

Friday, February 26, 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: 2/26/2010

TURNAROUND/REPORT DUE: 3/28/2010

TURNAROUND REQD: 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	RE36-10-8464	R	2/24/2010	
	SW-846:8260B	1	RE36-10-8464	R	2/24/2010	
		1	RE36-10-8471	R	2/24/2010	
		1	RE36-10-8475	R	2/24/2010	
		1	RE36-10-8477	R	2/24/2010	
		1	RE36-10-8479	R	2/24/2010	
		1	RE36-10-8481	R	2/24/2010	
		1	RE36-10-8484	R	2/24/2010	
		1	RE36-10-8485	R	2/24/2010	

These Samples are on:

LANL Request Number: 10-2137

Per Agreement Number: 126310011

Project Cost Code: MFR3A05529E00



Friday, February 26, 2010

REQUEST NUMBER: 10-2137

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:8321A_MOD	8270C	1	RE36-10-8464	R	2/24/2010	
		1	RE36-10-8471	R	2/24/2010	
		1	RE36-10-8475	R	2/24/2010	
		1	RE36-10-8477	R	2/24/2010	
		1	RE36-10-8479	R	2/24/2010	
		1	RE36-10-8481	R	2/24/2010	
		1	RE36-10-8484	R	2/24/2010	
		1	RE36-10-8485	R	2/24/2010	
		1	RE36-10-8464	R	2/24/2010	
		1	RE36-10-8471	R	2/24/2010	
		1	RE36-10-8475	R	2/24/2010	
		1	RE36-10-8477	R	2/24/2010	
		1	RE36-10-8479	R	2/24/2010	
		1	RE36-10-8481	R	2/24/2010	
		1	RE36-10-8484	R	2/24/2010	
		1	RE36-10-8485	R	2/24/2010	

Final Page of REQUEST NUMBER 10-2137



Friday, February 26, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2137

REQUEST NUMBER: 10-2137

**LOS ALAMOS****NATIONAL LABORATORY**

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/28/2010

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
RE36-10-8464	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8464	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8475	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8475	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8471	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8471	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8485	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8485	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8477	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8477	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8479	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8479	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8484	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8484	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8481	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8481	1	AMBER GLASS	8270C+NMED Exp	Ice	R

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: 2511

EVENT NAME: 4th Qtr. FY09 - SWMU 36-003(a) - Threemile Canyon

SAMPLE ID: RE36-10-8464

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		1535		SUB-MEDIA:		TUFF 1	
PRS ID: 36-003(a)		ok		SAMPLE TECH CODE: HA		ok	
LOCATION ID: 36-610880		↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE: GENERIC		↓		FIELD PREP: NA		↓	
TOP DEPTH: 0		3.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		4.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		R		EXCAVATED: YES / <input checked="" type="checkbox"/> / NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES / <input checked="" type="checkbox"/> / NA			
BOREHOLE: YES / <input checked="" type="checkbox"/> / 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:

Brownish gray, tuff

SAMPLE COMMENTS:

NA

LOCATION DESC:

3a-3

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 5 dpm  
Beta/Gamma ≤ 2010 dpm

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

73m 2/24/10

COLLECTED BY (PRINT)

J. McFarland

REVIEWED BY (PRINT) Jon Roberson

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Riley Evans	2/24/10	(Printed Name) [Signature]	2/24/10
(Signature) [Signature]	1634	(Signature) [Signature]	4:34
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2511

EVENT NAME: 4th Qtr. FY09 - SWMU 36-003(a) - Threemile Canyon

SAMPLE ID: RE36-10-8471

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:	QBT3	QBT2	
TIME COLLECTED (HH:MM)		1435		SUB-MEDIA:	TUFF1	OK	
PRS ID:	36-003(a)	OK		SAMPLE TECH CODE:	HA		
LOCATION ID:	36-610882			FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	5.6		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	6.1		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	OK		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	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		
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None		
1		H3	500 ML POLY	Ice		
1		METALS+U-GEL	125 ML POLY	Ice		
1		Perchlorate+CN+NO3+pH	500 ML POLY	Ice		
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None		

SAMPLE DESC:

Gray tuff and clay

SAMPLE COMMENTS:

NR

LOCATION DESC:

3a5 7.6 ft from 3a6: 5 ft N from staked location 3a5

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  30 dpm  
Beta/Gamma  $\leq$  2290 dpm

PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$  1 AM 2/20/10

COLLECTED BY (PRINT)

Th. McFarland

REVIEWED BY (PRINT)

Jon Roberson

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Blue Evans	2/24/10	(Printed Name)	2/24/10
(Signature)	1634	(Signature)	4134
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2511

EVENT NAME: 4th Qtr. FY09 - SWMU 36-003(a) - Threemile Canyon

SAMPLE ID: RE36-10-8475

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/24/2010	MEDIA:		OBT3
TIME COLLECTED (HH:MM)		13/2	SUB-MEDIA:		TUFF1
PRS ID:	36-003(a)	OK	SAMPLE TECH CODE:		HA
LOCATION ID:	36-610884	↓	FIELD QC TYPE:		NA
LOCATION TYPE:	GENERIC	↓	FIELD PREP:		NA
TOP DEPTH:	0	1.0	SAMPLE USAGE:		INV
BOTTOM DEPTH:	0	2.5	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	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:

Gray, tuff and red bricks

SAMPLE COMMENTS:

NA

LOCATION DESC:

3a-7

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 41 dpm  
Beta/Gamma ≤ 2270 dpm

PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$  72m 2/24/10

COLLECTED BY (PRINT)

TLMcFarlane

REVIEWED BY (PRINT)

Jonh. berson

RELINQUISHED BY (Printed Name) R. Key Evans (Signature)	Date/Time 2/24/10 1634	RECEIVED BY (Printed Name) (Signature)	Date/Time 2/24/10 4:34
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2511

EVENT NAME: 4th Qtr. FY09 - SWMU 36-003(a) - Threemile Canyon

SAMPLE ID: RE36-10-8477

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:	QBT3	JR 2/24/10	
TIME COLLECTED (HH:MM)		1255		SUB-MEDIA:	TUFF 1	OK	Q3T2
PRS ID:	36-003(a)	OK		SAMPLE TECH CODE:	HA	OK	
LOCATION ID:	36-610885	↓		FIELD QC TYPE:	NA	↓	
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA	↓	
TOP DEPTH:	0	2.5		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		
BOREHOLE: YES/NO/NA				WATER FLOWING: 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:

Gray buff

SAMPLE COMMENTS:

NA

LOCATION DESC:

3a-8

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 30 dpm  
Beta/Gamma ≤ 1970 dpm

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



72m 2/24/10

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

JonRoberson

RELINQUISHED BY (Printed Name) Riley Evans (Signature) 	Date/Time 2/24/10 1634	RECEIVED BY (Printed Name)  (Signature)	Date/Time 2/24/10 4134
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



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

EVENT ID: 2511

EVENT NAME: 4th Qtr. FY09 - SWMU 36-003(a) - Threemile Canyon

SAMPLE ID: RE36-10-8479

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:	QBT3		OK QBT3
TIME COLLECTED (HH:MM)		1300		SUB-MEDIA:	TUFF 1		OK
PRS ID:	36-003(a)		OK	SAMPLE TECH CODE:	HA		OK
LOCATION ID:	36-610886		↓	FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC		↓	FIELD PREP:	NA		↓
TOP DEPTH:	0		2.3	SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0		3.9	SCREEN/PORT DESC:		72m 2/24/10	↓ 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	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:

Gray, tuff and brown clay

SAMPLE COMMENTS:

NA

LOCATION DESC: 3a-10

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 25 dpm  
Beta/Gamma ≤ 2100 dpm

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


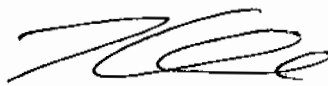
72m 2/24/10

COLLECTED BY (PRINT)

JLMcFarland

REVIEWED BY (PRINT)

Jon Roberson

RELINQUISHED BY (Printed Name) R. W. Wens (Signature) 	Date/Time 2/24/10 1634	RECEIVED BY (Printed Name)  (Signature)	Date/Time 2/24/10 4134
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2511

EVENT NAME: 4th Qtr. FY09 - SWMU 36-003(a) - Threemile Canyon

SAMPLE ID: RE36-10-8481

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:	OBT3	JR2/24/10	
TIME COLLECTED (HH:MM)		1237		SUB-MEDIA:	TUFF.1	OK Q3T2	
PRS ID:	36-003(a)	ok		SAMPLE TECH CODE:	HA	ok	
LOCATION ID:	36-610887			FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	2.0		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	4.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	R		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
BOREHOLE: YES/NO/NA				WATER FLOWING: 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:

Gray, tuff and brown clay

SAMPLE COMMENTS:

NA

LOCATION DESC:

3a-9

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  30 dpm  
 Beta/Gamma  $\leq$  2010 dpm

PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$  73m 2/24/10

COLLECTED BY (PRINT)

Th McFarland

REVIEWED BY (PRINT) Jon Roberson

RELINQUISHED BY (Printed Name) Riley Swans	Date/Time 2/24/10 1634	RECEIVED BY (Printed Name)	Date/Time 2/24/10 4134
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2511

EVENT NAME: 4th Qtr. FY09 - SWMU 36-003(a) - Threemile Canyon

SAMPLE ID: RE36-10-8484

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:		OBT3	
TIME COLLECTED (HH:MM)		1425		SUB-MEDIA:		TUFF 1	
PRS ID: 36-003(a)		ok		SAMPLE TECH CODE: HA		ok	
LOCATION ID: 36-610889		↓		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 sandy silt and clay

SAMPLE COMMENTS:

NA

LOCATION DESC:

3a-2

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  25 dpm  
Beta/Gamma  $\leq$  2110 dpm


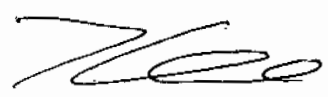
PID  $\frac{\text{Ambient Reading}}{73m\ 2/24/10} = \text{ppm}$

COLLECTED BY (PRINT)

L. McFarlane

REVIEWED BY (PRINT)

Jon Roberson

RELINQUISHED BY (Printed Name) Riley Adams (Signature) 	Date/Time 2/24/10 1434	RECEIVED BY (Printed Name)  (Signature)	Date/Time 2/24/10 4:34
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2511

EVENT NAME: 4th Qtr. FY09 - SWMU 36-003(a) - Threemile Canyon

SAMPLE ID: RE36-10-8485

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:	QBT3		Allh
TIME COLLECTED (HH:MM)		1455		SUB-MEDIA:	TUFF1		NA
PRS ID:	36-003(a)	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	36-610889	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	3.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	4.2		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	S		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	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	1	

SAMPLE DESC:

clayey sand, dark brown/reddish brown, moist, few organics

SAMPLE COMMENTS:

NA

FR: RE36-10-8493

LOCATION DESC:

3a-2

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 10 dpm  
Beta/Gamma ≤ 1734 dpm

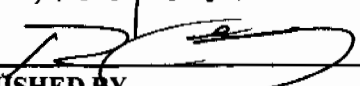
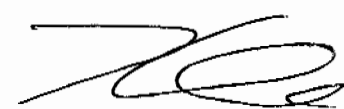
PID  $\frac{\text{Ambient Reading}}{\text{ppm}}$

73m 2/24/10

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT) Jon Roberson

RELINQUISHED BY (Printed Name) Riley Evans (Signature) 	Date/Time 2/24/10 1634	RECEIVED BY (Printed Name)  (Signature)	Date/Time 2/24/10 4:34
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2511

EVENT NAME: 4th Qtr. FY09 - SWMU 36-003(a) - Threemile Canyon

SAMPLE ID: RE36-10-8493

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/24/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1512	SUB-MEDIA:	OTHER	
PRS ID:	36-003(a)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	36-610889	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 RE 36-10-8485

## SAMPLE COMMENTS:

Rinse

## LOCATION DESC:

NA

## FIELD SCREENING/MEASUREMENT RESULTS:




NA

COLLECTED BY (PRINT)

TLMcFarlane

REVIEWED BY (PRINT)

JonRoberson

RELINQUISHED BY (Printed Name) Riley Evans (Signature) 	Date/Time 2/24/10 1634	RECEIVED BY (Printed Name)  (Signature) 	Date/Time 2/24/10 4134
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time





133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00073

Request or PO Number:

Client Sample ID: RE36-10-8464

ARS Sample ID: ARS2-10-00073-015

Sample Collection Date: 02/24/10 15:35

Date Received: 02/25/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/26/10 13:09

Analyte Description	Analyte Results	Analyte Error +/- 2 s	MDC	TPU	Qual	Analyte Units	Analyte Test Method	Analyte Date/Time	Analyte Technician	Tracer/Chem Recovery
GROSS ALPHA	37.45	28.82	34.06	29.18		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
GROSS BETA	43.98	15.87	17.92	16.76		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
NA-22	-0.04	39.56	0.13	39.56		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
K-40	27.35	9.52	1.36	9.55		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CO-60	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-134	0.09	0.13	0.12	0.13		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-137	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
EU-152	0.64	0.73	0.40	0.73		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
PB-212	1.34	0.50	0.14	0.50		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
RA-226	1.63	0.79	0.33	0.79		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-235	0.67	0.85	0.57	0.85		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-238	3.49	3.05	1.33	3.16		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
AM-241	-0.02	-0.16	0.08	-0.16		pCi/g	EPA 901.1M	2/26/2010	ME	N/A

NOTES: % Moisture: 1.26

*Matthew J. Edin*  
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: ARS2-10-00073  
Client Sample ID: RE36-10-8471  
Sample Collection Date: 02/24/10 14:35  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00073-016  
Date Received: 02/25/10 00:00  
Report Date: 02/26/10 13:09

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracker/Chem Recovery
GROSS ALPHA	41.41	30.09	32.75	30.52		pCi/g	EPA 900.0M	2/25/2010	ME	N/A
GROSS BETA	60.41	18.25	18.31	19.69		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
NA-22	0.04	0.16	0.13	0.16		pCi/g	EPA 901.1M	2/25/2010	ME	N/A
K-40	26.79	9.62	1.42	9.65		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CO-60	0.80	0.00	0.14	0.00		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-134	0.20	0.18	0.15	0.18		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-137	0.02	0.04	0.08	0.04		pCi/g	EPA 901.1M	2/25/2010	ME	N/A
EU-152	0.29	0.47	0.40	0.47		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
PB-212	1.21	0.50	0.15	0.50		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
RA-228	2.29	1.13	0.35	1.15		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-235	-0.56	-4.29	0.49	-4.29		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-238	5.95	3.59	1.36	3.84		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
AM-241	0.07	0.22	0.12	0.22		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
NOTES: % Moisture: 1.21										

Quality Assurance Review

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NELAP Certificate # E87558





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

ARS Sample Delivery Group: ARS2-10-00073  
Client Sample ID: RE36-10-8475  
Sample Collection Date: 02/24/10 13:12  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00073-017  
Date Received: 02/25/10 00:00  
Report Date: 02/26/10 13:09

Analysis Description	Analysis Results	Analysis Error +/- 2 s	HDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	37.30	28.68	33.91	29.04		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
GROSS BETA	35.99	14.97	17.73	15.60		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
NA-22	-0.01	-0.13	0.14	-0.13		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
K-40	27.57	9.73	1.42	9.78		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CO-60	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-134	-0.05	39.99	0.09	39.99		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-137	0.05	0.17	0.08	0.17		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
EU-152	0.52	0.58	0.36	0.58		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
PR-212	1.45	0.55	0.16	0.55		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
RA-228	2.41	0.94	0.34	0.94		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-235	0.51	0.45	0.47	0.45		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-238	2.26	3.09	1.42	3.14		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
AM-241	0.29	0.31	0.13	0.31		pCi/g	EPA 901.1M	2/26/2010	ME	N/A

NOTES: % Moisture: 0.99

*Matthew J. Edger*  
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133 State Road 4, White Rock, NM 87544  
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00073  
Client Sample ID: RE36-10-8477  
Sample Collection Date: 02/24/10 12:55  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00073-018  
Date Received: 02/25/10 00:00  
Report Date: 02/26/10 13:09

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	49.27	23.88	37.46	34.41		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
GROSS BETA	54.14	17.17	18.42	18.40		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
NA-22	-0.04	44.34	0.14	44.34		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
K-40	30.65	10.67	1.53	10.71		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CO-60	0.08	0.12	0.15	0.12		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-134	0.32	0.36	0.14	0.36		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-137	0.16	0.18	0.09	0.18		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
EU-152	0.70	0.66	0.38	0.66		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
PB-212	1.61	0.63	0.21	0.63		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
RA-228	1.64	0.85	0.37	0.85		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-235	1.53	0.92	0.53	0.92		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-238	0.87	2.50	1.40	2.51		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
AM-241	0.05	0.19	0.11	0.19		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
NOTES: % Moisture: 1.52										

*Matthew J. Edin*  
Quality Assurance Review

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NELAP Certificate # E87558





133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00073

Request or PO Number:

Client Sample ID: RE36-10-8479

ARS Sample ID: ARS2-10-00073-019

Sample Collection Date: 02/24/10 13:00

Date Received: 02/25/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/26/10 13:09

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	42.06	30.20	34.06	30.64		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
GROSS BETA	49.62	16.52	17.92	17.60		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
NA-22	-0.04	43.99	0.14	43.99		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
K-40	31.33	10.75	1.52	10.78		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CO-60	0.00	0.00	0.15	0.00		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-134	-0.06	42.77	0.10	42.77		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-137	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
EU-152	0.18	0.23	0.40	0.23		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
PB-212	1.38	0.61	0.22	0.61		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
RA-228	2.75	1.10	0.37	1.10		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-235	0.58	0.56	0.52	0.56		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-238	3.28	3.23	1.50	3.32		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
AM-241	0.48	0.46	0.18	0.46		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
NOTES: % Moisture: 0.87										

*Matthew L. Edin*  
Quality Assurance Review

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LELAP Certificate# 30658

NELAP Certificate # E87558





133 State Road 4, White Rock, NH 87544

805-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00073

Request or PO Number:

Client Sample ID: RE36-10-8481

ARS Sample ID: ARS2-10-00073-020

Sample Collection Date: 02/24/10 12:37

Date Received: 02/25/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/26/10 13:09

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	41.41	30.09	32.75	30.52		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
GROSS BETA	67.88	18.95	18.31	20.70		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
NA-22	-0.04	37.39	0.12	37.39		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
K-40	30.54	9.78	1.29	9.82		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CO-60	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-134	0.06	0.09	0.11	0.09		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-137	0.04	0.09	0.07	0.09		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
EU-152	-0.50	144.72	0.32	144.72		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
PB-212	1.32	0.51	0.16	0.51		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
RA-228	1.68	0.97	0.31	0.97		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-235	0.59	0.42	0.45	0.42		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-238	1.43	2.05	1.06	2.08		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
AM-241	0.41	0.32	0.11	0.32		pCi/g	EPA 901.1M	2/26/2010	ME	N/A

NOTES: % Moisture: 1.29

*Matthew J. Edin*  
Quality Assurance Review

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LELAP Certificate# 30658

NELAP Certificate # EB7558





133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00073

Client Sample ID: RE36-10-8484

Sample Collection Date: 02/24/10 14:25

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00073-021

Date Received: 02/25/10 00:00

Report Date: 02/26/10 13:09

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	23.92	24.07	33.91	24.24		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
GROSS BETA	37.99	14.93	17.73	15.64		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
NA-22	-0.03	30.41	0.10	30.41		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
K-40	21.66	7.43	1.09	7.46		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CO-60	0.06	0.08	0.10	0.09		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-134	0.11	0.16	0.08	0.16		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-137	0.07	0.10	0.06	0.10		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
EU-152	-0.02	-0.03	0.26	-0.03		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
PB-212	1.01	0.41	0.14	0.41		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
RA-228	0.33	0.32	0.28	0.32		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-235	0.89	0.83	0.36	0.83		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-238	1.07	2.21	1.18	2.22		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
AM-241	0.39	0.30	0.12	0.30		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
NOTES: % Moisture: 1.65										

*[Signature]*  
Quality Assurance Review

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133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00073

Request or PO Number:

Client Sample ID: RE36-10-8485

ARS Sample ID: ARS2-10-00073-022

Sample Collection Date: 02/24/10 14:55

Date Received: 02/25/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/26/10 13:09

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	49.28	93.68	37.46	34.41		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
GROSS BETA	50.71	16.84	18.42	17.95		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
NA-22	-0.04	38.36	0.12	38.36		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
K-40	0.00	590.53	1.32	590.53		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CO-60	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-134	-0.05	37.30	0.09	37.30		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-137	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
EU-152	0.02	0.04	0.38	0.04		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
PB-212	1.22	0.48	0.15	0.49		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
RA-228	1.41	0.71	0.32	0.71		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-235	0.70	0.78	0.53	0.78		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-238	3.61	2.78	1.18	2.90		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
AM-241	0.37	0.37	0.14	0.37		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
NOTES: % Moisture: 2.89										


*[Signature]*  
Quality Assurance Review

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LELAP Certificate# 30658

NELAP Certificate # E87558



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

**Section I.**

REQUEST NUMBER: 10-2137      VALIDATION DATE: 4/28/10      LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink      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): VOCs

**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 ICAL and ICV RRFs were <0.05 for trichlorotrifluoroethane. All the associated sample results were NDs and, thus, were qualified R,V7b.
2. For the ICV and/or CCVs associated with all the samples, the %Ds were >20% for acetone and trichlorotrifluoroethane. All the associated sample results were NDs and, thus, were qualified UJ,V7c.
3. In both LCSs, the %Rs were > the laboratory's UAL for trichlorotrifluoroethane. The associated sample results were NDs and, thus, were not qualified.

Reviewed by: Mary Donovan

Level: I

Date: 04/28/10

VALIDATOR'S SIGNATURE: \_\_\_\_\_

*Eric T. Mink*

DATE: 4/28/10



# **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"/>	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 checked="" type="checkbox"/>	<input 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 (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				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	
<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 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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input 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 (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				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: 10-2137

Lab Sample ID: 248244001

Date Collected: 02/24/2010 12:00

Date Received: 02/27/2010 09:10

Matrix: R

%Moisture: 9.5

Client ID: RE36-10-8464

Batch ID: 961880

Run Date: 03/05/2010 23:15

Prep Date: 03/05/2010 10:10

Data File: 030510V5\SA520.D

Client: LANL010

Method: SW846 8260B

Inst: VOA5.1

Analyst: CDS1

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
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.376	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.332	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.332	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.332	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.332	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.332	1.11
67-64-1	Acetone	U	5.53	ug/kg	1.84	5.53 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
74-88-4	Iodomethane	U	5.53	ug/kg	1.77	5.53
75-09-2	Methylene chloride	U	5.53	ug/kg	2.21	5.53
75-15-0	Carbon disulfide	U	5.53	ug/kg	1.38	5.53
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.332	1.11
78-93-3	2-Butanone	U	5.53	ug/kg	1.66	5.53
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.332	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.365	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.332	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.332	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.332	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.332	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.332	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.365	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.332	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.332	1.11
108-10-1	4-Methyl-2-pentanone	U	5.53	ug/kg	1.38	5.53
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.332	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.332	1.11
591-78-6	2-Hexanone	U	5.53	ug/kg	1.66	5.53
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.332	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.332	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.332	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.332	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.332	1.11

ETM  
4/28/10



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244001	Date Received: 02/27/2010 09:10	%Moisture: 9.5
Client ID: RE36-10-8464	Client: LANL010	Project: LANL01004
Batch ID: 961880	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/05/2010 23:15	Inst: VOA5.I	Dilution: 1
Prep Date: 03/05/2010 10:10	Analyst: CDS1	Purge Vol: 5 mL
Data File: 030510V55A520.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	1.11	ug/kg	0.332	1.11
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.332	2.21
95-47-6	o-Xylene	U	1.11	ug/kg	0.332	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.332	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.332	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.332	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.332	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.332	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.332	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.332	1.11
95-63-6	1,2,4-Trimethylbenzene	J	0.343	ug/kg	0.332	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.332	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.332	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.332	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.332	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.53	ug/kg	1.77	5.53 R,V7b
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11

**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: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244002	Date Received: 02/27/2010 09:10	%Moisture: 8.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8475	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961880	Inst: VOA5.I	Dilution: 1
Run Date: 03/05/2010 23:40	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/05/2010 10:12	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030510V5\5A521.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.373	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.329	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.329	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.329	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.329	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.329	1.10
67-64-1	Acetone	U	5.48	ug/kg	1.82	5.48 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
74-88-4	Iodomethane	U	5.48	ug/kg	1.76	5.48
75-09-2	Methylene chloride	U	5.48	ug/kg	2.19	5.48
75-15-0	Carbon disulfide	U	5.48	ug/kg	1.37	5.48
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.329	1.10
78-93-3	2-Butanone	U	5.48	ug/kg	1.65	5.48
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.329	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.329	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.362	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.329	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.329	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.329	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.329	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.329	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.362	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.329	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.329	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.329	1.10
108-10-1	4-Methyl-2-pentanone	U	5.48	ug/kg	1.37	5.48
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.329	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.329	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.329	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.329	1.10
591-78-6	2-Hexanone	U	5.48	ug/kg	1.65	5.48
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.329	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.329	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.329	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.329	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.329	1.10



Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244002	Date Received: 02/27/2010 09:10	%Moisture: 8.8
Client ID: RE36-10-8475	Client: LANL010	Project: LANL01004
Batch ID: 961880	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/05/2010 23:40	Inst: VOA5.I	Dilution: 1
Prep Date: 03/05/2010 10:12	Analyst: CDS1	Purge Vol: 5 mL
Data File: 030510V5\5A521.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	1.10	ug/kg	0.329	1.10
179601-23-1	m,p-Xylenes	U	2.19	ug/kg	0.329	2.19
95-47-6	o-Xylene	U	1.10	ug/kg	0.329	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.329	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.329	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.329	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.329	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.329	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.329	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.329	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.329	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.329	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.329	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.329	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.329	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.329	1.10
99-87-6	4-Isopropyltoluene	J	0.603	ug/kg	0.329	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.329	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.329	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.48	ug/kg	1.76	5.48 R,V7b
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.329	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10

## Tentatively Identified Compound Summary

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

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

SDG Number: 10-2137  
 Lab Sample ID: 248244003

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 11.5  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8471  
 Batch ID: 961880  
 Run Date: 03/06/2010 00:05  
 Prep Date: 03/05/2010 10:14  
 Data File: 030510V5\SA522.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.339	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.339	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.339	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.339	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.339	1.13
67-64-1	Acetone	U	5.65	ug/kg	1.88	5.65 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
74-88-4	Iodomethane	U	5.65	ug/kg	1.81	5.65
75-09-2	Methylene chloride	U	5.65	ug/kg	2.26	5.65
75-15-0	Carbon disulfide	U	5.65	ug/kg	1.41	5.65
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.339	1.13
78-93-3	2-Butanone	U	5.65	ug/kg	1.69	5.65
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.339	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.373	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.339	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.339	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.339	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.339	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.339	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.373	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.339	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.339	1.13
108-10-1	4-Methyl-2-pentanone	U	5.65	ug/kg	1.41	5.65
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.339	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.339	1.13
591-78-6	2-Hexanone	U	5.65	ug/kg	1.69	5.65
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.339	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.339	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.339	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.339	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.339	1.13

ETM  
4/28/10



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244003	Date Received: 02/27/2010 09:10	%Moisture: 11.5
Client ID: RE36-10-8471	Client: LANL010	Project: LANL01004
Batch ID: 961880	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/06/2010 00:05	Inst: VOA5.I	Dilution: 1
Prep Date: 03/05/2010 10:14	Analyst: CDS1	Purge Vol: 5 mL
Data File: 030510V5\5A522.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	1.13	ug/kg	0.339	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.339	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.339	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.339	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.339	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.339	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.339	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.339	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.339	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.339	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.339	1.13
99-87-6	4-Isopropyltoluene		8.11	ug/kg	0.339	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.339	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.339	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.65	ug/kg	1.81	5.65 R,V7b
<i>Trichlorotrifluoroethane</i>						
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	12	12.1	ug/kg	0	J
	unknown hydrocarbon	12.68	11.9	ug/kg	0	J



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244004	Date Received: 02/27/2010 09:10	%Moisture: 23.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8485	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961880	Inst: VOA5.I	Dilution: 1
Run Date: 03/06/2010 00:31	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/05/2010 10:16	Allquot: 5 g	Final Volume: 5 mL
Data File: 030510V5\SA523.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.31	ug/kg	0.444	1.31
74-87-3	Chloromethane	U	1.31	ug/kg	0.392	1.31
75-01-4	Vinyl chloride	U	1.31	ug/kg	0.392	1.31
74-83-9	Bromomethane	U	1.31	ug/kg	0.392	1.31
75-00-3	Chloroethane	U	1.31	ug/kg	0.392	1.31
75-69-4	Trichlorofluoromethane	U	1.31	ug/kg	0.392	1.31
67-64-1	Acetone	U	6.53	ug/kg	2.17	6.53 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.31	ug/kg	0.392	1.31
74-88-4	Iodomethane	U	6.53	ug/kg	2.09	6.53
75-09-2	Methylene chloride	U	6.53	ug/kg	2.61	6.53
75-15-0	Carbon disulfide	U	6.53	ug/kg	1.63	6.53
156-60-5	trans-1,2-Dichloroethylene	U	1.31	ug/kg	0.392	1.31
75-34-3	1,1-Dichloroethane	U	1.31	ug/kg	0.392	1.31
78-93-3	2-Butanone	U	6.53	ug/kg	1.96	6.53
156-59-2	cis-1,2-Dichloroethylene	U	1.31	ug/kg	0.392	1.31
594-20-7	2,2-Dichloropropane	U	1.31	ug/kg	0.392	1.31
67-66-3	Chloroform	U	1.31	ug/kg	0.392	1.31
74-97-5	Bromochloromethane	U	1.31	ug/kg	0.431	1.31
71-55-6	1,1,1-Trichloroethane	U	1.31	ug/kg	0.392	1.31
563-58-6	1,1-Dichloropropene	U	1.31	ug/kg	0.392	1.31
56-23-5	Carbon tetrachloride	U	1.31	ug/kg	0.392	1.31
107-06-2	1,2-Dichloroethane	U	1.31	ug/kg	0.392	1.31
71-43-2	Benzene	U	1.31	ug/kg	0.392	1.31
79-01-6	Trichloroethylene	U	1.31	ug/kg	0.431	1.31
78-87-5	1,2-Dichloropropane	U	1.31	ug/kg	0.392	1.31
75-27-4	Bromodichloromethane	U	1.31	ug/kg	0.392	1.31
74-95-3	Dibromomethane	U	1.31	ug/kg	0.392	1.31
108-10-1	4-Methyl-2-pentanone	U	6.53	ug/kg	1.63	6.53
10061-01-5	cis-1,3-Dichloropropylene	U	1.31	ug/kg	0.392	1.31
108-88-3	Toluene	U	1.31	ug/kg	0.392	1.31
10061-02-6	trans-1,3-Dichloropropylene	U	1.31	ug/kg	0.392	1.31
79-00-5	1,1,2-Trichloroethane	U	1.31	ug/kg	0.392	1.31
591-78-6	2-Hexanone	U	6.53	ug/kg	1.96	6.53
142-28-9	1,3-Dichloropropane	U	1.31	ug/kg	0.392	1.31
127-18-4	Tetrachloroethylene	U	1.31	ug/kg	0.392	1.31
124-48-1	Dibromochloromethane	U	1.31	ug/kg	0.392	1.31
106-93-4	1,2-Dibromoethane	U	1.31	ug/kg	0.392	1.31
108-90-7	Chlorobenzene	U	1.31	ug/kg	0.392	1.31



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

SDG Number: 10-2137  
 Lab Sample ID: 248244004

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 23.5  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8485  
 Batch ID: 961880  
 Run Date: 03/06/2010 00:31  
 Prep Date: 03/05/2010 10:16  
 Data File: 030510V5\5A523.D

CAS No.	Parmaame	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.31	ug/kg	0.392	1.31
179601-23-1	m,p-Xylenes	U	2.61	ug/kg	0.392	2.61
95-47-6	o-Xylene	U	1.31	ug/kg	0.392	1.31
100-42-5	Styrene	U	1.31	ug/kg	0.392	1.31
75-25-2	Bromoform	U	1.31	ug/kg	0.392	1.31
79-34-5	1,1,2,2-Tetrachloroethane	U	1.31	ug/kg	0.392	1.31
96-18-4	1,2,3-Trichloropropane	U	1.31	ug/kg	0.392	1.31
108-86-1	Bromobenzene	U	1.31	ug/kg	0.392	1.31
103-65-1	n-Propylbenzene	U	1.31	ug/kg	0.392	1.31
95-49-8	2-Chlorotoluene	U	1.31	ug/kg	0.392	1.31
98-82-8	Isopropylbenzene	U	1.31	ug/kg	0.392	1.31
108-67-8	1,3,5-Trimethylbenzene	U	1.31	ug/kg	0.392	1.31
106-43-4	4-Chlorotoluene	U	1.31	ug/kg	0.392	1.31
98-06-6	tert-Butylbenzene	U	1.31	ug/kg	0.392	1.31
95-63-6	1,2,4-Trimethylbenzene	U	1.31	ug/kg	0.392	1.31
135-98-8	sec-Butylbenzene	U	1.31	ug/kg	0.392	1.31
99-87-6	4-Isopropyltoluene	U	1.31	ug/kg	0.392	1.31
541-73-1	1,3-Dichlorobenzene	U	1.31	ug/kg	0.392	1.31
106-46-7	1,4-Dichlorobenzene	U	1.31	ug/kg	0.392	1.31
104-51-8	n-Butylbenzene	U	1.31	ug/kg	0.392	1.31
96-12-8	1,2-Dibromo-3-chloropropane	U	1.31	ug/kg	0.392	1.31
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.53	ug/kg	2.09	6.53 R.V7b
<i>Trichlorotrifluoroethane</i>						
630-20-6	1,1,1,2-Tetrachloroethane	U	1.31	ug/kg	0.392	1.31
95-50-1	1,2-Dichlorobenzene	U	1.31	ug/kg	0.392	1.31

**Tentatively Identified Compound Summary**

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

ETM  
4/28/10



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244005	Date Received: 02/27/2010 09:10	%Moisture: 12.8
Client ID: RE36-10-8477	Client: LANL010	Project: LANL01004
Batch ID: 961880	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/06/2010 00:56	Inst: VOA5.I	Dilution: 1
Prep Date: 03/05/2010 10:18	Analyst: CDS1	Purge Vol: 5 mL
Data File: 030510V5\5A524.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	1.15	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	5.74	ug/kg	1.90	5.74 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.74	ug/kg	1.84	5.74
75-09-2	Methylene chloride	U	5.74	ug/kg	2.29	5.74
75-15-0	Carbon disulfide	U	5.74	ug/kg	1.43	5.74
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	5.74	ug/kg	1.72	5.74
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	0.379	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	0.379	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	5.74	ug/kg	1.43	5.74
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	5.74	ug/kg	1.72	5.74
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**

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SDG Number: 10-2137  
 Lab Sample ID: 248244005

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Allquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.8  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8477  
 Batch ID: 961880  
 Run Date: 03/06/2010 00:56  
 Prep Date: 03/05/2010 10:18  
 Data File: 030510V5\SA524.D

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	5.74	ug/kg	1.84	5.74 R,V7b
	<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	Flt	Qual
No Tentatively Identified Compounds Found				ug/kg		

ETM  
 4/28/10



**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2137

Lab Sample ID: 248244006

Date Collected: 02/24/2010 12:00

Date Received: 02/27/2010 09:10

Matrix: R

%Moisture: 10.2

Client ID: RE36-10-8479

Batch ID: 961880

Run Date: 03/09/2010 13:58

Prep Date: 03/09/2010 13:26

Data File: 030910V5\SB215.D

Client: LANL010

Method: SW846 8260B

Inst: VOA5.I

Analyst: CDS1

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	1.11	ug/kg	0.379	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11
67-64-1	Acetone	U	5.57	ug/kg	1.85	5.57 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
74-88-4	Iodomethane	U	5.57	ug/kg	1.78	5.57
75-09-2	Methylene chloride	U	5.57	ug/kg	2.23	5.57
75-15-0	Carbon disulfide	U	5.57	ug/kg	1.39	5.57
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11
78-93-3	2-Butanone	U	5.57	ug/kg	1.67	5.57
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.368	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.368	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone	U	5.57	ug/kg	1.39	5.57
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11
591-78-6	2-Hexanone	U	5.57	ug/kg	1.67	5.57
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244006	Date Received: 02/27/2010 09:10	%Moisture: 10.2
Client ID: RE36-10-8479	Client: LANL010	Project: LANL01004
Batch ID: 961880	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/09/2010 13:58	Inst: VOA5.I	Dilution: 1
Prep Date: 03/09/2010 13:26	Analyst: CDS1	Purge Vol: 5 mL
Data File: 030910V5\5B215.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	1.11	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.334	2.23
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.57	ug/kg	1.78	5.57 R,V7b
<i>Trichlorotrifluoroethane</i>						
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11

**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: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244007	Date Received: 02/27/2010 09:10	%Moisture: 16.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8484	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961880	Inst: VOA5.I	Dilution: 1
Run Date: 03/06/2010 01:47	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/05/2010 10:22	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030510V5\5A526.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.19	ug/kg	0.406	1.19
74-87-3	Chloromethane	U	1.19	ug/kg	0.358	1.19
75-01-4	Vinyl chloride	U	1.19	ug/kg	0.358	1.19
74-83-9	Bromomethane	U	1.19	ug/kg	0.358	1.19
75-00-3	Chloroethane	U	1.19	ug/kg	0.358	1.19
75-69-4	Trichlorofluoromethane	U	1.19	ug/kg	0.358	1.19
67-64-1	Acetone	U	5.97	ug/kg	1.98	5.97 UJ.V7c
75-35-4	1,1-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
74-88-4	Iodomethane	U	5.97	ug/kg	1.91	5.97
75-09-2	Methylene chloride	U	5.97	ug/kg	2.39	5.97
75-15-0	Carbon disulfide	U	5.97	ug/kg	1.49	5.97
156-60-5	trans-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
75-34-3	1,1-Dichloroethane	U	1.19	ug/kg	0.358	1.19
78-93-3	2-Butanone	U	5.97	ug/kg	1.79	5.97
156-59-2	cis-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
594-20-7	2,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19
67-66-3	Chloroform	U	1.19	ug/kg	0.358	1.19
74-97-5	Bromochloromethane	U	1.19	ug/kg	0.394	1.19
71-55-6	1,1,1-Trichloroethane	U	1.19	ug/kg	0.358	1.19
563-58-6	1,1-Dichloropropene	U	1.19	ug/kg	0.358	1.19
56-23-5	Carbon tetrachloride	U	1.19	ug/kg	0.358	1.19
107-06-2	1,2-Dichloroethane	U	1.19	ug/kg	0.358	1.19
71-43-2	Benzene	U	1.19	ug/kg	0.358	1.19
79-01-6	Trichloroethylene	U	1.19	ug/kg	0.394	1.19
78-87-5	1,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19
75-27-4	Bromodichloromethane	U	1.19	ug/kg	0.358	1.19
74-95-3	Dibromomethane	U	1.19	ug/kg	0.358	1.19
108-10-1	4-Methyl-2-pentanone	U	5.97	ug/kg	1.49	5.97
10061-01-5	cis-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19
108-88-3	Toluene	U	1.19	ug/kg	0.358	1.19
10061-02-6	trans-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19
79-00-5	1,1,2-Trichloroethane	U	1.19	ug/kg	0.358	1.19
591-78-6	2-Hexanone	U	5.97	ug/kg	1.79	5.97
142-28-9	1,3-Dichloropropane	U	1.19	ug/kg	0.358	1.19
127-18-4	Tetrachloroethylene	U	1.19	ug/kg	0.358	1.19
124-48-1	Dibromochloromethane	U	1.19	ug/kg	0.358	1.19
106-93-4	1,2-Dibromoethane	U	1.19	ug/kg	0.358	1.19
108-90-7	Chlorobenzene	U	1.19	ug/kg	0.358	1.19

ETM  
4/28/10



**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2137  
Lab Sample ID: 248244007

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: CDS1  
Allquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 16.2  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE36-10-8484  
Batch ID: 961880  
Run Date: 03/06/2010 01:47  
Prep Date: 03/05/2010 10:22  
Data File: 030510V5\SA526.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.19	ug/kg	0.358	1.19
179601-23-1	m,p-Xylenes	U	2.39	ug/kg	0.358	2.39
95-47-6	o-Xylene	U	1.19	ug/kg	0.358	1.19
100-42-5	Styrene	U	1.19	ug/kg	0.358	1.19
75-25-2	Bromoform	U	1.19	ug/kg	0.358	1.19
79-34-5	1,1,2,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19
96-18-4	1,2,3-Trichloropropane	U	1.19	ug/kg	0.358	1.19
108-86-1	Bromobenzene	U	1.19	ug/kg	0.358	1.19
103-65-1	n-Propylbenzene	U	1.19	ug/kg	0.358	1.19
95-49-8	2-Chlorotoluene	U	1.19	ug/kg	0.358	1.19
98-82-8	Isopropylbenzene	U	1.19	ug/kg	0.358	1.19
108-67-8	1,3,5-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19
106-43-4	4-Chlorotoluene	U	1.19	ug/kg	0.358	1.19
98-06-6	tert-Butylbenzene	U	1.19	ug/kg	0.358	1.19
95-63-6	1,2,4-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19
135-98-8	sec-Butylbenzene	U	1.19	ug/kg	0.358	1.19
99-87-6	4-Isopropyltoluene	U	1.19	ug/kg	0.358	1.19
541-73-1	1,3-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19
106-46-7	1,4-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19
104-51-8	n-Butylbenzene	U	1.19	ug/kg	0.358	1.19
96-12-8	1,2-Dibromo-3-chloropropane	U	1.19	ug/kg	0.358	1.19
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.97	ug/kg	1.91	5.97 R,V7b
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19
95-50-1	1,2-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19

## Tentatively Identified Compound Summary

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

ETM  
4/28/10



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

SDG Number: 10-2137

Lab Sample ID: 248244008

Date Collected: 02/24/2010 12:00

Date Received: 02/27/2010 09:10

Matrix: R

%Moisture: 11.2

Client ID: RE36-10-8481

Batch ID: 961880

Run Date: 03/06/2010 02:13

Prep Date: 03/05/2010 10:24

Data File: 030510V5\5A517.D

Client: LANL010

Method: SW846 8260B

Inst: VOA5.I

Analyst: CDS1

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.	Parma name	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.383	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.338	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.338	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.338	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.338	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.338	1.13
67-64-1	Acetone	U	5.63	ug/kg	1.87	5.63 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
74-88-4	Iodomethane	U	5.63	ug/kg	1.80	5.63
75-09-2	Methylene chloride	U	5.63	ug/kg	2.25	5.63
75-15-0	Carbon disulfide	U	5.63	ug/kg	1.41	5.63
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.338	1.13
78-93-3	2-Butanone	U	5.63	ug/kg	1.69	5.63
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.338	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.372	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.338	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.338	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.338	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.338	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.338	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.372	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.338	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.338	1.13
108-10-1	4-Methyl-2-pentanone	U	5.63	ug/kg	1.41	5.63
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.338	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.338	1.13
591-78-6	2-Hexanone	U	5.63	ug/kg	1.69	5.63
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.338	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.338	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.338	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.338	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.338	1.13

ETM  
4/28/10



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244008	Date Received: 02/27/2010 09:10	%Moisture: 11.2
Client ID: RE36-10-8481	Client: LANL010	Project: LANL01004
Batch ID: 961880	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/06/2010 02:13	Inst: VOA5.I	Dilution: 1
Prep Date: 03/05/2010 10:24	Analyst: CDS1	Purge Vol: 5 mL
Data File: 030510V5\SA527.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	1.13	ug/kg	0.338	1.13
179601-23-1	m,p-Xylenes	U	2.25	ug/kg	0.338	2.25
95-47-6	o-Xylene	U	1.13	ug/kg	0.338	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.338	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.338	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.338	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.338	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.338	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.338	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.338	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.338	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.338	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.338	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.338	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.63	ug/kg	1.80	5.63 R,V7b
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13

**Tentatively Identified Compound Summary**

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



## DATA VALIDATION COVER SHEET

5115-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2137 VALIDATION DATE: 4/28/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO      ☐ HIGH EXPLOSIVES      ☐ DIOXIN FURANS      ☐ LCMSMS PERCHLORATES  
☐ TPH-DRO      ☐ METALS      ☐ PCB CONGENERS      ☐ ORGANOCHLORINE  
☐ GENERAL CHEMISTRY      ☐ RADIOCHEMISTRY      ☐ LCMSMS HIGH EXPLOSIVES      PESTICIDES/POLYCHLORINATED BIPHENYLS  
☒ OTHER (DESCRIBE): 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):

- The ICV and/or CCV %Ds were >20% for pyridine; 2-methyl-4,6-dinitrophenol; benzyl alcohol; 2,4-dimethylphenol; 2,4-dinitrophenol and 4-nitrophenol. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
- The LCS %Rs were < the laboratory's LAL but ≥10% for 4-nitrophenol and benzyl alcohol. The associated sample results were NDs and, thus, were qualified UJ,SV12a. The LCS %R was > the laboratory's UAL for 2,4-dimethylphenol. The associated sample results were NDs and, thus, were not qualified.
- It should be noted that a few MS/MSD %Rs were not within the laboratory's QC limits. It should also be noted that the MS/MSD analyses were performed on a LANL sample from a different RN and the parent sample raw data were not included in the data package. However, MS/MSD analyses are not required for this analysis and, thus, no sample data were qualified.

Reviewed by: Mary Donovan

Level: I


Date: 04/28/10

VALIDATOR'S SIGNATURE:

Eric T. Mink


DATE: 4/28/10



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"/>	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 $\leq 5X$ (10X for common organic laboratory contaminants) 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 contaminants).	N/A	J, SV4a
<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 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				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 <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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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: 10-2137  
Lab Sample ID: 248244001

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 9.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8464  
Batch ID: 960971  
Run Date: 03/18/2010 15:04  
Prep Date: 03/04/2010 23:22  
Data File: s6c1819.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	1470	ug/kg	294	1470
108-95-2	Phenol	U	1470	ug/kg	294	1470
95-57-8	2-Chlorophenol	U	1470	ug/kg	294	1470
106-46-7	1,4-Dichlorobenzene	U	1470	ug/kg	294	1470
621-64-7	N-Nitrosodipropylamine	U	1470	ug/kg	294	1470
59-50-7	4-Chloro-3-methylphenol	U	1470	ug/kg	294	1470
83-32-9	Acenaphthene	U	147	ug/kg	48.6	147
121-14-2	2,4-Dinitrotoluene	U	1470	ug/kg	147	1470
100-02-7	4-Nitrophenol	U	1470	ug/kg	486	1470 UJ,SV7c
87-86-5	Pentachlorophenol	U	1470	ug/kg	368	1470
129-00-0	Pyrene		211	ug/kg	44.2	147
110-86-1	Pyridine	U	1470	ug/kg	294	1470 UJ,SV7c
62-53-3	Aniline	U	1470	ug/kg	442	1470
111-44-4	bis(2-Chloroethyl) ether	U	1470	ug/kg	294	1470
541-73-1	1,3-Dichlorobenzene	U	1470	ug/kg	294	1470
100-51-6	Benzyl alcohol	U	1470	ug/kg	442	1470 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	1470	ug/kg	294	1470
108-60-1	bis(2-Chloroisopropyl)ether	U	1470	ug/kg	294	1470
95-48-7	o-Cresol	U	1470	ug/kg	294	1470
65794-96-9	m,p-Cresols	U	1470	ug/kg	442	1470
67-72-1	Hexachloroethane	U	1470	ug/kg	294	1470
98-95-3	Nitrobenzene	U	1470	ug/kg	294	1470
78-59-1	Isophorone	U	1470	ug/kg	294	1470
88-75-5	2-Nitrophenol	U	1470	ug/kg	294	1470
105-67-9	2,4-Dimethylphenol	U	1470	ug/kg	515	1470 UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	1470	ug/kg	294	1470
120-83-2	2,4-Dichlorophenol	U	1470	ug/kg	294	1470
65-85-0	Benzoic acid	U	2940	ug/kg	736	2940
91-20-3	Naphthalene	U	147	ug/kg	44.2	147
106-47-8	4-Chloroaniline	U	1470	ug/kg	294	1470
87-68-3	Hexachlorobutadiene	U	1470	ug/kg	294	1470
91-57-6	2-Methylnaphthalene	U	147	ug/kg	29.4	147
77-47-4	Hexachlorocyclopentadiene	U	1470	ug/kg	294	1470
88-06-2	2,4,6-Trichlorophenol	U	1470	ug/kg	294	1470
95-95-4	2,4,5-Trichlorophenol	U	1470	ug/kg	294	1470
91-58-7	2-Chloronaphthalene	U	147	ug/kg	48.6	147
88-74-4	2-Nitroaniline	U	1470	ug/kg	294	1470
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	1470	ug/kg	294	1470

ETM  
4/28/10



Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 2 of 2

SDG Number: 10-2137  
Lab Sample ID: 248244001

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 9.5  
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
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	1470	ug/kg	294	1470
606-20-2	2,6-Dinitrotoluene	U	1470	ug/kg	147	1470
208-96-8	Acenaphthylene	U	147	ug/kg	44.2	147
51-28-5	2,4-Dinitrophenol	U	2940	ug/kg	560	2940 UJ,SV7c
132-64-9	Dibenzofuran	U	1470	ug/kg	294	1470
84-66-2	Diethylphthalate	U	1470	ug/kg	294	1470
86-73-7	Fluorene	U	147	ug/kg	44.2	147
7005-72-3	4-Chlorophenylphenylether	U	1470	ug/kg	294	1470
534-52-1	2-Methyl-4,6-dinitrophenol	U	1470	ug/kg	294	1470 UJ,SV7c
100-01-6	4-Nitroaniline	U	1470	ug/kg	442	1470
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	1470	ug/kg	294	1470
122-66-7	Azobenzene	U	1470	ug/kg	294	1470
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	1470	ug/kg	294	1470
118-74-1	Hexachlorobenzene	U	1470	ug/kg	294	1470
85-01-8	Phenanthrene		221	ug/kg	44.2	147
120-12-7	Anthracene	J	46.0	ug/kg	29.4	147
84-74-2	Di-n-butylphthalate	U	1470	ug/kg	294	1470
206-44-0	Fluoranthene		235	ug/kg	44.2	147
85-68-7	Butylbenzylphthalate	U	1470	ug/kg	294	1470
56-55-3	Benzo(a)anthracene	J	106	ug/kg	44.2	147
91-94-1	3,3'-Dichlorobenzidine	U	1470	ug/kg	442	1470
218-01-9	Chrysene	J	106	ug/kg	44.2	147
117-81-7	bis(2-Ethylhexyl)phthalate	U	1470	ug/kg	294	1470
117-84-0	Di-n-octylphthalate	U	1470	ug/kg	294	1470
205-99-2	Benzo(b)fluoranthene		155	ug/kg	44.2	147
207-08-9	Benzo(k)fluoranthene	U	147	ug/kg	44.2	147
50-32-8	Benzo(a)pyrene	J	86.3	ug/kg	44.2	147
193-39-5	Indeno(1,2,3-cd)pyrene	U	147	ug/kg	44.2	147
53-70-3	Dibenzo(a,h)anthracene	U	147	ug/kg	44.2	147
191-24-2	Benzo(ghi)perylene	U	147	ug/kg	44.2	147
120-82-1	1,2,4-Trichlorobenzene	U	1470	ug/kg	294	1470

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
300574-36-1	5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	10.65	5010	ug/kg	90	NJ
	Unknown	13.4	736	ug/kg		J

ETM  
4/28/10



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

SDG Number: 10-2137  
Lab Sample ID: 248244003

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Allquot: 30.19 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 11.5  
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	374	ug/kg	74.8	374
108-95-2	Phenol	U	374	ug/kg	74.8	374
95-57-8	2-Chlorophenol	U	374	ug/kg	74.8	374
106-46-7	1,4-Dichlorobenzene	U	374	ug/kg	74.8	374
621-64-7	N-Nitrosodipropylamine	U	374	ug/kg	74.8	374
59-50-7	4-Chloro-3-methylphenol	U	374	ug/kg	74.8	374
83-32-9	Acenaphthene	U	37.4	ug/kg	12.3	37.4
121-14-2	2,4-Dinitrotoluene	U	374	ug/kg	37.4	374
100-02-7	4-Nitrophenol	U	374	ug/kg	123	374 UJ,SV7c
87-86-5	Pentachlorophenol	U	374	ug/kg	93.5	374
129-00-0	Pyrene	U	37.4	ug/kg	11.2	37.4
110-86-1	Pyridine	U	374	ug/kg	74.8	374 UJ,SV7c
62-53-3	Aniline	U	374	ug/kg	112	374
111-44-4	bis(2-Chloroethyl) ether	U	374	ug/kg	74.8	374
541-73-1	1,3-Dichlorobenzene	U	374	ug/kg	74.8	374
100-51-6	Benzyl alcohol	U	374	ug/kg	112	374 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	374	ug/kg	74.8	374
108-60-1	bis(2-Chloroisopropyl)ether	U	374	ug/kg	74.8	374
95-48-7	o-Cresol	U	374	ug/kg	74.8	374
65794-96-9	m,p-Cresols	U	374	ug/kg	112	374
67-72-1	Hexachloroethane	U	374	ug/kg	74.8	374
98-95-3	Nitrobenzene	U	374	ug/kg	74.8	374
78-59-1	Isophorone	U	374	ug/kg	74.8	374
88-75-5	2-Nitrophenol	U	374	ug/kg	74.8	374
105-67-9	2,4-Dimethylphenol	U	374	ug/kg	131	374 UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	374	ug/kg	74.8	374
120-83-2	2,4-Dichlorophenol	U	374	ug/kg	74.8	374
65-85-0	Benzoic acid	U	748	ug/kg	187	748
91-20-3	Naphthalene	U	37.4	ug/kg	11.2	37.4
106-47-8	4-Chloroaniline	U	374	ug/kg	74.8	374
87-68-3	Hexachlorobutadiene	U	374	ug/kg	74.8	374
91-57-6	2-Methylnaphthalene	U	37.4	ug/kg	7.48	37.4
77-47-4	Hexachlorocyclopentadiene	U	374	ug/kg	74.8	374
88-06-2	2,4,6-Trichlorophenol	U	374	ug/kg	74.8	374
95-95-4	2,4,5-Trichlorophenol	U	374	ug/kg	74.8	374
91-58-7	2-Chloronaphthalene	U	37.4	ug/kg	12.3	37.4
88-74-4	2-Nitroaniline	U	374	ug/kg	74.8	374
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	374	ug/kg	74.8	374

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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244003	Date Received: 02/27/2010 09:10	%Moisture: 11.5
Client ID: RE36-10-8471	Client: LANL010	Project: LANL01004
Batch ID: 960971	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/18/2010 11:32	Inst: MSD6.I	Dilution: 1
Prep Date: 03/04/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s6c1810.d	Aliquot: 30.19 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	374	ug/kg	74.8	374
606-20-2	2,6-Dinitrotoluene	U	374	ug/kg	37.4	374
208-96-8	Acenaphthylene	U	37.4	ug/kg	11.2	37.4
51-28-5	2,4-Dinitrophenol	U	748	ug/kg	142	748 UJ,SV7c
132-64-9	Dibenzofuran	U	374	ug/kg	74.8	374
84-66-2	Diethylphthalate	U	374	ug/kg	74.8	374
86-73-7	Fluorene	U	37.4	ug/kg	11.2	37.4
7005-72-3	4-Chlorophenylphenylether	U	374	ug/kg	74.8	374
534-52-1	2-Methyl-4,6-dinitrophenol	U	374	ug/kg	74.8	374 UJ,SV7c
100-01-6	4-Nitroaniline	U	374	ug/kg	112	374
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	374	ug/kg	74.8	374
122-66-7	Azobenzene	U	374	ug/kg	74.8	374
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	374	ug/kg	74.8	374
118-74-1	Hexachlorobenzene	U	374	ug/kg	74.8	374
85-01-8	Phenanthrene	U	37.4	ug/kg	11.2	37.4
120-12-7	Anthracene	U	37.4	ug/kg	7.48	37.4
84-74-2	Di-n-butylphthalate	U	374	ug/kg	74.8	374
206-44-0	Fluoranthene	U	37.4	ug/kg	11.2	37.4
85-68-7	Butylbenzylphthalate	U	374	ug/kg	74.8	374
56-55-3	Benzo(a)anthracene	U	37.4	ug/kg	11.2	37.4
91-94-1	3,3'-Dichlorobenzidine	U	374	ug/kg	112	374
218-01-9	Chrysene	U	37.4	ug/kg	11.2	37.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	374	ug/kg	74.8	374
117-84-0	Di-n-octylphthalate	U	374	ug/kg	74.8	374
205-99-2	Benzo(b)fluoranthene	U	37.4	ug/kg	11.2	37.4
207-08-9	Benzo(k)fluoranthene	U	37.4	ug/kg	11.2	37.4
50-32-8	Benzo(a)pyrene	U	37.4	ug/kg	11.2	37.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.4	ug/kg	11.2	37.4
53-70-3	Dibenzo(a,h)anthracene	U	37.4	ug/kg	11.2	37.4
191-24-2	Benzo(ghi)perylene	U	37.4	ug/kg	11.2	37.4
120-82-1	1,2,4-Trichlorobenzene	U	374	ug/kg	74.8	374

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3	309	ug/kg		JA
559-74-0	Friedelan-3-one	10.65	700	ug/kg	95	NJ

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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244003	Date Received: 02/27/2010 09:10	%Moisture: 11.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8471	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 11:32	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.19 g	Final Volume: 1 mL
Data File: s6c1810.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmaame	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	10.89	899	ug/kg		J



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

SDG Number: 10-2137  
Lab Sample ID: 248244002

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.1  
Analyst: NAG1  
Allquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8475  
Batch ID: 960971  
Run Date: 03/18/2010 11:08  
Prep Date: 03/04/2010 23:22  
Data File: s6c1809.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	365	ug/kg	72.9	365
108-95-2	Phenol	U	365	ug/kg	72.9	365
95-57-8	2-Chlorophenol	U	365	ug/kg	72.9	365
106-46-7	1,4-Dichlorobenzene	U	365	ug/kg	72.9	365
621-64-7	N-Nitrosodipropylamine	U	365	ug/kg	72.9	365
59-50-7	4-Chloro-3-methylphenol	U	365	ug/kg	72.9	365
83-32-9	Acenaphthene	U	36.5	ug/kg	12.0	36.5
121-14-2	2,4-Dinitrotoluene	U	365	ug/kg	36.5	365
100-02-7	4-Nitrophenol	U	365	ug/kg	120	365 UJ,SV7c
87-86-5	Pentachlorophenol	U	365	ug/kg	91.1	365
129-00-0	Pyrene	U	36.5	ug/kg	10.9	36.5
110-86-1	Pyridine	U	365	ug/kg	72.9	365 UJ,SV7c
62-53-3	Aniline	U	365	ug/kg	109	365
111-44-4	bis(2-Chloroethyl) ether	U	365	ug/kg	72.9	365
541-73-1	1,3-Dichlorobenzene	U	365	ug/kg	72.9	365
100-51-6	Benzyl alcohol	U	365	ug/kg	109	365 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	365	ug/kg	72.9	365
108-60-1	bis(2-Chloroisopropyl)ether	U	365	ug/kg	72.9	365
95-48-7	o-Cresol	U	365	ug/kg	72.9	365
65794-96-9	m,p-Cresols	U	365	ug/kg	109	365
67-72-1	Hexachloroethane	U	365	ug/kg	72.9	365
98-95-3	Nitrobenzene	U	365	ug/kg	72.9	365
78-59-1	Isophorone	U	365	ug/kg	72.9	365
88-75-5	2-Nitrophenol	U	365	ug/kg	72.9	365
105-67-9	2,4-Dimethylphenol	U	365	ug/kg	128	365 UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	365	ug/kg	72.9	365
120-83-2	2,4-Dichlorophenol	U	365	ug/kg	72.9	365
65-85-0	Benzoic acid	U	729	ug/kg	182	729
91-20-3	Naphthalene	U	36.5	ug/kg	10.9	36.5
106-47-8	4-Chloroaniline	U	365	ug/kg	72.9	365
87-68-3	Hexachlorobutadiene	U	365	ug/kg	72.9	365
91-57-6	2-Methylnaphthalene	U	36.5	ug/kg	7.29	36.5
77-47-4	Hexachlorocyclopentadiene	U	365	ug/kg	72.9	365
88-06-2	2,4,6-Trichlorophenol	U	365	ug/kg	72.9	365
95-95-4	2,4,5-Trichlorophenol	U	365	ug/kg	72.9	365
91-58-7	2-Chloronaphthalene	U	36.5	ug/kg	12.0	36.5
88-74-4	2-Nitroaniline	U	365	ug/kg	72.9	365
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	365	ug/kg	72.9	365



Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244002	Date Received: 02/27/2010 09:10	%Moisture: 8.8
Client ID: RE36-10-8475	Client: LANL010	Project: LANL01004
Batch ID: 960971	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/18/2010 11:08	Inst: MSD6.I	Dilution: 1
Prep Date: 03/04/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s6c1809.d	Allquot: 30.09 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	365	ug/kg	72.9	365
606-20-2	2,6-Dinitrotoluene	U	365	ug/kg	36.5	365
208-96-8	Acenaphthylene	U	36.5	ug/kg	10.9	36.5
51-28-5	2,4-Dinitrophenol	U	729	ug/kg	139	729 UJ,SV7c
132-64-9	Dibenzofuran	U	365	ug/kg	72.9	365
84-66-2	Diethylphthalate	U	365	ug/kg	72.9	365
86-73-7	Fluorene	U	36.5	ug/kg	10.9	36.5
7005-72-3	4-Chlorophenylphenylether	U	365	ug/kg	72.9	365
534-52-1	2-Methyl-4,6-dinitrophenol	U	365	ug/kg	72.9	365 UJ,SV7c
100-01-6	4-Nitroaniline	U	365	ug/kg	109	365
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	365	ug/kg	72.9	365
122-66-7	Azobenzene	U	365	ug/kg	72.9	365
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	365	ug/kg	72.9	365
118-74-1	Hexachlorobenzene	U	365	ug/kg	72.9	365
85-01-8	Phenanthrene	U	36.5	ug/kg	10.9	36.5
120-12-7	Anthracene	U	36.5	ug/kg	7.29	36.5
84-74-2	Di-n-butylphthalate	U	365	ug/kg	72.9	365
206-44-0	Fluoranthene	U	36.5	ug/kg	10.9	36.5
85-68-7	Butylbenzylphthalate	U	365	ug/kg	72.9	365
56-55-3	Benzo(a)anthracene	U	36.5	ug/kg	10.9	36.5
91-94-1	3,3'-Dichlorobenzidine	U	365	ug/kg	109	365
218-01-9	Chrysene	U	36.5	ug/kg	10.9	36.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	365	ug/kg	72.9	365
117-84-0	Di-n-octylphthalate	U	365	ug/kg	72.9	365
205-99-2	Benzo(b)fluoranthene	U	36.5	ug/kg	10.9	36.5
207-08-9	Benzo(k)fluoranthene	U	36.5	ug/kg	10.9	36.5
50-32-8	Benzo(a)pyrene	U	36.5	ug/kg	10.9	36.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.5	ug/kg	10.9	36.5
53-70-3	Dibenzo(a,h)anthracene	U	36.5	ug/kg	10.9	36.5
191-24-2	Benzo(ghi)perylene	U	36.5	ug/kg	10.9	36.5
120-82-1	1,2,4-Trichlorobenzene	U	365	ug/kg	72.9	365

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	3	289	ug/kg		JA
123-35-3	.beta.-Myrcene	3.77	244	ug/kg	87	NJ



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244002	Date Received: 02/27/2010 09:10	%Moisture: 8.8
Client ID: RE36-10-8475	Client: LANL010	Project: LANL01004
Batch ID: 960971	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/18/2010 11:08	Inst: MSD6.I	Dilution: 1
Prep Date: 03/04/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s6c1809.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	Flt	Qual
1000109-88-1	(+)-Cycloisositivene		5.63	176	ug/kg	98	NJ
	Unknown		5.65	147	ug/kg		J
112-95-8	Eicosane		10.92	177	ug/kg	96	NJ
	Unknown		13.41	190	ug/kg		J

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

SDG Number: 10-2137  
Lab Sample ID: 248244005

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8477  
Batch ID: 960971  
Run Date: 03/18/2010 11:56  
Prep Date: 03/04/2010 23:22  
Data File: s6c1811.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	382	ug/kg	76.4	382
108-95-2	Phenol	U	382	ug/kg	76.4	382
95-57-8	2-Chlorophenol	U	382	ug/kg	76.4	382
106-46-7	1,4-Dichlorobenzene	U	382	ug/kg	76.4	382
621-64-7	N-Nitrosodipropylamine	U	382	ug/kg	76.4	382
59-50-7	4-Chloro-3-methylphenol	U	382	ug/kg	76.4	382
83-32-9	Acenaphthene	U	38.2	ug/kg	12.6	38.2
121-14-2	2,4-Dinitrotoluene	U	382	ug/kg	38.2	382
100-02-7	4-Nitrophenol	U	382	ug/kg	126	382 UJ,SV7c
87-86-5	Pentachlorophenol	U	382	ug/kg	95.6	382
129-00-0	Pyrene	U	38.2	ug/kg	11.5	38.2
110-86-1	Pyridine	U	382	ug/kg	76.4	382 UJ,SV7c
62-53-3	Aniline	U	382	ug/kg	115	382
111-44-4	bis(2-Chloroethyl) ether	U	382	ug/kg	76.4	382
541-73-1	1,3-Dichlorobenzene	U	382	ug/kg	76.4	382
100-51-6	Benzyl alcohol	U	382	ug/kg	115	382 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	382	ug/kg	76.4	382
108-60-1	bis(2-Chloroisopropyl)ether	U	382	ug/kg	76.4	382
95-48-7	o-Cresol	U	382	ug/kg	76.4	382
65794-96-9	m,p-Cresols	U	382	ug/kg	115	382
67-72-1	Hexachloroethane	U	382	ug/kg	76.4	382
98-95-3	Nitrobenzene	U	382	ug/kg	76.4	382
78-59-1	Isophorone	U	382	ug/kg	76.4	382
88-75-5	2-Nitrophenol	U	382	ug/kg	76.4	382
105-67-9	2,4-Dimethylphenol	U	382	ug/kg	134	382 UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	382	ug/kg	76.4	382
120-83-2	2,4-Dichlorophenol	U	382	ug/kg	76.4	382
65-85-0	Benzoic acid	U	764	ug/kg	191	764
91-20-3	Naphthalene	U	38.2	ug/kg	11.5	38.2
106-47-8	4-Chloroaniline	U	382	ug/kg	76.4	382
87-68-3	Hexachlorobutadiene	U	382	ug/kg	76.4	382
91-57-6	2-Methylnaphthalene	U	38.2	ug/kg	7.64	38.2
77-47-4	Hexachlorocyclopentadiene	U	382	ug/kg	76.4	382
88-06-2	2,4,6-Trichlorophenol	U	382	ug/kg	76.4	382
95-95-4	2,4,5-Trichlorophenol	U	382	ug/kg	76.4	382
91-58-7	2-Chloronaphthalene	U	38.2	ug/kg	12.6	38.2
88-74-4	2-Nitroaniline	U	382	ug/kg	76.4	382
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	382	ug/kg	76.4	382



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Certificate of Analysis  
Sample Summary

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SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244005	Date Received: 02/27/2010 09:10	%Moisture: 12.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8477	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 11:56	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s6c1811.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	382	ug/kg	76.4	382
606-20-2	2,6-Dinitrotoluene	U	382	ug/kg	38.2	382
208-96-8	Acenaphthylene	U	38.2	ug/kg	11.5	38.2
51-28-5	2,4-Dinitrophenol	U	764	ug/kg	145	764 UJ,SV7c
132-64-9	Dibenzofuran	U	382	ug/kg	76.4	382
84-66-2	Diethylphthalate	U	382	ug/kg	76.4	382
86-73-7	Fluorene	U	38.2	ug/kg	11.5	38.2
7005-72-3	4-Chlorophenylphenylether	U	382	ug/kg	76.4	382
534-52-1	2-Methyl-4,6-dinitrophenol	U	382	ug/kg	76.4	382 UJ,SV7c
100-01-6	4-Nitroaniline	U	382	ug/kg	115	382
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	382	ug/kg	76.4	382
122-66-7	Azobenzene	U	382	ug/kg	76.4	382
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	382	ug/kg	76.4	382
118-74-1	Hexachlorobenzene	U	382	ug/kg	76.4	382
85-01-8	Phenanthrene	U	38.2	ug/kg	11.5	38.2
120-12-7	Anthracene	U	38.2	ug/kg	7.64	38.2
84-74-2	Di-n-butylphthalate	U	382	ug/kg	76.4	382
206-44-0	Fluoranthene	U	38.2	ug/kg	11.5	38.2
85-68-7	Butylbenzylphthalate	U	382	ug/kg	76.4	382
56-55-3	Benzo(a)anthracene	U	38.2	ug/kg	11.5	38.2
91-94-1	3,3'-Dichlorobenzidine	U	382	ug/kg	115	382
218-01-9	Chrysene	U	38.2	ug/kg	11.5	38.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	382	ug/kg	76.4	382
117-84-0	Di-n-octylphthalate	U	382	ug/kg	76.4	382
205-99-2	Benzo(b)fluoranthene	U	38.2	ug/kg	11.5	38.2
207-08-9	Benzo(k)fluoranthene	U	38.2	ug/kg	11.5	38.2
50-32-8	Benzo(a)pyrene	U	38.2	ug/kg	11.5	38.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.2	ug/kg	11.5	38.2
53-70-3	Dibenzo(a,h)anthracene	U	38.2	ug/kg	11.5	38.2
191-24-2	Benzo(ghi)perylene	U	38.2	ug/kg	11.5	38.2
120-82-1	1,2,4-Trichlorobenzene	U	382	ug/kg	76.4	382

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.99	304	ug/kg		JA
77-53-2	Cedrol	6.61	251	ug/kg	94	NJ

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Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244005	Date Received: 02/27/2010 09:10	%Moisture: 12.8
Client ID: RE36-10-8477	Client: LANL010	Project: LANL01004
Batch ID: 960971	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/18/2010 11:56	Inst: MSD6.I	Dilution: 1
Prep Date: 03/04/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s6c1811.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
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	9.09	254	ug/kg	98	NJ
	Unknown	9.12	226	ug/kg		J
	Unknown	9.16	388	ug/kg		J
559-74-0	Friedelan-3-one	10.64	551	ug/kg	95	NJ
	Unknown	13.44	332	ug/kg		J

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

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SDG Number: 10-2137  
Lab Sample ID: 248244006

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.17 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 10.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8479  
Batch ID: 960971  
Run Date: 03/18/2010 12:18  
Prep Date: 03/04/2010 23:22  
Data File: s6c1812.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	369	ug/kg	73.8	369
108-95-2	Phenol	U	369	ug/kg	73.8	369
95-57-8	2-Chlorophenol	U	369	ug/kg	73.8	369
106-46-7	1,4-Dichlorobenzene	U	369	ug/kg	73.8	369
621-64-7	N-Nitrosodipropylamine	U	369	ug/kg	73.8	369
59-50-7	4-Chloro-3-methylphenol	U	369	ug/kg	73.8	369
83-32-9	Acenaphthene	U	36.9	ug/kg	12.2	36.9
121-14-2	2,4-Dinitrotoluene	U	369	ug/kg	36.9	369
100-02-7	4-Nitrophenol	U	369	ug/kg	122	369 UJ,SV7c
87-86-5	Pentachlorophenol	U	369	ug/kg	92.3	369
129-00-0	Pyrene	U	36.9	ug/kg	11.1	36.9
110-86-1	Pyridine	U	369	ug/kg	73.8	369 UJ,SV7c
62-53-3	Aniline	U	369	ug/kg	111	369
111-44-4	bis(2-Chloroethyl) ether	U	369	ug/kg	73.8	369
541-73-1	1,3-Dichlorobenzene	U	369	ug/kg	73.8	369
100-51-6	Benzyl alcohol	U	369	ug/kg	111	369 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	369	ug/kg	73.8	369
108-60-1	bis(2-Chloroisopropyl) ether	U	369	ug/kg	73.8	369
95-48-7	o-Cresol	U	369	ug/kg	73.8	369
65794-96-9	m,p-Cresols	U	369	ug/kg	111	369
67-72-1	Hexachloroethane	U	369	ug/kg	73.8	369
98-95-3	Nitrobenzene	U	369	ug/kg	73.8	369
78-59-1	Isophorone	U	369	ug/kg	73.8	369
88-75-5	2-Nitrophenol	U	369	ug/kg	73.8	369
105-67-9	2,4-Dimethylphenol	U	369	ug/kg	129	369 UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	369	ug/kg	73.8	369
120-83-2	2,4-Dichlorophenol	U	369	ug/kg	73.8	369
65-85-0	Benzoic acid	U	738	ug/kg	185	738
91-20-3	Naphthalene	U	36.9	ug/kg	11.1	36.9
106-47-8	4-Chloroaniline	U	369	ug/kg	73.8	369
87-68-3	Hexachlorobutadiene	U	369	ug/kg	73.8	369
91-57-6	2-Methylnaphthalene	U	36.9	ug/kg	7.38	36.9
77-47-4	Hexachlorocyclopentadiene	U	369	ug/kg	73.8	369
88-06-2	2,4,6-Trichlorophenol	U	369	ug/kg	73.8	369
95-95-4	2,4,5-Trichlorophenol	U	369	ug/kg	73.8	369
91-58-7	2-Chloronaphthalene	U	36.9	ug/kg	12.2	36.9
88-74-4	2-Nitroaniline	U	369	ug/kg	73.8	369
99-09-2	<i>o</i> -Nitroaniline	U	369	ug/kg	73.8	369
	3-Nitroaniline					

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Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244006	Date Received: 02/27/2010 09:10	%Moisture: 10.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8479	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 12:18	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Allquot: 30.17 g	Final Volume: 1 mL
Data File: s6c1812.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmaame	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	369	ug/kg	73.8	369
606-20-2	2,6-Dinitrotoluene	U	369	ug/kg	36.9	369
208-96-8	Acenaphthylene	U	36.9	ug/kg	11.1	36.9
51-28-5	2,4-Dinitrophenol	U	738	ug/kg	140	738 UJ,SV7c
132-64-9	Dibenzofuran	U	369	ug/kg	73.8	369
84-66-2	Diethylphthalate	U	369	ug/kg	73.8	369
86-73-7	Fluorene	U	36.9	ug/kg	11.1	36.9
7005-72-3	4-Chlorophenylphenylether	U	369	ug/kg	73.8	369
534-52-1	2-Methyl-4,6-dinitrophenol	U	369	ug/kg	73.8	369 UJ,SV7c
100-01-6	4-Nitroaniline	U	369	ug/kg	111	369
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	369	ug/kg	73.8	369
122-66-7	Azobenzene	U	369	ug/kg	73.8	369
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	369	ug/kg	73.8	369
118-74-1	Hexachlorobenzene	U	369	ug/kg	73.8	369
85-01-8	Phenanthrene	U	36.9	ug/kg	11.1	36.9
120-12-7	Anthracene	U	36.9	ug/kg	7.38	36.9
84-74-2	Di-n-butylphthalate	U	369	ug/kg	73.8	369
206-44-0	Fluoranthene	U	36.9	ug/kg	11.1	36.9
85-68-7	Butylbenzylphthalate	U	369	ug/kg	73.8	369
56-55-3	Benzo(a)anthracene	U	36.9	ug/kg	11.1	36.9
91-94-1	3,3'-Dichlorobenzidine	U	369	ug/kg	111	369
218-01-9	Chrysene	U	36.9	ug/kg	11.1	36.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	369	ug/kg	73.8	369
117-84-0	Di-n-octylphthalate	U	369	ug/kg	73.8	369
205-99-2	Benzo(b)fluoranthene	U	36.9	ug/kg	11.1	36.9
207-08-9	Benzo(k)fluoranthene	U	36.9	ug/kg	11.1	36.9
50-32-8	Benzo(a)pyrene	U	36.9	ug/kg	11.1	36.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.9	ug/kg	11.1	36.9
53-70-3	Dibenzo(a,h)anthracene	U	36.9	ug/kg	11.1	36.9
191-24-2	Benzo(ghi)perylene	U	36.9	ug/kg	11.1	36.9
120-82-1	1,2,4-Trichlorobenzene	U	369	ug/kg	73.8	369

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	3	322	ug/kg		JA
120-08-1	2H-1-Benzopyran-2-one, 6,7-dimethoxy-	7.83	240	ug/kg	99	NJ

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

SDG Number: 10-2137  
Lab Sample ID: 248244006

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010

Matrix: R  
%Moisture: 10.2  
Project: LANL01004

Client ID: RE36-10-8479  
Batch ID: 960971  
Run Date: 03/18/2010 12:18  
Prep Date: 03/04/2010 23:22  
Data File: s6c1812.d

Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.17 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.	Paramname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
Tentatively Identified Compound Summary							
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Flt	Qual
593-49-7	Heptacosane		10.91	187	ug/kg	94	NJ
	Unknown		13.44	259	ug/kg		J



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

SDG Number: 10-2137  
Lab Sample ID: 248244008

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 11.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8481  
Batch ID: 960971  
Run Date: 03/18/2010 12:42  
Prep Date: 03/04/2010 23:22  
Data File: s6c1813.d

CAS No.	Parma name	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	375	ug/kg	75.0	375
108-95-2	Phenol	U	375	ug/kg	75.0	375
95-57-8	2-Chlorophenol	U	375	ug/kg	75.0	375
106-46-7	1,4-Dichlorobenzene	U	375	ug/kg	75.0	375
621-64-7	N-Nitrosodipropylamine	U	375	ug/kg	75.0	375
59-50-7	4-Chloro-3-methylphenol	U	375	ug/kg	75.0	375
83-32-9	Acenaphthene		193	ug/kg	12.4	37.5
121-14-2	2,4-Dinitrotoluene	U	375	ug/kg	37.5	375
100-02-7	4-Nitrophenol	U	375	ug/kg	124	375 UJ,SV7c
87-86-5	Pentachlorophenol	U	375	ug/kg	93.8	375
129-00-0	Pyrene	U	37.5	ug/kg	11.3	37.5
110-86-1	Pyridine	U	375	ug/kg	75.0	375 UJ,SV7c
62-53-3	Aniline	U	375	ug/kg	113	375
111-44-4	bis(2-Chloroethyl) ether	U	375	ug/kg	75.0	375
541-73-1	1,3-Dichlorobenzene	U	375	ug/kg	75.0	375
100-51-6	Benzyl alcohol	U	375	ug/kg	113	375 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	375	ug/kg	75.0	375
108-60-1	bis(2-Chloroisopropyl) ether	U	375	ug/kg	75.0	375
95-48-7	o-Cresol	U	375	ug/kg	75.0	375
65794-96-9	m,p-Cresols	U	375	ug/kg	113	375
67-72-1	Hexachloroethane	U	375	ug/kg	75.0	375
98-95-3	Nitrobenzene	U	375	ug/kg	75.0	375
78-59-1	Isophorone	U	375	ug/kg	75.0	375
88-75-5	2-Nitrophenol	U	375	ug/kg	75.0	375
105-67-9	2,4-Dimethylphenol	U	375	ug/kg	131	375 UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	375	ug/kg	75.0	375
120-83-2	2,4-Dichlorophenol	U	375	ug/kg	75.0	375
65-85-0	Benzoic acid	U	750	ug/kg	188	750
91-20-3	Naphthalene	U	37.5	ug/kg	11.3	37.5
106-47-8	4-Chloroaniline	U	375	ug/kg	75.0	375
87-68-3	Hexachlorobutadiene	U	375	ug/kg	75.0	375
91-57-6	2-Methylnaphthalene	U	37.5	ug/kg	7.50	37.5
77-47-4	Hexachlorocyclopentadiene	U	375	ug/kg	75.0	375
88-06-2	2,4,6-Trichlorophenol	U	375	ug/kg	75.0	375
95-95-4	2,4,5-Trichlorophenol	U	375	ug/kg	75.0	375
91-58-7	2-Chloronaphthalene	U	37.5	ug/kg	12.4	37.5
88-74-4	2-Nitroaniline	U	375	ug/kg	75.0	375
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	375	ug/kg	75.0	375



Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244008	Date Received: 02/27/2010 09:10	%Moisture: 11.2
Client ID: RE36-10-8481	Client: LANL010	Project: LANL01004
Batch ID: 960971	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/18/2010 12:42	Inst: MSD6.I	Dilution: 1
Prep Date: 03/04/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s6c1813.d	Allquot: 30.03 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	375	ug/kg	75.0	375
606-20-2	2,6-Dinitrotoluene	U	375	ug/kg	37.5	375
208-96-8	Acenaphthylene	U	37.5	ug/kg	11.3	37.5
51-28-5	2,4-Dinitrophenol	U	750	ug/kg	143	750 UJ,SV7c
132-64-9	Dibenzofuran	U	375	ug/kg	75.0	375
84-66-2	Diethylphthalate	U	375	ug/kg	75.0	375
86-73-7	Fluorene	U	37.5	ug/kg	11.3	37.5
7005-72-3	4-Chlorophenylphenylether	U	375	ug/kg	75.0	375
534-52-1	2-Methyl-4,6-dinitrophenol	U	375	ug/kg	75.0	375 UJ,SV7c
100-01-6	4-Nitroaniline	U	375	ug/kg	113	375
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	375	ug/kg	75.0	375
122-66-7	Azobenzene	U	375	ug/kg	75.0	375
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	375	ug/kg	75.0	375
118-74-1	Hexachlorobenzene	U	375	ug/kg	75.0	375
85-01-8	Phenanthrene	U	37.5	ug/kg	11.3	37.5
120-12-7	Anthracene	U	37.5	ug/kg	7.50	37.5
84-74-2	Di-n-butylphthalate	U	375	ug/kg	75.0	375
206-44-0	Fluoranthene	U	37.5	ug/kg	11.3	37.5
85-68-7	Butylbenzylphthalate	U	375	ug/kg	75.0	375
56-55-3	Benzo(a)anthracene	U	37.5	ug/kg	11.3	37.5
91-94-1	3,3'-Dichlorobenzidine	U	375	ug/kg	113	375
218-01-9	Chrysene	U	37.5	ug/kg	11.3	37.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	375	ug/kg	75.0	375
117-84-0	Di-n-octylphthalate	U	375	ug/kg	75.0	375
205-99-2	Benzo(b)fluoranthene	U	37.5	ug/kg	11.3	37.5
207-08-9	Benzo(k)fluoranthene	U	37.5	ug/kg	11.3	37.5
50-32-8	Benzo(a)pyrene	U	37.5	ug/kg	11.3	37.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.5	ug/kg	11.3	37.5
53-70-3	Dibenzo(a,h)anthracene	U	37.5	ug/kg	11.3	37.5
191-24-2	Benzo(ghi)perylene	U	37.5	ug/kg	11.3	37.5
120-82-1	1,2,4-Trichlorobenzene	U	375	ug/kg	75.0	375

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	2.09	243	ug/kg		J
	Unknown Aldol Condensate	2.99	256	ug/kg		JA

ETM  
4/28/10



Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2137  
Lab Sample ID: 248244008

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 11.2  
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	Flt	Qual
7785-70-8	1R-.alpha.-Pinene	3.54	185	ug/kg	97	NJ
60512-80-3	Acetophenone, 2',4'-dimethoxy-3'-methyl-	5.65	187	ug/kg	83	NJ
112-95-8	Eicosane	9.48	169	ug/kg	95	NJ
593-49-7	Heptacosane	10.13	322	ug/kg	96	NJ
	Unknown	10.6	245	ug/kg		J
7225-66-3	Tridecane, 7-hexyl-	10.91	497	ug/kg	91	NJ
	Unknown	11.93	156	ug/kg		J
	Unknown	13.44	253	ug/kg		J

ETM  
4/28/10



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

SDG Number: 10-2137  
Lab Sample ID: 248244007

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Allquot: 30.19 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 16.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8484  
Batch ID: 960971  
Run Date: 03/18/2010 13:52  
Prep Date: 03/04/2010 23:22  
Data File: s6c1816.d

CAS No.	Parmaame	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	395	ug/kg	79.1	395
108-95-2	Phenol	U	395	ug/kg	79.1	395
95-57-8	2-Chlorophenol	U	395	ug/kg	79.1	395
106-46-7	1,4-Dichlorobenzene	U	395	ug/kg	79.1	395
621-64-7	N-Nitrosodipropylamine	U	395	ug/kg	79.1	395
59-50-7	4-Chloro-3-methylphenol	U	395	ug/kg	79.1	395
83-32-9	Acenaphthene	U	39.5	ug/kg	13.0	39.5
121-14-2	2,4-Dinitrotoluene	U	395	ug/kg	39.5	395
100-02-7	4-Nitrophenol	U	395	ug/kg	130	395 UJ,SV7c
87-86-5	Pentachlorophenol	U	395	ug/kg	98.8	395
129-00-0	Pyrene	U	39.5	ug/kg	11.9	39.5
110-86-1	Pyridine	U	395	ug/kg	79.1	395 UJ,SV7c
62-53-3	Aniline	U	395	ug/kg	119	395
111-44-4	bis(2-Chloroethyl) ether	U	395	ug/kg	79.1	395
541-73-1	1,3-Dichlorobenzene	U	395	ug/kg	79.1	395
100-51-6	Benzyl alcohol	U	395	ug/kg	119	395 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	395	ug/kg	79.1	395
108-60-1	bis(2-Chloroisopropyl) ether	U	395	ug/kg	79.1	395
95-48-7	o-Cresol	U	395	ug/kg	79.1	395
65794-96-9	m,p-Cresols	U	395	ug/kg	119	395
67-72-1	Hexachloroethane	U	395	ug/kg	79.1	395
98-95-3	Nitrobenzene	U	395	ug/kg	79.1	395
78-59-1	Isophorone	U	395	ug/kg	79.1	395
88-75-5	2-Nitrophenol	U	395	ug/kg	79.1	395
105-67-9	2,4-Dimethylphenol	U	395	ug/kg	138	395 UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	395	ug/kg	79.1	395
120-83-2	2,4-Dichlorophenol	U	395	ug/kg	79.1	395
65-85-0	Benzoic acid	U	791	ug/kg	198	791
91-20-3	Naphthalene	U	39.5	ug/kg	11.9	39.5
106-47-8	4-Chloroaniline	U	395	ug/kg	79.1	395
87-68-3	Hexachlorobutadiene	U	395	ug/kg	79.1	395
91-57-6	2-Methylnaphthalene	U	39.5	ug/kg	7.91	39.5
77-47-4	Hexachlorocyclopentadiene	U	395	ug/kg	79.1	395
88-06-2	2,4,6-Trichlorophenol	U	395	ug/kg	79.1	395
95-95-4	2,4,5-Trichlorophenol	U	395	ug/kg	79.1	395
91-58-7	2-Chloronaphthalene	U	39.5	ug/kg	13.0	39.5
88-74-4	2-Nitroaniline	U	395	ug/kg	79.1	395
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	395	ug/kg	79.1	395



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244007	Date Received: 02/27/2010 09:10	%Moisture: 16.2
Client ID: RE36-10-8484	Client: LANL010	Project: LANL01004
Batch ID: 960971	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/18/2010 13:52	Inst: MSD6.I	Dilution: 1
Prep Date: 03/04/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s6c1816.d	Alliquot: 30.19 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	395	ug/kg	79.1	395
606-20-2	2,6-Dinitrotoluene	U	395	ug/kg	39.5	395
208-96-8	Acenaphthylene	U	39.5	ug/kg	11.9	39.5
51-28-5	2,4-Dinitrophenol	U	791	ug/kg	150	791 UJ,SV7c
132-64-9	Dibenzofuran	U	395	ug/kg	79.1	395
84-66-2	Diethylphthalate	U	395	ug/kg	79.1	395
86-73-7	Fluorene	U	39.5	ug/kg	11.9	39.5
7005-72-3	4-Chlorophenylphenylether	U	395	ug/kg	79.1	395
534-52-1	2-Methyl-4,6-dinitrophenol	U	395	ug/kg	79.1	395 UJ,SV7c
100-01-6	4-Nitroaniline	U	395	ug/kg	119	395
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	395	ug/kg	79.1	395
122-66-7	Azobenzene	U	395	ug/kg	79.1	395
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	395	ug/kg	79.1	395
118-74-1	Hexachlorobenzene	U	395	ug/kg	79.1	395
85-01-8	Phenanthrene	U	39.5	ug/kg	11.9	39.5
120-12-7	Anthracene	U	39.5	ug/kg	7.91	39.5
84-74-2	Di-n-butylphthalate	U	395	ug/kg	79.1	395
206-44-0	Fluoranthene	U	39.5	ug/kg	11.9	39.5
85-68-7	Butylbenzylphthalate	U	395	ug/kg	79.1	395
56-55-3	Benzo(a)anthracene	U	39.5	ug/kg	11.9	39.5
91-94-1	3,3'-Dichlorobenzidine	U	395	ug/kg	119	395
218-01-9	Chrysene	U	39.5	ug/kg	11.9	39.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	395	ug/kg	79.1	395
117-84-0	Di-n-octylphthalate	U	395	ug/kg	79.1	395
205-99-2	Benzo(b)fluoranthene	U	39.5	ug/kg	11.9	39.5
207-08-9	Benzo(k)fluoranthene	U	39.5	ug/kg	11.9	39.5
50-32-8	Benzo(a)pyrene	U	39.5	ug/kg	11.9	39.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.5	ug/kg	11.9	39.5
53-70-3	Dibenzo(a,h)anthracene	U	39.5	ug/kg	11.9	39.5
191-24-2	Benzo(ghi)perylene	U	39.5	ug/kg	11.9	39.5
120-82-1	1,2,4-Trichlorobenzene	U	395	ug/kg	79.1	395

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3	279	ug/kg		JA
5131-66-8	2-Propanol, 1-butoxy-	3.51	1430	ug/kg	90	NJ

ETM  
4/28/10



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

SDG Number: 10-2137  
Lab Sample ID: 248244007

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Allquot: 30.19 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 16.2  
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
	Unknown		3.58	219	ug/kg	J
	Unknown		13.44	284	ug/kg	J

ETM  
4/28/10



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

SDG Number: 10-2137  
Lab Sample ID: 248244004

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.1 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 23.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8485  
Batch ID: 960971  
Run Date: 03/18/2010 15:28  
Prep Date: 03/04/2010 23:22  
Data File: s6c1820.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	1740	ug/kg	347	1740
108-95-2	Phenol	U	1740	ug/kg	347	1740
95-57-8	2-Chlorophenol	U	1740	ug/kg	347	1740
106-46-7	1,4-Dichlorobenzene	U	1740	ug/kg	347	1740
621-64-7	N-Nitrosodipropylamine	U	1740	ug/kg	347	1740
59-50-7	4-Chloro-3-methylphenol	U	1740	ug/kg	347	1740
83-32-9	Acenaphthene	U	174	ug/kg	57.3	174
121-14-2	2,4-Dinitrotoluene	U	1740	ug/kg	174	1740
100-02-7	4-Nitrophenol	U	1740	ug/kg	573	1740 UJ,SV7c
87-86-5	Pentachlorophenol	U	1740	ug/kg	434	1740
129-00-0	Pyrene	U	174	ug/kg	52.1	174
110-86-1	Pyridine	U	1740	ug/kg	347	1740 UJ,SV7c
62-53-3	Aniline	U	1740	ug/kg	521	1740
111-44-4	bis(2-Chloroethyl) ether	U	1740	ug/kg	347	1740
541-73-1	1,3-Dichlorobenzene	U	1740	ug/kg	347	1740
100-51-6	Benzyl alcohol	U	1740	ug/kg	521	1740 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	1740	ug/kg	347	1740
108-60-1	bis(2-Chloroisopropyl) ether	U	1740	ug/kg	347	1740
95-48-7	o-Cresol	U	1740	ug/kg	347	1740
65794-96-9	m,p-Cresols	U	1740	ug/kg	521	1740
67-72-1	Hexachloroethane	U	1740	ug/kg	347	1740
98-95-3	Nitrobenzene	U	1740	ug/kg	347	1740
78-59-1	Isophorone	U	1740	ug/kg	347	1740
88-75-5	2-Nitrophenol	U	1740	ug/kg	347	1740
105-67-9	2,4-Dimethylphenol	U	1740	ug/kg	608	1740 UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	1740	ug/kg	347	1740
120-83-2	2,4-Dichlorophenol	U	1740	ug/kg	347	1740
65-85-0	Benzoic acid	U	3470	ug/kg	868	3470
91-20-3	Naphthalene	U	174	ug/kg	52.1	174
106-47-8	4-Chloroaniline	U	1740	ug/kg	347	1740
87-68-3	Hexachlorobutadiene	U	1740	ug/kg	347	1740
91-57-6	2-Methylnaphthalene	U	174	ug/kg	34.7	174
77-47-4	Hexachlorocyclopentadiene	U	1740	ug/kg	347	1740
88-06-2	2,4,6-Trichlorophenol	U	1740	ug/kg	347	1740
95-95-4	2,4,5-Trichlorophenol	U	1740	ug/kg	347	1740
91-58-7	2-Chloronaphthalene	U	174	ug/kg	57.3	174
88-74-4	2-Nitroaniline	U	1740	ug/kg	347	1740
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	1740	ug/kg	347	1740

ETM  
4/28/10



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

SDG Number: 10-2137  
Lab Sample ID: 248244004

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Allquot: 30.1 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 23.5  
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
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	1740	ug/kg	347	1740
606-20-2	2,6-Dinitrotoluene	U	1740	ug/kg	174	1740
208-96-8	Acenaphthylene	U	174	ug/kg	52.1	174
51-28-5	2,4-Dinitrophenol	U	3470	ug/kg	660	3470 UJ,SV7c
132-64-9	Dibenzofuran	U	1740	ug/kg	347	1740
84-66-2	Diethylphthalate	U	1740	ug/kg	347	1740
86-73-7	Fluorene	U	174	ug/kg	52.1	174
7005-72-3	4-Chlorophenylphenylether	U	1740	ug/kg	347	1740
534-52-1	2-Methyl-4,6-dinitrophenol	U	1740	ug/kg	347	1740 UJ,SV7c
100-01-6	4-Nitroaniline	U	1740	ug/kg	521	1740
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	1740	ug/kg	347	1740
122-66-7	Azobenzene	U	1740	ug/kg	347	1740
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	1740	ug/kg	347	1740
118-74-1	Hexachlorobenzene	U	1740	ug/kg	347	1740
85-01-8	Phenanthrene	U	174	ug/kg	52.1	174
120-12-7	Anthracene	U	174	ug/kg	34.7	174
84-74-2	Di-n-butylphthalate	U	1740	ug/kg	347	1740
206-44-0	Fluoranthene	U	174	ug/kg	52.1	174
85-68-7	Butylbenzylphthalate	U	1740	ug/kg	347	1740
56-55-3	Benzo(a)anthracene	U	174	ug/kg	52.1	174
91-94-1	3,3'-Dichlorobenzidine	U	1740	ug/kg	521	1740
218-01-9	Chrysene	U	174	ug/kg	52.1	174
117-81-7	bis(2-Ethylhexyl)phthalate	U	1740	ug/kg	347	1740
117-84-0	Di-n-octylphthalate	U	1740	ug/kg	347	1740
205-99-2	Benzo(b)fluoranthene	U	174	ug/kg	52.1	174
207-08-9	Benzo(k)fluoranthene	U	174	ug/kg	52.1	174
50-32-8	Benzo(a)pyrene	U	174	ug/kg	52.1	174
193-39-5	Indeno(1,2,3-cd)pyrene	U	174	ug/kg	52.1	174
53-70-3	Dibenzo(a,h)anthracene	U	174	ug/kg	52.1	174
191-24-2	Benzo(ghi)perylene	U	174	ug/kg	52.1	174
120-82-1	1,2,4-Trichlorobenzene	U	1740	ug/kg	347	1740

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	13.45	1160	ug/kg		J

ETM  
4/28/10



## DATA VALIDATION COVER SHEET

5122-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2137 VALIDATION DATE: 4/28/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink 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 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):


- The ICAL RRF was  $<0.05$  but  $\geq 0.01$  for p-nitrotoluene. The associated sample results were NDs and, thus, were qualified UJ,HE7b.
- In the ICV and/or CCVs associated with all the samples, the %Ds were  $>20\%$  but  $\leq 40\%$  with a negative bias for m-nitrotoluene and o-nitrotoluene. In the CCV associated with sample RE36-10-8485, the %D was  $>20\%$  but  $\leq 40\%$  with a negative bias for p-nitrotoluene. The associated sample results were NDs and, thus, were qualified UJ,HE7c. In the ICV and/or CCVs associated with all the samples, the %Ds were  $>20\%$  with a positive bias for RDX. In the CCV associated with all the samples except -8481, the %D was  $>20\%$  with a positive bias for 2,4-diamino-6-nitrotoluene. The associated sample results were NDs and, thus, were not qualified.
- The LCS %R was  $<$  the laboratory's LAL but  $\geq 10\%$  for tetraol. The associated sample results were NDs and, thus, were qualified UJ,HE12a.
- The MS and MSD %Rs were  $<$  the laboratory's LAL but  $\geq 10\%$  for tetraol. The associated sample results were NDs and, thus, were qualified UJ,HE12e.
- It should be noted that the MS/MSD analyses were performed on a LANL sample from a different RN and the raw data for the parent sample was not provided in the data package. No sample data were qualified.
- It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis was not reported in the data package. Thus, surrogate RT criteria could not be evaluated. No sample data were qualified as a result.

Reviewed by: Mary Donovan


Level: I

Date: 04/28/10




DATA VALIDATION COVER SHEET	
5122-1	Records Use only
Data Validation Cover Sheet	 Los Alamos NATIONAL LABORATORY EST. 1945
VALIDATOR'S SIGNATURE: <u>Eli T. Mich</u> DATE: <u>4/28/10</u>	
Form 5122-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project



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 (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				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	
<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"/>	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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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	
<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 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: RE36-10-8464

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244001

Sample Amount 2

Moisture: 9.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412146a

Date Analyzed: 15-APR-10 14:58

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 UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene UJ,HE7c	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene UJ,HE7c	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene UJ,HE7b	500	U

\*Concentration =

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

ETM  
4/28/10



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8464

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244001

Sample Amount 2

Moisture: 2.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 952337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050089.wiff

Date Analyzed: 06-APR-10 11:48

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

ETM  
4/28/10



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8475

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244002

Sample Amount 2

Moisture: 8.8

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412147a

Date Analyzed: 15-APR-10 15:28

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 UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene UJ,HE7c	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene UJ,HE7c	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene UJ,HE7b	500	U

\*Concentration =

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

ETM  
4/28/10



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8475

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244002

Sample Amount 2

Moisture: 8.8

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050090.wiff

Date Analyzed: 06-APR-10 12:04

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	X	Concentrated Extract Volume	X	Dilution
Value		Sample Amount		Factor

ETM  
4/28/10



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8471

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244003

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412148a

Date Analyzed: 15-APR-10 15:57

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 UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene UJ,HE7c	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene UJ,HE7c	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene UJ,HE7b	500	U

\*Concentration =

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

ETM  
4/28/10



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8471

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244003

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050091.wiff

Date Analyzed: 06-APR-10 12:19

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

ETM  
4/28/10



# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8485

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244004

Sample Amount 2

Moisture: 23.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412196a

Date Analyzed: 16-APR-10 15:34

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 UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene UJ,HE7c	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene UJ,HE7c	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene UJ,HE7b	500	U

\*Concentration =

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

ETM  
4/28/10



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8485

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244004

Sample Amount 2

Moisture: 23.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050092.wiff

Date Analyzed: 06-APR-10 12:35

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

ETM  
4/28/10



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8477

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244005

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412150a

Date Analyzed: 15-APR-10 16:56

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 UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene UJ,HE7c	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene UJ,HE7c	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene UJ,HE7b	500	U

\*Concentration =

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

ETM  
4/28/10



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8477

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244005

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050093.wiff

Date Analyzed: 06-APR-10 12:51

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

ETM  
4/28/10



# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8479

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244006

Sample Amount 2

Moisture: 10.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412151a

Date Analyzed: 15-APR-10 17:26

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 UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene UJ,HE7c	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene UJ,HE7c	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene UJ,HE7b	500	U

\*Concentration =

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

ETM  
4/28/10



High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8479

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244006

Sample Amount 2

Moisture: 10.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050094.wiff

Date Analyzed: 06-APR-10 13:06

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

ETM  
4/28/10



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8484

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244007

Sample Amount 2

Moisture: 16.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412152a

Date Analyzed: 15-APR-10 17:55

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 UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene UJ,HE7c	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene UJ,HE7c	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene UJ,HE7b	500	U

\*Concentration =

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

ETM  
4/28/10



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8484

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244007

Sample Amount 2

Moisture: 16.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050095.wiff

Date Analyzed: 06-APR-10 13:22

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
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ETM  
4/28/10



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8481

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244008

Sample Amount 2

Moisture: 11.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412153a

Date Analyzed: 15-APR-10 18:25

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 UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene UJ,HE7c	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene UJ,HE7c	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene UJ,HE7b	500	U

\*Concentration =

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

ETM  
4/28/10



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8481

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244008

Sample Amount 2

Moisture: 11.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04080015.wiff

Date Analyzed: 08-APR-10 20:29

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

ETM  
4/28/10



DATA VALIDATION COVER SHEET	
<b>5116-1</b>  <div style="text-align: center;"><b>Data Validation Cover Sheet</b></div>	Records Use only  

Section I.			
REQUEST NUMBER: <u>10-2137</u>	VALIDATION DATE: <u>4/28/10</u>	LAB CODE: <u>GEL</u>	
CONTRACT LABORATORY NAME: <u>GEL Laboratories LLC</u>			
VALIDATOR: <u>Eric T. Mink</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"/> 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): <u>PCBs</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 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):							
1. The 4CMX surrogate %Rs on both columns and DCB surrogate on one column were < the laboratory's LAL but ≥10% for the sample. The sample was analyzed at a dilution and, thus, no sample data were qualified.							
2. It should be noted that the MS/MSD analyses were performed on a LANL sample from a different RN and the raw data for the parent sample was not provided in the data package. However, MS/MSD analyses are not required for these analyses and, thus, no sample data were qualified.							
Reviewed by: <u>Mary Donovan</u> Level: <u>I</u> Date: <u>04/28/10</u>							

VALIDATOR'S SIGNATURE: <u>Eric T. Mink</u>	DATE: <u>4/28/10</u>
Form 5116-1, Revision 0.0	
LOS ALAMOS Environmental Restoration Project	



# **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 type="checkbox"/>	<input checked="" 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 (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				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 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.	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	
<b>5116-2</b>  <b>Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) 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"/>	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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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	
<b>5116-2</b>  <b>Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) 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"/>	<b>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.</b>	UJ, R, P15	R, P15
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>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.</b>	U, U_LAB	J, J_LAB, NQ, NQ
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>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.</b>	UJ, R, P19	J, R, P19



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

SDG Number: 10-2137  
Lab Sample ID: 248244001

Client ID: RE36-10-8464  
Batch ID: 965805  
Run Date: 03/17/2010 10:01  
Prep Date: 03/16/2010 21:02  
Data File: 023f2301.d  
023b2301.d

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Allquot: 30.18 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 9.5  
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	18.3	ug/kg	6.10	18.3	1
11104-28-2	Aroclor-1221	U	18.3	ug/kg	6.10	18.3	1
11141-16-5	Aroclor-1232	U	18.3	ug/kg	6.10	18.3	1
53469-21-9	Aroclor-1242	U	18.3	ug/kg	6.10	18.3	1
12672-29-6	Aroclor-1248	U	18.3	ug/kg	6.10	18.3	1
11097-69-1	Aroclor-1254	U	18.3	ug/kg	6.10	18.3	1
11096-82-5	Aroclor-1260	U	18.3	ug/kg	6.10	18.3	1



Friday, February 26, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2137

LOS ALAMOS

REQUEST NUMBER: 10-2137

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/28/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248244

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8464	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8464	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8475	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8475	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8471	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8471	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8485	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8485	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8477	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8477	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8479	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8479	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8484	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8484	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8481	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8481	1	AMBER GLASS	8270C+NMED Exp	Ice	R

Relinquished By:

Date Time

Received By:

Date Time

Printed Name

Signature

2/26/10 1400

Printed Name

Signature

Greg Tyler Greg Tyler 2/27/10 0910

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature



Friday, February 26, 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: 10-2137

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

SHIP DATE: 2/26/2010

TURNAROUND/REPORT DUE: 3/28/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature: 

PRIORITY	METHOD CODE	CNTR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE36-10-8484	R	2/24/2010	
	SW-846:8260B	1	RE36-10-8484	R	2/24/2010	
		1	RE36-10-8471	R	2/24/2010	
		1	RE36-10-8475	R	2/24/2010	
		1	RE36-10-8477	R	2/24/2010	
		1	RE36-10-8479	R	2/24/2010	
		1	RE36-10-8481	R	2/24/2010	
		1	RE36-10-8484	R	2/24/2010	
		1	RE36-10-8485	R	2/24/2010	



Friday, February 26, 2010

REQUEST NUMBER: 10-2137

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846.8270C	1	RE36-10-8484	R	2/24/2010	
		1	RE36-10-8471	R	2/24/2010	
		1	RE36-10-8475	R	2/24/2010	
		1	RE36-10-8477	R	2/24/2010	
		1	RE36-10-8479	R	2/24/2010	
		1	RE36-10-8481	R	2/24/2010	
		1	RE36-10-8484	R	2/24/2010	
		1	RE36-10-8485	R	2/24/2010	
	SW-846.8321A_MOD	1	RE36-10-8484	R	2/24/2010	
		1	RE36-10-8471	R	2/24/2010	
		1	RE36-10-8475	R	2/24/2010	
		1	RE36-10-8477	R	2/24/2010	
		1	RE36-10-8479	R	2/24/2010	
		1	RE36-10-8481	R	2/24/2010	
		1	RE36-10-8484	R	2/24/2010	
		1	RE36-10-8485	R	2/24/2010	

Final Page of REQUEST NUMBER 10-2137





March 06, 2010

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: 248244  
SDG: 10-2137

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 27, 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: 10-2137  
Enclosures



**Los Alamos National Laboratory (72733-001-09)**  
**LANL ER Project**  
**Work Order #: 248244**  
**SDG: 10-2137**



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# Case Narrative



**Case Narrative for  
Los Alamos National Laboratory (72733-001-09)  
LANL ER Project  
Workorder #: 248244  
SDG # : 10-2137**

**March 06, 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 27, 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 original COC was received on 3/2/10. 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:

<u>Laboratory ID</u>	<u>Client ID</u>
248244001	RE36-10-8464
248244002	RE36-10-8475
248244003	RE36-10-8471
248244004	RE36-10-8485
248244005	RE36-10-8477
248244006	RE36-10-8479
248244007	RE36-10-8484
248244008	RE36-10-8481

**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.



Valerie Davis  
Project Manager



**List of current GEL Certifications as of 06 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**



Friday, February 26, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2137

LOS ALAMOS

REQUEST NUMBER: 10-2137

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/28/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248244

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8464	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8464	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8475	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8475	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8471	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8471	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8485	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8485	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8477	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8477	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8479	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8479	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8484	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8484	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-8481	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8481	1	AMBER GLASS	8270C+NMED Exp	Ice	R

Relinquished By:

Date Time

Received By:

Date Time

*[Signature]*  
 Printed Name Signature

2/26/10 1400

*Greg Tyler*  
 Printed Name Signature

2/27/10 0910

Printed Name Signature

Printed Name Signature

Printed Name Signature

Printed Name Signature

Received for DISPOSAL By:

Date Time

Remarks:

Printed Name Signature



Friday, February 26, 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: 2/26/2010**

**TURNAROUND/REPORT DUE: 3/28/2010**

**TURNAROUND REQ'D: 30 Days**

**RAD SCREENING: Yes, Below Background**

**LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT

Signature: 

These Samples are on:

LANL Request Number: 10-2137

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

REQUEST NUMBER: 10-2137

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE36-10-8464	R	2/24/2010	
	SW-846:82608	1	RE36-10-8464	R	2/24/2010	
		1	RE36-10-8471	R	2/24/2010	
		1	RE36-10-8475	R	2/24/2010	
		1	RE36-10-8477	R	2/24/2010	
		1	RE36-10-8479	R	2/24/2010	
		1	RE36-10-8481	R	2/24/2010	
		1	RE36-10-8484	R	2/24/2010	
		1	RE36-10-8485	R	2/24/2010	



Friday, February 26, 2010

Page 2 of 2  
REQUEST NUMBER: 10-2137

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE36-10-8464	R	2/24/2010	
		1	RE36-10-8471	R	2/24/2010	
		1	RE36-10-8475	R	2/24/2010	
		1	RE36-10-8477	R	2/24/2010	
		1	RE36-10-8479	R	2/24/2010	
		1	RE36-10-8481	R	2/24/2010	
		1	RE36-10-8484	R	2/24/2010	
		1	RE36-10-8485	R	2/24/2010	
	SW-846:8321A_MOD	1	RE36-10-8464	R	2/24/2010	
		1	RE36-10-8471	R	2/24/2010	
		1	RE36-10-8475	R	2/24/2010	
		1	RE36-10-8477	R	2/24/2010	
		1	RE36-10-8479	R	2/24/2010	
		1	RE36-10-8481	R	2/24/2010	
		1	RE36-10-8484	R	2/24/2010	
		1	RE36-10-8485	R	2/24/2010	

Final Page of REQUEST NUMBER 10-2137





Laboratories LLC

## SAMPLE RECEIPT &amp; REVIEW FORM

Client: LANL			SDG/ARCOC/Work Order: 10-2137		
Received By: Greg Tyler			Date Received: 2/27/10		
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*: 60cpm	
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 1-6C    10,11C
3 Chain of custody documents included with shipment?	X		X	the original COC rec'd 3/2/10
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: If Preservation added, Lot#:
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 2525 1C    7209 7850 2570 5C  
7209 7850 2606 1C    7209 7850 2558 6C  
7209 7850 2547 1C    7209 7850 2536 6C  
7209 7850 2639 2C    7209 7850 2591 6C  
7209 7850 2580 2C    7209 7850 2514 10C  
7209 7850 2499 2C    7209 7850 2628 11C  
7209 7850 2617 3C    7209 7850 2503 11C  
7209 7850 2569 4C



**Subject:** Sample Receipt for 2/27/10

**From:** Dionne Francis <Dionne.Francis@gel.com>

**Date:** Mon, 01 Mar 2010 13:52:03 -0500

**To:** "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Keith,

The lab did not receive any original chain of custodies.

RN 10-2149: the lab did not receive the RAD poly container for sample WSTTH-10-13314.

RN 10-2148: the lab did not receive the GrossG container for sample WSTTH-10-13314

RN 10-2145: the lab did not receive the 40ml vial container for sample RE46-10-13543.

RN 10-2098: the Metals container for sample WST16-10-12239 will be preserved prior to analysis.

The following containers were rec'd without a COC:

RE36-10-7533 and 7535

250 poly Perchlorate, 500ml poly TCN, 1L poly Metals+U

RE36-10-7416 thru 7420, 7477 thru 7490, 7492 thru 7500, 7521 thru 7523  
125ml poly Metals, 500ml amber glass 8270+NMED Exp, 500ml poly Perchlorate

RE36-10-7491

500ml amber glass H3, 8270+NMED Exp

Thanks,  
Dionne

--

Dionne Francis  
Project Manager Assistant  
GEL Laboratories, LLC  
2040 Savage Road  
Charleston, SC (USA) 29407  
Direct: 843.769.7376 Ext. 4432  
Main: 843.556.8171  
Fax: 843.766.1178  
E-mail: [daf@gel.com](mailto:daf@gel.com)  
Web: [www.gel.com](http://www.gel.com)

Let the Bible fill the memory, rule the heart, and guide the feet.







JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 26FEB10  
ACTWGT: 67.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: MR2A0515BYD0

2c

UNITED STATES POSTAL SERVICE



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TRKH 7209 7850 2580  
NM MASTER NM

1 of 2  
### SATURDAY ### A1  
PRIORITY OVERNIGHT

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CHS



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

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2 of 2  
### SATURDAY ### A1  
PRIORITY OVERNIGHT

X0 CHSA

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SC-US  
CHS



ORIGIN ID: SAFA (505) 665-9969  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 26FEB10  
ACTWGT: 58.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

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REF: MR3A0223CY10

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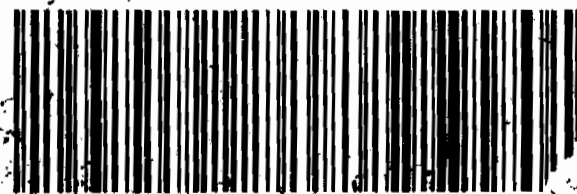


TRKH 7209 7850 2499  
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### SATURDAY ### A1  
PRIORITY OVERNIGHT

X0 CHSA

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CHS



JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 53.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

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1 of 2  
### SATURDAY ### A1  
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 865-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 26FEB10  
ACTWGT: 53.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: MR3A0223FCY10

5c

ORIGIN ID: SAFA (505) 865-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 26FEB10  
ACTWGT: 53.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

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GENERAL ENGINEERING LAB  
2040 SAVAGE RD

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(843) 556-8171  
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2 of 2  
PSN 7209 7850 2570

### SATURDAY ### A1  
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LOS ALAMOS, NM 87545  
UNITED STATES US

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GENERAL ENGINEERING LAB  
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(843) 556-8171  
REF: MR3A0223CY10

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2 of 2  
PSN 7209 7850 2536

### SATURDAY ### A1  
PRIORITY OVERNIGHT

str# 7209 7850 2525 0201

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2 of 2  
PSN 7209 7850 2591

### SATURDAY ### A1  
PRIORITY OVERNIGHT

str# 7209 7850 2580 0201

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**BILL SENDER**

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

REF: MR3A0223CY10

10c

ORIGIN ID: SA/N  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237.05

SHIP DATE: 28 FEB 10  
 AIRCRAFT: 28 FEB 10  
 CARRIER: 28 FEB 10

LOS ALAMOS, NM 87545  
UNITED STATES OF AMERICA

**REAL SENDER**

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 554-0171  
REF: MR3A0223CY10

11c

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3 of 3  
MPS# 7209 7850 2514  
0263

Matr# 7200 7850 2499 0201

### SATURDAY ### - A1  
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**X0 CHSA**



1 of 2  
TRKW 7209 7850 2628  
0201

**## MASTER ##**

### SATURDAY ### A  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

**X0 CHSA**



ORIGIN ID: 'SAFA' (805) 886-9900  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DRU 03 2

LOS ALAMOS, NM 87545  
UNITED STATES OF AMERICA

SHIP DATE: 12/01/00  
ACTWGT: 48.0 LB MAN  
CAD: 0014178/CAFE2450

**BILL SENDER**

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

REF: MR3A0223CY10

He



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Express



2 of 3  
NPS# 7209 7850 2503  
0263

Matr# 7209 7850 2499 0201

### SATURDAY ### A1  
PRIORITY OVERNIGHT

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CHS

**X0 CHSA**



# **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 10-2137**

**Method/Analysis Information**

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer  
Analytical Method: SW846 8260B  
Prep Method: SW846 5030  
Analytical Batch Number: 961880  
Prep Batch Number: 961878

**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>
248244001	RE36-10-8464
248244002	RE36-10-8475
248244003	RE36-10-8471
248244004	RE36-10-8485
248244005	RE36-10-8477
248244006	RE36-10-8479
248244007	RE36-10-8484
248244008	RE36-10-8481
1202063154	Method Blank (MB)
1202063157	Laboratory Control Sample (LCS)
1202063158	Laboratory Control Sample (LCS)
1202067797	Method Blank (MB)
1202067798	Laboratory Control Sample (LCS)
1202067799	Laboratory Control Sample (LCS)
1202063155	248244006(RE36-10-8479) Post Spike (PS)
1202063156	248244006(RE36-10-8479) 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.

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-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 within the acceptance limits, except Trichlorotrifluoroethane in LCS (1202063158) and LCS (1202067799). The unacceptable recoveries were less than 5% of the requested analyte list. This satisfies the client criteria. The results are reported. See DER 805551.

##### **QC Sample Designation**

Sample 248244006 (RE36-10-8479) was designated for spike analysis in this SDG.

##### **Matrix Spike (PS) Recovery Statement**

The spike recoveries for this SDG were within the required acceptance limits.

##### **Matrix Spike Duplicate (PSD) Recovery Statement**

The spike duplicate recoveries for this SDG were within the required acceptance limits.

##### **Relative Percent Difference (RPD) Statement**

The RPD(s) between the matrix spike pair met the acceptance limits.

##### **Internal Standard (ISTD) Acceptance**

The internal standard responses in all client and quality control samples met the required acceptance criteria.

#### **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**

Re-analyses were not required for samples in this SDG.

**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**

DER # 805551 was generated for this SDG.

**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 not required for this SDG.

**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>
VOA5.1	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: 10-2137 GEL Work Order: 248244

**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
- 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: Erin Haubert

Date: 20 MAR 2010

Title: Data Validator



# **Sample Data Summary**



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

SDG Number: 10-2137  
 Lab Sample ID: 248244001  
 Client ID: RE36-10-8464  
 Batch ID: 961880  
 Run Date: 03/05/2010 23:15  
 Prep Date: 03/05/2010 10:10  
 Data File: 030510V55A520.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 9.5  
 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
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.376	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.332	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.332	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.332	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.332	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.332	1.11
67-64-1	Acetone	U	5.53	ug/kg	1.84	5.53
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
74-88-4	Iodomethane	U	5.53	ug/kg	1.77	5.53
75-09-2	Methylene chloride	U	5.53	ug/kg	2.21	5.53
75-15-0	Carbon disulfide	U	5.53	ug/kg	1.38	5.53
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.332	1.11
78-93-3	2-Butanone	U	5.53	ug/kg	1.66	5.53
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.332	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.365	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.332	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.332	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.332	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.332	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.332	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.365	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.332	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.332	1.11
108-10-1	4-Methyl-2-pentanone	U	5.53	ug/kg	1.38	5.53
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.332	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.332	1.11
591-78-6	2-Hexanone	U	5.53	ug/kg	1.66	5.53
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.332	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.332	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.332	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.332	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.332	1.11



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

SDG Number: 10-2137  
 Lab Sample ID: 248244001  
 Client ID: RE36-10-8464  
 Batch ID: 961880  
 Run Date: 03/05/2010 23:15  
 Prep Date: 03/05/2010 10:10  
 Data File: 030510V55A520.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 9.5  
 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	1.11	ug/kg	0.332	1.11
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.332	2.21
95-47-6	o-Xylene	U	1.11	ug/kg	0.332	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.332	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.332	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.332	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.332	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.332	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.332	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.332	1.11
95-63-6	1,2,4-Trimethylbenzene	J	0.343	ug/kg	0.332	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.332	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.332	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.332	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.332	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.53	ug/kg	1.77	5.53
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11

**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: 10-2137  
 Lab Sample ID: 248244002  
 Client ID: RE36-10-8475  
 Batch ID: 961880  
 Run Date: 03/05/2010 23:40  
 Prep Date: 03/05/2010 10:12  
 Data File: 030510V55A521.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 8.8  
 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	1.10	ug/kg	0.373	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.329	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.329	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.329	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.329	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.329	1.10
67-64-1	Acetone	U	5.48	ug/kg	1.82	5.48
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
74-88-4	Iodomethane	U	5.48	ug/kg	1.76	5.48
75-09-2	Methylene chloride	U	5.48	ug/kg	2.19	5.48
75-15-0	Carbon disulfide	U	5.48	ug/kg	1.37	5.48
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.329	1.10
78-93-3	2-Butanone	U	5.48	ug/kg	1.65	5.48
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.329	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.329	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.362	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.329	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.329	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.329	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.329	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.329	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.362	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.329	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.329	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.329	1.10
108-10-1	4-Methyl-2-pentanone	U	5.48	ug/kg	1.37	5.48
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.329	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.329	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.329	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.329	1.10
591-78-6	2-Hexanone	U	5.48	ug/kg	1.65	5.48
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.329	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.329	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.329	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.329	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.329	1.10



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

SDG Number: 10-2137  
 Lab Sample ID: 248244002  
 Client ID: RE36-10-8475  
 Batch ID: 961880  
 Run Date: 03/05/2010 23:40  
 Prep Date: 03/05/2010 10:12  
 Data File: 030510V55A521.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.J  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 8.8  
 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	1.10	ug/kg	0.329	1.10
179601-23-1	m,p-Xylenes	U	2.19	ug/kg	0.329	2.19
95-47-6	o-Xylene	U	1.10	ug/kg	0.329	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.329	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.329	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.329	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.329	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.329	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.329	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.329	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.329	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.329	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.329	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.329	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.329	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.329	1.10
99-87-6	4-Isopropyltoluene	J	0.603	ug/kg	0.329	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.329	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.329	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.48	ug/kg	1.76	5.48
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.329	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10

**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: 10-2137  
 Lab Sample ID: 248244003  
 Client ID: RE36-10-8471  
 Batch ID: 961880  
 Run Date: 03/06/2010 00:05  
 Prep Date: 03/05/2010 10:14  
 Data File: 030510V5\5A522.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 11.5  
 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
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.339	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.339	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.339	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.339	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.339	1.13
67-64-1	Acetone	U	5.65	ug/kg	1.88	5.65
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
74-88-4	Iodomethane	U	5.65	ug/kg	1.81	5.65
75-09-2	Methylene chloride	U	5.65	ug/kg	2.26	5.65
75-15-0	Carbon disulfide	U	5.65	ug/kg	1.41	5.65
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.339	1.13
78-93-3	2-Butanone	U	5.65	ug/kg	1.69	5.65
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.339	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.373	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.339	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.339	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.339	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.339	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.339	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.373	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.339	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.339	1.13
108-10-1	4-Methyl-2-pentanone	U	5.65	ug/kg	1.41	5.65
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.339	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.339	1.13
591-78-6	2-Hexanone	U	5.65	ug/kg	1.69	5.65
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.339	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.339	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.339	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.339	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.339	1.13



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

SDG Number: 10-2137  
 Lab Sample ID: 248244003  
 Client ID: RE36-10-8471  
 Batch ID: 961880  
 Run Date: 03/06/2010 00:05  
 Prep Date: 03/05/2010 10:14  
 Data File: 030510V55A522.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 11.5  
 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	1.13	ug/kg	0.339	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.339	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.339	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.339	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.339	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.339	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.339	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.339	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.339	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.339	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.339	1.13
99-87-6	4-Isopropyltoluene		8.11	ug/kg	0.339	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.339	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.339	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.65	ug/kg	1.81	5.65
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	12	12.1	ug/kg	0	J
	unknown hydrocarbon	12.68	11.9	ug/kg	0	J



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

SDG Number: 10-2137  
 Lab Sample ID: 248244004  
 Client ID: RE36-10-8485  
 Batch ID: 961880  
 Run Date: 03/06/2010 00:31  
 Prep Date: 03/05/2010 10:16  
 Data File: 030510V5SA523.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 23.5  
 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
75-71-8	Dichlorodifluoromethane	U	1.31	ug/kg	0.444	1.31
74-87-3	Chloromethane	U	1.31	ug/kg	0.392	1.31
75-01-4	Vinyl chloride	U	1.31	ug/kg	0.392	1.31
74-83-9	Bromomethane	U	1.31	ug/kg	0.392	1.31
75-00-3	Chloroethane	U	1.31	ug/kg	0.392	1.31
75-69-4	Trichlorofluoromethane	U	1.31	ug/kg	0.392	1.31
67-64-1	Acetone	U	6.53	ug/kg	2.17	6.53
75-35-4	1,1-Dichloroethylene	U	1.31	ug/kg	0.392	1.31
74-88-4	Iodomethane	U	6.53	ug/kg	2.09	6.53
75-09-2	Methylene chloride	U	6.53	ug/kg	2.61	6.53
75-15-0	Carbon disulfide	U	6.53	ug/kg	1.63	6.53
156-60-5	trans-1,2-Dichloroethylene	U	1.31	ug/kg	0.392	1.31
75-34-3	1,1-Dichloroethane	U	1.31	ug/kg	0.392	1.31
78-93-3	2-Butanone	U	6.53	ug/kg	1.96	6.53
156-59-2	cis-1,2-Dichloroethylene	U	1.31	ug/kg	0.392	1.31
594-20-7	2,2-Dichloropropane	U	1.31	ug/kg	0.392	1.31
67-66-3	Chloroform	U	1.31	ug/kg	0.392	1.31
74-97-5	Bromochloromethane	U	1.31	ug/kg	0.431	1.31
71-55-6	1,1,1-Trichloroethane	U	1.31	ug/kg	0.392	1.31
563-58-6	1,1-Dichloropropene	U	1.31	ug/kg	0.392	1.31
56-23-5	Carbon tetrachloride	U	1.31	ug/kg	0.392	1.31
107-06-2	1,2-Dichloroethane	U	1.31	ug/kg	0.392	1.31
71-43-2	Benzene	U	1.31	ug/kg	0.392	1.31
79-01-6	Trichloroethylene	U	1.31	ug/kg	0.431	1.31
78-87-5	1,2-Dichloropropane	U	1.31	ug/kg	0.392	1.31
75-27-4	Bromodichloromethane	U	1.31	ug/kg	0.392	1.31
74-95-3	Dibromomethane	U	1.31	ug/kg	0.392	1.31
108-10-1	4-Methyl-2-pentanone	U	6.53	ug/kg	1.63	6.53
10061-01-5	cis-1,3-Dichloropropylene	U	1.31	ug/kg	0.392	1.31
108-88-3	Toluene	U	1.31	ug/kg	0.392	1.31
10061-02-6	trans-1,3-Dichloropropylene	U	1.31	ug/kg	0.392	1.31
79-00-5	1,1,2-Trichloroethane	U	1.31	ug/kg	0.392	1.31
591-78-6	2-Hexanone	U	6.53	ug/kg	1.96	6.53
142-28-9	1,3-Dichloropropane	U	1.31	ug/kg	0.392	1.31
127-18-4	Tetrachloroethylene	U	1.31	ug/kg	0.392	1.31
124-48-1	Dibromochloromethane	U	1.31	ug/kg	0.392	1.31
106-93-4	1,2-Dibromoethane	U	1.31	ug/kg	0.392	1.31
108-90-7	Chlorobenzene	U	1.31	ug/kg	0.392	1.31



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244004	Date Received: 02/27/2010 09:10	%Moisture: 23.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8485	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961880	Inst: VOA5.I	Dilution: 1
Run Date: 03/06/2010 00:31	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/05/2010 10:16	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030510V55A523.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.31	ug/kg	0.392	1.31
179601-23-1	m,p-Xylenes	U	2.61	ug/kg	0.392	2.61
95-47-6	o-Xylene	U	1.31	ug/kg	0.392	1.31
100-42-5	Styrene	U	1.31	ug/kg	0.392	1.31
75-25-2	Bromoform	U	1.31	ug/kg	0.392	1.31
79-34-5	1,1,2,2-Tetrachloroethane	U	1.31	ug/kg	0.392	1.31
96-18-4	1,2,3-Trichloropropane	U	1.31	ug/kg	0.392	1.31
108-86-1	Bromobenzene	U	1.31	ug/kg	0.392	1.31
103-65-1	n-Propylbenzene	U	1.31	ug/kg	0.392	1.31
95-49-8	2-Chlorotoluene	U	1.31	ug/kg	0.392	1.31
98-82-8	Isopropylbenzene	U	1.31	ug/kg	0.392	1.31
108-67-8	1,3,5-Trimethylbenzene	U	1.31	ug/kg	0.392	1.31
106-43-4	4-Chlorotoluene	U	1.31	ug/kg	0.392	1.31
98-06-6	tert-Butylbenzene	U	1.31	ug/kg	0.392	1.31
95-63-6	1,2,4-Trimethylbenzene	U	1.31	ug/kg	0.392	1.31
135-98-8	sec-Butylbenzene	U	1.31	ug/kg	0.392	1.31
99-87-6	4-Isopropyltoluene	U	1.31	ug/kg	0.392	1.31
541-73-1	1,3-Dichlorobenzene	U	1.31	ug/kg	0.392	1.31
106-46-7	1,4-Dichlorobenzene	U	1.31	ug/kg	0.392	1.31
104-51-8	n-Butylbenzene	U	1.31	ug/kg	0.392	1.31
96-12-8	1,2-Dibromo-3-chloropropane	U	1.31	ug/kg	0.392	1.31
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.53	ug/kg	2.09	6.53
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.31	ug/kg	0.392	1.31
95-50-1	1,2-Dichlorobenzene	U	1.31	ug/kg	0.392	1.31

**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: 10-2137  
 Lab Sample ID: 248244005  
 Client ID: RE36-10-8477  
 Batch ID: 961880  
 Run Date: 03/06/2010 00:56  
 Prep Date: 03/05/2010 10:18  
 Data File: 030510V5\5A524.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.8  
 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	1.15	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	5.74	ug/kg	1.90	5.74
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.74	ug/kg	1.84	5.74
75-09-2	Methylene chloride	U	5.74	ug/kg	2.29	5.74
75-15-0	Carbon disulfide	U	5.74	ug/kg	1.43	5.74
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	5.74	ug/kg	1.72	5.74
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	0.379	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	0.379	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	5.74	ug/kg	1.43	5.74
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	5.74	ug/kg	1.72	5.74
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: 10-2137  
 Lab Sample ID: 248244005  
 Client ID: RE36-10-8477  
 Batch ID: 961880  
 Run Date: 03/06/2010 00:56  
 Prep Date: 03/05/2010 10:18  
 Data File: 030510V5\5A524.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.8  
 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	1.15	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	5.74	ug/kg	1.84	5.74
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: 10-2137  
 Lab Sample ID: 248244006  
 Client ID: RE36-10-8479  
 Batch ID: 961880  
 Run Date: 03/09/2010 13:58  
 Prep Date: 03/09/2010 13:26  
 Data File: 030910V55B215.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.J  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 10.2  
 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	1.11	ug/kg	0.379	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11
67-64-1	Acetone	U	5.57	ug/kg	1.85	5.57
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
74-88-4	Iodomethane	U	5.57	ug/kg	1.78	5.57
75-09-2	Methylene chloride	U	5.57	ug/kg	2.23	5.57
75-15-0	Carbon disulfide	U	5.57	ug/kg	1.39	5.57
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11
78-93-3	2-Butanone	U	5.57	ug/kg	1.67	5.57
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.368	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.368	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone	U	5.57	ug/kg	1.39	5.57
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11
591-78-6	2-Hexanone	U	5.57	ug/kg	1.67	5.57
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11



**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2137  
Lab Sample ID: 248244006  
  
Client ID: RE36-10-8479  
Batch ID: 961880  
Run Date: 03/09/2010 13:58  
Prep Date: 03/09/2010 13:26  
Data File: 030910V55B215.D

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: CDS1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 10.2  
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	1.11	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.334	2.23
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.57	ug/kg	1.78	5.57
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11

**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: 10-2137  
 Lab Sample ID: 248244007  
 Client ID: RE36-10-8484  
 Batch ID: 961880  
 Run Date: 03/06/2010 01:47  
 Prep Date: 03/05/2010 10:22  
 Data File: 030510V55A526.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 16.2  
 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	1.19	ug/kg	0.406	1.19
74-87-3	Chloromethane	U	1.19	ug/kg	0.358	1.19
75-01-4	Vinyl chloride	U	1.19	ug/kg	0.358	1.19
74-83-9	Bromomethane	U	1.19	ug/kg	0.358	1.19
75-00-3	Chloroethane	U	1.19	ug/kg	0.358	1.19
75-69-4	Trichlorofluoromethane	U	1.19	ug/kg	0.358	1.19
67-64-1	Acetone	U	5.97	ug/kg	1.98	5.97
75-35-4	1,1-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
74-88-4	Iodomethane	U	5.97	ug/kg	1.91	5.97
75-09-2	Methylene chloride	U	5.97	ug/kg	2.39	5.97
75-15-0	Carbon disulfide	U	5.97	ug/kg	1.49	5.97
156-60-5	trans-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
75-34-3	1,1-Dichloroethane	U	1.19	ug/kg	0.358	1.19
78-93-3	2-Butanone	U	5.97	ug/kg	1.79	5.97
156-59-2	cis-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
594-20-7	2,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19
67-66-3	Chloroform	U	1.19	ug/kg	0.358	1.19
74-97-5	Bromochloromethane	U	1.19	ug/kg	0.394	1.19
71-55-6	1,1,1-Trichloroethane	U	1.19	ug/kg	0.358	1.19
563-58-6	1,1-Dichloropropene	U	1.19	ug/kg	0.358	1.19
56-23-5	Carbon tetrachloride	U	1.19	ug/kg	0.358	1.19
107-06-2	1,2-Dichloroethane	U	1.19	ug/kg	0.358	1.19
71-43-2	Benzene	U	1.19	ug/kg	0.358	1.19
79-01-6	Trichloroethylene	U	1.19	ug/kg	0.394	1.19
78-87-5	1,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19
75-27-4	Bromodichloromethane	U	1.19	ug/kg	0.358	1.19
74-95-3	Dibromomethane	U	1.19	ug/kg	0.358	1.19
108-10-1	4-Methyl-2-pentanone	U	5.97	ug/kg	1.49	5.97
10061-01-5	cis-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19
108-88-3	Toluene	U	1.19	ug/kg	0.358	1.19
10061-02-6	trans-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19
79-00-5	1,1,2-Trichloroethane	U	1.19	ug/kg	0.358	1.19
591-78-6	2-Hexanone	U	5.97	ug/kg	1.79	5.97
142-28-9	1,3-Dichloropropane	U	1.19	ug/kg	0.358	1.19
127-18-4	Tetrachloroethylene	U	1.19	ug/kg	0.358	1.19
124-48-1	Dibromochloromethane	U	1.19	ug/kg	0.358	1.19
106-93-4	1,2-Dibromoethane	U	1.19	ug/kg	0.358	1.19
108-90-7	Chlorobenzene	U	1.19	ug/kg	0.358	1.19



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

SDG Number: 10-2137  
 Lab Sample ID: 248244007  
 Client ID: RE36-10-8484  
 Batch ID: 961880  
 Run Date: 03/06/2010 01:47  
 Prep Date: 03/05/2010 10:22  
 Data File: 030510V55A526.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 16.2  
 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	1.19	ug/kg	0.358	1.19
179601-23-1	m,p-Xylenes	U	2.39	ug/kg	0.358	2.39
95-47-6	o-Xylene	U	1.19	ug/kg	0.358	1.19
100-42-5	Styrene	U	1.19	ug/kg	0.358	1.19
75-25-2	Bromoform	U	1.19	ug/kg	0.358	1.19
79-34-5	1,1,2,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19
96-18-4	1,2,3-Trichloropropane	U	1.19	ug/kg	0.358	1.19
108-86-1	Bromobenzene	U	1.19	ug/kg	0.358	1.19
103-65-1	n-Propylbenzene	U	1.19	ug/kg	0.358	1.19
95-49-8	2-Chlorotoluene	U	1.19	ug/kg	0.358	1.19
98-82-8	Isopropylbenzene	U	1.19	ug/kg	0.358	1.19
108-67-8	1,3,5-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19
106-43-4	4-Chlorotoluene	U	1.19	ug/kg	0.358	1.19
98-06-6	tert-Butylbenzene	U	1.19	ug/kg	0.358	1.19
95-63-6	1,2,4-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19
135-98-8	sec-Butylbenzene	U	1.19	ug/kg	0.358	1.19
99-87-6	4-Isopropyltoluene	U	1.19	ug/kg	0.358	1.19
541-73-1	1,3-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19
106-46-7	1,4-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19
104-51-8	n-Butylbenzene	U	1.19	ug/kg	0.358	1.19
96-12-8	1,2-Dibromo-3-chloropropane	U	1.19	ug/kg	0.358	1.19
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.97	ug/kg	1.91	5.97
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19
95-50-1	1,2-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19

**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: 10-2137  
Lab Sample ID: 248244008  
  
Client ID: RE36-10-8481  
Batch ID: 961880  
Run Date: 03/06/2010 02:13  
Prep Date: 03/05/2010 10:24  
Data File: 030510V55A527.D

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: CDS1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 11.2  
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	1.13	ug/kg	0.383	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.338	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.338	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.338	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.338	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.338	1.13
67-64-1	Acetone	U	5.63	ug/kg	1.87	5.63
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
74-88-4	Iodomethane	U	5.63	ug/kg	1.80	5.63
75-09-2	Methylene chloride	U	5.63	ug/kg	2.25	5.63
75-15-0	Carbon disulfide	U	5.63	ug/kg	1.41	5.63
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.338	1.13
78-93-3	2-Butanone	U	5.63	ug/kg	1.69	5.63
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.338	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.372	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.338	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.338	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.338	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.338	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.338	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.372	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.338	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.338	1.13
108-10-1	4-Methyl-2-pentanone	U	5.63	ug/kg	1.41	5.63
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.338	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.338	1.13
591-78-6	2-Hexanone	U	5.63	ug/kg	1.69	5.63
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.338	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.338	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.338	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.338	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.338	1.13



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

SDG Number: 10-2137  
 Lab Sample ID: 248244008  
  
 Client ID: RE36-10-8481  
 Batch ID: 961880  
 Run Date: 03/06/2010 02:13  
 Prep Date: 03/05/2010 10:24  
 Data File: 030510V55A527.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 11.2  
 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	1.13	ug/kg	0.338	1.13
179601-23-1	m,p-Xylenes	U	2.25	ug/kg	0.338	2.25
95-47-6	o-Xylene	U	1.13	ug/kg	0.338	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.338	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.338	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.338	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.338	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.338	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.338	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.338	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.338	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.338	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.338	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.338	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.63	ug/kg	1.80	5.63
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13

**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 1

SDG Number: 10-2137

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202063157	LCS for batch 961878	103	98	100
1202063158	LCS for batch 961878	104	97	98
1202063154	MB for batch 961878	102	99	102
248244001	RE36-10-8464	96	100	113
248244002	RE36-10-8475	97	99	106
248244003	RE36-10-8471	95	100	107
248244004	RE36-10-8485	94	99	106
248244005	RE36-10-8477	95	98	104
248244007	RE36-10-8484	97	98	103
248244008	RE36-10-8481	99	100	110
1202067798	LCS for batch 961878	101	94	112
1202067799	LCS for batch 961878	93	93	111
1202067797	MB for batch 961878	86	92	110
248244006	RE36-10-8479	82	91	118
1202063155	RE36-10-8479PS	82	90	115
1202063156	RE36-10-8479PSD	84	91	114

**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  
Quality Control Summary  
Spike Recovery Report

Page 1 of 6

SDG Number: 10-2137

Sample Type: Post Spike

Client ID: RE36-10-8479PS

Matrix: R

Lab Sample ID: 1202063155

% Moisture: 10.2

Instrument: VOA5.I

Analysis Date: 03/09/2010 17:13

Dilution: 1

Analyst: CDS1

Pren Batch II 961878

Purge Vol: 5 mL

Batch ID: 961880

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	41.6	83	39-148
74-87-3	PS Chloromethane	50.0	0.00 U	47.3	95	42-131
75-01-4	PS Vinyl chloride	50.0	0.00 U	50.3	101	50-127
74-83-9	PS Bromomethane	50.0	0.00 U	47.0	94	26-135
75-00-3	PS Chloroethane	50.0	0.00 U	48.8	98	54-128
75-69-4	PS Trichlorofluoromethane	50.0	0.00 U	49.0	98	55-138
67-64-1	PS Acetone	250	0.00 U	172	69	20-144
75-35-4	PS 1,1-Dichloroethylene	50.0	0.00 U	47.7	95	55-128
74-88-4	PS Iodomethane	250	0.00 U	216	86	47-132
75-09-2	PS Methylene chloride	50.0	0.00 U	46.1	92	56-123
75-15-0	PS Carbon disulfide	250	0.00 U	247	99	53-133
156-60-5	PS trans-1,2-Dichloroethylene	50.0	0.00 U	48.8	98	57-119
75-34-3	PS 1,1-Dichloroethane	50.0	0.00 U	48.5	97	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	47.6	95	60-124
594-20-7	PS 2,2-Dichloropropane	50.0	0.00 U	50.1	100	56-129
67-66-3	PS Chloroform	50.0	0.00 U	47.0	94	62-120
74-97-5	PS Bromochloromethane	50.0	0.00 U	46.3	93	51-135
71-55-6	PS 1,1,1-Trichloroethane	50.0	0.00 U	49.1	98	58-129
563-58-6	PS 1,1-Dichloropropene	50.0	0.00 U	49.7	99	59-126
56-23-5	PS Carbon tetrachloride	50.0	0.00 U	49.5	99	55-132
107-06-2	PS 1,2-Dichloroethane	50.0	0.00 U	44.7	89	54-121



Volatile  
Quality Control Summary  
Spike Recovery Report

Page 2 of 6

SDG Number: 10-2137

Sample Type: Post Spike

Client ID: RE36-10-8479PS

Matrix: R

Lab Sample ID: 1202063155

%Moisture: 10.2

Instrument: VOA5.I

Analysis Date: 03/09/2010 17:13

Dilution: 1

Analyst: CDS1

Pren Batch II 961878

Purge Vol: 5 mL

Batch ID: 961880

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 46.8	94	58-120
79-01-6	PS Trichloroethylene	50.0	0.00	U 46.8	94	54-130
78-87-5	PS 1,2-Dichloropropane	50.0	0.00	U 46.5	93	59-121
75-27-4	PS Bromodichloromethane	50.0	0.00	U 47.5	95	57-130
74-95-3	PS Dibromomethane	50.0	0.00	U 45.9	92	57-124
108-10-1	PS 4-Methyl-2-pentanone	250	0.00	U 209	84	40-137
10061-01-5	PS cis-1,3-Dichloropropylene	50.0	0.00	U 42.0	84	50-131
108-88-3	PS Toluene	50.0	0.00	U 45.7	91	54-119
10061-02-6	PS trans-1,3-Dichloropropylene	50.0	0.00	U 42.8	86	47-133
79-00-5	PS 1,1,2-Trichloroethane	50.0	0.00	U 43.8	88	60-130
591-78-6	PS 2-Hexanone	250	0.00	U 171	69	30-139
142-28-9	PS 1,3-Dichloropropane	50.0	0.00	U 44.3	89	59-125
127-18-4	PS Tetrachloroethylene	50.0	0.00	U 46.1	92	50-126
124-48-1	PS Dibromochloromethane	50.0	0.00	U 45.5	91	54-131
106-93-4	PS 1,2-Dibromoethane	50.0	0.00	U 42.8	86	55-127
108-90-7	PS Chlorobenzene	50.0	0.00	U 44.6	89	50-130
100-41-4	PS Ethylbenzene	50.0	0.00	U 43.9	88	50-121
179601-23-1	PS m,p-Xylenes	100	0.00	U 90.7	91	47-125
95-47-6	PS o-Xylene	50.0	0.00	U 45.0	90	51-127
100-42-5	PS Styrene	50.0	0.00	U 44.9	90	41-136
75-25-2	PS Bromoform	50.0	0.00	U 48.9	98	48-143
79-34-5	PS 1,1,2,2-Tetrachloroethane	50.0	0.00	U 44.2	88	52-129



Volatile  
Quality Control Summary  
Spike Recovery Report

Page 3 of 6

SDG Number: 10-2137

Sample Type: Post Spike

Client ID: RE36-10-8479PS

Matrix: R

Lab Sample ID: 1202063155

%Moisture: 10.2

Instrument: VOA5.I

Analysis Date: 03/09/2010 17:13

Dilution: 1

Analyst: CDS1

Prep Batch ID: 961878

Purge Vol: 5 mL

Batch ID: 961880

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	45.6	91	56-139
108-86-1	PS Bromobenzene	50.0	0.00 U	45.4	91	54-125
103-65-1	PS n-Propylbenzene	50.0	0.00 U	46.4	93	46-127
95-49-8	PS 2-Chlorotoluene	50.0	0.00 U	47.4	95	47-130
98-82-8	PS Isopropylbenzene	50.0	0.00 U	48.8	98	42-126
108-67-8	PS 1,3,5-Trimethylbenzene	50.0	0.00 U	47.7	95	44-132
106-43-4	PS 4-Chlorotoluene	50.0	0.00 U	45.4	91	46-127
98-06-6	PS tert-Butylbenzene	50.0	0.00 U	45.7	91	48-136
95-63-6	PS 1,2,4-Trimethylbenzene	50.0	0.00 U	46.6	93	42-132
135-98-8	PS sec-Butylbenzene	50.0	0.00 U	44.3	89	47-130
99-87-6	PS 4-Isopropyltoluene	50.0	0.00 U	39.4	79	36-142
541-73-1	PS 1,3-Dichlorobenzene	50.0	0.00 U	42.4	85	41-130
106-46-7	PS 1,4-Dichlorobenzene	50.0	0.00 U	42.0	84	41-126
104-51-8	PS n-Butylbenzene	50.0	0.00 U	39.7	79	37-136
96-12-8	PS 1,2-Dibromo-3-chloropropane	50.0	0.00 U	39.2	78	42-143
630-20-6	PS 1,1,1,2-Tetrachloroethane	50.0	0.00 U	45.9	92	58-127
95-50-1	PS 1,2-Dichlorobenzene	50.0	0.00 U	41.0	82	42-128



Volatile  
Quality Control Summary  
Spike Recovery Report

Page 4 of 6

SDG Number: 10-2137

Sample Type: Post Spike Duplicate

Client ID: RE36-10-8479PSD

Matrix: R

Lab Sample ID: 1202063156

%Moisture: 10.2

Instrument: VOA5.I

Analysis Date: 03/09/2010 17:40

Dilution: 1

Analyst: CDS1

Pren Batch II 961878

Purge Vol: 5 mL

Batch ID: 961880

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 42.7	85	39-148	3	0-19
74-87-3	PSD Chloromethane	50.0	0.00	U 46.5	93	42-131	2	0-23
75-01-4	PSD Vinyl chloride	50.0	0.00	U 50.9	102	50-127	1	0-23
74-83-9	PSD Bromomethane	50.0	0.00	U 45.7	91	26-135	3	0-22
75-00-3	PSD Chloroethane	50.0	0.00	U 48.1	96	54-128	2	0-25
75-69-4	PSD Trichlorofluoromethane	50.0	0.00	U 50.0	100	55-138	2	0-21
67-64-1	PSD Acetone	250	0.00	U 189	76	20-144	10	0-22
75-35-4	PSD 1,1-Dichloroethylene	50.0	0.00	U 47.7	95	55-128	0	0-20
74-88-4	PSD Iodomethane	250	0.00	U 210	84	47-132	2	0-20
75-09-2	PSD Methylene chloride	50.0	0.00	U 44.6	89	56-123	3	0-20
75-15-0	PSD Carbon disulfide	250	0.00	U 246	98	53-133	1	0-22
156-60-5	PSD trans-1,2-Dichloroethylene	50.0	0.00	U 48.2	96	57-119	1	0-20
75-34-3	PSD 1,1-Dichloroethane	50.0	0.00	U 47.8	96	62-125	2	0-20
78-93-3	PSD 2-Butanone	250	0.00	U 197	79	30-150	11	0-21
156-59-2	PSD cis-1,2-Dichloroethylene	50.0	0.00	U 47.2	94	60-124	1	0-20
594-20-7	PSD 2,2-Dichloropropane	50.0	0.00	U 49.3	99	56-129	2	0-20
67-66-3	PSD Chloroform	50.0	0.00	U 46.6	93	62-120	1	0-25
74-97-5	PSD Bromochloromethane	50.0	0.00	U 46.1	92	51-135	0	0-20
71-55-6	PSD 1,1,1-Trichloroethane	50.0	0.00	U 49.2	98	58-129	0	0-20
563-58-6	PSD 1,1-Dichloropropene	50.0	0.00	U 49.2	98	59-126	1	0-20
56-23-5	PSD Carbon tetrachloride	50.0	0.00	U 49.8	100	55-132	1	0-20
107-06-2	PSD 1,2-Dichloroethane	50.0	0.00	U 44.8	90	54-121	0	0-20



Volatile  
Quality Control Summary  
Spike Recovery Report

Page 5 of 6

SDG Number: 10-2137

Sample Type: Post Spike Duplicate

Client ID: RE36-10-8479PSD

Matrix: R

Lab Sample ID: 1202063156

% Moisture: 10.2

Instrument: VOA5.I

Analysis Date: 03/09/2010 17:40

Dilution: 1

Analyst: CDS1

Pren Batch II 961878

Purge Vol: 5 mL

Batch ID: 961880

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	46.0	92	58-120	2	0-20
79-01-6	PSD Trichloroethylene	50.0	0.00 U	46.6	93	54-130	0	0-23
78-87-5	PSD 1,2-Dichloropropane	50.0	0.00 U	45.3	91	59-121	3	0-20
75-27-4	PSD Bromodichloromethane	50.0	0.00 U	47.0	94	57-130	1	0-20
74-95-3	PSD Dibromomethane	50.0	0.00 U	46.4	93	57-124	1	0-20
108-10-1	PSD 4-Methyl-2-pentanone	250	0.00 U	226	90	40-137	8	0-25
10061-01-5	PSD cis-1,3-Dichloropropylene	50.0	0.00 U	41.9	84	50-131	0	0-20
108-88-3	PSD Toluene	50.0	0.00 U	45.1	90	54-119	1	0-23
10061-02-6	PSD trans-1,3-Dichloropropylene	50.0	0.00 U	43.7	87	47-133	2	0-24
79-00-5	PSD 1,1,2-Trichloroethane	50.0	0.00 U	44.5	89	60-130	1	0-20
591-78-6	PSD 2-Hexanone	250	0.00 U	185	74	30-139	7	0-21
142-28-9	PSD 1,3-Dichloropropane	50.0	0.00 U	45.2	90	59-125	2	0-20
127-18-4	PSD Tetrachloroethylene	50.0	0.00 U	45.5	91	50-126	1	0-20
124-48-1	PSD Dibromochloromethane	50.0	0.00 U	46.7	93	54-131	3	0-23
106-93-4	PSD 1,2-Dibromoethane	50.0	0.00 U	44.0	88	55-127	3	0-23
108-90-7	PSD Chlorobenzene	50.0	0.00 U	43.8	88	50-130	2	0-24
100-41-4	PSD Ethylbenzene	50.0	0.00 U	43.1	86	50-121	2	0-24
179601-23-1	PSD m,p-Xylenes	100	0.00 U	89.2	89	47-125	2	0-25
95-47-6	PSD o-Xylene	50.0	0.00 U	43.8	88	51-127	3	0-24
100-42-5	PSD Styrene	50.0	0.00 U	44.5	89	41-136	1	0-24
75-25-2	PSD Bromoform	50.0	0.00 U	50.3	101	48-143	3	0-20
79-34-5	PSD 1,1,2,2-Tetrachloroethane	50.0	0.00 U	45.8	92	52-129	3	0-20



Volatile  
Quality Control Summary  
Spike Recovery Report

Page 6 of 6

SDG Number: 10-2137

Sample Type: Post Spike Duplicate

Client ID: RE36-10-8479PSD

Matrix: R

Lab Sample ID: 1202063156

%Moisture: 10.2

Instrument: VOA5.I

Analysis Date: 03/09/2010 17:40

Dilution: 1

Analyst: CDS1

Prev Batch ID: 961878

Purge Vol: 5 mL

Batch ID: 961880

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 48.4	97	56-139	6	0-34
108-86-1	PSD Bromobenzene	50.0	0.00	U 44.0	88	54-125	3	0-22
103-65-1	PSD n-Propylbenzene	50.0	0.00	U 44.4	89	46-127	4	0-25
95-49-8	PSD 2-Chlorotoluene	50.0	0.00	U 46.1	92	47-130	3	0-24
98-82-8	PSD Isopropylbenzene	50.0	0.00	U 47.0	94	42-126	4	0-22
108-67-8	PSD 1,3,5-Trimethylbenzene	50.0	0.00	U 45.7	91	44-132	4	0-25
106-43-4	PSD 4-Chlorotoluene	50.0	0.00	U 43.7	87	46-127	4	0-26
98-06-6	PSD tert-Butylbenzene	50.0	0.00	U 44.5	89	48-136	3	0-24
95-63-6	PSD 1,2,4-Trimethylbenzene	50.0	0.00	U 44.7	89	42-132	4	0-26
135-98-8	PSD sec-Butylbenzene	50.0	0.00	U 42.7	85	47-130	4	0-27
99-87-6	PSD 4-Isopropyltoluene	50.0	0.00	U 39.5	79	36-142	0	0-27
541-73-1	PSD 1,3-Dichlorobenzene	50.0	0.00	U 41.5	83	41-130	2	0-25
106-46-7	PSD 1,4-Dichlorobenzene	50.0	0.00	U 40.8	82	41-126	3	0-25
104-51-8	PSD n-Butylbenzene	50.0	0.00	U 39.3	79	37-136	1	0-29
96-12-8	PSD 1,2-Dibromo-3-chloropropane	50.0	0.00	U 42.4	85	42-143	8	0-21
630-20-6	PSD 1,1,1,2-Tetrachloroethane	50.0	0.00	U 45.5	91	58-127	1	0-20
95-50-1	PSD 1,2-Dichlorobenzene	50.0	0.00	U 40.3	81	42-128	2	0-24



Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 3

SDG Number: 10-2137

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961878

Matrix: SOIL

Lab Sample ID: 1202063157

Instrument: VOA5.I

Analysis Date: 03/05/2010 16:13

Dilution: 1

Analyst: CDS1

Prep Batch ID: 961878

Purge Vol: 5 mL

Batch ID: 961880

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	47.9	96	52-151
74-87-3	LCS Chloromethane	50.0	0.0	47.8	96	56-130
75-01-4	LCS Vinyl chloride	50.0	0.0	50.5	101	66-130
74-83-9	LCS Bromomethane	50.0	0.0	49.1	98	70-126
75-00-3	LCS Chloroethane	50.0	0.0	48.4	97	67-129
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	51.2	102	73-143
67-64-1	LCS Acetone	250	0.0	207	83	30-140
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	48.2	96	71-129
74-88-4	LCS Iodomethane	250	0.0	238	95	72-125
75-09-2	LCS Methylene chloride	50.0	0.0	48.0	96	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	49.0	98	73-120
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	49.2	98	73-120
78-93-3	LCS 2-Butanone	250	0.0	219	88	32-145
156-59-2	LCS cis-1,2-Dichloroethylene	50.0	0.0	48.7	97	74-124
594-20-7	LCS 2,2-Dichloropropane	50.0	0.0	49.3	99	73-134
67-66-3	LCS Chloroform	50.0	0.0	48.8	98	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	50.7	101	74-132
563-58-6	LCS 1,1-Dichloropropene	50.0	0.0	49.4	99	79-128
56-23-5	LCS Carbon tetrachloride	50.0	0.0	50.9	102	75-135
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	47.6	95	65-120



Volatile  
Quality Control Summary  
Spike Recovery Report

Page 2 of 3

SDG Number: 10-2137

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961878

Matrix: SOIL

Lab Sample ID: 1202063157

Instrument: VOA5.I

Analysis Date: 03/05/2010 16:13

Dilution: 1

Analyst: CDS1

Pre Batch II 961878

Purge Vol: 5 mL

Batch ID: 961880

CAS No	Parname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS Benzene	50.0	0.0	47.3	95	74-120
79-01-6	LCS Trichloroethylene	50.0	0.0	48.3	97	77-124
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	48.0	96	73-120
75-27-4	LCS Bromodichloromethane	50.0	0.0	51.0	102	75-128
74-95-3	LCS Dibromomethane	50.0	0.0	50.6	101	75-120
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	243	97	63-133
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	49.3	99	78-127
108-88-3	LCS Toluene	50.0	0.0	44.8	90	74-120
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	47.9	96	70-125
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	46.1	92	75-120
591-78-6	LCS 2-Hexanone	250	0.0	218	87	40-153
142-28-9	LCS 1,3-Dichloropropane	50.0	0.0	46.4	93	73-120
127-18-4	LCS Tetrachloroethylene	50.0	0.0	45.9	92	72-126
124-48-1	LCS Dibromochloromethane	50.0	0.0	50.3	101	74-126
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	48.2	96	79-120
108-90-7	LCS Chlorobenzene	50.0	0.0	45.4	91	76-120
100-41-4	LCS Ethylbenzene	50.0	0.0	44.3	89	74-120
179601-23-1	LCS m,p-Xylenes	100	0.0	92.3	92	76-120
95-47-6	LCS o-Xylene	50.0	0.0	46.5	93	76-122
100-42-5	LCS Styrene	50.0	0.0	49.7	99	75-125
75-25-2	LCS Bromoform	50.0	0.0	50.7	101	68-135
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	44.6	89	72-122



Volatile  
Quality Control Summary  
Spike Recovery Report

Page 3 of 3

SDG Number: 10-2137

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961878

Matrix: SOIL

Lab Sample ID: 1202063157

Instrument: VOA5.I

Analysis Date: 03/05/2010 16:13

Dilution: 1

Analyst: CDS1

Prep Batch ID: 961878

Purge Vol: 5 mL

Batch ID: 961880

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	46.5	93	72-129
108-86-1	LCS Bromobenzene	50.0	0.0	44.1	88	74-120
103-65-1	LCS n-Propylbenzene	50.0	0.0	43.5	87	70-120
95-49-8	LCS 2-Chlorotoluene	50.0	0.0	44.3	89	70-120
98-82-8	LCS Isopropylbenzene	50.0	0.0	44.8	90	60-121
108-67-8	LCS 1,3,5-Trimethylbenzene	50.0	0.0	44.7	89	71-121
106-43-4	LCS 4-Chlorotoluene	50.0	0.0	43.3	87	71-120
98-06-6	LCS tert-Butylbenzene	50.0	0.0	42.8	86	75-123
95-63-6	LCS 1,2,4-Trimethylbenzene	50.0	0.0	44.9	90	73-120
135-98-8	LCS sec-Butylbenzene	50.0	0.0	44.4	89	74-123
99-87-6	LCS 4-Isopropyltoluene	50.0	0.0	45.0	90	76-127
541-73-1	LCS 1,3-Dichlorobenzene	50.0	0.0	44.1	88	75-120
106-46-7	LCS 1,4-Dichlorobenzene	50.0	0.0	44.3	89	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	46.3	93	69-136
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	48.1	96	75-124
95-50-1	LCS 1,2-Dichlorobenzene	50.0	0.0	45.1	90	75-120



Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 1

SDG Number: 10-2137

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961878

Matrix: SOIL

Lab Sample ID: 1202063158

Instrument: VOA5.I

Analysis Date: 03/05/2010 16:40

Dilution: 1

Analyst: CDS1

Pre Batch II 961878

Purge Vol: 5 mL

Batch ID: 961880

CAS No	Parname	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	358	143 *	67-140



Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 3

SDG Number: 10-2137

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961878

Matrix: SOIL

Lab Sample ID: 1202067798

Instrument: VOA5.I

Analysis Date: 03/09/2010 08:50

Dilution: 1

Analyst: CDS1

Pren Batch II 961878

Purge Vol: 5 mL

Batch ID: 961880

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	42.2	84	52-151
74-87-3	LCS Chloromethane	50.0	0.0	43.3	87	56-130
75-01-4	LCS Vinyl chloride	50.0	0.0	46.5	93	66-130
74-83-9	LCS Bromomethane	50.0	0.0	42.2	84	70-126
75-00-3	LCS Chloroethane	50.0	0.0	42.9	86	67-129
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	45.5	91	73-143
67-64-1	LCS Acetone	250	0.0	189	76	30-140
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	42.9	86	71-129
74-88-4	LCS Iodomethane	250	0.0	207	83	72-125
75-09-2	LCS Methylene chloride	50.0	0.0	41.2	82	64-121
75-15-0	LCS Carbon disulfide	250	0.0	224	90	70-133
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	42.8	86	73-120
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	42.9	86	73-120
78-93-3	LCS 2-Butanone	250	0.0	198	79	32-145
156-59-2	LCS cis-1,2-Dichloroethylene	50.0	0.0	42.4	85	74-124
594-20-7	LCS 2,2-Dichloropropane	50.0	0.0	43.7	87	73-134
67-66-3	LCS Chloroform	50.0	0.0	42.0	84	74-120
74-97-5	LCS Bromochloromethane	50.0	0.0	42.3	85	73-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	43.8	88	74-132
563-58-6	LCS 1,1-Dichloropropene	50.0	0.0	44.5	89	79-128
56-23-5	LCS Carbon tetrachloride	50.0	0.0	45.1	90	75-135
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	41.3	83	65-120



Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2137

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961878

Matrix: SOIL

Lab Sample ID: 1202067798

Instrument: VOA5.I

Analysis Date: 03/09/2010 08:50

Dilution: 1

Analyst: CDS1

Pren Batch II 961878

Purge Vol: 5 mL

Batch ID: 961880

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	41.4	83	74-120
79-01-6	LCS Trichloroethylene	50.0	0.0	42.6	85	77-124
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	41.2	82	73-120
75-27-4	LCS Bromodichloromethane	50.0	0.0	43.4	87	75-128
74-95-3	LCS Dibromomethane	50.0	0.0	43.9	88	75-120
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	219	88	63-133
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	42.7	85	78-127
108-88-3	LCS Toluene	50.0	0.0	39.3	79	74-120
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	41.7	83	70-125
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	40.7	81	75-120
591-78-6	LCS 2-Hexanone	250	0.0	197	79	40-153
142-28-9	LCS 1,3-Dichloropropane	50.0	0.0	40.1	80	73-120
127-18-4	LCS Tetrachloroethylene	50.0	0.0	40.8	82	72-126
124-48-1	LCS Dibromochloromethane	50.0	0.0	43.0	86	74-126
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	41.4	83	79-120
108-90-7	LCS Chlorobenzene	50.0	0.0	39.4	79	76-120
100-41-4	LCS Ethylbenzene	50.0	0.0	38.9	78	74-120
179601-23-1	LCS m,p-Xylenes	100	0.0	80.5	80	76-120
95-47-6	LCS o-Xylene	50.0	0.0	39.8	80	76-122
100-42-5	LCS Styrene	50.0	0.0	42.0	84	75-125
75-25-2	LCS Bromoform	50.0	0.0	44.1	88	68-135
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	39.5	79	72-122



Volatile  
Quality Control Summary  
Spike Recovery Report

Page 3 of 3

SDG Number: 10-2137

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961878

Matrix: SOIL

Lab Sample ID: 1202067798

Instrument: VOA5.I

Analysis Date: 03/09/2010 08:50

Dilution: 1

Analyst: CDS1

Pre Batch II 961878

Purge Vol: 5 mL

Batch ID: 961880

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	41.1	82	72-129
108-86-1	LCS Bromobenzene	50.0	0.0	38.1	76	74-120
103-65-1	LCS n-Propylbenzene	50.0	0.0	39.0	78	70-120
95-49-8	LCS 2-Chlorotoluene	50.0	0.0	39.1	78	70-120
98-82-8	LCS Isopropylbenzene	50.0	0.0	39.8	80	60-121
108-67-8	LCS 1,3,5-Trimethylbenzene	50.0	0.0	39.7	79	71-121
106-43-4	LCS 4-Chlorotoluene	50.0	0.0	38.1	76	71-120
98-06-6	LCS tert-Butylbenzene	50.0	0.0	38.0	76	75-123
95-63-6	LCS 1,2,4-Trimethylbenzene	50.0	0.0	39.4	79	73-120
135-98-8	LCS sec-Butylbenzene	50.0	0.0	39.9	80	74-123
99-87-6	LCS 4-Isopropyltoluene	50.0	0.0	39.9	80	76-127
541-73-1	LCS 1,3-Dichlorobenzene	50.0	0.0	38.3	77	75-120
106-46-7	LCS 1,4-Dichlorobenzene	50.0	0.0	38.2	76	73-120
104-51-8	LCS n-Butylbenzene	50.0	0.0	39.0	78	73-128
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	41.2	82	69-136
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	41.2	82	75-124
95-50-1	LCS 1,2-Dichlorobenzene	50.0	0.0	38.7	77	75-120



## Volatile

Page 1 of 1

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2137

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 961878

Matrix: SOIL

Lab Sample ID:1202067799

Instrument: VOA5.I

Analysis Date: 03/09/2010 09:18

Dilution: 1

Analyst: CDS1

Prep Batch II 961878

Purge Vol: 5 mL

Batch ID: 961880

CAS No	Parname	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	373	149 *	67-140



## Method Blank Summary

Page 1 of 1

SDG Number:	10-2137	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 961878	Instrument ID:	VOA5.I	Data File:	030510V55A507LAD
Lab Sample ID:	1202063154	Prep Date:	03/05/2010 15:26	Analyzed:	03/05/10 17:46
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 961878	1202063157	030510V55A504LAD	03/05/10	1613
02 LCS for batch 961878	1202063158	030510V55A505LAD	03/05/10	1640
03 RE36-10-8464	248244001	030510V55A520.D	03/05/10	2315
04 RE36-10-8475	248244002	030510V55A521.D	03/05/10	2340
05 RE36-10-8471	248244003	030510V55A522.D	03/06/10	0005
06 RE36-10-8485	248244004	030510V55A523.D	03/06/10	0031
07 RE36-10-8477	248244005	030510V55A524.D	03/06/10	0056
08 RE36-10-8484	248244007	030510V55A526.D	03/06/10	0147
09 RE36-10-8481	248244008	030510V55A527.D	03/06/10	0213



## Method Blank Summary

Page 1 of 1

SDG Number:	10-2137	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 961878	Instrument ID:	VOA5.I	Data File:	030910V5\5B207L.A.D
Lab Sample ID:	1202067797	Prep Date:	03/09/2010 07:26	Analyzed:	03/09/10 10:12
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 961878	1202067798	030910V5\5B204L.A.D	03/09/10	0850
02 LCS for batch 961878	1202067799	030910V5\5B205L.A.D	03/09/10	0918
03 RE36-10-8479	248244006	030910V5\5B215.D	03/09/10	1358
04 RE36-10-8479PS	1202063155	030910V5\5B222.D	03/09/10	1713
05 RE36-10-8479PSD	1202063156	030910V5\5B223.D	03/09/10	1740



## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2137

Instrument ID: VOA5.I

Injection Date/Time: 03-MAR-10 11:00

Column Description: DB-624

Lab File ID 030310V5\5A301.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.2
75	30.0 - 60.0% of mass 95	45.2
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	77.7
175	5.0 - 9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	96.2
177	5.0 - 9.0% of mass 176	6.3

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]	W5VM100303-01	030310V5\5A303.D	03-MAR-10 11:52
ICALMIX[A]	W5VM100303-02	030310V5\5A304.D	03-MAR-10 12:18
ICALMIX[A]	W5VM100303-03	030310V5\5A305.D	03-MAR-10 12:43
ICALMIX[A]	W5VM100303-04	030310V5\5A306.D	03-MAR-10 13:09
ICALMIX[A]	W5VM100303-05	030310V5\5A307.D	03-MAR-10 13:35
ICALMIX[A]	W5VM100303-06	030310V5\5A308.D	03-MAR-10 14:01
ICALMIX[A]	W5VM100303-07	030310V5\5A309.D	03-MAR-10 14:26
ICALMIX[A]	W5VM100303-08	030310V5\5A311.D	03-MAR-10 15:18
ICVMIX[A]01	W5VM100303-10	030310V5\5A313.D	03-MAR-10 16:10
ICALMIX[B]	W5VM100303-11	030310V5\5A315.D	03-MAR-10 17:01
ICALMIX[B]	W5VM100303-12	030310V5\5A316.D	03-MAR-10 17:27
ICALMIX[B]	W5VM100303-13	030310V5\5A317.D	03-MAR-10 17:52
ICALMIX[B]	W5VM100303-14	030310V5\5A318.D	03-MAR-10 18:18
ICALMIX[B]	W5VM100303-15	030310V5\5A319.D	03-MAR-10 18:44
ICALMIX[B]	W5VM100303-16	030310V5\5A320.D	03-MAR-10 19:10
ICALMIX[B]	W5VM100303-17	030310V5\5A321.D	03-MAR-10 19:35
ICVMIX[B]02	W5VM100303-18	030310V5\5A323.D	03-MAR-10 20:27



## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2137

Instrument ID: VOA5.I

Injection Date/Time: 05-MAR-10 15:17

Column Description: DB-624

Lab File ID 030510V5\5A502BFB.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.6
75	30.0 - 60.0% of mass 95	45.3
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.7
174	50.0 - 100.0% of mass 95	76.4
175	5.0 - 9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	97.7
177	5.0 - 9.0% of mass 176	6.3

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]01	W5VM100305-01	030510V5\5A502.D	05-MAR-10 15:17
BLK01LCS	1202063157	030510V5\5A504LA.D	05-MAR-10 16:13
CCVMIX[B]02	W5VM100305-04	030510V5\5A505.D	05-MAR-10 16:40
BLK01SLCS	1202063158	030510V5\5A505LA.D	05-MAR-10 16:40
BLK01	1202063154	030510V5\5A507LA.D	05-MAR-10 17:46
RE36-10-8464	248244001	030510V5\5A520.D	05-MAR-10 23:15
RE36-10-8475	248244002	030510V5\5A521.D	05-MAR-10 23:40
RE36-10-8471	248244003	030510V5\5A522.D	06-MAR-10 00:05
RE36-10-8485	248244004	030510V5\5A523.D	06-MAR-10 00:31
RE36-10-8477	248244005	030510V5\5A524.D	06-MAR-10 00:56
RE36-10-8484	248244007	030510V5\5A526.D	06-MAR-10 01:47
RE36-10-8481	248244008	030510V5\5A527.D	06-MAR-10 02:13



## Instrument Performance Check

## BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2137

Instrument ID: VOA5.I

Injection Date/Time: 09-MAR-10 07:14

Column Description: DB-624

Lab File ID 030910V5\5B201.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.1
75	30.0 - 60.0% of mass 95	44.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	77
175	5.0 - 9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	97.3
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]04	W5VM100309-02	030910V5\5B203.D	09-MAR-10 08:09
BLK02LCS	1202067798	030910V5\5B204LA.D	09-MAR-10 08:50
CCVMIX[B]05	W5VM100309-04	030910V5\5B205.D	09-MAR-10 09:18
BLK02SLCS	1202067799	030910V5\5B205LA.D	09-MAR-10 09:18
BLK02	1202067797	030910V5\5B207LA.D	09-MAR-10 10:12
RE36-10-8479	248244006	030910V5\5B215.D	09-MAR-10 13:58
RE36-10-8479MS	1202063155	030910V5\5B222.D	09-MAR-10 17:13
RE36-10-8479MSD	1202063156	030910V5\5B223.D	09-MAR-10 17:40



### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2137

Instrument: VOA5.1

STD Analysis Time: 05-MAR-10 15:17

GC Column: DB-624

Data File: C:\msdchem\1\DATA\030510V5\5A502.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1815452		8.39	1382681		11.1	728086		13.4
Upper Limit	3630904		8.89	2765362		11.6	1456172		13.9
Lower Limit	907726		7.89	691341		10.6	364043		12.9
Sample ID									
BLK01LCS	1785361		8.39	1373211		11.1	726937		13.4
BLK01SLCS	1810003		8.39	1370083		11.1	707376		13.4
BLK01	1793806		8.39	1339902		11.1	676292		13.4
RE36-10-8464	1794851		8.39	1265658		11.1	515484		13.4
RE36-10-8475	1788249		8.39	1291437		11.1	587521		13.4
RE36-10-8471	1803656		8.39	1274590		11.1	562954		13.4
RE36-10-8485	1745570		8.39	1255120		11.1	559201		13.4
RE36-10-8477	1783506		8.39	1287495		11.1	577755		13.4
RE36-10-8484	1742918		8.39	1274007		11.1	589008		13.4
RE36-10-8481	1644837		8.39	1159827		11.1	485460		13.4

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: 10-2137

Instrument: VOA5.I

STD Analysis Time: 09-MAR-10 08:09

GC Column: DB-624

Data File: C:\msdchem\1\DATA\030910V5\5B203.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT	Area	#	RT	Area	#	RT
12 Hour STD	1974825		8.39	1509161		11.1	782696		13.4
Upper Limit	3949650		8.89	3018322		11.6	1565392		13.9
Lower Limit	987413		7.89	754581		10.6	391348		12.9
Sample ID									
BLK02LCS	2013309		8.39	1536970		11.1	795168		13.4
BLK02SLCS	1900502		8.39	1419216		11.1	712034		13.4
BLK02	1868406		8.39	1378477		11.1	671495		13.4
RE36-10-8479	1796912		8.39	1281835		11.1	546016		13.4
RE36-10-8479MS	1747842		8.39	1269284		11.1	578314		13.4
RE36-10-8479MSD	1680435		8.39	1223276		11.1	568620		13.4

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



# Sample Data



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

SDG Number: 10-2137  
 Lab Sample ID: 248244001  
 Client ID: RE36-10-8464  
 Batch ID: 961880  
 Run Date: 03/05/2010 23:15  
 Prep Date: 03/05/2010 10:10  
 Data File: 030510V5\SA520.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 9.5  
 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
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.376	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.332	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.332	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.332	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.332	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.332	1.11
67-64-1	Acetone	U	5.53	ug/kg	1.84	5.53
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
74-88-4	Iodomethane	U	5.53	ug/kg	1.77	5.53
75-09-2	Methylene chloride	U	5.53	ug/kg	2.21	5.53
75-15-0	Carbon disulfide	U	5.53	ug/kg	1.38	5.53
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.332	1.11
78-93-3	2-Butanone	U	5.53	ug/kg	1.66	5.53
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.332	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.365	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.332	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.332	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.332	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.332	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.332	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.365	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.332	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.332	1.11
108-10-1	4-Methyl-2-pentanone	U	5.53	ug/kg	1.38	5.53
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.332	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.332	1.11
591-78-6	2-Hexanone	U	5.53	ug/kg	1.66	5.53
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.332	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.332	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.332	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.332	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.332	1.11



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

SDG Number: 10-2137  
 Lab Sample ID: 248244001  
 Client ID: RE36-10-8464  
 Batch ID: 961880  
 Run Date: 03/05/2010 23:15  
 Prep Date: 03/05/2010 10:10  
 Data File: 030510V55A520.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 9.5  
 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	1.11	ug/kg	0.332	1.11
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.332	2.21
95-47-6	o-Xylene	U	1.11	ug/kg	0.332	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.332	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.332	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.332	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.332	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.332	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.332	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.332	1.11
95-63-6	1,2,4-Trimethylbenzene	J	0.343	ug/kg	0.332	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.332	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.332	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.332	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.332	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.53	ug/kg	1.77	5.53
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11

**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\030510V5\  
Data File : 5A520.D  
Acq On : 5 Mar 2010 11:15 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248244001|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 09 10:54:30 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev (Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1794851	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1265658	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	515484	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1794851	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1265658	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	515484	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	416018	47.89	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 95.78%			
43) Toluene-d8	9.721	9.721	0.872	98	1624693	50.19	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 100.38%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	584183	56.50	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 113.00%			
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.910	4.900	0.585	50	1033	Below Cal	#	1
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.877	5.866	0.701	59	170	N.D.		
9) Acetone	6.170	6.174	0.736	43	5617	N.D.		
10) 1,1-Dichloroethylene	0.000	6.156	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.488	6.464	0.774	41	1267	N.D.		
13) Methyl acetate	6.365	6.365	0.759	43	466	N.D.		
14) Carbon disulfide	6.428	6.435	0.766	76	1907	N.D.		
15) Methylene chloride	6.534	6.538	0.779	84	8756	N.D.		
16) tert-Butyl methyl ether	0.000	6.640	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.785	6.969	0.809	43	1417	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	7.454	7.450	0.889	43	635	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	8.080	7.924	0.963	56	251	N.D.		
27) 1,1-Dichloropropene	0.000	8.005	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.200	8.203	0.978	78	3021	N.D.		
32) Cyclohexene	8.250	8.246	0.984	67	107	N.D.		
33) n-Butyl alcohol	8.391	8.377	1.000	56	9958	Below Cal	#	21
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.826	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A520.D  
Acq On : 5 Mar 2010 11:15 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248244001|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 09 10:54:30 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	9.487	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.791	9.788	0.879	91	6791	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	0.000	10.279	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	10.364	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.174	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.185	11.181	1.004	91	3115	N.D.	
55) m,p-Xylenes	11.277	11.280	1.012	106	3248	N.D.	
56) o-Xylene	11.701	11.701	1.050	106	1167	N.D.	
57) Styrene	11.726	11.715	1.052	104	107	N.D.	
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	12.016	12.016	0.896	105	596	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	0.000	12.465	0.000		0	N.D.	
65) n-Propylbenzene	12.412	12.415	0.925	91	3664	N.D.	
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	2248	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.695	12.698	0.946	91	538	N.D.	
69) tert-Butylbenzene	12.896	12.900	0.962	134	107	N.D.	
70) 1,2,4-Trimethylbenzene	12.960	12.956	0.966	105	6301	0.31 ug/L	91
71) sec-Butylbenzene	13.101	13.119	0.977	105	539	N.D.	
72) 4-Isopropyltoluene	13.328	13.229	0.994	119	2105	N.D.	
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	13.441	0.000		0	N.D.	
75) n-Butylbenzene	13.653	13.653	1.018	91	1031	N.D.	
76) 1,2-Dichlorobenzene	13.862	13.858	1.033	146	141	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	251	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.988	15.988	1.192	128	14912	0.90 ug/L	92
81) 1,2,3-Trichlorobenzene	16.284	16.291	1.214	180	135	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.082	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.163	0.000		0	N.D.	
88) Allyl chloride	6.435	6.425	0.767	41	335	N.D.	
89) tert-Butyl Alcohol	0.000	6.460	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.747	0.000		0	N.D.	
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	7.440	7.383	0.887	43	244	N.D.	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A520.D  
Acq On : 5 Mar 2010 11:15 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248244001|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 09 10:54:30 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.719	7.680	0.920	41	1284	N.D.	
97) Tetrahydrofuran	7.708	7.716	0.919	42	936	N.D.	
98) Isobutyl alcohol	7.868	7.857	0.938	41	131	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.	
100) Methyl methacrylate	0.000	8.801	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	0.000	9.342	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	12.136	0.000		0	N.D.	
108) Cyclohexanone	0.000	12.267	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	12.412	0.000		0	N.D.	
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.572	13.565	1.012	91	2653	N.D.	
112) bis(2-Chloroisopropyl)...	13.940	13.929	1.039	45	116	N.D.	

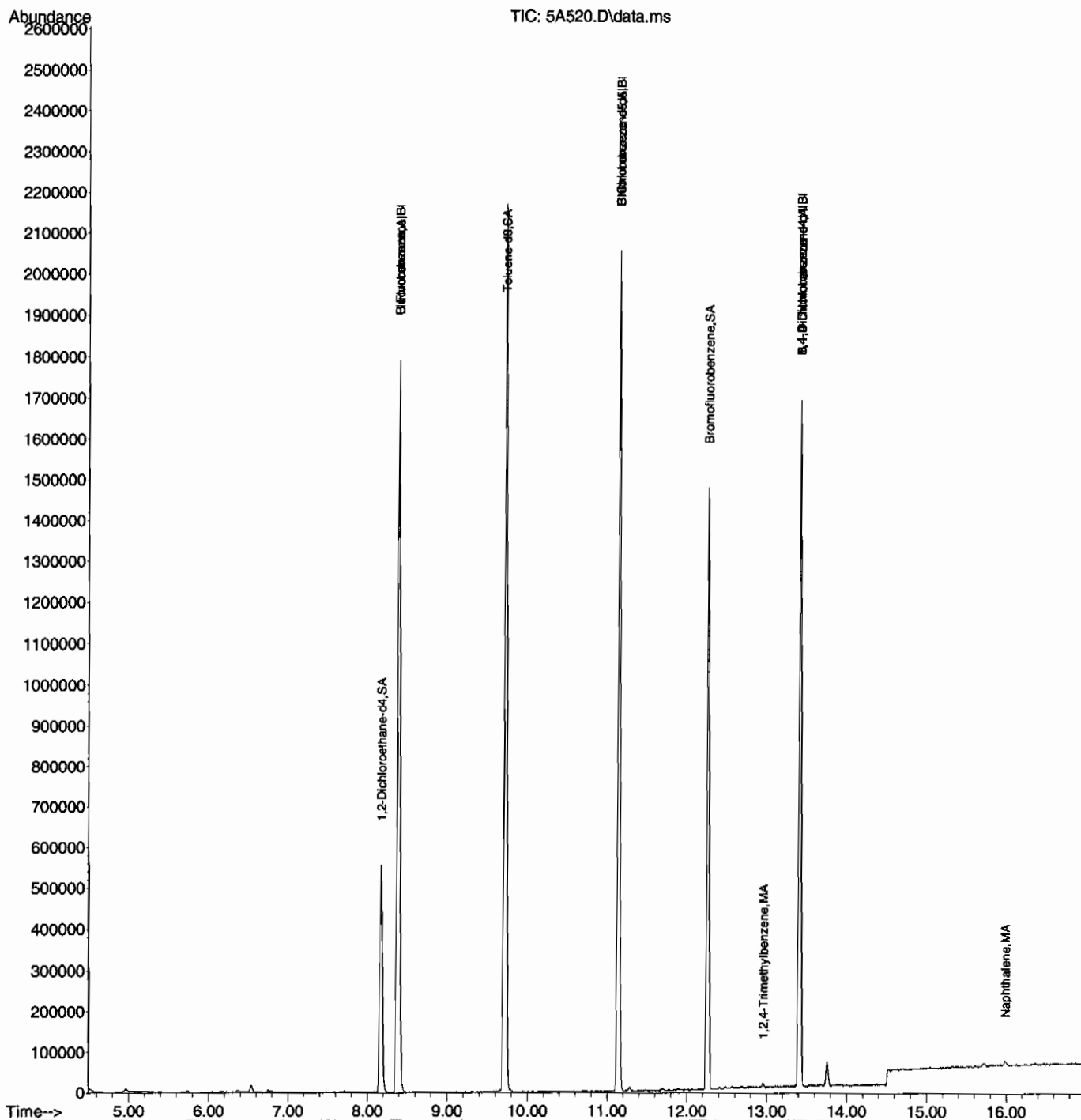
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



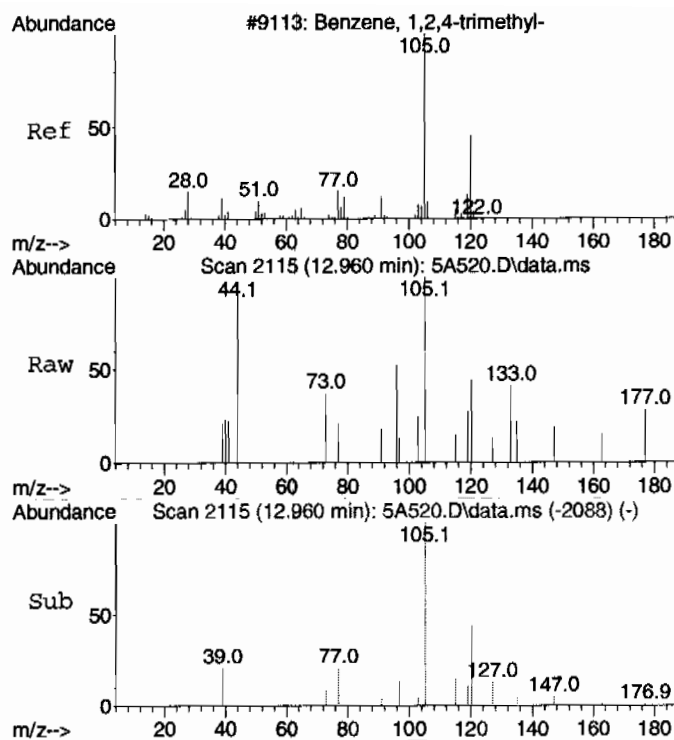
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A520.D  
Acq On : 5 Mar 2010 11:15 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248244001|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 09 10:54:30 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

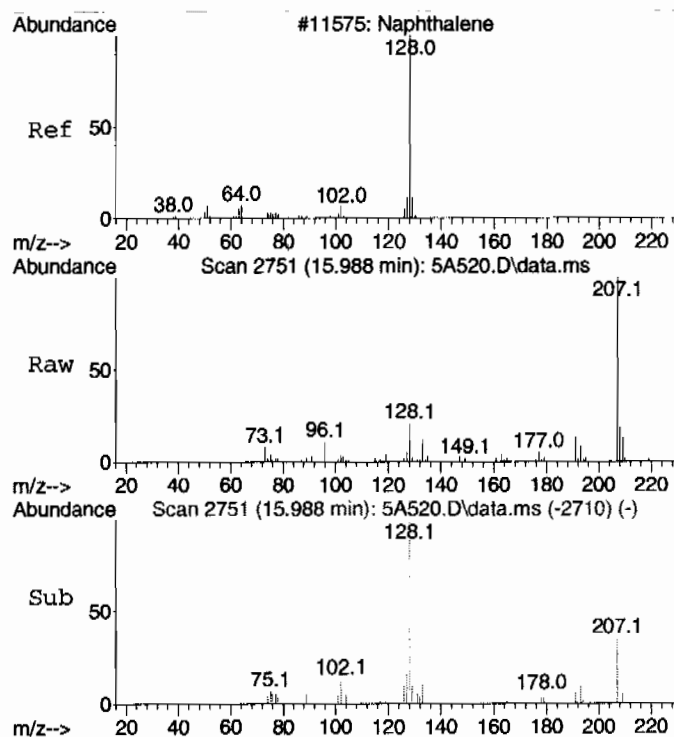
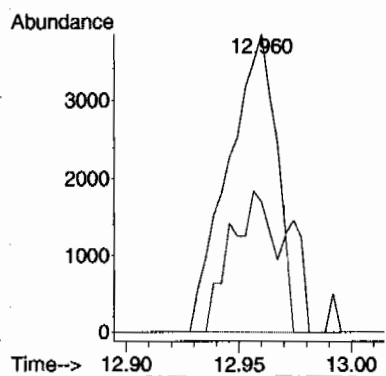






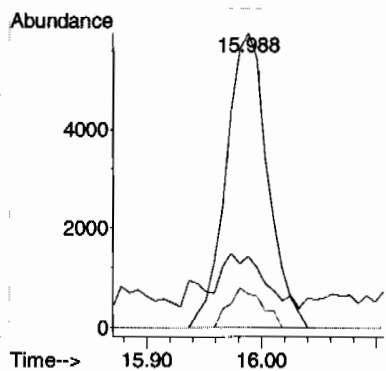
#70  
1,2,4-Trimethylbenzene  
Concen: 0.31 ug/L  
RT: 12.960 min Scan# 2115  
Delta R.T. 0.004 min  
Lab File: 5A520.D  
Acq: 5 Mar 2010 11:15 pm

Tgt Ion	Ratio	Lower	Upper
105	100		
120	41.3	17.4	77.4



#80  
Naphthalene  
Concen: 0.90 ug/L  
RT: 15.988 min Scan# 2751  
Delta R.T. 0.000 min  
Lab File: 5A520.D  
Acq: 5 Mar 2010 11:15 pm

Tgt Ion	Ratio	Lower	Upper
128	100		
127	18.2	0.0	42.4
129	10.7	0.0	40.8





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A520.D  
Acq On : 5 Mar 2010 11:15 pm  
Operator : CDS1  
Sample : |248244001|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.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\030510V5\  
Data File : 5A520.D  
Acq On : 5 Mar 2010 11:15 pm  
Operator : CDS1  
Sample : |248244001|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.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: 10-2137  
 Lab Sample ID: 248244002  
 Client ID: RE36-10-8475  
 Batch ID: 961880  
 Run Date: 03/05/2010 23:40  
 Prep Date: 03/05/2010 10:12  
 Data File: 030510V5SA521.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 8.8  
 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	1.10	ug/kg	0.373	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.329	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.329	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.329	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.329	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.329	1.10
67-64-1	Acetone	U	5.48	ug/kg	1.82	5.48
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
74-88-4	Iodomethane	U	5.48	ug/kg	1.76	5.48
75-09-2	Methylene chloride	U	5.48	ug/kg	2.19	5.48
75-15-0	Carbon disulfide	U	5.48	ug/kg	1.37	5.48
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.329	1.10
78-93-3	2-Butanone	U	5.48	ug/kg	1.65	5.48
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.329	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.329	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.362	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.329	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.329	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.329	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.329	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.329	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.362	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.329	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.329	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.329	1.10
108-10-1	4-Methyl-2-pentanone	U	5.48	ug/kg	1.37	5.48
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.329	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.329	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.329	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.329	1.10
591-78-6	2-Hexanone	U	5.48	ug/kg	1.65	5.48
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.329	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.329	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.329	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.329	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.329	1.10



**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2137  
Lab Sample ID: 248244002  
  
Client ID: RE36-10-8475  
Batch ID: 961880  
Run Date: 03/05/2010 23:40  
Prep Date: 03/05/2010 10:12  
Data File: 030510V5SA521.D

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.J  
Analyst: CDS1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 8.8  
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	1.10	ug/kg	0.329	1.10
179601-23-1	m,p-Xylenes	U	2.19	ug/kg	0.329	2.19
95-47-6	o-Xylene	U	1.10	ug/kg	0.329	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.329	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.329	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.329	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.329	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.329	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.329	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.329	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.329	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.329	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.329	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.329	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.329	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.329	1.10
99-87-6	4-Isopropyltoluene	J	0.603	ug/kg	0.329	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.329	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.329	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.48	ug/kg	1.76	5.48
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.329	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.329	1.10

**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\030510V5\  
Data File : 5A521.D  
Acq On : 5 Mar 2010 11:40 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248244002|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 09 11:36:25 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1788249	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1291437	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	587521	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1788249	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1291437	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	587521	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	419646	48.49	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	96.98%			
43) Toluene-d8	9.721	9.721	0.872	98	1636552	49.55	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	99.10%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	623347	52.89	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	105.78%			
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.980	4.900	0.594	50	955	Below Cal		79
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	0.000	5.866	0.000		0	N.D.		
9) Acetone	6.174	6.174	0.736	43	2303	N.D.		
10) 1,1-Dichloroethylene	0.000	6.156	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.467	6.464	0.771	41	112	N.D.		
13) Methyl acetate	6.174	6.365	0.736	43	2303	N.D.		
14) Carbon disulfide	6.428	6.435	0.766	76	1428	N.D.		
15) Methylene chloride	6.538	6.538	0.779	84	7707	N.D.		
16) tert-Butyl methyl ether	0.000	6.640	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.782	6.969	0.809	43	123	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	0.000	7.924	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.005	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.193	8.203	0.977	78	356	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.		
33) n-Butyl alcohol	8.391	8.377	1.000	56	9557	Below Cal	#	20
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.826	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A521.D  
Acq On : 5 Mar 2010 11:40 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248244002|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 09 11:36:25 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	9.487	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.788	9.788	0.878	91	1738	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	10.283	10.279	0.923	43	123	N.D.	
48) 1,3-Dichloropropane	0.000	10.364	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.174	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.167	11.181	1.002	91	2068	N.D.	
55) m,p-Xylenes	11.277	11.280	1.012	106	766	N.D.	
56) o-Xylene	11.690	11.701	1.049	106	245	N.D.	
57) Styrene	0.000	11.715	0.000		0	N.D.	
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	12.030	12.016	0.897	105	155	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	0.000	12.465	0.000		0	N.D.	
65) n-Propylbenzene	12.571	12.415	0.937	91	480	N.D.	
66) 1,3,5-Trimethylbenzene	12.567	12.564	0.937	105	286	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.702	12.698	0.947	91	1690	N.D.	
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	12.949	12.956	0.965	105	3015	N.D.	
71) sec-Butylbenzene	13.115	13.119	0.978	105	262	N.D.	
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	13012	0.55 ug/L	78
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	13.434	13.441	1.002	146	148	N.D.	
75) n-Butylbenzene	13.657	13.653	1.018	91	208	N.D.	
76) 1,2-Dichlorobenzene	0.000	13.858	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.605	15.619	1.163	180	119	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.981	15.988	1.191	128	1889	N.D.	
81) 1,2,3-Trichlorobenzene	16.269	16.291	1.213	180	112	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.082	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.163	0.000		0	N.D.	
88) Allyl chloride	6.446	6.425	0.769	41	358	N.D.	
89) tert-Butyl Alcohol	0.000	6.460	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.747	0.000		0	N.D.	
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	0.000	7.383	0.000		0	N.D.	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A521.D  
Acq On : 5 Mar 2010 11:40 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248244002|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 09 11:36:25 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.715	7.680	0.920	41	497	N.D.	
97) Tetrahydrofuran	7.715	7.716	0.920	42	573	N.D.	
98) Isobutyl alcohol	7.839	7.857	0.935	41	122	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.	
100) Methyl methacrylate	0.000	8.801	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	0.000	9.342	0.000		0m	N.D.	d
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	11.998	12.136	0.895	53	2092	N.D.	
108) Cyclohexanone	12.320	12.267	0.919	42	117	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	12.412	0.000		0m	N.D.	d
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.558	13.565	1.011	91	1249	N.D.	
112) bis(2-Chloroisopropyl)...	13.932	13.929	1.039	45	129	N.D.	

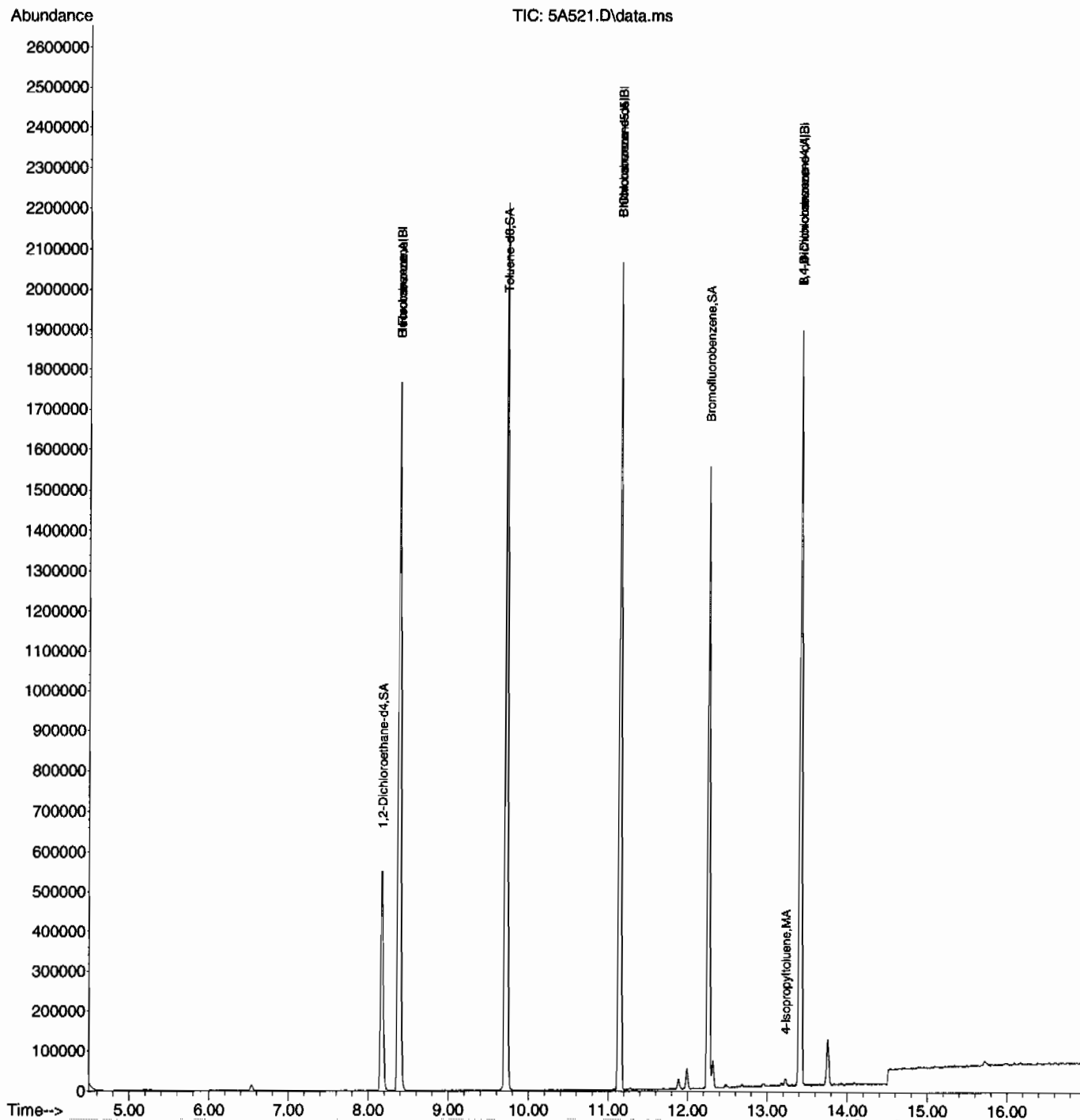
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



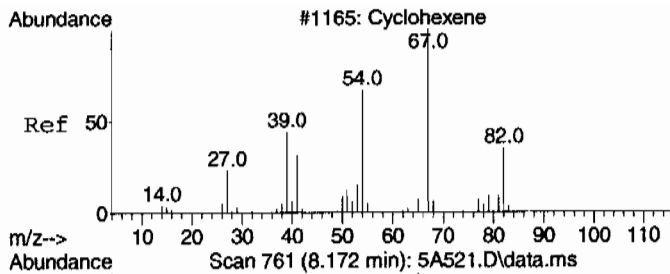
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A521.D  
Acq On : 5 Mar 2010 11:40 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248244002|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 09 11:36:25 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

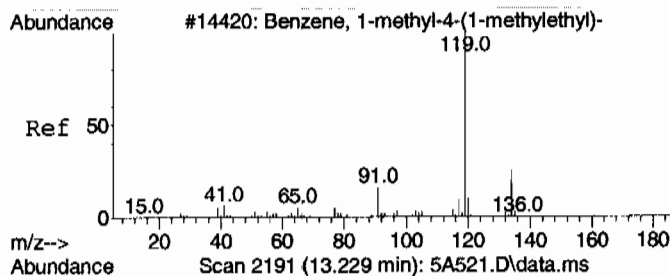
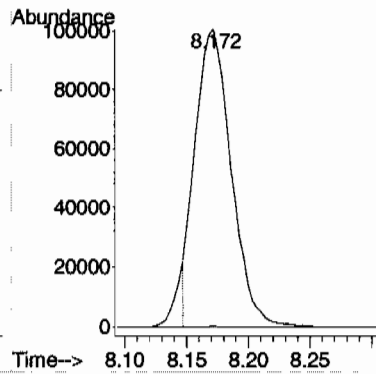






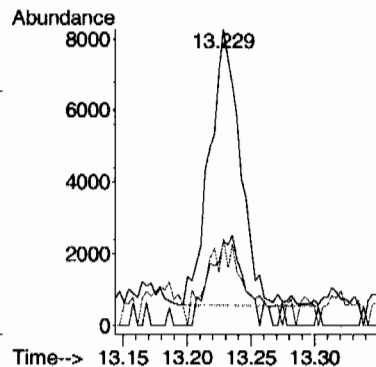
#32 BEFORE analyst DELETION  
Cyclohexene  
Concen: 16.96 ug/L  
RT: 8.172 min Scan# 761  
Delta R.T. -0.074 min  
Lab File: 5A521.D  
Acq: 5 Mar 2010 11:40 pm

Tgt Ion: 67 Resp: 204005  
Ion Ratio Lower Upper  
67 100  
54 0.1 46.3 106.3#

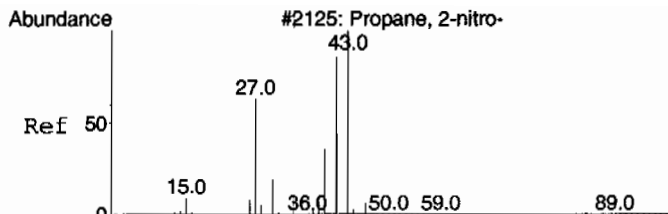


#72  
4-Isopropyltoluene  
Concen: 0.55 ug/L  
RT: 13.229 min Scan# 2191  
Delta R.T. -0.000 min  
Lab File: 5A521.D  
Acq: 5 Mar 2010 11:40 pm

Tgt Ion: 119 Resp: 13012  
Ion Ratio Lower Upper  
119 100  
134 33.9 0.0 57.2  
91 38.9 0.0 53.0

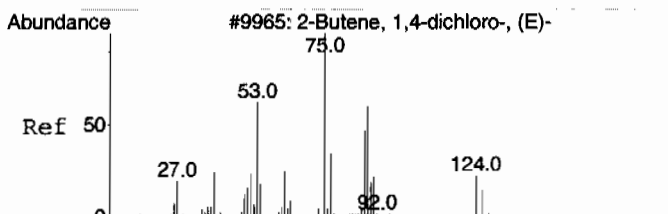
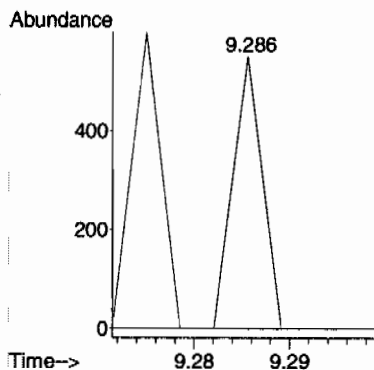
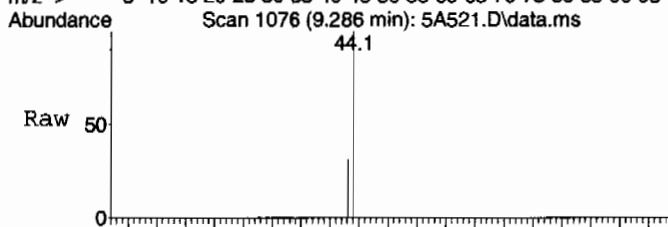






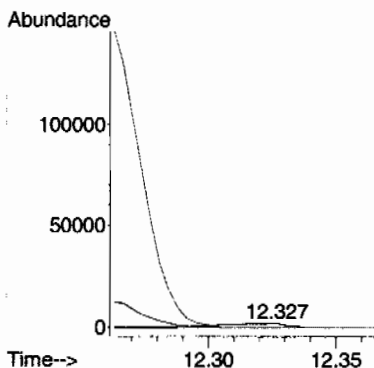
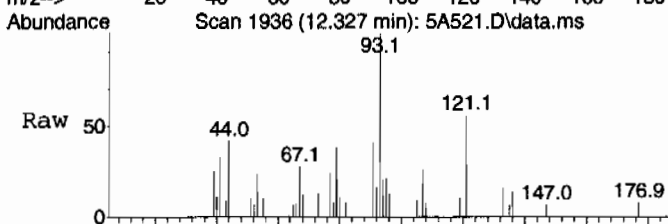
#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.95 ug/L  
RT: 9.286 min Scan# 1076  
Delta R.T. -0.056 min  
Lab File: 5A521.D  
Acq: 5 Mar 2010 11:40 pm

Tgt Ion: 43 Resp: 117  
Ion Ratio Lower Upper  
43 100  
41 108.5 52.5 112.5



#109 BEFORE analyst DELETION  
trans-1,4-Dichloro-2-butene  
Concen: 1.64 ug/L  
RT: 12.327 min Scan# 1936  
Delta R.T. -0.085 min  
Lab File: 5A521.D  
Acq: 5 Mar 2010 11:40 pm

Tgt Ion: 53 Resp: 3393  
Ion Ratio Lower Upper  
53 100  
88 0.0 15.5 75.5#  
75 3.7 92.0 152.0#





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A521.D  
Acq On : 5 Mar 2010 11:40 pm  
Operator : CDS1  
Sample : |248244002|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.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\030510V5\  
Data File : 5A521.D  
Acq On : 5 Mar 2010 11:40 pm  
Operator : CDS1  
Sample : |248244002|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.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: 10-2137  
 Lab Sample ID: 248244003  
 Client ID: RE36-10-8471  
 Batch ID: 961880  
 Run Date: 03/06/2010 00:05  
 Prep Date: 03/05/2010 10:14  
 Data File: 030510V5\5A522.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 11.5  
 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
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.339	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.339	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.339	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.339	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.339	1.13
67-64-1	Acetone	U	5.65	ug/kg	1.88	5.65
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
74-88-4	Iodomethane	U	5.65	ug/kg	1.81	5.65
75-09-2	Methylene chloride	U	5.65	ug/kg	2.26	5.65
75-15-0	Carbon disulfide	U	5.65	ug/kg	1.41	5.65
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.339	1.13
78-93-3	2-Butanone	U	5.65	ug/kg	1.69	5.65
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.339	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.373	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.339	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.339	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.339	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.339	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.339	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.373	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.339	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.339	1.13
108-10-1	4-Methyl-2-pentanone	U	5.65	ug/kg	1.41	5.65
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.339	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.339	1.13
591-78-6	2-Hexanone	U	5.65	ug/kg	1.69	5.65
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.339	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.339	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.339	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.339	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.339	1.13



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

SDG Number: 10-2137  
 Lab Sample ID: 248244003  
 Client ID: RE36-10-8471  
 Batch ID: 961880  
 Run Date: 03/06/2010 00:05  
 Prep Date: 03/05/2010 10:14  
 Data File: 030510V5SA522.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 11.5  
 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	1.13	ug/kg	0.339	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.339	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.339	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.339	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.339	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.339	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.339	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.339	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.339	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.339	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.339	1.13
99-87-6	4-Isopropyltoluene		8.11	ug/kg	0.339	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.339	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.339	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.65	ug/kg	1.81	5.65
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	12	12.1	ug/kg	0	J
	unknown hydrocarbon	12.68	11.9	ug/kg	0	J



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A522.D  
Acq On : 6 Mar 2010 12:05 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244003|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 09 11:37:07 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	8.388	8.387	1.000	96	1803656	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1274590	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	562954	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1803656	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1274590	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	562954	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	413258	47.34	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	94.68%			
43) Toluene-d8	9.721	9.721	0.872	98	1625896	49.88	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	99.76%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	605792	53.65	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	107.30%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.870	4.900	0.581	50	1211	Below Cal		79
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	0.000	5.866	0.000		0	N.D.		
9) Acetone	6.174	6.174	0.736	43	7391	N.D.		
10) 1,1-Dichloroethylene	0.000	6.156	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.478	6.464	0.772	41	2078	N.D.		
13) Methyl acetate	6.372	6.365	0.760	43	660	N.D.		
14) Carbon disulfide	6.435	6.435	0.767	76	2240	N.D.		
15) Methylene chloride	6.535	6.538	0.779	84	9697	N.D.		
16) tert-Butyl methyl ether	0.000	6.640	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.863	6.969	0.818	43	109	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	7.447	7.450	0.888	43	1477	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	0.000	7.924	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.005	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.207	8.203	0.978	78	2124	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D. d		
33) n-Butyl alcohol	8.384	8.377	1.000	56	10106	Below Cal	#	20
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.826	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A522.D  
Acq On : 6 Mar 2010 12:05 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244003|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 09 11:37:07 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	9.668	9.487	1.153	75	115	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.788	9.788	0.878	91	4540	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	0.000	10.279	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	10.364	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.174	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.174	11.181	1.003	91	1967	N.D.	
55) m,p-Xylenes	11.280	11.280	1.012	106	1661	N.D.	
56) o-Xylene	11.694	11.701	1.050	106	142	N.D.	
57) Styrene	11.712	11.715	1.051	104	112	N.D.	
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	0.000	12.016	0.000		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	12.674	12.465	0.945	156	113	N.D.	
65) n-Propylbenzene	12.493	12.415	0.931	91	1152	N.D.	
66) 1,3,5-Trimethylbenzene	12.557	12.564	0.936	105	134	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	12.698	0.000		0m	N.D.	d
69) tert-Butylbenzene	12.914	12.900	0.963	134	124	N.D.	
70) 1,2,4-Trimethylbenzene	12.953	12.956	0.966	105	3684	N.D.	
71) sec-Butylbenzene	13.112	13.119	0.978	105	517	N.D.	
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	162980	7.18	ug/L 98
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	13.441	0.000		0	N.D.	
75) n-Butylbenzene	13.646	13.653	1.017	91	2229	N.D.	
76) 1,2-Dichlorobenzene	0.000	13.858	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	264	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.996	15.988	1.193	128	1881	N.D.	
81) 1,2,3-Trichlorobenzene	16.284	16.291	1.214	180	111	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.082	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.163	0.000		0	N.D.	
88) Allyl chloride	6.425	6.425	0.766	41	139	N.D.	
89) tert-Butyl Alcohol	0.000	6.460	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.747	0.000		0	N.D.	
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	7.447	7.383	0.888	43	1477	N.D.	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A522.D  
Acq On : 6 Mar 2010 12:05 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244003|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 09 11:37:07 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.680	7.680	0.916	41	125	N.D.	
97) Tetrahydrofuran	7.712	7.716	0.919	42	989	N.D.	
98) Isobutyl alcohol	7.836	7.857	0.934	41	259	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.	
100) Methyl methacrylate	0.000	8.801	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	0.000	9.342	0.000		0m	N.D.	d
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	12.136	0.000		0m	N.D.	d
108) Cyclohexanone	12.306	12.267	0.917	42	399	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	12.412	0.000		0m	N.D.	d
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.561	13.565	1.011	91	832	N.D.	
112) bis(2-Chloroisopropyl)...	13.922	13.929	1.038	45	111	N.D.	

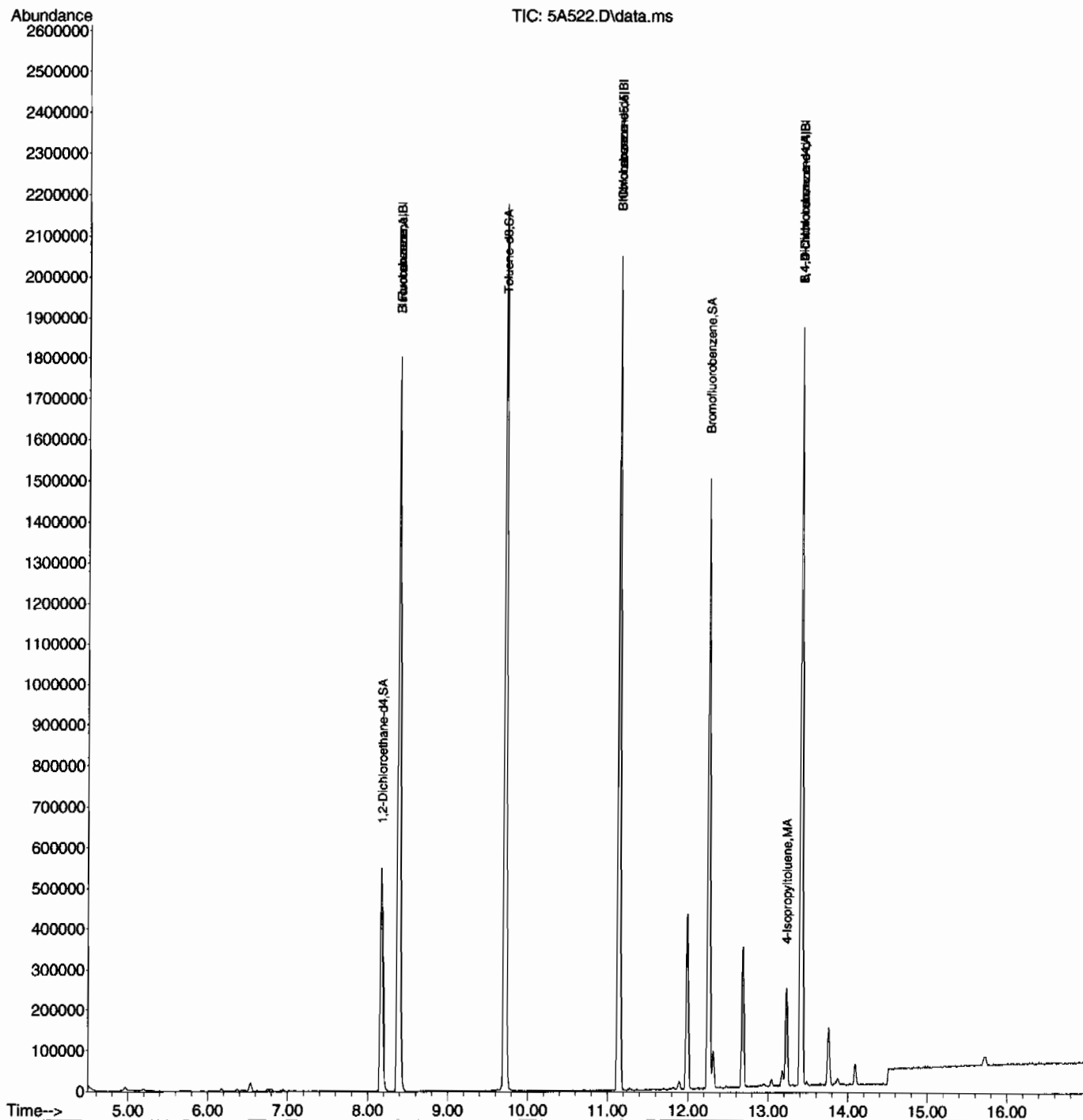
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



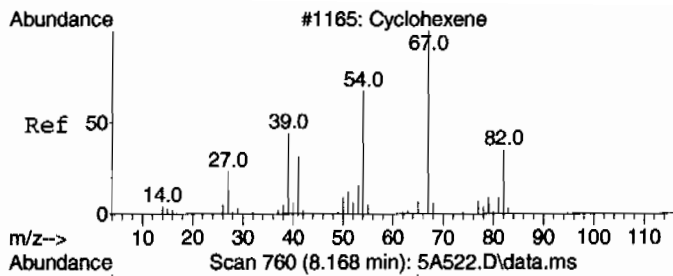
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A522.D  
Acq On : 6 Mar 2010 12:05 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244003|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 09 11:37:07 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

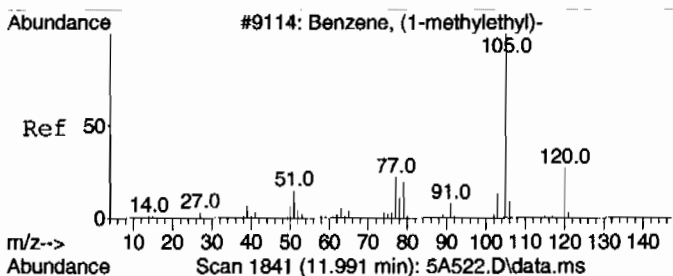
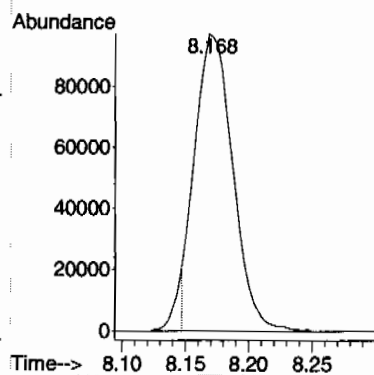






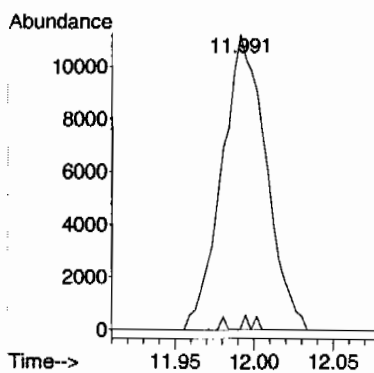
#32 BEFORE analyst DELETION  
Cyclohexene  
Concen: 16.69 ug/L  
RT: 8.168 min Scan# 760  
Delta R.T. -0.078 min  
Lab File: 5A522.D  
Acq: 6 Mar 2010 12:05 am

Tgt Ion: 67 Resp: 202575  
Ion Ratio Lower Upper  
67 100  
54 0.0 46.3 106.3#

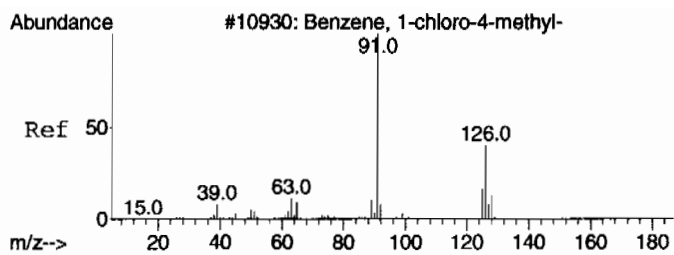


#60 BEFORE analyst DELETION  
Isopropylbenzene  
Concen: 0.84 ug/L  
RT: 11.991 min Scan# 1841  
Delta R.T. -0.025 min  
Lab File: 5A522.D  
Acq: 6 Mar 2010 12:05 am

Tgt Ion: 105 Resp: 21812  
Ion Ratio Lower Upper  
105 100  
120 1.0 0.0 57.3

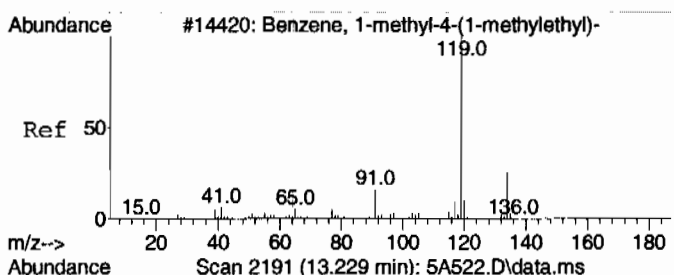
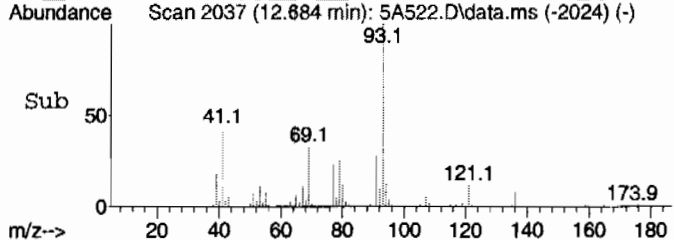
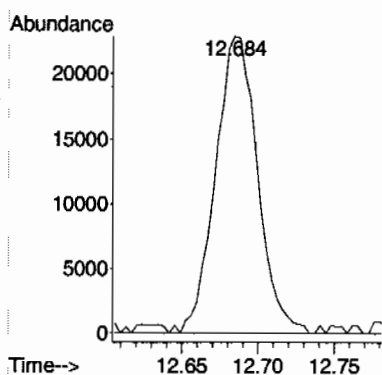
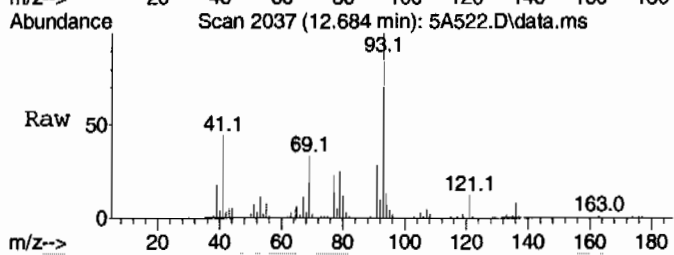






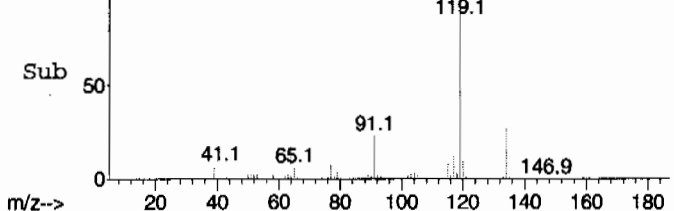
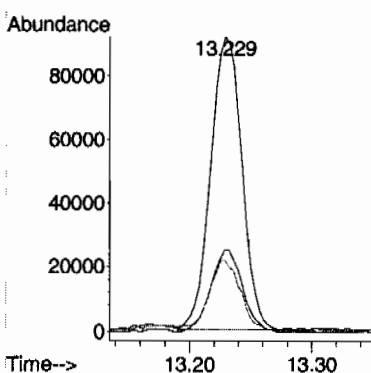
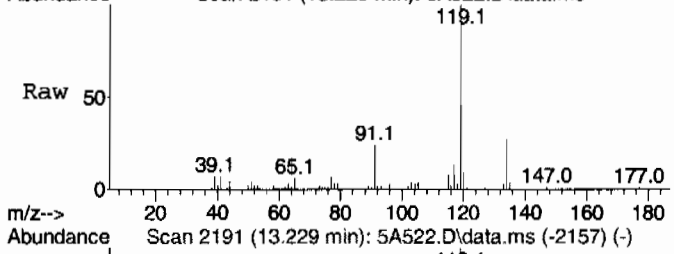
#68 BEFORE analyst DELETION  
4-Chlorotoluene  
Concen: 2.23 ug/L  
RT: 12.684 min Scan# 2037  
Delta R.T. -0.014 min  
Lab File: 5A522.D  
Acq: 6 Mar 2010 12:05 am

Tgt Ion: 91 Resp: 44156  
Ion Ratio Lower Upper  
91 100  
126 0.0 3.6 63.6#

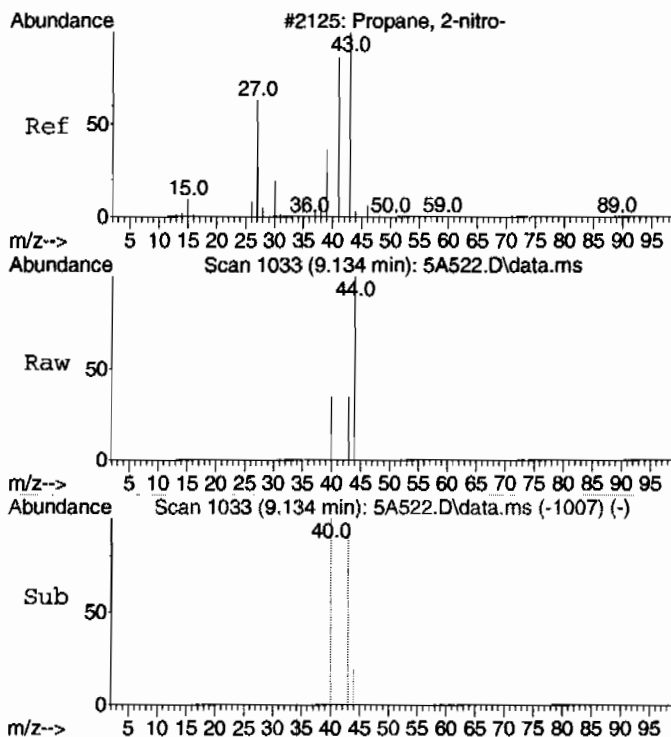


#72  
4-Isopropyltoluene  
Concen: 7.18 ug/L  
RT: 13.229 min Scan# 2191  
Delta R.T. -0.000 min  
Lab File: 5A522.D  
Acq: 6 Mar 2010 12:05 am

Tgt Ion: 119 Resp: 162980  
Ion Ratio Lower Upper  
119 100  
134 27.8 0.0 57.2  
91 24.4 0.0 53.0

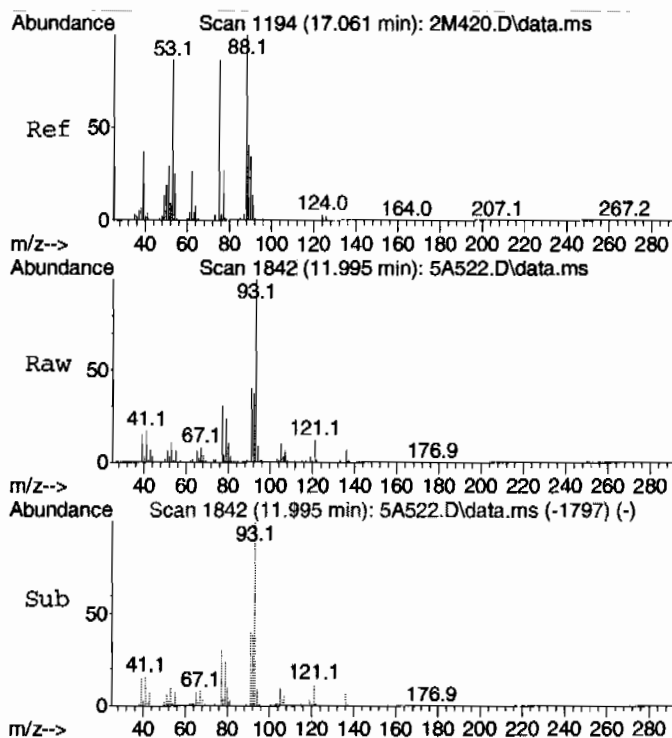
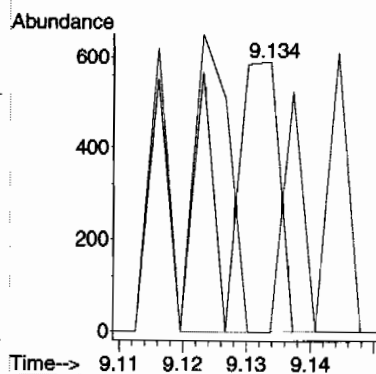






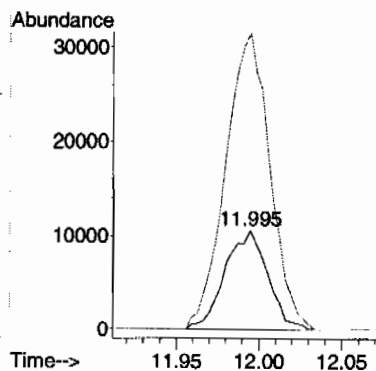
#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 7.06 ug/L  
RT: 9.134 min Scan# 1033  
Delta R.T. -0.208 min  
Lab File: 5A522.D  
Acq: 6 Mar 2010 12:05 am

Tgt Ion: 43 Resp: 369  
Ion Ratio Lower Upper  
43 100  
41 30.1 52.5 112.5#

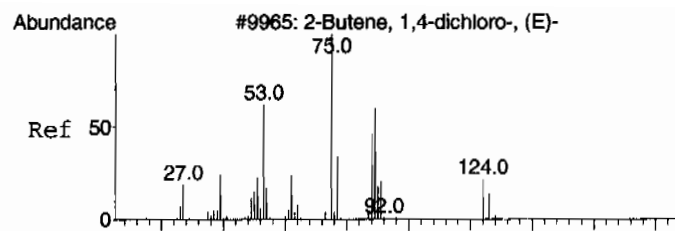


#107 BEFORE analyst DELETION  
cis-1,4-Dichloro-2-butene  
Concen: 9.00 ug/L  
RT: 11.995 min Scan# 1842  
Delta R.T. -0.141 min  
Lab File: 5A522.D  
Acq: 6 Mar 2010 12:05 am

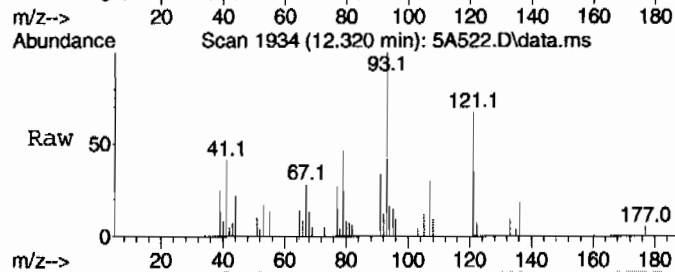
Tgt Ion: 53 Resp: 18946  
Ion Ratio Lower Upper  
53 100  
88 0.0 67.1 127.1#  
77 309.2 1.8 61.8#



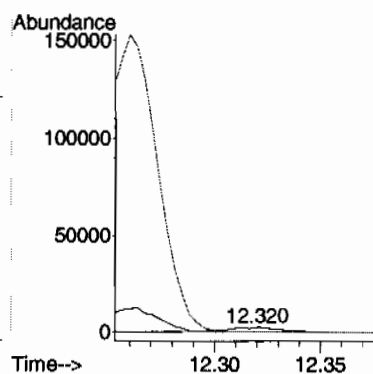
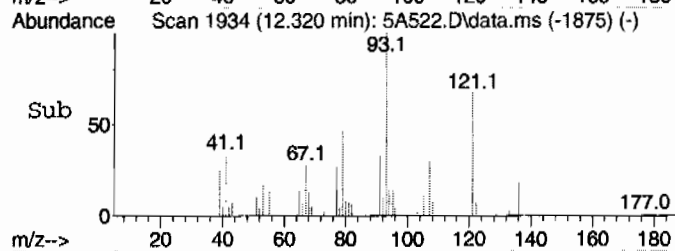




#109 BEFORE analyst DELETION  
 trans-1,4-Dichloro-2-butene  
 Concen: 2.30 ug/L  
 RT: 12.320 min Scan# 1934  
 Delta R.T. -0.092 min  
 Lab File: 5A522.D  
 Acq: 6 Mar 2010 12:05 am



Tgt Ion: 53 Resp: 4560  
 Ion Ratio Lower Upper  
 53 100  
 88 0.0 15.5 75.5#  
 75 0.0 92.0 152.0#





Library Search Compound Report  
GEL Laboratories, LLC

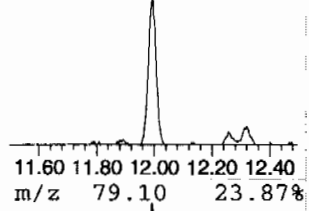
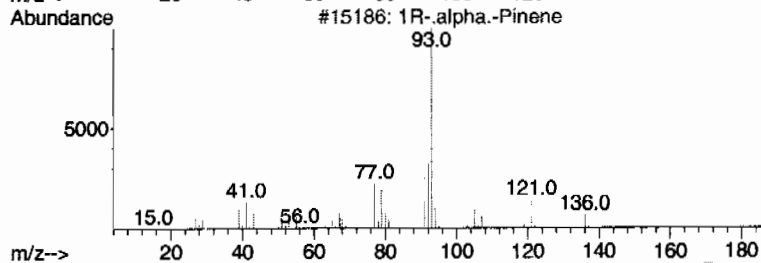
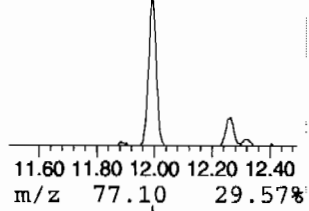
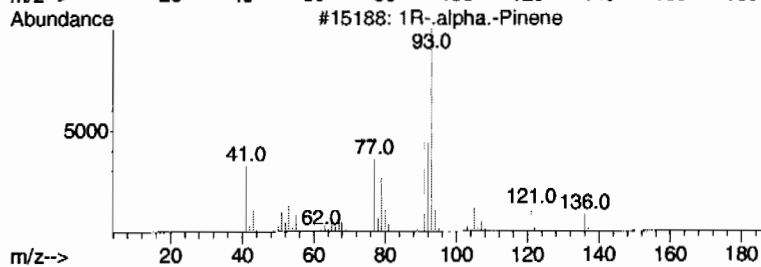
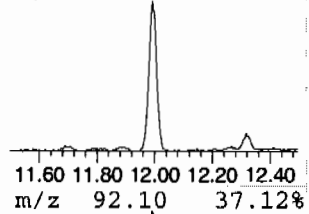
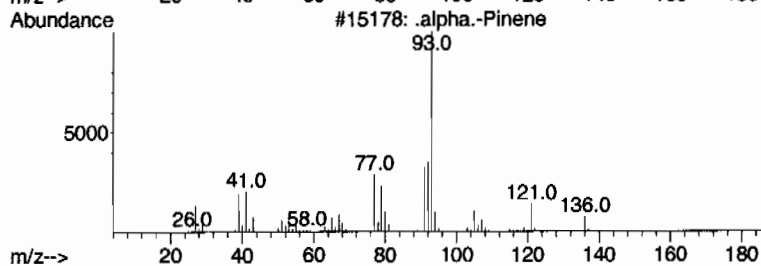
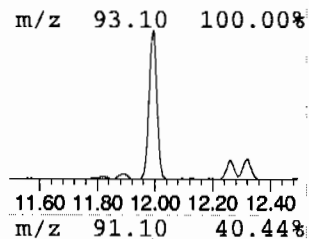
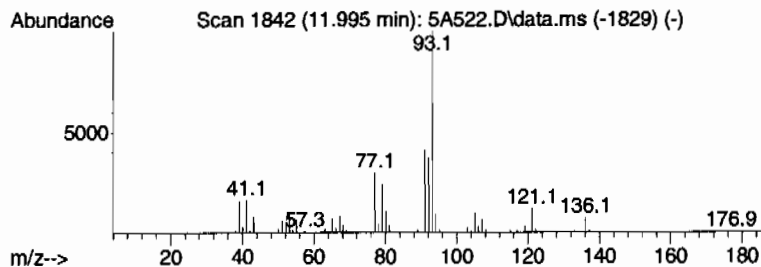
Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A522.D  
Acq On : 6 Mar 2010 12:05 am  
Operator : CDS1  
Sample : |248244003|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 1 unknown hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.	
11.995	10.70 ug/L	842226	B Chlorobenzene-d5	11.142	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	.alpha.-Pinene	136	C10H16	000080-56-8	97
2	1R-.alpha.-Pinene	136	C10H16	007785-70-8	95
3	1R-.alpha.-Pinene	136	C10H16	007785-70-8	95
4	1S-.alpha.-Pinene	136	C10H16	007785-26-4	94
5	.alpha.-Pinene	136	C10H16	000080-56-8	94





Library Search Compound Report  
GEL Laboratories, LLC

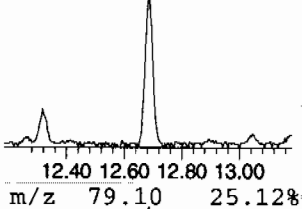
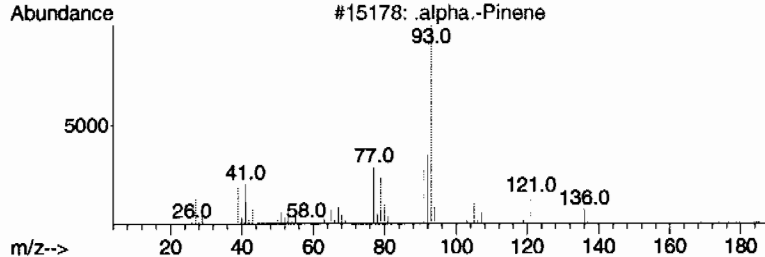
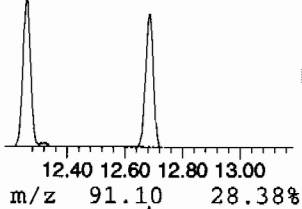
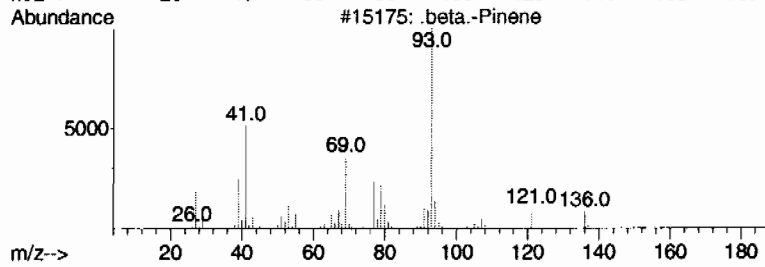
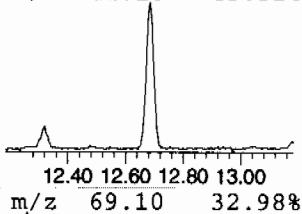
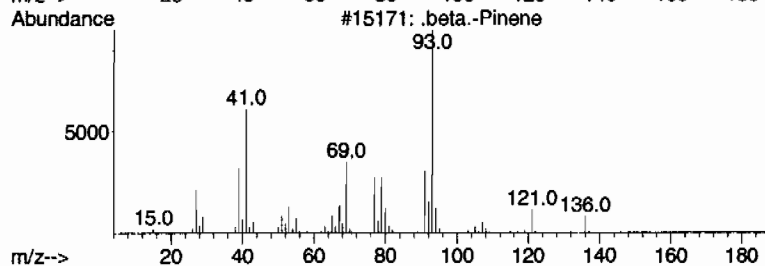
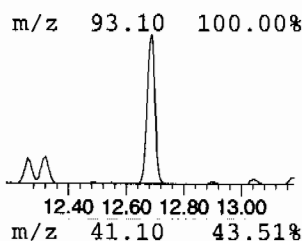
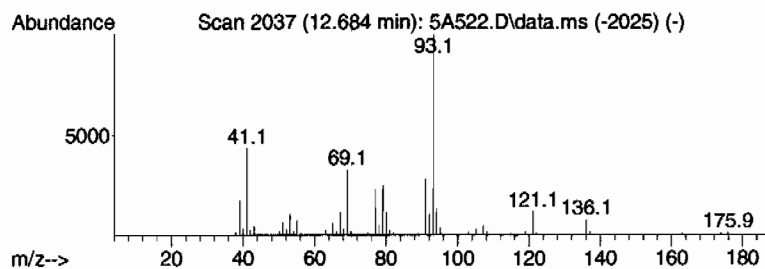
Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A522.D  
Acq On : 6 Mar 2010 12:05 am  
Operator : CDS1  
Sample : |248244003|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 2 unknown hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.		
12.684	10.50 ug/L	714059	1,4-Dichlorobenzene-d4	13.413		
Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		.beta.-Pinene	136	C10H16	000127-91-3	97
2		.beta.-Pinene	136	C10H16	000127-91-3	97
3		.alpha.-Pinene	136	C10H16	000080-56-8	93
4		Cyclohexene, 4-methylene-1-(1-me...	136	C10H16	000099-84-3	91
5		.beta.-Pinene	136	C10H16	000127-91-3	91





Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A522.D  
Acq On : 6 Mar 2010 12:05 am  
Operator : CDS1  
Sample : |248244003|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.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 hydroca...	11.995	10.7	ug/L	842226	4	11.142	3934790	50.0
unknown hydroca...	12.684	10.5	ug/L	714059	5	13.413	3401860	50.0



**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2137  
Lab Sample ID: 248244004  
  
Client ID: RE36-10-8485  
Batch ID: 961880  
Run Date: 03/06/2010 00:31  
Prep Date: 03/05/2010 10:16  
Data File: 030510V55A523.D

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: CDS1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 23.5  
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
75-71-8	Dichlorodifluoromethane	U	1.31	ug/kg	0.444	1.31
74-87-3	Chloromethane	U	1.31	ug/kg	0.392	1.31
75-01-4	Vinyl chloride	U	1.31	ug/kg	0.392	1.31
74-83-9	Bromomethane	U	1.31	ug/kg	0.392	1.31
75-00-3	Chloroethane	U	1.31	ug/kg	0.392	1.31
75-69-4	Trichlorofluoromethane	U	1.31	ug/kg	0.392	1.31
67-64-1	Acetone	U	6.53	ug/kg	2.17	6.53
75-35-4	1,1-Dichloroethylene	U	1.31	ug/kg	0.392	1.31
74-88-4	Iodomethane	U	6.53	ug/kg	2.09	6.53
75-09-2	Methylene chloride	U	6.53	ug/kg	2.61	6.53
75-15-0	Carbon disulfide	U	6.53	ug/kg	1.63	6.53
156-60-5	trans-1,2-Dichloroethylene	U	1.31	ug/kg	0.392	1.31
75-34-3	1,1-Dichloroethane	U	1.31	ug/kg	0.392	1.31
78-93-3	2-Butanone	U	6.53	ug/kg	1.96	6.53
156-59-2	cis-1,2-Dichloroethylene	U	1.31	ug/kg	0.392	1.31
594-20-7	2,2-Dichloropropane	U	1.31	ug/kg	0.392	1.31
67-66-3	Chloroform	U	1.31	ug/kg	0.392	1.31
74-97-5	Bromochloromethane	U	1.31	ug/kg	0.431	1.31
71-55-6	1,1,1-Trichloroethane	U	1.31	ug/kg	0.392	1.31
563-58-6	1,1-Dichloropropene	U	1.31	ug/kg	0.392	1.31
56-23-5	Carbon tetrachloride	U	1.31	ug/kg	0.392	1.31
107-06-2	1,2-Dichloroethane	U	1.31	ug/kg	0.392	1.31
71-43-2	Benzene	U	1.31	ug/kg	0.392	1.31
79-01-6	Trichloroethylene	U	1.31	ug/kg	0.431	1.31
78-87-5	1,2-Dichloropropane	U	1.31	ug/kg	0.392	1.31
75-27-4	Bromodichloromethane	U	1.31	ug/kg	0.392	1.31
74-95-3	Dibromomethane	U	1.31	ug/kg	0.392	1.31
108-10-1	4-Methyl-2-pentanone	U	6.53	ug/kg	1.63	6.53
10061-01-5	cis-1,3-Dichloropropylene	U	1.31	ug/kg	0.392	1.31
108-88-3	Toluene	U	1.31	ug/kg	0.392	1.31
10061-02-6	trans-1,3-Dichloropropylene	U	1.31	ug/kg	0.392	1.31
79-00-5	1,1,2-Trichloroethane	U	1.31	ug/kg	0.392	1.31
591-78-6	2-Hexanone	U	6.53	ug/kg	1.96	6.53
142-28-9	1,3-Dichloropropane	U	1.31	ug/kg	0.392	1.31
127-18-4	Tetrachloroethylene	U	1.31	ug/kg	0.392	1.31
124-48-1	Dibromochloromethane	U	1.31	ug/kg	0.392	1.31
106-93-4	1,2-Dibromoethane	U	1.31	ug/kg	0.392	1.31
108-90-7	Chlorobenzene	U	1.31	ug/kg	0.392	1.31



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

SDG Number: 10-2137  
 Lab Sample ID: 248244004  
 Client ID: RE36-10-8485  
 Batch ID: 961880  
 Run Date: 03/06/2010 00:31  
 Prep Date: 03/05/2010 10:16  
 Data File: 030510V5SA523.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 23.5  
 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	1.31	ug/kg	0.392	1.31
179601-23-1	m,p-Xylenes	U	2.61	ug/kg	0.392	2.61
95-47-6	o-Xylene	U	1.31	ug/kg	0.392	1.31
100-42-5	Styrene	U	1.31	ug/kg	0.392	1.31
75-25-2	Bromoform	U	1.31	ug/kg	0.392	1.31
79-34-5	1,1,2,2-Tetrachloroethane	U	1.31	ug/kg	0.392	1.31
96-18-4	1,2,3-Trichloropropane	U	1.31	ug/kg	0.392	1.31
108-86-1	Bromobenzene	U	1.31	ug/kg	0.392	1.31
103-65-1	n-Propylbenzene	U	1.31	ug/kg	0.392	1.31
95-49-8	2-Chlorotoluene	U	1.31	ug/kg	0.392	1.31
98-82-8	Isopropylbenzene	U	1.31	ug/kg	0.392	1.31
108-67-8	1,3,5-Trimethylbenzene	U	1.31	ug/kg	0.392	1.31
106-43-4	4-Chlorotoluene	U	1.31	ug/kg	0.392	1.31
98-06-6	tert-Butylbenzene	U	1.31	ug/kg	0.392	1.31
95-63-6	1,2,4-Trimethylbenzene	U	1.31	ug/kg	0.392	1.31
135-98-8	sec-Butylbenzene	U	1.31	ug/kg	0.392	1.31
99-87-6	4-Isopropyltoluene	U	1.31	ug/kg	0.392	1.31
541-73-1	1,3-Dichlorobenzene	U	1.31	ug/kg	0.392	1.31
106-46-7	1,4-Dichlorobenzene	U	1.31	ug/kg	0.392	1.31
104-51-8	n-Butylbenzene	U	1.31	ug/kg	0.392	1.31
96-12-8	1,2-Dibromo-3-chloropropane	U	1.31	ug/kg	0.392	1.31
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.53	ug/kg	2.09	6.53
630-20-6	1,1,1,2-Tetrachloroethane	U	1.31	ug/kg	0.392	1.31
95-50-1	1,2-Dichlorobenzene	U	1.31	ug/kg	0.392	1.31

**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\030510V5\  
Data File : 5A523.D  
Acq On : 6 Mar 2010 12:31 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244004|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 11:38:00 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev (Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1745570	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1255120	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	559201	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1745570	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1255120	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	559201	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	397796	47.08	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	94.16%			
43) Toluene-d8	9.721	9.721	0.872	98	1589447	49.52	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	99.04%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	592703	52.84	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	105.68%			
Target Compounds								
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.960	4.900	0.591	50	2289	Below Cal		71
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.866	5.866	0.699	59	579	N.D.		
9) Acetone	6.170	6.174	0.736	43	4094	N.D.		
10) 1,1-Dichloroethylene	0.000	6.156	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.456	6.464	0.770	41	2418	N.D.		
13) Methyl acetate	6.170	6.365	0.736	43	4094	N.D.		
14) Carbon disulfide	6.439	6.435	0.768	76	1276	N.D.		
15) Methylene chloride	6.534	6.538	0.779	84	12751	N.D.		
16) tert-Butyl methyl ether	0.000	6.640	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.800	6.969	0.811	43	123	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	0.000	7.924	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.005	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.200	8.203	0.978	78	289	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.	d	
33) n-Butyl alcohol	8.380	8.377	0.999	56	9428	Below Cal	#	20
34) Trichloroethylene	8.455	8.677	1.008	95	223	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.826	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A523.D  
Acq On : 6 Mar 2010 12:31 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244004|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 11:38:00 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	9.682	9.487	1.154	75	109	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.781	9.788	0.878	91	2490	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	10.279	10.279	0.923	43	107	N.D.	
48) 1,3-Dichloropropane	0.000	10.364	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.174	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.139	11.181	1.000	91	6151	N.D.	
55) m,p-Xylenes	11.277	11.280	1.012	106	1552	N.D.	
56) o-Xylene	11.701	11.701	1.050	106	396	N.D.	
57) Styrene	11.715	11.715	1.051	104	116	N.D.	
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	0.000	12.016	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	0.000	12.465	0.000		0	N.D.	
65) n-Propylbenzene	12.507	12.415	0.933	91	277	N.D.	
66) 1,3,5-Trimethylbenzene	12.564	12.564	0.937	105	1921	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.691	12.698	0.946	91	1589	N.D.	
69) tert-Butylbenzene	12.864	12.900	0.959	134	112	N.D.	
70) 1,2,4-Trimethylbenzene	12.963	12.956	0.967	105	5282	N.D.	
71) sec-Butylbenzene	13.108	13.119	0.977	105	123	N.D.	
72) 4-Isopropyltoluene	13.331	13.229	0.994	119	1696	N.D.	
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	128	N.D.	
75) n-Butylbenzene	13.653	13.653	1.018	91	1859	N.D.	
76) 1,2-Dichlorobenzene	0.000	13.858	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.619	15.619	1.165	180	136	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.981	15.988	1.191	128	2065	N.D.	
81) 1,2,3-Trichlorobenzene	16.298	16.291	1.215	180	115	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.082	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.163	0.000		0	N.D.	
88) Allyl chloride	6.418	6.425	0.765	41	118	N.D.	
89) tert-Butyl Alcohol	0.000	6.460	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.747	0.000		0	N.D.	
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	0.000	7.383	0.000		0	N.D.	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A523.D  
Acq On : 6 Mar 2010 12:31 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244004|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 11:38:00 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.715	7.680	0.920	41	579	N.D.	
97) Tetrahydrofuran	7.715	7.716	0.920	42	847	N.D.	
98) Isobutyl alcohol	7.715	7.857	0.920	41	579	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.	
100) Methyl methacrylate	0.000	8.801	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	0.000	9.342	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	12.136	0.000		0	N.D.	
108) Cyclohexanone	0.000	12.267	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	12.412	0.000		0	N.D.	
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.565	13.565	1.011	91	769	N.D.	
112) bis(2-Chloroisopropyl)...	13.932	13.929	1.039	45	237	N.D.	

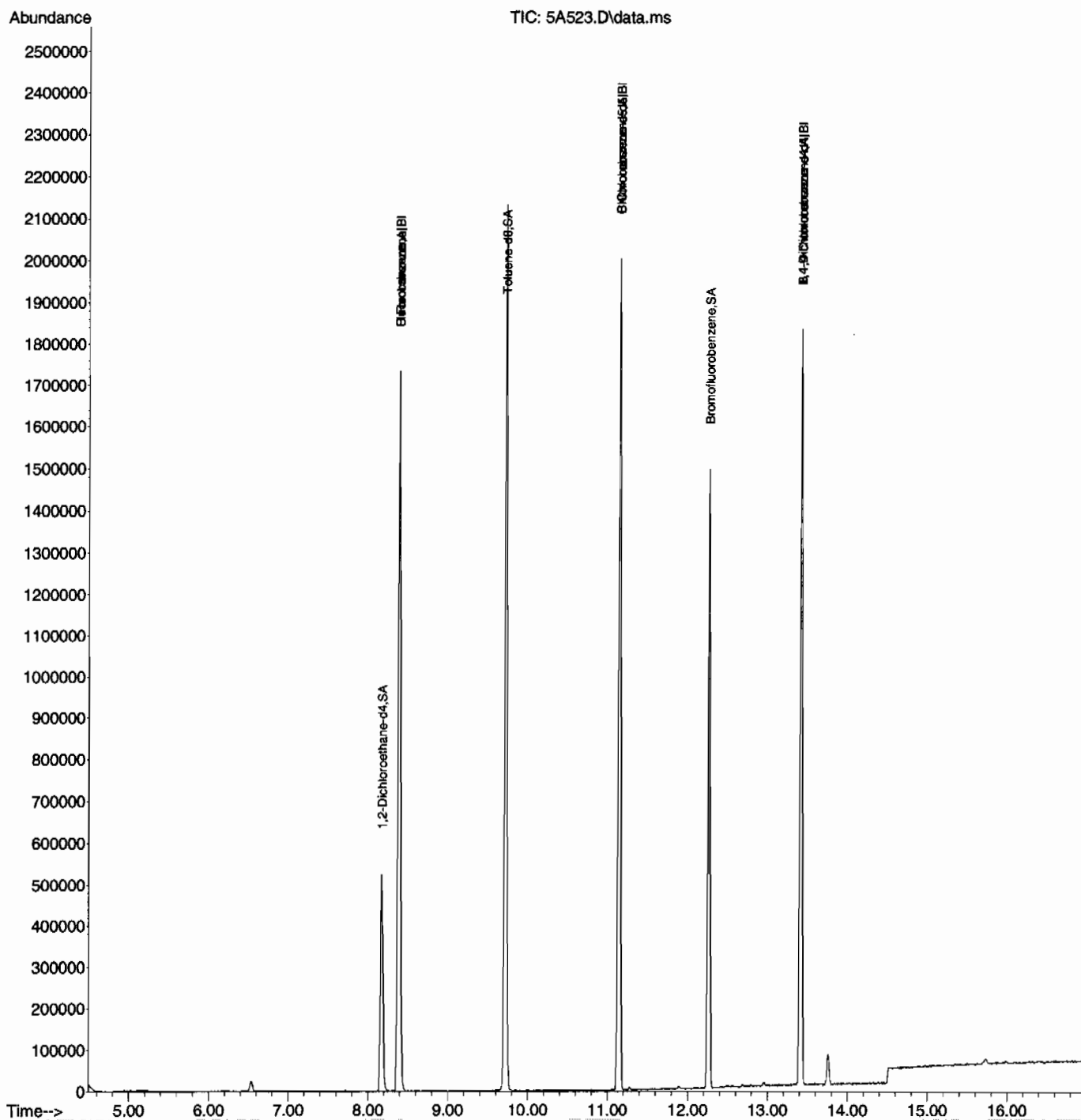
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



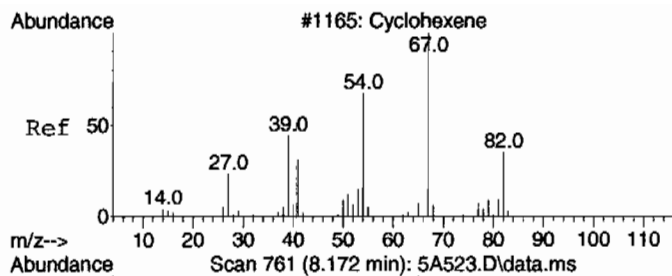
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A523.D  
Acq On : 6 Mar 2010 12:31 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244004|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 11:38:00 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

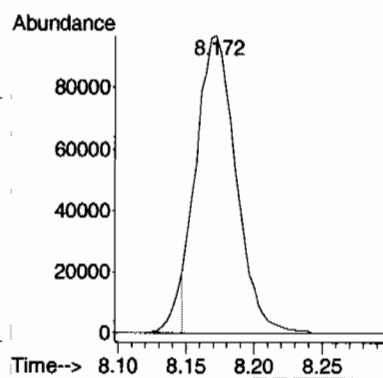






#32 BEFORE analyst DELETION  
Cyclohexene  
Concen: 16.67 ug/L  
RT: 8.172 min Scan# 761  
Delta R.T. -0.074 min  
Lab File: 5A523.D  
Acq: 6 Mar 2010 12:31 am

Tgt Ion	Ratio	Lower	Upper
67	100		
54	0.0	46.3	106.3#





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\

Data File : 5A523.D

Acq On : 6 Mar 2010 12:31 am

Operator : CDS1

Sample : |248244004|961880|1|VOA|1|VOA8260BS|

Misc : LANL 5G - SOIL

ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.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\030510V5\  
Data File : 5A523.D  
Acq On : 6 Mar 2010 12:31 am  
Operator : CDS1  
Sample : |248244004|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.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: 10-2137  
 Lab Sample ID: 248244005  
 Client ID: RE36-10-8477  
 Batch ID: 961880  
 Run Date: 03/06/2010 00:56  
 Prep Date: 03/05/2010 10:18  
 Data File: 030510V55A524.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.8  
 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	1.15	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	5.74	ug/kg	1.90	5.74
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.74	ug/kg	1.84	5.74
75-09-2	Methylene chloride	U	5.74	ug/kg	2.29	5.74
75-15-0	Carbon disulfide	U	5.74	ug/kg	1.43	5.74
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	5.74	ug/kg	1.72	5.74
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	0.379	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	0.379	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	5.74	ug/kg	1.43	5.74
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	5.74	ug/kg	1.72	5.74
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: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244005	Date Received: 02/27/2010 09:10	%Moisture: 12.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8477	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961880	Inst: VOA5.1	Dilution: 1
Run Date: 03/06/2010 00:56	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/05/2010 10:18	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030510VS5A524.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	5.74	ug/kg	1.84	5.74
	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\030510V5\  
Data File : 5A524.D  
Acq On : 6 Mar 2010 12:56 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244005|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 09 10:54:38 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1783506	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1287495	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	577755	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1783506	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1287495	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	577755	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	408137	47.28	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 94.56%			
43) Toluene-d8	9.721	9.721	0.872	98	1617219	49.12	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 98.24%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	604500	52.16	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 104.32%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.900	4.900	0.584	50	3857	N.D.		
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.877	5.866	0.701	59	168	N.D.		
9) Acetone	6.174	6.174	0.736	43	6458	N.D.		
10) 1,1-Dichloroethylene	0.000	6.156	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.460	6.464	0.770	41	811	N.D.		
13) Methyl acetate	6.174	6.365	0.736	43	6458	N.D.		
14) Carbon disulfide	6.435	6.435	0.767	76	1771	N.D.		
15) Methylene chloride	6.541	6.538	0.780	84	11256	N.D.		
16) tert-Butyl methyl ether	0.000	6.640	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.796	6.969	0.810	43	279	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	7.450	7.450	0.888	43	2365	N.D.		
21) cis-1,2-Dichloroethylene	7.659	7.507	0.913	61	2020	N.D.		
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	0.000	7.924	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.005	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.204	8.203	0.978	78	403	N.D.		
32) Cyclohexene	8.257	8.246	0.984	67	128	N.D.		
33) n-Butyl alcohol	8.387	8.377	1.000	56	9568	Below Cal	#	21
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.826	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A524.D  
Acq On : 6 Mar 2010 12:56 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244005|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 09 10:54:38 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	9.678	9.487	1.154	75	262	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.791	9.788	0.879	91	2962	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	0.000	10.279	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	10.364	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.174	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.146	11.181	1.000	91	4027	N.D.	
55) m,p-Xylenes	11.277	11.280	1.012	106	752	N.D.	
56) o-Xylene	11.694	11.701	1.050	106	139	N.D.	
57) Styrene	0.000	11.715	0.000		0	N.D.	
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	0.000	12.016	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	0.000	12.465	0.000		0	N.D.	
65) n-Propylbenzene	12.422	12.415	0.926	91	1877	N.D.	
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	1223	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.702	12.698	0.947	91	475	N.D.	
69) tert-Butylbenzene	12.872	12.900	0.960	134	122	N.D.	
70) 1,2,4-Trimethylbenzene	12.949	12.956	0.965	105	3338	N.D.	
71) sec-Butylbenzene	13.098	13.119	0.977	105	238	N.D.	
72) 4-Isopropyltoluene	13.236	13.229	0.987	119	5438	N.D.	
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	13.444	13.441	1.002	146	327	N.D.	
75) n-Butylbenzene	13.664	13.653	1.019	91	1100	N.D.	
76) 1,2-Dichlorobenzene	0.000	13.858	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	15.619	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.988	15.988	1.192	128	1673	N.D.	
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	349	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.082	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.163	0.000		0	N.D.	
88) Allyl chloride	6.418	6.425	0.765	41	111	N.D.	
89) tert-Butyl Alcohol	0.000	6.460	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.747	0.000		0	N.D.	
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	7.450	7.383	0.888	43	2365	N.D.	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A524.D  
Acq On : 6 Mar 2010 12:56 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244005|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 09 10:54:38 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.716	7.680	0.920	41	667	N.D.	
97) Tetrahydrofuran	7.726	7.716	0.921	42	1663	N.D.	
98) Isobutyl alcohol	7.733	7.857	0.922	41	536	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.	
100) Methyl methacrylate	0.000	8.801	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	0.000	9.342	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	12.136	0.000		0	N.D.	
108) Cyclohexanone	0.000	12.267	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	12.412	0.000		0	N.D.	
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.572	13.565	1.012	91	1560	N.D.	
112) bis(2-Chloroisopropyl)...	13.925	13.929	1.038	45	123	N.D.	

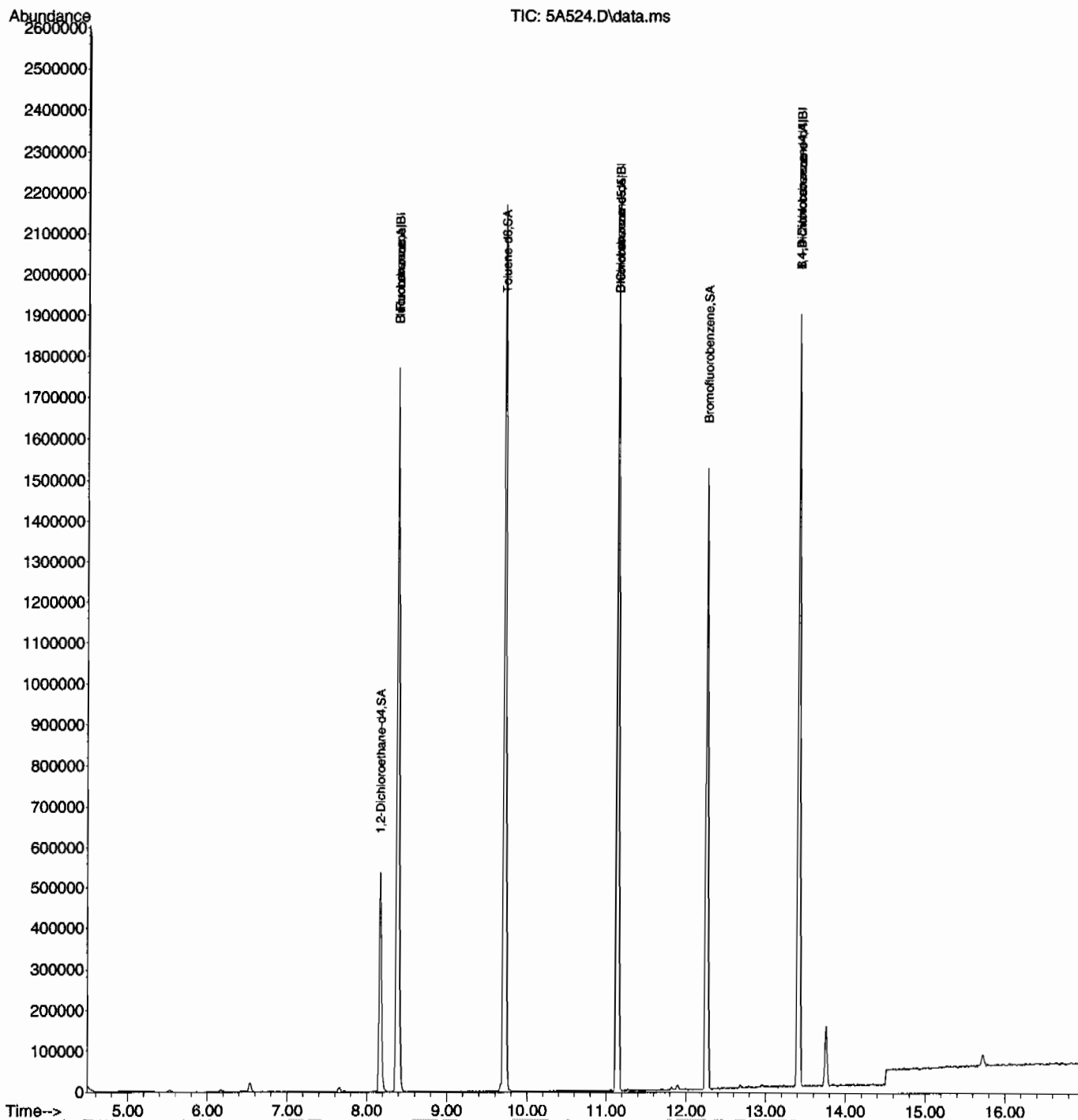
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A524.D  
Acq On : 6 Mar 2010 12:56 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244005|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 09 10:54:38 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\

Data File : 5A524.D

Acq On : 6 Mar 2010 12:56 am

Operator : CDS1

Sample : |248244005|961880|1|VOA|1|VOA8260BS|

Misc : LANL 5G - SOIL

ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M

Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

No Library Search Compounds Detected

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Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A524.D  
Acq On : 6 Mar 2010 12:56 am  
Operator : CDS1  
Sample : |248244005|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.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: 10-2137  
 Lab Sample ID: 248244007  
 Client ID: RE36-10-8484  
 Batch ID: 961880  
 Run Date: 03/06/2010 01:47  
 Prep Date: 03/05/2010 10:22  
 Data File: 030510V55A526.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 16.2  
 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	1.19	ug/kg	0.406	1.19
74-87-3	Chloromethane	U	1.19	ug/kg	0.358	1.19
75-01-4	Vinyl chloride	U	1.19	ug/kg	0.358	1.19
74-83-9	Bromomethane	U	1.19	ug/kg	0.358	1.19
75-00-3	Chloroethane	U	1.19	ug/kg	0.358	1.19
75-69-4	Trichlorofluoromethane	U	1.19	ug/kg	0.358	1.19
67-64-1	Acetone	U	5.97	ug/kg	1.98	5.97
75-35-4	1,1-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
74-88-4	Iodomethane	U	5.97	ug/kg	1.91	5.97
75-09-2	Methylene chloride	U	5.97	ug/kg	2.39	5.97
75-15-0	Carbon disulfide	U	5.97	ug/kg	1.49	5.97
156-60-5	trans-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
75-34-3	1,1-Dichloroethane	U	1.19	ug/kg	0.358	1.19
78-93-3	2-Butanone	U	5.97	ug/kg	1.79	5.97
156-59-2	cis-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
594-20-7	2,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19
67-66-3	Chloroform	U	1.19	ug/kg	0.358	1.19
74-97-5	Bromochloromethane	U	1.19	ug/kg	0.394	1.19
71-55-6	1,1,1-Trichloroethane	U	1.19	ug/kg	0.358	1.19
563-58-6	1,1-Dichloropropene	U	1.19	ug/kg	0.358	1.19
56-23-5	Carbon tetrachloride	U	1.19	ug/kg	0.358	1.19
107-06-2	1,2-Dichloroethane	U	1.19	ug/kg	0.358	1.19
71-43-2	Benzene	U	1.19	ug/kg	0.358	1.19
79-01-6	Trichloroethylene	U	1.19	ug/kg	0.394	1.19
78-87-5	1,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19
75-27-4	Bromodichloromethane	U	1.19	ug/kg	0.358	1.19
74-95-3	Dibromomethane	U	1.19	ug/kg	0.358	1.19
108-10-1	4-Methyl-2-pentanone	U	5.97	ug/kg	1.49	5.97
10061-01-5	cis-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19
108-88-3	Toluene	U	1.19	ug/kg	0.358	1.19
10061-02-6	trans-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19
79-00-5	1,1,2-Trichloroethane	U	1.19	ug/kg	0.358	1.19
591-78-6	2-Hexanone	U	5.97	ug/kg	1.79	5.97
142-28-9	1,3-Dichloropropane	U	1.19	ug/kg	0.358	1.19
127-18-4	Tetrachloroethylene	U	1.19	ug/kg	0.358	1.19
124-48-1	Dibromochloromethane	U	1.19	ug/kg	0.358	1.19
106-93-4	1,2-Dibromoethane	U	1.19	ug/kg	0.358	1.19
108-90-7	Chlorobenzene	U	1.19	ug/kg	0.358	1.19



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

SDG Number: 10-2137  
 Lab Sample ID: 248244007  
  
 Client ID: RE36-10-8484  
 Batch ID: 961880  
 Run Date: 03/06/2010 01:47  
 Prep Date: 03/05/2010 10:22  
 Data File: 030510V55A526.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 % Moisture: 16.2  
 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	1.19	ug/kg	0.358	1.19
179601-23-1	m,p-Xylenes	U	2.39	ug/kg	0.358	2.39
95-47-6	o-Xylene	U	1.19	ug/kg	0.358	1.19
100-42-5	Styrene	U	1.19	ug/kg	0.358	1.19
75-25-2	Bromoform	U	1.19	ug/kg	0.358	1.19
79-34-5	1,1,2,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19
96-18-4	1,2,3-Trichloropropane	U	1.19	ug/kg	0.358	1.19
108-86-1	Bromobenzene	U	1.19	ug/kg	0.358	1.19
103-65-1	n-Propylbenzene	U	1.19	ug/kg	0.358	1.19
95-49-8	2-Chlorotoluene	U	1.19	ug/kg	0.358	1.19
98-82-8	Isopropylbenzene	U	1.19	ug/kg	0.358	1.19
108-67-8	1,3,5-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19
106-43-4	4-Chlorotoluene	U	1.19	ug/kg	0.358	1.19
98-06-6	tert-Butylbenzene	U	1.19	ug/kg	0.358	1.19
95-63-6	1,2,4-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19
135-98-8	sec-Butylbenzene	U	1.19	ug/kg	0.358	1.19
99-87-6	4-Isopropyltoluene	U	1.19	ug/kg	0.358	1.19
541-73-1	1,3-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19
106-46-7	1,4-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19
104-51-8	n-Butylbenzene	U	1.19	ug/kg	0.358	1.19
96-12-8	1,2-Dibromo-3-chloropropane	U	1.19	ug/kg	0.358	1.19
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.97	ug/kg	1.91	5.97
630-20-6	1,1,1,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19
95-50-1	1,2-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19

**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\030510V5\  
Data File : 5A526.D  
Acq On : 6 Mar 2010 1:47 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244007|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 09 11:39:31 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1742918	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1274007	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	589008	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1742918	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1274007	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	589008	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	409200	48.51	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	97.02%			
43) Toluene-d8	9.721	9.721	0.872	98	1593812	48.92	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	97.84%			
61) Bromofluorobenzene	12.263	12.260	0.914	95	611241	51.74	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	103.48%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	5.000	4.900	0.596	50	1535	Below Cal		87
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.856	5.866	0.698	59	547	N.D.		
9) Acetone	6.181	6.174	0.737	43	2380	N.D.		
10) 1,1-Dichloroethylene	0.000	6.156	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.464	6.464	0.771	41	341	N.D.		
13) Methyl acetate	6.181	6.365	0.737	43	2380	N.D.		
14) Carbon disulfide	6.435	6.435	0.767	76	1121	N.D.		
15) Methylene chloride	6.527	6.538	0.778	84	13021	N.D.		
16) tert-Butyl methyl ether	0.000	6.640	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	0.000	6.969	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	0.000	7.924	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.005	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.292	8.203	0.989	78	251	N.D.		
32) Cyclohexene	8.253	8.246	0.984	67	155	N.D.		
33) n-Butyl alcohol	8.387	8.377	1.000	56	14550	N.D.		
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.826	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A526.D  
Acq On : 6 Mar 2010 1:47 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244007|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 09 11:39:31 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	9.487	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.781	9.788	0.878	91	1798	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	10.283	10.279	0.923	43	112	N.D.	
48) 1,3-Dichloropropane	0.000	10.364	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.174	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.146	11.181	1.000	91	4188	N.D.	
55) m,p-Xylenes	11.273	11.280	1.012	106	1031	N.D.	
56) o-Xylene	0.000	11.701	0.000		0	N.D.	
57) Styrene	0.000	11.715	0.000		0	N.D.	
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	12.263	12.016	0.914	105	293	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	0.000	12.465	0.000		0	N.D.	
65) n-Propylbenzene	12.472	12.415	0.930	91	632	N.D.	
66) 1,3,5-Trimethylbenzene	12.567	12.564	0.937	105	881	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.684	12.698	0.946	91	1396	N.D.	
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	3299	N.D.	
71) sec-Butylbenzene	13.112	13.119	0.978	105	379	N.D.	
72) 4-Isopropyltoluene	13.193	13.229	0.984	119	917	N.D.	
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	13.441	0.000		0	N.D.	
75) n-Butylbenzene	13.650	13.653	1.018	91	1448	N.D.	
76) 1,2-Dichlorobenzene	0.000	13.858	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	255	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.981	15.988	1.191	128	1449	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	16.291	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.082	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.163	0.000		0	N.D.	
88) Allyl chloride	6.411	6.425	0.764	41	112	N.D.	
89) tert-Butyl Alcohol	0.000	6.460	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.747	0.000		0	N.D.	
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	0.000	7.383	0.000		0	N.D.	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A526.D  
Acq On : 6 Mar 2010 1:47 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244007|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 09 11:39:31 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.705	7.680	0.919	41	890	N.D.	
97) Tetrahydrofuran	7.715	7.716	0.920	42	1352	N.D.	
98) Isobutyl alcohol	7.786	7.857	0.928	41	107	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.	
100) Methyl methacrylate	0.000	8.801	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	0.000	9.342	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	12.136	0.000		0m	N.D.	d
108) Cyclohexanone	0.000	12.267	0.000		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.553	12.412	0.936	53	108	N.D.	
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.551	13.565	1.010	91	844	N.D.	
112) bis(2-Chloroisopropyl)...	13.922	13.929	1.038	45	514	N.D.	

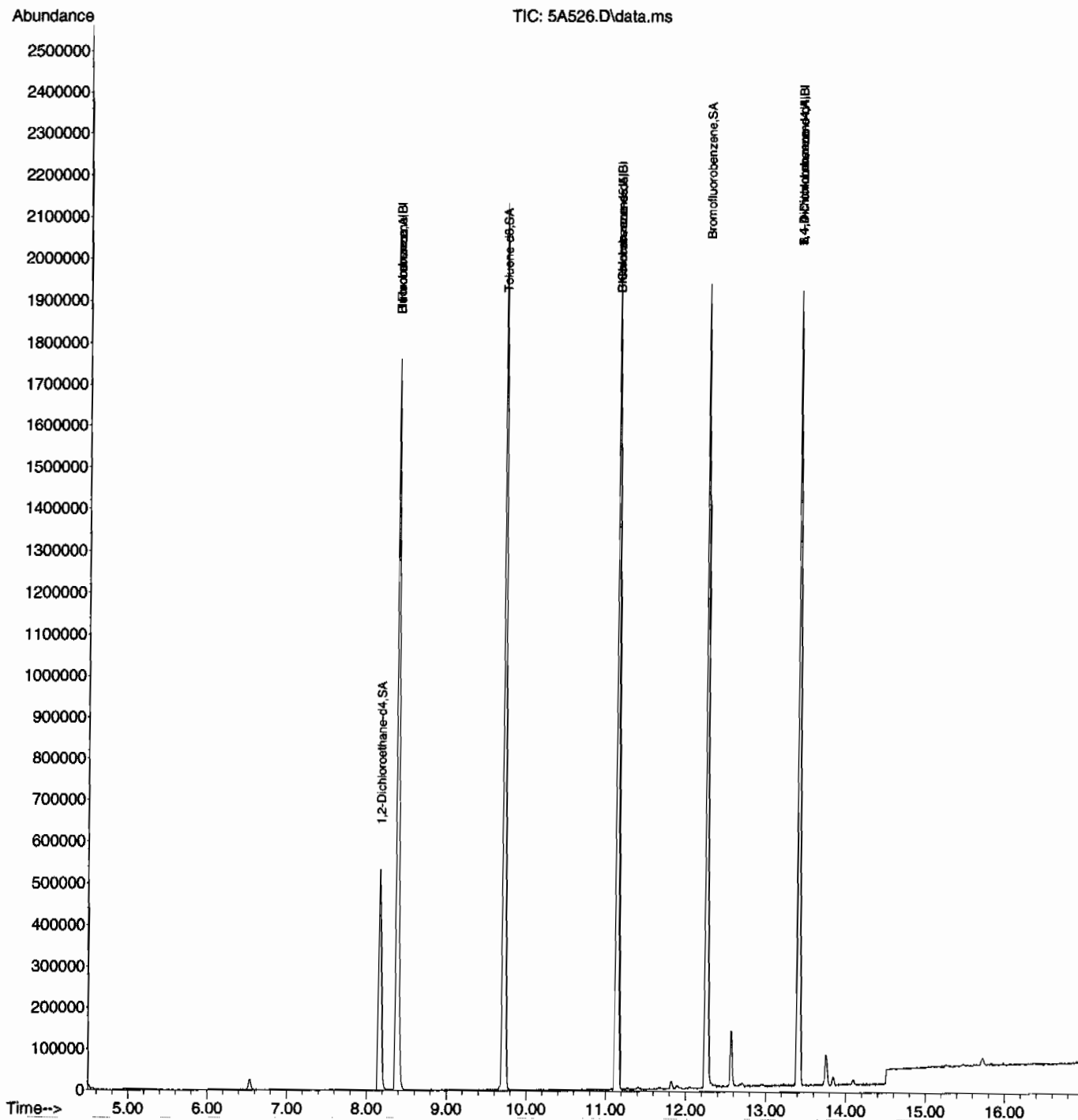
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



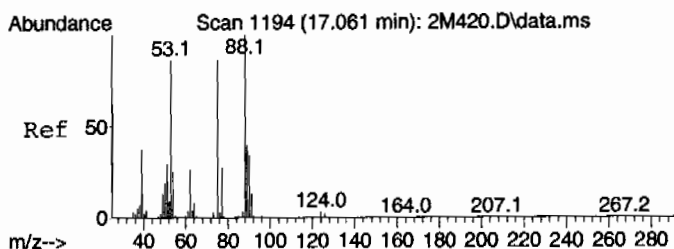
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A526.D  
Acq On : 6 Mar 2010 1:47 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244007|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 09 11:39:31 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

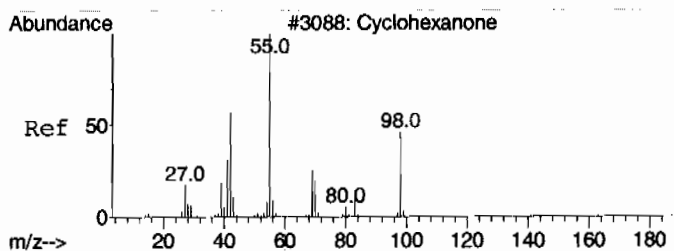
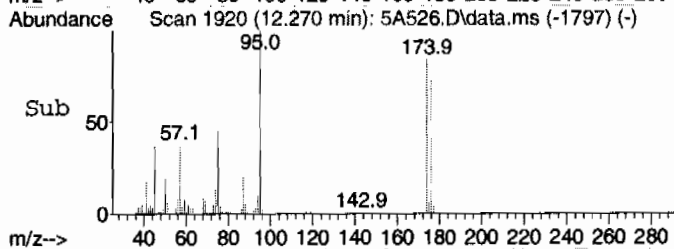
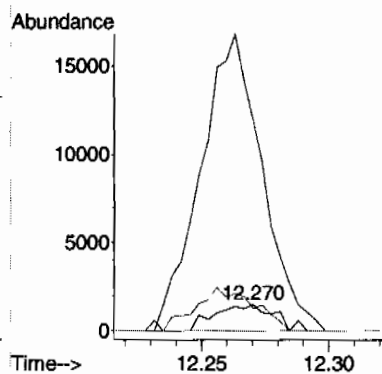
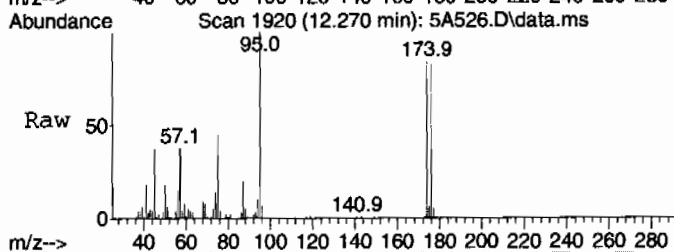






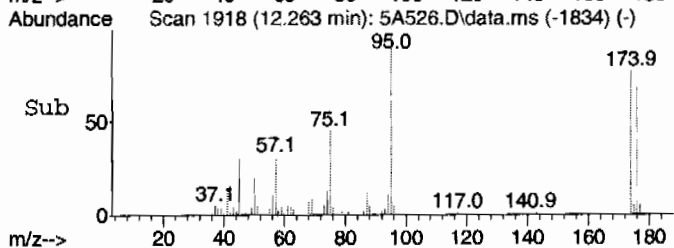
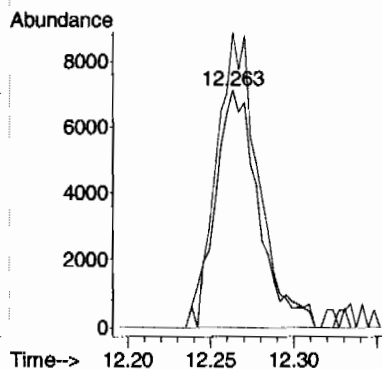
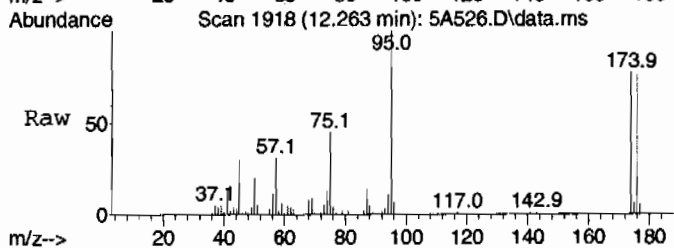
#107 BEFORE analyst DELETION  
 cis-1,4-Dichloro-2-butene  
 Concen: 1.11 ug/L  
 RT: 12.270 min Scan# 1920  
 Delta R.T. 0.134 min  
 Lab File: 5A526.D  
 Acq: 6 Mar 2010 1:47 am

Tgt Ion: 53 Resp: 2443  
 Ion Ratio Lower Upper  
 53 100  
 88 1155.4 67.1 127.1#  
 77 165.0 1.8 61.8#



#108 BEFORE analyst DELETION  
 Cyclohexanone  
 Concen: 70.44 ug/L  
 RT: 12.263 min Scan# 1918  
 Delta R.T. -0.004 min  
 Lab File: 5A526.D  
 Acq: 6 Mar 2010 1:47 am

Tgt Ion: 42 Resp: 12753  
 Ion Ratio Lower Upper  
 42 100  
 55 122.1 120.2 180.2  
 98 0.0 29.2 89.2#





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\

Data File : 5A526.D

Acq On : 6 Mar 2010 1:47 am

Operator : CDS1

Sample : |248244007|961880|1|VOA|1|VOA8260BS|

Misc : LANL 5G - SOIL

ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.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\030510V5\  
Data File : 5A526.D  
Acq On : 6 Mar 2010 1:47 am  
Operator : CDS1  
Sample : |248244007|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.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: 10-2137  
 Lab Sample ID: 248244008  
 Client ID: RE36-10-8481  
 Batch ID: 961880  
 Run Date: 03/06/2010 02:13  
 Prep Date: 03/05/2010 10:24  
 Data File: 030510V55A527.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 11.2  
 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	1.13	ug/kg	0.383	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.338	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.338	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.338	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.338	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.338	1.13
67-64-1	Acetone	U	5.63	ug/kg	1.87	5.63
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
74-88-4	Iodomethane	U	5.63	ug/kg	1.80	5.63
75-09-2	Methylene chloride	U	5.63	ug/kg	2.25	5.63
75-15-0	Carbon disulfide	U	5.63	ug/kg	1.41	5.63
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.338	1.13
78-93-3	2-Butanone	U	5.63	ug/kg	1.69	5.63
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.338	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.372	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.338	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.338	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.338	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.338	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.338	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.372	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.338	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.338	1.13
108-10-1	4-Methyl-2-pentanone	U	5.63	ug/kg	1.41	5.63
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.338	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.338	1.13
591-78-6	2-Hexanone	U	5.63	ug/kg	1.69	5.63
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.338	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.338	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.338	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.338	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.338	1.13



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

SDG Number: 10-2137  
 Lab Sample ID: 248244008  
  
 Client ID: RE36-10-8481  
 Batch ID: 961880  
 Run Date: 03/06/2010 02:13  
 Prep Date: 03/05/2010 10:24  
 Data File: 030510V5SA527.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 11.2  
 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	1.13	ug/kg	0.338	1.13
179601-23-1	m,p-Xylenes	U	2.25	ug/kg	0.338	2.25
95-47-6	o-Xylene	U	1.13	ug/kg	0.338	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.338	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.338	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.338	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.338	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.338	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.338	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.338	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.338	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.338	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.338	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.338	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.63	ug/kg	1.80	5.63
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13

**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\030510V5\  
Data File : 5A527.D  
Acq On : 6 Mar 2010 2:13 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244008|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 09 11:40:04 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1644837	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1159827	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	485460	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1644837	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1159827	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	485460	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	392564	49.31	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 98.62%			
43) Toluene-d8	9.721	9.721	0.872	98	1482427	49.98	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 99.96%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	533705	54.81	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 109.62%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.980	4.900	0.594	50	2686	Below Cal		88
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.876	5.866	0.701	59	340	N.D.		
9) Acetone	6.177	6.174	0.736	43	6260	N.D.		
10) 1,1-Dichloroethylene	0.000	6.156	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.464	6.464	0.771	41	506	N.D.		
13) Methyl acetate	6.177	6.365	0.736	43	6260	N.D.		
14) Carbon disulfide	6.446	6.435	0.769	76	1446	N.D.		
15) Methylene chloride	6.538	6.538	0.779	84	10723	N.D.		
16) tert-Butyl methyl ether	0.000	6.640	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.800	6.969	0.811	43	133	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	0.000	7.924	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.005	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.207	8.203	0.978	78	254	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D. d		
33) n-Butyl alcohol	8.387	8.377	1.000	56	9366	Below Cal	#	23
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.826	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A527.D  
Acq On : 6 Mar 2010 2:13 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244008|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 09 11:40:04 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	9.675	9.487	1.153	75	228	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.788	9.788	0.878	91	5146	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	0.000	10.279	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	10.364	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.174	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.174	11.181	1.003	91	1730	N.D.	
55) m,p-Xylenes	11.273	11.280	1.012	106	2519	N.D.	
56) o-Xylene	11.701	11.701	1.050	106	578	N.D.	
57) Styrene	0.000	11.715	0.000		0	N.D.	
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	11.888	12.016	0.886	105	1749	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	0.000	12.465	0.000		0	N.D.	
65) n-Propylbenzene	12.560	12.415	0.936	91	477	N.D.	
66) 1,3,5-Trimethylbenzene	12.564	12.564	0.937	105	1343	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.688	12.698	0.946	91	814	N.D.	
69) tert-Butylbenzene	12.949	12.900	0.965	134	111	N.D.	
70) 1,2,4-Trimethylbenzene	12.960	12.956	0.966	105	3470	N.D.	
71) sec-Butylbenzene	13.119	13.119	0.978	105	159	N.D.	
72) 4-Isopropyltoluene	0.000	13.229	0.000		0m	N.D.	d
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	13.441	0.000		0	N.D.	
75) n-Butylbenzene	13.657	13.653	1.018	91	2123	N.D.	
76) 1,2-Dichlorobenzene	0.000	13.858	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	14.911	14.704	1.112	157	112	N.D.	
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	263	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.981	15.988	1.191	128	1364	N.D.	
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	268	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.082	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.163	0.000		0	N.D.	
88) Allyl chloride	6.446	6.425	0.769	41	276	N.D.	
89) tert-Butyl Alcohol	6.460	6.460	0.770	59	108	N.D.	
90) Acrylonitrile	0.000	6.747	0.000		0	N.D.	
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	0.000	7.383	0.000		0	N.D.	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A527.D  
Acq On : 6 Mar 2010 2:13 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244008|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 09 11:40:04 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.712	7.680	0.919	41	864	N.D.	
97) Tetrahydrofuran	7.715	7.716	0.920	42	1505	N.D.	
98) Isobutyl alcohol	7.921	7.857	0.944	41	108	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.	
100) Methyl methacrylate	0.000	8.801	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	0.000	9.342	0.000		0m	N.D.	d
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	12.316	12.136	0.918	53	916	N.D.	
108) Cyclohexanone	12.277	12.267	0.915	42	108	N.D.	
109) trans-1,4-Dichloro-2-b...	12.316	12.412	0.918	53	916	N.D.	
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.572	13.565	1.012	91	893	N.D.	
112) bis(2-Chloroisopropyl)...	13.911	13.929	1.037	45	282	N.D.	

