07CCV	RDx	176 > 102	7.51	25726.684	5925.609	25726.684	2170.805	bb			758.4390	126.4	26.4	3364.9
WX100412-07CCV	135-Trinitrobenzene	213 > 183	10.05	32794.504	5925.609	32794.504	2767.184	bb			640.1104	106.7	6.7	351.3
WX100412-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	5925.609		5925.609	5925.609	bb			503.8471	100.8	0.8	575.0
WX100412-07CCV	13-Dinitrobenzene	168 > 138	11.97	9985.775	5925.609	9985.775	842.595	bb			630.1803	105.0	5.0	1402.5
WX100412-07CCV	Teiyl	241 > 181	12.45	10138.589	5925.609	10138.589	855.489	bb			659.9805	110.0	10.0	994.9
WX100412-07CCV	Nitrobenzene	123 > 46	13.39	4823.688	5925.609	4823.688	407.020	bb			648.8485	108.1	8.1	584.8
WX100412-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.31	15567.705	36846.086	15567.705	211.253	MM	15-Apr-10	14:32:43	625.4488	104.2	4.2	264.7
WX100412-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.18	22039.658	36846.086	22039.658	299.077	bb			583.9103	97.3	-2.7	285.8
WX100412-07CCV	246-Trinitrotoluene	227 > 210	15.09	23071.260	36846.086	23071.260	313.076	bb			719.6608	119.9	19.9	213.5
WX100412-07CCV	34-dinitrotoluene	182 > 152	14.11	25759.158	36846.086	25759.158	349.551	bb			338.9985	113.0	13.0	733.1
WX100412-07CCV	26-dinitrotoluene	182 > 152	17.21	55381.418	36846.086	55381.418	751.524	MM	15-Apr-10	14:38:53	634.9806	105.8	5.8	1901.5
WX100412-07CCV	24-dinitrotoluene	182 > 152	17.87	13126.327	36846.086	13126.327	178.124	MM	15-Apr-10	14:47:19	682.4564	113.7	13.7	382.3
WX100412-07CCV	26-dinitrotoluene-d3	185 > 155	17.06	36846.086		36846.086	36846.086	bb			526.6258	105.3	5.3	2600.7
WX100412-07CCV	2-Nitrotoluene	137 > 46	20.60	3249.737	36846.086	3249.737	44.099	bb			509.2935	84.9	-15.1	1231.5
WX100412-07CCV	4-Nitrotoluene	137 > 46	21.94	1738.239	36846.086	1738.239	23.588	bb			568.6642	94.8	-5.2	705.7
WX100412-07CCV	3-Nitrotoluene	137 > 46	23.56	2123.145	36846.086	2123.145	28.811	bb			494.1680	82.4	-17.6	802.7
WX100412-07CCV	PETN	361 > 62	23.94	39290.367	36846.086	39290.367	533.169	bb			598.4368	99.7	-0.3	10176.7

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/14/10  
 Time of Injection: 0928  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412086a

HMX	121.4
RDX	126.4
135-TNB	106.7
13-DNB	105.0
Tetryl	110.0
Nitrobenzene	108.1
4A-26-DNT	104.2
2A-46-DNT	97.3
246-TNT	119.9
34-DNT(surr)	113.0
26-DNT	105.8
24-DNT	113.7
2-NT	84.9
4-NT	94.8
3-NT	82.4
PETN	99.7

*Handwritten:* 4/15/10

Total 1693.3

*Handwritten:* H7MC 04/15/10

Average 105.8

ICV Limits 85-115%  
 CRI Limits 70-130%  
 CCV Limits 85-115%

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412088a

Analysis Date: 14-APR-10 10:27

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	40	39.461	99	
o-Nitrotoluene	40	36.318	91	
p-Nitrotoluene	40	34.986	87	
1,3,5-Trinitrobenzene	40	45.309	113	
1,3-Dinitrobenzene-d4	500	561.881	112	
2,4,6-Trinitrotoluene	40	39.504	99	
2,4-Dinitrotoluene	40	44.534	111	
2,6-Dinitrotoluene	40	41.071	103	
2,6-Dinitrotoluene-d3	500	564.12	113	
2-Amino-4,6-dinitrotoluene	40	40.361	101	
3,4-Dinitrotoluene	20	19.605	98	
4-Amino-2,6-dinitrotoluene	40	41.914	105	
HMX	40	44.962	112	
Nitrobenzene	40	41.366	103	
PETN	40	43.945	110	
RDX	40	46.716	117	
Tetryl	40	42.195	105	
m-Dinitrobenzene	40	43.864	110	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qtd, Time: Thu Apr 15 14:49:38 2010

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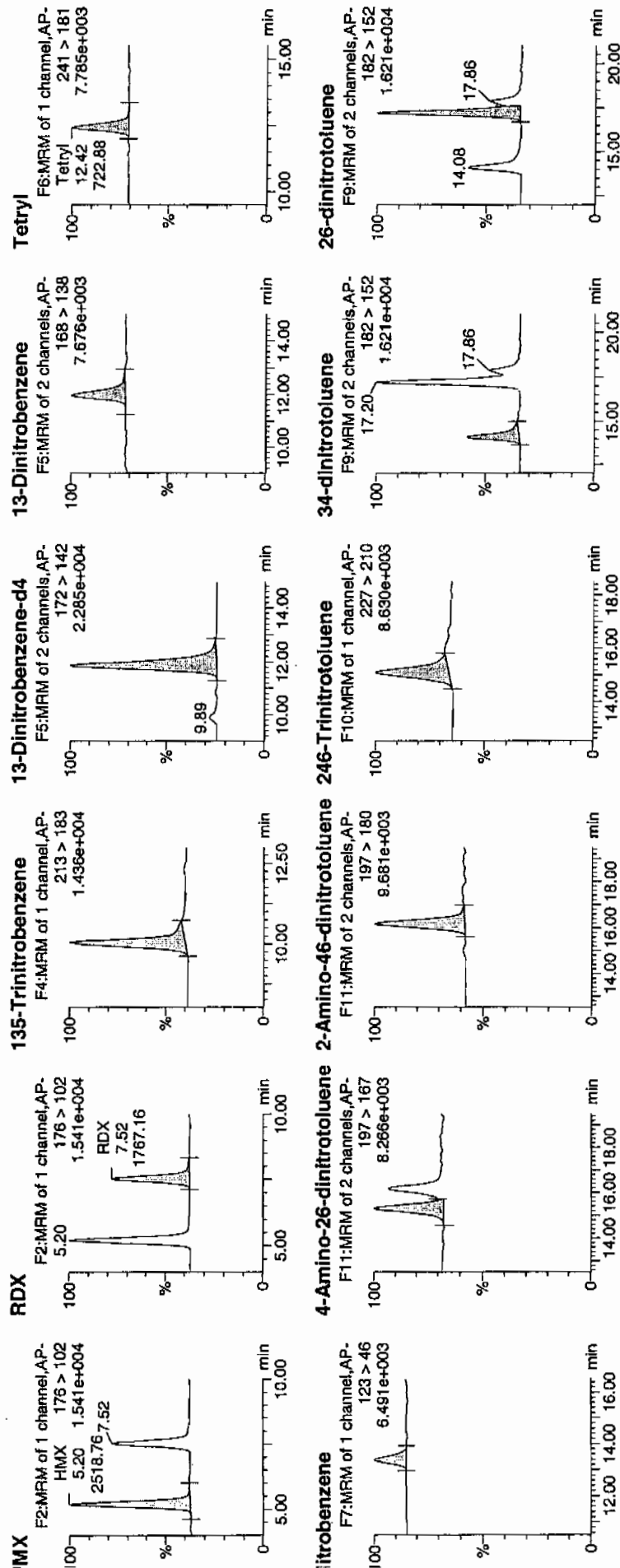
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Time: 10:27:15

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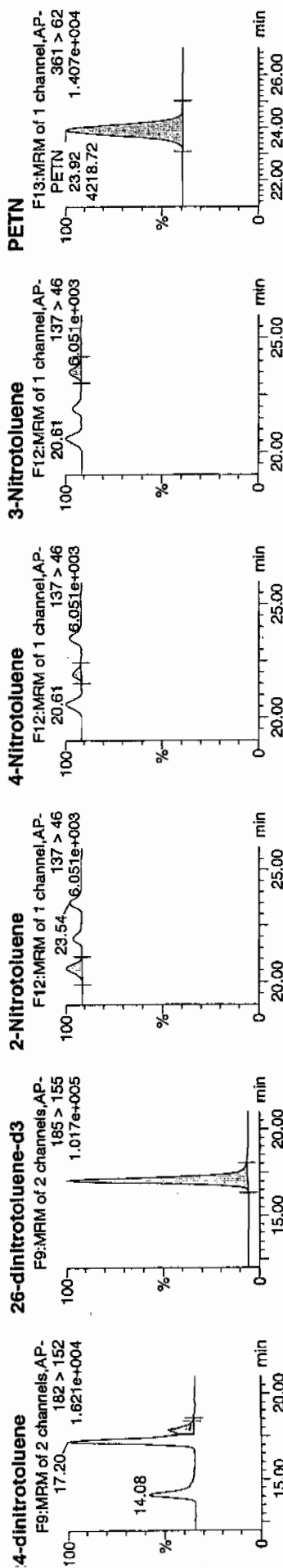
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WXX  
4/15/10



WXX  
4/15/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



Det	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Int (mV)	% Rec	% Dev	ISN
VXX100412-08CRI	HMX	176 > 102	5.20	2518.764	5608.135	2518.764	190.581	bb			44.9624	112.4	12.4	168.1
VXX100412-08CRI	RDX	176 > 102	7.52	1767.162	6608.135	1767.162	133.711	bb			46.7162	116.8	16.8	107.7
VXX100412-08CRI	135-Trinitrobenzene	213 > 183	10.05	2598.661	6608.135	2598.661	195.869	bb			45.3089	113.3	13.3	259.5
VXX100412-08CRI	13-Dinitrobenzene	172 > 142	11.87	6608.135	6608.135	6608.135	6608.135	bb			561.8815	112.4	12.4	525.5
VXX100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	775.124	6608.135	775.124	58.649	bb			43.8640	109.7	9.7	102.3
VXX100412-08CRI	Tetryl	241 > 181	12.42	722.880	6608.135	722.880	54.696	bb			42.1950	105.5	5.5	76.9
VXX100412-08CRI	Nitrobenzene	123 > 46	13.37	342.945	6608.135	342.945	25.949	bb			41.3659	103.4	3.4	36.3
VXX100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.29	1117.541	39469.445	1117.541	14.157	MM	15-Apr-10	14:32:49	41.9142	104.8	4.8	44.4
VXX100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.16	1631.894	39469.445	1631.894	20.673	bb			40.3612	100.9	0.9	143.7
VXX100412-08CRI	246-Trinitrotoluene	227 > 210	15.10	1356.600	39469.445	1356.600	17.185	bb			39.5038	98.8	-1.2	106.5
VXX100412-08CRI	34-dinitrotoluene	182 > 152	14.08	1595.757	39469.445	1595.757	20.215	bb			19.6048	98.0	-2.0	27.8
VXX100412-08CRI	26-dinitrotoluene	182 > 152	17.20	3837.149	39469.445	3837.149	48.609	MM	15-Apr-10	14:39:01	41.0710	102.7	2.7	77.6
VXX100412-08CRI	24-dinitrotoluene	182 > 152	17.86	917.556	39469.445	917.556	11.624	MM	15-Apr-10	14:46:47	44.5343	111.3	11.3	16.1
VXX100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	39469.445	39469.445	39469.445	39469.445	bb			564.1203	112.8	12.8	3837.3
VXX100412-08CRI	2-Nitrotoluene	137 > 46	20.61	248.237	39469.445	248.237	3.145	bb			36.3176	90.8	-8.2	34.5
VXX100412-08CRI	4-Nitrotoluene	137 > 46	21.93	114.557	39469.445	114.557	1.451	bb			34.9863	87.5	-12.5	18.2
VXX100412-08CRI	3-Nitrotoluene	137 > 46	23.54	181.611	39469.445	181.611	2.301	bb			39.4609	98.7	-1.3	25.6
VXX100412-08CRI	PETN	361 > 62	23.92	4218.715	39469.445	4218.715	53.443	bb			43.9446	109.9	9.9	1434.9



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/14/10  
 Time of Injection 1027  
 Standard Number WXX100412-08CRI  
 Data File EXP0412088a

HMX	112.4
RDX	116.8
135-TNB	113.3
13-DNB	109.7
Tetryl	105.5
Nitrobenzene	103.4
4A-26-DNT	104.8
2A-46-DNT	100.9
246-TNT	98.8
34-DNT(surr)	98.0
26-DNT	102.7
24-DNT	111.3
2-NT	90.8
4-NT	87.5
3-NT	98.7
PETN	109.9

*Handwritten:* 104.0  
41.5/10

Total 1664.5

Average 104.0

*Handwritten:* 104.0 04/14/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412099a

Analysis Date: 14-APR-10 15:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene-d3	500	536.906	107	
2-Amino-4,6-dinitrotoluene	600	667.633	111	
3,4-Dinitrotoluene	300	312.147	104	
4-Amino-2,6-dinitrotoluene	600	540.22	90	
HMX	600	594.344	99	
Nitrobenzene	600	585.337	98	
PETN	600	591.137	99	
RDX	600	696.633	116	
Tetryl	600	580.157	97	
m-Dinitrobenzene	600	589.943	98	
m-Nitrotoluene	600	455.366	76	*
o-Nitrotoluene	600	473.586	79	*
p-Nitrotoluene	600	537.354	90	
1,3,5-Trinitrobenzene	600	587.126	98	
1,3-Dinitrobenzene-d4	500	491.595	98	
2,4,6-Trinitrotoluene	600	674.619	112	
2,4-Dinitrotoluene	600	626.903	104	
2,6-Dinitrotoluene	600	553.103	92	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Sample: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412099a

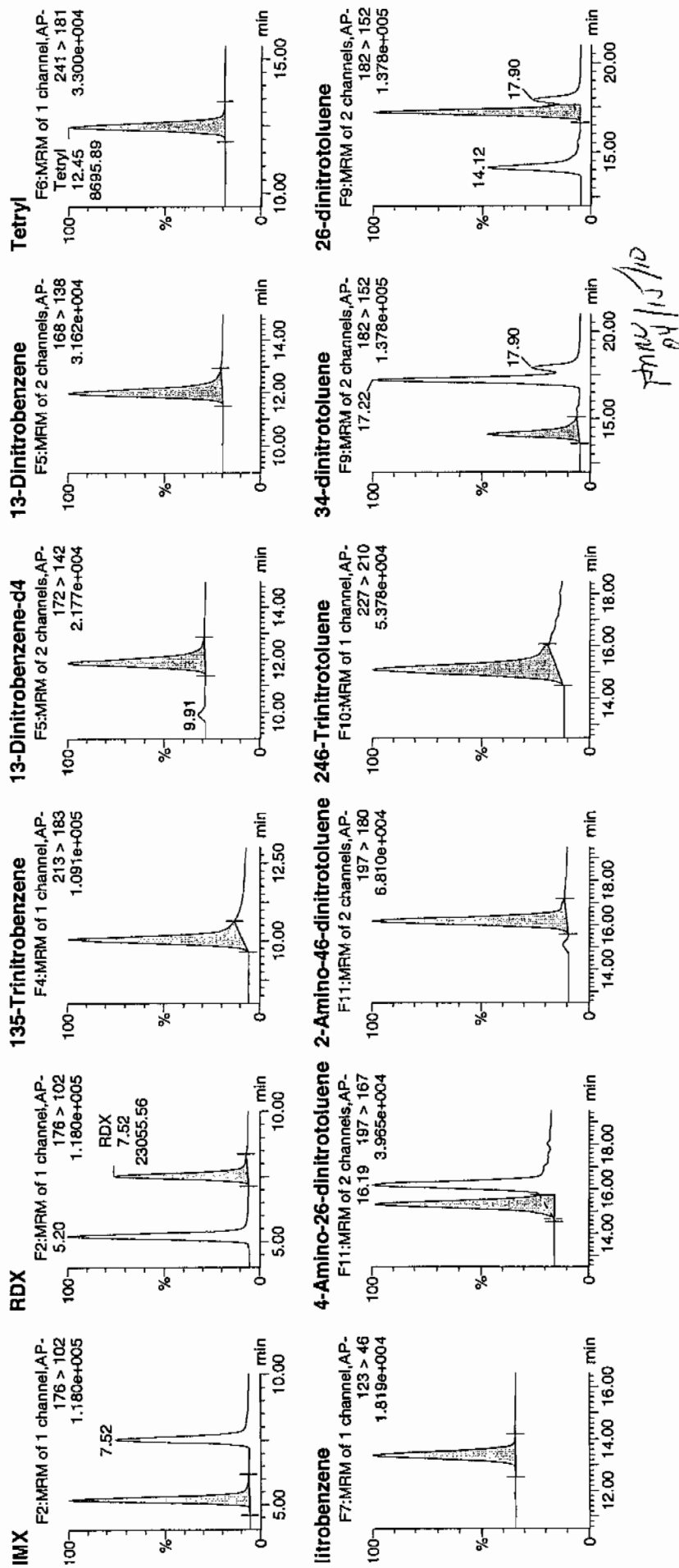
Date: 14-Apr-2010

Time: 15:51:48

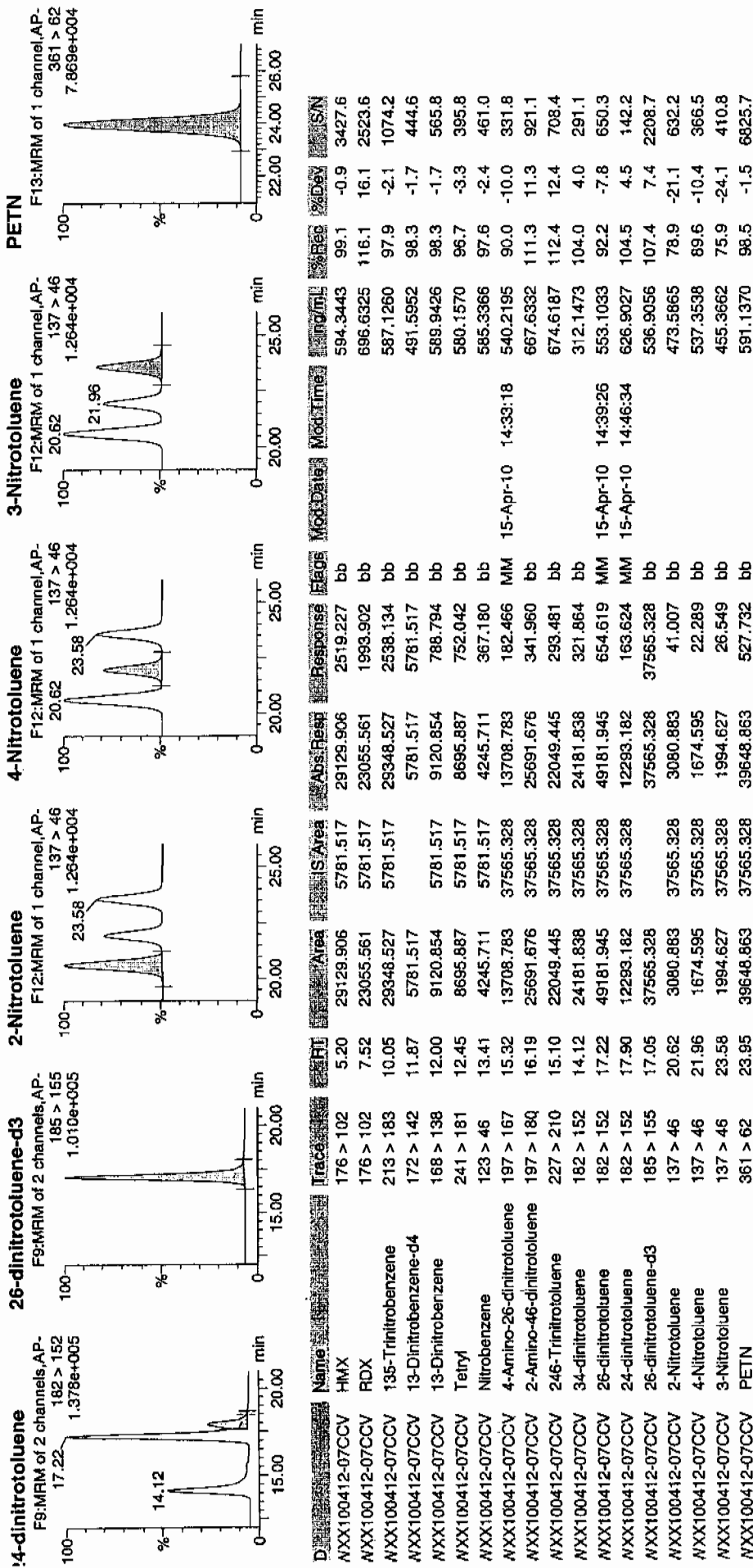
ID: WXX100412-07CCV

File: 1:1,B

15/1/10  
4/1/10



Dataset: C:\MASSLYN\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/14/10  
 Time of Injection: 1551  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412099a

HMX	99.1
RDX	116.1
135-TNB	97.9
13-DNB	98.3
Tetryl	96.7
Nitrobenzene	97.6
4A-26-DNT	90.0
2A-46-DNT	111.3
246-TNT	112.4
34-DNT(surr)	104.0
26-DNT	92.2
24-DNT	104.5
2-NT	78.9
4-NT	89.6
3-NT	75.9
PETN	98.5

*Handwritten:* 111.3  
110.6

Total 1563.0

Average 97.7

*Handwritten:* Ann 04/15/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412101a

Analysis Date: 14-APR-10 16:50

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	44.986	112	
1,3-Dinitrobenzene-d4	500	543.053	109	
2,4,6-Trinitrotoluene	40	43.225	108	
2,4-Dinitrotoluene	40	42.315	106	
2,6-Dinitrotoluene	40	41.752	104	
2,6-Dinitrotoluene-d3	500	539.814	108	
2-Amino-4,6-dinitrotoluene	40	41.883	105	
3,4-Dinitrotoluene	20	22.167	111	
4-Amino-2,6-dinitrotoluene	40	43.721	109	
HMX	40	42.86	107	
Nitrobenzene	40	41.08	103	
PETN	40	51.56	129	
RDX	40	45.378	113	
Tetryl	40	42.124	105	
m-Dinitrobenzene	40	42.925	107	
m-Nitrotoluene	40	44.02	110	
o-Nitrotoluene	40	38.263	96	
p-Nitrotoluene	40	43.808	110	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp\PROX041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Sample Name: C:\MASSLYNX\NEW\_EXP\PROX041210expA2.qld

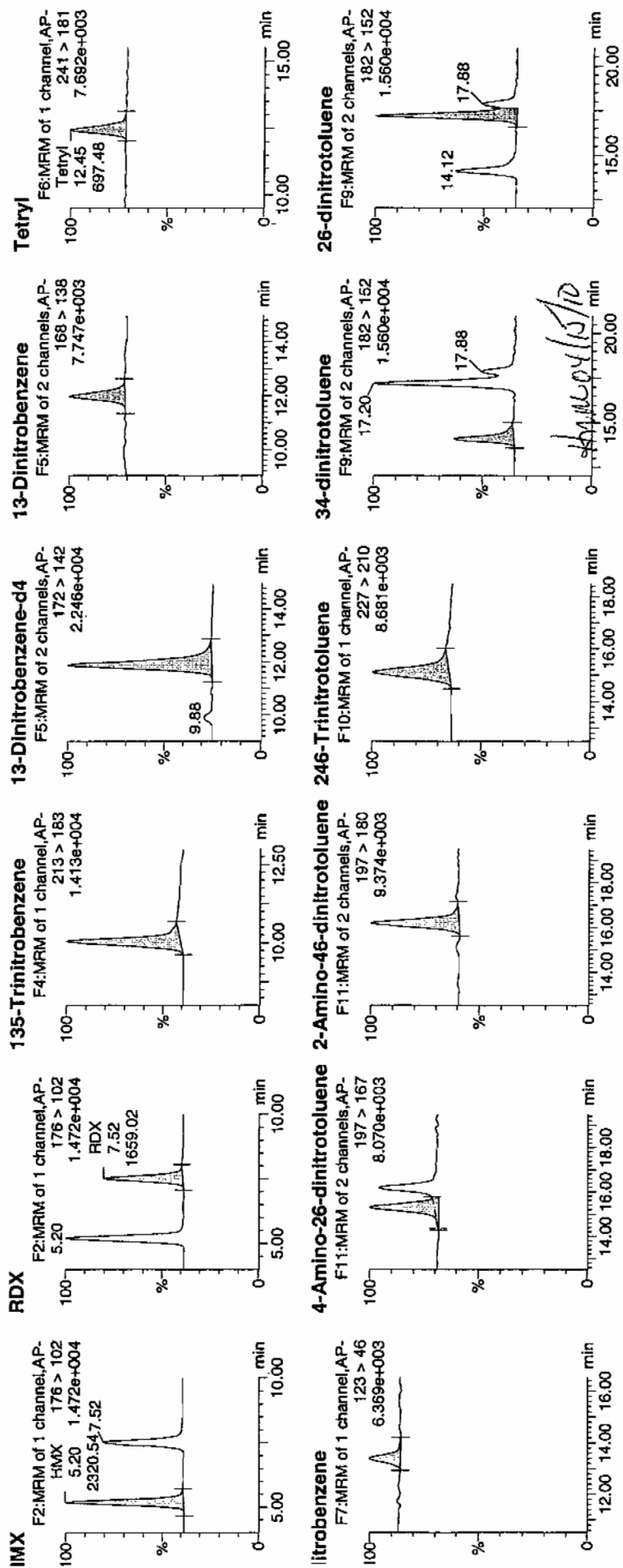
Date: 14-Apr-2010

Time: 16:50:52

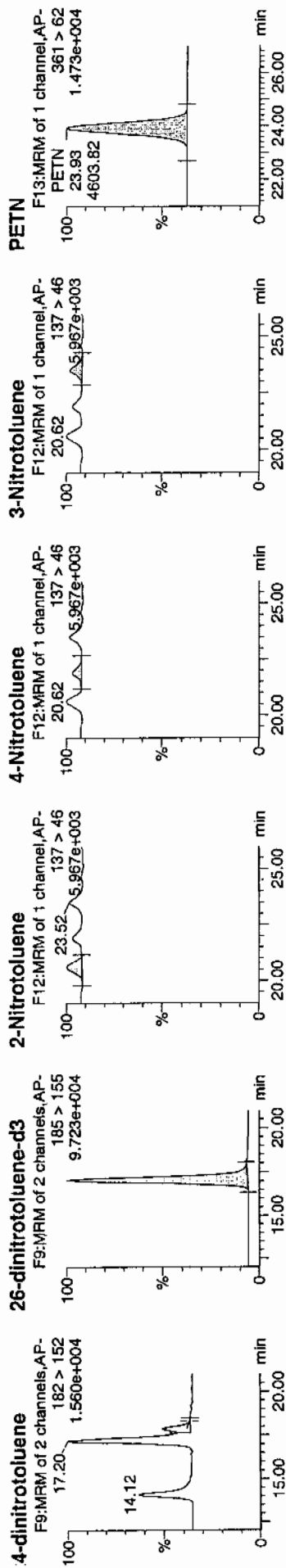
Job: WXX100412-08CRI

Ratio: 1:1,C

WAT  
4/15/10



Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Area	% Rec	% Dev	SN
NXX100412-08CRI	HMX	176 > 102	5.20	2320.539	6386.701	2320.539	181.670	bb			42.8601	107.2	7.2	262.8
NXX100412-08CRI	FDX	176 > 102	7.52	1659.023	6386.701	1659.023	129.881	bb			45.3780	113.4	13.4	175.9
NXX100412-08CRI	135-Trinitrobenzene	213 > 183	10.05	2484.099	6386.701	2484.099	194.474	bb			44.9862	112.5	12.5	388.0
NXX100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6386.701	6386.701	6386.701	6386.701	bb			543.0532	108.6	8.6	950.1
NXX100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	733.119	6386.701	733.119	57.394	bb			42.9254	107.3	7.3	81.3
NXX100412-08CRI	Tetryl	241 > 181	12.45	697.482	6386.701	697.482	54.604	bb			42.1240	105.3	5.3	76.5
NXX100412-08CRI	Nitrobenzene	123 > 46	13.37	329.159	6386.701	329.159	25.769	bb			41.0796	102.7	2.7	40.2
NXX100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.29	1115.476	37768.832	1115.476	14.767	MM	15-Apr-10	14:33:30	43.7205	109.3	9.3	61.9
NXX100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.19	1620.452	37768.832	1620.452	21.452	bb			41.8828	104.7	4.7	197.1
NXX100412-08CRI	246-Trinitrotoluene	227 > 210	15.10	1420.421	37768.832	1420.421	18.804	bb			43.2246	108.1	8.1	88.1
NXX100412-08CRI	34-dinitrotoluene	182 > 152	14.12	1726.544	37768.832	1726.544	22.857	bb			22.1667	110.8	10.8	80.9
NXX100412-08CRI	26-dinitrotoluene	182 > 152	17.20	3732.682	37768.832	3732.682	49.415	MM	15-Apr-10	14:39:39	41.7518	104.4	4.4	193.1
NXX100412-08CRI	24-dinitrotoluene	182 > 152	17.88	834.260	37768.832	834.260	11.044	MM	15-Apr-10	14:46:19	42.3147	105.8	5.8	43.0
NXX100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	37768.832	37768.832	37768.832	37768.832	bb			539.8142	108.0	8.0	2120.5
NXX100412-08CRI	2-Nitrotoluene	137 > 46	20.62	250.264	37768.832	250.264	3.313	bb			38.2627	95.7	-4.3	37.0
NXX100412-08CRI	4-Nitrotoluene	137 > 46	21.91	137.262	37768.832	137.262	1.817	bb			43.8081	109.5	9.5	21.5
NXX100412-08CRI	3-Nitrotoluene	137 > 46	23.52	193.866	37768.832	193.866	2.566	bb			44.0204	110.1	10.1	29.9
NXX100412-08CRI	PETN	361 > 62	23.93	4603.820	37768.832	4603.820	60.947	bb			51.5596	128.9	28.9	1430.7



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/14/10  
 Time of Injection 1650  
 Standard Number WXX100412-08CRI  
 Data File EXP0412101a

HMX	107.2
RDX	113.4
135-TNB	112.5
13-DNB	107.3
Tetryl	105.3
Nitrobenzene	102.7
4A-26-DNT	109.3
2A-46-DNT	104.7
246-TNT	108.1
34-DNT(surr)	110.8
26-DNT	104.4
24-DNT	105.8
2-NT	95.7
4-NT	109.5
3-NT	110.1
PETN	128.9

MTT  
4/14/10

Total 1735.7

Average 108.5

Handwritten signature: *Handwritten signature*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412110a

Analysis Date: 14-APR-10 21:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	600	456.606	76	*
o-Nitrotoluene	600	533.736	89	
p-Nitrotoluene	600	563.245	94	
1,3,5-Trinitrobenzene	600	622.706	104	
1,3-Dinitrobenzene-d4	500	590.309	118	
2,4,6-Trinitrotoluene	600	734.878	122	*
2,4-Dinitrotoluene	600	625.592	104	
2,6-Dinitrotoluene	600	616.066	103	
2,6-Dinitrotoluene-d3	500	623.79	125	*
2-Amino-4,6-dinitrotoluene	600	702.949	117	
3,4-Dinitrotoluene	300	328.505	110	
4-Amino-2,6-dinitrotoluene	600	656.808	109	
HMX	600	703.603	117	
Nitrobenzene	600	604.039	101	
PETN	600	560.884	93	
RDX	600	812.713	135	*
Tetryl	600	586.004	98	
m-Dinitrobenzene	600	583.764	97	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:36 2010

Sample: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412110a

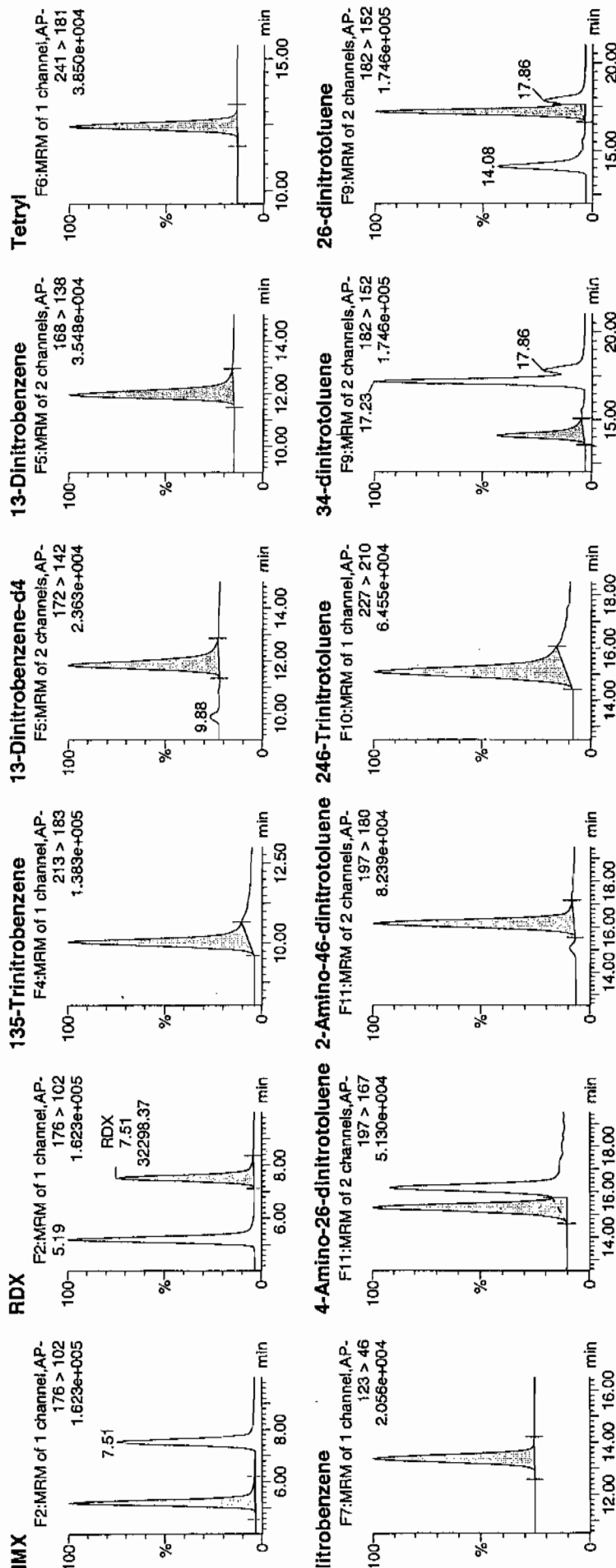
Date: 14-Apr-2010

Time: 21:16:17

D: WXX100412-07CCV

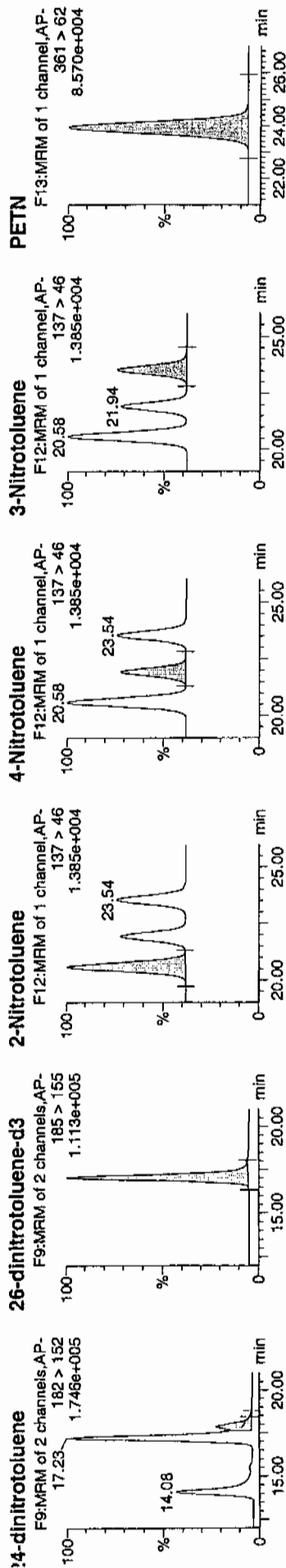
Vial: 1:1,B

*Handwritten:* 10/1/10



*Handwritten:* 10/1/10

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	ISN
NXX100412-07CCV	HMX	176 > 102	5.19	41409.535	6942.459	41409.535	2982.339	bb			703.6033	117.3	17.3	8996.4
NXX100412-07CCV	RDX	176 > 102	7.51	32298.371	6942.459	32298.371	2326.148	bb			812.7129	135.5	35.5	6607.2
NXX100412-07CCV	135-Trinitrobenzene	213 > 183	10.04	37377.461	6942.459	37377.461	2691.947	bb			622.7063	103.8	3.8	2663.3
NXX100412-07CCV	13-Dinitrobenzene-d4	172 > 142	11.84	6942.459		6942.459	6942.459	bb			590.3086	118.1	18.1	545.1
NXX100412-07CCV	13-Dinitrobenzene	168 > 138	11.97	10837.637	6942.459	10837.637	780.533	bb			583.7640	97.3	-2.7	452.4
NXX100412-07CCV	Tetryl	241 > 181	12.45	10547.282	6942.459	10547.282	759.621	bb			586.0041	97.7	-2.3	739.6
NXX100412-07CCV	Nitrobenzene	123 > 46	13.37	5261.153	6942.459	5261.153	378.911	bb			604.0386	100.7	0.7	377.3
NXX100412-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.29	19364.578	43644.344	19364.578	221.845	MM	15-Apr-10	14:33:43	656.8083	109.5	9.5	721.6
NXX100412-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.16	31428.164	43644.344	31428.164	360.049	bb			702.9488	117.2	17.2	2126.6
NXX100412-07CCV	246-Trinitrotoluene	227 > 210	15.10	27905.869	43644.344	27905.869	319.696	bb			734.8784	122.5	22.5	1188.2
NXX100412-07CCV	34-dinitrotoluene	182 > 152	14.08	29567.379	43644.344	29567.379	338.731	bb			328.5053	109.5	9.5	608.2
NXX100412-07CCV	26-dinitrotoluene	182 > 152	17.23	63645.477	43644.344	63645.477	729.138	MM	15-Apr-10	14:39:56	616.0861	102.7	2.7	1489.8
NXX100412-07CCV	24-dinitrotoluene	182 > 152	17.86	14252.675	43644.344	14252.675	163.282	MM	15-Apr-10	14:46:00	625.5924	104.3	4.3	283.7
NXX100412-07CCV	26-dinitrotoluene-d3	185 > 155	17.05	43644.344		43644.344	43644.344	bb			623.7904	124.8	24.8	2498.6
NXX100412-07CCV	2-Nitrotoluene	137 > 46	20.58	4034.070	43644.344	4034.070	46.215	bb			533.7363	89.0	-11.0	242.6
NXX100412-07CCV	4-Nitrotoluene	137 > 46	21.94	2039.331	43644.344	2039.331	23.363	bb			563.2452	93.9	-6.1	130.8
NXX100412-07CCV	3-Nitrotoluene	137 > 46	23.54	2323.716	43644.344	2323.716	26.621	bb			456.6058	76.1	-23.9	139.2
NXX100412-07CCV	PETN	361 > 62	23.92	44076.492	43644.344	44076.492	504.951	bb			560.8840	93.5	-6.5	10425.8

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/14/10  
 Time of Injection: 2116  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412110a

HMX	117.3
RDX	135.5
135-TNB	103.8
13-DNB	97.3
Tetryl	97.7
Nitrobenzene	100.7
4A-26-DNT	109.5
2A-46-DNT	117.2
246-TNT	122.5
34-DNT(surr)	109.5
26-DNT	102.7
24-DNT	104.3
2-NT	89.0
4-NT	93.9
3-NT	76.1
PETN	93.5

*WXX  
4/15/10*

Total 1670.5

Average 104.4

*WXX 4/15/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412112a

Analysis Date: 14-APR-10 22:15

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	20	23.661	118	
4-Amino-2,6-dinitrotoluene	40	40.463	101	
HMX	40	53.023	133	*
Nitrobenzene	40	40.392	101	
PETN	40	47.454	119	
RDX	40	44.101	110	
Tetryl	40	46.996	117	
m-Dinitrobenzene	40	43.619	109	
m-Nitrotoluene	40	40.451	101	
o-Nitrotoluene	40	32.28	81	
p-Nitrotoluene	40	35.73	89	
1,3,5-Trinitrobenzene	40	50.545	126	
1,3-Dinitrobenzene-d4	500	569.204	114	
2,4,6-Trinitrotoluene	40	41.909	105	
2,4-Dinitrotoluene	40	39.806	100	
2,6-Dinitrotoluene	40	41.957	105	
2,6-Dinitrotoluene-d3	500	594.929	119	
2-Amino-4,6-dinitrotoluene	40	38.529	96	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

## Quantify Sample Report

AGEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYN\NEW\_EXP.PRO\DATA\EXP0412112a

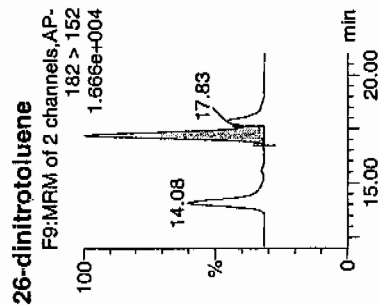
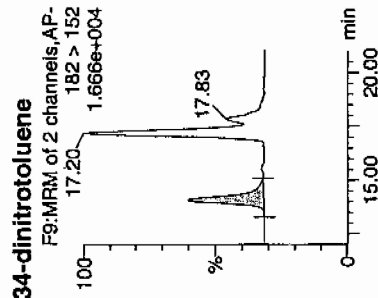
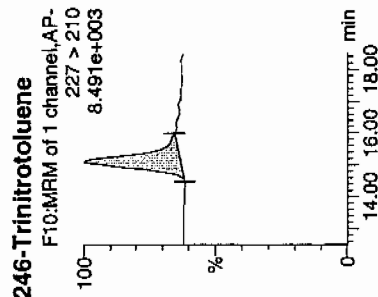
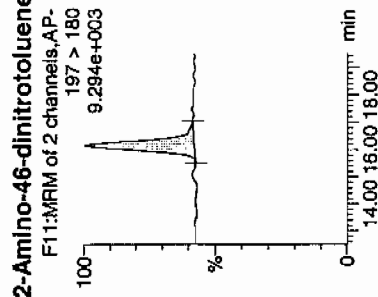
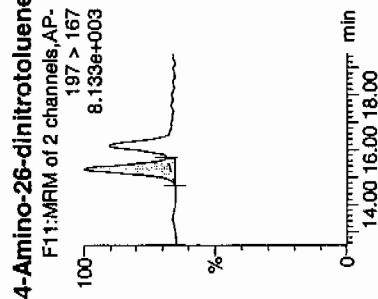
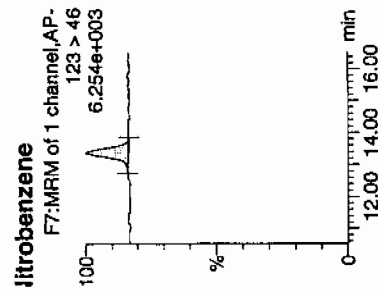
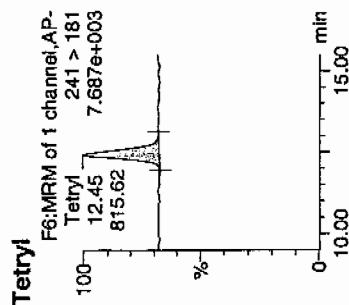
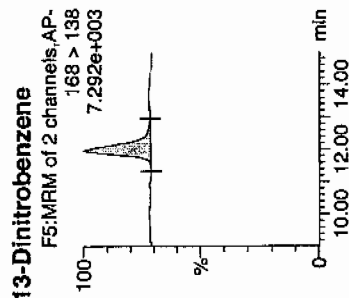
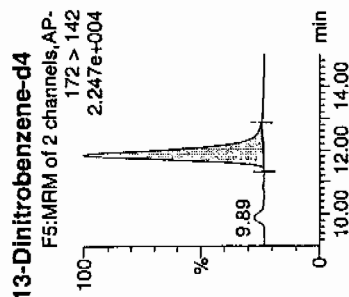
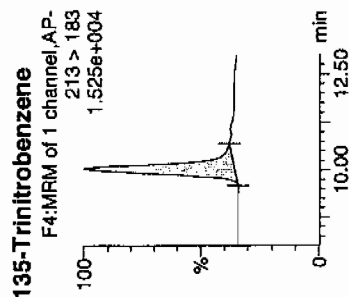
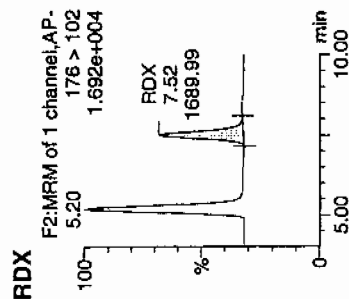
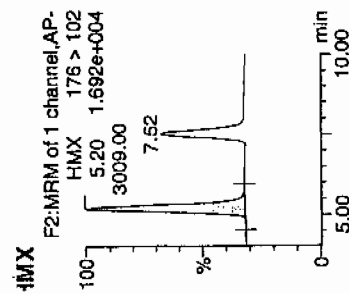
Date: 14-Apr-2010

Time: 22:15:20

D: WXX100412-08CRI

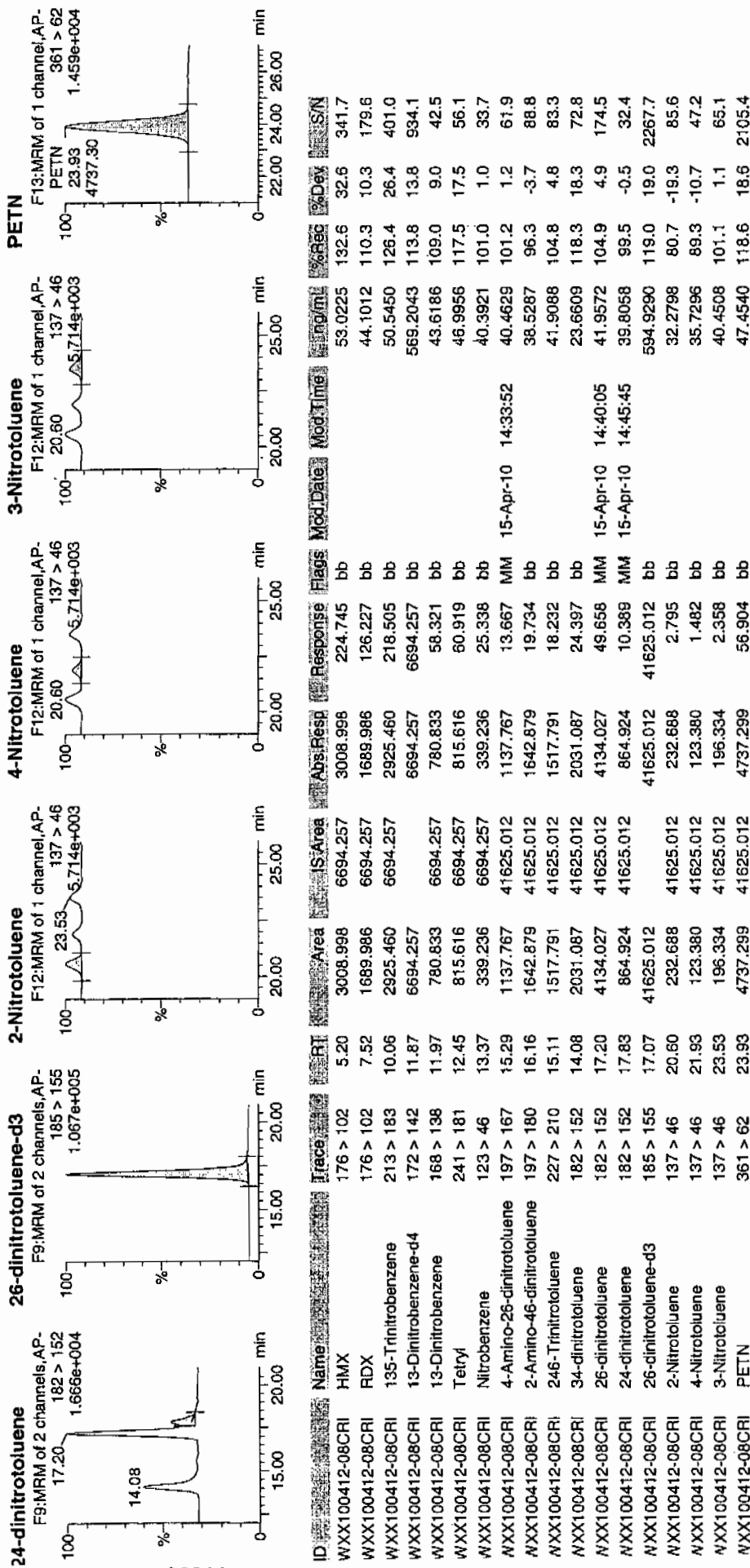
**Ratio: 1:1,C**

2/11/19



Am 04/15/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010





GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/14/10  
 Time of Injection 2215  
 Standard Number WXX100412-08CRI  
 Data File EXP0412112a

HMX	132.6
RDX	110.3
135-TNB	126.4
13-DNB	109.0
Tetryl	117.5
Nitrobenzene	101.0
4A-26-DNT	101.2
2A-46-DNT	96.3
246-TNT	104.8
34-DNT(surr)	118.3
26-DNT	104.9
24-DNT	99.5
2-NT	80.7
4-NT	89.3
3-NT	101.1
PETN	118.6

*Handwritten:* 107.0  
4/15/10

Total 1711.5

Average 107.0

*Handwritten:* 107.0 4/15/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412123a

Analysis Date: 15-APR-10 03:39

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	608.031	101	
1,3-Dinitrobenzene-d4	500	550.38	110	
2,4,6-Trinitrotoluene	600	708.613	118	
2,4-Dinitrotoluene	600	665.37	111	
2,6-Dinitrotoluene	600	586.777	98	
2,6-Dinitrotoluene-d3	500	551.957	110	
2-Amino-4,6-dinitrotoluene	600	641.691	107	
3,4-Dinitrotoluene	300	300.233	100	
4-Amino-2,6-dinitrotoluene	600	616.042	103	
HMX	600	655.933	109	
Nitrobenzene	600	586.609	98	
PETN	600	677.162	113	
RDX	600	767.694	128	*
Tetryl	600	610.361	102	
m-Dinitrobenzene	600	620.601	103	
m-Nitrotoluene	600	525.023	88	
o-Nitrotoluene	600	538.018	90	
p-Nitrotoluene	600	583.964	97	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412123a

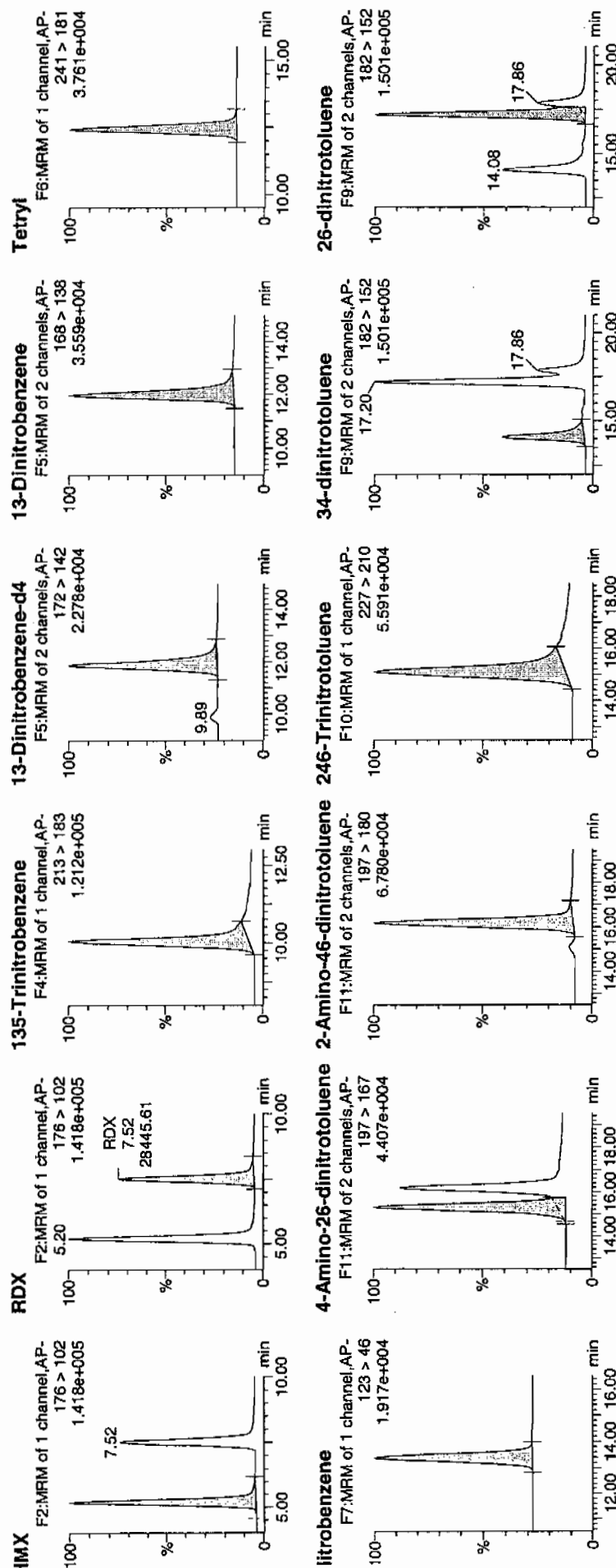
Date: 15-Apr-2010

Time: 03:39:53

D: WXX100412-07CCV

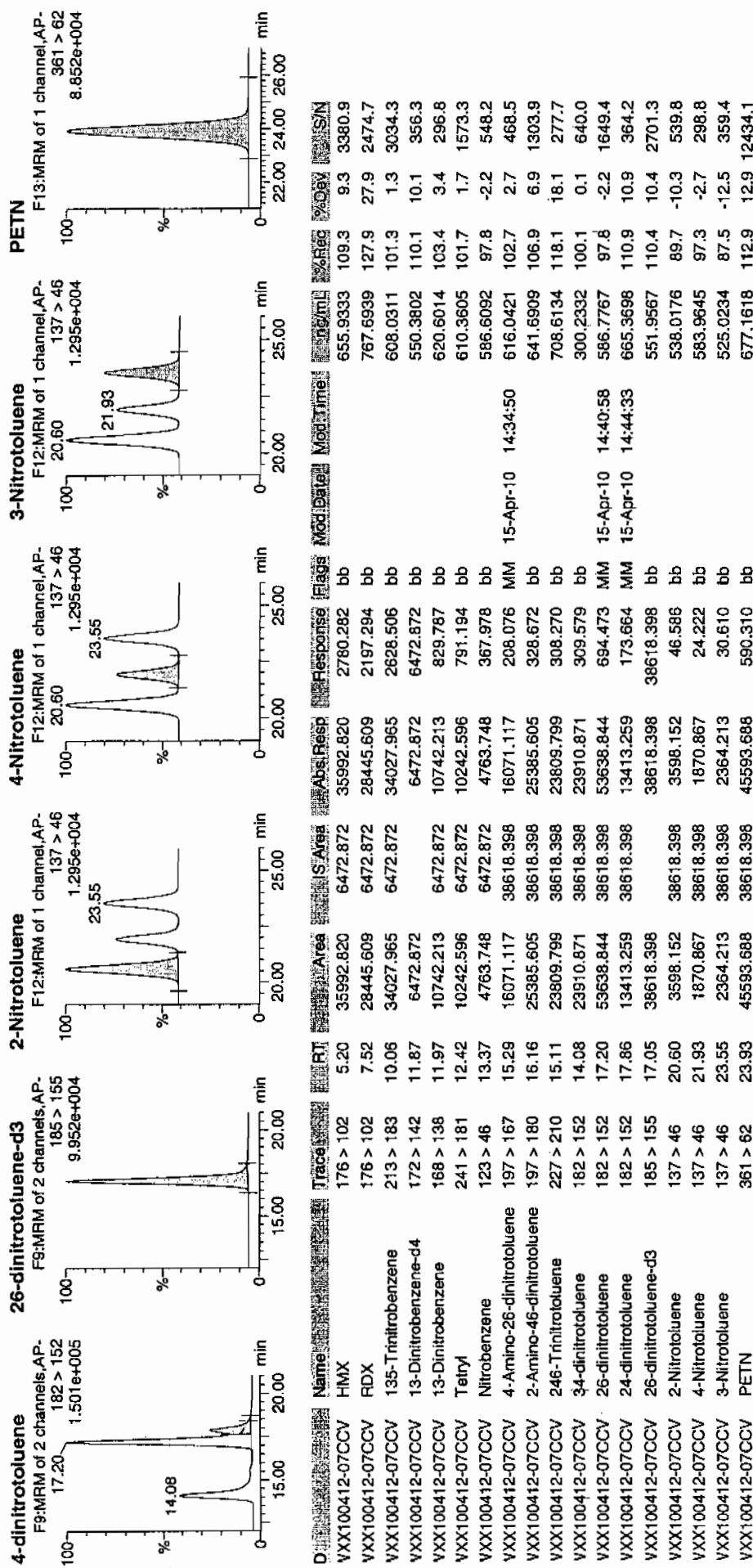
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WXX  
4/15/10



4/15/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/15/10  
 Time of Injection: 0339  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412123a

HMX	109.3
RDX	127.9
135-TNB	101.3
13-DNB	103.4
Tetryl	101.7
Nitrobenzene	97.8
4A-26-DNT	102.7
2A-46-DNT	106.9
246-TNT	118.1
34-DNT(surr)	100.1
26-DNT	97.8
24-DNT	110.9
2-NT	89.7
4-NT	97.3
3-NT	87.5
PETN	112.9

*WPP  
4/15/10*

Total 1665.3

Average 104.1

*WPP 04/15/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412125a

Analysis Date: 15-APR-10 04:38

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	43.213	108	
1,3-Dinitrobenzene-d4	500	564.409	113	
2,4,6-Trinitrotoluene	40	45.284	113	
2,4-Dinitrotoluene	40	46.283	116	
2,6-Dinitrotoluene	40	40.418	101	
2,6-Dinitrotoluene-d3	500	573.452	115	
2-Amino-4,6-dinitrotoluene	40	39.776	99	
3,4-Dinitrotoluene	20	20.678	103	
4-Amino-2,6-dinitrotoluene	40	39.446	99	
HMX	40	48.201	121	
Nitrobenzene	40	40.808	102	
PETN	40	53.641	134	*
RDX	40	49.515	124	
Tetryl	40	39.748	99	
m-Dinitrobenzene	40	40.378	101	
m-Nitrotoluene	40	41.837	105	
o-Nitrotoluene	40	40.859	102	
p-Nitrotoluene	40	46.373	116	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Quantify Sample Report  
 iEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412125a

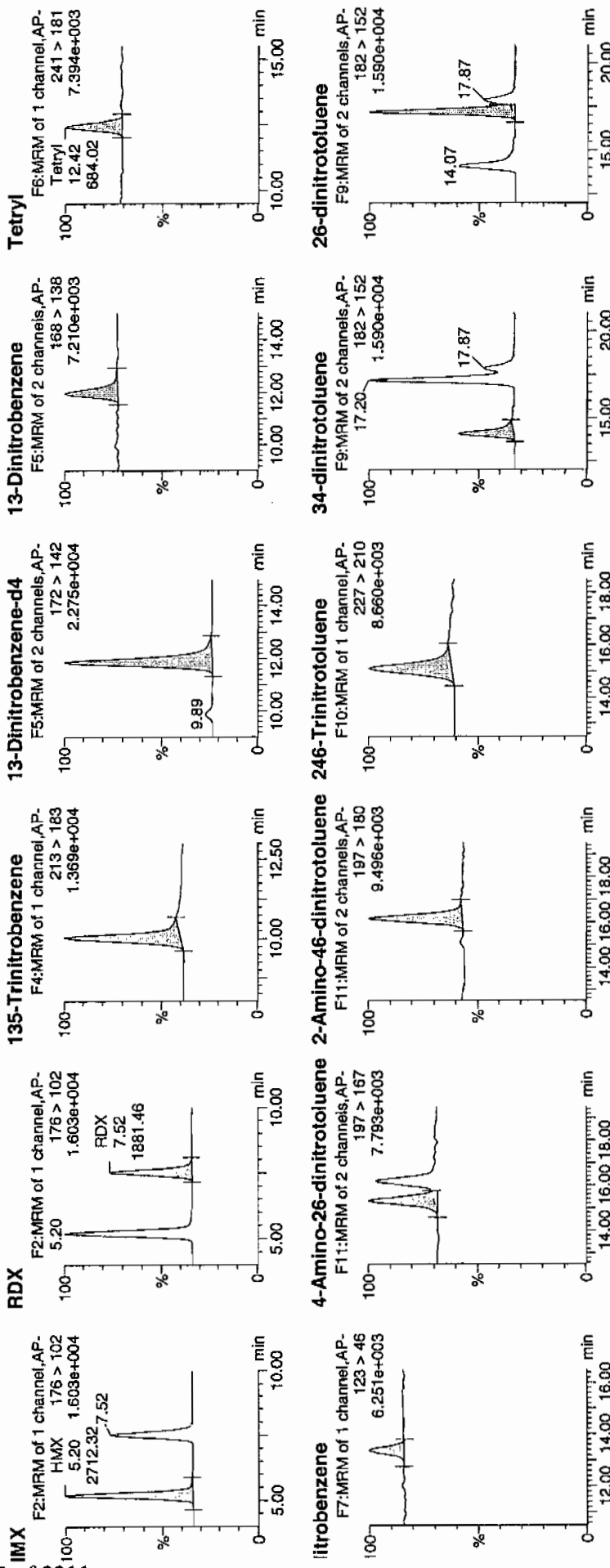
Date: 15-Apr-2010

Time: 04:38:55

File: WXX100412-08CRI

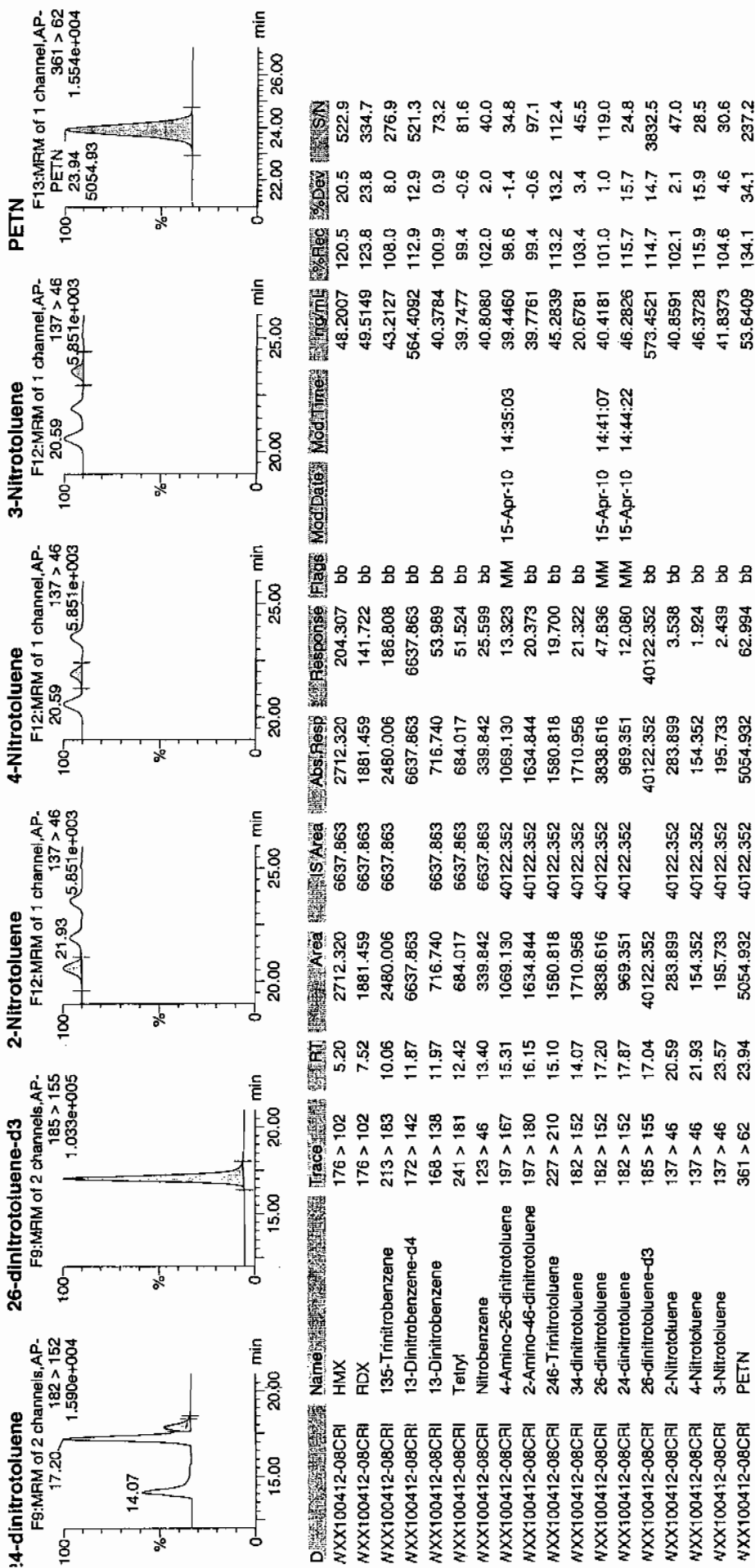
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15/10  
 4/15/10



15/10  
 4/15/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010





# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/15/10  
 Time of Injection 0438  
 Standard Number WXX100412-08CRI  
 Data File EXP0412125a

HMX	120.5
RDX	123.8
135-TNB	108.0
13-DNB	100.9
Tetryl	99.4
Nitrobenzene	102.0
4A-26-DNT	98.6
2A-46-DNT	99.4
246-TNT	113.2
34-DNT(surr)	103.4
26-DNT	101.0
24-DNT	115.7
2-NT	102.1
4-NT	115.9
3-NT	104.6
PETN	134.1

*NOT  
4/15/10*

Total 1742.6

Average 108.9

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ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412135a

Analysis Date: 15-APR-10 09:33

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	300	298.104	99	
4-Amino-2,6-dinitrotoluene	600	610.274	102	
HMX	600	685.286	114	
Nitrobenzene	600	598.926	100	
PETN	600	756.299	126	*
RDX	600	771.167	129	*
Tetryl	600	580.474	97	
m-Dinitrobenzene	600	616.334	103	
m-Nitrotoluene	600	526.908	88	
o-Nitrotoluene	600	559.377	93	
p-Nitrotoluene	600	606.103	101	
1,3,5-Trinitrobenzene	600	616.486	103	
1,3-Dinitrobenzene-d4	500	520.494	104	
2,4,6-Trinitrotoluene	600	719.64	120	
2,4-Dinitrotoluene	600	646.864	108	
2,6-Dinitrotoluene	600	604.45	101	
2,6-Dinitrotoluene-d3	500	525.317	105	
2-Amino-4,6-dinitrotoluene	600	629.05	105	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Quantify Sample Report  
iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412135a

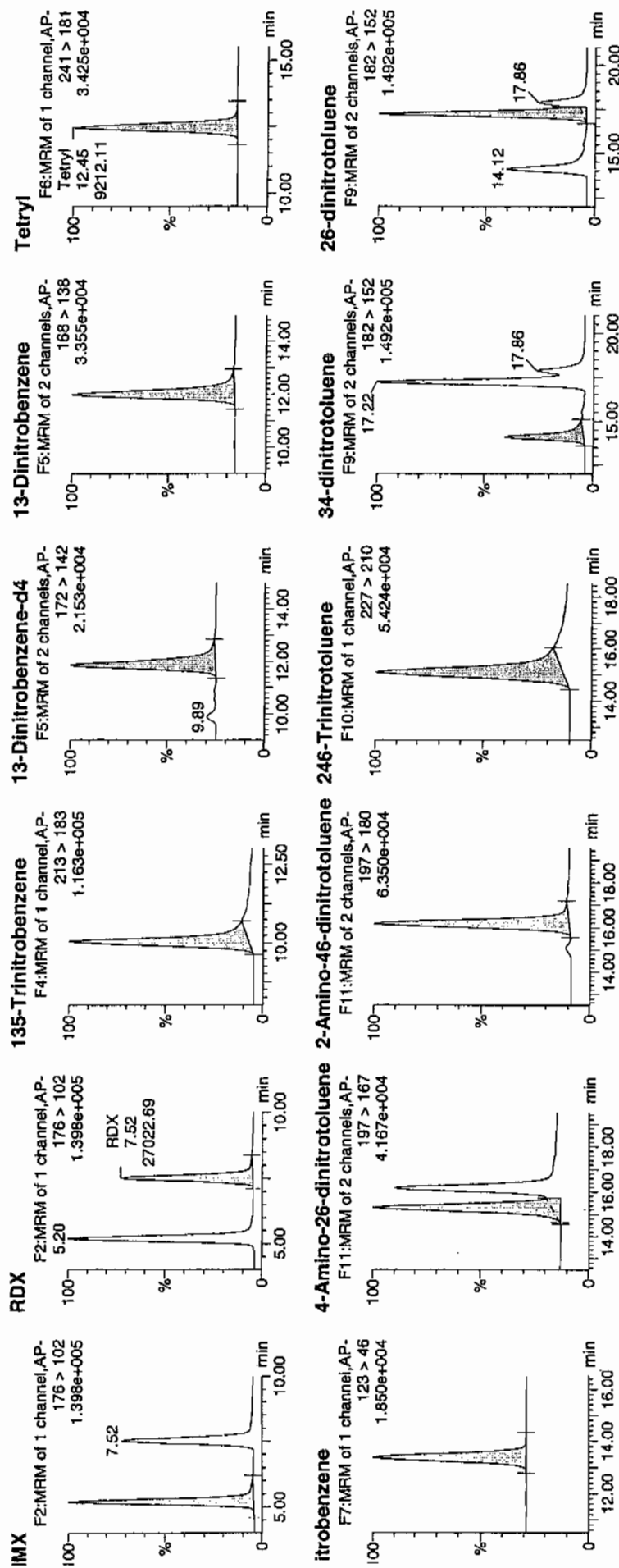
Date: 15-Apr-2010

Time: 09:33:59

File: WXX100412-07CCV

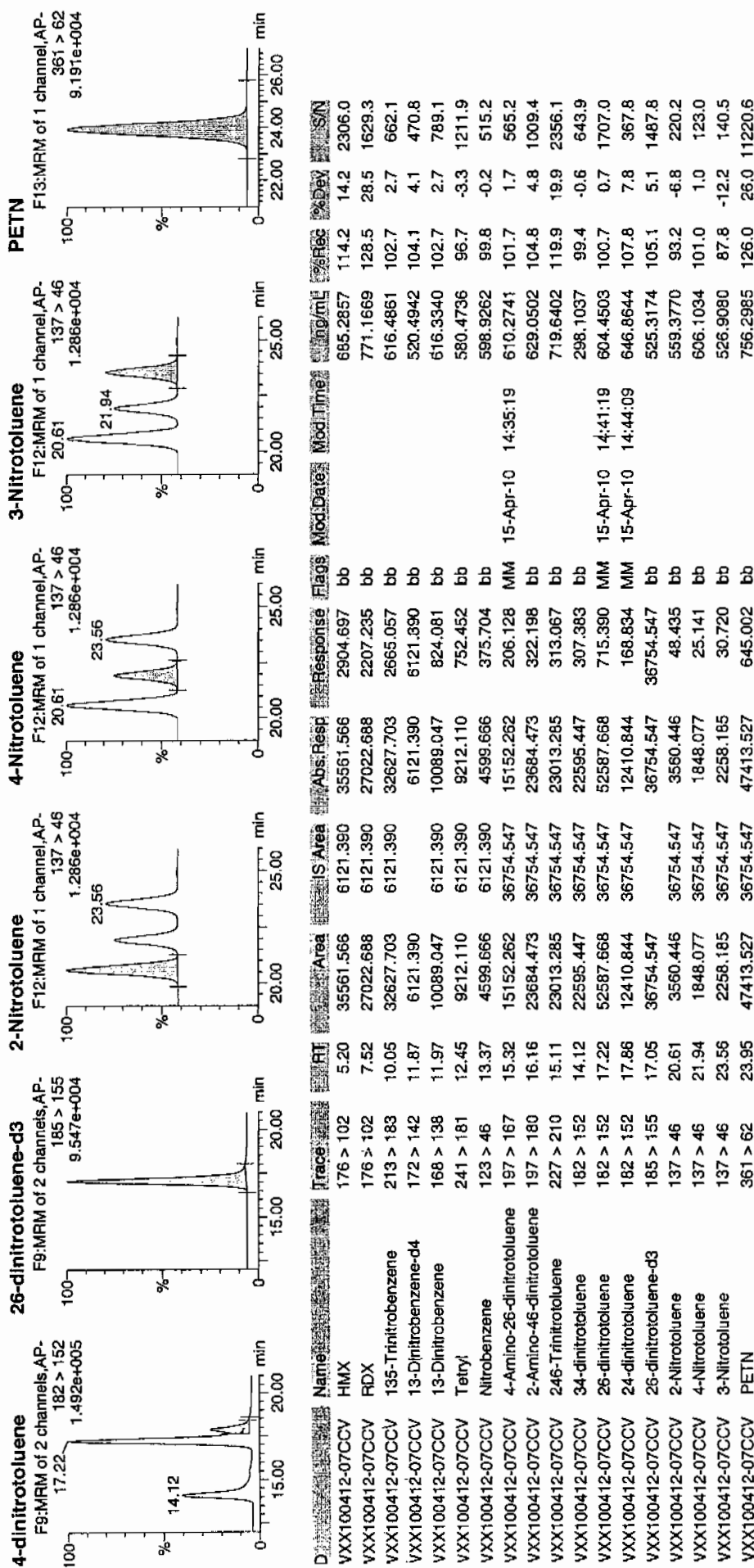
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*Handwritten:* 4/15/10



*Handwritten:* 4/15/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/15/10  
 Time of Injection: 0933  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412135a

HMX	114.2
RDX	128.5
135-TNB	102.7
13-DNB	102.7
Tetryl	96.7
Nitrobenzene	99.8
4A-26-DNT	101.7
2A-46-DNT	104.8
246-TNT	119.9
34-DNT(surr)	99.4
26-DNT	100.7
24-DNT	107.8
2-NT	93.2
4-NT	101.0
3-NT	87.8
PETN	126.0

*WXX  
11/15/10*

Total 1686.9

Average 105.4

*Time 04/15/10*

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412137a

Analysis Date: 15-APR-10 10:33

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	44.831	112	
1,3-Dinitrobenzene-d4	500	564.306	113	
2,4,6-Trinitrotoluene	40	45.122	113	
2,4-Dinitrotoluene	40	42.425	106	
2,6-Dinitrotoluene	40	41.26	103	
2,6-Dinitrotoluene-d3	500	570.792	114	
2-Amino-4,6-dinitrotoluene	40	41.382	103	
3,4-Dinitrotoluene	20	22.164	111	
4-Amino-2,6-dinitrotoluene	40	38.604	97	
HMX	40	48.451	121	
Nitrobenzene	40	42.762	107	
PETN	40	54.612	137	*
RDX	40	48.712	122	
Tetryl	40	36.564	91	
m-Dinitrobenzene	40	41.195	103	
m-Nitrotoluene	40	32.225	81	
o-Nitrotoluene	40	41.864	105	
p-Nitrotoluene	40	40.289	101	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

ame: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412137a

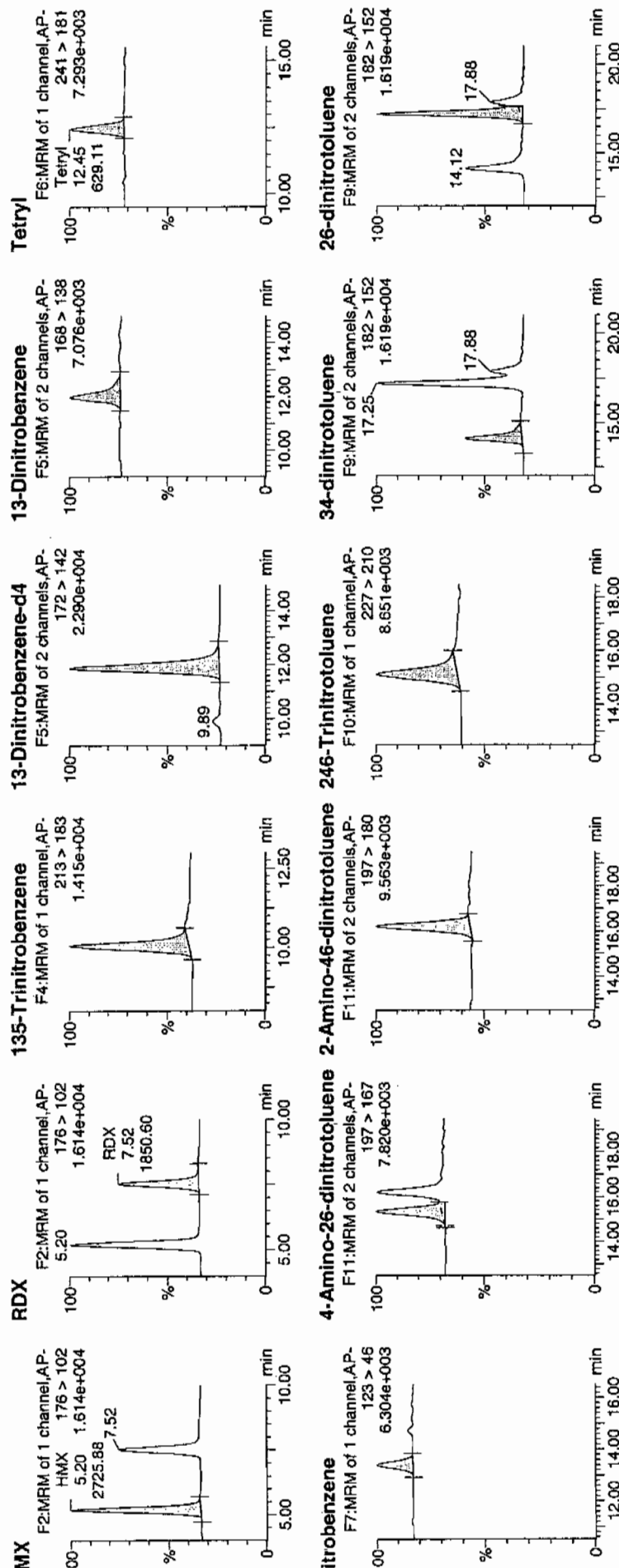
ate: 15-Apr-2010

ime: 10:33:01

); WXX100412-08CRI

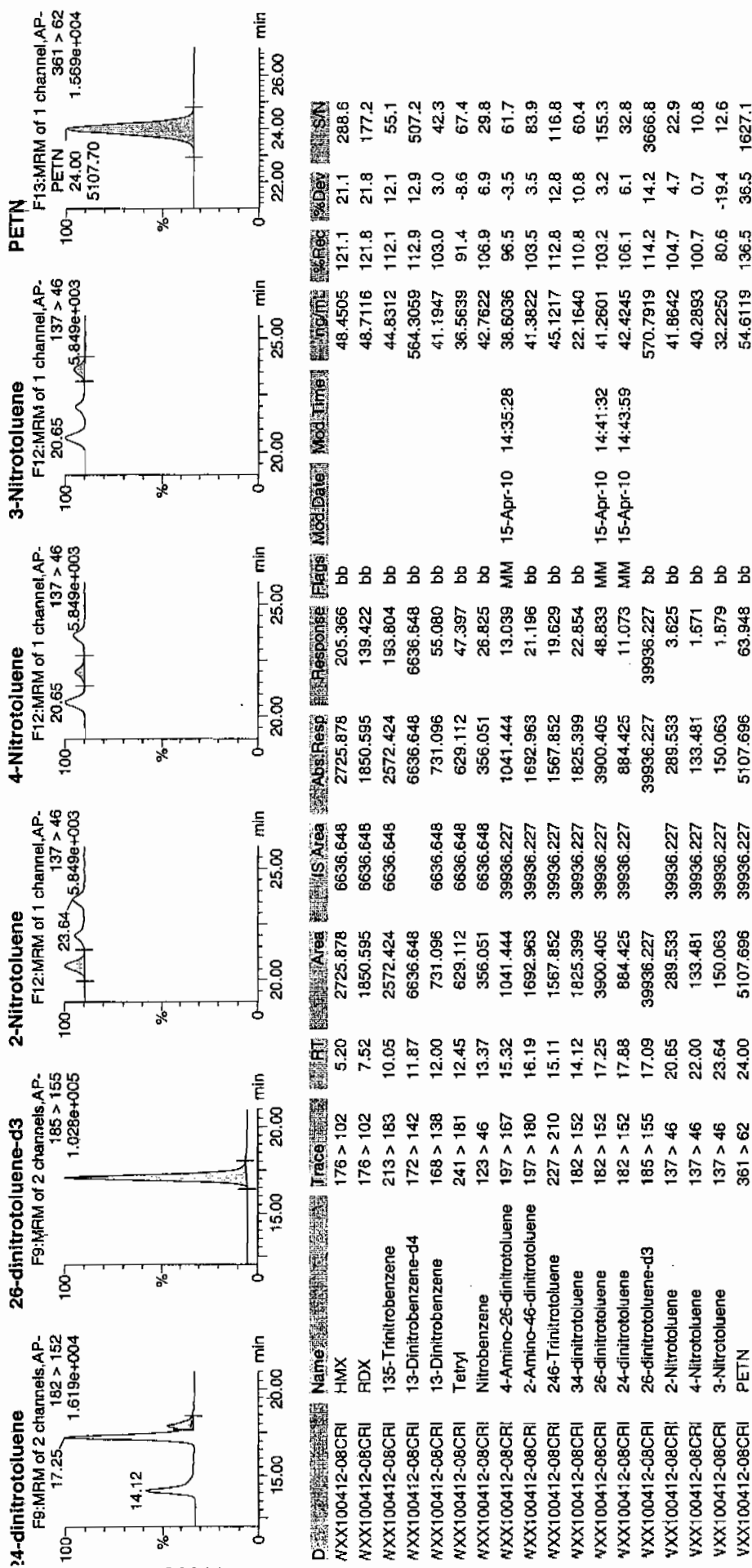
ial: 1:1,C

AP  
4/15/10



amy  
4/15/10

Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010





# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/15/10  
 Time of Injection 1033  
 Standard Number WXX100412-08CRI  
 Data File EXP0412137a

HMX	121.1
RDX	121.8
135-TNB	112.1
13-DNB	103.0
Tetryl	91.4
Nitrobenzene	106.9
4A-26-DNT	96.5
2A-46-DNT	103.5
246-TNT	112.8
34-DNT(surr)	110.8
26-DNT	103.2
24-DNT	106.1
2-NT	104.7
4-NT	100.7
3-NT	80.6
PETN	136.5

*4/15/10*

Total 1711.7

Average 107.0

*Sum 04/15/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412141a

Analysis Date: 15-APR-10 12:31

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	600	554.035	92	
1,3,5-Trinitrobenzene	600	600.513	100	
1,3-Dinitrobenzene-d4	500	548.523	110	
2,4,6-Trinitrotoluene	600	671.418	112	
2,4-Dinitrotoluene	600	681.875	114	
2,6-Dinitrotoluene	600	582.15	97	
2,6-Dinitrotoluene-d3	500	517.845	104	
2-Amino-4,6-dinitrotoluene	600	620.832	103	
3,4-Dinitrotoluene	300	295.616	99	
4-Amino-2,6-dinitrotoluene	600	603.436	101	
HMX	600	656.436	109	
Nitrobenzene	600	554.89	92	
PETN	600	656.88	109	
RDX	600	783.263	131	*
Tetryl	600	575.56	96	
m-Dinitrobenzene	600	568.157	95	
m-Nitrotoluene	600	472.105	79	*
o-Nitrotoluene	600	520.007	87	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0412141a

Date: 15-Apr-2010

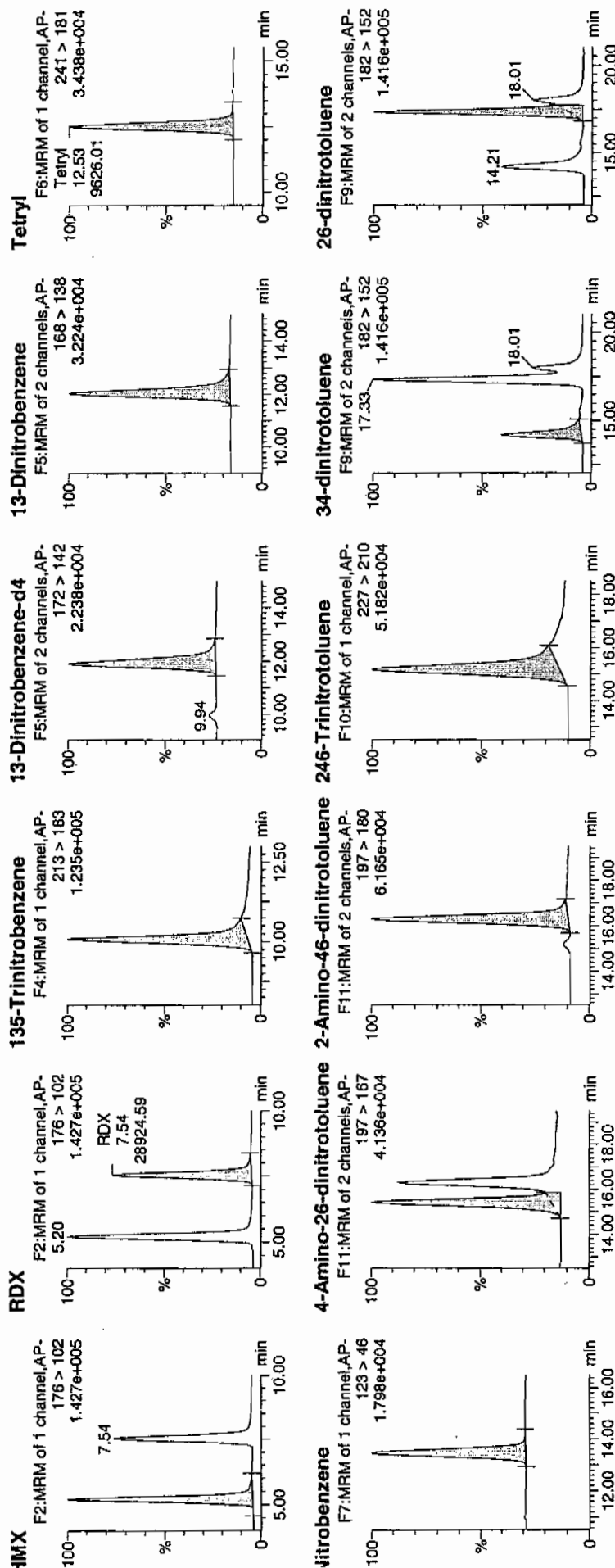
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ID: WXX100415-07CCV

Vial: 1:1,B

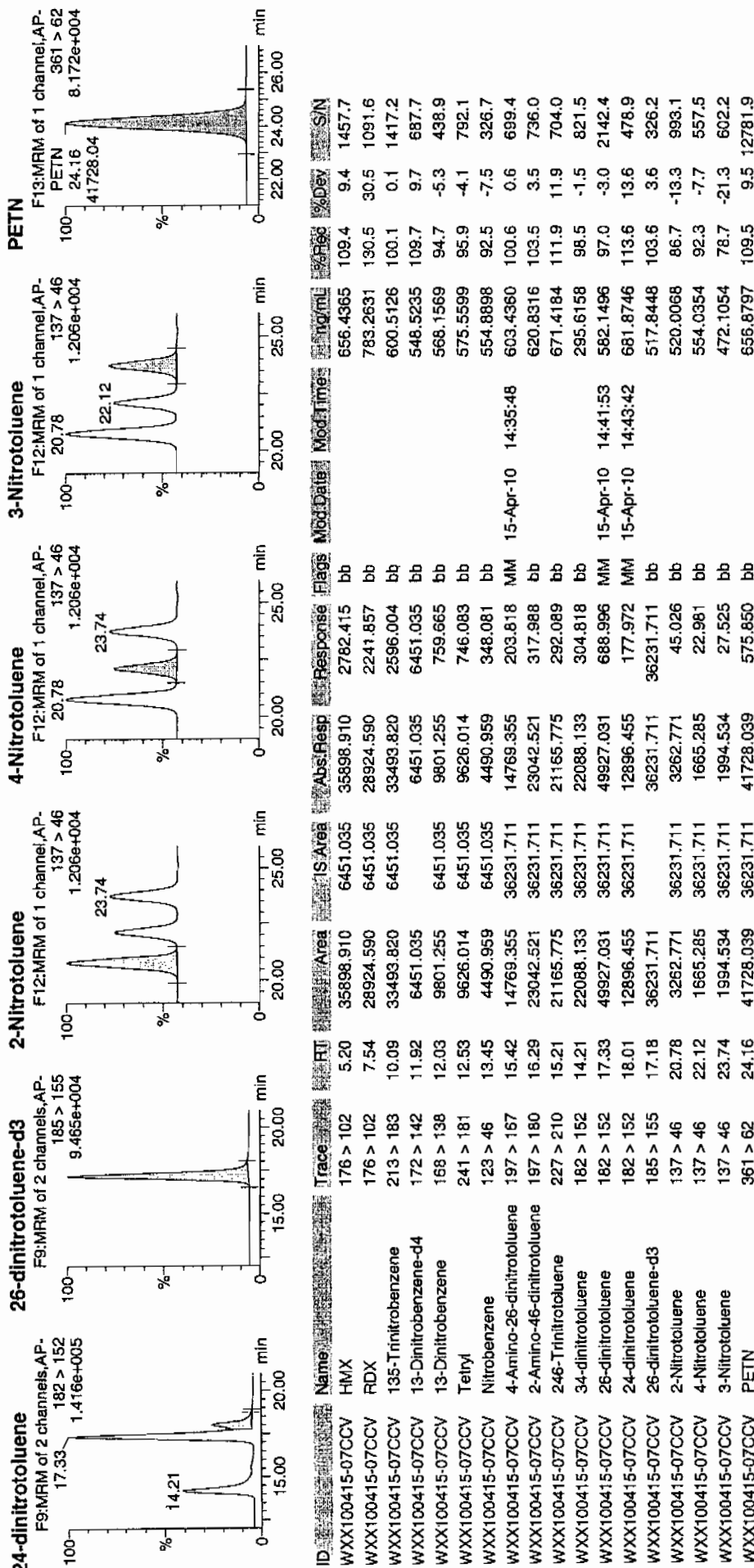
4/15/10  
M.A.P.

Page 1895 of 2211



4/15/10  
M.A.P.

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/15/10  
 Time of Injection: 1231  
 Standard Number: WXX100415-07CCV  
 Data File: EXP0412141a

HMX	109.4
RDX	130.5
135-TNB	100.1
13-DNB	94.7
Tetryl	95.9
Nitrobenzene	92.5
4A-26-DNT	100.6
2A-46-DNT	103.5
246-TNT	111.9
34-DNT(surr)	98.5
26-DNT	97.0
24-DNT	113.6
2-NT	86.7
4-NT	92.3
3-NT	78.7
PETN	109.5

*MAF  
4/15/10*

Total 1615.4

*Home 04/15/10*

Average 101.0

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412143a

Analysis Date: 15-APR-10 13:30

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	40	39.473	99	
PETN	40	51.284	128	
RDX	40	48.05	120	
Tetryl	40	51.38	128	
m-Dinitrobenzene	40	39.893	100	
m-Nitrotoluene	40	33.98	85	
o-Nitrotoluene	40	30.284	76	
p-Nitrotoluene	40	44.578	111	
1,3,5-Trinitrobenzene	40	45.257	113	
1,3-Dinitrobenzene-d4	500	536.662	107	
2,4,6-Trinitrotoluene	40	45.682	114	
2,4-Dinitrotoluene	40	45.008	113	
2,6-Dinitrotoluene	40	38.476	96	
2,6-Dinitrotoluene-d3	500	533.5	107	
2-Amino-4,6-dinitrotoluene	40	39.37	98	
3,4-Dinitrotoluene	20	20.83	104	
4-Amino-2,6-dinitrotoluene	40	42.325	106	
HMX	40	47.44	119	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

**Quantify Sample Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0412143a

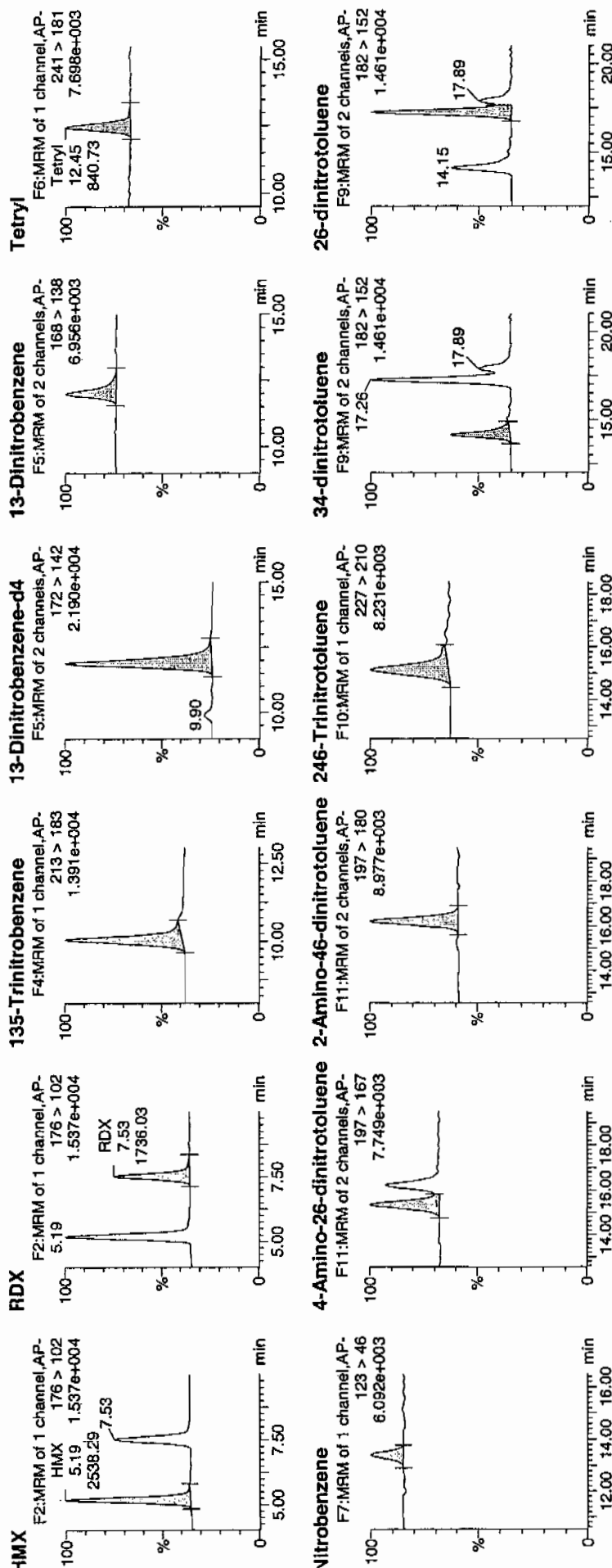
Date: 15-Apr-2010

Time: 13:30:11

ID: WXX100415-08CRI

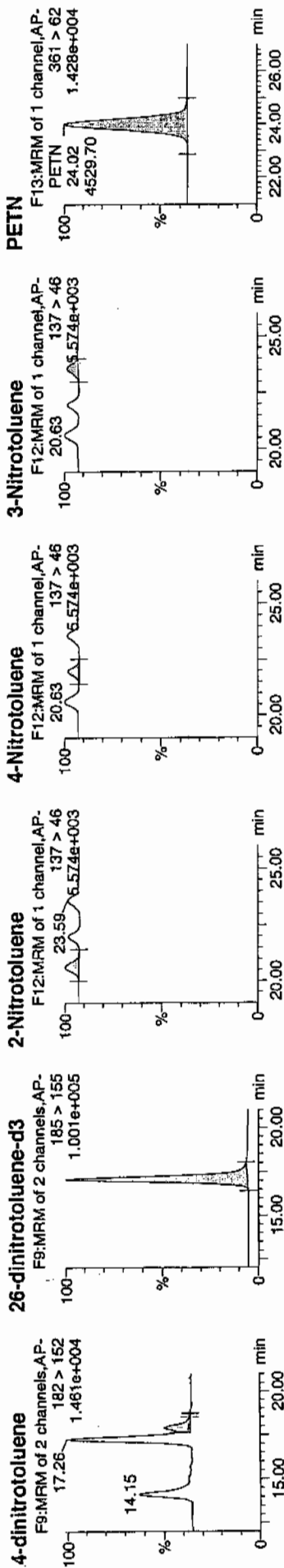
Vial: 1:1,C

Page 1899 of 2211



for MW 4/15/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



Name	Trace	RT	Area	IS:Area	Abs:Resp	Response	Flags	Mod:Time	Mod:Date	Conc:ng/mL	%Rec	%Dev	SN
VXX100415-08CRI	HMZ	176 > 102	5.19	2538.290	6311.535	201.083	bb			47.4403	118.6	18.6	411.3
VXX100415-08CRI	RDZ	176 > 102	7.53	1736.029	6311.535	137.528	bb			48.0498	120.1	20.1	251.2
VXX100415-08CRI	135-Trinitrobenzene	213 > 183	10.05	2469.656	6311.535	2489.656	bb			45.2573	113.1	13.1	582.8
VXX100415-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6311.535	6311.535	6311.535	bb			536.6619	107.3	7.3	648.0
VXX100415-08CRI	13-Dinitrobenzene	168 > 138	12.00	673.316	6311.535	53.340	bb			39.8933	99.7	-0.3	35.1
VXX100415-08CRI	Tetryl	241 > 181	12.45	840.732	6311.535	66.603	bb			51.3802	128.5	28.5	89.9
VXX100415-08CRI	Nitrobenzene	123 > 46	13.39	312.562	6311.535	24.761	bb			39.4728	98.7	-1.3	43.0
VXX100415-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.34	1067.238	37327.039	14.296	MM	15-Apr-10	14:35:55	42.3249	105.8	5.8	69.5
VXX100415-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.21	1505.416	37327.039	20.165	bb			39.3700	98.4	-1.6	69.8
VXX100415-08CRI	246-Trinitrotoluene	227 > 210	15.13	1483.628	37327.039	19.873	bb			45.6824	114.2	14.2	83.4
VXX100415-08CRI	34-dinitrotoluene	182 > 152	14.15	1603.458	37327.039	21.479	bb			20.8901	104.2	4.2	64.6
VXX100415-08CRI	26-dinitrotoluene	182 > 152	17.26	3399.561	37327.039	45.538	MM	15-Apr-10	14:42:01	38.4757	96.2	-3.8	154.2
VXX100415-08CRI	24-dinitrotoluene	182 > 152	17.89	876.982	37327.039	11.747	MM	15-Apr-10	14:43:32	45.0080	112.5	12.5	33.6
VXX100415-08CRI	26-dinitrotoluene-d3	185 > 155	17.08	37327.039	37327.039	37327.039	bb			533.4998	106.7	6.7	3239.6
VXX100415-08CRI	2-Nitrotoluene	137 > 46	20.63	195.758	37327.039	2.622	bb			30.2836	75.7	-24.3	24.5
VXX100415-08CRI	4-Nitrotoluene	137 > 46	22.00	138.041	37327.039	1.849	bb			44.5782	111.4	11.4	19.9
VXX100415-08CRI	3-Nitrotoluene	137 > 46	23.59	147.899	37327.039	1.981	bb			33.9804	85.0	-15.0	19.3
VXX100415-08CRI	PETN	361 > 62	24.02	4529.698	37327.039	60.676	bb			51.2837	128.2	28.2	1485.1



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/15/10  
 Time of Injection 1330  
 Standard Number WXX100415-08CRI  
 Data File EXP0412143a

HMX	118.6
RDX	120.1
135-TNB	113.1
13-DNB	99.7
Tetryl	128.5
Nitrobenzene	98.7
4A-26-DNT	105.8
2A-46-DNT	98.4
246-TNT	114.2
34-DNT(surr)	104.2
26-DNT	96.2
24-DNT	112.5
2-NT	75.7
4-NT	111.4
3-NT	85.0
PETN	128.2

*Handwritten:* 100%  
4/15/10

Total 1710.3

Average 106.9

*Handwritten:* HMX-04/15/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310013.wiff

Analysis Date: 31-MAR-10 11:49

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	82.3	82	
2,6-Diamino-4-nitrotoluene	100	94.8	95	
3,4-Dinitrotoluene	50	49.1	98	
3,5-Dinitroaniline	100	96.6	97	
TATB	100	94.1	94	
tris(o-cresyl) phosphate	100	99.5	100	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

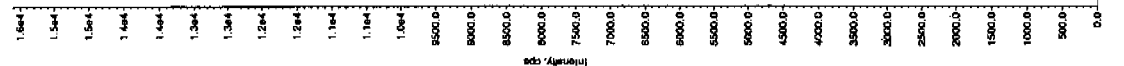
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

SLW 41570

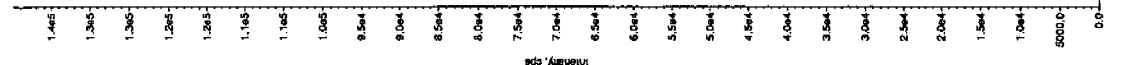
Sample Name: "WXXX100331-27CPI" Sample ID: "11JLER" File: "EX503310013.wif"  
 Peak Name: "TATB" Mass(es): "257.2/204.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1 QC  
 Concentration: 100 ng/mL  
 Calculated Conc: 9.1 ng/mL  
 Acq. Time: 3/31/2010 11:49:08 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IDA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 6.90 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 6.81 min  
 Area: 6.44e+05 counts  
 Height: 15590.504 cps  
 Start Time: 6.82 min  
 End Time: 7.19 min

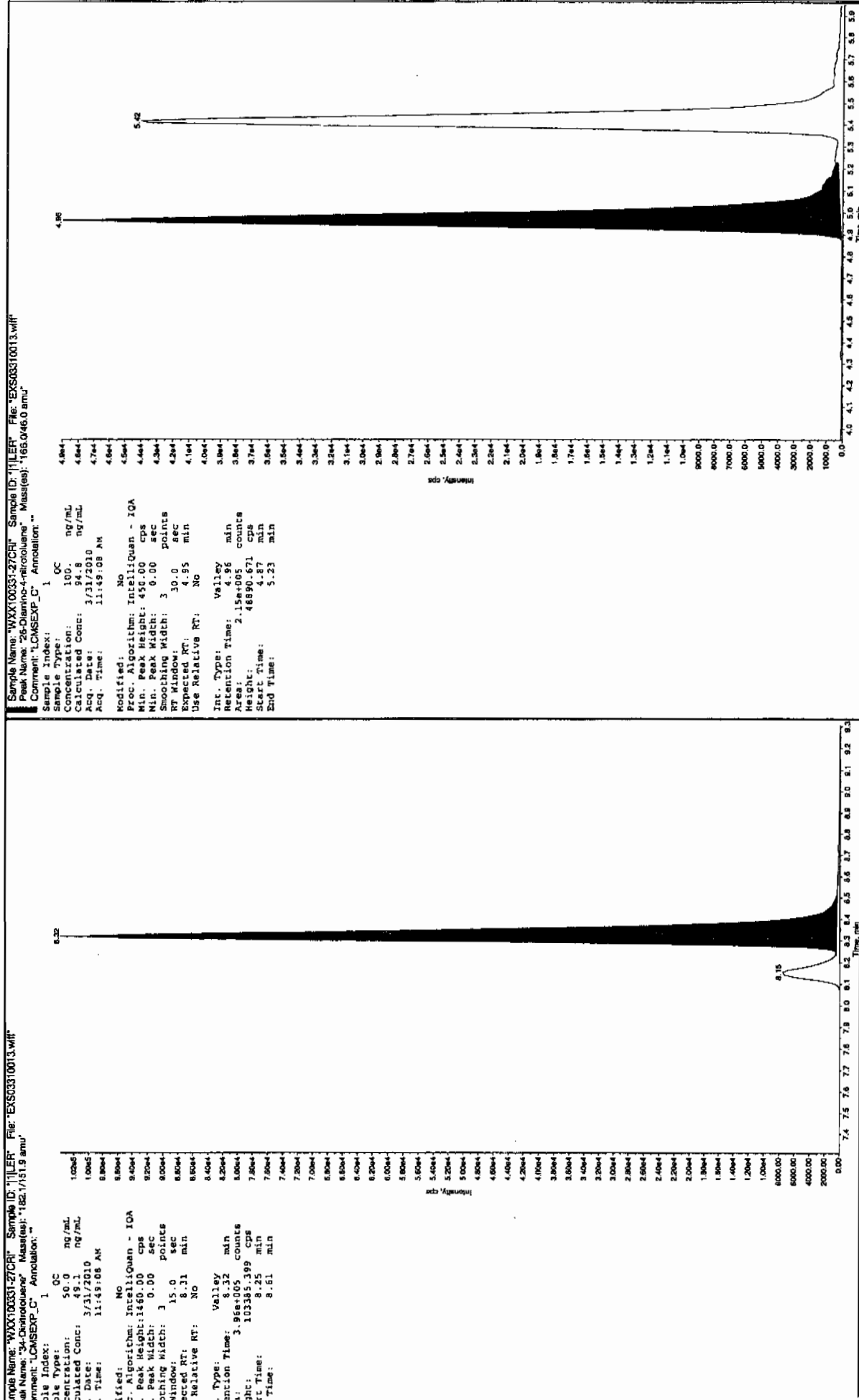


Sample Name: "WXXX100331-27CPI" Sample ID: "11JLER" File: "EX503310013.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.0/146.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1 QC  
 Concentration: 100 ng/mL  
 Calculated Conc: 9.1 ng/mL  
 Acq. Time: 3/31/2010 11:49:08 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 2000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.14 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.15 min  
 Area: 6.11e+05 counts  
 Height: 13989.821 cps  
 Start Time: 8.03 min  
 End Time: 8.28 min



SLW 41570



GL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

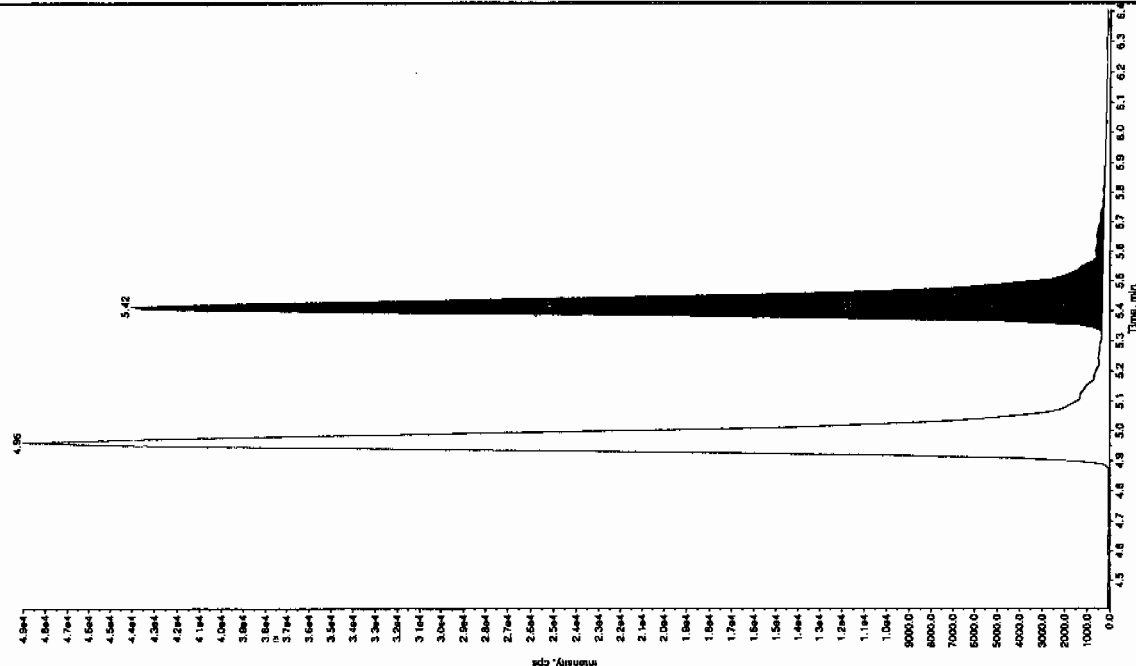
Sample Name: "WXX100331-27CPI" Sample ID: "J1LER" File: "EXS03310013.wif"  
 Peak Name: "24-Dienno-6-nitrofluene" Mass(es): "166.048.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 82.3 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 11:49:08 AM

Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 5.42 min  
 Area: 1.89e+002 counts  
 Height: 4369.0 cps  
 Start Time: 5.32 min  
 End Time: 5.79 min



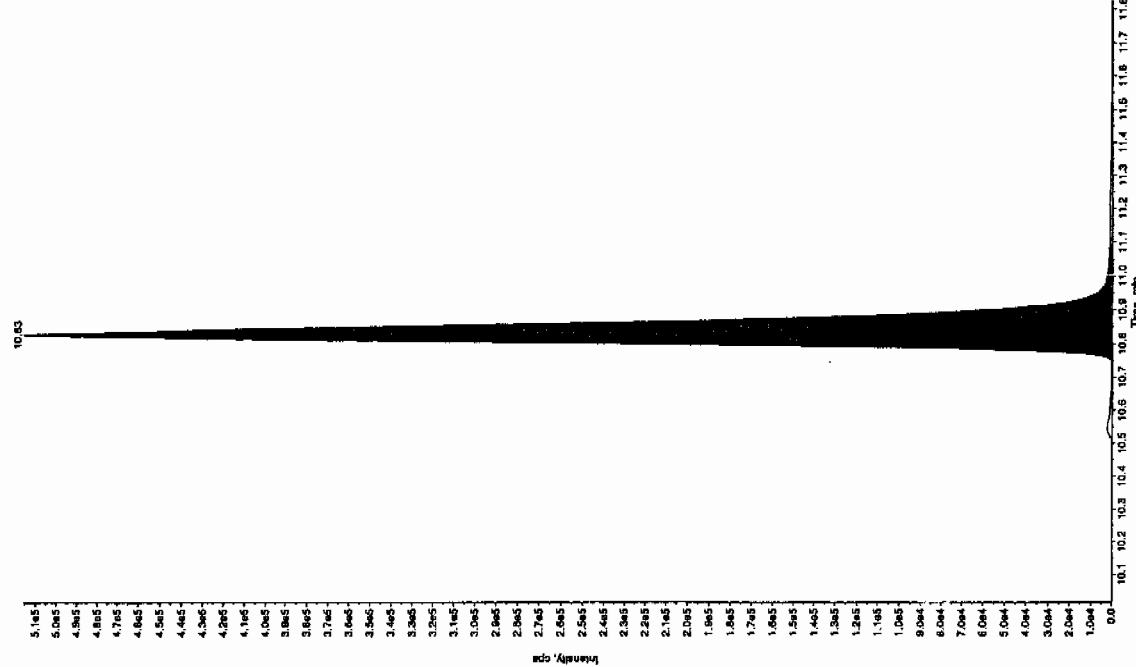
Sample Name: "WXX100331-27CPI" Sample ID: "J1LER" File: "EXS03310013.wif"  
 Peak Name: "tri(6-cisyl) phosphate" Mass(es): "369.1791.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 99.5 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 11:49:08 AM

Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 2.09e+003 counts  
 Height: 5193.0 cps  
 Start Time: 10.7 min  
 End Time: 11.1 min



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310024.wiff

Analysis Date: 31-MAR-10 14:41

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	455	91	
2,6-Diamino-4-nitrotoluene	500	496	99	
3,4-Dinitrotoluene	250	217	87	
3,5-Dinitroaniline	500	439	88	
TATB	500	467	93	
tris(o-cresyl) phosphate	500	479	96	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Run 415110

Sample Name: "WXX100331-260CV" Sample ID: "11LER" File: "EXSG3310024.wif"

Peak Name: "TATP" Mass(es): "257.29204.8 amu"

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 500. ng/mL

Calculated Conc: 467. ng/mL

Acq. Date: 3/31/2010

Acq. Time: 2:41:55 PM

Modified: No

Proc. Algorithm: InCellQuan - IOA

Min. Peak Width: 2500.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 6.90 min

Use Relative RT: No

Int. Type: Valley

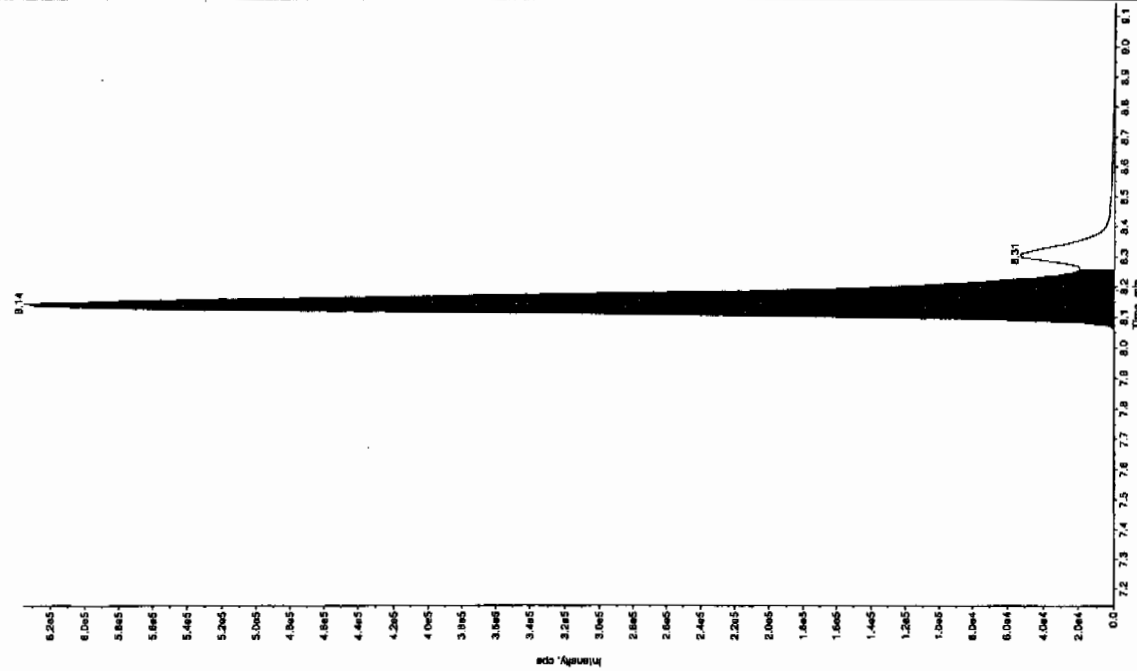
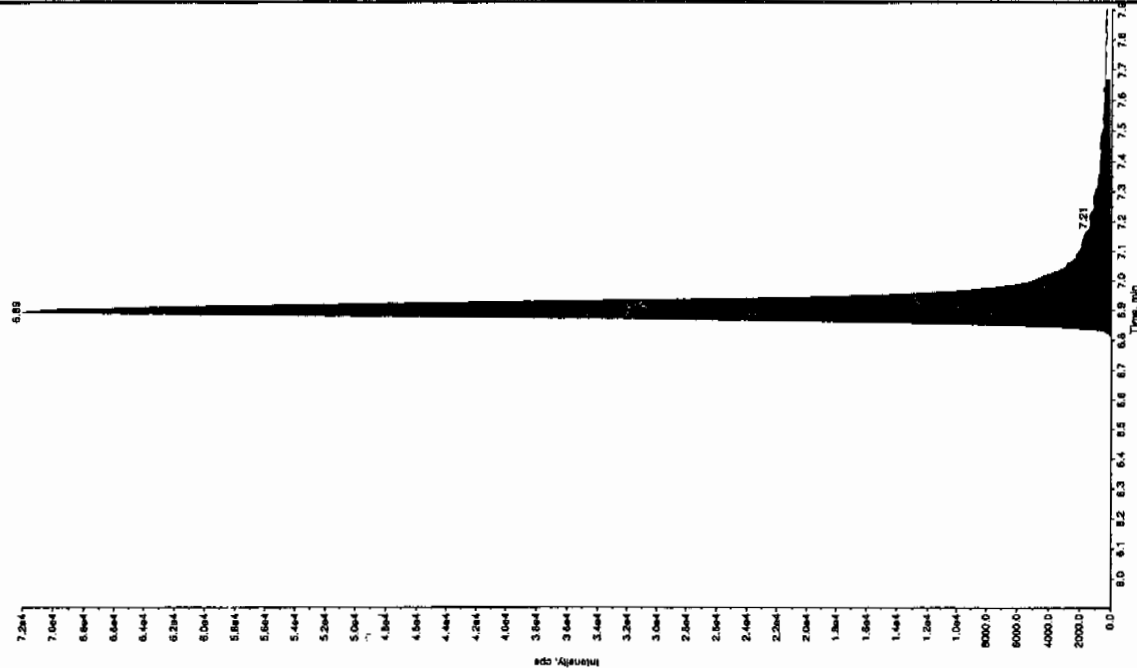
Retention Time: 6.89 min