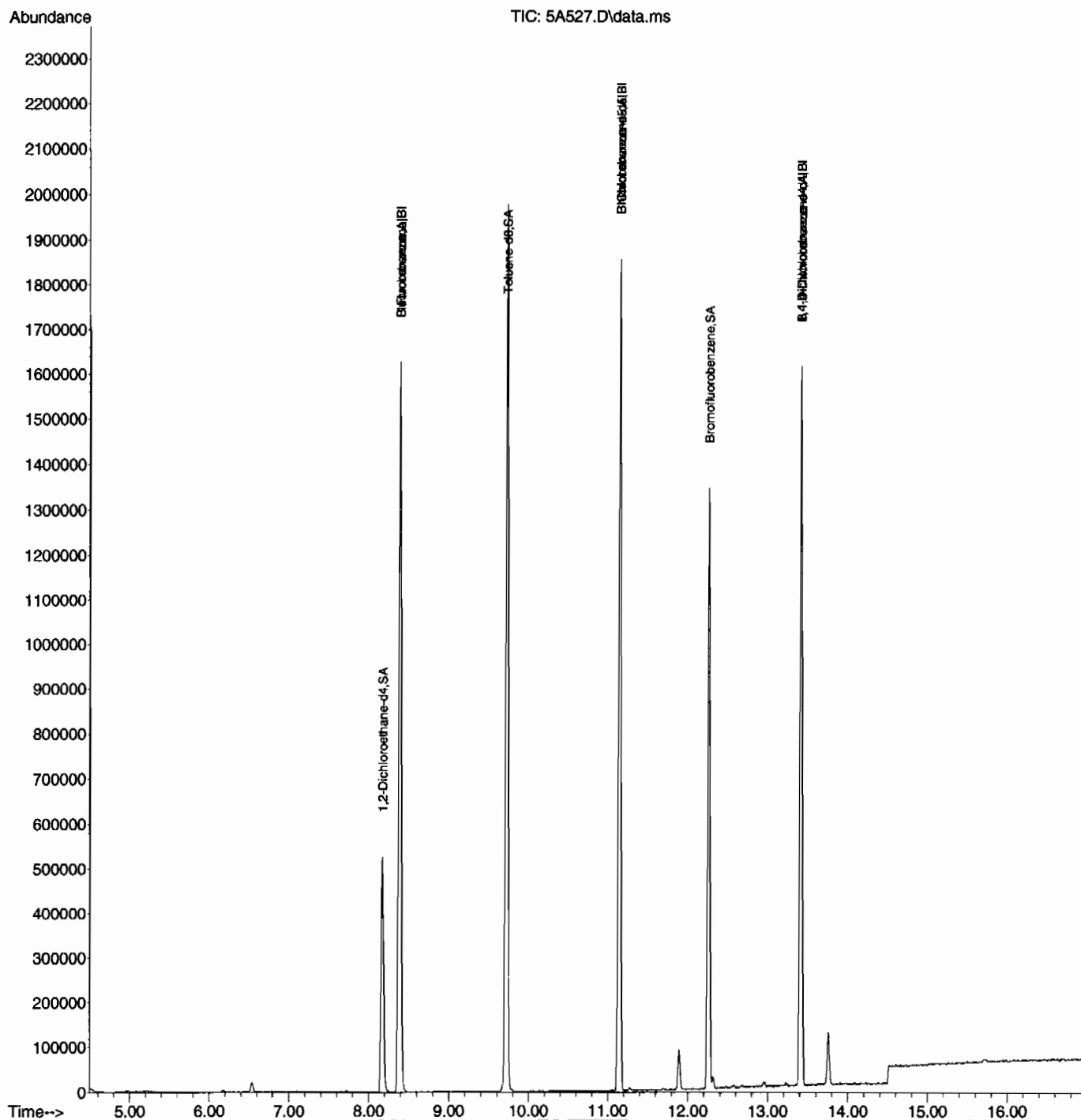
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



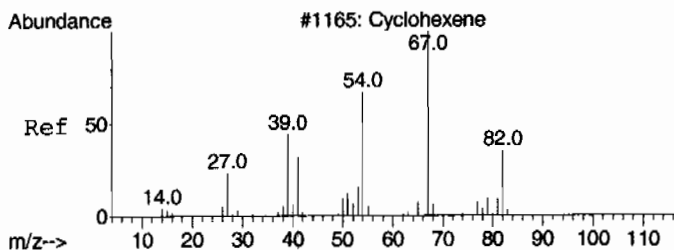
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A527.D  
Acq On : 6 Mar 2010 2:13 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248244008|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 09 11:40:04 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

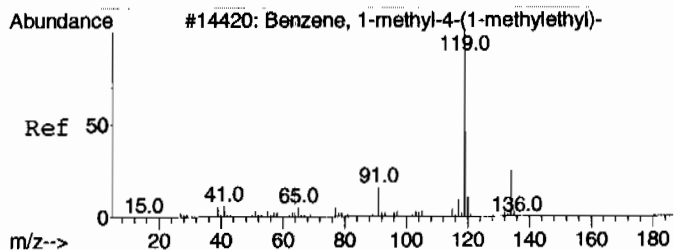
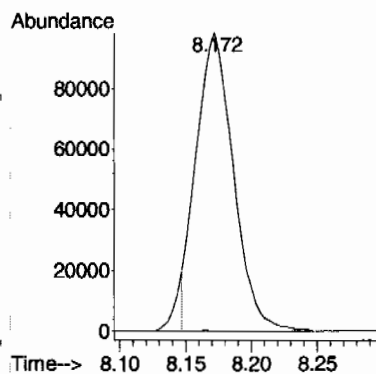
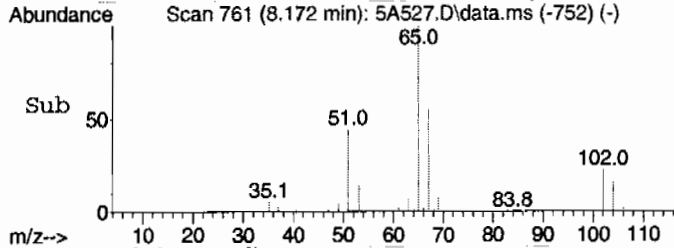
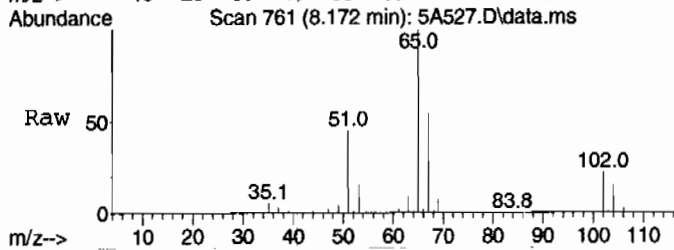






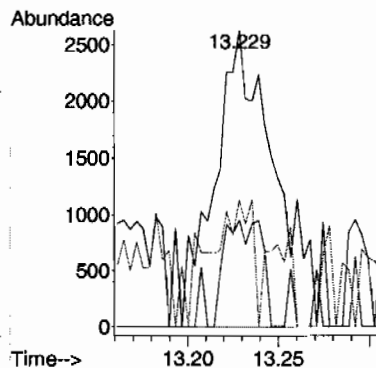
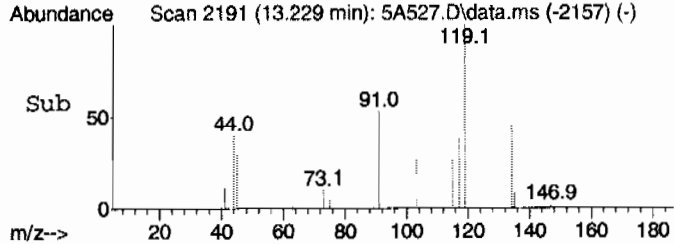
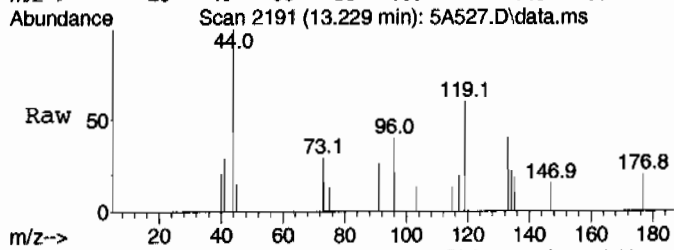
#32 BEFORE analyst DELETION  
Cyclohexene  
Concen: 17.57 ug/L  
RT: 8.172 min Scan# 761  
Delta R.T. -0.074 min  
Lab File: 5A527.D  
Acq: 6 Mar 2010 2:13 am

Tgt Ion: 67 Resp: 194472  
Ion Ratio Lower Upper  
67 100  
54 0.1 46.3 106.3#

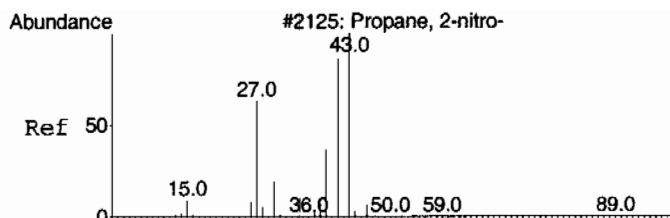


#72 BEFORE analyst DELETION  
4-Isopropyltoluene  
Concen: 0.31 ug/L  
RT: 13.229 min Scan# 2191  
Delta R.T. -0.000 min  
Lab File: 5A527.D  
Acq: 6 Mar 2010 2:13 am

Tgt Ion: 119 Resp: 6011  
Ion Ratio Lower Upper  
119 100  
134 23.0 0.0 57.2  
91 20.3 0.0 53.0

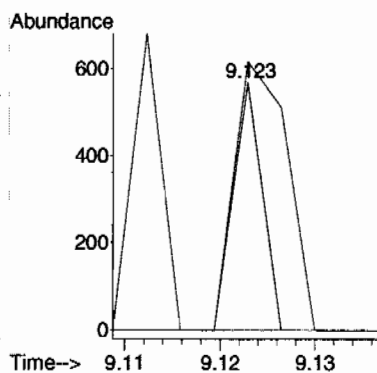
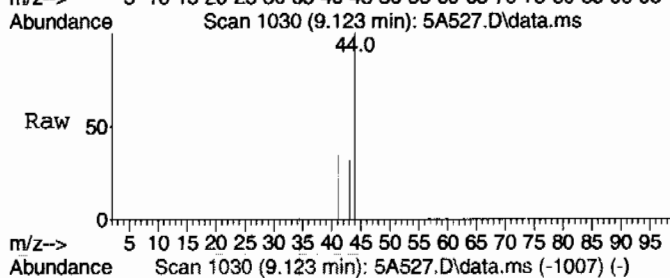






#102 BEFORE analyst DELETION  
 2-Nitropropane  
 Concen: 6.95 ug/L  
 RT: 9.123 min Scan# 1030  
 Delta R.T. -0.219 min  
 Lab File: 5A527.D  
 Acq: 6 Mar 2010 2:13 am

Tgt Ion: 43 Resp: 121  
 Ion Ratio Lower Upper  
 43 100  
 41 197.5 52.5 112.5#





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A527.D  
Acq On : 6 Mar 2010 2:13 am  
Operator : CDS1  
Sample : |248244008|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.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\030510V5\  
Data File : 5A527.D  
Acq On : 6 Mar 2010 2:13 am  
Operator : CDS1  
Sample : |248244008|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.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: 10-2137  
 Lab Sample ID: 248244006  
 Client ID: RE36-10-8479  
 Batch ID: 961880  
 Run Date: 03/09/2010 13:58  
 Prep Date: 03/09/2010 13:26  
 Data File: 030910V5\5B215.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 10.2  
 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	1.11	ug/kg	0.379	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11
67-64-1	Acetone	U	5.57	ug/kg	1.85	5.57
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
74-88-4	Iodomethane	U	5.57	ug/kg	1.78	5.57
75-09-2	Methylene chloride	U	5.57	ug/kg	2.23	5.57
75-15-0	Carbon disulfide	U	5.57	ug/kg	1.39	5.57
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11
78-93-3	2-Butanone	U	5.57	ug/kg	1.67	5.57
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.368	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.368	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone	U	5.57	ug/kg	1.39	5.57
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11
591-78-6	2-Hexanone	U	5.57	ug/kg	1.67	5.57
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11



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

SDG Number: 10-2137  
 Lab Sample ID: 248244006  
 Client ID: RE36-10-8479  
 Batch ID: 961880  
 Run Date: 03/09/2010 13:58  
 Prep Date: 03/09/2010 13:26  
 Data File: 030910V55B215.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 10.2  
 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	1.11	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.334	2.23
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.57	ug/kg	1.78	5.57
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11

**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\030910V5\  
Data File : 5B215.D  
Acq On : 9 Mar 2010 1:58 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248244006|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 09 14:13:32 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.388	8.387	1.000	96	1796912	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1281835	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	546016	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1796912	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1281835	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	546016	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	358140	41.18	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	82.36%			
43) Toluene-d8	9.721	9.721	0.872	98	1499151	45.73	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	91.46%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	647665	59.14	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	118.28%			
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.890	4.900	0.583	50	1810	Below Cal		63
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.877	5.866	0.701	59	608	N.D.		
9) Acetone	6.181	6.174	0.737	43	4039	N.D.		
10) 1,1-Dichloroethylene	0.000	6.156	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.460	6.464	0.770	41	798	N.D.		
13) Methyl acetate	6.361	6.365	0.758	43	113	N.D.		
14) Carbon disulfide	6.428	6.435	0.766	76	1714	N.D.		
15) Methylene chloride	6.531	6.538	0.779	84	9465	N.D.		
16) tert-Butyl methyl ether	0.000	6.640	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.807	6.969	0.812	43	339	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	7.457	7.450	0.889	43	117	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	0.000	7.924	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.005	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.214	8.203	0.979	78	109	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.		
33) n-Butyl alcohol	8.384	8.377	1.000	56	10182	Below Cal	#	23
34) Trichloroethylene	8.455	8.677	1.008	95	151	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.826	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B215.D  
Acq On : 9 Mar 2010 1:58 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248244006|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 09 14:13:32 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	9.487	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.791	9.788	0.879	91	2283	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	10.279	10.279	0.923	43	133	N.D.	
48) 1,3-Dichloropropane	0.000	10.364	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.174	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.192	11.181	1.004	91	352	N.D.	
55) m,p-Xylenes	11.273	11.280	1.012	106	118	N.D.	
56) o-Xylene	0.000	11.701	0.000		0	N.D.	
57) Styrene	0.000	11.715	0.000		0	N.D.	
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	12.253	12.016	0.914	105	111	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	0.000	12.465	0.000		0	N.D.	
65) n-Propylbenzene	12.415	12.415	0.926	91	592	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	12.564	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.702	12.698	0.947	91	524	N.D.	
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	12.957	12.956	0.966	105	1079	N.D.	
71) sec-Butylbenzene	13.119	13.119	0.978	105	369	N.D.	
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	3609	N.D.	
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	13.437	13.441	1.002	146	106	N.D.	
75) n-Butylbenzene	13.660	13.653	1.018	91	2356	N.D.	
76) 1,2-Dichlorobenzene	0.000	13.858	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	15.619	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.974	15.988	1.191	128	1449	N.D.	
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	112	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.082	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.163	0.000		0	N.D.	
88) Allyl chloride	6.460	6.425	0.770	41	798	N.D.	
89) tert-Butyl Alcohol	0.000	6.460	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.747	0.000		0	N.D.	
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	7.457	7.383	0.889	43	117	N.D.	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B215.D  
Acq On : 9 Mar 2010 1:58 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248244006|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 09 14:13:32 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.719	7.680	0.920	41	409	N.D.	
97) Tetrahydrofuran	7.709	7.716	0.919	42	839	N.D.	
98) Isobutyl alcohol	7.815	7.857	0.932	41	107	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.	
100) Methyl methacrylate	0.000	8.801	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	0.000	9.342	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	12.136	0.000		0	N.D.	
108) Cyclohexanone	0.000	12.267	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	12.412	0.000		0	N.D.	
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.568	13.565	1.012	91	1516	N.D.	
112) bis(2-Chloroisopropyl)...	13.925	13.929	1.038	45	232	N.D.	

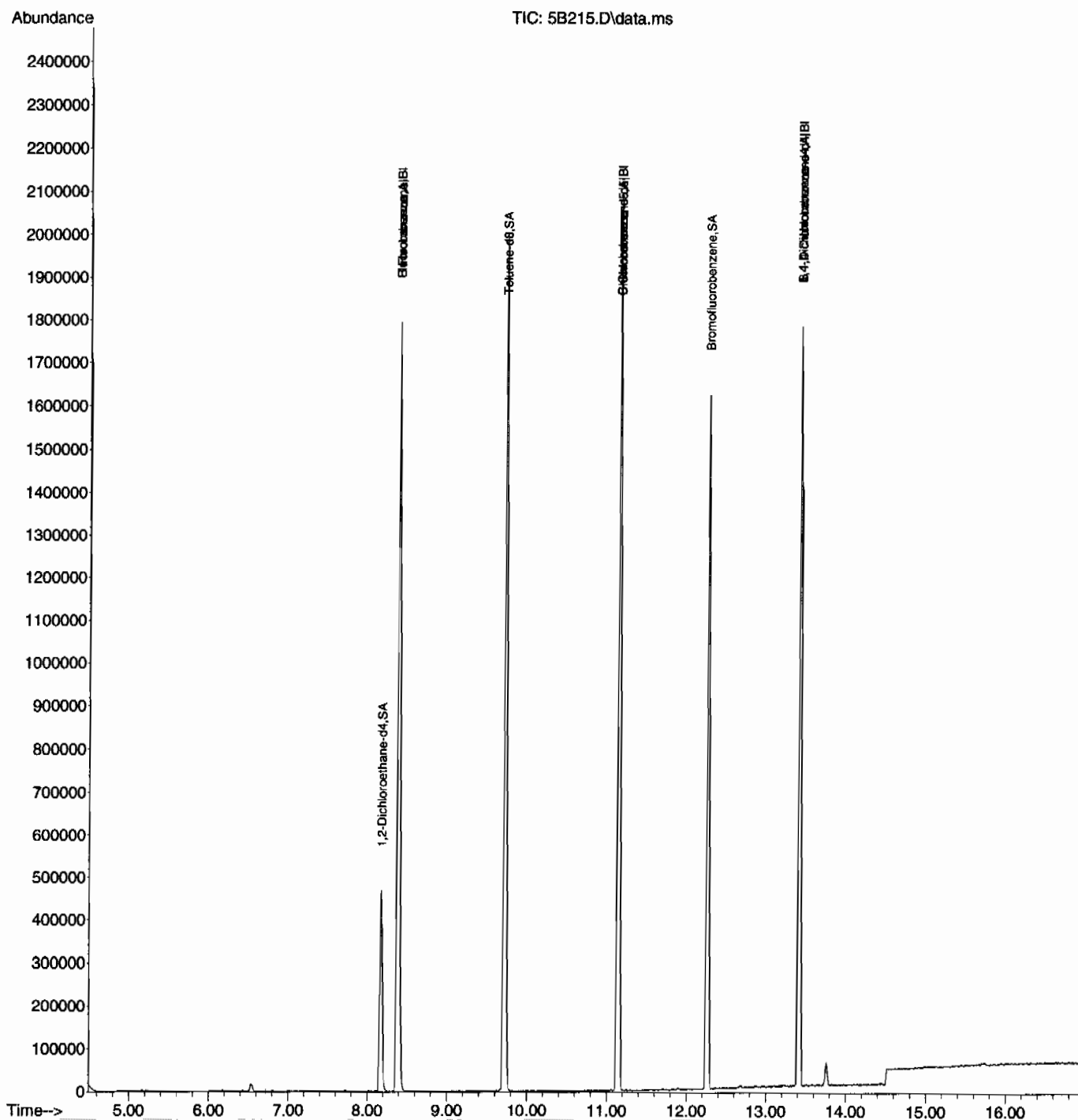
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



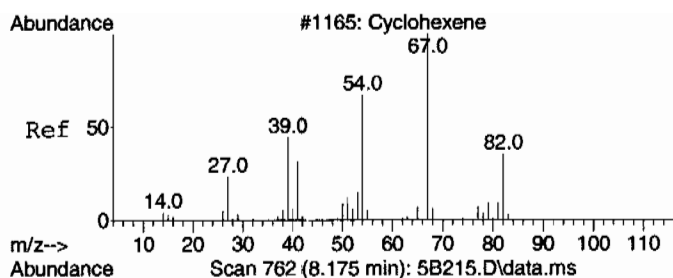
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B215.D  
Acq On : 9 Mar 2010 1:58 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248244006|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 09 14:13:32 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

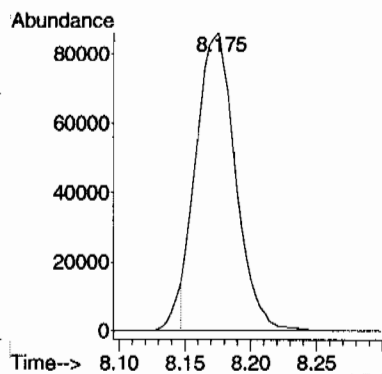






#32 BEFORE analyst DELETION  
Cyclohexene  
Concen: 14.76 ug/L  
RT: 8.175 min Scan# 762  
Delta R.T. -0.071 min  
Lab File: 5B215.D  
Acq: 9 Mar 2010 1:58 pm

Tgt Ion: 67 Resp: 178454  
Ion Ratio Lower Upper  
67 100  
54 0.0 46.3 106.3#





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B215.D  
Acq On : 9 Mar 2010 1:58 pm  
Operator : CDS1  
Sample : |248244006|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.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\030910V5\  
Data File : 5B215.D  
Acq On : 9 Mar 2010 1:58 pm  
Operator : CDS1  
Sample : |248244006|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.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



# 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



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 VOA5

GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M

Last Update : Tue Mar 09 07:08:19 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\030310V5\5A311.D

Injection Date	Mix	Calibration File
3 Mar 2010 3:18 pm	A	C:\msdchem\1\DATA\030310V5\5A311.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\030310V5\5A315.D

Injection Date	Mix	Calibration File
3 Mar 2010 11:52 am	A	C:\msdchem\1\DATA\030310V5\5A303.D
3 Mar 2010 5:01 pm	B	C:\msdchem\1\DATA\030310V5\5A315.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\030310V5\5A316.D

Injection Date	Mix	Calibration File
3 Mar 2010 12:18 pm	A	C:\msdchem\1\DATA\030310V5\5A304.D
3 Mar 2010 5:27 pm	B	C:\msdchem\1\DATA\030310V5\5A316.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\030310V5\5A317.D

Injection Date	Mix	Calibration File
3 Mar 2010 12:43 pm	A	C:\msdchem\1\DATA\030310V5\5A305.D
3 Mar 2010 5:52 pm	B	C:\msdchem\1\DATA\030310V5\5A317.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\030310V5\5A318.D

Injection Date	Mix	Calibration File
3 Mar 2010 1:09 pm	A	C:\msdchem\1\DATA\030310V5\5A306.D
3 Mar 2010 6:18 pm	B	C:\msdchem\1\DATA\030310V5\5A318.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\030310V5\5A319.D

Injection Date	Mix	Calibration File
3 Mar 2010 1:35 pm	A	C:\msdchem\1\DATA\030310V5\5A307.D
3 Mar 2010 6:44 pm	B	C:\msdchem\1\DATA\030310V5\5A319.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\030310V5\5A320.D

Injection Date	Mix	Calibration File
3 Mar 2010 2:01 pm	A	C:\msdchem\1\DATA\030310V5\5A308.D
3 Mar 2010 7:10 pm	B	C:\msdchem\1\DATA\030310V5\5A320.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\030310V5\5A321.D

Injection Date	Mix	Calibration File
3 Mar 2010 2:26 pm	A	C:\msdchem\1\DATA\030310V5\5A309.D
3 Mar 2010 7:35 pm	B	C:\msdchem\1\DATA\030310V5\5A321.D

VOA5-8260-030310.M Wed Mar 17 16:27:58 2010

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Response Factor Report VOA5  
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M

Last Update : Tue Mar 09 07:08:19 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	1	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
	m1   m2	6	7								
2)MA	Dichlorodifluoromethane	0.1071911	0.1343128 0.1106837	0.1140372	0.1271918	0.1076299	0.1161426	0.1167	AVRG		8.8231
3)MPA	Chloromethane		10037 510887	13766	31895	57674	114670		LINR		0.9998
4)MCA	Vinyl chloride	261159	0.1366188 0.1183938	0.1281019	0.1255313	0.1197165	0.1183782	0.1232	AVRG		5.9617
5)MA	Bromomethane	0.1170655	0.1239625 0.1206884	0.1169147	0.1094959	0.1165166	0.1190689	0.1177	AVRG		3.7964
6)MA	Chloroethane	0.1233612	0.1370210 0.1233229	0.1216074	0.1215156	0.1214055	0.1263787	0.1249	AVRG		4.4855
7)MA	Trichlorofluoromethane	0.2117030	0.2153456 0.2117388	0.2178553	0.2129630	0.2104313	0.2210791	0.2144	AVRG		1.8020
8)MA	Ethyl ether	0.1947530	0.1871370 0.1794319	0.1767368	0.1717271	0.1985778	0.1841458	0.1846	AVRG		5.2291
9)MA	Acetone	0.1463100	0.1866060 0.1376620	0.1644416	0.1375065	0.1478785	0.1253868	0.1494	AVRG		13.6035
10)MCA	1,1-Dichloroethylene	0.2389821	0.2398002 0.2445433	0.2409558	0.2398242	0.2475025	0.2208403	0.2389	AVRG		3.5757
11)MA	Iodomethane	0.2471140	0.2444391 0.2442657	0.2568896	0.2483905	0.2612671	0.2249439	0.2468	AVRG		4.6894
12)MA	Acetonitrile	0.0283547	0.0347170 0.0256546	0.0322725	0.0285058	0.0304863	0.0249732	0.0293	AVRG		11.9223
13)MA	Methyl acetate	0.1652002	0.1815060 0.1485899	0.1773876	0.1581228	0.1758673	0.1361690	0.1633	AVRG		10.2209
14)MA	Carbon disulfide	0.4578684	0.5050741 0.4584238	0.5194211	0.5014662	0.5065645	0.4033217	0.4789	AVRG		8.5995
15)MA	Methylene chloride	347452	11571 651820	21218	39402	76880	131269		LINR		0.9995
16)MA	tert-Butyl methyl ether	0.5036196	0.4725751 0.4964892	0.5978178	0.4559781	0.5175164	0.4382739	0.4975	AVRG		10.4953



Response Factor Report VOA5  
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Last Update : Tue Mar 09 07:08:19 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>
17) MA	trans-1,2-Dichloroethylene	0.2628117	0.2484881 0.2644957	0.2741276	0.2591751	0.2691941	0.2403411	0.2598	AVRG		4.5316
18) MA	Vinyl acetate	0.4300924	0.4257145 0.3838583	0.3882024	0.3995826	0.4134088	0.4228412	0.4091	AVRG		4.5605
19) MPA	1,1-Dichloroethane	0.3302035	0.3142904 0.3294966	0.3229238	0.3125231	0.3367887	0.3058631	0.3217	AVRG		3.4802
20) MA	2-Butanone	0.1882036	0.1936957 0.1818946	0.1811767	0.1647833	0.1816863	0.1545487	0.1780	AVRG		7.6550
21) MA	cis-1,2-Dichloroethylene	0.3090002	0.2816842 0.3063284	0.3216599	0.2968513	0.3189112	0.2809374	0.3022	AVRG		5.4422
22) MA	2,2-Dichloropropane	0.2371246	0.2583557 0.2337214	0.2487143	0.2316248	0.2394110	0.2202251	0.2385	AVRG		5.1515
23) MA	Bromochloromethane	0.0955632	0.0843041 0.0945829	0.0899282	0.0830960	0.0936185	0.0838221	0.0893	AVRG		6.1291
24) MCA	Chloroform	0.2968630	0.2880392 0.2933504	0.2944044	0.2766864	0.2987853	0.2690593	0.2882	AVRG		3.8825
25) MA	1,1,1-Trichloroethane	0.2446109	0.2341424 0.2416415	0.2408483	0.2355644	0.2432168	0.2237423	0.2377	AVRG		3.0518
26) MA	Cyclohexane	0.3362899	0.3377261 0.3291308	0.3632086	0.3428843	0.3469778	0.3103599	0.3381	AVRG		4.8083
27) MA	1,1-Dichloropropene	0.2203338	0.2256423 0.2134343	0.2194822	0.2171957	0.2254819	0.2043886	0.2180	AVRG		3.3958
28) MA	Carbon tetrachloride	0.2111430	0.1982649 0.2090476	0.2143055	0.1985177	0.2044374	0.1914744	0.2039	AVRG		4.0179
29) SA	1,2-Dichloroethane-d4	0.2469049	0.2369252 0.2490915	0.2336174	0.2380253	0.2497712	0.2396695	0.2420	AVRG		2.6779
30) MA	1,2-Dichloroethane	0.2554033	0.2479518 0.2486772	0.2572257	0.2440949	0.2612232	0.2285764	0.2490	AVRG		4.3389
31) MA	Benzene	0.7207210	0.7418443 0.7026943	0.7731024	0.7153431	0.7479119	0.6649804	0.7238	AVRG		4.8270

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# Response Factor Report VOA5

GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M

Last Update : Tue Mar 09 07:08:19 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^2
32)MA	Cyclohexene	0.3339520	0.3123061 0.3234949	0.3866319	0.3393842	0.3509290	0.3080677	0.3364	AVRG		7.9572
33)MA	n-Butyl alcohol 0.0059   0.0070   0.00	19260 1408012	34213 2352134	56344	121141	269492	466484		LINR	#	0.9947
34)MA	Trichloroethylene	0.1724887	0.1816132 0.1698750	0.1780411	0.1681998	0.1729789	0.1601051	0.1719	AVRG		4.0477
35)MA	1,2-Dichloropropane	0.2087711	0.2111626 0.2051990	0.2097606	0.1902748	0.2128689	0.1930853	0.2044	AVRG		4.4358
36)MA	Methylcyclohexane	0.3125154	0.3236754 0.2954954	0.3376340	0.3191597	0.3187083	0.2915431	0.3141	AVRG		5.1167
37)MA	Dibromomethane	0.1147921	0.0958611 0.1112747	0.1022045	0.0940684	0.1106872	0.0984524	0.1039	AVRG		7.9840
38)MA	Bromodichloromethane	0.2331295	0.1958516 0.2322850	0.2002811	0.2032170	0.2187202	0.2032823	0.2124	AVRG		7.3274
39)MA	2-Chloroethylvinyl ether	0.0686203	0.0564924 0.0652642	0.0601502	0.0771933	0.0701491	0.0593383	0.0653	AVRG		11.1044
40)MA	cis-1,3-Dichloropropylene	0.3125399	0.2818987 0.3029780	0.2841853	0.2759376	0.3026459	0.2752061	0.2908	AVRG		5.1555
42)MA	4-Methyl-2-pentanone	0.1271094	0.1231600 0.1177079	0.1229976	0.1118485	0.1258398	0.1083137	0.1196	AVRG		6.0173
43)SA	Toluene-d8	1.2721004	1.2715773 1.2960357	1.2614345	1.2794096	1.2985942	1.2717942	1.2787	AVRG		1.0765
44)MA	Toluene	1.0348743	1.1518044 0.9819176	1.1664465	1.0787639	1.0942945	1.0060419	1.0734	AVRG		6.5499
45)MA	trans-1,3-Dichloropropyl	0.3858636	0.3568487 0.3673651	0.3722761	0.3512502	0.3821534	0.3436649	0.3656	AVRG		4.3186
46)MA	1,1,2-Trichloroethane	0.1865070	0.1809477 0.1759586	0.1909377	0.1747003	0.1892881	0.1696366	0.1811	AVRG		4.4615
47)MA	2-Hexanone	0.3467953	0.3284339 0.3313724	0.3316048	0.3042837	0.3395084	0.2907043	0.3247	AVRG		6.1423



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
48)MA	1,3-Dichloropropane	0.4018238	0.3986847 0.3753277	0.3941649	0.3766925	0.4132373	0.3644275	0.3892	AVRG		4.4680
49)MA	Tetrachloroethylene	0.1886479	0.2101304 0.1744663	0.2182619	0.2019552	0.1998049	0.1830335	0.1966	AVRG		7.8477
50)MA	Dibromochloromethane	0.2419406	0.2023411 0.2365549	0.2093074	0.1956150	0.2219088	0.2007112	0.2155	AVRG		8.4921
51)MA	1,2-Dibromoethane	0.2238521	0.2177735 0.2124675	0.2045353	0.1960736	0.2183057	0.1960958	0.2099	AVRG		5.3073
52)MPA	Chlorobenzene	0.6872590	0.7408323 0.6366570	0.7386193	0.6950357	0.7183845	0.6572330	0.6963	AVRG		5.6932
53)MA	1,1,1,2-Tetrachloroethane	0.2494816	0.2332060 0.2379202	0.2374976	0.2252816	0.2425499	0.2251908	0.2359	AVRG		3.7523
54)MCA	Ethylbenzene	1.1606703	1.3980293 1.0780788	1.3671495	1.2021431	1.2341387	1.1328429	1.2247	AVRG		9.7166
55)MA	m,p-Xylenes	0.4618127	0.4755362 0.4281219	0.4871003	0.4628331	0.4838482	0.4481627	0.4639	AVRG		4.4913
56)MA	o-Xylene	0.4689336	0.4805646 0.4384802	0.4947283	0.4674384	0.4872624	0.4439087	0.4688	AVRG		4.5189
57)MA	Styrene	0.7780846	0.6852095 0.7485180	0.6985634	0.6741433	0.7377851	0.6904055	0.7161	AVRG		5.4221
59)MPA	Bromoform	0.3074710	0.2425130 0.2932519	0.2628946	0.2525902	0.2877580	0.2590520	0.2722	AVRG		8.8146
60)MA	Isopropylbenzene	2.2318182	2.3943888 2.0444667	2.5037151	2.3076026	2.3716419	2.2055021	2.2942	AVRG		6.5198
61)SA	Bromofluorobenzene	0.9869307	1.0123469 0.9932836	1.0080037	1.0035486	1.0238053	0.9924612	1.0029	AVRG		1.2932
62)MPA	1,1,2,2-Tetrachloroethane	0.5917981	0.6871449 0.5341051	0.6275343	0.5716073	0.6108623	0.5337210	0.5938	AVRG		9.1753
63)MA	1,2,3-Trichloropropane	0.1663007	0.1542994 0.1462352	0.1701851	0.1567715	0.1717308	0.1442981	0.1585	AVRG		7.0291



Response Factor Report VOA5  
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Last Update : Tue Mar 09 07:08:19 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ .  $y = b + m_1(x) + m_2(xE2)$

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b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
64)MA	Bromobenzene	0.5547476	0.6486814 0.5243606	0.6270489	0.5549342	0.5944725	0.5351627	0.5771	AVRG		8.2053
65)MA	n-Propylbenzene	2.6188023	3.1428673 2.4230362	3.0740107	2.7659361	2.7519459	2.6123049	2.7698	AVRG		9.3207
66)MA	1,3,5-Trimethylbenzene	1.9147331	2.1140806 1.7809313	2.1176062	1.9345676	1.9838360	1.8693101	1.9593	AVRG		6.3245
67)MA	2-Chlorotoluene	0.5556979	0.6336821 0.5174526	0.6149888	0.5712532	0.5980658	0.5347064	0.5751	AVRG		7.4098
68)MA	4-Chlorotoluene	1.6724026	2.0033682 1.5676196	1.9506321	1.7393299	1.7773161	1.6165466	1.7610	AVRG		9.3178
69)MA	tert-Butylbenzene	0.4229275	0.5220044 0.3925972	0.5067096	0.4594991	0.4418889	0.4115510	0.4510	AVRG		10.7312
70)MA	1,2,4-Trimethylbenzene	1.9586218	2.1474948 1.8420857	2.1428091	1.9400417	2.0243304	1.8983398	1.9934	AVRG		5.9008
71)MA	sec-Butylbenzene	2.4689370	2.7713754 2.2728207	2.7409960	2.5556188	2.5245775	2.4127685	2.5353	AVRG		6.9611
72)MA	4-Isopropyltoluene	1.9874771	2.1276691 1.8512791	2.1644277	1.9988403	2.0283563	1.9476327	2.0151	AVRG		5.2660
73)MA	1,3-Dichlorobenzene	1.0613620	1.2393706 1.0114602	1.1735978	1.0546701	1.1091368	1.0209850	1.0958	AVRG		7.6742
74)MA	1,4-Dichlorobenzene	1.0794919	1.2623150 1.0206465	1.1764354	1.0887098	1.1479739	1.0224741	1.1140	AVRG		7.8575
75)MA	n-Butylbenzene	1.8731727	2.2862752 1.7525689	2.2057605	1.9471241	1.9465316	1.8399483	1.9788	AVRG		9.8883
76)MA	1,2-Dichlorobenzene	1.0422240	1.1619981 0.9895673	1.1046351	1.0096084	1.0812630	0.9841815	1.0534	AVRG		6.2618
77)MA	1,2-Dibromo-3-chloroprop	0.1172103	0.1466513 0.1082926	0.1103702	0.0987550	0.1134385	0.0964579	0.1130	AVRG		14.6986
78)MA	1,2,4-Trichlorobenzene	0.7207589	0.7703834 0.6948904	0.7294288	0.6781382	0.7096930	0.6624167	0.7094	AVRG		5.0317



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>
79)MA	Hexachlorobutadiene	0.4278299	0.4733681 0.4047082	0.4525326	0.4213133	0.4251323	0.4112408	0.4309	AVRG		5.5882
80)MA	Naphthalene	1.7289583	1.6207382 1.6143553	1.6540963	1.4827854	1.6683802	1.5100228	1.6113	AVRG		5.4224
81)MA	1,2,3-Trichlorobenzene	0.6423302	0.6276676 0.6195878	0.6346658	0.5810652	0.6448961	0.5831963	0.6191	AVRG		4.3026
83)B	Chlorotrifluoroethylene	0.0735216	0.0835210 0.0860804	0.0722722	0.0684897	0.0802235	0.0986873	0.0804	AVRG		12.7622
84)B	2-Chloro-1,1,1-trifluoro	0.1183741	0.1102455 0.1256300	0.1129374	0.1103017	0.1195944	0.1242927	0.1173	AVRG		5.4176
85)B	Acrolein -0.0097   0.0306   0.00	221757	2624 537267	5641	16329	36743	72786		LINR		0.9903
86)B	Trichlorotrifluoroethane	0.0405821	0.0459929 0.0499271	0.0456091	0.0440692	0.0471327	0.0405003	0.0448	AVRG		7.6523
87)B	Isopropyl Alcohol	0.0156865	0.0132039 0.0168508	0.0133281	0.0136177	0.0152807	0.0167250	0.0150	AVRG		10.5258
88)B	Allyl chloride	0.3013963	0.3545867 0.3247091	0.3325385	0.3315882	0.3447311	0.3139613	0.3291	AVRG		5.4472
89)B	tert-Butyl Alcohol	0.0229193	0.0182895 0.0244880	0.0196806	0.0209845	0.0227963	0.0247242	0.0220	AVRG		11.0285
90)B	Acrylonitrile	0.0699699	0.0715226 0.0753880	0.0684122	0.0745782	0.0754865	0.0711180	0.0724	AVRG		3.8849
91)B	Isopropyl ether	0.7352384	0.7025458 0.7994663	0.6794811	0.6820459	0.7654787	0.7924311	0.7367	AVRG		6.8556
92)B	2-Chloro-1,3-butadiene	0.2159482	0.1980383 0.2496900	0.1966904	0.2032729	0.2213056	0.2015126	0.2124	AVRG		8.8880
93)B	Ethyl tert-butyl ether	0.5377480	0.4313279 0.6133655	0.4816021	0.5236631	0.5726499	0.5688029	0.5327	AVRG		11.4695
94)B	Ethyl acetate	0.1873901	0.2038656 0.1978070	0.1859171	0.1985214	0.2051710	0.1930163	0.1960	AVRG		3.8432



# Response Factor Report VOA5

GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M

Last Update : Tue Mar 09 07:08:19 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 ml   m2		8 6	1 7	2	3	4	5	Avg	Curve	Exp	RRSD/r^2
95)B	Propionitrile			0.0274167	0.0254057 0.0295674	0.0261084	0.0287780	0.0296110	0.0280571	0.0278	AVRG		5.8911
96)B	Methacrylonitrile			0.1462335	0.1576755 0.1544466	0.1461036	0.1559698	0.1612840	0.1496123	0.1530	AVRG		3.8305
97)B	Tetrahydrofuran			0.0649169	0.0717706 0.0687676	0.0675774	0.0711026	0.0723381	0.0676879	0.0692	AVRG		3.8938
98)B	Isobutyl alcohol			0.0077815	0.0071325 0.0076959	0.0063262	0.0072331	0.0073822	0.0074520	0.0073	AVRG	#	6.6246
99)B	Methyl tert-amyl ether			0.4244686	0.3693071 0.4894317	0.3868580	0.4285646	0.4452561	0.4538868	0.4283	AVRG		9.4811
100)B	Methyl methacrylate			0.1178945	0.1081095 0.1241707	0.1026339	0.1134532	0.1237597	0.1183364	0.1155	AVRG		6.9053
101)B	1,4-Dioxane			0.0021058	0.0019460 0.0022074	0.0018691	0.0020607	0.0021756	0.0020610	0.0021	AVRG	#	5.8304
102)B	2-Nitropropane	-0.0083   0.0603   0.00		483598	8038 1057258	15631	44649	93248	187428		LINR		0.9974
104)B	Ethyl methacrylate			0.3067238	0.2614159 0.3151848	0.2550206	0.2945269	0.3244650	0.3086265	0.2951	AVRG		9.0970
106)B	1-Chlorohexane			0.4829755	0.5235250 0.5218822	0.4770701	0.4681758	0.5166419	0.5271408	0.5025	AVRG		5.0286
107)B	cis-1,4-Dichloro-2-buten			0.1870322	0.1796601 0.1976993	0.1700290	0.1860859	0.2007261	0.1875530	0.1870	AVRG		5.5493
108)B	Cyclohexanone				0.0139831	0.0143555	0.0153783	0.0164251	0.0167053	0.0154	AVRG		7.8679
109)B	trans-1,4-Dichloro-2-but			0.1744505	0.1664803 0.1845150	0.1640418	0.1749215	0.1913325	0.1771113	0.1761	AVRG		5.4159
110)B	Pentachloroethane			0.2461688	0.2534545 0.2701388	0.1993333	0.2360493	0.2598436	0.2423291	0.2439	AVRG		9.3035
111)B	Benzyl chloride			0.8579629	0.8960861 0.8906143	0.8542224	0.9170528	0.9675422	0.8839666	0.8953	AVRG		4.3075



Response via : Initial Calibration

For Linear Calibration:  $y = \text{concentration ratio}, x = \text{response ratio. } y = b + m1(x) + m2(xE2)$

b	Compound	8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
m1	m2	6	7								
12)B	bis(2-Chloroisopropyl)et	0.3165820	0.3441093	0.3217389	0.3317707	0.3404966	0.3253184	0.3294	AVRG		3.0276
			0.3259263								

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 (#) = Out of Range



## Continuing Calibration Summary

Client SDG: 10-2137

Instrument ID: VOA5.I

Injection Date 03-MAR-10 16:10

Data File: 030310V5\5A313.D

Init. Cal. Date(s) 03-MAR-10 11:52 - 03-MAR-10 19:3

Lab Sample ID W5VM100303-10

Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S 1,2-Dichloroethane-d4	0.242	0.24421		.01		0.91322	30		Averaged	
S Toluene-d8	1.2787	1.27452		.01		-0.32689	30		Averaged	
S Bromofluorobenzene	1.0029	0.99178		.01		-1.10878	30		Averaged	
Dichlorodifluoromethane	0.1167	0.10877		.01		-6.7952	30		Averaged	
Chloromethane	50	47.23	50			-5.54	30		Linear	spcc
Vinyl chloride	0.1232	0.11935		.01		-3.125	20		Averaged	ccc
Bromomethane	0.1177	0.1182		.01		0.42481	30		Averaged	
Chloroethane	0.1249	0.12029		.01		-3.69095	30		Averaged	
Trichlorofluoromethane	0.2144	0.21193		.01		-1.15205	30		Averaged	
Ethyl ether	0.1846	0.17033		.01		-7.73023	30		Averaged	
1,1-Dichloroethylene	0.2389	0.22217		.01		-7.00293	20		Averaged	ccc
Acetone	0.1494	0.11803		.01		-20.99732	40		Averaged	
Iodomethane	0.2468	0.23547		.01		-4.59076	30		Averaged	
Methyl acetate	0.1633	0.14216		.01		-12.9455	40		Averaged	
Carbon disulfide	0.4789	0.4718		.01		-1.48256	30		Averaged	
Acetonitrile	0.0293	0.02521		.01		-13.95904	30		Averaged	
Methylene chloride	50	47.91	50			-4.18	30		Linear	
tert-Butyl methyl ether	0.4975	0.4619		.01		-7.15578	30		Averaged	
trans-1,2-Dichloroethylene	0.2598	0.24929		.01		-4.04542	30		Averaged	
Vinyl acetate	0.4091	0.41961		.01		2.56905	40		Averaged	
1,1-Dichloroethane	0.3217	0.31699		.1		-1.4641	30		Averaged	spcc
2-Butanone	0.178	0.14855		.01		-16.54494	40		Averaged	
2,2-Dichloropropane	0.2385	0.22482		.01		-5.73585	30		Averaged	
cis-1,2-Dichloroethylene	0.3022	0.29612		.01		-2.01191	30		Averaged	
Chloroform	0.2882	0.28311		.01		-1.76613	20		Averaged	ccc
Bromochloromethane	0.0893	0.09141		.01		2.36282	30		Averaged	
1,1,1-Trichloroethane	0.2377	0.23371		.01		-1.67859	30		Averaged	
Cyclohexane	0.3381	0.32396		.01		-4.18219	30		Averaged	
1,1-Dichloropropene	0.218	0.20984		.01		-3.74312	30		Averaged	
Carbon tetrachloride	0.2039	0.20004		.01		-1.89308	30		Averaged	
Benzene	0.7238	0.68663		.01		-5.1354	30		Averaged	
1,2-Dichloroethane	0.249	0.23966		.01		-3.751	30		Averaged	
Cyclohexene	0.3364	0.31082		.01		-7.60404	30		Averaged	
n-Butyl alcohol	5000	4684.67	5000			-6.3066	40		Linear	
Trichloroethylene	0.1719	0.16611		.01		-3.36824	30		Averaged	
Methylcyclohexane	0.3141	0.28966		.01		-7.78096	30		Averaged	
1,2-Dichloropropane	0.2044	0.1998		.01		-2.25049	20		Averaged	ccc



## Continuing Calibration Summary

Instrument ID: VOA5.I

Injection Date 03-MAR-10 16:10

Data File: 030310V5\5A313.D

Init. Cal. Date(s) 03-MAR-10 11:52 03-MAR-10 19:3

Lab Sample ID W5VM100303-10 Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1039	0.10512		.01		1.17421	30		Averaged	
Bromodichloromethane	0.2124	0.22108		.01		4.08663	30		Averaged	
2-Chloroethylvinyl ether	0.0653	0.06282		.01		-3.79786	30		Averaged	
cis-1,3-Dichloropropylene	0.2908	0.28903		.01		-0.60867	30		Averaged	
4-Methyl-2-pentanone	0.1196	0.1091		.01		-8.77926	40		Averaged	
Toluene	1.0734	0.98913		.01		-7.85075	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3656	0.35772		.01		-2.15536	30		Averaged	
1,1,2-Trichloroethane	0.1811	0.17385		.01		-4.00331	30		Averaged	
2-Hexanone	0.3247	0.27267		.01		-16.02402	40		Averaged	
Tetrachloroethylene	0.1966	0.1809		.01		-7.98576	30		Averaged	
1,3-Dichloropropane	0.3892	0.36897		.01		-5.19784	30		Averaged	
Dibromochloromethane	0.2155	0.21995		.01		2.06497	30		Averaged	
1,2-Dibromoethane	0.2099	0.20474		.01		-2.45831	30		Averaged	
Chlorobenzene	0.6963	0.65948		.3		-5.28795	30		Averaged	spcc
Ethylbenzene	1.2247	1.10154		.01		-10.05634	20		Averaged	ccc
1,1,1,2-Tetrachloroethane	0.2359	0.23427		.01		-0.69097	30		Averaged	
m,p-Xylenes	0.4639	0.43751		.01		-5.68873	30		Averaged	
o-Xylene	0.4688	0.44327		.01		-5.44582	30		Averaged	
Styrene	0.7161	0.73277		.01		2.32789	30		Averaged	
Bromoform	0.2722	0.28094		.1		3.21087	30		Averaged	spcc
Isopropylbenzene	2.2942	2.10689		.01		-8.1645	30		Averaged	
1,1,2,2-Tetrachloroethane	0.5938	0.5349		.3		-9.91916	30		Averaged	spcc
n-Propylbenzene	2.7698	2.4928		.01		-10.00072	30		Averaged	
1,2,3-Trichloropropane	0.1585	0.14961		.01		-5.60883	30		Averaged	
Bromobenzene	0.5771	0.53865		.01		-6.66262	30		Averaged	
1,3,5-Trimethylbenzene	1.9593	1.81472		.01		-7.37917	30		Averaged	
2-Chlorotoluene	0.5751	0.532		.01		-7.49435	30		Averaged	
4-Chlorotoluene	1.761	1.61118		.01		-8.50767	30		Averaged	
tert-Butylbenzene	0.451	0.39993		.01		-11.32373	30		Averaged	
1,2,4-Trimethylbenzene	1.9934	1.86402		.01		-6.49042	30		Averaged	
sec-Butylbenzene	2.5353	2.31846		.01		-8.55283	30		Averaged	
4-Isopropyltoluene	2.0151	1.87648		.01		-6.87906	30		Averaged	
1,3-Dichlorobenzene	1.0958	1.02852		.01		-6.13981	30		Averaged	
1,4-Dichlorobenzene	1.114	1.04673		.01		-6.0386	30		Averaged	
n-Butylbenzene	1.9788	1.7573		.01		-11.19365	30		Averaged	
1,2-Dichlorobenzene	1.0534	0.99705		.01		-5.34934	30		Averaged	
1,2-Dibromo-3-chloropropane	0.113	0.10451		.01		-7.51327	30		Averaged	



## Continuing Calibration Summary

Instrument ID: VOA5.I

Injection Date 03-MAR-10 16:10

Data File: 030310V5\5A313.D

Init. Cal. Date(s) 03-MAR-10 11:52 03-MAR-10 19:3

Lab Sample ID W5VM100303-10 Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.7094	0.69168		.01		-2.49789	30		Averaged
Hexachlorobutadiene	0.4309	0.41116		.01		-4.58111	30		Averaged
Naphthalene	1.6113	1.57133		.01		-2.48061	30		Averaged
1,2,3-Trichlorobenzene	0.6191	0.62516		.01		0.97884	30		Averaged



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A313.D  
Acq On : 3 Mar 2010 4:10 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100303-10|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[A] 0220-01C+0301-01  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 09 07:22:02 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	8.391	8.387	1.000	96	1746399	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1312296	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.416	13.413	1.000	152	682831	50.00	ug/L	0.00
82) B Fluorobenzene	8.391	8.391	1.000	96	1746399	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1312296	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.416	13.413	1.000	152	682831	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	426493	50.46	ug/L	0.00
43) Toluene-d8	9.724	9.721	0.873	98	1672551	49.84	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	677221	49.45	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.668	4.668	0.556	85	189950	46.58	ug/L	96
3) Chloromethane	4.900	4.900	0.584	50	245590	47.23	ug/L	97
4) Vinyl chloride	5.041	5.041	0.601	62	208439	48.43	ug/L	97
5) Bromomethane	5.434	5.423	0.648	94	206417	50.22	ug/L	99
6) Chloroethane	5.504	5.504	0.656	64	210081	48.14	ug/L	99
7) Trichlorofluoromethane	5.705	5.695	0.680	101	370114	49.41	ug/L	99
8) Ethyl ether	5.867	5.866	0.699	59	297471	46.12	ug/L	97
9) Acetone	6.174	6.174	0.736	43	1030674	197.52	ug/L	99
10) 1,1-Dichloroethylene	6.156	6.156	0.734	61	387994	46.49	ug/L	99
11) Iodomethane	6.361	6.357	0.758	142	2056129	238.56	ug/L	99
12) Acetonitrile	6.464	6.464	0.770	41	1100599	1076.16	ug/L	98
13) Methyl acetate	6.365	6.365	0.759	43	1241350	217.69	ug/L	99
14) Carbon disulfide	6.435	6.435	0.767	76	4119792	246.31	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	319169	47.91	ug/L	99
16) tert-Butyl methyl ether	6.641	6.640	0.791	73	806665	46.43	ug/L	99
17) trans-1,2-Dichloroethy...	6.715	6.715	0.800	61	435366	47.98	ug/L	99
18) Vinyl acetate	6.969	6.969	0.831	43	3664023	256.42	ug/L	100
19) 1,1-Dichloroethane	7.072	7.068	0.843	63	553584	49.26	ug/L	100
20) 2-Butanone	7.450	7.450	0.888	43	1297140	208.64	ug/L	100
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	517143	48.99	ug/L	100
22) 2,2-Dichloropropane	7.514	7.514	0.895	77	392633	47.14	ug/L	98
23) Bromochloromethane	7.723	7.719	0.920	128	159635	51.20	ug/L	98
24) Chloroform	7.702	7.701	0.918	83	494431	49.12	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	408147	49.16	ug/L	99
26) Cyclohexane	7.924	7.924	0.944	56	565761	47.91	ug/L	99
27) 1,1-Dichloropropene	8.009	8.005	0.954	75	366466	48.13	ug/L	99
28) Carbon tetrachloride	8.023	8.020	0.956	117	349351	49.06	ug/L	100
30) 1,2-Dichloroethane	8.235	8.235	0.981	62	418545	48.12	ug/L	100
31) Benzene	8.200	8.203	0.977	78	1199124	47.43	ug/L	100
32) Cyclohexene	8.250	8.246	0.983	67	542810	46.20	ug/L	99
33) n-Butyl alcohol	8.377	8.377	0.998	56	1150973	4684.67	ug/L	99
34) Trichloroethylene	8.678	8.677	1.034	95	290093	48.32	ug/L	99
35) 1,2-Dichloropropane	8.929	8.932	1.064	63	348926	48.86	ug/L	100
36) Methylcyclohexane	8.830	8.826	1.052	83	505866	46.11	ug/L	98
37) Dibromomethane	9.063	9.059	1.080	93	183578	50.58	ug/L	99
38) Bromodichloromethane	9.113	9.112	1.086	83	386094	52.04	ug/L	99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	548585	240.47	ug/L	100
40) cis-1,3-Dichloropropylene	9.484	9.487	1.130	75	504766	49.70	ug/L	99



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A313.D  
Acq On : 3 Mar 2010 4:10 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100303-10|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[A] 0220-01C+0301-01  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 09 07:22:02 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	9.530	9.526	0.855	58	715875	228.12	ug/L	99
44) Toluene	9.788	9.788	0.878	91	1298029	46.07	ug/L	100
45) trans-1,3-Dichloroprop...	9.968	9.968	0.895	75	469439	48.92	ug/L	99
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	228140	47.99	ug/L	98
47) 2-Hexanone	10.280	10.279	0.923	43	1789138	209.96	ug/L	100
48) 1,3-Dichloropropane	10.364	10.364	0.930	76	484201	47.40	ug/L	99
49) Tetrachloroethylene	10.290	10.290	0.924	164	237399	46.00	ug/L	99
50) Dibromochloromethane	10.584	10.583	0.950	129	288635	51.04	ug/L	99
51) 1,2-Dibromoethane	10.775	10.771	0.967	107	268682	48.78	ug/L	98
52) Chlorobenzene	11.174	11.174	1.003	112	865428	47.36	ug/L	99
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007	131	307438	49.66	ug/L	100
54) Ethylbenzene	11.181	11.181	1.003	91	1445541	44.97	ug/L	99
55) m,p-Xylenes	11.280	11.280	1.012	106	1148282	94.31	ug/L	99
56) o-Xylene	11.701	11.701	1.050	106	581707	47.28	ug/L	99
57) Styrene	11.715	11.715	1.051	104	961606	51.16	ug/L	94
59) Bromoform	12.005	12.005	0.895	173	191832	51.60	ug/L	100
60) Isopropylbenzene	12.016	12.016	0.896	105	1438651	45.92	ug/L	100
62) 1,1,2,2-Tetrachloroethane	12.352	12.348	0.921	83	365248	45.04	ug/L	100
63) 1,2,3-Trichloropropane	12.451	12.454	0.928	110	102156	47.18	ug/L #	93
64) Bromobenzene	12.465	12.465	0.929	156	367810	46.67	ug/L	98
65) n-Propylbenzene	12.419	12.415	0.926	91	1702161	45.00	ug/L	99
66) 1,3,5-Trimethylbenzene	12.564	12.564	0.936	105	1239147	46.31	ug/L	100
67) 2-Chlorotoluene	12.599	12.596	0.939	126	363269	46.25	ug/L #	80
68) 4-Chlorotoluene	12.698	12.698	0.946	91	1100162	45.75	ug/L	100
69) tert-Butylbenzene	12.903	12.900	0.962	134	273083	44.34	ug/L	99
70) 1,2,4-Trimethylbenzene	12.957	12.956	0.966	105	1272813	46.76	ug/L	99
71) sec-Butylbenzene	13.119	13.119	0.978	105	1583116	45.72	ug/L	99
72) 4-Isopropyltoluene	13.232	13.229	0.986	119	1281322	46.56	ug/L	100
73) 1,3-Dichlorobenzene	13.353	13.349	0.995	146	702303	46.93	ug/L	100
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	714738	46.98	ug/L	99
75) n-Butylbenzene	13.653	13.653	1.018	91	1199936	44.40	ug/L	100
76) 1,2-Dichlorobenzene	13.858	13.858	1.033	146	680815	47.33	ug/L	100
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	71362	46.23	ug/L	97
78) 1,2,4-Trichlorobenzene	15.620	15.619	1.164	180	472299	48.75	ug/L	99
79) Hexachlorobutadiene	15.686	15.686	1.169	225	280754	47.71	ug/L	98
80) Naphthalene	15.989	15.988	1.192	128	1072953	48.76	ug/L	100
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.214	180	426882	50.49	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	5.967	6.082	0.711		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.		
87) Isopropyl Alcohol	6.167	6.163	0.735		0m	N.D.	d	
88) Allyl chloride	6.464	6.425	0.770		0m	N.D.	d	
89) tert-Butyl Alcohol	6.460	6.460	0.770		0m	N.D.	d	
90) Acrylonitrile	6.683	6.747	0.796		0m	N.D.	d	
91) Isopropyl ether	6.916	6.920	0.824		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	7.033	7.104	0.838		0m	N.D.	d	
93) Ethyl tert-butyl ether	7.196	7.192	0.858		0m	N.D.	d	
94) Ethyl acetate	7.376	7.383	0.879		0m	N.D.	d	
95) Propionitrile	7.663	7.585	0.913		0m	N.D.	d	
96) Methacrylonitrile	7.673	7.680	0.914		0m	N.D.	d	
97) Tetrahydrofuran	7.712	7.716	0.919		0m	N.D.	d	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A313.D  
Acq On : 3 Mar 2010 4:10 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100303-10|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[A] 0220-01C+0301-01  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 09 07:22:02 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	7.673	7.857	0.914		0m	N.D.	d
99) Methyl tert-amyl ether	8.119	8.122	0.968		0m	N.D.	d
100) Methyl methacrylate	8.830	8.801	1.052		0m	N.D.	d
101) 1,4-Dioxane	9.056	8.957	1.079		0m	N.D.	d
102) 2-Nitropropane	9.353	9.342	1.115		0m	N.D.	d
104) Ethyl methacrylate	9.869	9.859	0.886		0m	N.D.	d
106) 1-Chlorohexane	11.050	10.980	0.824		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	12.012	12.136	0.895		0m	N.D.	d
108) Cyclohexanone	12.267	12.267	0.914		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.415	12.412	0.925		0m	N.D.	d
110) Pentachloroethane	13.020	13.017	0.970		0m	N.D.	d
111) Benzyl chloride	13.558	13.565	1.011		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	13.926	13.929	1.038		0m	N.D.	d

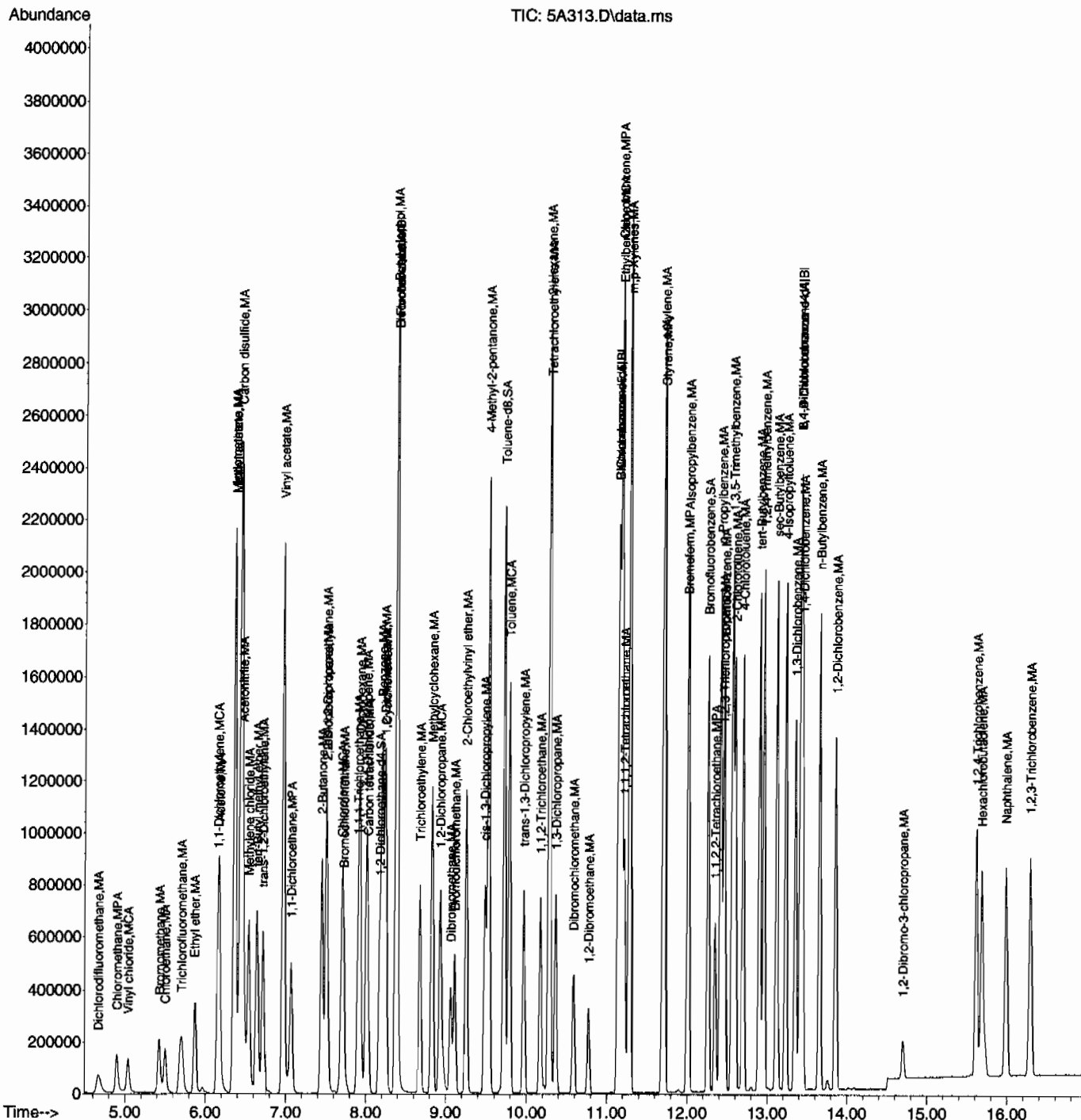
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A313.D  
Acq On : 3 Mar 2010 4:10 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100303-10|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[A] 0220-01C+0301-01  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 09 07:22:02 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE





## Continuing Calibration Summary

Client SDG: 10-2137

Instrument ID: VOA5.I

Injection Date 03-MAR-10 20:27

Data File: 030310V5\5A323.D

Init. Cal. Date(s) 03-MAR-10 11:52 - 03-MAR-10 19:3

Lab Sample ID W5VM100303-18 Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S1,2-Dichloroethane-d4	0.242	0.24732		.01		2.19835	30		Averaged
SToluene-d8	1.2787	1.27239		.01		-0.49347	30		Averaged
SBromofluorobenzene	1.0029	1.00377		.01		0.08675	30		Averaged
Chlorotrifluoroethylene	0.0804	0.08935		.01		11.13184	30		Averaged
2-Chloro-1,1,1-trifluoroethane	0.1173	0.12314		.01		4.97869	30		Averaged
Trichlorotrifluoroethane	0.0448	0.04225		.01		-5.69196	30		Averaged
Acrolein	250	209.83	250			-16.068	30		Linear
Isopropyl Alcohol	0.015	0.01636		.01		9.06667	40		Averaged
Allyl chloride	0.3291	0.29416		.01		-10.61683	30		Averaged
tert-Butyl Alcohol	0.022	0.02431		.01		10.5	40		Averaged
Acrylonitrile	0.0724	0.0686		.01		-5.24862	30		Averaged
Isopropyl ether	0.7367	0.73607		.01		-0.08552	30		Averaged
2-Chloro-1,3-butadiene	0.2124	0.22289		.01		4.93879	30		Averaged
Ethyl tert-butyl ether	0.5327	0.57757		.01		8.42313	30		Averaged
Ethyl acetate	0.196	0.17171		.01		-12.39286	40		Averaged
Propionitrile	0.0278	0.02682		.01		-3.52518	30		Averaged
Methacrylonitrile	0.153	0.14244		.01		-6.90196	30		Averaged
Tetrahydrofuran	0.0692	0.0645		.01		-6.79191	30		Averaged
Isobutyl alcohol	0.0073	0.00698		.01		-4.38356	40		Averaged
Methyl tert-amyl ether	0.4283	0.46461		.01		8.4777	30		Averaged
Methyl methacrylate	0.1155	0.1132		.01		-1.99134	30		Averaged
1,4-Dioxane	0.0021	0.00194		.01		-7.61905	40		Averaged
2-Nitropropane	250	229.4	250			-8.24	30		Linear
Ethyl methacrylate	0.2951	0.29405		.01		-0.35581	30		Averaged
1-Chlorohexane	0.5025	0.46939		.01		-6.58905	30		Averaged
cis-1,4-Dichloro-2-butene	0.187	0.18605		.01		-0.50802	30		Averaged
Cyclohexanone	0.0154	0.03579		.01		132.4026	40	*	Averaged
trans-1,4-Dichloro-2-butene	0.1761	0.17466		.01		-0.81772	30		Averaged
Pentachloroethane	0.2439	0.16659		.01		-31.69742	30	*	Averaged
Benzyl chloride	0.8953	0.78208		.01		-12.64604	30		Averaged
bis(2-Chloroisopropyl)ether	0.3294	0.30154		.01		-8.4578	30		Averaged



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A323.D  
Acq On : 3 Mar 2010 8:27 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100303-18|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[B] 0215-08A+0125-08E  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 07:08:25 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1707267	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1280650	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	656283	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1707267	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1280650	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	656283	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	422235	51.10	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.872	98	1629487	49.75	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	658756	50.04	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.608	4.668	0.549		0m	N.D.	d	
3) Chloromethane	4.890	4.900	0.583		0m	N.D.	d	
4) Vinyl chloride	5.041	5.041	0.601		0m	N.D.	d	
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.866	5.866	0.699		0m	N.D.	d	
9) Acetone	6.160	6.174	0.734		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.082	6.156	0.725		0m	N.D.	d	
11) Iodomethane	6.354	6.357	0.758		0m	N.D.	d	
12) Acetonitrile	6.340	6.464	0.756		0m	N.D.	d	
13) Methyl acetate	6.361	6.365	0.758		0m	N.D.	d	
14) Carbon disulfide	6.421	6.435	0.766		0m	N.D.	d	
15) Methylene chloride	6.538	6.538	0.779		0m	N.D.	d	
16) tert-Butyl methyl ether	6.644	6.640	0.792		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.793	6.969	0.810		0m	N.D.	d	
19) 1,1-Dichloroethane	7.100	7.068	0.847		0m	N.D.	d	
20) 2-Butanone	7.380	7.450	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	7.482	7.507	0.892		0m	N.D.	d	
22) 2,2-Dichloropropane	7.514	7.514	0.896		0m	N.D.	d	
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	7.967	7.924	0.950		0m	N.D.	d	
27) 1,1-Dichloropropene	8.122	8.005	0.968		0m	N.D.	d	
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.207	8.203	0.978		0m	N.D.	d	
32) Cyclohexene	8.249	8.246	0.984		0m	N.D.	d	
33) n-Butyl alcohol	8.384	8.377	1.000		0m	N.D.	d	
34) Trichloroethylene	8.684	8.677	1.035		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.840	8.826	1.054		0m	N.D.	d	
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	9.685	9.487	1.155		0m	N.D.	d	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A323.D  
Acq On : 3 Mar 2010 8:27 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100303-18|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[B] 0215-08A+0125-08E  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 07:08:25 2010

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Tue Mar 09 07:08:19 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
42) 4-Methyl-2-pentanone	9.519	9.526	0.854		0m	N.D.	d
44) Toluene	9.788	9.788	0.878		0m	N.D.	d
45) trans-1,3-Dichloroprop...	9.965	9.968	0.894		0m	N.D.	d
46) 1,1,2-Trichloroethane	10.290	10.173	0.924		0m	N.D.	d
47) 2-Hexanone	10.276	10.279	0.922		0m	N.D.	d
48) 1,3-Dichloropropane	10.364	10.364	0.930		0m	N.D.	d
49) Tetrachloroethylene	10.290	10.290	0.924		0m	N.D.	d
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	11.178	11.174	1.003		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	11.209	11.216	1.006		0m	N.D.	d
54) Ethylbenzene	11.209	11.181	1.006		0m	N.D.	d
55) m,p-Xylenes	11.284	11.280	1.013		0m	N.D.	d
56) o-Xylene	0.000	11.701	0.000		0	N.D.	
57) Styrene	11.712	11.715	1.051		0m	N.D.	d
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	12.019	12.016	0.896		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	12.458	12.465	0.929		0m	N.D.	d
65) n-Propylbenzene	12.412	12.415	0.925		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	12.567	12.564	0.937		0m	N.D.	d
67) 2-Chlorotoluene	12.599	12.596	0.939		0m	N.D.	d
68) 4-Chlorotoluene	12.702	12.698	0.947		0m	N.D.	d
69) tert-Butylbenzene	12.900	12.900	0.962		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	12.953	12.956	0.966		0m	N.D.	d
71) sec-Butylbenzene	13.116	13.119	0.978		0m	N.D.	d
72) 4-Isopropyltoluene	13.324	13.229	0.993		0m	N.D.	d
73) 1,3-Dichlorobenzene	13.356	13.349	0.996		0m	N.D.	d
74) 1,4-Dichlorobenzene	13.434	13.441	1.002		0m	N.D.	d
75) n-Butylbenzene	13.650	13.653	1.018		0m	N.D.	d
76) 1,2-Dichlorobenzene	13.851	13.858	1.033		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.620	15.619	1.165		0m	N.D.	d
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.988	15.988	1.192		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	16.284	16.291	1.214		0m	N.D.	d
83) Chlorotrifluoroethylene	4.608	4.608	0.549	116	457640	166.70	ug/L 98
84) 2-Chloro-1,1,1-trifluo...	5.111	5.111	0.609	118	630710	157.42	ug/L 99
85) Acrolein	6.078	6.082	0.725	56	203044	209.83	ug/L 100
86) Trichlorotrifluoroethane	6.071	6.071	0.724	85	360646	235.60	ug/L 99
87) Isopropyl Alcohol	6.163	6.163	0.735	45	1396118	2733.84	ug/L 100
88) Allyl chloride	6.425	6.425	0.766	41	2511086	223.48	ug/L 100
89) tert-Butyl Alcohol	6.457	6.460	0.770	59	2075409	2764.91	ug/L 91
90) Acrylonitrile	6.743	6.747	0.804	53	585578	237.02	ug/L 99
91) Isopropyl ether	6.916	6.920	0.825	45	1256662	49.96	ug/L 100
92) 2-Chloro-1,3-butadiene	7.104	7.104	0.847	53	380533	52.48	ug/L 99
93) Ethyl tert-butyl ether	7.192	7.192	0.857	59	986070	54.21	ug/L 100
94) Ethyl acetate	7.380	7.383	0.880	43	1465750	219.06	ug/L 100
95) Propionitrile	7.585	7.585	0.904	54	228923	240.74	ug/L 99
96) Methacrylonitrile	7.677	7.680	0.915	41	1215874	232.67	ug/L 99
97) Tetrahydrofuran	7.712	7.716	0.919	42	550635	233.15	ug/L 100



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A323.D  
Acq On : 3 Mar 2010 8:27 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100303-18|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[B] 0215-08A+0125-08E  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 07:08:25 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98) Isobutyl alcohol	7.861	7.857	0.937	41	595640	2394.15	ug/L	98
99) Methyl tert-amyl ether	8.119	8.122	0.968	73	793220	54.25	ug/L	99
100) Methyl methacrylate	8.801	8.801	1.049	69	966318	245.07	ug/L	100
101) 1,4-Dioxane	8.957	8.957	1.068	88	165981	2358.78	ug/L	99
102) 2-Nitropropane	9.339	9.342	1.113	43	457968	229.40	ug/L	100
104) Ethyl methacrylate	9.859	9.859	0.885	69	1882867	249.08	ug/L	100
106) 1-Chlorohexane	10.976	10.980	0.818	55	308055	46.71	ug/L	100
107) cis-1,4-Dichloro-2-butene	12.136	12.136	0.905	53	610518	248.78	ug/L	99
108) Cyclohexanone	12.267	12.267	0.915	42	587226	2910.89	ug/L	99 E
109) trans-1,4-Dichloro-2-b...	12.412	12.412	0.925	53	573129	247.92	ug/L	99
110) Pentachloroethane	13.017	13.017	0.970	167	546649	170.75	ug/L	99
111) Benzyl chloride	13.565	13.565	1.011	91	2566329	218.37	ug/L	100
112) bis(2-Chloroisopropyl)...	13.925	13.929	1.038	45	989493	228.84	ug/L	99

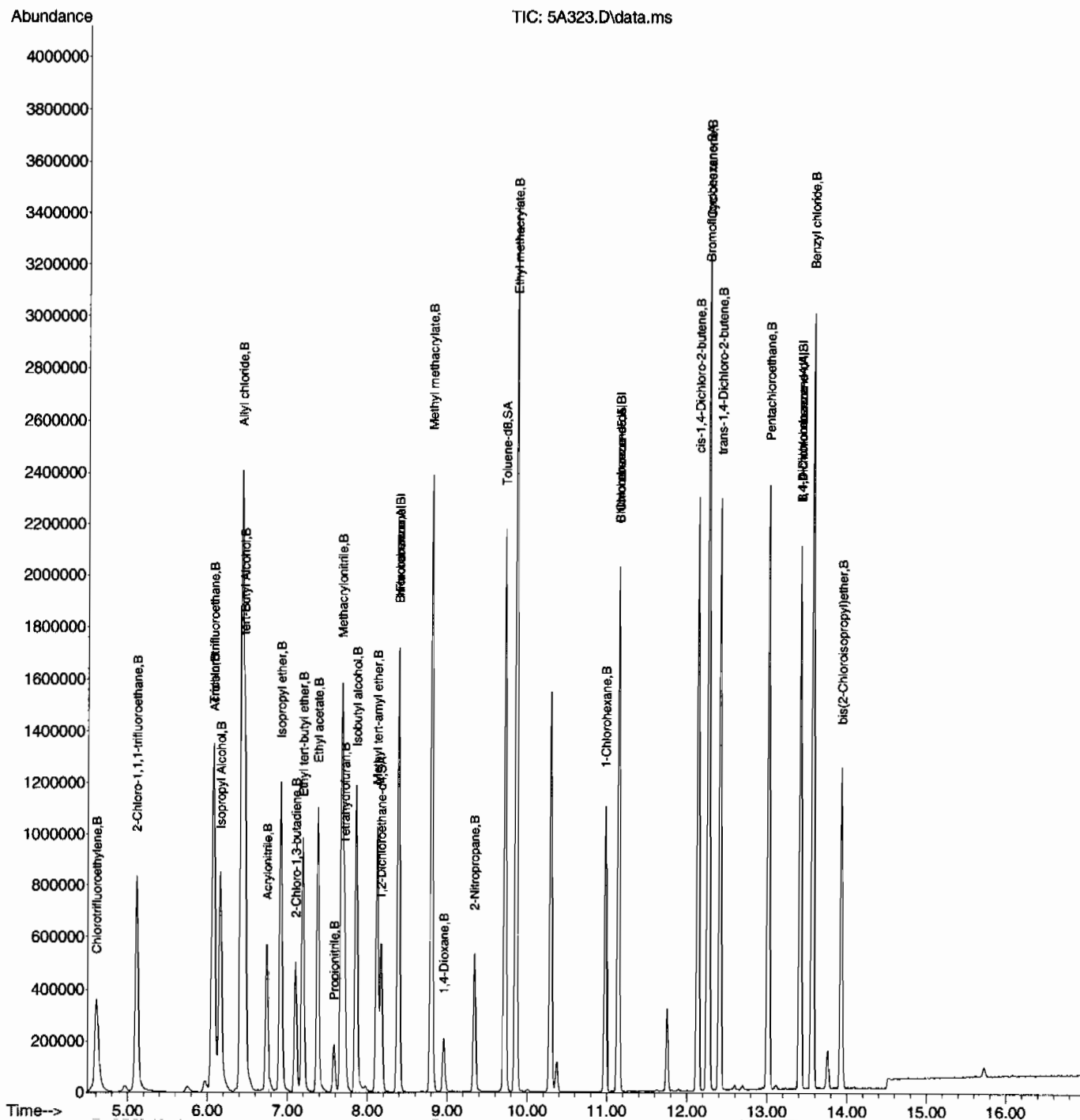
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A323.D  
Acq On : 3 Mar 2010 8:27 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100303-18|ICV|1|VOA|1|  
Misc : ICV 5mL - MIX[B] 0215-08A+0125-08E  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 07:08:25 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE





## Continuing Calibration Summary

Client SDG: 10-2137

Instrument ID: VOA5.I

Injection Date 05-MAR-10 15:17

Data File: 030510V5\5A502.D

Init. Cal. Date(s) 03-MAR-10 11:52 - 03-MAR-10 19:3

Lab Sample ID W5VM100305-01 Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S 1,2-Dichloroethane-d4	0.242	0.25525		.01		5.47521	30		Averaged	
S Toluene-d8	1.2787	1.27269		.01		-0.47001	30		Averaged	
S Bromofluorobenzene	1.0029	1.01191		.01		0.89839	30		Averaged	
Dichlorodifluoromethane	0.1166	0.11252		.01		-3.49914	30		Averaged	
Chloromethane	50	49.96	50			-0.08	30		Linear	spcc
Vinyl chloride	0.1232	0.12387		.01		0.54383	20		Averaged	ccc
Bromomethane	0.1177	0.11499		.01		-2.30246	30		Averaged	
Chloroethane	0.125	0.12669		.01		1.352	30		Averaged	
Trichlorofluoromethane	0.2144	0.23441		.01		9.33302	30		Averaged	
Ethyl ether	0.1846	0.19528		.01		5.78548	30		Averaged	
1,1-Dichloroethylene	0.2389	0.22984		.01		-3.79238	20		Averaged	ccc
Acetone	0.1495	0.15367		.01		2.7893	40		Averaged	
Iodomethane	0.2468	0.2291		.01		-7.1718	30		Averaged	
Methyl acetate	0.1633	0.15652		.01		-4.15187	40		Averaged	
Carbon disulfide	0.4789	0.43509		.01		-9.14805	30		Averaged	
Acetonitrile	0.0294	0.0273		.01		-7.14286	30		Averaged	
Methylene chloride	50	45.49	50			-9.02	30		Linear	
tert-Butyl methyl ether	0.4975	0.46629		.01		-6.27337	30		Averaged	
trans-1,2-Dichloroethylene	0.2598	0.24893		.01		-4.18399	30		Averaged	
Vinyl acetate	0.4091	0.43927		.01		7.37473	40		Averaged	
1,1-Dichloroethane	0.3217	0.30929		.1		-3.85763	30		Averaged	spcc
2-Butanone	0.178	0.19621		.01		10.23034	40		Averaged	
2,2-Dichloropropane	0.2385	0.22954		.01		-3.75681	30		Averaged	
cis-1,2-Dichloroethylene	0.3022	0.28558		.01		-5.49967	30		Averaged	
Chloroform	0.2882	0.27489		.01		-4.61832	20		Averaged	ccc
Bromochloromethane	0.0893	0.08783		.01		-1.64614	30		Averaged	
1,1,1-Trichloroethane	0.2377	0.23402		.01		-1.54817	30		Averaged	
Cyclohexane	0.3381	0.32537		.01		-3.76516	30		Averaged	
1,1-Dichloropropene	0.218	0.21178		.01		-2.85321	30		Averaged	
Carbon tetrachloride	0.2039	0.2045		.01		0.29426	30		Averaged	
Benzene	0.7238	0.66619		.01		-7.95938	30		Averaged	
1,2-Dichloroethane	0.249	0.23327		.01		-6.31727	30		Averaged	
Cyclohexene	0.3364	0.32115		.01		-4.53329	30		Averaged	
n-Butyl alcohol	5000	5996.96	5000			19.9392	40		Linear	
Trichloroethylene	0.1719	0.16431		.01		-4.41536	30		Averaged	
Methylcyclohexane	0.3141	0.30167		.01		-3.95734	30		Averaged	
1,2-Dichloropropane	0.2044	0.1933		.01		-5.43053	20		Averaged	ccc



## Continuing Calibration Summary

Instrument ID: VOA5.I

Injection Date 05-MAR-10 15:17

Data File: 030510V5\5A502.D

Init. Cal. Date(s) 03-MAR-10 11:52 03-MAR-10 19:3

Lab Sample ID W5VM100305-01

Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1039	0.10459		.01		0.6641	30		Averaged	
Bromodichloromethane	0.2124	0.21514		.01		1.29002	30		Averaged	
2-Chloroethylvinyl ether	0.0653	0.0737		.01		12.86371	30		Averaged	
cis-1,3-Dichloropropylene	0.2908	0.28876		.01		-0.70151	30		Averaged	
4-Methyl-2-pentanone	0.1196	0.12933		.01		8.13545	40		Averaged	
Toluene	1.0734	0.96239		.01		-10.3419	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3656	0.35522		.01		-2.83917	30		Averaged	
1,1,2-Trichloroethane	0.1811	0.17174		.01		-5.16842	30		Averaged	
2-Hexanone	0.3247	0.36259		.01		11.66923	40		Averaged	
Tetrachloroethylene	0.1966	0.18267		.01		-7.08545	30		Averaged	
1,3-Dichloropropane	0.3892	0.36598		.01		-5.96608	30		Averaged	
Dibromochloromethane	0.2155	0.22388		.01		3.88863	30		Averaged	
1,2-Dibromoethane	0.2099	0.2037		.01		-2.95379	30		Averaged	
Chlorobenzene	0.6963	0.6354		.3		-8.74623	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.2359	0.22879		.01		-3.01399	30		Averaged	
m,p-Xylenes	0.4639	0.43602		.01		-6.00992	30		Averaged	
o-Xylene	0.4688	0.43682		.01		-6.82167	30		Averaged	
Ethylbenzene	0.9865	0.90394		.01		-8.36898	20		Averaged	ccc
Styrene	0.7161	0.72		.01		0.54462	30		Averaged	
Bromoform	0.2722	0.28883		.1		6.10948	30		Averaged	spcc
Isopropylbenzene	2.2942	2.13269		.01		-7.03993	30		Averaged	
1,1,2,2-Tetrachloroethane	0.5938	0.56408		.3		-5.00505	30		Averaged	spcc
n-Propylbenzene	2.7698	2.52335		.01		-8.89775	30		Averaged	
1,2,3-Trichloropropane	0.1585	0.15453		.01		-2.50473	30		Averaged	
Bromobenzene	0.5771	0.51018		.01		-11.59591	30		Averaged	
1,3,5-Trimethylbenzene	1.9593	1.81054		.01		-7.59251	30		Averaged	
2-Chlorotoluene	0.5759	0.52044		.01		-9.63014	30		Averaged	
4-Chlorotoluene	1.7607	1.57716		.01		-10.42426	30		Averaged	
tert-Butylbenzene	0.451	0.41352		.01		-8.31042	30		Averaged	
1,2,4-Trimethylbenzene	2.5355	2.4119		.01		-4.87478	30		Averaged	
sec-Butylbenzene	2.5355	2.4119		.01		-4.87478	30		Averaged	
4-Isopropyltoluene	2.0151	1.94961		.01		-3.24996	30		Averaged	
1,3-Dichlorobenzene	1.0958	1.00707		.01		-8.09728	30		Averaged	
1,4-Dichlorobenzene	1.114	1.01483		.01		-8.90215	30		Averaged	
n-Butylbenzene	1.9772	1.87439		.01		-5.19978	30		Averaged	
1,2-Dichlorobenzene	1.0534	0.96971		.01		-7.94475	30		Averaged	
1,2-Dibromo-3-chloropropane	0.113	0.11379		.01		0.69912	30		Averaged	



## Continuing Calibration Summary

Instrument ID: VOA5.1

Injection Date 05-MAR-10 15:17

Data File: 030510V5\5A502.D

Init. Cal. Date(s) 03-MAR-10 11:52 03-MAR-10 19:3

Lab Sample ID W5VM100305-01 Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.7094	0.72207		.01		1.78602	30		Averaged
Hexachlorobutadiene	0.4309	0.43929		.01		1.94709	30		Averaged
Naphthalene	1.6113	1.68835		.01		4.78185	30		Averaged
1,2,3-Trichlorobenzene	0.6191	0.64197		.01		3.69407	30		Averaged



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A502.D  
Acq On : 5 Mar 2010 3:17 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100305-01|CCV|1|VOA|1|  
Misc : CCV 5mL - MIX[A]0106-07D+0222-07A  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 05 16:03:14 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Fri Mar 05 15:47:51 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	8.391	8.387	1.000	96	1815452	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1382681	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	728086	50.00	ug/L	0.00
82) B Fluorobenzene	8.391	8.391	1.000	96	1815452	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1382681	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	728086	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.973	65	463392	52.74	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.872	98	1759727	49.76	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	736760	50.45	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.668	4.668	0.556	85	204281	48.24	ug/L	100
3) Chloromethane	4.900	4.900	0.584	50	271540	49.96	ug/L	100
4) Vinyl chloride	5.041	5.041	0.601	62	224885	50.27	ug/L	100
5) Bromomethane	5.423	5.423	0.646	94	208758	48.83	ug/L	98
6) Chloroethane	5.504	5.504	0.656	64	230007	50.68	ug/L	100
7) Trichlorofluoromethane	5.705	5.695	0.680	101	425563	54.66	ug/L	99
8) Ethyl ether	5.866	5.866	0.699	59	354520	52.88	ug/L	99
9) Acetone	6.177	6.174	0.736	43	1394877	256.96	ug/L	100
10) 1,1-Dichloroethylene	6.156	6.156	0.734	61	417269	48.09	ug/L	99
11) Iodomethane	6.361	6.357	0.758	142	2079614	232.11	ug/L	100
12) Acetonitrile	6.464	6.464	0.770	41	1238967	1161.77	ug/L	100
13) Methyl acetate	6.365	6.365	0.759	43	1420799	239.68	ug/L	99
14) Carbon disulfide	6.435	6.435	0.767	76	3949382	227.14	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	315297	45.49	ug/L	97
16) tert-Butyl methyl ether	6.640	6.640	0.791	73	846535	46.87	ug/L	99
17) trans-1,2-Dichloroethy...	6.715	6.715	0.800	61	451924	47.91	ug/L	100
18) Vinyl acetate	6.969	6.969	0.831	43	3987345	268.44	ug/L	100
19) 1,1-Dichloroethane	7.072	7.068	0.843	63	561501	48.07	ug/L	100
20) 2-Butanone	7.450	7.450	0.888	43	1781050	275.58	ug/L	100
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	518448	47.25	ug/L	99
22) 2,2-Dichloropropane	7.510	7.514	0.895	77	416722	48.13	ug/L	100
23) Bromochloromethane	7.723	7.719	0.920	128	159453	49.19	ug/L	100
24) Chloroform	7.701	7.701	0.918	83	499043	47.70	ug/L	99
25) 1,1,1-Trichloroethane	7.907	7.906	0.942	97	424860	49.23	ug/L	100
26) Cyclohexane	7.924	7.924	0.944	56	590700	48.12	ug/L	99
27) 1,1-Dichloropropene	8.006	8.005	0.954	75	384475	48.57	ug/L	99
28) Carbon tetrachloride	8.020	8.020	0.956	117	371261	50.15	ug/L	99
30) 1,2-Dichloroethane	8.235	8.235	0.981	62	423498	46.84	ug/L	99
31) Benzene	8.204	8.203	0.978	78	1209438	46.02	ug/L	98
32) Cyclohexene	8.246	8.246	0.983	67	583040	47.73	ug/L	99
33) n-Butyl alcohol	8.377	8.377	0.998	56	1528657	5996.96	ug/L	99
34) Trichloroethylene	8.677	8.677	1.034	95	298296	47.79	ug/L	100
35) 1,2-Dichloropropane	8.929	8.932	1.064	63	350933	47.27	ug/L	99
36) Methylcyclohexane	8.833	8.826	1.053	83	547667	48.02	ug/L	98
37) Dibromomethane	9.059	9.059	1.080	93	189880	50.33	ug/L	99
38) Bromodichloromethane	9.109	9.112	1.086	83	390576	50.65	ug/L	99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	668973	282.08	ug/L	99
40) cis-1,3-Dichloropropylene	9.487	9.487	1.131	75	524235	49.65	ug/L	99



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A502.D  
Acq On : 5 Mar 2010 3:17 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100305-01|CCV|1|VOA|1|  
Misc : CCV 5mL - MIX[A]0106-07D+0222-07A  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 05 16:03:14 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Fri Mar 05 15:47:51 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
42) 4-Methyl-2-pentanone	9.530	9.526	0.855	58	894133	270.42	ug/L 100
44) Toluene	9.788	9.788	0.878	91	1330679	44.83	ug/L 100
45) trans-1,3-Dichloroprop...	9.965	9.968	0.894	75	491161	48.58	ug/L 99
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	237458	47.40	ug/L 100
47) 2-Hexanone	10.279	10.279	0.923	43	2506717	279.20	ug/L 100
48) 1,3-Dichloropropane	10.364	10.364	0.930	76	506036	47.02	ug/L 100
49) Tetrachloroethylene	10.294	10.290	0.924	164	252579	46.45	ug/L 99
50) Dibromochloromethane	10.584	10.583	0.950	129	309549	51.95	ug/L 99
51) 1,2-Dibromoethane	10.775	10.771	0.967	107	281651	48.53	ug/L 100
52) Chlorobenzene	11.174	11.174	1.003	112	878551	45.63	ug/L 99
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007	131	316346	48.50	ug/L 99
54) Ethylbenzene	11.701	11.701	1.050	91	1249865	45.81	ug/L 100
55) m,p-Xylenes	11.280	11.280	1.012	106	1205765	93.99	ug/L 99
56) o-Xylene	11.701	11.701	1.050	106	603989	46.59	ug/L 100
57) Styrene	11.715	11.715	1.051	104	995528	50.27	ug/L 99
59) Bromoform	12.005	12.005	0.895	173	210291	53.05	ug/L 99
60) Isopropylbenzene	12.016	12.016	0.896	105	1552780	46.48	ug/L 100
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	410697	47.50	ug/L 100
63) 1,2,3-Trichloropropane	12.454	12.454	0.929	110	112510	48.73	ug/L 99
64) Bromobenzene	12.465	12.465	0.929	156	371456	44.21	ug/L 99
65) n-Propylbenzene	12.415	12.415	0.926	91	1837218	45.55	ug/L 100
66) 1,3,5-Trimethylbenzene	12.564	12.564	0.937	105	1318231	46.20	ug/L 100
67) 2-Chlorotoluene	12.599	12.596	0.939	126	378923	45.19	ug/L 98
68) 4-Chlorotoluene	12.698	12.698	0.947	91	1148308	44.79	ug/L 100
69) tert-Butylbenzene	12.903	12.900	0.962	134	301079	45.84	ug/L 98
70) 1,2,4-Trimethylbenzene	13.119	13.119	0.978	105	1756073	47.56	ug/L 100
71) sec-Butylbenzene	13.119	13.119	0.978	105	1756073	47.56	ug/L 99
72) 4-Isopropyltoluene	13.232	13.229	0.987	119	1419485	48.38	ug/L 99
73) 1,3-Dichlorobenzene	13.353	13.349	0.996	146	733235	45.95	ug/L 99
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	738887	45.55	ug/L 100
75) n-Butylbenzene	13.653	13.653	1.018	91	1364720	47.40	ug/L 100
76) 1,2-Dichlorobenzene	13.858	13.858	1.033	146	706030	46.03	ug/L 99
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	82851	50.34	ug/L 99
78) 1,2,4-Trichlorobenzene	15.620	15.619	1.165	180	525729	50.89	ug/L 100
79) Hexachlorobutadiene	15.693	15.686	1.170	225	319838	50.98	ug/L 99
80) Naphthalene	15.988	15.988	1.192	128	1229261	52.39	ug/L 100
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	467411	51.85	ug/L 99
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	4.970	4.960	0.592		0m	N.D.	d
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.	
87) Isopropyl Alcohol	6.163	6.163	0.734		0m	N.D.	d
88) Allyl chloride	6.464	6.425	0.770		0m	N.D.	d
89) tert-Butyl Alcohol	6.471	6.460	0.771		0m	N.D.	d
90) Acrylonitrile	6.640	6.747	0.791		0m	N.D.	d
91) Isopropyl ether	6.966	6.920	0.830		0m	N.D.	d
92) 2-Chloro-1,3-butadiene	7.040	7.104	0.839		0m	N.D.	d
93) Ethyl tert-butyl ether	7.047	7.192	0.840		0m	N.D.	d
94) Ethyl acetate	7.390	7.383	0.881		0m	N.D.	d
95) Propionitrile	7.606	7.585	0.906		0m	N.D.	d
96) Methacrylonitrile	7.670	7.680	0.914		0m	N.D.	d
97) Tetrahydrofuran	7.765	7.716	0.925		0m	N.D.	d



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A502.D  
Acq On : 5 Mar 2010 3:17 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100305-01|CCV|1|VOA|1|  
Misc : CCV 5mL - MIX[A]0106-07D+0222-07A  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 05 16:03:14 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Fri Mar 05 15:47:51 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	7.670	7.857	0.914		0m	N.D.	d
99) Methyl tert-amyl ether	8.200	8.122	0.977		0m	N.D.	d
100) Methyl methacrylate	8.829	8.801	1.052		0m	N.D.	d
101) 1,4-Dioxane	9.056	8.957	1.079		0m	N.D.	d
102) 2-Nitropropane	9.130	9.342	1.088		0m	N.D.	d
104) Ethyl methacrylate	9.859	9.859	0.885		0m	N.D.	d
106) 1-Chlorohexane	10.980	10.980	0.819		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	12.136	12.136	0.905		0m	N.D.	d
108) Cyclohexanone	12.267	12.267	0.915		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.419	12.412	0.926		0m	N.D.	d
110) Pentachloroethane	13.017	13.017	0.970		0m	N.D.	d
111) Benzyl chloride	13.572	13.565	1.012		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	14.102	13.929	1.051		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\030510V5\
Data File : 5A502.D
Acq On    : 5 Mar 2010    3:17 pm
Operator  : CDS1
InstName  : VOA5
Sample    : |W5VM100305-01|CCV|1|VOA|1|
Misc      : CCV 5mL - MIX[A]0106-07D+0222-07A
ALS Vial  : 2    Sample Multiplier: 1

```

[illegible]



## Continuing Calibration Summary

Client SDG: 10-2137

Instrument ID: VOA5.I

Injection Date 05-MAR-10 16:40

Data File: 030510V5\5A505.D

Init. Cal. Date(s) 03-MAR-10 11:52 - 03-MAR-10 19:3

Lab Sample ID W5VM100305-04 Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.242	0.25129		.01		3.83884	30		Averaged
S Toluene-d8	1.2787	1.24629		.01		-2.53461	30		Averaged
S Bromofluorobenzene	1.0029	0.98427		.01		-1.85761	30		Averaged
Trichlorotrifluoroethane	0.0448	0.06411		.01		43.10268	30	*	Averaged
Allyl chloride	0.3291	0.30922		.01		-6.04072	30		Averaged
Acrylonitrile	0.0724	0.08249		.01		13.93646	30		Averaged
2-Chloro-1,3-butadiene	0.2124	0.29234		.01		37.63653	30	*	Averaged
Ethyl acetate	0.196	0.20808		.01		6.16327	40		Averaged
Propionitrile	0.0278	0.0326		.01		17.26619	30		Averaged
Methacrylonitrile	0.153	0.16933		.01		10.6732	30		Averaged
Tetrahydrofuran	0.0692	0.07826		.01		13.09249	30		Averaged
Isobutyl alcohol	0.0073	0.00863		.01		18.21918	40		Averaged
Methyl methacrylate	0.1155	0.13386		.01		15.8961	30		Averaged
1,4-Dioxane	0.0021	0.00227		.01		8.09524	40		Averaged
2-Nitropropane	250	279.97	250			11.988	30		Linear
Ethyl methacrylate	0.2951	0.33735		.01		14.31718	30		Averaged
cis-1,4-Dichloro-2-butene	0.187	0.22691		.01		21.34225	30		Averaged
Cyclohexanone	1250	1980.72	1250			58.4576	40	*	Linear
trans-1,4-Dichloro-2-butene	0.1761	0.21333		.01		21.1414	30		Averaged
Pentachloroethane	0.2439	0.26688		.01		9.42189	30		Averaged
Benzyl chloride	0.8953	1.11522		.01		24.56383	30		Averaged
bis(2-Chloroisopropyl)ether	0.3294	0.36358		.01		10.37644	30		Averaged



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A505.D  
Acq On : 5 Mar 2010 4:40 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100305-04|CCV|1|VOA|1|  
Misc : CCV 5G - SOIL MIX[B] UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 06 09:27:27 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Fri Mar 05 15:47:51 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1810003	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1370083	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	707376	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1810003	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1370083	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	707376	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	454839	51.92	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.872	98	1707521	48.73	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	696251	49.07	ug/L	0.00
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.648	4.668	0.554		0m	N.D.	d	
3) Chloromethane	4.880	4.900	0.582		0m	N.D.	d	
4) Vinyl chloride	5.031	5.041	0.600		0m	N.D.	d	
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	5.695	5.695	0.679		0m	N.D.	d	
8) Ethyl ether	5.877	5.866	0.701		0m	N.D.	d	
9) Acetone	6.174	6.174	0.736		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.142	6.156	0.732		0m	N.D.	d	
11) Iodomethane	6.361	6.357	0.758		0m	N.D.	d	
12) Acetonitrile	6.421	6.464	0.766		0m	N.D.	d	
13) Methyl acetate	6.365	6.365	0.759		0m	N.D.	d	
14) Carbon disulfide	6.425	6.435	0.766		0m	N.D.	d	
15) Methylene chloride	6.531	6.538	0.779		0m	N.D.	d	
16) tert-Butyl methyl ether	6.637	6.640	0.791		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	6.715	6.715	0.801		0m	N.D.	d	
18) Vinyl acetate	7.107	6.969	0.847		0m	N.D.	d	
19) 1,1-Dichloroethane	7.111	7.068	0.848		0m	N.D.	d	
20) 2-Butanone	7.380	7.450	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	7.503	7.507	0.895		0m	N.D.	d	
22) 2,2-Dichloropropane	7.528	7.514	0.898		0m	N.D.	d	
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	7.701	7.701	0.918		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	7.857	7.924	0.937		0m	N.D.	d	
27) 1,1-Dichloropropene	8.002	8.005	0.954		0m	N.D.	d	
28) Carbon tetrachloride	8.020	8.020	0.956		0m	N.D.	d	
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.193	8.203	0.977		0m	N.D.	d	
32) Cyclohexene	8.242	8.246	0.983		0m	N.D.	d	
33) n-Butyl alcohol	8.387	8.377	1.000		0m	N.D.	d	
34) Trichloroethylene	8.692	8.677	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.861	8.826	1.056		0m	N.D.	d	
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	9.484	9.487	1.131		0m	N.D.	d	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A505.D  
Acq On : 5 Mar 2010 4:40 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100305-04|CCV|1|VOA|1|  
Misc : CCV 5G - SOIL MIX[B] UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 06 09:27:27 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Fri Mar 05 15:47:51 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
42) 4-Methyl-2-pentanone	9.530	9.526	0.855		0m	N.D.	d
44) Toluene	9.781	9.788	0.878		0m	N.D.	d
45) trans-1,3-Dichloroprop...	9.968	9.968	0.895		0m	N.D.	d
46) 1,1,2-Trichloroethane	10.287	10.173	0.923		0m	N.D.	d
47) 2-Hexanone	10.279	10.279	0.923		0m	N.D.	d
48) 1,3-Dichloropropane	10.368	10.364	0.930		0m	N.D.	d
49) Tetrachloroethylene	10.294	10.290	0.924		0m	N.D.	d
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	10.767	10.771	0.966		0m	N.D.	d
52) Chlorobenzene	11.171	11.174	1.003		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007		0m	N.D.	d
54) Ethylbenzene	11.698	11.701	1.050		0m	N.D.	d
55) m,p-Xylenes	11.284	11.280	1.013		0m	N.D.	d
56) o-Xylene	11.705	11.701	1.050		0m	N.D.	d
57) Styrene	11.705	11.715	1.050		0m	N.D.	d
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	12.016	12.016	0.896		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	12.345	12.348	0.920		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	12.461	12.465	0.929		0m	N.D.	d
65) n-Propylbenzene	12.412	12.415	0.925		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	12.564	12.564	0.937		0m	N.D.	d
67) 2-Chlorotoluene	12.599	12.596	0.939		0m	N.D.	d
68) 4-Chlorotoluene	12.698	12.698	0.947		0m	N.D.	d
69) tert-Butylbenzene	12.900	12.900	0.962		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	13.116	13.119	0.978		0m	N.D.	d
71) sec-Butylbenzene	13.116	13.119	0.978		0m	N.D.	d
72) 4-Isopropyltoluene	13.232	13.229	0.987		0m	N.D.	d
73) 1,3-Dichlorobenzene	13.349	13.349	0.995		0m	N.D.	d
74) 1,4-Dichlorobenzene	13.434	13.441	1.002		0m	N.D.	d
75) n-Butylbenzene	13.653	13.653	1.018		0m	N.D.	d
76) 1,2-Dichlorobenzene	13.858	13.858	1.033		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	14.697	14.704	1.096		0m	N.D.	d
78) 1,2,4-Trichlorobenzene	15.620	15.619	1.165		0m	N.D.	d
79) Hexachlorobutadiene	15.686	15.686	1.169		0m	N.D.	d
80) Naphthalene	15.988	15.988	1.192		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	4.859	4.960	0.579	56	1894	Below Cal	86
86) Trichlorotrifluoroethane	6.075	6.071	0.724	85	580169	357.50 ug/L	97
87) Isopropyl Alcohol	0.000	6.163	0.000		0m	N.D.	d
88) Allyl chloride	6.421	6.425	0.766	41	2798481	234.92 ug/L	93
89) tert-Butyl Alcohol	0.000	6.460	0.000		0m	N.D.	d
90) Acrylonitrile	6.743	6.747	0.804	53	746526	285.02 ug/L	99
91) Isopropyl ether	0.000	6.920	0.000		0m	N.D.	d
92) 2-Chloro-1,3-butadiene	7.104	7.104	0.847	53	529134	68.83 ug/L	99
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0m	N.D.	d
94) Ethyl acetate	7.380	7.383	0.880	43	1883123	265.47 ug/L	100
95) Propionitrile	7.581	7.585	0.904	54	294996	292.61 ug/L	100
96) Methacrylonitrile	7.680	7.680	0.916	41	1532401	276.59 ug/L	99
97) Tetrahydrofuran	7.712	7.716	0.919	42	708242	282.87 ug/L	99



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A505.D  
Acq On : 5 Mar 2010 4:40 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100305-04|CCV|1|VOA|1|  
Misc : CCV 5G - SOIL MIX[B] UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 06 09:27:27 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Fri Mar 05 15:47:51 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98) Isobutyl alcohol	7.857	7.857	0.937	41	781266	2962.02	ug/L	99
99) Methyl tert-amyl ether	0.000	8.122	0.000		0m	N.D.	d	
100) Methyl methacrylate	8.801	8.801	1.049	69	1211433	289.79	ug/L	100
101) 1,4-Dioxane	8.957	8.957	1.068	88	205840	2759.18	ug/L	100
102) 2-Nitropropane	9.342	9.342	1.114	43	595877	279.97	ug/L	99
104) Ethyl methacrylate	9.859	9.859	0.885	69	2310980	285.76	ug/L	99
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.		
107) cis-1,4-Dichloro-2-butene	12.136	12.136	0.905	53	802558	303.41	ug/L	99
108) Cyclohexanone	12.267	12.267	0.915	42	1195682	1980.72	ug/L	99
109) trans-1,4-Dichloro-2-b...	12.412	12.412	0.925	53	754514	302.81	ug/L	100
110) Pentachloroethane	13.017	13.017	0.970	167	943907	273.55	ug/L	100
111) Benzyl chloride	13.565	13.565	1.011	91	3944412	311.39	ug/L	100
112) bis(2-Chloroisopropyl)...	13.929	13.929	1.038	45	1285922	275.92	ug/L	99

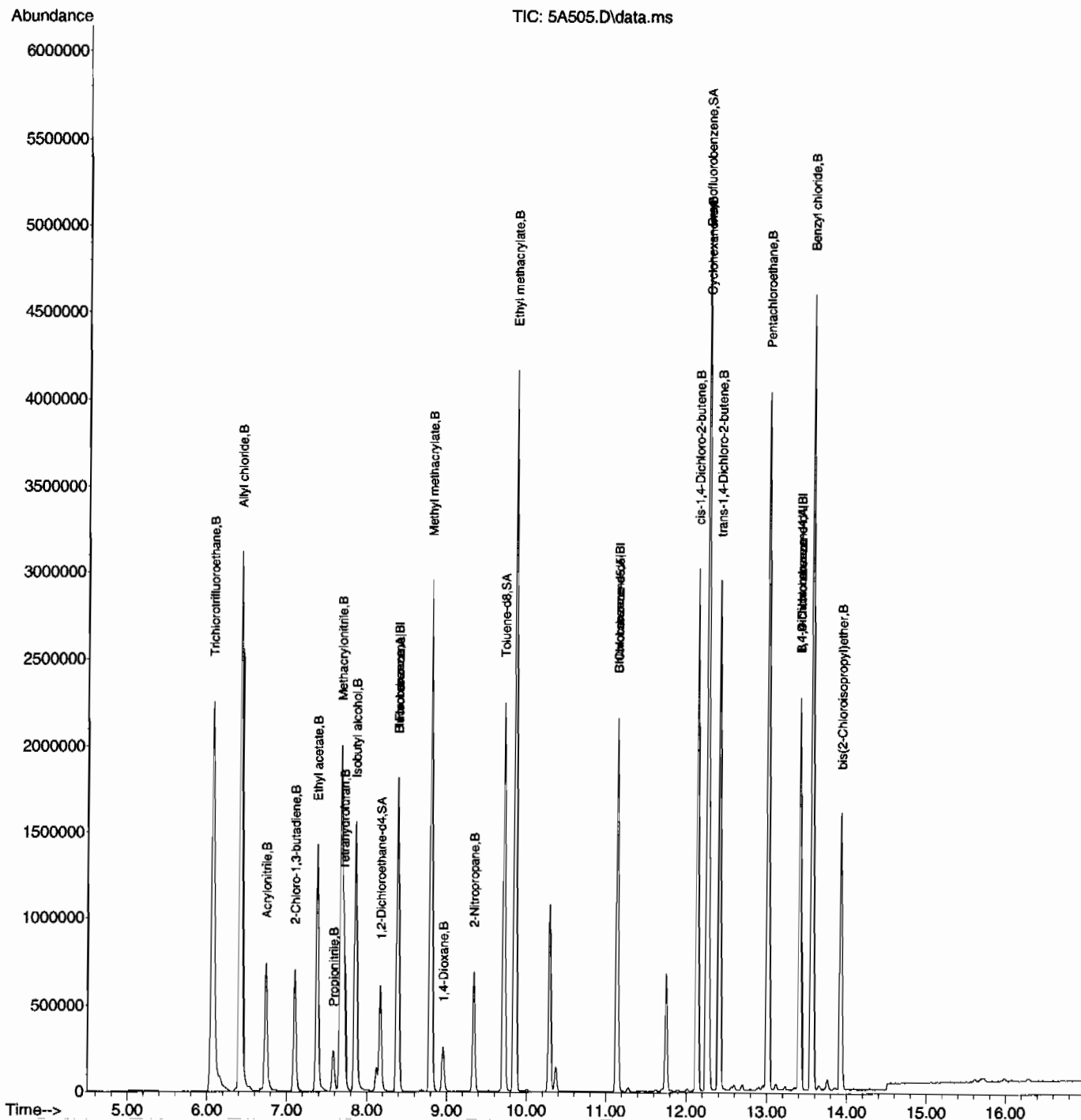
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A505.D  
Acq On : 5 Mar 2010 4:40 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100305-04|CCV|1|VOA|1|  
Misc : CCV 5G - SOIL MIX[B] UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 06 09:27:27 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Fri Mar 05 15:47:51 2010  
Response via : Initial Calibration  
Integrator: RTE





## Continuing Calibration Summary

Client SDG: 10-2137

Instrument ID: VOA5.1

Injection Date 09-MAR-10 08:09

Data File: 030910V5\5B203.D

Init. Cal. Date(s) 03-MAR-10 11:52 - 03-MAR-10 19:3

Lab Sample ID W5VM100309-02

Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S 1,2-Dichloroethane-d4	0.242	0.23528		.01		-2.77686	30		Averaged	
S Toluene-d8	1.2787	1.19707		.01		-6.38383	30		Averaged	
S Bromofluorobenzene	1.0029	1.10705		.01		10.38488	30		Averaged	
Dichlorodifluoromethane	0.1167	0.10607		.01		-9.10883	30		Averaged	
Chloromethane	50	46.08	50			-7.84	30		Linear	spcc
Vinyl chloride	0.1232	0.11862		.01		-3.71753	20		Averaged	ccc
Bromomethane	0.1177	0.11005		.01		-6.49958	30		Averaged	
Chloroethane	0.1249	0.11607		.01		-7.06966	30		Averaged	
Trichlorofluoromethane	0.2144	0.20793		.01		-3.01772	30		Averaged	
Ethyl ether	0.1846	0.1701		.01		-7.85482	30		Averaged	
1,1-Dichloroethylene	0.2389	0.21904		.01		-8.3131	20		Averaged	ccc
Acetone	0.1494	0.11559		.01		-22.63052	40		Averaged	
Methyl acetate	0.1633	0.13899		.01		-14.88671	40		Averaged	
Iodomethane	0.2468	0.22185		.01		-10.1094	30		Averaged	
Carbon disulfide	0.4789	0.4591		.01		-4.13447	30		Averaged	
Acetonitrile	0.0293	0.02476		.01		-15.49488	30		Averaged	
Methylene chloride	50	45.07	50			-9.86	30		Linear	
tert-Butyl methyl ether	0.4975	0.43481		.01		-12.60101	30		Averaged	
trans-1,2-Dichloroethylene	0.2598	0.2401		.01		-7.58276	30		Averaged	
Vinyl acetate	0.4091	0.42328		.01		3.46615	40		Averaged	
1,1-Dichloroethane	0.3217	0.29947		.1		-6.91016	30		Averaged	spcc
2-Butanone	0.178	0.14385		.01		-19.18539	40		Averaged	
2,2-Dichloropropane	0.2385	0.22648		.01		-5.03983	30		Averaged	
cis-1,2-Dichloroethylene	0.3022	0.28004		.01		-7.33289	30		Averaged	
Chloroform	0.2882	0.26347		.01		-8.58085	20		Averaged	ccc
Bromochloromethane	0.0893	0.0828		.01		-7.27884	30		Averaged	
1,1,1-Trichloroethane	0.2377	0.22116		.01		-6.95835	30		Averaged	
Cyclohexane	0.3381	0.32323		.01		-4.39811	30		Averaged	
1,1-Dichloropropene	0.218	0.20554		.01		-5.7156	30		Averaged	
Carbon tetrachloride	0.2039	0.1961		.01		-3.8254	30		Averaged	
Benzene	0.7238	0.64899		.01		-10.33573	30		Averaged	
1,2-Dichloroethane	0.249	0.22452		.01		-9.83133	30		Averaged	
Cyclohexene	0.3364	0.30407		.01		-9.61058	30		Averaged	
n-Butyl alcohol	5000	4717.76	5000			-5.6448	40		Linear	
Trichloroethylene	0.1719	0.15768		.01		-8.27225	30		Averaged	
Methylcyclohexane	0.3141	0.29237		.01		-6.91818	30		Averaged	
1,2-Dichloropropane	0.2044	0.18635		.01		-8.83072	20		Averaged	ccc



## Continuing Calibration Summary

Instrument ID: VOA5.I

Injection Date 09-MAR-10 08:09

Data File: 030910V5\5B203.D

Init. Cal. Date(s) 03-MAR-10 11:52 03-MAR-10 19:3

Lab Sample ID W5VM100309-02

Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1039	0.09834		.01		-5.3513	30		Averaged	
Bromodichloromethane	0.2124	0.20519		.01		-3.39454	30		Averaged	
2-Chloroethylvinyl ether	0.0653	0.05318		.01		-18.56049	30		Averaged	
cis-1,3-Dichloropropylene	0.2908	0.27165		.01		-6.58528	30		Averaged	
4-Methyl-2-pentanone	0.1196	0.1065		.01		-10.95318	40		Averaged	
Toluene	1.0734	0.91355		.01		-14.89193	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3656	0.33163		.01		-9.29158	30		Averaged	
1,1,2-Trichloroethane	0.1811	0.158		.01		-12.75538	30		Averaged	
2-Hexanone	0.3247	0.26044		.01		-19.79058	40		Averaged	
Tetrachloroethylene	0.1966	0.17018		.01		-13.43845	30		Averaged	
1,3-Dichloropropane	0.3892	0.33878		.01		-12.95478	30		Averaged	
Dibromochloromethane	0.2155	0.20129		.01		-6.59397	30		Averaged	
1,2-Dibromoethane	0.2099	0.18527		.01		-11.73416	30		Averaged	
Chlorobenzene	0.6963	0.60435		.3		-13.20551	30		Averaged	spcc
Ethylbenzene	1.2247	1.02625		.01		-16.20397	20		Averaged	ccc
1,1,1,2-Tetrachloroethane	0.2359	0.21134		.01		-10.41119	30		Averaged	
m,p-Xylenes	0.4639	0.4029		.01		-13.14939	30		Averaged	
o-Xylene	0.4688	0.40462		.01		-13.69027	30		Averaged	
Styrene	0.7161	0.66584		.01		-7.01857	30		Averaged	
Bromoform	0.2722	0.25527		.1		-6.21969	30		Averaged	spcc
Isopropylbenzene	2.2942	1.97862		.01		-13.75556	30		Averaged	
1,1,2,2-Tetrachloroethane	0.5938	0.49245		.3		-17.06804	30		Averaged	spcc
n-Propylbenzene	2.7698	2.35075		.01		-15.12925	30		Averaged	
1,2,3-Trichloropropane	0.1585	0.13519		.01		-14.70662	30		Averaged	
Bromobenzene	0.5771	0.48133		.01		-16.59504	30		Averaged	
1,3,5-Trimethylbenzene	1.9593	1.6888		.01		-13.80595	30		Averaged	
2-Chlorotoluene	0.5751	0.49422		.01		-14.06364	30		Averaged	
4-Chlorotoluene	1.761	1.47846		.01		-16.04429	30		Averaged	
tert-Butylbenzene	0.451	0.37206		.01		-17.50333	30		Averaged	
1,2,4-Trimethylbenzene	1.9934	1.71291		.01		-14.07093	30		Averaged	
sec-Butylbenzene	2.5353	2.19066		.01		-13.59366	30		Averaged	
4-Isopropyltoluene	2.0151	1.77009		.01		-12.1587	30		Averaged	
1,3-Dichlorobenzene	1.0958	0.93538		.01		-14.63953	30		Averaged	
1,4-Dichlorobenzene	1.114	0.93817		.01		-15.78366	30		Averaged	
n-Butylbenzene	1.9788	1.68879		.01		-14.65585	30		Averaged	
1,2-Dichlorobenzene	1.0534	0.8975		.01		-14.7997	30		Averaged	
1,2-Dibromo-3-chloropropane	0.113	0.09508		.01		-15.85841	30		Averaged	



## Continuing Calibration Summary

Page 3 of 3

Instrument ID: VOA5.I

Injection Date 09-MAR-10 08:09

Data File: 030910V5\SB203.D

Init. Cal. Date(s) 03-MAR-10 11:52 03-MAR-10 19:3

Lab Sample ID W5VM100309-02 Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.7094	0.64706		.01		-8.78771	30		Averaged
Hexachlorobutadiene	0.4309	0.39488		.01		-8.35925	30		Averaged
Naphthalene	1.6113	1.45416		.01		-9.75237	30		Averaged
1,2,3-Trichlorobenzene	0.6191	0.58341		.01		-5.76482	30		Averaged



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B203.D  
Acq On : 9 Mar 2010 8:09 am  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100309-02|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5ML - MIX[A] 0220-01E+0308-01  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 09 08:30:05 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1974825	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1509161	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	782696	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1974825	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1509161	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	782696	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	464635	48.61	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.872	98	1806573	46.81	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	866485	55.19	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	209463	45.43	ug/L	96
3) Chloromethane	4.900	4.900	0.584	50	271035	46.08	ug/L	96
4) Vinyl chloride	5.041	5.041	0.601	62	234262	48.14	ug/L	98
5) Bromomethane	5.423	5.423	0.647	94	217334	46.76	ug/L	98
6) Chloroethane	5.504	5.504	0.656	64	229211	46.45	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	410634	48.48	ug/L	99
8) Ethyl ether	5.867	5.866	0.699	59	335920	46.06	ug/L	96
9) Acetone	6.174	6.174	0.736	43	1141372	193.43	ug/L	99
10) 1,1-Dichloroethylene	6.152	6.156	0.734	61	432570	45.84	ug/L	99
11) Iodomethane	6.358	6.357	0.758	142	2190574	224.76	ug/L	99
12) Acetonitrile	6.460	6.464	0.770	41	1222191	1056.82	ug/L	98
13) Methyl acetate	6.361	6.365	0.758	43	1372387	212.83	ug/L	99
14) Carbon disulfide	6.432	6.435	0.767	76	4533260	239.68	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	339819	45.07	ug/L	97
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	858672	43.70	ug/L	100
17) trans-1,2-Dichloroethy...	6.715	6.715	0.801	61	474160	46.21	ug/L	100
18) Vinyl acetate	6.969	6.969	0.831	43	4179556	258.67	ug/L	99
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	591410	46.54	ug/L	100
20) 2-Butanone	7.450	7.450	0.888	43	1420430	202.04	ug/L	100
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	553027	46.33	ug/L	98
22) 2,2-Dichloropropane	7.510	7.514	0.895	77	447266	47.49	ug/L	98
23) Bromochloromethane	7.719	7.719	0.920	128	163518	46.38	ug/L	97
24) Chloroform	7.698	7.701	0.918	83	520315	45.72	ug/L	99
25) 1,1,1-Trichloroethane	7.907	7.906	0.943	97	436762	46.53	ug/L	99
26) Cyclohexane	7.924	7.924	0.945	56	638324	47.80	ug/L	99
27) 1,1-Dichloropropene	8.002	8.005	0.954	75	405910	47.14	ug/L	99
28) Carbon tetrachloride	8.020	8.020	0.956	117	387267	48.09	ug/L	100
30) 1,2-Dichloroethane	8.235	8.235	0.982	62	443386	45.08	ug/L	100
31) Benzene	8.200	8.203	0.978	78	1281634	44.83	ug/L	99
32) Cyclohexene	8.246	8.246	0.983	67	600478	45.19	ug/L	100
33) n-Butyl alcohol	8.377	8.377	0.999	56	1310629	4717.76	ug/L	99
34) Trichloroethylene	8.677	8.677	1.035	95	311389	45.86	ug/L	99
35) 1,2-Dichloropropane	8.929	8.932	1.065	63	368005	45.57	ug/L	100
36) Methylcyclohexane	8.830	8.826	1.053	83	577387	46.54	ug/L	99
37) Dibromomethane	9.059	9.059	1.080	93	194200	47.32	ug/L	99
38) Bromodichloromethane	9.109	9.112	1.086	83	405215	48.30	ug/L	100
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	525109	203.55	ug/L	100
40) cis-1,3-Dichloropropylene	9.484	9.487	1.131	75	536470	46.71	ug/L	98



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B203.D  
Acq On : 9 Mar 2010 8:09 am  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100309-02|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5ML - MIX[A] 0220-01E+0308-01  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 09 08:30:05 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	9.530	9.526	0.855	58	803611	222.67	ug/L	99
44) Toluene	9.788	9.788	0.878	91	1378687	42.55	ug/L	100
45) trans-1,3-Dichloroprop...	9.965	9.968	0.894	75	500489	45.35	ug/L	99
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	238450	43.61	ug/L	99
47) 2-Hexanone	10.279	10.279	0.923	43	1965226	200.54	ug/L	100
48) 1,3-Dichloropropane	10.361	10.364	0.930	76	511267	43.52	ug/L	99
49) Tetrachloroethylene	10.290	10.290	0.924	164	256828	43.28	ug/L	100
50) Dibromochloromethane	10.584	10.583	0.950	129	303778	46.71	ug/L	99
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	279595	44.14	ug/L	100
52) Chlorobenzene	11.174	11.174	1.003	112	912060	43.40	ug/L	99
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007	131	318943	44.80	ug/L	99
54) Ethylbenzene	11.178	11.181	1.003	91	1548777	41.90	ug/L	99
55) m,p-Xylenes	11.280	11.280	1.012	106	1216087	86.85	ug/L	100
56) o-Xylene	11.698	11.701	1.050	106	610634	43.16	ug/L	100
57) Styrene	11.712	11.715	1.051	104	1004856	46.49	ug/L	94
59) Bromoform	12.005	12.005	0.895	173	199798	46.89	ug/L	100
60) Isopropylbenzene	12.012	12.016	0.896	105	1548658	43.12	ug/L	100
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	385435	41.46	ug/L	100
63) 1,2,3-Trichloropropane	12.454	12.454	0.929	110	105816	42.64	ug/L #	88
64) Bromobenzene	12.465	12.465	0.929	156	376737	41.71	ug/L	99
65) n-Propylbenzene	12.415	12.415	0.926	91	1839924	42.43	ug/L	99
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	1321815	43.10	ug/L	99
67) 2-Chlorotoluene	12.596	12.596	0.939	126	386822	42.97	ug/L #	83
68) 4-Chlorotoluene	12.698	12.698	0.947	91	1157185	41.98	ug/L	100
69) tert-Butylbenzene	12.903	12.900	0.962	134	291212	41.25	ug/L	99
70) 1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	1340686	42.96	ug/L	99
71) sec-Butylbenzene	13.116	13.119	0.978	105	1714620	43.20	ug/L	100
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	1385439	43.92	ug/L	99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	732122	42.68	ug/L	99
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	734298	42.11	ug/L	99
75) n-Butylbenzene	13.653	13.653	1.018	91	1321811	42.67	ug/L	100
76) 1,2-Dichlorobenzene	13.855	13.858	1.033	146	702471	42.60	ug/L	100
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	74417	42.06	ug/L	97
78) 1,2,4-Trichlorobenzene	15.620	15.619	1.165	180	506455	45.61	ug/L	100
79) Hexachlorobutadiene	15.686	15.686	1.169	225	309071	45.82	ug/L	98
80) Naphthalene	15.988	15.988	1.192	128	1138164	45.12	ug/L	100
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	456629	47.12	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	5.967	6.082	0.711		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.		
87) Isopropyl Alcohol	6.170	6.163	0.736		0m	N.D.	d	
88) Allyl chloride	6.460	6.425	0.770		0m	N.D.	d	
89) tert-Butyl Alcohol	6.471	6.460	0.771		0m	N.D.	d	
90) Acrylonitrile	6.637	6.747	0.791		0m	N.D.	d	
91) Isopropyl ether	6.923	6.920	0.825		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	7.037	7.104	0.839		0m	N.D.	d	
93) Ethyl tert-butyl ether	7.058	7.192	0.841		0m	N.D.	d	
94) Ethyl acetate	7.380	7.383	0.880		0m	N.D.	d	
95) Propionitrile	7.670	7.585	0.914		0m	N.D.	d	
96) Methacrylonitrile	7.673	7.680	0.915		0m	N.D.	d	
97) Tetrahydrofuran	7.705	7.716	0.919		0m	N.D.	d	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B203.D  
Acq On : 9 Mar 2010 8:09 am  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100309-02|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5ML - MIX[A] 0220-01E+0308-01  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 09 08:30:05 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	7.854	7.857	0.936		0m	N.D.	d
99) Methyl tert-amyl ether	8.122	8.122	0.968		0m	N.D.	d
100) Methyl methacrylate	8.826	8.801	1.052		0m	N.D.	d
101) 1,4-Dioxane	9.059	8.957	1.080		0m	N.D.	d
102) 2-Nitropropane	9.360	9.342	1.116		0m	N.D.	d
104) Ethyl methacrylate	9.848	9.859	0.884		0m	N.D.	d
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	12.012	12.136	0.896		0m	N.D.	d
108) Cyclohexanone	12.292	12.267	0.916		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.408	12.412	0.925		0m	N.D.	d
110) Pentachloroethane	13.020	13.017	0.971		0m	N.D.	d
111) Benzyl chloride	13.561	13.565	1.011		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	14.067	13.929	1.049		0m	N.D.	d

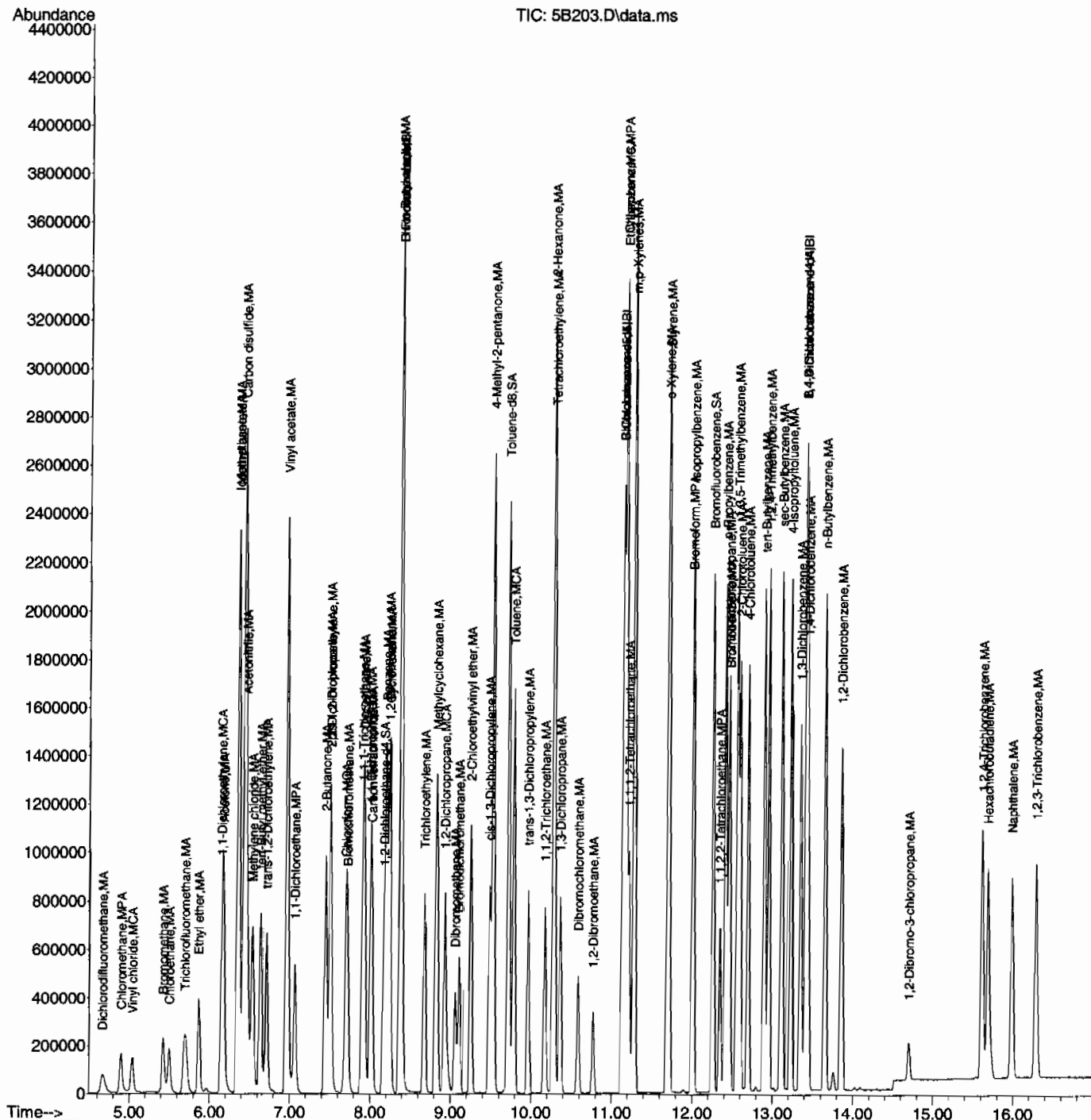
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B203.D  
Acq On : 9 Mar 2010 8:09 am  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100309-02|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5ML - MIX[A] 0220-01E+0308-01  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 09 08:30:05 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE





## Continuing Calibration Summary

Client SDG: 10-2137

Instrument ID: VOA5.I

Injection Date 09-MAR-10 09:18

Data File: 030910V5\5B205.D

Init. Cal. Date(s) 03-MAR-10 11:52 - 03-MAR-10 19:3

Lab Sample ID W5VM100309-04 Quant Type ISTD

Method: 030310V5\VOA5-8260-030310.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S1,2-Dichloroethane-d4	0.242	0.22435		.01		-7.29339	30		Averaged
SToluene-d8	1.2787	1.19019		.01		-6.92187	30		Averaged
SBromofluorobenzene	1.0029	1.11373		.01		11.05095	30		Averaged
Trichlorotrifluoroethane	0.0448	0.06684		.01		49.19643	30	*	Averaged
Acrolein		333.81				NA	30		Linear
Allyl chloride	0.3291	0.321		.01		-2.46126	30		Averaged
Acrylonitrile	0.0724	0.07489		.01		3.43923	30		Averaged
2-Chloro-1,3-butadiene	0.2124	0.29958		.01		41.0452	30	*	Averaged
Ethyl acetate	0.196	0.18302		.01		-6.62245	40		Averaged
Propionitrile	0.0278	0.02817		.01		1.33094	30		Averaged
Methacrylonitrile	0.153	0.15353		.01		0.34641	30		Averaged
Tetrahydrofuran	0.0692	0.06821		.01		-1.43064	30		Averaged
Isobutyl alcohol	0.0073	0.00724		.01		-0.82192	40		Averaged
Methyl methacrylate	0.1155	0.12232		.01		5.90476	30		Averaged
1,4-Dioxane	0.0021	0.00184		.01		-12.38095	40		Averaged
2-Nitropropane		246.58				NA	30		Linear
Ethyl methacrylate	0.2951	0.31966		.01		8.3226	30		Averaged
cis-1,4-Dichloro-2-butene	0.187	0.21751		.01		16.31551	30		Averaged
Cyclohexanone	0.0154	0.01464		.01		-4.93506	40		Averaged
trans-1,4-Dichloro-2-butene	0.1761	0.20432		.01		16.02499	30		Averaged
Pentachloroethane	0.2439	0.28189		.01		15.57606	30		Averaged
Benzyl chloride	0.8953	1.08083		.01		20.72266	30		Averaged
bis(2-Chloroisopropyl)ether	0.3294	0.31998		.01		-2.85974	30		Averaged



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B205.D  
Acq On : 9 Mar 2010 9:18 am  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100309-04|CCV|1|VOA|1|VOA8260BS|  
Misc : CCV 5G - SOIL MIX[B ]UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 10:41:06 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	8.388	8.387	1.000	96	1900502	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1419216	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	712034	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1900502	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1419216	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	712034	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	426373	46.35	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.872	98	1689130	46.54	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	793013	55.52	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.920	4.900	0.587		0m	N.D.	d	
4) Vinyl chloride	5.031	5.041	0.600		0m	N.D.	d	
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	5.695	5.695	0.679		0m	N.D.	d	
8) Ethyl ether	5.867	5.866	0.699		0m	N.D.	d	
9) Acetone	6.167	6.174	0.735		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.061	6.156	0.723		0m	N.D.	d	
11) Iodomethane	6.358	6.357	0.758		0m	N.D.	d	
12) Acetonitrile	6.421	6.464	0.766		0m	N.D.	d	
13) Methyl acetate	6.365	6.365	0.759		0m	N.D.	d	
14) Carbon disulfide	6.425	6.435	0.766		0m	N.D.	d	
15) Methylene chloride	6.538	6.538	0.779		0m	N.D.	d	
16) tert-Butyl methyl ether	6.637	6.640	0.791		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	6.708	6.715	0.800		0m	N.D.	d	
18) Vinyl acetate	7.097	6.969	0.846		0m	N.D.	d	
19) 1,1-Dichloroethane	7.104	7.068	0.847		0m	N.D.	d	
20) 2-Butanone	7.518	7.450	0.896		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	7.514	7.507	0.896		0m	N.D.	d	
22) 2,2-Dichloropropane	7.503	7.514	0.895		0m	N.D.	d	
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	7.702	7.701	0.918		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	7.861	7.924	0.937		0m	N.D.	d	
27) 1,1-Dichloropropene	8.002	8.005	0.954		0m	N.D.	d	
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.207	8.203	0.978		0m	N.D.	d	
32) Cyclohexene	8.172	8.246	0.974		0m	N.D.	d	
33) n-Butyl alcohol	8.381	8.377	0.999		0m	N.D.	d	
34) Trichloroethylene	8.692	8.677	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.805	8.826	1.050		0m	N.D.	d	
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	9.250	9.254	1.103		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	9.484	9.487	1.131		0m	N.D.	d	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B205.D  
Acq On : 9 Mar 2010 9:18 am  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100309-04|CCV|1|VOA|1|VOA8260BS|  
Misc : CCV 5G - SOIL MIX[B ]UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 10:41:06 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
42) 4-Methyl-2-pentanone	9.526	9.526	0.855		0m	N.D.	d
44) Toluene	9.792	9.788	0.879		0m	N.D.	d
45) trans-1,3-Dichloroprop...	9.965	9.968	0.894		0m	N.D.	d
46) 1,1,2-Trichloroethane	10.294	10.173	0.924		0m	N.D.	d
47) 2-Hexanone	10.280	10.279	0.923		0m	N.D.	d
48) 1,3-Dichloropropane	10.364	10.364	0.930		0m	N.D.	d
49) Tetrachloroethylene	10.294	10.290	0.924		0m	N.D.	d
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	10.775	10.771	0.967		0m	N.D.	d
52) Chlorobenzene	11.174	11.174	1.003		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	11.210	11.216	1.006		0m	N.D.	d
54) Ethylbenzene	11.178	11.181	1.003		0m	N.D.	d
55) m,p-Xylenes	11.277	11.280	1.012		0m	N.D.	d
56) o-Xylene	11.705	11.701	1.050		0m	N.D.	d
57) Styrene	11.712	11.715	1.051		0m	N.D.	d
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	12.016	12.016	0.896		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	12.352	12.348	0.921		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	12.465	12.465	0.929		0m	N.D.	d
65) n-Propylbenzene	12.408	12.415	0.925		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936		0m	N.D.	d
67) 2-Chlorotoluene	12.596	12.596	0.939		0m	N.D.	d
68) 4-Chlorotoluene	12.698	12.698	0.947		0m	N.D.	d
69) tert-Butylbenzene	12.911	12.900	0.963		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	12.957	12.956	0.966		0m	N.D.	d
71) sec-Butylbenzene	13.109	13.119	0.977		0m	N.D.	d
72) 4-Isopropyltoluene	13.236	13.229	0.987		0m	N.D.	d
73) 1,3-Dichlorobenzene	13.353	13.349	0.996		0m	N.D.	d
74) 1,4-Dichlorobenzene	13.434	13.441	1.002		0m	N.D.	d
75) n-Butylbenzene	13.660	13.653	1.018		0m	N.D.	d
76) 1,2-Dichlorobenzene	13.848	13.858	1.032		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	14.690	14.704	1.095		0m	N.D.	d
78) 1,2,4-Trichlorobenzene	15.620	15.619	1.165		0m	N.D.	d
79) Hexachlorobutadiene	15.686	15.686	1.169		0m	N.D.	d
80) Naphthalene	15.989	15.988	1.192		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	6.082	6.082	0.725	56	370437	333.81 ug/L	97
86) Trichlorotrifluoroethane	6.071	6.071	0.724	85	635147	372.74 ug/L	99
87) Isopropyl Alcohol	0.000	6.163	0.000		0m	N.D.	d
88) Allyl chloride	6.421	6.425	0.766	41	3050275	243.86 ug/L	93
89) tert-Butyl Alcohol	6.425	6.460	0.766	59	1736	N.D.	
90) Acrylonitrile	6.743	6.747	0.804	53	711640	258.76 ug/L	99
91) Isopropyl ether	7.097	6.920	0.846	45	248	N.D.	
92) 2-Chloro-1,3-butadiene	7.104	7.104	0.847	53	569347	70.54 ug/L	99
93) Ethyl tert-butyl ether	7.380	7.192	0.880	59	1043	N.D.	
94) Ethyl acetate	7.380	7.383	0.880	43	1739138	233.50 ug/L	100
95) Propionitrile	7.581	7.585	0.904	54	267682	252.88 ug/L	99
96) Methacrylonitrile	7.677	7.680	0.915	41	1458881	250.78 ug/L	100
97) Tetrahydrofuran	7.712	7.716	0.919	42	648171	246.55 ug/L	100



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B205.D  
Acq On : 9 Mar 2010 9:18 am  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100309-04|CCV|1|VOA|1|VOA8260BS|  
Misc : CCV 5G - SOIL MIX[B ]UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 10:41:06 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98) Isobutyl alcohol	7.857	7.857	0.937	41	688392	2485.63	ug/L	100
99) Methyl tert-amyl ether	8.211	8.122	0.979	73	112	N.D.		
100) Methyl methacrylate	8.801	8.801	1.049	69	1162326	264.80	ug/L	99
101) 1,4-Dioxane	8.953	8.957	1.067	88	175240	2237.15	ug/L	99
102) 2-Nitropropane	9.342	9.342	1.114	43	549180	246.58	ug/L	99
104) Ethyl methacrylate	9.859	9.859	0.885	69	2268310	270.77	ug/L	100
106) 1-Chlorohexane	11.058	10.980	0.824	55	112	N.D.		
107) cis-1,4-Dichloro-2-butene	12.136	12.136	0.905	53	774355	290.83	ug/L	99
108) Cyclohexanone	12.267	12.267	0.915	42	260615	1190.72	ug/L	98 E
109) trans-1,4-Dichloro-2-b...	12.408	12.412	0.925	53	727410	290.02	ug/L	100
110) Pentachloroethane	13.017	13.017	0.970	167	1003582	288.94	ug/L	100
111) Benzyl chloride	13.565	13.565	1.011	91	3847923	301.79	ug/L	100
112) bis(2-Chloroisopropyl)...	13.926	13.929	1.038	45	1139180	242.83	ug/L	100

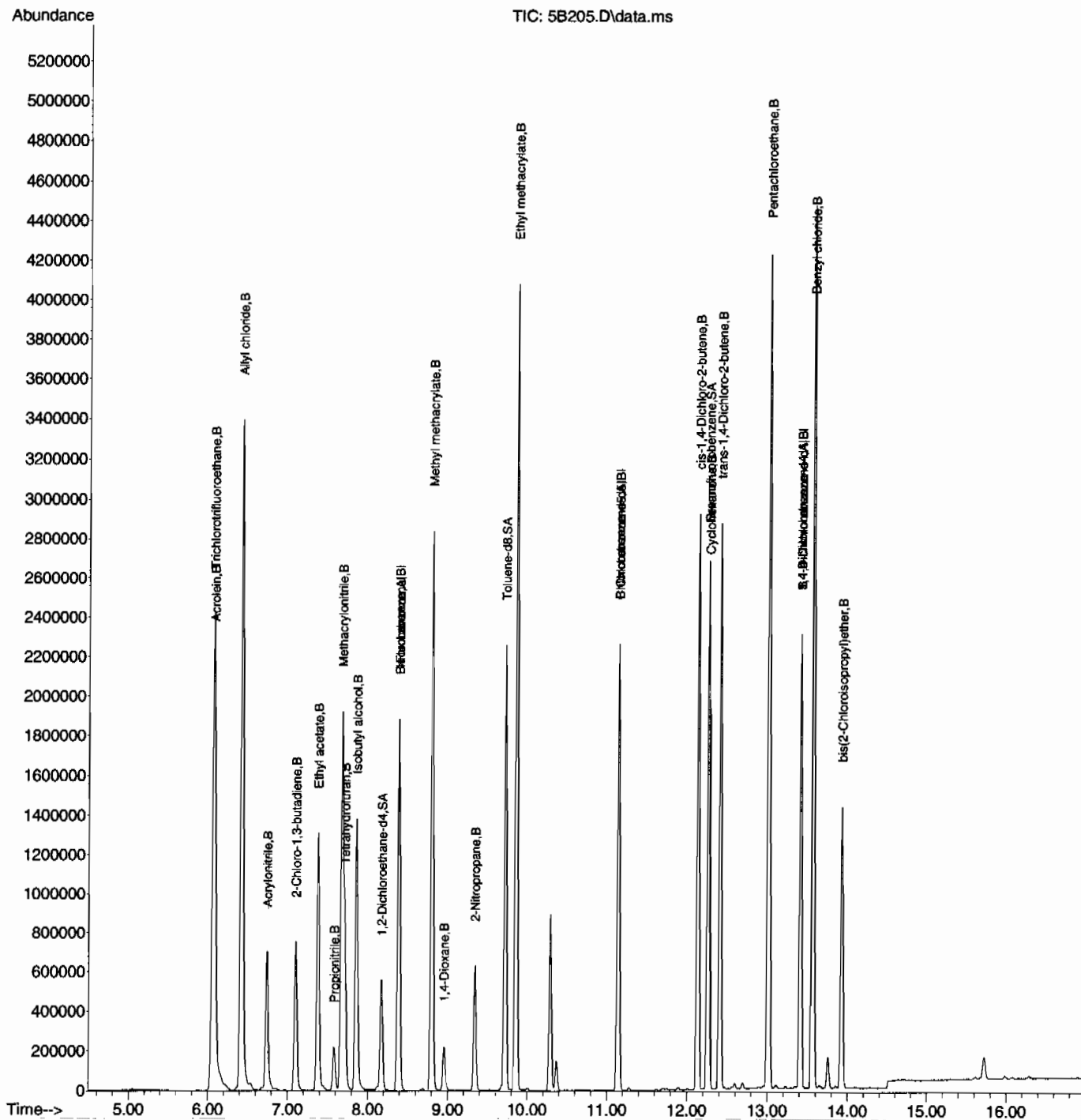
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B205.D  
Acq On : 9 Mar 2010 9:18 am  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100309-04|CCV|1|VOA|1|VOA8260BS|  
Misc : CCV 5G - SOIL MIX[B ]UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 10:41:06 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE





# Quality Control Data

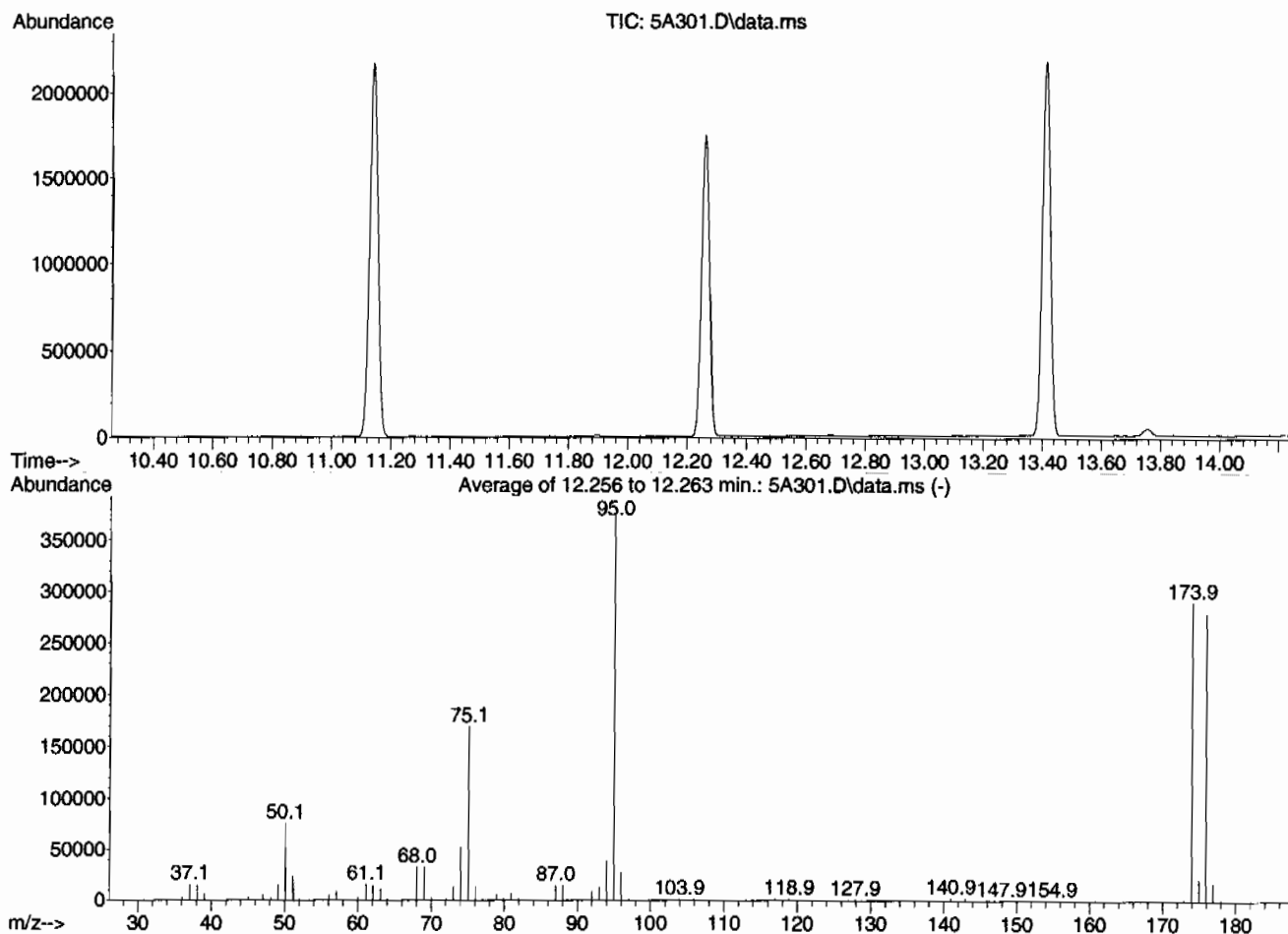


Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V5\  
Data File : 5A301.D  
Acq On : 3 Mar 2010 11:00 am  
Operator : CDS1  
Sample : |UVM100203-02|BFB|1|VOA|1|VOA8260BL|  
Misc : BFB 5mL N/A  
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Title : Volatile Organics 8260B SubList :  
Last Update : Fri Mar 05 15:47:51 2010



Spectrum Information: Average of 12.256 to 12.263 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	75616	PASS
75	95	30	60	45.2	169109	PASS
95	95	100	100	100.0	373952	PASS
96	95	5	9	7.4	27492	PASS
173	174	0.00	2	0.6	1817	PASS
174	95	50	100	77.7	290688	PASS
175	174	5	9	7.4	21371	PASS
176	174	95	101	96.2	279659	PASS
177	176	5	9	6.3	17646	PASS

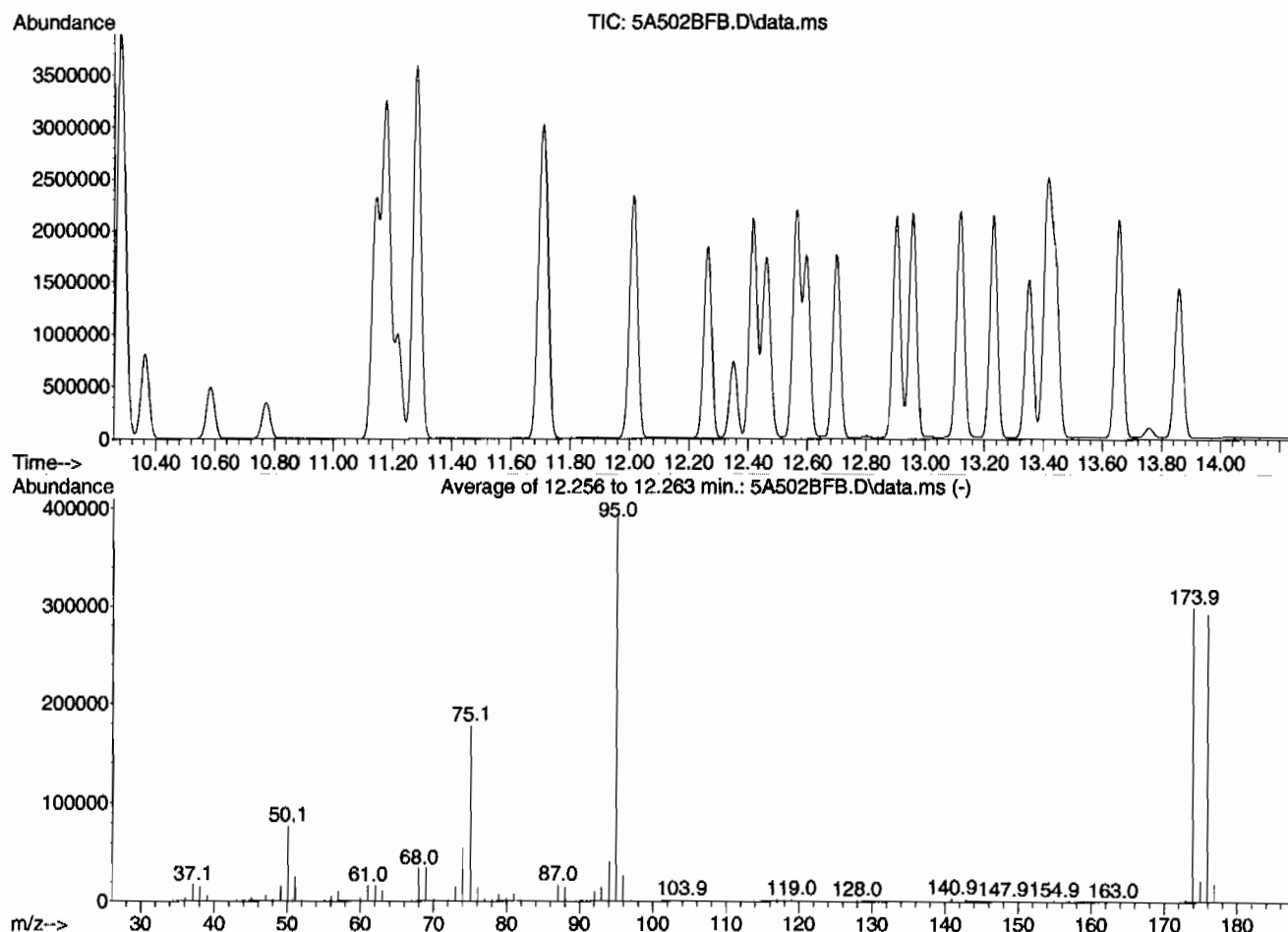


Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A502BFB.D  
Acq On : 5 Mar 2010 3:17 pm  
Operator : CDS1  
Sample : |W5VM100305-01|CCV|1|VOA|1|  
Misc : CCV 5mL - MIX[A]0106-07D+0222-07A  
ALS Vial : 2 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Title : Volatile Organics 8260B SubList :  
Last Update : Fri Mar 05 15:47:51 2010



AutoFind: Scans 1916, 1917, 1918; Background Corrected with Scan 1902

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.6	76397	PASS
75	95	30	60	45.3	177024	PASS
95	95	100	100	100.0	390656	PASS
96	95	5	9	6.5	25574	PASS
173	174	0.00	2	0.7	2018	PASS
174	95	50	100	76.4	298475	PASS
175	174	5	9	7.2	21480	PASS
176	174	95	101	97.7	291712	PASS
177	176	5	9	6.3	18480	PASS

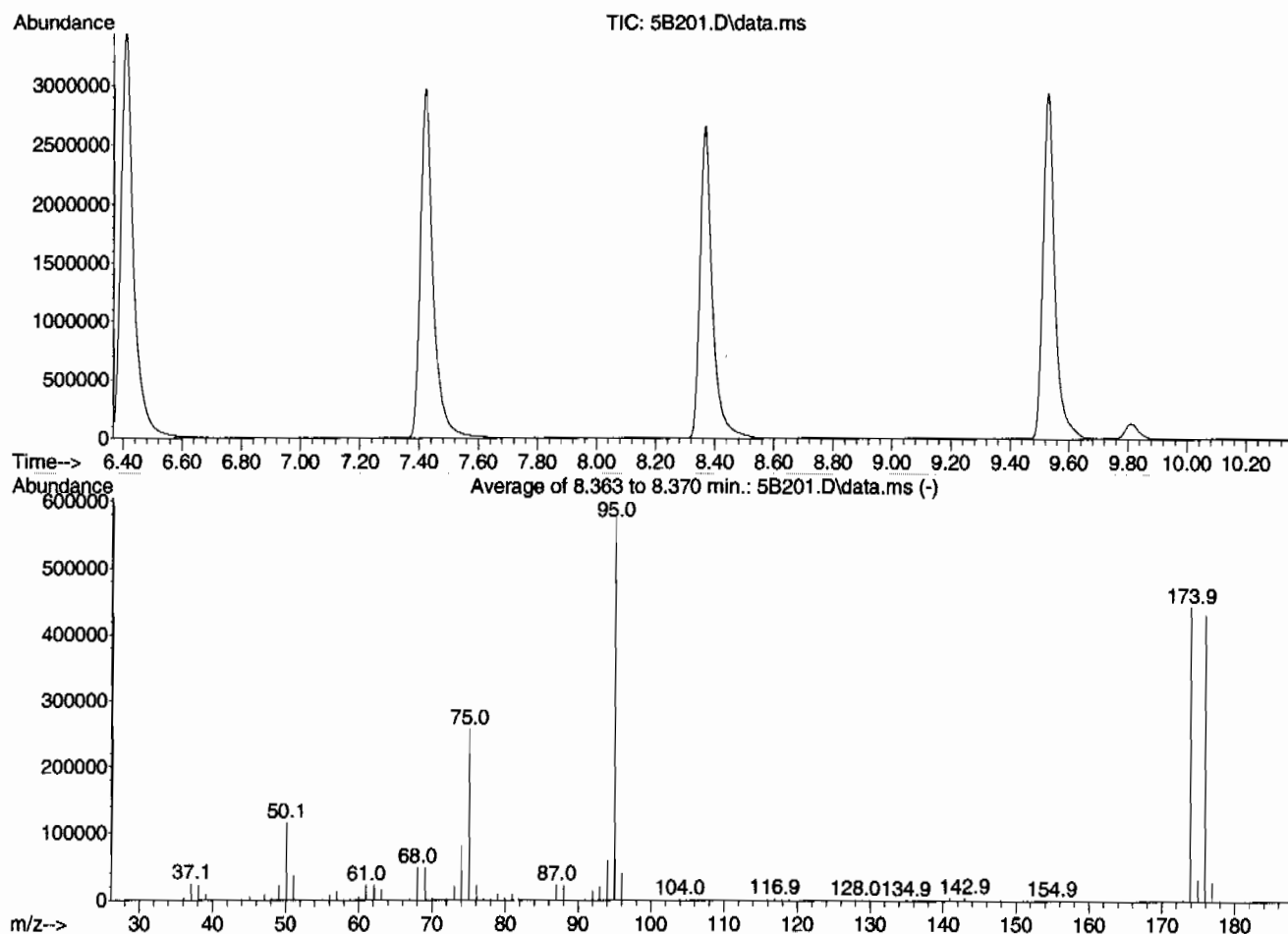


Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B201.D  
Acq On : 9 Mar 2010 7:14 am  
Operator : CDS1  
Sample : |UVM100217-02|BFB|1|VOA|1|VOA8260BL|  
Misc : BFB 5mL N/A  
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Title : Volatile Organics 8260B SubList :  
Last Update : Tue Mar 09 07:08:19 2010



Spectrum Information: Average of 8.363 to 8.370 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	115432	PASS
75	95	30	60	44.8	257877	PASS
95	95	100	100	100.0	575680	PASS
96	95	5	9	6.9	39640	PASS
173	174	0.00	2	0.6	2818	PASS
174	95	50	100	77.0	443520	PASS
175	174	5	9	7.1	31653	PASS
176	174	95	101	97.3	431573	PASS
177	176	5	9	6.6	28499	PASS



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

SDG Number: 10-2137  
 Lab Sample ID: 1202063154  
 Client Sample: QC for batch 961878  
 Client ID: MB for batch 961878  
 Batch ID: 961880  
 Run Date: 03/05/2010 17:46  
 Prep Date: 03/05/2010 15:26  
 Data File: 030510V5\5A507LA.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 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: 10-2137  
Lab Sample ID: 1202063154  
Client Sample: QC for batch 961878  
Client ID: MB for batch 961878  
Batch ID: 961880  
Run Date: 03/05/2010 17:46  
Prep Date: 03/05/2010 15:26  
Data File: 030510V55A507LA.D

Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: CDS1  
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
No Tentatively Identified Compounds Found				ug/kg		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A507LA.D  
Acq On : 5 Mar 2010 5:46 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063154|961880|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 07:55:54 2010  
Quant Method : C:\msdchem\1\DATA\030510V5\Methods\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev (Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1793806	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1339902	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	676292	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1793806	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1339902	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	676292	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	440572	50.75	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	101.50%			
43) Toluene-d8	9.721	9.721	0.872	98	1690066	49.32	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	98.64%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	689245	50.81	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	101.62%			
Target Compounds								
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.900	4.900	0.584	50	2646	Below Cal		70
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	0.000	5.866	0.000		0	N.D.		
9) Acetone	6.170	6.174	0.736	43	2162	N.D.		
10) 1,1-Dichloroethylene	0.000	6.156	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.457	6.464	0.770	41	1456	N.D.		
13) Methyl acetate	6.368	6.365	0.759	43	168	N.D.		
14) Carbon disulfide	6.435	6.435	0.767	76	2520	N.D.		
15) Methylene chloride	6.538	6.538	0.779	84	7194	N.D.		
16) tert-Butyl methyl ether	0.000	6.640	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.966	6.969	0.831	43	131	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	7.450	7.450	0.888	43	404	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	0.000	7.924	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.005	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.204	8.203	0.978	78	398	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D. d		
33) n-Butyl alcohol	8.384	8.377	1.000	56	9615	Below Cal	#	20
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.826	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A507LA.D  
Acq On : 5 Mar 2010 5:46 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063154|961880|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 07:55:54 2010  
Quant Method : C:\msdchem\1\DATA\030510V5\Methods\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	9.487	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.788	9.788	0.878	91	1673	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	10.276	10.279	0.922	43	1117	N.D.	
48) 1,3-Dichloropropane	0.000	10.364	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	11.171	11.174	1.003	112	108	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.174	11.181	1.003	91	1136	N.D.	
55) m,p-Xylenes	11.277	11.280	1.012	106	333	N.D.	
56) o-Xylene	0.000	11.701	0.000		0	N.D.	
57) Styrene	11.726	11.715	1.052	104	394	N.D.	
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	12.016	12.016	0.896	105	111	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	12.472	12.465	0.930	156	121	N.D.	
65) n-Propylbenzene	12.415	12.415	0.926	91	2356	N.D.	
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	657	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.698	12.698	0.947	91	2249	N.D.	
69) tert-Butylbenzene	12.896	12.900	0.962	134	134	N.D.	
70) 1,2,4-Trimethylbenzene	12.949	12.956	0.965	105	1097	N.D.	
71) sec-Butylbenzene	13.105	13.119	0.977	105	1202	N.D.	
72) 4-Isopropyltoluene	13.225	13.229	0.986	119	3472	N.D.	
73) 1,3-Dichlorobenzene	13.345	13.349	0.995	146	397	N.D.	
74) 1,4-Dichlorobenzene	13.451	13.441	1.003	146	149	N.D.	
75) n-Butylbenzene	13.653	13.653	1.018	91	1778	N.D.	
76) 1,2-Dichlorobenzene	13.858	13.858	1.033	146	251	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	1109	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.981	15.988	1.191	128	3253	N.D.	
81) 1,2,3-Trichlorobenzene	16.298	16.291	1.215	180	796	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.082	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.163	0.000		0	N.D.	
88) Allyl chloride	6.421	6.425	0.766	41	626	N.D.	
89) tert-Butyl Alcohol	0.000	6.460	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.747	0.000		0	N.D.	
91) Isopropyl ether	7.090	6.920	0.845	45	124	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	7.450	7.383	0.888	43	404	N.D.	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A507LA.D  
Acq On : 5 Mar 2010 5:46 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063154|961880|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 07:55:54 2010  
Quant Method : C:\msdchem\1\DATA\030510V5\Methods\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.677	7.680	0.915	41	117	N.D.	
97) Tetrahydrofuran	7.719	7.716	0.920	42	683	N.D.	
98) Isobutyl alcohol	7.882	7.857	0.940	41	112	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.	
100) Methyl methacrylate	0.000	8.801	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	0.000	9.342	0.000		0	N.D.	
104) Ethyl methacrylate	9.848	9.859	0.884	69	112	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	12.136	0.000		0	N.D.	
108) Cyclohexanone	12.267	12.267	0.915	42	262	N.D.	
109) trans-1,4-Dichloro-2-b...	12.405	12.412	0.925	53	108	N.D.	
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.565	13.565	1.011	91	4129	N.D.	
112) bis(2-Chloroisopropyl)...	13.922	13.929	1.038	45	944	N.D.	

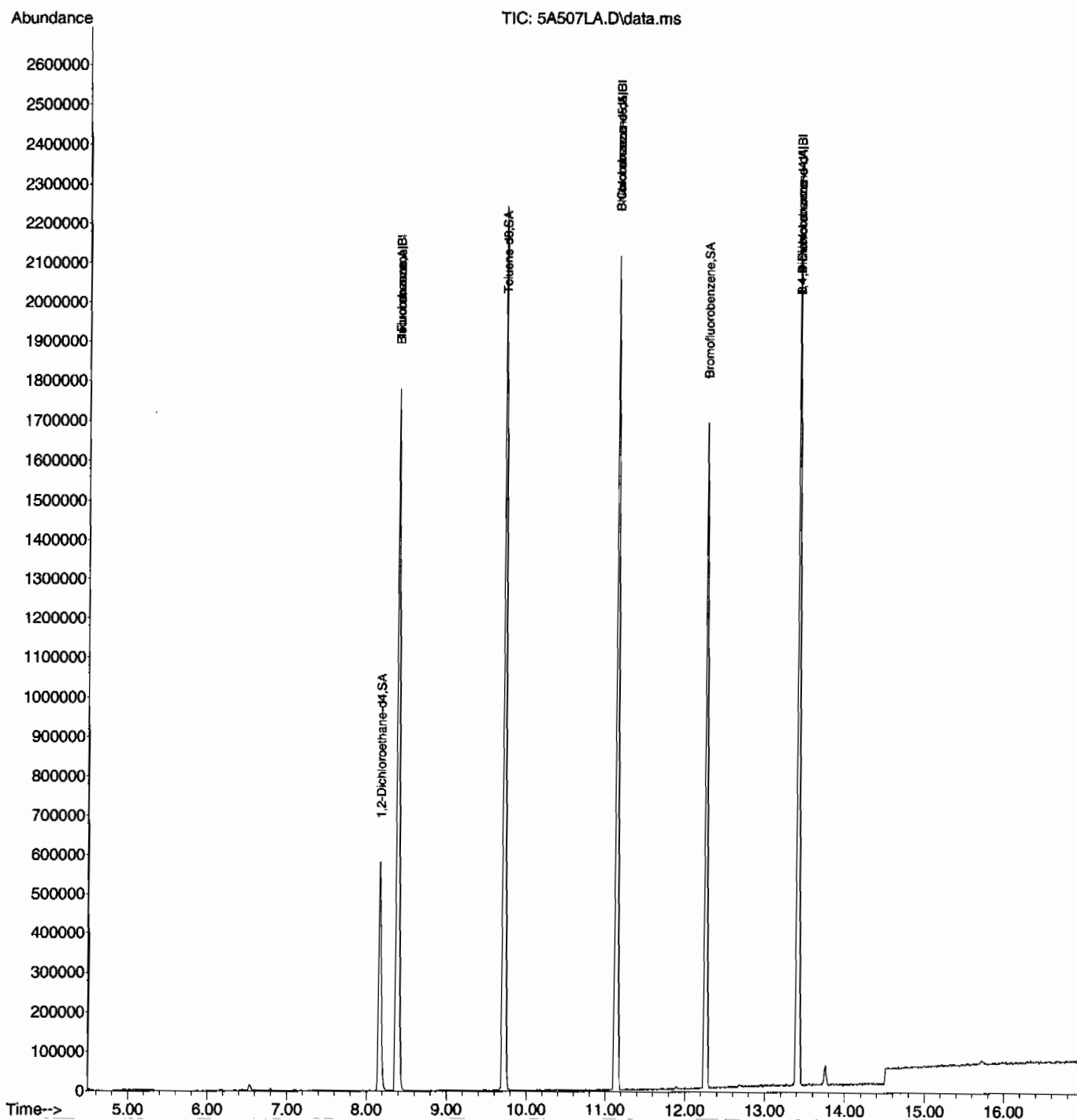
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



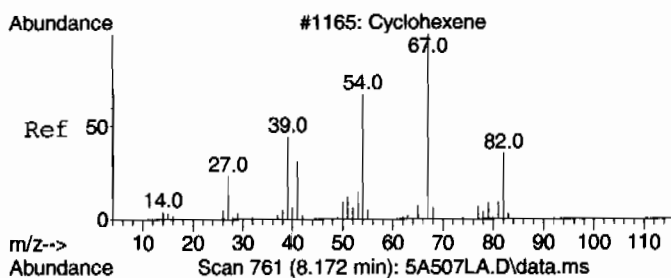
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A507LA.D  
Acq On : 5 Mar 2010 5:46 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063154|961880|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 19 07:55:54 2010  
Quant Method : C:\msdchem\1\DATA\030510V5\Methods\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

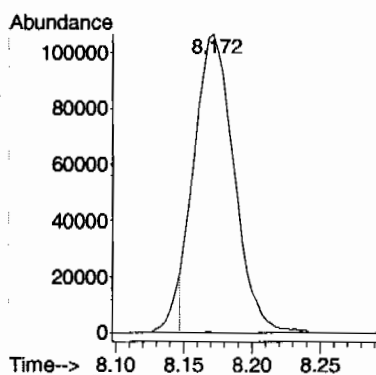






#32 BEFORE analyst DELETION  
Cyclohexene  
Concen: 17.85 ug/L  
RT: 8.172 min Scan# 761  
Delta R.T. -0.074 min  
Lab File: 5A507LA.D  
Acq: 5 Mar 2010 5:46 pm

Tgt Ion: 67 Resp: 215457  
Ion Ratio Lower Upper  
67 100  
54 0.1 46.3 106.3#





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A507LA.D  
Acq On : 5 Mar 2010 5:46 pm  
Operator : CDS1  
Sample : |1202063154|961880|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030510V5\Methods\VOA5-8260-030310.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\030510V5\  
Data File : 5A507LA.D  
Acq On : 5 Mar 2010 5:46 pm  
Operator : CDS1  
Sample : |1202063154|961880|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030510V5\Methods\VOA5-8260-030310.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: 10-2137  
Lab Sample ID: 1202067797  
Client Sample: QC for batch 961878  
Client ID: MB for batch 961878  
Batch ID: 961880  
Run Date: 03/09/2010 10:12  
Prep Date: 03/09/2010 07:26  
Data File: 030910V5\5B207\A.D

Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: CDS1  
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: 10-2137  
 Lab Sample ID: 1202067797  
 Client Sample: QC for batch 961878  
 Client ID: MB for batch 961878  
 Batch ID: 961880  
 Run Date: 03/09/2010 10:12  
 Prep Date: 03/09/2010 07:26  
 Data File: 030910V55B207LA.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 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.	Parname	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
	<i>Trichlorotrifluoroethane</i>					
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\030910V5\  
Data File : 5B207LA.D  
Acq On : 9 Mar 2010 10:12 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067797|961880|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 09 10:45:34 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1868406	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1378477	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	671495	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1868406	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1378477	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	671495	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	389480	43.07	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	86.14%		
43) Toluene-d8	9.724	9.721	0.873	98	1618750	45.92	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	91.84%		
61) Bromofluorobenzene	12.260	12.260	0.914	95	739194	54.88	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	109.76%		
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.910	4.900	0.585	50	848	Below Cal	#	13
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.866	5.866	0.699	59	508	N.D.		
9) Acetone	6.167	6.174	0.735	43	2322	N.D.		
10) 1,1-Dichloroethylene	0.000	6.156	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.464	6.464	0.771	41	613	N.D.		
13) Methyl acetate	6.365	6.365	0.759	43	223	N.D.		
14) Carbon disulfide	6.428	6.435	0.766	76	2553	N.D.		
15) Methylene chloride	6.541	6.538	0.780	84	8038	N.D.		
16) tert-Butyl methyl ether	0.000	6.640	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.800	6.969	0.811	43	1262	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	7.454	7.450	0.889	43	308	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.514	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	0.000	7.924	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.005	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.211	8.203	0.979	78	143	N.D.		
32) Cyclohexene	8.257	8.246	0.984	67	116	N.D.		
33) n-Butyl alcohol	8.387	8.377	1.000	56	10893	Below Cal	#	21
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.826	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B207LA.D  
Acq On : 9 Mar 2010 10:12 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067797|961880|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 09 10:45:34 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	9.487	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.795	9.788	0.879	91	2707	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	10.279	10.279	0.923	43	723	N.D.	
48) 1,3-Dichloropropane	0.000	10.364	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	11.174	11.174	1.003	112	119	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.213	11.181	1.006	91	115	N.D.	
55) m,p-Xylenes	11.277	11.280	1.012	106	150	N.D.	
56) o-Xylene	0.000	11.701	0.000		0	N.D.	
57) Styrene	11.697	11.715	1.050	104	225	N.D.	
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	12.242	12.016	0.913	105	113	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	12.681	12.465	0.945	156	112	N.D.	
65) n-Propylbenzene	12.419	12.415	0.926	91	2128	N.D.	
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	364	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.702	12.698	0.947	91	2957	N.D.	
69) tert-Butylbenzene	12.949	12.900	0.965	134	115	N.D.	
70) 1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	461	N.D.	
71) sec-Butylbenzene	13.119	13.119	0.978	105	1077	N.D.	
72) 4-Isopropyltoluene	13.137	13.229	0.979	119	1019	N.D.	
73) 1,3-Dichlorobenzene	13.352	13.349	0.996	146	366	N.D.	
74) 1,4-Dichlorobenzene	13.444	13.441	1.002	146	980	N.D.	
75) n-Butylbenzene	13.649	13.653	1.018	91	2235	N.D.	
76) 1,2-Dichlorobenzene	0.000	13.858	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.619	15.619	1.165	180	1047	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.988	15.988	1.192	128	3078	N.D.	
81) 1,2,3-Trichlorobenzene	16.298	16.291	1.215	180	919	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.082	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.	
87) Isopropyl Alcohol	6.159	6.163	0.734	45	112	N.D.	
88) Allyl chloride	6.425	6.425	0.766	41	136	N.D.	
89) tert-Butyl Alcohol	0.000	6.460	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.747	0.000		0	N.D.	
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	7.454	7.383	0.889	43	308	N.D.	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B207LA.D  
Acq On : 9 Mar 2010 10:12 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067797|961880|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 09 10:45:34 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.677	7.680	0.915	41	108	N.D.	
97) Tetrahydrofuran	7.719	7.716	0.920	42	748	N.D.	
98) Isobutyl alcohol	7.871	7.857	0.938	41	109	N.D.	
99) Methyl tert-amyl ether	8.143	8.122	0.971	73	127	N.D.	
100) Methyl methacrylate	0.000	8.801	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	0.000	9.342	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	12.136	0.000		0	N.D.	
108) Cyclohexanone	0.000	12.267	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	12.412	0.000		0	N.D.	
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.568	13.565	1.012	91	5455	N.D.	
112) bis(2-Chloroisopropyl)...	13.936	13.929	1.039	45	1492	N.D.	

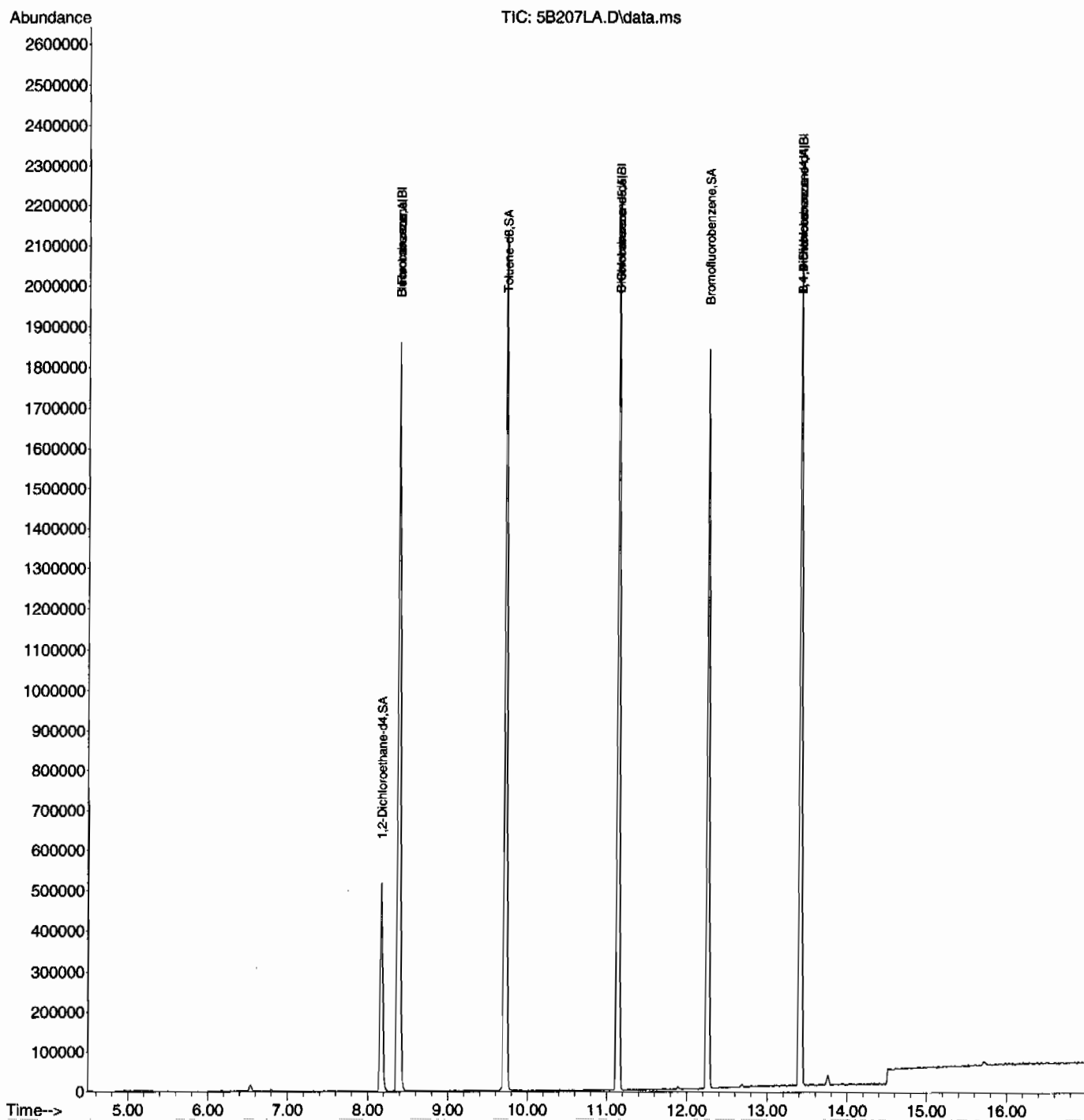
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B207LA.D  
Acq On : 9 Mar 2010 10:12 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067797|961880|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 09 10:45:34 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE





Library Search Compound Report

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\

Data File : 5B207LA.D

Acq On : 9 Mar 2010 10:12 am

Operator : CDS1

Sample : |1202067797|961880|1|VOA|1|VOA8260BS|

Misc : BLANK 5G - SOIL

ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

No Library Search Compounds Detected

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Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B207LA.D  
Acq On : 9 Mar 2010 10:12 am  
Operator : CDS1  
Sample : |1202067797|961880|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.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: 10-2137  
 Lab Sample ID: 1202063157  
 Client Sample: QC for batch 961878  
 Client ID: LCS for batch 961878  
 Batch ID: 961880  
 Run Date: 03/05/2010 16:13  
 Prep Date: 03/05/2010 15:26  
 Data File: 030510V55A504LA.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 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		47.9	ug/kg	0.340	1.00
74-87-3	Chloromethane		47.8	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		50.5	ug/kg	0.300	1.00
74-83-9	Bromomethane		49.1	ug/kg	0.300	1.00
75-00-3	Chloroethane		48.4	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		51.2	ug/kg	0.300	1.00
67-64-1	Acetone		207	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		48.2	ug/kg	0.300	1.00
74-88-4	Iodomethane		238	ug/kg	1.60	5.00
75-09-2	Methylene chloride		48.0	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		49.0	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		49.2	ug/kg	0.300	1.00
78-93-3	2-Butanone		219	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		48.7	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		49.3	ug/kg	0.300	1.00
67-66-3	Chloroform		48.8	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		50.7	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		49.4	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		50.9	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		47.6	ug/kg	0.300	1.00
71-43-2	Benzene		47.3	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		48.3	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		48.0	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		51.0	ug/kg	0.300	1.00
74-95-3	Dibromomethane		50.6	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		243	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		49.3	ug/kg	0.300	1.00
108-88-3	Toluene		44.8	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		47.9	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		46.1	ug/kg	0.300	1.00
591-78-6	2-Hexanone		218	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		46.4	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		45.9	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		50.3	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		48.2	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		45.4	ug/kg	0.300	1.00



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

SDG Number: 10-2137  
 Lab Sample ID: 1202063157  
 Client Sample: QC for batch 961878  
 Client ID: LCS for batch 961878  
 Batch ID: 961880  
 Run Date: 03/05/2010 16:13  
 Prep Date: 03/05/2010 15:26  
 Data File: 030510V5SA504LA.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 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		44.3	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		92.3	ug/kg	0.300	2.00
95-47-6	o-Xylene		46.5	ug/kg	0.300	1.00
100-42-5	Styrene		49.7	ug/kg	0.300	1.00
75-25-2	Bromoform		50.7	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		44.6	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		46.5	ug/kg	0.300	1.00
108-86-1	Bromobenzene		44.1	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		43.5	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		44.3	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		44.8	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		44.7	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		43.3	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		42.8	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		44.9	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		44.4	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		45.0	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		44.1	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		44.3	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		46.3	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		48.1	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		45.1	ug/kg	0.300	1.00



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A504LA.D  
Acq On : 5 Mar 2010 4:13 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063157|961880|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[A] 0220-01D+0304-01  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 19 07:55:18 2010  
Quant Method : C:\msdchem\1\DATA\030510V5\Methods\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	8.388	8.387	1.000	96	1785361	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1373211	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.416	13.413	1.000	152	726937	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1785361	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1373211	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.416	13.413	1.000	152	726937	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	446478	51.67	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	103.34%			
43) Toluene-d8	9.721	9.721	0.872	98	1722010	49.03	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	98.06%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	725377	49.75	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	99.50%			
Target Compounds								QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	199513	47.86	ug/L	97
3) Chloromethane	4.900	4.900	0.584	50	254193	47.83	ug/L	97
4) Vinyl chloride	5.041	5.041	0.601	62	221998	50.46	ug/L	97
5) Bromomethane	5.423	5.423	0.647	94	206192	49.07	ug/L	98
6) Chloroethane	5.504	5.504	0.656	64	215907	48.39	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	392005	51.19	ug/L	99
8) Ethyl ether	5.867	5.866	0.699	59	312812	47.45	ug/L	99
9) Acetone	6.174	6.174	0.736	43	1103769	206.91	ug/L	99
10) 1,1-Dichloroethylene	6.153	6.156	0.734	61	410746	48.15	ug/L	99
11) Iodomethane	6.358	6.357	0.758	142	2098734	238.19	ug/L	100
12) Acetonitrile	6.464	6.464	0.771	41	1189286	1137.50	ug/L	97
13) Methyl acetate	6.361	6.365	0.758	43	1352734	232.04	ug/L	100
14) Carbon disulfide	6.435	6.435	0.767	76	4316027	252.41	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	326686	47.96	ug/L	99
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	847253	47.70	ug/L	100
17) trans-1,2-Dichloroethy...	6.711	6.715	0.800	61	454777	49.02	ug/L	100
18) Vinyl acetate	6.966	6.969	0.831	43	3890409	266.32	ug/L	100
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	565709	49.24	ug/L	100
20) 2-Butanone	7.447	7.450	0.888	43	1394114	219.34	ug/L	100
21) cis-1,2-Dichloroethylene	7.503	7.507	0.895	61	525446	48.69	ug/L	99
22) 2,2-Dichloropropane	7.511	7.514	0.895	77	419690	49.29	ug/L	99
23) Bromochloromethane	7.719	7.719	0.920	128	158658	49.77	ug/L	99
24) Chloroform	7.698	7.701	0.918	83	502366	48.82	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	430426	50.72	ug/L	99
26) Cyclohexane	7.924	7.924	0.945	56	593089	49.13	ug/L	99
27) 1,1-Dichloropropene	8.006	8.005	0.954	75	384592	49.41	ug/L	99
28) Carbon tetrachloride	8.020	8.020	0.956	117	370759	50.93	ug/L	100
30) 1,2-Dichloroethane	8.235	8.235	0.982	62	423190	47.59	ug/L	99
31) Benzene	8.200	8.203	0.978	78	1223265	47.33	ug/L	98
32) Cyclohexene	8.246	8.246	0.983	67	571277	47.56	ug/L	99
33) n-Butyl alcohol	8.373	8.377	0.998	56	1319873	5260.02	ug/L	99
34) Trichloroethylene	8.678	8.677	1.035	95	296357	48.28	ug/L	99
35) 1,2-Dichloropropane	8.929	8.932	1.065	63	350186	47.97	ug/L	98
36) Methylcyclohexane	8.826	8.826	1.052	83	526232	46.92	ug/L	99
37) Dibromomethane	9.059	9.059	1.080	93	187697	50.59	ug/L	99



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A504LA.D  
Acq On : 5 Mar 2010 4:13 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063157|961880|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[A] 0220-01D+0304-01  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 19 07:55:18 2010  
Quant Method : C:\msdchem\1\DATA\030510V5\Methods\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	9.109	9.112	1.086	83	386810	51.00	ug/L	100
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	574219	246.21	ug/L	100
40) cis-1,3-Dichloropropylene	9.484	9.487	1.131	75	511553	49.27	ug/L	98
42) 4-Methyl-2-pentanone	9.530	9.526	0.855	58	796436	242.53	ug/L	100
44) Toluene	9.788	9.788	0.878	91	1321221	44.82	ug/L	99
45) trans-1,3-Dichloroprop...	9.965	9.968	0.894	75	481255	47.93	ug/L	99
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	229402	46.11	ug/L	97
47) 2-Hexanone	10.279	10.279	0.923	43	1945593	218.19	ug/L	100
48) 1,3-Dichloropropane	10.361	10.364	0.930	76	495392	46.35	ug/L	100
49) Tetrachloroethylene	10.290	10.290	0.924	164	247709	45.87	ug/L	99
50) Dibromochloromethane	10.584	10.583	0.950	129	297356	50.25	ug/L	100
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	277872	48.21	ug/L	100
52) Chlorobenzene	11.171	11.174	1.003	112	868235	45.40	ug/L	99
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007	131	311882	48.14	ug/L	99
54) Ethylbenzene	11.178	11.181	1.003	91	1488318	44.25	ug/L	99
55) m,p-Xylenes	11.280	11.280	1.012	106	1176465	92.34	ug/L	99
56) o-Xylene	11.701	11.701	1.050	106	598867	46.52	ug/L	99
57) Styrene	11.715	11.715	1.051	104	977380	49.70	ug/L	94
59) Bromoform	12.005	12.005	0.895	173	200786	50.73	ug/L	100
60) Isopropylbenzene	12.012	12.016	0.895	105	1492568	44.75	ug/L	100
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.920	83	384700	44.56	ug/L	100
63) 1,2,3-Trichloropropane	12.454	12.454	0.928	110	107209	46.51	ug/L	98
64) Bromobenzene	12.461	12.465	0.929	156	370043	44.11	ug/L	98
65) n-Propylbenzene	12.415	12.415	0.925	91	1750601	43.47	ug/L	100
66) 1,3,5-Trimethylbenzene	12.564	12.564	0.936	105	1273951	44.72	ug/L	100
67) 2-Chlorotoluene	12.596	12.596	0.939	126	370525	44.31	ug/L #	81
68) 4-Chlorotoluene	12.698	12.698	0.946	91	1108034	43.28	ug/L	100
69) tert-Butylbenzene	12.903	12.900	0.962	134	280634	42.80	ug/L	100
70) 1,2,4-Trimethylbenzene	12.957	12.956	0.966	105	1302296	44.94	ug/L	99
71) sec-Butylbenzene	13.116	13.119	0.978	105	1635093	44.36	ug/L	100
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	1318090	44.99	ug/L	99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	702699	44.11	ug/L	99
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	716920	44.26	ug/L	100
75) n-Butylbenzene	13.653	13.653	1.018	91	1231753	42.82	ug/L	99
76) 1,2-Dichlorobenzene	13.858	13.858	1.033	146	690206	45.07	ug/L	100
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	76058	46.29	ug/L	95
78) 1,2,4-Trichlorobenzene	15.620	15.619	1.164	180	485770	47.10	ug/L	100
79) Hexachlorobutadiene	15.686	15.686	1.169	225	280031	44.70	ug/L	99
80) Naphthalene	15.989	15.988	1.192	128	1168382	49.87	ug/L	100
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.214	180	450391	50.04	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	5.967	6.082	0.711		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.		
87) Isopropyl Alcohol	6.170	6.163	0.736		0m	N.D.	d	
88) Allyl chloride	6.464	6.425	0.771		0m	N.D.	d	
89) tert-Butyl Alcohol	6.464	6.460	0.771		0m	N.D.	d	
90) Acrylonitrile	6.641	6.747	0.792		0m	N.D.	d	
91) Isopropyl ether	6.920	6.920	0.825		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	7.033	7.104	0.839		0m	N.D.	d	
93) Ethyl tert-butyl ether	7.185	7.192	0.857		0m	N.D.	d	
94) Ethyl acetate	7.383	7.383	0.880		0m	N.D.	d	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A504LA.D  
Acq On : 5 Mar 2010 4:13 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063157|961880|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[A] 0220-01D+0304-01  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 19 07:55:18 2010  
Quant Method : C:\msdchem\1\DATA\030510V5\Methods\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	7.680	7.585	0.916		0m	N.D.	d
96) Methacrylonitrile	7.677	7.680	0.915		0m	N.D.	d
97) Tetrahydrofuran	7.719	7.716	0.920		0m	N.D.	d
98) Isobutyl alcohol	7.850	7.857	0.936		0m	N.D.	d
99) Methyl tert-amyl ether	8.122	8.122	0.968		0m	N.D.	d
100) Methyl methacrylate	8.826	8.801	1.052		0m	N.D.	d
101) 1,4-Dioxane	9.049	8.957	1.079		0m	N.D.	d
102) 2-Nitropropane	9.349	9.342	1.115		0m	N.D.	d
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	11.043	10.980	0.823		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	12.009	12.136	0.895		0m	N.D.	d
108) Cyclohexanone	12.369	12.267	0.922		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.419	12.412	0.926		0m	N.D.	d
110) Pentachloroethane	13.013	13.017	0.970		0m	N.D.	d
111) Benzyl chloride	13.554	13.565	1.010		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	13.759	13.929	1.026		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



GEL Laboratories, LLC

```
Sample      : |1202063157|961880|1|VOA|1|VOA8260BS|
Misc       : LCS 5G - SOIL MIX[A] 0220-01D+0304-01
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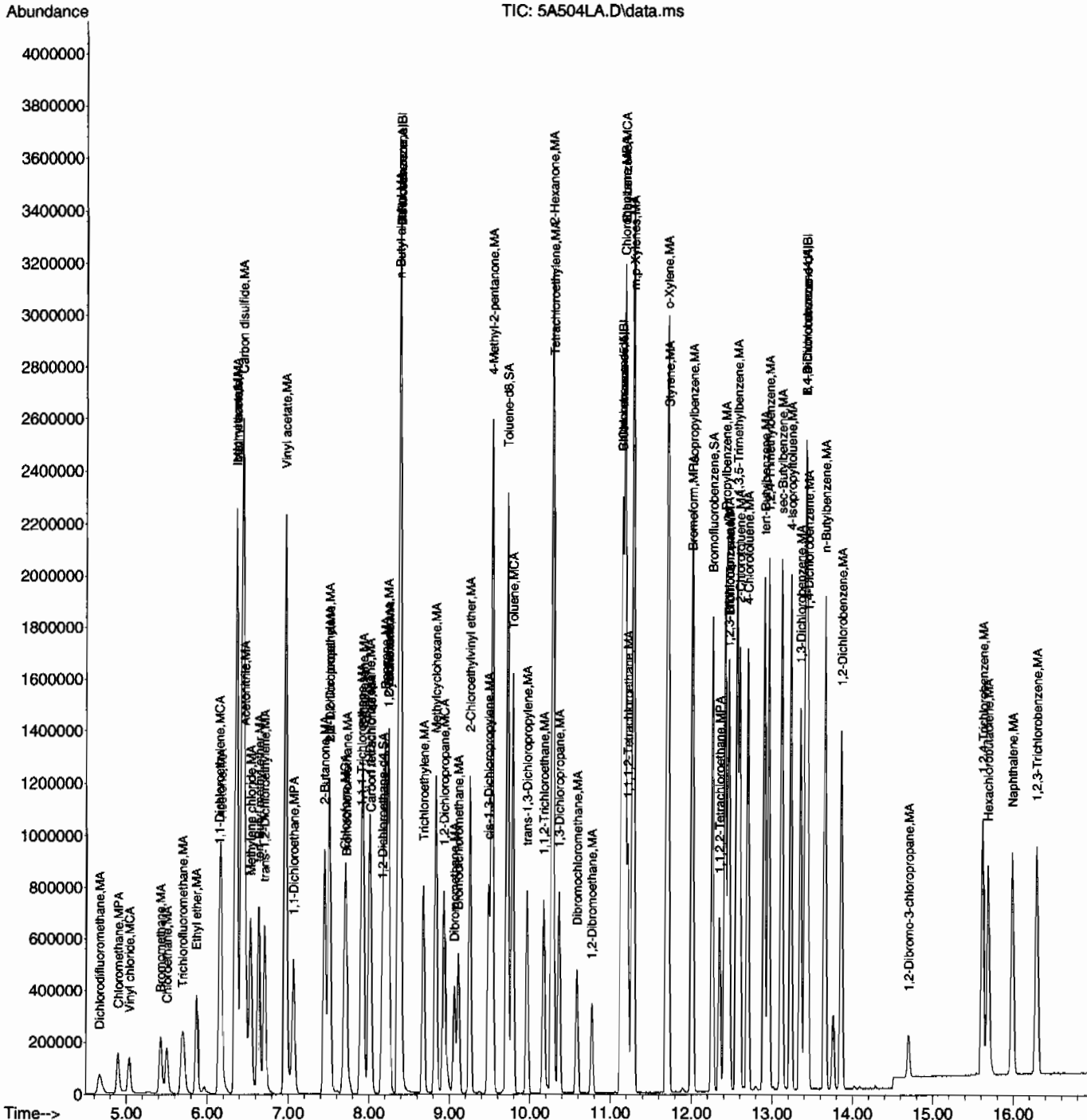
Quant Time: Mar 19 07:55:18 2010  
Quant Method : C:\msdchem\1\DATA\030510V5\Methods\VOA5-8260-030310.M

Quant Title : Volatile Organics 8260B SubList :

QLast Update : Tue Mar 09 07:08:19 2010

Response via : Initial Calibration

Integrator: RTE





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

SDG Number: 10-2137  
 Lab Sample ID: 1202063158  
 Client Sample: QC for batch 961878  
 Client ID: LCS for batch 961878  
 Batch ID: 961880  
 Run Date: 03/05/2010 16:40  
 Prep Date: 03/05/2010 15:26  
 Data File: 030510V5\5A505LA.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: CDS1  
 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: 10-2137  
 Lab Sample ID: 1202063158  
 Client Sample: QC for batch 961878  
 Client ID: LCS for batch 961878  
 Batch ID: 961880  
 Run Date: 03/05/2010 16:40  
 Prep Date: 03/05/2010 15:26  
 Data File: 030510V55A505LA.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 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		358	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\030510V5\  
Data File : 5A505LA.D  
Acq On : 5 Mar 2010 4:40 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063158|961880|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[B] UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 19 07:53:56 2010  
Quant Method : C:\msdchem\1\DATA\030510V5\Methods\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
-----								
Internal Standards								Dev(Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1810003	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1370083	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	707376	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1810003	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1370083	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	707376	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	454839	51.92	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	103.84%			
43) Toluene-d8	9.721	9.721	0.872	98	1707521	48.73	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	97.46%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	696251	49.07	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	98.14%			
Target Compounds								QValue
2) Dichlorodifluoromethane	4.648	4.668	0.554		0m	N.D.	d	
3) Chloromethane	4.880	4.900	0.582		0m	N.D.	d	
4) Vinyl chloride	5.031	5.041	0.600		0m	N.D.	d	
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	5.695	5.695	0.679		0m	N.D.	d	
8) Ethyl ether	5.877	5.866	0.701		0m	N.D.	d	
9) Acetone	6.174	6.174	0.736		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.142	6.156	0.732		0m	N.D.	d	
11) Iodomethane	6.361	6.357	0.758		0m	N.D.	d	
12) Acetonitrile	6.421	6.464	0.766		0m	N.D.	d	
13) Methyl acetate	6.365	6.365	0.759		0m	N.D.	d	
14) Carbon disulfide	6.425	6.435	0.766		0m	N.D.	d	
15) Methylene chloride	6.531	6.538	0.779		0m	N.D.	d	
16) tert-Butyl methyl ether	6.637	6.640	0.791		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	6.715	6.715	0.801		0m	N.D.	d	
18) Vinyl acetate	7.107	6.969	0.847		0m	N.D.	d	
19) 1,1-Dichloroethane	7.111	7.068	0.848		0m	N.D.	d	
20) 2-Butanone	7.380	7.450	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	7.510	7.507	0.895		0m	N.D.	d	
22) 2,2-Dichloropropane	7.528	7.514	0.898		0m	N.D.	d	
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	7.701	7.701	0.918		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	7.857	7.924	0.937		0m	N.D.	d	
27) 1,1-Dichloropropene	8.002	8.005	0.954		0m	N.D.	d	
28) Carbon tetrachloride	8.020	8.020	0.956		0m	N.D.	d	
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.193	8.203	0.977		0m	N.D.	d	
32) Cyclohexene	8.242	8.246	0.983		0m	N.D.	d	
33) n-Butyl alcohol	8.387	8.377	1.000		0m	N.D.	d	
34) Trichloroethylene	8.692	8.677	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.861	8.826	1.056		0m	N.D.	d	
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A505LA.D  
Acq On : 5 Mar 2010 4:40 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063158|961880|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[B] UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 19 07:53:56 2010  
Quant Method : C:\msdchem\1\DATA\030510V5\Methods\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	9.484	9.487	1.131		0m	N.D. d	
42) 4-Methyl-2-pentanone	9.530	9.526	0.855		0m	N.D. d	
44) Toluene	9.781	9.788	0.878		0m	N.D. d	
45) trans-1,3-Dichloroprop...	9.968	9.968	0.895		0m	N.D. d	
46) 1,1,2-Trichloroethane	10.287	10.173	0.923		0m	N.D. d	
47) 2-Hexanone	10.279	10.279	0.923		0m	N.D. d	
48) 1,3-Dichloropropane	10.368	10.364	0.930		0m	N.D. d	
49) Tetrachloroethylene	10.294	10.290	0.924		0m	N.D. d	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	10.767	10.771	0.966		0m	N.D. d	
52) Chlorobenzene	11.171	11.174	1.003		0m	N.D. d	
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007		0m	N.D. d	
54) Ethylbenzene	11.178	11.181	1.003		0m	N.D. d	
55) m,p-Xylenes	11.284	11.280	1.013		0m	N.D. d	
56) o-Xylene	11.705	11.701	1.050		0m	N.D. d	
57) Styrene	11.705	11.715	1.050		0m	N.D. d	
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	12.016	12.016	0.896		0m	N.D. d	
62) 1,1,2,2-Tetrachloroethane	12.345	12.348	0.920		0m	N.D. d	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	12.461	12.465	0.929		0m	N.D. d	
65) n-Propylbenzene	12.412	12.415	0.925		0m	N.D. d	
66) 1,3,5-Trimethylbenzene	12.564	12.564	0.937		0m	N.D. d	
67) 2-Chlorotoluene	12.599	12.596	0.939		0m	N.D. d	
68) 4-Chlorotoluene	12.698	12.698	0.947		0m	N.D. d	
69) tert-Butylbenzene	12.900	12.900	0.962		0m	N.D. d	
70) 1,2,4-Trimethylbenzene	12.949	12.956	0.965		0m	N.D. d	
71) sec-Butylbenzene	13.116	13.119	0.978		0m	N.D. d	
72) 4-Isopropyltoluene	13.232	13.229	0.987		0m	N.D. d	
73) 1,3-Dichlorobenzene	13.349	13.349	0.995		0m	N.D. d	
74) 1,4-Dichlorobenzene	13.434	13.441	1.002		0m	N.D. d	
75) n-Butylbenzene	13.653	13.653	1.018		0m	N.D. d	
76) 1,2-Dichlorobenzene	13.858	13.858	1.033		0m	N.D. d	
77) 1,2-Dibromo-3-chloropr...	14.697	14.704	1.096		0m	N.D. d	
78) 1,2,4-Trichlorobenzene	15.620	15.619	1.165		0m	N.D. d	
79) Hexachlorobutadiene	15.686	15.686	1.169		0m	N.D. d	
80) Naphthalene	15.988	15.988	1.192		0m	N.D. d	
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215		0m	N.D. d	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	6.078	6.082	0.725	56	315498	300.19 ug/L	99
86) Trichlorotrifluoroethane	6.075	6.071	0.724	85	580169	357.50 ug/L	97
87) Isopropyl Alcohol	0.000	6.163	0.000		0m	N.D. d	
88) Allyl chloride	6.421	6.425	0.766	41	2798481	234.92 ug/L	93
89) tert-Butyl Alcohol	6.464	6.460	0.771	59	124	N.D.	
90) Acrylonitrile	6.743	6.747	0.804	53	746526	285.02 ug/L	99
91) Isopropyl ether	7.111	6.920	0.848	45	118	N.D.	
92) 2-Chloro-1,3-butadiene	7.104	7.104	0.847	53	529134	68.83 ug/L	99
93) Ethyl tert-butyl ether	7.026	7.192	0.838	59	108	N.D.	
94) Ethyl acetate	7.380	7.383	0.880	43	1883123	265.47 ug/L	100



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A505LA.D  
Acq On : 5 Mar 2010 4:40 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063158|961880|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[B] UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 19 07:53:56 2010  
Quant Method : C:\msdchem\1\DATA\030510V5\Methods\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95) Propionitrile	7.581	7.585	0.904	54	294996	292.61	ug/L	100
96) Methacrylonitrile	7.680	7.680	0.916	41	1532401	276.59	ug/L	99
97) Tetrahydrofuran	7.712	7.716	0.919	42	708242	282.87	ug/L	99
98) Isobutyl alcohol	7.857	7.857	0.937	41	781266	2962.02	ug/L	99
99) Methyl tert-amyl ether	8.115	8.122	0.968	73	402	N.D.		
100) Methyl methacrylate	8.801	8.801	1.049	69	1211433	289.79	ug/L	100
101) 1,4-Dioxane	8.957	8.957	1.068	88	205840	2759.18	ug/L	100
102) 2-Nitropropane	9.342	9.342	1.114	43	595877	279.97	ug/L	99
104) Ethyl methacrylate	9.859	9.859	0.885	69	2310980	285.76	ug/L	99
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.		
107) cis-1,4-Dichloro-2-butene	12.136	12.136	0.905	53	802558	303.41	ug/L	99
108) Cyclohexanone	12.267	12.267	0.915	42	1195682	5498.92	ug/L	99 E
109) trans-1,4-Dichloro-2-b...	12.412	12.412	0.925	53	754514	302.81	ug/L	100
110) Pentachloroethane	13.017	13.017	0.970	167	943907	273.55	ug/L	100
111) Benzyl chloride	13.565	13.565	1.011	91	3944412	311.39	ug/L	100
112) bis(2-Chloroisopropyl)...	13.929	13.929	1.038	45	1285922	275.92	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



```
Data Path : C:\msdchem\1\DATA\030510V5\  
Data File : 5A505LA.D  
Acq On : 5 Mar 2010 4:40 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063158|961880|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[B] UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1
```

TIC: 5A505LA.D\data.ms

The chromatogram displays a series of sharp peaks against a baseline. The following table summarizes the labeled compounds and their approximate retention times:

Compound Name	Approximate Retention Time (min)
Acetone	6.05
Methyl trifluoroethane, B	6.15
Allyl chloride, B	6.35
Acrylonitrile, B	6.75
2-Chloro-1,3-butadiene, B	6.95
Ethyl acetate, B	7.15
Propionitrile, B	7.35
Tetrahydrofuran, B	7.45
Methacrylonitrile, B	7.55
Isobutyl alcohol, B	7.65
1,2-Dichloroethane-d4, SA	8.15
Bis(2-chloroisopropyl) ether, B	8.35
1,4-Dioxane, B	8.95
2-Nitropropane, B	9.35
Toluene-d8, SA	9.95
Ethyl methacrylate, B	10.15
Bis(2-chloroisopropyl) ether, B	11.15
cis-1,4-Dichloro-2-butene, B	12.15
trans-1,4-Dichloro-2-butene, B	12.35
Gycohexanediol difluorobenzene, SA	12.55
Pentachloroethane, B	13.15
Benzyl chloride, B	13.35
bis(2-Chloroisopropyl) ether, B	13.55



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

SDG Number: 10-2137  
 Lab Sample ID: 1202067798  
 Client Sample: QC for batch 961878  
 Client ID: LCS for batch 961878  
 Batch ID: 961880  
 Run Date: 03/09/2010 08:50  
 Prep Date: 03/09/2010 07:26  
 Data File: 030910V55B204L.A.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 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		42.2	ug/kg	0.340	1.00
74-87-3	Chloromethane		43.3	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		46.5	ug/kg	0.300	1.00
74-83-9	Bromomethane		42.2	ug/kg	0.300	1.00
75-00-3	Chloroethane		42.9	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		45.5	ug/kg	0.300	1.00
67-64-1	Acetone		189	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		42.9	ug/kg	0.300	1.00
74-88-4	Iodomethane		207	ug/kg	1.60	5.00
75-09-2	Methylene chloride		41.2	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		224	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		42.8	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		42.9	ug/kg	0.300	1.00
78-93-3	2-Butanone		198	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		42.4	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		43.7	ug/kg	0.300	1.00
67-66-3	Chloroform		42.0	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		42.3	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		43.8	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		44.5	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		45.1	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		41.3	ug/kg	0.300	1.00
71-43-2	Benzene		41.4	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		42.6	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		41.2	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		43.4	ug/kg	0.300	1.00
74-95-3	Dibromomethane		43.9	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		219	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		42.7	ug/kg	0.300	1.00
108-88-3	Toluene		39.3	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		41.7	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		40.7	ug/kg	0.300	1.00
591-78-6	2-Hexanone		197	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		40.1	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		40.8	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		43.0	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		41.4	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		39.4	ug/kg	0.300	1.00



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

SDG Number: 10-2137

Matrix: SOIL

Lab Sample ID: 1202067798

Client Sample: QC for batch 961878

Client: LANL010

Project: QC

Client ID: LCS for batch 961878

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 961880

Inst: VOA5.J

Dilution: 1

Run Date: 03/09/2010 08:50

Analyst: CDS1

Purge Vol: 5 mL

Prep Date: 03/09/2010 07:26

Aliquot: 5 g

Final Volume: 5 mL

Data File: 030910V55B204LA.D

Column: DB-624

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		38.9	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		80.5	ug/kg	0.300	2.00
95-47-6	o-Xylene		39.8	ug/kg	0.300	1.00
100-42-5	Styrene		42.0	ug/kg	0.300	1.00
75-25-2	Bromoform		44.1	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		39.5	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		41.1	ug/kg	0.300	1.00
108-86-1	Bromobenzene		38.1	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		39.0	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		39.1	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		39.8	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		39.7	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		38.1	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		38.0	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		39.4	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		39.9	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		39.9	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		38.3	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		38.2	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		39.0	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		41.2	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		41.2	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		38.7	ug/kg	0.300	1.00



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B204LA.D  
Acq On : 9 Mar 2010 8:50 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067798|961880|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[A] 0220-01E+0308-01  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 09 09:07:35 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	8.387	8.387	1.000	96	2013309	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1536970	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	795168	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	2013309	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1536970	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	795168	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	490557	50.34	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 100.68%			
43) Toluene-d8	9.721	9.721	0.872	98	1842312	46.87	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 93.74%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	890025	55.80	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 111.60%			
Target Compounds								QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	198363	42.20	ug/L	97
3) Chloromethane	4.900	4.900	0.584	50	259772	43.28	ug/L	96
4) Vinyl chloride	5.031	5.041	0.600	62	230520	46.46	ug/L	99
5) Bromomethane	5.423	5.423	0.647	94	199955	42.20	ug/L	99
6) Chloroethane	5.504	5.504	0.656	64	215601	42.85	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	392668	45.47	ug/L	99
8) Ethyl ether	5.866	5.866	0.699	59	317638	42.72	ug/L	98
9) Acetone	6.170	6.174	0.736	43	1136806	188.97	ug/L	99
10) 1,1-Dichloroethylene	6.149	6.156	0.733	61	412229	42.85	ug/L	99
11) Iodomethane	6.358	6.357	0.758	142	2053312	206.65	ug/L	99
12) Acetonitrile	6.460	6.464	0.770	41	1202404	1019.84	ug/L	98
13) Methyl acetate	6.361	6.365	0.758	43	1353211	205.84	ug/L	99
14) Carbon disulfide	6.432	6.435	0.767	76	4316545	223.86	ug/L	100
15) Methylene chloride	6.534	6.538	0.779	84	317096	41.20	ug/L	97
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	825742	41.22	ug/L	100
17) trans-1,2-Dichloroethy...	6.711	6.715	0.800	61	448103	42.83	ug/L	100
18) Vinyl acetate	6.966	6.969	0.831	43	3917687	237.83	ug/L	99
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	555272	42.86	ug/L	100
20) 2-Butanone	7.447	7.450	0.888	43	1421855	198.38	ug/L	100
21) cis-1,2-Dichloroethylene	7.503	7.507	0.895	61	515381	42.35	ug/L	99
22) 2,2-Dichloropropane	7.510	7.514	0.895	77	419339	43.67	ug/L	99
23) Bromochloromethane	7.715	7.719	0.920	128	152101	42.31	ug/L	98
24) Chloroform	7.698	7.701	0.918	83	487643	42.03	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	419224	43.80	ug/L	100
26) Cyclohexane	7.924	7.924	0.945	56	610591	44.85	ug/L	100
27) 1,1-Dichloropropene	8.005	8.005	0.954	75	390314	44.47	ug/L	100
28) Carbon tetrachloride	8.020	8.020	0.956	117	370008	45.07	ug/L	100
30) 1,2-Dichloroethane	8.232	8.235	0.981	62	413592	41.25	ug/L	99
31) Benzene	8.200	8.203	0.978	78	1205402	41.36	ug/L	97
32) Cyclohexene	8.246	8.246	0.983	67	580051	42.82	ug/L	100
33) n-Butyl alcohol	8.377	8.377	0.999	56	1348866	4762.99	ug/L	98
34) Trichloroethylene	8.677	8.677	1.035	95	294667	42.57	ug/L	99
35) 1,2-Dichloropropane	8.928	8.932	1.065	63	338918	41.17	ug/L	99
36) Methylcyclohexane	8.826	8.826	1.052	83	550102	43.49	ug/L	99
37) Dibromomethane	9.059	9.059	1.080	93	183639	43.89	ug/L	99



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B204LA.D  
Acq On : 9 Mar 2010 8:50 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067798|961880|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[A] 0220-01E+0308-01  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 09 09:07:35 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	9.109	9.112	1.086	83	371279	43.41	ug/L	99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	574066	218.28	ug/L	99
40) cis-1,3-Dichloropropylene	9.484	9.487	1.131	75	499805	42.69	ug/L	99
42) 4-Methyl-2-pentanone	9.526	9.526	0.855	58	804468	218.88	ug/L	100
44) Toluene	9.784	9.788	0.878	91	1298201	39.34	ug/L	100
45) trans-1,3-Dichloroprop...	9.965	9.968	0.894	75	468495	41.68	ug/L	100
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	226734	40.72	ug/L	98
47) 2-Hexanone	10.276	10.279	0.922	43	1961668	196.56	ug/L	99
48) 1,3-Dichloropropane	10.361	10.364	0.930	76	479622	40.09	ug/L	99
49) Tetrachloroethylene	10.290	10.290	0.924	164	246367	40.76	ug/L	100
50) Dibromochloromethane	10.584	10.583	0.950	129	284843	43.00	ug/L	100
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	266947	41.38	ug/L	100
52) Chlorobenzene	11.171	11.174	1.003	112	844132	39.44	ug/L	98
53) 1,1,1,2-Tetrachloroethane	11.213	11.216	1.006	131	298443	41.16	ug/L	100
54) Ethylbenzene	11.178	11.181	1.003	91	1463831	38.88	ug/L	99
55) m,p-Xylenes	11.280	11.280	1.012	106	1147429	80.46	ug/L	100
56) o-Xylene	11.697	11.701	1.050	106	574009	39.84	ug/L	99
57) Styrene	11.712	11.715	1.051	104	923845	41.97	ug/L	93
59) Bromoform	12.002	12.005	0.895	173	190875	44.09	ug/L	100
60) Isopropylbenzene	12.012	12.016	0.896	105	1450198	39.75	ug/L	99
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	373181	39.52	ug/L	100
63) 1,2,3-Trichloropropane	12.454	12.454	0.929	110	103525	41.06	ug/L	96
64) Bromobenzene	12.461	12.465	0.929	156	349565	38.09	ug/L	99
65) n-Propylbenzene	12.415	12.415	0.926	91	1716776	38.97	ug/L	100
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	1237062	39.70	ug/L	99
67) 2-Chlorotoluene	12.596	12.596	0.939	126	357372	39.07	ug/L #	81
68) 4-Chlorotoluene	12.698	12.698	0.947	91	1065616	38.05	ug/L	100
69) tert-Butylbenzene	12.903	12.900	0.962	134	272451	37.98	ug/L	100
70) 1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	1247903	39.36	ug/L	99
71) sec-Butylbenzene	13.116	13.119	0.978	105	1608656	39.90	ug/L	99
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	1277627	39.87	ug/L	99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	666854	38.27	ug/L	100
74) 1,4-Dichlorobenzene	13.437	13.441	1.002	146	675988	38.16	ug/L	99
75) n-Butylbenzene	13.653	13.653	1.018	91	1227893	39.02	ug/L	100
76) 1,2-Dichlorobenzene	13.855	13.858	1.033	146	647956	38.68	ug/L	100
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	74081	41.21	ug/L	98
78) 1,2,4-Trichlorobenzene	15.619	15.619	1.165	180	459202	40.70	ug/L	99
79) Hexachlorobutadiene	15.686	15.686	1.169	225	278255	40.61	ug/L	98
80) Naphthalene	15.988	15.988	1.192	128	1085830	42.37	ug/L	99
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	417595	42.42	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	6.163	6.082	0.735		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	6.071	0.000		0	N.D.		
87) Isopropyl Alcohol	6.160	6.163	0.734		0m	N.D.	d	
88) Allyl chloride	6.460	6.425	0.770		0m	N.D.	d	
89) tert-Butyl Alcohol	6.464	6.460	0.771		0m	N.D.	d	
90) Acrylonitrile	6.630	6.747	0.790		0m	N.D.	d	
91) Isopropyl ether	6.916	6.920	0.825		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	7.037	7.104	0.839		0m	N.D.	d	
93) Ethyl tert-butyl ether	7.068	7.192	0.843		0m	N.D.	d	
94) Ethyl acetate	7.394	7.383	0.882		0m	N.D.	d	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B204LA.D  
Acq On : 9 Mar 2010 8:50 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067798|961880|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[A] 0220-01E+0308-01  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 09 09:07:35 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

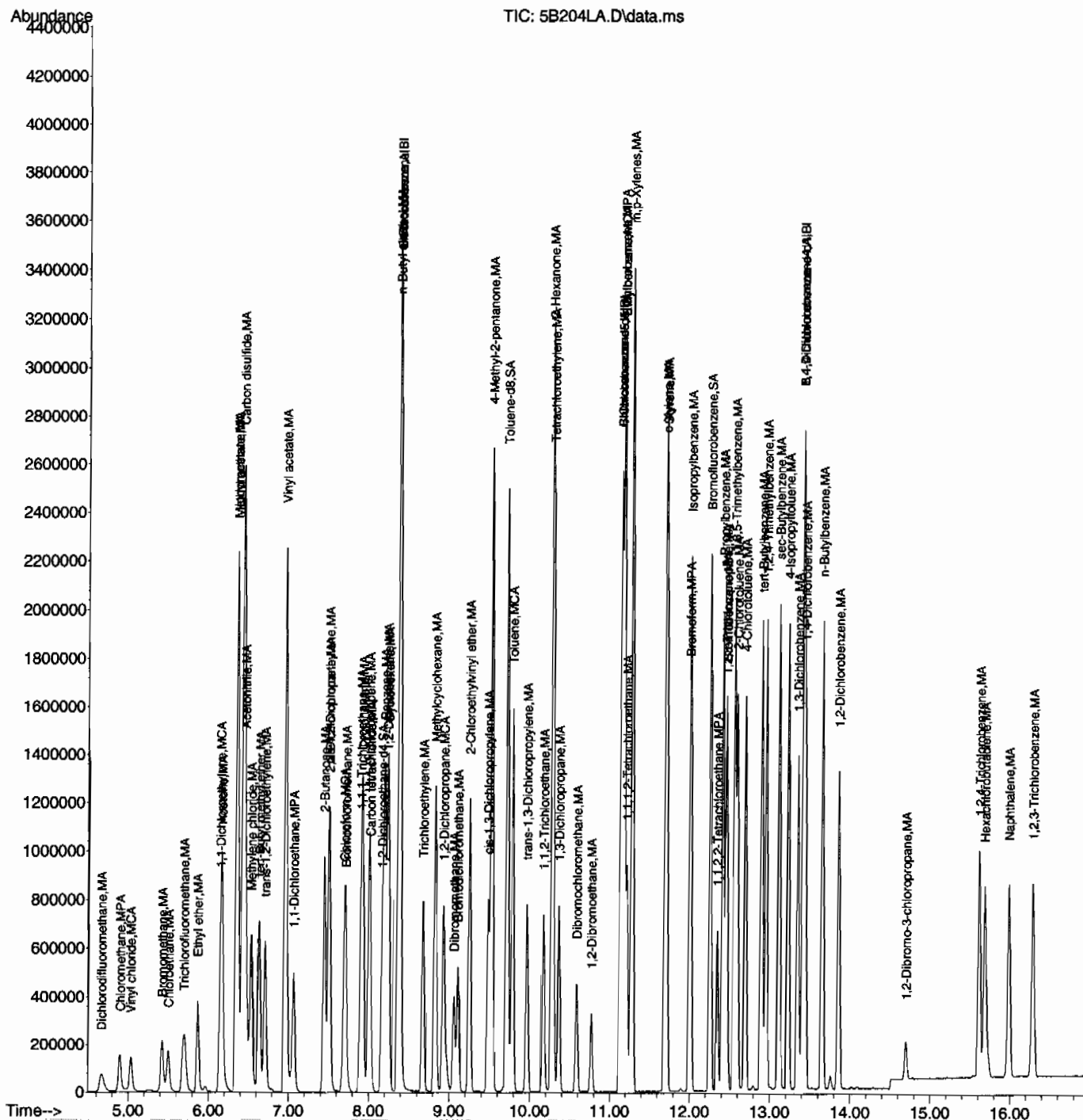
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	7.673	7.585	0.915		0m	N.D.	d
96) Methacrylonitrile	7.670	7.680	0.914		0m	N.D.	d
97) Tetrahydrofuran	7.708	7.716	0.919		0m	N.D.	d
98) Isobutyl alcohol	7.857	7.857	0.937		0m	N.D.	d
99) Methyl tert-amyl ether	8.122	8.122	0.968		0m	N.D.	d
100) Methyl methacrylate	8.829	8.801	1.053		0m	N.D.	d
101) 1,4-Dioxane	9.052	8.957	1.079		0m	N.D.	d
102) 2-Nitropropane	9.325	9.342	1.112		0m	N.D.	d
104) Ethyl methacrylate	9.862	9.859	0.885		0m	N.D.	d
106) 1-Chlorohexane	10.912	10.980	0.814		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	12.009	12.136	0.895		0m	N.D.	d
108) Cyclohexanone	12.355	12.267	0.921		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.412	12.412	0.925		0m	N.D.	d
110) Pentachloroethane	13.017	13.017	0.970		0m	N.D.	d
111) Benzyl chloride	13.568	13.565	1.012		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	13.759	13.929	1.026		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\030910V5\  
Data File : 5B204LA.D  
Acq On : 9 Mar 2010 8:50 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067798|961880|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[A] 0220-01E+0308-01  
ALS Vial : 4 Sample Multiplier: 1
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Quant Time: Mar 09 09:07:35 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE





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

SDG Number: 10-2137  
 Lab Sample ID: 1202067799  
 Client Sample: QC for batch 961878  
 Client ID: LCS for batch 961878  
 Batch ID: 961880  
 Run Date: 03/09/2010 09:18  
 Prep Date: 03/09/2010 07:26  
 Data File: 030910V5\5B205LA.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 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: 10-2137  
 Lab Sample ID: 1202067799  
 Client Sample: QC for batch 961878  
 Client ID: LCS for batch 961878  
 Batch ID: 961880  
 Run Date: 03/09/2010 09:18  
 Prep Date: 03/09/2010 07:26  
 Data File: 030910V55B205LA.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 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		373	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\030910V5\  
Data File : 5B205LA.D  
Acq On : 9 Mar 2010 9:18 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067799|961880|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[B ]UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 10:44:02 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
-----								
Internal Standards								Dev(Min)
1) Fluorobenzene	8.388	8.387	1.000	96	1900502	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1419216	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	712034	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1900502	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1419216	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	712034	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	426373	46.35	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 92.70%			
43) Toluene-d8	9.721	9.721	0.872	98	1689130	46.54	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 93.08%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	793013	55.52	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 111.04%			
-----								
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.920	4.900	0.587		0m	N.D.	d	
4) Vinyl chloride	5.031	5.041	0.600		0m	N.D.	d	
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	5.695	5.695	0.679		0m	N.D.	d	
8) Ethyl ether	5.867	5.866	0.699		0m	N.D.	d	
9) Acetone	6.167	6.174	0.735		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.061	6.156	0.723		0m	N.D.	d	
11) Iodomethane	6.358	6.357	0.758		0m	N.D.	d	
12) Acetonitrile	6.421	6.464	0.766		0m	N.D.	d	
13) Methyl acetate	6.365	6.365	0.759		0m	N.D.	d	
14) Carbon disulfide	6.425	6.435	0.766		0m	N.D.	d	
15) Methylene chloride	6.538	6.538	0.779		0m	N.D.	d	
16) tert-Butyl methyl ether	6.637	6.640	0.791		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	6.708	6.715	0.800		0m	N.D.	d	
18) Vinyl acetate	7.097	6.969	0.846		0m	N.D.	d	
19) 1,1-Dichloroethane	7.104	7.068	0.847		0m	N.D.	d	
20) 2-Butanone	7.518	7.450	0.896		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	7.514	7.507	0.896		0m	N.D.	d	
22) 2,2-Dichloropropane	7.503	7.514	0.895		0m	N.D.	d	
23) Bromochloromethane	0.000	7.719	0.000		0	N.D.		
24) Chloroform	7.702	7.701	0.918		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	7.861	7.924	0.937		0m	N.D.	d	
27) 1,1-Dichloropropene	8.002	8.005	0.954		0m	N.D.	d	
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.235	0.000		0	N.D.		
31) Benzene	8.207	8.203	0.978		0m	N.D.	d	
32) Cyclohexene	8.172	8.246	0.974		0m	N.D.	d	
33) n-Butyl alcohol	8.381	8.377	0.999		0m	N.D.	d	
34) Trichloroethylene	8.692	8.677	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.805	8.826	1.050		0m	N.D.	d	
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B205LA.D  
Acq On : 9 Mar 2010 9:18 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067799|961880|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[B ]UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 10:44:02 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	0.000	9.112	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	9.250	9.254	1.103		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	9.484	9.487	1.131		0m	N.D.	d	
42) 4-Methyl-2-pentanone	9.526	9.526	0.855		0m	N.D.	d	
44) Toluene	9.792	9.788	0.879		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	9.965	9.968	0.894		0m	N.D.	d	
46) 1,1,2-Trichloroethane	10.294	10.173	0.924		0m	N.D.	d	
47) 2-Hexanone	10.280	10.279	0.923		0m	N.D.	d	
48) 1,3-Dichloropropane	10.364	10.364	0.930		0m	N.D.	d	
49) Tetrachloroethylene	10.294	10.290	0.924		0m	N.D.	d	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.		
51) 1,2-Dibromoethane	10.775	10.771	0.967		0m	N.D.	d	
52) Chlorobenzene	11.174	11.174	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	11.210	11.216	1.006		0m	N.D.	d	
54) Ethylbenzene	11.178	11.181	1.003		0m	N.D.	d	
55) m,p-Xylenes	11.277	11.280	1.012		0m	N.D.	d	
56) o-Xylene	11.705	11.701	1.050		0m	N.D.	d	
57) Styrene	11.712	11.715	1.051		0m	N.D.	d	
59) Bromoform	0.000	12.005	0.000		0	N.D.		
60) Isopropylbenzene	12.016	12.016	0.896		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	12.352	12.348	0.921		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.		
64) Bromobenzene	12.465	12.465	0.929		0m	N.D.	d	
65) n-Propylbenzene	12.408	12.415	0.925		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936		0m	N.D.	d	
67) 2-Chlorotoluene	12.596	12.596	0.939		0m	N.D.	d	
68) 4-Chlorotoluene	12.698	12.698	0.947		0m	N.D.	d	
69) tert-Butylbenzene	12.911	12.900	0.963		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	12.957	12.956	0.966		0m	N.D.	d	
71) sec-Butylbenzene	13.109	13.119	0.977		0m	N.D.	d	
72) 4-Isopropyltoluene	13.236	13.229	0.987		0m	N.D.	d	
73) 1,3-Dichlorobenzene	13.353	13.349	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	13.434	13.441	1.002		0m	N.D.	d	
75) n-Butylbenzene	13.660	13.653	1.018		0m	N.D.	d	
76) 1,2-Dichlorobenzene	13.848	13.858	1.032		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	14.690	14.704	1.095		0m	N.D.	d	
78) 1,2,4-Trichlorobenzene	15.620	15.619	1.165		0m	N.D.	d	
79) Hexachlorobutadiene	15.686	15.686	1.169		0m	N.D.	d	
80) Naphthalene	15.989	15.988	1.192		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	6.082	6.082	0.725	56	370437	333.81	ug/L	97
86) Trichlorotrifluoroethane	6.071	6.071	0.724	85	635147	372.74	ug/L	99
87) Isopropyl Alcohol	0.000	6.163	0.000		0m	N.D.	d	
88) Allyl chloride	6.421	6.425	0.766	41	3050275	243.86	ug/L	93
89) tert-Butyl Alcohol	6.425	6.460	0.766	59	1736	N.D.		
90) Acrylonitrile	6.743	6.747	0.804	53	711640	258.76	ug/L	99
91) Isopropyl ether	7.097	6.920	0.846	45	248	N.D.		
92) 2-Chloro-1,3-butadiene	7.104	7.104	0.847	53	569347	70.54	ug/L	99
93) Ethyl tert-butyl ether	7.380	7.192	0.880	59	1043	N.D.		
94) Ethyl acetate	7.380	7.383	0.880	43	1739138	233.50	ug/L	100



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B205LA.D  
Acq On : 9 Mar 2010 9:18 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202067799|961880|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[B ]UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 10:44:02 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95) Propionitrile	7.581	7.585	0.904	54	267682	252.88	ug/L	99
96) Methacrylonitrile	7.677	7.680	0.915	41	1458881	250.78	ug/L	100
97) Tetrahydrofuran	7.712	7.716	0.919	42	648171	246.55	ug/L	100
98) Isobutyl alcohol	7.857	7.857	0.937	41	688392	2485.63	ug/L	100
99) Methyl tert-amyl ether	8.211	8.122	0.979	73	112	N.D.		
100) Methyl methacrylate	8.801	8.801	1.049	69	1162326	264.80	ug/L	99
101) 1,4-Dioxane	8.953	8.957	1.067	88	175240	2237.15	ug/L	99
102) 2-Nitropropane	9.342	9.342	1.114	43	549180	246.58	ug/L	99
104) Ethyl methacrylate	9.859	9.859	0.885	69	2268310	270.77	ug/L	100
106) 1-Chlorohexane	11.058	10.980	0.824	55	112	N.D.		
107) cis-1,4-Dichloro-2-butene	12.136	12.136	0.905	53	774355	290.83	ug/L	99
108) Cyclohexanone	12.267	12.267	0.915	42	260615	1190.72	ug/L	98 E
109) trans-1,4-Dichloro-2-b...	12.408	12.412	0.925	53	727410	290.02	ug/L	100
110) Pentachloroethane	13.017	13.017	0.970	167	1003582	288.94	ug/L	100
111) Benzyl chloride	13.565	13.565	1.011	91	3847923	301.79	ug/L	100
112) bis(2-Chloroisopropyl)...	13.926	13.929	1.038	45	1139180	242.83	ug/L	100

(#) = 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\030910V5\  
Data File : 5B205LA.D  
Acq On    : 9 Mar 2010 9:18 am  
Operator  : CDS1  
InstName  : VOA5  
Sample    : |1202067799|961880|1|VOA|1|VOA8260BS|  
Misc      : LCS 5G - SOIL MIX[B] UVM100215-08B  
ALS Vial  : 5 Sample Multiplier: 1
```

Abundance

TIC: 5B205LA.D\data.ms

Time-->

5.00 6.00 7.00 8.00 9.00 10.00 11.00 12.00 13.00 14.00 15.00 16.00

Acrolein, B

Allyl chloride, B

Acrylonitrile, B

2-Chloro-1,3-butadiene, B

Ethyl acetate, B

Propionitrile, B

Isobutyl alcohol, B

1,2-Dichloroethane-d4, SA

1,4-Dioxane, B

2-Nitropropane, B

Toluene-d8, SA

Ethyl methacrylate, B

Methyl methacrylate, B

Bis(2-chloroisopropyl) ether, B

4,4'-Dichlorobiphenyl, B

1,4-Dichlorobenzene, SA

cis-1,4-Dichloro-2-butene, B

trans-1,4-Dichloro-2-butene, B

Pentachloroethane, B

Benzyl chloride, B



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 1202063155	Date Received: 02/27/2010 09:10	%Moisture: 10.2
Client Sample: QC for batch 961878	Client: LANL010	Project: QC
Client ID: RE36-10-8479PS	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961880	Inst: VOA5.1	Dilution: 1
Run Date: 03/09/2010 17:13	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/09/2010 13:27	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V55B222.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		46.4	ug/kg	0.379	1.11
74-87-3	Chloromethane		52.7	ug/kg	0.334	1.11
75-01-4	Vinyl chloride		56.0	ug/kg	0.334	1.11
74-83-9	Bromomethane		52.4	ug/kg	0.334	1.11
75-00-3	Chloroethane		54.4	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane		54.6	ug/kg	0.334	1.11
67-64-1	Acetone		191	ug/kg	1.85	5.57
75-35-4	1,1-Dichloroethylene		53.1	ug/kg	0.334	1.11
74-88-4	Iodomethane		240	ug/kg	1.78	5.57
75-09-2	Methylene chloride		51.3	ug/kg	2.23	5.57
75-15-0	Carbon disulfide		275	ug/kg	1.39	5.57
156-60-5	trans-1,2-Dichloroethylene		54.4	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane		54.0	ug/kg	0.334	1.11
78-93-3	2-Butanone		198	ug/kg	1.67	5.57
156-59-2	cis-1,2-Dichloroethylene		53.1	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane		55.8	ug/kg	0.334	1.11
67-66-3	Chloroform		52.4	ug/kg	0.334	1.11
74-97-5	Bromochloromethane		51.5	ug/kg	0.368	1.11
71-55-6	1,1,1-Trichloroethane		54.7	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene		55.3	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride		55.1	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane		49.7	ug/kg	0.334	1.11
71-43-2	Benzene		52.2	ug/kg	0.334	1.11
79-01-6	Trichloroethylene		52.2	ug/kg	0.368	1.11
78-87-5	1,2-Dichloropropane		51.8	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane		52.9	ug/kg	0.334	1.11
74-95-3	Dibromomethane		51.2	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone		233	ug/kg	1.39	5.57
10061-01-5	cis-1,3-Dichloropropylene		46.8	ug/kg	0.334	1.11
108-88-3	Toluene		50.9	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene		47.7	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane		48.8	ug/kg	0.334	1.11
591-78-6	2-Hexanone		191	ug/kg	1.67	5.57
142-28-9	1,3-Dichloropropane		49.3	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene		51.3	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane		50.7	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane		47.7	ug/kg	0.334	1.11
108-90-7	Chlorobenzene		49.7	ug/kg	0.334	1.11



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 1202063155	Date Received: 02/27/2010 09:10	%Moisture: 10.2
Client Sample: QC for batch 961878	Client: LANL010	Project: QC
Client ID: RE36-10-8479PS	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961880	Inst: VOA5.I	Dilution: 1
Run Date: 03/09/2010 17:13	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/09/2010 13:27	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V5\SB222.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		48.9	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes		101	ug/kg	0.334	2.23
95-47-6	o-Xylene		50.1	ug/kg	0.334	1.11
100-42-5	Styrene		50.0	ug/kg	0.334	1.11
75-25-2	Bromoform		54.4	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane		49.2	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane		50.8	ug/kg	0.334	1.11
108-86-1	Bromobenzene		50.6	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene		51.6	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene		52.8	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene		54.4	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene		53.1	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene		50.5	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene		51.0	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene		51.9	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene		49.4	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene		43.9	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene		47.3	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene		46.8	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene		44.2	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane		43.6	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.57	ug/kg	1.78	5.57
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		51.1	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene		45.6	ug/kg	0.334	1.11



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B222.D  
Acq On : 9 Mar 2010 5:13 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063155|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MS 248244006 MIX[A]  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 10 06:18:16 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	8.388	8.387	1.000	96	1747842	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1269284	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	578314	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1747842	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1269284	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	578314	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	347223	41.04	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	82.08%		
43) Toluene-d8	9.721	9.721	0.872	98	1464475	45.12	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	90.24%		
61) Bromofluorobenzene	12.260	12.260	0.914	95	666170	57.43	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	114.86%		
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	169821	41.61	ug/L	98
3) Chloromethane	4.900	4.900	0.584	50	246339	47.34	ug/L	97
4) Vinyl chloride	5.041	5.041	0.601	62	216593	50.29	ug/L	98
5) Bromomethane	5.423	5.423	0.647	94	193342	47.00	ug/L	99
6) Chloroethane	5.504	5.504	0.656	64	213233	48.82	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	367434	49.02	ug/L	99
8) Ethyl ether	5.867	5.866	0.699	59	290520	45.01	ug/L	98
9) Acetone	6.170	6.174	0.736	43	897481	171.85	ug/L	100
10) 1,1-Dichloroethylene	6.153	6.156	0.734	61	398151	47.67	ug/L	100
11) Iodomethane	6.358	6.357	0.758	142	1860105	215.64	ug/L	99
12) Acetonitrile	6.460	6.464	0.770	41	984362	961.71	ug/L	98
13) Methyl acetate	6.361	6.365	0.758	43	1302816	228.28	ug/L	100
14) Carbon disulfide	6.432	6.435	0.767	76	4134669	246.99	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	307471	46.09	ug/L	98
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	726229	41.76	ug/L	100
17) trans-1,2-Dichloroethy...	6.711	6.715	0.800	61	443245	48.81	ug/L	99
18) Vinyl acetate	6.969	6.969	0.831	43	54490	3.81	ug/L	93
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	545206	48.48	ug/L	100
20) 2-Butanone	7.447	7.450	0.888	43	1103771	177.39	ug/L	100
21) cis-1,2-Dichloroethylene	7.503	7.507	0.895	61	503263	47.64	ug/L	98
22) 2,2-Dichloropropane	7.511	7.514	0.895	77	417307	50.06	ug/L	98
23) Bromochloromethane	7.719	7.719	0.920	128	144336	46.25	ug/L	96
24) Chloroform	7.698	7.701	0.918	83	473906	47.04	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	407824	49.08	ug/L	99
26) Cyclohexane	7.924	7.924	0.945	56	569771	48.21	ug/L	100
27) 1,1-Dichloropropene	8.006	8.005	0.954	75	378348	49.65	ug/L	98
28) Carbon tetrachloride	8.020	8.020	0.956	117	352637	49.48	ug/L	100
30) 1,2-Dichloroethane	8.235	8.235	0.982	62	388689	44.65	ug/L	100
31) Benzene	8.200	8.203	0.978	78	1185184	46.84	ug/L	98
32) Cyclohexene	8.246	8.246	0.983	67	561414	47.74	ug/L	100
33) n-Butyl alcohol	8.377	8.377	0.999	56	965319	3918.95	ug/L	100
34) Trichloroethylene	8.674	8.677	1.034	95	281360	46.82	ug/L	99
35) 1,2-Dichloropropane	8.929	8.932	1.065	63	332640	46.54	ug/L	98
36) Methylcyclohexane	8.830	8.826	1.053	83	490285	44.65	ug/L	100
37) Dibromomethane	9.063	9.059	1.081	93	166779	45.92	ug/L	98



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B222.D  
Acq On : 9 Mar 2010 5:13 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063155|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MS 248244006 MIX[A]  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 10 06:18:16 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	9.109	9.112	1.086	83	352916	47.53	ug/L	100
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	431447	188.96	ug/L	99
40) cis-1,3-Dichloropropylene	9.484	9.487	1.131	75	427312	42.04	ug/L	98
42) 4-Methyl-2-pentanone	9.530	9.526	0.855	58	634446	209.02	ug/L	99
44) Toluene	9.788	9.788	0.878	91	1244901	45.68	ug/L	100
45) trans-1,3-Dichloroprop...	9.965	9.968	0.894	75	397497	42.83	ug/L	98
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	201568	43.83	ug/L	98
47) 2-Hexanone	10.280	10.279	0.923	43	1411509	171.26	ug/L	99
48) 1,3-Dichloropropane	10.364	10.364	0.930	76	437428	44.27	ug/L	98
49) Tetrachloroethylene	10.294	10.290	0.924	164	229986	46.08	ug/L	99
50) Dibromochloromethane	10.584	10.583	0.950	129	249082	45.53	ug/L	99
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	228052	42.80	ug/L	100
52) Chlorobenzene	11.174	11.174	1.003	112	788303	44.60	ug/L	99
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007	131	274921	45.91	ug/L	99
54) Ethylbenzene	11.178	11.181	1.003	91	1364469	43.89	ug/L	99
55) m,p-Xylenes	11.280	11.280	1.012	106	1067675	90.66	ug/L	100
56) o-Xylene	11.701	11.701	1.050	106	534881	44.95	ug/L	99
57) Styrene	11.715	11.715	1.051	104	816485	44.91	ug/L	92
59) Bromoform	12.002	12.005	0.895	173	153835	48.86	ug/L	99
60) Isopropylbenzene	12.012	12.016	0.896	105	1295966	48.84	ug/L	100
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	303593	44.20	ug/L	99
63) 1,2,3-Trichloropropane	12.451	12.454	0.928	110	83600	45.59	ug/L #	85
64) Bromobenzene	12.465	12.465	0.929	156	303234	45.43	ug/L	99
65) n-Propylbenzene	12.415	12.415	0.926	91	1485037	46.35	ug/L	99
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	1080099	47.66	ug/L	99
67) 2-Chlorotoluene	12.596	12.596	0.939	126	315366	47.41	ug/L #	80
68) 4-Chlorotoluene	12.698	12.698	0.947	91	923690	45.35	ug/L	100
69) tert-Butylbenzene	12.900	12.900	0.962	134	238592	45.74	ug/L	100
70) 1,2,4-Trimethylbenzene	12.957	12.956	0.966	105	1075018	46.63	ug/L	99
71) sec-Butylbenzene	13.116	13.119	0.978	105	1299436	44.31	ug/L	100
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	918717	39.42	ug/L	99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	537920	42.44	ug/L	100
74) 1,4-Dichlorobenzene	13.437	13.441	1.002	146	541101	41.99	ug/L	99
75) n-Butylbenzene	13.653	13.653	1.018	91	907771	39.66	ug/L	100
76) 1,2-Dichlorobenzene	13.858	13.858	1.033	146	499029	40.96	ug/L	99
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	51195	39.16	ug/L	98
78) 1,2,4-Trichlorobenzene	15.620	15.619	1.165	180	246439	30.04	ug/L	99
79) Hexachlorobutadiene	15.686	15.686	1.169	225	136852	27.46	ug/L	99
80) Naphthalene	15.989	15.988	1.192	128	542035	29.08	ug/L	100
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	198655	27.74	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	0.000	6.082	0.000		0	N.D.		
86) Trichlorotrifluoroethane	6.064	6.071	0.723		0m	N.D.	d	
87) Isopropyl Alcohol	6.167	6.163	0.735		0m	N.D.	d	
88) Allyl chloride	6.460	6.425	0.770		0m	N.D.	d	
89) tert-Butyl Alcohol	6.464	6.460	0.771		0m	N.D.	d	
90) Acrylonitrile	6.637	6.747	0.791		0m	N.D.	d	
91) Isopropyl ether	6.966	6.920	0.831		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	7.047	7.104	0.840		0m	N.D.	d	
93) Ethyl tert-butyl ether	7.065	7.192	0.842		0m	N.D.	d	
94) Ethyl acetate	7.330	7.383	0.874		0m	N.D.	d	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B222.D  
Acq On : 9 Mar 2010 5:13 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063155|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MS 248244006 MIX[A]  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 10 06:18:16 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	7.666	7.585	0.914		0m	N.D.	d
96) Methacrylonitrile	7.670	7.680	0.914		0m	N.D.	d
97) Tetrahydrofuran	7.705	7.716	0.919		0m	N.D.	d
98) Isobutyl alcohol	7.670	7.857	0.914		0m	N.D.	d
99) Methyl tert-amyl ether	8.122	8.122	0.968		0m	N.D.	d
100) Methyl methacrylate	8.830	8.801	1.053		0m	N.D.	d
101) 1,4-Dioxane	9.059	8.957	1.080		0m	N.D.	d
102) 2-Nitropropane	9.346	9.342	1.114		0m	N.D.	d
104) Ethyl methacrylate	9.855	9.859	0.884		0m	N.D.	d
106) 1-Chlorohexane	11.061	10.980	0.825		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	12.012	12.136	0.896		0m	N.D.	d
108) Cyclohexanone	12.267	12.267	0.915		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.419	12.412	0.926		0m	N.D.	d
110) Pentachloroethane	13.013	13.017	0.970		0m	N.D.	d
111) Benzyl chloride	13.561	13.565	1.011		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	13.933	13.929	1.039		0m	N.D.	d

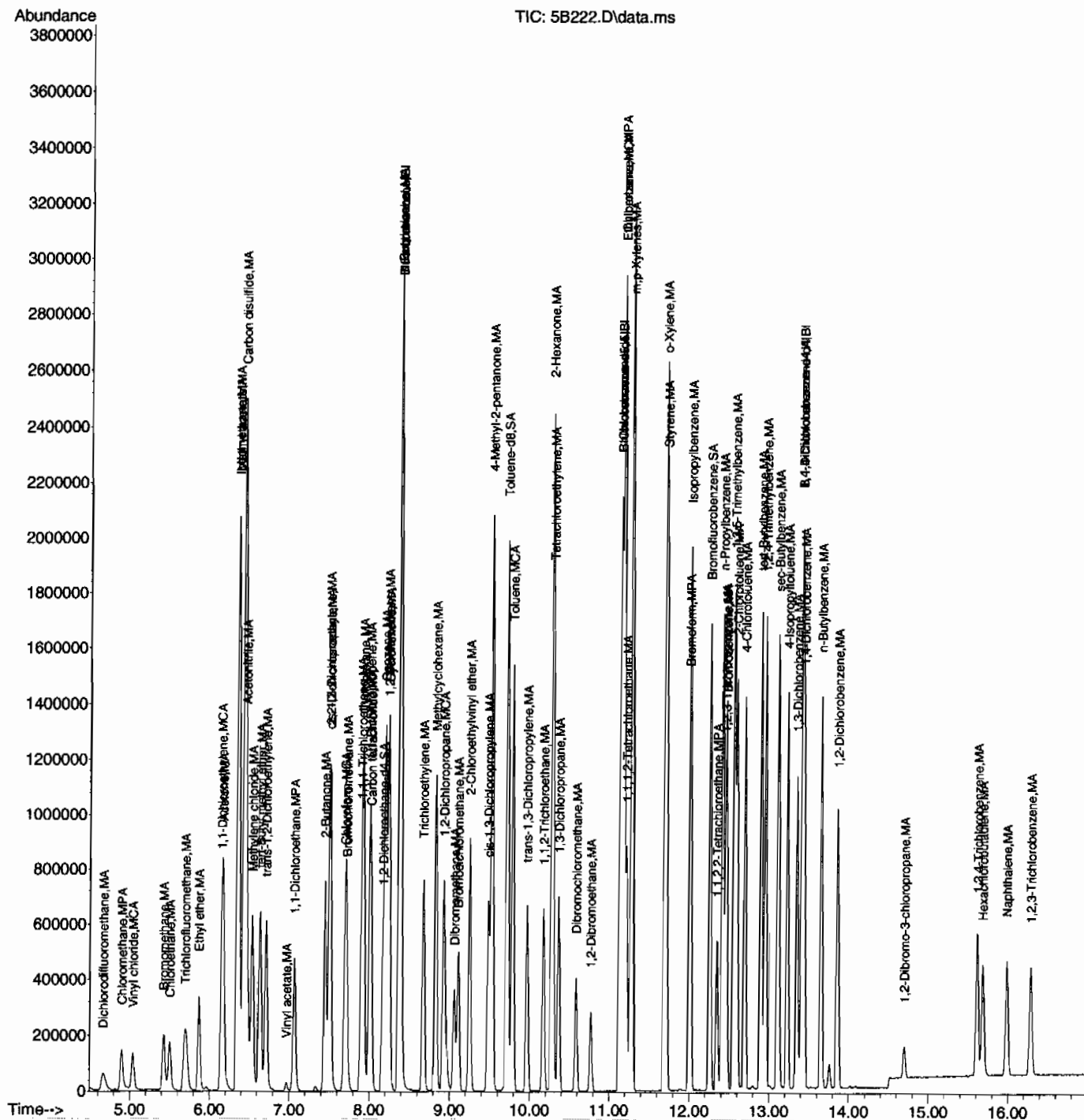
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B222.D  
Acq On : 9 Mar 2010 5:13 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063155|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MS 248244006 MIX[A]  
ALS Vial : 22 Sample Multiplier: 1
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Quant Time: Mar 10 06:18:16 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE





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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 1202063156	Date Received: 02/27/2010 09:10	%Moisture: 10.2
Client Sample: QC for batch 961878	Client: LANL010	Project: QC
Client ID: RE36-10-8479PSD	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 961880	Inst: VOA5.I	Dilution: 1
Run Date: 03/09/2010 17:40	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/09/2010 13:28	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V5/5B223.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		47.6	ug/kg	0.379	1.11
74-87-3	Chloromethane		51.8	ug/kg	0.334	1.11
75-01-4	Vinyl chloride		56.7	ug/kg	0.334	1.11
74-83-9	Bromomethane		50.9	ug/kg	0.334	1.11
75-00-3	Chloroethane		53.6	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane		55.6	ug/kg	0.334	1.11
67-64-1	Acetone		211	ug/kg	1.85	5.57
75-35-4	1,1-Dichloroethylene		53.1	ug/kg	0.334	1.11
74-88-4	Iodomethane		234	ug/kg	1.78	5.57
75-09-2	Methylene chloride		49.7	ug/kg	2.23	5.57
75-15-0	Carbon disulfide		274	ug/kg	1.39	5.57
156-60-5	trans-1,2-Dichloroethylene		53.7	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane		53.2	ug/kg	0.334	1.11
78-93-3	2-Butanone		220	ug/kg	1.67	5.57
156-59-2	cis-1,2-Dichloroethylene		52.5	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane		54.9	ug/kg	0.334	1.11
67-66-3	Chloroform		51.9	ug/kg	0.334	1.11
74-97-5	Bromochloromethane		51.4	ug/kg	0.368	1.11
71-55-6	1,1,1-Trichloroethane		54.8	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene		54.8	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride		55.5	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane		49.9	ug/kg	0.334	1.11
71-43-2	Benzene		51.2	ug/kg	0.334	1.11
79-01-6	Trichloroethylene		52.0	ug/kg	0.368	1.11
78-87-5	1,2-Dichloropropane		50.5	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane		52.4	ug/kg	0.334	1.11
74-95-3	Dibromomethane		51.7	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone		252	ug/kg	1.39	5.57
10061-01-5	cis-1,3-Dichloropropylene		46.6	ug/kg	0.334	1.11
108-88-3	Toluene		50.2	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene		48.6	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane		49.5	ug/kg	0.334	1.11
591-78-6	2-Hexanone		206	ug/kg	1.67	5.57
142-28-9	1,3-Dichloropropane		50.4	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene		50.7	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane		52.1	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane		49.1	ug/kg	0.334	1.11
108-90-7	Chlorobenzene		48.8	ug/kg	0.334	1.11



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

SDG Number: 10-2137  
 Lab Sample ID: 1202063156  
 Client Sample: QC for batch 961878  
 Client ID: RE36-10-8479PSD  
 Batch ID: 961880  
 Run Date: 03/09/2010 17:40  
 Prep Date: 03/09/2010 13:28  
 Data File: 030910V55B223.D

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 10.2  
 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		48.0	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes		99.3	ug/kg	0.334	2.23
95-47-6	o-Xylene		48.7	ug/kg	0.334	1.11
100-42-5	Styrene		49.6	ug/kg	0.334	1.11
75-25-2	Bromoform		56.1	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane		51.0	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane		53.9	ug/kg	0.334	1.11
108-86-1	Bromobenzene		49.0	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene		49.4	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene		51.4	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene		52.3	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene		50.9	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene		48.7	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene		49.6	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene		49.8	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene		47.6	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene		43.9	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene		46.2	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene		45.5	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene		43.7	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane		47.2	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.57	ug/kg	1.78	5.57
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		50.6	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene		44.9	ug/kg	0.334	1.11



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B223.D  
Acq On : 9 Mar 2010 5:40 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063156|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MSD 248244006 MIX[A]  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 10 06:18:18 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1680435	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1223276	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	568620	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1680435	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1223276	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	568620	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	342331	42.09	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	84.18%			
43) Toluene-d8	9.721	9.721	0.872	98	1426341	45.59	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	91.18%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	652631	57.22	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	114.44%			
Target Compounds								
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	167623	42.72	ug/L	97
3) Chloromethane	4.900	4.900	0.584	50	232885	46.54	ug/L	97
4) Vinyl chloride	5.041	5.041	0.601	62	210922	50.94	ug/L	98
5) Bromomethane	5.423	5.423	0.647	94	180753	45.70	ug/L	98
6) Chloroethane	5.504	5.504	0.656	64	201958	48.09	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	359987	49.95	ug/L	99
8) Ethyl ether	5.866	5.866	0.699	59	282459	45.52	ug/L	100
9) Acetone	6.170	6.174	0.736	43	950389	189.28	ug/L	100
10) 1,1-Dichloroethylene	6.152	6.156	0.734	61	382726	47.66	ug/L	100
11) Iodomethane	6.357	6.357	0.758	142	1744594	210.36	ug/L	99
12) Acetonitrile	6.460	6.464	0.770	41	1053897	1070.94	ug/L	98
13) Methyl acetate	6.361	6.365	0.758	43	1355506	247.04	ug/L	100
14) Carbon disulfide	6.435	6.435	0.767	76	3951839	245.54	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	286152	44.60	ug/L	95
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	718374	42.97	ug/L	100
17) trans-1,2-Dichloroethy...	6.711	6.715	0.800	61	420710	48.18	ug/L	99
18) Vinyl acetate	6.973	6.969	0.831	43	115802	8.42	ug/L	96
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	516349	47.75	ug/L	99
20) 2-Butanone	7.450	7.450	0.888	43	1179413	197.15	ug/L	99
21) cis-1,2-Dichloroethylene	7.503	7.507	0.895	61	479028	47.17	ug/L	97
22) 2,2-Dichloropropane	7.514	7.514	0.896	77	394799	49.26	ug/L	98
23) Bromochloromethane	7.719	7.719	0.920	128	138313	46.10	ug/L	98
24) Chloroform	7.698	7.701	0.918	83	451263	46.59	ug/L	99
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	392898	49.19	ug/L	99
26) Cyclohexane	7.924	7.924	0.945	56	550930	48.49	ug/L	99
27) 1,1-Dichloropropene	8.005	8.005	0.954	75	360674	49.23	ug/L	99
28) Carbon tetrachloride	8.020	8.020	0.956	117	341193	49.79	ug/L	100
30) 1,2-Dichloroethane	8.235	8.235	0.982	62	374507	44.75	ug/L	99
31) Benzene	8.200	8.203	0.978	78	1118699	45.99	ug/L	99
32) Cyclohexene	8.246	8.246	0.983	67	537101	47.51	ug/L	99
33) n-Butyl alcohol	8.377	8.377	0.999	56	1073652	4540.21	ug/L	98
34) Trichloroethylene	8.674	8.677	1.034	95	269470	46.64	ug/L	99
35) 1,2-Dichloropropane	8.932	8.932	1.065	63	311288	45.30	ug/L	100
36) Methylcyclohexane	8.829	8.826	1.053	83	464373	43.99	ug/L	99
37) Dibromomethane	9.059	9.059	1.080	93	162172	46.44	ug/L	99



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B223.D  
Acq On : 9 Mar 2010 5:40 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063156|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MSD 248244006 MIX[A]  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 10 06:18:18 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	9.109	9.112	1.086	83	335779	47.04	ug/L	100
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	418521	190.66	ug/L	100
40) cis-1,3-Dichloropropylene	9.484	9.487	1.131	75	409032	41.86	ug/L	99
42) 4-Methyl-2-pentanone	9.530	9.526	0.855	58	661811	226.24	ug/L	98
44) Toluene	9.788	9.788	0.878	91	1184312	45.10	ug/L	100
45) trans-1,3-Dichloroprop...	9.965	9.968	0.894	75	390457	43.65	ug/L	99
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	197126	44.48	ug/L	98
47) 2-Hexanone	10.279	10.279	0.923	43	1465782	184.53	ug/L	99
48) 1,3-Dichloropropane	10.364	10.364	0.930	76	430487	45.21	ug/L	99
49) Tetrachloroethylene	10.290	10.290	0.924	164	218885	45.50	ug/L	99
50) Dibromochloromethane	10.583	10.583	0.950	129	246365	46.73	ug/L	97
51) 1,2-Dibromoethane	10.774	10.771	0.967	107	226111	44.04	ug/L	98
52) Chlorobenzene	11.174	11.174	1.003	112	746211	43.80	ug/L	99
53) 1,1,1,2-Tetrachloroethane	11.216	11.216	1.007	131	262278	45.45	ug/L	100
54) Ethylbenzene	11.178	11.181	1.003	91	1291386	43.10	ug/L	99
55) m,p-Xylenes	11.280	11.280	1.012	106	1011865	89.15	ug/L	100
56) o-Xylene	11.697	11.701	1.050	106	501789	43.75	ug/L	100
57) Styrene	11.712	11.715	1.051	104	780264	44.54	ug/L	93
59) Bromoform	12.005	12.005	0.895	173	155835	50.34	ug/L	100
60) Isopropylbenzene	12.012	12.016	0.896	105	1225037	46.95	ug/L	100
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	309030	45.76	ug/L	99
63) 1,2,3-Trichloropropane	12.454	12.454	0.929	110	87291	48.41	ug/L	96
64) Bromobenzene	12.465	12.465	0.929	156	288427	43.95	ug/L	97
65) n-Propylbenzene	12.415	12.415	0.926	91	1397532	44.37	ug/L	99
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	1018477	45.71	ug/L	100
67) 2-Chlorotoluene	12.596	12.596	0.939	126	301587	46.11	ug/L #	82
68) 4-Chlorotoluene	12.698	12.698	0.947	91	875021	43.69	ug/L	100
69) tert-Butylbenzene	12.900	12.900	0.962	134	228256	44.50	ug/L	98
70) 1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	1013274	44.70	ug/L	99
71) sec-Butylbenzene	13.119	13.119	0.978	105	1230899	42.69	ug/L	99
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	904143	39.45	ug/L	99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	516666	41.46	ug/L	100
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	517082	40.81	ug/L	99
75) n-Butylbenzene	13.653	13.653	1.018	91	883426	39.26	ug/L	99
76) 1,2-Dichlorobenzene	13.855	13.858	1.033	146	482431	40.27	ug/L	100
77) 1,2-Dibromo-3-chloropr...	14.704	14.704	1.096	157	54504	42.40	ug/L	95
78) 1,2,4-Trichlorobenzene	15.619	15.619	1.165	180	254172	31.51	ug/L	99
79) Hexachlorobutadiene	15.686	15.686	1.169	225	147162	30.03	ug/L	99
80) Naphthalene	15.988	15.988	1.192	128	592442	32.33	ug/L	100
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	209805	29.80	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	0.000	6.082	0.000		0	N.D.		
86) Trichlorotrifluoroethane	6.071	6.071	0.724		0m	N.D.	d	
87) Isopropyl Alcohol	6.166	6.163	0.735		0m	N.D.	d	
88) Allyl chloride	6.460	6.425	0.770		0m	N.D.	d	
89) tert-Butyl Alcohol	6.464	6.460	0.771		0m	N.D.	d	
90) Acrylonitrile	6.633	6.747	0.791		0m	N.D.	d	
91) Isopropyl ether	6.923	6.920	0.825		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	7.043	7.104	0.840		0m	N.D.	d	
93) Ethyl tert-butyl ether	7.079	7.192	0.844		0m	N.D.	d	
94) Ethyl acetate	7.333	7.383	0.874		0m	N.D.	d	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V5\  
Data File : 5B223.D  
Acq On : 9 Mar 2010 5:40 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202063156|961880|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MSD 248244006 MIX[A]  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 10 06:18:18 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	7.666	7.585	0.914		0m	N.D.	d
96) Methacrylonitrile	7.666	7.680	0.914		0m	N.D.	d
97) Tetrahydrofuran	7.705	7.716	0.919		0m	N.D.	d
98) Isobutyl alcohol	7.761	7.857	0.925		0m	N.D.	d
99) Methyl tert-amyl ether	8.129	8.122	0.969		0m	N.D.	d
100) Methyl methacrylate	8.829	8.801	1.053		0m	N.D.	d
101) 1,4-Dioxane	9.059	8.957	1.080		0m	N.D.	d
102) 2-Nitropropane	9.165	9.342	1.093		0m	N.D.	d
104) Ethyl methacrylate	0.000	9.859	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	12.012	12.136	0.896		0m	N.D.	d
108) Cyclohexanone	12.270	12.267	0.915		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.419	12.412	0.926		0m	N.D.	d
110) Pentachloroethane	13.016	13.017	0.970		0m	N.D.	d
111) Benzyl chloride	13.565	13.565	1.011		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	13.925	13.929	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\030910V5\  
Data File : 5B223.D  
Acq On    : 9 Mar 2010    5:40 pm  
Operator  : CDS1  
InstName  : VOA5  
Sample    : |1202063156|961880|1|VOA|1|VOA8260BS|  
Misc      : LANL 5G - SOIL MSD 248244006 MIX[A]  
ALS Vial  : 23    Sample Multiplier: 1
```

TIC: 5B223.D\data.ms

Abundance

Time-->

Compounds identified in the chromatogram:

- Dichlorodifluoromethane, MA
- Chloromethane, MP A
- Vinyl chloride, MCA
- Bromochloromethane, MA
- Trichlorofluoromethane, MA
- Ethyl ether, MA
- 1,1-Dichloroethene, MCA
- Methyl acetate, MA
- trans-1,2-Dichloroethylene, MA
- Acetonitrile, MA
- Carbon disulfide, MA
- Isobutylene, MA
- 1,1-Dichloroethane, MP A
- Vinyl acetate, MA
- 2-Butanone, MA
- trans-1,2-Dichloroethylene, MA
- Bromochloromethane, MA
- Carbon tetrachloride, MA
- 1,2-Dichloroethane, SA
- 1,2-Dibromoethane, MA
- Trichloroethylene, MA
- Methylcyclohexane, MA
- 1,2-Dichloropropane, MCA
- Dibromomethane, MA
- 2-Chloroethynyl vinyl ether, MA
- cis-1,3-Dichloropropylene, MA
- Toluene, MCA
- trans-1,3-Dichloropropylene, MA
- 1,1,2-Trichloroethane, MA
- 1,3-Dichloropropane, MA
- Dibromochloromethane, MA
- 1,2-Dibromoethane, MA
- 1,1,1-Trichloroethane, MA
- 1,1,2-Trichloroethane, MA
- 1,1,2,2-Tetrachloroethane, MA
- 1,1,2,2-Tetrachloroethane, MP A
- Bromochloromethane, MA
- 4-Chlorobenzonitrile, MA
- sec-Butylbenzene, MA
- n-Butylbenzene, MA
- 1,2-Dichlorobenzene, MA
- 1,2-Dibromo-3-chloropropane, MA
- Hexachlorocyclopentadiene, MA
- Naphthalene, MA
- 1,2,3-Trichlorobenzene, MA
- 4-Methyl-2-pentanone, MA
- Toluene-d8, SA
- Tetrachloroethylene, MA
- Diethyl malonate, MA
- m-Xylenes, MA
- p-Xylenes, MA



# Miscellaneous



# Prep Logbook

## Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

**Batch ID:** 961878      Verified by: \_\_\_\_\_  
**Analyst:** Crystal Stacey  
**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 1	Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
248244001	05-MAR-2010 10:10:00	Soil	5	5	1							
248244002	05-MAR-2010 10:12:00	Soil	5	5	1							
248244003	05-MAR-2010 10:14:00	Soil	5	5	1							
248244004	05-MAR-2010 10:16:00	Soil	5	5	1							
248244005	05-MAR-2010 10:18:00	Soil	5	5	1							
248244007	05-MAR-2010 10:22:00	Soil	5	5	1							
248244008	05-MAR-2010 10:24:00	Soil	5	5	1							
248240001	05-MAR-2010 10:26:00	Soil	5	5	1							
248240002	05-MAR-2010 10:32:00	Soil	5	5	1							
248240003	05-MAR-2010 10:34:00	Soil	5	5	1							
248240004	05-MAR-2010 10:36:00	Soil	5	5	1							
248240005	05-MAR-2010 10:38:00	Soil	5	5	1							
248240007	05-MAR-2010 10:42:00	Soil	5	5	1							
248240009	05-MAR-2010 10:46:00	Soil	5	5	1							
1202063154 MB	05-MAR-2010 15:26:00	Soil	5	5	1							
1202063157 LCS	05-MAR-2010 15:26:00	Soil	5	5	1							
1202063158 LCS	05-MAR-2010 15:26:00	Soil	5	5	1							
1202067797 MB	09-MAR-2010 07:26:00	Soil	5	5	1							
1202067798 LCS	09-MAR-2010 07:26:00	Soil	5	5	1							
1202067799 LCS	09-MAR-2010 07:26:00	Soil	5	5	1							
248240006	09-MAR-2010 13:21:00	Soil	5	5	1							
248240008	09-MAR-2010 13:23:00	Soil	5	5	1							
248240010	09-MAR-2010 13:24:00	Soil	5	5	1							
248240011	09-MAR-2010 13:25:00	Misc Solid	5	5	1							
248244006	09-MAR-2010 13:26:00	Soil	5	5	1							
1202063155 PS (248244006)	09-MAR-2010 13:27:00	Soil	5	5	1							

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC



Prep Logbook

Batch ID: 961878

Analyst: Crystal Stacey

Method: SW846 5030

Lab SOP: GL-OA-E-038 REV# 14

Instrument: Sartorius Balance B-001

Verified by: \_\_\_\_\_

Type

Sample Id

Description

Serial Number

Spike Amount

Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202063156 PSD (248244006)	09-MAR-2010 13:28:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount	Comments:
------------------------	-------------	--------	-----------



Date: 3/3/2010 Method 8260/624 Operator: cds1  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Daily Instrument Readings: \_\_\_\_\_  
Multiplier Voltage: 1412

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

CALIBRATION & CC INFORMATION:

Digital Calibration Date: \_\_\_\_\_  
(See pg. \_\_\_\_\_ for ICAL Std. Sci. Ids)  
NaHSO4 lot # n/a  
CI test lot # n/a  
Sequence Number: 03310V5

Daily Standard Volume Added for Purge (ul)  
Solution ID# Smpl CCV LCS BFB  
IS UVM100203-01 1 1 1  
SS UVM100203-02 1 1 1  
Long ICV W5VM100303-10 5+5  
BFB UVM100203-02 1  
Short ICV W5VM100303-18 5+5

Purge Amount  
5 Water Purge Vol:  
N/A Soil Purge Wt.  
N/A Mid level ext. MeOH Vol:  
N/A ul  
N/A Methanol Lot #  
X Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol.(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Acceptance ble(O/X)	Comments
3 Mar 2010	11:00	5A301.D	UVM100203-02	BLANK	BFB	5ML	1	N/A	1	w	CDS1	N/A	O	clean-up blank
3 Mar 2010	11:26	5A302.D	120206-----	BLANK	BLANK	5uL ea.	1	N/A	2	w	CDS1	N/A	X	UVM100106-02D+UVM100222-02A
3 Mar 2010	11:52	5A303.D	W5VM100303-01	VSTD001L	ICAL	5uL ea.	1	N/A	3	w	CDS1	N/A	O	UVM100106-03D+UVM100222-03A
3 Mar 2010	12:18	5A304.D	W5VM100303-02	VSTD002L	ICAL	5uL ea.	1	N/A	4	w	CDS1	N/A	O	UVM100106-04D+UVM100222-04A
3 Mar 2010	12:43	5A305.D	W5VM100303-03	VSTD005L	ICAL	5uL ea.	1	N/A	5	w	CDS1	N/A	O	UVM100106-05D+UVM100222-05A
3 Mar 2010	13:09	5A306.D	W5VM100303-04	VSTD010L	ICAL	5uL ea.	1	N/A	6	w	CDS1	N/A	O	UVM100106-06D+UVM100222-06A
3 Mar 2010	13:35	5A307.D	W5VM100303-05	VSTD020L	ICAL	5uL ea.	1	N/A	7	w	CDS1	N/A	O	UVM100106-07D+UVM100222-07A
3 Mar 2010	14:01	5A308.D	W5VM100303-06	VSTD050L	ICAL	5uL ea.	1	N/A	8	w	CDS1	N/A	O	UVM100106-08D+UVM100222-08A
3 Mar 2010	14:26	5A309.D	W5VM100303-07	VSTD100L	ICAL	5uL ea.	1	N/A	9	w	CDS1	N/A	O	clean-up blank
3 Mar 2010	14:52	5A310.D	120206-----	BLANK	BLANK	5uL ea.	1	N/A	10	w	CDS1	N/A	X	UVM100106-01D+UVM100222-01A
3 Mar 2010	15:18	5A311.D	W5VM100303-08	VSTD0005L	ICAL	5uL ea.	1	N/A	11	w	CDS1	N/A	O	UVM100126-02E+UVM100301-01 ketones low
3 Mar 2010	15:44	5A312.D	W5VM100303-09	ICV	LCS	5uL ea.	1	N/A	12	w	CDS1	N/A	X	UVM100220-01C+UVM100301-01
3 Mar 2010	16:10	5A313.D	W5VM100303-10	ICV	LCS	5uL ea.	1	N/A	13	w	CDS1	N/A	O	clean-up blank
3 Mar 2010	16:35	5A314.D	120206-----	BLANK	BLANK	5ML	1	N/A	14	w	CDS1	N/A	X	UVM100215-01+UVM100227-01A
3 Mar 2010	17:01	5A315.D	W5VM100303-11	VSTD005S	ICAL	5uL ea.	1	N/A	15	w	CDS1	N/A	O	UVM100215-02+UVM100227-02A
3 Mar 2010	17:27	5A316.D	W5VM100303-12	VSTD010S	ICAL	5uL ea.	1	N/A	16	w	CDS1	N/A	O	UVM100215-03+UVM100227-03A
3 Mar 2010	17:52	5A317.D	W5VM100303-13	VSTD025S	ICAL	5uL ea.	1	N/A	17	w	CDS1	N/A	O	UVM100215-04+UVM100227-04A
3 Mar 2010	18:18	5A318.D	W5VM100303-14	VSTD050S	ICAL	5uL ea.	1	N/A	18	w	CDS1	N/A	O	UVM100215-05+UVM100227-05A
3 Mar 2010	18:44	5A319.D	W5VM100303-15	VSTD100S	ICAL	5uL ea.	1	N/A	19	w	CDS1	N/A	O	UVM100215-06+UVM100227-06A
3 Mar 2010	19:10	5A320.D	W5VM100303-16	VSTD250S	ICAL	5uL ea.	1	N/A	20	w	CDS1	N/A	O	UVM100215-07+UVM100227-07A
3 Mar 2010	19:35	5A321.D	W5VM100303-17	VSTD500S	ICAL	5uL ea.	1	N/A	21	w	CDS1	N/A	O	clean-up blank
3 Mar 2010	20:01	5A322.D	120206-----	BLANK	BLANK	5mL	1	N/A	22	w	CDS1	N/A	X	UVM100215-08A-UVM100125-08E
3 Mar 2010	20:27	5A323.D	W5VM100303-18	ICV	ICV	5uL ea.	1	N/A	23	w	CDS1	N/A	O	



Date: 3/5/2010 Method 8260/624 Operator: CDS1  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Daily Instrument Readings: \_\_\_\_\_  
Multiplier Voltage: 1412

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/3/2010 Daily Standard Volume Added for Purge (ul) MS/Blk/CCV LCS BFB

(See pg. 43 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a

Cl test lot # 81710

Sequence Number: 030510V5

Purge Amount

5 Water Purge Vol:

5 Soil Purge Wt.

Mid level ext. MeOH Vol:

ul

Methanol Lot #

X Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol.(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Accepta blef(O/X)	Comments
5 Mar 2010	14:49	5A501.D	UVM100217-02	-----	BFB	5ml	1	N/A	1	w	CDS1	N/A	X	passes but see 5A502
5 Mar 2010	15:17	5A502.D	W5VM100305-01	-----	CCV	5ml	1	N/A	2	w	CDS1	N/A	O	UVM100106-07D+UVM100222-07A
5 Mar 2010	15:45	5A503.D	W5VM100305-02	-----	LCS	5ml	1	N/A	3	w	CDS1	N/A	O	UVM100220-01D+UVM100304-01
5 Mar 2010	16:13	5A504.D	W5VM100305-03	-----	LCS	5g	1	N/A	4	s	CDS1	N/A	O	UVM100220-01D+UVM100304-01
5 Mar 2010	16:40	5A505.D	W5VM100305-04	-----	CCV/LCS	5g	1	N/A	5	s	CDS1	N/A	O	UVM100215-08B
5 Mar 2010	17:21	5A506.D	120206-----	-----	BLANK	5ML	1	N/A	6	w	CDS1	N/A	O	
5 Mar 2010	17:46	5A507.D	120206-----	-----	BLANK	5G	1	N/A	7	s	CDS1	N/A	O	
5 Mar 2010	18:11	5A508.D	248200001	CH2M	960660	5ML	1	PH2	8	w	JEB	N	X	SS high
5 Mar 2010	18:37	5A509.D	248240001	LANL	961880	5G	1	N/A	9	s	CDS1	N/A	O	IS low-conf. by
5 Mar 2010	19:02	5A510.D	248240002	LANL	961880	5G	1	N/A	10	s	CDS1	N/A	O	
5 Mar 2010	19:28	5A511.D	248240003	LANL	961880	5G	1	N/A	11	s	CDS1	N/A	O	
5 Mar 2010	19:52	5A512.D	248240004	LANL	961880	5G	1	N/A	12	s	CDS1	N/A	O	
5 Mar 2010	20:17	5A513.D	248240005	LANL	961880	5G	1	N/A	13	s	CDS1	N/A	O	
5 Mar 2010	20:42	5A514.D	248240006	LANL	961880	5G	1	N/A	14	s	CDS1	N/A	O	IS low-conf. by 5B217
5 Mar 2010	21:07	5A515.D	248240007	LANL	961880	5G	1	N/A	15	s	CDS1	N/A	X	IS low, SS high-conf. of 5B218
5 Mar 2010	21:33	5A516.D	248240008	LANL	961880	5G	1	N/A	16	s	CDS1	N/A	O	IS low, SS high-conf. by 5B219
5 Mar 2010	21:58	5A517.D	248240009	LANL	961880	5G	1	N/A	17	s	CDS1	N/A	X	IS low, SS high-conf. of 5B220
5 Mar 2010	22:24	5A518.D	248240010	LANL	961880	5G	1	N/A	18	s	CDS1	N/A	O	
5 Mar 2010	22:49	5A519.D	248240011	LANL	961880	5G	1	N/A	19	s	CDS1	N/A	X	IS low, SS high-conf. of 5B221
5 Mar 2010	23:15	5A520.D	248240012	LANL	961880	5G	1	N/A	20	s	CDS1	N/A	X	IS low-see 5B216
5 Mar 2010	23:40	5A521.D	248240013	LANL	961880	5G	1	N/A	21	s	CDS1	N/A	O	
6 Mar 2010	00:05	5A522.D	248240014	LANL	961880	5G	1	N/A	22	s	CDS1	N/A	O	
6 Mar 2010	00:31	5A523.D	248240015	LANL	961880	5G	1	N/A	23	s	CDS1	N/A	O	
6 Mar 2010	00:56	5A524.D	248240016	LANL	961880	5G	1	N/A	24	s	CDS1	N/A	O	
6 Mar 2010	01:22	5A525.D	248240017	LANL	961880	5G	1	N/A	25	s	CDS1	N/A	X	REP C/O see 5B215
6 Mar 2010	01:47	5A526.D	248240018	LANL	961880	5G	1	N/A	26	s	CDS1	N/A	O	
6 Mar 2010	02:13	5A527.D	248240019	LANL	961880	5G	1	N/A	27	s	CDS1	N/A	O	



Date: 3/5/2010 Method 8260/624 Operator: CDS1  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Daily Instrument Readings: \_\_\_\_\_  
Multiplier Voltage: 1412

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Initial Calibration Date: 3/3/2010  
(See pg. 43 for ICAI Std. Std. Ids)  
NaHSO4 lot # n/a  
CI test lot # 81710  
Sequence Number: 030510V5

Daily Standard	Solution ID#	Volume Added for Purge (ul)	Blk/	MS/
CCV W5VM100305-01	IS	1	5+5	LCS
SS UVM100217-02	SS	1	1	1
LCS/MS W5VM100305-02/03	BFB	1	1	1
SHORT W5VM100305-04	SHORT	1	5	5

Purge Amount  
5 Water Purge Vol:  
5 Soil Purge Wt.  
Mid level ext. MeOH Vol:  
ul  
Methanol Lot #  
X Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol.(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix Analyst	CI test (Y/N)	Acceptance ble(O/X)	Comments
6 Mar 2010	02:38	5A528.D	1202063155	LANL	961880	5G	1	N/A	28	CDS1	N/A	X	MS 248240001 IS low-mult. recovery failures
6 Mar 2010	03:04	5A529.D	1202063156	LANL	961880	5G	1	N/A	29	CDS1	N/A	X	MSD 248240001 IS low-mult. recovery failures



Date: 3/9/2010 Method 8260/624 Operator: CDS1  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Daily Instrument Readings: \_\_\_\_\_  
Multiplier Voltage: 1412

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/3/2010  
(See pg. 43 for ICAL Std. Sci. Ids)  
NaHSO4 lot # n/a  
Ci test lot # n/a  
Sequence Number: 030910V5

Daily Standard Volume Added for Purge (ul)  
Solution ID# CCV W5VM100309-02 5+5  
IS UVM100203-01 1 1 1  
SS UVM100217-02 1 1 1  
LCS/MS W5VM100309-02/03 5+5  
BFB UVM100217-02 1  
SHORT W5VM100309-04 5 5

Purge Amount  
5 Water Purge Vol:  
5 Soil Purge Wt.  
Mid level ext. MeOH Vol:  
ul  
Methanol Lot #  
X Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol.(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Ci test (Y/N)	Accepta ble(O/X)	Comments
9 Mar 2010	07:14	5B201.D	UVM100217-02	-----	BFB	5ML	1	N/A	1	w	CDS1	N/A	O	
9 Mar 2010	07:42	5B202.D	W5VM100309-01		CCV	5ML	1	N/A	2	w	CDS1	N/A	X	UVM100222-07B+UVM100106-07D poor prep
9 Mar 2010	08:09	5B203.D	W5VM100309-02	-----	LCS/CCV	5ML	1	N/A	3	w	CDS1	N/A	O	UVM100220-01E+UVM100308-01 passes as CCV & LCS
9 Mar 2010	08:50	5B204.D	W5VM100309-03	-----	LCS	5g	1	N/A	4	s	CDS1	N/A	O	UVM100220-01E+UVM100308-01
9 Mar 2010	09:18	5B205.D	W5VM100309-04	-----	CCV/LCS	5g	1	N/A	5	s	CDS1	N/A	O	UVM100215-08B
9 Mar 2010	09:45	5B206.D	120206-----	-----	BLANK	5ML	1	N/A	6	w	CDS1	N/A	O	
9 Mar 2010	10:12	5B207.D	120206-----	-----	BLANK	5G	1	N/A	7	s	CDS1	N/A	O	
9 Mar 2010	10:40	5B208.D	1202063711	BY12	963021	500UL	10	N/A	8	w	CDS1	N/A	O	TCLPBLANK
9 Mar 2010	11:08	5B209.D	248212003	BY12	963021	500UL	10	N/A	9	w	CDS1	N/A	O	
9 Mar 2010	11:36	5B210.D	248212006	BY12	963021	500UL	10	N/A	10	w	CDS1	N/A	O	
9 Mar 2010	12:03	5B211.D	248212014	BY12	963021	500UL	10	N/A	11	w	CDS1	N/A	O	
9 Mar 2010	12:31	5B212.D	248212017	BY12	963021	500UL	10	N/A	12	w	CDS1	N/A	O	
9 Mar 2010	12:59	5B213.D	248212021	BY12	963021	500UL	10	N/A	13	w	CDS1	N/A	O	
9 Mar 2010	13:27	5B214.D	248212025	BY12	963021	500UL	10	N/A	14	w	CDS1	N/A	O	
9 Mar 2010	13:58	5B215.D	248244006	LANL	961880	5G	1	N/A	15	s	CDS1	N/A	O	
9 Mar 2010	14:26	5B216.D	248240011	LANL	961880	5G	1	N/A	16	s	CDS1	N/A	O	
9 Mar 2010	14:54	5B217.D	248240005	LANL	961880	5G	1	N/A	17	s	CDS1	N/A	X	IS low, SS high--conf. of 5A513
9 Mar 2010	15:22	5B218.D	248240006	LANL	961880	5G	1	N/A	18	s	CDS1	N/A	O	IS low, SS high--conf. by 5A514
9 Mar 2010	15:50	5B219.D	248240007	LANL	961880	5G	1	N/A	19	s	CDS1	N/A	X	IS low, SS high--conf. of 5A515
9 Mar 2010	16:17	5B220.D	248240008	LANL	961880	5G	1	N/A	20	s	CDS1	N/A	O	IS low, SS high--conf. by 5A516
9 Mar 2010	16:45	5B221.D	248240010	LANL	961880	5G	1	N/A	21	s	CDS1	N/A	O	IS low, SS high--conf. by 5A518
9 Mar 2010	17:13	5B222.D	120206-----	LANL	961880	5G	1	N/A	22	s	CDS1	N/A	O	MS 248244006 MIX[A]
9 Mar 2010	17:40	5B223.D	120206-----	LANL	961880	5G	1	N/A	23	s	CDS1	N/A	O	MSD 248244006 MIX[A]
9 Mar 2010	18:07	5B224.D	1202065958	BY12	963021	500UL	10	N/A	24	w	CDS1	N/A	O	MS 248212003 MIX[A]
9 Mar 2010	18:35	5B225.D	1202065959	BY12	963021	500UL	10	N/A	25	w	CDS1	N/A	O	MSD 248212003 MIX[A]



### DATA EXCEPTION REPORT

<b>Mo.Day Yr.</b> 17-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> 961880	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG):</b> 248240(10-2134),248244(10-2137) <b>Application Issues:</b> Container scanning event for custody missed Failed Recovery for LCS/LCSD Failed Yield for Surrogates			
<b>Specification and Requirements</b> <b>Exception Description:</b>		<b>DER Disposition:</b>	
<p>1. The following LCS's did not meet acceptance criteria for Trichlorotrifluoroethane.            1202067799 LCS recovered Trichlorotrifluoroethane at 149.1%.            1202063158 LCS recovered Trichlorotrifluoroethane at 143%.</p> <p>The limits are 67%-140%.</p> <p>2.The following samples did not meet acceptance criteria for Bromofluorobenzene:</p> <p>248240007 recovered Bromofluorobenzene at 133%.            248240008 recovered Bromofluorobenzene at 169%.            248240010 recovered Bromofluorobenzene at 142%.            248240006 recovered Bromofluorobenzene at156%.</p> <p>The limits are 65%-130%.</p> <p>3.The following samples did not meet acceptance criteria for internal standard recoveries:</p> <p>248240001,248240005,248240006,248240007,248240008,248240010</p>		<p>1. The LCS recoveries that did not meet the acceptable recovery criteria were less than 5% of the total requested compound list; therefore, the client request was satisfied. The data were reported.</p> <p>2.The samples were reanalyzed with similar results therefore, matrix interference was demonstrated. The data were reported.</p> <p>3. The samples were reanalyzed with similar results therefore, matrix interference was demonstrated. The data were reported.</p>	

**Originator's Name:**

John Bell, Jr.

17-MAR-10

**Data Validator/Group Leader:**

Kelle Bellamy

18-MAR-10



# **GC/MS Semivolatile Analysis**



**Semi-Volatile Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2137**

**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:	960971
Prep Batch Number:	960970

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

<b>Sample ID</b>	<b>Client ID</b>
248244001	RE36-10-8464
248244002	RE36-10-8475
248244003	RE36-10-8471
248244004	RE36-10-8485
248244005	RE36-10-8477
248244006	RE36-10-8479
248244007	RE36-10-8484
248244008	RE36-10-8481
1202061168	Method Blank (MB)
1202061169	Laboratory Control Sample (LCS)
1202061170	248255001(RE46-10-13534) Matrix Spike (MS)
1202061171	248255001(RE46-10-13534) 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-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 sample delivery group (SDG). 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 SDG met the acceptance criteria.

##### **Surrogate Recoveries**

All the surrogate recoveries were within the established acceptance criteria for this SDG.

##### **Laboratory Control Sample (LCS) Recovery**

The LCS (1202061169) recovered 2,4-dimethylphenol at 123%(Limits: 32%-112%), 4-Nitrophenol at 18%(Limits: 24%-113%) and Benzyl alcohol at 20%(limits: 27%-108%).



The failures represented less than 5% of the requested spike analyte list. That satisfied the clients acceptance criteria and the data were reported.

#### **QC Sample Designation**

The non-SDG sample 248255001 (RE46-10-13534) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

#### **Matrix Spike (MS) Recovery Statement**

The MS recoveries were not within the acceptance limits. The failures confirmed in the MSD and were attributed to matrix interference. Please see the spike recovery report for the specific failures.

#### **Matrix Spike Duplicate (MSD) Recovery Statement**

The MS recoveries were not within the acceptance limits. The failures confirmed in the MSD and were attributed to matrix interference. Please see the spike recovery report for the specific failures.

#### **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 standard responses were within the required acceptance criteria for all samples and QC.

#### **Technical Information**

##### **Holding Time Specifications**

All samples in this SDG 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**

Samples (RE46-10-13534), 248244001 (RE36-10-8464) and 248244004 (RE36-10-8485) were diluted because the extracts were very dark and viscous.

Parmname     **248244**  
                 **001 004**

All            4X 4X

##### **Sample Re-extraction/Re-analysis**

Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

#### **Miscellaneous Information**

##### **Data Exception (DER) Documentation**

The following DER was generated for this SDG: 807012. It is 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**

The SDG associated samples were not scanned into analyst custody prior to analysis. The analyst maintained physical custody of the samples throughout the analysis process.

**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>
MSD6.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (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: Dan Berchmy Date: 3-26-10



## Roadmap for LANL 10-2137 SVOA

This roadmap was analyzed by llo00884 on 03-19-2010, 15:28.

This roadmap was packaged by CHA01131 on 03-25-2010, 16:54.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
<input type="checkbox"/>	N	/chem/MSD6.i/s031810.b/s6c1809.d	248244002	18-MAR-2010	11:08	10-2137.sub	RE36-10-8475	1	960971	<input type="text"/>
<input type="checkbox"/>	N	/chem/MSD6.i/s031810.b/s6c1810.d	248244003	18-MAR-2010	11:32	10-2137.sub	RE36-10-8471	1	960971	<input type="text"/>
<input type="checkbox"/>	N	/chem/MSD6.i/s031810.b/s6c1811.d	248244005	18-MAR-2010	11:56	10-2137.sub	RE36-10-8477	1	960971	<input type="text"/>
<input type="checkbox"/>	N	/chem/MSD6.i/s031810.b/s6c1812.d	248244006	18-MAR-2010	12:18	10-2137.sub	RE36-10-8479	1	960971	<input type="text"/>
<input type="checkbox"/>	N	/chem/MSD6.i/s031810.b/s6c1813.d	248244008	18-MAR-2010	12:42	10-2137.sub	RE36-10-8481	1	960971	<input type="text"/>
<input type="checkbox"/>	N	/chem/MSD6.i/s031810.b/s6c1816.d	248244007	18-MAR-2010	13:52	10-2137.sub	RE36-10-8484	1	960971	<input type="text"/>
<input type="checkbox"/>	N	/chem/MSD6.i/s031810.b/s6c1819.d	248244001	18-MAR-2010	15:04	10-2137.sub	RE36-10-8464	4	960971	<input type="text"/>
<input type="checkbox"/>	N	/chem/MSD6.i/s031810.b/s6c1820.d	248244004	18-MAR-2010	15:28	10-2137.sub	RE36-10-8485	4	960971	<input type="text"/>

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
<input type="checkbox"/>	Y	/chem/MSD6.i/s031810.b/s6c1804.d	1202061168	mb	18-MAR-2010	09:08	10-2137.sub	SBLK01	1.00000	960971	<input type="text"/>
<input type="checkbox"/>	Y	/chem/MSD6.i/s031810.b/s6c1805.d	1202061169	lcs	18-MAR-2010	09:33	10-2137.sub	SBLK01LCS	1.00000	960971	<input type="text"/>



# Sample Data Summary



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

SDG Number: 10-2137  
Lab Sample ID: 248244001

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 9.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8464  
Batch ID: 960971  
Run Date: 03/18/2010 15:04  
Prep Date: 03/04/2010 23:22  
Data File: s6c1819.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	1470	ug/kg	294	1470
108-95-2	Phenol	U	1470	ug/kg	294	1470
95-57-8	2-Chlorophenol	U	1470	ug/kg	294	1470
106-46-7	1,4-Dichlorobenzene	U	1470	ug/kg	294	1470
621-64-7	N-Nitrosodipropylamine	U	1470	ug/kg	294	1470
59-50-7	4-Chloro-3-methylphenol	U	1470	ug/kg	294	1470
83-32-9	Acenaphthene	U	147	ug/kg	48.6	147
121-14-2	2,4-Dinitrotoluene	U	1470	ug/kg	147	1470
100-02-7	4-Nitrophenol	U	1470	ug/kg	486	1470
87-86-5	Pentachlorophenol	U	1470	ug/kg	368	1470
129-00-0	Pyrene		211	ug/kg	44.2	147
110-86-1	Pyridine	U	1470	ug/kg	294	1470
62-53-3	Aniline	U	1470	ug/kg	442	1470
111-44-4	bis(2-Chloroethyl) ether	U	1470	ug/kg	294	1470
541-73-1	1,3-Dichlorobenzene	U	1470	ug/kg	294	1470
100-51-6	Benzyl alcohol	U	1470	ug/kg	442	1470
95-50-1	1,2-Dichlorobenzene	U	1470	ug/kg	294	1470
108-60-1	bis(2-Chloroisopropyl)ether	U	1470	ug/kg	294	1470
95-48-7	o-Cresol	U	1470	ug/kg	294	1470
65794-96-9	m,p-Cresols	U	1470	ug/kg	442	1470
67-72-1	Hexachloroethane	U	1470	ug/kg	294	1470
98-95-3	Nitrobenzene	U	1470	ug/kg	294	1470
78-59-1	Isophorone	U	1470	ug/kg	294	1470
88-75-5	2-Nitrophenol	U	1470	ug/kg	294	1470
105-67-9	2,4-Dimethylphenol	U	1470	ug/kg	515	1470
111-91-1	bis(2-Chloroethoxy)methane	U	1470	ug/kg	294	1470
120-83-2	2,4-Dichlorophenol	U	1470	ug/kg	294	1470
65-85-0	Benzoic acid	U	2940	ug/kg	736	2940
91-20-3	Naphthalene	U	147	ug/kg	44.2	147
106-47-8	4-Chloroaniline	U	1470	ug/kg	294	1470
87-68-3	Hexachlorobutadiene	U	1470	ug/kg	294	1470
91-57-6	2-Methylnaphthalene	U	147	ug/kg	29.4	147
77-47-4	Hexachlorocyclopentadiene	U	1470	ug/kg	294	1470
88-06-2	2,4,6-Trichlorophenol	U	1470	ug/kg	294	1470
95-95-4	2,4,5-Trichlorophenol	U	1470	ug/kg	294	1470
91-58-7	2-Chloronaphthalene	U	147	ug/kg	48.6	147
88-74-4	2-Nitroaniline	U	1470	ug/kg	294	1470
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	1470	ug/kg	294	1470



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244001	Date Received: 02/27/2010 09:10	%Moisture: 9.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8464	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 4
Run Date: 03/18/2010 15:04	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.03 g	Final Volume: 1 mL
Data File: s6c1819.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	1470	ug/kg	294	1470
606-20-2	2,6-Dinitrotoluene	U	1470	ug/kg	147	1470
208-96-8	Acenaphthylene	U	147	ug/kg	44.2	147
51-28-5	2,4-Dinitrophenol	U	2940	ug/kg	560	2940
132-64-9	Dibenzofuran	U	1470	ug/kg	294	1470
84-66-2	Diethylphthalate	U	1470	ug/kg	294	1470
86-73-7	Fluorene	U	147	ug/kg	44.2	147
7005-72-3	4-Chlorophenylphenylether	U	1470	ug/kg	294	1470
534-52-1	2-Methyl-4,6-dinitrophenol	U	1470	ug/kg	294	1470
100-01-6	4-Nitroaniline	U	1470	ug/kg	442	1470
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	1470	ug/kg	294	1470
122-66-7	Azobenzene	U	1470	ug/kg	294	1470
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	1470	ug/kg	294	1470
118-74-1	Hexachlorobenzene	U	1470	ug/kg	294	1470
85-01-8	Phenanthrene		221	ug/kg	44.2	147
120-12-7	Anthracene	J	46.0	ug/kg	29.4	147
84-74-2	Di-n-butylphthalate	U	1470	ug/kg	294	1470
206-44-0	Fluoranthene		235	ug/kg	44.2	147
85-68-7	Butylbenzylphthalate	U	1470	ug/kg	294	1470
56-55-3	Benzo(a)anthracene	J	106	ug/kg	44.2	147
91-94-1	3,3'-Dichlorobenzidine	U	1470	ug/kg	442	1470
218-01-9	Chrysene	J	106	ug/kg	44.2	147
117-81-7	bis(2-Ethylhexyl)phthalate	U	1470	ug/kg	294	1470
117-84-0	Di-n-octylphthalate	U	1470	ug/kg	294	1470
205-99-2	Benzo(b)fluoranthene		155	ug/kg	44.2	147
207-08-9	Benzo(k)fluoranthene	U	147	ug/kg	44.2	147
50-32-8	Benzo(a)pyrene	J	86.3	ug/kg	44.2	147
193-39-5	Indeno(1,2,3-cd)pyrene	U	147	ug/kg	44.2	147
53-70-3	Dibenzo(a,h)anthracene	U	147	ug/kg	44.2	147
191-24-2	Benzo(ghi)perylene	U	147	ug/kg	44.2	147
120-82-1	1,2,4-Trichlorobenzene	U	1470	ug/kg	294	1470

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
300574-36-1	5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	10.65	5010	ug/kg	90	NJ
	Unknown	13.4	736	ug/kg		J



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

SDG Number: 10-2137  
Lab Sample ID: 248244003

Client ID: RE36-10-8471  
Batch ID: 960971  
Run Date: 03/18/2010 11:32  
Prep Date: 03/04/2010 23:22  
Data File: s6c1810.d

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.19 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 11.5  
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	374	ug/kg	74.8	374
108-95-2	Phenol	U	374	ug/kg	74.8	374
95-57-8	2-Chlorophenol	U	374	ug/kg	74.8	374
106-46-7	1,4-Dichlorobenzene	U	374	ug/kg	74.8	374
621-64-7	N-Nitrosodipropylamine	U	374	ug/kg	74.8	374
59-50-7	4-Chloro-3-methylphenol	U	374	ug/kg	74.8	374
83-32-9	Acenaphthene	U	37.4	ug/kg	12.3	37.4
121-14-2	2,4-Dinitrotoluene	U	374	ug/kg	37.4	374
100-02-7	4-Nitrophenol	U	374	ug/kg	123	374
87-86-5	Pentachlorophenol	U	374	ug/kg	93.5	374
129-00-0	Pyrene	U	37.4	ug/kg	11.2	37.4
110-86-1	Pyridine	U	374	ug/kg	74.8	374
62-53-3	Aniline	U	374	ug/kg	112	374
111-44-4	bis(2-Chloroethyl) ether	U	374	ug/kg	74.8	374
541-73-1	1,3-Dichlorobenzene	U	374	ug/kg	74.8	374
100-51-6	Benzyl alcohol	U	374	ug/kg	112	374
95-50-1	1,2-Dichlorobenzene	U	374	ug/kg	74.8	374
108-60-1	bis(2-Chloroisopropyl)ether	U	374	ug/kg	74.8	374
95-48-7	o-Cresol	U	374	ug/kg	74.8	374
65794-96-9	m,p-Cresols	U	374	ug/kg	112	374
67-72-1	Hexachloroethane	U	374	ug/kg	74.8	374
98-95-3	Nitrobenzene	U	374	ug/kg	74.8	374
78-59-1	Isophorone	U	374	ug/kg	74.8	374
88-75-5	2-Nitrophenol	U	374	ug/kg	74.8	374
105-67-9	2,4-Dimethylphenol	U	374	ug/kg	131	374
111-91-1	bis(2-Chloroethoxy)methane	U	374	ug/kg	74.8	374
120-83-2	2,4-Dichlorophenol	U	374	ug/kg	74.8	374
65-85-0	Benzoic acid	U	748	ug/kg	187	748
91-20-3	Naphthalene	U	37.4	ug/kg	11.2	37.4
106-47-8	4-Chloroaniline	U	374	ug/kg	74.8	374
87-68-3	Hexachlorobutadiene	U	374	ug/kg	74.8	374
91-57-6	2-Methylnaphthalene	U	37.4	ug/kg	7.48	37.4
77-47-4	Hexachlorocyclopentadiene	U	374	ug/kg	74.8	374
88-06-2	2,4,6-Trichlorophenol	U	374	ug/kg	74.8	374
95-95-4	2,4,5-Trichlorophenol	U	374	ug/kg	74.8	374
91-58-7	2-Chloronaphthalene	U	37.4	ug/kg	12.3	37.4
88-74-4	2-Nitroaniline	U	374	ug/kg	74.8	374
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	374	ug/kg	74.8	374



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

<b>SDG Number:</b> 10-2137	<b>Date Collected:</b> 02/24/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248244003	<b>Date Received:</b> 02/27/2010 09:10	<b>%Moisture:</b> 11.5
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-8471	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 960971	<b>Inst:</b> MSD6.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/18/2010 11:32	<b>Analyst:</b> NAG1	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/04/2010 23:22	<b>Aliquot:</b> 30.19 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s6c1810.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	374	ug/kg	74.8	374
606-20-2	2,6-Dinitrotoluene	U	374	ug/kg	37.4	374
208-96-8	Acenaphthylene	U	37.4	ug/kg	11.2	37.4
51-28-5	2,4-Dinitrophenol	U	748	ug/kg	142	748
132-64-9	Dibenzofuran	U	374	ug/kg	74.8	374
84-66-2	Diethylphthalate	U	374	ug/kg	74.8	374
86-73-7	Fluorene	U	37.4	ug/kg	11.2	37.4
7005-72-3	4-Chlorophenylphenylether	U	374	ug/kg	74.8	374
534-52-1	2-Methyl-4,6-dinitrophenol	U	374	ug/kg	74.8	374
100-01-6	4-Nitroaniline	U	374	ug/kg	112	374
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	374	ug/kg	74.8	374
122-66-7	Azobenzene	U	374	ug/kg	74.8	374
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	374	ug/kg	74.8	374
118-74-1	Hexachlorobenzene	U	374	ug/kg	74.8	374
85-01-8	Phenanthrene	U	37.4	ug/kg	11.2	37.4
120-12-7	Anthracene	U	37.4	ug/kg	7.48	37.4
84-74-2	Di-n-butylphthalate	U	374	ug/kg	74.8	374
206-44-0	Fluoranthene	U	37.4	ug/kg	11.2	37.4
85-68-7	Butylbenzylphthalate	U	374	ug/kg	74.8	374
56-55-3	Benzo(a)anthracene	U	37.4	ug/kg	11.2	37.4
91-94-1	3,3'-Dichlorobenzidine	U	374	ug/kg	112	374
218-01-9	Chrysene	U	37.4	ug/kg	11.2	37.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	374	ug/kg	74.8	374
117-84-0	Di-n-octylphthalate	U	374	ug/kg	74.8	374
205-99-2	Benzo(b)fluoranthene	U	37.4	ug/kg	11.2	37.4
207-08-9	Benzo(k)fluoranthene	U	37.4	ug/kg	11.2	37.4
50-32-8	Benzo(a)pyrene	U	37.4	ug/kg	11.2	37.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.4	ug/kg	11.2	37.4
53-70-3	Dibenzo(a,h)anthracene	U	37.4	ug/kg	11.2	37.4
191-24-2	Benzo(ghi)perylene	U	37.4	ug/kg	11.2	37.4
120-82-1	1,2,4-Trichlorobenzene	U	374	ug/kg	74.8	374

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3	309	ug/kg		JA
559-74-0	Friedelan-3-one	10.65	700	ug/kg	95	NJ



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

SDG Number: 10-2137  
Lab Sample ID: 248244003

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.19 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 11.5  
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
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit Qual
	Unknown		10.89	899	ug/kg	J



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

SDG Number: 10-2137  
Lab Sample ID: 248244002

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8475  
Batch ID: 960971  
Run Date: 03/18/2010 11:08  
Prep Date: 03/04/2010 23:22  
Data File: s6c1809.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	365	ug/kg	72.9	365
108-95-2	Phenol	U	365	ug/kg	72.9	365
95-57-8	2-Chlorophenol	U	365	ug/kg	72.9	365
106-46-7	1,4-Dichlorobenzene	U	365	ug/kg	72.9	365
621-64-7	N-Nitrosodipropylamine	U	365	ug/kg	72.9	365
59-50-7	4-Chloro-3-methylphenol	U	365	ug/kg	72.9	365
83-32-9	Acenaphthene	U	36.5	ug/kg	12.0	36.5
121-14-2	2,4-Dinitrotoluene	U	365	ug/kg	36.5	365
100-02-7	4-Nitrophenol	U	365	ug/kg	120	365
87-86-5	Pentachlorophenol	U	365	ug/kg	91.1	365
129-00-0	Pyrene	U	36.5	ug/kg	10.9	36.5
110-86-1	Pyridine	U	365	ug/kg	72.9	365
62-53-3	Aniline	U	365	ug/kg	109	365
111-44-4	bis(2-Chloroethyl) ether	U	365	ug/kg	72.9	365
541-73-1	1,3-Dichlorobenzene	U	365	ug/kg	72.9	365
100-51-6	Benzyl alcohol	U	365	ug/kg	109	365
95-50-1	1,2-Dichlorobenzene	U	365	ug/kg	72.9	365
108-60-1	bis(2-Chloroisopropyl)ether	U	365	ug/kg	72.9	365
95-48-7	o-Cresol	U	365	ug/kg	72.9	365
65794-96-9	m,p-Cresols	U	365	ug/kg	109	365
67-72-1	Hexachloroethane	U	365	ug/kg	72.9	365
98-95-3	Nitrobenzene	U	365	ug/kg	72.9	365
78-59-1	Isophorone	U	365	ug/kg	72.9	365
88-75-5	2-Nitrophenol	U	365	ug/kg	72.9	365
105-67-9	2,4-Dimethylphenol	U	365	ug/kg	128	365
111-91-1	bis(2-Chloroethoxy)methane	U	365	ug/kg	72.9	365
120-83-2	2,4-Dichlorophenol	U	365	ug/kg	72.9	365
65-85-0	Benzoic acid	U	729	ug/kg	182	729
91-20-3	Naphthalene	U	36.5	ug/kg	10.9	36.5
106-47-8	4-Chloroaniline	U	365	ug/kg	72.9	365
87-68-3	Hexachlorobutadiene	U	365	ug/kg	72.9	365
91-57-6	2-Methylnaphthalene	U	36.5	ug/kg	7.29	36.5
77-47-4	Hexachlorocyclopentadiene	U	365	ug/kg	72.9	365
88-06-2	2,4,6-Trichlorophenol	U	365	ug/kg	72.9	365
95-95-4	2,4,5-Trichlorophenol	U	365	ug/kg	72.9	365
91-58-7	2-Chloronaphthalene	U	36.5	ug/kg	12.0	36.5
88-74-4	2-Nitroaniline	U	365	ug/kg	72.9	365
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	365	ug/kg	72.9	365



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244002	Date Received: 02/27/2010 09:10	%Moisture: 8.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8475	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 11:08	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s6c1809.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	365	ug/kg	72.9	365
606-20-2	2,6-Dinitrotoluene	U	365	ug/kg	36.5	365
208-96-8	Acenaphthylene	U	36.5	ug/kg	10.9	36.5
51-28-5	2,4-Dinitrophenol	U	729	ug/kg	139	729
132-64-9	Dibenzofuran	U	365	ug/kg	72.9	365
84-66-2	Diethylphthalate	U	365	ug/kg	72.9	365
86-73-7	Fluorene	U	36.5	ug/kg	10.9	36.5
7005-72-3	4-Chlorophenylphenylether	U	365	ug/kg	72.9	365
534-52-1	2-Methyl-4,6-dinitrophenol	U	365	ug/kg	72.9	365
100-01-6	4-Nitroaniline	U	365	ug/kg	109	365
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	365	ug/kg	72.9	365
122-66-7	Azobenzene	U	365	ug/kg	72.9	365
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	365	ug/kg	72.9	365
118-74-1	Hexachlorobenzene	U	365	ug/kg	72.9	365
85-01-8	Phenanthrene	U	36.5	ug/kg	10.9	36.5
120-12-7	Anthracene	U	36.5	ug/kg	7.29	36.5
84-74-2	Di-n-butylphthalate	U	365	ug/kg	72.9	365
206-44-0	Fluoranthene	U	36.5	ug/kg	10.9	36.5
85-68-7	Butylbenzylphthalate	U	365	ug/kg	72.9	365
56-55-3	Benzo(a)anthracene	U	36.5	ug/kg	10.9	36.5
91-94-1	3,3'-Dichlorobenzidine	U	365	ug/kg	109	365
218-01-9	Chrysene	U	36.5	ug/kg	10.9	36.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	365	ug/kg	72.9	365
117-84-0	Di-n-octylphthalate	U	365	ug/kg	72.9	365
205-99-2	Benzo(b)fluoranthene	U	36.5	ug/kg	10.9	36.5
207-08-9	Benzo(k)fluoranthene	U	36.5	ug/kg	10.9	36.5
50-32-8	Benzo(a)pyrene	U	36.5	ug/kg	10.9	36.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.5	ug/kg	10.9	36.5
53-70-3	Dibenzo(a,h)anthracene	U	36.5	ug/kg	10.9	36.5
191-24-2	Benzo(ghi)perylene	U	36.5	ug/kg	10.9	36.5
120-82-1	1,2,4-Trichlorobenzene	U	365	ug/kg	72.9	365

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3	289	ug/kg		JA
123-35-3	.beta.-Myrcene	3.77	244	ug/kg	87	NJ



Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244002	Date Received: 02/27/2010 09:10	%Moisture: 8.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8475	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 11:08	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s6c1809.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
1000109-88-1	(+)-Cycloisosativene	5.63	176	ug/kg	98	NJ
	Unknown	5.65	147	ug/kg		J
112-95-8	Eicosane	10.92	177	ug/kg	96	NJ
	Unknown	13.41	190	ug/kg		J



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

SDG Number: 10-2137  
Lab Sample ID: 248244005

Client ID: RE36-10-8477  
Batch ID: 960971  
Run Date: 03/18/2010 11:56  
Prep Date: 03/04/2010 23:22  
Data File: s6c1811.d

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.8  
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	382	ug/kg	76.4	382
108-95-2	Phenol	U	382	ug/kg	76.4	382
95-57-8	2-Chlorophenol	U	382	ug/kg	76.4	382
106-46-7	1,4-Dichlorobenzene	U	382	ug/kg	76.4	382
621-64-7	N-Nitrosodipropylamine	U	382	ug/kg	76.4	382
59-50-7	4-Chloro-3-methylphenol	U	382	ug/kg	76.4	382
83-32-9	Acenaphthene	U	38.2	ug/kg	12.6	38.2
121-14-2	2,4-Dinitrotoluene	U	382	ug/kg	38.2	382
100-02-7	4-Nitrophenol	U	382	ug/kg	126	382
87-86-5	Pentachlorophenol	U	382	ug/kg	95.6	382
129-00-0	Pyrene	U	38.2	ug/kg	11.5	38.2
110-86-1	Pyridine	U	382	ug/kg	76.4	382
62-53-3	Aniline	U	382	ug/kg	115	382
111-44-4	bis(2-Chloroethyl) ether	U	382	ug/kg	76.4	382
541-73-1	1,3-Dichlorobenzene	U	382	ug/kg	76.4	382
100-51-6	Benzyl alcohol	U	382	ug/kg	115	382
95-50-1	1,2-Dichlorobenzene	U	382	ug/kg	76.4	382
108-60-1	bis(2-Chloroisopropyl)ether	U	382	ug/kg	76.4	382
95-48-7	o-Cresol	U	382	ug/kg	76.4	382
65794-96-9	m,p-Cresols	U	382	ug/kg	115	382
67-72-1	Hexachloroethane	U	382	ug/kg	76.4	382
98-95-3	Nitrobenzene	U	382	ug/kg	76.4	382
78-59-1	Isophorone	U	382	ug/kg	76.4	382
88-75-5	2-Nitrophenol	U	382	ug/kg	76.4	382
105-67-9	2,4-Dimethylphenol	U	382	ug/kg	134	382
111-91-1	bis(2-Chloroethoxy)methane	U	382	ug/kg	76.4	382
120-83-2	2,4-Dichlorophenol	U	382	ug/kg	76.4	382
65-85-0	Benzoic acid	U	764	ug/kg	191	764
91-20-3	Naphthalene	U	38.2	ug/kg	11.5	38.2
106-47-8	4-Chloroaniline	U	382	ug/kg	76.4	382
87-68-3	Hexachlorobutadiene	U	382	ug/kg	76.4	382
91-57-6	2-Methylnaphthalene	U	38.2	ug/kg	7.64	38.2
77-47-4	Hexachlorocyclopentadiene	U	382	ug/kg	76.4	382
88-06-2	2,4,6-Trichlorophenol	U	382	ug/kg	76.4	382
95-95-4	2,4,5-Trichlorophenol	U	382	ug/kg	76.4	382
91-58-7	2-Chloronaphthalene	U	38.2	ug/kg	12.6	38.2
88-74-4	2-Nitroaniline	U	382	ug/kg	76.4	382
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	382	ug/kg	76.4	382



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

<b>SDG Number:</b> 10-2137	<b>Date Collected:</b> 02/24/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248244005	<b>Date Received:</b> 02/27/2010 09:10	<b>%Moisture:</b> 12.8
<b>Client ID:</b> RE36-10-8477	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 960971	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Run Date:</b> 03/18/2010 11:56	<b>Inst:</b> MSD6.I	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/04/2010 23:22	<b>Analyst:</b> NAG1	<b>Inj. Vol:</b> .5 uL
<b>Data File:</b> s6c1811.d	<b>Allquot:</b> 30.02 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
131-11-3	<i>m</i> -Nitroaniline Dimethylphthalate	U	382	ug/kg	76.4	382
606-20-2	2,6-Dinitrotoluene	U	382	ug/kg	38.2	382
208-96-8	Acenaphthylene	U	38.2	ug/kg	11.5	38.2
51-28-5	2,4-Dinitrophenol	U	764	ug/kg	145	764
132-64-9	Dibenzofuran	U	382	ug/kg	76.4	382
84-66-2	Diethylphthalate	U	382	ug/kg	76.4	382
86-73-7	Fluorene	U	38.2	ug/kg	11.5	38.2
7005-72-3	4-Chlorophenylphenylether	U	382	ug/kg	76.4	382
534-52-1	2-Methyl-4,6-dinitrophenol	U	382	ug/kg	76.4	382
100-01-6	4-Nitroaniline	U	382	ug/kg	115	382
122-39-4	<i>p</i> -Nitroaniline Diphenylamine	U	382	ug/kg	76.4	382
122-66-7	Azobenzene	U	382	ug/kg	76.4	382
101-55-3	<i>1,2</i> -Diphenylhydrazine 4-Bromophenylphenylether	U	382	ug/kg	76.4	382
118-74-1	Hexachlorobenzene	U	382	ug/kg	76.4	382
85-01-8	Phenanthrene	U	38.2	ug/kg	11.5	38.2
120-12-7	Anthracene	U	38.2	ug/kg	7.64	38.2
84-74-2	Di-n-butylphthalate	U	382	ug/kg	76.4	382
206-44-0	Fluoranthene	U	38.2	ug/kg	11.5	38.2
85-68-7	Butylbenzylphthalate	U	382	ug/kg	76.4	382
56-55-3	Benzo(a)anthracene	U	38.2	ug/kg	11.5	38.2
91-94-1	3,3'-Dichlorobenzidine	U	382	ug/kg	115	382
218-01-9	Chrysene	U	38.2	ug/kg	11.5	38.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	382	ug/kg	76.4	382
117-84-0	Di-n-octylphthalate	U	382	ug/kg	76.4	382
205-99-2	Benzo(b)fluoranthene	U	38.2	ug/kg	11.5	38.2
207-08-9	Benzo(k)fluoranthene	U	38.2	ug/kg	11.5	38.2
50-32-8	Benzo(a)pyrene	U	38.2	ug/kg	11.5	38.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.2	ug/kg	11.5	38.2
53-70-3	Dibenzo(a,h)anthracene	U	38.2	ug/kg	11.5	38.2
191-24-2	Benzo(ghi)perylene	U	38.2	ug/kg	11.5	38.2
120-82-1	1,2,4-Trichlorobenzene	U	382	ug/kg	76.4	382

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.99	304	ug/kg		JA
77-53-2	Cedrol	6.61	251	ug/kg	94	NJ



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244005	Date Received: 02/27/2010 09:10	%Moisture: 12.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8477	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 11:56	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s6c1811.d	Column: J&W DB-5MS	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	Flt	Qual
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	9.09	254	ug/kg	98	NJ
	Unknown	9.12	226	ug/kg		J
	Unknown	9.16	388	ug/kg		J
559-74-0	Friedelan-3-one	10.64	551	ug/kg	95	NJ
	Unknown	13.44	332	ug/kg		J



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

<b>SDG Number:</b> 10-2137	<b>Date Collected:</b> 02/24/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248244006	<b>Date Received:</b> 02/27/2010 09:10	<b>%Moisture:</b> 10.2
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-8479	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 960971	<b>Inst:</b> MSD6.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/18/2010 12:18	<b>Analyst:</b> NAG1	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/04/2010 23:22	<b>Aliquot:</b> 30.17 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s6c1812.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	369	ug/kg	73.8	369
108-95-2	Phenol	U	369	ug/kg	73.8	369
95-57-8	2-Chlorophenol	U	369	ug/kg	73.8	369
106-46-7	1,4-Dichlorobenzene	U	369	ug/kg	73.8	369
621-64-7	N-Nitrosodipropylamine	U	369	ug/kg	73.8	369
59-50-7	4-Chloro-3-methylphenol	U	369	ug/kg	73.8	369
83-32-9	Acenaphthene	U	36.9	ug/kg	12.2	36.9
121-14-2	2,4-Dinitrotoluene	U	369	ug/kg	36.9	369
100-02-7	4-Nitrophenol	U	369	ug/kg	122	369
87-86-5	Pentachlorophenol	U	369	ug/kg	92.3	369
129-00-0	Pyrene	U	36.9	ug/kg	11.1	36.9
110-86-1	Pyridine	U	369	ug/kg	73.8	369
62-53-3	Aniline	U	369	ug/kg	111	369
111-44-4	bis(2-Chloroethyl) ether	U	369	ug/kg	73.8	369
541-73-1	1,3-Dichlorobenzene	U	369	ug/kg	73.8	369
100-51-6	Benzyl alcohol	U	369	ug/kg	111	369
95-50-1	1,2-Dichlorobenzene	U	369	ug/kg	73.8	369
108-60-1	bis(2-Chloroisopropyl)ether	U	369	ug/kg	73.8	369
95-48-7	o-Cresol	U	369	ug/kg	73.8	369
65794-96-9	m,p-Cresols	U	369	ug/kg	111	369
67-72-1	Hexachloroethane	U	369	ug/kg	73.8	369
98-95-3	Nitrobenzene	U	369	ug/kg	73.8	369
78-59-1	Isophorone	U	369	ug/kg	73.8	369
88-75-5	2-Nitrophenol	U	369	ug/kg	73.8	369
105-67-9	2,4-Dimethylphenol	U	369	ug/kg	129	369
111-91-1	bis(2-Chloroethoxy)methane	U	369	ug/kg	73.8	369
120-83-2	2,4-Dichlorophenol	U	369	ug/kg	73.8	369
65-85-0	Benzoic acid	U	738	ug/kg	185	738
91-20-3	Naphthalene	U	36.9	ug/kg	11.1	36.9
106-47-8	4-Chloroaniline	U	369	ug/kg	73.8	369
87-68-3	Hexachlorobutadiene	U	369	ug/kg	73.8	369
91-57-6	2-Methylnaphthalene	U	36.9	ug/kg	7.38	36.9
77-47-4	Hexachlorocyclopentadiene	U	369	ug/kg	73.8	369
88-06-2	2,4,6-Trichlorophenol	U	369	ug/kg	73.8	369
95-95-4	2,4,5-Trichlorophenol	U	369	ug/kg	73.8	369
91-58-7	2-Chloronaphthalene	U	36.9	ug/kg	12.2	36.9
88-74-4	2-Nitroaniline	U	369	ug/kg	73.8	369
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	369	ug/kg	73.8	369



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

SDG Number: 10-2137  
Lab Sample ID: 248244006

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.J  
Analyst: NAG1  
Aliquot: 30.17 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 10.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8479  
Batch ID: 960971  
Run Date: 03/18/2010 12:18  
Prep Date: 03/04/2010 23:22  
Data File: s6c1812.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	369	ug/kg	73.8	369
606-20-2	2,6-Dinitrotoluene	U	369	ug/kg	36.9	369
208-96-8	Acenaphthylene	U	36.9	ug/kg	11.1	36.9
51-28-5	2,4-Dinitrophenol	U	738	ug/kg	140	738
132-64-9	Dibenzofuran	U	369	ug/kg	73.8	369
84-66-2	Diethylphthalate	U	369	ug/kg	73.8	369
86-73-7	Fluorene	U	36.9	ug/kg	11.1	36.9
7005-72-3	4-Chlorophenylphenylether	U	369	ug/kg	73.8	369
534-52-1	2-Methyl-4,6-dinitrophenol	U	369	ug/kg	73.8	369
100-01-6	4-Nitroaniline	U	369	ug/kg	111	369
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	369	ug/kg	73.8	369
122-66-7	Azobenzene	U	369	ug/kg	73.8	369
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	369	ug/kg	73.8	369
118-74-1	Hexachlorobenzene	U	369	ug/kg	73.8	369
85-01-8	Phenanthrene	U	36.9	ug/kg	11.1	36.9
120-12-7	Anthracene	U	36.9	ug/kg	7.38	36.9
84-74-2	Di-n-butylphthalate	U	369	ug/kg	73.8	369
206-44-0	Fluoranthene	U	36.9	ug/kg	11.1	36.9
85-68-7	Butylbenzylphthalate	U	369	ug/kg	73.8	369
56-55-3	Benzo(a)anthracene	U	36.9	ug/kg	11.1	36.9
91-94-1	3,3'-Dichlorobenzidine	U	369	ug/kg	111	369
218-01-9	Chrysene	U	36.9	ug/kg	11.1	36.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	369	ug/kg	73.8	369
117-84-0	Di-n-octylphthalate	U	369	ug/kg	73.8	369
205-99-2	Benzo(b)fluoranthene	U	36.9	ug/kg	11.1	36.9
207-08-9	Benzo(k)fluoranthene	U	36.9	ug/kg	11.1	36.9
50-32-8	Benzo(a)pyrene	U	36.9	ug/kg	11.1	36.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.9	ug/kg	11.1	36.9
53-70-3	Dibenzo(a,h)anthracene	U	36.9	ug/kg	11.1	36.9
191-24-2	Benzo(ghi)perylene	U	36.9	ug/kg	11.1	36.9
120-82-1	1,2,4-Trichlorobenzene	U	369	ug/kg	73.8	369

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3	322	ug/kg		JA
120-08-1	2H-1-Benzopyran-2-one, 6,7-dimethoxy-	7.83	240	ug/kg	99	NJ



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244006	Date Received: 02/27/2010 09:10	%Moisture: 10.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8479	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 12:18	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.17 g	Final Volume: 1 mL
Data File: s6c1812.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
593-49-7	Heptacosane	10.91	187	ug/kg	94	NJ
	Unknown	13.44	259	ug/kg		J



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

SDG Number: 10-2137  
Lab Sample ID: 248244008

Client ID: RE36-10-8481  
Batch ID: 960971  
Run Date: 03/18/2010 12:42  
Prep Date: 03/04/2010 23:22  
Data File: s6c1813.d

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 11.2  
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	375	ug/kg	75.0	375
108-95-2	Phenol	U	375	ug/kg	75.0	375
95-57-8	2-Chlorophenol	U	375	ug/kg	75.0	375
106-46-7	1,4-Dichlorobenzene	U	375	ug/kg	75.0	375
621-64-7	N-Nitrosodipropylamine	U	375	ug/kg	75.0	375
59-50-7	4-Chloro-3-methylphenol	U	375	ug/kg	75.0	375
83-32-9	Acenaphthene		193	ug/kg	12.4	37.5
121-14-2	2,4-Dinitrotoluene	U	375	ug/kg	37.5	375
100-02-7	4-Nitrophenol	U	375	ug/kg	124	375
87-86-5	Pentachlorophenol	U	375	ug/kg	93.8	375
129-00-0	Pyrene	U	37.5	ug/kg	11.3	37.5
110-86-1	Pyridine	U	375	ug/kg	75.0	375
62-53-3	Aniline	U	375	ug/kg	113	375
111-44-4	bis(2-Chloroethyl) ether	U	375	ug/kg	75.0	375
541-73-1	1,3-Dichlorobenzene	U	375	ug/kg	75.0	375
100-51-6	Benzyl alcohol	U	375	ug/kg	113	375
95-50-1	1,2-Dichlorobenzene	U	375	ug/kg	75.0	375
108-60-1	bis(2-Chloroisopropyl)ether	U	375	ug/kg	75.0	375
95-48-7	o-Cresol	U	375	ug/kg	75.0	375
65794-96-9	m,p-Cresols	U	375	ug/kg	113	375
67-72-1	Hexachloroethane	U	375	ug/kg	75.0	375
98-95-3	Nitrobenzene	U	375	ug/kg	75.0	375
78-59-1	Isophorone	U	375	ug/kg	75.0	375
88-75-5	2-Nitrophenol	U	375	ug/kg	75.0	375
105-67-9	2,4-Dimethylphenol	U	375	ug/kg	131	375
111-91-1	bis(2-Chloroethoxy)methane	U	375	ug/kg	75.0	375
120-83-2	2,4-Dichlorophenol	U	375	ug/kg	75.0	375
65-85-0	Benzoic acid	U	750	ug/kg	188	750
91-20-3	Naphthalene	U	37.5	ug/kg	11.3	37.5
106-47-8	4-Chloroaniline	U	375	ug/kg	75.0	375
87-68-3	Hexachlorobutadiene	U	375	ug/kg	75.0	375
91-57-6	2-Methylnaphthalene	U	37.5	ug/kg	7.50	37.5
77-47-4	Hexachlorocyclopentadiene	U	375	ug/kg	75.0	375
88-06-2	2,4,6-Trichlorophenol	U	375	ug/kg	75.0	375
95-95-4	2,4,5-Trichlorophenol	U	375	ug/kg	75.0	375
91-58-7	2-Chloronaphthalene	U	37.5	ug/kg	12.4	37.5
88-74-4	2-Nitroaniline	U	375	ug/kg	75.0	375
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	375	ug/kg	75.0	375



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

SDG Number: 10-2137  
Lab Sample ID: 248244008

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 11.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8481  
Batch ID: 960971  
Run Date: 03/18/2010 12:42  
Prep Date: 03/04/2010 23:22  
Data File: s6c1813.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	375	ug/kg	75.0	375
606-20-2	2,6-Dinitrotoluene	U	375	ug/kg	37.5	375
208-96-8	Acenaphthylene	U	37.5	ug/kg	11.3	37.5
51-28-5	2,4-Dinitrophenol	U	750	ug/kg	143	750
132-64-9	Dibenzofuran	U	375	ug/kg	75.0	375
84-66-2	Diethylphthalate	U	375	ug/kg	75.0	375
86-73-7	Fluorene	U	37.5	ug/kg	11.3	37.5
7005-72-3	4-Chlorophenylphenylether	U	375	ug/kg	75.0	375
534-52-1	2-Methyl-4,6-dinitrophenol	U	375	ug/kg	75.0	375
100-01-6	4-Nitroaniline	U	375	ug/kg	113	375
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	375	ug/kg	75.0	375
122-66-7	Azobenzene	U	375	ug/kg	75.0	375
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	375	ug/kg	75.0	375
118-74-1	Hexachlorobenzene	U	375	ug/kg	75.0	375
85-01-8	Phenanthrene	U	37.5	ug/kg	11.3	37.5
120-12-7	Anthracene	U	37.5	ug/kg	7.50	37.5
84-74-2	Di-n-butylphthalate	U	375	ug/kg	75.0	375
206-44-0	Fluoranthene	U	37.5	ug/kg	11.3	37.5
85-68-7	Butylbenzylphthalate	U	375	ug/kg	75.0	375
56-55-3	Benzo(a)anthracene	U	37.5	ug/kg	11.3	37.5
91-94-1	3,3'-Dichlorobenzidine	U	375	ug/kg	113	375
218-01-9	Chrysene	U	37.5	ug/kg	11.3	37.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	375	ug/kg	75.0	375
117-84-0	Di-n-octylphthalate	U	375	ug/kg	75.0	375
205-99-2	Benzo(b)fluoranthene	U	37.5	ug/kg	11.3	37.5
207-08-9	Benzo(k)fluoranthene	U	37.5	ug/kg	11.3	37.5
50-32-8	Benzo(a)pyrene	U	37.5	ug/kg	11.3	37.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.5	ug/kg	11.3	37.5
53-70-3	Dibenzo(a,h)anthracene	U	37.5	ug/kg	11.3	37.5
191-24-2	Benzo(ghi)perylene	U	37.5	ug/kg	11.3	37.5
120-82-1	1,2,4-Trichlorobenzene	U	375	ug/kg	75.0	375

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.09	243	ug/kg		J
	Unknown Aldol Condensate	2.99	256	ug/kg		JA



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

SDG Number: 10-2137  
Lab Sample ID: 248244008

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.03 g  
Column: J&W DB-SMS

Matrix: R  
%Moisture: 11.2  
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	Fit	Qual
7785-70-8	1R-.alpha.-Pinene	3.54	185	ug/kg	97	NJ
60512-80-3	Acetophenone, 2',4'-dimethoxy-3'-methyl-	5.65	187	ug/kg	83	NJ
112-95-8	Eicosane	9.48	169	ug/kg	95	NJ
593-49-7	Heptacosane	10.13	322	ug/kg	96	NJ
	Unknown	10.6	245	ug/kg		J
7225-66-3	Tridecane, 7-hexyl-	10.91	497	ug/kg	91	NJ
	Unknown	11.93	156	ug/kg		J
	Unknown	13.44	253	ug/kg		J



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

SDG Number: 10-2137  
Lab Sample ID: 248244007

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.19 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 16.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8484  
Batch ID: 960971  
Run Date: 03/18/2010 13:52  
Prep Date: 03/04/2010 23:22  
Data File: s6c1816.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	395	ug/kg	79.1	395
108-95-2	Phenol	U	395	ug/kg	79.1	395
95-57-8	2-Chlorophenol	U	395	ug/kg	79.1	395
106-46-7	1,4-Dichlorobenzene	U	395	ug/kg	79.1	395
621-64-7	N-Nitrosodipropylamine	U	395	ug/kg	79.1	395
59-50-7	4-Chloro-3-methylphenol	U	395	ug/kg	79.1	395
83-32-9	Acenaphthene	U	39.5	ug/kg	13.0	39.5
121-14-2	2,4-Dinitrotoluene	U	395	ug/kg	39.5	395
100-02-7	4-Nitrophenol	U	395	ug/kg	130	395
87-86-5	Pentachlorophenol	U	395	ug/kg	98.8	395
129-00-0	Pyrene	U	39.5	ug/kg	11.9	39.5
110-86-1	Pyridine	U	395	ug/kg	79.1	395
62-53-3	Aniline	U	395	ug/kg	119	395
111-44-4	bis(2-Chloroethyl) ether	U	395	ug/kg	79.1	395
541-73-1	1,3-Dichlorobenzene	U	395	ug/kg	79.1	395
100-51-6	Benzyl alcohol	U	395	ug/kg	119	395
95-50-1	1,2-Dichlorobenzene	U	395	ug/kg	79.1	395
108-60-1	bis(2-Chloroisopropyl)ether	U	395	ug/kg	79.1	395
95-48-7	o-Cresol	U	395	ug/kg	79.1	395
65794-96-9	m,p-Cresols	U	395	ug/kg	119	395
67-72-1	Hexachloroethane	U	395	ug/kg	79.1	395
98-95-3	Nitrobenzene	U	395	ug/kg	79.1	395
78-59-1	Isophorone	U	395	ug/kg	79.1	395
88-75-5	2-Nitrophenol	U	395	ug/kg	79.1	395
105-67-9	2,4-Dimethylphenol	U	395	ug/kg	138	395
111-91-1	bis(2-Chloroethoxy)methane	U	395	ug/kg	79.1	395
120-83-2	2,4-Dichlorophenol	U	395	ug/kg	79.1	395
65-85-0	Benzoic acid	U	791	ug/kg	198	791
91-20-3	Naphthalene	U	39.5	ug/kg	11.9	39.5
106-47-8	4-Chloroaniline	U	395	ug/kg	79.1	395
87-68-3	Hexachlorobutadiene	U	395	ug/kg	79.1	395
91-57-6	2-Methylnaphthalene	U	39.5	ug/kg	7.91	39.5
77-47-4	Hexachlorocyclopentadiene	U	395	ug/kg	79.1	395
88-06-2	2,4,6-Trichlorophenol	U	395	ug/kg	79.1	395
95-95-4	2,4,5-Trichlorophenol	U	395	ug/kg	79.1	395
91-58-7	2-Chloronaphthalene	U	39.5	ug/kg	13.0	39.5
88-74-4	2-Nitroaniline	U	395	ug/kg	79.1	395
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	395	ug/kg	79.1	395



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244007	Date Received: 02/27/2010 09:10	%Moisture: 16.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8484	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 13:52	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.19 g	Final Volume: 1 mL
Data File: s6c1816.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	395	ug/kg	79.1	395
606-20-2	2,6-Dinitrotoluene	U	395	ug/kg	39.5	395
208-96-8	Acenaphthylene	U	39.5	ug/kg	11.9	39.5
51-28-5	2,4-Dinitrophenol	U	791	ug/kg	150	791
132-64-9	Dibenzofuran	U	395	ug/kg	79.1	395
84-66-2	Diethylphthalate	U	395	ug/kg	79.1	395
86-73-7	Fluorene	U	39.5	ug/kg	11.9	39.5
7005-72-3	4-Chlorophenylphenylether	U	395	ug/kg	79.1	395
534-52-1	2-Methyl-4,6-dinitrophenol	U	395	ug/kg	79.1	395
100-01-6	4-Nitroaniline	U	395	ug/kg	119	395
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	395	ug/kg	79.1	395
122-66-7	Azobenzene	U	395	ug/kg	79.1	395
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	395	ug/kg	79.1	395
118-74-1	Hexachlorobenzene	U	395	ug/kg	79.1	395
85-01-8	Phenanthrene	U	39.5	ug/kg	11.9	39.5
120-12-7	Anthracene	U	39.5	ug/kg	7.91	39.5
84-74-2	Di-n-butylphthalate	U	395	ug/kg	79.1	395
206-44-0	Fluoranthene	U	39.5	ug/kg	11.9	39.5
85-68-7	Butylbenzylphthalate	U	395	ug/kg	79.1	395
56-55-3	Benzo(a)anthracene	U	39.5	ug/kg	11.9	39.5
91-94-1	3,3'-Dichlorobenzidine	U	395	ug/kg	119	395
218-01-9	Chrysene	U	39.5	ug/kg	11.9	39.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	395	ug/kg	79.1	395
117-84-0	Di-n-octylphthalate	U	395	ug/kg	79.1	395
205-99-2	Benzo(b)fluoranthene	U	39.5	ug/kg	11.9	39.5
207-08-9	Benzo(k)fluoranthene	U	39.5	ug/kg	11.9	39.5
50-32-8	Benzo(a)pyrene	U	39.5	ug/kg	11.9	39.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.5	ug/kg	11.9	39.5
53-70-3	Dibenzo(a,h)anthracene	U	39.5	ug/kg	11.9	39.5
191-24-2	Benzo(ghi)perylene	U	39.5	ug/kg	11.9	39.5
120-82-1	1,2,4-Trichlorobenzene	U	395	ug/kg	79.1	395

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3	279	ug/kg		JA
5131-66-8	2-Propanol, 1-butoxy-	3.51	1430	ug/kg	90	NJ



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244007	Date Received: 02/27/2010 09:10	%Moisture: 16.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8484	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 13:52	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.19 g	Final Volume: 1 mL
Data File: s6c1816.d	Column: J&W DB-5MS	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		3.58	219	ug/kg		J
	Unknown		13.44	284	ug/kg		J



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

SDG Number: 10-2137  
Lab Sample ID: 248244004

Client ID: RE36-10-8485  
Batch ID: 960971  
Run Date: 03/18/2010 15:28  
Prep Date: 03/04/2010 23:22  
Data File: s6c1820.d

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.1 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 23.5  
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
62-75-9	N-Methyl-N-nitrosomethylamine	U	1740	ug/kg	347	1740
108-95-2	Phenol	U	1740	ug/kg	347	1740
95-57-8	2-Chlorophenol	U	1740	ug/kg	347	1740
106-46-7	1,4-Dichlorobenzene	U	1740	ug/kg	347	1740
621-64-7	N-Nitrosodipropylamine	U	1740	ug/kg	347	1740
59-50-7	4-Chloro-3-methylphenol	U	1740	ug/kg	347	1740
83-32-9	Acenaphthene	U	174	ug/kg	57.3	174
121-14-2	2,4-Dinitrotoluene	U	1740	ug/kg	174	1740
100-02-7	4-Nitrophenol	U	1740	ug/kg	573	1740
87-86-5	Pentachlorophenol	U	1740	ug/kg	434	1740
129-00-0	Pyrene	U	174	ug/kg	52.1	174
110-86-1	Pyridine	U	1740	ug/kg	347	1740
62-53-3	Aniline	U	1740	ug/kg	521	1740
111-44-4	bis(2-Chloroethyl) ether	U	1740	ug/kg	347	1740
541-73-1	1,3-Dichlorobenzene	U	1740	ug/kg	347	1740
100-51-6	Benzyl alcohol	U	1740	ug/kg	521	1740
95-50-1	1,2-Dichlorobenzene	U	1740	ug/kg	347	1740
108-60-1	bis(2-Chloroisopropyl)ether	U	1740	ug/kg	347	1740
95-48-7	o-Cresol	U	1740	ug/kg	347	1740
65794-96-9	m,p-Cresols	U	1740	ug/kg	521	1740
67-72-1	Hexachloroethane	U	1740	ug/kg	347	1740
98-95-3	Nitrobenzene	U	1740	ug/kg	347	1740
78-59-1	Isophorone	U	1740	ug/kg	347	1740
88-75-5	2-Nitrophenol	U	1740	ug/kg	347	1740
105-67-9	2,4-Dimethylphenol	U	1740	ug/kg	608	1740
111-91-1	bis(2-Chloroethoxy)methane	U	1740	ug/kg	347	1740
120-83-2	2,4-Dichlorophenol	U	1740	ug/kg	347	1740
65-85-0	Benzoic acid	U	3470	ug/kg	868	3470
91-20-3	Naphthalene	U	174	ug/kg	52.1	174
106-47-8	4-Chloroaniline	U	1740	ug/kg	347	1740
87-68-3	Hexachlorobutadiene	U	1740	ug/kg	347	1740
91-57-6	2-Methylnaphthalene	U	174	ug/kg	34.7	174
77-47-4	Hexachlorocyclopentadiene	U	1740	ug/kg	347	1740
88-06-2	2,4,6-Trichlorophenol	U	1740	ug/kg	347	1740
95-95-4	2,4,5-Trichlorophenol	U	1740	ug/kg	347	1740
91-58-7	2-Chloronaphthalene	U	174	ug/kg	57.3	174
88-74-4	2-Nitroaniline	U	1740	ug/kg	347	1740
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	1740	ug/kg	347	1740



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244004	Date Received: 02/27/2010 09:10	%Moisture: 23.5
Client ID: RE36-10-8485	Client: LANL010	Project: LANL01004
Batch ID: 960971	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/18/2010 15:28	Inst: MSD6.1	Dilution: 4
Prep Date: 03/04/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s6c1820.d	Aliquot: 30.1 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	1740	ug/kg	347	1740
606-20-2	2,6-Dinitrotoluene	U	1740	ug/kg	174	1740
208-96-8	Acenaphthylene	U	174	ug/kg	52.1	174
51-28-5	2,4-Dinitrophenol	U	3470	ug/kg	660	3470
132-64-9	Dibenzofuran	U	1740	ug/kg	347	1740
84-66-2	Diethylphthalate	U	1740	ug/kg	347	1740
86-73-7	Fluorene	U	174	ug/kg	52.1	174
7005-72-3	4-Chlorophenylphenylether	U	1740	ug/kg	347	1740
534-52-1	2-Methyl-4,6-dinitrophenol	U	1740	ug/kg	347	1740
100-01-6	4-Nitroaniline	U	1740	ug/kg	521	1740
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	1740	ug/kg	347	1740
122-66-7	Azobenzene	U	1740	ug/kg	347	1740
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	1740	ug/kg	347	1740
118-74-1	Hexachlorobenzene	U	1740	ug/kg	347	1740
85-01-8	Phenanthrene	U	174	ug/kg	52.1	174
120-12-7	Anthracene	U	174	ug/kg	34.7	174
84-74-2	Di-n-butylphthalate	U	1740	ug/kg	347	1740
206-44-0	Fluoranthene	U	174	ug/kg	52.1	174
85-68-7	Butylbenzylphthalate	U	1740	ug/kg	347	1740
56-55-3	Benzo(a)anthracene	U	174	ug/kg	52.1	174
91-94-1	3,3'-Dichlorobenzidine	U	1740	ug/kg	521	1740
218-01-9	Chrysene	U	174	ug/kg	52.1	174
117-81-7	bis(2-Ethylhexyl)phthalate	U	1740	ug/kg	347	1740
117-84-0	Di-n-octylphthalate	U	1740	ug/kg	347	1740
205-99-2	Benzo(b)fluoranthene	U	174	ug/kg	52.1	174
207-08-9	Benzo(k)fluoranthene	U	174	ug/kg	52.1	174
50-32-8	Benzo(a)pyrene	U	174	ug/kg	52.1	174
193-39-5	Indeno(1,2,3-cd)pyrene	U	174	ug/kg	52.1	174
53-70-3	Dibenzo(a,h)anthracene	U	174	ug/kg	52.1	174
191-24-2	Benzo(ghi)perylene	U	174	ug/kg	52.1	174
120-82-1	1,2,4-Trichlorobenzene	U	1740	ug/kg	347	1740

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	13.45	1160	ug/kg		J



# QC Summary



Semi-Volatile  
Surrogate Recovery Report

Page 1 of 1

SDG Number: 10-2137

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
1202061168	MB for batch 960970	61	60	61	70	67	90
1202061169	LCS for batch 960970	50	48	50	56	60	72
248244002	RE36-10-8475	64	65	65	73	81	86
248244003	RE36-10-8471	58	58	58	67	74	75
248244005	RE36-10-8477	65	66	65	75	85	85
248244006	RE36-10-8479	59	60	59	70	82	84
248244008	RE36-10-8481	64	63	64	76	85	90
248244007	RE36-10-8484	66	65	65	75	89	91
248244001	RE36-10-8464	53 D	53 D	51 D	64 D	64 D	79 D
248244004	RE36-10-8485	64 D	63 D	61 D	77 D	79 D	87 D

**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: 10-2137

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 960970

Matrix: SOIL

Lab Sample ID: 1202061169

Instrument: MSD6.I

Analysis Date: 03/18/2010 09:33

Dilution: 1

Analyst: NAG1

Pren Batch II 960970

Inj. Vol: .5 uL

Batch ID: 960971

CAS No	Parname	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	729	44	22-114
108-95-2	LCS Phenol	1670	0.0	808	48	39-104
95-57-8	LCS 2-Chlorophenol	1670	0.0	916	55	40-107
106-46-7	LCS 1,4-Dichlorobenzene	1670	0.0	876	53	33-108
621-64-7	LCS N-Nitrosodipropylamine	1670	0.0	831	50	34-113
59-50-7	LCS 4-Chloro-3-methylphenol	1670	0.0	798	48	42-114
83-32-9	LCS Acenaphthene	1670	0.0	867	52	40-105
121-14-2	LCS 2,4-Dinitrotoluene	1670	0.0	1070	64	49-112
100-02-7	LCS 4-Nitrophenol	1670	0.0	297	18 *	24-113
87-86-5	LCS Pentachlorophenol	1670	0.0	929	56	27-116
129-00-0	LCS Pyrene	1670	0.0	1040	63	42-113
110-86-1	LCS Pyridine	1670	0.0	771	46	8-125
62-53-3	LCS Aniline	1670	0.0	678	41	18-126
111-44-4	LCS bis(2-Chloroethyl) ether	1670	0.0	776	47	32-103
541-73-1	LCS 1,3-Dichlorobenzene	1670	0.0	890	53	32-108
100-51-6	LCS Benzyl alcohol	1670	0.0	328	20 *	27-108
95-50-1	LCS 1,2-Dichlorobenzene	1670	0.0	906	54	35-111
108-60-1	LCS bis(2-Chloroisopropyl)ether	1670	0.0	807	48	28-117
95-48-7	LCS o-Cresol	1670	0.0	897	54	39-111
65794-96-9	LCS m,p-Cresols	1670	0.0	954	57	45-121
67-72-1	LCS Hexachloroethane	1670	0.0	828	50	30-109
98-95-3	LCS Nitrobenzene	1670	0.0	901	54	33-116



## Semi-Volatile

Page 2 of 4

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2137

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 960970

Matrix: SOIL

Lab Sample ID: 1202061169

Instrument: MSD6.I

Analysis Date: 03/18/2010 09:33

Dilution: 1

Analyst: NAG1

Prep Batch ID: 960970

Inj. Vol: .5 uL

Batch ID: 960971

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	870	52	35-113
88-75-5	LCS 2-Nitrophenol	1670	0.0	975	59	31-117
105-67-9	LCS 2,4-Dimethylphenol	1670	0.0	2040	123 *	32-112
111-91-1	LCS bis(2-Chloroethoxy)methane	1670	0.0	833	50	34-110
120-83-2	LCS 2,4-Dichlorophenol	1670	0.0	900	54	34-116
65-85-0	LCS Benzoic acid	3330	0.0	2110	63	22-138
91-20-3	LCS Naphthalene	1670	0.0	792	48	35-103
106-47-8	LCS 4-Chloroaniline	1670	0.0	782	47	20-118
87-68-3	LCS Hexachlorobutadiene	1670	0.0	954	57	31-117
91-57-6	LCS 2-Methylnaphthalene	1670	0.0	886	53	38-115
77-47-4	LCS Hexachlorocyclopentadiene	1670	0.0	1140	69	22-140
88-06-2	LCS 2,4,6-Trichlorophenol	1670	0.0	795	48	40-110
95-95-4	LCS 2,4,5-Trichlorophenol	1670	0.0	1000	60	43-113
91-58-7	LCS 2-Chloronaphthalene	1670	0.0	925	55	37-111
88-74-4	LCS 2-Nitroaniline <i>o</i> -Nitroaniline	1670	0.0	875	53	41-113
99-09-2	LCS 3-Nitroaniline <i>m</i> -Nitroaniline	1670	0.0	907	54	34-125
131-11-3	LCS Dimethylphthalate	1670	0.0	1110	66	48-122
606-20-2	LCS 2,6-Dinitrotoluene	1670	0.0	1070	64	47-107
208-96-8	LCS Acenaphthylene	1670	0.0	974	58	44-110
51-28-5	LCS 2,4-Dinitrophenol	1670	0.0	1260	75	18-127
132-64-9	LCS Dibenzofuran	1670	0.0	1040	62	49-115
84-66-2	LCS Diethylphthalate	1670	0.0	1130	68	51-126



Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 3 of 4

SDG Number: 10-2137

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 960970

Matrix: SOIL

Lab Sample ID: 1202061169

Instrument: MSD6.I

Analysis Date: 03/18/2010 09:33

Dilution: 1

Analyst: NAG1

Prep Batch ID: 960970

Inj. Vol: .5 uL

Batch ID: 960971

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	924	55	43-109
7005-72-3	LCS 4-Chlorophenylphenylether	1670	0.0	1080	65	45-115
534-52-1	LCS 2-Methyl-4,6-dinitrophenol	1670	0.0	1300	78	32-117
100-01-6	LCS 4-Nitroaniline <i>p</i> -Nitroaniline	1670	0.0	1090	65	33-148
122-39-4	LCS Diphenylamine	1670	0.0	1120	67	46-114
122-66-7	LCS Azobenzene <i>1,2-Diphenylhydrazine</i>	1670	0.0	1040	63	38-123
101-55-3	LCS 4-Bromophenylphenylether	1670	0.0	1150	69	40-119
118-74-1	LCS Hexachlorobenzene	1670	0.0	1180	71	43-111
85-01-8	LCS Phenanthrene	1670	0.0	1000	60	46-107
120-12-7	LCS Anthracene	1670	0.0	992	60	46-110
84-74-2	LCS Di-n-butylphthalate	1670	0.0	1100	66	52-132
206-44-0	LCS Fluoranthene	1670	0.0	1100	66	51-115
85-68-7	LCS Butylbenzylphthalate	1670	0.0	1070	64	47-137
56-55-3	LCS Benzo(a)anthracene	1670	0.0	1040	63	50-108
91-94-1	LCS 3,3'-Dichlorobenzidine	1670	0.0	902	54	36-103
218-01-9	LCS Chrysene	1670	0.0	1070	64	48-111
117-81-7	LCS bis(2-Ethylhexyl)phthalate	1670	0.0	1050	63	48-139
117-84-0	LCS Di-n-octylphthalate	1670	0.0	990	59	42-141
205-99-2	LCS Benzo(b)fluoranthene	1670	0.0	1040	63	49-114
207-08-9	LCS Benzo(k)fluoranthene	1670	0.0	1120	67	50-116
50-32-8	LCS Benzo(a)pyrene	1670	0.0	1110	67	54-114
193-39-5	LCS Indeno(1,2,3-cd)pyrene	1670	0.0	1130	68	53-120



Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 4 of 4

SDG Number: 10-2137

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 960970

Matrix: SOIL

Lab Sample ID:1202061169

Instrument: MSD6.I

Analysis Date: 03/18/2010 09:33

Dilution: 1

Analyst: NAG1

Pren Batch II 960970

Inj. Vol: .5 uL

Batch ID: 960971

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	1120	67	53-121
191-24-2	LCS Benzo(ghi)perylene	1670	0.0	1100	66	50-121
120-82-1	LCS 1,2,4-Trichlorobenzene	1670	0.0	936	56	32-114



## Semi-Volatile

Page 1 of 8

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2137

Sample Type: Matrix Spike

Client ID: RE46-10-13534MS

Matrix: S

Lab Sample ID: 1202061170

% Moisture: 14.1

Instrument: MSD6.1

Analysis Date: 03/18/2010 16:40

Dilution: 4

Analyst: NAG1

Prep Batch ID: 960970

Inj. Vol: .5 uL

Batch ID: 960971

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	1930	0.00 U	917	47	27-98
108-95-2	MS Phenol	1930	0.00 U	1190	62	33-94
95-57-8	MS 2-Chlorophenol	1930	0.00 U	1290	67	29-96
106-46-7	MS 1,4-Dichlorobenzene	1930	0.00 U	1200	62	27-96
621-64-7	MS N-Nitrosodipropylamine	1930	0.00 U	1180	61	29-102
59-50-7	MS 4-Chloro-3-methylphenol	1930	0.00 U	1520	79	29-110
83-32-9	MS Acenaphthene	1930	150 J	1290	59	17-109
121-14-2	MS 2,4-Dinitrotoluene	1930	0.00 U	1360	71	33-107
100-02-7	MS 4-Nitrophenol	1930	0.00 U	1300	67	15-110
87-86-5	MS Pentachlorophenol	1930	0.00 U	1350	70	23-110
129-00-0	MS Pyrene	1930	1740	2180	23 *	24-118
110-86-1	MS Pyridine	1930	0.00 U	851	44	25-102
62-53-3	MS Aniline	1930	0.00 U	1060	55	18-109
111-44-4	MS bis(2-Chloroethyl) ether	1930	0.00 U	1050	54	29-96
541-73-1	MS 1,3-Dichlorobenzene	1930	0.00 U	1220	63	26-97
100-51-6	MS Benzyl alcohol	1930	0.00 U	0.00	0 *	19-112
95-50-1	MS 1,2-Dichlorobenzene	1930	0.00 U	1330	69	30-97
108-60-1	MS bis(2-Chloroisopropyl)ether	1930	0.00 U	1080	56	28-103
95-48-7	MS o-Cresol	1930	0.00 U	1480	77	32-107
65794-96-9	MS m,p-Cresols	1930	0.00 U	1660	86	33-115
67-72-1	MS Hexachloroethane	1930	0.00 U	1030	53	25-100
98-95-3	MS Nitrobenzene	1930	0.00 U	1340	69	27-106



Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 2 of 8

SDG Number: 10-2137

Sample Type: Matrix Spike

Client ID: RE46-10-13534MS

Matrix: S

Lab Sample ID: 1202061170

%Moisture: 14.1

Instrument: MSD6.I

Analysis Date: 03/18/2010 16:40

Dilution: 4

Analyst: NAG1

Prep Batch ID: 960970

Inj. Vol: .5 uL

Batch ID: 960971

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS Isophorone	1930	0.00 U	1290	67	29-104
88-75-5	MS 2-Nitrophenol	1930	0.00 U	1320	68	26-102
105-67-9	MS 2,4-Dimethylphenol	1930	0.00 U	1960	101	22-104
111-91-1	MS bis(2-Chloroethoxy)methane	1930	0.00 U	1270	66	27-101
120-83-2	MS 2,4-Dichlorophenol	1930	0.00 U	1490	77	26-103
65-85-0	MS Benzoic acid	3860	0.00 U	2400	62	13-131
91-20-3	MS Naphthalene	1930	0.00 U	1260	65	23-103
106-47-8	MS 4-Chloroaniline	1930	0.00 U	1300	67	26-103
87-68-3	MS Hexachlorobutadiene	1930	0.00 U	1390	72	28-101
91-57-6	MS 2-Methylnaphthalene	1930	0.00 U	1410	73	27-106
77-47-4	MS Hexachlorocyclopentadiene	1930	0.00 U	785	41	24-117
88-06-2	MS 2,4,6-Trichlorophenol	1930	0.00 U	1480	77	26-105
95-95-4	MS 2,4,5-Trichlorophenol	1930	0.00 U	1590	82	30-110
91-58-7	MS 2-Chloronaphthalene	1930	0.00 U	1420	73	28-102
88-74-4	MS 2-Nitroaniline o-Nitroaniline	1930	0.00 U	1170	61	33-106
99-09-2	MS 3-Nitroaniline m-Nitroaniline	1930	0.00 U	1340	69	33-116
131-11-3	MS Dimethylphthalate	1930	0.00 U	1590	82	38-113
606-20-2	MS 2,6-Dinitrotoluene	1930	0.00 U	1400	72	29-107
208-96-8	MS Acenaphthylene	1930	0.00 U	1470	76	25-108
51-28-5	MS 2,4-Dinitrophenol	1930	0.00 U	1300	67	14-102
132-64-9	MS Dibenzofuran	1930	0.00 U	1650	85	35-112
84-66-2	MS Diethylphthalate	1930	0.00 U	1640	85	36-122



Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

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SDG Number: 10-2137

Sample Type: Matrix Spike

Client ID: RE46-10-13534MS

Matrix: S

Lab Sample ID: 1202061170

%Moisture: 14.1

Instrument: MSD6.I

Analysis Date: 03/18/2010 16:40

Dilution: 4

Analyst: NAG1

Prep Batch II 960970

Inj. Vol: .5 uL

Batch ID: 960971

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS Fluorene	1930	145 J	1480	69	33-105
7005-72-3	MS 4-Chlorophenylphenylether	1930	0.00 U	1640	85	30-110
534-52-1	MS 2-Methyl-4,6-dinitrophenol	1930	0.00 U	1200	62	26-97
100-01-6	MS 4-Nitroaniline <i>p-Nitroaniline</i>	1930	0.00 U	1510	78	28-135
122-39-4	MS Diphenylamine	1930	0.00 U	1620	84	33-109
122-66-7	MS Azobenzene <i>1,2-Diphenylhydrazine</i>	1930	0.00 U	1520	78	31-113
101-55-3	MS 4-Bromophenylphenylether	1930	0.00 U	1620	84	31-109
118-74-1	MS Hexachlorobenzene	1930	0.00 U	1520	79	37-99
85-01-8	MS Phenanthrene	1930	1300	1770	24 *	29-109
120-12-7	MS Anthracene	1930	240	1510	66	19-118
84-74-2	MS Di-n-butylphthalate	1930	0.00 U	1510	78	39-123
206-44-0	MS Fluoranthene	1930	1810	1970	8 *	33-114
85-68-7	MS Butylbenzylphthalate	1930	0.00 U	1600	83	35-131
56-55-3	MS Benzo(a)anthracene	1930	729	1530	42	30-111
91-94-1	MS 3,3'-Dichlorobenzidine	1930	0.00 U	1260	65	30-124
218-01-9	MS Chrysene	1930	763	1680	48	32-108
117-81-7	MS bis(2-Ethylhexyl)phthalate	1930	0.00 U	1540	80	37-129
117-84-0	MS Di-n-octylphthalate	1930	0.00 U	1830	95	31-143
205-99-2	MS Benzo(b)fluoranthene	1930	1190	1750	29	29-118
207-08-9	MS Benzo(k)fluoranthene	1930	0.00 U	1660	86	32-118
50-32-8	MS Benzo(a)pyrene	1930	596	1600	52	33-115
193-39-5	MS Indeno(1,2,3-cd)pyrene	1930	253	1300	54	29-114



Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 4 of 8

SDG Number: 10-2137

Sample Type: Matrix Spike

Client ID: RE46-10-13534MS

Matrix: S

Lab Sample ID:1202061170

%Moisture: 14.1

Instrument: MSD6.I

Analysis Date: 03/18/2010 16:40

Dilution: 4

Analyst: NAG1

Prep Batch II 960970

Inj. Vol: .5 uL

Batch ID: 960971

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	1930	0.00 U	1270	66	27-119
191-24-2	MS Benzo(ghi)perylene	1930	231	1170	48	28-112
120-82-1	MS 1,2,4-Trichlorobenzene	1930	0.00 U	1400	73	28-99



## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2137

Sample Type: Matrix Spike Duplicate

Client ID: RE46-10-13534MSD

Matrix: S

Lab Sample ID: 1202061171

%Moisture: 14.1

Instrument: MSD6.I

Analysis Date: 03/18/2010 17:03

Dilution: 4

Analyst: NAG1

Pren Batch II 960970

Inj. Vol: .5 uL

Batch ID: 960971

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	1930	0.00 U	779	40	27-98	16	0-30
108-95-2	MSD Phenol	1930	0.00 U	1020	53	33-94	16	0-30
95-57-8	MSD 2-Chlorophenol	1930	0.00 U	1060	55	29-96	20	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1930	0.00 U	1020	53	27-96	16	0-30
621-64-7	MSD N-Nitrosodipropylamine	1930	0.00 U	978	51	29-102	19	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1930	0.00 U	1310	68	29-110	15	0-30
83-32-9	MSD Acenaphthene	1930	150 J	1110	50	17-109	15	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1930	0.00 U	1150	60	33-107	17	0-30
100-02-7	MSD 4-Nitrophenol	1930	0.00 U	1120	58	15-110	15	0-30
87-86-5	MSD Pentachlorophenol	1930	0.00 U	1070	55	23-110	23	0-30
129-00-0	MSD Pyrene	1930	1740	1970	12 *	24-118	10	0-30
110-86-1	MSD Pyridine	1930	0.00 U	729	38	25-102	15	0-30
62-53-3	MSD Aniline	1930	0.00 U	944	49	18-109	12	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1930	0.00 U	874	45	29-96	18	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1930	0.00 U	1000	52	26-97	20	0-30
100-51-6	MSD Benzyl alcohol	1930	0.00 U	0.00	0 *	19-112	0	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1930	0.00 U	1080	56	30-97	21	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1930	0.00 U	893	46	28-103	19	0-30
95-48-7	MSD o-Cresol	1930	0.00 U	1200	63	32-107	21	0-30
65794-96-9	MSD m,p-Cresols	1930	0.00 U	1360	71	33-115	20	0-30
67-72-1	MSD Hexachloroethane	1930	0.00 U	852	44	25-100	19	0-30
98-95-3	MSD Nitrobenzene	1930	0.00 U	1130	59	27-106	16	0-30



Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 6 of 8

SDG Number: 10-2137

Sample Type: Matrix Spike Duplicate

Client ID: RE46-10-13534MSD

Matrix: S

Lab Sample ID: 1202061171

% Moisture: 14.1

Instrument: MSD6.I

Analysis Date: 03/18/2010 17:03

Dilution: 4

Analyst: NAG1

Pren Batch II 960970

Inj. Vol: .5 uL

Batch ID: 960971

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1930	0.00 U	1080	56	29-104	17	0-30
88-75-5	MSD 2-Nitrophenol	1930	0.00 U	1070	56	26-102	20	0-30
105-67-9	MSD 2,4-Dimethylphenol	1930	0.00 U	1530	79	22-104	25	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1930	0.00 U	1040	54	27-101	20	0-30
120-83-2	MSD 2,4-Dichlorophenol	1930	0.00 U	1260	65	26-103	17	0-30
65-85-0	MSD Benzoic acid	3850	0.00 U	1990	52	13-131	19	0-30
91-20-3	MSD Naphthalene	1930	0.00 U	1050	55	23-103	18	0-30
106-47-8	MSD 4-Chloroaniline	1930	0.00 U	1150	60	26-103	12	0-30
87-68-3	MSD Hexachlorobutadiene	1930	0.00 U	1190	62	28-101	15	0-30
91-57-6	MSD 2-Methylnaphthalene	1930	0.00 U	1160	60	27-106	19	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1930	0.00 U	602	31	24-117	26	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1930	0.00 U	1230	64	26-105	18	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1930	0.00 U	1270	66	30-110	22	0-30
91-58-7	MSD 2-Chloronaphthalene	1930	0.00 U	1180	61	28-102	18	0-30
88-74-4	MSD 2-Nitroaniline <i>o</i> -Nitroaniline	1930	0.00 U	983	51	33-106	18	0-30
99-09-2	MSD 3-Nitroaniline <i>m</i> -Nitroaniline	1930	0.00 U	1150	60	33-116	15	0-30
131-11-3	MSD Dimethylphthalate	1930	0.00 U	1320	69	38-113	18	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1930	0.00 U	1160	60	29-107	19	0-30
208-96-8	MSD Acenaphthylene	1930	0.00 U	1220	63	25-108	18	0-30
51-28-5	MSD 2,4-Dinitrophenol	1930	0.00 U	1220	63	14-102	7	0-30
132-64-9	MSD Dibenzofuran	1930	0.00 U	1380	72	35-112	18	0-30
84-66-2	MSD Diethylphthalate	1930	0.00 U	1380	71	36-122	18	0-30



Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 7 of 8

SDG Number: 10-2137

Sample Type: Matrix Spike Duplicate

Client ID: RE46-10-13534MSD

Matrix: S

Lab Sample ID: 1202061171

%Moisture: 14.1

Instrument: MSD6.I

Analysis Date: 03/18/2010 17:03

Dilution: 4

Analyst: NAG1

Pren Batch II 960970

Inj. Vol: .5 uL

Batch ID: 960971

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	1930	145	J	1280	59	33-105	15	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	1930	0.00	U	1390	72	30-110	17	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	1930	0.00	U	1110	58	26-97	8	0-30
100-01-6	MSD 4-Nitroaniline <i>p</i> -Nitroaniline	1930	0.00	U	1370	71	28-135	10	0-30
122-39-4	MSD Diphenylamine	1930	0.00	U	1370	71	33-109	17	0-30
122-66-7	MSD Azobenzene <i>1,2</i> -Diphenylhydrazine	1930	0.00	U	1250	65	31-113	19	0-30
101-55-3	MSD 4-Bromophenylphenylether	1930	0.00	U	1390	72	31-109	15	0-30
118-74-1	MSD Hexachlorobenzene	1930	0.00	U	1300	68	37-99	16	0-30
85-01-8	MSD Phenanthrene	1930	1300		1680	20 *	29-109	5	0-30
120-12-7	MSD Anthracene	1930	240		1350	57	19-118	12	0-30
84-74-2	MSD Di-n-butylphthalate	1930	0.00	U	1270	66	39-123	17	0-30
206-44-0	MSD Fluoranthene	1930	1810		1880	3 *	33-114	4	0-30
85-68-7	MSD Butylbenzylphthalate	1930	0.00	U	1300	68	35-131	20	0-30
56-55-3	MSD Benzo(a)anthracene	1930	729		1400	35	30-111	9	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	1930	0.00	U	1130	59	30-124	11	0-30
218-01-9	MSD Chrysene	1930	763		1510	38	32-108	11	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	1930	0.00	U	1320	69	37-129	15	0-30
117-84-0	MSD Di-n-octylphthalate	1930	0.00	U	1500	78	31-143	20	0-30
205-99-2	MSD Benzo(b)fluoranthene	1930	1190		1590	20 *	29-118	10	0-30
207-08-9	MSD Benzo(k)fluoranthene	1930	0.00	U	1420	73	32-118	16	0-30
50-32-8	MSD Benzo(a)pyrene	1930	596		1410	42	33-115	12	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	1930	253		1080	43	29-114	19	0-30



Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 8 of 8

SDG Number: 10-2137

Sample Type: Matrix Spike Duplicate

Client ID: RE46-10-13534MSD

Matrix: S

Lab Sample ID:1202061171

%Moisture: 14.1

Instrument: MSD6.I

Analysis Date: 03/18/2010 17:03

Dilution: 4

Analyst: NAG1

Pren Batch II 960970

Inj. Vol: .5 uL

Batch ID: 960971

CAS No	Parname	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	1930	0.00 U	1080	56	27-119	17	0-30
191-24-2	MSD Benzo(ghi)perylene	1930	231	1010	41	28-112	14	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1930	0.00 U	1190	62	28-99	17	0-30



## Method Blank Summary

Page 1 of 1

SDG Number:	10-2137	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 960970	Instrument ID:	MSD6.I	Data File:	s6c1804-1.d
Lab Sample ID:	1202061168	Prep Date:	03/04/2010 23:22	Analyzed:	03/18/10 09:08
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 960970	1202061169	s6c1805-1.d	03/18/10	0933
02 RE36-10-8475	248244002	s6c1809.d	03/18/10	1108
03 RE36-10-8471	248244003	s6c1810.d	03/18/10	1132
04 RE36-10-8477	248244005	s6c1811.d	03/18/10	1156
05 RE36-10-8479	248244006	s6c1812.d	03/18/10	1218
06 RE36-10-8481	248244008	s6c1813.d	03/18/10	1242
07 RE36-10-8484	248244007	s6c1816.d	03/18/10	1352
08 RE36-10-8464	248244001	s6c1819.d	03/18/10	1504
09 RE36-10-8485	248244004	s6c1820.d	03/18/10	1528



## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2137

Instrument ID: MSD6.I

Injection Date/Time: 16-MAR-10 08:42

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD6.i/s031610.b/s6c1601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	53.3
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	50.4
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	52
197	0 - 1% of mass 198	0.8
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	22.3
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	76.8
442	Greater than 40% of mass 198	55.2
443	17 - 23% of mass 442	18.9

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	WBN100309-08	s6c1603.d	16-MAR-10 09:18
MEGA010	WBN100309-07	s6c1604.d	16-MAR-10 09:47
MEGA020	WBN100309-06	s6c1605.d	16-MAR-10 10:17
MEGA040	WBN100309-05.1	s6c1606.d	16-MAR-10 10:48
MEGA050	WBN100309-04	s6c1607.d	16-MAR-10 11:18
MEGA080	WBN100309-03	s6c1608.d	16-MAR-10 11:48
MEGA100	WBN100309-02	s6c1609.d	16-MAR-10 12:18
MEGA120	WBN100309-01	s6c1610.d	16-MAR-10 12:48
MEGAICV	WBN100309-09.1	s6c1612.d	16-MAR-10 13:40



## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2137

Instrument ID: MSD6.I

Injection Date/Time: 16-MAR-10 16:06

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD6.i/s031610.b/s6c1613.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	46.4
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.8
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	48.2
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.4
365	Greater than 1% of mass 198	2.1
441	Present, but less than mass 443	74.3
442	Greater than 40% of mass 198	65.5
443	17 - 23% of mass 442	19.6

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
AP010	WBN100312-01	s6c1615.d	16-MAR-10 16:42
AP020	WBN100312-02	s6c1616.d	16-MAR-10 17:06
AP040	WBN100312-03.1	s6c1617.d	16-MAR-10 17:30
AP050	WBN100312-04	s6c1618.d	16-MAR-10 17:53
AP080	WBN100312-05	s6c1619.d	16-MAR-10 18:16
AP100	WBN100312-06	s6c1620.d	16-MAR-10 18:40
AP120	WBN100312-07	s6c1621.d	16-MAR-10 19:04
APICV	WBN100312-08.1	s6c1635.d	17-MAR-10 00:41



## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2137

Instrument ID: MSD6.I

Injection Date/Time: 18-MAR-10 07:59

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD6.i/s031810.b/s6c1801.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.7
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	44.5
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	48.5
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23
365	Greater than 1% of mass 198	2
441	Present, but less than mass 443	74.1
442	Greater than 40% of mass 198	63.5
443	17 - 23% of mass 442	19.3

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	WBN100309-05.3	s6c1802-D.d	18-MAR-10 08:12
APCVS	WBN10031203.3	s6c1803.d	18-MAR-10 08:42
SBLK01	1202061168	s6c1804-1.d	18-MAR-10 09:08
SBLK01LCS	1202061169	s6c1805-1.d	18-MAR-10 09:33
RE36-10-8475	248244002	s6c1809.d	18-MAR-10 11:08
RE36-10-8471	248244003	s6c1810.d	18-MAR-10 11:32
RE36-10-8477	248244005	s6c1811.d	18-MAR-10 11:56
RE36-10-8479	248244006	s6c1812.d	18-MAR-10 12:18
RE36-10-8481	248244008	s6c1813.d	18-MAR-10 12:42
RE36-10-8484	248244007	s6c1816.d	18-MAR-10 13:52
RE36-10-8464	248244001	s6c1819.d	18-MAR-10 15:04
RE36-10-8485	248244004	s6c1820.d	18-MAR-10 15:28



### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2137

Instrument: MSD6.I

STD Analysis Time: 18-MAR-10 08:12

GC Column: J&amp;W DB-5MS

Data File: s6c1802-D.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	395994		3.96	1442881		4.83	878105		6.09	1467337		7.27	1252158		9.7	1051962		11.4
Upper Limit	791988		4.46	2885762		5.33	1756210		6.59	2934674		7.77	2504316		10.2	2103924		11.9
Lower Limit	197997		3.46	721441		4.33	439053		5.59	733669		6.77	626079		9.2	525981		10.9
Sample ID																		
BLK01	473345		3.97	1702921		4.83	1049987		6.1	1731342		7.27	1471042		9.7	1195601		11.4
BLK01LCS	466391		3.97	1771443		4.84	1031726		6.1	1706712		7.28	1509750		9.71	1333922		11.4
RE36-10-8475	503876		3.97	1815647		4.84	1109503		6.1	1886090		7.27	1535818		9.7	1156738		11.4
RE36-10-8471	502517		3.97	1772746		4.84	1091733		6.1	1852853		7.28	1623753		9.7	1415000		11.4
RE36-10-8477	484109		3.97	1755094		4.83	1078566		6.1	1830887		7.27	1626055		9.7	1431963		11.4
RE36-10-8479	502544		3.97	1811708		4.84	1103186		6.1	1885686		7.27	1618692		9.7	1298318		11.4
RE36-10-8481	450649		3.97	1631787		4.84	991484		6.1	1723906		7.27	1354770		9.7	935356		11.4
RE36-10-8484	483570		3.97	1760071		4.84	1099626		6.1	1861293		7.27	1513881		9.7	1111483		11.4
RE36-10-8464	456397		3.97	1626709		4.84	1010667		6.1	1759522		7.28	1331554		9.7	867149		11.4
RE36-10-8485	508260		3.97	1800813		4.84	1125254		6.1	1954245		7.28	1710853		9.7	1263488		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



# Sample Data



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

SDG Number: 10-2137  
Lab Sample ID: 248244001

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 9.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8464  
Batch ID: 960971  
Run Date: 03/18/2010 15:04  
Prep Date: 03/04/2010 23:22  
Data File: s6c1819.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	1470	ug/kg	294	1470
108-95-2	Phenol	U	1470	ug/kg	294	1470
95-57-8	2-Chlorophenol	U	1470	ug/kg	294	1470
106-46-7	1,4-Dichlorobenzene	U	1470	ug/kg	294	1470
621-64-7	N-Nitrosodipropylamine	U	1470	ug/kg	294	1470
59-50-7	4-Chloro-3-methylphenol	U	1470	ug/kg	294	1470
83-32-9	Acenaphthene	U	147	ug/kg	48.6	147
121-14-2	2,4-Dinitrotoluene	U	1470	ug/kg	147	1470
100-02-7	4-Nitrophenol	U	1470	ug/kg	486	1470
87-86-5	Pentachlorophenol	U	1470	ug/kg	368	1470
129-00-0	Pyrene		211	ug/kg	44.2	147
110-86-1	Pyridine	U	1470	ug/kg	294	1470
62-53-3	Aniline	U	1470	ug/kg	442	1470
111-44-4	bis(2-Chloroethyl) ether	U	1470	ug/kg	294	1470
541-73-1	1,3-Dichlorobenzene	U	1470	ug/kg	294	1470
100-51-6	Benzyl alcohol	U	1470	ug/kg	442	1470
95-50-1	1,2-Dichlorobenzene	U	1470	ug/kg	294	1470
108-60-1	bis(2-Chloroisopropyl)ether	U	1470	ug/kg	294	1470
95-48-7	o-Cresol	U	1470	ug/kg	294	1470
65794-96-9	m,p-Cresols	U	1470	ug/kg	442	1470
67-72-1	Hexachloroethane	U	1470	ug/kg	294	1470
98-95-3	Nitrobenzene	U	1470	ug/kg	294	1470
78-59-1	Isophorone	U	1470	ug/kg	294	1470
88-75-5	2-Nitrophenol	U	1470	ug/kg	294	1470
105-67-9	2,4-Dimethylphenol	U	1470	ug/kg	515	1470
111-91-1	bis(2-Chloroethoxy)methane	U	1470	ug/kg	294	1470
120-83-2	2,4-Dichlorophenol	U	1470	ug/kg	294	1470
65-85-0	Benzoic acid	U	2940	ug/kg	736	2940
91-20-3	Naphthalene	U	147	ug/kg	44.2	147
106-47-8	4-Chloroaniline	U	1470	ug/kg	294	1470
87-68-3	Hexachlorobutadiene	U	1470	ug/kg	294	1470
91-57-6	2-Methylnaphthalene	U	147	ug/kg	29.4	147
77-47-4	Hexachlorocyclopentadiene	U	1470	ug/kg	294	1470
88-06-2	2,4,6-Trichlorophenol	U	1470	ug/kg	294	1470
95-95-4	2,4,5-Trichlorophenol	U	1470	ug/kg	294	1470
91-58-7	2-Chloronaphthalene	U	147	ug/kg	48.6	147
88-74-4	2-Nitroaniline	U	1470	ug/kg	294	1470
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	1470	ug/kg	294	1470



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

SDG Number: 10-2137  
Lab Sample ID: 248244001

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 9.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8464  
Batch ID: 960971  
Run Date: 03/18/2010 15:04  
Prep Date: 03/04/2010 23:22  
Data File: s6c1819.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m-Nitroaniline</i>					
131-11-3	Dimethylphthalate	U	1470	ug/kg	294	1470
606-20-2	2,6-Dinitrotoluene	U	1470	ug/kg	147	1470
208-96-8	Acenaphthylene	U	147	ug/kg	44.2	147
51-28-5	2,4-Dinitrophenol	U	2940	ug/kg	560	2940
132-64-9	Dibenzofuran	U	1470	ug/kg	294	1470
84-66-2	Diethylphthalate	U	1470	ug/kg	294	1470
86-73-7	Fluorene	U	147	ug/kg	44.2	147
7005-72-3	4-Chlorophenylphenylether	U	1470	ug/kg	294	1470
534-52-1	2-Methyl-4,6-dinitrophenol	U	1470	ug/kg	294	1470
100-01-6	4-Nitroaniline	U	1470	ug/kg	442	1470
	<i>p-Nitroaniline</i>					
122-39-4	Diphenylamine	U	1470	ug/kg	294	1470
122-66-7	Azobenzene	U	1470	ug/kg	294	1470
	<i>1,2-Diphenylhydrazine</i>					
101-55-3	4-Bromophenylphenylether	U	1470	ug/kg	294	1470
118-74-1	Hexachlorobenzene	U	1470	ug/kg	294	1470
85-01-8	Phenanthrene		221	ug/kg	44.2	147
120-12-7	Anthracene	J	46.0	ug/kg	29.4	147
84-74-2	Di-n-butylphthalate	U	1470	ug/kg	294	1470
206-44-0	Fluoranthene		235	ug/kg	44.2	147
85-68-7	Butylbenzylphthalate	U	1470	ug/kg	294	1470
56-55-3	Benzo(a)anthracene	J	106	ug/kg	44.2	147
91-94-1	3,3'-Dichlorobenzidine	U	1470	ug/kg	442	1470
218-01-9	Chrysene	J	106	ug/kg	44.2	147
117-81-7	bis(2-Ethylhexyl)phthalate	U	1470	ug/kg	294	1470
117-84-0	Di-n-octylphthalate	U	1470	ug/kg	294	1470
205-99-2	Benzo(b)fluoranthene		155	ug/kg	44.2	147
207-08-9	Benzo(k)fluoranthene	U	147	ug/kg	44.2	147
50-32-8	Benzo(a)pyrene	J	86.3	ug/kg	44.2	147
193-39-5	Indeno(1,2,3-cd)pyrene	U	147	ug/kg	44.2	147
53-70-3	Dibenzo(a,h)anthracene	U	147	ug/kg	44.2	147
191-24-2	Benzo(ghi)perylene	U	147	ug/kg	44.2	147
120-82-1	1,2,4-Trichlorobenzene	U	1470	ug/kg	294	1470

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
300574-36-1	5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	10.65	5010	ug/kg	90	NJ
	Unknown	13.4	736	ug/kg		J



GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1819.d  
Lab Smp Id: 248244001 Client Smp ID: RE36-10-8464  
Inj Date : 18-MAR-2010 15:04  
Operator : nag1 Inst ID: MSD6.i  
Smp Info : |248244001|960971|4|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 18-Mar-2010 16:23 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 19  
Dil Factor: 4.00000  
Integrator: HP RTE Compound Sublist: 10-2137.sub  
Target Version: 3.50  
Processing Host: hpc1p1

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	30.03000	weight of sample
M	9.53760	% 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	3.969	3.963	(1.000)	456397	40.0000	
* 29 Naphthalene-d8	136	4.840	4.834	(1.000)	1626709	40.0000	
* 46 Acenaphthene-d10	164	6.098	6.092	(1.000)	1010667	40.0000	
* 67 Phenanthrene-d10	188	7.281	7.269	(1.000)	1759522	40.0000	
* 91 Chrysene-d12	240	9.704	9.698	(1.000)	1331554	40.0000	
* 98 Perylene-d12	264	11.421	11.404	(1.000)	867149	40.0000	
\$ 3 2-Fluorophenol	112	3.151	3.140	(0.794)	167504	13.2024	1940
\$ 5 Phenol-d5	99	3.675	3.669	(0.926)	213955	13.2603	1950
\$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.894)	99007	6.36689	937
\$ 39 2-Fluorobiphenyl	172	5.581	5.575	(0.915)	208032	7.97808	1170
\$ 60 2,4,6-Tribromophenol	329	6.698	6.692	(1.098)	45730	16.1244	2370
\$ 81 p-Terphenyl-d14	244	8.663	8.651	(0.893)	230390	9.92911	1460



Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====	=====
79 Pyrene		202	8.563	8.551	(0.882)	58304	1.43636	211
68 Phenanthrene		178	7.298	7.286	(1.002)	64271	1.49909	221
69 Anthracene		178	7.339	7.334	(1.008)	13479	0.31208	46.0(a)
76 Fluoranthene		202	8.345	8.333	(1.146)	69517	1.59887	235
89 Benzo(a)anthracene		228	9.692	9.680	(0.999)	25006	0.71921	106(a)
92 Chrysene		228	9.727	9.722	(1.002)	23918	0.72020	106(a)
95 Benzo(b)fluoranthene		252	10.886	10.874	(0.953)	24875	1.05517	155
97 Benzo(a)pyrene		252	11.333	11.322	(0.992)	11699	0.58596	86.3(a)

# QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).



## ION RATIO REPORT

## SV REPORT

Data file: s6c1819.d

Report Date: 03/18/2010 16:05

Lab. ID: 248244001

SampleType: SAMPLE

Injection Date: 18-MAR-2010 15:04

Operator: nag1

Instrument: MSD6.i

Sample Info: |248244001|960971|4|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

Dilution Factor= 4.0

Integrator: HP RTE

Compound Sublist: 10-2137

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
22	Isophorone		CAS#: 78-59-1			
82	99007	4.33	4.49	80-120	100	(T)
138	9376	4.84	4.49	0- 49	9	(T)
-----						
40	2-Chloronaphthalene		CAS#: 91-58-7			
162	941443	6.10	5.68	80-120	100	(T)
164	1010667	6.10	5.68	3- 63	107	(QT)
127	767	5.58	5.68	8- 68	0	(QT)
-----						
43	Dimethylphthalate		CAS#: 131-11-3			
163	185051	6.10	5.85	80-120	100	(T)
164	1010667	6.10	5.85	0- 41	546	(QT)
-----						
50	2,4-Dinitrotoluene		CAS#: 121-14-2			
165	135644	6.10	6.20	80-120	100	(T)
89	1815	6.10	6.20	40-100	1	(QT)
63	1917	6.10	6.20	18- 78	1	(QT)
-----						
53	Fluorene		CAS#: 86-73-7			
166	8740	6.10	6.50	80-120	100	(T)
165	135644	6.10	6.50	61-121	1552	(QT)
167	341	6.10	6.50	0- 44	4	(T)
-----						
68	Phenanthrene		CAS#: 85-01-8			
178	64271	7.30	7.29	80-120	100	( )
179	10872	7.30	7.29	0- 46	17	( )
176	12131	7.30	7.29	0- 49	19	( )
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
69 Anthracene		CAS#: 120-12-7				
178	13479	7.34	7.33	80-120	100	( )
179	3158	7.34	7.33	0- 47	23	( )
176	2299	7.34	7.33	0- 48	17	( )
-----						
76 Fluoranthene		CAS#: 206-44-0				
202	69517	8.35	8.33	80-120	100	( )
203	11766	8.35	8.33	0- 48	17	( )
101	7736	8.35	8.33	0- 42	11	( )
-----						
79 Pyrene		CAS#: 129-00-0				
202	58304	8.56	8.55	80-120	100	( )
200	11758	8.56	8.55	0- 51	20	( )
101	7894	8.56	8.55	0- 44	14	( )
-----						
89 Benzo(a)anthracene		CAS#: 56-55-3				
228	25006	9.69	9.68	80-120	100	( )
226	5696	9.69	9.68	0- 56	23	( )
229	6754	9.69	9.68	0- 50	27	( )
-----						
92 Chrysene		CAS#: 218-01-9				
228	23918	9.73	9.72	80-120	100	( )
229	5761	9.73	9.72	0- 50	24	( )
226	6415	9.73	9.72	0- 59	27	( )
-----						
95 Benzo(b)fluoranthene		CAS#: 205-99-2				
252	24875	10.89	10.87	80-120	100	( )
253	6082	10.89	10.87	0- 52	24	( )
125	2812	10.89	10.87	0- 40	11	( )
-----						
96 Benzo(k)fluoranthene		CAS#: 207-08-9				
252	24875	10.89	10.91	80-120	100	( )
253	6082	10.89	10.91	0- 52	24	( )
125	2806	10.89	10.91	0- 42	11	( )
-----						
97 Benzo(a)pyrene		CAS#: 50-32-8				
252	11699	11.33	11.32	80-120	100	( )
253	2730	11.33	11.32	0- 52	23	( )
125	1565	11.33	11.32	0- 43	13	( )

Q qualifier indicates ion failed ratio requirement



Data File: /chem/MSD6.i/s031810.b/s6c1819.d  
Report Date: 18-Mar-2010 16:31

Page 1

GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1819.d  
Lab Smp Id: 248244001 Client Smp ID: RE36-10-8464  
Inj Date : 18-MAR-2010 15:04  
Operator : nag1 Inst ID: MSD6.i  
Smp Info : |248244001|960971|4|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 18-Mar-2010 16:23 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 19  
Dil Factor: 4.00000  
Integrator: HP RTE Compound Sublist: 10-2137.sub  
Target Version: 3.50  
Processing Host: hpclp1

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	30.03000	weight of sample
M	9.53760	% moisture

Cpnd Variable Local Compound Variable

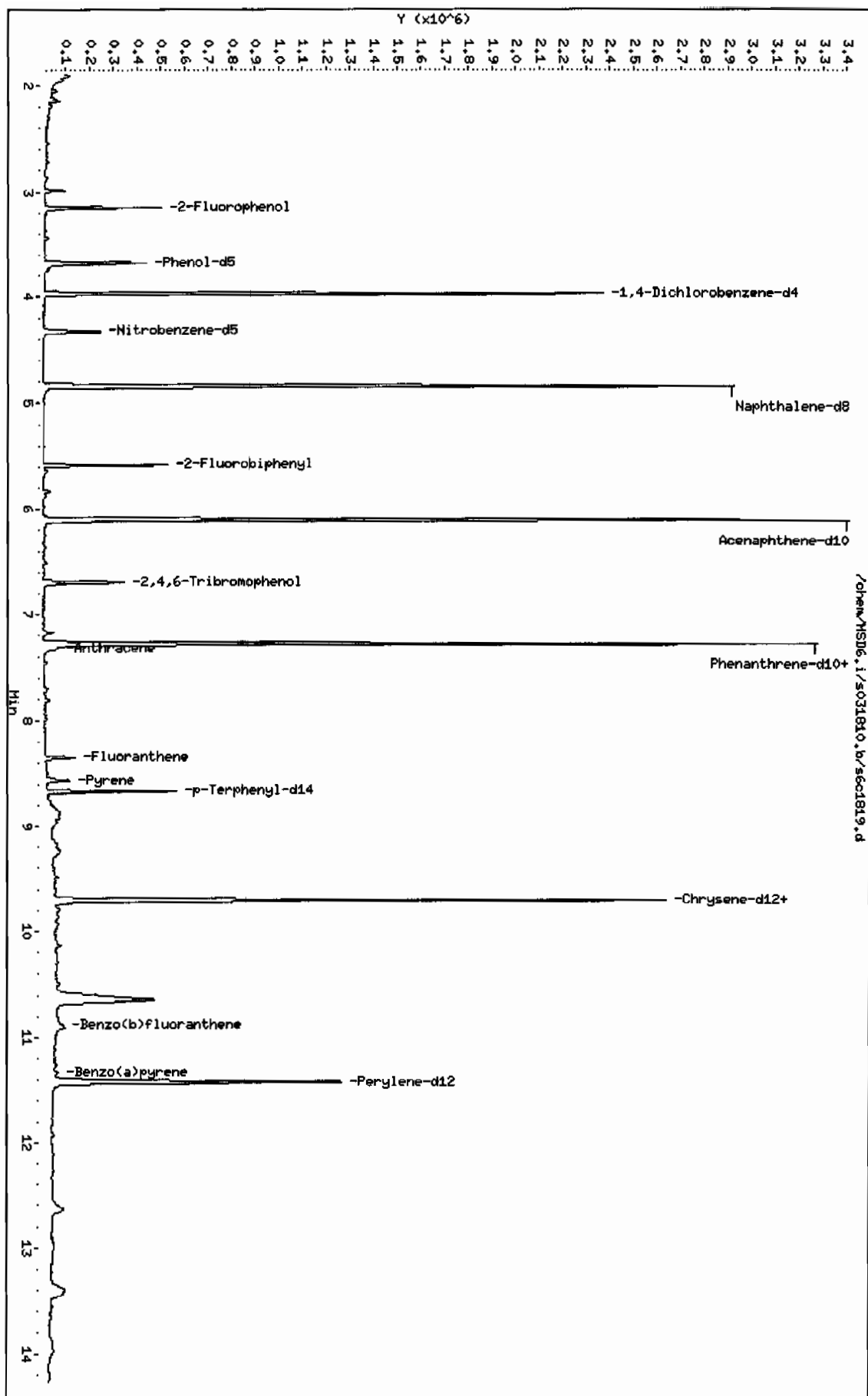
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 98 Perylene-d12	11.421	2358161	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur					CAS #: 300574-36-1		
10.645	2005779	34.0227560	5010	90	NIST05.L	68738	98
Unknown					CAS #:		
13.398	294766	4.99992606	736	0		0	98



Data File: /chem/HSD6.i/s031810.b/sec1819.d  
 Date: 18-MAR-2010 15:04  
 Client ID: RE36-10-8464  
 Sample Info: 124824400196097141SVH11L1ANL  
 Volume Injected (uL): 0.5  
 Column phase: JMW DB-SMS

Instrument: HSD6.i  
 Operator: nag1  
 Column diameter: 0.20





Date: 18-MAR-2010 15:04

Client ID: RE36-10-8464

Instrument: HSD6.i

Sample Info: 1248244001960971141SVH11ILANL

Volume Injected (uL): 0.5

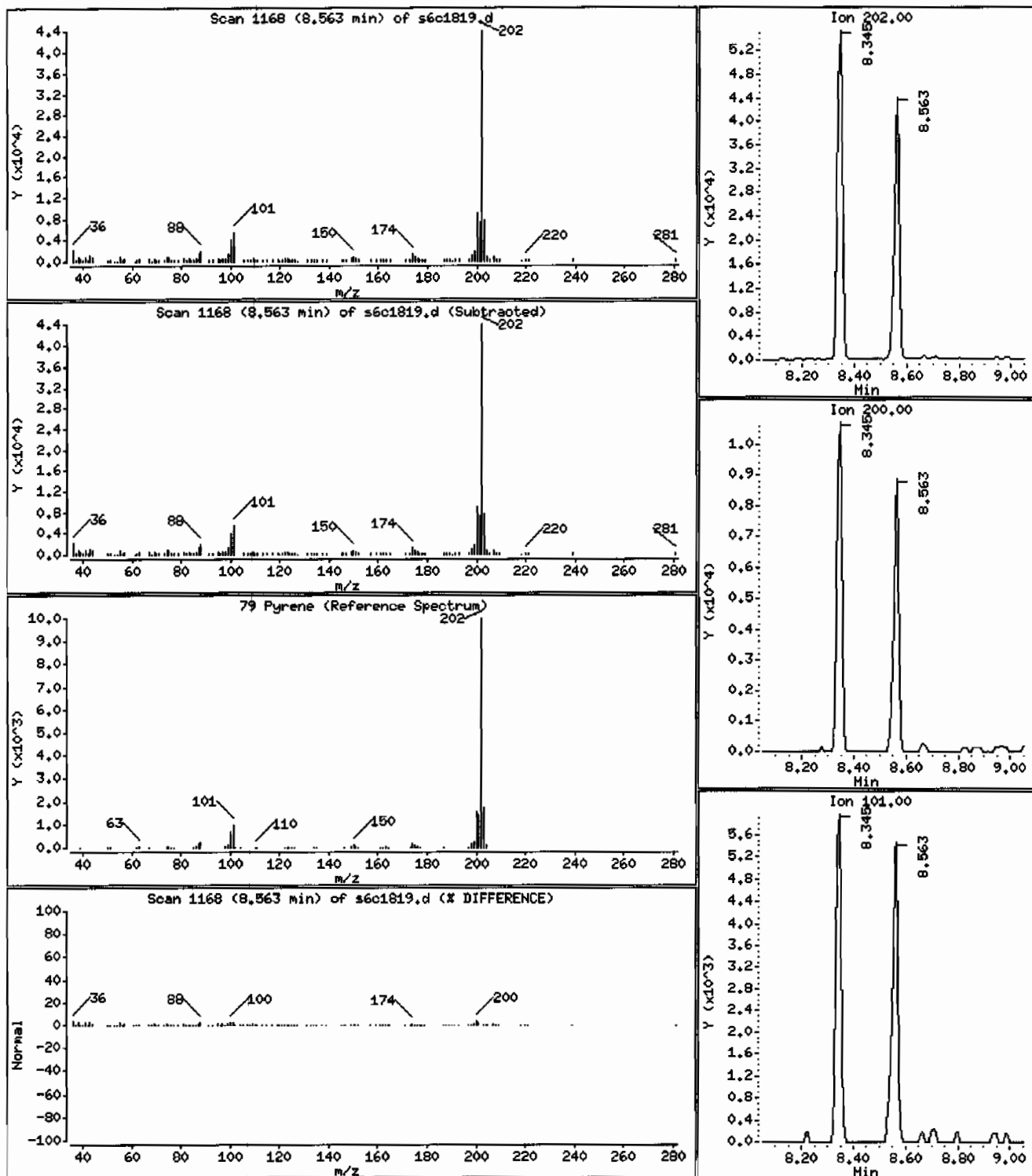
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 211 ug/Kg





Date : 18-MAR-2010 15:04

Client ID: RE36-10-8464

Instrument: MSD6.i

Sample Info: 1248244001960971141SVH11ILANL

Volume Injected (uL): 0.5

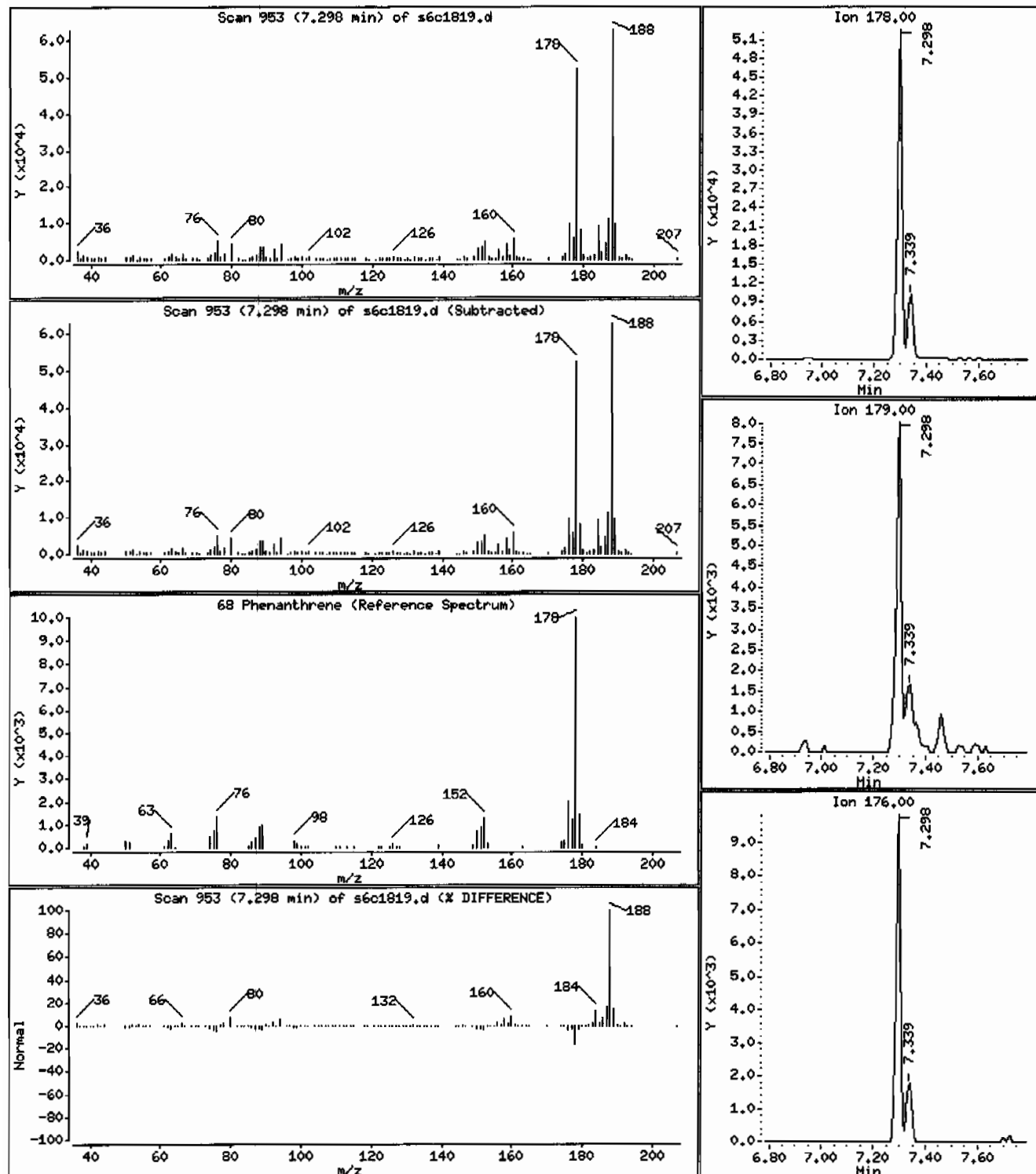
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 221 ug/Kg





Date : 18-MAR-2010 15:04

Client ID: RE36-10-8464

Instrument: MSD6.i

Sample Info: 124824400196097114ISVH11ILANL

Volume Injected (uL): 0.5

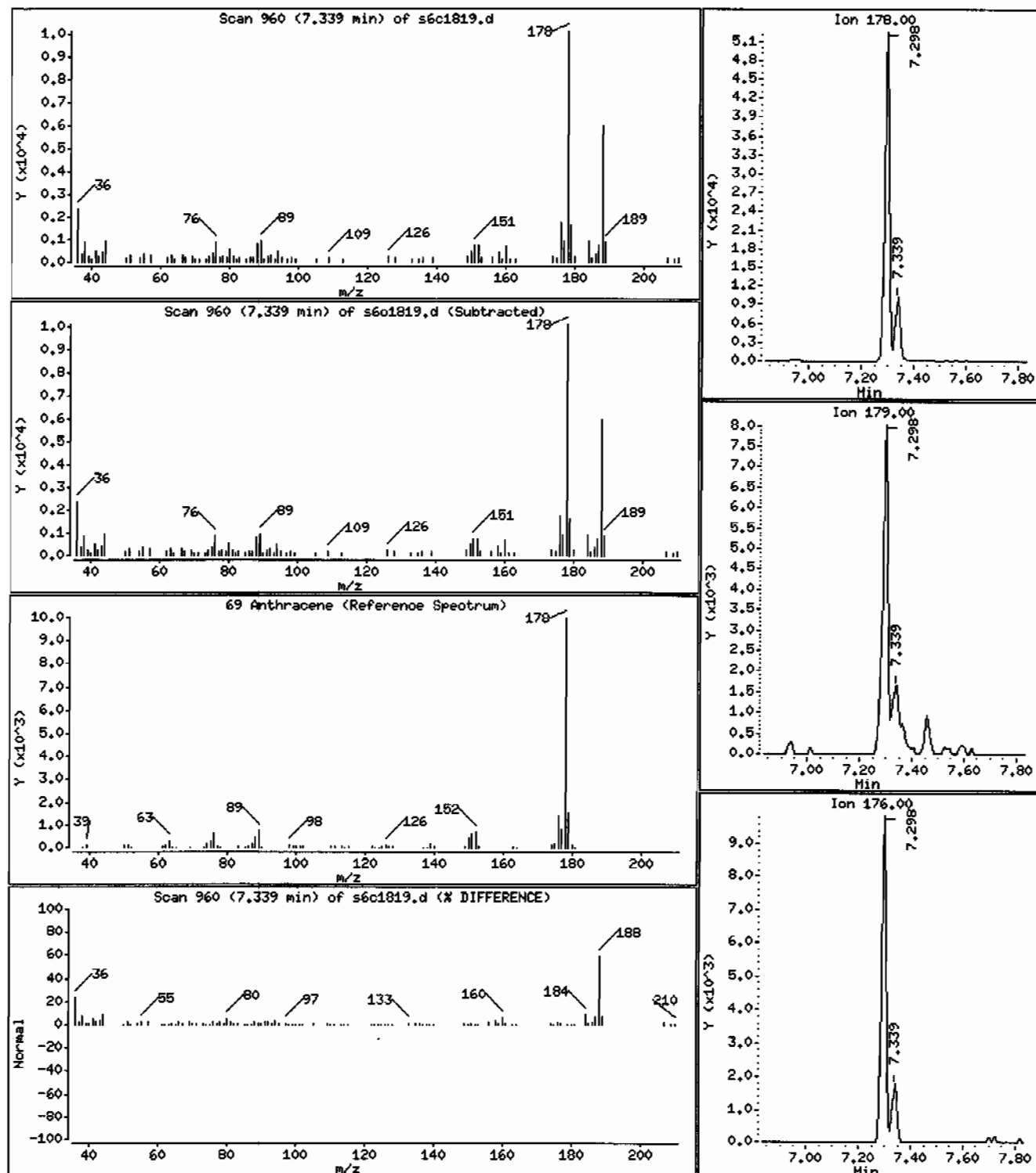
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 46.0 ug/Kg





Date : 18-MAR-2010 15:04

Client ID: RE36-10-8464

Instrument: MSD6.i

Sample Info: 1248244001196097114ISVH11ILANL

Volume Injected (uL): 0.5

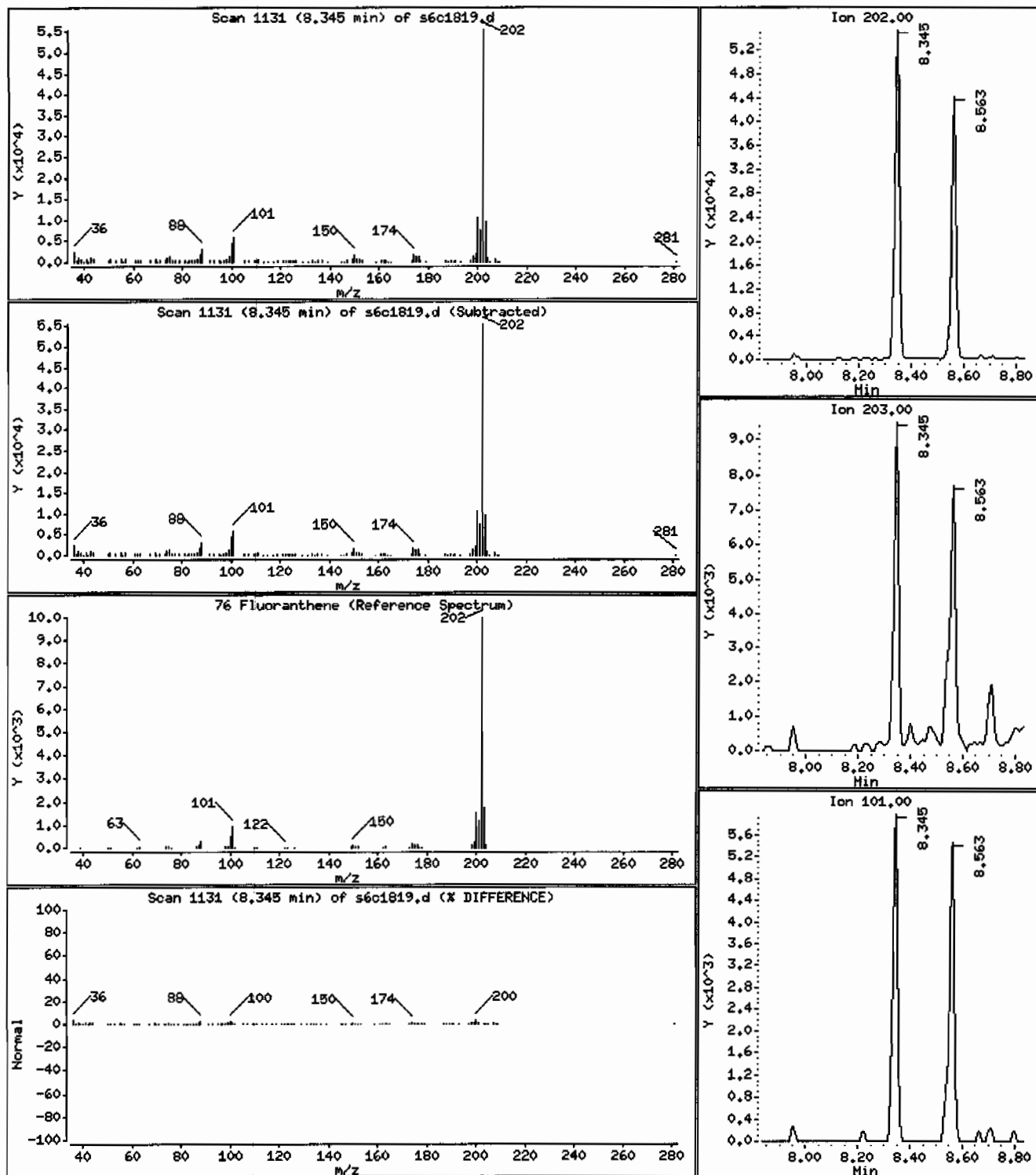
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 236 ug/Kg





Date : 18-MAR-2010 15:04

Client ID: RE36-10-8464

Instrument: MSD6.i

Sample Info: 124824400196097114ISVH11ILANL

Volume Injected (uL): 0.5

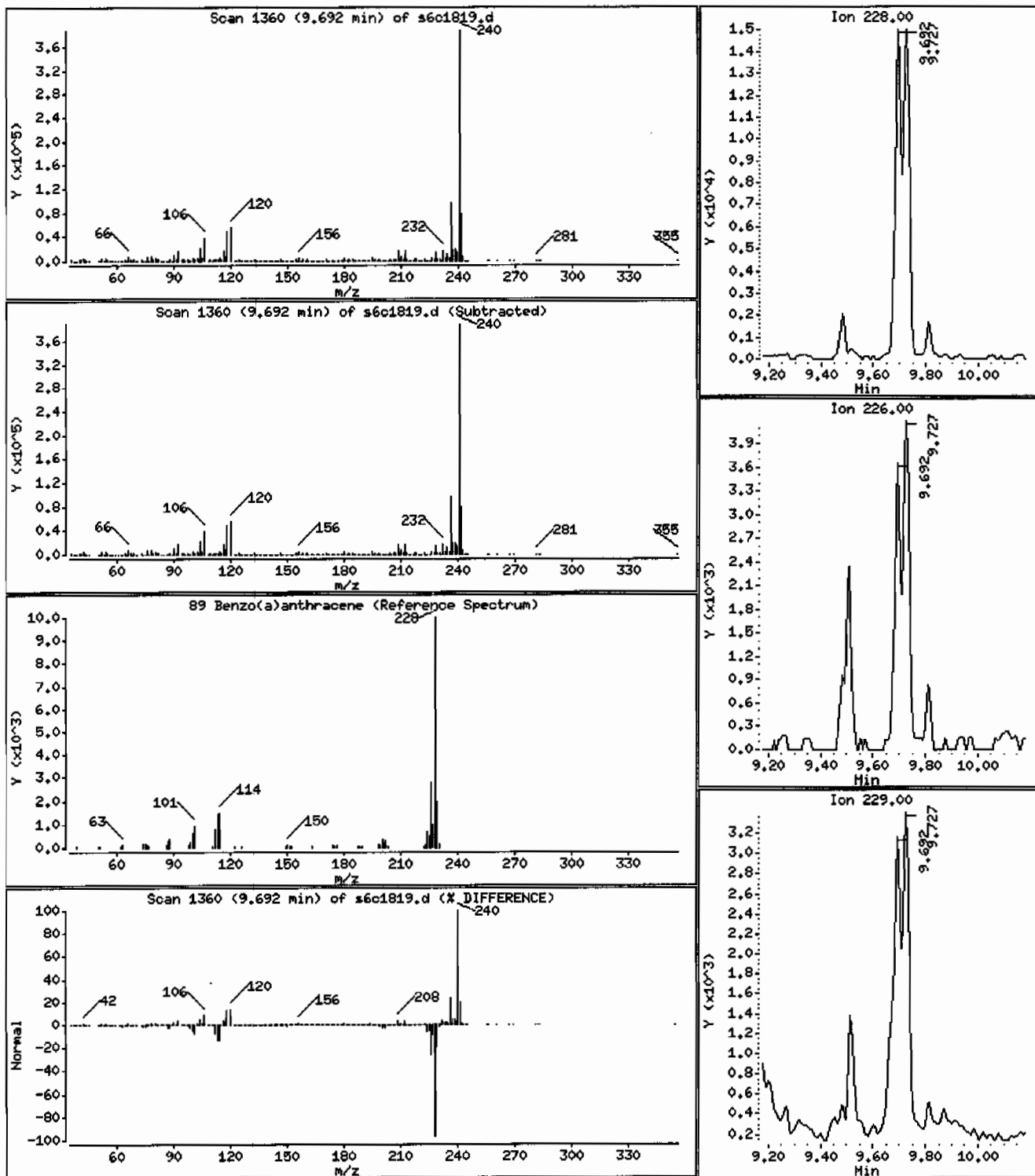
Operator: nagi

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 106 ug/Kg





Date : 18-MAR-2010 15:04

Client ID: RE36-10-8464

Instrument: MSD6.i

Sample Info: 1248244001196097114ISVH11ILANL

Volume Injected (uL): 0.5

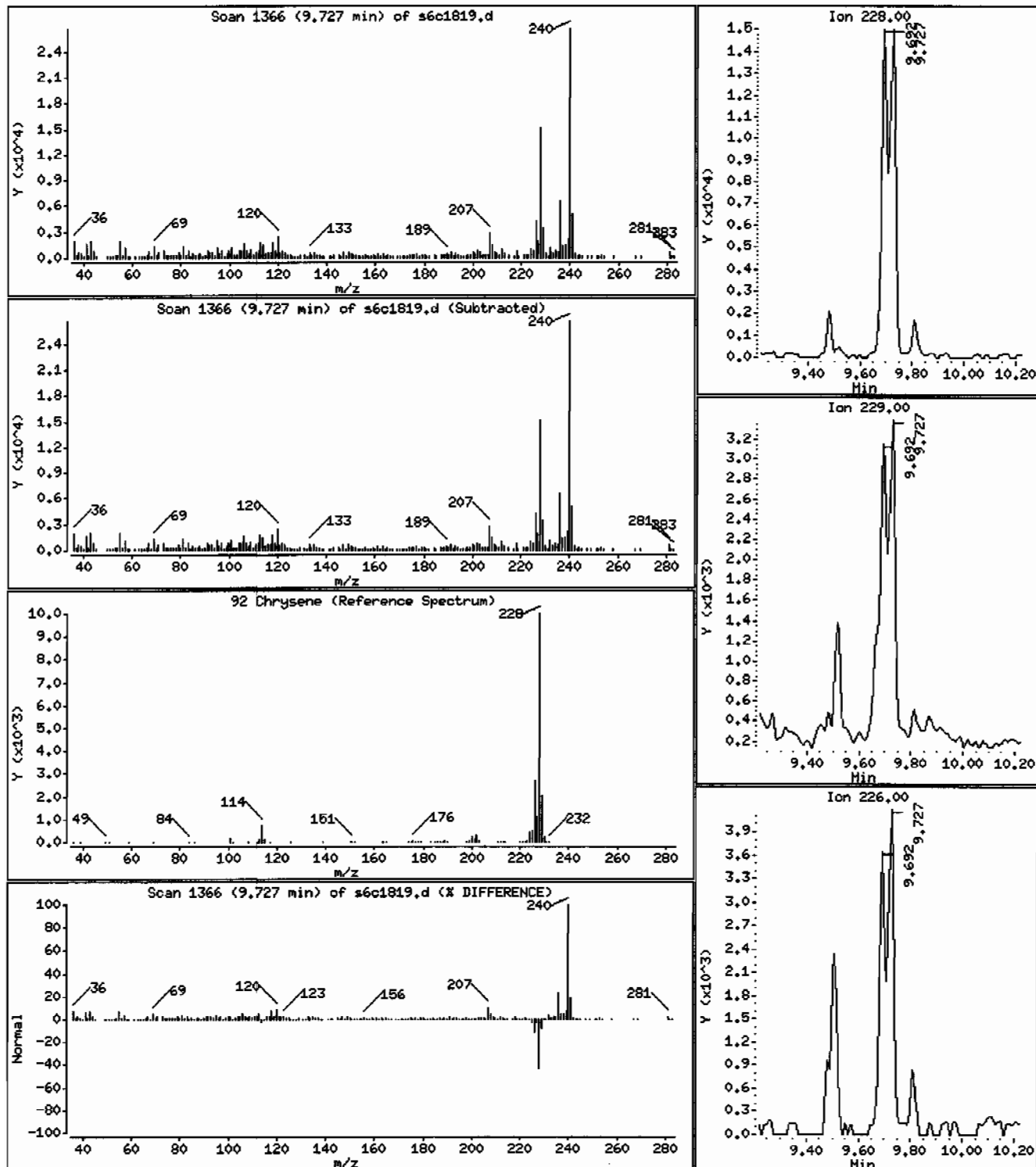
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 106 ug/Kg





Date : 18-MAR-2010 15:04

Client ID: RE36-10-8464

Instrument: MSD6.i

Sample Info: 124824400196097114ISVH11ILANL

Volume Injected (uL): 0.5

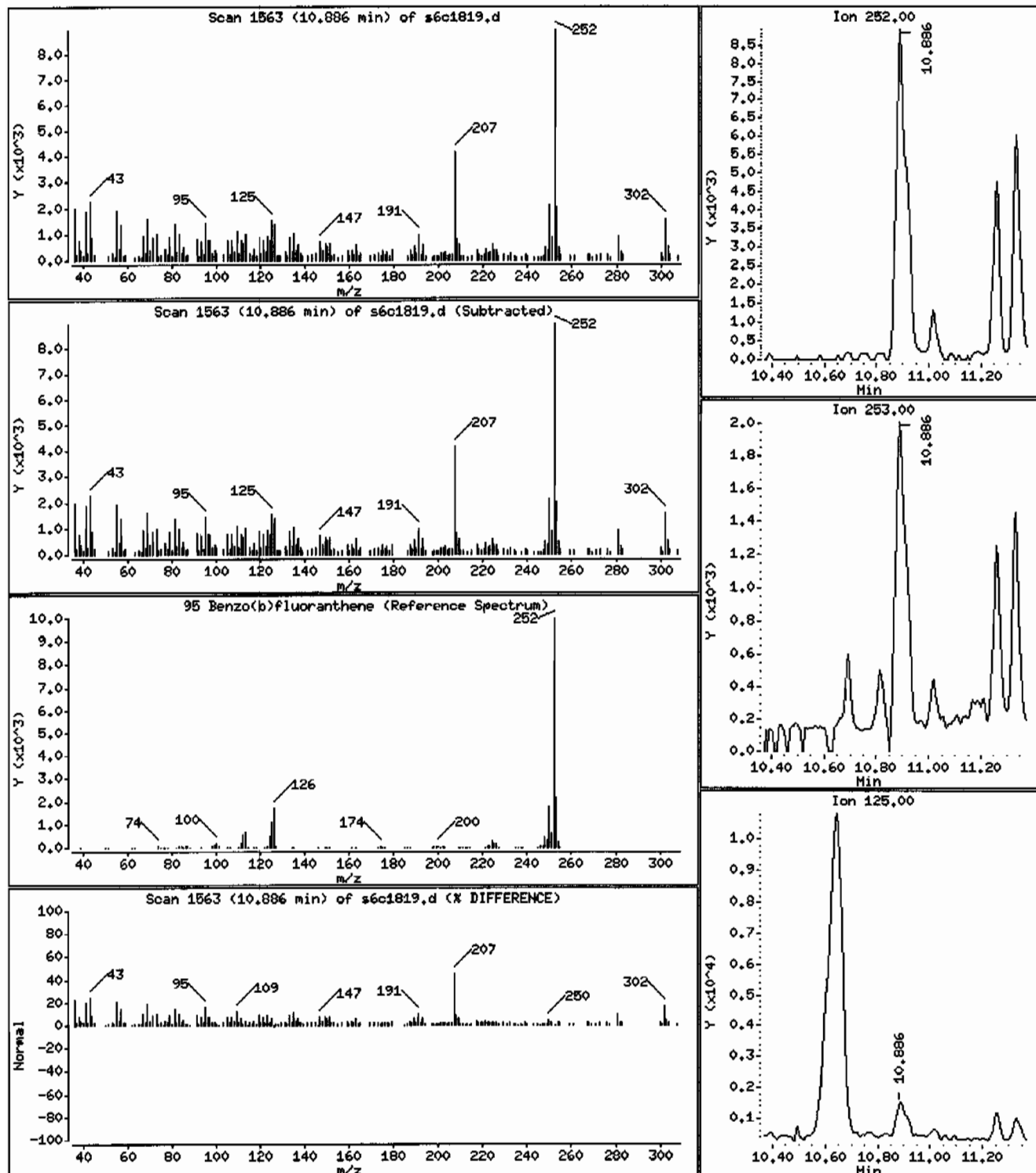
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 155 ug/Kg





Date : 18-MAR-2010 15:04

Client ID: RE36-10-8464

Instrument: MSD6.i

Sample Info: 124824400196097114ISVH11ILANL

Volume Injected (uL): 0.5

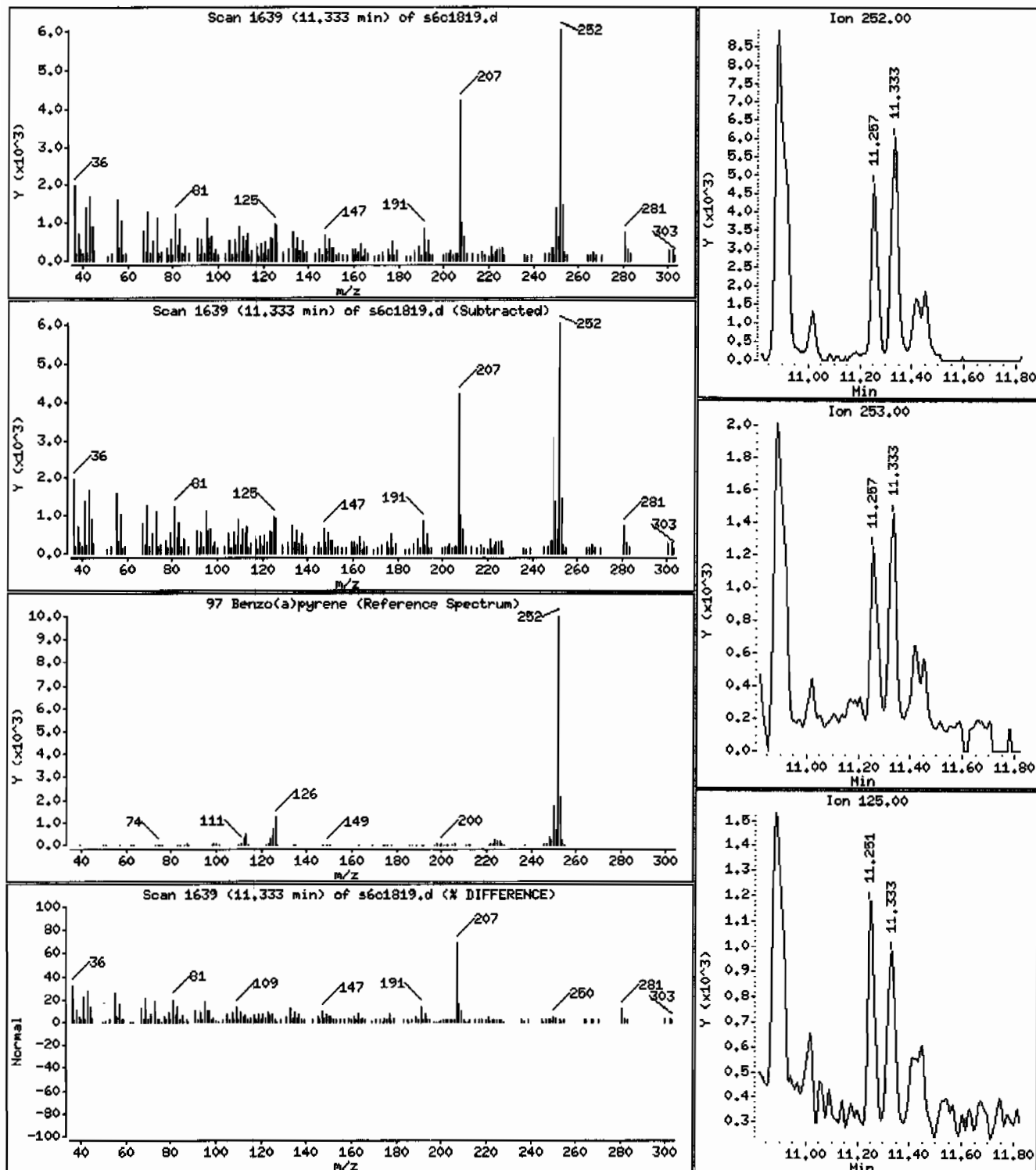
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 86,3 ug/Kg





Date: 18-MAR-2010 15:04

Client ID: RE36-10-8464

Instrument: MSD6.i

Sample Info: 12482440011960971141SVH111LANL

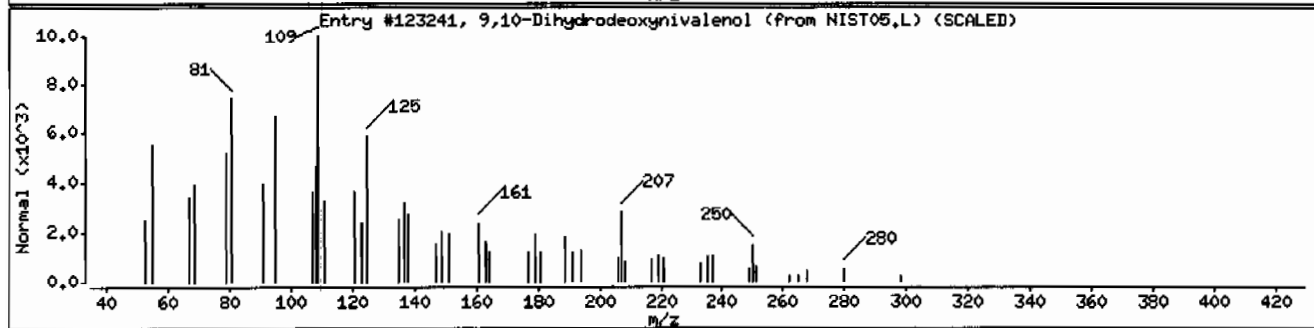
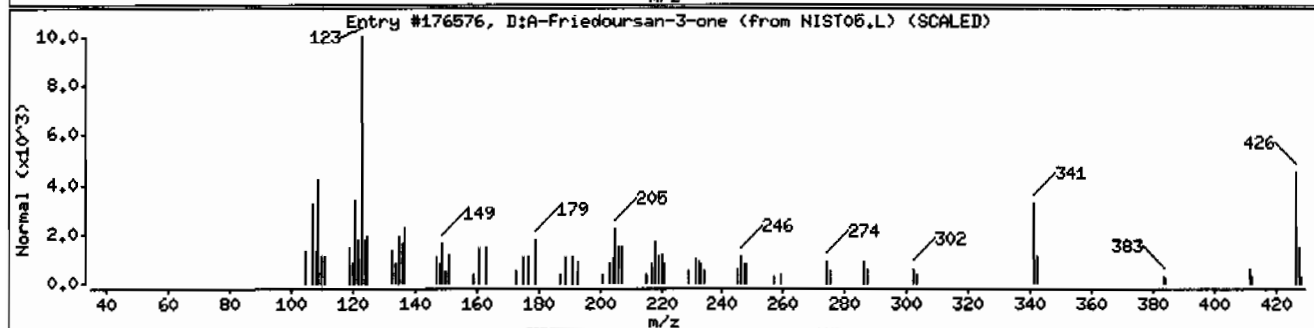
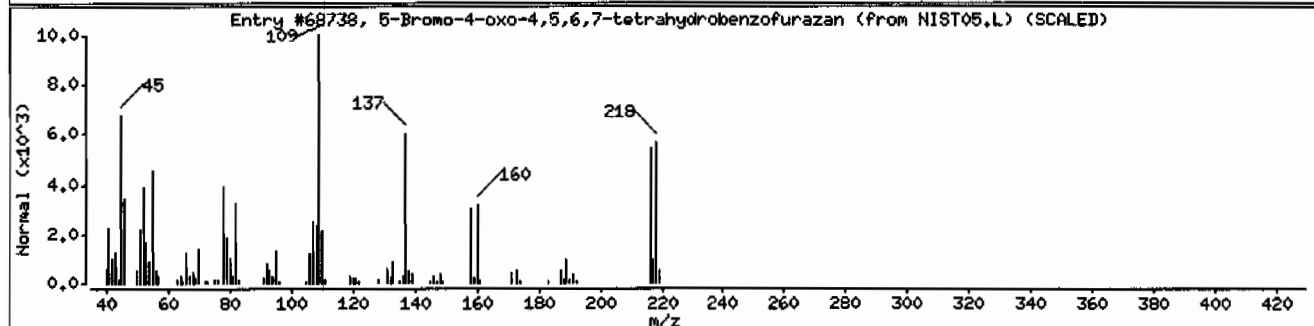
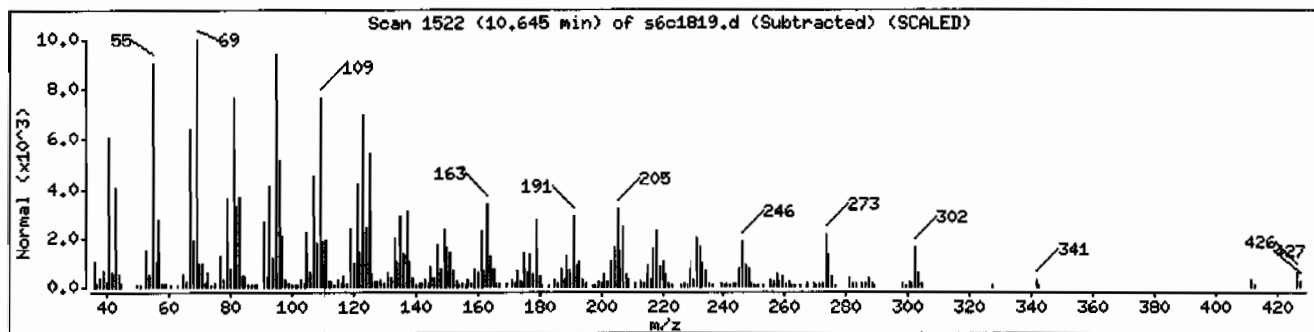
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofuran	300574-36-1	NIST05.L	68738	90	C6H5BrN2O2	216
D:A-Friedoursan-3-one	89950-00-5	NIST05.L	176576	87	C30H50O	426
9,10-Dihydrodeoxynivalenol	123505-36-2	NIST05.L	123241	64	C15H22O6	298





Date : 18-MAR-2010 15:04

Client ID: RE36-10-8464

Instrument: MSD6.i

Sample Info: 1248244001960971141SVH11ILANL

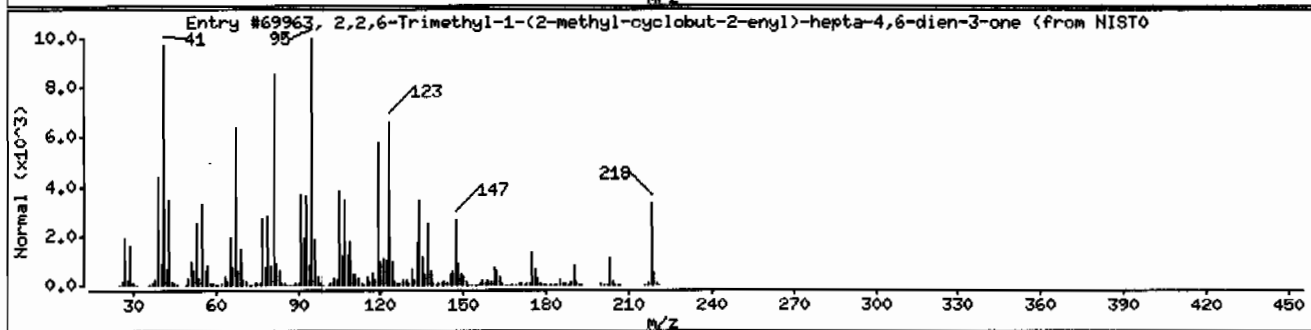
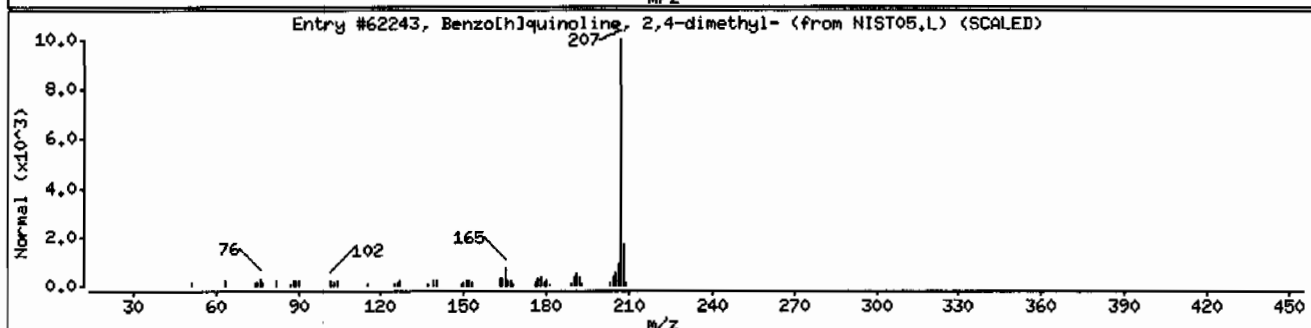
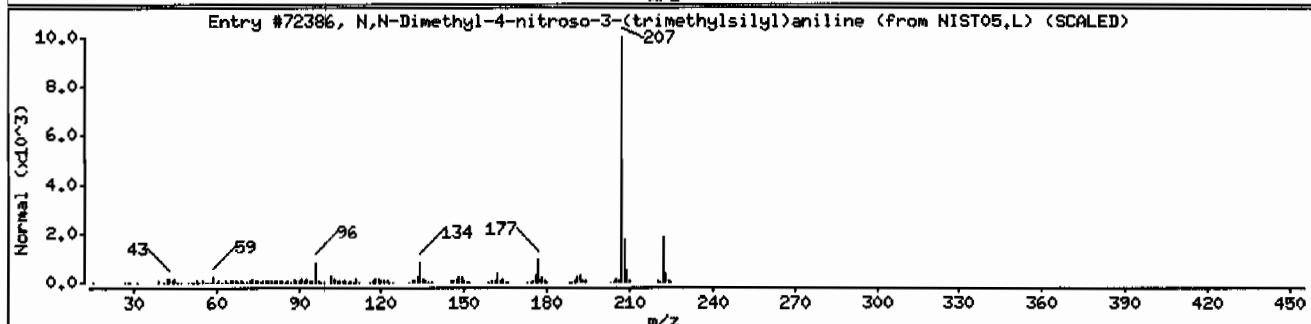
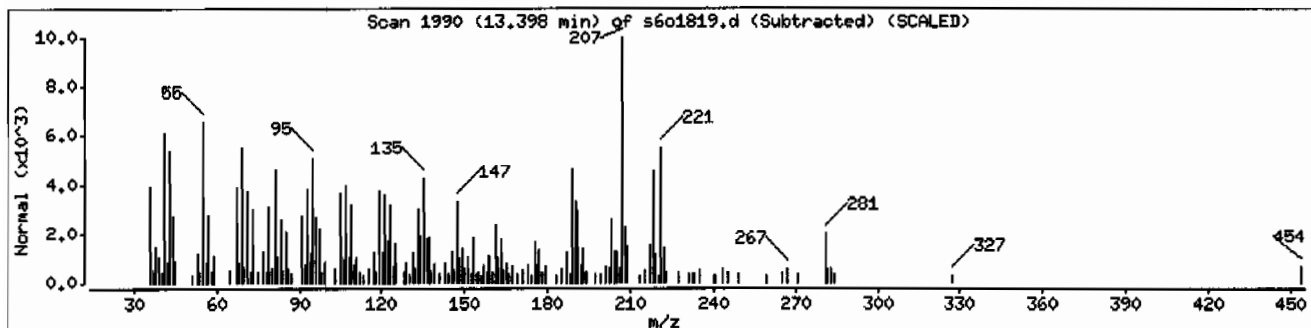
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N,N-Dimethyl-4-nitroso-3-(trimethylsilyl)	17993-84-9	NIST05.L	72386	25	C <sub>11</sub> H <sub>18</sub> N <sub>2</sub> O <sub>3</sub> i	222
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	25	C <sub>15</sub> H <sub>13</sub> N	207
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-en	1000188-72-8	NIST05.L	69963	25	C <sub>16</sub> H <sub>22</sub> O	218





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

SDG Number: 10-2137  
Lab Sample ID: 248244003

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.19 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 11.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8471  
Batch ID: 960971  
Run Date: 03/18/2010 11:32  
Prep Date: 03/04/2010 23:22  
Data File: s6c1810.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	374	ug/kg	74.8	374
108-95-2	Phenol	U	374	ug/kg	74.8	374
95-57-8	2-Chlorophenol	U	374	ug/kg	74.8	374
106-46-7	1,4-Dichlorobenzene	U	374	ug/kg	74.8	374
621-64-7	N-Nitrosodipropylamine	U	374	ug/kg	74.8	374
59-50-7	4-Chloro-3-methylphenol	U	374	ug/kg	74.8	374
83-32-9	Acenaphthene	U	37.4	ug/kg	12.3	37.4
121-14-2	2,4-Dinitrotoluene	U	374	ug/kg	37.4	374
100-02-7	4-Nitrophenol	U	374	ug/kg	123	374
87-86-5	Pentachlorophenol	U	374	ug/kg	93.5	374
129-00-0	Pyrene	U	37.4	ug/kg	11.2	37.4
110-86-1	Pyridine	U	374	ug/kg	74.8	374
62-53-3	Aniline	U	374	ug/kg	112	374
111-44-4	bis(2-Chloroethyl) ether	U	374	ug/kg	74.8	374
541-73-1	1,3-Dichlorobenzene	U	374	ug/kg	74.8	374
100-51-6	Benzyl alcohol	U	374	ug/kg	112	374
95-50-1	1,2-Dichlorobenzene	U	374	ug/kg	74.8	374
108-60-1	bis(2-Chloroisopropyl)ether	U	374	ug/kg	74.8	374
95-48-7	o-Cresol	U	374	ug/kg	74.8	374
65794-96-9	m,p-Cresols	U	374	ug/kg	112	374
67-72-1	Hexachloroethane	U	374	ug/kg	74.8	374
98-95-3	Nitrobenzene	U	374	ug/kg	74.8	374
78-59-1	Isophorone	U	374	ug/kg	74.8	374
88-75-5	2-Nitrophenol	U	374	ug/kg	74.8	374
105-67-9	2,4-Dimethylphenol	U	374	ug/kg	131	374
111-91-1	bis(2-Chloroethoxy)methane	U	374	ug/kg	74.8	374
120-83-2	2,4-Dichlorophenol	U	374	ug/kg	74.8	374
65-85-0	Benzoic acid	U	748	ug/kg	187	748
91-20-3	Naphthalene	U	37.4	ug/kg	11.2	37.4
106-47-8	4-Chloroaniline	U	374	ug/kg	74.8	374
87-68-3	Hexachlorobutadiene	U	374	ug/kg	74.8	374
91-57-6	2-Methylnaphthalene	U	37.4	ug/kg	7.48	37.4
77-47-4	Hexachlorocyclopentadiene	U	374	ug/kg	74.8	374
88-06-2	2,4,6-Trichlorophenol	U	374	ug/kg	74.8	374
95-95-4	2,4,5-Trichlorophenol	U	374	ug/kg	74.8	374
91-58-7	2-Chloronaphthalene	U	37.4	ug/kg	12.3	37.4
88-74-4	2-Nitroaniline	U	374	ug/kg	74.8	374
99-09-2	<i>o</i> -Nitroaniline	U	374	ug/kg	74.8	374
	3-Nitroaniline					



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

<b>SDG Number:</b> 10-2137	<b>Date Collected:</b> 02/24/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248244003	<b>Date Received:</b> 02/27/2010 09:10	<b>%Moisture:</b> 11.5
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-8471	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 960971	<b>Inst:</b> MSD6.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/18/2010 11:32	<b>Analyst:</b> NAG1	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/04/2010 23:22	<b>Aliquot:</b> 30.19 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s6c1810.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m-Nitroaniline</i>					
131-11-3	Dimethylphthalate	U	374	ug/kg	74.8	374
606-20-2	2,6-Dinitrotoluene	U	374	ug/kg	37.4	374
208-96-8	Acenaphthylene	U	37.4	ug/kg	11.2	37.4
51-28-5	2,4-Dinitrophenol	U	748	ug/kg	142	748
132-64-9	Dibenzofuran	U	374	ug/kg	74.8	374
84-66-2	Diethylphthalate	U	374	ug/kg	74.8	374
86-73-7	Fluorene	U	37.4	ug/kg	11.2	37.4
7005-72-3	4-Chlorophenylphenylether	U	374	ug/kg	74.8	374
534-52-1	2-Methyl-4,6-dinitrophenol	U	374	ug/kg	74.8	374
100-01-6	4-Nitroaniline	U	374	ug/kg	112	374
	<i>p-Nitroaniline</i>					
122-39-4	Diphenylamine	U	374	ug/kg	74.8	374
122-66-7	Azobenzene	U	374	ug/kg	74.8	374
	<i>1,2-Diphenylhydrazine</i>					
101-55-3	4-Bromophenylphenylether	U	374	ug/kg	74.8	374
118-74-1	Hexachlorobenzene	U	374	ug/kg	74.8	374
85-01-8	Phenanthrene	U	37.4	ug/kg	11.2	37.4
120-12-7	Anthracene	U	37.4	ug/kg	7.48	37.4
84-74-2	Di-n-butylphthalate	U	374	ug/kg	74.8	374
206-44-0	Fluoranthene	U	37.4	ug/kg	11.2	37.4
85-68-7	Butylbenzylphthalate	U	374	ug/kg	74.8	374
56-55-3	Benzo(a)anthracene	U	37.4	ug/kg	11.2	37.4
91-94-1	3,3'-Dichlorobenzidine	U	374	ug/kg	112	374
218-01-9	Chrysene	U	37.4	ug/kg	11.2	37.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	374	ug/kg	74.8	374
117-84-0	Di-n-octylphthalate	U	374	ug/kg	74.8	374
205-99-2	Benzo(b)fluoranthene	U	37.4	ug/kg	11.2	37.4
207-08-9	Benzo(k)fluoranthene	U	37.4	ug/kg	11.2	37.4
50-32-8	Benzo(a)pyrene	U	37.4	ug/kg	11.2	37.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.4	ug/kg	11.2	37.4
53-70-3	Dibenzo(a,h)anthracene	U	37.4	ug/kg	11.2	37.4
191-24-2	Benzo(ghi)perylene	U	37.4	ug/kg	11.2	37.4
120-82-1	1,2,4-Trichlorobenzene	U	374	ug/kg	74.8	374

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3	309	ug/kg		JA
559-74-0	Friedelan-3-one	10.65	700	ug/kg	95	NJ



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244003	Date Received: 02/27/2010 09:10	%Moisture: 11.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8471	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 11:32	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.19 g	Final Volume: 1 mL
Data File: s6c1810.d	Column: J&W DB-5MS	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		10.89	899	ug/kg		J



GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1810.d  
 Lab Smp Id: 248244003 Client Smp ID: RE36-10-8471  
 Inj Date : 18-MAR-2010 11:32  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |248244003|960971|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 10  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2137.sub  
 Target Version: 3.50  
 Processing Host: hpclpl1

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	30.19000	weight of sample
M	11.47750	% 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	3.969	3.963	(1.000)	502517		40.0000	
* 29 Naphthalene-d8	136	4.840	4.834	(1.000)	1772746		40.0000	
* 46 Acenaphthene-d10	164	6.098	6.092	(1.000)	1091733		40.0000	
* 67 Phenanthrene-d10	188	7.281	7.269	(1.000)	1852853		40.0000	
* 91 Chrysene-d12	240	9.704	9.698	(1.000)	1623753		40.0000	
* 98 Perylene-d12	264	11.422	11.404	(1.000)	1415000		40.0000	
\$ 3 2-Fluorophenol	112	3.158	3.140	(0.795)	815545		58.3805	2180
\$ 5 Phenol-d5	99	3.675	3.669	(0.926)	1023743		57.6255	2160
\$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.894)	495211		29.2224	1090
\$ 39 2-Fluorobiphenyl	172	5.581	5.575	(0.915)	937847		33.2960	1240
\$ 60 2,4,6-Tribromophenol	329	6.698	6.692	(1.098)	225947		73.7532	2760
\$ 81 p-Terphenyl-d14	244	8.669	8.651	(0.893)	1065589		37.6595	1410



## ION RATIO REPORT

## SV REPORT

Data file: s6c1810.d

Report Date: 03/18/2010 14:56

Lab. ID: 248244003

SampleType: SAMPLE

Injection Date: 18-MAR-2010 11:32

Operator: nag1

Instrument: MSD6.i

Sample Info: |248244003|960971|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2137

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	53170	3.68	3.75	80-120	100	(T)
93	372	3.74	3.75	407-467	1	(Q)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	72768	4.33	4.20	80-120	100	(T)
42	45583	4.33	4.20	42-102	63	(T)
-----						
22	Isophorone	CAS#: 78-59-1				
82	495211	4.33	4.49	80-120	100	(T)
138	10897	4.83	4.49	0- 49	2	(T)
-----						
40	2-Chloronaphthalene	CAS#: 91-58-7				
162	1008782	6.10	5.68	80-120	100	(T)
164	1091733	6.10	5.68	3- 63	108	(QT)
127	3223	5.58	5.68	8- 68	0	(QT)
-----						
43	Dimethylphthalate	CAS#: 131-11-3				
163	199205	6.10	5.85	80-120	100	(T)
164	1091733	6.10	5.85	0- 41	548	(QT)
-----						
45	Acenaphthylene	CAS#: 208-96-8				
152	50834	5.58	5.99	80-120	100	(T)
151	49517	5.58	5.99	0- 50	97	(QT)
153	15933	5.58	5.99	0- 44	31	(T)
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	147732	6.10	6.20	80-120	100	(T)
89	1765	6.10	6.20	40-100	1	(QT)
63	1675	6.10	6.20	18- 78	1	(QT)
-----						
53 Fluorene		CAS#: 86-73-7				
166	13233	6.70	6.50	80-120	100	(T)
165	14482	6.70	6.50	61-121	109	(T)
167	4404	6.70	6.50	0- 44	33	(T)
-----						
55 2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1				
198	666	6.70	6.52	80-120	100	(T)
105	1677	6.70	6.52	10- 70	252	(QT)
51	1669	6.70	6.51	37- 97	250	(QT)
-----						
61 4-Bromophenylphenylether		CAS#: 101-55-3				
248	17482	6.70	6.87	80-120	100	(T)
141	104668	6.70	6.87	46-106	599	(QT)
250	34351	6.70	6.87	66-126	196	(QT)
-----						
69 Anthracene		CAS#: 120-12-7				
178	10442	7.30	7.33	80-120	100	( )
179	2703	7.29	7.33	0- 47	26	( )
176	1883	7.30	7.33	0- 48	18	( )

-----

Q qualifier indicates ion failed ratio requirement



GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1810.d  
 Lab Smp Id: 248244003 Client Smp ID: RE36-10-8471  
 Inj Date : 18-MAR-2010 11:32  
 Operator : nag1 Inst ID: MSD6.i  
 Smp Info : |248244003|960971|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 10  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2137.sub  
 Target Version: 3.50  
 Processing Host: hpclpl

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	30.19000	weight of sample
M	11.47750	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.969	3075182	40.000
* 98 Perylene-d12	11.422	3890025	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
2.999	634762	8.25657434	309	0		0	10

Unknown Aldol Condensate

CAS #:

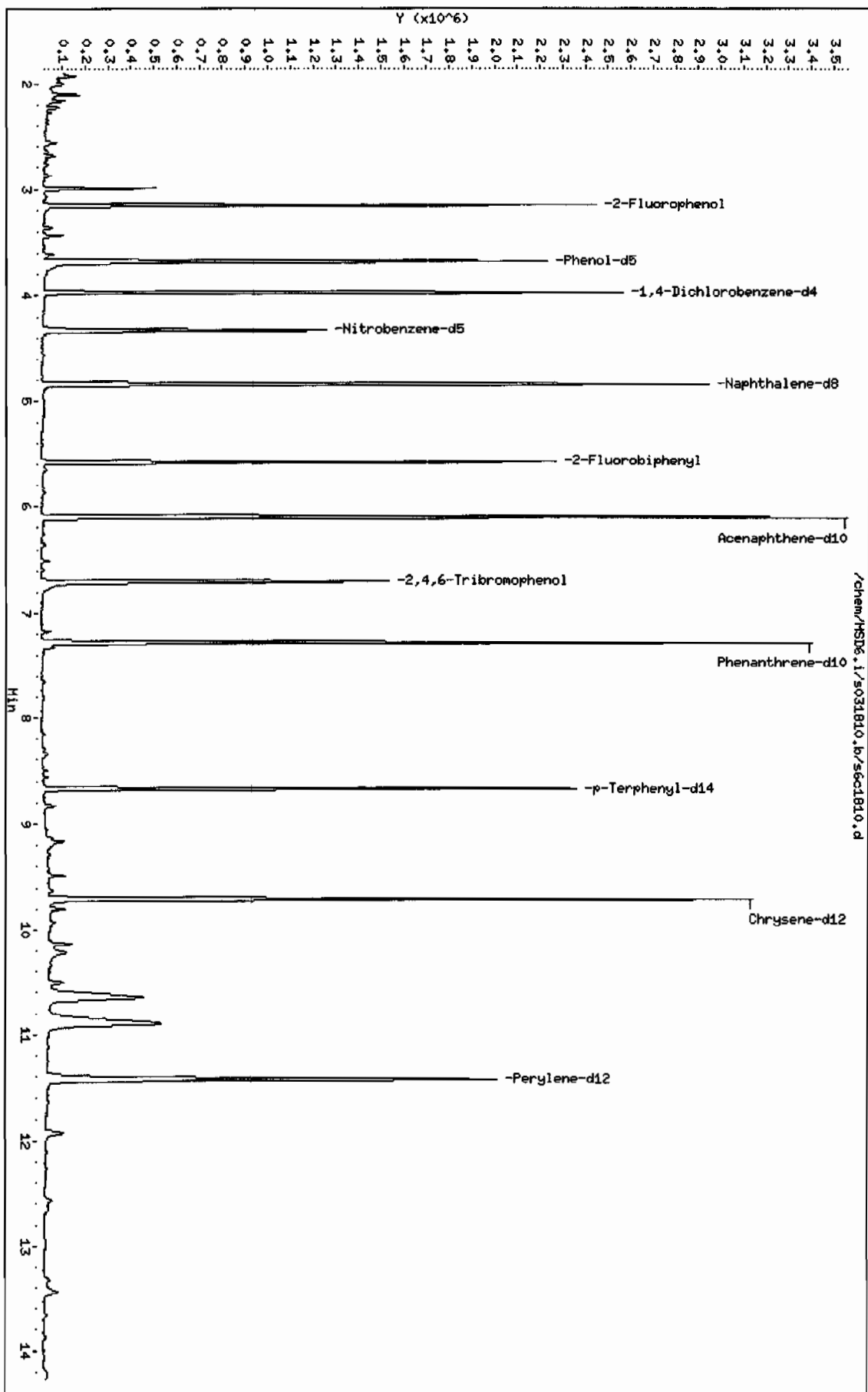


RT	AREA	CONCENTRATIONS		QUAL	QUANT		CPND #
		ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Friedelan-3-one				CAS #: 559-74-0			
10.645	1819777	18.7122388	700	95	NIST05.L	176566	98
Unknown				CAS #:			
10.892	2336861	24.0292566	899	0		0	98



Data File: /chem/MSD6.i/s031810.b/sec1810.d  
 Date : 18-MAR-2010 11:32  
 Client ID: RE36-10-8471  
 Sample Info: 124824003196097111SUM111LANL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: MSD6.i  
 Operator: nag1  
 Column diameter: 0.20





Date : 18-MAR-2010 11:32

Client ID: RE36-10-8471

Instrument: HSD6.i

Sample Info: 1248244003196097111SVMI1ILANL

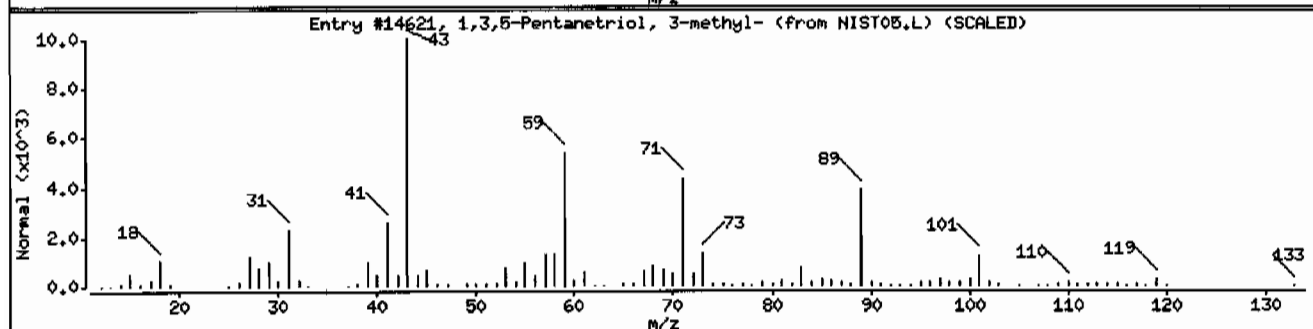
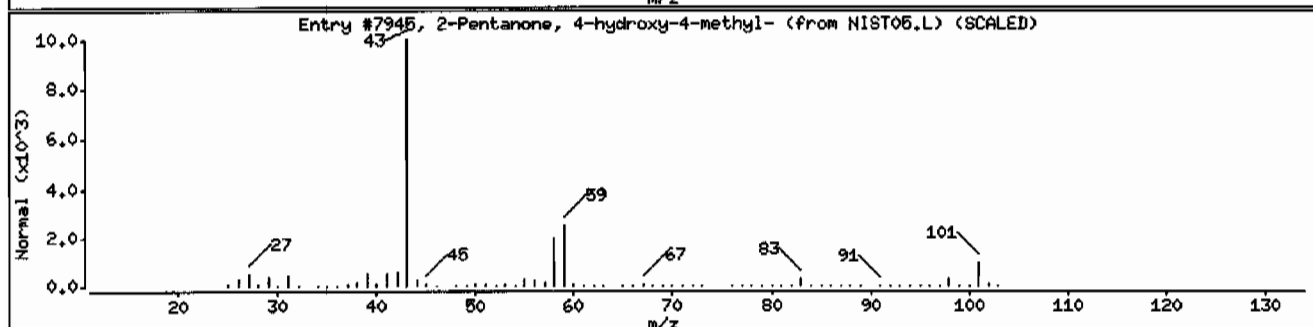
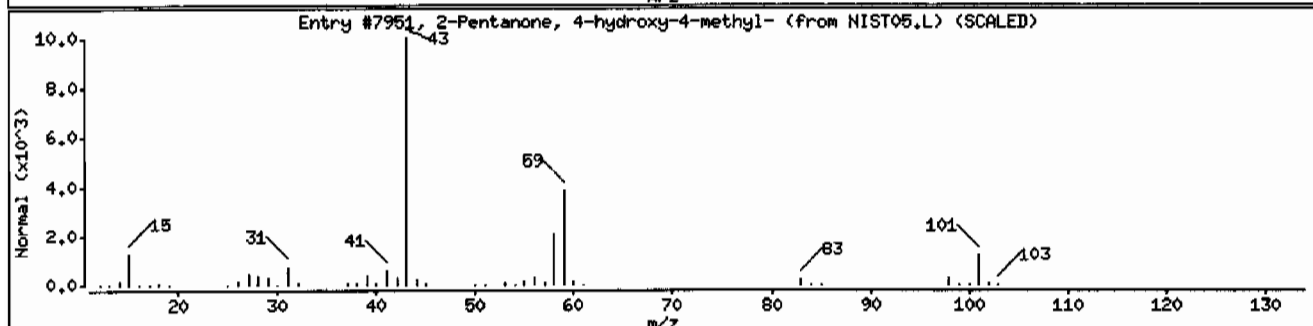
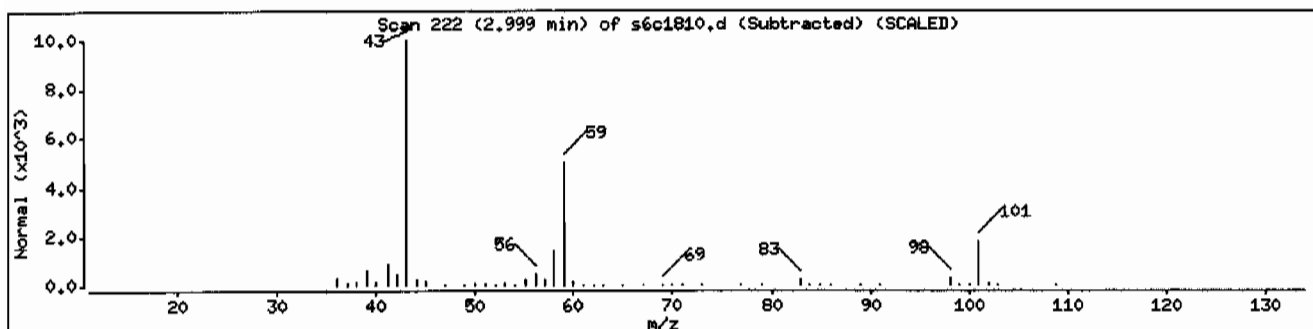
Volume Injected (uL): 0.5

Operator: nag1

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	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	45	C6H12O2	116
1,3,5-Pentanetriol, 3-methyl-	7564-64-9	NIST05.L	14621	39	C6H14O3	134





Date : 18-MAR-2010 11:32

Client ID: RE36-10-8471

Instrument: HSD6.i

Sample Info: 1248244003196097111SVH111LANL

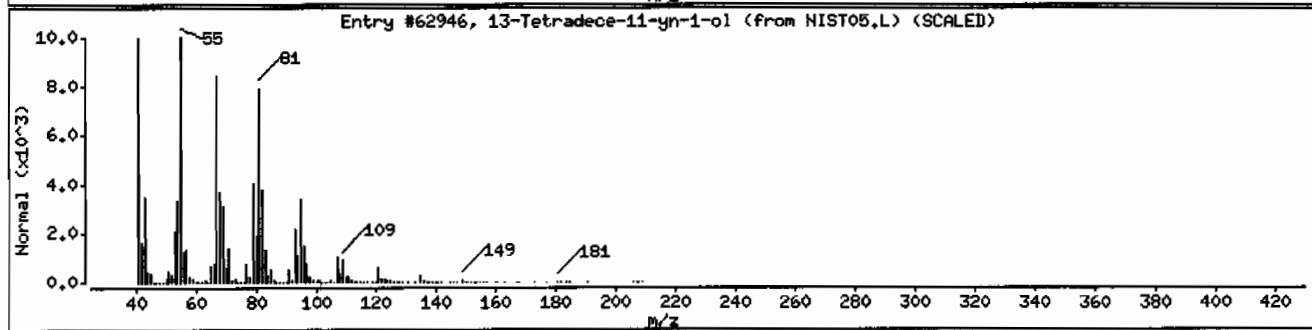
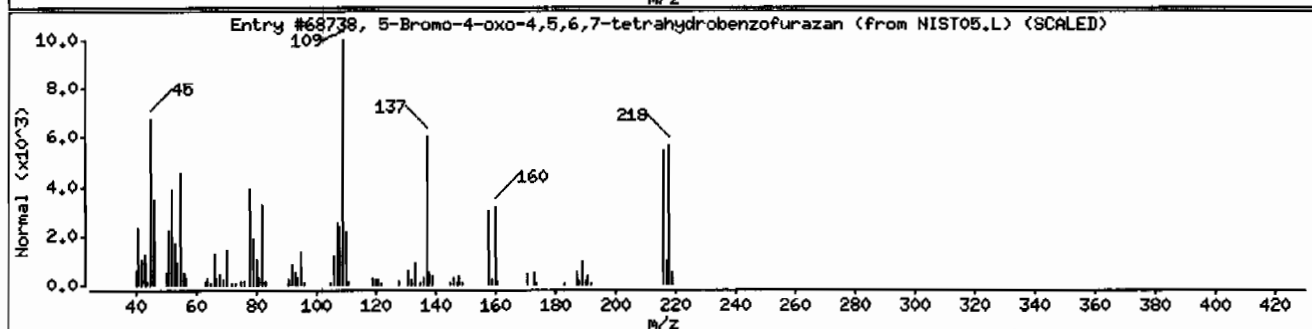
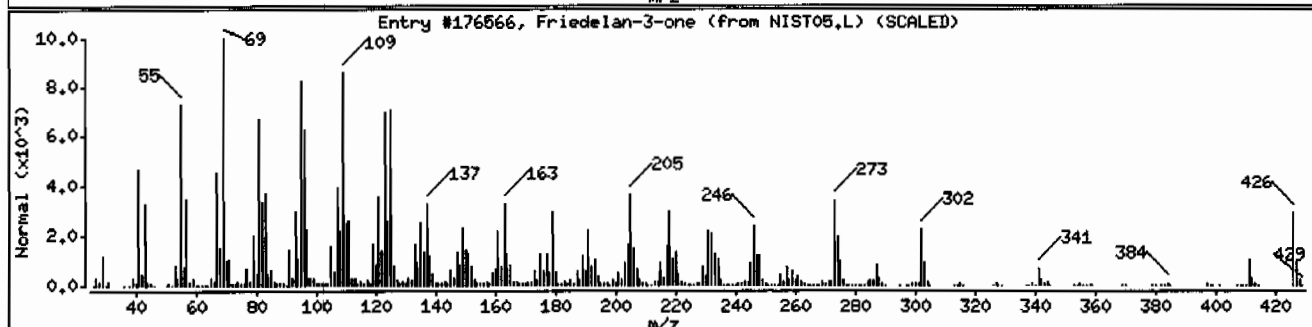
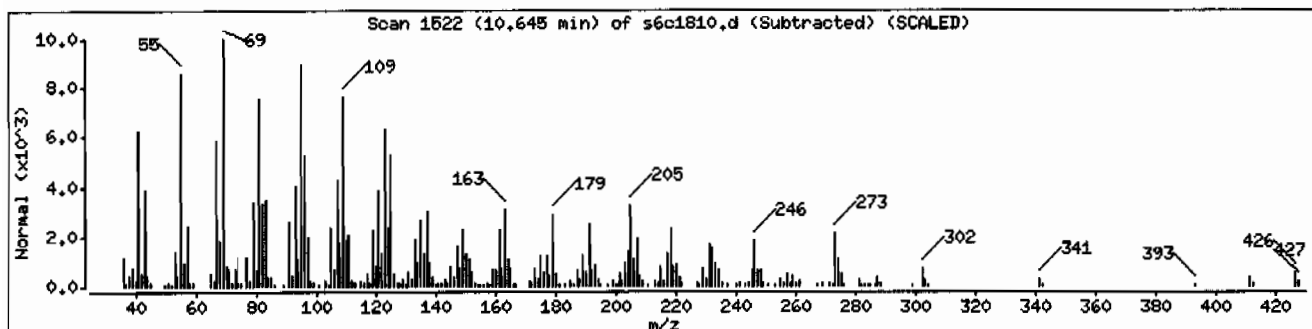
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Friedelan-3-one	559-74-0	NIST05.L	176566	95	C30H50O	426
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	300574-36-1	NIST05.L	68738	59	C6H5BrN2O2	216
13-Tetradec-11-yn-1-ol	1000131-00-4	NIST05.L	62946	58	C14H24O	208





Date: 18-MAR-2010 11:32

Client ID: RE36-10-8471

Instrument: MSD6.i

Sample Info: 1248244003196097111SVH111LANL

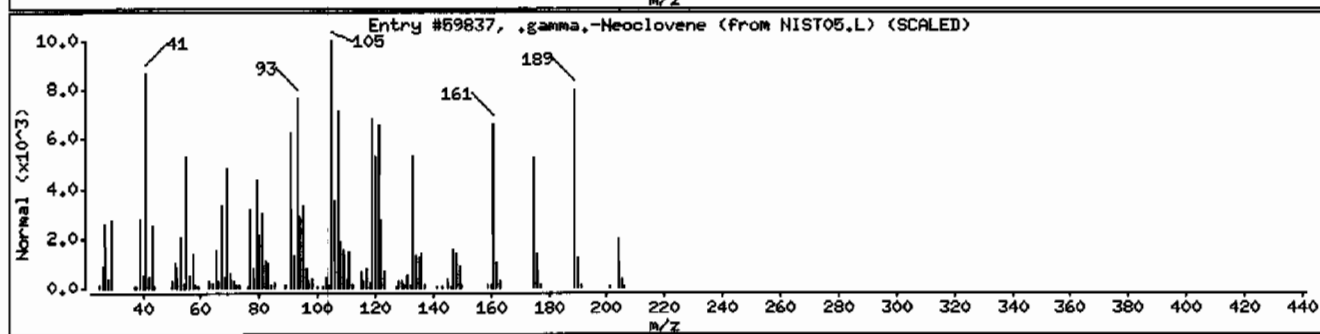
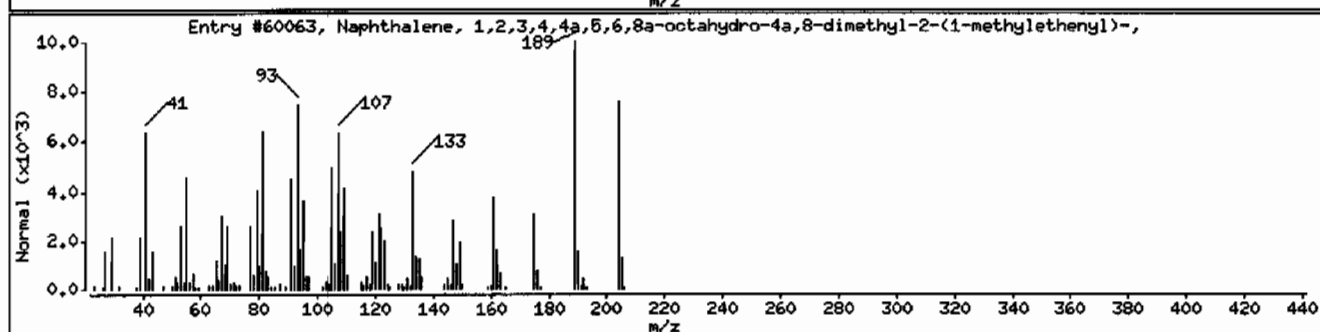
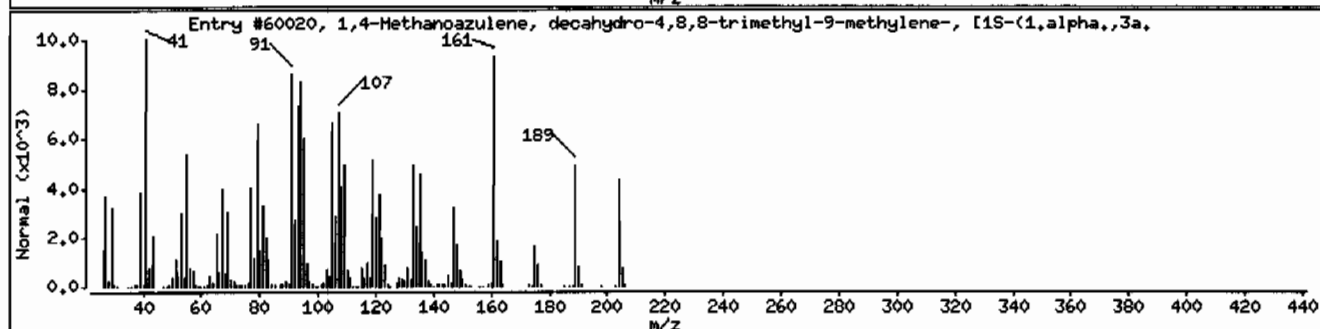
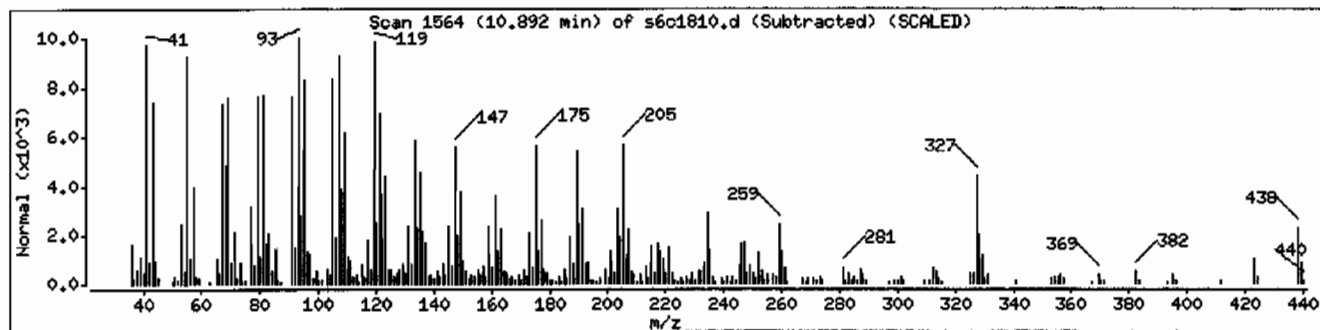
Volume Injected (UL): 0.5

Operator: nagi

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60020	64	C15H24	204
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro	473-13-2	NIST05.L	60063	49	C15H24	204
,gamma,-Neoclovene	1000156-11-7	NIST05.L	59837	46	C15H24	204





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

SDG Number: 10-2137  
Lab Sample ID: 248244002

Client ID: RE36-10-8475  
Batch ID: 960971  
Run Date: 03/18/2010 11:08  
Prep Date: 03/04/2010 23:22  
Data File: s6c1809.d

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.8  
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	365	ug/kg	72.9	365
108-95-2	Phenol	U	365	ug/kg	72.9	365
95-57-8	2-Chlorophenol	U	365	ug/kg	72.9	365
106-46-7	1,4-Dichlorobenzene	U	365	ug/kg	72.9	365
621-64-7	N-Nitrosodipropylamine	U	365	ug/kg	72.9	365
59-50-7	4-Chloro-3-methylphenol	U	365	ug/kg	72.9	365
83-32-9	Acenaphthene	U	36.5	ug/kg	12.0	36.5
121-14-2	2,4-Dinitrotoluene	U	365	ug/kg	36.5	365
100-02-7	4-Nitrophenol	U	365	ug/kg	120	365
87-86-5	Pentachlorophenol	U	365	ug/kg	91.1	365
129-00-0	Pyrene	U	36.5	ug/kg	10.9	36.5
110-86-1	Pyridine	U	365	ug/kg	72.9	365
62-53-3	Aniline	U	365	ug/kg	109	365
111-44-4	bis(2-Chloroethyl) ether	U	365	ug/kg	72.9	365
541-73-1	1,3-Dichlorobenzene	U	365	ug/kg	72.9	365
100-51-6	Benzyl alcohol	U	365	ug/kg	109	365
95-50-1	1,2-Dichlorobenzene	U	365	ug/kg	72.9	365
108-60-1	bis(2-Chloroisopropyl)ether	U	365	ug/kg	72.9	365
95-48-7	o-Cresol	U	365	ug/kg	72.9	365
65794-96-9	m,p-Cresols	U	365	ug/kg	109	365
67-72-1	Hexachloroethane	U	365	ug/kg	72.9	365
98-95-3	Nitrobenzene	U	365	ug/kg	72.9	365
78-59-1	Isophorone	U	365	ug/kg	72.9	365
88-75-5	2-Nitrophenol	U	365	ug/kg	72.9	365
105-67-9	2,4-Dimethylphenol	U	365	ug/kg	128	365
111-91-1	bis(2-Chloroethoxy)methane	U	365	ug/kg	72.9	365
120-83-2	2,4-Dichlorophenol	U	365	ug/kg	72.9	365
65-85-0	Benzoic acid	U	729	ug/kg	182	729
91-20-3	Naphthalene	U	36.5	ug/kg	10.9	36.5
106-47-8	4-Chloroaniline	U	365	ug/kg	72.9	365
87-68-3	Hexachlorobutadiene	U	365	ug/kg	72.9	365
91-57-6	2-Methylnaphthalene	U	36.5	ug/kg	7.29	36.5
77-47-4	Hexachlorocyclopentadiene	U	365	ug/kg	72.9	365
88-06-2	2,4,6-Trichlorophenol	U	365	ug/kg	72.9	365
95-95-4	2,4,5-Trichlorophenol	U	365	ug/kg	72.9	365
91-58-7	2-Chloronaphthalene	U	36.5	ug/kg	12.0	36.5
88-74-4	2-Nitroaniline	U	365	ug/kg	72.9	365
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	365	ug/kg	72.9	365



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244002	Date Received: 02/27/2010 09:10	%Moisture: 8.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8475	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 11:08	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s6c1809.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	365	ug/kg	72.9	365
606-20-2	2,6-Dinitrotoluene	U	365	ug/kg	36.5	365
208-96-8	Acenaphthylene	U	36.5	ug/kg	10.9	36.5
51-28-5	2,4-Dinitrophenol	U	729	ug/kg	139	729
132-64-9	Dibenzofuran	U	365	ug/kg	72.9	365
84-66-2	Diethylphthalate	U	365	ug/kg	72.9	365
86-73-7	Fluorene	U	36.5	ug/kg	10.9	36.5
7005-72-3	4-Chlorophenylphenylether	U	365	ug/kg	72.9	365
534-52-1	2-Methyl-4,6-dinitrophenol	U	365	ug/kg	72.9	365
100-01-6	4-Nitroaniline	U	365	ug/kg	109	365
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	365	ug/kg	72.9	365
122-66-7	Azobenzene	U	365	ug/kg	72.9	365
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	365	ug/kg	72.9	365
118-74-1	Hexachlorobenzene	U	365	ug/kg	72.9	365
85-01-8	Phenanthrene	U	36.5	ug/kg	10.9	36.5
120-12-7	Anthracene	U	36.5	ug/kg	7.29	36.5
84-74-2	Di-n-butylphthalate	U	365	ug/kg	72.9	365
206-44-0	Fluoranthene	U	36.5	ug/kg	10.9	36.5
85-68-7	Butylbenzylphthalate	U	365	ug/kg	72.9	365
56-55-3	Benzo(a)anthracene	U	36.5	ug/kg	10.9	36.5
91-94-1	3,3'-Dichlorobenzidine	U	365	ug/kg	109	365
218-01-9	Chrysene	U	36.5	ug/kg	10.9	36.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	365	ug/kg	72.9	365
117-84-0	Di-n-octylphthalate	U	365	ug/kg	72.9	365
205-99-2	Benzo(b)fluoranthene	U	36.5	ug/kg	10.9	36.5
207-08-9	Benzo(k)fluoranthene	U	36.5	ug/kg	10.9	36.5
50-32-8	Benzo(a)pyrene	U	36.5	ug/kg	10.9	36.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.5	ug/kg	10.9	36.5
53-70-3	Dibenzo(a,h)anthracene	U	36.5	ug/kg	10.9	36.5
191-24-2	Benzo(ghi)perylene	U	36.5	ug/kg	10.9	36.5
120-82-1	1,2,4-Trichlorobenzene	U	365	ug/kg	72.9	365

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3	289	ug/kg		JA
123-35-3	.beta.-Myrcene	3.77	244	ug/kg	87	NJ



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244002	Date Received: 02/27/2010 09:10	%Moisture: 8.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8475	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 11:08	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s6c1809.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
1000109-88-1	(+)-Cycloisosativene	5.63	176	ug/kg	98	NJ
	Unknown	5.65	147	ug/kg		J
112-95-8	Eicosane	10.92	177	ug/kg	96	NJ
	Unknown	13.41	190	ug/kg		J



GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1809.d  
Lab Smp Id: 248244002 Client Smp ID: RE36-10-8475  
Inj Date : 18-MAR-2010 11:08  
Operator : nag1 Inst ID: MSD6.i  
Smp Info : |248244002|960971|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 9  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2137.sub  
Target Version: 3.50  
Processing Host: hpc1p1

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	8.83730	% 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	3.969	3.963	(1.000)	503876	40.0000	
* 29 Naphthalene-d8	136	4.839	4.834	(1.000)	1815647	40.0000	
* 46 Acenaphthene-d10	164	6.098	6.092	(1.000)	1109503	40.0000	
* 67 Phenanthrene-d10	188	7.275	7.269	(1.000)	1886090	40.0000	
* 91 Chrysene-d12	240	9.704	9.698	(1.000)	1535818	40.0000	
* 98 Perylene-d12	264	11.421	11.404	(1.000)	1156738	40.0000	
\$ 3 2-Fluorophenol	112	3.157	3.140	(0.795)	893885	63.8159	2330
\$ 5 Phenol-d5	99	3.675	3.669	(0.926)	1154201	64.7936	2360
\$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.894)	562647	32.4172	1180
\$ 39 2-Fluorobiphenyl	172	5.581	5.575	(0.915)	1048338	36.6226	1340
\$ 60 2,4,6-Tribromophenol	329	6.698	6.692	(1.098)	252534	81.1115	2960
\$ 81 p-Terphenyl-d14	244	8.669	8.651	(0.893)	1151724	43.0342	1570



## ION RATIO REPORT

## SV REPORT

Data file: s6c1809.d

Report Date: 03/18/2010 14:55

Lab. ID: 248244002

SampleType: SAMPLE

Injection Date: 18-MAR-2010 11:08

Operator: nag1

Instrument: MSD6.i

Sample Info: |248244002|960971|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2137

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
1 N-Methyl-N-nitrosomethylamine				CAS#: 62-75-9		
74	91293	2.10	2.45	80-120	100	(T)
42	163406	2.10	2.45	76-136	179	(QT)
43	1136057	2.10	2.45	14- 74	1244	(QT)
-----						
4 Aniline				CAS#: 62-53-3		
66	58633	3.67	3.75	80-120	100	(T)
93	27292	3.65	3.75	407-467	47	(QT)
-----						
6 Phenol				CAS#: 108-95-2		
94	46845	3.54	3.68	80-120	100	(T)
66	8680	3.54	3.68	15- 75	19	(T)
65	33888	3.54	3.68	3- 63	72	(QT)
-----						
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	81222	4.33	4.20	80-120	100	(T)
42	50283	4.33	4.20	42-102	62	(T)
-----						
22 Isophorone				CAS#: 78-59-1		
82	562647	4.33	4.49	80-120	100	(T)
138	10481	4.84	4.49	0- 49	2	(T)
-----						
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	1024892	6.10	5.68	80-120	100	(T)
164	1109503	6.10	5.68	3- 63	108	(QT)
127	152	6.10	5.68	8- 68	0	(QT)
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
43 Dimethylphthalate				CAS#: 131-11-3		
163	202124	6.10	5.85	80-120	100	(T)
164	1109503	6.10	5.85	0- 41	549	(QT)
-----						
45 Acenaphthylene				CAS#: 208-96-8		
152	56859	5.58	5.99	80-120	100	(T)
151	54954	5.58	5.99	0- 50	97	(QT)
153	17928	5.58	5.99	0- 44	32	(T)
-----						
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	147878	6.10	6.20	80-120	100	(T)
89	1921	6.10	6.20	40-100	1	(QT)
63	2321	6.10	6.20	18- 78	2	(QT)
-----						
53 Fluorene				CAS#: 86-73-7		
166	15925	6.70	6.50	80-120	100	(T)
165	16711	6.70	6.50	61-121	105	(T)
167	4999	6.70	6.50	0- 44	31	(T)
-----						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	754	6.70	6.52	80-120	100	(T)
105	1765	6.70	6.52	10- 70	234	(QT)
51	1822	6.69	6.51	37- 97	242	(QT)
-----						
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	19094	6.70	6.87	80-120	100	(T)
141	114851	6.70	6.87	46-106	601	(QT)
250	38178	6.70	6.87	66-126	200	(QT)

Q qualifier indicates ion failed ratio requirement



Data File: /chem/MSD6.i/s031810.b/s6c1809.d  
Report Date: 18-Mar-2010 15:25

Page 1

GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1809.d  
Lab Smp Id: 248244002 Client Smp ID: RE36-10-8475  
Inj Date : 18-MAR-2010 11:08  
Operator : nagl Inst ID: MSD6.i  
Smp Info : |248244002|960971|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 9  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2137.sub  
Target Version: 3.50  
Processing Host: hpclp1

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	8.83730	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.969	3120875	40.000
* 46 Acenaphthene-d10	6.098	4628592	40.000
* 98 Perylene-d12	11.421	3311193	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

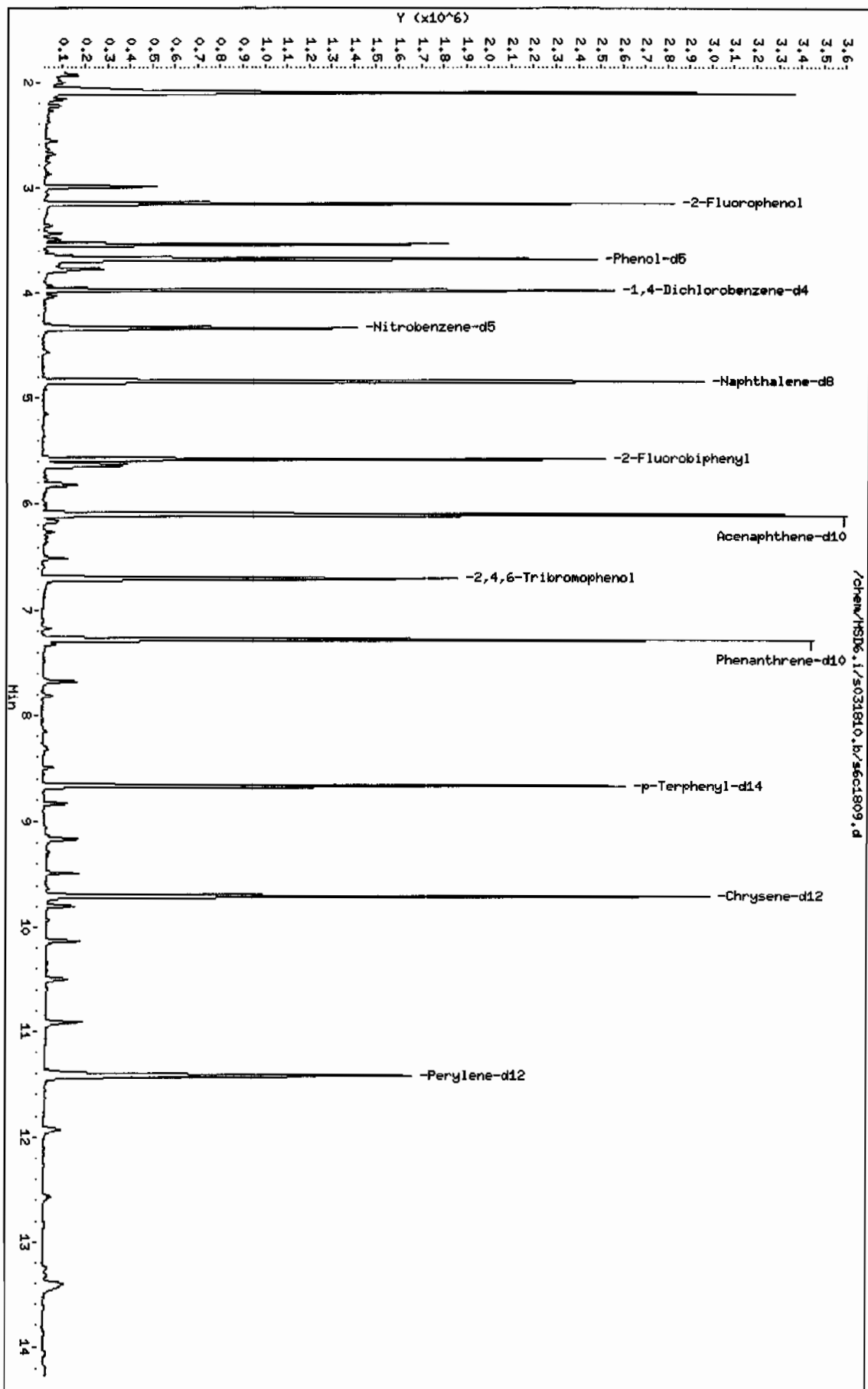


RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
====	====	=====	=====	====	=====	=====	=====
Unknown Aldol Condensate					CAS #:		
2.998	619228	7.93658707	289	0		0	10
.beta.-Myrcene					CAS #: 123-35-3		
3.769	522570	6.69773997	244	87	NIST05.L	15177	10
(+) -Cycloisosativene					CAS #: 1000109-88-1		
5.628	558459	4.82616697	176	98	NIST05.L	59845	46
Unknown					CAS #:		
5.645	467707	4.04189641	147	0		0	46
Eicosane					CAS #: 112-95-8		
10.916	402932	4.86751088	177	96	NIST05.L	113489	98
Unknown					CAS #:		
13.409	432140	5.22034753	190	0		0	98



Data File: /chem/MSD6.i/s031810.b/sec1809.d  
 Date: 18-Mar-2010 11:08  
 Client ID: RE36-10-8475  
 Sample Info: 1248244002196097111SVN11.LANL  
 Volume Injected (uL): 0.5  
 Column phase: 3M DB-SMS

Instrument: MSD6.i  
 Operator: nag1  
 Column diameter: 0.20





Date : 18-MAR-2010 11:08

Client ID: RE36-10-8475

Instrument: MSD6.i

Sample Info: I248244002196097111SVH11ILANL

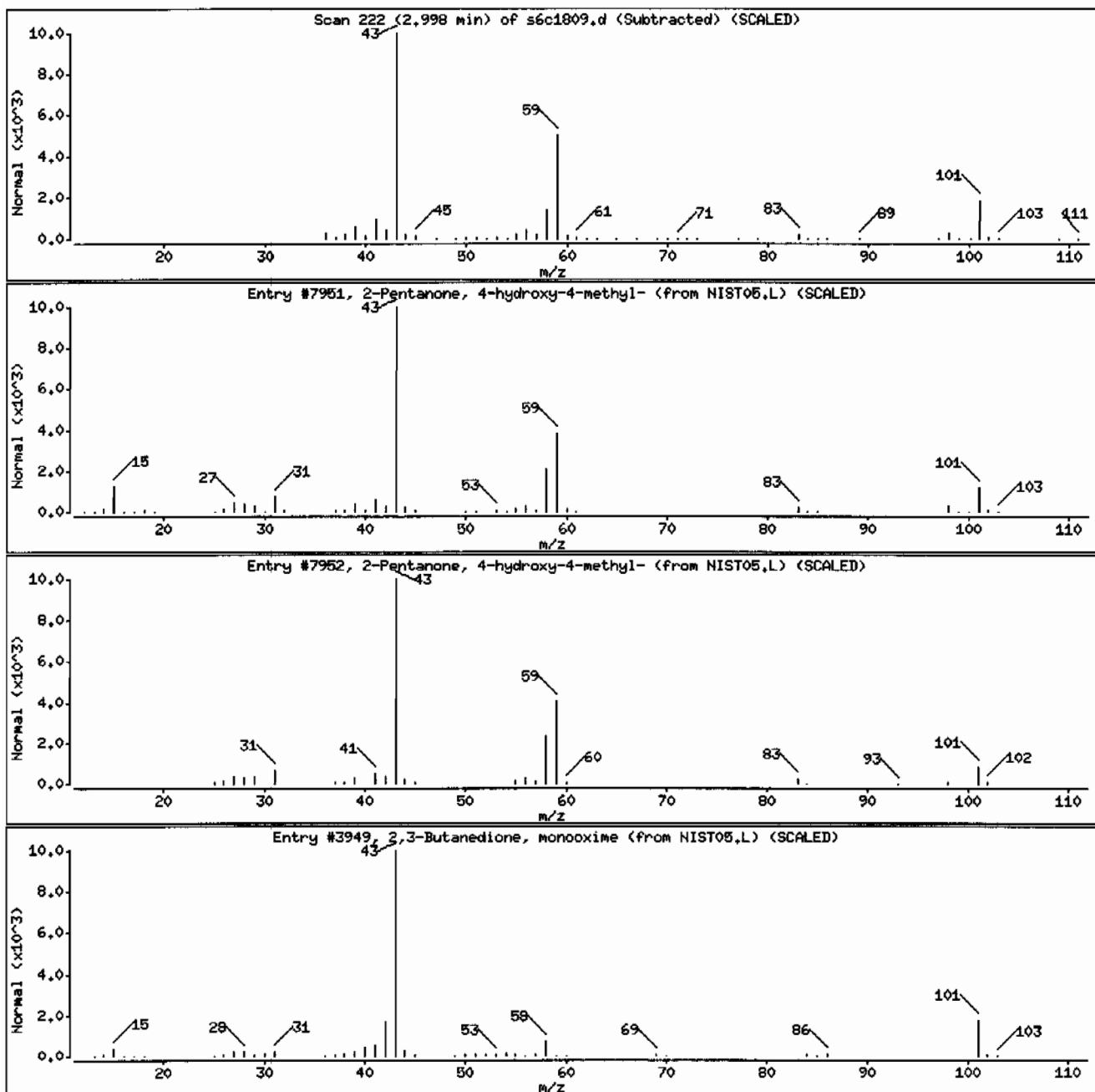
Volume Injected (uL): 0.5

Operator: nag1

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	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	39	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	27	C4H7NO2	101





Date : 18-MAR-2010 11:08

Client ID: RE36-10-8475

Instrument: HSD6.i

Sample Info: 1248244002196097111SVH11ILANL

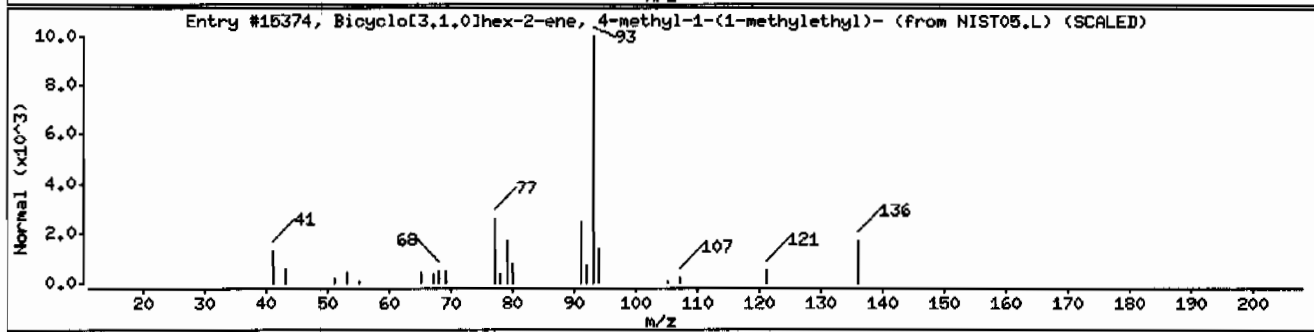
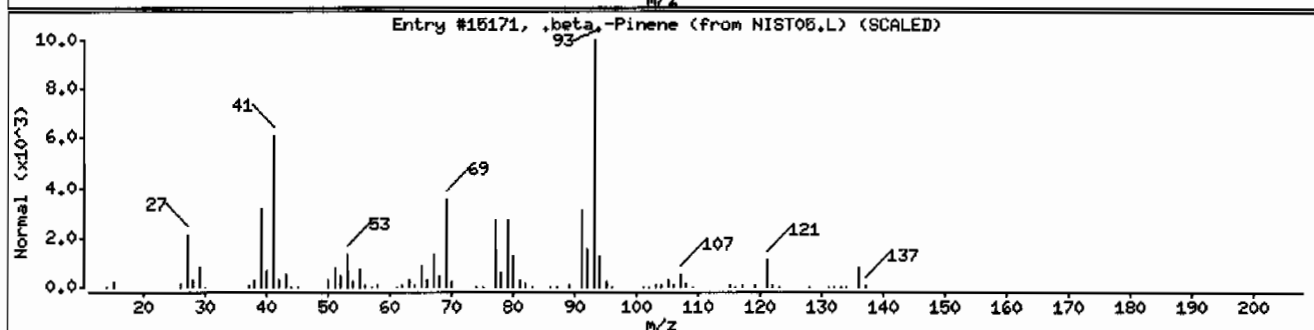
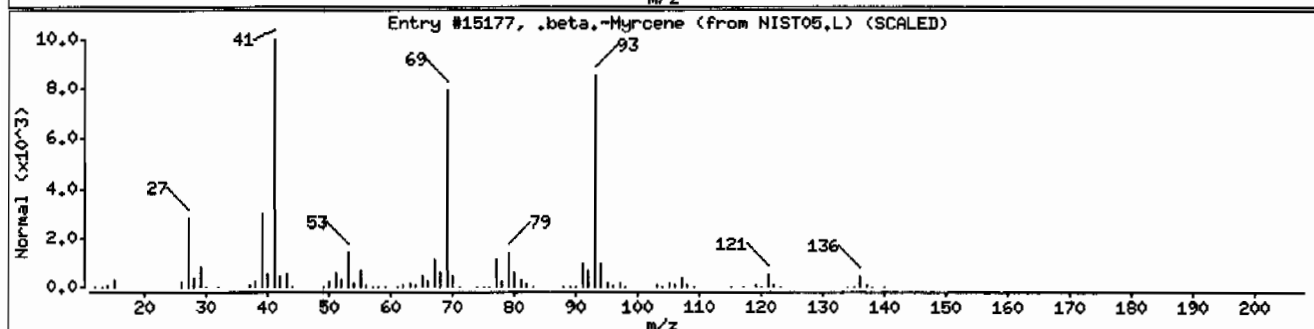
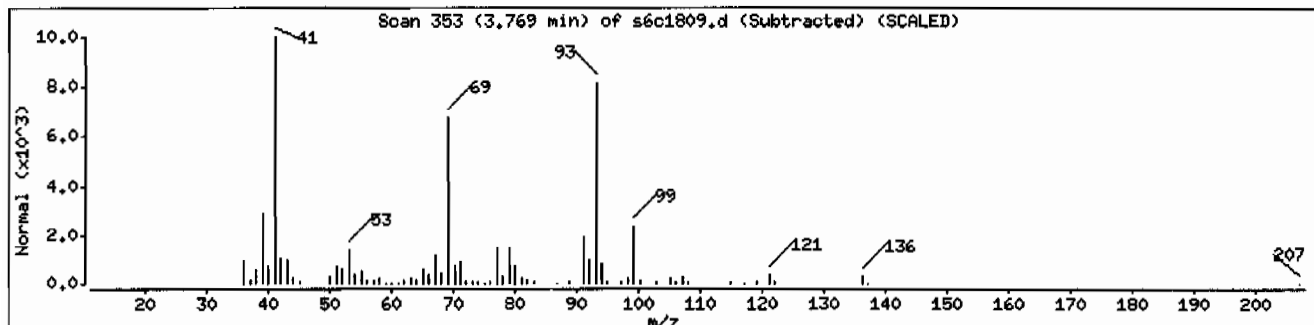
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Myrcene	123-35-3	NIST05.L	15177	87	C10H16	136
.beta.-Pinene	127-91-3	NIST05.L	15171	68	C10H16	136
Bicyclo[3.1.0]hex-2-ene, 4-methyl-1-(1-m	28634-89-1	NIST05.L	15374	68	C10H16	136





Date: 18-MAR-2010 11:08

Client ID: RE36-10-8475

Instrument: HSD6.i

Sample Info: 1248244002196097111SVH111LANL

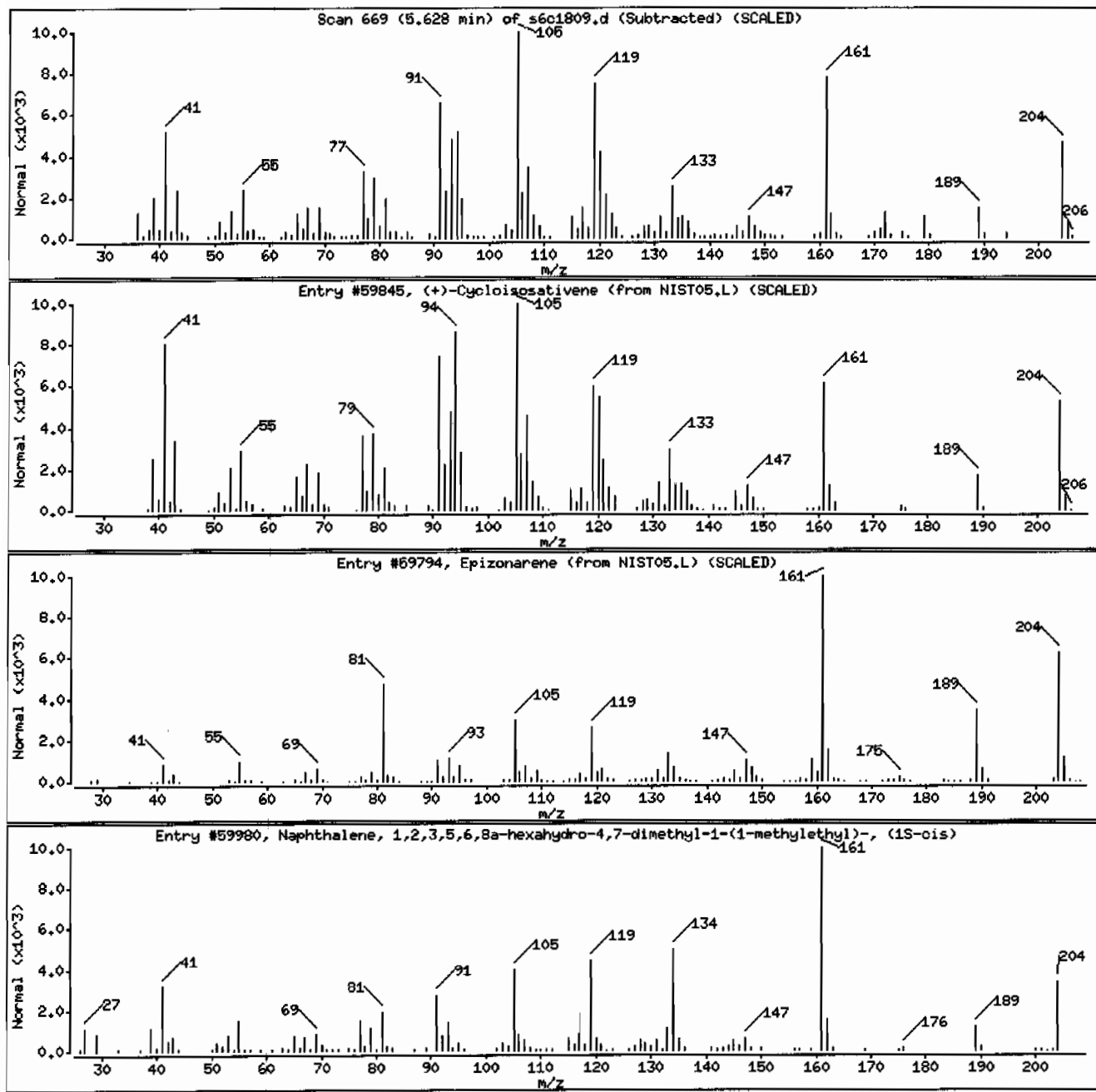
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
(+)-Cycloisosativene	1000109-88-1	NIST05.L	59845	98	C15H24	204
Epizonarene	1000156-10-7	NIST05.L	59794	91	C15H24	204
Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-	483-76-1	NIST05.L	59980	83	C15H24	204





Date : 18-MAR-2010 11:08

Client ID: RE36-10-8475

Instrument: MSD6.i

Sample Info: 1248244002196097111SVMI1ILANL

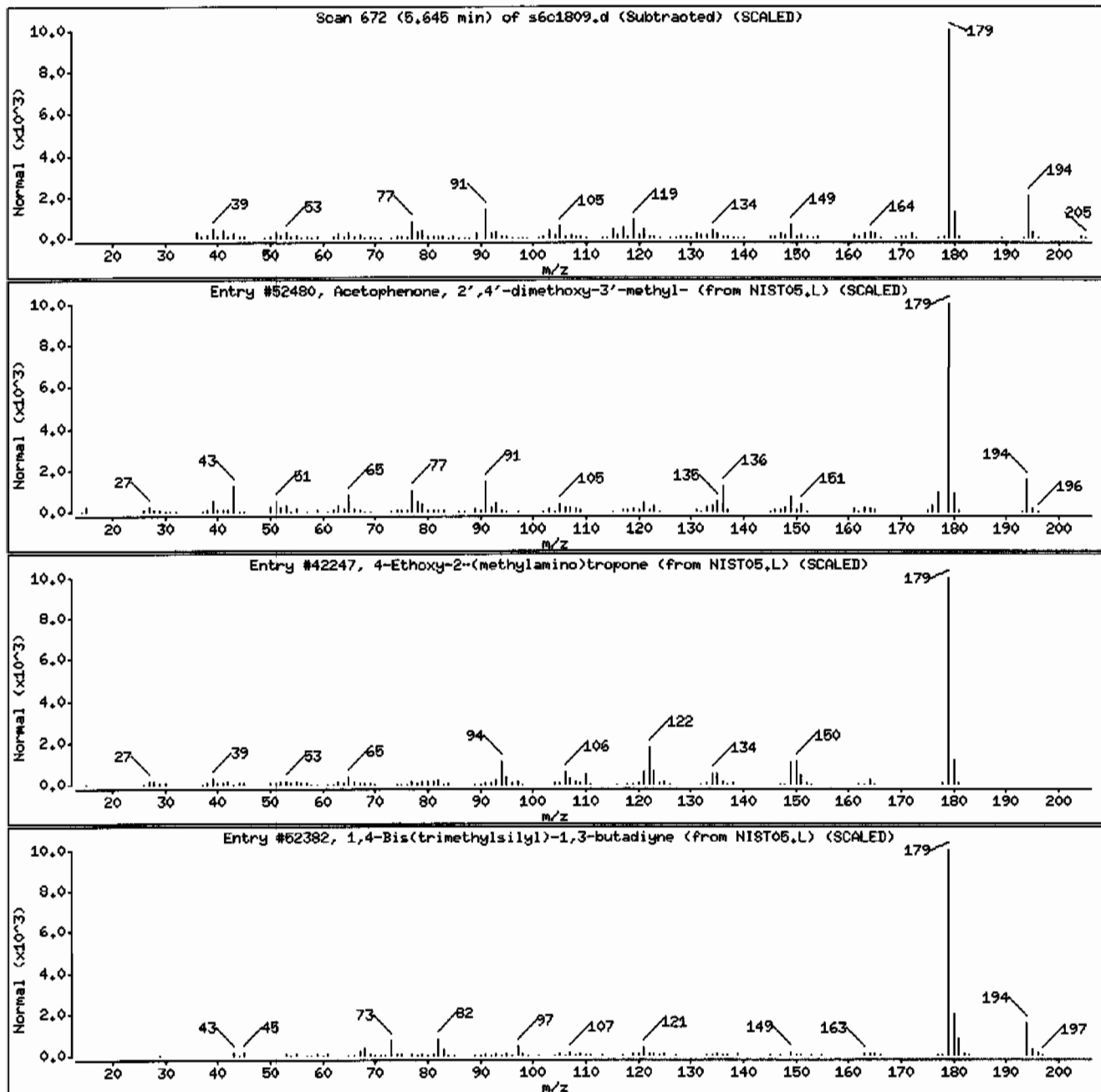
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acetophenone, 2',4'-dimethoxy-3'-methyl-	60512-80-3	NIST05.L	52480	72	C11H14O3	194
4-Ethoxy-2-(methyldamino)tropone	1000241-45-1	NIST05.L	42247	50	C10H13NO2	179
1,4-Bis(trimethylsilyl)-1,3-butadiyne	4526-07-2	NIST05.L	52382	42	C10H18Si2	194





Date : 18-MAR-2010 11:08

Client ID: RE36-10-8475

Instrument: MSD6.i

Sample Info: 1248244002196097111SVMI11LANL

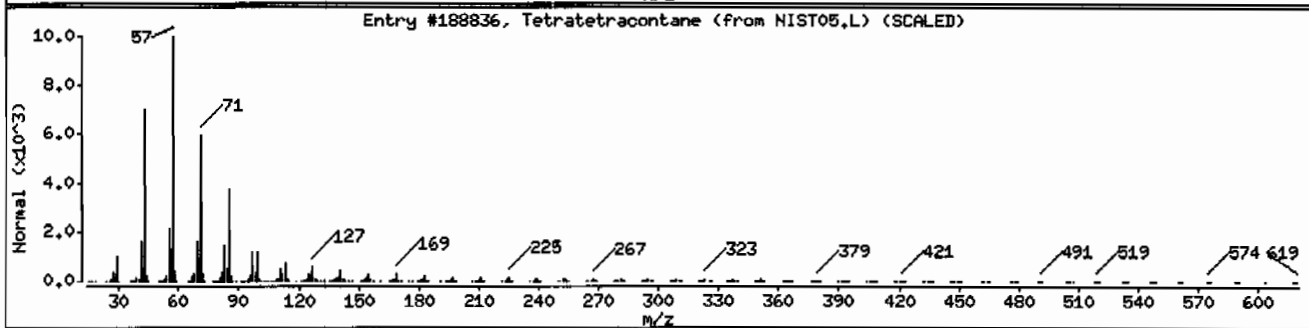
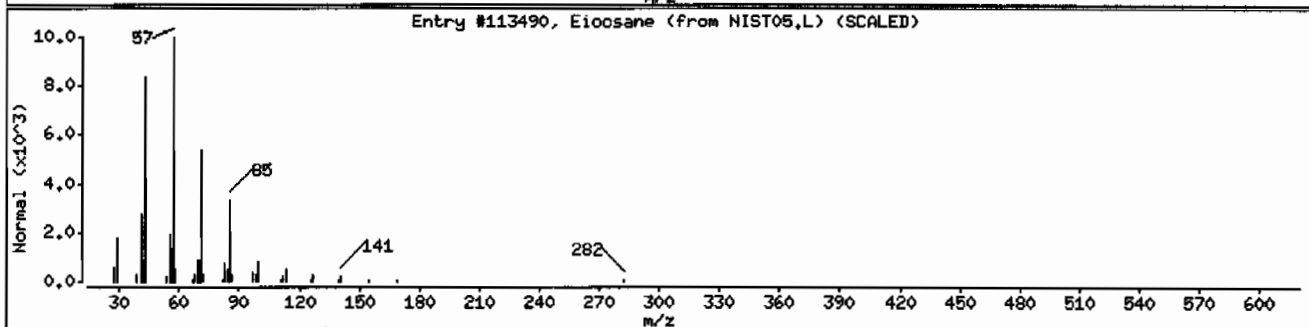
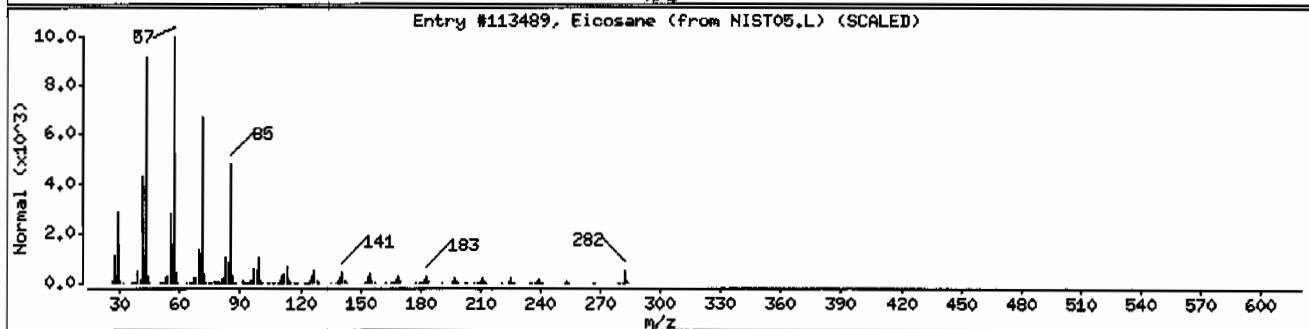
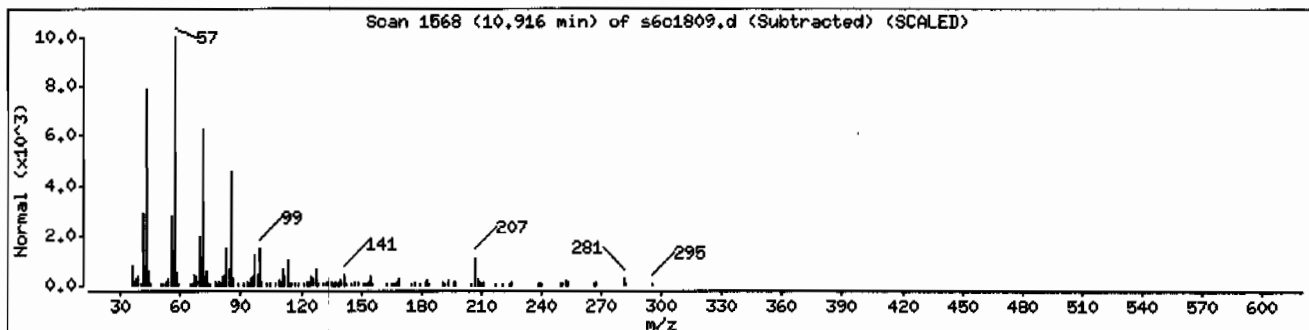
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-96-8	NIST05.L	113489	96	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-96-8	NIST05.L	113490	96	C <sub>20</sub> H <sub>42</sub>	282
Tetratetracontane	7098-22-8	NIST05.L	188836	93	C <sub>44</sub> H <sub>90</sub>	619





Date : 18-MAR-2010 11:08

Client ID: RE36-10-8475

Instrument: MSD6.i

Sample Info: 1248244002196097111SVH111LANL

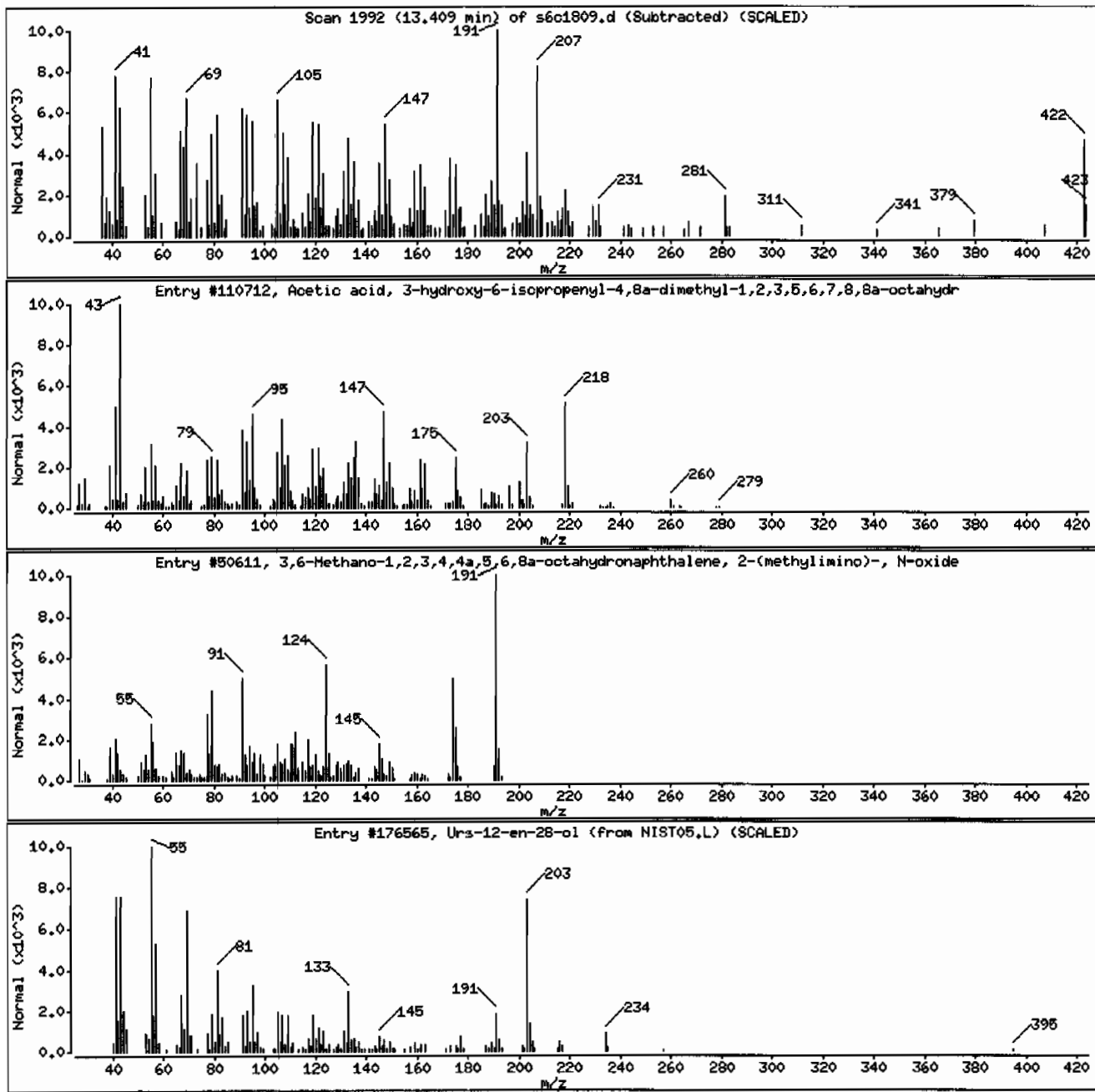
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acetic acid, 3-hydroxy-6-isopropenyl-4,8	1000185-44-8	NIST05.L	110712	30	C17H26O3	278
3,6-Methano-1,2,3,4,4a,5,6,8a-octahydron	1000188-01-0	NIST05.L	50611	25	C12H17NO	191
Urs-12-en-28-ol	10153-88-5	NIST05.L	176565	22	C30H50O	426





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

SDG Number: 10-2137  
Lab Sample ID: 248244005

Client ID: RE36-10-8477  
Batch ID: 960971  
Run Date: 03/18/2010 11:56  
Prep Date: 03/04/2010 23:22  
Data File: s6c1811.d

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.02 g  
Column: J&W DB-SMS

Matrix: R  
%Moisture: 12.8  
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	382	ug/kg	76.4	382
108-95-2	Phenol	U	382	ug/kg	76.4	382
95-57-8	2-Chlorophenol	U	382	ug/kg	76.4	382
106-46-7	1,4-Dichlorobenzene	U	382	ug/kg	76.4	382
621-64-7	N-Nitrosodipropylamine	U	382	ug/kg	76.4	382
59-50-7	4-Chloro-3-methylphenol	U	382	ug/kg	76.4	382
83-32-9	Acenaphthene	U	38.2	ug/kg	12.6	38.2
121-14-2	2,4-Dinitrotoluene	U	382	ug/kg	38.2	382
100-02-7	4-Nitrophenol	U	382	ug/kg	126	382
87-86-5	Pentachlorophenol	U	382	ug/kg	95.6	382
129-00-0	Pyrene	U	38.2	ug/kg	11.5	38.2
110-86-1	Pyridine	U	382	ug/kg	76.4	382
62-53-3	Aniline	U	382	ug/kg	115	382
111-44-4	bis(2-Chloroethyl) ether	U	382	ug/kg	76.4	382
541-73-1	1,3-Dichlorobenzene	U	382	ug/kg	76.4	382
100-51-6	Benzyl alcohol	U	382	ug/kg	115	382
95-50-1	1,2-Dichlorobenzene	U	382	ug/kg	76.4	382
108-60-1	bis(2-Chloroisopropyl)ether	U	382	ug/kg	76.4	382
95-48-7	o-Cresol	U	382	ug/kg	76.4	382
65794-96-9	m,p-Cresols	U	382	ug/kg	115	382
67-72-1	Hexachloroethane	U	382	ug/kg	76.4	382
98-95-3	Nitrobenzene	U	382	ug/kg	76.4	382
78-59-1	Isophorone	U	382	ug/kg	76.4	382
88-75-5	2-Nitrophenol	U	382	ug/kg	76.4	382
105-67-9	2,4-Dimethylphenol	U	382	ug/kg	134	382
111-91-1	bis(2-Chloroethoxy)methane	U	382	ug/kg	76.4	382
120-83-2	2,4-Dichlorophenol	U	382	ug/kg	76.4	382
65-85-0	Benzoic acid	U	764	ug/kg	191	764
91-20-3	Naphthalene	U	38.2	ug/kg	11.5	38.2
106-47-8	4-Chloroaniline	U	382	ug/kg	76.4	382
87-68-3	Hexachlorobutadiene	U	382	ug/kg	76.4	382
91-57-6	2-Methylnaphthalene	U	38.2	ug/kg	7.64	38.2
77-47-4	Hexachlorocyclopentadiene	U	382	ug/kg	76.4	382
88-06-2	2,4,6-Trichlorophenol	U	382	ug/kg	76.4	382
95-95-4	2,4,5-Trichlorophenol	U	382	ug/kg	76.4	382
91-58-7	2-Chloronaphthalene	U	38.2	ug/kg	12.6	38.2
88-74-4	2-Nitroaniline	U	382	ug/kg	76.4	382
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	382	ug/kg	76.4	382



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

SDG Number: 10-2137  
Lab Sample ID: 248244005

Client ID: RE36-10-8477  
Batch ID: 960971  
Run Date: 03/18/2010 11:56  
Prep Date: 03/04/2010 23:22  
Data File: s6c1811.d

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.8  
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
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	382	ug/kg	76.4	382
606-20-2	2,6-Dinitrotoluene	U	382	ug/kg	38.2	382
208-96-8	Acenaphthylene	U	38.2	ug/kg	11.5	38.2
51-28-5	2,4-Dinitrophenol	U	764	ug/kg	145	764
132-64-9	Dibenzofuran	U	382	ug/kg	76.4	382
84-66-2	Diethylphthalate	U	382	ug/kg	76.4	382
86-73-7	Fluorene	U	38.2	ug/kg	11.5	38.2
7005-72-3	4-Chlorophenylphenylether	U	382	ug/kg	76.4	382
534-52-1	2-Methyl-4,6-dinitrophenol	U	382	ug/kg	76.4	382
100-01-6	4-Nitroaniline	U	382	ug/kg	115	382
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	382	ug/kg	76.4	382
122-66-7	Azobenzene	U	382	ug/kg	76.4	382
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	382	ug/kg	76.4	382
118-74-1	Hexachlorobenzene	U	382	ug/kg	76.4	382
85-01-8	Phenanthrene	U	38.2	ug/kg	11.5	38.2
120-12-7	Anthracene	U	38.2	ug/kg	7.64	38.2
84-74-2	Di-n-butylphthalate	U	382	ug/kg	76.4	382
206-44-0	Fluoranthene	U	38.2	ug/kg	11.5	38.2
85-68-7	Butylbenzylphthalate	U	382	ug/kg	76.4	382
56-55-3	Benzo(a)anthracene	U	38.2	ug/kg	11.5	38.2
91-94-1	3,3'-Dichlorobenzidine	U	382	ug/kg	115	382
218-01-9	Chrysene	U	38.2	ug/kg	11.5	38.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	382	ug/kg	76.4	382
117-84-0	Di-n-octylphthalate	U	382	ug/kg	76.4	382
205-99-2	Benzo(b)fluoranthene	U	38.2	ug/kg	11.5	38.2
207-08-9	Benzo(k)fluoranthene	U	38.2	ug/kg	11.5	38.2
50-32-8	Benzo(a)pyrene	U	38.2	ug/kg	11.5	38.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.2	ug/kg	11.5	38.2
53-70-3	Dibenzo(a,h)anthracene	U	38.2	ug/kg	11.5	38.2
191-24-2	Benzo(ghi)perylene	U	38.2	ug/kg	11.5	38.2
120-82-1	1,2,4-Trichlorobenzene	U	382	ug/kg	76.4	382

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.99	304	ug/kg		JA
77-53-2	Cedrol	6.61	251	ug/kg	94	NJ



Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2137  
Lab Sample ID: 248244005

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.02 g  
Column: J&W DB-SMS

Matrix: R  
%Moisture: 12.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8477  
Batch ID: 960971  
Run Date: 03/18/2010 11:56  
Prep Date: 03/04/2010 23:22  
Data File: s6c1811.d

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
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	9.09	254	ug/kg	98	NJ
	Unknown	9.12	226	ug/kg		J
	Unknown	9.16	388	ug/kg		J
559-74-0	Friedelan-3-one	10.64	551	ug/kg	95	NJ
	Unknown	13.44	332	ug/kg		J



GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1811.d  
Lab Smp Id: 248244005 Client Smp ID: RE36-10-8477  
Inj Date : 18-MAR-2010 11:56  
Operator : nagl Inst ID: MSD6.i  
Smp Info : |248244005|960971|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 11  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2137.sub  
Target Version: 3.50  
Processing Host: hpclpl

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	12.84500	% 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	3.969	3.963	(1.000)	484109	40.0000		
* 29 Naphthalene-d8	136	4.834	4.834	(1.000)	1755094	40.0000		
* 46 Acenaphthene-d10	164	6.098	6.092	(1.000)	1078566	40.0000		
* 67 Phenanthrene-d10	188	7.275	7.269	(1.000)	1830887	40.0000		
* 91 Chrysene-d12	240	9.704	9.698	(1.000)	1626055	40.0000		
* 98 Perylene-d12	264	11.422	11.404	(1.000)	1431963	40.0000		
\$ 3 2-Fluorophenol	112	3.157	3.140	(0.795)	879435	65.3479	2500	
\$ 5 Phenol-d5	99	3.675	3.669	(0.926)	1132761	66.1865	2530	
\$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.895)	547277	32.6196	1250	
\$ 39 2-Fluorobiphenyl	172	5.581	5.575	(0.915)	1045730	37.5793	1440	
\$ 60 2,4,6-Tribromophenol	329	6.698	6.692	(1.098)	256905	84.8822	3240	
\$ 81 p-Terphenyl-d14	244	8.669	8.651	(0.893)	1205589	42.5470	1630	



## ION RATIO REPORT

## SV REPORT

Data file: s6c1811.d

Report Date: 03/18/2010 14:56

Lab. ID: 248244005

SampleType: SAMPLE

Injection Date: 18-MAR-2010 11:56

Operator: nag1

Instrument: MSD6.i

Sample Info: |248244005|960971|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2137

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	58656	3.68	3.75	80-120	100	(T)
93	106	3.65	3.75	407-467	0	(QT)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	80541	4.33	4.20	80-120	100	(T)
42	49823	4.33	4.20	42-102	62	(T)
-----						
22	Isophorone	CAS#: 78-59-1				
82	547277	4.33	4.49	80-120	100	(T)
138	10245	4.83	4.49	0- 49	2	(T)
-----						
40	2-Chloronaphthalene	CAS#: 91-58-7				
162	19261	5.83	5.68	80-120	100	(T)
164	869	5.83	5.68	3- 63	5	(T)
127	1316	5.83	5.68	8- 68	7	(QT)
-----						
42	o-Nitroaniline	CAS#: 88-74-4				
65	20728	5.83	5.74	80-120	100	(T)
92	28599	5.83	5.74	37- 97	138	(QT)
138	1594	5.83	5.74	77-137	8	(QT)
-----						
43	Dimethylphthalate	CAS#: 131-11-3				
163	192813	6.10	5.85	80-120	100	(T)
164	1078566	6.10	5.85	0- 41	559	(QT)
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
45 Acenaphthylene		CAS#: 208-96-8				
152	56586	5.58	5.99	80-120	100	(T)
151	55992	5.58	5.99	0- 50	99	(QT)
153	17770	5.58	5.99	0- 44	31	(T)
-----						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	143704	6.10	6.20	80-120	100	(T)
89	1917	6.10	6.20	40-100	1	(QT)
63	1972	6.10	6.20	18- 78	1	(QT)
-----						
53 Fluorene		CAS#: 86-73-7				
166	16512	6.70	6.50	80-120	100	(T)
165	17435	6.70	6.50	61-121	106	(T)
167	5761	6.70	6.50	0- 44	35	(T)
-----						
55 2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1				
198	859	6.70	6.52	80-120	100	(T)
105	3342	6.70	6.52	10- 70	389	(QT)
51	1976	6.69	6.51	37- 97	230	(QT)
-----						
61 4-Bromophenylphenylether		CAS#: 101-55-3				
248	19285	6.70	6.87	80-120	100	(T)
141	119605	6.70	6.87	46-106	620	(QT)
250	40948	6.70	6.87	66-126	212	(QT)

Q qualifier indicates ion failed ratio requirement



GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1811.d  
Lab Smp Id: 248244005 Client Smp ID: RE36-10-8477  
Inj Date : 18-MAR-2010 11:56  
Operator : nagl Inst ID: MSD6.i  
Smp Info : |248244005|960971|1|SVM|1|LANL  
Misc Info : |MSD8270 S|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 11  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2137.sub  
Target Version: 3.50  
Processing Host: hpclpl

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	12.84500	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.969	2975762	40.000
* 46 Acenaphthene-d10	6.098	4485513	40.000
* 91 Chrysene-d12	9.704	4400351	40.000
* 98 Perylene-d12	11.422	3987728	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
----	----	-----	-----	----	-----	-----	-----

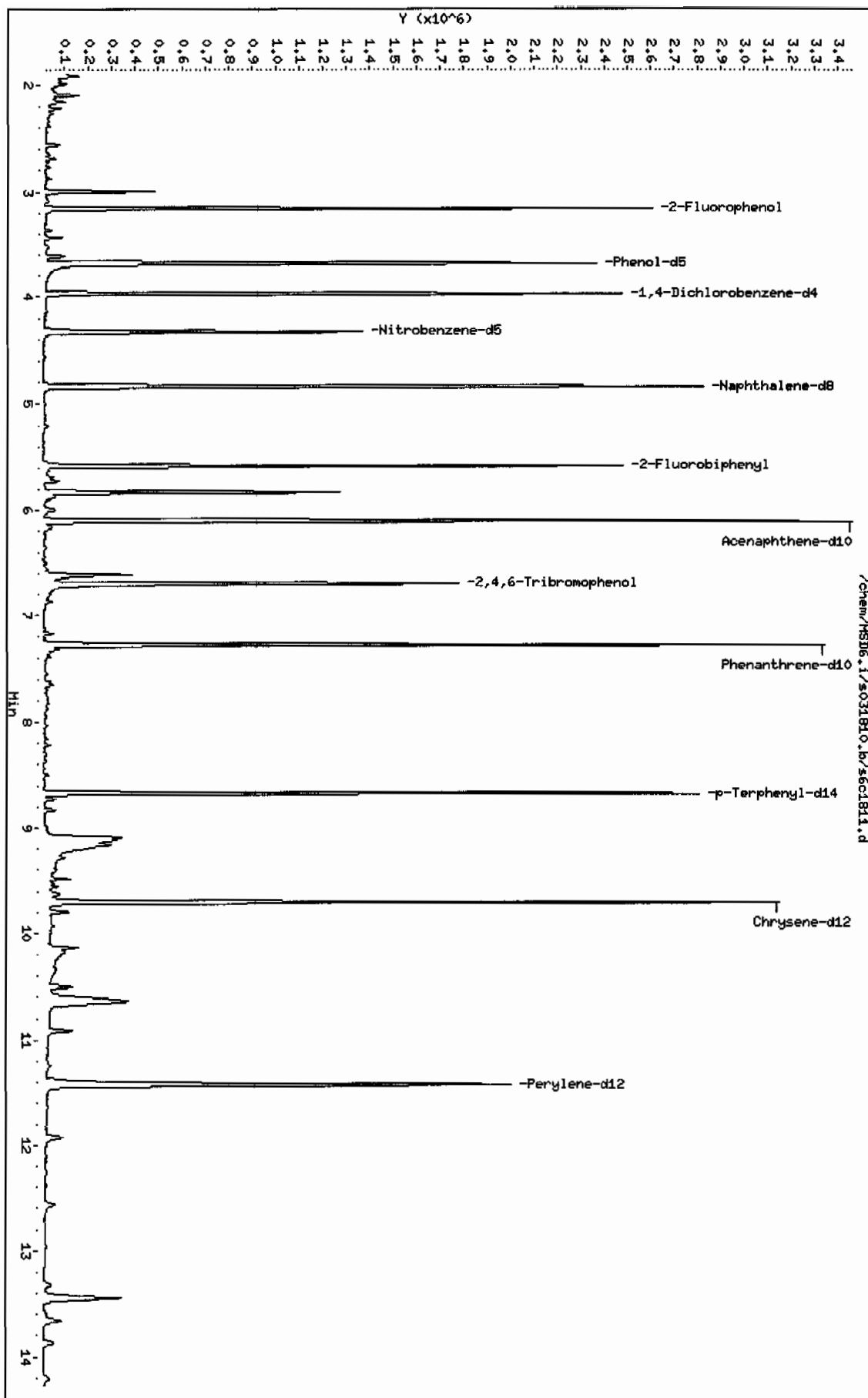


RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Unknown Aldol Condensate					CAS #:		
2.993	592683	7.96680536	304	0		0	10
Cedrol					CAS #: 77-53-2		
6.610	736064	6.56391939	251	94	NIST05.L	72884	46
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa					CAS #: 511-15-9		
9.092	731456	6.64906623	254	98	NIST05.L	116239	91
Unknown					CAS #:		
9.116	650843	5.91627734	226	0		0	91
Unknown					CAS #:		
9.163	1115722	10.1421122	388	0		0	91
Friedelan-3-one					CAS #: 559-74-0		
10.639	1436630	14.4105064	551	95	NIST05.L	176566	98
Unknown					CAS #:		
13.445	867161	8.69829346	332	0		0	98



Data File: /chem/MSD6.i/s031810.b/sec1811.d  
Date : 18-MAR-2010 11:56  
Client ID: RE36-10-8477  
Sample Info: 1248244005196097111.SUN11.LANL  
Volume Injected (uL): 0.5  
Column phase: JSM DB-SMS

Instrument: MSD6.i  
Operator: nag1  
Column diameter: 0.20





Date: 18-MAR-2010 11:56

Client ID: RE36-10-8477

Instrument: MSD6.i

Sample Info: 1248244006196097111SVH111LANL

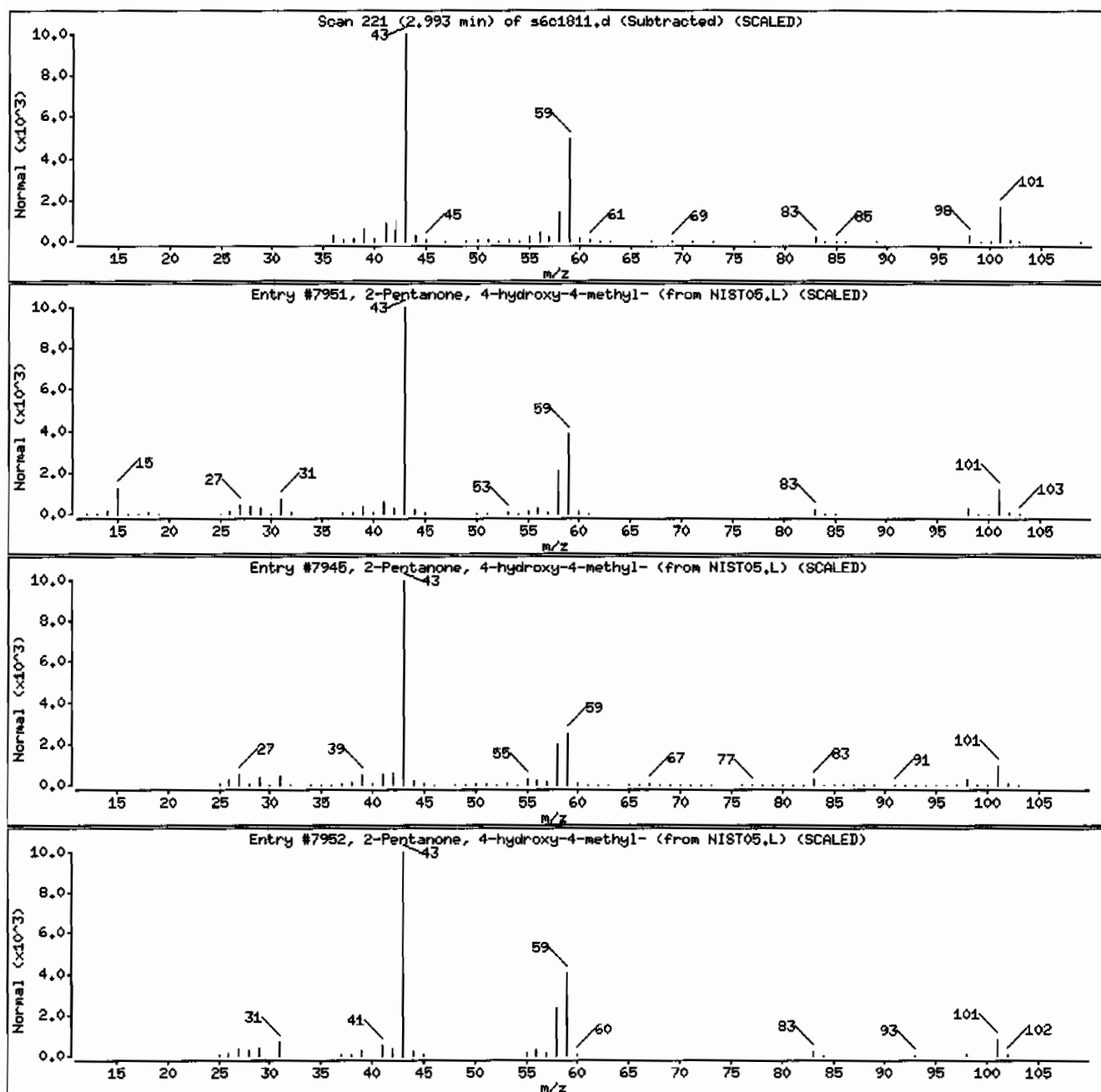
Volume Injected (uL): 0.5

Operator: nag1

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	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	28	C6H12O2	116





Date: 18-MAR-2010 11:56

Client ID: RE36-10-8477

Instrument: MSD6.i

Sample Info: 1248244005196097111SVH11ILANL

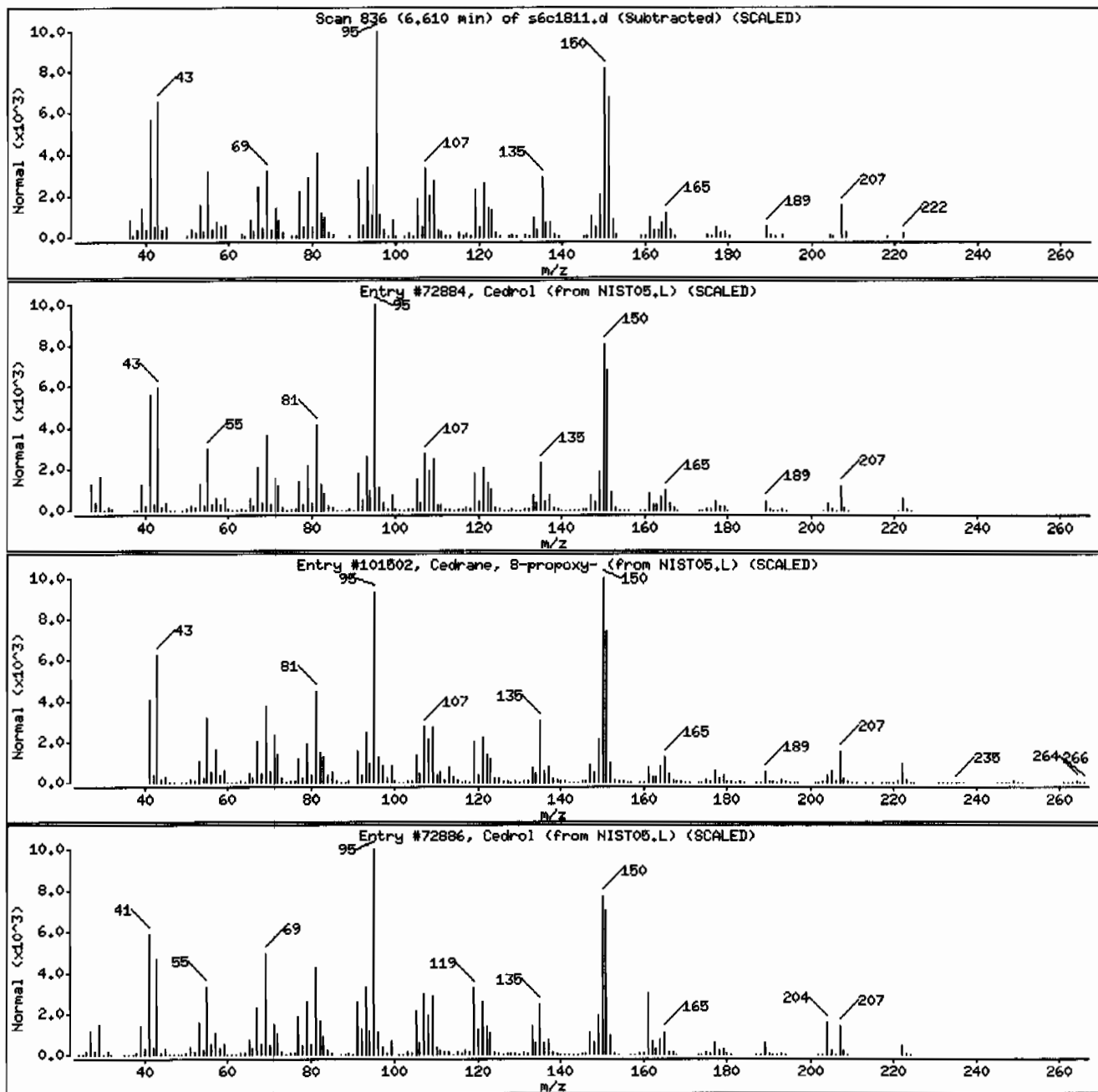
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cedrol	77-53-2	NIST05.L	72884	94	C <sub>15</sub> H <sub>26</sub> O	222
Cedrane, 8-propoxy-	19870-75-8	NIST05.L	101502	94	C <sub>18</sub> H <sub>32</sub> O	264
Cedrol	77-53-2	NIST05.L	72886	91	C <sub>15</sub> H <sub>26</sub> O	222





Date: 18-MAR-2010 11:56

Client ID: RE36-10-8477

Instrument: MSD6.i

Sample Info: 1248244005196097111SVH11ILANL

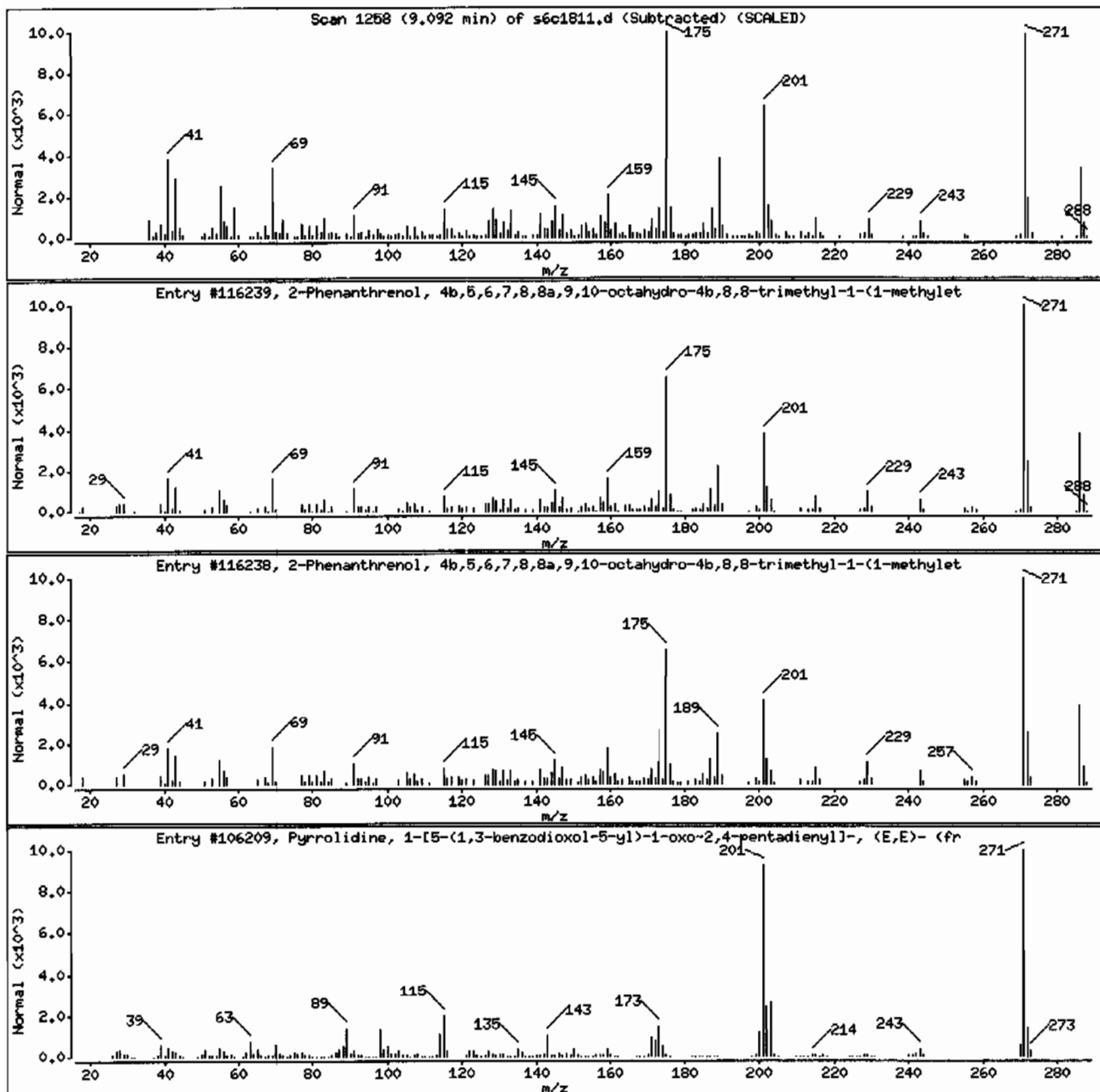
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116239	98	C20H30O	286
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116238	90	C20H30O	286
Pyrrolidine, 1-[5-(1,3-benzodioxol-5-yl)	25924-78-1	NIST05.L	106209	30	C16H17NO3	271





Date: 18-MAR-2010 11:56

Client ID: RE36-10-8477

Instrument: MSD6.i

Sample Info: 1248244005196097111SVH11ILANL

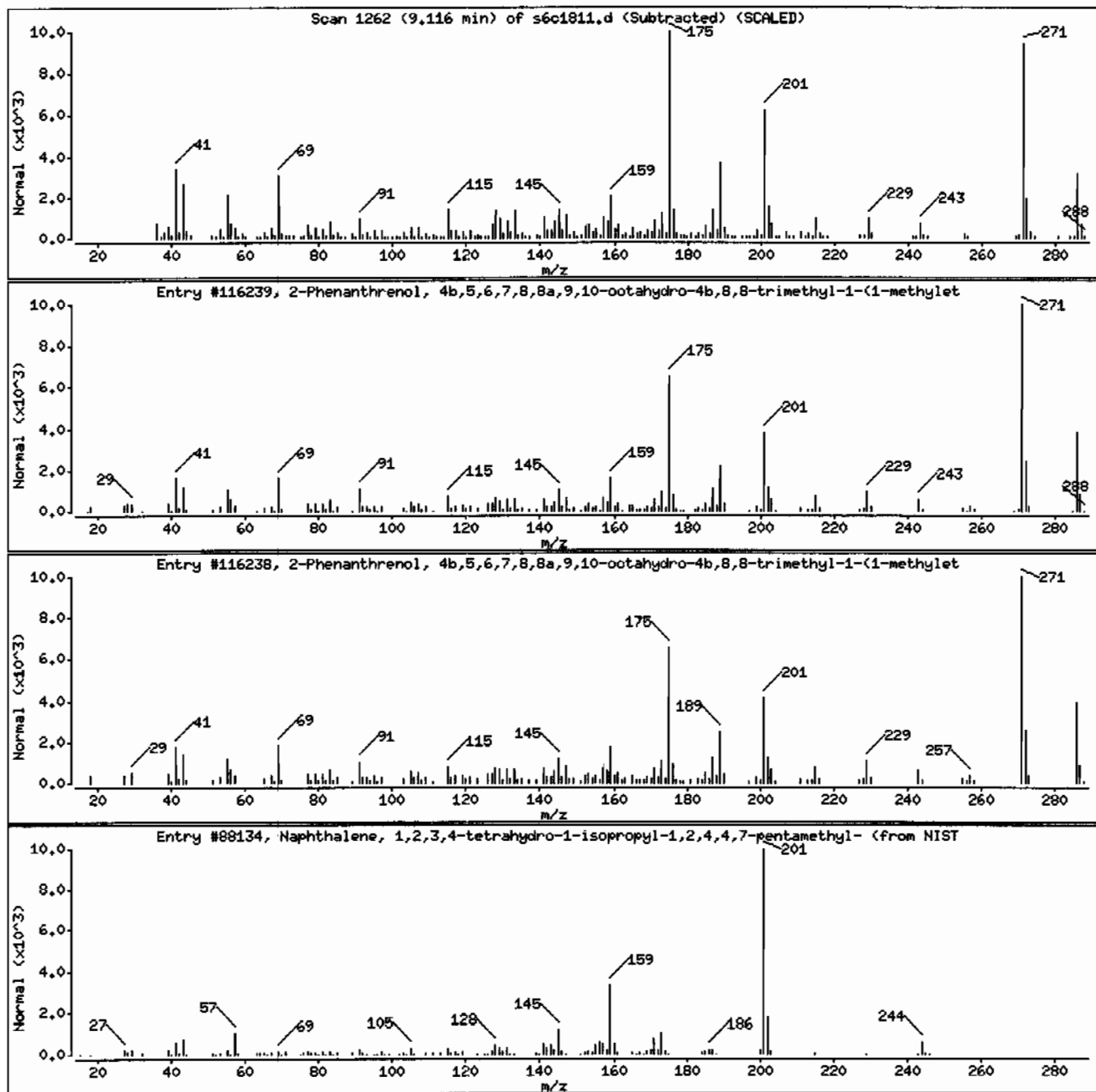
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116239	98	C20H30O	286
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116238	96	C20H30O	286
Naphthalene, 1,2,3,4-tetrahydro-1-isopro	29577-17-1	NIST05.L	88134	40	C18H28	244





Date : 18-MAR-2010 11:56

Client ID: RE36-10-8477

Instrument: MSD6.1

Sample Info: 1248244008196097111SVH111LANL

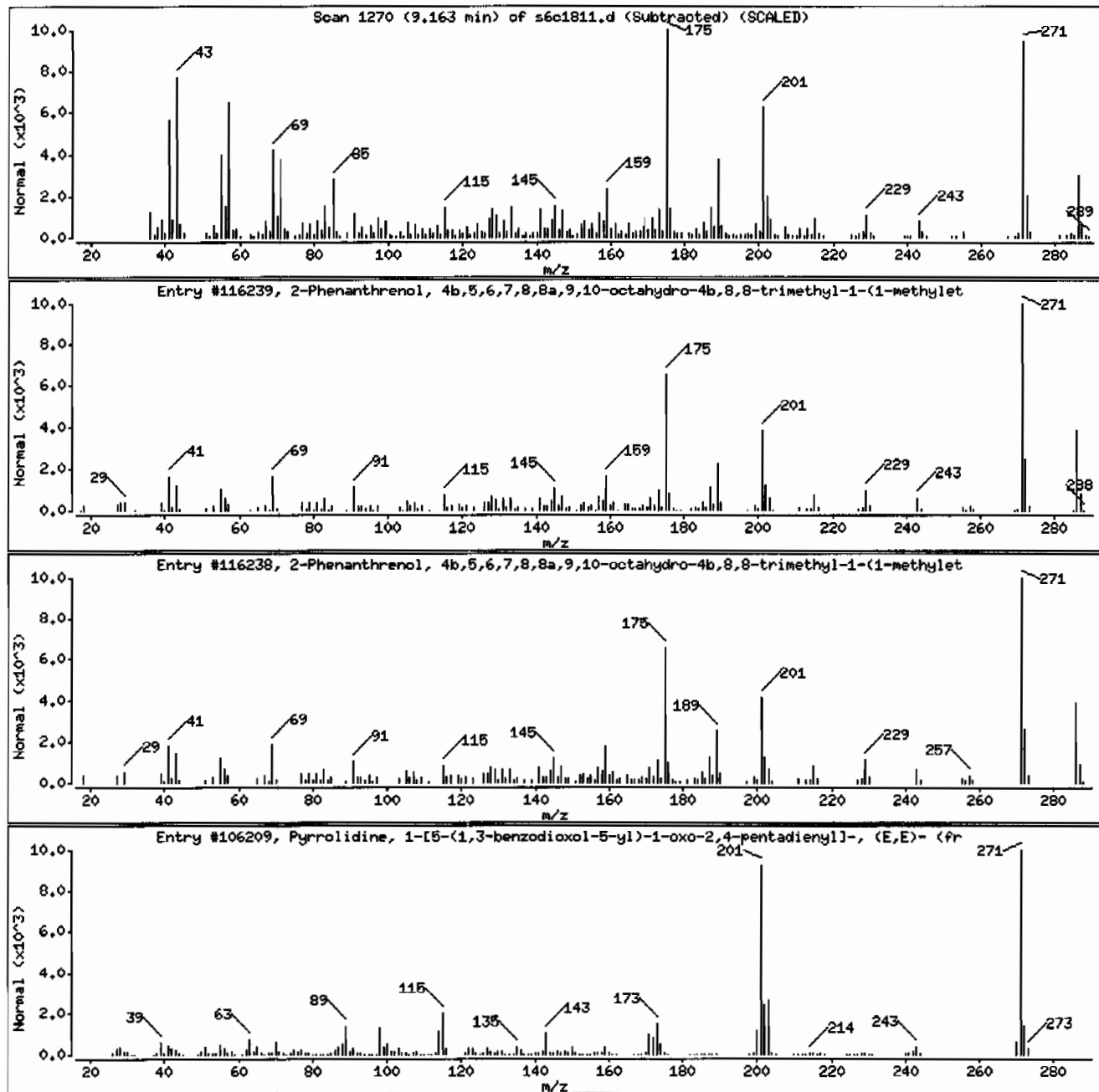
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116239	96	C20H30O	286
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116238	96	C20H30O	286
Pyrrolidine, 1-[5-(1,3-benzodioxol-5-yl)	25924-78-1	NIST05.L	106209	38	C16H17NO3	271





Date : 18-MAR-2010 11:56

Client ID: RE36-10-8477

Instrument: MSD6.i

Sample Info: I248244005I9609711IISVM11ILANL

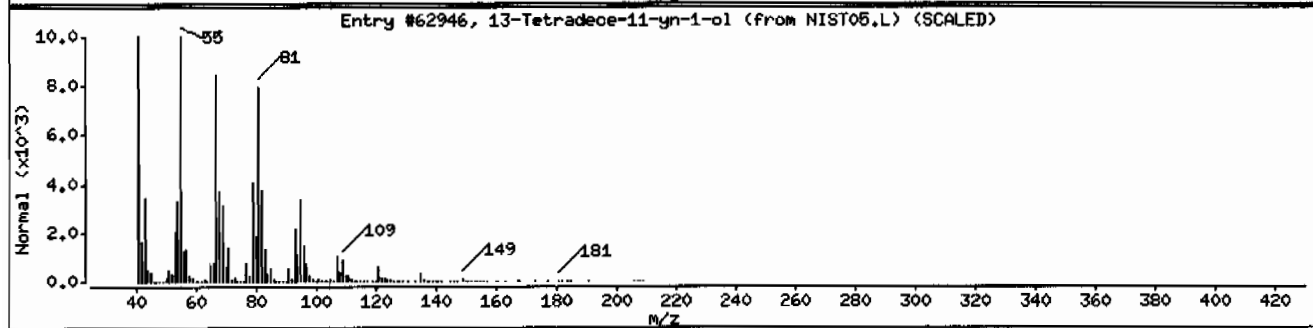
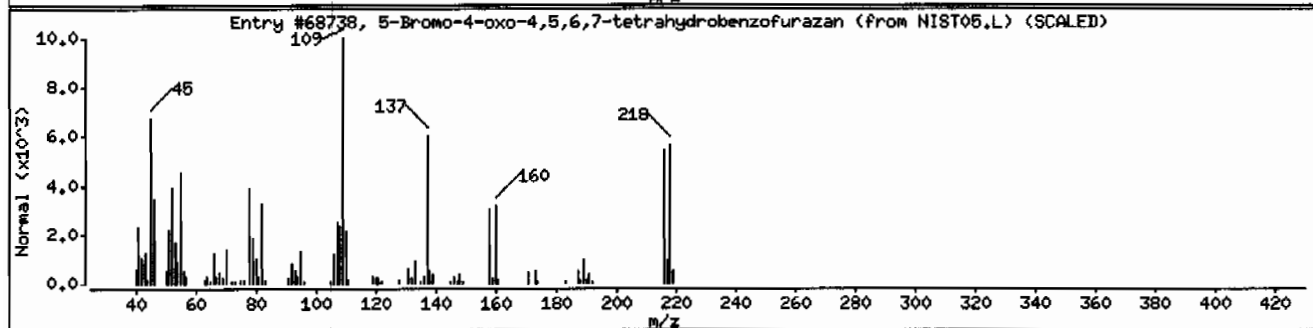
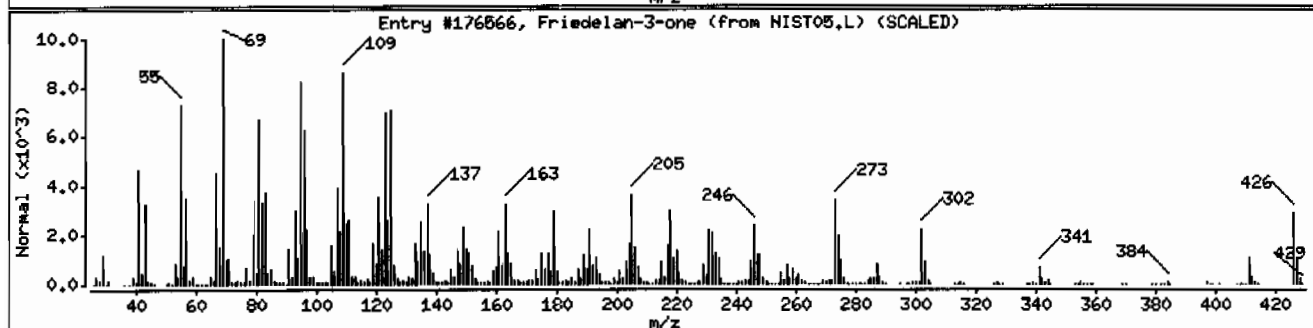
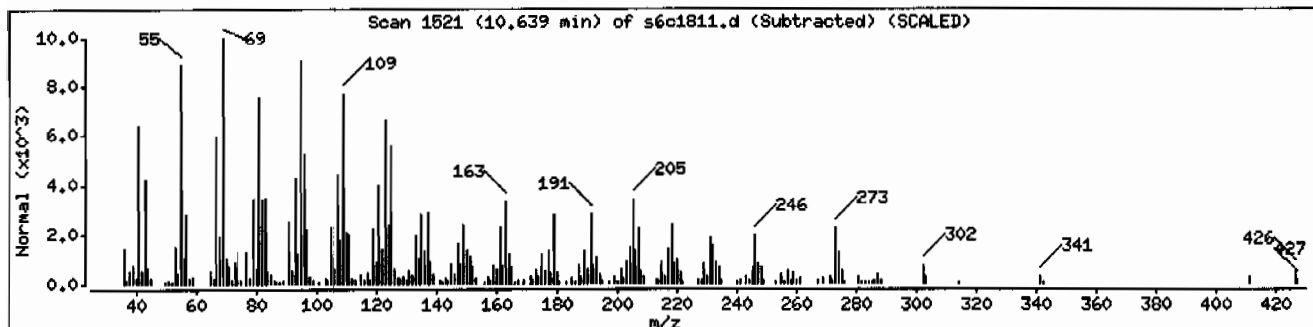
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Friedelan-3-one	559-74-0	NIST05.L	176566	96	C30H50O	426
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	300574-36-1	NIST05.L	68738	59	C6H5BrN2O2	216
13-Tetradecene-11-yn-1-ol	1000131-00-4	NIST05.L	62946	58	C14H24O	208





Date : 18-MAR-2010 11:56

Client ID: RE36-10-8477

Instrument: HSD6.i

Sample Info: I248244005I960971I1ISVHI1ILANL

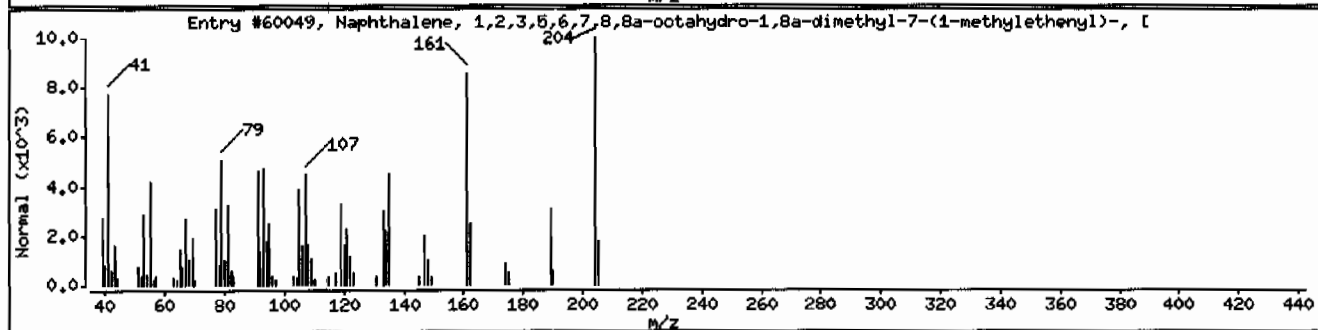
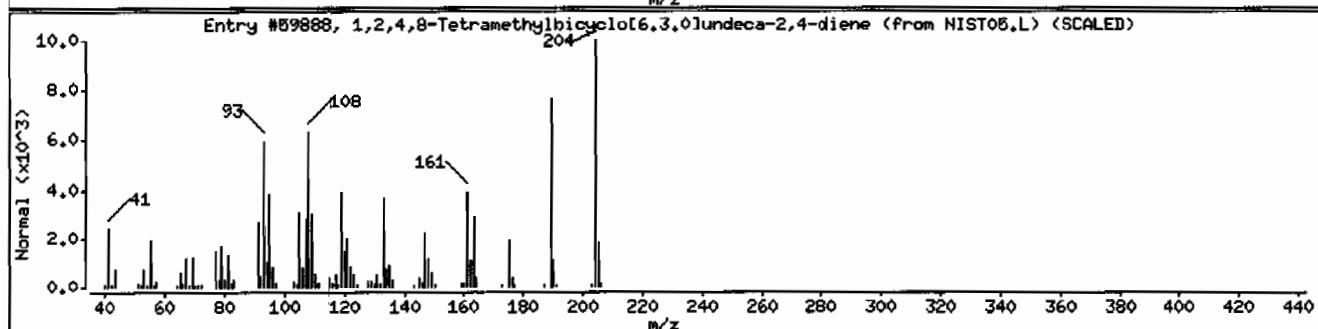
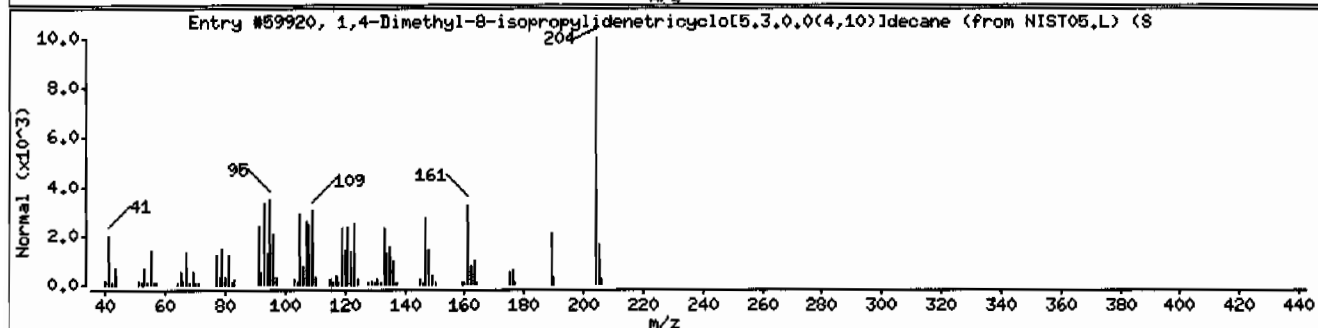
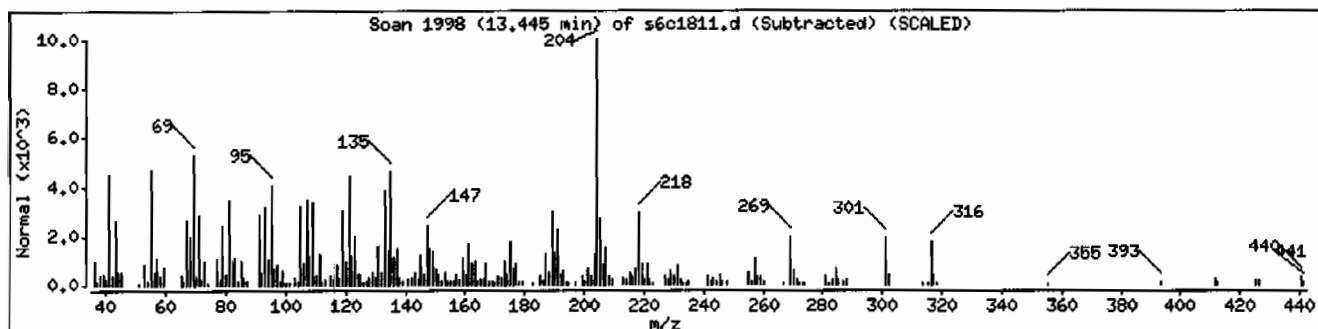
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,4-Dimethyl-8-isopropylidenetricyclo[5.3.0.0(4,10)]decane	1000140-07-7	NIST05.L	59920	70	C15H24	204
1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-	137235-51-9	NIST05.L	59888	55	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60049	50	C15H24	204





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

SDG Number: 10-2137  
Lab Sample ID: 248244006

Client ID: RE36-10-8479  
Batch ID: 960971  
Run Date: 03/18/2010 12:18  
Prep Date: 03/04/2010 23:22  
Data File: s6c1812.d

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.17 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 10.2  
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	369	ug/kg	73.8	369
108-95-2	Phenol	U	369	ug/kg	73.8	369
95-57-8	2-Chlorophenol	U	369	ug/kg	73.8	369
106-46-7	1,4-Dichlorobenzene	U	369	ug/kg	73.8	369
621-64-7	N-Nitrosodipropylamine	U	369	ug/kg	73.8	369
59-50-7	4-Chloro-3-methylphenol	U	369	ug/kg	73.8	369
83-32-9	Acenaphthene	U	36.9	ug/kg	12.2	36.9
121-14-2	2,4-Dinitrotoluene	U	369	ug/kg	36.9	369
100-02-7	4-Nitrophenol	U	369	ug/kg	122	369
87-86-5	Pentachlorophenol	U	369	ug/kg	92.3	369
129-00-0	Pyrene	U	36.9	ug/kg	11.1	36.9
110-86-1	Pyridine	U	369	ug/kg	73.8	369
62-53-3	Aniline	U	369	ug/kg	111	369
111-44-4	bis(2-Chloroethyl) ether	U	369	ug/kg	73.8	369
541-73-1	1,3-Dichlorobenzene	U	369	ug/kg	73.8	369
100-51-6	Benzyl alcohol	U	369	ug/kg	111	369
95-50-1	1,2-Dichlorobenzene	U	369	ug/kg	73.8	369
108-60-1	bis(2-Chloroisopropyl)ether	U	369	ug/kg	73.8	369
95-48-7	o-Cresol	U	369	ug/kg	73.8	369
65794-96-9	m,p-Cresols	U	369	ug/kg	111	369
67-72-1	Hexachloroethane	U	369	ug/kg	73.8	369
98-95-3	Nitrobenzene	U	369	ug/kg	73.8	369
78-59-1	Isophorone	U	369	ug/kg	73.8	369
88-75-5	2-Nitrophenol	U	369	ug/kg	73.8	369
105-67-9	2,4-Dimethylphenol	U	369	ug/kg	129	369
111-91-1	bis(2-Chloroethoxy)methane	U	369	ug/kg	73.8	369
120-83-2	2,4-Dichlorophenol	U	369	ug/kg	73.8	369
65-85-0	Benzoic acid	U	738	ug/kg	185	738
91-20-3	Naphthalene	U	36.9	ug/kg	11.1	36.9
106-47-8	4-Chloroaniline	U	369	ug/kg	73.8	369
87-68-3	Hexachlorobutadiene	U	369	ug/kg	73.8	369
91-57-6	2-Methylnaphthalene	U	36.9	ug/kg	7.38	36.9
77-47-4	Hexachlorocyclopentadiene	U	369	ug/kg	73.8	369
88-06-2	2,4,6-Trichlorophenol	U	369	ug/kg	73.8	369
95-95-4	2,4,5-Trichlorophenol	U	369	ug/kg	73.8	369
91-58-7	2-Chloronaphthalene	U	36.9	ug/kg	12.2	36.9
88-74-4	2-Nitroaniline	U	369	ug/kg	73.8	369
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	369	ug/kg	73.8	369



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

SDG Number: 10-2137  
Lab Sample ID: 248244006

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.17 g  
Column: J&W DB-5MS

Matrix: R  
% Moisture: 10.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8479  
Batch ID: 960971  
Run Date: 03/18/2010 12:18  
Prep Date: 03/04/2010 23:22  
Data File: s6c1812.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	369	ug/kg	73.8	369
606-20-2	2,6-Dinitrotoluene	U	369	ug/kg	36.9	369
208-96-8	Acenaphthylene	U	36.9	ug/kg	11.1	36.9
51-28-5	2,4-Dinitrophenol	U	738	ug/kg	140	738
132-64-9	Dibenzofuran	U	369	ug/kg	73.8	369
84-66-2	Diethylphthalate	U	369	ug/kg	73.8	369
86-73-7	Fluorene	U	36.9	ug/kg	11.1	36.9
7005-72-3	4-Chlorophenylphenylether	U	369	ug/kg	73.8	369
534-52-1	2-Methyl-4,6-dinitrophenol	U	369	ug/kg	73.8	369
100-01-6	4-Nitroaniline	U	369	ug/kg	111	369
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	369	ug/kg	73.8	369
122-66-7	Azobenzene	U	369	ug/kg	73.8	369
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	369	ug/kg	73.8	369
118-74-1	Hexachlorobenzene	U	369	ug/kg	73.8	369
85-01-8	Phenanthrene	U	36.9	ug/kg	11.1	36.9
120-12-7	Anthracene	U	36.9	ug/kg	7.38	36.9
84-74-2	Di-n-butylphthalate	U	369	ug/kg	73.8	369
206-44-0	Fluoranthene	U	36.9	ug/kg	11.1	36.9
85-68-7	Butylbenzylphthalate	U	369	ug/kg	73.8	369
56-55-3	Benzo(a)anthracene	U	36.9	ug/kg	11.1	36.9
91-94-1	3,3'-Dichlorobenzidine	U	369	ug/kg	111	369
218-01-9	Chrysene	U	36.9	ug/kg	11.1	36.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	369	ug/kg	73.8	369
117-84-0	Di-n-octylphthalate	U	369	ug/kg	73.8	369
205-99-2	Benzo(b)fluoranthene	U	36.9	ug/kg	11.1	36.9
207-08-9	Benzo(k)fluoranthene	U	36.9	ug/kg	11.1	36.9
50-32-8	Benzo(a)pyrene	U	36.9	ug/kg	11.1	36.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.9	ug/kg	11.1	36.9
53-70-3	Dibenzo(a,h)anthracene	U	36.9	ug/kg	11.1	36.9
191-24-2	Benzo(ghi)perylene	U	36.9	ug/kg	11.1	36.9
120-82-1	1,2,4-Trichlorobenzene	U	369	ug/kg	73.8	369

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3	322	ug/kg		JA
120-08-1	2H-1-Benzopyran-2-one, 6,7-dimethoxy-	7.83	240	ug/kg	99	NJ



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

SDG Number: 10-2137  
Lab Sample ID: 248244006

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.17 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 10.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8479  
Batch ID: 960971  
Run Date: 03/18/2010 12:18  
Prep Date: 03/04/2010 23:22  
Data File: s6c1812.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
593-49-7	Heptacosane		10.91	187	ug/kg	94	NJ
	Unknown		13.44	259	ug/kg		J



Data File: /chem/MSD6.i/s031810.b/s6c1812.d  
Report Date: 18-Mar-2010 15:30

Page 1

GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1812.d  
Lab Smp Id: 248244006 Client Smp ID: RE36-10-8479  
Inj Date : 18-MAR-2010 12:18  
Operator : nagl Inst ID: MSD6.i  
Smp Info : |248244006|960971|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 12  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2137.sub  
Target Version: 3.50  
Processing Host: hpclpl

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	30.17000	weight of sample
M	10.23080	% 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	3.969	3.963	(1.000)	502544	40.0000	
* 29 Naphthalene-d8	136	4.840	4.834	(1.000)	1811708	40.0000	
* 46 Acenaphthene-d10	164	6.098	6.092	(1.000)	1103186	40.0000	
* 67 Phenanthrene-d10	188	7.275	7.269	(1.000)	1885686	40.0000	
* 91 Chrysene-d12	240	9.704	9.698	(1.000)	1618692	40.0000	
* 98 Perylene-d12	264	11.421	11.404	(1.000)	1298318	40.0000	
\$ 3 2-Fluorophenol	112	3.157	3.140	(0.795)	830697	59.4620	2200
\$ 5 Phenol-d5	99	3.675	3.669	(0.926)	1068024	60.1148	2220
\$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.894)	513105	29.6271	1090
\$ 39 2-Fluorobiphenyl	172	5.581	5.575	(0.915)	1001320	35.1804	1300
\$ 60 2,4,6-Tribromophenol	329	6.698	6.692	(1.098)	255237	82.4491	3040
\$ 81 p-Terphenyl-d14	244	8.669	8.651	(0.893)	1181466	41.8854	1550



## ION RATIO REPORT

## SV REPORT

Data file: s6c1812.d

Report Date: 03/18/2010 14:56

Lab. ID: 248244006

SampleType: SAMPLE

Injection Date: 18-MAR-2010 12:18

Operator: nagl

Instrument: MSD6.i

Sample Info: |248244006|960971|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2137

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	56731	3.67	3.75	80-120	100	(T)
93	1163	3.65	3.75	407-467	2	(QT)
-----						
17	N-Nitrosodipropylamine		CAS#: 621-64-7			
70	76702	4.33	4.20	80-120	100	(T)
42	47005	4.33	4.20	42-102	61	(T)
-----						
22	Isophorone		CAS#: 78-59-1			
82	513105	4.33	4.49	80-120	100	(T)
138	10559	4.83	4.49	0- 49	2	(T)
-----						
40	2-Chloronaphthalene		CAS#: 91-58-7			
162	1017669	6.10	5.68	80-120	100	(T)
164	1103186	6.10	5.68	3- 63	108	(QT)
127	150	6.10	5.68	8- 68	0	(QT)
-----						
43	Dimethylphthalate		CAS#: 131-11-3			
163	200938	6.10	5.85	80-120	100	(T)
164	1103186	6.10	5.85	0- 41	549	(QT)
-----						
45	Acenaphthylene		CAS#: 208-96-8			
152	54754	5.58	5.99	80-120	100	(T)
151	53327	5.58	5.99	0- 50	97	(QT)
153	17383	5.58	5.99	0- 44	32	(T)
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	148723	6.10	6.20	80-120	100	(T)
89	2052	6.10	6.20	40-100	1	(QT)
63	1638	6.10	6.20	18- 78	1	(QT)
<hr/>						
53 Fluorene				CAS#: 86-73-7		
166	16268	6.70	6.50	80-120	100	(T)
165	17353	6.70	6.50	61-121	107	(T)
167	5200	6.70	6.50	0- 44	32	(T)
<hr/>						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	722	6.70	6.52	80-120	100	(T)
105	1617	6.70	6.52	10- 70	224	(QT)
51	1623	6.70	6.51	37- 97	225	(QT)
<hr/>						
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	19182	6.70	6.87	80-120	100	(T)
141	117496	6.70	6.87	46-106	613	(QT)
250	38228	6.70	6.87	66-126	199	(QT)
<hr/>						
Q qualifier indicates ion failed ratio requirement						



GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1812.d  
 Lab Smp Id: 248244006 Client Smp ID: RE36-10-8479  
 Inj Date : 18-MAR-2010 12:18  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |248244006|960971|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 12  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2137.sub  
 Target Version: 3.50  
 Processing Host: hpclp1

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	30.17000	weight of sample
M	10.23080	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.969	3074739	40.000
* 67 Phenanthrene-d10	7.275	4714908	40.000
* 98 Perylene-d12	11.421	3528502	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

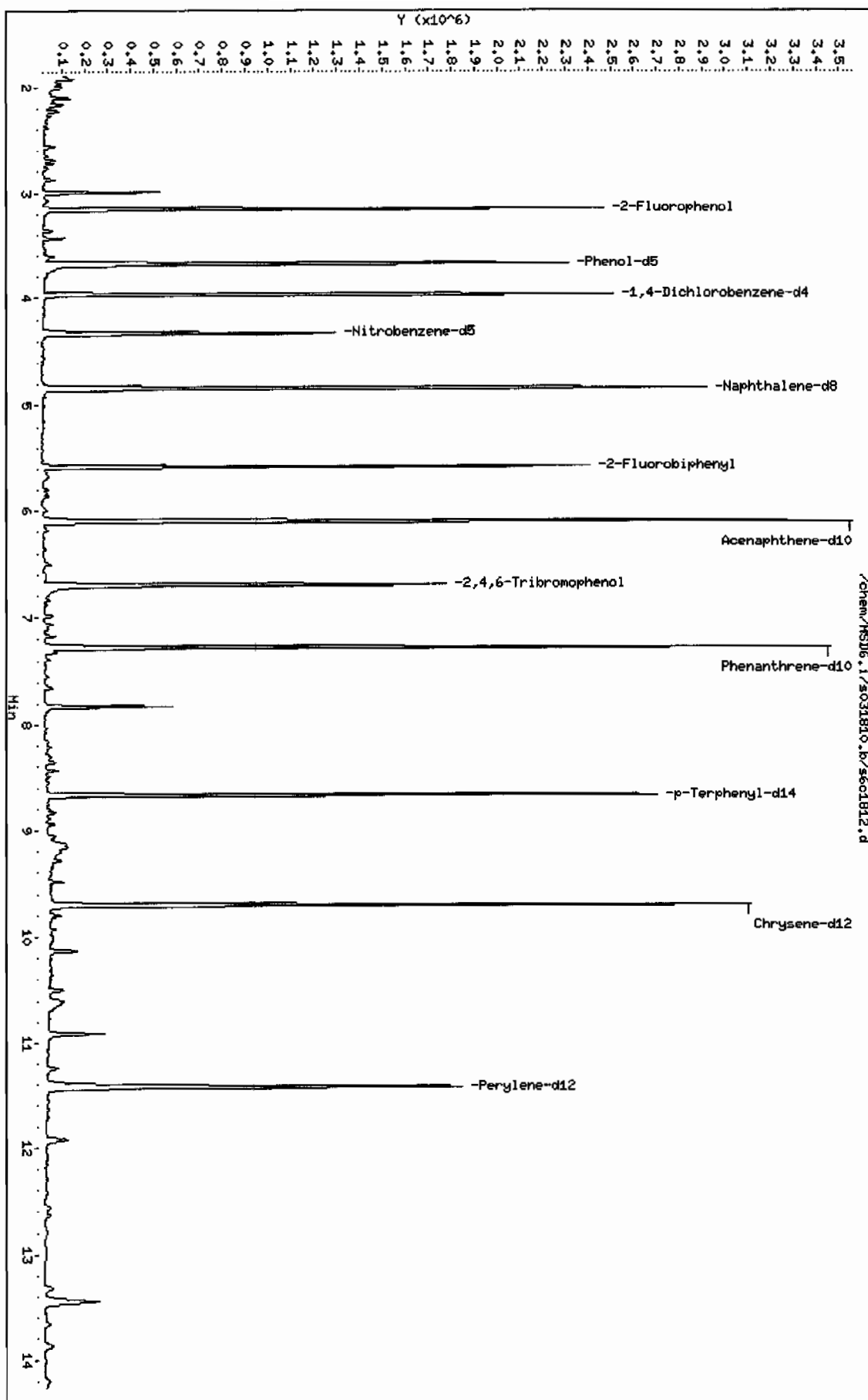


RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
====	====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate					CAS #:		
2.998	670285	8.71990043	322	0		0	10
2H-1-Benzopyran-2-one, 6,7-dimethoxy-					CAS #: 120-08-1		
7.828	767416	6.51054767	240	99	NIST05.L	61031	67
Heptacosane					CAS #: 593-49-7		
10.910	446436	5.06091234	187	94	NIST05.L	165300	98
Unknown					CAS #:		
13.445	619463	7.02239345	259	0		0	98



Data File: /chem/MSD6.i/s031810.b/s6c1812.d  
 Date: 18-MAR-2010 12:18  
 Client ID: RE36-10-8479  
 Sample Info: 1248244006196097111SVN11.LANL  
 Volume Injected (uL): 0.5  
 Column phase: 3M DB-SHS

Instrument: MSD6.i  
 Operator: nag1  
 Column diameter: 0.20





Date: 18-MAR-2010 12:18

Client ID: RE36-10-8479

Instrument: MSD6.i

Sample Info: 1248244006196097111SVMI11LANL

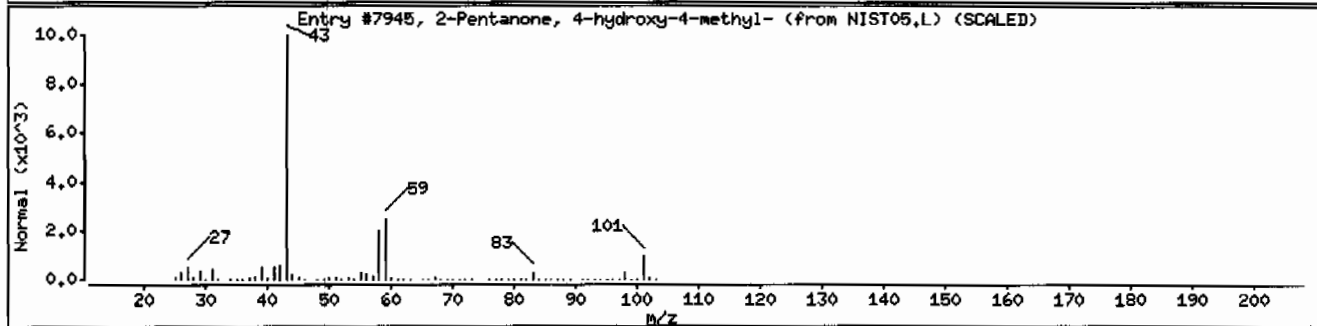
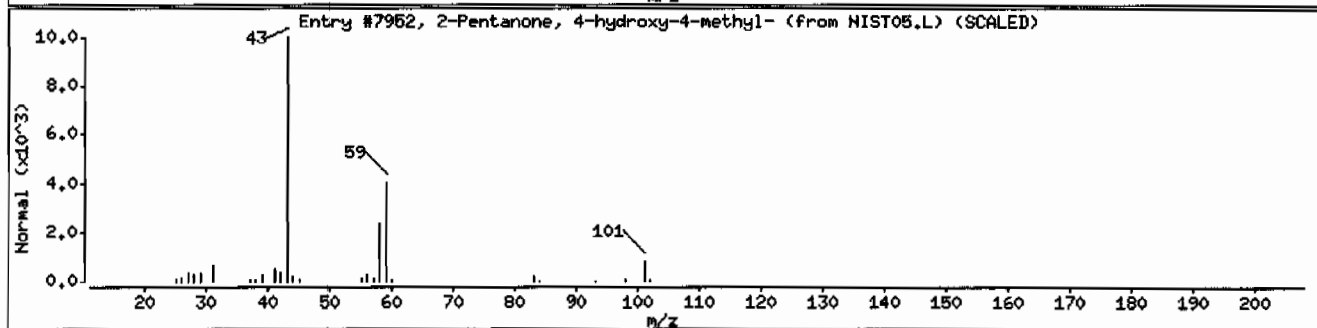
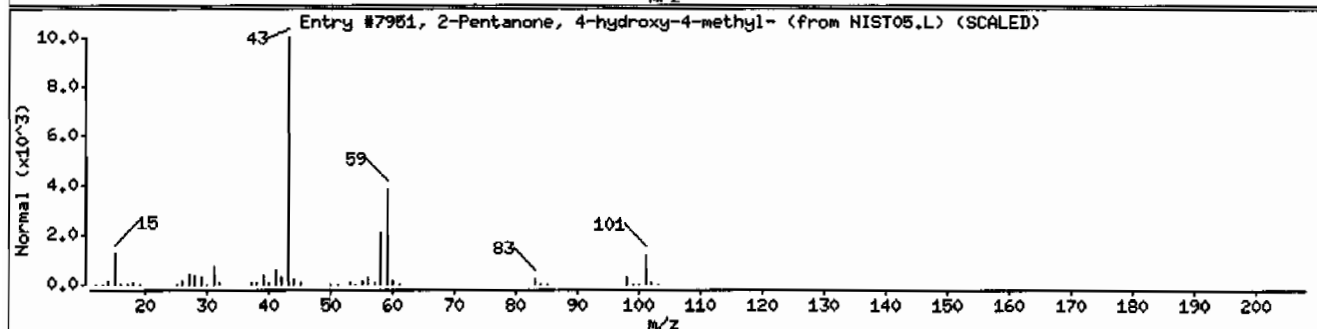
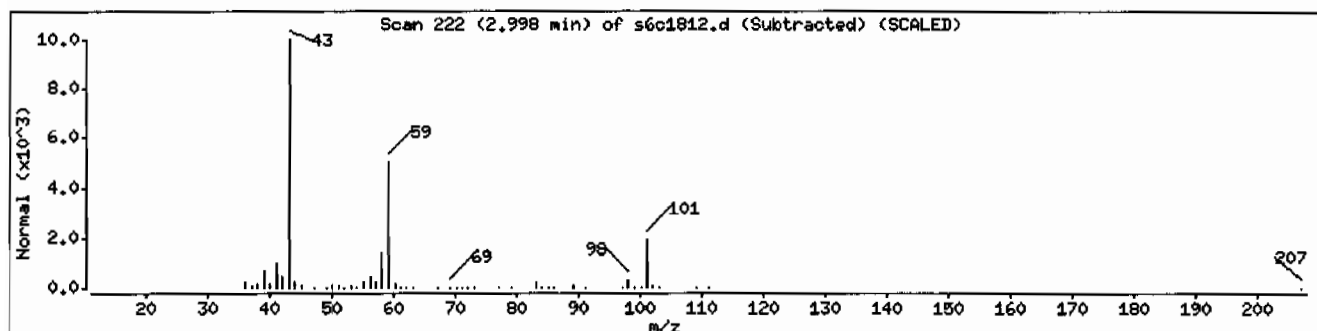
Volume Injected (uL): 0.5

Operator: nag1

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	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	39	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	28	C6H12O2	116





Date: 18-MAR-2010 12:18

Client ID: RE36-10-8479

Instrument: HSD6.i

Sample Info: 1248244006196097111SVH11ILANL

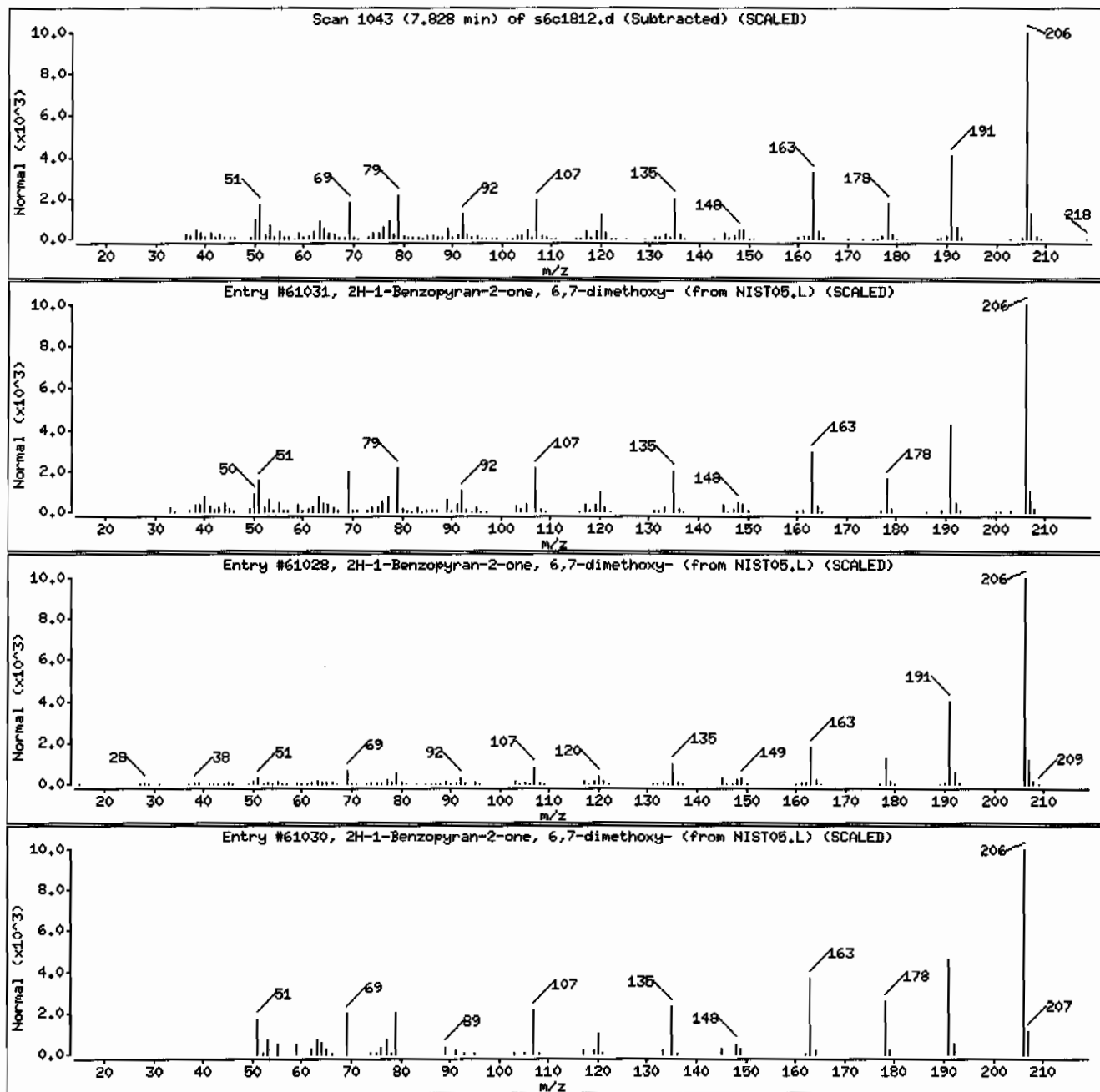
Volume Injected (uL): 0.5

Operator: nag1

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	61031	99	C <sub>11</sub> H <sub>10</sub> O <sub>4</sub>	206
2H-1-Benzopyran-2-one, 6,7-dimethoxy-	120-08-1	NIST05.L	61028	93	C <sub>11</sub> H <sub>10</sub> O <sub>4</sub>	206
2H-1-Benzopyran-2-one, 6,7-dimethoxy-	120-08-1	NIST05.L	61030	90	C <sub>11</sub> H <sub>10</sub> O <sub>4</sub>	206





Date: 18-MAR-2010 12:18

Client ID: RE36-10-8479

Instrument: HSD6.i

Sample Info: 1248244006196097111SVH111LANL

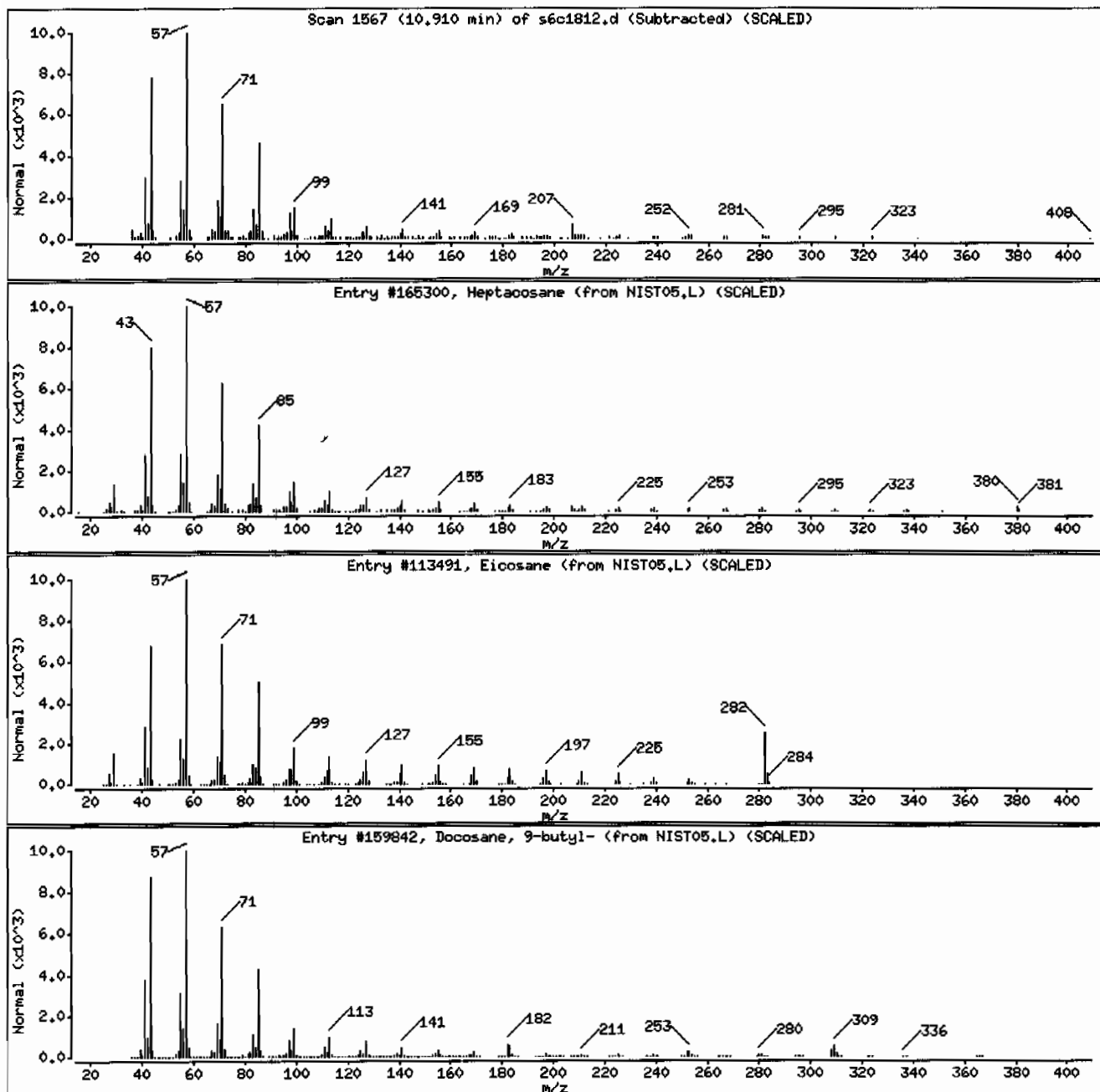
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptacosane	593-49-7	NIST05.L	165300	94	C <sub>27</sub> H <sub>56</sub>	380
Eicosane	112-95-8	NIST05.L	113491	93	C <sub>20</sub> H <sub>42</sub>	282
Docosane, 9-butyl-	55282-14-9	NIST05.L	159842	91	C <sub>26</sub> H <sub>54</sub>	366





Date: 18-MAR-2010 12:18

Client ID: RE36-10-8479

Instrument: MSD6.1

Sample Info: 1248244006196097111SVH111LANL

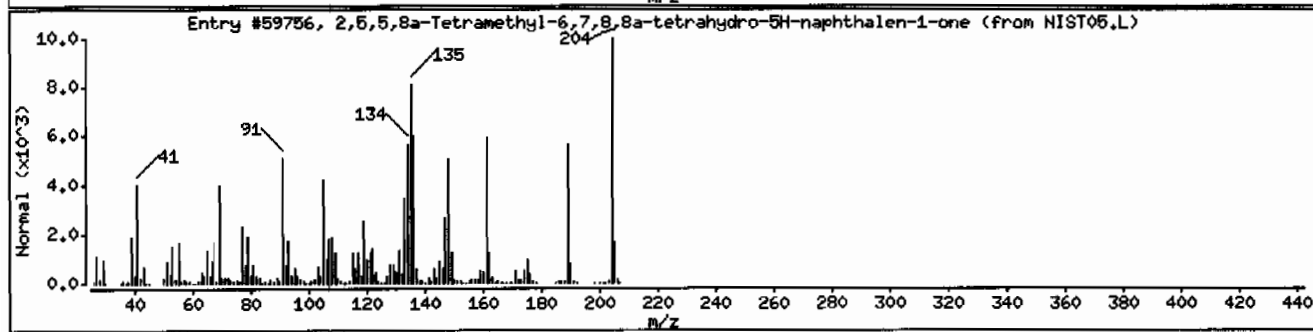
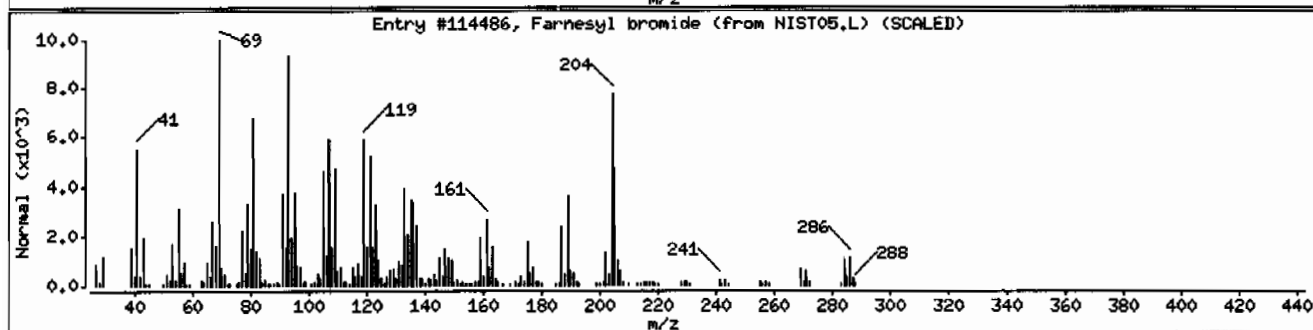
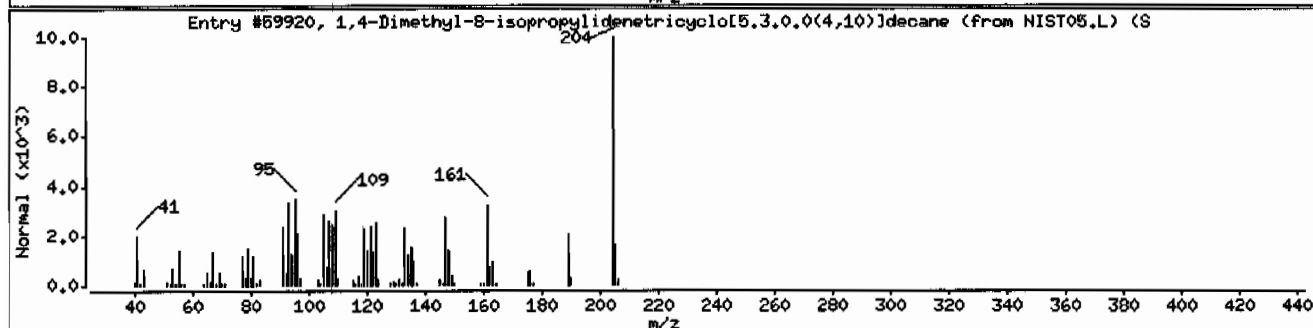
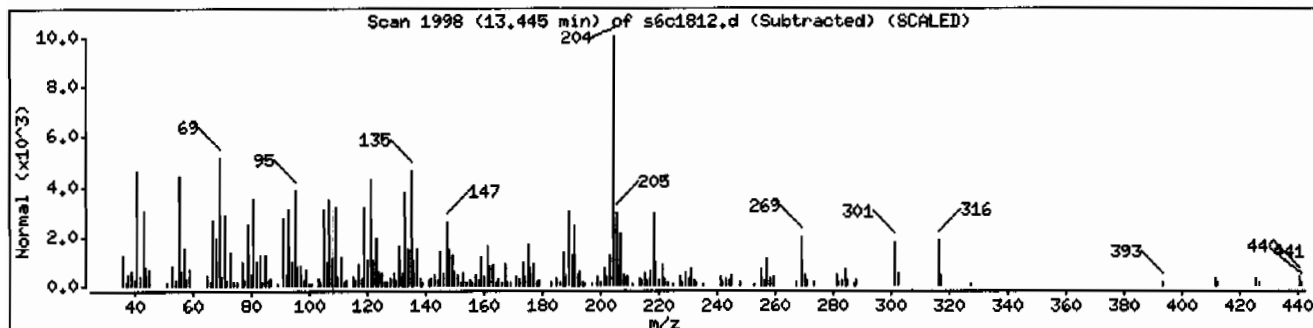
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,4-Dimethyl-8-isopropylidenetricyclo[5.3.0.0(4,10)]decane	1000140-07-7	NIST05.L	59920	64	C15H24	204
Farnesyl bromide	6874-67-5	NIST05.L	114486	48	C15H25Br	284
2,5,5,8a-Tetramethyl-6,7,8,8a-tetrahydro	124957-09-1	NIST05.L	59756	45	C14H20O	204





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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244008	Date Received: 02/27/2010 09:10	%Moisture: 11.2
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8481	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 12:42	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.03 g	Final Volume: 1 mL
Data File: s6c1813.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	375	ug/kg	75.0	375
108-95-2	Phenol	U	375	ug/kg	75.0	375
95-57-8	2-Chlorophenol	U	375	ug/kg	75.0	375
106-46-7	1,4-Dichlorobenzene	U	375	ug/kg	75.0	375
621-64-7	N-Nitrosodipropylamine	U	375	ug/kg	75.0	375
59-50-7	4-Chloro-3-methylphenol	U	375	ug/kg	75.0	375
83-32-9	Acenaphthene		193	ug/kg	12.4	37.5
121-14-2	2,4-Dinitrotoluene	U	375	ug/kg	37.5	375
100-02-7	4-Nitrophenol	U	375	ug/kg	124	375
87-86-5	Pentachlorophenol	U	375	ug/kg	93.8	375
129-00-0	Pyrene	U	37.5	ug/kg	11.3	37.5
110-86-1	Pyridine	U	375	ug/kg	75.0	375
62-53-3	Aniline	U	375	ug/kg	113	375
111-44-4	bis(2-Chloroethyl) ether	U	375	ug/kg	75.0	375
541-73-1	1,3-Dichlorobenzene	U	375	ug/kg	75.0	375
100-51-6	Benzyl alcohol	U	375	ug/kg	113	375
95-50-1	1,2-Dichlorobenzene	U	375	ug/kg	75.0	375
108-60-1	bis(2-Chloroisopropyl)ether	U	375	ug/kg	75.0	375
95-48-7	o-Cresol	U	375	ug/kg	75.0	375
65794-96-9	m,p-Cresols	U	375	ug/kg	113	375
67-72-1	Hexachloroethane	U	375	ug/kg	75.0	375
98-95-3	Nitrobenzene	U	375	ug/kg	75.0	375
78-59-1	Isophorone	U	375	ug/kg	75.0	375
88-75-5	2-Nitrophenol	U	375	ug/kg	75.0	375
105-67-9	2,4-Dimethylphenol	U	375	ug/kg	131	375
111-91-1	bis(2-Chloroethoxy)methane	U	375	ug/kg	75.0	375
120-83-2	2,4-Dichlorophenol	U	375	ug/kg	75.0	375
65-85-0	Benzoic acid	U	750	ug/kg	188	750
91-20-3	Naphthalene	U	37.5	ug/kg	11.3	37.5
106-47-8	4-Chloroaniline	U	375	ug/kg	75.0	375
87-68-3	Hexachlorobutadiene	U	375	ug/kg	75.0	375
91-57-6	2-Methylnaphthalene	U	37.5	ug/kg	7.50	37.5
77-47-4	Hexachlorocyclopentadiene	U	375	ug/kg	75.0	375
88-06-2	2,4,6-Trichlorophenol	U	375	ug/kg	75.0	375
95-95-4	2,4,5-Trichlorophenol	U	375	ug/kg	75.0	375
91-58-7	2-Chloronaphthalene	U	37.5	ug/kg	12.4	37.5
88-74-4	2-Nitroaniline	U	375	ug/kg	75.0	375
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	375	ug/kg	75.0	375



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

SDG Number: 10-2137  
Lab Sample ID: 248244008

Client ID: RE36-10-8481  
Batch ID: 960971  
Run Date: 03/18/2010 12:42  
Prep Date: 03/04/2010 23:22  
Data File: s6c1813.d

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 11.2  
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	U	375	ug/kg	75.0	375
606-20-2	Dimethylphthalate	U	375	ug/kg	37.5	375
208-96-8	2,6-Dinitrotoluene	U	37.5	ug/kg	11.3	37.5
51-28-5	Acenaphthylene	U	750	ug/kg	143	750
132-64-9	2,4-Dinitrophenol	U	375	ug/kg	75.0	375
84-66-2	Dibenzofuran	U	375	ug/kg	75.0	375
86-73-7	Diethylphthalate	U	37.5	ug/kg	11.3	37.5
7005-72-3	Fluorene	U	375	ug/kg	75.0	375
534-52-1	4-Chlorophenylphenylether	U	375	ug/kg	75.0	375
100-01-6	2-Methyl-4,6-dinitrophenol	U	375	ug/kg	113	375
122-39-4	4-Nitroaniline	U	375	ug/kg	75.0	375
122-66-7	<i>p</i> -Nitroaniline	U	375	ug/kg	75.0	375
101-55-3	Diphenylamine	U	375	ug/kg	75.0	375
118-74-1	Azobenzene	U	375	ug/kg	75.0	375
85-01-8	<i>1,2</i> -Diphenylhydrazine	U	375	ug/kg	75.0	375
120-12-7	4-Bromophenylphenylether	U	37.5	ug/kg	11.3	37.5
84-74-2	Hexachlorobenzene	U	37.5	ug/kg	7.50	37.5
206-44-0	Phenanthrene	U	375	ug/kg	75.0	375
85-68-7	Anthracene	U	37.5	ug/kg	11.3	37.5
56-55-3	Di-n-butylphthalate	U	375	ug/kg	75.0	375
91-94-1	Fluoranthene	U	37.5	ug/kg	11.3	37.5
218-01-9	Butylbenzylphthalate	U	37.5	ug/kg	11.3	37.5
117-81-7	Benzo(a)anthracene	U	375	ug/kg	113	375
117-84-0	3,3'-Dichlorobenzidine	U	37.5	ug/kg	11.3	37.5
205-99-2	Chrysene	U	375	ug/kg	75.0	375
207-08-9	bis(2-Ethylhexyl)phthalate	U	37.5	ug/kg	11.3	37.5
50-32-8	Di-n-octylphthalate	U	37.5	ug/kg	11.3	37.5
193-39-5	Benzo(b)fluoranthene	U	37.5	ug/kg	11.3	37.5
53-70-3	Benzo(k)fluoranthene	U	37.5	ug/kg	11.3	37.5
191-24-2	Benzo(a)pyrene	U	37.5	ug/kg	11.3	37.5
120-82-1	Indeno(1,2,3-cd)pyrene	U	37.5	ug/kg	11.3	37.5
	Dibenzo(a,h)anthracene	U	37.5	ug/kg	11.3	37.5
	Benzo(ghi)perylene	U	37.5	ug/kg	11.3	37.5
	1,2,4-Trichlorobenzene	U	375	ug/kg	75.0	375

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.09	243	ug/kg		J
	Unknown Aldol Condensate	2.99	256	ug/kg		JA



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

SDG Number: 10-2137  
Lab Sample ID: 248244008

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 11.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8481  
Batch ID: 960971  
Run Date: 03/18/2010 12:42  
Prep Date: 03/04/2010 23:22  
Data File: s6c1813.d

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
7785-70-8	1R-.alpha.-Pinene		3.54	185	ug/kg	97	NJ
60512-80-3	Acetophenone, 2',4'-dimethoxy-3'-methyl-		5.65	187	ug/kg	83	NJ
112-95-8	Eicosane		9.48	169	ug/kg	95	NJ
593-49-7	Heptacosane		10.13	322	ug/kg	96	NJ
	Unknown		10.6	245	ug/kg		J
7225-66-3	Tridecane, 7-hexyl-		10.91	497	ug/kg	91	NJ
	Unknown		11.93	156	ug/kg		J
	Unknown		13.44	253	ug/kg		J



GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1813.d  
 Lab Smp Id: 248244008 Client Smp ID: RE36-10-8481  
 Inj Date : 18-MAR-2010 12:42  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |248244008|960971|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 13  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2137.sub  
 Target Version: 3.50  
 Processing Host: hpc1p1

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	11.24400	% 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	3.969	3.963 (1.000)	450649	40.0000	
* 29 Naphthalene-d8	136	4.840	4.834 (1.000)	1631787	40.0000	
* 46 Acenaphthene-d10	164	6.098	6.092 (1.000)	991484	40.0000	
* 67 Phenanthrene-d10	188	7.275	7.269 (1.000)	1723906	40.0000	
* 91 Chrysene-d12	240	9.704	9.698 (1.000)	1354770	40.0000	
* 98 Perylene-d12	264	11.416	11.404 (1.000)	935356	40.0000	
\$ 3 2-Fluorophenol	112	3.157	3.140 (0.795)	801074	63.9448	2400
\$ 5 Phenol-d5	99	3.675	3.669 (0.926)	1006846	63.1974	2370
\$ 20 Nitrobenzene-d5	82	4.328	4.328 (0.894)	496037	31.7996	1190
\$ 39 2-Fluorobiphenyl	172	5.581	5.575 (0.915)	968134	37.8465	1420
\$ 60 2,4,6-Tribromophenol	329	6.698	6.692 (1.098)	235849	84.7694	3180
\$ 81 p-Terphenyl-d14	244	8.669	8.651 (0.893)	1064737	45.1006	1690



Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng/ul)	(ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
47 Acenaphthene	154	6.075	6.116	(0.996)	132473	5.14962	193 (Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.