Area: 3.43e+005 counts

Height: 71980.743 cps

Start Time: 6.79 min

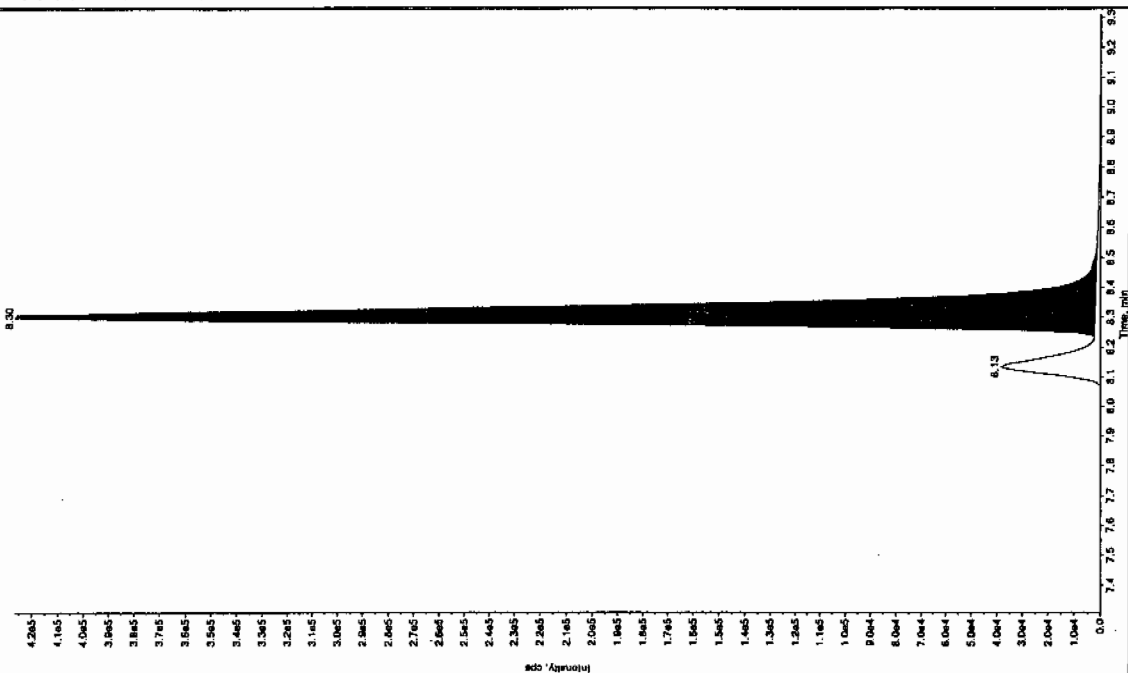
End Time: 7.67 min



Run 415110

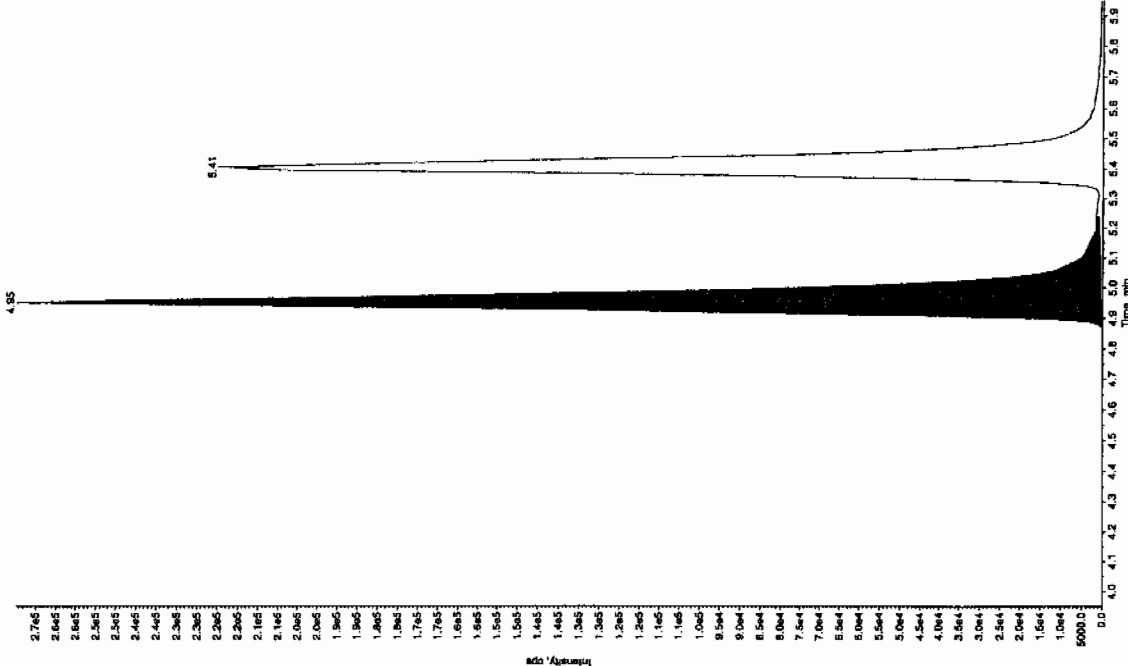
Sample Name: "WXX100331-26CCV" Sample ID: "H1LR" File: "EXS03310024.wif"  
 Peak Name: "34-Dinitrophenol" Mass(es): "182.1751.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: OC  
 Concentration: 250. ng/mL  
 Calculated Conc: 3/31/2010 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 2:41:55 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.31 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.30 min  
 Area: 1.77e+006 counts  
 Height: 424337.872 cps  
 Start Time: 8.23 min  
 End Time: 8.35 min



Sample Name: "WXX100331-26CCV" Sample ID: "H1LR" File: "EXS03310024.wif"  
 Peak Name: "26-Dinitro-4-nitrophenol" Mass(es): "186.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

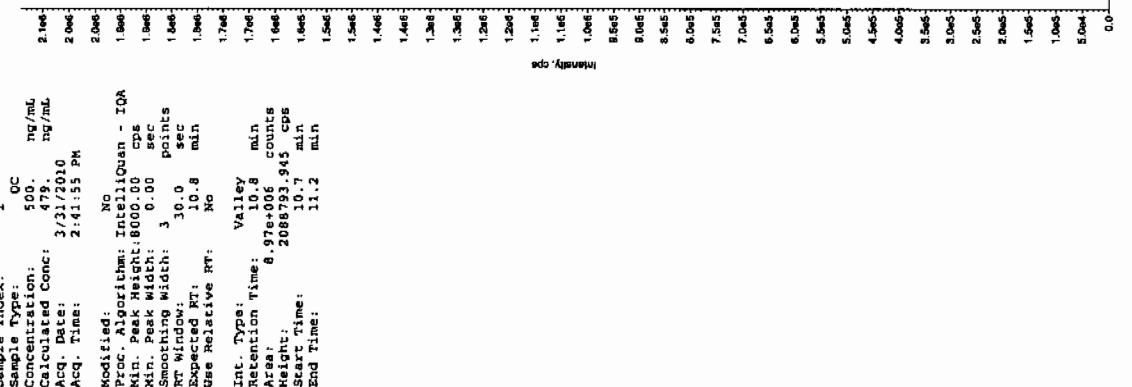
Sample Index: 1  
 Sample Type: OC  
 Concentration: 500. ng/mL  
 Calculated Conc: 496. ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 2:41:55 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.95 min  
 Area: 1.06e+006 counts  
 Height: 269488.151 cps  
 Start Time: 4.84 min  
 End Time: 5.24 min





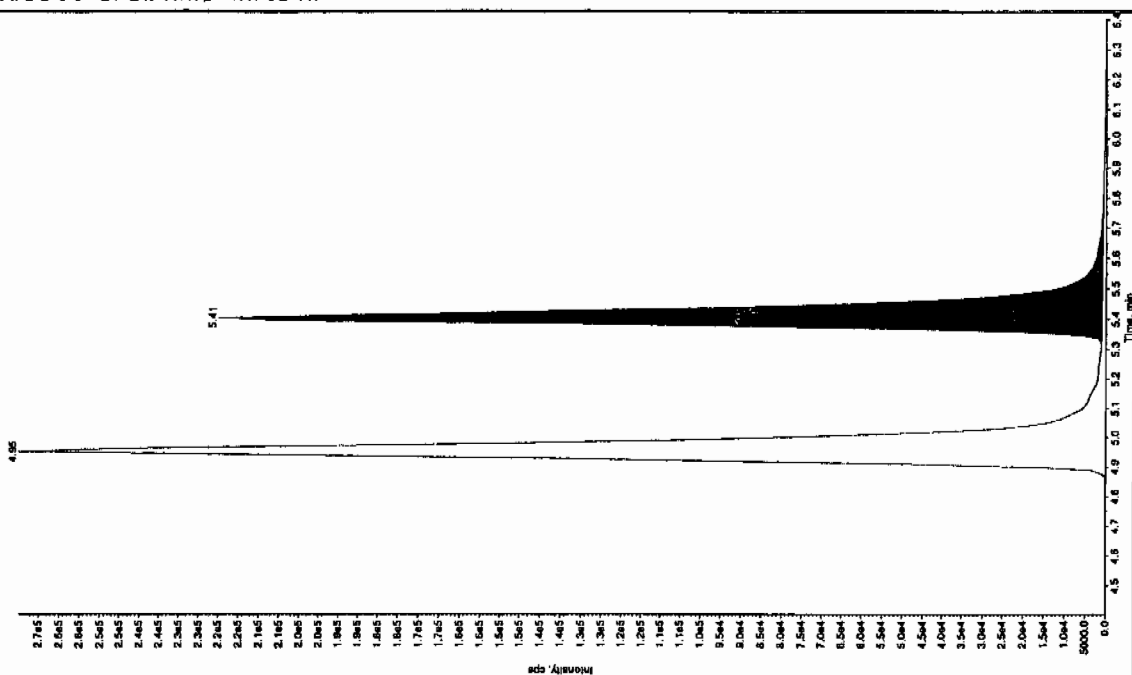
Sample Name: "WXX100331-260CV" Sample ID: "JILIER" File: "EXS0310024.wif"  
 Peak Name: "24-Diamino-6-nitrothiouracil" Mass(es): "168.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 3/31/2010 ng/mL  
 Acq. Date: 2:41:55 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Peak Height: 8,976,006 counts  
 Mass: 208839.945 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



Sample Name: "WXX100331-260CV" Sample ID: "JILIER" File: "EXS0310024.wif"  
 Peak Name: "24-Diamino-6-nitrothiouracil" Mass(es): "168.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 3/31/2010 ng/mL  
 Acq. Date: 2:41:55 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.41 min  
 Peak Height: 8,676,005 counts  
 Mass: 218858.749 cps  
 Start Time: 5.31 min  
 End Time: 5.61 min



JL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310026.wiff

Analysis Date: 31-MAR-10 15:13

LCMSMS ID: 1358

Column ID: Sphere ODS-H80

Compound	True	Found	Recovery	Q
2,6-Diamino-4-nitrotoluene	100	92.1	92	
3,4-Dinitrotoluene	50	49.5	99	
3,5-Dinitroaniline	100	104	104	
TATB	100	96	96	
tris(o-cresyl) phosphate	100	97.6	98	
2,4-Diamino-6-nitrotoluene	100	75.4	75	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 50-150%

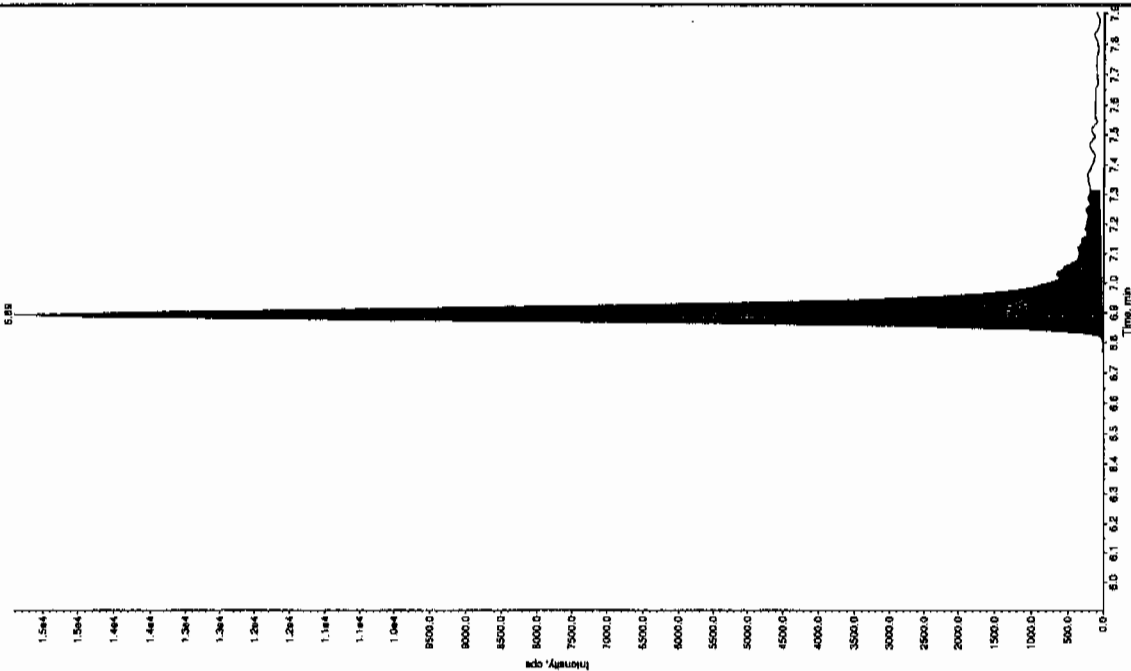
Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

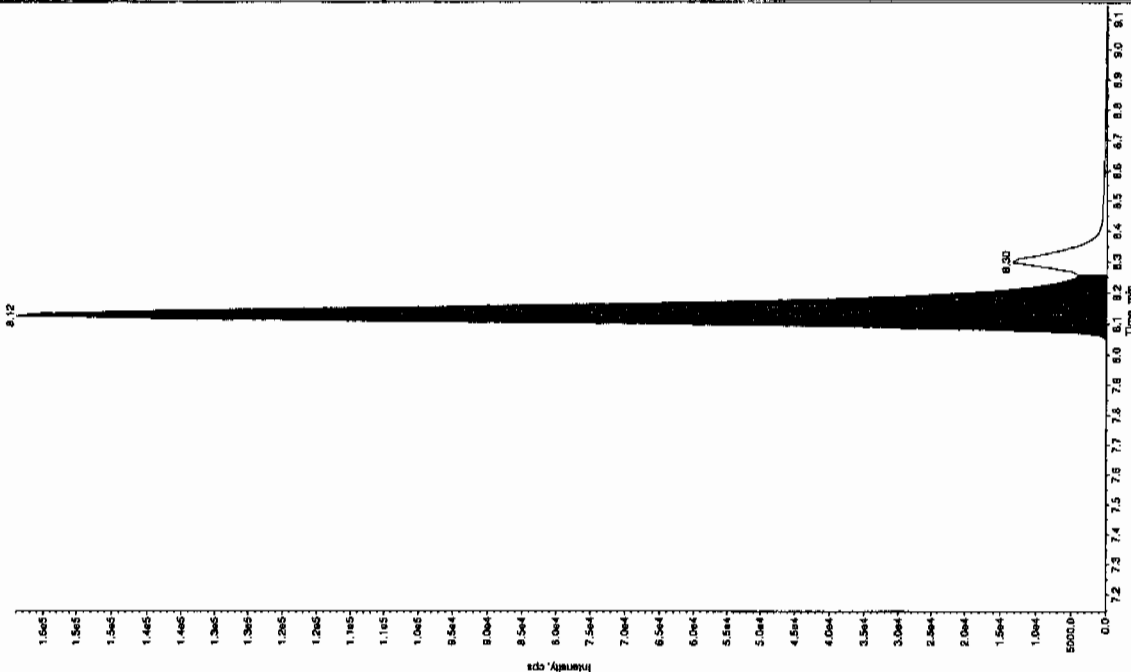
Sample Name: "WXX100331-27CPR" Sample ID: "HJLER" File: "EXS0310026.wif"  
 Peak Name: "TATB" Mass(es): "257.2/204.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

File Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 3/31/2010 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 3:13:21 PM  
 Modified: No  
 Proc Algorithm: IntelliQuan - IQA  
 Peak Height: 2500.00 cps  
 Win. Peak Width: 30.00 sec  
 Smoothing Width: 30.0 points  
 Window: 30.0 sec  
 Expected RT: 6.90 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 6.89 min  
 Area: 6.58e+004 counts  
 Height: 15405.108 cps  
 Start Time: 6.76 min  
 End Time: 7.32 min



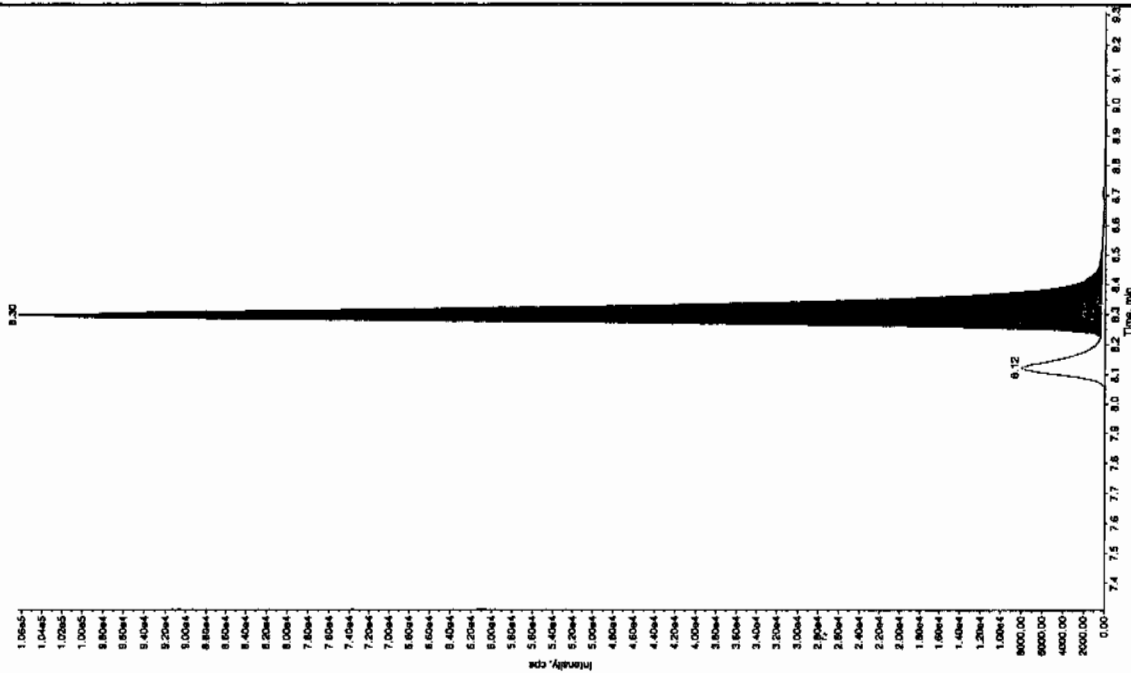
Sample Name: "WXX100331-27CPR" Sample ID: "HJLER" File: "EXS0310026.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.0/166.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

File Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 3/31/2010 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 3:13:21 PM  
 Modified: No  
 Proc Algorithm: IntelliQuan - IQA  
 Peak Height: 2000.00 cps  
 Win. Peak Width: 6.00 sec  
 Smoothing Width: 30.0 points  
 Window: 15.0 sec  
 Expected RT: 8.14 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.12 min  
 Area: 6.59e+005 counts  
 Height: 15902.293 cps  
 Start Time: 7.97 min  
 End Time: 8.26 min



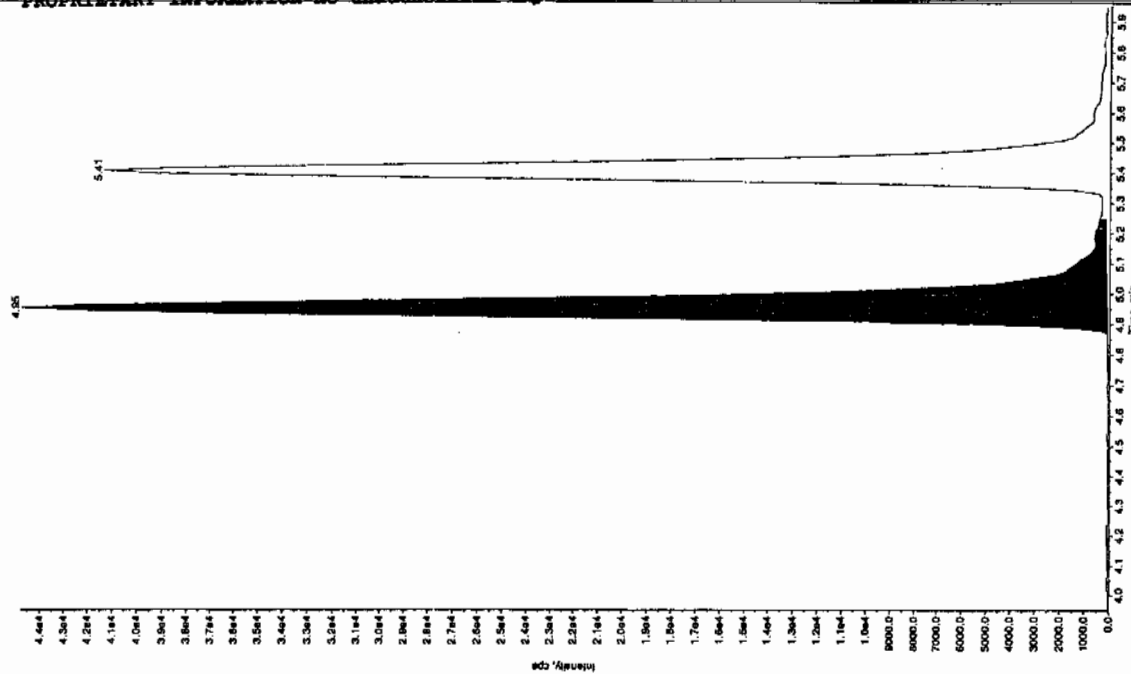
Sample Name: 'WXX10031-27C91' Sample ID: 'H1LER' File: 'EXS0310026.wif'  
Peak Name: '34-Dinitrofluorene' Mass(es): '162.1751.9 amu'  
Comment: 'LCMSEXP\_C' Annotation: ''

Sample Index: 1  
Sample Type: QC  
Concentration: 50.0 ng/mL  
Calculated Conc: 49.5 ng/mL  
Acq. Date: 3/31/2010  
Acq. Time: 3:13:21 PM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 1450.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 15.0 sec  
Expected RT: 8.31 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 8.30 min  
Peak Height: 3.99e+005 counts  
Height: 104955.788 cps  
Start Time: 8.23 min  
End Time: 8.62 min



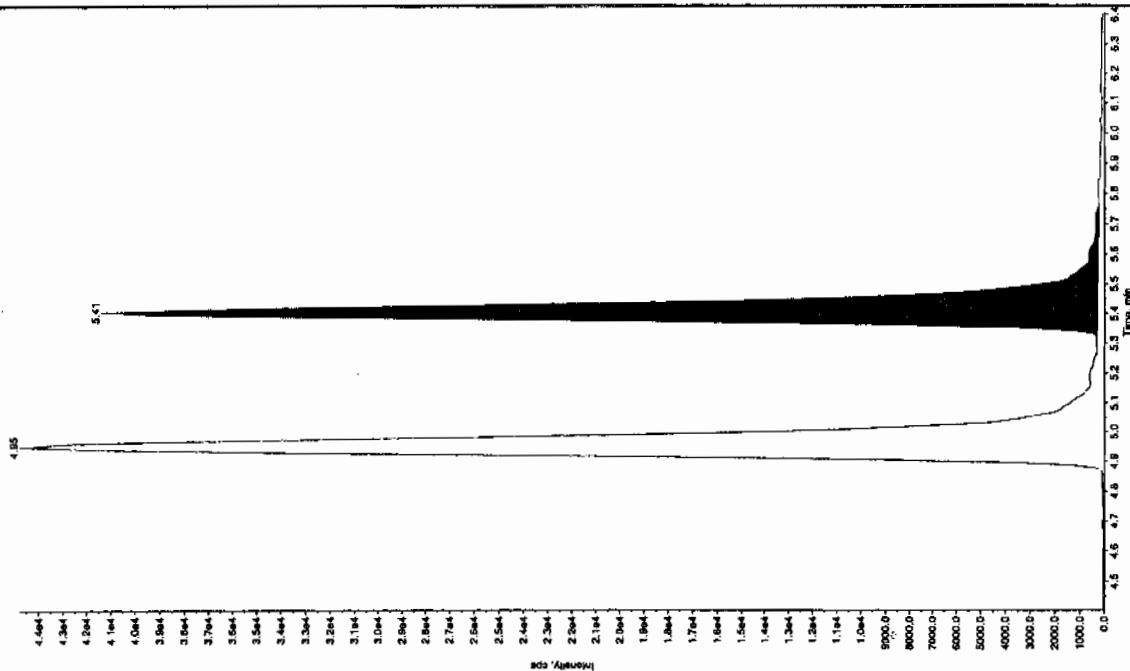
Sample Name: 'WXX10031-27C91' Sample ID: 'H1LER' File: 'EXS0310026.wif'  
Peak Name: '28-Diamino-4-nitrofluorene' Mass(es): '166.045.0 amu'  
Comment: 'LCMSEXP\_C' Annotation: ''

Sample Index: 1  
Sample Type: QC  
Concentration: 100.0 ng/mL  
Calculated Conc: 92.1 ng/mL  
Acq. Date: 3/31/2010  
Acq. Time: 3:13:21 PM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 450.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 4.95 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 4.95 min  
Peak Height: 2.09e+005 counts  
Height: 44660.808 cps  
Start Time: 4.76 min  
End Time: 5.25 min



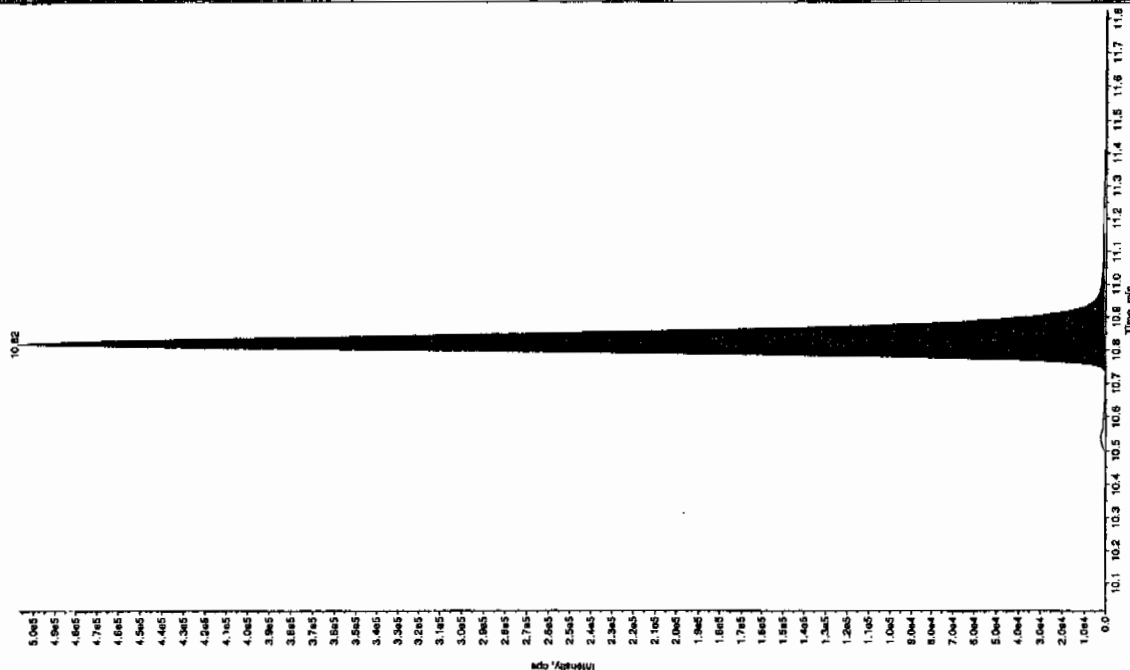
Sample Name: "WXX100331-27CR1" Sample ID: "11LER" File: "EXS03310026.wif"  
 Peak Name: "24-Diamino-6-nitrobenzene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: 100  
 Concentration: 100 ng/mL  
 Calculated Conc: 75.4 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 3:13:21 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 310.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 1.76 min  
 Acquisition Time: 4:07:00  
 Start Time: 5:32 min  
 End Time: 5:77 min



Sample Name: "WXX100331-27CR1" Sample ID: "11LER" File: "EXS03310026.wif"  
 Peak Name: "tris(2-cyanoethyl) phosphite" Mass(es): "368.199.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: 100  
 Concentration: 100 ng/mL  
 Calculated Conc: 97.6 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 3:13:21 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Acquisition Time: 2:05:40  
 Start Time: 10.7 min  
 End Time: 11.1 min



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310036.wiff

Analysis Date: 31-MAR-10 17:50

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	519	104	
2,6-Diamino-4-nitrotoluene	500	489	98	
3,4-Dinitrotoluene	250	227	91	
3,5-Dinitroaniline	500	496	99	
TATB	500	488	98	
tris(o-cresyl) phosphate	500	483	97	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

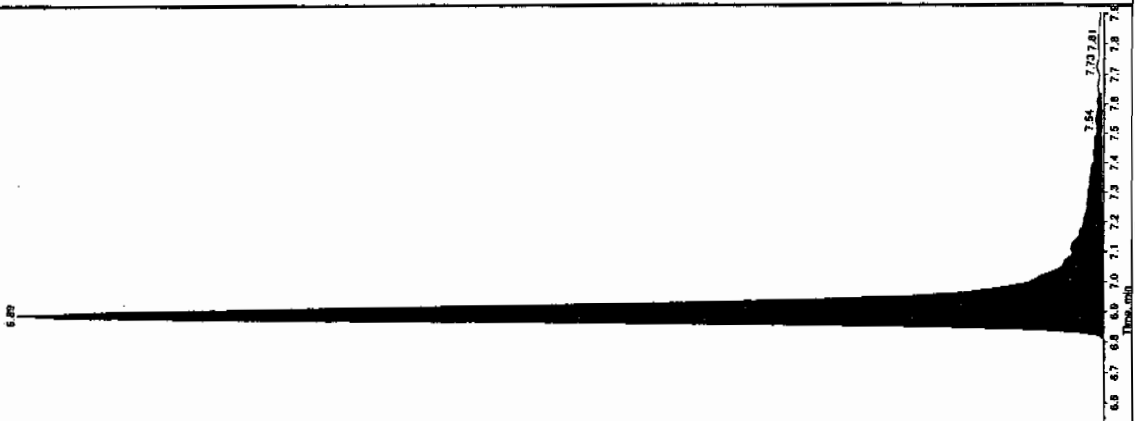
\* Value outside of Recovery Limits

SLU 415710

Sample Name: "WXX100331-260CV" Sample ID: "11LEF" File: "EX503310036.wif"

Peak Name: "TATB" Mass(es): "257.2/204.9 amu" Comment: "LCMSEXP\_C" Annotation: ""

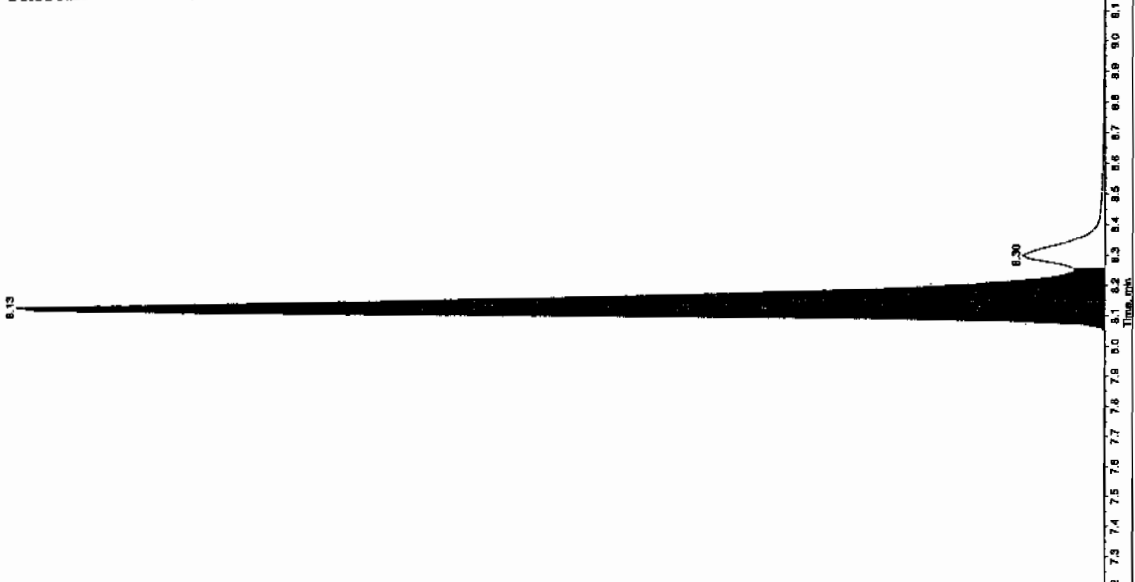
Sample Index: 1  
Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 488. ng/mL  
Acq. Date: 3/31/2010  
Acq. Time: 5:50:31 PM  
Modified: No  
Proc. Algorithm: IntelliQuan - TOA  
Min. Peak Height: 2500.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
Window: 30.0 sec  
Expected RT: 6.90 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 6.89 min  
Area: 3.61e+005 counts  
Height: 74238.579 cps  
Start Time: 6.79 min  
End Time: 7.04 min



Sample Name: "WXX100331-260CV" Sample ID: "11LEF" File: "EX503310036.wif"

Peak Name: "35-Dinitroaniline" Mass(es): "182.0/166.0 amu" Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 496. ng/mL  
Acq. Date: 3/31/2010  
Acq. Time: 5:50:31 PM  
Modified: No  
Proc. Algorithm: IntelliQuan - TOA  
Min. Peak Height: 2000.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
Window: 15.0 sec  
Expected RT: 8.14 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 8.13 min  
Area: 3.15e+006 counts  
Height: 75840.663 cps  
Start Time: 8.02 min  
End Time: 8.26 min



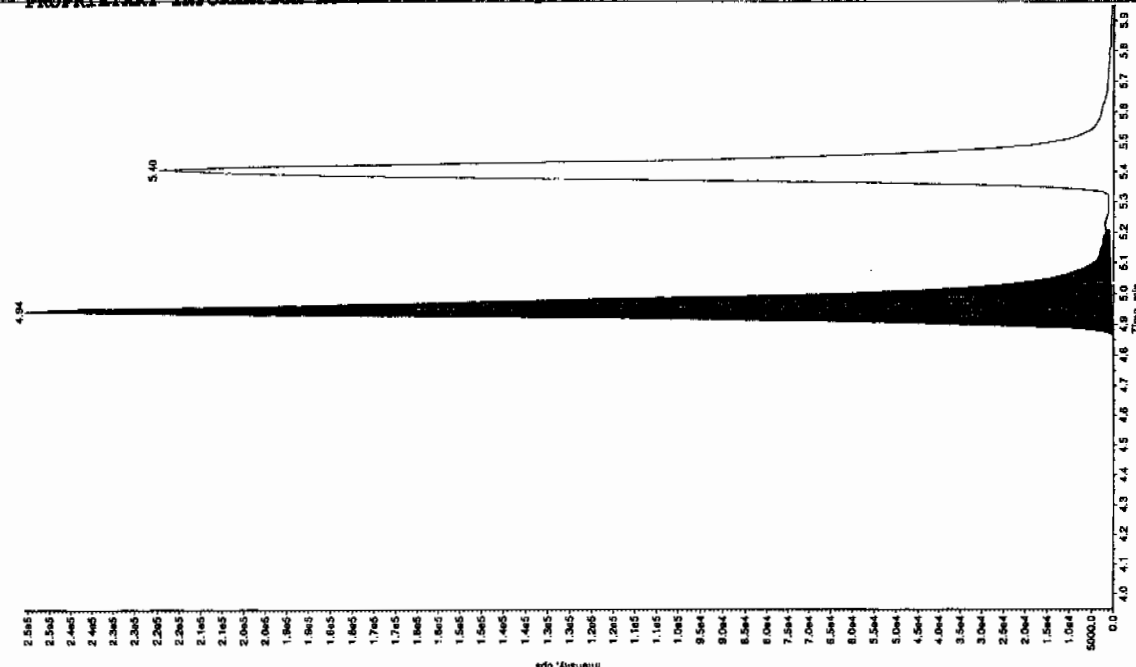
Ann-04/05/10

Sample Name: "WXX100331-26CCV" Sample ID: "HILER" File: "EXS03310036.wif"

Peak Name: "34-Dinitrofluorene" Mass(es): "165.046.0 amu"

Comment: "LCMSXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: OC  
 Concentration: 500 ng/mL  
 Calculated Conc: 489 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 5:50:31 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.94 min  
 Area: 1,066,006 counts  
 Height: 250535.065 cps  
 Start Time: 4.95 min  
 End Time: 5.21 min

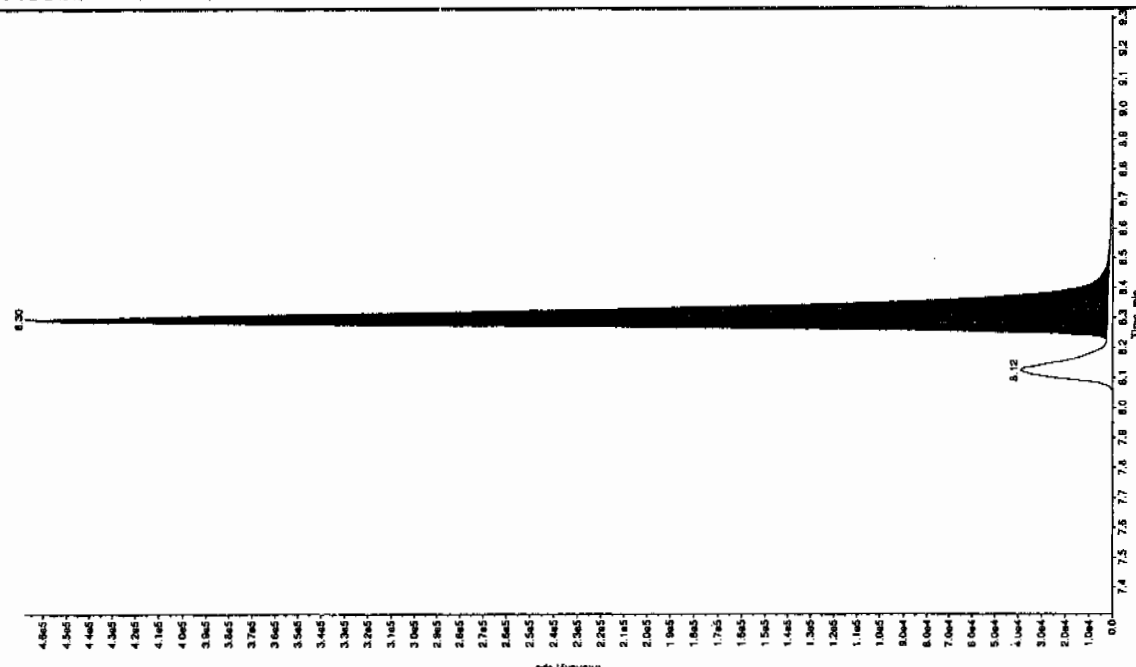


Sample Name: "WXX100331-26CCV" Sample ID: "HILER" File: "EXS03310036.wif"

Peak Name: "34-Dinitrofluorene" Mass(es): "162.1151.9 amu"

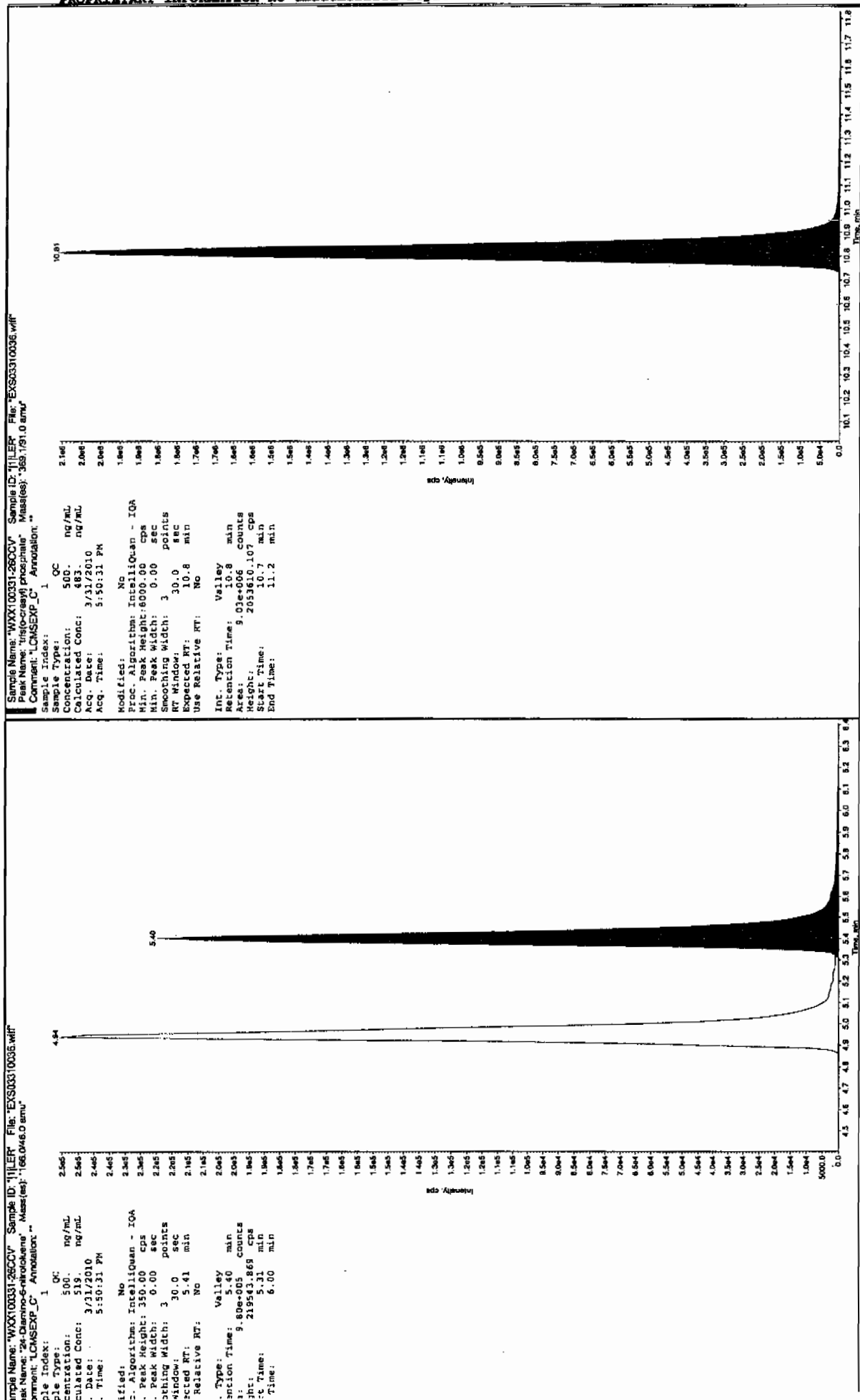
Comment: "LCMSXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: OC  
 Concentration: 250 ng/mL  
 Calculated Conc: 227 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 5:50:31 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.31 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.23 min  
 Area: 1,856,006 counts  
 Height: 465641.815 cps  
 Start Time: 8.23 min  
 End Time: 8.59 min



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310038.wiff

Analysis Date: 31-MAR-10 18:21

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	82.4	82	
2,6-Diamino-4-nitrotoluene	100	100	100	
3,4-Dinitrotoluene	50	46.8	94	
3,5-Dinitroaniline	100	100	100	
TATB	100	97.2	97	
tris(o-cresyl) phosphate	100	99.6	100	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

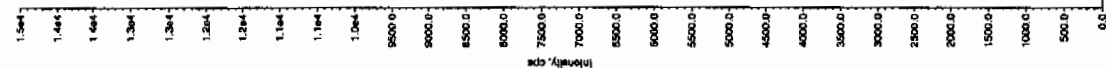
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

San 415110

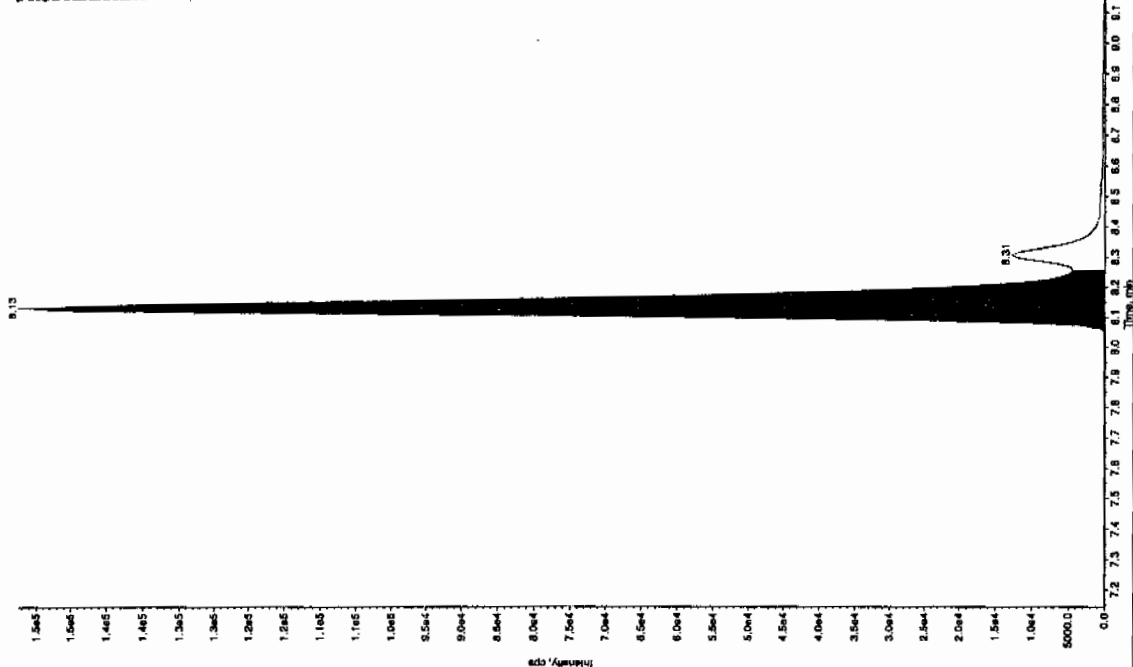
Sample Name: "WXX100331-27CR" Sample ID: "111EP" File: "EXS03310038.wif"  
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"  
Comment: "LONSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: 100  
Concentration: 100.00 ng/mL  
Calculated Conc: 100.00 ng/mL  
Acq. Date: 3/31/2010  
Acq. Time: 6:21:56 PM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 2500.00 cps  
Min. Peak Width: 0.00 sec  
Smoother Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 6.90 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 6.89 min  
Area: 6.68e+004 counts  
Height: 14508.543 cps  
Start Time: 6.79 min  
End Time: 7.39 min



Sample Name: "WXX100331-27CR" Sample ID: "111EP" File: "EXS03310038.wif"  
Peak Name: "3S-Deuterioamine" Mass(es): "182.046.0 amu"  
Comment: "LONSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: 100  
Concentration: 100.00 ng/mL  
Calculated Conc: 100.00 ng/mL  
Acq. Date: 3/31/2010  
Acq. Time: 6:21:56 PM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 2000.00 cps  
Min. Peak Width: 0.00 sec  
Smoother Width: 3 points  
RT Window: 15.0 sec  
Expected RT: 8.14 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 8.13 min  
Area: 6.35e+005 counts  
Height: 152399.053 cps  
Start Time: 7.99 min  
End Time: 8.26 min



Ann. 04/05/12

Sample Name: "WXX100331-27C1" Sample ID: "1111ER" File: "EXS0310038.wif"

Peak Name: "26-Diamino-4-nitrocouene" Mass(es): "166.046.0 amu"

Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: OC

Concentration: 100. ng/mL

Calculated Conc: 3/31/2010

Acq. Date: 6:21:56 PM

Acq. Time: 6:21:56 PM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 450.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 4.95 min

Use Relative RT: No

Int. Type: Valley

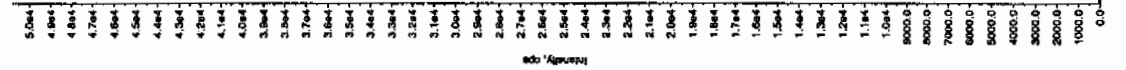
Retention Time: 4.95 min

Area: 2.26e005 counts

Height: 50891.868 cps

Start Time: 4.86 min

End Time: 5.23 min



Sample Name: "WXX100331-27C1" Sample ID: "1111ER" File: "EXS0310038.wif"

Peak Name: "34-Dinitrocouene" Mass(es): "182.1151.9 amu"

Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: OC

Concentration: 50.0 ng/mL

Calculated Conc: 3/31/2010

Acq. Date: 8:21:58 PM

Acq. Time: 8:21:58 PM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 1460.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.31 min

Use Relative RT: No

Int. Type: Valley

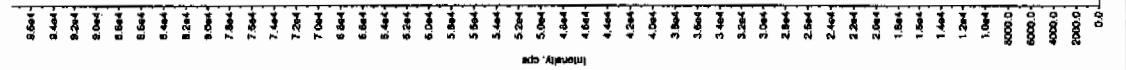
Retention Time: 8.30 min

Area: 3.76e005 counts

Height: 9775.399 cps

Start Time: 8.23 min

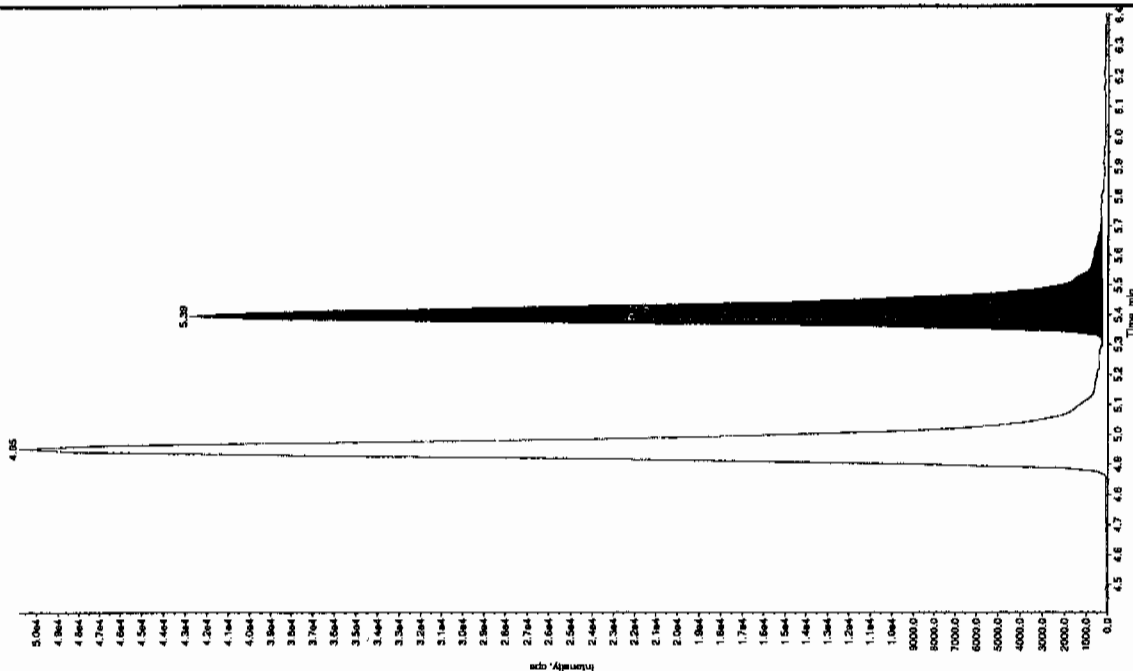
End Time: 8.63 min



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

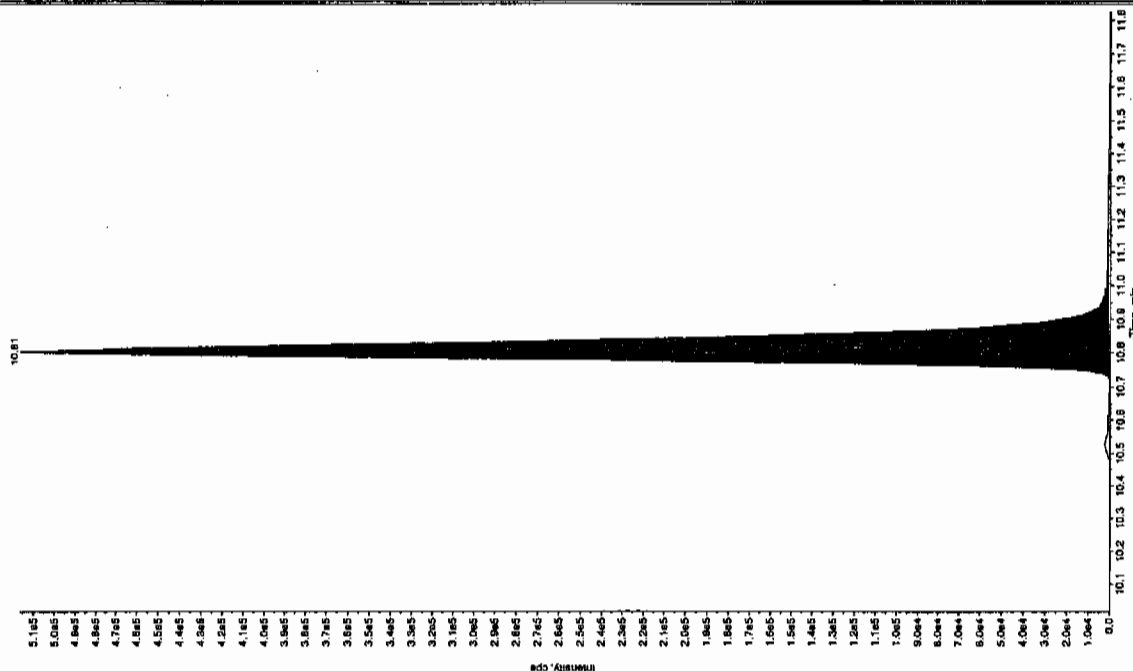
Sample Name: "WXX100331-27CR" Sample ID: "J1LER" File: "EXS03310038.wif"  
 Peak Name: "24-Diamino-5-nitrothiophene" Mass(es): "166.045.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100 ng/mL  
 Calculated Conc: 87.4 ng/mL  
 Date: 3/31/2010  
 Time: 6:21:56 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.39 min  
 Area: 1.88e+005 counts  
 Weight: 42358.008 cps  
 Start Time: 5.31 min  
 End Time: 5.74 min



Sample Name: "WXX100331-27CR" Sample ID: "J1LER" File: "EXS03310038.wif"  
 Peak Name: "tri-(o-cresyl) phosphate" Mass(es): "369.191.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100 ng/mL  
 Calculated Conc: 89.4 ng/mL  
 Date: 3/31/2010  
 Time: 6:21:56 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 2.09e+006 counts  
 Weight: 315490.853 cps  
 Start Time: 10.7 min  
 End Time: 11.1 min



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310048.wiff

Analysis Date: 31-MAR-10 20:59

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	535	107	
2,6-Diamino-4-nitrotoluene	500	524	105	
3,4-Dinitrotoluene	250	243	97	
3,5-Dinitroaniline	500	487	97	
TATB	500	483	97	
tris(o-cresyl) phosphate	500	498	100	

Recovery Limits:

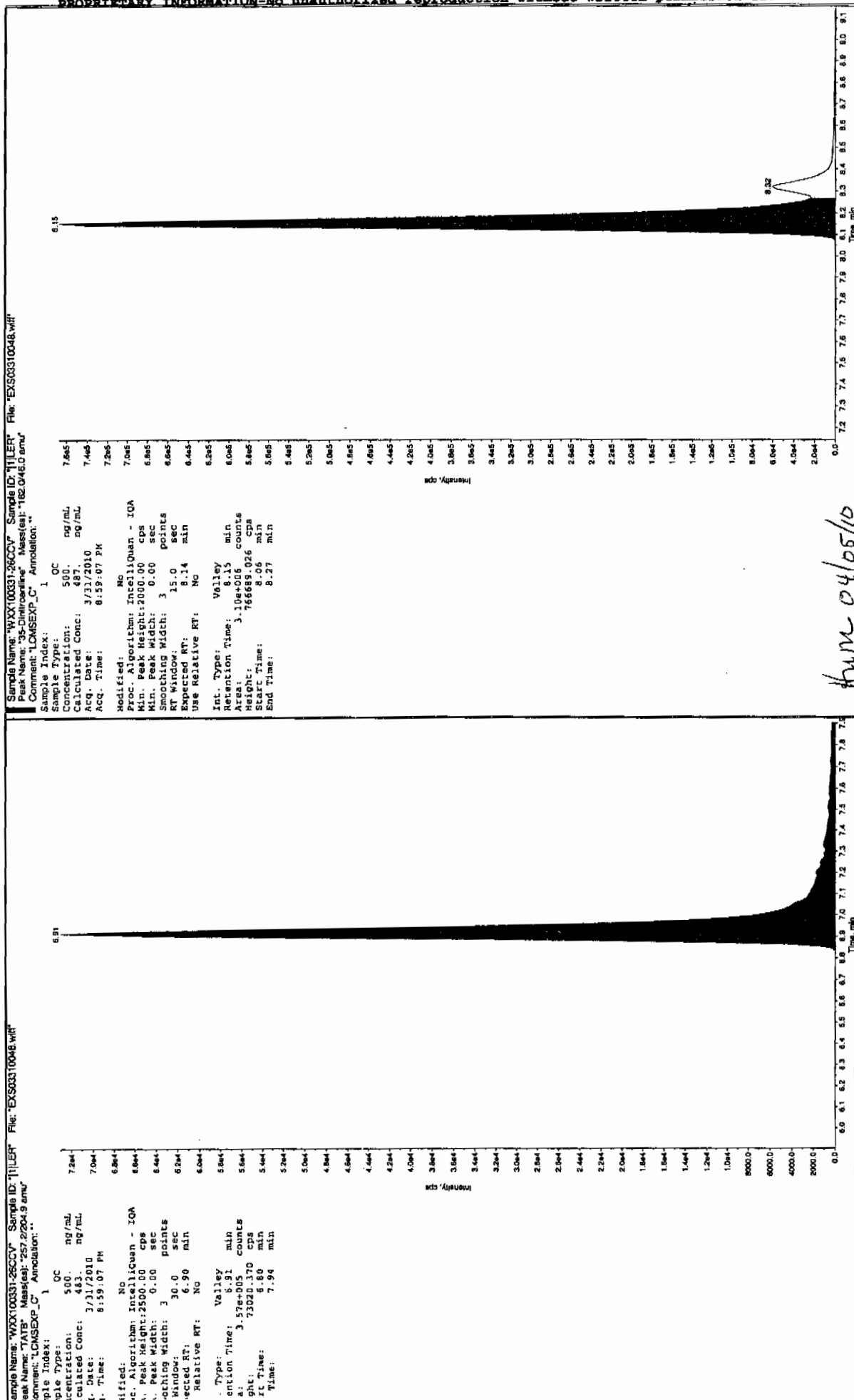
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

San 4/5/10



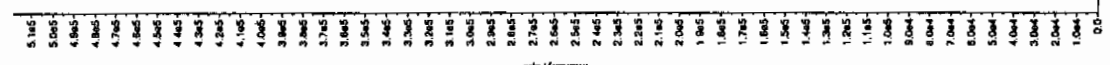
turn 04/05/10

Sample Name: "WXX100331-26CCV" Sample ID: "J1LER" File: "EX503310048.wif"  
Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"  
Comment: "LCMSDEP\_C" Annotation: ""

Sample Index: 1  
Sample Type: QC  
Concentration: 330. ng/mL  
Calculated Conc: 243. ng/mL  
1. Date: 3/31/2010  
1. Time: 8:59:07 PM

Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
1. Peak Height: 1460.00 cps  
1. Peak Width: 0.00 sec  
1. Peak Width: 3 points  
1. Window: 15.0 sec  
1. Expected RT: 8.31 min  
1. Use Relative RT: No

Int. Type: Valley  
Retention Time: 8.31 min  
Area: 1.98e+006 counts  
Height: 518746.094 cps  
Start Time: 8.24 min  
End Time: 8.64 min

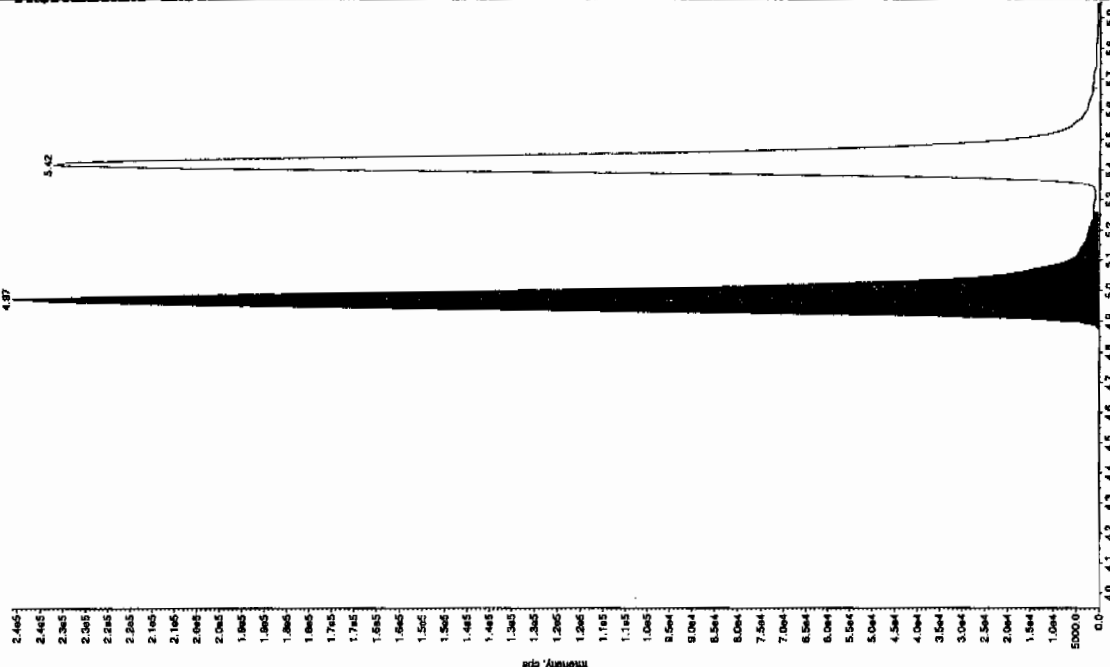


Sample Name: "WXX100331-26CCV" Sample ID: "J1LER" File: "EX503310048.wif"  
Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "166.0/46.0 amu"  
Comment: "LCMSDEP\_C" Annotation: ""

Sample Index: 1  
Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 524. ng/mL  
1. Date: 3/31/2010  
1. Time: 8:59:07 PM

Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
1. Peak Height: 450.00 cps  
1. Peak Width: 0.00 sec  
1. Peak Width: 3 points  
1. Window: 30.0 sec  
1. Expected RT: 4.95 min  
1. Use Relative RT: No

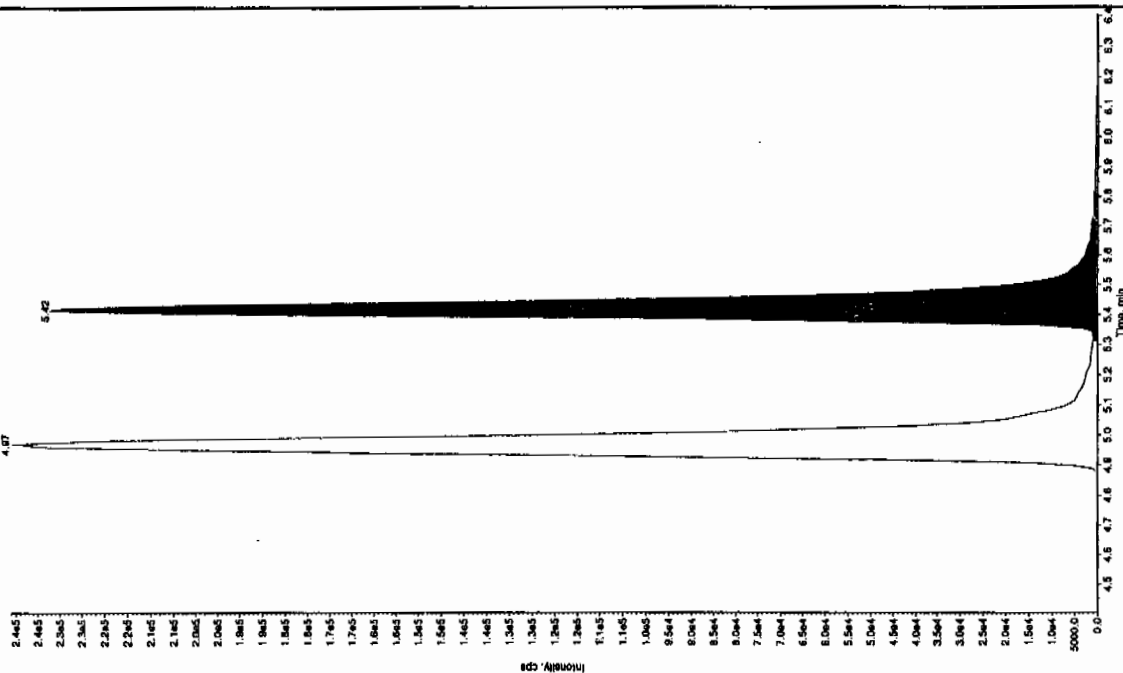
Int. Type: Valley  
Retention Time: 4.97 min  
Area: 1.14e+006 counts  
Height: 240951.859 cps  
Start Time: 4.86 min  
End Time: 5.26 min





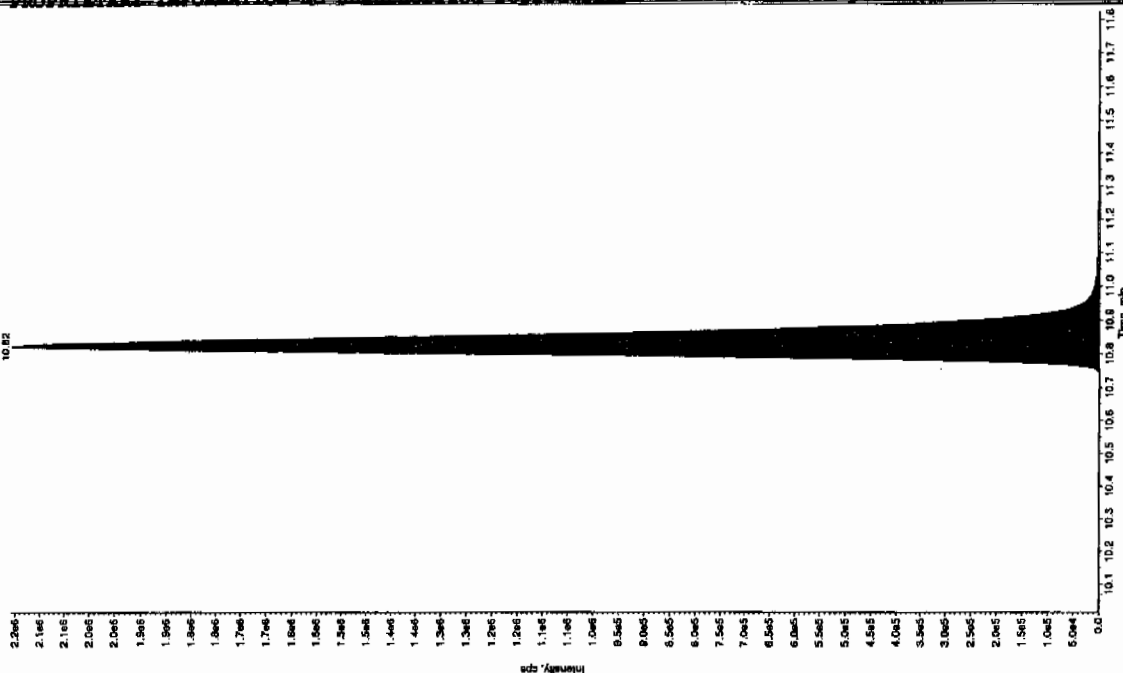
Sample Name: "WXX100331-260CV" Sample ID: "H1LER" File: "EXS03310048.wif"  
 Peak Name: "24-Diamino-6-nitrochlorine" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500 ng/mL  
 Calculated Conc: 3/31/2010  
 Acq. Date: 8/15/07 PM  
 Acq. Time: 8:55:07 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.42 min  
 Area: 1.01e+006 counts  
 Height: 231794.10 cps  
 Start Time: 5.31 min  
 End Time: 5.55 min



Sample Name: "WXX100331-260CV" Sample ID: "H1LER" File: "EXS03310048.wif"  
 Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500 ng/mL  
 Calculated Conc: 419 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 8:59:07 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 9.28e+006 counts  
 Height: 215069.185 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310050.wiff

Analysis Date: 31-MAR-10 21:30

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	88.6	89	
2,6-Diamino-4-nitrotoluene	100	103	103	
3,4-Dinitrotoluene	50	48.4	97	
3,5-Dinitroaniline	100	106	106	
TATB	100	98.5	99	
tris(o-cresyl) phosphate	100	101	101	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

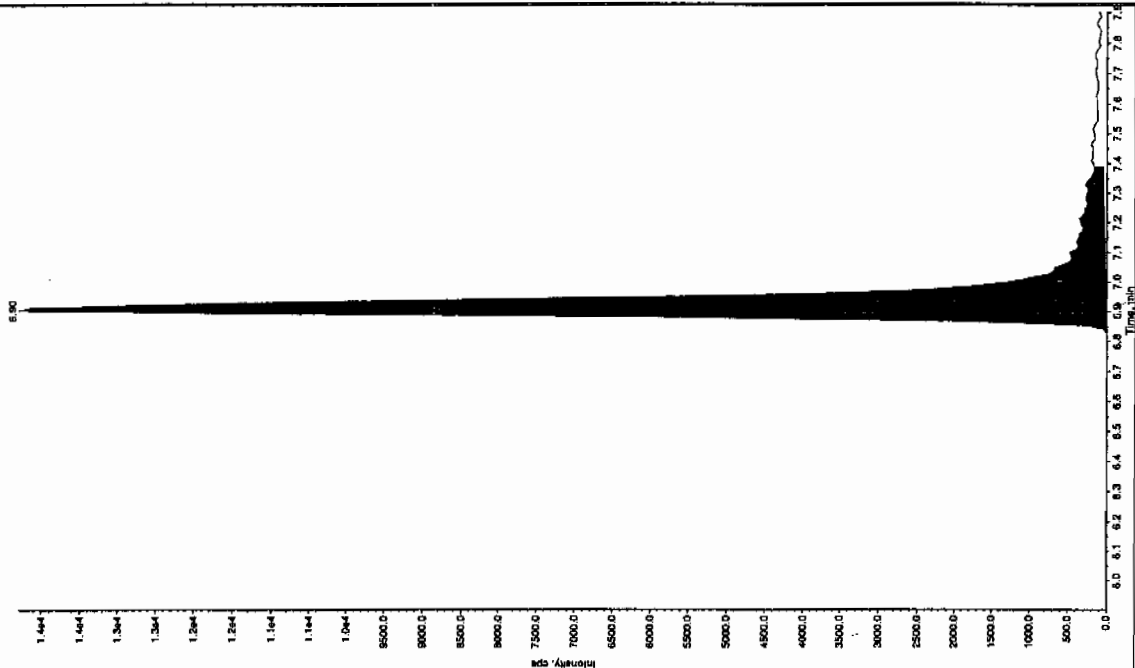
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

dan 4/5/10

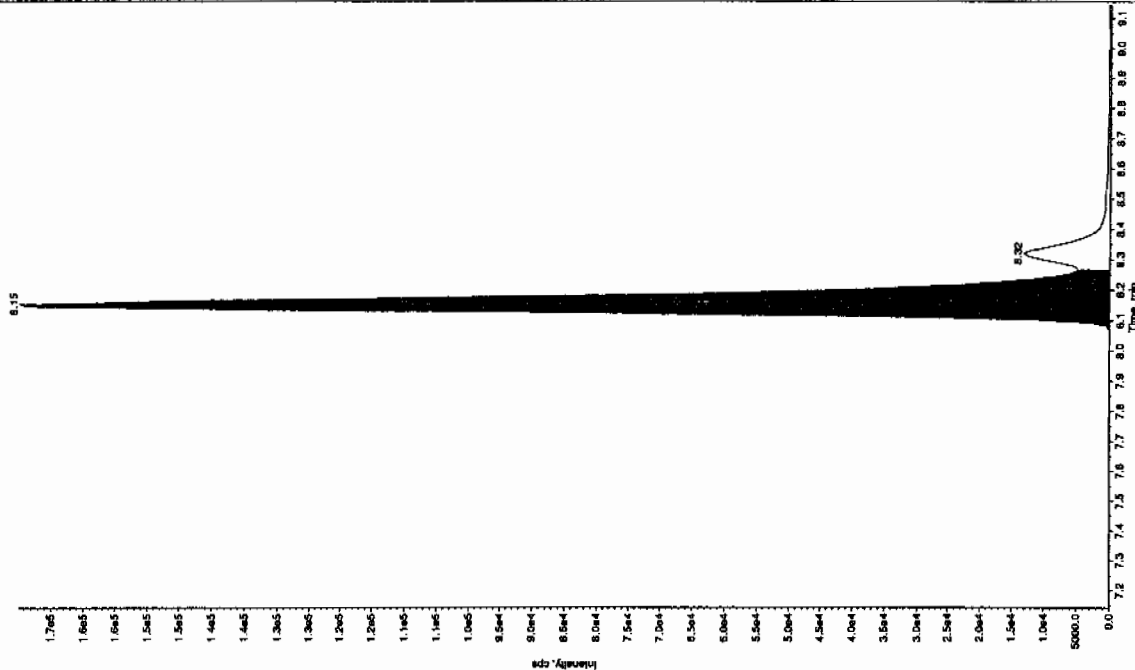
Sample Name: "WXX100331-27CR" Sample ID: "11LER" File: "EXS03310050.wif"  
 Peak Name: "TA1B" Mass(es): "257.2/204.9 amu"  
 Comment: "LCMSXP\_C" Annotation: "

Sample Index: 1 OC  
 Sample Type: 100 ng/mL  
 Concentration: 106 ng/mL  
 Calculated Conc: 3/31/2010  
 Acq. Date: 9:30:32 PM  
 Acq. Time: 9:30:32 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 6.90 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 6.90 min  
 Area: 6.77e+005 counts  
 Height: 14211.82 cps  
 Start Time: 6.80 min  
 End Time: 7.19 min



Sample Name: "WXX100331-27CR" Sample ID: "11LER" File: "EXS03310050.wif"  
 Peak Name: "3S-Dihydroamine" Mass(es): "182.0/166.0 amu"  
 Comment: "LCMSXP\_C" Annotation: "

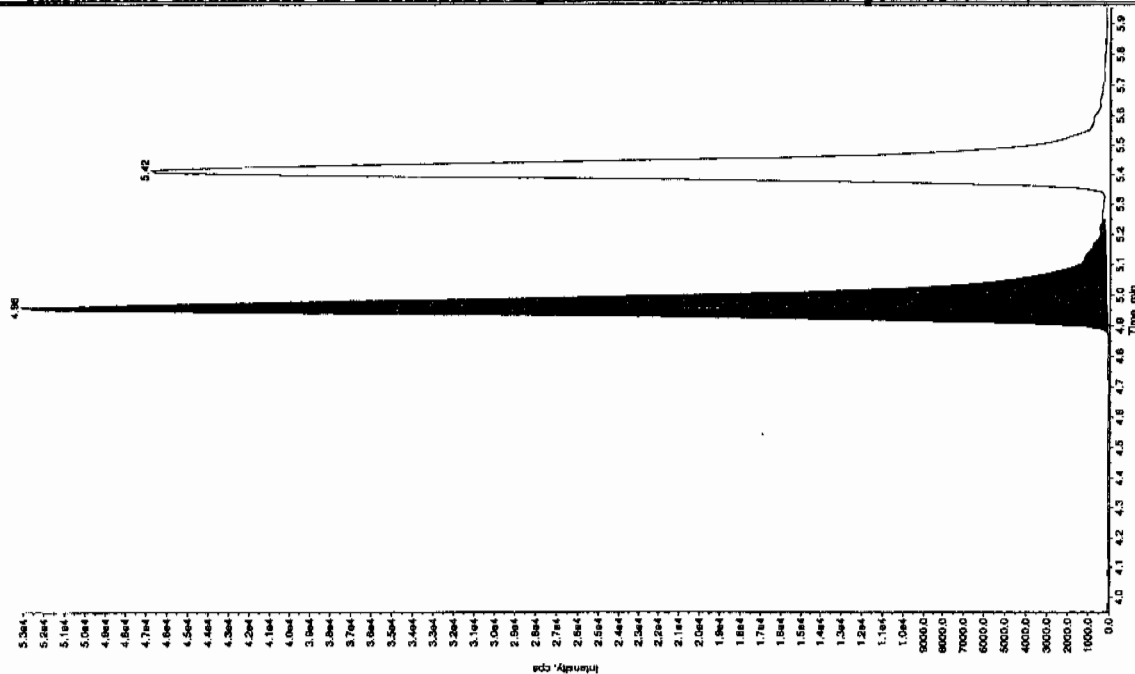
Sample Index: 1 OC  
 Sample Type: 100 ng/mL  
 Concentration: 106 ng/mL  
 Calculated Conc: 3/31/2010  
 Acq. Date: 9:30:32 PM  
 Acq. Time: 9:30:32 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 2000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.14 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.14 min  
 Area: 6.78e+005 counts  
 Height: 16969.951 cps  
 Start Time: 8.05 min  
 End Time: 8.27 min



time 0 4/5/10

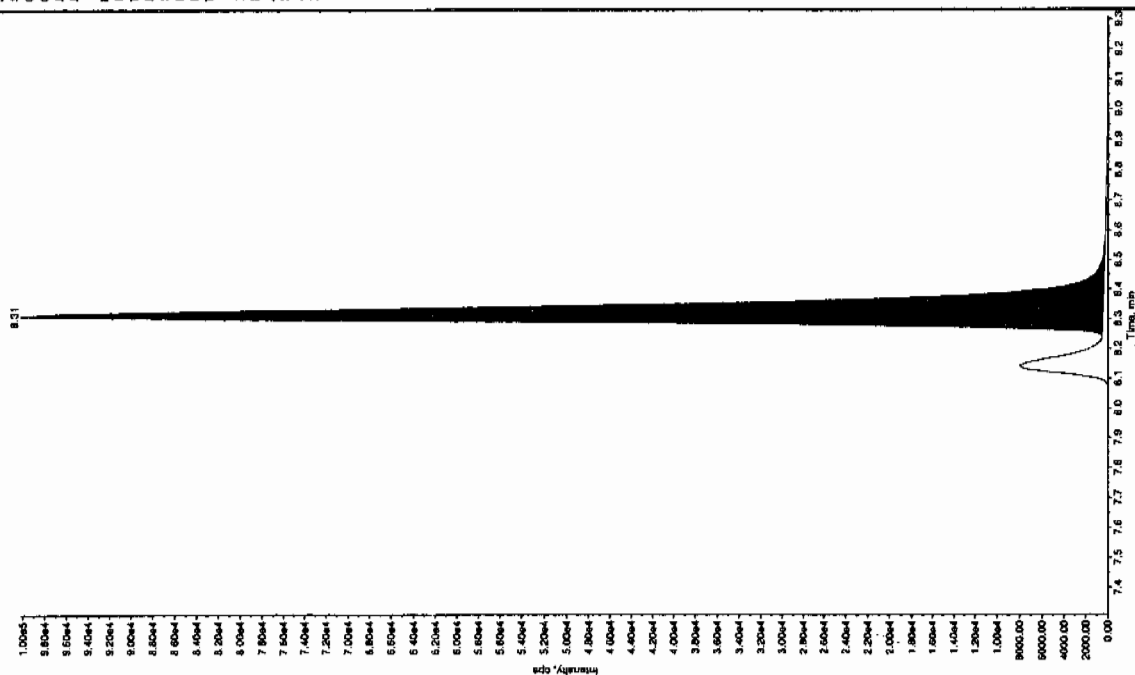
Sample Name: "WXX10031-27CPI" Sample ID: "11LEP" File: "EXS0310050.wif"  
 Peak Name: "34-Chlorobutene" Mass(es): "162.1/151.9 amu"  
 Comment: "LONSEXP\_C" Amendment: "

Sample Index: 1  
 Sample Type: 103 OC  
 Concentration: 103 ng/mL  
 Calculated Conc: 103 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 9:30:32 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.96 min  
 Area: 2.33e+003 counts  
 Height: 53019.333 cps  
 Start Time: 4.86 min  
 End Time: 5.25 min



Sample Name: "WXX10031-27CPI" Sample ID: "11LEP" File: "EXS0310050.wif"  
 Peak Name: "34-Chlorobutene" Mass(es): "162.1/151.9 amu"  
 Comment: "LONSEXP\_C" Amendment: "

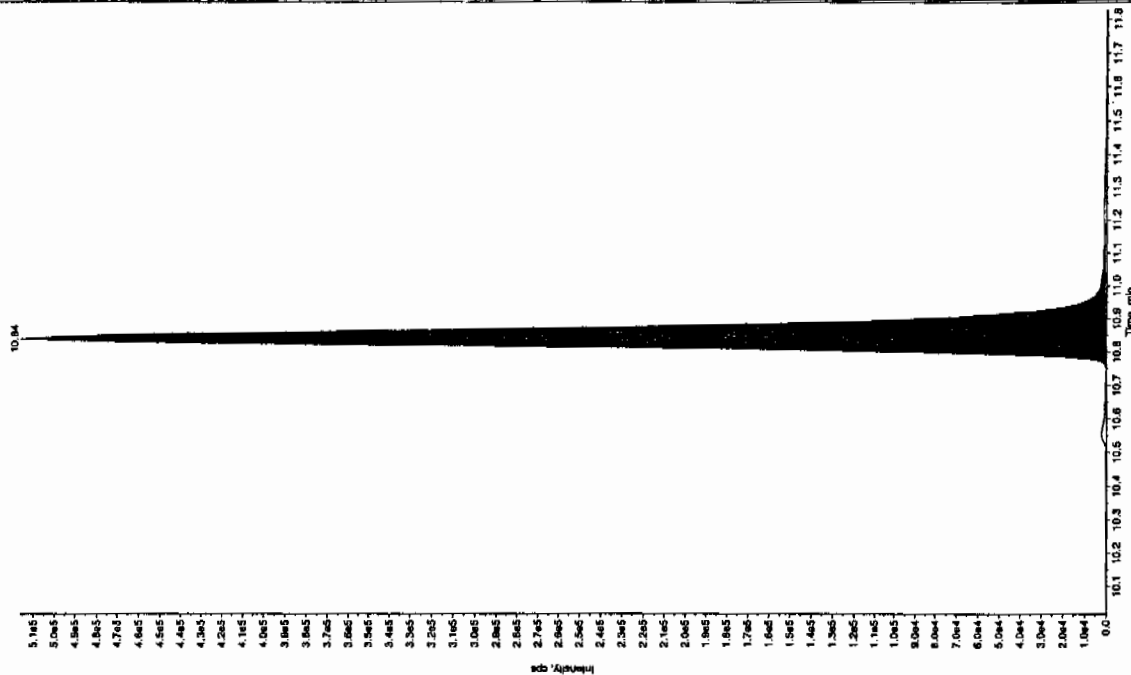
Sample Index: 1  
 Sample Type: 50 OC  
 Concentration: 48.4 ng/mL  
 Calculated Conc: 48.4 ng/mL  
 Acq. Date: 3/31/2010  
 Acq. Time: 9:30:32 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.31 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.31 min  
 Area: 3.89e+003 counts  
 Height: 99728.297 cps  
 Start Time: 8.24 min  
 End Time: 8.59 min



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

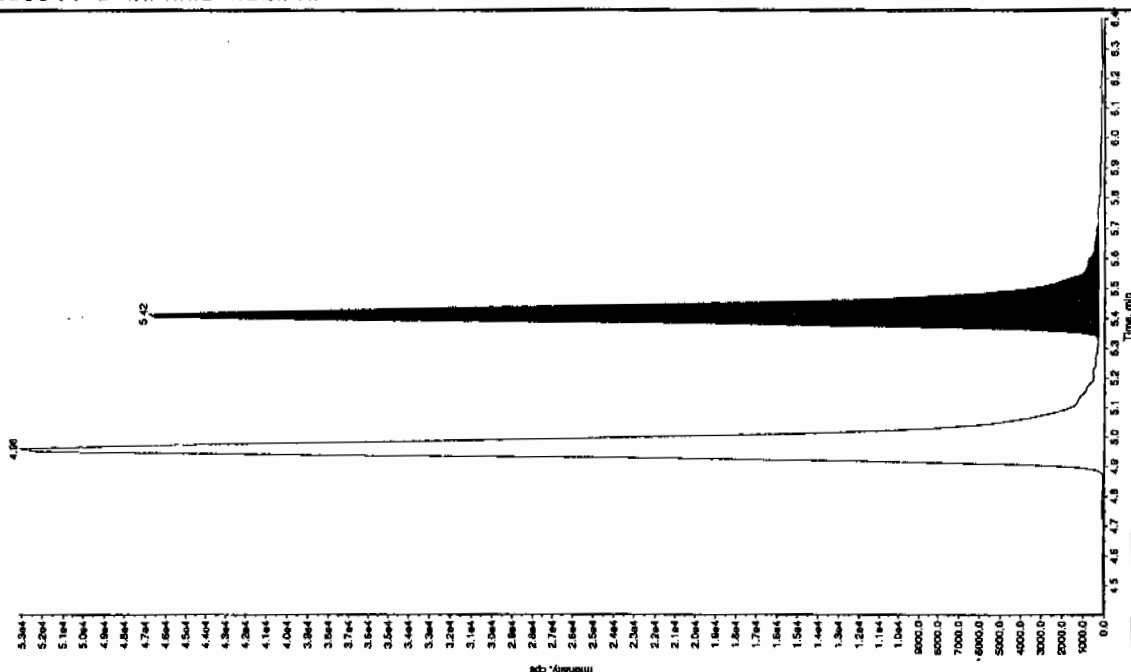
Sample Name: "WXX100331-270R" Sample ID: "J1LER" File: "EXS03310030.wif"  
 Peak Name: "24-Dienop-6-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100 ng/mL  
 Date: 3/31/2010  
 Acq. Date: 9:30:32 PM  
 Acq. Time: 9:30:32 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 2,118,006 counts  
 Height: 515,767.212 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



Sample Name: "WXX100331-270R" Sample ID: "J1LER" File: "EXS03310030.wif"  
 Peak Name: "24-Dienop-6-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100 ng/mL  
 Date: 3/31/2010  
 Acq. Date: 9:30:32 PM  
 Acq. Time: 9:30:32 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.42 min  
 Area: 2,005,005 counts  
 Height: 465,210.76 cps  
 Start Time: 5.32 min  
 End Time: 5.73 min



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310061.wiff

Analysis Date: 01-APR-10 00:23

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	466	93	
2,6-Diamino-4-nitrotoluene	500	570	114	
3,4-Dinitrotoluene	250	239	96	
3,5-Dinitroaniline	500	502	100	
TATB	500	505	101	
tris(o-cresyl) phosphate	500	497	99	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

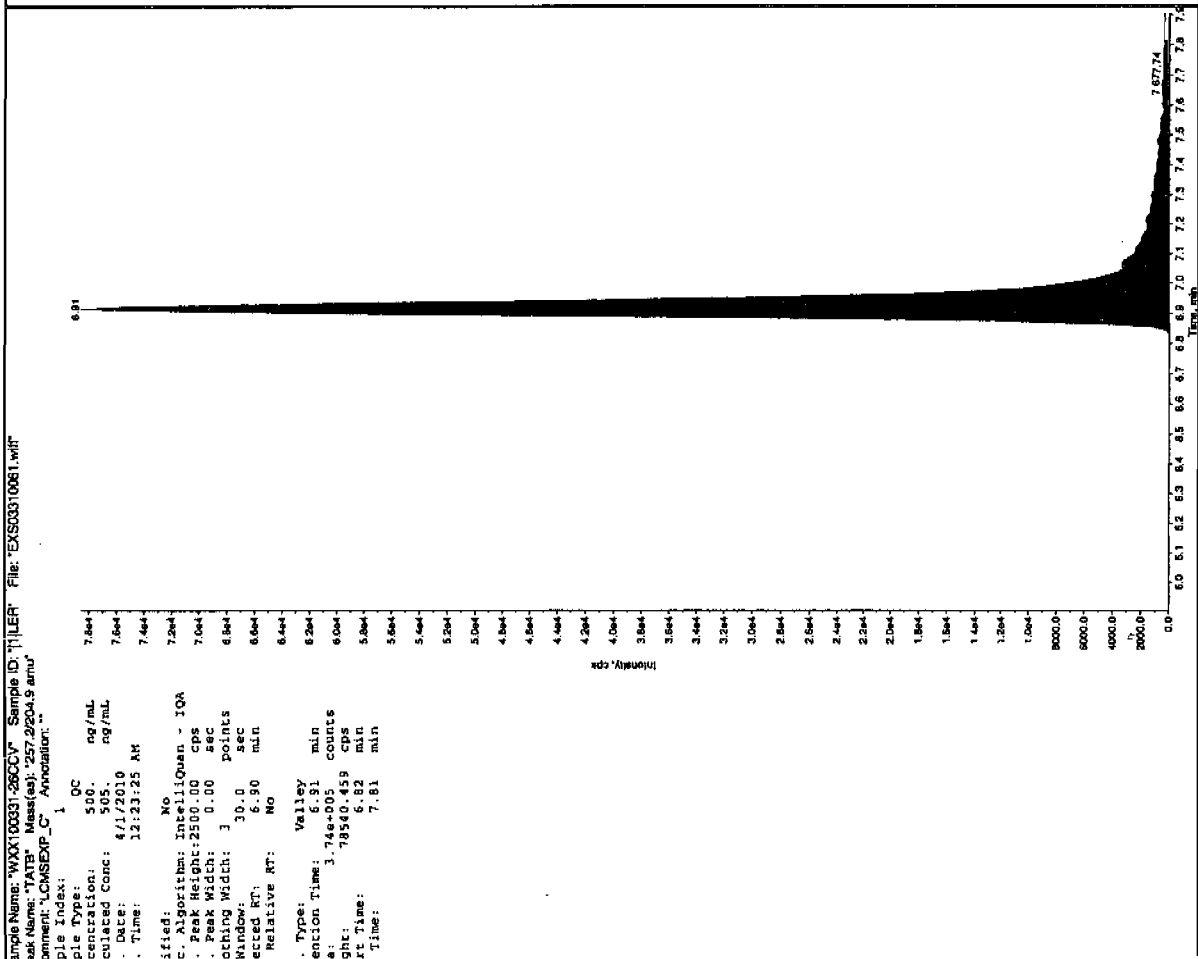
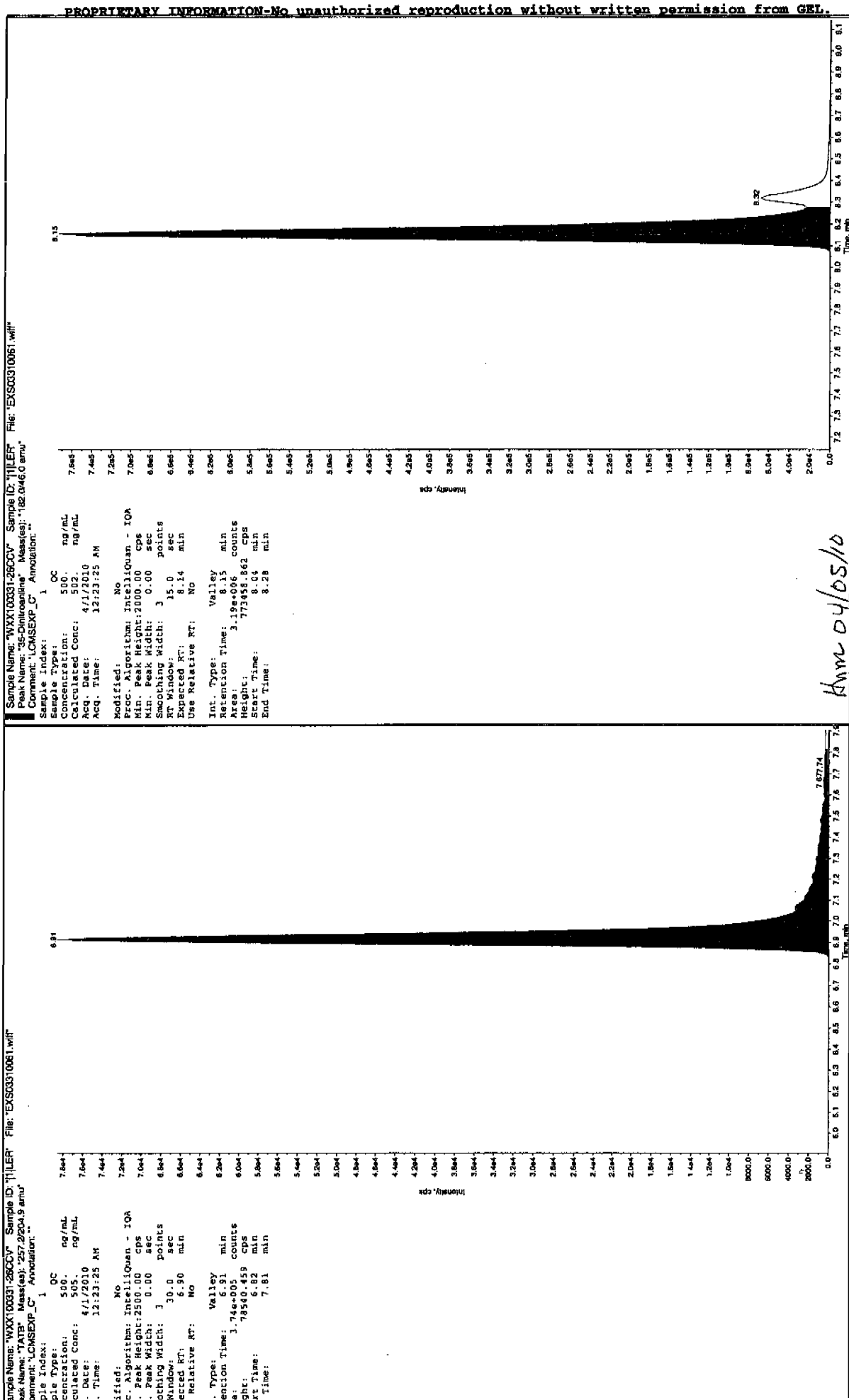
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Run 415710



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX10031-260CV" Sample ID: "11LER" File: "EXS0310061.wif"

Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"

Comment: "LCMSEXP\_C" Annotation: ""

File Index: 1

Sample Type: QC

Concentration: 250. ng/mL

Calculated Conc: 239. ng/mL

Acq. Date: 4/1/2010

Acq. Time: 12:23:25 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 1460.00 cps

Min. Peak Width: 3.00 sec

Smoothing Width: 15.0 points

RT Window: 8.31 min

Expected RT: No

Use Relative RT: No

Int. Type: Valley

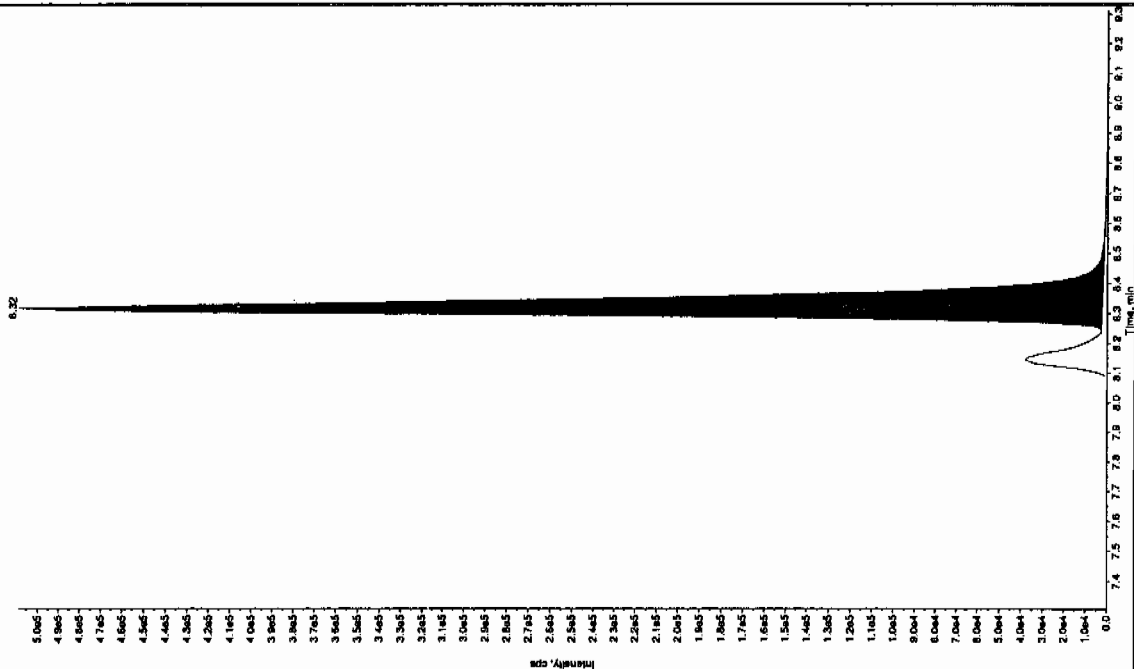
Retention Time: 8.32 min

Area: 1.94e+006 counts

Height: 506138.947 cps

Start Time: 8.25 min

End Time: 8.64 min



Sample Name: "WXX10031-260CV" Sample ID: "11LER" File: "EXS0310061.wif"

Peak Name: "36-Diamino-4-nitrotoluene" Mass(es): "165.0/166.0 amu"

Comment: "LCMSEXP\_C" Annotation: ""

File Index: 1

Sample Type: QC

Concentration: 500. ng/mL

Calculated Conc: 570. ng/mL

Acq. Date: 4/1/2010

Acq. Time: 12:23:25 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 450.00 cps

Min. Peak Width: 3.00 sec

Smoothing Width: 30.0 points

RT Window: 4.95 min

Expected RT: No

Use Relative RT: No

Int. Type: Valley

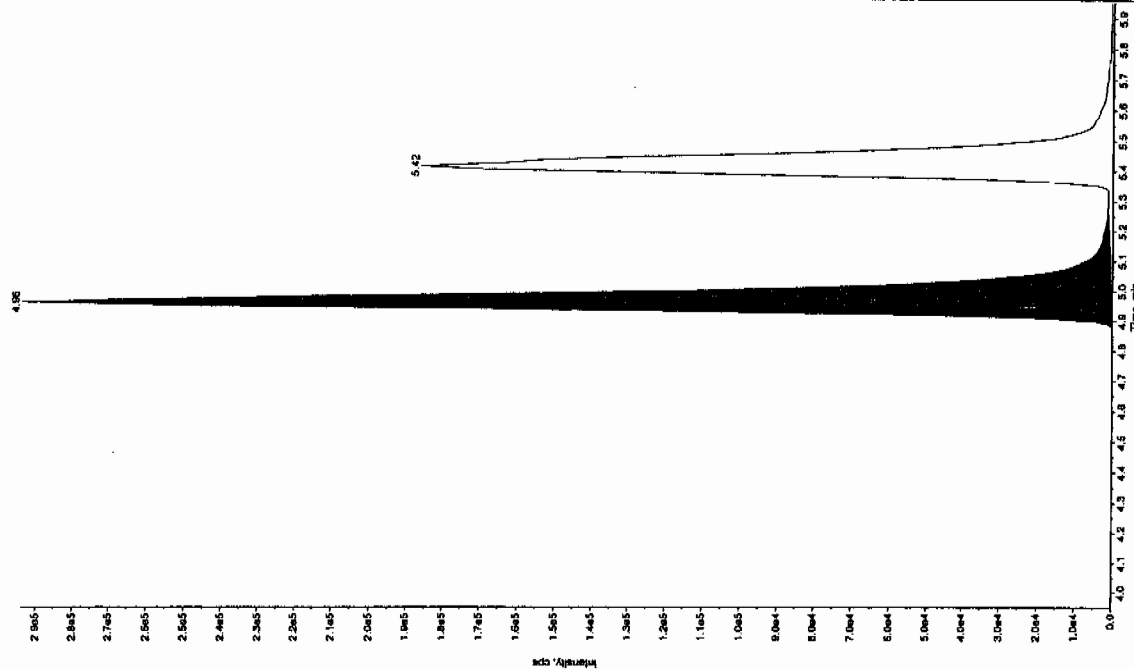
Retention Time: 4.96 min

Area: 1.24e+006 counts

Height: 293226.593 cps

Start Time: 4.87 min

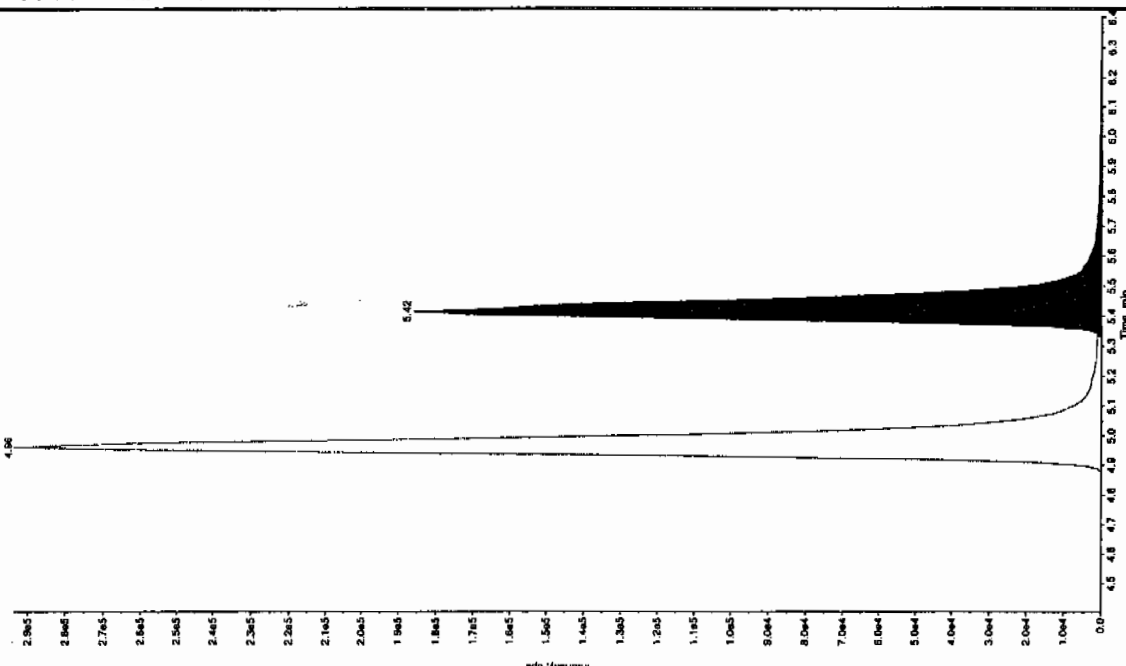
End Time: 5.26 min





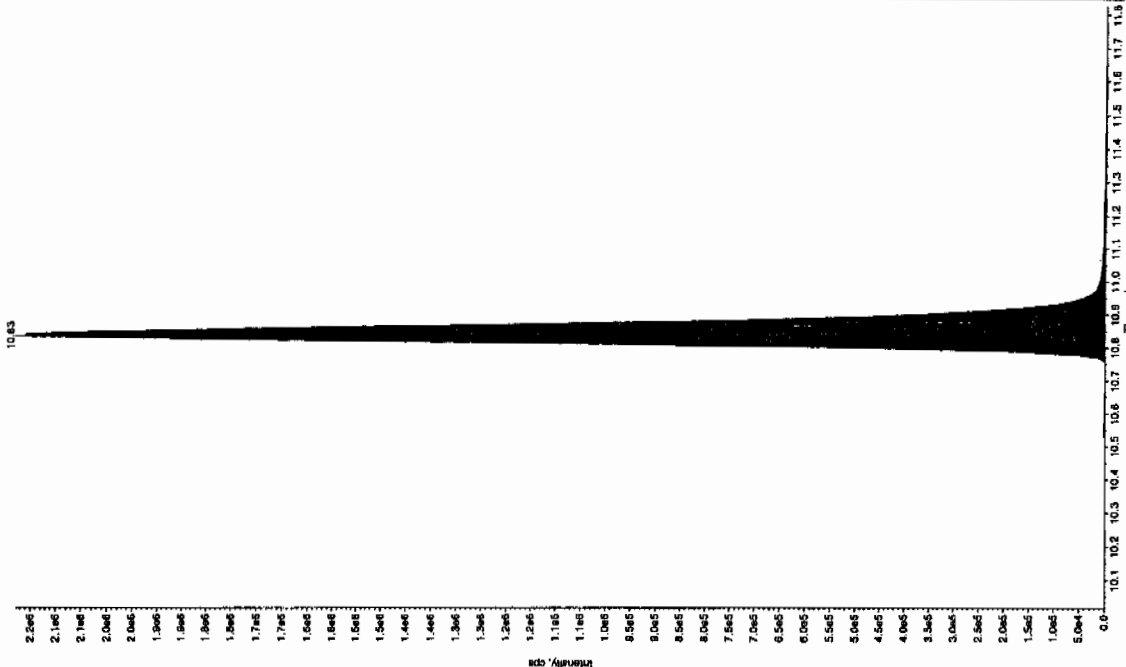
Sample Name: "WXX100331-26CCV" Sample ID: "H1LER" File: "EXS03310061.wit"  
 Peak Name: "24-Diamino-6-nitroindane" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 497. ng/mL  
 Acq. Date: 4/17/2010  
 Acq. Time: 12:23:25 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.42 min  
 Area: 8.66e+005 counts  
 Height: 185816.040 cps  
 Start Time: 5.33 min  
 End Time: 6.01 min



Sample Name: "WXX100331-26CCV" Sample ID: "H1LER" File: "EXS03310061.wit"  
 Peak Name: "1,1,1-tris(4-chlorophenyl) phosphite" Mass(es): "369.191.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 497. ng/mL  
 Acq. Date: 4/17/2010  
 Acq. Time: 12:23:25 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 9.27e+006 counts  
 Height: 217820.801 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310063.wiff

Analysis Date: 01-APR-10 00:54

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	83.4	83	
2,6-Diamino-4-nitrotoluene	100	108	108	
3,4-Dinitrotoluene	50	49.1	98	
3,5-Dinitroaniline	100	104	104	
TATB	100	102	102	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

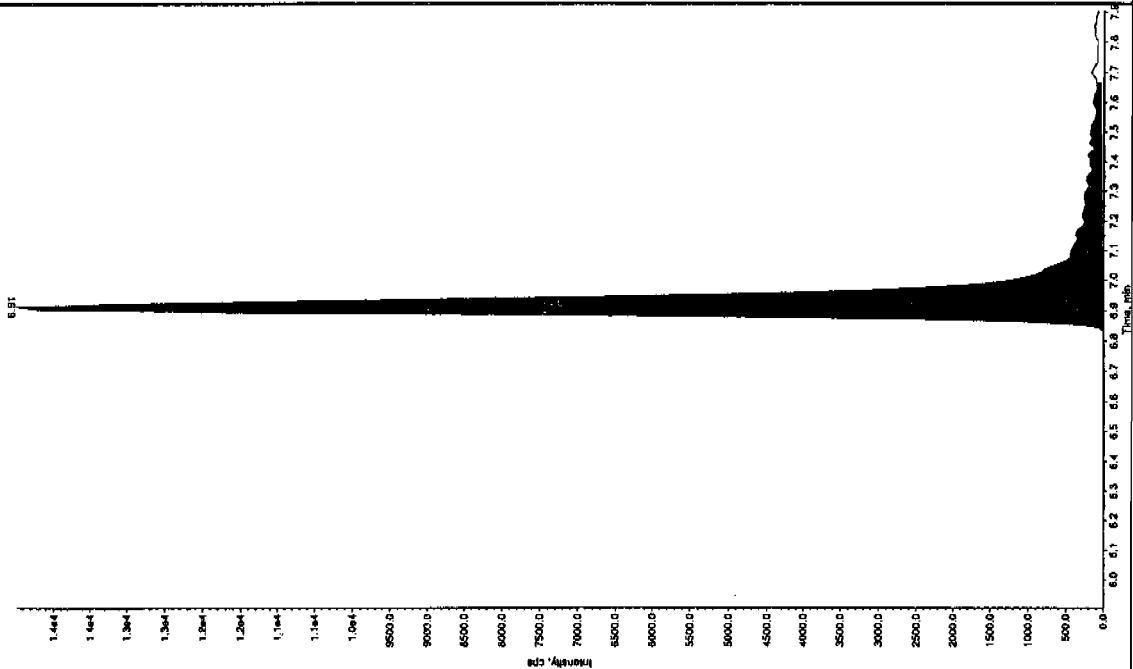
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

See 4/5/10

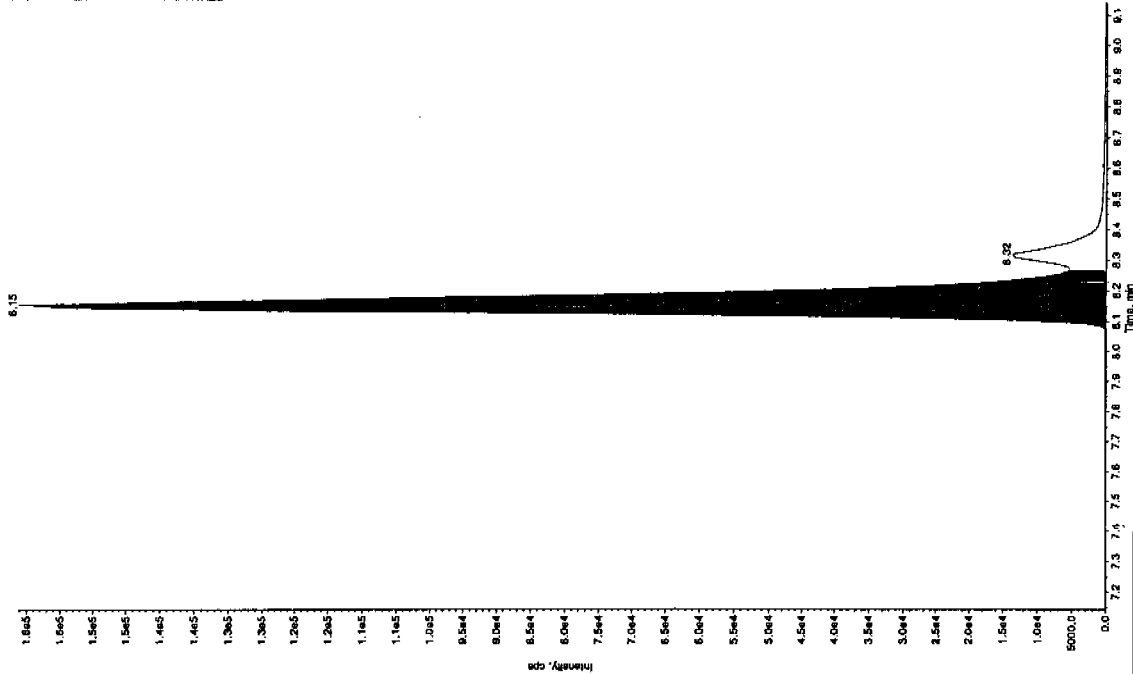
Sample Name: "WXX100331-27CR" Sample ID: "JILER" File: "EXS03310033.wif"  
 Peak Name: "1A1B" Mass(es): 237.2/204.3 amu  
 Comment: "LONSEXP\_C" Amplitude:

Sample Index: 1  
 Sample Type: OC  
 Concentration: 100 ng/mL  
 Calculated Conc: 102 ng/mL  
 Acq. Date: 4/3/2010  
 Acq. Time: 12:54:50 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.90 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.91 min  
 Peak Height: 7.01e+005 counts  
 Peak Area: 14469.274 cps  
 Start Time: 5.79 min  
 End Time: 7.67 min



Sample Name: "WXX100331-27CR" Sample ID: "JILER" File: "EXS03310033.wif"  
 Peak Name: "1A1B" Mass(es): 237.2/204.3 amu  
 Comment: "LONSEXP\_C" Amplitude:

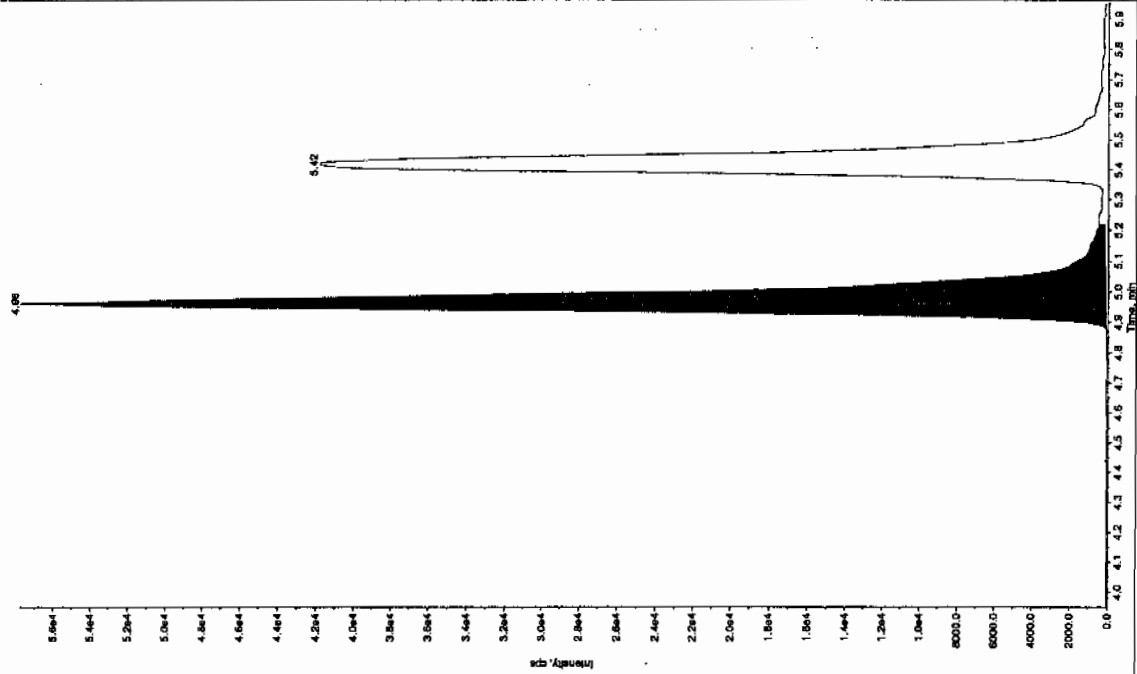
Sample Index: 1  
 Sample Type: OC  
 Concentration: 100 ng/mL  
 Calculated Conc: 104 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 12:54:50 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.14 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.15 min  
 Peak Height: 6.60e+005 counts  
 Peak Area: 161097.031 cps  
 Start Time: 8.02 min  
 End Time: 8.27 min



See 4/5/10

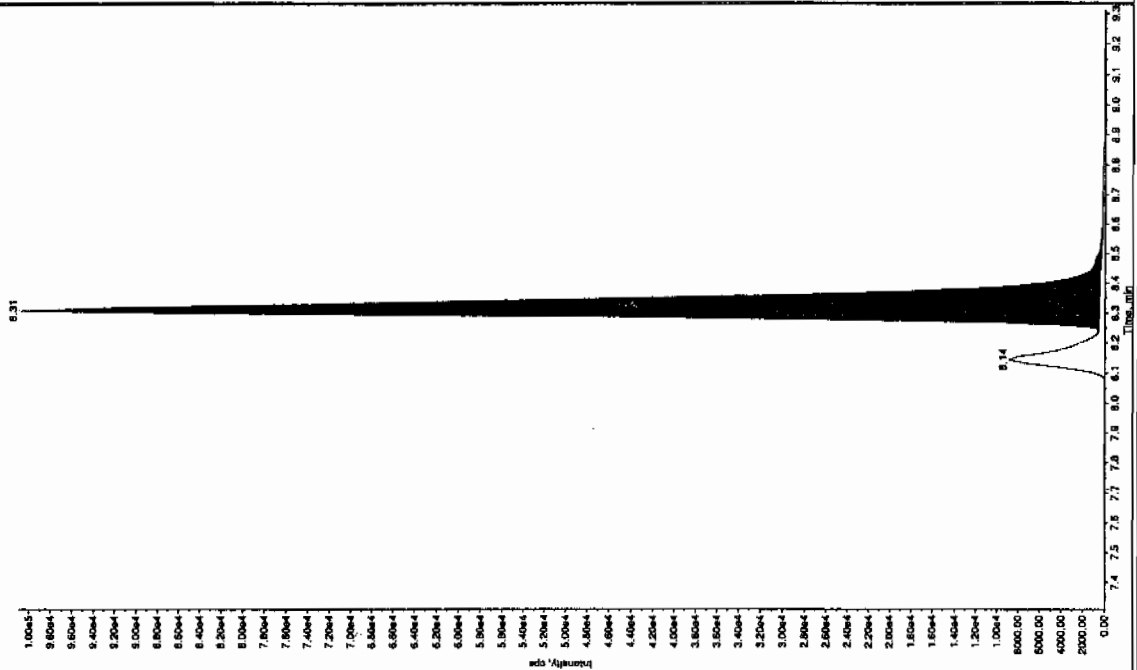
Sample Name: "WXX100331-27CR" Sample ID: "11LER" File: "EXS03310063.wif"  
 Peak Name: "26-Dienio-4-ritroisane" Mass(es): "166.046.0 amu"  
 Comment: "LCMSDEP\_G" Annotation: ""

Sample Index: 1  
 Concentration: 100 ng/mL  
 Calculated Conc: 108 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 12:54:50 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.55 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.96 min  
 Area: 2.43e+005 counts  
 Height: 57680.325 cps  
 Start Time: 4.82 min  
 End Time: 5.22 min



Sample Name: "WXX100331-27CR" Sample ID: "11LER" File: "EXS03310063.wif"  
 Peak Name: "34-Confidolone" Mass(es): "162.1715.0 amu"  
 Comment: "LCMSDEP\_G" Annotation: ""

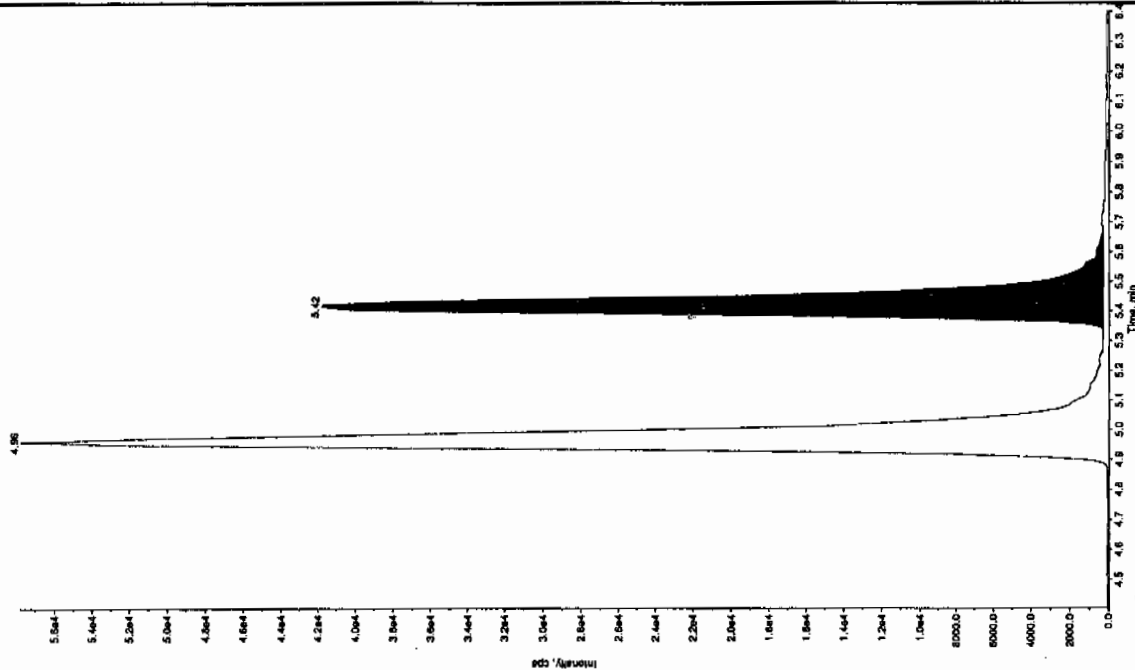
Sample Index: 1  
 Concentration: 50.0 ng/mL  
 Calculated Conc: 49.1 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 12:54:50 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.21 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.31 min  
 Area: 3.96e+005 counts  
 Height: 100499.947 cps  
 Start Time: 8.24 min  
 End Time: 8.61 min



3L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

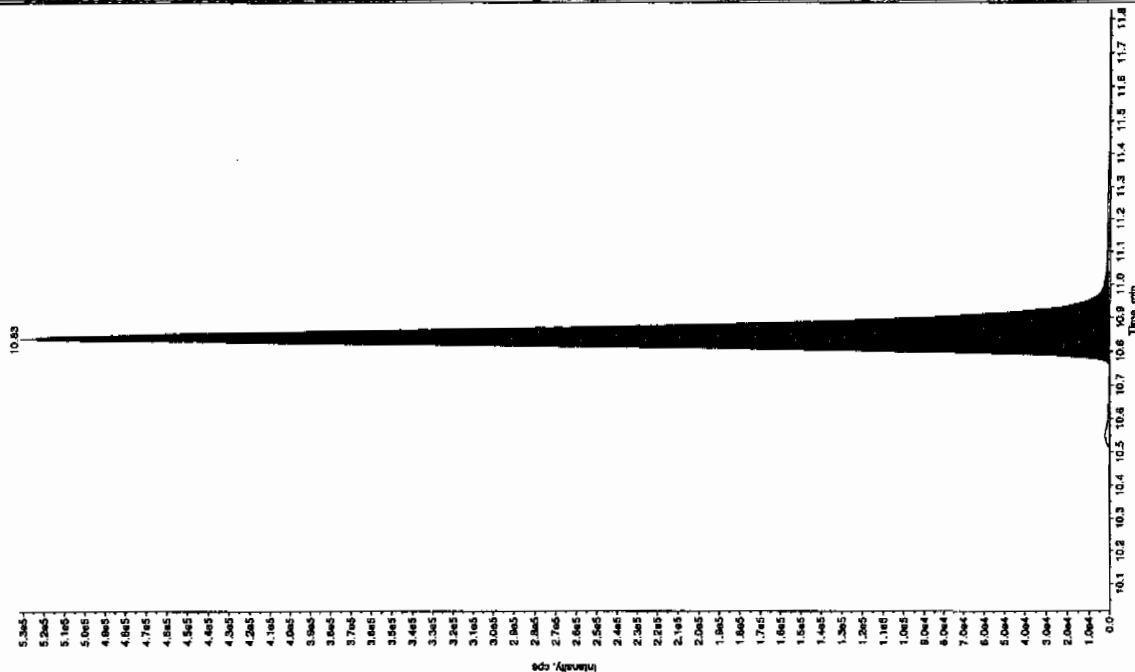
Sample Name: "WXX100331-270R" Sample ID: "11LER" File: "EXS03310063.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "185.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1 QC  
 Sample Type: 102 ng/mL  
 Concentration: 102 ng/mL  
 Calculated Conc: 4/1/2010  
 Acq. Date: 12/54:50 AM  
 Acq. Time: 12/54:50 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.42 min  
 Area: 1.91e+005 counts  
 Height: 41698.383 cps  
 Start Time: 5.37 min  
 End Time: 5.67 min



Sample Name: "WXX100331-270R" Sample ID: "11LER" File: "EXS03310063.wif"  
 Peak Name: "tris(2-chloroethyl) phosphite" Mass(es): "369.191.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1 QC  
 Sample Type: 102 ng/mL  
 Concentration: 102 ng/mL  
 Calculated Conc: 4/1/2010  
 Acq. Date: 12/54:50 AM  
 Acq. Time: 12/54:50 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 2.14e+006 counts  
 Height: 53133.172 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310074.wiff

Analysis Date: 01-APR-10 03:47

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	612	122	
2,6-Diamino-4-nitrotoluene	500	591	118	
3,4-Dinitrotoluene	250	255	102	
3,5-Dinitroaniline	500	512	102	
TATB	500	519	104	
tris(o-cresyl) phosphate	500	491	98	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Before Jan 4/8/10

Sample Name: "WXX100331-260CV" Sample ID: "J1LER" File: "EX503310074.wif"

Peak Name: "TATB" Mass(es): "257.2/204.9 amu"

Comment: "LCMSEXP\_C" Annotation: "

File Index: 1

Sample Type: QC

Concentration: 500. ng/mL

Calculated Conc: 519. ng/mL

Acq. Date: 4/1/2010

Acq. Time: 3:47:19 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2500.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 6.90 min

Use Relative RT: No

Int. Type: Valley

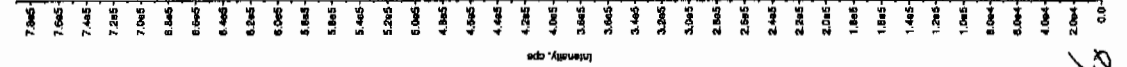
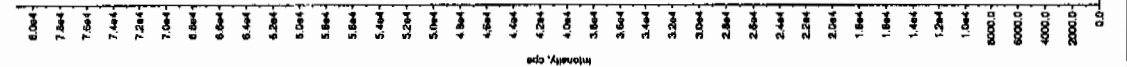
Retention Time: 6.92 min

Area: 3.84e+005 counts

Height: 81211.494 cps

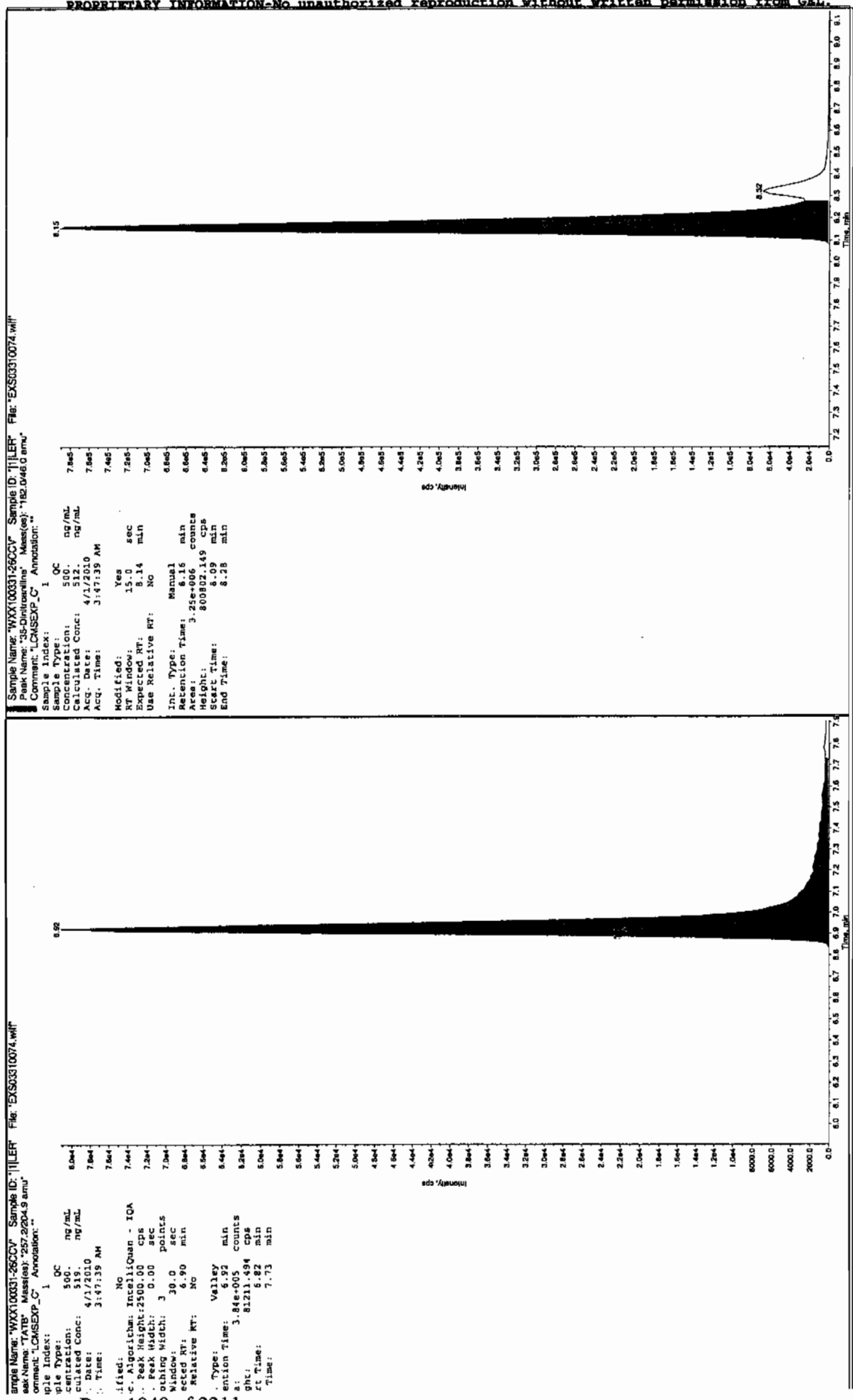
Start Time: 5.82 min

End Time: 7.73 min



Am-04/08/10

after scan 4510

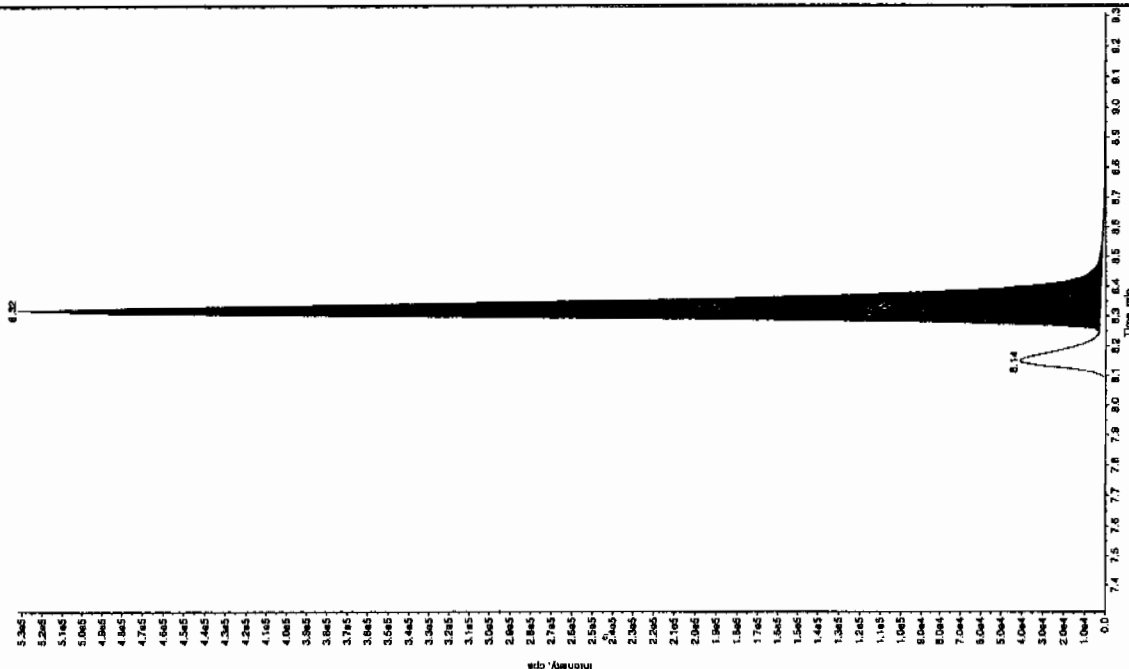


EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



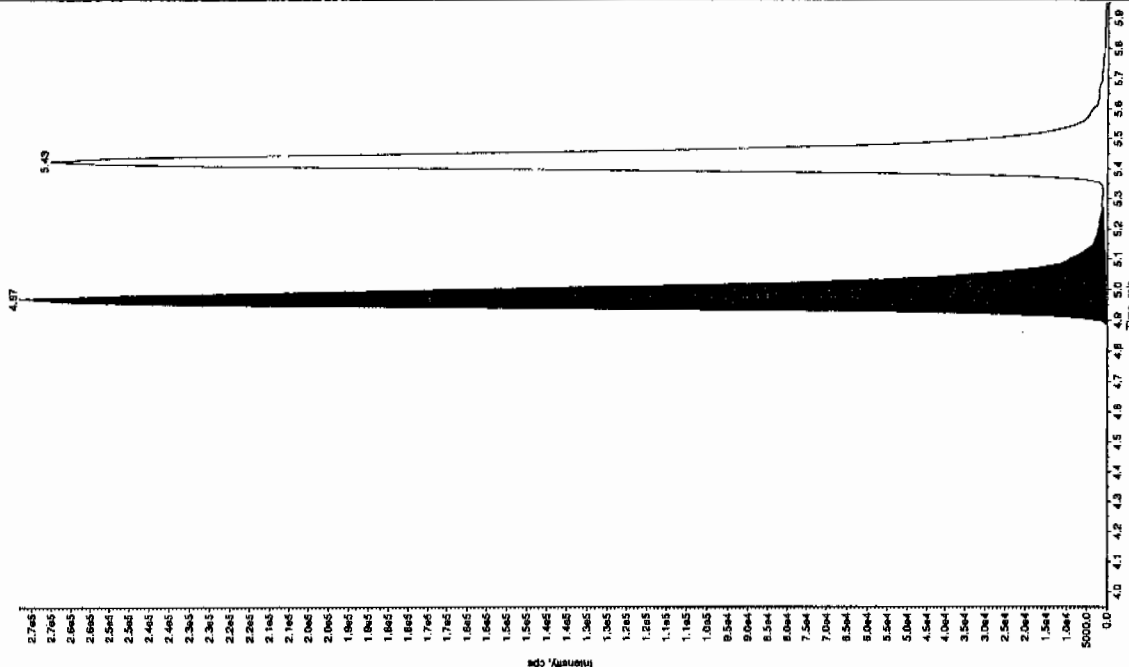
Sample Name: "WXX100331-2600V" Sample ID: "J1LER" File: "EXS03310074.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1751.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 250. ng/mL  
 Calculated Conc: 471/331.0 ng/mL  
 Acq. Time: 3:47:19 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.31 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.32 min  
 Area: 2.06e+006 counts  
 Height: 5297.06 cps  
 Start Time: 8.25 min  
 End Time: 8.47 min



Sample Name: "WXX100331-2600V" Sample ID: "J1LER" File: "EXS03310074.wif"  
 Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 471/331.0 ng/mL  
 Acq. Time: 3:47:19 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.97 min  
 Area: 1.28e+006 counts  
 Height: 27307.463 cps  
 Start Time: 4.88 min  
 End Time: 5.27 min

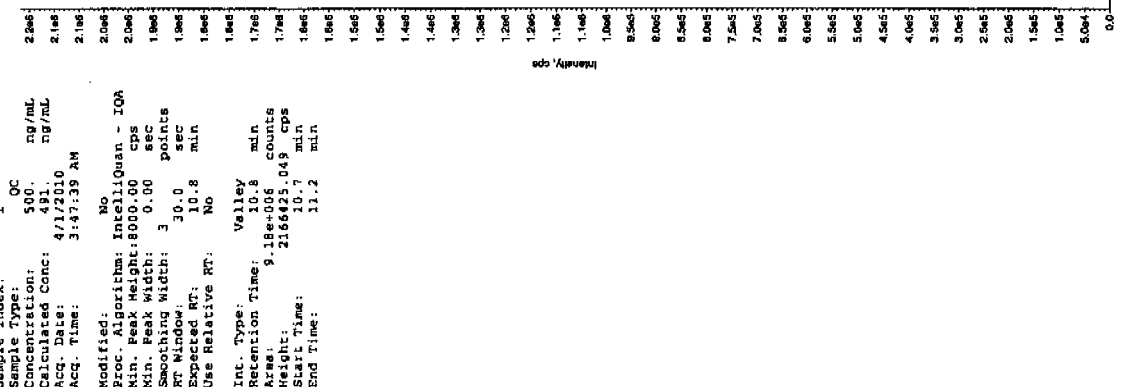


Sample Name: "WXX10031-25CCV" Sample ID: "HLER" File: "EXS0310074.wif"  
 Peak Name: "Peak1" Retention Time: 5.43 min  
 Comment: "LONSEXP\_C" Annotation: "No"

Sample Index: 1  
 Peak Type: 1  
 Concentration: 500 ng/mL  
 Calculated Conc: 491 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 3:47:39 AM

Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 9.18e+004 counts  
 Height: 2166425.049 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min

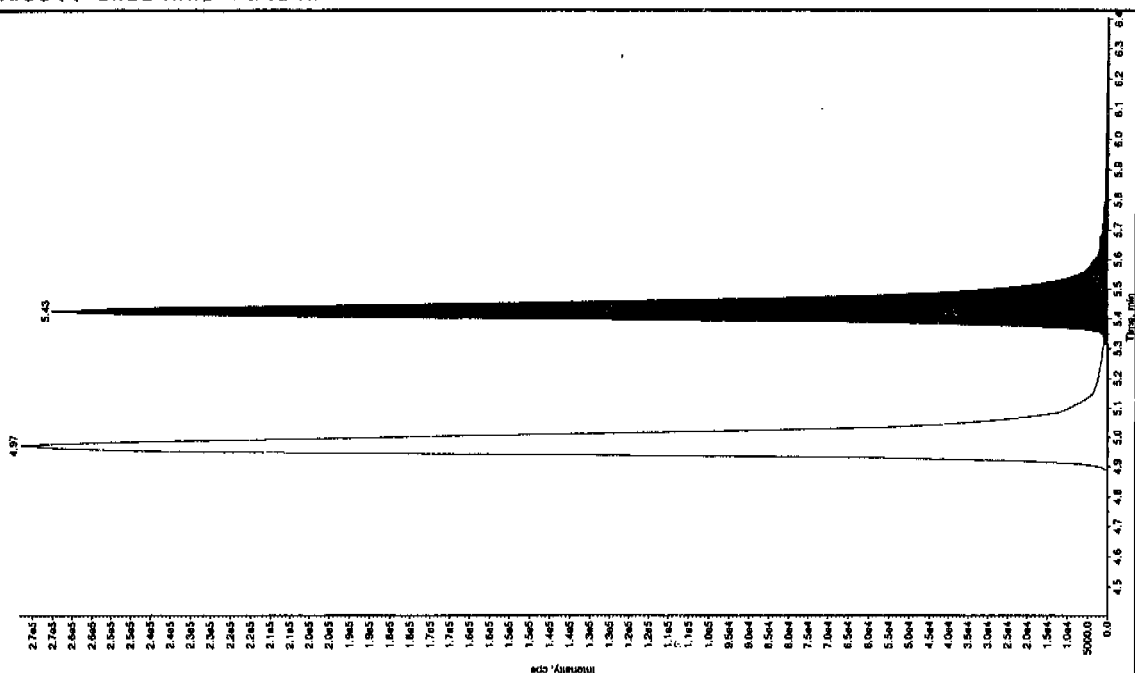


Sample Name: "WXX10031-25CCV" Sample ID: "HLER" File: "EXS0310074.wif"  
 Peak Name: "Peak2" Retention Time: 5.43 min  
 Comment: "LONSEXP\_C" Annotation: "No"

Sample Index: 1  
 Peak Type: 1  
 Concentration: 500 ng/mL  
 Calculated Conc: 512 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 3:47:39 AM

Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 5.43 min  
 Area: 1.14e+006 counts  
 Height: 265235.719 cps  
 Start Time: 5.31 min  
 End Time: 5.66 min



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS03310076.wiff

Analysis Date: 01-APR-10 04:19

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	93	93	
2,6-Diamino-4-nitrotoluene	100	109	109	
3,4-Dinitrotoluene	50	50.2	100	
3,5-Dinitroaniline	100	102	102	
TATB	100	100	100	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

for 415710

Sample Name: "WXX10031-27081" Sample ID: "JLIER" File: "EX50310075.wif"

Peak Name: "3s Chlorine" Mass(es): "182.046.0 amu"

Comment: "LCMSXP\_C" Annotation: "

Sample Index: 1 QC

Concentration: 100. ng/mL

Calculated Conc: 100. ng/mL

Acq. Date: 4/1/2010

Acq. Time: 4:19:04 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 2500.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 6.50 min

Use Relative RT: No

Int. Type: Valley

Retention Time: 6.32 min

Height: 6.91e+008 counts

Area: 14976.82 cps

Start Time: 7.49 min

End Time: 7.49 min

8.92

Intensity, cps

Time, min

8.0 8.1 8.2 8.3 8.4 8.5 8.6 8.7 8.8 8.9 9.0 9.1

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Sample Name: "WXX10031-27081" Sample ID: "JLIER" File: "EX50310075.wif"

Peak Name: "3s Chlorine" Mass(es): "182.046.0 amu"

Comment: "LCMSXP\_C" Annotation: "

Sample Index: 1 QC

Concentration: 100. ng/mL

Calculated Conc: 100. ng/mL

Acq. Date: 4/1/2010

Acq. Time: 4:19:04 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 2000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.14 min

Use Relative RT: No

Int. Type: Valley

Retention Time: 8.16 min

Height: 6.44e+009 counts

Area: 15064916 cps

Start Time: 8.05 min

End Time: 8.28 min

8.16

Intensity, cps

Time, min

8.0 8.1 8.2 8.3 8.4 8.5 8.6 8.7 8.8 8.9 9.0 9.1

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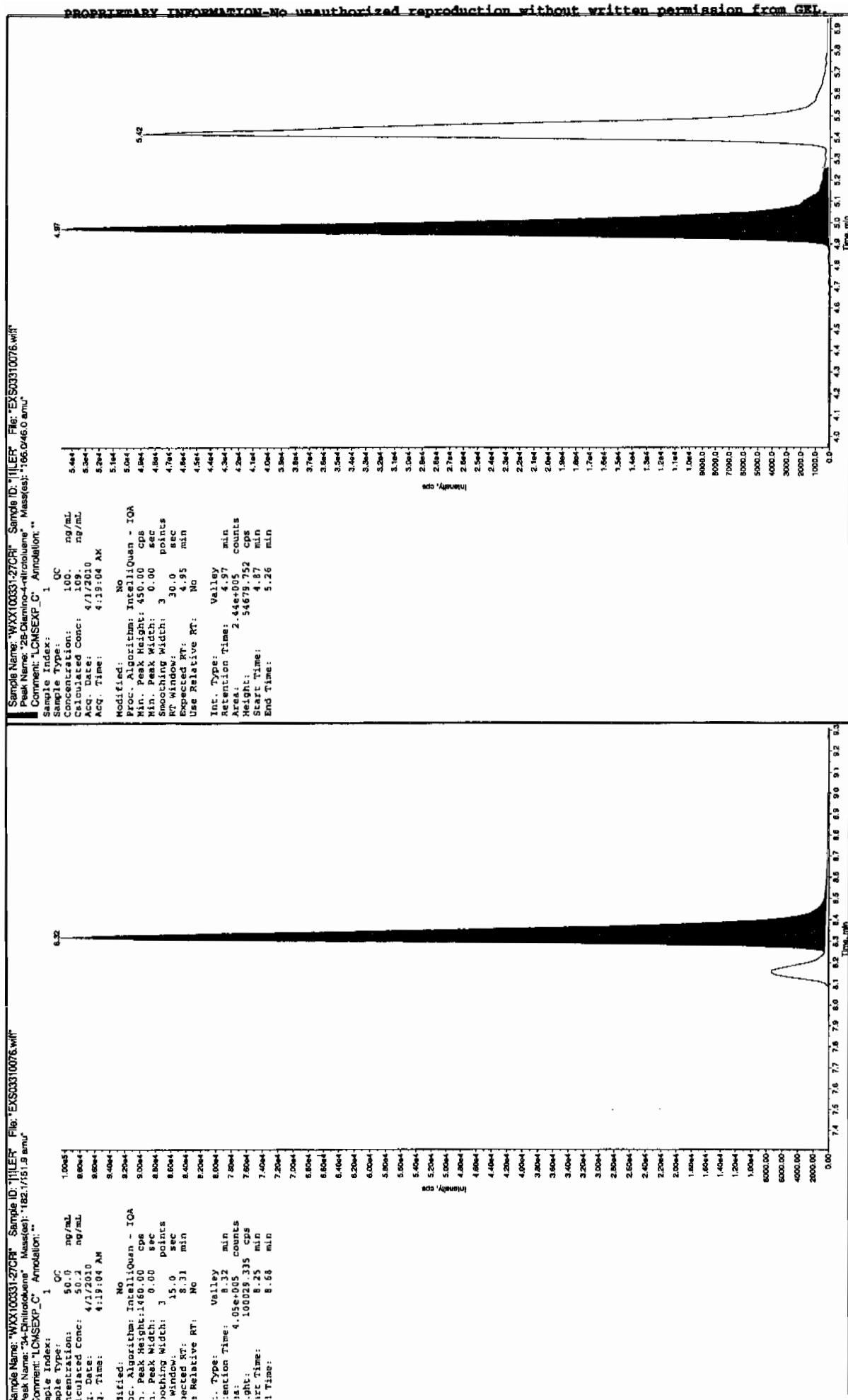
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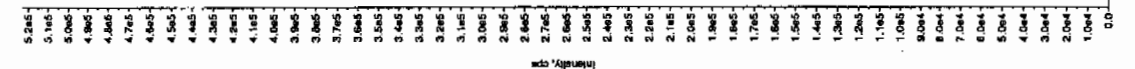
for 415710



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

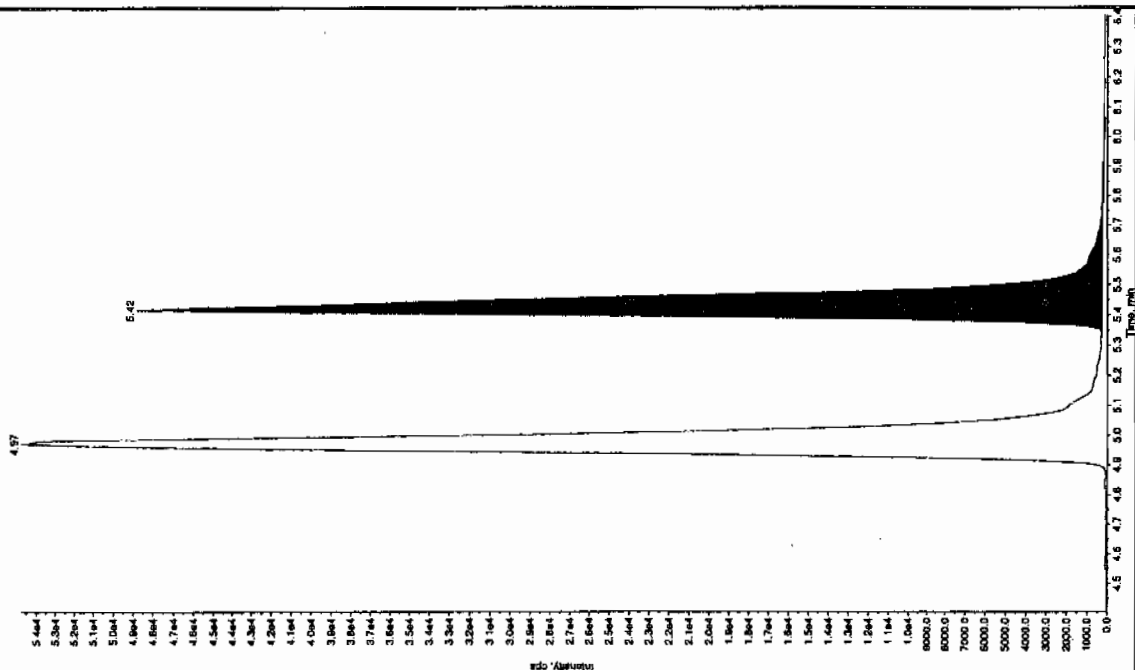
Sample Name: 'WXX100331-27CR' Sample ID: 'JLIER' File: 'EXS03310076.wif'  
 Peak Name: '24-Diamino-6-nitrobenzene' Mass(es): '166.0460 amu'  
 Comment: 'LCMSEXP\_C' Annotation: ''

Sample Index: 1 QC  
 Sample Type: 100 ng/mL  
 Calculated Conc: 102 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 4:19:04 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 3.00 points  
 Ret. Width: 30.0 points  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 2.13e+006 counts  
 Height: 522335.449 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



Sample Name: 'WXX100331-27CR' Sample ID: 'JLIER' File: 'EXS03310076.wif'  
 Peak Name: '24-Diamino-6-nitrobenzene' Mass(es): '166.0460 amu'  
 Comment: 'LCMSEXP\_C' Annotation: ''

Sample Index: 1 QC  
 Sample Type: 100 ng/mL  
 Calculated Conc: 93.0 ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 4:19:04 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 3.00 points  
 Ret. Width: 30.0 points  
 Expected RT: 5.41 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.42 min  
 Area: 2.09e+005 counts  
 Height: 48589.977 cps  
 Start Time: 5.33 min  
 End Time: 5.80 min



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310087.wiff

Analysis Date: 01-APR-10 07:11

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	540	108	
2,6-Diamino-4-nitrotoluene	500	640	128	
3,4-Dinitrotoluene	250	266	107	
3,5-Dinitroaniline	500	596	119	
TATB	500	588	118	
tris(o-cresyl) phosphate	500	463	93	

Recovery Limits:

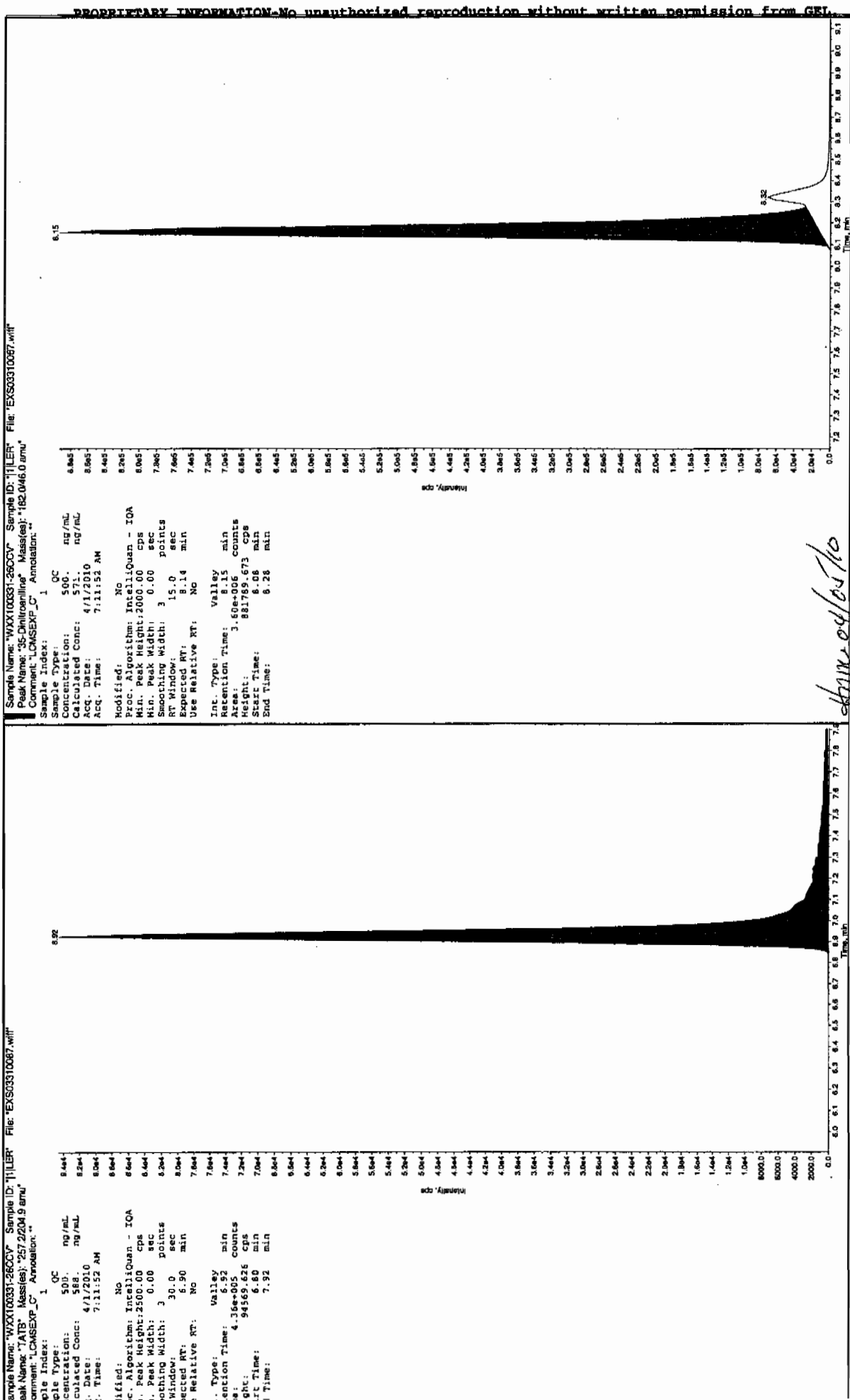
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

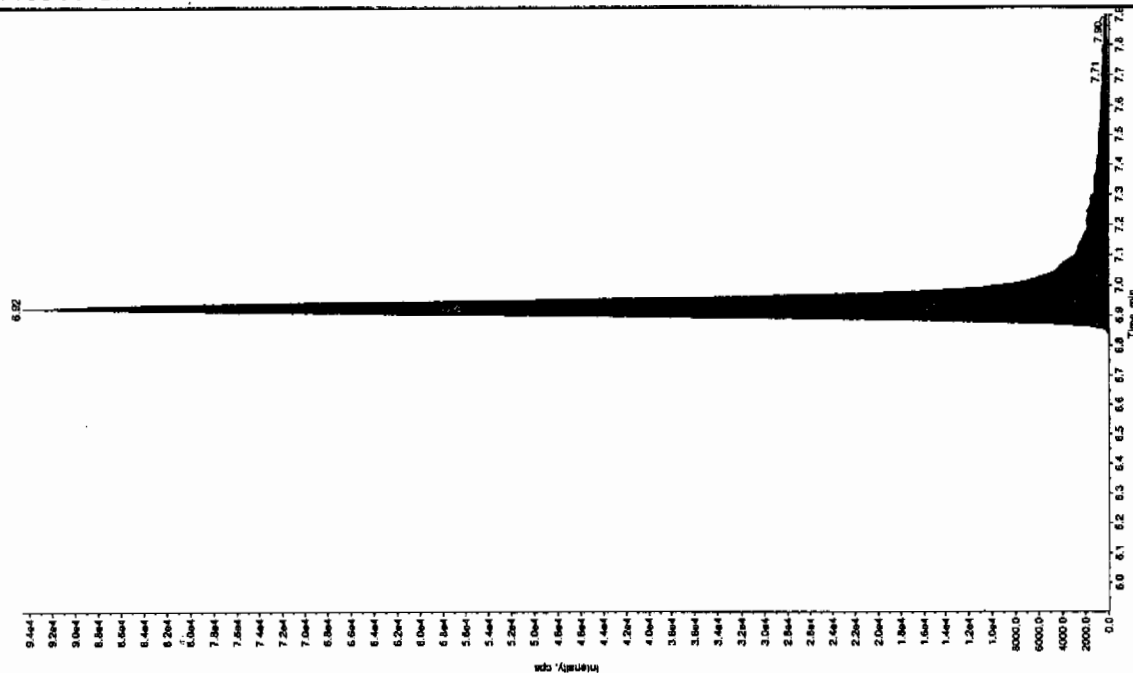
Before Jan 4/8/10



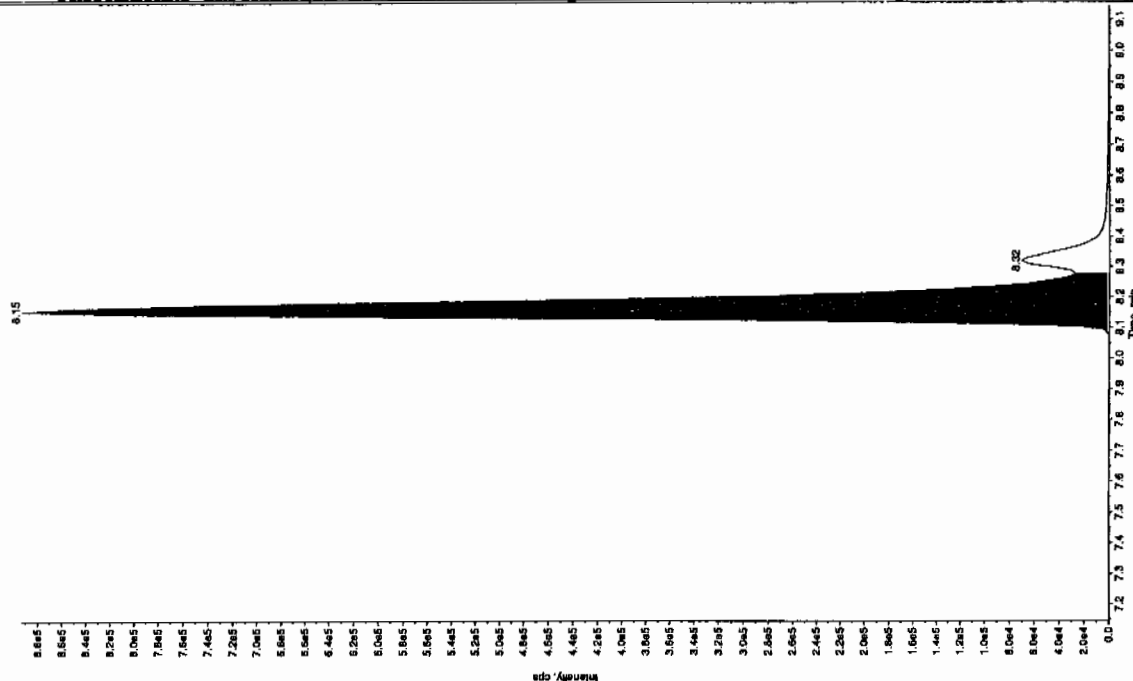
After 04/05/10



File Index:	1	QC	
File Type:	500	pg/mL	9.4e4
Concentration:	588	ng/mL	9.2e4
Plate:	4/1/2010		9.0e4
Time:	7:11:52 AM		8.8e4
Method:	No		8.6e4
Algorithm:	IntelliQuan - IQA		8.4e4
Peak Height:	2500.00	cps	8.4e4
Peak Width:	0.00	sec	8.2e4
Window Width:	3	points	8.0e4
Window:	30.0	sec	8.0e4
Selected RT:	6.96	min	7.8e4
Relative RT:	No		7.6e4
Type:	Valley		7.6e4
Retention Time:	4.36e+005	min	7.4e4
Height:	94569.626	counts	7.2e4
RT Time:	6.40	min	7.0e4
Time:	7.92	min	

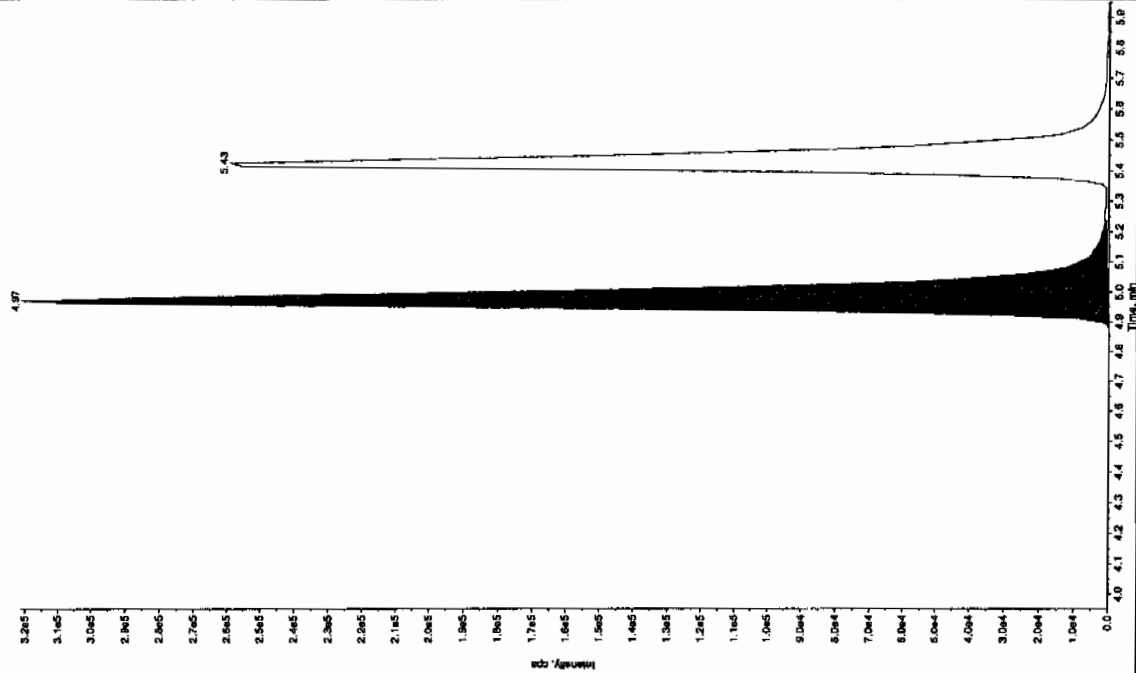


Sample Type:	QC	
Concentration:	500	ng/mL
Calculated Conc:	596	ng/mL
Acq. Date:	7/11/2010	
Acq. Time:	7:11:52 AM	
Modified:	Yes	
PKT Window:	15.0	sec
Expected RT:	8.14	min
Use Relative RT:	NO	
Int. Type:	Manual	
Retention Time:	8.16	min
Area:	3.75e+006	counts
Height:	893829.000	cps
Start Time:	8.08	min
End Time:	8.28	min



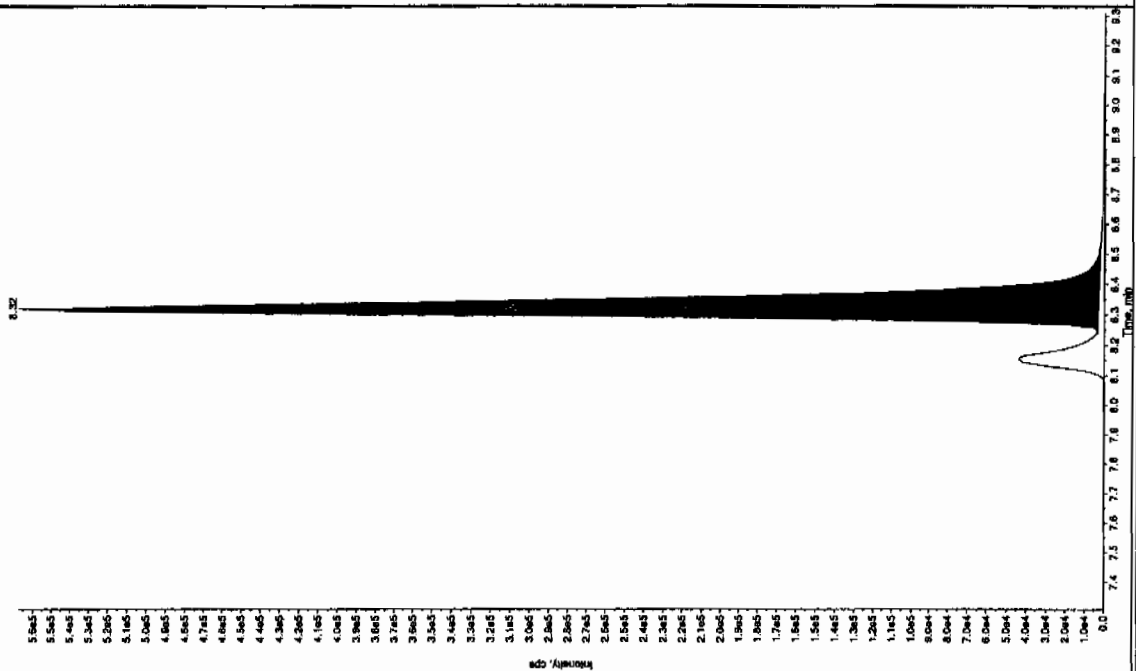
Sample Name: "WXX10031-2600" Sample ID: "111ER" File: "EX50310087.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1 QC  
 Sample Type: 500. ng/mL  
 Concentration: 640. ng/mL  
 Calculated Conc: 4/1/2010  
 Acq. Date: 7:11:52 AM  
 Acq. Time: 7:11:52 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 Expected RT: 4.95 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.97 min  
 Area: 1.39e+006 counts  
 Height: 321001.556 cps  
 Start Time: 4.86 min  
 End Time: 5.24 min



Sample Name: "WXX10031-2600" Sample ID: "111ER" File: "EX50310087.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1 QC  
 Sample Type: 250. ng/mL  
 Concentration: 266. ng/mL  
 Calculated Conc: 4/1/2010  
 Acq. Date: 7:11:52 AM  
 Acq. Time: 7:11:52 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 160.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 Expected RT: 8.31 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.32 min  
 Area: 2.15e+006 counts  
 Height: 564079.224 cps  
 Start Time: 8.25 min  
 End Time: 8.61 min



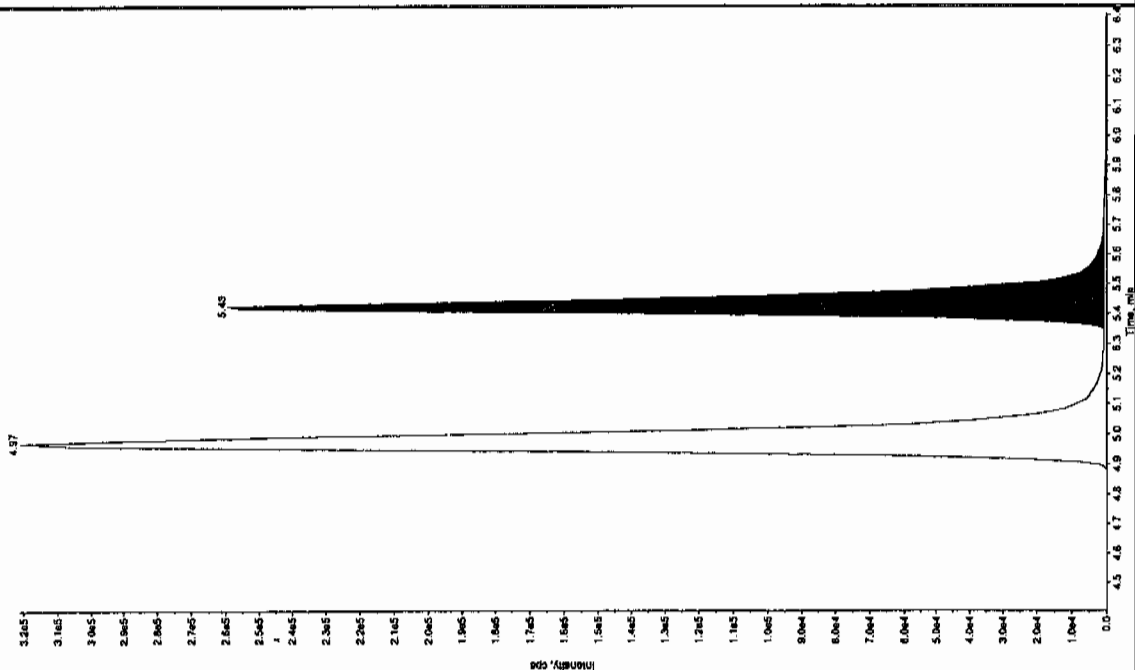
EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100331-26CCV" Sample ID: "111LRF" File: "EXS03310087.wif"  
 Peak Name: "24-Diamino-6-nitrosourea" Mass(es): "165.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 483. ng/mL  
 Acq. Date: 4/17/2010  
 Acq. Time: 7:11:52 AM

Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 5.43 min  
 Area: 1.02e+006 counts  
 Height: 45868495 cps  
 Start Time: 5.32 min  
 End Time: 5.70 min

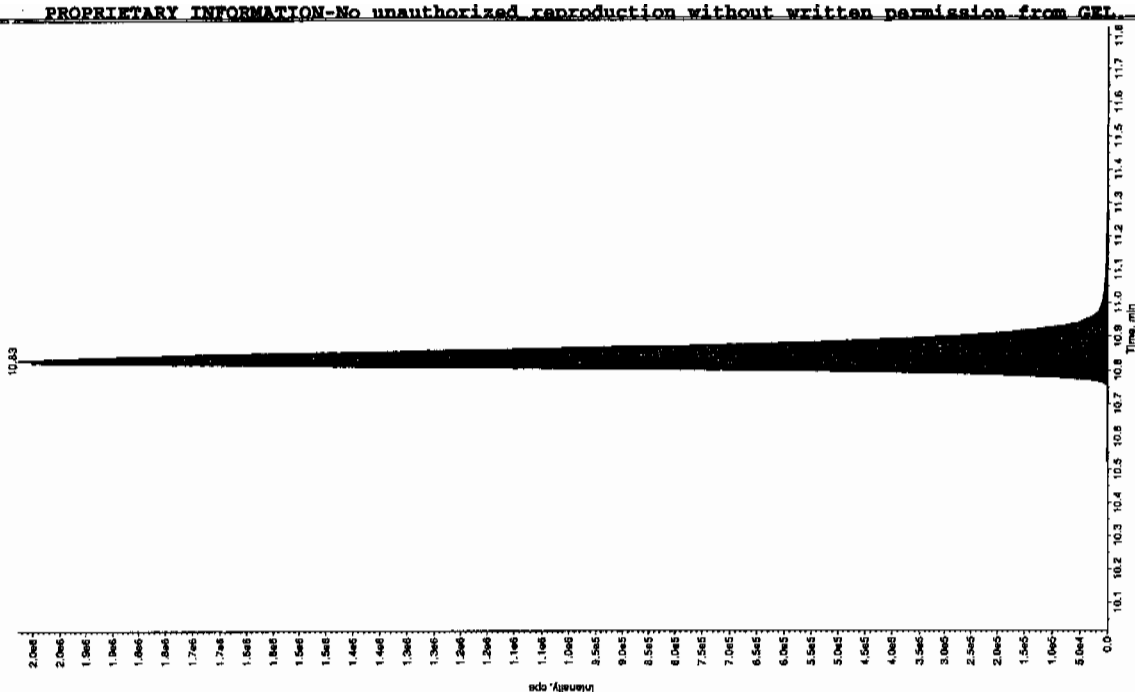


Sample Name: "WXX100331-26CCV" Sample ID: "111LRF" File: "EXS03310087.wif"  
 Peak Name: "tris-(o-cresyl) phosphite" Mass(es): "315.191.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 483. ng/mL  
 Acq. Date: 4/17/2010  
 Acq. Time: 7:11:52 AM

Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 8.79e+006 counts  
 Height: 202598770 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310089.wiff

Analysis Date: 01-APR-10 07:43

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	50	57.1	114	
3,5-Dinitroaniline	100	115	115	
TATB	100	111	111	
tris(o-cresyl) phosphate	100	94.1	94	
2,4-Diamino-6-nitrotoluene	100	106	106	
2,6-Diamino-4-nitrotoluene	100	119	119	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

LCM 4/5/10

Sample Name: "WXX100331-27CHP" Sample ID: "HJLER" File: "EX503310033.wif"

Peak Name: "TATP" Mass(es): 257.2204.9 amu

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: OC

Concentration: 100. ng/mL

Calculated Conc: 110. ng/mL

Acq. Date: 4/1/2010

Acq. Time: 7:43:17 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 2500.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

Window: 30.0 sec

Expected RT: 6.80 min

Use Relative RT: No

Int. Type: Valley

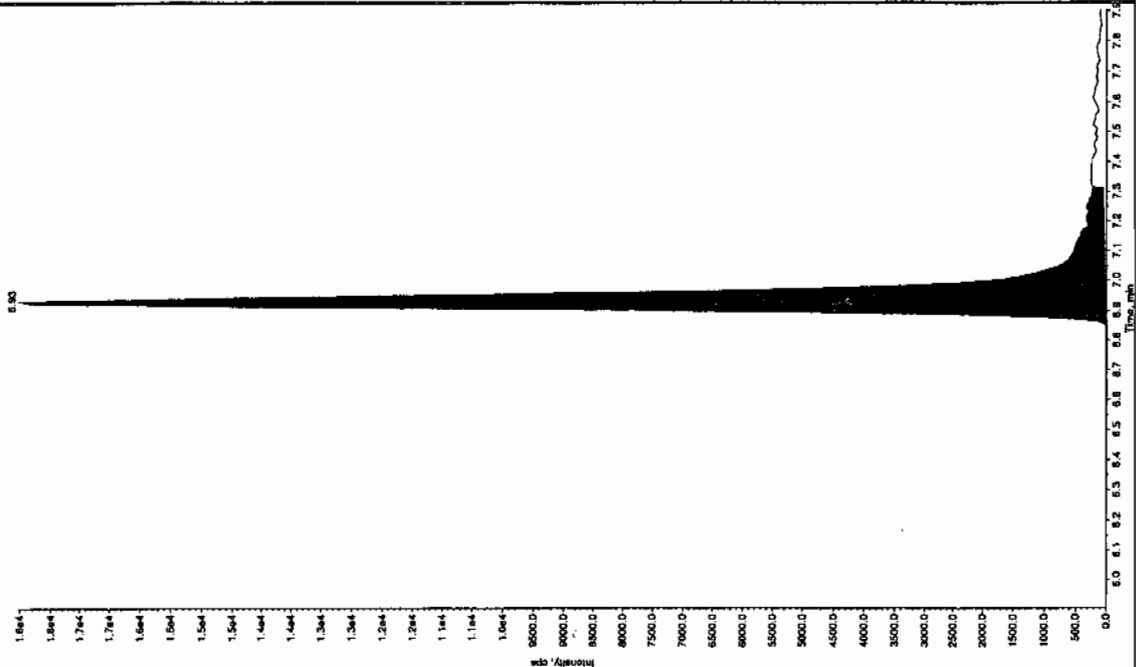
Retention Time: 6.53 min

Area: 7.09e+04 counts

Height: 1800 cps

Start Time: 6.14 min

End Time: 7.32 min



Sample Name: "WXX100331-27CHP" Sample ID: "HJLER" File: "EX503310033.wif"

Peak Name: "35-Dinitrobenzine" Mass(es): 182.046.0 amu

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: OC

Concentration: 100. ng/mL

Calculated Conc: 115. ng/mL

Acq. Date: 4/1/2010

Acq. Time: 7:43:17 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 2000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.14 min

Use Relative RT: No

Int. Type: Valley

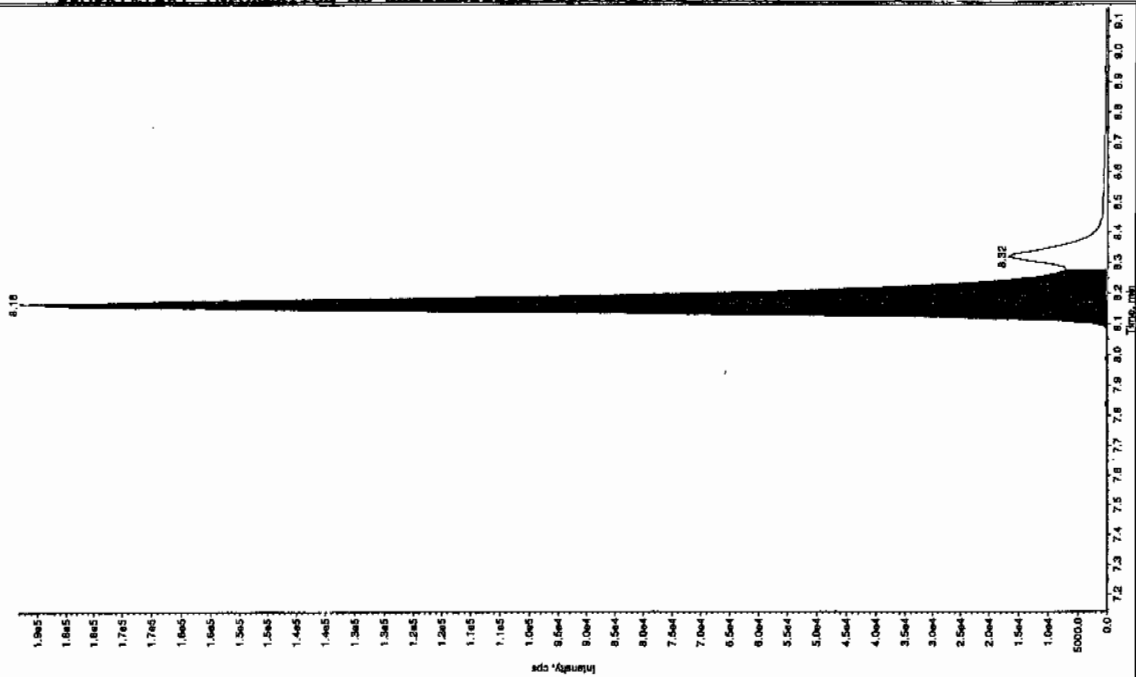
Retention Time: 8.16 min

Area: 7.35e+05 counts

Height: 18799 cps

Start Time: 8.07 min

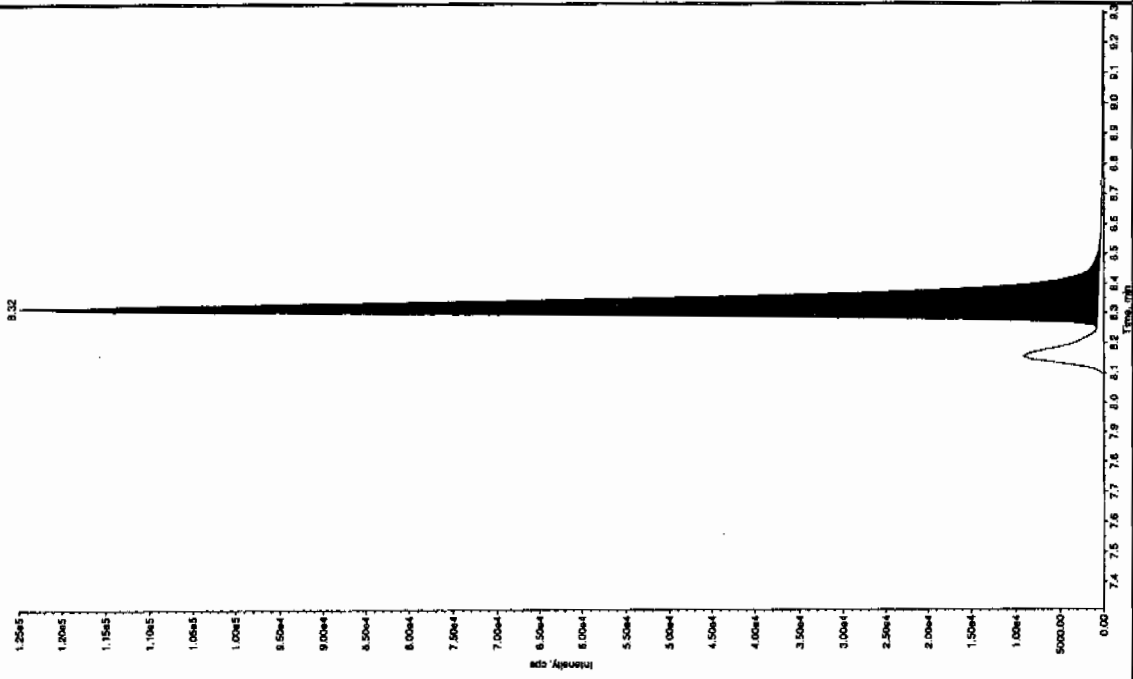
End Time: 8.28 min



Ammonia

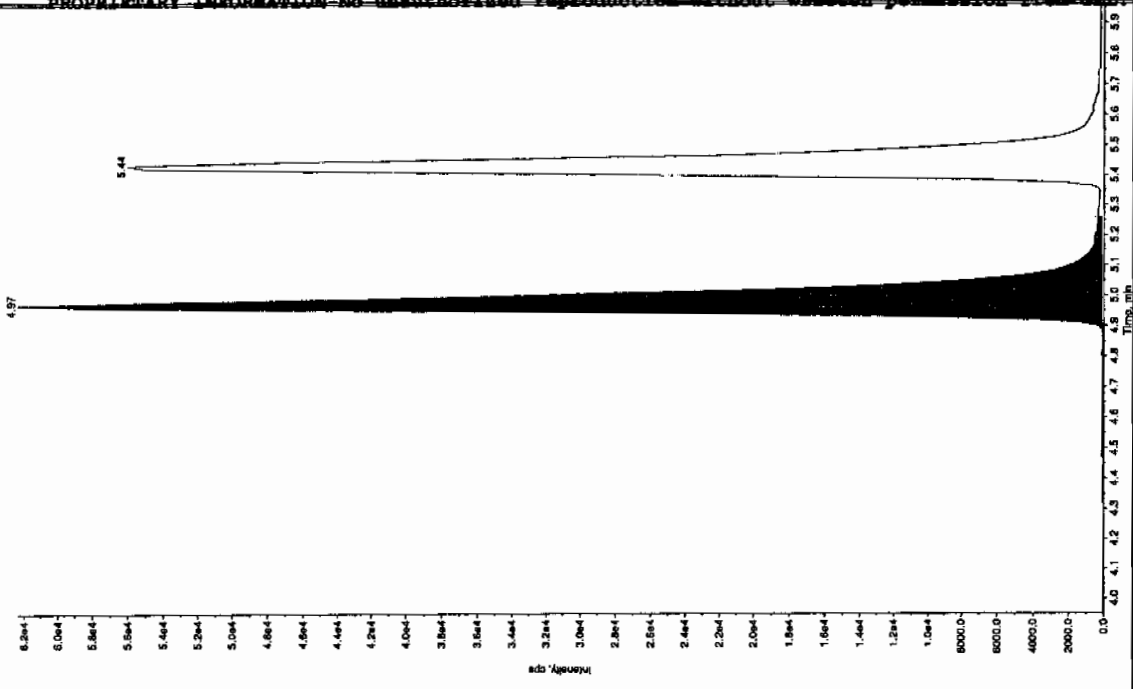
Sample Name: "WXX100331-27C1" Sample ID: "1111ER" File: "EX500310085.wif"  
Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"  
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: OC  
Concentration: 50.0 ng/mL  
Calculated Conc: 57.1 ng/mL  
Acq. Date: 4/17/2010  
Acq. Time: 7:43:17 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 450.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 15.0 sec  
Expected RT: 8.31 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 8.32 min  
Area: 4.63e+005 counts  
Height: 124451.965 cps  
Start Time: 8.25 min  
End Time: 8.58 min



Sample Name: "WXX100331-27C1" Sample ID: "1111ER" File: "EX500310085.wif"  
Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "186.0/165.0 amu"  
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: OC  
Concentration: 100. ng/mL  
Calculated Conc: 113. ng/mL  
Acq. Date: 4/17/2010  
Acq. Time: 7:43:17 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 450.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 4.95 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 4.97 min  
Area: 2.66e+005 counts  
Height: 62284.634 cps  
Start Time: 4.85 min  
End Time: 5.26 min

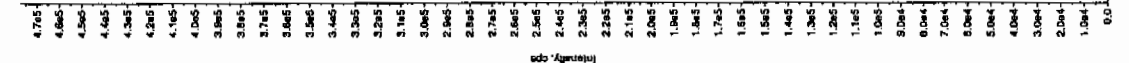


Sample Name: "WXX100331-27C1P" Sample ID: "111ER" File: "EX503310085.wif"  
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "385.1/91.0 amu"  
Comment: "LCMSDEP\_C" Annotation: ""

Sample Index: 1  
Sample Type: 1 QC  
Concentration: 100.0 ng/mL  
Calculated Conc: 9.1 ng/mL  
Acq. Date: 4/1/2010  
Acq. Time: 7:43:17 AM

Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 8000.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 10.8 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 10.8 min  
Area: 1.98e+006 counts  
Height: 476783.569 cps  
Start Time: 10.7 min  
End Time: 11.2 min

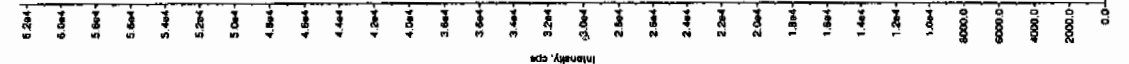


Sample Name: "WXX100331-27C1P" Sample ID: "111ER" File: "EX503310085.wif"  
Peak Name: "24-Diamino-5-nitrothiophene" Mass(es): "166.046.0 amu"  
Comment: "LCMSDEP\_C" Annotation: ""

Sample Index: 1  
Sample Type: 1 QC  
Concentration: 100.0 ng/mL  
Calculated Conc: 9.1 ng/mL  
Acq. Date: 4/1/2010  
Acq. Time: 7:43:17 AM

Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 350.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 5.41 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 5.44 min  
Area: 2.33e+005 counts  
Height: 55831.425 cps  
Start Time: 5.32 min  
End Time: 5.76 min



HEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310100.wiff

Analysis Date: 01-APR-10 10:36

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	536	107	
2,6-Diamino-4-nitrotoluene	500	646	129	
3,4-Dinitrotoluene	250	264	105	
3,5-Dinitroaniline	500	550	110	
TATB	500	565	113	
tris(o-cresyl) phosphate	500	476	95	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

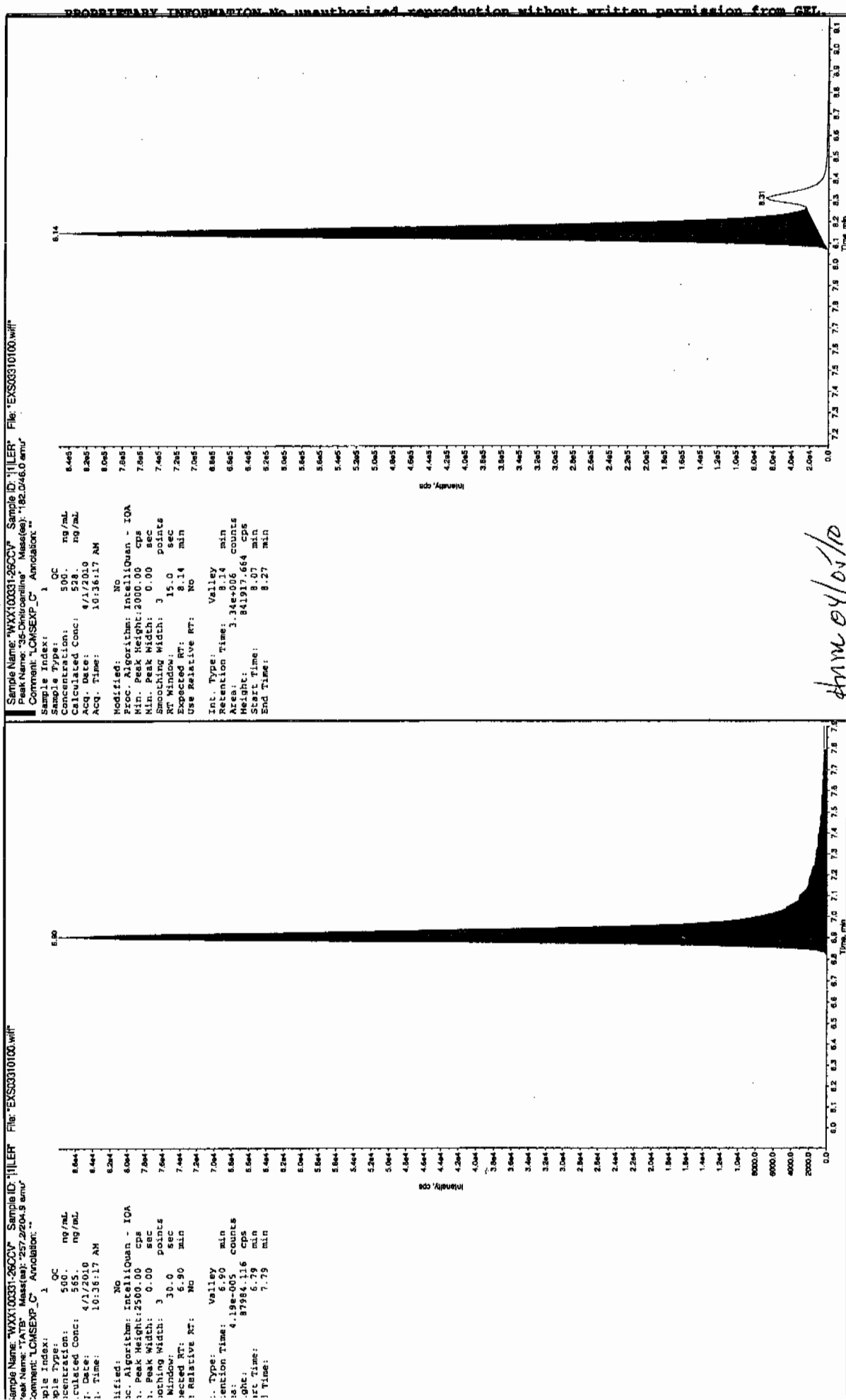
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits





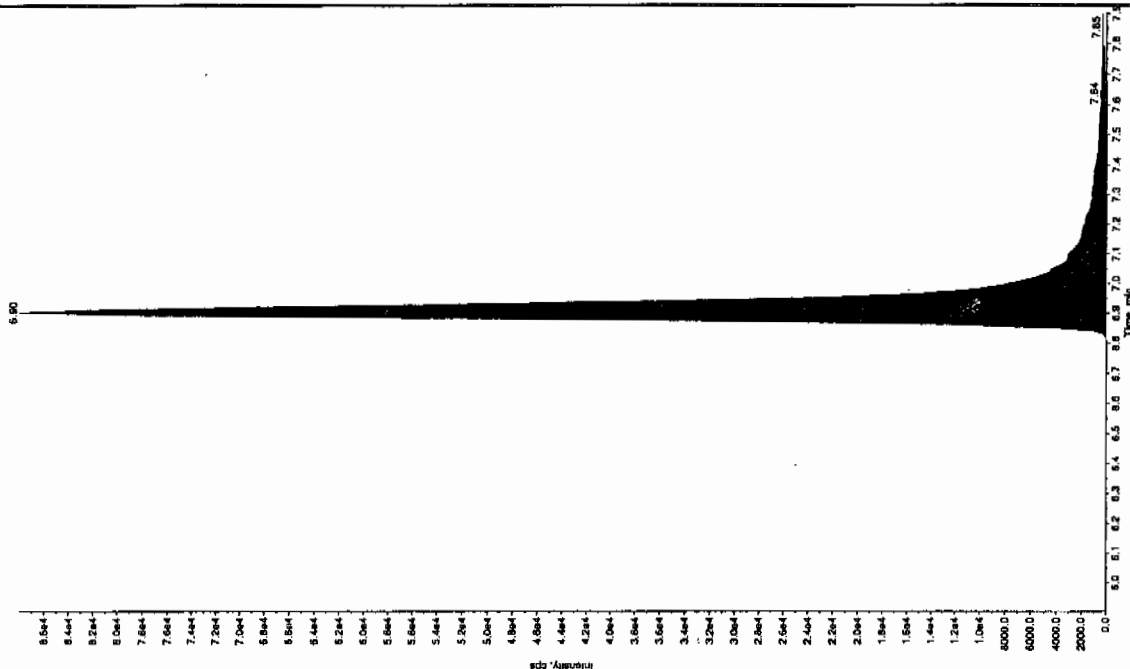
Before Scan 41510

Time 04/05/10

after scan 415710

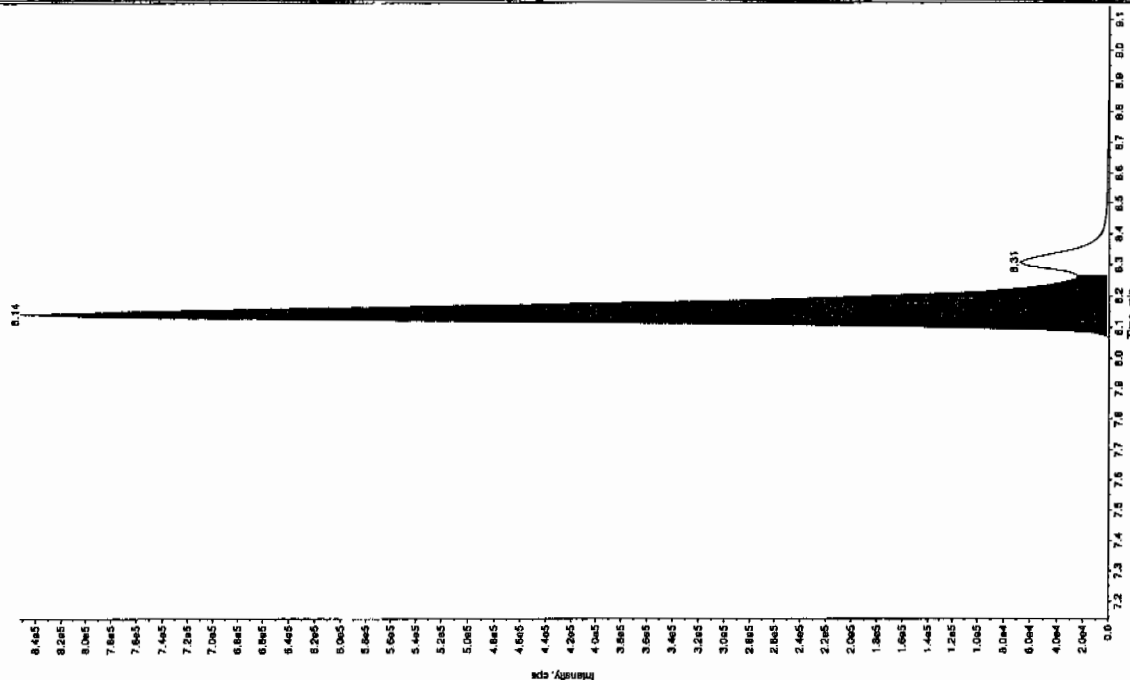
Sample Name: "WXX100331-260CV" Sample ID: "JILER" File: "EXS03310100.wif"  
Peak Name: "TATE" Mass(es): "257.2204.9 amu"  
Comment: "LONSEXP\_C" Annotation: "

Sample Index: 1  
Sample Type: OC  
Concentration: 500 ng/mL  
Calculated Conc: 550 ng/mL  
Acq. Date: 4/11/2010  
Acq. Time: 10:36:17 AM  
Modified: Yes  
RT Window: 15.0 sec  
Expected RT: 8.14 min  
Use Relative RT: No  
Int. Type: Manual  
Retention Time: 8.14 min  
Area: 3.48e+006 counts  
Height: 850929.960 cps  
Start Time: 8.07 min  
End Time: 8.27 min



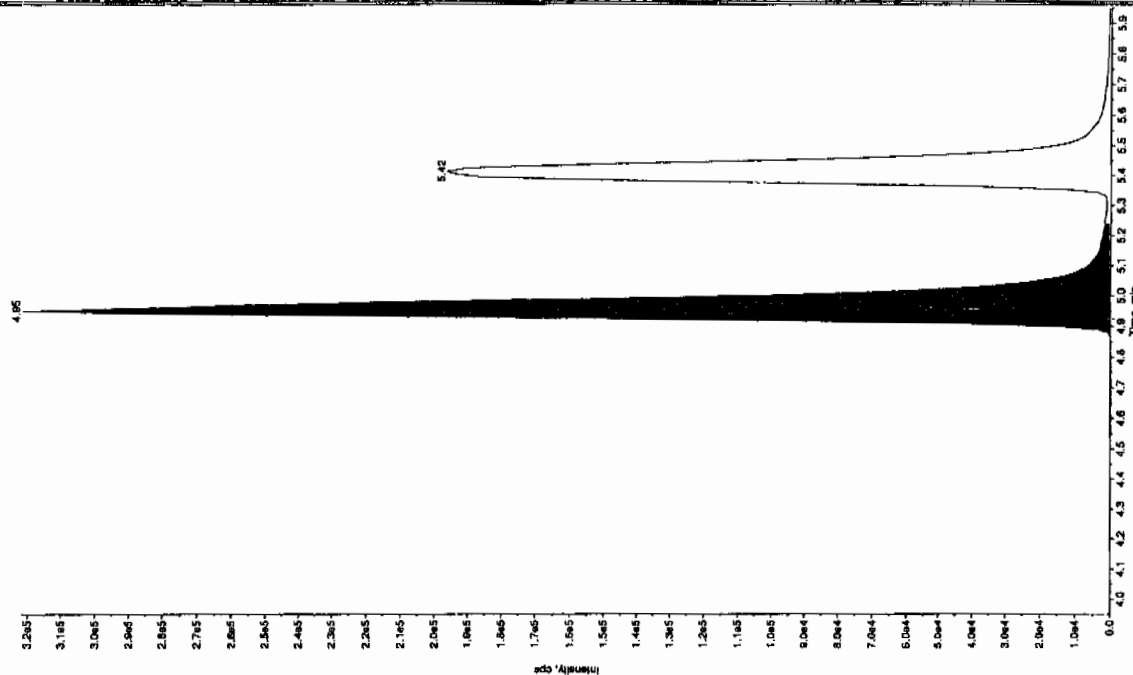
Sample Name: "WXX100331-260CV" Sample ID: "JILER" File: "EXS03310100.wif"  
Peak Name: "3S-Dichloromethane" Mass(es): "182.0460 amu"  
Comment: "LONSEXP\_C" Annotation: "

Sample Index: 1  
Sample Type: OC  
Concentration: 500 ng/mL  
Calculated Conc: 550 ng/mL  
Acq. Date: 4/11/2010  
Acq. Time: 10:36:17 AM  
Modified: Yes  
RT Window: 15.0 sec  
Expected RT: 8.14 min  
Use Relative RT: No  
Int. Type: Manual  
Retention Time: 8.14 min  
Area: 3.48e+006 counts  
Height: 850929.960 cps  
Start Time: 8.07 min  
End Time: 8.27 min



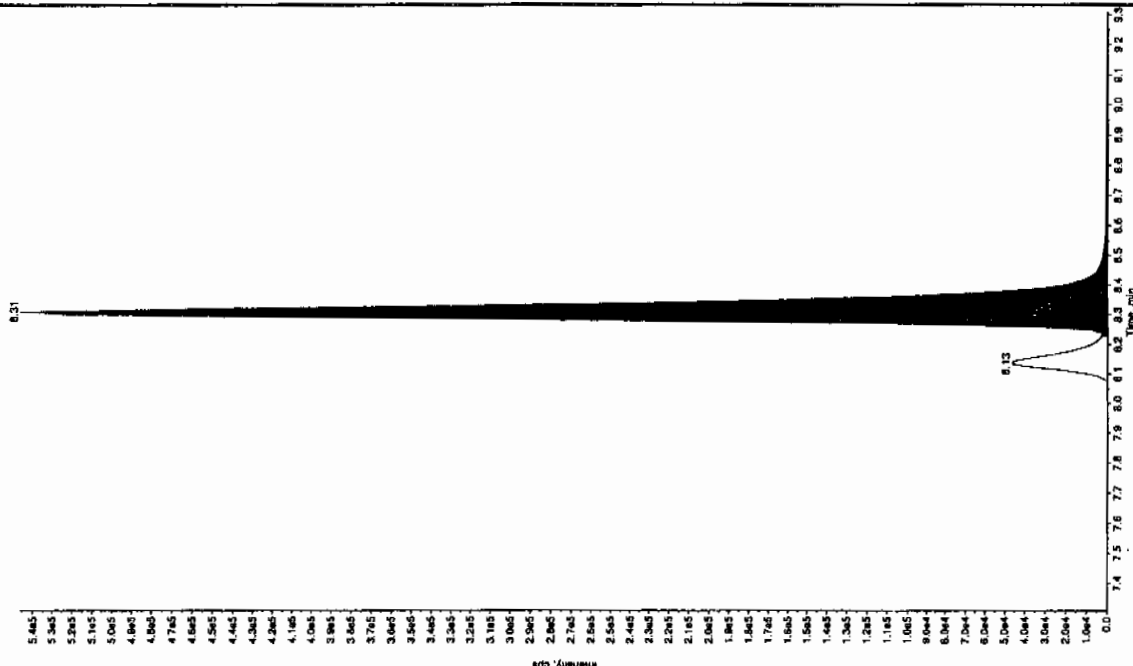
Sample Name: 'WXX100331-260CV' Sample ID: '111ER' File: 'EXS03310100.wit'  
 Peak Name: '26-Diamine-4-nitrofluorene' Mass(es): '166.046.0 amu'  
 Comment: 'LCMSEXP\_C' Annotation: ''

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 546. ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 10:36:17 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.95 min  
 Height: 1,404,000 counts  
 Width: 321278.931 cps  
 Start Time: 4.83 min  
 End Time: 5.24 min



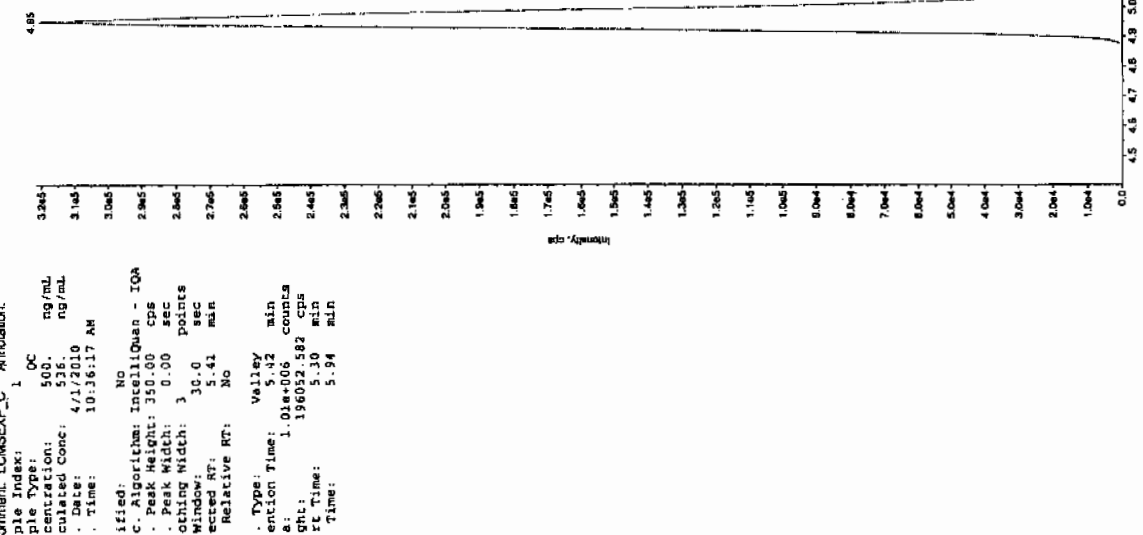
Sample Name: 'WXX100331-260CV' Sample ID: '111ER' File: 'EXS03310100.wit'  
 Peak Name: '34-Dinitrofluorene' Mass(es): '182.1151.9 amu'  
 Comment: 'LCMSEXP\_C' Annotation: ''

Sample Index: 1  
 Sample Type: QC  
 Concentration: 250. ng/mL  
 Calculated Conc: 264. ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 10:36:17 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.31 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.31 min  
 Height: 2,116,006 counts  
 Width: 545618.652 cps  
 Start Time: 8.23 min  
 End Time: 8.78 min



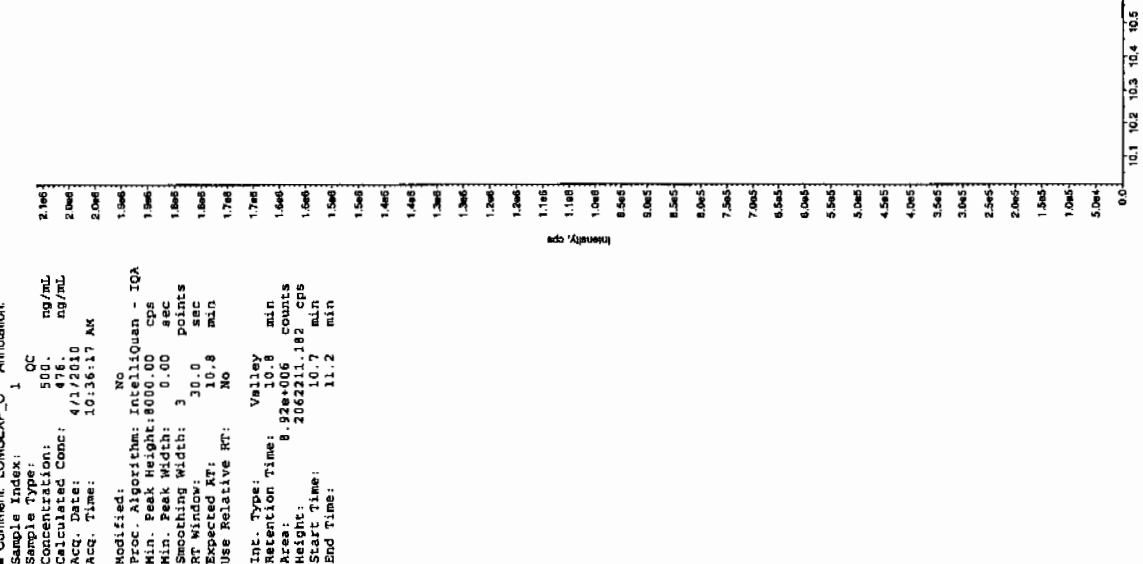
EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100331-260CV" Sample ID: "J1LER" File: "EXS03310100.wiff"  
 Peak Name: "24-Diamino-6-nitrofluorene" Mass(es): "156.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""



Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 536. ng/mL  
 Date: 4/1/2010  
 Acq. Time: 10:36:17 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 350.00 cps  
 Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.42 min  
 Area: 1.01e+006 counts  
 Height: 196052.582 cps  
 Start Time: 5.30 min  
 End Time: 5.94 min

Sample Name: "WXX100331-260CV" Sample ID: "J1LER" File: "EXS03310100.wiff"  
 Peak Name: "Tris(4-cresyl) phosphate" Mass(es): "369.151.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""



Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 476. ng/mL  
 Date: 4/1/2010  
 Acq. Time: 10:36:17 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 800.00 cps  
 Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 8.92e+006 counts  
 Height: 2062211.182 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310102.wiff

Analysis Date: 01-APR-10 11:07

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	93.9	94	
2,6-Diamino-4-nitrotoluene	100	119	119	
3,4-Dinitrotoluene	50	54.6	109	
3,5-Dinitroaniline	100	123	123	
TATB	100	114	114	
tris(o-cresyl) phosphate	100	98.2	98	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

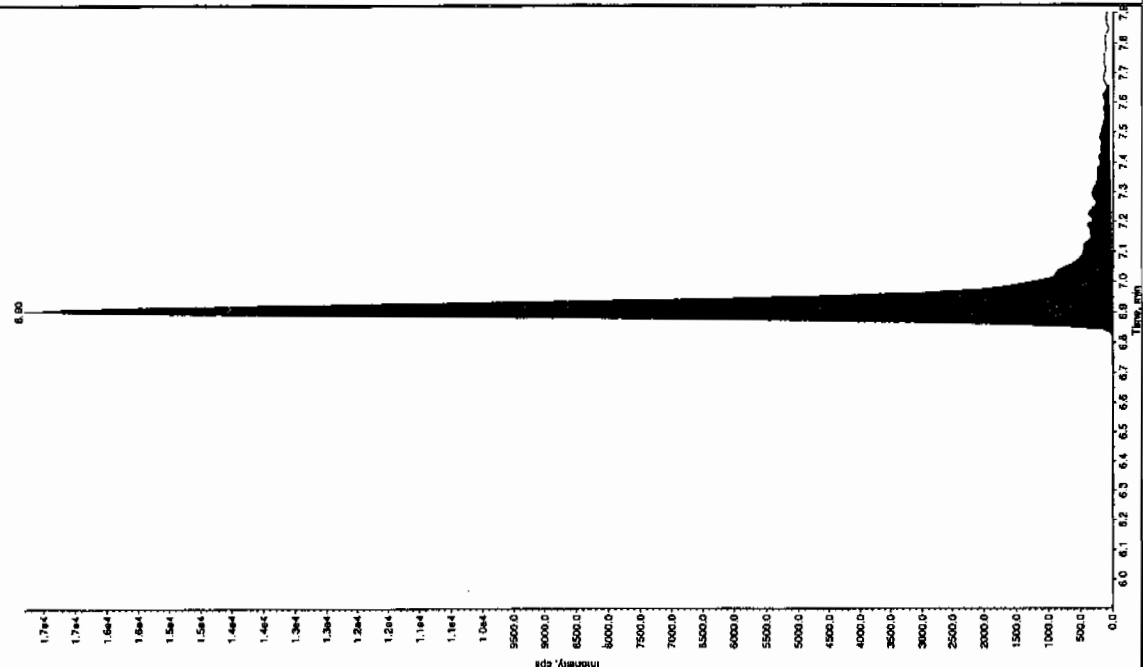
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

kan 4/15/10

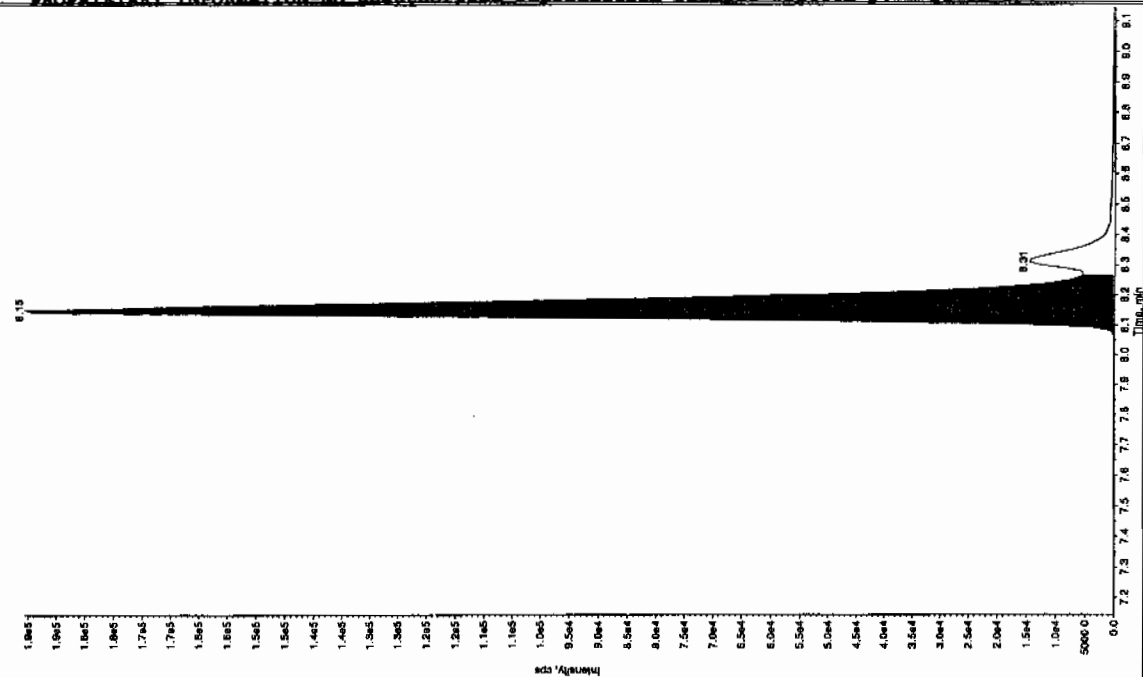
Sample Name: "WXX100331-27CR" Sample ID: "JILLER" File: "EXS0310102.wif"  
 Peak Name: "TATP" Mass(es): "257.2024 S amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: OC  
 Concentration: 100. ng/mL  
 Calculated Conc: 134. ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 11:07:44 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 RT Window: 30.0 sec  
 Expected RT: 6.90 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 6.90 min  
 Area: 7.98e+004 counts  
 Height: 17107.123 cps  
 Start Time: 6.80 min  
 End Time: 7.00 min



Sample Name: "WXX100331-27CR" Sample ID: "JILLER" File: "EXS0310102.wif"  
 Peak Name: "35-Dihydroquinoline" Mass(es): "182.0460 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: OC  
 Concentration: 100. ng/mL  
 Calculated Conc: 123. ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 11:07:44 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 RT Window: 15.0 sec  
 Expected RT: 8.14 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.15 min  
 Area: 7.89e+005 counts  
 Height: 190459.869 cps  
 Start Time: 8.04 min  
 End Time: 8.27 min

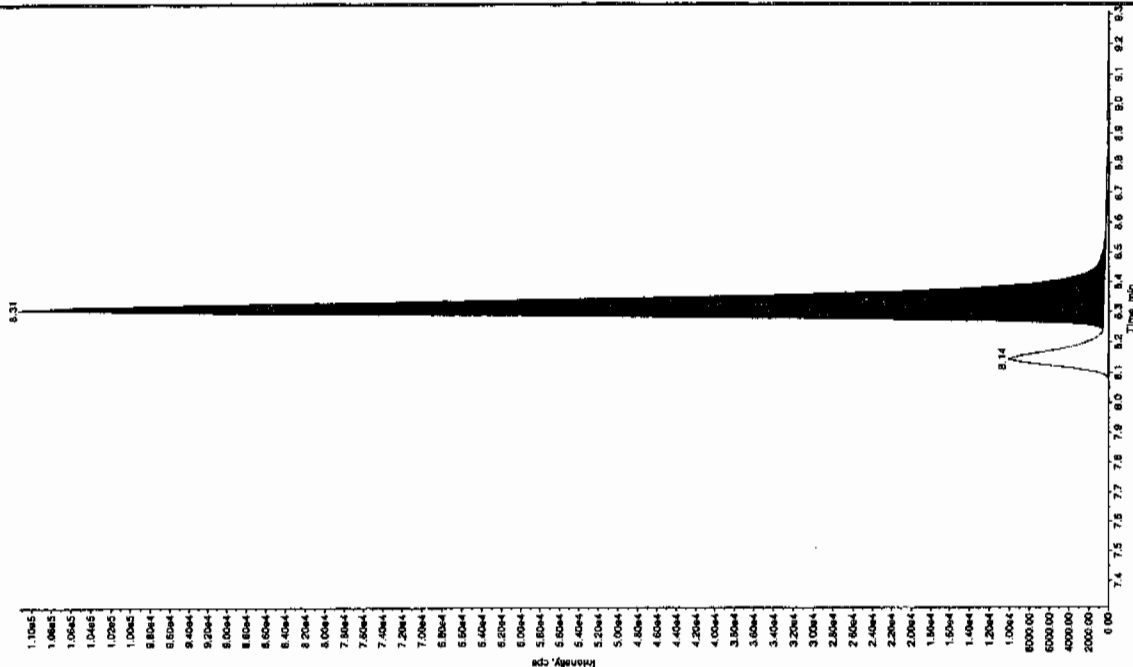


kan 4/15/10

Sample Name: "WVX100331-27CR" Sample ID: "11LER" File: "EXS03310102.wif"  
Peak Name: "24-Diamino-4-nitrotoluene" Mass(es): "182.1751.9 amu"

Comment: "LCMSEXP\_C" Annotation: ""

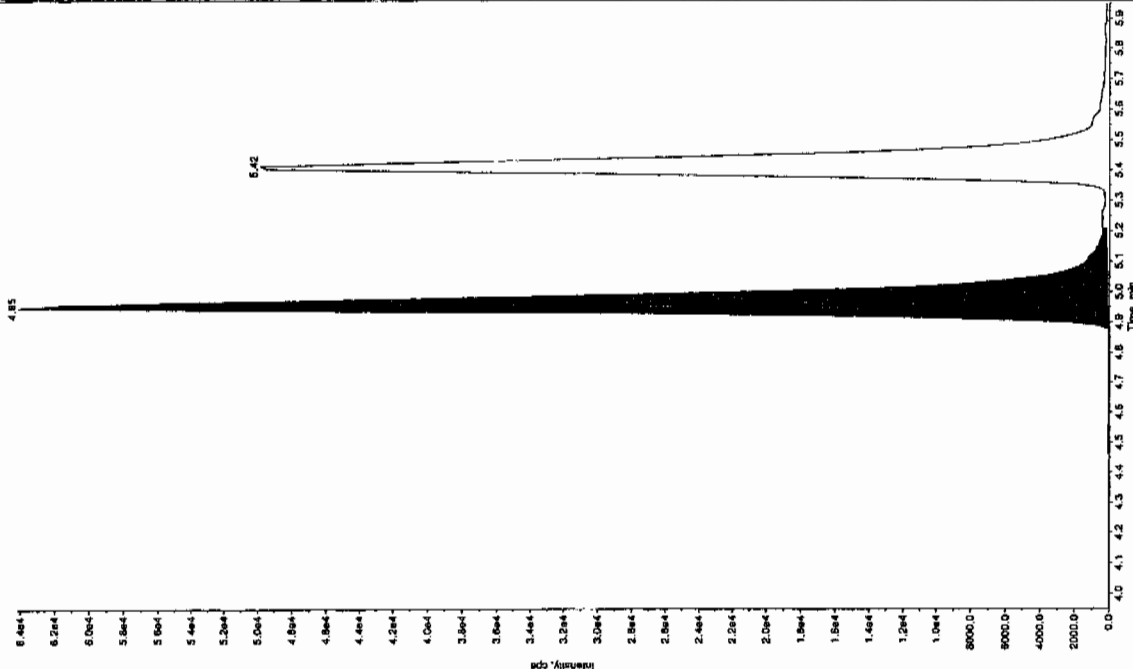
Sample Index: 1  
Sample Type: QC  
Concentration: 50.0 ng/mL  
Calculated Conc: 54.6 ng/mL  
Acq. Date: 4/1/2010  
Acq. Time: 11:07:44 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 1460.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 15.0 sec  
Expected RT: 8.31 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 8.31 min  
Area: 4.41e+005 counts  
Height: 110817.616 cps  
Start Time: 8.24 min  
End Time: 8.64 min



Sample Name: "WVX100331-27CR" Sample ID: "11LER" File: "EXS03310102.wif"  
Peak Name: "28-Diamino-4-nitrotoluene" Mass(es): "186.046.0 amu"

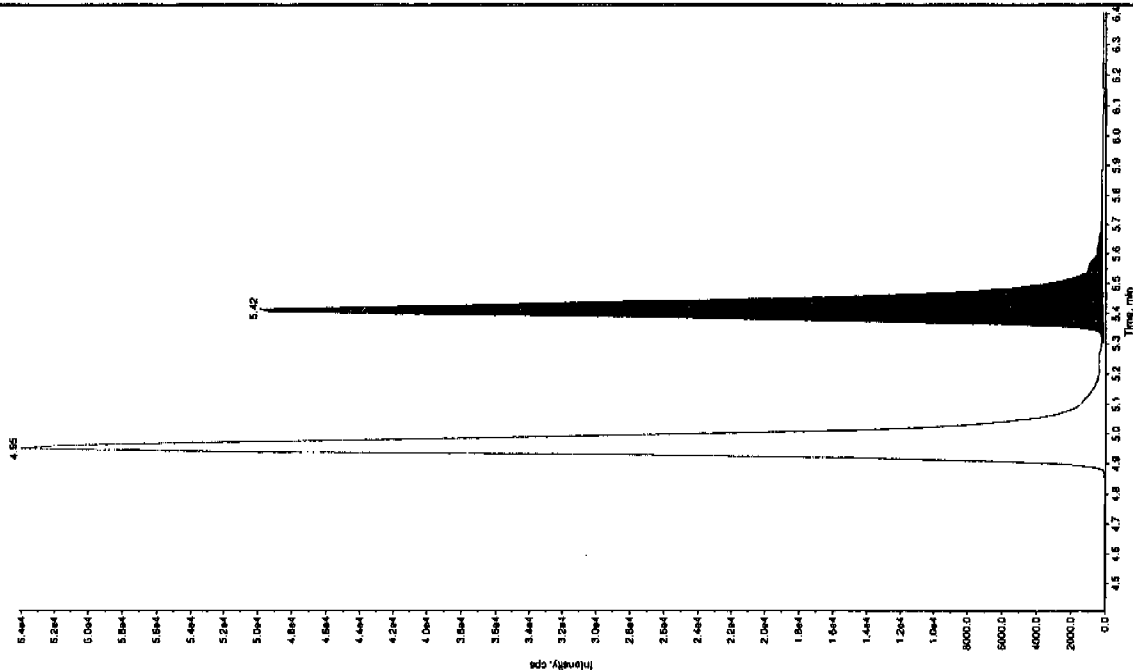
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: QC  
Concentration: 100. ng/mL  
Calculated Conc: 119. ng/mL  
Acq. Date: 4/1/2010  
Acq. Time: 11:07:44 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IQA  
Min. Peak Height: 450.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 4.95 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 4.95 min  
Area: 2.68e+005 counts  
Height: 64074.364 cps  
Start Time: 4.84 min  
End Time: 5.21 min



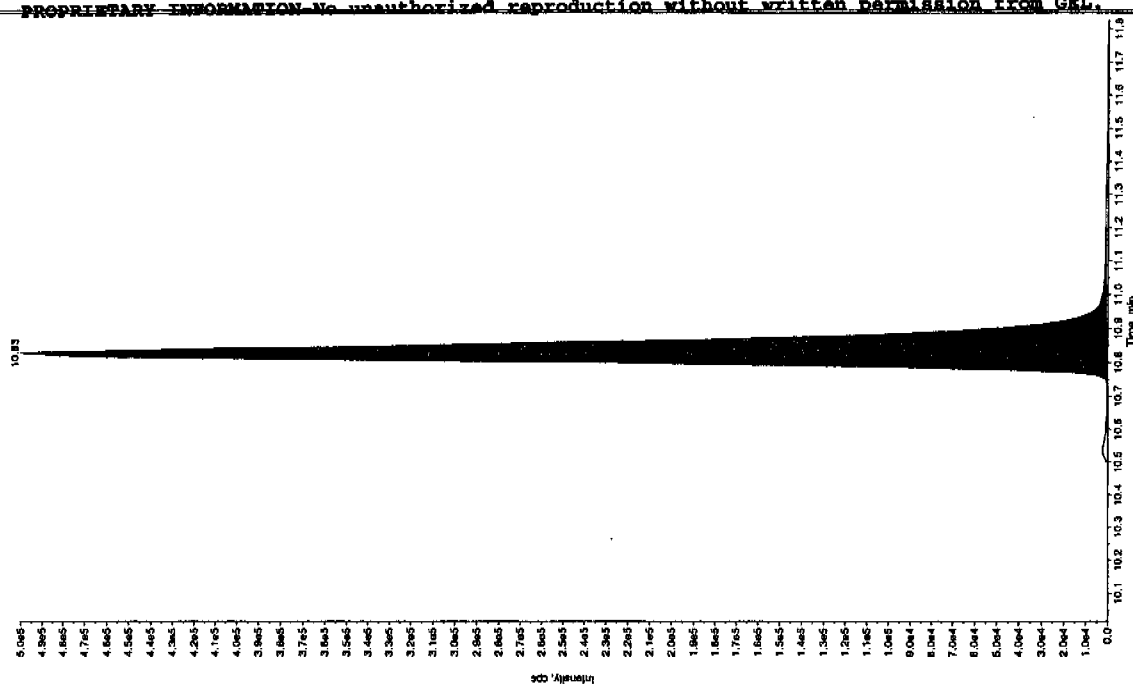
Sample Name: "WXX100331-27CRF" Sample ID: "11JLER" File: "EXS03310102.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 471.020 ng/mL  
 Acq. Date: 4/11/2010  
 Acq. Time: 11:07:44 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.42 min  
 Area: 2.10e+006 counts  
 Height: 4973.964 cps  
 Start Time: 5.30 min  
 End Time: 5.63 min



Sample Name: "WXX100331-27CRF" Sample ID: "11JLER" File: "EXS03310102.wif"  
 Peak Name: "rel(o-cresyl) phosphate" Mass(es): "366.191.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 99.2 ng/mL  
 Acq. Date: 4/11/2010  
 Acq. Time: 11:07:44 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 2.06e+006 counts  
 Height: 499891.966 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min





7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310113.wiff

Analysis Date: 01-APR-10 14:00

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	531	106	
2,6-Diamino-4-nitrotoluene	500	574	115	
3,4-Dinitrotoluene	250	256	102	
3,5-Dinitroaniline	500	533	107	
TATB	500	536	107	
tris(o-cresyl) phosphate	500	480	96	

Recovery Limits:

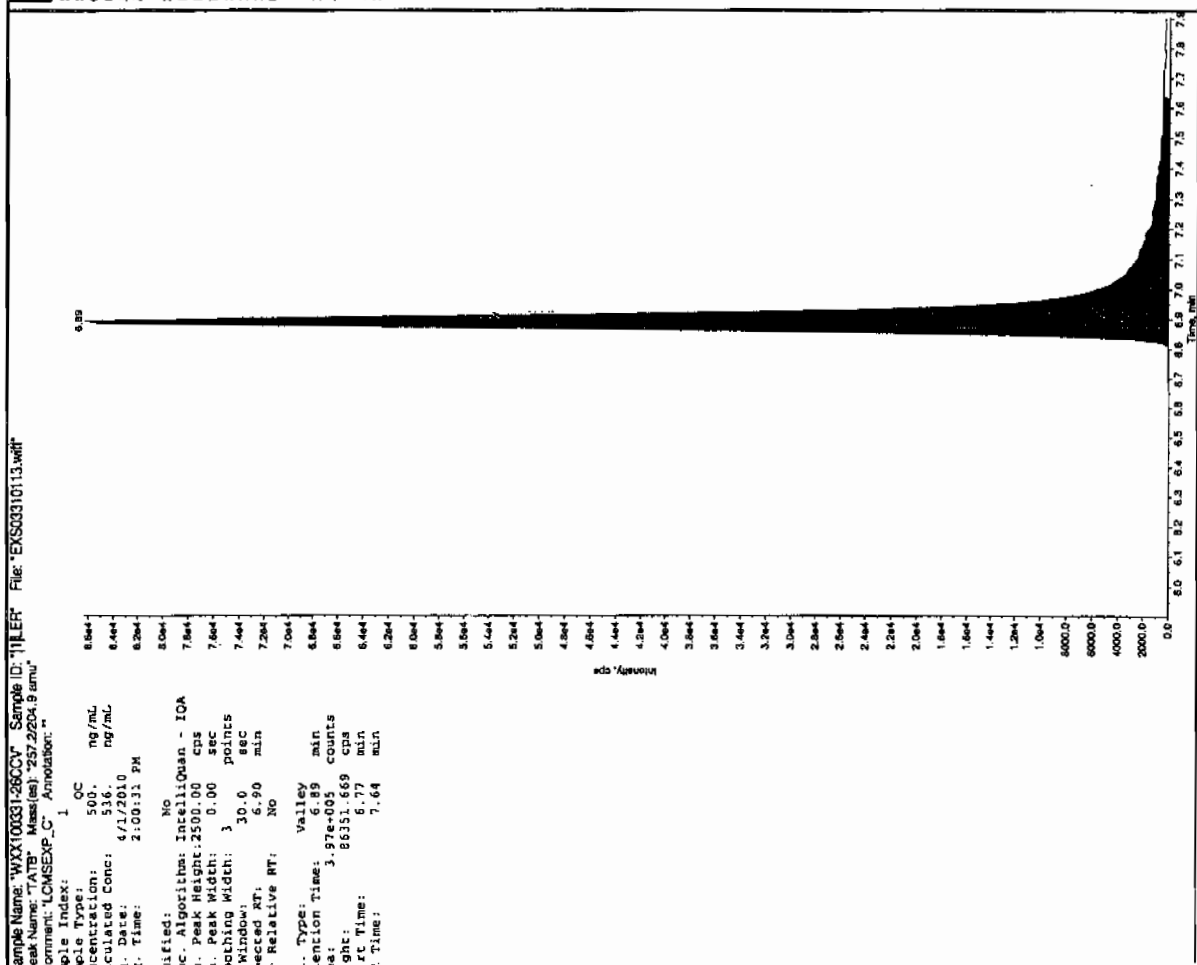
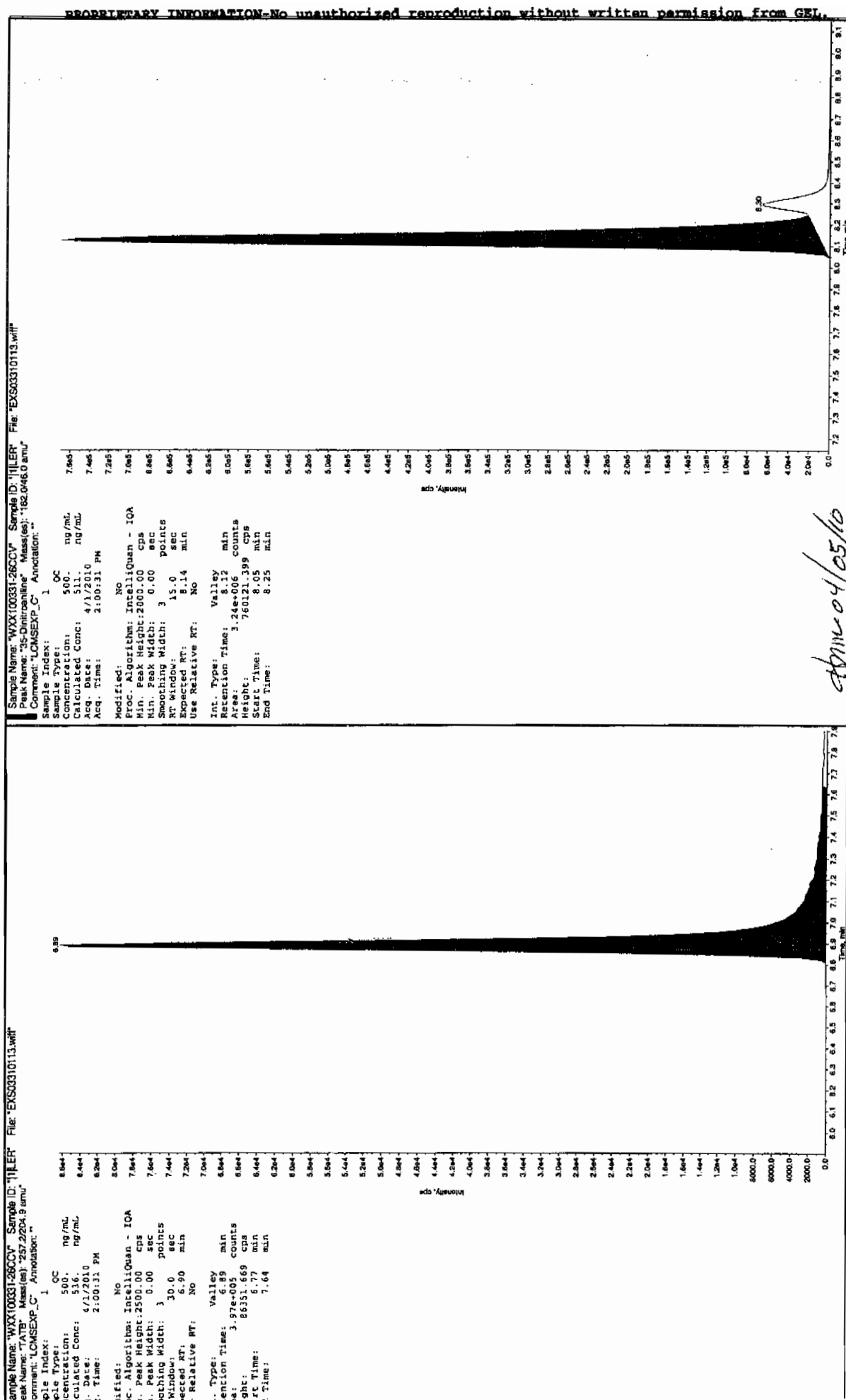
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