## ION RATIO REPORT

## SV REPORT

Data file: s6c1813.d

Report Date: 03/18/2010 14:57

Lab. ID: 248244008

SampleType: SAMPLE

Injection Date: 18-MAR-2010 12:42

Operator: nag1

Instrument: MSD6.i

Sample Info: |248244008|960971|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2137

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	53766	3.67	3.75	80-120	100	(T)
93	14287	3.65	3.75	407-467	27	(QT)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	73571	4.33	4.20	80-120	100	(T)
42	46150	4.33	4.20	42-102	63	(T)
-----						
22 Isophorone		CAS#: 78-59-1				
82	496037	4.33	4.49	80-120	100	(T)
138	351	4.39	4.49	0- 49	0	(T)
-----						
40 2-Chloronaphthalene		CAS#: 91-58-7				
162	80061	5.72	5.68	80-120	100	( )
164	762	5.72	5.68	3- 63	1	(Q)
127	749	5.72	5.68	8- 68	1	(Q)
-----						
43 Dimethylphthalate		CAS#: 131-11-3				
163	181056	6.10	5.85	80-120	100	(T)
164	991484	6.10	5.85	0- 41	548	(QT)
-----						
45 Acenaphthylene		CAS#: 208-96-8				
152	152574	6.07	5.99	80-120	100	(T)
151	41260	6.07	5.99	0- 50	27	(T)
153	157378	6.07	5.99	0- 44	103	(QT)
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
47 Acenaphthene			CAS#: 83-32-9			
154	132473	6.07	6.12	80-120	100	( )
153	157378	6.07	6.12	68-128	119	( )
152	152574	6.07	6.12	16- 76	115	(Q)
<hr/>						
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	133901	6.10	6.20	80-120	100	(T)
89	9805	6.07	6.20	40-100	7	(QT)
63	23505	6.07	6.20	18- 78	18	(QT)
<hr/>						
52 4-Nitrophenol			CAS#: 100-02-7			
139	25320	6.07	6.12	80-120	100	( )
109	4344	6.10	6.12	35- 95	17	(Q)
65	6365	6.07	6.12	69-129	25	(Q)
<hr/>						
53 Fluorene			CAS#: 86-73-7			
166	15409	6.70	6.50	80-120	100	(T)
165	15205	6.70	6.50	61-121	99	(T)
167	5322	6.70	6.50	0- 44	35	(T)
<hr/>						
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	704	6.70	6.52	80-120	100	(T)
105	1046	6.70	6.52	10- 70	149	(QT)
51	1352	6.70	6.51	37- 97	192	(QT)
<hr/>						
61 4-Bromophenylphenylether			CAS#: 101-55-3			
248	18082	6.70	6.87	80-120	100	(T)
141	110047	6.70	6.87	46-106	609	(QT)
250	36128	6.70	6.87	66-126	200	(QT)

Q qualifier indicates ion failed ratio requirement



Data File: /chem/MSD6.i/s031810.b/s6c1813.d  
 Report Date: 18-Mar-2010 15:31

Page 1

# GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1813.d  
 Lab Smp Id: 248244008 Client Smp ID: RE36-10-8481  
 Inj Date : 18-MAR-2010 12:42  
 Operator : nag1 Inst ID: MSD6.i  
 Smp Info : |248244008|960971|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 13  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2137.sub  
 Target Version: 3.50  
 Processing Host: hpclp1

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	30.03000	weight of sample
M	11.24400	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.969	2793780	40.000
* 46 Acenaphthene-d10	6.098	5300207	40.000
* 91 Chrysene-d12	9.704	3599778	40.000
* 98 Perylene-d12	11.416	2698578	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

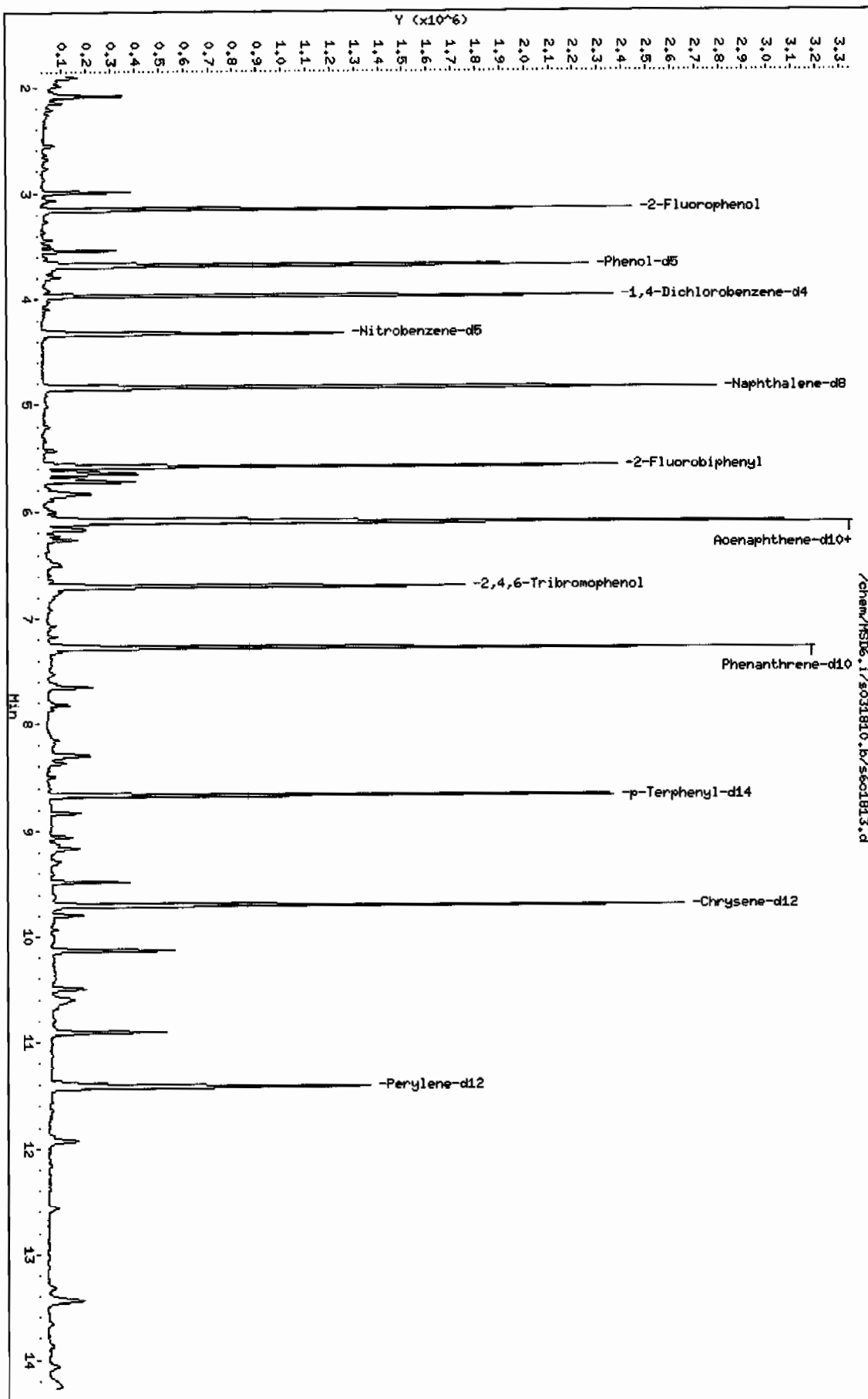


RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Unknown					CAS #:		
2.087	452975	6.48547162	243	0		0	10
Unknown Aldol Condensate					CAS #:		
2.993	475938	6.81424668	256	0		0	10
1R-.alpha.-Pinene					CAS #: 7785-70-8		
3.540	344573	4.93342512	185	97	NIST05.L	15188	10
Acetophenone, 2',4'-dimethoxy-3'-methyl-					CAS #: 60512-80-3		
5.651	661337	4.99102915	187	83	NIST05.L	52480	46
Eicosane					CAS #: 112-95-8		
9.480	405999	4.51137850	169	95	NIST05.L	113489	91
Heptacosane					CAS #: 593-49-7		
10.133	773100	8.59052557	322	96	NIST05.L	165301	91
Unknown					CAS #:		
10.598	440046	6.52264223	245	0		0	98
Tridecane, 7-hexyl-					CAS #: 7225-66-3		
10.910	893750	13.2477149	497	91	NIST05.L	104273	98
Unknown					CAS #:		
11.927	281076	4.16628831	156	0		0	98
Unknown					CAS #:		
13.445	454108	6.73106398	252	0		0	98



Data File: /chem/HSD6.i/s031810.b/s601813.d  
 Date: 18-Mar-2010 12:42  
 Client ID: RE36-10-8481  
 Sample Info: 1248244008196097111SVH11LPHL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-SHS

Instrument: HSD6.i  
 Operator: nag1  
 Column diameter: 0.20





Date: 18-MAR-2010 12:42

Client ID: RE36-10-8481

Instrument: HSD6.i

Sample Info: 1248244008196097111SVH11ILANL

Volume Injected (uL): 0.5

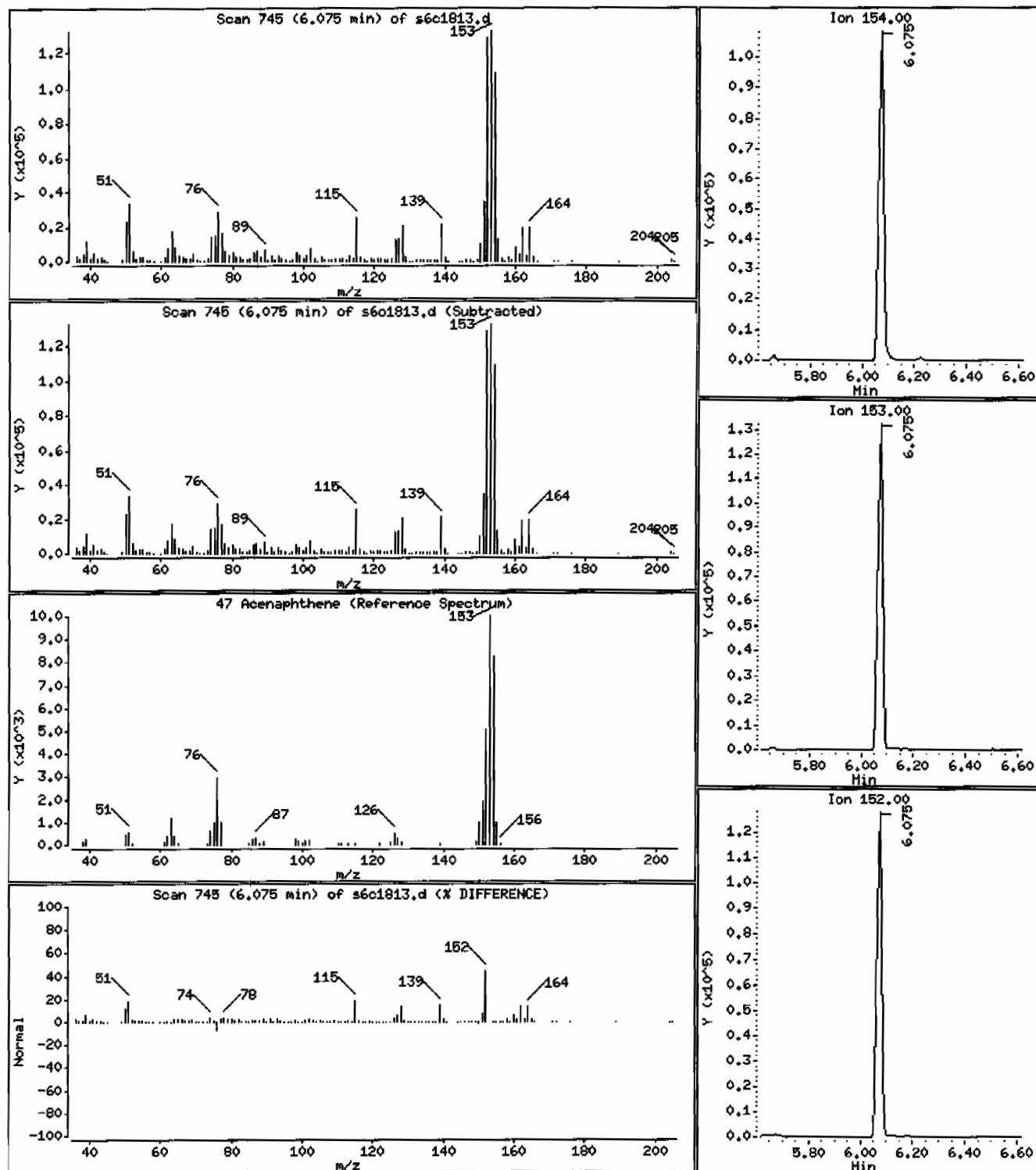
Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 193 ug/Kg





Date: 18-MAR-2010 12:42

Client ID: RE36-10-8481

Instrument: MSD6.i

Sample Info: 1248244008196097111SVMI11LANL

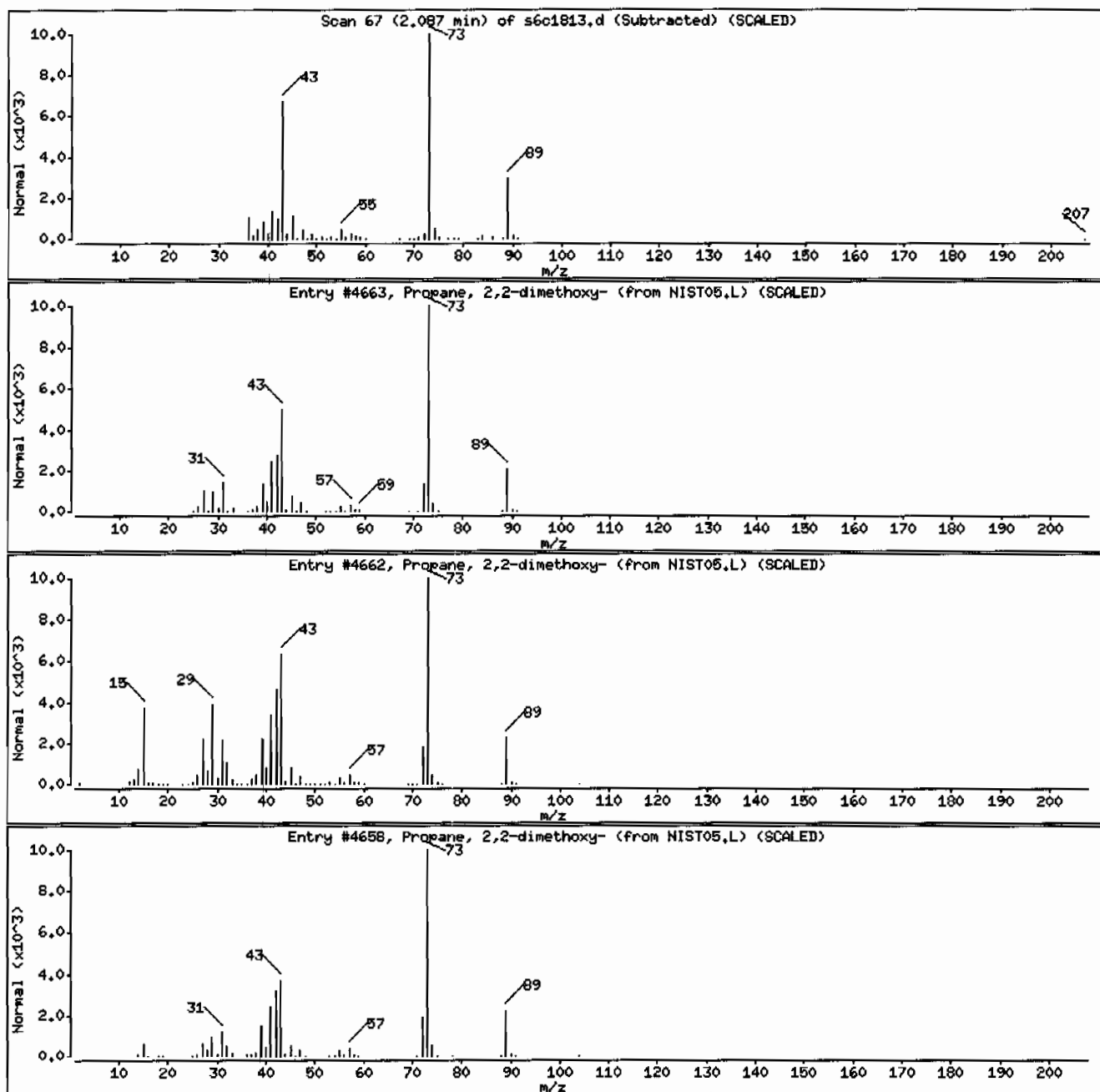
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	50	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	40	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	33	C5H12O2	104





Date : 18-MAR-2010 12:42

Client ID: RE36-10-8481

Instrument: MSD6.i

Sample Info: 1248244008196097111SVH111LANL

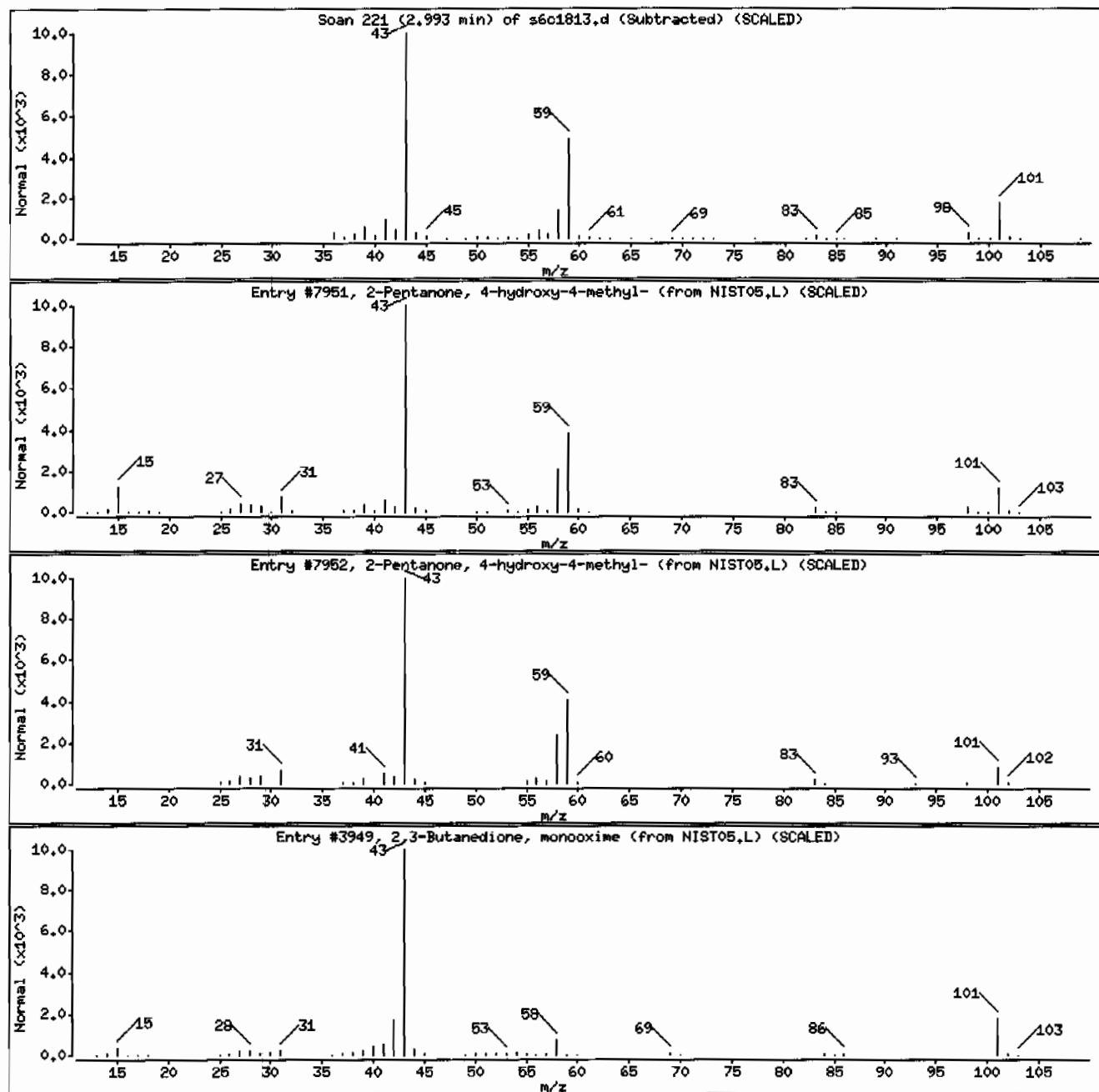
Volume Injected (uL): 0.5

Operator: nag1

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	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	27	C4H7NO2	101





Date: 18-MAR-2010 12:42

Client ID: RE36-10-8481

Instrument: MSD6.1

Sample Info: 1248244008196097111SVH11ILANL

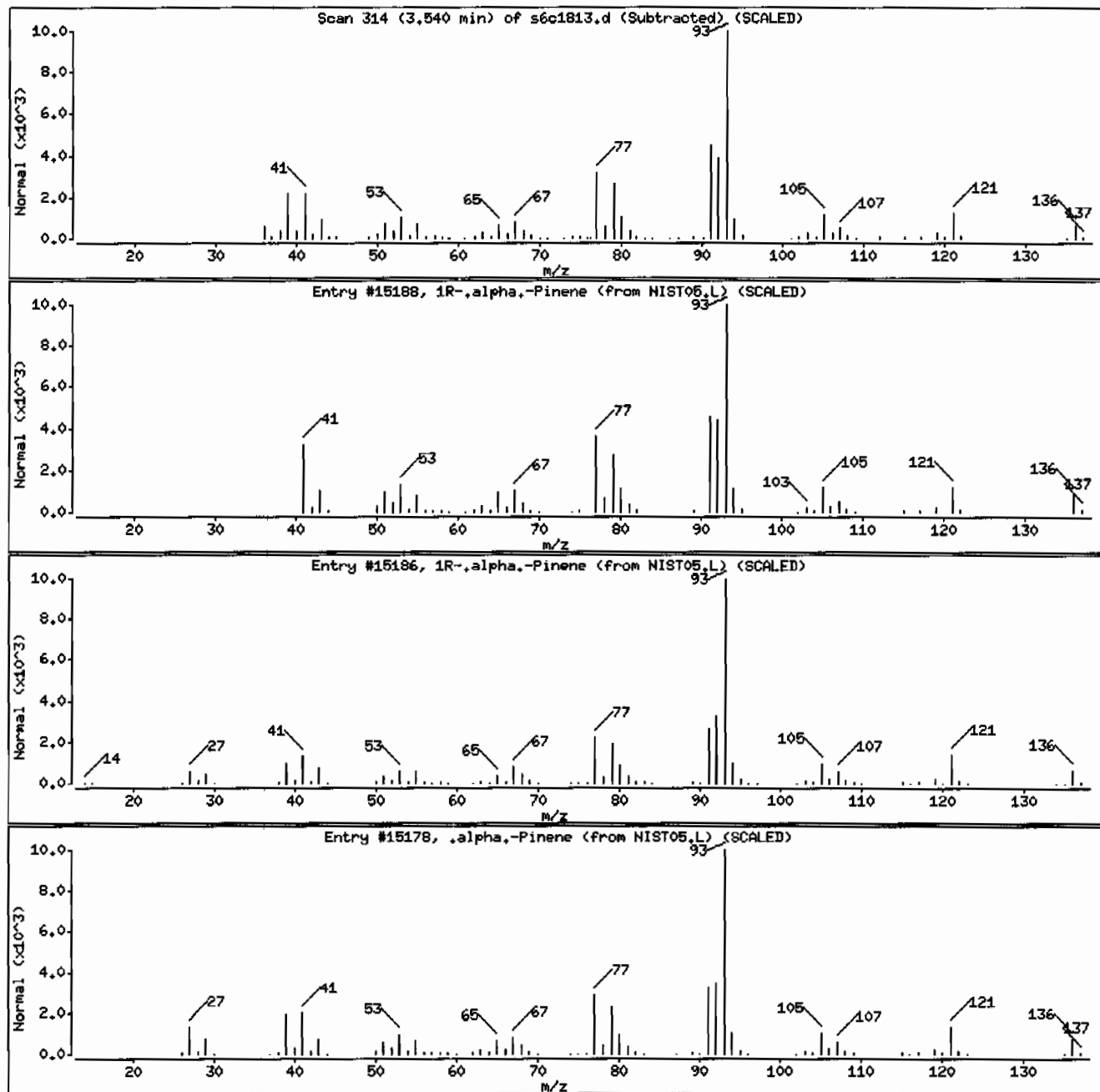
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1R-,alpha,-Pinene	7785-70-8	NIST05.L	15188	97	C10H16	136
1R-,alpha,-Pinene	7785-70-8	NIST05.L	15186	96	C10H16	136
,alpha,-Pinene	80-56-8	NIST05.L	15178	96	C10H16	136





Date : 18-MAR-2010 12:42

Client ID: RE36-10-8481

Instrument: HSD6.1

Sample Info: 1248244008196097111SVMI11LANL

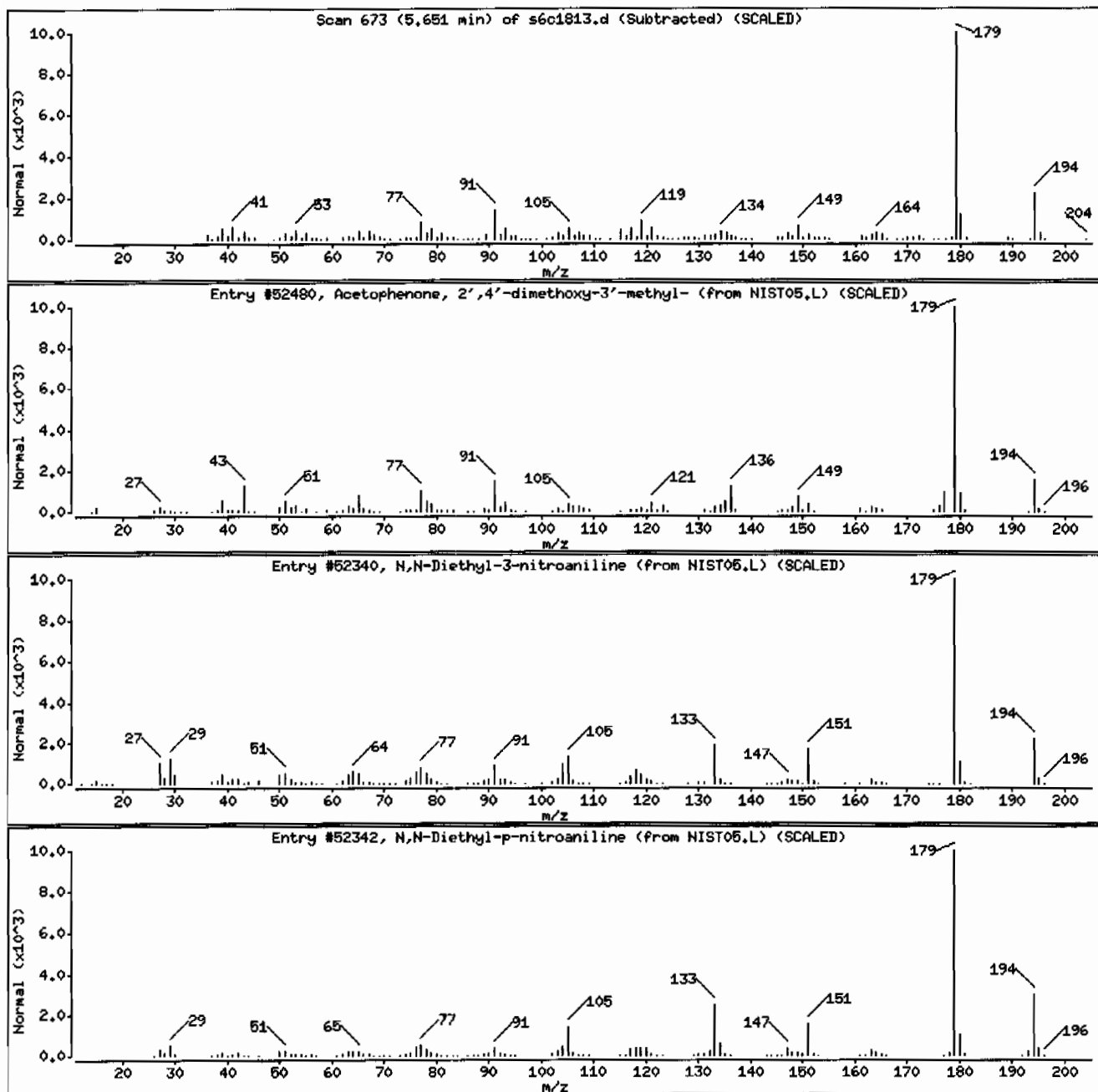
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Acetophenone, 2',4'-dimethoxy-3'-methyl-	60512-80-3	NIST05.L	52480	83	C11H14O3	194
N,N-Diethyl-3-nitroaniline	2216-16-2	NIST05.L	52340	64	C10H14N2O2	194
N,N-Diethyl-p-nitroaniline	2216-15-1	NIST05.L	52342	64	C10H14N2O2	194





Date : 18-MAR-2010 12:42

Client ID: RE36-10-8481

Instrument: MSD6.i

Sample Info: 1248244008196097111SVMI1ILANL

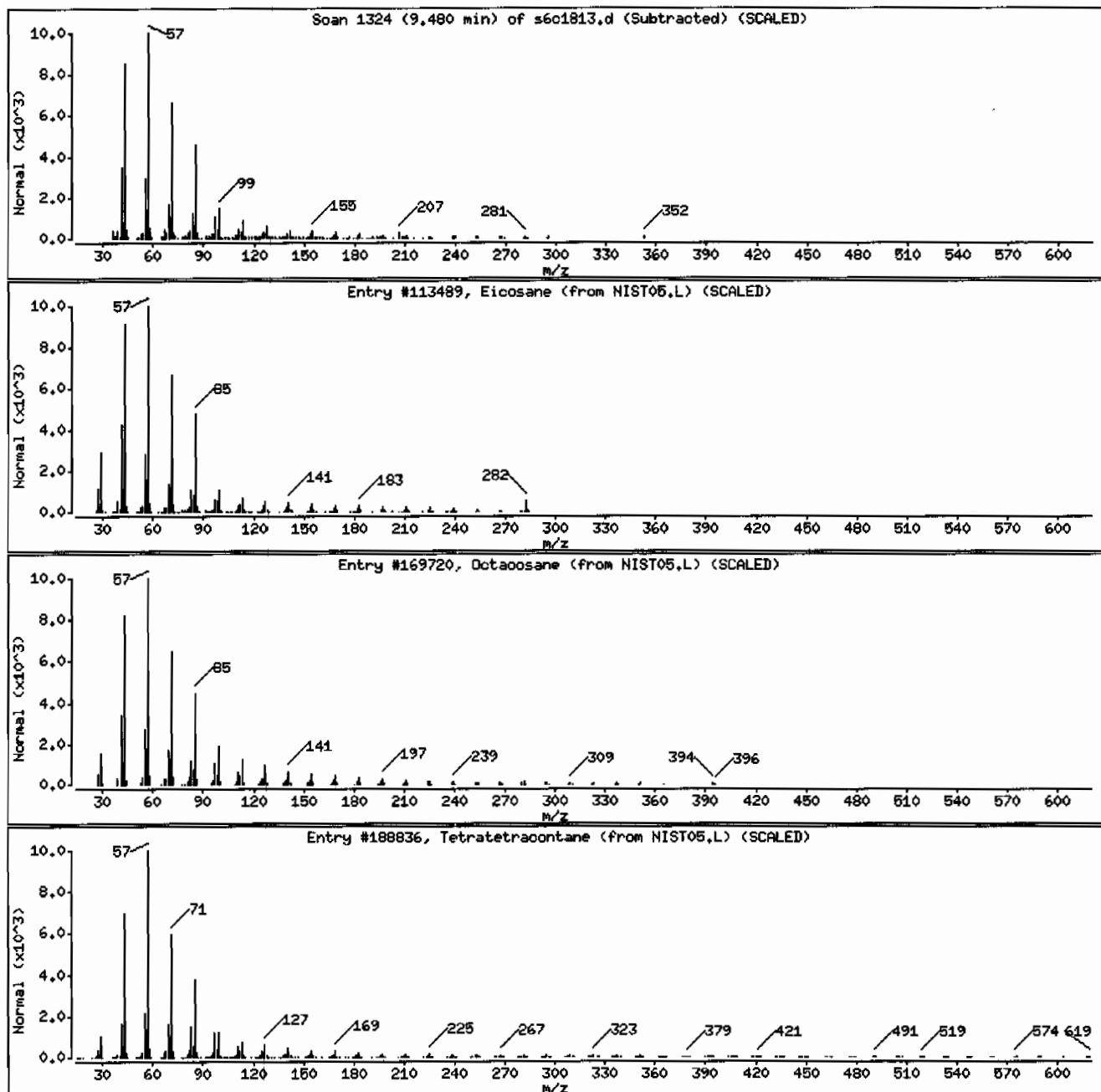
Volume Injected (uL): 0.5

Operator: nag1

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	113489	95	C <sub>20</sub> H <sub>42</sub>	282
Octacosane	630-02-4	NIST05.L	169720	91	C <sub>28</sub> H <sub>58</sub>	394
Tetratetracontane	7098-22-8	NIST05.L	188836	91	C <sub>44</sub> H <sub>90</sub>	619





Date: 18-MAR-2010 12:42

Client ID: RE36-10-8481

Instrument: MSD6.i

Sample Info: 1248244008196097111SVH11ILANL

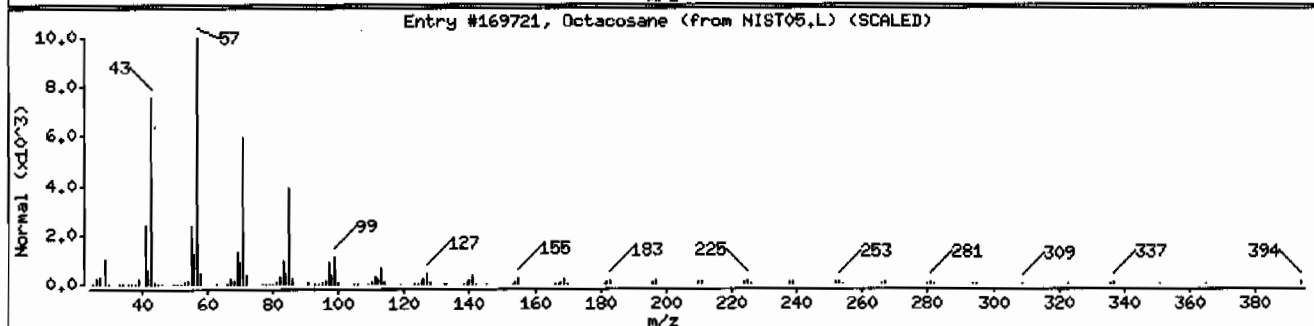
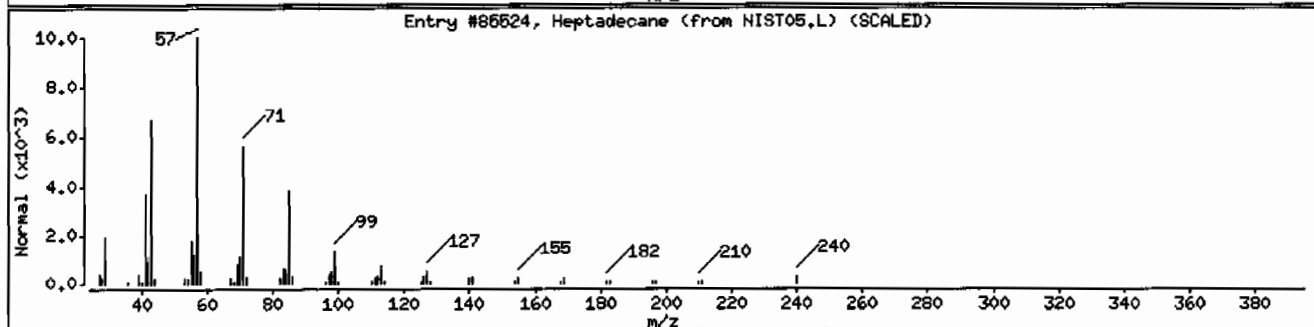
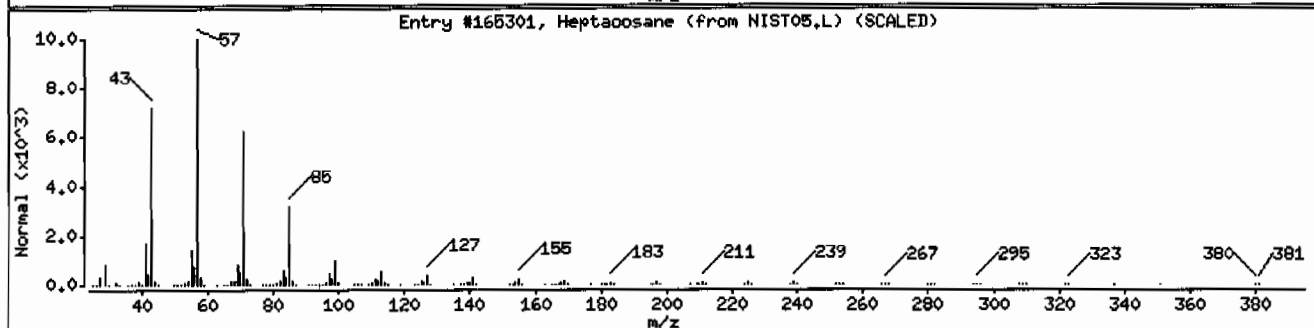
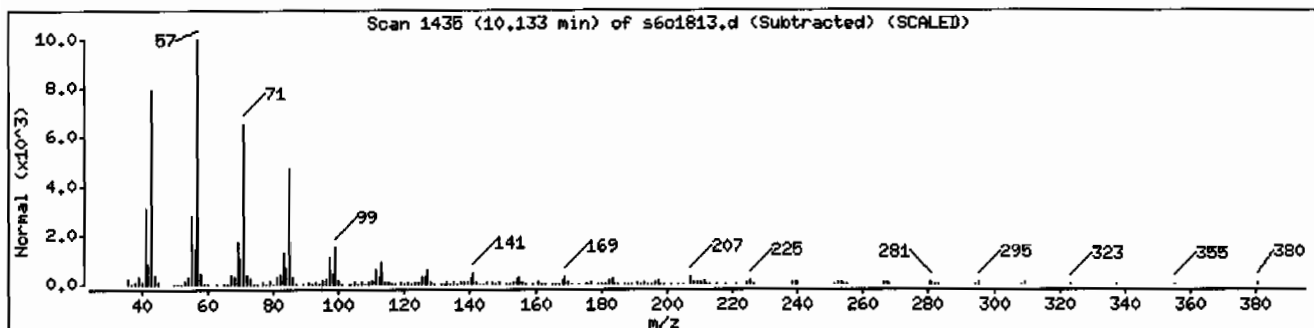
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptacosane	593-49-7	NIST05.L	165301	96	C <sub>27</sub> H <sub>56</sub>	380
Heptadecane	629-78-7	NIST05.L	85524	95	C <sub>17</sub> H <sub>36</sub>	240
Octacosane	630-02-4	NIST05.L	169721	94	C <sub>28</sub> H <sub>58</sub>	394





Date: 18-MAR-2010 12:42

Client ID: RE36-10-8481

Instrument: MSD6.i

Sample Info: 1248244008196097111SVH111LANL

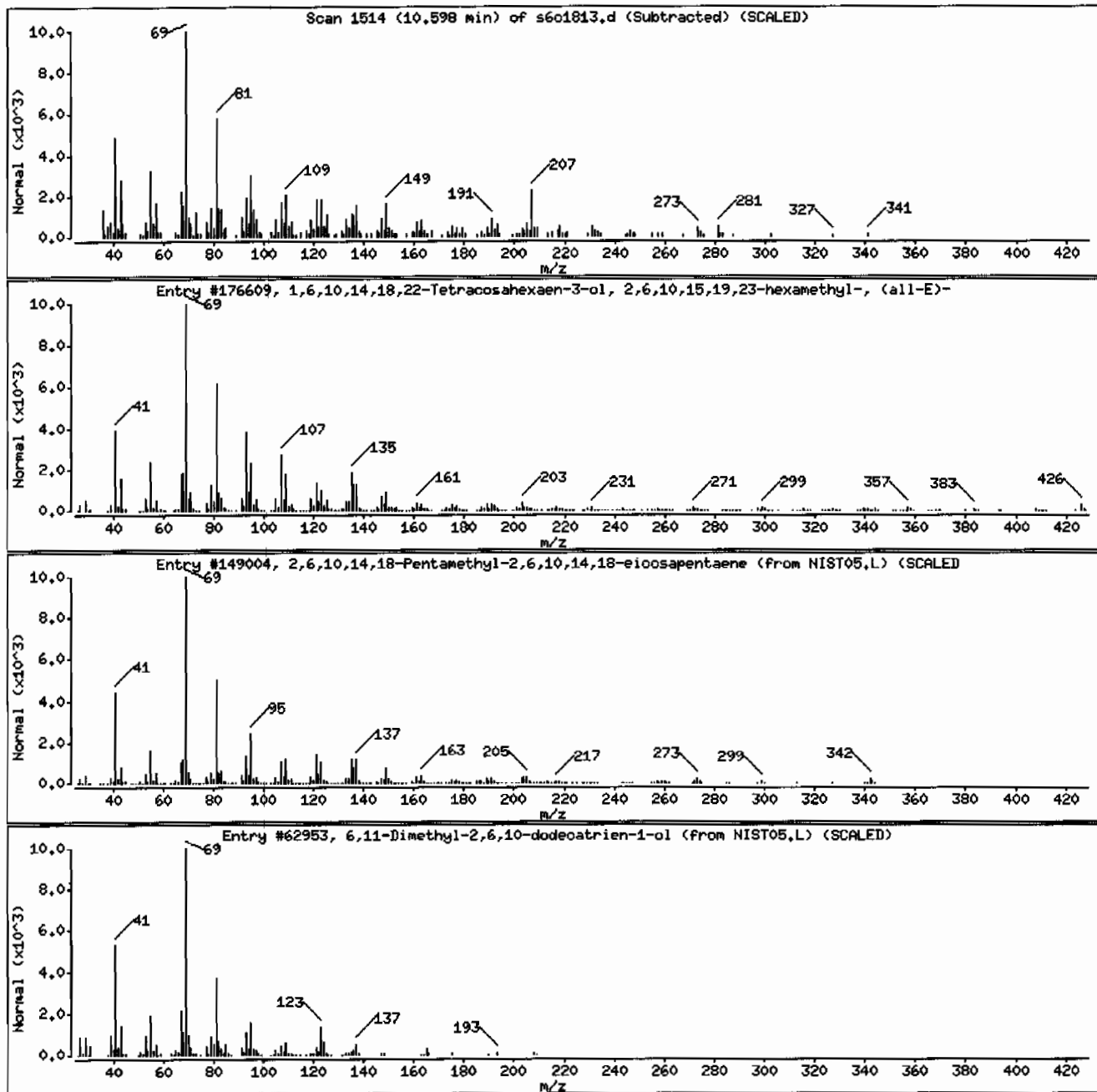
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,6,10,14,18,22-Tetracosahexaen-3-ol, 2,	54159-46-5	NIST05.L	176609	72	C30H50O	426
2,6,10,14,18-Pentamethyl-2,6,10,14,18-ei	75581-03-2	NIST05.L	149004	58	C28H42	342
6,11-Dimethyl-2,6,10-dodecatrien-1-ol	1000196-53-3	NIST05.L	62953	50	C14H24O	208





Date: 18-MAR-2010 12:42

Client ID: RE36-10-8481

Instrument: MSD6.i

Sample Info: 1248244008196097111SVMI11LANL

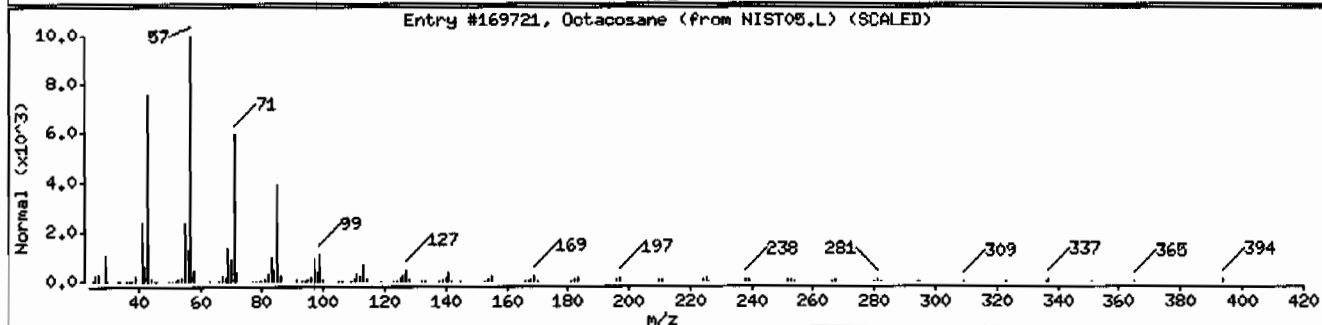
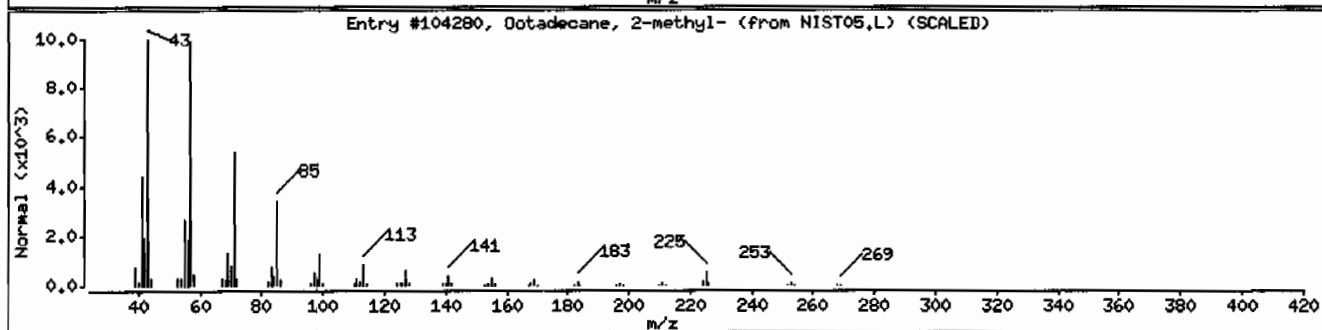
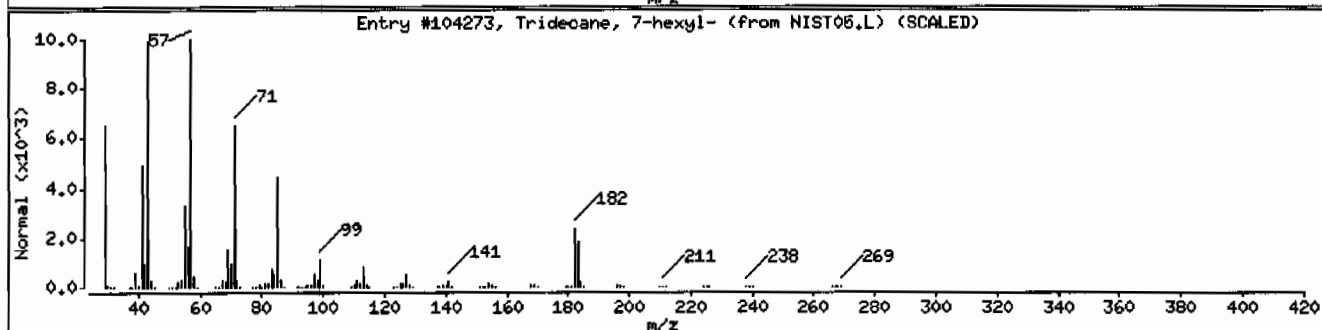
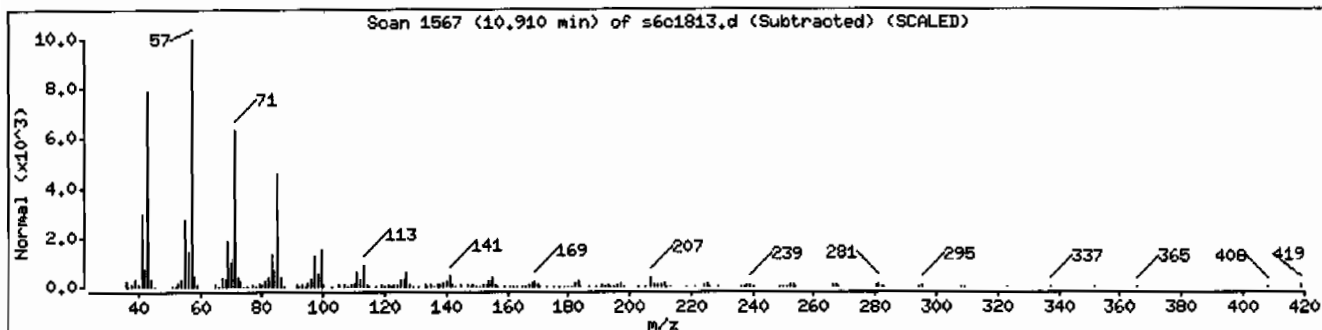
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tridecane, 7-hexyl-	7225-66-3	NIST05.L	104273	91	C19H40	268
Octadecane, 2-methyl-	1560-88-9	NIST05.L	104280	91	C19H40	268
Octacosane	630-02-4	NIST05.L	169721	87	C28H58	394





Date: 18-MAR-2010 12:42

Client ID: RE36-10-8481

Instrument: HSD6.i

Sample Info: 1248244008196097111SVH111LANL

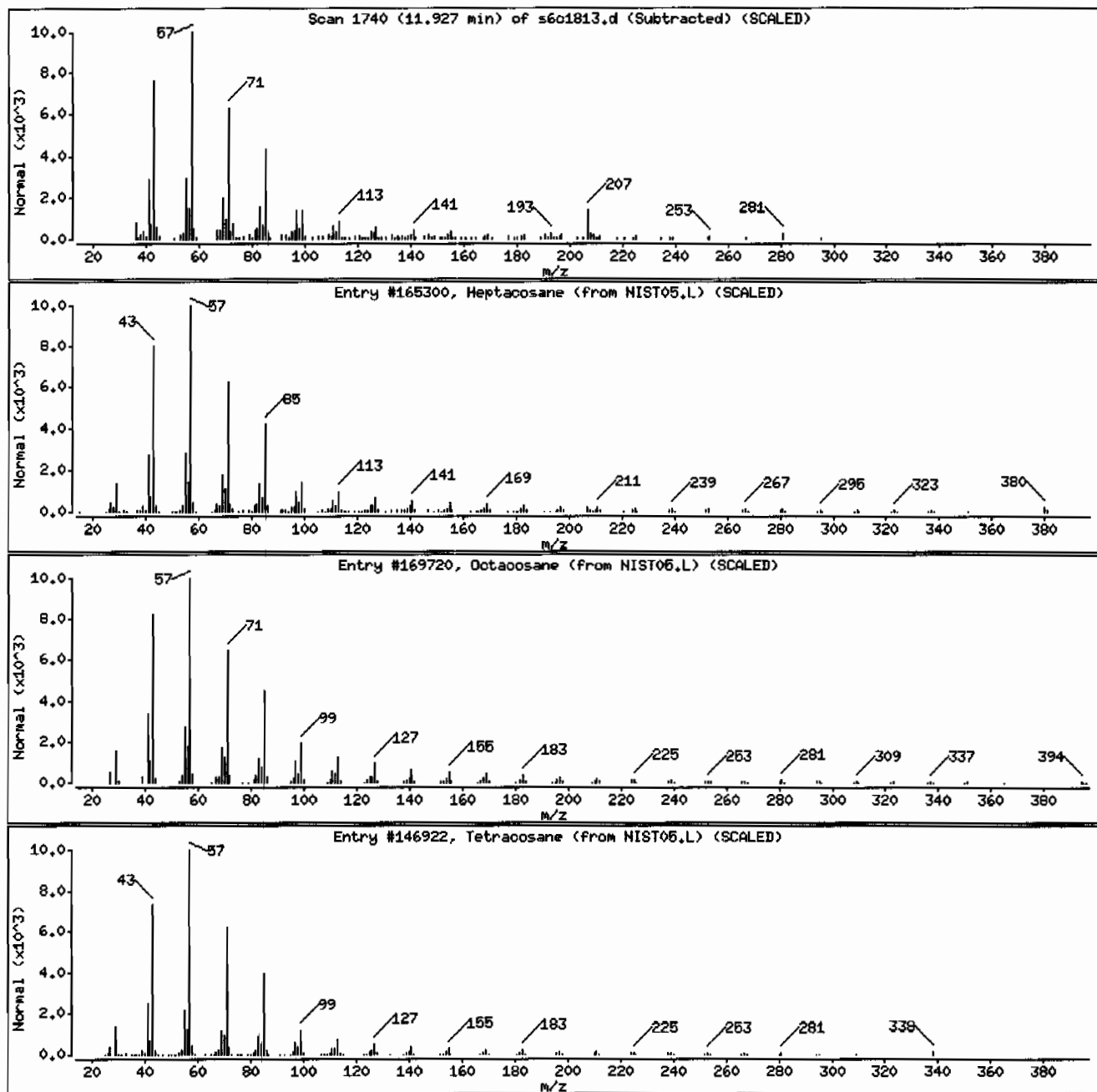
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Heptacosane	593-49-7	NIST05.L	165300	90	C <sub>27</sub> H <sub>56</sub>	380
Octacosane	630-02-4	NIST05.L	169720	90	C <sub>28</sub> H <sub>58</sub>	394
Tetracosane	646-31-1	NIST05.L	146922	87	C <sub>24</sub> H <sub>50</sub>	338





Date: 18-MAR-2010 12:42

Client ID: RE36-10-8481

Instrument: MSD6.1

Sample Info: 1248244008196097111SVH111LANL

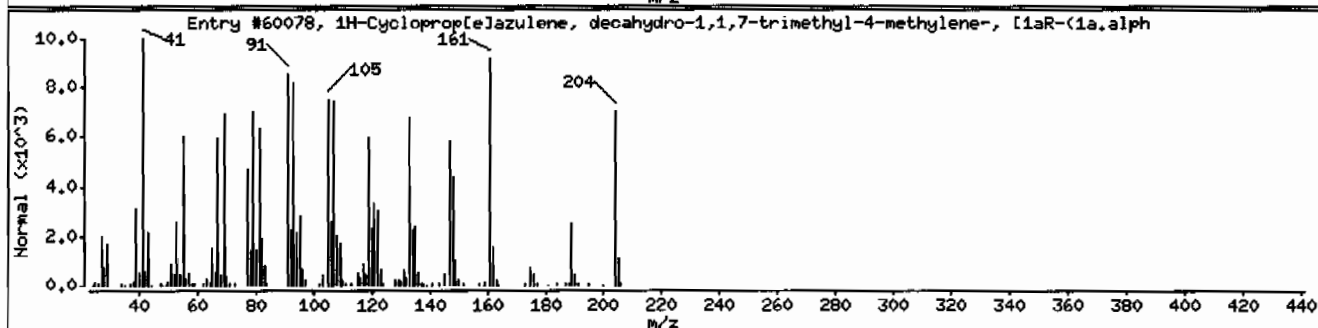
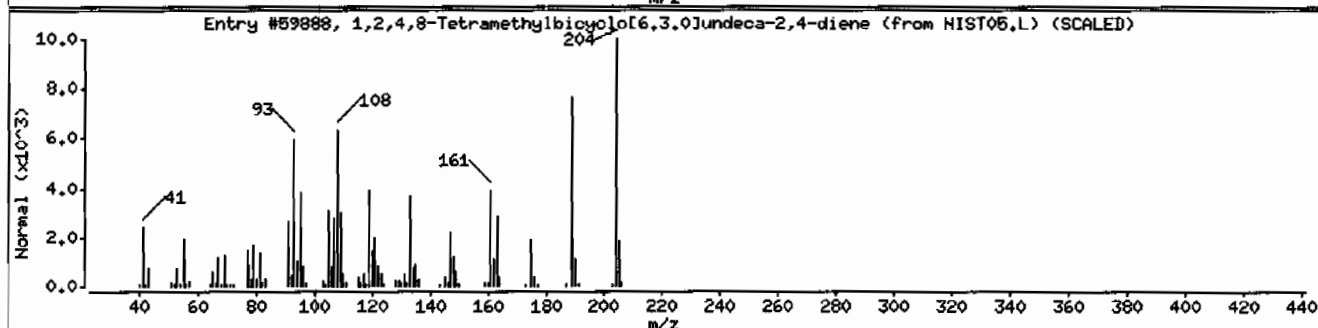
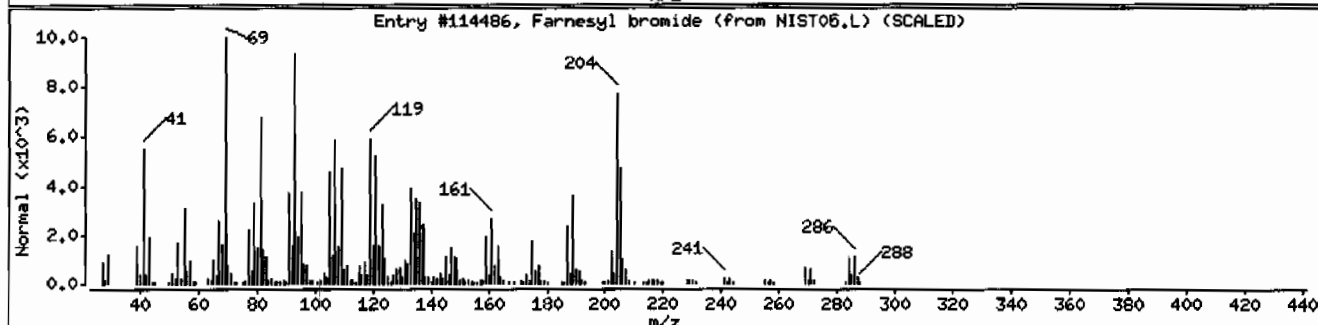
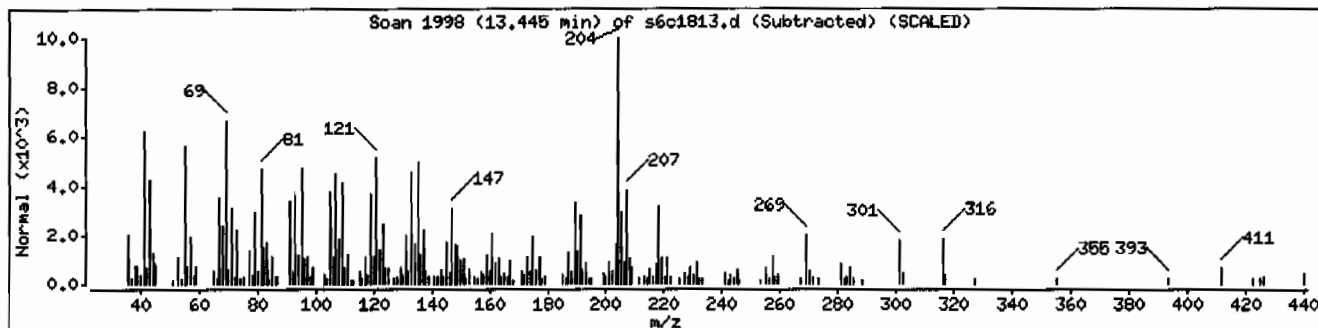
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Farnesyl bromide	6874-67-5	NIST05.L	114486	58	C15H25Br	284
1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-	137235-51-9	NIST05.L	59888	58	C15H24	204
1H-Cycloprop[elazulene, decahydro-1,1,7-	489-39-4	NIST05.L	60078	50	C15H24	204





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

SDG Number: 10-2137  
Lab Sample ID: 248244007

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.19 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 16.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8484  
Batch ID: 960971  
Run Date: 03/18/2010 13:52  
Prep Date: 03/04/2010 23:22  
Data File: s6c1816.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	395	ug/kg	79.1	395
108-95-2	Phenol	U	395	ug/kg	79.1	395
95-57-8	2-Chlorophenol	U	395	ug/kg	79.1	395
106-46-7	1,4-Dichlorobenzene	U	395	ug/kg	79.1	395
621-64-7	N-Nitrosodipropylamine	U	395	ug/kg	79.1	395
59-50-7	4-Chloro-3-methylphenol	U	395	ug/kg	79.1	395
83-32-9	Acenaphthene	U	39.5	ug/kg	13.0	39.5
121-14-2	2,4-Dinitrotoluene	U	395	ug/kg	39.5	395
100-02-7	4-Nitrophenol	U	395	ug/kg	130	395
87-86-5	Pentachlorophenol	U	395	ug/kg	98.8	395
129-00-0	Pyrene	U	39.5	ug/kg	11.9	39.5
110-86-1	Pyridine	U	395	ug/kg	79.1	395
62-53-3	Aniline	U	395	ug/kg	119	395
111-44-4	bis(2-Chloroethyl) ether	U	395	ug/kg	79.1	395
541-73-1	1,3-Dichlorobenzene	U	395	ug/kg	79.1	395
100-51-6	Benzyl alcohol	U	395	ug/kg	119	395
95-50-1	1,2-Dichlorobenzene	U	395	ug/kg	79.1	395
108-60-1	bis(2-Chloroisopropyl)ether	U	395	ug/kg	79.1	395
95-48-7	o-Cresol	U	395	ug/kg	79.1	395
65794-96-9	m,p-Cresols	U	395	ug/kg	119	395
67-72-1	Hexachloroethane	U	395	ug/kg	79.1	395
98-95-3	Nitrobenzene	U	395	ug/kg	79.1	395
78-59-1	Isophorone	U	395	ug/kg	79.1	395
88-75-5	2-Nitrophenol	U	395	ug/kg	79.1	395
105-67-9	2,4-Dimethylphenol	U	395	ug/kg	138	395
111-91-1	bis(2-Chloroethoxy)methane	U	395	ug/kg	79.1	395
120-83-2	2,4-Dichlorophenol	U	395	ug/kg	79.1	395
65-85-0	Benzoic acid	U	791	ug/kg	198	791
91-20-3	Naphthalene	U	39.5	ug/kg	11.9	39.5
106-47-8	4-Chloroaniline	U	395	ug/kg	79.1	395
87-68-3	Hexachlorobutadiene	U	395	ug/kg	79.1	395
91-57-6	2-Methylnaphthalene	U	39.5	ug/kg	7.91	39.5
77-47-4	Hexachlorocyclopentadiene	U	395	ug/kg	79.1	395
88-06-2	2,4,6-Trichlorophenol	U	395	ug/kg	79.1	395
95-95-4	2,4,5-Trichlorophenol	U	395	ug/kg	79.1	395
91-58-7	2-Chloronaphthalene	U	39.5	ug/kg	13.0	39.5
88-74-4	2-Nitroaniline	U	395	ug/kg	79.1	395
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	395	ug/kg	79.1	395



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

SDG Number: 10-2137  
Lab Sample ID: 248244007

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.19 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 16.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8484  
Batch ID: 960971  
Run Date: 03/18/2010 13:52  
Prep Date: 03/04/2010 23:22  
Data File: s6c1816.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	395	ug/kg	79.1	395
606-20-2	2,6-Dinitrotoluene	U	395	ug/kg	39.5	395
208-96-8	Acenaphthylene	U	39.5	ug/kg	11.9	39.5
51-28-5	2,4-Dinitrophenol	U	791	ug/kg	150	791
132-64-9	Dibenzofuran	U	395	ug/kg	79.1	395
84-66-2	Diethylphthalate	U	395	ug/kg	79.1	395
86-73-7	Fluorene	U	39.5	ug/kg	11.9	39.5
7005-72-3	4-Chlorophenylphenylether	U	395	ug/kg	79.1	395
534-52-1	2-Methyl-4,6-dinitrophenol	U	395	ug/kg	79.1	395
100-01-6	4-Nitroaniline	U	395	ug/kg	119	395
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	395	ug/kg	79.1	395
122-66-7	Azobenzene	U	395	ug/kg	79.1	395
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	395	ug/kg	79.1	395
118-74-1	Hexachlorobenzene	U	395	ug/kg	79.1	395
85-01-8	Phenanthrene	U	39.5	ug/kg	11.9	39.5
120-12-7	Anthracene	U	39.5	ug/kg	7.91	39.5
84-74-2	Di-n-butylphthalate	U	395	ug/kg	79.1	395
206-44-0	Fluoranthene	U	39.5	ug/kg	11.9	39.5
85-68-7	Butylbenzylphthalate	U	395	ug/kg	79.1	395
56-55-3	Benzo(a)anthracene	U	39.5	ug/kg	11.9	39.5
91-94-1	3,3'-Dichlorobenzidine	U	395	ug/kg	119	395
218-01-9	Chrysene	U	39.5	ug/kg	11.9	39.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	395	ug/kg	79.1	395
117-84-0	Di-n-octylphthalate	U	395	ug/kg	79.1	395
205-99-2	Benzo(b)fluoranthene	U	39.5	ug/kg	11.9	39.5
207-08-9	Benzo(k)fluoranthene	U	39.5	ug/kg	11.9	39.5
50-32-8	Benzo(a)pyrene	U	39.5	ug/kg	11.9	39.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.5	ug/kg	11.9	39.5
53-70-3	Dibenzo(a,h)anthracene	U	39.5	ug/kg	11.9	39.5
191-24-2	Benzo(ghi)perylene	U	39.5	ug/kg	11.9	39.5
120-82-1	1,2,4-Trichlorobenzene	U	395	ug/kg	79.1	395

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3	279	ug/kg		JA
5131-66-8	2-Propanol, 1-butoxy-	3.51	1430	ug/kg	90	NJ



Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2137  
Lab Sample ID: 248244007

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.19 g  
Column: J&W DB-SMS

Matrix: R  
%Moisture: 16.2  
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
	Unknown		3.58	219	ug/kg		J
	Unknown		13.44	284	ug/kg		J



Data File: /chem/MSD6.i/s031810.b/s6c1816.d  
 Report Date: 18-Mar-2010 15:35

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GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1816.d  
 Lab Smp Id: 248244007 Client Smp ID: RE36-10-8484  
 Inj Date : 18-MAR-2010 13:52  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |248244007|960971|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 16  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2137.sub  
 Target Version: 3.50  
 Processing Host: hpc1p1

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	30.19000	weight of sample
M	16.21080	% 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	3.969	3.963	(1.000)	483570		40.0000	
* 29 Naphthalene-d8	136	4.840	4.834	(1.000)	1760071		40.0000	
* 46 Acenaphthene-d10	164	6.098	6.092	(1.000)	1099626		40.0000	
* 67 Phenanthrene-d10	188	7.275	7.269	(1.000)	1861293		40.0000	
* 91 Chrysene-d12	240	9.704	9.698	(1.000)	1513881		40.0000	
* 98 Perylene-d12	264	11.422	11.404	(1.000)	1111483		40.0000	
\$ 3 2-Fluorophenol	112	3.157	3.140	(0.795)	884357		65.7869	2600
\$ 5 Phenol-d5	99	3.675	3.669	(0.926)	1115552		65.2537	2580
\$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.894)	547945		32.5670	1290
\$ 39 2-Fluorobiphenyl	172	5.581	5.575	(0.915)	1063940		37.5015	1480
\$ 60 2,4,6-Tribromophenol	329	6.698	6.692	(1.098)	273205		88.5390	3500
\$ 81 p-Terphenyl-d14	244	8.669	8.651	(0.893)	1205512		45.6967	1810



## ION RATIO REPORT

## SV REPORT

Data file: s6c1816.d

Report Date: 03/18/2010 14:58

Lab. ID: 248244007

SampleType: SAMPLE

Injection Date: 18-MAR-2010 13:52

Operator: nagl

Instrument: MSD6.i

Sample Info: |248244007|960971|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2137

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	61273	3.67	3.75	80-120	100	(T)
93	171	3.74	3.75	407-467	0	(Q)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	80223	4.33	4.20	80-120	100	(T)
42	50276	4.33	4.20	42-102	63	(T)
-----						
22	Isophorone	CAS#: 78-59-1				
82	547945	4.33	4.49	80-120	100	(T)
138	9920	4.83	4.49	0- 49	2	(T)
-----						
40	2-Chloronaphthalene	CAS#: 91-58-7				
162	1014898	6.10	5.68	80-120	100	(T)
164	1099626	6.10	5.68	3- 63	108	(QT)
127	145	6.09	5.68	8- 68	0	(QT)
-----						
43	Dimethylphthalate	CAS#: 131-11-3				
163	200571	6.10	5.85	80-120	100	(T)
164	1099626	6.10	5.85	0- 41	548	(QT)
-----						
45	Acenaphthylene	CAS#: 208-96-8				
152	58293	5.58	5.99	80-120	100	(T)
151	56677	5.58	5.99	0- 50	97	(QT)
153	18411	5.58	5.99	0- 44	32	(T)
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	146782	6.10	6.20	80-120	100	(T)
89	2067	6.10	6.20	40-100	1	(QT)
63	1858	6.10	6.20	18- 78	1	(QT)
-----						
53	Fluorene			CAS#: 86-73-7		
166	15954	6.70	6.50	80-120	100	(T)
165	16518	6.70	6.50	61-121	104	(T)
167	5591	6.70	6.50	0- 44	35	(T)
-----						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	976	6.70	6.52	80-120	100	(T)
105	1522	6.70	6.52	10- 70	156	(QT)
51	1972	6.70	6.51	37- 97	202	(QT)
-----						
61	4-Bromophenylphenylether			CAS#: 101-55-3		
248	20297	6.70	6.87	80-120	100	(T)
141	123808	6.70	6.87	46-106	610	(QT)
250	39977	6.70	6.87	66-126	197	(QT)

Q qualifier indicates ion failed ratio requirement



Data File: /chem/MSD6.i/s031810.b/s6c1816.d  
 Report Date: 18-Mar-2010 15:35

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# GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1816.d  
 Lab Smp Id: 248244007 Client Smp ID: RE36-10-8484  
 Inj Date : 18-MAR-2010 13:52  
 Operator : nag1 Inst ID: MSD6.i  
 Smp Info : |248244007|960971|1|SVM|1|LANL  
 Misc Info : |MSD8270 S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 16  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2137.sub  
 Target Version: 3.50  
 Processing Host: hpc1p1

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	30.19000	weight of sample
M	16.21080	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.969	2965365	40.000
* 98 Perylene-d12	11.422	3093190	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate				CAS #:			
2.999	522346	7.04595684	278	0		0	10

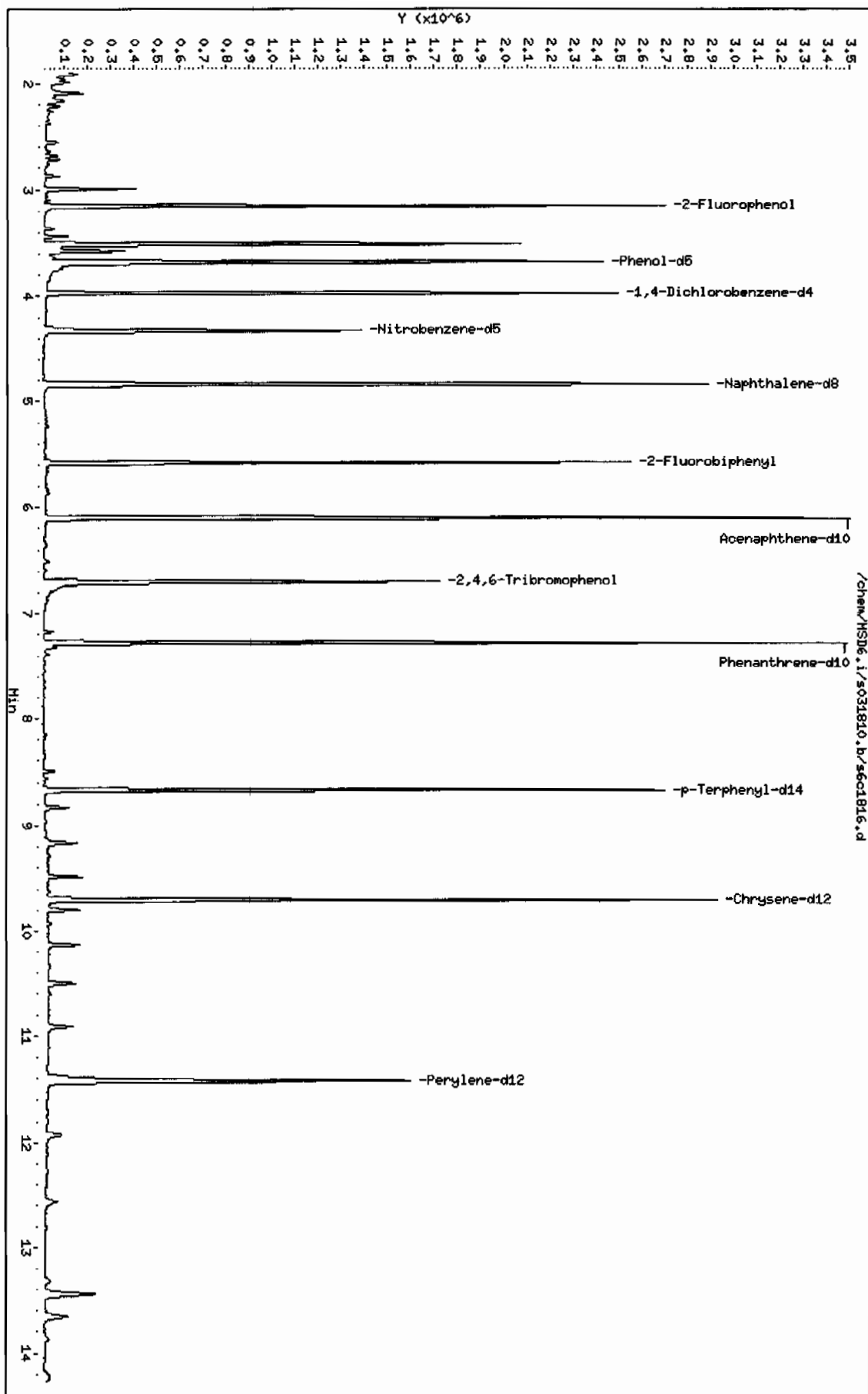


RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
2-Propanol, 1-butoxy-					CAS #: 5131-66-8		
3.510	2683043	36.1917347	1430	90	NIST05.L	13973	10
Unknown					CAS #:		
3.575	411205	5.54785480	219	0		0	10
Unknown					CAS #:		
13.445	555647	7.18541647	284	0		0	98



Data File: /chem/HSD6.i/s031810.b/sec1816.d  
 Date : 18-MAR-2010 13:52  
 Client ID: RE36-10-8484  
 Sample Info: 12482440071960971.1SVH11.LANL  
 Volume Injected (uL): 0.5  
 Column phase: JSM DB-SHS

Instrument: HSD6.i  
 Operator: nagl  
 Column diameter: 0.20





Date: 18-MAR-2010 13:52

Client ID: RE36-10-8484

Instrument: MSD6.i

Sample Info: 1248244007196097111SVMI11LANL

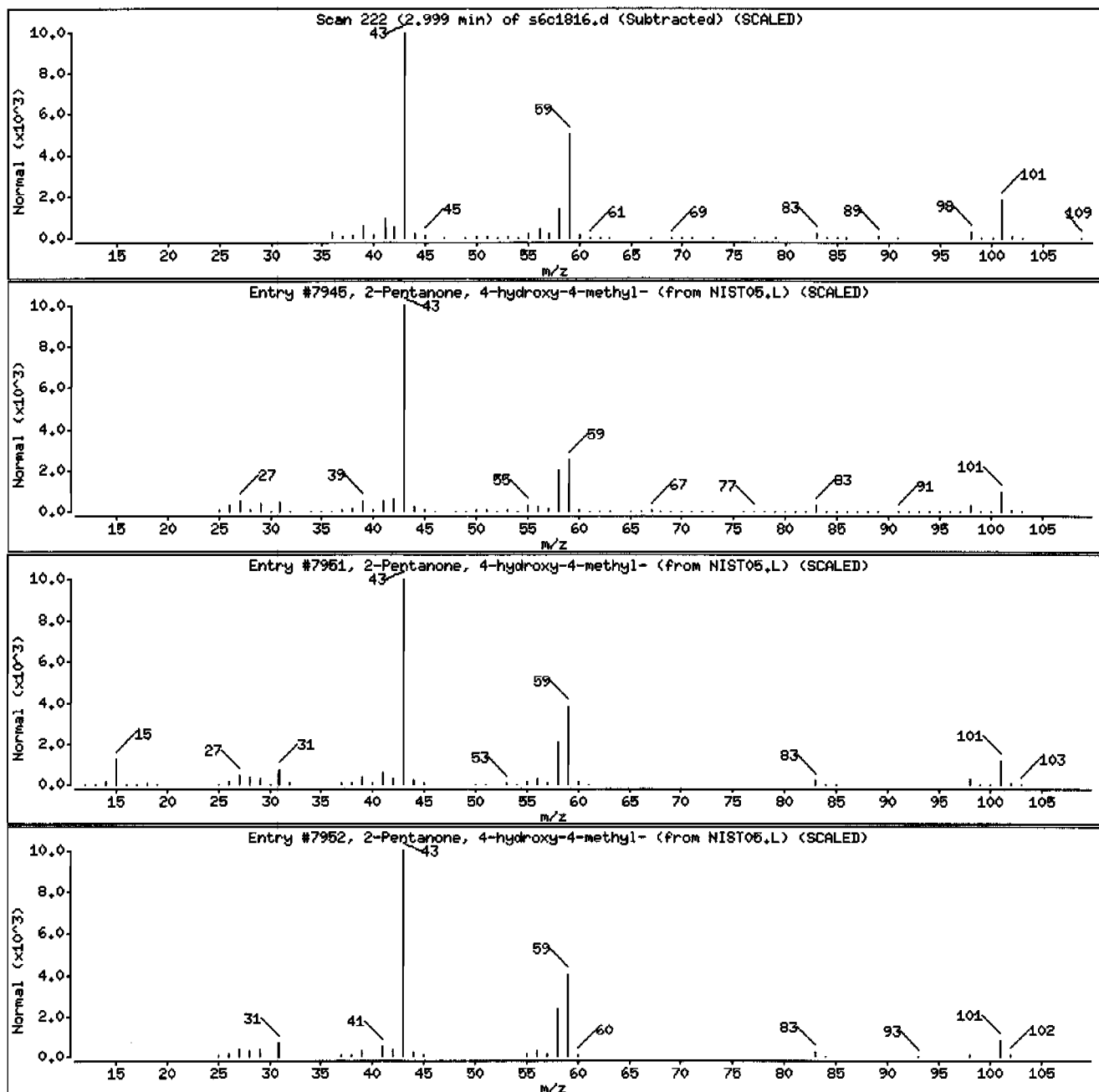
Volume Injected (uL): 0.5

Operator: nag1

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	39	C6H12O2	116





Date: 18-MAR-2010 13:52

Client ID: RE36-10-8484

Instrument: MSD6.i

Sample Info: 1248244007196097111SVH111LANL

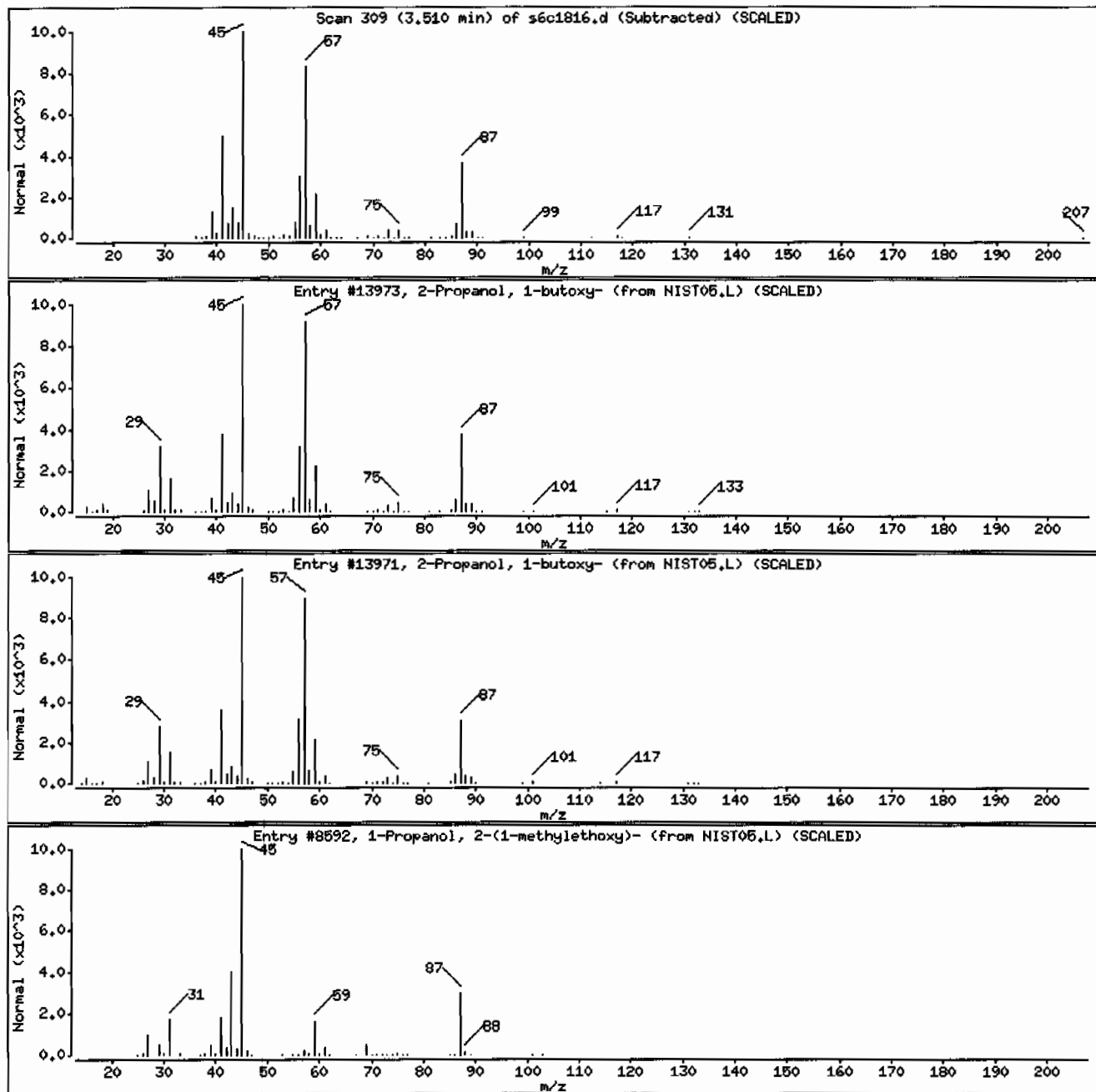
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Propanol, 1-butoxy-	5131-66-8	NIST05.L	13973	90	C7H16O2	132
2-Propanol, 1-butoxy-	5131-66-8	NIST05.L	13971	90	C7H16O2	132
1-Propanol, 2-(1-methylethoxy)-	3944-37-4	NIST05.L	8592	53	C6H14O2	118





Date : 18-MAR-2010 13:52

Client ID: RE36-10-8484

Instrument: MSD6.1

Sample Info: 1248244007196097111SVH111LANL

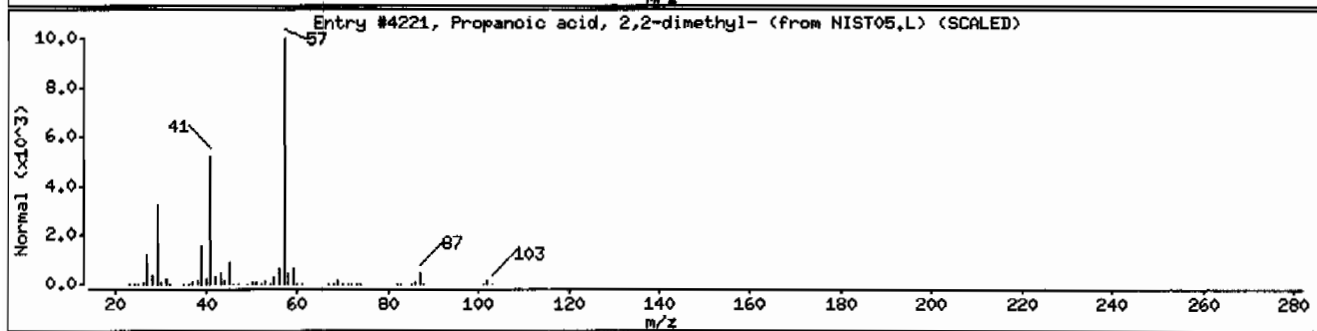
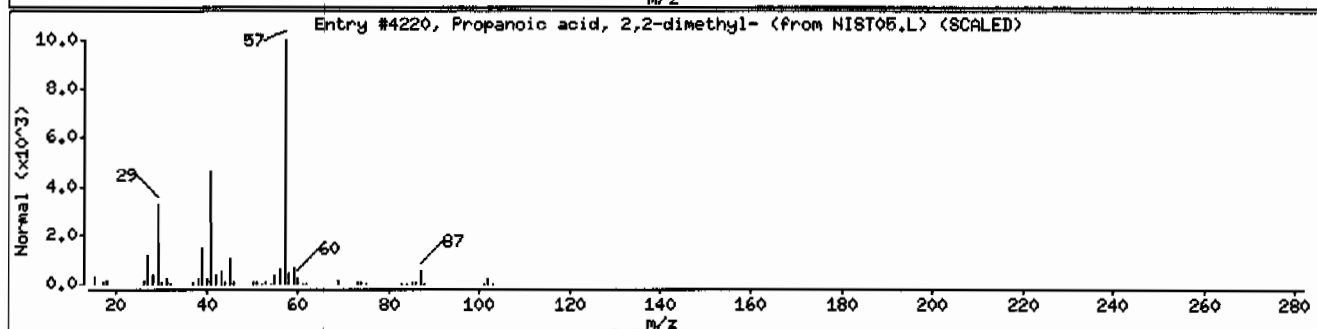
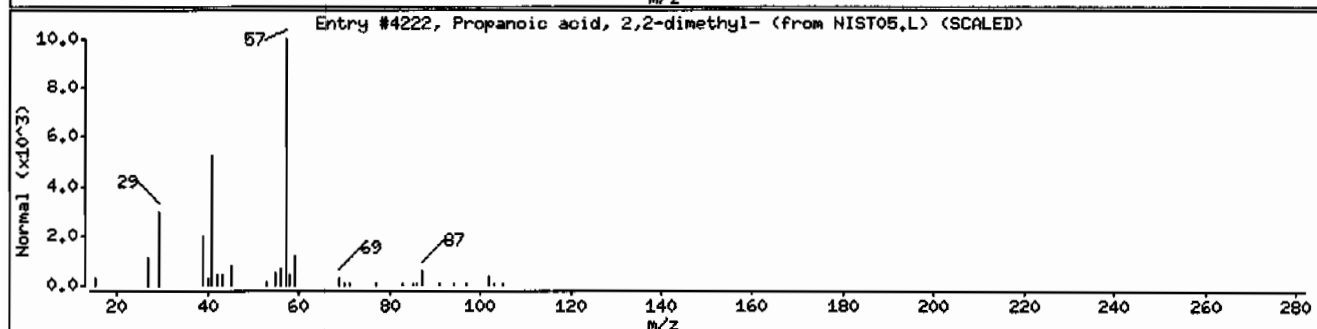
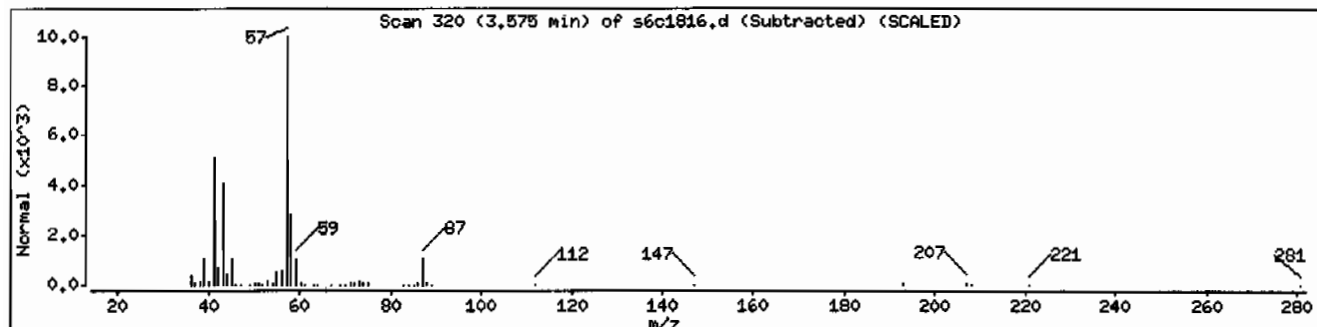
Volume Injected (uL): 0.5

Operator: nag1

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, 2,2-dimethyl-	75-98-9	NIST05.L	4222	53	C5H10O2	102
Propanoic acid, 2,2-dimethyl-	75-98-9	NIST05.L	4220	42	C5H10O2	102
Propanoic acid, 2,2-dimethyl-	75-98-9	NIST05.L	4221	36	C5H10O2	102





Date : 18-MAR-2010 13:52

Client ID: RE36-10-8484

Instrument: MSD6.i

Sample Info: 1248244007196097111SVH111LANL

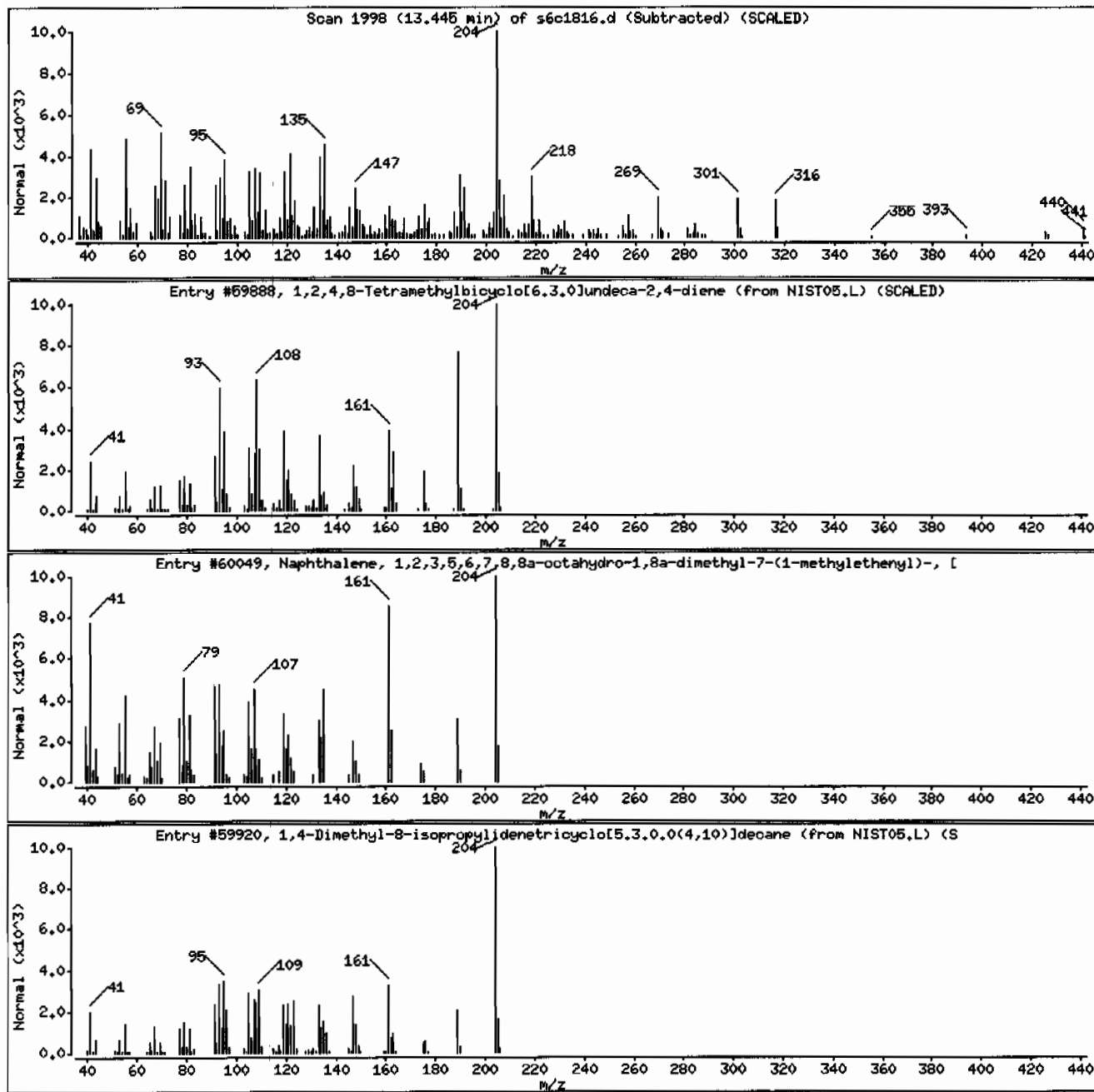
Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-	137235-51-9	NIST05.L	59888	70	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60049	47	C15H24	204
1,4-Dimethyl-8-isopropylidenetricyclo[5.	1000140-07-7	NIST05.L	59920	43	C15H24	204





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

SDG Number: 10-2137  
Lab Sample ID: 248244004

Client ID: RE36-10-8485  
Batch ID: 960971  
Run Date: 03/18/2010 15:28  
Prep Date: 03/04/2010 23:22  
Data File: s6c1820.d

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.1 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 23.5  
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
62-75-9	N-Methyl-N-nitrosomethylamine	U	1740	ug/kg	347	1740
108-95-2	Phenol	U	1740	ug/kg	347	1740
95-57-8	2-Chlorophenol	U	1740	ug/kg	347	1740
106-46-7	1,4-Dichlorobenzene	U	1740	ug/kg	347	1740
621-64-7	N-Nitrosodipropylamine	U	1740	ug/kg	347	1740
59-50-7	4-Chloro-3-methylphenol	U	1740	ug/kg	347	1740
83-32-9	Acenaphthene	U	174	ug/kg	57.3	174
121-14-2	2,4-Dinitrotoluene	U	1740	ug/kg	174	1740
100-02-7	4-Nitrophenol	U	1740	ug/kg	573	1740
87-86-5	Pentachlorophenol	U	1740	ug/kg	434	1740
129-00-0	Pyrene	U	174	ug/kg	52.1	174
110-86-1	Pyridine	U	1740	ug/kg	347	1740
62-53-3	Aniline	U	1740	ug/kg	521	1740
111-44-4	bis(2-Chloroethyl) ether	U	1740	ug/kg	347	1740
541-73-1	1,3-Dichlorobenzene	U	1740	ug/kg	347	1740
100-51-6	Benzyl alcohol	U	1740	ug/kg	521	1740
95-50-1	1,2-Dichlorobenzene	U	1740	ug/kg	347	1740
108-60-1	bis(2-Chloroisopropyl)ether	U	1740	ug/kg	347	1740
95-48-7	o-Cresol	U	1740	ug/kg	347	1740
65794-96-9	m,p-Cresols	U	1740	ug/kg	521	1740
67-72-1	Hexachloroethane	U	1740	ug/kg	347	1740
98-95-3	Nitrobenzene	U	1740	ug/kg	347	1740
78-59-1	Isophorone	U	1740	ug/kg	347	1740
88-75-5	2-Nitrophenol	U	1740	ug/kg	347	1740
105-67-9	2,4-Dimethylphenol	U	1740	ug/kg	608	1740
111-91-1	bis(2-Chloroethoxy)methane	U	1740	ug/kg	347	1740
120-83-2	2,4-Dichlorophenol	U	1740	ug/kg	347	1740
65-85-0	Benzoic acid	U	3470	ug/kg	868	3470
91-20-3	Naphthalene	U	174	ug/kg	52.1	174
106-47-8	4-Chloroaniline	U	1740	ug/kg	347	1740
87-68-3	Hexachlorobutadiene	U	1740	ug/kg	347	1740
91-57-6	2-Methylnaphthalene	U	174	ug/kg	34.7	174
77-47-4	Hexachlorocyclopentadiene	U	1740	ug/kg	347	1740
88-06-2	2,4,6-Trichlorophenol	U	1740	ug/kg	347	1740
95-95-4	2,4,5-Trichlorophenol	U	1740	ug/kg	347	1740
91-58-7	2-Chloronaphthalene	U	174	ug/kg	57.3	174
88-74-4	2-Nitroaniline	U	1740	ug/kg	347	1740
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	1740	ug/kg	347	1740



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

SDG Number: 10-2137  
Lab Sample ID: 248244004

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.1 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 23.5  
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
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	1740	ug/kg	347	1740
606-20-2	2,6-Dinitrotoluene	U	1740	ug/kg	174	1740
208-96-8	Acenaphthylene	U	174	ug/kg	52.1	174
51-28-5	2,4-Dinitrophenol	U	3470	ug/kg	660	3470
132-64-9	Dibenzofuran	U	1740	ug/kg	347	1740
84-66-2	Diethylphthalate	U	1740	ug/kg	347	1740
86-73-7	Fluorene	U	174	ug/kg	52.1	174
7005-72-3	4-Chlorophenylphenylether	U	1740	ug/kg	347	1740
534-52-1	2-Methyl-4,6-dinitrophenol	U	1740	ug/kg	347	1740
100-01-6	4-Nitroaniline	U	1740	ug/kg	521	1740
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	1740	ug/kg	347	1740
122-66-7	Azobenzene	U	1740	ug/kg	347	1740
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	1740	ug/kg	347	1740
118-74-1	Hexachlorobenzene	U	1740	ug/kg	347	1740
85-01-8	Phenanthrene	U	174	ug/kg	52.1	174
120-12-7	Anthracene	U	174	ug/kg	34.7	174
84-74-2	Di-n-butylphthalate	U	1740	ug/kg	347	1740
206-44-0	Fluoranthene	U	174	ug/kg	52.1	174
85-68-7	Butylbenzylphthalate	U	1740	ug/kg	347	1740
56-55-3	Benzo(a)anthracene	U	174	ug/kg	52.1	174
91-94-1	3,3'-Dichlorobenzidine	U	1740	ug/kg	521	1740
218-01-9	Chrysene	U	174	ug/kg	52.1	174
117-81-7	bis(2-Ethylhexyl)phthalate	U	1740	ug/kg	347	1740
117-84-0	Di-n-octylphthalate	U	1740	ug/kg	347	1740
205-99-2	Benzo(b)fluoranthene	U	174	ug/kg	52.1	174
207-08-9	Benzo(k)fluoranthene	U	174	ug/kg	52.1	174
50-32-8	Benzo(a)pyrene	U	174	ug/kg	52.1	174
193-39-5	Indeno(1,2,3-cd)pyrene	U	174	ug/kg	52.1	174
53-70-3	Dibenzo(a,h)anthracene	U	174	ug/kg	52.1	174
191-24-2	Benzo(ghi)perylene	U	174	ug/kg	52.1	174
120-82-1	1,2,4-Trichlorobenzene	U	1740	ug/kg	347	1740

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	13.45	1160	ug/kg		J



Data File: /chem/MSD6.i/s031810.b/s6c1820.d  
Report Date: 18-Mar-2010 16:32

Page 1

GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1820.d  
Lab Smp Id: 248244004 Client Smp ID: RE36-10-8485  
Inj Date : 18-MAR-2010 15:28  
Operator : nag1 Inst ID: MSD6.i  
Smp Info : |248244004|960971|4|SVM|1|LANL  
Misc Info : |MSD8270\_\$|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 18-Mar-2010 16:23 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 20  
Dil Factor: 4.00000  
Integrator: HP RTE Compound Sublist: 10-2137.sub  
Target Version: 3.50  
Processing Host: hpc1p1

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	30.10000	weight of sample
M	23.47450	% 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	3.969	3.963	(1.000)	508260	40.0000	
* 29 Naphthalene-d8	136	4.840	4.834	(1.000)	1800813	40.0000	
* 46 Acenaphthene-d10	164	6.098	6.092	(1.000)	1125254	40.0000	
* 67 Phenanthrene-d10	188	7.281	7.269	(1.000)	1954245	40.0000	
* 91 Chrysene-d12	240	9.704	9.698	(1.000)	1710853	40.0000	
* 98 Perylene-d12	264	11.422	11.404	(1.000)	1263488	40.0000	
\$ 3 2-Fluorophenol	112	3.152	3.140	(0.794)	226269	16.0144	2780
\$ 5 Phenol-d5	99	3.675	3.669	(0.926)	285152	15.8696	2760
\$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.894)	132162	7.67732	1330
\$ 39 2-Fluorobiphenyl	172	5.581	5.575	(0.915)	280466	9.66064	1680
\$ 60 2,4,6-Tribromophenol	329	6.698	6.692	(1.098)	62011	19.6385	3410
\$ 81 p-Terphenyl-d14	244	8.663	8.651	(0.893)	322755	10.8259	1880



## ION RATIO REPORT

## SV REPORT

Data file: s6c1820.d

Report Date: 03/18/2010 16:05

Lab. ID: 248244004

SampleType: SAMPLE

Injection Date: 18-MAR-2010 15:28

Operator: nagl

Instrument: MSD6.i

Sample Info: |248244004|960971|4|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

Dilution Factor= 4.0

Integrator: HP RTE

Compound Sublist: 10-2137

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
22	Isophorone		CAS#: 78-59-1			
82	132162	4.33	4.49	80-120	100	(T)
138	10491	4.84	4.49	0- 49	8	(T)
-----						
40	2-Chloronaphthalene		CAS#: 91-58-7			
162	1041918	6.10	5.68	80-120	100	(T)
164	1125254	6.10	5.68	3- 63	108	(QT)
127	885	5.58	5.68	8- 68	0	(QT)
-----						
43	Dimethylphthalate		CAS#: 131-11-3			
163	204179	6.10	5.85	80-120	100	(T)
164	1125254	6.10	5.85	0- 41	551	(QT)
-----						
45	Acenaphthylene		CAS#: 208-96-8			
152	15040	5.58	5.99	80-120	100	(T)
151	14578	5.58	5.99	0- 50	97	(QT)
153	4920	5.58	5.99	0- 44	33	(T)
-----						
50	2,4-Dinitrotoluene		CAS#: 121-14-2			
165	149611	6.10	6.20	80-120	100	(T)
89	1901	6.10	6.20	40-100	1	(QT)
63	1675	6.10	6.20	18- 78	1	(QT)
-----						
55	2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1			
198	118	6.70	6.52	80-120	100	(T)
105	696	6.69	6.52	10- 70	588	(QT)
51	706	6.69	6.52	37- 97	596	(QT)

Q qualifier indicates ion failed ratio requirement



GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1820.d  
 Lab Smp Id: 248244004 Client Smp ID: RE36-10-8485  
 Inj Date : 18-MAR-2010 15:28  
 Operator : nag1 Inst ID: MSD6.i  
 Smp Info : |248244004|960971|4|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 16:23 llo00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 20  
 Dil Factor: 4.00000  
 Integrator: HP RTE Compound Sublist: 10-2137.sub  
 Target Version: 3.50  
 Processing Host: hpclp1

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	30.10000	weight of sample
M	23.47450	% moisture

Cpnd Variable

Local Compound Variable

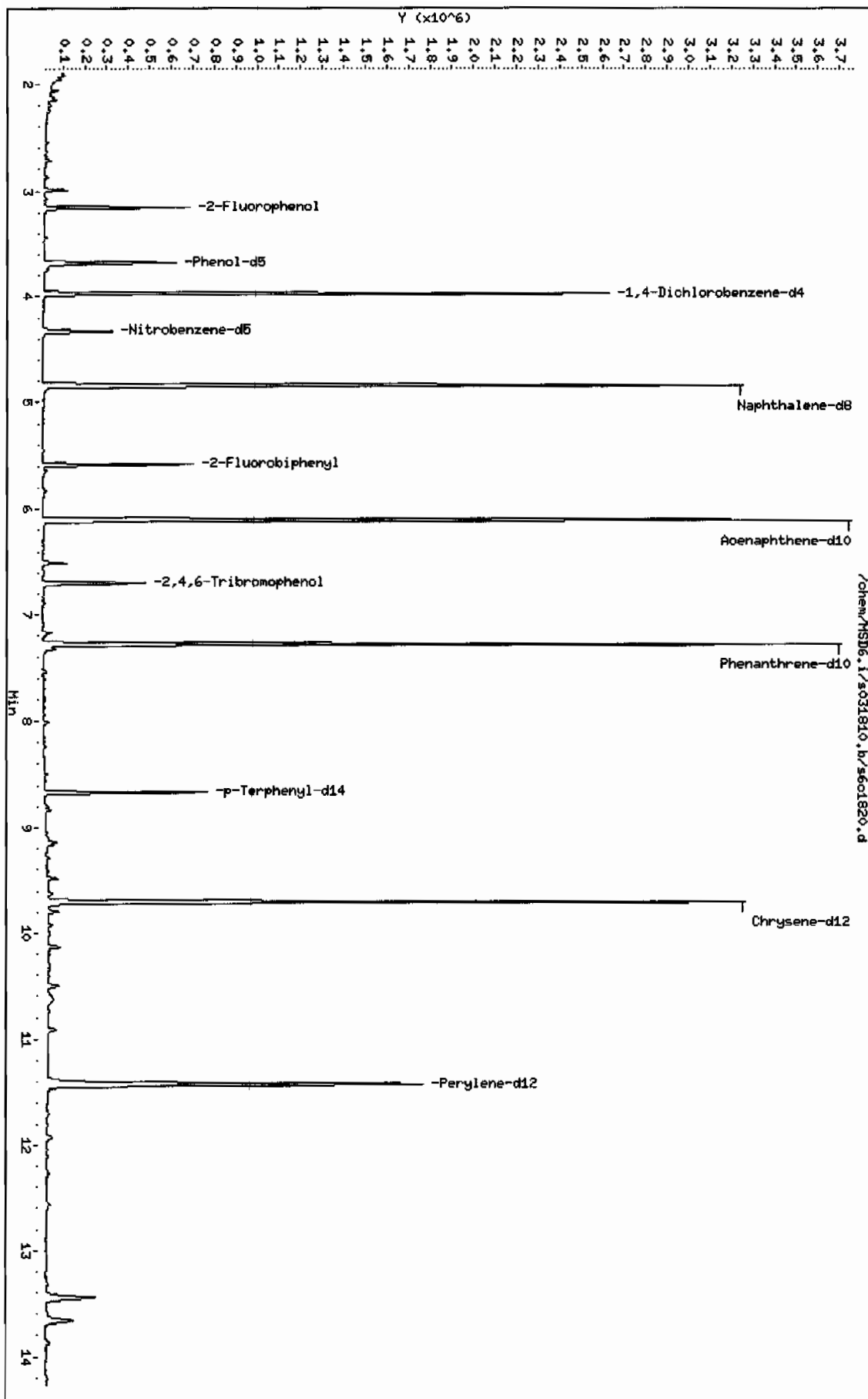
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 98 Perylene-d12	11.422	3460478	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown				CAS #:			
13.445	576490	6.66369962	1160	0		0	98



Data File: /chem/HSD6.i/s031810.b/s601820.d  
 Date : 18-MAR-2010 15:28  
 Client ID: REC6-10-8485  
 Sample Info: 1248244004196097141SVH11LNL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-EMS

Instrument: HSD6.i  
 Operator: nag1  
 Column diameter: 0.20





Date: 18-MAR-2010 15:28

Client ID: RE36-10-8485

Instrument: MSD6.i

Sample Info: 12482440041960971141SVH111LANL

Volume Injected (uL): 0.5

Operator: nag1

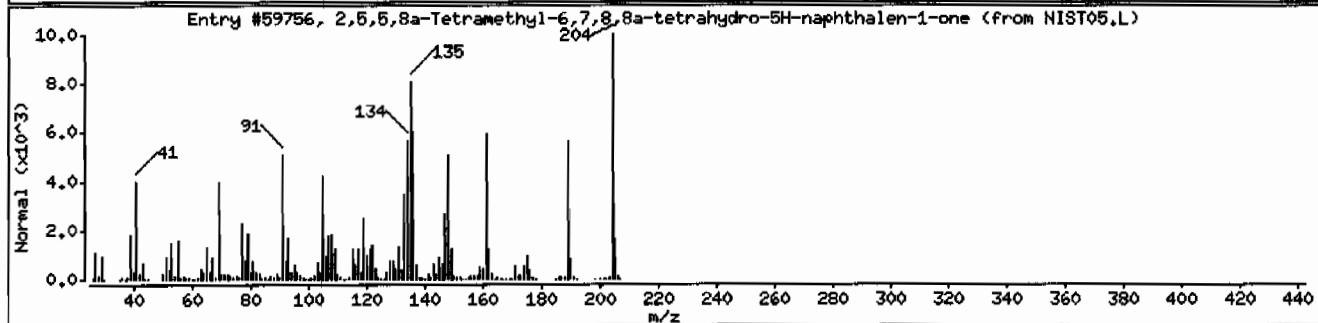
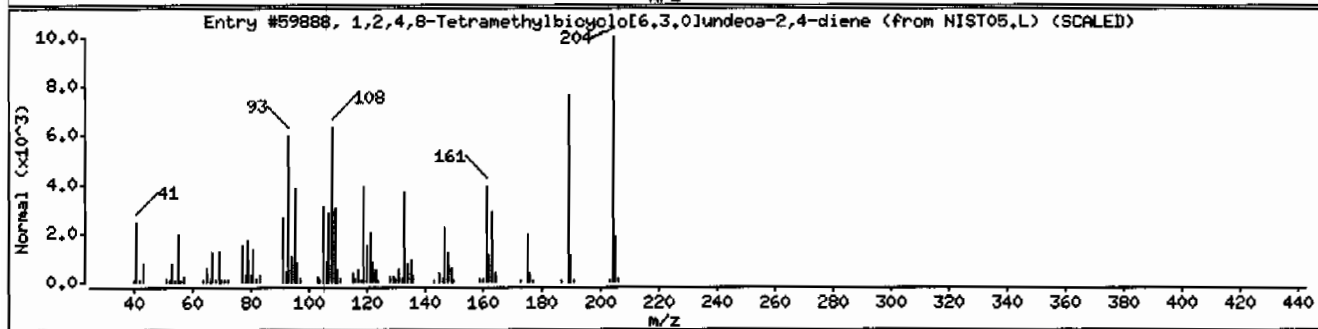
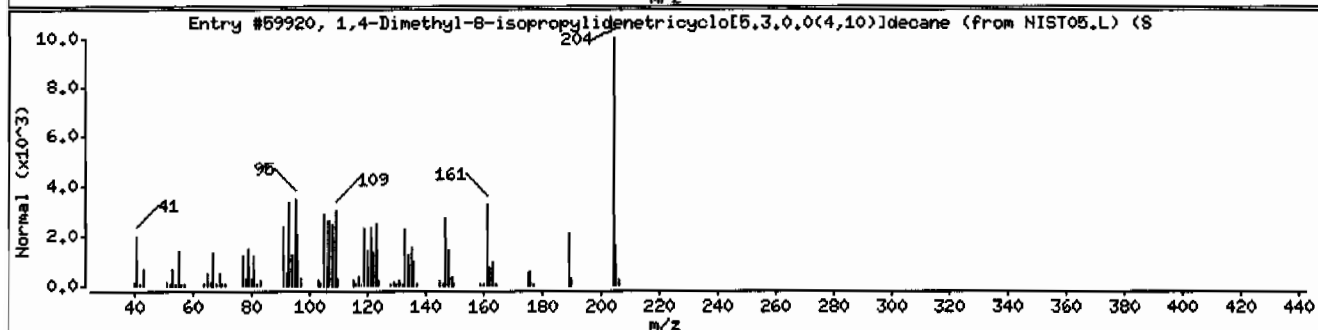
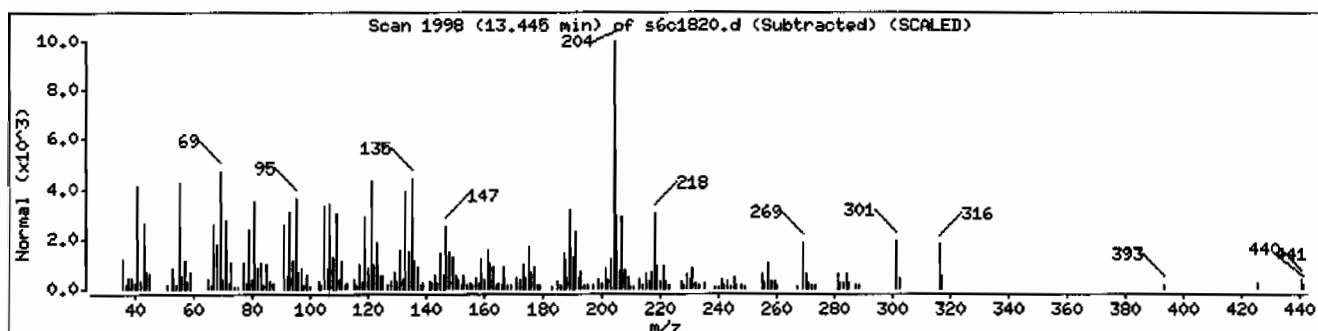
Column phase: J&amp;W DB-5MS

Column diameter: 0.20

## Library Search Compound Match

Unknown

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Dimethyl-8-isopropylidenetricyclo[5,3,0,0(4,10)]decane	1000140-07-7	NIST05.L	59920	56	C15H24	204
1,2,4,8-Tetramethylbicyclo[6.3.0]undeca-	137235-51-9	NIST05.L	59888	50	C15H24	204
2,6,6,8a-Tetramethyl-6,7,8,8a-tetrahydro	124957-09-1	NIST05.L	59756	46	C14H20O	204





# 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			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-Nitrosopiperidine	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-Chlorothioanisole		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(i)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,i)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: 18-Mar-2010 12:34

### Calibration History

Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Start Cal Date: 16-MAR-2010 09:18  
End Cal Date : 17-MAR-2010 04:51

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
16-MAR-2010 09:18	MEGA	/chem/MSD6.i/s031610.b/s6c1603.d
Cal Level: 2 , Cal Amount: 10.00000		
17-MAR-2010 02:32	NEV	/chem/MSD6.i/s031610.b/s6c1640.d
16-MAR-2010 22:16	HEX	/chem/MSD6.i/s031610.b/s6c1629.d
16-MAR-2010 19:27	PEST	/chem/MSD6.i/s031610.b/s6c1622.d
16-MAR-2010 16:42	AP12	/chem/MSD6.i/s031610.b/s6c1615.d
16-MAR-2010 09:47	MEGA	/chem/MSD6.i/s031610.b/s6c1604.d
Cal Level: 3 , Cal Amount: 20.00000		
17-MAR-2010 02:55	NEV	/chem/MSD6.i/s031610.b/s6c1641.d
16-MAR-2010 22:40	HEX	/chem/MSD6.i/s031610.b/s6c1630.d
16-MAR-2010 19:51	PEST	/chem/MSD6.i/s031610.b/s6c1623.d
16-MAR-2010 17:06	AP12	/chem/MSD6.i/s031610.b/s6c1616.d
16-MAR-2010 10:17	MEGA	/chem/MSD6.i/s031610.b/s6c1605.d
Cal Level: 4 , Cal Amount: 40.00000		
17-MAR-2010 03:19	NEV	/chem/MSD6.i/s031610.b/s6c1642.d
16-MAR-2010 23:05	HEX	/chem/MSD6.i/s031610.b/s6c1631.d
16-MAR-2010 20:16	PEST	/chem/MSD6.i/s031610.b/s6c1624.d
16-MAR-2010 17:30	AP12	/chem/MSD6.i/s031610.b/s6c1617.d
16-MAR-2010 10:48	MEGA	/chem/MSD6.i/s031610.b/s6c1606.d
Cal Level: 5 , Cal Amount: 50.00000		
17-MAR-2010 03:42	NEV	/chem/MSD6.i/s031610.b/s6c1643.d
16-MAR-2010 23:30	HEX	/chem/MSD6.i/s031610.b/s6c1632.d
16-MAR-2010 20:39	PEST	/chem/MSD6.i/s031610.b/s6c1625.d
16-MAR-2010 17:53	AP12	/chem/MSD6.i/s031610.b/s6c1618.d
16-MAR-2010 11:18	MEGA	/chem/MSD6.i/s031610.b/s6c1607.d
Cal Level: 6 , Cal Amount: 80.00000		
17-MAR-2010 04:05	NEV	/chem/MSD6.i/s031610.b/s6c1644.d
16-MAR-2010 23:53	HEX	/chem/MSD6.i/s031610.b/s6c1633.d
16-MAR-2010 21:04	PEST	/chem/MSD6.i/s031610.b/s6c1626.d
16-MAR-2010 18:16	AP12	/chem/MSD6.i/s031610.b/s6c1619.d
16-MAR-2010 11:48	MEGA	/chem/MSD6.i/s031610.b/s6c1608.d
Cal Level: 7 , Cal Amount: 100.00000		



17-MAR-2010 04:28	NEV	/chem/MSD6.i/s031610.b/s6c1645.d
17-MAR-2010 00:17	HEX	/chem/MSD6.i/s031610.b/s6c1634.d
16-MAR-2010 21:29	PEST	/chem/MSD6.i/s031610.b/s6c1627.d
16-MAR-2010 18:40	AP12	/chem/MSD6.i/s031610.b/s6c1620.d
16-MAR-2010 12:18	MEGA	/chem/MSD6.i/s031610.b/s6c1609.d

Cal Level: 8 , Cal Amount: 120.00000		
17-MAR-2010 04:51	NEV	/chem/MSD6.i/s031610.b/s6c1646.d
16-MAR-2010 21:52	PEST	/chem/MSD6.i/s031610.b/s6c1628.d
16-MAR-2010 19:04	AP12	/chem/MSD6.i/s031610.b/s6c1621.d
16-MAR-2010 12:48	MEGA	/chem/MSD6.i/s031610.b/s6c1610.d

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
18-MAR-2010 08:42	AP12	/chem/MSD6.i/s031810.b/s6c1803.d
Ccal Level: 4 , Ccal Amount: 40.0		
18-MAR-2010 08:12	MEGA	/chem/MSD6.i/s031810.b/s6c1802.d



## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18  
 End Cal Date : 17-MAR-2010 04:51  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 18-Mar-2010 12:34 jen00986

## Calibration File Names:

Level 1: /chem/MSD6.i/s031610.b/s6c1603.d  
 Level 2: /chem/MSD6.i/s031610.b/s6c1640.d  
 Level 3: /chem/MSD6.i/s031610.b/s6c1641.d  
 Level 4: /chem/MSD6.i/s031610.b/s6c1642.d  
 Level 5: /chem/MSD6.i/s031610.b/s6c1643.d  
 Level 6: /chem/MSD6.i/s031610.b/s6c1644.d  
 Level 7: /chem/MSD6.i/s031610.b/s6c1645.d  
 Level 8: /chem/MSD6.i/s031610.b/s6c1646.d

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
1 N-Methyl-N-nitrosomethylamine	++++ 0.72590	0.81792 0.72296	0.82056	0.78930	0.79192	0.76046	AVRG		0.77557		5.19380
2 Pyridine	++++ 1.05148	1.11606 1.15602	1.14524	1.09549	1.10183	1.07067	AVRG		1.10526		3.40288
4 Aniline	++++ 0.62930	0.72133 0.62826	0.70476	0.66890	0.68894	0.64499	AVRG		0.66950		5.53075
209 Benzaldehyde	++++ 0.83244	1.13309 0.82430	1.08471	1.00392	0.97767	0.86499	AVRG		0.96016		12.85923
6 Phenol	++++ 1.30346	1.61272 1.28275	1.56254	1.44105	1.45641	1.36160	AVRG		1.43150		8.74973



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 Cal Date : 18-Mar-2010 12:34 jen00986

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>
7 bis(2-Chloroethyl) ether	++++ 0.95191	1.19254 0.93692	1.18236 0.93692	1.09028 0.93692	1.09625 0.93692	1.00058 0.93692	AVRG	1.06440			9.77817
8 2-Chlorophenol	++++ 1.06189	1.26962 1.06261	1.28222 1.06261	1.17814 1.06261	1.18825 1.06261	1.10696 1.06261	AVRG	1.16424			7.83127
203 n-Decane	++++ 1.37227	1.96779 ++++	1.93918 ++++	1.70280 ++++	1.68456 ++++	1.47743 ++++	AVRG	1.69067			14.13608
9 1,3-Dichlorobenzene	++++ 1.15341	1.44879 1.11325	1.44947 1.11325	1.30584 1.11325	1.30842 1.11325	1.19897 1.11325	AVRG	1.28259			10.51030
11 1,4-Dichlorobenzene	++++ 1.09866	1.42133 1.09543	1.40639 1.09543	1.25708 1.09543	1.27799 1.09543	1.16100 1.09543	AVRG	1.24541			10.83313
12 Benzyl alcohol	++++ 0.79193	0.85394 0.78165	0.86245 0.78165	0.80492 0.78165	0.83695 0.78165	0.79588 0.78165	AVRG	0.81825			3.95576
13 1,2-Dichlorobenzene	++++ 0.99051	1.34498 0.98974	1.29593 0.98974	1.11046 0.98974	1.13364 0.98974	1.03705 0.98974	AVRG	1.12890			12.62648
14 bis(2-Chloroisopropyl)ether	++++ 1.96542	2.53022 1.89769	2.53492 1.89769	2.29878 1.89769	2.31844 1.89769	2.11439 1.89769	AVRG	2.23712			11.38315
15 o-Cresol	++++ 0.81771	1.01324 0.80283	0.99090 0.80283	0.86659 0.80283	0.89293 0.80283	0.83096 0.80283	AVRG	0.88788			9.44602



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 Cal Date : 18-Mar-2010 12:34 jen00986

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 Level 7	120 Level 8									
16 Acetophenone	++++ 1.11097	1.46180 1.11114	1.39429 1.11114	1.25730 1.11114	1.25356 1.11114	1.14795 1.11114	AVRG	1.24814			11.07970
17 N-Nitrosodipropylamine	++++ 0.89995	1.04632 0.90020	1.03866 0.90020	0.98744 0.90020	1.01348 0.90020	0.95067 0.90020	AVRG	0.97668			6.28044
18 m,p-Cresols	++++ 1.21737	1.32601 1.21749	1.35004 1.21749	1.26915 1.21749	1.31796 1.21749	1.25447 1.21749	AVRG	1.27893			4.16878
19 Hexachloroethane	++++ 0.48359	0.59901 0.46860	0.59645 0.46860	0.55146 0.46860	0.55577 0.46860	0.50879 0.46860	AVRG	0.53767			9.68345
21 Nitrobenzene	++++ 0.30203	0.41616 0.28967	0.40868 0.28967	0.35909 0.28967	0.36547 0.28967	0.32858 0.28967	AVRG	0.35281			13.92765
22 Isophorone	++++ 0.60504	0.76756 0.57972	0.76141 0.57972	0.67508 0.57972	0.70486 0.57972	0.64538 0.57972	AVRG	0.67701			10.74431
23 2-Nitrophenol	++++ 0.13113	0.18755 0.12806	0.16925 0.12806	0.15697 0.12806	0.15800 0.12806	0.13948 0.12806	AVRG	0.15292			14.07952
24 2,4-Dimethylphenol	++++ 966250	128503 ++++	217256 ++++	416723 ++++	533570 ++++	827995 ++++	AVRG	-0.14975	0.25299		0.99406
25 bis(2-Chloroethoxy)methane	++++ 0.32172	0.43560 0.30463	0.42444 0.30463	0.37400 0.30463	0.37627 0.30463	0.33980 0.30463	AVRG	0.36806			13.49875



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 Cal Date : 18-Mar-2010 12:34 jen00986

Compound	1	10	20	40	50	80	Curve	b	Coefficients m1	m2	%RSD or R^2
26 2,4-Dichlorophenol	++++ Level 1	0.28833 Level 2	0.28887 Level 3	0.25784 Level 4	0.26048 Level 5	0.23660 Level 6	AVRG		0.25252		11.88589
27 Benzoic acid	++++ Level 7	0.22233 Level 8	0.21321 Level 8								
28 1,2,4-Trichlorobenzene	++++ Level 1	0.33900 Level 2	0.33884 Level 3	0.29761 Level 4	0.29991 Level 5	0.26567 Level 6	AVRG		0.28905		14.39082
30 Naphthalene	1.17741 ++++	1.03786 ++++	1.00687 ++++	0.84879 ++++	0.85336 ++++	0.20115 ++++	AVRG		0.98486		14.01214
204 alpha-Terpineol	++++ Level 1	0.33608 Level 2	0.33453 Level 3	0.29084 Level 4	0.29286 Level 5	0.26114 Level 6	AVRG		0.28429		14.63166
31 4-Chloroaniline	++++ Level 1	0.24448 Level 2	0.23009 Level 3	0.44934 Level 4	0.45825 Level 5	0.40866 Level 6	AVRG		0.43446		10.86864
189 Caprolactam	0.38534 ++++	0.36929 ++++	0.10570 ++++	0.09999 ++++	0.09912 ++++	0.09284 ++++	AVRG		0.09790		5.90407
32 Hexachlorobutadiene	0.09092 ++++	0.09292 ++++	0.18969 ++++	0.16950 ++++	0.16919 ++++	0.15167 ++++	AVRG		0.16407		13.75956
33 4-Chloro-3-methylphenol	0.14051 ++++	0.13534 ++++	0.30822 ++++	0.27683 ++++	0.28548 ++++	0.25715 ++++	AVRG		0.27436		12.15912



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 Method file : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 18-Mar-2010 12:34 jen00986

Compound	1	10	20	40	50	80	Curve	b	Coefficients m1	m2	%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6					
	100	120									
	Level 7	Level 8									
34 2-Methylnaphthalene	0.72925 ++++	0.65481 ++++	0.63621	0.55294	0.56663	0.49402	AVRG		0.60564		13.89123
35 1-Methylnaphthalene	0.70436 ++++	0.66500 ++++	0.61927	0.53454	0.53753	0.47391	AVRG		0.58910		14.96497
36 Hexachlorocyclopentadiene	++++ 0.18872	0.25218 ++++	0.24426	0.26357	0.23616	0.19125	AVRG		0.22936		13.87544
208 1,1'-Biphenyl	++++ 0.96643	1.34441 0.94136	1.27102	1.12196	1.11758	1.01987	AVRG		1.11180		13.65187
205 2,3-Dichloroaniline	++++ 0.45417	0.61240 0.44760	0.60292	0.54053	0.53714	0.47736	AVRG		0.52459		12.87597
37 2,4,6-Trichlorophenol	++++ 0.28219	0.38108 0.30558	0.37793	0.32193	0.36706	0.30741	AVRG		0.33474		11.93741
38 2,4,5-Trichlorophenol	++++ 0.34748	0.37129 0.30293	0.37911	0.38732	0.34179	0.35266	AVRG		0.35465		8.00704
40 2-Chloronaphthalene	1.19201 0.80529	1.10470 0.79483	1.08122	0.97966	0.96619	0.86532	AVRG		0.97365		14.96311
42 o-Nitroaniline	++++ 0.31294	0.36102 0.31605	0.36661	0.34980	0.35607	0.33160	AVRG		0.34201		6.37491



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 Cal Date : 18-Mar-2010 12:34 jen00986

Compound	1	10	20	40	50	80	Curve	b	Coefficients ml	m2	%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6					
	100	120									
	Level 7	Level 8									
41 m-Nitroaniline	++++	0.23455	0.26751	0.26609	0.27182	0.25408	AVRG	0.25409			5.81743
	0.24489	0.23973									
43 Dimethylphthalate	++++	1.30419	1.28387	1.15700	1.15779	1.04419	AVRG	1.13004			11.83407
	0.99525	0.96796									
44 2,6-Dinitrotoluene	++++	0.30420	0.29865	0.27654	0.28158	0.25526	AVRG	0.27058			9.91397
	0.23916	0.23864									
45 Acenaphthylene	1.85647	1.73104	1.67326	1.48789	1.47507	1.32790	AVRG	1.54257			14.31335
	1.24637	++++									
47 Acenaphthene	1.28627	1.05044	1.03429	0.91274	0.90543	++++	AVRG	1.03783			14.85478
	++++	++++									
48 2,4-Dinitrophenol	226466	280792	23383	83099	110420	178844	AVRG	0.14548	0.11086		0.99537
49 Dibenzofuran	++++	1.49805	1.45690	1.29929	1.28456	1.15301	AVRG	1.26069			13.90416
	1.08151	1.05151									
50 2,4-Dinitrotoluene	++++	0.36954	0.37982	0.36276	0.37594	0.34784	AVRG	0.35648			5.89787
	0.32724	0.33221									
51 Diethylphthalate	++++	1.30298	1.28452	1.13974	1.14323	1.01648	AVRG	1.10774			13.84255
	0.94857	0.91864									



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 Cal Date : 18-Mar-2010 12:34 jen00986

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>
52 4-Nitrophenol	++++ 0.18356	0.20176 0.18929	0.19292	0.19251	0.19939	0.18710	AVRG		0.19236		3.37304
53 Fluorene	1.38576 0.91808	1.24024 ++++	1.19555	1.05553	1.05905	0.97044	AVRG		1.11781		14.68974
54 4-Chlorophenylphenylether	++++ 0.46826	0.61669 0.46745	0.60649	0.55132	0.54613	0.49714	AVRG		0.53621		11.44943
55 2-Methyl-4,6-dinitrophenol	++++ 377022	19709 458868	42715	133111	183242	300925	LINR	0.11116	0.10470		0.99841
56 p-Nitroaniline	++++ 0.20310	0.18685 0.21295	0.19668	0.22186	0.22558	0.21140	AVRG		0.20835		6.60344
133 Diphenylamine	++++ 0.45816	0.59755 0.45986	0.58488	0.51490	0.52719	0.49057	AVRG		0.51902		10.72829
58 1,2-Diphenylhydrazine	++++ 0.59712	0.81379 0.58414	0.80943	0.71643	0.71366	0.64914	AVRG		0.69767		13.33528
59 Tributylphosphate	++++ 0.98767	1.48756 ++++	1.31745	1.19079	1.17530	1.07632	AVRG		1.20585		14.71177
61 4-Bromophenylphenylether	++++ 0.15758	0.18913 0.16024	0.19414	0.17251	0.17518	0.16699	AVRG		0.17368		7.95612



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 Cal Date : 18-Mar-2010 12:34 jen00986

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 <sup>2</sup>
	100	120									
	Level 7	Level 8									
63 Hexachlorobenzene	++++ 0.15325	0.17986 0.15146	0.18314	0.16397	0.16914	0.16087	AVRG		0.16595		7.37947
207 Atrazine	++++ ++++	0.05303 ++++	0.05040	0.04601	0.04433	0.03650	AVRG		0.04606		13.80997
65 Pentachlorophenol	++++ 0.09437	0.08594 0.09548	0.09329	0.09347	0.09827	0.09698	AVRG		0.09397		4.23639
206 n-Octadecane	++++ ++++	0.53452 ++++	0.53921	0.46736	0.45674	0.40532	AVRG		0.48063		11.74926
68 Phenanthrene	1.18955 ++++	1.04058 ++++	1.01586	0.88259	0.91454	0.80483	AVRG		0.97466		14.00439
69 Anthracene	1.17774 ++++	1.06636 ++++	1.01144	0.91703	0.90561	0.81316	AVRG		0.98189		13.26811
72 Di-n-butylphthalate	++++ 1.20011	1.28361 1.09187	1.29174	1.09885	1.06066	0.94298	AVRG		1.13557		13.23540
76 Fluoranthene	0.79997 ++++	1.00111 ++++	1.06525	0.96204	0.95592	0.84379	AVRG		0.98842		14.28401
77 Benzidine	++++ 0.43042	0.40621 0.42719	0.45200	0.39954	0.40216	0.42655	AVRG		0.42058		4.50256



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 Cal Date : 18-Mar-2010 12:34 jen00986

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
79 Pyrene	1.35186 1.08124	1.32429 1.07630	1.37915 1.14942	1.14942 1.19852	1.19852 1.19422	1.19422 1.19422	AVRG AVRG	1.21938 1.21938	1.21938	9.78236	
85 Butylbenzylphthalate	++++ 0.53615	0.60942 0.53958	0.68418 0.57419	0.57419 0.59563	0.59563 0.59071	0.59071 0.59071	AVRG AVRG	0.58998 0.58998	0.58998	8.46660	
89 Benzo(a)anthracene	1.23844 0.98276	1.07586 0.95356	1.08943 0.98635	0.98635 1.02654	1.02654 0.99275	0.99275 0.99275	AVRG AVRG	1.04446 1.04446	1.04446	8.71633	
90 3,3'-Dichlorobenzidine	++++ 0.28534	0.28634 0.28530	0.34000 0.31737	0.31737 0.30439	0.30439 0.29332	0.29332 0.29332	AVRG AVRG	0.30172 0.30172	0.30172	6.84952	
92 Chrysene	1.21905 0.83298	1.11052 0.83097	1.09284 0.94166	0.99293 0.75843	1.00791 0.78894	0.89389 0.76390	AVRG AVRG	0.99764 0.99764	0.99764	14.00287	
93 bis(2-Ethylhexyl)phthalate	++++ 0.69996	0.87792 0.68939	0.94166 0.84996	0.75843 1.38120	0.78894 1.53446	0.76390 1.53965	AVRG AVRG	0.78860 0.78860	0.78860	11.64783	
94 Di-n-octylphthalate	++++ 1.35710	1.50498 1.54699	1.84996 1.18249	1.38120 1.05565	1.53446 1.10684	1.53965 1.12171	AVRG AVRG	1.53062 1.53062	1.53062	10.51568	
95 Benzo(b)fluoranthene	1.06453 1.04658	1.04231 1.07946	1.18249 1.07946	1.05565 1.00215	1.10684 1.05846	1.12171 0.96843	AVRG AVRG	1.08744 1.08744	1.08744	4.38133	
96 Benzo(k)fluoranthene	1.13857 0.91790	1.15145 0.97630	1.13298 0.97630	1.00215 0.97630	1.05846 0.97630	0.96843 0.97630	AVRG AVRG	1.04328 1.04328	1.04328	8.61578	



## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18  
 End Cal Date : 17-MAR-2010 04:51  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 18-Mar-2010 12:34 jen00986

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	0.91272 0.87668	0.95091 0.87161	0.96305 0.87161	0.93841 0.87161	0.94477 0.87161	0.90966 0.87161	AVRG	0.92098	0.92098	3.70068	
99 Indeno(1,2,3-cd)pyrene	0.82214 0.81655	0.91774 0.75359	0.83742 0.75359	0.89629 0.75359	0.86445 0.75359	0.85264 0.75359	AVRG	0.84510	0.84510	6.01764	
100 Dibenzo(a,h)anthracene	0.65413 0.65411	0.74504 0.60551	0.67287 0.60551	0.73440 0.60551	0.69759 0.60551	0.67777 0.60551	AVRG	0.68068	0.68068	6.53700	
101 Benzo(ghi)perylene	0.72104 0.68866	0.79945 0.62705	0.72249 0.62705	0.76566 0.62705	0.71838 0.62705	0.73009 0.62705	AVRG	0.72160	0.72160	7.04885	
102 1,4-Dioxane	++++ 0.31161	0.40364 0.30837	0.39108 0.20768	0.35833 0.19444	0.36073 0.19248	0.32452 0.17684	AVRG	0.35119	0.35119	10.77795	
103 Methyl methacrylate	++++ 0.16911	0.21508 0.17292	0.20768 0.90271	0.19444 0.84859	0.19248 0.85171	0.17684 0.77200	AVRG	0.18979	0.18979	9.29691	
104 Ethyl methacrylate	++++ 0.73535	0.94302 0.73626	0.90271 0.73626	0.84859 1.23892	0.85171 1.24366	0.77200 1.11707	AVRG	0.82709	0.82709	9.86302	
105 2-Picoline	++++ 1.05418	1.41751 1.05943	1.35879 1.05943	1.23892 0.54304	1.24366 0.54304	1.11707 0.51432	AVRG	1.21280	1.21280	11.79135	
106 N-Nitrosomethylethylamine	++++ 0.50151	0.58418 0.50138	0.57876 0.50138	0.54304 0.50138	0.54304 0.50138	0.51432 0.50138	AVRG	0.53810	0.53810	6.38520	



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 Cal Date : 18-Mar-2010 12:34 jen00986

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
107 Methyl methanesulfonate	++++ 0.55158	0.64507 0.54936	0.64908	0.61336	0.60691	0.56546	AVRG		0.59726		7.07556
108 N-Nitrosodiethylamine	++++ 0.50185	0.60002 0.50111	0.59792	0.54460	0.55515	0.50996	AVRG		0.54437		7.84567
109 Ethyl Methanesulfonate	++++ 0.67400	0.77937 0.67651	0.78398	0.73252	0.74517	0.68922	AVRG		0.72583		6.44394
110 Pentachloroethane	++++ 0.30477	0.36537 0.30069	0.35868	0.33978	0.34412	0.31859	AVRG		0.33314		7.67816
111 N-Nitrosopyrrolidine	++++ 0.52363	0.65147 0.52349	0.65118	0.60564	0.59568	0.54014	AVRG		0.58446		9.60255
113 N-Nitrosomorpholine	++++ 0.60862	0.77690 0.59644	0.75720	0.69860	0.69697	0.63076	AVRG		0.68078		10.46970
114 o-Toluidine	++++ 1.51078	2.05374 1.51005	1.96418	1.78212	1.74117	1.58116	AVRG		1.73474		12.47332
115 N-Nitrosopiperidine	++++ 0.14357	0.16517 0.14183	0.16671	0.15400	0.15626	0.14779	AVRG		0.15362		6.43146
116 a,a-Dimethylphenethylamine	++++ 0.84727	0.84998 0.81794	0.91437	0.90226	0.91158	0.87133	AVRG		0.87353		4.25275



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 Cal Date : 18-Mar-2010 12:34 jen00986

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
117 Triethylphosphorothioate	++++ 0.13034	0.16227 0.12625	0.15179	0.14508	0.14517	0.13799	AVRG		0.14270		8.68942
118 2,6-Dichlorophenol	++++ 0.22683	0.27261 0.22120	0.26747	0.24661	0.24973	0.23288	AVRG		0.24533		8.04029
119 Hexachloropropene	++++ 0.13062	0.12422 0.12490	0.14505	0.13455	0.13486	0.13756	AVRG		0.13311		5.48816
120 p-Phenylenediamine	++++ 0.24844	0.34413 ++++	0.36083	0.31398	0.29301	0.26154	AVRG		0.30365		14.69115
121 N-Nitrosodi-n-butylamine	++++ ++++	0.30402 ++++	0.30501	0.24131	0.24260	0.22117	AVRG		0.26282		14.83811
122 Saftrole	++++ 0.19239	0.24219 0.18963	0.23822	0.21649	0.21692	0.20189	AVRG		0.21396		9.73528
123 1,2,4,5-Tetrachlorobenzene	++++ 0.40150	0.51062 0.39571	0.49855	0.44614	0.45393	0.42366	AVRG		0.44716		10.00072
124 Isosafrole	++++ 0.32525	0.39056 0.32217	0.38828	0.35693	0.35264	0.33685	AVRG		0.35324		7.88298
125 1,4-Naphthoquinone	++++ 0.26871	0.44627 0.26396	0.42913	0.36710	0.34310	0.27951	AVRG		0.34254		22.12484



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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 <sup>2</sup>
126 m-Dinitrobenzene	++++ 0.17688	0.19457 0.17754	0.20451 0.19900	0.19900 0.18435	0.20530 0.18435	0.18435 AVRG	AVRG	0.19174	6.33347		
127 Pentachlorobenzene	++++ 0.33716	0.43110 0.33489	0.41421 0.37919	0.37919 0.35401	0.37551 0.35401	0.35401 AVRG	AVRG	0.37515	9.84443		
128 1-Naphthylamine	++++ 0.80481	1.01413 0.80092	1.02551 0.89074	0.91517 0.84391	0.89074 0.84391	0.84391 AVRG	AVRG	0.89931	10.26327		
129 2-Naphthylamine	++++ 0.81714	1.06923 0.82229	1.09028 0.96961	0.96961 0.83134	0.93134 0.88633	0.88633 AVRG	AVRG	0.94089	11.64761		
130 2,3,4,6-Tetrachlorophenol	++++ 0.26048	0.28320 0.26802	0.29838 0.27851	0.27851 0.29220	0.29220 0.26438	0.26438 AVRG	AVRG	0.27788	5.16598		
131 5-Nitro-o-toluidine	0.28937 ++++	0.29520 0.18517	0.33910 0.17934	0.30524 0.16941	0.30826 0.16728	0.30565 0.15846	AVRG	0.30665	5.15108		
132 Thionazin	0.15141 ++++	0.14819 0.08460	0.17934 0.08173	0.16941 0.08195	0.16728 0.08009	0.15846 0.07824	AVRG	0.16561	8.34122		
134 Sulfatepp	0.07503 ++++	0.07583 0.45146	0.08173 0.42713	0.08195 0.42213	0.08009 0.39953	0.07824 0.37573	AVRG	0.07964	4.35673		
135 Phorate	0.35382 ++++	0.34151 0.34151	0.42713 0.39953	0.42213 0.39953	0.39953 0.39953	0.37573 0.39953	AVRG	0.39590	10.25989		



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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									
136 1,3,5-Trinitrobenzene	++++	0.14215	0.17801	0.16278	0.16019	0.15578	AVRG		0.15613		7.94442
	0.15027	0.14373									
137 Phenacetin	++++	0.31318	0.31793	0.28873	0.29334	0.28901	AVRG		0.29347		5.64036
	0.27803	0.27408									
138 Diallyate	++++	0.28920	0.27813	0.25090	0.24969	0.23408	AVRG		0.24862		10.98494
	0.22095	0.21741									
139 Dimethoate	++++	0.27336	0.26946	0.26875	0.26784	0.25717	AVRG		0.26085		4.66441
	0.24705	0.24235									
140 4-Aminobiphenyl	++++	0.55261	0.60071	0.58243	0.60084	0.53773	AVRG		0.55066		8.65686
	0.49732	0.48294									
141 Pentachloronitrobenzene	++++	0.07818	0.07606	0.06875	0.06554	0.05850	AVRG		0.06695		13.96038
	0.05467	++++									
142 Pronamide	++++	0.30552	0.28970	0.25313	0.24216	0.21416	AVRG		0.26094		14.10331
	++++	++++									
143 Dinoseb	++++	26789	59526	194494	260402	434843	AVRG		0.15282		0.99867
	550419	666120					LINR	0.12393			
144 Disulfoton	++++	0.33440	0.31848	0.31065	0.30032	0.28000	AVRG		0.29470		9.99476
	0.26612	0.25293									



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 Cal Date : 18-Mar-2010 12:34 jen00986

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									
145 Methyl parathion	++++ 0.20697	0.23174 0.20133	0.22766 0.20133	0.22643 0.22704	0.22704 0.22704	0.21420 0.21420	AVRG AVRG		0.21934 0.21934		5.38336
146 4-Nitroquinoline-1-oxide	++++ 0.02090	0.03620 0.01975	0.04258 0.01975	0.03229 0.03229	0.02624 0.02624	0.02359 0.02359	AVRG AVRG		0.02879 0.02879		29.56738
147 Methapyrilene	++++ 0.37265	0.50709 0.36578	0.51231 0.36578	0.47429 0.47429	0.44273 0.44273	0.38752 0.38752	AVRG AVRG		0.43748 0.43748		14.35658
148 Isodrin	++++ 0.09732	0.12789 0.09486	0.12550 0.09486	0.11252 0.11252	0.11113 0.11113	0.10270 0.10270	AVRG AVRG		0.11028 0.11028		11.76979
149 Aramite	++++ 0.04334	0.04987 0.04247	0.05241 0.04247	0.05098 0.05098	0.04801 0.04801	0.04511 0.04511	AVRG AVRG		0.04746 0.04746		8.18427
150 Kepone	++++ 0.07353	0.08033 0.07232	0.08350 0.07232	0.07854 0.07854	0.07324 0.07324	0.07530 0.07530	AVRG AVRG		0.07668 0.07668		5.48032
151 p-(Dimethylamino)azobenzene	++++ 0.28883	0.35661 0.27624	0.32327 0.29739	0.31849 0.29945	0.32153 0.30335	0.28722 0.27160	AVRG AVRG		0.31031 0.31031		8.98103
152 Chlorobenzilate	++++ 0.27932	0.34601 0.26590	0.29739 0.26590	0.29945 0.29945	0.30335 0.30335	0.27160 0.27160	AVRG AVRG		0.29472 0.29472		9.12242
153 3,3'-Dimethylbenzidine	++++ 0.56416	0.63324 0.54908	0.65171 0.54908	0.60049 0.60049	0.59103 0.59103	0.56476 0.56476	AVRG AVRG		0.59350 0.59350		6.40934



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 Cal Date : 18-Mar-2010 12:34 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	ml	m2	%RSD or R^2
154 Famphur	++++ 0.41231	0.44294 0.39369	0.43580	0.46237	0.43998	0.43138	AVRG		0.43121		5.16049
155 2-Acetylaminofluorene	++++ 0.35179	0.28561 0.35001	0.37666	0.36505	0.36381	0.34665	AVRG		0.34851		8.50665
157 7,12Dimethylbenz(a)anthracene	++++ 0.46390	0.51449 0.44355	0.49379	0.48383	0.50239	0.49617	AVRG		0.48545		5.00153
158 3-Methylcholanthrene	++++ 0.39610	0.35367 0.40256	0.42677	0.41143	0.40554	0.40467	AVRG		0.40010		5.65129
26 Phthalic anhydride	++++ 556029	27295 682236	87036	200557	277210	460400	LINR	0.03349	0.14624		0.99669
173 Carbazole	1.01509 0.66795	0.74843 ++++	0.72374	0.75388	0.76522	0.69273	AVRG		0.76672		14.99112
174 Hexachlorophene	++++ 0.05947	0.04741 ++++	0.06158	++++	0.06384	0.06162	AVRG		0.05878		11.13226
179 Dibenzo(a,e)pyrene	++++ 0.31678	0.36049 0.29389	0.28249	0.34513	0.30393	0.34223	AVRG		0.32071		9.10777
185 (2,3-Dibromopropyl)phosphate	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG		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 ml	m2	%RSD or R^2
184 p-Benzquinone	++++ 0.22851	0.20897 0.25291	0.35254	0.17686	0.22912	0.25164	AVRG	0.24293			22.61358
191 Parathion	++++ 0.05714	0.06141 0.05627	0.06185	0.06208	0.06168	0.05986	AVRG	0.06004			3.99838
192 Methoxychlor	++++ 0.60574	0.71007 0.57499	0.76187	0.67557	0.67506	0.65556	AVRG	0.66555			9.36899
210 m-Toluidine	++++ 1.82362	1.67718 ++++	1.91596	1.79952	2.07052	1.85391	AVRG	1.85679			7.05627
211 p-Toluidine	++++ 1.16108	1.47044 ++++	1.37288	1.42100	1.28519	1.31427	AVRG	1.33748			8.21058
212 Cis Diallate	++++ 0.27521	0.29467 0.27193	0.31145	0.29067	0.29841	0.28191	AVRG	0.28918			4.80566
213 Trans Diallate	++++ 0.25994	0.34024 0.25578	0.32722	0.29518	0.29375	0.27539	AVRG	0.29250			10.98494
214 1,4-Dinitrobenzene	++++ 0.25743	0.27003 0.25119	0.28077	0.27490	0.28781	0.26587	AVRG	0.26971			4.75195
215 2-Ethoxyethanol	++++ 0.66248	0.75153 0.66748	0.75427	0.72199	0.73882	0.68817	AVRG	0.71211			5.48996



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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 <sup>2</sup>
100	120										
Level 7	Level 8										
216 Methylenedis(2-chloroaniline)	++++	0.14670	0.14448	0.16081	0.16367	0.16247	AVRG		0.15700		5.16494
	0.16353	0.15734									
229 2,2'-Dichlorobenzil	++++	0.75519	0.72438	0.63746	0.67020	0.59613	AVRG		0.65372		10.07446
	0.60843	0.58423									
230 4-Chlorothiobanisole	++++	0.25858	0.25840	0.25992	0.26979	0.25595	AVRG		0.25643		3.26291
	0.24846	0.24389									
231 4-Chlorothiophenol	++++	20380	113799	319351	419370	769215	LINR	0.19822	0.21711		0.99902
	924542	1190062									
232 bis(p-chlorophenyl)sulfone	++++	0.42993	0.41812	0.36485	0.38196	0.34653	AVRG		0.37738		9.15636
	0.35821	0.34208									
233 bis(p-chlorophenyl)disulfide	++++	0.18867	0.16361	0.14247	0.15771	0.13719	AVRG		0.15190		12.87450
	0.13916	0.13446									
234 Diphenyl disulfide	++++	0.25253	0.23711	0.22392	0.22770	0.21135	AVRG		0.22409		7.45835
	0.20985	0.20621									
235 Diphenyl sulfide	++++	0.81794	0.80171	0.75220	0.72922	0.68472	AVRG		0.73062		8.67809
	0.67001	0.65856									
236 Phenyl sulfone	++++	0.47552	0.46096	0.43737	0.43617	0.40614	AVRG		0.43144		6.86139
	0.40374	0.40017									



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 Cal Date : 18-Mar-2010 12:34 jen00986

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
237 Hydroxymethyl phthalimide	++++ 0.10388	0.15087 0.10042	0.15581 0.10042	0.11414 0.10042	0.10659 0.10659	0.09117 0.09117	AVRG	0.11756	0.11756	21.63821	<-
238 Phthalic acid	++++ 603096	19671 ++++	59106 ++++	176058 ++++	250394 ++++	510629 ++++	LINR	0.27110	0.14797	0.99247	
239 Thiophenol	++++ 1367181	623274 1721186	207465 1721186	508832 1721186	672604 1721186	1133406 1721186	LINR	0.08994	1.06635	0.99804	
240 bis(Chloromethyl) ether	++++ 0.80538	0.97516 0.76021	0.91313 0.76021	0.87686 0.76021	0.87662 0.76021	0.82499 0.76021	AVRG	0.86176	0.86176	8.31248	
241 Octachlorostyrene	++++ 0.05689	0.05974 0.05659	0.05913 0.05659	0.05893 0.05659	0.06005 0.05659	0.05647 0.05659	AVRG	0.05826	0.05826	2.66684	
225 Trichlorophenols	++++ 0.31483	0.37618 0.30425	0.37852 0.30425	0.35462 0.30425	0.35443 0.30425	0.33004 0.30425	AVRG	0.34470	0.34470	8.43399	
226 Tetrachlorophenols	++++ 0.26048	0.28320 0.26802	0.29838 0.26802	0.27851 0.26802	0.29220 0.26802	0.26438 0.26802	AVRG	0.27788	0.27788	5.16598	
227 Benzo(b,k)fluoranthene	1.10155 0.98224	1.09688 1.02788	1.15773 1.02788	1.02890 1.02788	1.08265 1.02788	1.04507 1.02788	AVRG	1.06536	1.06536	5.16433	
228 TTO Sum Semivolatiles	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG	0.000e+00	0.000e+00	0.000e+00	<-



GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18  
 End Cal Date : 17-MAR-2010 04:51  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 18-Mar-2010 12:34 jen00986

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 Level 7	120 Level 8									
\$ 3 2-Fluorophenol	++++ 1.02412	1.17799 1.01478	1.21081 1.01478	1.12585 1.01478	1.16530 1.06488	1.06488 1.11196	AVRG		1.11196		7.01882
\$ 5 Phenol-d5	++++ 1.31463	1.53055 1.30976	1.52276 1.30976	1.42264 1.30976	1.44854 1.34995	1.34995 1.41412	AVRG		1.41412		6.55306
\$ 187 2-Chlorophenol-d4	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+00
\$ 188 1,2-Dichlorobenzene-d4	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+00
\$ 20 Nitrobenzene-d5	++++ 0.33590	0.43556 0.32456	0.43337 0.32456	0.38834 0.38834	0.39802 0.36088	0.36088 0.38237	AVRG		0.38237		11.53560
\$ 39 2-Fluorobiphenyl	++++ 0.89495	1.22526 0.86381	1.18747 0.86381	1.05919 0.86381	1.04982 0.94356	0.94356 1.03201	AVRG		1.03201		13.55845
\$ 60 2,4,6-Tribromophenol	++++ 0.10877	0.11014 0.11433	0.11537 0.11433	0.11089 0.65971	0.11508 0.68870	0.11113 0.71170	AVRG		0.11225		2.35114
\$ 81 p-Terphenyl-d14	++++ 0.64309	0.73264 0.67033	0.77308 0.67033	0.65971 0.67033	0.68870 0.67033	0.71170 0.69704	AVRG		0.69704		6.50888



## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18  
End Cal Date : 17-MAR-2010 04:51  
Quant Method : ISTD  
Target Version : 3.50  
Integrator : HP RTE  
Method file : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Cal Date : 18-Mar-2010 12:34 jen00986

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-MAR-2010 13:40  
Lab File ID: s6c1612.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 03:19  
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD  
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
3 2-Fluorophenol	1.11196	1.12168	1.12168	0.000	0.87417	60.00000	Averaged
5 Phenol-d5	1.41412	1.37076	1.37076	0.000	-3.06618	60.00000	Averaged
20 Nitrobenzene-d5	0.38237	0.38375	0.38375	0.000	0.36085	60.00000	Averaged
39 2-Fluorobiphenyl	1.03201	1.06678	1.06678	0.000	3.36917	60.00000	Averaged
60 2,4,6-Tribromophenol	0.11225	0.11519	0.11519	0.000	2.62633	60.00000	Averaged
81 p-Terphenyl-d14	0.69704	0.79497	0.79497	0.000	14.04962	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.77557	0.72913	0.72913	0.000	-5.98844	60.00000	Averaged
2 Pyridine	1.10526	0.87234	0.87234	0.000	-21.07309	60.00000	Averaged
4 Aniline	0.66950	0.60777	0.60777	0.000	-9.21935	60.00000	Averaged
6 Phenol	1.43150	1.41995	1.41995	0.001	-0.80724	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06440	0.94128	0.94128	0.000	-11.56744	60.00000	Averaged
8 2-Chlorophenol	1.16424	1.11829	1.11829	0.000	-3.94731	60.00000	Averaged
203 n-Decane	1.69067	1.54455	1.54455	0.000	-8.64282	60.00000	Averaged
9 1,3-Dichlorobenzene	1.28259	1.28904	1.28904	0.000	0.50225	60.00000	Averaged
11 1,4-Dichlorobenzene	1.24541	1.21952	1.21952	0.001	-2.07919	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.12890	1.06600	1.06600	0.000	-5.57188	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.23712	2.09235	2.09235	0.000	-6.47116	60.00000	Averaged
12 Benzyl alcohol	0.81825	0.80249	0.80249	0.000	-1.92556	60.00000	Averaged
15 o-Cresol	0.88788	0.81788	0.81788	0.000	-7.88416	60.00000	Averaged
18 m,p-Cresols	1.27893	1.27505	1.27505	0.000	-0.30315	60.00000	Averaged
17 N-Nitrosodipropylamine	0.97668	0.94425	0.94425	0.050	-3.31985	60.00000	Averaged spcc
19 Hexachloroethane	0.53767	0.51894	0.51894	0.000	-3.48261	60.00000	Averaged
21 Nitrobenzene	0.35281	0.34682	0.34682	0.000	-1.69798	60.00000	Averaged
22 Isophorone	0.67701	0.62895	0.62895	0.000	-7.09880	60.00000	Averaged
23 2-Nitrophenol	0.15292	0.16307	0.16307	0.001	6.63474	20.00000	Averaged ccc
24 2,4-Dimethylphenol	41.38180	40.00000	0.29961	0.000	3.45451	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.36806	0.34233	0.34233	0.000	-6.99093	60.00000	Averaged
26 2,4-Dichlorophenol	0.25252	0.26160	0.26160	0.001	3.59413	20.00000	Averaged ccc
27 Benzoic acid	0.18753	0.19379	0.19379	0.000	3.33592	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.28905	0.28858	0.28858	0.000	-0.16362	60.00000	Averaged
30 Naphthalene	0.98486	0.79921	0.79921	0.000	-18.85032	60.00000	Averaged
204 alpha-Terpineol	0.28429	0.25507	0.25507	0.000	-10.27705	60.00000	Averaged
31 4-Chloroaniline	0.43446	0.43164	0.43164	0.000	-0.64988	60.00000	Averaged
32 Hexachlorobutadiene	0.16407	0.16530	0.16530	0.001	0.75184	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.27436	0.27921	0.27921	0.001	1.76856	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.60564	0.55335	0.55335	0.000	-8.63470	60.00000	Averaged



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-MAR-2010 13:40  
Lab File ID: s6c1612.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 03:19  
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD  
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.58910	0.52291	0.52291	0.000	-11.23674	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.22936	0.18652	0.18652	0.050	-18.67482	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.52459	0.51110	0.51110	0.000	-2.57171	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.33474	0.32662	0.32662	0.001	-2.42453	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.35465	0.40021	0.40021	0.000	12.84507	60.00000	Averaged
40 2-Chloronaphthalene	0.97365	0.93597	0.93597	0.000	-3.87057	60.00000	Averaged
42 o-Nitroaniline	0.34201	0.32847	0.32847	0.000	-3.95892	60.00000	Averaged
41 m-Nitroaniline	0.25409	0.25677	0.25677	0.000	1.05507	60.00000	Averaged
43 Dimethylphthalate	1.13004	1.08997	1.08997	0.000	-3.54579	60.00000	Averaged
44 2,6-Dinitrotoluene	0.27058	0.26832	0.26832	0.000	-0.83186	60.00000	Averaged
50 2,4-Dinitrotoluene	0.35648	0.35493	0.35493	0.000	-0.43442	60.00000	Averaged
45 Acenaphthylene	1.54257	1.46080	1.46080	0.000	-5.30128	60.00000	Averaged
47 Acenaphthene	1.03783	0.85181	0.85181	0.001	-17.92376	20.00000	Averaged ccc
48 2,4-Dinitrophenol	46.32757	40.00000	0.11227	0.050	15.81891	60.00000	Linear spcc
49 Dibenzofuran	1.26069	1.27158	1.27158	0.000	0.86401	60.00000	Averaged
51 Diethylphthalate	1.10774	1.08784	1.08784	0.000	-1.79621	60.00000	Averaged
52 4-Nitrophenol	0.19236	0.19555	0.19555	0.050	1.66021	60.00000	Averaged spcc
53 Fluorene	1.11781	1.00173	1.00173	0.000	-10.38406	60.00000	Averaged
54 4-Chlorophenylphenylether	0.53621	0.52718	0.52718	0.000	-1.68531	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	53.31509	40.00000	0.12791	0.000	33.28773	60.00000	Linear
56 p-Nitroaniline	0.20835	0.21709	0.21709	0.000	4.19498	60.00000	Averaged
133 Diphenylamine	0.51902	0.51728	0.51728	0.001	-0.33469	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.69767	0.67966	0.67966	0.000	-2.58092	60.00000	Averaged
61 4-Bromophenylphenylether	0.17368	0.16740	0.16740	0.000	-3.61790	60.00000	Averaged
63 Hexachlorobenzene	0.16595	0.16267	0.16267	0.000	-1.98022	60.00000	Averaged
65 Pentachlorophenol	0.09397	0.10258	0.10258	0.001	9.16648	20.00000	Averaged ccc
206 n-Octadecane	0.48063	0.43611	0.43611	0.000	-9.26268	60.00000	Averaged
68 Phenanthrene	0.97466	0.84202	0.84202	0.000	-13.60887	60.00000	Averaged
69 Anthracene	0.98189	0.86400	0.86400	0.000	-12.00660	60.00000	Averaged
72 Di-n-butylphthalate	1.13557	1.00857	1.00857	0.000	-11.18389	60.00000	Averaged
76 Fluoranthene	0.98842	0.88230	0.88230	0.001	-10.73646	20.00000	Averaged ccc
79 Pyrene	1.21938	1.19482	1.19482	0.000	-2.01369	60.00000	Averaged
85 Butylbenzylphthalate	0.58998	0.57132	0.57132	0.000	-3.16294	60.00000	Averaged
89 Benzo(a)anthracene	1.04446	0.93343	0.93343	0.000	-10.63003	60.00000	Averaged
92 Chrysene	0.99764	0.88878	0.88878	0.000	-10.91116	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.78860	0.68724	0.68724	0.000	-12.85331	60.00000	Averaged



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-MAR-2010 13:40  
Lab File ID: s6c1612.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 03:19  
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD  
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
94 Di-n-octylphthalate	1.53062	1.45980	1.45980	0.001	-4.62716	20.00000	Averaged ccc
95 Benzo(b)fluoranthene	1.08744	1.04680	1.04680	0.000	-3.73780	60.00000	Averaged
96 Benzo(k)fluoranthene	1.04328	1.00268	1.00268	0.000	-3.89200	60.00000	Averaged
97 Benzo(a)pyrene	0.92098	0.86170	0.86170	0.001	-6.43663	20.00000	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.84510	0.68869	0.68869	0.000	-18.50875	60.00000	Averaged
100 Dibenzo(a,h)anthracene	0.68068	0.54838	0.54838	0.000	-19.43674	60.00000	Averaged
101 Benzo(ghi)perylene	0.72160	0.57432	0.57432	0.000	-20.41069	60.00000	Averaged
126 m-Dinitrobenzene	0.19174	0.20089	0.20089	0.000	4.77491	60.00000	Averaged
130 2,3,4,6-Tetrachlorophenol	0.27788	0.27031	0.27031	0.000	-2.72357	60.00000	Averaged
143 Dinoseb	45.06416	40.00000	0.15323	0.000	12.66041	60.00000	Linear
173 Carbazole	0.76672	0.77286	0.77286	0.000	0.80138	60.00000	Averaged
184 p-Benzoquinone	0.24293	0.15889	0.15889	0.000	-34.59747	60.00000	Averaged
192 Methoxychlor	0.66555	0.59810	0.59810	0.000	-10.13445	60.00000	Averaged
211 p-Toluidine	1.33748	1.16997	1.16997	0.000	-12.52380	60.00000	Averaged
210 m-Toluidine	1.85679	1.79116	1.79116	0.000	-3.53432	60.00000	Averaged
215 2-Ethoxyethanol	0.71211	0.71416	0.71416	0.000	0.28894	60.00000	Averaged
179 Dibenzo(a,e)pyrene	0.32071	0.16099	0.16099	0.000	-49.80217	60.00000	Averaged
26 Phthalic anhydride	53.63299	40.00000	0.19118	0.000	34.08247	60.00000	Linear
214 1,4-Dinitrobenzene	0.26971	0.26900	0.26900	0.000	-0.26254	60.00000	Averaged
216 Methylenebis(2-chloroanilin	0.15700	0.15460	0.15460	0.000	-1.53152	60.00000	Averaged
M 225 Trichlorophenols	0.34470	0.36342	0.36342	0.000	5.43080	60.00000	Averaged
M 226 Tetrachlorophenols	0.27788	0.27031	0.27031	0.000	-2.72357	60.00000	Averaged
M 227 Benzo(b,k)fluoranthene	1.06536	1.02474	1.02474	0.000	-3.81330	60.00000	Averaged



GEL Laboratories LLC

Data file : /chem/MSD6.i/s031610.b/s6c1612.d  
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGAICV  
Inj Date : 16-MAR-2010 13:40  
Operator : nagl Inst ID: MSD6.i  
Smp Info : |WBN100309-09.1|040 PPM|1|SVM|1|MEGAICV  
Misc Info : |MSD8270|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 17-Mar-2010 09:42 nat00999 Quant Type: ISTD  
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d  
Als bottle: 11 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: MEGA.sub  
Target Version: 3.50  
Processing Host: hpc1p1

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	3.963	3.963	(1.000)	456524	40.0000	
* 29 Naphthalene-d8	136	4.834	4.834	(1.000)	1718025	40.0000	
* 46 Acenaphthene-d10	164	6.093	6.093	(1.000)	1004258	40.0000	
* 67 Phenanthrene-d10	188	7.269	7.269	(1.000)	1718283	40.0000	
* 91 Chrysene-d12	240	9.698	9.698	(1.000)	1300638	40.0000	
* 98 Perylene-d12	264	11.398	11.398	(1.000)	952660	40.0000	
\$ 3 2-Fluorophenol	112	3.140	3.140	(0.792)	512074	40.0000	40.3
\$ 5 Phenol-d5	99	3.669	3.669	(0.926)	625784	40.0000	38.8
\$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.895)	659299	40.0000	40.1
\$ 39 2-Fluorobiphenyl	172	5.575	5.575	(0.915)	1071322	40.0000	41.3
\$ 60 2,4,6-Tribromophenol	329	6.692	6.692	(1.098)	115684	40.0000	41.0
\$ 81 p-Terphenyl-d14	244	8.657	8.657	(0.893)	1033963	40.0000	45.6
1 N-Methyl-N-nitrosomethylamine	74	2.452	2.452	(0.619)	332865	40.0000	37.6
2 Pyridine	79	2.481	2.481	(0.626)	398246	40.0000	31.6
4 Aniline	66	3.746	3.746	(0.945)	277463	40.0000	36.3
6 Phenol	94	3.681	3.681	(0.929)	648240	40.0000	39.7
7 bis(2-Chloroethyl) ether	63	3.763	3.763	(0.950)	429717	40.0000	35.4
8 2-Chlorophenol	128	3.828	3.828	(0.966)	510524	40.0000	38.4
203 n-Decane	43	3.810	3.810	(0.961)	705124	40.0000	36.5
9 1,3-Dichlorobenzene	146	3.928	3.928	(0.991)	588476	40.0000	40.2
11 1,4-Dichlorobenzene	146	3.975	3.975	(1.003)	556738	40.0000	39.2
13 1,2-Dichlorobenzene	146	4.081	4.081	(1.030)	486655	40.0000	37.8
14 bis(2-Chloroisopropyl)ether	45	4.104	4.104	(1.036)	955210	40.0000	37.4
12 Benzyl alcohol	108	4.028	4.028	(1.016)	366356	40.0000	39.2
15 o-Cresol	107	4.075	4.075	(1.028)	373380	40.0000	36.8
18 m,p-Cresols	107	4.181	4.181	(1.055)	582091	40.0000	39.9



Compounds	QUANT SIG			REL RT	RESPONSE	AMOUNTS	
	MASS	RT	EXP RT			CAL-AMT (ng/ul)	ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.204	4.204	(1.061)	431074	40.0000	38.7
19 Hexachloroethane	117	4.310	4.310	(1.088)	236910	40.0000	38.6
21 Nitrobenzene	77	4.340	4.340	(0.898)	595845	40.0000	39.3
22 Isophorone	82	4.498	4.498	(0.931)	1080551	40.0000	37.2
23 2-Nitrophenol	139	4.557	4.557	(0.943)	280151	40.0000	42.6
24 2,4-Dimethylphenol	122	4.546	4.546	(0.940)	514742	40.0000	41.4
25 bis(2-Chloroethoxy)methane	93	4.616	4.616	(0.955)	588138	40.0000	37.2
26 2,4-Dichlorophenol	162	4.716	4.716	(0.976)	449433	40.0000	41.4
27 Benzoic acid	105	4.604	4.604	(0.953)	332933	40.0000	41.3
28 1,2,4-Trichlorobenzene	180	4.781	4.781	(0.989)	495781	40.0000	39.9
30 Naphthalene	128	4.851	4.851	(1.004)	1373063	40.0000	32.4
204 alpha-Terpineol	59	4.822	4.822	(0.998)	438221	40.0000	35.9
31 4-Chloroaniline	127	4.863	4.863	(1.006)	741569	40.0000	39.7
32 Hexachlorobutadiene	225	4.910	4.910	(1.016)	283988	40.0000	40.3
33 4-Chloro-3-methylphenol	107	5.169	5.169	(1.069)	479692	40.0000	40.7
34 2-Methylnaphthalene	142	5.328	5.328	(1.102)	950663	40.0000	36.5
35 1-Methylnaphthalene	142	5.404	5.404	(1.118)	898368	40.0000	35.5
36 Hexachlorocyclopentadiene	237	5.434	5.434	(0.892)	187318	40.0000	32.5
205 2,3-Dichloroaniline	161	5.528	5.528	(0.907)	513274	40.0000	39.0
37 2,4,6-Trichlorophenol	196	5.516	5.516	(0.905)	328015	40.0000	39.0
38 2,4,5-Trichlorophenol	196	5.545	5.545	(0.910)	401913	40.0000	45.1
40 2-Chloronaphthalene	162	5.687	5.687	(0.933)	939951	40.0000	38.4
42 o-Nitroaniline	65	5.740	5.740	(0.942)	329871	40.0000	38.4
41 m-Nitroaniline	138	6.040	6.040	(0.991)	257868	40.0000	40.4
43 Dimethylphthalate	163	5.851	5.851	(0.960)	1094609	40.0000	38.6
44 2,6-Dinitrotoluene	165	5.910	5.910	(0.970)	269467	40.0000	39.7
50 2,4-Dinitrotoluene	165	6.204	6.204	(1.018)	356439	40.0000	39.8
45 Acenaphthylene	152	5.993	5.993	(0.984)	1467016	40.0000	37.9
47 Acenaphthene	154	6.116	6.116	(1.004)	855440	40.0000	32.8
48 2,4-Dinitrophenol	184	6.110	6.110	(1.003)	112751	40.0000	46.3
49 Dibenzofuran	168	6.245	6.245	(1.025)	1276999	40.0000	40.3
51 Diethylphthalate	149	6.363	6.363	(1.044)	1092470	40.0000	39.3
52 4-Nitrophenol	139	6.122	6.122	(1.005)	196387	40.0000	40.7
53 Fluorene	166	6.504	6.504	(1.068)	1005998	40.0000	35.8
54 4-Chlorophenylphenylether	204	6.481	6.481	(1.064)	529421	40.0000	39.3
55 2-Methyl-4,6-dinitrophenol	198	6.522	6.522	(0.897)	219793	40.0000	53.3
56 p-Nitroaniline	138	6.504	6.504	(1.068)	218010	40.0000	41.7
133 Diphenylamine	169	6.569	6.569	(0.904)	888833	40.0000	39.9
58 1,2-Diphenylhydrazine	77	6.604	6.604	(0.909)	1167855	40.0000	39.0
61 4-Bromophenylphenylether	248	6.869	6.869	(0.945)	287633	40.0000	38.6
63 Hexachlorobenzene	284	6.940	6.940	(0.955)	279510	40.0000	39.2
65 Pentachlorophenol	266	7.087	7.087	(0.975)	176266	40.0000	43.7
206 n-Octadecane	57	7.081	7.081	(0.974)	749361	40.0000	36.3
68 Phenanthrene	178	7.292	7.292	(1.003)	1446824	40.0000	34.6
69 Anthracene	178	7.334	7.334	(1.009)	1484597	40.0000	35.2
72 Di-n-butylphthalate	149	7.692	7.692	(1.058)	1733003	40.0000	35.5
76 Fluoranthene	202	8.339	8.339	(1.147)	1516040	40.0000	35.7



Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
79 Pyrene	202	8.557	8.557	(0.882)	1554030	40.0000	39.2
85 Butylbenzylphthalate	149	9.092	9.092	(0.938)	743080	40.0000	38.7
89 Benzo(a)anthracene	228	9.681	9.681	(0.998)	1214059	40.0000	35.7
92 Chrysene	228	9.722	9.722	(1.002)	1155983	40.0000	35.6
93 bis(2-Ethylhexyl)phthalate	149	9.616	9.616	(0.992)	893848	40.0000	34.8
94 Di-n-octylphthalate	149	10.280	10.280	(0.902)	1390689	40.0000	38.1
95 Benzo(b)fluoranthene	252	10.875	10.875	(0.954)	997243	40.0000	38.5
96 Benzo(k)fluoranthene	252	10.910	10.910	(0.957)	955210	40.0000	38.4
97 Benzo(a)pyrene	252	11.322	11.322	(0.993)	820904	40.0000	37.4
99 Indeno(1,2,3-cd)pyrene	276	13.204	13.204	(1.158)	656083	40.0000	32.6
100 Dibenzo(a,h)anthracene	278	13.221	13.221	(1.160)	522415	40.0000	32.2
101 Benzo(ghi)perylene	276	13.757	13.757	(1.207)	547130	40.0000	31.8
126 m-Dinitrobenzene	168	5.893	5.893	(0.967)	201747	40.0000	41.9
130 2,3,4,6-Tetrachlorophenol	232	6.316	6.316	(1.037)	271462	40.0000	38.9
143 Dinoseb	211	7.210	7.210	(0.992)	263293	40.0000	45.1
173 Carbazole	167	7.451	7.451	(1.025)	1327998	40.0000	40.3
184 p-Benzoquinone	54	3.446	3.446	(0.869)	72535	40.0000	26.2
192 Methoxychlor	227	9.569	9.569	(0.987)	777910	40.0000	35.9
211 p-Toluidine	106	4.246	4.246	(1.071)	534121	40.0000	35.0 (H)
210 m-Toluidine	106	4.263	4.263	(1.076)	817708	40.0000	38.6
215 2-Ethoxyethanol	59	2.293	2.293	(0.578)	326033	40.0000	40.1
179 Dibenzo(a,e)pyrene	302	17.974	17.974	(1.577)	153366	40.0000	20.1
26 Phthalic anhydride	104	5.369	5.369	(1.111)	328450	40.0000	53.6
214 1,4-Dinitrobenzene	75	5.834	5.834	(0.958)	270150	40.0000	39.9
216 Methylenebis(2-chloroaniline)	231	9.628	9.628	(0.993)	201073	40.0000	39.4
M 225 Trichlorophenols	196				729928	80.0000	84.3
M 226 Tetrachlorophenols	232				271462	40.0000	38.9
M 227 Benzo(b,k)fluoranthene	252				1952453	80.0000	76.9

#### QC Flag Legend

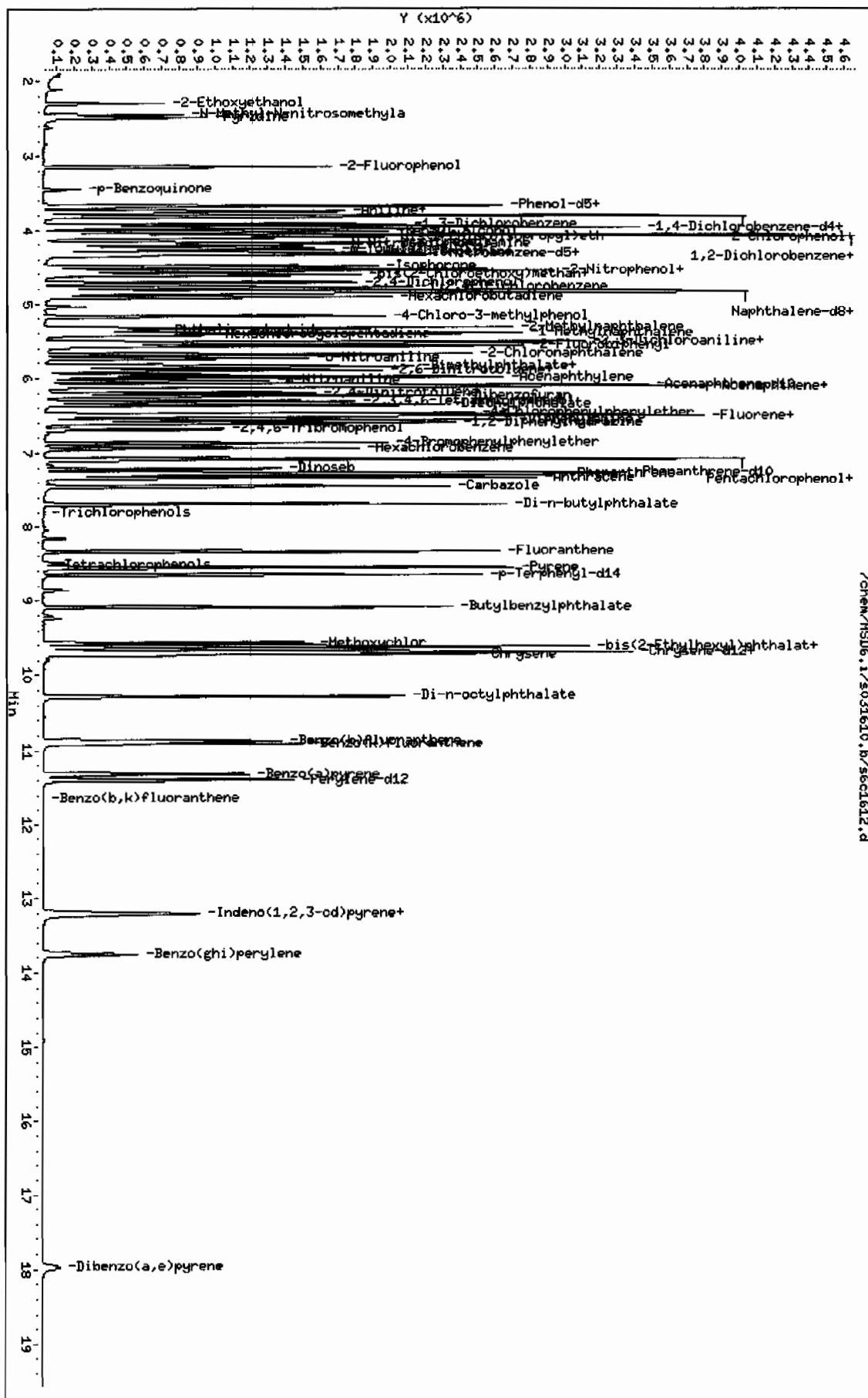
H - Operator selected an alternate compound hit.



Data File: /chem/MSD6.i/s031610.b/sec1612.d  
 Date : 16-Mar-2010 13:40  
 Client ID: MECAICV  
 Sample Info: IUBEN100309-09.11040 PPH111SVH11.MECAICV  
 Column phase: J&W DB-5MS

Instrument: MSD6.i  
 Operator: nag1  
 Column diameter: 0.20

/chem/MSD6.i/s031610.b/sec1612.d





GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 17-MAR-2010 00:41  
Lab File ID: s6c1635.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 03:19  
Lab Sample ID: WBN100312-08.1 Quant Type: ISTD  
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
			RRF40	RRF	%D / %DRIFT	
209 Benzaldehyde	0.96016	0.81875	0.81875	0.000	-14.72761	Averaged
16 Acetophenone	1.24814	1.25263	1.25263	0.000	0.35947	Averaged
189 Caprolactam	0.09790	0.10379	0.10379	0.000	6.01713	Averaged
208 1,1'-Biphenyl	1.11180	1.18809	1.18809	0.000	6.86162	Averaged
207 Atrazine	0.04606	0.04863	0.04863	0.000	5.59576	Averaged
77 Benzidine	0.42058	0.38100	0.38100	0.000	-9.41199	Averaged
90 3,3'-Dichlorobenzidine	0.30172	0.29115	0.29115	0.000	-3.50494	Averaged
102 1,4-Dioxane	0.35119	0.42489	0.42489	0.000	20.98835	Averaged
103 Methyl methacrylate	0.18979	0.23586	0.23586	0.000	24.27101	Averaged
104 Ethyl methacrylate	0.82709	0.99246	0.99246	0.000	19.99468	Averaged
105 2-Picoline	1.21280	1.17717	1.17717	0.000	-2.93779	Averaged
106 N-Nitrosomethylethylamine	0.53810	0.51671	0.51671	0.000	-3.97561	Averaged
107 Methyl methanesulfonate	0.59726	0.64303	0.64303	0.000	7.66352	Averaged
108 N-Nitrosodiethylamine	0.54437	0.51427	0.51427	0.000	-5.53074	Averaged
109 Ethyl Methanesulfonate	0.72583	0.86252	0.86252	0.000	18.83349	Averaged
110 Pentachloroethane	0.33314	0.46050	0.46050	0.000	38.22991	Averaged
111 N-Nitrosopyrrolidine	0.58446	0.54601	0.54601	0.000	-6.57949	Averaged
113 N-Nitrosomorpholine	0.68078	0.67817	0.67817	0.000	-0.38364	Averaged
114 o-Toluidine	1.73474	1.71282	1.71282	0.000	-1.26373	Averaged
115 N-Nitrosopiperidine	0.15362	0.15537	0.15537	0.000	1.14048	Averaged
116 a,a-Dimethylphenethylamine	0.87353	0.84296	0.84296	0.000	-3.49989	Averaged
118 2,6-Dichlorophenol	0.24533	0.25532	0.25532	0.000	4.07128	Averaged
119 Hexachloropropene	0.13311	0.21102	0.21102	0.000	58.53040	Averaged
120 p-Phenylenediamine	0.30365	0.25418	0.25418	0.000	-16.29271	Averaged
121 N-Nitrosodi-n-butylamine	0.26282	0.23622	0.23622	0.000	-10.12220	Averaged
122 Safrole	0.21396	0.24803	0.24803	0.000	15.92258	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44716	0.49965	0.49965	0.000	11.73987	Averaged
124 Isosafrole	0.35324	0.46919	0.46919	0.000	32.82296	Averaged
125 1,4-Naphthoquinone	0.34254	0.36074	0.36074	0.000	5.31328	Averaged
127 Pentachlorobenzene	0.37515	0.39513	0.39513	0.000	5.32511	Averaged
128 1-Naphthylamine	0.89931	0.86590	0.86590	0.000	-3.71571	Averaged
129 2-Naphthylamine	0.94089	0.95153	0.95153	0.000	1.13110	Averaged
131 5-Nitro-o-toluidine	0.30665	0.29799	0.29799	0.000	-2.82387	Averaged
136 1,3,5-Trinitrobenzene	0.15613	0.20859	0.20859	0.000	33.60060	Averaged
137 Phenacetin	0.29347	0.31337	0.31337	0.000	6.77907	Averaged
138 Diallate	0.24862	0.23882	0.23882	0.000	-3.94194	Averaged



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 17-MAR-2010 00:41  
 Lab File ID: s6c1635.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
 Analysis Type: Init. Cal. Times: 09:18 03:19  
 Lab Sample ID: WBN100312-08.1 Quant Type: ISTD  
 Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
			RRF40	RRF	%D / %DRIFT	%D / %DRIFT
212 Cis Diallate	0.28918	0.35766	0.35766	0.000	23.68031	60.00000
213 Trans Diallate	0.29250	0.28097	0.28097	0.000	-3.94194	60.00000
140 4-Aminobiphenyl	0.55066	0.60803	0.60803	0.000	10.41902	60.00000
141 Pentachloronitrobenzene	0.06695	0.07174	0.07174	0.000	7.16089	60.00000
142 Pronamide	0.26094	0.27195	0.27195	0.000	4.22099	60.00000
146 4-Nitroquinoline-1-oxide	0.02879	0.02702	0.02702	0.000	-6.14630	60.00000
147 Methapyrilene	0.43748	0.36011	0.36011	0.000	-17.68475	60.00000
148 Isodrin	0.11028	0.10672	0.10672	0.000	-3.22110	60.00000
149 Aramite	0.04746	0.04804	0.04804	0.000	1.23400	60.00000
150 Kepone	0.07668	0.07470	0.07470	0.000	-2.58614	60.00000
151 p-(Dimethylamino)azobenzene	0.31031	0.32655	0.32655	0.000	5.23269	60.00000
152 Chlorobenzilate	0.29472	0.31516	0.31516	0.000	6.93640	60.00000
153 3,3'-Dimethylbenzidine	0.59350	0.56147	0.56147	0.000	-5.39699	60.00000
155 2-Acetylaminofluorene	0.34851	0.33367	0.33367	0.000	-4.25802	60.00000
157 7,12Dimethylbenz(a)anthrace	0.48545	0.50464	0.50464	0.000	3.95471	60.00000
158 3-Methylcholanthrene	0.40010	0.40383	0.40383	0.000	0.93137	60.00000



GEL Laboratories LLC

Data file : /chem/MSD6.i/s031610.b/s6c1635.d  
Lab Smp Id: WBN100312-08.1 Client Smp ID: APICV  
Inj Date : 17-MAR-2010 00:41  
Operator : nagl Inst ID: MSD6.i  
Smp Info : |WBN100312-08.1|40 PPM|1|SVM|1|APICV  
Misc Info : |MSD8270|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 17-Mar-2010 09:44 nat00999 Quant Type: ISTD  
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d  
Als bottle: 34 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AP12.sub  
Target Version: 3.50  
Processing Host: hpc1p1

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
							(ng/ul)	(ng/ul)
* 10 1,4-Dichlorobenzene-d4		152	3.969	3.969	(1.000)	439915	40.0000	
* 29 Naphthalene-d8		136	4.840	4.840	(1.000)	1539251	40.0000	
* 46 Acenaphthene-d10		164	6.098	6.098	(1.000)	929656	40.0000	
* 67 Phenanthrene-d10		188	7.281	7.281	(1.000)	1586415	40.0000	
* 91 Chrysene-d12		240	9.704	9.704	(1.000)	1243348	40.0000	
* 98 Perylene-d12		264	11.422	11.422	(1.000)	840077	40.0000	
209 Benzaldehyde		77	3.698	3.698	(0.932)	360181	40.0000	34.1
16 Acetophenone		105	4.222	4.222	(1.064)	551051	40.0000	40.1
189 Caprolactam		113	5.116	5.116	(1.057)	159753	40.0000	42.4
208 1,1'-Biphenyl		154	5.663	5.663	(0.929)	1104517	40.0000	42.7
207 Atrazine		173	6.981	6.981	(0.959)	77154	40.0000	42.2
77 Benzidine		184	8.439	8.439	(0.870)	473712	40.0000	36.2
90 3,3'-Dichlorobenzidine		252	9.639	9.639	(0.993)	361998	40.0000	38.6
102 1,4-Dioxane		88	2.310	2.310	(0.582)	186917	40.0000	48.4
103 Methyl methacrylate		100	2.304	2.304	(0.581)	103758	40.0000	49.7
104 Ethyl methacrylate		69	2.669	2.669	(0.672)	436599	40.0000	48.0
105 2-Picoline		93	2.863	2.863	(0.721)	517853	40.0000	38.8
106 N-Nitrosomethylethylamine		88	2.904	2.904	(0.732)	227308	40.0000	38.4
107 Methyl methanesulfonate		80	3.063	3.063	(0.772)	282879	40.0000	43.1
108 N-Nitrosodiethylamine		102	3.299	3.299	(0.831)	226233	40.0000	37.8
109 Ethyl Methanesulfonate		79	3.457	3.457	(0.871)	379437	40.0000	47.5
110 Pentachloroethane		167	3.798	3.798	(0.957)	202582	40.0000	55.3
111 N-Nitrosopyrrolidine		100	4.210	4.210	(1.061)	240197	40.0000	37.4 (Q)
113 N-Nitrosomorpholine		56	4.234	4.234	(1.067)	298338	40.0000	39.8
114 o-Toluidine		106	4.251	4.251	(1.071)	753495	40.0000	39.5
115 N-Nitrosopiperidine		114	4.451	4.451	(0.920)	239154	40.0000	40.4



Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
116 a,a-Dimethylphenethylamine	58	4.710	4.710	(0.973)	1297528	40.0000	38.6
118 2,6-Dichlorophenol	162	4.881	4.881	(1.008)	393003	40.0000	41.6
119 Hexachloropropene	213	4.910	4.910	(1.015)	324808	40.0000	63.4
120 p-Phenylenediamine	108	5.122	5.122	(1.058)	391247	40.0000	33.5
121 N-Nitrosodi-n-butylamine	84	5.087	5.087	(1.051)	363602	40.0000	36.0(Q)
122 Safrole	162	5.251	5.251	(1.085)	381780	40.0000	46.4
123 1,2,4,5-Tetrachlorobenzene	216	5.457	5.457	(0.895)	464506	40.0000	44.7
124 Isosafrole	162	5.622	5.622	(0.922)	436182	40.0000	53.1
125 1,4-Naphthoquinone	158	5.816	5.816	(0.954)	335363	40.0000	42.1
127 Pentachlorobenzene	250	6.216	6.216	(1.019)	367336	40.0000	42.1
128 1-Naphthylamine	143	6.310	6.310	(1.035)	804986	40.0000	38.5
129 2-Naphthylamine	143	6.363	6.363	(1.043)	884595	40.0000	40.4
131 5-Nitro-o-toluidine	152	6.504	6.504	(1.067)	277025	40.0000	38.9
136 1,3,5-Trinitrobenzene	75	6.757	6.757	(0.928)	330916	40.0000	53.4
137 Phenacetin	108	6.798	6.798	(0.934)	497127	40.0000	42.7(Q)
138 Diallylate	86	6.787	6.787	(0.932)	378872	40.0000	38.4
212 Cis Diallylate	86	6.863	6.863	(0.943)	85109	6.00000	7.4
213 Trans Diallylate	86	6.787	6.787	(0.932)	378872	34.0000	32.6
140 4-Aminobiphenyl	169	7.092	7.092	(0.974)	964585	40.0000	44.2
141 Pentachloronitrobenzene	237	7.110	7.110	(0.977)	113813	40.0000	42.9(Q)
142 Pronamide	173	7.110	7.110	(0.977)	431425	40.0000	41.7
146 4-Nitroquinoline-1-oxide	101	7.951	7.951	(1.092)	42870	40.0000	37.5
147 Methapyrilene	58	7.986	7.986	(1.097)	571288	40.0000	32.9
148 Isodrin	193	8.210	8.210	(1.128)	169307	40.0000	38.7
149 Aramite	185	8.616	8.616	(1.183)	76213	40.0000	40.5
150 Kepone	272	9.204	9.204	(1.264)	118500	40.0000	39.0
151 p-(Dimethylamino)azobenzene	120	8.792	8.792	(0.906)	406018	40.0000	42.1
152 Chlorobenzilate	251	8.828	8.828	(0.910)	391852	40.0000	42.8
153 3,3'-Dimethylbenzidine	212	9.116	9.116	(0.939)	698099	40.0000	37.8
155 2-Acetylaminofluorene	181	9.363	9.363	(0.965)	414870	40.0000	38.3
157 7,12Dimethylbenz(a)anthracene	256	10.869	10.869	(0.952)	423939	40.0000	41.6
158 3-Methylcholanthrene	268	11.839	11.839	(1.037)	339249	40.0000	40.4(Q)

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.



Data File: /chem/HSD6.1/s031610.b/s601635.d

Date: 17-MAR-2010 00:41

Client ID: APICV

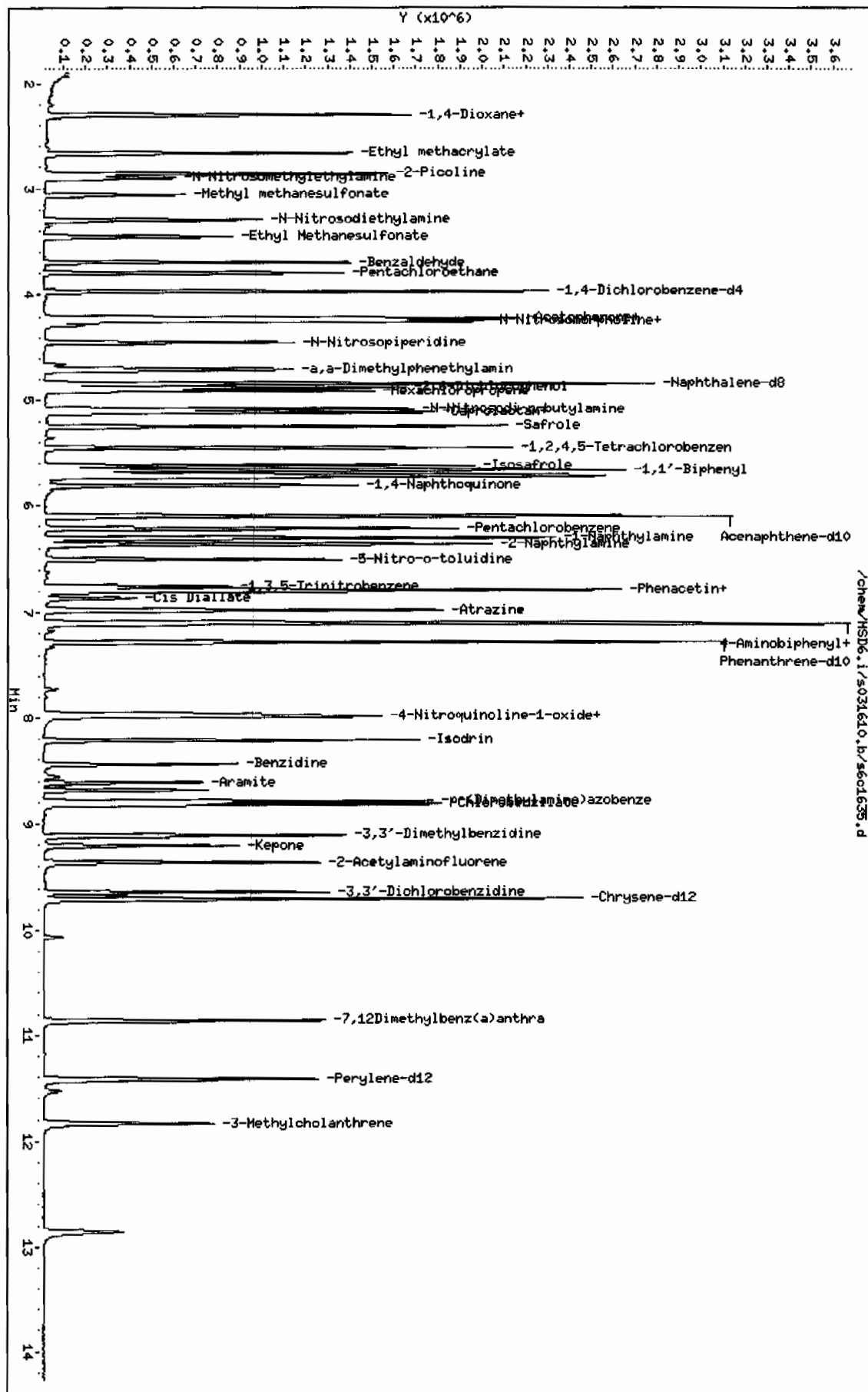
Sample Info: IUBN00312-08.1140 PPH11ISVH11APICV

Column phase: 3M DB-5MS

Instrument: HSD6.1

Operator: nag1

Column diameter: 0.20





GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 18-MAR-2010 08:12  
Lab File ID: s6c1802.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 04:51  
Lab Sample ID: WBN100309-05.3 Quant Type: ISTD  
Method: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
3 2-Fluorophenol	1.11196	0.99525	0.99525	0.000	-10.49589	60.00000	Averaged
5 Phenol-d5	1.41412	1.23229	1.23229	0.000	-12.85792	60.00000	Averaged
20 Nitrobenzene-d5	0.38237	0.35505	0.35505	0.000	-7.14628	60.00000	Averaged
39 2-Fluorobiphenyl	1.03201	1.01741	1.01741	0.000	-1.41498	60.00000	Averaged
60 2,4,6-Tribromophenol	0.11225	0.09464	0.09464	0.000	-15.68370	60.00000	Averaged
81 p-Terphenyl-d14	0.69704	0.67259	0.67259	0.000	-3.50645	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.77557	0.65578	0.65578	0.000	-15.44616	60.00000	Averaged
2 Pyridine	1.10526	0.92511	0.92511	0.000	-16.29923	60.00000	Averaged
4 Aniline	0.66950	0.56950	0.56950	0.000	-14.93664	60.00000	Averaged
6 Phenol	1.43150	1.25997	1.25997	0.001	-11.98264	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06440	0.93506	0.93506	0.000	-12.15210	60.00000	Averaged
8 2-Chlorophenol	1.16424	1.06541	1.06541	0.000	-8.48912	60.00000	Averaged
203 n-Decane	1.69067	1.38308	1.38308	0.000	-18.19321	60.00000	Averaged
9 1,3-Dichlorobenzene	1.28259	1.22287	1.22287	0.000	-4.65617	60.00000	Averaged
11 1,4-Dichlorobenzene	1.24541	1.22517	1.22517	0.001	-1.62493	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.12890	1.09742	1.09742	0.000	-2.78867	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.23712	1.87715	1.87715	0.000	-16.09099	60.00000	Averaged
12 Benzyl alcohol	0.81825	0.59983	0.59983	0.000	-26.69260	60.00000	Averaged
15 o-Cresol	0.88788	0.84704	0.84704	0.000	-4.59997	60.00000	Averaged
18 m,p-Cresols	1.27893	1.08261	1.08261	0.000	-15.34997	60.00000	Averaged
17 N-Nitrosodipropylamine	0.97668	0.86359	0.86359	0.050	-11.57886	60.00000	Averaged spcc
19 Hexachloroethane	0.53767	0.50460	0.50460	0.000	-6.14960	60.00000	Averaged
21 Nitrobenzene	0.35281	0.33278	0.33278	0.000	-5.67757	60.00000	Averaged
22 Isophorone	0.67701	0.62786	0.62786	0.000	-7.25965	60.00000	Averaged
23 2-Nitrophenol	0.15292	0.15420	0.15420	0.001	0.83518	20.00000	Averaged ccc
24 2,4-Dimethylphenol	17.69476	40.00000	0.14980	0.000	-55.76309	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.36806	0.34748	0.34748	0.000	-5.59280	60.00000	Averaged
26 2,4-Dichlorophenol	0.25252	0.21037	0.21037	0.001	-16.69369	20.00000	Averaged ccc
27 Benzoic acid	0.18753	0.19964	0.19964	0.000	6.45420	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.28905	0.29945	0.29945	0.000	3.59791	60.00000	Averaged
30 Naphthalene	0.98486	0.85417	0.85417	0.000	-13.27017	60.00000	Averaged
204 alpha-Terpineol	0.28429	0.20295	0.20295	0.000	-28.61254	60.00000	Averaged
31 4-Chloroaniline	0.43446	0.43455	0.43455	0.000	0.02095	60.00000	Averaged
32 Hexachlorobutadiene	0.16407	0.16975	0.16975	0.001	3.46469	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.27436	0.24999	0.24999	0.001	-8.88366	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.60564	0.54800	0.54800	0.000	-9.51814	60.00000	Averaged



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 18-MAR-2010 08:12  
Lab File ID: s6c1802.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 04:51  
Lab Sample ID: WBN100309-05.3 Quant Type: ISTD  
Method: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.58910	0.54277	0.54277	0.000	-7.86561	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.22936	0.27014	0.27014	0.050	17.78108	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.52459	0.51856	0.51856	0.000	-1.15011	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.33474	0.30500	0.30500	0.001	-8.88488	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.35465	0.34128	0.34128	0.000	-3.77106	60.00000	Averaged
40 2-Chloronaphthalene	0.97365	0.91454	0.91454	0.000	-6.07160	60.00000	Averaged
42 o-Nitroaniline	0.34201	0.29073	0.29073	0.000	-14.99312	60.00000	Averaged
41 m-Nitroaniline	0.25409	0.22700	0.22700	0.000	-10.66373	60.00000	Averaged
43 Dimethylphthalate	1.13004	1.10446	1.10446	0.000	-2.26293	60.00000	Averaged
44 2,6-Dinitrotoluene	0.27058	0.26297	0.26297	0.000	-2.81006	60.00000	Averaged
50 2,4-Dinitrotoluene	0.35648	0.34220	0.34220	0.000	-4.00598	60.00000	Averaged
45 Acenaphthylene	1.54257	1.40961	1.40961	0.000	-8.61940	60.00000	Averaged
47 Acenaphthene	1.03783	0.90042	0.90042	0.001	-13.24061	20.00000	Averaged ccc
48 2,4-Dinitrophenol	51.44294	40.00000	0.12645	0.050	28.60734	60.00000	Linear spcc
49 Dibenzofuran	1.26069	1.22958	1.22958	0.000	-2.46789	60.00000	Averaged
51 Diethylphthalate	1.10774	1.07482	1.07482	0.000	-2.97138	60.00000	Averaged
52 4-Nitrophenol	0.19236	0.12086	0.12086	0.050	-37.16881	60.00000	Averaged spcc
53 Fluorene	1.11781	1.03746	1.03746	0.000	-7.18804	60.00000	Averaged
54 4-Chlorophenylphenylether	0.53621	0.53437	0.53437	0.000	-0.34309	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	47.68589	40.00000	0.11318	0.000	19.21473	60.00000	Linear
56 p-Nitroaniline	0.20835	0.18817	0.18817	0.000	-9.68536	60.00000	Averaged
133 Diphenylamine	0.51902	0.50535	0.50535	0.001	-2.63292	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.69767	0.61466	0.61466	0.000	-11.89844	60.00000	Averaged
61 4-Bromophenylphenylether	0.17368	0.17754	0.17754	0.000	2.22181	60.00000	Averaged
63 Hexachlorobenzene	0.16595	0.17467	0.17467	0.000	5.24981	60.00000	Averaged
65 Pentachlorophenol	0.09397	0.09002	0.09002	0.001	-4.20293	20.00000	Averaged ccc
206 n-Octadecane	0.48063	0.40424	0.40424	0.000	-15.89440	60.00000	Averaged
68 Phenanthrene	0.97466	0.87686	0.87686	0.000	-10.03352	60.00000	Averaged
69 Anthracene	0.98189	0.88149	0.88149	0.000	-10.22585	60.00000	Averaged
72 Di-n-butylphthalate	1.13557	1.03004	1.03004	0.000	-9.29297	60.00000	Averaged
76 Fluoranthene	0.98842	0.93555	0.93555	0.001	-5.34868	20.00000	Averaged ccc
79 Pyrene	1.21938	1.17636	1.17636	0.000	-3.52799	60.00000	Averaged
85 Butylbenzylphthalate	0.58998	0.53439	0.53439	0.000	-9.42304	60.00000	Averaged
89 Benzo(a)anthracene	1.04446	0.98823	0.98823	0.000	-5.38394	60.00000	Averaged
92 Chrysene	0.99764	0.91562	0.91562	0.000	-8.22142	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.78860	0.71017	0.71017	0.000	-9.94508	60.00000	Averaged



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 18-MAR-2010 08:12  
Lab File ID: s6c1802.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 04:51  
Lab Sample ID: WBN100309-05.3 Quant Type: ISTD  
Method: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
			RRF40	RRF	%D / %DRIFT	
94 Di-n-octylphthalate	1.53062	1.37317	1.37317	0.001	-10.28678	Averaged ccc
95 Benzo(b)fluoranthene	1.08744	1.05239	1.05239	0.000	-3.22345	Averaged
96 Benzo(k)fluoranthene	1.04328	1.02270	1.02270	0.000	-1.97233	Averaged
97 Benzo(a)pyrene	0.92098	0.89885	0.89885	0.001	-2.40210	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.84510	0.82137	0.82137	0.000	-2.80868	Averaged
100 Dibenzo(a,h)anthracene	0.68068	0.66125	0.66125	0.000	-2.85354	Averaged
101 Benzo(ghi)perylene	0.72160	0.69777	0.69777	0.000	-3.30235	Averaged
126 m-Dinitrobenzene	0.19174	0.18769	0.18769	0.000	-2.11188	Averaged
130 2,3,4,6-Tetrachlorophenol	0.27788	0.21491	0.21491	0.000	-22.66006	Averaged
143 Dinoseb	48.63292	40.00000	0.16686	0.000	21.58231	Linear
173 Carbazole	0.76672	0.65609	0.65609	0.000	-14.42854	Averaged
184 p-Benzoquinone	0.24293	0.12993	0.12993	0.000	-46.51700	Averaged
192 Methoxychlor	0.66555	0.66433	0.66433	0.000	-0.18356	Averaged
211 p-Toluidine	1.33748	1.34601	1.34601	0.000	0.63825	Averaged
210 m-Toluidine	1.85679	1.49724	1.49724	0.000	-19.36389	Averaged
215 2-Ethoxyethanol	0.71211	0.53755	0.53755	0.000	-24.51324	Averaged
179 Dibenzo(a,e)pyrene	0.32071	0.31077	0.31077	0.000	-3.09745	Averaged
26 Phthalic anhydride	33.96866	40.00000	0.11929	0.000	-15.07835	Linear
214 1,4-Dinitrobenzene	0.26971	0.22941	0.22941	0.000	-14.94454	Averaged
216 Methylenebis(2-chloroanilin	0.15700	0.12733	0.12733	0.000	-18.89628	Averaged
M 225 Trichlorophenols	0.34470	0.32314	0.32314	0.000	-6.25412	Averaged
M 226 Tetrachlorophenols	0.27788	0.21491	0.21491	0.000	-22.66006	Averaged
M 227 Benzo(b,k)fluoranthene	1.06536	1.03755	1.03755	0.000	-2.61086	Averaged



GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1802.d  
Lab Smp Id: WBN100309-05.3 Client Smp ID: MEGACVS  
Inj Date : 18-MAR-2010 08:12  
Operator : nagl Inst ID: MSD6.i  
Smp Info : |WBN100309-05.3|40 PPM|1|SVM|1|MEGACVS  
Misc Info : |MSD8270|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 19-Mar-2010 16:12 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 2 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: MEGA.sub  
Target Version: 3.50  
Processing Host: hpc1p1

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
							(ng/ul)	(ng/ul)
* 10 1,4-Dichlorobenzene-d4		152	3.963	3.963	(1.000)	395994	40.0000	
* 29 Naphthalene-d8		136	4.834	4.834	(1.000)	1442881	40.0000	
* 46 Acenaphthene-d10		164	6.092	6.092	(1.000)	878105	40.0000	
* 67 Phenanthrene-d10		188	7.269	7.269	(1.000)	1467337	40.0000	
* 91 Chrysene-d12		240	9.698	9.698	(1.000)	1252158	40.0000	
* 98 Perylene-d12		264	11.404	11.404	(1.000)	1051962	40.0000	
\$ 3 2-Fluorophenol		112	3.140	3.140	(0.792)	394113	40.0000	35.8
\$ 5 Phenol-d5		99	3.669	3.669	(0.926)	487980	40.0000	34.8
\$ 20 Nitrobenzene-d5		82	4.328	4.328	(0.895)	512293	40.0000	37.1
\$ 39 2-Fluorobiphenyl		172	5.575	5.575	(0.915)	893390	40.0000	39.4
\$ 60 2,4,6-Tribromophenol		329	6.692	6.692	(1.098)	83105	40.0000	33.7
\$ 81 p-Terphenyl-d14		244	8.651	8.651	(0.892)	842194	40.0000	38.6
1 N-Methyl-N-nitrosomethylamine		74	2.446	2.446	(0.617)	259684	40.0000	33.8
2 Pyridine		79	2.475	2.475	(0.624)	366337	40.0000	33.5
4 Aniline		66	3.746	3.746	(0.945)	225517	40.0000	34.0
6 Phenol		94	3.681	3.681	(0.929)	498941	40.0000	35.2
7 bis(2-Chloroethyl) ether		63	3.757	3.757	(0.948)	370277	40.0000	35.1
8 2-Chlorophenol		128	3.822	3.822	(0.964)	421895	40.0000	36.6
203 n-Decane		43	3.804	3.804	(0.960)	547693	40.0000	32.7
9 1,3-Dichlorobenzene		146	3.928	3.928	(0.991)	484251	40.0000	38.1
11 1,4-Dichlorobenzene		146	3.975	3.975	(1.003)	485161	40.0000	39.4
13 1,2-Dichlorobenzene		146	4.075	4.075	(1.028)	434572	40.0000	38.9
14 bis(2-Chloroisopropyl) ether		45	4.104	4.104	(1.036)	743339	40.0000	33.6
12 Benzyl alcohol		108	4.028	4.028	(1.016)	237531	40.0000	29.3
15 o-Cresol		107	4.075	4.075	(1.028)	335421	40.0000	38.2
18 m,p-Cresols		107	4.175	4.175	(1.053)	428708	40.0000	33.9



Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
17 N-Nitrosodipropylamine	70	4.198	4.198	(1.059)	341976	40.0000	35.4
19 Hexachloroethane	117	4.310	4.310	(1.088)	199820	40.0000	37.5
21 Nitrobenzene	77	4.340	4.340	(0.898)	480161	40.0000	37.7
22 Isophorone	82	4.493	4.493	(0.929)	905928	40.0000	37.1
23 2-Nitrophenol	139	4.551	4.551	(0.942)	222488	40.0000	40.3
24 2,4-Dimethylphenol	122	4.540	4.540	(0.939)	216143	40.0000	17.7
25 bis (2-Chloroethoxy)methane	93	4.610	4.610	(0.954)	501372	40.0000	37.8
26 2,4-Dichlorophenol	162	4.716	4.716	(0.976)	303535	40.0000	33.3
27 Benzoic acid	105	4.598	4.598	(0.951)	288051	40.0000	42.6
28 1,2,4-Trichlorobenzene	180	4.781	4.781	(0.989)	432069	40.0000	41.4
30 Naphthalene	128	4.845	4.845	(1.002)	1232461	40.0000	34.7
204 alpha-Terpineol	59	4.822	4.822	(0.998)	292828	40.0000	28.6
31 4-Chloroaniline	127	4.857	4.857	(1.005)	627011	40.0000	40.0
32 Hexachlorobutadiene	225	4.910	4.910	(1.016)	244929	40.0000	41.4
33 4-Chloro-3-methylphenol	107	5.169	5.169	(1.069)	360700	40.0000	36.4
34 2-Methylnaphthalene	142	5.328	5.328	(1.102)	790693	40.0000	36.2
35 1-Methylnaphthalene	142	5.404	5.404	(1.118)	783148	40.0000	36.8
36 Hexachlorocyclopentadiene	237	5.428	5.428	(0.891)	237209	40.0000	47.1
205 2,3-Dichloroaniline	161	5.528	5.528	(0.907)	455346	40.0000	39.5
37 2,4,6-Trichlorophenol	196	5.516	5.516	(0.905)	267821	40.0000	36.4
38 2,4,5-Trichlorophenol	196	5.540	5.540	(0.909)	299679	40.0000	38.5
40 2-Chloronaphthalene	162	5.681	5.681	(0.932)	803058	40.0000	37.6
42 o-Nitroaniline	65	5.740	5.740	(0.942)	255295	40.0000	34.0
41 m-Nitroaniline	138	6.040	6.040	(0.991)	199328	40.0000	35.7
43 Dimethylphthalate	163	5.851	5.851	(0.960)	969836	40.0000	39.1
44 2,6-Dinitrotoluene	165	5.904	5.904	(0.969)	230917	40.0000	38.9
50 2,4-Dinitrotoluene	165	6.204	6.204	(1.018)	300484	40.0000	38.4
45 Acenaphthylene	152	5.992	5.992	(0.984)	1237787	40.0000	36.6
47 Acenaphthene	154	6.116	6.116	(1.004)	790660	40.0000	34.7
48 2,4-Dinitrophenol	184	6.110	6.110	(1.003)	111037	40.0000	51.4
49 Dibenzofuran	168	6.239	6.239	(1.024)	1079700	40.0000	39.0
51 Diethylphthalate	149	6.363	6.363	(1.044)	943805	40.0000	38.8
52 4-Nitrophenol	139	6.122	6.122	(1.005)	106130	40.0000	25.1
53 Fluorene	166	6.504	6.504	(1.068)	910997	40.0000	37.1
54 4-Chlorophenylphenylether	204	6.481	6.481	(1.064)	469236	40.0000	39.9
55 2-Methyl-4,6-dinitrophenol	198	6.516	6.516	(0.896)	166073	40.0000	47.7
56 p-Nitroaniline	138	6.498	6.498	(1.067)	165230	40.0000	36.1
133 Diphenylamine	169	6.569	6.569	(0.904)	741521	40.0000	38.9
58 1,2-Diphenylhydrazine	77	6.604	6.604	(0.909)	901911	40.0000	35.2
61 4-Bromophenylphenylether	248	6.869	6.869	(0.945)	260508	40.0000	40.9
63 Hexachlorobenzene	284	6.939	6.939	(0.955)	256295	40.0000	42.1
65 Pentachlorophenol	266	7.086	7.086	(0.975)	132089	40.0000	38.3
206 n-Octadecane	57	7.075	7.075	(0.973)	593151	40.0000	33.6
68 Phenanthrene	178	7.286	7.286	(1.002)	1286656	40.0000	36.0
69 Anthracene	178	7.334	7.334	(1.009)	1293436	40.0000	35.9
72 Di-n-butylphthalate	149	7.692	7.692	(1.058)	1511415	40.0000	36.3
76 Fluoranthene	202	8.333	8.333	(1.146)	1372772	40.0000	37.9

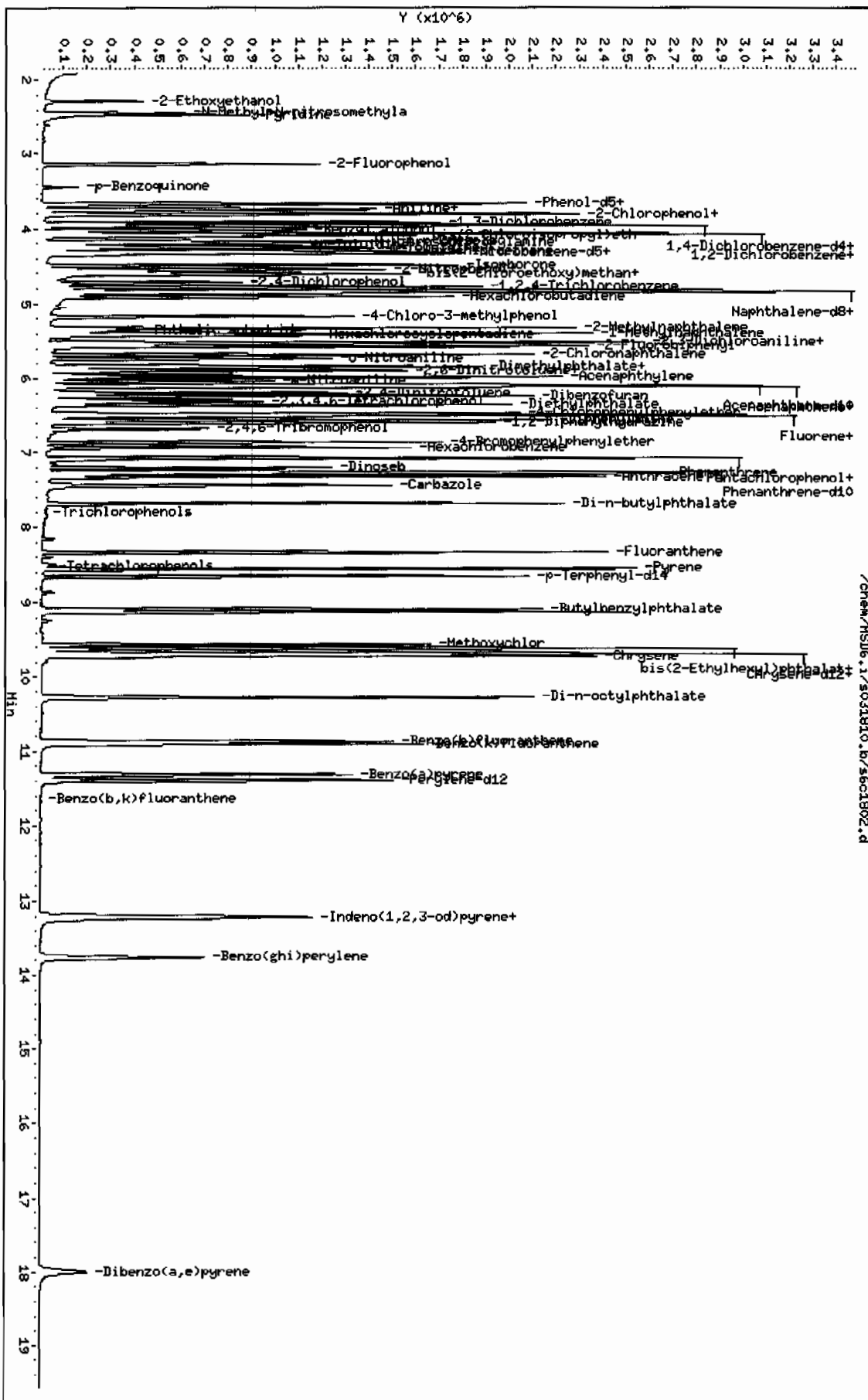


Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
79 Pyrene	202	8.551	8.551	(0.882)	1472984	40.0000	38.6
85 Butylbenzylphthalate	149	9.086	9.086	(0.937)	669136	40.0000	36.2
89 Benzo(a)anthracene	228	9.680	9.680	(0.998)	1237416	40.0000	37.8
92 Chrysene	228	9.722	9.722	(1.002)	1146495	40.0000	36.7
93 bis(2-Ethylhexyl)phthalate	149	9.616	9.616	(0.992)	889248	40.0000	36.0
94 Di-n-octylphthalate	149	10.280	10.280	(0.901)	1444521	40.0000	35.9
95 Benzo(b)fluoranthene	252	10.874	10.874	(0.954)	1107076	40.0000	38.7
96 Benzo(k)fluoranthene	252	10.910	10.910	(0.957)	1075846	40.0000	39.2
97 Benzo(a)pyrene	252	11.322	11.322	(0.993)	945560	40.0000	39.0
99 Indeno(1,2,3-cd)pyrene	276	13.210	13.210	(1.158)	864047	40.0000	38.9
100 Dibenzo(a,h)anthracene	278	13.227	13.227	(1.160)	695613	40.0000	38.8
101 Benzo(ghi)perylene	276	13.763	13.763	(1.207)	734030	40.0000	38.7
126 m-Dinitrobenzene	168	5.887	5.887	(0.966)	164809	40.0000	39.2
130 2,3,4,6-Tetrachlorophenol	232	6.322	6.322	(1.038)	188715	40.0000	30.9
143 Dinoseb	211	7.210	7.210	(0.992)	244847	40.0000	48.6
173 Carbazole	167	7.451	7.451	(1.025)	962709	40.0000	34.2
184 p-Benzoquinone	54	3.446	3.446	(0.869)	51451	40.0000	21.4
192 Methoxychlor	227	9.563	9.563	(0.986)	831842	40.0000	39.9
211 p-Toluidine	106	4.240	4.240	(1.070)	533013	40.0000	40.2
210 m-Toluidine	106	4.263	4.263	(1.076)	592898	40.0000	32.2
215 2-Ethoxyethanol	59	2.287	2.287	(0.577)	212865	40.0000	30.2
179 Dibenzo(a,e)pyrene	302	17.998	17.998	(1.578)	326920	40.0000	38.8
26 Phthalic anhydride	104	5.363	5.363	(1.110)	172119	40.0000	34.0
214 1,4-Dinitrobenzene	75	5.834	5.834	(0.958)	201442	40.0000	34.0
216 Methylenebis(2-chloroaniline)	231	9.627	9.627	(0.993)	159441	40.0000	32.4
M 225 Trichlorophenols	196				567500	80.0000	75.0
M 226 Tetrachlorophenols	232				188715	40.0000	30.9
M 227 Benzo(b,k)fluoranthene	252				2182922	80.0000	77.9



Data File: /chem/MSD6.1/s031810.b/s031802.d  
 Date: 18-MAR-2010 08:12  
 Client ID: MECACVS  
 Sample Info: IABN100309-05.3140 PPH11SYN11MECACVS  
 Column Phase: 3M DB-SHS

Instrument: MSD6.1  
 Operator: nag1  
 Column diameter: 0.20





GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 18-MAR-2010 08:42  
 Lab File ID: s6c1803.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
 Analysis Type: Init. Cal. Times: 09:18 04:51  
 Lab Sample ID: WBN10031203.3 Quant Type: ISTD  
 Method: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96016	0.89823	0.89823	0.000	-6.45020	60.00000	Averaged
16 Acetophenone	1.24814	1.16834	1.16834	0.000	-6.39408	60.00000	Averaged
189 Caprolactam	0.09790	0.08905	0.08905	0.000	-9.03510	60.00000	Averaged
208 1,1'-Biphenyl	1.11180	1.07340	1.07340	0.000	-3.45414	60.00000	Averaged
207 Atrazine	0.04606	0.04211	0.04211	0.000	-8.57356	60.00000	Averaged
77 Benzidine	0.42058	0.33972	0.33972	0.000	-19.22570	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.30172	0.30238	0.30238	0.000	0.21698	60.00000	Averaged
102 1,4-Dioxane	0.35119	0.31895	0.31895	0.000	-9.17948	60.00000	Averaged
103 Methyl methacrylate	0.18979	0.17869	0.17869	0.000	-5.85035	60.00000	Averaged
104 Ethyl methacrylate	0.82709	0.75194	0.75194	0.000	-9.08644	60.00000	Averaged
105 2-Picoline	1.21280	1.13579	1.13579	0.000	-6.34917	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.53810	0.47629	0.47629	0.000	-11.48715	60.00000	Averaged
107 Methyl methanesulfonate	0.59726	0.54532	0.54532	0.000	-8.69636	60.00000	Averaged
108 N-Nitrosodiethylamine	0.54437	0.49537	0.49537	0.000	-9.00087	60.00000	Averaged
109 Ethyl Methanesulfonate	0.72583	0.64843	0.64843	0.000	-10.66261	60.00000	Averaged
110 Pentachloroethane	0.33314	0.32806	0.32806	0.000	-1.52684	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.58446	0.53918	0.53918	0.000	-7.74767	60.00000	Averaged
113 N-Nitrosomorpholine	0.68078	0.63324	0.63324	0.000	-6.98419	60.00000	Averaged
114 o-Toluidine	1.73474	1.64707	1.64707	0.000	-5.05362	60.00000	Averaged
115 N-Nitrosopiperidine	0.15362	0.13993	0.13993	0.000	-8.90960	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.87353	0.76051	0.76051	0.000	-12.93886	60.00000	Averaged
118 2,6-Dichlorophenol	0.24533	0.21670	0.21670	0.000	-11.66947	60.00000	Averaged
119 Hexachloropropene	0.13311	0.14542	0.14542	0.000	9.24880	60.00000	Averaged
120 p-Phenylenediamine	0.30365	0.25124	0.25124	0.000	-17.25972	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.26282	0.21740	0.21740	0.000	-17.28274	60.00000	Averaged
122 Safrole	0.21396	0.20108	0.20108	0.000	-6.02159	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44716	0.44455	0.44455	0.000	-0.58332	60.00000	Averaged
124 Isosafrole	0.35324	0.32697	0.32697	0.000	-7.43610	60.00000	Averaged
125 1,4-Naphthoquinone	0.34254	0.32552	0.32552	0.000	-4.96861	60.00000	Averaged
127 Pentachlorobenzene	0.37515	0.37095	0.37095	0.000	-1.12187	60.00000	Averaged
128 1-Naphthylamine	0.89931	0.84300	0.84300	0.000	-6.26170	60.00000	Averaged
129 2-Naphthylamine	0.94089	0.87372	0.87372	0.000	-7.13921	60.00000	Averaged
131 5-Nitro-o-toluidine	0.30665	0.27627	0.27627	0.000	-9.90650	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.15613	0.14977	0.14977	0.000	-4.07729	60.00000	Averaged
137 Phenacetin	0.29347	0.26593	0.26593	0.000	-9.38560	60.00000	Averaged
138 Diallate	0.24862	0.23179	0.23179	0.000	-6.76998	60.00000	Averaged



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 18-MAR-2010 08:42  
 Lab File ID: s6c1803.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
 Analysis Type: Init. Cal. Times: 09:18 04:51  
 Lab Sample ID: WBN10031203.3 Quant Type: ISTD  
 Method: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
212 Cis Diallylate	0.28918	0.25344	0.25344	0.000	-12.36010	Averaged
213 Trans Diallylate	0.29250	0.27270	0.27270	0.000	-6.76998	Averaged
140 4-Aminobiphenyl	0.55066	0.56897	0.56897	0.000	3.32606	Averaged
141 Pentachloronitrobenzene	0.06695	0.06765	0.06765	0.000	1.05533	Averaged
142 Pronamide	0.26094	0.24780	0.24780	0.000	-5.03232	Averaged
146 4-Nitroquinoline-1-oxide	0.02879	0.02791	0.02791	0.000	-3.07853	Averaged
147 Methapyrilene	0.43748	0.39633	0.39633	0.000	-9.40497	Averaged
148 Isodrin	0.11028	0.11053	0.11053	0.000	0.23125	Averaged
149 Aramite	0.04746	0.04568	0.04568	0.000	-3.74014	Averaged
150 Kepone	0.07668	0.08182	0.08182	0.000	6.69833	Averaged
151 p-(Dimethylamino)azobenzene	0.31031	0.27695	0.27695	0.000	-10.75303	Averaged
152 Chlorobenzilate	0.29472	0.25791	0.25791	0.000	-12.49012	Averaged
153 3,3'-Dimethylbenzidine	0.59350	0.53591	0.53591	0.000	-9.70252	Averaged
155 2-Acetylaminofluorene	0.34851	0.34805	0.34805	0.000	-0.13349	Averaged
157 7,12Dimethylbenz(a)anthrace	0.48545	0.45305	0.45305	0.000	-6.67250	Averaged
158 3-Methylcholanthrene	0.40010	0.39848	0.39848	0.000	-0.40474	Averaged



GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1803.d  
 Lab Smp Id: WBN10031203.3 Client Smp ID: APCVS  
 Inj Date : 18-MAR-2010 08:42  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |WBN10031203.3|40 PPM|1|SVM|1|APCVS  
 Misc Info : |MSD8270|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 12:45 jen00986 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 3 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AP12.sub  
 Target Version: 3.50  
 Processing Host: hpc1pl

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	3.963	3.963	(1.000)	454898	40.0000	
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	1611666	40.0000	
* 46 Acenaphthene-d10	164	6.087	6.087	(1.000)	983364	40.0000	
* 67 Phenanthrene-d10	188	7.269	7.269	(1.000)	1658037	40.0000	
* 91 Chrysene-d12	240	9.692	9.692	(1.000)	1531998	40.0000	
* 98 Perylene-d12	264	11.398	11.398	(1.000)	1357095	40.0000	
209 Benzaldehyde	77	3.687	3.687	(0.930)	408602	40.0000	37.4
16 Acetophenone	105	4.210	4.210	(1.062)	531474	40.0000	37.4
189 Caprolactam	113	5.104	5.104	(1.057)	143520	40.0000	36.4
208 1,1'-Biphenyl	154	5.651	5.651	(0.928)	1055544	40.0000	38.6
207 Atrazine	173	6.963	6.963	(0.958)	69817	40.0000	36.6
77 Benizidine	184	8.428	8.428	(0.870)	520454	40.0000	32.3
90 3,3'-Dichlorobenzidine	252	9.628	9.628	(0.993)	463242	40.0000	40.1
102 1,4-Dioxane	88	2.299	2.299	(0.580)	145089	40.0000	36.3
103 Methyl methacrylate	100	2.287	2.287	(0.577)	81286	40.0000	37.6
104 Ethyl methacrylate	69	2.663	2.663	(0.672)	342054	40.0000	36.4
105 2-Picoline	93	2.857	2.857	(0.721)	516670	40.0000	37.5
106 N-Nitrosomethylethylamine	88	2.899	2.899	(0.731)	216663	40.0000	35.4
107 Methyl methanesulfonate	80	3.057	3.057	(0.771)	248065	40.0000	36.5
108 N-Nitrosodiethylamine	102	3.287	3.287	(0.829)	225345	40.0000	36.4
109 Ethyl Methanesulfonate	79	3.446	3.446	(0.869)	294971	40.0000	35.7
110 Pentachloroethane	167	3.787	3.787	(0.955)	149232	40.0000	39.4
111 N-Nitrosopyrrolidine	100	4.204	4.204	(1.061)	245272	40.0000	36.9 (Q)
113 N-Nitrosomorpholine	56	4.222	4.222	(1.065)	288058	40.0000	37.2
114 o-Toluidine	106	4.240	4.240	(1.070)	749251	40.0000	38.0
115 N-Nitrosopiperidine	114	4.440	4.440	(0.920)	225523	40.0000	36.4



Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
116 a,a-Dimethylphenethylamine	58	4.698	4.698	(0.973)	1225685	40.0000	34.8
118 2,6-Dichlorophenol	162	4.869	4.869	(1.009)	349254	40.0000	35.3
119 Hexachloropropene	213	4.898	4.898	(1.015)	234367	40.0000	43.7
120 p-Phenylenediamine	108	5.110	5.110	(1.058)	404921	40.0000	33.1
121 N-Nitrosodi-n-butylamine	84	5.075	5.075	(1.051)	350377	40.0000	33.1 (Q)
122 Safrole	162	5.240	5.240	(1.085)	324070	40.0000	37.6
123 1,2,4,5-Tetrachlorobenzene	216	5.445	5.445	(0.895)	437154	40.0000	39.8
124 Isosafrole	162	5.610	5.610	(0.922)	321535	40.0000	37.0
125 1,4-Naphthoquinone	158	5.804	5.804	(0.954)	320104	40.0000	38.0
127 Pentachlorobenzene	250	6.204	6.204	(1.019)	364774	40.0000	39.6
128 1-Naphthylamine	143	6.298	6.298	(1.035)	828976	40.0000	37.5
129 2-Naphthylamine	143	6.351	6.351	(1.043)	859180	40.0000	37.1
131 5-Nitro-o-toluidine	152	6.492	6.492	(1.067)	271672	40.0000	36.0
136 1,3,5-Trinitrobenzene	75	6.739	6.739	(0.927)	248318	40.0000	38.4
137 Phenacetin	108	6.787	6.787	(0.934)	440916	40.0000	36.2 (Q)
138 Diallate	86	6.775	6.775	(0.932)	384319	40.0000	37.3
212 Cis Diallate	86	6.851	6.851	(0.943)	63031	6.00000	5.2
213 Trans Diallate	86	6.775	6.775	(0.932)	384319	34.0000	31.7
140 4-Aminobiphenyl	169	7.081	7.081	(0.974)	943374	40.0000	41.3
141 Pentachloronitrobenzene	237	7.098	7.098	(0.977)	112174	40.0000	40.4 (Q)
142 Pronamide	173	7.092	7.092	(0.976)	410869	40.0000	38.0
146 4-Nitroquinoline-1-oxide	101	7.939	7.939	(1.092)	46270	40.0000	38.8
147 Methapyrilene	58	7.975	7.975	(1.097)	657138	40.0000	36.2
148 Isodrin	193	8.198	8.198	(1.128)	183263	40.0000	40.1
149 Aramite	185	8.598	8.598	(1.183)	75740	40.0000	38.5
150 Kepone	272	9.192	9.192	(1.265)	135654	40.0000	42.7
151 p-(Dimethylamino)azobenzene	120	8.781	8.781	(0.906)	424281	40.0000	35.7
152 Chlorobenzilate	251	8.810	8.810	(0.909)	395111	40.0000	35.0
153 3,3'-Dimethylbenzidine	212	9.098	9.098	(0.939)	821019	40.0000	36.1
155 2-Acetylaminofluorene	181	9.345	9.345	(0.964)	533206	40.0000	39.9
157 7,12Dimethylbenz(a)anthracene	256	10.845	10.845	(0.951)	614837	40.0000	37.3
158 3-Methylcholanthrene	268	11.816	11.816	(1.037)	540782	40.0000	39.8 (Q)

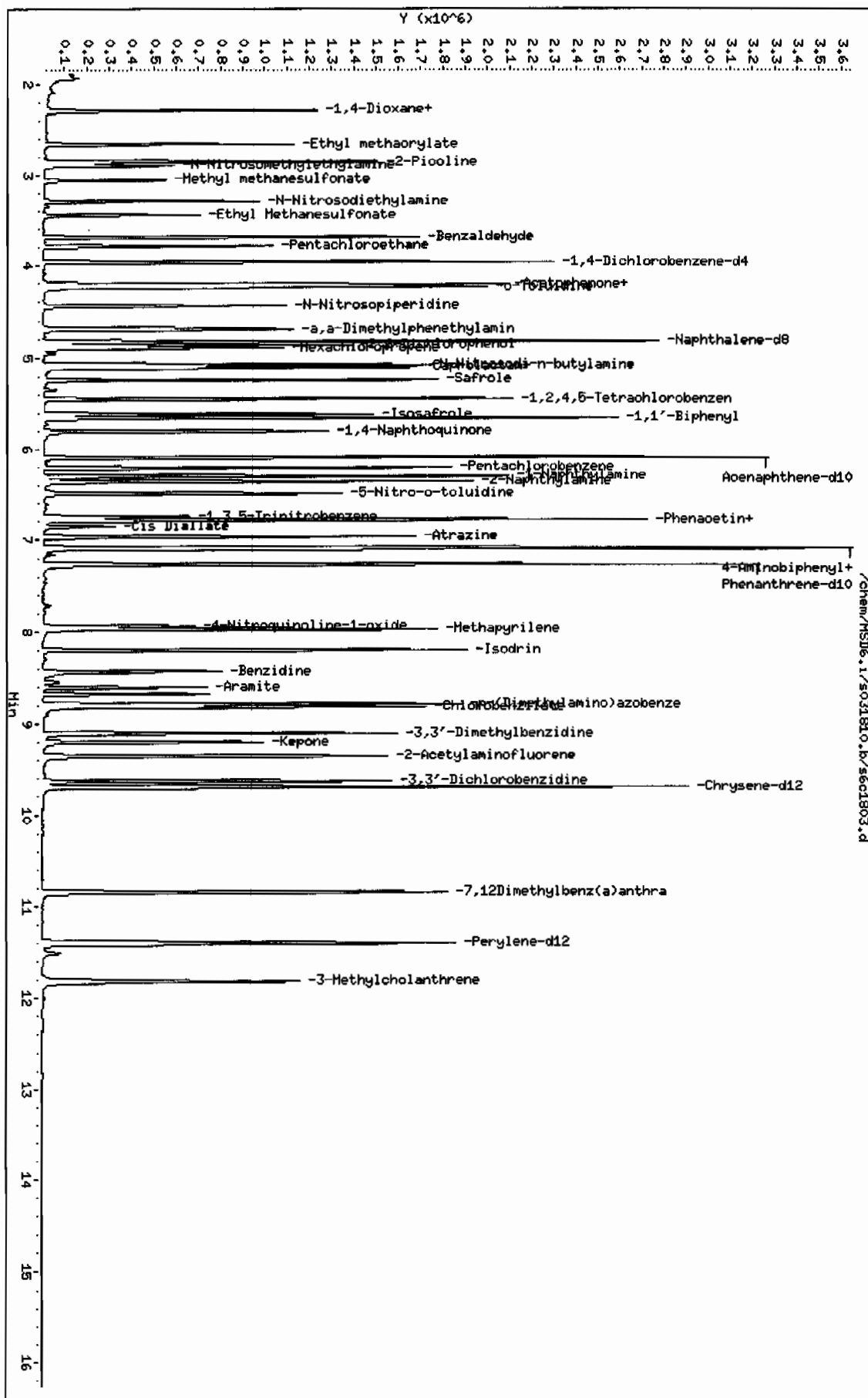
#### QC Flag Legend

Q - Qualifier signal failed the ratio test.



Data File: /chem/MSD6.i/s031810.b/s6c1803.d  
 Date: 18-MAR-2010 08:42  
 Client ID: APCVS  
 Sample Info: IIBNL0031203.3140 PPM11SVH11APCVS  
 Column phase: J&W DB-5MS

Instrument: MSD6.i  
 Operator: nagl  
 Column diameter: 0.20





# QC Data



Data File: /chem/MSD6.i/s031610.b/s6c1601.d

Page 1

Date : 16-MAR-2010 08:42

Client ID: DFTPP

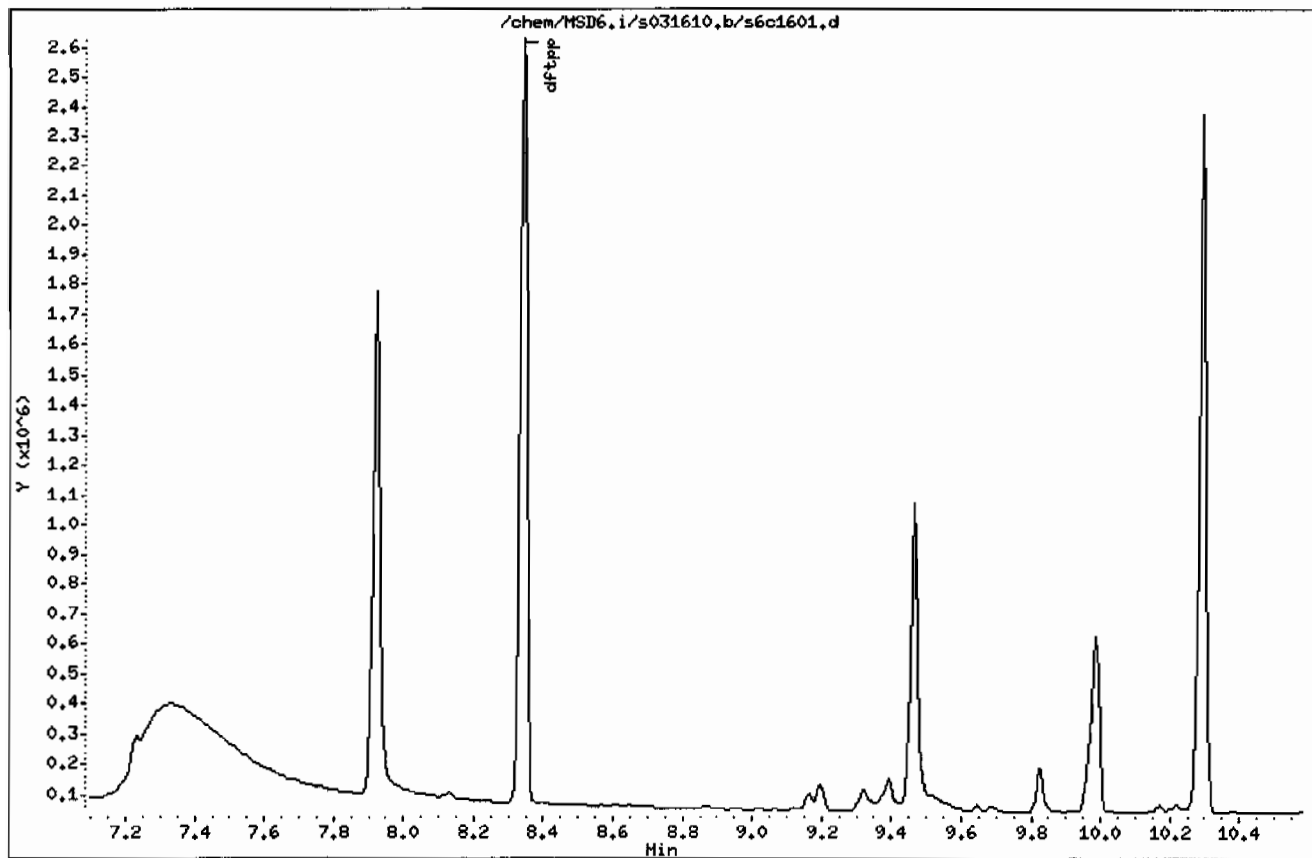
Instrument: MSD6.i

Sample Info: IWBNI00306-01.2IDFTPP11SVHF11IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20





Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: MSD6.1

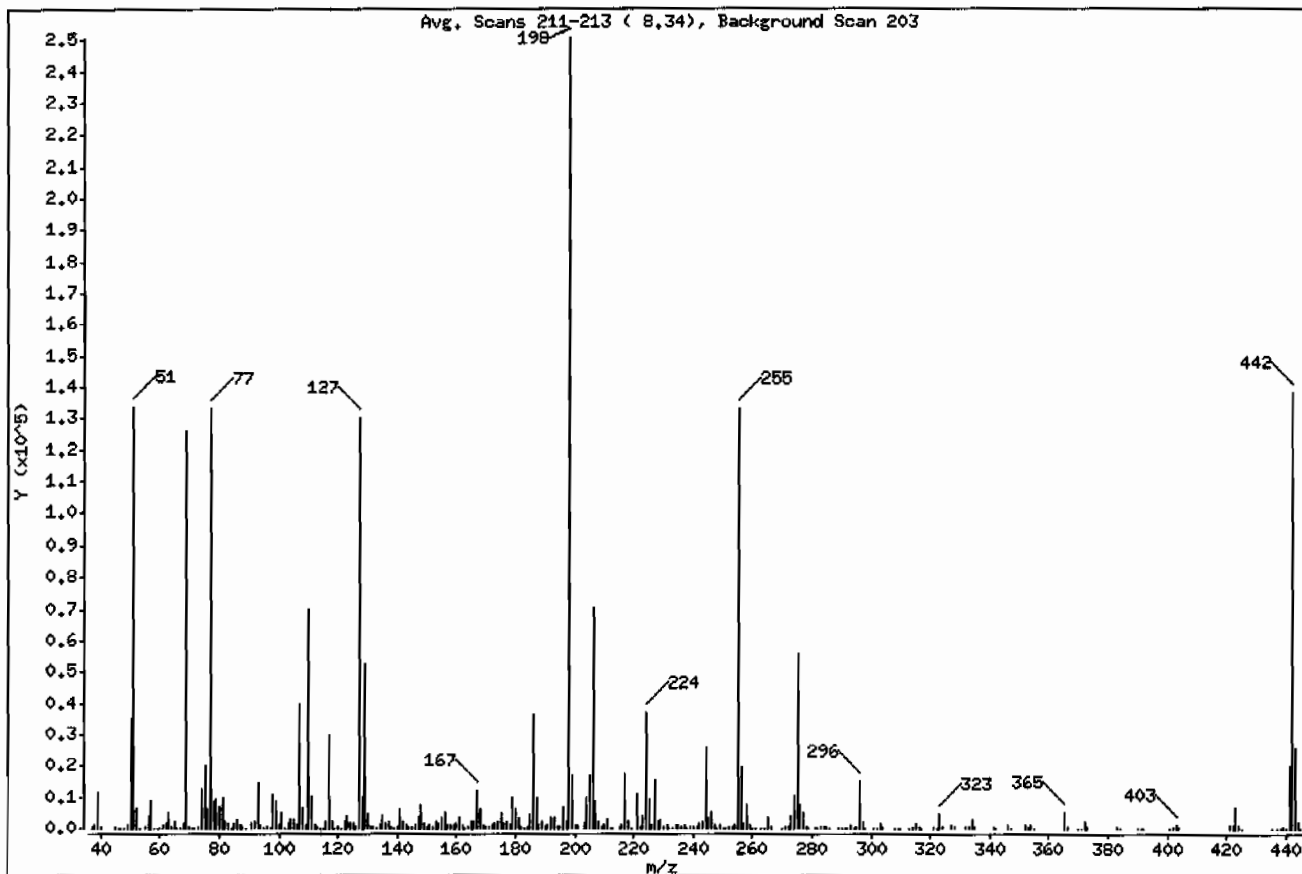
Sample Info: IWBNI00306-01,2IDFTPP11SVHF11IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-SHS

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	53.30
68	Less than 2.00% of mass 69	0.78 ( 1.54)
69	Mass 69 relative abundance	50.41
70	Less than 2.00% of mass 69	0.28 ( 0.56)
127	40.00 - 60.00% of mass 198	52.01
197	Less than 1.00% of mass 198	0.84
199	5.00 - 9.00% of mass 198	6.75
275	10.00 - 30.00% of mass 198	22.34
365	Greater than 1.00% of mass 198	2.18
441	Present, but less than mass 443	8.03
442	Greater than 40.00% of mass 198	55.21
443	17.00 - 23.00% of mass 442	10.46 ( 18.94)



Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IMBN100306-01,21DFTPP11SVHF11DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c1601.d

Spectrum: Avg. Scans 211-213 ( 8.34), Background Scan 203

Location of Maximum: 198.00

Number of points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
-----							
37.00	539	120.00	690	197.00	2101	282.00	176
38.00	1021	121.00	284	198.00	250688	283.00	581
39.00	11554	122.00	2497	199.00	16920	284.00	435
40.00	474	123.00	4070	200.00	1419	285.00	830
45.00	300	124.00	1835	201.00	1008	286.00	97
-----							
46.00	46	125.00	1582	203.00	2006	289.00	199
47.00	60	126.00	769	204.00	9820	290.00	99
48.00	25	127.00	130384	205.00	16848	291.00	153
49.00	905	128.00	9814	206.00	70072	292.00	220
50.00	35064	129.00	52280	207.00	8715	293.00	1013
-----							
51.00	133568	130.00	4484	208.00	2324	294.00	236
52.00	6515	131.00	816	209.00	743	295.00	313
53.00	284	132.00	347	210.00	990	296.00	14707
55.00	376	133.00	28	211.00	2712	297.00	2266
56.00	3828	134.00	1402	212.00	148	298.00	198
-----							
57.00	8839	135.00	3990	213.00	284	301.00	142
58.00	228	136.00	1606	215.00	822	302.00	270
59.00	27	137.00	2099	216.00	1420	303.00	1812
60.00	108	138.00	482	217.00	17528	304.00	512
61.00	1396	139.00	258	218.00	2263	308.00	203
-----							
62.00	1919	140.00	663	219.00	261	309.00	114
63.00	5112	141.00	6250	221.00	11113	310.00	110
64.00	635	142.00	2224	222.00	580	313.00	93
65.00	2325	143.00	1420	223.00	3783	314.00	744
66.00	149	144.00	488	224.00	36608	315.00	1650
-----							
67.00	103	145.00	350	225.00	8974	316.00	843
68.00	1952	146.00	1154	226.00	893	317.00	116
69.00	126368	147.00	3460	227.00	15730	321.00	466
70.00	702	148.00	7480	228.00	2314	322.00	243
71.00	66	149.00	1592	229.00	3106	323.00	4480
-----							
72.00	95	150.00	434	230.00	397	324.00	777
73.00	837	151.00	889	231.00	1211	327.00	865
74.00	12548	152.00	496	232.00	91	328.00	383
75.00	20072	153.00	2061	233.00	286	332.00	333
76.00	6493	154.00	1643	234.00	1082	333.00	429



Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: HSD6.i

Sample Info: IWBNI00306-01.2IDFTPP11SVHF11IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-5HS

Column diameter: 0.20

Data File: s6c1601.d

Spectrum: Avg. Scans 211-213 ( 8.34), Background Scan 203

Location of Maximum: 198.00

Number of points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	133056	155.00	3537	235.00	1238	334.00	2708
78.00	8864	156.00	5472	236.00	768	335.00	749
79.00	8991	157.00	1057	237.00	1331	341.00	581
80.00	6867	158.00	1121	238.00	239	342.00	43
81.00	9608	159.00	928	239.00	633	346.00	972
82.00	2327	160.00	1972	240.00	459	347.00	145
83.00	1949	161.00	3180	241.00	862	352.00	1224
84.00	261	162.00	886	242.00	1802	353.00	739
85.00	1469	163.00	271	243.00	2025	354.00	1267
86.00	2809	164.00	438	244.00	26176	355.00	268
87.00	1114	165.00	2425	245.00	3604	365.00	5468
88.00	433	166.00	2061	246.00	5257	366.00	789
89.00	231	167.00	12297	247.00	1192	370.00	107
91.00	1935	168.00	6571	248.00	227	371.00	268
92.00	2326	169.00	1233	249.00	956	372.00	2160
93.00	14334	170.00	433	250.00	234	373.00	460
94.00	1077	171.00	659	251.00	256	383.00	543
95.00	133	172.00	1265	252.00	384	384.00	118
96.00	674	173.00	1486	253.00	717	390.00	253
97.00	121	174.00	2557	254.00	1407	391.00	132
98.00	11118	175.00	5058	255.00	133184	392.00	111
99.00	8880	176.00	1554	256.00	19792	401.00	115
100.00	944	177.00	2489	257.00	1568	402.00	760
101.00	5006	178.00	902	258.00	7663	403.00	1027
102.00	281	179.00	9717	259.00	1235	404.00	326
103.00	1616	180.00	6606	260.00	239	421.00	927
104.00	3089	181.00	3260	261.00	257	422.00	875
105.00	2736	182.00	564	263.00	87	423.00	6945
106.00	1065	183.00	288	264.00	119	424.00	1275
107.00	39496	184.00	841	265.00	3196	425.00	105
108.00	6480	185.00	4847	266.00	506	435.00	219
109.00	1157	186.00	36512	270.00	248	437.00	226
110.00	69912	187.00	10075	271.00	298	438.00	232
111.00	10462	188.00	1064	272.00	473	439.00	357
112.00	1431	189.00	2374	273.00	3934	440.00	227



Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: HSD6.i

Sample Info: IWBH100306-01,2IDFTPP11ISVHF11IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-5HS

Column diameter: 0,20

Data File: s6c1601.d

Spectrum: Avg, Scans 211-213 ( 8,34), Background Scan 203

Location of Maximum: 198,00

Number of points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113,00	400	190,00	463	274,00	10466	441,00	20128
114,00	154	191,00	1185	275,00	55992	442,00	138368
115,00	109	192,00	3223	276,00	7246	443,00	26216
116,00	2178	193,00	3396	277,00	4967	444,00	2405
117,00	30184	194,00	756	278,00	826	445,00	105
118,00	2298	195,00	517	279,00	213		
119,00	256	196,00	7034	281,00	100		



Data File: /chem/HSD6.i/s031610,b/s601613,d

Page 1

Date : 16-MAR-2010 16:06

Client ID: DFTPP

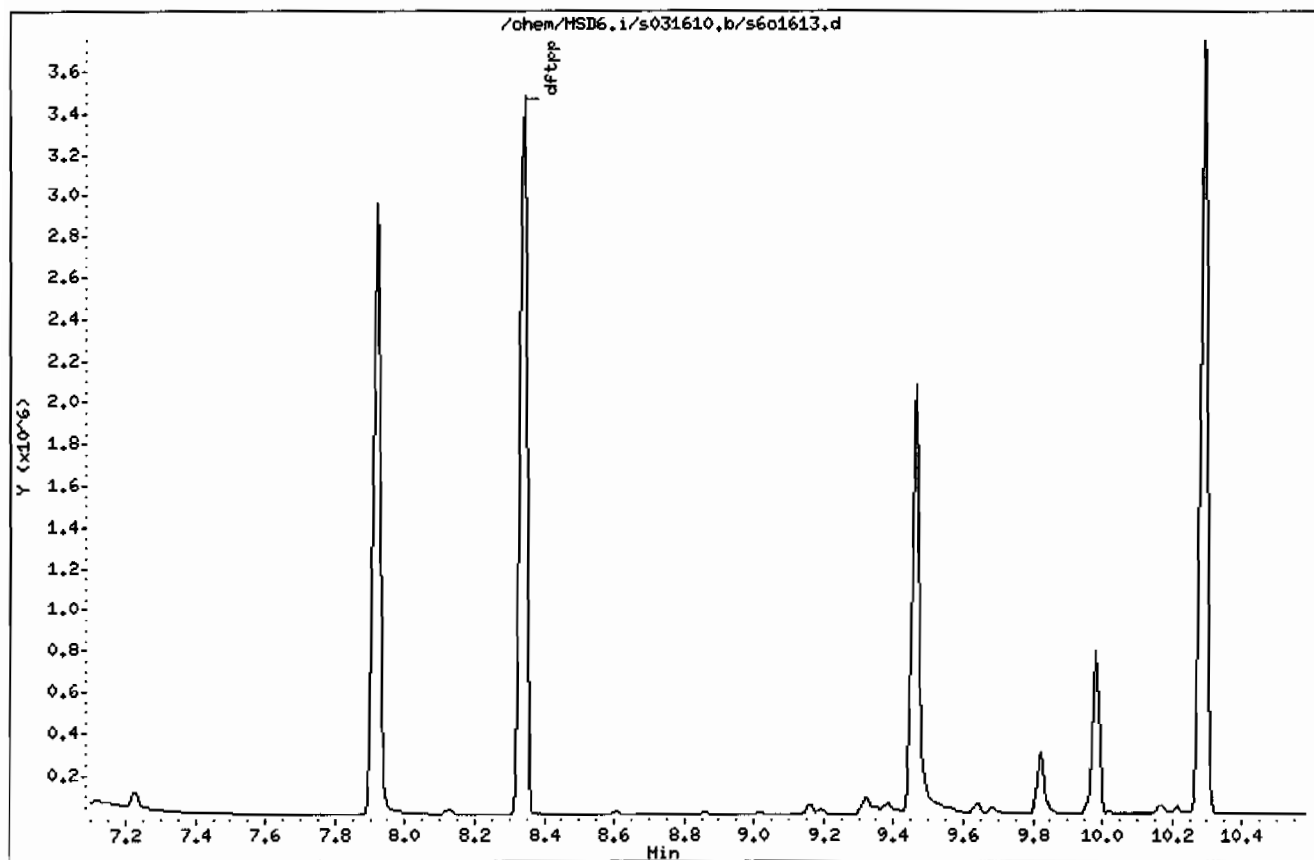
Instrument: HSD6.i

Sample Info: IWBNI00306-01,2IDFTPP11ISVHF11IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20





Date : 16-MAR-2010 16:06

Client ID: DFTPP

Instrument: HSD6.i

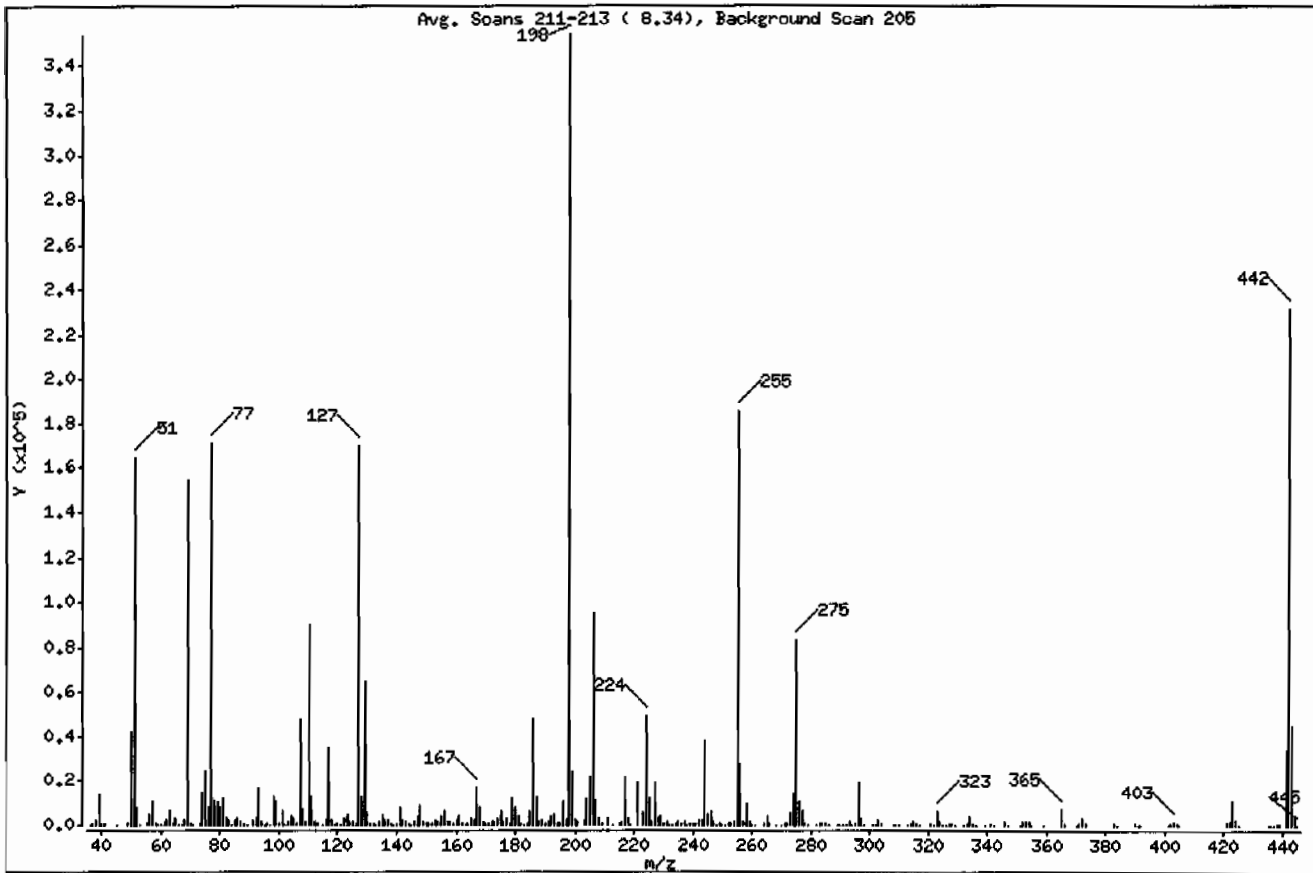
Sample Info: IWBNI00306-01.21DFTPP11SVHF11DFTPP

Operator: nag1

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	46.37
68	Less than 2.00% of mass 69	0.69 ( 1.58)
69	Mass 69 relative abundance	43.77
70	Less than 2.00% of mass 69	0.27 ( 0.61)
127	40.00 - 60.00% of mass 198	48.16
197	Less than 1.00% of mass 198	0.72
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	23.38
365	Greater than 1.00% of mass 198	2.06
441	Present, but less than mass 443	9.55
442	Greater than 40.00% of mass 198	65.47
443	17.00 - 23.00% of mass 442	12.86 ( 19.65)



Date : 16-MAR-2010 16:06

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBNI00306-01,2IDFTPP11SVHF11IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c1613.d

Spectrum: Avg. Scans 211-213 ( 8,34), Background Scan 205

Location of Maximum: 198.00

Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	365	123.00	4688	200.00	2049	291.00	95
37.00	686	124.00	1969	201.00	1887	292.00	268
38.00	2219	125.00	2034	203.00	2289	293.00	1469
39.00	14217	126.00	969	204.00	12413	294.00	360
40.00	662	127.00	170560	205.00	22120	295.00	415
41.00	451	128.00	12972	206.00	94880	296.00	19192
45.00	343	129.00	65336	207.00	11802	297.00	2923
49.00	1033	130.00	5614	208.00	3327	298.00	205
50.00	42256	131.00	1072	209.00	988	301.00	261
51.00	164224	132.00	586	211.00	3614	302.00	347
52.00	8273	133.00	266	213.00	247	303.00	2358
53.00	361	134.00	1727	215.00	826	304.00	634
55.00	615	135.00	4970	216.00	1782	308.00	279
56.00	4569	136.00	2207	217.00	22368	309.00	172
57.00	10965	137.00	2269	218.00	2964	310.00	279
58.00	541	138.00	648	219.00	312	313.00	172
59.00	160	139.00	341	221.00	19520	314.00	916
60.00	185	140.00	679	223.00	5297	315.00	2018
61.00	1949	141.00	7898	224.00	49688	316.00	1164
62.00	2059	142.00	2664	225.00	12403	317.00	239
63.00	6240	143.00	1748	226.00	1307	321.00	668
64.00	905	144.00	480	227.00	19604	322.00	322
65.00	3077	145.00	407	228.00	2871	323.00	6305
66.00	225	146.00	1518	229.00	4196	324.00	1298
67.00	216	147.00	4305	230.00	634	325.00	44
68.00	2445	148.00	9003	231.00	1804	326.00	156
69.00	155008	149.00	1778	232.00	342	327.00	1043
70.00	947	150.00	449	233.00	316	328.00	530
71.00	201	151.00	1098	234.00	1167	329.00	108
73.00	1127	152.00	658	235.00	1577	332.00	394
74.00	14976	153.00	2511	236.00	873	333.00	734
75.00	24336	154.00	1999	237.00	1570	334.00	3934
76.00	8200	155.00	4297	238.00	231	335.00	1090
77.00	171200	156.00	6528	239.00	790	336.00	90
78.00	11711	157.00	1348	240.00	604	339.00	45



Date : 16-MAR-2010 16:06

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBNI00306-04.2\DFTPP\1\SVMF\1\1\DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c1613.d

Spectrum: Avg. Scans 211-213 ( 8.34), Background Scan 205

Location of Maximum: 198.00

Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	10991	158.00	1467	241.00	1051	341.00	791
80.00	8089	159.00	1196	242.00	2678	342.00	112
81.00	12006	160.00	2557	243.00	2830	346.00	1303
82.00	3062	161.00	3725	244.00	38552	347.00	236
83.00	2754	162.00	1103	245.00	5015	351.00	51
84.00	311	163.00	384	246.00	6837	352.00	1714
85.00	2148	164.00	520	247.00	1386	353.00	1258
86.00	2960	165.00	2927	248.00	316	354.00	1807
87.00	1512	166.00	2460	249.00	1167	355.00	303
88.00	490	167.00	16936	250.00	324	359.00	50
89.00	261	168.00	7860	251.00	332	365.00	7286
91.00	2590	169.00	1424	252.00	511	366.00	1134
92.00	2914	170.00	561	253.00	815	370.00	153
93.00	17192	171.00	668	254.00	1800	371.00	455
94.00	1273	172.00	1340	255.00	185344	372.00	2898
95.00	330	173.00	1876	256.00	27576	373.00	675
96.00	904	174.00	3377	257.00	1895	383.00	836
97.00	358	175.00	6789	258.00	10115	384.00	240
98.00	12960	176.00	2015	259.00	1699	390.00	414
99.00	10708	177.00	3013	260.00	258	391.00	350
100.00	942	178.00	1036	261.00	383	392.00	234
101.00	6393	179.00	11838	264.00	435	401.00	184
102.00	360	180.00	8500	265.00	3865	402.00	1191
103.00	1979	181.00	4159	266.00	588	403.00	1692
104.00	4113	182.00	603	268.00	160	404.00	639
105.00	3560	183.00	335	270.00	275	405.00	87
106.00	1067	184.00	1026	271.00	443	421.00	1562
107.00	48096	185.00	6230	272.00	556	422.00	1423
108.00	7432	186.00	48112	273.00	5738	423.00	11200
109.00	1348	187.00	13352	274.00	15003	424.00	2246
110.00	90080	188.00	1313	275.00	92816	425.00	236
111.00	13316	189.00	2686	276.00	10769	435.00	42
112.00	1579	190.00	445	277.00	6686	436.00	161
113.00	490	191.00	1473	278.00	1075	437.00	275
115.00	181	192.00	4225	279.00	229	438.00	434



Date : 16-MAR-2010 16:06

Client ID: DFTPP

Instrument: HSD6.i

Sample Info: IWBH100306-01,2IDFTPP11SVHF11IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-SHS

Column diameter: 0.20

Data File: s601613.d

Spectrum: Avg. Scans 211-213 ( 8.34), Background Scan 205

Location of Maximum: 198.00

Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	2631	193.00	4772	282.00	109	439.00	605
117.00	34760	194.00	868	283.00	778	441.00	33840
118.00	2657	195.00	649	284.00	498	442.00	231872
119.00	366	196.00	10847	285.00	1031	443.00	45560
120.00	634	197.00	2536	286.00	215	444.00	4334
121.00	221	198.00	354176	289.00	202	445.00	211
122.00	3127	199.00	24520	290.00	227		



Data File: /chem/HSD6.i/s031810.b/s6c1801.d

Page 1

Date : 18-MAR-2010 07:59

Client ID: DFTPP

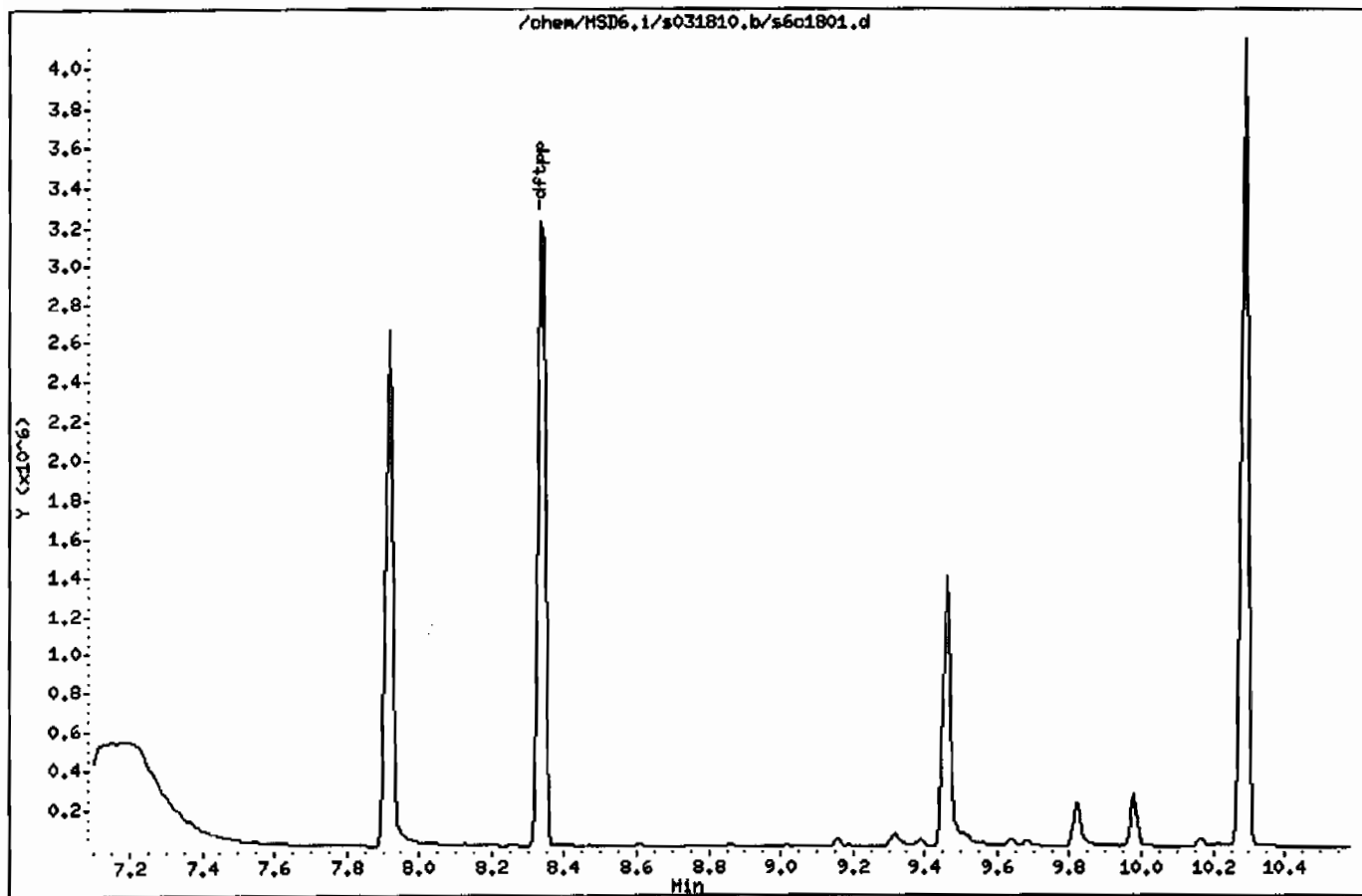
Instrument: HSD6.i

Sample Info: IWBH100306-01.2|DFTPP|1|SVHF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-SHS

Column diameter: 0.20





Data File: /chem/MSD6.i/s031810.b/s6c1801.d

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Date : 18-MAR-2010 07:59

Client ID: DFTPP

Instrument: MSD6.i

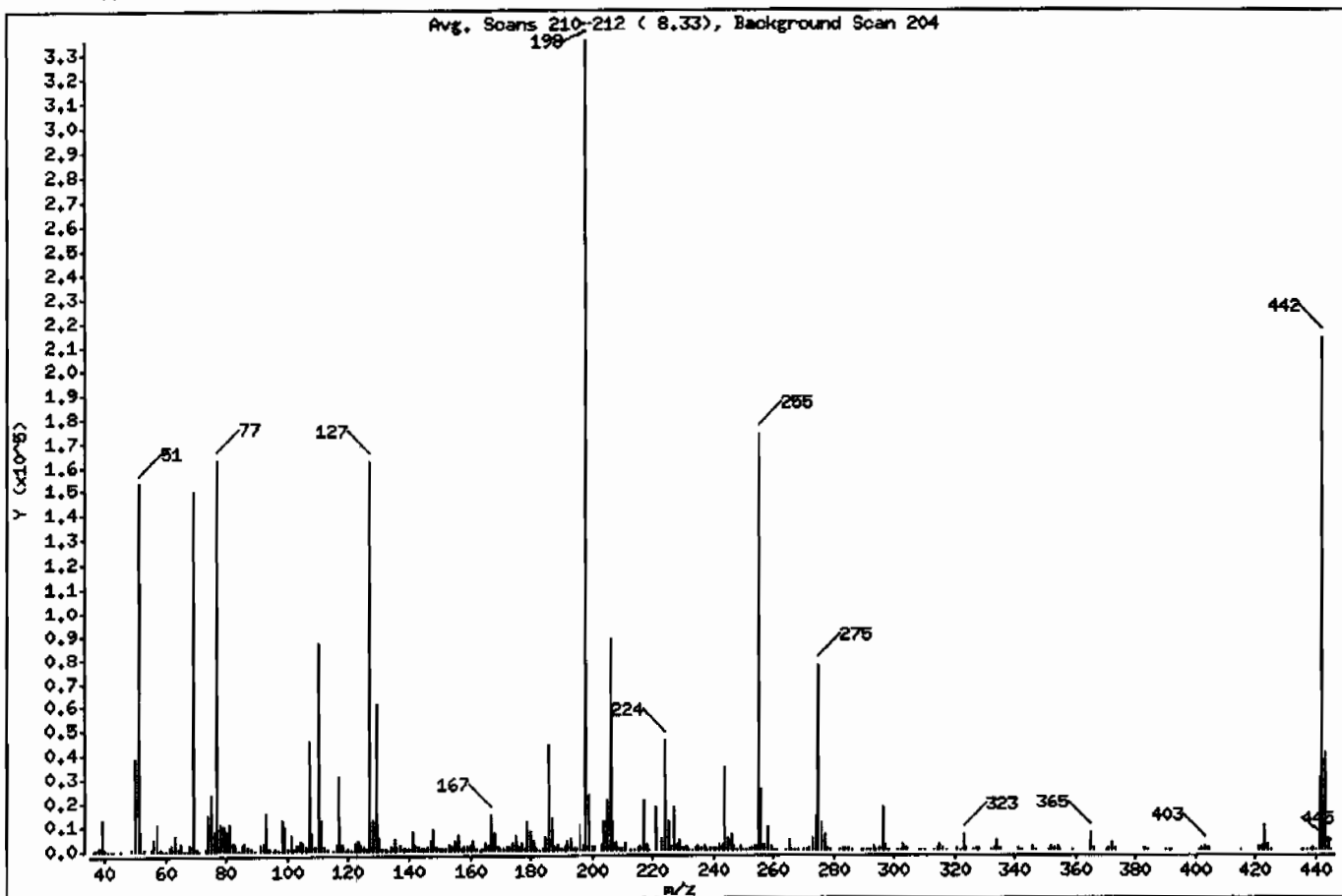
Sample Info: IWBH100306-01.2\DFTPP\1\SMF\1\1\DFTPP

Operator: nag1

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	45.67
68	Less than 2.00% of mass 69	0.72 ( 1.63)
69	Mass 69 relative abundance	44.53
70	Less than 2.00% of mass 69	0.24 ( 0.55)
127	40.00 - 60.00% of mass 198	48.45
197	Less than 1.00% of mass 198	0.67
199	5.00 - 9.00% of mass 198	6.88
275	10.00 - 30.00% of mass 198	22.97
365	Greater than 1.00% of mass 198	2.02
441	Present, but less than mass 443	9.08
442	Greater than 40.00% of mass 198	63.52
443	17.00 - 23.00% of mass 442	12.26 ( 19.30)



Data File: /chem/MSD6.i/s031810.b/s6c1801.d

Page 3

Date : 18-MAR-2010 07:59

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBNI00306-01.2IDFTPP11SVMF11IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-EHS

Column diameter: 0.20

Data File: s6c1801.d

Spectrum: Avg. Scans 210-212 ( 8.33), Background Scan 204

Location of Maximum: 198.00

Number of points: 309

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	272	122.00	2797	200.00	1804	289.00	244
37.00	834	123.00	4252	201.00	1808	290.00	248
38.00	1823	124.00	1991	203.00	2385	291.00	109
39.00	13128	125.00	1842	204.00	11826	292.00	297
40.00	686	126.00	741	205.00	20848	293.00	1295
41.00	268	127.00	162688	206.00	88032	294.00	379
42.00	89	128.00	12274	207.00	11396	295.00	408
43.00	40	129.00	60856	208.00	2852	296.00	17936
45.00	319	130.00	5401	209.00	981	297.00	2435
49.00	1022	131.00	1097	210.00	1189	298.00	128
50.00	39000	132.00	605	211.00	3371	301.00	258
51.00	153344	133.00	280	213.00	226	302.00	316
52.00	7725	134.00	1563	214.00	115	303.00	2057
53.00	398	135.00	4818	215.00	1001	304.00	554
55.00	653	136.00	1851	216.00	1722	308.00	227
56.00	4342	137.00	2315	217.00	20640	309.00	127
57.00	10681	138.00	455	218.00	2666	310.00	202
58.00	510	139.00	425	219.00	254	313.00	131
59.00	149	140.00	650	221.00	18160	314.00	888
60.00	203	141.00	7388	223.00	4552	315.00	1978
61.00	1805	142.00	2638	224.00	46000	316.00	1015
62.00	1981	143.00	1716	225.00	11664	317.00	234
63.00	5888	144.00	474	226.00	1194	321.00	490
64.00	928	145.00	452	227.00	17704	322.00	293
65.00	2897	146.00	1388	228.00	2443	323.00	6132
66.00	116	147.00	3964	229.00	4045	324.00	1140
67.00	238	148.00	8241	230.00	624	326.00	110
68.00	2434	149.00	1746	231.00	1565	327.00	911
69.00	149504	150.00	503	232.00	314	328.00	581
70.00	818	151.00	1093	233.00	365	332.00	352
71.00	182	152.00	744	234.00	1130	333.00	575
73.00	1026	153.00	2455	235.00	1366	334.00	3523
74.00	14472	154.00	1849	236.00	824	335.00	956
75.00	23408	155.00	4103	237.00	1300	341.00	608
76.00	7863	156.00	6418	238.00	174	342.00	126



Data File: /chem/HSD6.i/s031810.b/s601801.d

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Date : 18-MAR-2010 07:59

Client ID: DFTPP

Instrument: HSD6.i

Sample Info: IWBH100306-01.21DFTPP11SVNF11DFTPP

Operator: nag1

Column phase: Phenomenex ZB-SHS

Column diameter: 0.20

Data File: s601801.d

Spectrum: Avg. Scans 210-212 ( 8.33), Background Scan 204

Location of Maximum: 198.00

Number of points: 309

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	163200	157.00	1150	239.00	714	346.00	1184
78.00	10985	158.00	1398	240.00	565	347.00	216
79.00	10326	159.00	1188	241.00	901	351.00	102
80.00	8054	160.00	2264	242.00	2443	352.00	1649
81.00	10819	161.00	3698	243.00	2574	353.00	1109
82.00	2858	162.00	1079	244.00	35152	354.00	1625
83.00	2681	163.00	322	245.00	4694	355.00	339
84.00	341	164.00	463	246.00	6207	359.00	118
85.00	2062	165.00	2740	247.00	1313	365.00	6772
86.00	3015	166.00	2204	248.00	338	366.00	836
87.00	1356	167.00	14956	249.00	1213	370.00	108
88.00	472	168.00	7037	250.00	214	371.00	387
89.00	330	169.00	1324	251.00	340	372.00	2837
91.00	2360	170.00	463	252.00	389	373.00	623
92.00	2757	171.00	653	253.00	697	383.00	746
93.00	15636	172.00	1419	254.00	1594	384.00	189
94.00	1129	173.00	1769	255.00	173760	390.00	293
95.00	187	174.00	3250	256.00	25400	391.00	296
96.00	873	175.00	6276	257.00	2055	392.00	171
97.00	330	176.00	1767	258.00	9495	401.00	106
98.00	12118	177.00	2927	259.00	1410	402.00	953
99.00	9842	178.00	921	260.00	249	403.00	1539
100.00	862	179.00	11477	261.00	255	404.00	471
101.00	6148	180.00	7951	264.00	193	415.00	90
102.00	417	181.00	3695	265.00	3497	421.00	1300
103.00	1994	182.00	448	266.00	381	422.00	1392
104.00	3704	183.00	358	267.00	41	423.00	10105
105.00	3447	184.00	987	268.00	25	424.00	2000
106.00	1239	185.00	5523	270.00	258	425.00	153
107.00	45968	186.00	44152	271.00	354	435.00	48
108.00	6939	187.00	13141	272.00	444	436.00	68
109.00	1320	188.00	1349	273.00	5027	437.00	230
110.00	86664	189.00	2462	274.00	13907	438.00	243
111.00	12584	190.00	435	275.00	77128	439.00	449
112.00	1695	191.00	1323	276.00	10909	440.00	348



Data File: /chem/HSD6.i/s031810.b/s6c1801.d

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Date : 18-MAR-2010 07:59

Client ID: DFTPP

Instrument: HSD6.i

Sample Info: IWBH100306-01,21DFTPP|11SVHF|11DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c1801.d

Spectrum: Avg. Scans 210-212 ( 8.33), Background Scan 204

Location of Maximum: 198.00

Number of points: 309

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	510	192.00	3627	277.00	6038	441.00	30488
115.00	213	193.00	4367	278.00	1007	442.00	213248
116.00	2524	194.00	920	279.00	194	443.00	41168
117.00	31056	195.00	503	282.00	107	444.00	4290
118.00	2326	196.00	10246	283.00	645	445.00	213
119.00	343	197.00	2254	284.00	472		
120.00	558	198.00	335744	285.00	1009		
121.00	231	199.00	23112	286.00	190		



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

SDG Number: 10-2137  
Lab Sample ID: 1202061168  
Client Sample: QC for batch 960970  
Client ID: MB for batch 960970  
Batch ID: 960971  
Run Date: 03/18/2010 09:08  
Prep Date: 03/04/2010 23:22  
Data File: s6c1804-1.d

Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.1  
Analyst: NAG1  
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	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	333	ug/kg	66.7	333



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

SDG Number: 10-2137  
Lab Sample ID: 1202061168  
Client Sample: QC for batch 960970  
Client ID: MB for batch 960970  
Batch ID: 960971  
Run Date: 03/18/2010 09:08  
Prep Date: 03/04/2010 23:22  
Data File: s6c1804-1.d

Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
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	2.99	337	ug/kg		JA



Data File: /chem/MSD6.i/s031810.b/s6c1804.d  
Report Date: 18-Mar-2010 15:15

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Data file : /chem/MSD6.i/s031810.b/s6c1804.d  
Lab Smp Id: 1202061168 Client Smp ID: SBLK01  
Inj Date : 18-MAR-2010 09:08  
Operator : nag1 Inst ID: MSD6.i  
Smp Info : |1202061168|960971|1|SVM|1|SBLK01  
Misc Info : |MSD8270\_S|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 4 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2137.sub  
Target Version: 3.50  
Processing Host: hpclp1

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	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4		152	3.969	3.963	(1.000)	473345	40.0000	
* 29 Naphthalene-d8		136	4.834	4.834	(1.000)	1702921	40.0000	
* 46 Acenaphthene-d10		164	6.098	6.092	(1.000)	1049987	40.0000	
* 67 Phenanthrene-d10		188	7.275	7.269	(1.000)	1731342	40.0000	
* 91 Chrysene-d12		240	9.704	9.698	(1.000)	1471042	40.0000	
* 98 Perylene-d12		264	11.422	11.404	(1.000)	1195601	40.0000	
\$ 3 2-Fluorophenol		112	3.157	3.140	(0.795)	799713	60.7753	2020
\$ 5 Phenol-d5		99	3.675	3.669	(0.926)	996539	59.5513	1980
\$ 20 Nitrobenzene-d5		82	4.328	4.328	(0.895)	500055	30.7181	1020
\$ 39 2-Fluorobiphenyl		172	5.581	5.575	(0.915)	945159	34.8897	1160
\$ 60 2,4,6-Tribromophenol		329	6.698	6.692	(1.098)	196534	66.7029	2220
\$ 81 p-Terphenyl-d14		244	8.669	8.651	(0.893)	1155451	45.0746	1500



Data File: /chem/MSD6.i/s031810.b/s6c1804.d  
Report Date: 18-Mar-2010 15:15

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Data file : /chem/MSD6.i/s031810.b/s6c1804.d  
Lab Smp Id: 1202061168 Client Smp ID: SBLK01  
Inj Date : 18-MAR-2010 09:08  
Operator : nag1 Inst ID: MSD6.i  
Smp Info : |1202061168|960971|1|SVM|1|SBLK01  
Misc Info : |MSD8270\_\$|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 4 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2137.sub  
Target Version: 3.50  
Processing Host: hpc1p1

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

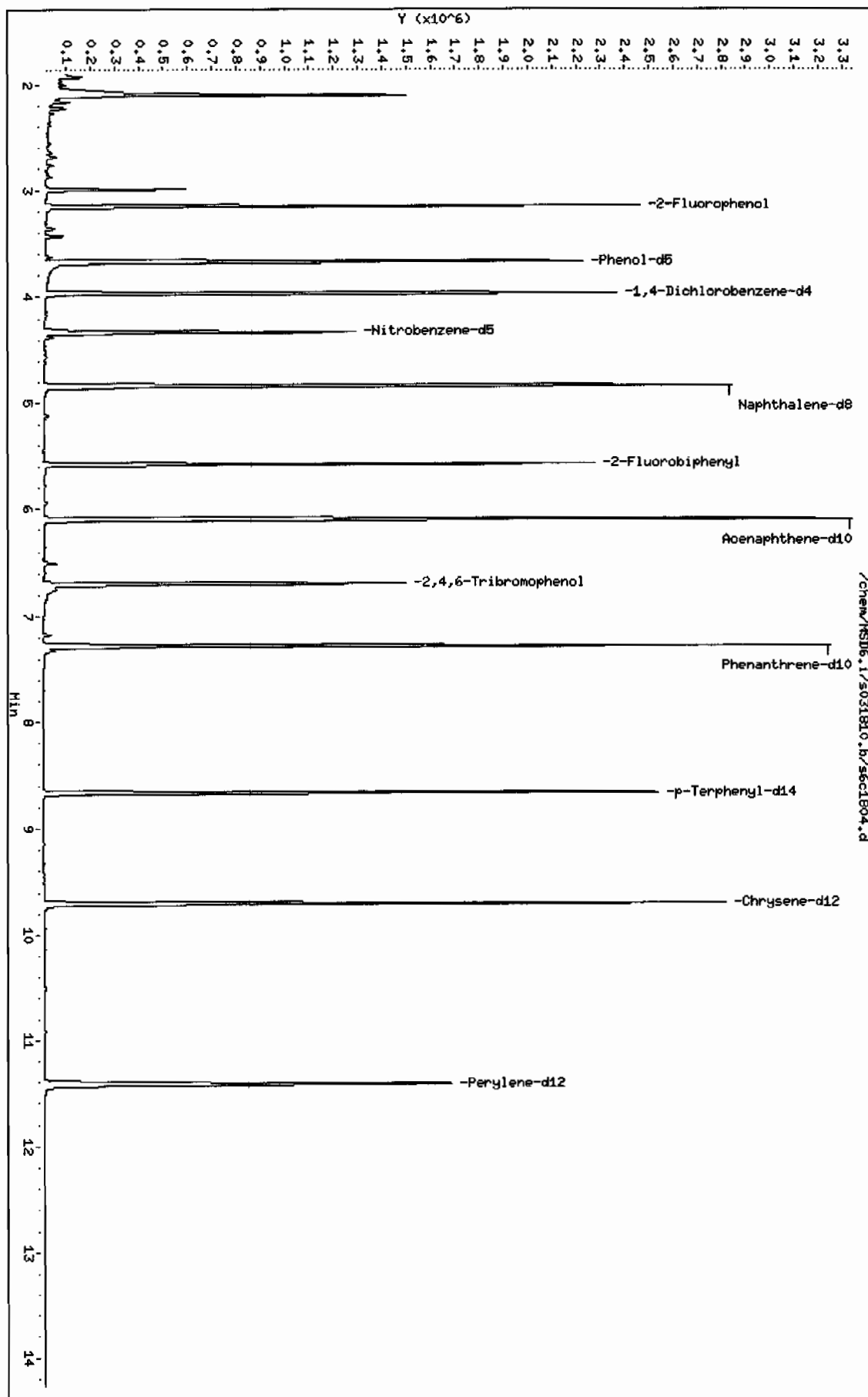
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.969	2933952	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate				CAS #:			
2.993	742031	10.1164737	337	0		0	10



Data File: /chem/MSD6.i/s031810.b/s6c1804.d  
 Date: 18-Mar-2010 09:08  
 Client ID: SBLK01  
 Sample Info: 11202061168196097111SM111SBLK01  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: MSD6.i  
 Operator: nag1  
 Column diameter: 0.20





Date : 18-MAR-2010 09:08

Client ID: SBLK01

Instrument: MSD6.i

Sample Info: I1202061168196097111SVH111SBLK01

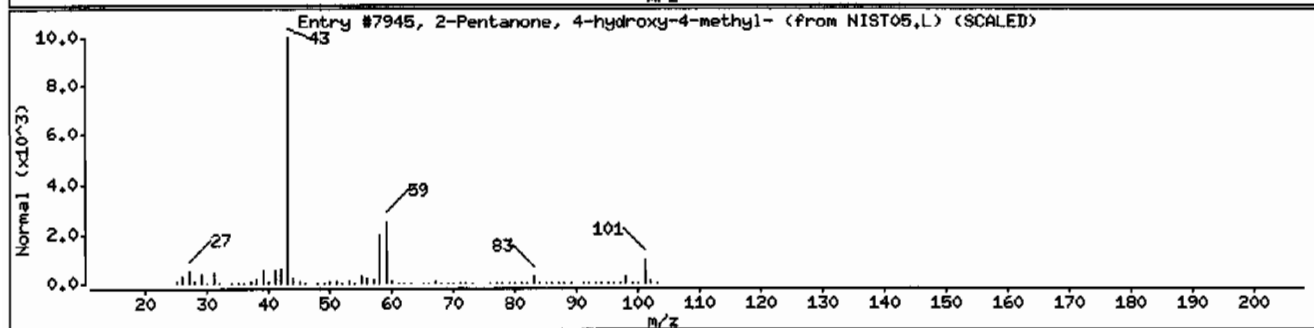
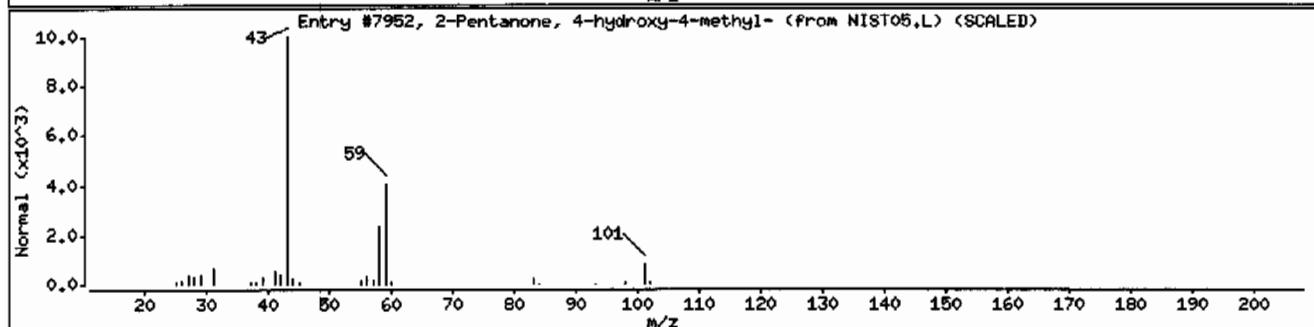
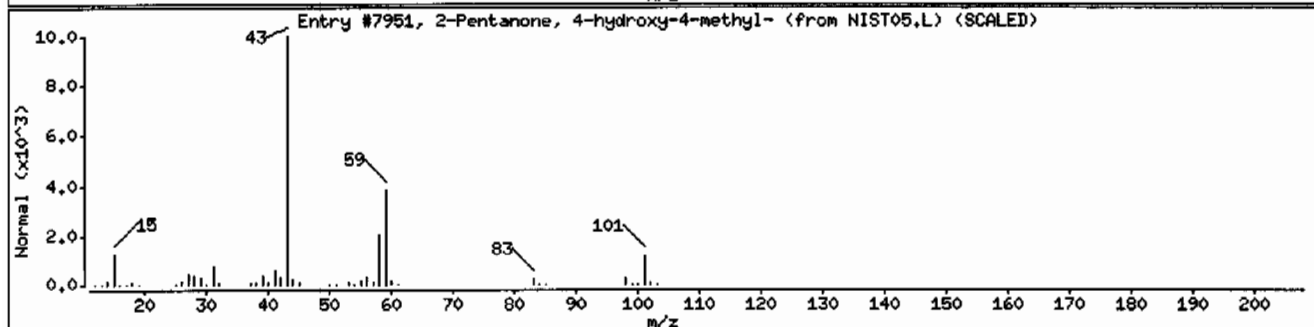
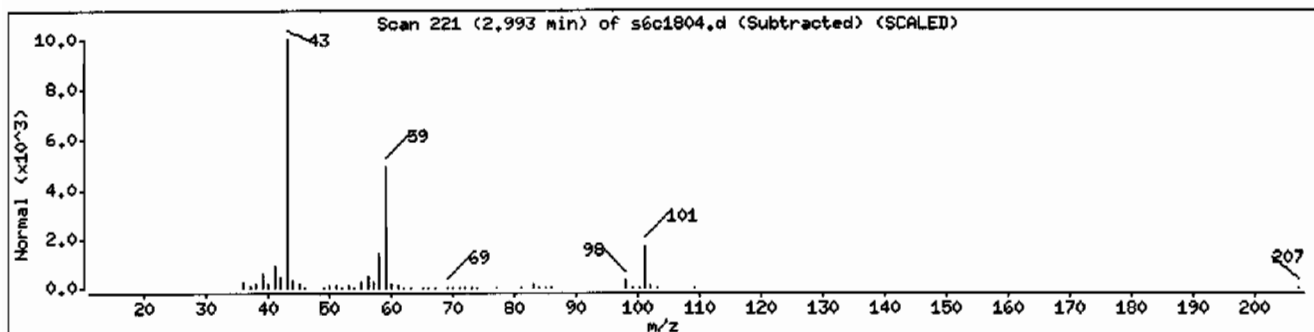
Volume Injected (uL): 0.5

Operator: nag1

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	56	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	50	C6H12O2	116





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

SDG Number: 10-2137  
Lab Sample ID: 1202061169  
Client Sample: QC for batch 960970  
Client ID: LCS for batch 960970  
Batch ID: 960971  
Run Date: 03/18/2010 09:33  
Prep Date: 03/04/2010 23:22  
Data File: s6c1805-1.d

Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
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		729	ug/kg	66.7	333
108-95-2	Phenol		808	ug/kg	66.7	333
95-57-8	2-Chlorophenol		916	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		876	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		831	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		798	ug/kg	66.7	333
83-32-9	Acenaphthene		867	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1070	ug/kg	33.3	333
100-02-7	4-Nitrophenol	J	297	ug/kg	110	333
87-86-5	Pentachlorophenol		929	ug/kg	83.3	333
129-00-0	Pyrene		1040	ug/kg	10.0	33.3
110-86-1	Pyridine		771	ug/kg	66.7	333
62-53-3	Aniline		678	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		776	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		890	ug/kg	66.7	333
100-51-6	Benzyl alcohol	J	328	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		906	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		807	ug/kg	66.7	333
95-48-7	o-Cresol		897	ug/kg	66.7	333
65794-96-9	m,p-Cresols		954	ug/kg	100	333
67-72-1	Hexachloroethane		828	ug/kg	66.7	333
98-95-3	Nitrobenzene		901	ug/kg	66.7	333
78-59-1	Isophorone		870	ug/kg	66.7	333
88-75-5	2-Nitrophenol		975	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		2040	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		833	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		900	ug/kg	66.7	333
65-85-0	Benzoic acid		2110	ug/kg	167	667
91-20-3	Naphthalene		792	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		782	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		954	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		886	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1140	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		795	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1000	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		925	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		875	ug/kg	66.7	333
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline		907	ug/kg	66.7	333



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

SDG Number: 10-2137		Matrix: SOIL
Lab Sample ID: 1202061169		
Client Sample: QC for batch 960970	Client: LANL010	Project: QC
Client ID: LCS for batch 960970	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 09:33	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30 g	Final Volume: 1 mL
Data File: s6c1805-1.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline		1110	ug/kg	66.7	333
606-20-2	Dimethylphthalate		1070	ug/kg	33.3	333
208-96-8	2,6-Dinitrotoluene		974	ug/kg	10.0	33.3
51-28-5	Acenaphthylene		1260	ug/kg	127	667
132-64-9	2,4-Dinitrophenol		1040	ug/kg	66.7	333
84-66-2	Dibenzofuran		1130	ug/kg	66.7	333
86-73-7	Diethylphthalate		924	ug/kg	10.0	33.3
7005-72-3	Fluorene		1080	ug/kg	66.7	333
534-52-1	4-Chlorophenylphenylether		1300	ug/kg	66.7	333
100-01-6	2-Methyl-4,6-dinitrophenol		1090	ug/kg	100	333
122-39-4	4-Nitroaniline		1120	ug/kg	66.7	333
122-66-7	<i>p</i> -Nitroaniline		1040	ug/kg	66.7	333
101-55-3	Diphenylamine		1150	ug/kg	66.7	333
118-74-1	Azobenzene		1180	ug/kg	66.7	333
85-01-8	<i>1,2</i> -Diphenylhydrazine		1000	ug/kg	10.0	33.3
120-12-7	4-Bromophenylphenylether		992	ug/kg	6.67	33.3
84-74-2	Hexachlorobenzene		1100	ug/kg	66.7	333
206-44-0	Phenanthrene		1100	ug/kg	10.0	33.3
85-68-7	Anthracene		1070	ug/kg	66.7	333
56-55-3	Butylbenzylphthalate		1040	ug/kg	10.0	33.3
91-94-1	Benzo(a)anthracene		902	ug/kg	100	333
218-01-9	3,3'-Dichlorobenzidine		1070	ug/kg	10.0	33.3
117-81-7	Chrysene		1050	ug/kg	66.7	333
117-84-0	bis(2-Ethylhexyl)phthalate		990	ug/kg	66.7	333
205-99-2	Di-n-octylphthalate		1040	ug/kg	10.0	33.3
207-08-9	Benzo(b)fluoranthene		1120	ug/kg	10.0	33.3
50-32-8	Benzo(k)fluoranthene		1110	ug/kg	10.0	33.3
193-39-5	Benzo(a)pyrene		1130	ug/kg	10.0	33.3
53-70-3	Indeno(1,2,3-cd)pyrene		1120	ug/kg	10.0	33.3
191-24-2	Dibenzo(a,h)anthracene		1100	ug/kg	10.0	33.3
120-82-1	Benzo(ghi)perylene		936	ug/kg	66.7	333
	1,2,4-Trichlorobenzene					



GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1805.d  
Lab Smp Id: 1202061169 Client Smp ID: SBLK01LCS  
Inj Date : 18-MAR-2010 09:33  
Operator : nagl Inst ID: MSD6.i  
Smp Info : |1202061169|960971|1|SVM|1|SBLK01LCS  
Misc Info : |MSD8270\_S|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 5 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2137.sub  
Target Version: 3.50  
Processing Host: hpclp1

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						CONCENTRATIONS	
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.969	3.963	(1.000)	466391	40.0000		
* 29 Naphthalene-d8	136	4.840	4.834	(1.000)	1771443	40.0000		
* 46 Acenaphthene-d10	164	6.098	6.092	(1.000)	1031726	40.0000		
* 67 Phenanthrene-d10	188	7.281	7.269	(1.000)	1706712	40.0000		
* 91 Chrysene-d12	240	9.710	9.698	(1.000)	1509750	40.0000		
* 98 Perylene-d12	264	11.427	11.404	(1.000)	1333922	40.0000		
\$ 3 2-Fluorophenol	112	3.157	3.140	(0.795)	651689	50.2645	1680	
\$ 5 Phenol-d5	99	3.681	3.669	(0.927)	786722	47.7140	1590	
\$ 20 Nitrobenzene-d5	82	4.334	4.328	(0.895)	423256	24.9947	833	
\$ 39 2-Fluorobiphenyl	172	5.581	5.575	(0.915)	748181	28.1073	937	
\$ 60 2,4,6-Tribromophenol	329	6.704	6.692	(1.099)	172996	59.7534	1990	
\$ 81 p-Terphenyl-d14	244	8.669	8.651	(0.893)	947020	35.9964	1200	



Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
6 Phenol		94	3.687	3.681	(0.929)	404595	24.2403	808
8 2-Chlorophenol		128	3.834	3.822	(0.966)	373229	27.4943	916
11 1,4-Dichlorobenzene		146	3.981	3.975	(1.003)	381648	26.2821	876
17 N-Nitrosodipropylamine		70	4.204	4.198	(1.059)	283840	24.9248	831 (Q)
28 1,2,4-Trichlorobenzene		180	4.787	4.781	(0.989)	359479	28.0824	936
33 4-Chloro-3-methylphenol		107	5.193	5.169	(1.073)	290939	23.9450	798
47 Acenaphthene		154	6.128	6.116	(1.005)	695925	25.9975	866
50 2,4-Dinitrotoluene		165	6.210	6.204	(1.018)	295524	32.1409	1070
52 4-Nitrophenol		139	6.151	6.122	(1.009)	44250	8.91851	297 (aQR)
65 Pentachlorophenol		266	7.104	7.086	(0.976)	111785	27.8804	929
79 Pyrene		202	8.569	8.551	(0.882)	1441488	31.3205	1040
2 Pyridine		79	2.516	2.475	(0.634)	298225	23.1415	771
4 Aniline		66	3.752	3.746	(0.945)	158856	20.3500	678
7 bis(2-Chloroethyl) ether		63	3.763	3.757	(0.948)	288863	23.2753	776
9 1,3-Dichlorobenzene		146	3.934	3.928	(0.991)	399375	26.7055	890
12 Benzyl alcohol		108	4.046	4.028	(1.019)	93996	9.85225	328 (aR)
13 1,2-Dichlorobenzene		146	4.081	4.075	(1.028)	357771	27.1806	906
14 bis(2-Chloroisopropyl) ether		45	4.110	4.104	(1.036)	631390	24.2057	807
15 o-Cresol		107	4.087	4.075	(1.030)	278577	26.9093	897
18 m,p-Cresols		107	4.181	4.175	(1.053)	426944	28.6309	954
19 Hexachloroethane		117	4.316	4.310	(1.087)	155653	24.8287	828
21 Nitrobenzene		77	4.346	4.340	(0.898)	422390	27.0337	901
22 Isophorone		82	4.499	4.493	(0.930)	782167	26.0878	870
23 2-Nitrophenol		139	4.557	4.551	(0.942)	198125	29.2555	975
24 2,4-Dimethylphenol		122	4.610	4.540	(0.953)	754099	61.3172	2040 (QR)
25 bis(2-Chloroethoxy)methane		93	4.622	4.610	(0.955)	407322	24.9888	833
26 2,4-Dichlorophenol		162	4.734	4.716	(0.978)	301937	26.9991	900
27 Benzoic acid		105	4.616	4.598	(0.954)	525267	63.2466	2110
30 Naphthalene		128	4.857	4.845	(1.004)	1036479	23.7640	792
31 4-Chloroaniline		127	4.869	4.857	(1.006)	451422	23.4618	782
32 Hexachlorobutadiene		225	4.916	4.910	(1.016)	207863	28.6083	954
34 2-Methylnaphthalene		142	5.340	5.328	(1.103)	712613	26.5687	886
36 Hexachlorocyclopentadiene		237	5.440	5.428	(0.892)	203128	34.3365	1140
37 2,4,6-Trichlorophenol		196	5.528	5.516	(0.906)	205878	23.8450	795
38 2,4,5-Trichlorophenol		196	5.563	5.540	(0.912)	274620	30.0209	1000 (H)
40 2-Chloronaphthalene		162	5.693	5.681	(0.933)	696884	27.7493	925
42 o-Nitroaniline		65	5.751	5.740	(0.943)	231669	26.2616	875
41 m-Nitroaniline		138	6.045	6.040	(0.991)	178370	27.2159	907
43 Dimethylphthalate		163	5.857	5.851	(0.960)	968714	33.2352	1110
44 2,6-Dinitrotoluene		165	5.916	5.904	(0.970)	224977	32.2363	1070
45 Acenaphthylene		152	5.998	5.992	(0.984)	1162358	29.2139	974
48 2,4-Dinitrophenol		184	6.116	6.110	(1.003)	91193	37.7101	1260 (Q)
49 Dibenzofuran		168	6.251	6.239	(1.025)	1013439	31.1662	1040
51 Diethylphthalate		149	6.369	6.363	(1.044)	966571	33.8293	1130
53 Fluorene		166	6.516	6.504	(1.068)	799006	27.7127	924
54 4-Chlorophenylphenylether		204	6.487	6.481	(1.064)	449464	32.4977	1080
55 2-Methyl-4,6-dinitrophenol		198	6.528	6.516	(0.897)	153705	38.8528	1300



Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
56 p-Nitroaniline	138	6.510	6.498	(1.067)	175484	32.6549	1090
133 Diphenylamine	169	6.581	6.569	(0.904)	742543	33.5305	1120
58 1,2-Diphenylhydrazine	77	6.616	6.604	(0.909)	932311	31.3192	1040
61 4-Bromophenylphenylether	248	6.881	6.869	(0.945)	254806	34.3844	1150
63 Hexachlorobenzene	284	6.951	6.939	(0.955)	250614	35.3929	1180
68 Phenanthrene	178	7.298	7.286	(1.002)	1253024	30.1306	1000
69 Anthracene	178	7.345	7.334	(1.009)	1247425	29.7749	992
72 Di-n-butylphthalate	149	7.704	7.692	(1.058)	1602741	33.0788	1100
76 Fluoranthene	202	8.351	8.333	(1.147)	1397669	33.1407	1100
85 Butylbenzylphthalate	149	9.098	9.086	(0.937)	715176	32.1167	1070
89 Benzo(a)anthracene	228	9.692	9.680	(0.998)	1231938	31.2501	1040
90 3,3'-Dichlorobenzidine	252	9.645	9.628	(0.993)	308215	27.0645	902
92 Chrysene	228	9.733	9.722	(1.002)	1205722	32.0207	1070
93 bis(2-Ethylhexyl)phthalate	149	9.628	9.616	(0.992)	937257	31.4889	1050
94 Di-n-octylphthalate	149	10.298	10.280	(0.901)	1516540	29.7109	990
95 Benzo(b)fluoranthene	252	10.892	10.874	(0.953)	1136154	31.3299	1040
96 Benzo(k)fluoranthene	252	10.928	10.910	(0.956)	1167239	33.5496	1120 (H)
97 Benzo(a)pyrene	252	11.345	11.322	(0.993)	1026236	33.4140	1110
99 Indeno(1,2,3-cd)pyrene	276	13.239	13.210	(1.159)	952352	33.7923	1130
100 Dibenzo(a,h)anthracene	278	13.263	13.227	(1.161)	764566	33.6825	1120
101 Benzo(ghi)perylene	276	13.804	13.763	(1.208)	793965	32.9939	1100
1 N-Methyl-N-nitrosomethylamine	74	2.475	2.446	(0.624)	197805	21.8738	729

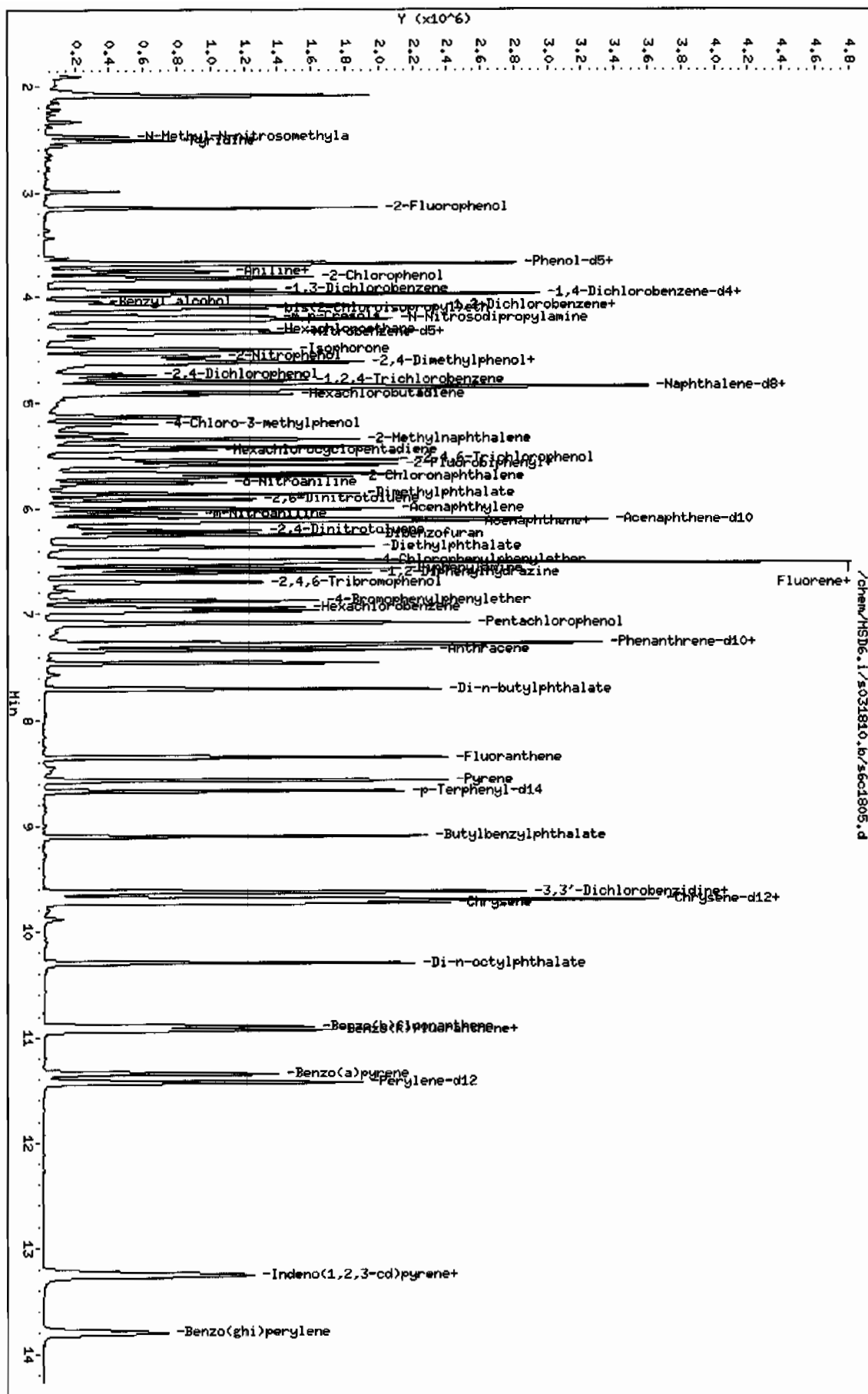
#### QC Flag Legend

- 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.
- H - Operator selected an alternate compound hit.