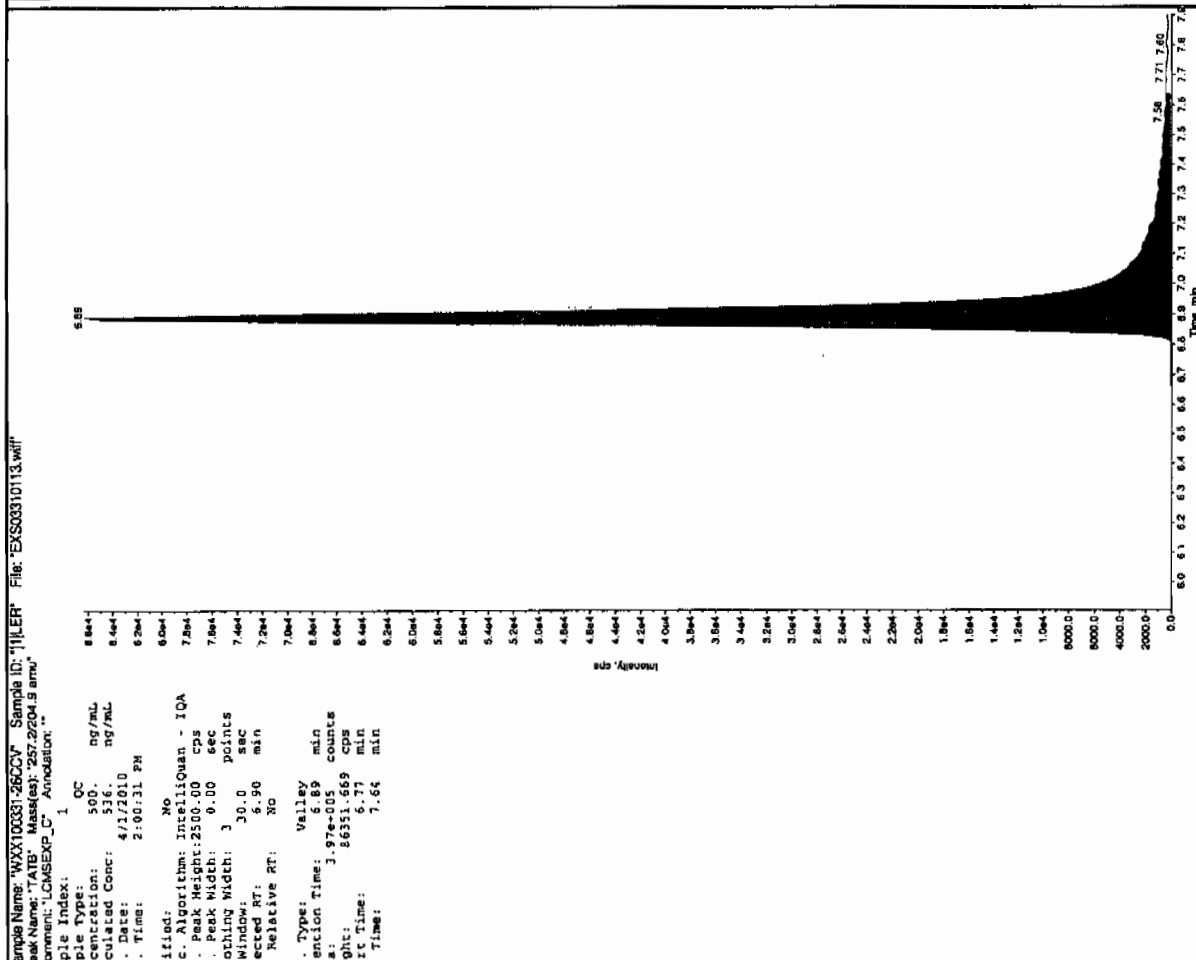
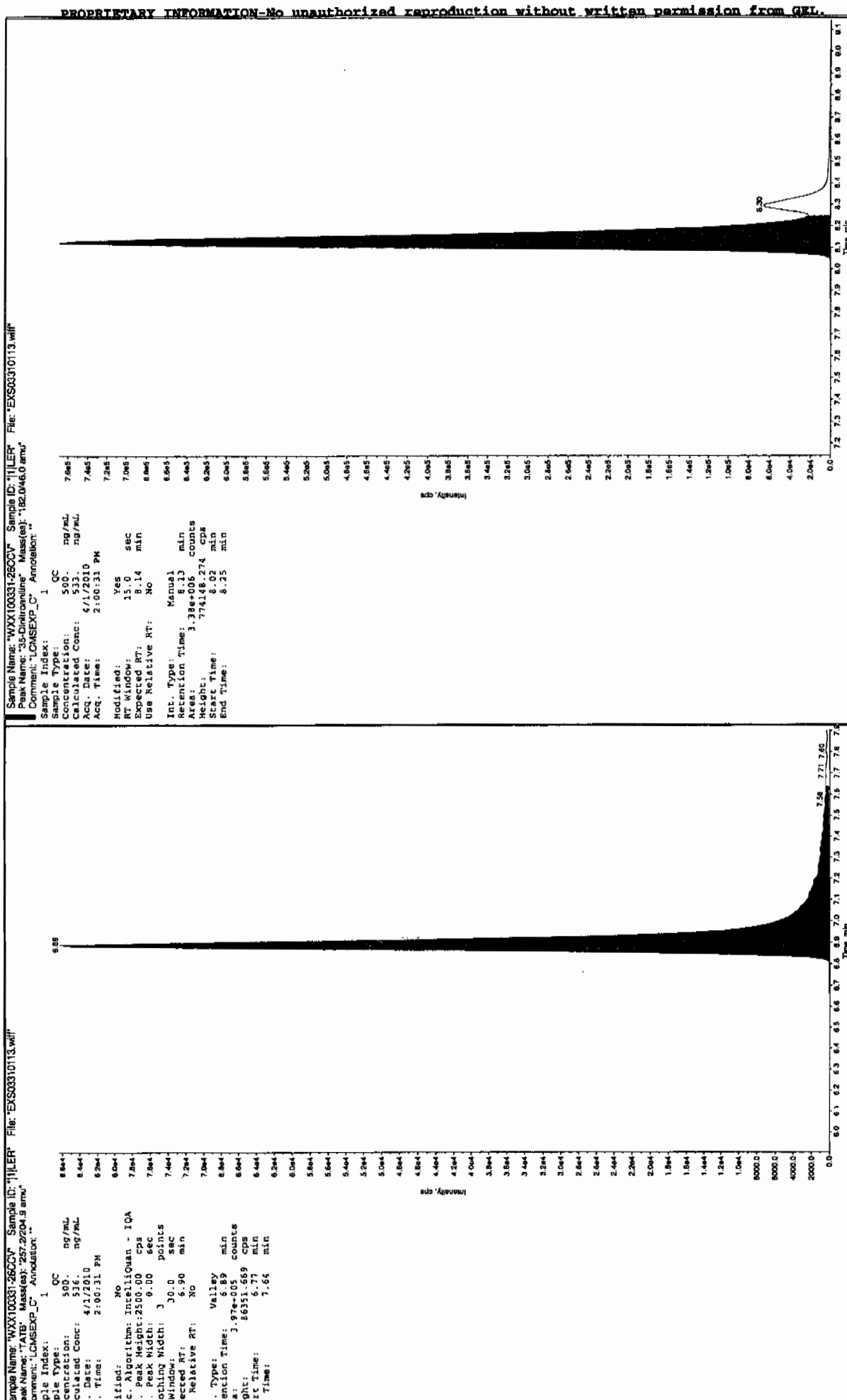
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Before Jan 4/5/10



After Scan 415110



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100331-26COV" Sample ID: "11LER" File: "EXS03310113.wif"

Peak Name: "34-Dinitrofluorene" Mass(es): "182.11519 amu"

Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 250. ng/mL

Calculated Conc: 250. ng/mL

Acq. Date: 4/1/2010

Acq. Time: 2:00:31 PM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 160.00 cps

Min. Peak Width: 0.00 sec

Smoother Width: 3.00 points

RT Window: 15.0 sec

Expected RT: 8.31 min

Use Relative RT: No

Int. Type: Valley

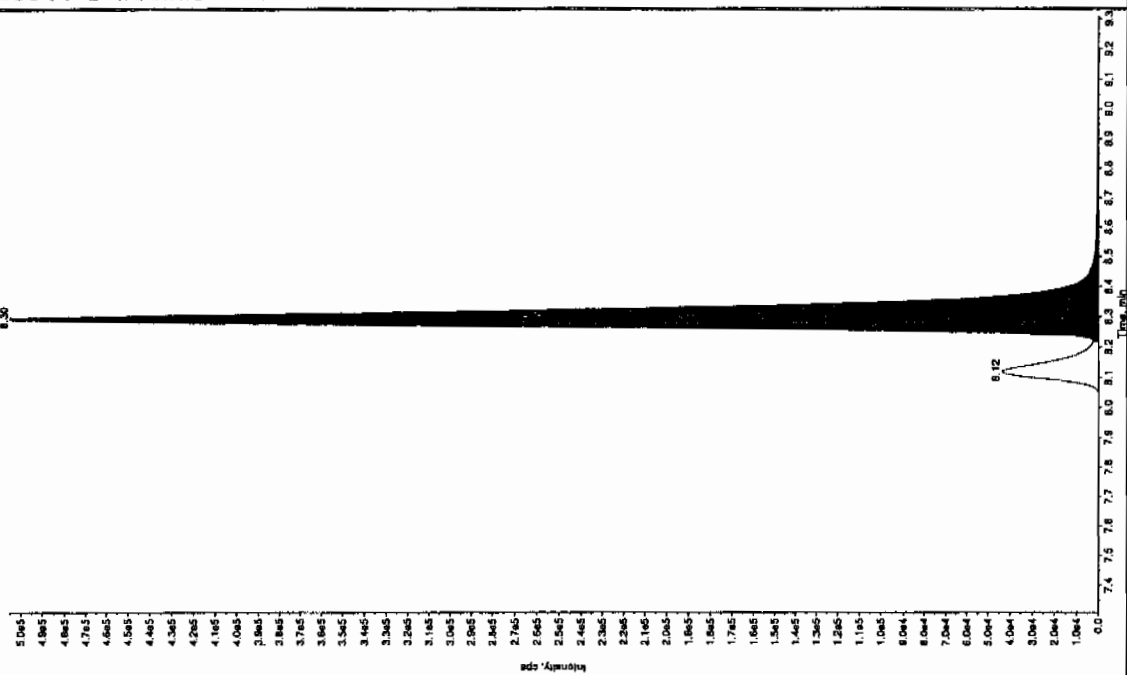
Retention Time: 8.30 min

Area: 2.07e+006 counts

Height: 505166.931 cps

Start Time: 8.22 min

End Time: 8.85 min



Sample Name: "WXX100331-26COV" Sample ID: "11LER" File: "EXS03310113.wif"

Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "186.0460 amu"

Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1

Sample Type: QC

Concentration: 500. ng/mL

Calculated Conc: 574. ng/mL

Acq. Date: 4/1/2010

Acq. Time: 2:00:31 PM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 450.00 cps

Min. Peak Width: 0.00 sec

Smoother Width: 3.00 points

RT Window: 30.0 sec

Expected RT: 4.95 min

Use Relative RT: No

Int. Type: Valley

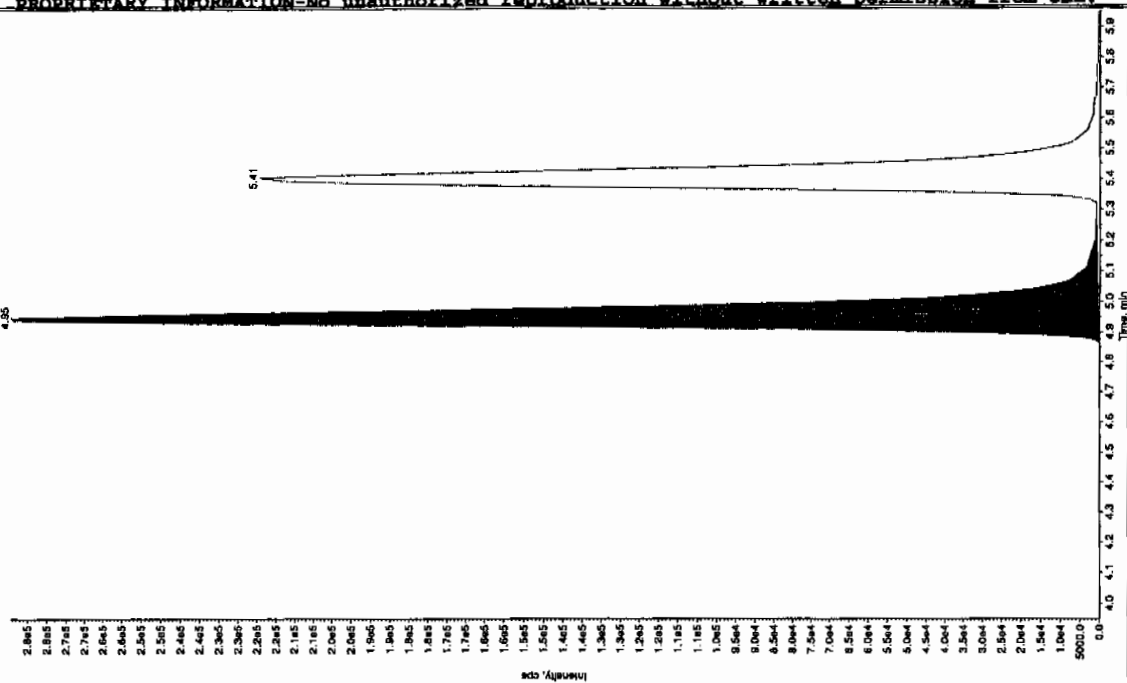
Retention Time: 4.95 min

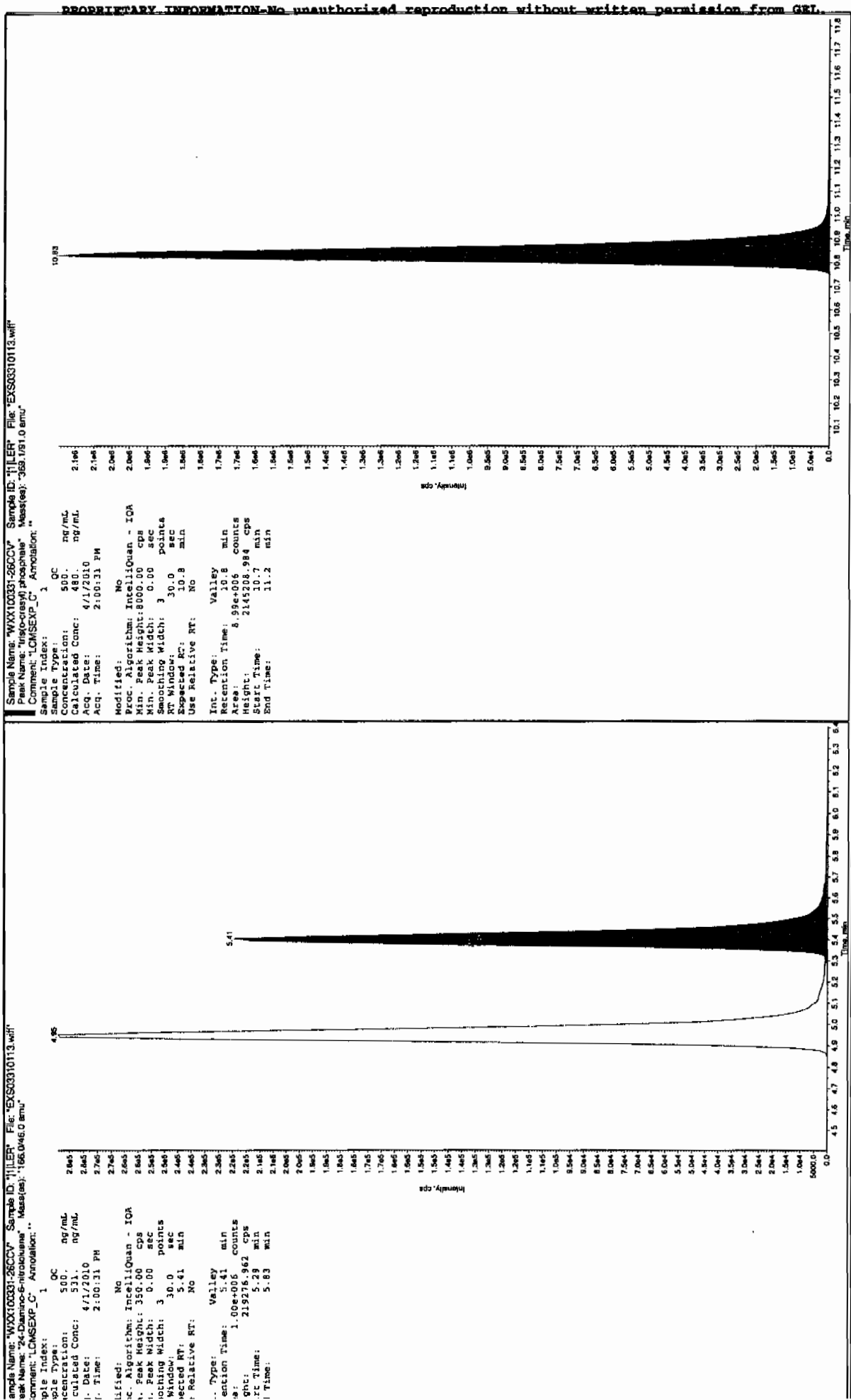
Area: 1.25e+006 counts

Height: 288193.207 cps

Start Time: 4.85 min

End Time: 5.24 min





7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310115.wiff

Analysis Date: 01-APR-10 14:31

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	93.5	94	
2,6-Diamino-4-nitrotoluene	100	112	112	
3,4-Dinitrotoluene	50	52.6	105	
3,5-Dinitroaniline	100	112	112	
TATB	100	104	104	
tris(o-cresyl) phosphate	100	97.8	98	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

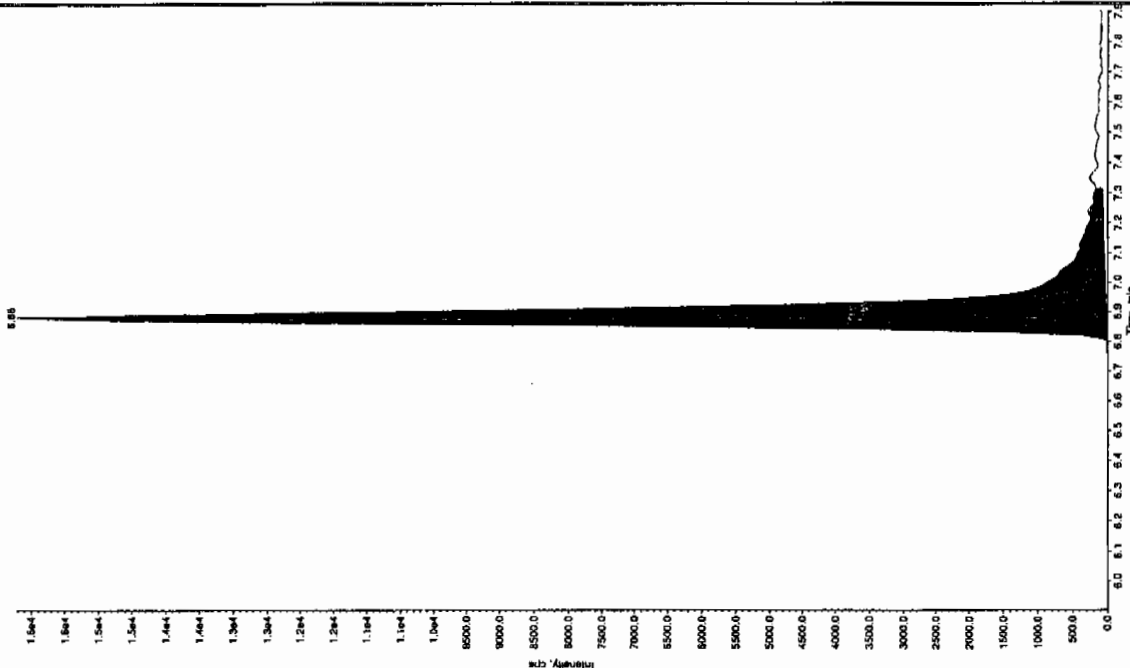
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Jan 4/15/10

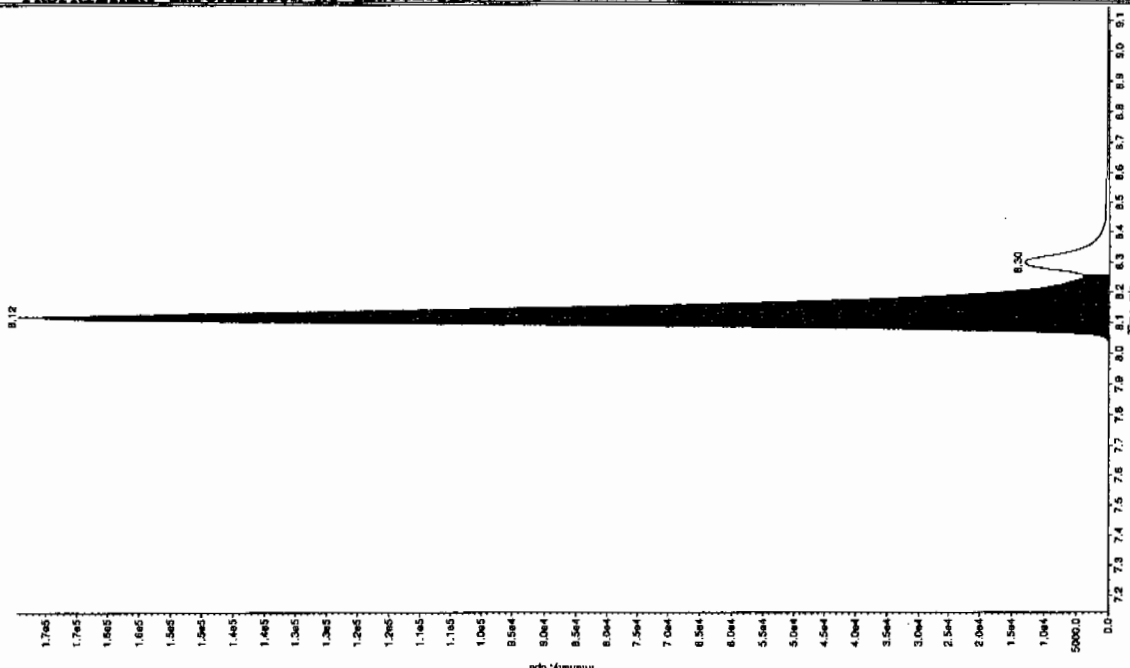
Sample Name: "WXX100331-270R" Sample ID: "111ER" File: "EXS03310115.wif"  
 Peak Name: "TATB" Mass(es): "257.2904.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 104. ng/mL  
 Date: 4/17/2010  
 Acq. Time: 2:31:56 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 6.90 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 6.88 min  
 Area: 7.22e+004 counts  
 Height: 16190.683 cps  
 Start Time: 6.76 min  
 End Time: 7.32 min

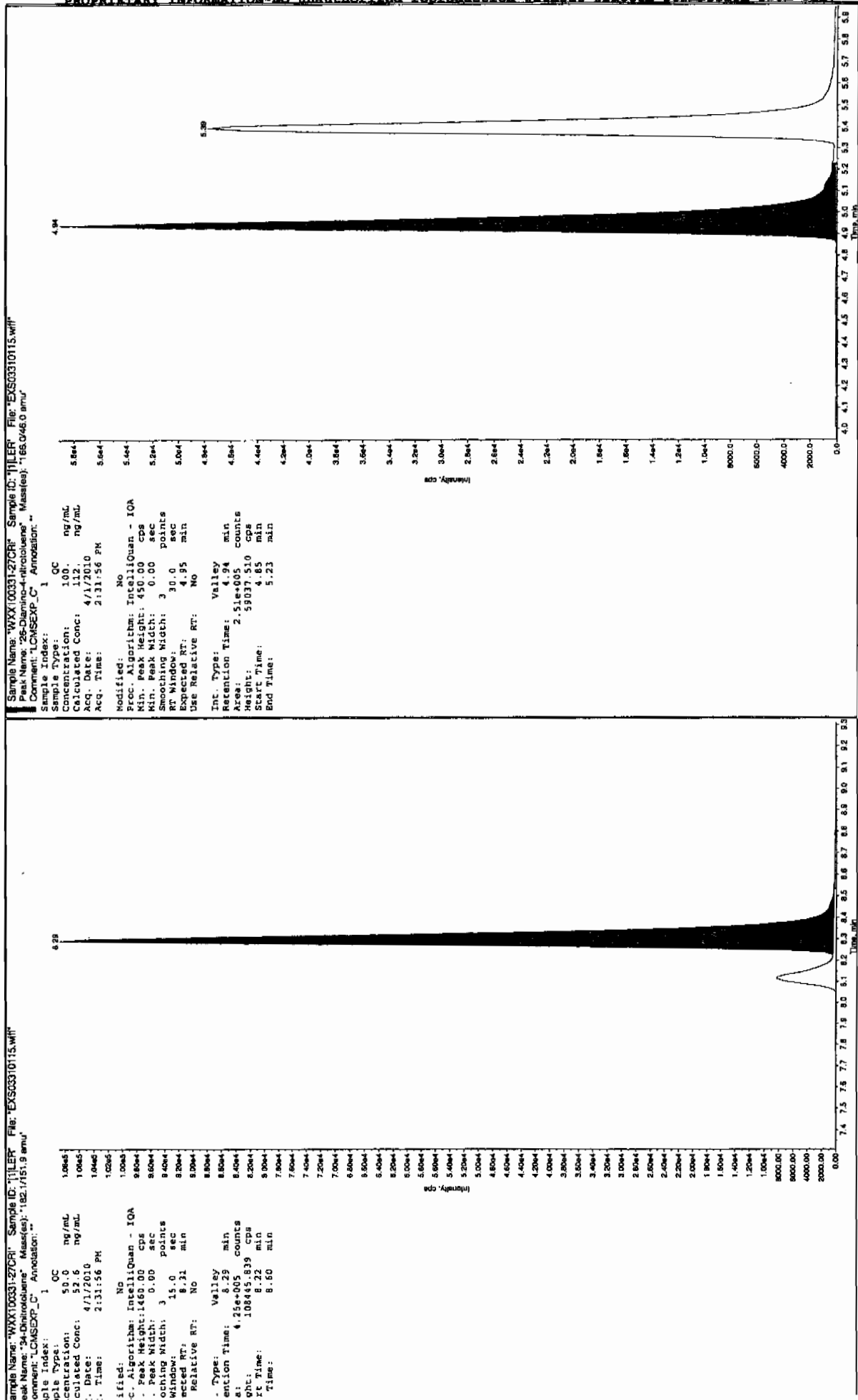


Sample Name: "WXX100331-270R" Sample ID: "111ER" File: "EXS03310115.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

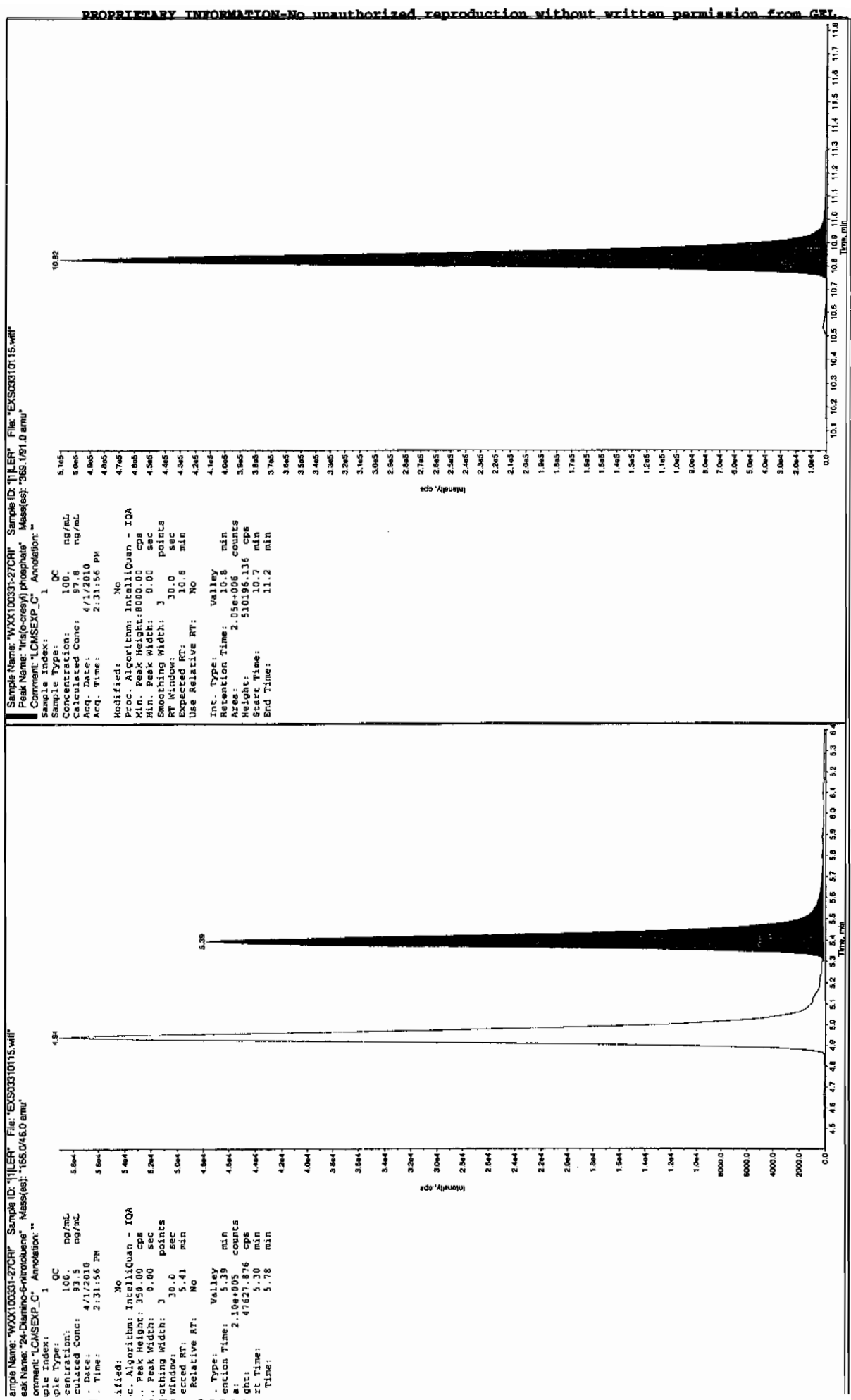
Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 112. ng/mL  
 Date: 4/17/2010  
 Acq. Time: 2:31:56 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.14 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.12 min  
 Area: 7.18e+005 counts  
 Height: 174296.341 cps  
 Start Time: 8.03 min  
 End Time: 8.26 min



4mm-04/05/10







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310126.wiff

Analysis Date: 01-APR-10 17:24

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	534	107	
2,6-Diamino-4-nitrotoluene	500	585	117	
3,4-Dinitrotoluene	250	258	103	
3,5-Dinitroaniline	500	553	111	
TATB	500	531	106	
tris(o-cresyl) phosphate	500	473	95	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Jan 4/15/10

Sample Name: "WXX100331-26CCV" Sample ID: "JILLER" File: "EXS03310126.wif"

Peak Name: "7.74" Mass(es): 257.2204.9 amu

Comment: "LONSEXP\_C" Annotation: "

File Index: 1

Sample Type: 500 ng/mL

Calculated Conc: 531 ng/mL

Acq. Date: 4/1/2010

Acq. Time: 5:24:40 PM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2500.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

Window: 30.0 sec

Expected RT: 6.90 min

Use Relative RT: No

Int. Type: Valley

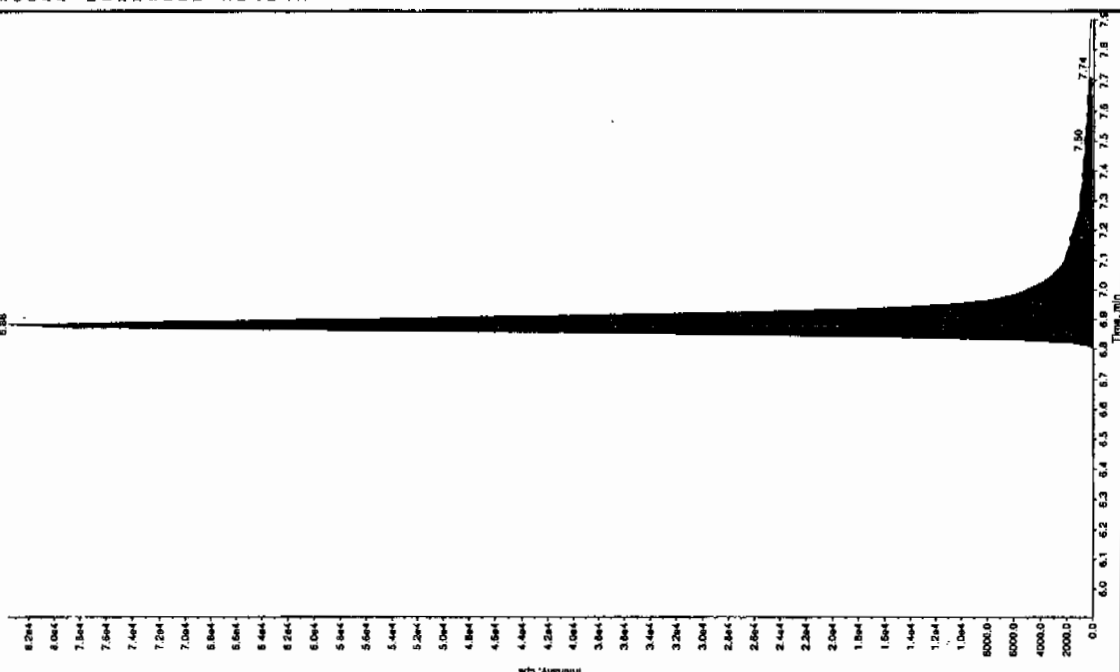
Retention Time: 6.88 min

Area: 3.93e+005 counts

Height: 83637.444 cps

Start Time: 6.78 min

End Time: 7.71 min



Sample Name: "WXX100331-26CCV" Sample ID: "JILLER" File: "EXS03310126.wif"

Peak Name: "8.30" Mass(es): 182.0946.0 amu

Comment: "LONSEXP\_C" Annotation: "

File Index: 1

Sample Type: 500 ng/mL

Calculated Conc: 553 ng/mL

Acq. Date: 4/1/2010

Acq. Time: 5:24:40 PM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

Window: 15.0 sec

Expected RT: 8.14 min

Use Relative RT: No

Int. Type: Valley

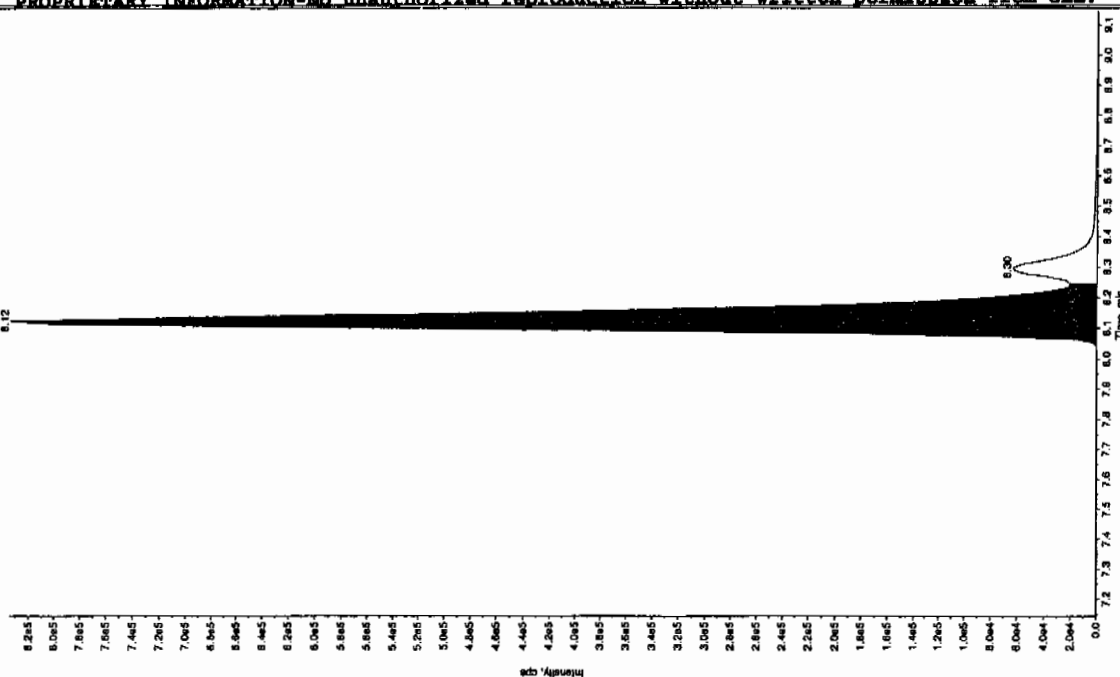
Retention Time: 8.12 min

Area: 3.50e+006 counts

Height: 834232.056 cps

Start Time: 8.01 min

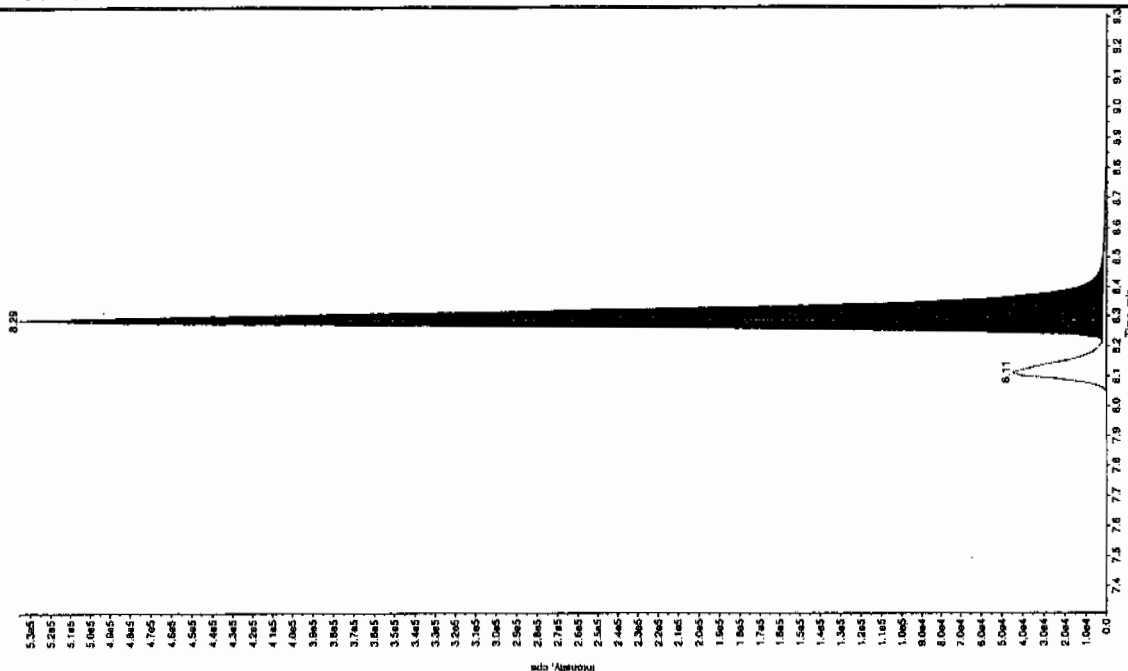
End Time: 8.25 min



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

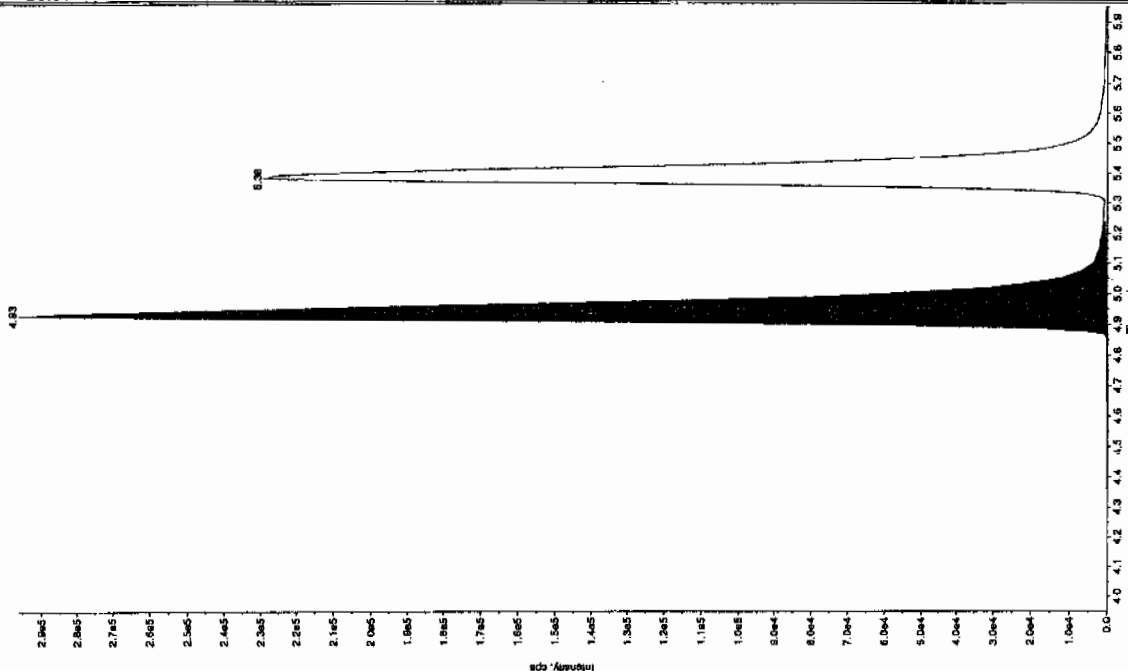
Sample Name: "WXX10031-260CV" Sample ID: "JILER" File: "EXS0310126.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

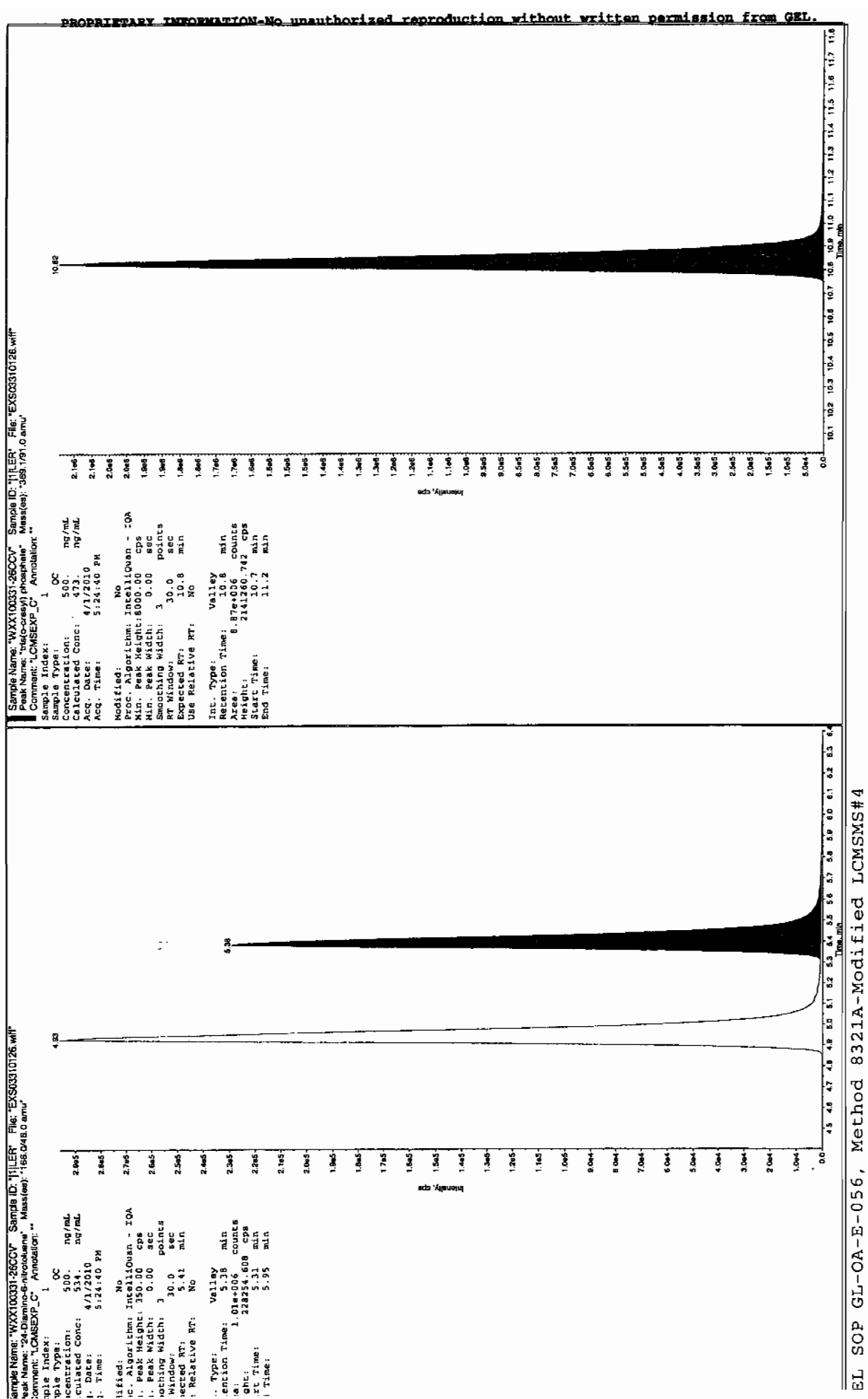
Sample Index: 1  
 Sample Type: QC  
 Concentration: 250. ng/mL  
 Calculated Conc: 258. ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 5:24:40 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.31 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.29 min  
 Area: 2.09e+006 counts  
 Peak Height: 5333.191 cps  
 Start Time: 8.23 min  
 End Time: 8.65 min



Sample Name: "WXX10031-260CV" Sample ID: "JILER" File: "EXS0310126.wif"  
 Peak Name: "25-Dinitro-4-nitrofluorene" Mass(es): "166.0/46.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 585. ng/mL  
 Acq. Date: 4/1/2010  
 Acq. Time: 5:24:40 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.93 min  
 Area: 1.27e+006 counts  
 Peak Height: 29592.408 cps  
 Start Time: 4.84 min  
 End Time: 5.24 min





7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2074

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310128.wiff

Analysis Date: 01-APR-10 17:56

LCMSMS ID: 1358

Column ID: Sphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	106	106	
2,6-Diamino-4-nitrotoluene	100	126	126	
3,4-Dinitrotoluene	50	52.6	105	
3,5-Dinitroaniline	100	109	109	
TATB	100	106	106	
tris(o-cresyl) phosphate	100	97.7	98	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Scan 415710

Sample Name: "WXX100331-270R" Sample ID: "111ER" File: "EX030310128.wif"

Peak Name: "35-Dibutanol" Mass(es): "182.046.0 amu"

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 4/1/2010

Acq. Time: 5:56:05 PM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.14 min

Use Relative RT: No

Int. Type: Valley

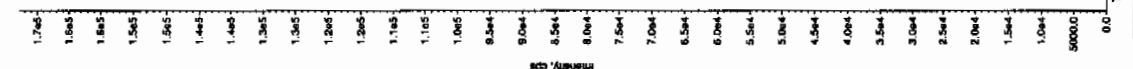
Retention Time: 8.12 min

Area: 8.97e+005 counts

Height: 10768326 cps

Start Time: 8.00 min

End Time: 8.25 min



Sample Name: "WXX100331-270R" Sample ID: "111ER" File: "EX030310128.wif"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 4/1/2010

Acq. Time: 5:56:05 PM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2500.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 6.90 min

Use Relative RT: No

Int. Type: Valley

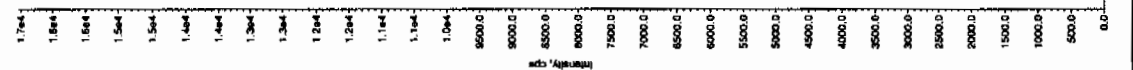
Retention Time: 6.88 min

Area: 7.33e+005 counts

Height: 18516721 cps

Start Time: 6.71 min

End Time: 7.43 min



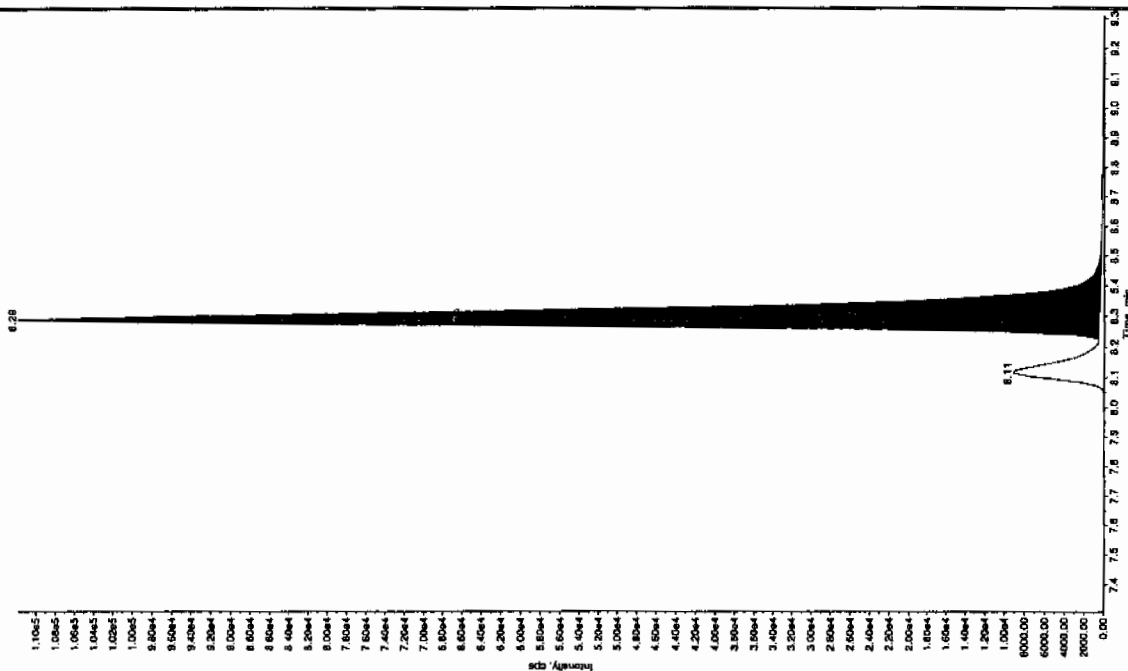
Time 04/05/10

Sample Name: "WXX100331-27CPI" Sample ID: "J1LER" File: "EXS03310128.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "162.1/151.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 50.0 ng/mL  
 Calculated Conc: 52.6 ng/mL  
 Date: 4/1/2010  
 Acq. Time: 5:56:05 PM

Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3.00 points  
 RT Window: 15.0 sec  
 Expected RT: 8.31 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 8.29 min  
 Area: 4.26e+005 counts  
 Height: 11139.775 cps  
 Start Time: 8.22 min  
 End Time: 8.59 min

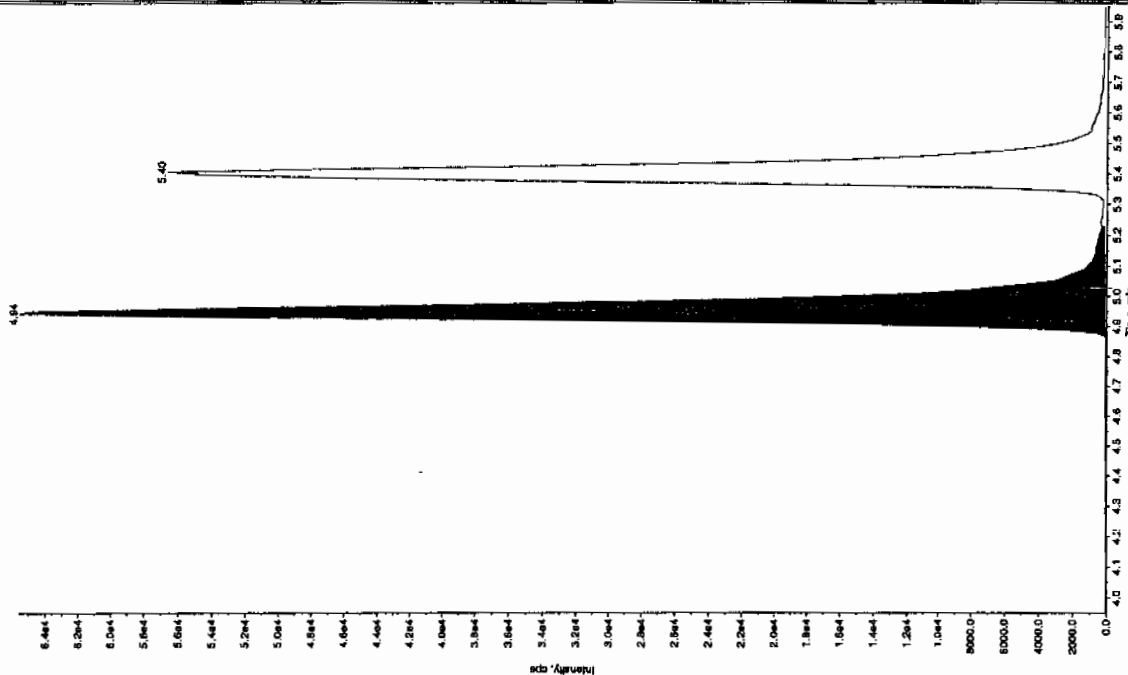


Sample Name: "WXX100331-27CPI" Sample ID: "J1LER" File: "EXS03310128.wif"  
 Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "165.0/46.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 136. ng/mL  
 Date: 4/1/2010  
 Acq. Time: 5:56:05 PM

Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3.00 points  
 RT Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No

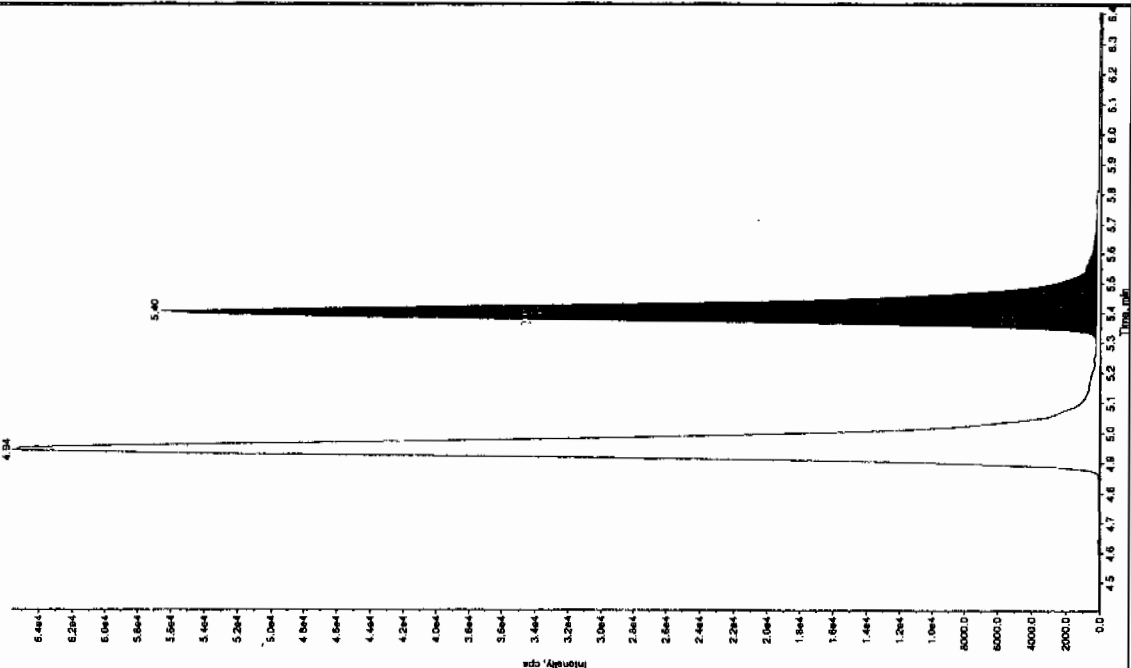
Int. Type: Valley  
 Retention Time: 4.94 min  
 Area: 2.82e+005 counts  
 Height: 65478.462 cps  
 Start Time: 4.82 min  
 End Time: 5.23 min





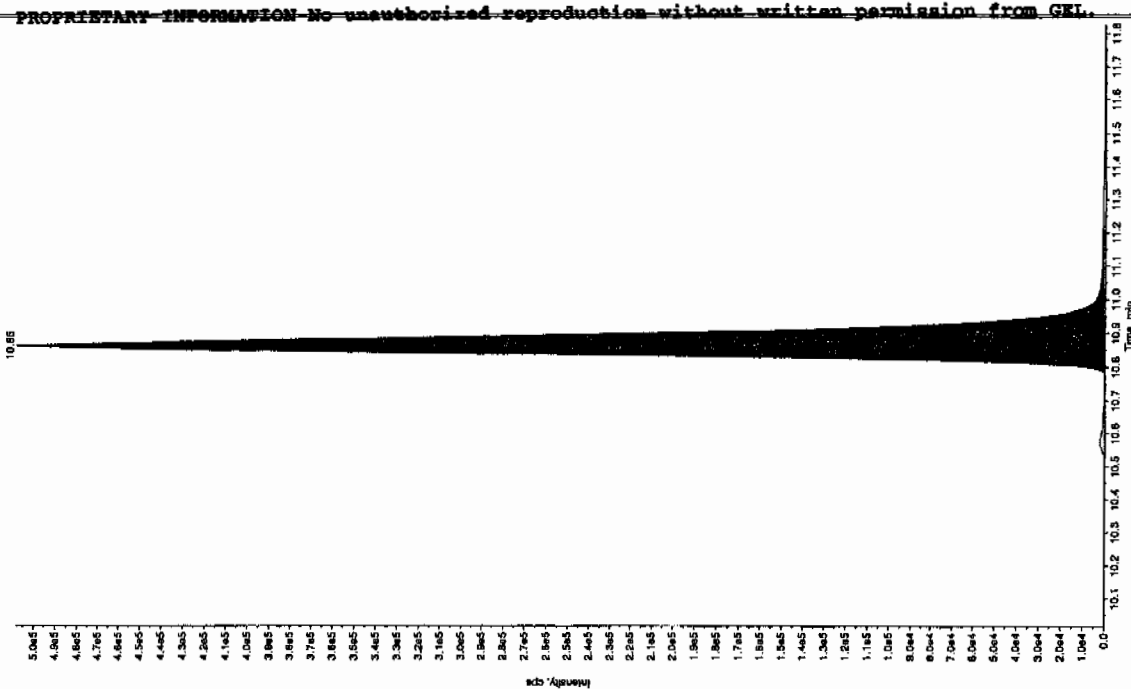
Sample Name: "WXX10031-27CRI" Sample ID: "111ER" File: "EXS0310128.wit"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 106. ng/mL  
 Acq. Date: 4/11/2010  
 Acq. Time: 5:56:05 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 3.00 sec  
 Smoothing Width: 3.00 points  
 RT Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.40 min  
 Area: 2.12e+005 counts  
 Height: 56415.581 cps  
 Start Time: 5.30 min  
 End Time: 5.75 min



Sample Name: "WXX10031-27CRI" Sample ID: "111ER" File: "EXS0310128.wit"  
 Peak Name: "Isotocresyl phosphate" Mass(es): "359.0791.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 97.7 ng/mL  
 Acq. Date: 4/11/2010  
 Acq. Time: 5:56:05 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 800.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3.00 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.9 min  
 Area: 2.05e+006 counts  
 Height: 50755.756 cps  
 Start Time: 10.6 min  
 End Time: 11.2 min



# QUALITY CONTROL DATA

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 958260

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 1202055034

Sample Amount 2

Moisture:

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412076a

Date Analyzed: 14-APR-10 04:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Method: C:\MASSLYNX\New\_Exp.PRO\MethDB\041210expa.mdb, Time: Tue Apr 13 09:03:30 2010  
Calibration: C:\MASSLYNX\New\_Exp.PRO\CurveDB\041210expa.cdb, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412076a

Date: 14-Apr-2010

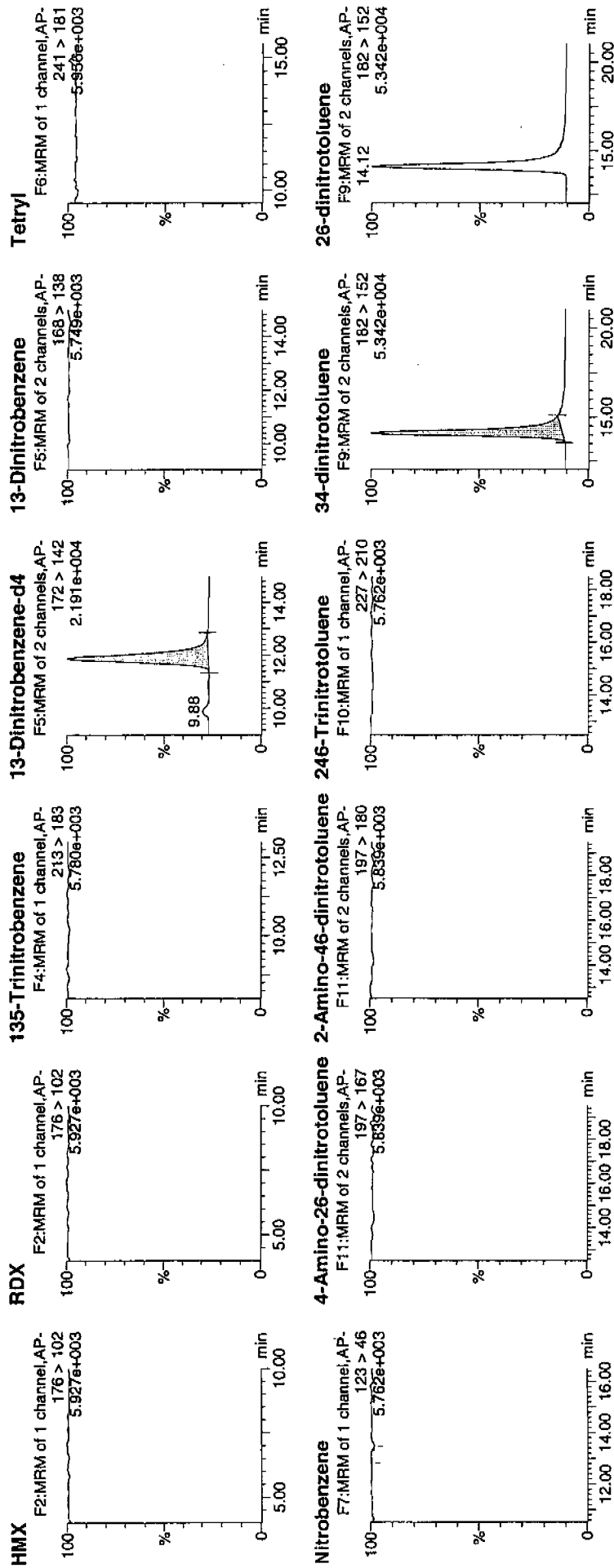
Time: 04:33:13

ID: 1202055034

Vial: 3:1,A

not  
4/15/10

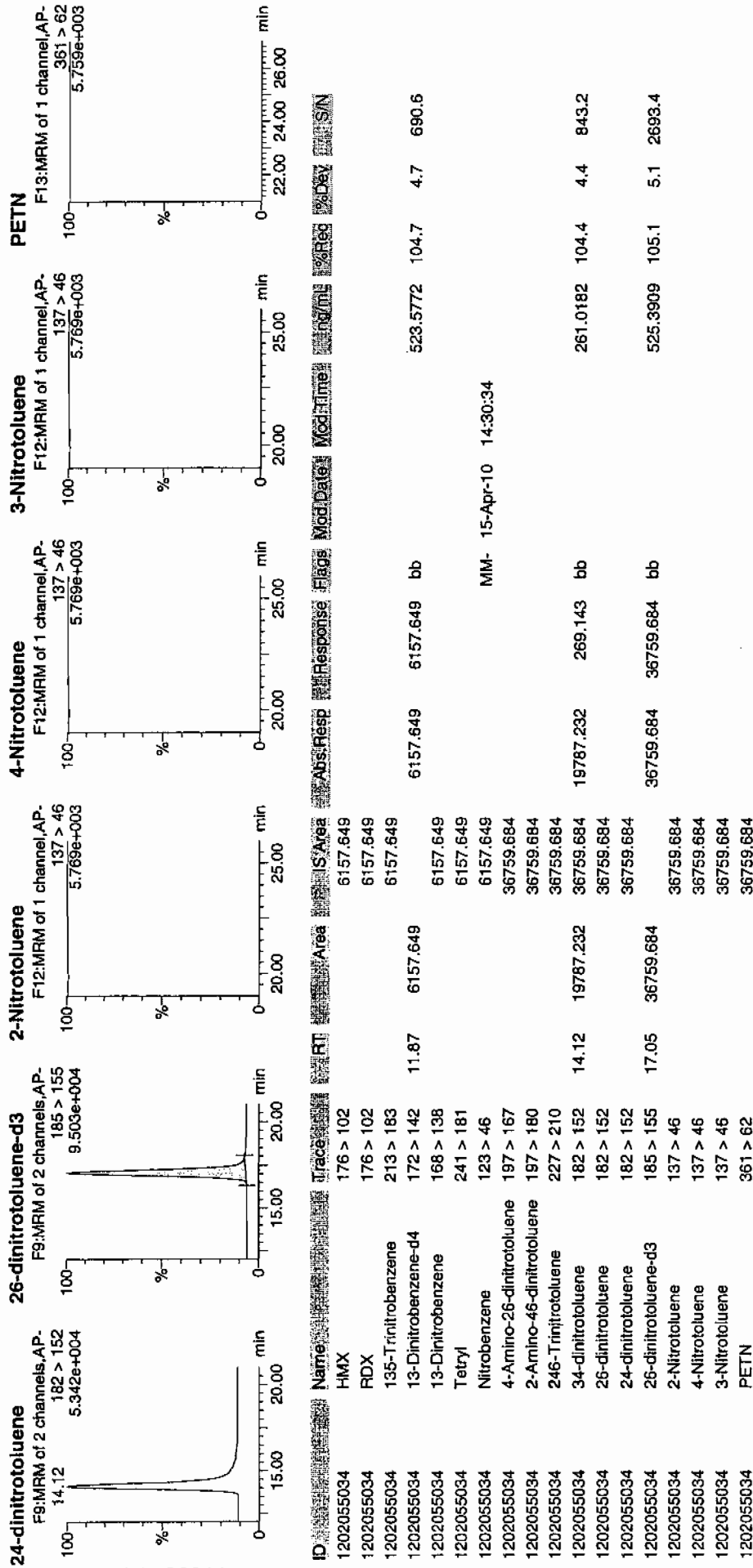
LAU/98862/2010 | MS | 21



Amc  
24/10/10

**Quantify Sample Report**  
 GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 958260

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 1202055034

Sample Amount 2

Moisture:

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310090.wiff

Date Analyzed: 01-APR-10 07:59

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

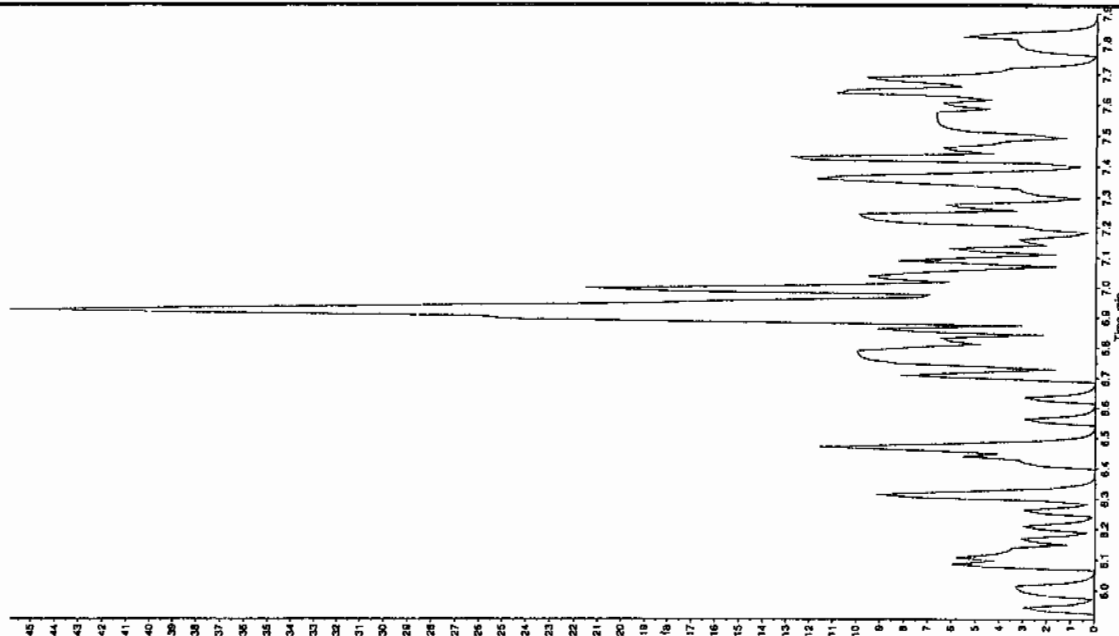
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

See 4/5/10

Sample Name: "120205034" Sample ID: "95828212L" File: "EXS03310090.wif"  
 Peak Name: "35-Dioxoanthrone" Mass(es): "257.2204.9 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calibration Conc: 4/1/2010  
 Acq. Date: 7:59:01 AM  
 Acq. Time: 7:59:01 AM  
 Modified: No

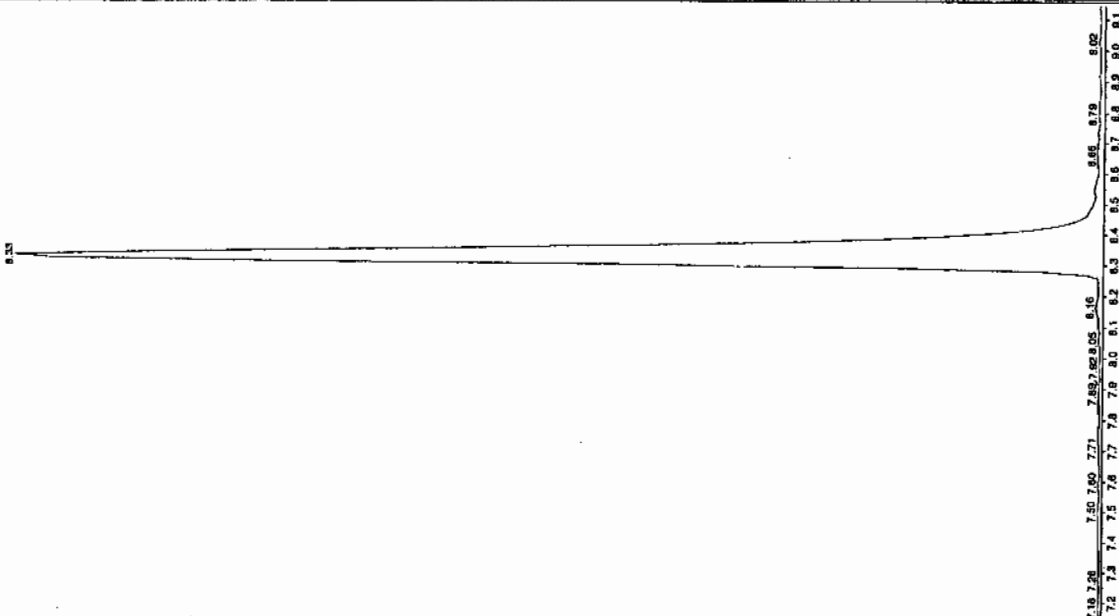
Intensity, cps



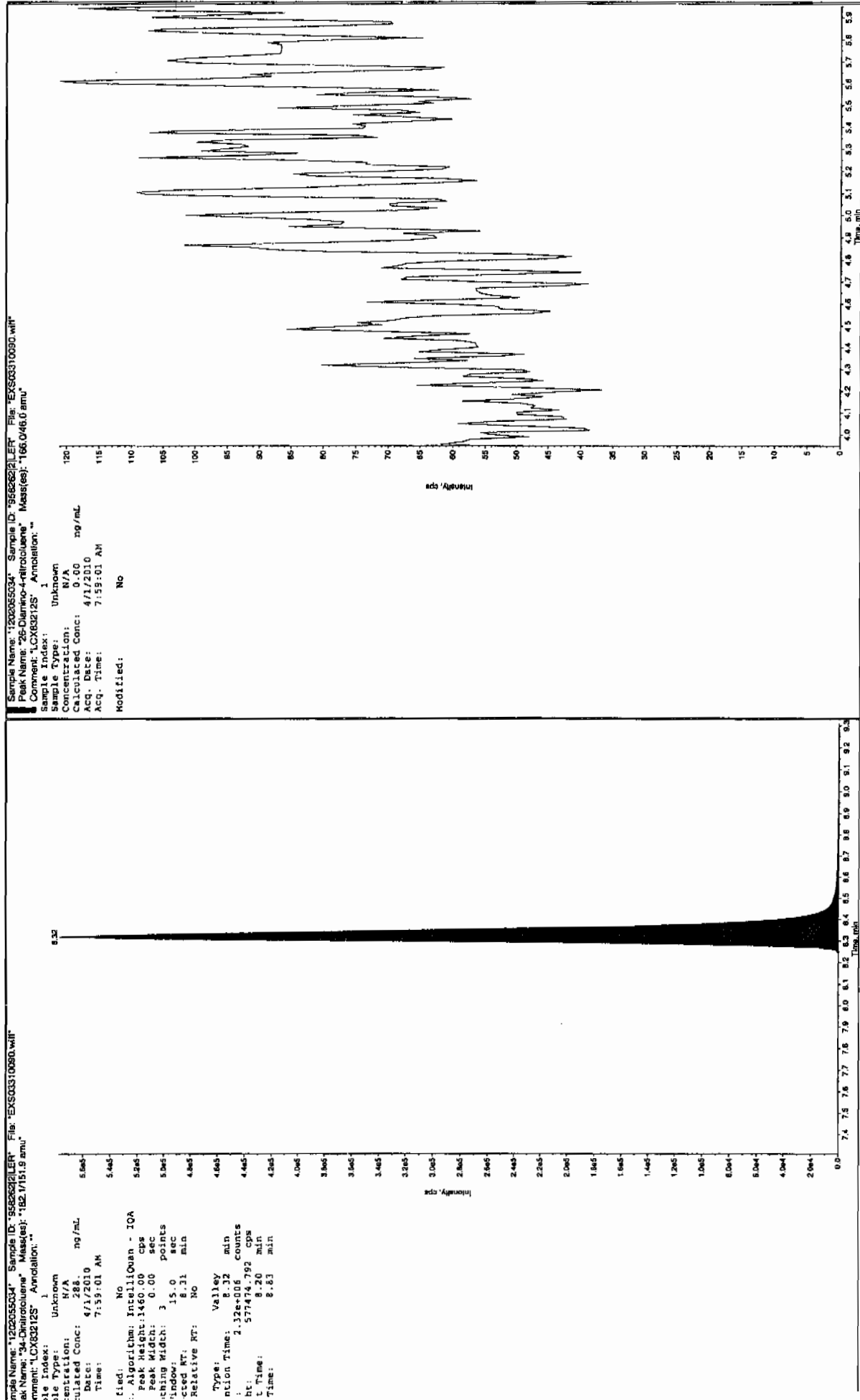
Sample Name: "120205034" Sample ID: "95828212L" File: "EXS03310090.wif"  
 Peak Name: "35-Dioxoanthrone" Mass(es): "182.046.0 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calibration Conc: 4/1/2010  
 Acq. Date: 7:59:01 AM  
 Acq. Time: 7:59:01 AM  
 Modified: No

Intensity, cps



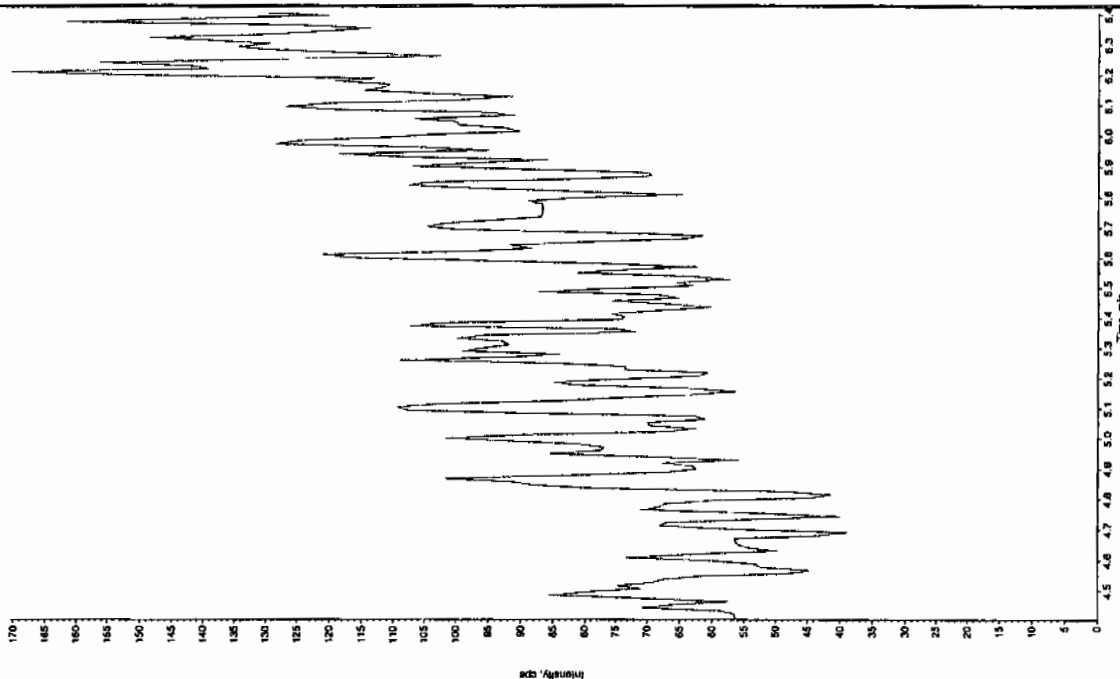
See 4/5/10





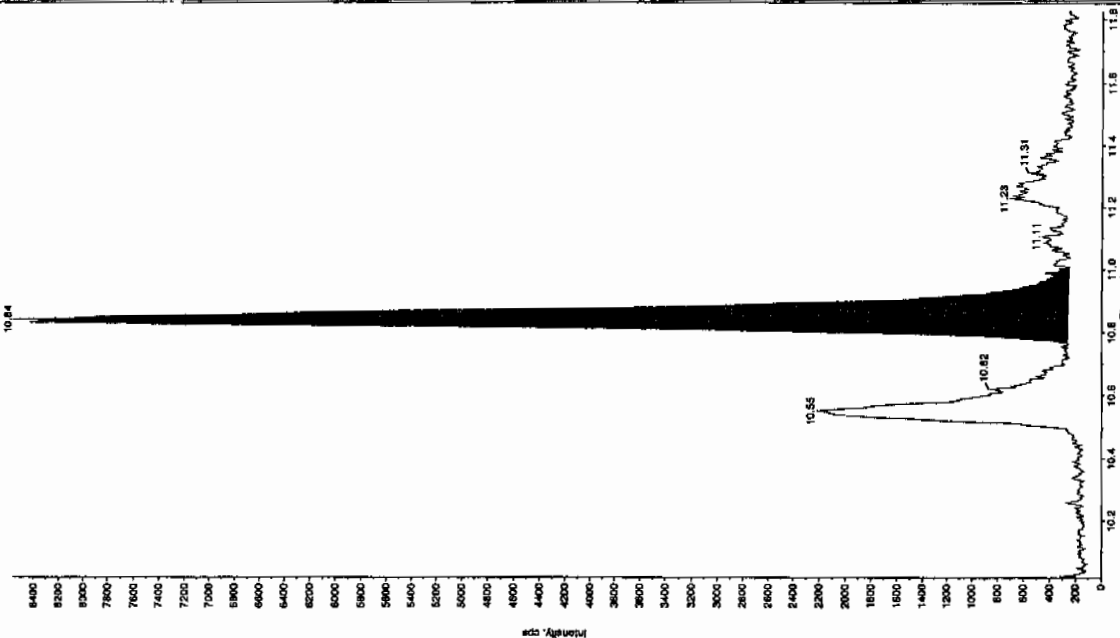
Sample Name: "1202055034" Sample ID: "958262JLER" File: "EXS0310090.wif"  
 Peak Name: "24-Diamino-6-nitrobenzene" Mass(es): "166.046.0 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: No Intercept  
 Acq. Date: 4/17/2010  
 Acq. Time: 7:59:01 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 3.50e+08 counts  
 Height: 8297573 cps  
 Start Time: 11.8 min  
 End Time: 11.0 min



Sample Name: "1202055034" Sample ID: "958262JLER" File: "EXS0310090.wif"  
 Peak Name: "tris(o-cresyl) phosphate" Mass(es): "386.191.0 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: No Intercept  
 Acq. Date: 4/17/2010  
 Acq. Time: 7:59:01 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 3.50e+08 counts  
 Height: 8297573 cps  
 Start Time: 11.8 min  
 End Time: 11.0 min



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 958260

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 1202055035

Sample Amount 2

Moisture:

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412077a

Date Analyzed: 14-APR-10 05:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4020	
121-14-2	2,4-Dinitrotoluene	4780	
121-82-4	RDX	5310	
19406-51-0	4-Amino-2,6-dinitrotoluene	4150	
2691-41-0	HMX	4600	
35572-78-2	2-Amino-4,6-dinitrotoluene	5120	
479-45-8	Tetryl	1530	
606-20-2	2,6-Dinitrotoluene	4530	
78-11-5	PETN	4580	
88-72-2	o-Nitrotoluene	4260	
98-95-3	Nitrobenzene	4710	
99-08-1	m-Nitrotoluene	4750	
99-35-4	1,3,5-Trinitrobenzene	3780	
99-65-0	m-Dinitrobenzene	4760	
99-99-0	p-Nitrotoluene	5180	

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0412077a

Date: 14-Apr-2010

Time: 05:02:48

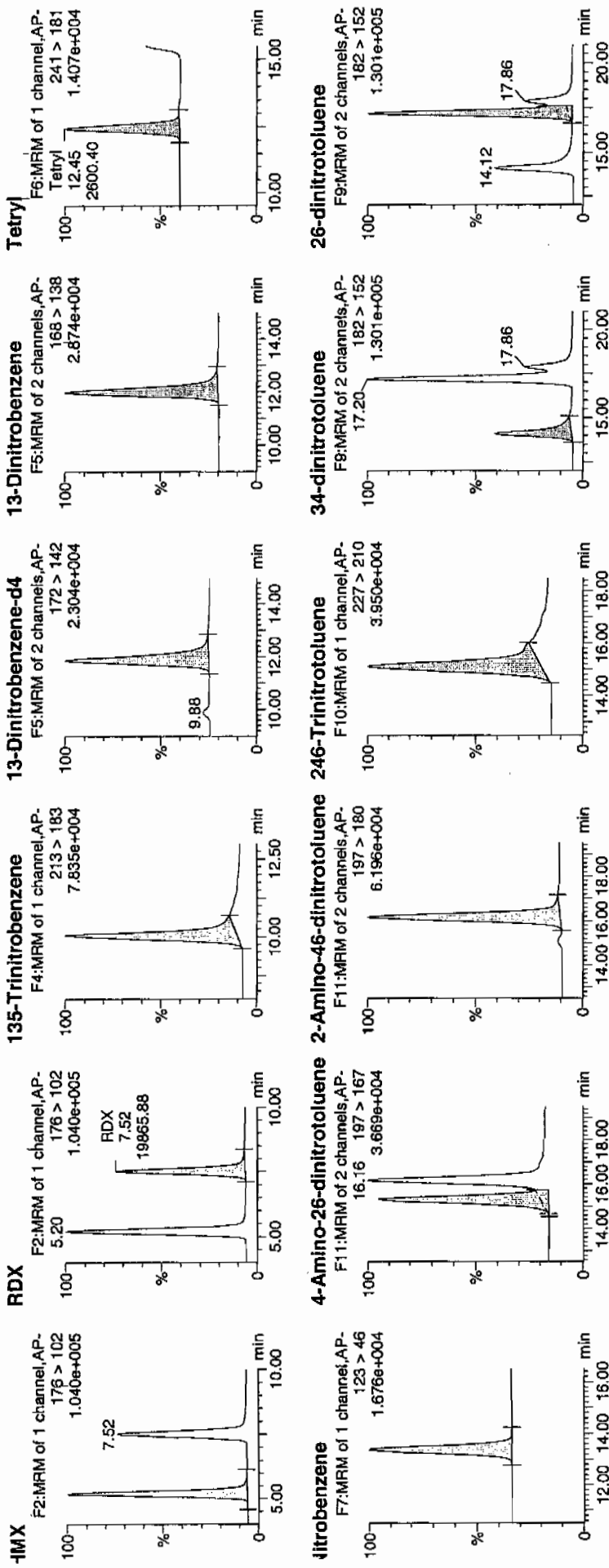
ID: 1202055035

Vial: 3:1,B

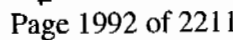
1202055035 / 958262 / 8025 / 1008 / 21

↓ Terephthalic acid

1202055035 / 4/15/10



4/15/10



EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 958260

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 1202055035

Sample Amount 2

Moisture:

Amount Units g

Date Received: 26-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310091.wiff

Date Analyzed: 01-APR-10 08:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	8370	
59229-75-3	2,6-Diamino-4-nitrotoluene	6190	
618-87-1	3,5-Dinitroaniline	5630	
6629-29-4	2,4-Diamino-6-nitrotoluene	5520	
78-30-8	tris(o-cresyl) phosphate	4740	

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Jan 4/15/10

Sample Name: "1202055035" Sample ID: "95926221" File: "EXS0310091.wif"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCX832125" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 837. ng/mL

Acq. Date: 4/17/2010

Acq. Time: 8:14:49 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2500.00 cps

Min. Peak Width: 0.00 sec

Smoother Width: 3 points

RT Window: 30.0 sec

Expected RT: 6.90 min

Use Relative RT: No

Int. Type: Valley

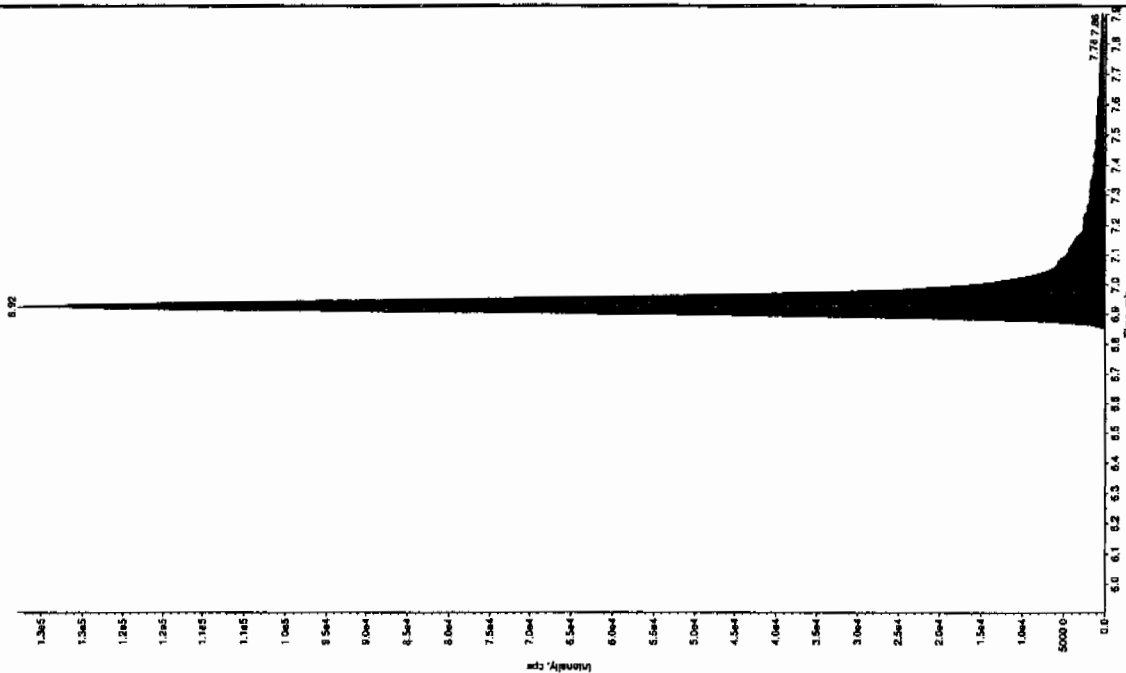
Retention Time: 6.92 min

Area: 6.22e+005 counts

Height: 132892.502 cps

Start Time: 6.83 min

End Time: 7.92 min



Sample Name: "1202055035" Sample ID: "95926221" File: "EXS0310091.wif"

Peak Name: "35-Oxitrocaniline" Mass(es): "182.046.0 amu"

Comment: "LCX832125" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 583. ng/mL

Acq. Date: 4/17/2010

Acq. Time: 8:14:49 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2000.00 cps

Min. Peak Width: 0.00 sec

Smoother Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.14 min

Use Relative RT: No

Int. Type: Valley

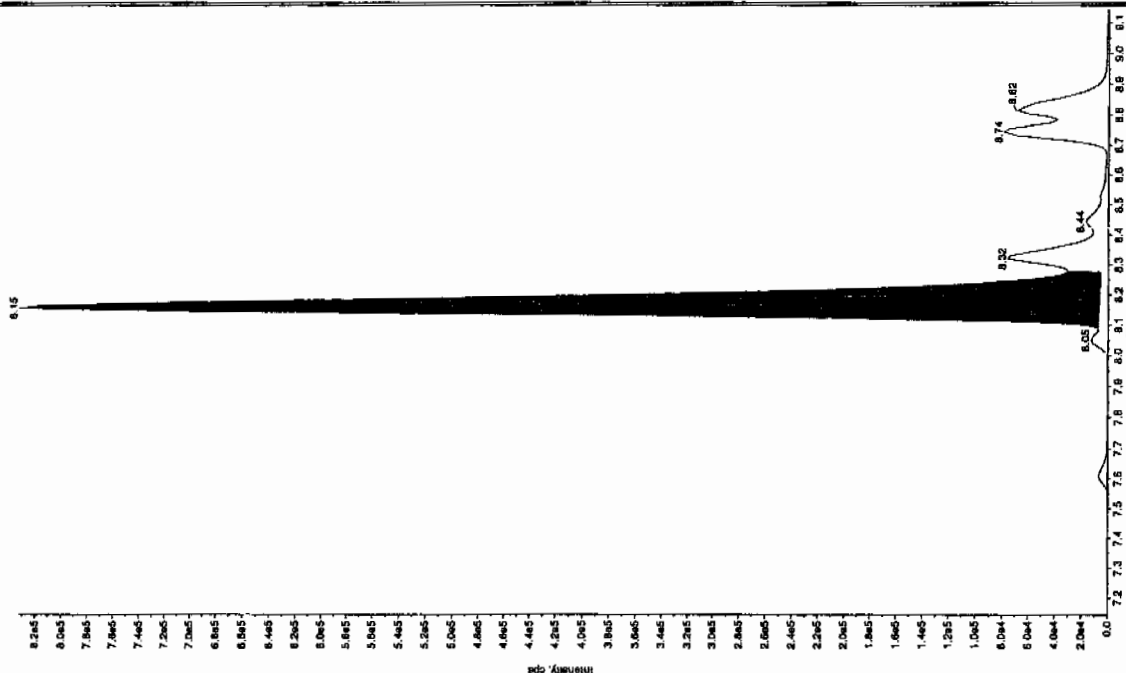
Retention Time: 8.15 min

Area: 3.55e+006 counts

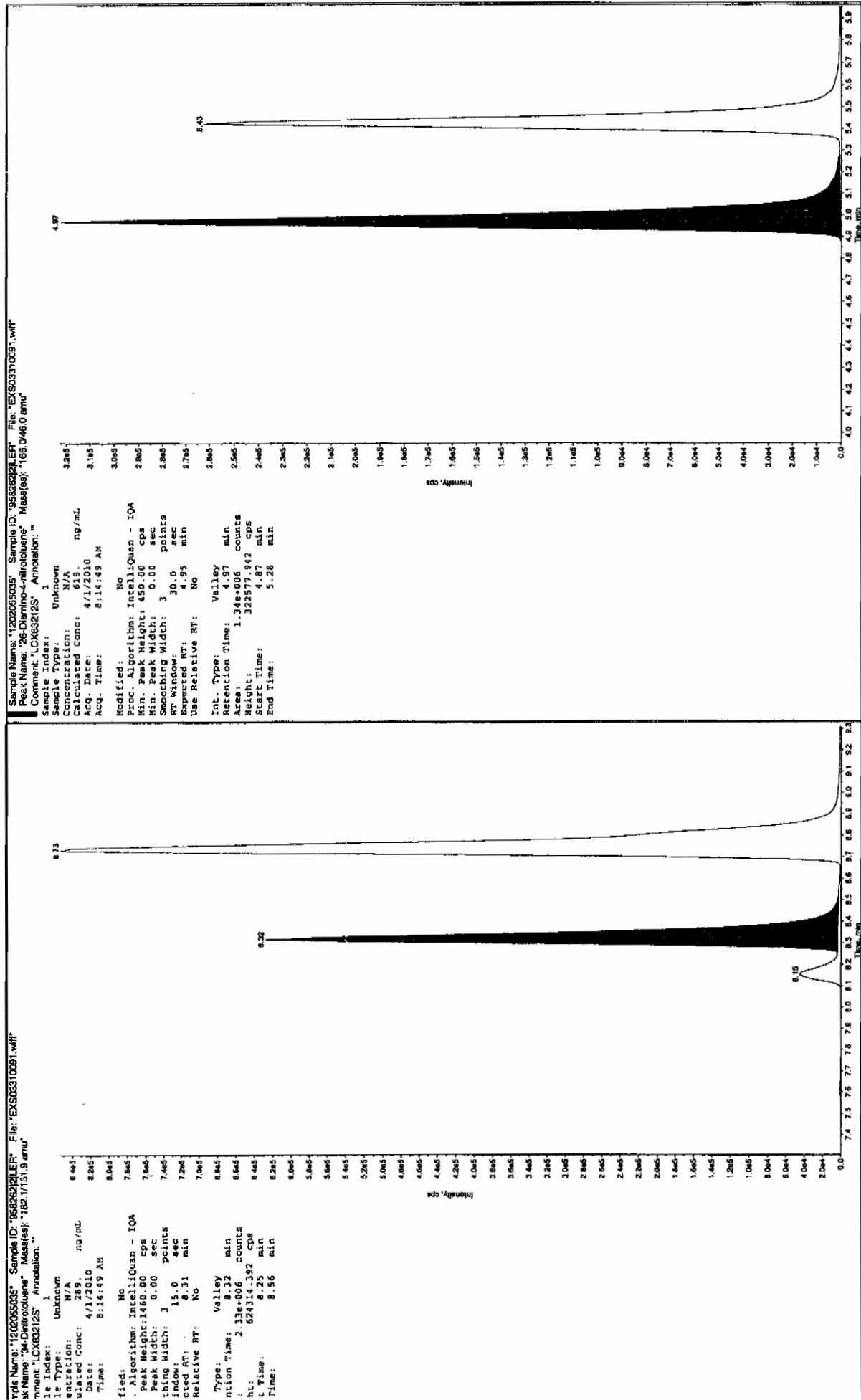
Height: 825675.398 cps

Start Time: 8.08 min

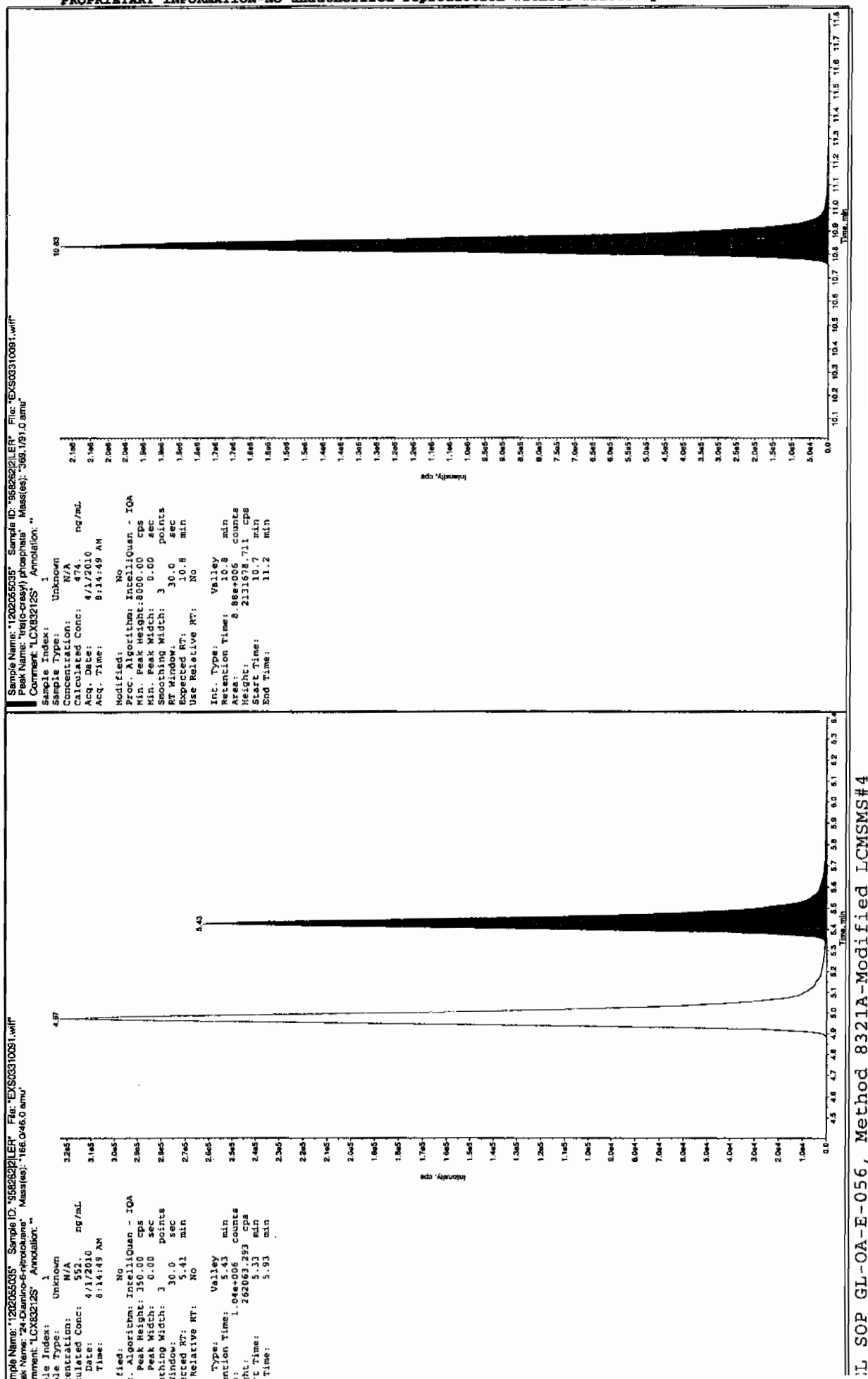
End Time: 8.28 min



Jan 4/15/10



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7414(248043001MS)

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 1202055036

Sample Amount 2

Moisture: 21.1

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412079a

Date Analyzed: 14-APR-10 06:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4730	H
121-14-2	2,4-Dinitrotoluene	5110	H
121-82-4	RDX	4700	H
19406-51-0	4-Amino-2,6-dinitrotoluene	4310	H
2691-41-0	HMX	4080	H
35572-78-2	2-Amino-4,6-dinitrotoluene	3930	H
479-45-8	Tetryl	4170	H
606-20-2	2,6-Dinitrotoluene	4720	H
78-11-5	PETN	3870	H
88-72-2	o-Nitrotoluene	3570	H
98-95-3	Nitrobenzene	4980	H
99-08-1	m-Nitrotoluene	3530	H
99-35-4	1,3,5-Trinitrobenzene	3960	H
99-65-0	m-Dinitrobenzene	4860	H
99-99-0	p-Nitrotoluene	4150	H

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412079a

Date: 14-Apr-2010

Time: 06:01:46

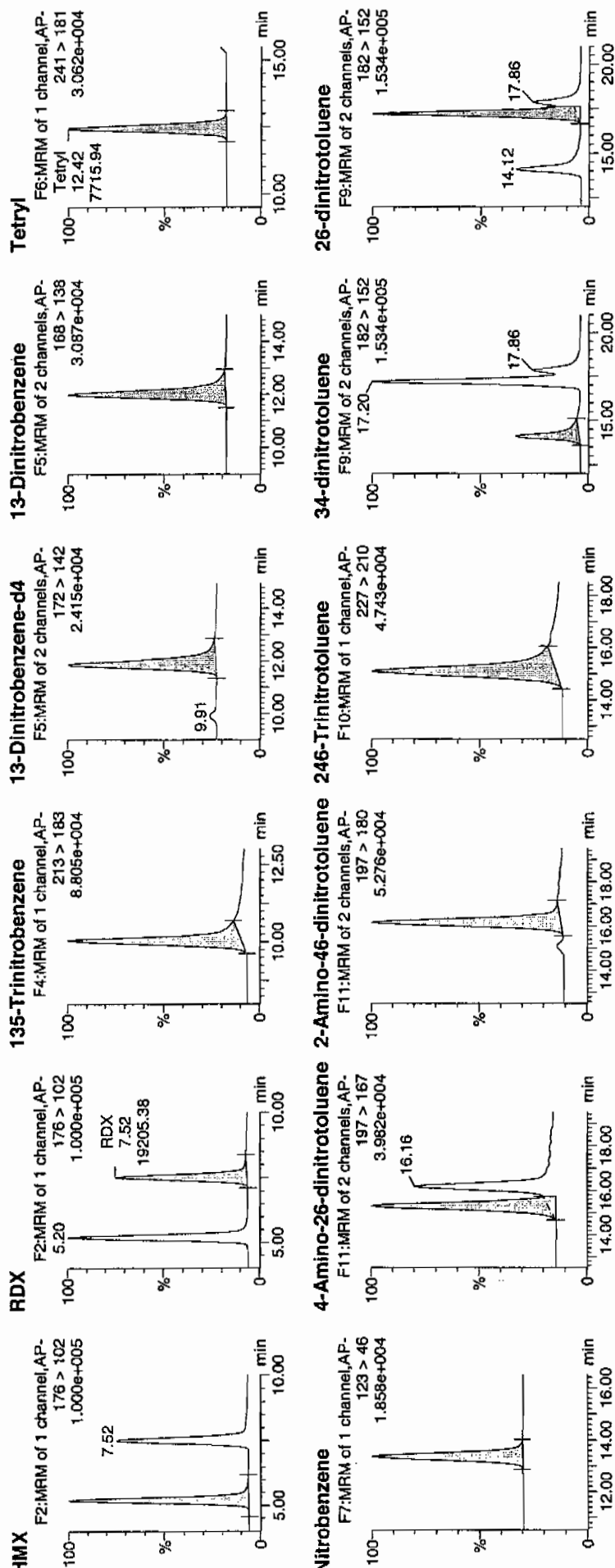
**D: 1202055036**

Vial: 3:1,D

4/15/20  
MFA

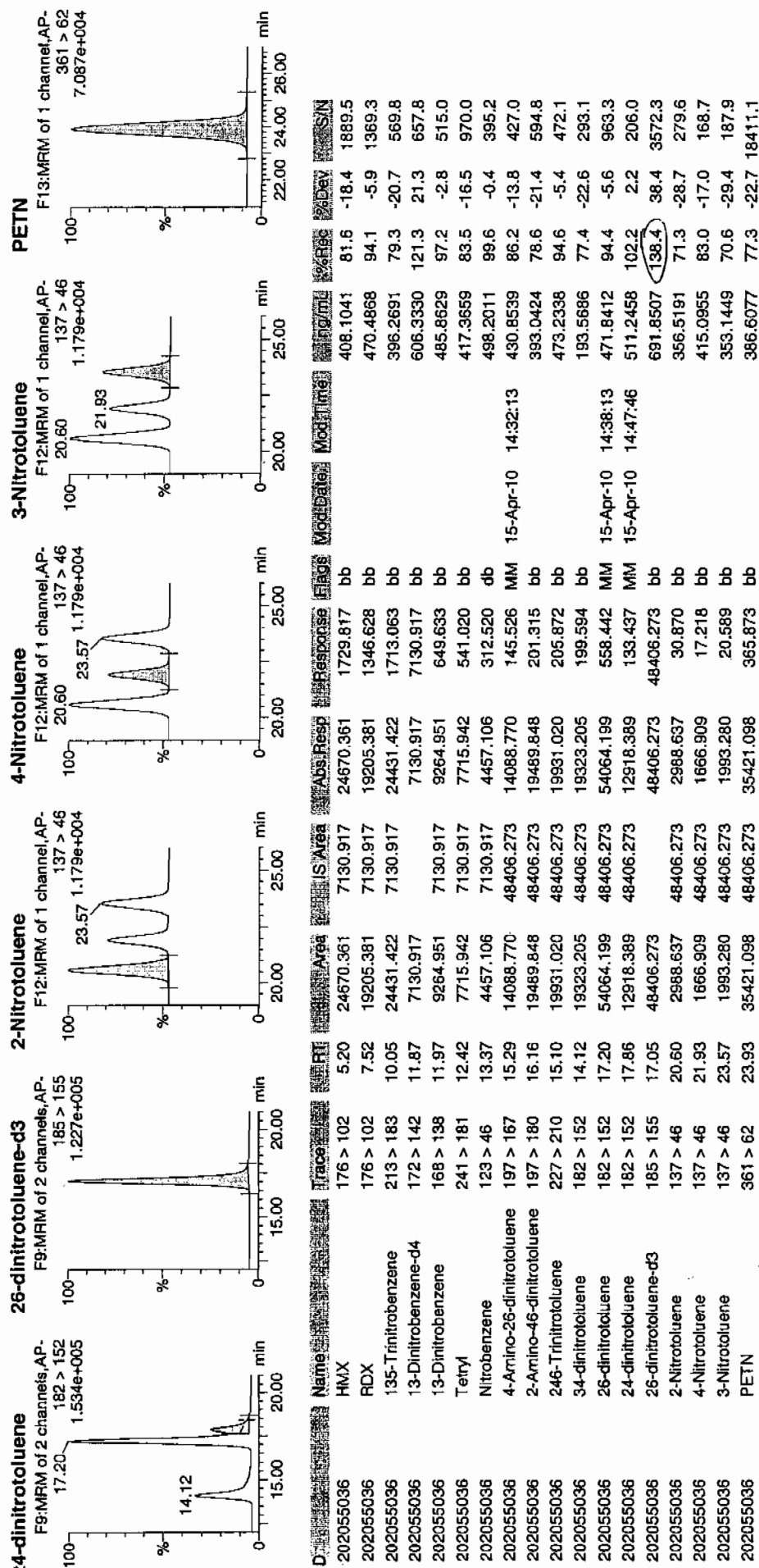
248043001ms / 21

2882



01/15/10  
D 4/14/10

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7414(248043001MS)

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 1202055036

Sample Amount 2

Moisture: 21.1

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310093.wiff

Date Analyzed: 01-APR-10 08:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	6470	
59229-75-3	2,6-Diamino-4-nitrotoluene	5990	
618-87-1	3,5-Dinitroaniline	5620	
6629-29-4	2,4-Diamino-6-nitrotoluene	4650	
78-30-8	tris(o-cresyl) phosphate	4770	

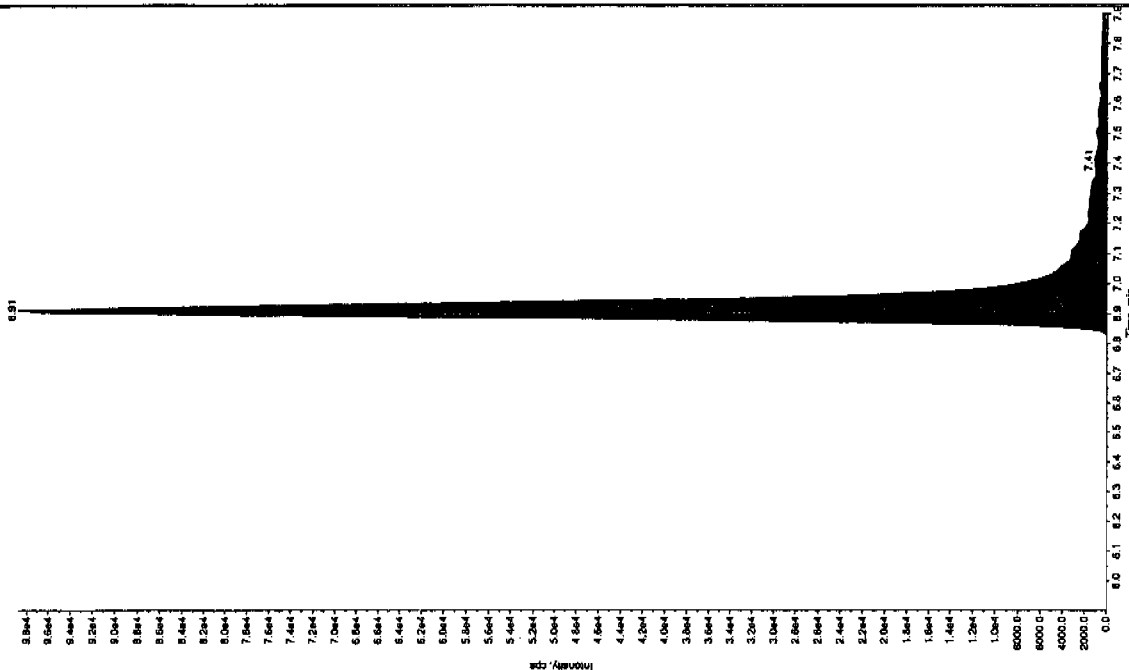
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Jan 4/5/10

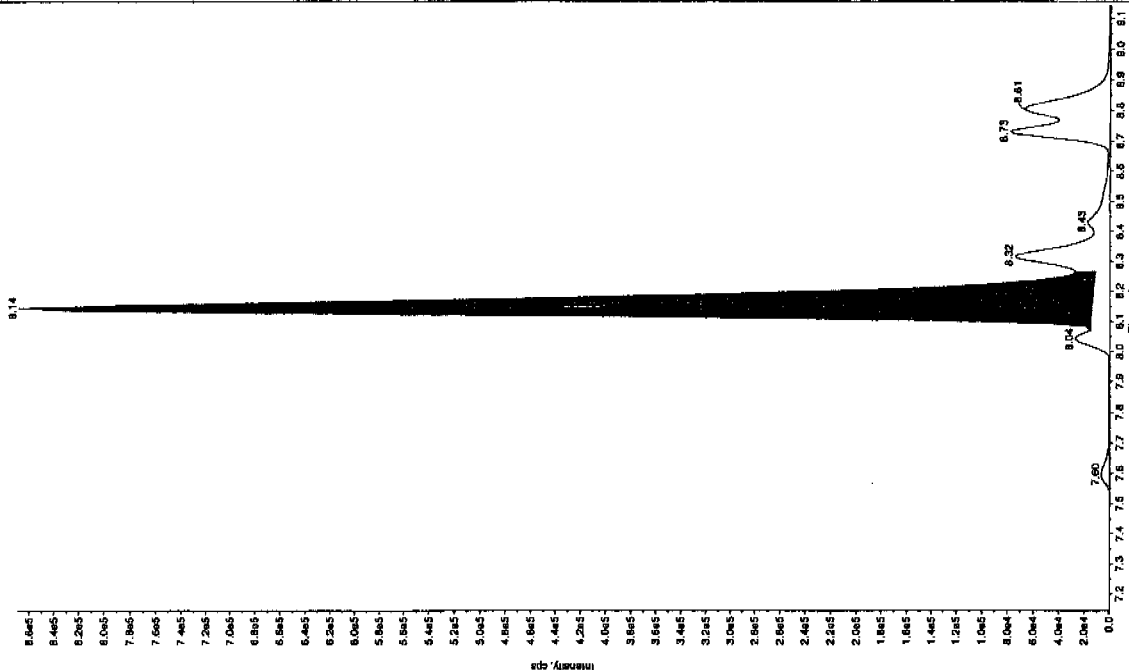
Sample Name: "1202055036" Sample ID: "958262121" File: "EXS03310093.wif"  
 Peak Name: "TATB" Mass(es): "257.2/204.9 amu"  
 Comment: "LCX83212S" Annotation: ""

File Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Date: 4/1/2010  
 Time: 8:46:15 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2500.00 cps  
 Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Window: 30.0 sec  
 Expected RT: 6.90 min  
 Use Relative RT: No  
 Type: Valley  
 Retention Time: 5.91 min  
 Area: 4.80e+005 counts  
 Height: 95748.100 cps  
 Start Time: 5.10 min  
 End Time: 7.92 min

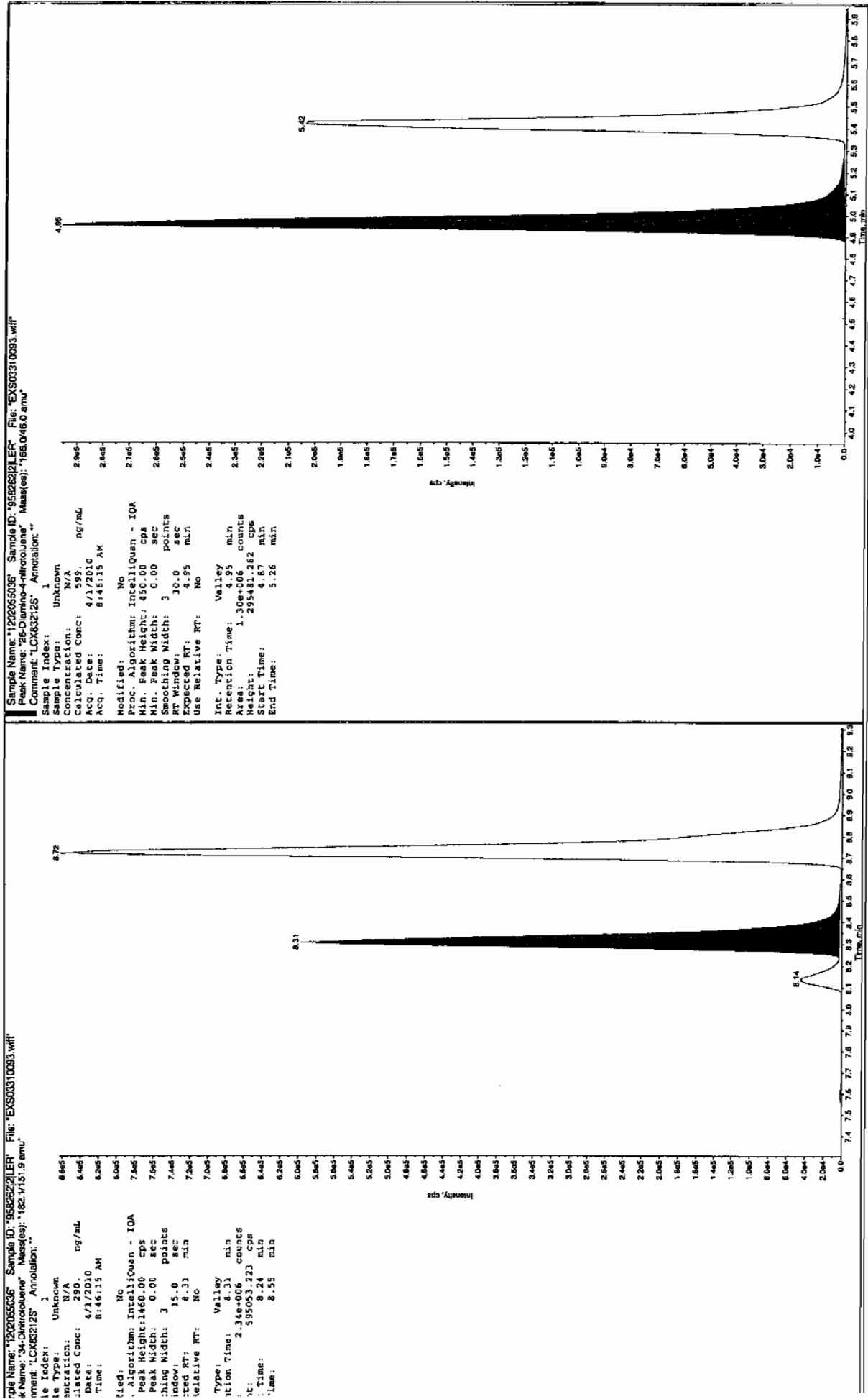


Sample Name: "1202055036" Sample ID: "958262121" File: "EXS03310093.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.0/166.0 amu"  
 Comment: "LCX83212S" Annotation: ""

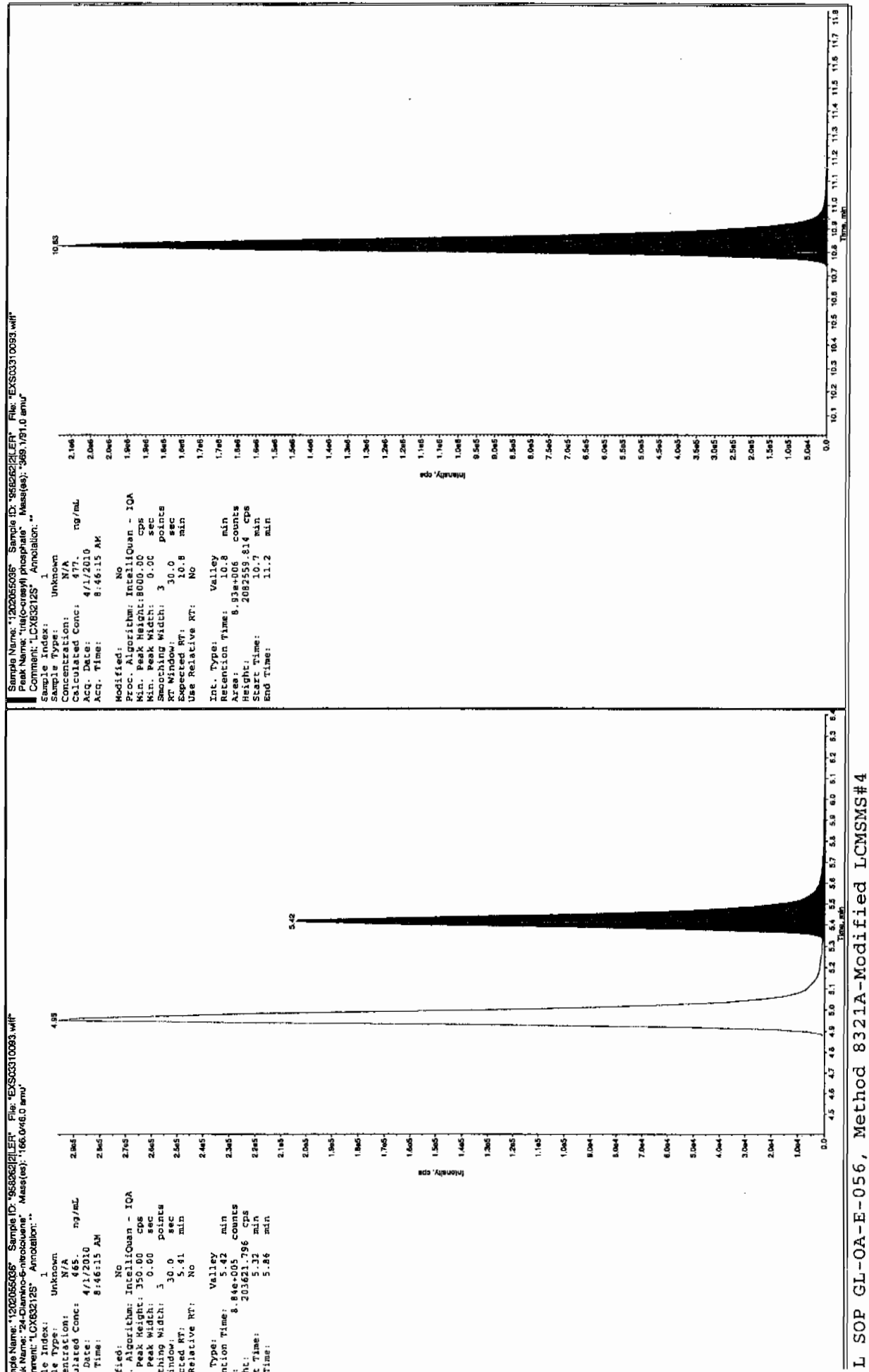
File Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Date: 4/1/2010  
 Time: 8:46:15 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2000.00 cps  
 Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Window: 15.0 sec  
 Expected RT: 8.14 min  
 Use Relative RT: No  
 Type: Valley  
 Retention Time: 8.14 min  
 Area: 3.54e+006 counts  
 Height: 85576.147 cps  
 Start Time: 7.71 min  
 End Time: 8.27 min



Amey 10/5/10



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7414(248043001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 1202055037

Sample Amount 2

Moisture: 21.1

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412080a

Date Analyzed: 14-APR-10 06:31

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	6010	H
121-14-2	2,4-Dinitrotoluene	5250	H
121-82-4	RDX	4030	H
19406-51-0	4-Amino-2,6-dinitrotoluene	5270	H
2691-41-0	HMX	3950	H
35572-78-2	2-Amino-4,6-dinitrotoluene	4740	H
479-45-8	Tetryl	3500	H
606-20-2	2,6-Dinitrotoluene	4730	H
78-11-5	PETN	5370	H
88-72-2	o-Nitrotoluene	4490	H
98-95-3	Nitrobenzene	3980	H
99-08-1	m-Nitrotoluene	4250	H
99-35-4	1,3,5-Trinitrobenzene	3230	H
99-65-0	m-Dinitrobenzene	4750	H
99-99-0	p-Nitrotoluene	4840	H

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



# Quantify Sample Report

SEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 9 of 137

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412080a

Date: 14-Apr-2010

Time: 06:31:14

ID: 1202055037

File: 3:1,E

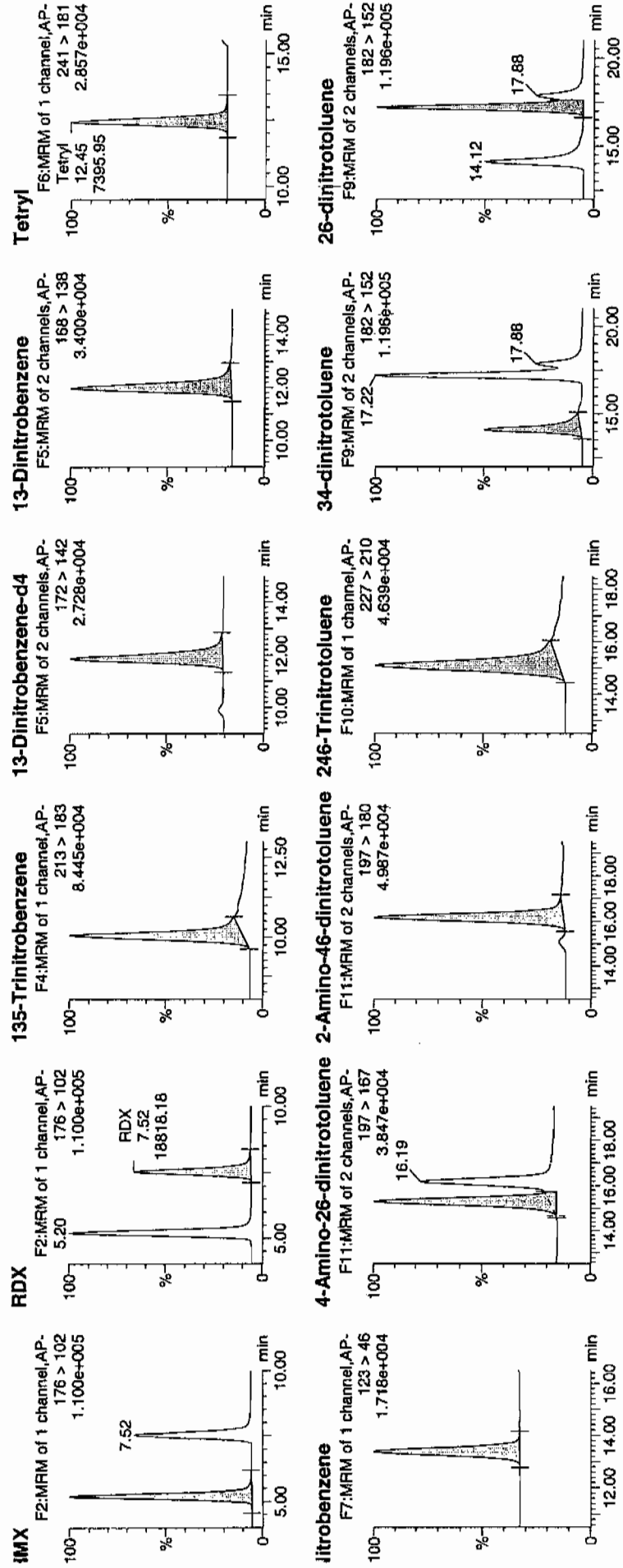
4/15/10

4/15/10

21

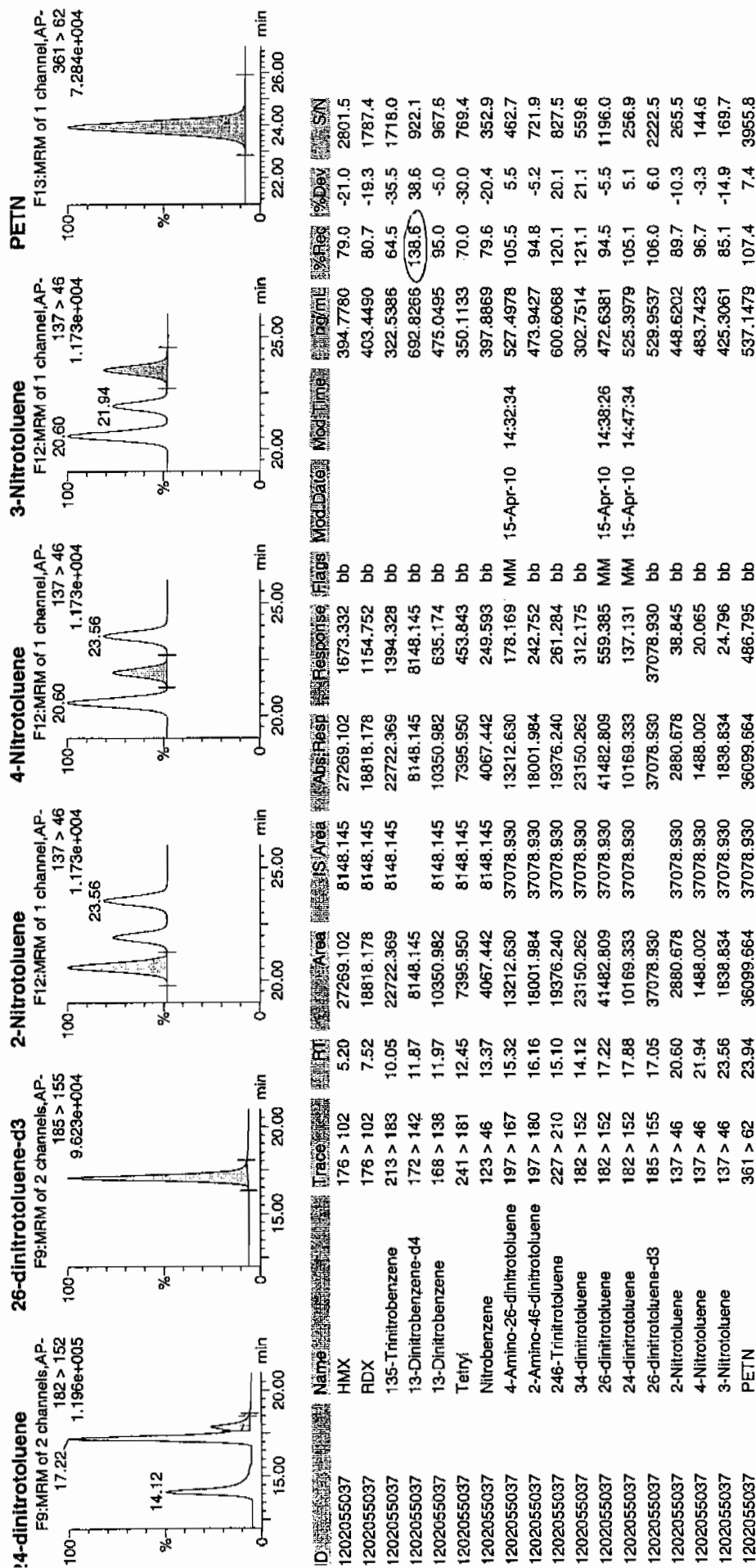
248043001 ush

958262 / 8022



4/15/10

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7414(248043001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-2074

Matrix: SOIL

GEL Sample ID: 1202055037

Sample Amount 2

Moisture: 21.1

Amount Units g

Date Received: 25-FEB-10

Extraction Type Sonication

Extraction Batch ID: 958260

Concentrated Extract Volume (mL) 10

Date Extracted: 03-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310094.wiff

Date Analyzed: 01-APR-10 09:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5770	
59229-75-3	2,6-Diamino-4-nitrotoluene	5750	
618-87-1	3,5-Dinitroaniline	5610	
6629-29-4	2,4-Diamino-6-nitrotoluene	4800	
78-30-8	tris(o-cresyl) phosphate	4730	

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Sample Name: "120205037" Sample ID: "9582621.ER" File: "EXS0310084.wif" File: "EXS0310084.wif"

Peak Name: "35-Dinitrophenol" Mass(es): "182.046.0 amu" Mass(es): "182.046.0 amu"

Comment: "LCX83212S" Annotation: "" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: 577.77 ng/mL

Calculated Conc: 4.172010

Acq. Date: 4/17/2010

Acq. Time: 9:01:59 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 2000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.14 min

Use Relative RT: No

Int. Type: Valley

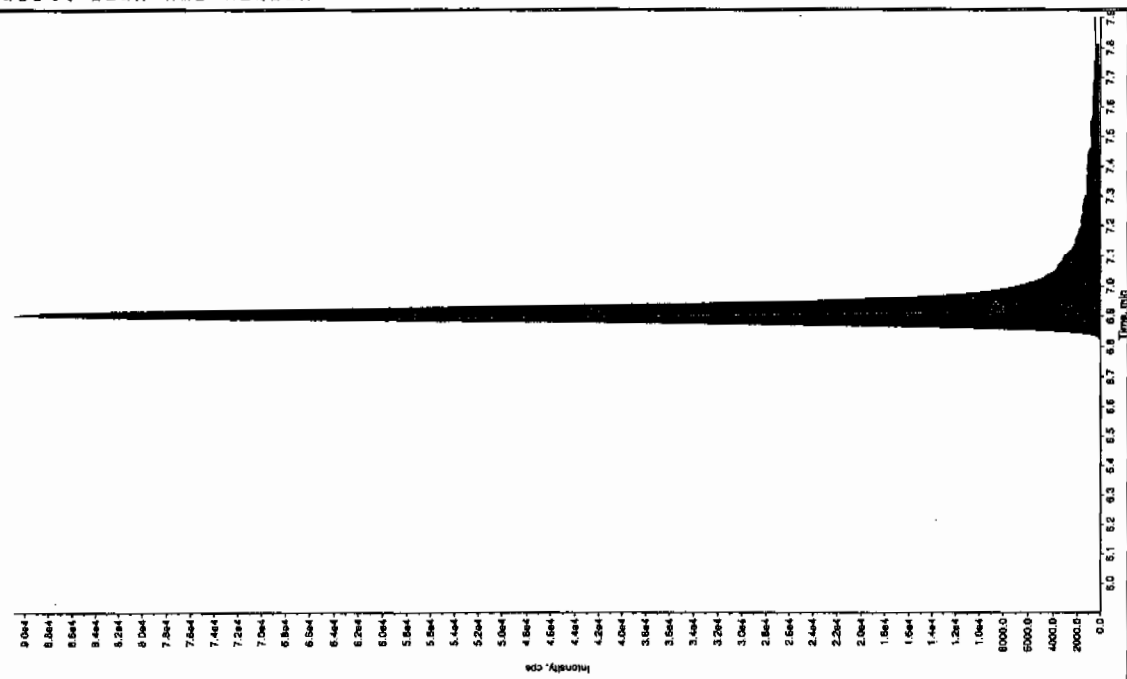
Retention Time: 8.14 min

Area: 3.54e+014 counts

Height: 857175.78 cps

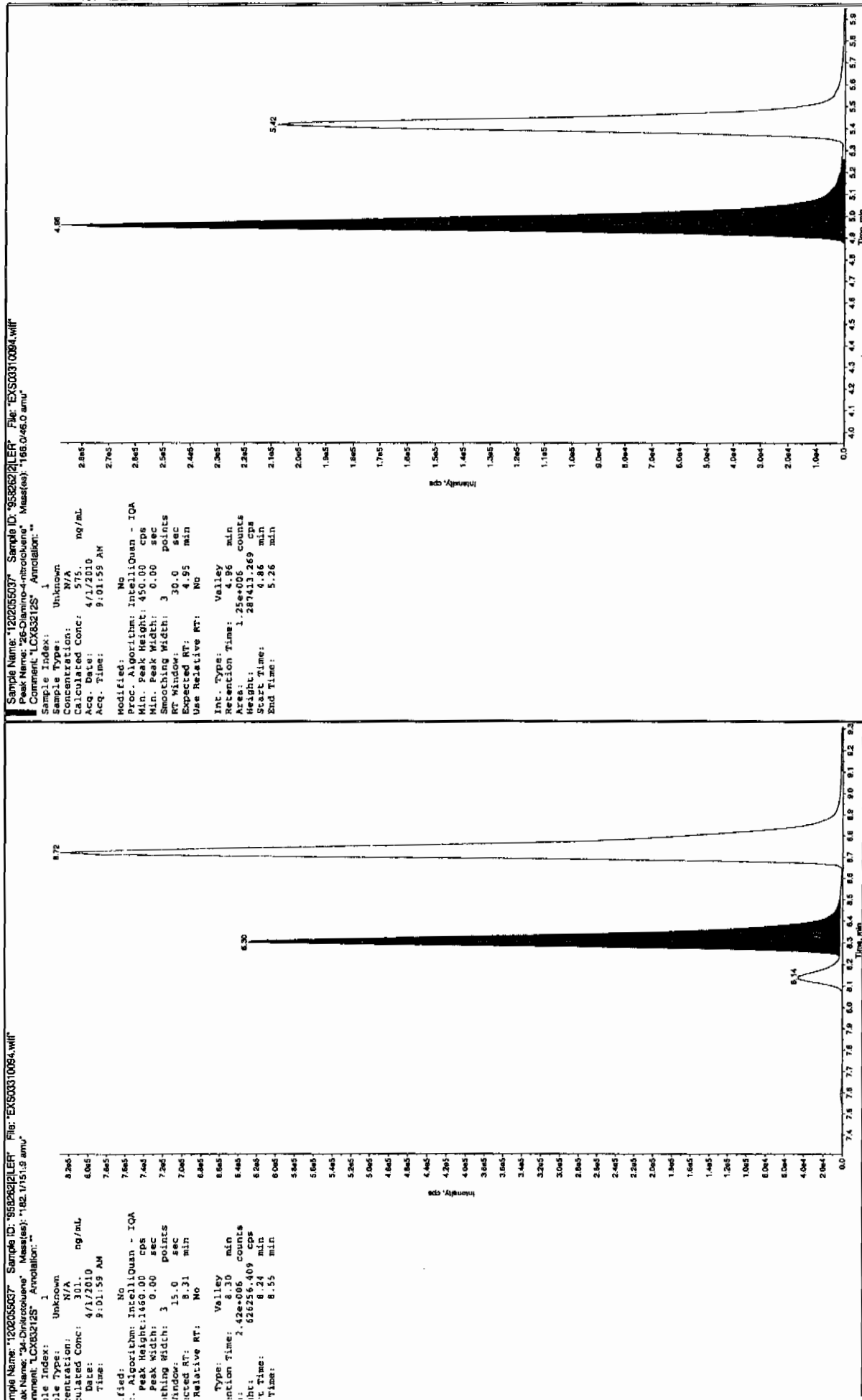
Start Time: 8.07 min

End Time: 8.27 min



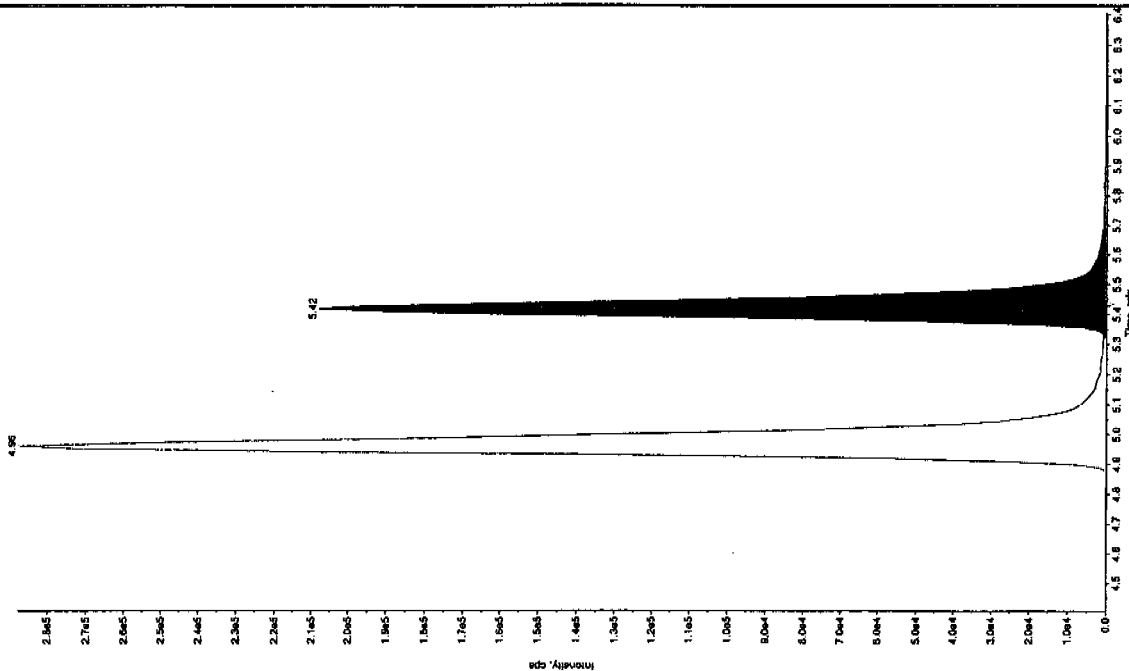
See 415710

Amu 04/05/10



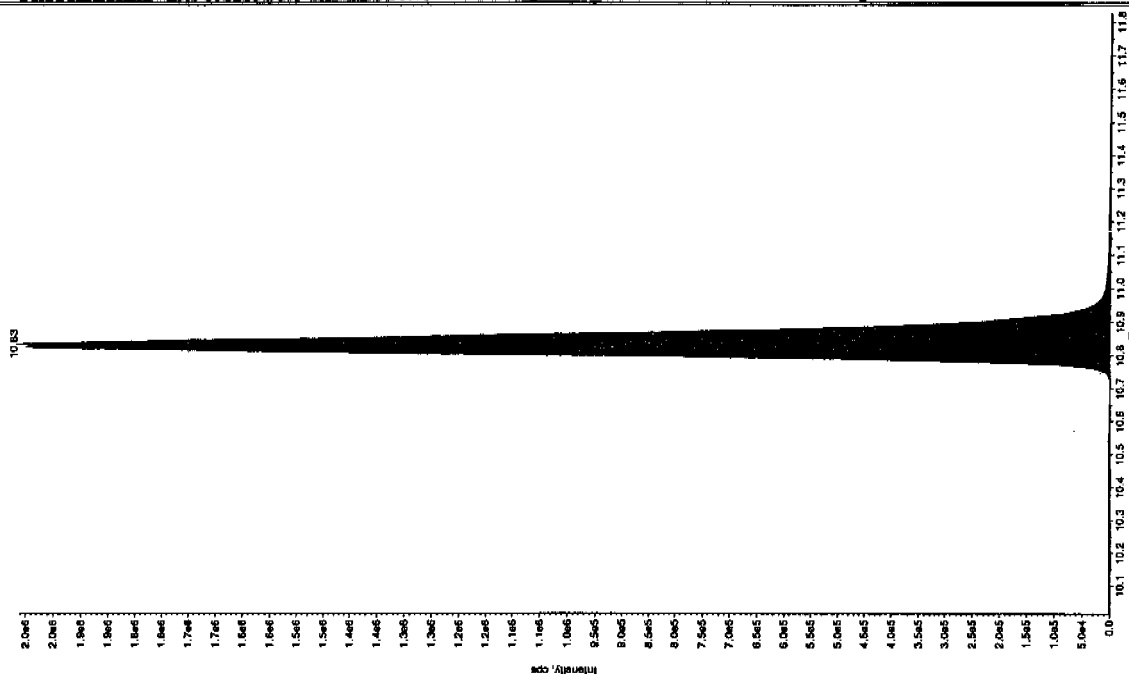
Sample Name: "1202055037" Sample ID: "55828221ER" File: "EX50310094.wif"  
 Peak Name: "24-Diamino-5-nitroindane" Mass(es): "166.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 473 ng/mL  
 Acq. Date: 4/17/2010  
 Acq. Time: 9:01:59 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.41 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.42 min  
 Area: 9.11e+005 counts  
 Height: 207682.318 cps  
 Start Time: 5.28 min  
 End Time: 5.59 min



Sample Name: "1202055037" Sample ID: "55828221ER" File: "EX50310094.wif"  
 Peak Name: "tris(o-cresyl) phosphine" Mass(es): "368.191.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 473 ng/mL  
 Acq. Date: 4/17/2010  
 Acq. Time: 9:01:59 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 8.87e+005 counts  
 Height: 201078.789 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



# MISCELLANEOUS DATA

# Prep Logbook Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 958260 Verified by: \_\_\_\_\_  
 Analyst: Sirena White  
 Method: SW846 8330 PREP  
 Lab SOP: GL-OA-E-033 REV# 17  
 Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202055034 MB	03-MAR-2010 18:38:00	2	10	5
1202055035 LCS	03-MAR-2010 18:38:00	2	10	5
248043001	03-MAR-2010 18:38:00	2	10	5
1202055036 MS (248043001)	03-MAR-2010 18:38:00	2	10	5
1202055037 MSD (248043001)	03-MAR-2010 18:38:00	2	10	5
248043002	03-MAR-2010 18:38:00	2	10	5
248043003	03-MAR-2010 18:38:00	2	10	5
248043004	03-MAR-2010 18:38:00	2	10	5
248043005	03-MAR-2010 18:38:00	2	10	5
248043006	03-MAR-2010 18:38:00	2	10	5
248043007	03-MAR-2010 18:38:00	2	10	5
248043008	03-MAR-2010 18:38:00	2	10	5
248043009	03-MAR-2010 18:38:00	2	10	5
248043010	03-MAR-2010 18:38:00	2	10	5
248043011	03-MAR-2010 18:38:00	2	10	5
248043012	03-MAR-2010 18:38:00	2	10	5
248043013	03-MAR-2010 18:38:00	2	10	5
248043014	03-MAR-2010 18:38:00	2	10	5
248043015	03-MAR-2010 18:38:00	2	10	5
248043016	03-MAR-2010 18:38:00	2	10	5
248043017	03-MAR-2010 18:38:00	2	10	5
248043018	03-MAR-2010 18:38:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202055035	8321 Explosives LCS	DX100225-03	.1	mL	Final Solvent: ACN
LCS	1202055035	8321 LANL Explosives Mix 10mg/L	UXCX100223-02.01	1	mL	
MS	1202055036	8321 Explosives LCS	DX100225-03	.1	mL	
MS	1202055036	8321 LANL Explosives Mix 10mg/L	UXCX100223-02.01	1	mL	
MSD	1202055037	8321 Explosives LCS	DX100225-03	.1	mL	
MSD	1202055037	8321 LANL Explosives Mix 10mg/L	UXCX100223-02.01	1	mL	
SURR	All	3,4-Dinitrotoluene (8330 Sur.) 100ppm	DXP100301-02	.05	mL	



GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 04/12/10  
 Extr. Injection Volume: 50µL  
 Sequence Number: 041210expA  
 Initial Calibration Date: 04/12/10  
 Method: SW846 8321A-Modified  
 Int. Std.: UXX100324-02.3  
 Mobile Phase Lot#: 1296548, 1289686  
 Standard-Samp Reagent Lot#: 1299881, 1284736  
 Reviewed BY: *Ann*  
 Date: *04/15/10*  
 SOP: GL-OA-E-056 Rev.12  
 Alt Check Std. ID: WXX100412-07 & WXX100415-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0412001a	XIBLK01	MAP	4/12/10 15:40			1		USE	B
EXP0412002a	XIBLK01	MAP	4/12/10 16:10			1		USE	B
EXP0412003a	WXXICAL-01	MAP	4/12/10 16:39			1		USE	I
EXP0412004a	WXXICAL-02	MAP	4/12/10 17:09			1		USE	I
EXP0412005a	WXXICAL-03	MAP	4/12/10 17:38			1		USE	I
EXP0412006a	WXXICAL-04	MAP	4/12/10 18:08			1		USE	I
EXP0412007a	WXXICAL-05	MAP	4/12/10 18:37			1		USE	I
EXP0412008a	WXXICAL-06	MAP	4/12/10 19:07			1		USE	I
EXP0412009a	XIBLK02	MAP	4/12/10 19:36			1		USE	B
EXP0412010a	WXXICV	MAP	4/12/10 20:06			1		USE	C
EXP0412011a	XIBLK03	MAP	4/12/10 20:35			1		USE	B
EXP0412012a	WXXCRI	MAP	4/12/10 21:04			1		USE	C
EXP0412013a	1202047525	MAP	4/12/10 21:34	955063	Various	2	LANL	USE	S
EXP0412014a	1202047526	MAP	4/12/10 22:04	955063	Various	2	LANL	USE	S
EXP0412015a	247332002	MAP	4/12/10 22:33	955063	10-1905	2	LANL	USE	S
EXP0412016a	1202047527	MAP	4/12/10 23:02	955063	10-1905	2	LANL	USE	S
EXP0412017a	1202047528	MAP	4/12/10 23:32	955063	10-1905	2	LANL	USE	S
EXP0412018a	247332003	MAP	4/13/10 0:01	955063	10-1905	2	LANL	USE	S
EXP0412019a	247332004	MAP	4/13/10 0:31	955063	10-1905	2	LANL	USE	S
EXP0412020a	247332005	MAP	4/13/10 1:00	955063	10-1905	2	LANL	USE	S
EXP0412021a	247332006	MAP	4/13/10 1:30	955063	10-1905	2	LANL	USE	S
EXP0412022a	247332007	MAP	4/13/10 1:59	955063	10-1905	2	LANL	USE	S
EXP0412023a	WXXCCV	MAP	4/13/10 2:29			1		USE	C
EXP0412024a	XIBLK04	MAP	4/13/10 2:58			1		USE	B
EXP0412025a	WXXCRI	MAP	4/13/10 3:28			1		USE	C
EXP0412026a	247332008	MAP	4/13/10 3:57	955063	10-1905	2	LANL	USE	S
EXP0412027a	247343001	MAP	4/13/10 4:27	955063	10-1908	2	LANL	USE	S
EXP0412028a	247343002	MAP	4/13/10 4:56	955063	10-1908	2	LANL	USE	S
EXP0412029a	247343003	MAP	4/13/10 5:26	955063	10-1908	2	LANL	USE	S
EXP0412030a	247343004	MAP	4/13/10 5:55	955063	10-1908	2	LANL	USE	S
EXP0412031a	247343005	MAP	4/13/10 6:25	955063	10-1908	2	LANL	USE	S

EXP0412032a	247343006	MAP	4/13/10 6:54	955063	10-1908	2	LANL	USE	S
EXP0412033a	247343007	MAP	4/13/10 7:24	955063	10-1908	2	LANL	USE	S
EXP0412034a	247343008	MAP	4/13/10 7:53	955063	10-1908	2	LANL	USE	S
EXP0412035a	247343009	MAP	4/13/10 8:23	955063	10-1908	2	LANL	USE	S
EXP0412036a	WXXCCV	MAP	4/13/10 8:52			1		USE	C
EXP0412037a	XIBLK05	MAP	4/13/10 9:22			1		USE	B
EXP0412038a	WXXCRI	MAP	4/13/10 9:51			1		USE	C
EXP0412039a	247343010	MAP	4/13/10 10:21	955063	10-1908	2	LANL	USE	S
EXP0412040a	247343011	MAP	4/13/10 10:50	955063	10-1908	2	LANL	USE	S
EXP0412041a	XIBLK06	MAP	4/13/10 11:20			1		USE	B
EXP0412042a	1202052398	MAP	4/13/10 11:50	957196	10-1972	2	LANL	USE	S
EXP0412043a	1202052399	MAP	4/13/10 12:19	957196	10-1972	2	LANL	USE	S
EXP0412044a	247767001	MAP	4/13/10 12:49	957196	10-1972	2	LANL	USE	S
EXP0412045a	1202052400	MAP	4/13/10 13:18	957196	10-1972	2	LANL	USE	S
EXP0412046a	1202052401	MAP	4/13/10 13:48	957196	10-1972	2	LANL	USE	S
EXP0412047a	247767002	MAP	4/13/10 14:17	957196	10-1972	2	LANL	USE	S
EXP0412048a	247767003	MAP	4/13/10 14:47	957196	10-1972	2	LANL	USE	S
EXP0412049a	WXXCCV	MAP	4/13/10 15:16			1		USE	C
EXP0412050a	XIBLK07	MAP	4/13/10 15:46			1		USE	B
EXP0412051a	WXXCRI	MAP	4/13/10 16:15			1		USE	C
EXP0412052a	247767004	MAP	4/13/10 16:45	957196	10-1972	2	LANL	USE	S
EXP0412053a	247767005	MAP	4/13/10 17:14	957196	10-1972	2	LANL	USE	S
EXP0412054a	247767006	MAP	4/13/10 17:44	957196	10-1972	2	LANL	USE	S
EXP0412055a	247767007	MAP	4/13/10 18:13	957196	10-1972	2	LANL	USE	S
EXP0412056a	247767008	MAP	4/13/10 18:43	957196	10-1972	2	LANL	USE	S
EXP0412057a	247767009	MAP	4/13/10 19:12	957196	10-1972	2	LANL	USE	S
EXP0412058a	247767010	MAP	4/13/10 19:42	957196	10-1972	2	LANL	USE	S
EXP0412059a	247767011	MAP	4/13/10 20:11	957196	10-1972	2	LANL	USE	S
EXP0412060a	WXXCCV	MAP	4/13/10 20:41			1		USE	C
EXP0412061a	XIBLK08	MAP	4/13/10 21:10			1		USE	B
EXP0412062a	WXXCRI	MAP	4/13/10 21:40			1		USE	C
EXP0412063a	1202055078	MAP	4/13/10 22:09	958282	Various	2	LANL	USE	S
EXP0412064a	1202055079	MAP	4/13/10 22:39	958282	Various	2	LANL	DUSE	S
EXP0412065a	248017003	MAP	4/13/10 23:08	958282	10-2039	2	LANL	USE	S
EXP0412066a	1202055080	MAP	4/13/10 23:38	958282	10-2039	2	LANL	DUSE	S
EXP0412067a	1202055081	MAP	4/14/10 0:07	958282	10-2039	2	LANL	USE	S
EXP0412068a	248042002	MAP	4/14/10 0:37	958282	10-2057	2	LANL	USE	S
EXP0412069a	248042008	MAP	4/14/10 1:06	958282	10-2057	2	LANL	USE	S
EXP0412070a	248042010	MAP	4/14/10 1:36	958282	10-2057	2	LANL	DUSE	S

EXP0412071a	248047003	MAP	4/14/10 2:05	958282	10-2045	2	LANL	USE	S
EXP0412072a	248047007	MAP	4/14/10 2:35	958282	10-2045	2	LANL	USE	S
EXP0412073a	WXXCCV	MAP	4/14/10 3:04			1		USE	C
EXP0412074a	XIBLK09	MAP	4/14/10 3:34			1		USE	B
EXP0412075a	WXXCRI	MAP	4/14/10 4:03			1		USE	C
EXP0412076a	1202055034	MAP	4/14/10 4:33	958262	10-2074	2	LANL	USE	S
EXP0412077a	1202055035	MAP	4/14/10 5:02	958262	10-2074	2	LANL	USE	S
EXP0412078a	248043001	MAP	4/14/10 5:32	958262	10-2074	2	LANL	USE	S
EXP0412079a	1202055036	MAP	4/14/10 6:01	958262	10-2074	2	LANL	USE	S
EXP0412080a	1202055037	MAP	4/14/10 6:31	958262	10-2074	2	LANL	USE	S
EXP0412081a	248043002	MAP	4/14/10 7:00	958262	10-2074	2	LANL	USE	S
EXP0412082a	XIBLK10	MAP	4/14/10 7:30			1		USE	B
EXP0412083a	248043003	MAP	4/14/10 7:59	958262	10-2074	2	LANL	USE	S
EXP0412084a	248043004	MAP	4/14/10 8:29	958262	10-2074	2	LANL	USE	S
EXP0412085a	XIBLK11	MAP	4/14/10 8:58			1		USE	B
EXP0412086a	WXXCCV	MAP	4/14/10 9:28			1		USE	C
EXP0412087a	XIBLK12	MAP	4/14/10 9:57			1		USE	B
EXP0412088a	WXXCRI	MAP	4/14/10 10:27			1		USE	C
EXP0412089a	248043005	MAP	4/14/10 10:56	958262	10-2074	2	LANL	USE	S
EXP0412090a	248043006	MAP	4/14/10 11:26	958262	10-2074	2	LANL	DUSE-RA	S
EXP0412091a	XIBLK13	MAP	4/14/10 11:55			1		USE	B
EXP0412092a	248043007	MAP	4/14/10 12:25	958262	10-2074	2	LANL	USE	S
EXP0412093a	248043008	MAP	4/14/10 12:54	958262	10-2074	2	LANL	DUSE-RA	S
EXP0412094a	248043009	MAP	4/14/10 13:24	958262	10-2074	2	LANL	USE	S
EXP0412095a	248043010	MAP	4/14/10 13:53	958262	10-2074	2	LANL	USE	S
EXP0412096a	248043011	MAP	4/14/10 14:23	958262	10-2074	2	LANL	USE	S
EXP0412097a	248043012	MAP	4/14/10 14:52	958262	10-2074	2	LANL	USE	S
EXP0412098a	XIBLK14	MAP	4/14/10 15:22			1		USE	B
EXP0412099a	WXXCCV	MAP	4/14/10 15:51			1		USE	C
EXP0412100a	XIBLK15	MAP	4/14/10 16:21			1		USE	B
EXP0412101a	WXXCRI	MAP	4/14/10 16:50			1		USE	C
EXP0412102a	248043013	MAP	4/14/10 17:20	958262	10-2074	2	LANL	USE	S
EXP0412103a	248043014	MAP	4/14/10 17:49	958262	10-2074	2	LANL	USE	S
EXP0412104a	248043015	MAP	4/14/10 18:19	958262	10-2074	2	LANL	USE	S
EXP0412105a	248043016	MAP	4/14/10 18:48	958262	10-2074	2	LANL	DUSE-RA	S
EXP0412106a	248043017	MAP	4/14/10 19:18	958262	10-2074	2	LANL	USE	S
EXP0412107a	248043018	MAP	4/14/10 19:47	958262	10-2074	2	LANL	USE	S
EXP0412108a	248043006	MAP	4/14/10 20:17	958262	10-2074	2	LANL	USE	S
EXP0412109a	248043008	MAP	4/14/10 20:46	958262	10-2074	2	LANL	USE	S

EXP0412110a	WXXCCV	MAP	4/14/10 21:16	1	USE	C
EXP0412111a	XIBLK16	MAP	4/14/10 21:45	1	USE	B
EXP0412112a	WXXCRI	MAP	4/14/10 22:15	1	USE	C
EXP0412113a	1202055877	MAP	4/14/10 22:44	2	USE	S
EXP0412114a	1202055878	MAP	4/14/10 23:14	2	USE-RA	S
EXP0412115a	248102001	MAP	4/14/10 23:43	2	USE	S
EXP0412116a	1202055879	MAP	4/15/10 0:13	2	USE	S
EXP0412117a	1202055880	MAP	4/15/10 0:42	2	USE	S
EXP0412118a	248102002	MAP	4/15/10 1:12	2	USE	S
EXP0412119a	248102003	MAP	4/15/10 1:41	2	USE	S
EXP0412120a	248102004	MAP	4/15/10 2:11	2	USE	S
EXP0412121a	248102005	MAP	4/15/10 2:40	2	USE	S
EXP0412122a	248102006	MAP	4/15/10 3:10	2	USE	S
EXP0412123a	WXXCCV	MAP	4/15/10 3:39	1	USE	C
EXP0412124a	XIBLK17	MAP	4/15/10 4:09	1	USE	B
EXP0412125a	WXXCRI	MAP	4/15/10 4:38	1	USE	C
EXP0412126a	248102007	MAP	4/15/10 5:08	2	USE	S
EXP0412127a	248102008	MAP	4/15/10 5:37	2	USE	S
EXP0412128a	248114002	MAP	4/15/10 6:07	2	USE	S
EXP0412129a	248114003	MAP	4/15/10 6:36	2	USE	S
EXP0412130a	248114004	MAP	4/15/10 7:06	2	USE	S
EXP0412131a	248114005	MAP	4/15/10 7:35	2	USE	S
EXP0412132a	248114006	MAP	4/15/10 8:05	2	USE	S
EXP0412133a	248114007	MAP	4/15/10 8:34	2	USE	S
EXP0412134a	248114008	MAP	4/15/10 9:04	2	USE	S
EXP0412135a	WXXCCV	MAP	4/15/10 9:33	1	USE	S
EXP0412136a	XIBLK18	MAP	4/15/10 10:03	1	USE	C
EXP0412137a	WXXCRI	MAP	4/15/10 10:33	1	USE	C
EXP0412138a	248043016	MAP	4/15/10 11:02	2	USE	S
EXP0412139a	1202055878	MAP	4/15/10 11:32	2	USE	S
EXP0412140a	248102003	MAP	4/15/10 12:01	2	USE	S
EXP0412141a	WXXCCV	MAP	4/15/10 12:31	1	DUSE	S
EXP0412142a	XIBLK19	MAP	4/15/10 13:00	1	USE	C
EXP0412143a	WXXCRI	MAP	4/15/10 13:30	1	USE	B
					USE	C

INSTRUMENT ID: LCMSMS4

GEL ORGANIC RUN LOG

Date: 03/31/10  
 Extr. Injection Volume: 10uL  
 Sequence Number: 033110exs  
 Initial Calibration Date: 033110

Method: 8321A-Modified  
 Int. Std.: N/A  
 Mobile Phase Lot#: 1268566, 1268568  
 Standard-Samp Reagent Lot#: 1292884, 1284736

Reviewed By: *Amc*  
 Date: 04/05/10  
 SOP: GL-OA-E-056 Rev.12  
 Alt Check Std. ID: WXX100331-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS03310001.wiff	XIBLK01	LER	3/31/2010 8:40			1		USE	B
EXS03310002.wiff	XIBLK01	LER	3/31/2010 8:56			1		USE	B
EXS03310003.wiff	WXXICAL-19	LER	3/31/2010 9:12			1		USE	I
EXS03310004.wiff	WXXICAL-20	LER	3/31/2010 9:27			1		USE	I
EXS03310005.wiff	WXXICAL-21	LER	3/31/2010 9:43			1		USE	I
EXS03310006.wiff	WXXICAL-22	LER	3/31/2010 9:59			1		USE	I
EXS03310007.wiff	WXXICAL-23	LER	3/31/2010 10:14			1		USE	I
EXS03310008.wiff	WXXICAL-24	LER	3/31/2010 10:30			1		USE	I
EXS03310009.wiff	WXXICAL-25	LER	3/31/2010 10:46			1		USE	I
EXS03310010.wiff	XIBLK02	LER	3/31/2010 11:01			1		USE	B
EXS03310011.wiff	WXXICV	LER	3/31/2010 11:17			1		USE	C
EXS03310012.wiff	XIBLK03	LER	3/31/2010 11:33			1		USE	B
EXS03310013.wiff	WXXCRI	LER	3/31/2010 11:49			1		USE	C
EXS03310014.wiff	1202061351	LER	3/31/2010 12:04	961045	10-2210	2	LANL	USE	S
EXS03310015.wiff	1202061352	LER	3/31/2010 12:20	961045	10-2210	2	LANL	USE	S
EXS03310016.wiff	248541002	LER	3/31/2010 12:36	961045	10-2210	2	LANL	USE	S
EXS03310017.wiff	1202061353	LER	3/31/2010 12:52	961045	10-2210	2	LANL	USE	S
EXS03310018.wiff	248541003	LER	3/31/2010 13:07	961045	10-2210	2	LANL	USE	S
EXS03310019.wiff	248541004	LER	3/31/2010 13:23	961045	10-2210	2	LANL	USE	S
EXS03310020.wiff	248541005	LER	3/31/2010 13:39	961045	10-2210	2	LANL	USE	S
EXS03310021.wiff	248541006	LER	3/31/2010 13:54	961045	10-2210	2	LANL	USE	S
EXS03310022.wiff	248541007	LER	3/31/2010 14:10	961045	10-2210	2	LANL	USE	S
EXS03310023.wiff	WXXCCV	LER	3/31/2010 14:26	961045	10-2210	2	LANL	USE	S
EXS03310024.wiff	XIBLK04	LER	3/31/2010 14:41			1		USE	C
EXS03310025.wiff	WXXCRI	LER	3/31/2010 14:57			1		USE	B
EXS03310026.wiff	WXXCRI	LER	3/31/2010 15:13			1		USE	C
EXS03310027.wiff	248541008	LER	3/31/2010 15:29	961045	10-2210	2	LANL	USE	S
EXS03310028.wiff	248541009	LER	3/31/2010 15:44	961045	10-2210	2	LANL	USE	S
EXS03310029.wiff	248541010	LER	3/31/2010 16:00	961045	10-2210	2	LANL	USE	S
EXS03310030.wiff	248541011	LER	3/31/2010 16:16	961045	10-2210	2	LANL	USE	S

EXS03310031.wiff	248541012	LER	3/31/2010 16:31	961045	10-2210	2	LANL	USE	S
EXS03310032.wiff	248541013	LER	3/31/2010 16:47	961045	10-2210	2	LANL	USE	S
EXS03310033.wiff	248541014	LER	3/31/2010 17:03	961045	10-2210	2	LANL	USE	S
EXS03310034.wiff	248541015	LER	3/31/2010 17:19	961045	10-2210	2	LANL	USE	S
EXS03310035.wiff	248541016	LER	3/31/2010 17:34	961045	10-2210	2	LANL	USE	S
EXS03310036.wiff	WXXCVC	LER	3/31/2010 17:50			1		USE	C
EXS03310037.wiff	XIBLK05	LER	3/31/2010 18:06			1		USE	B
EXS03310038.wiff	WXXCRI	LER	3/31/2010 18:21			1		USE	C
EXS03310039.wiff	1202052389	LER	3/31/2010 18:37	957192	VARIOUS	2	LANL	USE	S
EXS03310040.wiff	1202052390	LER	3/31/2010 18:53	957192	VARIOUS	2	LANL	USE	S
EXS03310041.wiff	247824003	LER	3/31/2010 19:09	957192	10-2005	2	LANL	USE	S
EXS03310042.wiff	247828003	LER	3/31/2010 19:24	957192	10-2000	2	LANL	USE	S
EXS03310043.wiff	1202052393	LER	3/31/2010 19:40	957192	10-2000	2	LANL	USE	S
EXS03310044.wiff	1202052394	LER	3/31/2010 19:56	957192	10-2000	2	LANL	USE	S
EXS03310045.wiff	247830002	LER	3/31/2010 20:11	957192	10-2007	2	LANL	USE	S
EXS03310046.wiff	1202052391	LER	3/31/2010 20:27	957192	10-2007	2	LANL	USE	S
EXS03310047.wiff	1202052392	LER	3/31/2010 20:43	957192	10-2007	2	LANL	USE	S
EXS03310048.wiff	WXXCVC	LER	3/31/2010 20:59			1		USE	C
EXS03310049.wiff	XIBLK06	LER	3/31/2010 21:14			1		USE	B
EXS03310050.wiff	WXXCRI	LER	3/31/2010 21:30			1		USE	C
EXS03310051.wiff	1202055003	LER	3/31/2010 21:46	958247	VARIOUS	2	LANL	USE	S
EXS03310052.wiff	1202055004	LER	3/31/2010 22:02	958247	VARIOUS	2	LANL	USE	S
EXS03310053.wiff	248004002	LER	3/31/2010 22:17	958247	10-2024	2	LANL	USE	S
EXS03310054.wiff	1202055005	LER	3/31/2010 22:33	958247	10-2024	2	LANL	USE	S
EXS03310055.wiff	1202055006	LER	3/31/2010 22:49	958247	10-2024	2	LANL	USE	S
EXS03310056.wiff	248004003	LER	3/31/2010 23:04	958247	10-2024	2	LANL	USE	S
EXS03310057.wiff	248004004	LER	3/31/2010 23:20	958247	10-2024	2	LANL	USE	S
EXS03310058.wiff	248004005	LER	3/31/2010 23:36	958247	10-2024	2	LANL	USE	S
EXS03310059.wiff	248004006	LER	3/31/2010 23:51	958247	10-2024	2	LANL	USE	S
EXS03310060.wiff	248012002	LER	4/1/2010 0:07	958247	10-2027	2	LANL	USE	S
EXS03310061.wiff	WXXCVC	LER	4/1/2010 0:23			1		USE	C
EXS03310062.wiff	XIBLK07	LER	4/1/2010 0:39			1		USE	B
EXS03310063.wiff	WXXCRI	LER	4/1/2010 0:54			1		USE	C
EXS03310064.wiff	248012003	LER	4/1/2010 1:10	958247	10-2027	2	LANL	USE	S
EXS03310065.wiff	248012004	LER	4/1/2010 1:26	958247	10-2027	2	LANL	USE	S
EXS03310066.wiff	248012005	LER	4/1/2010 1:42	958247	10-2027	2	LANL	USE	S
EXS03310067.wiff	248012006	LER	4/1/2010 1:57	958247	10-2027	2	LANL	USE	S

EXS03310068.wiff	248012007	LER	4/1/2010 2:13	958247	10-2027	2	LANL	USE	S
EXS03310069.wiff	248012008	LER	4/1/2010 2:29	958247	10-2027	2	LANL	USE	S
EXS03310070.wiff	248012009	LER	4/1/2010 2:44	958247	10-2027	2	LANL	USE	S
EXS03310071.wiff	248013001	LER	4/1/2010 3:00	958247	10-2034	2	LANL	USE	S
EXS03310072.wiff	248013002	LER	4/1/2010 3:16	958247	10-2034	2	LANL	USE	S
EXS03310073.wiff	248013003	LER	4/1/2010 3:31	958247	10-2034	2	LANL	USE	S
EXS03310074.wiff	WXXCCV	LER	4/1/2010 3:47			1		USE	C
EXS03310075.wiff	XIBLK08	LER	4/1/2010 4:03			1		USE	B
EXS03310076.wiff	WXXCRI	LER	4/1/2010 4:19			1		USE	C
EXS03310077.wiff	248013004	LER	4/1/2010 4:34	958247	10-2034	2	LANL	USE	S
EXS03310078.wiff	XIBLK09	LER	4/1/2010 4:50			1		USE	B
EXS03310079.wiff	1202073689	LER	4/1/2010 5:06	966289	VARIOUS	2	LANL	USE	S
EXS03310080.wiff	1202073690	LER	4/1/2010 5:21	966289	VARIOUS	2	LANL	USE	S
EXS03310081.wiff	249327010	LER	4/1/2010 5:37	966289	10-2428	2	LANL	USE	S
EXS03310082.wiff	1202073691	LER	4/1/2010 5:53	966289	10-2428	2	LANL	USE	S
EXS03310083.wiff	1202073692	LER	4/1/2010 6:09	966289	10-2428	2	LANL	USE	S
EXS03310084.wiff	249373002	LER	4/1/2010 6:24	966289	10-2453	2	LANL	USE	S
EXS03310085.wiff	249375003	LER	4/1/2010 6:40	966289	10-2445	2	LANL	USE	S
EXS03310086.wiff	249375009	LER	4/1/2010 6:56	966289	10-2445	2	LANL	USE	S
EXS03310087.wiff	WXXCCV	LER	4/1/2010 7:11			1		USE	C
EXS03310088.wiff	XIBLK10	LER	4/1/2010 7:27			1		USE	B
EXS03310089.wiff	WXXCRI	LER	4/1/2010 7:43			1		USE	C
EXS03310090.wiff	1202055034	LER	4/1/2010 7:59	958262	10-2074	2	LANL	USE	S
EXS03310091.wiff	1202055035	LER	4/1/2010 8:14	958262	10-2074	2	LANL	USE	S
EXS03310092.wiff	248043001	LER	4/1/2010 8:30	958262	10-2074	2	LANL	USE	S
EXS03310093.wiff	1202055036	LER	4/1/2010 8:46	958262	10-2074	2	LANL	USE	S
EXS03310094.wiff	1202055037	LER	4/1/2010 9:01	958262	10-2074	2	LANL	USE	S
EXS03310095.wiff	248043002	LER	4/1/2010 9:17	958262	10-2074	2	LANL	USE	S
EXS03310096.wiff	248043003	LER	4/1/2010 9:33	958262	10-2074	2	LANL	USE	S
EXS03310097.wiff	248043004	LER	4/1/2010 9:49	958262	10-2074	2	LANL	USE	S
EXS03310098.wiff	248043005	LER	4/1/2010 10:04	958262	10-2074	2	LANL	USE	S
EXS03310099.wiff	248043006	LER	4/1/2010 10:20	958262	10-2074	2	LANL	USE	S
EXS03310100.wiff	WXXCCV	LER	4/1/2010 10:36			1		USE	C
EXS03310101.wiff	XIBLK11	LER	4/1/2010 10:52			1		USE	B
EXS03310102.wiff	WXXCRI	LER	4/1/2010 11:07			1		USE	C
EXS03310103.wiff	248043007	LER	4/1/2010 11:23	958262	10-2074	2	LANL	USE	S
EXS03310104.wiff	248043008	LER	4/1/2010 11:39	958262	10-2074	2	LANL	USE	S

EXS03310105.wiff	248043009	LER	4/1/2010 11:54	958262	10-2074	2	LANL	USE	S
EXS03310106.wiff	248043010	LER	4/1/2010 12:10	958262	10-2074	2	LANL	USE	S
EXS03310107.wiff	248043011	LER	4/1/2010 12:26	958262	10-2074	2	LANL	USE	S
EXS03310108.wiff	248043012	LER	4/1/2010 12:41	958262	10-2074	2	LANL	USE	S
EXS03310109.wiff	248043013	LER	4/1/2010 12:57	958262	10-2074	2	LANL	USE	S
EXS03310110.wiff	248043014	LER	4/1/2010 13:13	958262	10-2074	2	LANL	USE	S
EXS03310111.wiff	248043015	LER	4/1/2010 13:29	958262	10-2074	2	LANL	USE	S
EXS03310112.wiff	248043016	LER	4/1/2010 13:44	958262	10-2074	2	LANL	USE	S
EXS03310113.wiff	WXXCCV	LER	4/1/2010 14:00			1		USE	C
EXS03310114.wiff	XIBLK12	LER	4/1/2010 14:16			1		USE	B
EXS03310115.wiff	WXXCRI	LER	4/1/2010 14:31			1		USE	C
EXS03310116.wiff	248043017	LER	4/1/2010 14:47	958262	10-2074	2	LANL	USE	S
EXS03310117.wiff	248043018	LER	4/1/2010 15:03	958262	10-2074	2	LANL	USE	S
EXS03310118.wiff	XIBLK13	LER	4/1/2010 15:19			1		USE	B
EXS03310119.wiff	1202064537	LER	4/1/2010 15:34	962415	10-2233	2	LANL	USE	S
EXS03310120.wiff	1202064538	LER	4/1/2010 15:50	962415	10-2233	2	LANL	USE	S
EXS03310121.wiff	248628002	LER	4/1/2010 16:06	962415	10-2233	2	LANL	USE	S
EXS03310122.wiff	1202064539	LER	4/1/2010 16:21	962415	10-2233	2	LANL	USE	S
EXS03310123.wiff	1202064540	LER	4/1/2010 16:37	962415	10-2233	2	LANL	USE	S
EXS03310124.wiff	248628003	LER	4/1/2010 16:53	962415	10-2233	2	LANL	USE	S
EXS03310125.wiff	248628004	LER	4/1/2010 17:08	962415	10-2233	2	LANL	USE	S
EXS03310126.wiff	WXXCCV	LER	4/1/2010 17:24	962415	10-2233	2	LANL	USE	S
EXS03310127.wiff	XIBLK14	LER	4/1/2010 17:40			1		USE	C
EXS03310128.wiff	WXXCRI	LER	4/1/2010 17:56			1		USE	B
EXS03310129.wiff	248628005	LER	4/1/2010 18:11	962415	10-2233	2	LANL	USE	C
EXS03310130.wiff	248628006	LER	4/1/2010 18:27	962415	10-2233	2	LANL	USE	S
EXS03310131.wiff	248628007	LER	4/1/2010 18:43	962415	10-2233	2	LANL	USE	S
EXS03310132.wiff	248628008	LER	4/1/2010 18:58	962415	10-2233	2	LANL	USE	S
EXS03310133.wiff	248628009	LER	4/1/2010 19:14	962415	10-2233	2	LANL	USE	S
EXS03310134.wiff	248628010	LER	4/1/2010 19:30	962415	10-2233	2	LANL	USE	S
EXS03310135.wiff	248628011	LER	4/1/2010 19:46	962415	10-2233	2	LANL	USE	S
EXS03310136.wiff	248628012	LER	4/1/2010 20:01	962415	10-2233	2	LANL	USE	S
EXS03310137.wiff	248628013	LER	4/1/2010 20:17	962415	10-2233	2	LANL	USE	S
EXS03310138.wiff	248628014	LER	4/1/2010 20:33	962415	10-2233	2	LANL	USE	S
EXS03310139.wiff	WXXCCV	LER	4/1/2010 20:48			1		USE	C
EXS03310140.wiff	XIBLK15	LER	4/1/2010 21:04			1		USE	B
EXS03310141.wiff	WXXCRI	LER	4/1/2010 21:20			1		USE	C



EXS03310142.wiff	248628015	LER	4/1/2010 21:36	962415	10-2233	2	LANL	USE	S
EXS03310143.wiff	XIBLK16	LER	4/1/2010 21:51			1		USE	B
EXS03310144.wiff	248541007	LER	4/1/2010 22:07	961045	10-2210	10	LANL	USE	S
EXS03310145.wiff	WXXCCV	LER	4/1/2010 22:23			1		USE	C
EXS03310146.wiff	XIBLK17	LER	4/1/2010 22:39			1		USE	B
EXS03310147.wiff	WXXCRI	LER	4/1/2010 22:54			1		USE	C

**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412090a

Date: 14-Apr-2010

Time: 11:26:17

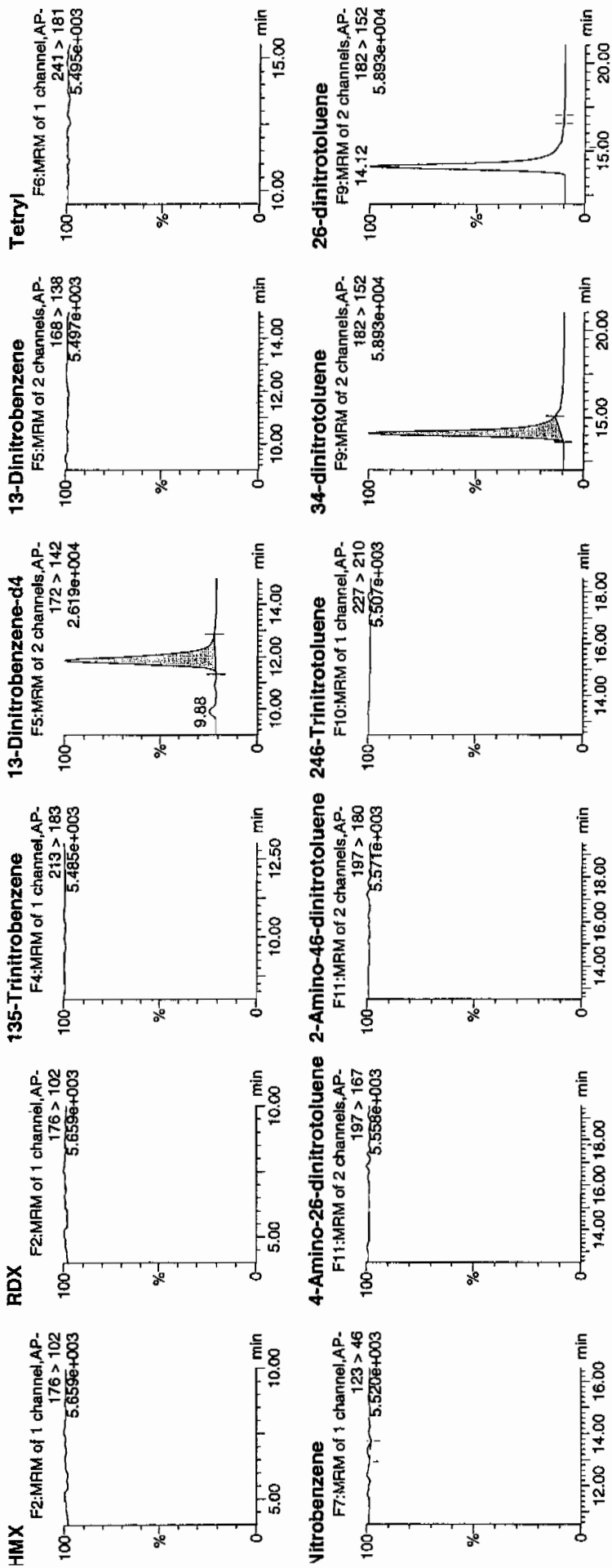
ID: 248043006

Vial: 3:2,D

WAL/958262/SUB/21

1477  
4/15/10

1808E/24-12841  
Carpenter EXP0412108a



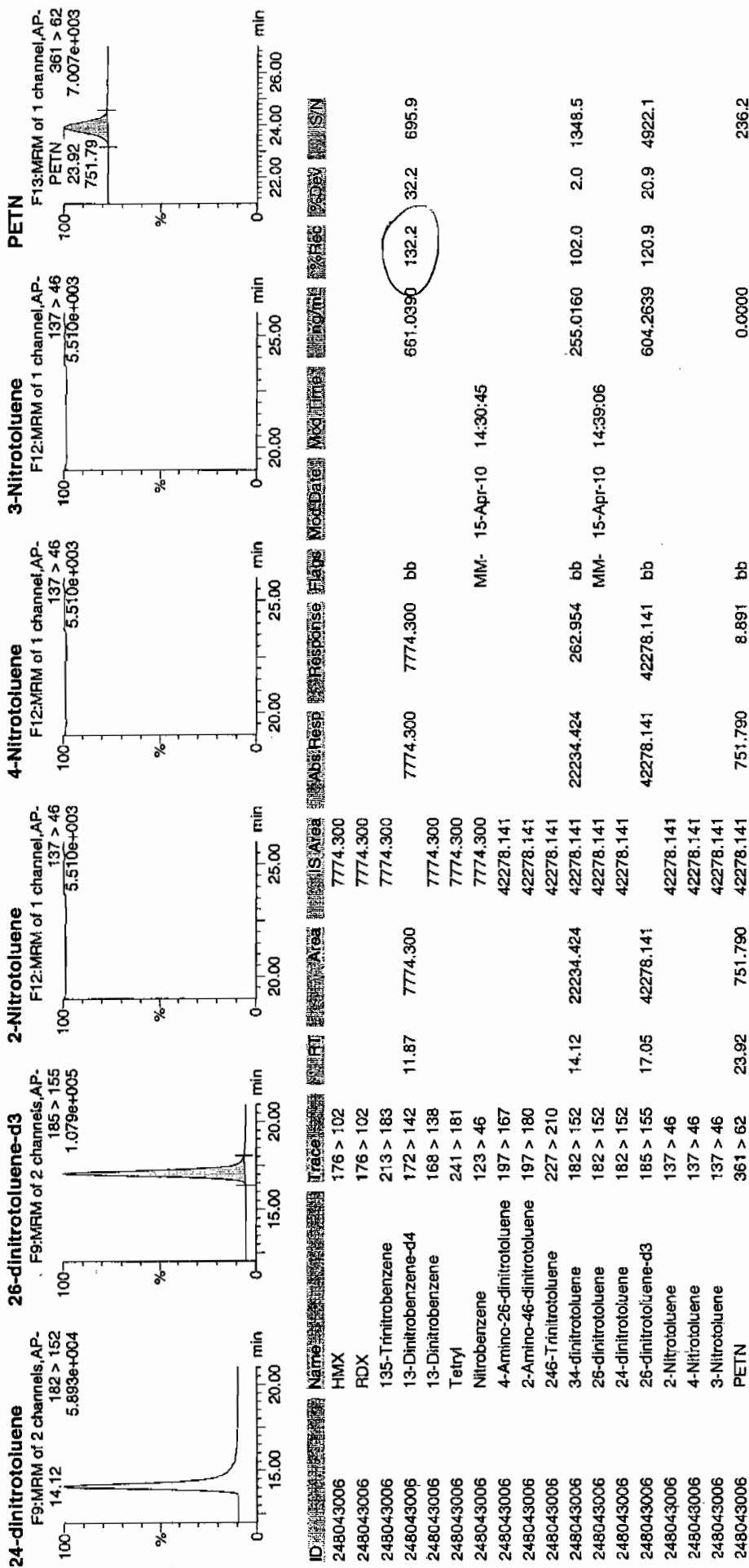
47112  
04/15/10

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 30 of 137

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412093a

Date: 14-Apr-2010

Time: 12:54:51

ID: 248043008

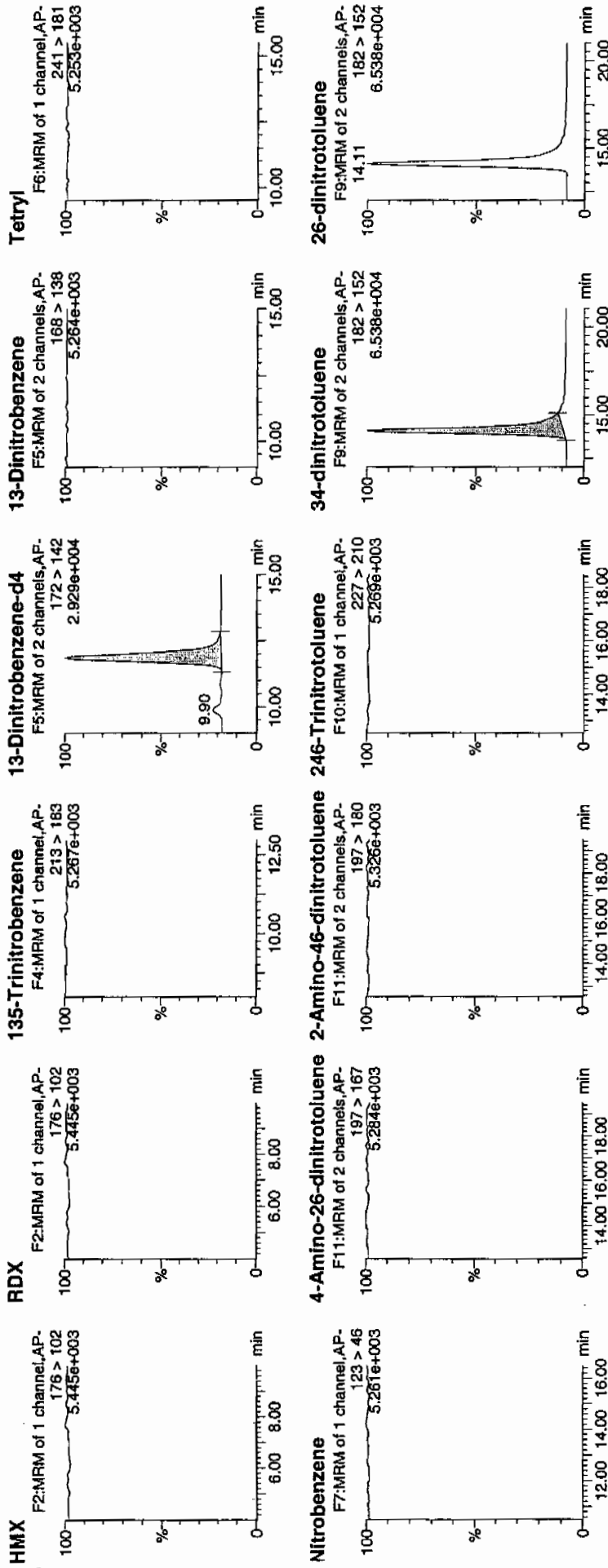
Vial: 3:2,F

4/15/10

LAUC/950262 / 8025 / 21

8025/2A-128

Concentr EXP0412093a



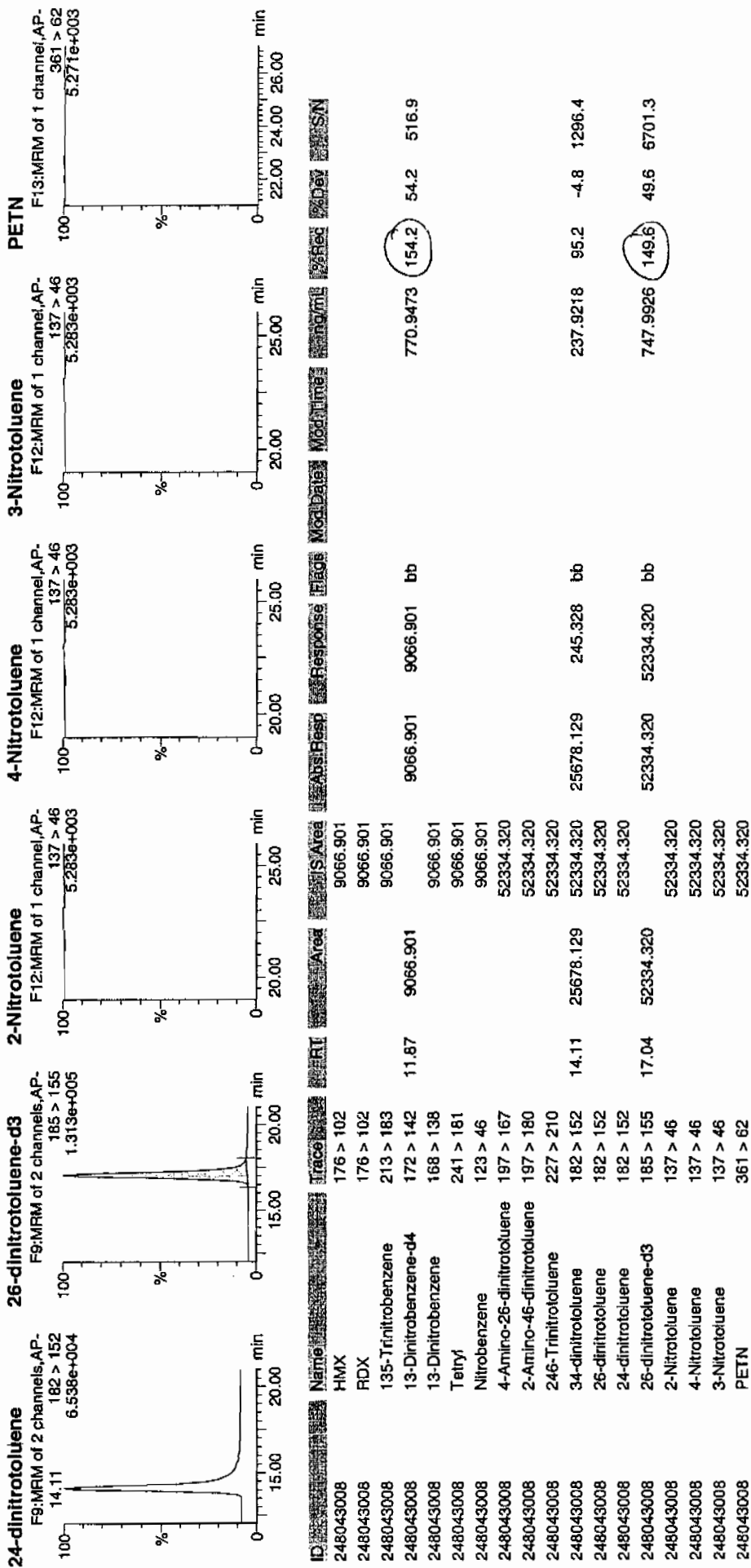
4/15/10

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 36 of 137

Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



GEL Laboratories LLC  
Form GEL-DER

DER Report No.: 817809

Revision No.: 1

### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 15-APR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> LC-MS/MS	<b>Test / Method:</b> SW846 8321A Modified	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 958262	<b>Sample Numbers:</b> See Below		

**Potentially affected work order(s)(SDG):** 248043(10-2074)

**Application Issues:**

Sample Analyzed out of Holding  
Other  
Failed Recovery for LCS/LCSD  
Failed Recovery for MS/PS  
Failed RPD for MS/MSD, or PS/PSD

**Specification and Requirements  
Exception Description:**

**DER Disposition:**

1. The following samples and QC were analyzed out of holding for the Primary analyte analysis: 248043001, 248043002, 248043003, 248043004, 248043005, 248043006, 248043007, 248043008, 248043009, 248043010, 248043011, 248043012, 248043013, 248043014, 248043015, 248043016, 248043017, 248043018, 1202055036(MS) and 1202055037(MSD).
2. The LCS (1202055035) did not meet spike recovery limits for Tetraol at 30.7% with limits of 51-112%, 4-Amino-2,6-dinitrotoluene at 83.0% with limits of 84-130% and 2,6-Diamino-4-nitrotoluene at 124% with limits of 64-122%.
3. The MS (1202055036) did not meet spike recovery limits for 2-Amino-4,6-dinitrotoluene at 78.6%. The recovery limits are 85-137%.
4. The MS/MSD pair (1202055036/037) did not meet RPD acceptance limits for PETN at 32.6%. The acceptance limits are 0-30%.
5. The internal standard responses were outside of the acceptance criteria in the following samples: 248043006, 248043008, 1202055036(MS) and 1202055037(MSD). Please see the Form 8 in the data package for the exact recoveries.

1. The analytical holding times for the samples in this batch were exceeded due to limitations of instrument capacity. However, these samples were analyzed within two times the analytical holding time of the method. The client was notified of this situation and is in agreement to receive these qualified data. The data are reported with the appropriate DER. The discrepancies are noted in the case narrative.
2. Since both the MS and MSD met acceptance limits for the stated analytes, the data are reported with the appropriate DER. The discrepancies are noted in the case narrative.
3. Since all other spike recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical and/or extraction process. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.
4. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical and/or extraction process. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.
5. Samples 248043006 and 248043008 were re-analyzed and similar recoveries were observed. The re-analysis data are reported with the appropriate DER. The confirmation raw data are located in the Miscellaneous Section of the data package. Since similar recoveries were obtained between matrix spikes, the noted exceptions are attributed to sample matrix interference. Sample re-analysis was not required, and the data are reported with the appropriate DER. The discrepancies are noted in the case narrative.

**Originator's Name:**

Michael Penny 15-APR-10

**Data Validator/Group Leader:**

Herbert Maier 15-APR-10

GC  
SEMIVOLATILE  
PCB  
ANALYSIS

**PCB Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2074**

**Method/Analysis Information**

**Procedure:** Analysis of Polychlorinated Biphenyls by ECD  
**Analytical Method:** SW846 8082  
**Prep Method:** SW846 3550B  
**Analytical Batch Number:** 961902  
**Prep Batch Number:** 961901

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8082:

<b>Sample ID</b>	<b>Client ID</b>
248043001	RE36-10-7414
248043002	RE36-10-7413
248043018	RE36-10-7515
1202063216	Method Blank (MB)
1202063217	Laboratory Control Sample (LCS)
1202063218	248253001(WST01-10-13669) Matrix Spike (MS)
1202063219	248253001(WST01-10-13669) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

**Calibration Information**

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

**Initial Calibration**

All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inverted in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

**Continuing Calibration Verification (CCV) Requirements**

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.



One of the five quantified peaks did not meet the acceptance criteria in Aroclor-1242, Aroclor-1254 and Aroclor-1260 standards analyzed for this SDG; however, the average concentration of the five quantitated peaks met the acceptance criteria.

#### **Quality Control (QC) Information**

##### **Method Blank (MB) Statement**

The MB analyzed with this SDG met the acceptance criteria; however the Method Blank was contaminated with low level (below the PQL) of Aroclor-1242.

##### **Surrogate Recoveries**

Samples 248043002 (RE36-10-7413) and 248043018 (RE36-10-7515) did not meet the surrogate recovery acceptance criteria for Decachlorobiphenyl (DCB) due to dilution and sample matrix interference. See DER #801543 located in the Miscellaneous Data section.

##### **Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

##### **QC Sample Designation**

A LANL sample of similar matrix associated with another SDG (#10-2143) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

##### **Matrix Spike (MS) Recovery Statement**

The MS recovery was not within the established acceptance limits due to dilution and sample matrix interference.

##### **Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD recovery was not within the established acceptance limits due to dilution and sample matrix interference.

##### **MS/MSD Relative Percent Difference (RPD) Statement**

The RPD between the MS and MSD was not within the required acceptance limits due to dilution and sample matrix interference.

#### **Technical Information**

##### **Holding Time Specifications**

GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

##### **Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

##### **Sample Dilutions**

Samples 248043002 (RE36-10-7413) (1:5) and 248043018 (RE36-10-7515) (1:20) were diluted due to high concentrations of non-target analytes.

##### **Sample Re-extraction/Re-analysis**

Re-extractions were not required in this SDG.

#### **Miscellaneous Information**

##### **Electronic Package Comment**

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

#### **Data Exception Report (DER) Documentation**

Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. DER # 801543 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

#### **Manual Integration**

Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

#### **Additional Comments**

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

#### **System Configuration**

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

#### **Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Review Validation**

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao

Date: 3/24/10

## Roadmap for LANL 10-2074 PCB

This roadmap was analyzed by yip00818 on 03-09-2010, 11:49.

This roadmap was reviewed by jim01140 on 03-09-2010, 14:50.

This roadmap was packaged by yml on 03-23-2010, 12:20.

This roadmap was validated by jim01140 on 03-24-2010, 08:16.

Front Sample Column

exclude	manual	datafile	smid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/030810.b/055f5501.d	248043001	sample	08-MAR-2010	16:22	10-2074.sub	RE36-10-7414	1.00000	961902	UPLOAD BOTH COLUMNS, USE HIGHER
<input checked="" type="checkbox"/>	N	/chem/ecd1a.i/030410.b/043f4301.d	248043002	sample	04-MAR-2010	14:04	10-2074.sub	RE36-10-7413	1.00000	960051	RE SURROGATE LOW
<input type="checkbox"/>	N	/chem/ecd1a.i/030810.b/056f5601.d	248043002	sample	08-MAR-2010	16:34	10-2074.sub	RE36-10-7413	5.00000	961902	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i/030810.b/057f5701.d	248043018	sample	08-MAR-2010	16:47	10-2074.sub	RE36-10-7515	20.00000	961902	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/030810.b/055f5501.d	248043001	sample	08-MAR-2010	16:22	10-2074.sub	RE36-10-7414	1.00000	961902	UPLOAD BOTH COLUMNS, USE HIGHER
<input checked="" type="checkbox"/>	N	/chem/ecd1a.i/030410.b/043f4301.d	248043002	sample	04-MAR-2010	14:04	10-2074.sub	RE36-10-7413	1.00000	960051	RE SURROGATE LOW
<input type="checkbox"/>	N	/chem/ecd1a.i/030810.b/056f5601.d	248043002	sample	08-MAR-2010	16:34	10-2074.sub	RE36-10-7413	5.00000	961902	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i/030810.b/057f5701.d	248043018	sample	08-MAR-2010	16:47	10-2074.sub	RE36-10-7515	20.00000	961902	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/030810.b/038f3801-1.d	1202063216	mb	08-MAR-2010	13:00	10-2074.sub	PBLK01	1.00000	961902	
<input type="checkbox"/>	N	/chem/ecd1a.i/030810.b/039f3901-1.d	1202063217	lcs	08-MAR-2010	13:10	10-2074.sub	PBLK01LCS	1.00000	961902	

Back QC Sample Column

exclude	manual	datafile	smid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/030810.b/038f3801-1.d	1202063216	mb	08-MAR-2010	13:00	10-2074.sub	PBLK01	1.00000	961902	
<input type="checkbox"/>	N	/chem/ecd1a.i/030810.b/039f3901-1.d	1202063217	lcs	08-MAR-2010	13:10	10-2074.sub	PBLK01LCS	1.00000	961902	

# SAMPLE DATA SUMMARY

**PCB**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2074  
Lab Sample ID: 248043002

Client ID: RE36-10-7413  
Batch ID: 961902  
Run Date: 03/08/2010 16:34  
Prep Date: 03/07/2010 11:43  
Data File: 056f5601.d  
056b5601.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YSI  
Aliquot: 30.05 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 20.9  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 5  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	21.0	ug/kg	7.01	21.0	1
11104-28-2	Aroclor-1221	U	21.0	ug/kg	7.01	21.0	1
11141-16-5	Aroclor-1232	U	21.0	ug/kg	7.01	21.0	1
53469-21-9	Aroclor-1242	U	21.0	ug/kg	7.01	21.0	1
12672-29-6	Aroclor-1248	U	21.0	ug/kg	7.01	21.0	1
11097-69-1	Aroclor-1254		191	ug/kg	7.01	21.0	1
11096-82-5	Aroclor-1260	P	116	ug/kg	7.01	21.0	1

## PCB

Page 1 of 1

Certificate of Analysis  
Sample SummarySDG Number: 10-2074  
Lab Sample ID: 248043001Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.11 g  
Column: 1 CLP1  
2 CLP2Matrix: R  
%Moisture: 21.1  
Project: LANL01004  
SOP Ref: GL-OA-F-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.21	ug/kg	1.40	4.21	1
11104-28-2	Aroclor-1221	U	4.21	ug/kg	1.40	4.21	1
11141-16-5	Aroclor-1232	U	4.21	ug/kg	1.40	4.21	1
53469-21-9	Aroclor-1242	U	4.21	ug/kg	1.40	4.21	1
12672-29-6	Aroclor-1248	U	4.21	ug/kg	1.40	4.21	1
11097-69-1	Aroclor-1254	P	19.7	ug/kg	1.40	4.21	1
11096-82-5	Aroclor-1260	P	15.9	ug/kg	1.40	4.21	1

**PCB**  
**Certificate of Analysis**  
**Sample Summary**

**SDG Number:** 10-2074  
**Lab Sample ID:** 248043018

**Client ID:** RE36-10-7515  
**Batch ID:** 961902  
**Run Date:** 03/08/2010 16:47  
**Prep Date:** 03/07/2010 11:43  
**Data File:** 057f5701.d  
057b5701.d

**Date Collected:** 02/20/2010 12:00  
**Date Received:** 02/25/2010 08:45  
**Client:** LANL010  
**Method:** SW846 8082  
**Inst:** ECD1A.I  
**Analyst:** YS1  
**Aliquot:** 30.04 g  
**Column:** 1 CLP1  
2 CLP2

**Matrix:** R  
**%Moisture:** 20.8  
**Project:** LANL01004  
**SOP Ref:** GL-OA-E-040  
**Dilution:** 20  
**Inj. Vol:** 1 uL  
**Final Volume:** 1 mL  
**Level:** LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	84.1	ug/kg	28.0	84.1	1
11104-28-2	Aroclor-1221	U	84.1	ug/kg	28.0	84.1	1
11141-16-5	Aroclor-1232	U	84.1	ug/kg	28.0	84.1	1
53469-21-9	Aroclor-1242	B	714	ug/kg	28.0	84.1	2
12672-29-6	Aroclor-1248	U	84.1	ug/kg	28.0	84.1	1
11097-69-1	Aroclor-1254		1620	ug/kg	28.0	84.1	1
11096-82-5	Aroclor-1260	P	825	ug/kg	28.0	84.1	1



# QUALITY CONTROL SUMMARY

PCB  
Surrogate Recovery Report

Page 1 of 1

SDG Number: 10-2074

Matrix Type: SOLID

CAP Column (1) : CLP1

CAP Column (2) : CLP2

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202063216	MB for batch 961901	64	63	60	69
1202063217	LCS for batch 961901	61	60	60	64
248043001	RE36-10-7414	63	62	63	71
248043002	RE36-10-7413	53 D	53 D	57 D	159 * D
248043018	RE36-10-7515	65 D	69 D	36 D	122 * D

**Surrogate**

4CMX = 4cmx

DCB = Decachlorobiphenyl

**Acceptance Limits**

(32%-120%)

(30%-116%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

PCB

Page 1 of 1

**Quality Control Summary  
Spike Recovery Report**

SDG Number: 10-2074

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961901

Matrix: SOIL

Lab Sample ID:1202063217

Instrument: ECD1A.I

Analysis Date: 03/08/2010 13:10

Dilution: 1

Analyst: YS1

Preo Batch ID: 961901

Inj. Vol: 1 uL

Batch ID: 961902

CAS No	Paramname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS Aroclor-1016	33.3	0.0	22.3	67	39-102
11096-82-5	LCS Aroclor-1260	33.3	0.0	26.4	79	45-118

## PCB

Page 1 of 2

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2143

Sample Type: Matrix Spike

Client ID: WST01-10-13669MS

Matrix: S

Lab Sample ID:1202063218

%Moisture: 18.3

Instrument: ECD1A.I

Analysis Date: 03/08/2010 13:33

Dilution: 20

Analyst: YS1

Prep Batch II 961901

Inj. Vol: 1 uL

Batch ID: 961902

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS Aroclor-1016	40.7	0.00	U 48.2	119	23-119
11096-82-5	MS Aroclor-1260	40.7	926	P 265	-1625 *	28-124

PCB

Page 2 of 2

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2143

Sample Type: Matrix Spike Duplicate

Client ID: WST01-10-13669MSD

Matrix: S

Lab Sample ID:1202063219

%Moisture: 18.3

Instrument: ECD1A.I

Analysis Date: 03/08/2010 13:46

Dilution: 20

Analyst: YS1

Prep Batch II 961901

Inj. Vol: 1 uL

Batch ID: 961902

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	40.6	0.00	U	94.6	233 *	23-119	65 * 0-28
11096-82-5	MSD Aroclor-1260	40.6	926	P	550	-926 *	28-124	70 * 0-30

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2074	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 961901	Instrument ID:	ECD1A.I_2	Data File:	038b3801-1.d
Lab Sample ID:	1202063216		ECD1A.I_1		038f3801-1.d
Column:	CLP2	Prep Date:	03/07/2010 11:43	Analyzed:	03/08/10 13:00
	CLP1	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 961901	1202063217	039f3901-1.d 039b3901-1.d	03/08/10	1310
04 RE36-10-7414	248043001	055f5501.d 055b5501.d	03/08/10	1622
05 RE36-10-7413	248043002	056f5601.d 056b5601.d	03/08/10	1634
06 RE36-10-7515	248043018	057f5701.d 057b5701.d	03/08/10	1647

# SAMPLE DATA

## PCB

Page 1 of 1

## Certificate of Analysis

## Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043002

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.05 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 20.9  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 5  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7413  
Batch ID: 961902  
Run Date: 03/08/2010 16:34  
Prep Date: 03/07/2010 11:43  
Data File: 056f5601.d  
056b5601.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	21.0	ug/kg	7.01	21.0	1
11104-28-2	Aroclor-1221	U	21.0	ug/kg	7.01	21.0	1
11141-16-5	Aroclor-1232	U	21.0	ug/kg	7.01	21.0	1
53469-21-9	Aroclor-1242	U	21.0	ug/kg	7.01	21.0	1
12672-29-6	Aroclor-1248	U	21.0	ug/kg	7.01	21.0	1
11097-69-1	Aroclor-1254		191	ug/kg	7.01	21.0	1
11096-82-5	Aroclor-1260	P	116	ug/kg	7.01	21.0	1



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/030810.b/056f5601.d

Lab Smp Id: 248043002

Client Smp ID: RE36-10-7413

Inj Date : 08-MAR-2010 16:34

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |248043002|5|

Misc Info : |ECD82P\_1S|961902|2|SVA|LANL|SOIL|RE36-10-7413|||

Comment :

Method : /chem/ecdl1a.i/030810.b/ECD1-F-8082-022210.m

Meth Date : 09-Mar-2010 06:41 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 56

Dil Factor: 5.00000

Integrator: Falcon

Compound Sublist: 10-2074.sub

Target Version: 3.50

Sample Matrix: Soil

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	20.93190	% Moisture

Cpnd Variable

Local Compound Variable

CONCENTRATIONS

ON-COL FINAL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
----	--------	--------	------------------	---------	--------------	-------

\$ 11 4cmx				CAS #: 877-09-8		
1.918	1.917	0.001	9117053 21.1711	4.4	80.00- 120.00	100.00

\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.220	5.223	-0.003	7009555 22.8109	4.8	80.00- 120.00	100.00

6 Aroclor-1254				CAS #: 11097-69-1		
3.212	3.215	-0.003	7376315 614.317	129	80.00- 120.00	100.00(M)
3.367	3.369	-0.002	11213859 708.297	149	116.82- 156.82	152.03
3.600	3.602	-0.002	19899461 1019.23	214	157.14- 197.14	269.78
3.763	3.765	-0.002	11822699 856.148	180	112.42- 152.42	160.28
3.870	3.875	-0.005	19068893 1335.26	281	109.02- 149.02	258.52
Average of Peak Concentrations =				191		

		CONCENTRATIONS							
		ON-COL	FINAL						
RT	EXP RT DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO				
--	=====	-----	-----	-----	=====				
7 Aroclor-1260		CAS #: 11096-82-5							
3.707	3.711 -0.004	9730061 569.929	120	80.00- 120.00	100.00 (M)				
3.870	3.873 -0.003	19068893 806.519	170	130.40- 170.40	203.42				
4.032	4.036 -0.004	28379211 1136.47	239	98.53- 138.53	348.18				
4.100	4.104 -0.004	1748996 121.410	25.5	70.34- 110.34	17.98				
4.242	4.247 -0.005	1626281 112.697	23.7	74.44- 114.44	16.71				
Average of Peak Concentrations =		116							

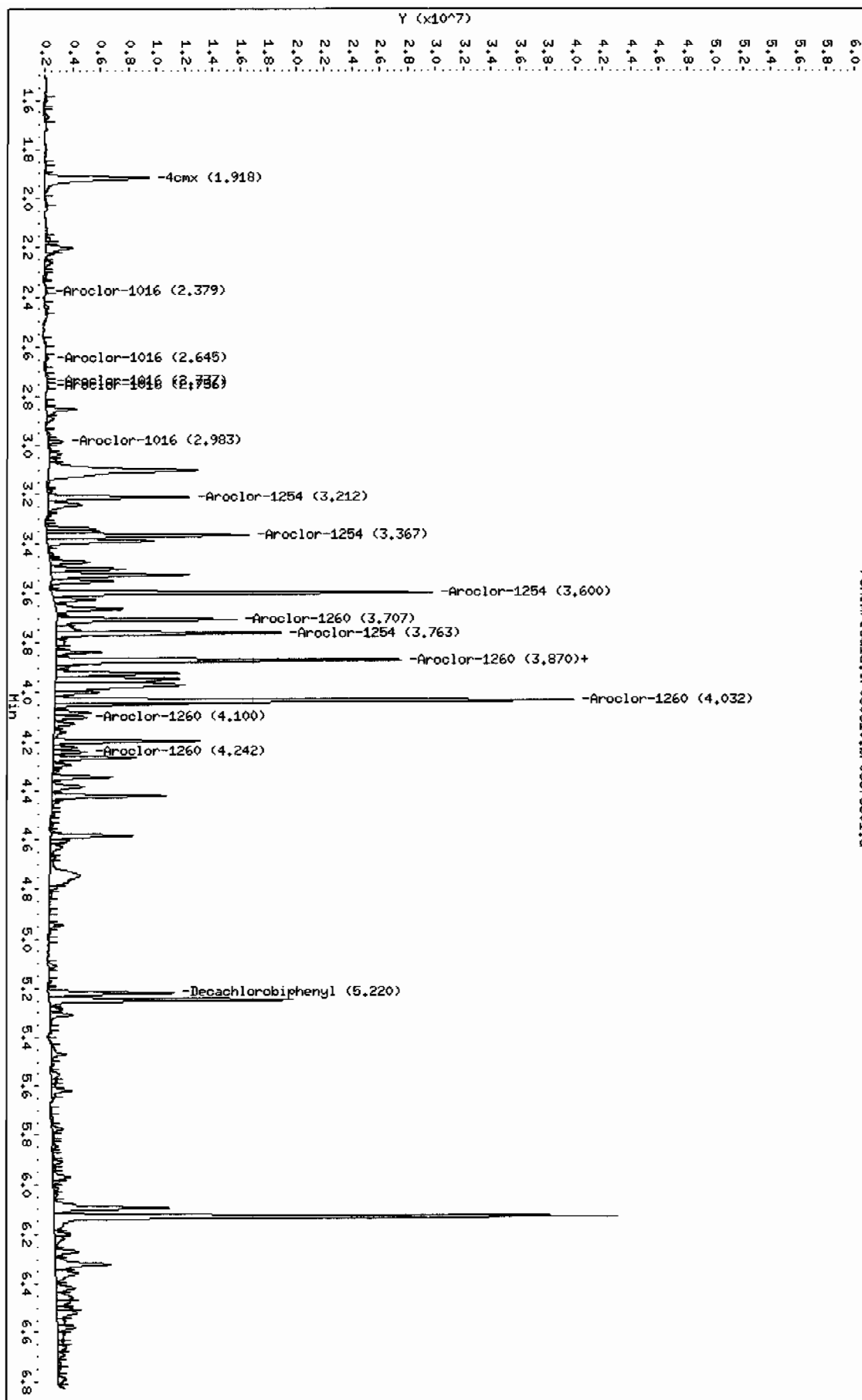
QC Flag Legend

M - Compound response manually integrated.

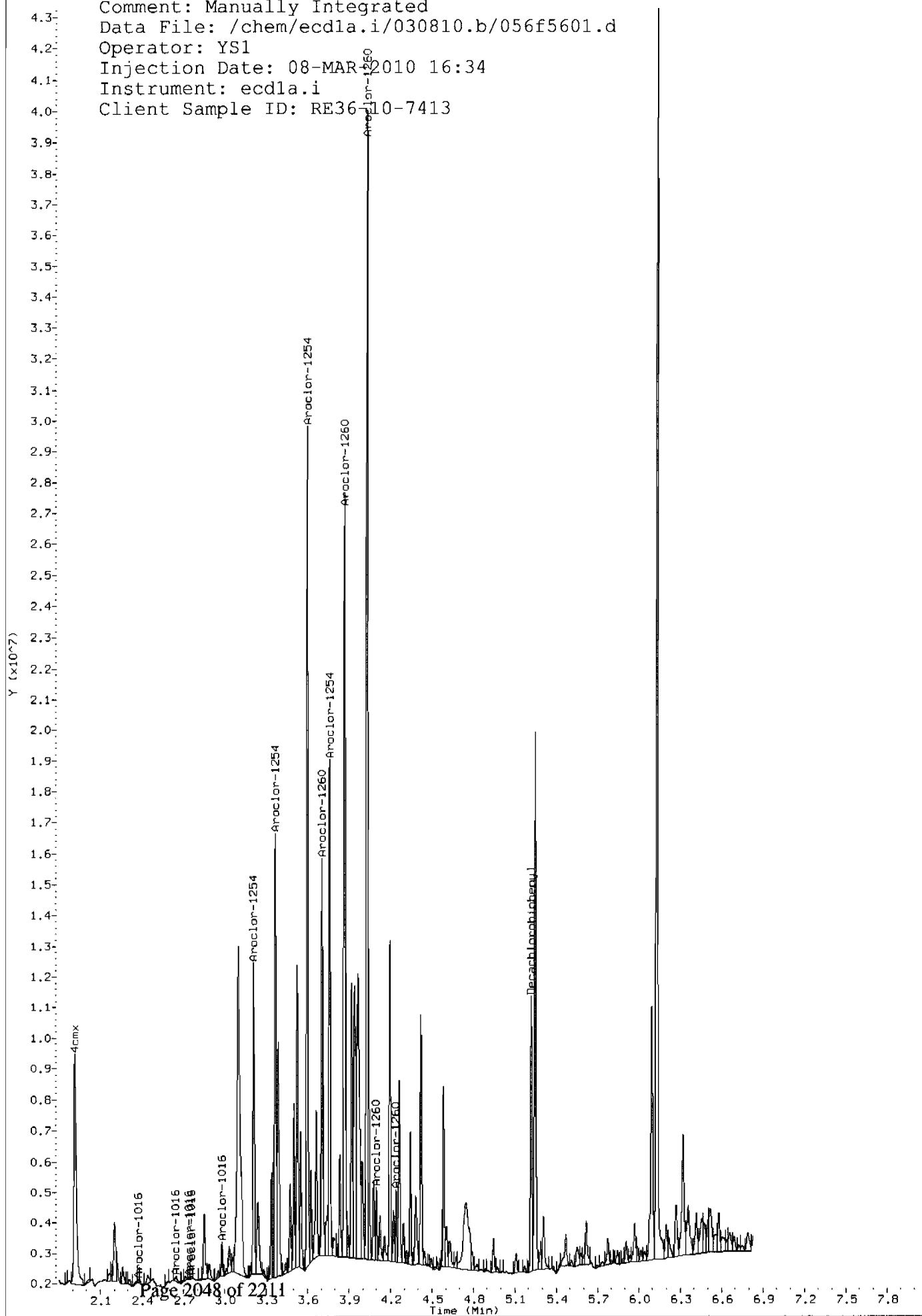
Data File: /chem/eod1a.i/030810.b/056f5601.d  
Date : 08-MAR-2010 16:34  
Client ID: RE36-10-7413  
Sample Info: 1248043002151  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: eod1a.i  
Operator: YS1  
Column diameter: 0.25

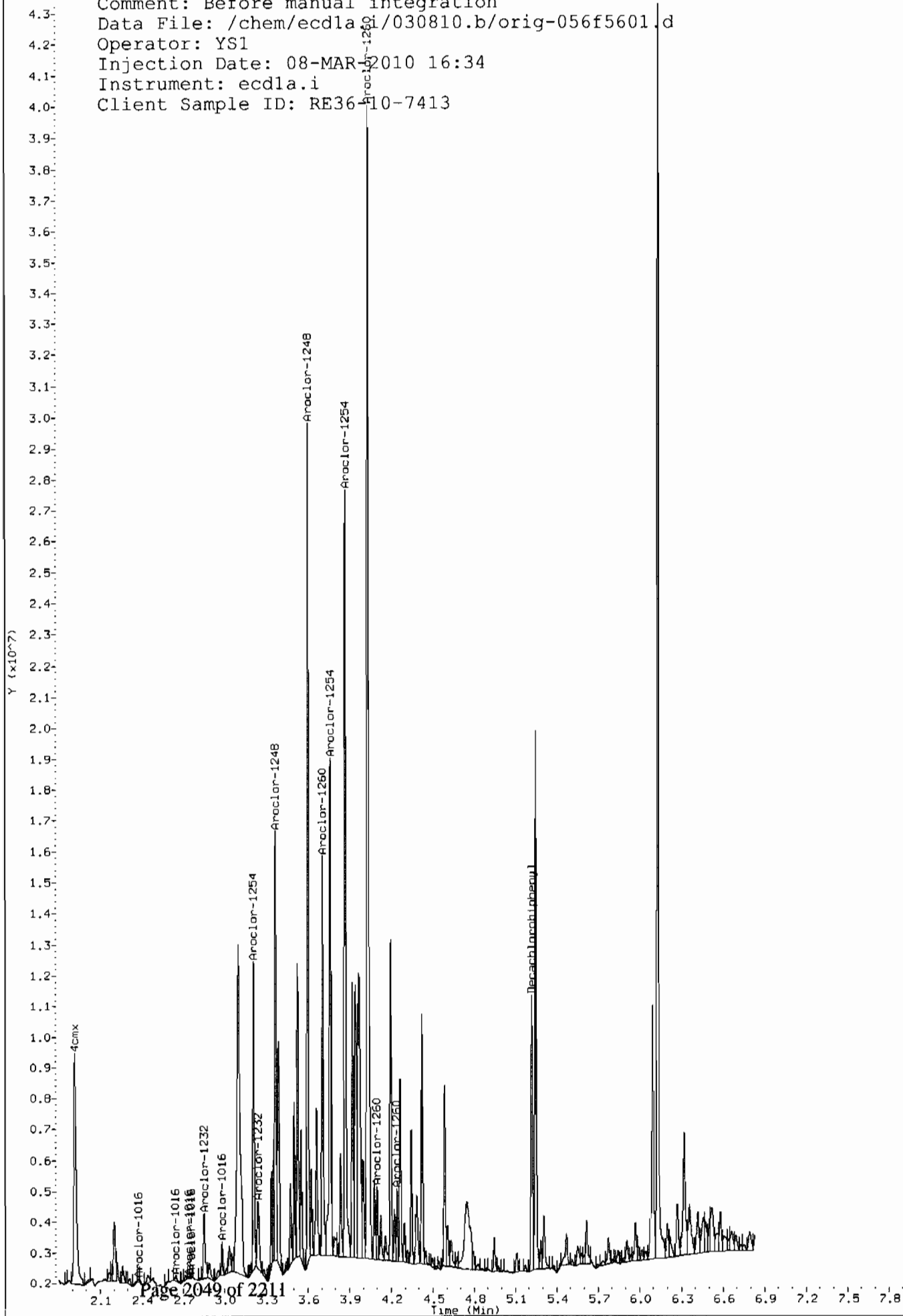
/chem/eod1a.i/030810.b/056f5601.d



Comment: Manually Integrated  
Data File: /chem/ecdl1.i/030810.b/056f5601.d  
Operator: YS1  
Injection Date: 08-MAR-2010 16:34  
Instrument: ecd1a.i  
Client Sample ID: RE36-10-7413



Comment: Before manual integration  
Data File: /chem/ecdlag/030810.b/orig-056f5601.d  
Operator: YS1  
Injection Date: 08-MAR-2010 16:34  
Instrument: ecdla.i  
Client Sample ID: RE36410-7413



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/030810.b/056b5601.d  
 Lab Smp Id: 248043002 Client Smp ID: RE36-10-7413  
 Inj Date : 08-MAR-2010 16:34  
 Operator : YSl Inst ID: ecd1a.i  
 Smp Info : |248043002|5|  
 Misc Info : |ECD82P\_1S|961902|2|SVA|LANL|SOIL|RE36-10-7413|||  
 Comment :  
 Method : /chem/ecdl1a.i/030810.b/ECD1-B-8082-022210.m  
 Meth Date : 12-Mar-2010 08:48 jc Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 56  
 Dil Factor: 5.00000  
 Integrator: Falcon Compound Sublist: 10-2074.sub  
 Target Version: 3.50 Sample Matrix: Soil  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	20.93190	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx CAS #: 877-09-8						
2.276	2.277	-0.001	6246275 21.0032	4.4	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
5.907	5.918	-0.011	13430221 63.5004	13.4	80.00- 120.00	100.00 (R)
-----						
6 Aroclor-1254 CAS #: 11097-69-1						
3.379	3.380	-0.001	1481352 244.109	51.4	80.00- 120.00	100.00 (M)
3.801	3.801	0.000	5541545 515.842	108	162.66- 202.66	374.09
3.918	3.918	0.000	9258239 795.158	167	182.93- 222.93	624.99
4.192	4.194	-0.002	16110941 1013.35	213	265.65- 305.65	1087.58

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
6 Aroclor-1254 (continued)						
4.329	4.330	-0.001	7233034	603.999	127 189.90- 229.90	488.27
Average of Peak Concentrations *				134		
-----						
7 Aroclor-1260				CAS #: 11096-82-5		
4.308	4.310	-0.002	8085310	612.262	129 80.00- 120.00	100.00(M)
4.433	4.435	-0.002	8716167	559.920	118 102.50- 142.50	107.80
4.702	4.701	0.001	2862250	241.673	50.8 72.16- 112.16	35.40
4.871	4.874	-0.003	1611181	132.051	27.8 76.36- 116.36	19.93
5.020	5.021	-0.001	5169300	194.868	41.0 194.52- 234.52	63.93
Average of Peak Concentrations *				73.3		
-----						

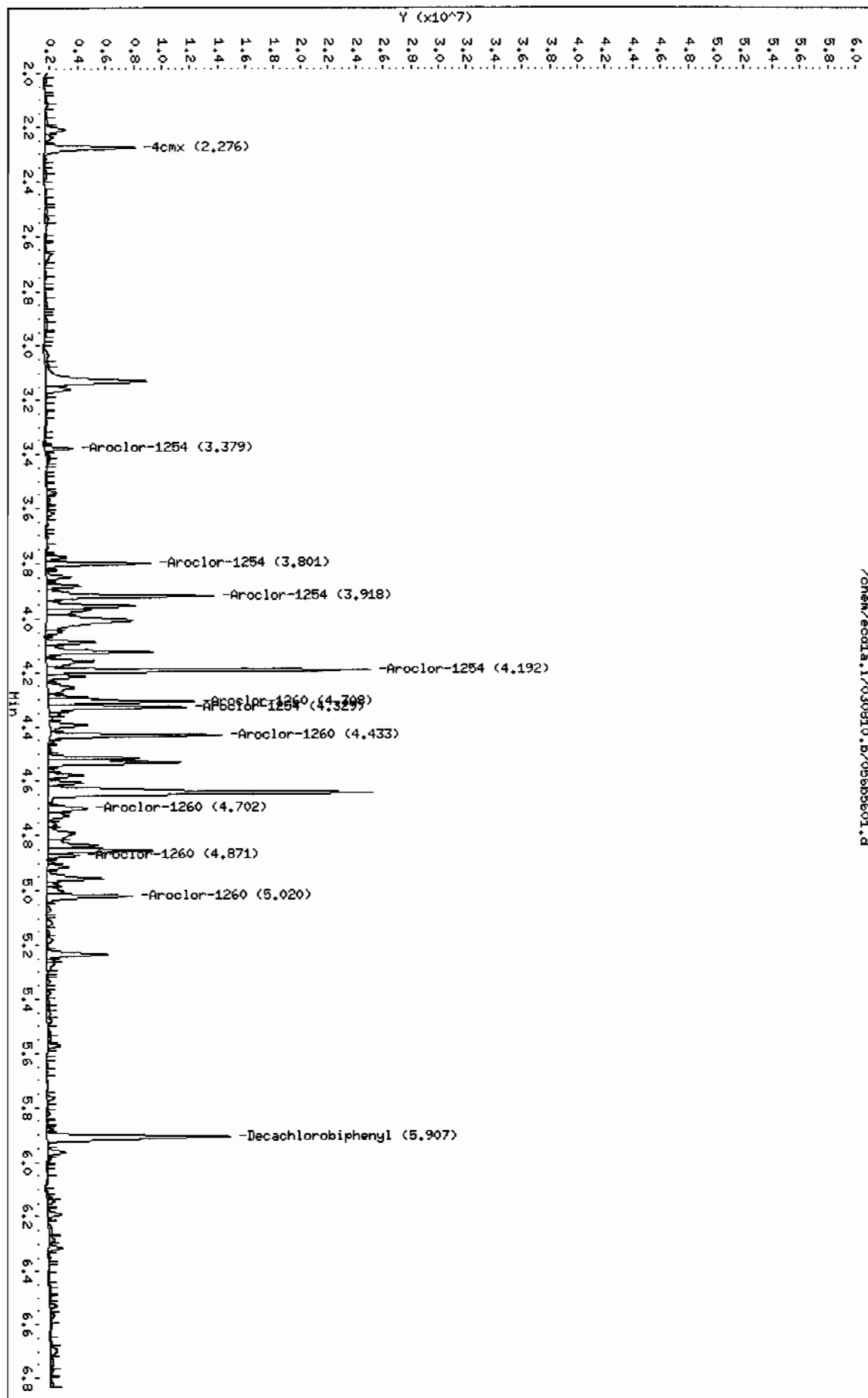
QC Flag Legend

R - Spike/Surrogate failed recovery limits.  
 M - Compound response manually integrated.