Data File: /chem/MSD6.1/s031810.b/sec1805.d  
 Date : 18-Mar-2010 09:33  
 Client ID: SBLKOLCS  
 Sample Info: 1120206169196097111SWH11SBLKOLCS  
 Volume Injected (uL): 0.5  
 Column phase: JSM DB-SHS

Instrument: MSD6.1  
 Operator: nag1  
 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: 960970      Verified by: \_\_\_\_\_  
 Analyst: Alberto Velasco  
 Method: SW846 3550B      Lab SOP: GL-OA-E-010 REV# 18  
 Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202061168 MB	04-MAR-2010 23:22:00	30	1	0.03333
1202061169 LCS	04-MAR-2010 23:22:00	30	1	0.03333
248244001	04-MAR-2010 23:22:00	30.03	1	0.03333
248244002	04-MAR-2010 23:22:00	30.09	1	0.03323
248244003	04-MAR-2010 23:22:00	30.19	1	0.03312
248244004	04-MAR-2010 23:22:00	30.1	1	0.03322
248244005	04-MAR-2010 23:22:00	30.02	1	0.03331
248244006	04-MAR-2010 23:22:00	30.17	1	0.03315
248244007	04-MAR-2010 23:22:00	30.19	1	0.03312
248244008	04-MAR-2010 23:22:00	30.03	1	0.03333
248249001	04-MAR-2010 23:22:00	30.1	1	0.03322
248249002	04-MAR-2010 23:22:00	30.13	1	0.03319
248249003	04-MAR-2010 23:22:00	30.18	1	0.03313
248249004	04-MAR-2010 23:22:00	30.01	1	0.03332
248255001	04-MAR-2010 23:22:00	30.17	1	0.03315
1202061170 MS (248255001)	04-MAR-2010 23:22:00	30.12	1	0.0332
1202061171 MSD (248255001)	04-MAR-2010 23:22:00	30.19	1	0.03312
248255002	04-MAR-2010 23:22:00	30.03	1	0.03333
248255003	04-MAR-2010 23:22:00	30.09	1	0.03323
248255004	04-MAR-2010 23:22:00	30.07	1	0.03326
248255005	04-MAR-2010 23:22:00	30.18	1	0.03313
248255006	04-MAR-2010 23:22:00	30.14	1	0.03318
248255007	04-MAR-2010 23:22:00	30.18	1	0.03313

Comments:

Verified By: AAW  
 Final Solvent: CH2Cl2

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202061169	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL
LCS	1202061169	BENZIDINE LCS	UE100302-22	1	mL
MS	1202061170	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL
MS	1202061170	BENZIDINE LCS	UE100302-22	1	mL
MSD	1202061171	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL
MSD	1202061171	BENZIDINE LCS	UE100302-22	1	mL
SURR	All	BNA for all Surrogate	UE100222-10	1	mL
REGNT	All	Methylene Chloride	100301-D	150	mL
REGNT	All	Acetone	1273823-B1	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g



## GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD6

DATE: 03/16/2010

METHOD: See raw data

OPERATOR: nagl

REVIEWED BY:

DATE:

HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D

Multiplier Voltage: 1576 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/MSD6.i/s031610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6c1601-D.d	WBN100306-01.2	nagl	16-MAR-2010 08:42	DFTPP	s031610	1.0	DFTPP	MEGA
s6c1601.d	WBN100306-01.2	nagl	16-MAR-2010 08:42	DFTPP	s031610	1.0	DFTPP	MEGA
s6c1602.d	INSTBLK	nagl	16-MAR-2010 08:55		s031610	1.0		
s6c1603.d	WBN100309-08	nagl	16-MAR-2010 09:18	001 PPM	s031610	1.0	MEGA001	
s6c1604-RQ.d	WBN100309-07	nagl	16-MAR-2010 09:47	010 PPM	s031610	1.0	MEGA010	
s6c1604.d	WBN100309-07	nagl	16-MAR-2010 09:47	010 PPM	s031610	1.0	MEGA010	
s6c1605.d	WBN100309-06	nagl	16-MAR-2010 10:17	020 PPM	s031610	1.0	MEGA020	
s6c1606.d	WBN100309-05.1	nagl	16-MAR-2010 10:48	040 PPM	s031610	1.0	MEGA040	
s6c1607.d	WBN100309-04	nagl	16-MAR-2010 11:18	050 PPM	s031610	1.0	MEGA050	
s6c1608.d	WBN100309-03	nagl	16-MAR-2010 11:48	080 PPM	s031610	1.0	MEGA080	
s6c1609.d	WBN100309-02	nagl	16-MAR-2010 12:18	100 PPM	s031610	1.0	MEGA100	
s6c1610.d	WBN100309-01	nagl	16-MAR-2010 12:48	120 PPM	s031610	1.0	MEGA120	
s6c1611.d	INSTBLK	nagl	16-MAR-2010 13:16		s031610	1.0		
s6c1612-BOE.d	WBN100309-09.1	nagl	16-MAR-2010 13:40	040 PPM	s031610	1.0	MEGA1CV	
s6c1612-D.d	WBN100309-09.1	nagl	16-MAR-2010 13:40	040 PPM	s031610	1.0	MEGA1CV	
s6c1612.d	WBN100309-09.1	nagl	16-MAR-2010 13:40	040 PPM	s031610	1.0	MEGA1CV	
s6c1613-D.d	WBN100306-01.2	nagl	16-MAR-2010 16:06	DFTPP	s031610	1.0	DFTPP	AP/PEST/HEX
s6c1613.d	WBN100306-01.2	nagl	16-MAR-2010 16:06	DFTPP	s031610	1.0	DFTPP	AP/PEST/HEX
s6c1614.d	INSTBLK	nagl	16-MAR-2010 16:19		s031610	1.0		



s6c1615.d	WBN100312-01	nag1	16-MAR-2010 16:42	110 PPM	s031610		1.0 AP010	
s6c1616.d	WBN100312-02	nag1	16-MAR-2010 17:06	120 PPM	s031610		1.0 AP020	
s6c1617.d	WBN100312-03.1	nag1	16-MAR-2010 17:30	140 PPM	s031610		1.0 AP040	
s6c1618.d	WBN100312-04	nag1	16-MAR-2010 17:53	150 PPM	s031610		1.0 AP050	
s6c1619.d	WBN100312-05	nag1	16-MAR-2010 18:16	180 PPM	s031610		1.0 AP080	
s6c1620.d	WBN100312-06	nag1	16-MAR-2010 18:40	100 PPM	s031610		1.0 AP100	
s6c1621.d	WBN100312-07	nag1	16-MAR-2010 19:04	120 PPM	s031610		1.0 AP120	
s6c1622.d	WBN100304-25	nag1	16-MAR-2010 19:27	110 PPM	s031610		1.0 PEST010	
s6c1623.d	WBN100304-24	nag1	16-MAR-2010 19:51	120 PPM	s031610		1.0 PEST020	
s6c1624.d	WBN100304-23.1	nag1	16-MAR-2010 20:16	140 PPM	s031610		1.0 PEST040	
s6c1625.d	WBN100304-22	nag1	16-MAR-2010 20:39	150 PPM	s031610		1.0 PEST050	
s6c1626.d	WBN100304-21	nag1	16-MAR-2010 21:04	180 PPM	s031610		1.0 PEST080	
s6c1627.d	WBN100304-20	nag1	16-MAR-2010 21:29	100 PPM	s031610		1.0 PEST100	
s6c1628.d	WBN100304-19	nag1	16-MAR-2010 21:52	120 PPM	s031610		1.0 PEST120	
s6c1629.d	WBN100304-16	nag1	16-MAR-2010 22:16	1500 PPM	s031610		1.0 HEX500	
s6c1630.d	WBN100304-15	nag1	16-MAR-2010 22:40	1000 PPM s031610		1.0 HEX1000		
s6c1631.d	WBN100304-14	nag1	16-MAR-2010 23:05	1250 PPM s031610		1.0 HEX1250		
s6c1632.d	WBN100304-15	nag1	16-MAR-2010 23:30	1500 PPM s031610		1.0 HEX1500		
s6c1633.d	WBN100304-16	nag1	16-MAR-2010 23:53	1750 PPM s031610		1.0 HEX1750		
s6c1634.d	WBN100304-16	nag1	17-MAR-2010 00:17	2000 PPM s031610		1.0 HEX2000		
s6c1635-D.d	WBN100312-08.1	nag1	17-MAR-2010 00:41	140 PPM	s031710		1.0 APICV	
s6c1635.d	WBN100312-08.1	nag1	17-MAR-2010 00:41	140 PPM	s031710		1.0 APICV	
s6c1636-D.d	WBN100304-26.1	nag1	17-MAR-2010 01:05	140 PPM	s031710		1.0 PESTICV	
s6c1636.d	WBN100304-26.1	nag1	17-MAR-2010 01:05	140 PPM	s031710		1.0 PESTICV	
s6c1637-D.d	WBN100304-14	nag1	17-MAR-2010 01:30	1250 PPM s031710		1.0 HEX1250		
s6c1637.d	WBN100304-14	nag1	17-MAR-2010 01:30	1250 PPM s031710		1.0 HEX1250		
s6c1638-D.d	WBN100306-01.2	nag1	17-MAR-2010 01:55	DFTPP	s031610		1.0 DFTPP	NEV



1s6c1638.d	WBN100306-01.2	1nag1	117-MAR-2010 01:55	1DFTPP	1s031610	1	1.01DETPP	1NEV	1
1s6c1639.d	INSTBLK	1nag1	117-MAR-2010 02:08	1	1s031610	1	1.01	1	1
1s6c1640.d	WBN100127-01	1nag1	117-MAR-2010 02:32	110 PPM	1s031610	1	1.01NEV010	1	1
1s6c1641.d	WBN100127-02	1nag1	117-MAR-2010 02:55	120 PPM	1s031610	1	1.01NEV020	1	1
1s6c1642.d	WBN100127-03	1nag1	117-MAR-2010 03:19	140 PPM	1s031610	1	1.01NEV040	1	1
1s6c1643.d	WBN100127-04	1nag1	117-MAR-2010 03:42	150 PPM	1s031610	1	1.01NEV050	1	1
1s6c1644.d	WBN100127-05	1nag1	117-MAR-2010 04:05	180 PPM	1s031610	1	1.01NEV080	1	1
1s6c1645.d	WBN100127-06	1nag1	117-MAR-2010 04:28	1100 PPM	1s031610	1	1.01NEV100	1	1
1s6c1646.d	WBN100127-07	1nag1	117-MAR-2010 04:51	1120 PPM	1s031610	1	1.01NEV120	1	1
1s6c1647.d	WBN100127-03	1nag1	117-MAR-2010 05:14	140 PPM	1s031610	1	1.01NEVcvs	1	1

Instrument Batch: /chem/MSD6.i/s031610.b



## GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD6

DATE: 03/18/2010 METHOD: See raw data OPERATOR: nag1 REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT: 1239699-D  
Multiplier Voltage: 1576 Emv Extr. Injection Volume: 0.5, 1.0 ul  
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01  
CALIBRATION & 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/MSD6.i/s031810.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6cl801-D.d	WBN100306-01.2	nag1	18-MAR-2010 07:59	DFTPP	s031810		1.0 DFTPP	
s6cl801.d	WBN100306-01.2	nag1	18-MAR-2010 07:59	DFTPP	s031810		1.0 DFTPP	
s6cl802-625.d	WBN100309-05.3	nag1	18-MAR-2010 08:12	40 PPM	s031810		1.0 MEGACVS	DUSE
s6cl802-D.d	WBN100309-05.3	nag1	18-MAR-2010 08:12	40 PPM	s031810		1.0 MEGACVS	
s6cl802.d	WBN100309-05.3	nag1	18-MAR-2010 08:12	40 PPM	s031810		1.0 MEGACVS	pass 395994
s6cl803-625.d	WBN10031203.3	nag1	18-MAR-2010 08:42	40 PPM	s031810		1.0 APCVS	
s6cl803-D.d	WBN10031203.3	nag1	18-MAR-2010 08:42	40 PPM	s031810		1.0 APCVS	
s6cl803.d	WBN10031203.3	nag1	18-MAR-2010 08:42	40 PPM	s031810		1.0 APCVS	
s6cl804-1.d	1202061168	nag1	18-MAR-2010 09:08	960971	10-2140		1.0 SBLK01	
s6cl804-2.d	1202061168	nag1	18-MAR-2010 09:08	960971	10-2145		1.0 SBLK01	
s6cl804.d	1202061168	nag1	18-MAR-2010 09:08	960971	10-2137		1.0 SBLK01	
s6cl805-1.d	1202061169	nag1	18-MAR-2010 09:33	960971	10-2140		1.0 SBLK01CS	
s6cl805-2.d	1202061169	nag1	18-MAR-2010 09:33	960971	10-2145		1.0 SBLK01CS	
s6cl805.d	1202061169	nag1	18-MAR-2010 09:33	960971	10-2137		1.0 SBLK01CS	
s6cl806.d	1202072826	JMB3	18-MAR-2010 09:56	965916	249315		1.0 SBLK01	
s6cl807.d	1202072827	JMB3	18-MAR-2010 10:20	965916	249315		1.0 SBLK01CS	
s6cl808.d	1202072830	JMB3	18-MAR-2010 10:44	965916	249315		1.0 SBLK01LCSD	
s6cl809.d	248244002	nag1	18-MAR-2010 11:08	960971	10-2137		1.0 LANL	
s6cl810.d	248244003	nag1	18-MAR-2010 11:32	960971	10-2137		1.0 LANL	



s6c1811.d	1248244005	nag1	18-MAR-2010 11:56	960971	10-2137	1.0 LANL	
s6c1812.d	1248244006	nag1	18-MAR-2010 12:18	960971	10-2137	1.0 LANL	
s6c1813.d	1248244008	nag1	18-MAR-2010 12:42	960971	10-2137	1.0 LANL	
s6c1814.d	1248255002	nag1	18-MAR-2010 13:05	960971	10-2145	1.0 LANL	
s6c1815.d	1248255006	nag1	18-MAR-2010 13:29	960971	10-2145	1.0 LANL	
s6c1816.d	1248244007	nag1	18-MAR-2010 13:52	960971	10-2137	1.0 LANL	
s6c1817.d	1248249002	nag1	18-MAR-2010 14:16	960971	10-2140	1.0 LANL	
s6c1818.d	1248249004	nag1	18-MAR-2010 14:40	960971	10-2140	4.0 LANL	
s6c1819.d	1248244001	nag1	18-MAR-2010 15:04	960971	10-2137	4.0 LANL	
s6c1820.d	1248244004	nag1	18-MAR-2010 15:28	960971	10-2137	4.0 LANL	
s6c1821.d	1248249003	nag1	18-MAR-2010 15:52	960971	10-2140	4.0 LANL	
s6c1822.d	1248255001	nag1	18-MAR-2010 16:16	960971	10-2145	4.0 LANL	
s6c1823.d	1202061170	nag1	18-MAR-2010 16:40	960971	10-2145	4.0 MS	
s6c1824.d	1202061171	nag1	18-MAR-2010 17:03	D960971	10-2145	4.0 MS	
s6c1825.d	1248255003	nag1	18-MAR-2010 17:27	960971	10-2145	4.0 LANL	
s6c1826.d	1248255004	nag1	18-MAR-2010 17:50	960971	10-2145	4.0 LANL	
s6c1827.d	1248255005	nag1	18-MAR-2010 18:13	960971	10-2145	4.0 LANL	
s6c1828.d	1248255007	nag1	18-MAR-2010 18:38	960971	10-2145	4.0 LANL	
s6c1829.d	1249315001	nag1	18-MAR-2010 19:03	965916	249315	1.0 COMM	
s6c1830.d	1248249001	nag1	18-MAR-2010 19:26	960971	10-2140	4.0 LANL	



### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 19-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> 960971	<b>Sample Numbers:</b> See Below		
<p><b>Potentially affected work order(s)(SDG):</b> 248244(10-2137),248249(10-2140),248255(10-2145)</p> <p><b>Application Issues:</b></p> <p>Failed Recovery for MS/PS</p> <p>Failed RPD for MS/MSD, or PS/PSD</p> <p>Container scanning event for custody missed</p> <p>Failed Recovery for LCS/LCSD</p> <p>Failed Recovery for MSD/PSD</p>			
<b>Specification and Requirements</b>		<b>DER Disposition:</b>	
<p><b>Exception Description:</b></p> <p>1. The LCS (1202061169) recovered 2,4-dimethylphenol at 123%(Limits: 32%-112%), 4-Nitrophenol at 18% (Limits: 24%-113%) and Benzyl alcohol at 20%(limits: 27%-108%).</p> <p>2. The MS (1202061170)/MSD (1202061171) failed recovery for several analytes. Please the QC Summary for the specific failures.</p> <p>3. Container scanning event for custody missed:</p> <p>248244 001,002,003,004,005,006,007,008</p> <p>248249 001,002,003,004</p> <p>248255 001,002,003,004,005,006,007</p>		<p>1. The failures represented less than 5% of the requested spike analyte list. That satisfied the clients acceptance v=criteria and the data were reported.</p> <p>2. As failures were present in both samples, they were attributed to matrix interference and the data were reported.</p> <p>3. The analyst did not scan samples into his/her custody. The analyst had physical custody of the sample during the analysis.</p>	

**Originator's Name:**

Lloyd O Fox

19-MAR-10

**Data Validator/Group Leader:**

Daniel Beacham

21-MAR-10



GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1823.d  
 Lab Smp Id: 1202061170 Client Smp ID: RE46-10-13534MS  
 Inj Date : 18-MAR-2010 16:40  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |1202061170|960971|4|SVM|1|MS  
 Misc Info : |MSD8270\_S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 16:23 llo00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 23 QC Sample: MS  
 Dil Factor: 4.00000  
 Integrator: HP RTE Compound Sublist: 10-2145.sub  
 Target Version: 3.50  
 Processing Host: hpclp1

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	30.12000	weight of sample
M	14.07340	% 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	3.969	3.963	(1.000)	511850	40.0000		
* 29 Naphthalene-d8	136	4.839	4.834	(1.000)	1839700	40.0000		
* 46 Acenaphthene-d10	164	6.098	6.092	(1.000)	1130593	40.0000		
* 67 Phenanthrene-d10	188	7.280	7.269	(1.000)	1975125	40.0000		
* 91 Chrysene-d12	240	9.704	9.698	(1.000)	1373003	40.0000		
* 98 Perylene-d12	264	11.421	11.404	(1.000)	860323	40.0000		
\$ 3 2-Fluorophenol	112	3.151	3.140	(0.794)	213220	14.9850	2320	
\$ 5 Phenol-d5	99	3.675	3.669	(0.926)	269032	14.8674	2300	
\$ 20 Nitrobenzene-d5	82	4.334	4.328	(0.895)	135647	7.71320	1190	
\$ 39 2-Fluorobiphenyl	172	5.581	5.575	(0.915)	269232	9.22989	1430	
\$ 60 2,4,6-Tribromophenol	329	6.698	6.692	(1.098)	62802	19.7951	3060	
\$ 81 p-Terphenyl-d14	244	8.663	8.651	(0.893)	297558	12.4367	1920	



Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
6 Phenol	94	3.687	3.681	(0.929)	140984	7.69653	1190 (a)
8 2-Chlorophenol	128	3.834	3.822	(0.966)	124183	8.33559	1290 (a)
11 1,4-Dichlorobenzene	146	3.981	3.975	(1.003)	123563	7.75342	1200 (a)
17 N-Nitrosodipropylamine	70	4.198	4.198	(1.058)	95307	7.62590	1180 (aQ)
28 1,2,4-Trichlorobenzene	180	4.787	4.781	(0.989)	120738	9.08208	1400 (a)
33 4-Chloro-3-methylphenol	107	5.187	5.169	(1.072)	124129	9.83710	1520 (a)
47 Acenaphthene	154	6.122	6.116	(1.004)	245317	8.36285	1290
50 2,4-Dinitrotoluene	165	6.210	6.204	(1.018)	88861	8.81930	1360 (a)
52 4-Nitrophenol	139	6.139	6.122	(1.007)	45741	8.41285	1300 (a)
65 Pentachlorophenol	266	7.098	7.086	(0.975)	40437	8.71485	1350 (a)
79 Pyrene	202	8.563	8.551	(0.882)	589320	14.0800	2180
2 Pyridine	79	2.504	2.475	(0.631)	77833	5.50324	850 (a)
4 Aniline	66	3.751	3.746	(0.945)	58930	6.87869	1060 (a)
7 bis(2-Chloroethyl) ether	63	3.763	3.757	(0.948)	92437	6.78666	1050 (a)
9 1,3-Dichlorobenzene	146	3.934	3.928	(0.991)	129848	7.91158	1220 (a)
13 1,2-Dichlorobenzene	146	4.087	4.075	(1.030)	124686	8.63135	1330 (a)
14 bis(2-Chloroisopropyl) ether	45	4.110	4.104	(1.036)	199860	6.98158	1080 (a)
15 o-Cresol	107	4.087	4.075	(1.030)	108755	9.57224	1480 (a)
18 m,p-Cresols	107	4.181	4.175	(1.053)	176017	10.7554	1660
19 Hexachloroethane	117	4.316	4.310	(1.087)	45925	6.67502	1030 (a)
21 Nitrobenzene	77	4.345	4.340	(0.898)	140195	8.63981	1340 (a)
22 Isophorone	82	4.498	4.493	(0.930)	259532	8.33507	1290 (a)
23 2-Nitrophenol	139	4.557	4.551	(0.942)	59894	8.51593	1320 (a)
24 2,4-Dimethylphenol	122	4.575	4.540	(0.945)	217280	12.6837	1960 (Q)
25 bis(2-Chloroethoxy) methane	93	4.616	4.610	(0.954)	139445	8.23743	1270 (a)
26 2,4-Dichlorophenol	162	4.722	4.716	(0.976)	111767	9.62335	1490 (a)
27 Benzoic acid	105	4.587	4.598	(0.948)	133969	15.5325	2400 (a)
30 Naphthalene	128	4.857	4.845	(1.004)	368690	8.13955	1260
31 4-Chloroaniline	127	4.869	4.857	(1.006)	167793	8.39717	1300 (a)
32 Hexachlorobutadiene	225	4.916	4.910	(1.016)	67915	9.00039	1390 (a)
34 2-Methylnaphthalene	142	5.334	5.328	(1.102)	253430	9.09819	1410
36 Hexachlorocyclopentadiene	237	5.439	5.428	(0.892)	32916	5.07752	785 (a)
37 2,4,6-Trichlorophenol	196	5.522	5.516	(0.905)	90548	9.57028	1480 (a)
38 2,4,5-Trichlorophenol	196	5.551	5.540	(0.910)	103220	10.2971	1590
40 2-Chloronaphthalene	162	5.692	5.681	(0.933)	252631	9.17988	1420
42 o-Nitroaniline	65	5.745	5.740	(0.942)	73401	7.59301	1170 (a)
41 m-Nitroaniline	138	6.045	6.040	(0.991)	62189	8.65911	1340 (a)
43 Dimethylphthalate	163	5.851	5.851	(0.959)	327755	10.2615	1580
44 2,6-Dinitrotoluene	165	5.910	5.904	(0.969)	69178	9.04552	1400 (a)
45 Acenaphthylene	152	5.998	5.992	(0.984)	414652	9.51025	1470
48 2,4-Dinitrophenol	184	6.116	6.110	(1.003)	8148	8.41946	1300 (aQ)
49 Dibenzofuran	168	6.251	6.239	(1.025)	380244	10.6710	1650
51 Diethylphthalate	149	6.369	6.363	(1.044)	332762	10.6280	1640
53 Fluorene	166	6.510	6.504	(1.068)	303258	9.59841	1480
54 4-Chlorophenylphenylether	204	6.486	6.481	(1.064)	161223	10.6376	1640
55 2-Methyl-4,6-dinitrophenol	198	6.522	6.516	(0.896)	17291	7.79086	1200 (a)
56 p-Nitroaniline	138	6.504	6.498	(1.067)	57472	9.75946	1510 (a)



Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
133 Diphenylamine	169	6.575	6.569	(0.903)	268721	10.4854	1620
58 1,2-Diphenylhydrazine	77	6.610	6.604	(0.908)	338020	9.81200	1520 (a)
61 4-Bromophenylphenylether	248	6.881	6.869	(0.945)	90013	10.4960	1620
63 Hexachlorobenzene	284	6.945	6.939	(0.954)	80699	9.84792	1520 (a)
68 Phenanthrene	178	7.298	7.286	(1.002)	551443	11.4581	1770
69 Anthracene	178	7.339	7.334	(1.008)	473821	9.77273	1510
72 Di-n-butylphthalate	149	7.698	7.692	(1.057)	546857	9.75273	1510 (a)
76 Fluoranthene	202	8.345	8.333	(1.146)	620733	12.7183	1960
85 Butylbenzylphthalate	149	9.098	9.086	(0.938)	209296	10.3350	1600
89 Benzo(a)anthracene	228	9.692	9.680	(0.999)	356011	9.93025	1530
90 3,3'-Dichlorobenzidine	252	9.639	9.628	(0.993)	84284	8.13814	1260 (a)
92 Chrysene	228	9.727	9.722	(1.002)	373226	10.8991	1680
93 bis(2-Ethylhexyl)phthalate	149	9.622	9.616	(0.992)	270360	9.98791	1540 (a)
94 Di-n-octylphthalate	149	10.292	10.280	(0.901)	390336	11.8569	1830
95 Benzo(b)fluoranthene	252	10.886	10.874	(0.953)	265321	11.3439	1750
96 Benzo(k)fluoranthene	252	10.921	10.910	(0.956)	241438	10.7598	1660
97 Benzo(a)pyrene	252	11.339	11.322	(0.993)	204462	10.3220	1600
99 Indeno(1,2,3-cd)pyrene	276	13.227	13.210	(1.158)	152713	8.40165	1300
100 Dibenzo(a,h)anthracene	278	13.245	13.227	(1.160)	120769	8.24923	1270
101 Benzo(ghi)perylene	276	13.780	13.763	(1.206)	117319	7.55908	1170
1 N-Methyl-N-nitrosomethylamine	74	2.463	2.446	(0.621)	58855	5.93031	916 (a)

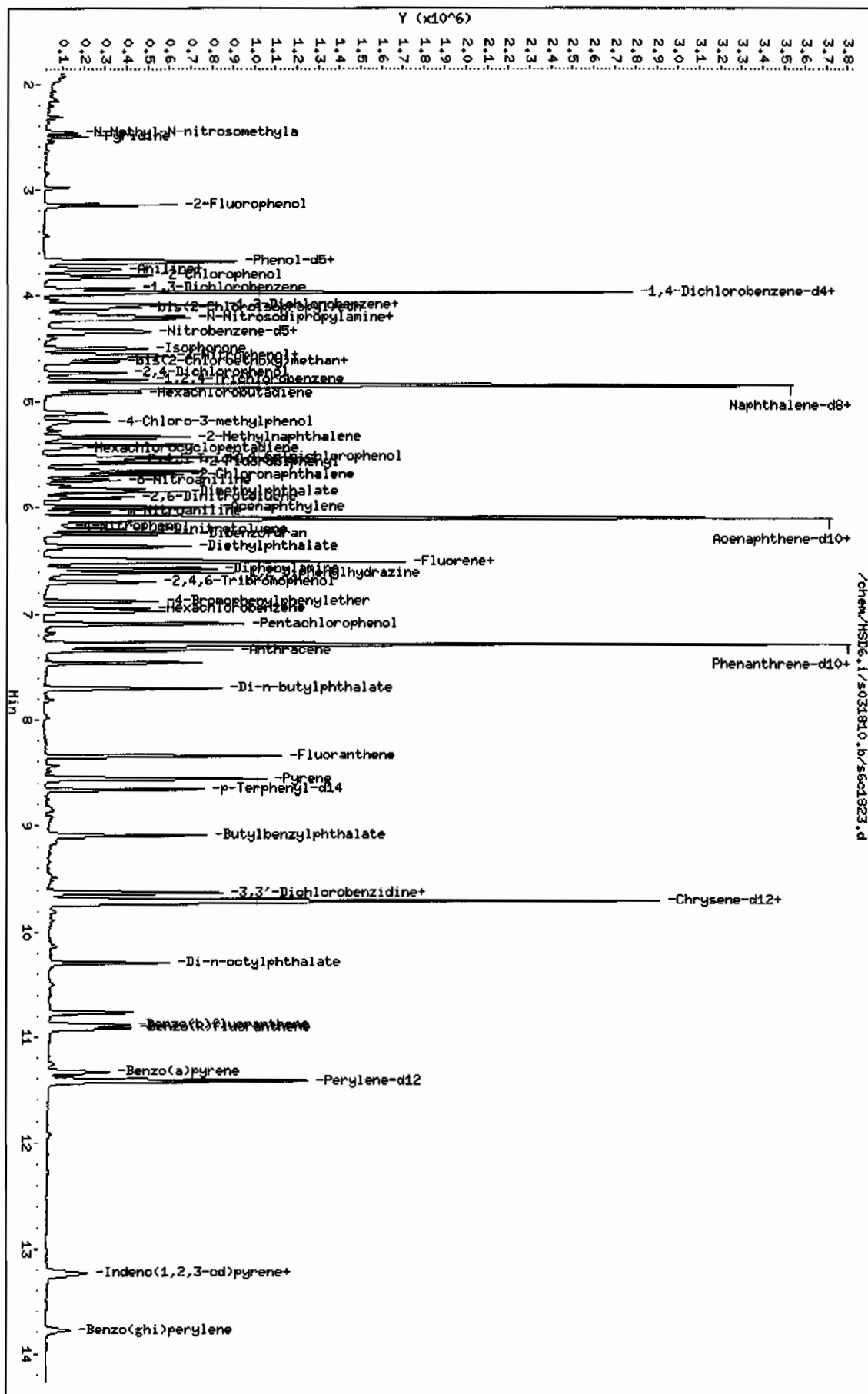
#### QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.



Data File: /chem/MSD6.1/s031810.b/sec1823.d  
 Date : 18-MAR-2010 16:40  
 Client ID: RE46-10-13534HS  
 Sample Info: 112020611701960971141SVH11.HS  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5HS

Instrument: MSD6.1  
 Operator: nag1  
 Column diameter: 0.20





Data File: /chem/MSD6.i/s031810.b/s6cl824.d  
 Report Date: 19-Mar-2010 16:12

Page 1

# GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6cl824.d  
 Lab Smp Id: 1202061171 Client Smp ID: RE46-10-13534MSD  
 Inj Date : 18-MAR-2010 17:03  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |1202061171|960971|4|SVM|1|MSD  
 Misc Info : |MSD8270\_S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 19-Mar-2010 16:12 llo00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6cl646.d  
 Als bottle: 24 QC Sample: MSD  
 Dil Factor: 4.00000  
 Integrator: HP RTE Compound Sublist: 10-2145.sub  
 Target Version: 3.50  
 Processing Host: hpclp1

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	30.19000	weight of sample
M	14.07340	% 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	3.969	3.963	(1.000)	491317		40.0000	
* 29 Naphthalene-d8	136	4.840	4.834	(1.000)	1761515		40.0000	
* 46 Acenaphthene-d10	164	6.098	6.092	(1.000)	1100991		40.0000	
* 67 Phenanthrene-d10	188	7.281	7.269	(1.000)	1920709		40.0000	
* 91 Chrysene-d12	240	9.704	9.698	(1.000)	1378580		40.0000	
* 98 Perylene-d12	264	11.422	11.404	(1.000)	889505		40.0000	
\$ 3 2-Fluorophenol	112	3.152	3.140	(0.794)	174433		12.7714	1970
\$ 5 Phenol-d5	99	3.675	3.669	(0.926)	222114		12.7876	1970
\$ 20 Nitrobenzene-d5	82	4.334	4.328	(0.895)	108571		6.44761	994
\$ 39 2-Fluorobiphenyl	172	5.581	5.575	(0.915)	218807		7.70289	1190
\$ 60 2,4,6-Tribromophenol	329	6.698	6.692	(1.098)	51956		16.8168	2590
\$ 81 p-Terphenyl-d14	244	8.663	8.651	(0.893)	247417		10.2992	1590



Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.687	3.681	(0.929)	115820	6.58703	1020 (a)
8 2-Chlorophenol	128	3.834	3.822	(0.966)	98100	6.86000	1060 (a)
11 1,4-Dichlorobenzene	146	3.981	3.975	(1.003)	101626	6.64341	1020 (a)
17 N-Nitrosodipropylamine	70	4.199	4.198	(1.058)	76106	6.34404	978 (aQ)
28 1,2,4-Trichlorobenzene	180	4.787	4.781	(0.989)	97856	7.68758	1180 (a)
33 4-Chloro-3-methylphenol	107	5.187	5.169	(1.072)	102663	8.49705	1310 (a)
47 Acenaphthene	154	6.122	6.116	(1.004)	205177	7.18254	1110
50 2,4-Dinitrotoluene	165	6.210	6.204	(1.018)	73266	7.46703	1150 (a)
52 4-Nitrophenol	139	6.134	6.122	(1.006)	38438	7.25973	1120 (a)
65 Pentachlorophenol	266	7.098	7.086	(0.975)	31191	6.91263	1060 (a)
79 Pyrene	202	8.563	8.551	(0.882)	537007	12.7782	1970
2 Pyridine	79	2.505	2.475	(0.631)	64224	4.73078	729 (a)
4 Aniline	66	3.752	3.746	(0.945)	50357	6.12364	944 (a)
7 bis(2-Chloroethyl) ether	63	3.763	3.757	(0.948)	74116	5.66896	874 (a)
9 1,3-Dichlorobenzene	146	3.934	3.928	(0.991)	102180	6.48597	1000 (a)
13 1,2-Dichlorobenzene	146	4.087	4.075	(1.030)	97486	7.03047	1080 (a)
14 bis(2-Chloroisopropyl)ether	45	4.110	4.104	(1.036)	159170	5.79255	893 (a)
15 o-Cresol	107	4.087	4.075	(1.030)	85210	7.81332	1200 (a)
18 m,p-Cresols	107	4.181	4.175	(1.053)	139012	8.84921	1360 (a)
19 Hexachloroethane	117	4.316	4.310	(1.087)	36490	5.52533	852 (a)
21 Nitrobenzene	77	4.346	4.340	(0.898)	114129	7.34562	1130 (a)
22 Isophorone	82	4.493	4.493	(0.928)	209661	7.03229	1080 (a)
23 2-Nitrophenol	139	4.557	4.551	(0.942)	46837	6.95503	1070 (a)
24 2,4-Dimethylphenol	122	4.581	4.540	(0.947)	177174	9.91269	1530 (aQ)
25 bis(2-Chloroethoxy)methane	93	4.616	4.610	(0.954)	109790	6.77348	1040 (a)
26 2,4-Dichlorophenol	162	4.722	4.716	(0.976)	90613	8.14824	1260 (a)
27 Benzoic acid	105	4.581	4.598	(0.947)	106670	12.9164	1990 (a)
30 Naphthalene	128	4.857	4.845	(1.004)	296443	6.83503	1050
31 4-Chloroaniline	127	4.869	4.857	(1.006)	142822	7.46475	1150 (a)
32 Hexachlorobutadiene	225	4.916	4.910	(1.016)	55968	7.74633	1190 (a)
34 2-Methylnaphthalene	142	5.334	5.328	(1.102)	200932	7.53368	1160
36 Hexachlorocyclopentadiene	237	5.440	5.428	(0.892)	24665	3.90704	602 (a)
37 2,4,6-Trichlorophenol	196	5.522	5.516	(0.905)	73623	7.99065	1230 (a)
38 2,4,5-Trichlorophenol	196	5.551	5.540	(0.910)	80520	8.24852	1270 (a)
40 2-Chloronaphthalene	162	5.693	5.681	(0.933)	205239	7.65830	1180
42 o-Nitroaniline	65	5.746	5.740	(0.942)	60019	6.37563	983 (a)
41 m-Nitroaniline	138	6.040	6.040	(0.990)	52158	7.45767	1150 (a)
43 Dimethylphthalate	163	5.851	5.851	(0.959)	266745	8.57591	1320 (a)
44 2,6-Dinitrotoluene	165	5.910	5.904	(0.969)	55915	7.50786	1160 (a)
45 Acenaphthylene	152	5.998	5.992	(0.984)	336909	7.93494	1220
48 2,4-Dinitrophenol	184	6.116	6.110	(1.003)	6312	7.88770	1220 (aQ)
49 Dibenzofuran	168	6.245	6.239	(1.024)	310611	8.95126	1380 (a)
51 Diethylphthalate	149	6.369	6.363	(1.044)	272193	8.92724	1380 (a)
53 Fluorene	166	6.510	6.504	(1.067)	254817	8.28205	1280
54 4-Chlorophenylphenylether	204	6.487	6.481	(1.064)	132721	8.99246	1390 (a)
55 2-Methyl-4,6-dinitrophenol	198	6.522	6.516	(0.896)	13941	7.21927	1110 (a)
56 p-Nitroaniline	138	6.504	6.498	(1.067)	50803	8.85893	1360 (a)



Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
133 Diphenylamine	169	6.575	6.569	(0.903)	222029	8.90895	1370 (a)
58 1,2-Diphenylhydrazine	77	6.610	6.604	(0.908)	272015	8.11972	1250 (a)
61 4-Bromophenylphenylether	248	6.881	6.869	(0.945)	75294	9.02841	1390 (a)
63 Hexachlorobenzene	284	6.945	6.939	(0.954)	67368	8.45402	1300 (a)
68 Phenanthrene	178	7.298	7.286	(1.002)	511169	10.9222	1680
69 Anthracene	178	7.340	7.334	(1.008)	411568	8.72924	1350
72 Di-n-butylphthalate	149	7.698	7.692	(1.057)	448225	8.22019	1270 (a)
76 Fluoranthene	202	8.345	8.333	(1.146)	578884	12.1969	1880
85 Butylbenzylphthalate	149	9.098	9.086	(0.938)	171848	8.45152	1300 (a)
89 Benzo(a)anthracene	228	9.692	9.680	(0.999)	326779	9.07801	1400
90 3,3'-Dichlorobenzidine	252	9.639	9.628	(0.993)	76142	7.32224	1130 (a)
92 Chrysene	228	9.728	9.722	(1.002)	335631	9.76154	1500
93 bis(2-Ethylhexyl)phthalate	149	9.622	9.616	(0.992)	233248	8.58202	1320 (a)
94 Di-n-octylphthalate	149	10.292	10.280	(0.901)	331011	9.72493	1500 (a)
95 Benzo(b)fluoranthene	252	10.886	10.874	(0.953)	248645	10.2822	1580
96 Benzo(k)fluoranthene	252	10.916	10.910	(0.956)	213017	9.18173	1420
97 Benzo(a)pyrene	252	11.333	11.322	(0.992)	187147	9.13789	1410
99 Indeno(1,2,3-cd)pyrene	276	13.222	13.210	(1.158)	131319	6.98762	1080
100 Dibenzo(a,h)anthracene	278	13.245	13.227	(1.160)	105835	6.99198	1080
101 Benzo(ghi)perylene	276	13.780	13.763	(1.206)	105520	6.57580	1010
1 N-Methyl-N-nitrosomethylamine	74	2.463	2.446	(0.621)	48130	5.05232	779 (a)

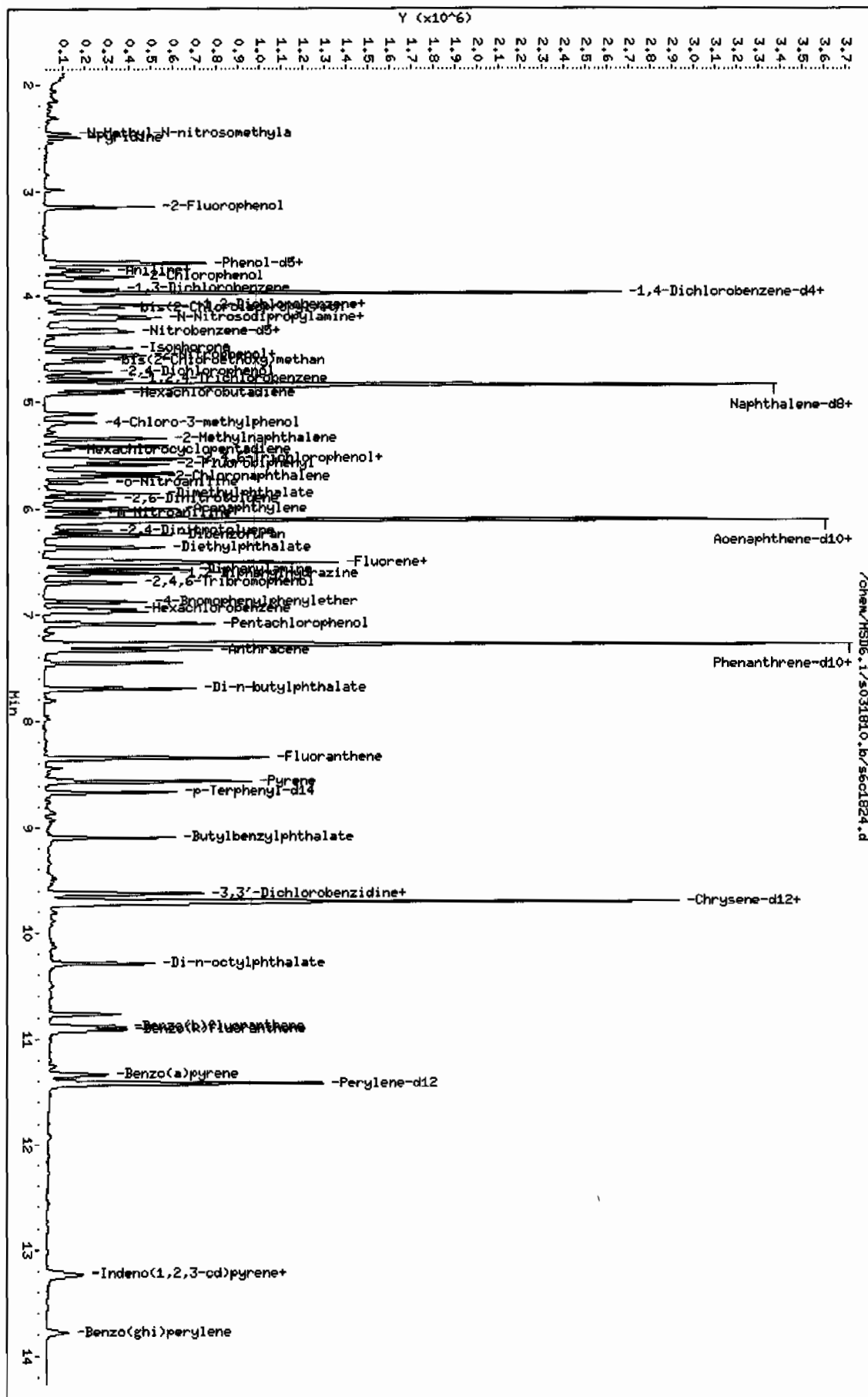
#### QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.



Data File: /chem/HSD6.1/s031810.b/s6c1824.d  
 Date : 18-MAR-2010 17:03  
 Client ID: RE46-10-13534MSD  
 Sample Info: 112020611711960971141SVH111MSD  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-SHS

Instrument: HSD6.1  
 Operator: nag1  
 Column diameter: 0.20





# LC/MS/MS EXPLOSIVES ANALYSIS



**LC/MS/MS Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2137**

**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: 959338

Prep Batch Number: 959337

**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>
248244001	RE36-10-8464
248244002	RE36-10-8475
248244003	RE36-10-8471
248244004	RE36-10-8485
248244005	RE36-10-8477
248244006	RE36-10-8479
248244007	RE36-10-8484
248244008	RE36-10-8481
1202057500	Method Blank (MB)
1202057501	Laboratory Control Sample (LCS)
1202057502	248249001(RE36-10-8285) Matrix Spike (MS)
1202057503	248249001(RE36-10-8285) 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.

10-2137-EXPLCMS



#### **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 20.2%. The recovery limits are 51-112%. Since the spike recovery falls within the DOD QSM limits of 10-150%, and the samples are greater than two times out of hold, the data are reported. Please see data exception report 818320.

##### **QC Sample Designation**

Client sample 248249001 (RE36-10-8285) from SDG 10-2140 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

##### **Matrix Spike (MS) Recovery Statement**

The MS recovered Tetryl at 19.2%. The recovery limits are 36-124%. Since the spike recovery falls within the DOD QSM limits of 10-150%, and the samples are greater than two times out of hold, the data are reported. Please see data exception report 818320.

##### **Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD recovered Tetryl at 18.3%. The recovery limits are 36-124%. Since the spike recovery falls within the DOD QSM limits of 10-150%, and the samples are greater than two times out of hold, the data are reported. Please see data exception report 818320.

##### **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 standard responses were within the required acceptance criteria for all samples and QC in this SDG.

#### **Technical Information**

##### **Holding Time Specifications**

All samples in this SDG in this analytical batch 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**

Sample 248244004 (RE36-10-8485) failed ISTD acceptance criteria. The sample 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 spike recoveries were within the established acceptance limits.

##### **QC Sample Designation**

Client sample 248249001 (RE36-10-8285) from SDG 10-2140 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

##### **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 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**

Sample 248244008 (RE36-10-8481) failed acceptance criteria. It was re-analyzed, but there was an injection error. It was further re-analyzed and passed acceptance criteria. The last re-analysis is reported.

#### **Miscellaneous Information**

##### **Data Exception (DER) Documentation**

Data exception report 818320 was generated for this SDG.

The LCS recovered Tetryl at 20.2%. The recovery limits are 51-112%. Since the spike recovery falls within the DOD QSM limits of 10-150%, and the samples are greater than two times out of hold, the data are reported.

The MS recovered Tetryl at 19.2%. The MSD recovered Tetryl at 18.3%. The recovery limits are 36-124%. Since the spike recovery falls within the DOD QSM limits of 10-150%, and the samples are greater than two times out of hold, 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: Herbert M. Mark Date: 04/19/10



# SAMPLE DATA SUMMARY



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8464

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244001

Sample Amount 2

Moisture: 9.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412146a

Date Analyzed: 15-APR-10 14:58

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



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8464

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244001

Sample Amount 2

Moisture: 9.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050089.wiff

Date Analyzed: 06-APR-10 11:48

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: RE36-10-8475

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244002

Sample Amount 2

Moisture: 8.8

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412147a

Date Analyzed: 15-APR-10 15:28

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



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8475

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244002

Sample Amount 2

Moisture: 8.8

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050090.wiff

Date Analyzed: 06-APR-10 12:04

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: RE36-10-8471

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244003

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412148a

Date Analyzed: 15-APR-10 15:57

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



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8471

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244003

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050091.wiff

Date Analyzed: 06-APR-10 12:19

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: RE36-10-8485

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244004

Sample Amount 2

Moisture: 23.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412196a

Date Analyzed: 16-APR-10 15:34

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



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8485

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244004

Sample Amount 2

Moisture: 23.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050092.wiff

Date Analyzed: 06-APR-10 12:35

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: RE36-10-8477

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244005

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412150a

Date Analyzed: 15-APR-10 16:56

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



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8477

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244005

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 259337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050093.wiff

Date Analyzed: 06-APR-10 12:51

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: RE36-10-8479

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244006

Sample Amount 2

Moisture: 10.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412151a

Date Analyzed: 15-APR-10 17:26

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



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8479

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244006

Sample Amount 2

Moisture: 10.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050094.wiff

Date Analyzed: 06-APR-10 13:06

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: RE36-10-8484

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244007

Sample Amount 2

Moisture: 16.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412152a

Date Analyzed: 15-APR-10 17:55

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	X	Concentrated Extract Volume	X	Dilution
Value		Sample Amount		Factor



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8484

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244007

Sample Amount 2

Moisture: 16.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050095.wiff

Date Analyzed: 06-APR-10 13:22

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: RE36-10-8481

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244008

Sample Amount 2

Moisture: 11.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412153a

Date Analyzed: 15-APR-10 18:25

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



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8481

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244008

Sample Amount 2

Moisture: 11.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04080015.wiff

Date Analyzed: 08-APR-10 20:29

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



# QUALITY CONTROL SUMMARY



# High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
248244001	RE36-10-8464	102	70 - 144	
248244001	RE36-10-8464	97.6	70 - 144	
248244002	RE36-10-8475	102	70 - 144	
248244002	RE36-10-8475	105	70 - 144	
248244003	RE36-10-8471	112	70 - 144	
248244003	RE36-10-8471	106	70 - 144	
248244004	RE36-10-8485	125	70 - 144	
248244004	RE36-10-8485	105	70 - 144	
248244005	RE36-10-8477	103	70 - 144	
248244005	RE36-10-8477	117	70 - 144	
248244006	RE36-10-8479	127	70 - 144	
248244006	RE36-10-8479	109	70 - 144	
248244007	RE36-10-8484	115	70 - 144	
248244007	RE36-10-8484	107	70 - 144	
248244008	RE36-10-8481	100	70 - 144	
248244008	RE36-10-8481	94.8	70 - 144	
1202057500	MB for batch 959337	94.1	70 - 144	
1202057500	MB for batch 959337	98.4	70 - 144	
1202057501	LCS for batch 959337	110	70 - 144	
1202057501	LCS for batch 959337	106	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) 10-2137

Extract Batch Code: 959337

Date Extracted: 08-MAR-10

GEL LCS ID: 1202057501

GEL LCSDUP ID:

Analysis Date/Time: 15-APR-10 14:29

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	3640	72.8								69 – 126
2,4,6-Trinitrotoluene	5000	5320	106								73 – 149
2,4-Dinitrotoluene	5000	4990	99.8								87 – 137
2,6-Dinitrotoluene	5000	4680	93.7								89 – 120
2-Amino-4,6-dinitrotoluene	5000	5520	110								90 – 130
4-Amino-2,6-dinitrotoluene	5000	5120	102								84 – 130
HMX	5000	4730	94.6								58 – 138
Nitrobenzene	5000	4620	92.4								71 – 122
PETN	5000	5260	105								64 – 137
RDX	5000	5360	107								81 – 137
Tetryl	5000	1010	20.2	*							51 – 112
m-Dinitrobenzene	5000	4560	91.2								83 – 122
m-Nitrotoluene	5000	4030	80.7								73 – 118
o-Nitrotoluene	5000	3920	78.4								72 – 119
p-Nitrotoluene	5000	4320	86.5								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) 10-2137

Extract Batch Code: 959337

Date Extracted: 08-MAR-10

GEL LCS ID: 1202057501

GEL LCSDUP ID:

Analysis Date/Time: 06-APR-10 11:32

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	5260	105					52 - 114
2,6-Diamino-4-nitrotoluene	5000	4900	98					64 - 122
3,5-Dinitroaniline	5000	5460	109					70 - 127
tris(o-cresyl) phosphate	5000	4850	97					84 - 119
TATB	5000	6540	131					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: RE36-10-8285

Lab Code: GEL

GEL Job No (SDG) 10-2137

Extract Batch Code: 959337

Date Extracted:08-MAR-10

GEL Spike ID: 1202057502

GEL SpikeDup ID:1202057503

Analysis Date/Time: 15-APR-10 20:52

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
1,3,5-Trinitrobenzene	5000	0	4680	93.5	4980	99.6	6.34	30	50 - 140
2,4,6-Trinitrotoluene	5000	0	4480	89.6	4620	92.3	2.94	30	76 - 144
2,4-Dinitrotoluene	5000	0	5310	106	5330	107	.413	30	86 - 135
2,6-Dinitrotoluene	5000	0	4670	93.4	4700	93.9	.513	30	90 - 118
2-Amino-4,6-dinitrotoluene	5000	0	4870	97.4	5700	114	15.6	30	85 - 137
4-Amino-2,6-dinitrotoluene	5000	0	4650	92.9	4680	93.6	.715	30	72 - 143
HMX	5000	0	4790	95.7	4500	90	6.18	30	51 - 144
Nitrobenzene	5000	0	4140	82.8	3930	78.7	5.05	30	70 - 122
PETN	5000	0	5090	102	5280	106	3.69	30	60 - 140
RDX	5000	0	5670	113	5410	108	4.63	30	59 - 152
Tetryl	5000	0	961	19.2 *	913	18.3 *	5.12	30	36 - 124
m-Dinitrobenzene	5000	0	4700	94.1	4540	90.8	3.49	30	85 - 118
m-Nitrotoluene	5000	0	3650	73.1	3590	71.7	1.86	30	70 - 120
o-Nitrotoluene	5000	0	3600	71.9	3710	74.2	3.14	30	69 - 123
p-Nitrotoluene	5000	0	3930	78.5	3880	77.6	1.2	30	65 - 133

#Column to be used to flag recovery and RPD values with an asterisk



3  
High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE36-10-8285

Lab Code: GEL

GEL Job No (SDG) 10-2137

Extract Batch Code: 959337

Date Extracted:08-MAR-10

GEL Spike ID: 1202057502

GEL SpikeDup ID: 1202057503

Analysis Date/Time: 06-APR-10 14:56

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	3510	70.2	3280	65.6	6.78	26	34 - 135
2,6-Diamino-4-nitrotoluene	5000	0	5190	104	5130	103	1.16	30	55 - 130
3,5-Dinitroaniline	5000	0	6390	128	5820	116	9.34	30	73 - 129
tris(o-cresyl) phosphate	5000	0	5090	102	5070	101	.394	30	72 - 127
TATB	5000	0	5560	111	7170	143	25.3	30	29 - 155

#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): 10-2137

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)
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
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



# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 1 of 77

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

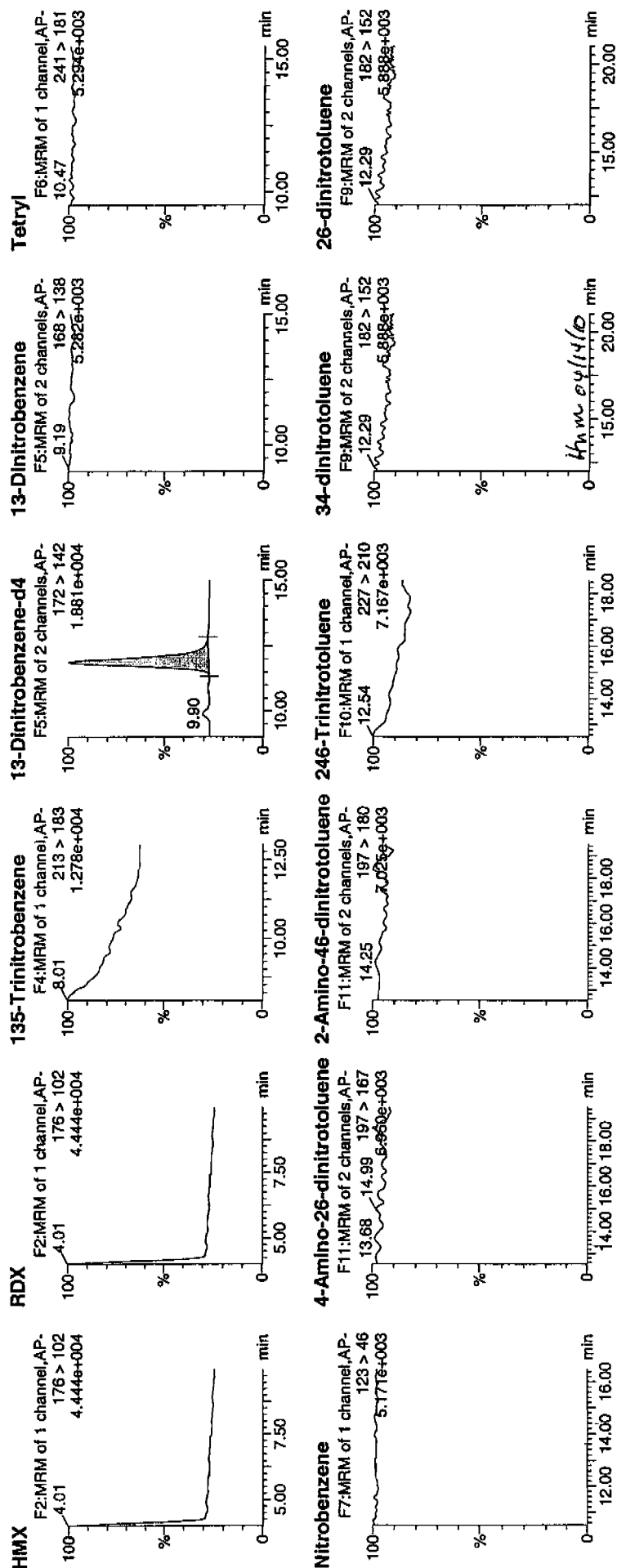
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ID: XIBLK01

Vial: 1:1,A

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GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

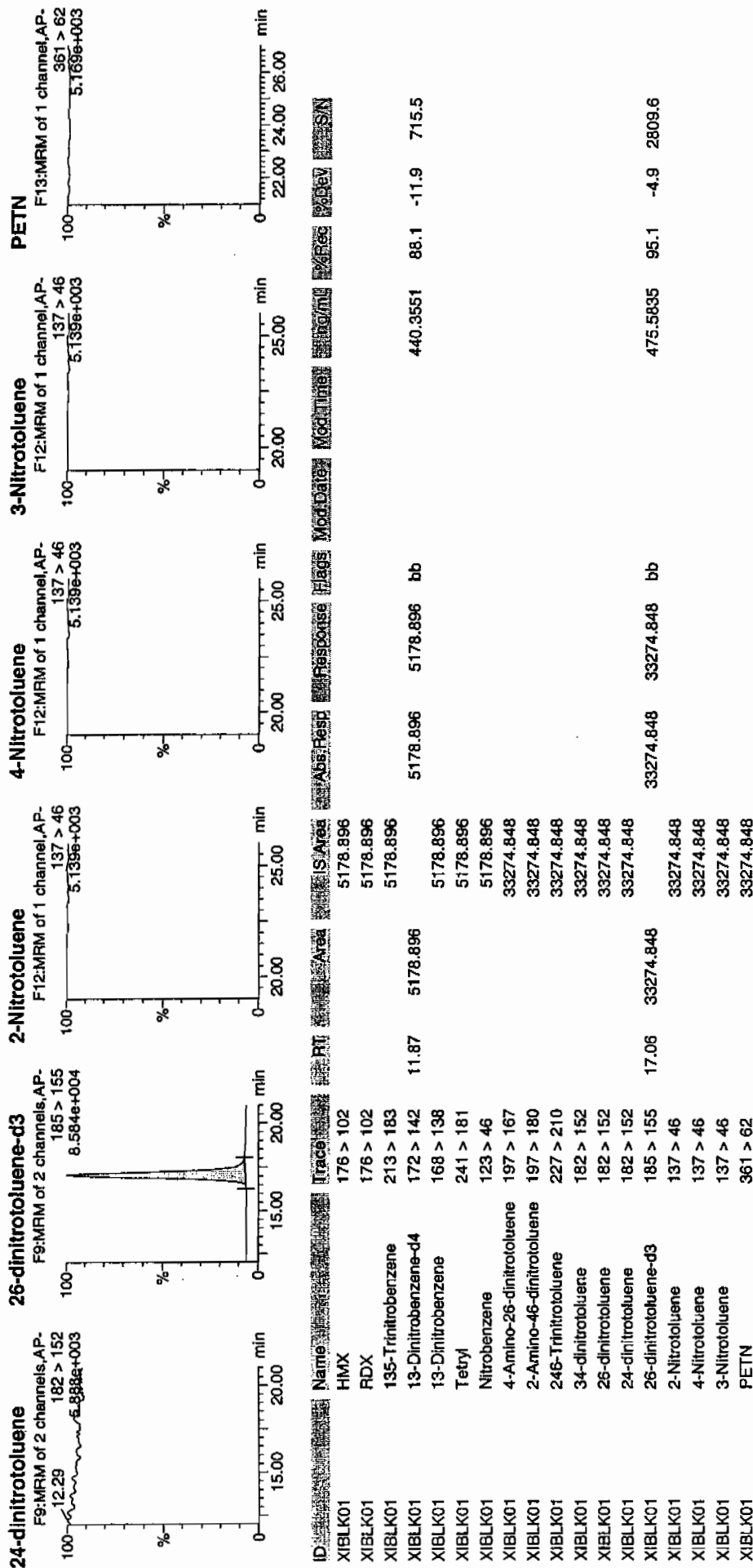


# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 2 of 77

Dataset: C:\MASSLYNX\New\_Exp\PRO041210expA.qld, Time: Tue Apr 13 11:12:22 2010





Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

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

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Name: C:\MASSLYNX\NEW\_EXP.PRO\data\EXP0412002a

Date: 12-Apr-2010

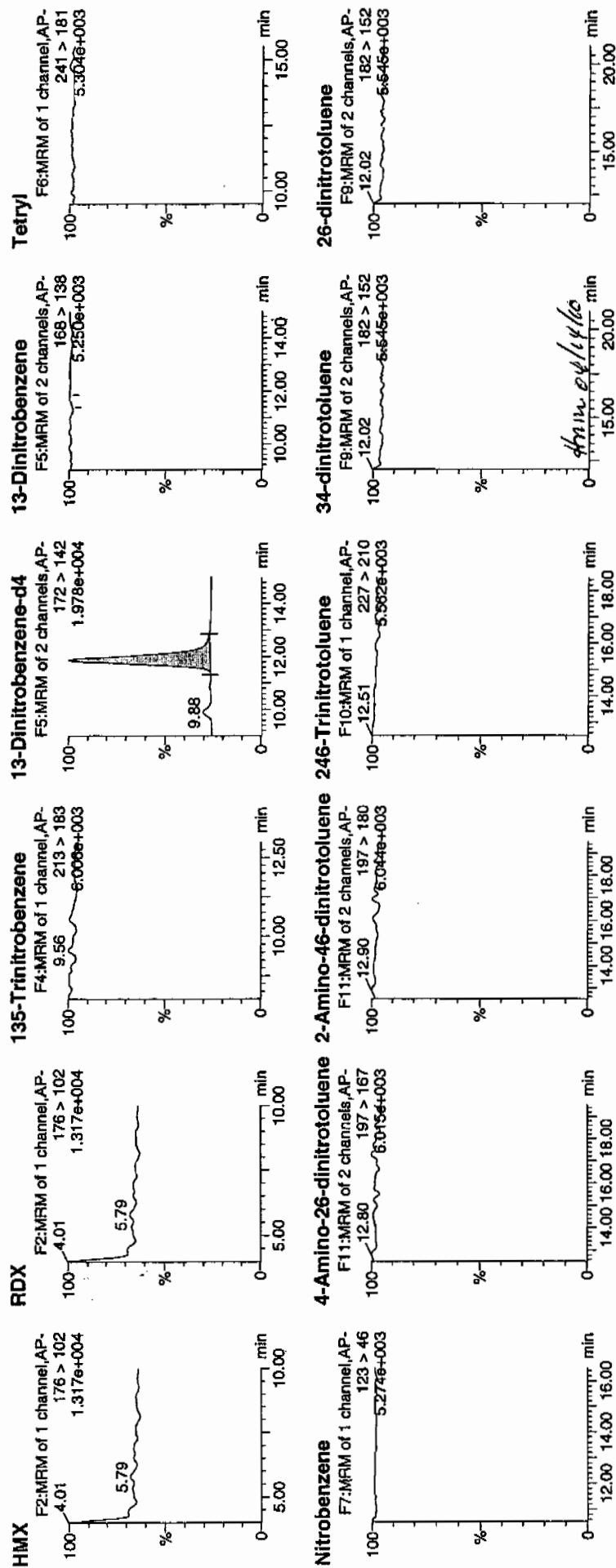
Time: 16:10:12

ID: XIBLK01

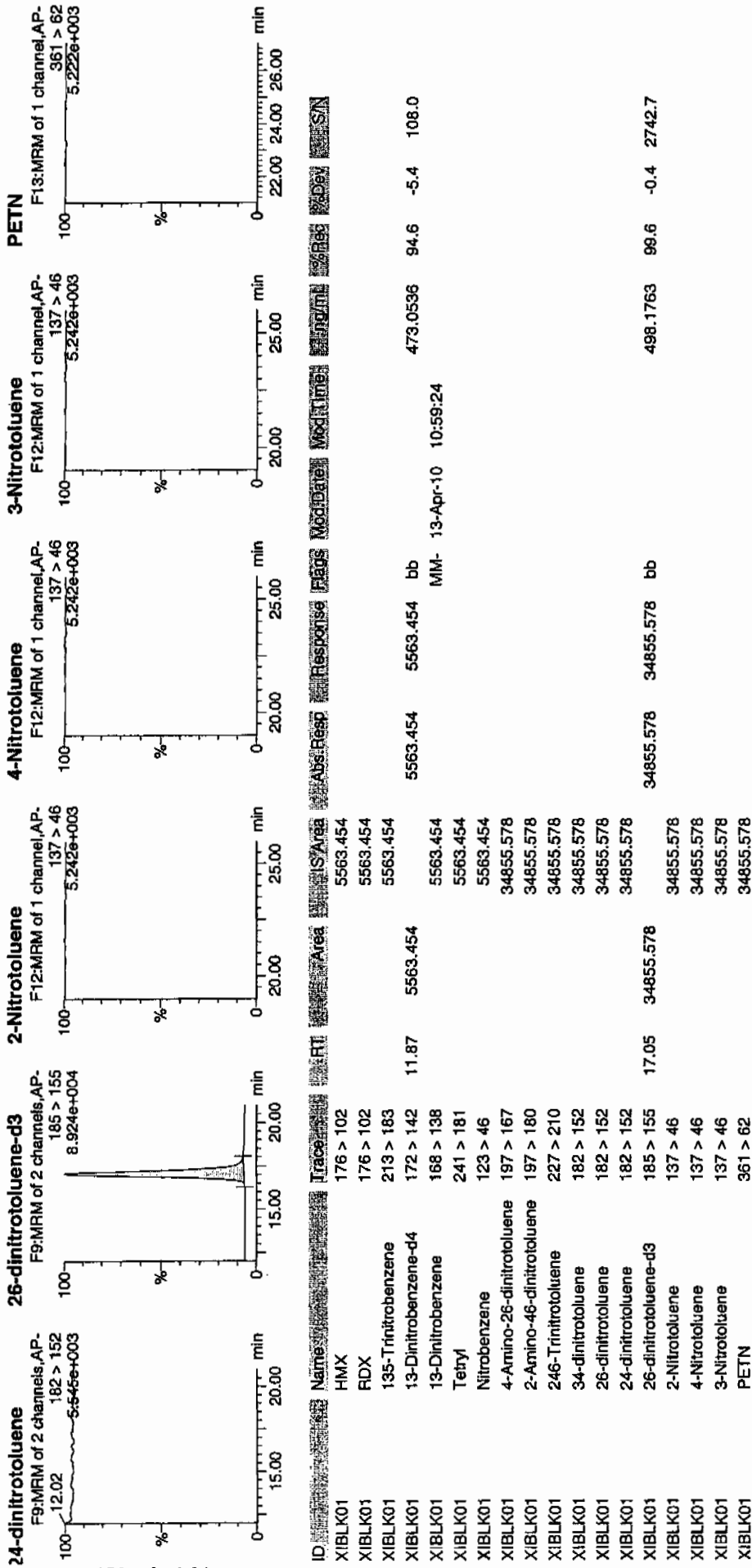
Vial: 1:1,A

WAT  
4/13/10

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 05-APR-10 12:43

GEL Data File: EXS04050001.wiff

Instrument ID: LCMSMS

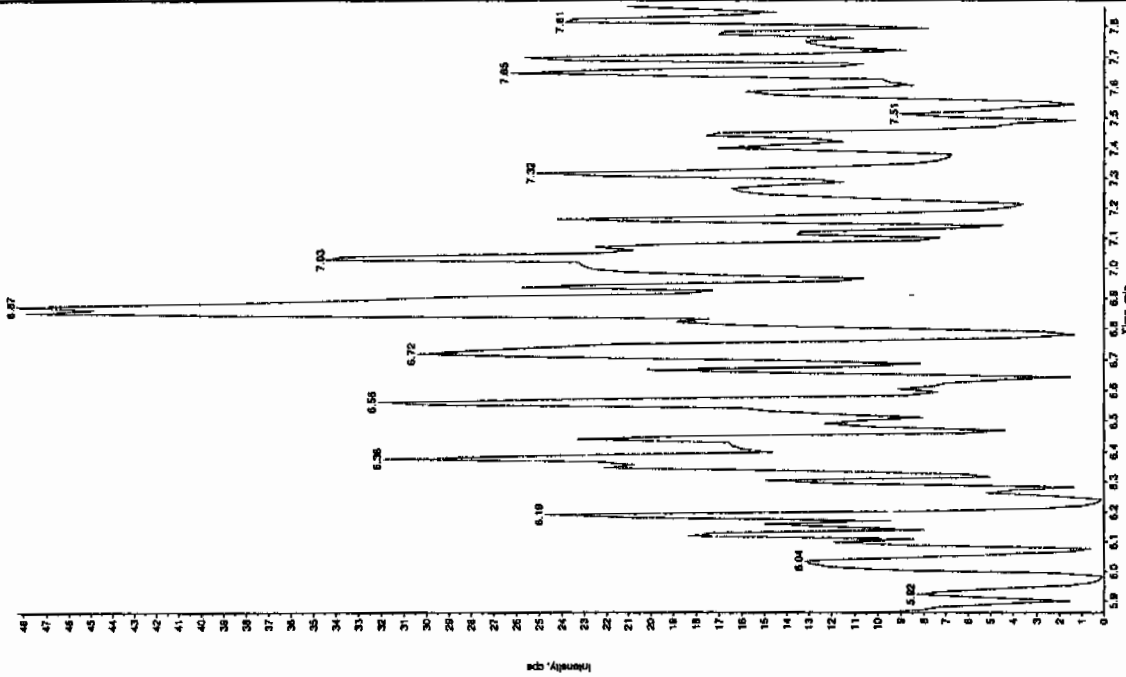
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	2.85
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	27.2
2,6-Diamino-4-nitrotoluene	0	0

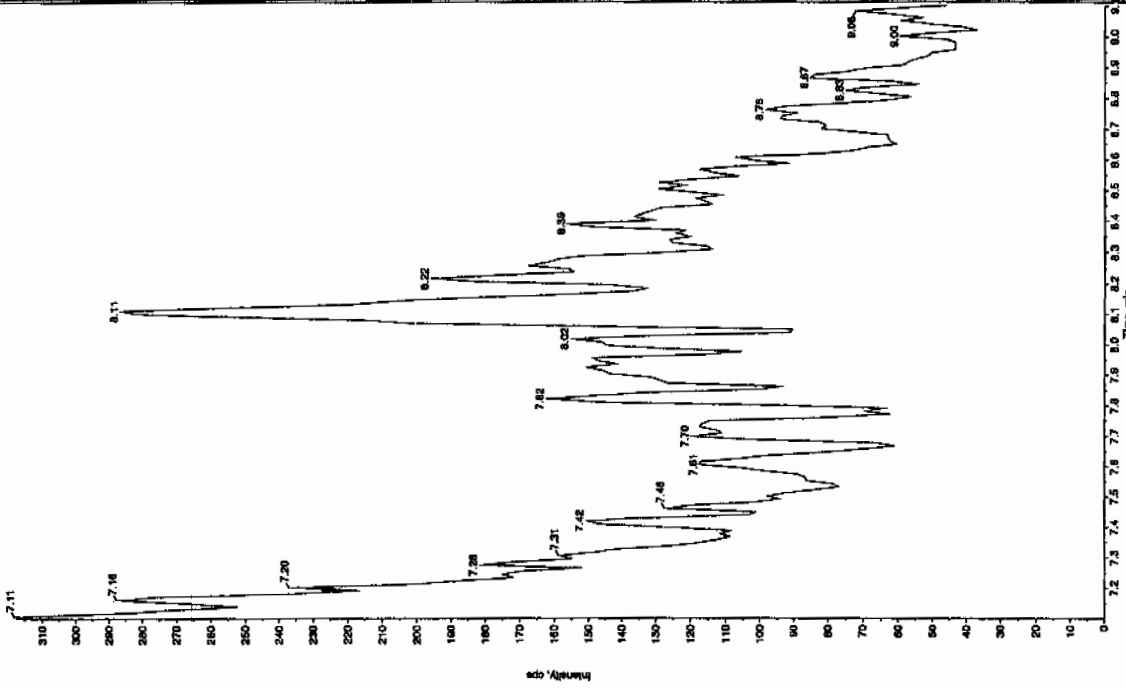


has 4/7/10

Sample Name: "XIBLX01" Sample ID: "111ER" File: "EXS04050001.wif"  
 Peak Name: "TATE" 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: 4/5/2010  
 Acq. Time: 12:43:45 PM  
 Modified: No

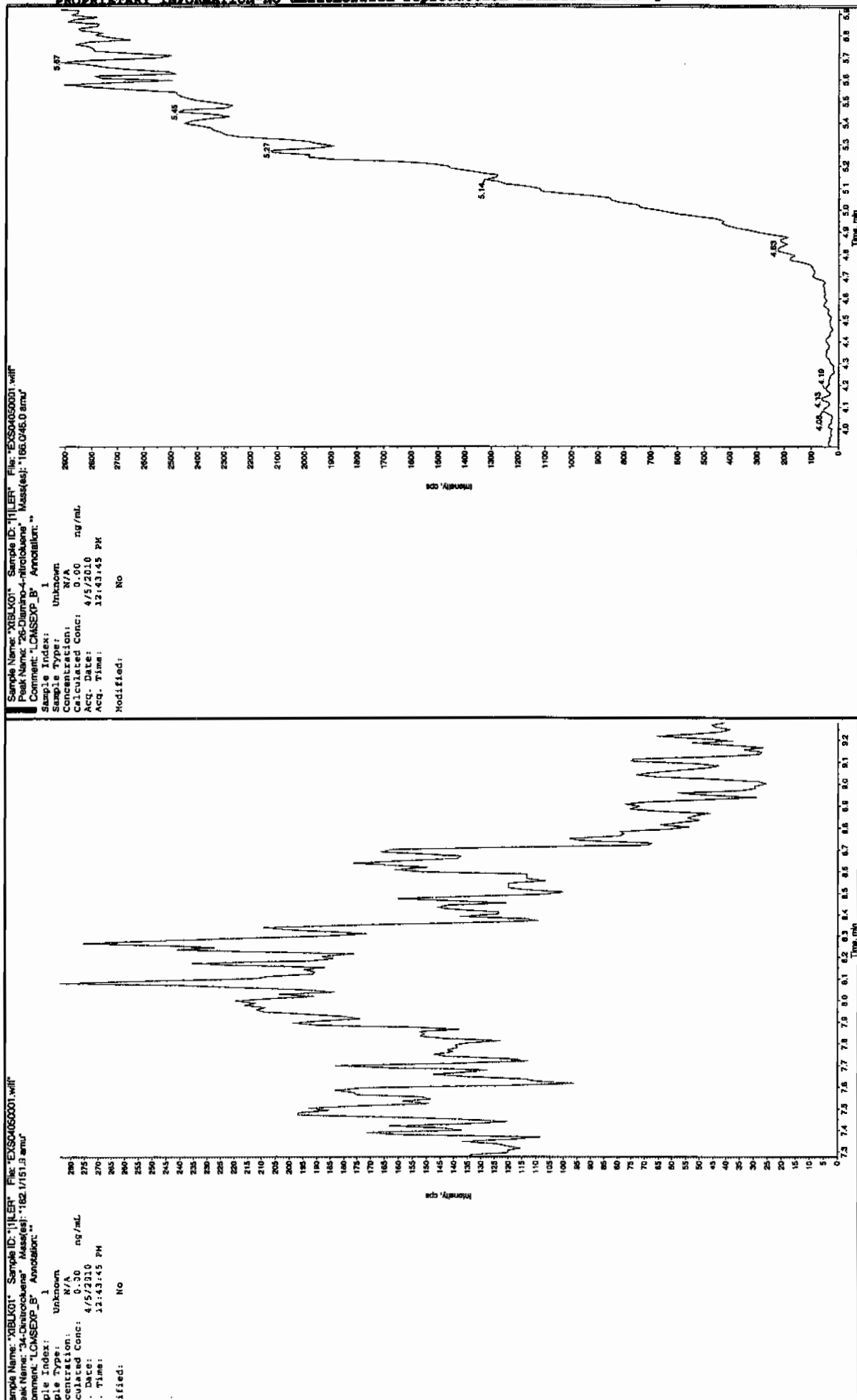


Sample Name: "XIBLX01" Sample ID: "111ER" File: "EXS04050001.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.0461.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/5/2010  
 Acq. Time: 12:43:45 PM  
 Modified: No



has 4/7/10



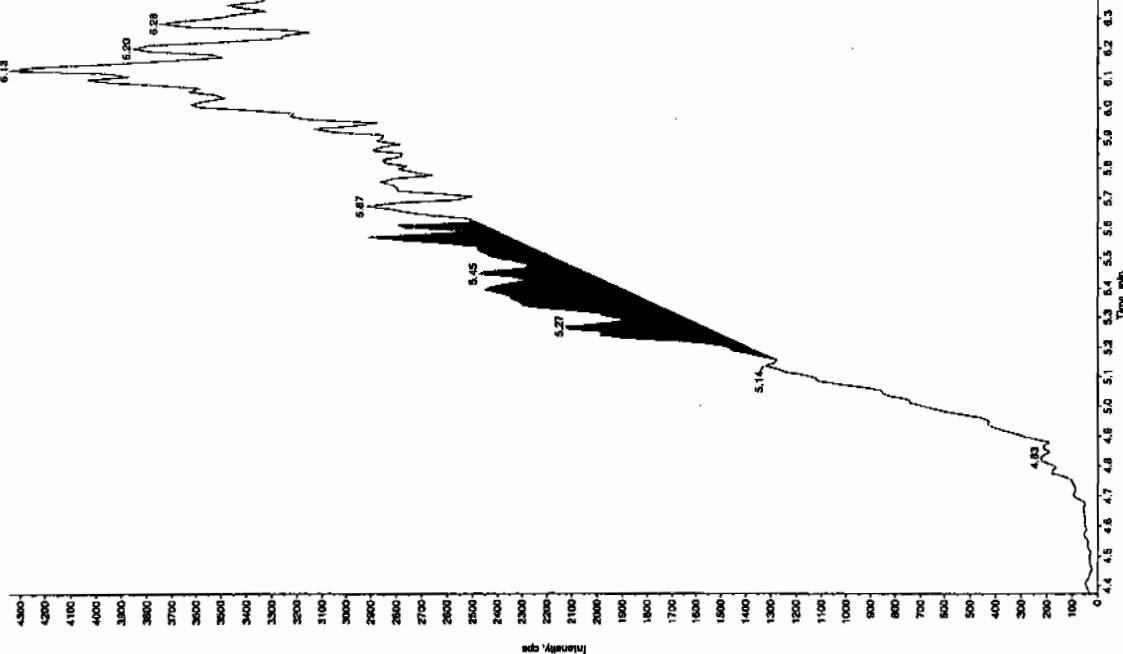


3L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



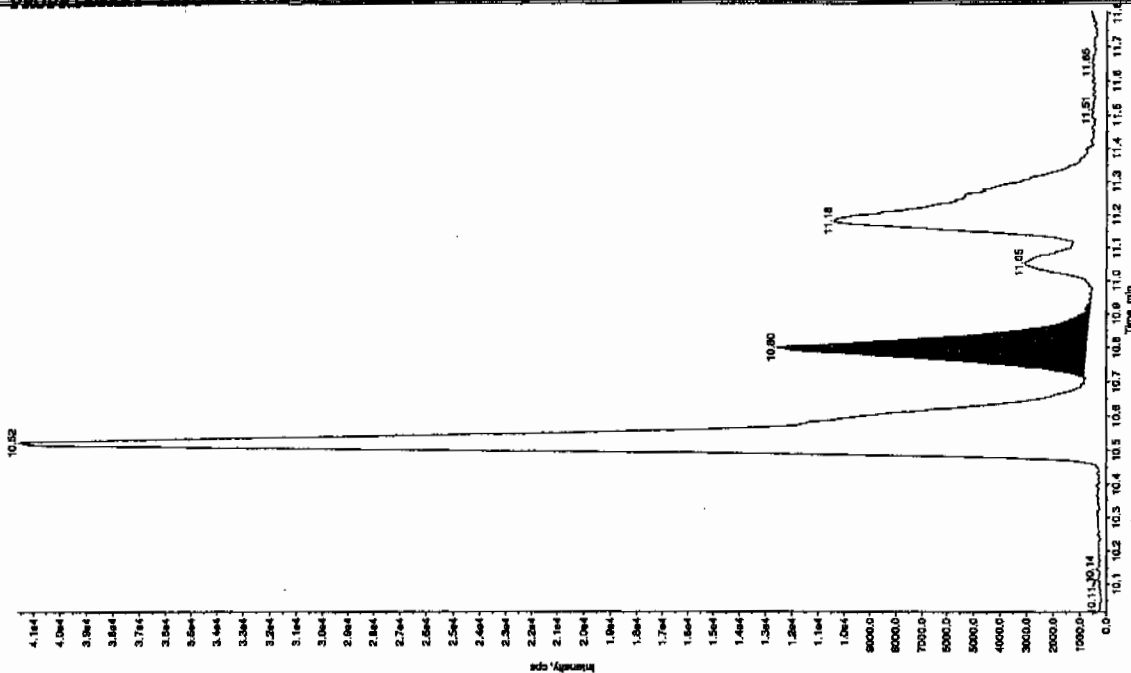
Sample Name: "XBLK01" Sample ID: "JL1ER" File: "EXS04050001.wif"  
 Peak Name: "24-Diamino-6-nitrophenol" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 27.2 ng/mL  
 Acq. Date: 4/5/2010  
 Acq. Time: 12:43:45 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 35.0 cps  
 Min. Peak Width: 0.00 points  
 Smoothing Width: 3  
 RT Window: 30.0 sec  
 Expected RT: 5.37 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.57 min  
 Area: 9.32e+003 counts  
 Height: 557.000 cps  
 Start Time: 5.16 min  
 End Time: 5.82 min



Sample Name: "XBLK01" Sample ID: "JL1ER" File: "EXS04050001.wif"  
 Peak Name: "triso-cresyl phosphate" Mass(es): "359.191.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 2.85 ng/mL  
 Acq. Date: 4/5/2010  
 Acq. Time: 12:43:45 PM  
 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: 5.14e+004 counts  
 Height: 11831.752 cps  
 Start Time: 10.7 min  
 End Time: 10.9 min





Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 05-APR-10 12:59

GEL Data File: EXS04050002.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



Dec 4/10

Sample Name: "XIBLK01" Sample ID: "111ER" File: "EXS04050002.wif"

Peak Name: "TATB" Mass(es): "257.2/204.9 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

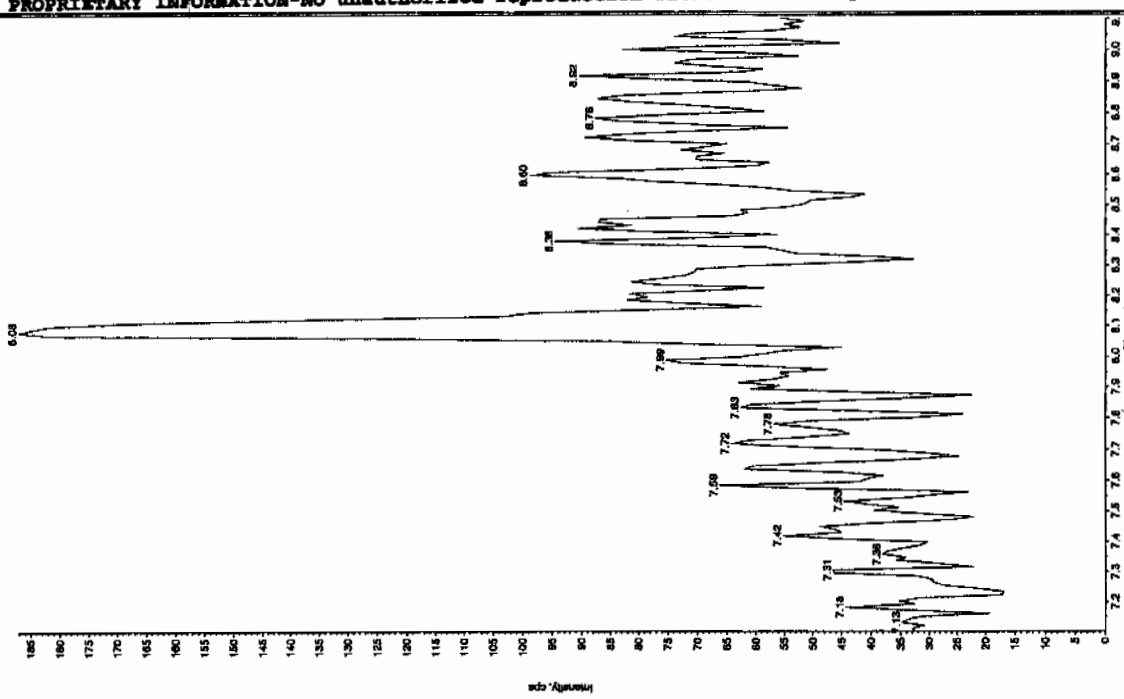
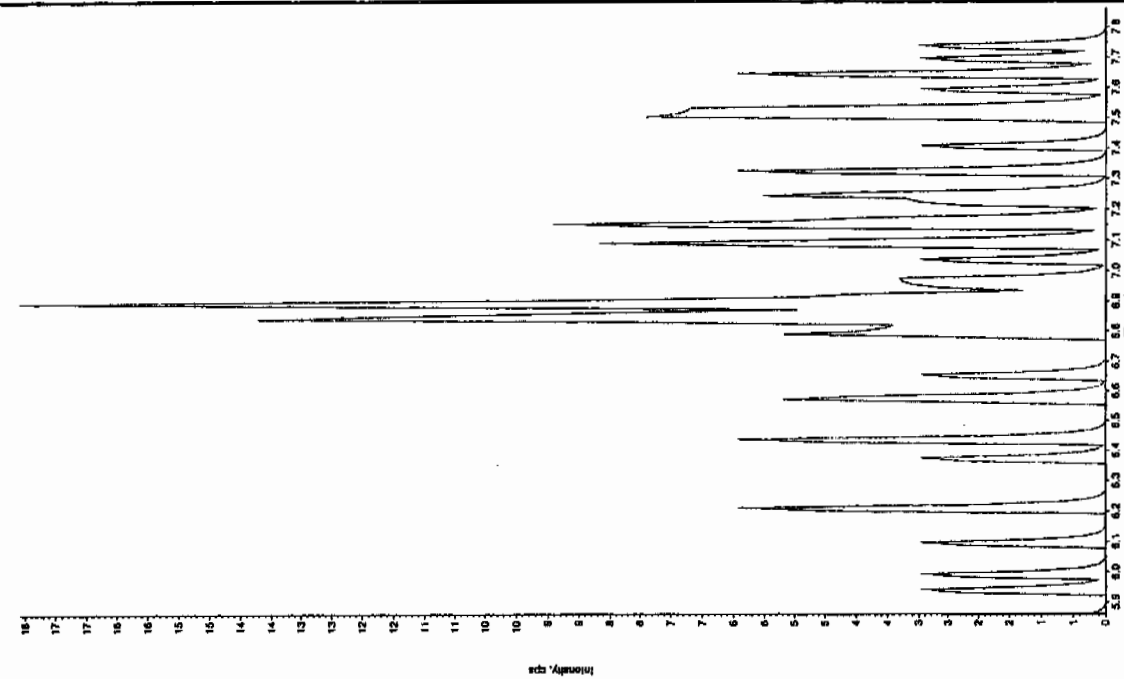
Concentration: 0.00 ng/mL

Calculated Conc: 0.00

Acq. Date: 4/5/2010

Acq. Time: 12:59:32 PM

Modified: No

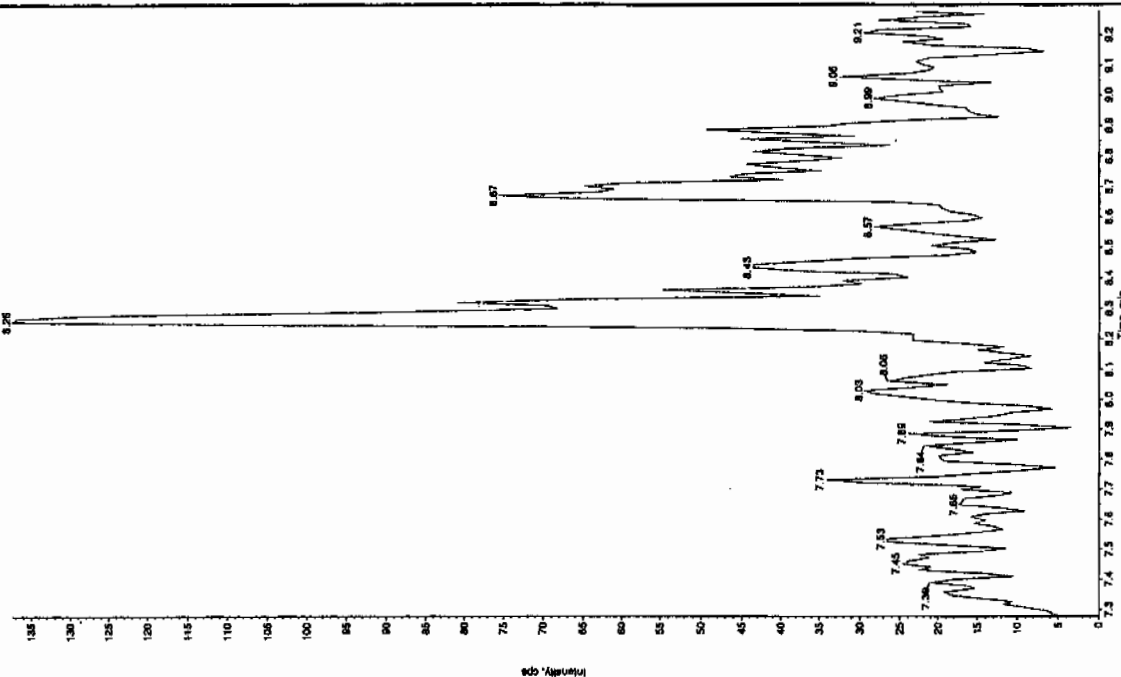


4/11/10 04/08/10

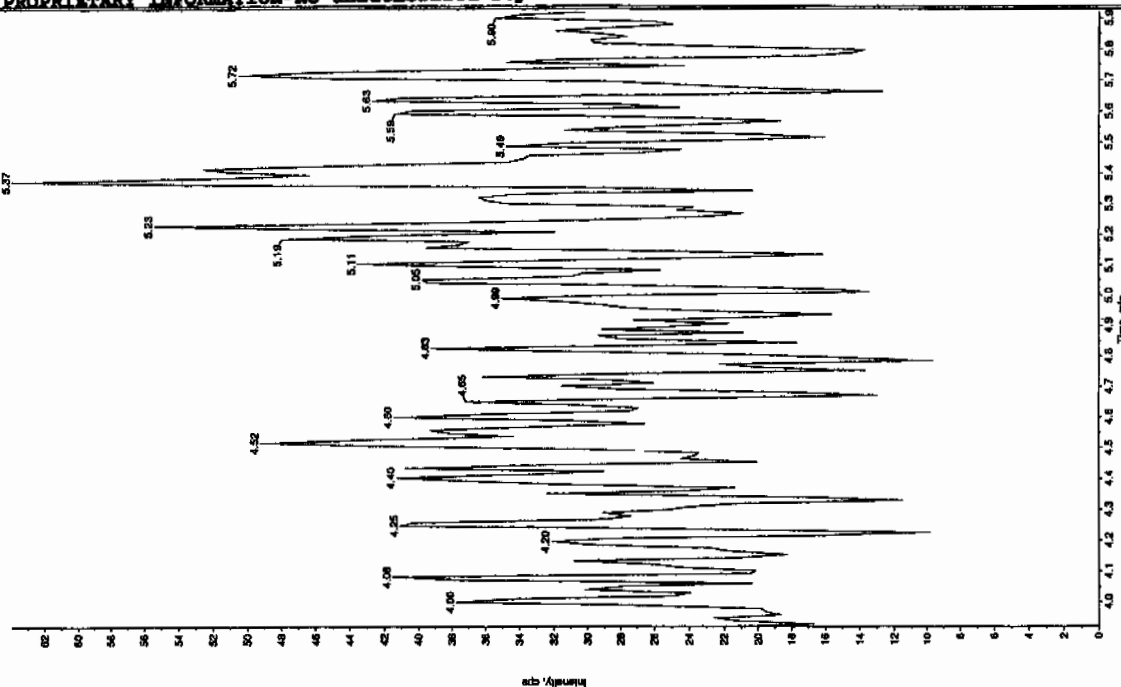
L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



Sample Name: "XIBLK01" Sample ID: "111ER" File: "EX04060002.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 ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/5/2010  
 Acq. Time: 12:59:32 PM  
 Modified: No



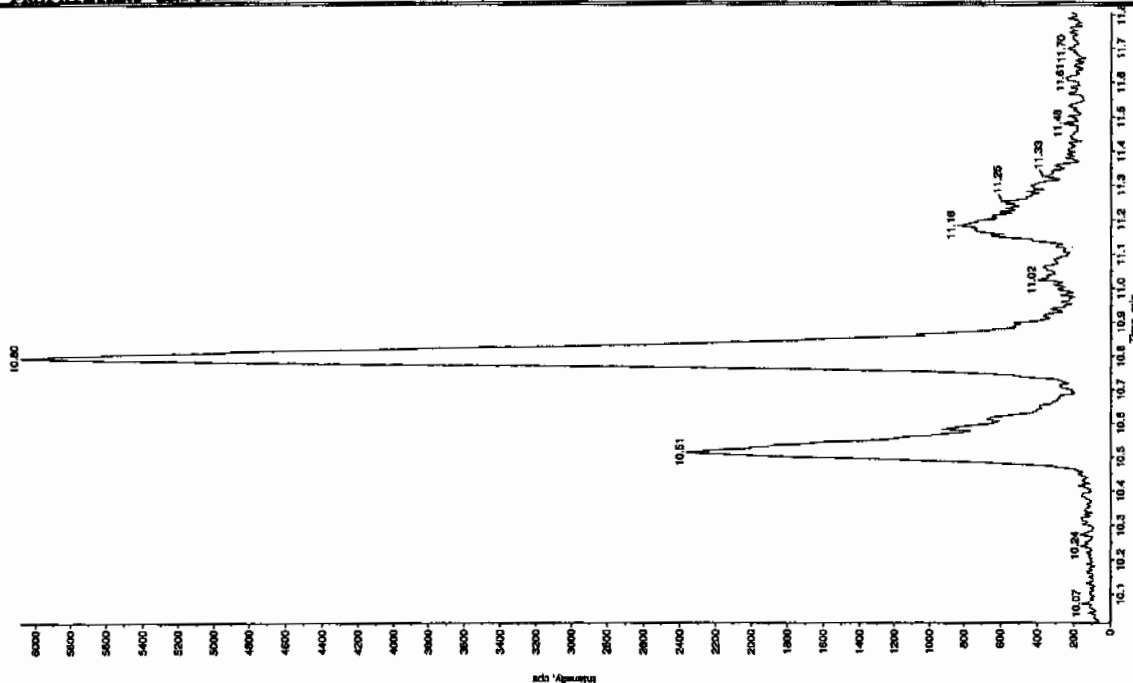
Sample Name: "XIBLK01" Sample ID: "111ER" File: "EX04060002.will"  
 Peak Name: "25-Diamino-4-nitrofluorene" Mass(es): "186.0/163.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/5/2010  
 Acq. Time: 12:59:32 PM  
 Modified: No





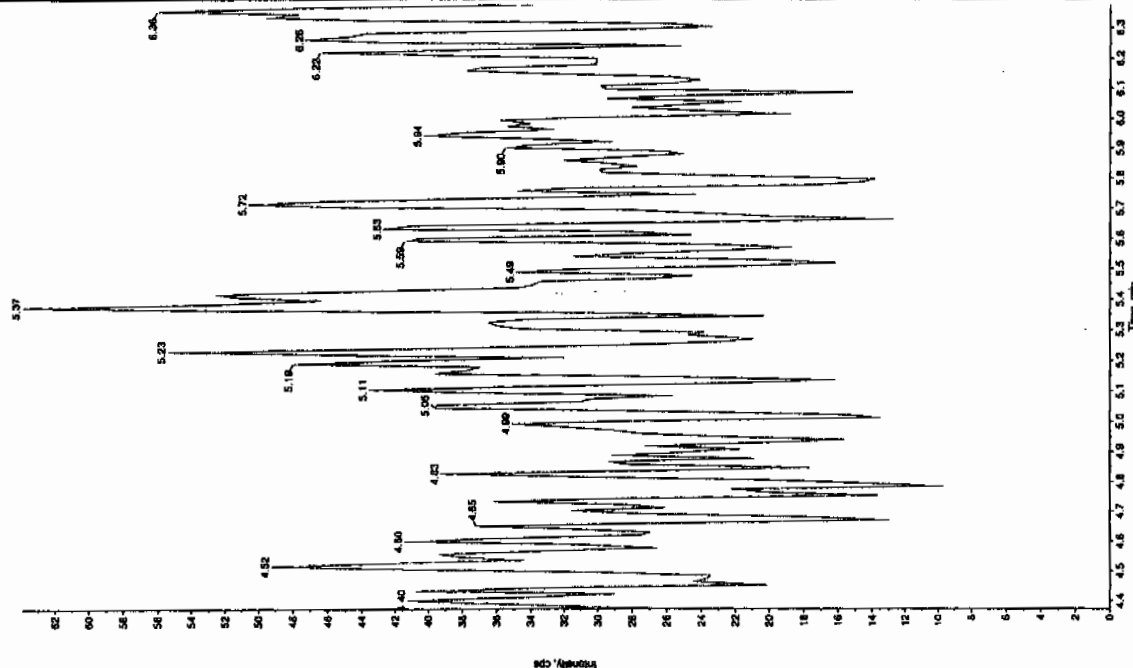
Sample Name: "XBLX01" Sample ID: "1111ER" File: "EXS04050002.wif"  
 Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/5/2010  
 Acq. Time: 12:59:32 PM  
 Modified: No



Sample Name: "XBLX01" Sample ID: "1111ER" File: "EXS04050002.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 ng/mL  
 Acq. Date: 4/5/2010  
 Acq. Time: 12:59:32 PM  
 Modified: No



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08-APR-10 16:49

GEL Data File: EXS04080001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

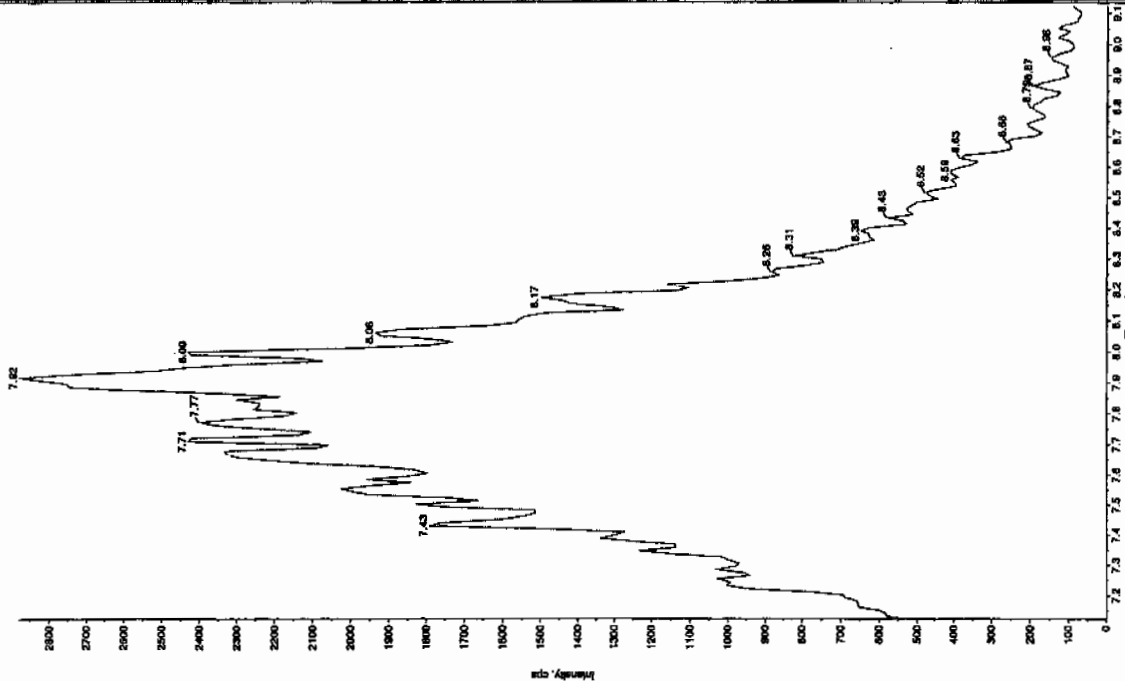
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.1
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



See 4/12/10

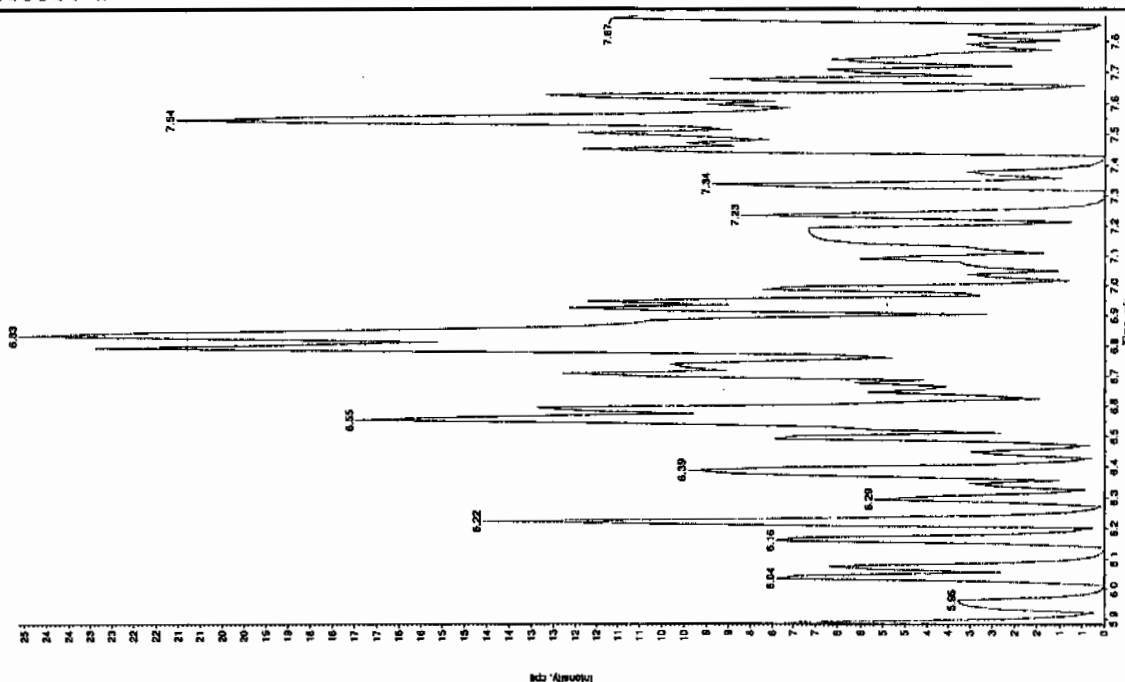
Sample Name: "XBLX01" Sample ID: "111ER" File: "EXSD0080001.will"  
 Peak Name: "35-Orlistat" Mass(es): "182.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ug/mL  
 Acq. Date: 4/8/2010  
 Acq. Time: 4:49:32 PM  
 Modified: No



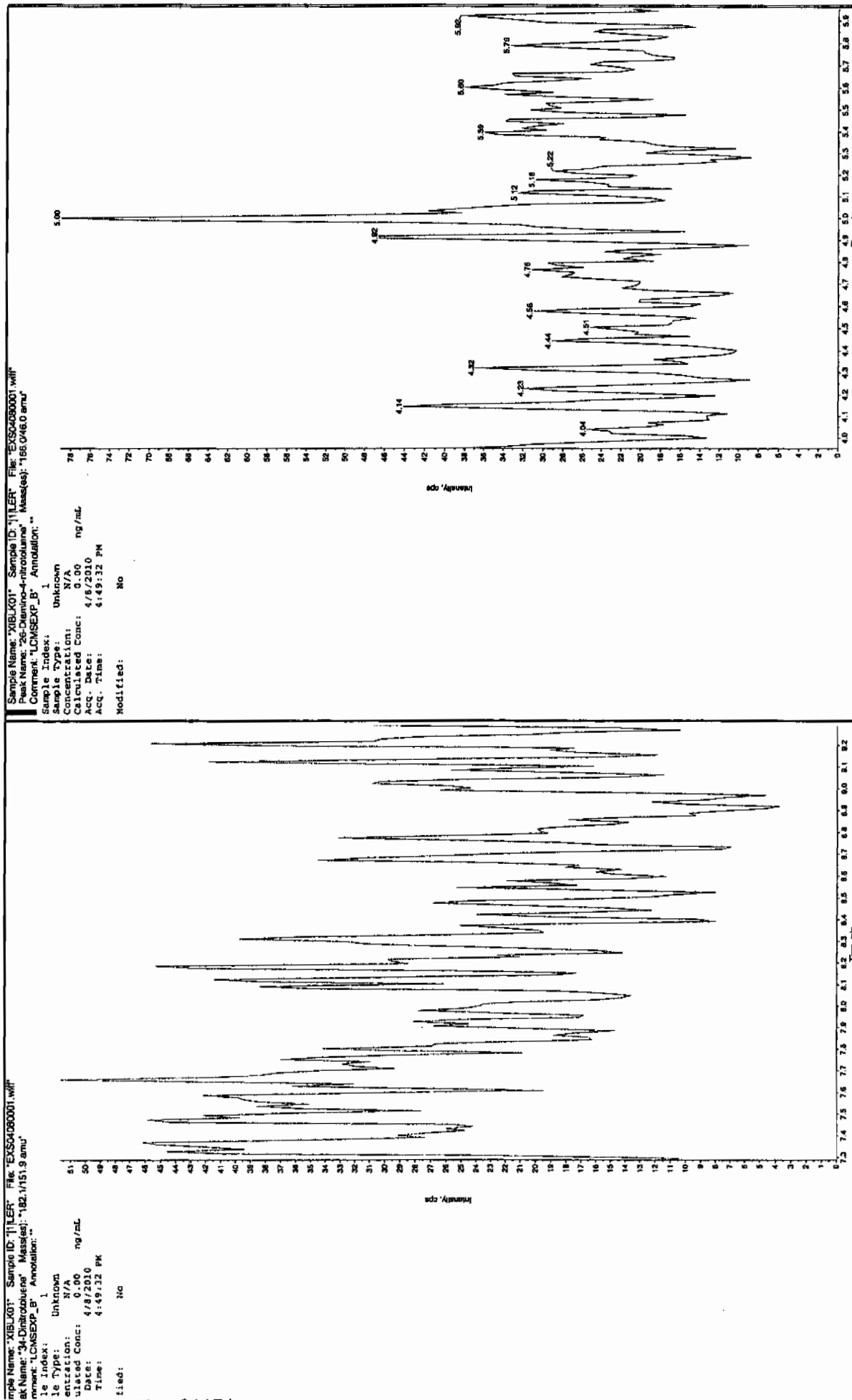
Sample Name: "XBLX01" Sample ID: "111ER" File: "EXSD0080001.will"  
 Peak Name: "35-Orlistat" Mass(es): "257.2204.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ug/mL  
 Acq. Date: 4/8/2010  
 Acq. Time: 4:49:32 PM  
 Modified: No



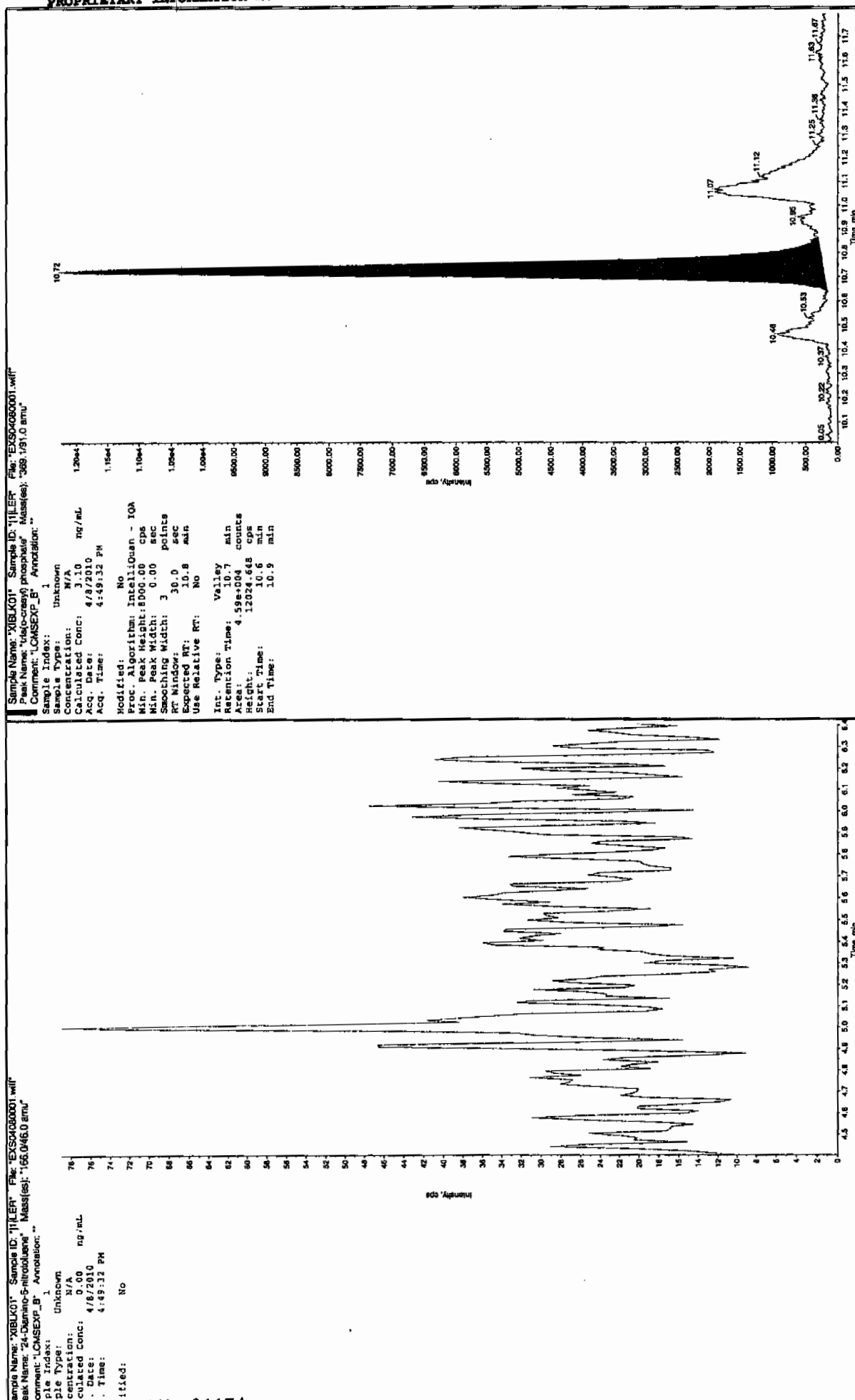
See 4/12/10





, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08-APR-10 17:05

GEL Data File: EXS04080002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

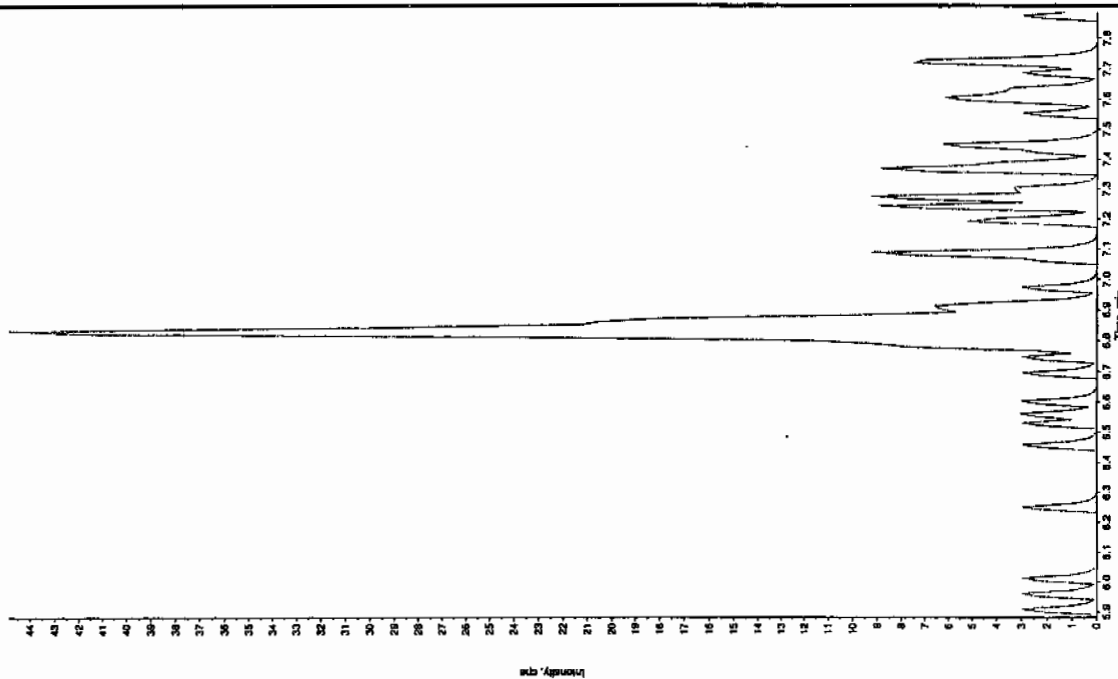
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	2.96
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



See 4/12/10

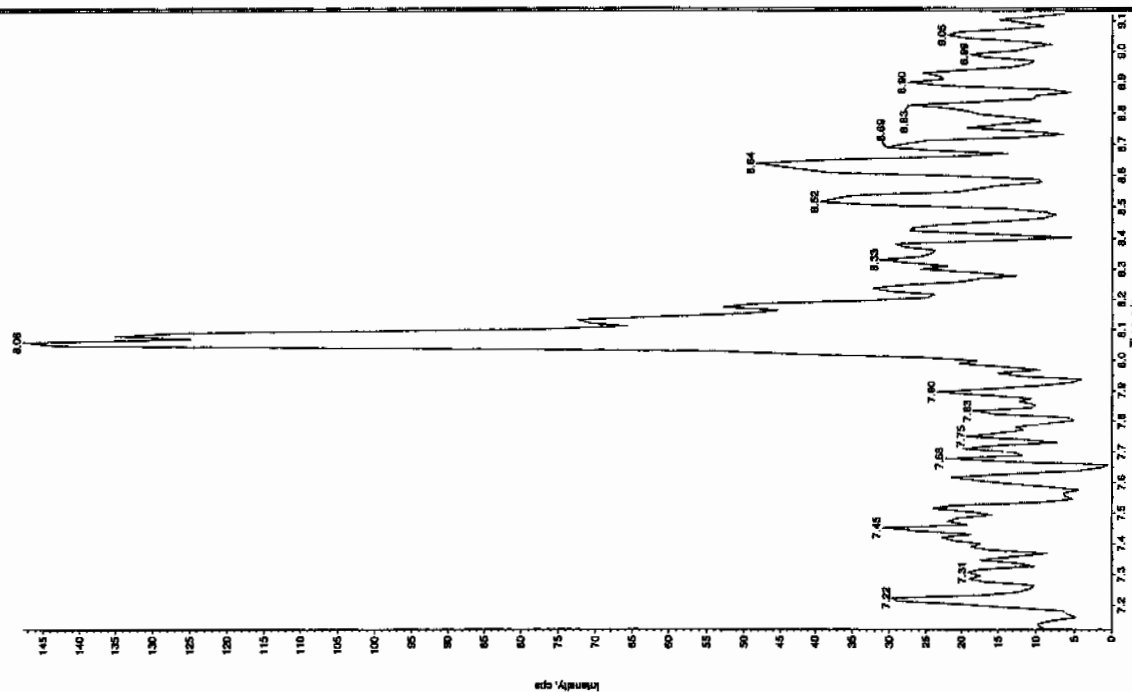
Sample Name: "XBLX01" Sample ID: "111ER" File: "EX504080002.wif"  
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: "1"

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/8/2010  
 Date: 5:05:19 PM  
 Acq. Time: 5:05:19 PM  
 Modified: No



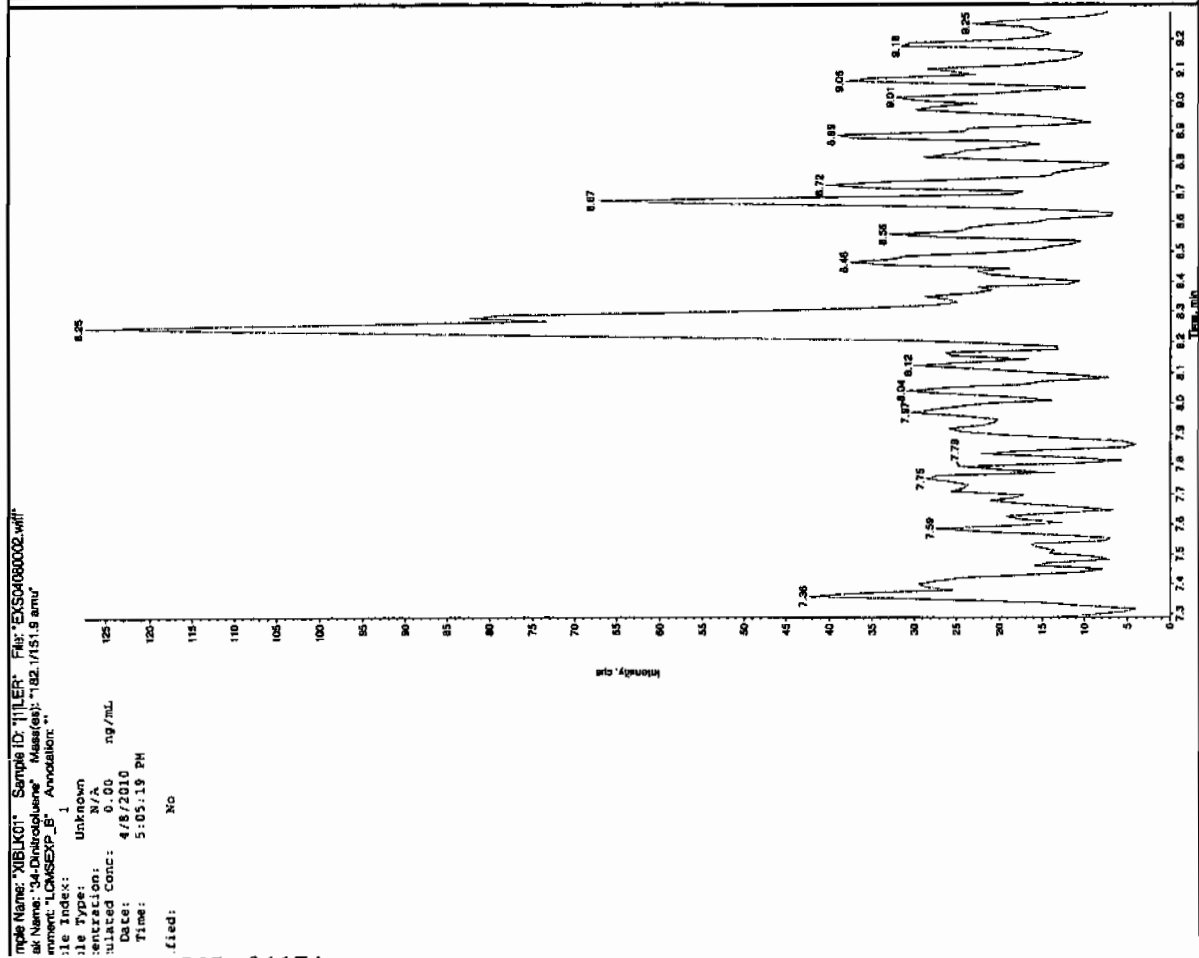
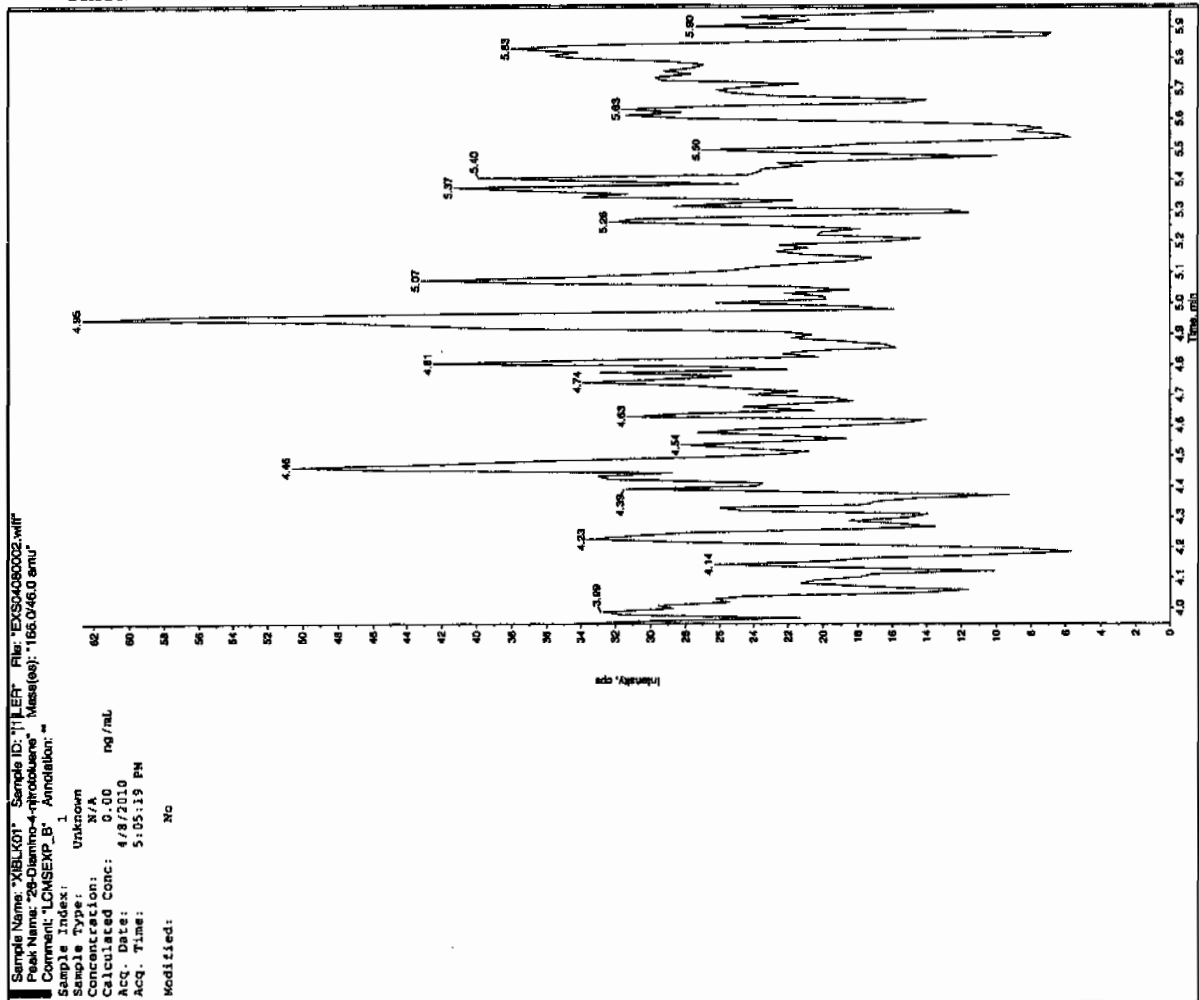
Sample Name: "XBLX01" Sample ID: "111ER" File: "EX504080002.wif"  
 Peak Name: "35-Chloroaniline" Mass(es): "182.0463 amu"  
 Comment: "LCMSEXP\_B" Annotation: "1"

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/8/2010  
 Date: 5:05:19 PM  
 Acq. Time: 5:05:19 PM  
 Modified: No



See 4/12/10



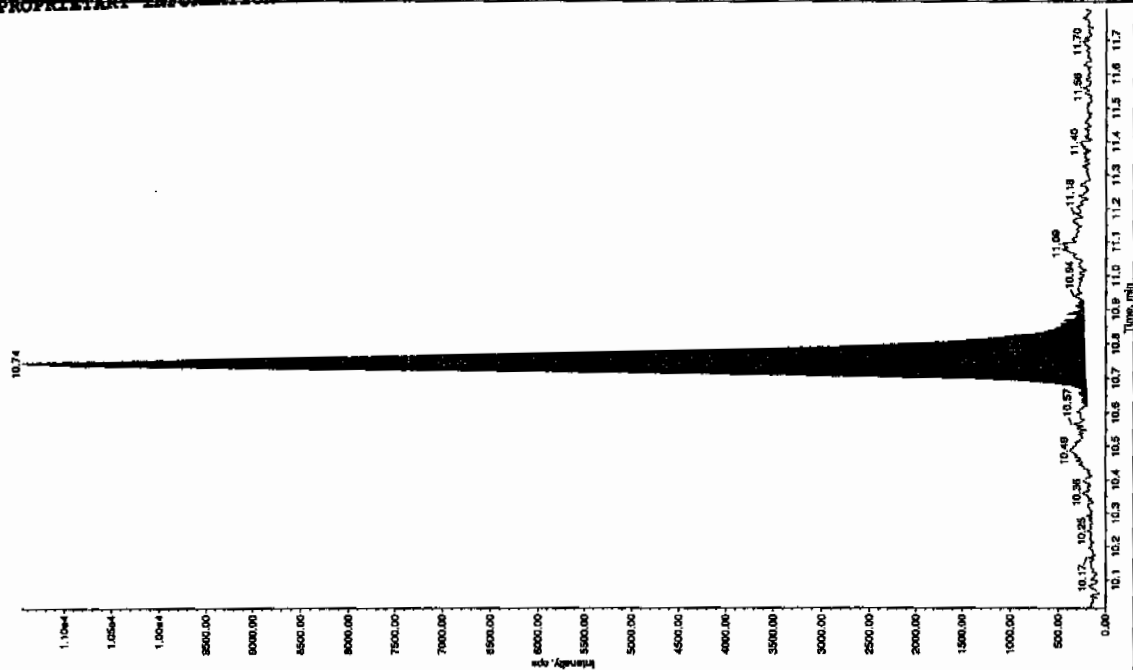


L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



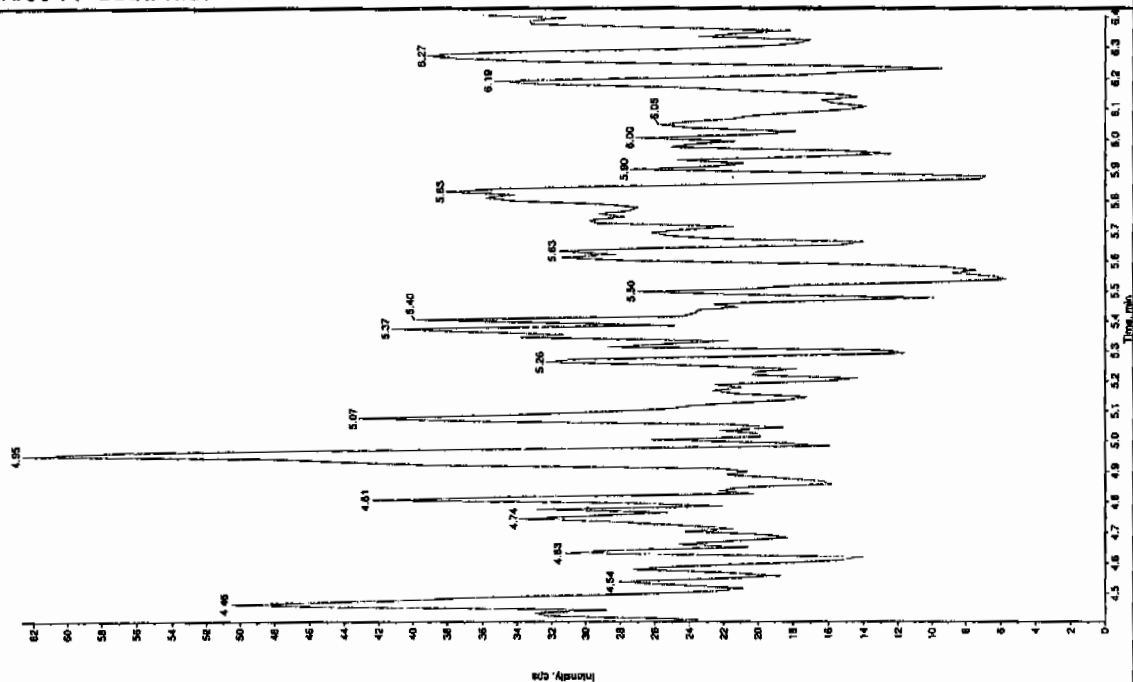
Sample Name: 'XIBLX01' Sample ID: '117ER' File: 'EX04060002.wif'  
 Peak Name: '100-cresyl phosphate' Mass(es): '369.191.0 amu'  
 Comment: 'LCMSXP\_B' Annotation: ''

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4.8/10.0  
 Acq. Date: 4/8/2010  
 Acq. Time: 5:05:19 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: 10.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.7 min  
 Area: 4.30e+004 counts  
 Height: 11247.388 cps  
 Start Time: 10.6 min  
 End Time: 10.9 min



Sample Name: 'XIBLX01' Sample ID: '117ER' File: 'EX04060002.wif'  
 Peak Name: '24-Diamino-5-nitrocouens' Mass(es): '166.045.0 amu'  
 Comment: 'LCMSXP\_B' Annotation: ''

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4.8/10.0  
 Acq. Date: 4/8/2010  
 Acq. Time: 5:05:19 PM  
 Modified: No



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

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)
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
p-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

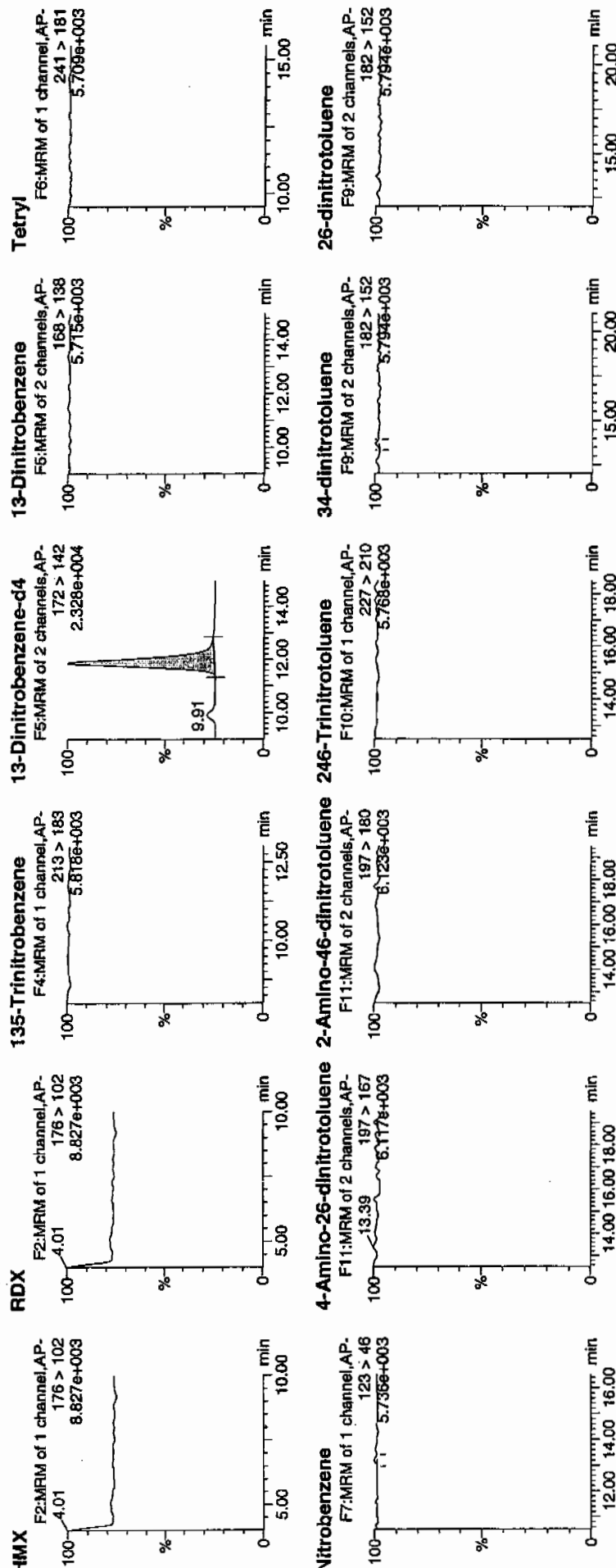
Time: 19:36:32

ID: XIBLK02

Vial: 1:1,A

WMT  
4/13/10

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Amn 04/14/10

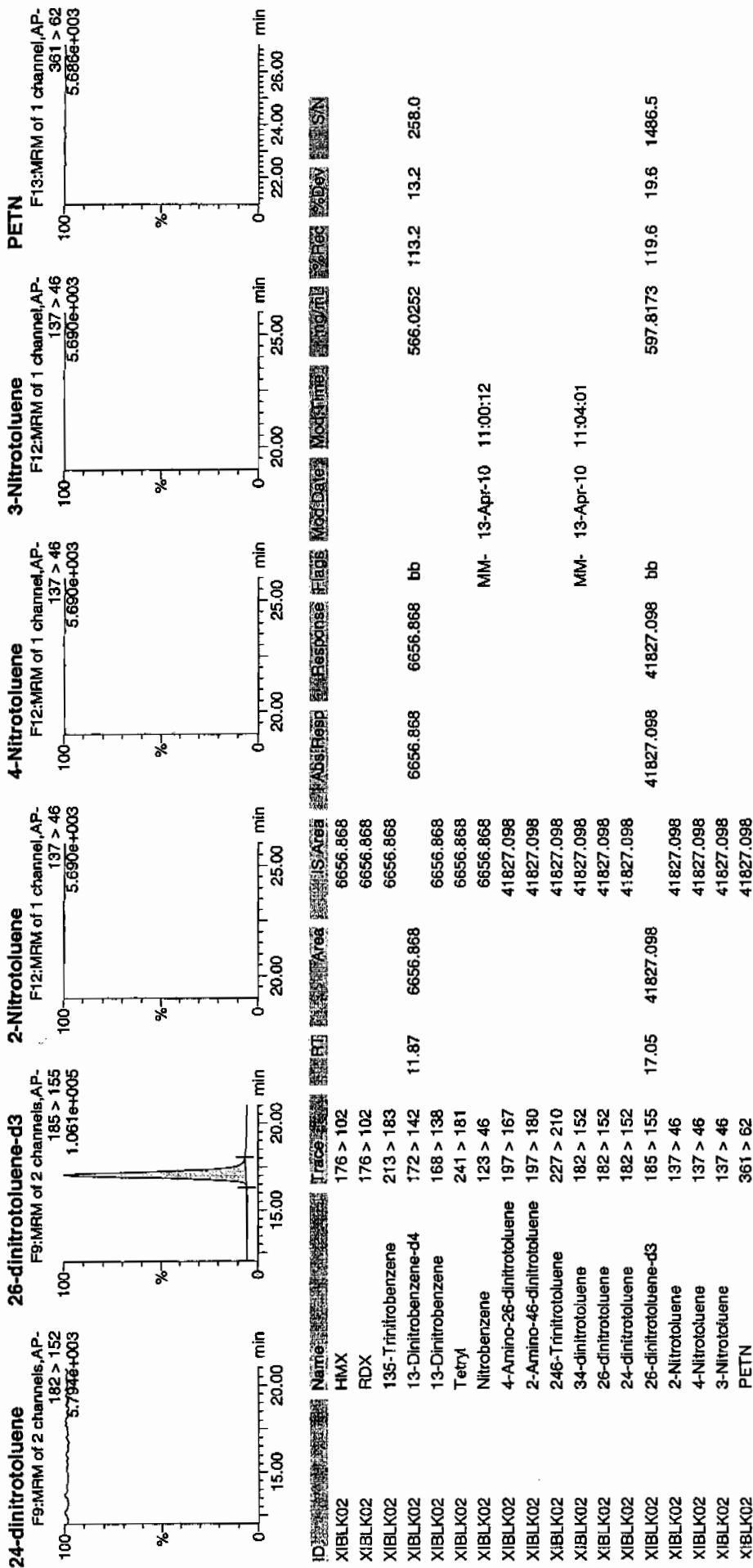


# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Perny

Printed: Tue Apr 13 11:14:26 2010, Page 18 of 77

Dataset: C:\MASSLYN\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): 10-2137

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)
p-Nitrotoluene	0	0
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



# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 21 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\EXP0412011a

Date: 12-Apr-2010

Time: 20:35:28

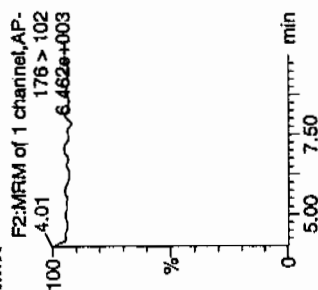
ID: XIBLK03

Vial: 1:1,A

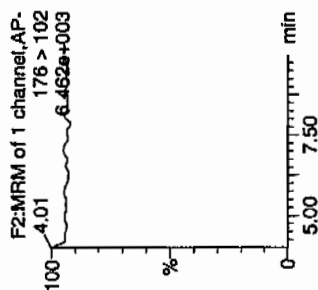
10/17  
q13100

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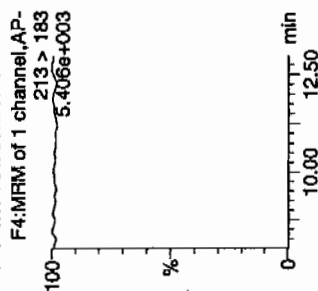
HMx



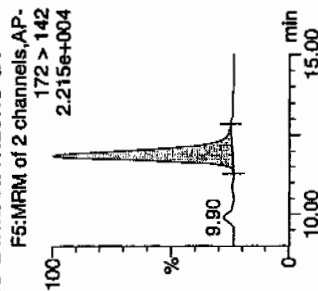
RDX



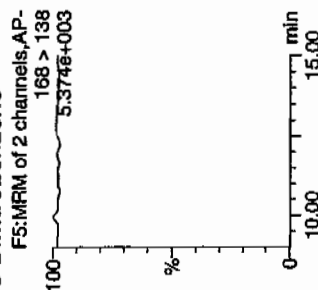
135-Trinitrobenzene



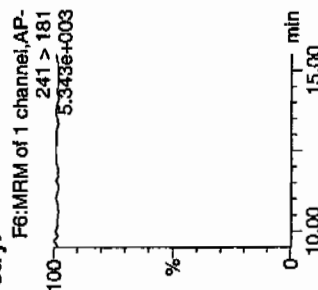
13-Dinitrobenzene-d4



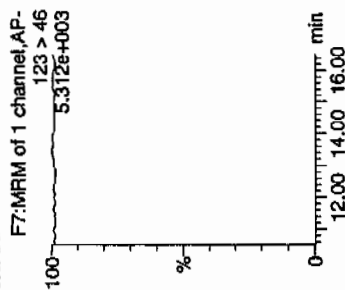
13-Dinitrobenzene



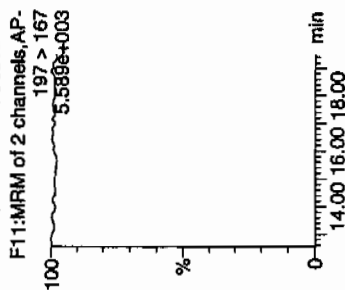
Tetryl



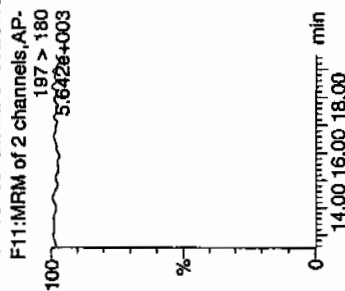
Nitrobenzene



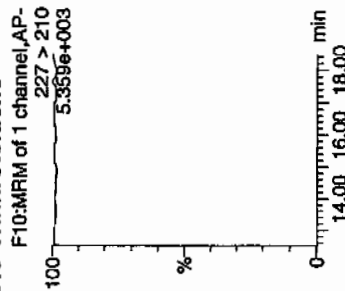
4-Amino-26-dinitrotoluene



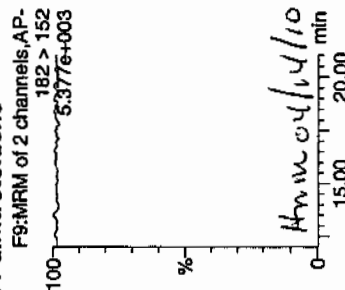
2-Amino-46-dinitrotoluene



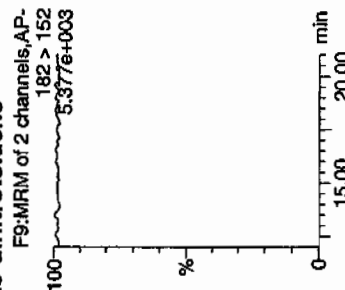
246-Trinitrotoluene



34-dinitrotoluene



26-dinitrotoluene



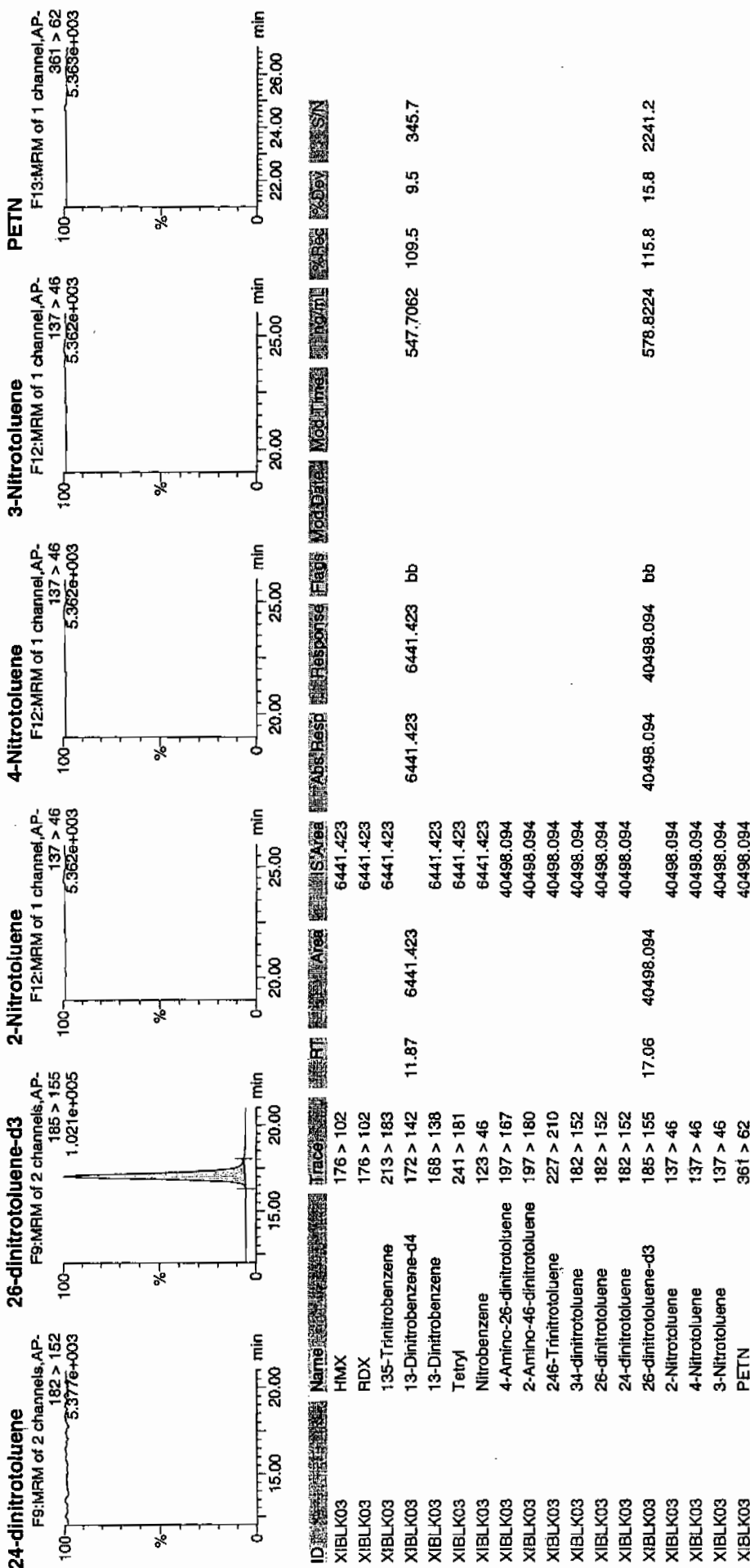


# Quantify Sample Report

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): 10-2137

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)
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
o-Nitrotoluene	0	0
p-Nitrotoluene	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

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412024a

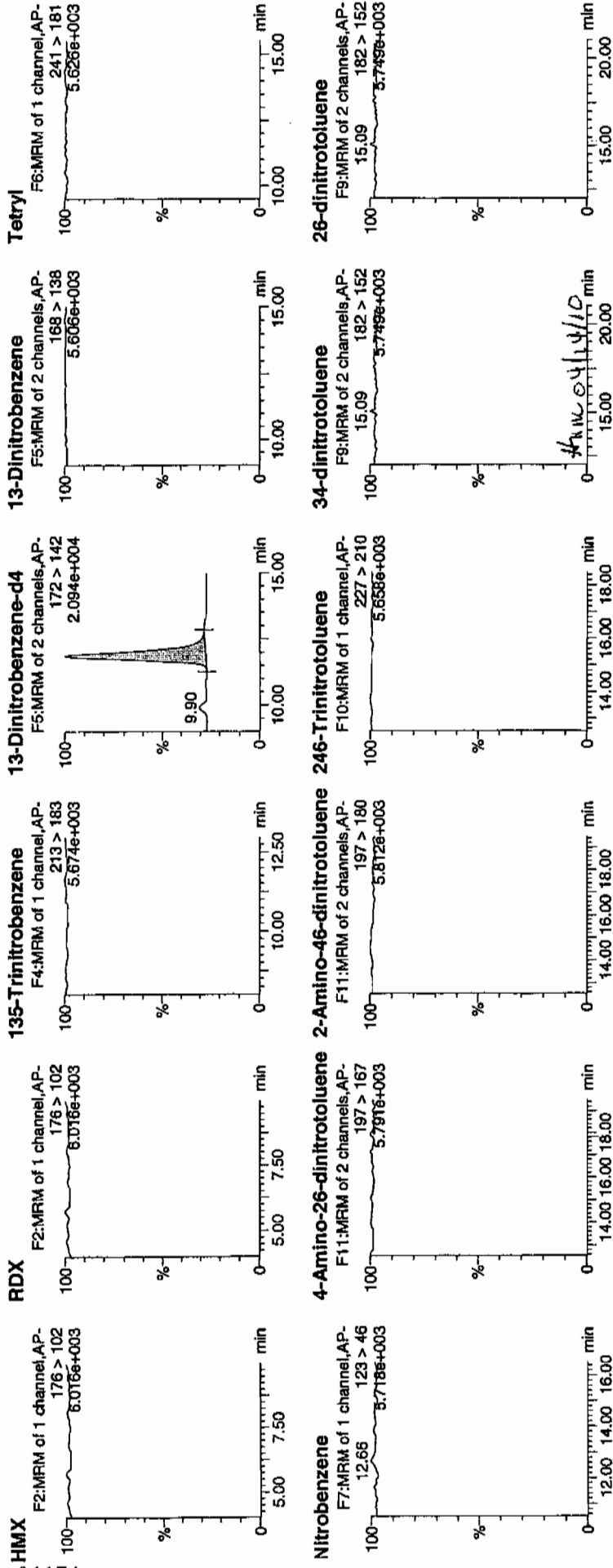
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Time: 02:58:51

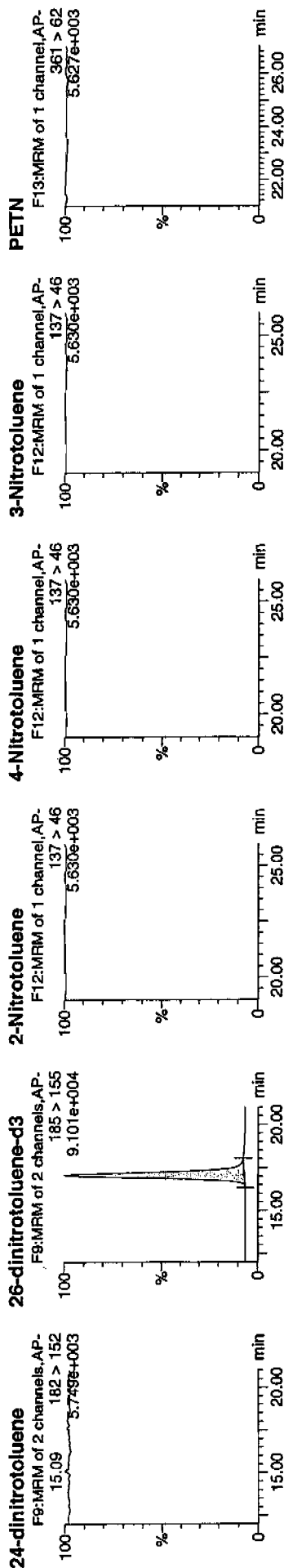
ID: XIBLK04

Vial: 1:1,A

4/13/10  
MJP





[illegible]



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

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)
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	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



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

Name: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0412037a

Date: 13-Apr-2010

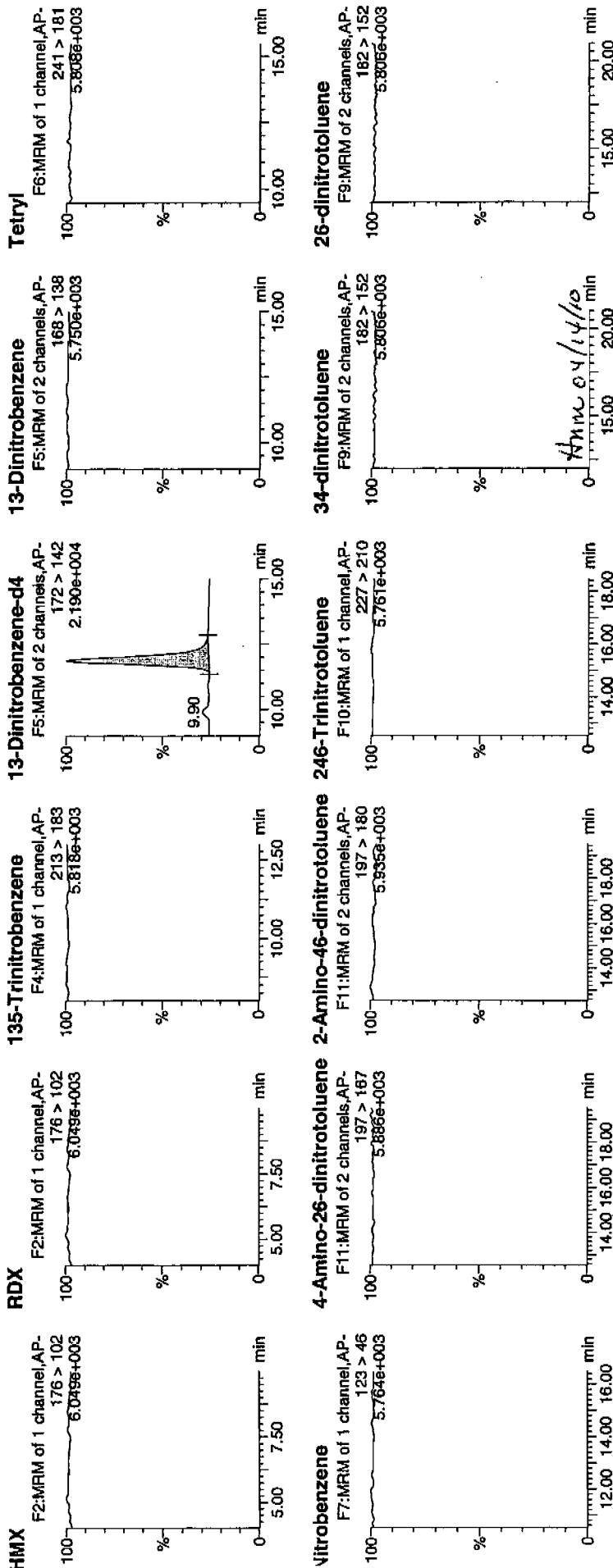
Time: 09:22:18

ID: XIBLK05

Vial: 1:1,A

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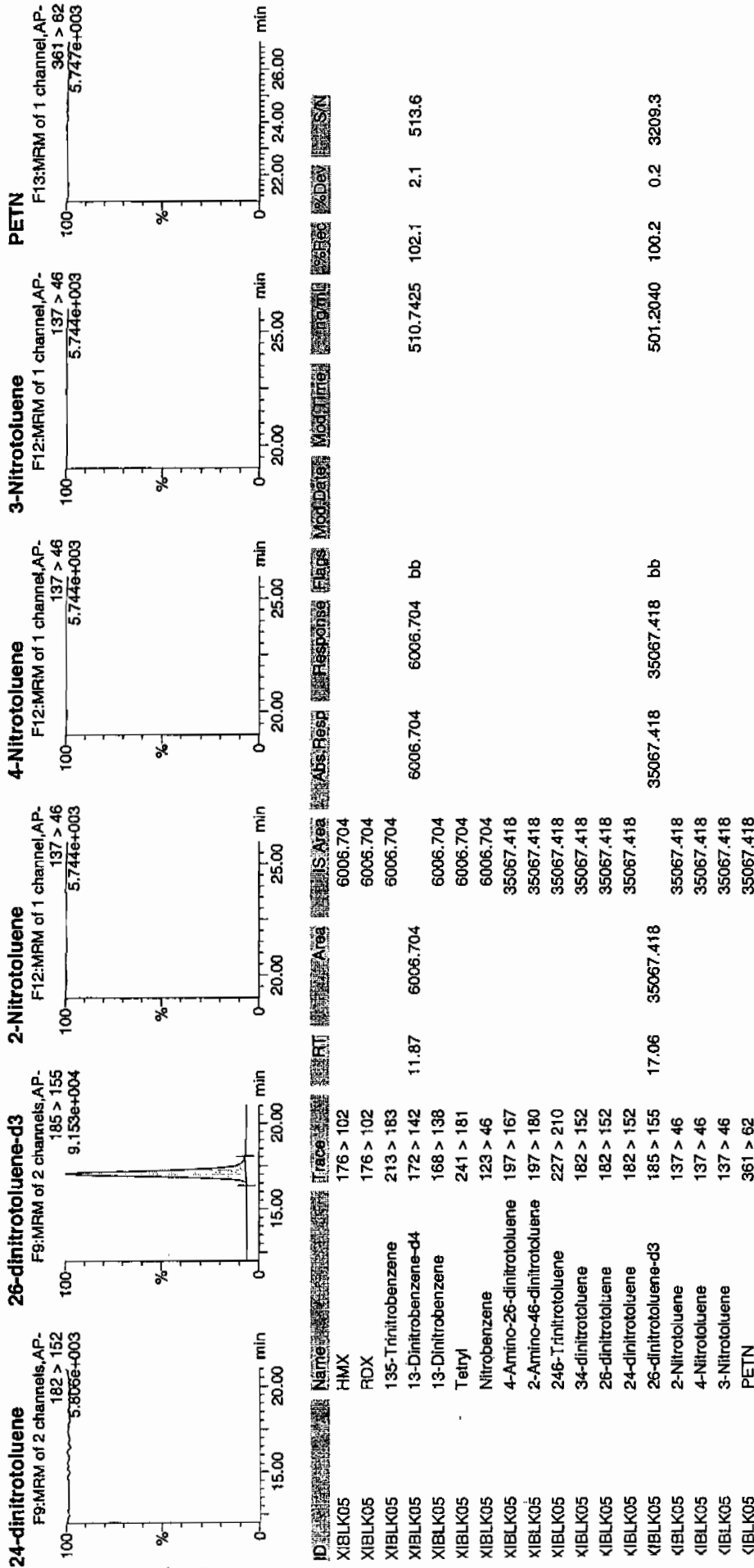


# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 74 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): 10-2137

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)
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
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	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\EXP0412041a

Date: 13-Apr-2010

Time: 11:20:19

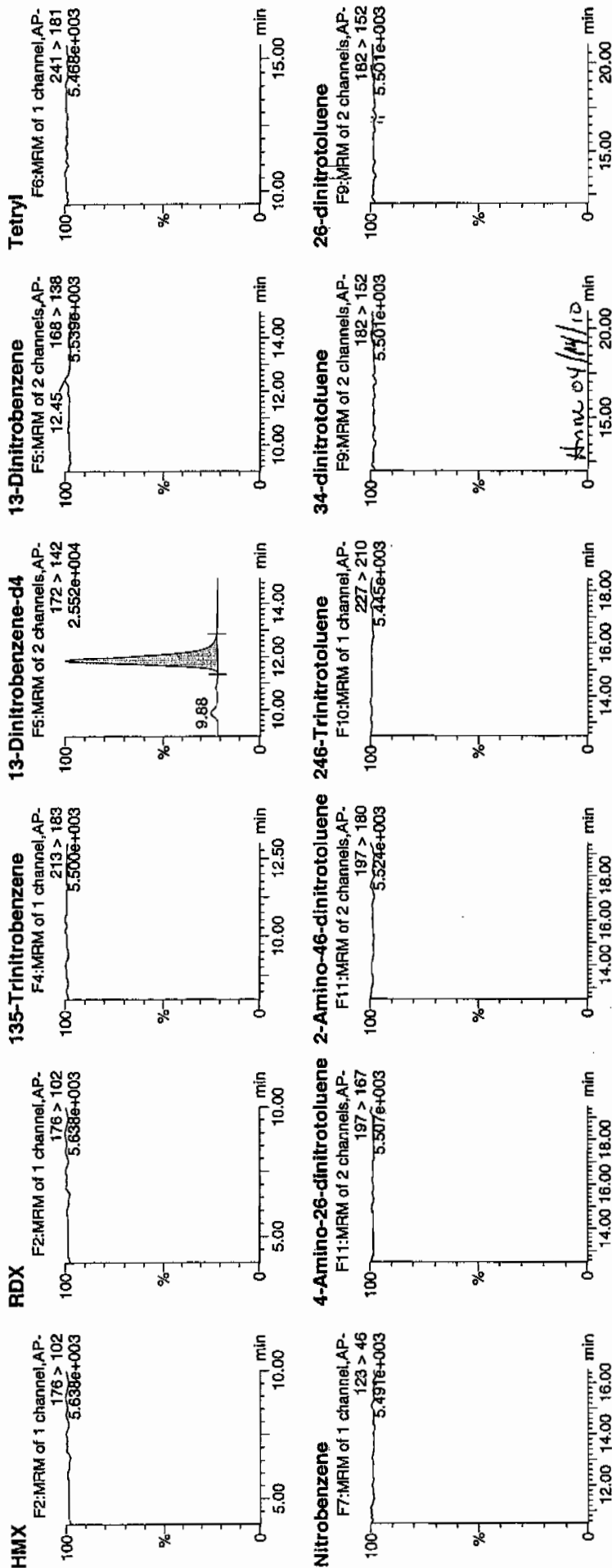
ID: XIBLK06

Vial: 1:1,A

WRT  
d/d/d

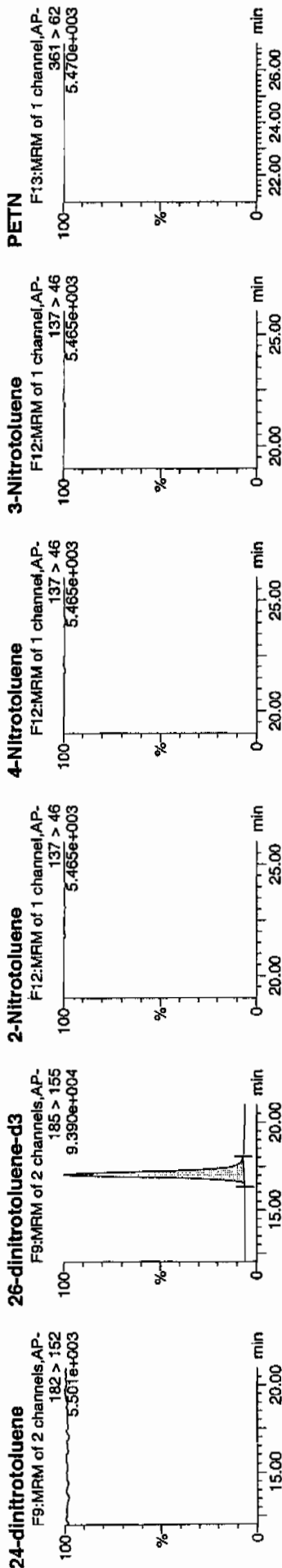
Page 580 of 1174

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Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Rec	Dev	Unit
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								



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

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)
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	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



# Quantify Sample Report

GEL 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

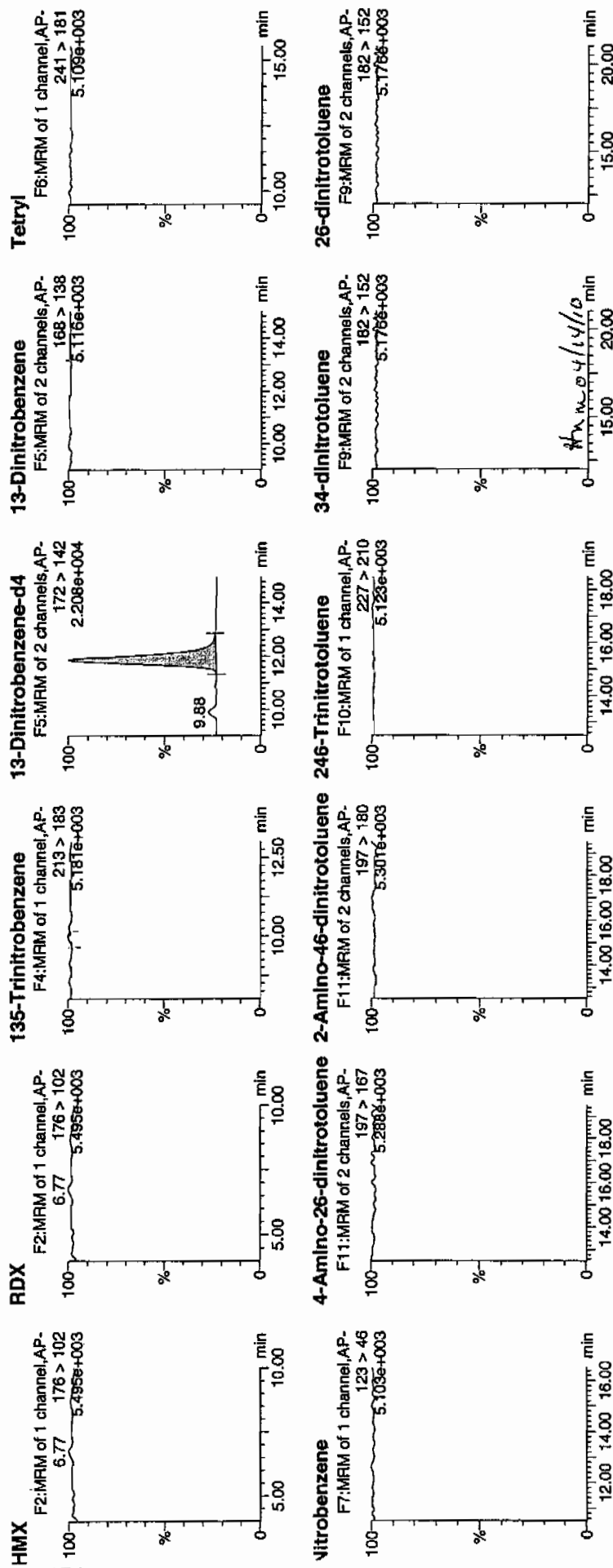
ID: XIBLK07

Vial: 1:1,A

4/14/10

Page 583

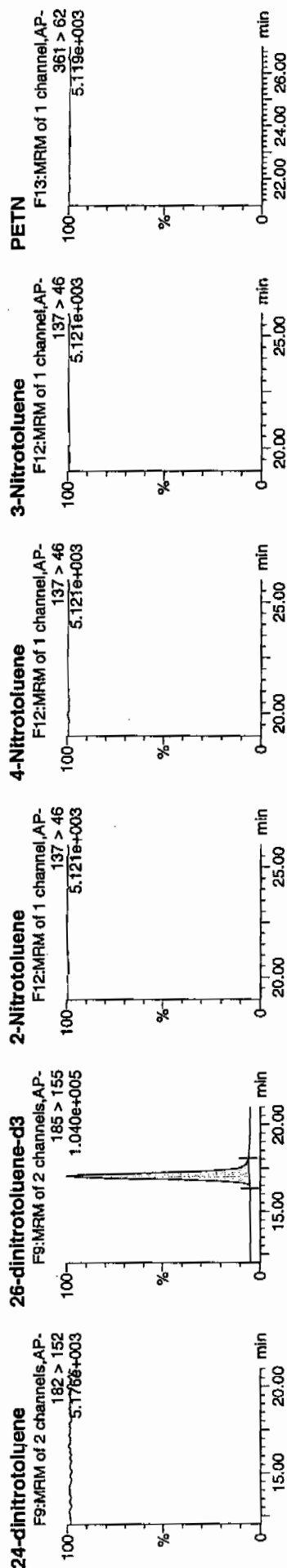
Qc 1174





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): 10-2137

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)
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
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0



Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412061a

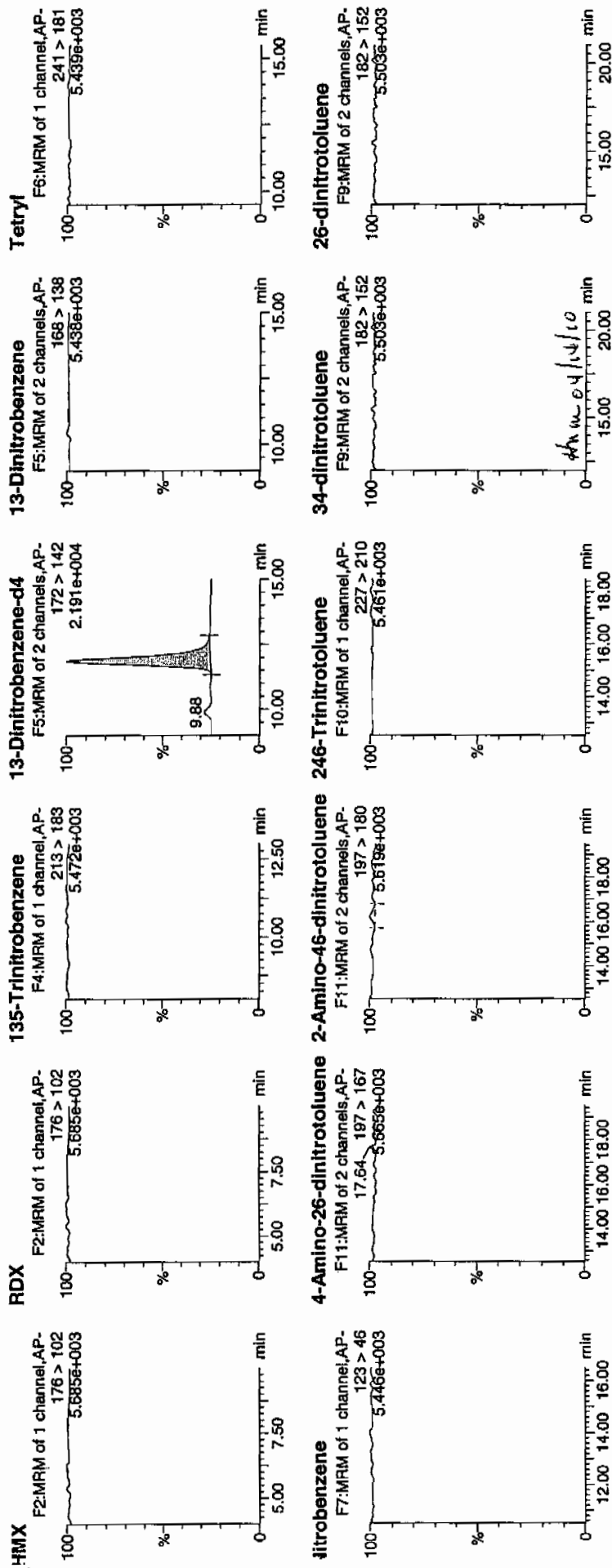
Date: 13-Apr-2010

Time: 21:10:49

ID: XIBLK08

Vial: 1:1,A

10/14/10  
4/14/10



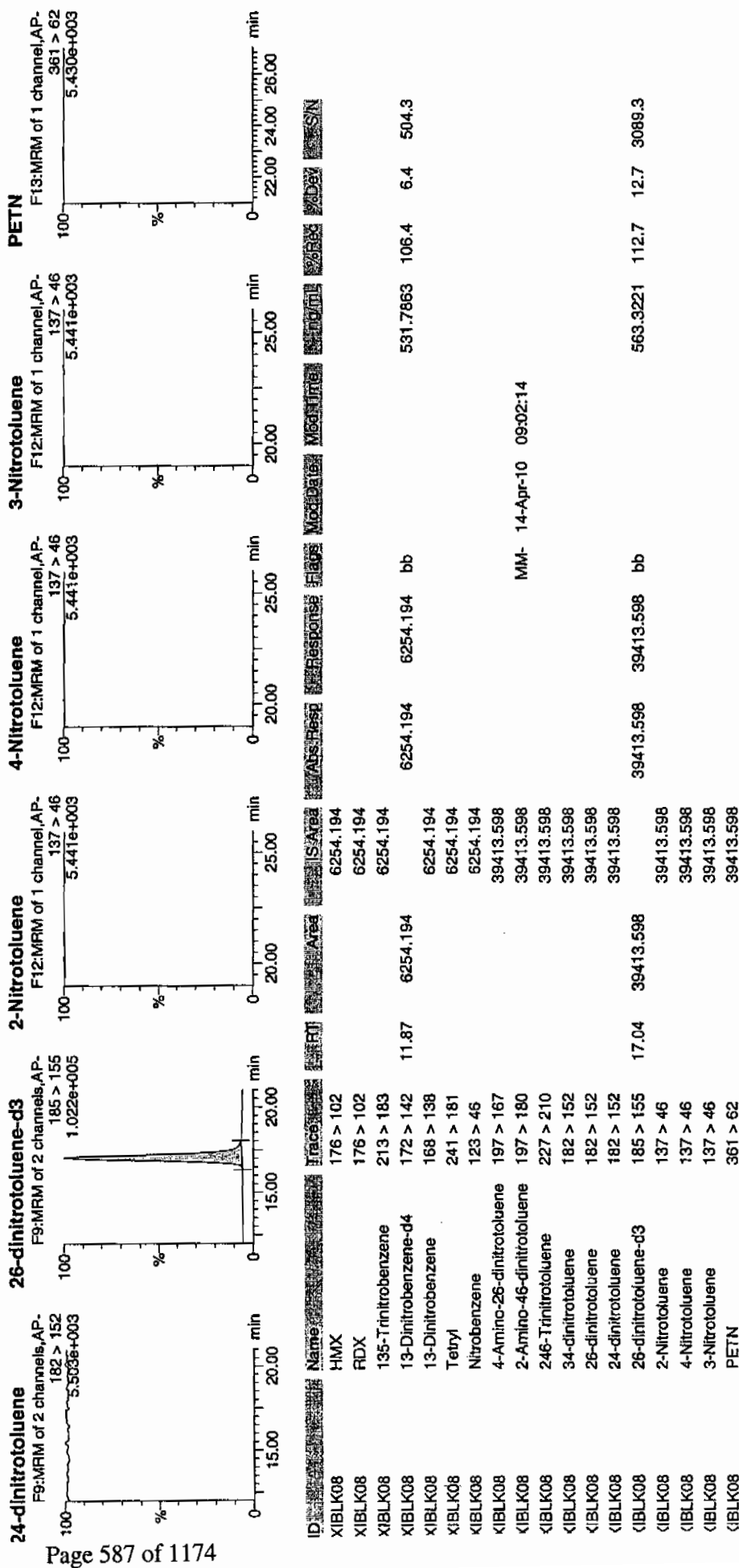


# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Wed Apr 14 09:18:04 2010, Page 46 of 75

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

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)
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	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



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412074a

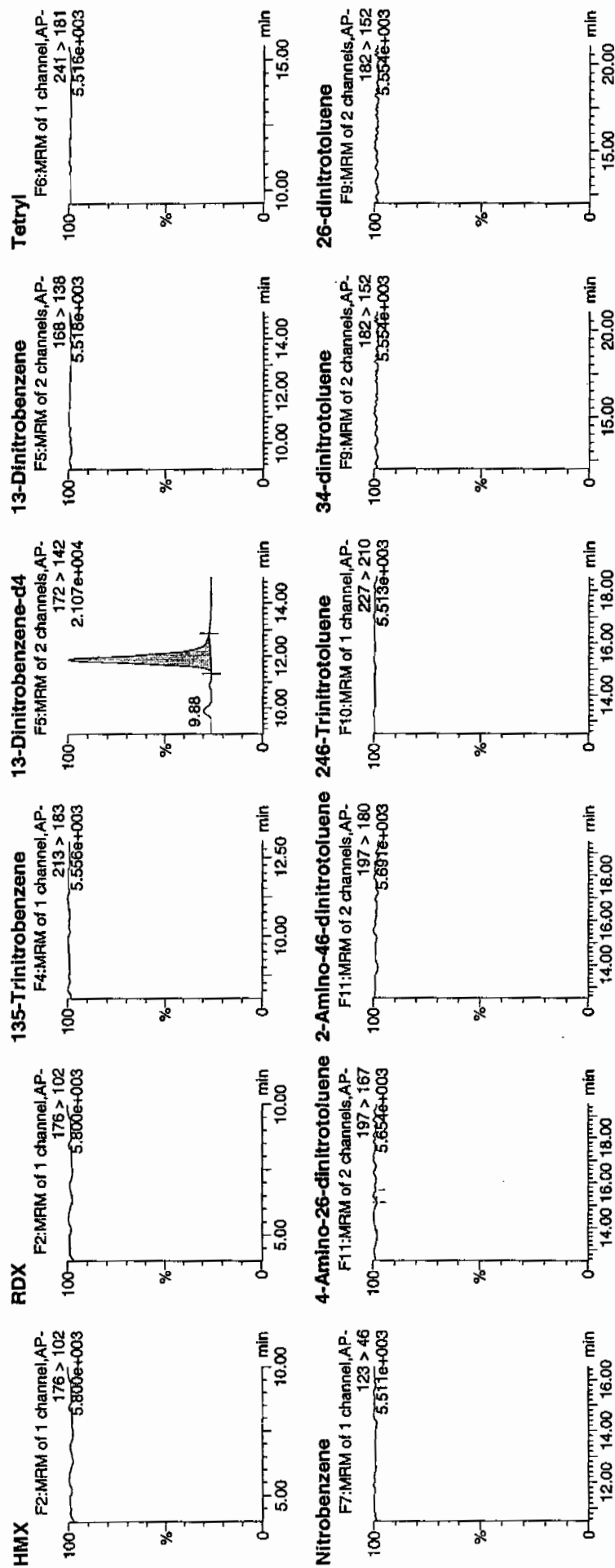
Date: 14-Apr-2010

Time: 03:34:13

ID: XIBLK09

Vial: 1:1,A

4/14/10  
MMP



4/14/10

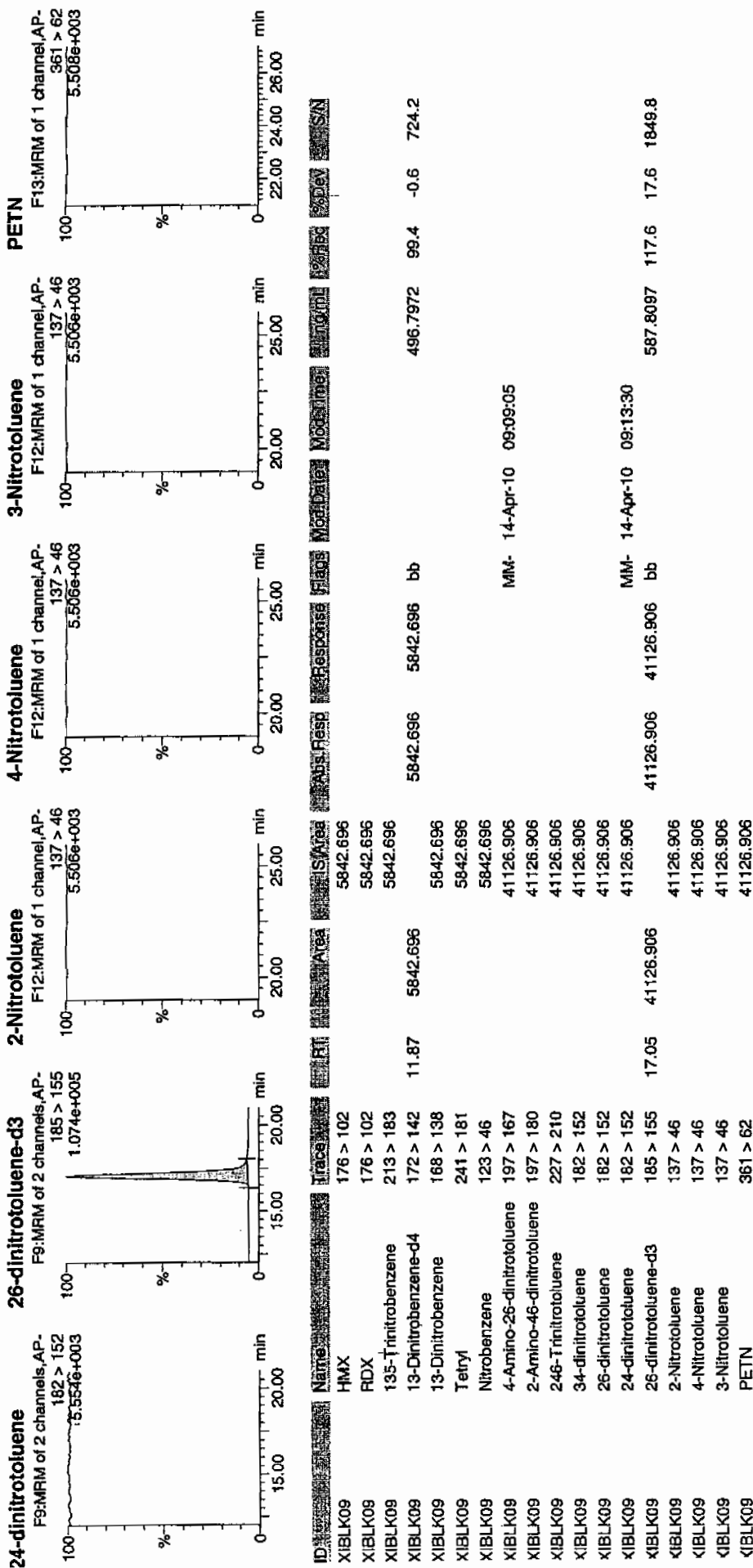


# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Apr 14 09:18:04 2010, Page 72 of 75

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): 10-2137

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)
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
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\EXP0412082a

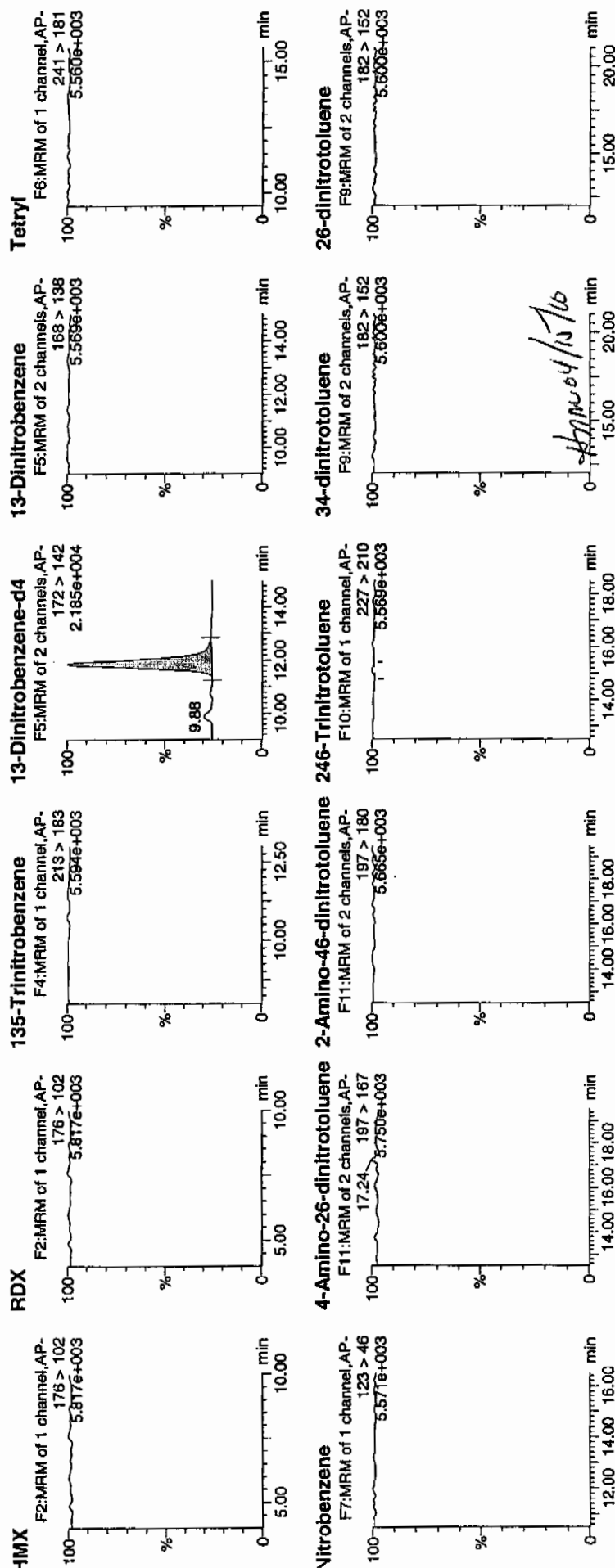
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Time: 07:30:08

ID: XIBLK10

Vial: 1:1,F

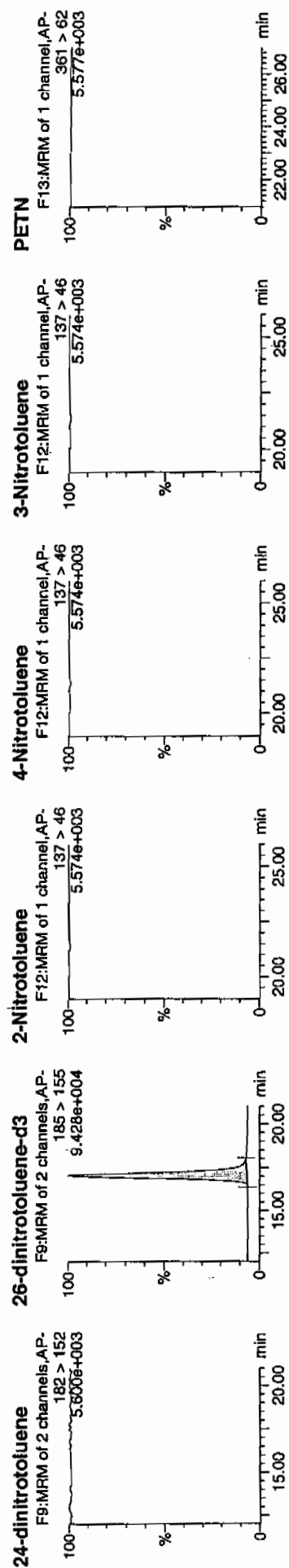
*MT  
4/15/10*





Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

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)
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
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



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412085a

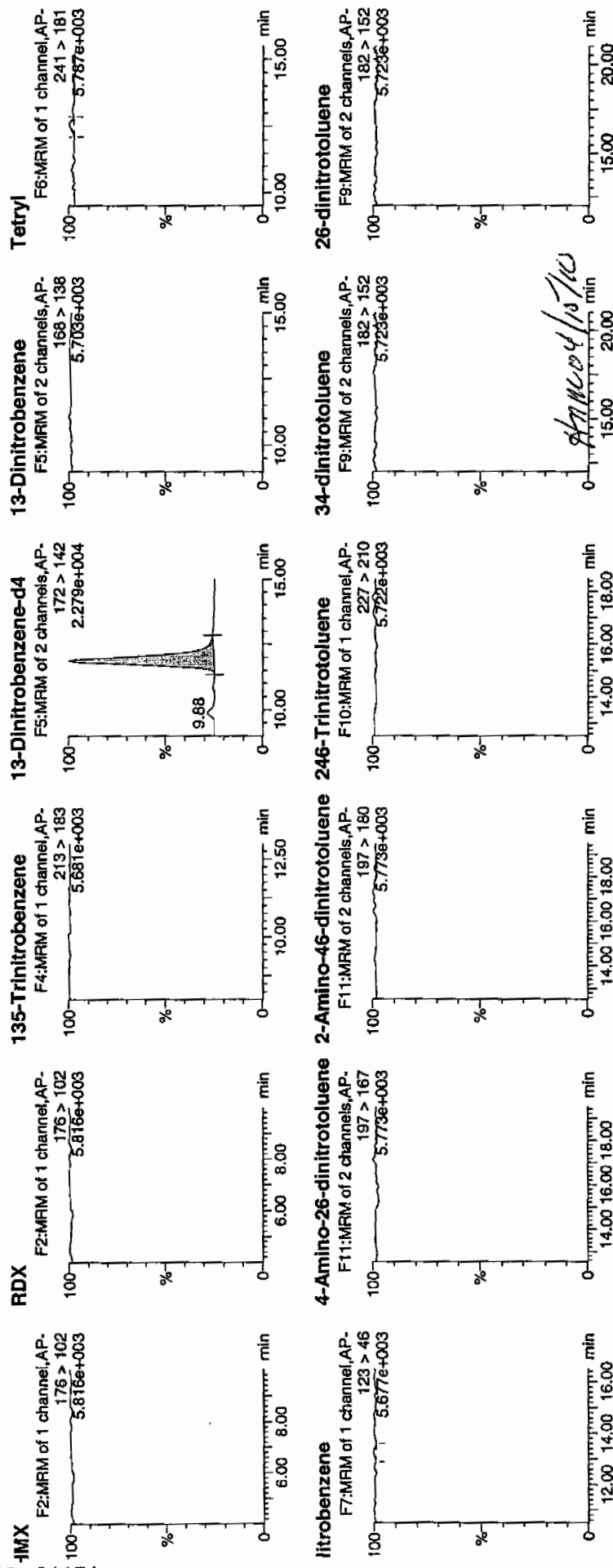
Date: 14-Apr-2010

Time: 08:58:45

D: XIBLK11

/ial: 1:1,F

*100%  
4/15/10*



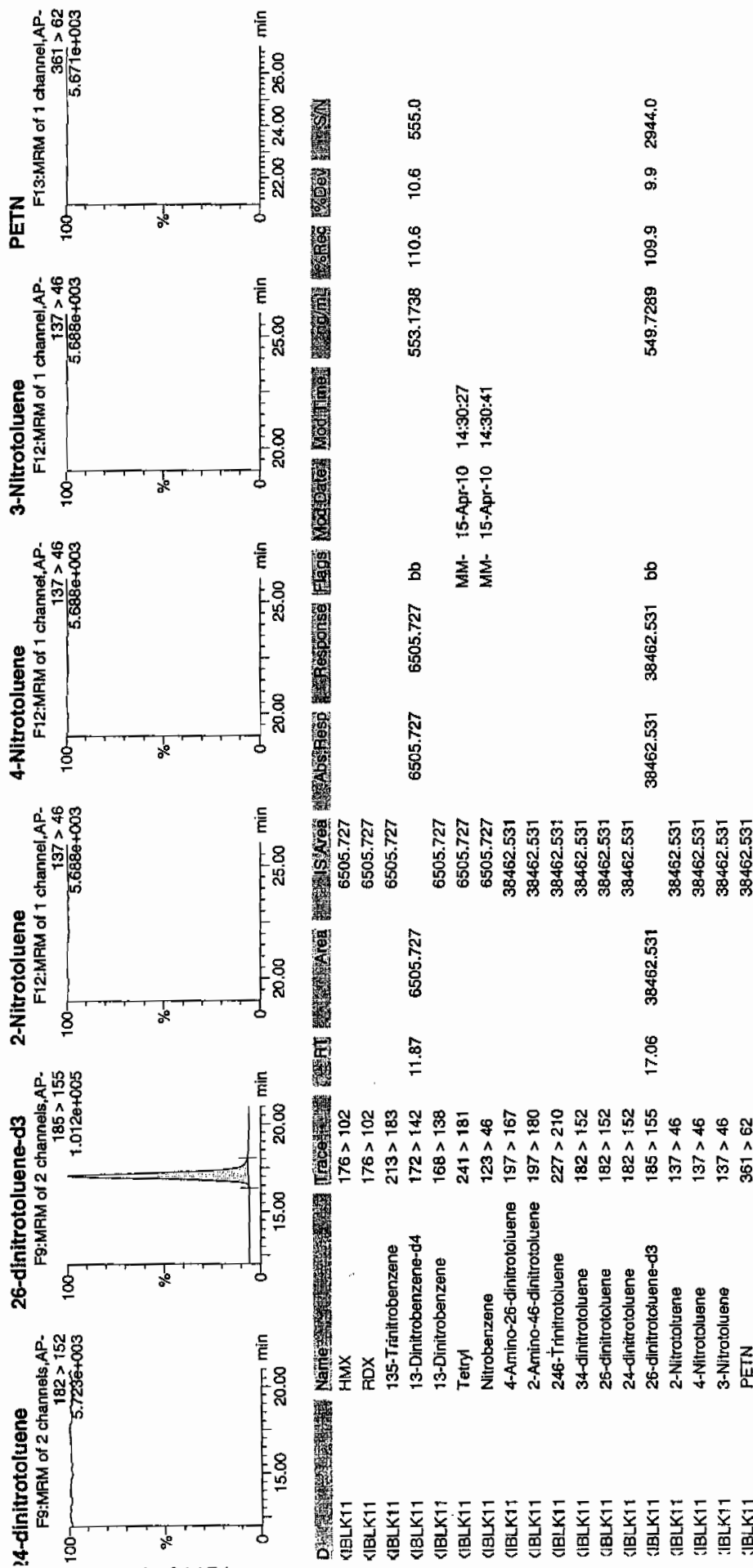


# Quantity Sample Report

SEL 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





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

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)
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
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: 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

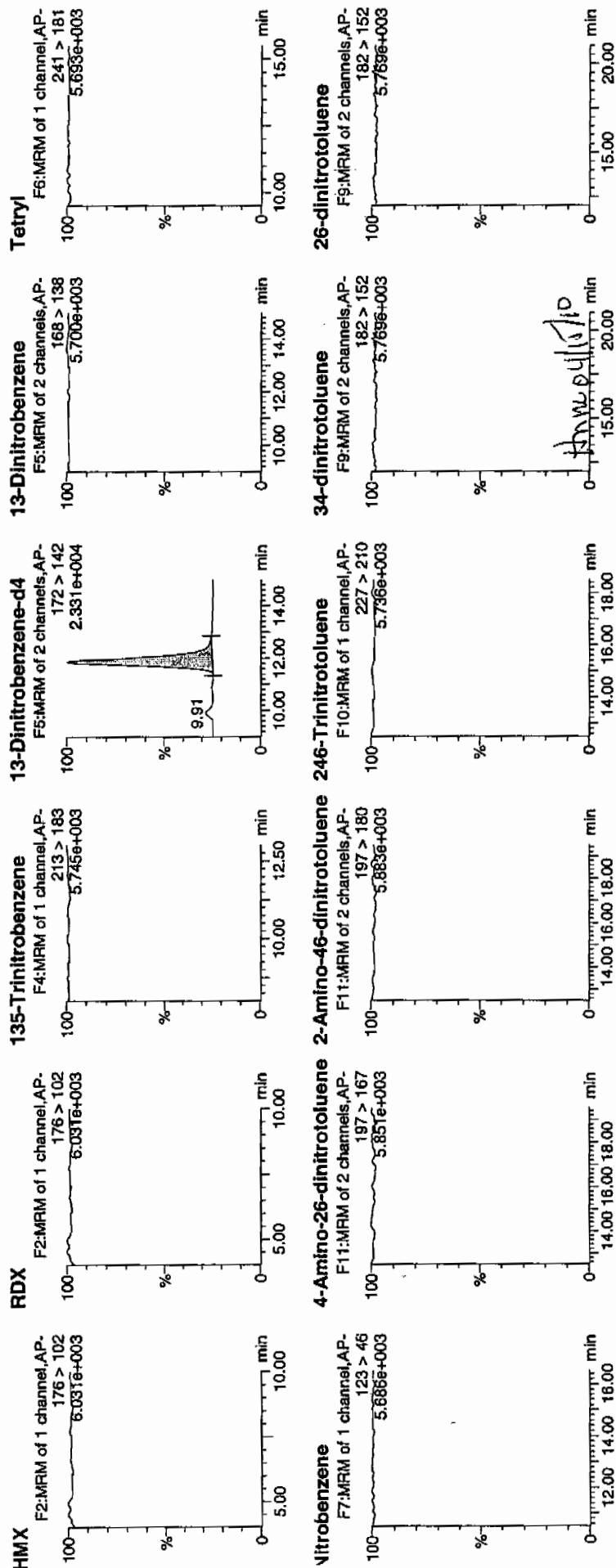
Time: 09:57:47

ID: XIBLK12

Vial: 1:1,A

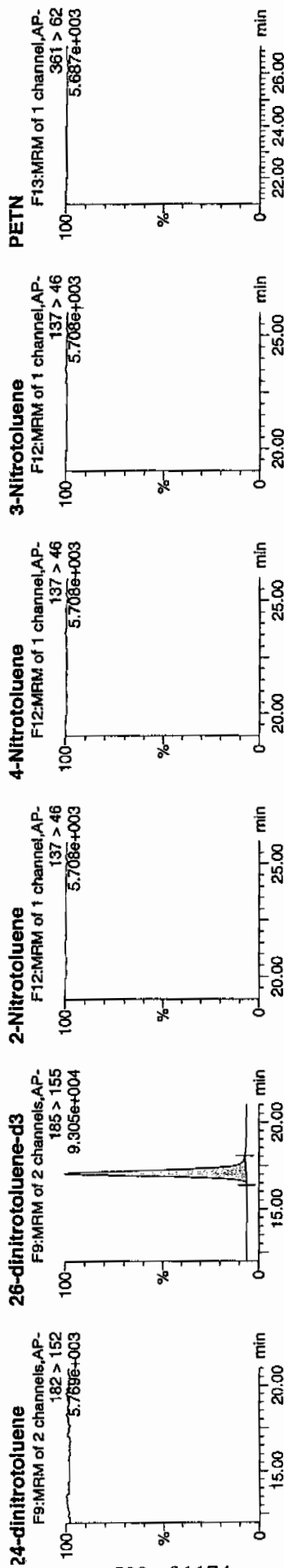
11.17  
41.510

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Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



ID	Name	Instr.	Rt	Fractional Area	Total Area	Abs Resp	Response	Flags	Mod Date	Mechanism	Tox/ml	Dose	S/N
I\BLK12	HMX	76 > 102			6808.449								
I\BLK12	RDX	176 > 102			6808.449								
I\BLK12	135-Trinitrobenzene	213 > 183			6808.449								
I\BLK12	13-Dinitrobenzene-d4	172 > 142	11.87	6808.449		6808.449	6808.449	bb			561.9082	112.4	663.6
I\BLK12	13-Dinitrobenzene	168 > 138											
I\BLK12	Tetryl	241 > 181			6808.449								
I\BLK12	Nitrobenzene	123 > 46			6808.449								
I\BLK12	4-Amino-26-dinitrotoluene	197 > 167			35875.754								
I\BLK12	2-Amino-46-dinitrotoluene	197 > 180			35875.754								
I\BLK12	246-Trinitrotoluene	227 > 210			35875.754								
I\BLK12	34-dinitrotoluene	182 > 152			35875.754								
I\BLK12	26-dinitrotoluene	182 > 152			35875.754								
I\BLK12	24-dinitrotoluene	182 > 152			35875.754								
I\BLK12	26-dinitrotoluene-d3	185 > 155	17.05	35875.754		35875.754	35875.754	bb			512.7572	102.6	1347.0
I\BLK12	2-Nitrotoluene	137 > 46			35875.754								
I\BLK12	4-Nitrotoluene	137 > 46			35875.754								
I\BLK12	3-Nitrotoluene	137 > 46			35875.754								
I\BLK12	PETN	361 > 62			35875.754								



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

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)
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	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



Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412091a

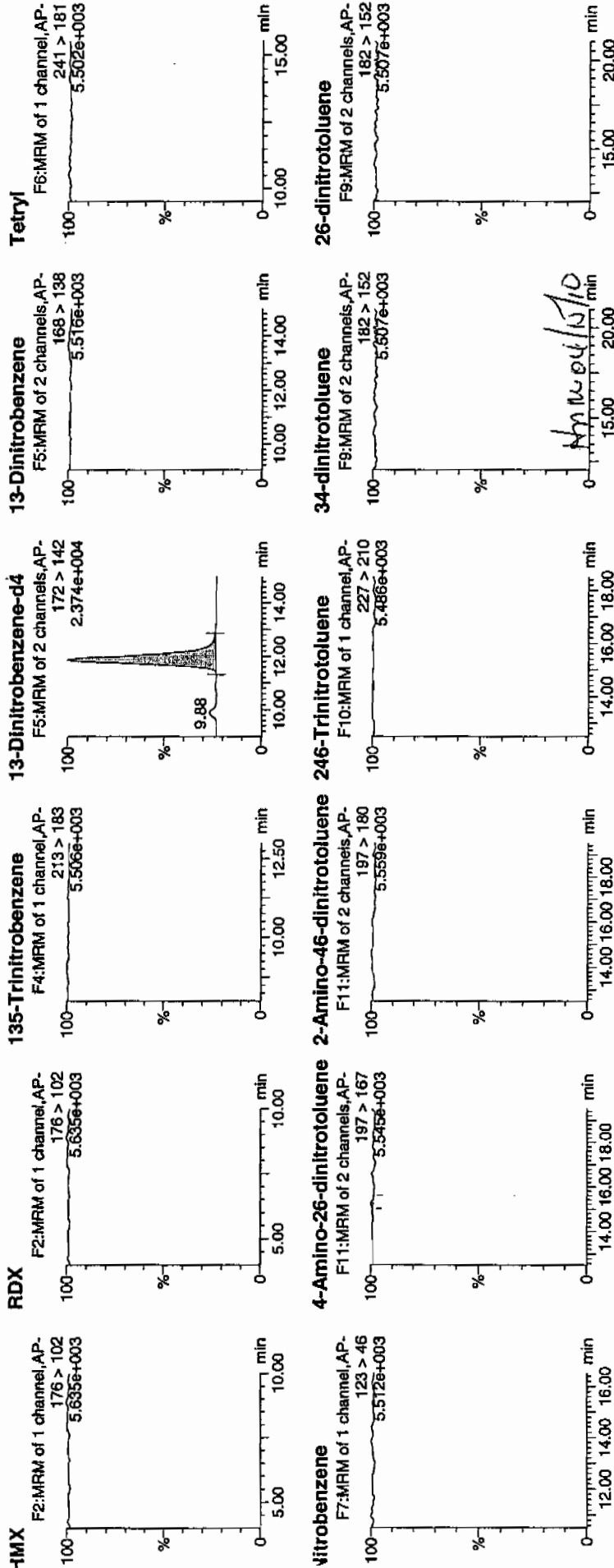
Date: 14-Apr-2010

Time: 11:55:46

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Vial: 1:1,F

4/15/10



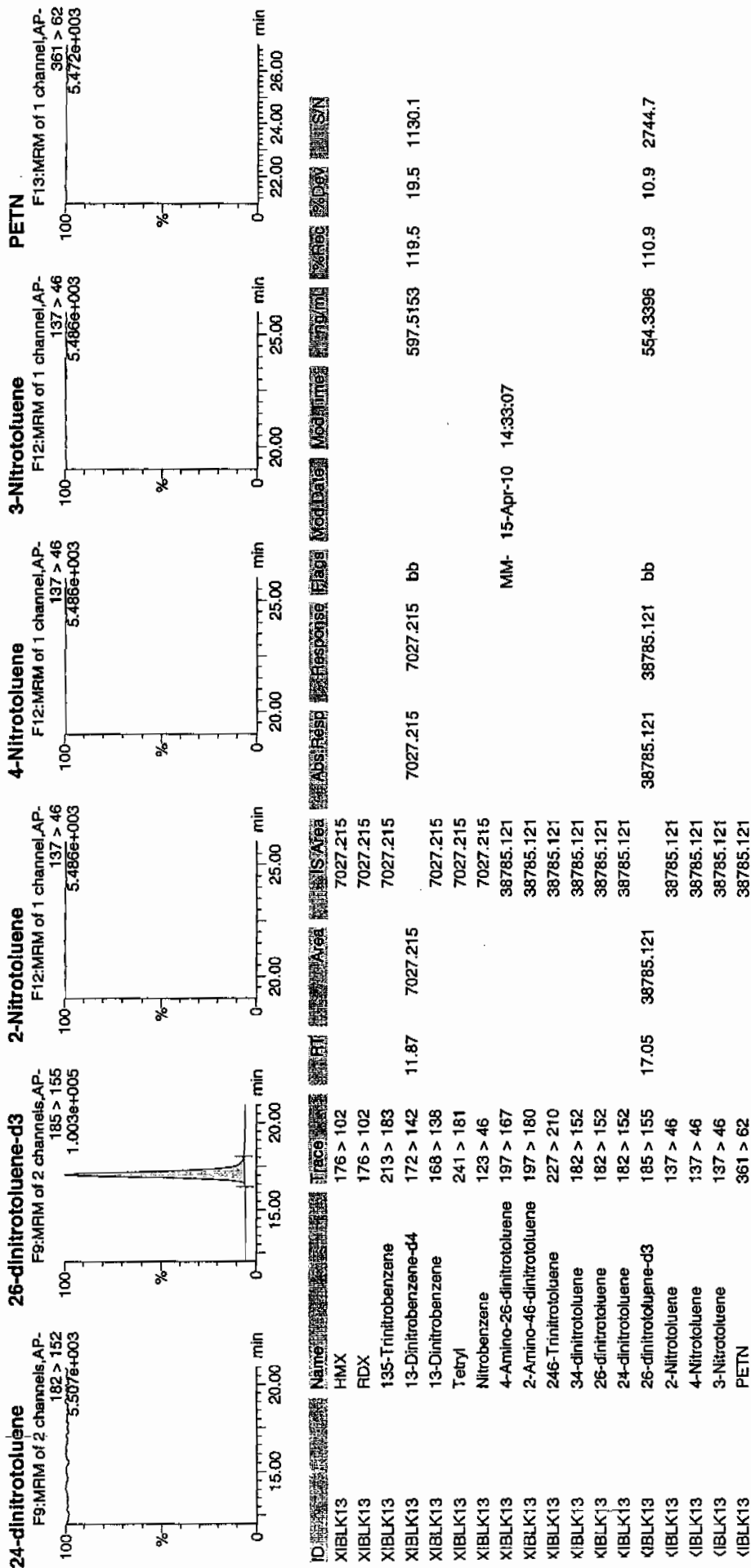


# Quantity Sample Report

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): 10-2137

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)
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
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  
 EEL 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\EXP0412098a

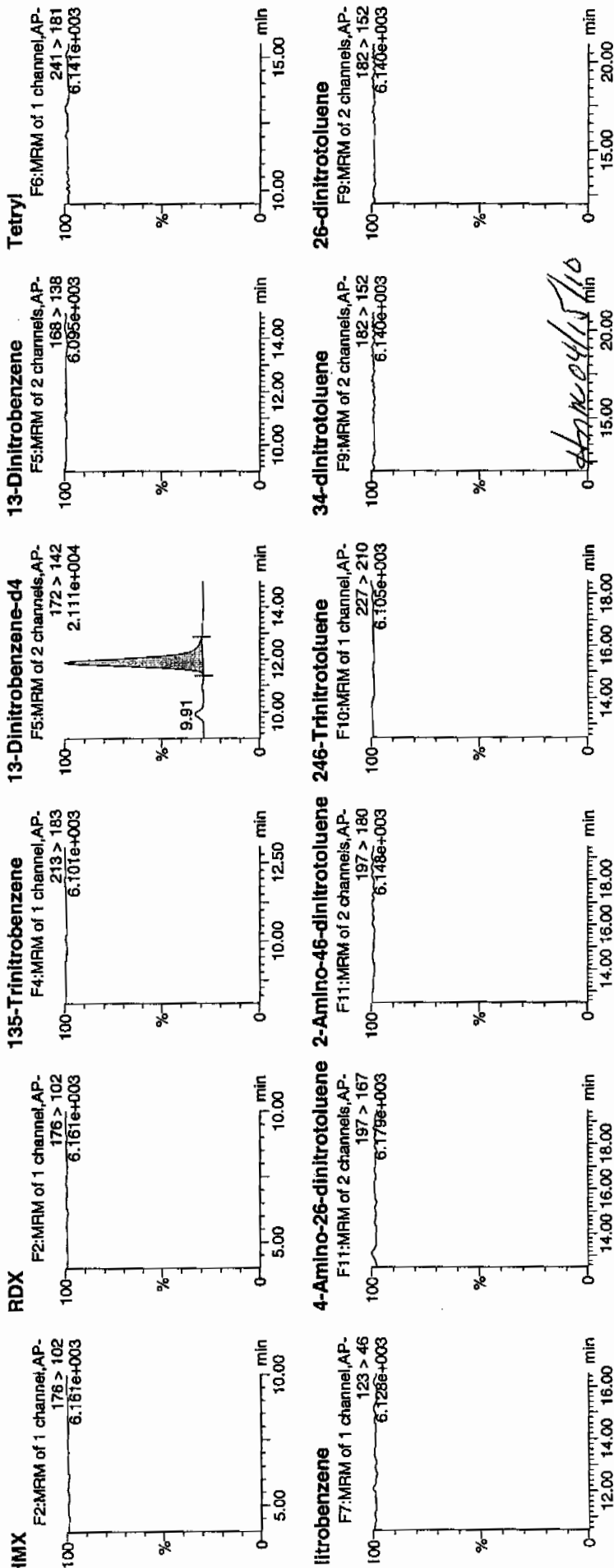
Date: 14-Apr-2010

Time: 15:22:16

D: XIBLK14

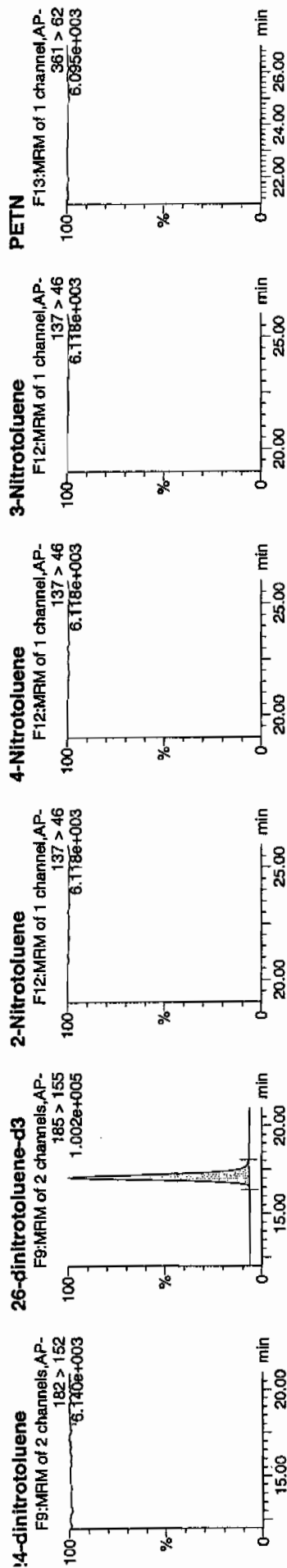
Ratio: 1:1,F

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Dataset: C:\MASSLYN\New\_Exp\PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

[illegible]



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

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

GEL Laboratories, LLC / Analyst : Michael A. Penny

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Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412100a

Date: 14-Apr-2010

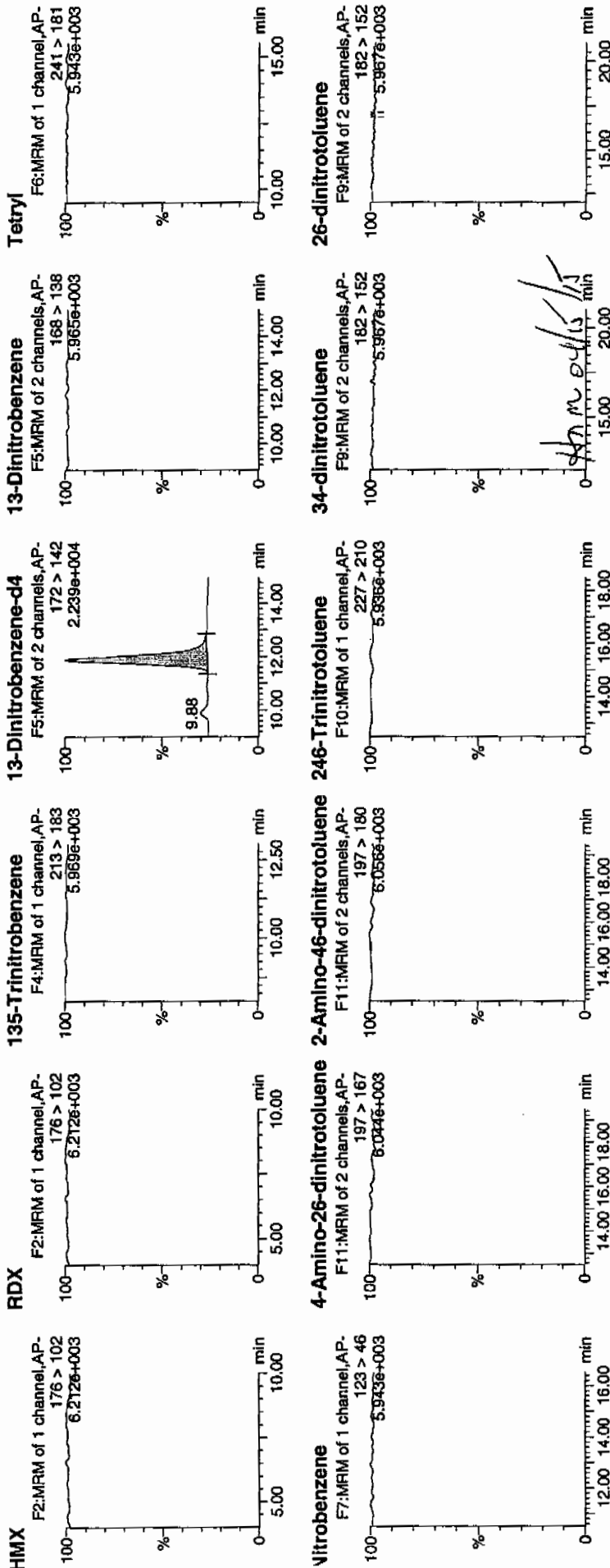
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ID: XIBLK15

Vial: 1:1,A

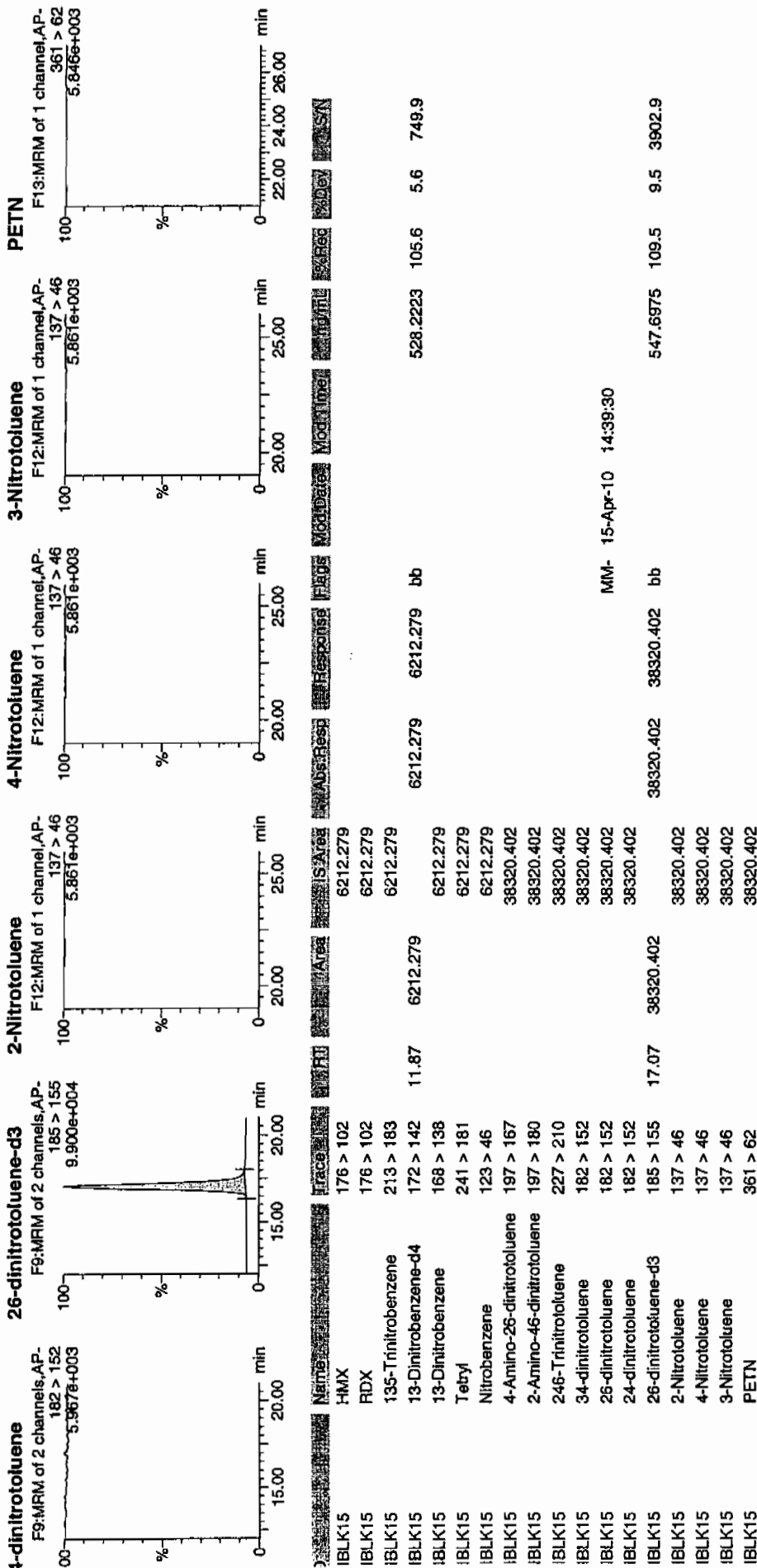
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ataset: C:\MASSLYN\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

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)
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	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



# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 71 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\EXP0412111a

Date: 14-Apr-2010

Time: 21:45:50

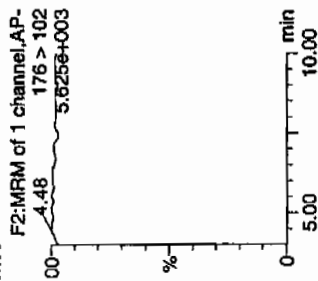
ID: XIBLK16

Vial: 1:1,A

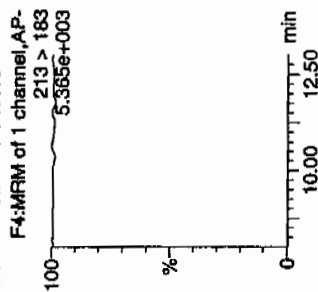
100%  
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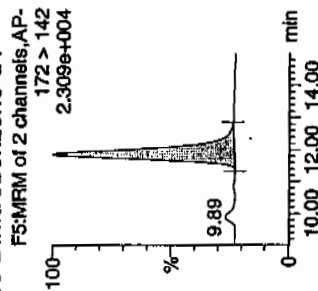
## RDX



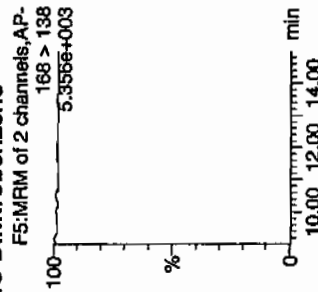
## 135-Trinitrobenzene



## 13-Dinitrobenzene-d4



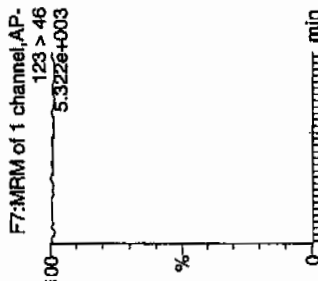
## 13-Dinitrobenzene



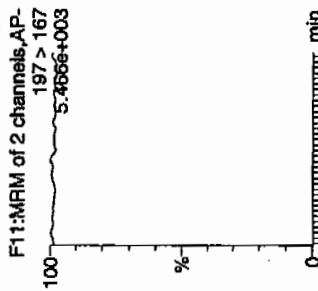
## Tetryl



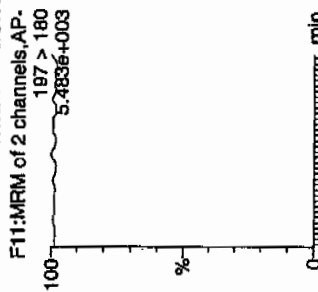
## Vitrobenzene



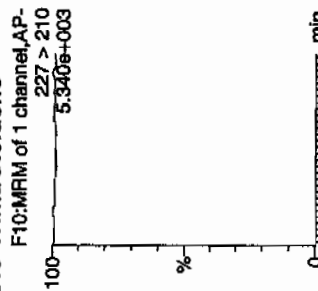
## 4-Amino-26-dinitrotoluene



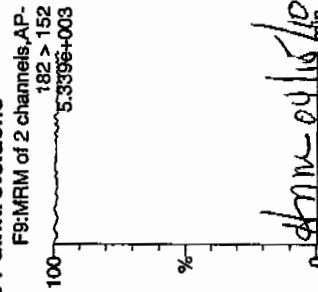
## 2-Amino-46-dinitrotoluene



## 246-Trinitrotoluene



## 34-dinitrotoluene

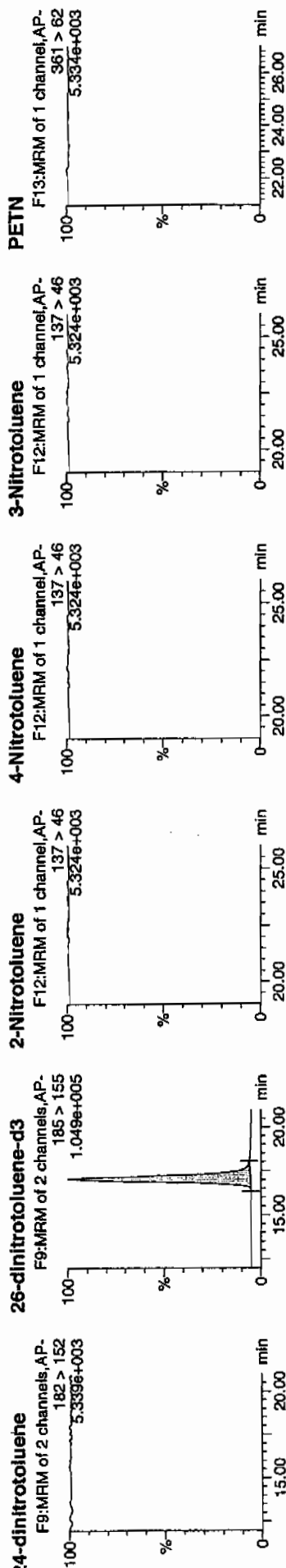


## 26-dinitrotoluene





Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



ID	Name	Trace	RT	Area	S Area	Abs Resp	Responses	Flags	MiddleTime	Ratio ml	% Rec	P Day	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	15.6	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	17.2	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			40989.270								



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK17

Analysis Date: 15-APR-10 04:09

GEL Data File: EXP0412124a

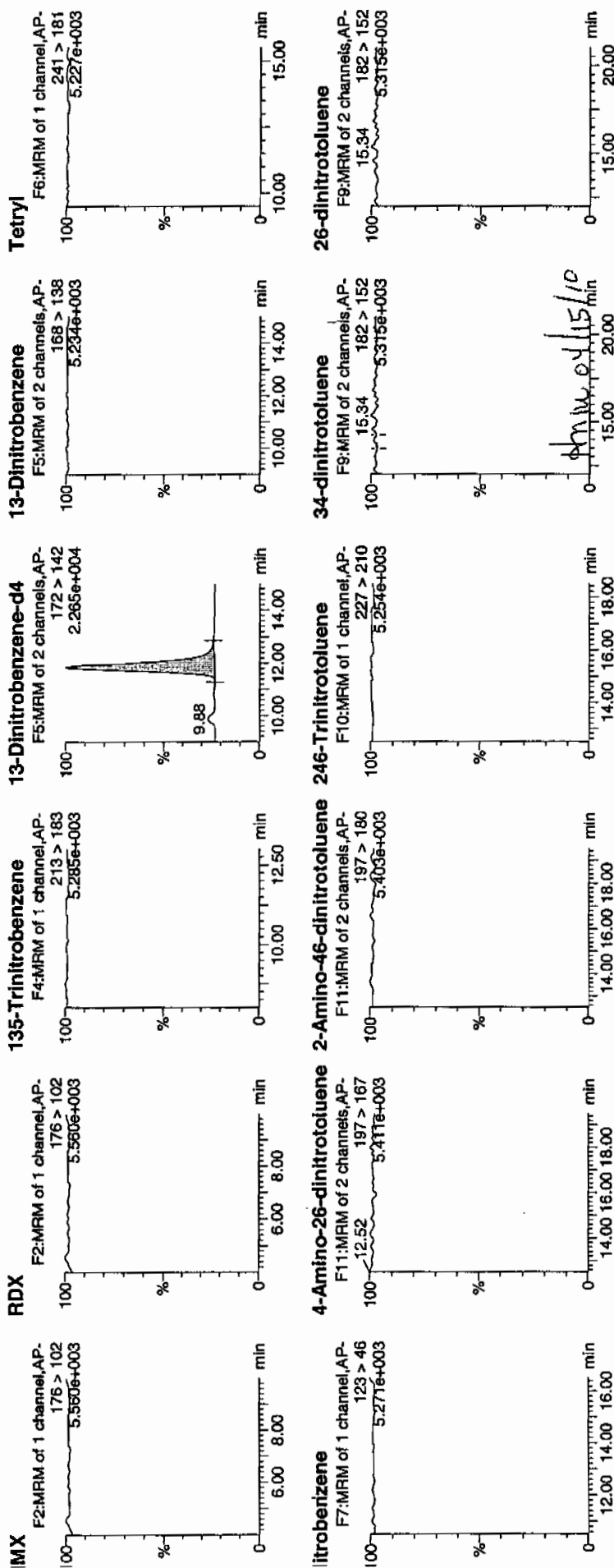
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
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
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

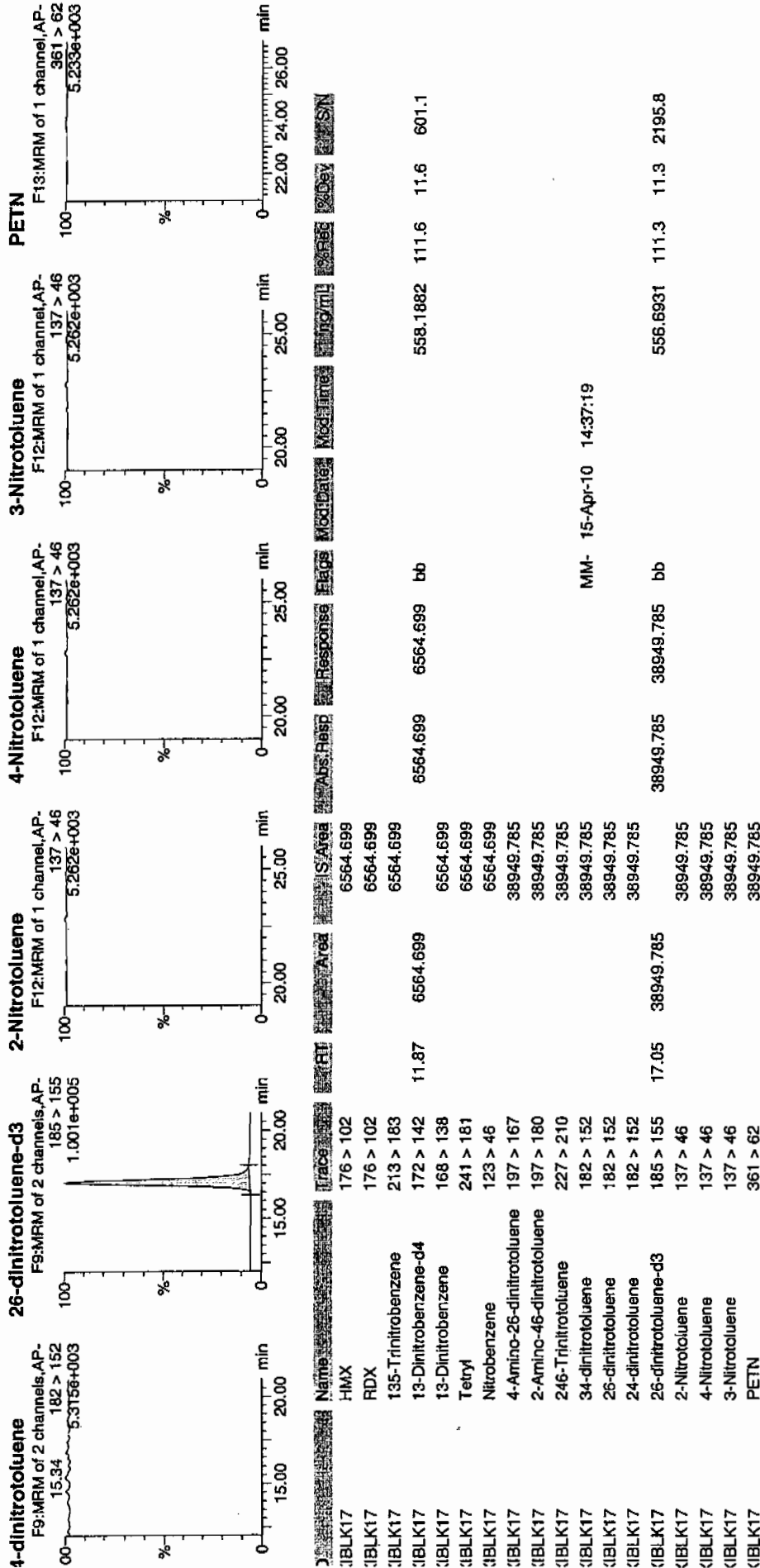


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atset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

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



Quantify Sample Report  
 iEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA2.qtd, Time: Thu Apr 15 14:49:38 2010

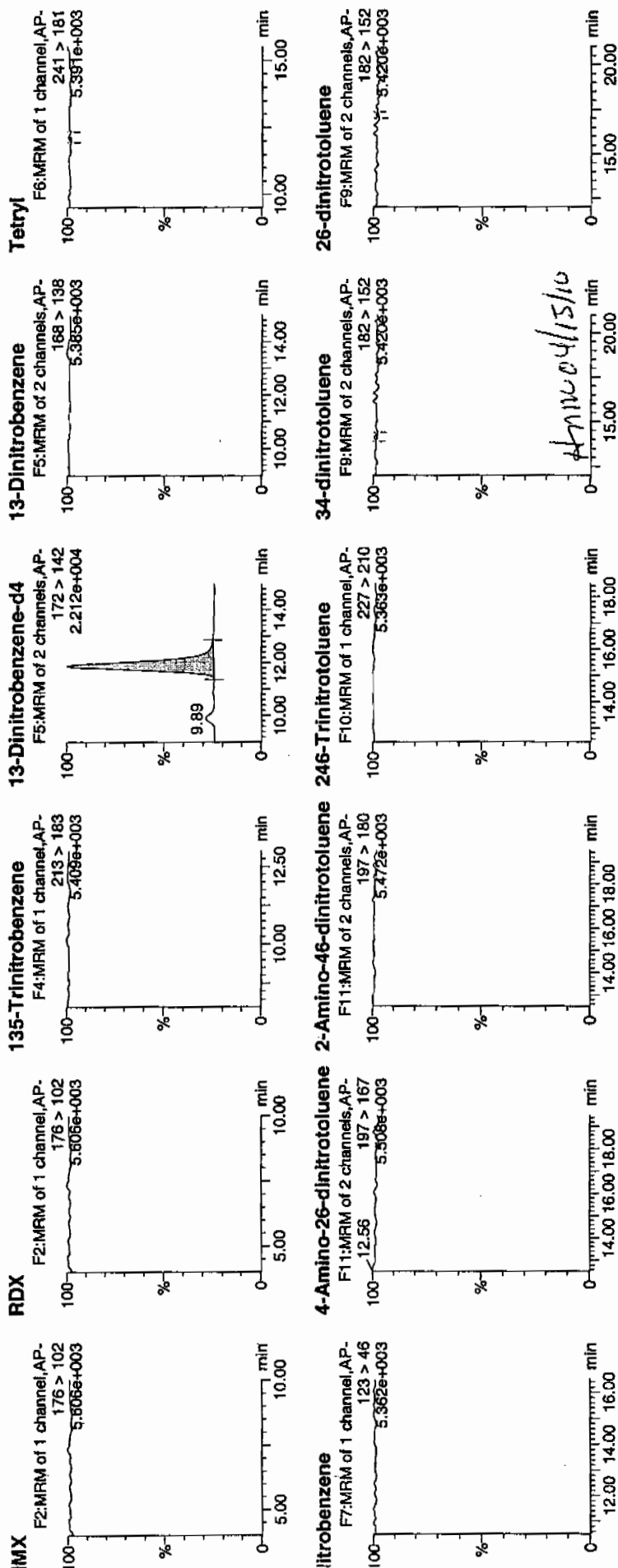
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Date: 15-Apr-2010

Time: 10:03:32

ID: XIBLK18

Label: 1:1,A



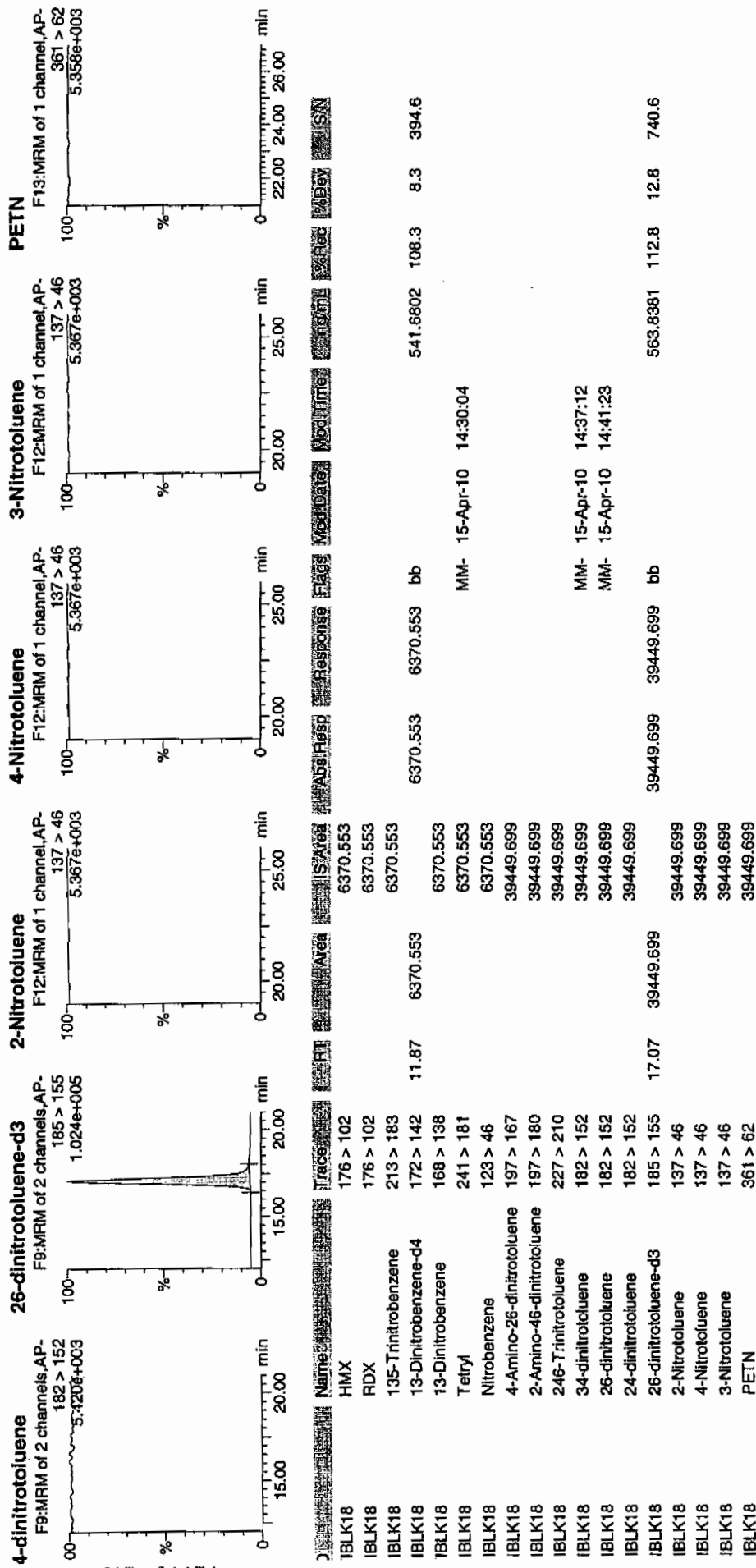


# Quantify Sample Report

iEL Laboratories, LLC / Analyst : Michael A. Penny

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Dataset: C:\MASSLYNX\New\_Exp\PROJ041210expA2.qld, Time: Thu Apr 15 14:49:38 2010





4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

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)
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
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

lame: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412142a

late: 15-Apr-2010

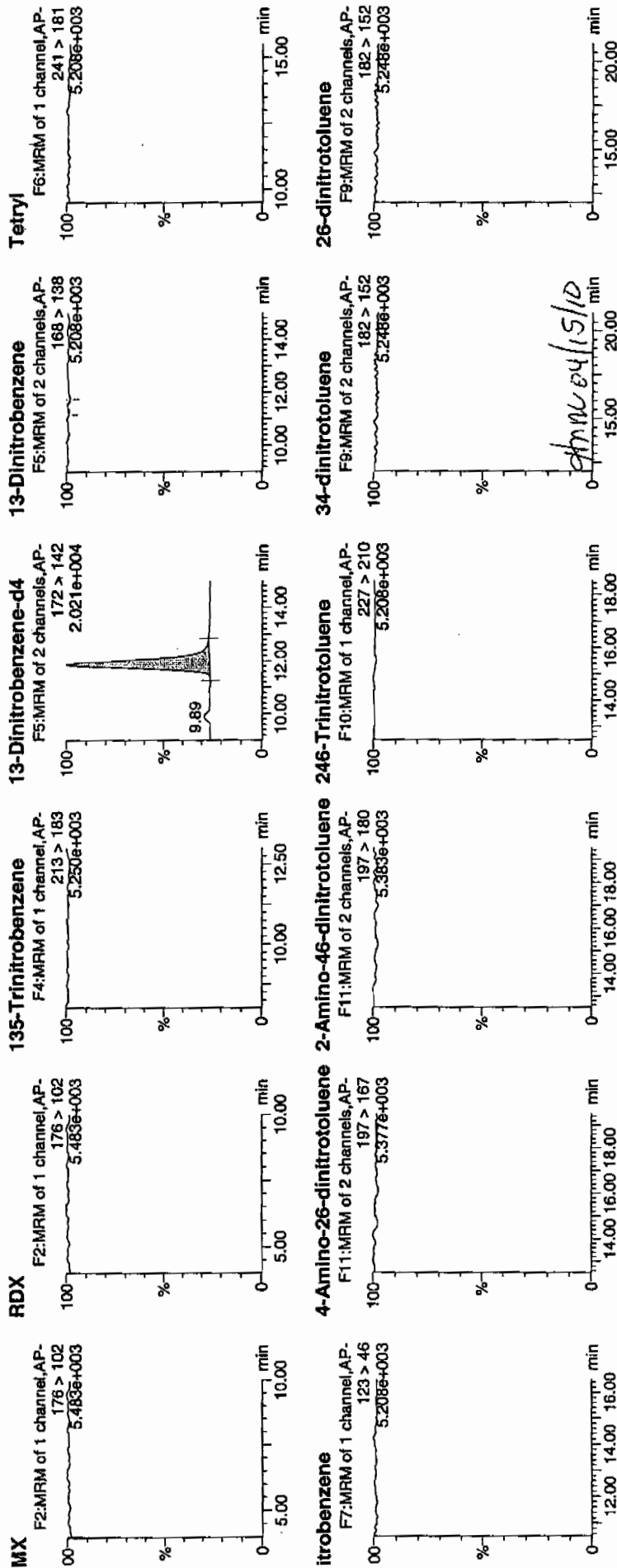
ime: 13:00:42

o: XIBLK19

ial: 1:1,A

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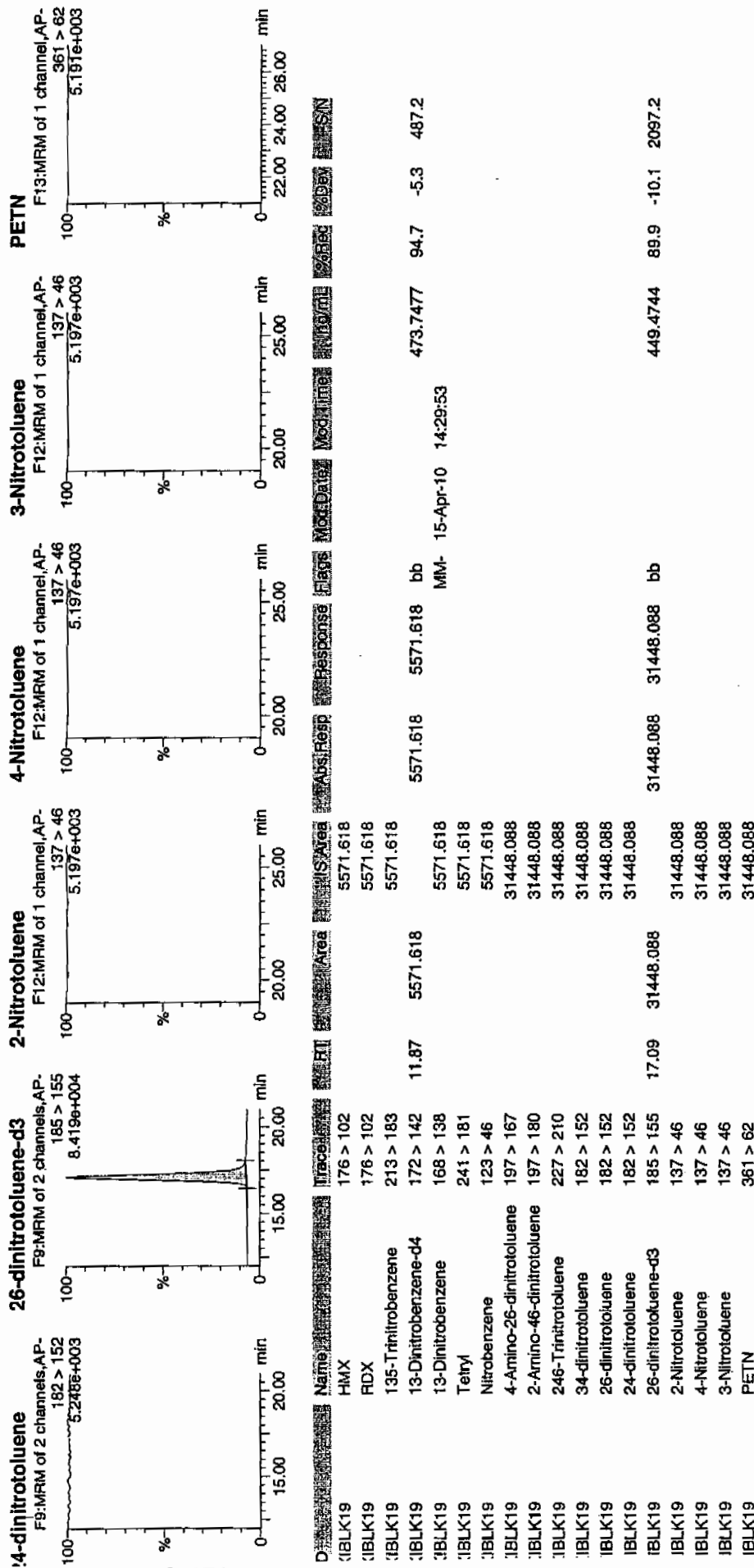


# Quantify Sample Report

EL Laboratories, LLC / Analyst : Michael A. Penny

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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): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK20

Analysis Date: 15-APR-10 19:24

GEL Data File: EXP0412155a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u QDS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	526.718
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	604.661
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  
 EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Sample: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0412155a

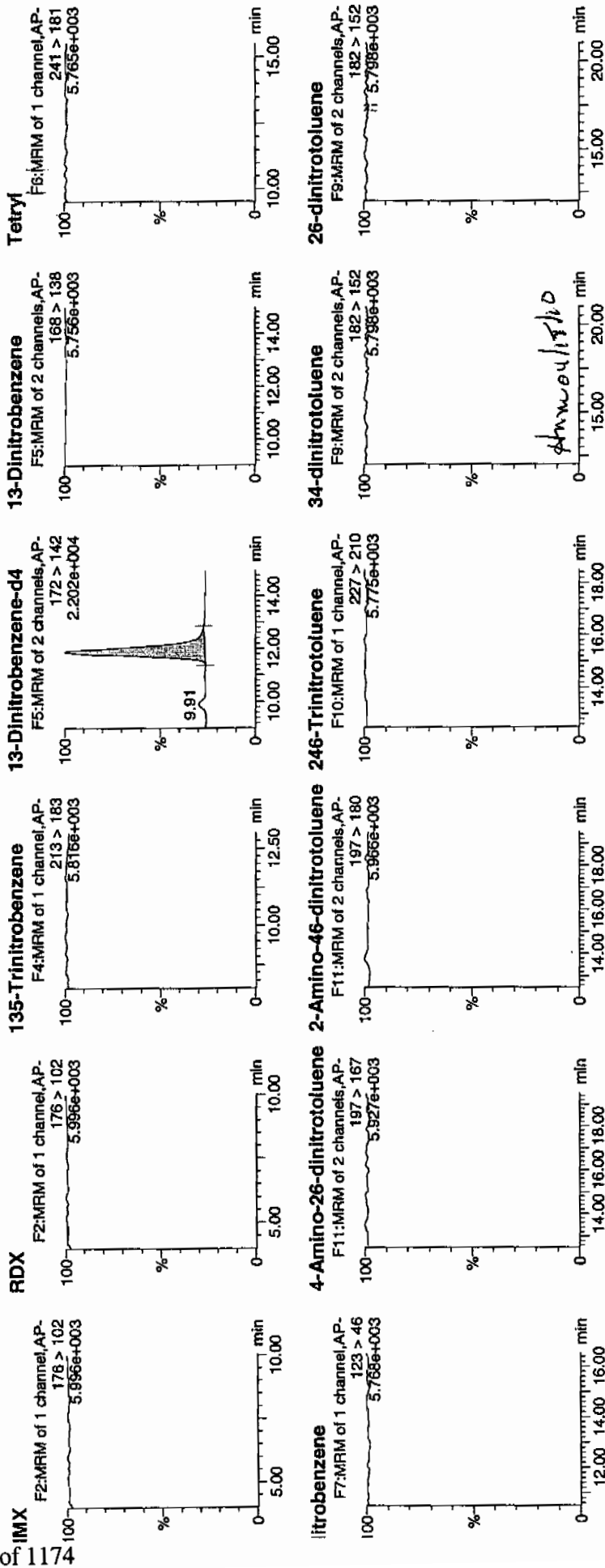
Date: 15-Apr-2010

Time: 19:24:15

Job: XIBLK20

Label: 1:1,A

411010

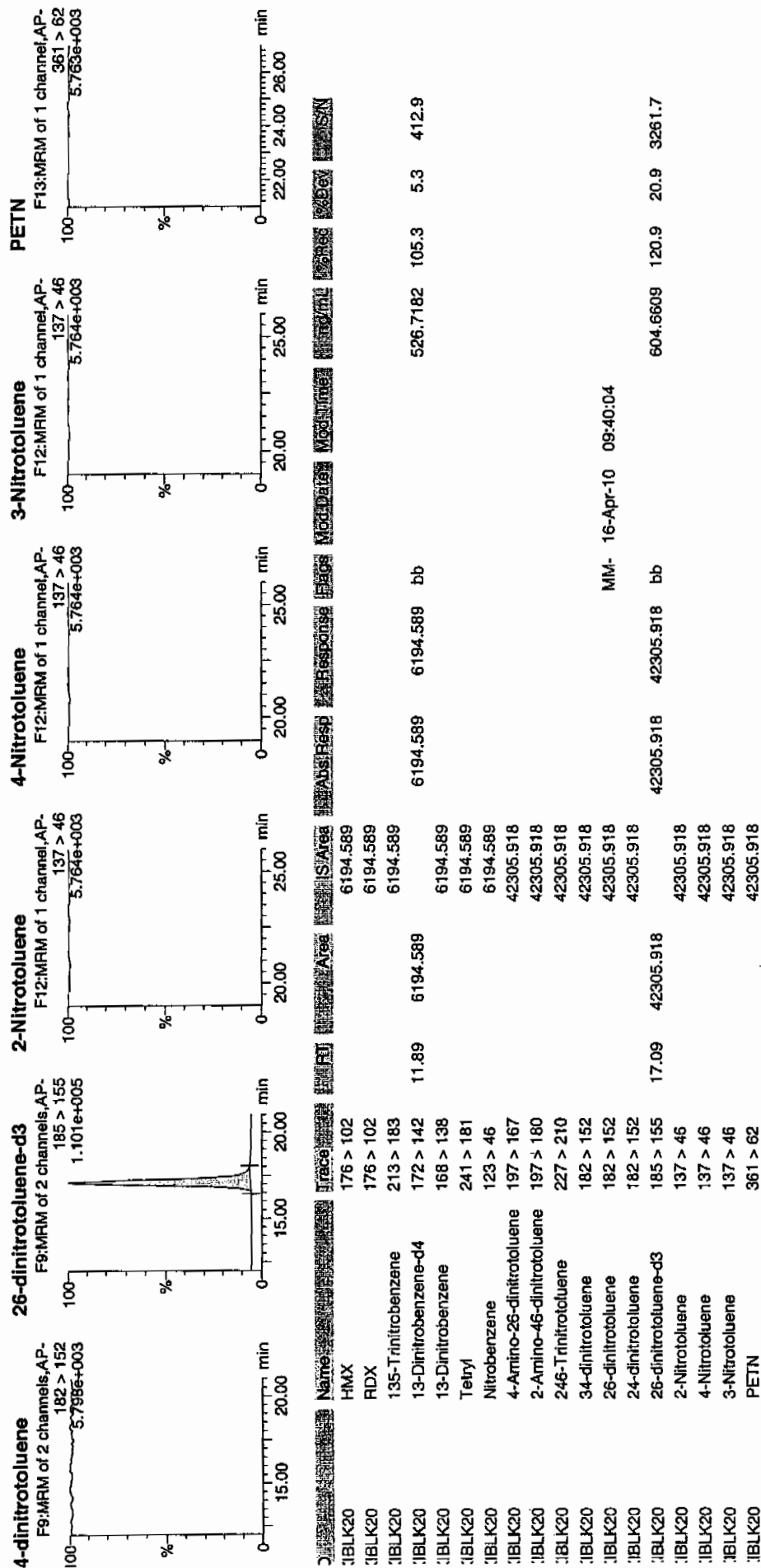




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Identify Sample Report  
IEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSL\YNN\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010





4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK21

Analysis Date: 15-APR-10 23:49

GEL Data File: EXP0412164a

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	552.7
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	545.776
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

IEL Laboratories, LLC / Analyst : Michael A. Penny

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Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Sample Name: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0412164a

Date: 15-Apr-2010

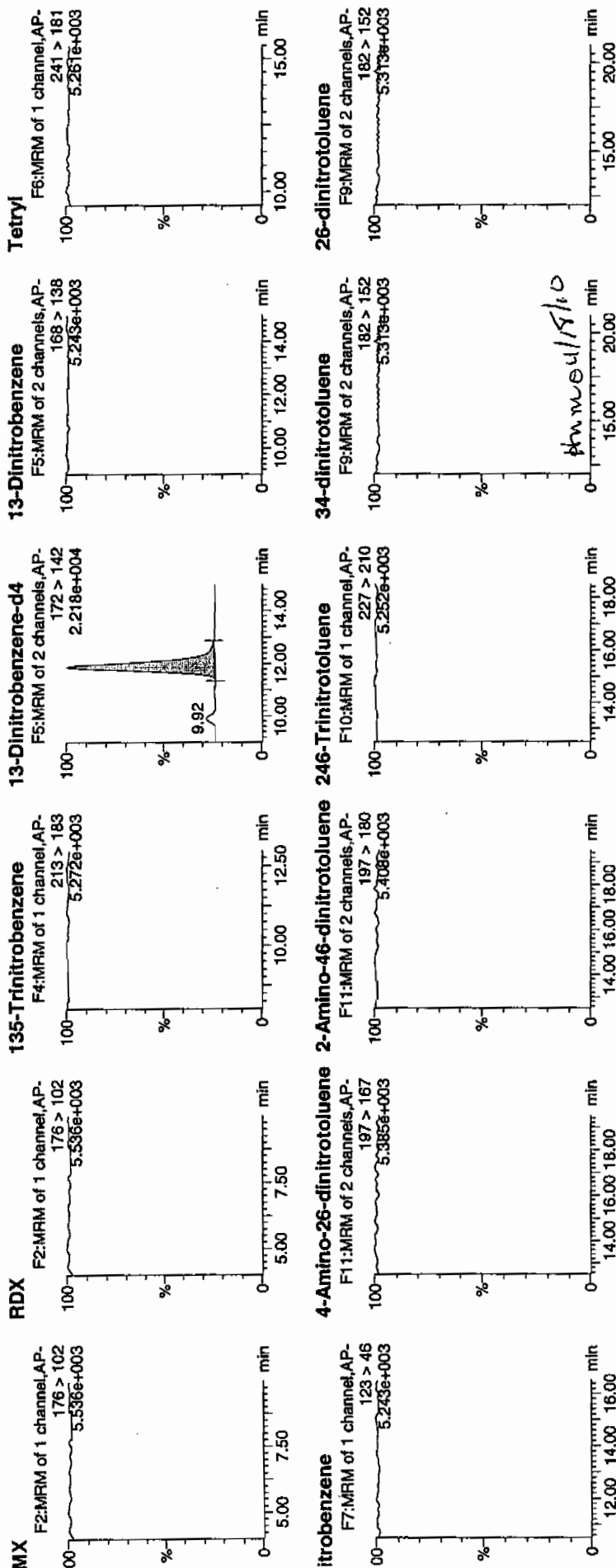
Time: 23:49:43

File: XIBLK21

Label: 1:1,A

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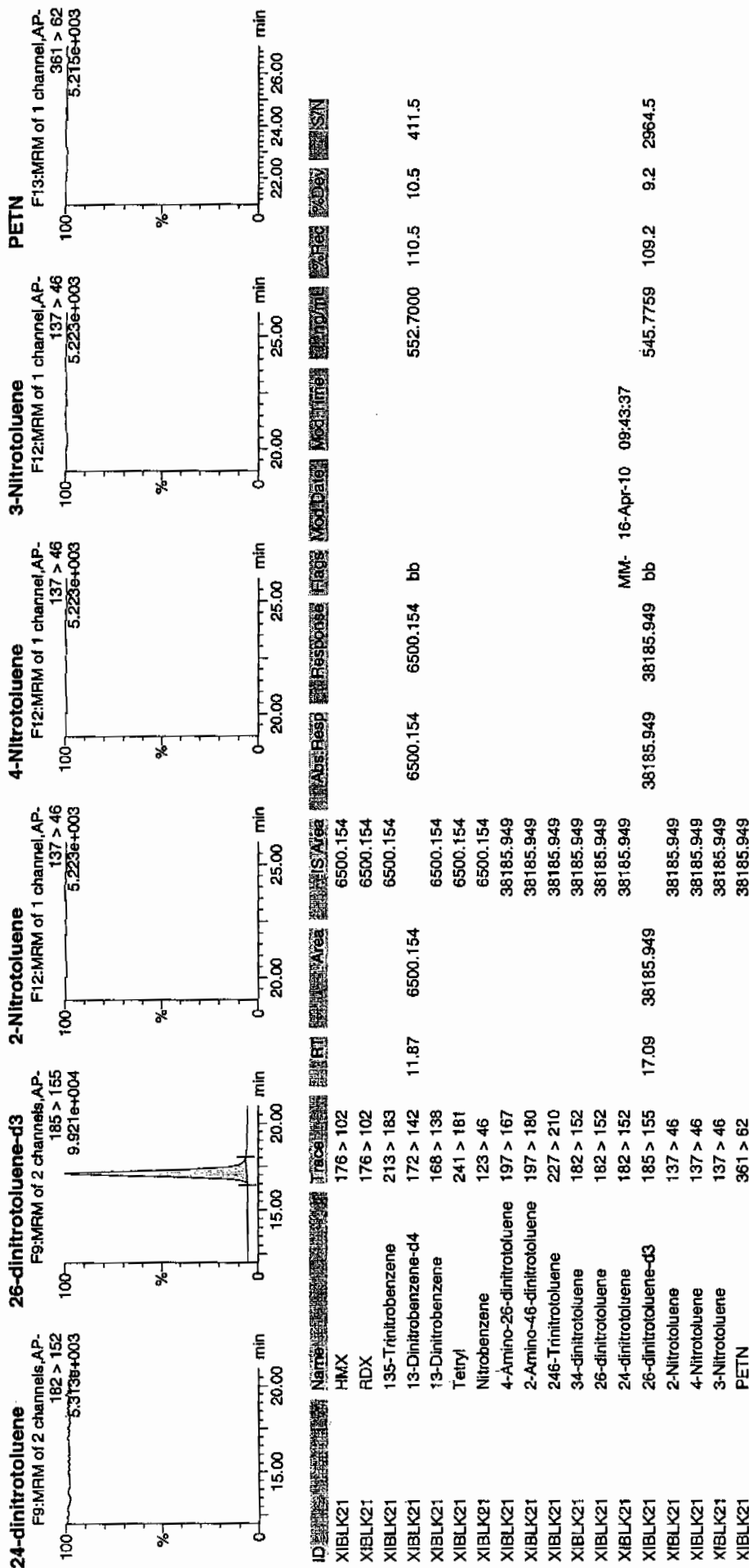


# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

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Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010





4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK22

Analysis Date: 16-APR-10 06:13

GEL Data File: EXP0412177a

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	535.916
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	541.912
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

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Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412177a

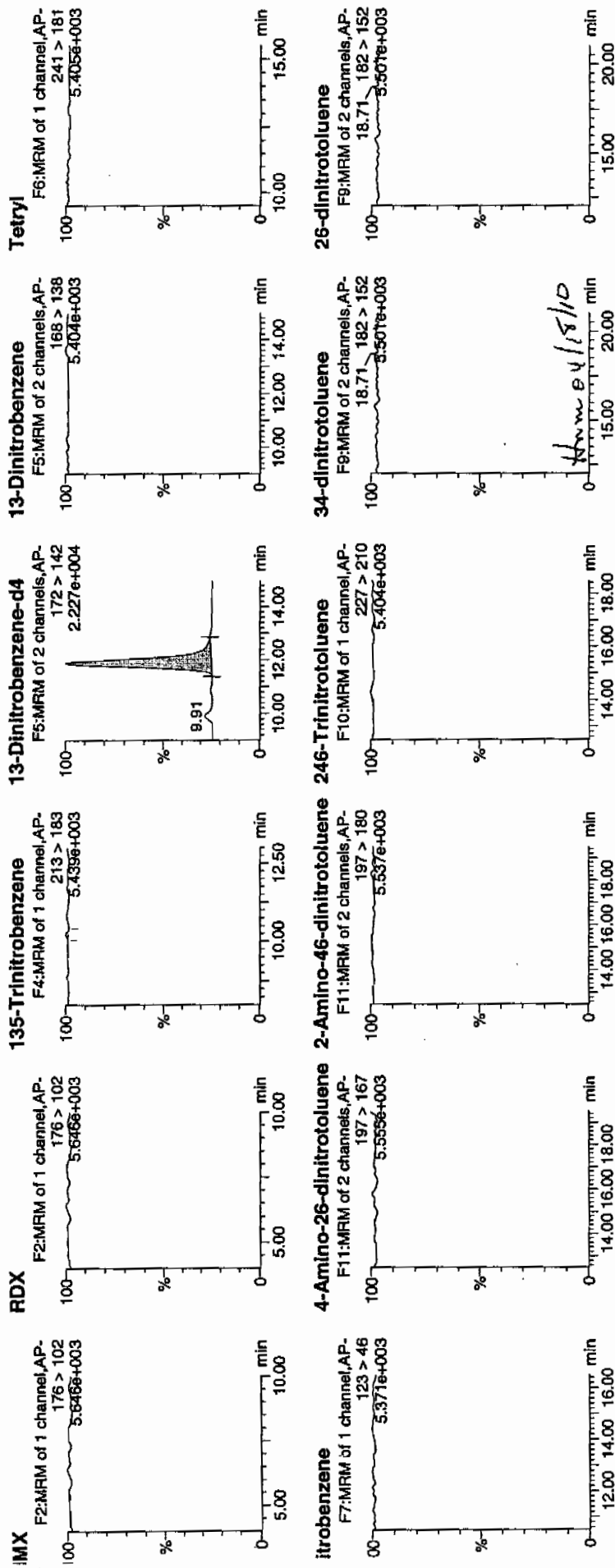
Date: 16-Apr-2010

Time: 06:13:19

Page: 628

File: 1:1,A

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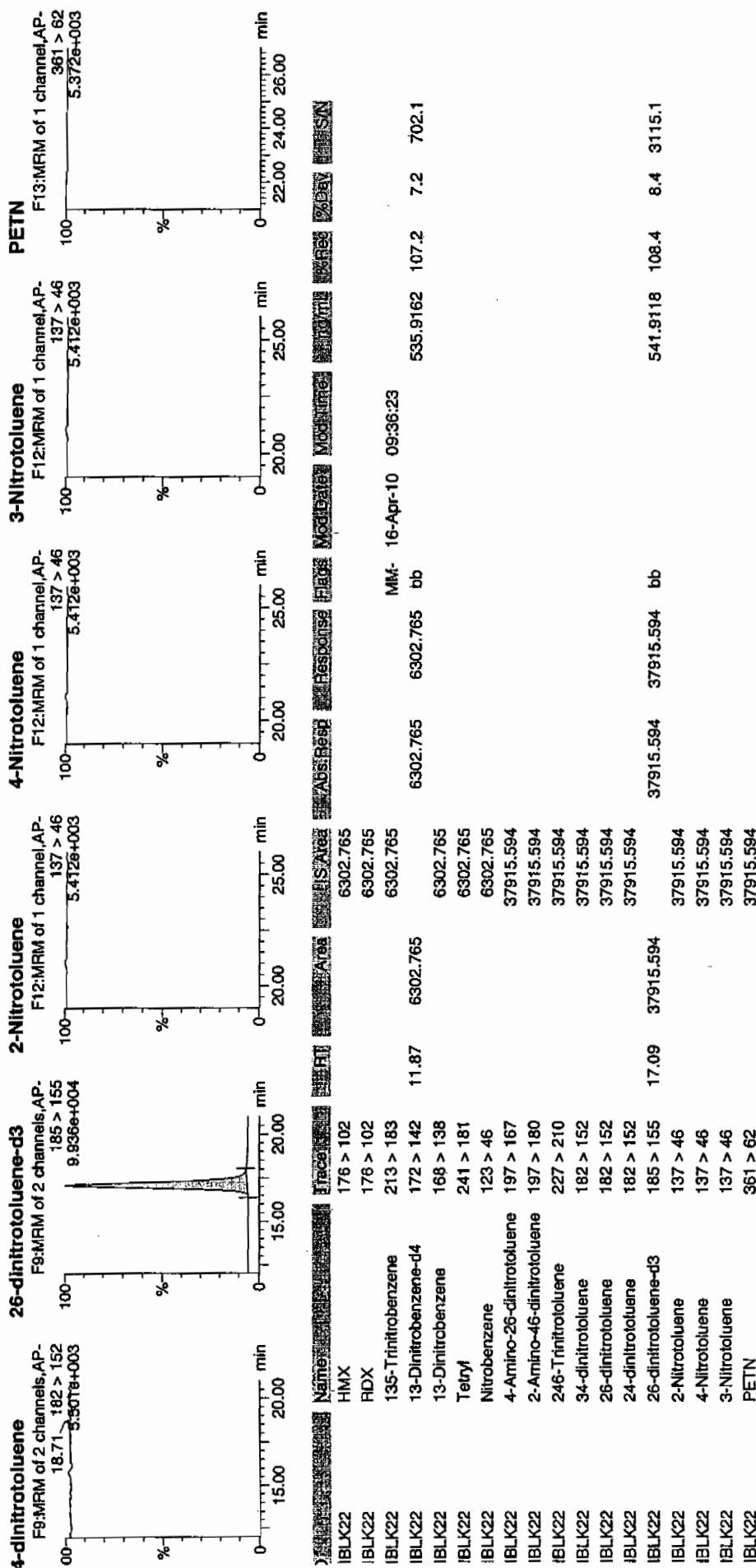