Data File: /chem/ecdl.a.i/030810.b/05665601.d  
Date : 08-MAR-2010 16:34  
Client ID: REC6-10-7413  
Sample Info: 1248043002151  
Volume Injected (uL): 1.0  
Column phase: CLP2

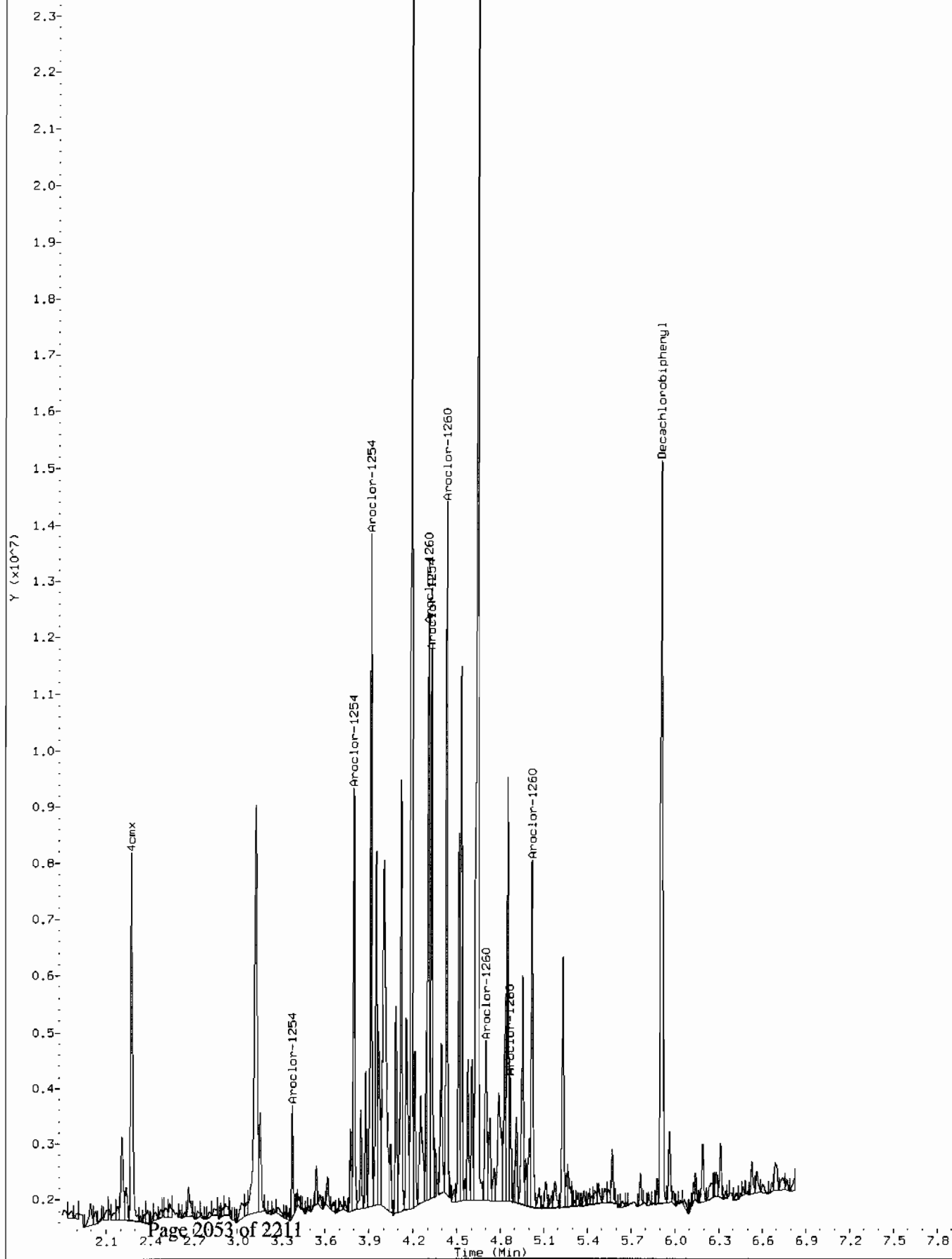
Instrument: ecdl.a.i  
Operator: YS1  
Column diameter: 0.25

/chem/ecdl.a.i/030810.b/05665601.d

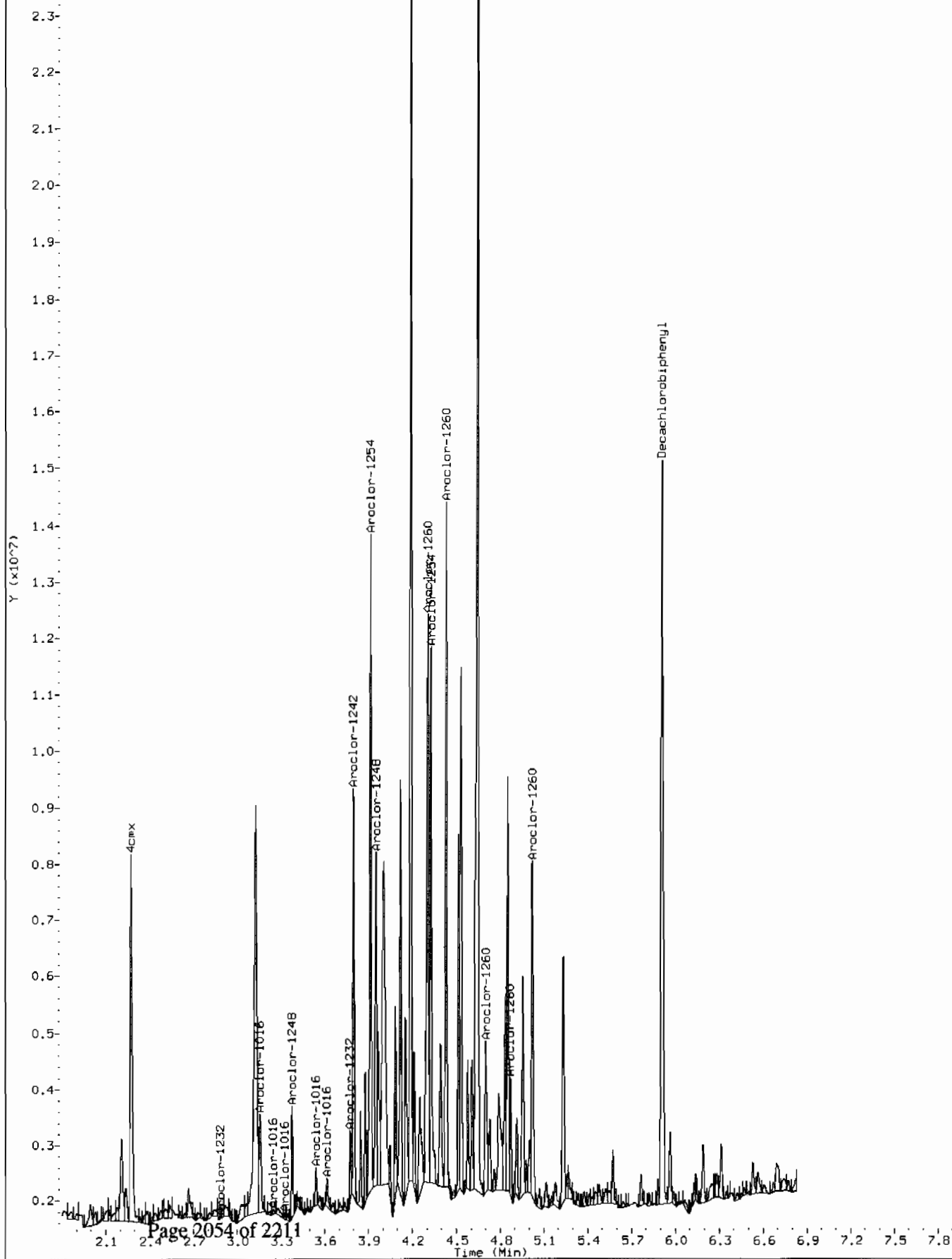




Comment: Manually Integrated  
Data File: /chem/ecdl1.i/030810.b/056b5601.d  
Operator: YS1  
Injection Date: 08-MAR-2010 16:34  
Instrument: ecd1a.i  
Client Sample ID: RE36-10-7413



Comment: Before manual integration  
Data File: /chem/ecdl1.i/030810.b/orig-056b5601.d  
Operator: YS1  
Injection Date: 08-MAR-2010 16:34  
Instrument: ecd1a.i  
Client Sample ID: RE36-10-7413



## PCB

Page 1 of 1

Certificate of Analysis  
Sample Summary

SDG Number: 10-2074  
Lab Sample ID: 248043001

Client ID: RE36-10-7414  
Batch ID: 961902  
Run Date: 03/08/2010 16:22  
Prep Date: 03/07/2010 11:43  
Data File: 055f5501.d  
055b5501.d

Date Collected: 02/20/2010 12:00  
Date Received: 02/25/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.11 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 21.1  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.21	ug/kg	1.40	4.21	1
11104-28-2	Aroclor-1221	U	4.21	ug/kg	1.40	4.21	1
11141-16-5	Aroclor-1232	U	4.21	ug/kg	1.40	4.21	1
53469-21-9	Aroclor-1242	U	4.21	ug/kg	1.40	4.21	1
12672-29-6	Aroclor-1248	U	4.21	ug/kg	1.40	4.21	1
11097-69-1	Aroclor-1254	P	19.7	ug/kg	1.40	4.21	1
11096-82-5	Aroclor-1260	P	15.9	ug/kg	1.40	4.21	1

Data File: /chem/ecdl1a.i/030810.b/055f5501.d  
Report Date: 09-Mar-2010 07:00

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/030810.b/055f5501.d

Lab Smp Id: 248043001 Client Smp ID: RE36-10-7414

Inj Date : 08-MAR-2010 16:22

Operator : YS1 Inst ID: ecd1a.i

Smp Info : |248043001|1|

Misc Info : |ECD82P\_1S|961902|2|SVA|LANL|SOIL|RE36-10-7414|||

Comment :

Method : /chem/ecdl1a.i/030810.b/ECD1-F-8082-022210.m

Meth Date : 09-Mar-2010 06:41 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d

Als bottle: 55

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2074.sub

Target Version: 3.50

Sample Matrix: Soil

Processing Host: hpc1pl

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weight of sample extracted (g)
M	21.13440	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS

ON-COL FINAL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
----	--------	--------	------------------	---------	--------------	-------

\$ 11 4cmx				CAS #: 877-09-8		
1.918	1.917	0.001	54637675 126.876	5.3	80.00- 120.00	100.00

\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.223	5.223	0.000	38862687 126.469	5.3	80.00- 120.00	100.00

6 Aroclor-1254				CAS #: 11097-69-1		
3.214	3.215	-0.001	2883212 240.121	10.1	80.00- 120.00	100.00 (M)
3.368	3.369	-0.001	4304691 271.896	11.4	116.82- 156.82	149.30
3.602	3.602	0.000	10529441 539.308	22.7	157.14- 197.14	365.20
3.765	3.765	0.000	6048253 437.988	18.4	112.42- 152.42	209.77

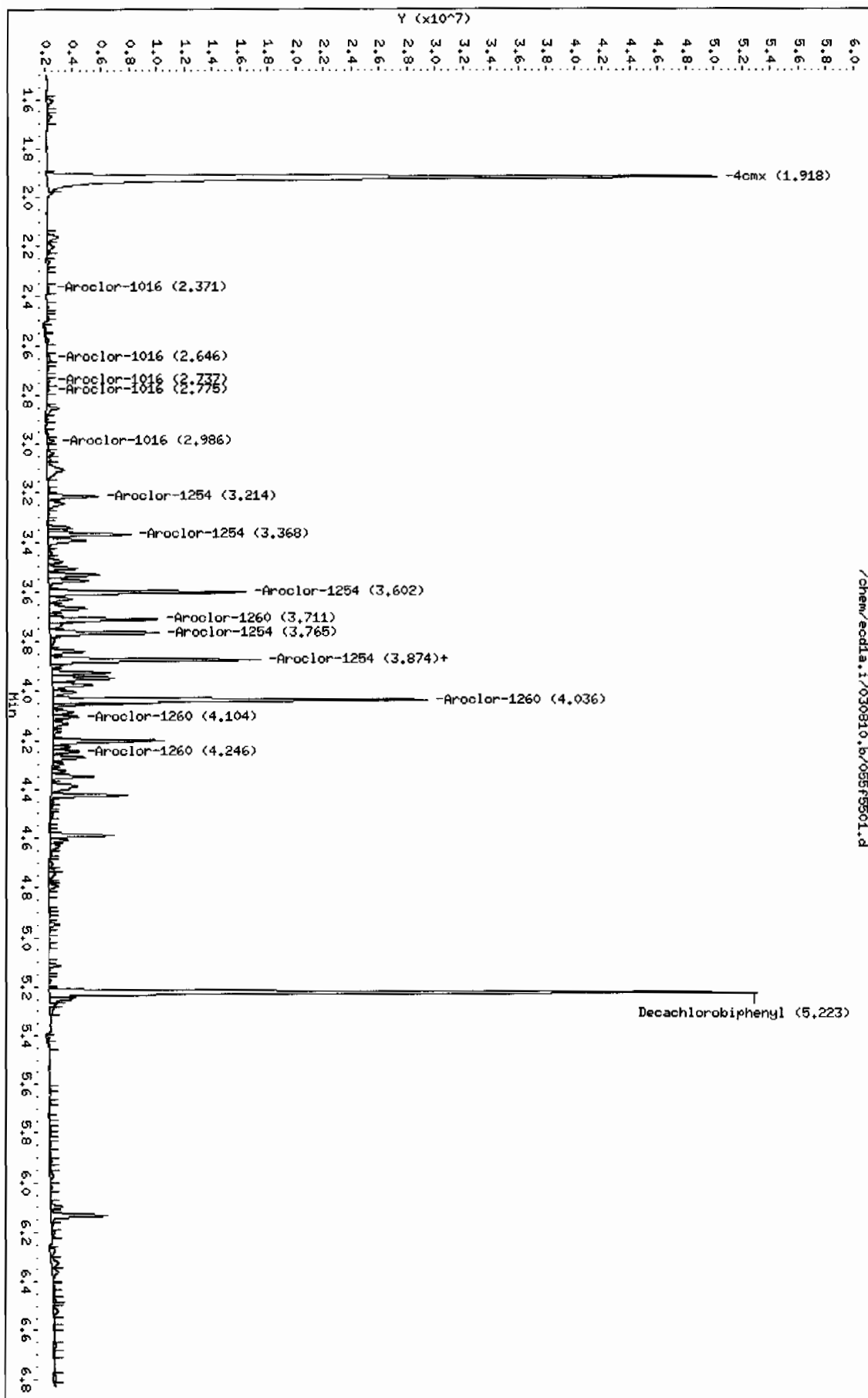
CONCENTRATIONS							
			ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
6 Aroclor-1254 (continued)							
3.874	3.875	-0.001	12219316	855.634	36.0 109.02- 149.02	444.00	
Average of Peak Concentrations =				19.7			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
3.711	3.711	0.000	6123582	358.683	15.1 80.00- 120.00	100.00 (M)	
3.874	3.873	0.001	12219316	516.816	21.8 130.40- 170.40	181.06	
4.036	4.036	0.000	20692175	828.637	34.9 98.53- 138.53	335.41	
4.104	4.104	0.000	1381934	95.9299	4.0 70.34- 110.34	19.55	
4.246	4.247	-0.001	1323370	91.7063	3.9 74.44- 114.44	18.72	
Average of Peak Concentrations =				15.9			

#### QC Flag Legend

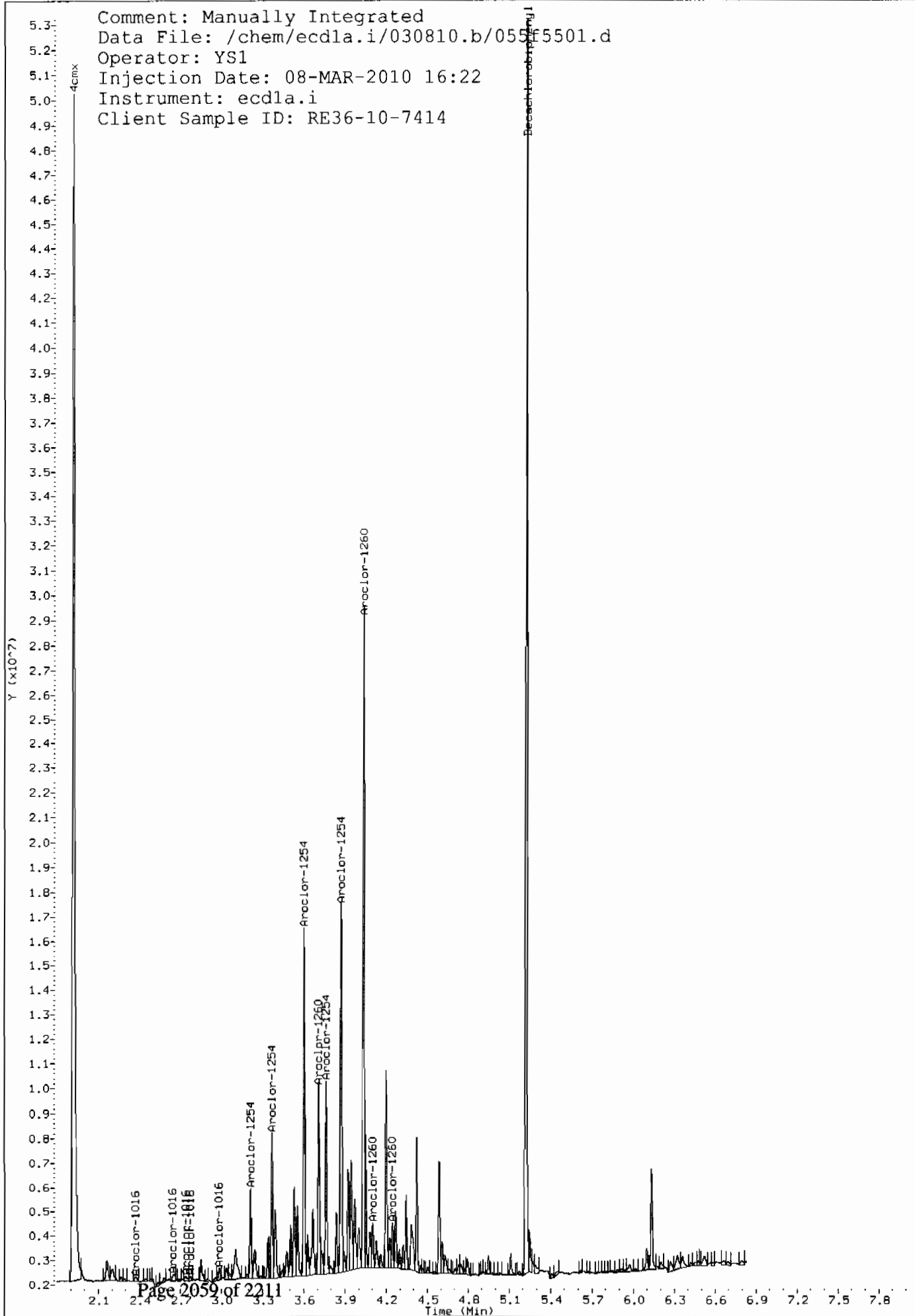
M - Compound response manually integrated.

Data File: /chem/ecdl.a.i/030810.b/055F5501.d  
 Date : 08-MAR-2010 16:22  
 Client ID: RE36-10-7414  
 Sample Info: 124804300111  
 Volume Injected (uL): 1.0  
 Column phase: CLP1

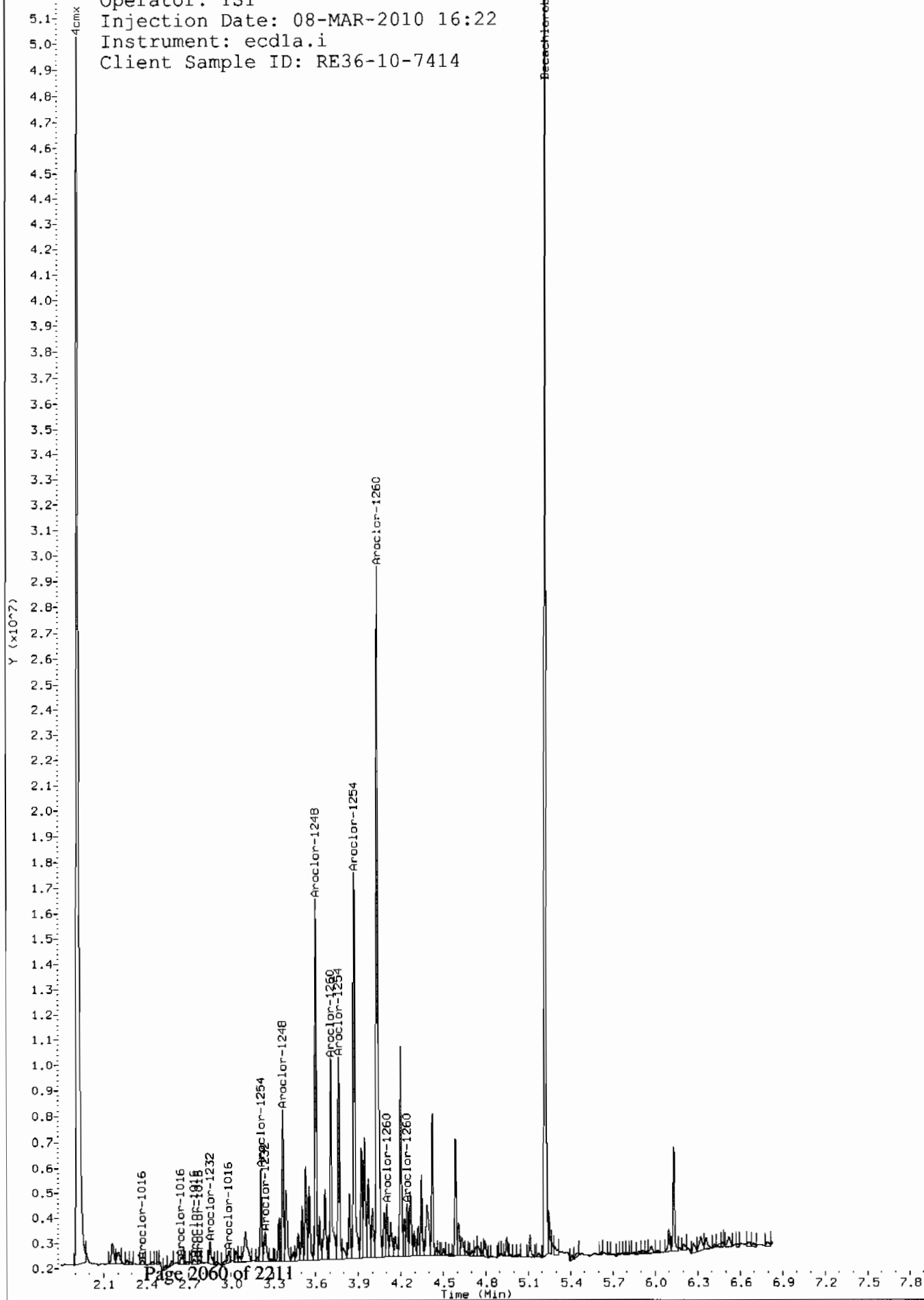
Instrument: ecdl.a.i  
 Operator: YS1  
 Column diameter: 0.25



Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/030810.b/055f5501.d  
Operator: YS1  
Injection Date: 08-MAR-2010 16:22  
Instrument: ecdl1a.i  
Client Sample ID: RE36-10-7414



Comment: Before manual integration  
Data File: /chem/ecdl1.i/030810.b/original-055f5501.d  
Operator: YS1  
Injection Date: 08-MAR-2010 16:22  
Instrument: ecd1a.i  
Client Sample ID: RE36-10-7414





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
 Data file : /chem/ecdla.i/030810.b/055b5501.d  
 Lab Smp Id: 248043001 Client Smp ID: RE36-10-7414  
 Inj Date : 08-MAR-2010 16:22  
 Operator : YS1 Inst ID: ecdla.i  
 Smp Info : |248043001|1|  
 Misc Info : |ECD82P\_1S|961902|2|SVA|LANL|SOIL|RE36-10-7414|||  
 Comment :  
 Method : /chem/ecdla.i/030810.b/ECD1-B-8082-022210.m  
 Meth Date : 12-Mar-2010 08:48 jc Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 55  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-2074.sub  
 Target Version: 3.50 Sample Matrix: Soil  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weight of sample extracted (g)
M	21.13440	% Moisture

Cpnd Variable Local Compound Variable

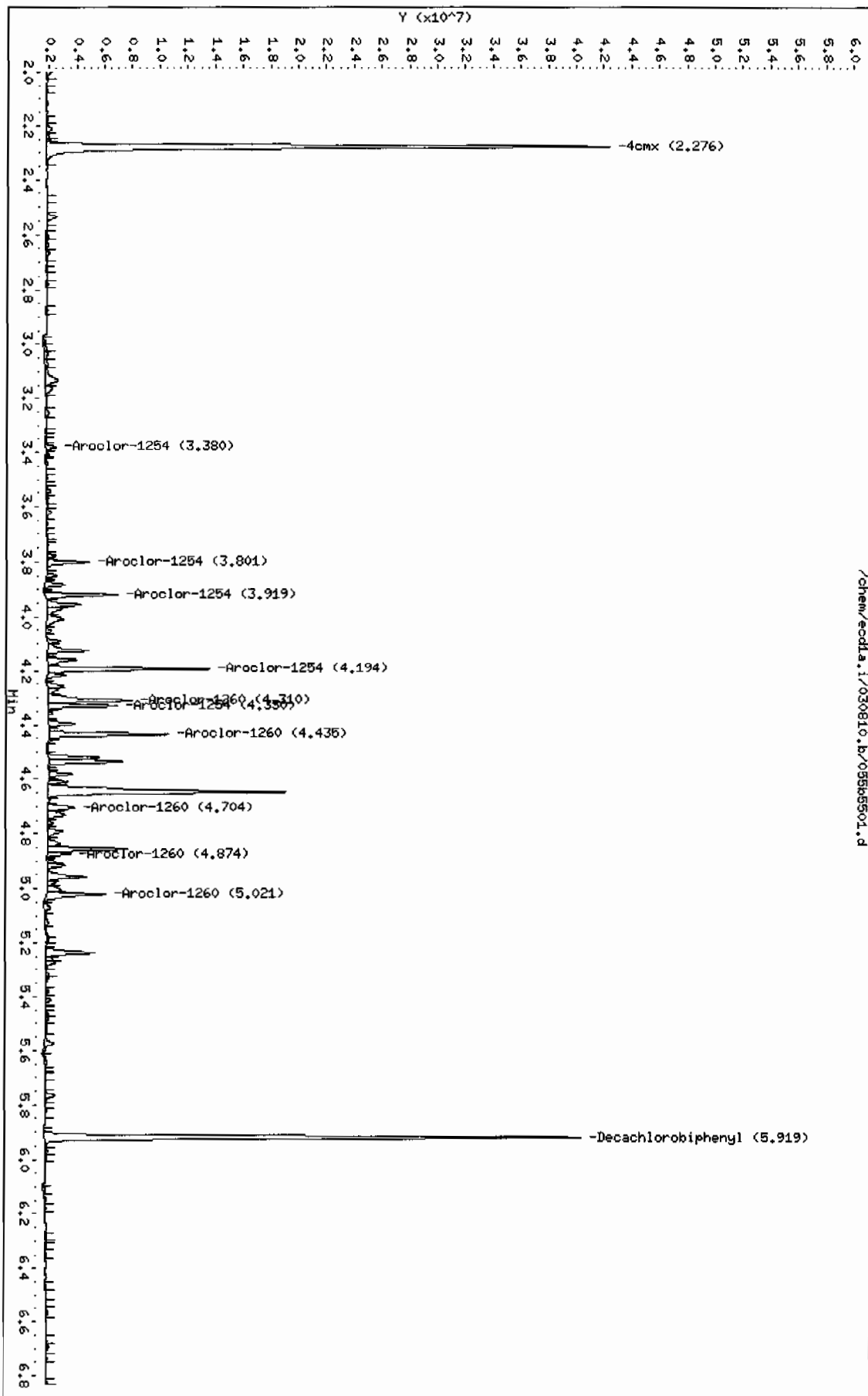
CONCENTRATIONS							
			ON-COL		FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO
=====							
\$ 11 4cmx					CAS #: 877-09-8		
2.276	2.277	-0.001	37045471	124.566	5.2	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.919	5.918	0.001	29901837	141.381	6.0	80.00- 120.00	100.00
-----							
6 Aroclor-1254					CAS #: 11097-69-1		
3.380	3.380	0.000	630032	103.822	4.4	80.00- 120.00	100.00
3.801	3.801	0.000	2185588	203.448	8.6	162.66- 202.66	346.90
3.919	3.918	0.001	3713014	318.898	13.4	182.93- 222.93	589.34
4.194	4.194	0.000	8066743	507.385	21.4	265.65- 305.65	1280.37

CONCENTRATIONS							
			ON-COL		FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
6 Aroclor-1254 (continued)							
4.330	4.330	0.000	3386477	282.790	11.9	189.90- 229.90	537.51
Average of Peak Concentrations =					11.9		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
4.310	4.310	0.000	5291932	400.733	16.9	80.00- 120.00	100.00
4.435	4.435	0.000	6196925	398.086	16.8	102.50- 142.50	117.10
4.704	4.701	0.003	1779489	150.250	6.3	72.16- 112.16	33.63
4.874	4.874	0.000	1179284	96.6532	4.1	76.36- 116.36	22.28
5.021	5.021	0.000	3772447	142.211	6.0	194.52- 234.52	71.29
Average of Peak Concentrations =					10.0		
-----							

Data File: /chem/ecdl1.i/030810.b/055b5501.d  
Date: 08-MAR-2010 16:22  
Client ID: RE36-10-7414  
Sample Info: 1248043001.11  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: ecdl1.i  
Operator: YSI  
Column diameter: 0.25

/chem/ecdl1.i/030810.b/055b5501.d



## PCB

Page 1 of 1

## Certificate of Analysis

## Sample Summary

SDG Number:	10-2074	Date Collected:	02/20/2010 12:00	Matrix:	R
Lab Sample ID:	248043018	Date Received:	02/25/2010 08:45	%Moisture:	20.8
Client ID:	RE36-10-7515	Client:	LANL010	Project:	LANL01004
Batch ID:	961902	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Run Date:	03/08/2010 16:47	Inst:	ECD1A.I	Dilution:	20
Prep Date:	03/07/2010 11:43	Analyst:	YS1	Inj. Vol:	1 uL
Data File:	057f5701.d	Aliquot:	30.04 g	Final Volume:	1 mL
	057b5701.d	Column:	1 CLP1	Level:	LOW
			2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	84.1	ug/kg	28.0	84.1	1
11104-28-2	Aroclor-1221	U	84.1	ug/kg	28.0	84.1	1
11141-16-5	Aroclor-1232	U	84.1	ug/kg	28.0	84.1	1
53469-21-9	Aroclor-1242	B	714	ug/kg	28.0	84.1	2
12672-29-6	Aroclor-1248	U	84.1	ug/kg	28.0	84.1	1
11097-69-1	Aroclor-1254		1620	ug/kg	28.0	84.1	1
11096-82-5	Aroclor-1260	P	825	ug/kg	28.0	84.1	1

Data File: /chem/ecdla.i/030810.b/057f5701.d  
Report Date: 09-Mar-2010 14:14

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/030810.b/057f5701.d

Lab Smp Id: 248043018

Client Smp ID: RE36-10-7515

Inj Date : 08-MAR-2010 16:47

Operator : YS1

Inst ID: ecdla.i

Smp Info : |248043018|20|

Misc Info : |ECD82P\_1S|961902|2|SVA|LANL|SOIL|RE36-10-7515|||

Comment :

Method : /chem/ecdla.i/030810.b/ECD1-F-8082-022210.m

Meth Date : 09-Mar-2010 06:41 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 57

Dil Factor: 20.00000

Integrator: Falcon

Compound Sublist: 10-2074.sub

Target Version: 3.50

Sample Matrix: Soil

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	20.79440	% Moisture

Cpnd Variable

Local Compound Variable

CONCENTRATIONS							
			ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
\$ 11 4cmx					CAS #: 877-09-8		
1.917	1.917	0.000	2786290 6.47016	5.4	80.00- 120.00	100.00	
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.220	5.223	-0.003	1100441 3.58112	3.0	80.00- 120.00	100.00	
4 Aroclor-1242					CAS #: 53469-21-9		
2.370	2.371	-0.001	3600698 286.738	241	80.00- 120.00	100.00 (MH)	
2.655	2.658	-0.003	3753830 256.907	216	109.55- 149.55	104.25	
2.774	2.776	-0.002	1422178 252.642	212	28.27- 68.27	39.50	
2.983	2.986	-0.003	5676143 776.452	653	42.21- 82.21	157.64	
3.237	3.239	-0.002	9069492 1466.82	1230	41.70- 81.70	251.88	
Average of Peak Concentrations =				510			

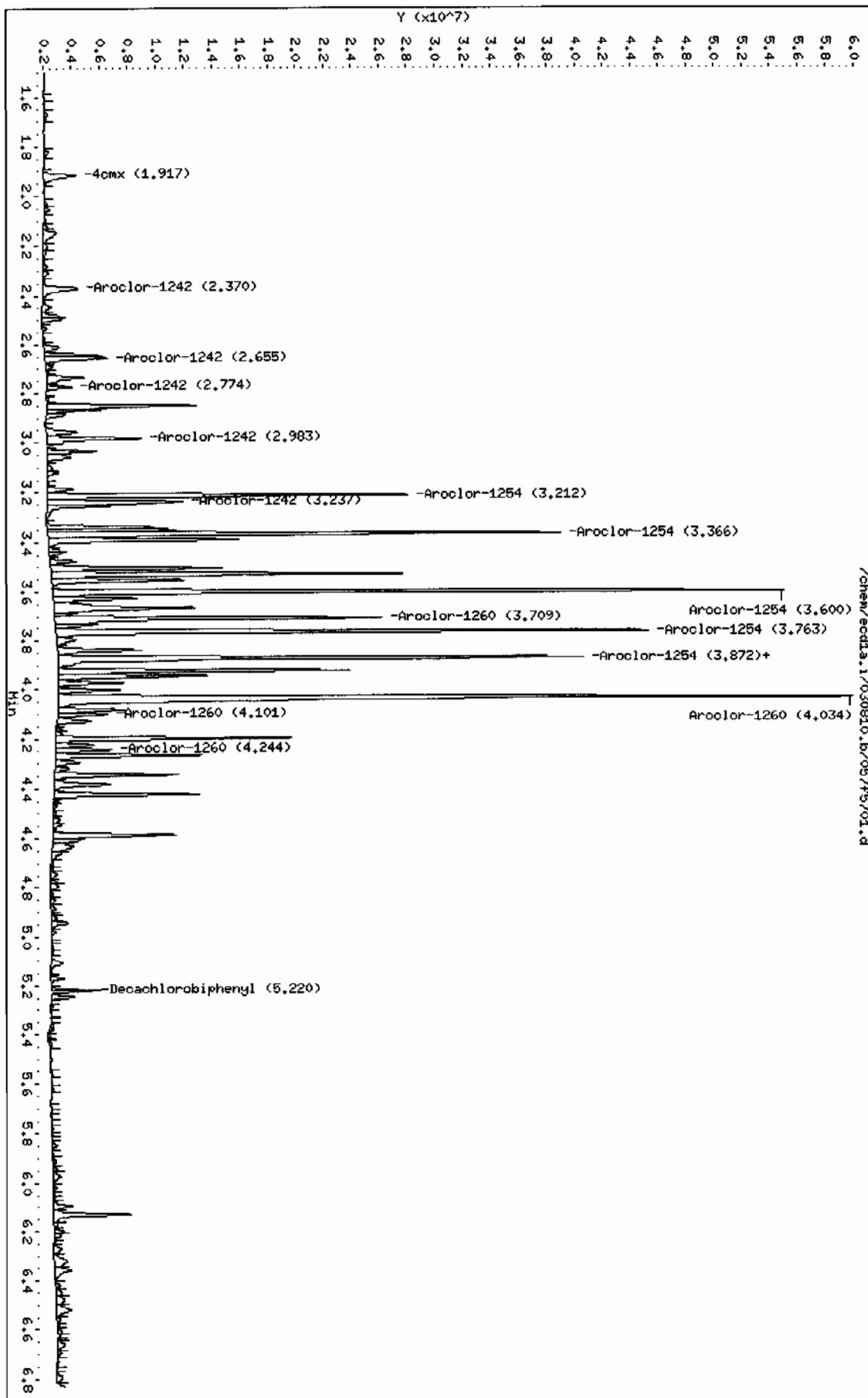
CONCENTRATIONS								
			ON COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
--	-----	-----	=====	=====	=====	=====	-----	
6 Aroclor-1254					CAS #: 11097-69-1			
3.212	3.215	-0.003	19124960	1592.77	1340	80.00-	120.00	100.00 (M)
3.366	3.369	-0.003	26532643	1675.87	1410	116.82-	156.82	138.73
3.600	3.602	-0.002	38239408	1958.59	1650	157.14-	197.14	199.95
3.763	3.765	-0.002	30529383	2210.80	1860	112.42-	152.42	159.63
3.872	3.875	-0.003	31263941	2189.20	1840	109.02-	149.02	163.47
Average of Peak Concentrations =					1620			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.709	3.711	-0.002	18479308	1082.41	910	80.00-	120.00	100.00 (M)
3.872	3.873	-0.001	31263941	1322.31	1110	130.40-	170.40	169.18
4.034	4.036	-0.002	52852638	2116.53	1780	98.53-	138.53	286.01
4.101	4.104	-0.003	2627704	182.408	153	70.34-	110.34	14.22
4.244	4.247	-0.003	2914928	201.997	170	74.44-	114.44	15.77
Average of Peak Concentrations =					825			

#### QC Flag Legend

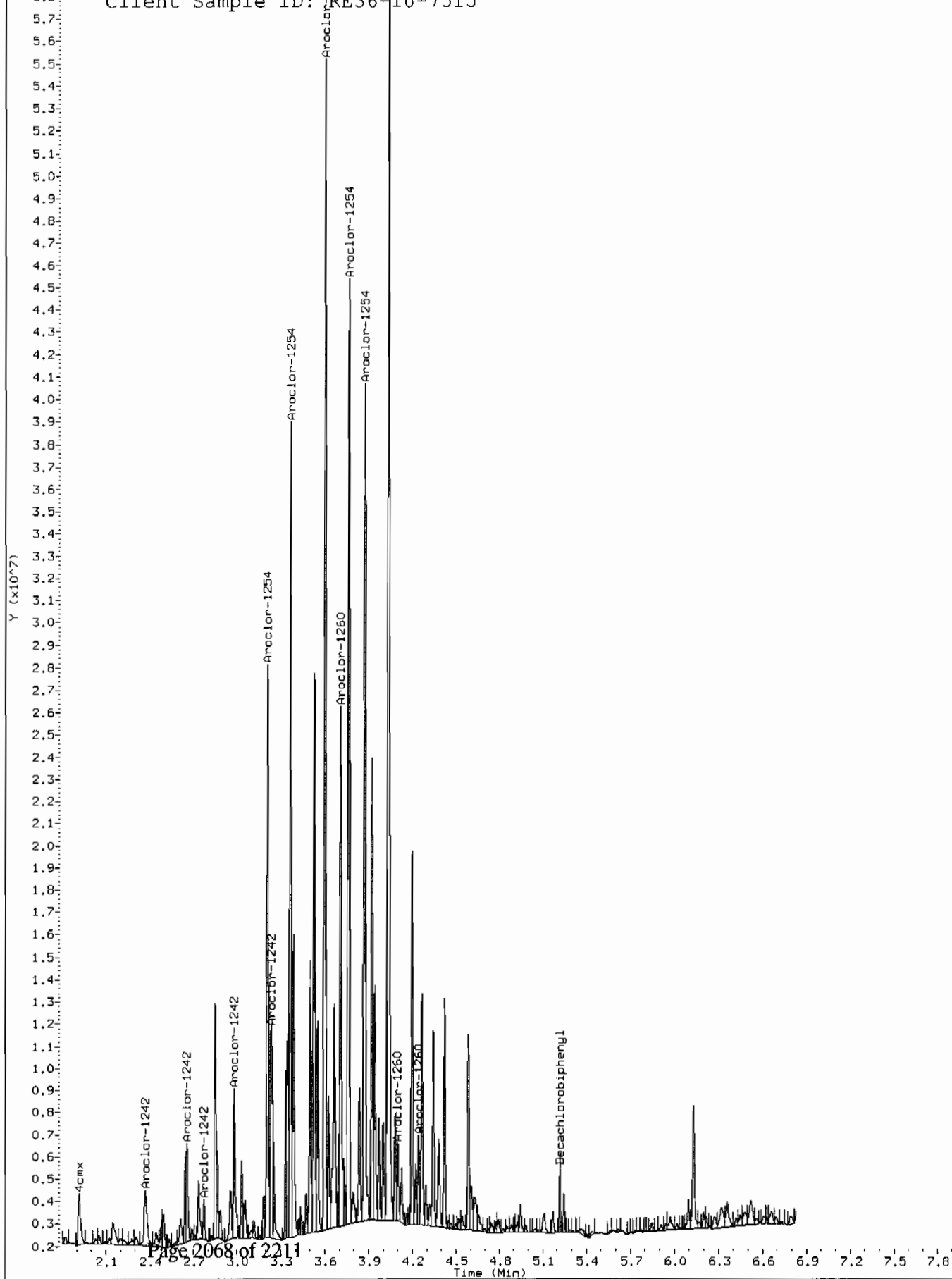
M - Compound response manually integrated.  
 H - Operator selected an alternate compound hit.

Data File: /chem/ecdda.i/030810.b/057f5701.d  
 Date : 08-MAR-2010 16:47  
 Client ID: RE36-10-7515  
 Sample Info: 12480430181201  
 Volume Injected (uL): 1.0  
 Column phase: CLP1

Instrument: ecdda.i  
 Operator: YSI  
 Column diameter: 0.25

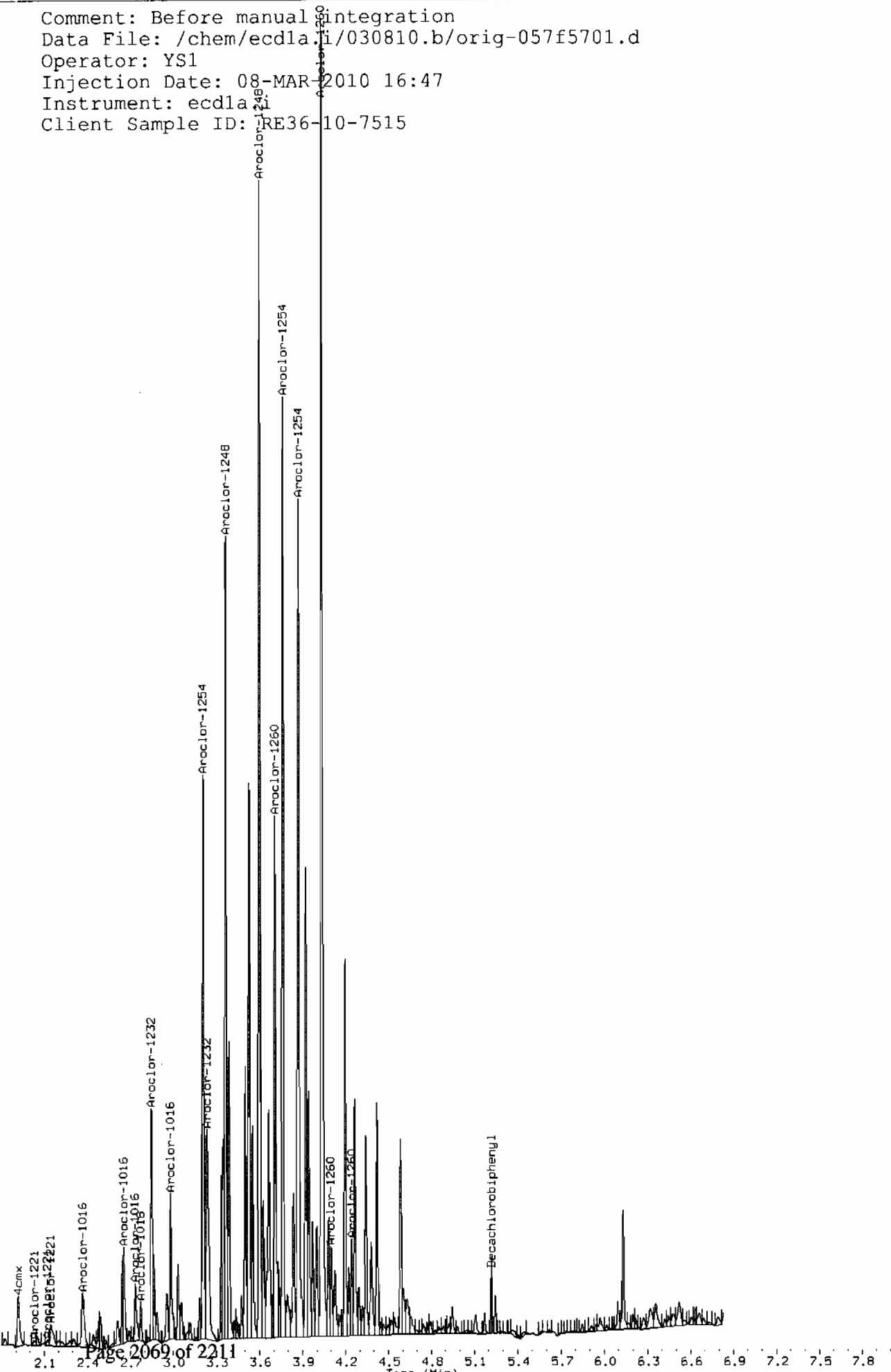


Comment: Manually Integrated  
Data File: /chem/ecdlai/030810.b/057f5701.d  
Operator: YS1  
Injection Date: 08-MAR-2010 16:47  
Instrument: ecdla  
Client Sample ID: RE36-10-7515





Y ( $\times 10^{-7}$ )



Data File: /chem/ecdl1a.i/030810.b/057b5701.d  
 Report Date: 12-Mar-2010 08:49

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
 Data file : /chem/ecdl1a.i/030810.b/057b5701.d  
 Lab Smp Id: 248043018 Client Smp ID: RE36-10-7515  
 Inj Date : 08-MAR-2010 16:47  
 Operator : YS1 Inst ID: ecd1a.i  
 Smp Info : |248043018|20|  
 Misc Info : |ECD82P\_1S|961902|2|SVA|LANL|SOIL|RE36-10-7515|||  
 Comment :  
 Method : /chem/ecdl1a.i/030810.b/ECD1-B-8082-022210.m  
 Meth Date : 12-Mar-2010 08:48 jc Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 57  
 Dil Factor: 20.00000  
 Integrator: Falcon Compound Sublist: 10-2074.sub  
 Target Version: 3.50 Sample Matrix: Soil  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	20.79440	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx CAS #: 877-09-8						
2.275	2.277	-0.002	2061588 6.93211	5.8	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
5.916	5.918	-0.002	2570794 12.1551	10.2	80.00- 120.00	100.00 (R)
-----						
4 Aroclor-1242 CAS #: 53469-21-9						
3.170	3.171	-0.001	2744019 265.091	223	80.00- 120.00	100.00 (H)
3.253	3.254	-0.001	2454974 337.272	284	46.95- 86.95	89.47
3.543	3.544	-0.001	3314554 574.605	483	32.91- 72.91	120.79
3.777	3.778	-0.001	4963362 857.515	721	36.16- 76.16	180.88

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO
==	=====	==	=====	=====	=====	=====	=====	=====
4 Aroclor-1242 (continued)								
3.800	3.806	-0.006	14649442	2205.78	1850	42.60-	82.60	533.87
Average of Peak Concentrations =					713			
-----								
6 Aroclor-1254					CAS #: 11097-69-1			
3.379	3.380	-0.001	6211374	1023.56	860	80.00-	120.00	100.00
3.800	3.801	-0.001	14649442	1363.66	1150	162.66-	202.66	235.85
3.917	3.918	-0.001	19117967	1641.98	1380	182.93-	222.93	307.79
4.192	4.194	-0.002	29900074	1880.66	1580	265.65-	305.65	481.38
4.328	4.330	-0.002	18674692	1559.44	1310	189.90-	229.90	300.65
Average of Peak Concentrations =					1260			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
4.309	4.310	-0.001	13928552	1054.74	886	80.00-	120.00	100.00
4.434	4.435	-0.001	14504625	931.766	783	102.50-	142.50	104.14
4.704	4.701	0.003	4340790	366.512	308	72.16-	112.16	31.16
4.872	4.874	-0.002	2511499	205.840	173	76.36-	116.36	18.03
5.019	5.021	-0.002	6203614	233.859	196	194.52-	234.52	44.54
Average of Peak Concentrations =					469			
-----								

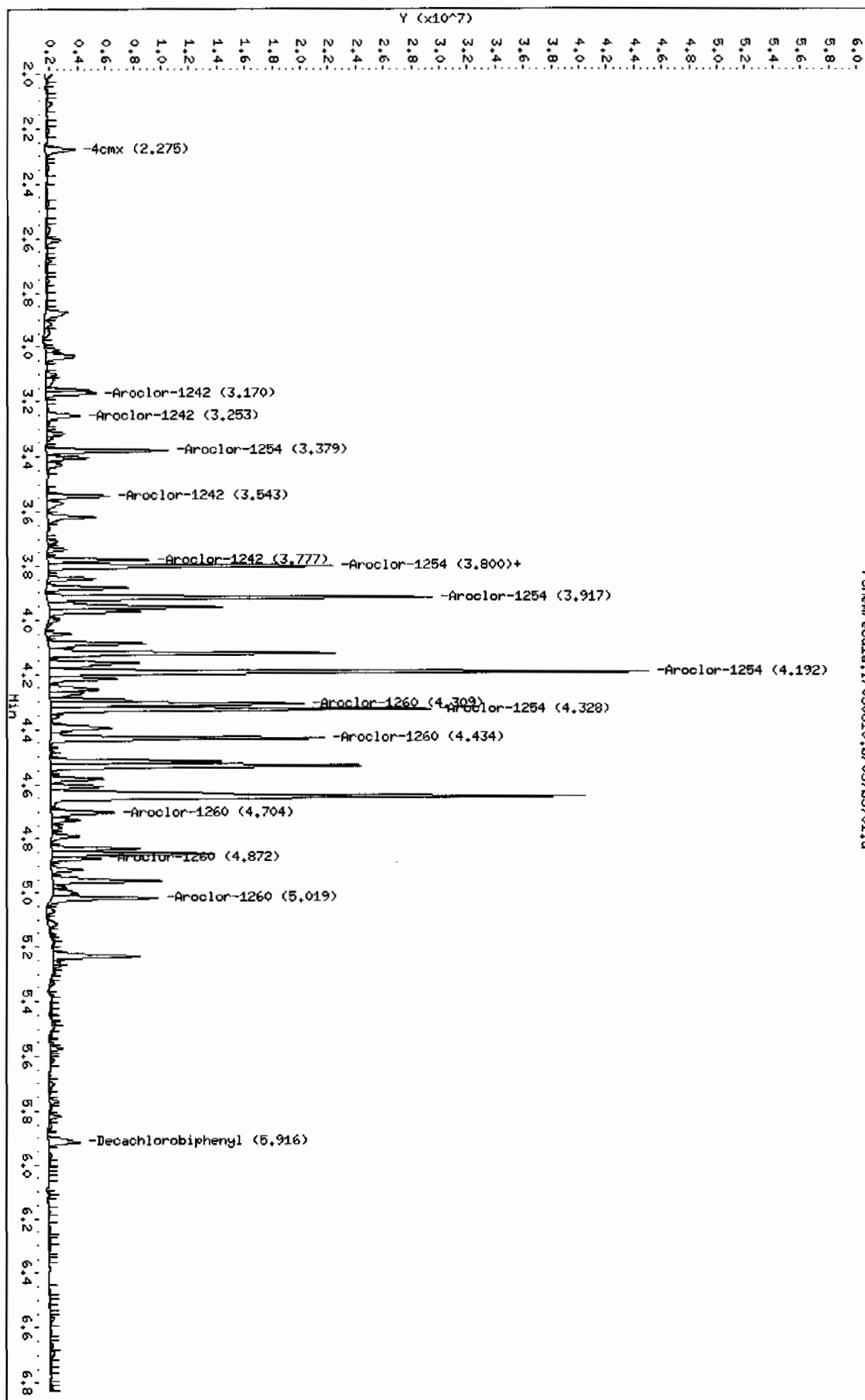
#### QC Flag Legend

R - Spike/Surrogate failed recovery limits.  
 H - Operator selected an alternate compound hit.

Data File: /chem/eodta.i/030810.b/05765701.d  
 Date : 08-MAR-2010 16:47  
 Client ID: RE36-10-7515  
 Sample Info: 12480430181201  
 Volume Injected (uL): 1.0  
 Column phase: CLP2

Instrument: eodta.i  
 Operator: YSI  
 Column diameter: 0.25

/chem/eodta.i/030810.b/05765701.d



# STANDARDS DATA

Report Date: 09-Mar-2010 07:33

### Calibration History

Method : /chem/ecdla.i/030810.b/ECD1-F-8082-022210.m  
Start Cal Date: 22-FEB-2010 06:31  
End Cal Date : 24-FEB-2010 02:39

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecdla.i/022210.b/032f3201.d
22-FEB-2010 10:23	AR1248	/chem/ecdla.i/022210.b/026f2601.d
22-FEB-2010 09:20	AR1242	/chem/ecdla.i/022210.b/020f2001.d
22-FEB-2010 08:16	AR1254	/chem/ecdla.i/022210.b/014f1401.d
22-FEB-2010 07:13	AR1660	/chem/ecdla.i/022210.b/008f0801.d

Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecdla.i/022210.b/033f3301.d
22-FEB-2010 10:33	AR1248	/chem/ecdla.i/022210.b/027f2701.d
22-FEB-2010 09:30	AR1242	/chem/ecdla.i/022210.b/021f2101.d
22-FEB-2010 08:27	AR1254	/chem/ecdla.i/022210.b/015f1501.d
22-FEB-2010 07:24	AR1660	/chem/ecdla.i/022210.b/009f0901.d

Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecdla.i/022210.b/034f3401.d
22-FEB-2010 10:44	AR1248	/chem/ecdla.i/022210.b/028f2801.d
22-FEB-2010 09:41	AR1242	/chem/ecdla.i/022210.b/022f2201.d
22-FEB-2010 08:37	AR1254	/chem/ecdla.i/022210.b/016f1601.d
22-FEB-2010 07:34	AR1660	/chem/ecdla.i/022210.b/010f1001.d

Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecdla.i/022210.b/035f3501.d
22-FEB-2010 11:05	AR1248	/chem/ecdla.i/022210.b/030f3001.d
22-FEB-2010 09:51	AR1242	/chem/ecdla.i/022210.b/023f2301.d
22-FEB-2010 08:48	AR1254	/chem/ecdla.i/022210.b/017f1701.d
22-FEB-2010 07:45	AR1660	/chem/ecdla.i/022210.b/011f1101.d
22-FEB-2010 07:03	AR1262	/chem/ecdla.i/022210.b/007f0701.d
22-FEB-2010 06:52	AR1221	/chem/ecdla.i/022210.b/006f0601.d
22-FEB-2010 06:41	AR1232	/chem/ecdla.i/022210.b/005f0501.d
22-FEB-2010 06:31	DDTANALOGSTD	/chem/ecdla.i/022210.b/004f0401.d

Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecdla.i/022210.b/036f3601.d
22-FEB-2010 10:54	AR1248	/chem/ecdla.i/022210.b/029f2901.d
22-FEB-2010 10:02	AR1242	/chem/ecdla.i/022210.b/024f2401.d
22-FEB-2010 08:59	AR1254	/chem/ecdla.i/022210.b/018f1801.d
22-FEB-2010 07:55	AR1660	/chem/ecdla.i/022210.b/012f1201.d

Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 18:28	AR1660	/chem/ecdl1a.i/030810.b/065f6501.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 16:01	AR1660	/chem/ecdl1a.i/030810.b/053f5301.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 14:11	AR1660	/chem/ecdl1a.i/030810.b/044f4401.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 12:39	AR1660	/chem/ecdl1a.i/030810.b/036f3601.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 11:44	AR1660	/chem/ecdl1a.i/030810.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 09:55	AR1660	/chem/ecdl1a.i/030810.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 07:17	AR1262	/chem/ecdl1a.i/030810.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 07:07	AR1221	/chem/ecdl1a.i/030810.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 06:56	AR1232	/chem/ecdl1a.i/030810.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 06:46	AR1268	/chem/ecdl1a.i/030810.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 06:35	AR1248	/chem/ecdl1a.i/030810.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 06:25	AR1242	/chem/ecdl1a.i/030810.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 06:14	AR1254	/chem/ecdl1a.i/030810.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 06:04	AR1660	/chem/ecdl1a.i/030810.b/002f0201.d

Report Date: 09-Mar-2010 07:33

### Calibration History

Method : /chem/ecdl1a.i/030810.b/ECD1-B-8082-022210.m  
Start Cal Date: 22-FEB-2010 06:31  
End Cal Date : 24-FEB-2010 02:39

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecdl1a.i/022210.b/032b3201.d
22-FEB-2010 10:23	AR1248	/chem/ecdl1a.i/022210.b/026b2601.d
22-FEB-2010 09:20	AR1242	/chem/ecdl1a.i/022210.b/020b2001.d
22-FEB-2010 08:16	AR1254	/chem/ecdl1a.i/022210.b/014b1401.d
22-FEB-2010 07:13	AR1660	/chem/ecdl1a.i/022210.b/008b0801.d

Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecdl1a.i/022210.b/033b3301.d
22-FEB-2010 10:33	AR1248	/chem/ecdl1a.i/022210.b/027b2701.d
22-FEB-2010 09:30	AR1242	/chem/ecdl1a.i/022210.b/021b2101.d
22-FEB-2010 08:27	AR1254	/chem/ecdl1a.i/022210.b/015b1501.d
22-FEB-2010 07:24	AR1660	/chem/ecdl1a.i/022210.b/009b0901.d

Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecdl1a.i/022210.b/034b3401.d
22-FEB-2010 10:44	AR1248	/chem/ecdl1a.i/022210.b/028b2801.d
22-FEB-2010 09:41	AR1242	/chem/ecdl1a.i/022210.b/022b2201.d
22-FEB-2010 08:37	AR1254	/chem/ecdl1a.i/022210.b/016b1601.d
22-FEB-2010 07:34	AR1660	/chem/ecdl1a.i/022210.b/010b1001.d

Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecdl1a.i/022210.b/035b3501.d
22-FEB-2010 11:05	AR1248	/chem/ecdl1a.i/022210.b/030b3001.d
22-FEB-2010 09:51	AR1242	/chem/ecdl1a.i/022210.b/023b2301.d
22-FEB-2010 08:48	AR1254	/chem/ecdl1a.i/022210.b/017b1701.d
22-FEB-2010 07:45	AR1660	/chem/ecdl1a.i/022210.b/011b1101.d
22-FEB-2010 07:03	AR1262	/chem/ecdl1a.i/022210.b/007b0701.d
22-FEB-2010 06:52	AR1221	/chem/ecdl1a.i/022210.b/006b0601.d
22-FEB-2010 06:41	AR1232	/chem/ecdl1a.i/022210.b/005b0501.d
22-FEB-2010 06:31	DDTANALOGSTD	/chem/ecdl1a.i/022210.b/004b0401.d

Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecdl1a.i/022210.b/036b3601.d
22-FEB-2010 10:54	AR1248	/chem/ecdl1a.i/022210.b/029b2901.d
22-FEB-2010 10:02	AR1242	/chem/ecdl1a.i/022210.b/024b2401.d
22-FEB-2010 08:59	AR1254	/chem/ecdl1a.i/022210.b/018b1801.d
22-FEB-2010 07:55	AR1660	/chem/ecdl1a.i/022210.b/012b1201.d

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4



Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 16:01	AR1660	/chem/ecdla.i/030810.b/053b5301.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 18:28	AR1660	/chem/ecdla.i/030810.b/065b6501.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 14:11	AR1660	/chem/ecdla.i/030810.b/044b4401.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 12:39	AR1660	/chem/ecdla.i/030810.b/036b3601.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 11:44	AR1660	/chem/ecdla.i/030810.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 09:55	AR1660	/chem/ecdla.i/030810.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 06:04	AR1660	/chem/ecdla.i/030810.b/002b0201.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 06:46	AR1268	/chem/ecdla.i/030810.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 07:17	AR1262	/chem/ecdla.i/030810.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 07:07	AR1221	/chem/ecdla.i/030810.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 06:56	AR1232	/chem/ecdla.i/030810.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 06:35	AR1248	/chem/ecdla.i/030810.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 06:25	AR1242	/chem/ecdla.i/030810.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
08-MAR-2010 06:14	AR1254	/chem/ecdla.i/030810.b/003b0301.d

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdla.i/030810.b/ECD1-F-8082-022210.m  
Quant Method : ESTD Target Version : 3.50  
Last Update : 09-Mar-2010 06:41 Number of Cpnds : 15  
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events

Values

-----  
Initial:Start Threshold 12031.000000  
Initial:End Threshold 6015.500000  
Initial:Area Threshold 15489.000000  
Initial:P-P Resolution 1.000000  
Initial:Bunch Factor 2.000000  
Initial:Negative Peaks OFF  
Initial:Tension 0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.371	2.341-2.401	1.538e+04
	2.657	2.627-2.687	1.824e+04
	2.737	2.707-2.767	1.207e+04
	2.775	2.745-2.805	7.096e+03
	2.986	2.956-3.016	8.912e+03
63 4,4-DDD	3.900	3.880-3.920	3.060e+05
64 4,4-DDE	3.551	3.531-3.571	3.552e+05
62 4,4-DDT	4.064	4.044-4.084	2.080e+05
2 Aroclor-1221	2.030	2.000-2.060	4.398e+03
	2.123	2.093-2.153	2.431e+03
	2.148	2.118-2.178	1.042e+04
	2.371	2.341-2.401	6.218e+03
	2.658	2.628-2.688	7.488e+03
3 Aroclor-1232	2.739	2.709-2.769	4.887e+03
	2.853	2.823-2.883	2.191e+03
	3.239	3.209-3.269	2.731e+03
	2.371	2.341-2.401	1.256e+04
	2.658	2.628-2.688	1.461e+04
4 Aroclor-1242	2.776	2.746-2.806	5.629e+03
	2.986	2.956-3.016	7.310e+03
	3.239	3.209-3.269	6.183e+03

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1a.i/030810.b/ECD1-F-8082-022210.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.852	2.822-2.882	9.301e+03
	2.986	2.956-3.016	1.241e+04
	3.238	3.208-3.268	1.220e+04
	3.371	3.341-3.401	1.042e+04
	3.603	3.573-3.633	6.820e+03
6 Aroclor-1254	3.215	3.185-3.245	1.201e+04
	3.369	3.339-3.399	1.583e+04
	3.602	3.572-3.632	1.952e+04
	3.765	3.735-3.795	1.381e+04
	3.875	3.845-3.905	1.428e+04
7 Aroclor-1260	3.711	3.681-3.741	1.707e+04
	3.873	3.843-3.903	2.364e+04
	4.036	4.006-4.066	2.497e+04
	4.104	4.074-4.134	1.441e+04
	4.247	4.217-4.277	1.443e+04
8 Aroclor-1262	3.712	3.682-3.742	1.261e+04
	3.874	3.844-3.904	1.569e+04
	4.104	4.074-4.134	1.995e+04
	4.247	4.217-4.277	1.798e+04
	4.426	4.396-4.456	3.725e+04
9 Aroclor-1268	4.610	4.580-4.640	4.848e+04
	4.633	4.603-4.663	5.448e+04
	4.746	4.716-4.776	3.862e+04
	4.948	4.918-4.978	1.635e+04
	5.114	5.084-5.144	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	1.917	1.887-1.947	4.306e+05
\$ 12 Decachlorobiphenyl	5.223	5.193-5.253	3.073e+05

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdla.i/030810.b/ECD1-B-8082-022210.m  
 Quant Method : ESTD Target Version : 3.50  
 Last Update : 12-Mar-2010 08:39 Number of Cpnds : 15  
 Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events Values

-----  
 Initial:Start Threshold 7222.000000  
 Initial:End Threshold 3611.000000  
 Initial:Area Threshold 6833.000000  
 Initial:P-P Resolution 0.000000  
 Initial:Bunch Factor 2.000000  
 Initial:Negative Peaks OFF  
 Initial:Tension 0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.171	3.141-3.201	1.279e+04
	3.254	3.224-3.284	8.918e+03
	3.317	3.287-3.347	5.406e+03
	3.544	3.514-3.574	6.916e+03
	3.619	3.589-3.649	6.425e+03
62 4,4-DDT	4.660	4.640-4.680	1.000e+05
63 4,4-DDE	4.128	4.108-4.148	2.505e+05
64 4,4-DDD	4.473	4.453-4.493	2.085e+05
2 Aroclor-1221	2.472	2.442-2.502	3.431e+03
	2.567	2.537-2.597	2.152e+03
	2.607	2.577-2.637	7.328e+03
3 Aroclor-1232	2.874	2.844-2.904	4.920e+03
	3.172	3.142-3.202	5.252e+03
	3.254	3.224-3.284	3.768e+03
	3.545	3.515-3.575	2.699e+03
4 Aroclor-1242	3.779	3.749-3.809	2.631e+03
	3.171	3.141-3.201	1.035e+04
	3.254	3.224-3.284	7.279e+03
	3.544	3.514-3.574	5.768e+03
	3.778	3.748-3.808	5.788e+03
	3.806	3.776-3.836	6.641e+03

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1.i/030810.b/ECD1-B-8082-022210.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.379	3.349-3.409	7.602e+03
	3.544	3.514-3.574	9.360e+03
	3.777	3.747-3.807	1.065e+04
	3.805	3.775-3.835	1.210e+04
	3.942	3.912-3.972	1.150e+04
6 Aroclor-1254	3.380	3.350-3.410	6.068e+03
	3.801	3.771-3.831	1.074e+04
	3.918	3.888-3.948	1.164e+04
	4.194	4.164-4.224	1.590e+04
	4.330	4.300-4.360	1.198e+04
7 Aroclor-1260	4.310	4.280-4.340	1.321e+04
	4.435	4.405-4.465	1.557e+04
	4.701	4.671-4.731	1.184e+04
	4.874	4.844-4.904	1.220e+04
	5.021	4.991-5.051	2.653e+04
8 Aroclor-1262	4.436	4.406-4.466	1.126e+04
	4.701	4.671-4.731	1.550e+04
	4.875	4.845-4.905	1.407e+04
	5.022	4.992-5.052	2.845e+04
	5.234	5.204-5.264	1.972e+04
9 Aroclor-1268	5.232	5.202-5.262	3.730e+04
	5.260	5.230-5.290	3.492e+04
	5.409	5.379-5.439	2.658e+04
	5.574	5.544-5.604	1.223e+04
	5.767	5.737-5.797	7.433e+04
10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	2.277	2.247-2.307	2.974e+05
\$ 12 Decachlorobiphenyl	5.918	5.888-5.948	2.115e+05

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 24-FEB-2010 02:39  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1a.i/030810.b/ECD1-F-8082-022210.m  
 Cal Date : 09-Mar-2010 06:41 yip00818  
 Curve Type : Average

## Calibration File Names:

Level 1: /chem/ecdl1a.i/022210.b/032f3201.d  
 Level 2: /chem/ecdl1a.i/022210.b/033f3301.d  
 Level 3: /chem/ecdl1a.i/022210.b/034f3401.d  
 Level 4: /chem/ecdl1a.i/022210.b/035f3501.d  
 Level 5: /chem/ecdl1a.i/022210.b/036f3601.d

Compound	100.000	250.000	500.000	1000.000	4000.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5		
1 Aroclor-1016(1)	18473	16312	15150	14238	12749	15384	14.060
(2)	20194	18537	17759	17625	17070	18237	6.651
(3)	14170	12473	11875	11163	10646	12065	11.317
(4)	8163	7198	6933	6624	6564	7096	9.135
(5)	10345	9178	8623	8273	8142	8912	10.051
63 4,4-DDD	++++	++++	++++	305990	++++	305990	0.000
64 4,4-DDE	++++	++++	++++	355239	++++	355239	0.000
62 4,4-DDT	++++	++++	++++	208015	++++	208015	0.000
2 Aroclor-1221(1)	++++	++++	++++	4398	++++	4398	0.000
(2)	++++	++++	++++	2431	++++	2431	0.000
(3)	++++	++++	++++	10418	++++	10418	0.000
3 Aroclor-1232(1)	++++	++++	++++	6218	++++	6218	0.000
(2)	++++	++++	++++	7488	++++	7488	0.000
(3)	++++	++++	++++	4887	++++	4887	0.000
(4)	++++	++++	++++	2191	++++	2191	0.000
(5)	++++	++++	++++	2731	++++	2731	0.000
4 Aroclor-1242(1)	14895	13406	12308	11554	10624	12557	13.200
(2)	15940	15326	14418	13613	13761	14612	6.870
(3)	6066	5934	5542	5337	5267	5629	6.326
(4)	8523	7616	7127	6725	6562	7310	10.814
(5)	6824	6256	5999	5817	6020	6183	6.317
5 Aroclor-1248(1)	10594	9810	9017	8885	8199	9301	9.911
(2)	14228	12736	11895	11712	11476	12409	9.043
(3)	12841	12156	11815	11785	12410	12201	3.615
(4)	11297	10503	10013	9956	10333	10420	5.179
(5)	7445	6917	6453	6460	6824	6820	5.977

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 24-FEB-2010 02:39  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdla.i/030810.b/ECD1-F-8082-022210.m  
 Cal Date : 09-Mar-2010 06:41 yip00818  
 Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	13496	12213	11744	11466	11117	12007	7.694
(2)	16789	15969	15727	15423	15253	15832	3.802
(3)	20267	19353	19208	19481	19310	19524	2.185
(4)	14142	13669	13487	13772	13976	13809	1.858
(5)	15228	14234	13851	14228	13864	14281	3.932
7 Aroclor-1260(1)	19445	17307	16758	16208	15645	17072	8.574
(2)	25625	23757	23316	22992	22528	23643	5.056
(3)	27164	24948	24176	24127	24442	24971	5.079
(4)	16166	14596	13941	13551	13775	14406	7.345
(5)	15672	14437	13986	13647	14411	14431	5.316
8 Aroclor-1262(1)	++++	++++	++++	12612	++++	12612	0.000
(2)	++++	++++	++++	15693	++++	15693	0.000
(3)	++++	++++	++++	19946	++++	19946	0.000
(4)	++++	++++	++++	17981	++++	17981	0.000
(5)	++++	++++	++++	37250	++++	37250	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
11 4cmx	457836	439032	431646	423676	400995	430637	4.841
12 Decachlorobiphenyl	331580	312081	303953	298909	289924	307289	5.135

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 24-FEB-2010 02:39  
 Quant Method : ESTD  
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 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdla.i/030810.b/ECD1-B-8082-022210.m  
 Cal Date : 09-Mar-2010 06:41 yip00818  
 Curve Type : Average

## Calibration File Names:

Level 1: /chem/ecdla.i/022210.b/032b3201.d  
 Level 2: /chem/ecdla.i/022210.b/033b3301.d  
 Level 3: /chem/ecdla.i/022210.b/034b3401.d  
 Level 4: /chem/ecdla.i/022210.b/035b3501.d  
 Level 5: /chem/ecdla.i/022210.b/036b3601.d

Compound	100.000	250.000	500.000	1000.000	4000.000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
1 Aroclor-1016(1)	14790	13406	12599	11956	11198	12790	10.807
(2)	11020	9550	8735	8081	7204	8918	16.336
(3)	6667	5702	5261	4923	4477	5406	15.464
(4)	8469	7466	6811	6206	5627	6916	15.991
(5)	7861	6755	6366	5845	5300	6425	15.123
62 4,4-DDT	++++	++++	++++	100019	++++	100019	0.000
63 4,4-DDE	++++	++++	++++	250510	++++	250510	0.000
64 4,4-DDD	++++	++++	++++	208527	++++	208527	0.000
2 Aroclor-1221(1)	++++	++++	++++	3431	++++	3431	0.000
(2)	++++	++++	++++	2152	++++	2152	0.000
(3)	++++	++++	++++	7328	++++	7328	0.000
3 Aroclor-1232(1)	++++	++++	++++	4920	++++	4920	0.000
(2)	++++	++++	++++	5252	++++	5252	0.000
(3)	++++	++++	++++	3768	++++	3768	0.000
(4)	++++	++++	++++	2699	++++	2699	0.000
(5)	++++	++++	++++	2631	++++	2631	0.000
4 Aroclor-1242(1)	12162	10602	10267	9852	8873	10351	11.615
(2)	8972	7860	7095	6551	5917	7279	16.286
(3)	7172	6222	5595	5138	4714	5768	16.707
(4)	7092	6149	5608	5215	4876	5788	15.018
(5)	8262	7049	6439	5944	5512	6641	16.138
5 Aroclor-1248(1)	9375	8130	7334	6873	6297	7602	15.743
(2)	11273	9902	9059	8609	7955	9360	13.704
(3)	12356	11118	10348	9982	9432	10647	10.657
(4)	14147	12783	11698	11327	10532	12097	11.596
(5)	13387	12032	11069	10719	10286	11499	10.750



GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 24-FEB-2010 02:39  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdla.i/030810.b/ECD1-B-8082-022210.m  
 Cal Date : 09-Mar-2010 06:41 yip00818  
 Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7593	6474	5915	5463	4897	6068	16.986
(2)	13079	11278	10543	9836	8978	10743	14.511
(3)	14023	12144	11373	10769	9907	11643	13.419
(4)	18579	16173	15683	15087	13972	15899	10.745
(5)	14693	12059	11530	11303	10291	11975	13.772
7 Aroclor-1260(1)	16156	14478	12627	11898	10869	13206	15.988
(2)	18308	16389	15401	14483	13254	15567	12.332
(3)	14169	12468	11644	10875	10061	11844	13.319
(4)	14677	12787	11930	11182	10430	12201	13.416
(5)	30570	27429	26347	25126	23163	26527	10.405
8 Aroclor-1262(1)	++++	++++	++++	11265	++++	11265	0.000
(2)	++++	++++	++++	15504	++++	15504	0.000
(3)	++++	++++	++++	14070	++++	14070	0.000
(4)	++++	++++	++++	28448	++++	28448	0.000
(5)	++++	++++	++++	19723	++++	19723	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
\$ 11 4cmx	335261	308362	295849	285028	262485	297397	9.098
\$ 12 Decachlorobiphenyl	252219	220293	206273	196840	181867	211498	12.633

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074  
 Instrument ID: ECD1A Calibration Date: 03/08/10 Time: 0604  
 Lab File ID: 002F0201 Init. Calib. Date(s): 02/22/10 02/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	13481.222	0.01	-12.4	15.0
(2)	18237.012	17195.389	0.01	-5.7	15.0
(3)	12065.482	10902.321	0.01	-9.6	15.0
(4)	7096.105	6581.876	0.01	-7.2	15.0
(5)	8912.192	8592.313	0.01	-3.6	15.0
Aroclor-1260	17072.421	17807.542	0.01	4.3	15.0
(2)	23643.449	26717.327	0.01	13.0	15.0
(3)	24971.335	28532.566	0.01	14.3	15.0
(4)	14405.675	16030.863	0.01	11.3	15.0
(5)	14430.527	16715.031	0.01	15.8	15.0
4cmx	430636.91	385502.88	0.01	-10.5	15.0
Decachlorobiphenyl	307289.35	292688.92	0.01	-4.8	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074  
 Instrument ID: ECD1A Calibration Date: 03/08/10 Time: 0604  
 Lab File ID: 002B0201 Init. Calib. Date(s): 02/22/10 02/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Aroclor-1016	12789.782	12098.691	0.01	-5.4	15.0
(2)	8917.926	7815.484	0.01	-12.4	15.0
(3)	5406.011	4884.189	0.01	-9.6	15.0
(4)	6915.638	6347.666	0.01	-8.2	15.0
(5)	6425.213	5865.050	0.01	-8.7	15.0
Aroclor-1260	13205.642	12768.884	0.01	-3.3	15.0
(2)	15566.814	15639.909	0.01	0.5	15.0
(3)	11843.501	11734.406	0.01	-0.9	15.0
(4)	12201.193	12159.638	0.01	-0.3	15.0
(5)	26527.172	27323.488	0.01	3.0	15.0
=====	=====	=====	=====	=====	=====
4cmx	297396.93	265967.17	0.01	-10.6	15.0
Decachlorobiphenyl	211498.34	183352.94	0.01	-13.3	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074  
 Instrument ID: ECD1A Calibration Date: 03/08/10 Time: 0614  
 Lab File ID: 003F0301 Init. Calib. Date(s): 02/22/10 02/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0816 0859  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	12007.350	12399.171	0.01	3.3	15.0
(2)	15832.152	16964.870	0.01	7.2	15.0
(3)	19523.991	21964.052	0.01	12.5	15.0
(4)	13809.178	16418.377	0.01	18.9	15.0
(5)	14281.016	15997.723	0.01	12.0	15.0

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FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074  
 Instrument ID: ECD1A Calibration Date: 03/08/10 Time: 0614  
 Lab File ID: 003B0301 Init. Calib. Date(s): 02/22/10 02/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0816 0859  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6068.393	5601.063	0.01	-7.7	15.0
(2)	10742.712	10230.676	0.01	-4.8	15.0
(3)	11643.270	11365.962	0.01	-2.4	15.0
(4)	15898.678	15999.617	0.01	0.6	15.0
(5)	11975.232	11756.841	0.01	-1.8	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074  
 Instrument ID: ECD1A Calibration Date: 03/08/10 Time: 0625  
 Lab File ID: 004F0401 Init. Calib. Date(s): 02/22/10 02/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0920 1002  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	12557.447	11550.756	0.01	-8.0	15.0
(2)	14611.650	14964.468	0.01	2.4	15.0
(3)	5629.225	5575.501	0.01	-1.0	15.0
(4)	7310.356	7185.557	0.01	-1.7	15.0
(5)	6183.099	7126.568	0.01	15.2	15.0

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FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074  
 Instrument ID: ECD1A Calibration Date: 03/08/10 Time: 0625  
 Lab File ID: 004B0401 Init. Calib. Date(s): 02/22/10 02/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0920 1002  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	10351.237	9810.536	0.01	-5.2	15.0
(2)	7278.919	6567.920	0.01	-9.8	15.0
(3)	5768.408	5190.648	0.01	-10.0	15.0
(4)	5788.073	5509.217	0.01	-4.8	15.0
(5)	6641.390	6141.253	0.01	-7.5	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074  
 Instrument ID: ECD1A Calibration Date: 03/08/10 Time: 1239  
 Lab File ID: 036F3601 Init. Calib. Date(s): 02/22/10 02/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	13301.358	0.01	-13.5	15.0
(2)	18237.012	17589.486	0.01	-3.6	15.0
(3)	12065.482	11087.034	0.01	-8.1	15.0
(4)	7096.105	6668.717	0.01	-6.0	15.0
(5)	8912.192	8520.554	0.01	-4.4	15.0
Aroclor-1260	17072.421	16657.973	0.01	-2.4	15.0
(2)	23643.449	24941.302	0.01	5.5	15.0
(3)	24971.335	26166.458	0.01	4.8	15.0
(4)	14405.675	15049.113	0.01	4.5	15.0
(5)	14430.527	15765.208	0.01	9.2	15.0
4cmx	430636.91	388997.50	0.01	-9.7	15.0
Decachlorobiphenyl	307289.35	306903.07	0.01	-0.1	15.0

FORM VII PEST



FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074  
 Instrument ID: ECD1A Calibration Date: 03/08/10 Time: 1239  
 Lab File ID: 036B3601 Init. Calib. Date(s): 02/22/10 02/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	11707.346	0.01	-8.5	15.0
(2)	8917.926	7830.180	0.01	-12.2	15.0
(3)	5406.011	4851.376	0.01	-10.2	15.0
(4)	6915.638	6339.833	0.01	-8.3	15.0
(5)	6425.213	5947.084	0.01	-7.4	15.0
Aroclor-1260	13205.642	11874.655	0.01	-10.1	15.0
(2)	15566.814	14572.850	0.01	-6.4	15.0
(3)	11843.501	10941.327	0.01	-7.6	15.0
(4)	12201.193	11383.856	0.01	-6.7	15.0
(5)	26527.172	25485.891	0.01	-3.9	15.0
4cmx	297396.93	265326.16	0.01	-10.8	15.0
Decachlorobiphenyl	211498.34	190790.53	0.01	-9.8	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074  
 Instrument ID: ECD1A Calibration Date: 03/08/10 Time: 1411  
 Lab File ID: 044F4401 Init. Calib. Date(s): 02/22/10 02/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	13717.671	0.01	-10.8	15.0
(2)	18237.012	17493.181	0.01	-4.1	15.0
(3)	12065.482	11035.120	0.01	-8.5	15.0
(4)	7096.105	6703.609	0.01	-5.5	15.0
(5)	8912.192	8568.272	0.01	-3.8	15.0
Aroclor-1260	17072.421	16539.345	0.01	-3.1	15.0
(2)	23643.449	23440.130	0.01	-0.8	15.0
(3)	24971.335	24136.062	0.01	-3.3	15.0
(4)	14405.675	14509.054	0.01	0.7	15.0
(5)	14430.527	15246.659	0.01	5.6	15.0
4cmx	430636.91	388800.75	0.01	-9.7	15.0
Decachlorobiphenyl	307289.35	303885.68	0.01	-1.1	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074  
 Instrument ID: ECD1A Calibration Date: 03/08/10 Time: 1411  
 Lab File ID: 044B4401 Init. Calib. Date(s): 02/22/10 02/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12102.351	0.01	-5.4	15.0
(2)	8917.926	7777.446	0.01	-12.8	15.0
(3)	5406.011	4854.908	0.01	-10.2	15.0
(4)	6915.638	6307.429	0.01	-8.8	15.0
(5)	6425.213	5811.575	0.01	-9.6	15.0
Aroclor-1260	13205.642	11836.710	0.01	-10.4	15.0
(2)	15566.814	14451.961	0.01	-7.2	15.0
(3)	11843.501	10893.820	0.01	-8.0	15.0
(4)	12201.193	11339.319	0.01	-7.1	15.0
(5)	26527.172	25373.227	0.01	-4.4	15.0
4cmx	297396.93	263604.48	0.01	-11.4	15.0
Decachlorobiphenyl	211498.34	190998.26	0.01	-9.7	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074  
 Instrument ID: ECD1A Calibration Date: 03/08/10 Time: 1601  
 Lab File ID: 053F5301 Init. Calib. Date(s): 02/22/10 02/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	13689.414	0.01	-11.0	15.0
(2)	18237.012	17627.982	0.01	-3.3	15.0
(3)	12065.482	11020.579	0.01	-8.7	15.0
(4)	7096.105	6640.864	0.01	-6.4	15.0
(5)	8912.192	8549.838	0.01	-4.1	15.0
Aroclor-1260	17072.421	16519.938	0.01	-3.2	15.0
(2)	23643.449	24665.953	0.01	4.3	15.0
(3)	24971.335	26229.103	0.01	5.0	15.0
(4)	14405.675	14894.434	0.01	3.4	15.0
(5)	14430.527	15497.470	0.01	7.4	15.0
4cmx	430636.91	388071.37	0.01	-9.9	15.0
Decachlorobiphenyl	307289.35	299247.22	0.01	-2.6	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074  
 Instrument ID: ECD1A Calibration Date: 03/08/10 Time: 1601  
 Lab File ID: 053B5301 Init. Calib. Date(s): 02/22/10 02/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	11924.622	0.01	-6.8	15.0
(2)	8917.926	7791.781	0.01	-12.6	15.0
(3)	5406.011	4886.721	0.01	-9.6	15.0
(4)	6915.638	6337.865	0.01	-8.4	15.0
(5)	6425.213	6020.515	0.01	-6.3	15.0
Aroclor-1260	13205.642	11785.178	0.01	-10.8	15.0
(2)	15566.814	14436.394	0.01	-7.3	15.0
(3)	11843.501	10861.469	0.01	-8.3	15.0
(4)	12201.193	11356.689	0.01	-6.9	15.0
(5)	26527.172	25281.887	0.01	-4.7	15.0
4cmx	297396.93	264285.66	0.01	-11.1	15.0
Decachlorobiphenyl	211498.34	189893.65	0.01	-10.2	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074  
 Instrument ID: ECD1A Calibration Date: 03/08/10 Time: 1828  
 Lab File ID: 065F6501 Init. Calib. Date(s): 02/22/10 02/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	13831.390	0.01	-10.1	15.0
(2)	18237.012	18291.555	0.01	0.3	15.0
(3)	12065.482	11473.048	0.01	-4.9	15.0
(4)	7096.105	6927.606	0.01	-2.4	15.0
(5)	8912.192	8896.244	0.01	-0.2	15.0
Aroclor-1260	17072.421	17156.096	0.01	0.5	15.0
(2)	23643.449	25802.680	0.01	9.1	15.0
(3)	24971.335	20334.710	0.01	-18.6	15.0
(4)	14405.675	15499.213	0.01	7.6	15.0
(5)	14430.527	16201.843	0.01	12.3	15.0
4cmx	430636.91	404635.01	0.01	-6.0	15.0
Decachlorobiphenyl	307289.35	312982.77	0.01	1.8	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074  
 Instrument ID: ECD1A Calibration Date: 03/08/10 Time: 1828  
 Lab File ID: 065B6501 Init. Calib. Date(s): 02/22/10 02/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12363.279	0.01	-3.3	15.0
(2)	8917.926	8088.905	0.01	-9.3	15.0
(3)	5406.011	5020.826	0.01	-7.1	15.0
(4)	6915.638	6551.772	0.01	-5.3	15.0
(5)	6425.213	6049.423	0.01	-5.8	15.0
Aroclor-1260	13205.642	12313.814	0.01	-6.8	15.0
(2)	15566.814	15043.198	0.01	-3.4	15.0
(3)	11843.501	11303.603	0.01	-4.6	15.0
(4)	12201.193	11764.381	0.01	-3.6	15.0
(5)	26527.172	26327.954	0.01	-0.8	15.0
4cmx	297396.93	274643.58	0.01	-7.6	15.0
Decachlorobiphenyl	211498.34	197604.48	0.01	-6.6	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/030810.b/002f0201.d

Lab Smp Id: WAR100222-60 01

Client Smp ID: AR166001

Inj Date : 08-MAR-2010 06:04

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 01

Misc Info :

Comment :

Method : /chem/ecdl1a.i/030810.b/ECD1-F-8082-022210.m

Meth Date : 08-Mar-2010 09:20 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 2

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		( ug/L)	TARGET RANGE		RATIO
==	=====	=====	=====	=====	=====	=====		=====
\$ 11 4cmx					CAS #: 877-09-8			
1.917	1.917	0.000	38550288	100.000	89.5	80.00-	120.00	100.00
-----								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.223	5.223	0.000	29268892	100.000	95.2	80.00-	120.00	100.00
-----								
1 Aroclor-1016					CAS #: 12674-11-2			
2.371	2.371	0.000	13481222	1000.00	876	80.00-	120.00	100.00
2.657	2.657	0.000	17195389	1000.00	943	107.55-	147.55	127.55
2.737	2.737	0.000	10902321	1000.00	904	60.87-	100.87	80.87
2.775	2.775	0.000	6581876	1000.00	928	28.82-	68.82	48.82
2.986	2.986	0.000	8592313	1000.00	964	43.74-	83.74	63.74
Average of Peak Amounts =					923			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.711	3.711	0.000	17807542	1000.00	1040	80.00-	120.00	100.00
3.873	3.873	0.000	26717327	1000.00	1130	130.03-	170.03	150.03
4.036	4.036	0.000	28532566	1000.00	1140	140.23-	180.23	160.23
4.104	4.104	0.000	16030863	1000.00	1110	70.02-	110.02	90.02
4.247	4.247	0.000	16715031	1000.00	1160	73.86-	113.86	93.86
Average of Peak Amounts =					1.12e+03			
-----								

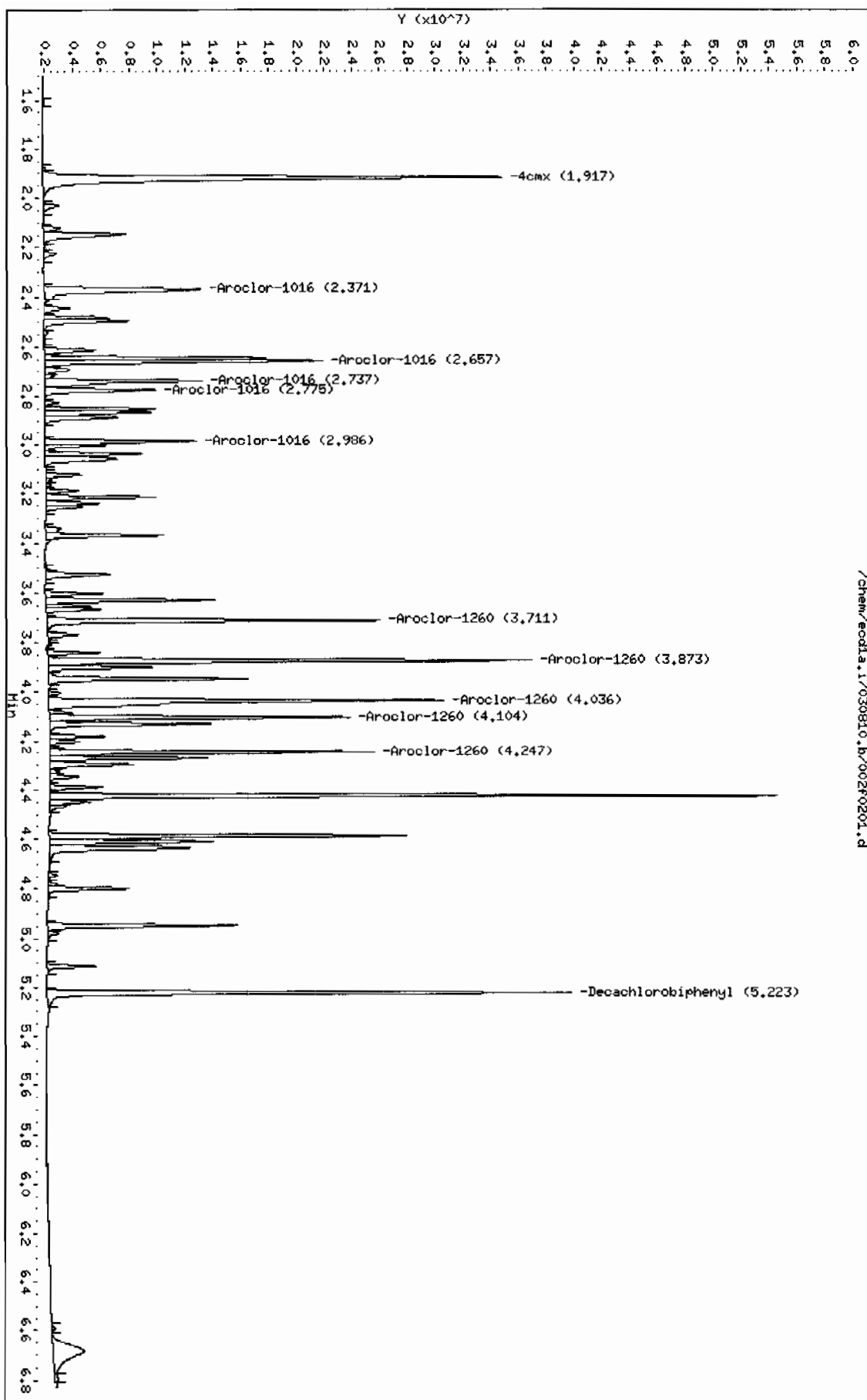


Data File: /chem/eodla.i/030810.b/002f0201.d  
Date : 06-MAR-2010 06:04  
Client ID: AR16001  
Sample Info: IWR100222-60 01

Column phase: CLP1

Instrument: eodla.i  
Operator: YSI  
Column diameter: 0.25

/chem/eodla.i/030810.b/002f0201.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/030810.b/002b0201.d

Lab Smp Id: WAR100222-60 01

Client Smp ID: AR166001

Inj Date : 08-MAR-2010 06:04

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 01

Misc Info :

Comment :

Method : /chem/ecdl1a.i/030810.b/ECD1-B-8082-022210.m

Meth Date : 12-Mar-2010 08:39 jc

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 2

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: kilroy

AMOUNTS

			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO	
==	==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8			
2.277	2.277	0.000	26596717 100.000	89.4	80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.918	5.918	0.000	18335294 100.000	86.7	80.00- 120.00	100.00	
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
3.171	3.171	0.000	12098691 1000.00	946	80.00- 120.00	100.00 (M)	
3.254	3.254	0.000	7815484 1000.00	876	44.60- 84.60	64.60	
3.317	3.317	0.000	4884189 1000.00	903	20.37- 60.37	40.37	
3.544	3.544	0.000	6347666 1000.00	918	32.47- 72.47	52.47	
3.619	3.619	0.000	5865050 1000.00	913	28.48- 68.48	48.48	
Average of Peak Amounts				911			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
4.310	4.310	0.000	12768884 1000.00	967	80.00- 120.00	100.00	
4.435	4.435	0.000	15639909 1000.00	1000	102.48- 142.48	122.48	
4.701	4.701	0.000	11734406 1000.00	991	71.90- 111.90	91.90	
4.874	4.874	0.000	12159638 1000.00	996	75.23- 115.23	95.23	
5.021	5.021	0.000	27323488 1000.00	1030	193.98- 233.98	213.98	
Average of Peak Amounts =				998			

QC Flag Legend

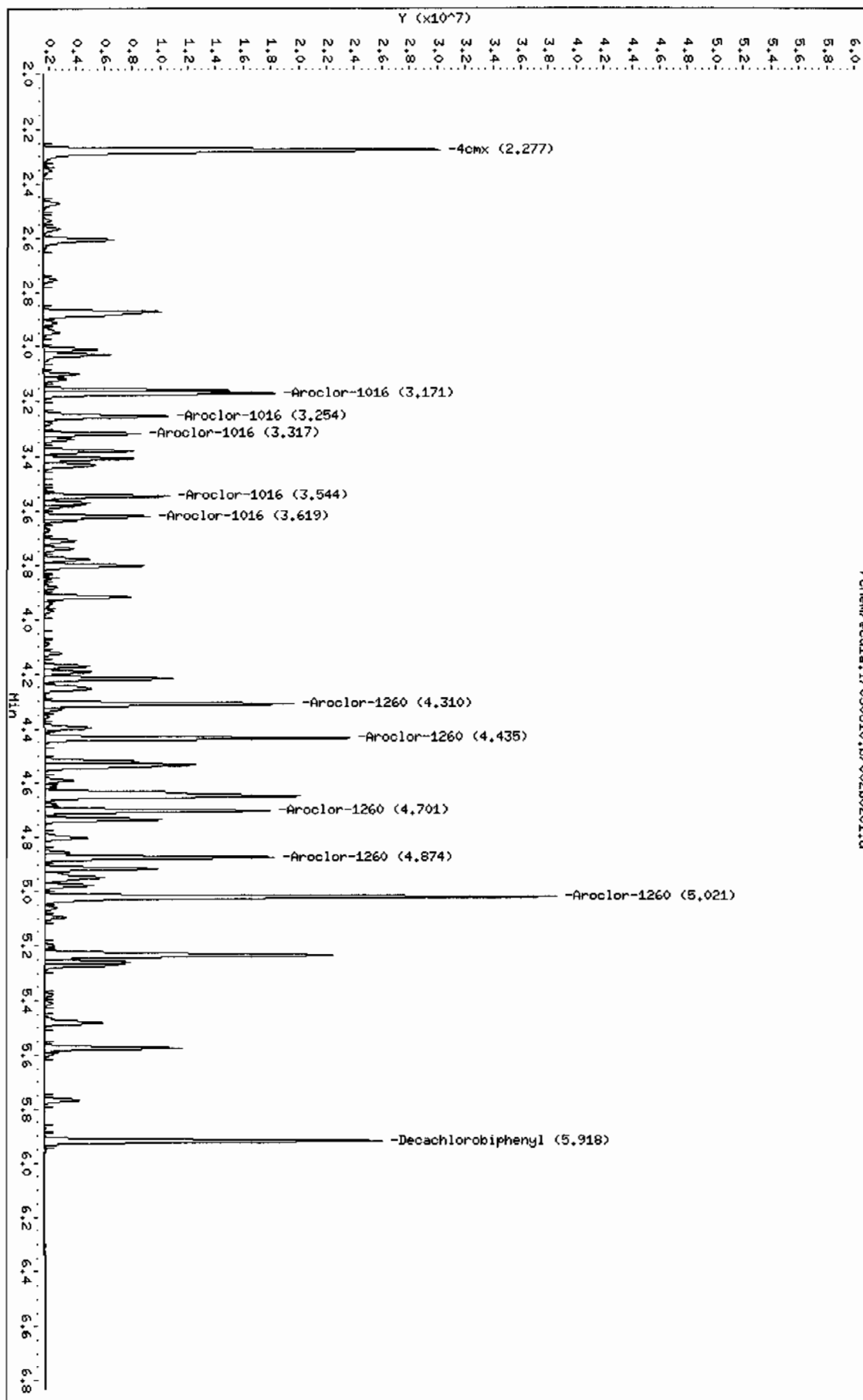
M - Compound response manually integrated.

Data File: /chem/ecdt.a.i/030810.b/002b0201.d  
Date: 08-MAR-2010 06:04  
Client ID: AR165001  
Sample Info: IWR100222-60 01

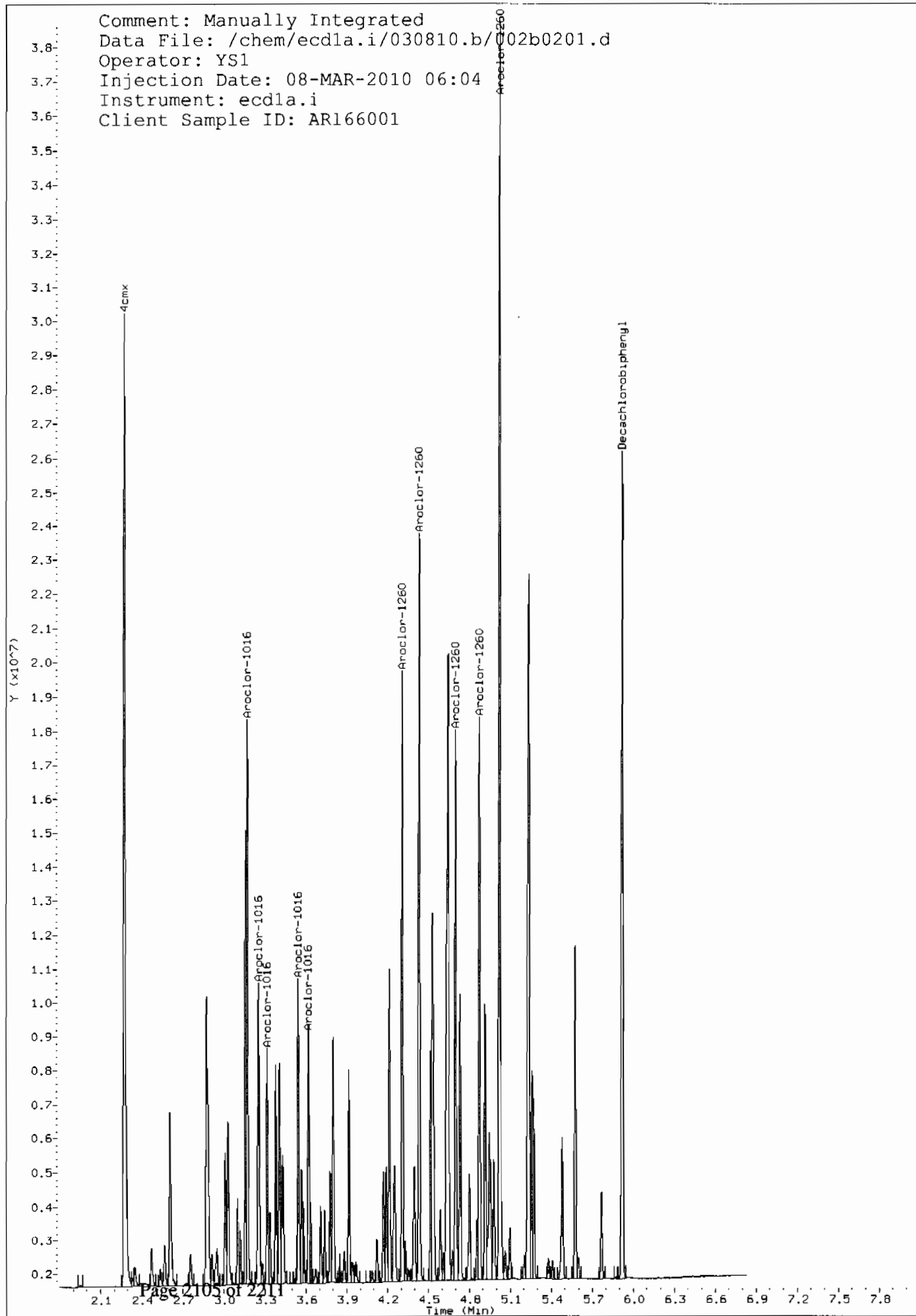
Column phase: CLP2

Instrument: ecdt.a.i  
Operator: YSL  
Column diameter: 0.25

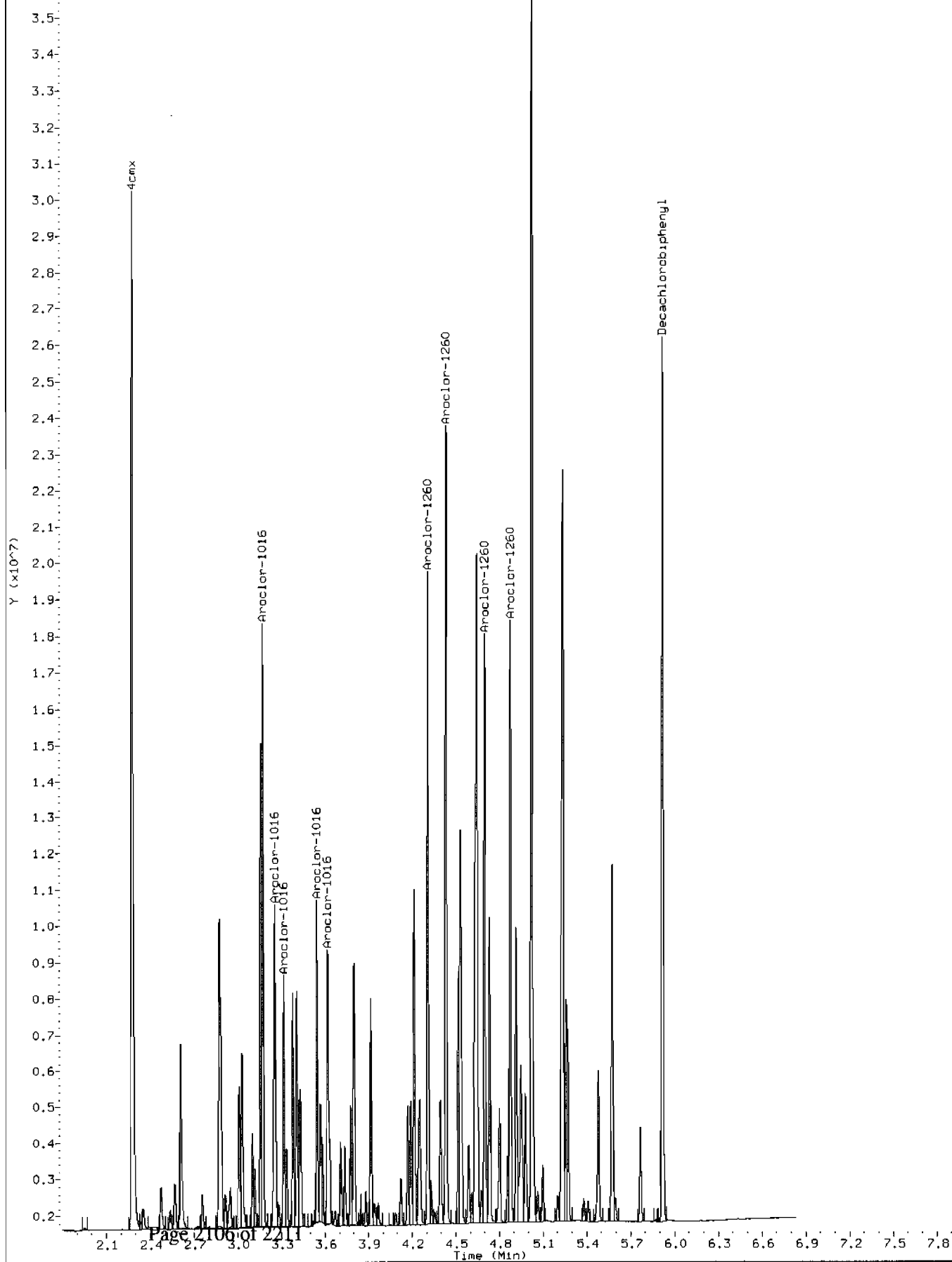
/chem/ecdt.a.i/030810.b/002b0201.d



Comment: Manually Integrated  
Data File: /chem/ecdl1.i/030810.b/02b0201.d  
Operator: YS1  
Injection Date: 08-MAR-2010 06:04  
Instrument: ecd1a.i  
Client Sample ID: AR166001



Comment: Before manual integration  
Data File: /chem/ecdla.i/030810.b/Orig-002b0201.d  
Operator: YS1  
Injection Date: 08-MAR-2010 06:04  
Instrument: ecdla.i  
Client Sample ID: AR166001



Data File: /chem/ecdl1a.i/030810.b/003f0301.d  
 Report Date: 08-Mar-2010 09:29

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/030810.b/003f0301.d

Lab Smp Id: WAR100219-54 Client Smp ID: AR125401

Inj Date : 08-MAR-2010 06:14

Operator : YSl Inst ID: ecd1a.i

Smp Info : |WAR100219-54

Misc Info :

Comment :

Method : /chem/ecdl1a.i/030810.b/ECD1-F-8082-022210.m

Meth Date : 08-Mar-2010 09:20 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d

Als bottle: 3 Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon Compound Sublist: AR1254.sub

Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====

6 Aroclor-1254

CAS #: 11097-69-1

3.215	3.215	0.000	12399171	1000.00	1030 80.00- 120.00	100.00
3.369	3.369	0.000	16964870	1000.00	1070 116.82- 156.82	136.82
3.602	3.602	0.000	21964052	1000.00	1120 157.14- 197.14	177.14
3.765	3.765	0.000	16418377	1000.00	1190 112.42- 152.42	132.42
3.875	3.875	0.000	15997723	1000.00	1120 109.02- 149.02	129.02

Average of Peak Amounts = 1.11e+03

Data File: /chem/ecdl1a.i/030810.b/003f0301.d

Date: 08-MAR-2010 06:14

Client ID: AR125401

Sample Info: IMR100219-54

Column phase: CLP1

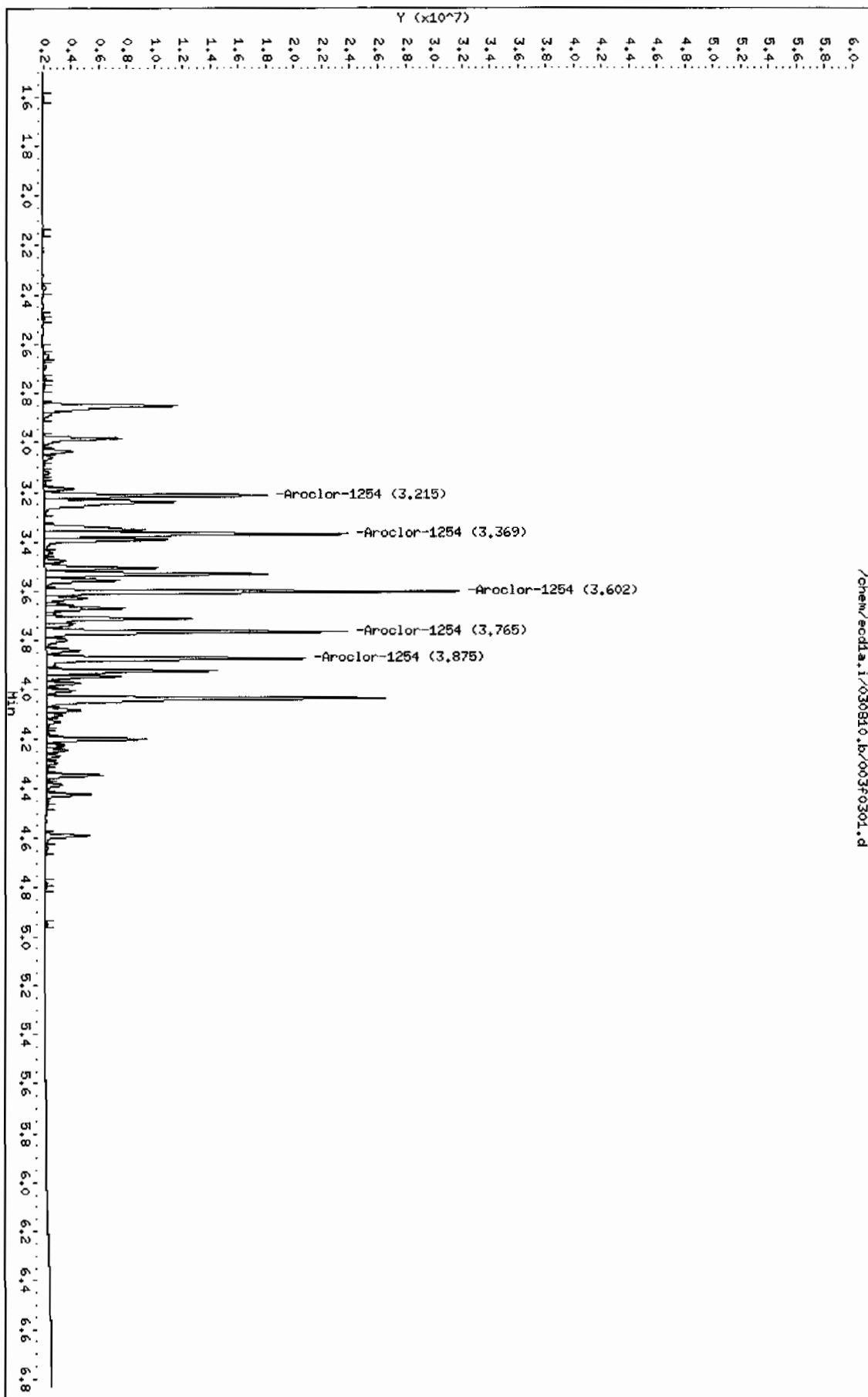
Page 1

Instrument: ecdl1a.i

Operator: YS1

Column diameter: 0.25

/chem/ecdl1a.i/030810.b/003f0301.d





Data File: /chem/ecdl1a.i/030810.b/003b0301.d  
Report Date: 12-Mar-2010 08:39

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/030810.b/003b0301.d

Lab Smp Id: WAR100219-54

Client Smp ID: AR125401

Inj Date : 08-MAR-2010 06:14

Operator : YSl

Inst ID: ecd1a.i

Smp Info : |WAR100219-54

Misc Info :

Comment :

Method : /chem/ecdl1a.i/030810.b/ECD1-B-8082-022210.m

Meth Date : 12-Mar-2010 08:39 jc

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 3

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1254.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: kilroy

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1	
3.380	3.380	0.000	5601063 1000.00	923	80.00- 120.00	100.00
3.801	3.801	0.000	10230676 1000.00	952	162.66- 202.66	182.66
3.918	3.918	0.000	11365962 1000.00	976	182.93- 222.93	202.93
4.194	4.194	0.000	15999617 1000.00	1010	265.65- 305.65	285.65
4.330	4.330	0.000	11756841 1000.00	982	189.90- 229.90	209.90
Average of Peak Amounts =				968		

Data File: /chem/ecdda.i/030810.b/003b0301.d  
Date : 08-MAR-2010 06:14  
Client ID: 6R125401  
Sample Info: 146R100219-54

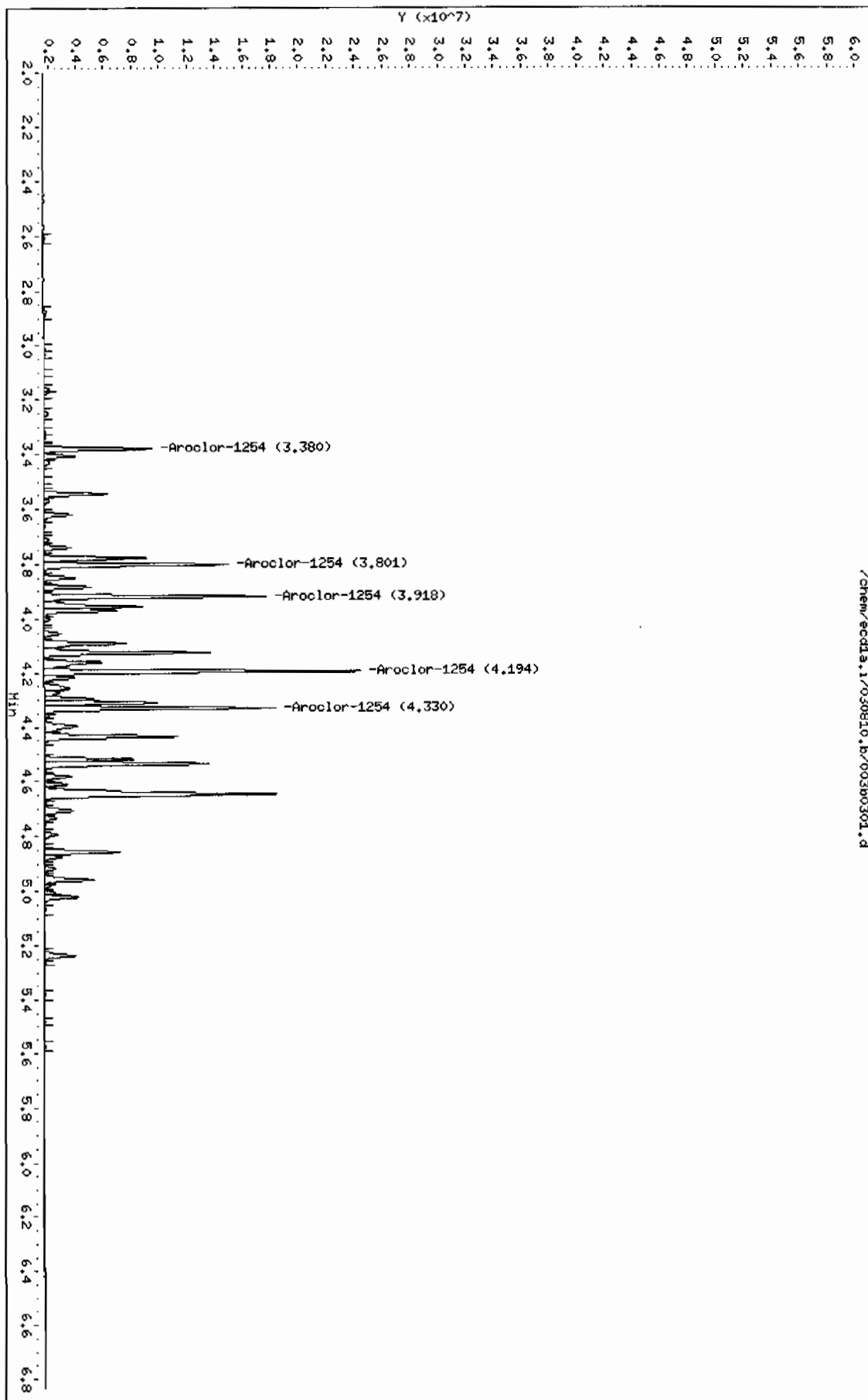
Instrument: ecdda.i

Page 1

Column phase: CLP2

Operator: YSL  
Column diameter: 0.25

/chem/ecdda.i/030810.b/003b0301.d



Data File: /chem/ecdl1a.i/030810.b/004f0401.d  
 Report Date: 08-Mar-2010 09:29

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/030810.b/004f0401.d  
 Lab Smp Id: WAR100219-42 Client Smp ID: AR124201  
 Inj Date : 08-MAR-2010 06:25  
 Operator : YS1 Inst ID: ecdl1a.i  
 Smp Info : |WAR100219-42  
 Misc Info :  
 Comment :  
 Method : /chem/ecdl1a.i/030810.b/ECD1-F-8082-022210.m  
 Meth Date : 08-Mar-2010 09:20 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
 Als bottle: 4 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: AR1242.sub  
 Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	CAL-AMT ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.371	2.371	0.000	11550756	1000.00	920	80.00- 120.00	100.00
2.658	2.658	0.000	14964468	1000.00	1020	109.55- 149.55	129.55
2.776	2.776	0.000	5575501	1000.00	990	28.27- 68.27	48.27
2.986	2.986	0.000	7189557	1000.00	983	42.21- 82.21	62.21
3.239	3.239	0.000	7126568	1000.00	1150	41.70- 81.70	61.70

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecdl1a.i/030810.b/004f0401.d

Date: 08-MAR-2010 06:25

Client ID: AR124201

Sample Info: IMAR100219-42

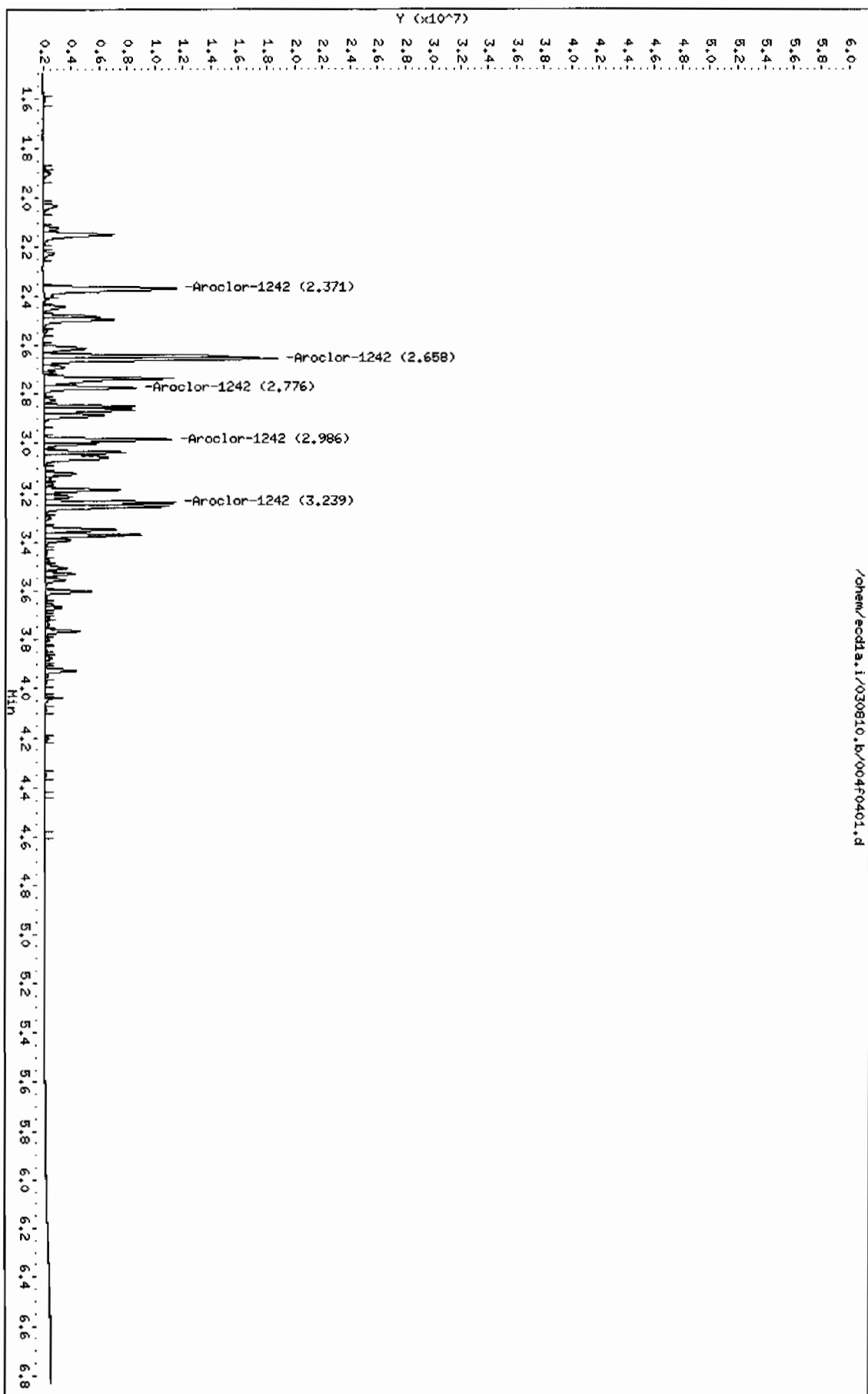
Column phase: CLP1

Instrument: ecdl1a.i

Operator: YSL

Column diameter: 0.25

Page 1



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/030810.b/004b0401.d

Lab Smp Id: WAR100219-42

Client Smp ID: AR124201

Inj Date : 08-MAR-2010 06:25

Operator : YSI

Inst ID: ecdla.i

Smp Info : |WAR100219-42

Misc Info :

Comment :

Method : /chem/ecdla.i/030810.b/ECD1-B-8082-022210.m

Meth Date : 12-Mar-2010 08:39 jc

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 4

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1242.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: kilroy

AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO	
4	3.171	3.171	0.000	9810536	1000.00	948 80.00- 120.00	100.00	
4 Aroclor-1242								
					CAS #: 53469-21-9			
3.171	3.171	0.000	9810536	1000.00	948	80.00- 120.00	100.00	
3.254	3.254	0.000	6567920	1000.00	902	46.95- 86.95	66.95	
3.544	3.544	0.000	5190648	1000.00	900	32.91- 72.91	52.91	
3.778	3.778	0.000	5509217	1000.00	952	36.16- 76.16	56.16	
3.806	3.806	0.000	6141253	1000.00	925	42.60- 82.60	62.60	
Average of Peak Amounts					925			

Data File: /chem/ecdl.a.i/030810.b/004b0401.d

Date: 08-MAR-2010 06:25

Client ID: AR124201

Sample Info: 1MR100219-42

Page 1

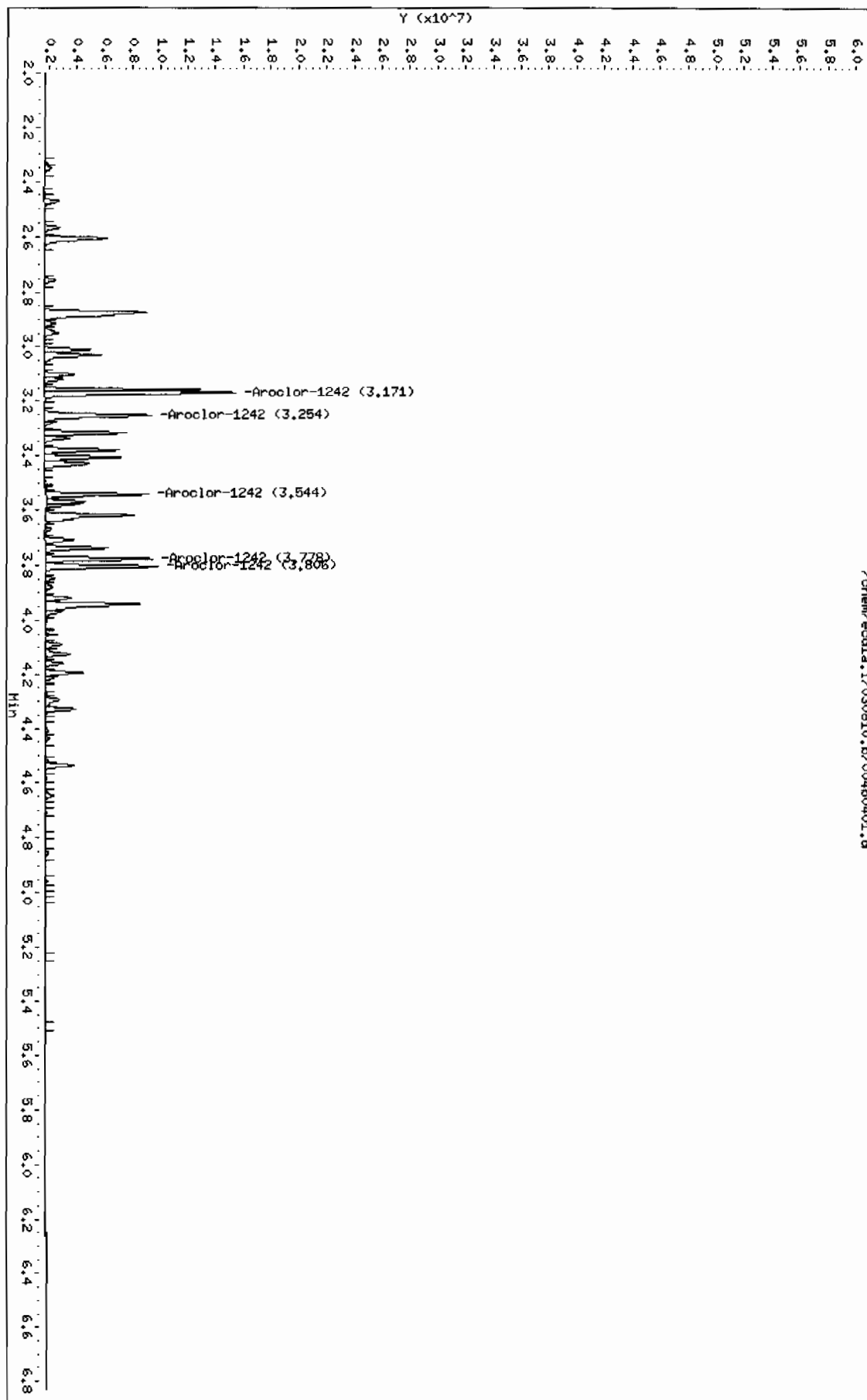
Instrument: ecdl.a.i

Operator: YSL

Column diameter: 0.25

Column phase: CLP2

/chem/ecdl.a.i/030810.b/004b0401.d



Data File: /chem/ecd1a.i/030810.b/005f0501.d  
 Report Date: 08-Mar-2010 09:29

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030810.b/005f0501.d

Lab Smp Id: WAR100223-48

Client Smp ID: AR124801

Inj Date : 08-MAR-2010 06:35

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100223-48

Misc Info :

Comment :

Method : /chem/ecd1a.i/030810.b/ECD1-F-8082-022210.m

Meth Date : 08-Mar-2010 09:20 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 5

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1248.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
==	=====	=====	-----	=====	-----	-----
5 Aroclor-1248			CAS #: 12672-29-6			
2.852	2.852	0.000	9604842 1000.00	1030	80.00- 120.00	100.00
2.986	2.986	0.000	12597846 1000.00	1020	111.16- 151.16	131.16
3.238	3.238	0.000	14264976 1000.00	1170	128.52- 168.52	148.52
3.371	3.371	0.000	11529970 1000.00	1110	100.04- 140.04	120.04
3.603	3.603	0.000	7467875 1000.00	1100	57.75- 97.75	77.75

Average of Peak Amounts 1.08e+03

Data File: /chem/ecdl1a.i/030810.b/005f0501.d

Date : 08-MAR-2010 06:35

Client ID: AR124801

Sample Info: 1MAR100223-48

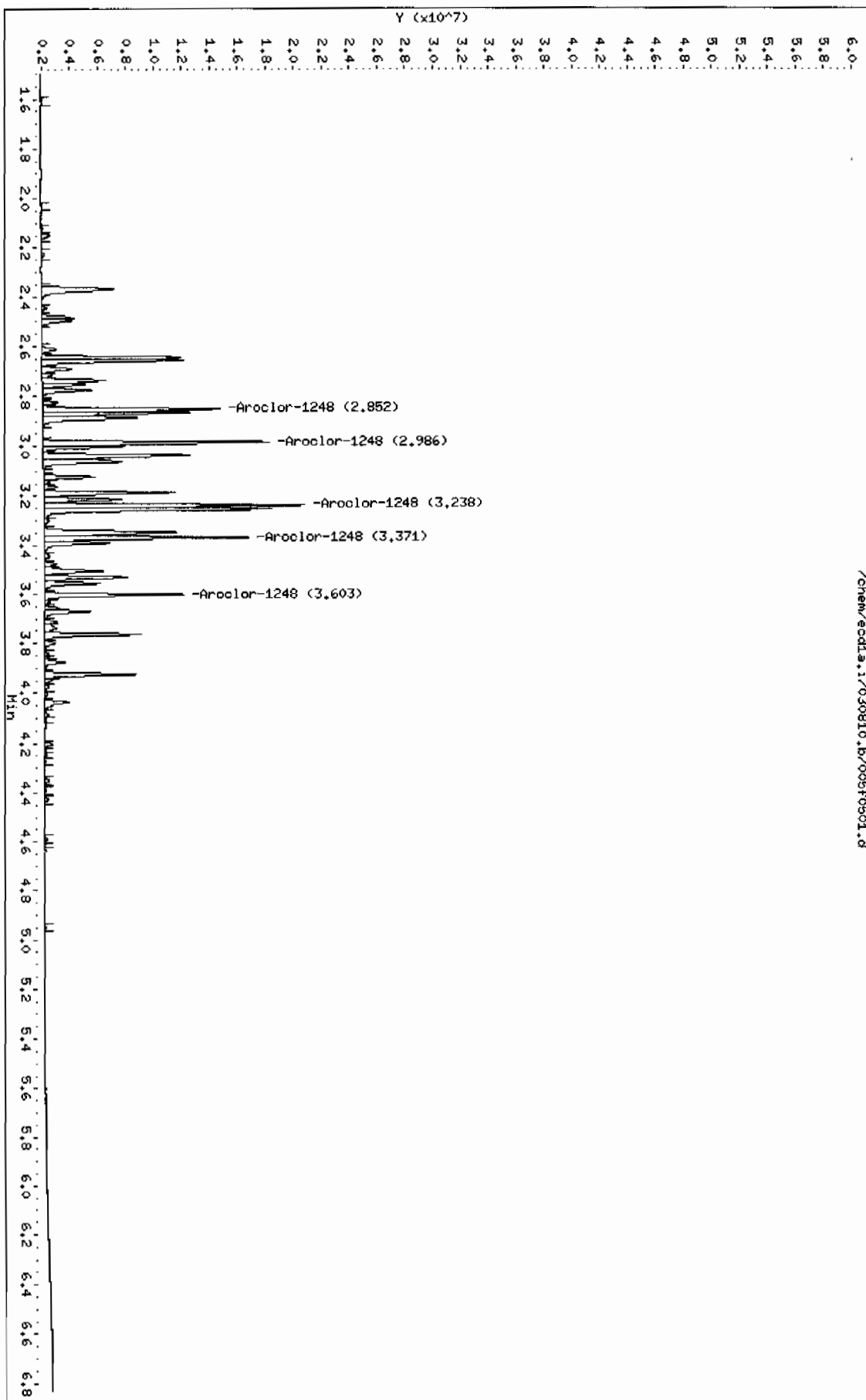
Column phase: CLP1

Instrument: ecdl1a.i

Operator: YSL

Column diameter: 0.25

/chem/ecdl1a.i/030810.b/005f0501.d





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/030810.b/005b0501.d

Lab Smp Id: WAR100223-48

Client Smp ID: AR124801

Inj Date : 08-MAR-2010 06:35

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100223-48

Misc Info :

Comment :

Method : /chem/ecdl1a.i/030810.b/ECD1-B-8082-022210.m

Meth Date : 12-Mar-2010 08:39 jc

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 5

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1248.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: kilroy

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
5 Aroclor-1248			CAS #: 12672-29-6			
3.379	3.379	0.000	7274115 1000.00	957	80.00- 120.00	100.00
3.544	3.544	0.000	9142550 1000.00	977	105.69- 145.69	125.69
3.777	3.777	0.000	10634156 1000.00	999	126.19- 166.19	146.19
3.805	3.805	0.000	11813593 1000.00	976	142.41- 182.41	162.41
3.942	3.942	0.000	11372871 1000.00	989	136.35- 176.35	156.35
Average of Peak Amounts =			980			

Data File: /chem/eod1a.i/030810.b/00500501.d  
Date: 08-MAR-2010 06:35  
Client ID: AR124801  
Sample Info: 1MAR100223-48

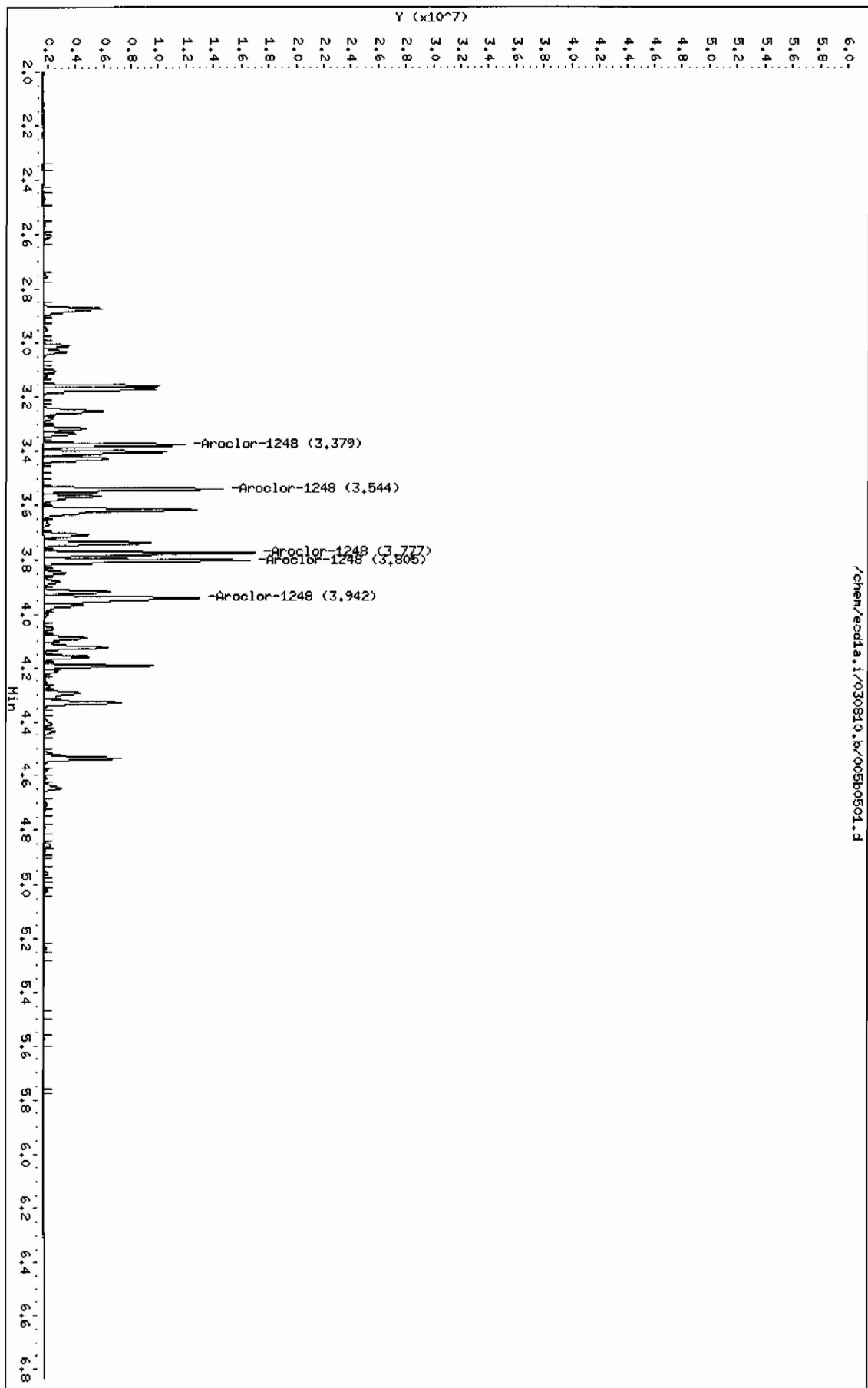
Instrument: eod1a.i

Page 1

Column phase: CLP2

Operator: YSI  
Column diameter: 0.25

/chem/eod1a.i/030810.b/00500501.d



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/030810.b/007f0701.d

Lab Smp Id: WAR100104-32

Client Smp ID: AR123201

Inj Date : 08-MAR-2010 06:56

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR100104-32

Misc Info :

Comment :

Method : /chem/ecdla.i/030810.b/ECD1-F-8082-022210.m

Meth Date : 08-Mar-2010 09:20 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 7

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1232.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
----	--------	--------	------------------	---------	--------------	-------

3 Aroclor-1232

CAS #: 11141-16-5

2.371	2.371	0.000	6435244	1000.00	1030 80.00- 120.00	100.00
2.658	2.658	0.000	8537753	1000.00	1140 112.67- 152.67	132.67
2.739	2.739	0.000	5379785	1000.00	1100 63.60- 103.60	83.60
2.853	2.853	0.000	2536681	1000.00	1160 19.42- 59.42	39.42
3.239	3.239	0.000	3617202	1000.00	1320 36.21- 76.21	56.21

Average of Peak Amounts

1.15e+03

Data File: /chem/ecdl1a.i/030810.b/0070701.d  
Date : 08-MAR-2010 06:56  
Client ID: AP423201  
Sample Info: IWR100104-32

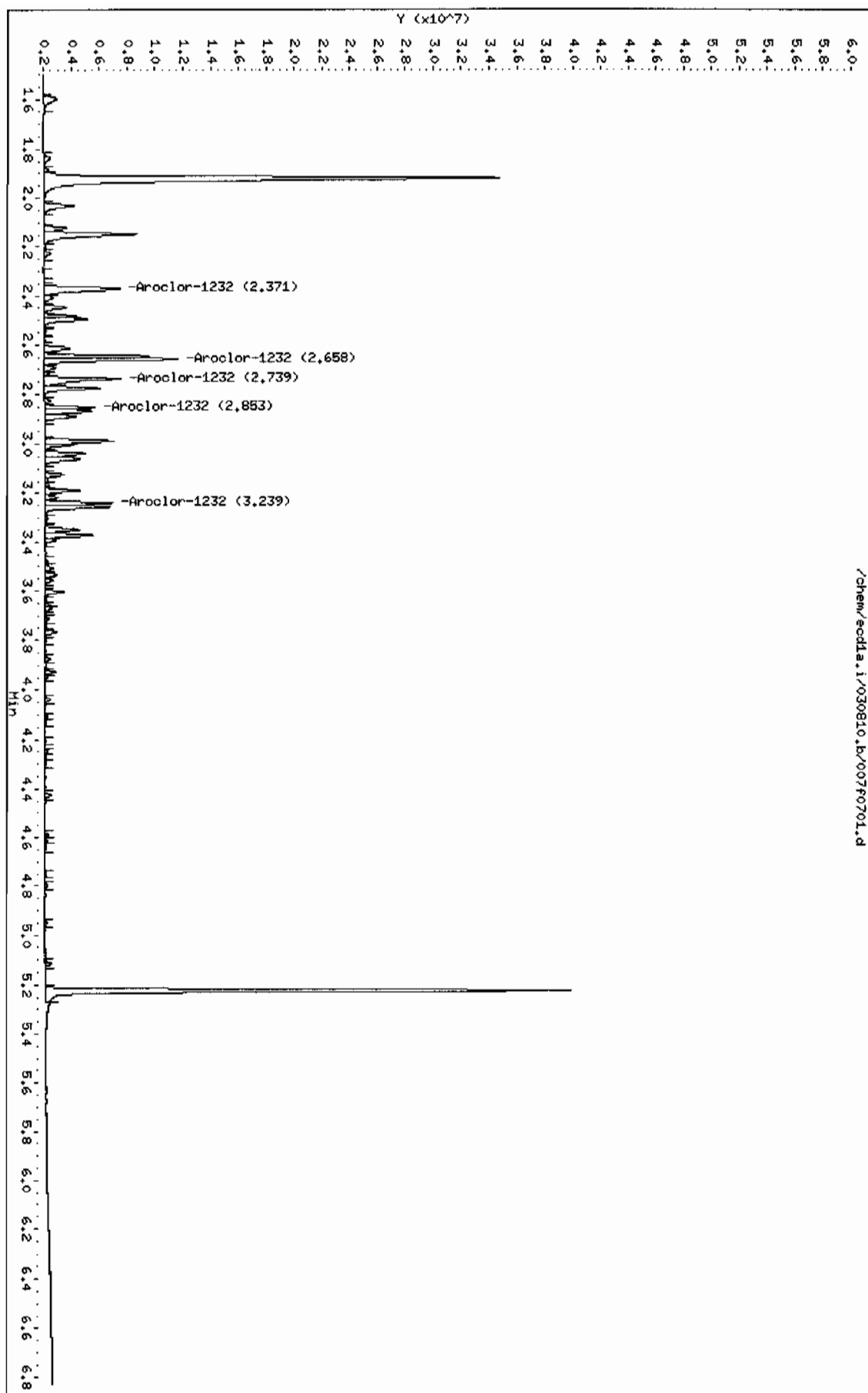
Instrument: ecdl1a.i

Page 1

Column phase: CLP1

Operator: YSL  
Column diameter: 0.25

/chem/ecdl1a.i/030810.b/0070701.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030810.b/007b0701.d

Lab Smp Id: WAR100104-32

Client Smp ID: AR123201

Inj Date : 08-MAR-2010 06:56

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100104-32

Misc Info :

Comment :

Method : /chem/ecd1a.i/030810.b/ECD1-B-8082-022210.m

Meth Date : 08-Mar-2010 09:28 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 7

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1232.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
----	--------	--------	------------------	---------	--------------	-------

3 Aroclor-1232			CAS #: 11141-16-5			
2.874	2.874	0.000	5091903	1000.00	1030 80.00- 120.00	100.00
3.172	3.172	0.000	5851853	1000.00	1110 94.92- 134.92	114.92
3.254	3.254	0.000	3935940	1000.00	1040 57.30- 97.30	77.30
3.545	3.545	0.000	2932147	1000.00	1090 37.58- 77.58	57.58
3.779	3.779	0.000	2956209	1000.00	1120 38.06- 78.06	58.06

Average of Peak Amounts = 1.08e+03

Data File: /chem/ecdl1a.i/030810.b/007b0701.d

Date : 08-MAR-2010 06:56

Client ID: AR123201

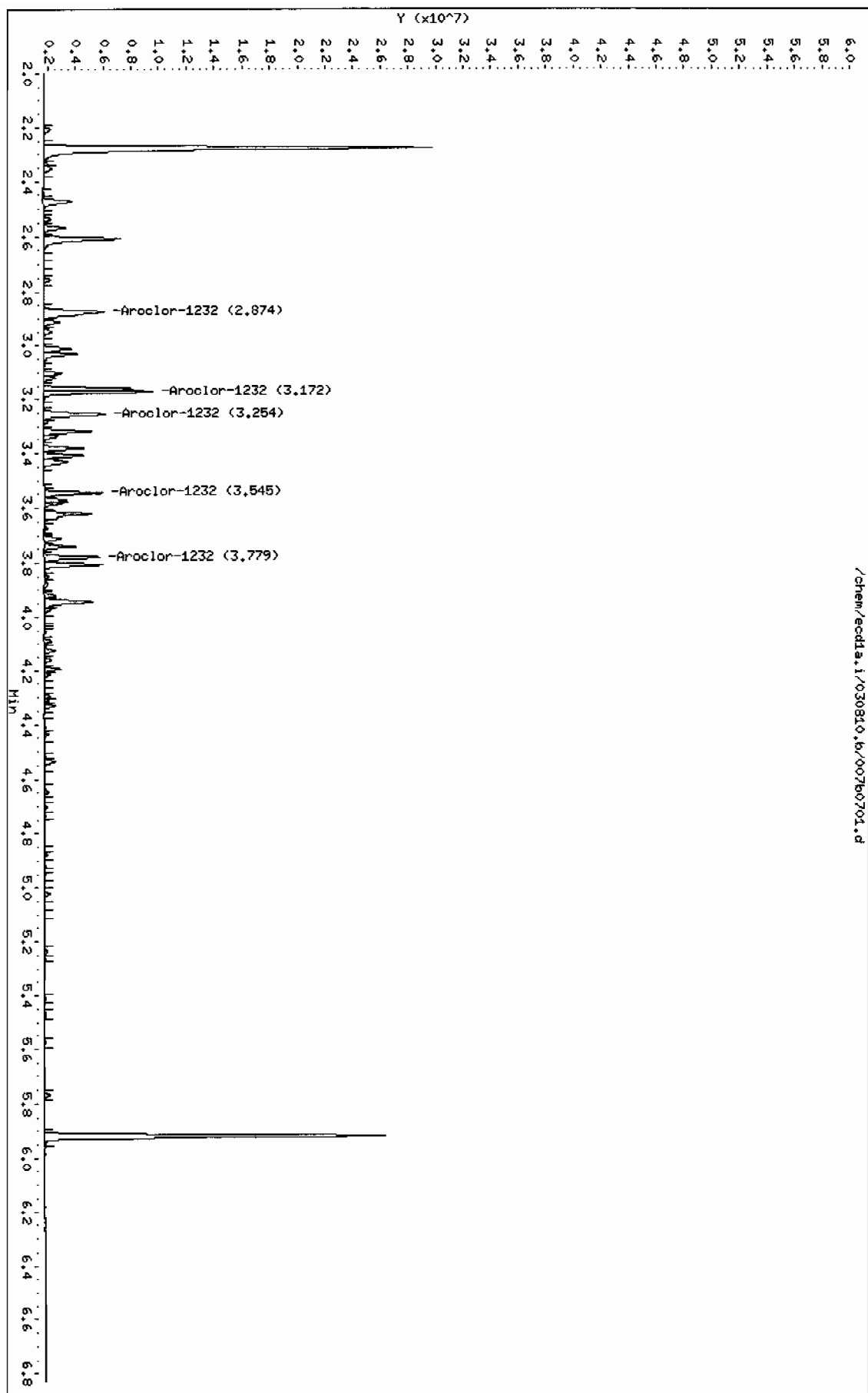
Sample Info: 14AR100104-32

Column phase: CLP2

Instrument: ecdl1a.i

Operator: YS1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030810.b/008f0801.d

Lab Smp Id: WAR100104-21

Client Smp ID: AR122101

Inj Date : 08-MAR-2010 07:07

Operator : YSl

Inst ID: ecd1a.i

Smp Info : |WAR100104-21

Misc Info :

Comment :

Method : /chem/ecd1a.i/030810.b/ECD1-F-8082-022210.m

Meth Date : 08-Mar-2010 09:20 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 8

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1221.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
----	--------	--------	----	------------------	---------	--------------	-------

2 Aroclor-1221				CAS #: 11104-28-2			
2.030	2.030	0.000	44/2060	1000.00	1020	80.00- 120.00	100.00
2.123	2.123	0.000	2420848	1000.00	996	34.13- 74.13	54.13
2.148	2.148	0.000	10898728	1000.00	1050	223.71- 263.71	243.71

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecdl1.i/030810.b/008f0801.d

Date : 08-MAR-2010 07:07

Client ID: AR122101

Sample Info: 1MAR100104-21

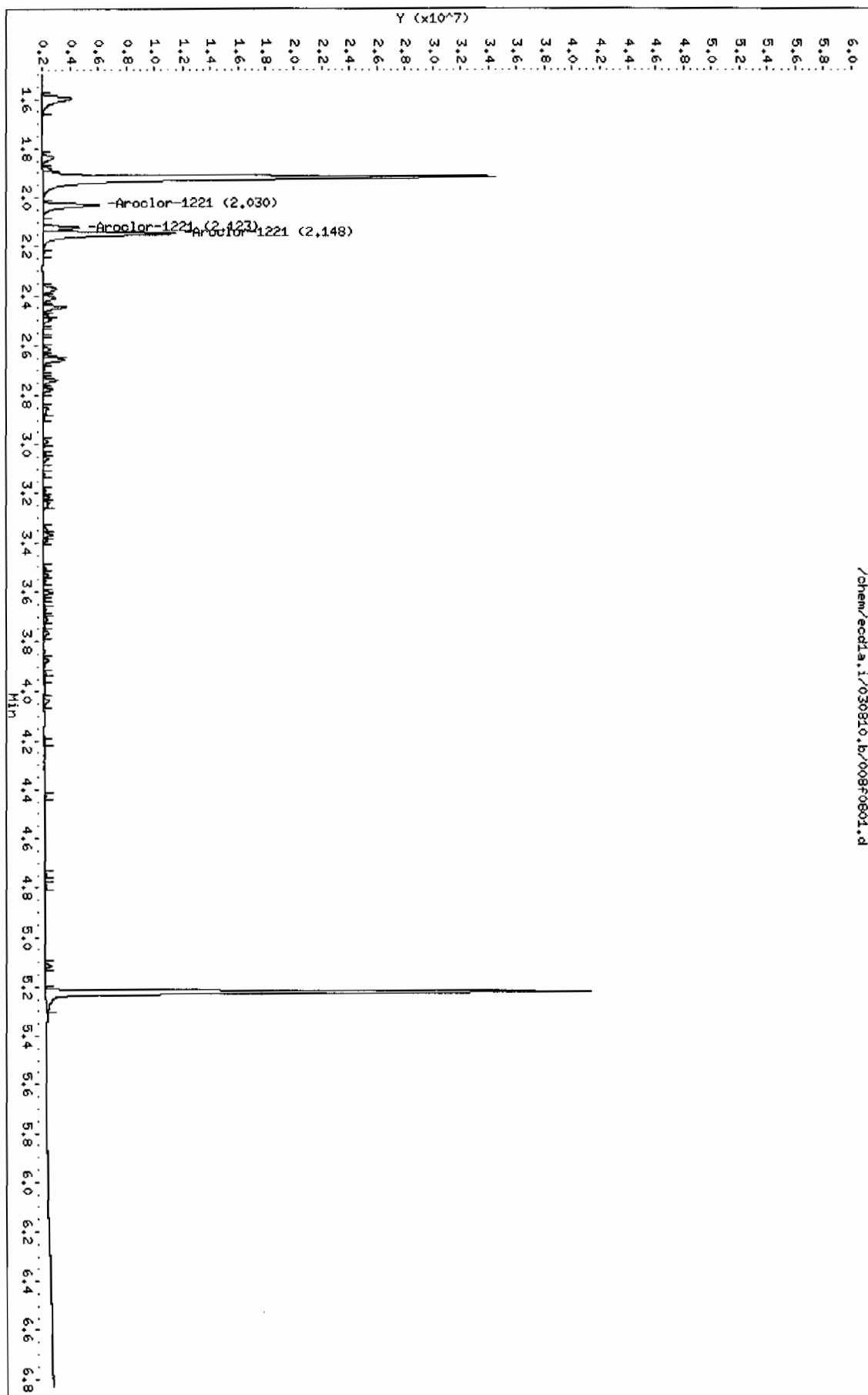
Column phase: CLP1

Instrument: ecdl1.i

Operator: YSL

Column diameter: 0.25

/chem/ecdl1.i/030810.b/008f0801.d





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/030810.b/008b0801.d

Lab Smp Id: WAR100104-21

Client Smp ID: AR122101

Inj Date : 08-MAR-2010 07:07

Operator : YSl

Inst ID: ecdla.i

Smp Info : |WAR100104-21

Misc Info :

Comment :

Method : /chem/ecdla.i/030810.b/ECD1-B-8082-022210.m

Meth Date : 08-Mar-2010 09:28 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 8

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1221.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

			CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	
2 Aroclor-1221					CAS #: 11104-28-2			
2.472	2.472	0.000	3539602	1000.00	1030	80.00- 120.00	100.00	
2.567	2.567	0.000	2193195	1000.00	1020	41.96- 81.96	61.96	
2.607	2.607	0.000	7453017	1000.00	1020	190.56- 230.56	210.56	
Average of Peak Amounts					1.02e+03			

Data File: /chem/ecdt.a.i/030810.b/0080801.d  
Date : 08-MAR-2010 07:07  
Client ID: AR122101  
Sample Info: 1MAR100104-21

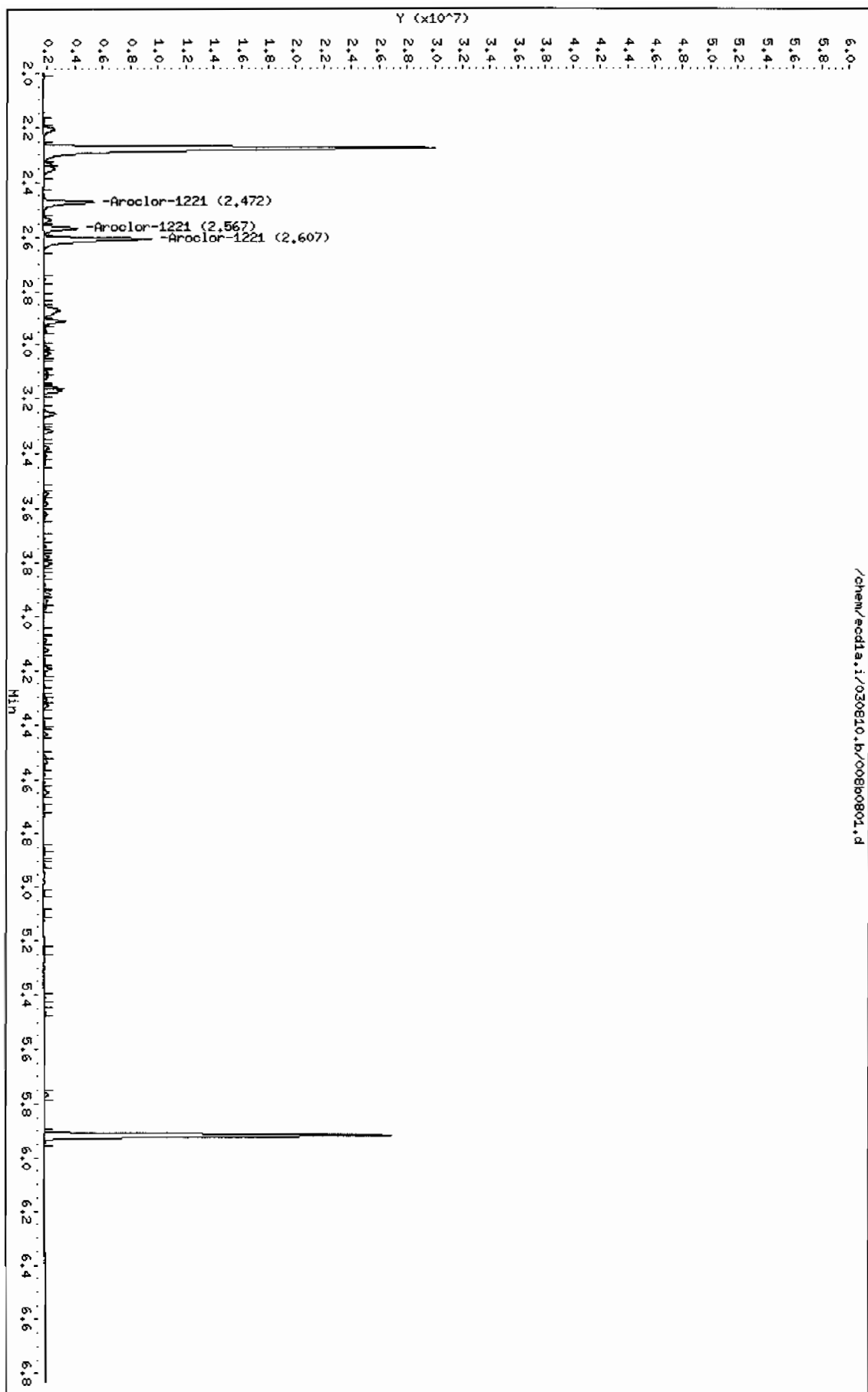
Instrument: ecdt.a.i

Page 1

Column phase: CLP2

Operator: YSL  
Column diameter: 0.25

/chem/ecdt.a.i/030810.b/0080801.d



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1.i/030810.b/036f3601.d

Lab Smp Id: WAR100222-60 04

Client Smp ID: AR166004

Inj Date : 08-MAR-2010 12:39

Operator : YS1

Inst ID: ecd1.i

Smp Info : |WAR100222-60 04

Misc Info :

Comment :

Method : /chem/ecdl1.i/030810.b/ECD1-F-8082-022210.m

Meth Date : 08-Mar-2010 13:37 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 36

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpclpl

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
\$ 11 4cmx				CAS #: 877-09-8		
1.917	1.917	0.000	38899750 100.000	90.3	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.221	5.223	-0.002	30690307 100.000	99.9	80.00- 120.00	100.00
-----						
1 Aroclor-1016				CAS #: 12674-11-2		
2.370	2.371	-0.001	13301358 1000.00	865	80.00- 120.00	100.00
2.656	2.657	-0.001	17589485 1000.00	964	112.24- 152.24	132.24
2.736	2.737	-0.001	11087033 1000.00	919	63.35- 103.35	83.35
2.774	2.775	-0.001	6668716 1000.00	940	30.14- 70.14	50.14
2.984	2.986	-0.002	8520553 1000.00	956	44.06- 84.06	64.06
Average of Peak Amounts =				929		
-----						
7 Aroclor-1260				CAS #: 11096-82-5		
3.710	3.711	-0.001	16657972 1000.00	976	80.00- 120.00	100.00
3.872	3.873	-0.001	24941301 1000.00	1050	129.73- 169.73	149.73
4.034	4.036	-0.002	26166457 1000.00	1050	137.08- 177.08	157.08
4.102	4.104	-0.002	15049112 1000.00	1040	70.34- 110.34	90.34
4.245	4.247	-0.002	15765208 1000.00	1090	74.64- 114.64	94.64
Average of Peak Amounts =				1.04e+03		

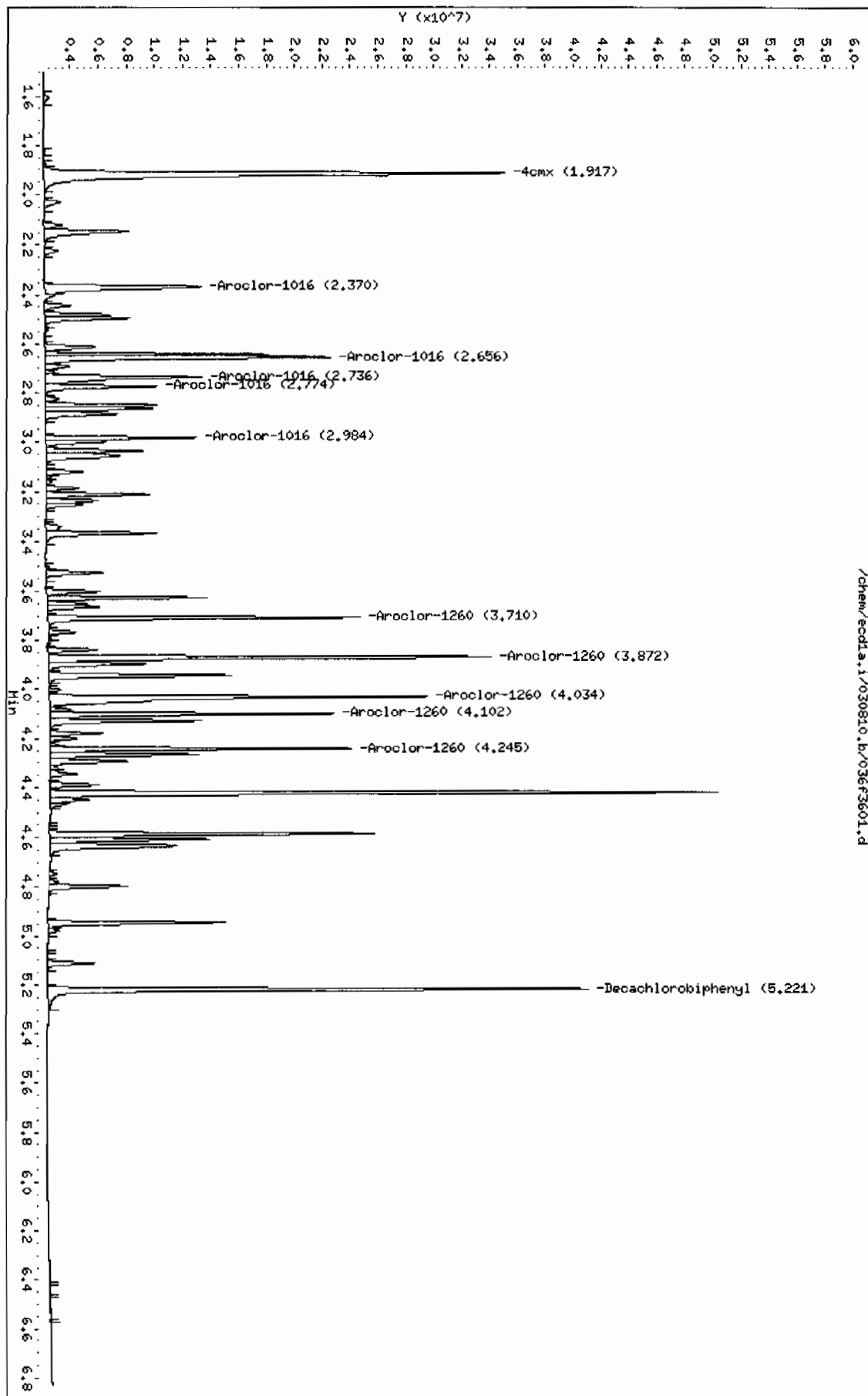
Data File: /chem/ecdia.1/030810.b/036f3601.d  
Date: 08-Mar-2010 12:39  
Client ID: AR16004  
Sample Info: WRL00222-60 04

Column phase: CLP1

/chem/ecdia.1/030810.b/036f3601.d

Instrument: ecdia.i  
Operator: YSI  
Column diameter: 0.25

Page 1



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1.i/030810.b/036b3601.d

Lab Smp Id: WAR100222-60 04

Client Smp ID: AR166004

Inj Date : 08-MAR-2010 12:39

Operator : YS1

Inst ID: ecd1.i

Smp Info : |WAR100222-60 04

Misc Info :

Comment :

Method : /chem/ecdl1.i/030810.b/ECD1-B-8082-022210.m

Meth Date : 12-Mar-2010 08:46 jc

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 36

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: kilroy

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
11	=====	=====	=====	=====	=====	=====
\$ 11 4cmx						
				CAS #: 877-09-8		
2.275	2.277	-0.002	26532616	100.000	89.2 80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl						
				CAS #: 2051-24-3		
5.917	5.918	-0.001	19079053	100.000	90.2 80.00- 120.00	100.00
-----						
1 Aroclor-1016						
				CAS #: 12674-11-2		
3.170	3.171	-0.001	11707346	1000.00	915 80.00- 120.00	100.00 (M)
3.253	3.254	-0.001	7830180	1000.00	878 46.88- 86.88	66.88
3.316	3.317	-0.001	4851376	1000.00	897 21.44- 61.44	41.44
3.543	3.544	-0.001	6339832	1000.00	917 34.15- 74.15	54.15
3.619	3.619	0.000	5947083	1000.00	926 30.80- 70.80	50.80
Average of Peak Amounts				907		
-----						
7 Aroclor-1260						
				CAS #: 11096-82-5		
4.309	4.310	-0.001	11874655	1000.00	899 80.00- 120.00	100.00
4.434	4.435	-0.001	14572850	1000.00	936 102.72- 142.72	122.72
4.699	4.701	-0.002	10941327	1000.00	924 72.14- 112.14	92.14
4.872	4.874	-0.002	11383856	1000.00	933 75.87- 115.87	95.87
5.020	5.021	-0.001	25485891	1000.00	961 194.62- 234.62	214.62
Average of Peak Amounts				931		

QC Flag Legend

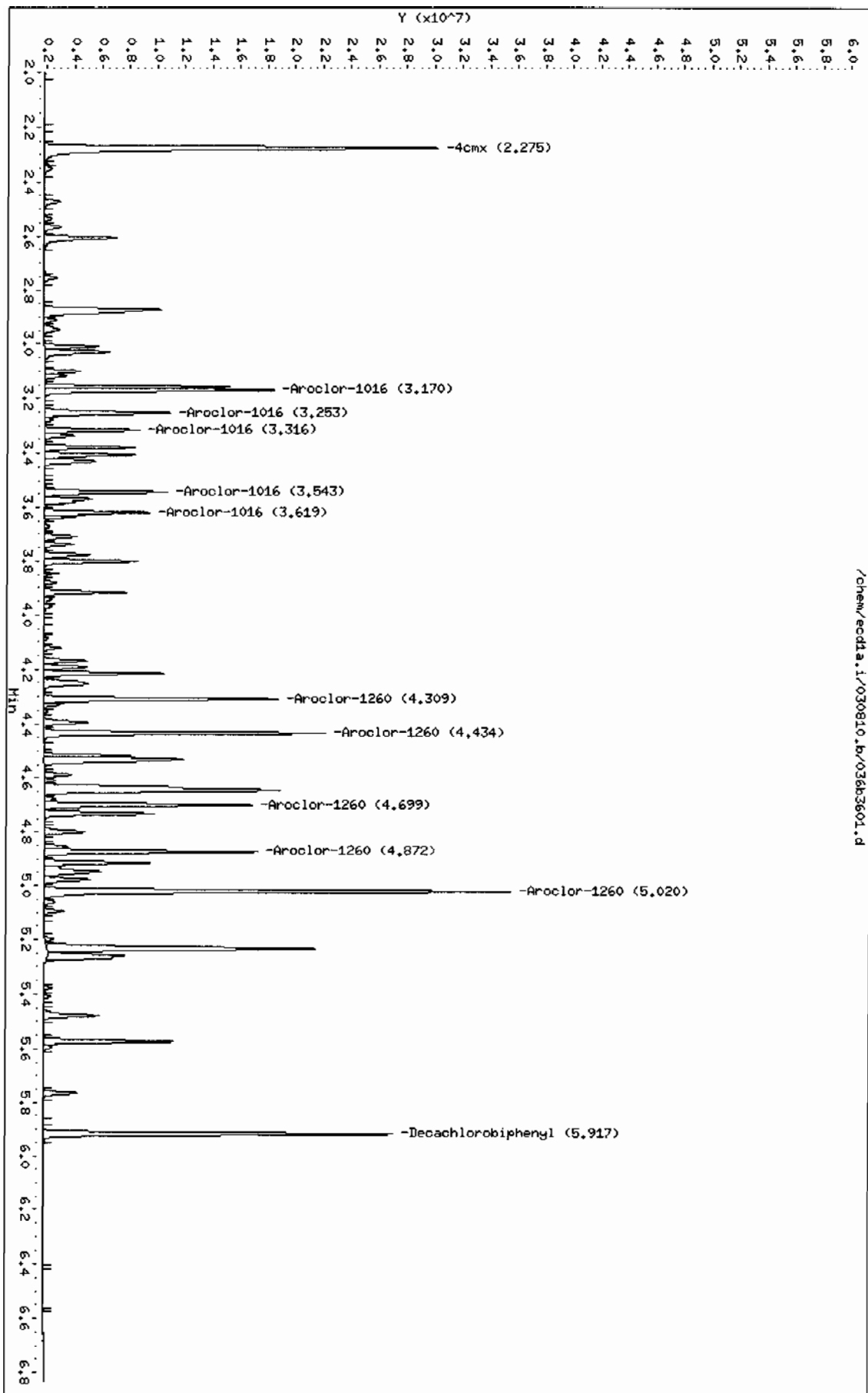
M - Compound response manually integrated.

Data File: /chem/ecdt.a.i/030810.b/036b3601.d  
Date: 08-MAR-2010 12:39  
Client ID: AR166004  
Sample Info: INAR100222-60 04

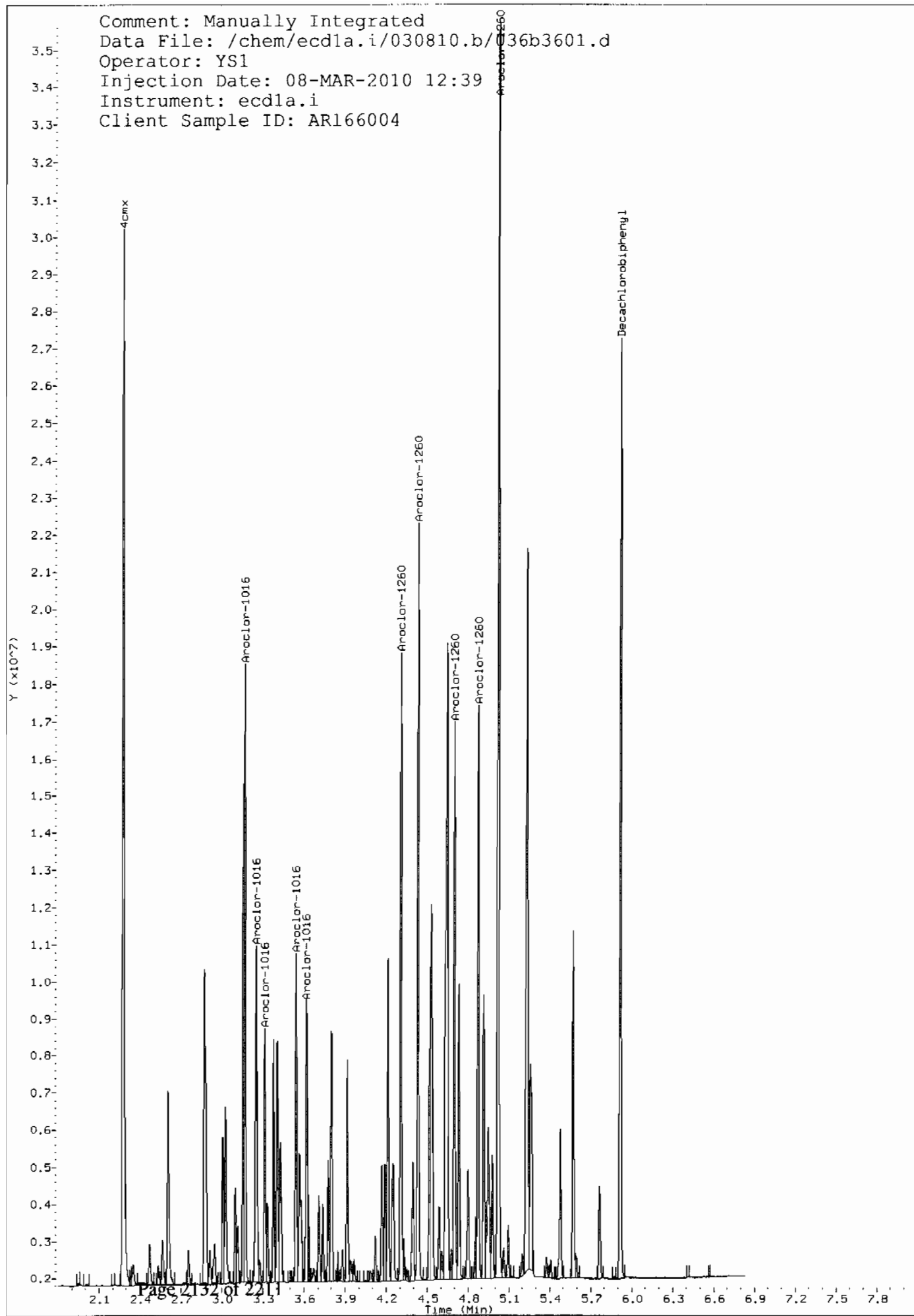
Column phase: CLP2

Instrument: ecdt.a.i  
Operator: YSI  
Column diameter: 0.25

/chem/ecdt.a.i/030810.b/036b3601.d

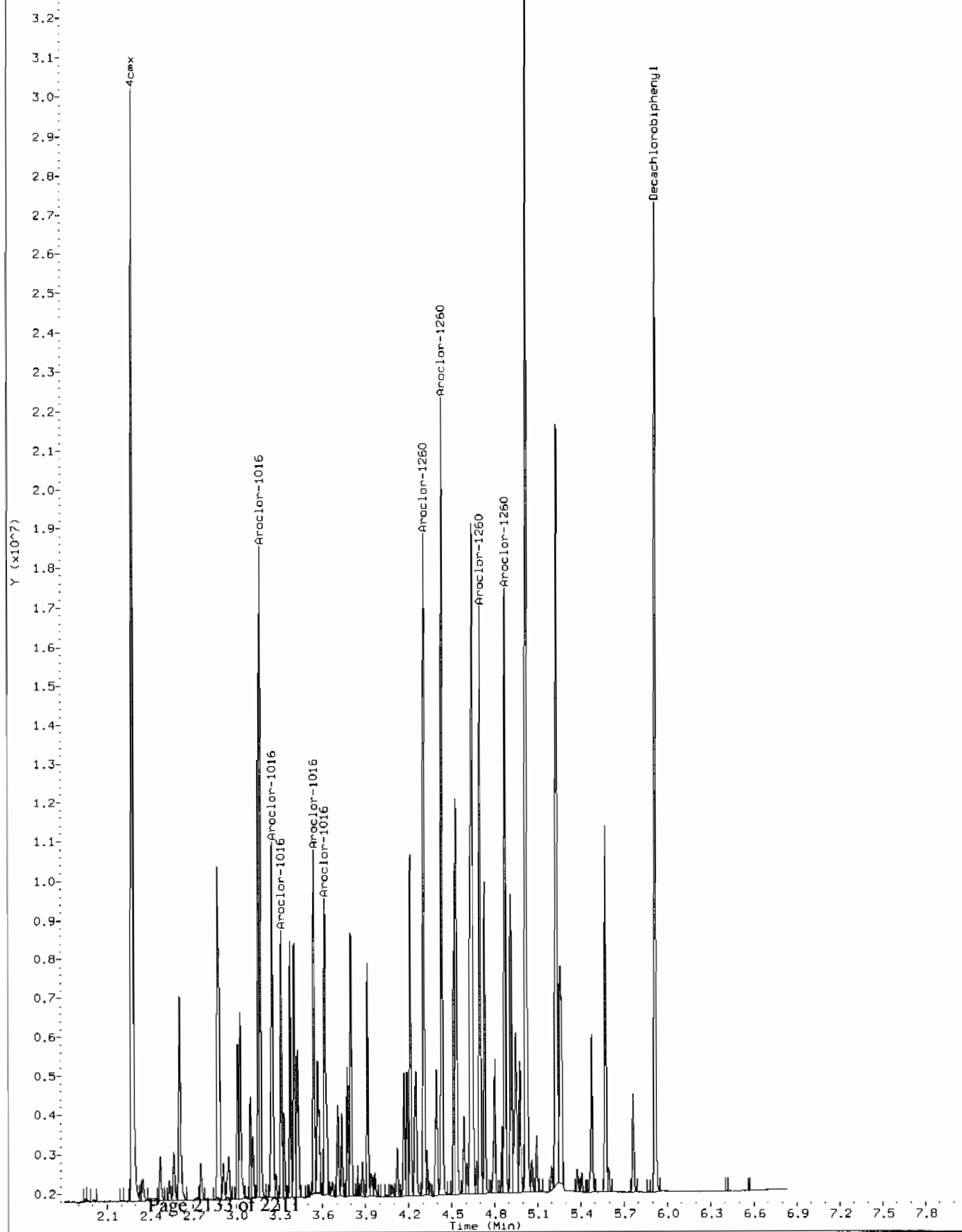


Comment: Manually Integrated  
Data File: /chem/ecdl1.i/030810.b/036b3601.d  
Operator: YS1  
Injection Date: 08-MAR-2010 12:39  
Instrument: ecd1a.i  
Client Sample ID: AR166004





Comment: Before manual integration  
Data File: /chem/ecdl1.i/030810.b/Orig-036b3601.d  
Operator: YS1  
Injection Date: 08-MAR-2010 12:39  
Instrument: ecd1a.i  
Client Sample ID: AR166004



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/030810.b/044f4401.d

Lab Smp Id: WAR100222-60 05

Client Smp ID: AR166005

Inj Date : 08-MAR-2010 14:11

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 05

Misc Info :

Comment :

Method : /chem/ecdl1a.i/030810.b/ECD1-F-8082-022210.m

Meth Date : 08-Mar-2010 14:36 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 44

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1pl

AMOUNTS

			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO
			=====	=====	=====	=====	=====
\$ 11 4cmx					CAS #: 877-09-8		
1.917	1.917	0.000	38880075	100.000	90.3	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.220	5.223	-0.003	30388568	100.000	98.9	80.00- 120.00	100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
2.370	2.371	-0.001	13717670	1000.00	892	80.00- 120.00	100.00
2.656	2.657	-0.001	17493181	1000.00	959	107.52- 147.52	127.52
2.736	2.737	-0.001	11035120	1000.00	915	60.44- 100.44	80.44
2.774	2.775	-0.001	6703608	1000.00	945	28.87- 68.87	48.87
2.984	2.986	-0.002	8568272	1000.00	961	42.46- 82.46	62.46
Average of Peak Amounts =					934		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
3.710	3.711	-0.001	16539344	1000.00	969	80.00- 120.00	100.00
3.871	3.873	-0.002	23440129	1000.00	991	121.72- 161.72	141.72
4.034	4.036	-0.002	24136062	1000.00	966	125.93- 165.93	145.93
4.102	4.104	-0.002	14509053	1000.00	1010	67.72- 107.72	87.72
4.245	4.247	-0.002	15246659	1000.00	1060	72.18- 112.18	92.18
Average of Peak Amounts =					998		
-----							

Data File: /chem/ecdl1.i/030810.b/044f4401.d

Date : 08-MAR-2010 14:11

Client ID: AR166005

Sample Info: IHR100222-60 05

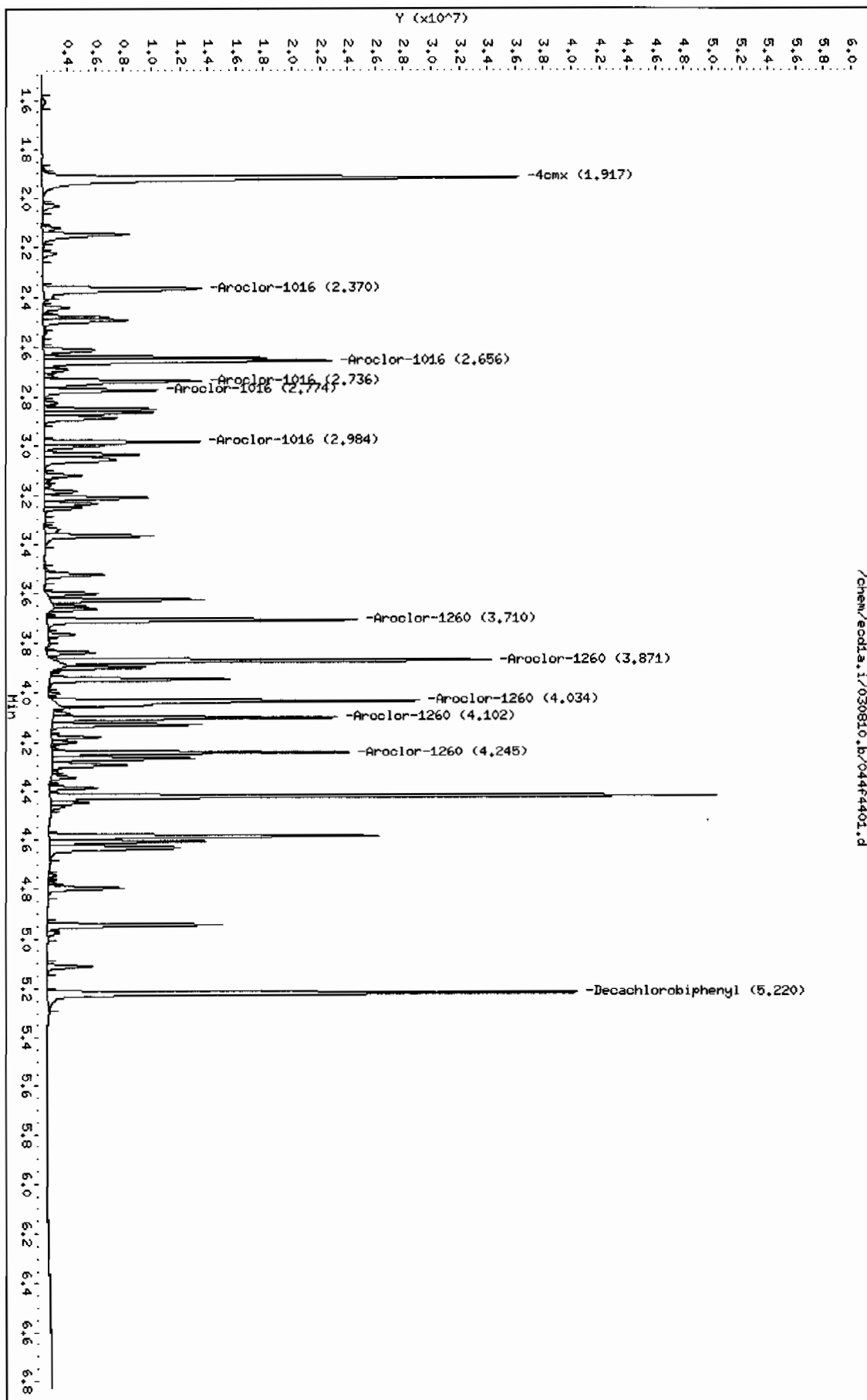
Column phase: CLP1

Instrument: ecdl1.i

Operator: YS1

Column diameter: 0.25

/chem/ecdl1.i/030810.b/044f4401.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/030810.b/044b4401.d

Lab Smp Id: WAR100222-60 05

Client Smp ID: AR166005

Inj Date : 08-MAR-2010 14:11

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR100222-60 05

Misc Info :

Comment :

Method : /chem/ecdla.i/030810.b/ECD1-B-8082-022210.m

Meth Date : 12-Mar-2010 08:48 jc

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 44

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: kilroy

AMOUNTS

			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8			
2.275	2.277	-0.002	26360448 100.000	88.6	80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.916	5.918	-0.002	19099826 100.000	90.3	80.00- 120.00	100.00	
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
3.170	3.171	-0.001	12102351 1000.00	946	80.00- 120.00	100.00(M)	
3.253	3.254	-0.001	7777446 1000.00	872	44.26- 84.26	64.26	
3.316	3.317	-0.001	4854908 1000.00	898	20.12- 60.12	40.12	
3.543	3.544	-0.001	6307429 1000.00	912	32.12- 72.12	52.12	
3.618	3.619	-0.001	5811574 1000.00	904	28.02- 68.02	48.02	
Average of Peak Amounts =				907			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
4.308	4.310	-0.002	11836710 1000.00	896	80.00- 120.00	100.00	
4.433	4.435	-0.002	14451961 1000.00	928	102.09- 142.09	122.09	
4.699	4.701	-0.002	10893820 1000.00	920	72.03- 112.03	92.03	
4.871	4.874	-0.003	11339319 1000.00	929	75.80- 115.80	95.80	
5.019	5.021	-0.002	25373227 1000.00	956	194.36- 234.36	214.36	
Average of Peak Amounts =				926			

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdt1a.i/030810.b/044b4401.d

Date : 08-MAR-2010 14:11

Client ID: AR16005

Sample Info: IWR100222-60 05

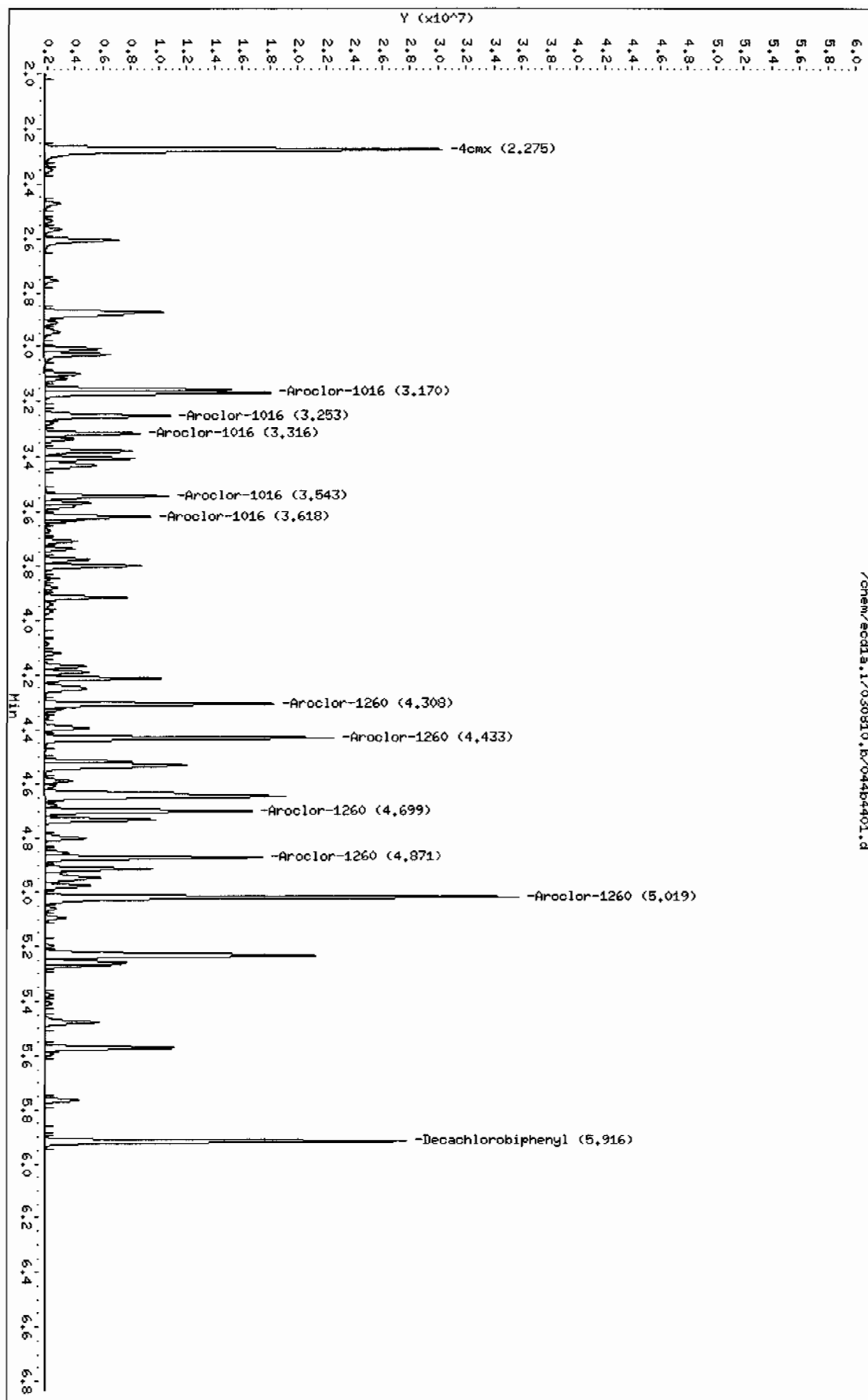
Column phase: CLP2

Instrument: ecdt1a.i

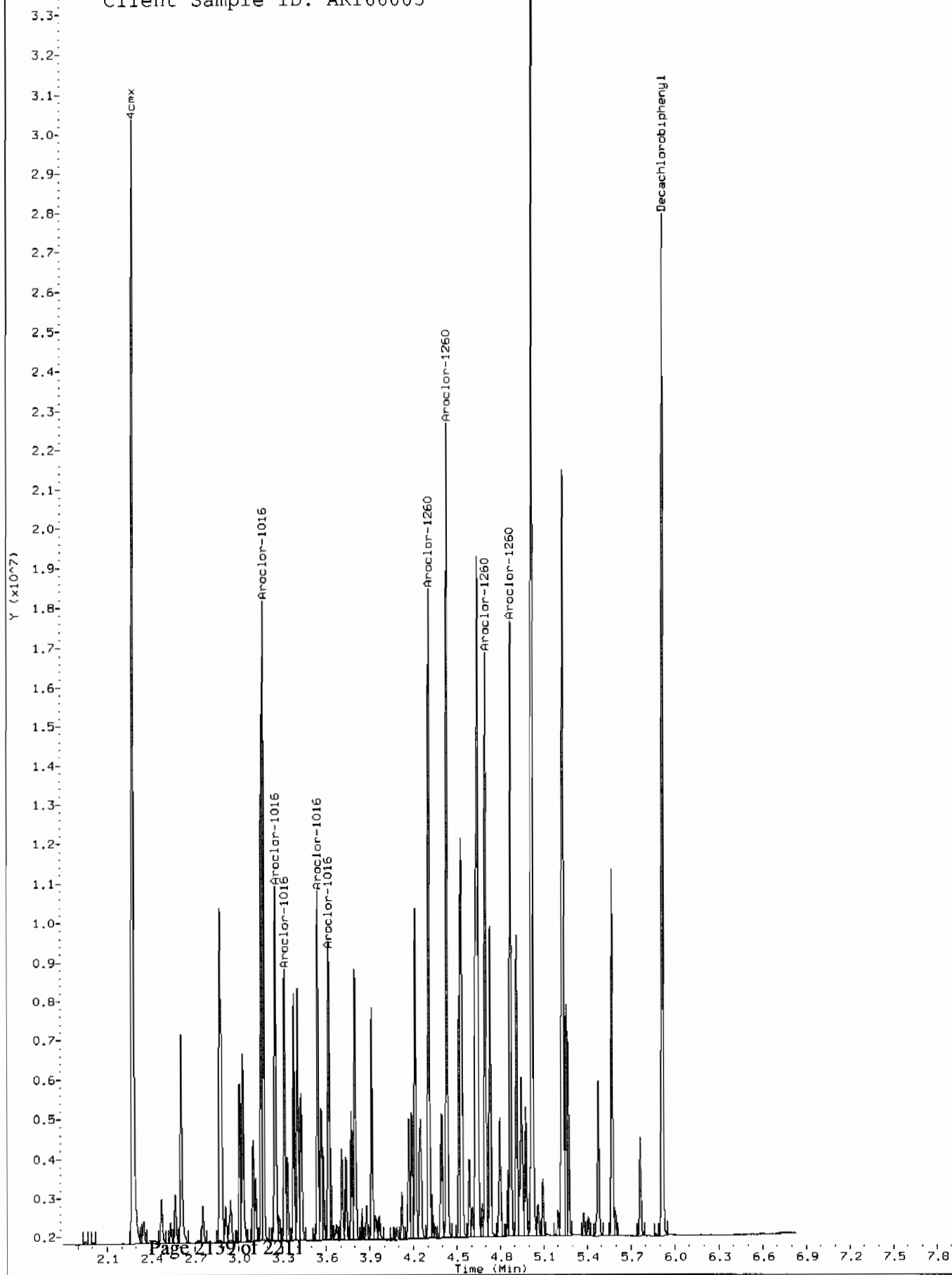
Operator: YSL

Column diameter: 0.25

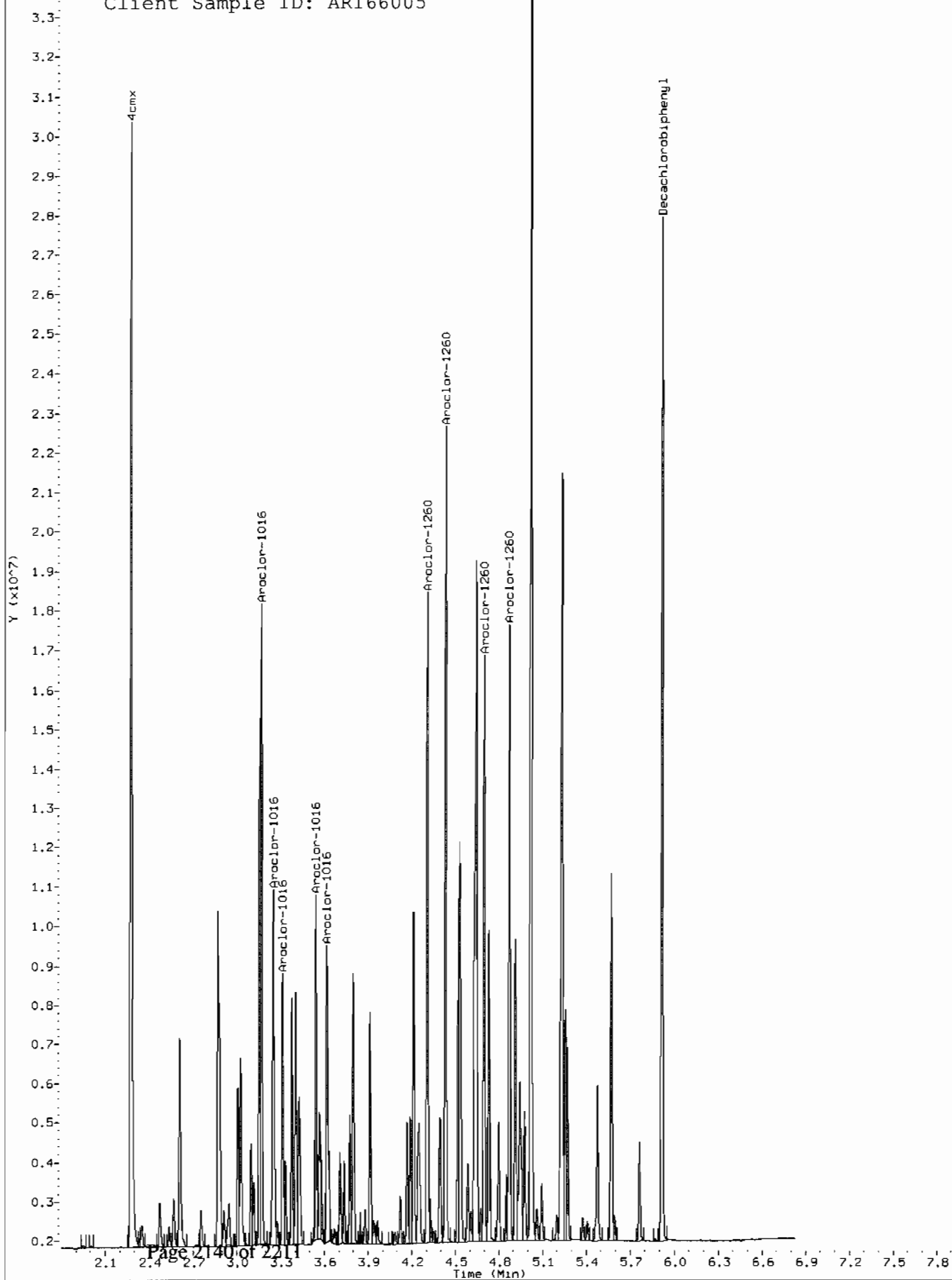
/chem/ecdt1a.i/030810.b/044b4401.d



Comment: Manually Integrated  
Data File: /chem/ecdl.a.i/030810.b/044b4401.d  
Operator: YS1  
Injection Date: 08-MAR-2010 14:11  
Instrument: ecd1a.i  
Client Sample ID: AR166005



Comment: Before manual integration  
Data File: /chem/ecdl.i/030810.b/Orig-044b4401.d  
Operator: YS1  
Injection Date: 08-MAR-2010 14:11  
Instrument: ecdla.i  
Client Sample ID: AR166005





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/030810.b/053f5301.d

Lab Smp Id: WAR100222-60 06

Client Smp ID: AR166006

Inj Date : 08-MAR-2010 16:01

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 06

Misc Info :

Comment :

Method : /chem/ecdl1a.i/030810.b/ECD1-F-8082-022210.m

Meth Date : 09-Mar-2010 06:38 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 53

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS

			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8			
1.916	1.917	-0.001	38807137 100.000	90.1	80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.221	5.223	-0.002	29924722 100.000	97.4	80.00- 120.00	100.00	
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
2.369	2.371	-0.002	13689414 1000.00	890	80.00- 120.00	100.00	
2.655	2.657	-0.002	17627981 1000.00	967	108.77- 148.77	128.77	
2.735	2.737	-0.002	11020579 1000.00	913	60.50- 100.50	80.50	
2.774	2.775	-0.001	6640864 1000.00	936	28.51- 68.51	48.51	
2.984	2.986	-0.002	8549837 1000.00	959	42.46- 82.46	62.46	
Average of Peak Amounts				933			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
3.709	3.711	-0.002	16519937 1000.00	968	80.00- 120.00	100.00	
3.871	3.873	-0.002	24665952 1000.00	1040	129.31- 169.31	149.31	
4.034	4.036	-0.002	26229103 1000.00	1050	138.77- 178.77	158.77	
4.102	4.104	-0.002	14894433 1000.00	1030	70.16- 110.16	90.16	
4.244	4.247	-0.003	15497470 1000.00	1070	73.81- 113.81	93.81	
Average of Peak Amounts =				1.03e+03			
-----							

Data File: /chem/eod1a.i/030810.b/053f5301.d  
Date : 08-MAR-2010 16:01

Client ID: PR166006

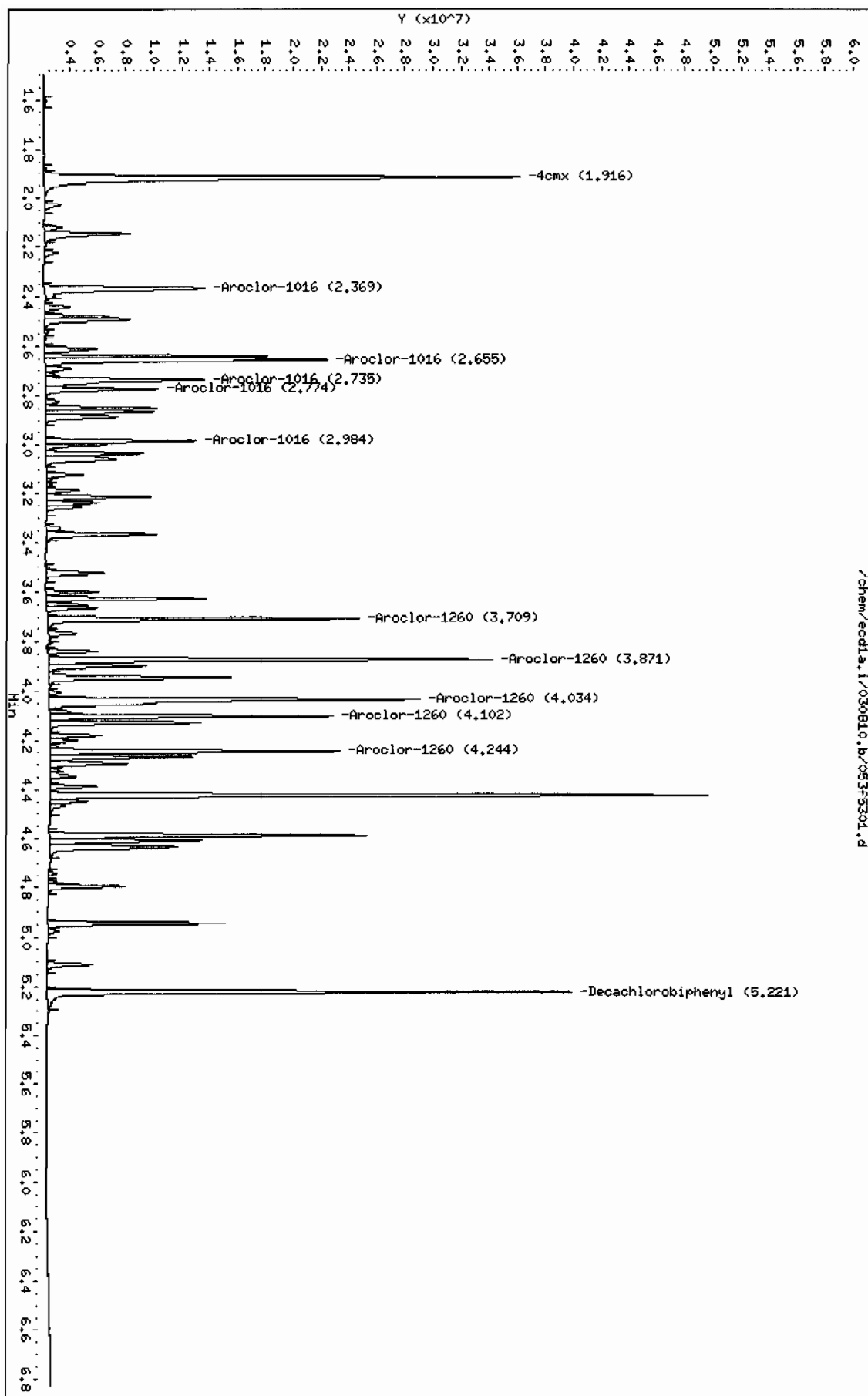
Sample Info: IMR100222-60 06

Column phase: CLP1

Instrument: eod1a.i

Operator: YSL

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/030810.b/053b5301.d  
Lab Smp Id: WAR100222-60 06 Client Smp ID: AR166006  
Inj Date : 08-MAR-2010 16:01  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100222-60 06  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/030810.b/ECD1-B-8082-022210.m  
Meth Date : 12-Mar-2010 08:48 jc Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 53 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1660.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: kilroy

AMOUNTS

				CAL-AMT		ON-COL			
RT	EXP RT	DLT RT		RESPONSE ( ug/L)	( ug/L)	TARGET RANGE		RATIO	
==	=====	=====						=====	
\$ 11 4cmx						CAS #: 877-09-8			
2.275	2.277	-0.002		26428566	100.000	88.9	80.00- 120.00	100.00	
-----									
\$ 12 Decachlorobiphenyl						CAS #: 2051-24-3			
5.916	5.918	-0.002		18989365	100.000	89.8	80.00- 120.00	100.00	
-----									
1 Aroclor-1016						CAS #: 12674-11-2			
3.170	3.171	-0.001		11924622	1000.00	932	80.00- 120.00	100.00 (M)	
3.252	3.254	-0.002		7791781	1000.00	874	45.34- 85.34	65.34	
3.316	3.317	-0.001		4886721	1000.00	904	20.98- 60.98	40.98	
3.543	3.544	-0.001		6337865	1000.00	916	33.15- 73.15	53.15	
3.618	3.619	-0.001		6020515	1000.00	937	30.49- 70.49	50.49	
Average of Peak Amounts =						913			
-----									
7 Aroclor-1260						CAS #: 11096-82-5			
4.308	4.310	-0.002		11785178	1000.00	892	80.00- 120.00	100.00	
4.433	4.435	-0.002		14436394	1000.00	927	102.50- 142.50	122.50	
4.699	4.701	-0.002		10861469	1000.00	917	72.16- 112.16	92.16	
4.871	4.874	-0.003		11356689	1000.00	931	76.36- 116.36	96.36	
5.019	5.021	-0.002		25281887	1000.00	953	194.52- 234.52	214.52	
Average of Peak Amounts =						924			

Data File: /chem/ecdl1a.i/030810.b/053b5301.d  
Report Date: 12-Mar-2010 08:48

Page 2

#### QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/eod1a.i/030810.b/05365301.d

Date : 08-MAR-2010 16:01

Client ID: AR166006

Sample Info: IARR100222-60 06

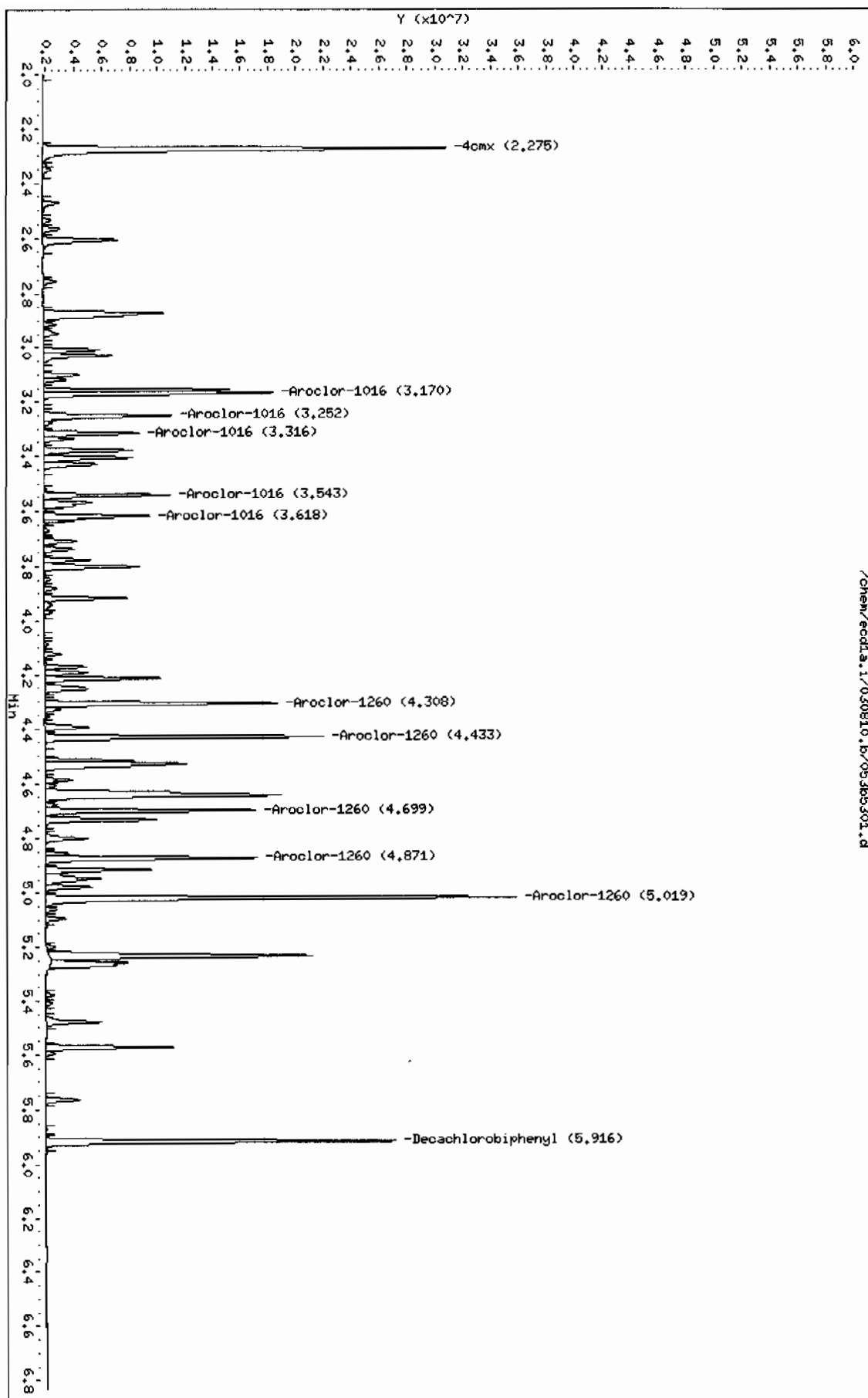
Column phase: CLP2

Instrument: eod1a.i

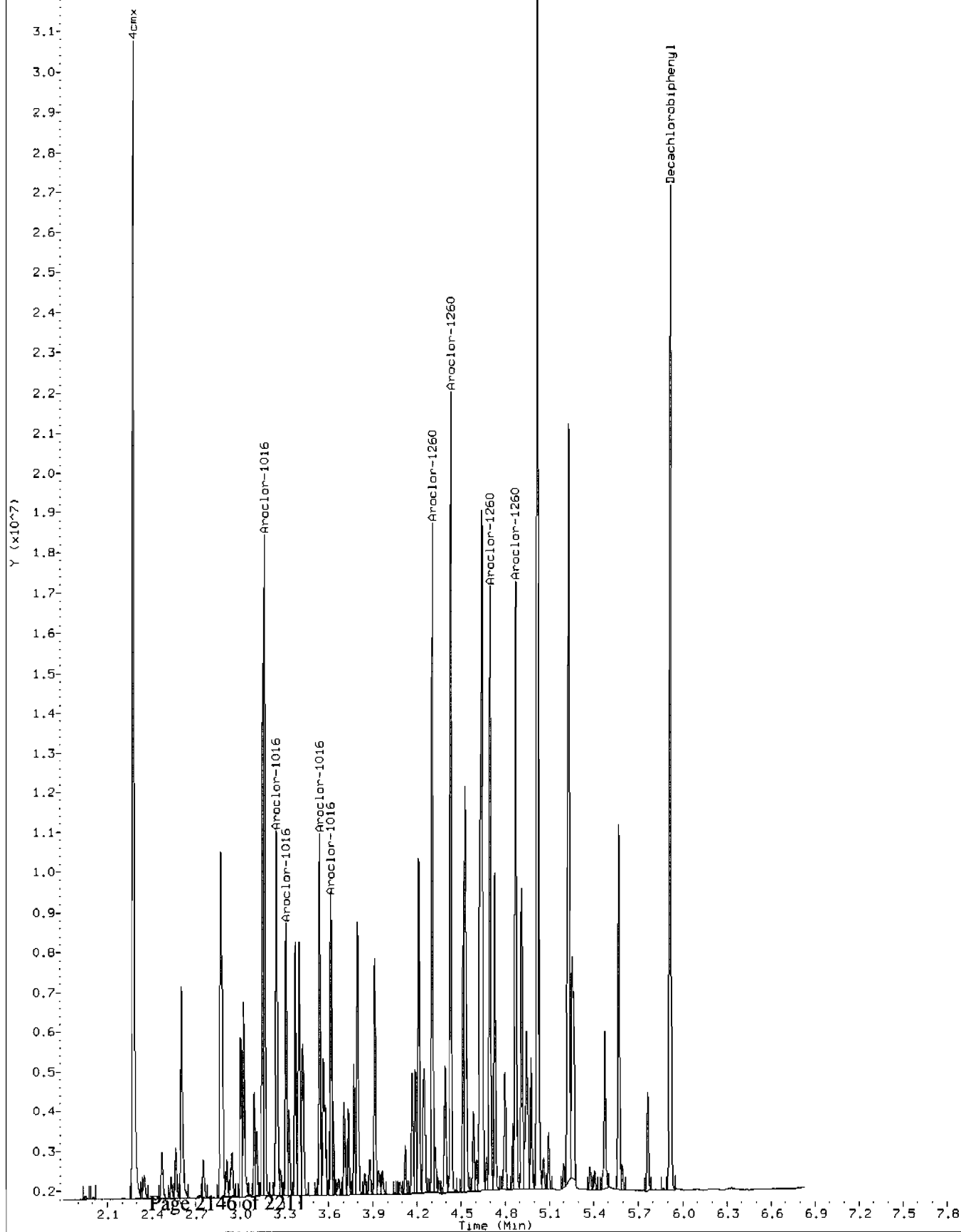
Operator: YSL

Column diameter: 0.25

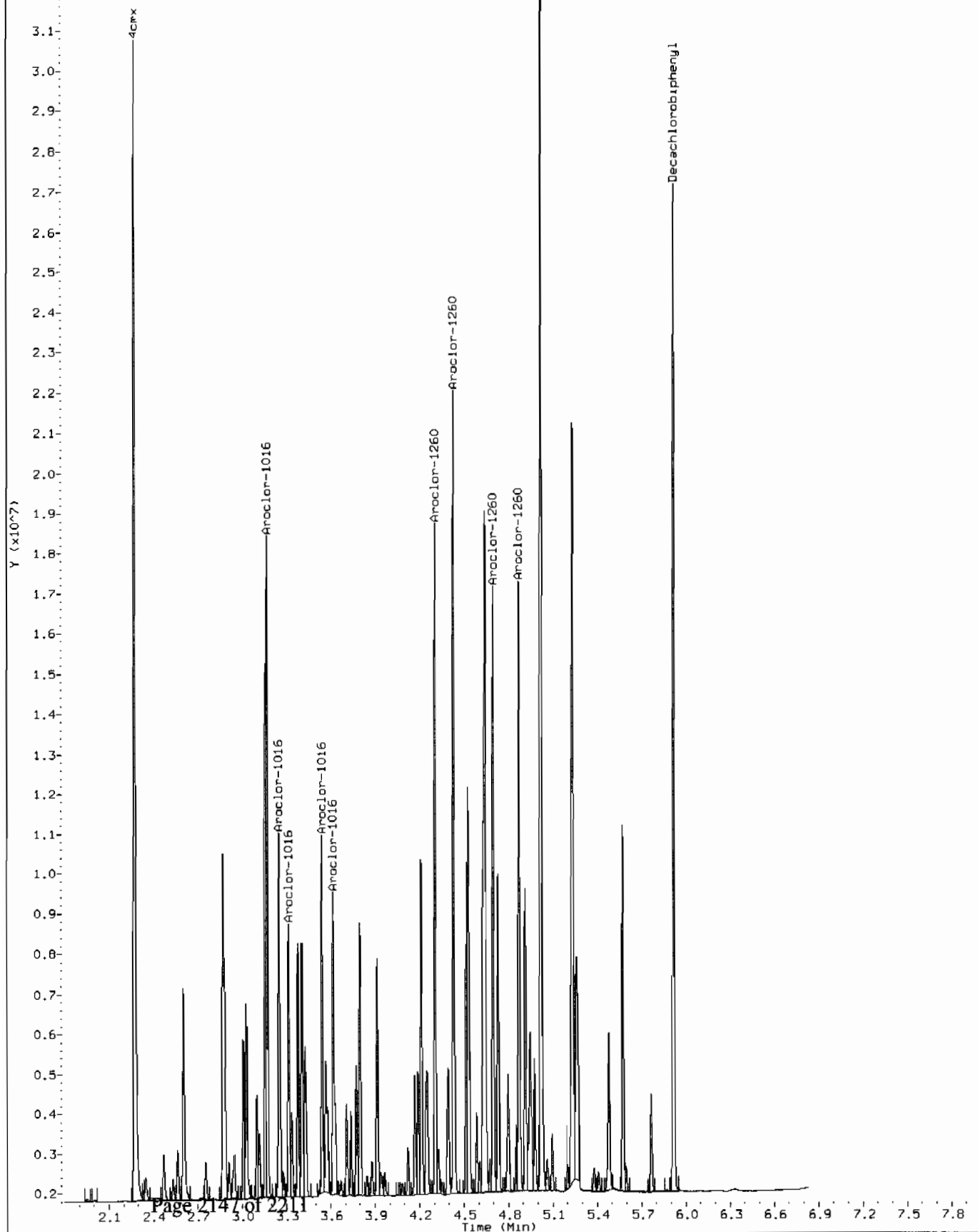
/chem/eod1a.i/030810.b/05365301.d



Comment: Manually Integrated  
Data File: /chem/ecdl1.i/030810.b/053b5301.d  
Operator: YS1  
Injection Date: 08-MAR-2010 16:01  
Instrument: ecd1a.i  
Client Sample ID: AR166006



Comment: Before manual integration  
Data File: /chem/ecdl1.i/030810.b/Orig-053b5301.d  
Operator: YS1  
Injection Date: 08-MAR-2010 16:01  
Instrument: ecd1a.i  
Client Sample ID: AR166006



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/030810.b/065f6501.d

Lab Smp Id: WAR100222-60 07

Client Smp ID: AR166007

Inj Date : 08-MAR-2010 18:28

Operator : YSl

Inst ID: ecdla.i

Smp Info : |WAR100222-60 07

Misc Info :

Comment :

Method : /chem/ecdla.i/030810.b/ECD1-F-8082-022210.m

Meth Date : 09-Mar-2010 06:41 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 65

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
----	--------	--------	------------------	---------	--------------	-------

\$ 11 4cmx				CAS #: 877-09-8		
1.917	1.917	0.000	40463501 100.000	94.0	80.00- 120.00	100.00

\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.220	5.223	-0.003	31298277 100.000	102	80.00- 120.00	100.00

1 Aroclor-1016				CAS #: 12674-11-2		
2.369	2.371	-0.002	13831389 1000.00	899	80.00- 120.00	100.00
2.655	2.657	-0.002	18291555 1000.00	1000	112.25- 152.25	132.25
2.735	2.737	-0.002	11473048 1000.00	951	62.95- 102.95	82.95
2.774	2.775	-0.001	6927605 1000.00	976	30.09- 70.09	50.09
2.984	2.986	-0.002	8896243 1000.00	998	44.32- 84.32	64.32
Average of Peak Amounts -				965		

7 Aroclor-1260				CAS #: 11096-82-5		
3.709	3.711	-0.002	17156095 1000.00	1000	80.00- 120.00	100.00
3.871	3.873	-0.002	25802680 1000.00	1090	130.40- 170.40	150.40
4.033	4.036	-0.003	20334710 1000.00	814	98.53- 138.53	118.53
4.101	4.104	-0.003	15499212 1000.00	1080	70.34- 110.34	90.34
4.244	4.247	-0.003	16201843 1000.00	1120	74.44- 114.44	94.44
Average of Peak Amounts =				1.02e+03		

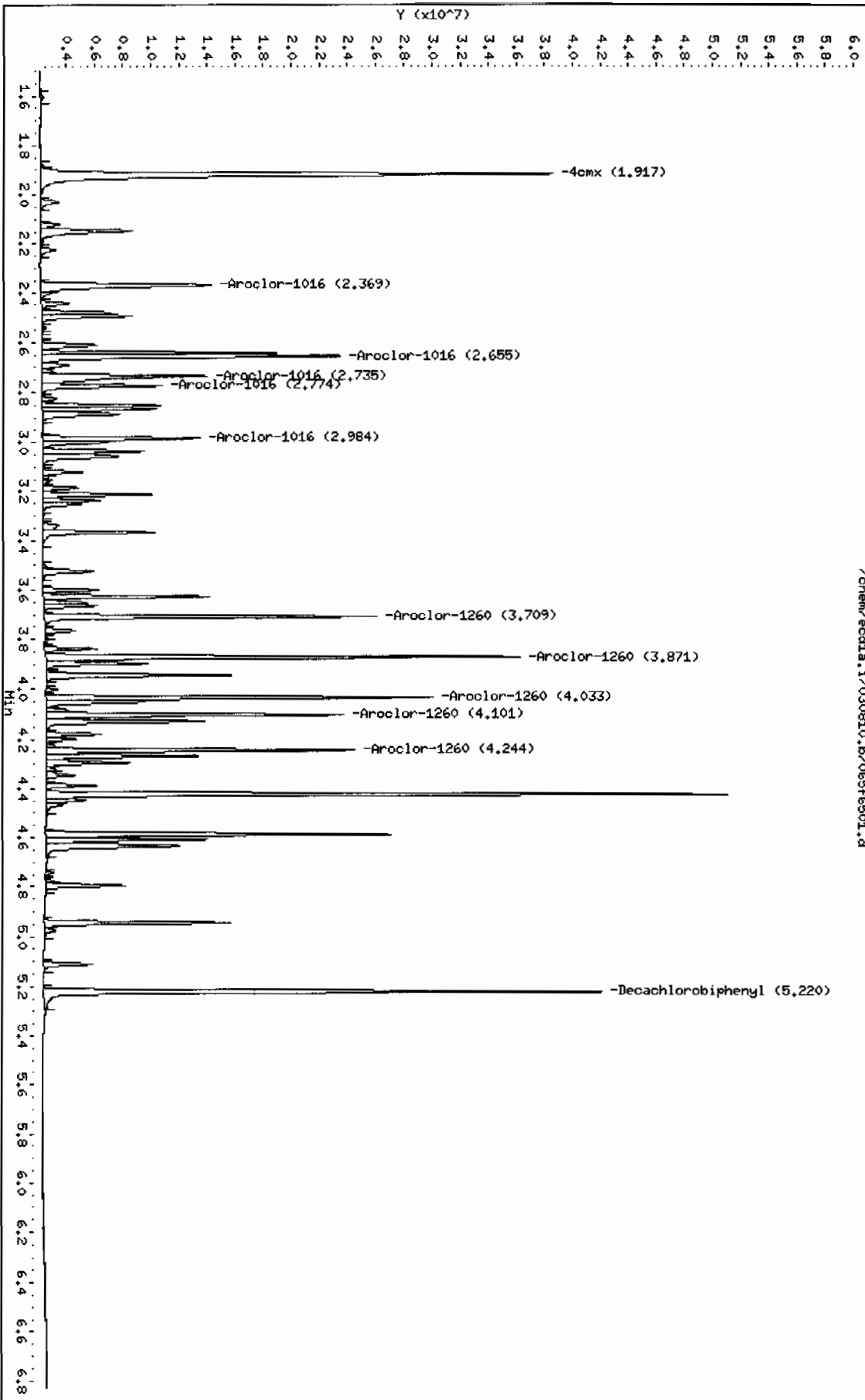


Data File: /chem/ecdl.a.i/030810.b/065f6501.d  
Date: 08-MAR-2010 18:28  
Client ID: AR166007  
Sample Info: MAR100222-60 07

Column Phase: CLP1

Instrument: ecdl.a.i  
Operator: YSL  
Column diameter: 0.25

/chem/ecdl.a.i/030810.b/065f6501.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/030810.b/065b6501.d

Lab Smp Id: WAR100222-60 07

Client Smp ID: AR166007

Inj Date : 08-MAR-2010 18:28

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 07

Misc Info :

Comment :

Method : /chem/ecdl1a.i/030810.b/ECD1-B-8082-022210.m

Meth Date : 12-Mar-2010 08:49 jc

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 65

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: kilroy

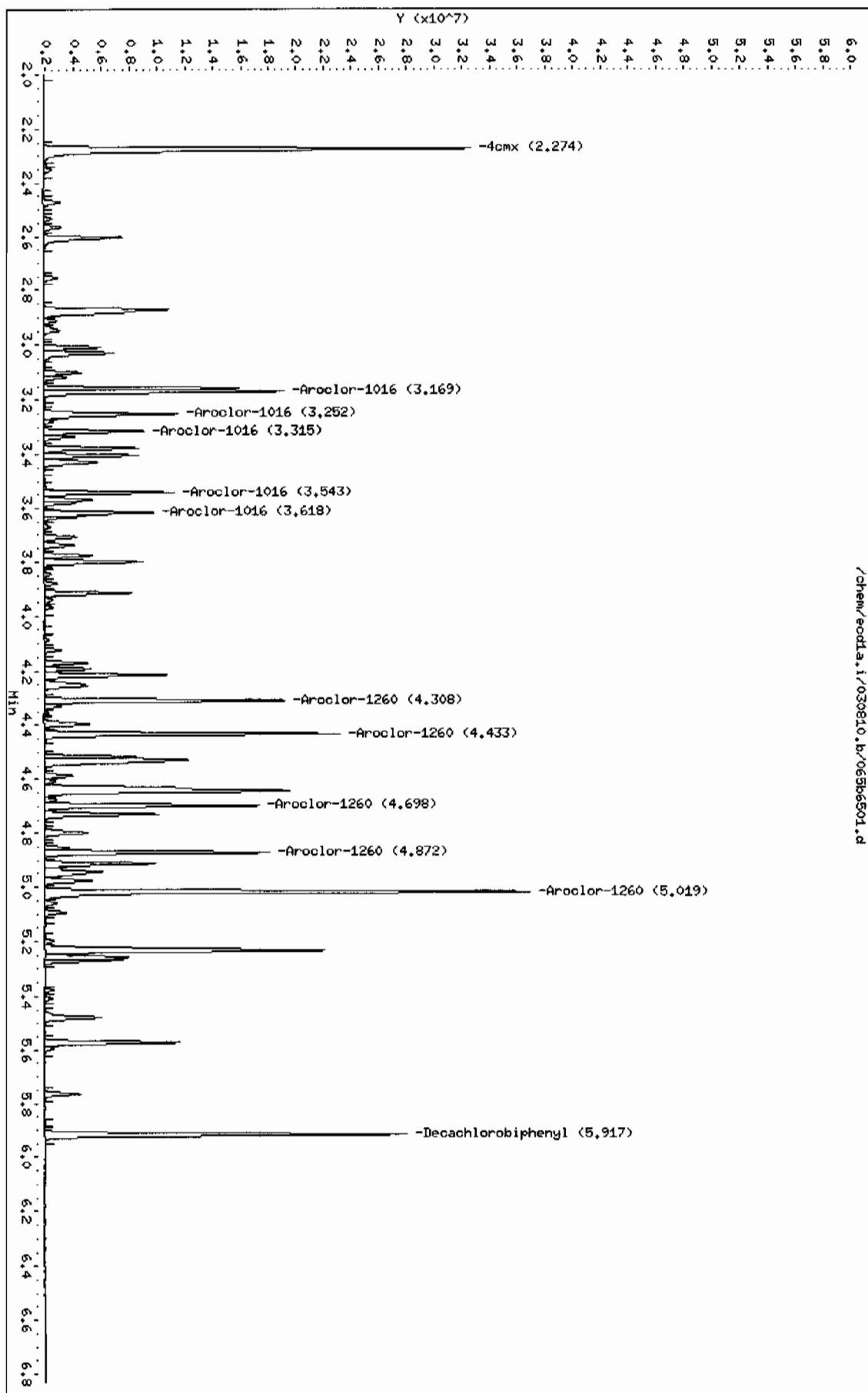
AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	
\$ 11 4cmx					CAS #: 877-09-8			
2.274	2.277	-0.003	27464358	100.000	92.3	80.00- 120.00	100.00	
-----								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.917	5.918	-0.001	19760448	100.000	93.4	80.00- 120.00	100.00	
-----								
1 Aroclor-1016					CAS #: 12674-11-2			
3.169	3.171	-0.002	12363278	1000.00	967	80.00- 120.00	100.00	
3.252	3.254	-0.002	8088904	1000.00	907	45.43- 85.43	65.43	
3.315	3.317	-0.002	5020825	1000.00	929	20.61- 60.61	40.61	
3.543	3.544	-0.001	6551771	1000.00	947	32.99- 72.99	52.99	
3.618	3.619	-0.001	6049423	1000.00	942	28.93- 68.93	48.93	
Average of Peak Amounts =					938			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
4.308	4.310	-0.002	12313814	1000.00	932	80.00- 120.00	100.00	
4.433	4.435	-0.002	15043197	1000.00	966	102.17- 142.17	122.17	
4.698	4.701	-0.003	11303603	1000.00	954	71.80- 111.80	91.80	
4.872	4.874	-0.002	11764380	1000.00	964	75.54- 115.54	95.54	
5.019	5.021	-0.002	26327953	1000.00	992	193.81- 233.81	213.81	
Average of Peak Amounts =					962			

Data File: /chem/eod1a.i/030810.b/065b6501.d  
Date: 08-MAR-2010 18:28  
Client ID: AR166007  
Sample Info: MAR100222-60 07

Column phase: CLP2

Instrument: eod1a.i  
Operator: VSI  
Column diameter: 0.25



8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 1.92			DCB: 5.23		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/22/10 0559	1.92	5.23
02	ZZZZZ	ZZZZZ	02/22/10 0610	1.92	5.23
03	ZZZZZ	ZZZZZ	02/22/10 0620	1.92	5.23
04	DDTANALOGSTD	WAR091219-DD	02/22/10 0631		
05	AR123201	WAR100104-32	02/22/10 0641		
06	AR122101	WAR100104-21	02/22/10 0652		
07	AR126201	WAR100104-62	02/22/10 0703		
08	AR166001	WAR100222-01	02/22/10 0713	1.92	5.23
09	AR166002	WAR100222-02	02/22/10 0724	1.92	5.23
10	AR166003	WAR100222-03	02/22/10 0734	1.92	5.23
11	AR166004	WAR100222-04	02/22/10 0745	1.92	5.23
12	AR166005	IAR100104-01	02/22/10 0755	1.92	5.23
13	AR166001	WAR100203-60	02/22/10 0806	1.92	5.23
14	AR125401	WAR100222-05	02/22/10 0816		
15	AR125402	WAR100222-06	02/22/10 0827		
16	AR125403	WAR100222-07	02/22/10 0837		
17	AR125404	WAR100222-08	02/22/10 0848		
18	AR125405	IAR100219-02	02/22/10 0859		
19	AR125401	WAR100219-54	02/22/10 0909		
20	AR124201	WAR100222-09	02/22/10 0920		
21	AR124202	WAR100222-10	02/22/10 0930		
22	AR124203	WAR100222-11	02/22/10 0941		
23	AR124204	WAR100222-12	02/22/10 0951		
24	AR124205	IAR100219-01	02/22/10 1002		
25	AR124201	WAR100219-42	02/22/10 1012		
26	AR124801	WAR100222-13	02/22/10 1023		
27	AR124802	WAR100222-14	02/22/10 1033		
28	AR124803	WAR100222-15	02/22/10 1044		
29	AR124805	IAR100211-01	02/22/10 1054		
30	AR124804	WAR100222-16	02/22/10 1105		
31	AR124801	WAR091217-48	02/22/10 1116		
32	AR126801	WAR100222-17	02/22/10 1126		

S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 1.92			DCB: 5.23			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	SI RT #	DCB RT #
01	AR126802	WAR100222-18	02/22/10	1137		
02	AR126803	WAR100222-19	02/22/10	1147		
03	AR126804	WAR100222-20	02/22/10	1158		
04	AR126805	IAR100104-05	02/22/10	1208		
05	AR126801	WAR100107-68	02/22/10	1219		
06	PIBLK02	WAR100219-99	02/22/10	1229	1.92	5.23
07	ZZZZZ	ZZZZZ	02/22/10	1240	1.92	5.23
08	ZZZZZ	ZZZZZ	02/22/10	1250	1.93	5.23
09	ZZZZZ	ZZZZZ	02/22/10	1301	1.92	5.23
10	ZZZZZ	ZZZZZ	02/22/10	1314	1.92	5.23
11	ZZZZZ	ZZZZZ	02/22/10	1326	1.92	5.23
12	ZZZZZ	ZZZZZ	02/22/10	1339	1.92	5.23
13	ZZZZZ	ZZZZZ	02/22/10	1351	1.92	5.23
14	ZZZZZ	ZZZZZ	02/22/10	1404	1.92	5.23
15	ZZZZZ	ZZZZZ	02/22/10	1417	1.92	5.23
16	ZZZZZ	ZZZZZ	02/22/10	1430	1.92	5.23
17	AR166002	WAR100203-60	02/22/10	1442	1.92	5.23
18	PIBLK03	WAR100219-99	02/22/10	1453	1.92	5.23
19	ZZZZZ	ZZZZZ	02/22/10	1503	1.92	5.23
20	ZZZZZ	ZZZZZ	02/22/10	1516	1.92	5.23
21	ZZZZZ	ZZZZZ	02/22/10	1528	1.92	5.23
22	ZZZZZ	ZZZZZ	02/22/10	1541	1.92	5.23
23	ZZZZZ	ZZZZZ	02/22/10	1554	1.92	5.23
24	ZZZZZ	ZZZZZ	02/22/10	1606	1.92	5.23
25	ZZZZZ	ZZZZZ	02/22/10	1619	1.92	5.23
26	ZZZZZ	ZZZZZ	02/22/10	1632	1.92	5.23
27	ZZZZZ	ZZZZZ	02/22/10	1644	1.92	5.23
28	ZZZZZ	ZZZZZ	02/22/10	1657	1.92	5.23
29	AR166003	WAR100203-60	02/22/10	1710	1.92	5.23
30	PIBLK04	WAR100219-99	02/22/10	1722	1.92	5.23
31	ZZZZZ	ZZZZZ	02/22/10	1735	1.92	5.23
32	ZZZZZ	ZZZZZ	02/22/10	1748	1.92	5.23

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION							
S1 : 2.29				DCB: 5.94			
EPA	LAB	DATE	TIME	S1	DCB		
SAMPLE NO.	SAMPLE ID	ANALYZED	ANALYZED	RT	RT	#	#
01	PIBLK01	WAR100219-99	02/22/10 0559	2.29	5.93		
02	ZZZZZ	ZZZZZ	02/22/10 0610	2.29	5.94		
03	ZZZZZ	ZZZZZ	02/22/10 0620	2.29	5.94		
04	DDTANALOGSTD	WAR091219-DD	02/22/10 0631				
05	AR123201	WAR100104-32	02/22/10 0641				
06	AR122101	WAR100104-21	02/22/10 0652				
07	AR126201	WAR100104-62	02/22/10 0703				
08	AR166001	WAR100222-01	02/22/10 0713	2.29	5.94		
09	AR166002	WAR100222-02	02/22/10 0724	2.29	5.94		
10	AR166003	WAR100222-03	02/22/10 0734	2.29	5.94		
11	AR166004	WAR100222-04	02/22/10 0745	2.29	5.94		
12	AR166005	IAR100104-01	02/22/10 0755	2.29	5.94		
13	AR166001	WAR100203-60	02/22/10 0806	2.29	5.94		
14	AR125401	WAR100222-05	02/22/10 0816				
15	AR125402	WAR100222-06	02/22/10 0827				
16	AR125403	WAR100222-07	02/22/10 0837				
17	AR125404	WAR100222-08	02/22/10 0848				
18	AR125405	IAR100219-02	02/22/10 0859				
19	AR125401	WAR100219-54	02/22/10 0909				
20	AR124201	WAR100222-09	02/22/10 0920				
21	AR124202	WAR100222-10	02/22/10 0930				
22	AR124203	WAR100222-11	02/22/10 0941				
23	AR124204	WAR100222-12	02/22/10 0951				
24	AR124205	IAR100219-01	02/22/10 1002				
25	AR124201	WAR100219-42	02/22/10 1012				
26	AR124801	WAR100222-13	02/22/10 1023				
27	AR124802	WAR100222-14	02/22/10 1033				
28	AR124803	WAR100222-15	02/22/10 1044				
29	AR124805	IAR100211-01	02/22/10 1054				
30	AR124804	WAR100222-16	02/22/10 1105				
31	AR124801	WAR091217-48	02/22/10 1116				
32	AR126801	WAR100222-17	02/22/10 1126				

S1 = 4cmx  
DCB = Decachlorobiphenyl

QC LIMITS  
(+/- 0.03 MINUTES)  
(+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.29			DCB: 5.94			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126802	WAR100222-18	02/22/10	1137		
02	AR126803	WAR100222-19	02/22/10	1147		
03	AR126804	WAR100222-20	02/22/10	1158		
04	AR126805	IAR100104-05	02/22/10	1208		
05	AR126801	WAR100107-68	02/22/10	1219		
06	PIBLK02	WAR100219-99	02/22/10	1229	2.29	5.94
07	ZZZZZ	ZZZZZ	02/22/10	1240	2.29	5.94
08	ZZZZZ	ZZZZZ	02/22/10	1250	2.29	5.94
09	ZZZZZ	ZZZZZ	02/22/10	1301	2.29	5.94
10	ZZZZZ	ZZZZZ	02/22/10	1314	2.29	5.94
11	ZZZZZ	ZZZZZ	02/22/10	1326	2.29	5.94
12	ZZZZZ	ZZZZZ	02/22/10	1339	2.29	5.93
13	ZZZZZ	ZZZZZ	02/22/10	1351	2.29	5.93
14	ZZZZZ	ZZZZZ	02/22/10	1404	2.29	5.94
15	ZZZZZ	ZZZZZ	02/22/10	1417	2.29	5.93
16	ZZZZZ	ZZZZZ	02/22/10	1430	2.29	5.93
17	AR166002	WAR100203-60	02/22/10	1442	2.29	5.94
18	PIBLK03	WAR100219-99	02/22/10	1453	2.29	5.94
19	ZZZZZ	ZZZZZ	02/22/10	1503	2.29	5.94
20	ZZZZZ	ZZZZZ	02/22/10	1516	2.29	5.93
21	ZZZZZ	ZZZZZ	02/22/10	1528	2.29	5.93
22	ZZZZZ	ZZZZZ	02/22/10	1541	2.29	5.94
23	ZZZZZ	ZZZZZ	02/22/10	1554	2.29	5.93
24	ZZZZZ	ZZZZZ	02/22/10	1606	2.29	5.93
25	ZZZZZ	ZZZZZ	02/22/10	1619	2.29	5.94
26	ZZZZZ	ZZZZZ	02/22/10	1632	2.29	5.93
27	ZZZZZ	ZZZZZ	02/22/10	1644	2.29	5.93
28	ZZZZZ	ZZZZZ	02/22/10	1657	2.29	5.93
29	AR166003	WAR100203-60	02/22/10	1710	2.29	5.93
30	PIBLK04	WAR100219-99	02/22/10	1722	2.29	5.93
31	ZZZZZ	ZZZZZ	02/22/10	1735	2.29	5.93
32	ZZZZZ	ZZZZZ	02/22/10	1748	2.29	5.94

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 1.92			DCB: 5.22			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #	
01	PIBLK01	WAR100219-99	03/08/10	0553	1.92	5.22
02	AR166001	WAR100222-60	03/08/10	0604	1.92	5.22
03	AR125401	WAR100219-54	03/08/10	0614		
04	AR124201	WAR100219-42	03/08/10	0625		
05	AR124801	WAR100223-48	03/08/10	0635		
06	AR126801	WAR100107-68	03/08/10	0646		
07	AR123201	WAR100104-32	03/08/10	0656		
08	AR122101	WAR100104-21	03/08/10	0707		
09	AR126201	WAR100104-62	03/08/10	0717		
10	DDTANALOGSTD	WAR091219-DD	03/08/10	0728		
11	PIBLK02	WAR100219-99	03/08/10	0738	1.92	5.22
12	ZZZZZ	ZZZZZ	03/08/10	0749	1.92	5.22
13	ZZZZZ	ZZZZZ	03/08/10	0801	1.92	5.22
14	ZZZZZ	ZZZZZ	03/08/10	0814	1.92	5.22
15	ZZZZZ	ZZZZZ	03/08/10	0827	1.92	5.22
16	ZZZZZ	ZZZZZ	03/08/10	0839	1.92	5.22
17	ZZZZZ	ZZZZZ	03/08/10	0852	1.92	5.22
18	ZZZZZ	ZZZZZ	03/08/10	0904	1.92	5.22
19	ZZZZZ	ZZZZZ	03/08/10	0917	1.92	5.22
20	ZZZZZ	ZZZZZ	03/08/10	0930	1.92	5.22
21	ZZZZZ	ZZZZZ	03/08/10	0942	1.92	5.22
22	AR166002	WAR100222-60	03/08/10	0955	1.92	5.22
23	PIBLK03	WAR100219-99	03/08/10	1006	1.92	5.22
24	ZZZZZ	ZZZZZ	03/08/10	1016	1.92	5.22
25	ZZZZZ	ZZZZZ	03/08/10	1029	1.92	5.22
26	ZZZZZ	ZZZZZ	03/08/10	1041	1.92	5.22
27	ZZZZZ	ZZZZZ	03/08/10	1054	1.92	5.22
28	ZZZZZ	ZZZZZ	03/08/10	1106	1.92	5.22
29	ZZZZZ	ZZZZZ	03/08/10	1119	1.92	5.22
30	ZZZZZ	ZZZZZ	03/08/10	1132	1.92	5.22
31	AR166003	WAR100222-60	03/08/10	1144	1.92	5.22
32	ZZZZZ	ZZZZZ	03/08/10	1155	1.92	5.22

QC LIMITS  
S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.