# Quantify Sample Report

EL Laboratories, LLC / Analyst: Michael A. Penny

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atlaset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK23

Analysis Date: 16-APR-10 12:36

GEL Data File: EXP0412190a

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	574.526
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	581.418
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: Sat Apr 17 10:45:10 2010, Page 23 of 97

Quantify Sample Report  
EL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010

Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412190a

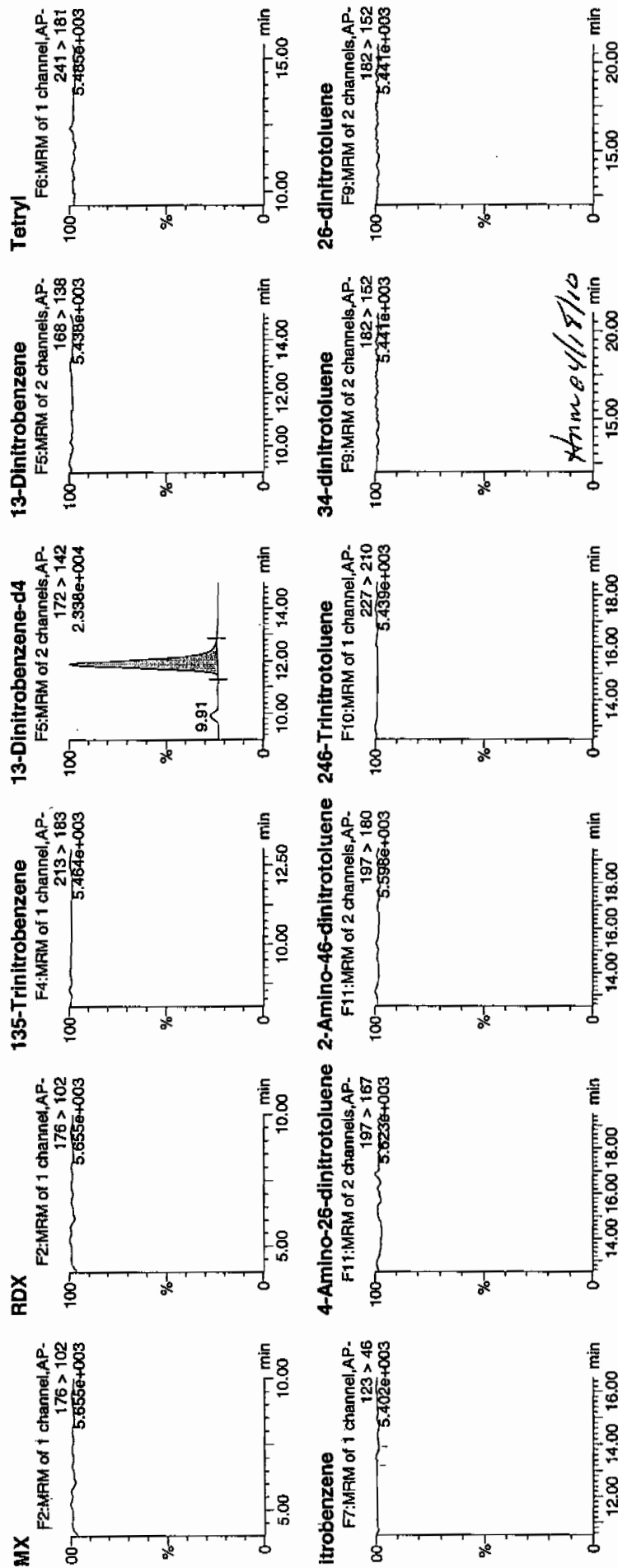
Date: 16-Apr-2010

Time: 12:36:57

Sample ID: XIBLK23

Injection: 1:1,A

Page 631 of 1174

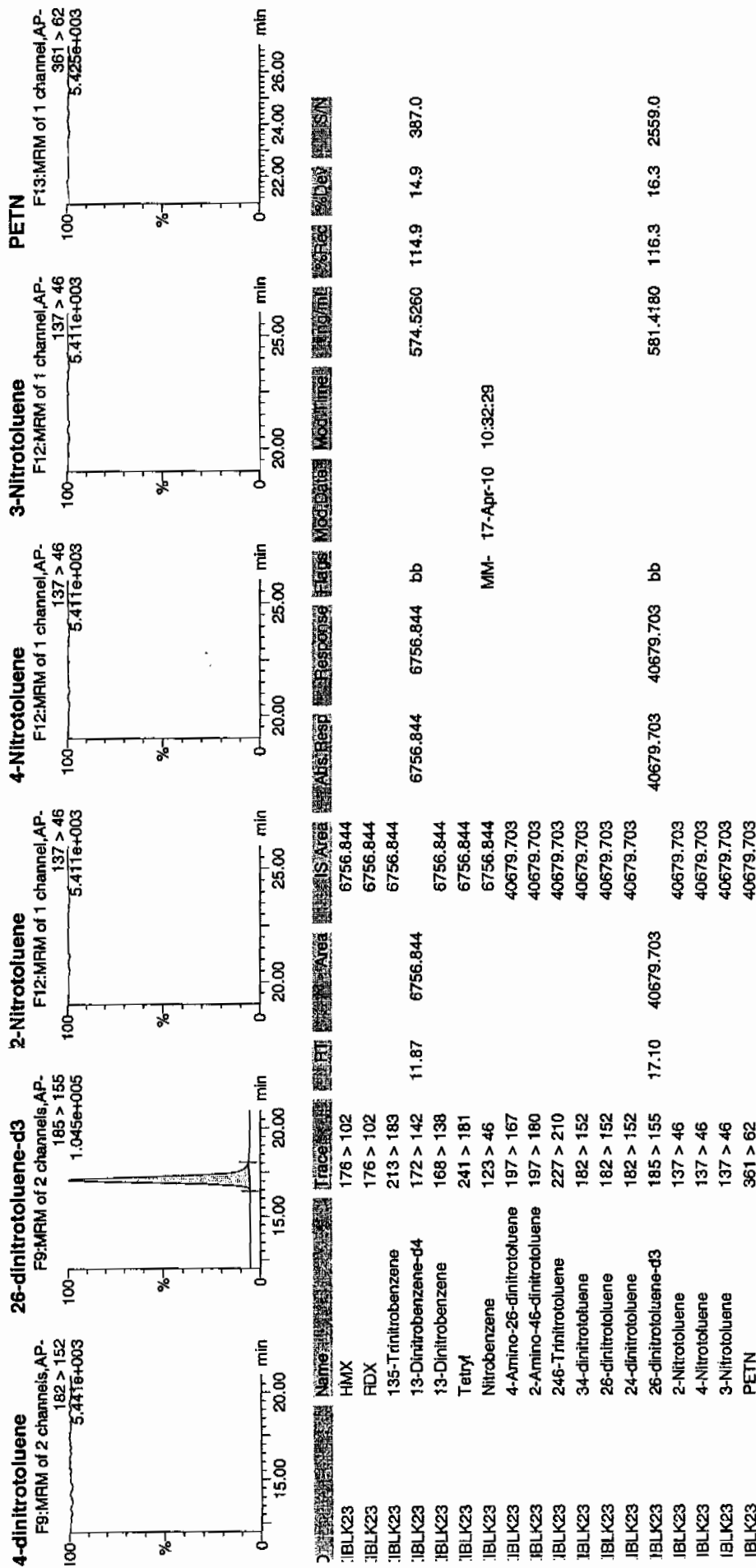




Printed: Sat Apr 17 10:45:10 2010, Page 24 of 97

Identify Sample Report  
IEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010





4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK24

Analysis Date: 16-APR-10 18:31

GEL Data File: EXP0412202a

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
HMX	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	536.291
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	570.22
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0



Quantify Sample Report  
 JEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010

Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412202a

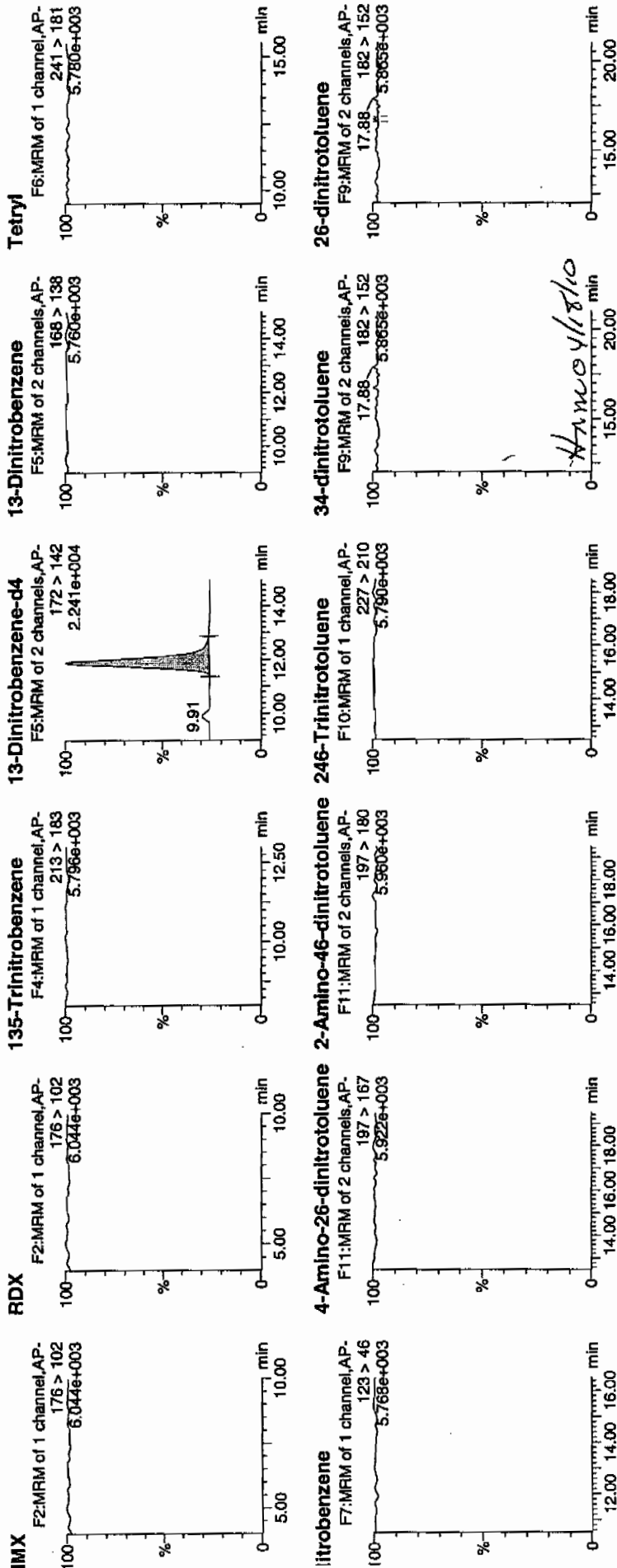
Date: 16-Apr-2010

Time: 18:31:06

D: XIBLK24

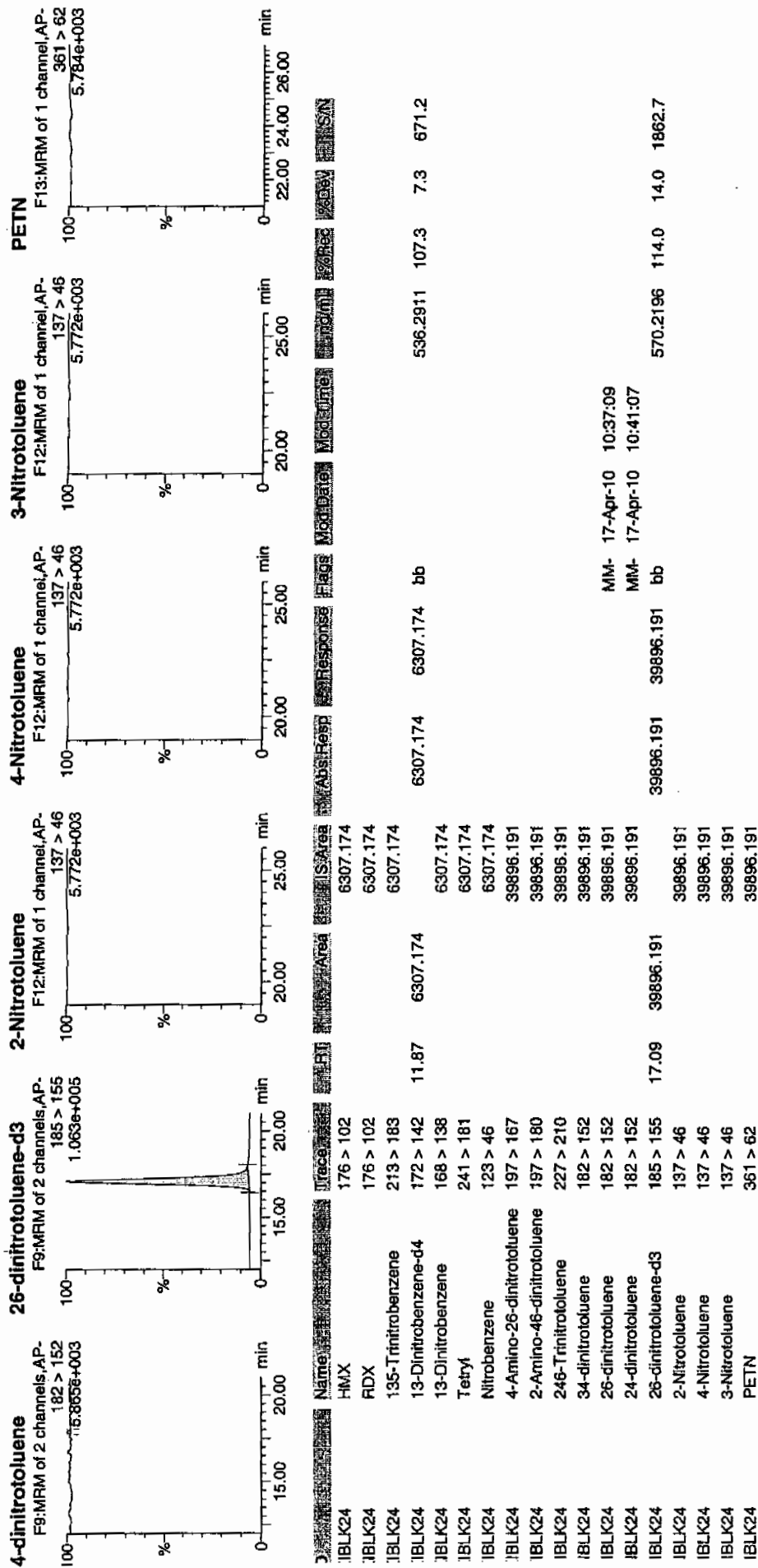
File: 1:1,A

11/12/10  
 11/12/10





Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 05-APR-10 15:07

GEL Data File: EXS04050010.wiff

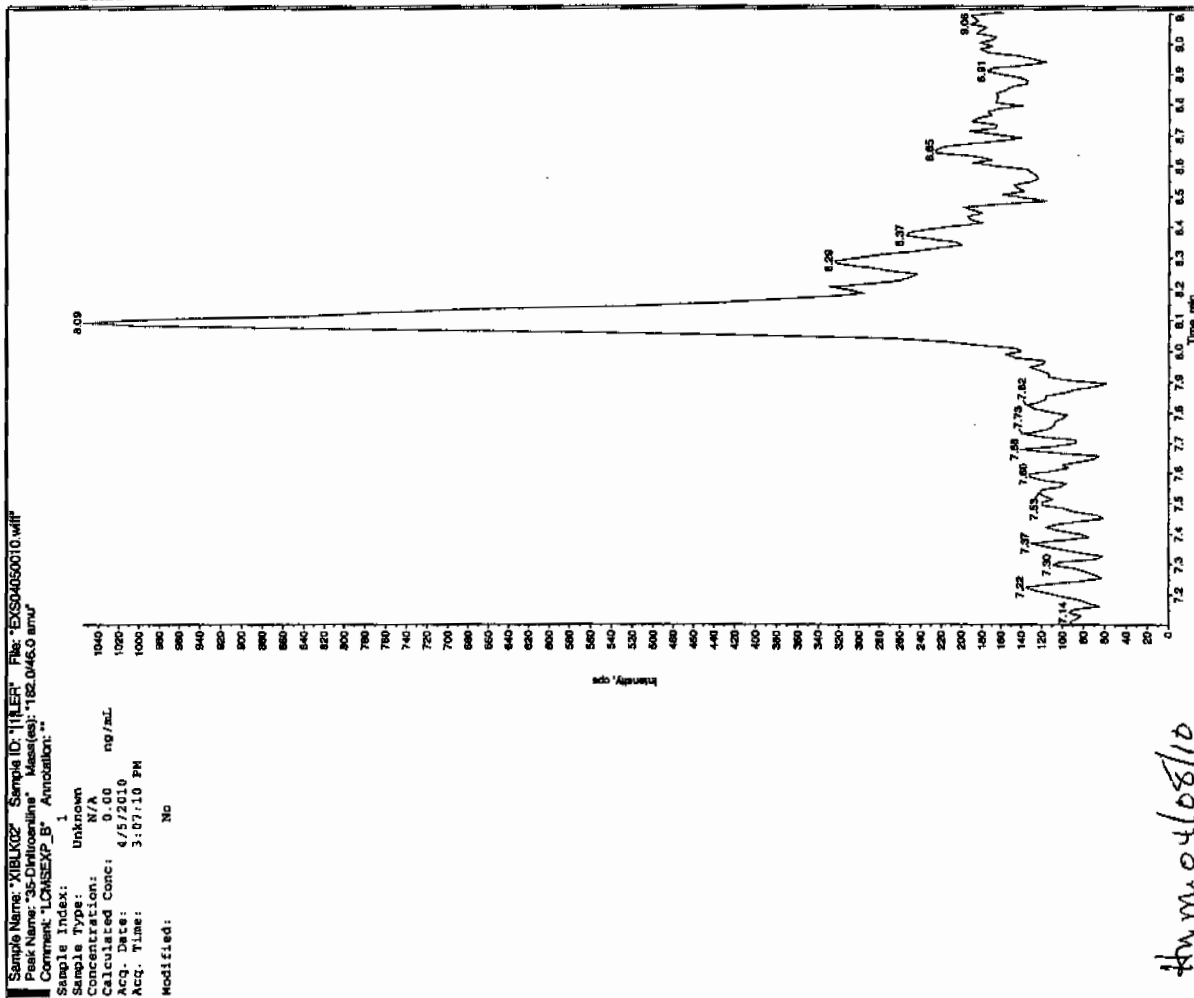
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

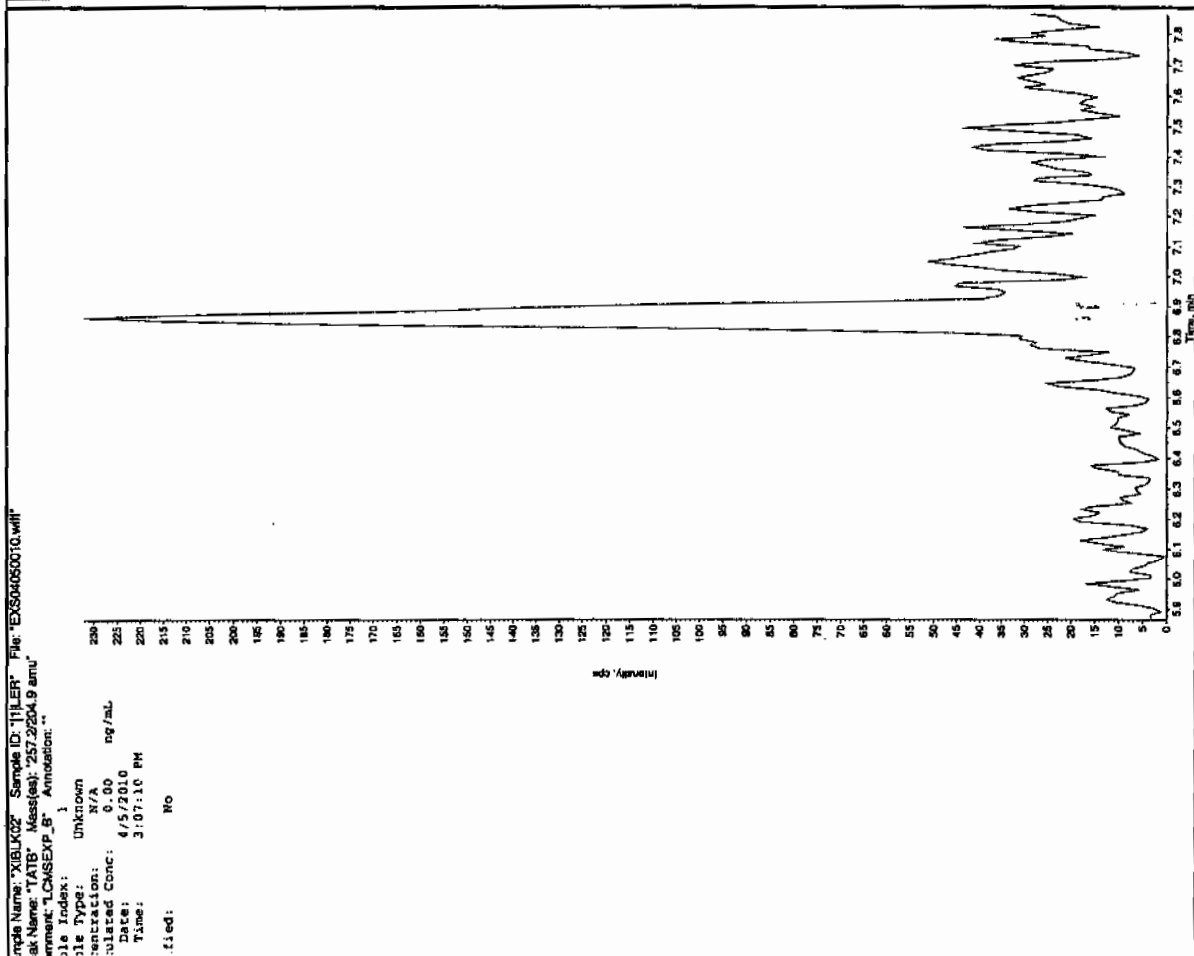
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	11.1
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



See 4/7/10

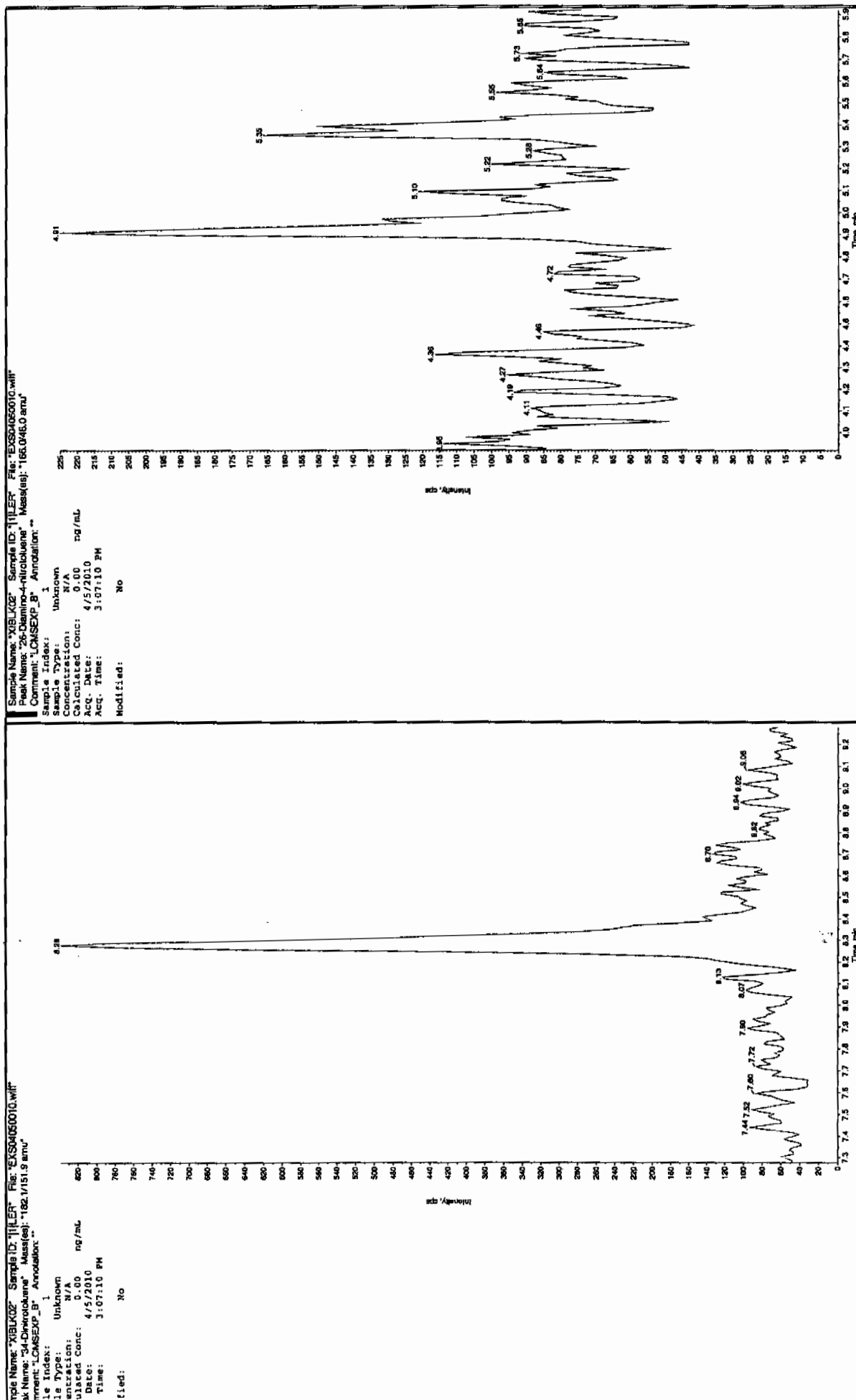


Ham. 04/08/10



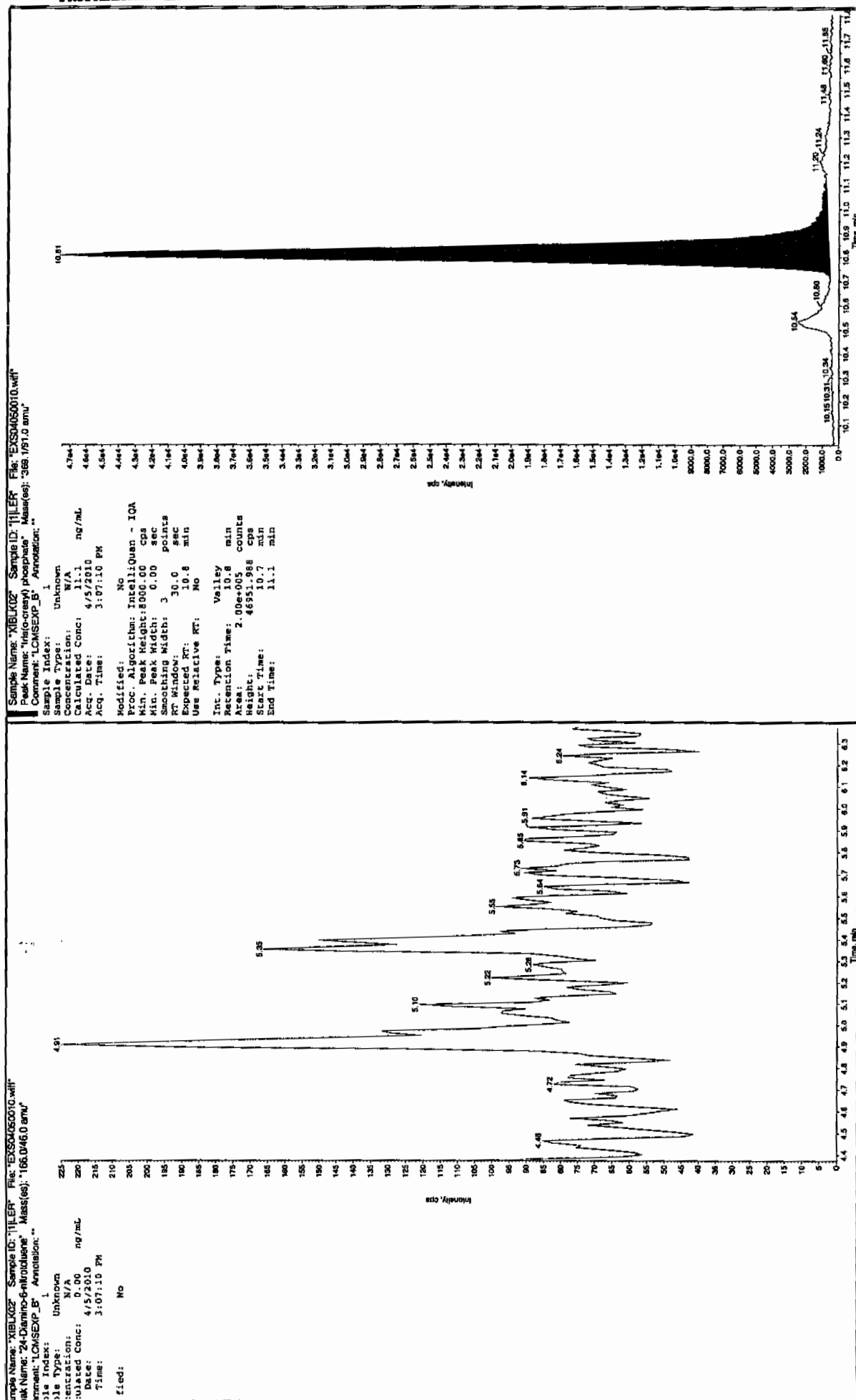
L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





J SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 05-APR-10 15:38

GEL Data File: EXS04050012.wiff

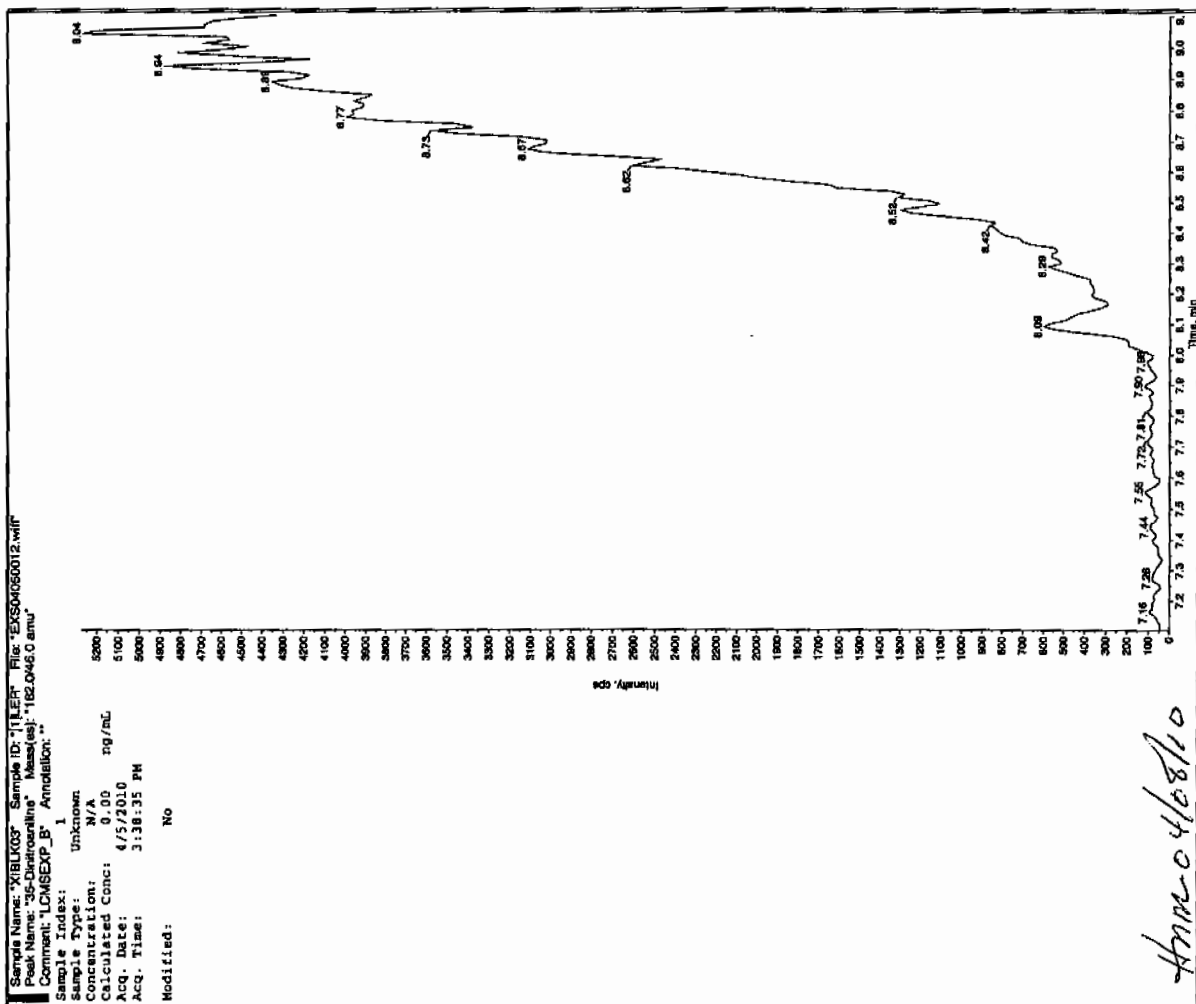
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

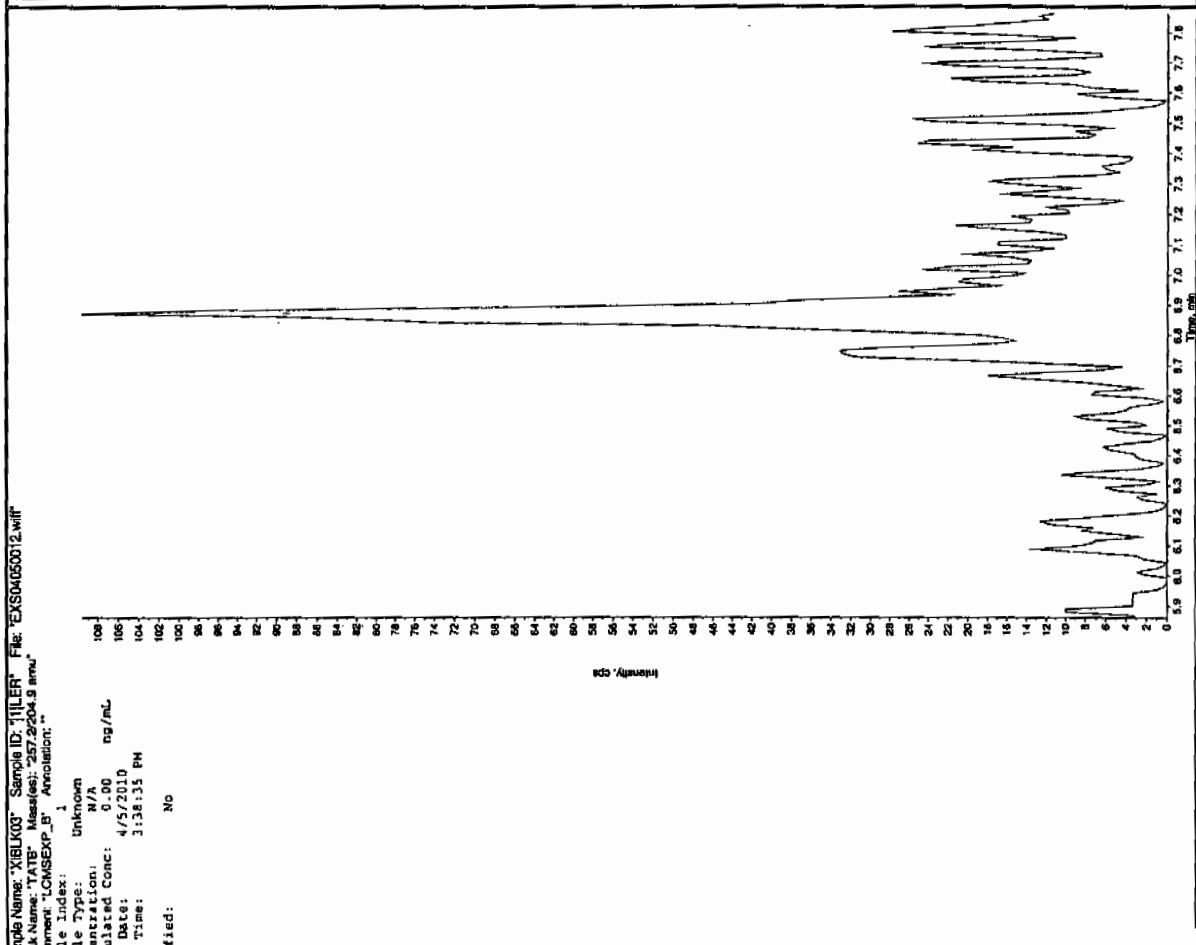
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.92
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



Run 4/17/10

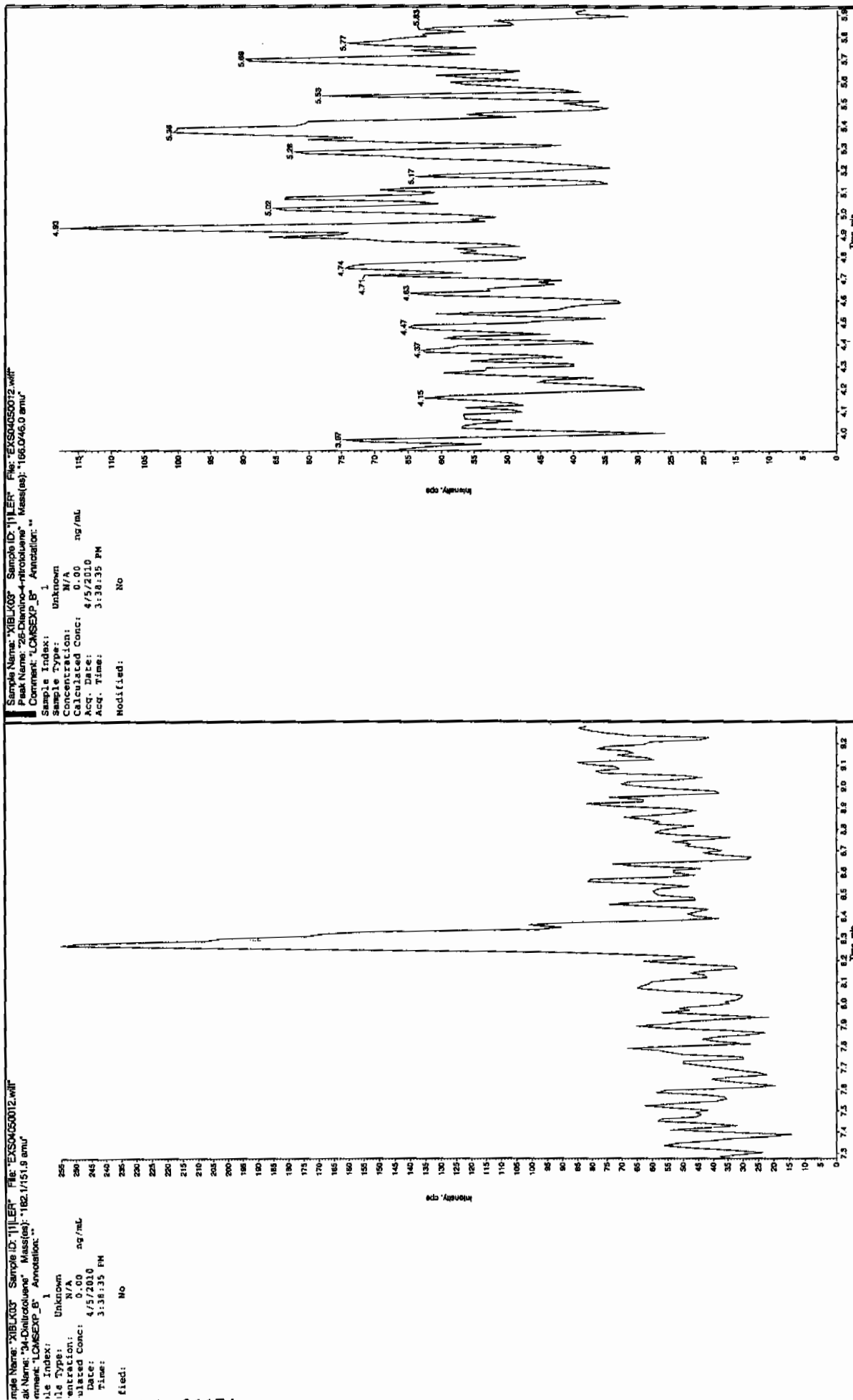


Run 4/10/10



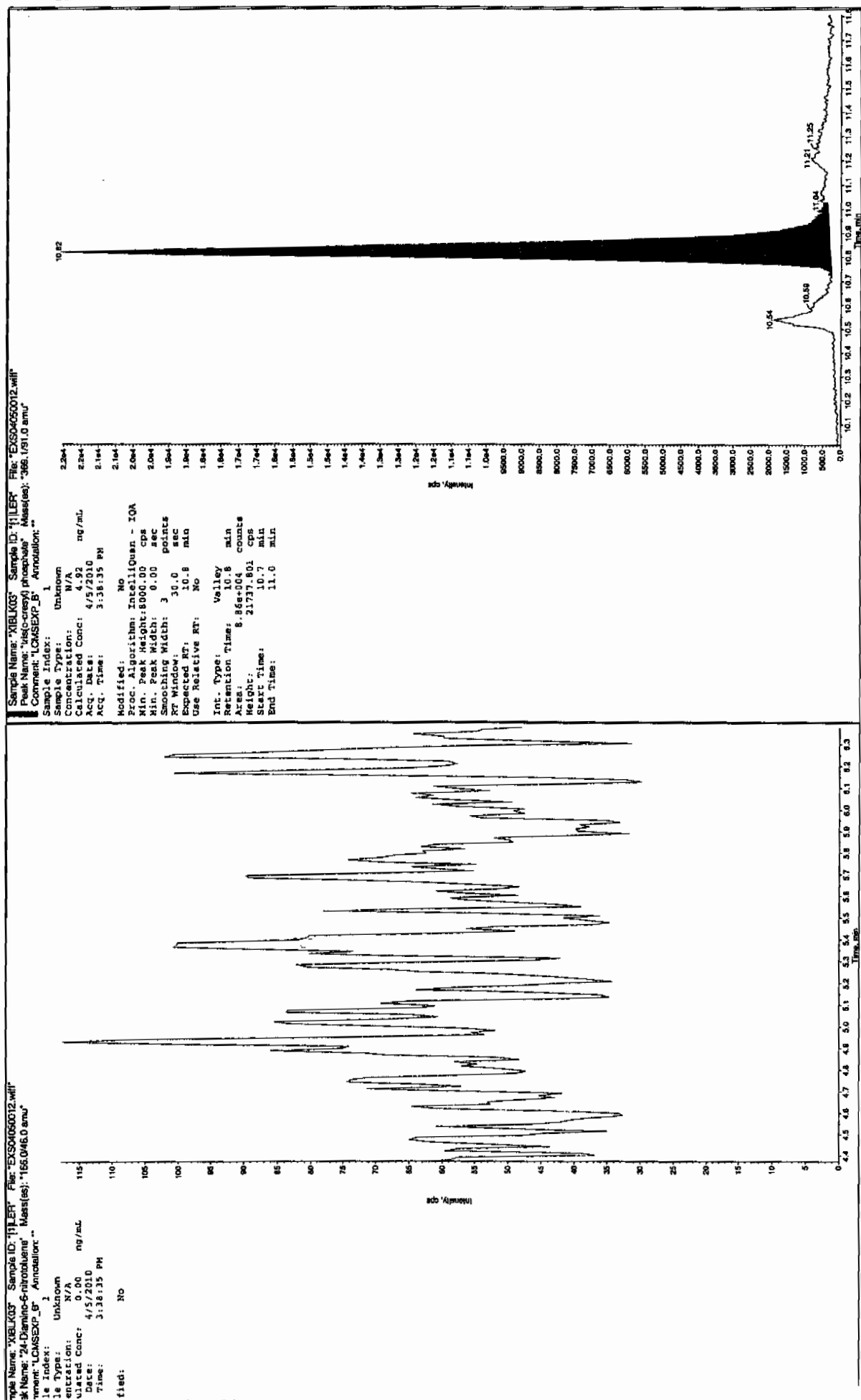
, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 05-APR-10 19:02

GEL Data File: EXS04050025.wiff

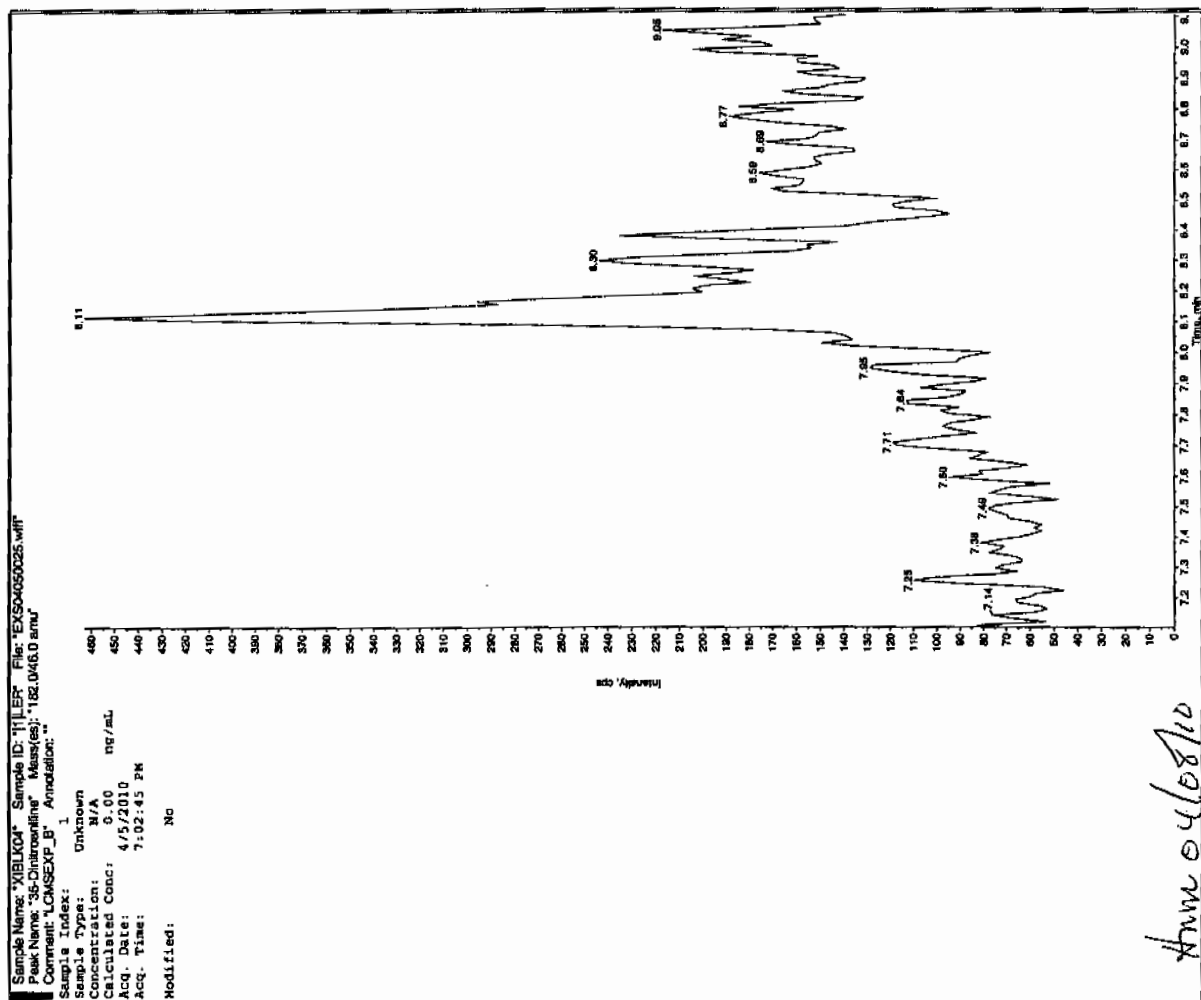
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

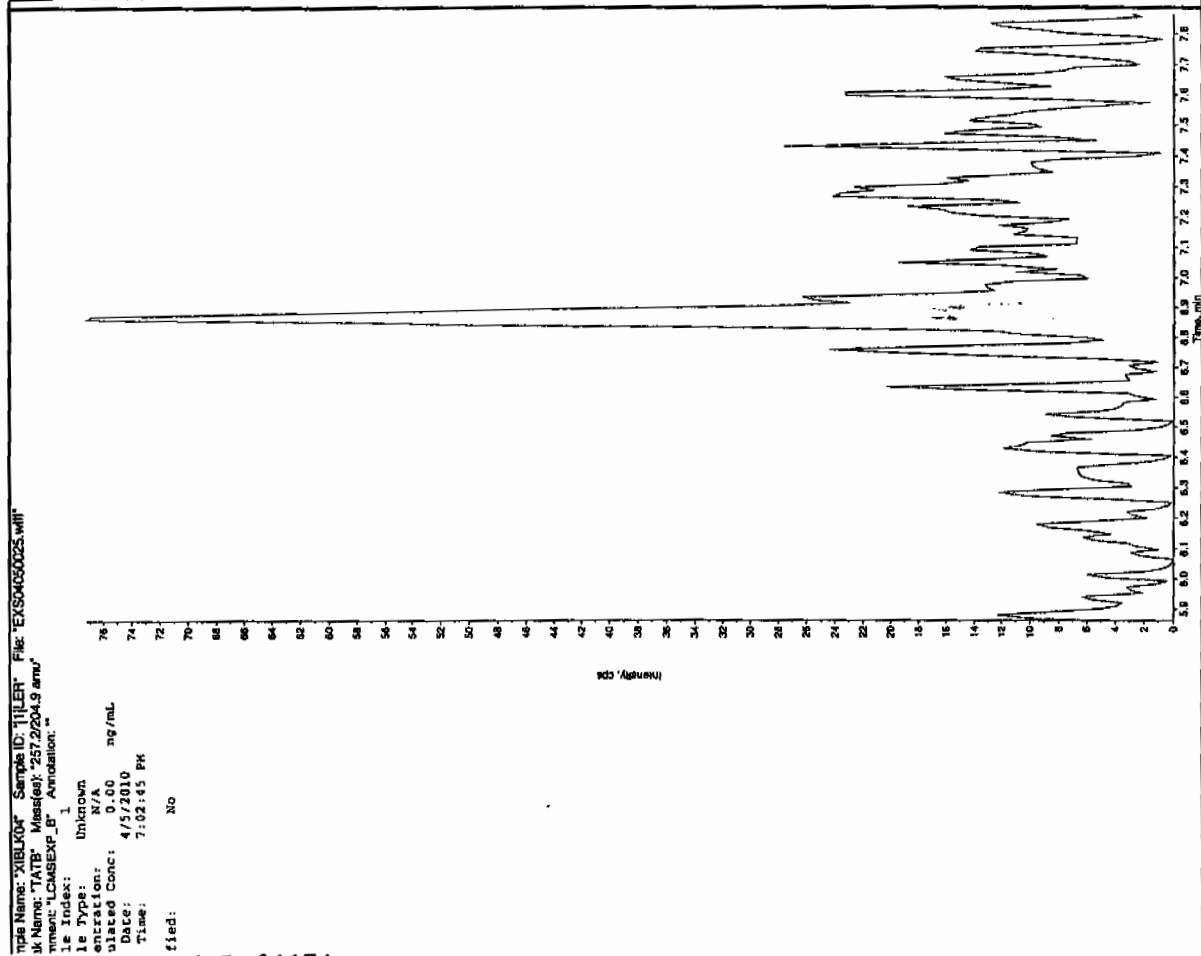
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.08
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



See 4/10



See 04/08/10

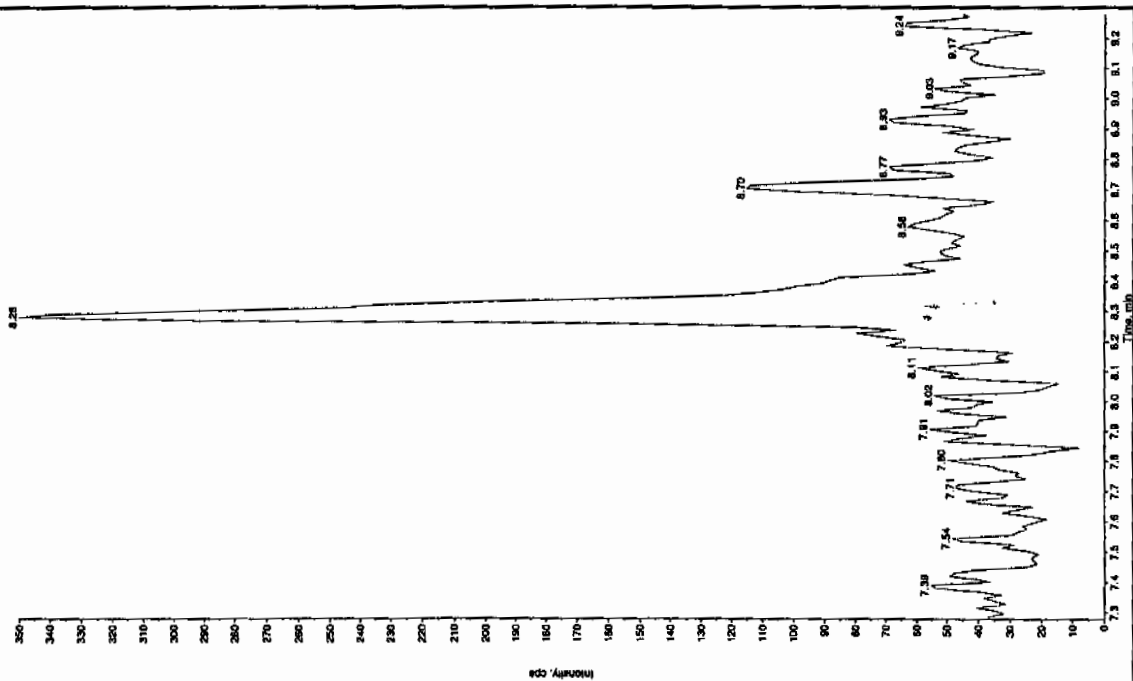


, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

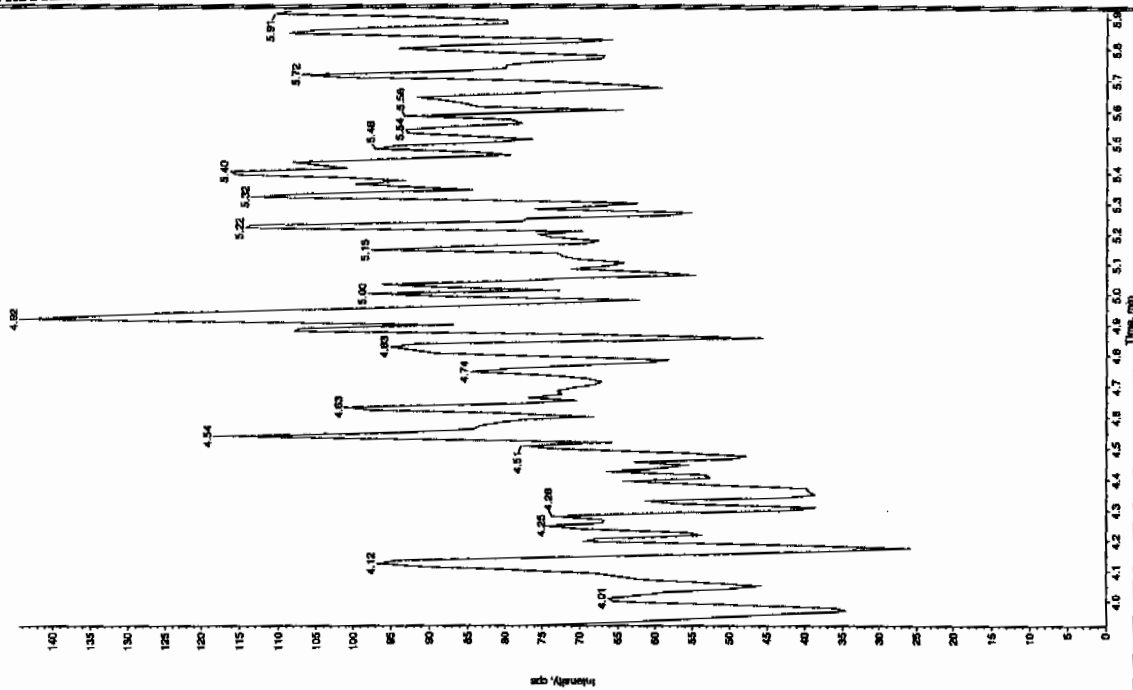


Sample Name: "XIBLX04" Sample ID: "11ER" File: "XS04050025.wiff"  
Peak Name: "26-Dienino-4-ribitoluene" Mass(es): "166.04610 amu"  
Comment: "LCMSEXP B" Annotation: "\*\*

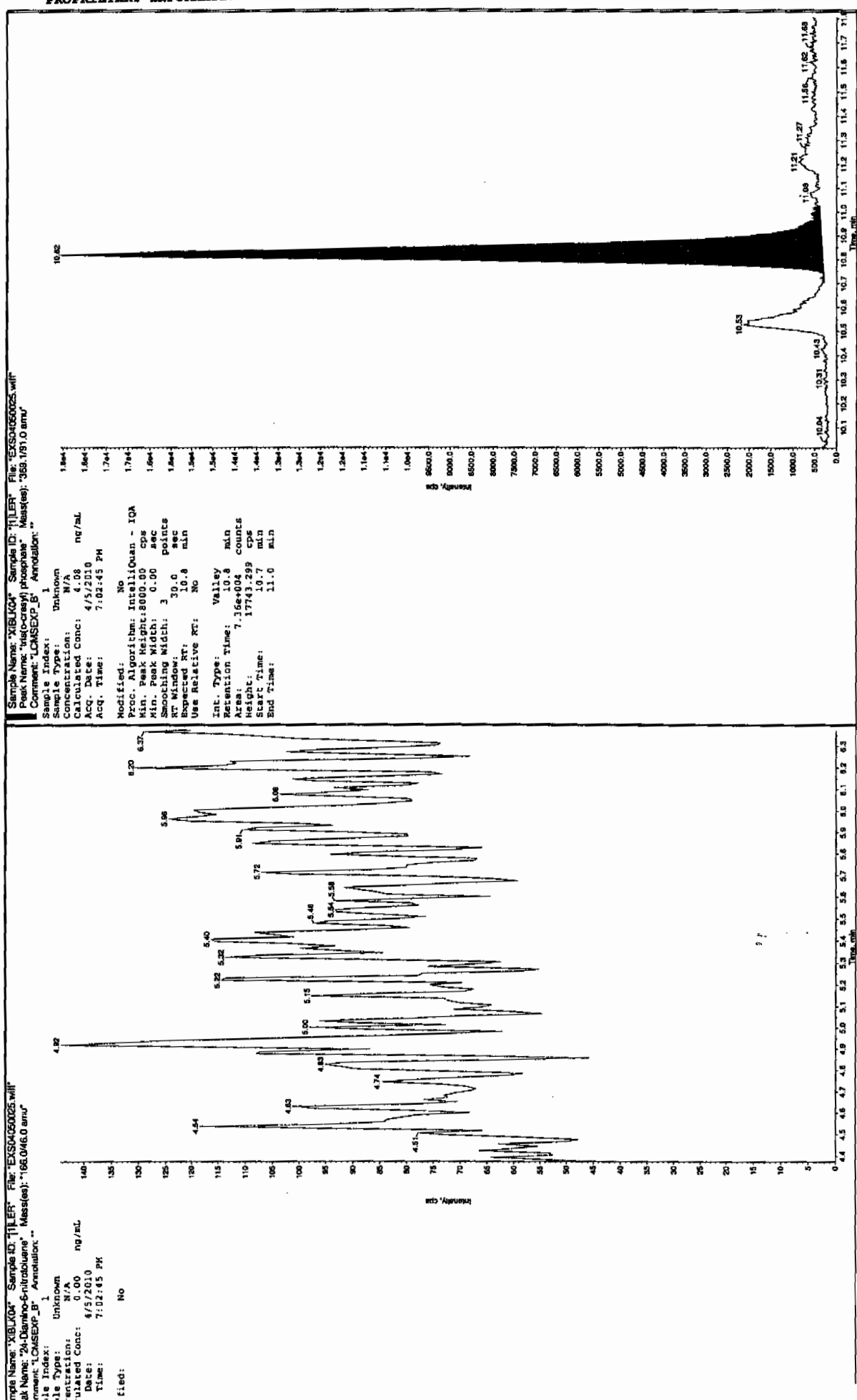
Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00
Acq. Date:	4/5/2010
Acq. Time:	7:02:45 PM
Modified:	No



SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#4









4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 05-APR-10 22:27

GEL Data File: EXS04050038.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	3.57
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



Jan 4/10

Sample Name: "XIBLX05" Sample ID: "11111" File: "EXS04050008.will"

Peak Name: "TATB" Mass(es): "257.2024.9 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

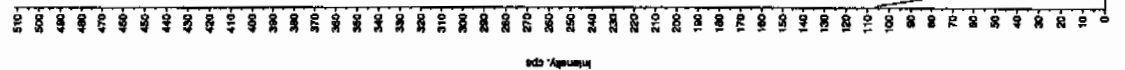
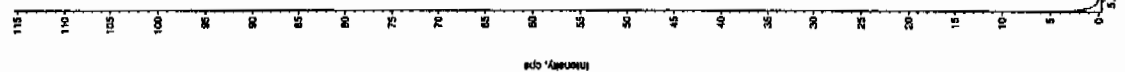
Concentration: N/A

Calculated Conc: 0.00

Acq. Date: 4/3/2010

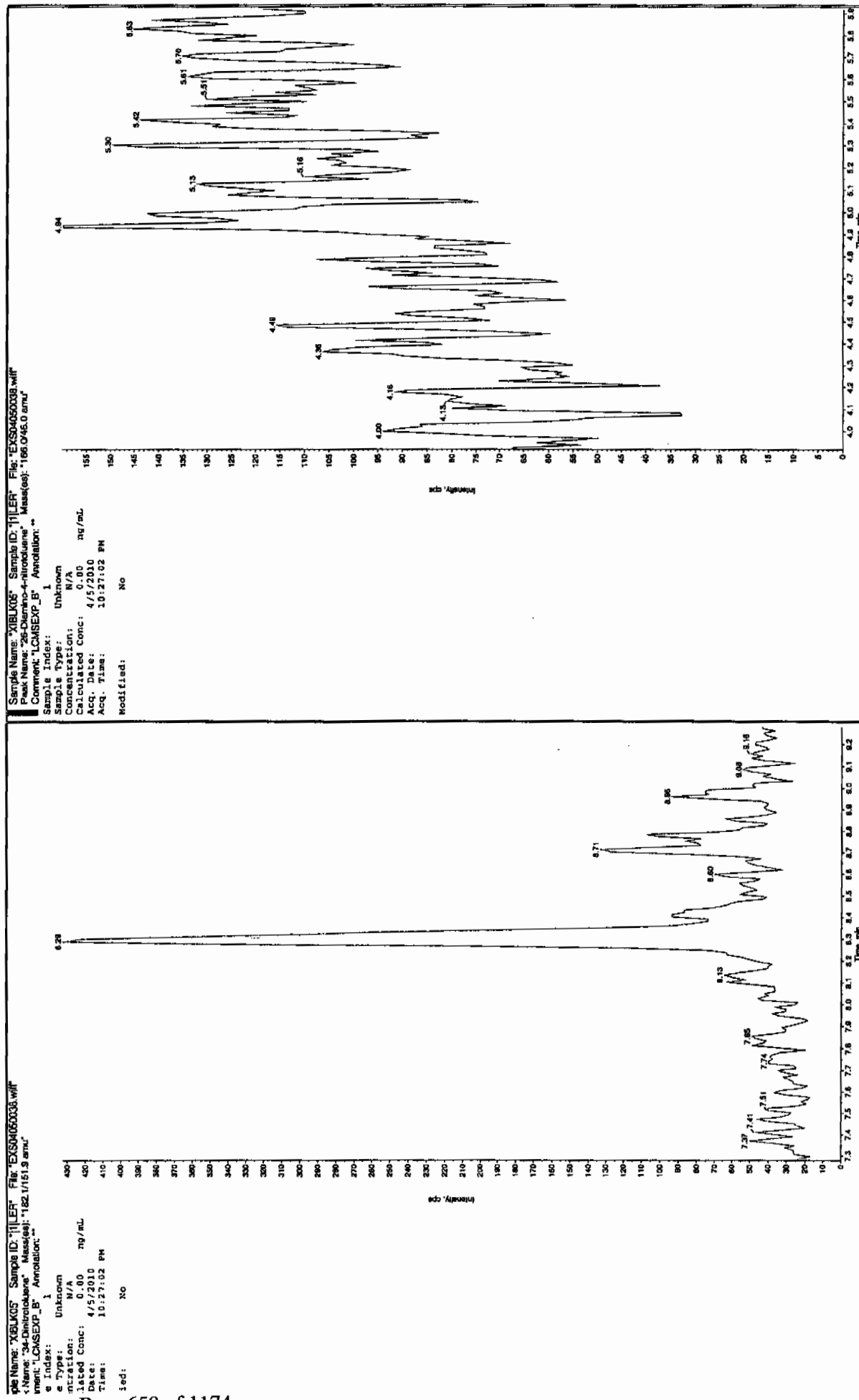
Acq. Time: 10:27:02 PM

Modified: No

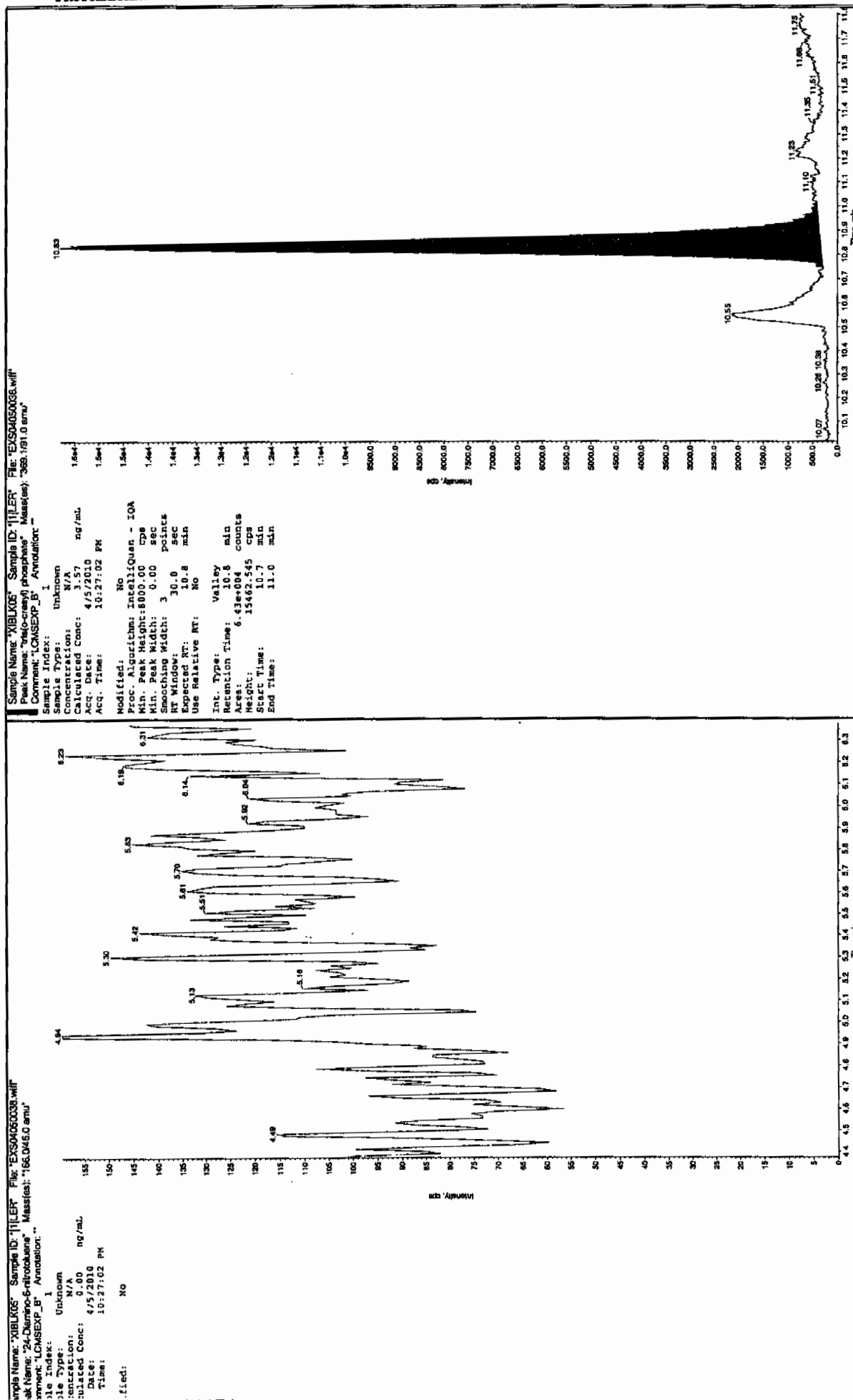


Jan 04/08/10









L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 06-APR-10 00:01

GEL Data File: EXS04050044.wiff

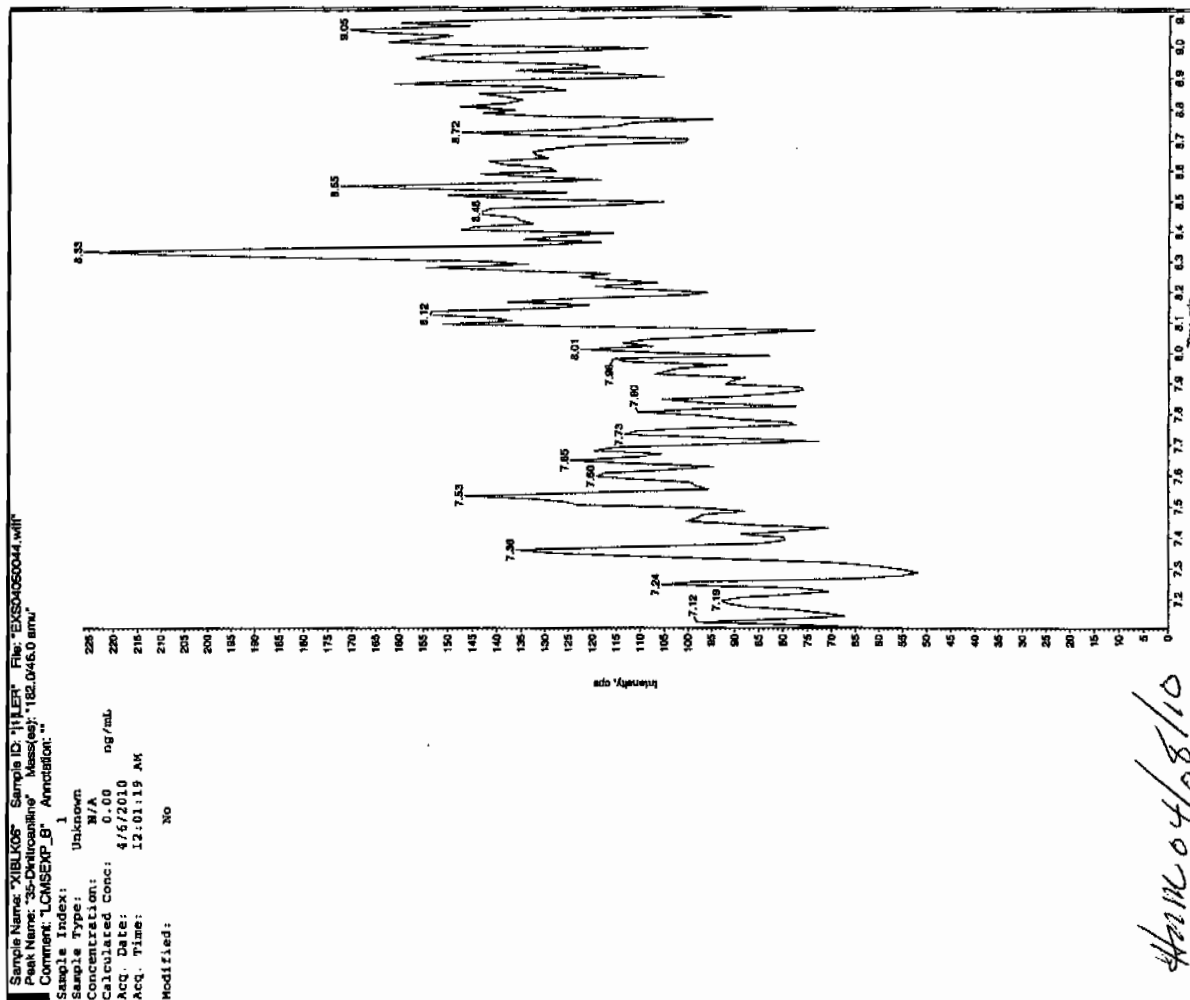
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

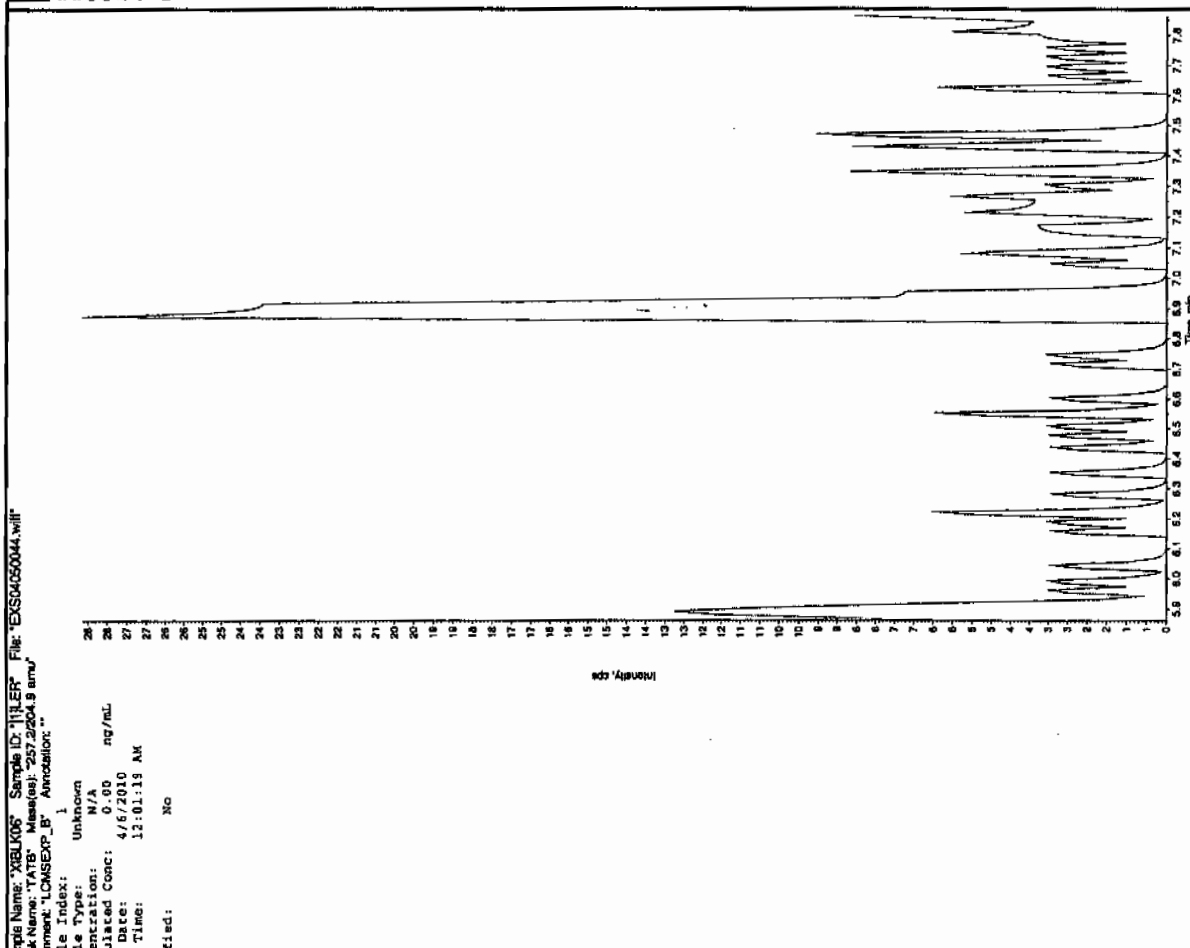
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



Scan 417110

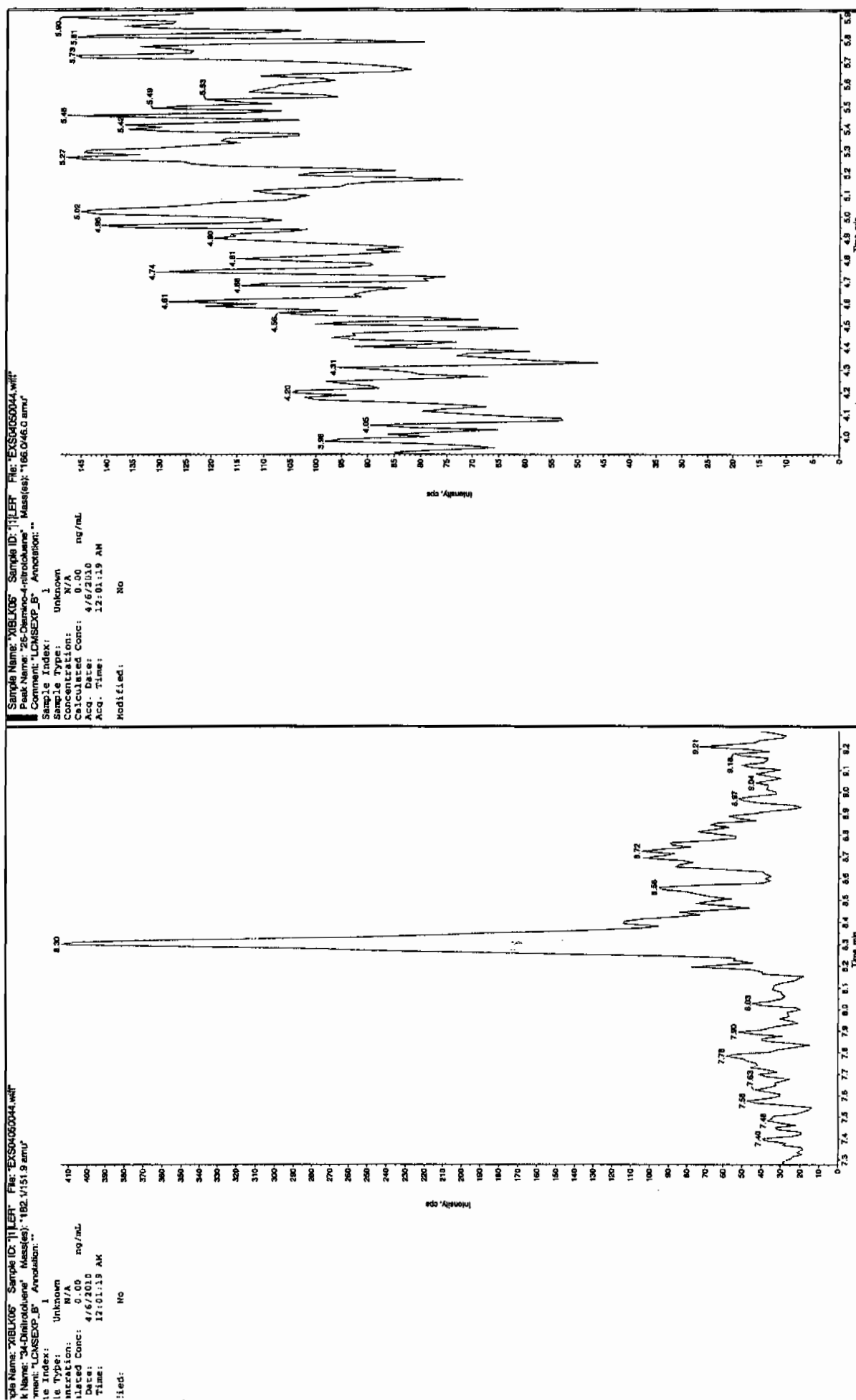


Scan 04/08/10



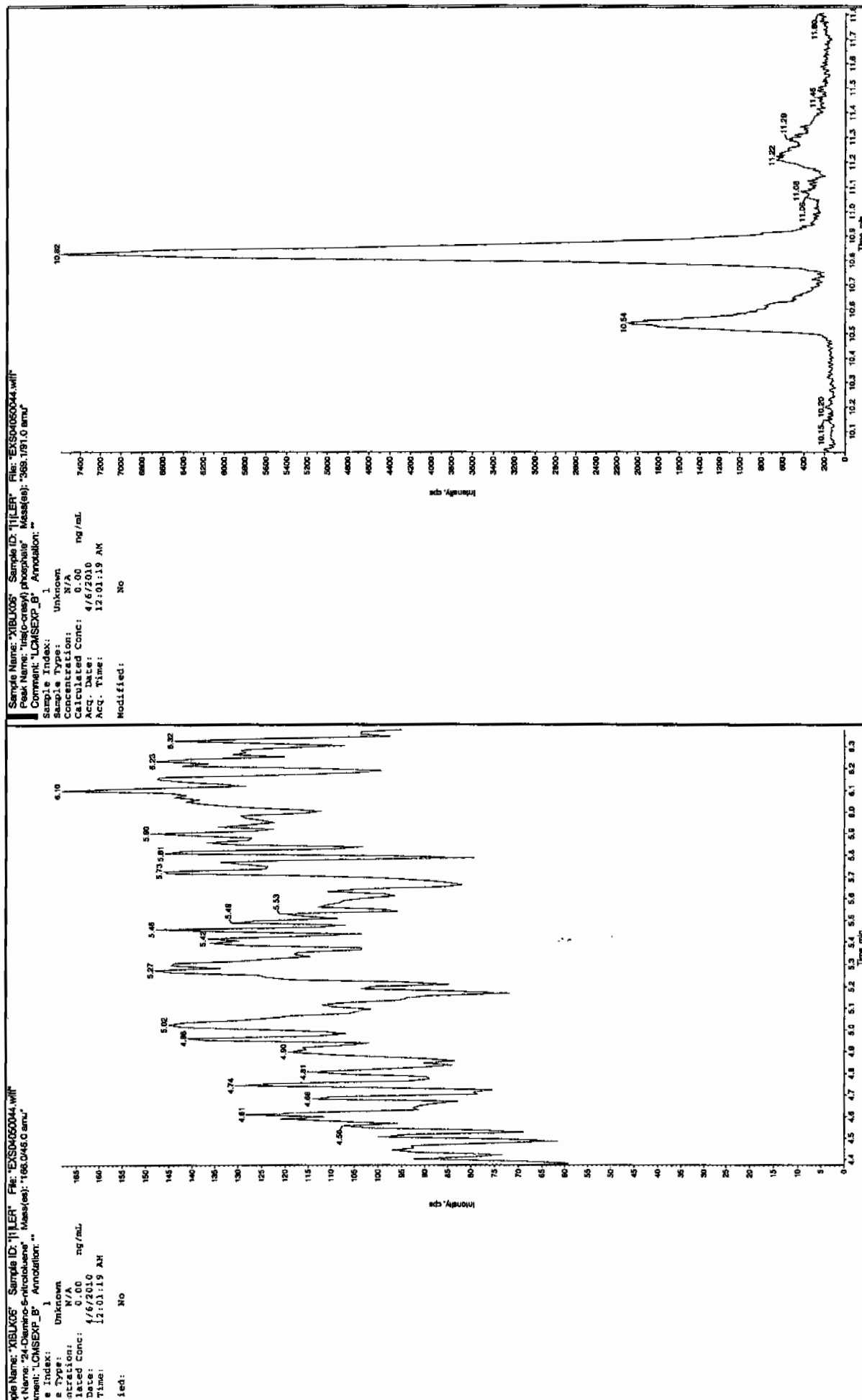
L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





J SOP GL-OA-E-056, Method 8321A-Modified LCMSEXP#4





, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 06-APR-10 01:51

GEL Data File: EXS04050051.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	5.78
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

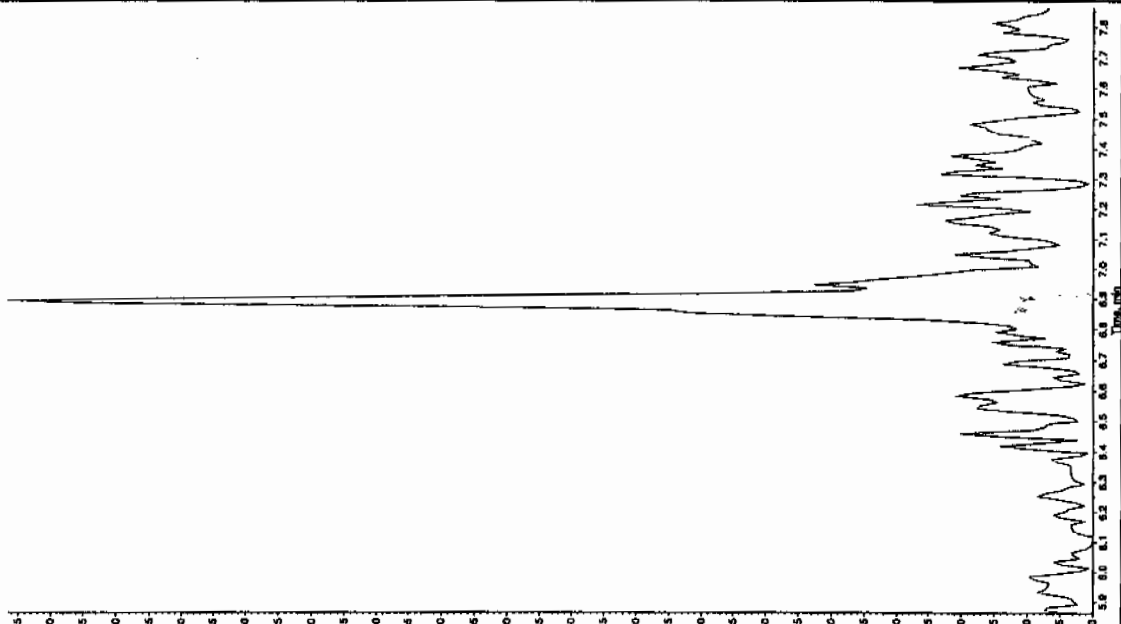


Scan 4/7/10

Sample Name: "XIBLK07" Sample ID: "TILER" File: "EXS04650051.wif"  
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
 Concent: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Date: 4/6/2010  
 Time: 1:51:17 AM  
 Modified: No

Intensity, cps

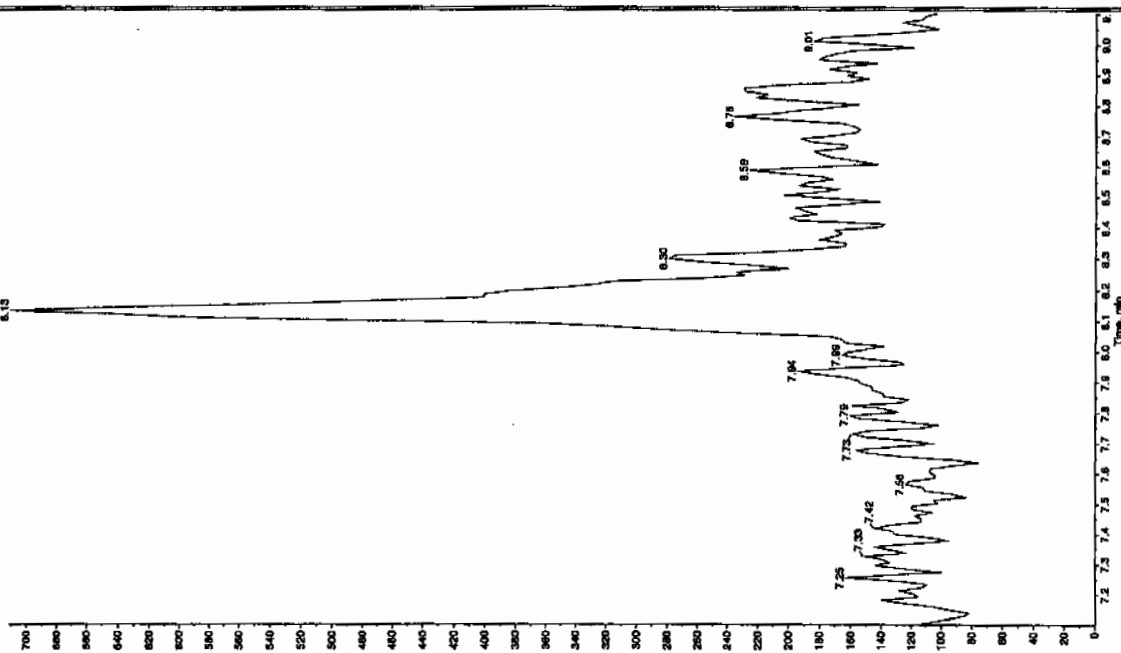


L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK07" Sample ID: "TILER" File: "EXS04650051.wif"  
 Peak Name: "35-Dinitrochlorine" Mass(es): "182.0448.0 amu"  
 Concent: "LCMSEXP\_B" Annotation: ""

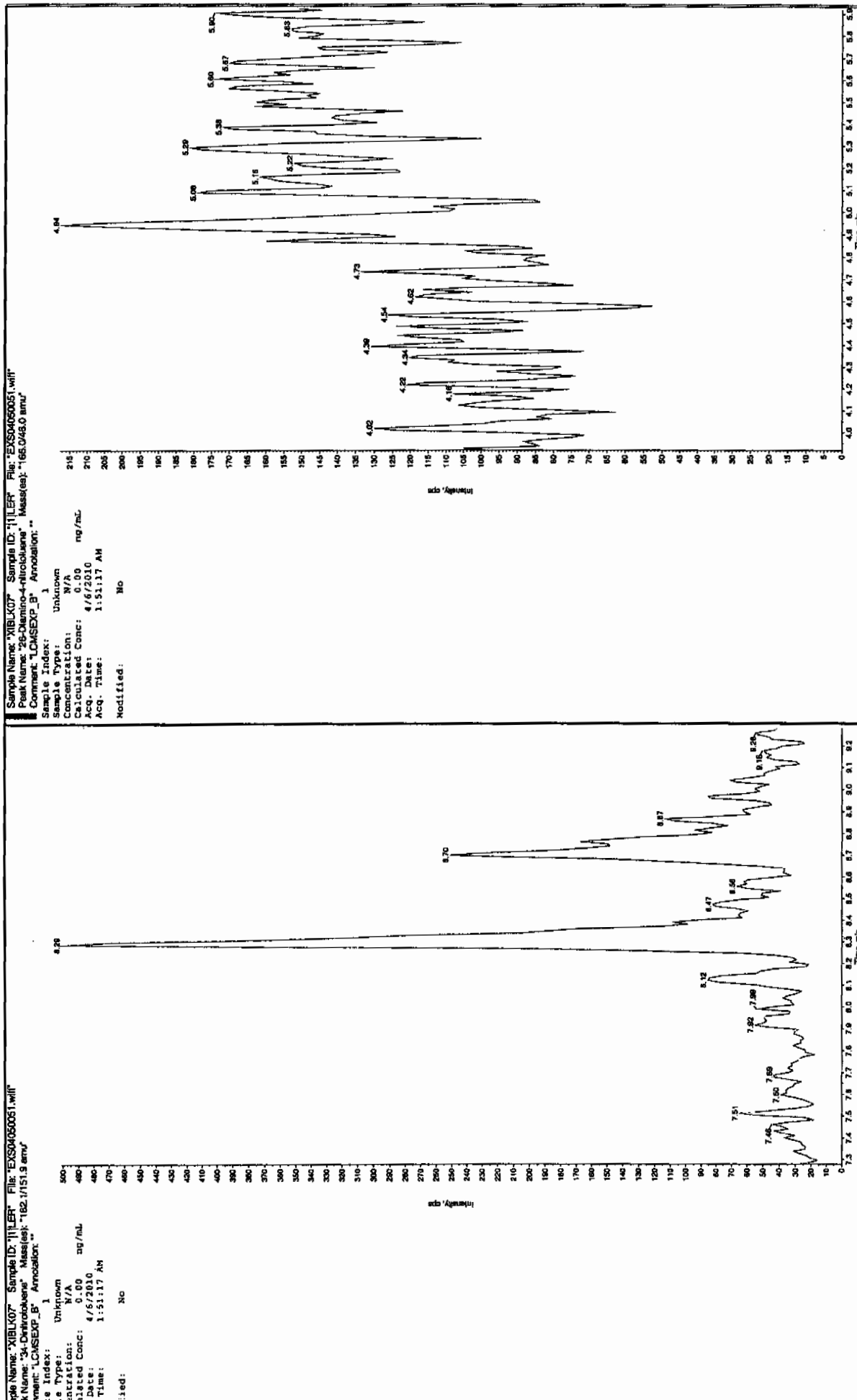
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Date: 4/6/2010  
 Time: 1:51:17 AM  
 Modified: No

Intensity, cps



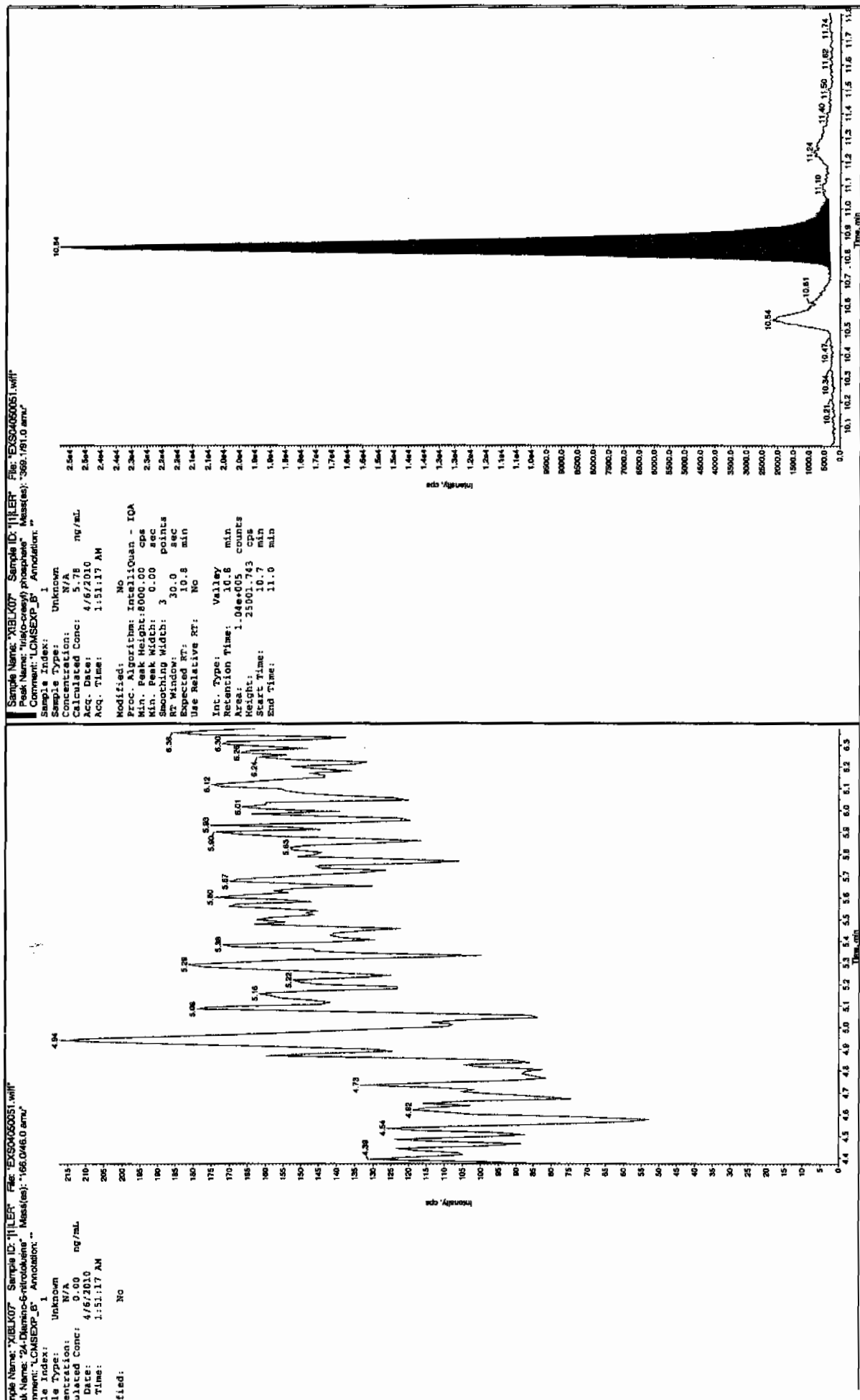
Scan 04/08/10





SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





J. SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 06-APR-10 05:15

GEL Data File: EXS04050064.wiff

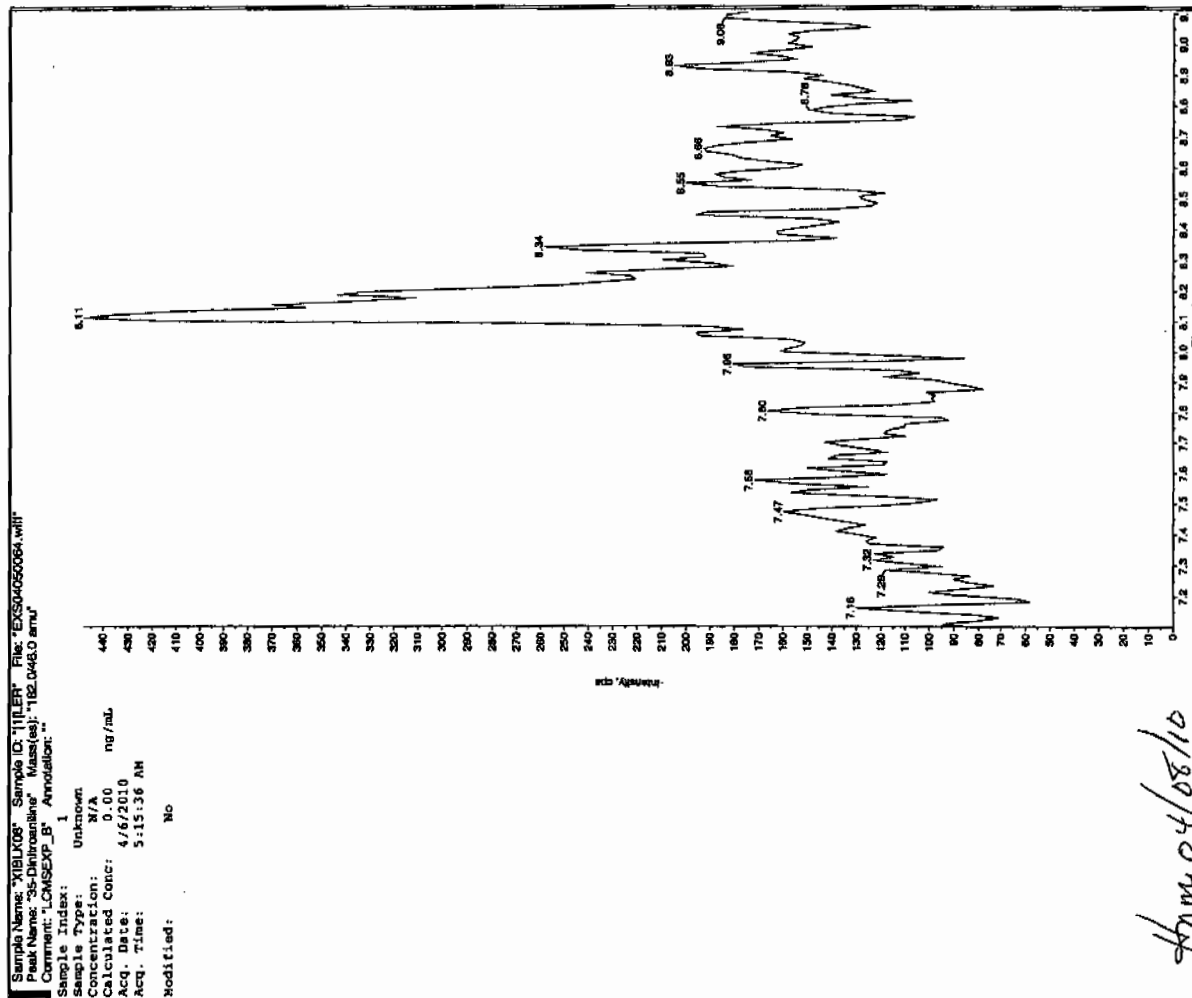
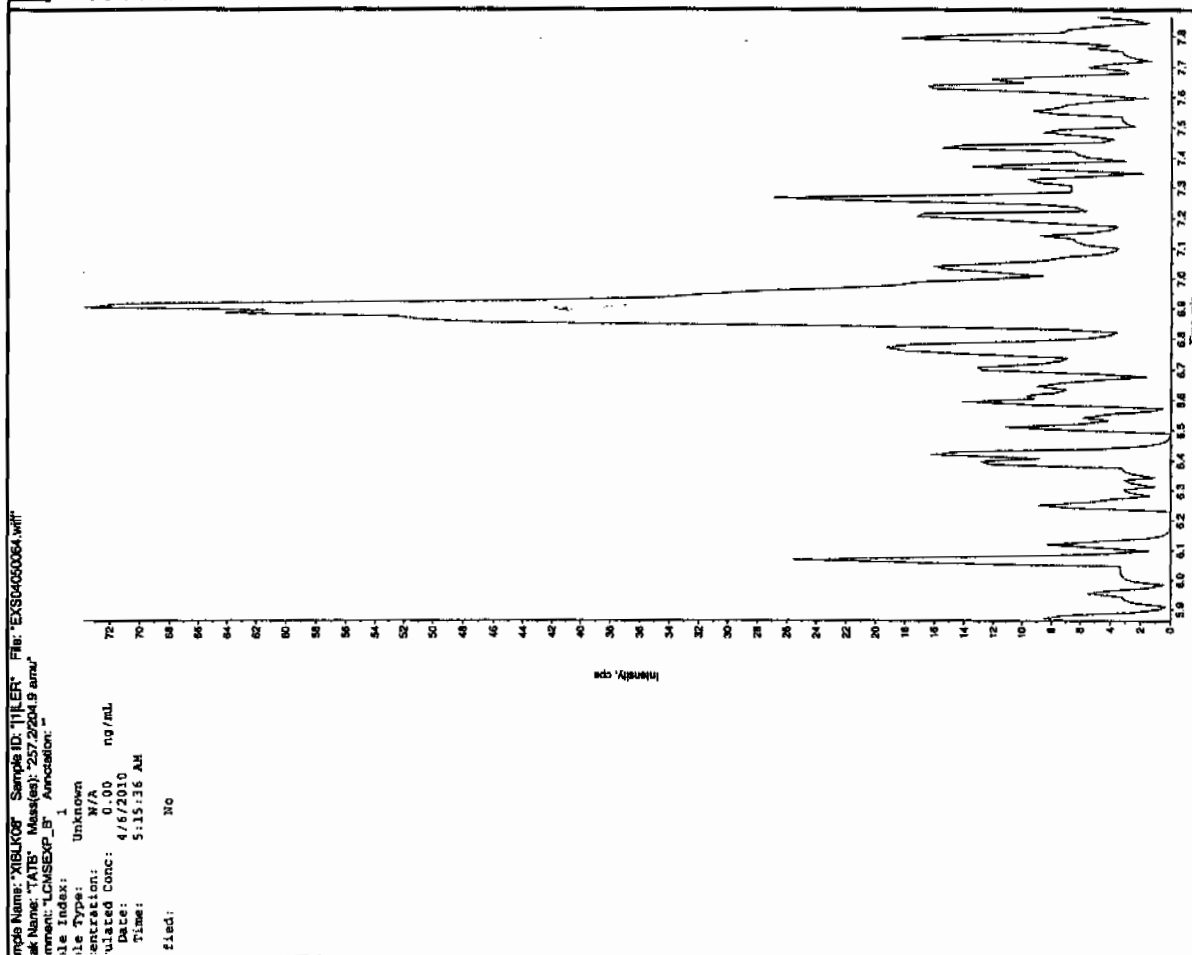
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.46
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



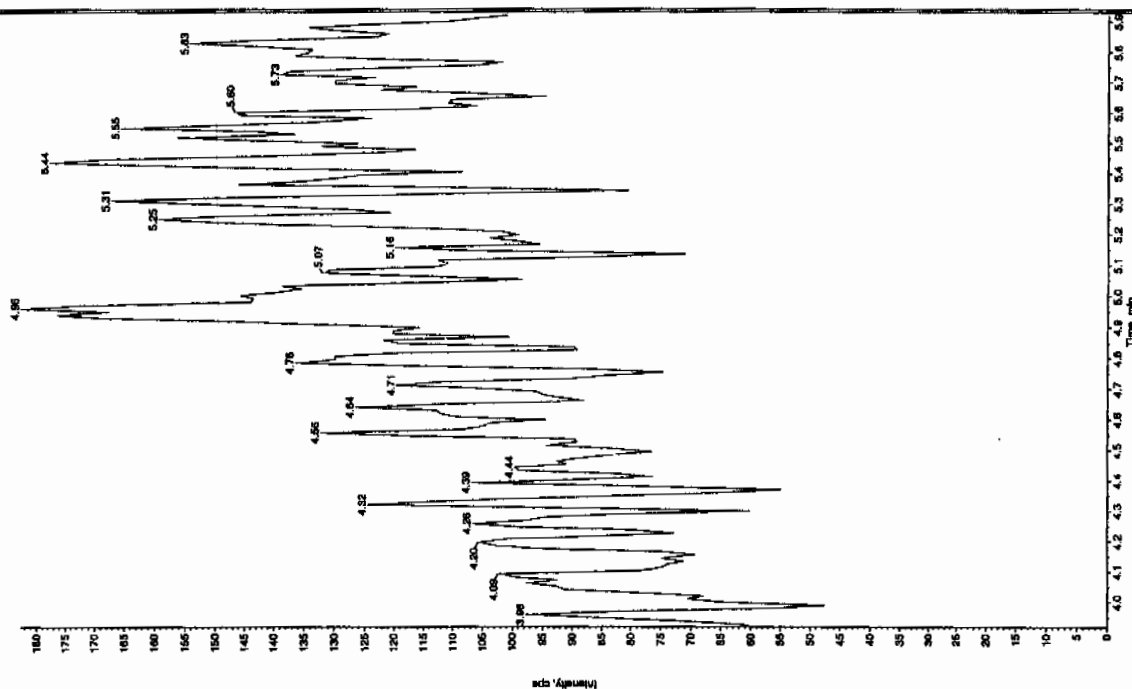
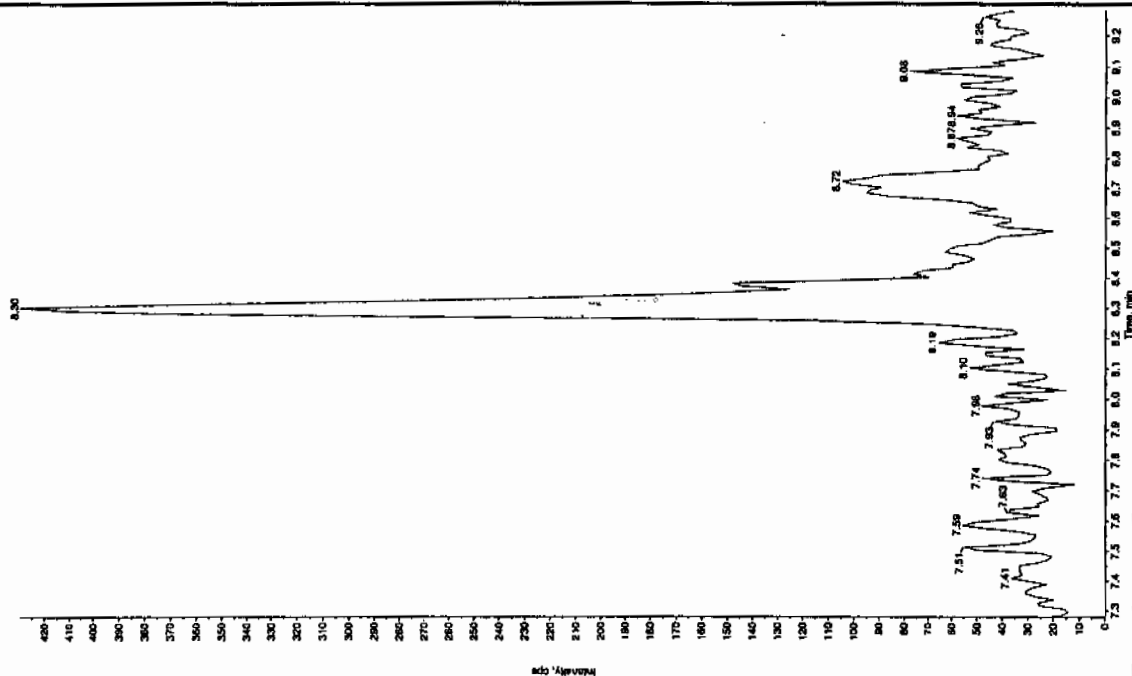
San 4/7/10



Amc 04/08/10

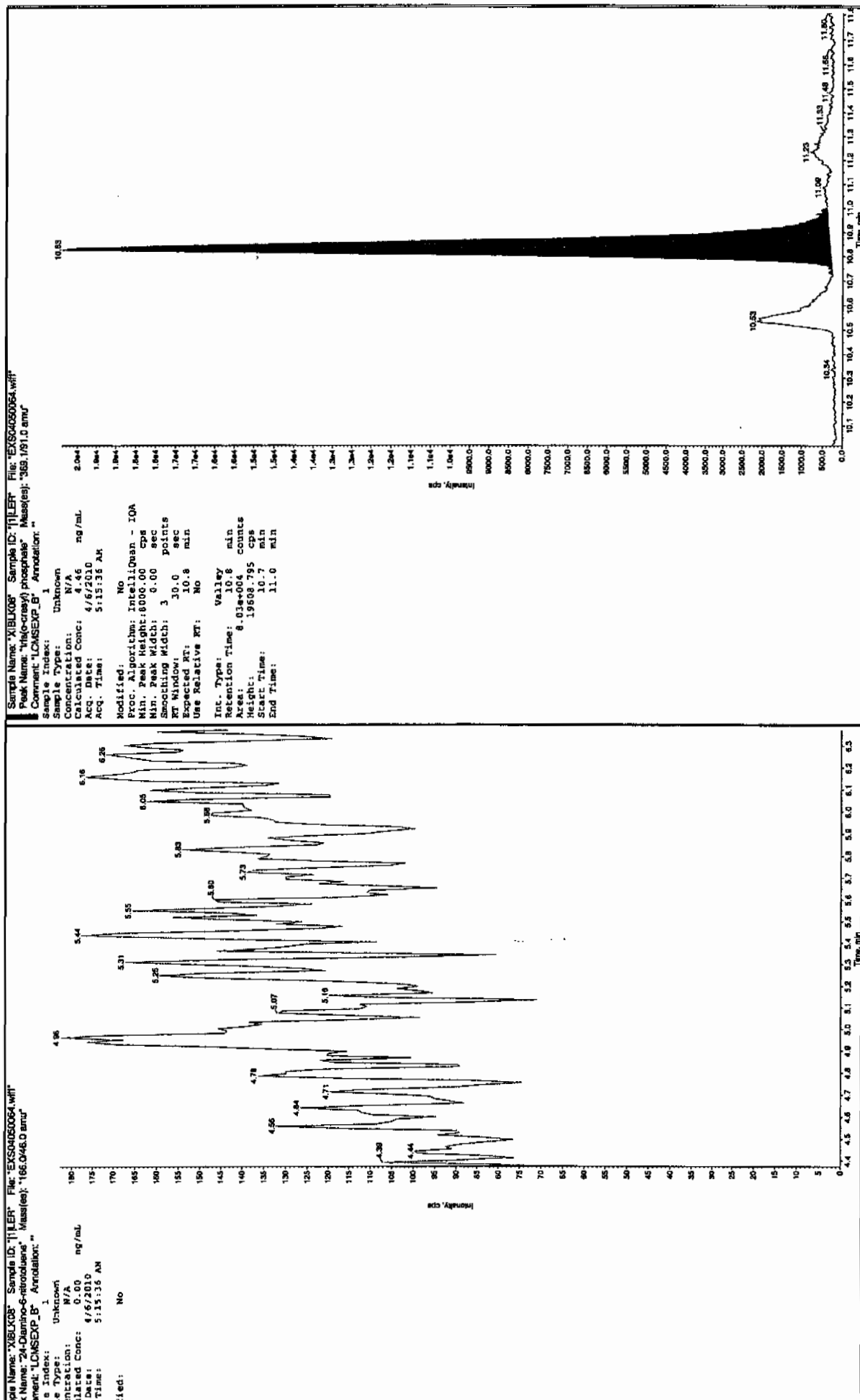


Sample Name: "XIBLK08" Sample ID: "111ER" File: "EXS04050064.wif"  
 Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 5:15:36 AM  
 Modified: No



, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 06-APR-10 07:21

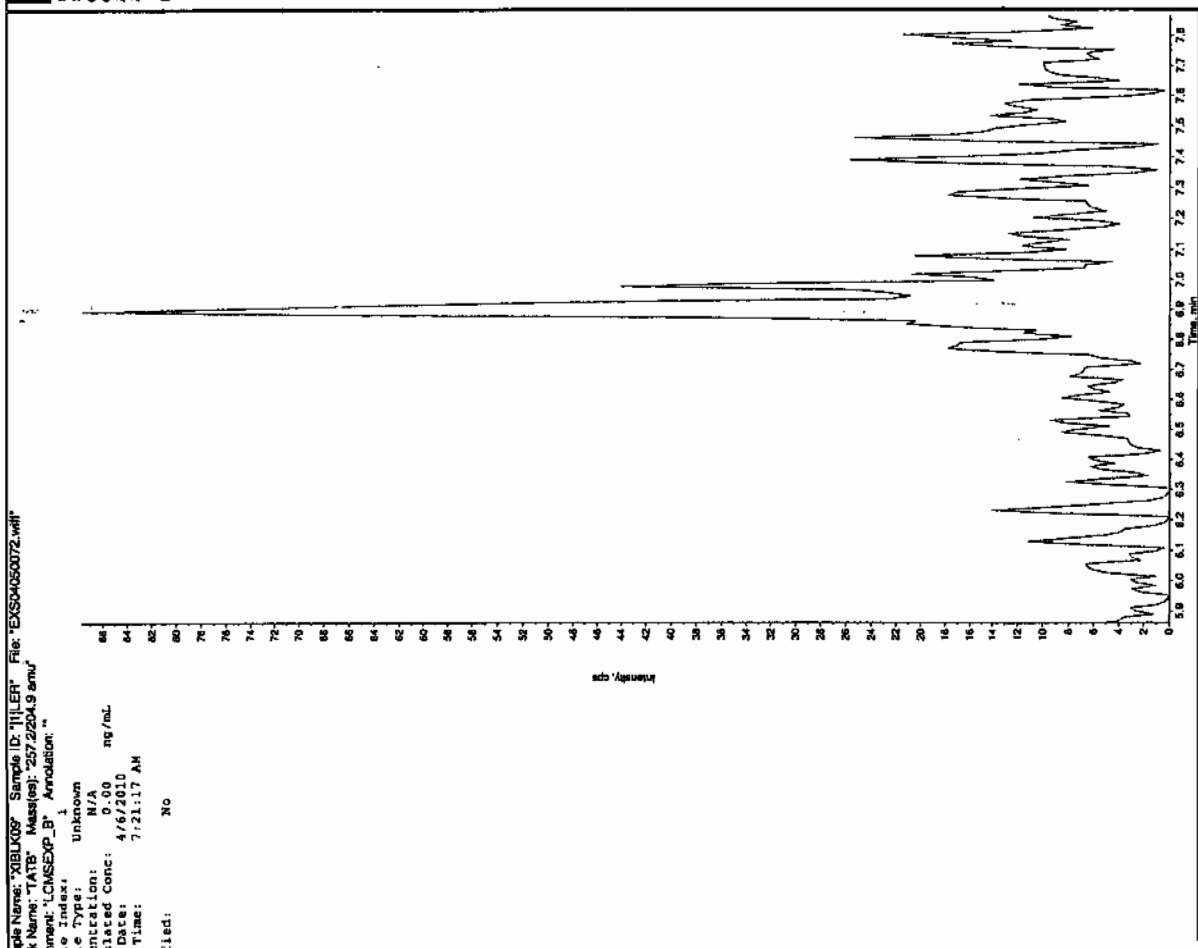
GEL Data File: EXS04050072.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

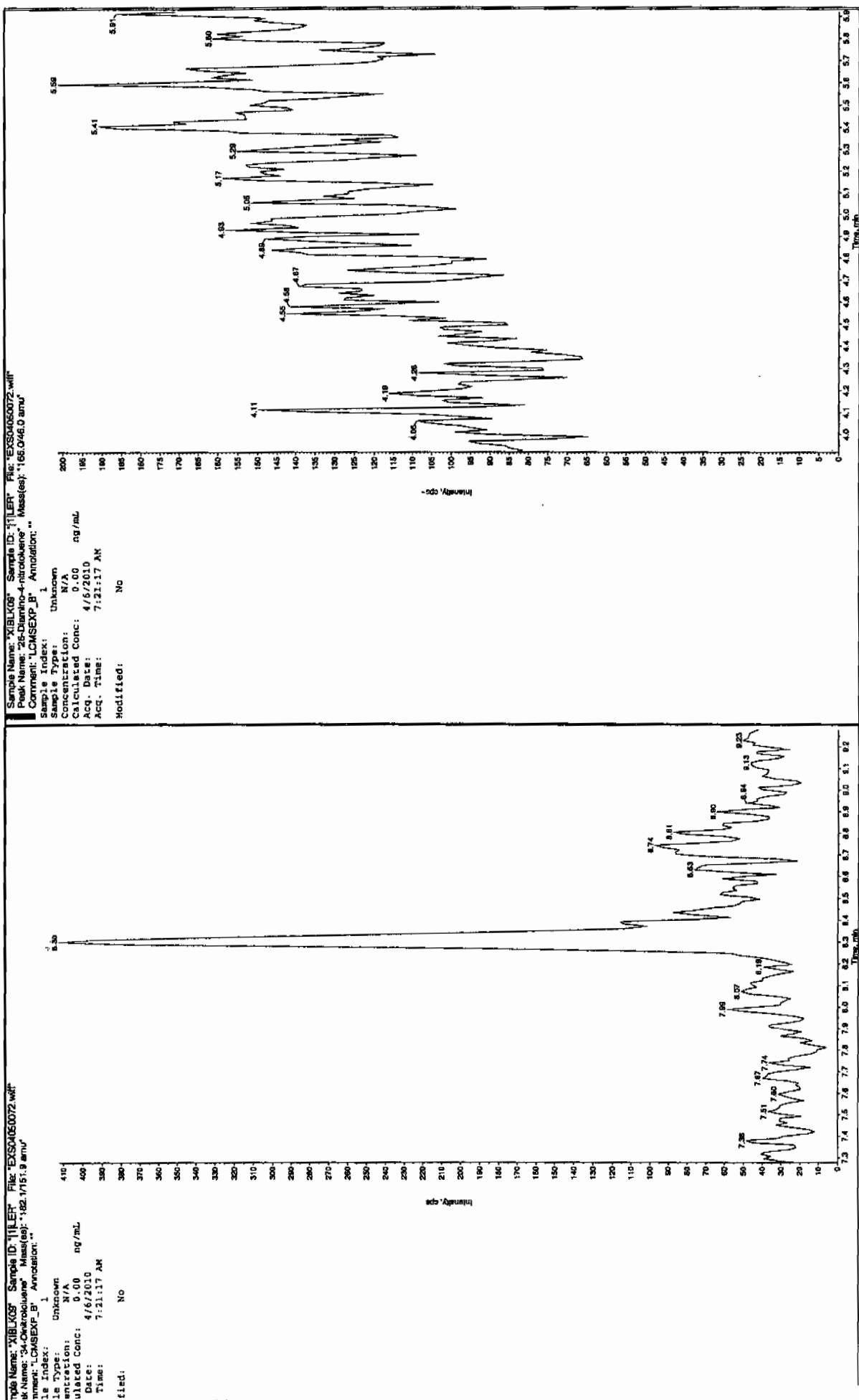
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.38
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0





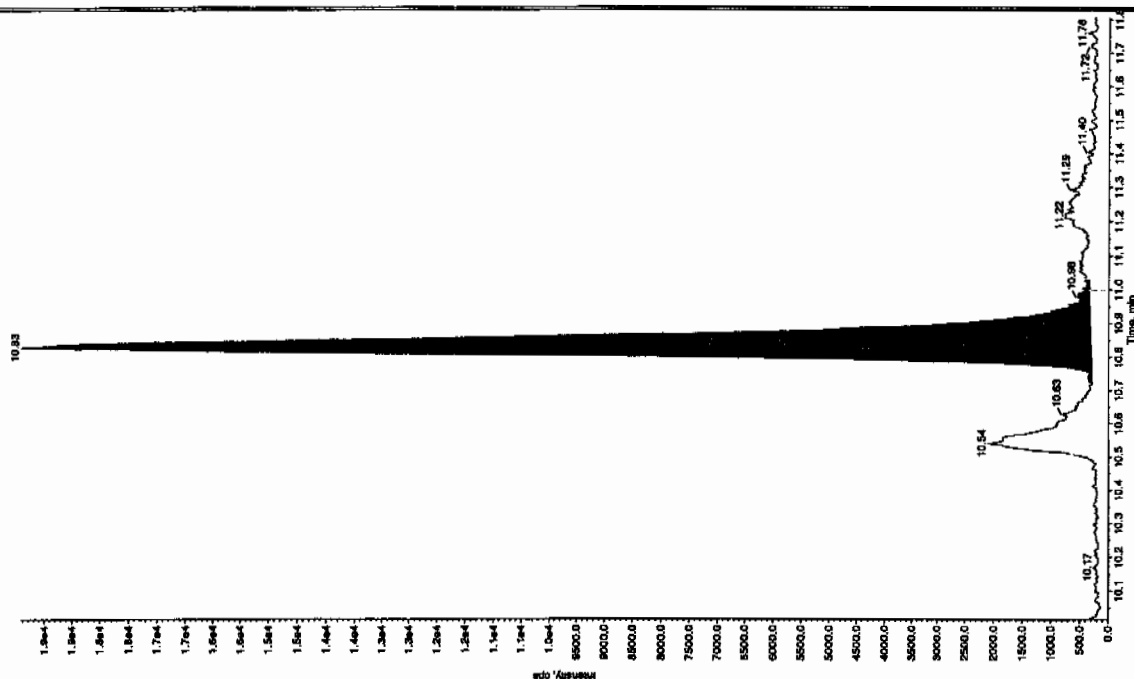
L SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#4



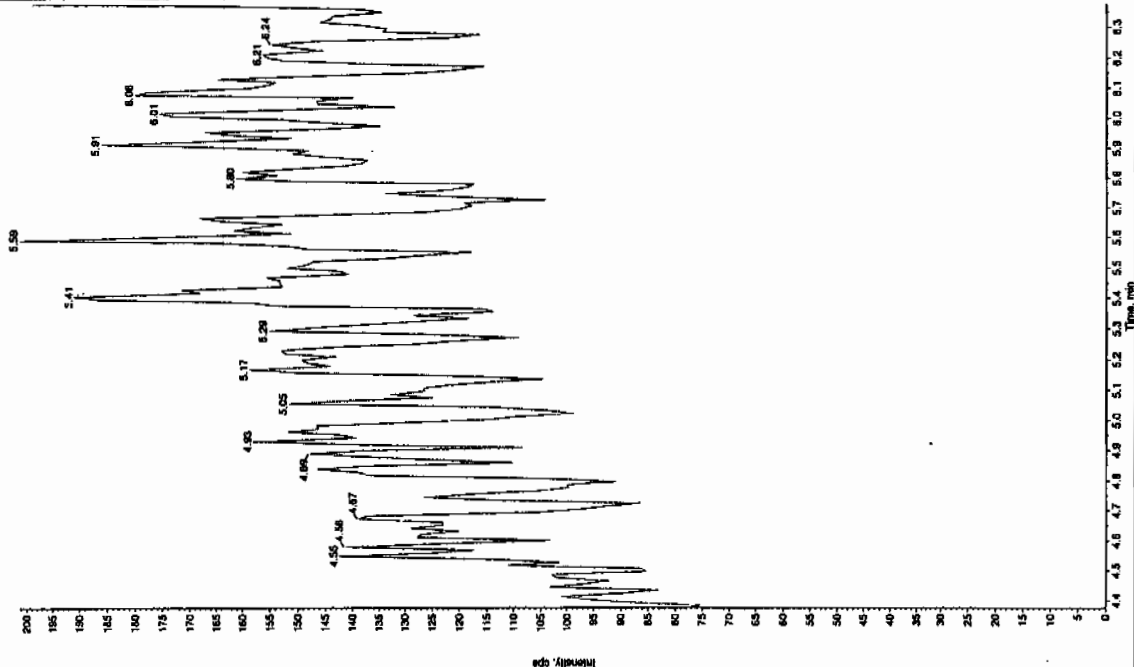


SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





Sample Name: "XIBLK08" Sample ID: "11LER" File: "EX04050072.wiff"  
Name: "24-Diamino-6-nitrofluorene" Mass(es): "156.0/46.0 amu"  
Comment: "LCMSEXP\_B" Annotation: ""



Concentration:	Unknown
Calculated Conc:	N/A
Date:	4/6/2010
Time:	7:21:17 AM
Unit:	ng/mL

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 06-APR-10 10:45

GEL Data File: EXS04050085.wiff

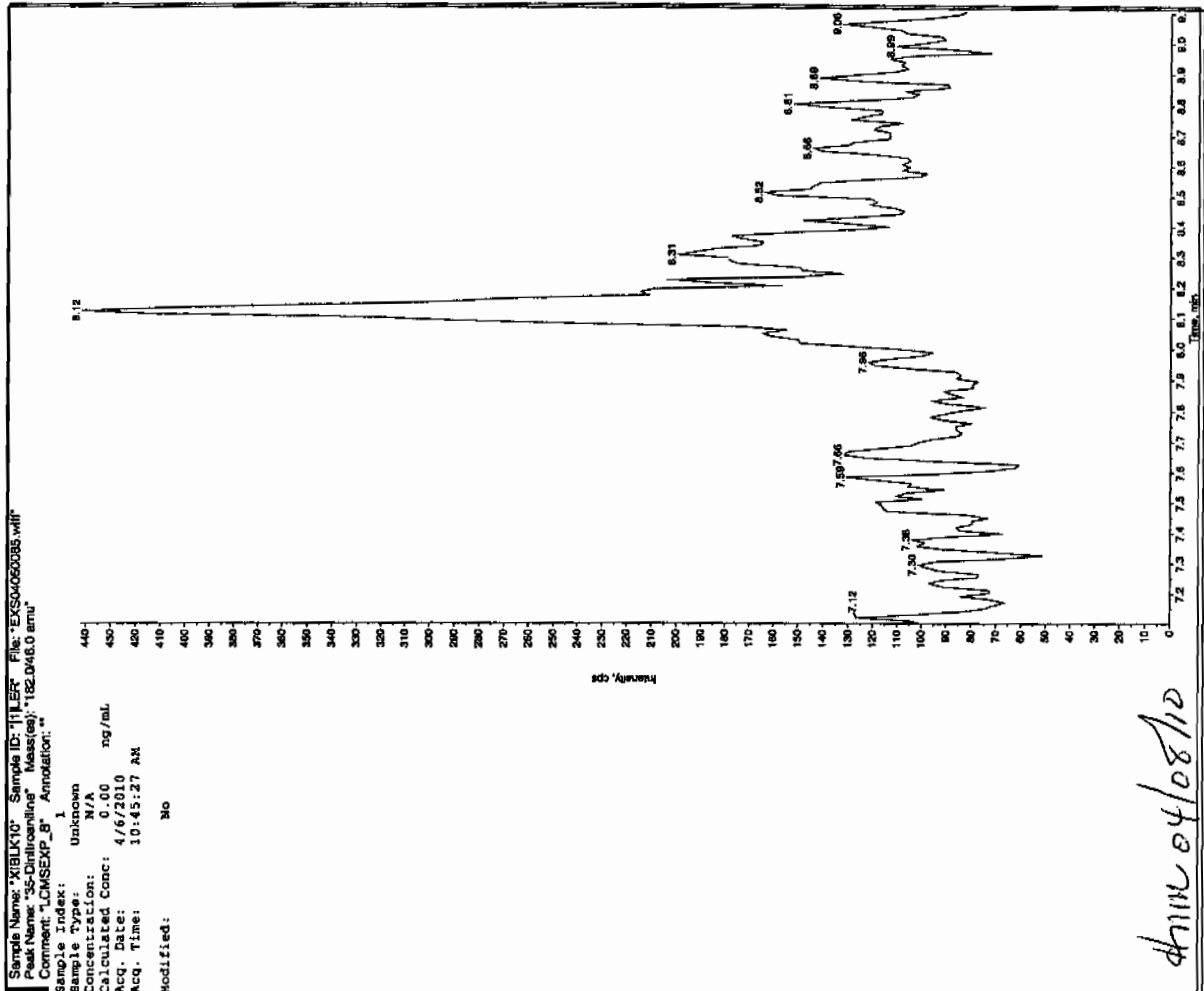
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

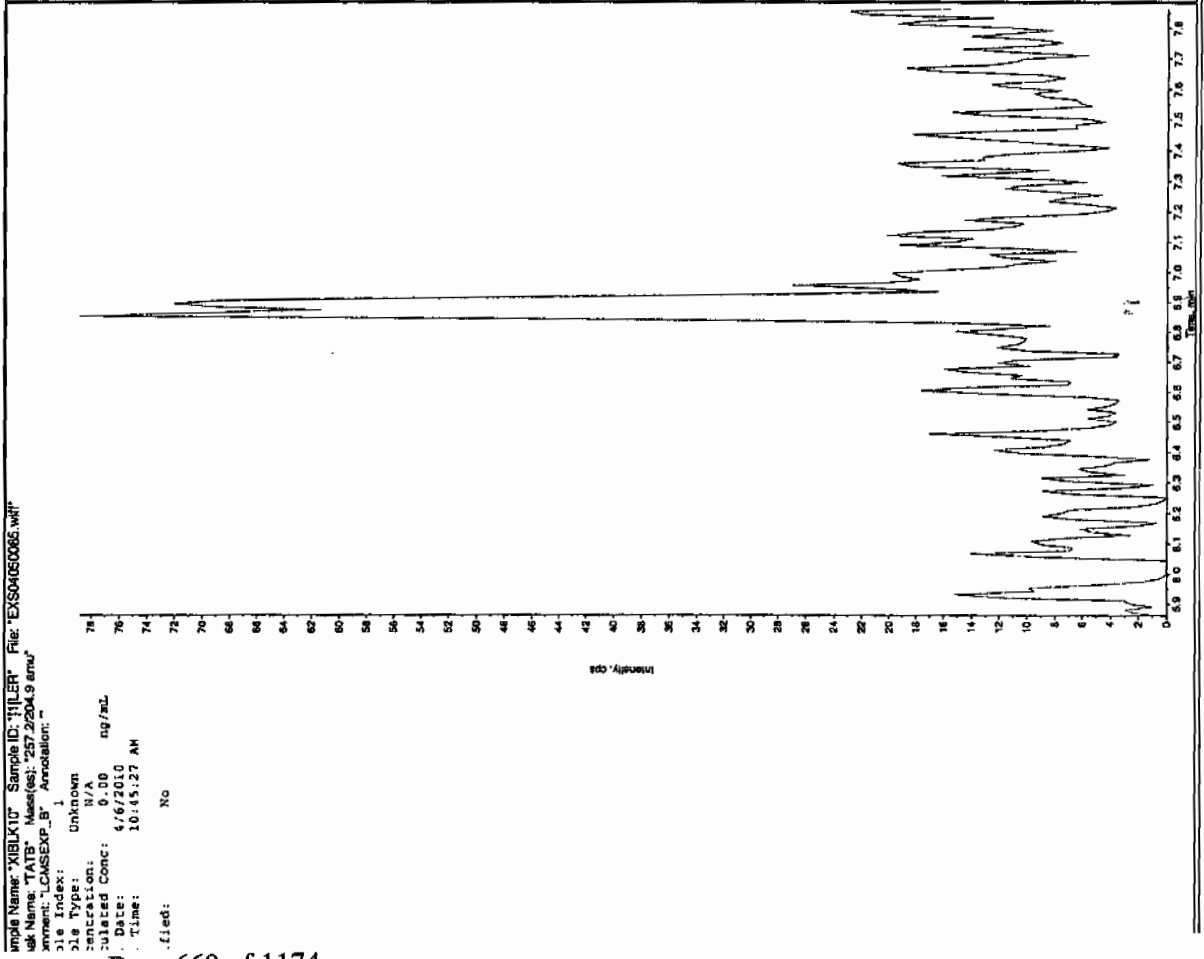
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.12
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



Sen 4/7/10

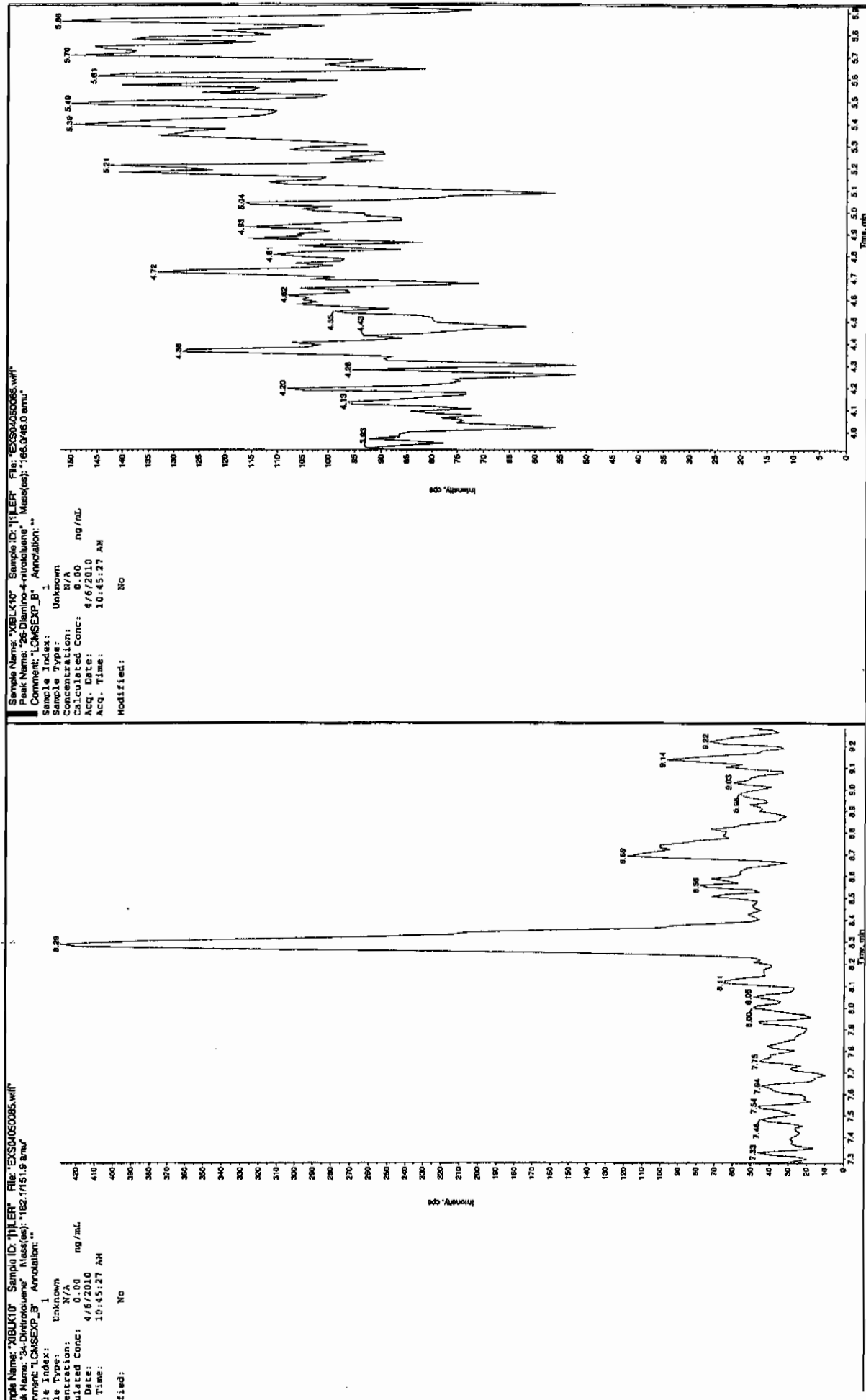


4/11/10 04/08/10

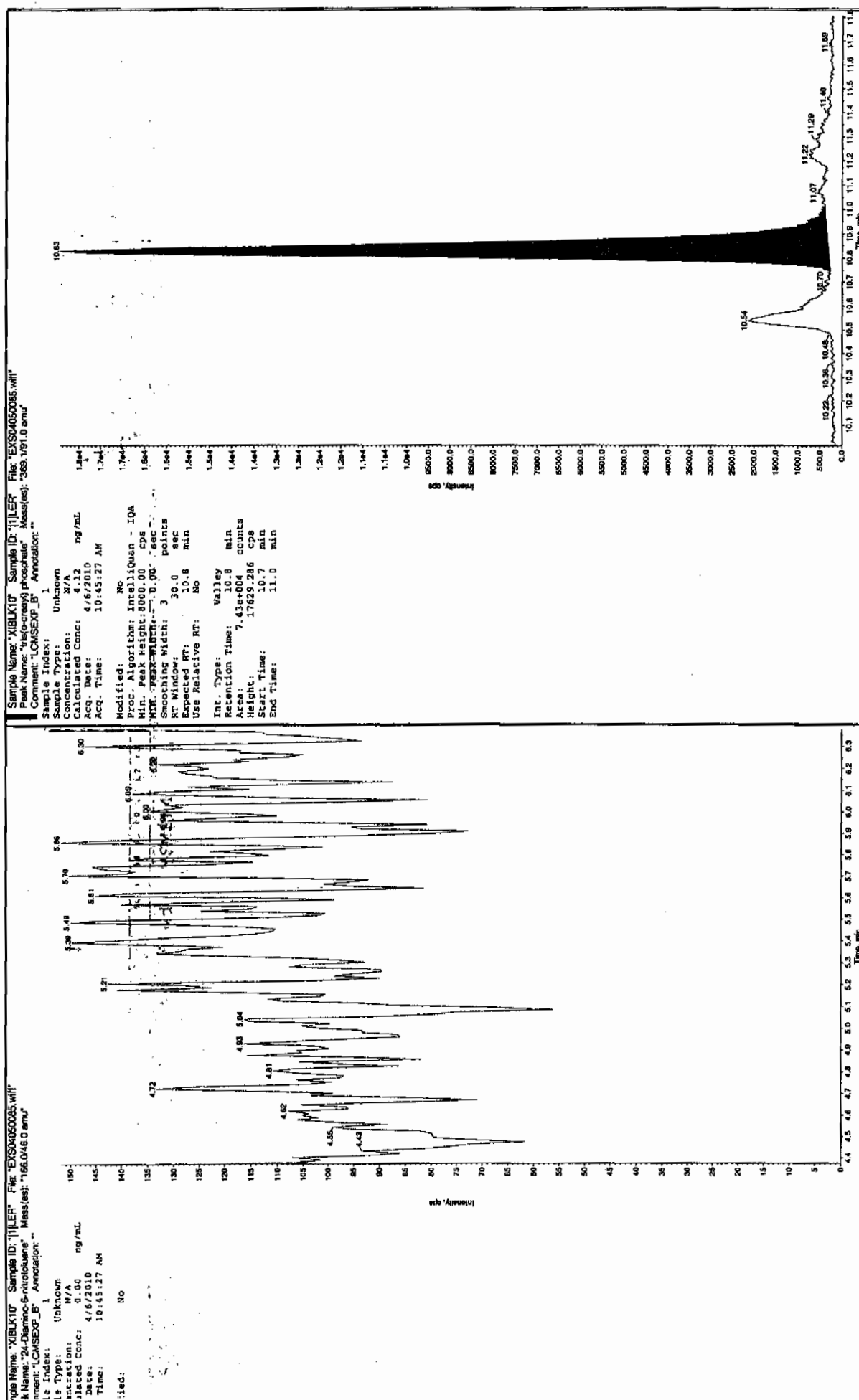


J. SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4









SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 06-APR-10 14:09

GEL Data File: EXS04050098.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	4.12
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



Scan 4/7/10

File Name: "XIBLK11" Sample ID: "TILER" File: "EXS04050088.wif"

Peak Name: "TATB" Mass(es): "257.2/204.9 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

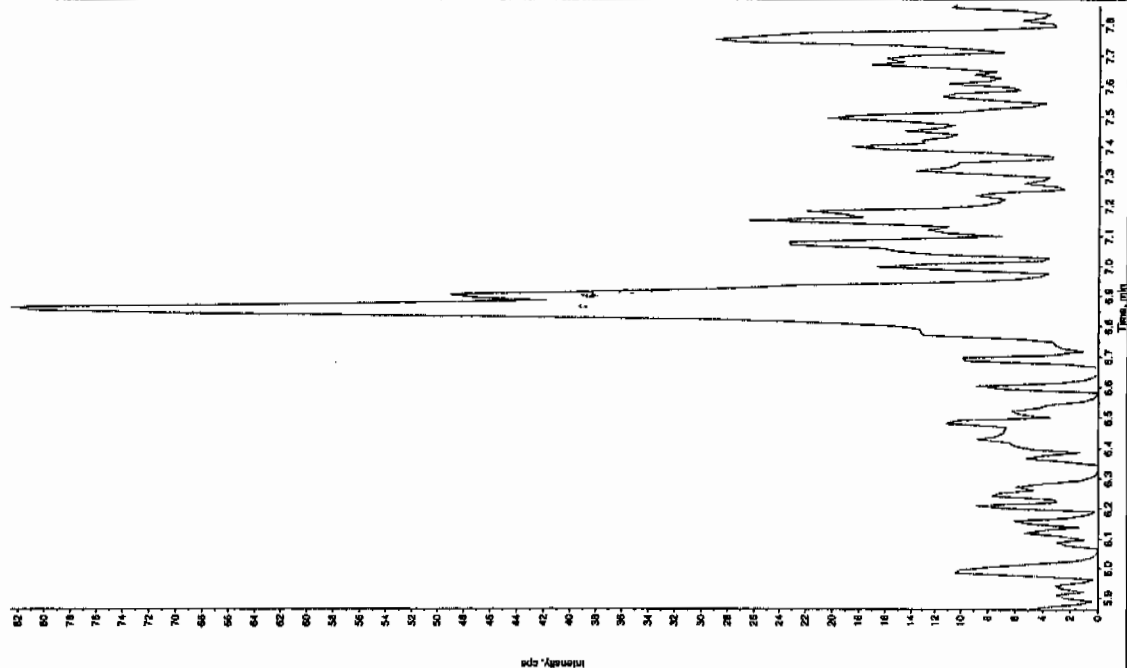
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/6/2010

Acq. Time: 2:09:37 PM

Modified: N/A



File Name: "XIBLK11" Sample ID: "TILER" File: "EXS04050088.wif"

Peak Name: "35-Dinitrocarling" Mass(es): "182.0/166.0 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

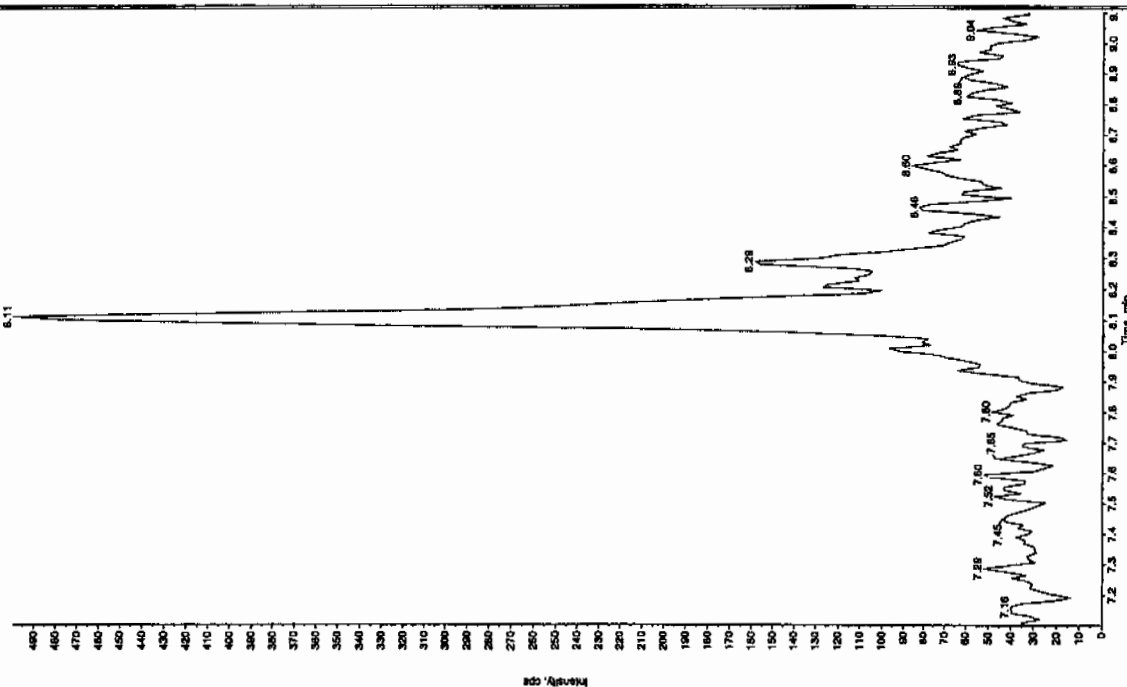
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/6/2010

Acq. Time: 2:09:37 PM

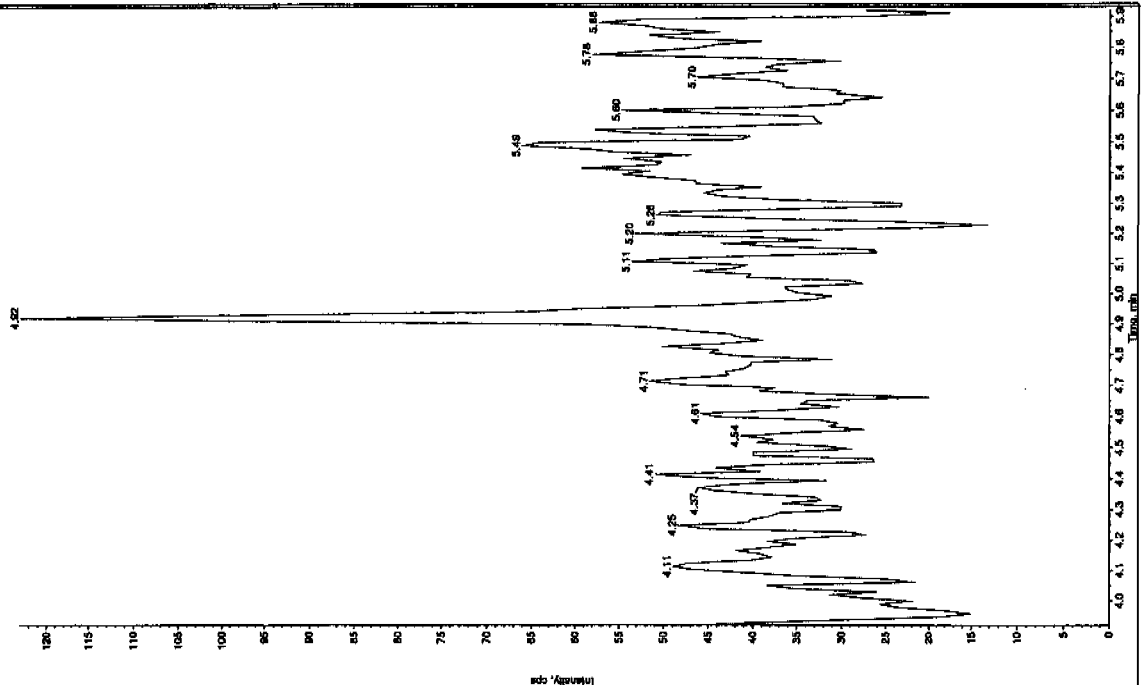
Modified: N/A



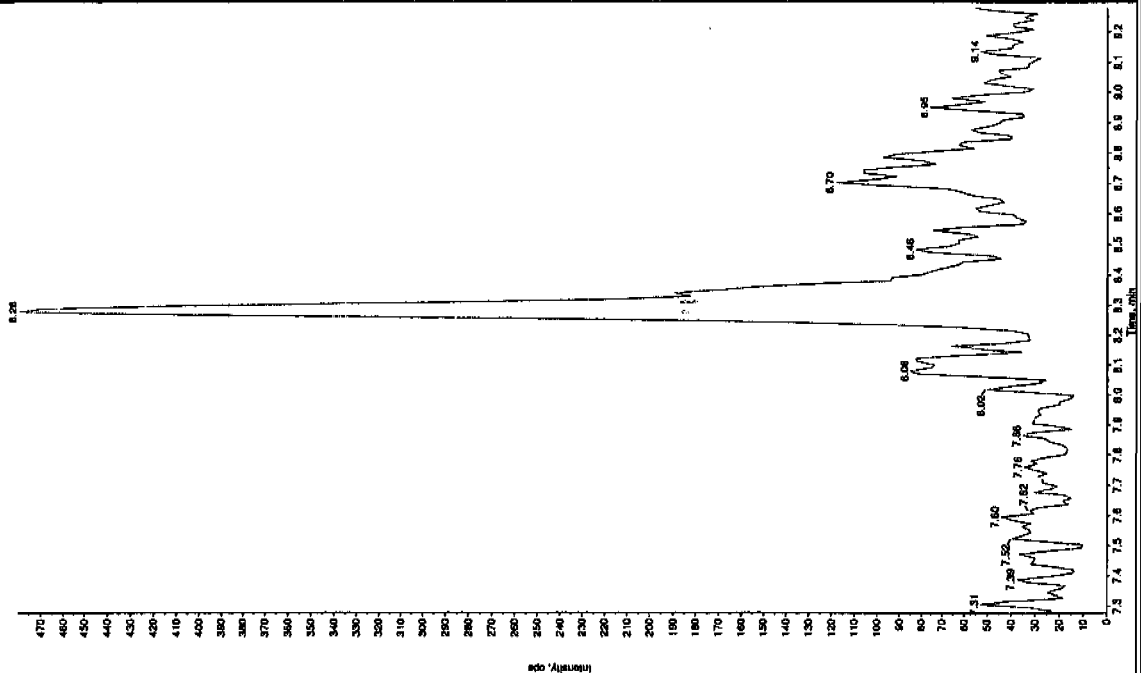
Scan 04/08/10



Sample Name: "XBLK11" Sample ID: "T1LER" File: "EXS04050088.wif"  
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "186.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 2:09:37 PM  
 Modified: No

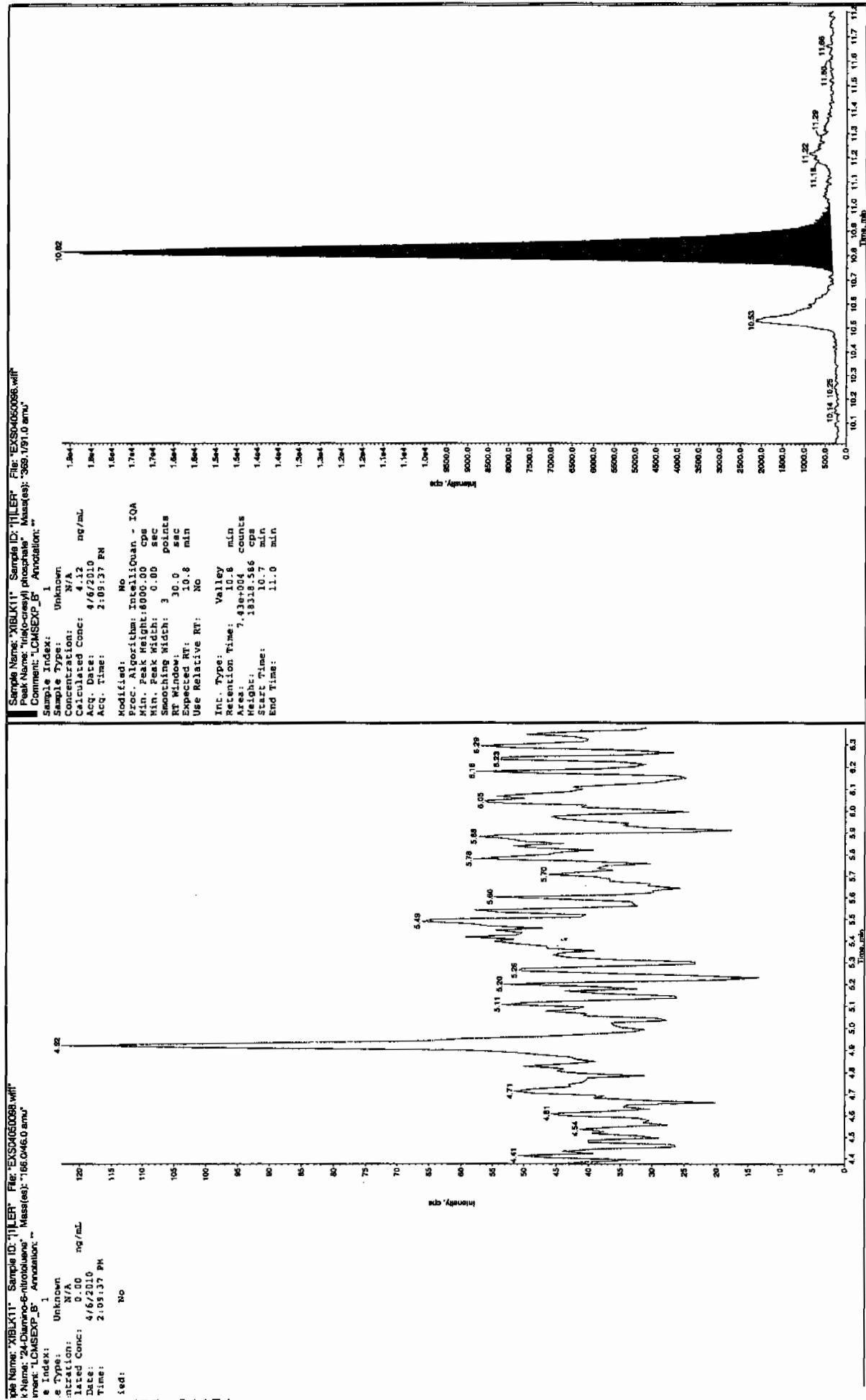


Sample Name: "XBLK11" Sample ID: "T1LER" File: "EXS04050088.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 2:09:37 PM  
 Modified: No



SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 08-APR-10 19:11

GEL Data File: EXS04080010.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	12.7
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



Sample Name: "XIBLK02" Sample ID: "JILR" File: "XS04080010.wit"  
Peak Name: "TAB" Mass(es): "257.2204,9 amu"  
Comment: "1" CMSEVD Q1 Acquisition: "2"

Sample Name: "XIBLK02" Sample ID: "1" IER File: "EXSM04080010.wiff"  
Peak Name: "35-Dinitrocellulose" Mass(es): "182.046.0 amu"  
Comment: "1CMSEXP B" Annotation: ""

Counters: LAMCART_0	1	Unknown	N/A	0.00	ng/mL
Sample ID:					
Sample type:					
Concentration:					
Calculated Conc:					
Acq. Date:				4/8/2010	
Acq. Time:				7:11:01 PM	
Modified:				NO	

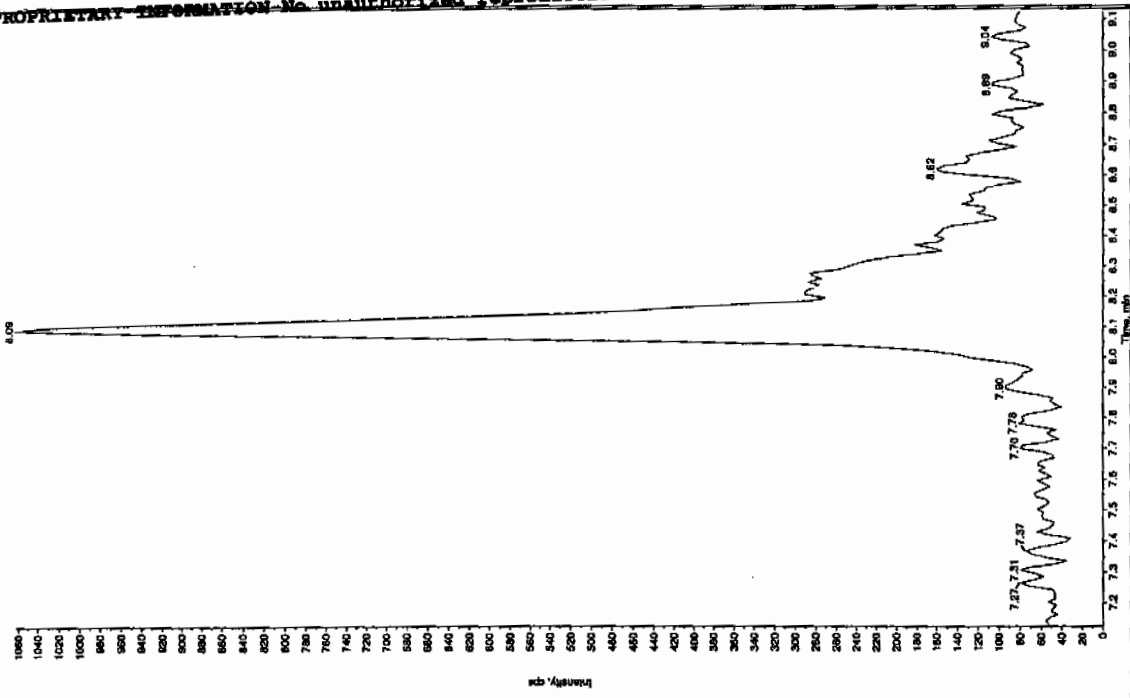
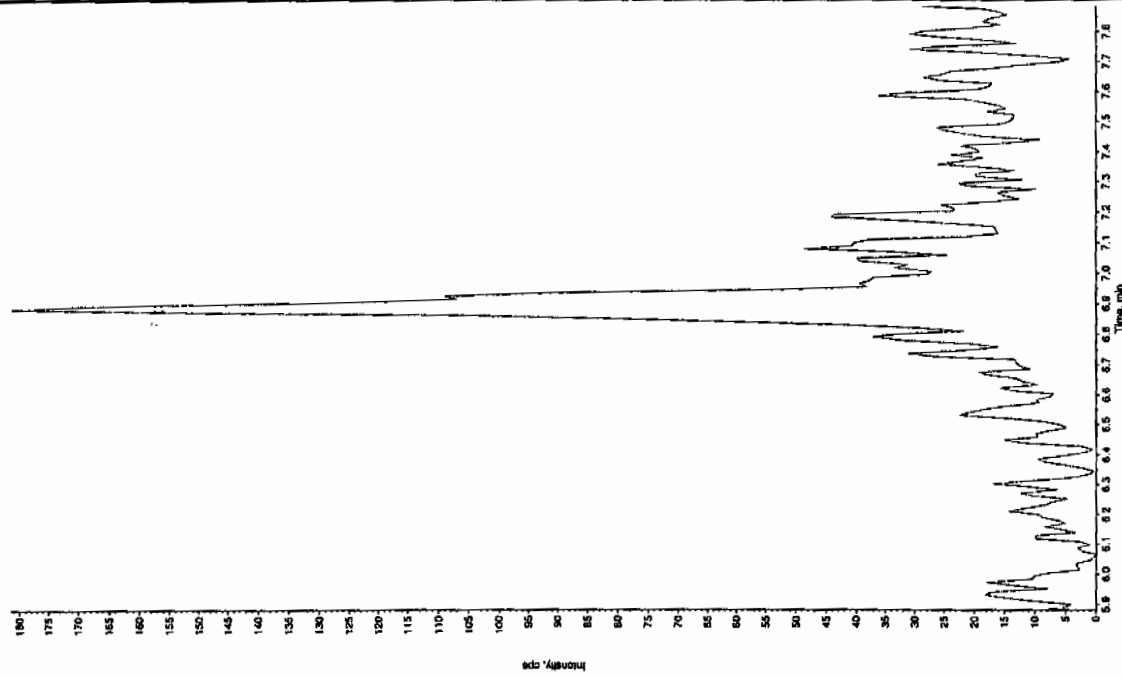
Sample Index:	1	Unknown
Sample Type:		N/A
Concentration:		0.1
Calculated Conc:		4/8/2
Acq. Date:		7:11:
Acq. Time:		
Modified:		No

Time	ng/mL
00	
010	
01 PM	

The graph shows the relationship between the concentration of Mn<sup>2+</sup> (in units of 10<sup>-4</sup> M) on the x-axis and the logarithm of the term (1 + 10<sup>-10 \* [Mn<sup>2+</sup>] / 10<sup>-4</sup>]) on the y-axis. The x-axis ranges from 0 to 1.0 with major ticks every 0.2. The y-axis ranges from 980 to 1060 with major ticks every 20. Five data series are plotted, each corresponding to a different ligand: EDTA (open circles), DTPA (open squares), DTPA-Mg (open triangles), DTPA-Ca (open diamonds), and DTPA-Mg-Ca (open inverted triangles). All series show a linear increase in the y-value as the x-value increases, with EDTA having the highest y-values and DTPA-Mg-Ca having the lowest.</sup>

[Mn <sup>2+</sup> ] (10 <sup>-4</sup> M)	EDTA	DTPA	DTPA-Mg	DTPA-Ca	DTPA-Mg-Ca
0.0	1000	990	985	980	975
0.2	1010	1000	995	990	985
0.4	1020	1010	1005	1000	995
0.6	1030	1020	1015	1010	1005
0.8	1040	1030	1025	1020	1015
1.0	1050	1040	1035	1030	1025

Country	Percentage (%)
Japan	19
Germany	18
Italy	17
France	16
Switzerland	15
Sweden	14
Australia	13
United States	12



SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

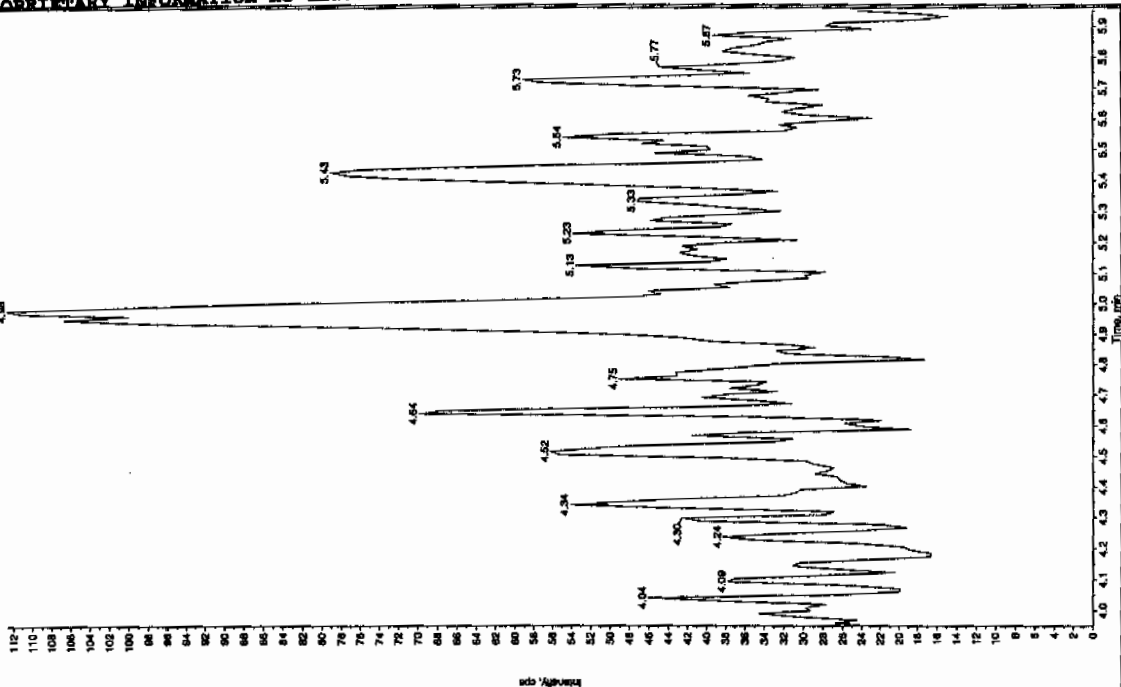
for 4/12/10

4/12/10



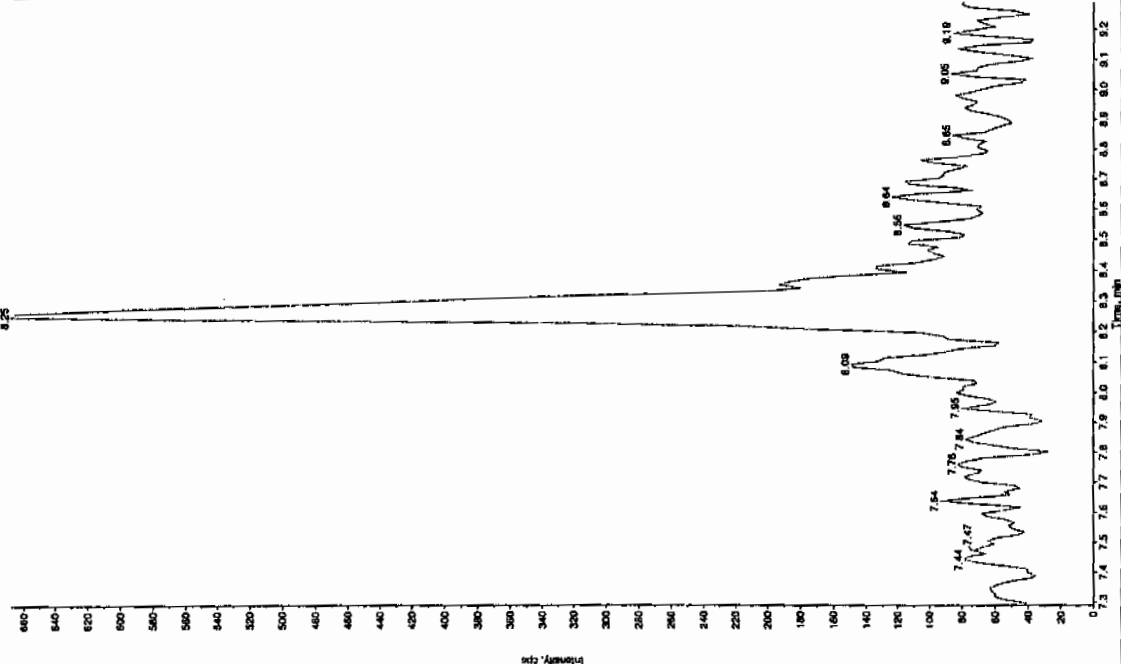
Sample Name: 'XIELK02' Sample ID: '111111' File: 'EXS04060010.wif'  
 Peak Name: '34-Dinitrofluorene' Retention: '166.046.0 min'  
 Concentration: 'LCMSXP\_B' Annotation: ''

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/8/2010  
 Acq. Date: 7:11:01 PM  
 Acq. Time: No  
 Modified: No



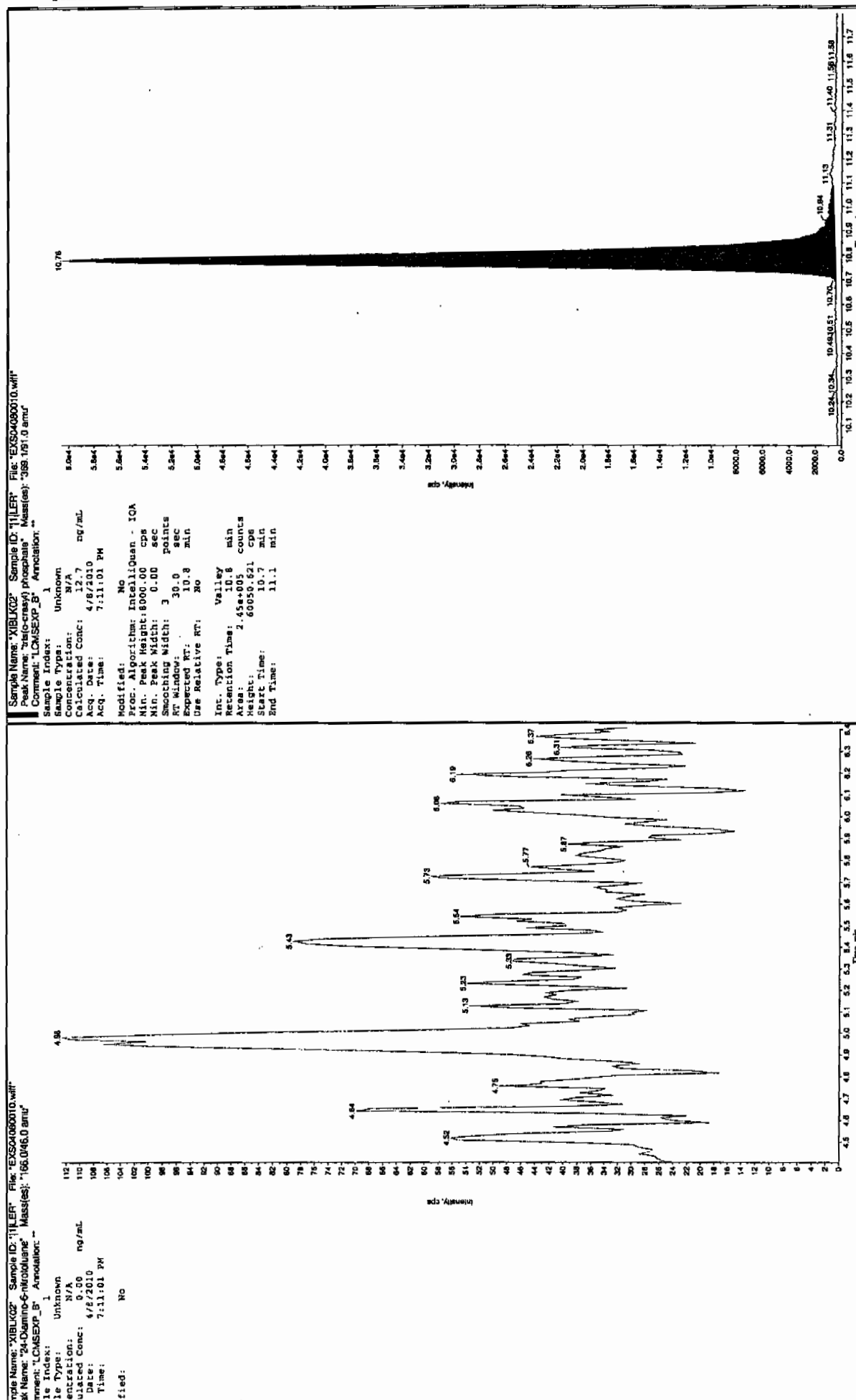
Sample Name: 'XIELK02' Sample ID: '111111' File: 'EXS04060010.wif'  
 Peak Name: '34-Dinitrofluorene' Retention: '102.1151.9 min'  
 Concentration: 'LCMSXP\_B' Annotation: ''

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/8/2010  
 Acq. Date: 7:11:01 PM  
 Acq. Time: No  
 Modified: No



, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 08-APR-10 19:42

GEL Data File: EXS04080012.wiff

Instrument ID: LCMSMS

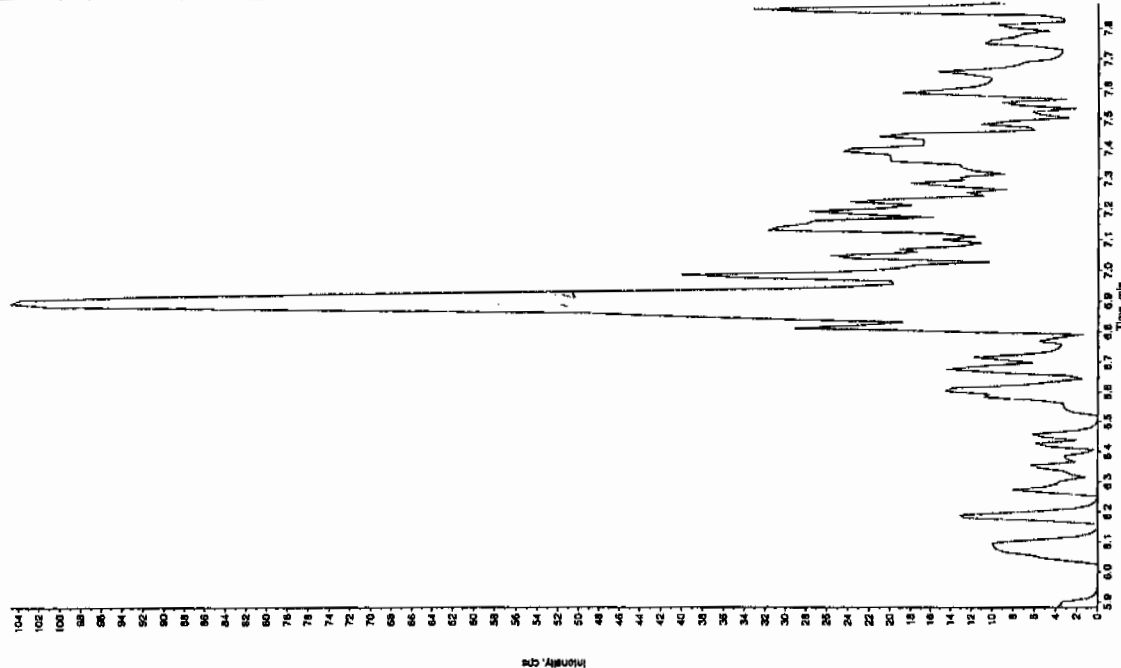
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	8.19
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

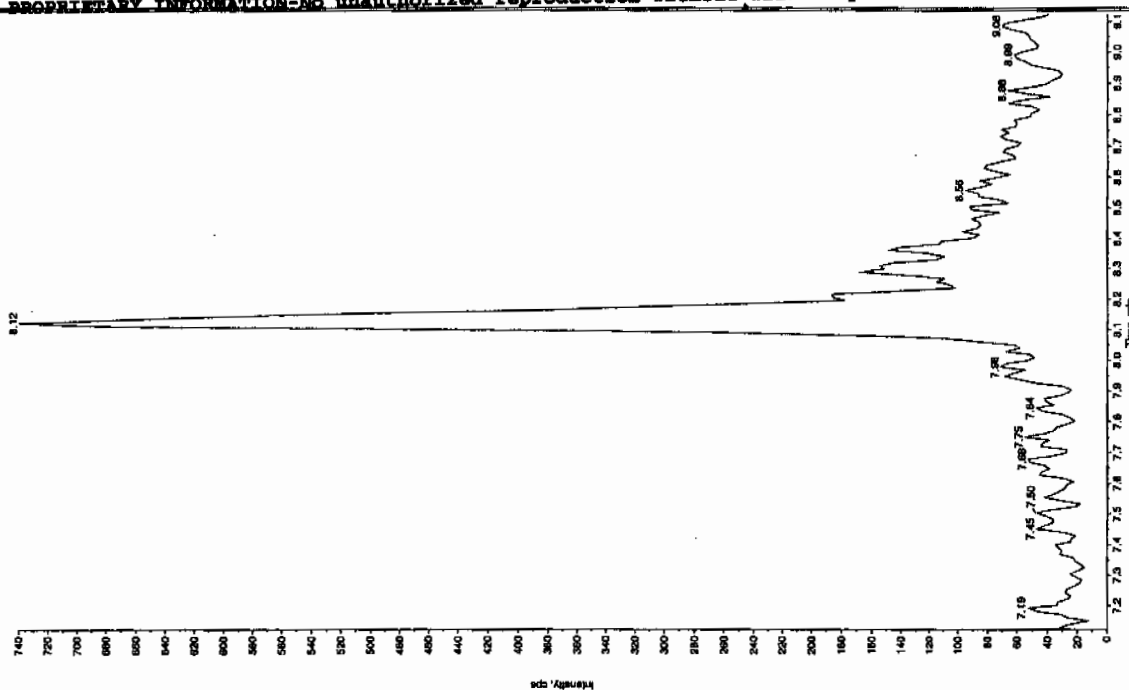


Run 4/12/10

Sample Name: "XIBLK03" Sample ID: "T1LEFF" File: "EXS04080012.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: 4/8/2010  
 Acq. Time: 7:42:25 PM  
 Modified: No



Sample Name: "XIBLK03" Sample ID: "T1LEFF" File: "EXS04080012.wiff"  
 Peak Name: "35-Dinitroline" Mass(es): "182.0/46.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/8/2010  
 Acq. Time: 7:42:25 PM  
 Modified: No



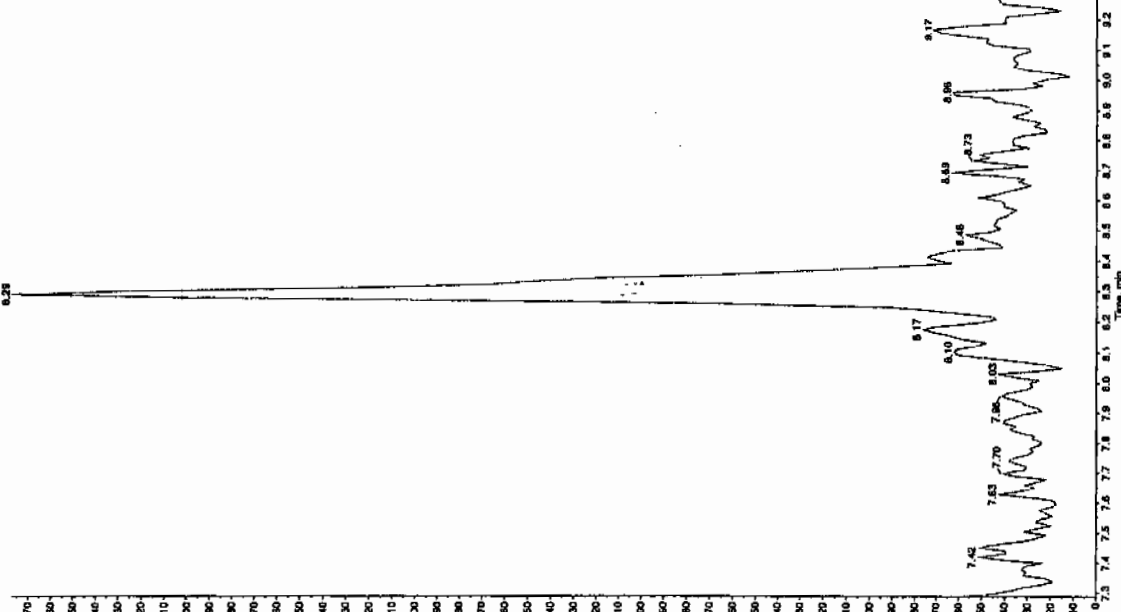
Run 4/12/10



Sample Name: "XIBLK03" Sample ID: "111ER" File: "EXSD4060012.wif"  
 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: 0.00 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 7:42:26 PM  
 Modified: No

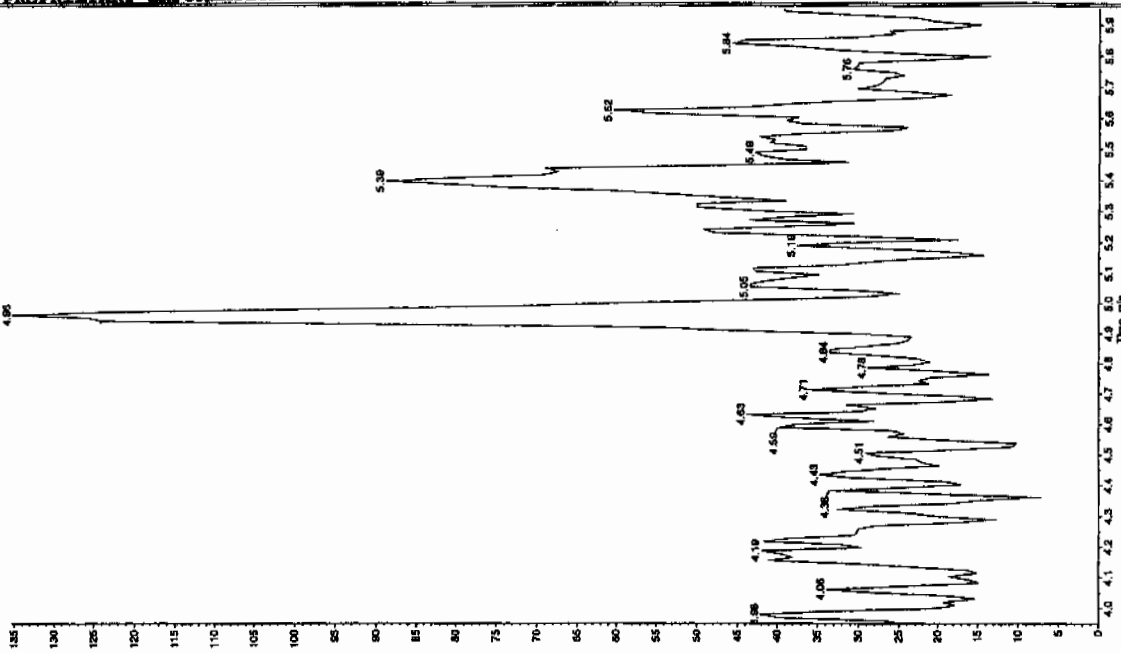
Intensity, cps



Sample Name: "XIBLK03" Sample ID: "111ER" File: "EXSD4060012.wif"  
 Peak Name: "25-Olanino-4-nitrofluorene" Mass(es): "186.0/165.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/8/2010  
 Acq. Time: 7:42:26 PM  
 Modified: No

Intensity, cps

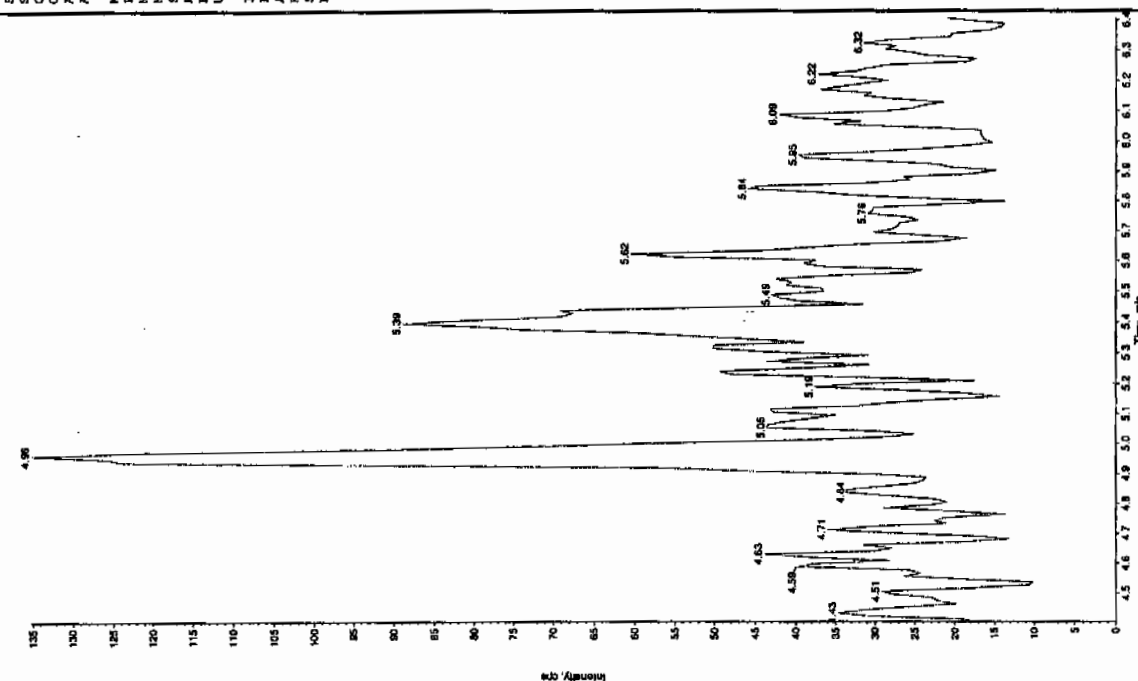




Sample Name: "XBLK03" Sample ID: "11ER" File: "EXS0400012.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.048.0 amu"  
 Comment: "LCMS/EXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/8/2010  
 Acq. Time: 7:42:26 PM  
 Modified: No

Proc. Algorithm: IntelliQuan - IOA  
 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: 1.51e+005 counts  
 Height: 37712.559 cps  
 Start Time: 10.7 min  
 End Time: 11.1 min





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2137

Lab Code: GEL

Lab Sample ID: XTBLK04

Analysis Date: 08-APR-10 23:06

GEL Data File: EXS04080025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

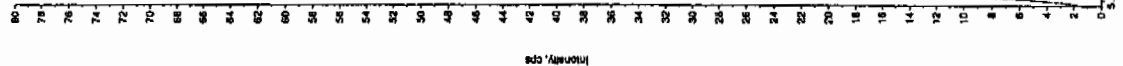
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	6.05
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



for 4/12/10

Sample Name: "XIBUK04" Sample ID: "111ER" File: "EXS0400025.wiff"  
Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
Comment: "LCMS-EXP\_B" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 4/8/2010  
Acq. Time: 11:06:33 PM  
Modified: No

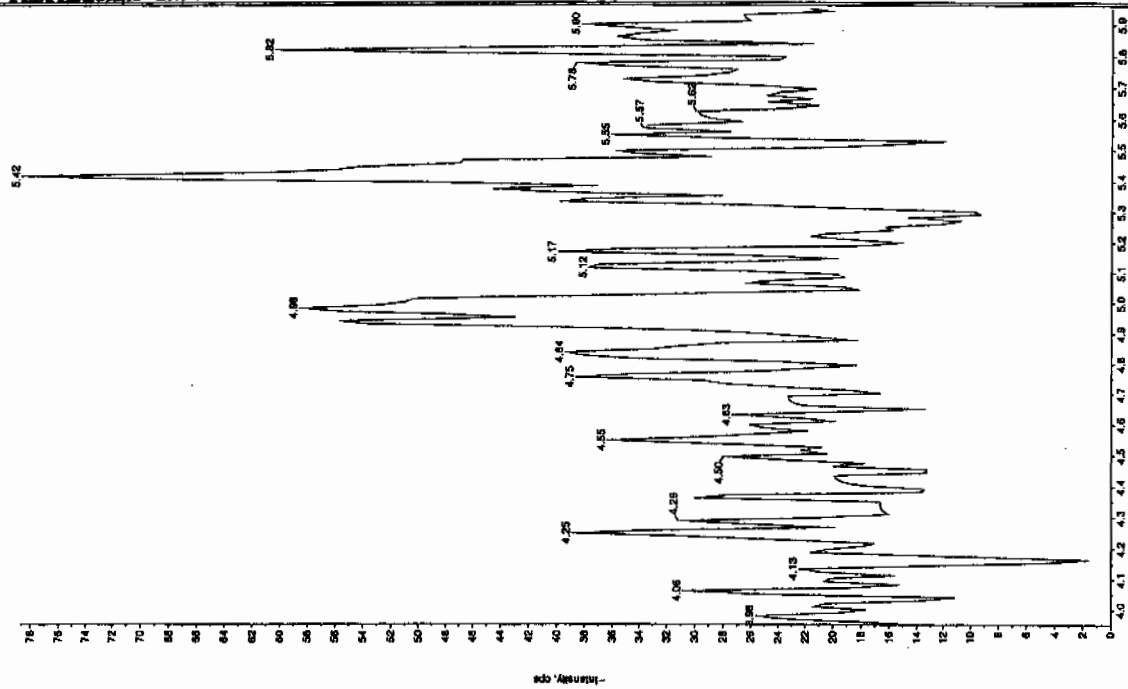
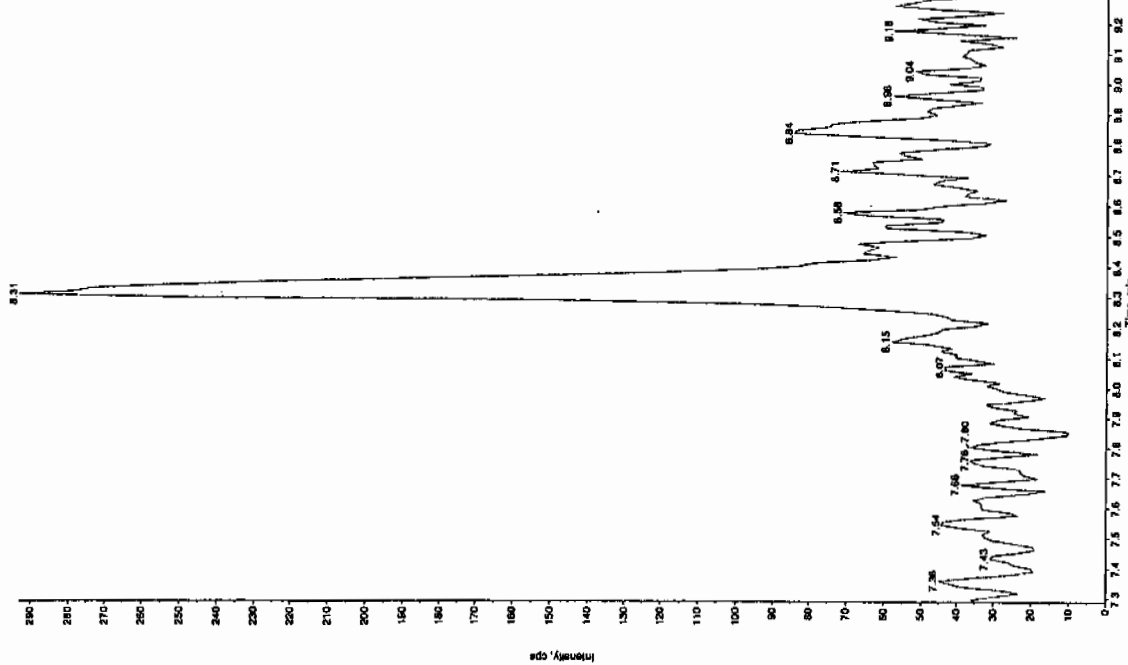


for 4/12/10

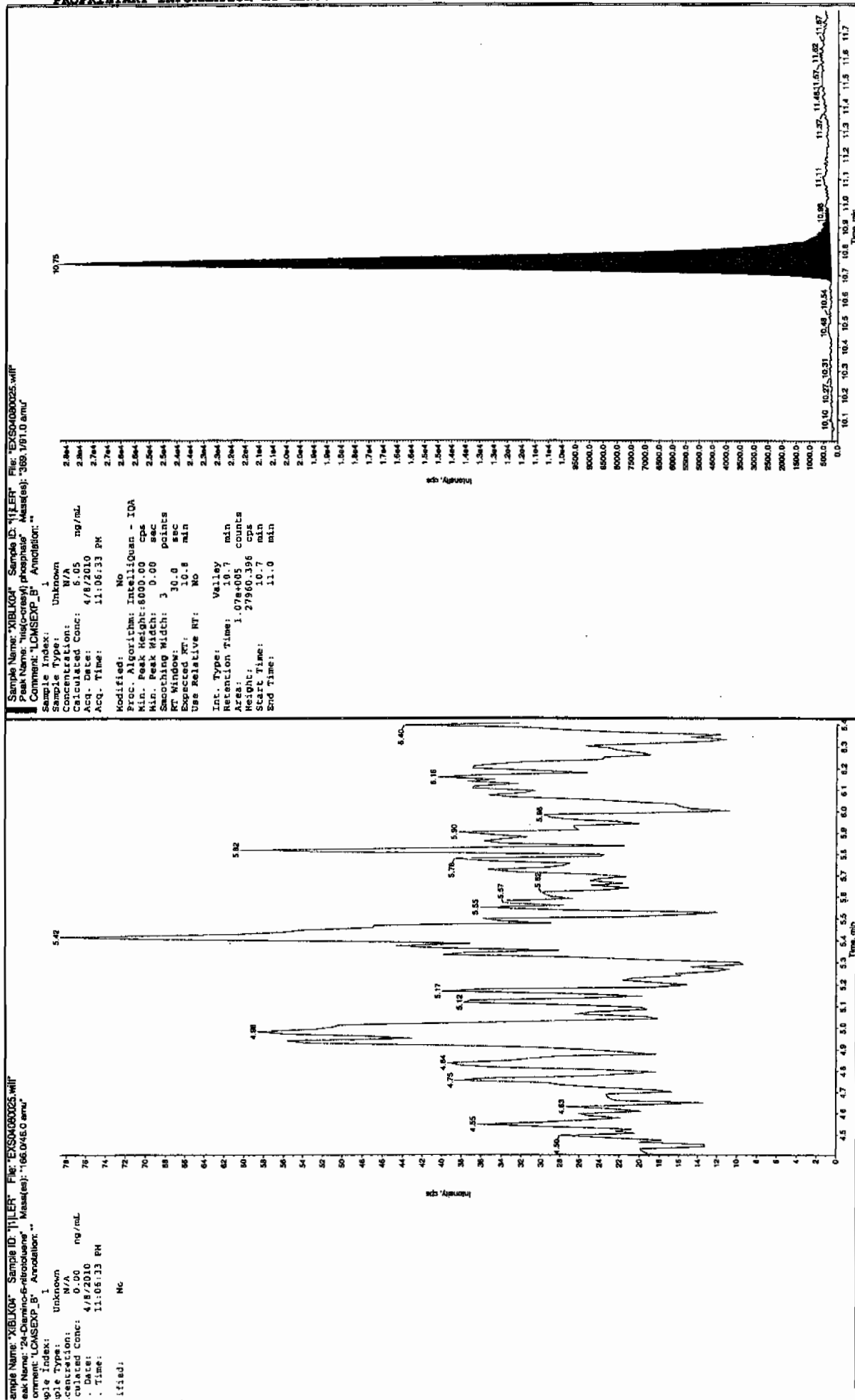
L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



Sample Name: "XIBLK04" Sample ID: "111ER" File: "EXS0408025.wif"  
 Peak Name: "26-Oxamino-4-nitrobenzene" Mass(es): "186.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/8/2010  
 Acq. Time: 11:06:33 PM  
 Modified: No







L SOP GL-OA-E-056, Method 8321A-Modified LQMSMS#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



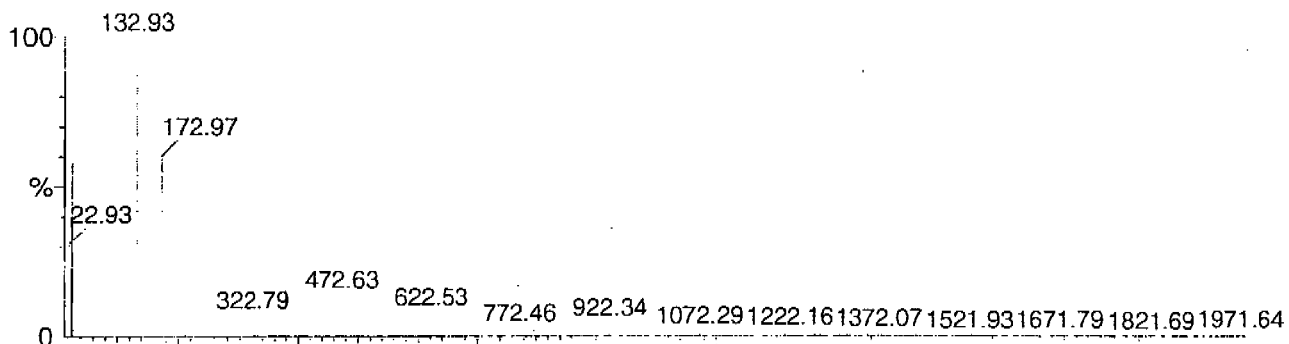
Calibration Report - MS1 Static

Page 1 of 1

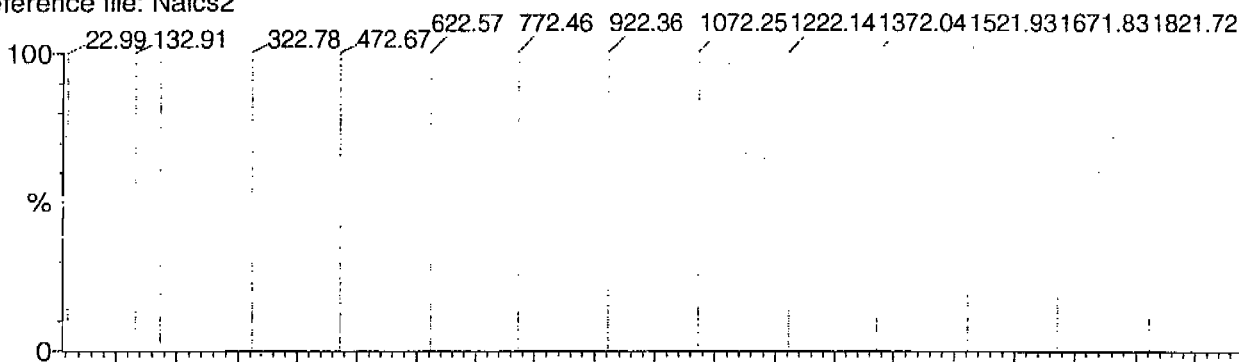
Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

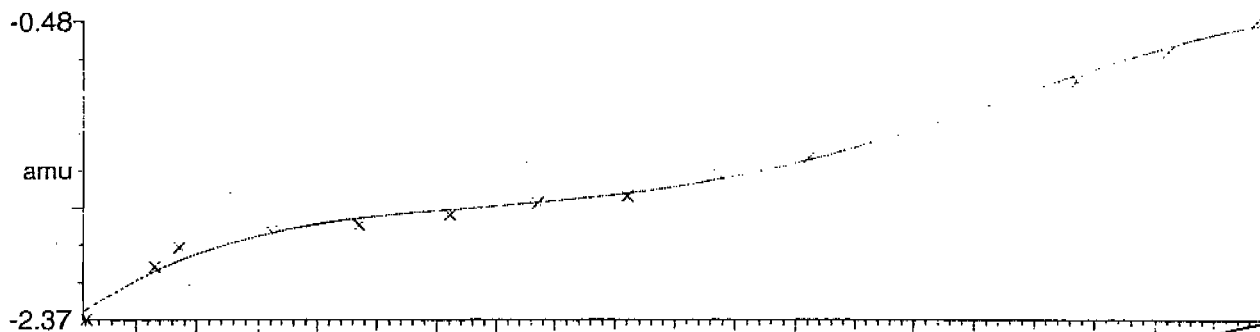
15 matches of 15 tested references



Reference file: Naics2

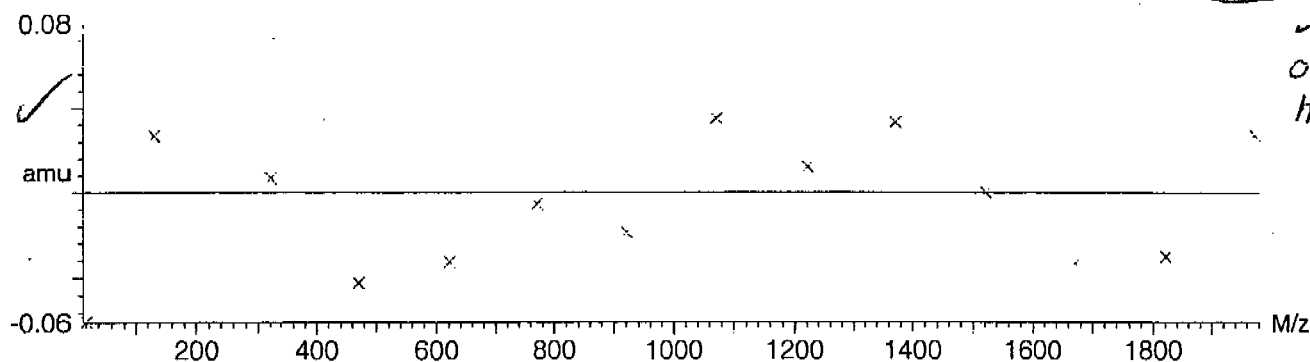


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-1.673470 \times 10^{-9} \pm 0.036953$





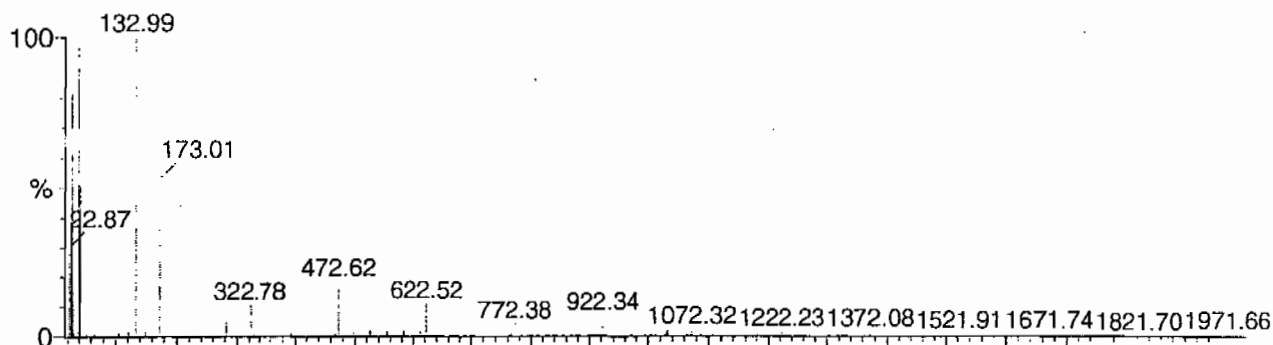
Calibration Report - MS1 Scanning

Page 1 of 1

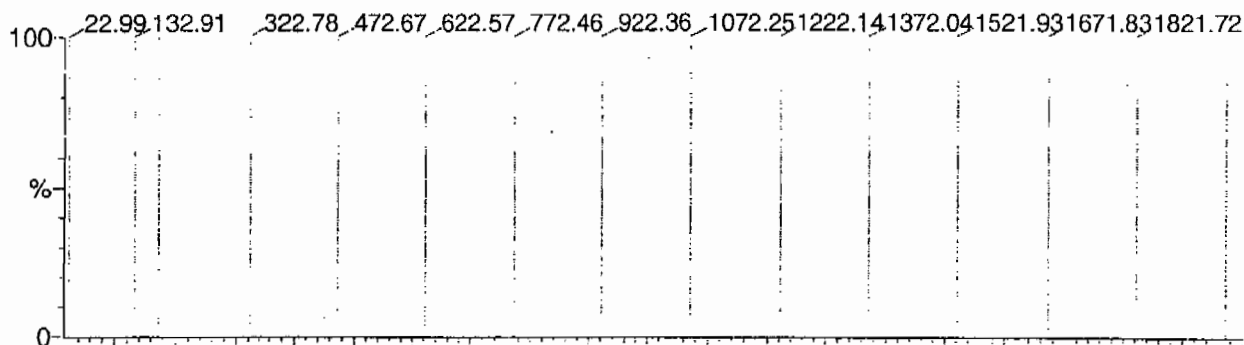
Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

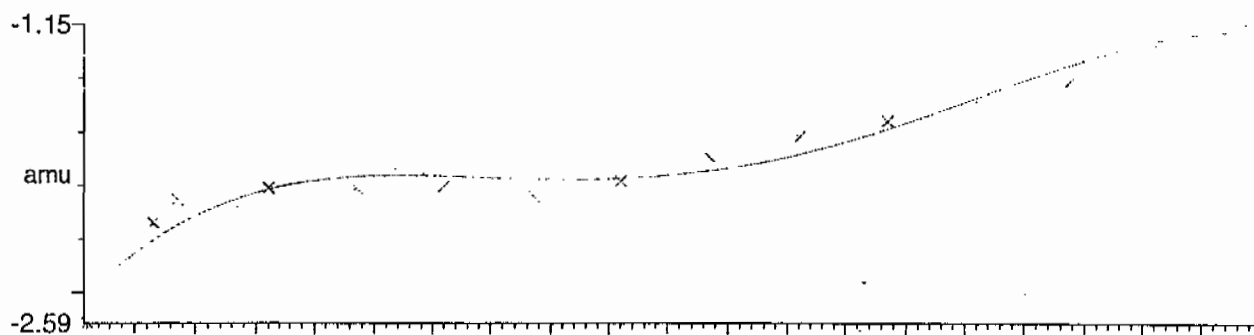
15 matches of 15 tested references



Reference file: Naics2

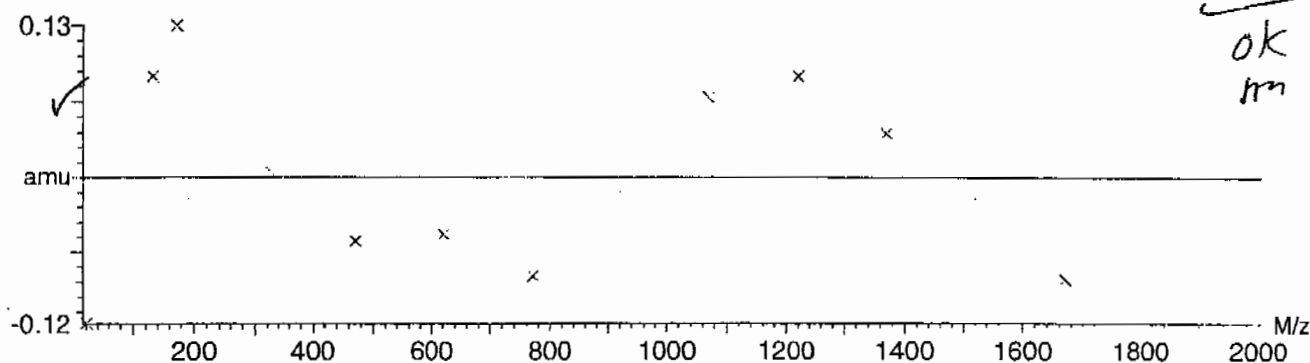


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-5.432715 \times 10^{-9} \pm 0.069858$





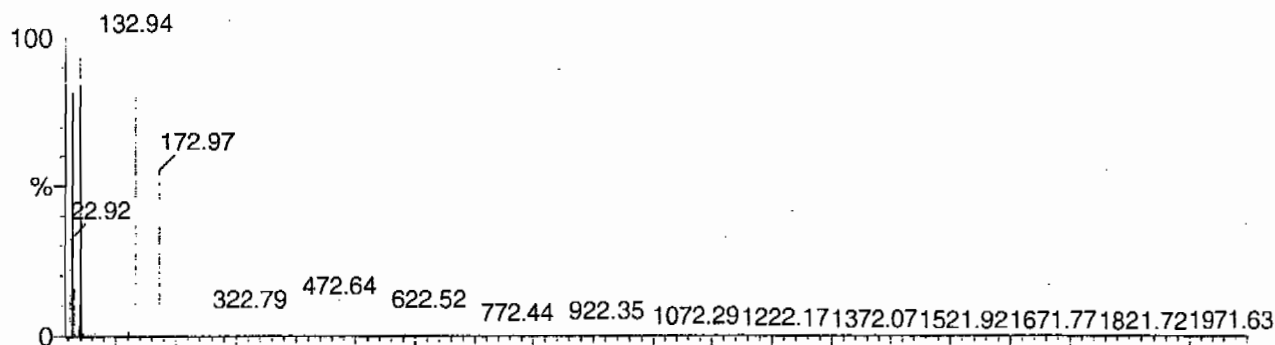
Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

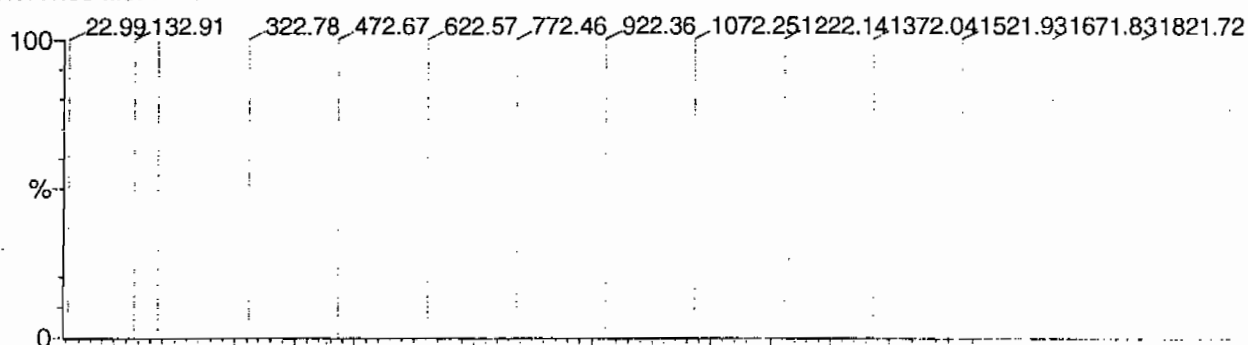
Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

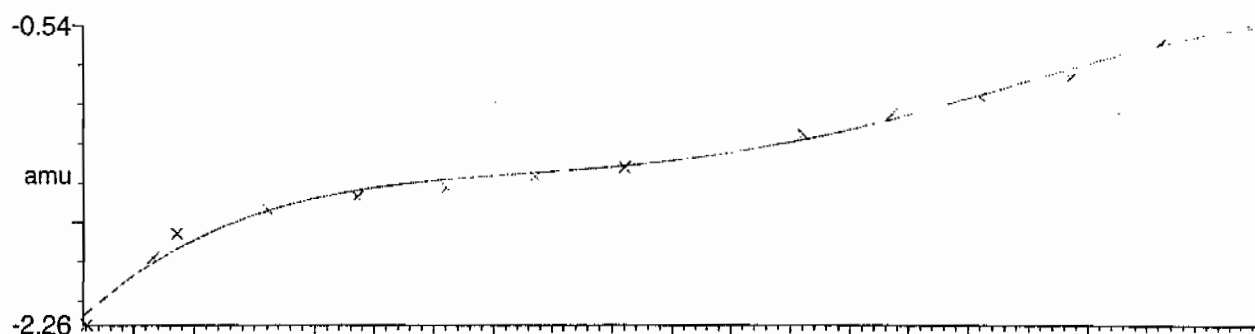
15 matches of 15 tested references



Reference file: Naics2

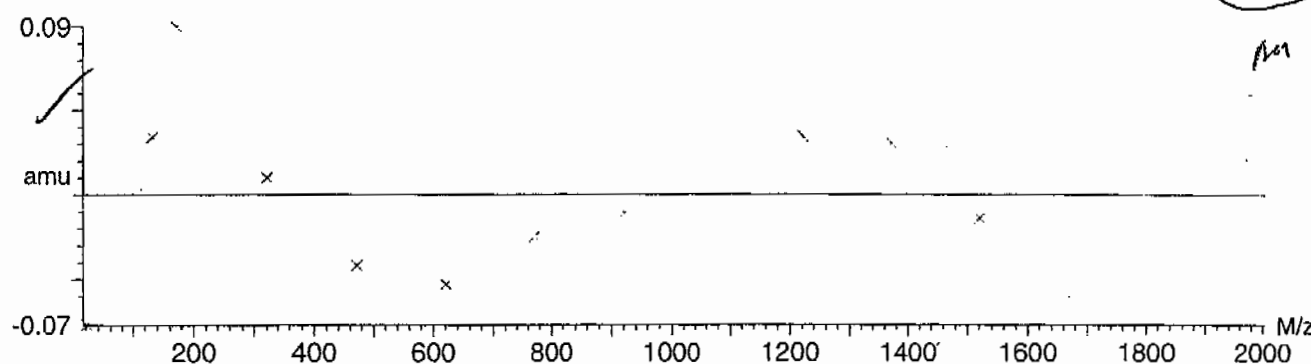


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $3.486639e-9 \pm 0.040487$





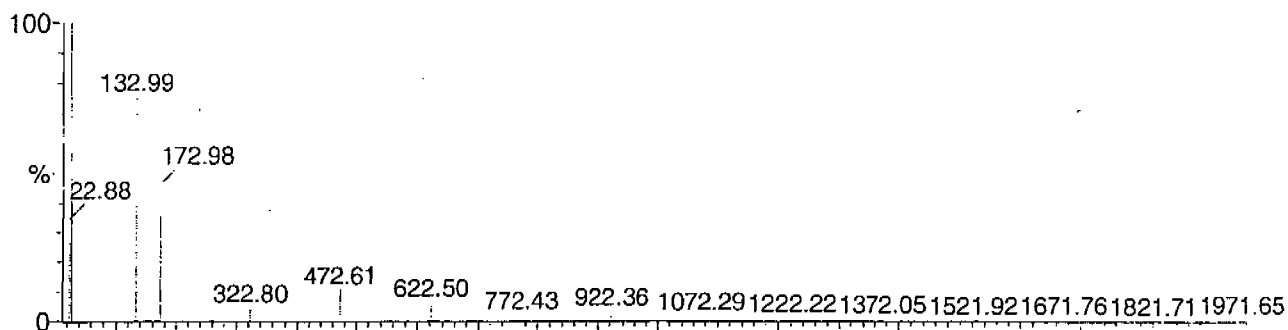
Calibration Report - MS2 Static

Page 1 of 1

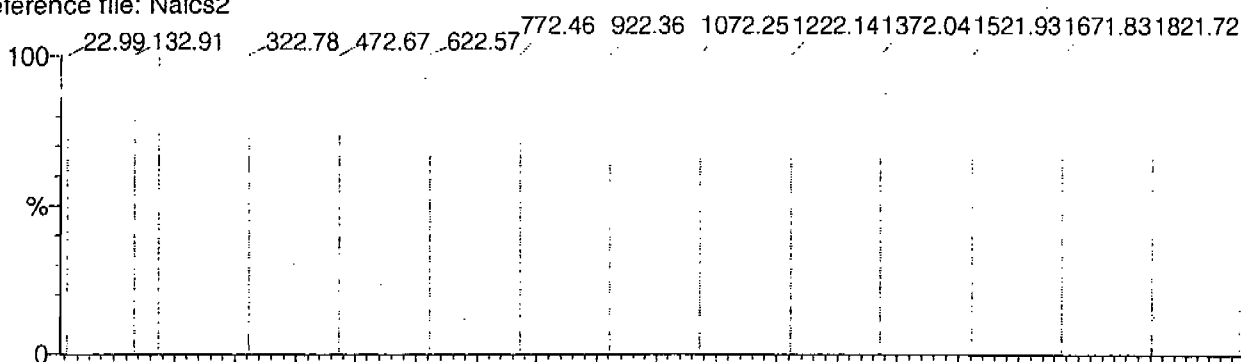
Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

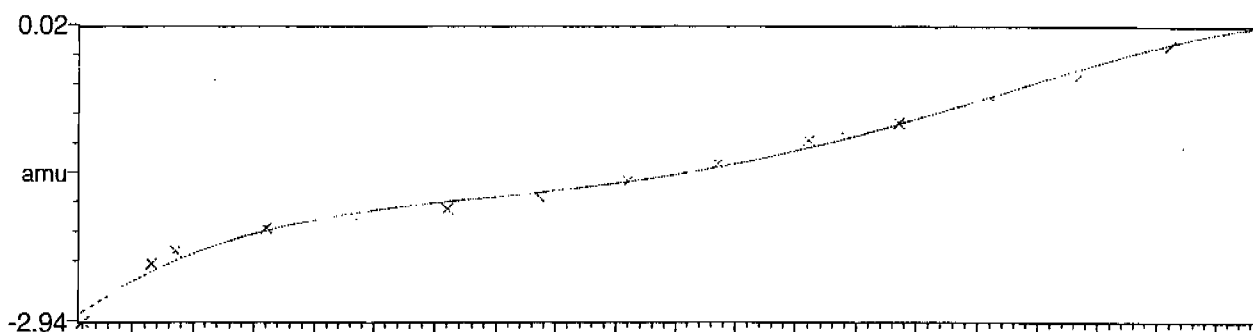
15 matches of 15 tested references



Reference file: Naics2

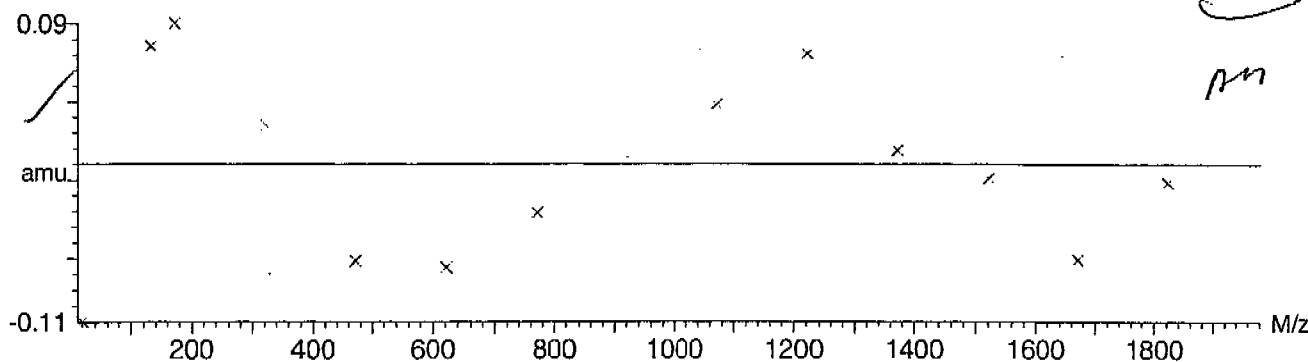


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $2.048910 \times 10^{-9} \pm 0.057803$





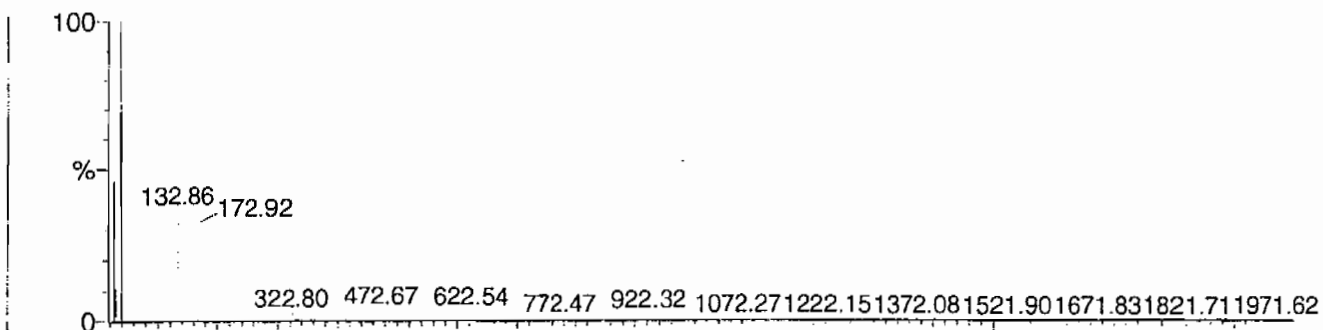
Calibration Report - MS2 Scanning

Page 1 of 1

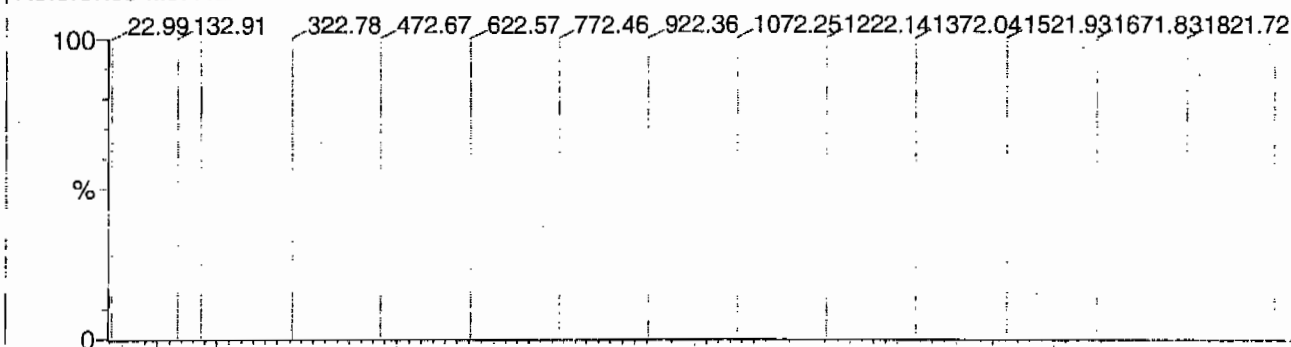
Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

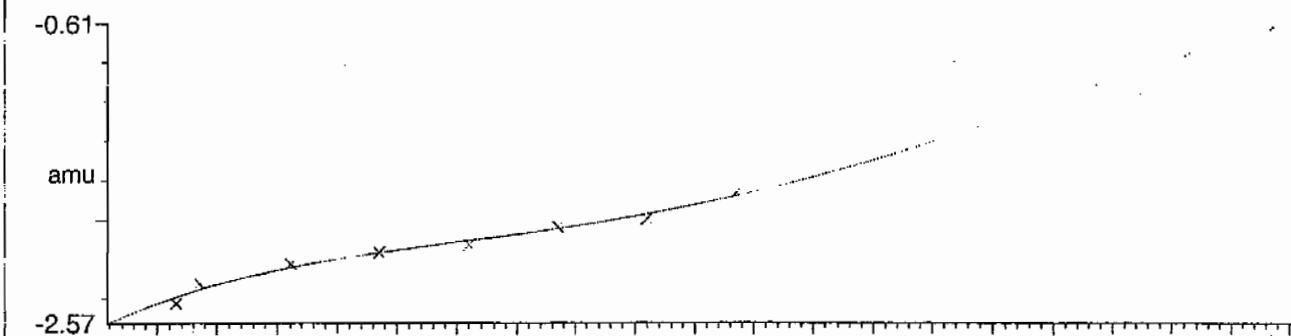
14 matches of 15 tested references



Reference file: Naics2

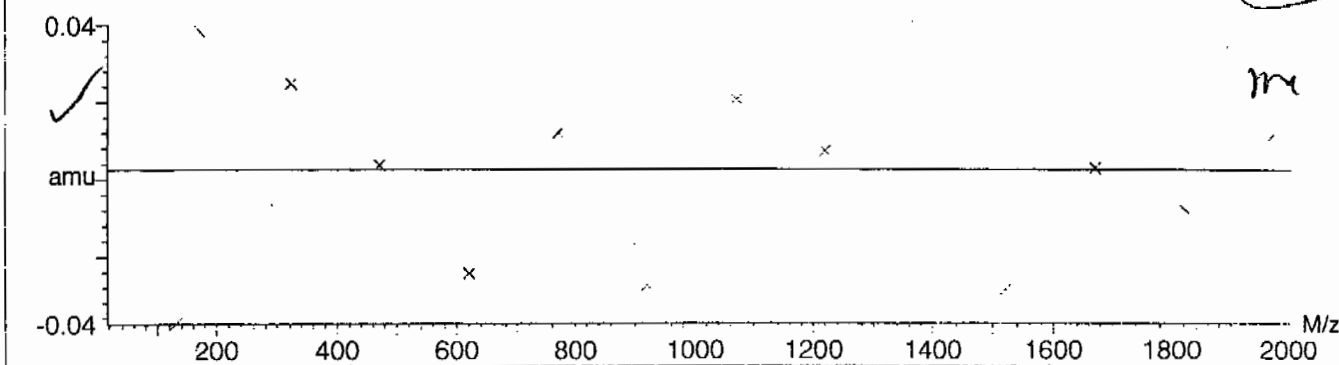


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-2.623502 \times 10^{-9} \pm 0.025622$





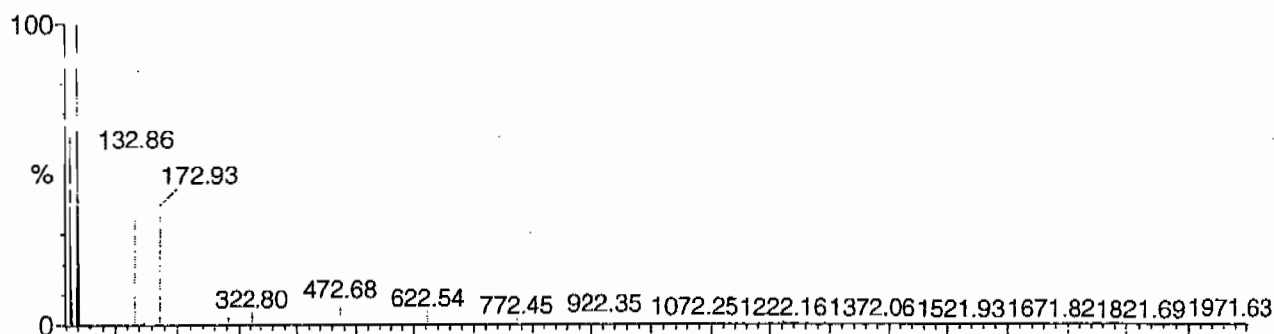
Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

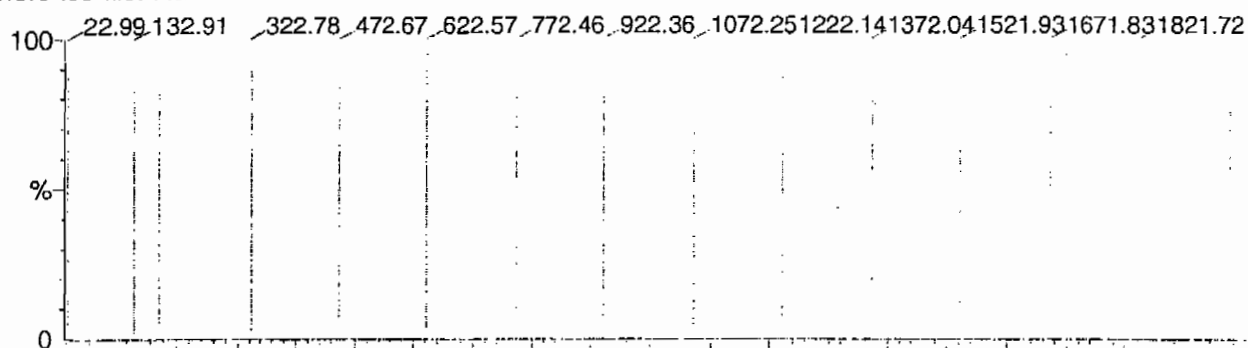
Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

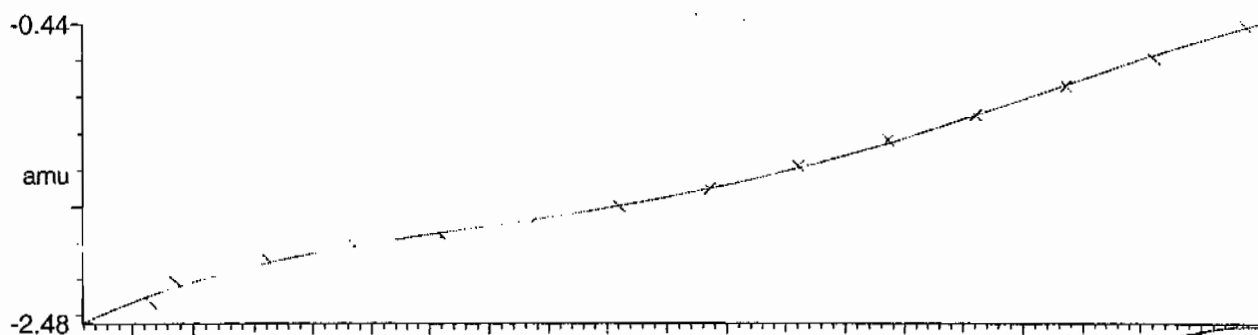
14 matches of 15 tested references



Reference file: Naics2

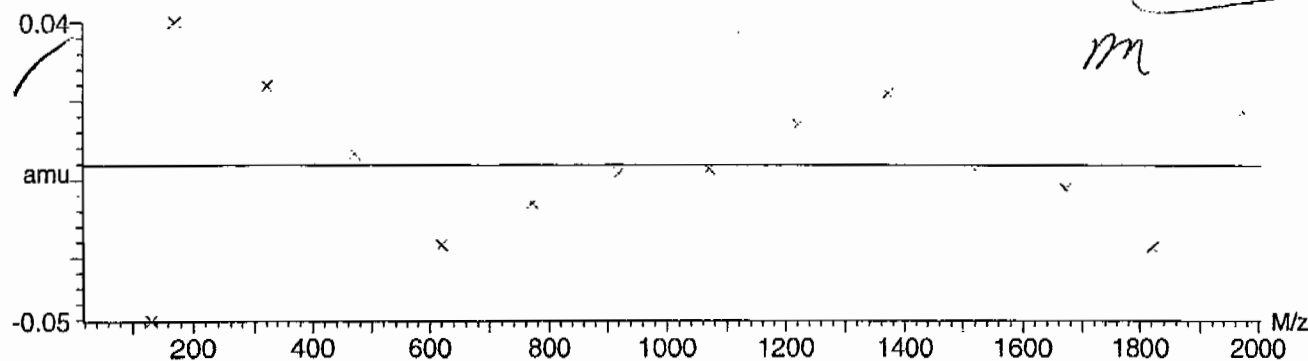


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-6.785350 \times 10^{-9} \pm 0.023134$





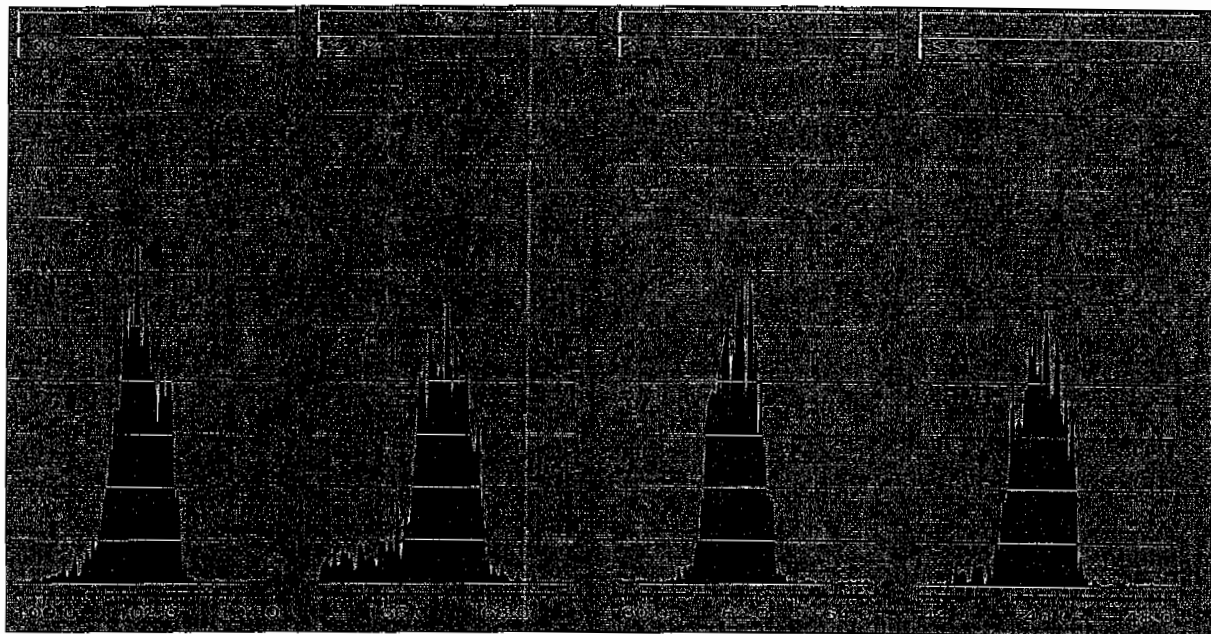
# Quattro Micro Tune Parameters

Page 1

Parameter File: C:\MASSLYNX\NEW\_EXP.PROVACQADB\explosives04.IPR

Printed : Mon Apr 12 14:40:37 2010

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8

# High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

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 959337	15-apr-10 13:59	EXP0412144a	6428.24	11.868	40694.2	17.093
LCS for batch 959337	15-apr-10 14:29	EXP0412145a	6831.29	11.869	39683.1	17.094
RE36-10-8464	15-apr-10 14:58	EXP0412146a	6656.59	11.872	37584.1	17.092
RE36-10-8475	15-apr-10 15:28	EXP0412147a	6407.5	11.898	36425.7	17.093
RE36-10-8471	15-apr-10 15:57	EXP0412148a	6417.71	11.868	36225.5	17.092
RE36-10-8477	15-apr-10 16:56	EXP0412150a	6302.02	11.869	38887.6	17.094
RE36-10-8479	15-apr-10 17:26	EXP0412151a	6829.73	11.869	36667.8	17.094
RE36-10-8484	15-apr-10 17:55	EXP0412152a	6390.75	11.897	37229	17.091
RE36-10-8481	15-apr-10 18:25	EXP0412153a	6406.97	11.894	38491.5	17.094
RE36-10-8485	16-apr-10 15:34	EXP0412196a	7254.46	11.868	44128.8	17.094

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



# SAMPLE DATA



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8464

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244001

Sample Amount 2

Moisture: 9.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412146a

Date Analyzed: 15-APR-10 14:58

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

Printed: Fri Apr 16 09:46:23 2010, Page 5 of 71

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412146a

Date: 15-Apr-2010

Time: 14:58:50

ID: 248244001

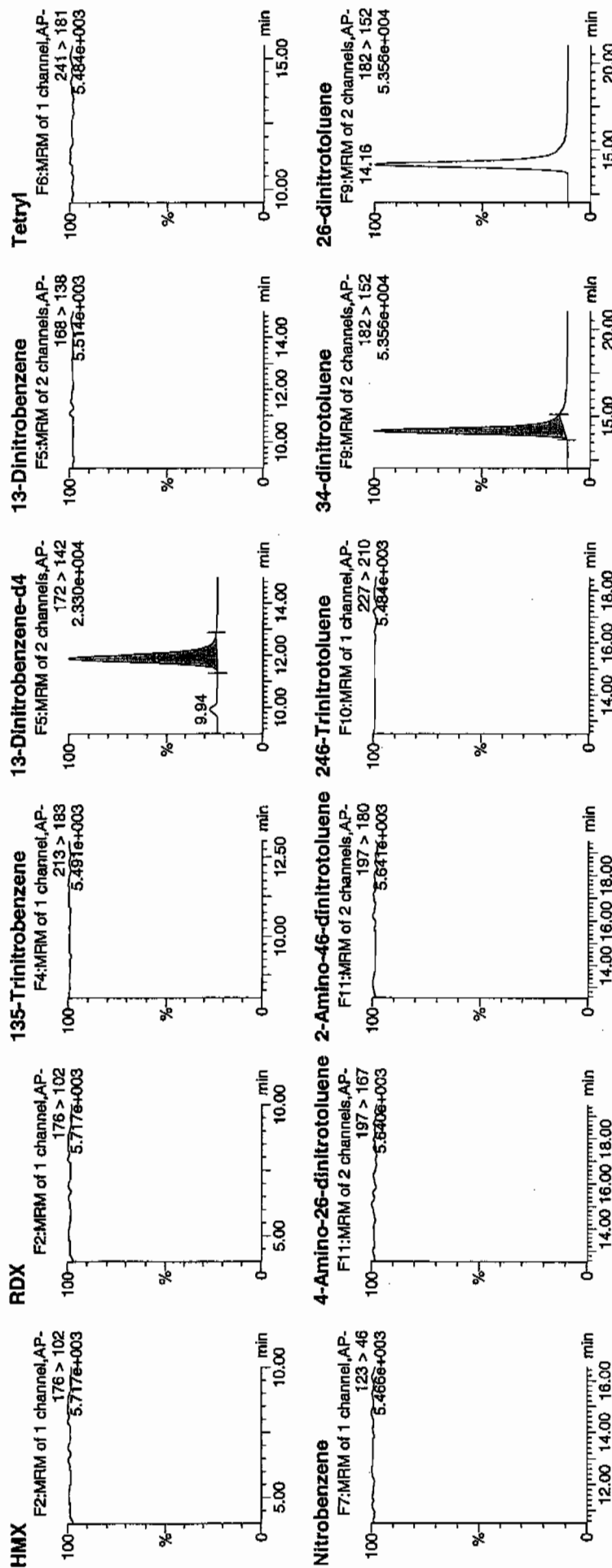
Vial: 4:1,C

1677  
4/16/10

LAU/959338 / Soas / 21

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LAU/959338 / Soas / 21

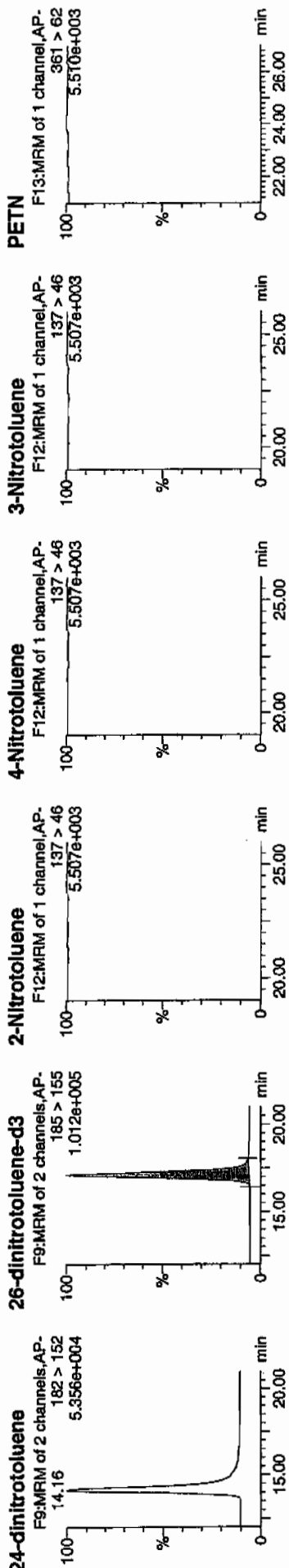


# Quantify Sample Report

3EL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Apr 16 09:46:23 2010, Page 6 of 71

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010



Peak	Name	Area	Height	Area%	Height%	Response	Peak	Area	Height	Area%	Height%	Response
248244001	HMX	176 > 102	6656.592									
248244001	RDX	176 > 102	6656.592									
248244001	135-Trinitrobenzene	213 > 183	6656.592									
248244001	13-Dinitrobenzene-d4	172 > 142	11.87	6656.592								
248244001	13-Dinitrobenzene	168 > 138	6656.592									
248244001	Tetryl	241 > 181	6656.592									
248244001	Nitrobenzene	123 > 46	6656.592									
248244001	4-Amino-26-dinitrotoluene	197 > 167	37584.133									
248244001	2-Amino-46-dinitrotoluene	197 > 180	37584.133									
248244001	246-Trinitrotoluene	227 > 210	37584.133									
248244001	34-dinitrotoluene	182 > 152	14.16	19758.430								
248244001	26-dinitrotoluene	182 > 152	37584.133									
248244001	24-dinitrotoluene	182 > 152	37584.133									
248244001	26-dinitrotoluene-d3	185 > 155	17.09	37584.133								
248244001	2-Nitrotoluene	137 > 46	37584.133									
248244001	4-Nitrotoluene	137 > 46	37584.133									
248244001	3-Nitrotoluene	137 > 46	37584.133									
248244001	PETN	361 > 62	37584.133									



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8464

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244001

Sample Amount 2

Moisture: 9.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050089.wiff

Date Analyzed: 06-APR-10 11:48

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 =

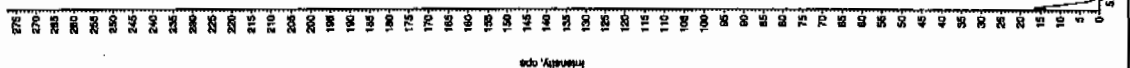
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



Jan 4/2/10

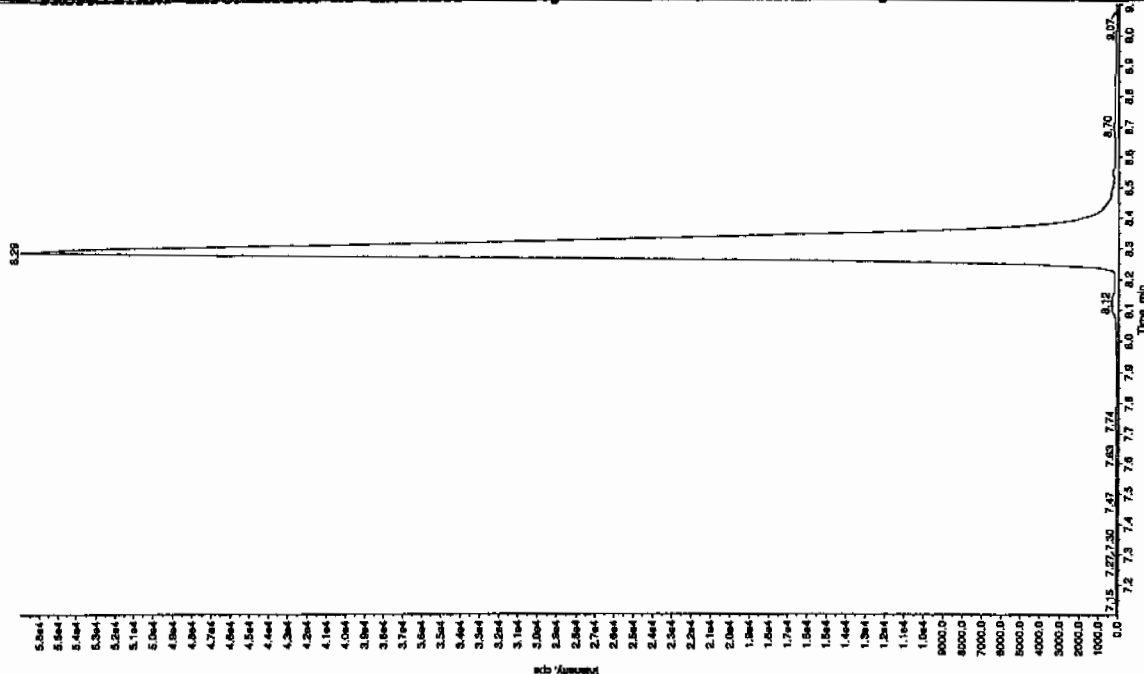
Sample Name: "24824001" Sample ID: "95533921.1" File: "EX504050038.wif"  
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"  
Comment: "LCX552125" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Acq. Date: 4/6/2010  
Acq. Time: 11:48:20 AM  
Modified: No



Sample Name: "24824001" Sample ID: "95533921.1" File: "EX504050038.wif"  
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/183.0 amu"  
Comment: "LCX552125" Annotation: ""

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Acq. Date: 4/6/2010  
Acq. Time: 11:48:20 AM  
Modified: No



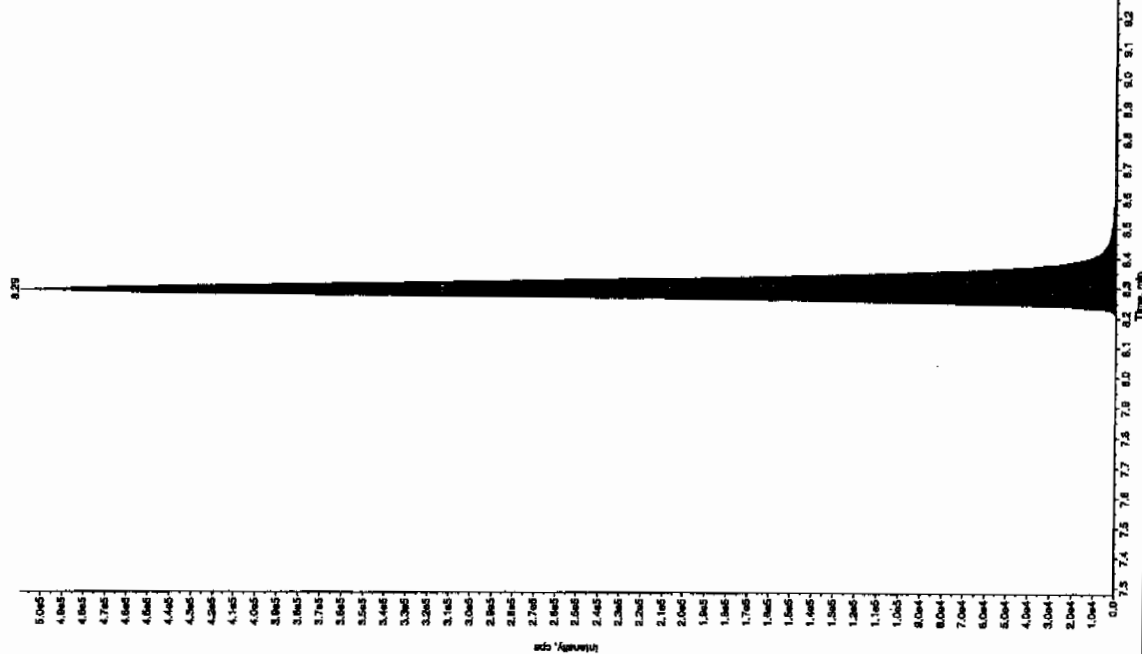
EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Jan 04/08/10



Sample Name: "248244001" Sample ID: "95833B21.ER" File: "EXS04050089.wiff"  
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"

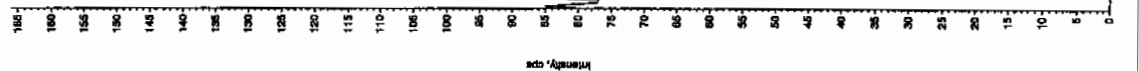
Comment: "1CX832125"	Annotation: "
Sample Index: 1	Unknown
Sample Type:	N/A
Concentration:	0.00
Calculated Conc:	0.00
Acq. Date:	4/6/2010
Acq. Time:	11:48:20 AM
Modified:	No



```

Name:      No
MC Algorithm: IntelliQuan - IQA
P. Peak Height: 460.00 cps
S. Peak Width: 0.00 sec
Doping Width: 3 points
Window: 15.0 sec
Selected RT: 8.28 min
# Relative RT:
:: Type: Valley
Retention Time: 8.29 min
Size: 2.08e+006 counts
Height: 508660.828 cps
Flow Rate: 8.19 min
Injection Time: 8.60 min

```



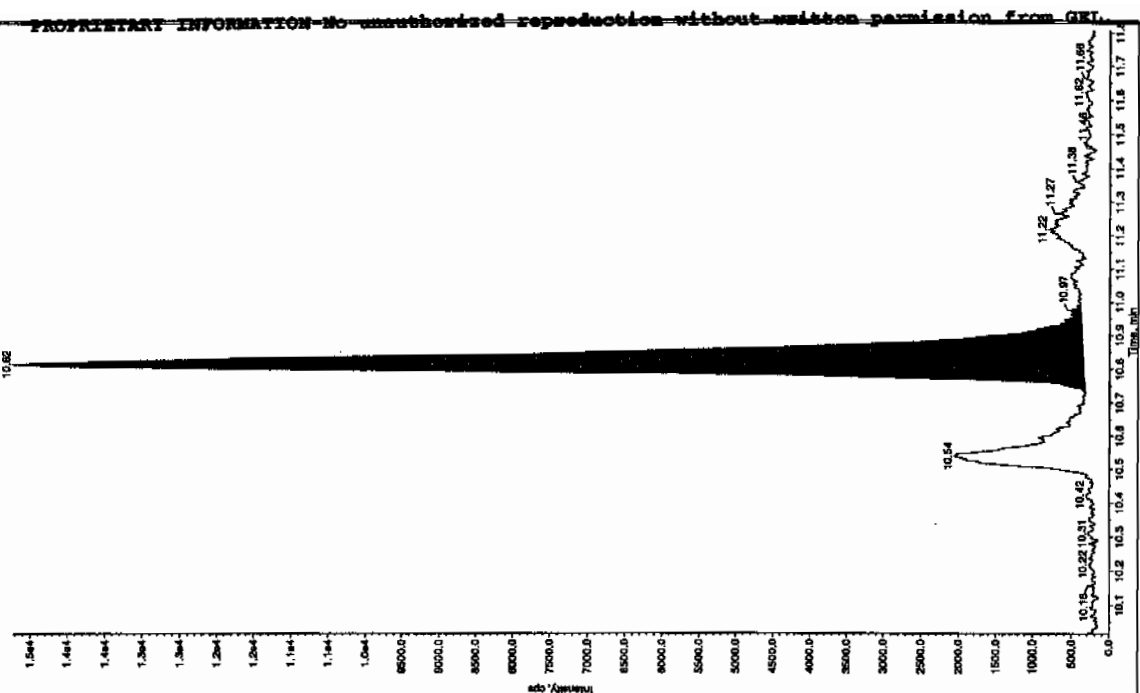
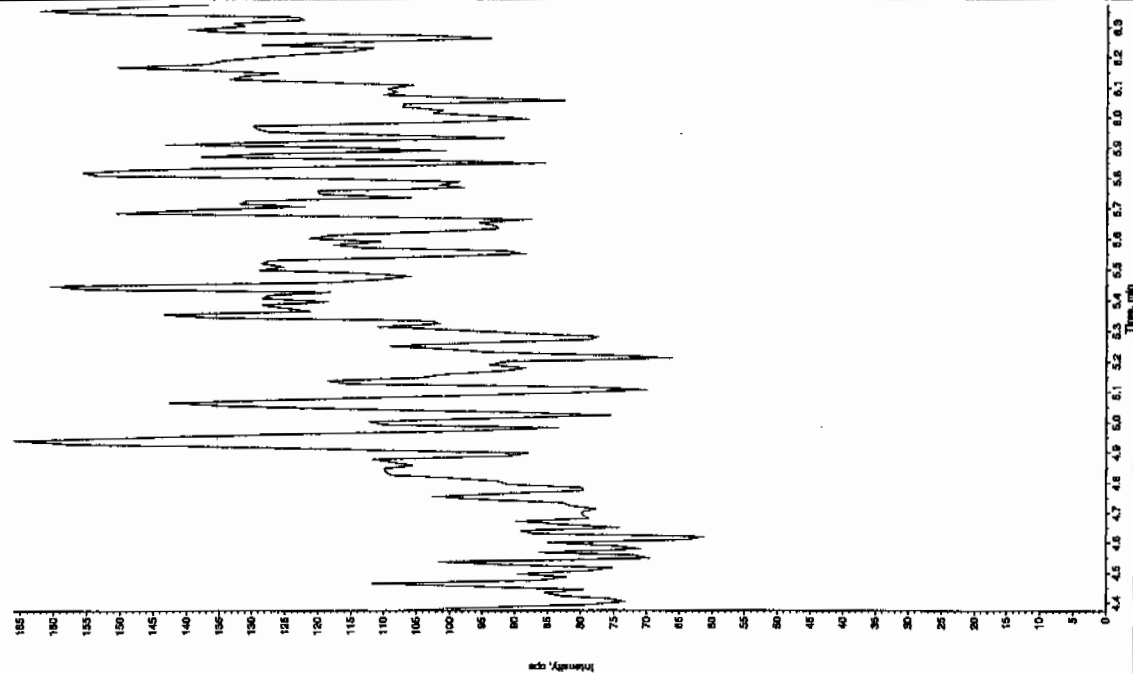
EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



Sample Name: "248244001" Sample ID: "95933821LRF" File: "EXS04050088.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "186.046.0 amu"  
 Comment: "LCX632125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 mg/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 11:48:20 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: 5.88e+004 counts  
 Height: 14378.731 cps  
 Start Time: 10.7 min  
 End Time: 11.0 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: RE36-10-8475

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244002

Sample Amount 2

Moisture: 8.8

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412147a

Date Analyzed: 15-APR-10 15:28

Units: µg/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
------------------	---	---	---	-----------------



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412147a

Date: 15-Apr-2010

Time: 15:28:26

ID: 248244002

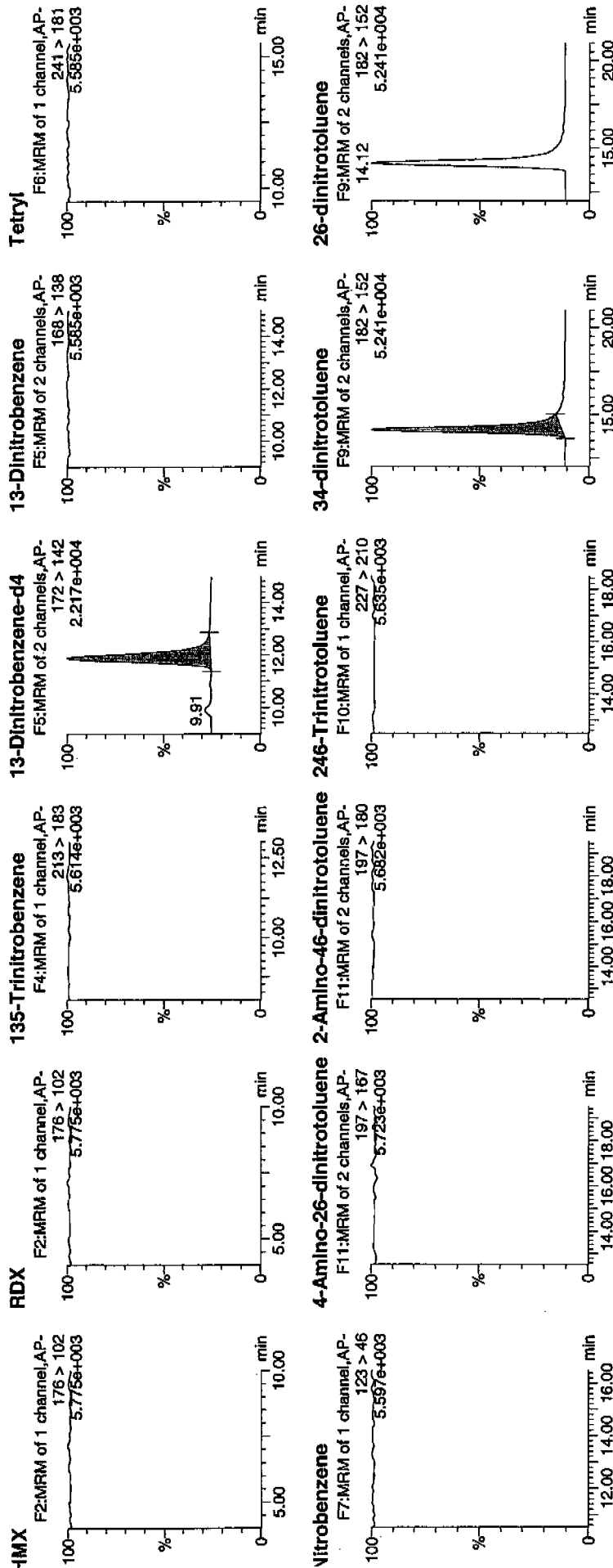
Label: 4:1,D

1477  
4/16/10

WAW | 951336 | 21

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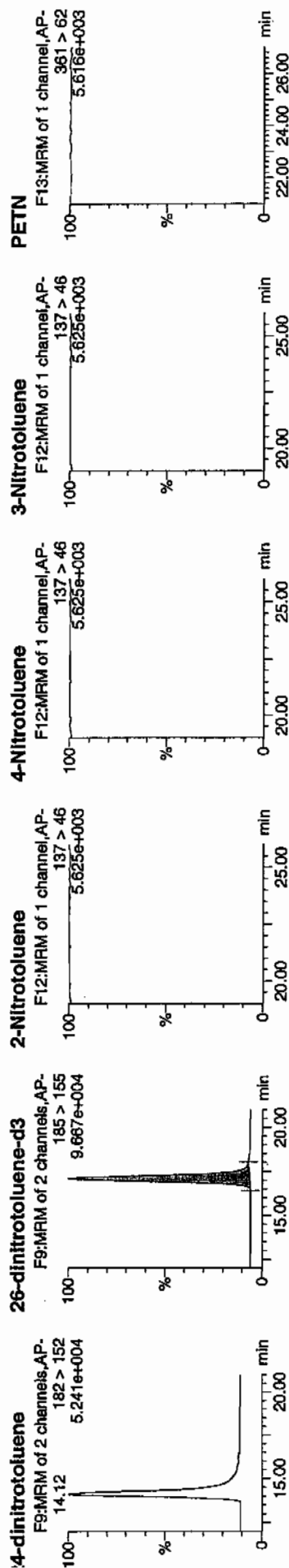


Handwritten signature and date: 04/16/10



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

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Name	MW	Trace	Rt	Purity	Sigma	Absorpt.	Emission	Fileres	VibData	ModName	Coverage	ZScore
HMX	248.244002	176 > 102			6407.504							
RDX	248.244002	176 > 102			6407.504							
135-Trinitrobenzene	248.244002	213 > 183			6407.504							
13-Dinitrobenzene-d4	248.244002	172 > 142	11.90		6407.504			bb			544.8221	109.0    9.0    837.5
13-Dinitrobenzene	248.244002	168 > 138										
Tetryl	248.244002	241 > 181			6407.504							
Nitrobenzene	248.244002	123 > 46			6407.504							
4-Amino-26-dinitrotoluene	248.244002	197 > 167			6407.504							
2-Amino-46-dinitrotoluene	248.244002	197 > 180			36425.734							
248-Trinitrotoluene	248.244002	227 > 210			36425.734							
34-dinitrotoluene	248.244002	182 > 152	14.12		36425.734			bb			254.6185	101.8    1.8    497.0
26-dinitrotoluene	248.244002	182 > 152			36425.734							
24-dinitrotoluene	248.244002	182 > 152			36425.734							
26-dinitrotoluene-d3	248.244002	185 > 155	17.09		36425.734			bb			520.6178	104.1    4.1    3020.7
2-Nitrotoluene	248.244002	137 > 46			36425.734							
4-Nitrotoluene	248.244002	137 > 46			36425.734							
3-Nitrotoluene	248.244002	137 > 46			36425.734							
PETN	248.244002	361 > 62			36425.734							



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8475

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244002

Sample Amount 2

Moisture: 8.8

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050090.wiff

Date Analyzed: 06-APR-10 12:04

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



Dec 4/10

Sample Name: "248244002" Sample ID: "9593302" File: "EX504060090.wif"

Peak Name: "35-Dinitroanthracene" 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: 4/6/2010

Acq. Time: 12:04:03 PM

Modified: No

Sample Name: "248244002" Sample ID: "9593302" File: "EX504060090.wif"

Peak Name: "1A1B" Mass(es): "257.2204.9 amu"

Comment: "LCX832125" Annotation: ""

Sample Index: 1

Sample Type: Unknown

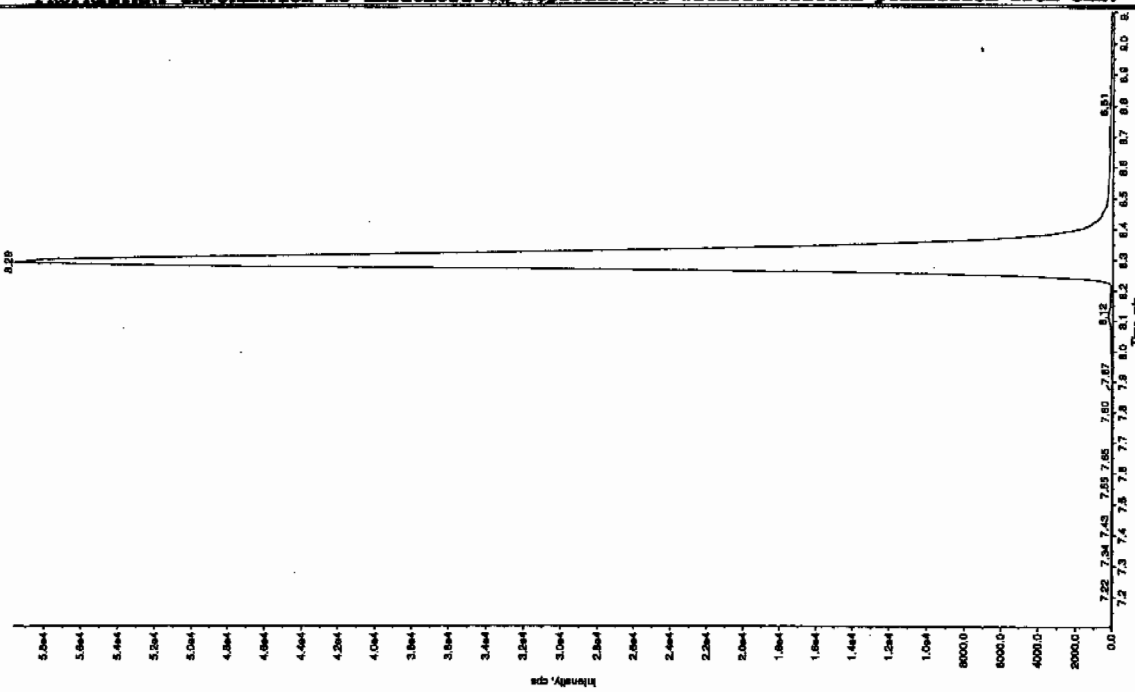
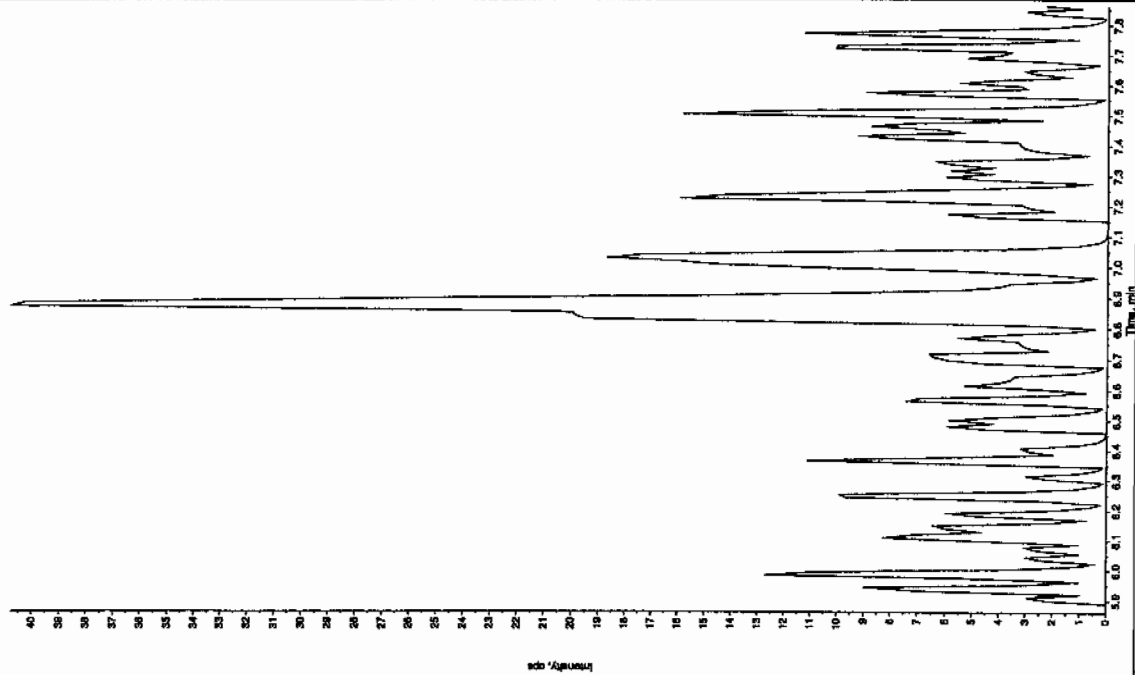
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/6/2010

Acq. Time: 12:04:03 PM

Modified: No



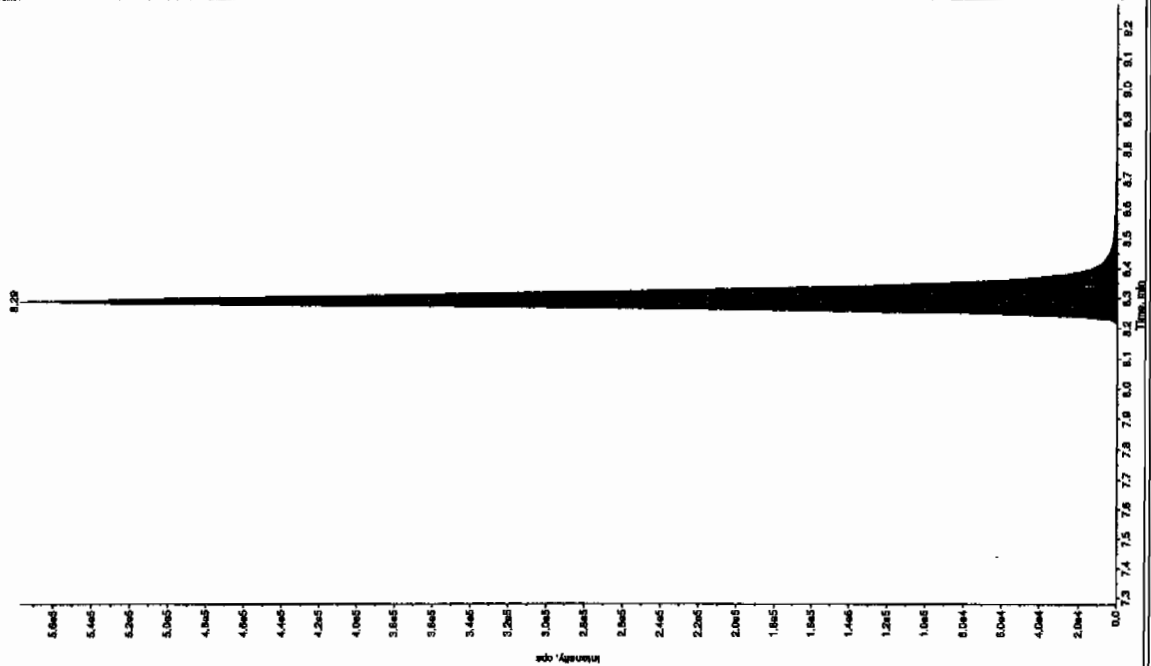
Dec 04/08/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



Sample Name: 24824002 Sample ID: 9533382121 File: EX504050050.wif  
Peak Name: 24-Dinitrofluorene Mass(es): 182.1751.9 amu  
Comment: "LOX832125" Annotation: "

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 8.10 ng/mL  
Acq. Date: 4/5/2019  
Acq. Time: 12:04:03 PM  
Modified: NO



Sample Name: 24824002 Sample ID: 9533382121 File: EX504050050.wif  
Peak Name: 24-Dinitrofluorene Mass(es): 182.1751.9 amu  
Comment: "LOX832125" Annotation: "

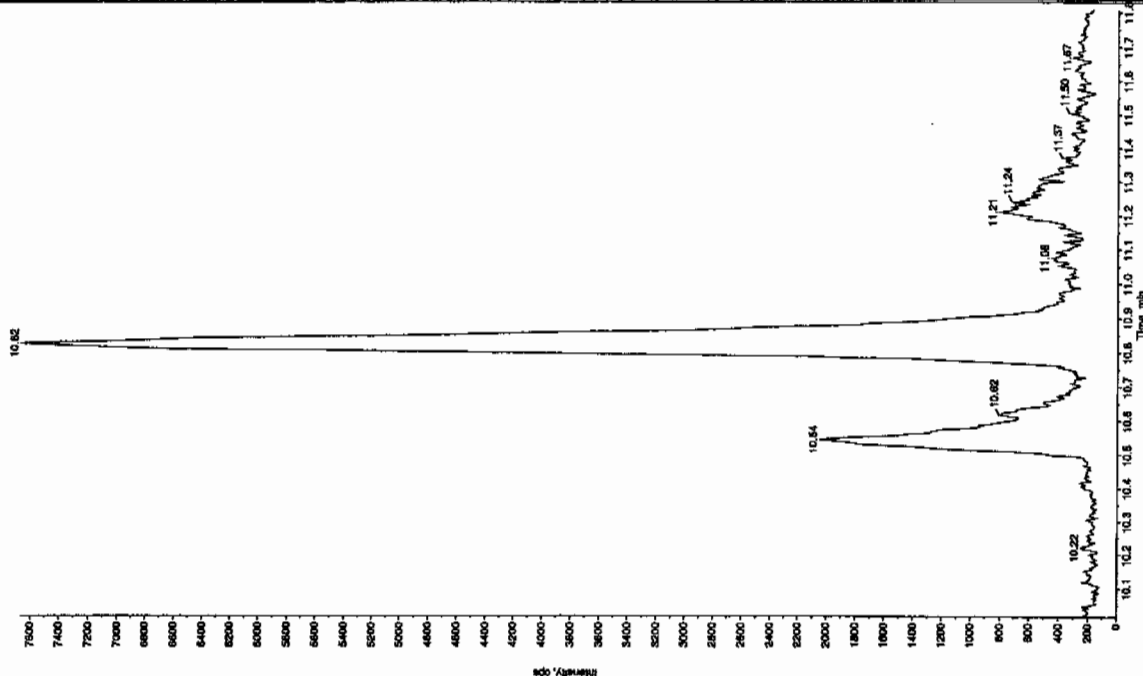
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 8.10 ng/mL  
Acq. Date: 4/5/2019  
Acq. Time: 12:04:03 PM  
Modified: NO

Algorithm: IntelliQuan - IQA  
Peak Height: 1450.00 cps  
Peak Width: 0.00 sec  
Window Width: 3 points  
Window: 15.0 sec  
Acquired RT: 8.28 min  
Relative RT: NO  
Type: Valley  
Retention Time: 8.29 min  
Height: 2.24e+006 counts  
Height: 576550.842 cps  
Height: 8.17 min  
Height: 8.57 min



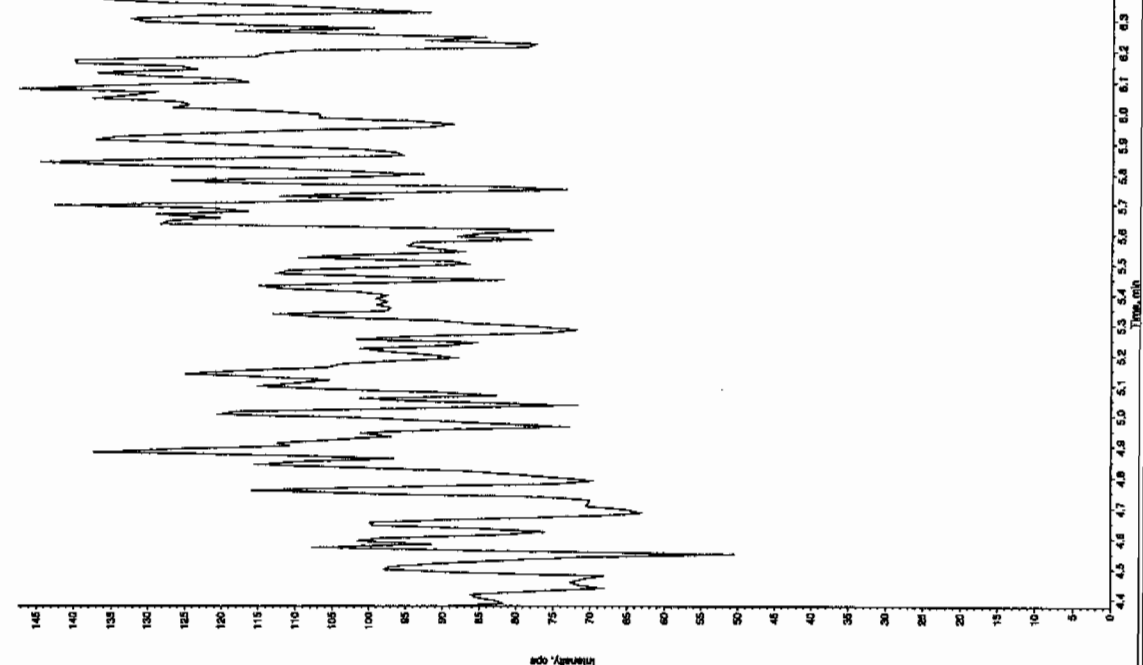
Sample Name: 24824402 Sample ID: 95533821LRF File: EX504050080.wif  
 Peak Name: "Is(o-crayl) phosphate" Mass(es): 385.191.0 amu  
 Comment: "LCX632125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 12:04:03 PM  
 Modified: No



Sample Name: 24824402 Sample ID: 95533821LRF File: EX504050080.wif  
 Peak Name: "24-Dinitro-5-nitrofluorene" Mass(es): 155.046.0 amu  
 Comment: "LCX632125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 12:04:03 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: RE36-10-8471

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244003

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412148a

Date Analyzed: 15-APR-10 15:57

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



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412148a

Date: 15-Apr-2010

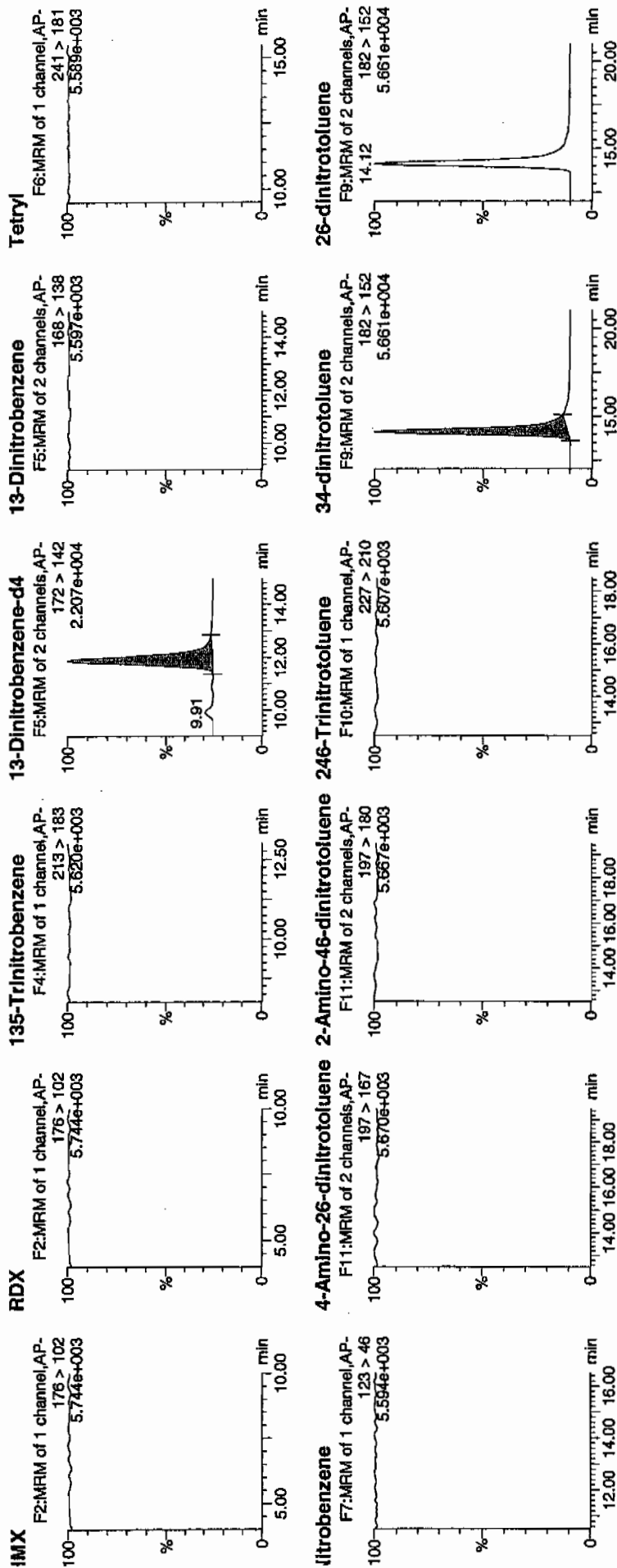
Time: 15:57:53

File: D: 248244003

Label: 4:1,E

1467  
4/16/10

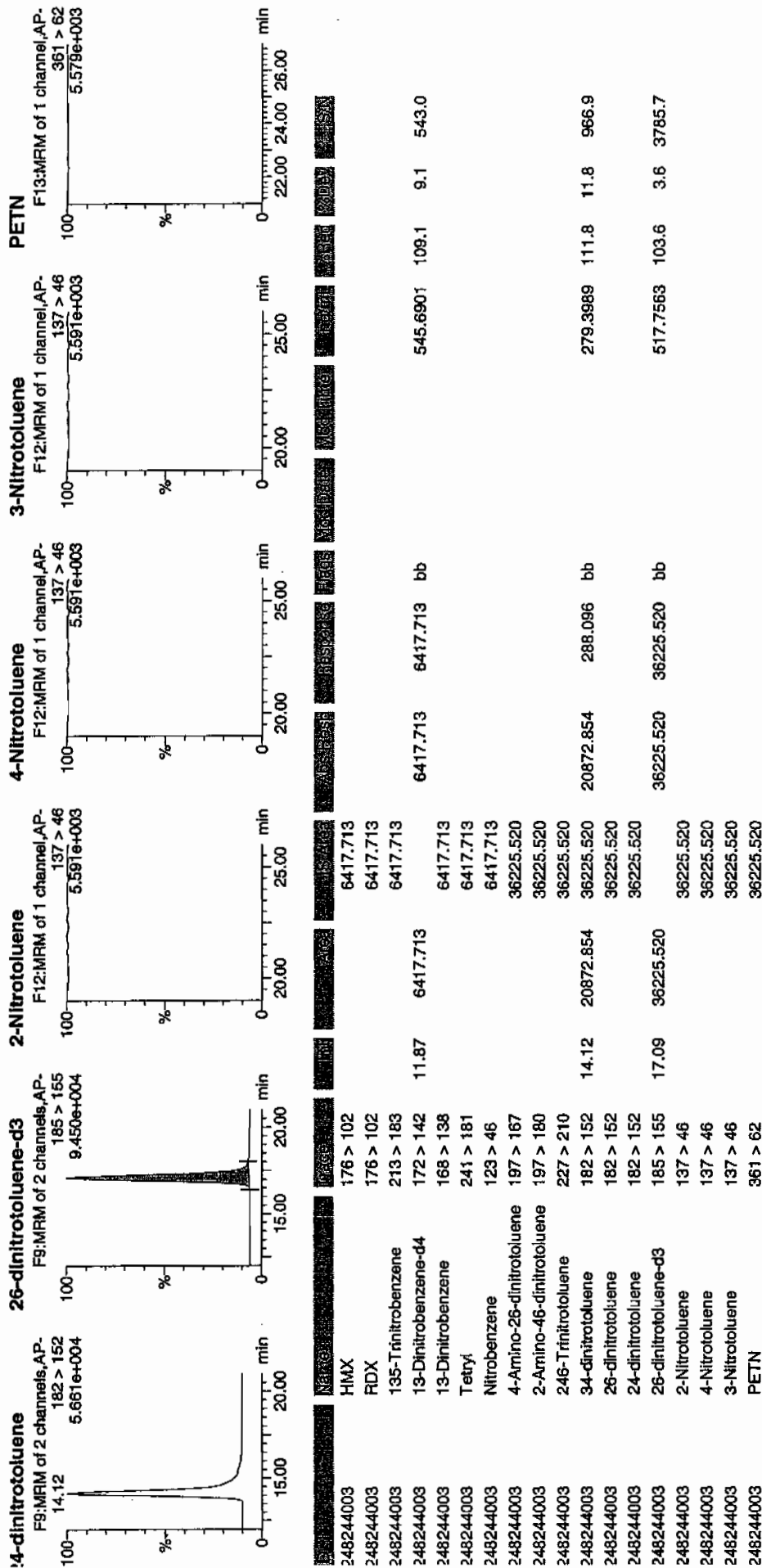
1467  
4/16/10  
1959338 / 8022 / 21



4/16/10



Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010





1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8471

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244003

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050091.wiff

Date Analyzed: 06-APR-10 12:19

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 4/7/10

Sample Name: "24824003" Sample ID: "95833821EF" File: "EX504050091.wif"  
 Peak Name: "TATB" Mass(es): "257.2204.8 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 12:13:45 PM  
 Modified: No

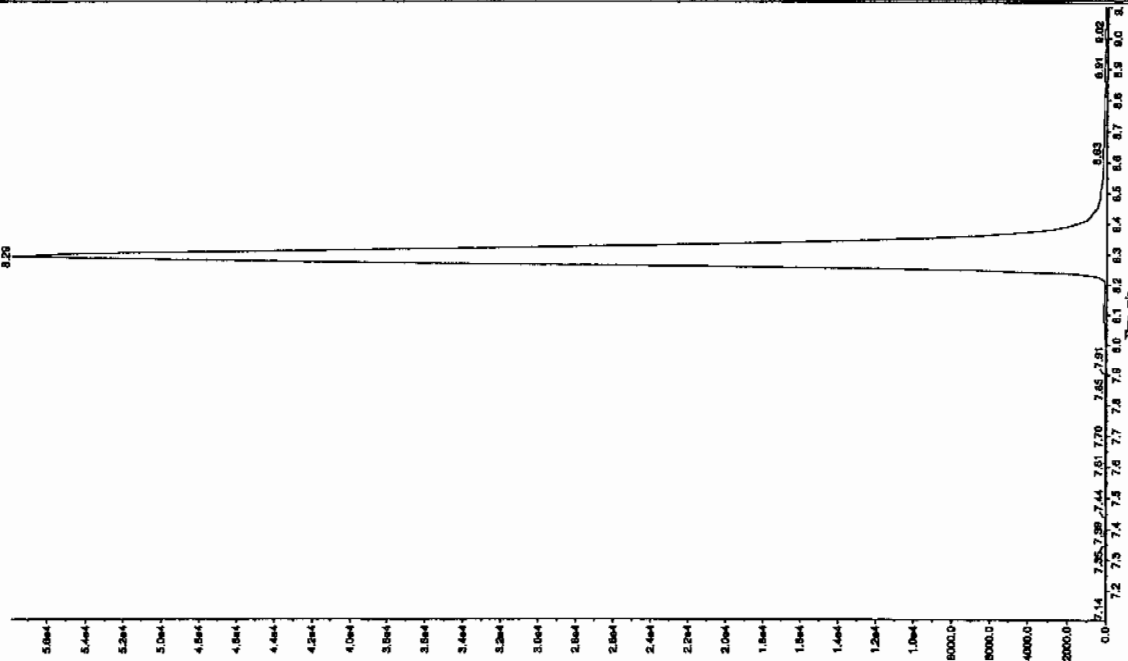
Intensity, cps



Sample Name: "24824003" Sample ID: "95833821EF" File: "EX504050091.wif"  
 Peak Name: "35-Dinitroaniline" 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: 4/6/2010  
 Acq. Time: 12:13:45 PM  
 Modified: No

Intensity, cps

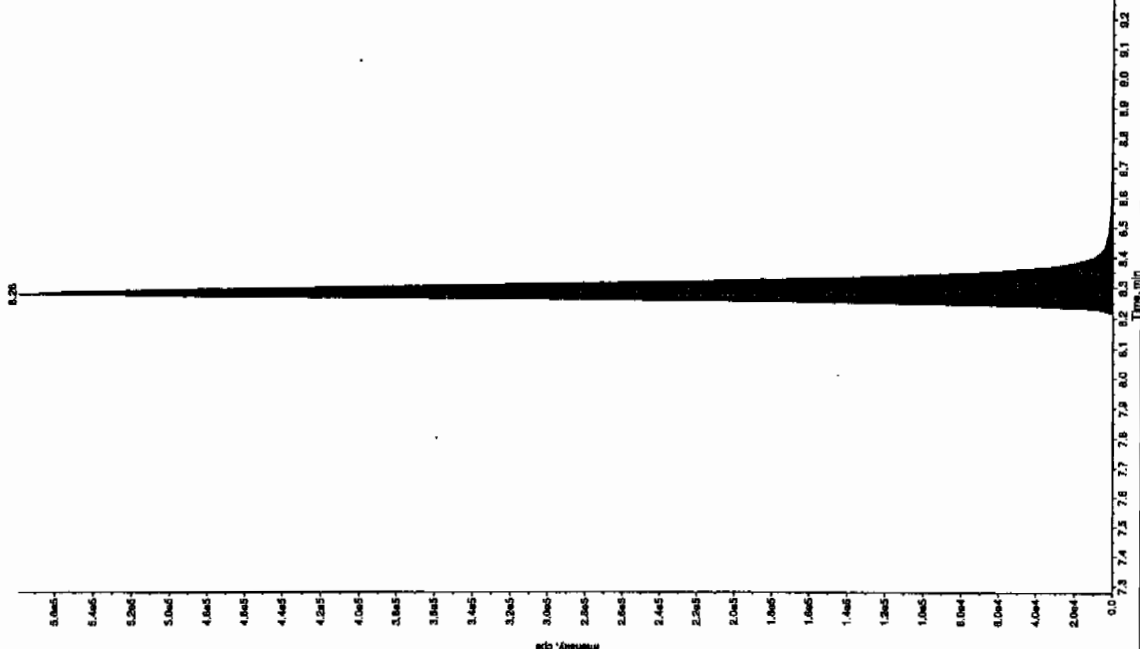


Am 04/08/10



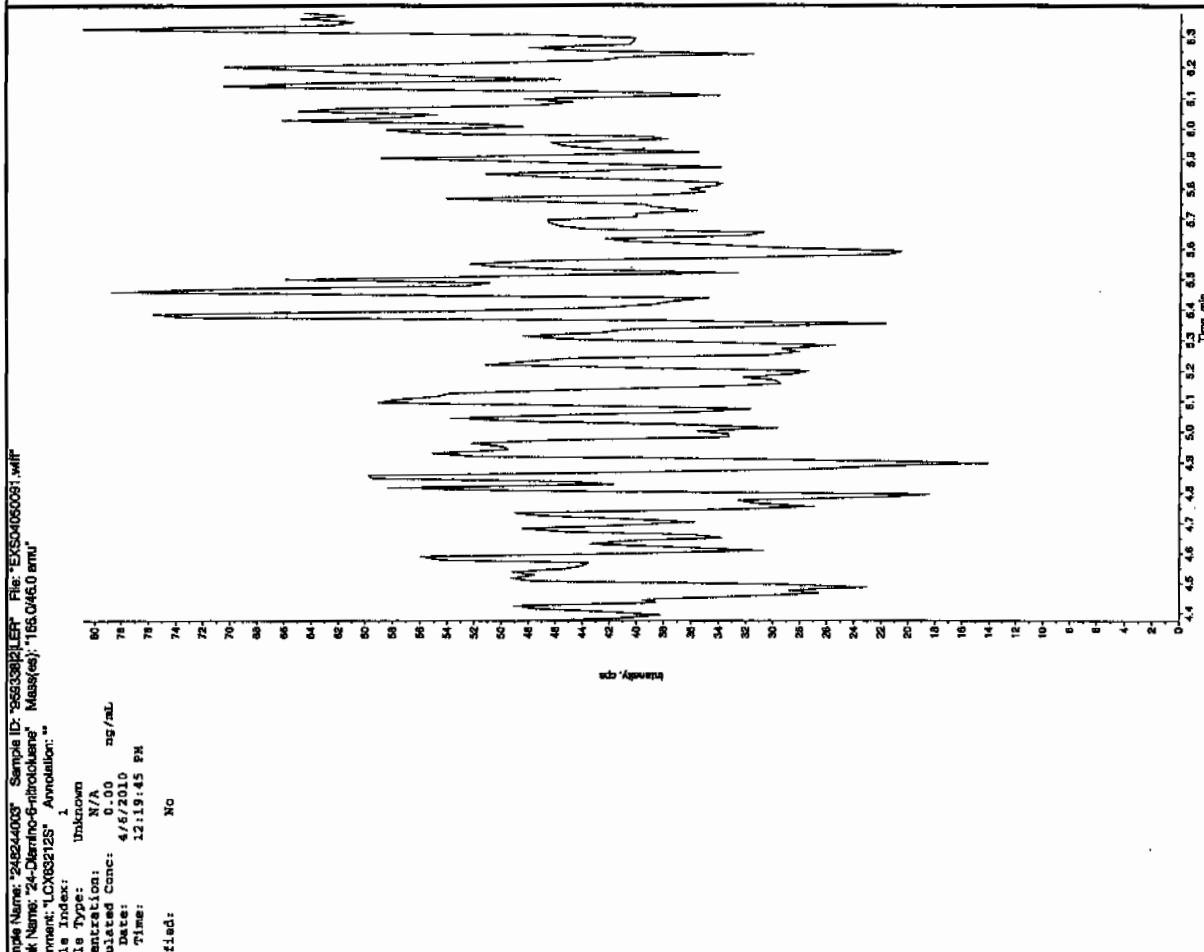
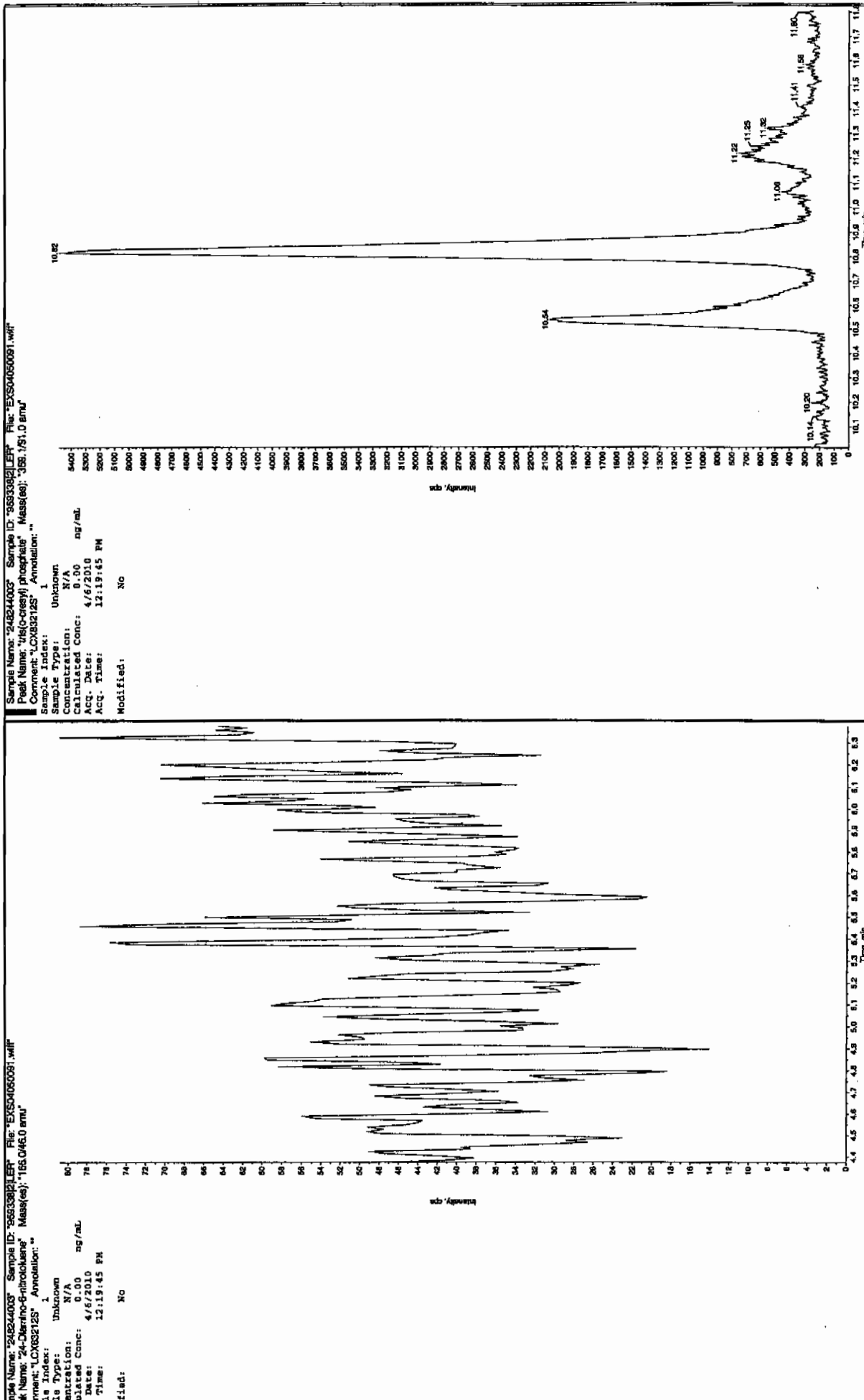
Sample Name: "248244003" Sample ID: "95833901LEF" File: "EX504050091.wif"  
 Peak Name: "24-Dinitrochlorobenzene" Mass(es): "182.1513 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Name: "248244003" Sample ID: "95833901LEF" File: "EX504050091.wif"  
 Peak Name: "24-Dinitrochlorobenzene" Mass(es): "182.1513 amu"  
 Comment: "LCX83212S" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 mg/mL  
 Calculated Conc: 4/6/2010  
 Acq. Date: 12:19:45 PM  
 Acq. Time: 12:19:45 PM  
 Modified: No



Sample Name: "248244003" Sample ID: "95833901LEF" File: "EX504050091.wif"  
 Peak Name: "24-Dinitrochlorobenzene" Mass(es): "182.1513 amu"  
 Comment: "LCX83212S" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 mg/mL  
 Calculated Conc: 4/6/2010  
 Acq. Date: 12:19:45 PM  
 Acq. Time: 12:19:45 PM  
 Modified: No  
 . Algorithm: IntelliQuan - IQA  
 Peak Height: 1450.00 cps  
 Peak Width: 0.00 sec  
 Peak Width: 3 points  
 Window: 15.0 sec  
 Window: 8.28 min  
 Window: 8.28 min  
 Window: 8.73 min  
 Type: Valley  
 Retention Time: 8.28 min  
 Height: 1450.00 counts  
 Width: 3.7829084 cps  
 Time: 8.28 min  
 Time: 8.73 min





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: RE36-10-8485

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244004

Sample Amount 2

Moisture: 23.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412196a

Date Analyzed: 16-APR-10 15:34

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



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010

Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412196a

Date: 16-Apr-2010

Time: 15:34:08

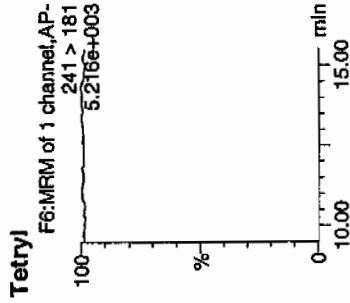
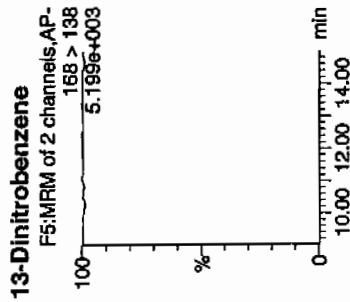
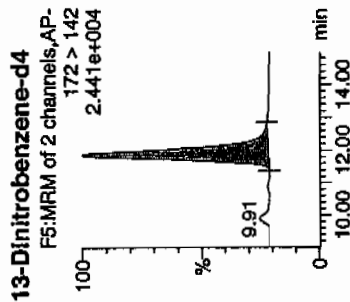
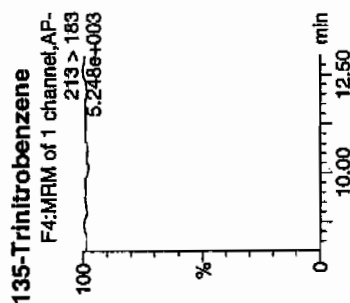
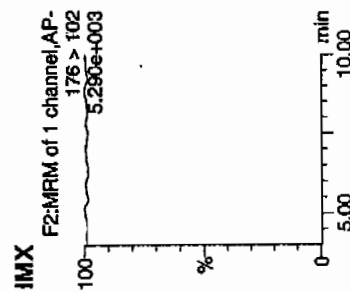
ID: 248244004

Ratio: 4:1,F

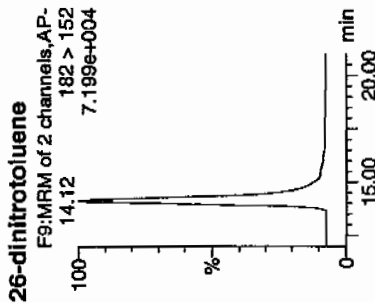
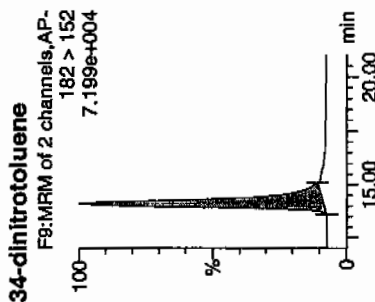
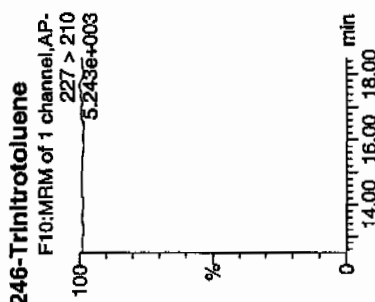
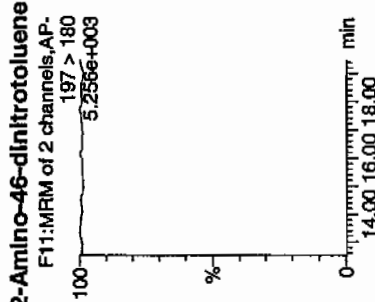
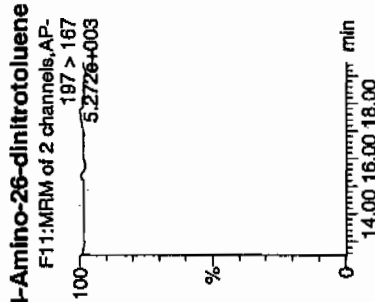
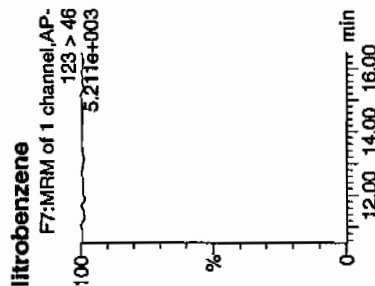
1677  
4/17/10

959338 / 21

# RDX

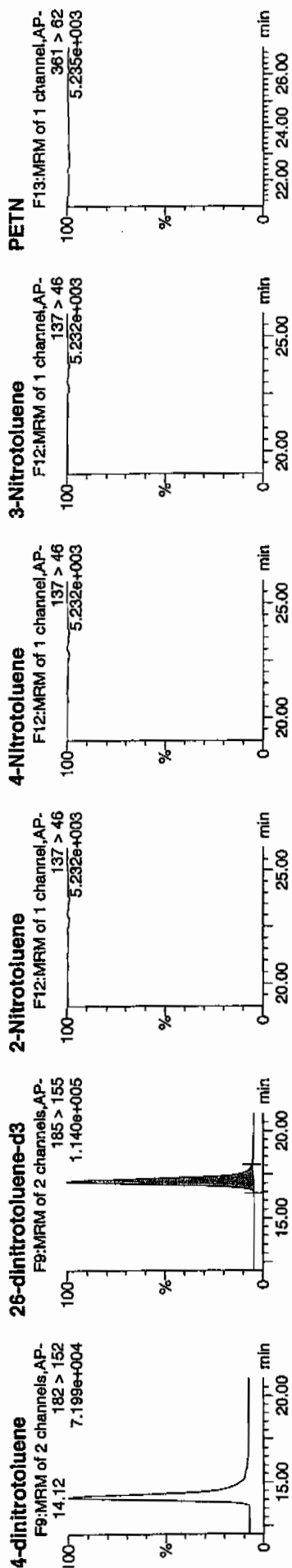


# litrobenzene



Handwritten signature and date: 04/17/10





Name	InChI Key	MW	TPSA	ClogP	HBD	HBA	Rings	Abs.Donor	Mol.Weight	TPSA	ClogP	HBD	HBA
HMX	[Chemical Structure]	176 > 102							7254.459				
RDX	[Chemical Structure]	176 > 102							7254.459				
135-Trinitrobenzene	[Chemical Structure]	213 > 183							7254.459				
13-Dinitrobenzene-d4	[Chemical Structure]	172 > 142	11.87						7254.459				
13-Dinitrobenzene	[Chemical Structure]	168 > 138							7254.459				
Tetryl	[Chemical Structure]	241 > 181							7254.459				
Nitrobenzene	[Chemical Structure]	123 > 46							7254.459				
4-Amino-26-dinitrotoluene	[Chemical Structure]	197 > 167							44128.844				
2-Amino-46-dinitrotoluene	[Chemical Structure]	197 > 180							44128.844				
246-Trinitrotoluene	[Chemical Structure]	227 > 210							44128.844				
34-dinitrotoluene	[Chemical Structure]	182 > 152	14.12						28359.434				
26-dinitrotoluene	[Chemical Structure]	182 > 152							44128.844				
24-dinitrotoluene	[Chemical Structure]	182 > 152							44128.844				
26-dinitrotoluene-d3	[Chemical Structure]	185 > 155	17.09						44128.844				
2-Nitrotoluene	[Chemical Structure]	137 > 46							44128.844				
4-Nitrotoluene	[Chemical Structure]	137 > 46							44128.844				
3-Nitrotoluene	[Chemical Structure]	137 > 46							44128.844				
PETN	[Chemical Structure]	361 > 62							44128.844				



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8485

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244004

Sample Amount 2

Moisture: 23.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050092.wiff

Date Analyzed: 06-APR-10 12:35

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 =

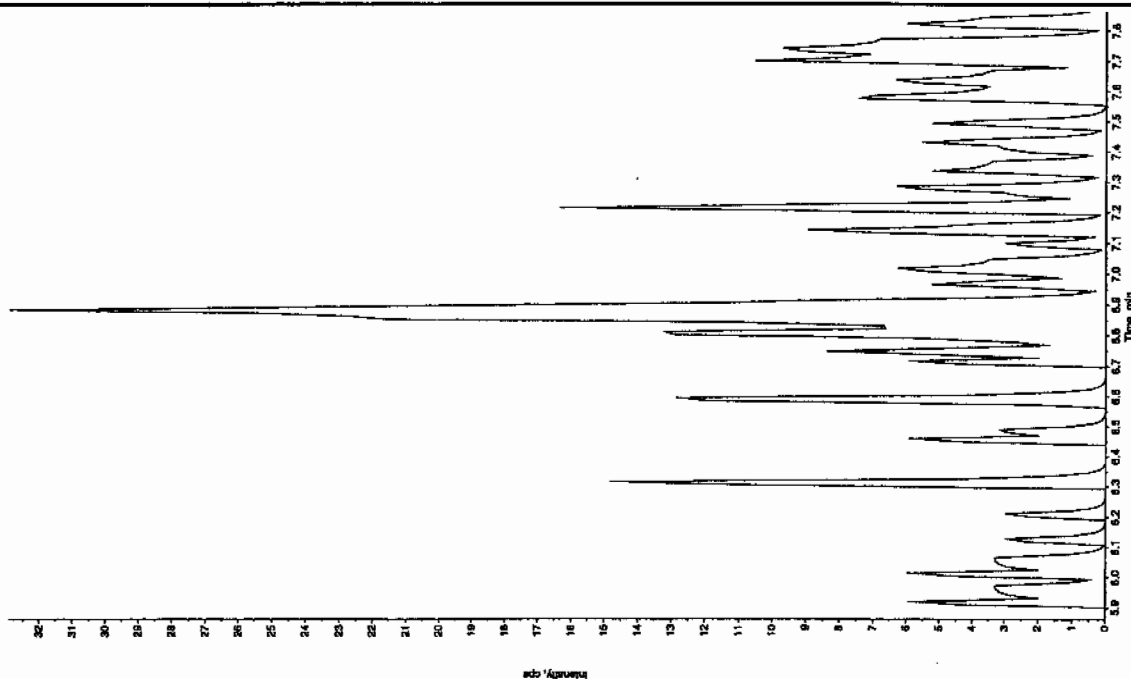
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



Scan 4/7/10

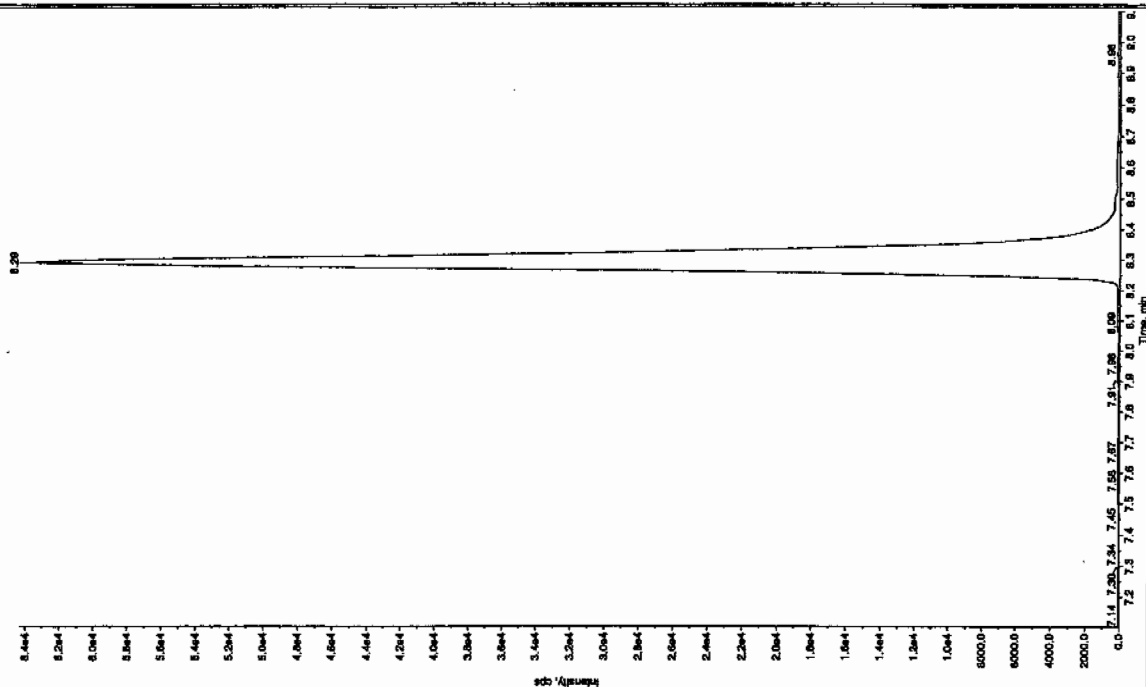
Sample Name: "248244004" Sample ID: "955339[2]\_ER" File: "EX504050082.wif"  
 Peak Name: "TATB" Mass(es): "257.2/204.9 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/6/2010  
 Acq. Time: 12:33:26 PM  
 Modified: No



Sample Name: "248244004" Sample ID: "955339[2]\_ER" File: "EX504050082.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.0/165.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/6/2010  
 Acq. Time: 12:33:26 PM  
 Modified: No

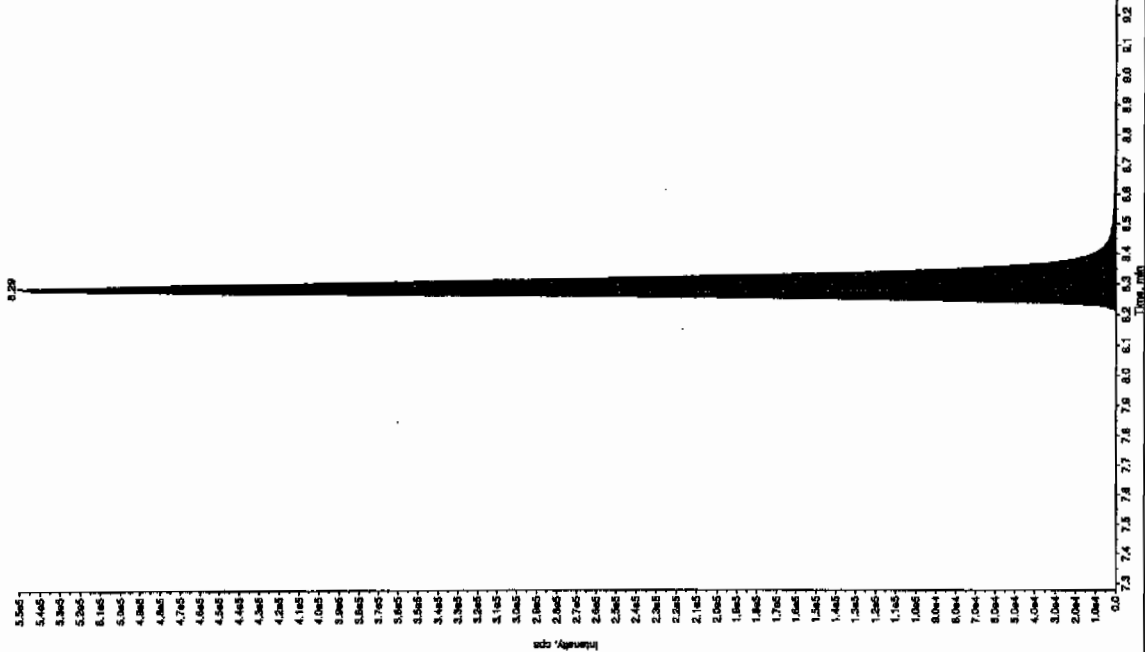


Scan 04/07/10



Sample Name: "24824404" Sample ID: "555338" File: "EX504050092.wif"  
 Peak Name: "34-Chlorobutene" Mass(es): "182.1513 amu"  
 Comment: "LCX832125" Annotation: "1"

Sample Name: "24824404"  
 Sample ID: "555338"  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/6/2010  
 Acq. Date: 12:35:26 PM  
 Acq. Time: 12:35:26 PM  
 Modified: No



File Index: 1  
 File Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/6/2010  
 Acq. Date: 12:35:26 PM  
 Acq. Time: 12:35:26 PM  
 Modified: No  
 Algorithm: IntelliQuan - IOA  
 Peak Height: 1450.00 cps  
 Peak Width: 0.00 sec  
 Retention Width: 3 points  
 Window: 15.0 sec  
 Retention Time: 8.29 min  
 Relative RT: No  
 Type: Valley  
 Retention Time: 8.29 min  
 Counts: 2.23e+006  
 HT: 550555.115 cps  
 C Time: 8.17 min  
 Time: 8.76 min

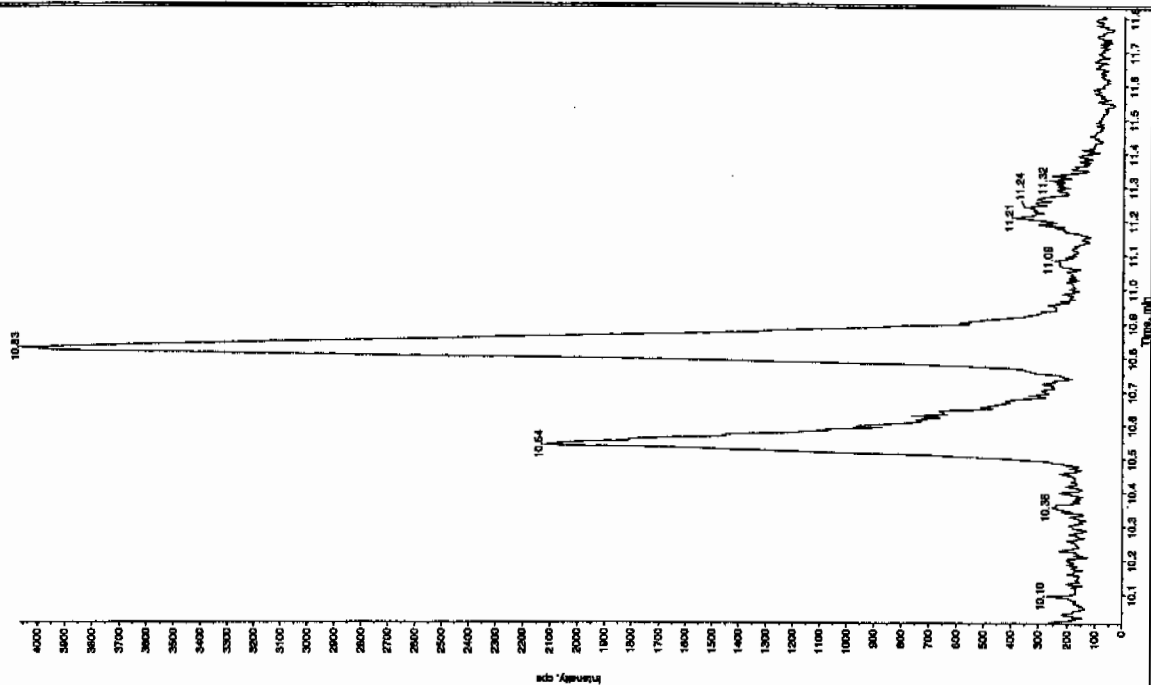
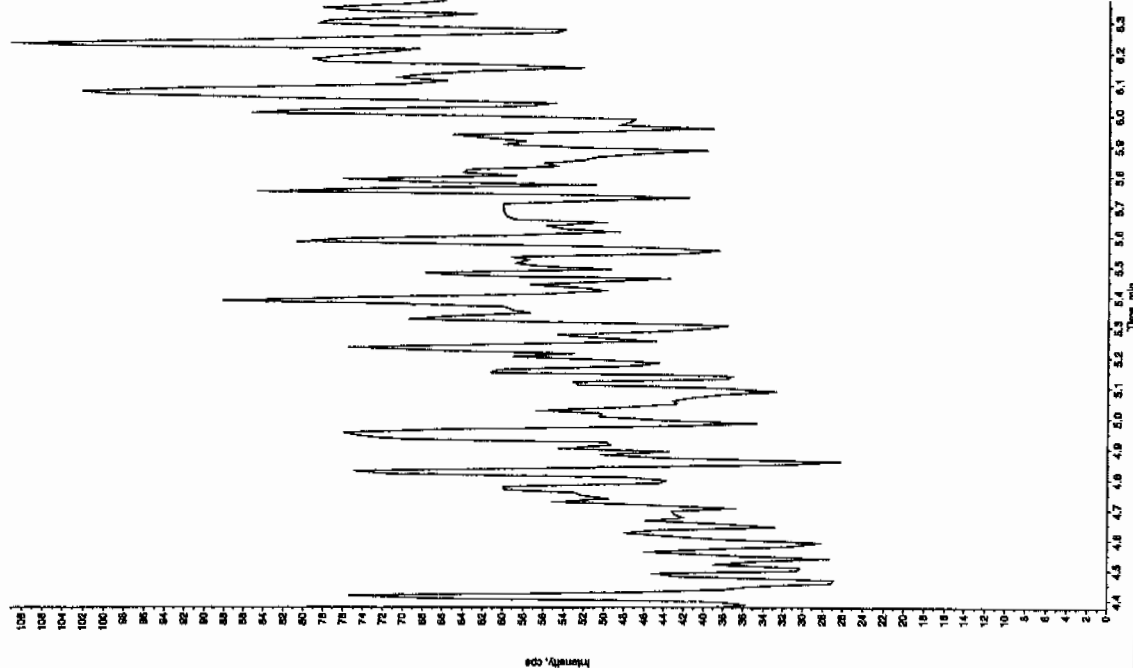
L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



Sample Name: "248244004" Sample ID: "95933812|LER" File: "EX504050092.wiff"  
Peak Name: "tris(c-oresyl) phosphatidyl" Mass(es): "359.1/91.0 amu"

Comment: "LX83212S" Annotation: ""

Sample Index:	1	
Sample type:	Unknown	
Concentration:	N/A	ng/mL
Calculated Conc:	0.00	
Acq. Date:	4/6/2010	
Acq. Time:	12:35:26 PM	
Modified:	No	





1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8477

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244005

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412150a

Date Analyzed: 15-APR-10 16:56

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



name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412150a

date: 15-Apr-2010

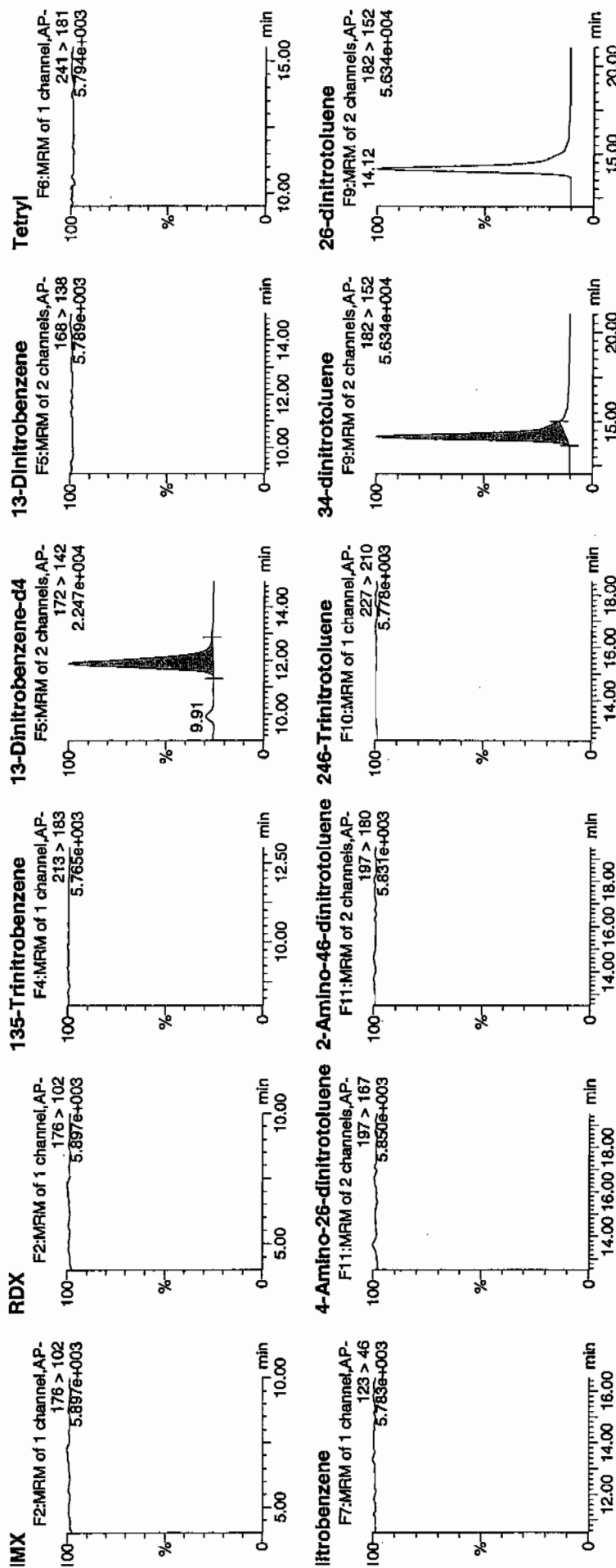
time: 16:56:48

id: 248244005

lat: 4:2,A

1047  
4/16/10

WAW/959338/Seiz/21



4/16/10

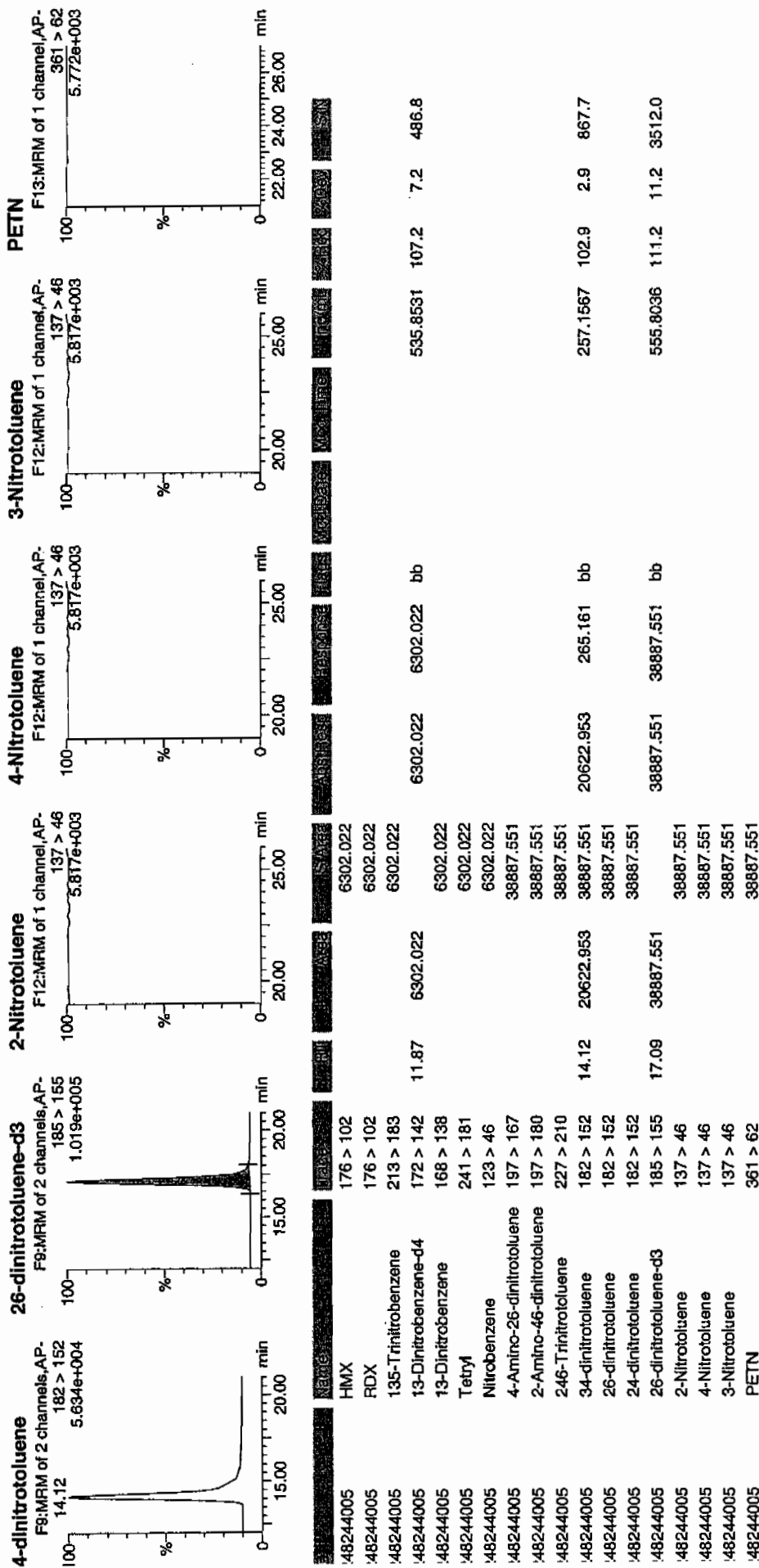


# Quantify Sample Report

iEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Apr 16 09:46:23 2010, Page 14 of 71

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010





1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8477

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244005

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050093.wiff

Date Analyzed: 06-APR-10 12:51

Units: ug/kg

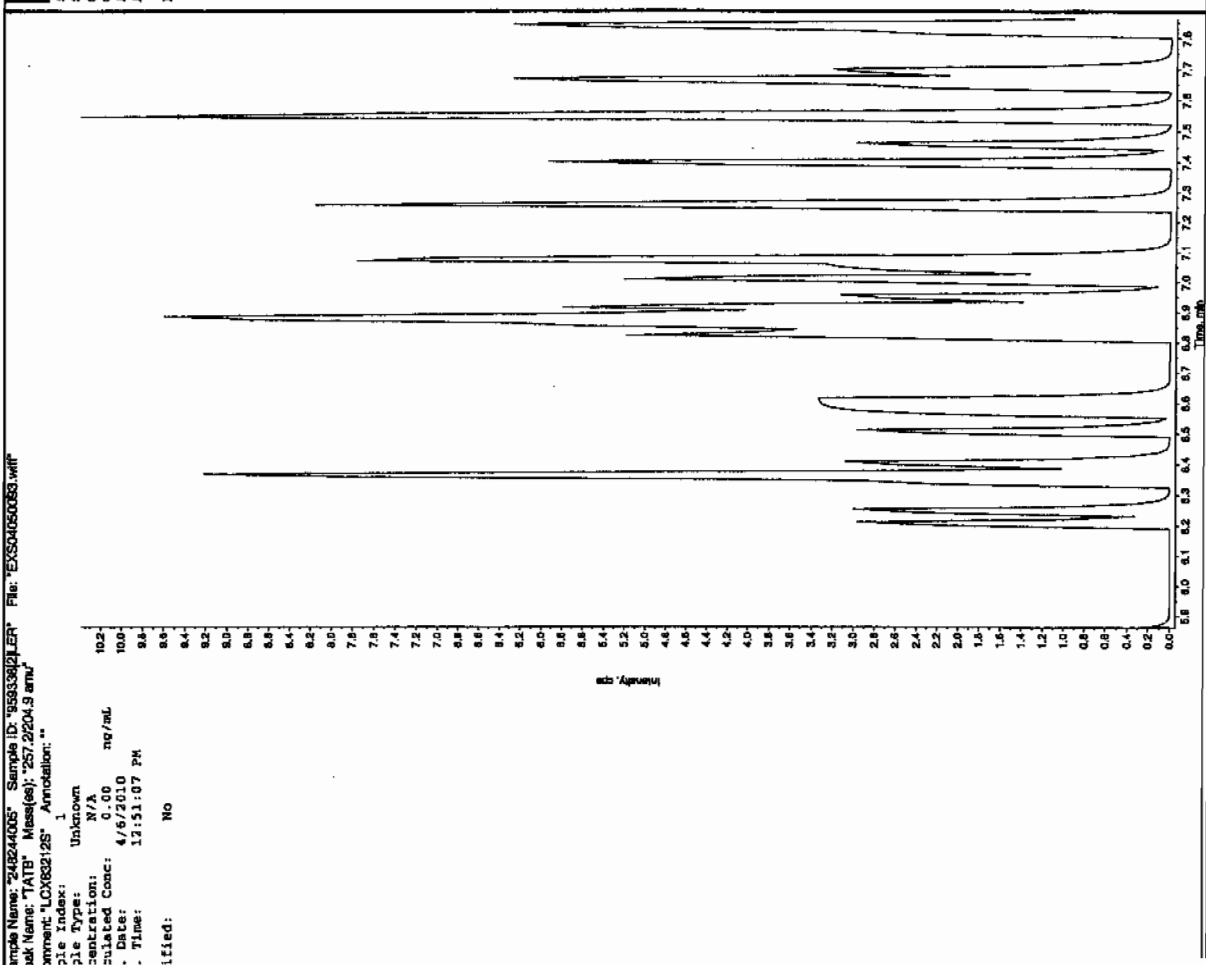
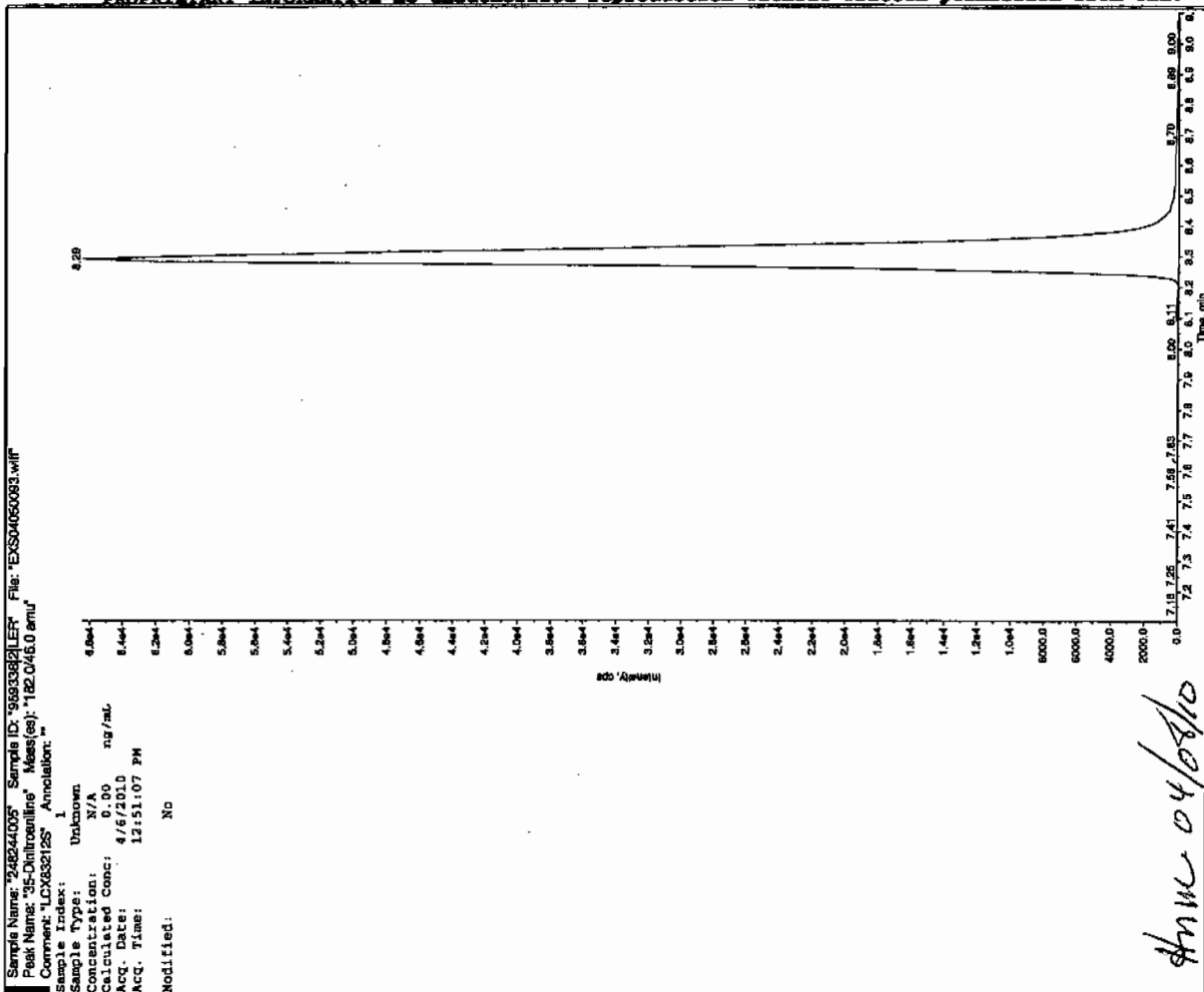
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

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



plan 4/7/10

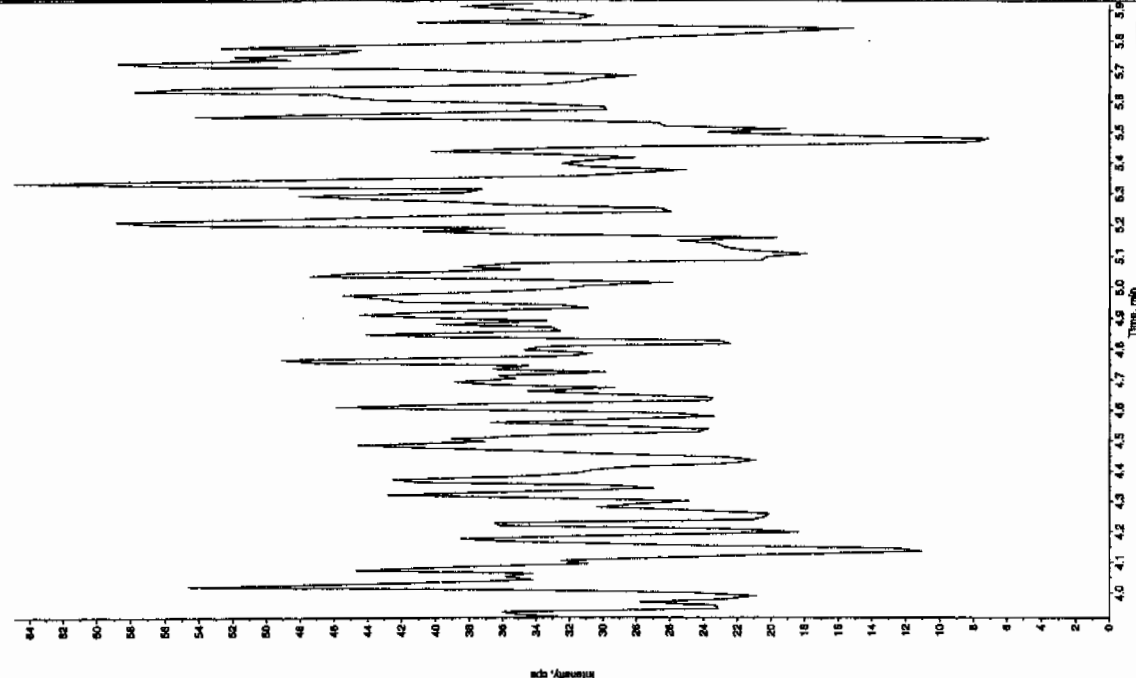


IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



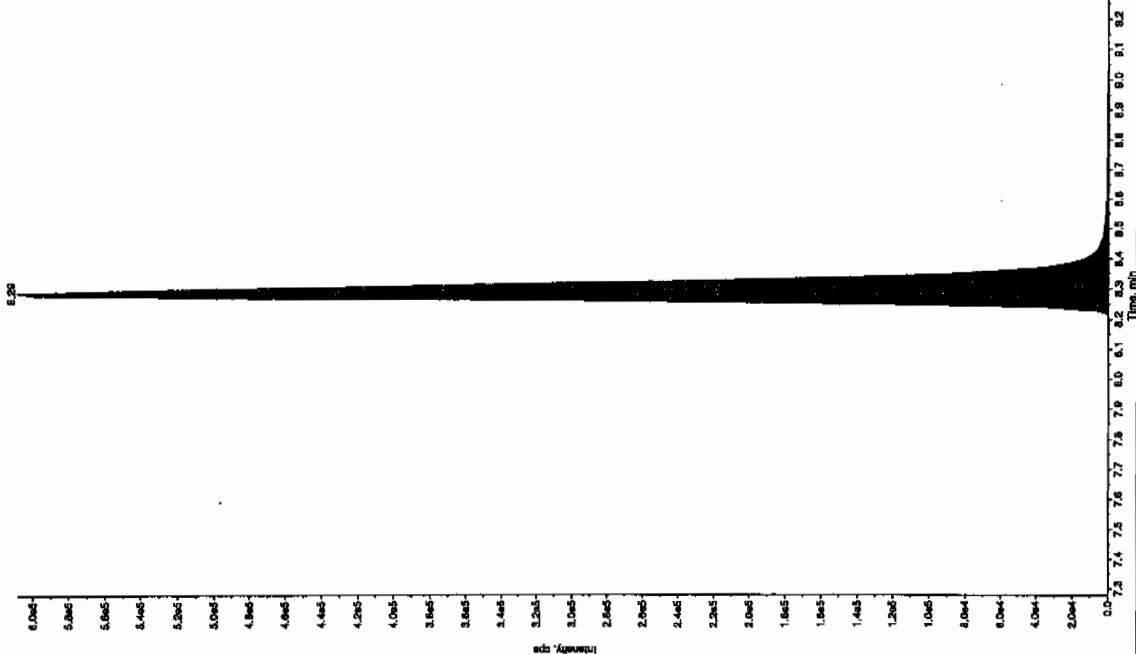
Sample Name: "248244005" Sample ID: "959338121.ER" File: "EXS04050083.wif"  
 Peak Name: "25-Dinitro-4-nitrofluorene" Mass(es): "186.046.0 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 12:51:07 PM  
 Modified: No

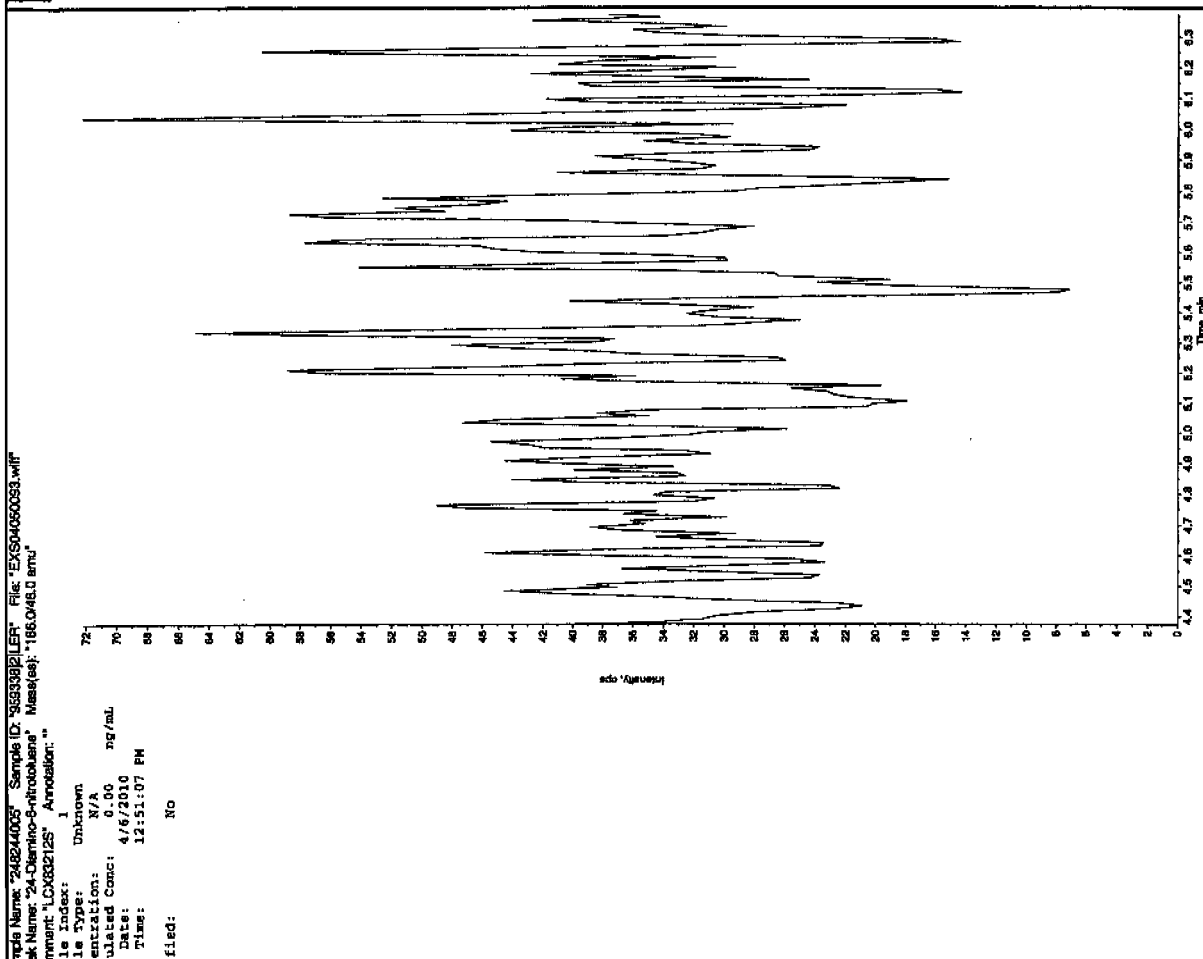


Sample Name: "248244005" Sample ID: "959338121.ER" File: "EXS04050083.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/181.9 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 12:51:07 PM  
 Modified: 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: RE36-10-8479

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244006

Sample Amount 2

Moisture: 10.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412151a

Date Analyzed: 15-APR-10 17:26

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	X	Concentrated Extract Volume	X	Dilution
Value		Sample Amount		Factor



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\DATA\EXP0412151a

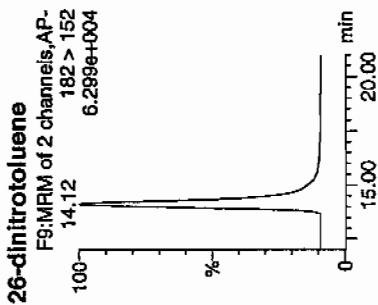
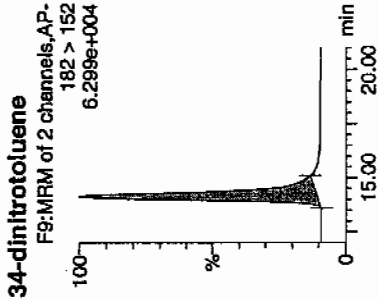
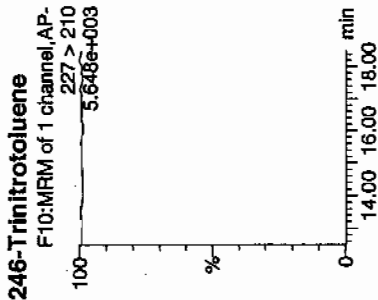
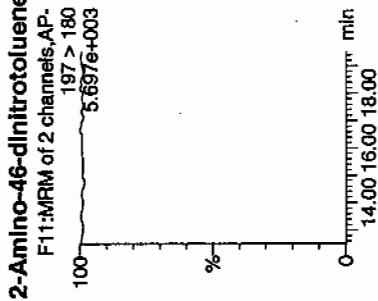
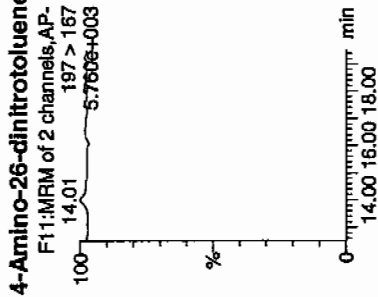
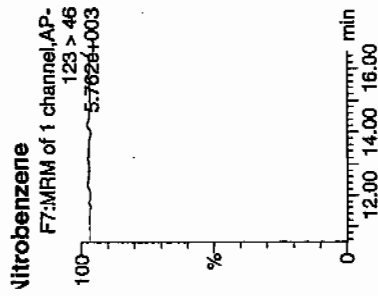
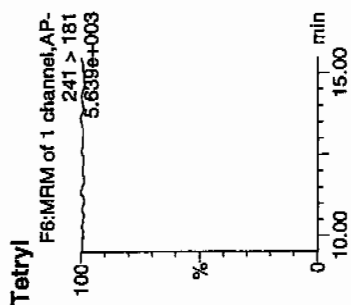
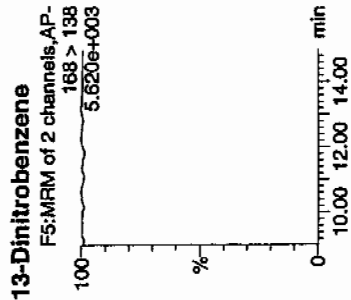
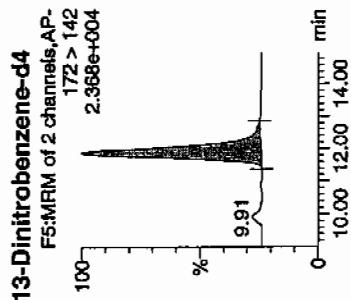
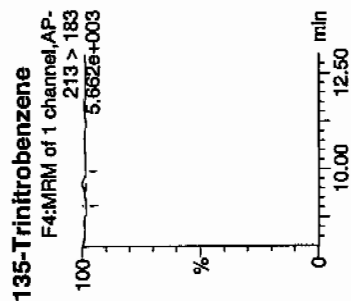
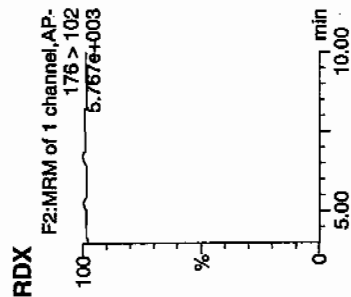
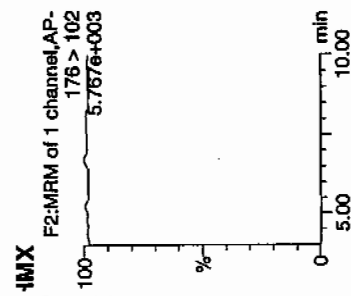
Date: 15-Apr-2010

Time: 17:26:17

**D: 24824006**

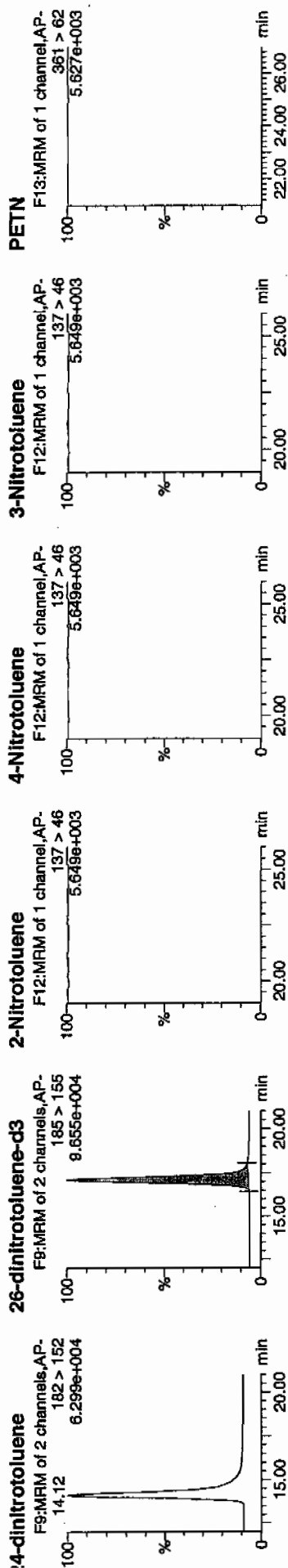
 $\nu_{\text{lat}}: 4:2, B$ 

4/3/20



01/18/13  
MUC





Name	Trace	RT	Area	IS Stage	Mass Resp.	Response	Sat.	Mol. Weight	Mol. Formula	Yield %	Purity %
HMX	176 > 102			6829.728							
RDX	176 > 102			6829.728							
135-Trinitrobenzene	213 > 183			6829.728							
13-Dinitrobenzene-d4	172 > 142	11.87	6829.728								
13-Dinitrobenzene	168 > 138			6829.728							
Tetryl	241 > 181			6829.728							
Nitrobenzene	123 > 46			6829.728							
4-Amino-26-dinitrotoluene	197 > 167			6829.728							
2-Amino-46-dinitrotoluene	197 > 180			36667.832							
246-Trinitrotoluene	227 > 210			36667.832							
34-dinitrotoluene	182 > 152	14.12	24008.842								
26-dinitrotoluene	182 > 152			36667.832							
24-dinitrotoluene	182 > 152			36667.832							
26-dinitrotoluene-d3	185 > 155	17.09	36667.832								
2-Nitrotoluene	137 > 46			36667.832							
4-Nitrotoluene	137 > 46			36667.832							
3-Nitrotoluene	137 > 46			36667.832							
PETN	361 > 62			36667.832							



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8479

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244006

Sample Amount 2

Moisture: 10.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050094.wiff

Date Analyzed: 06-APR-10 13:06

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 =

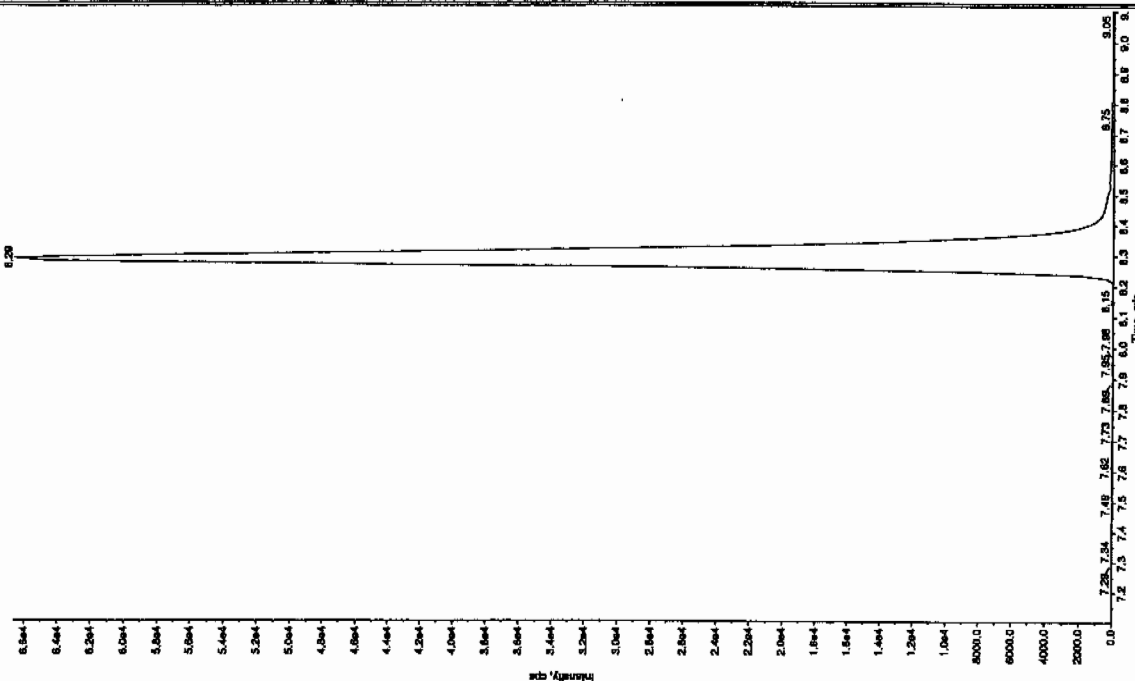
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



Scan 4/7/10

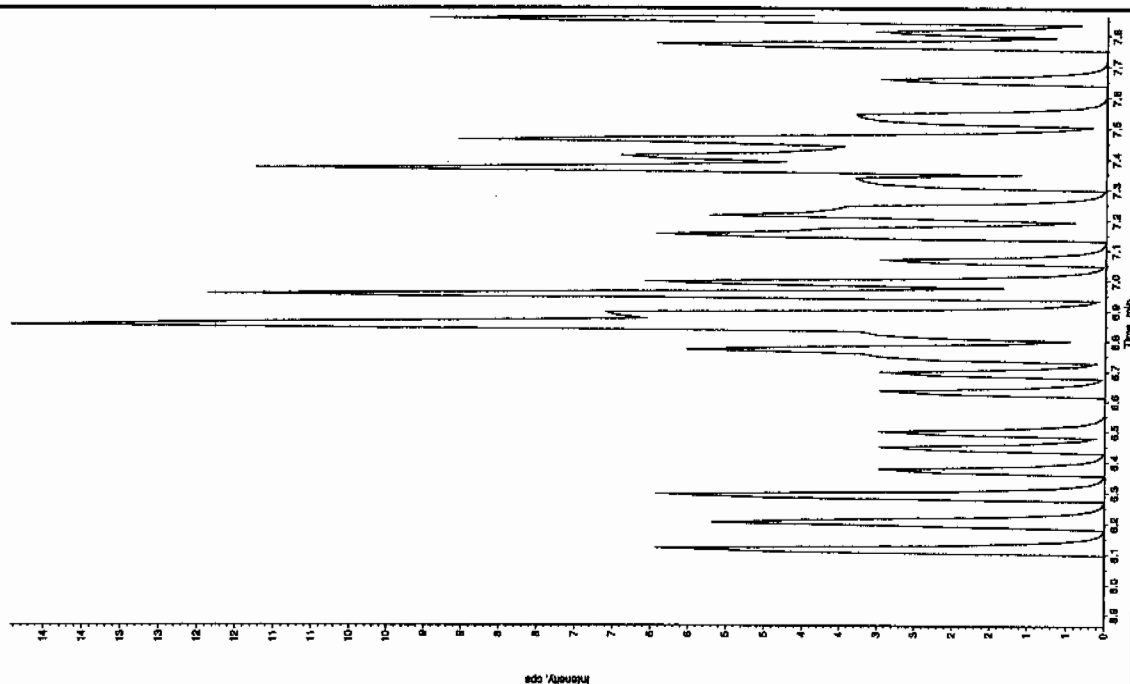
Sample Name: '24824005' Sample ID: '95538921.ER' File: 'EX504050094.wif'  
 Peak Name: '35-Dinitrobenzyl' Mass(es): '182.0460 amu'  
 Comment: 'LCX832125' Annotation: '-'

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/6/2010  
 Acq. Time: 1:06:47 PM  
 Modified: No



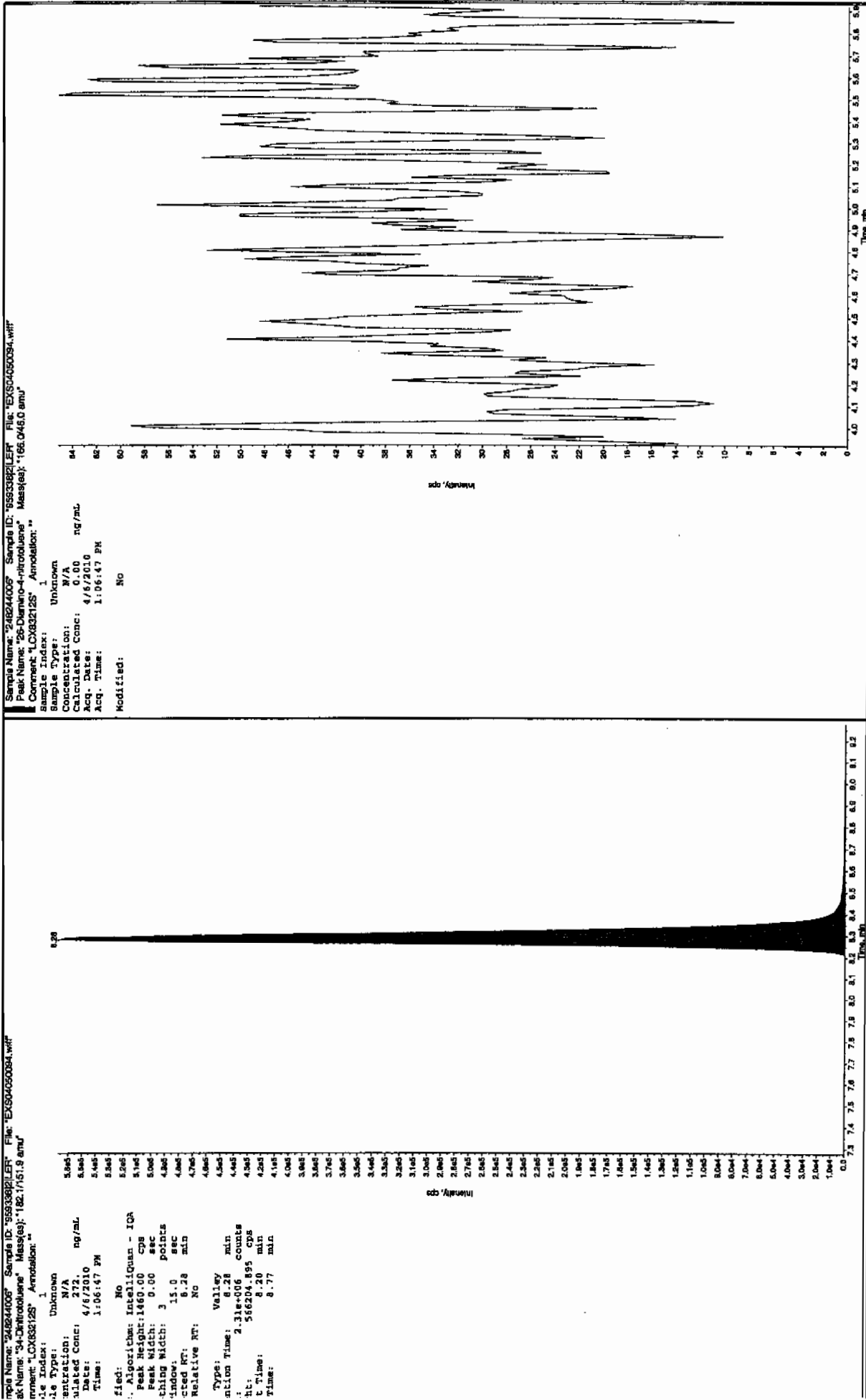
Sample Name: '24824005' Sample ID: '95538921.ER' File: 'EX504050094.wif'  
 Peak Name: 'TATB' Mass(es): '257.20419 amu'  
 Comment: 'LCX832125' Annotation: '-'

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/6/2010  
 Acq. Time: 1:06:47 PM  
 Modified: No



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



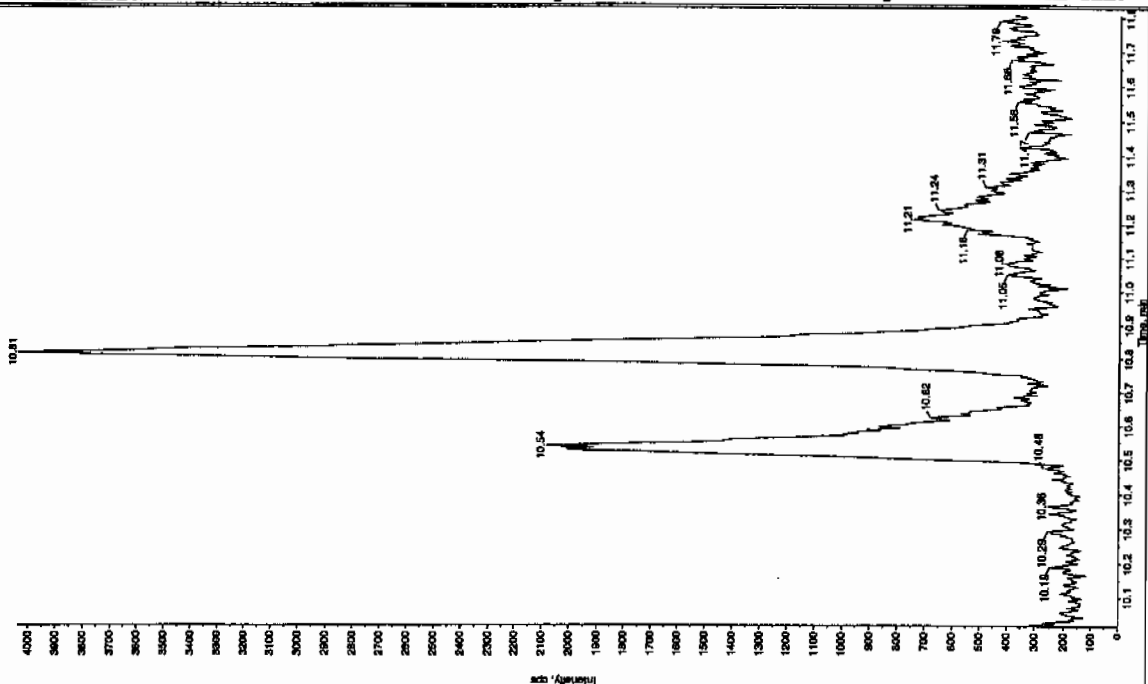
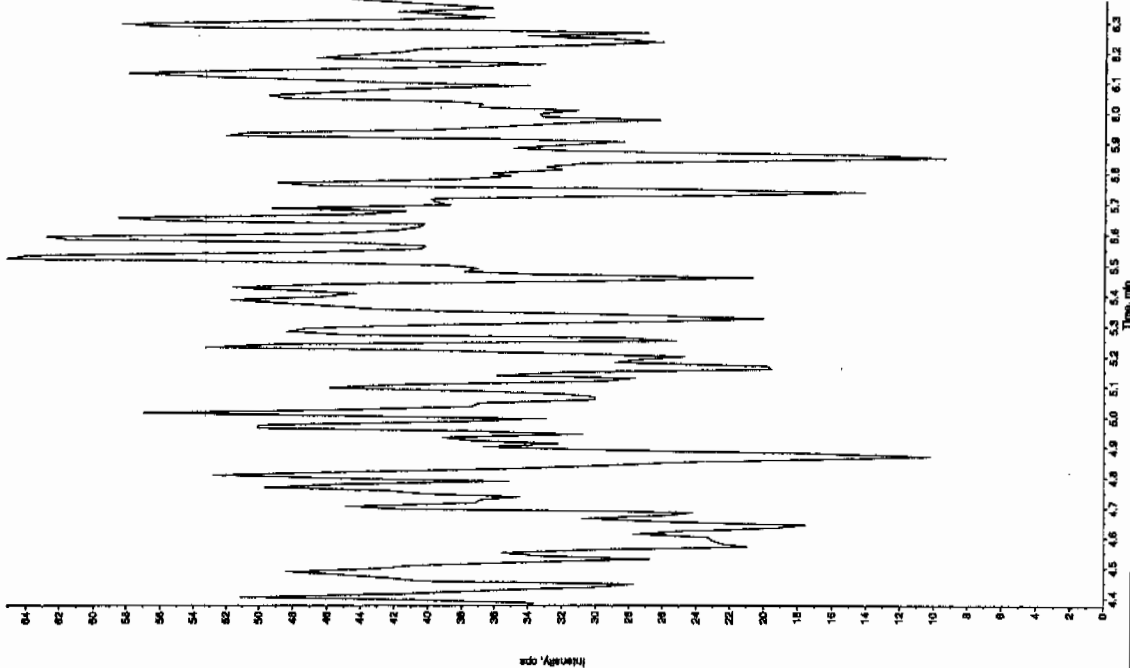


IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



Sample Name: "248244006" Sample ID: "35933821.EP" File: "EXS04060094.wiff"  
Peak Name: "tris(c-cresyl) phosphate" Mass(es): "359.1/91.0 amu"

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/g
Acq. Date:	4/6/2010
Acq. Time:	1:06:47 PM
Modified:	NC



CELL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8484

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244007

Sample Amount 2

Moisture: 16.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412152a

Date Analyzed: 15-APR-10 17:55

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



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412152a

Date: 15-Apr-2010

Time: 17:55:46

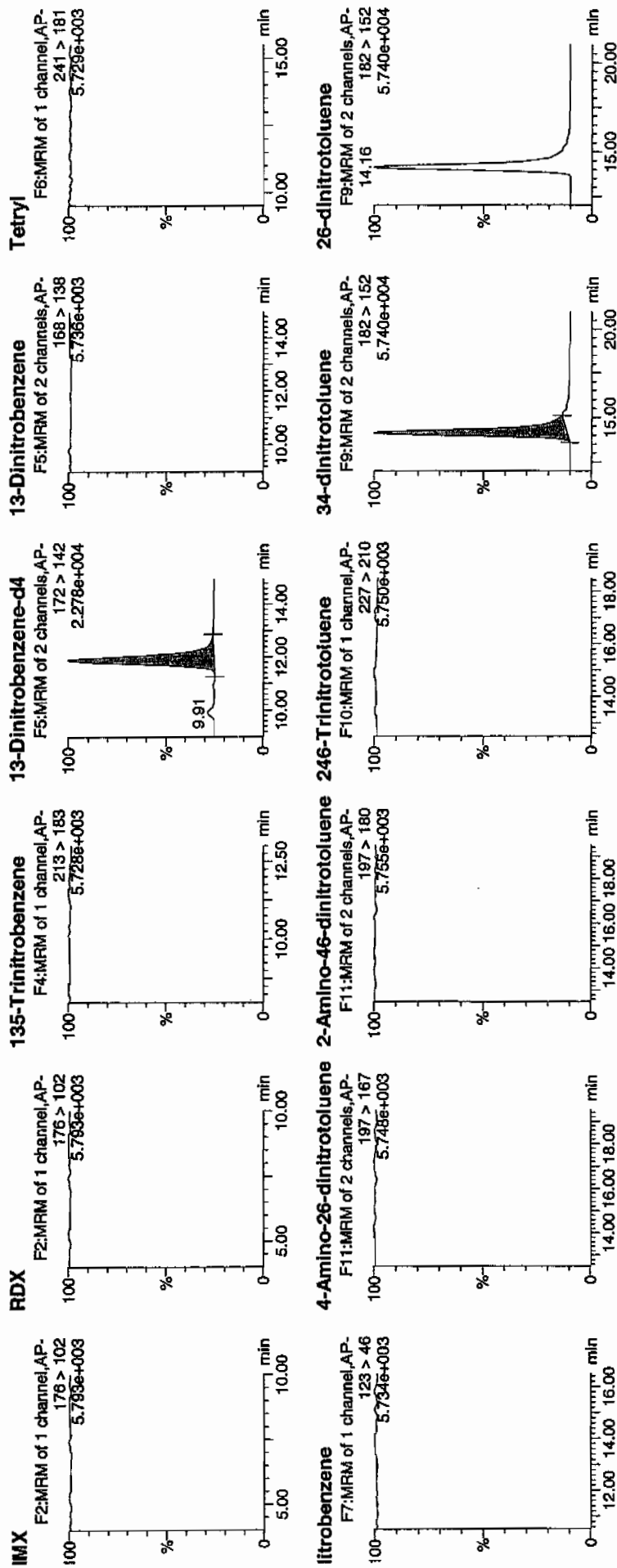
ID: 248244007

Label: 4:2,C

uaf

4/16/10

uaf 989338 | 8022 | 21

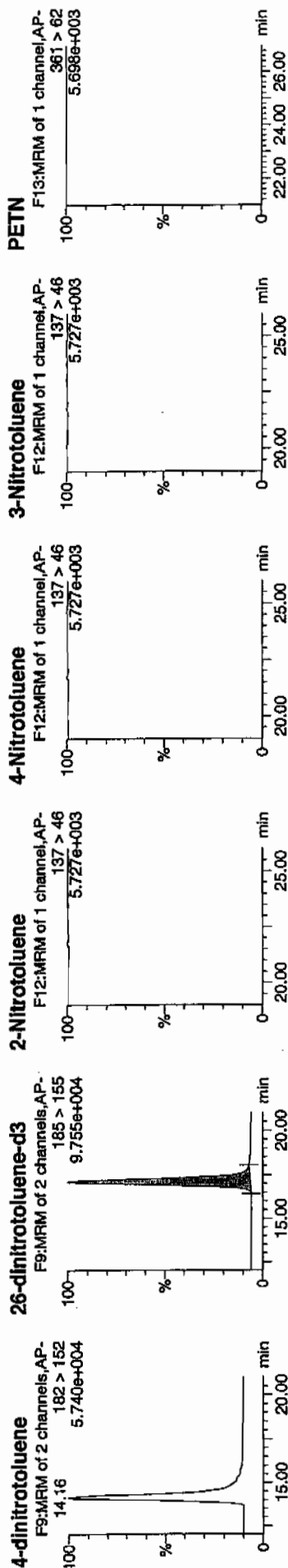


Handwritten signature/initials.



Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.



Name	MFG.	Pack	Catg.	Age	IS Age	Absence	Response	Freq	% Date	% Point	Z-Rec	Vdev
HMx	248244007	176 > 102			6390.748							
RDX	248244007	176 > 102			6390.748							
135-Trinitrobenzene	248244007	213 > 183			6390.748							
13-Dinitrobenzene-d4	248244007	172 > 142		11.90	6390.748					543.3973	108.7	8.7    1241.0
13-Dinitrobenzene	248244007	168 > 138			6390.748							
Tetryl	248244007	241 > 181			6390.748							
Nitrobenzene	248244007	123 > 46			6390.748							
4-Amino-26-dinitrotoluene	248244007	197 > 167			37228.988							
2-Amino-46-dinitrotoluene	248244007	197 > 180			37228.988							
246-Trinitrotoluene	248244007	227 > 210			37228.988							
34-dinitrotoluene	248244007	182 > 152		14.16	22044.705							
26-dinitrotoluene	248244007	182 > 152			37228.988					287.1313	114.9	14.9    1142.8
24-dinitrotoluene	248244007	182 > 152			37228.988							
26-dinitrotoluene-d3	248244007	185 > 155		17.09	37228.988							
2-Nitrotoluene	248244007	137 > 46			37228.988							
4-Nitrotoluene	248244007	137 > 46			37228.988							
3-Nitrotoluene	248244007	137 > 46			37228.988					532.0984	106.4	6.4    1359.7
PETN	248244007	361 > 62			37228.988							
						22044.705	296.069	bb				
						37228.988	37228.988	bb				



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8484

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244007

Sample Amount 2

Moisture: 16.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050095.wiff

Date Analyzed: 06-APR-10 13:22

Units: ug/kg

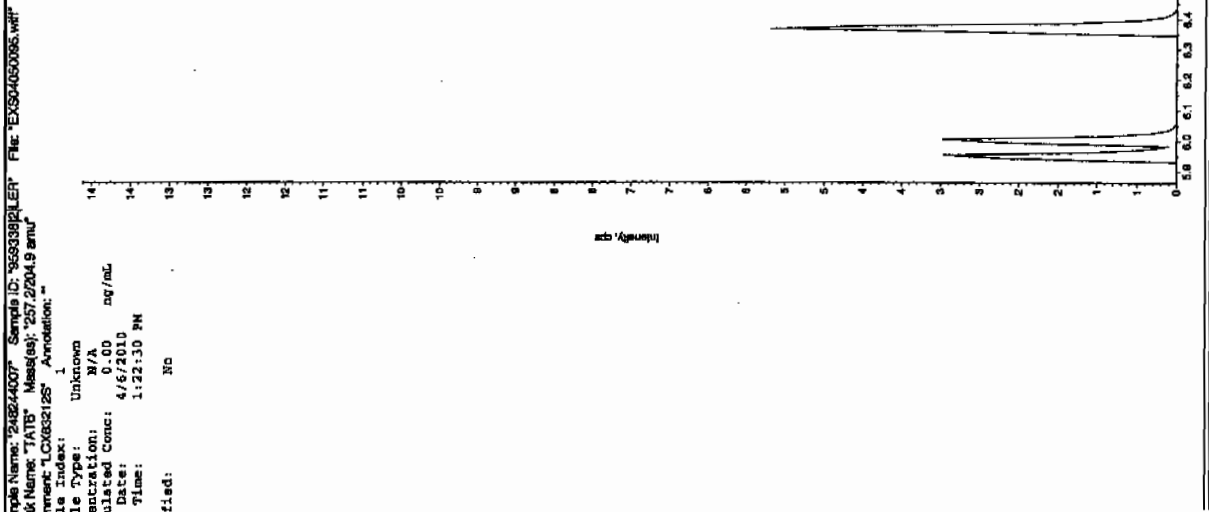
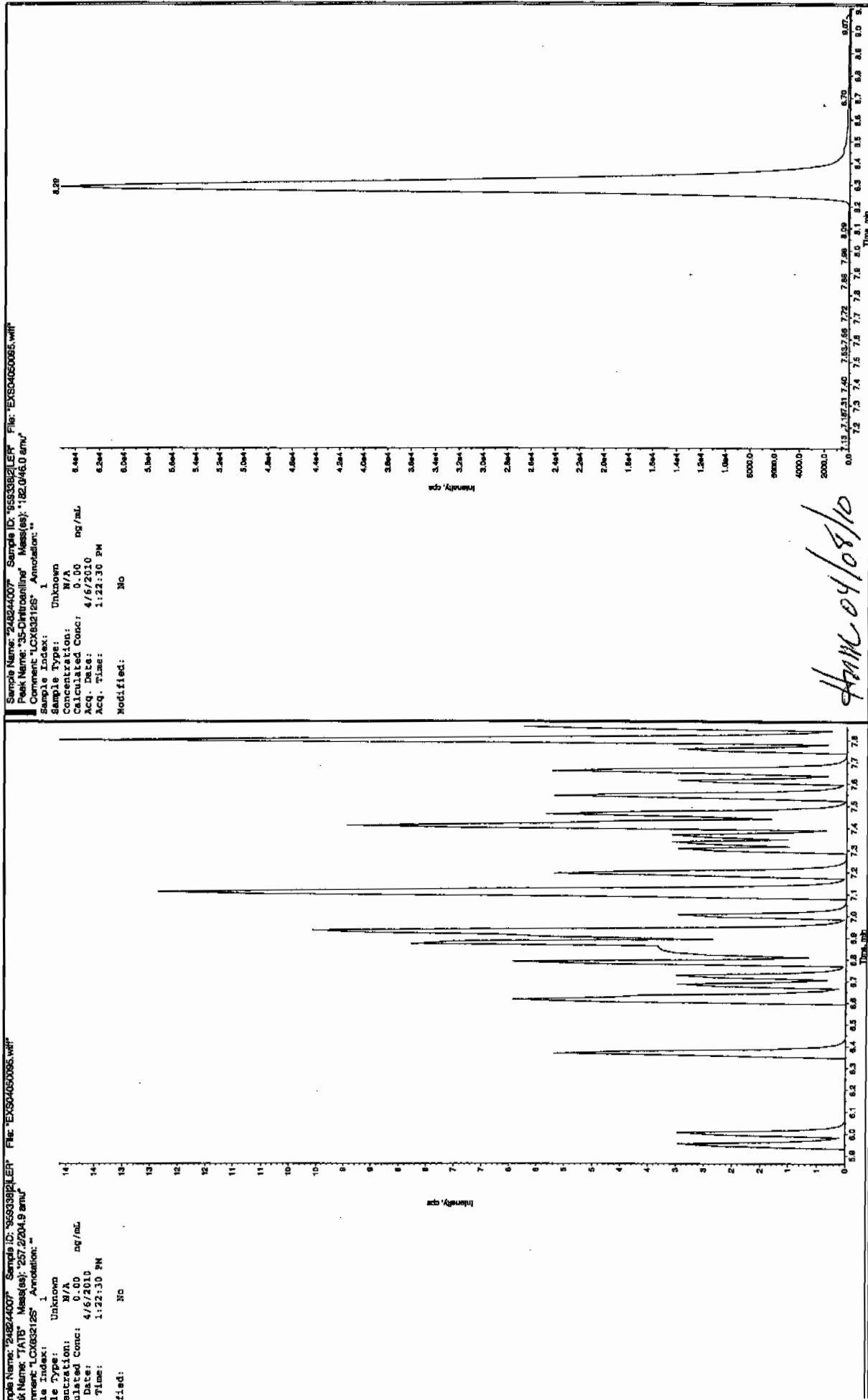
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

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



Run 4/7/10

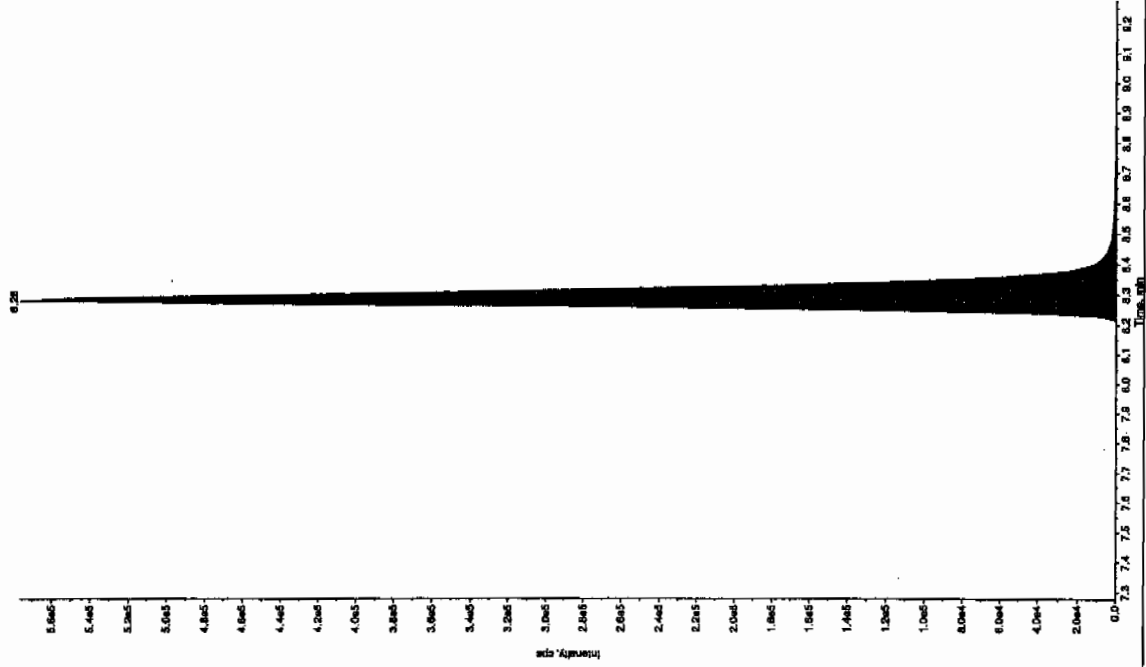


L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



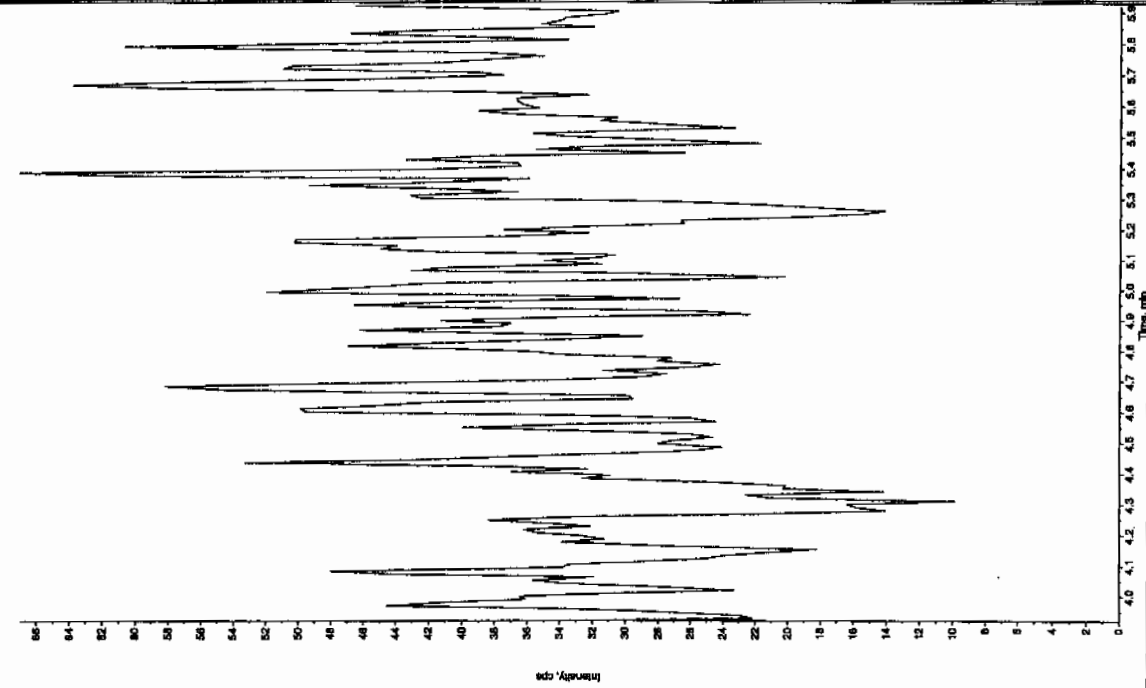
Sample Name: '248244007' Sample ID: '956339212' File: 'EX904050095.wif'  
Peak Name: '24-Dinitrofluorene' Mass(es): '182.1761.9 amu'  
Comment: 'LCX832125' Annotation: '-'

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A ng/mL  
Calculated Conc: 4.62310  
Acq. Date: 1/22/20 PM  
Acq. Time: 1:22:30 PM  
Modified: No  
Algorithm: IntelliQuan - IQA  
Peak Height: 1469.00 cps  
Peak Width: 0.00 sec  
Widthing Width: 3 points  
Window: 15.0 sec  
Detected RT: 8.28 min  
Relative RT: No  
Type: Valley  
Retention Time: 8.28 min  
Counts: 2.28e+006  
Height: 575632.874 cps  
Start Time: 8.20 min  
End Time: 8.36 min

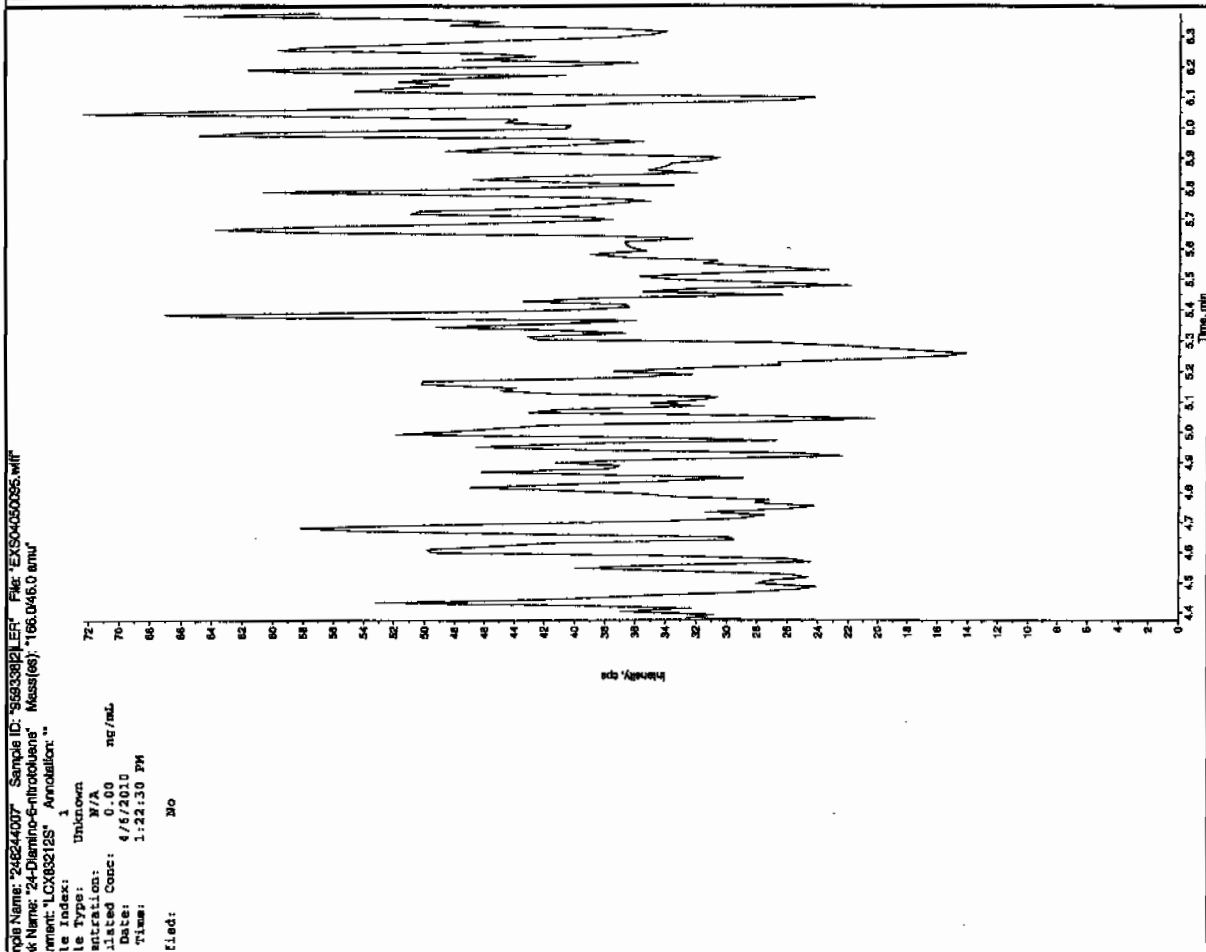
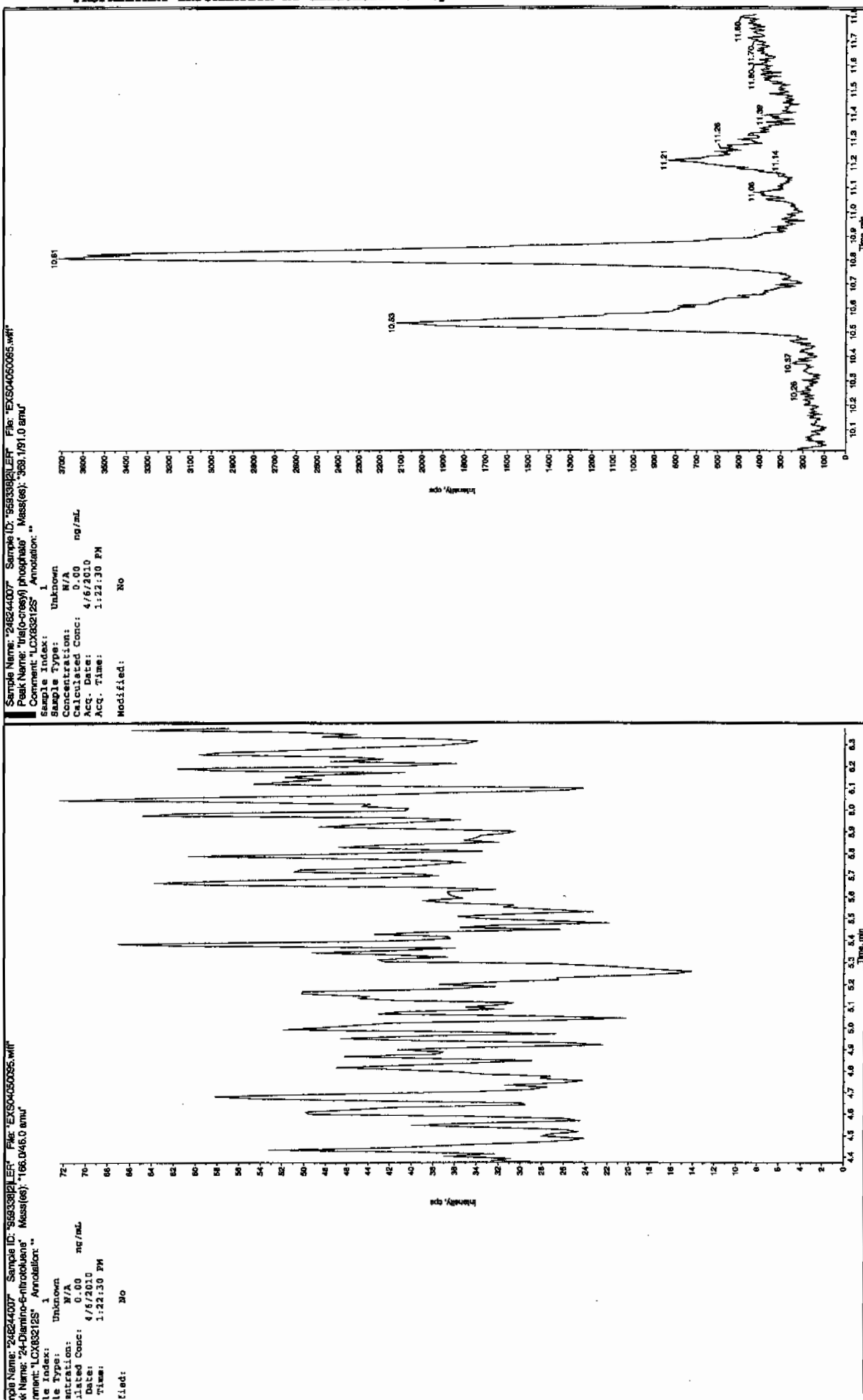


Sample Name: '248244007' Sample ID: '956339212' File: 'EX904050095.wif'  
Peak Name: '26-Dinitro-4-nitrofluorene' Mass(es): '166.04610 amu'  
Comment: 'LCX832125' Annotation: '-'

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A ng/mL  
Calculated Conc: 4.62310  
Acq. Date: 1/22/20 PM  
Acq. Time: 1:22:30 PM  
Modified: 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: RE36-10-8481

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244008

Sample Amount 2

Moisture: 11.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412153a

Date Analyzed: 15-APR-10 18:25

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



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412153a

Date: 15-Apr-2010

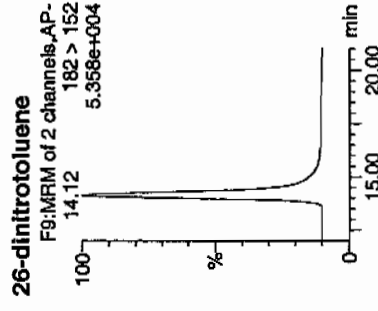
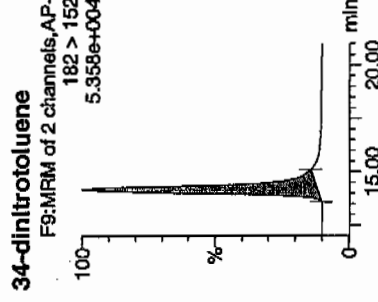
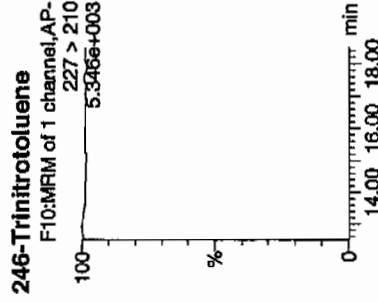
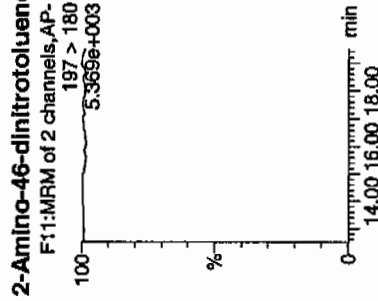
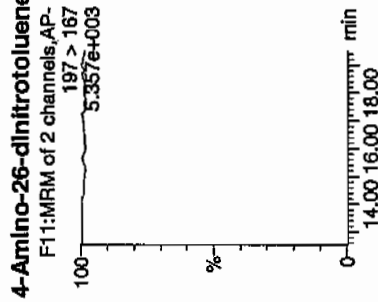
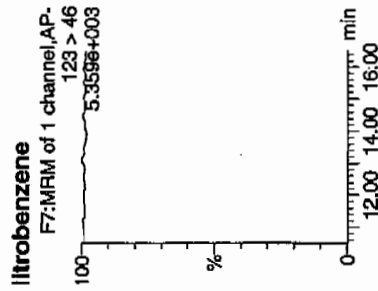
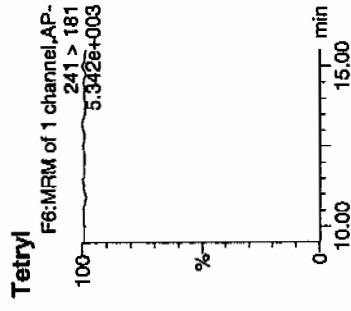
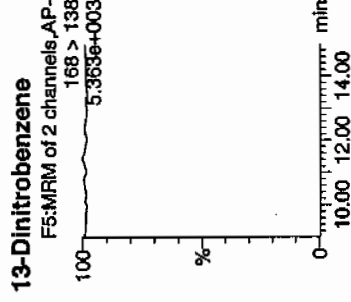
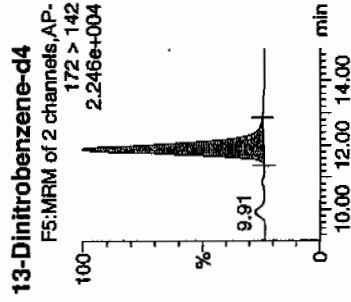
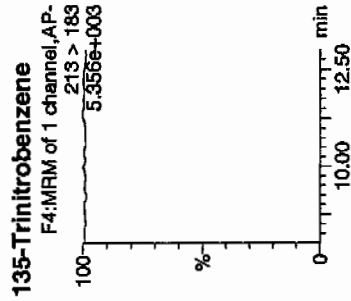
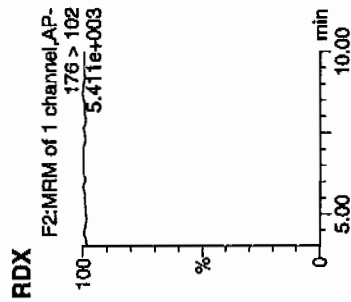
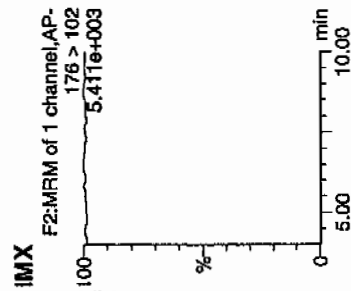
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ID: 248244008

File: 4:2,D

4/16/10

LAU/959338/Sizes/21

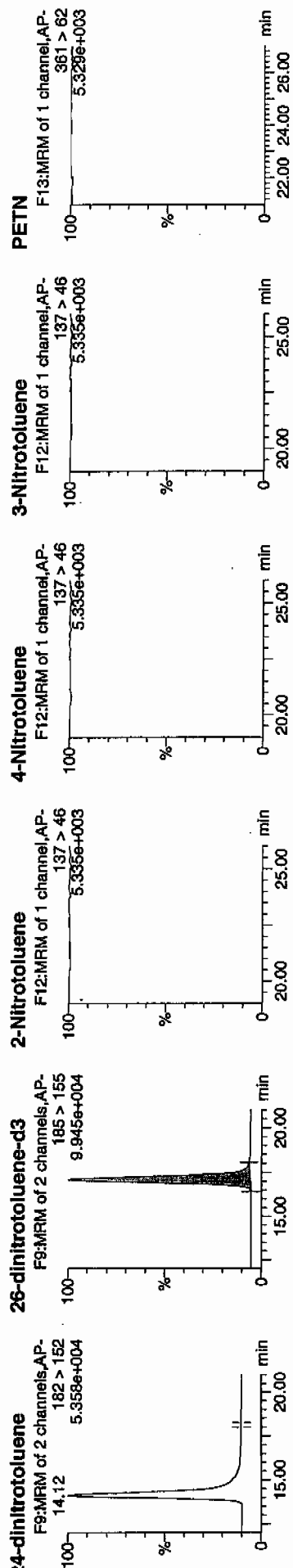


Handwritten signature/initials.



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Page 749 of 1174



NAME	WAVE	CHI	WAVE	IS AVER	ABS. INTEN.	RESPONSE	PHASE	WAVE DATA	WAVE INTEN.	WAVE	WAVE	WAVE
HMx	176 > 102			6406.974								
RDX	176 > 102			6406.974								
135-Trinitrobenzene	213 > 183			6406.974								
13-Dinitrobenzene-d4	172 > 142	11.89	6406.974		6406.974	bb		544.7770	109.0	9.0	665.2	
13-Dinitrobenzene	168 > 138			6406.974								
Tetryl	241 > 181			6406.974								
Nitrobenzene	123 > 46			6406.974								
4-Amino-26-dinitrotoluene	197 > 167			38491.547								
2-Amino-46-dinitrotoluene	197 > 180			38491.547								
246-Trinitrotoluene	227 > 210			38491.547								
34-dinitrotoluene	182 > 152	14.12	19863.340	38491.547	19863.340	258.022	bb	250.2329	100.1	0.1	546.4	
26-dinitrotoluene	182 > 152			38491.547								
24-dinitrotoluene	182 > 152			38491.547								
26-dinitrotoluene-d3	185 > 155	17.09	38491.547	38491.547	38491.547	MM-	16-Apr-10 09:45:16	550.1436	110.0	10.0	3405.4	
2-Nitrotoluene	137 > 46			38491.547								
4-Nitrotoluene	137 > 46			38491.547								
3-Nitrotoluene	137 > 46			38491.547								
PETN	361 > 62			38491.547								



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8481

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 248244008

Sample Amount 2

Moisture: 11.2

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04080015.wiff

Date Analyzed: 08-APR-10 20:29

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

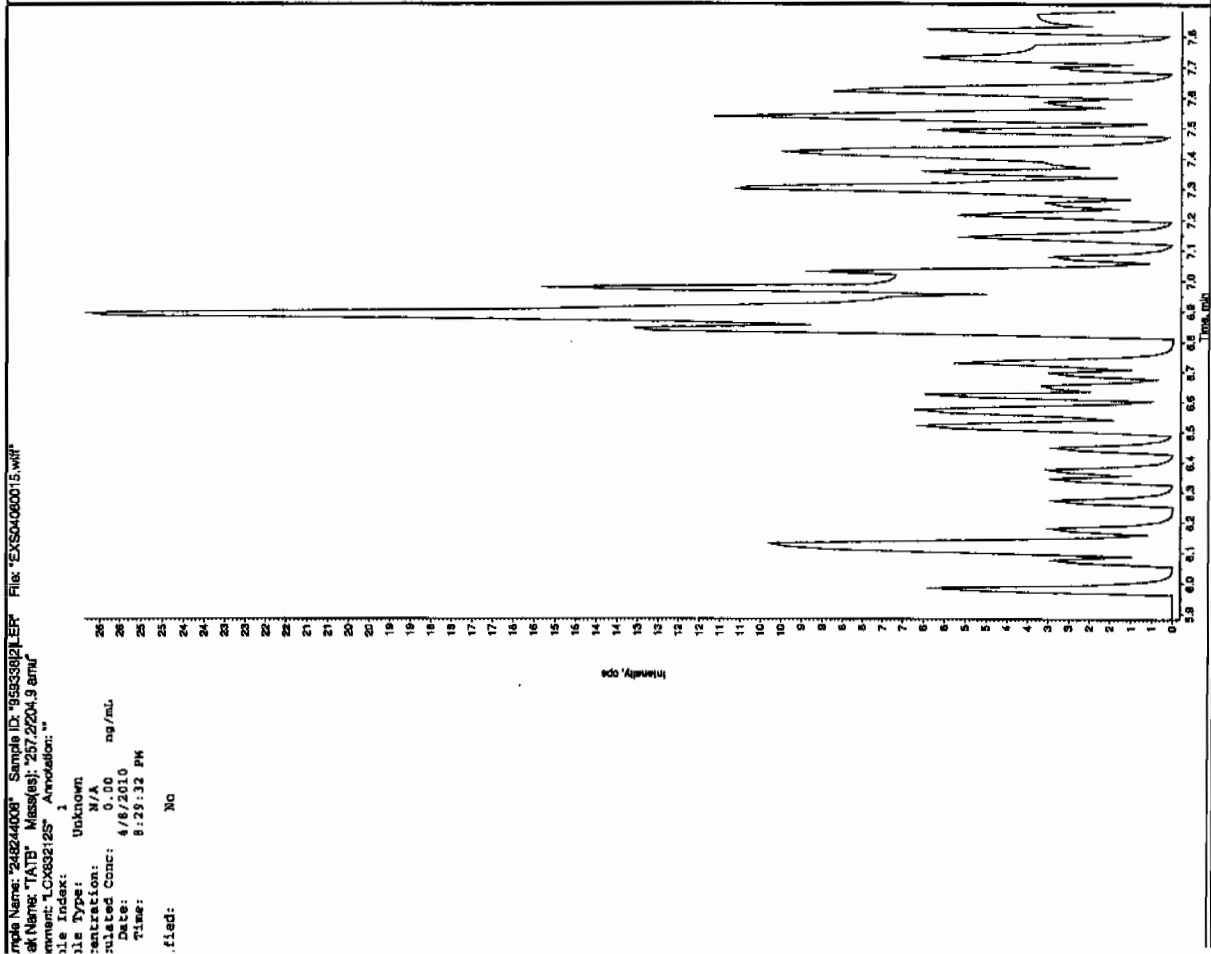
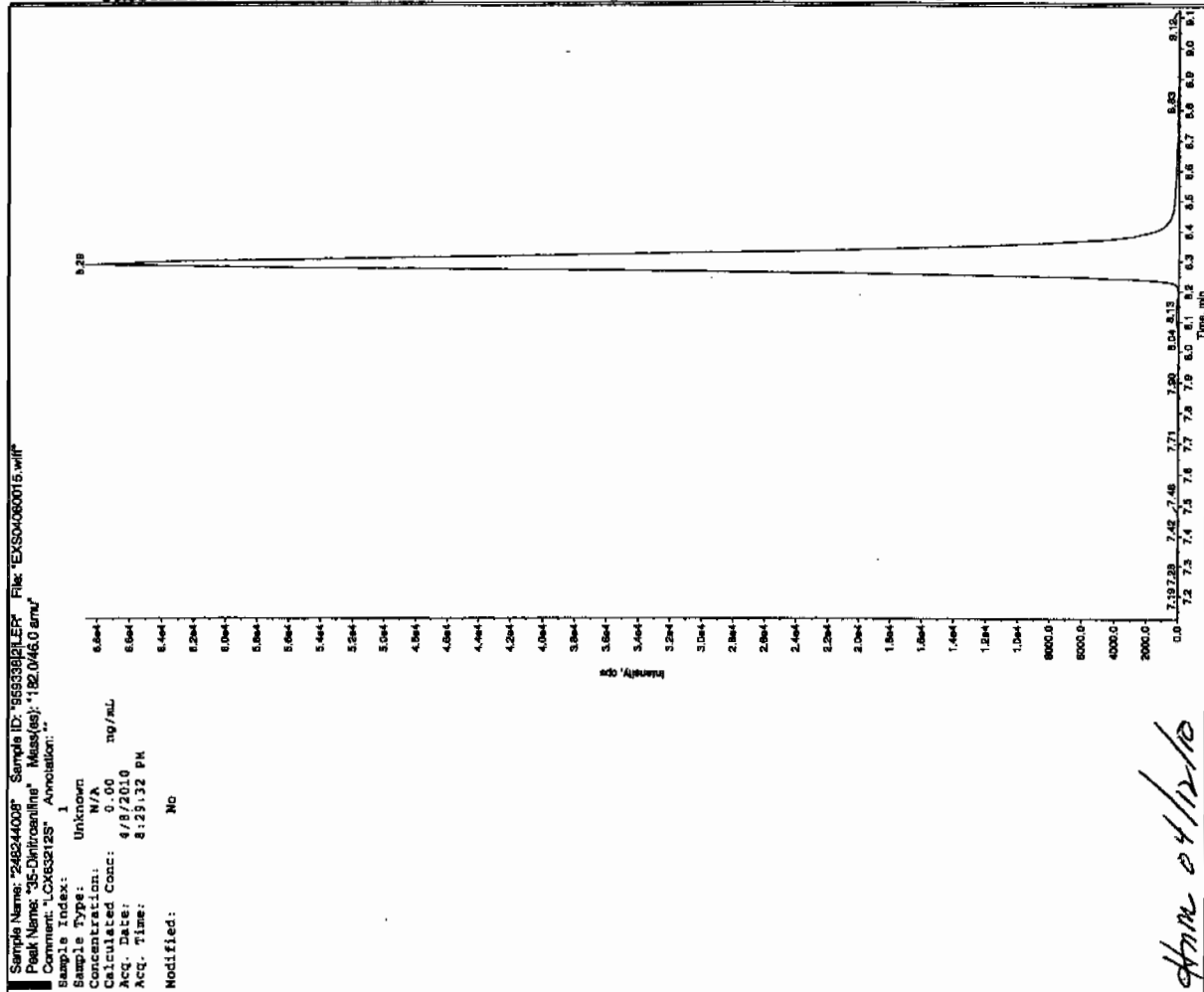
\*Concentration =

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



Jan 4/12/10

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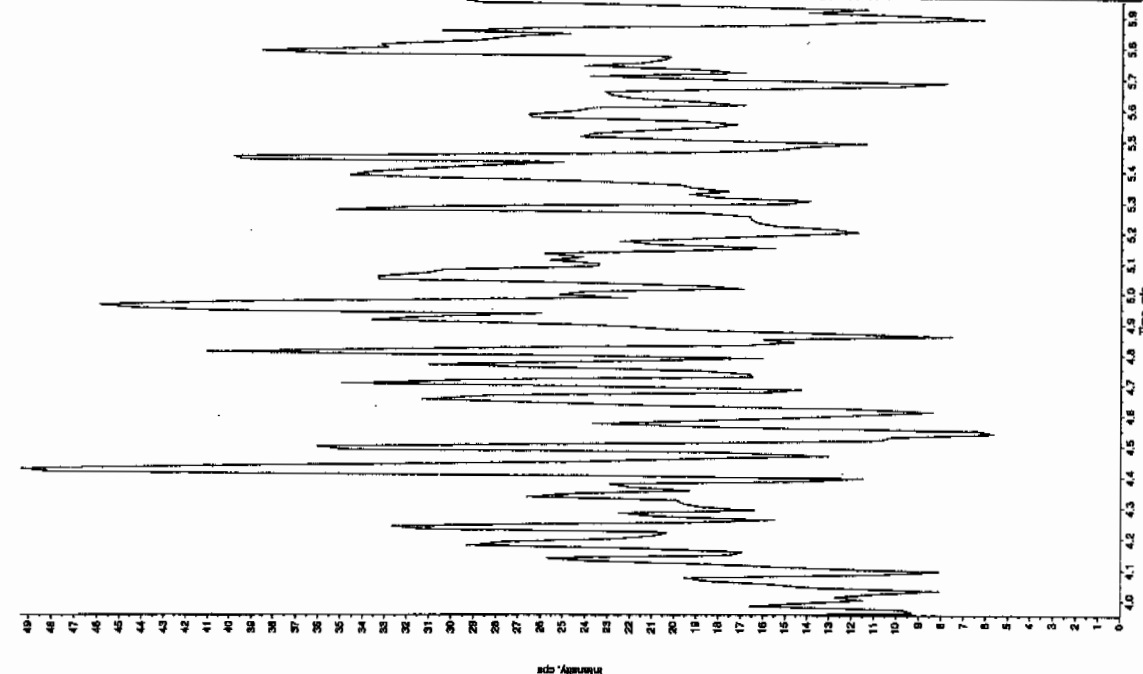


IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



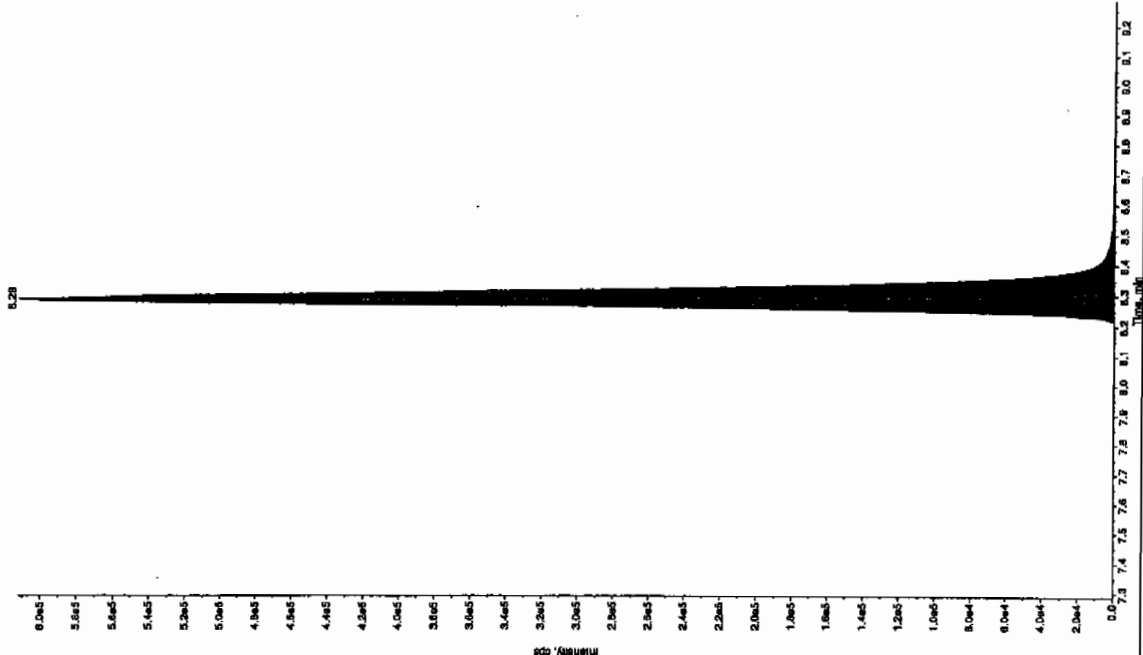
Sample Name: "24824008" Sample ID: "9593382125" File: "EXS04080015.wif"  
 Peak Name: "28-Dinitro-4-nitrotoluene" Mass(es): "156.046.0 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/8/2010  
 Acq. Time: 8:29:32 PM  
 Modified: No



Sample Name: "24824008" Sample ID: "9593382125" File: "EXS04080015.wif"  
 Peak Name: "28-Dinitro-4-nitrotoluene" Mass(es): "156.046.0 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 237.0 ng/mL  
 Acq. Date: 4/8/2010  
 Acq. Time: 8:29:32 PM  
 Modified: No  
 Peak Name: "28-Dinitro-4-nitrotoluene" - IOA  
 Peak Height: 1460.00 cps  
 Peak Width: 3.00 sec  
 Peak Area: 15.0 points  
 Peak RT: 6.29 min  
 Relative RT: No  
 Type: Valley  
 Retention Time: 6.29 min  
 Counts: 2.41e+005 counts  
 RT: 6.1601135 min  
 RT: 6.17 min  
 RT: 6.77 min

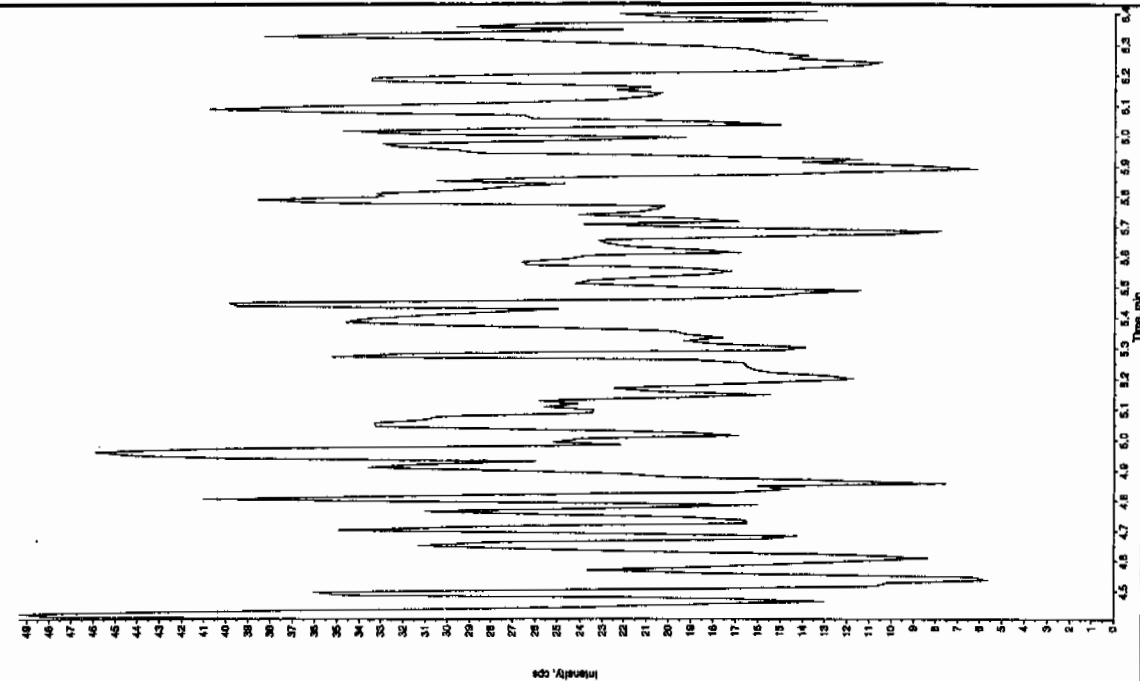


L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



Sample Name: "24824008" Sample ID: "95833821.LRF" File: "EX504080015.wif"  
 Peak Name: "Mito-cresyl phosphate" Mass(es): "369.1/91.0 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ug/mL  
 Calculated Conc: 4.34  
 Acq. Date: 4/5/2010  
 Acq. Time: 8:29:32 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: 8.41e+004 counts  
 Height: 21953.646 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: "24824008" Sample ID: "95833821.LRF" File: "EX504080015.wif"  
 Peak Name: "24-Dinitro-6-nitrotoluene" Mass(es): "186.0/48.0 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ug/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/5/2010  
 Acq. Time: 8:29:32 PM  
 Modified: No



# 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)



Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2137

Lab Code: GEL

Run Date: 05-APR-10.08-APR-10.12-APR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Parname	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	12.556	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	1.19	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: 10-2137

Lab Code: GEL

Run Date: 05-APR-10.08-APR-10.12-APR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HP1C 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					
Parameter:											
PETN	2009.76	4470.27	14910.6	28870.8	46927.1	49397.1	1.007	-0.00022	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



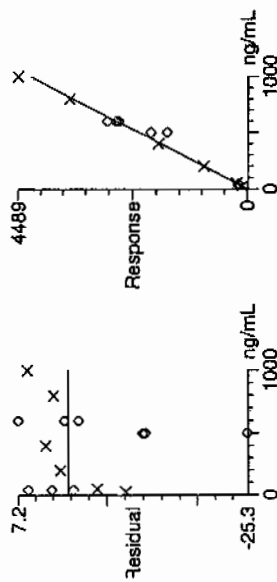
# Quantify Calibration Report

IEL Laboratories, LLC / Analyst : Michael A. Penny

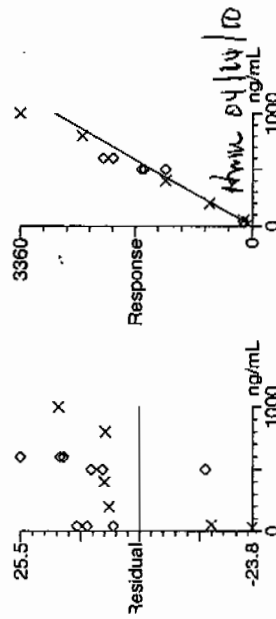
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Method: C:\MASSLYNX\New\_Exp.PRO\MethDB\041210expa.mdb, Time: Tue Apr 13 09:03:30 2010  
 Calibration: Untitled, Time: Tue Apr 13 11:12:22 2010

Compound name: HMX  
 Response Factor: 4.23867  
 RF 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  
 RF SD: 0.454164, % Relative SD: 15.8676  
 Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF





# Quantify Calibration Report

IEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

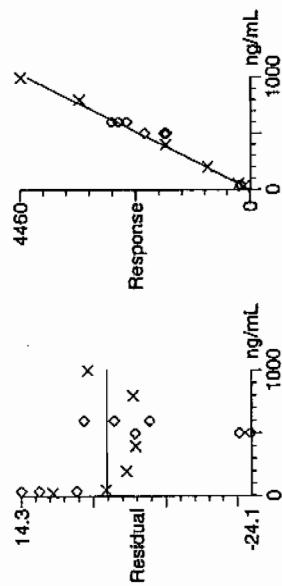
Compound name: 135-Trinitrobenzene

Response Factor: 4.32298

RF SD: 0.230915, % Relative SD: 5.34157

Response type: Internal Std (Ref 4), Area \* (IS Conc. / IS Area)

Curve type: RF



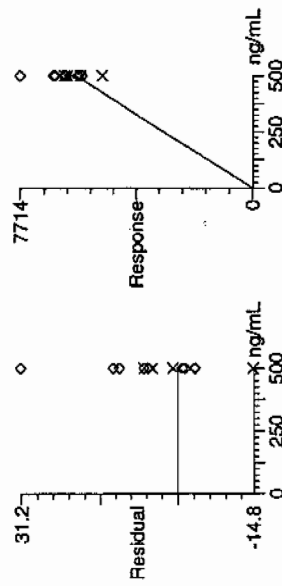
Compound name: 13-Dinitrobenzene-d4

Response Factor: 11.7607

RF SD: 0.940441, % Relative SD: 7.99645

Response type: External Std, Area

Curve type: RF



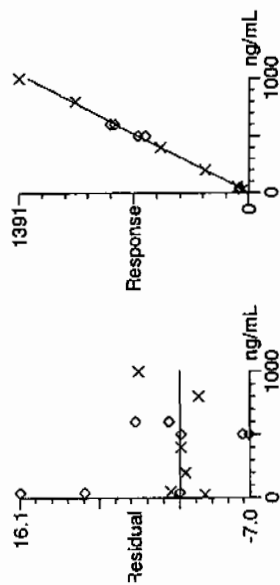


Quantify Calibration Report  
iEL Laboratories, LLC / Analyst : Michael A. Penny

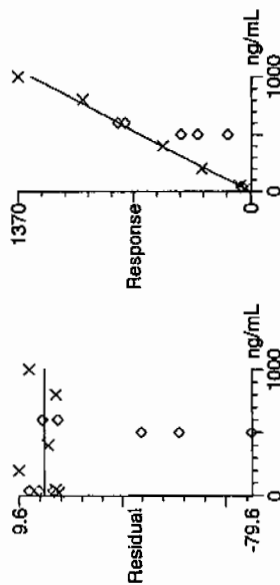
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Compound name: 13-Dinitrobenzene  
Response Factor: 1.33707  
RF SD: 0.0313205, % Relative SD: 2.34247  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF

Page 760 of 1174



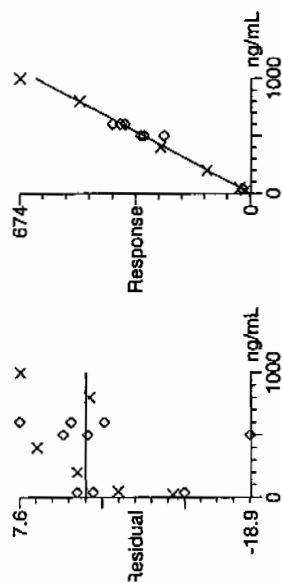
Compound name: Tetraol  
Response Factor: 1.29627  
RF SD: 0.0803478, % Relative SD: 6.19837  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



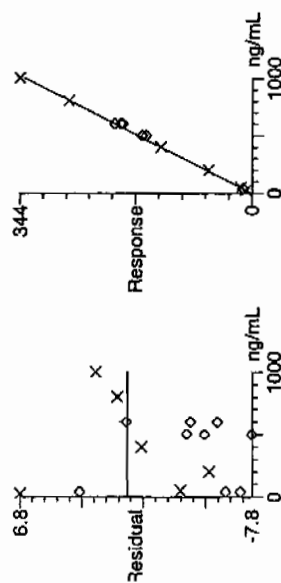


Dataset: C:\MASSLYNX\New\_Exp\PRO1041210expA.qtd, Time: Tue Apr 13 11:12:22 2010

Compound name: Nitrobenzene  
 Response Factor: 0.627297  
 IRF SD: 0.0397666, % Relative SD: 6.33936  
 Response type: Internal Std (Ref 4), Area \* (IS Conc. / IS Area)  
 Curve type: RIF

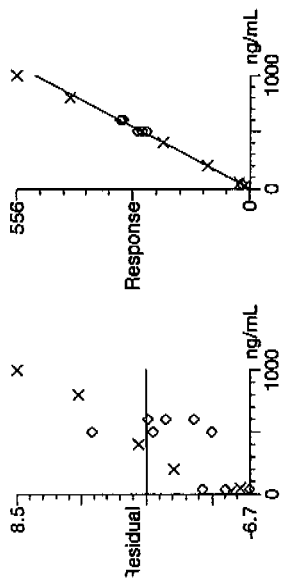


Compound name: 4-Amino-26-dinitrotoluene  
 Response Factor: 0.337763  
 IRF SD: 0.014254, % Relative SD: 4.22013  
 Response type: Internal Std (Ref 14), Area \* (IS Conc. / IS Area)  
 Curve type: RIF

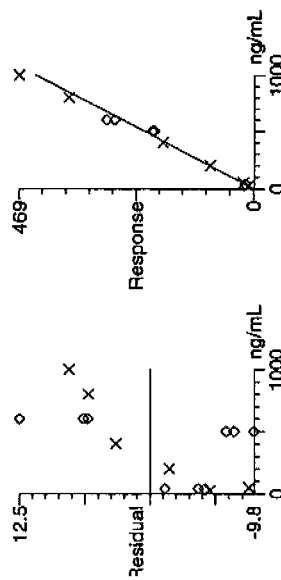




Compound name: 2-Amino-46-dinitrotoluene  
Response Factor: 0.512197  
IRF SD: 0.0291218, % Relative SD: 5.68567  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



Compound name: 246-Trinitrotoluene  
Response Factor: 0.435033  
IRF SD: 0.0293746, % Relative SD: 6.75226  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF





# Quantify Calibration Report

3EL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 6 of 9

Dataset: C:\MASSLYNX\New\_Exp\PRO1041210expA.qld, Time: Tue Apr 13 11:12:22 2010

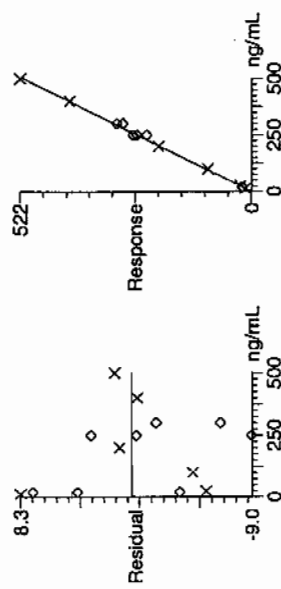
Compound name: 34-dinitrotoluene

Response Factor: 1.03113

RF SD: 0.0513762, % Relative SD: 4.98253

Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )

Curve type: RF



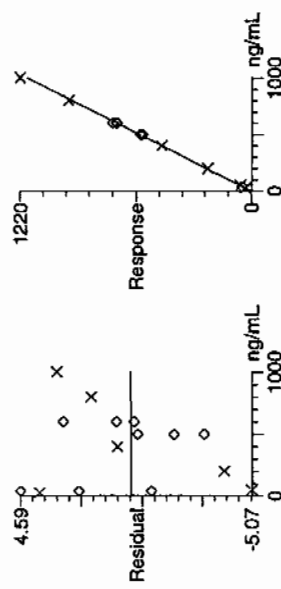
Compound name: 26-dinitrotoluene

Response Factor: 1.18354

RF SD: 0.0435946, % Relative SD: 3.68342

Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )

Curve type: RF





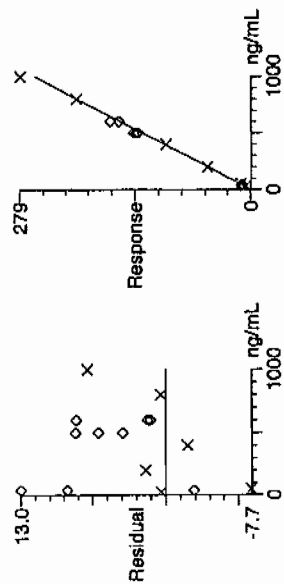
# Quantify Calibration Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

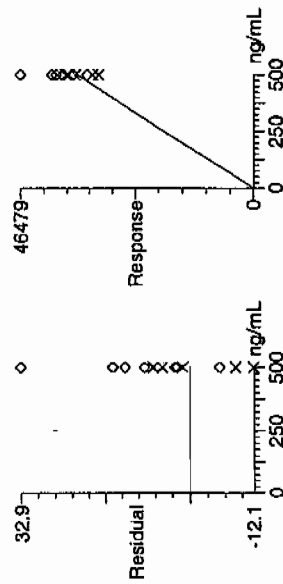
Printed: Tue Apr 13 11:14:26 2010, Page 7 of 9

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: RIF



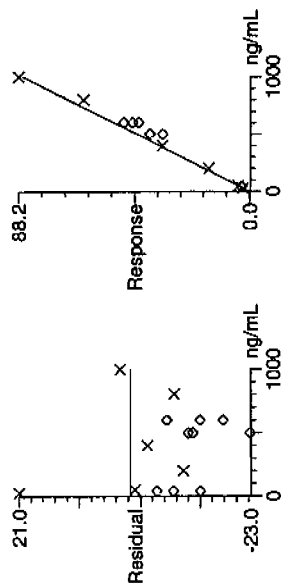
Compound name: 26-dinitrotoluene-d3  
Response Factor: 69.9664  
RRF SD: 5.81467, % Relative SD: 8.31066  
Response type: External Std, Area  
Curve type: RIF



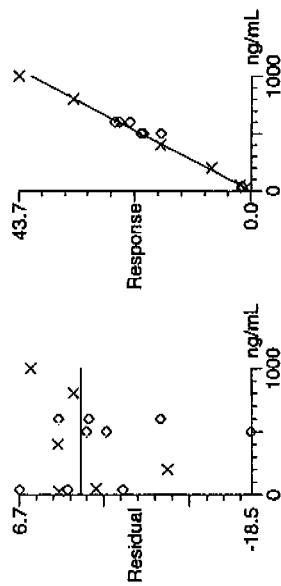


Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 2-Nitrotoluene  
Response Factor: 0.0865882  
RF 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  
RF SD: 0.00215463, % Relative SD: 5.19445  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF





# Quantity 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

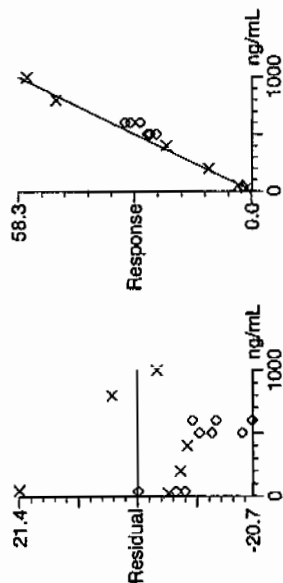
Compound name: 3-Nitrotoluene

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



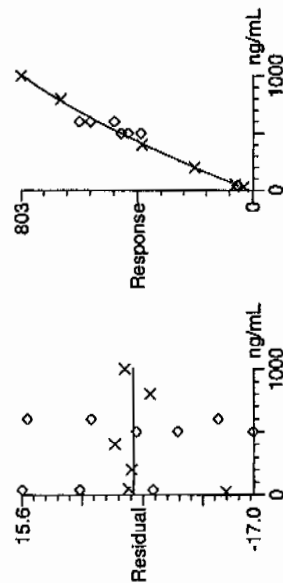
Compound name: PETN

Coefficient of Determination: 0.999447

Calibration curve:  $-0.000220026 * x^2 + 1.0065 * x + 9.6373$

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): 10-2137

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 QDS(20)

Compound	True	Found	Recovery	Q
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	
m-Nitrotoluene	600	475.553	79	*
o-Nitrotoluene	600	492.414	82	
p-Nitrotoluene	600	547.628	91	

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\041210expA.qtd, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412010a

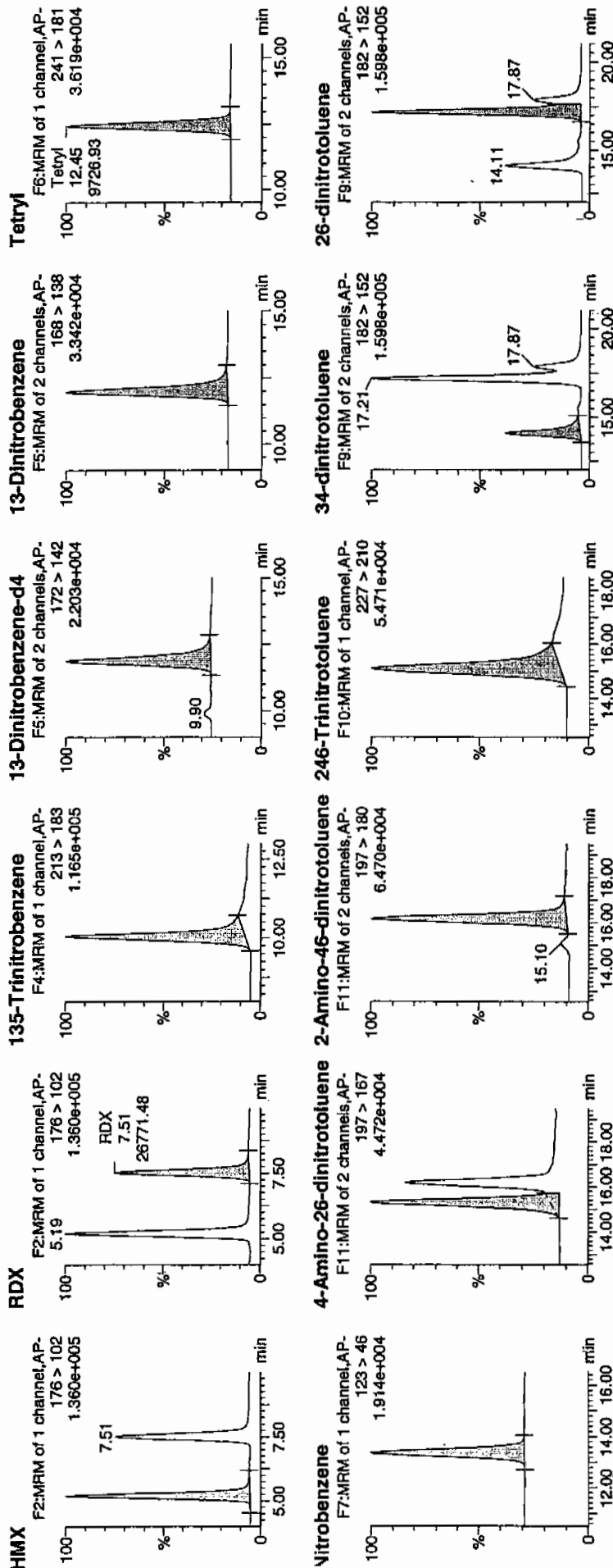
Date: 12-Apr-2010

Time: 20:06:00

ID: WXX100412-07ICV

Vial: 1:1,B

μg/g  
1/3/10



4/13/10

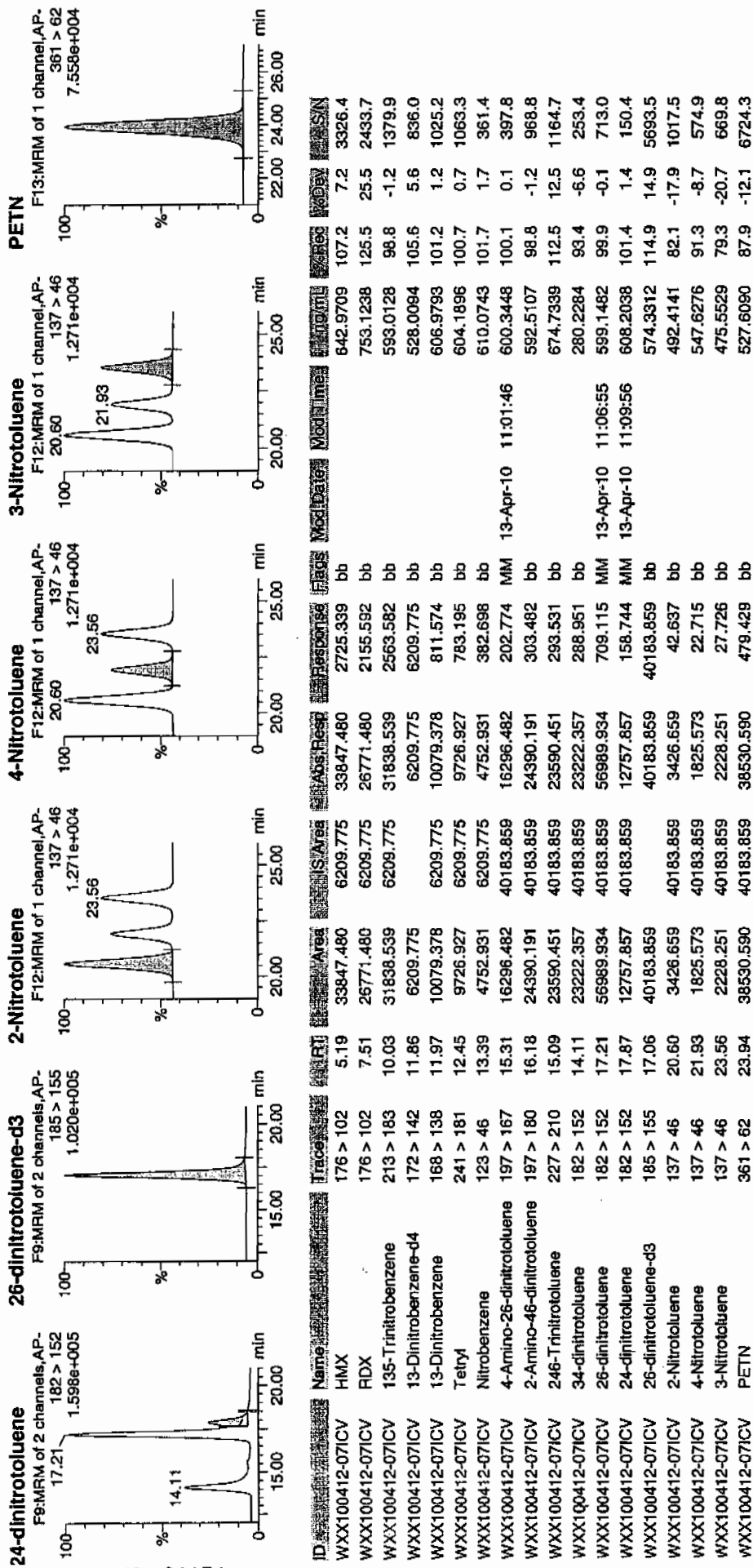


# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 20 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: 04/12/10  
 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  
4/13/10*

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%



Form 6

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2137

Lab Code: GEL

Run Date: 05-APR-10.08-APR-10.12-APR-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:	EXS04050003.wif	EXS04050004.wif	EXS04050005.wif	EXS04050006.wif	EXS04050007.wif	EXS04050008.wif	EXS04050009.wif					
Parname:												
2,4-Diamino-6-nitrotoluene	107000	194000	514000	984000	1450000	2300000	3930000	-53800	2320	-1.59	.9969	
2,6-Diamino-4-nitrotoluene	135000	256000	636000	1310000	1840000	3070000	4880000	-99700	3190	-1.39	.9946	
3,4-Dinitrotoluene	217000	415000	947000	1910000	2920000	4200000	7540000	-91400	9310	-1.66	.9988	
3,5-Dinitroaniline	375000	679000	1590000	3210000	4580000	6550000	10500000	-89200	7310	-1.01	.9987	
TATB	35600	73300	184000	399000	594000	809000	1570000	-12100	830	-0.19	.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



Form 6

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2137

Lab Code: GEL

Run Date: 05-APR-10.08-APR-10.12-APR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8Q

Calibration Type: Average RF

	19	20	21	22	23	24	25	Ave RF	RSD	Q
Calibration Level:										
Data File:	EXS04050003.W	EXS04050004.W	EXS04050005.W	EXS04050006.W	EXS04050007.W	EXS04050008.W	EXS04050009.W			
Parname										
tris(o-cresyl) phosphate	20900	20400	18800	18100	17100	17000	13900	18028.571	13	

Q column used to flag RSD values outside of Limit (>20%)

\* Values outside of QC Limit



040510ICAL

Peak Name: TATB  
No Internal Standard  
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	weighting	None	Iterate No
a0	-1.21e+004			
a1	830			
a2	-0.0188			
Correlation coefficient 0.9999				
Use Area				

Peak Name: 35-Dinitroaniline  
No Internal Standard  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	weighting	None	Iterate No
a0	-8.92e+004			
a1	7.31e+003			
a2	-1.01			
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	-9.14e+004			
a1	9.31e+003			
a2	-1.66			
Correlation coefficient 0.9988				
Use Area				

Peak Name: 26-Diamino-4-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	weighting	None	Iterate No
a0	-9.97e+004			
a1	3.19e+003			
a2	-0.339			
Correlation coefficient 0.9946				
Use Area				

Peak Name: 24-Diamino-6-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

Page 1

*Handwritten:* 4/11/10

*Handwritten:* 04/08/10

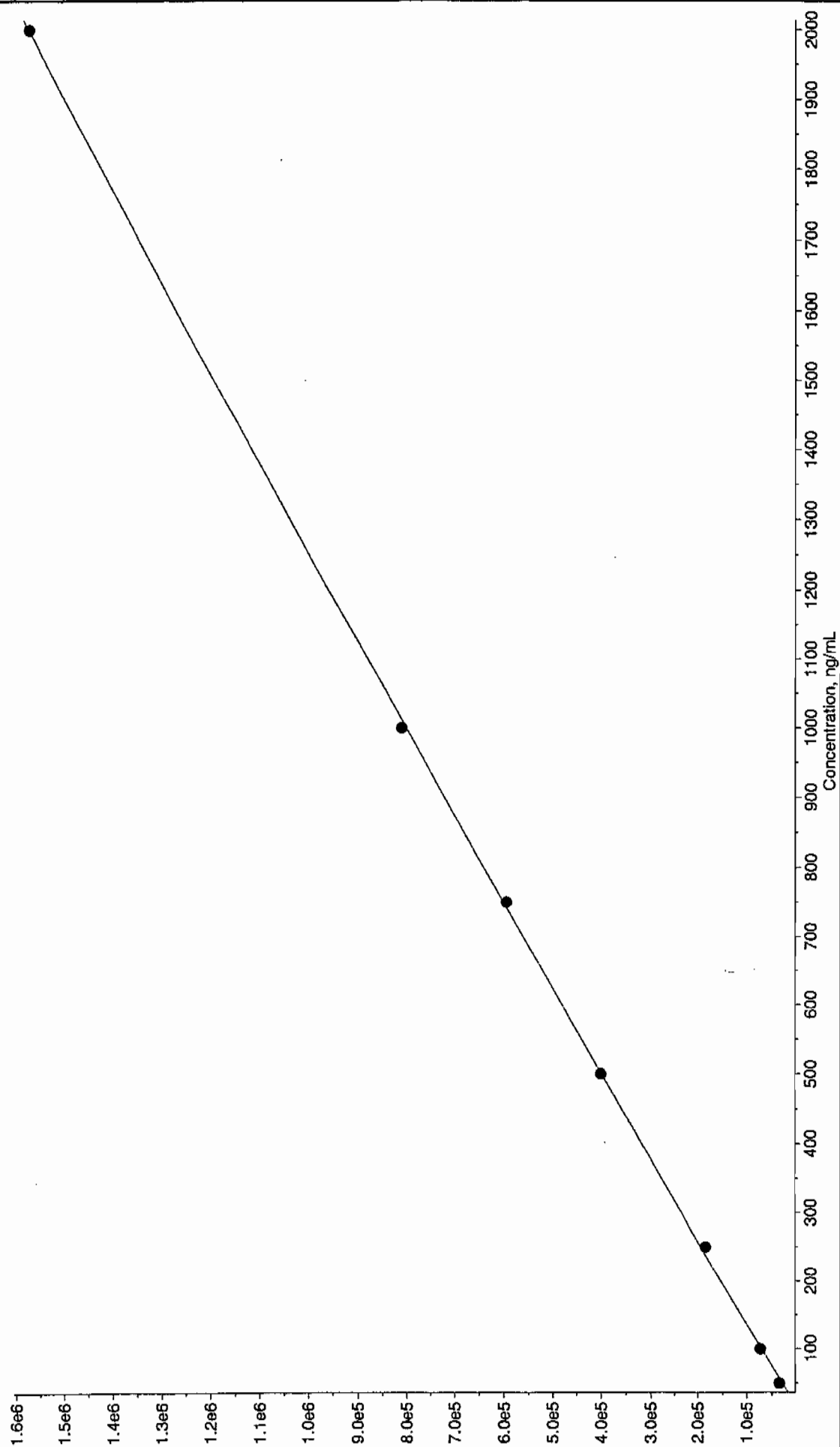


040510ICAL

Fit	Quadratic	Weighting	None	Iterate No
a0	-5.38e+004			
a1	2.32e+003			
a2	-0.159			
Correlation coefficient 0.9969				
Use Area				
Peak Name: tris(o-cresyl) phosphate				
No Internal Standard				
Q1/Q3 Masses: 369.15/91.00 amu				
Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	1.8e+004			
Standard deviation	2.35e+003			
%RSD	13			
Use Area				



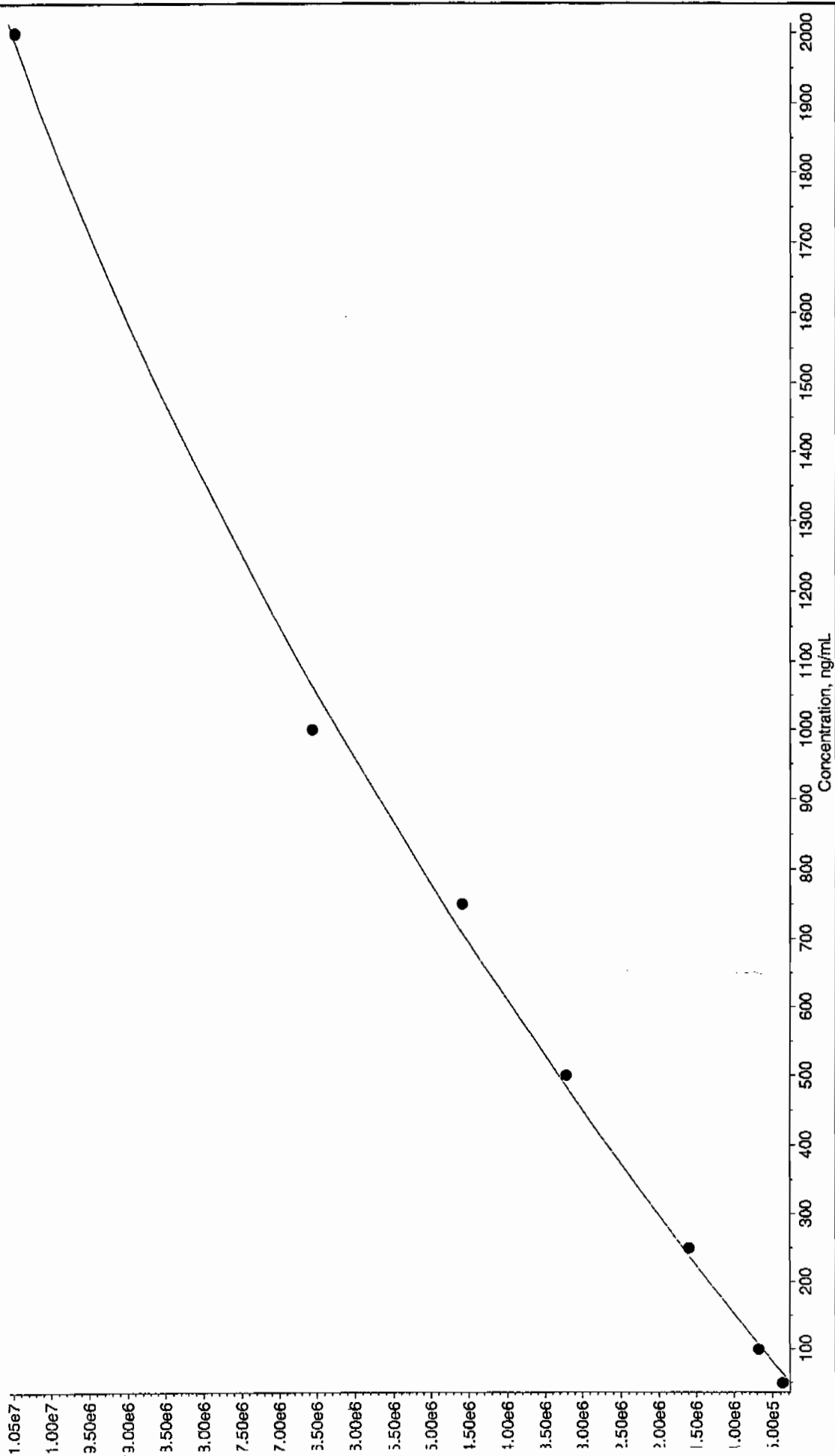
040510.rdb (TATB): "Quadratic" Regression ("No" weighting):  $y = -0.0188 x^2 + 830 x + -1.21e+004$  ( $r = 0.9999$ )



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



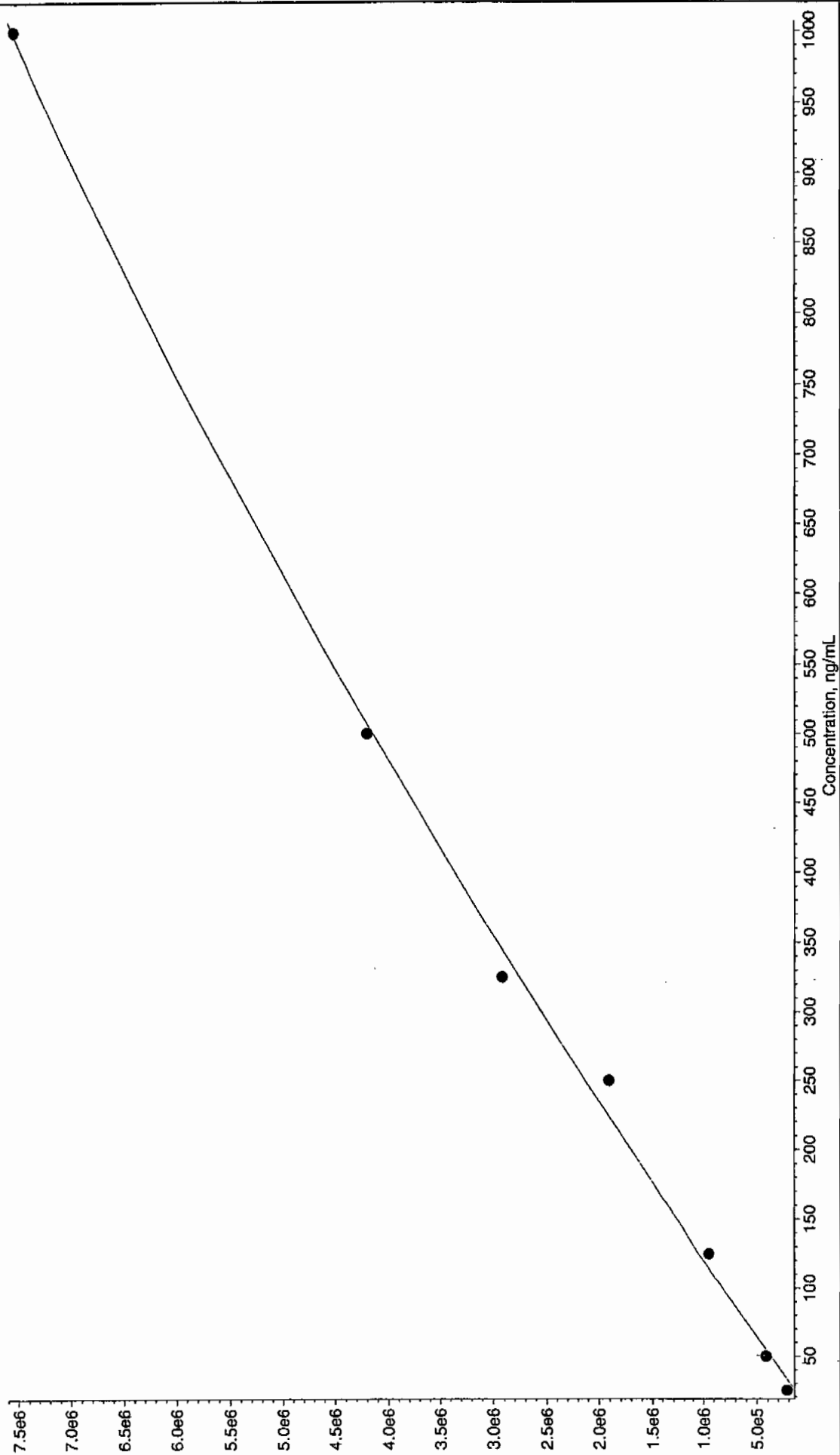
040510.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting):  $y = -1.01 \times 10^{-7} x^2 + 7.31 \times 10^{-3} x + -8.92 \times 10^4$  ( $r = 0.9987$ )



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



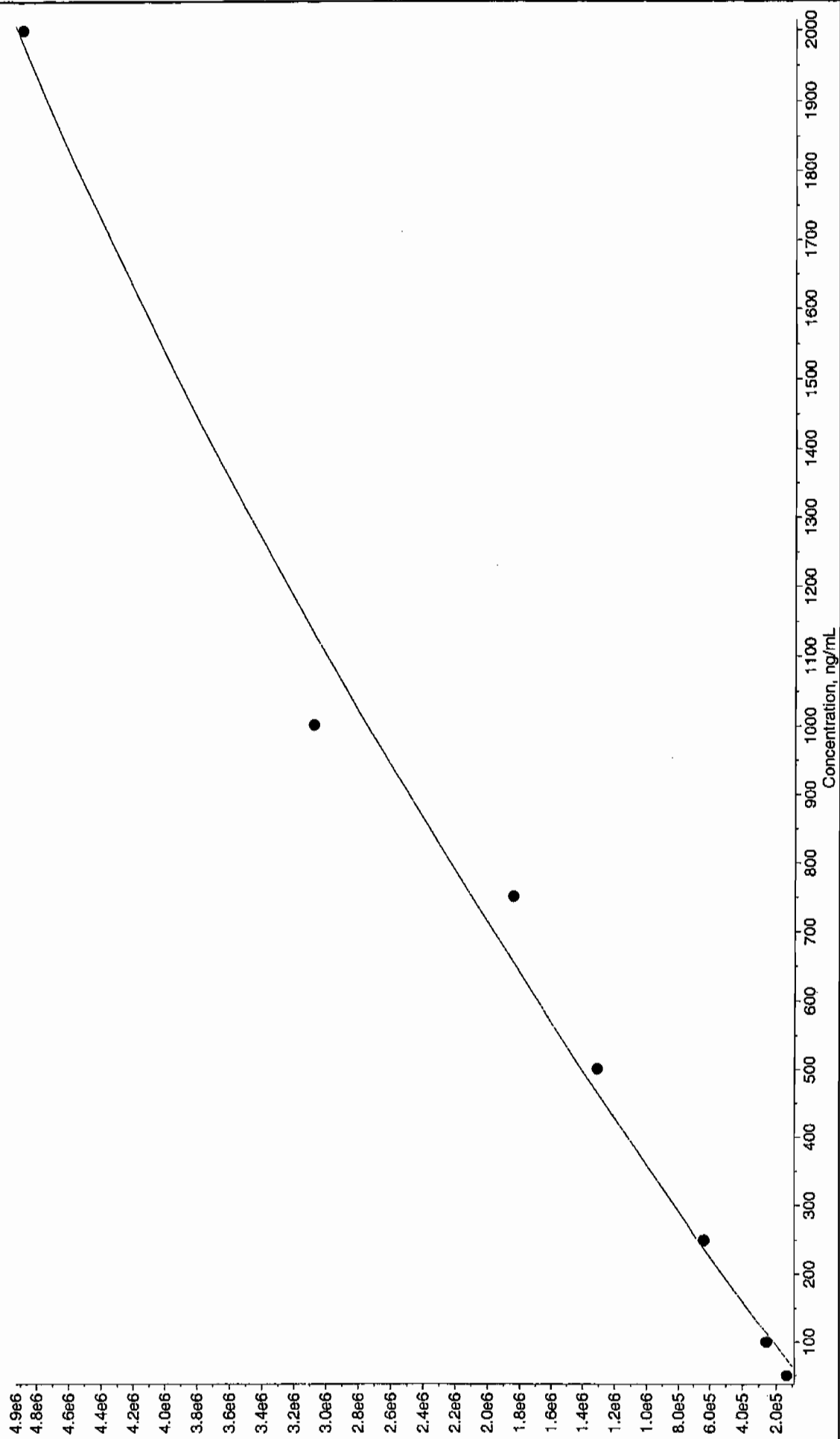
040510.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -1.66 x^2 + 9.31e+003 x + -9.14e+004$  ( $r = 0.9988$ )



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



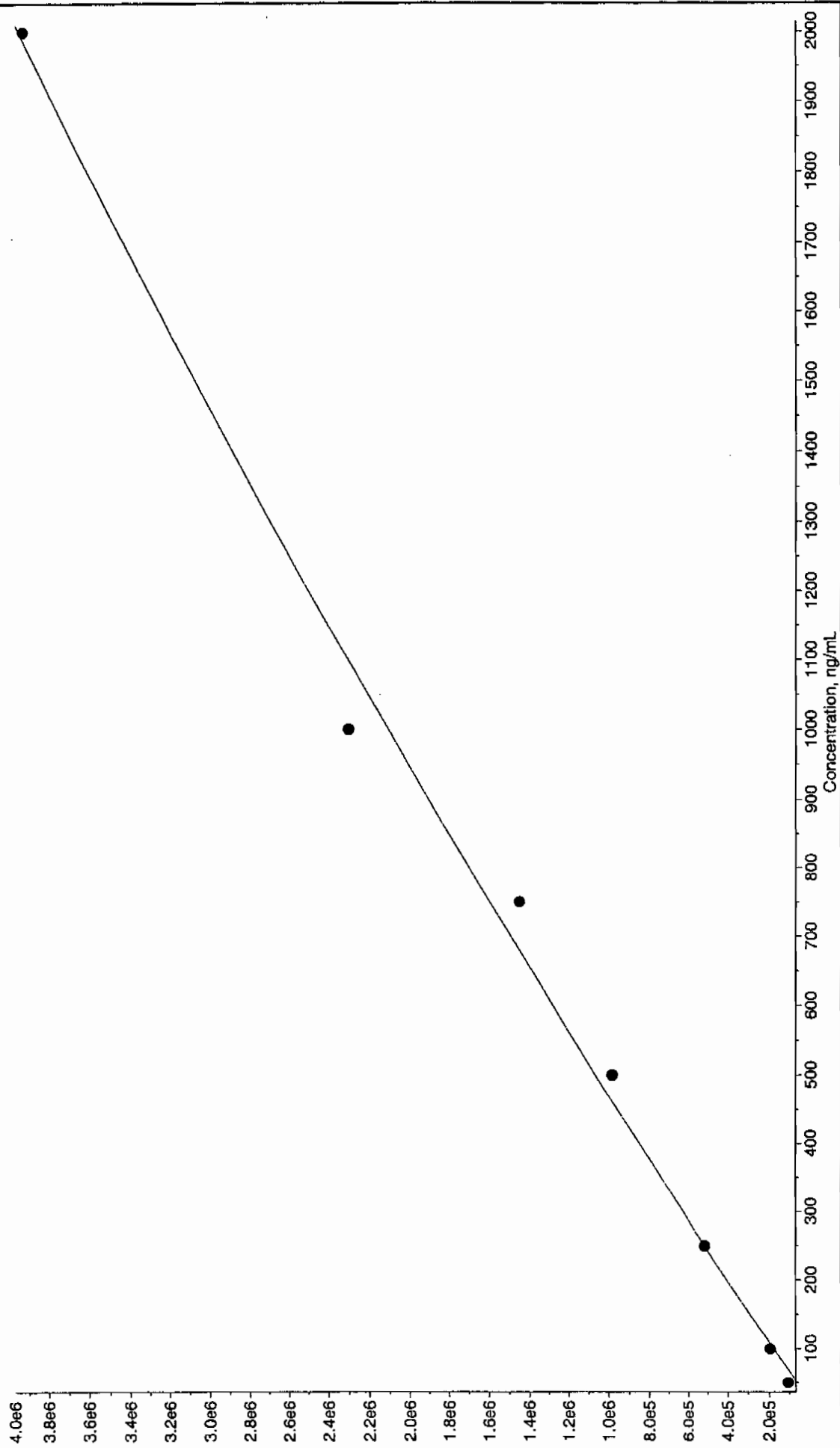
040510.rdb (26-Diamino-4-nitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -0.339 x^2 + 3.19e+003 x + -9.97e+004$  ( $r = 0.9946$ )



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



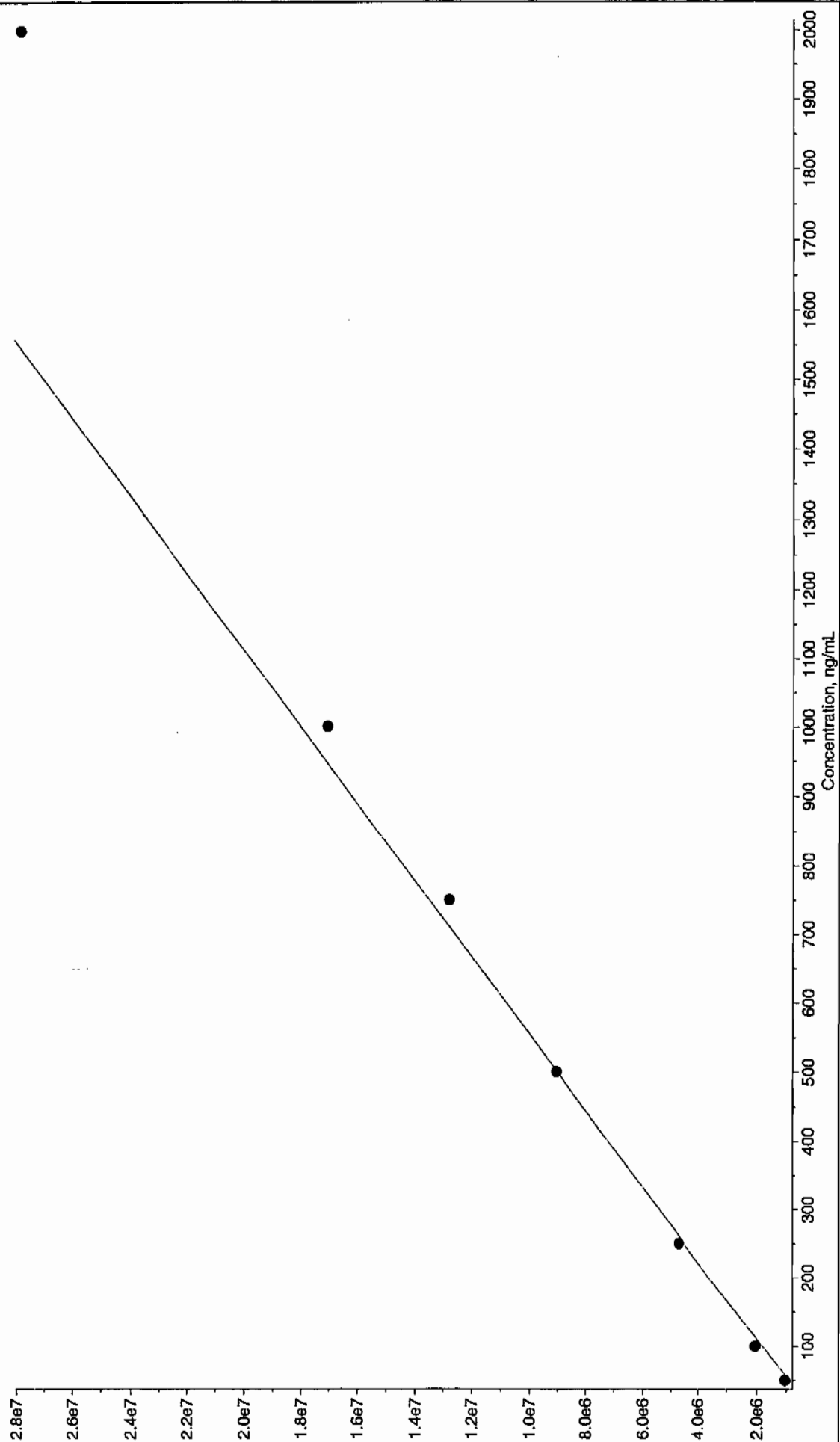
040510.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -0.159 x^2 + 2.32e+003 x + -5.38e+004$  ( $r = 0.9969$ )



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



040510.rdb (tris(o-cresyl) phosphate): "Mean Response Factor" Regression ("No" weighting):  $y = 1.8e+004 \times x$  (std. dev. =  $2.35e+003$ )



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



7

# Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS04050011.wiff

Analysis Date: 05-APR-10 15:22

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	436	87	
3,4-Dinitrotoluene	250	235	94	
3,5-Dinitroaniline	500	445	89	
TATB	500	483	97	
tris(o-cresyl) phosphate	500	502	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%

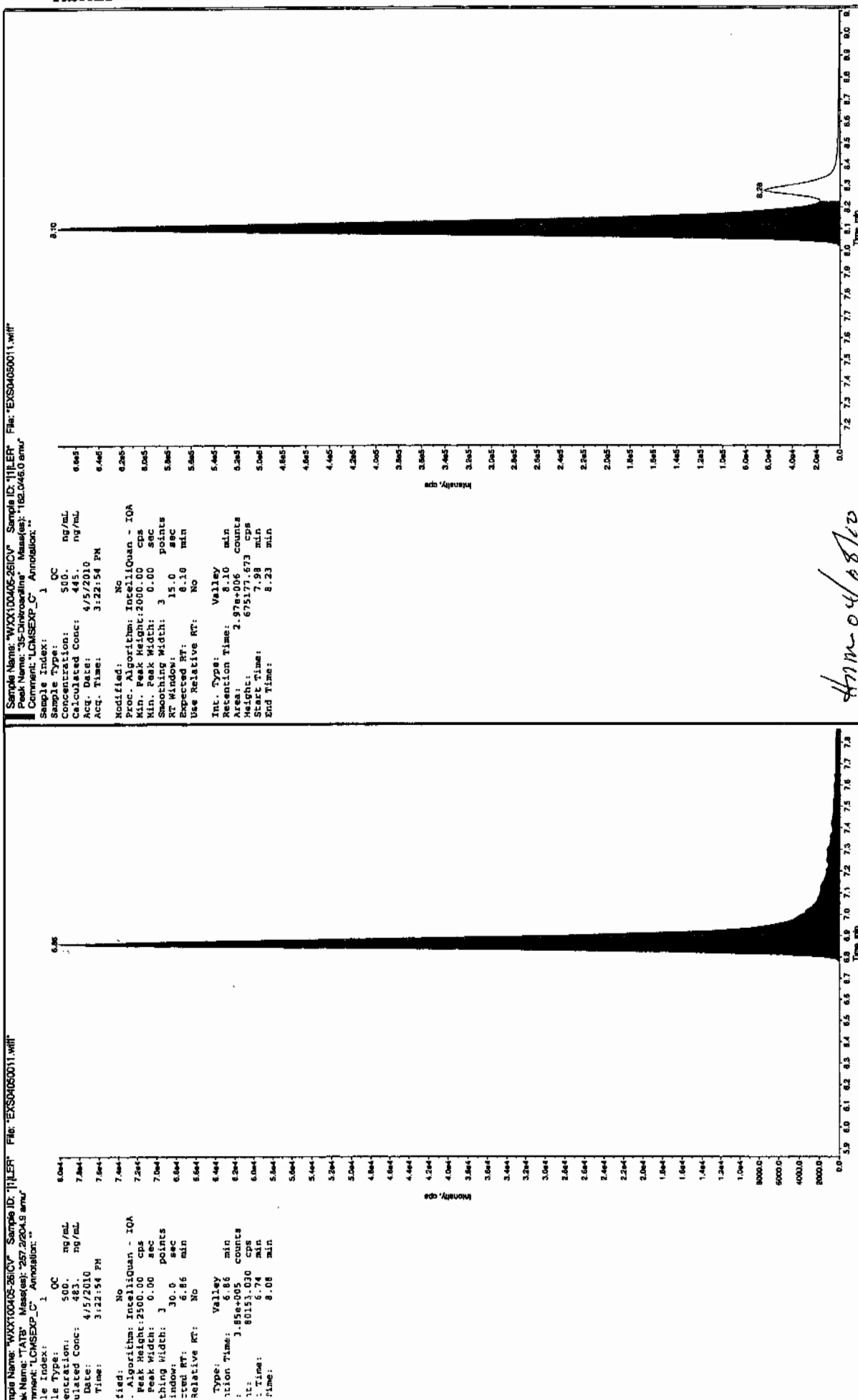
OtherTarget Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

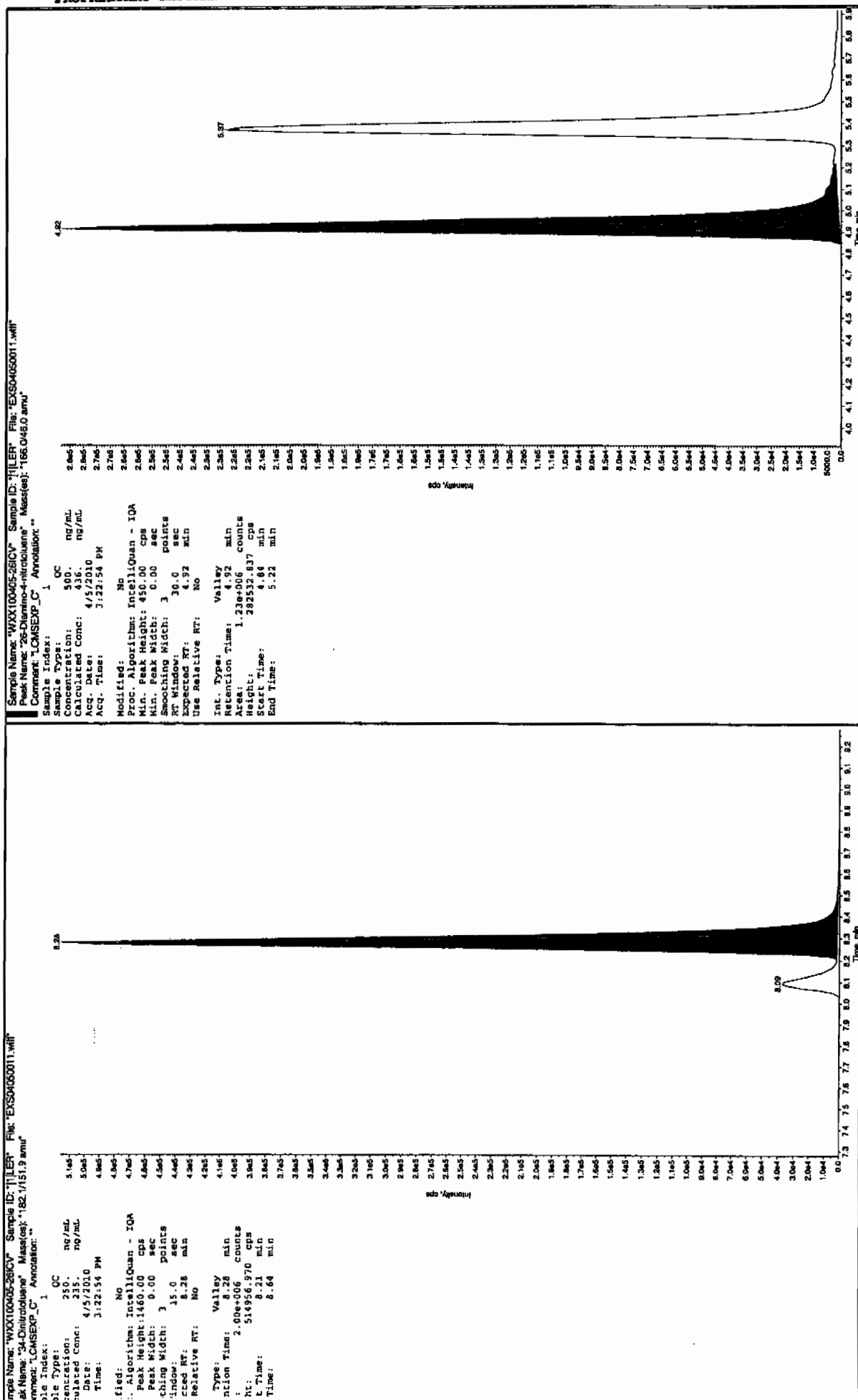


Jan 4/7/10



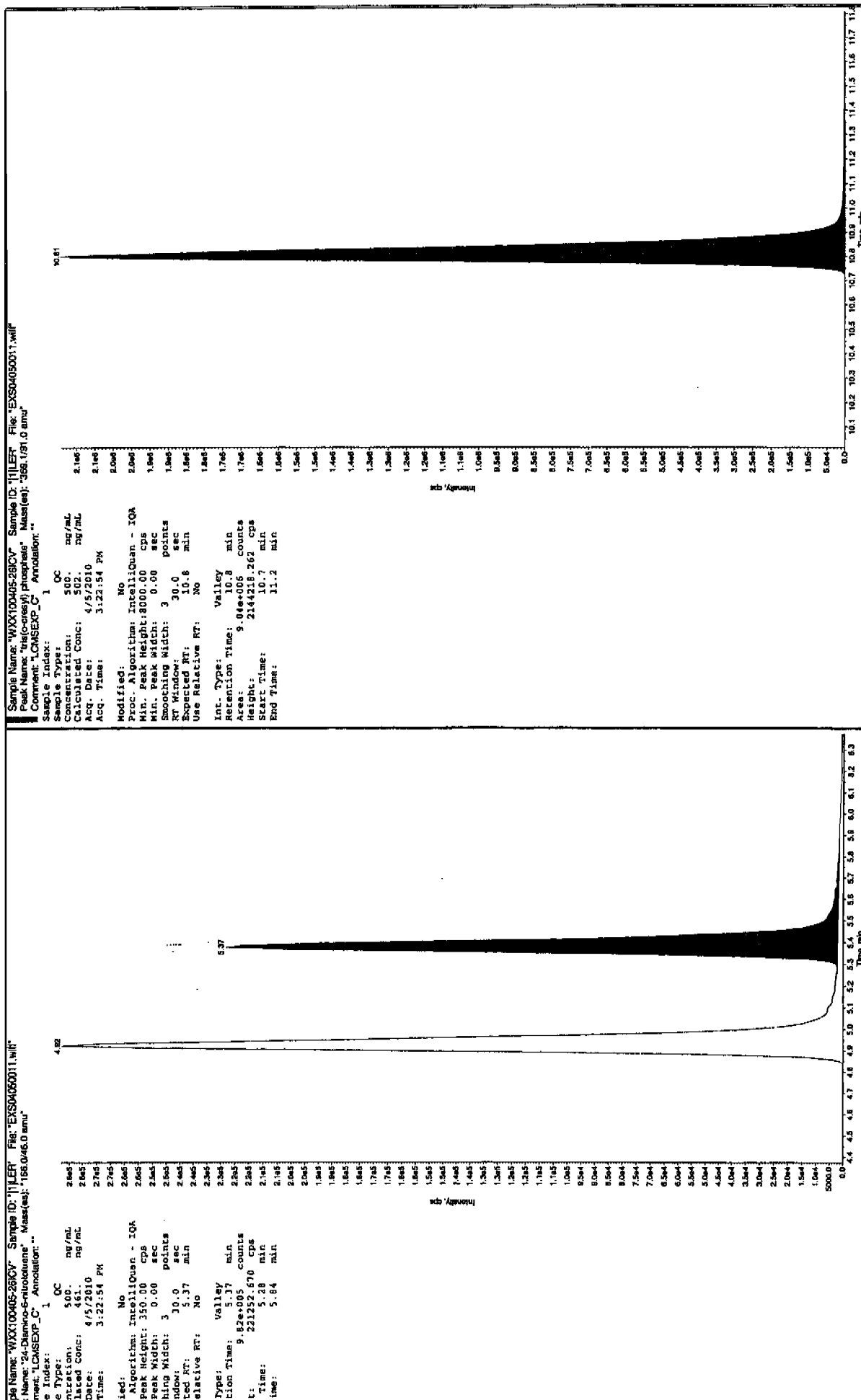
4/11/10 04/08/10





SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4







Form 6

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2137

Lab Code: GEL

Run Date: 05-APR-10.08-APR-10.12-APR-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:	EXS04080003.wiff	EXS04080004.wiff	EXS04080005.wiff	EXS04080006.wiff	EXS04080007.wiff	EXS04080008.wiff	EXS04080009.wiff					
Parname:												
2,4-Diamino-6-nitrotoluene	114000	240000	563000	1230000	1990000	2490000	5020000	-36000	2610	-.042	.9996	
2,6-Diamino-4-nitrotoluene	162000	303000	760000	1490000	2590000	3340000	6470000	-65700	3480	-.104	.9993	
3,4-Dinitrotoluene	242000	462000	1140000	2410000	3720000	4590000	8480000	-75000	11100	-2.56	.997	
3,5-Dinitroaniline	415000	799000	2060000	3870000	5460000	7140000	12500000	53800	7930	-.844	.9999	
TATB	39300	81300	212000	394000	662000	880000	1820000	-6670	845	.036	.9997	
tris(o-cresyl) phosphate	1080000	2090000	5010000	9220000	13400000	17700000	27800000	-18500	20800	-3.42	.9997	

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



040810ICAL

Peak Name: TATB  
No Internal Standard  
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-6.67e+003			
a1	845			
a2	0.0355			
Correlation coefficient 0.9997				
Use Area				

Peak Name: 35-Dinitroaniline  
No Internal Standard  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	5.38e+004			
a1	7.93e+003			
a2	-0.844			
Correlation coefficient 0.9999				
Use Area				

Peak Name: 34-Dinitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-7.5e+004			
a1	1.11e+004			
a2	-2.56			
Correlation coefficient 0.9970				
Use Area				

Peak Name: 26-Diamino-4-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-6.57e+004			
a1	3.48e+003			
a2	-0.104			
Correlation coefficient 0.9993				
Use Area				

*John*  
*4/12/10*

*HMM*  
*6/12/10*



040810ICAL

Peak Name: 24-Diamino-6-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

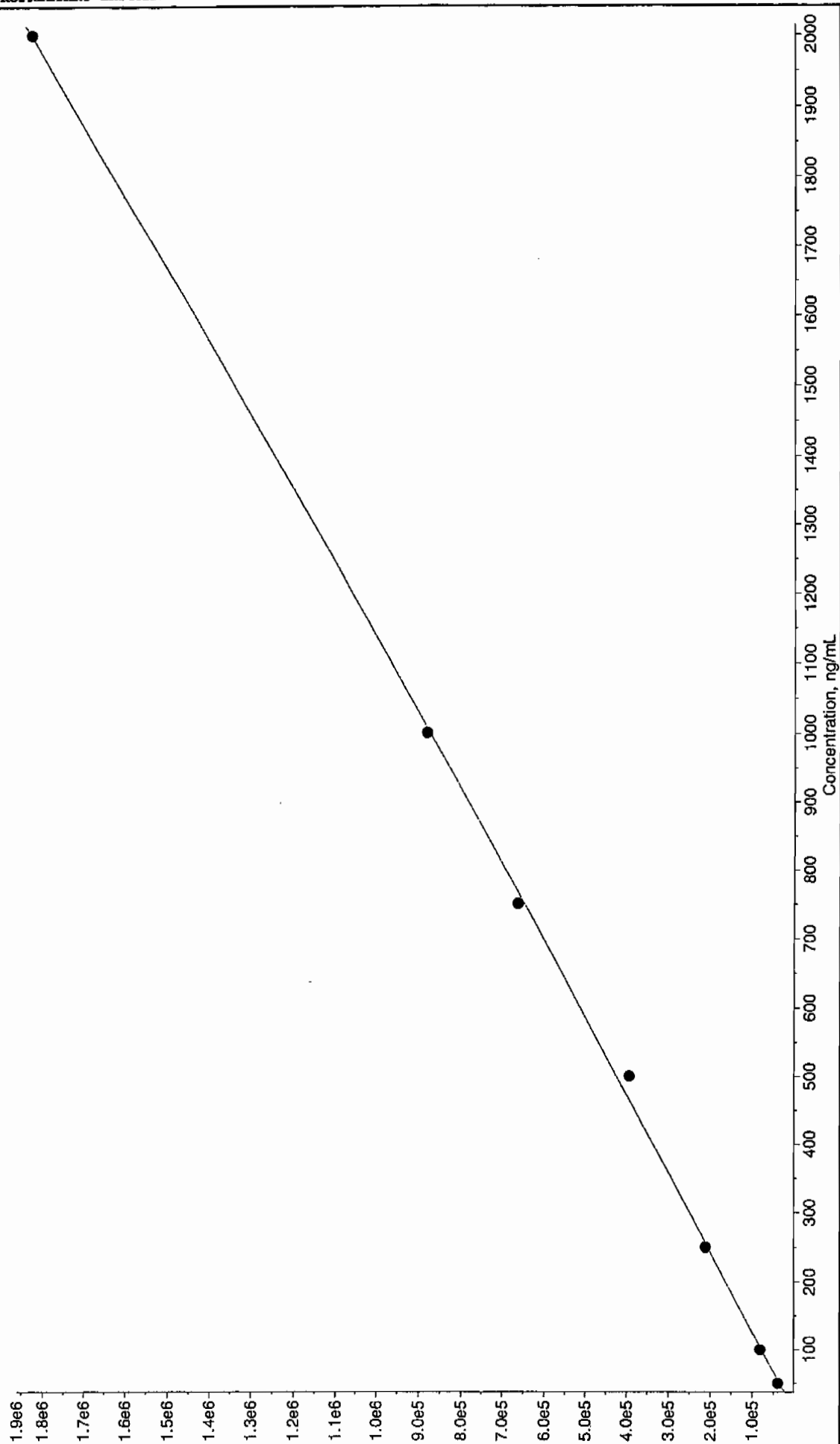
Fit	Quadratic	Weighting	None	Iterate No
a0	-3.6e+004			
a1	2.61e+003			
a2	-0.0415			
Correlation coefficient 0.9996				
Use Area				

Peak Name: tris(o-cresyl) phosphate  
No Internal Standard  
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.85e+004			
a1	2.08e+004			
a2	-3.42			
Correlation coefficient 0.9997				
Use Area				



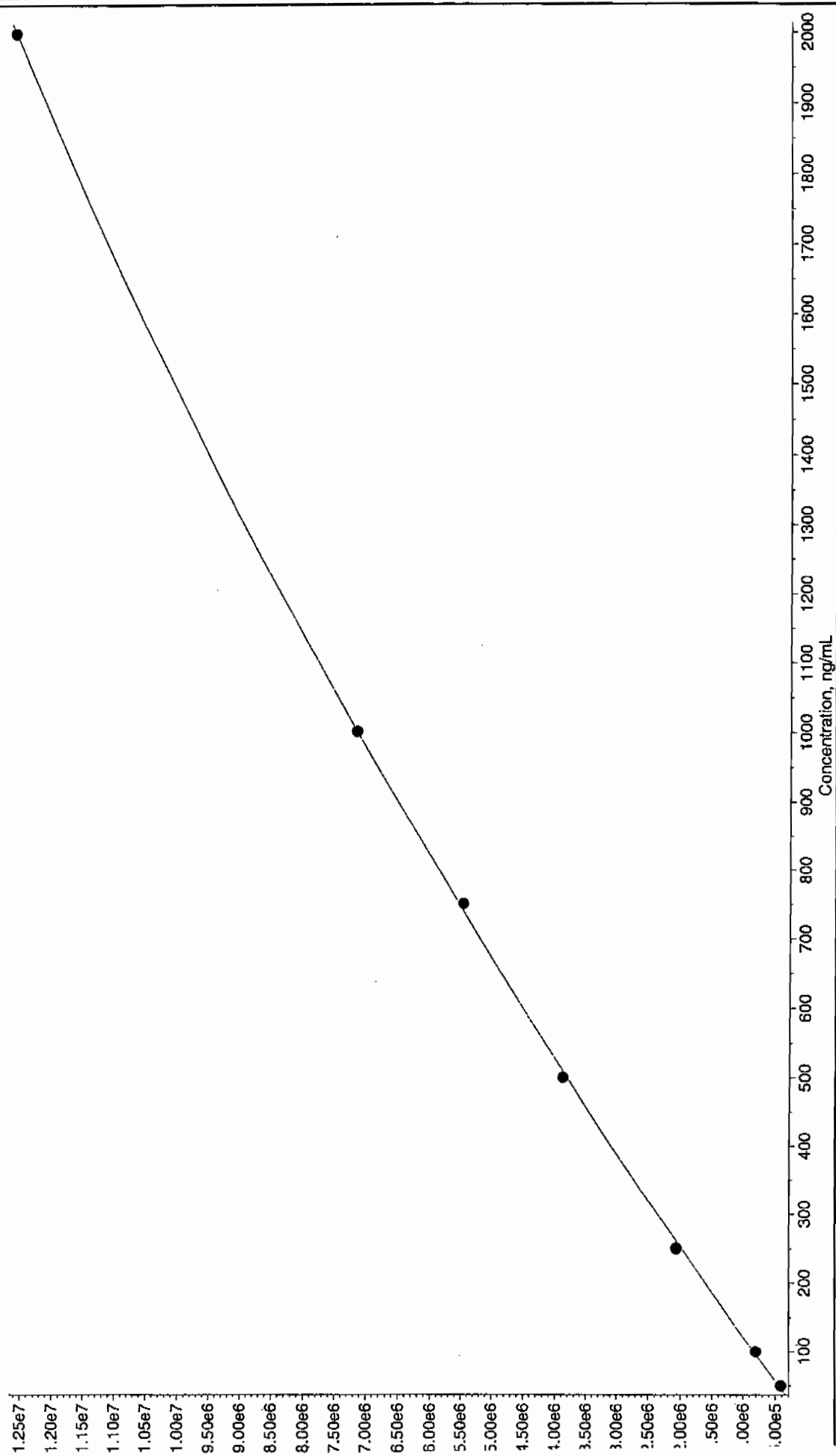
040810.rdb (TATB): "Quadratic" Regression ("No" weighting):  $y = 0.0355 x^2 + 845 x + -6.67e+003$  ( $r = 0.9997$ )



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



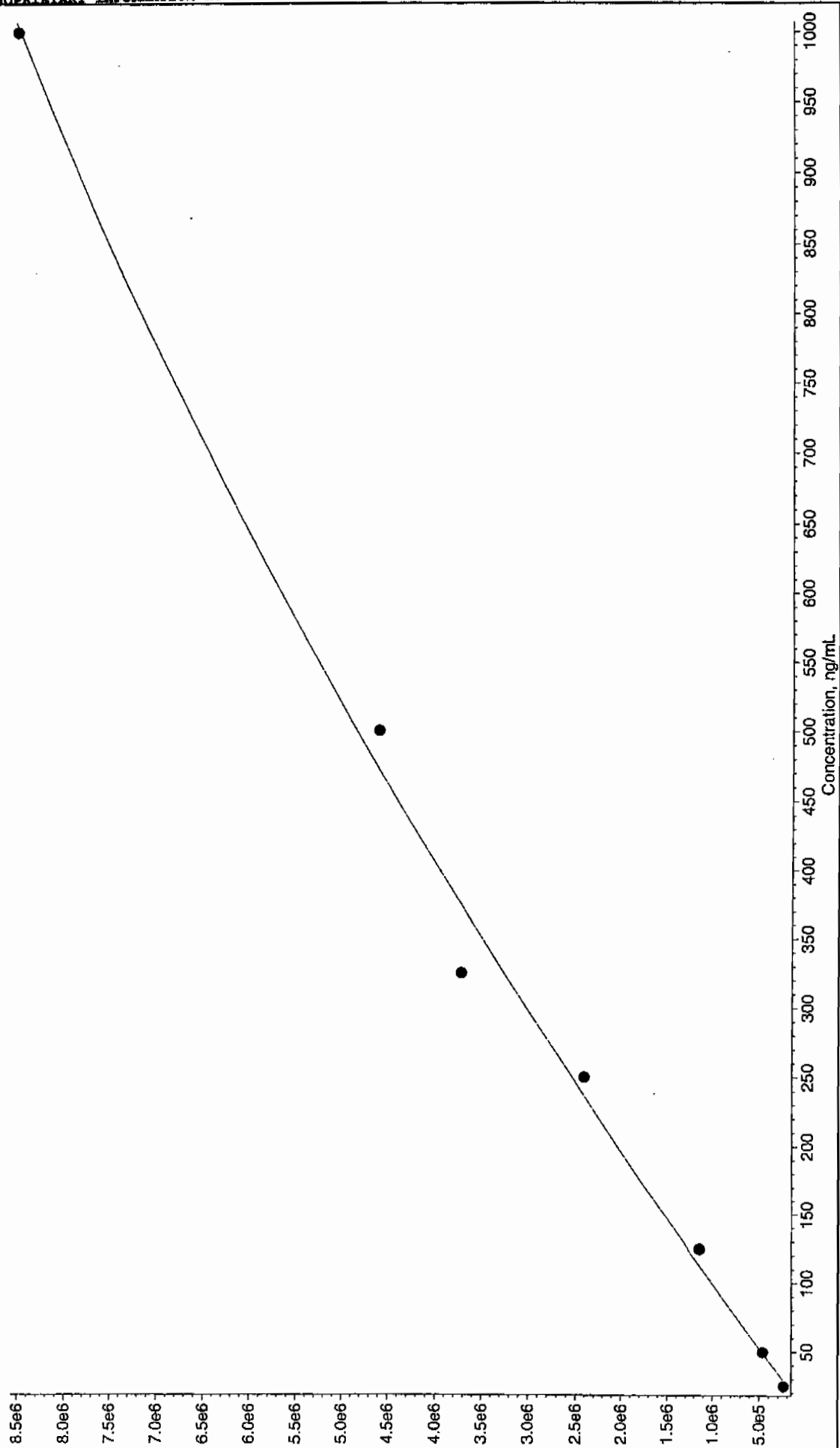
040810.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting):  $y = -0.844 x^2 + 7.93e+003 x + 5.38e+004$  ( $r = 0.9999$ )



SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



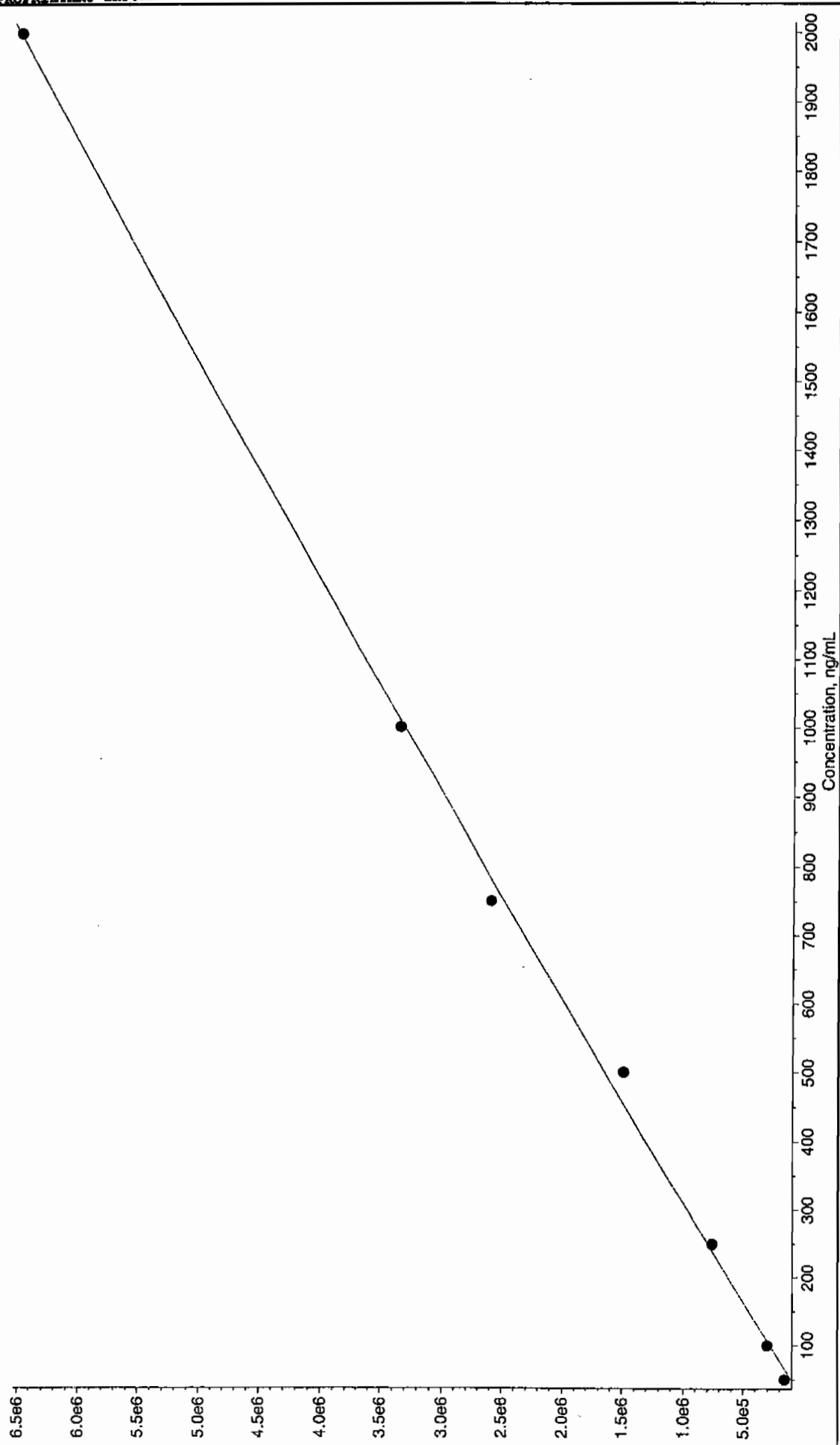
040810.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -2.56 x^2 + 1.11e+004 x + -7.5e+004$  ( $r = 0.9970$ )



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



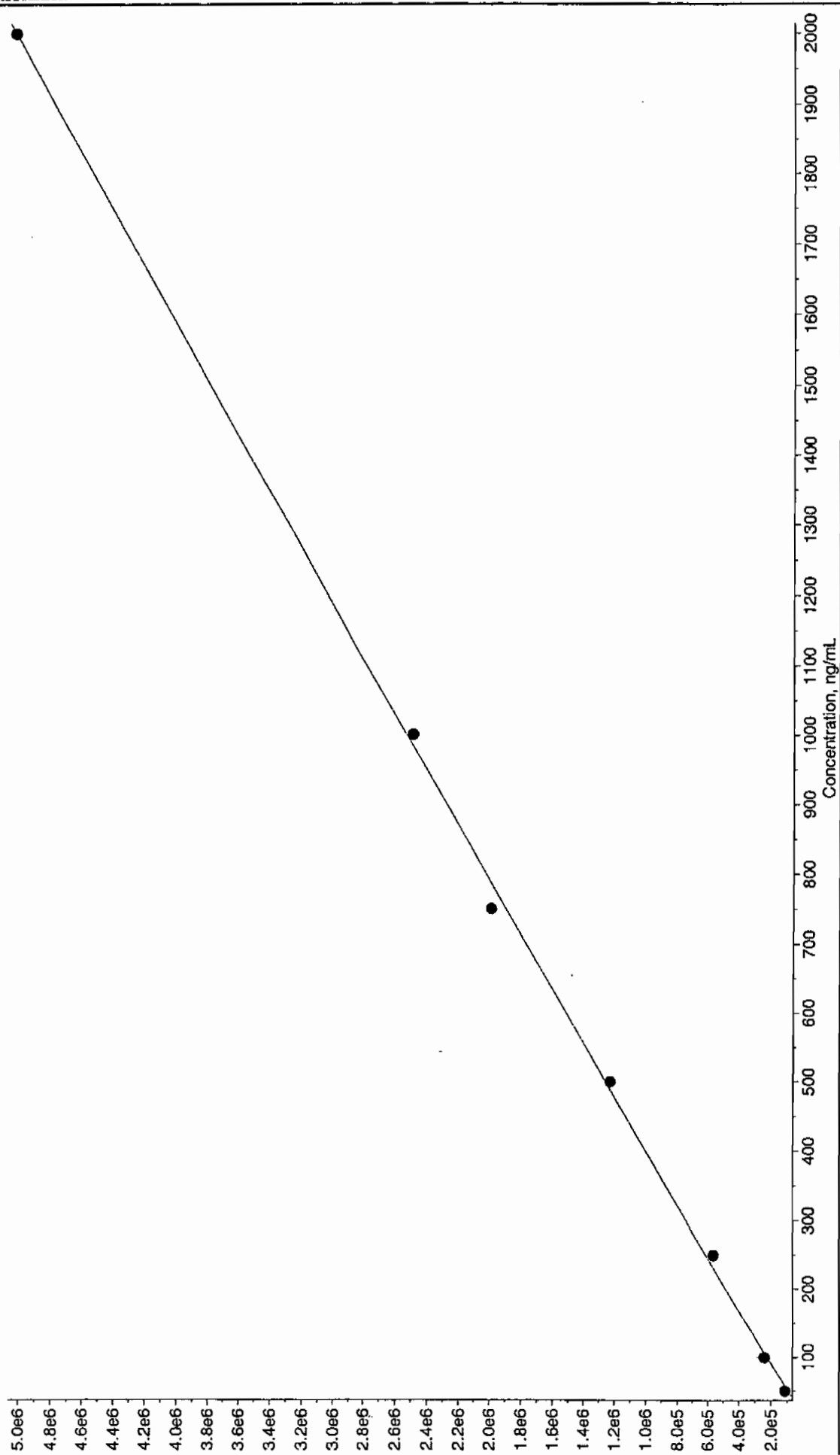
040810.rdb (26-Diamino-4-nitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -0.104 x^2 + 3.48e+003 x + -6.57e+004$  ( $r = 0.9993$ )



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



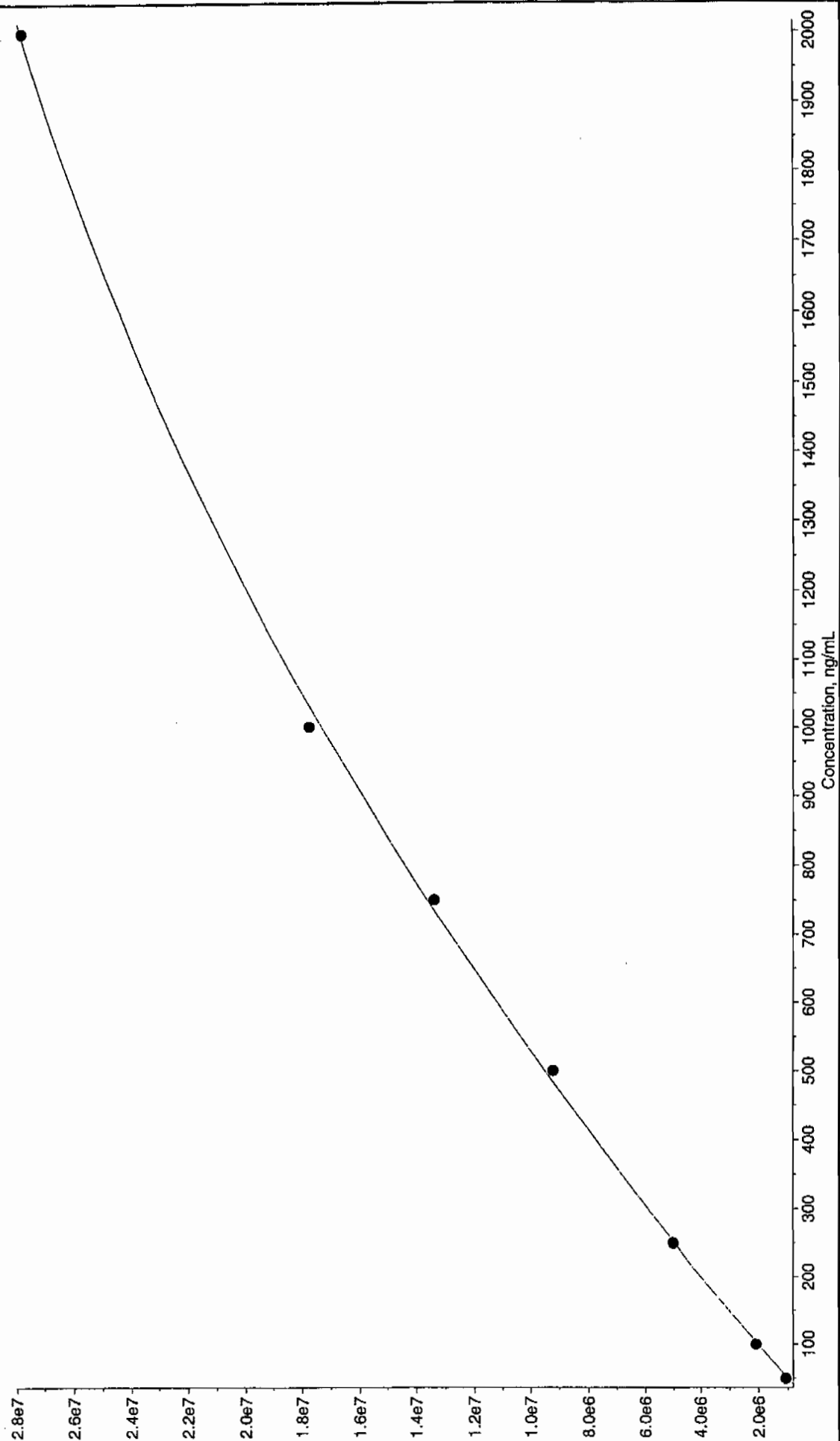
040810.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -0.0415 x^2 + 2.61e+003 x + -3.6e+004$  ( $r = 0.9996$ )



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



040810.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting):  $y = -3.42 x^2 + 2.08e+004 x + -1.85e+004$  ( $r = 0.9997$ )



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



7

# Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS04080011.wiff

Analysis Date: 08-APR-10 19:26

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	480	96	
2,6-Diamino-4-nitrotoluene	500	449	90	
3,4-Dinitrotoluene	250	227	91	
3,5-Dinitroaniline	500	468	94	
TATB	500	525	105	
tris(o-cresyl) phosphate	500	496	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%

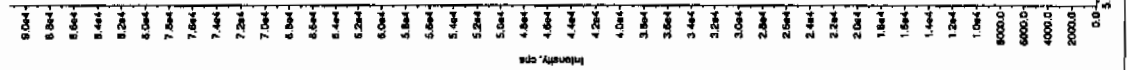
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits



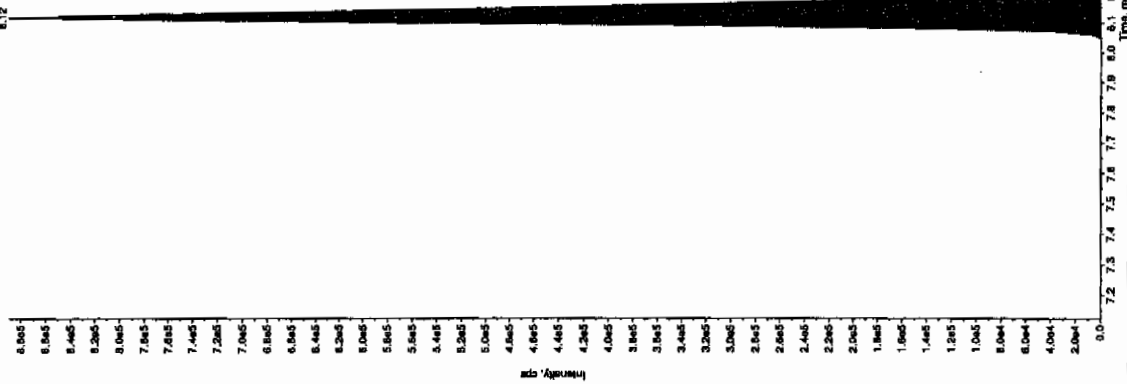
Sample Name: "WXX100408-280V" Sample ID: "11LER" File: "EXS04080011.wif"  
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: 500  
 Concentration: 520 ng/mL  
 Calculated Conc: 4/8/2010  
 Acq. Date: 7:26:44 PM  
 Acq. Time: 7:26:44 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: 6.82 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 6.88 min  
 Area: 4.46e+003 counts  
 Height: 9108.91 cps  
 Start Time: 6.72 min  
 End Time: 8.08 min

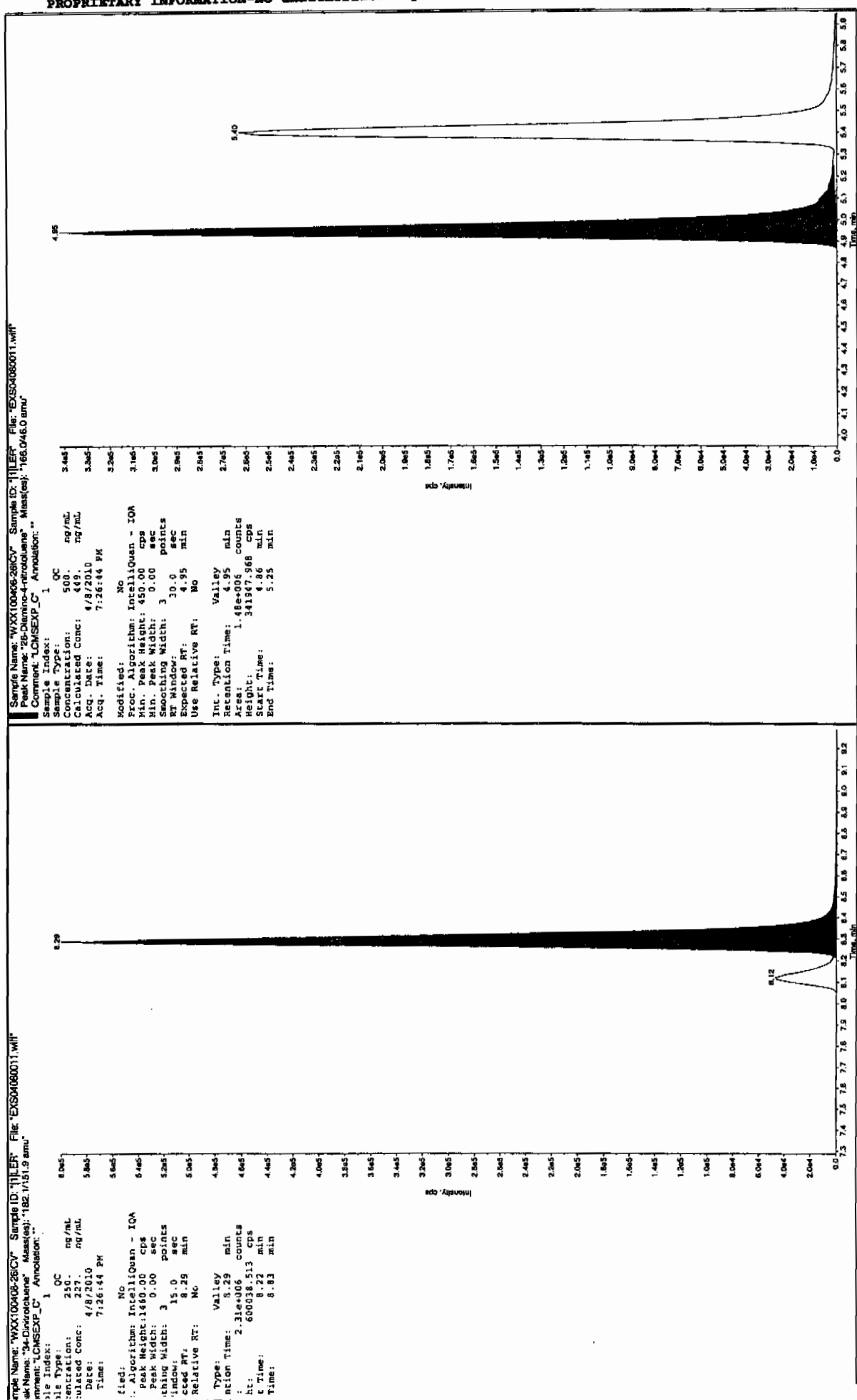


Sample Name: "WXX100408-280V" Sample ID: "11LER" File: "EXS04080011.wif"  
 Peak Name: "3S-Dinitrofluorene" Mass(es): "182.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: 500  
 Concentration: 458 ng/mL  
 Calculated Conc: 4/8/2010  
 Acq. Date: 7:26:44 PM  
 Acq. Time: 7:26:44 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: 8.12 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.12 min  
 Area: 3.58e+006 counts  
 Height: 88950.072 cps  
 Start Time: 8.03 min  
 End Time: 8.25 min





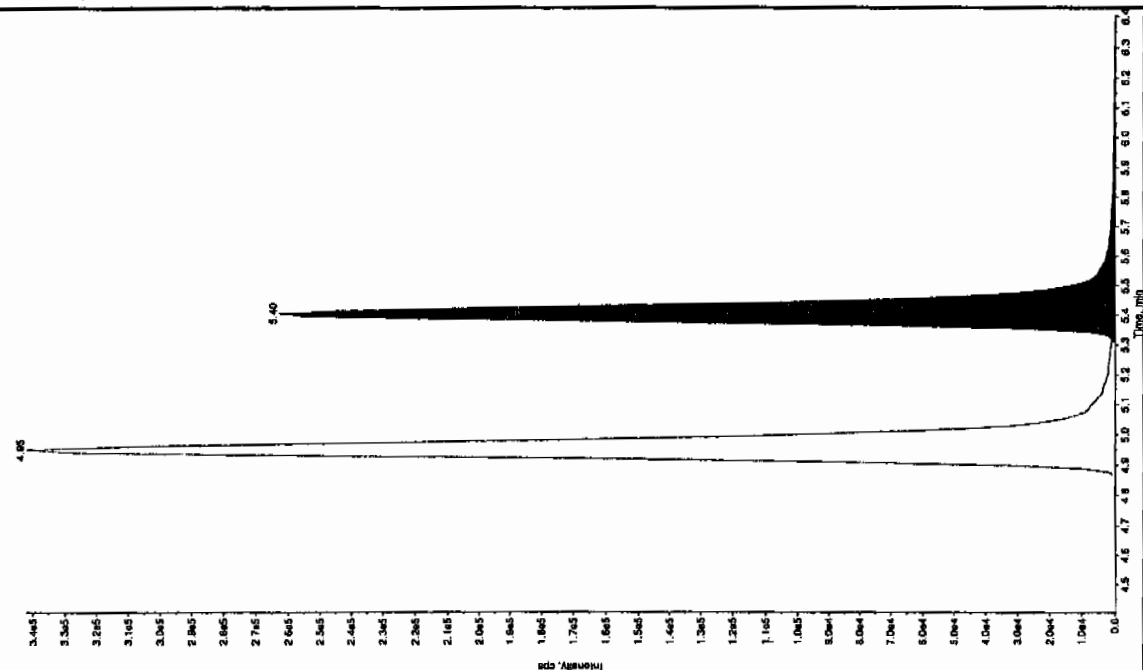
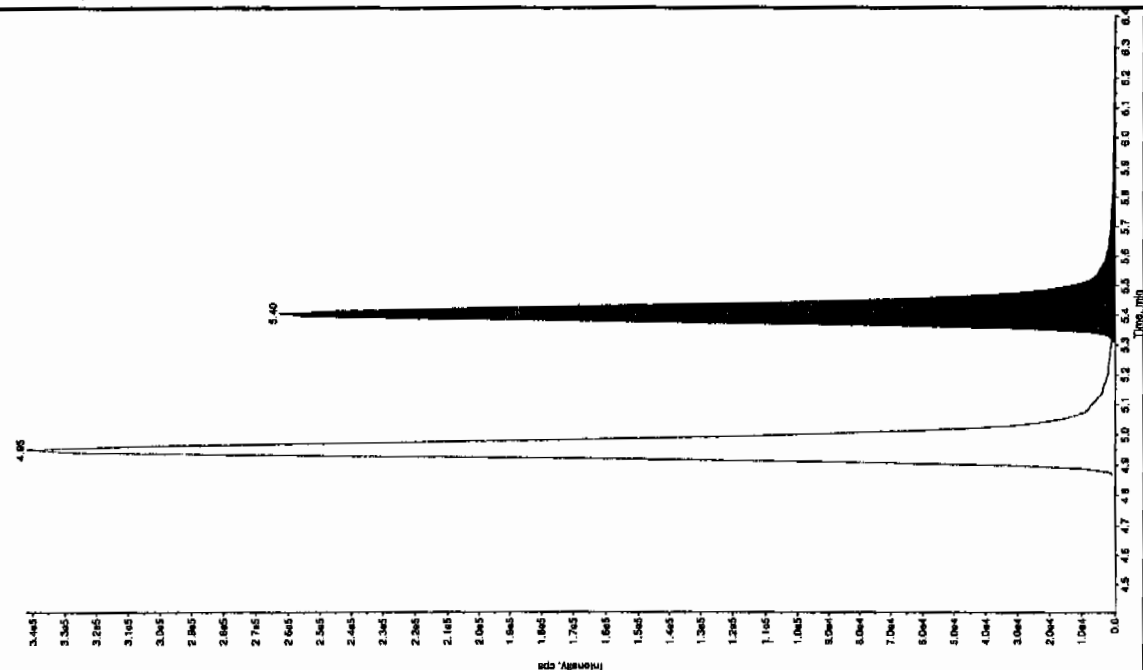


, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



Sample Name: "WXX100409-280V" Sample ID: "11LEF" File: "EXS04080011.wif"  
 Peak Name: "24-Dichloro-6-nitrobenzene" Mass(es): 166.046.0 amu  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 496. ng/mL  
 Acq. Date: 4/8/2010  
 Acq. Time: 7:25:44 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 800.00 cps  
 Min. Peak Width: 3.00 sec  
 Retention: 10.8 min  
 RT Width: 30.0 points  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 9.45e+006 counts  
 Height: 2296304.199 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 480. ng/mL  
 Acq. Date: 4/8/2010  
 Acq. Time: 7:26:44 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 3.00 sec  
 Retention: 5.40 min  
 RT Width: 30.0 points  
 Expected RT: 5.40 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.40 min  
 Area: 1.21e+006 counts  
 Height: 262617.310 cps  
 Start Time: 5.31 min  
 End Time: 6.07 min

IL SOP GL-OA-E-056, Method 8321A-Modified LCM SMS#4



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412012a

Analysis Date: 12-APR-10 21:04

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
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	
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	

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\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0412012a

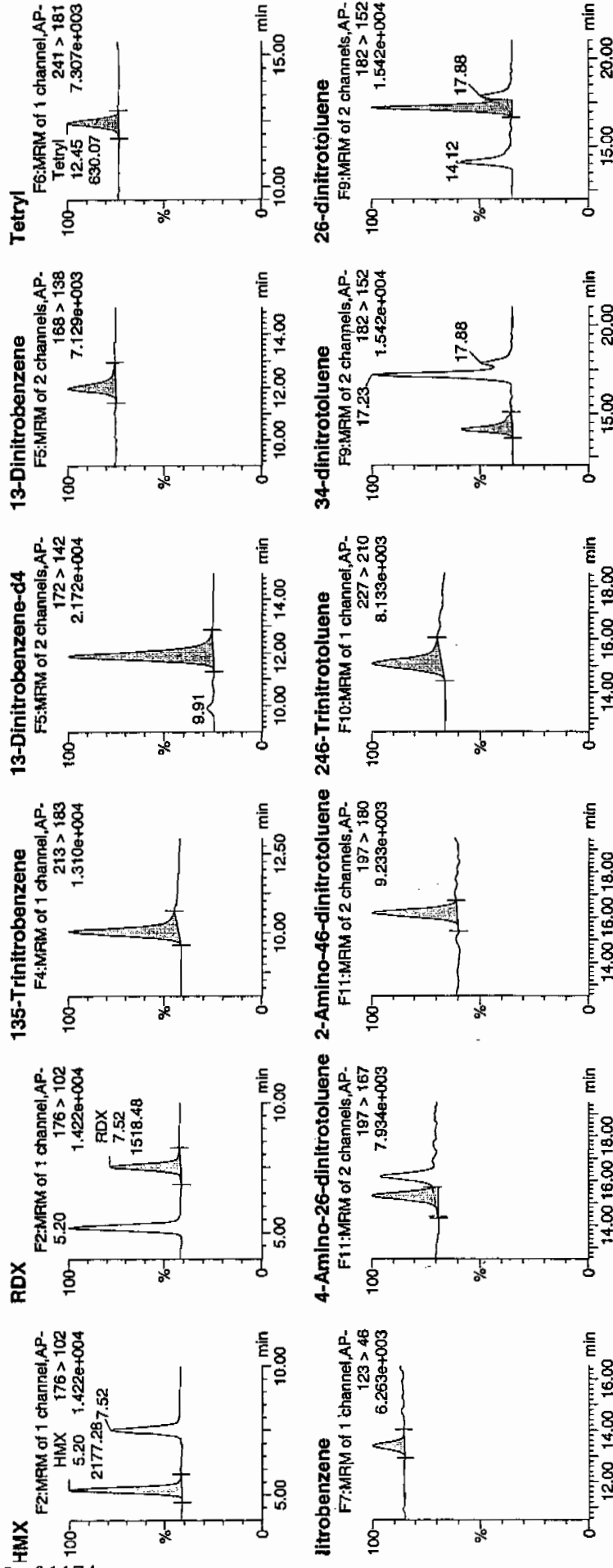
Date: 12-Apr-2010

Time: 21:04:58

ID: WXX100412-08CRI

Vial: 1:1,C

MMT  
4/13/10



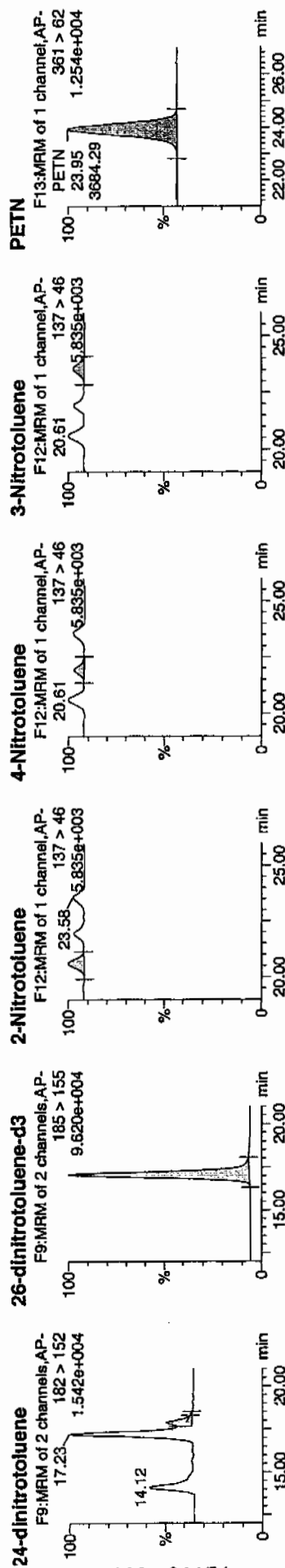
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**Analyst: Michael A. Penny**

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

PROPRIETARY INFORMATION-NO unauthorized reproduction without written permission from GEL.



ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	IntmL	% Rec	% Dev	SN
WXX100412-08CRI	HMx	176 > 102	5.20	2177.283	6274.155	2177.283	173.512	bb			40.9355	102.3	2.3	314.4
WXX100412-08CRI	RDX	176 > 102	7.52	1518.477	6274.155	1518.477	121.010	bb			42.2788	105.7	5.7	197.0
WXX100412-08CRI	135-Trinitrobenzene	213 > 183	10.05	2279.088	6274.155	2279.088	181.625	bb			42.0139	105.0	5.0	180.1
WXX100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6274.155		6274.155	6274.155	bb			533.4836	106.7	6.7	322.2
WXX100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	671.328	6274.155	671.328	53.499	bb			40.0125	100.0	0.0	50.5
WXX100412-08CRI	Tetryl	241 > 181	12.45	630.065	6274.155	630.065	50.211	bb			38.7350	96.8	-3.2	54.0
WXX100412-08CRI	Nitrobenzene	123 > 46	13.41	318.106	6274.155	318.106	25.351	bb			40.4123	101.0	1.0	29.3
WXX100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.32	1058.459	38012.648	1058.459	13.922	MM	13-Apr-10	11:01:55	41.2197	103.0	3.0	59.2
WXX100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.16	1478.048	38012.648	1478.048	19.442	bb			37.9571	94.9	-5.1	88.4
WXX100412-08CRI	246-Trinitrotoluene	227 > 210	15.10	1254.134	38012.648	1254.134	16.496	bb			37.9196	94.8	-5.2	135.3
WXX100412-08CRI	34-dinitrotoluene	182 > 152	14.12	1632.265	38012.648	1632.265	21.470	bb			20.8219	104.1	4.1	82.1
WXX100412-08CRI	26-dinitrotoluene	182 > 152	17.23	3764.256	38012.648	3764.256	49.513	MM	13-Apr-10	11:07:00	41.8349	104.6	4.6	228.6
WXX100412-08CRI	24-dinitrotoluene	182 > 152	17.88	774.045	38012.648	774.045	10.181	MM	13-Apr-10	11:10:08	39.0087	97.5	-2.5	47.6
WXX100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	38012.648		38012.648	38012.648	bb			543.2989	108.7	8.7	2463.8
WXX100412-08CRI	2-Nitrotoluene	137 > 46	20.61	227.869	38012.648	227.869	2.997	bb			34.6153	86.5	-13.5	59.0
WXX100412-08CRI	4-Nitrotoluene	137 > 46	21.95	127.946	38012.648	127.946	1.683	bb			40.5729	101.4	1.4	37.2
WXX100412-08CRI	3-Nitrotoluene	137 > 46	23.58	165.114	38012.648	165.114	2.172	bb			37.2514	93.1	-6.9	41.7
WXX100412-08CRI	PETN	361 > 62	23.95	3684.286	38012.648	3684.286	48.461	bb			38.9040	97.3	-2.7	585.0

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification



# 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
Total	1588.0

MTT  
4/13/10

Average

99.3

Handwritten 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): 10-2137

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
1,3,5-Trinitrobenzene	600	557.713	93	
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	

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 45 of 77

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qtd, Time: Tue Apr 13 11:12:22 2010

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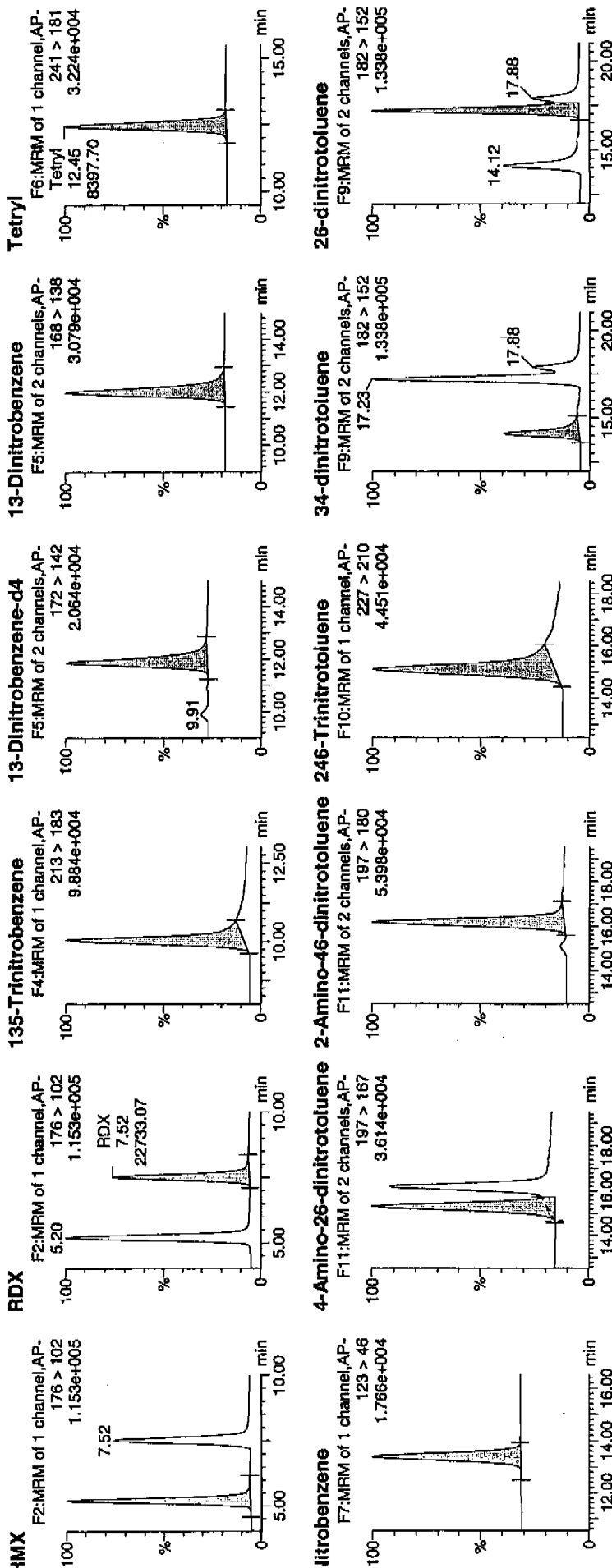
Date: 13-Apr-2010

Time: 02:29:16

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Vial: 1:1,B

13/17  
4/13/10



Handwritten note: 13/17  
4/13/10

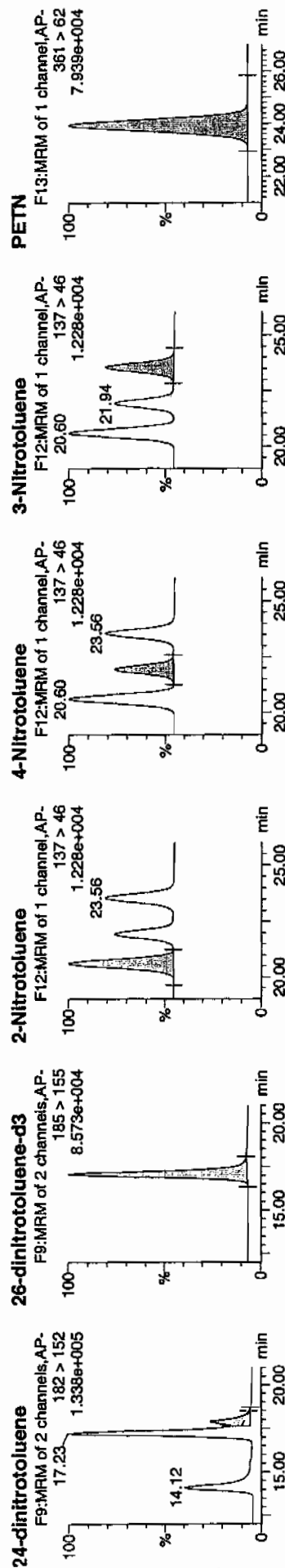


# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 46 of 77

Dataset: C:\MASSLYN\New\_Exp\PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010



ID	Name	Trace	RT	Area	IS Area	Response	Flags	Mod Date	Mod Time	Area	%Area	%Dev	SN
WXX100412-07CCV	HMX	176 > 102	5.20	28491.268	5686.049	28491.268	2505.366	bb		591.0742	98.5	-1.5	2424.2
WXX100412-07CCV	RDX	176 > 102	7.52	22733.072	5686.049	22733.072	1969.022	bb		698.4212	116.4	16.4	1800.1
WXX100412-07CCV	135-Trinitrobenzene	213 > 183	10.05	27417.908	5686.049	27417.908	2410.981	bb		557.7127	93.0	-7.0	985.8
WXX100412-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	5686.049		5686.049		bb		483.4777	96.7	-3.3	419.8
WXX100412-07CCV	13-Dinitrobenzene	168 > 138	11.97	9217.395	5686.049	9217.395	810.527	bb		606.1968	101.0	1.0	1027.7
WXX100412-07CCV	Tetryl	241 > 181	12.45	8397.697	5686.049	8397.697	738.447	bd		569.6696	94.9	-5.1	1109.4
WXX100412-07CCV	Nitrobenzene	123 > 46	13.37	4190.401	5686.049	4190.401	368.481	bd		587.4110	97.9	-2.1	482.0
WXX100412-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.32	12637.104	33054.137	12637.104	191.158	MM	13-Apr-10 11:02:49	565.9529	94.3	-5.7	550.6
WXX100412-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.16	19697.299	33054.137	19697.299	297.955	bb		581.7193	97.0	-3.0	507.4
WXX100412-07CCV	246-Trinitrotoluene	227 > 210	15.10	18353.908	33054.137	18353.908	277.634	bb		638.1909	106.4	6.4	574.4
WXX100412-07CCV	34-dinitrotoluene	182 > 152	14.12	20079.451	33054.137	20079.451	303.736	bb		294.5866	98.2	-1.8	472.2
WXX100412-07CCV	26-dinitrotoluene	182 > 152	17.23	47216.063	33054.137	47216.063	714.223	MM	13-Apr-10 11:07:54	603.4644	100.6	0.6	1300.6
WXX100412-07CCV	24-dinitrotoluene	182 > 152	17.88	11176.726	33054.137	11176.726	169.067	MM	13-Apr-10 11:10:49	647.7566	108.0	8.0	280.1
WXX100412-07CCV	26-dinitrotoluene-d3	185 > 155	17.05	33054.137		33054.137		bb		472.4290	94.5	-5.5	2808.6
WXX100412-07CCV	2-Nitrotoluene	137 > 46	20.60	3195.010	33054.137	3195.010	48.330	bb		558.1587	93.0	-7.0	343.3
WXX100412-07CCV	4-Nitrotoluene	137 > 46	21.94	1685.013	33054.137	1685.013	25.489	bb		614.4905	102.4	2.4	193.2
WXX100412-07CCV	3-Nitrotoluene	137 > 46	23.56	2082.501	33054.137	2082.501	31.501	bb		540.3134	90.1	-9.9	224.9
WXX100412-07CCV	PETN	361 > 62	23.94	39570.852	33054.137	39570.852	598.576	bb		688.8709	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

*Handwritten:*  
 4/13/10

Total 1606.5

Average 100.4

*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): 10-2137

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



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412025a

Date: 13-Apr-2010

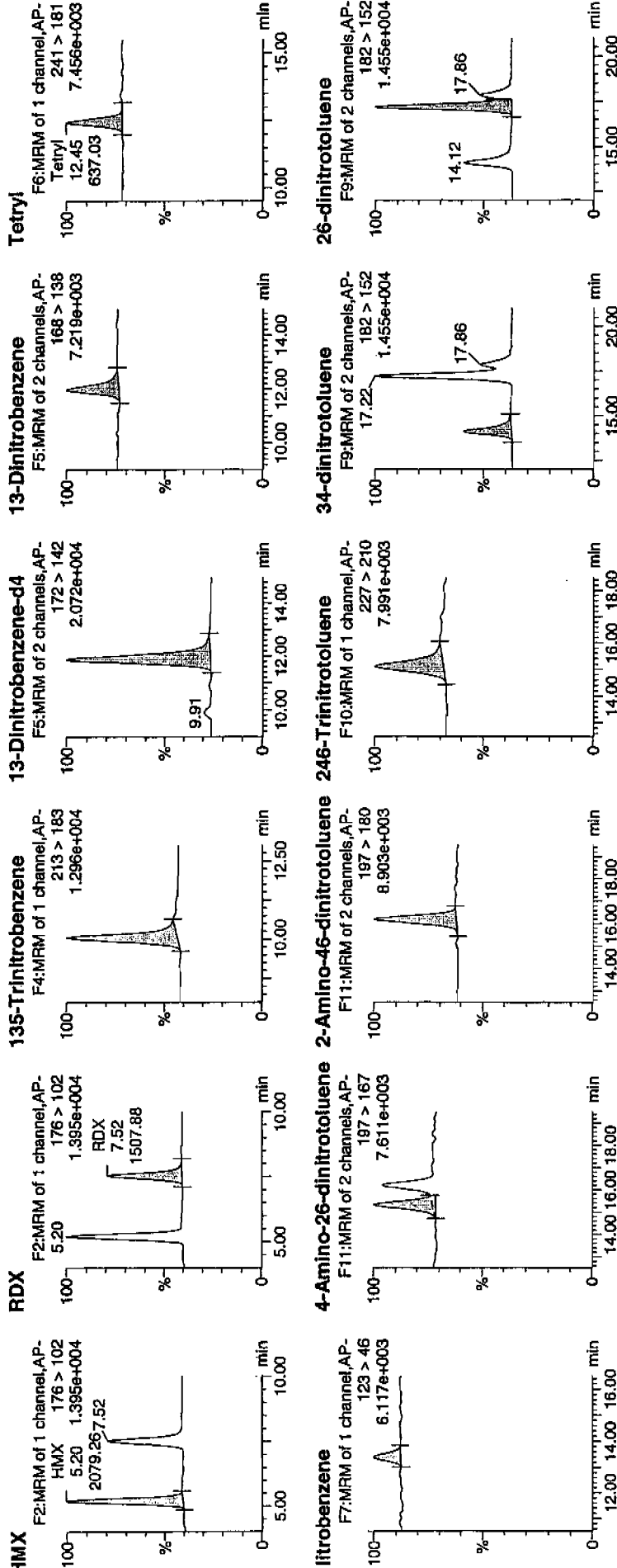
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Ratio: 1:1,C

μA  
4/13/10

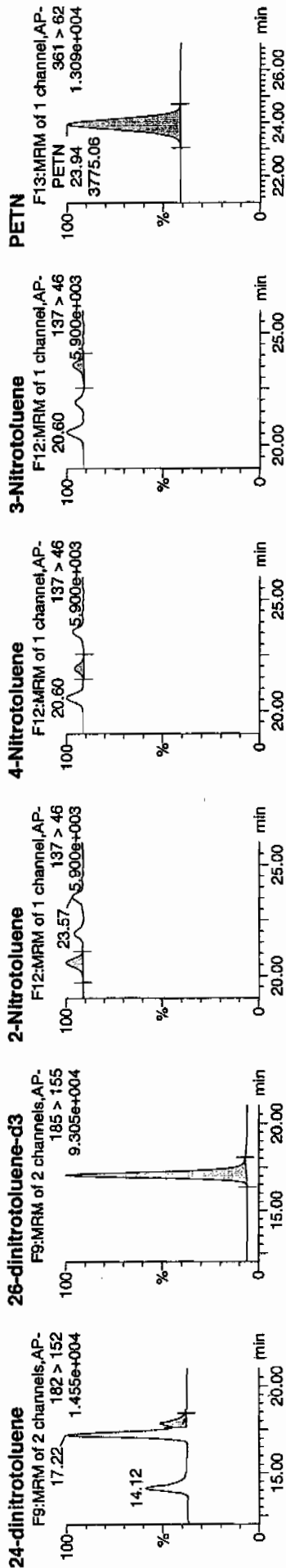
Page 807 of 1174



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Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010



ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Int Time	Area	Dev	SN
WXX100412-08CRI	HMX	176 > 102	5.20	2079.264	5797.090	2079.264	179.337	bb			42.3097	105.8	5.8	348.3
WXX100412-08CRI	RDX	176 > 102	7.52	1507.880	5797.090	1507.880	130.055	bb			45.4388	113.6	13.6	225.5
WXX100412-08CRI	135-Trinitrobenzene	213 > 183	10.05	2231.265	5797.090	2231.265	192.447	bb			44.5172	111.3	11.3	130.5
WXX100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	5797.090		5797.090	5797.090	bb			492.9183	98.6	-1.4	771.9
WXX100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	719.725	5797.090	719.725	62.076	bb			46.4272	116.1	16.1	67.2
WXX100412-08CRI	Tetryl	241 > 181	12.45	637.032	5797.090	637.032	54.944	bb			42.3862	106.0	6.0	45.1
WXX100412-08CRI	Nitrobenzene	123 > 46	13.41	258.161	5797.090	258.161	22.266	bb			35.4959	88.7	-11.3	32.0
WXX100412-08CRI	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
WXX100412-08CRI	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
WXX100412-08CRI	246-Trinitrotoluene	227 > 210	15.10	1233.959	35963.441	1233.959	17.156	bb			39.4355	98.6	-1.4	52.3
WXX100412-08CRI	34-dinitrotoluene	182 > 152	14.12	1430.000	35963.441	1430.000	19.881	bb			19.2811	96.4	-3.6	68.9
WXX100412-08CRI	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
WXX100412-08CRI	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
WXX100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	35963.441		35963.441	35963.441	bb			514.0105	102.8	2.8	1763.8
WXX100412-08CRI	2-Nitrotoluene	137 > 46	20.60	236.329	35963.441	236.329	3.286	bb			37.9461	94.9	-5.1	26.8
WXX100412-08CRI	4-Nitrotoluene	137 > 46	21.92	127.371	35963.441	127.371	1.771	bb			42.6921	106.7	6.7	14.4
WXX100412-08CRI	3-Nitrotoluene	137 > 46	23.57	167.459	35963.441	167.459	2.328	bb			39.9332	99.8	-0.2	17.3
WXX100412-08CRI	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

*WXX 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): 10-2137

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
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	
PETN	600	634.783	106	
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	

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\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

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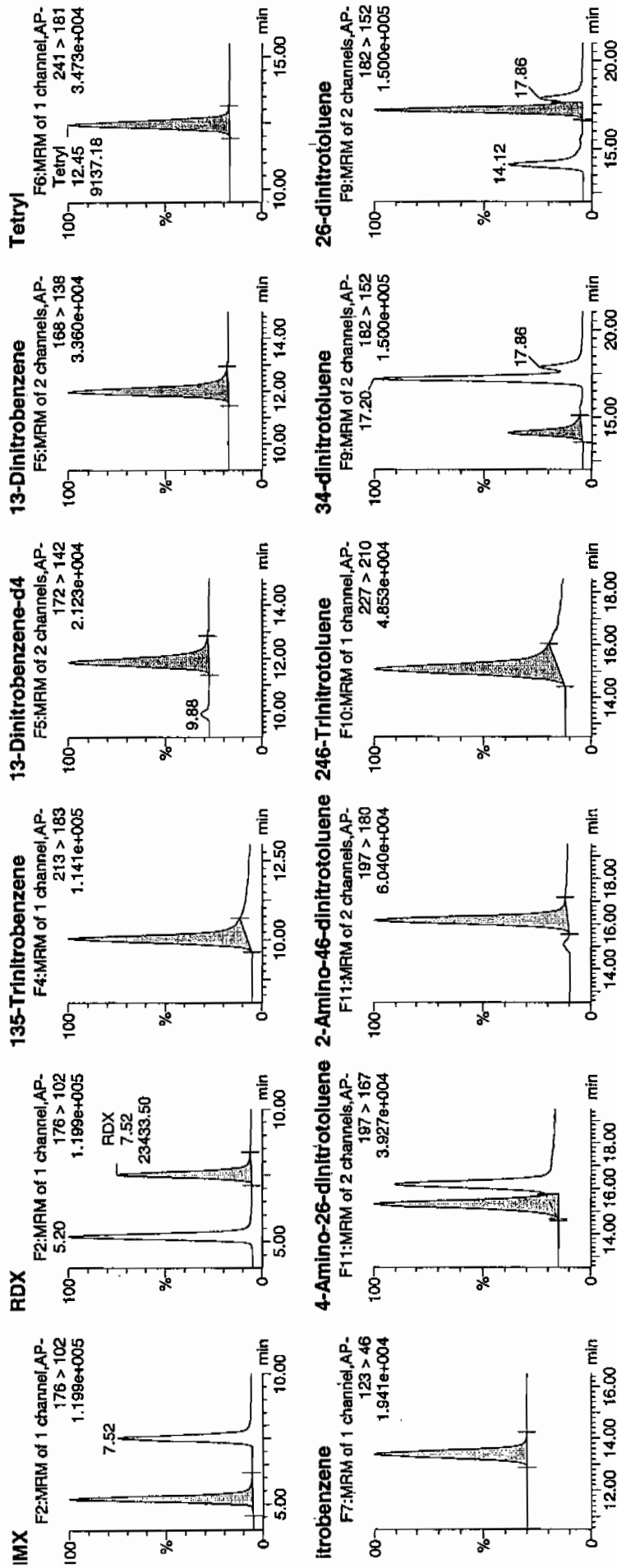
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Page: 3: WXX100408-07CCV

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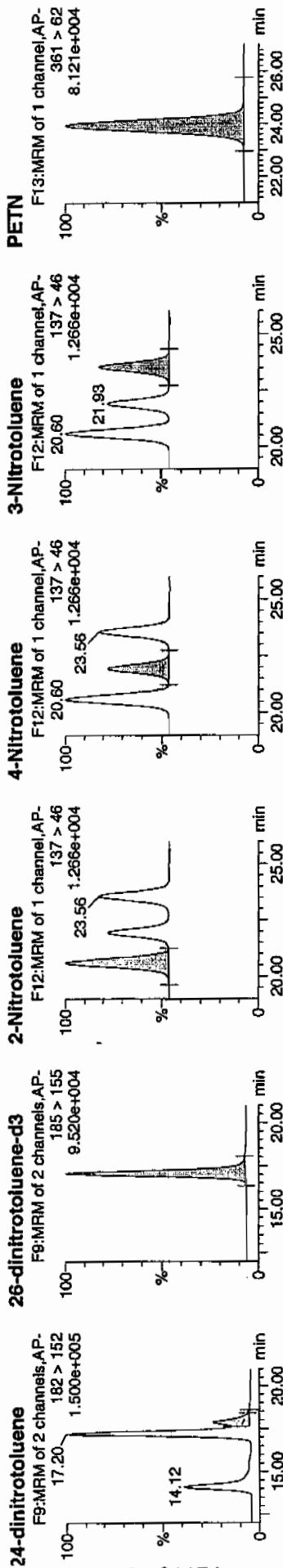
4/13/10



4/13/10



Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010



ID	Name	Trace	RT	Area	Area	AuthResp	Response	Flag	Mod Date	Mod Time	Ref	%Dev	MSN	
WXX100408-07CCV	HMX	176 > 102	5.20	29781.385	5826.664	29781.385	2555.612	bb			602.9284	100.5	0.5	621.5
WXX100408-07CCV	RDX	176 > 102	7.52	23433.498	5826.664	23433.498	2010.885	bb			702.5658	117.1	17.1	454.8
WXX100408-07CCV	135-Trinitrobenzene	213 > 183	10.05	31384.221	5826.664	31384.221	2693.155	bb			622.9859	103.8	3.8	1221.3
WXX100408-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	5826.664		5826.664	5826.664	bb			495.4340	89.1	-0.9	856.5
WXX100408-07CCV	13-Dinitrobenzene	168 > 138	11.97	9758.702	5826.664	9758.702	837.418	bb			626.3082	104.4	4.4	1223.2
WXX100408-07CCV	Tetryl	241 > 181	12.45	9137.179	5826.664	9137.179	784.063	bb			604.8749	100.8	0.8	997.4
WXX100408-07CCV	Nitrobenzene	123 > 46	13.37	4719.232	5826.664	4719.232	404.989	bb			645.5776	107.6	7.6	430.6
WXX100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.29	14000.422	35974.031	14000.422	194.591	MM	13-Apr-10	11:03:12	576.1169	96.0	-4.0	564.0
WXX100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.16	22086.311	35974.031	22086.311	306.976	bb			599.3310	99.9	-0.1	644.5
WXX100408-07CCV	246-Trinitrotoluene	227 > 210	15.10	19896.646	35974.031	19896.646	276.542	bb			635.6802	105.9	5.9	463.0
WXX100408-07CCV	34-dinitrotoluene	182 > 152	14.12	21841.178	35974.031	21841.178	303.569	bb			294.4045	98.1	-1.9	603.2
WXX100408-07CCV	26-dinitrotoluene	182 > 152	17.20	52517.492	35974.031	52517.492	729.936	MM	13-Apr-10	11:08:37	616.7407	102.8	2.8	1677.9
WXX100408-07CCV	24-dinitrotoluene	182 > 152	17.86	11448.733	35974.031	11448.733	159.125	MM	13-Apr-10	11:11:06	609.6651	101.6	1.6	331.4
WXX100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.05	35974.031		35974.031	35974.031	bb			514.1618	102.8	2.8	2057.8
WXX100408-07CCV	2-Nitrotoluene	137 > 46	20.60	3236.203	35974.031	3236.203	44.980	bb			519.4669	86.6	-13.4	654.9
WXX100408-07CCV	4-Nitrotoluene	137 > 46	21.93	1774.065	35974.031	1774.065	24.658	bb			594.4539	99.1	-0.9	382.8
WXX100408-07CCV	3-Nitrotoluene	137 > 46	23.56	2160.571	35974.031	2160.571	30.030	bb			515.0694	85.8	-14.2	438.3
WXX100408-07CCV	PETN	361 > 62	23.94	40282.918	35974.031	40282.918	559.869	bb			634.7825	105.8	5.8	10168.9



# 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

*WTF  
4/13/10*

Total 1615.8

*Sum 04/14/10*

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): 10-2137

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
1,3,5-Trinitrobenzene	40	45.739	114	
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	

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

3EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 75 of 77

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

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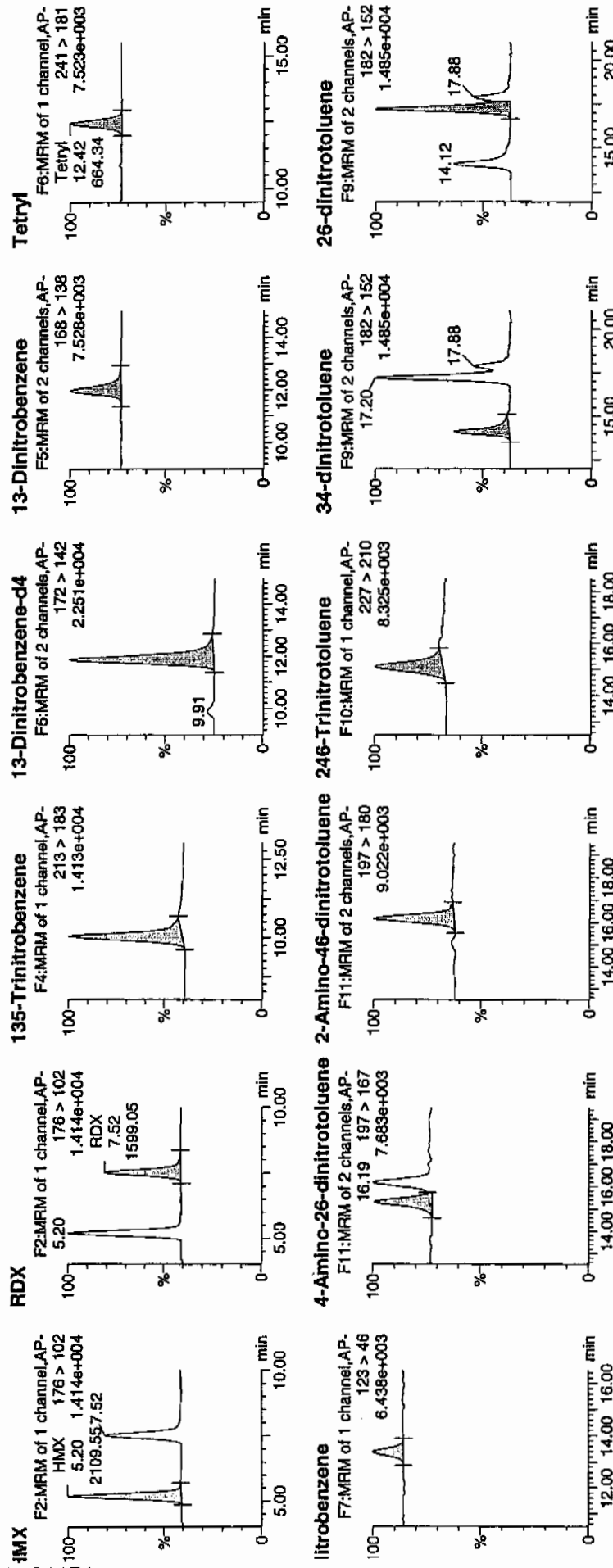
Date: 13-Apr-2010

Time: 09:51:47

File: D:\WXX100408-08CRI

File: 1:1,C

10/13/10

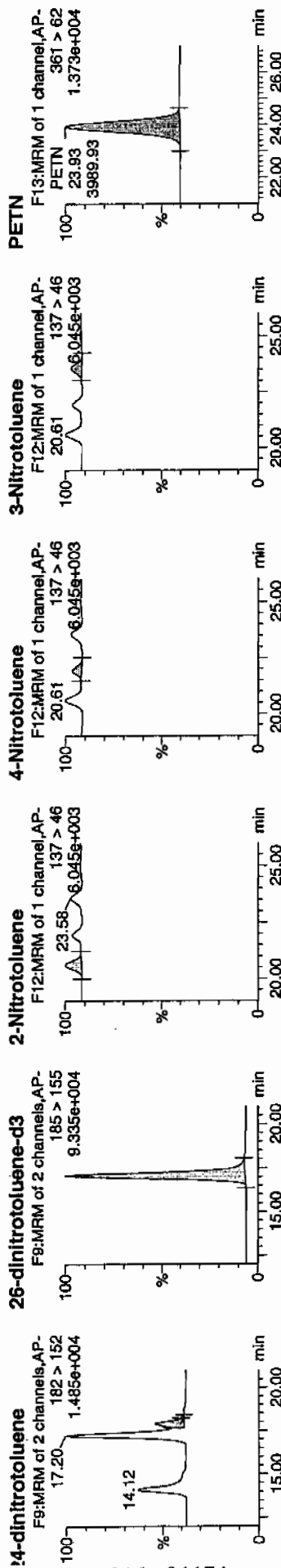


10/13/10



Dataset: C:\MASSLYN\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	Abv	SN
HMX	VXX100408-08CRI	176 > 102	5.20	2109.553	6268.472	2109.553	168.267	bb		39.6981	99.2	-0.8	344.7
RDX	VXX100408-08CRI	176 > 102	7.52	1599.046	6268.472	1599.046	127.547	bb		44.5625	111.4	11.4	232.6
135-Trinitrobenzene	VXX100408-08CRI	213 > 183	10.05	2478.890	6268.472	2478.890	197.727	bb		45.7385	114.3	14.3	445.4
13-Dinitrobenzene-d4	VXX100408-08CRI	172 > 142	11.87	6268.472		6268.472	6268.472	bb		533.0004	106.6	6.6	316.8
13-Dinitrobenzene	VXX100408-08CRI	168 > 138	11.97	734.612	6268.472	734.612	58.596	bb		43.8240	109.6	9.6	56.6
Tetryl	VXX100408-08CRI	241 > 181	12.42	664.339	6268.472	664.339	52.991	bb		40.8791	102.2	2.2	77.0
Nitrobenzene	VXX100408-08CRI	123 > 46	13.37	312.027	6268.472	312.027	24.889	bb		39.6760	99.2	-0.8	26.2
4-Amino-26-dinitrotoluene	VXX100408-08CRI	197 > 167	15.32	898.733	35804.613	898.733	12.551	MM	13-Apr-10	11:03:18	92.9	-7.1	46.5
2-Amino-46-dinitrotoluene	VXX100408-08CRI	197 > 180	16.16	1414.235	35804.613	1414.235	19.749	bb		38.5581	96.4	-3.6	64.1
248-Trinitrotoluene	VXX100408-08CRI	227 > 210	15.10	1189.063	35804.613	1189.063	16.805	bb		38.1693	95.4	-4.6	105.0
34-dinitrotoluene	VXX100408-08CRI	182 > 152	14.12	1586.630	35804.613	1586.630	22.157	bb		21.4879	107.4	7.4	45.9
26-dinitrotoluene	VXX100408-08CRI	182 > 152	17.20	3462.203	35804.613	3462.203	48.349	MM	13-Apr-10	11:08:46	102.1	2.1	112.8
24-dinitrotoluene	VXX100408-08CRI	182 > 152	17.88	844.986	35804.613	844.986	11.800	MM	13-Apr-10	11:11:14	13.0	13.0	28.2
26-dinitrotoluene-d3	VXX100408-08CRI	185 > 155	17.05	35804.613		35804.613	35804.613	bb		511.7404	102.3	2.3	2742.4
2-Nitrotoluene	VXX100408-08CRI	137 > 46	20.61	227.450	35804.613	227.450	3.176	bb		36.6824	91.7	-8.3	42.8
4-Nitrotoluene	VXX100408-08CRI	137 > 46	21.94	113.326	35804.613	113.326	1.583	bb		38.1530	95.4	-4.6	23.5
3-Nitrotoluene	VXX100408-08CRI	137 > 46	23.58	152.725	35804.613	152.725	2.133	bb		36.5812	91.5	-8.5	27.1
PETN	VXX100408-08CRI	361 > 62	23.93	3989.934	35804.613	3989.934	55.718	bb		46.2507	115.6	15.6	289.5



# 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
Total	1637.3

*mtf*  
*4/13/10*

Average

102.3

*time 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): 10-2137

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%

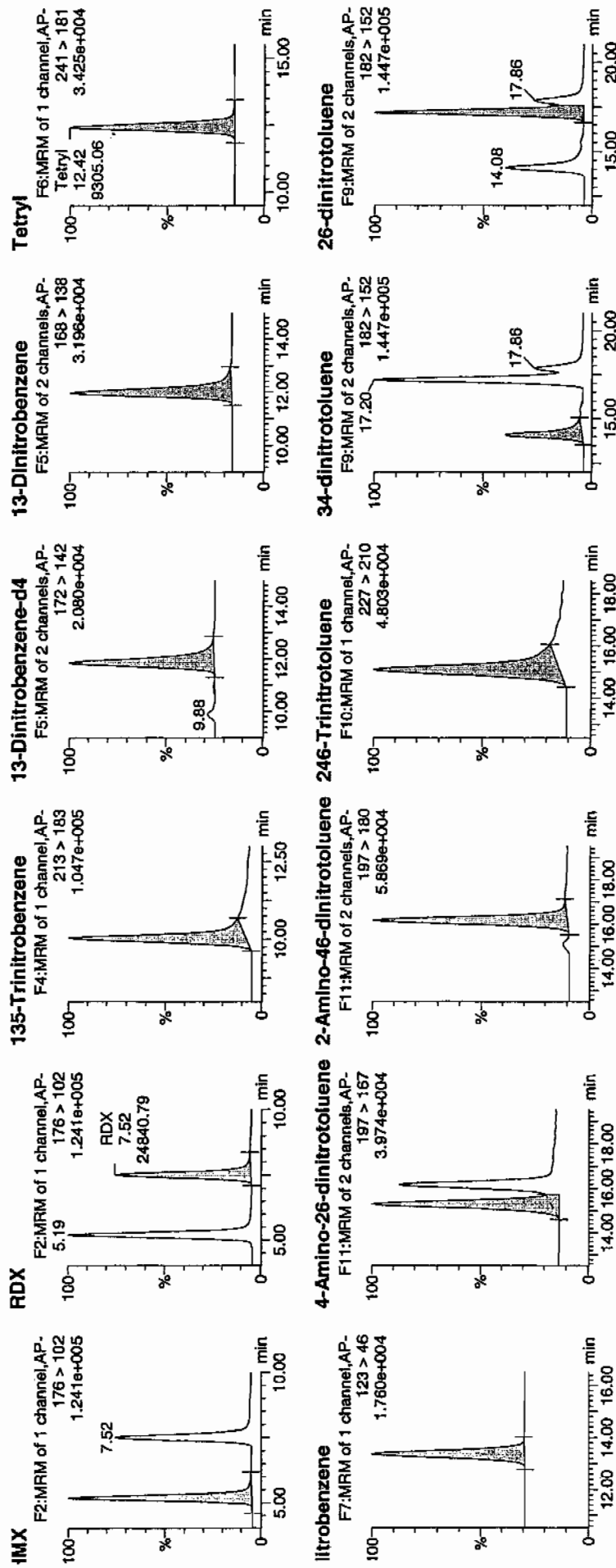
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits



11/17  
 4/14/10

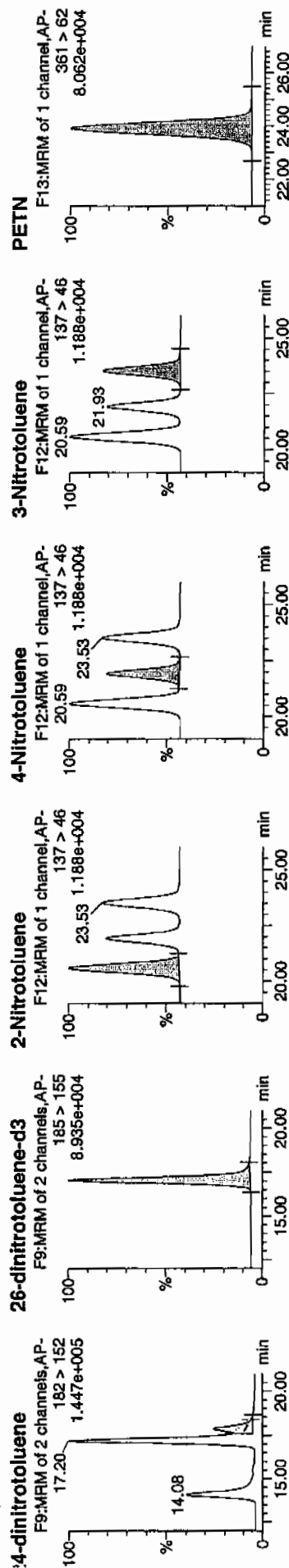


4/14/10



Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

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Name	Trace	RT	Area	IS Area	Post-Flow	Response	Flags	Mod-Date	Mod-Time	Int-Val	Rec	9-Deg	S/N
HMX	176 > 102	5.19	31204.445	5961.844	31204.445	2617.013	bb			617.4143	102.9	2.9	5202.5
FDX	176 > 102	7.52	24840.789	5961.844	24840.789	2083.314	bb			727.8714	121.3	21.3	3835.8
135-Trinitrobenzene	213 > 183	10.05	29462.223	5961.844	29462.223	2470.899	bb			571.5730	95.3	-4.7	761.1
13-Dinitrobenzene-d4	172 > 142	11.84	5961.844		5961.844	5961.844	bb			506.9282	101.4	1.4	721.9
13-Dinitrobenzene	168 > 138	11.97	9635.484	5961.844	9635.484	808.096	bb			604.3784	100.7	0.7	772.5
Tetryl	241 > 181	12.42	9305.055	5961.844	9305.055	780.384	bb			602.0212	100.3	0.3	1125.5
Nitrobenzene	123 > 46	13.37	4360.299	5961.844	4360.299	365.684	bb			582.9519	97.2	-2.8	615.4
4-Amino-26-dinitrotoluene	197 > 167	15.28	14253.106	34905.266	14253.106	204.168	MM	14-Apr-10	09:10:21	604.4733	100.7	0.7	347.8
2-Amino-46-dinitrotoluene	197 > 180	16.16	21707.760	34905.266	21707.760	310.953	bb			607.0951	101.2	1.2	960.5
246-Trinitrotoluene	227 > 210	15.10	20441.820	34905.266	20441.820	292.819	bb			673.0952	112.2	12.2	677.4
182 > 152	14.08	21818.158	34905.266	34905.266	21818.158	312.534	bb			303.0991	101.0	1.0	485.6
26-dinitrotoluene	182 > 152	17.20	51026.781	34905.266	51026.781	730.932	MM	14-Apr-10	09:11:45	617.5825	102.9	2.9	1319.3
24-dinitrotoluene	182 > 152	17.86	12588.055	34905.266	12588.055	180.317	MM	14-Apr-10	09:15:38	690.8611	115.1	15.1	286.1
26-dinitrotoluene-d3	185 > 155	17.05	34905.266		34905.266	34905.266	bb			498.8864	99.8	-0.2	2214.7
2-Nitrotoluene	137 > 46	20.59	3178.106	34905.266	3178.106	45.525	bb			525.7614	110.7	-12.4	666.3
4-Nitrotoluene	137 > 46	21.93	1922.686	34905.266	1922.686	27.541	bb			663.9803	87.6	10.7	437.1
3-Nitrotoluene	137 > 46	23.53	2243.447	34905.266	2243.447	32.136	bb			551.2025	91.9	-8.1	464.9
PETN	361 > 62	23.92	40562.969	34905.266	40562.969	581.044	bb			694.1354	110.7	10.7	10315.8



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

*mtg  
4/14/10*

Total 1651.7

Average 103.2

*done 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): 10-2137

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
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	
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	

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 25 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

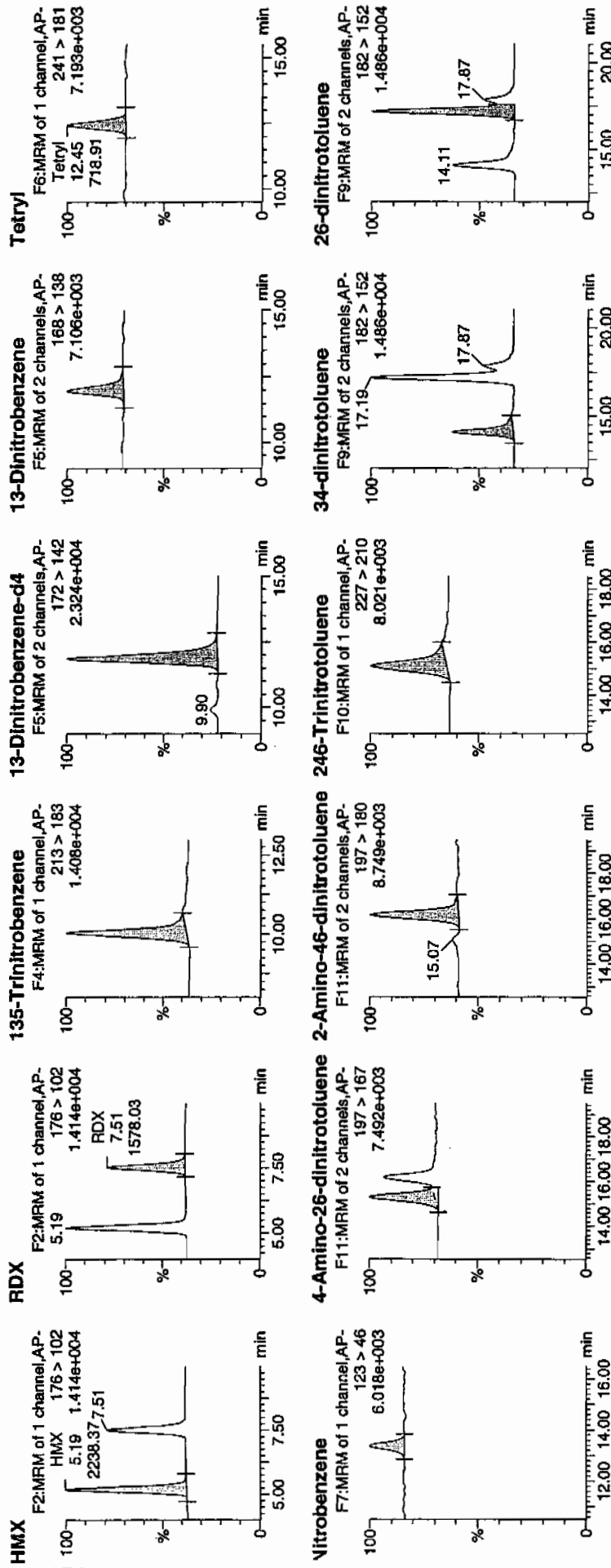
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ID: WXX100412-08CRI

Vial: 1:1,C

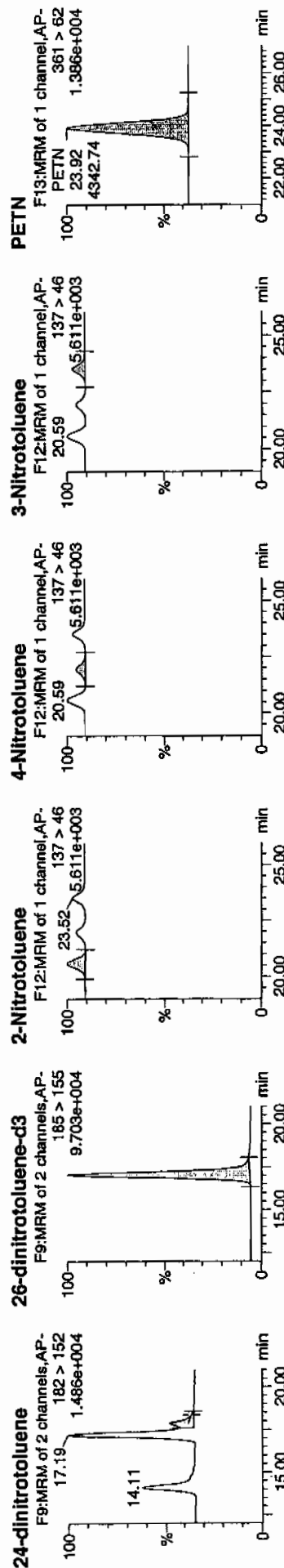
4/14/10  
4/14/10

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ID	Name	Trace Name	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Int. Int.	Area	Mod	Day	SSN
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	ROX	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	40.5998	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	187 > 210	15.09	1380.441	37796.773	1380.441	18.261	bb			41.9770	104.9		4.9	85.1
WXX100412-08CRI	34-dinitrotoluene	282 > 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	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

MTT  
4/14/10

Total 1649.1

Average 103.1

MTT 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): 10-2137

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
1,3,5-Trinitrobenzene	600	599.334	100	
1,3-Dinitrobenzene-d4	500	499.969	100	
2,4,6-Trinitrotoluene	600	660.453	110	
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	

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:\MASSLYN\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

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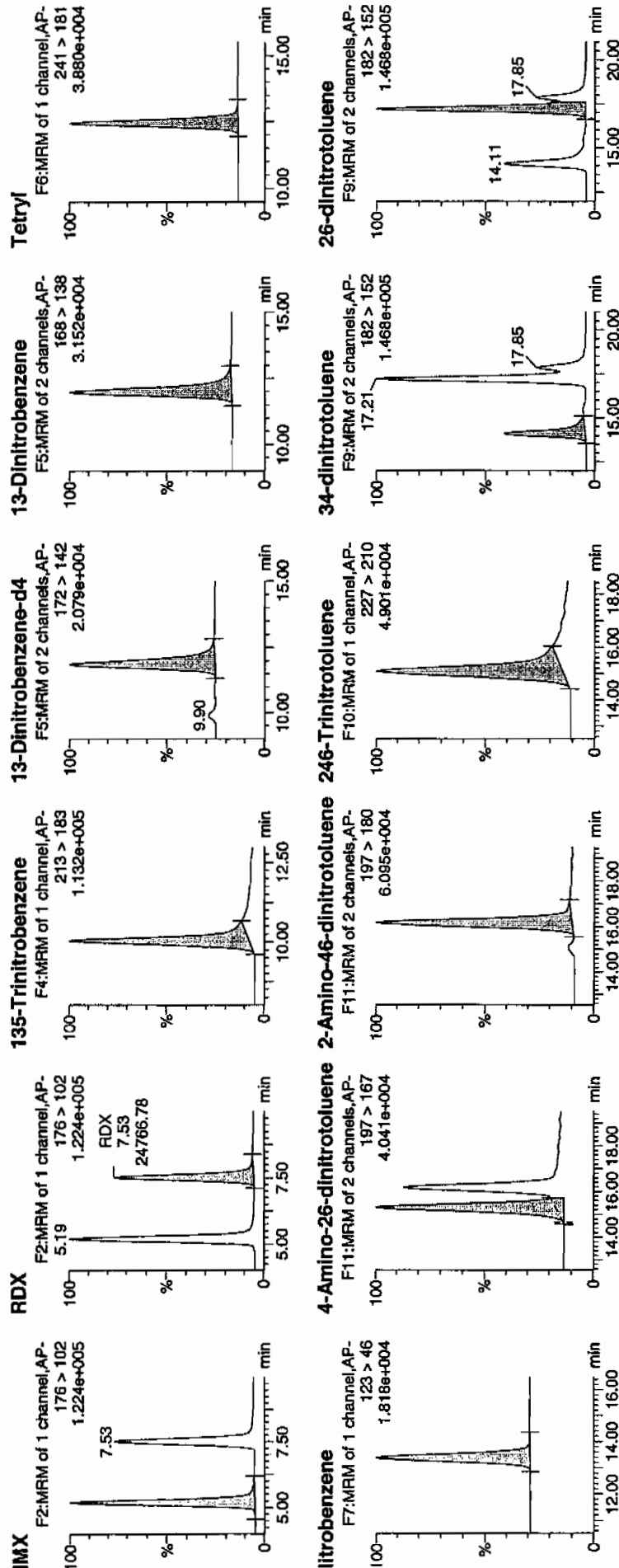
Date: 13-Apr-2010

Time: 20:41:14

D: WXX100412-07CCV

Vial: 1:1,B

27 of 1174

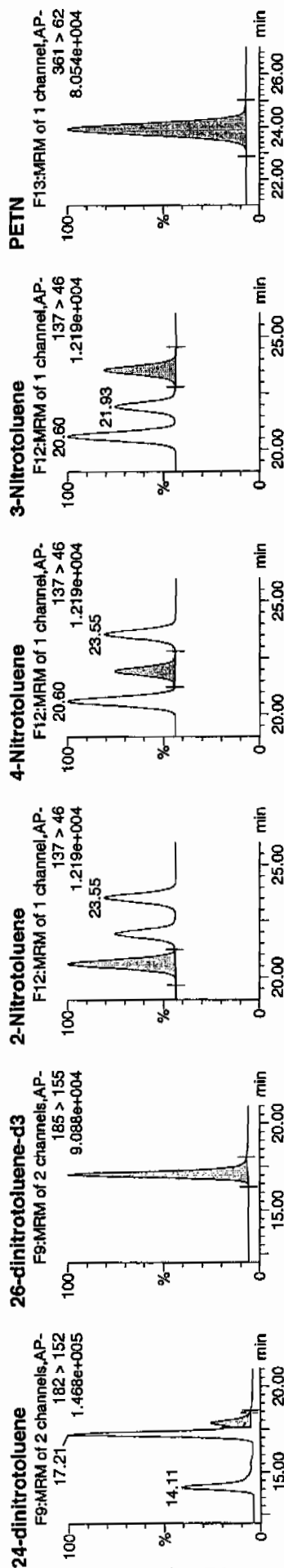


01/11/2016



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

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ID	Name	Trace ID	Rt	Area	IS Area	Abs Resp	Response	Pegs	Mob Date	Mob Time	NOI	REC	DOY	SIN
1	HMX	176 > 102	5.19	30471.305	5879.997	30471.305	2591.099	bb			611.3005	101.9	1.9	4888.6
2	RDX	176 > 102	7.53	24766.781	5879.997	24766.781	2106.020	bb			735.8043	122.6	22.6	3663.0
3	135-Trinitrobenzene	213 > 183	10.03	30469.059	5879.997	30469.059	2590.908	bb			599.3338	99.9	-0.1	527.0
4	13-Dinitrobenzene-d4	172 > 142	11.86	5879.997		5879.997	5879.997	bb			499.9688	100.0	-0.0	312.1
5	13-Dinitrobenzene	168 > 138	11.97	9594.861	5879.997	9594.861	815.890	bb			610.2076	101.7	1.7	589.3
6	Tetryl	241 > 181	12.45	10196.647	5879.997	10196.647	867.062	bb			668.8885	111.5	11.5	797.0
7	Nitrobenzene	123 > 46	13.39	4491.814	5879.997	4491.814	381.957	bb			608.8941	101.5	1.5	423.9
8	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
9	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
10	246-Tritnitrotoluene	227 > 210	15.09	20522.861	35714.422	20522.861	287.319	bb			660.4534	110.1	10.1	1440.2
11	34-dinitrotoluene	182 > 152	14.11	23089.531	35714.422	23089.531	323.252	bb			313.4938	104.5	4.5	574.1
12	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
13	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
14	26-dinitrotoluene-d3	185 > 155	17.04	35714.422		35714.422	35714.422	bb			510.4514	102.1	2.1	1565.0
15	2-Nitrotoluene	137 > 46	20.60	3260.543	35714.422	3260.543	45.647	bb			527.1784	87.9	-12.1	489.2
16	4-Nitrotoluene	137 > 46	21.93	1692.219	35714.422	1692.219	23.691	bb			571.1507	95.2	-4.8	274.5
17	3-Nitrotoluene	137 > 46	23.55	2143.889	35714.422	2143.889	30.014	bb			514.8077	85.8	-14.2	326.3
18	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
Total	1648.0

WXX  
4/14/10

Average

103.0

WXX 04/14/10

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): 10-2137

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



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412062a

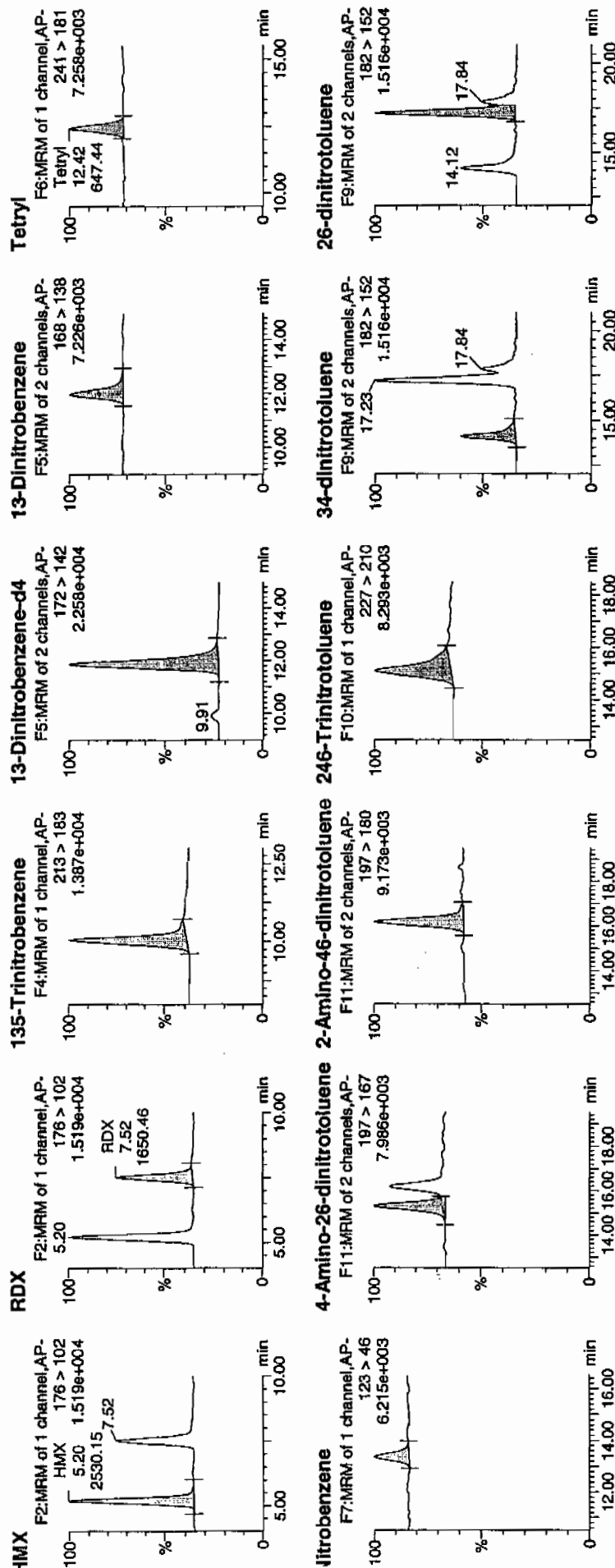
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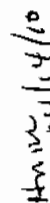
Time: 21:40:18

ID: WXX100412-08CRI

Vial: 1:1,C

  
 4/14/10

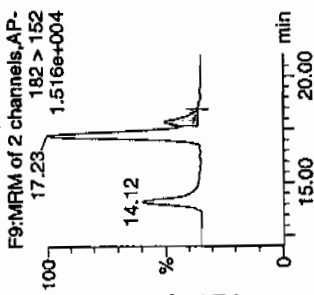


  
 4/14/10

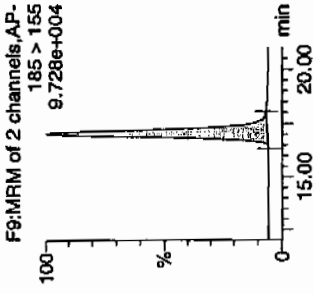


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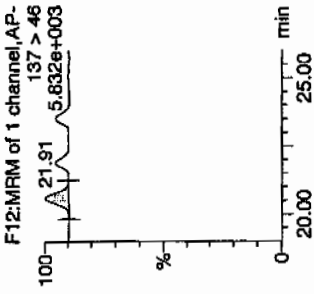
**2,4-dinitrotoluene**



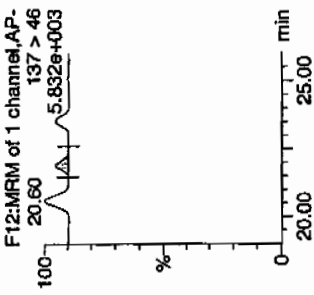
## 26-dinitrotoluene-d3



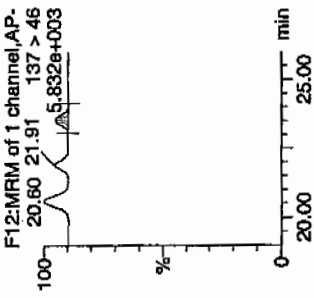
## 2-Nitrotoluene



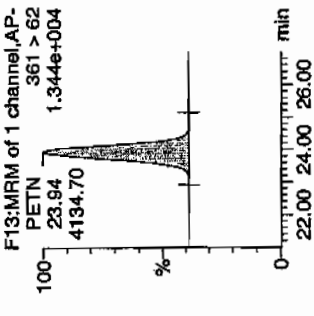
### 4-Nitrotoluene



### 3-Nitrotoluene



**PETN**



Name	Dose	Trace	A <sub>T</sub>	F <sub>I</sub>	V <sub>M</sub>	S Area	Abs Resp	Response Factor	Mod Date	Mod Time	ID No.	% Rec	Purity	CN
HMX	/XXYX100412-08CRI	176 > 102	5.20		2530.148	6551.026	2530.148	193.111	bb		45.5593	113.9	13.9	260.0
RDX	/WVWX100412-08CRI	176 > 102	7.52		1650.456	6551.026	1650.456	125.969	bb		44.0113	110.0	10.0	158.1
135-Trinitrobenzene	/WVWX100412-08CRI	213 > 183	10.05		2495.999	6551.026	2495.999	190.504	bb		44.0679	110.2	10.2	102.3
13-Dinitrobenzene-d4	/WVWX100412-08CRI	172 > 142	11.87		6551.026		6551.026	6551.026	bb		557.0256	111.4	11.4	567.3
13-Dinitrobenzene	/WVWX100412-08CRI	168 > 138	11.97		750.260	6551.026	750.260	57.263	bb		42.8271	107.1	7.1	65.8
Tetryl	/WVXY100412-08CRI	241 > 181	12.42		647.438	6551.026	647.438	49.415	db		38.1208	95.3	-4.7	95.8
Nitrobenzene	/WVXX100412-08CRI	123 > 46	13.37		355.510	6551.026	355.510	27.134	bb		43.2553	108.1	8.1	41.0
4-Amino-26-dinitrotoluene	/WVXX100412-08CRI	197 > 167	15.28		1103.634	38026.156	1103.634	14.512	MM	14-Apr-10 09:09:52	42.9637	107.4	7.4	52.5
2-Amino-46-dinitrotoluene	/WVXX100412-08CRI	197 > 180	16.16		1611.644	38026.156	1611.644	21.191	bb		41.3732	103.4	3.4	158.1
246-Trinitrotoluene	/WVXX100412-08CRI	227 > 210	15.10		1563.702	38026.156	1563.702	20.561	bb		47.2628	118.2	18.2	169.3
34-dinitrotoluene	/WVXX100412-08CRI	182 > 152	14.12		1604.344	38026.156	1604.344	21.095	bb		20.4584	102.3	2.3	75.6
26-dinitrotoluene	/WVXX100412-08CRI	182 > 152	17.23		3819.371	38026.156	3819.371	50.220	MM	14-Apr-10 09:12:11	42.4324	106.1	6.1	195.8
24-dinitrotoluene	/WVXX100412-08CRI	182 > 152	17.84		858.314	38026.156	858.314	11.286	MM	14-Apr-10 09:14:59	43.2401	108.1	8.1	43.5
d3 26-dinitrotoluene'	/XXYX100412-08CRI	185 > 155	17.05		38026.156		38026.156	38026.156	bb		543.4920	108.7	8.7	2125.4
2-Nitrotoluene	/XXYX100412-08CRI	137 > 46	20.60		290.400	38026.156	290.400	3.818	bb		44.0987	110.2	10.2	85.6
4-Nitrotoluene	/XXYX100412-08CRI	137 > 46	21.91		127.979	38026.156	127.979	1.683	bb		40.5690	101.4	1.4	45.5
3-Nitrotoluene	/XXYX100412-08CRI	137 > 46	23.55		141.213	38026.156	141.213	1.857	bb		31.8477	79.6	-20.4	45.1
PETN	/XXYX100412-08CRI	361 > 62	23.94		4134.703	38026.156	4134.703	54.367	bb		44.8806	112.2	12.2	1420.3



# 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

*MMT  
4/14/10*

Total 1683.5

Average 105.2

*MMT 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): 10-2137

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
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	
Tetryl	600	547.985	91	
m-Dinitrobenzene	600	597.924	100	
m-Nitrotoluene	600	459.65	77	*
o-Nitrotoluene	600	486.57	81	
p-Nitrotoluene	600	543.675	91	

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



Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412073a

Date: 14-Apr-2010

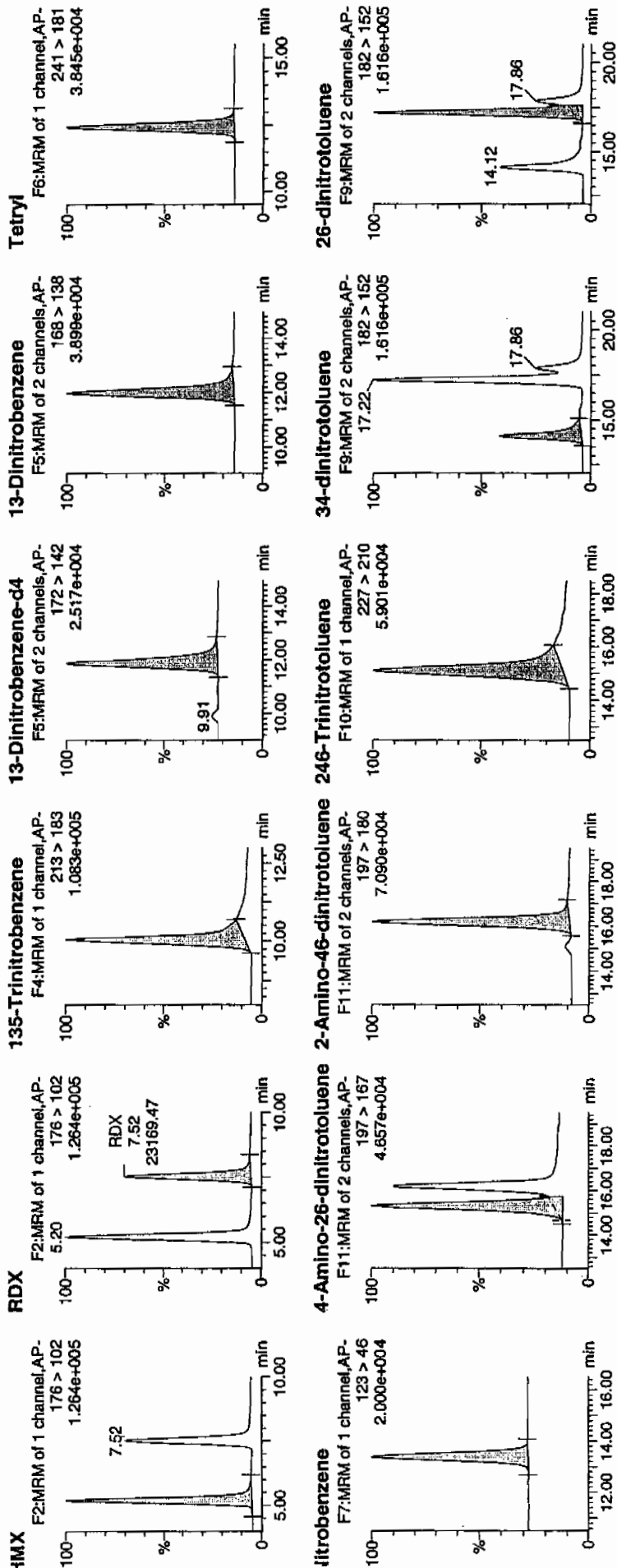
Time: 03:04:45

D: WXX100412-07CCV

Vial: 1:1B

4/14/10

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4/14/10



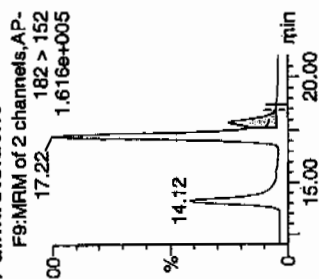
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GEL Laboratories, LLC / Analyst : Michael A. Penny

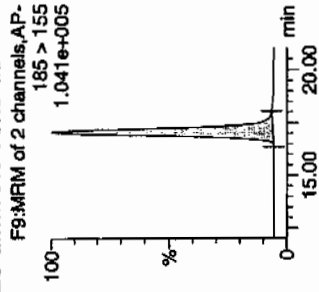
Printed: Wed Apr 14 09:18:04 2010, Page 70 of 75

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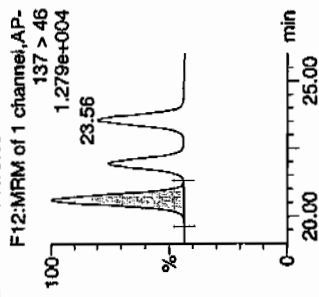
## 24-dinitrotoluene



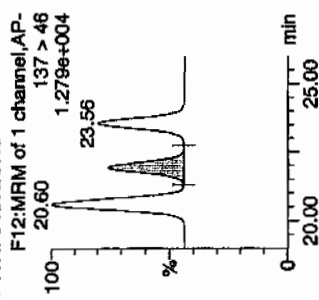
## 26-dinitrotoluene-d3



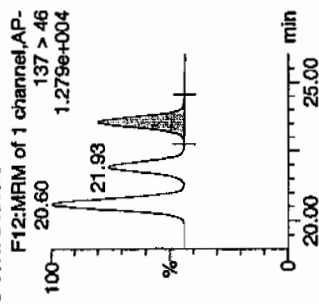
## 2-Nitrotoluene



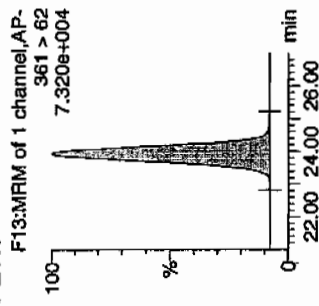
## 4-Nitrotoluene



## 3-Nitrotoluene



## PETN



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Int	Norm	% Rec	Day	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	93.7	-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	7368.023	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	246-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	57366.180	40588.496	57366.180	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