8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 1.92		DCB: 5.22			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	03/08/10	1205	1.92	5.22
02	ZZZZZ	03/08/10	1216	1.92	5.22
03	ZZZZZ	03/08/10	1226	1.92	5.22
04	AR166004	WAR100222-60	1239	1.92	5.22
05	PIBLK04	WAR100219-99	1249	1.92	5.22
06	PBLK01	1202063216	1300	1.92	5.22
07	PBLK01LCS	1202063217	1310	1.92	5.22
08	ZZZZZ	03/08/10	1321	1.92	5.22
09	ZZZZZ	03/08/10	1333	1.92	5.22
10	ZZZZZ	03/08/10	1346	1.92	5.22
11	ZZZZZ	03/08/10	1359	1.92	5.22
12	AR166005	WAR100222-60	1411	1.92	5.22
13	PIBLK05	WAR100219-99	1422	1.92	5.22
14	ZZZZZ	03/08/10	1432	1.92	5.22
15	ZZZZZ	03/08/10	1445	1.92	5.22
16	ZZZZZ	03/08/10	1457	1.92	5.22
17	ZZZZZ	03/08/10	1510	1.92	5.22
18	ZZZZZ	03/08/10	1523	1.92	5.22
19	ZZZZZ	03/08/10	1535	1.92	5.22
20	ZZZZZ	03/08/10	1548	1.92	5.22
21	AR166006	WAR100222-60	1601	1.92	5.22
22	PIBLK06	WAR100219-99	1611	1.92	5.22
23	RE36-10-7414	248043001	1622	1.92	5.22
24	RE36-10-7413	248043002	1634	1.92	5.22
25	RE36-10-7515	248043018	1647	1.92	5.22
26	ZZZZZ	03/08/10	1700	1.92	5.22
27	ZZZZZ	03/08/10	1712	1.92	5.22
28	ZZZZZ	03/08/10	1725	1.92	5.22
29	ZZZZZ	03/08/10	1737	1.92	5.22
30	ZZZZZ	03/08/10	1750	1.92	5.22
31	ZZZZZ	03/08/10	1803	1.92	5.22
32	ZZZZZ	03/08/10	1815	1.92	5.22

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 1.92			DCB: 5.22			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166007	WAR100222-60	03/08/10	1828	1.92	5.22
02	PIBLK07	WAR100219-99	03/08/10	1838	1.92	5.22
03						
04						
05						
06						
07						
08						
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29						
30						
31						
32						

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 2.28			DCB: 5.92		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/08/10	0553	
02	AR166001	WAR100222-60	03/08/10	0604	
03	AR125401	WAR100219-54	03/08/10	0614	
04	AR124201	WAR100219-42	03/08/10	0625	
05	AR124801	WAR100223-48	03/08/10	0635	
06	AR126801	WAR100107-68	03/08/10	0646	
07	AR123201	WAR100104-32	03/08/10	0656	
08	AR122101	WAR100104-21	03/08/10	0707	
09	AR126201	WAR100104-62	03/08/10	0717	
10	DDTANALOGSTD	WAR091219-DD	03/08/10	0728	
11	PIBLK02	WAR100219-99	03/08/10	0738	
12	ZZZZZ	ZZZZZ	03/08/10	0749	
13	ZZZZZ	ZZZZZ	03/08/10	0801	
14	ZZZZZ	ZZZZZ	03/08/10	0814	
15	ZZZZZ	ZZZZZ	03/08/10	0827	
16	ZZZZZ	ZZZZZ	03/08/10	0839	
17	ZZZZZ	ZZZZZ	03/08/10	0852	
18	ZZZZZ	ZZZZZ	03/08/10	0904	
19	ZZZZZ	ZZZZZ	03/08/10	0917	
20	ZZZZZ	ZZZZZ	03/08/10	0930	
21	ZZZZZ	ZZZZZ	03/08/10	0942	
22	AR166002	WAR100222-60	03/08/10	0955	
23	PIBLK03	WAR100219-99	03/08/10	1006	
24	ZZZZZ	ZZZZZ	03/08/10	1016	
25	ZZZZZ	ZZZZZ	03/08/10	1029	
26	ZZZZZ	ZZZZZ	03/08/10	1041	
27	ZZZZZ	ZZZZZ	03/08/10	1054	
28	ZZZZZ	ZZZZZ	03/08/10	1106	
29	ZZZZZ	ZZZZZ	03/08/10	1119	
30	ZZZZZ	ZZZZZ	03/08/10	1132	
31	AR166003	WAR100222-60	03/08/10	1144	
32	ZZZZZ	ZZZZZ	03/08/10	1155	

QC LIMITS  
S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.28			DCB: 5.92			
EPA	LAB	DATE	TIME	S1	DCB	
SAMPLE NO.	SAMPLE ID	ANALYZED	ANALYZED	RT	RT	#
=====	=====	=====	=====	=====	=====	=====
01	ZZZZZ	ZZZZZ	03/08/10	1205	2.28	5.92
02	ZZZZZ	ZZZZZ	03/08/10	1216	2.28	5.92
03	ZZZZZ	ZZZZZ	03/08/10	1226	2.28	5.92
04	AR166004	WAR100222-60	03/08/10	1239	2.28	5.92
05	PIBLK04	WAR100219-99	03/08/10	1249	2.28	5.92
06	PBLK01	1202063216	03/08/10	1300	2.28	5.92
07	PBLK01LCS	1202063217	03/08/10	1310	2.28	5.92
08	ZZZZZ	ZZZZZ	03/08/10	1321	2.28	5.92
09	ZZZZZ	ZZZZZ	03/08/10	1333	2.28	5.92
10	ZZZZZ	ZZZZZ	03/08/10	1346	2.27	5.91
11	ZZZZZ	ZZZZZ	03/08/10	1359	2.28	5.92
12	AR166005	WAR100222-60	03/08/10	1411	2.28	5.92
13	PIBLK05	WAR100219-99	03/08/10	1422	2.28	5.92
14	ZZZZZ	ZZZZZ	03/08/10	1432	2.28	5.92
15	ZZZZZ	ZZZZZ	03/08/10	1445	2.27	5.92
16	ZZZZZ	ZZZZZ	03/08/10	1457	2.28	5.92
17	ZZZZZ	ZZZZZ	03/08/10	1510	2.27	5.92
18	ZZZZZ	ZZZZZ	03/08/10	1523	2.28	5.92
19	ZZZZZ	ZZZZZ	03/08/10	1535	2.28	5.92
20	ZZZZZ	ZZZZZ	03/08/10	1548	2.28	5.92
21	AR166006	WAR100222-60	03/08/10	1601	2.27	5.92
22	PIBLK06	WAR100219-99	03/08/10	1611	2.28	5.92
23	RE36-10-7414	248043001	03/08/10	1622	2.28	5.92
24	RE36-10-7413	248043002	03/08/10	1634	2.28	5.91
25	RE36-10-7515	248043018	03/08/10	1647	2.28	5.92
26	ZZZZZ	ZZZZZ	03/08/10	1700	2.28	5.92
27	ZZZZZ	ZZZZZ	03/08/10	1712	2.27	5.92
28	ZZZZZ	ZZZZZ	03/08/10	1725	2.27	5.92
29	ZZZZZ	ZZZZZ	03/08/10	1737	2.28	5.92
30	ZZZZZ	ZZZZZ	03/08/10	1750	2.27	5.92
31	ZZZZZ	ZZZZZ	03/08/10	1803	2.27	5.92
32	ZZZZZ	ZZZZZ	03/08/10	1815	2.27	5.92

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2074

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.28			DCB: 5.92			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166007	WAR100222-60	03/08/10	1828	2.27	5.92
02	PIBLK07	WAR100219-99	03/08/10	1838	2.28	5.92
03						
04						
05						
06						
07						
08						
09						
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29						
30						
31						
32						

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

## Identification Summary

Page 1 of 1

SDG Number: 10-2074

Client ID: MB for batch 961901

Lab Sample ID: 1202063216

Data File: 038f3801.d

Data File: 038b3801.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 08-MAR-10 13:00

Analyzed: 08-MAR-10 13:00

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1242							15.1
Column 1	1	2.38	2.34 - 2.4	3.03		ug/kg	
	2	2.66	2.63 - 2.69	1.2		ug/kg	
	3	2.77	2.75 - 2.81	2.24		ug/kg	
	4	2.99	2.96 - 3.02	3.42		ug/kg	
	5	3.24	3.21 - 3.27	2.79		ug/kg	
					2.54		
Column 2	1	3.17	3.14 - 3.2	1.39		ug/kg	
	2	3.25	3.22 - 3.28	2.03		ug/kg	
	3	3.54	3.52 - 3.58	3		ug/kg	
	4	3.78	3.75 - 3.81	2.08		ug/kg	
	5	3.8	3.78 - 3.84	2.4		ug/kg	
					2.18		

## Identification Summary

Page 1 of 1

SDG Number: 10-2074

Client ID: LCS for batch 961901

Lab Sample ID: 1202063217

Data File: 039f3901.d

Data File: 039b3901.d

Inst: ECD1A.J\_1

Inst: ECD1A.J\_2

Column: CLP1

Column: CLP2

Analyzed: 08-MAR-10 13:10

Analyzed: 08-MAR-10 13:10

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							3.39
Column 1	1	2.37	2.34 – 2.4	22.7	22.3	ug/kg	
	2	2.66	2.63 – 2.69	21.9		ug/kg	
	3	2.74	2.71 – 2.77	21.2		ug/kg	
	4	2.78	2.74 – 2.8	22.3		ug/kg	
	5	2.99	2.96 – 3.02	23.3		ug/kg	
Column 2	1	3.17	3.14 – 3.2	22.9	21.5	ug/kg	
	2	3.25	3.22 – 3.28	21.2		ug/kg	
	3	3.32	3.29 – 3.35	20.7		ug/kg	
	4	3.54	3.51 – 3.57	21.8		ug/kg	
	5	3.62	3.59 – 3.65	21.2		ug/kg	
Aroclor-1260							6.28
Column 1	1	3.71	3.68 – 3.74	25.8	26.4	ug/kg	
	2	3.87	3.84 – 3.9	28.1		ug/kg	
	3	4.04	4.01 – 4.07	26.6		ug/kg	
	4	4.1	4.07 – 4.13	27.6		ug/kg	
	5	4.25	4.22 – 4.28	23.7		ug/kg	
Column 2	1	4.31	4.28 – 4.34	23.6	24.8	ug/kg	
	2	4.43	4.4 – 4.46	24.7		ug/kg	
	3	4.7	4.67 – 4.73	24.5		ug/kg	
	4	4.87	4.84 – 4.9	25		ug/kg	
	5	5.02	4.99 – 5.05	26		ug/kg	

## Identification Summary

Page 1 of 1

SDG Number: 10-2074

Client ID: RE36-10-7413

Lab Sample ID: 248043002

Data File: 056f5601.d

Data File: 056b5601.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 08-MAR-10 16:34

Analyzed: 08-MAR-10 16:34

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							35.3
Column 1	1	3.21	3.18 - 3.24	129		ug/kg	
	2	3.37	3.34 - 3.4	149		ug/kg	
	3	3.6	3.57 - 3.63	214		ug/kg	
	4	3.76	3.74 - 3.8	180		ug/kg	
	5	3.87	3.84 - 3.9	281		ug/kg	
					191		
Column 2	1	3.38	3.35 - 3.41	51.4		ug/kg	
	2	3.8	3.78 - 3.84	109		ug/kg	
	3	3.92	3.89 - 3.95	167		ug/kg	
	4	4.19	4.16 - 4.22	213		ug/kg	
	5	4.33	4.3 - 4.36	127		ug/kg	
					134		
Aroclor-1260							44.8
Column 1	1	3.71	3.68 - 3.74	120		ug/kg	
	2	3.87	3.84 - 3.9	170		ug/kg	
	3	4.03	4.01 - 4.07	239		ug/kg	
	4	4.1	4.07 - 4.13	25.6		ug/kg	
	5	4.24	4.22 - 4.28	23.7		ug/kg	
					116		
Column 2	1	4.31	4.28 - 4.34	129		ug/kg	
	2	4.43	4.4 - 4.46	118		ug/kg	
	3	4.7	4.67 - 4.73	50.9		ug/kg	
	4	4.87	4.84 - 4.9	27.8		ug/kg	
	5	5.02	4.99 - 5.05	41		ug/kg	
					73.3		



## Identification Summary

Page 1 of 1

SDG Number: 10-2074

Client ID: RE36-10-7414

Lab Sample ID: 248043001

Data File: 055f5501.d

Data File: 055b5501.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 08-MAR-10 16:22

Analyzed: 08-MAR-10 16:22

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							49.4
Column 1	1	3.21	3.18 – 3.24	10.1	19.7	ug/kg	
	2	3.37	3.34 – 3.4	11.4		ug/kg	
	3	3.6	3.57 – 3.63	22.7		ug/kg	
	4	3.76	3.74 – 3.8	18.4		ug/kg	
	5	3.87	3.84 – 3.9	36		ug/kg	
Column 2	1	3.38	3.35 – 3.41	4.37	11.9	ug/kg	
	2	3.8	3.78 – 3.84	8.57		ug/kg	
	3	3.92	3.89 – 3.95	13.4		ug/kg	
	4	4.19	4.16 – 4.22	21.4		ug/kg	
	5	4.33	4.3 – 4.36	11.9		ug/kg	
Aroclor-1260							45.7
Column 1	1	3.71	3.68 – 3.74	15.1	15.9	ug/kg	
	2	3.87	3.84 – 3.9	21.8		ug/kg	
	3	4.04	4.01 – 4.07	34.9		ug/kg	
	4	4.1	4.07 – 4.13	4.04		ug/kg	
	5	4.25	4.22 – 4.28	3.86		ug/kg	
Column 2	1	4.31	4.28 – 4.34	16.9	10	ug/kg	
	2	4.43	4.4 – 4.46	16.8		ug/kg	
	3	4.7	4.67 – 4.73	6.33		ug/kg	
	4	4.87	4.84 – 4.9	4.07		ug/kg	
	5	5.02	4.99 – 5.05	5.99		ug/kg	

## Identification Summary

Page 1 of 2

SDG Number: 10-2074

Client ID: RE36-10-7515

Lab Sample ID: 248043018

Data File: 057f5701.d

Data File: 057b5701.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 08-MAR-10 16:47

Analyzed: 08-MAR-10 16:47

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1242							33
Column 1	1	2.37	2.34 - 2.4	241		ug/kg	
	2	2.66	2.63 - 2.69	216		ug/kg	
	3	2.77	2.75 - 2.81	212		ug/kg	
	4	2.98	2.96 - 3.02	653		ug/kg	
	5	3.24	3.21 - 3.27	1230		ug/kg	
					511		
Column 2	1	3.17	3.14 - 3.2	223		ug/kg	
	2	3.25	3.22 - 3.28	284		ug/kg	
	3	3.54	3.52 - 3.58	483		ug/kg	
	4	3.78	3.75 - 3.81	721		ug/kg	
	5	3.8	3.78 - 3.84	1850		ug/kg	
					713		
Aroclor-1254							25.2
Column 1	1	3.21	3.18 - 3.24	1340		ug/kg	
	2	3.37	3.34 - 3.4	1410		ug/kg	
	3	3.6	3.57 - 3.63	1650		ug/kg	
	4	3.76	3.74 - 3.8	1860		ug/kg	
	5	3.87	3.84 - 3.9	1840		ug/kg	
					1620		
Column 2	1	3.38	3.35 - 3.41	860		ug/kg	
	2	3.8	3.78 - 3.84	1150		ug/kg	
	3	3.92	3.89 - 3.95	1380		ug/kg	
	4	4.19	4.16 - 4.22	1580		ug/kg	
	5	4.33	4.3 - 4.36	1310		ug/kg	
					1260		

## Identification Summary

Page 2 of 2

SDG Number: 10-2074

Client ID: RE36-10-7515

Lab Sample ID: 248043018

Data File: 057f5701.d

Data File: 057b5701.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 08-MAR-10 16:47

Analyzed: 08-MAR-10 16:47

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1260							54.9
Column 1	1	3.71	3.68 - 3.74	910		ug/kg	
	2	3.87	3.84 - 3.9	1110		ug/kg	
	3	4.03	4.01 - 4.07	1780		ug/kg	
	4	4.1	4.07 - 4.13	153		ug/kg	
	5	4.24	4.22 - 4.28	170		ug/kg	
					825		
Column 2	1	4.31	4.28 - 4.34	887		ug/kg	
	2	4.43	4.4 - 4.46	783		ug/kg	
	3	4.7	4.67 - 4.73	308		ug/kg	
	4	4.87	4.84 - 4.9	173		ug/kg	
	5	5.02	4.99 - 5.05	197		ug/kg	
					470		

# QUALITY CONTROL DATA

**PCB**  
**Certificate of Analysis**  
**Sample Summary**

Page 1 of 1

SDG Number: 10-2074

Lab Sample ID: 1202063216

Client Sample: QC for batch 961901

Client ID: MB for batch 961901

Batch ID: 961902

Run Date: 03/08/2010 13:00

Prep Date: 03/07/2010 11:43

Data File: 038f3801-1.d

038b3801-1.d

Client: LANL010

Method: SW846 8082

Inst: ECD1A.1

Analyst: YS1

Aliquot: 30 g

Column: 1 CLP1

2 CLP2

Matrix: SOIL

Project: QC

SOP Ref: GL-OA-E-040

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	J	2.50	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdla.i/030810.b/038f3801-1.d  
Lab Smp Id: 1202063216 Client Smp ID: PBLK01  
Inj Date : 08-MAR-2010 13:00  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |1202063216|1|  
Misc Info : |ECD82P\_1S|961902|SVA|QC A|SOIL|MB|||  
Comment :  
Method : /chem/ecdla.i/030810.b/ECD1-F-8082-022210.m  
Meth Date : 09-Mar-2010 06:41 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 38 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2074.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	ON-COL	FINAL	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8			
1.917	1.917	0.000	54907494 127.503	4.2	80.00- 120.00	100.00	
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.224	5.223	0.001	36840760 119.889	4.0	80.00- 120.00	100.00	
4 Aroclor-1242				CAS #: 53469-21-9			
2.377	2.371	0.006	1142466 90.9792	3.0	80.00- 120.00	100.00 (aM)	
2.657	2.658	-0.001	525795 35.9846	1.2	109.55- 149.55	46.02	
2.775	2.776	-0.001	379025 67.3316	2.2	28.27- 68.27	33.18	
2.986	2.986	0.000	749459 102.520	3.4	42.21- 82.21	65.60	

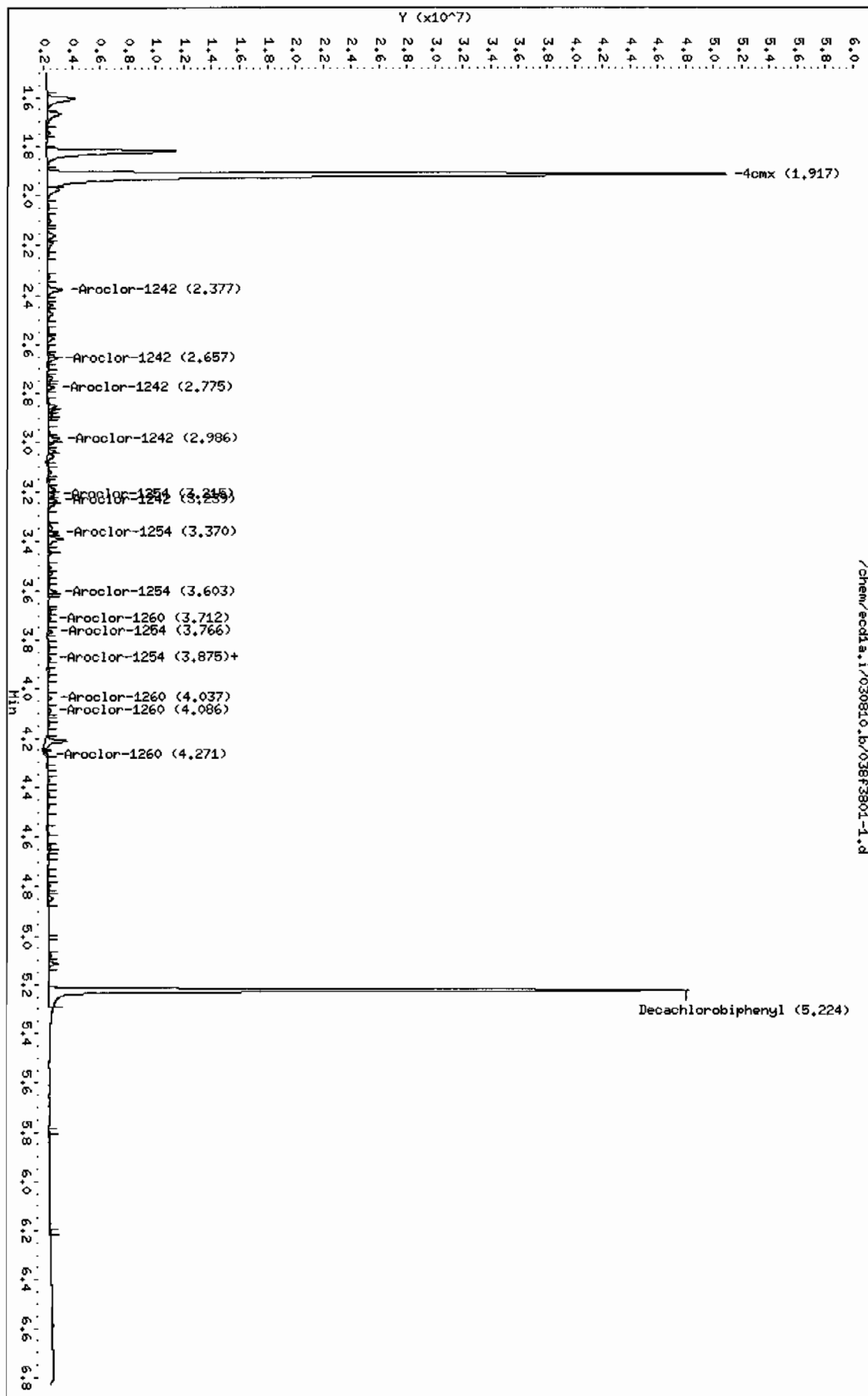
		CONCENTRATIONS							
		ON-COL		FINAL					
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET	RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
4 Aroclor-1242 (continued)									
3.239	3.239	0.000	517870	83.7557	2.8	41.70-	81.70	45.33	
Average of Peak Concentrations =					2.5				

QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- M - Compound response manually integrated.

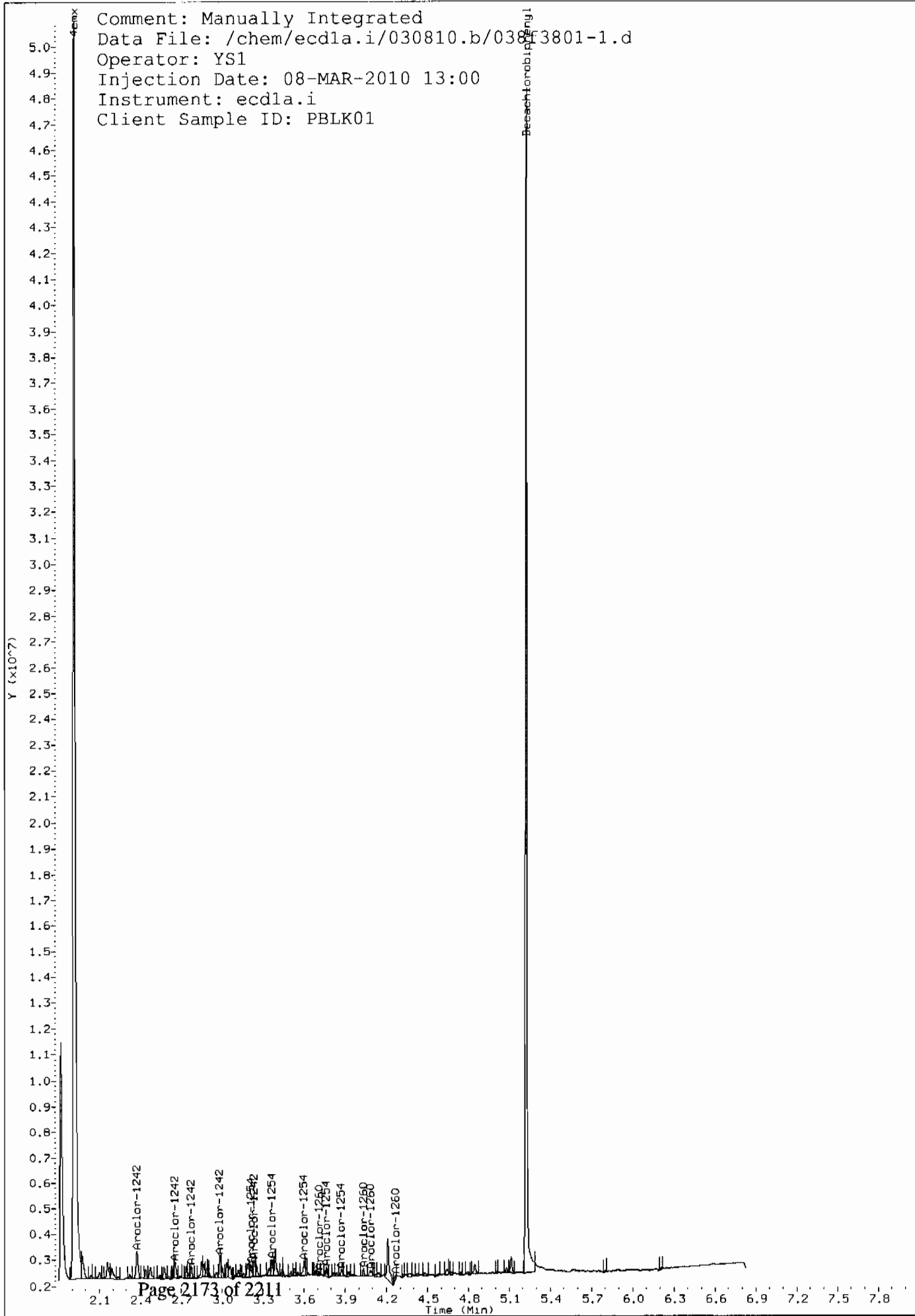
Data File: /chem/ecdl.a.i/030810.b/038F3801-1.d  
 Date : 08-MAR-2010 13:00  
 Client ID: PBLK01  
 Sample Info: 1120206321611  
 Volume Injected (uL): 1.0  
 Column phase: CLP1

Instrument: ecdl.a.i  
 Operator: YSI  
 Column diameter: 0.25

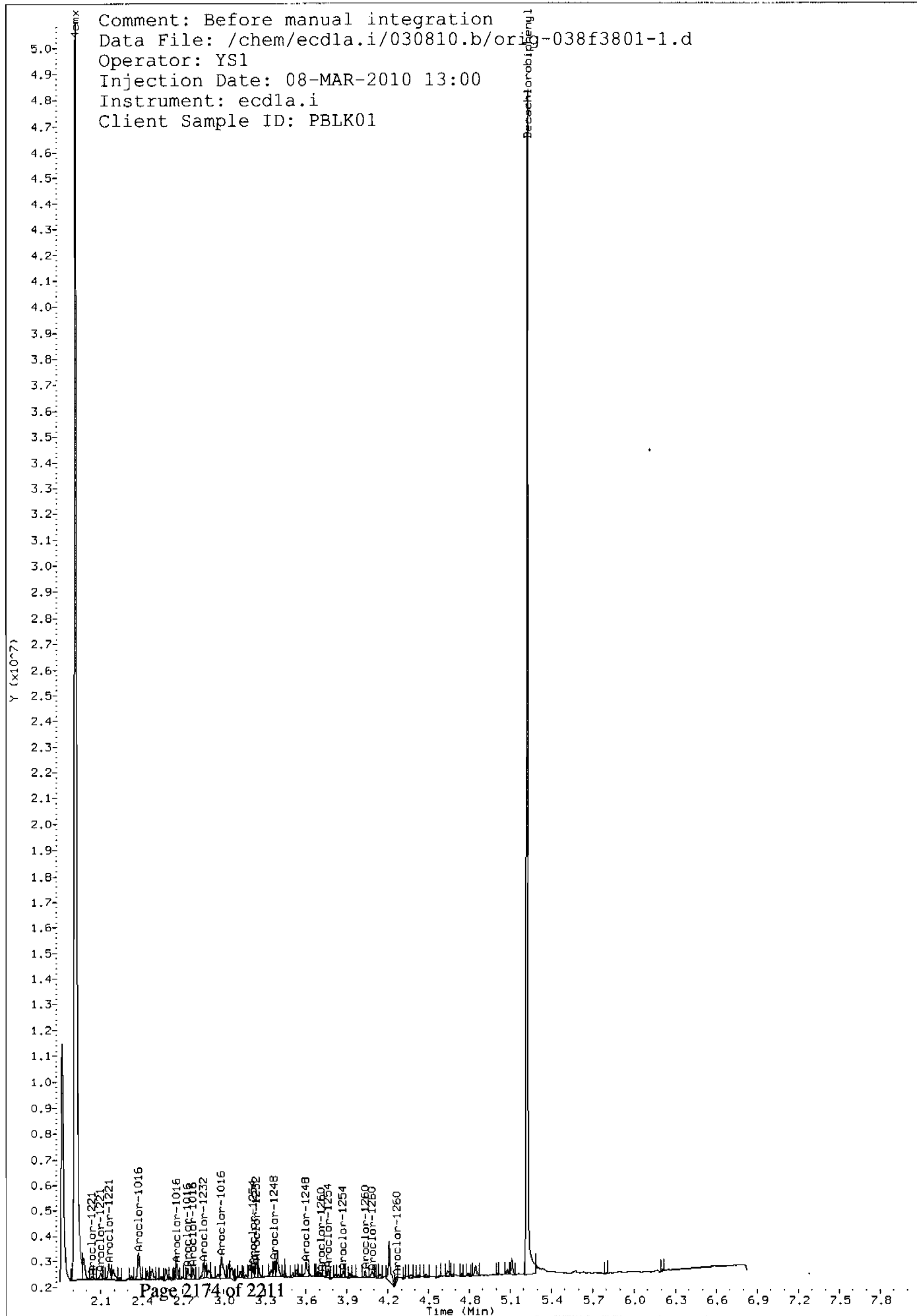




Comment: Manually Integrated  
Data File: /chem/ecdl1.i/030810.b/03801-1.d  
Operator: YSl  
Injection Date: 08-MAR-2010 13:00  
Instrument: ecdl1.i  
Client Sample ID: PBLK01



Comment: Before manual integration  
Data File: /chem/ecdl1.i/030810.b/original-038f3801-1.d  
Operator: YS1  
Injection Date: 08-MAR-2010 13:00  
Instrument: ecd1a.i  
Client Sample ID: PBLK01



Data File: /chem/ecdl1a.i/030810.b/038b3801-1.d  
Report Date: 12-Mar-2010 08:47

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdl1a.i/030810.b/038b3801-1.d  
Lab Smp Id: 1202063216 Client Smp ID: PBLK01  
Inj Date : 08-MAR-2010 13:00  
Operator : YSl Inst ID: ecd1a.i  
Smp Info : |1202063216|1|  
Misc Info : |ECD82P\_1S|961902|SVA|QC A|SOIL|MB|||  
Comment :  
Method : /chem/ecdl1a.i/030810.b/ECD1-B-8082-022210.m  
Meth Date : 12-Mar-2010 08:46 jc Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 38 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2074.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
EL	NAME	RT	=====	=====	=====	=====
-----						
\$ 11	4cmx				CAS #: 877-09-8	
2.276	2.277	-0.001	37340808	125.559	4.2 80.00- 120.00	100.00
-----						
\$ 12	Decachlorobiphenyl				CAS #: 2051-24-3	
5.918	5.918	0.000	29192014	138.025	4.6 80.00- 120.00	100.00
-----						
4 Aroclor-1242					CAS #: 53469-21-9	
3.172	3.171	0.001	430513	41.5905	1.4 80.00- 120.00	100.00(a)
3.255	3.254	0.001	443889	60.9828	2.0 46.95- 86.95	103.11
3.545	3.544	0.001	519742	90.1015	3.0 32.91- 72.91	120.73
3.778	3.778	0.000	361155	62.3964	2.1 36.16- 76.16	83.89

CONCENTRATIONS						
			ON-COL		FINAL	
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET RANGE RATIO
==	=====		=====	=====	=====	=====
4 Aroclor-1242 (continued)						
3.804	3.806	-0.002	477832	71.9476	2.4	42.60- 82.60 110.99
Average of Peak Concentrations =					2.2	

# QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation (BLOQ).

Data File: /chem/ecdt.a.i/030810.b/038b3801-1.d

Date : 08-MAR-2010 13:00

Client ID: PBLK01

Sample Info: 1120206321611

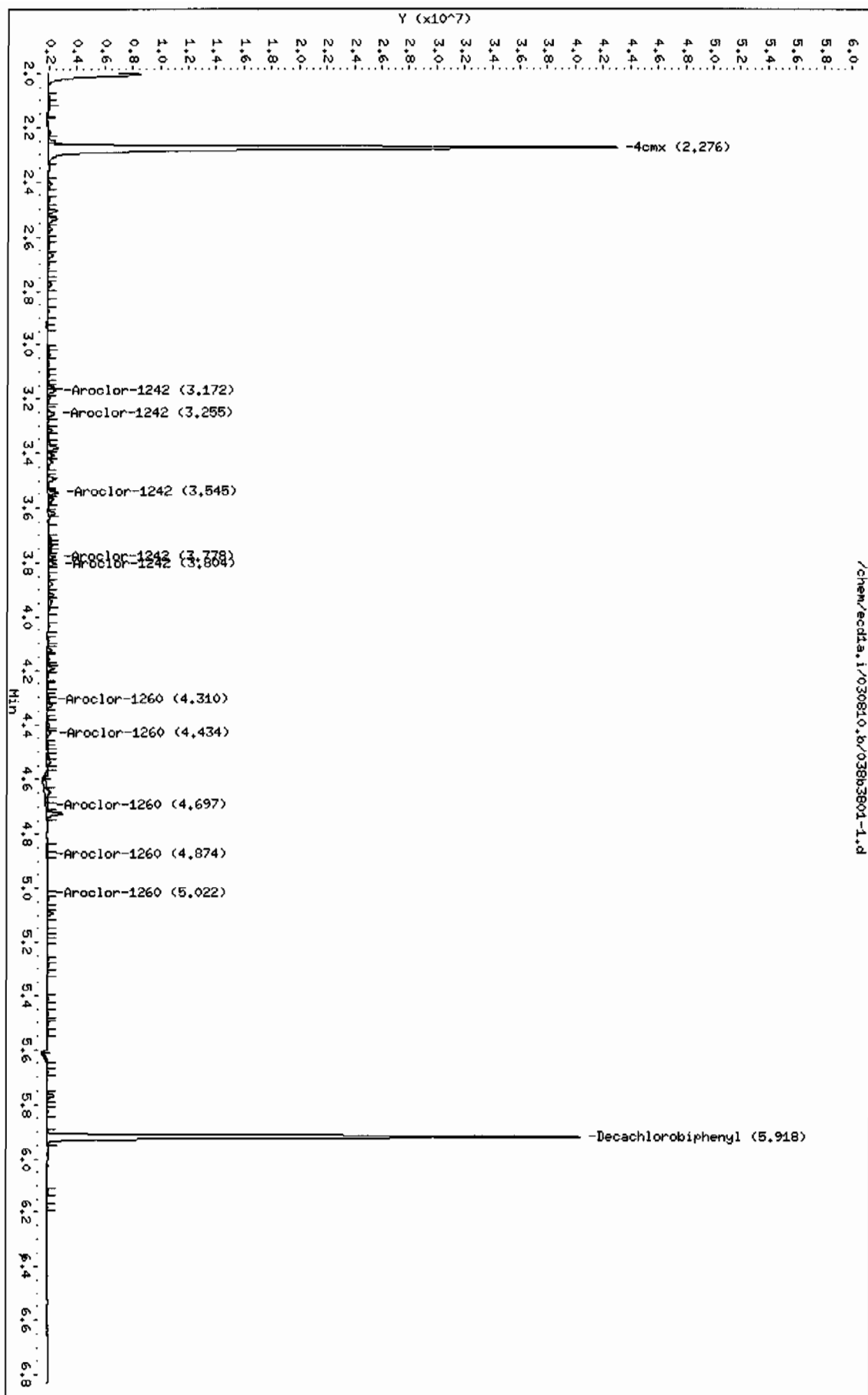
Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecdt.a.i

Operator: YSL

Column diameter: 0.25



**PCB**  
**Certificate of Analysis**  
**Sample Summary**

Page 1 of 1

SDG Number: 10-2074		Matrix: SOIL
Lab Sample ID: 1202063217		
Client Sample: QC for batch 961901	Client: LANL010	Project: QC
Client ID: LCS for batch 961901	Method: SW846 8082	SOP Ref: GL-OA-E-040
Batch ID: 961902	Inst: ECD1A.J	Dilution: 1
Run Date: 03/08/2010 13:10	Analyst: YS1	Inj. Vol: 1 uL
Prep Date: 03/07/2010 11:43	Aliquot: 30 g	Final Volume: 1 mL
Data File: 039f3901-1.d	Column: 1 CLP1	Level: LOW
	2 CLP2	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		22.3	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		26.4	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/030810.b/039f3901-1.d  
Lab Smp Id: 1202063217 Client Smp ID: PBLK01LCS  
Inj Date : 08-MAR-2010 13:10  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |1202063217|1|  
Misc Info : |ECD82P\_1S|961902|SVA|QC A|SOIL|LCS|||  
Comment :  
Method : /chem/ecdla.i/030810.b/ECD1-F-8082-022210.m  
Meth Date : 09-Mar-2010 06:41 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 39 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2074.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS

ON-COL FINAL

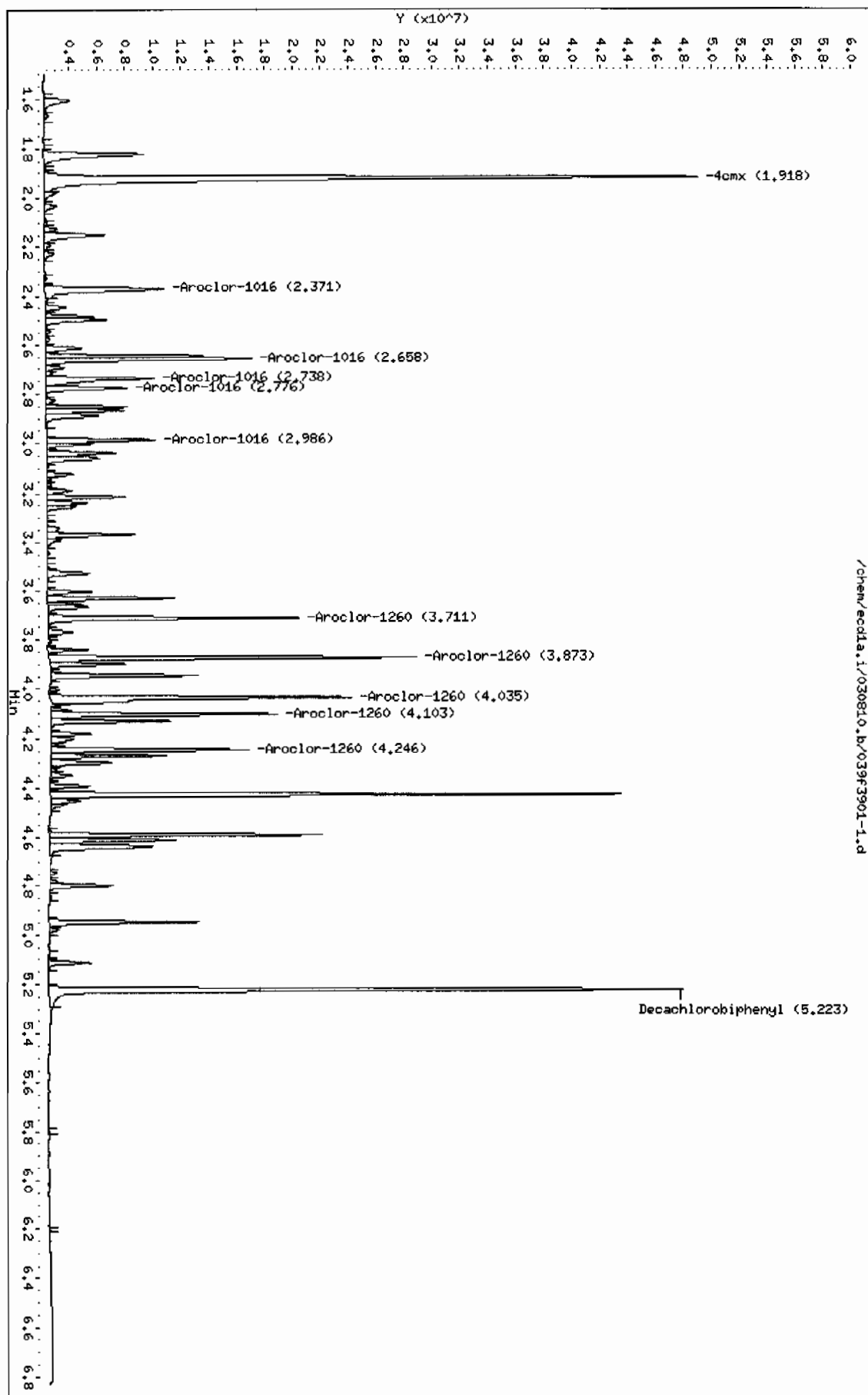
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
\$ 11 4cmx					CAS #: 877-09-8	
1.918	1.917	0.001	52603144	122.152	4.1 80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3	
5.223	5.223	0.000	37135374	120.848	4.0 80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2	
2.371	2.371	0.000	10463984	680.171	22.7 80.00- 120.00	100.00
2.658	2.657	0.001	12007594	658.419	21.9 112.25- 152.25	114.75
2.738	2.737	0.001	7688455	637.227	21.2 62.95- 102.95	73.48
2.776	2.775	0.001	4739243	667.865	22.3 30.09- 70.09	45.29

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)								
2.986	2.986	0.000	6242773	700.476	23.3	44.32-	84.32	59.66
Average of Peak Concentrations =					22.3			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.711	3.711	0.000	13235309	775.245	25.8	80.00-	120.00	100.00
3.873	3.873	0.000	19933681	843.095	28.1	130.40-	170.40	150.61
4.035	4.036	-0.001	19927547	798.017	26.6	98.53-	138.53	150.56
4.103	4.104	-0.001	11948640	829.440	27.6	70.34-	110.34	90.28
4.246	4.247	-0.001	10268016	711.548	23.7	74.44-	114.44	77.58
Average of Peak Concentrations =					26.4			
-----								



Data File: /chem/eod1a.i/030810.b/039f3901-1.d  
Date : 08-MAR-2010 13:10  
Client ID: PBLKOLCS  
Sample Info: 1120206321711  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: eod1a.i  
Operator: YSL  
Column diameter: 0.25



Data File: /chem/ecdl1a.i/030810.b/039b3901-1.d  
Report Date: 12-Mar-2010 08:47

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/030810.b/039b3901-1.d

Lab Smp Id: 1202063217

Client Smp ID: PBLK01LCS

Inj Date : 08-MAR-2010 13:10

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |1202063217|1|

Misc Info : |ECD82P\_1S|961902|SVA|QC A|SOIL|LCS|

Comment :

Method : /chem/ecdl1a.i/030810.b/ECD1-B-8082-022210.m

Meth Date : 12-Mar-2010 08:46 jc

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 39

QC Sample: LCS

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2074.sub

Target Version: 3.50

Sample Matrix: Soil

Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable

Local Compound Variable

CONCENTRATIONS							
			ON-COL		FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx							
			CAS #: 877-09-8				
2.277	2.277	0.000	35479064	119.299	4.0	80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl							
			CAS #: 2051-24-3				
5.918	5.918	0.000	26934787	127.352	4.2	80.00- 120.00	100.00
1 Aroclor-1016							
			CAS #: 12674-11-2				
3.171	3.171	0.000	8798032	687.895	22.9	80.00- 120.00	100.00 (M)
3.254	3.254	0.000	5659913	634.667	21.2	46.88- 86.88	64.33
3.318	3.317	0.001	3361108	621.735	20.7	21.44- 61.44	38.20
3.544	3.544	0.000	4520597	653.677	21.8	34.15- 74.15	51.38

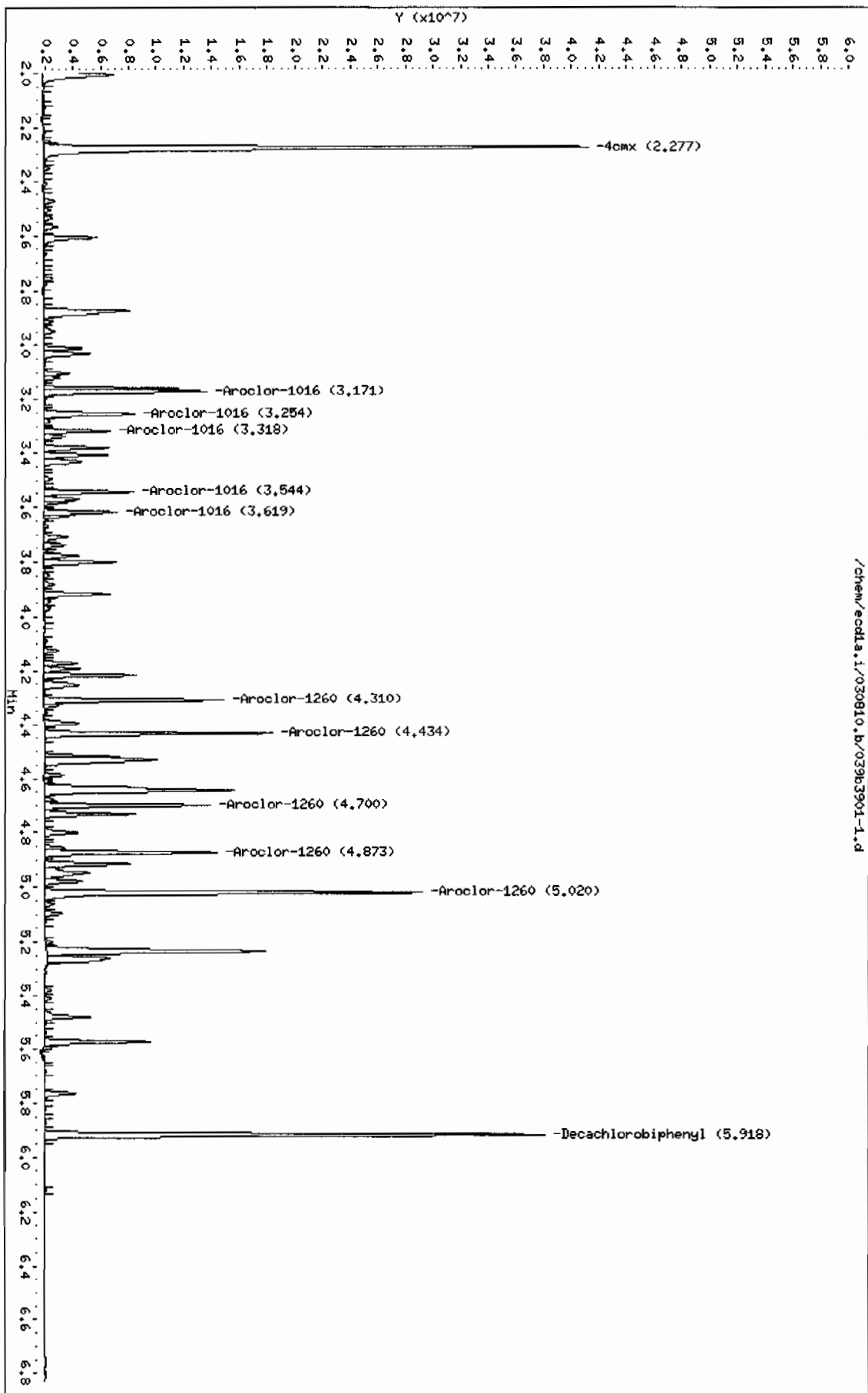
CONCENTRATIONS							
RT	EXP RT	DLT RT	ON-COL		FINAL	TARGET RANGE	RATIO
			RESPONSE ( ug/L)				
==	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)							
3.619	3.619	0.000	4077679	634.637	21.2	30.80- 70.80	46.35
Average of Peak Concentrations =					21.6		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
4.310	4.310	0.000	9363344	709.041	23.6	80.00- 120.00	100.00
4.434	4.435	-0.001	11545718	741.688	24.7	102.72- 142.72	123.31
4.700	4.701	-0.001	8699198	734.512	24.5	72.14- 112.14	92.91
4.873	4.874	-0.001	9152562	750.137	25.0	75.87- 115.87	97.75
5.020	5.021	-0.001	20722872	781.194	26.0	194.62- 234.62	221.32
Average of Peak Concentrations =					24.8		

#### QC Flag Legend

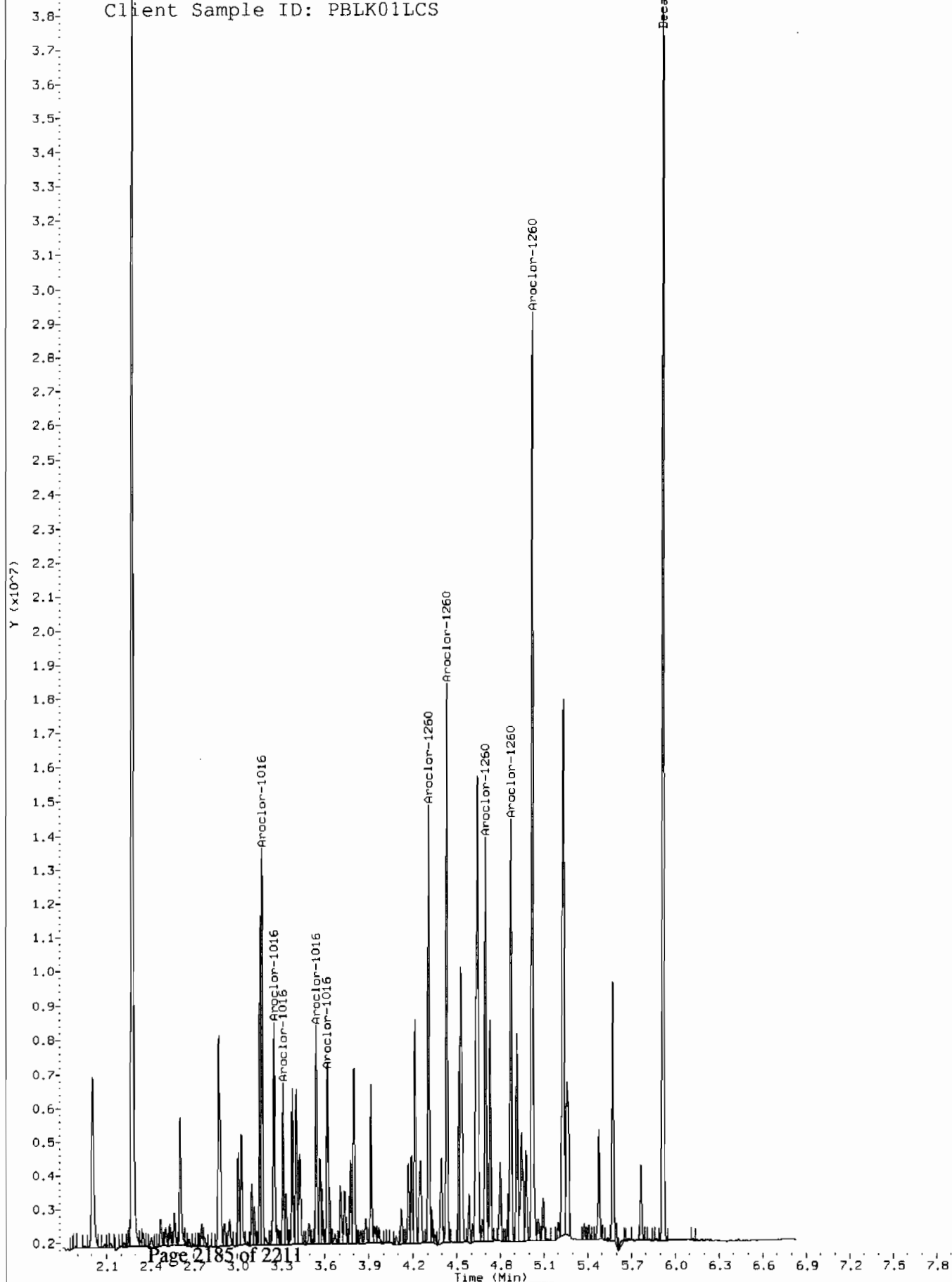
M - Compound response manually integrated.

Data File: /chem/ecdl.a.i/030810.b/039b3901-1.d  
Date: 08-MAR-2010 13:10  
Client ID: PBLKOLCS  
Sample Info: 1120206321711  
Volume Injected (uL): 1.0  
Column phase: CLP2

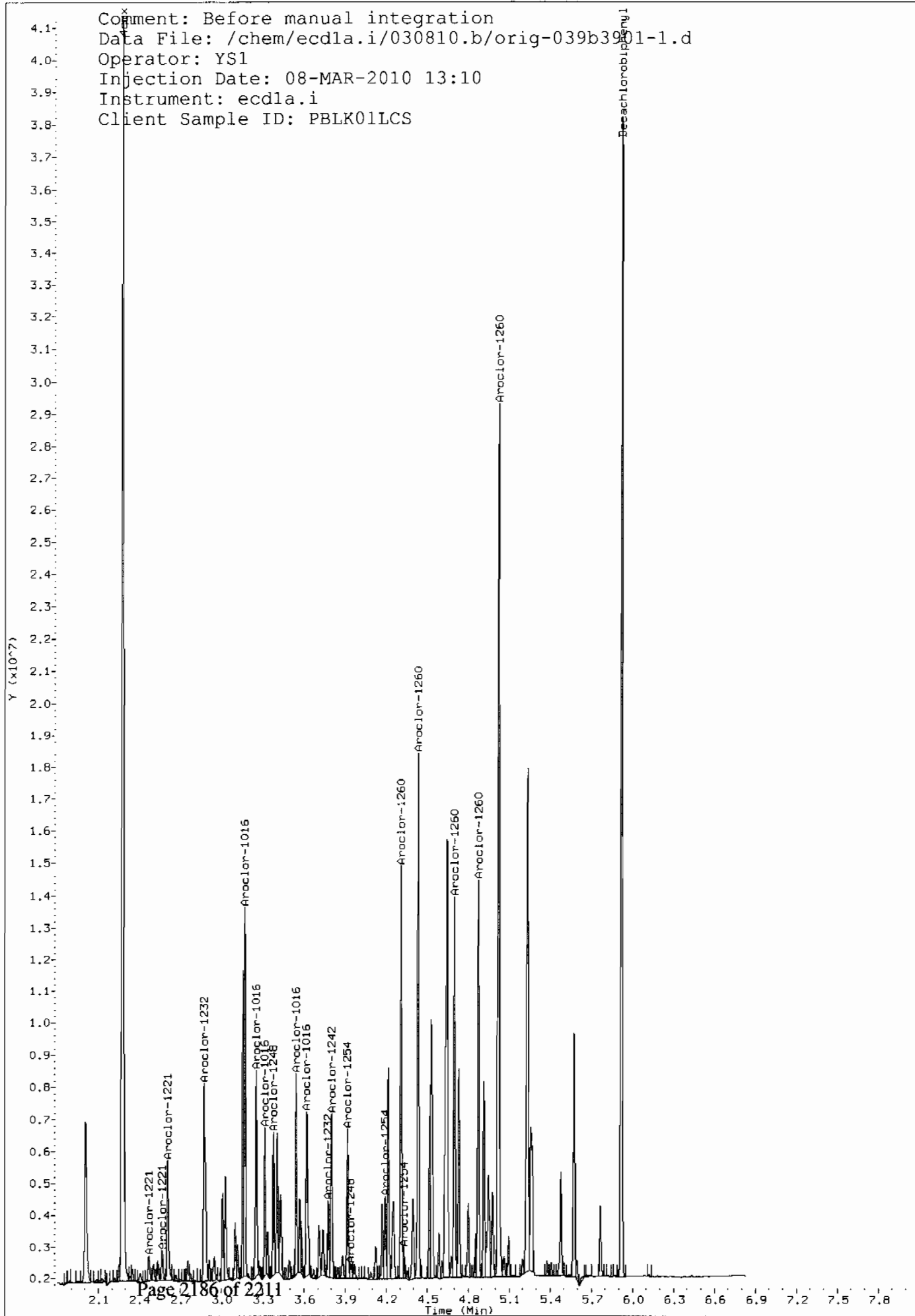
Instrument: ecdl.a.i  
Operator: YSL  
Column diameter: 0.25



Comment: Manually Integrated  
Data File: /chem/ecdla.i/030810.b/039b3901-1  
Operator: YS1  
Injection Date: 08-MAR-2010 13:10  
Instrument: ecdla.i  
Client Sample ID: PBLK01LCS



Comment: Before manual integration  
Data File: /chem/ecdla.i/030810.b/orig-039b3901-1.d  
Operator: YS1  
Injection Date: 08-MAR-2010 13:10  
Instrument: ecdla.i  
Client Sample ID: PBLK01LCS



# MISCELLANEOUS DATA

## GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD1

DATE: 02/23/2010 METHOD: ECD1-F-8082-022210.m OPERATOR:YS1 REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699  
ALUMINA LOT 1240553-A  
COPPER LOT 236547-A

Calibration &amp; QC Information

Initial Calibration Dates: See Calibration History and Standard Logbook.

Initial Calibration Std ID's: See Calibration History and Standard Logbook.

GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082

Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,

DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,

BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/022210.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	122-FEB-2010 05:59		022210	1.01	CLEAN	
002f0201.d	WAR100203-60 01	YS1	122-FEB-2010 06:10		022210	1.01	DUSE RE-ICAL	
003f0301.d	AR1660-4	YS1	122-FEB-2010 06:20		022210	1.01	DUSE SCREEN	
004f0401.d	WAR091219-DDT	YS1	122-FEB-2010 06:31		022210	1.01	DST ANALOG STANDARD	
005f0501.d	WAR100104-32	YS1	122-FEB-2010 06:41		022210	1.01	PATTERN ONLY	
006f0601.d	WAR100104-2	YS1	122-FEB-2010 06:52		022210	1.01	PATTERN ONLY	
007f0701.d	WAR100104-62	YS1	122-FEB-2010 07:03		022210	1.01	PATTERN ONLY	
008f0801.d	WAR100222-01 60	YS1	122-FEB-2010 07:13		022210	1.01	AR1660 I-CAL LEVEL 1	
009f0901.d	WAR100222-02 60	YS1	122-FEB-2010 07:24		022210	1.01	AR1660 I-CAL LEVEL 2	
010f1001.d	WAR100222-03 60	YS1	122-FEB-2010 07:34		022210	1.01	AR1660 I-CAL LEVEL 3	
011f1101.d	WAR100222-04 60	YS1	122-FEB-2010 07:45		022210	1.01	AR1660 I-CAL LEVEL 4	
012f1201.d	WAR100104-01	YS1	122-FEB-2010 07:55		022210	1.01	AR1660 I-CAL LEVEL 5	
013f1301.d	WAR100203-60 01	YS1	122-FEB-2010 08:06		022210	1.01	PASSED ON BOTH COLUMNS	
014f1401.d	WAR100222-05 54	YS1	122-FEB-2010 08:16		022210	1.01	AR1254 I-CAL LEVEL 1	
015f1501.d	WAR100222-06 54	YS1	122-FEB-2010 08:27		022210	1.01	AR1254 I-CAL LEVEL 2	

Instrument Batch: /chem/ecd1a.i/022210.b

Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
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016f1601.d	WAR100222-07 54	YS1	22-FEB-2010 09:37	1022210	1.01	WAR1254 I-CAL LEVEL 3
017f1701.d	WAR100222-08 54	YS1	22-FEB-2010 08:48	1022210	1.01	WAR1254 I-CAL LEVEL 4
018f1801.d	WAR100219-02	YS1	22-FEB-2010 08:59	1022210	1.01	WAR1254 I-CAL LEVEL 5
019f1901.d	WAR100219-54	YS1	22-FEB-2010 09:09	1022210	1.01	PASSED ON BOTH COLUMNS
020f2001.d	WAR100222-09 42	YS1	22-FEB-2010 09:20	1022210	1.01	WAR1242 I-CAL LEVEL 1
021f2101.d	WAR100222-10 42	YS1	22-FEB-2010 09:30	1022210	1.01	WAR1242 I-CAL LEVEL 2
022f2201.d	WAR100222-11 42	YS1	22-FEB-2010 09:41	1022210	1.01	WAR1242 I-CAL LEVEL 3
023f2301.d	WAR100222-12 42	YS1	22-FEB-2010 09:51	1022210	1.01	WAR1242 I-CAL LEVEL 4
024f2401.d	WAR100219-01	YS1	22-FEB-2010 10:02	1022210	1.01	WAR1242 I-CAL LEVEL 5
025f2501.d	WAR100219-42	YS1	22-FEB-2010 10:12	1022210	1.01	PASSED ON BOTH COLUMNS
026f2601.d	WAR100222-13 48	YS1	22-FEB-2010 10:23	1022210	1.01	WAR1248 I-CAL LEVEL 1
027f2701.d	WAR100222-14 48	YS1	22-FEB-2010 10:33	1022210	1.01	WAR1248 I-CAL LEVEL 2
028f2801.d	WAR100222-15 48	YS1	22-FEB-2010 10:44	1022210	1.01	WAR1248 I-CAL LEVEL 3
029f2901.d	WAR100211-01	YS1	22-FEB-2010 10:54	1022210	1.01	WAR1248 I-CAL LEVEL 5
030f3001.d	WAR100222-16	YS1	22-FEB-2010 11:05	1022210	1.01	WAR1248 I-CAL LEVEL 4
031f3101.d	WAR091217-48	YS1	22-FEB-2010 11:16	1022210	1.01	PASSED ON BOTH COLUMNS
032f3201.d	WAR100222-17 68	YS1	22-FEB-2010 11:26	1022210	1.01	WAR1268 I-CAL LEVEL 1
033f3301.d	WAR100222-18 68	YS1	22-FEB-2010 11:37	1022210	1.01	WAR1268 I-CAL LEVEL 2
034f3401.d	WAR100222-19 68	YS1	22-FEB-2010 11:47	1022210	1.01	WAR1268 I-CAL LEVEL 3
035f3501.d	WAR100222-20 68	YS1	22-FEB-2010 11:58	1022210	1.01	WAR1268 I-CAL LEVEL 4

Instrument Batch: /chem/ecdl1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR100104-05	YS1	22-FEB-2010 12:08	1022210	1.01	1.01	WAR1268 I-CAL LEVEL 5	
037f3701.d	WAR100107-68	YS1	22-FEB-2010 12:19	1022210	1.01	1.01	PASSED ON BOTH COLUMNS	
038f3801.d	WAR100219-99 02	YS1	22-FEB-2010 12:29	1022210	1.01	1.01	CLEAN	
039f3901-1.d	1202046866	YS1	22-FEB-2010 12:40	954781	101-1846	1.01QC A	UPLOAD BOTH COLUMNS, USE HIGHER	
039f3901-2.d	1202046866	YS1	22-FEB-2010 12:40	954781	101-1848	1.01QC A	UPLOAD BOTH COLUMNS, USE HIGHER	

1039f3901.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1808	1.0 QC A	UPLOAD BOTH COLUMNS, USE HIGHER
1040f4001-1.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1846	1.0 QC A	UPLOAD BOTH COLUMNS, USE HIGHER
1040f4001-2.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1848	1.0 QC A	UPLOAD BOTH COLUMNS, USE HIGHER
1040f4001.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1808	1.0 QC A	UPLOAD BOTH COLUMNS, USE HIGHER
1041f4101.d	246968001	YS1	22-FEB-2010 13:01	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1042f4201.d	246968002	YS1	22-FEB-2010 13:14	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1043f4301.d	246968003	YS1	22-FEB-2010 13:26	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1044f4401.d	246968004	YS1	22-FEB-2010 13:39	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1045f4501.d	246968005	YS1	22-FEB-2010 13:51	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1046f4601.d	246968006	YS1	22-FEB-2010 14:04	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1047f4701.d	246968007	YS1	22-FEB-2010 14:17	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1048f4801.d	246968008	YS1	22-FEB-2010 14:30	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1049f4901.d	WAR100203-60 02	YS1	22-FEB-2010 14:42		022210	1.0	PASSED ON BOTH COLUMNS
1050f5001.d	WAR100219-99 03	YS1	22-FEB-2010 14:53		022210	1.0	CLEAN
1051f5101.d	246968009	YS1	22-FEB-2010 15:03	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecdla.i/022210.b

Page: 3

1052f5201.d	246968010	YS1	22-FEB-2010 15:16	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1053f5301.d	246968011	YS1	22-FEB-2010 15:28	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1054f5401.d	246968012	YS1	22-FEB-2010 15:41	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1055f5501.d	246968013	YS1	22-FEB-2010 15:54	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1056f5601.d	246968014	YS1	22-FEB-2010 16:06	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1057f5701.d	246968015	YS1	22-FEB-2010 16:19	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1058f5801.d	246968016	YS1	22-FEB-2010 16:32	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1059f5901.d	246968017	YS1	22-FEB-2010 16:44	954781	10-1808	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1060f6001.d	1247121002	YS1	22-FEB-2010 16:57	954781	10-1846	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER

061f6101.d	WAR100203-60 03	YS1	22-FEB-2010 17:10		1022210	1.01	PASSED ON BOTH COLUMNS
062f6201.d	WAR100219-99 04	YS1	22-FEB-2010 17:22		1022210	1.01	CLEAN
063f6301.d	2471123001	YS1	22-FEB-2010 17:35	9554781	110-1848	1.01	LANL
064f6401.d	1202046868	YS1	22-FEB-2010 17:48	954781	110-1848	1.01	QC A
065f6501.d	1202046869	YS1	22-FEB-2010 18:00	954781	110-1848	1.01	QC A
066f6601.d	WAR100203-60 04	YS1	22-FEB-2010 18:13		1022210	1.01	PASSED ON BOTH COLUMNS
067f6701.d	WAR100219-99 05	YS1	22-FEB-2010 18:26		1022210	1.01	CLEAN
068f6801.d	1202048527	YS1	22-FEB-2010 18:38	955479	110-1818	1.01	QC A
069f6901.d	1202048528	YS1	22-FEB-2010 18:51	955479	110-1818	1.01	QC A
070f7001.d	247043003	YS1	22-FEB-2010 19:04	955479	110-1818	1.01	LANL
071f7101.d	1202048529	YS1	22-FEB-2010 19:16	955479	110-1818	1.01	QC A

Instrument Batch: /chem/ecdl.a.i/022210.b

Page: 4

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SCG	Dilution	Client	Comments
072f7201.d	1202048530	YS1	22-FEB-2010 19:29	955479	110-1818	1.01	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	247043004	YS1	22-FEB-2010 19:42	955479	110-1818	1.01	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	247043005	YS1	22-FEB-2010 19:54	955479	110-1818	1.01	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	247043006	YS1	22-FEB-2010 20:07	955479	110-1818	1.01	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
076f7601.d	247043007	YS1	22-FEB-2010 20:20	955479	110-1818	1.01	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	247043008	YS1	22-FEB-2010 20:32	955479	110-1818	1.01	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	WAR100203-60 05	YS1	22-FEB-2010 20:45		1022210	1.01	PASSED ON BOTH COLUMNS	
079f7901.d	WAR100219-99 06	YS1	22-FEB-2010 20:58		1022210	1.01	CLEAN	
080f8001.d	247043009	YS1	22-FEB-2010 21:10	955479	110-1818	1.01	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	247043010	YS1	22-FEB-2010 21:23	955479	110-1818	1.01	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	247043011	YS1	22-FEB-2010 21:35	955479	110-1818	1.01	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
083f8301.d	247043012	YS1	22-FEB-2010 21:48	955479	110-1818	1.01	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
084f8401.d	247043013	YS1	22-FEB-2010 22:01	955479	110-1818	1.01	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	247043014	YS1	22-FEB-2010 22:13	955479	110-1818	1.01	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

086f8601.d	1247043015	YS1	22-FEB-2010 22:26	955479	10-1818	1.0/LANL	UPLoad BOTH COLUMNS, USE HIGHER
087f8701.d	1247043016	YS1	22-FEB-2010 22:39	955479	10-1818	1.0/LANL	UPLoad BOTH COLUMNS, USE HIGHER
088f8801.d	1247043017	YS1	22-FEB-2010 22:51	955479	10-1818	1.0/LANL	SURROGATE LOW RE
089f8901.d	1247043018	YS1	22-FEB-2010 23:04	955479	10-1818	1.0/LANL	UPLoad BOTH COLUMNS, USE HIGHER
090f9001.d	1247043019	YS1	22-FEB-2010 23:17	955479	10-1818	1.0/LANL	UPLoad BOTH COLUMNS, USE HIGHER
091f9101.d	1247043020	YS1	22-FEB-2010 23:29	955479	10-1818	1.0/LANL	UPLoad BOTH COLUMNS, USE HIGHER
092f9201.d	1247043021	YS1	22-FEB-2010 23:42	955479	10-1818	1.0/LANL	UPLoad BOTH COLUMNS, USE HIGHER
093f9301.d	1247043022	YS1	22-FEB-2010 23:55	955479	10-1818	1.0/LANL	UPLoad BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/022210.b Page: 5

Data File	Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
092f9201.d	1660	YS1	22-FEB-2010 23:42	955479	1022210	1.0	DUSE SCREEN	
093f9301.d	1660-4	YS1	22-FEB-2010 23:55	955479	1022210	1.0	DUSE SCREEN	



Calibration & QC Information  
Initial Calibration Dates: See Calibration History and Standard Logbook.  
Initial Calibration Std ID's: See Calibration History and Standard Logbook.  
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082  
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,  
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention  
BF-Before, AF-After.

Injection Volume: 0.5 ul

Page: 1

Page: 1

016f3601.d	SCREEN	YS1	08-MAR-2010 08:39	961145	030810	1.0	DUSE SCREEN
017f1701.d	247923001	YS1	08-MAR-2010 08:52	961145	ECU-7523	1.0	CARE DUSE RE
018f1801.d	247927001	YS1	08-MAR-2010 09:04	961145	ECU-7524	5.0	CARE DUSE RR UPLOADED BOTH COLUMNS, USE HIGHER
019f1901.d	247930001	YS1	08-MAR-2010 09:17	961145	ECU-7525	10.0	CARE DUSE RR UPLOADED BOTH COLUMNS, USE HIGHER
020f2001.d	247933001	YS1	08-MAR-2010 09:30	961145	ECU-7526	5.0	CARE DUSE RR UPLOADED BOTH COLUMNS, USE HIGHER
021f2101.d	247941001	YS1	08-MAR-2010 09:42	961145	ECU-7528	1.0	CARE DUSE RR UPLOADED BOTH COLUMNS, USE HIGHER
022f2201.d	WAR100222-60 02	YS1	08-MAR-2010 09:55		030810	1.0	PASSED ON BOTH COLUMNS
023f2301.d	WAR100219-99 03	YS1	08-MAR-2010 10:06		030810	1.0	CLEAN
024f2401.d	247943001	YS1	08-MAR-2010 10:16	961145	ECU-7529	1.0	CARE DUSE RR UPLOADED BOTH COLUMNS, USE HIGHER
025f2501.d	1202061569	YS1	08-MAR-2010 10:29	961145	ECU-7529	1.0	QC A DUSE RR UPLOADED BOTH COLUMNS, USE HIGHER
026f2601.d	1202061570	YS1	08-MAR-2010 10:41	961145	ECU-7529	1.0	QC A DUSE RR UPLOADED BOTH COLUMNS, USE HIGHER
027f2701.d	247945001	YS1	08-MAR-2010 10:54	961145	ECU-7530	5.0	CARE DUSE RR AFTER MORE SULFUR CLEANED
028f2801.d	248224001	YS1	08-MAR-2010 11:06	961145	ECU-7534	5.0	CARE DUSE RE
029f2901.d	248225001	YS1	08-MAR-2010 11:19	961145	ECU-7535	50.0	CARE DUSE RR UPLOADED BOTH COLUMNS, USE HIGHER
030f3001.d	247945001	YS1	08-MAR-2010 11:32	961145	ECU-7530	5.0	CARE DUSE RE
031f3101.d	WAR100222-60 03	YS1	08-MAR-2010 11:44		030810	1.0	PASSED ON BOTH COLUMNS
032f3201.d	ARI1660	YS1	08-MAR-2010 11:55		030810	1.0	WAS A CHECK
033f3301.d	1202063216	YS1	08-MAR-2010 12:05	961902	030810	1.0	QC A DUSE RR
034f3401.d	1202063217	YS1	08-MAR-2010 12:16	961902	030810	1.0	QC A DUSE RR
035f3501.d	248253001	YS1	08-MAR-2010 12:26		030810	20.0	DUSE RR

Instrument Batch: /chem/ecdl1a.i/030810.b

Page: 2

Data File	GE Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR100222-60 04	YS1	08-MAR-2010 12:39		030810	1.0		PASSED ON BOTH COLUMNS
037f3701.d	WAR100219-99 04	YS1	08-MAR-2010 12:49		030810	1.0		CLEAN
038f3801.d	1202063216	YS1	08-MAR-2010 13:00		961902	10-2047	1.0	QC A UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	1202063217	YS1	08-MAR-2010 13:10		961902	10-2047	1.0	QC A UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	248253001	YS1	08-MAR-2010 13:21		961902	10-2143	20.0	ILANUS UPLOAD BOTH COLUMNS, USE HIGHER

1041f4101.d	1202063218	YS1	08-MAR-2010 13:33	961902	10-2-43	20.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1042f4201.d	1202063219	YS1	08-MAR-2010 13:46	961902	10-2143	20.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1043f4301.d	1248253002	YS1	08-MAR-2010 13:59	961902	10-2143	50.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1044f4401.d	1248010022-60 05	YS1	08-MAR-2010 14:11	030810	1.0		PASSED ON BOTH COLUMNS
1045f4501.d	1248010021-99 05	YS1	08-MAR-2010 14:22	030810	1.0		CLEAN
1046f4601.d	1248010002	YS1	08-MAR-2010 14:32	961902	10-2047	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1047f4701.d	1248010003	YS1	08-MAR-2010 14:45	961902	10-2047	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1048f4801.d	1248010004	YS1	08-MAR-2010 14:57	961902	10-2047	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1049f4901.d	1248010005	YS1	08-MAR-2010 15:10	961902	10-2047	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1050f5001.d	1248010006	YS1	08-MAR-2010 15:23	961902	10-2047	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1051f5101.d	1248010007	YS1	08-MAR-2010 15:35	961902	10-2047	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1052f5201.d	1248010008	YS1	08-MAR-2010 15:48	961902	10-2047	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1053f5301.d	1248010022-60 06	YS1	08-MAR-2010 16:01	030810	1.0		PASSED ON BOTH COLUMNS
1054f5401.d	1248010021-99 06	YS1	08-MAR-2010 16:11	030810	1.0		CLEAN
1055f5501.d	1248043001	YS1	08-MAR-2010 16:22	961902	10-2074	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1056f5601.d	1248043002	YS1	08-MAR-2010 16:34	961902	10-2074	5.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1057f5701.d	1248043018	YS1	08-MAR-2010 16:47	961902	10-2074	20.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1058f5801.d	1248020001	YS1	08-MAR-2010 17:00	961902	10-2089	5.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1059f5901.d	1248114002	YS1	08-MAR-2010 17:12	961902	10-2092	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1060f6001.d	1248114003	YS1	08-MAR-2010 17:25	961902	10-2092	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1061f6101.d	1248114004	YS1	08-MAR-2010 17:37	961902	10-2092	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1062f6201.d	1248114005	YS1	08-MAR-2010 17:50	961902	10-2092	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1063f6301.d	1248114006	YS1	08-MAR-2010 18:03	961902	10-2092	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1064f6401.d	1248203002	YS1	08-MAR-2010 18:15	961902	10-2125	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Page: 3

Instrument Batch: /chem/ecdl1a.i/030810.b



I065f6501.d	IWAR100222-60 07	YSL	08-MAR-2010 18:28	I	I030810	I	1.0I	I PASSED ON BOTH COLUMNS	I
I066f6601.d	IWAR100219-99 07	YSL	08-MAR-2010 18:38	I	I030810	I	1.0I	I CLEAN	I

Instrument Batch: /chem/ecdl1a.i/030810.b

Page: 4

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/030810.b/041b4101.d  
Lab Smp Id: 1202063218 Client Smp ID: WST01-10-13669MS  
Inj Date : 08-MAR-2010 13:33  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |1202063218|20|  
Misc Info : |ECD82P\_1S|961902|2|SVA|QC A|SOIL|MS|||  
Comment :  
Method : /chem/ecdla.i/030810.b/ECD1-B-8082-022210.m  
Meth Date : 12-Mar-2010 08:46 jc Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 41 QC Sample: MS  
Dil Factor: 20.00000  
Integrator: Falcon Compound Sublist: 10-2143.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	18.27580	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
			ON-COL	FINAL				
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====		=====
\$ 11 4cmx					CAS #: 877-09-8			
2.276	2.277	-0.001	1367178	4.59715	3.7	80.00-	120.00	100.00
-----								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.916	5.918	-0.002	1179499	5.57687	4.5	80.00-	120.00	100.00
-----								
1 Aroclor-1016					CAS #: 12674-11-2			
3.171	3.171	0.000	458459	35.8457	29.2	80.00-	120.00	100.00 (aRH)
3.253	3.254	-0.001	346408	38.8440	31.6	46.88-	86.88	75.56
3.316	3.317	-0.001	182858	33.8249	27.5	21.44-	61.44	39.89
3.544	3.544	0.000	1038585	150.179	122	34.15-	74.15	226.54

CONCENTRATIONS								
			ON-COL	FINAL				
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
----	-----	-----	-----	-----	-----	-----	-----	
1 Aroclor-1016 (continued)								
3.619	3.619	0.000	674624	104.996	85.4	30.80- 70.80	147.15	
Average of Peak Concentrations =					59.2			
-----								
6 Aroclor-1254					CAS #: 11097-69-1			
3.379	3.380	-0.001	1979960	326.274	265	80.00- 120.00	100.00	
3.801	3.801	0.000	4864710	452.838	368	162.66- 202.66	245.70	
3.917	3.918	-0.001	6464994	555.256	452	182.93- 222.93	326.52	
4.192	4.194	-0.002	9103480	572.594	466	265.65- 305.65	459.78	
4.329	4.330	-0.001	6489837	541.938	441	189.90- 229.90	327.78	
Average of Peak Concentrations =					398			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
4.309	4.310	-0.001	5718116	433.006	352	80.00- 120.00	100.00(R)	
4.434	4.435	-0.001	5396749	346.683	282	102.72- 142.72	94.38	
4.701	4.701	0.000	1806525	152.533	124	72.14- 112.14	31.59	
4.872	4.874	-0.002	1355090	111.062	90.3	75.87- 115.87	23.70	
5.020	5.021	-0.001	2824423	106.473	86.6	194.62- 234.62	49.39	
Average of Peak Concentrations =					187			

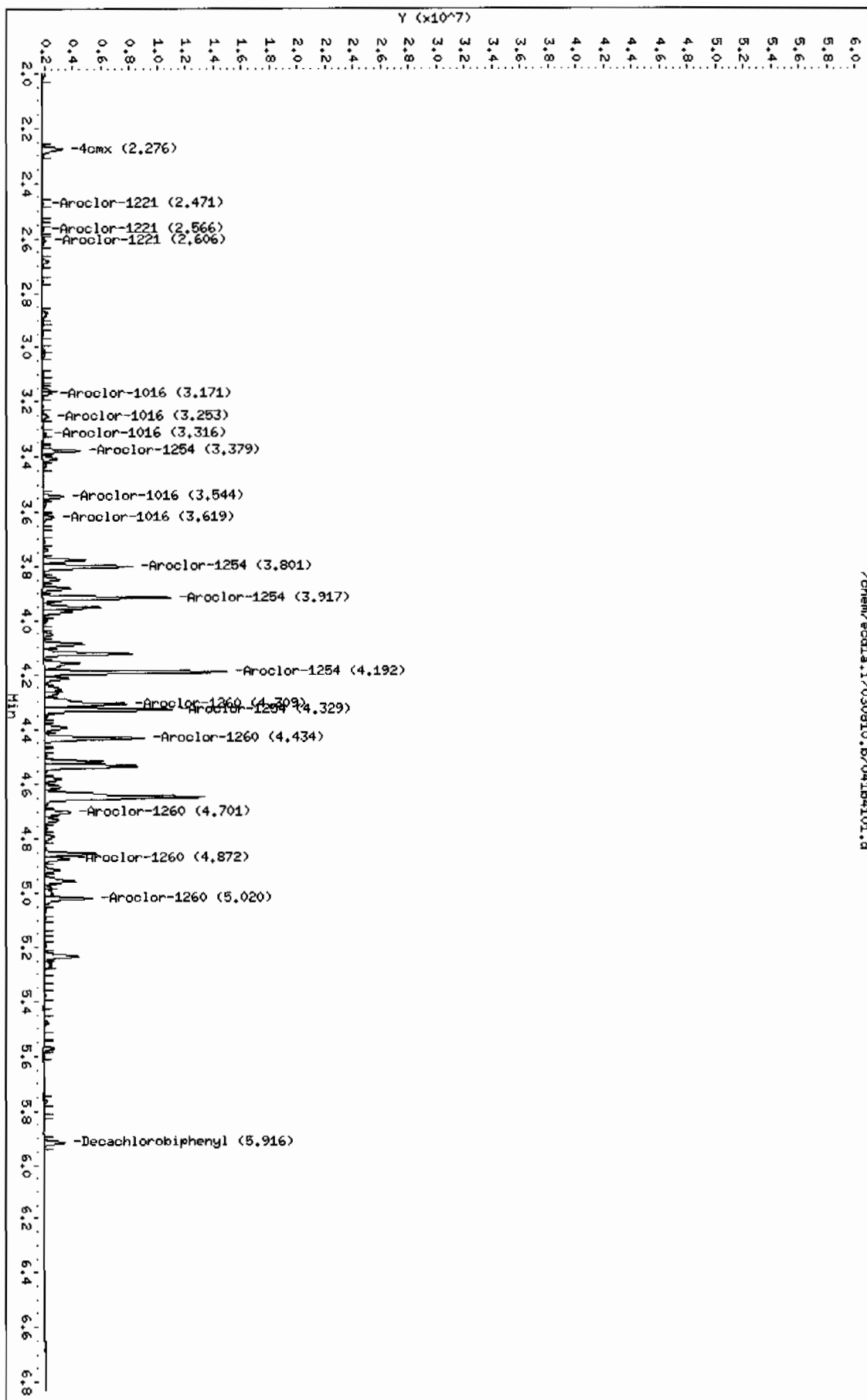
#### QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.
- H - Operator selected an alternate compound hit.

Data File: /chem/eod1a.i/030810.b/041b4101.d  
Date: 08-MAR-2010 13:33  
Client ID: MST01-10-1369MS  
Sample Info: 112020632181201  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: eod1a.i  
Operator: YSL  
Column diameter: 0.25

/chem/eod1a.i/030810.b/041b4101.d



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL  
 Data file : /chem/ecdl1a.i/030810.b/041f4101.d  
 Lab Smp Id: 1202063218 Client Smp ID: WST01-10-13669MS  
 Inj Date : 08-MAR-2010 13:33  
 Operator : YSl Inst ID: ecd1a.i  
 Smp Info : |1202063218|20|  
 Misc Info : |ECD82P\_1S|961902|2|SVA|QC A|SOIL|MS|  
 Comment :  
 Method : /chem/ecdl1a.i/030810.b/ECD1-F-8082-022210.m  
 Meth Date : 08-Mar-2010 13:37 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
 Als bottle: 4l QC Sample: MS  
 Dil Factor: 20.00000  
 Integrator: Falcon Compound Sublist: 10-2143.sub  
 Target Version: 3.50 Sample Matrix: Soil  
 Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	18.27580	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS						
RT	EXP RT	DLT RT	ON-COL	FINAL	TARGET RANGE	RATIO
==	==	==	=====	=====	=====	=====
CAS #: 877-09-8						
11 4cmx	1.917	1.917	0.000	1809192 4.20120	3.4 80.00- 120.00	100.00
CAS #: 2051-24-3						
12 Decachlorobiphenyl	5.221	5.223	-0.002	1581508 5.14664	4.2 80.00- 120.00	100.00
CAS #: 12674-11-2						
1 Aroclor-1016	2.370	2.371	-0.001	474841 30.8652	25.1 80.00- 120.00	100.00 (aH)
	2.656	2.657	-0.001	559790 30.6953	25.0 112.24- 152.24	117.89
	2.736	2.737	-0.001	395361 32.7679	26.6 63.35- 103.35	83.26
	2.774	2.775	-0.001	221709 31.2438	25.4 30.14- 70.14	46.69

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO	
==	=====	==	=====	=====	=====	=====		=====	
1 Aroclor-1016 (continued)									
2.984	2.986	-0.002	1522145 170.794		139	44.06-	84.06	320.56	
Average of Peak Concentrations =					48.2				
-----									
6 Aroclor-1254					CAS #: 11097-69-1				
3.213	3.215	-0.002	5787617 482.006		392	80.00-	120.00	100.00(M)	
3.368	3.369	-0.001	9063234 572.458		466	116.82-	156.82	156.60	
3.601	3.602	-0.001	12295965 629.787		512	157.14-	197.14	212.45	
3.764	3.765	-0.001	9129543 661.121		538	112.42-	152.42	157.74	
3.873	3.875	-0.002	10710818 750.004		610	109.02-	149.02	185.06	
Average of Peak Concentrations =					504				
-----									
7 Aroclor-1260					CAS #: 11096-82-5				
3.710	3.711	-0.001	5973760 349.907		284	80.00-	120.00	100.00(RM)	
3.873	3.873	0.000	10710818 453.014		368	129.73-	169.73	179.30	
4.034	4.036	-0.002	15432985 618.028		503	137.08-	177.08	258.35	
4.102	4.104	-0.002	1505232 104.489		85.0	70.34-	110.34	25.20	
4.246	4.247	-0.001	1548571 107.312		87.3	74.64-	114.64	25.92	
Average of Peak Concentrations					265				

#### QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

Data File: /chem/eod1a.i/030810.b/04f4101.d

Date: 08-MAR-2010 13:33

Client ID: MSTR1-10-13669HS

Sample Info: 112020632181201

Volume Injected (uL): 1.0

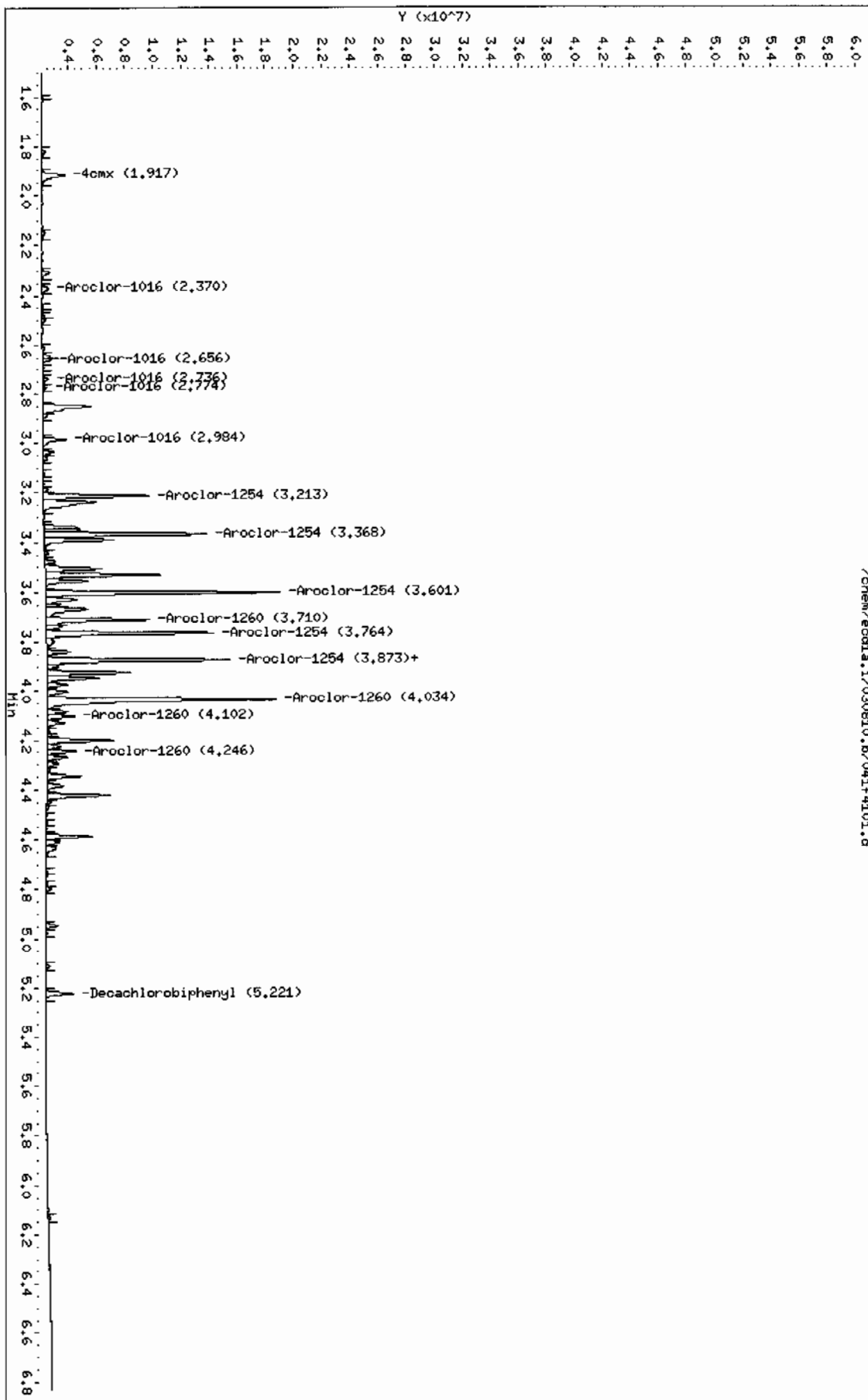
Column Phase: CLP1

Instrument: eod1a.i

Operator: YSI

Column diameter: 0.25

/chem/eod1a.i/030810.b/04f4101.d



Data File: /chem/ecdl1a.i/030810.b/042b4201.d  
Report Date: 12-Mar-2010 08:48

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdl1a.i/030810.b/042b4201.d  
Lab Smp Id: 1202063219 Client Smp ID: WST01-10-13669MSD  
Inj Date : 08-MAR-2010 13:46  
Operator : YSl Inst ID: ecd1a.i  
Smp Info : |1202063219|20|  
Misc Info : |ECD82P\_1S|961902|2|SVA|QC A|SOIL|MSD|||  
Comment :  
Method : /chem/ecdl1a.i/030810.b/ECD1-B-8082-022210.m  
Meth Date : 12-Mar-2010 08:46 jc Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 42 QC Sample: MSD  
Dil Factor: 20.00000  
Integrator: Falcon Compound Sublist: 10-2143.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.13000	Weight of sample extracted (g)
M	18.27580	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	==	=====	=====	=====	=====	=====
CAS #: 877-09-8						
2.274	2.277	-0.003	2484493	8.35413	6.8 80.00- 120.00	100.00
CAS #: 2051-24-3						
5.915	5.918	-0.003	2078734	9.82861	8.0 80.00- 120.00	100.00
CAS #: 12674-11-2						
3.169	3.171	-0.002	776582	60.7189	49.3 80.00- 120.00	100.00 (RH)
3.252	3.254	-0.002	590011	66.1601	53.7 46.88- 86.88	75.98
3.316	3.317	-0.001	334868	61.9436	50.3 21.44- 61.44	43.12
3.542	3.544	-0.002	2195471	317.465	258 34.15- 74.15	282.71



CONCENTRATIONS							
			ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)							
3.617	3.619	-0.002	1341640	208.809	170	30.80- 70.80	172.76
Average of Peak Concentrations =					116		
-----							
6 Aroclor-1254					CAS #: 11097-69-1		
3.377	3.380	-0.003	4254271	701.054	569	80.00- 120.00	100.00
3.799	3.801	-0.002	10829791	1008.11	819	162.66- 202.66	254.56
3.916	3.918	-0.002	14096936	1210.74	983	182.93- 222.93	331.36
4.191	4.194	-0.003	20291591	1276.31	1040	265.65- 305.65	476.97
4.327	4.330	-0.003	14104010	1177.77	957	189.90- 229.90	331.53
Average of Peak Concentrations =					874		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
4.307	4.310	-0.003	12206329	924.327	751	80.00- 120.00	100.00(R)
4.432	4.435	-0.003	11288294	725.151	589	102.72- 142.72	92.48
4.701	4.701	0.000	3689183	311.494	253	72.14- 112.14	30.22
4.872	4.874	-0.002	2716735	222.661	181	75.87- 115.87	22.26
5.018	5.021	-0.003	5410422	203.958	166	194.62- 234.62	44.32
Average of Peak Concentrations =					388		
-----							

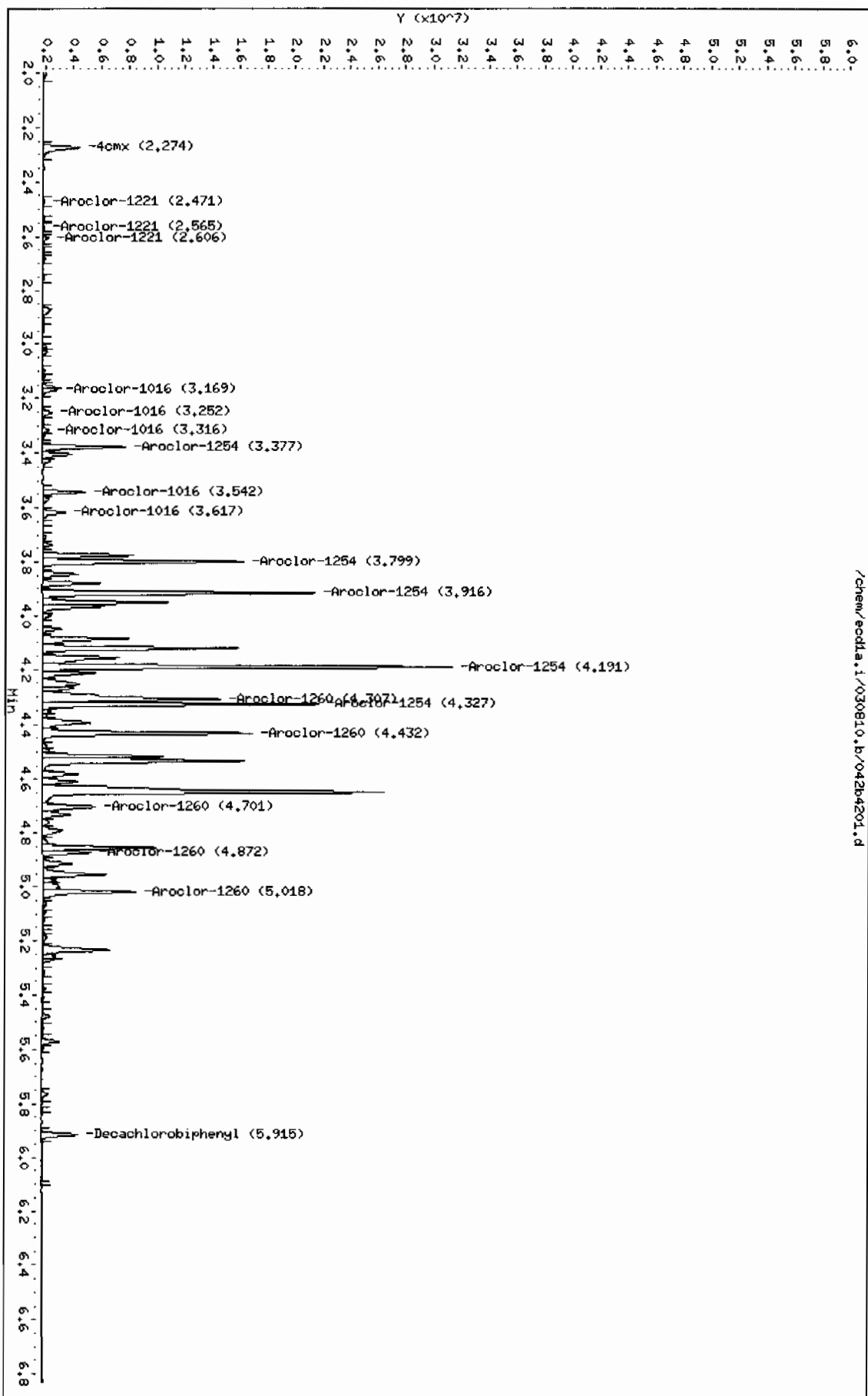
#### QC Flag Legend

R - Spike/Surrogate failed recovery limits.  
 H - Operator selected an alternate compound hit.

Data File: /chem/ecdl.i/030810.b/042b4201.d  
 Date: 08-MAR-2010 13:46  
 Client ID: MST01-10-13669MSD  
 Sample Info: 112020632191201  
 Volume Injected (uL): 1.0  
 Column phase: CLP2

Instrument: ecdl.i  
 Operator: YSI  
 Column diameter: 0.25

/chem/ecdl.i/030810.b/042b4201.d



Data File: /chem/ecdla.i/030810.b/042f4201.d  
Report Date: 08-Mar-2010 14:31

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/030810.b/042f4201.d

Lab Smp Id: 1202063219

Client Smp ID: WST01-10-13669MSD

Inj Date : 08-MAR-2010 13:46

Operator : YS1

Inst ID: ecdla.i

Smp Info : |1202063219|20|

Misc Info : |ECD82P\_1S|961902|2|SVA|QC A|SOIL|MSD|

Comment :

Method : /chem/ecdla.i/030810.b/ECD1-F-8082-022210.m

Meth Date : 08-Mar-2010 13:37 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 42

QC Sample: MSD

Dil Factor: 20.00000

Integrator: Falcon

Compound Sublist: 10-2143.sub

Target Version: 3.50

Sample Matrix: Soil

Processing Host: hpclp1

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.13000	Weight of sample extracted (g)
M	18.27580	% Moisture

Cpnd Variable

Local Compound Variable

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
-----						
\$ 11 4cmx			CAS #: 877-09-8			
1.916	1.917	-0.001	3373779 7.83439	6.4	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl			CAS #: 2051-24-3			
5.221	5.223	-0.002	2748592 8.94464	7.3	80.00- 120.00	100.00
-----						
1 Aroclor-1016			CAS #: 12674-11-2			
2.368	2.371	-0.003	827668 53.7994	43.7	80.00- 120.00	100.00(RH)
2.655	2.657	-0.002	972633 53.3329	43.3	112.24- 152.24	117.51
2.736	2.737	-0.001	678620 56.2447	45.7	63.35- 103.35	81.99
2.773	2.775	-0.002	371073 52.2925	42.5	30.14- 70.14	44.83

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO	
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1 Aroclor-1016 (continued)									
2.982	2.986	-0.004	3269332	366.838	298	44.06-	84.06	395.00	
Average of Peak Concentrations =					94.6				
-----									
6 Aroclor-1254					CAS #: 11097-69-1				
3.212	3.215	-0.003	13101774	1091.15	886	80.00-	120.00	100.00(M)	
3.367	3.369	-0.002	20276625	1280.72	1040	116.82-	156.82	154.76	
3.600	3.602	-0.002	27664844	1416.97	1150	157.14-	197.14	211.15	
3.762	3.765	-0.003	20026063	1450.20	1180	112.42-	152.42	152.85	
3.872	3.875	-0.003	22548237	1578.90	1280	109.02-	149.02	172.10	
Average of Peak Concentrations =					1110				
-----									
7 Aroclor-1260					CAS #: 11096-82-5				
3.707	3.711	-0.004	12712899	744.645	605	80.00-	120.00	100.00(RM)	
3.872	3.873	-0.001	22548237	953.678	775	129.73-	169.73	177.37	
4.033	4.036	-0.003	32219484	1290.26	1050	137.08-	177.08	253.44	
4.101	4.104	-0.003	2766009	192.008	156	70.34-	110.34	21.76	
4.243	4.247	-0.004	2947936	204.285	166	74.64-	114.64	23.19	
Average of Peak Concentrations =					550				
-----									

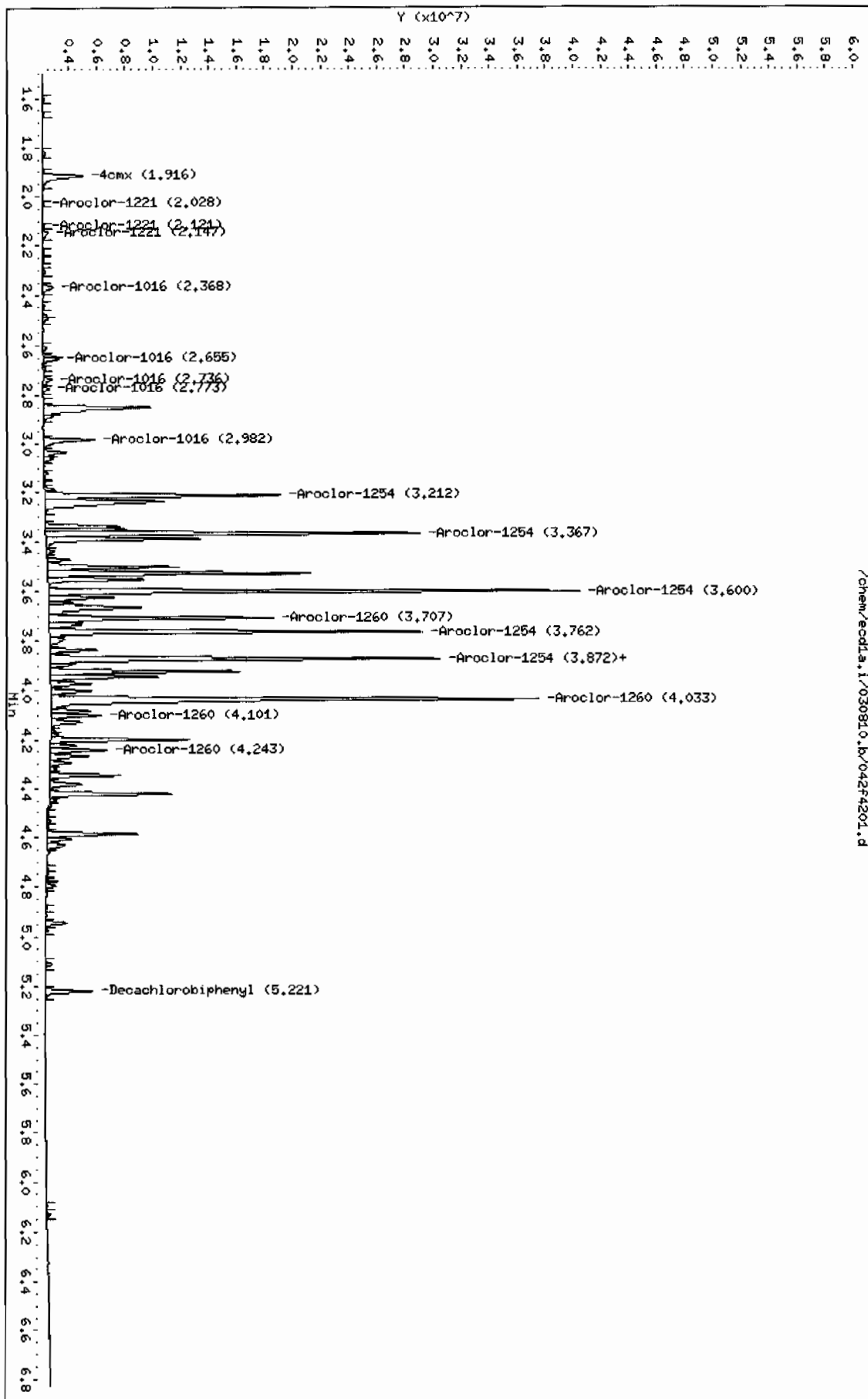
#### QC Flag Legend

R - Spike/Surrogate failed recovery limits.  
 M - Compound response manually integrated.  
 H - Operator selected an alternate compound hit.

Data File: /chem/ecdda.i/030810.b/042f4201.d  
Date : 08-MAR-2010 13:46  
Client ID: MST01-10-13669MSD  
Sample Info: 12020632191201  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: ecdda.i  
Operator: YSL  
Column diameter: 0.25

/chem/ecdda.i/030810.b/042f4201.d



# Prep Logbook Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 961901  
 Analyst: Alberto Velasco  
 Method: SW846 3550B

Verified by: \_\_\_\_\_

Lab SOP: GL-OA-E-010 REV# 18  
 Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202063216 MB	07-MAR-2010 11:43:00	30	H2SO4/KM2	2	9	1	0.03333	
1202063217 LCS	07-MAR-2010 11:43:00	30	H2SO4/KM2	2	9	1	0.03333	
248018002-2	07-MAR-2010 11:43:00	30.11	H2SO4/KM2	2	9	1	0.03321	
248018003-2	07-MAR-2010 11:43:00	30.07	H2SO4/KM2	2	9	1	0.03326	
248018004-2	07-MAR-2010 11:43:00	30.16	H2SO4/KM2	2	9	1	0.03316	
248018005-2	07-MAR-2010 11:43:00	30.07	H2SO4/KM2	2	9	1	0.03326	
248018006-2	07-MAR-2010 11:43:00	30.19	H2SO4/KM2	2	9	1	0.03312	
248018007-2	07-MAR-2010 11:43:00	30.03	H2SO4/KM2	2	9	1	0.0333	
248018008-2	07-MAR-2010 11:43:00	30.16	H2SO4/KM2	2	9	1	0.03316	
248043001-2	07-MAR-2010 11:43:00	30.11	H2SO4/KM2	2	9	1	0.03321	
248043002-2	07-MAR-2010 11:43:00	30.05	H2SO4/KM2	2	9	1	0.03328	
248043018-2	07-MAR-2010 11:43:00	30.04	H2SO4/KM2	2	9	1	0.03329	
248102001-2	07-MAR-2010 11:43:00	30.16	H2SO4/KM2	2	9	1	0.03316	
248114002-2	07-MAR-2010 11:43:00	30.05	H2SO4/KM2	2	9	1	0.03328	
248114003-2	07-MAR-2010 11:43:00	30.1	H2SO4/KM2	2	9	1	0.03322	
248114004-2	07-MAR-2010 11:43:00	30.08	H2SO4/KM2	2	9	1	0.03324	
248114005-2	07-MAR-2010 11:43:00	30.04	H2SO4/KM2	2	9	1	0.03329	
248114006-2	07-MAR-2010 11:43:00	30.12	H2SO4/KM2	2	9	1	0.0332	
248203002-2	07-MAR-2010 11:43:00	30.17	H2SO4/KM2	2	9	1	0.03315	
248253001-2	07-MAR-2010 11:43:00	30.06	H2SO4/KM2	2	9	1	0.03327	
1202063218-2 MS (248253001)	07-MAR-2010 11:43:00	30.09	H2SO4/KM2	2	9	1	0.03323	
1202063219-2 MSD (248253001)	07-MAR-2010 11:43:00	30.13	H2SO4/KM2	2	9	1	0.03319	
248253002-2	07-MAR-2010 11:43:00	30.09	H2SO4/KM2	2	9	1	0.03323	
Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:		
LCS	1202063217	PCB Laboratory Control	WE100224-07	1	mL	Clean up Date: 3/7/10		
MS	1202063218	PCB Laboratory Control	WE100224-07	1	mL	Clean up Initials: AAW		
MSD	1202063219	PCB Laboratory Control	WE100224-07	1	mL	Verified By: AAW		
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100302-16	1	mL	Final Solvent: Hexane		
REGNT	All	1:1 sulfuric acid	1260695a	5	mL	Clean Up SOP: GL-OA-E-037		
REGNT	All	Acetone	1273823-B1	150	mL			
REGNT	All	Hexane	1279345-B2	150	mL			
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL			
SOURC	All	SODIUM SULFATE	1274910	30	g			

DATA EXCEPTION REPORT			
<b>Mo. Day Yr.</b> 09-MAR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> GC/ECD	<b>Test / Method:</b> SW846 8082	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 961902	<b>Sample Numbers:</b> See Below		
<p><b>Potentially affected work order(s)(SDG):</b> 248018(10-2047), 248043(10-2074), 248102(10-2089), 248114(10-2092), 248203(10-2125), 248253(10-2143)</p> <p><b>Application Issues:</b></p> <p>Failed Recovery for MSD/PSD</p> <p>Failed Recovery for MS/PS</p> <p>Failed RPD for MS/MSD, or PS/PSD</p> <p>Failed Yield for Surrogates</p>			
<b>Specification and Requirements</b>		<b>DER Disposition:</b>	
<p><b>Exception Description:</b></p> <p>1. 1202063218MS and 1202063219MSD did not meet the spike recovery limit.</p> <p>2. The RPD between 1202063218MS and 1202063219MSD did not meet the acceptance limit.</p> <p>3. Sample 248043002 and 248043018 did not meet the surrogate recovery limit for Decachlorobiphenyl on one column.</p>		<p>1, 2 &amp; 3. The failures were due to sample matrix and dilutions. The data were reported.</p>	

**Originator's Name:**

Yiping Shi

09-MAR-10

**Data Validator/Group Leader:**

Jimin Cao

09-MAR-10