*WXX  
4/14/10*

Total 1507.2

*Ann 04/14/10*

Average 94.2

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): 10-2137

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
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	
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	

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: 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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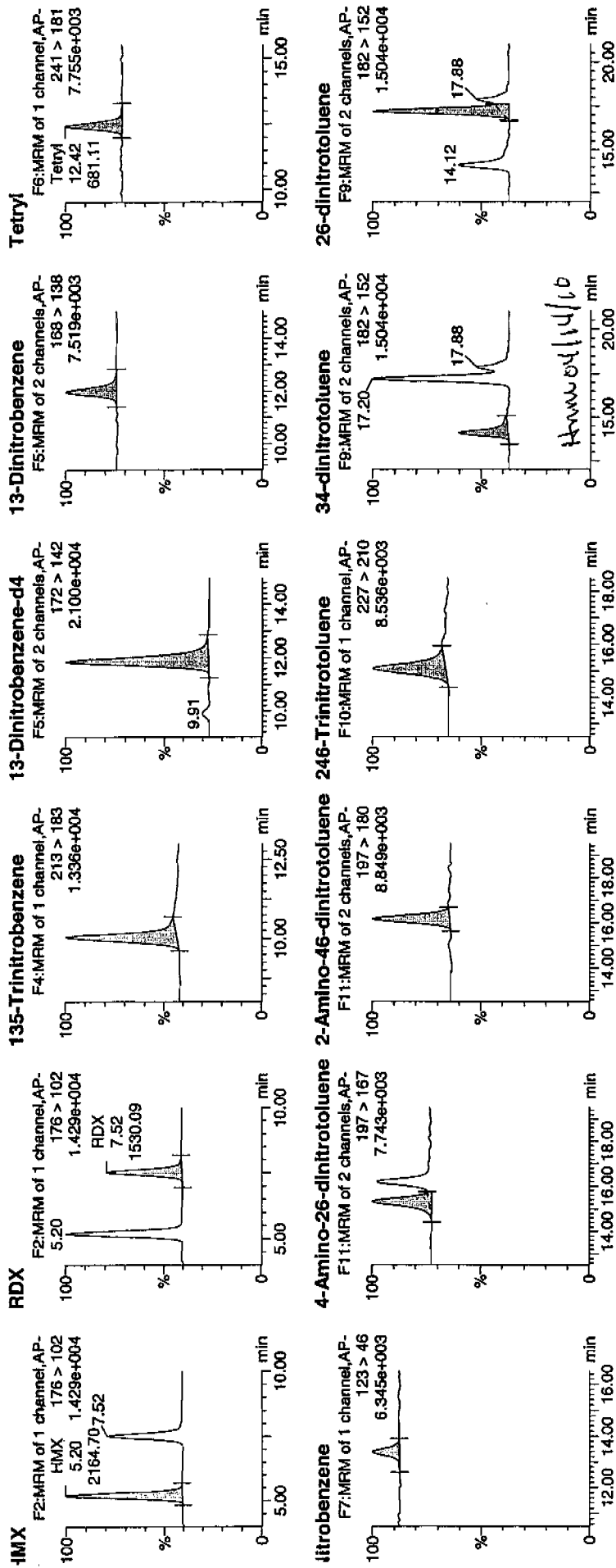
Date: 14-Apr-2010

Time: 04:03:43

D: WXX100412-08CRI

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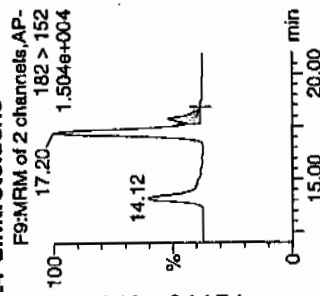
100%  
4/14/10



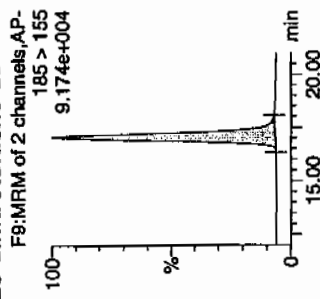


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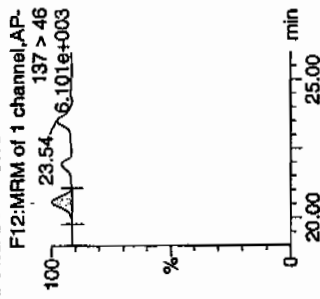
24-dinitrotoluene



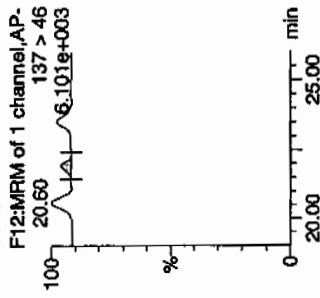
26-dinitrotoluene-d3



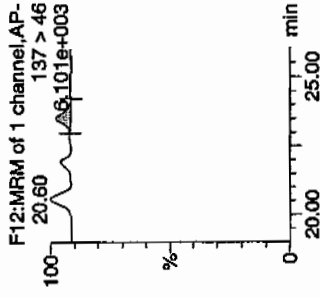
2-Nitrotoluene



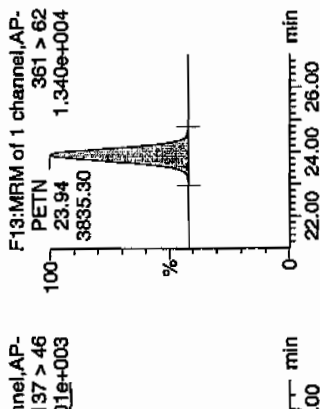
4-Nitrotoluene



3-Nitrotoluene



PETN



DI	Name	Trace	RT	Area	Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Mod User	Mod Sec	Mod Day	Mod Mon	Mod Year
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	5836.638	bb	496.2820	99.3	-0.7	961.4			
NXX100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	682.124	5836.638	682.124	58.435	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

WTF  
4/14/10

Total 1660.9

Average 103.8

ATMIL 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): 10-2137

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



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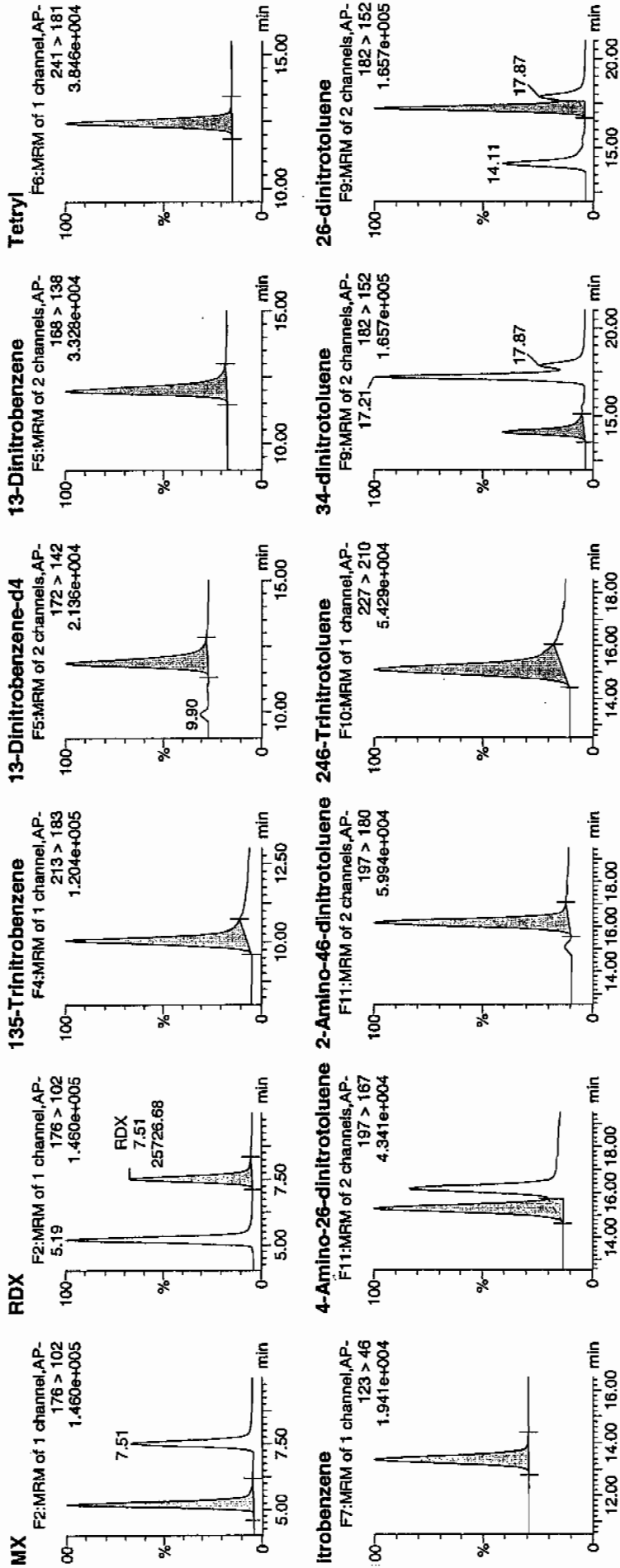
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ime: 09:28:18

>: WXX100412-07CCV

ial: 1:1,B

WRT  
4/15/10

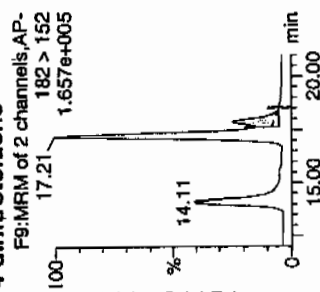


4/15/10

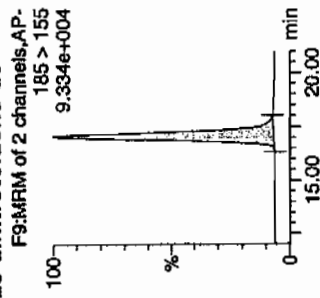


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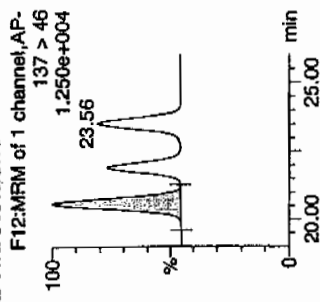
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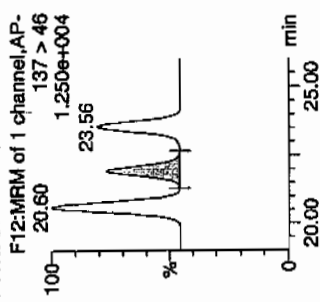
2,6-dinitrotoluene-d3



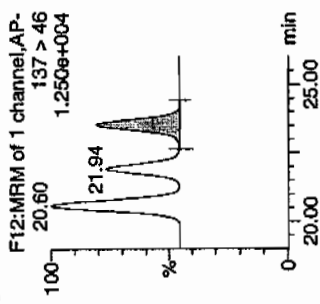
## 2-Nitrotoluene



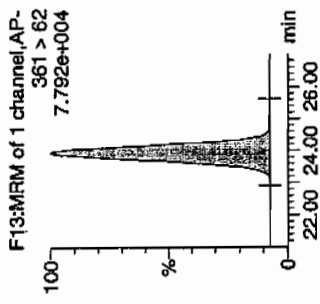
### 4-Nitrotoluene



### 3-Nitrotoluene



**PETN**



Name	Trace	RT	Area	IS Area	Abn Rep	Response	Peak	Mod Date	Mod Time	Int	Area	Conv	ISN
HMX	176 > 102	5.19	36596.680	5925.609	36596.680	3088.010	bb		728.5335	121.4	21.4	5141.8	
RDX	176 > 102	7.51	25726.684	5925.609	25726.684	2170.805	bb		758.4390	126.4	26.4	3364.9	
135-Trinitrobenzene	213 > 183	10.05	32794.504	5925.609	32794.504	2767.184	bb		640.1104	106.7	6.7	351.3	
13-Dinitrobenzene-d4	172 > 142	11.87	5925.609		5925.609	5925.609	bb		503.8471	100.8	0.8	575.0	
13-Dinitrobenzene	168 > 138	11.97	9985.775	5925.609	9985.775	842.595	bb		630.1803	105.0	5.0	1402.5	
Tetryl	241 > 181	12.45	10138.589	5925.609	10138.589	855.489	bb		659.9605	110.0	10.0	994.9	
Nitrobenzene	123 > 46	13.39	4823.688	5925.609	4823.688	407.020	bb		648.8485	108.1	8.1	584.8	
4-Amino-26-dinitrotoluene	197 > 167	15.31	15567.705	36846.086	15587.705	211.253	MM	15-Apr-10	14:32:43	625.4488	104.2	4.2	264.7
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	
246-Trinitrotoluene	227 > 210	15.09	23071.260	36846.086	23071.260	313.076	bb		719.6608	119.9	19.9	213.5	
34-dinitrotoluene	182 > 152	14.11	25759.158	36846.086	25759.158	349.551	bb		338.9985	113.0	13.0	733.1	
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
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
26-dinitrotoluene-d3	185 > 155	17.06	36846.086		36846.086	36846.086	bb		526.6258	105.3	5.3	2600.7	
2-Nitrotoluene	137 > 46	20.60	3249.737	36846.086	3249.737	44.099	bb		509.2935	84.9	-15.1	1231.5	
4-Nitrotoluene	137 > 46	21.94	1738.239	36846.086	1738.239	23.588	bb		568.6642	94.8	-5.2	705.7	
3-Nitrotoluene	137 > 46	23.56	2123.145	36846.086	2123.145	28.811	bb		494.1680	82.4	-17.6	802.7	
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

MAF  
4/15/10

Total 1693.3

47712 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): 10-2137

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
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	
m-Nitrotoluene	40	39.461	99	
o-Nitrotoluene	40	36.318	91	
p-Nitrotoluene	40	34.986	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 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits



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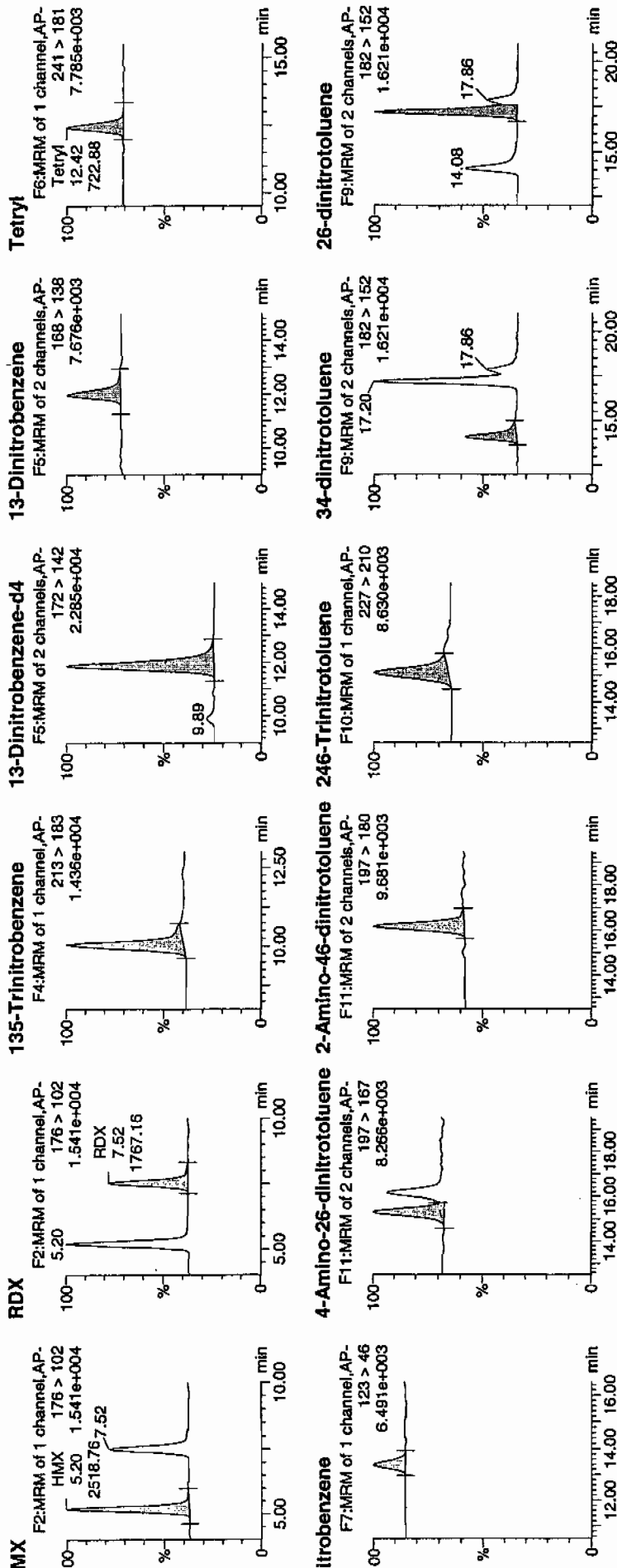
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Acquire Time: 10:27:15

Page 1: WXX100412-08CRI

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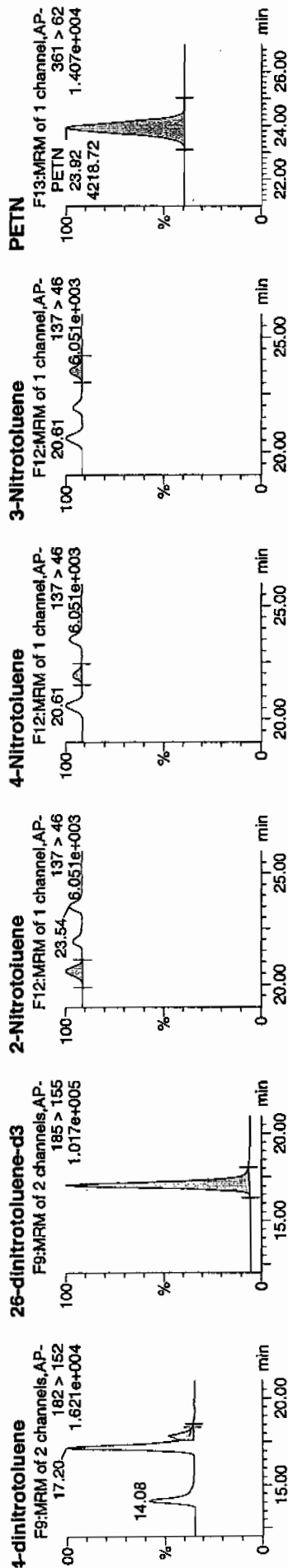
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4/15/10



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4/15/10



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Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Data	Mod Time	Mod Date	%Dev	SN
HMZ	176 > 102	5.20	2518.764	6608.135	2518.764	190.581	bb		44.9624	112.4	12.4	168.1
RDX	176 > 102	7.52	1767.162	6608.135	1767.162	133.711	bb		46.7162	116.8	16.8	107.7
135-Trinitrobenzene	213 > 183	10.05	2588.661	6608.135	2588.661	195.869	bb		45.3089	113.3	13.3	259.5
13-Dinitrobenzene-d4	172 > 142	11.87	6608.135		6608.135	6608.135	bb		561.8815	112.4	12.4	525.5
13-Dinitrobenzene	168 > 138	11.97	775.124	6608.135	775.124	58.649	bb		43.8640	109.7	9.7	102.3
Tetryl	241 > 181	12.42	722.880	6608.135	722.880	54.696	bb		42.1950	105.5	5.5	76.9
Nitrobenzene	123 > 46	13.37	342.945	6608.135	342.945	25.949	bb		41.3659	103.4	3.4	36.3
4-Amino-26-dinitrotoluene	197 > 167	15.29	1117.541	39469.445	1117.541	14.157	MM	15-Apr-10	14:32:49	104.8	4.8	44.4
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
246-Trinitrotoluene	227 > 210	15.10	1356.600	39469.445	1356.600	17.185	bb		39.5038	98.8	-1.2	106.5
34-dinitrotoluene	182 > 152	14.08	1595.757	39469.445	1595.757	20.215	bb		19.6048	98.0	-2.0	27.8
26-dinitrotoluene	182 > 152	17.20	3837.149	39469.445	3837.149	48.609	MM	15-Apr-10	14:39:01	102.7	2.7	77.6
24-dinitrotoluene	182 > 152	17.86	917.556	39469.445	917.556	11.624	MM	15-Apr-10	14:46:47	111.3	11.3	16.1
26-dinitrotoluene-d3	185 > 155	17.05	39469.445		39469.445	39469.445	bb		564.1203	112.8	12.8	3837.3
2-Nitrotoluene	137 > 46	20.61	248.237	39469.445	248.237	3.145	bb		36.3176	90.8	-9.2	34.5
4-Nitrotoluene	137 > 46	21.93	114.557	39469.445	114.557	1.451	bb		34.9863	87.5	-12.5	18.2
3-Nitrotoluene	137 > 46	23.54	181.611	39469.445	181.611	2.301	bb		39.4609	98.7	-1.3	25.6
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:* 4/15/10

Total 1664.5

Average 104.0

*Handwritten:* Harmon 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): 10-2137

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
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	
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	

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



Identify 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

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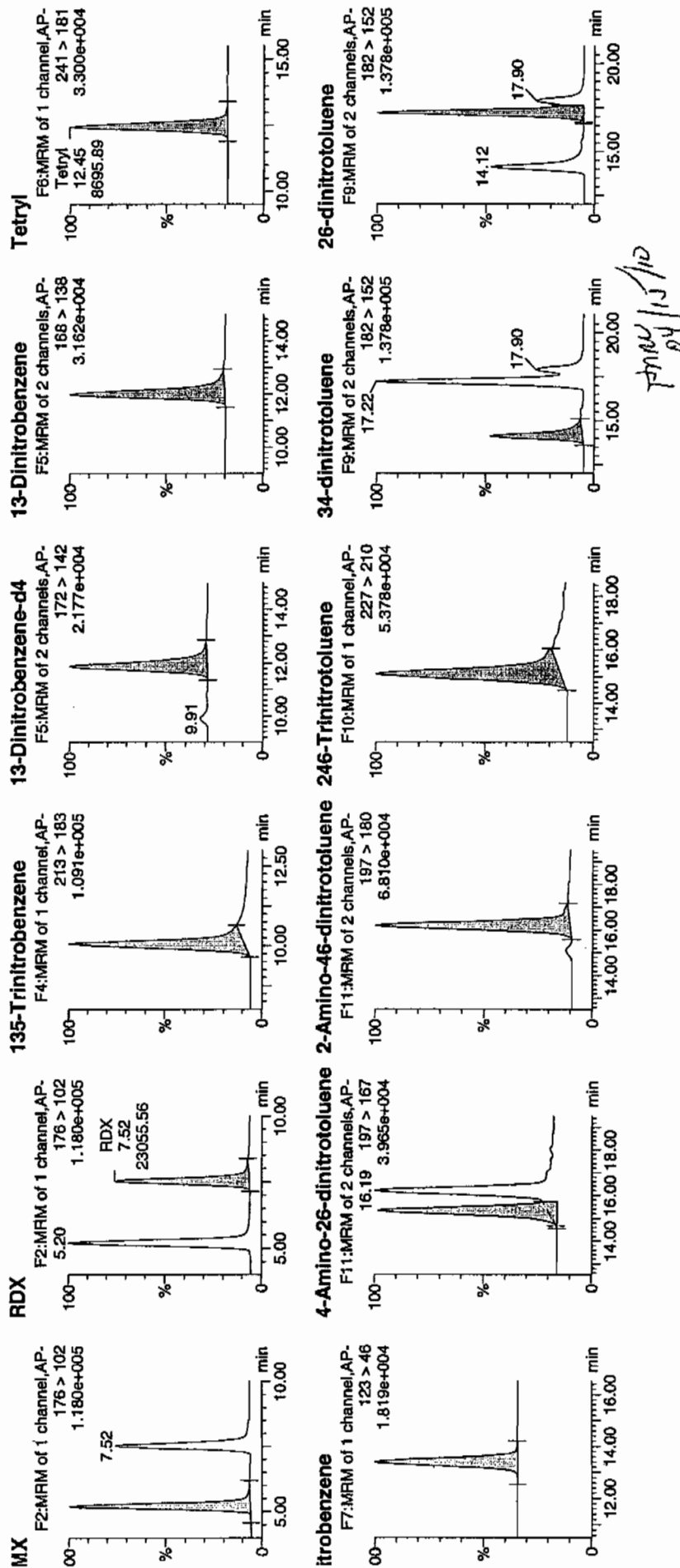
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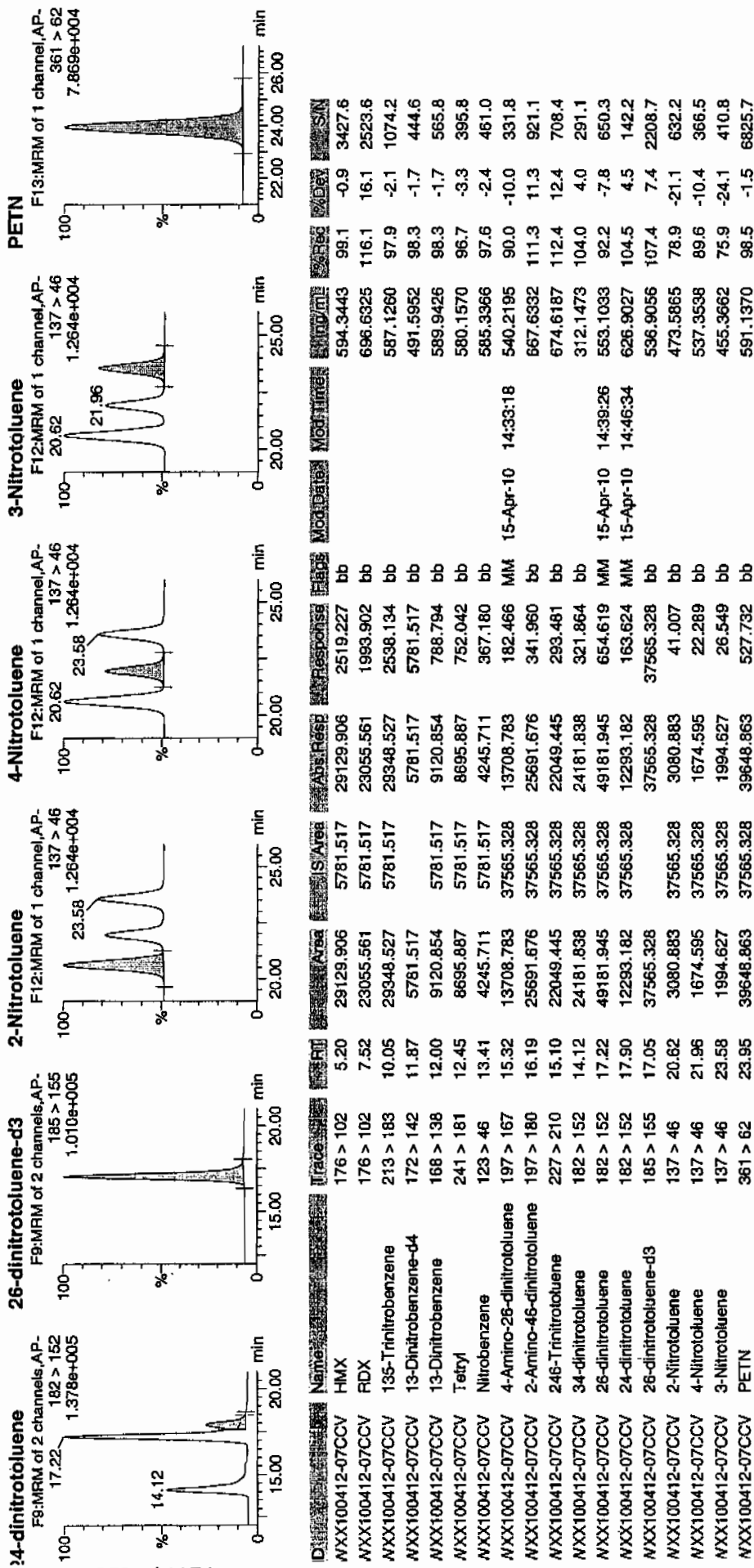
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MT  
4/15/10





Dataset: C:\MASSLYNX\New\_Exp\PROJ041210expA2.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:*  
 4/15/10

Total 1563.0

Average 97.7

*Handwritten:* Home 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): 10-2137

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



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ate: 14-Apr-2010

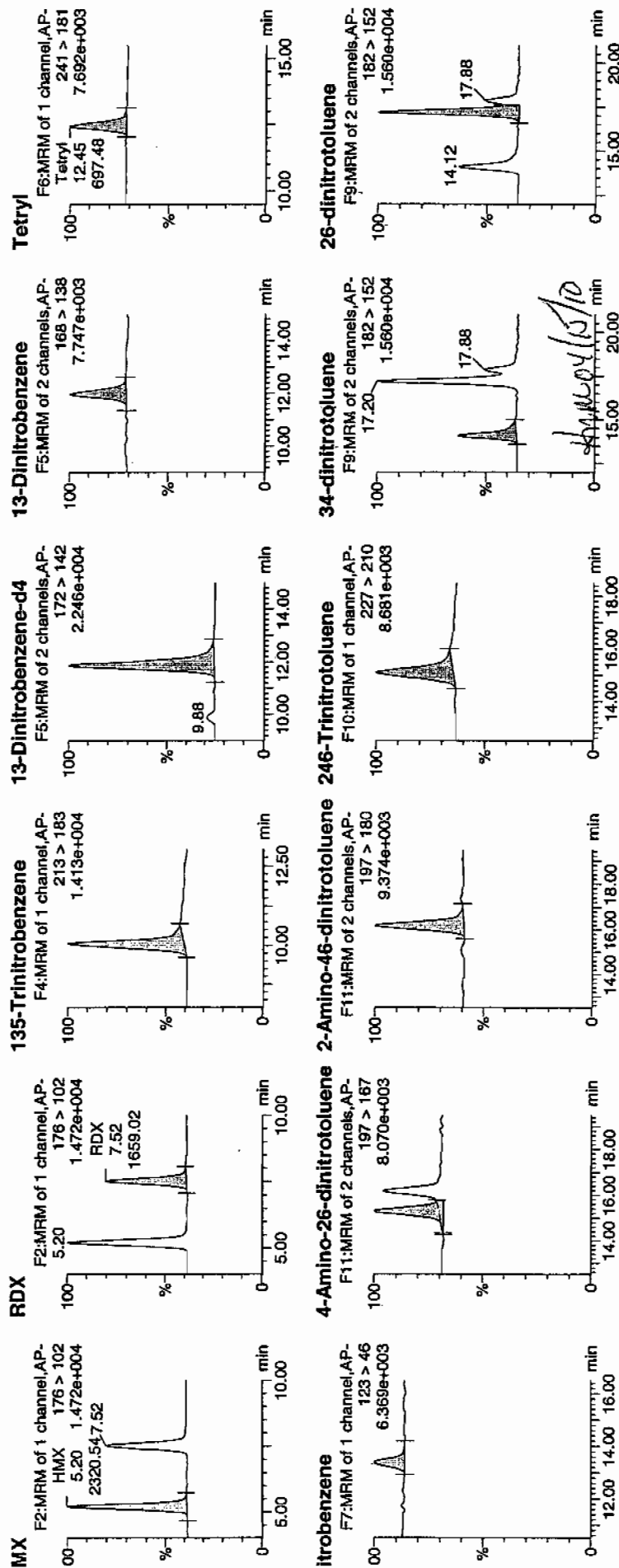
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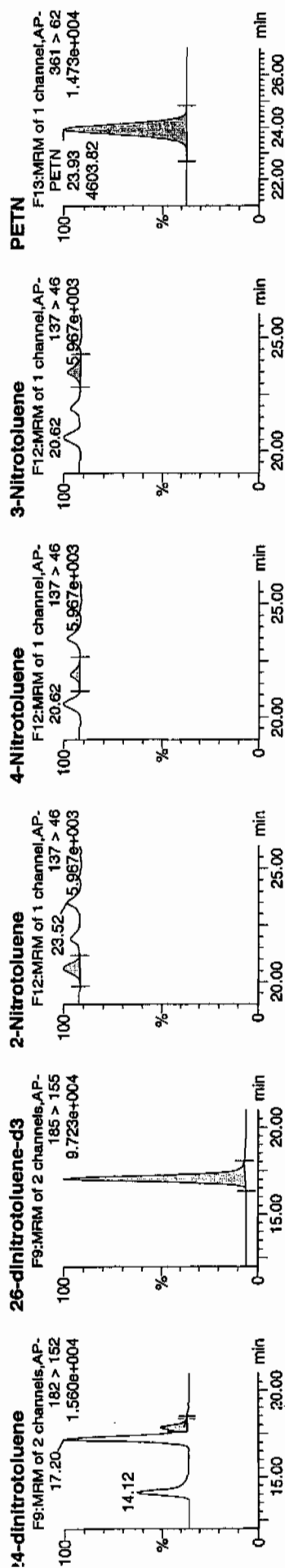
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WAT  
4/15/10

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Name	RT	Area	S Area	Abs. Resp	Response	Flags	ModDate	ModTime	Ynorm	%Res	%Dev	YSN
HMx	176 > 102	5.20	2320.539	6386.701	2320.539	181.670	bb		42.8601	107.2	7.2	262.8
RDX	176 > 102	7.52	1659.023	6386.701	1659.023	129.881	bb		45.3780	113.4	13.4	175.9
135-Trinitrobenzene	213 > 183	10.05	2484.099	6386.701	2484.099	194.474	bb		44.9862	112.5	12.5	388.0
13-Dinitrobenzene-d4	172 > 142	11.87	6386.701		6386.701	6386.701	bb		543.0532	108.6	8.6	950.1
13-Dinitrobenzene	168 > 138	11.97	733.119	6386.701	733.119	57.394	bb		42.9254	107.3	7.3	81.3
Tetryl	241 > 181	12.45	697.482	6386.701	697.482	54.604	bb		42.1240	105.3	5.3	76.5
Nitrobenzene	123 > 46	13.37	329.159	6386.701	329.159	25.769	bb		41.0796	102.7	2.7	40.2
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
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
246-Trinitrotoluene	227 > 210	15.10	1420.421	37768.832	1420.421	18.804	bb		43.2246	108.1	8.1	88.1
34-dinitrotoluene	182 > 152	14.12	1726.544	37768.832	1726.544	22.857	bb		22.1667	110.8	10.8	80.9
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
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
26-dinitrotoluene-d3	185 > 155	17.05	37768.832		37768.832	37768.832	bb		539.8142	108.0	8.0	2120.5
2-Nitrotoluene	137 > 46	20.62	250.264	37768.832	250.264	3.313	bb		38.2627	95.7	-4.3	37.0
4-Nitrotoluene	137 > 46	21.91	137.262	37768.832	137.262	1.817	bb		43.8081	109.5	9.5	21.5
3-Nitrotoluene	137 > 46	23.52	193.866	37768.832	193.866	2.566	bb		44.0204	110.1	10.1	29.9
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

*Handwritten:* 108.5

Total 1735.7

Average 108.5

*Handwritten:* 108.5

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): 10-2137

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
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	
m-Nitrotoluene	600	456.606	76	*
o-Nitrotoluene	600	533.736	89	
p-Nitrotoluene	600	563.245	94	

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



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Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412110a

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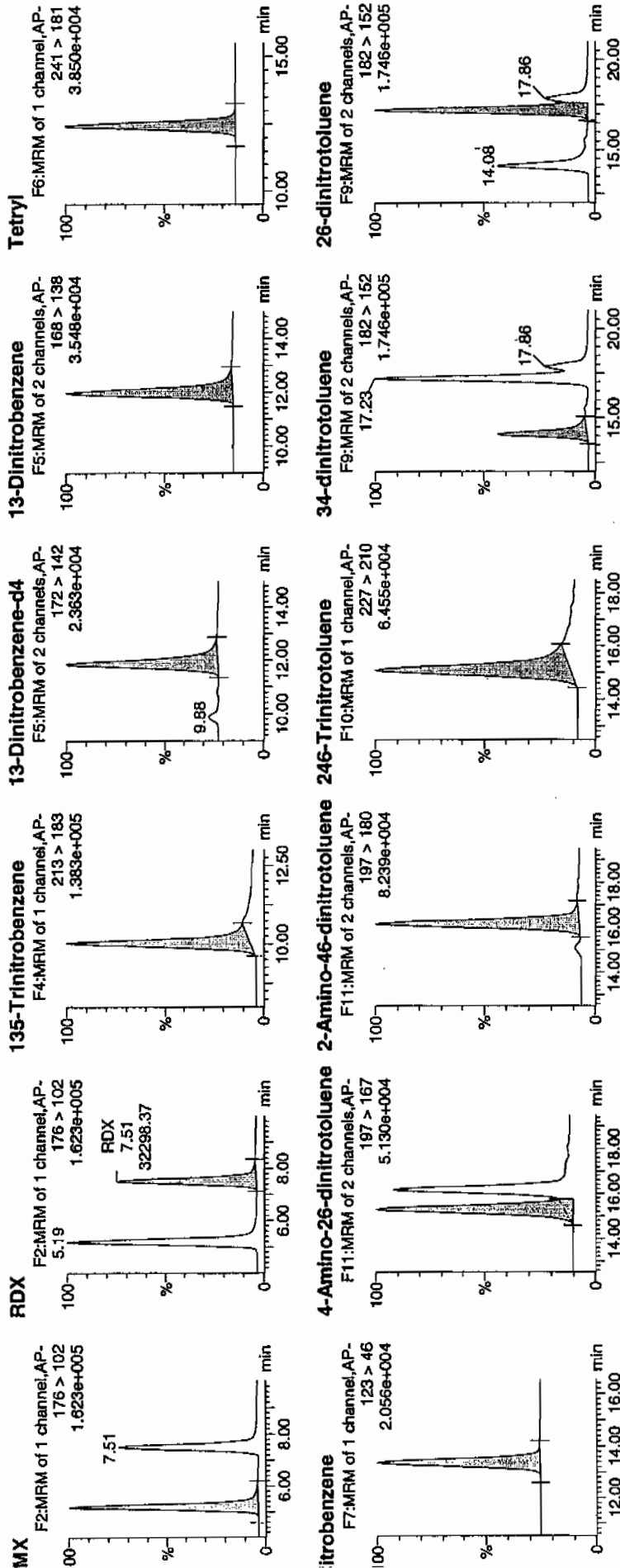
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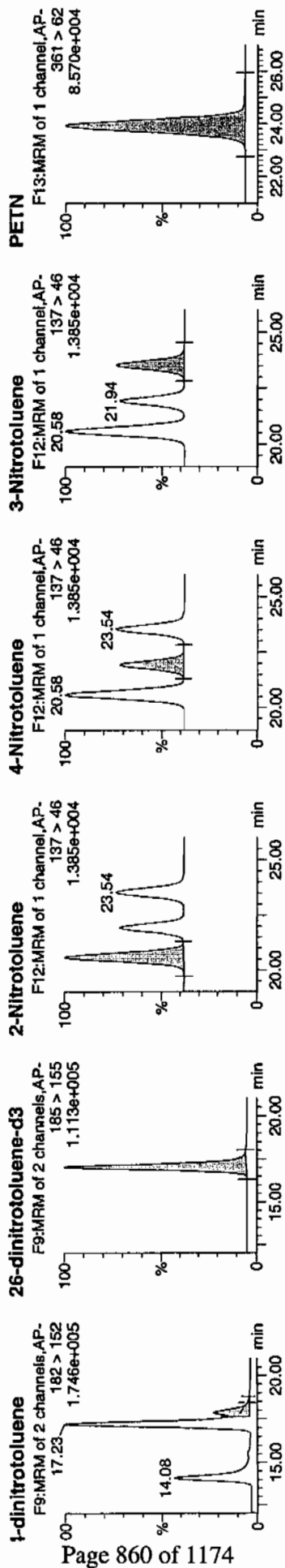
*WAT 4/15/10*

Page 859 of 1174



*WAT 4/15/10*





Name	Trace	RT	Area	Area	Area	Area	Response	Flags	Mod date	Mod time	Mod	Sec	Prob	SN
HMX	176 > 102	5.19	41409.535	6942.459	41409.535	2982.339	bb		703.6033	117.3	17.3	8996.4		
ROX	176 > 102	7.51	32298.371	6942.459	32298.371	2326.148	bb		812.7129	135.5	35.5	6607.2		
135-Trinitrobenzene	213 > 183	10.04	37377.461	6942.459	37377.461	2691.947	bb		622.7063	103.8	3.8	2663.3		
13-Dinitrobenzene-d4	172 > 142	11.84	6942.459		6942.459	6942.459	bb		590.3086	118.1	18.1	545.1		
13-Dinitrobenzene	168 > 138	11.97	10837.637	6942.459	10837.637	780.533	bb		583.7640	97.3	-2.7	452.4		
Tetryl	241 > 181	12.45	10547.282	6942.459	10547.282	759.621	bb		586.0041	97.7	-2.3	739.6		
Nitrobenzene	123 > 46	13.37	5261.153	6942.459	5261.153	378.911	bb		604.0386	100.7	0.7	377.3		
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	
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		
246-Trinitrotoluene	197 > 210	15.10	27905.869	43644.344	27905.869	319.696	bb		734.8784	122.5	22.5	1186.2		
34-dinitrotoluene	182 > 152	14.08	29567.379	43644.344	29567.379	338.731	bb		328.5053	109.5	9.5	608.2		
26-dinitrotoluene	182 > 152	17.23	63645.477	43644.344	63645.477	729.138	MM	15-Apr-10	14:39:56	616.0661	102.7	2.7	1469.8	
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	
26-dinitrotoluene-d3	185 > 155	17.05	43644.344		43644.344	43644.344	bb		623.7904	124.8	24.8	2498.6		
2-Nitrotoluene	137 > 46	20.58	4034.070	43644.344	4034.070	46.215	bb		533.7363	89.0	-11.0	242.6		
4-Nitrotoluene	137 > 46	21.94	2039.331	43644.344	2039.331	23.363	bb		563.2452	93.9	-6.1	130.8		
3-Nitrotoluene	137 > 46	23.54	2323.716	43644.344	2323.716	26.621	bb		456.6058	76.1	-23.9	139.2		
PETN	361 > 62	23.92	44076.492	43644.344	44076.492	504.951	bb		560.8940	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

*not  
4/15/10*

Total 1670.5

Average 104.4

*done 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): 10-2137

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
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	
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	

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



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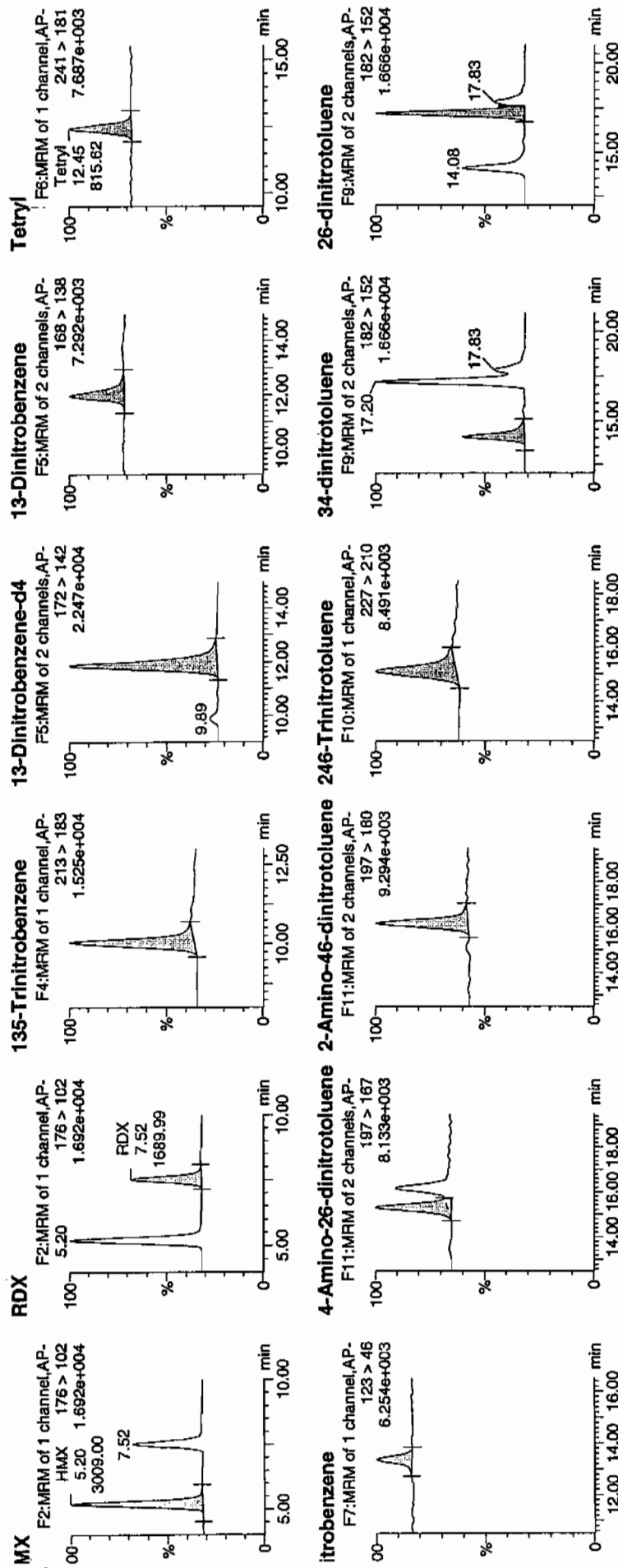
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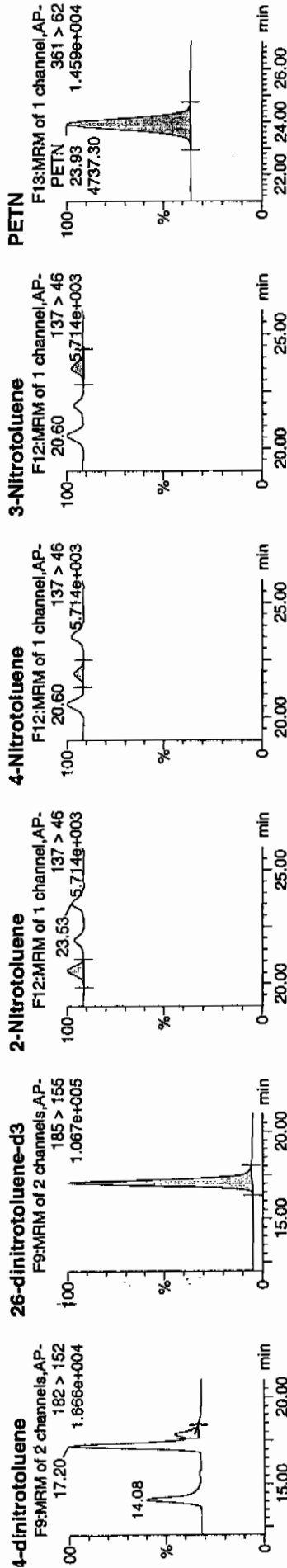
Amir



4/15/10



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Name	Trace	RT	Area	S:Area	Abs:Resp	Response	Flags	Mod:Date	Mod:Time	%Rec	Area	SN
4-dinitrotoluene	176 > 102	5.20	3008.998	6694.257	3008.998	224.745	bb			53.0225	132.6	341.7
26-dinitrotoluene-d3	176 > 102	7.52	1689.986	6694.257	1689.986	126.227	bb			44.1012	110.3	179.6
2-Nitrotoluene	213 > 183	10.06	2925.460	6694.257	2925.460	218.505	bb			50.5450	126.4	401.0
4-Nitrotoluene	172 > 142	11.87	6694.257	6694.257	6694.257	6694.257	bb			569.2043	113.8	934.1
3-Nitrotoluene	168 > 138	11.97	780.833	6694.257	780.833	58.321	bb			43.6186	109.0	42.5
PETN	241 > 181	12.45	815.616	6694.257	815.616	60.919	bb			46.9956	117.5	56.1
	123 > 46	13.37	339.236	6694.257	339.236	25.338	bb			40.3921	101.0	33.7
	197 > 167	15.29	1137.767	41625.012	1137.767	13.667	MM	15-Apr-10	14:33:52	40.4629	101.2	1.2
	197 > 180	16.16	1642.879	41625.012	1642.879	19.734	bb			38.5287	96.3	-3.7
	227 > 210	15.11	1517.791	41625.012	1517.791	18.232	bb			41.9088	104.8	83.3
	182 > 152	14.08	2031.087	41625.012	2031.087	24.397	bb			23.6609	118.3	72.8
	182 > 152	17.20	4134.027	41625.012	4134.027	49.658	MM	15-Apr-10	14:40:05	41.9572	104.9	4.9
	182 > 152	17.83	864.924	41625.012	864.924	10.389	MM	15-Apr-10	14:45:45	39.8058	99.5	-0.5
	185 > 155	17.07	41625.012	41625.012	41625.012	41625.012	bb			594.9290	119.0	2267.7
	137 > 46	20.60	232.688	41625.012	232.688	2.795	bb			32.2798	80.7	-19.3
	137 > 46	21.93	123.380	41625.012	123.380	1.482	bb			35.7296	89.3	-10.7
	137 > 46	23.53	196.334	41625.012	196.334	2.358	bb			40.4508	101.1	1.1
	361 > 62	23.93	4737.299	41625.012	4737.299	56.904	bb			47.4540	118.6	18.6
												2105.4



# 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

1177  
4/15/10

Total 1711.5

Average 107.0

*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): 10-2137

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

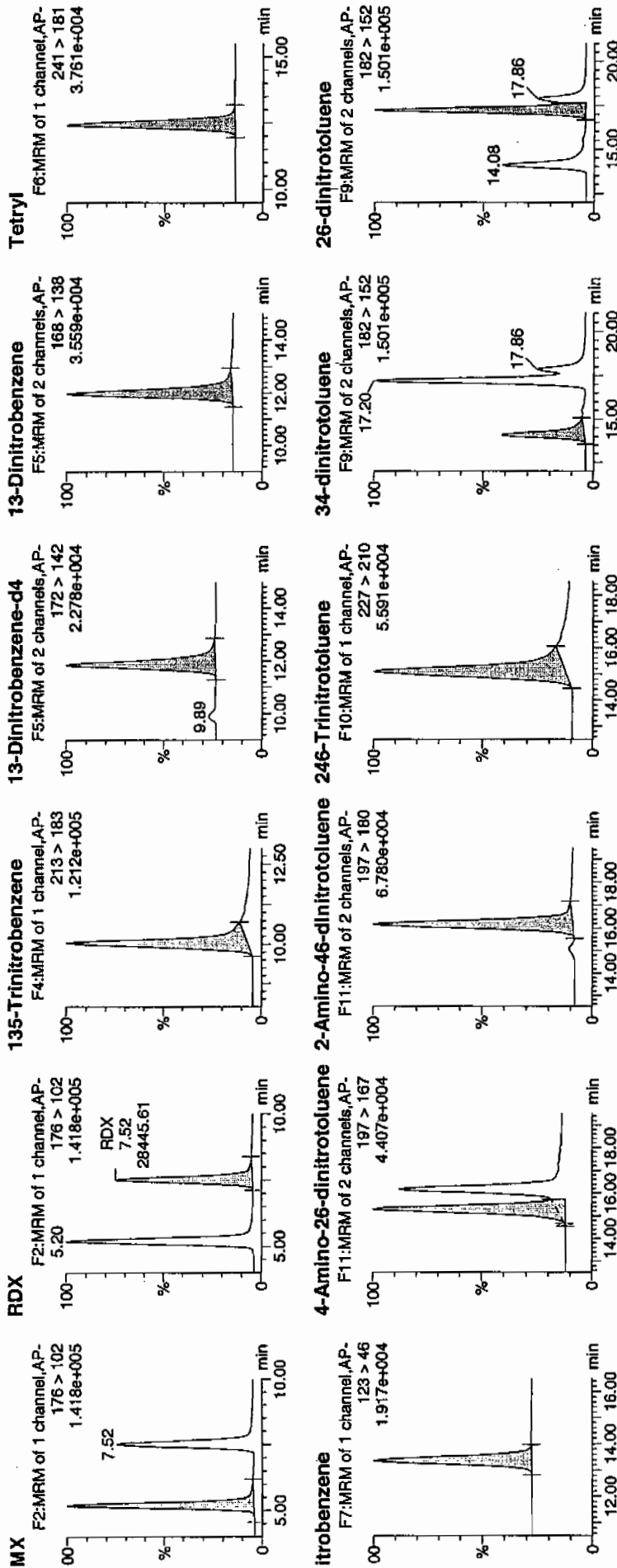
Date: 15-Apr-2010

Time: 03:39:53

File: WXX100412-07CCV

Ratio: 1:1,B

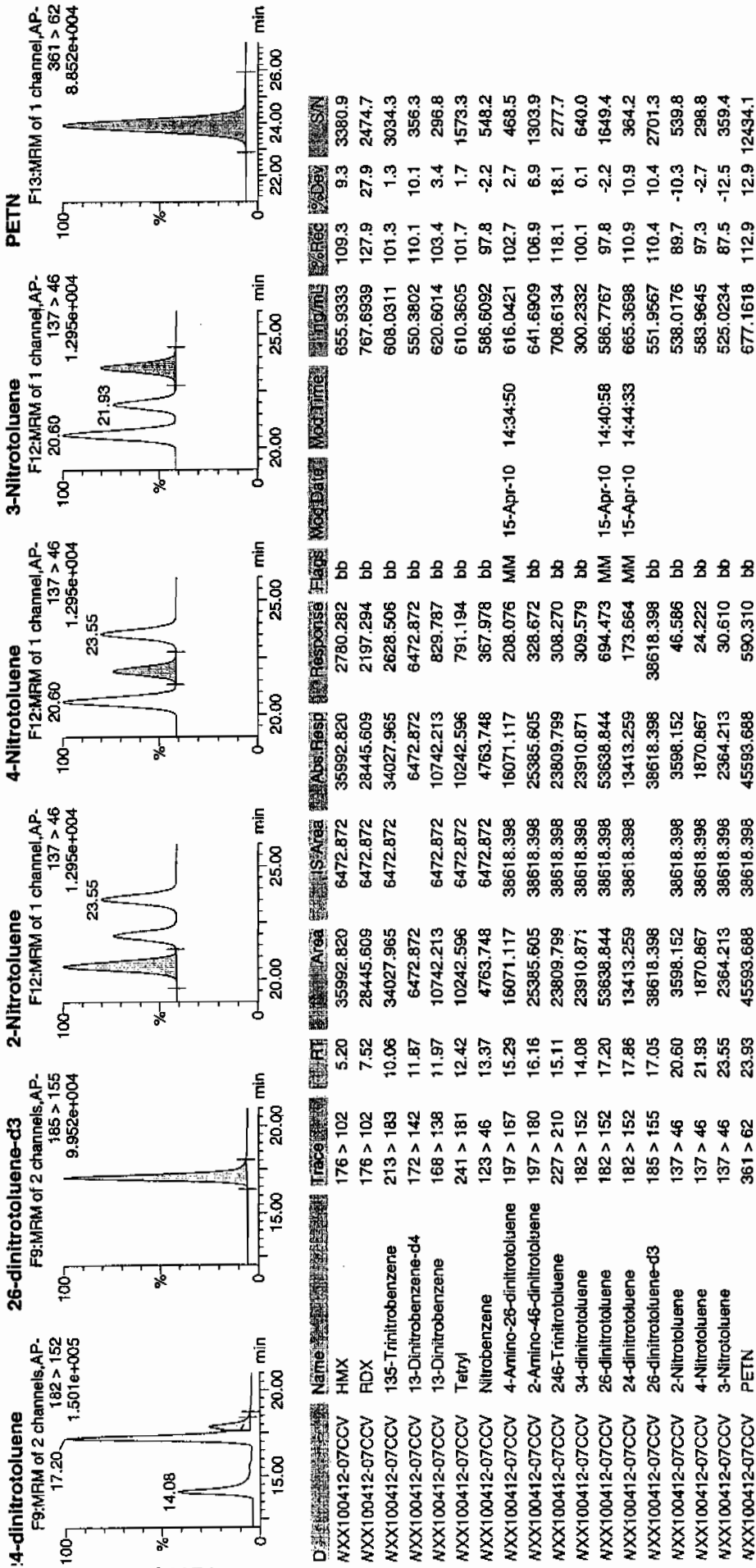
4/15/10



4/15/10



Dataset: C:\WASSLYN\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

Total 1665.3

Average 104.1

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): 10-2137

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

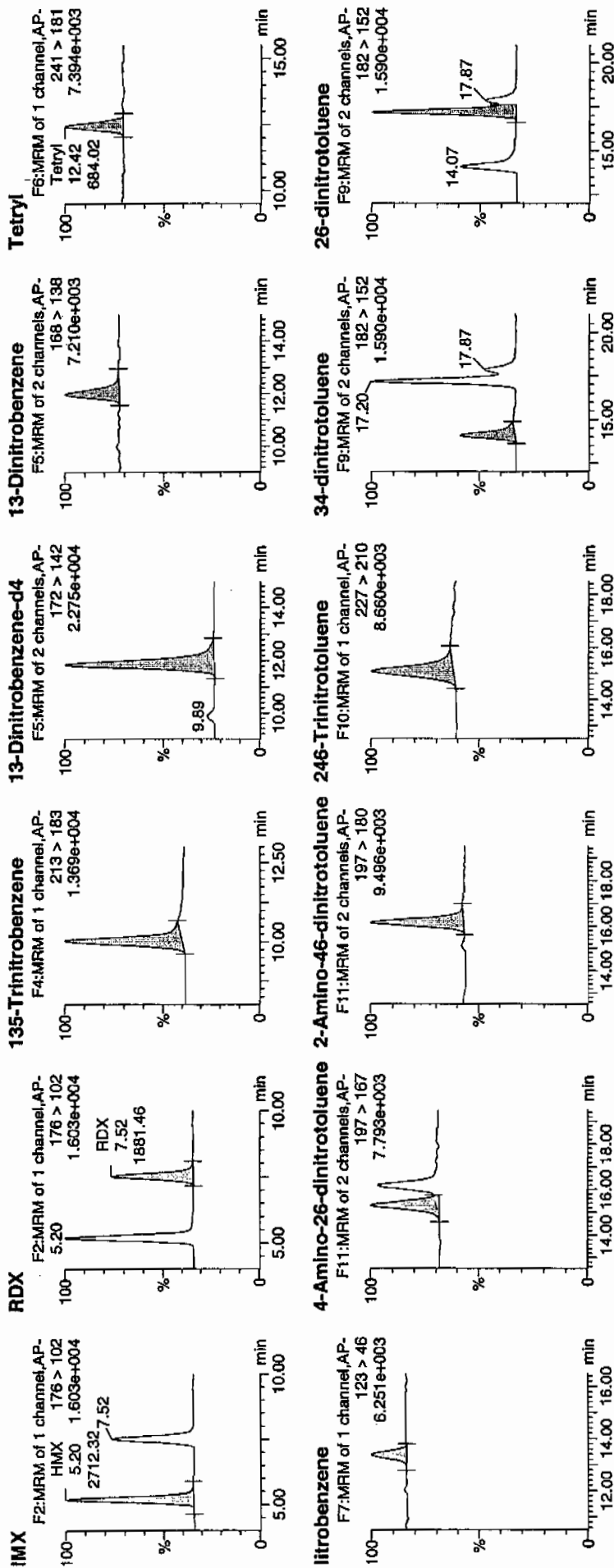
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Time: 04:38:55

Job: WXX100412-08CRI

Label: 1:1,C

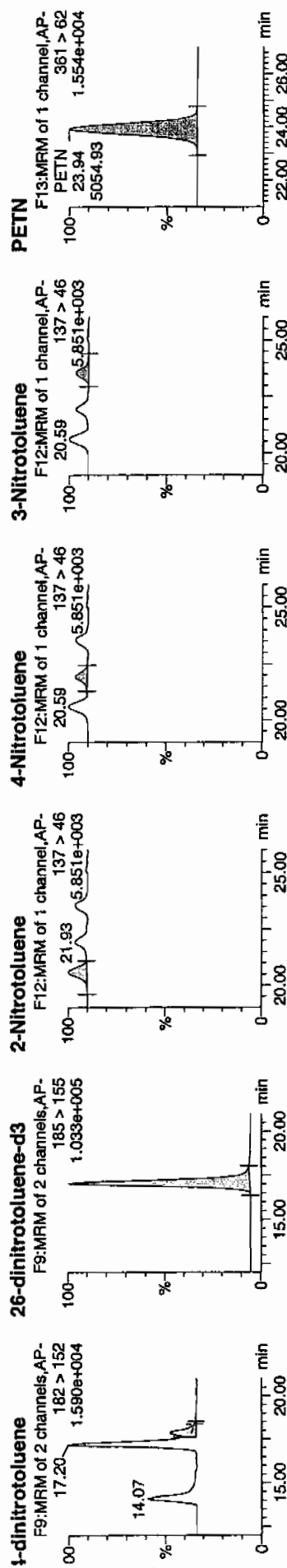
10/15/10



10/15/10



atset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



Name	Trace	RT	Area	IS Area	Abs:Resp	Flags	Mod:Time	Mod:Date	%Rec	%Dev	ISN	
/XX100412-08CRI	HMX	176 > 102	5.20	2712.320	6637.863	2712.320	204.307	bb	48.2007	120.5	20.5	522.9
/XX100412-08CRI	RD	176 > 102	7.52	1881.459	6637.863	1881.459	141.722	bb	49.5149	123.8	23.8	334.7
/XX100412-08CRI	135-Trinitrobenzene	213 > 183	10.06	2480.006	6637.863	2480.006	186.808	bb	43.2127	108.0	8.0	276.9
/XX100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6637.863	6637.863	6637.863	6637.863	bb	564.4092	112.9	12.9	521.3
/XX100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	716.740	6637.863	716.740	53.989	bb	40.3784	100.9	0.9	73.2
/XX100412-08CRI	Tetryl	241 > 181	12.42	684.017	6637.863	684.017	51.524	bb	39.7477	99.4	-0.6	81.6
/XX100412-08CRI	Nitrobenzene	123 > 46	13.40	339.842	6637.863	339.842	25.599	bb	40.8080	102.0	2.0	40.0
/XX100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.31	1069.130	40122.352	1069.130	13.323	MM	15-Apr-10	14:35:03	-1.4	34.8
/XX100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.15	1634.844	40122.352	1634.844	20.373	bb	39.7761	99.4	-0.6	97.1
/XX100412-08CRI	246-Trinitrotoluene	227 > 210	15.10	1580.818	40122.352	1580.818	19.700	bb	45.2839	113.2	13.2	112.4
/XX100412-08CRI	34-dinitrotoluene	182 > 152	14.07	1710.958	40122.352	1710.958	21.322	bb	20.6781	103.4	3.4	45.5
/XX100412-08CRI	26-dinitrotoluene	182 > 152	17.20	3838.616	40122.352	3838.616	47.836	MM	40.4181	101.0	1.0	119.0
/XX100412-08CRI	24-dinitrotoluene	182 > 152	17.87	969.351	40122.352	969.351	12.080	MM	46.2826	115.7	15.7	24.8
/XX100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.04	40122.352	40122.352	40122.352	40122.352	bb	573.4521	114.7	14.7	3832.5
/XX100412-08CRI	2-Nitrotoluene	137 > 46	20.59	283.899	40122.352	283.899	3.538	bb	40.8591	102.1	2.1	47.0
/XX100412-08CRI	4-Nitrotoluene	137 > 46	21.93	154.352	40122.352	154.352	1.924	bb	46.3728	115.9	15.9	28.5
/XX100412-08CRI	3-Nitrotoluene	137 > 46	23.57	195.733	40122.352	195.733	2.439	bb	41.8373	104.6	4.6	30.6
/XX100412-08CRI	PETN	361 > 62	23.94	5054.932	40122.352	5054.932	62.994	bb	53.6409	134.1	34.1	237.2



# 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

*Handwritten:* 4/15/10

Total 1742.6

Average 108.9

*Handwritten:* Hmx 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): 10-2137

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
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	
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	

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

File: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0412135a

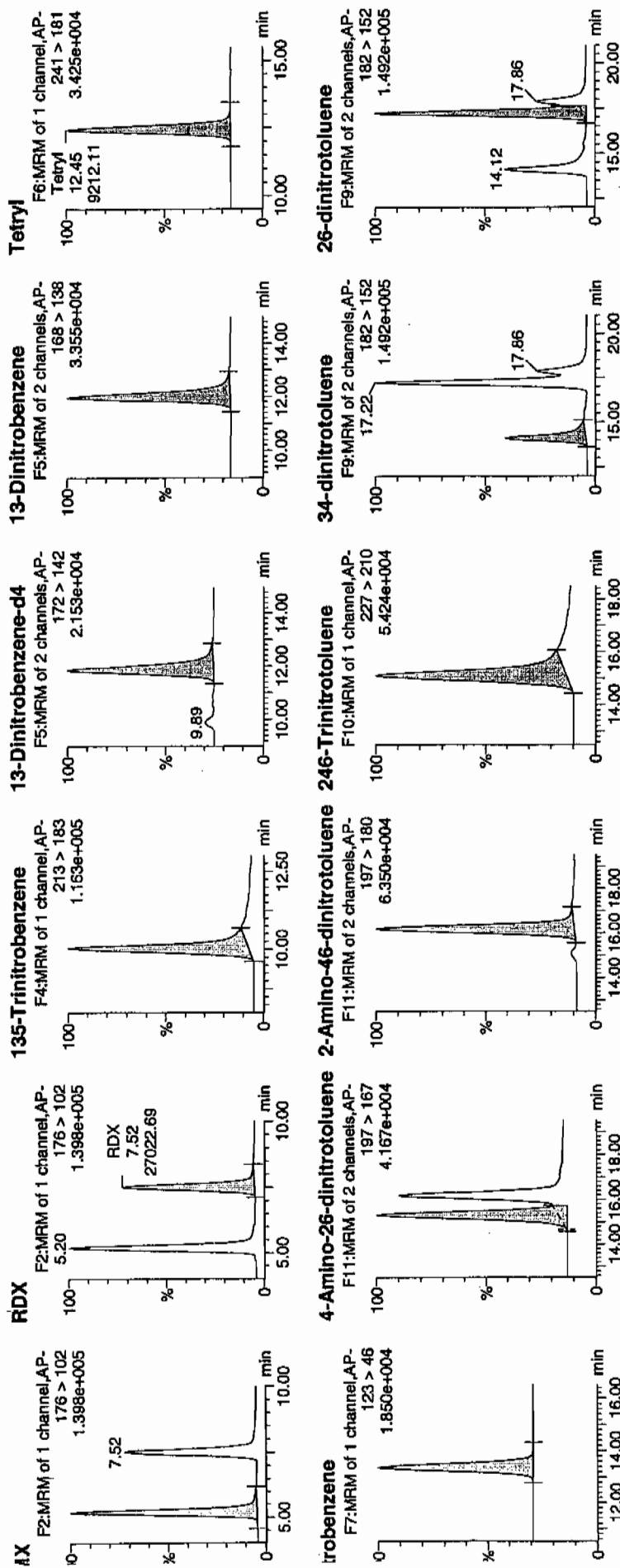
Date: 15-Apr-2010

Time: 09:33:59

Sample: WXX100412-07CCV

Injection: 1:1,B

*WXX  
4/15/10*



*WXX  
4/15/10*

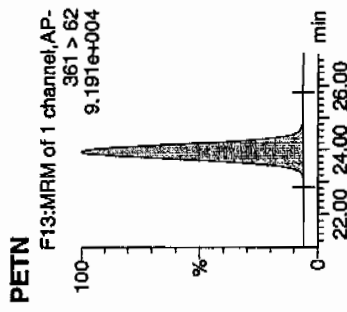
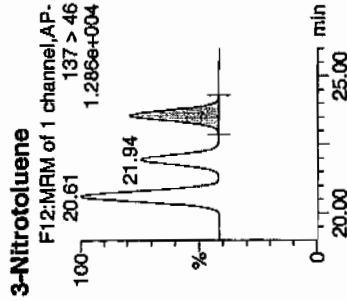
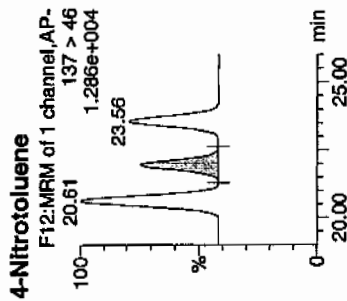
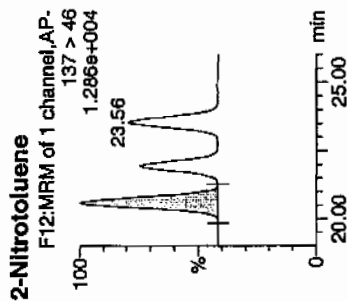
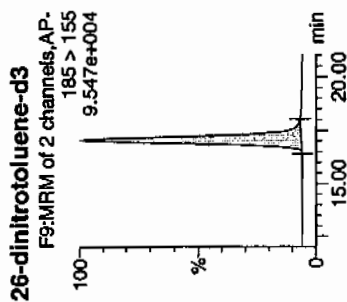
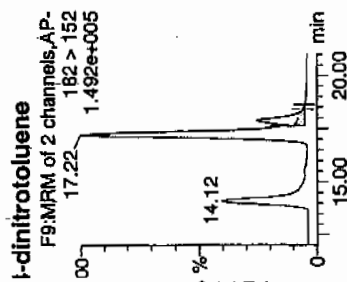


# Quantify Sample Report

EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 120 of 137

atlaset: C:\MASSLYNX\New\_Exp\PRO1041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod time	Conc	%Dev	SN	
XX100412-07CCV	HMV	176 > 102	5.20	35561.566	6121.390	35561.566	2904.697	bb		685.2857	114.2	14.2	2306.0
XX100412-07CCV	RDX	176 > 102	7.52	27022.688	6121.390	27022.688	2207.235	bb		771.1669	128.5	28.5	1629.3
XX100412-07CCV	135-Trinitrobenzene	213 > 183	10.05	32627.703	6121.390	32627.703	2665.057	bb		616.4861	102.7	2.7	662.1
XX100412-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	6121.390		6121.390	6121.390	bb		520.4942	104.1	4.1	470.8
XX100412-07CCV	13-Dinitrobenzene	168 > 138	11.97	10089.047	6121.390	10089.047	824.081	bb		616.3340	102.7	2.7	789.1
XX100412-07CCV	Tetryl	241 > 181	12.45	9212.110	6121.390	9212.110	752.452	bb		580.4736	96.7	-3.3	1211.9
XX100412-07CCV	Nitrobenzene	123 > 46	13.37	4599.666	6121.390	4599.666	375.704	bb		598.9262	99.8	-0.2	515.2
XX100412-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.32	15152.262	36754.547	15152.262	206.128	MM	15-Apr-10	610.2741	101.7	1.7	565.2
XX100412-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.16	23684.473	36754.547	23684.473	322.198	bb		629.0502	104.8	4.8	1009.4
XX100412-07CCV	246-Trinitrotoluene	227 > 210	15.11	23013.285	36754.547	23013.285	313.067	bb		719.8402	119.9	19.9	2356.1
XX100412-07CCV	34-dinitrotoluene	182 > 152	14.12	22595.447	36754.547	22595.447	307.383	bb		298.1037	99.4	-0.6	643.9
XX100412-07CCV	26-dinitrotoluene	182 > 152	17.22	52587.668	36754.547	52587.668	715.390	MM	15-Apr-10	604.4503	100.7	0.7	1707.0
XX100412-07CCV	24-dinitrotoluene	182 > 152	17.86	12410.844	36754.547	12410.844	168.834	MM	15-Apr-10	646.8644	107.8	7.8	367.8
XX100412-07CCV	26-dinitrotoluene-d3	185 > 155	17.05	36754.547	36754.547	36754.547	36754.547	bb		525.3174	105.1	5.1	1487.8
XX100412-07CCV	2-Nitrotoluene	137 > 46	20.61	3560.446	36754.547	3560.446	48.435	bb		559.3770	93.2	-6.8	220.2
XX100412-07CCV	4-Nitrotoluene	137 > 46	21.94	1848.077	36754.547	1848.077	25.141	bb		606.1034	101.0	1.0	123.0
XX100412-07CCV	3-Nitrotoluene	137 > 46	23.56	2258.185	36754.547	2258.185	30.720	bb		526.9080	87.8	-12.2	140.5
XX100412-07CCV	PETN	361 > 62	23.95	47413.527	36754.547	47413.527	645.002	bb		756.2985	126.0	26.0	11220.6



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  
4/15/10*

Total 1686.9

Average 105.4

*WXX 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): 10-2137

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



# Identify Sample Report

EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 123 of 137

Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

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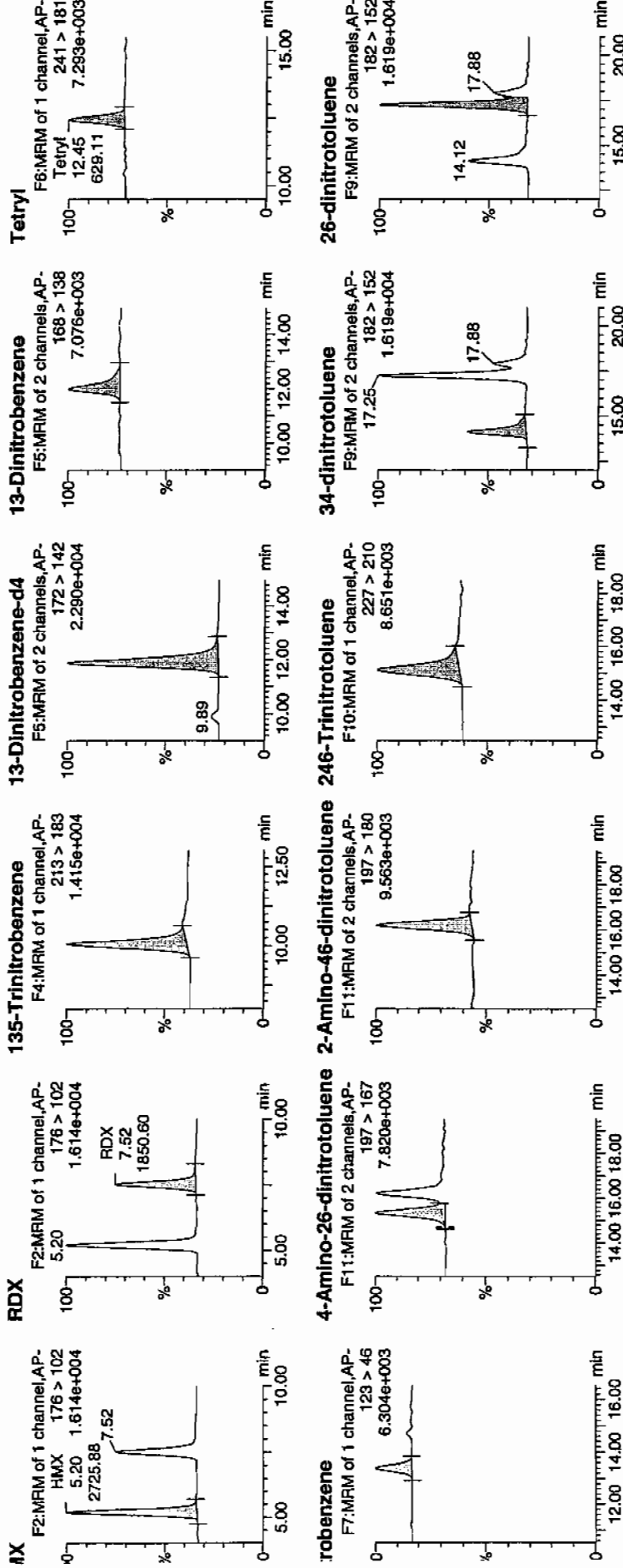
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Time: 10:33:01

Page: WXX100412-08CRI

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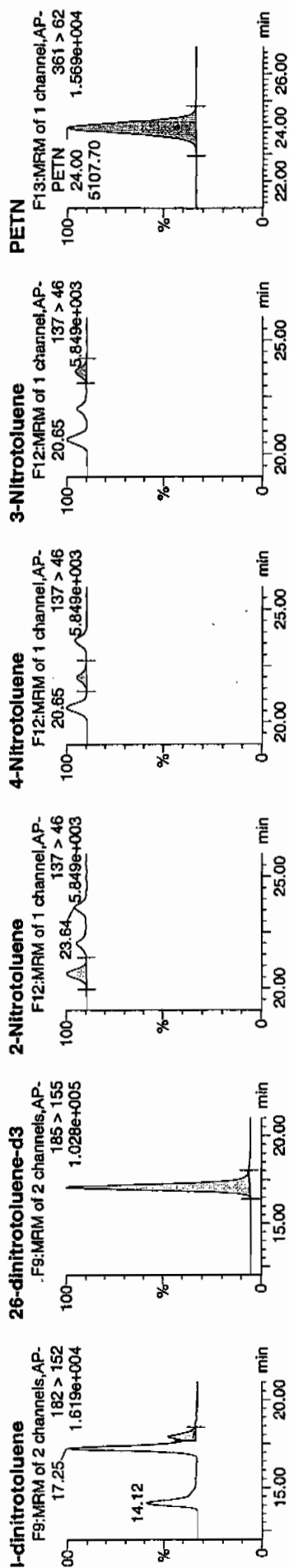
AP  
11/15/10



AP  
04/15/10



atset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



Name	Trace	RT	Area	ISV Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Int Time	%Rec	%Dev	ISIN
XX100412-08CRI	176 > 102	5.20	2725.878	6636.648	2725.878	205.366	bb			48.4505	121.1	21.1	288.6
XX100412-08CRI	176 > 102	7.52	1850.595	6636.648	1850.595	139.422	bb			48.7116	121.8	21.8	177.2
XX100412-08CRI	213 > 183	10.05	2572.424	6636.648	2572.424	193.804	bb			44.8312	112.1	12.1	55.1
XX100412-08CRI	172 > 142	11.87	6636.648	6636.648	6636.648	6636.648	bb			564.3059	112.9	12.9	507.2
XX100412-08CRI	168 > 138	12.00	731.096	6636.648	731.096	55.080	bb			41.1947	103.0	3.0	42.3
XX100412-08CRI	241 > 181	12.45	629.112	6636.648	629.112	47.397	bb			36.5639	91.4	-8.6	67.4
XX100412-08CRI	123 > 46	13.37	356.051	6636.648	356.051	26.825	bb			42.7622	106.9	6.9	29.8
XX100412-08CRI	197 > 167	15.32	1041.444	39936.227	1041.444	13.039	MM	15-Apr-10	14:35:28	38.6036	96.5	-3.5	61.7
XX100412-08CRI	197 > 180	16.19	1692.963	39936.227	1692.963	21.196	bb			41.3822	103.5	3.5	83.9
XX100412-08CRI	227 > 210	15.11	1567.852	39936.227	1567.852	19.629	bb			45.1217	112.8	12.8	116.8
XX100412-08CRI	182 > 152	14.12	1825.399	39936.227	1825.399	22.854	bb			22.1640	110.8	10.8	60.4
XX100412-08CRI	182 > 152	17.25	3900.405	39936.227	3900.405	48.833	MM	15-Apr-10	14:41:32	41.2601	103.2	3.2	155.3
XX100412-08CRI	182 > 152	17.88	884.425	39936.227	884.425	11.073	MM	15-Apr-10	14:43:59	42.4245	106.1	6.1	32.8
XX100412-08CRI	185 > 155	17.09	39936.227	39936.227	39936.227	39936.227	bb			570.7919	114.2	14.2	3686.8
XX100412-08CRI	137 > 46	20.65	289.533	39936.227	289.533	3.625	bb			41.8642	104.7	4.7	22.9
XX100412-08CRI	137 > 46	22.00	133.481	39936.227	133.481	1.671	bb			40.2893	100.7	0.7	10.8
XX100412-08CRI	137 > 46	23.64	150.063	39936.227	150.063	1.879	bb			32.2250	80.6	-19.4	12.6
XX100412-08CRI	361 > 62	24.00	5107.696	39936.227	5107.696	63.948	bb			54.6119	136.5	36.5	1627.1



# 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

*with  
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): 10-2137

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
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	
p-Nitrotoluene	600	554.035	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\EXP0412141a

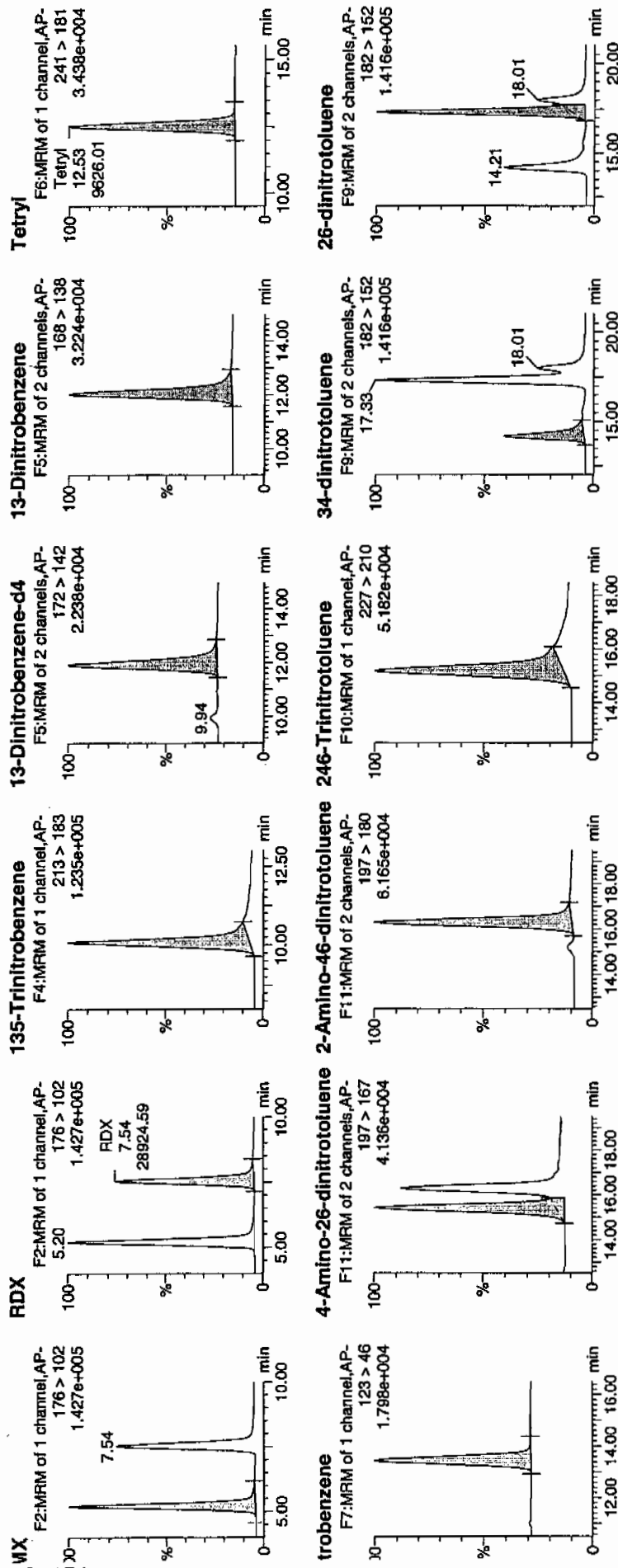
Date: 15-Apr-2010

Time: 12:31:08

Page: WXX100415-07CCV

Label: 1:1,B

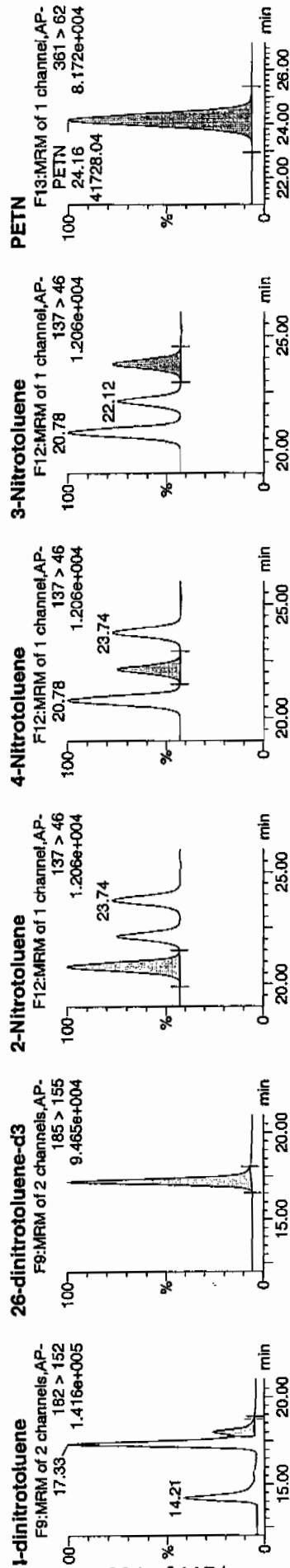
4/15/10



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 Date	Mod Time	Area/mg	%Rec	%Dev	SN
XX100415-07CCV HMX	176 > 102	5.20	35898.910	6451.035	35898.910	2782.415	bb			656.4365	109.4	9.4	1457.7
XX100415-07CCV RDX	176 > 102	7.54	28924.590	6451.035	28924.590	2241.857	bb			783.2631	130.5	30.5	1091.6
135-Trinitrobenzene	213 > 183	10.09	33493.820	6451.035	33493.820	2596.004	bb			600.5126	100.1	0.1	1417.2
13-Dinitrobenzene-d4	172 > 142	11.92	6451.035		6451.035	6451.035	bb			548.5235	109.7	9.7	687.7
13-Dinitrobenzene	168 > 138	12.03	9801.255	6451.035	9801.255	759.665	bb			568.1569	94.7	-5.3	438.9
XX100415-07CCV Tetra	241 > 181	12.53	9626.014	6451.035	9626.014	746.083	bb			575.5599	95.9	-4.1	792.1
XX100415-07CCV Nitrobenzene	123 > 46	13.45	4490.959	6451.035	4490.959	348.081	bb			554.8898	92.5	-7.5	326.7
XX100415-07CCV 4-Amino-26-dinitrotoluene	197 > 167	15.42	14769.355	36231.711	14769.355	203.818	MM	15-Apr-10	14:35:48	603.4360	100.6	0.6	699.4
XX100415-07CCV 2-Amino-46-dinitrotoluene	197 > 180	16.29	23042.521	36231.711	23042.521	317.988	bb			620.8316	103.5	3.5	736.0
XX100415-07CCV 246-Trinitrotoluene	227 > 210	15.21	21165.775	36231.711	21165.775	292.089	bb			671.4184	111.9	11.9	704.0
XX100415-07CCV 34-dinitrotoluene	182 > 152	14.21	22088.133	36231.711	22088.133	304.818	bb			295.6158	98.5	-1.5	821.5
XX100415-07CCV 26-dinitrotoluene	182 > 152	17.33	49927.031	36231.711	49927.031	688.996	MM	15-Apr-10	14:41:53	582.1496	97.0	-3.0	2142.4
XX100415-07CCV 24-dinitrotoluene	182 > 152	18.01	12896.455	36231.711	12896.455	177.972	MM	15-Apr-10	14:43:42	681.8746	113.6	13.6	478.9
XX100415-07CCV 26-dinitrotoluene-d3	185 > 155	17.18	36231.711		36231.711	36231.711	bb			517.8448	103.6	3.6	326.2
XX100415-07CCV 2-Nitrotoluene	137 > 46	20.78	3262.771	36231.711	3262.771	45.026	bb			520.0068	86.7	-13.3	993.1
XX100415-07CCV 4-Nitrotoluene	137 > 46	22.12	1665.285	36231.711	1665.285	22.981	bb			554.0354	92.3	-7.7	557.5
XX100415-07CCV 3-Nitrotoluene	137 > 46	23.74	1994.534	36231.711	1994.534	27.525	bb			472.1054	78.7	-21.3	602.2
XX100415-07CCV PETN	361 > 62	24.16	41728.039	36231.711	41728.039	575.850	bb			656.8797	109.5	9.5	12781.9



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

*Handwritten: 1007 4/15/10*

Total 1615.4

*Handwritten: 1007 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): 10-2137

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
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	
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	

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.qld, Time: Thu Apr 15 14:49:38 2010

File: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0412143a

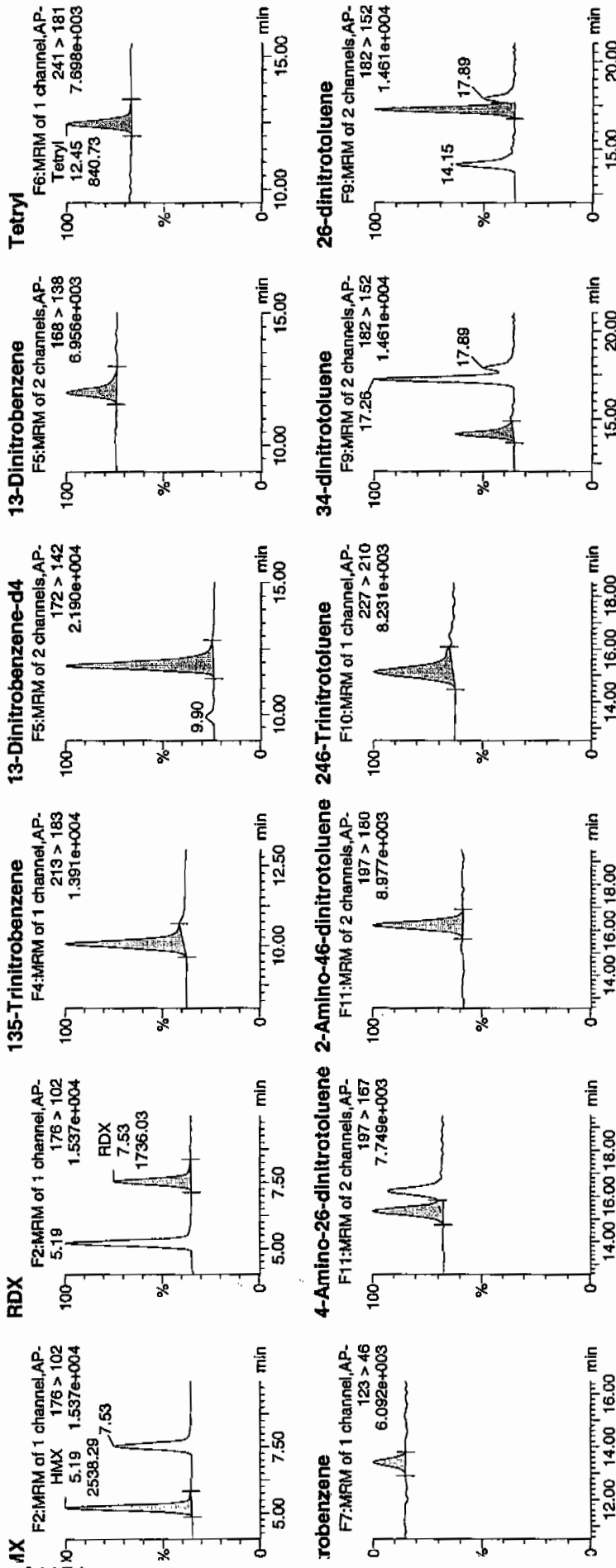
Date: 15-Apr-2010

Time: 13:30:11

Page: WXX100415-08CRI

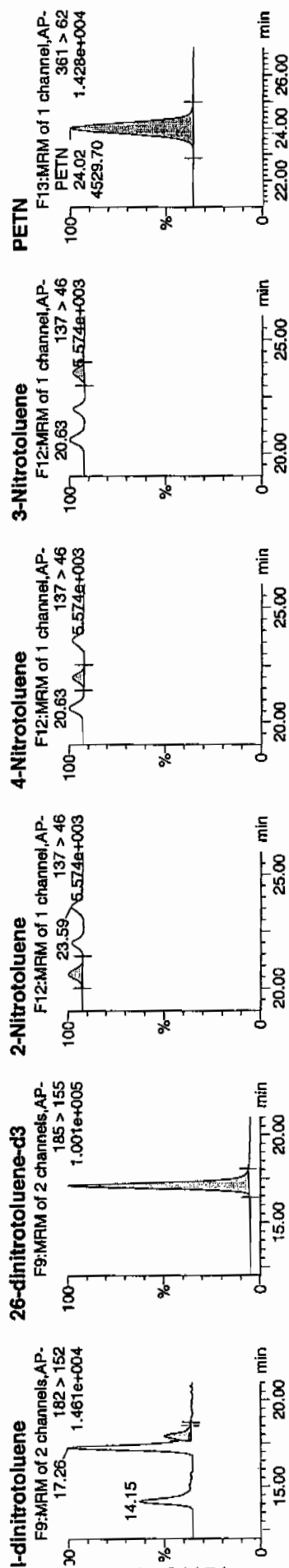
Ratio: 1:1,C

MT  
4/15/10



for new 4/15/10





Name	Trace	RT	Area	S Area	AbsResp	Response	Flags	ModDate	ModTime	InjVol	%Spk	%Dev	SN
XX100415-08CRI	HMx	176 > 102	5.19	2538.290	6311.535	2538.290	201.083	bb		47.4403	118.6	18.6	411.3
XX100415-08CRI	RDX	176 > 102	7.53	1736.029	6311.535	1736.029	137.528	bb		48.0498	120.1	20.1	251.2
XX100415-08CRI	135-Trinitrobenzene	213 > 183	10.05	2469.656	6311.535	2469.656	195.646	bb		45.2573	113.1	13.1	582.8
XX100415-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6311.535	6311.535	6311.535	6311.535	bb		536.6619	107.3	7.3	648.0
XX100415-08CRI	13-Dinitrobenzene	168 > 138	12.00	673.316	6311.535	673.316	53.340	bb		39.8933	99.7	-0.3	35.1
XX100415-08CRI	Tetryl	241 > 181	12.45	840.732	6311.535	840.732	66.603	bb		51.3802	128.5	28.5	89.9
XX100415-08CRI	Nitrobenzene	123 > 46	13.39	312.562	6311.535	312.562	24.761	bb		39.4728	98.7	-1.3	43.0
XX100415-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.34	1067.238	37327.039	1067.238	14.296	MM	15-Apr-10	42.3249	105.8	5.8	69.5
XX100415-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.21	1505.416	37327.039	1505.416	20.165	bb		39.3700	98.4	-1.6	69.8
XX100415-08CRI	246-Trinitrotoluene	227 > 210	15.13	1483.628	37327.039	1483.628	19.873	bb		45.6824	114.2	14.2	83.4
XX100415-08CRI	34-dinitrotoluene	182 > 152	14.15	1603.458	37327.039	1603.458	21.479	bb		20.8301	104.2	4.2	64.6
XX100415-08CRI	26-dinitrotoluene	182 > 152	17.26	3399.561	37327.039	3399.561	45.538	MM	15-Apr-10	38.4757	96.2	-3.8	154.2
XX100415-08CRI	24-dinitrotoluene	182 > 152	17.89	876.982	37327.039	876.982	11.747	MM	15-Apr-10	45.0080	112.5	12.5	33.6
XX100415-08CRI	26-dinitrotoluene-d3	185 > 155	17.08	37327.039	37327.039	37327.039	37327.039	bb		533.4998	106.7	6.7	3239.6
XX100415-08CRI	2-Nitrotoluene	137 > 46	20.63	195.758	37327.039	195.758	2.622	bb		30.2836	75.7	-24.3	24.5
XX100415-08CRI	4-Nitrotoluene	137 > 46	22.00	138.041	37327.039	138.041	1.849	bb		44.5782	111.4	11.4	19.9
XX100415-08CRI	3-Nitrotoluene	137 > 46	23.59	147.899	37327.039	147.899	1.981	bb		33.9804	85.0	-15.0	19.3
XX100415-08CRI	PETN	361 > 62	24.02	4529.698	37327.039	4529.698	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

*mutt  
4/15/10*

Total 1710.3

Average 106.9

*HNN-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): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412154a

Analysis Date: 15-APR-10 18:54

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	622.031	104	
1,3-Dinitrobenzene-d4	500	482.209	96	
2,4,6-Trinitrotoluene	600	688.009	115	
2,4-Dinitrotoluene	600	646.547	108	
2,6-Dinitrotoluene	600	591.24	99	
2,6-Dinitrotoluene-d3	500	492.34	98	
2-Amino-4,6-dinitrotoluene	600	618.715	103	
3,4-Dinitrotoluene	300	299.256	100	
4-Amino-2,6-dinitrotoluene	600	584.477	97	
HMX	600	639.699	107	
Nitrobenzene	600	535.275	89	
PETN	600	659.267	110	
RDX	600	834.012	139	*
Tetryl	600	608.585	101	
m-Dinitrobenzene	600	599.64	100	
m-Nitrotoluene	600	471.246	79	*
o-Nitrotoluene	600	459.486	77	*
p-Nitrotoluene	600	519.824	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



# Identify Sample Report

EL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Apr 16 09:46:23 2010, Page 21 of 71

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

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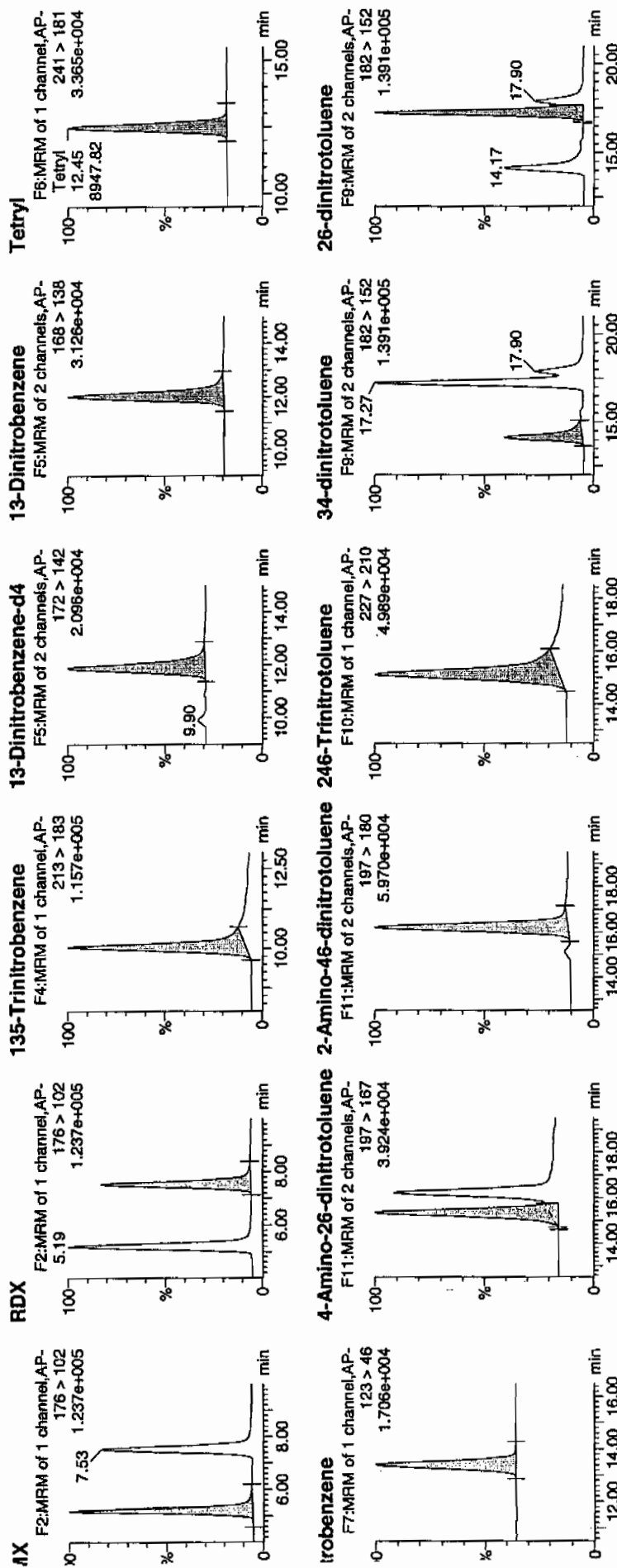
Date: 15-Apr-2010

Time: 18:54:43

Page: WXX100415-07CCV

Ratio: 1:1,B

11/16/10

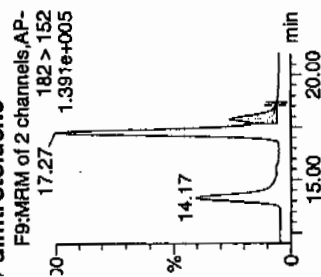


11/18/10

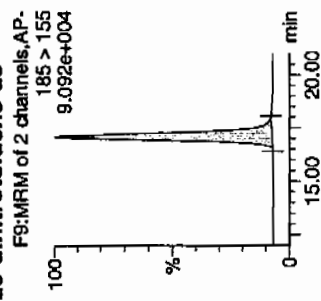


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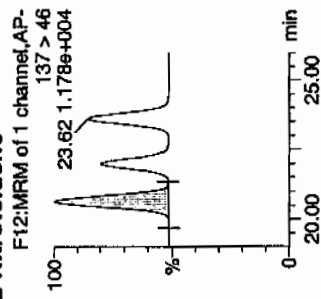
**1,3-dinitrotoluene**



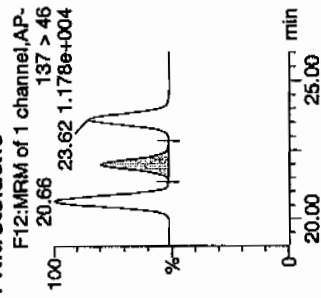
## 26-dinitrotoluene-d3



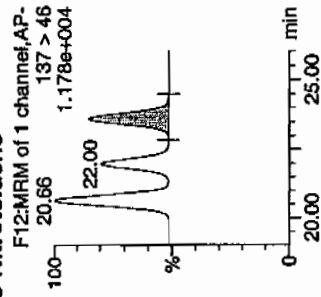
## 2-Nitrotoluene



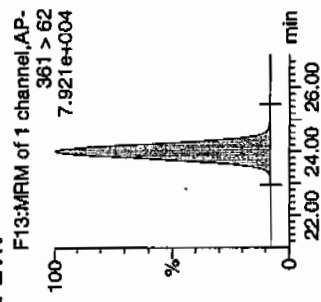
### 4-Nitrotoluene



### 3-Nitrotoluene



**NETN**



Name	Trace	RT	Area	IS Area	APIs Resp	Response	Flags	Mod Date	Mod Time	Norml	Wt Bed	%Dev	SN
XX100415-07CCV	HMx	176 > 102	5.19	30754.143	5671.123	30754.143	2711.469	bb		639.6986	106.6	6.6	2538.6
XX100415-07CCV	RDX	176 > 102	7.53	27075.178	5671.123	27075.178	2387.109	bb		834.0116	139.0	39.0	2078.1
XX100415-07CCV	135-Trinitrobenzene	213 > 183	10.05	30499.633	5671.123	30499.633	2689.029	bb		622.0315	103.7	3.7	1013.7
XX100415-07CCV	13-Dinitrobenzene-d4	172 > 142	11.89	5671.123		5671.123	5671.123	bb		482.2085	96.4	-3.6	1794.8
XX100415-07CCV	13-Dinitrobenzene	168 > 138	12.00	9093.758	5671.123	9093.758	801.760	bb		599.6397	99.9	-0.1	1236.9
XX100415-07CCV	Tetryl	241 > 181	12.45	8947.817	5671.123	8947.817	788.893	bb		608.5853	101.4	1.4	835.1
XX100415-07CCV	Nitrobenzene	123 > 46	13.41	3808.455	5671.123	3808.455	335.776	bb		535.2748	89.2	-10.8	409.2
XX100415-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.36	13600.771	34447.270	13600.771	197.414	MM	16-Apr-10 09:38:56	584.4768	97.4	-2.6	251.6
XX100415-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.22	21832.984	34447.270	21832.984	316.904	bb		618.7154	103.1	3.1	987.8
XX100415-07CCV	246-Trinitrotoluene	227 > 210	15.14	20620.600	34447.270	20620.600	299.307	bb		688.0094	114.7	14.7	598.2
XX100415-07CCV	34-dinitrotoluene	182 > 152	14.17	21258.887	34447.270	21258.887	308.571	bb		299.2562	99.8	-0.2	399.1
XX100415-07CCV	26-dinitrotoluene	182 > 152	17.27	48209.313	34447.270	48209.313	699.755	MM	16-Apr-10 09:40:01	591.2401	98.5	-1.5	1070.4
XX100415-07CCV	24-dinitrotoluene	182 > 152	17.90	11626.044	34447.270	11626.044	168.751	MM	16-Apr-10 09:45:13	646.5471	107.8	7.8	230.4
XX100415-07CCV	26-dinitrotoluene-d3	185 > 155	17.09	34447.270		34447.270	34447.270	bb		492.3405	98.5	-1.5	2662.5
XX100415-07CCV	2-Nitrotoluene	137 > 46	20.66	2741.042	34447.270	2741.042	39.786	bb		459.4859	76.6	-23.4	250.1
XX100415-07CCV	4-Nitrotoluene	137 > 46	22.00	1485.503	34447.270	1485.503	21.562	bb		519.8242	86.6	-13.4	145.4
XX100415-07CCV	3-Nitrotoluene	137 > 46	23.62	1892.848	34447.270	1892.848	27.475	bb		471.2455	78.5	-21.5	172.9
XX100415-07CCV	PETN	361 > 62	24.02	39790.801	34447.270	39790.801	577.561	bb		659.2667	109.9	9.9	2226.1



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/15/10  
 Time of Injection: 1854  
 Standard Number: WXX100415-07CCV  
 Data File: EXP0412154a

HMX	106.6
RDX	139.0
135-TNB	103.7
13-DNB	99.9
Tetryl	101.4
Nitrobenzene	89.4
4A-26-DNT	97.4
2A-46-DNT	103.1
246-TNT	114.7
34-DNT(surr)	99.8
26-DNT	98.5
24-DNT	107.8
2-NT	76.6
4-NT	86.6
3-NT	78.5
PETN	109.9

*with 4/16/10*

Total 1612.9

Average 100.8

*done 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): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412156a

Analysis Date: 15-APR-10 19:53

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	49.576	124	
1,3-Dinitrobenzene-d4	500	577.189	115	
2,4,6-Trinitrotoluene	40	53.889	135	*
2,4-Dinitrotoluene	40	42.732	107	
2,6-Dinitrotoluene	40	42.479	106	
2,6-Dinitrotoluene-d3	500	591.283	118	
2-Amino-4,6-dinitrotoluene	40	46.888	117	
3,4-Dinitrotoluene	20	26.443	132	*
4-Amino-2,6-dinitrotoluene	40	51.546	129	
HMX	40	43.601	109	
Nitrobenzene	40	47.518	119	
PETN	40	45.529	114	
RDX	40	47.308	118	
Tetryl	40	42.163	105	
m-Dinitrobenzene	40	37.522	94	
m-Nitrotoluene	40	28.998	72	
o-Nitrotoluene	40	35.664	89	
p-Nitrotoluene	40	34.471	86	

**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\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Sample Name: C:\MASSLYNX\NEW\_EXP\PRO\041210expA3.qld\EXP0412156a

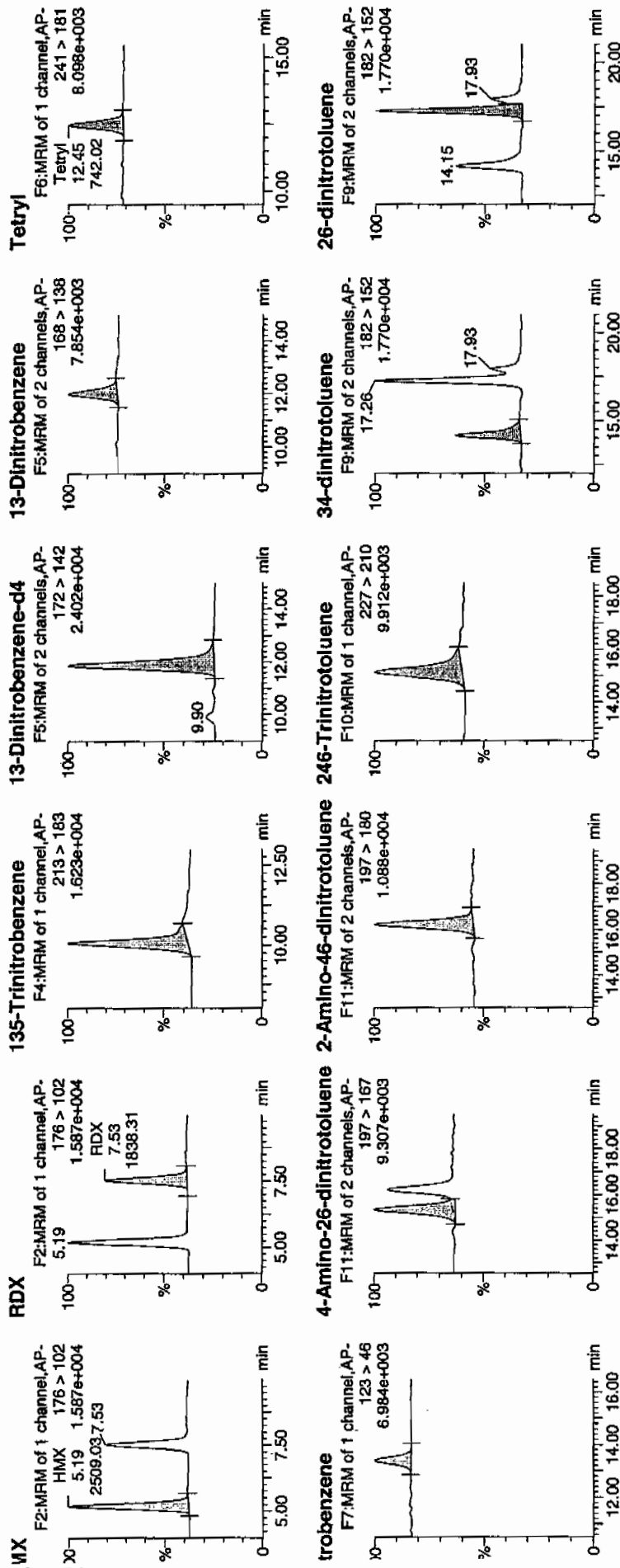
Date: 15-Apr-2010

Time: 19:53:44

File: WXX100415-08CRI

Ratio: 1:1,C

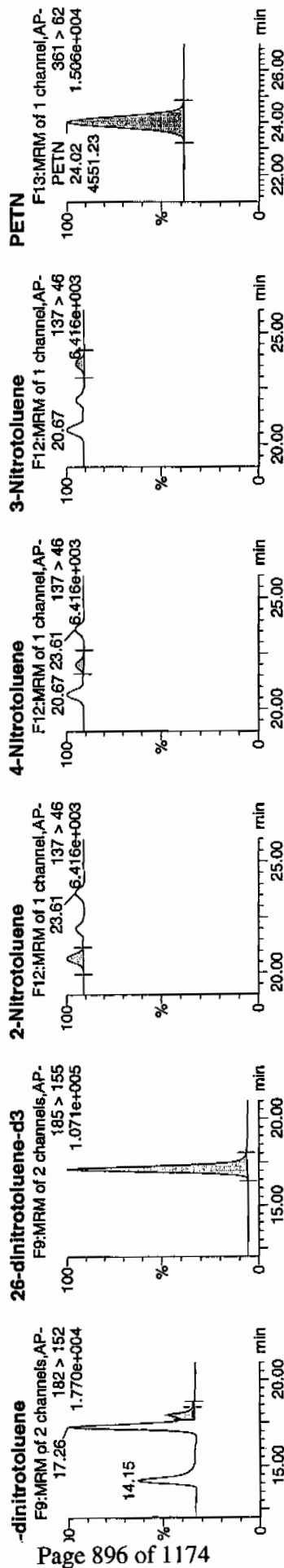
10/10/10



10/10/10



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010



Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod	Date	Mod	Time	Mod	Time	Mod	Time	Mod	Time	Mod	Time
XX100415-08CRI	HMZ	176 > 102	5.19	2509.026	6788.164	2509.026	184.809	bb											
XX100415-08CRI	RDX	176 > 102	7.53	1838.305	6788.164	1838.305	135.405	bb											
XX100415-08CRI	135-Trinitrobenzene	213 > 183	10.05	2909.597	6788.164	2909.597	214.314	bb											
XX100415-08CRI	13-Dinitrobenzene-d4	172 > 142	11.89	6788.164		6788.164	6788.164	bb											
XX100415-08CRI	13-Dinitrobenzene	168 > 138	12.00	681.112	6788.164	681.112	50.169	bb											
XX100415-08CRI	Tetryl	241 > 181	12.45	742.016	6788.164	742.016	54.655	bb											
XX100415-08CRI	Nitrobenzene	123 > 46	13.39	404.680	6788.164	404.680	29.808	bb											
XX100415-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.34	1440.533	41369.887	1440.533	17.410	MM	16-Apr-10	09:38:47									
XX100415-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.21	1987.059	41369.887	1987.059	24.016	bb											
XX100415-08CRI	246-Trinitrotoluene	227 > 210	15.12	1939.719	41369.887	1939.719	23.444	bb											
XX100415-08CRI	34-dinitrotoluene	182 > 152	14.15	2256.028	41369.887	2256.028	27.267	bb											
XX100415-08CRI	26-dinitrotoluene	182 > 152	17.26	4159.798	41369.887	4159.798	50.276	MM	16-Apr-10	09:40:24									
XX100415-08CRI	24-dinitrotoluene	182 > 152	17.93	922.818	41369.887	922.818	11.153	MM	16-Apr-10	09:45:05									
XX100415-08CRI	26-dinitrotoluene-d3	185 > 155	17.10	41369.887		41369.887	41369.887	bb											
XX100415-08CRI	2-Nitrotoluene	137 > 46	20.67	255.505	41369.887	255.505	3.088	bb											
XX100415-08CRI	4-Nitrotoluene	137 > 46	22.00	118.303	41369.887	118.303	1.430	bb											
XX100415-08CRI	3-Nitrotoluene	137 > 46	23.61	139.885	41369.887	139.885	1.691	bb											
XX100415-08CRI	PETN	361 > 82	24.02	4551.231	41369.887	4551.231	55.007	bb											



GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/15/10  
 Time of Injection 1953  
 Standard Number WXX100415-08CRI  
 Data File EXP0412156a

HMX	109.0
RDX	118.3
135-TNB	123.9
13-DNB	93.8
Tetryl	105.4
Nitrobenzene	118.8
4A-26-DNT	128.9
2A-46-DNT	117.2
246-TNT	134.7
34-DNT(surr)	132.2
26-DNT	106.2
24-DNT	106.8
2-NT	89.2
4-NT	86.2
3-NT	72.5
PETN	113.8

*MTT  
4/16/10*

Total 1756.9

Average 109.8

*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): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412163a

Analysis Date: 15-APR-10 23:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	579.712	97	
1,3-Dinitrobenzene-d4	500	553.483	111	
2,4,6-Trinitrotoluene	600	651.215	109	
2,4-Dinitrotoluene	600	599.098	100	
2,6-Dinitrotoluene	600	585.441	98	
2,6-Dinitrotoluene-d3	500	535.557	107	
2-Amino-4,6-dinitrotoluene	600	610.969	102	
3,4-Dinitrotoluene	300	292.991	98	
4-Amino-2,6-dinitrotoluene	600	562.866	94	
HMX	600	678.203	113	
Nitrobenzene	600	510.803	85	
PETN	600	600.382	100	
RDX	600	757.906	126	*
Tetryl	600	567.854	95	
m-Dinitrobenzene	600	595.705	99	
m-Nitrotoluene	600	425.74	71	*
o-Nitrotoluene	600	455.835	76	*
p-Nitrotoluene	600	482.872	80	

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%

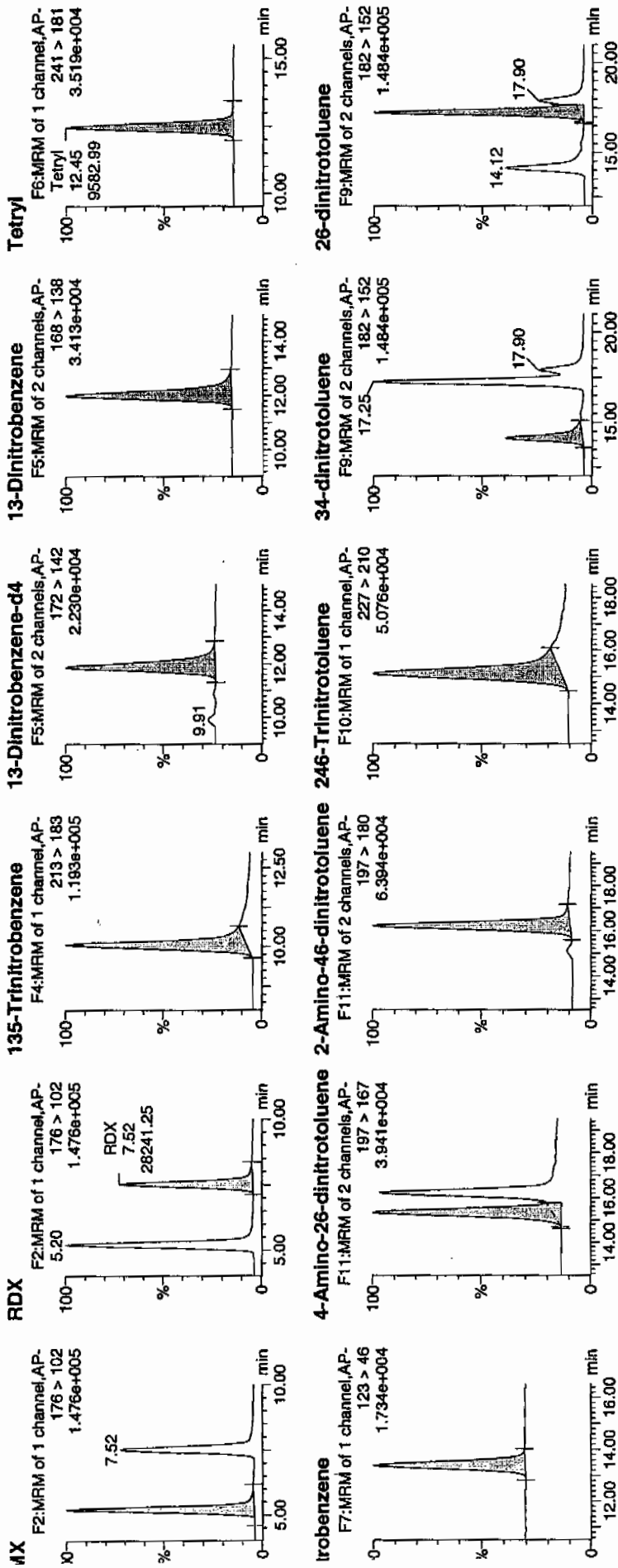
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits



4/16/10  
MPP



4/16/10  
MPP

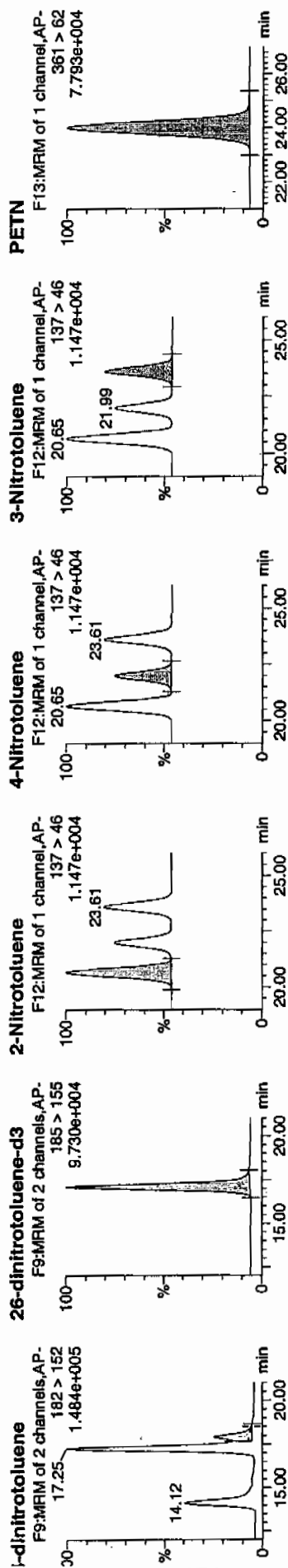


# Identify Sample Report

EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Apr 16 09:46:23 2010, Page 40 of 71

Dataset: C:\MASSLYNX\New\_Exp\PRO041210expA3.qld, Time: Fri Apr 16 09:45:39 2010



Name	Trace	RT	Area	IS Area	Abundance	Response	Flags	Mod Date	Mod Time	Conc (ng/ml)	Std Dev	ISN
XX100415-07CCV	176 > 102	5.20	37424.590	6509.360	37424.590	2874.675	bb			678.2028	113.0	13.0
XX100415-07CCV	176 > 102	7.52	28241.246	6509.360	28241.246	2169.280	bb			757.9061	126.3	26.3
XX100415-07CCV	213 > 183	10.05	32626.014	6509.360	32626.014	2506.085	bb			579.7123	96.6	-3.4
XX100415-07CCV	172 > 142	11.87	6509.360	6509.360	6509.360	6509.360	bb			553.4828	110.7	10.7
XX100415-07CCV	168 > 138	12.00	10369.396	6509.360	10369.396	796.499	bb			595.7049	99.3	-0.7
XX100415-07CCV	241 > 181	12.45	9582.994	6509.360	9582.994	736.093	bb			567.8536	94.6	-5.4
XX100415-07CCV	129 > 46	13.41	4171.525	6509.360	4171.525	320.425	bb			510.8032	85.1	-14.9
XX100415-07CCV	197 > 167	15.36	14247.576	37470.961	14247.576	190.115	MM	16-Apr-10	09:38:18	562.8656	93.8	-6.2
XX100415-07CCV	197 > 180	16.23	23452.070	37470.961	23452.070	312.937	bb			610.9688	101.8	1.8
XX100415-07CCV	227 > 210	15.14	21231.031	37470.961	21231.031	283.300	bb			651.2146	108.5	8.5
XX100415-07CCV	182 > 152	14.12	22640.807	37470.961	22640.807	302.111	bb			292.9912	97.7	-2.3
XX100415-07CCV	182 > 152	17.25	51926.609	37470.961	51926.609	692.891	MM	16-Apr-10	09:40:53	585.4406	97.6	-2.4
XX100415-07CCV	182 > 152	17.90	11718.446	37470.961	11718.446	156.367	MM	16-Apr-10	09:43:58	599.0985	99.8	-0.2
XX100415-07CCV	185 > 155	17.09	37470.961	37470.961	37470.961	37470.961	bb			535.5568	107.1	7.1
XX100415-07CCV	137 > 46	20.65	2957.955	37470.961	2957.955	39.470	bb			455.8353	76.0	-24.0
XX100415-07CCV	137 > 46	21.99	1501.030	37470.961	1501.030	20.029	bb			482.8723	80.5	-19.5
XX100415-07CCV	137 > 46	23.61	1860.172	37470.961	1860.172	24.822	bb			425.7401	71.0	-29.0
XX100415-07CCV	361 > 62	24.01	40064.965	37470.961	40064.965	534.614	bb			600.3819	100.1	0.1



GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/15/10  
 Time of Injection: 2320  
 Standard Number: WXX100415-07CCV  
 Data File: EXP0412163a

HMX	113.0
RDX	126.3
135-TNB	96.6
13-DNB	99.3
Tetryl	94.6
Nitrobenzene	85.1
4A-26-DNT	93.8
2A-46-DNT	101.8
246-TNT	108.5
34-DNT(surr)	97.7
26-DNT	97.6
24-DNT	99.8
2-NT	76.0
4-NT	80.5
3-NT	71.0
PETN	100.1
Total	1541.7

*mt  
4/16/10*

Average

96.4

*Home 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): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412165a

Analysis Date: 16-APR-10 00:19

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	50.062	125	
1,3-Dinitrobenzene-d4	500	605.441	121	
2,4,6-Trinitrotoluene	40	46.388	116	
2,4-Dinitrotoluene	40	46.587	116	
2,6-Dinitrotoluene	40	41.89	105	
2,6-Dinitrotoluene-d3	500	552.799	111	
2-Amino-4,6-dinitrotoluene	40	40.251	101	
3,4-Dinitrotoluene	20	21.003	105	
4-Amino-2,6-dinitrotoluene	40	34.553	86	
HMX	40	54.973	137	*
Nitrobenzene	40	33.701	84	
PETN	40	53.483	134	*
RDX	40	56.813	142	*
Tetryl	40	39.601	99	
m-Dinitrobenzene	40	43.11	108	
m-Nitrotoluene	40	32.11	80	
o-Nitrotoluene	40	32.239	81	
p-Nitrotoluene	40	37.87	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 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits



uantify Sample Report  
EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

ame: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412165a

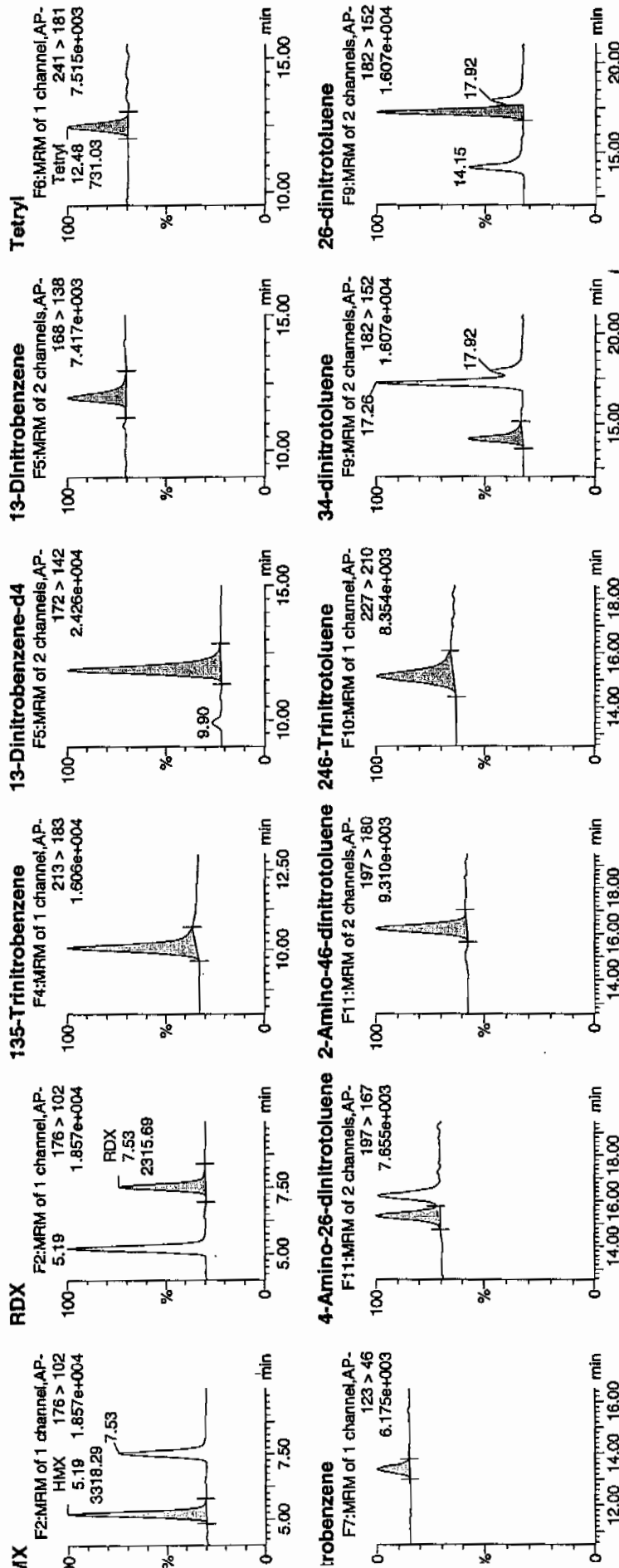
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me: 00:19:13

Page : WXX100415-08CRI

al: 1:1,C

MM  
11/18/10



11/18/10



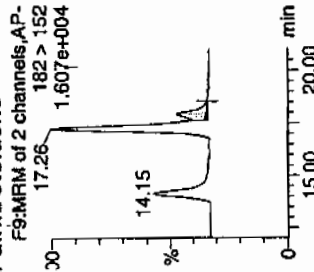
# Identify Sample Report

EL Laboratories, LLC / Analyst: Michael A. Penny

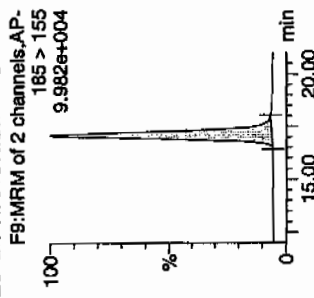
Printed: Fri Apr 16 09:46:23 2010, Page 44 of 71

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qtd, Time: Fri Apr 16 09:45:39 2010

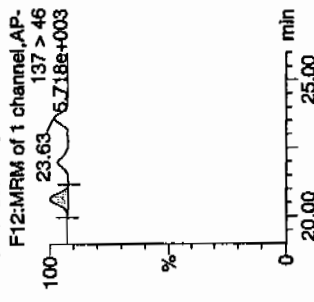
## 1-dinitrotoluene



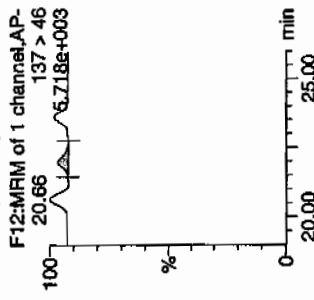
## 26-dinitrotoluene-d3



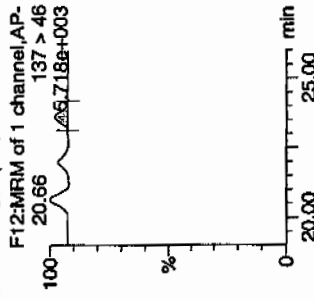
## 2-Nitrotoluene



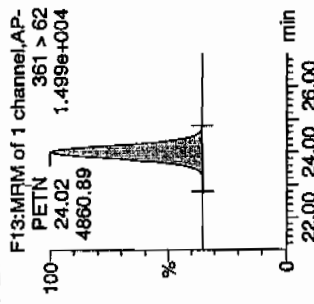
## 4-Nitrotoluene



## 3-Nitrotoluene



## PETN



Name	Trace	RT	Area	IS Area	Area Resp	Response	Flags	Mod Date	Mod Time	Mod User	Dev	SN
XX100415-08CRI	HMX	176 > 102	5.19	3318.288	7120.432	3318.288	233.012	bb	54.9729	137.4	37.4	446.4
XX100415-08CRI	RDX	176 > 102	7.53	2315.688	7120.432	2315.688	162.609	bb	56.8125	142.0	42.0	280.0
XX100415-08CRI	135-Trinitrobenzene	213 > 183	10.05	3081.971	7120.432	3081.971	216.417	bb	50.0621	125.2	25.2	368.4
XX100415-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	7120.432	7120.432	7120.432	7120.432	bb	605.4414	121.1	21.1	500.1
XX100415-08CRI	13-Dinitrobenzene	168 > 138	11.97	820.854	7120.432	820.854	57.641	bb	43.1098	107.8	7.8	67.6
XX100415-08CRI	Tetryl	241 > 181	12.48	731.028	7120.432	731.028	51.333	bb	39.6005	99.0	-1.0	92.4
XX100415-08CRI	Nitrobenzene	123 > 46	13.39	301.059	7120.432	301.059	21.141	bb	33.7010	84.3	-15.7	42.7
XX100415-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.34	902.786	38677.328	902.786	11.671	MM	16-Apr-10	09:38:04	86.4	-13.6
XX100415-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.21	1594.779	38677.328	1594.779	20.616	bb	40.2510	100.6	0.6	83.0
XX100415-08CRI	246-Trinitrotoluene	227 > 210	15.13	1561.035	38677.328	1561.035	20.180	bb	46.3878	116.0	16.0	72.6
XX100415-08CRI	34-dinitrotoluene	182 > 152	14.15	1675.250	38677.328	1675.250	21.657	bb	21.0030	105.0	5.0	52.2
XX100415-08CRI	26-dinitrotoluene	182 > 152	17.26	3835.119	38677.328	3835.119	49.578	MM	16-Apr-10	09:41:01	41.8900	104.7
XX100415-08CRI	24-dinitrotoluene	182 > 152	17.92	940.578	38677.328	940.578	12.159	MM	16-Apr-10	09:43:33	46.5866	116.5
XX100415-08CRI	26-dinitrotoluene-d3	185 > 155	17.09	38677.328	38677.328	38677.328	39677.328	bb	552.7989	110.6	10.6	3143.7
XX100415-08CRI	2-Nitrotoluene	137 > 46	20.66	215.936	38677.328	215.936	2.792	bb	32.2389	80.6	-19.4	38.4
XX100415-08CRI	4-Nitrotoluene	137 > 46	22.00	121.509	38677.328	121.509	1.571	bb	37.8695	94.7	-5.3	21.6
XX100415-08CRI	3-Nitrotoluene	137 > 46	23.63	144.812	38677.328	144.812	1.872	bb	32.1096	80.3	-19.7	27.7
XX100415-08CRI	PETN	361 > 62	24.02	4860.889	38677.328	4860.889	62.839	bb	53.4832	133.7	33.7	1024.1



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/16/10  
 Time of Injection 0019  
 Standard Number WXX100415-08CRI  
 Data File EXP0412165a

HMX	137.4
RDX	142.0
135-TNB	125.2
13-DNB	107.8
Tetryl	99.0
Nitrobenzene	84.3
4A-26-DNT	86.4
2A-46-DNT	100.6
246-TNT	116.0
34-DNT(surr)	105.0
26-DNT	104.7
24-DNT	116.5
2-NT	80.6
4-NT	94.7
3-NT	80.3
PETN	133.7

*Left  
4/16/10*

Total 1714.2

Average 107.1

*Handwritten: 4/16/10*

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): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412176a

Analysis Date: 16-APR-10 05:43

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	598.513	100	
1,3-Dinitrobenzene-d4	500	468.403	94	
2,4,6-Trinitrotoluene	600	689.221	115	
2,4-Dinitrotoluene	600	643.829	107	
2,6-Dinitrotoluene	600	591.674	99	
2,6-Dinitrotoluene-d3	500	472.742	95	
2-Amino-4,6-dinitrotoluene	600	618.059	103	
3,4-Dinitrotoluene	300	299.863	100	
4-Amino-2,6-dinitrotoluene	600	596.024	99	
HMX	600	662.319	110	
Nitrobenzene	600	529.758	88	
PETN	600	736.789	123	*
RDX	600	768.839	128	*
Tetryl	600	598.943	100	
m-Dinitrobenzene	600	616.623	103	
m-Nitrotoluene	600	476.64	79	*
o-Nitrotoluene	600	478.487	80	*
p-Nitrotoluene	600	539.18	90	

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%

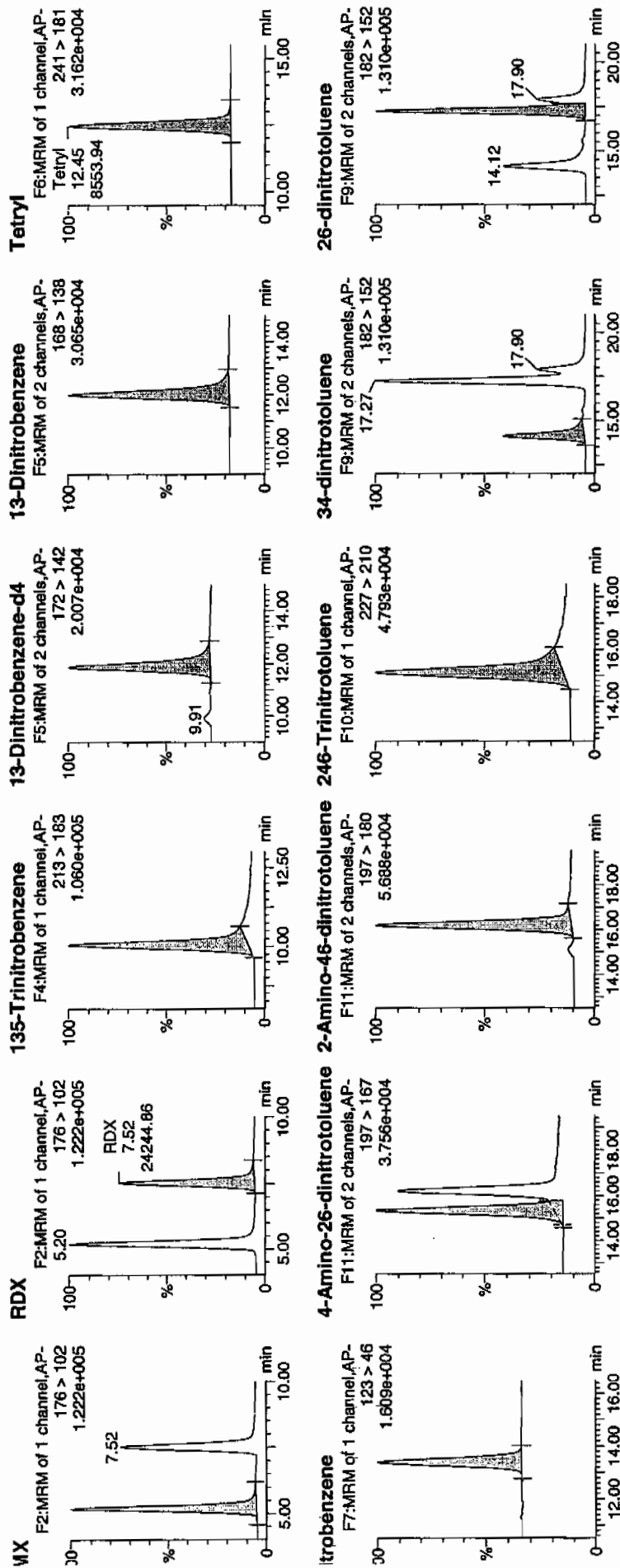
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

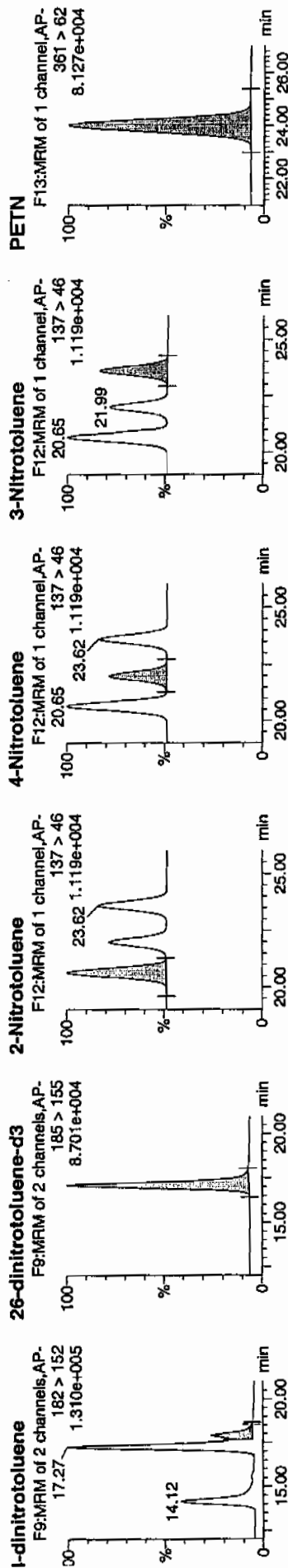


11/11/10  
11/11/10



11/11/10  
11/11/10





Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Inj Vol	%Recd	%Dev	IN	
XX100415-07CCV	HMx	176 > 102	5.20	30930.020	5508.762	30930.020	2807.348	bb		662.3187	110.4	10.4	3372.1	
XX100415-07CCV	RDX	176 > 102	7.52	24244.863	5508.762	24244.863	2200.573	bb		768.8393	128.1	28.1	2460.5	
XX100415-07CCV	135-Trinitrobenzene	213 > 183	10.05	28506.281	5508.762	28506.281	2587.358	bb		598.5127	99.8	-0.2	2827.7	
XX100415-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	5508.762		5508.762	5508.762	bb		468.4032	93.7	-6.3	823.4	
XX100415-07CCV	13-Dinitrobenzene	168 > 138	12.00	9083.593	5508.762	9083.593	824.468	bb		616.6229	102.8	2.8	689.3	
XX100415-07CCV	Tetryl	241 > 181	12.45	8553.938	5508.762	8553.938	776.394	bb		598.9430	99.8	-0.2	559.2	
XX100415-07CCV	Nitrobenzene	123 > 46	13.41	3661.291	5508.762	3661.291	332.315	bb		529.7577	88.3	-11.7	470.0	
XX100415-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.35	13317.382	33076.070	13317.382	201.314	MM	16-Apr-10	09:37:25	596.0237	99.3	-0.7	455.7
XX100415-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.22	20941.652	33076.070	20941.652	316.568	bb		618.0586	103.0	3.0	470.3	
XX100415-07CCV	246-Trinitrotoluene	227 > 210	15.14	19834.639	33076.070	19834.639	299.834	bb		689.2207	114.9	14.9	520.5	
XX100415-07CCV	34-dinitrotoluene	182 > 152	14.12	20454.080	33076.070	20454.080	309.198	bb		289.8635	100.0	-0.0	480.5	
XX100415-07CCV	26-dinitrotoluene	182 > 152	17.27	46324.242	33076.070	46324.242	700.268	MM	16-Apr-10	09:41:53	591.6735	98.6	-1.4	1243.4
XX100415-07CCV	24-dinitrotoluene	182 > 152	17.90	11116.332	33076.070	11116.332	168.042	MM	16-Apr-10	09:42:23	643.8292	107.3	7.3	273.8
XX100415-07CCV	26-dinitrotoluene-d3	185 > 155	17.09	33076.070		33076.070	33076.070	bb		472.7425	94.5	-5.5	3667.2	
XX100415-07CCV	2-Nitrotoluene	137 > 46	20.65	2740.770	33076.070	2740.770	41.431	bb		478.4868	79.7	-20.3	563.3	
XX100415-07CCV	4-Nitrotoluene	137 > 46	21.99	1479.483	33076.070	1479.483	22.365	bb		539.1801	89.9	-10.1	325.9	
XX100415-07CCV	3-Nitrotoluene	137 > 46	23.62	1838.308	33076.070	1838.308	27.789	bb		476.6402	79.4	-20.6	384.0	
XX100415-07CCV	PETN	361 > 62	24.02	41793.250	33076.070	41793.250	631.775	bb		736.7886	122.8	22.8	4826.9	



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/16/10  
 Time of Injection: 0543  
 Standard Number: WXX100415-07CCV  
 Data File: EXP0412176a

HMX	110.4
RDX	128.1
135-TNB	99.8
13-DNB	102.8
Tetryl	99.8
Nitrobenzene	88.3
4A-26-DNT	99.3
2A-46-DNT	103.0
246-TNT	114.9
34-DNT(surr)	100.0
26-DNT	98.6
24-DNT	107.3
2-NT	79.7
4-NT	89.9
3-NT	79.4
PETN	122.8

*Handwritten:* 11/16/10

Total 1624.1

*Handwritten:* 4/18/10

Average

101.5

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): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412178a

Analysis Date: 16-APR-10 06:42

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	48.611	122	
1,3-Dinitrobenzene-d4	500	507.923	102	
2,4,6-Trinitrotoluene	40	45.832	115	
2,4-Dinitrotoluene	40	44.52	111	
2,6-Dinitrotoluene	40	40.668	102	
2,6-Dinitrotoluene-d3	500	533.943	107	
2-Amino-4,6-dinitrotoluene	40	42.838	107	
3,4-Dinitrotoluene	20	21.251	106	
4-Amino-2,6-dinitrotoluene	40	42.982	107	
HMX	40	46.716	117	
Nitrobenzene	40	34.698	87	
PETN	40	52.564	131	*
RDX	40	56.146	140	*
Tetryl	40	46.059	115	
m-Dinitrobenzene	40	44.37	111	
m-Nitrotoluene	40	35.332	88	
o-Nitrotoluene	40	30.954	77	
p-Nitrotoluene	40	45.51	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



Identify Sample Report  
EL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qtd, Time: Fri Apr 16 09:45:39 2010

File: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412178a

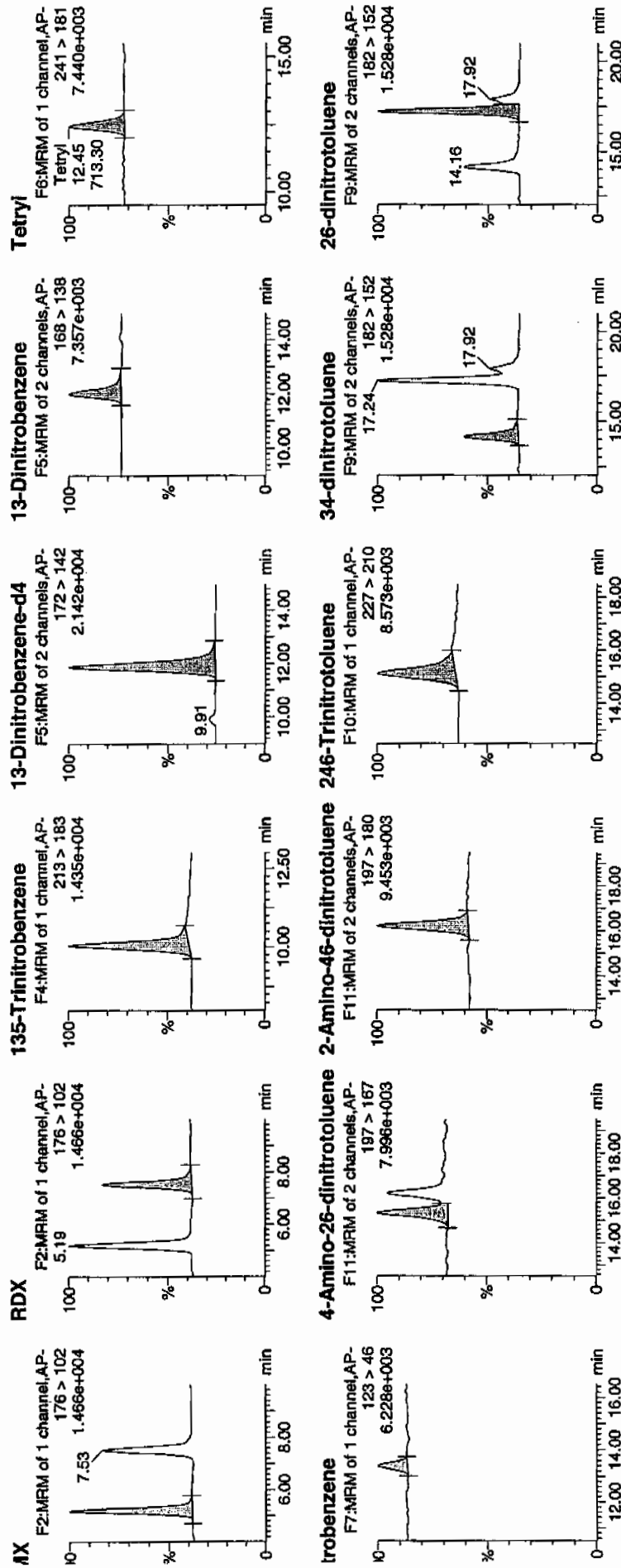
Date: 16-Apr-2010

Time: 06:42:49

File: WXX100415-08CRI

Sample: 1:1,C

10/10/10

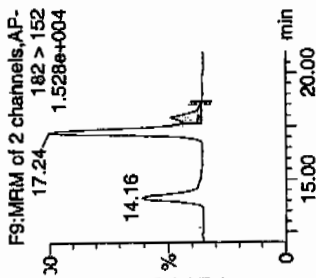


10/10/10

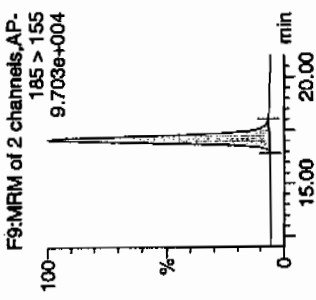


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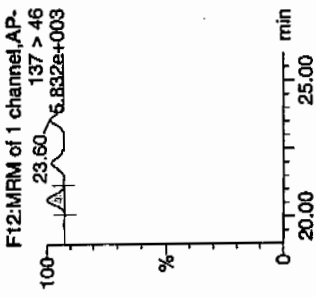
# 1-dinitrotoluene



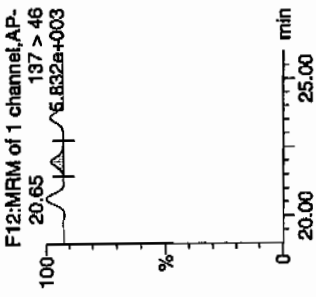
# 26-dinitrotoluene-d3



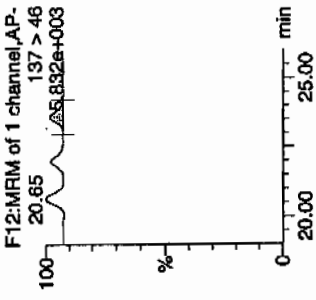
# 2-Nitrotoluene



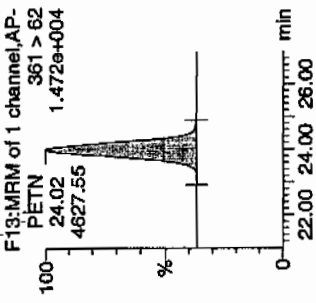
# 4-Nitrotoluene



# 3-Nitrotoluene



# PETN



Name	Trace	RT	Area	IS Area	ABS Resh	Response	Flags	Mod Date	Mod Time	Area	%Area	%Dev	MSIN
XX100415-08CRI	HMZ	176 > 102	5.19	2365.695	5973.542	2365.695	198.014	bb		46.7162	116.8	16.8	606.7
XX100415-08CRI	RDZ	176 > 102	7.53	1919.902	5973.542	1919.902	160.700	bb		56.1458	140.4	40.4	440.2
XX100415-08CRI	135-Trinitrobenzene	213 > 183	10.05	2510.623	5973.542	2510.623	210.145	bb		48.6112	121.5	21.5	199.5
XX100415-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	5973.542	5973.542	5973.542	5973.542	bb		507.9228	101.6	1.6	868.0
XX100415-08CRI	13-Dinitrobenzene	168 > 138	12.00	708.768	5973.542	708.768	59.326	bb		44.3699	110.9	10.9	85.6
XX100415-08CRI	Tetryl	241 > 181	12.45	713.297	5973.542	713.297	59.705	bb		46.0587	115.1	15.1	57.5
XX100415-08CRI	Nitrobenzene	123 > 46	13.40	260.036	5973.542	260.036	21.766	bb		34.6975	86.7	-13.3	24.2
XX100415-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.35	1084.712	37358.078	1084.712	14.518	MM	16-Apr-10 09:37:15	42.9822	107.5	7.5	58.8
XX100415-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.22	1639.381	37358.078	1639.381	21.941	bb		42.8379	107.1	7.1	105.8
XX100415-08CRI	246-Trinitrotoluene	227 > 210	15.13	1489.709	37358.078	1489.709	19.938	bb		45.8316	114.6	14.6	150.8
XX100415-08CRI	34-dinitrotoluene	182 > 152	14.16	1637.202	37358.078	1637.202	21.912	bb		21.2508	106.3	6.3	95.5
XX100415-08CRI	26-dinitrotoluene	182 > 152	17.24	3596.208	37358.078	3596.208	48.132	MM	16-Apr-10 09:42:01	40.6675	101.7	1.7	244.9
XX100415-08CRI	24-dinitrotoluene	182 > 152	17.92	868.188	37358.078	868.188	11.620	MM	16-Apr-10 09:42:12	44.5197	111.3	11.3	50.5
XX100415-08CRI	26-dinitrotoluene-d3	185 > 155	17.09	37358.078	37358.078	37358.078	37358.078	bb		533.9434	106.8	6.8	2631.3
XX100415-08CRI	2-Nitrotoluene	137 > 46	20.65	200.255	37358.078	200.255	2.680	bb		30.9535	77.4	-22.6	42.9
XX100415-08CRI	4-Nitrotoluene	137 > 46	22.00	141.043	37358.078	141.043	1.888	bb		45.5098	113.8	13.8	30.5
XX100415-08CRI	3-Nitrotoluene	137 > 46	23.60	153.909	37358.078	153.909	2.060	bb		35.3318	88.3	-11.7	32.4
XX100415-08CRI	PETN	361 > 62	24.02	4627.550	37358.078	4627.550	61.935	bb		52.5638	131.4	31.4	2254.8



GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/16/10  
 Time of Injection 0642  
 Standard Number WXX100415-08CRI  
 Data File EXP0412178a

HMX	116.8
RDX	140.4
135-TNB	121.5
13-DNB	110.9
Tetryl	115.1
Nitrobenzene	86.7
4A-26-DNT	107.5
2A-46-DNT	107.1
246-TNT	114.6
34-DNT(surr)	106.3
26-DNT	101.7
24-DNT	111.3
2-NT	77.4
4-NT	113.8
3-NT	88.3
PETN	131.4
Total	1750.8

WAF  
4/16/10

Amr 04/18/10

Average

109.4

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): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412189a

Analysis Date: 16-APR-10 12:07

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	594.161	99	
1,3-Dinitrobenzene-d4	500	526.245	105	
2,4,6-Trinitrotoluene	600	696.001	116	
2,4-Dinitrotoluene	600	686.989	114	
2,6-Dinitrotoluene	600	582.08	97	
2,6-Dinitrotoluene-d3	500	530.172	106	
2-Amino-4,6-dinitrotoluene	600	624.722	104	
3,4-Dinitrotoluene	300	294.835	98	
4-Amino-2,6-dinitrotoluene	600	602.218	100	
HMX	600	608.688	101	
Nitrobenzene	600	477.361	80	*
PETN	600	646.883	108	
RDX	600	716.933	119	
Tetryl	600	569.427	95	
m-Dinitrobenzene	600	577.006	96	
m-Nitrotoluene	600	474.743	79	*
o-Nitrotoluene	600	440.848	73	*
p-Nitrotoluene	600	477.383	80	*

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



uantify Sample Report  
EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010

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ate: 16-Apr-2010

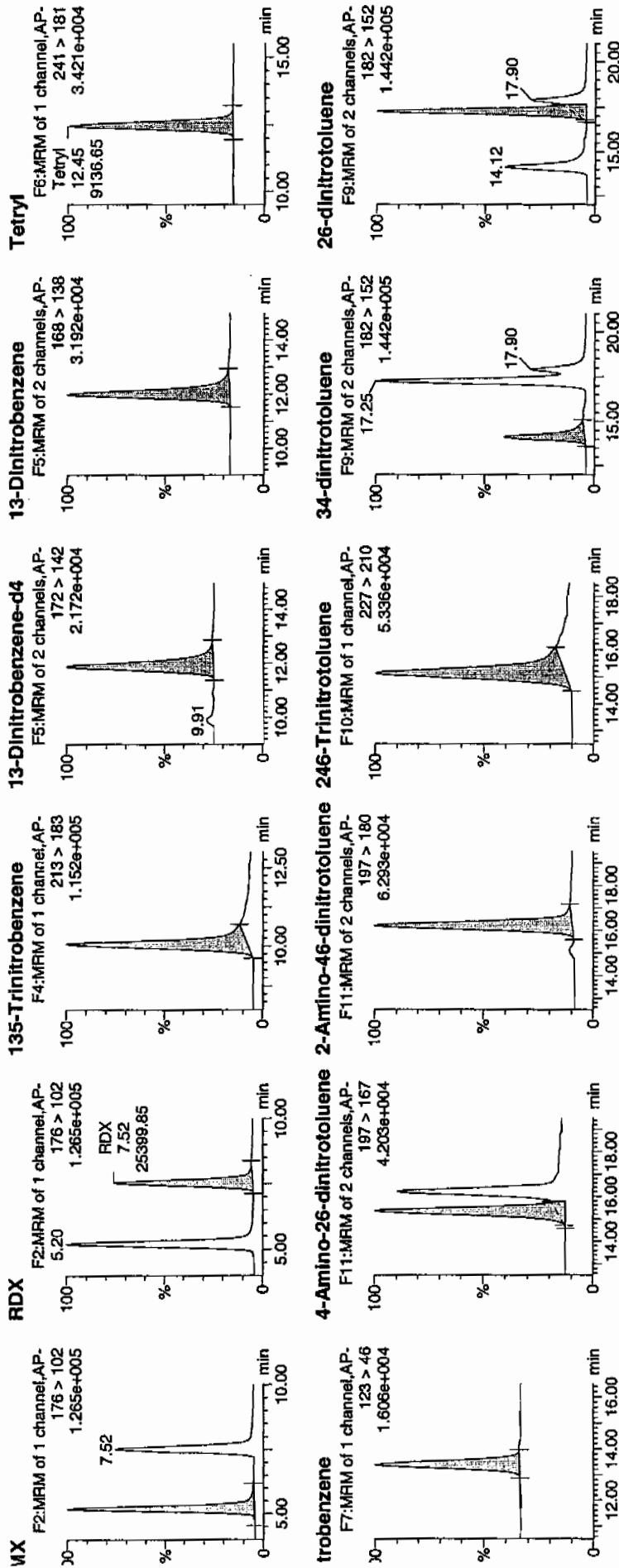
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ge : WXX100415-07CCV

al: 1:1,B

WXX  
4/17/10

915 of 1174



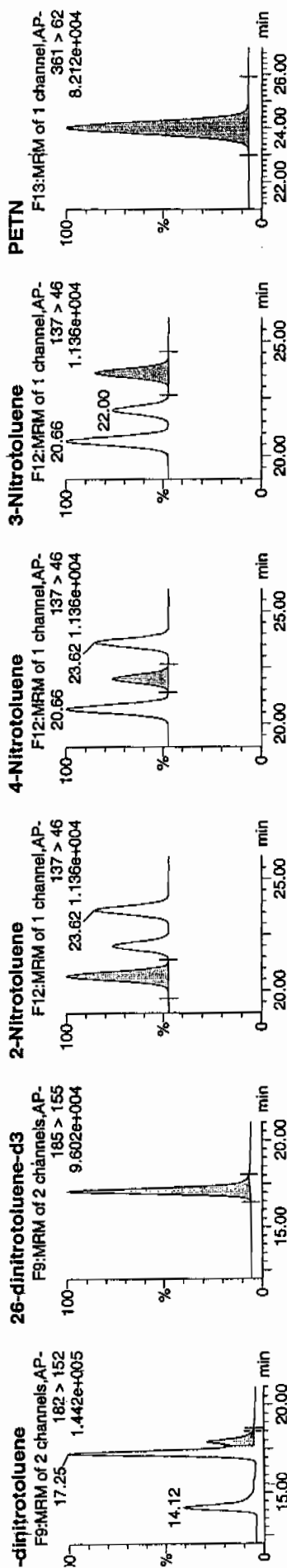
thru  
04/18/10



Printed: Sat Apr 17 10:45:10 2010, Page 22 of 97

Identify Sample Report  
EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010



Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Area	RT	Area	IS Area	Abs Resp	Response	Flags
XX100415-07CCV HMX	176 > 102	5.20	31935.701	6189.029	31935.701	2580.025	bb			608.6880	101.4	1.4	5045.0			
XX100415-07CCV RDX	176 > 102	7.52	25399.848	6189.029	25399.848	2052.006	bb			716.9328	119.5	19.5	3742.4			
XX100415-07CCV 135-Trinitrobenzene	213 > 183	10.05	31793.600	6189.029	31793.600	2568.545	bb			594.1608	99.0	-1.0	1125.6			
XX100415-07CCV 13-Dinitrobenzene-d4	172 > 142	11.87	6189.029	6189.029	6189.029	6189.029	bb			526.2454	105.2	5.2	628.8			
XX100415-07CCV 13-Dinitrobenzene	168 > 138	12.00	9549.640	6189.029	9549.640	771.497	bb			577.0062	96.2	-3.8	1486.7			
XX100415-07CCV Tetra	241 > 181	12.45	9136.652	6189.029	9136.652	736.133	bb			569.4269	94.9	-5.1	650.0			
XX100415-07CCV Nitrobenzene	123 > 46	13.41	3706.568	6189.029	3706.568	299.447	bb			477.3606	79.6	-20.4	406.0			
XX100415-07CCV 4-Amino-26-dinitrotoluene	197 > 167	15.36	15090.405	37094.195	15090.405	203.407	MM	17-Apr-10	10:35:05	602.2177	100.4	0.4	380.1			
XX100415-07CCV 2-Amino-46-dinitrotoluene	197 > 180	16.20	23738.861	37094.195	23738.861	319.981	bb			624.7217	104.1	4.1	666.5			
XX100415-07CCV 246-Trinitrotoluene	227 > 210	15.14	22463.023	37094.195	22463.023	302.784	bb			696.0015	116.0	16.0	800.0			
XX100415-07CCV 34-dinitrotoluene	182 > 152	14.12	22554.232	37094.195	22554.232	304.013	bb			294.8354	98.3	-1.7	438.5			
XX100415-07CCV 26-dinitrotoluene	182 > 152	17.25	51109.387	37094.195	51109.387	688.914	MM	17-Apr-10	10:36:32	582.0797	97.0	-3.0	1142.9			
XX100415-07CCV 24-dinitrotoluene	182 > 152	17.90	13302.482	37094.195	13302.482	179.307	MM	17-Apr-10	10:41:58	686.9890	114.5	14.5	286.3			
XX100415-07CCV 26-dinitrotoluene-d3	185 > 155	17.09	37094.195	37094.195	37094.195	37094.195	bb			530.1719	106.0	6.0	3083.3			
XX100415-07CCV 2-Nitrotoluene	137 > 46	20.66	2831.938	37094.195	2831.938	38.172	bb			440.8482	73.5	-26.5	914.1			
XX100415-07CCV 4-Nitrotoluene	137 > 46	22.00	1469.045	37094.195	1469.045	19.802	bb			477.3830	79.6	-20.4	502.1			
XX100415-07CCV 3-Nitrotoluene	137 > 46	23.62	2053.422	37094.195	2053.422	27.678	bb			474.7430	79.1	-20.9	662.2			
XX100415-07CCV PETN	361 > 62	24.01	42187.672	37094.195	42187.672	568.656	bb			646.8834	107.8	7.8	5395.6			



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/16/10  
 Time of Injection: 1207  
 Standard Number: WXX100415-07CCV  
 Data File: EXP0412189a

HMX	101.4
RDX	119.5
135-TNB	99.0
13-DNB	96.2
Tetryl	94.9
Nitrobenzene	79.6
4A-26-DNT	100.4
2A-46-DNT	104.1
246-TNT	116.0
34-DNT(surr)	98.3
26-DNT	97.0
24-DNT	114.5
2-NT	73.5
4-NT	79.6
3-NT	79.1
PETN	107.8

*Math  
4/16/10*

Total 1560.9

*Sum 04/16/10*

Average 97.6

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): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412191a

Analysis Date: 16-APR-10 13:06

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	46.372	116	
1,3-Dinitrobenzene-d4	500	558.99	112	
2,4,6-Trinitrotoluene	40	48.911	122	
2,4-Dinitrotoluene	40	42.024	105	
2,6-Dinitrotoluene	40	41.491	104	
2,6-Dinitrotoluene-d3	500	540.276	108	
2-Amino-4,6-dinitrotoluene	40	50.953	127	
3,4-Dinitrotoluene	20	21.209	106	
4-Amino-2,6-dinitrotoluene	40	46.62	117	
HMX	40	43.604	109	
Nitrobenzene	40	38.159	95	
PETN	40	56.911	142	*
RDX	40	46.041	115	
Tetryl	40	41.108	103	
m-Dinitrobenzene	40	41.719	104	
m-Nitrotoluene	40	36.968	92	
o-Nitrotoluene	40	30.379	76	
p-Nitrotoluene	40	35.109	88	

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

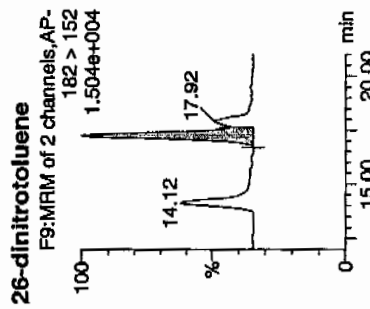
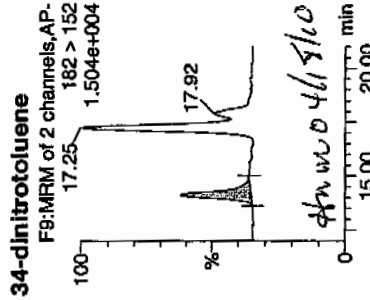
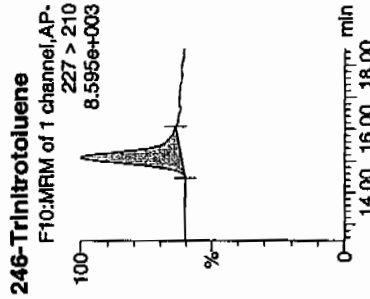
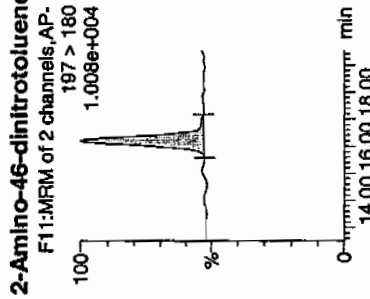
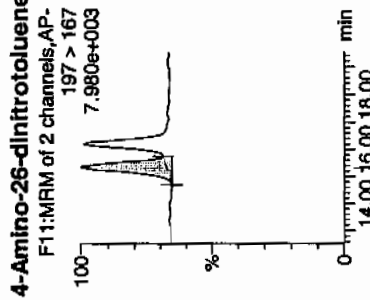
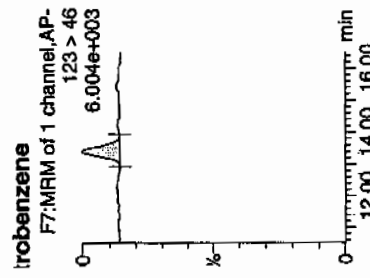
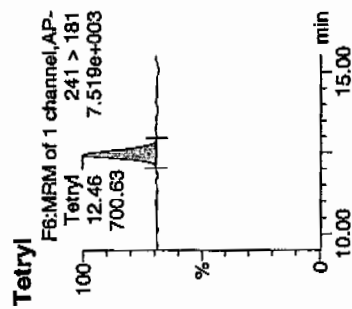
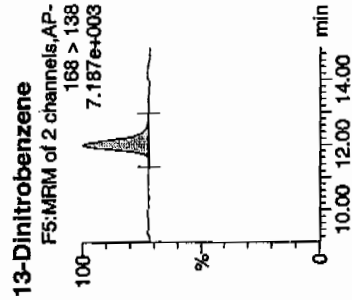
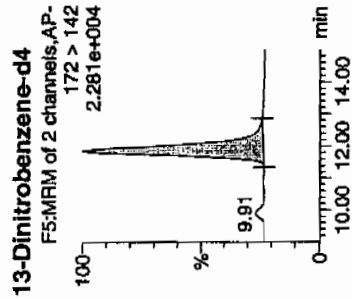
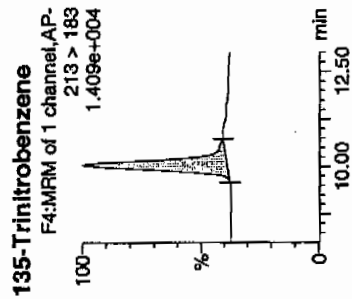
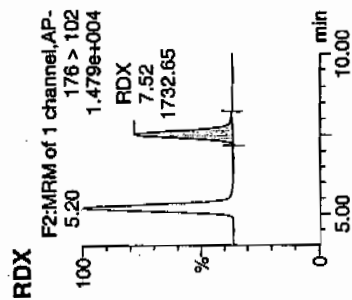
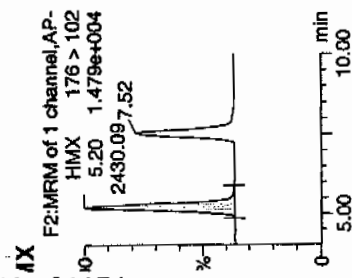


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ite: 16-Apr-2010

ne: 13:06:33

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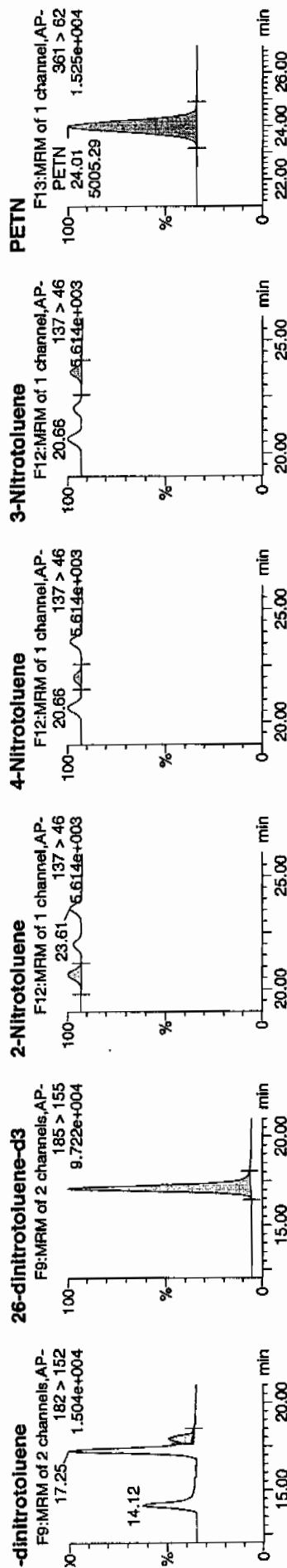
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Printed: Sat Apr 17 10:45:10 2010, Page 26 of 97

Identify Sample Report  
EL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO041210expA4.qld, Time: Sat Apr 17 10:42:19 2010



Name	Trace	RT	Area	State	Abundance	Response	Flag	Mod Date	Mod Time	Area	State	Abundance	Response	Flag
XX100415-08CRI	HMx	176 > 102	5.20	2430.089	6574.125	2430.089	184.822	bb	43.6039	109.0	9.0	330.7		
XX100415-08CRI	RDX	176 > 102	7.52	1732.653	6574.125	1732.653	131.778	bb	46.0409	115.1	15.1	217.0		
XX100415-08CRI	135-Trinitrobenzene	213 > 183	10.06	2635.749	6574.125	2635.749	200.464	bb	46.3717	115.9	15.9	140.2		
XX100415-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6574.125	6574.125	6574.125	558.9896	bb	41.1080	102.8	2.8	37.3		
XX100415-08CRI	13-Dinitrobenzene	168 > 138	12.00	733.427	6574.125	733.427	55.781	bb	41.7191	104.3	4.3	68.4		
XX100415-08CRI	Tetral	241 > 181	12.46	700.634	6574.125	700.634	53.287	bb	38.1593	95.4	-4.6	40.4		
XX100415-08CRI	Nitrobenzene	123 > 46	13.41	314.732	6574.125	314.732	23.937	bb	46.6202	116.6	16.6	130.3		
XX100415-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.35	1190.475	37801.121	1190.475	15.747	MM	50.9525	127.4	27.4	138.1		
XX100415-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.19	1973.046	37801.121	1973.046	26.098	bb	48.9108	122.3	22.3	159.6		
XX100415-08CRI	246-Trinitrotoluene	227 > 210	15.14	1608.649	37801.121	1608.649	21.278	bb	21.2093	106.0	6.0	94.3		
XX100415-08CRI	34-dinitrotoluene	182 > 152	14.12	1653.386	37801.121	1653.386	21.870	bb	41.4905	103.7	3.7	226.0		
XX100415-08CRI	26-dinitrotoluene	182 > 152	17.25	3712.491	37801.121	3712.491	49.106	MM	42.0243	105.1	5.1	45.2		
XX100415-08CRI	24-dinitrotoluene	182 > 152	17.92	829.244	37801.121	829.244	10.969	MM	540.2757	108.1	8.1	1838.4		
XX100415-08CRI	26-dinitrotoluene-d3	185 > 155	17.09	37801.121	37801.121	37801.121	37801.121	bb	30.3787	75.9	-24.1	16.7		
XX100415-08CRI	2-Nitrotoluene	137 > 46	20.66	198.867	37801.121	198.867	2.630	bb	35.1092	87.8	-12.2	9.4		
XX100415-08CRI	4-Nitrotoluene	137 > 46	22.02	110.100	37801.121	110.100	1.456	bb	36.9677	92.4	-7.6	14.0		
XX100415-08CRI	3-Nitrotoluene	137 > 46	23.61	162.945	37801.121	162.945	2.155	bb	56.9108	142.3	42.3	1013.6		
XX100415-08CRI	PETN	361 > 62	24.01	5005.289	37801.121	5005.289	66.206	bb						



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/16/10  
 Time of Injection 1306  
 Standard Number WXX100415-08CRI  
 Data File EXP0412191a

HMX	109.0
RDX	115.1
135-TNB	115.9
13-DNB	104.3
Tetryl	102.8
Nitrobenzene	95.4
4A-26-DNT	116.6
2A-46-DNT	127.4
246-TNT	122.3
34-DNT(surr)	106.0
26-DNT	103.7
24-DNT	105.1
2-NT	75.9
4-NT	87.8
3-NT	92.4
PETN	142.3

*Handwritten: 4/17/10*

Total 1722.0

Average 107.6

*Handwritten: 4/18/10*

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): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412201a

Analysis Date: 16-APR-10 18:01

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	587.578	98	
1,3-Dinitrobenzene-d4	500	504.505	101	
2,4,6-Trinitrotoluene	600	644.055	107	
2,4-Dinitrotoluene	600	617.761	103	
2,6-Dinitrotoluene	600	553.71	92	
2,6-Dinitrotoluene-d3	500	523.209	105	
2-Amino-4,6-dinitrotoluene	600	592.725	99	
3,4-Dinitrotoluene	300	280.462	93	
4-Amino-2,6-dinitrotoluene	600	558.591	93	
HMX	600	646.479	108	
Nitrobenzene	600	519.544	87	
PETN	600	628.387	105	
RDX	600	680.578	113	
Tetryl	600	547.905	91	
m-Dinitrobenzene	600	577.419	96	
m-Nitrotoluene	600	461.5	77	*
o-Nitrotoluene	600	426.861	71	*
p-Nitrotoluene	600	468.599	78	*

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



# Identify Sample Report

EL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Apr 17 10:45:10 2010, Page 45 of 97

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010

File: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412201a

Date: 16-Apr-2010

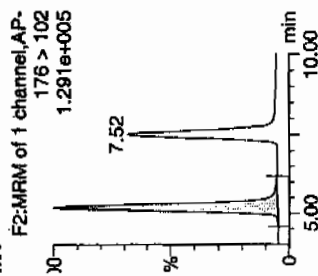
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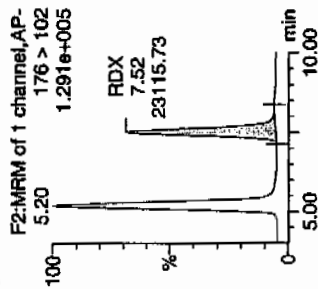
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ATT  
4/17/10

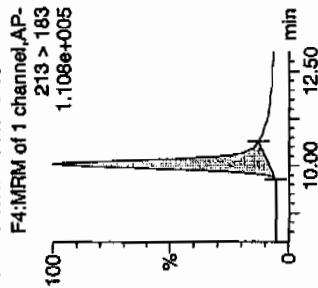
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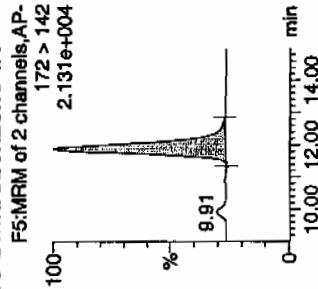
**RDX**



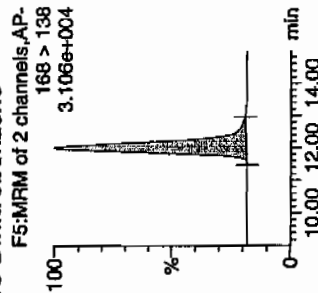
**135-Trinitrobenzene**



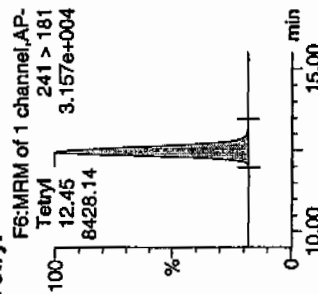
**13-Dinitrobenzene-d4**



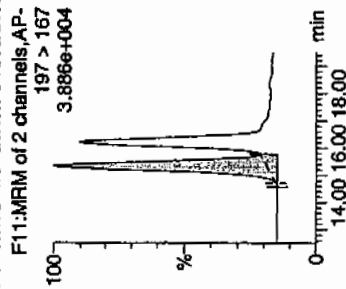
**13-Dinitrobenzene**



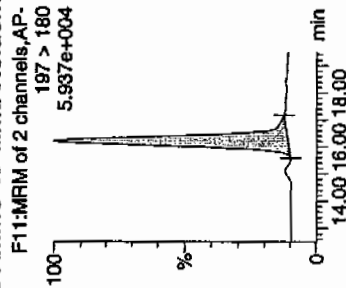
**Tetryl**



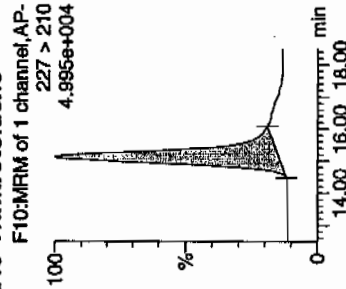
**4-Amino-26-dinitrotoluene**



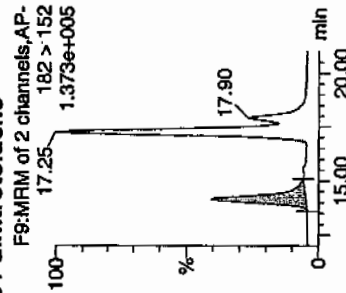
**2-Amino-46-dinitrotoluene**



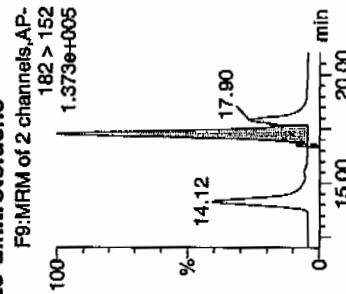
**246-Trinitrotoluene**



**34-dinitrotoluene**

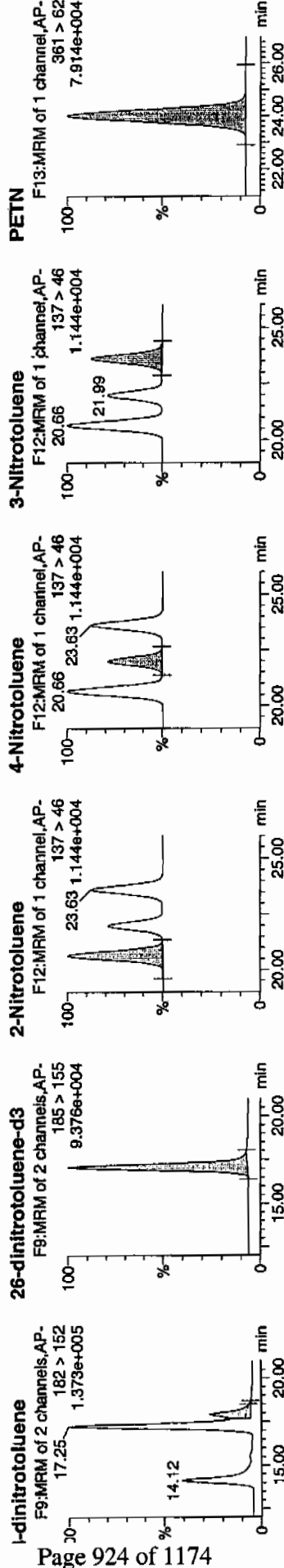


**26-dinitrotoluene**



4/18/10





Name	Trace	RT	Area	SArea	Abis Resp	Response	Flags	Mod Date	Mod Time	Mod/Plm	Area Rec	Mod Dev	Mod SA	
XX100415-07CCV	HMx	176 > 102	5.20	32517.174	5933.344	32517.174	2740.206	bb			646.4785	107.7	7.7	1753.8
XX100415-07CCV	RDX	176 > 102	7.52	23115.730	5933.344	23115.730	1947.951	bb			680.5781	113.4	13.4	1169.6
135-Trinitrobenzene		213 > 183	10.05	30142.449	5933.344	30142.449	2540.089	bb			587.5784	97.9	-2.1	888.8
13-Dinitrobenzene-d4		172 > 142	11.87	5933.344		5933.344	5933.344	bb			504.5048	100.9	0.9	431.8
13-Dinitrobenzene		168 > 138	12.00	9161.674	5933.344	9161.674	772.050	bb			577.4193	96.2	-3.8	490.7
XX100415-07CCV	Tetryl	241 > 181	12.45	8428.140	5933.344	8428.140	710.235	bb			547.9055	91.3	-8.7	557.7
XX100415-07CCV	Nitrobenzene	123 > 46	13.41	3867.448	5933.344	3867.448	325.908	bb			519.5436	86.6	-13.4	454.2
XX100415-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.36	13813.359	36607.000	13813.359	188.671	MM	17-Apr-10	10:34:32	558.5907	93.1	-6.9	456.8
XX100415-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.20	22227.217	36607.000	22227.217	303.592	bb			592.7255	98.8	-1.2	842.9
XX100415-07CCV	246-Trinitrotoluene	227 > 210	15.14	20513.486	36607.000	20513.486	280.185	bb			644.0554	107.3	7.3	426.9
XX100415-07CCV	34-dinitrotoluene	182 > 152	14.12	21172.928	36607.000	21172.928	289.192	bb			280.4622	93.5	-6.5	470.9
XX100415-07CCV	26-dinitrotoluene	182 > 152	17.25	47979.848	36607.000	47979.848	655.337	MM	17-Apr-10	10:37:05	553.7101	92.3	-7.7	1246.8
XX100415-07CCV	24-dinitrotoluene	182 > 152	17.90	11804.882	36607.000	11804.882	161.238	MM	17-Apr-10	10:41:16	617.7611	103.0	3.0	276.3
XX100415-07CCV	26-dinitrotoluene-d3	185 > 155	17.07	36607.000		36607.000	36607.000	bb			523.2086	104.6	4.6	2953.6
XX100415-07CCV	2-Nitrotoluene	137 > 46	20.66	2706.072	36607.000	2706.072	36.961	bb			426.8610	71.1	-28.9	932.0
XX100415-07CCV	4-Nitrotoluene	137 > 46	21.99	1423.074	36607.000	1423.074	19.437	bb			468.5987	78.1	-21.9	532.5
XX100415-07CCV	3-Nitrotoluene	137 > 46	23.63	1969.926	36607.000	1969.926	26.906	bb			461.5004	76.9	-23.1	696.9
XX100415-07CCV	PETN	361 > 62	24.02	40650.574	36607.000	40650.574	555.230	bb			628.3874	104.7	4.7	7112.1



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/16/10  
 Time of Injection: 1801  
 Standard Number: WXX100415-07CCV  
 Data File: EXP0412201a

HMX	107.7
RDX	113.4
135-TNB	97.9
13-DNB	96.2
Tetryl	91.3
Nitrobenzene	86.6
4A-26-DNT	93.1
2A-46-DNT	98.8
246-TNT	107.3
34-DNT(surr)	93.5
26-DNT	92.3
24-DNT	103.0
2-NT	71.1
4-NT	78.1
3-NT	76.9
PETN	104.7

*MTT  
4/17/10*

Total 1511.9

Average 94.5

*Done 04/18/10*

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): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412203a

Analysis Date: 16-APR-10 19:00

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	49.947	125	
1,3-Dinitrobenzene-d4	500	512.579	103	
2,4,6-Trinitrotoluene	40	38.989	97	
2,4-Dinitrotoluene	40	41.706	104	
2,6-Dinitrotoluene	40	40.891	102	
2,6-Dinitrotoluene-d3	500	575.067	115	
2-Amino-4,6-dinitrotoluene	40	46.944	117	
3,4-Dinitrotoluene	20	20.231	101	
4-Amino-2,6-dinitrotoluene	40	32.371	81	
HMX	40	50.356	126	
Nitrobenzene	40	43.303	108	
PETN	40	47.143	118	
RDX	40	51.133	128	
Tetryl	40	43.462	109	
m-Dinitrobenzene	40	41.14	103	
m-Nitrotoluene	40	32.606	82	
o-Nitrotoluene	40	35.3	88	
p-Nitrotoluene	40	33.454	84	

**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



Identify Sample Report  
EL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010

Sample Name: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0412203a

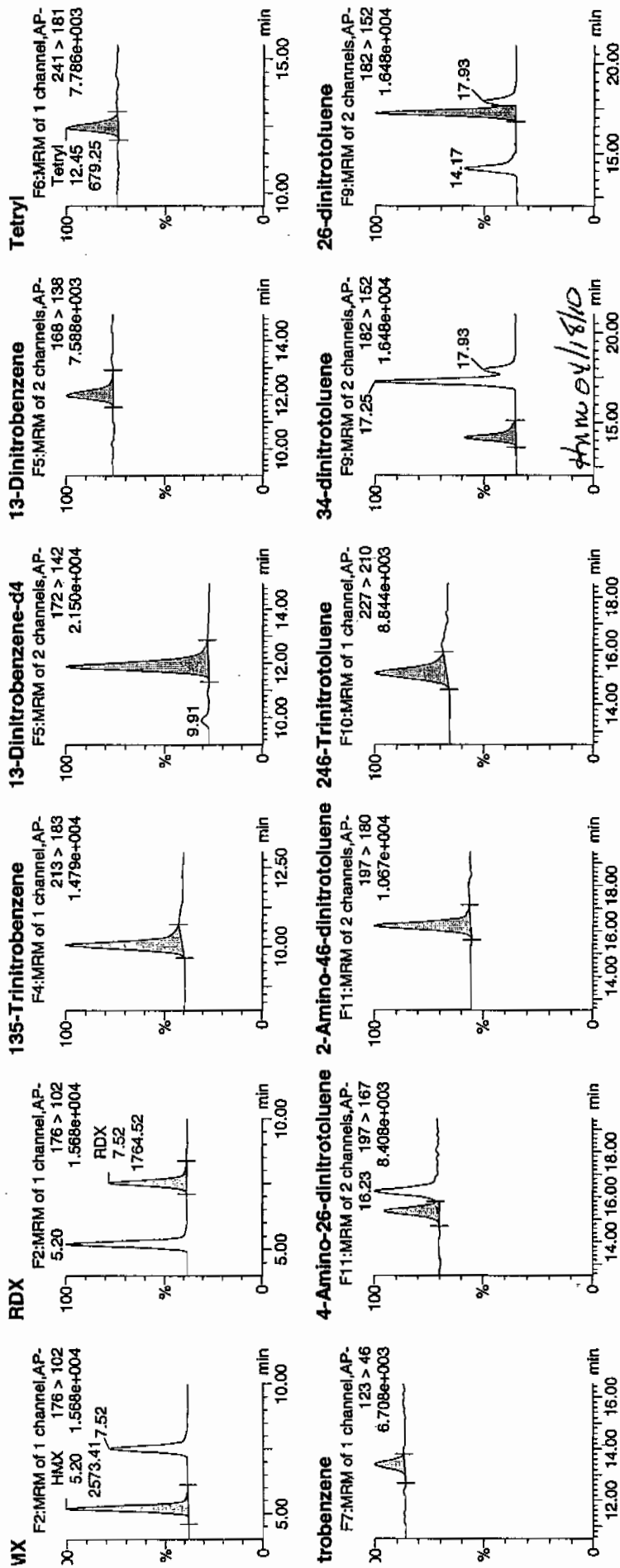
Date: 16-Apr-2010

Time: 19:00:36

Page: WXX100415-08CRI

Ratio: 1:1,C

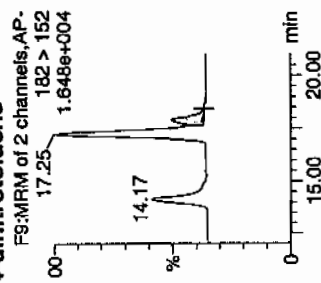
WXX  
4/11/10



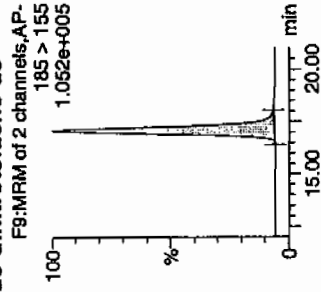


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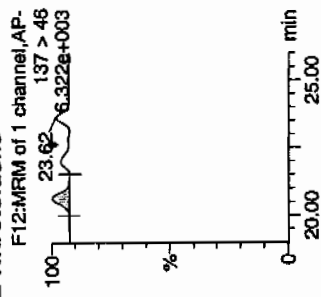
## 4-dinitrotoluene



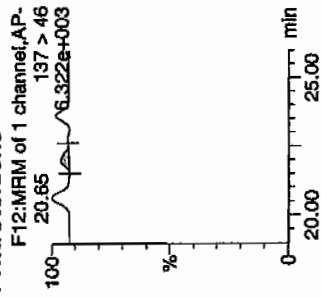
**26-dinitrotoluene-d3**



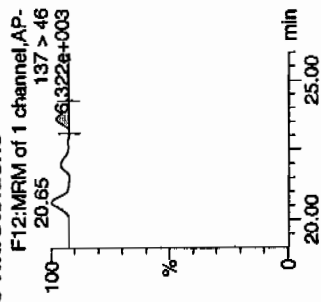
## 2-Nitrotoluene



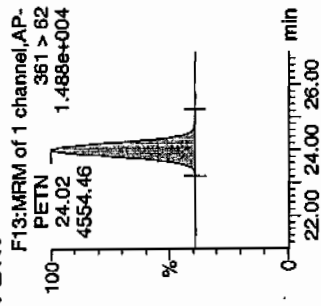
## 4-Nitrotoluena



### 3-Nitrotoluene



**PETN**



Structure	Name	Trace	RT	Area	Area%	AbnResp	Response	Flags	ModDate	ModTime	IntTime	ExTime	Mod	SN
XX100415-08CRI	HMx	176 > 102	5.20	2573.411	6028.306	2573.411	213.444	bb			50.3564	125.9	25.9	285.0
	RDx	176 > 102	7.52	1764.520	6028.306	1764.520	146.353	bb			51.1330	127.8	27.8	181.1
	135-Trinitrobenzene	213 > 183	10.07	2603.258	6028.306	2603.258	215.920	bb			49.9469	124.9	24.9	283.7
	13-Dinitrobenzene-d4	172 > 142	11.89	5028.306		5028.306	6028.306	bb			512.5793	102.5	2.5	1414.3
	13-Dinitrobenzene	168 > 138	12.00	663.200	6028.306	663.200	55.007	bb			41.1401	102.9	2.9	75.3
	Tetxyl	241 > 181	12.45	679.250	6028.306	679.250	56.338	bb			43.4618	108.7	8.7	78.4
	Nitrobenzene	123 > 46	13.41	327.507	6028.306	327.507	27.164	bb			43.3034	108.3	8.3	34.7
	4-Amino-26-dinitrotoluene	197 > 167	15.36	879.849	40235.324	879.849	10.934	MM	17-Apr-10	10:34:23	32.3712	80.9	-19.1	45.6
	2-Amino-46-dinitrotoluene	197 > 180	16.23	1934.887	40235.324	1934.887	24.045	bb			46.9441	117.4	17.4	258.1
	246-Trinitrotoluene	182 > 210	15.14	1364.917	40235.324	1364.917	16.962	bb			38.9894	97.5	-2.5	143.5
XX100415-08CRI	34-dinitrotoluene	227 > 152	14.17	1678.644	40235.324	1678.644	20.860	bb			20.2306	101.2	1.2	110.3
	26-dinitrotoluene	182 > 152	17.25	3894.486	40235.324	3894.486	48.396	MM	17-Apr-10	10:37:17	40.8912	102.2	2.2	303.4
	24-dinitrotoluene	182 > 152	17.93	875.952	40235.324	875.952	10.885	MM	17-Apr-10	10:41:04	41.7057	104.3	4.3	65.1
	26-dinitrotoluene-d3	185 > 155	17.09	40235.324		40235.324	40235.324	bb			575.0667	115.0	15.0	3062.9
	2-Nitrotoluene	137 > 46	20.65	245.965	40235.324	245.965	3.057	bb			35.3002	88.3	-11.7	43.8
	4-Nitrotoluene	137 > 46	21.97	111.664	40235.324	111.664	1.388	bb			33.4536	83.6	-16.4	20.5
	3-Nitrotoluene	137 > 46	23.62	152.974	40235.324	152.974	1.901	bb			32.6059	81.5	-18.5	32.2
	PETN	361 > 62	24.02	4554.459	40235.324	4554.459	56.598	bb			47.1429	117.9	17.9	1470.3



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/16/10  
 Time of Injection 1900  
 Standard Number WXX100415-08CRI  
 Data File EXP0412203a

HMX	125.9
RDX	127.8
135-TNB	124.9
13-DNB	102.9
Tetryl	108.7
Nitrobenzene	108.3
4A-26-DNT	80.9
2A-46-DNT	117.4
246-TNT	97.5
34-DNT(surr)	101.2
26-DNT	102.2
24-DNT	104.3
2-NT	88.3
4-NT	83.6
3-NT	81.5
PETN	117.9

*Handwritten:* 4/16/10

Total 1673.3

Average 104.6

*Handwritten:* HMM 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): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050013.wiff

Analysis Date: 05-APR-10 15:54

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	121	121	
2,6-Diamino-4-nitrotoluene	100	128	128	
3,4-Dinitrotoluene	50	58.4	117	
3,5-Dinitroaniline	100	118	118	
TATB	100	103	103	
tris(o-cresyl) phosphate	100	116	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%

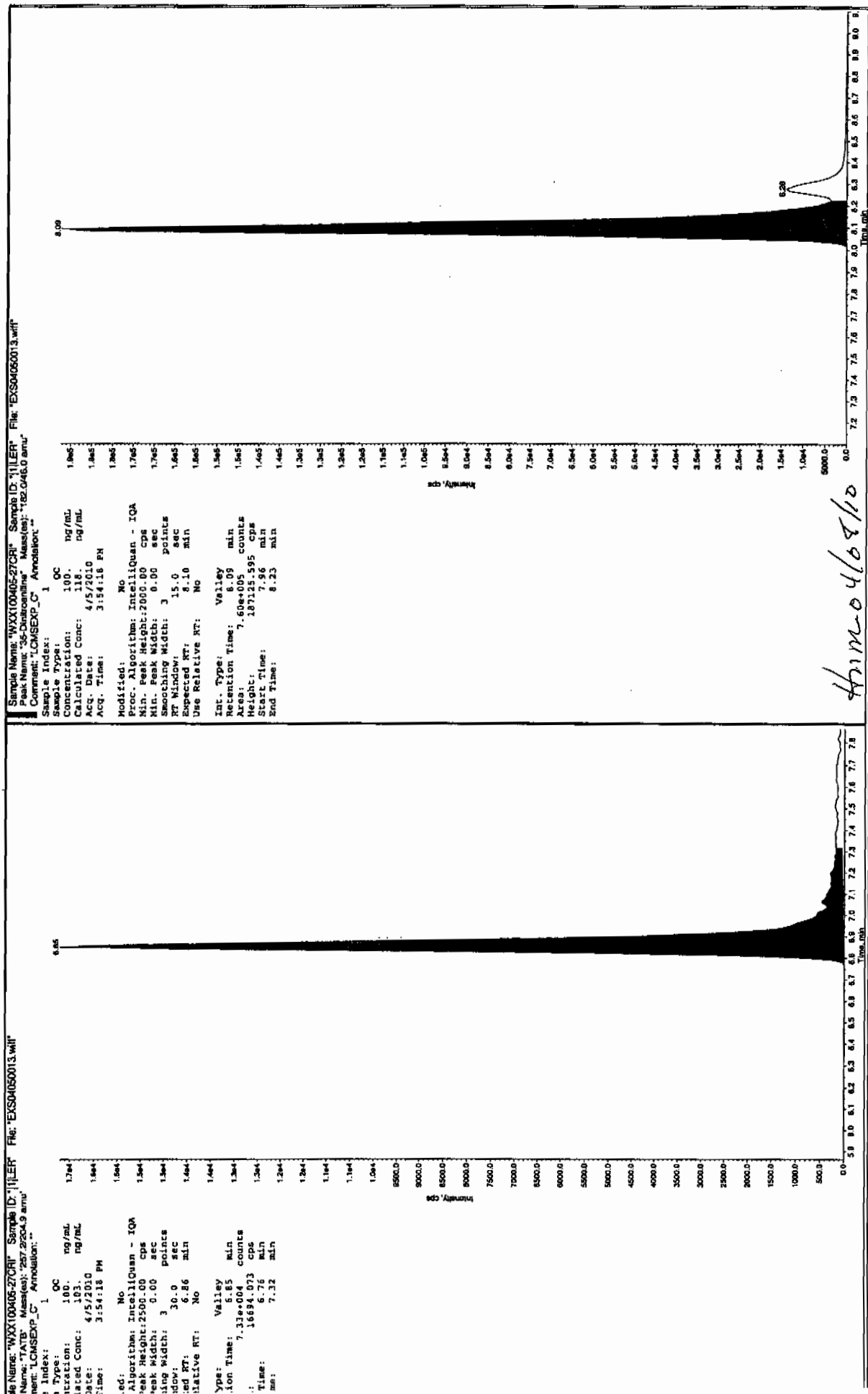
Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

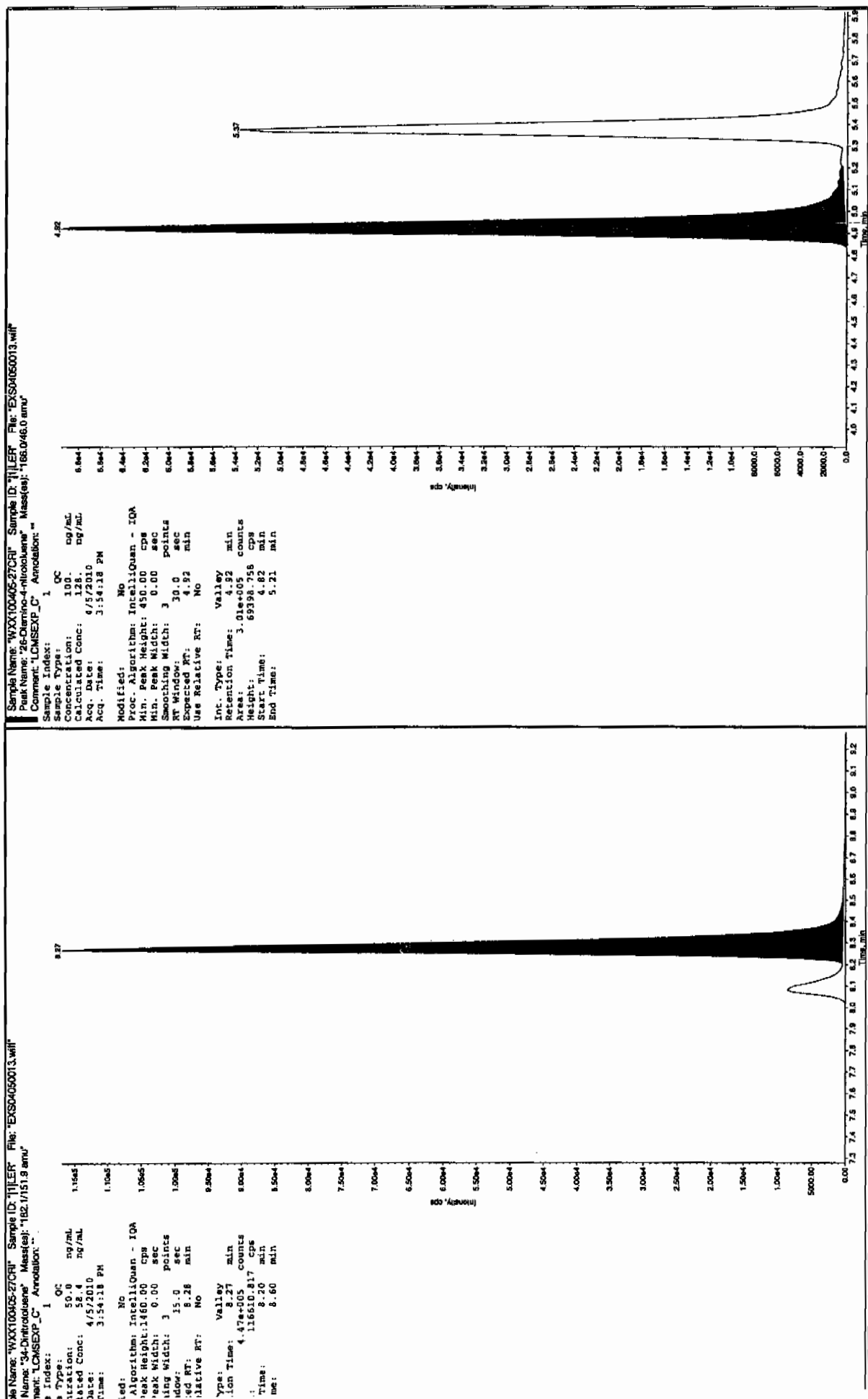


Jan 4/2/10



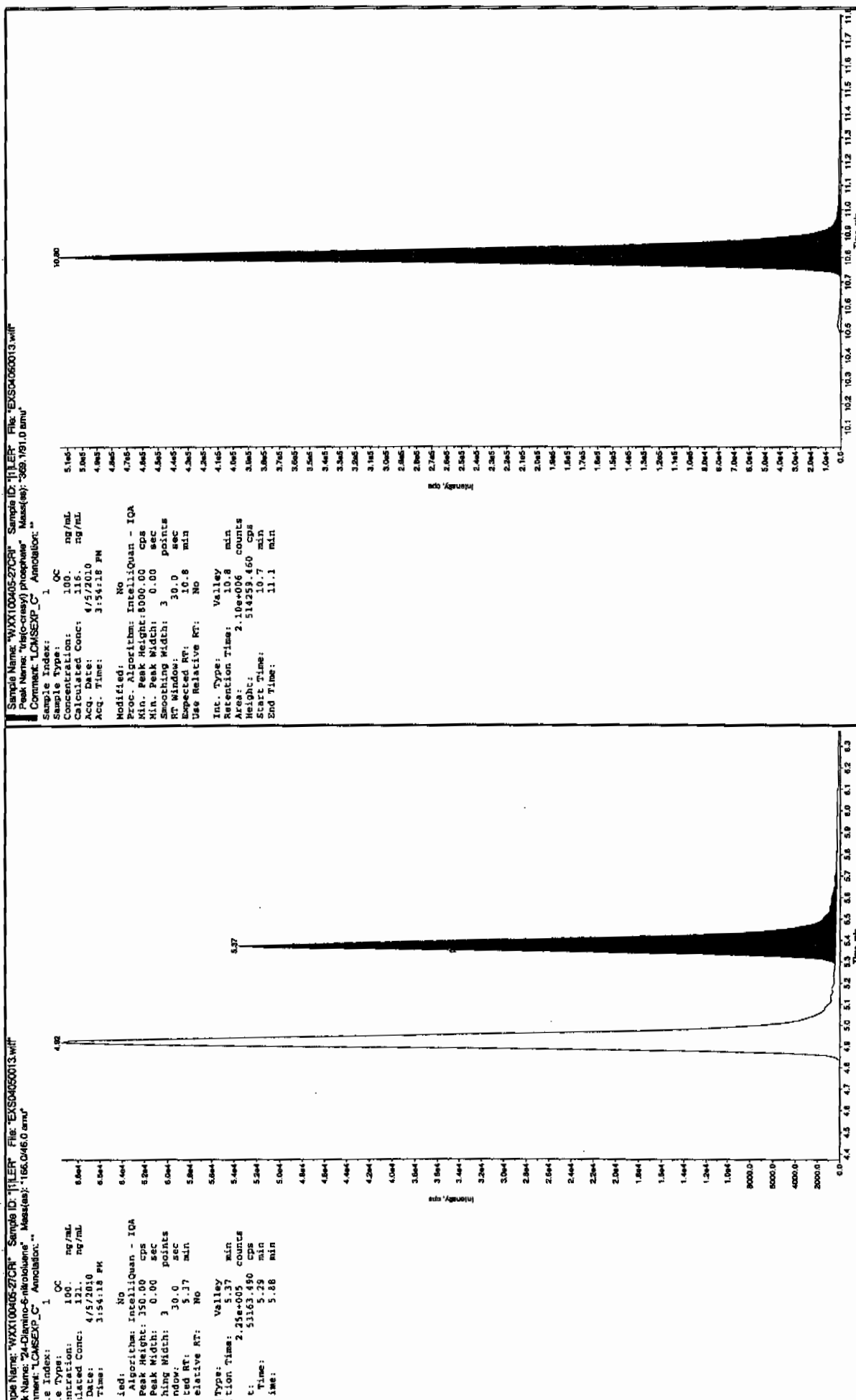
4/2/10





SOP GL-OA-E-056, Method 8321A-Modified LCM SMS#4





SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050024.wiff

Analysis Date: 05-APR-10 18:47

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	458	92	
2,6-Diamino-4-nitrotoluene	500	468	94	
3,4-Dinitrotoluene	250	233	93	
3,5-Dinitroaniline	500	503	101	
TATB	500	470	94	
tris(o-cresyl) phosphate	500	487	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%

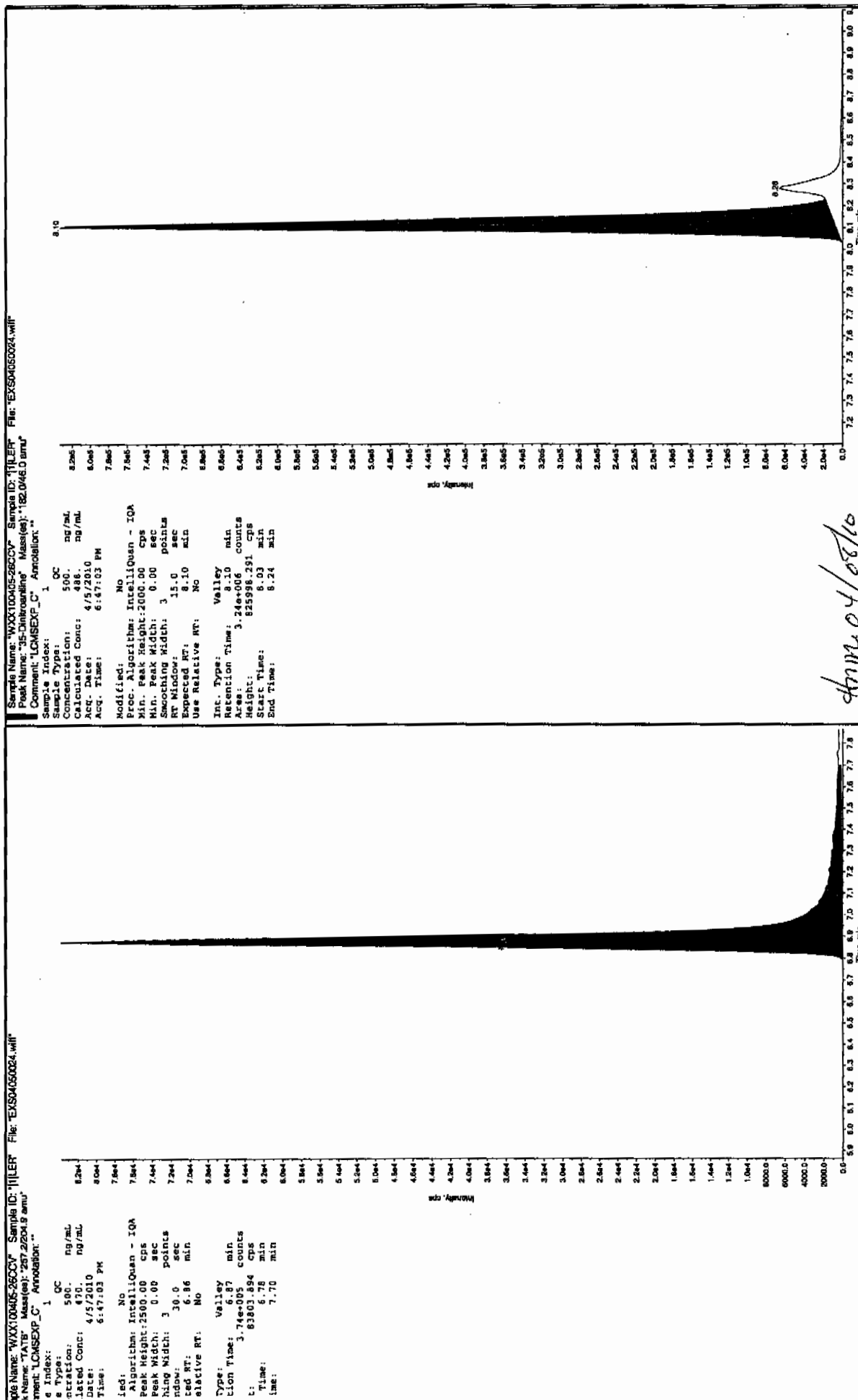
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits



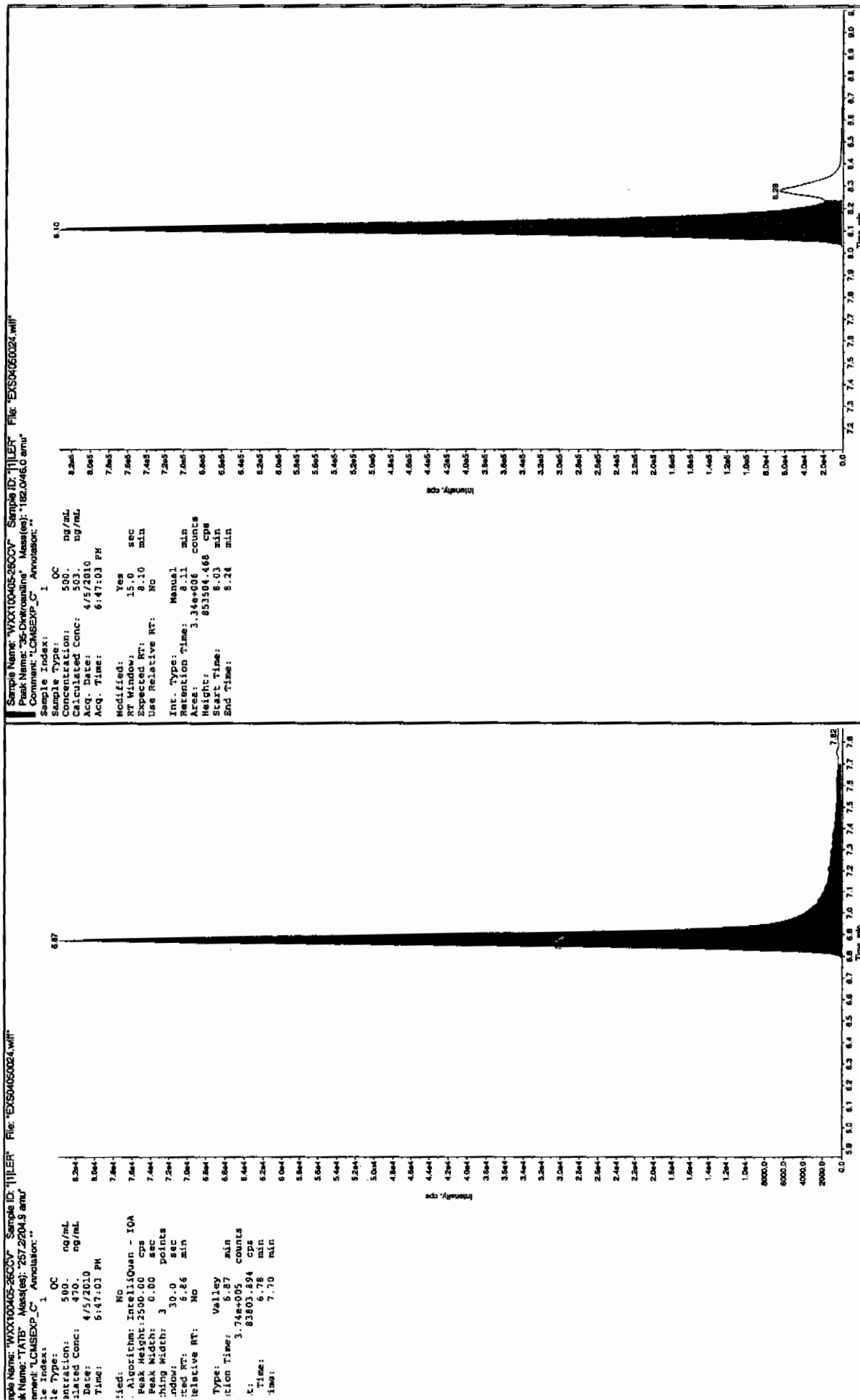
Before Sep 4/7/10



4/11/10 04/08/10

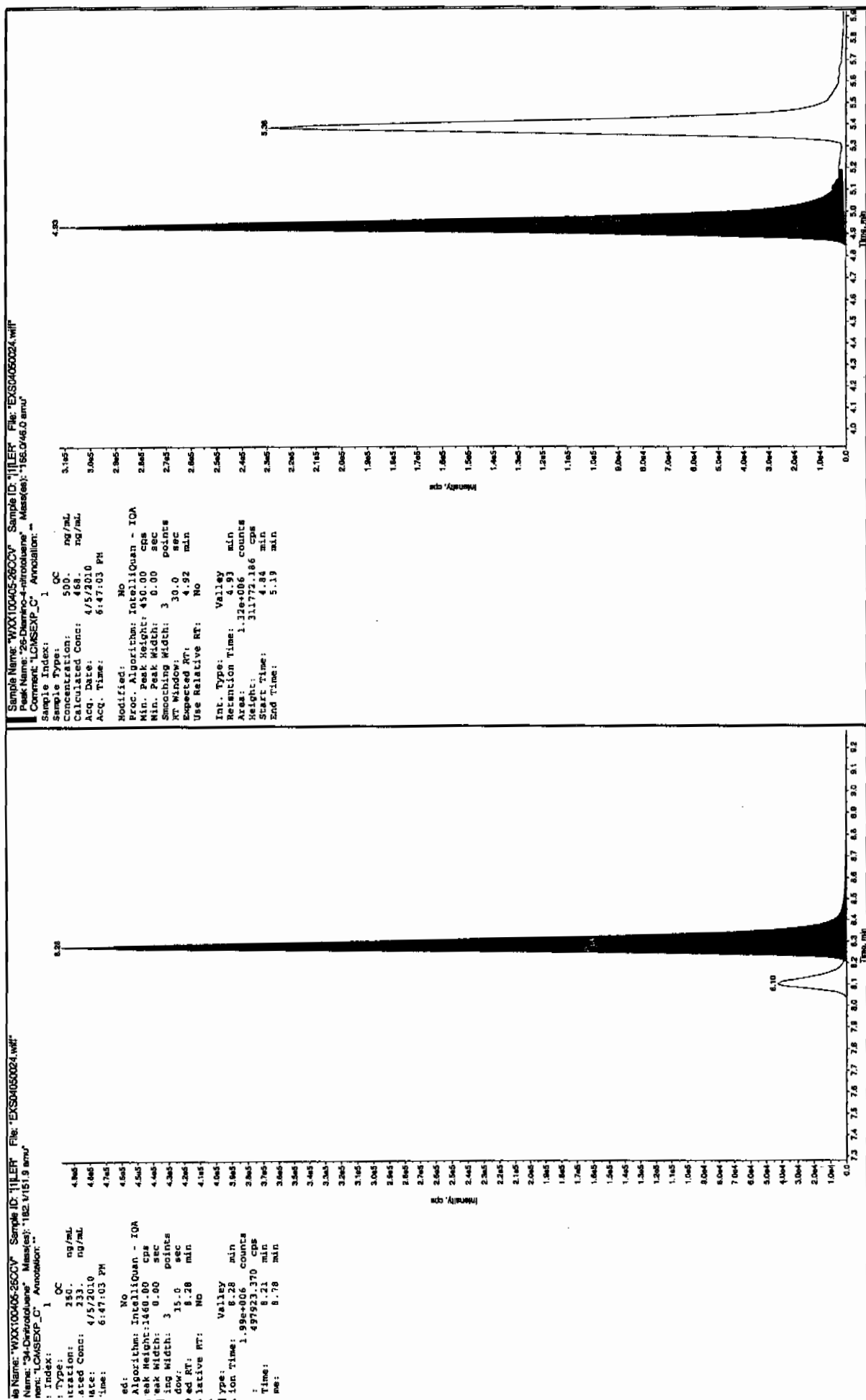


after Jan 4/17/10



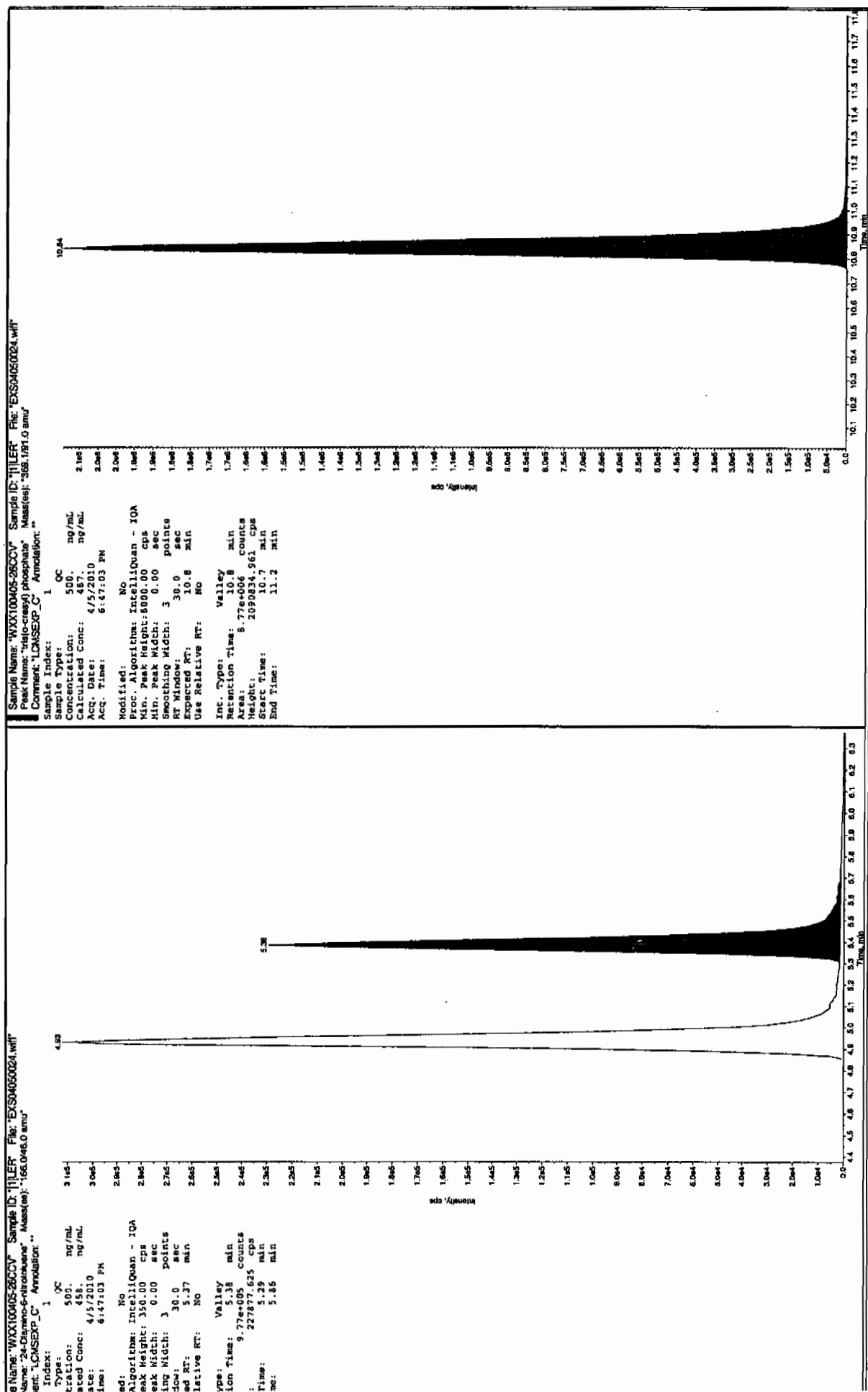
, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4







**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050026.wiff

Analysis Date: 05-APR-10 19:18

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	116	116	
2,6-Diamino-4-nitrotoluene	100	114	114	
3,4-Dinitrotoluene	50	54.3	109	
3,5-Dinitroaniline	100	109	109	
TATB	100	101	101	
tris(o-cresyl) phosphate	100	112	112	

**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 4/7/10

File Name: "WXX100405-27CR1" Sample ID: "11LER" File: "EXSD04050028.wif"

Name: "TATB" Mass(es): "257.27049 amu"

Method: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Type: QC

Concentration: 100. ng/mL

Calculated Conc: 101. ng/mL

Acq. Date: 4/5/2010

Acq. Time: 7:18:27 PM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2500.00 cps

Min. Peak Width: 3.00 sec

Smoothing Width: 3.00 points

RT Window: 30.0 sec

Expected RT: 6.86 min

Use Relative RT: No

Int. Type: Valley

Retention Time: 6.88 min

Area: 7.14e+004 counts

Height: 16154.438 cps

Start Time: 6.79 min

End Time: 7.44 min

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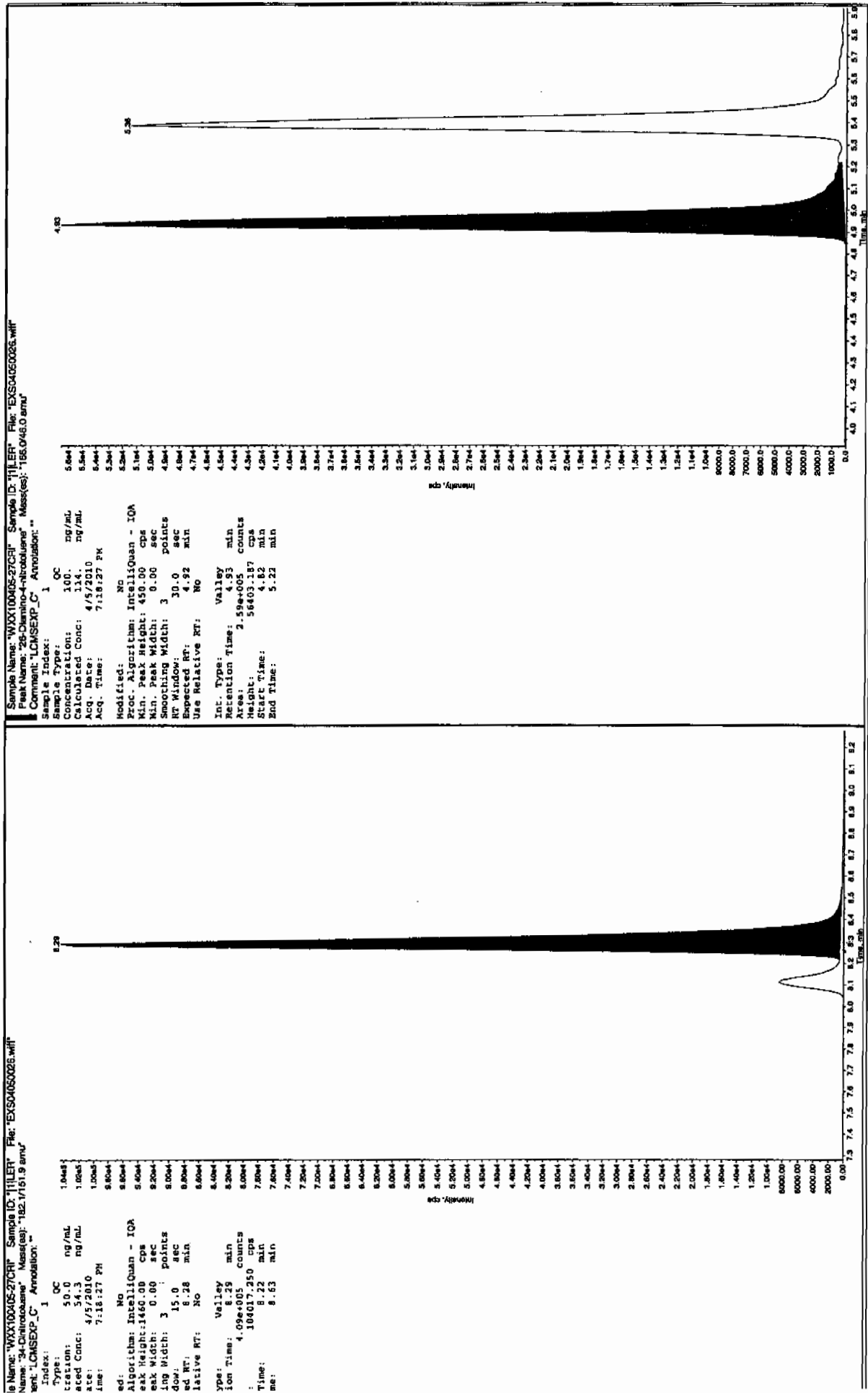
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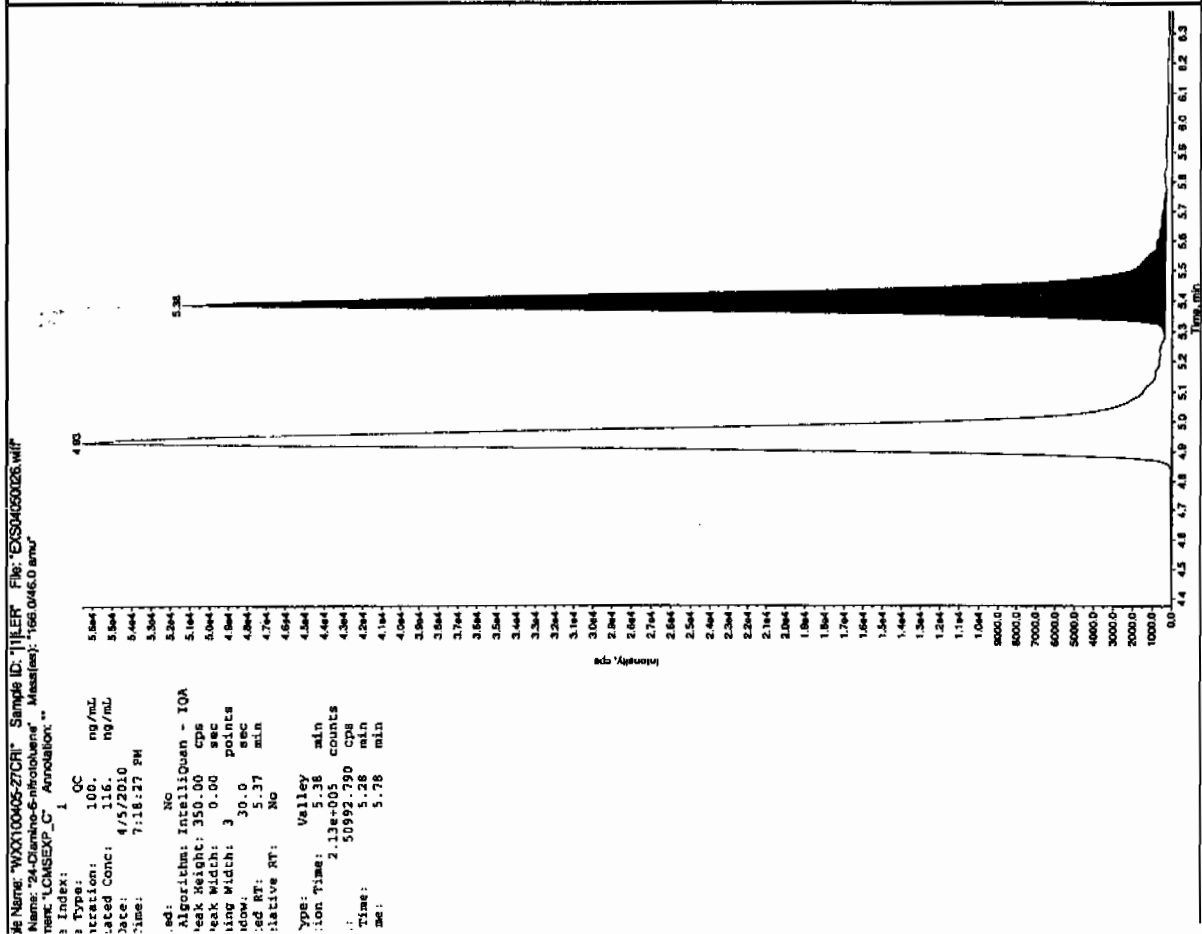
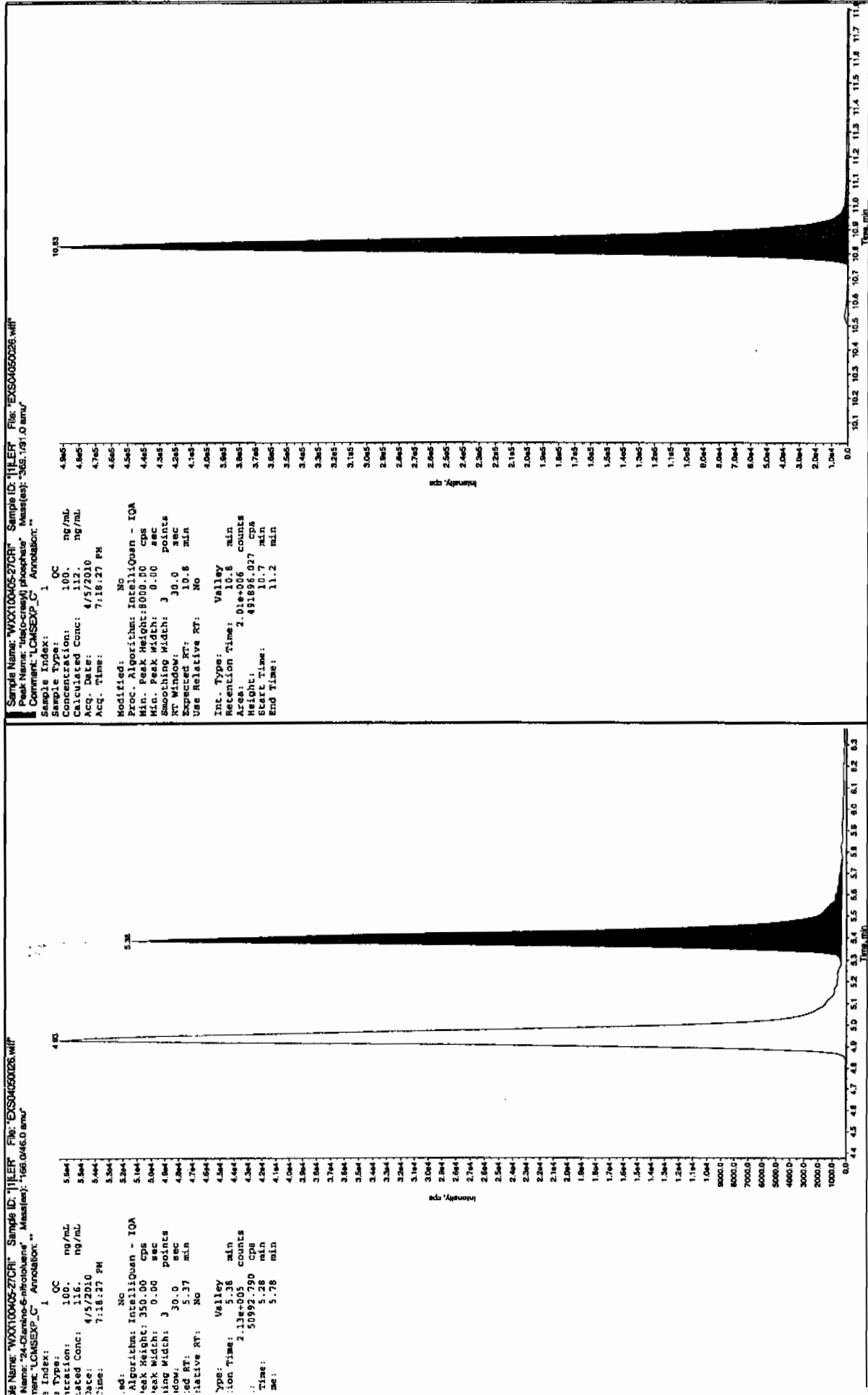
1765





SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050037.wiff

Analysis Date: 05-APR-10 22:11

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	545	109	
2,6-Diamino-4-nitrotoluene	500	513	103	
3,4-Dinitrotoluene	250	238	95	
3,5-Dinitroaniline	500	533	107	
TATB	500	511	102	
tris(o-cresyl) phosphate	500	496	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



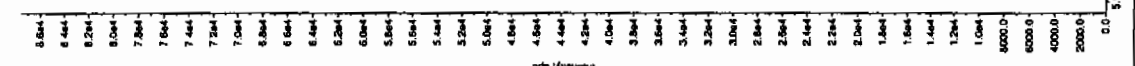
Scan 417110

File Name: "WXX100405-2600V" Sample ID: "11111" File: "EXS04050037.wif"  
 Name: "TATIS" Mass(es): "257.2004.9 amu"  
 Name: "LONSEXP\_C" Annotation: "Acquisition"

Sample Index: 1  
 Sample Type: OC  
 Concentration: 500 ng/mL  
 Calculated Conc: 511 ng/mL  
 Acq. Date: 4/5/2010  
 Acq. Time: 10:11:19 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: 6.86 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 6.86 min  
 Peak Height: 4.08e+08 counts  
 Peak Area: 87492.840 cps  
 Start Time: 6.75 min  
 End Time: 7.07 min



Sample Name: "WXX100405-2600V" Sample ID: "11111" File: "EXS04050037.wif"  
 Peak Name: "TATIS" Mass(es): "182.046.0 amu"  
 Name: "LONSEXP\_C" Annotation: "Acquisition"

Sample Index: 1  
 Sample Type: OC  
 Concentration: 500 ng/mL  
 Calculated Conc: 511 ng/mL  
 Acq. Date: 4/5/2010  
 Acq. Time: 10:11:19 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: 8.10 min  
 Use Relative RT: No

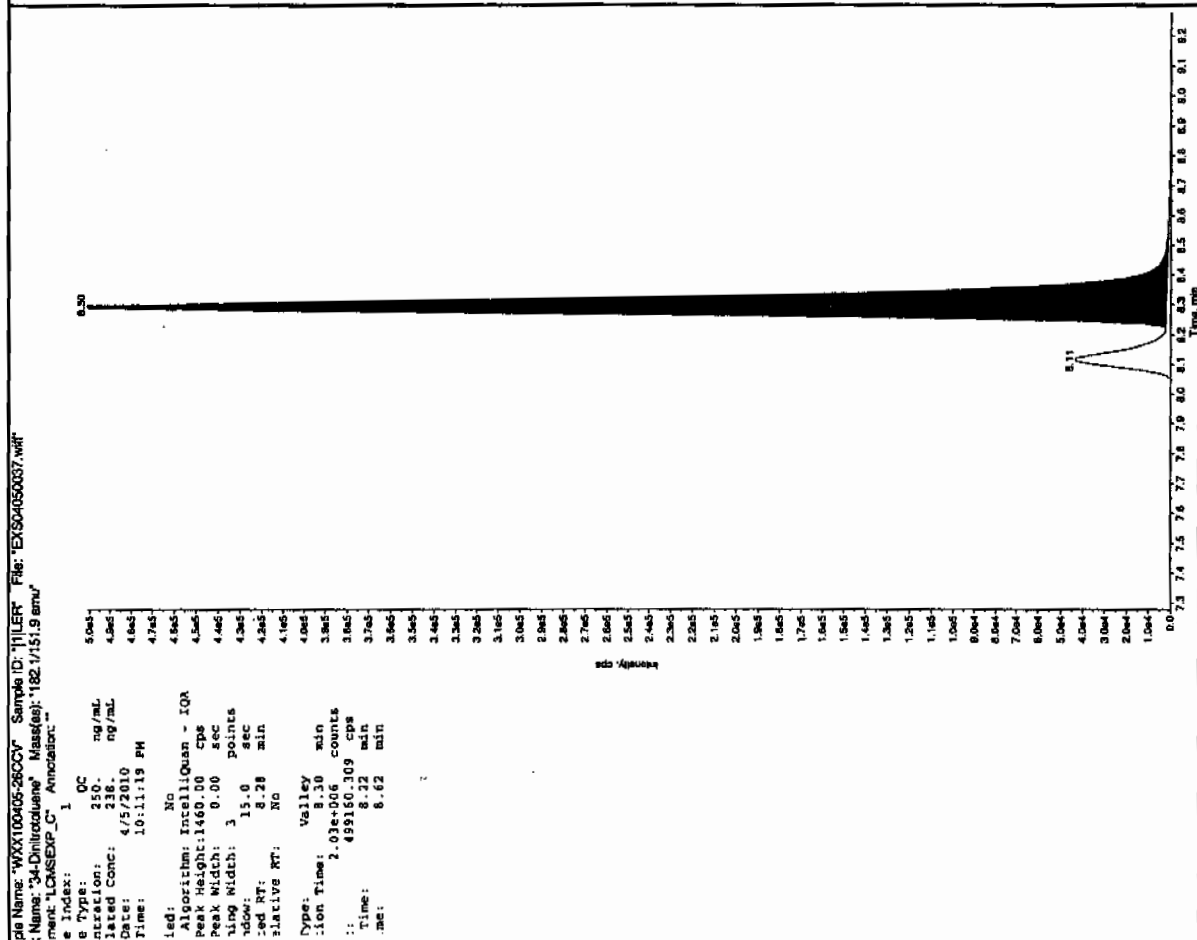
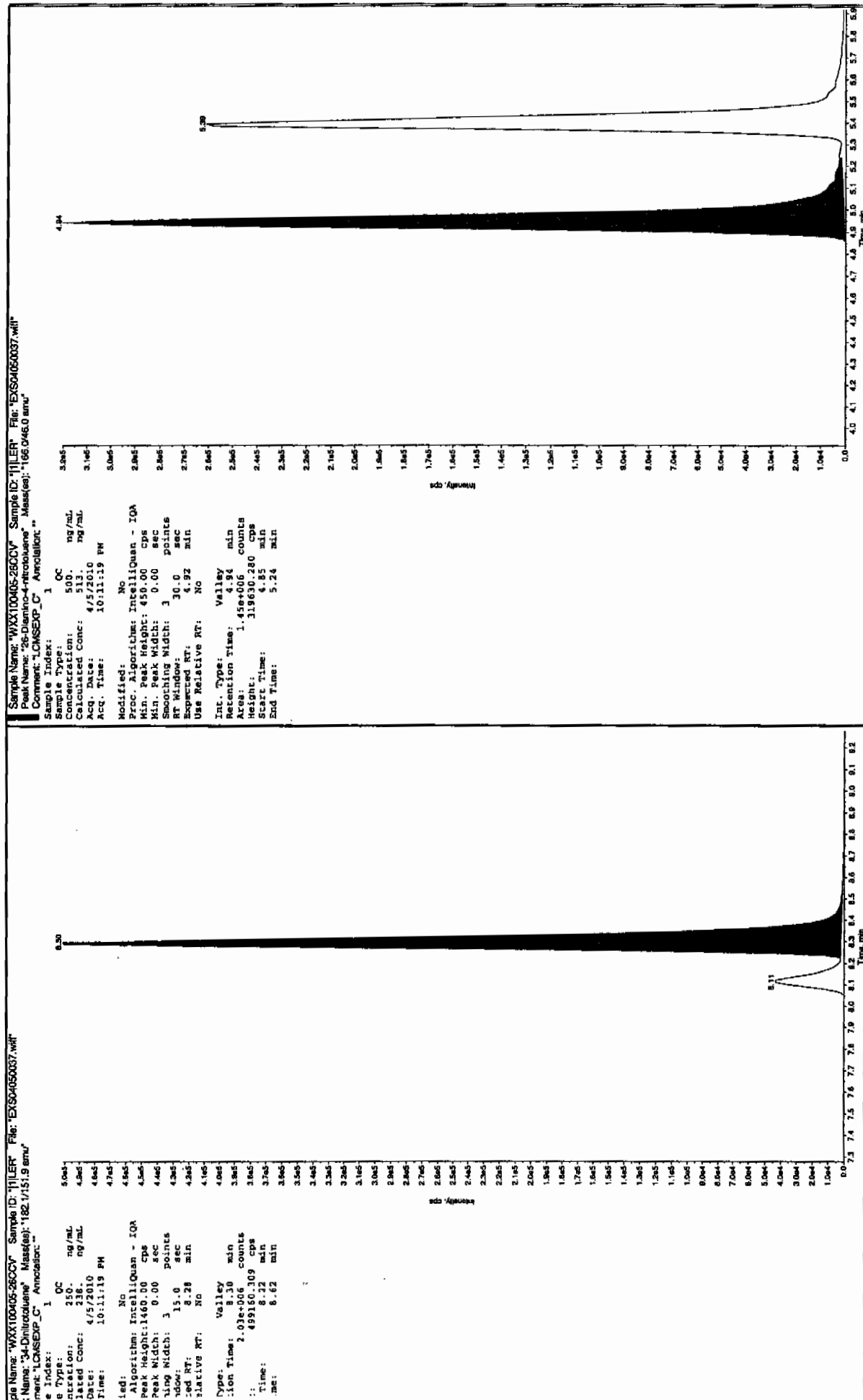
Int. Type: Valley  
 Retention Time: 8.12 min  
 Peak Height: 3.52e+08 counts  
 Peak Area: 846138.245 cps  
 Start Time: 8.03 min  
 End Time: 8.25 min



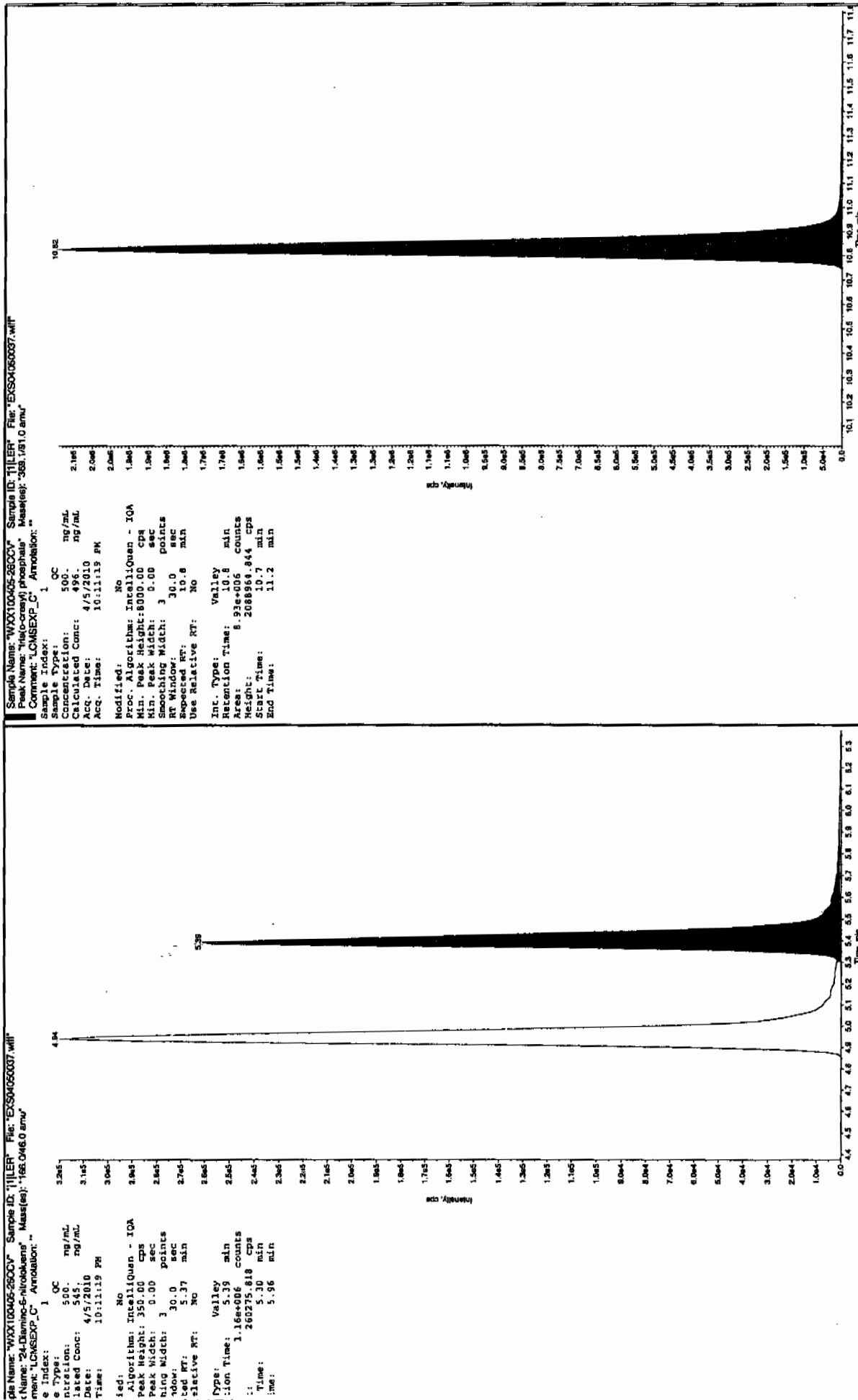
SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

4/10/10 10:11:19









SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050039.wiff

Analysis Date: 05-APR-10 22:42

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	137	137	
2,6-Diamino-4-nitrotoluene	100	129	129	
3,4-Dinitrotoluene	50	55.5	111	
3,5-Dinitroaniline	100	122	122	
TATB	100	108	108	
tris(o-cresyl) phosphate	100	113	113	

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

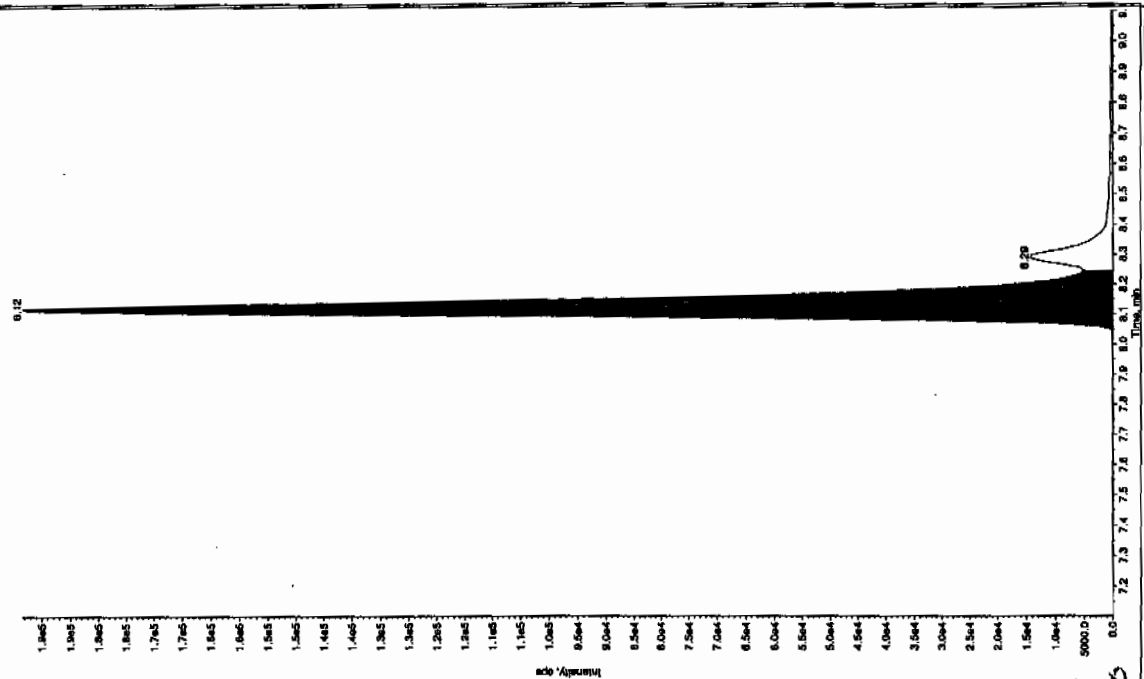
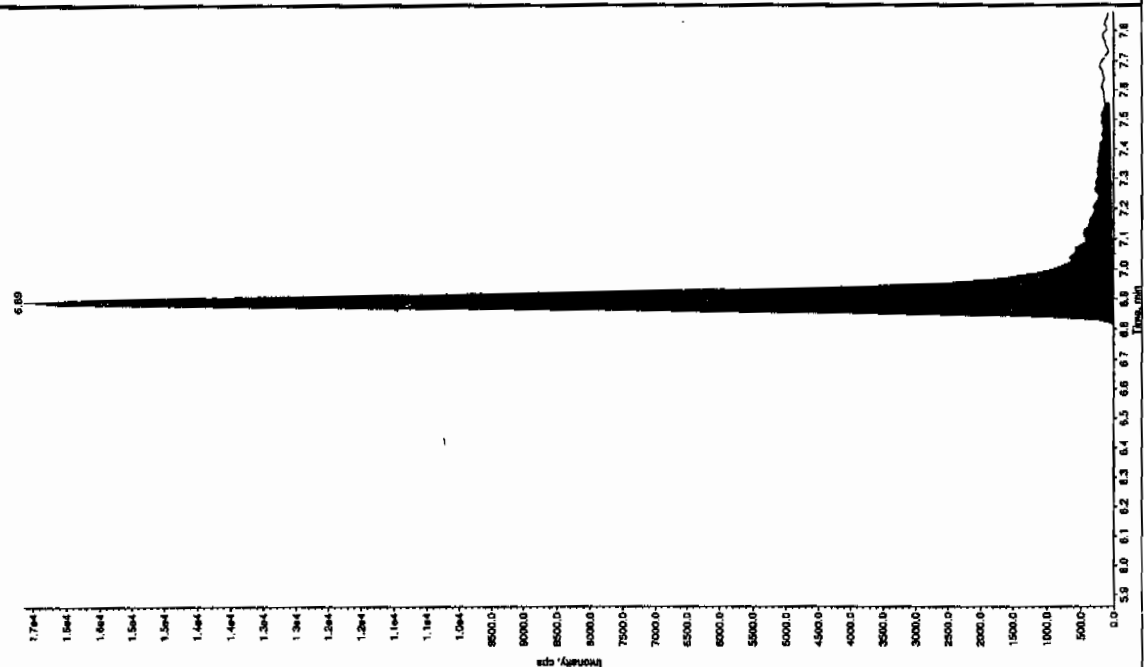
\* Value outside of Recovery Limits



See 4/21/10

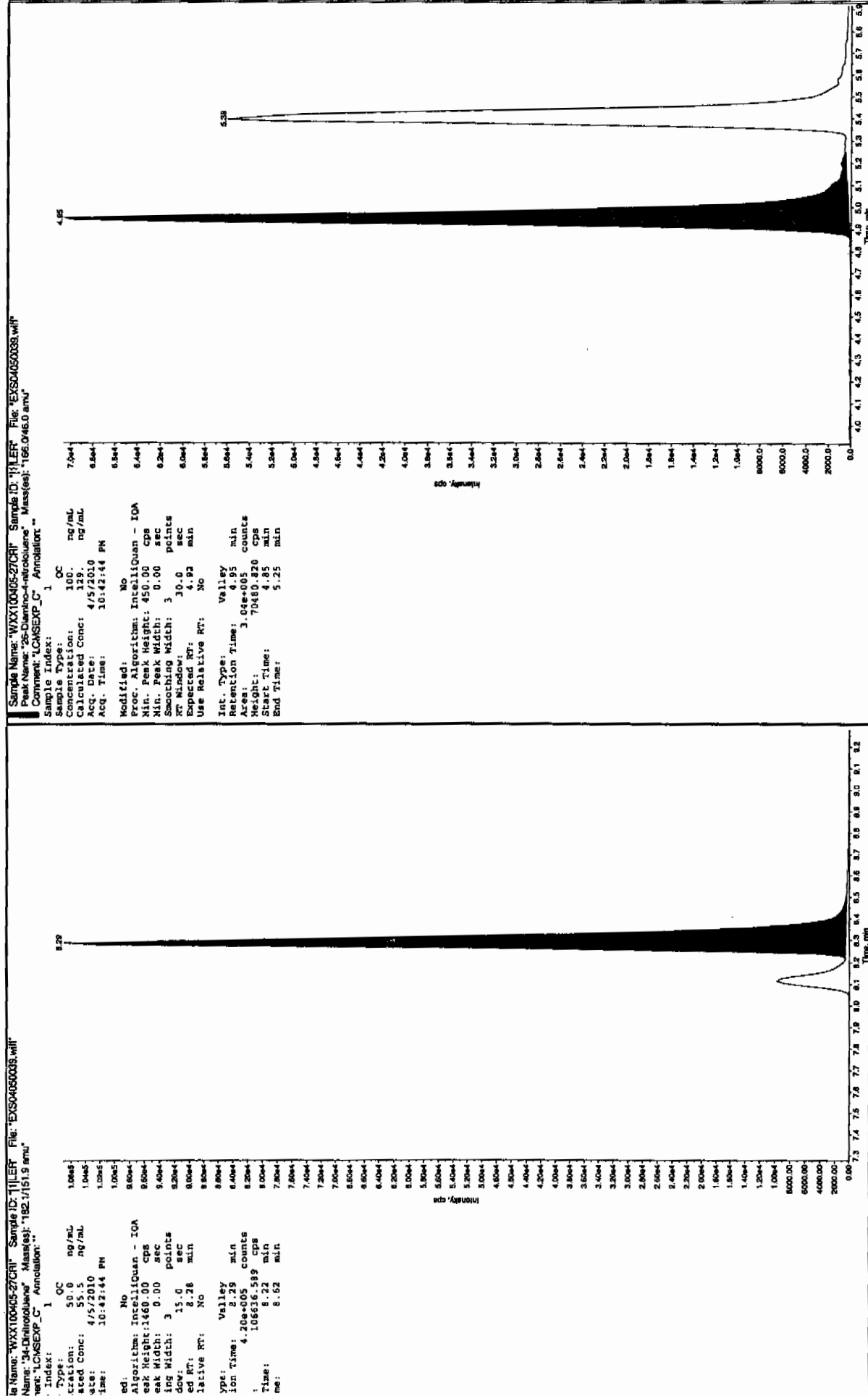
Sample Name: "WXX100405-27CR" Sample ID: "HILER" File: "EXS04050035.wif"  
 Name: "TATB" Mass(es): "257.2704.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 122. ng/mL  
 Acq. Date: 4/5/2010  
 Acq. Time: 10:42:44 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: 8.10 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.12 min  
 Area: 7.90e+005 counts  
 Height: 193252.884 cps  
 Start Time: 7.59 min  
 End Time: 8.25 min



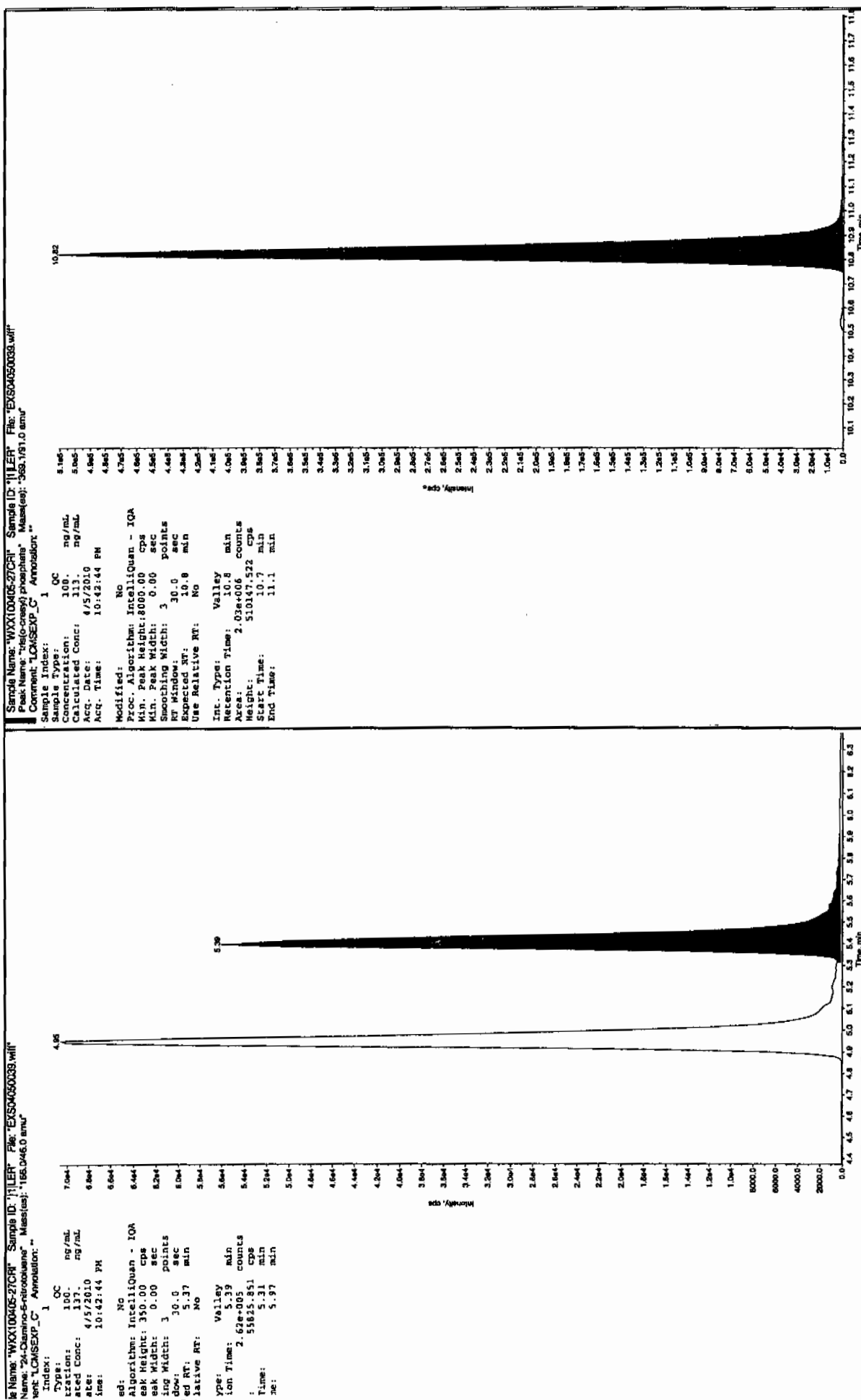
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SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050050.wiff

Analysis Date: 06-APR-10 01:35

LCMSMS ID: 1358

Column ID: Sphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	615	123	
2,6-Diamino-4-nitrotoluene	500	532	106	
3,4-Dinitrotoluene	250	248	99	
3,5-Dinitroaniline	500	555	111	
TATB	500	515	103	
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

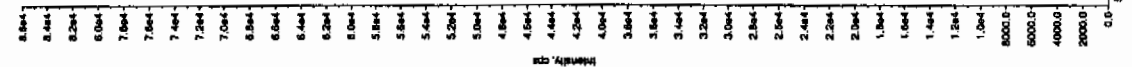
\* Value outside of Recovery Limits



Before Jan 4/17/10

Sample Name: "WXX100405-260CV" Sample ID: "JLPER" File: "EXS040500050.wif"  
 Peak Name: "TATP" Mass(es): "257.2204.9 amu"  
 Unit: "LONSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: OC  
 Concentration: 500. ng/mL  
 Calculated Conc: 515. ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 1:35:36 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Peak Height: 2500.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 6.86 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 6.89 min  
 Area: 4.10e+005 counts  
 Height: 86091.841 cps  
 Start Time: 6.75 min  
 End Time: 7.70 min



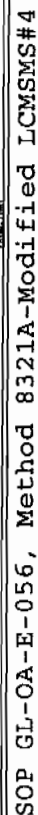
Sample Name: "WXX100405-260CV" Sample ID: "JLPER" File: "EXS040500050.wif"  
 Peak Name: "35-Chlorocoumarin" Mass(es): "182.0466.0 amu"  
 Unit: "LONSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: OC  
 Concentration: 500. ng/mL  
 Calculated Conc: 534. ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 1:35:36 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Peak Height: 2000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.10 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.12 min  
 Area: 3.53e+006 counts  
 Height: 394476.854 cps  
 Start Time: 8.03 min  
 End Time: 8.23 min



After 04/08/10

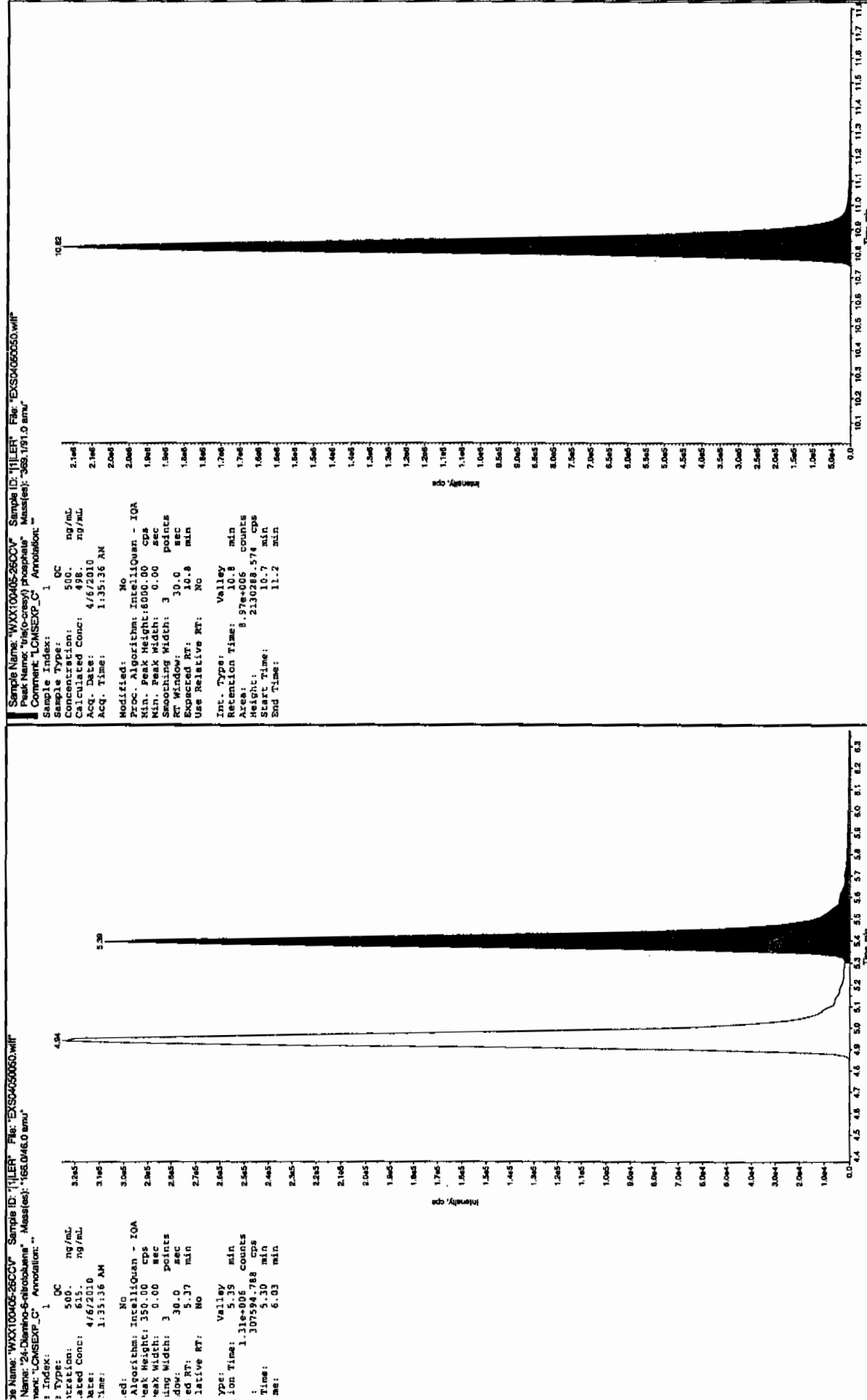












SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050052.wiff

Analysis Date: 06-APR-10 02:06

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	129	129	
2,6-Diamino-4-nitrotoluene	100	130	130	
3,4-Dinitrotoluene	50	57.7	115	
3,5-Dinitroaniline	100	125	125	
TATB	100	110	110	
tris(o-cresyl) phosphate	100	113	113	

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%

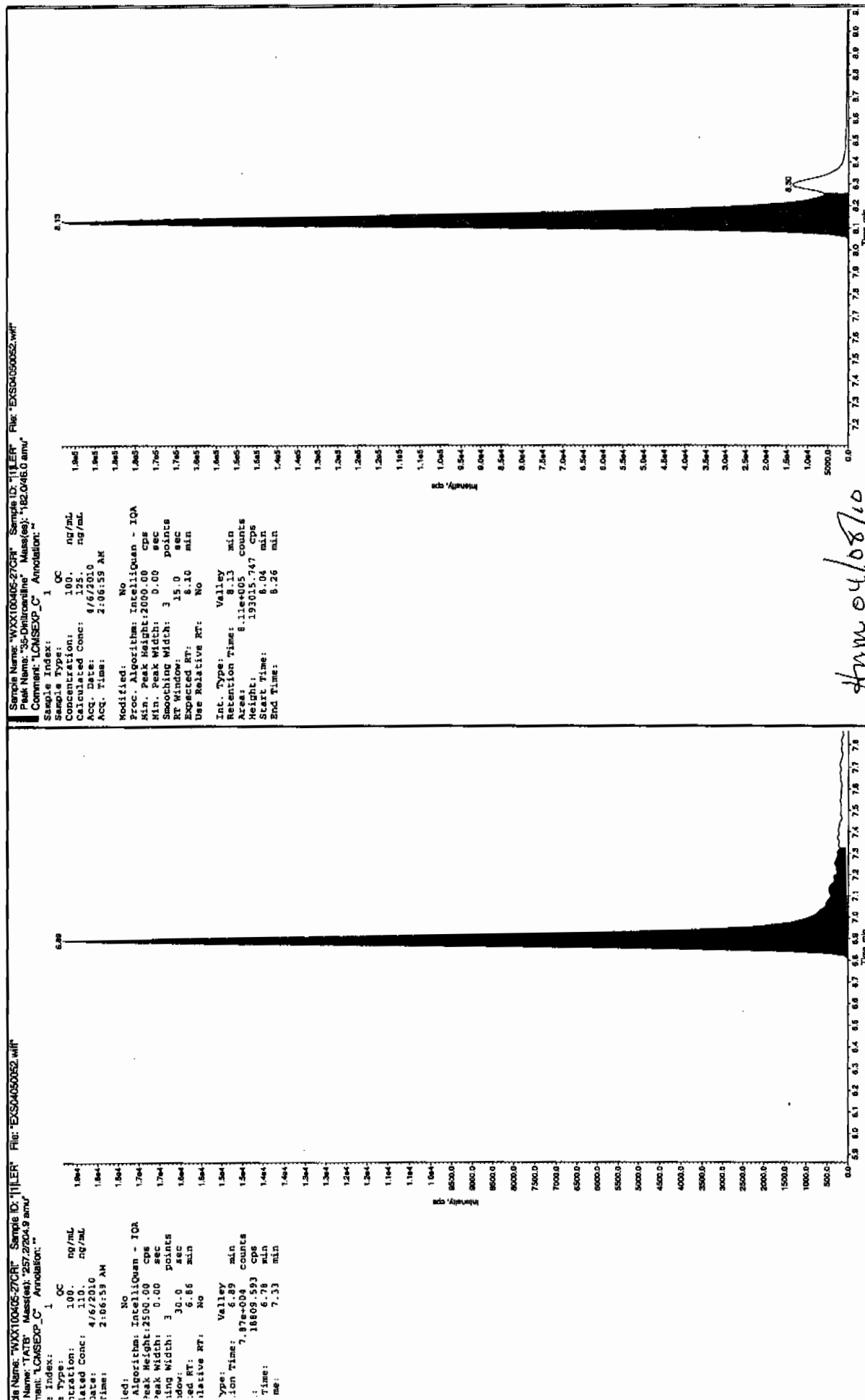
Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

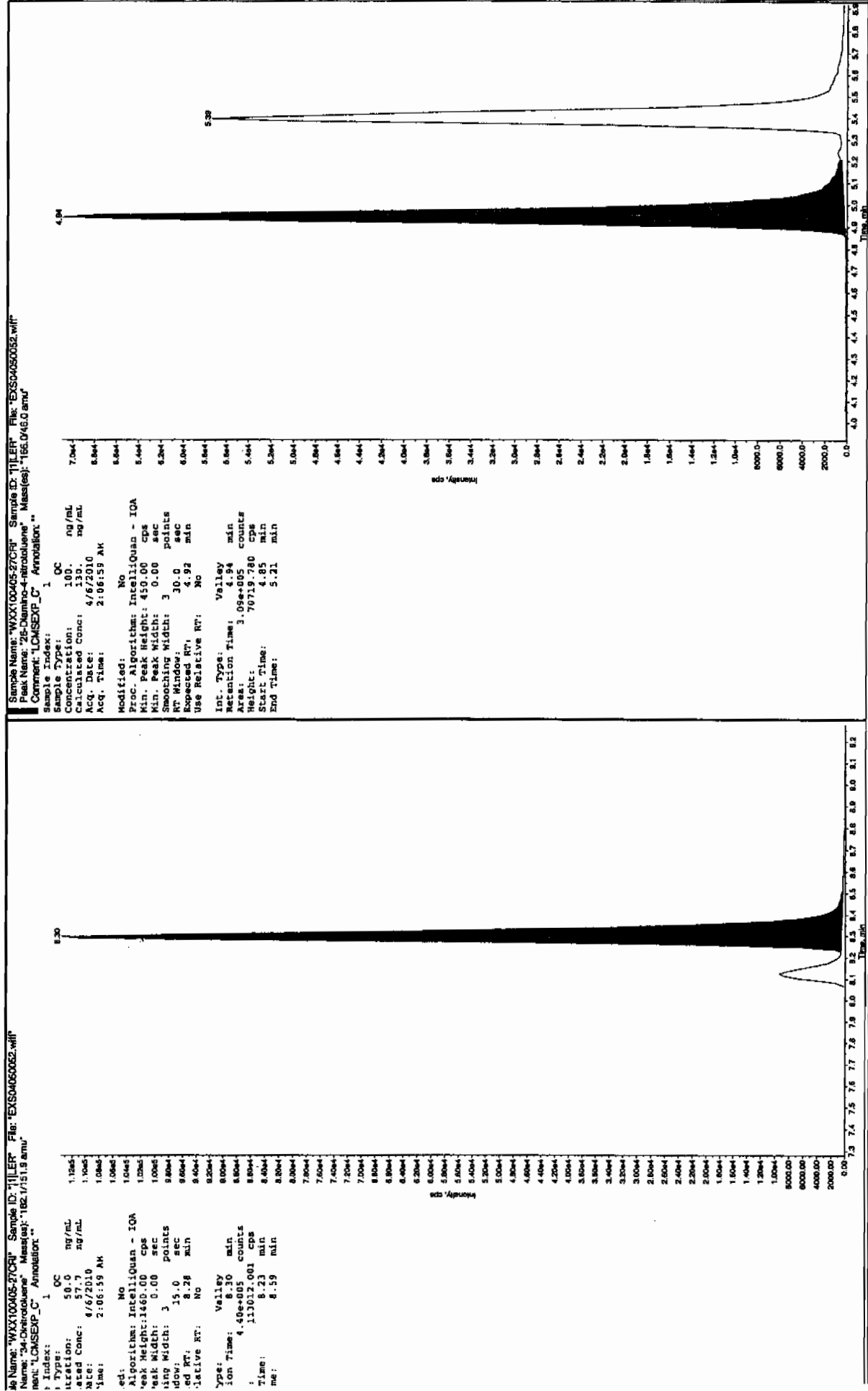


Scan 4/11/10



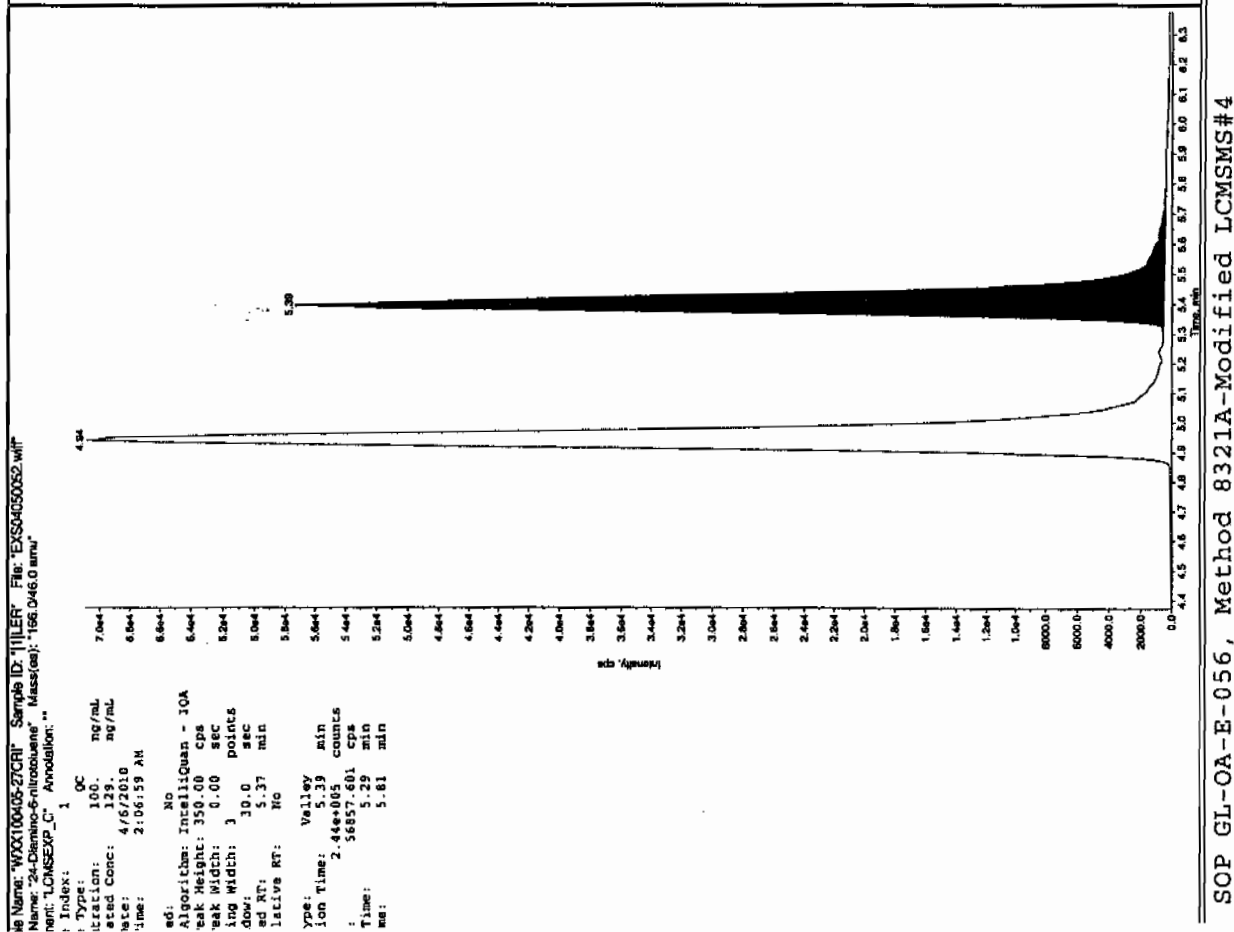
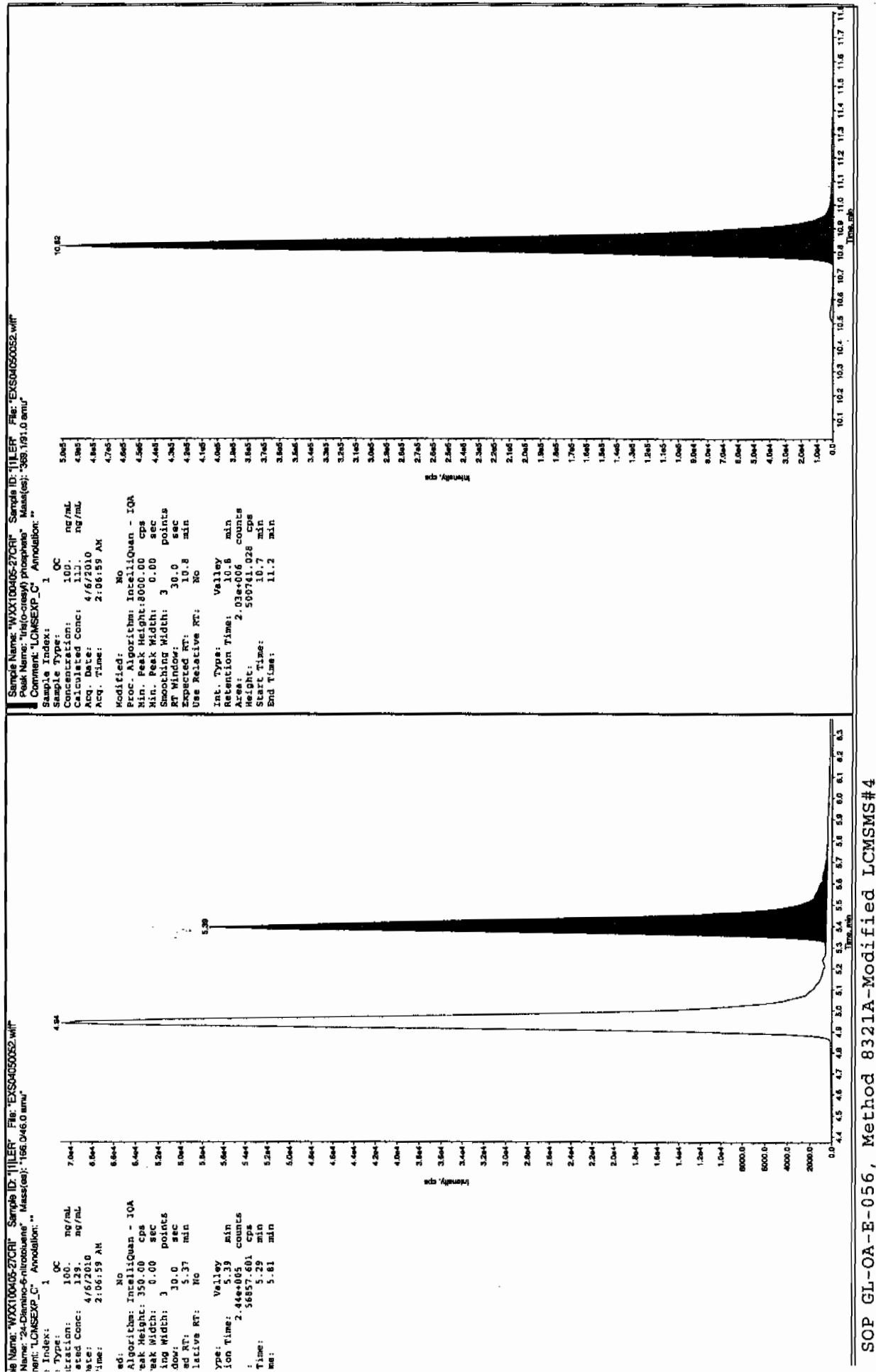
SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050063.wiff

Analysis Date: 06-APR-10 04:59

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	545	109	
2,6-Diamino-4-nitrotoluene	500	510	102	
3,4-Dinitrotoluene	250	245	98	
3,5-Dinitroaniline	500	513	103	
TATB	500	511	102	
tris(o-cresyl) phosphate	500	500	100	

Recovery Limits:

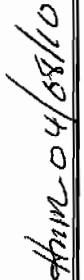
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits





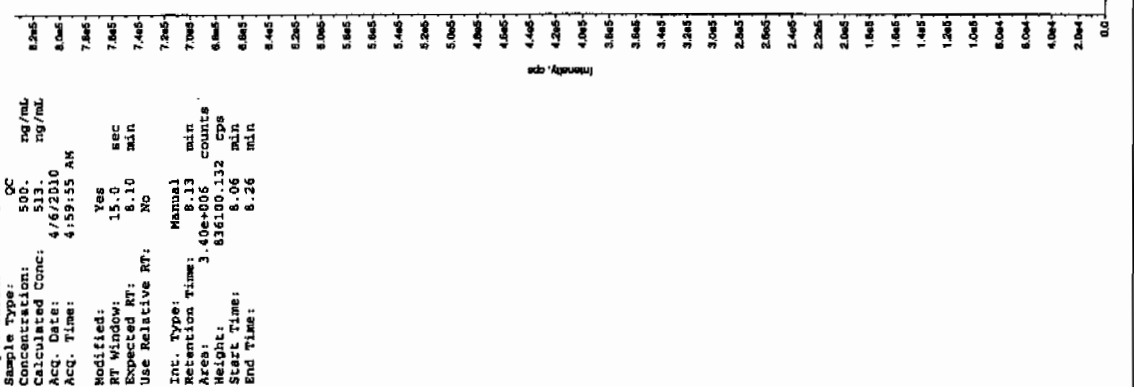


after Jan 4/21/10

Sample Name: "WXX100405-2600V" Sample ID: "HILER" File: "EXS04050063.wht"  
Peak Name: "35-Dioxinoline" Mass(es): "182.046.0 amu"  
Comment: "LCMSEXP\_C" Annotation: ""

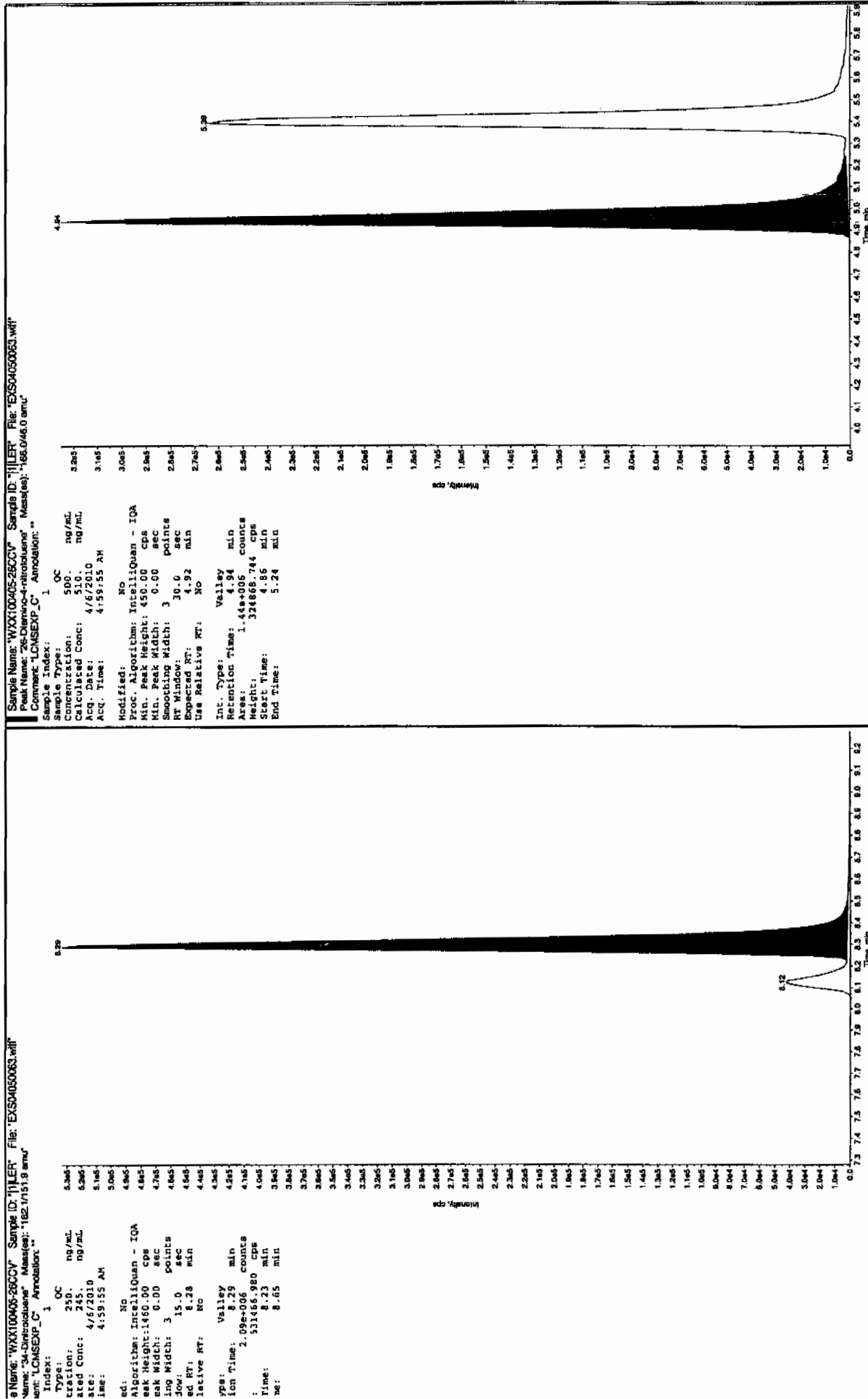
Sample Index: 1  
Sample Type: QC  
Concentration: 500. ng/mL  
Calculated Conc: 513. ng/mL  
Acq. Date: 4/6/2010  
Acq. Time: 4:59:55 AM  
Modified: Yes  
RT Window: 15.0 sec  
Expected RT: 8.10 min  
Use Relative RT: No  
Int. Type: Manual  
Retention Time: 8.13 min  
Acquisition Time: 3.40e+006 counts  
Height: 836100.132 cps  
Start Time: 8.06 min  
End Time: 8.26 min

Algorithm: IntelliQuan - IOA  
Peak Height: 2500.00 cps  
Peak Width: 0.00 sec  
Integration Width: 30.0 points  
Integration Time: 3.00 sec  
Integration Time: 6.86 min  
Integration Time: No  
Integration Time: Valley  
Integration Time: 6.89 min  
Integration Time: 6.07e+005 counts  
Integration Time: 90171.147 cps  
Integration Time: 6.80 min  
Integration Time: 7.51 min



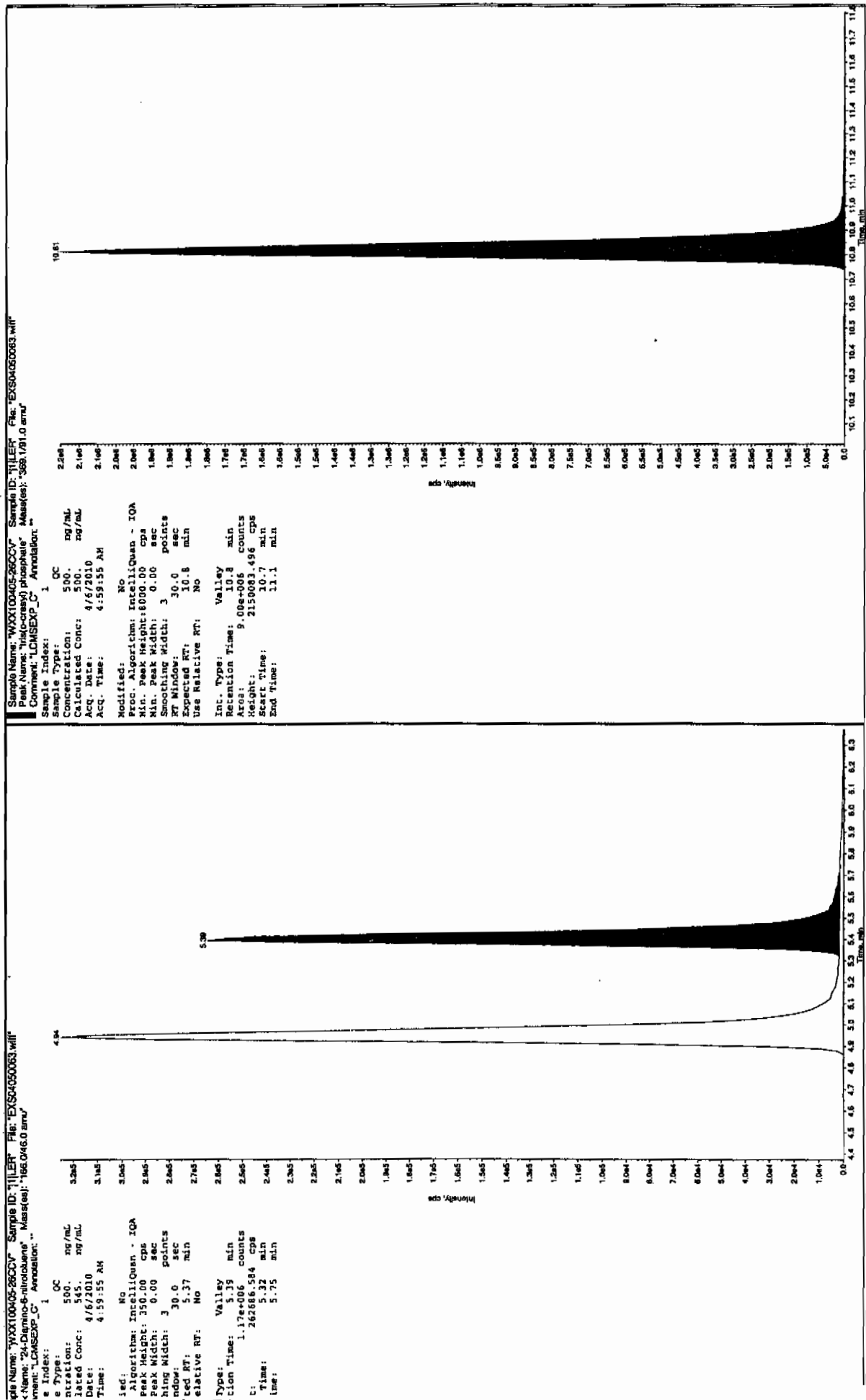
SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050065.wiff

Analysis Date: 06-APR-10 05:31

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	127	127	
2,6-Diamino-4-nitrotoluene	100	120	120	
3,4-Dinitrotoluene	50	55.5	111	
3,5-Dinitroaniline	100	115	115	
TATB	100	102	102	
tris(o-cresyl) phosphate	100	112	112	

Recovery Limits:

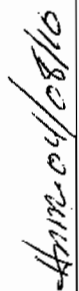
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

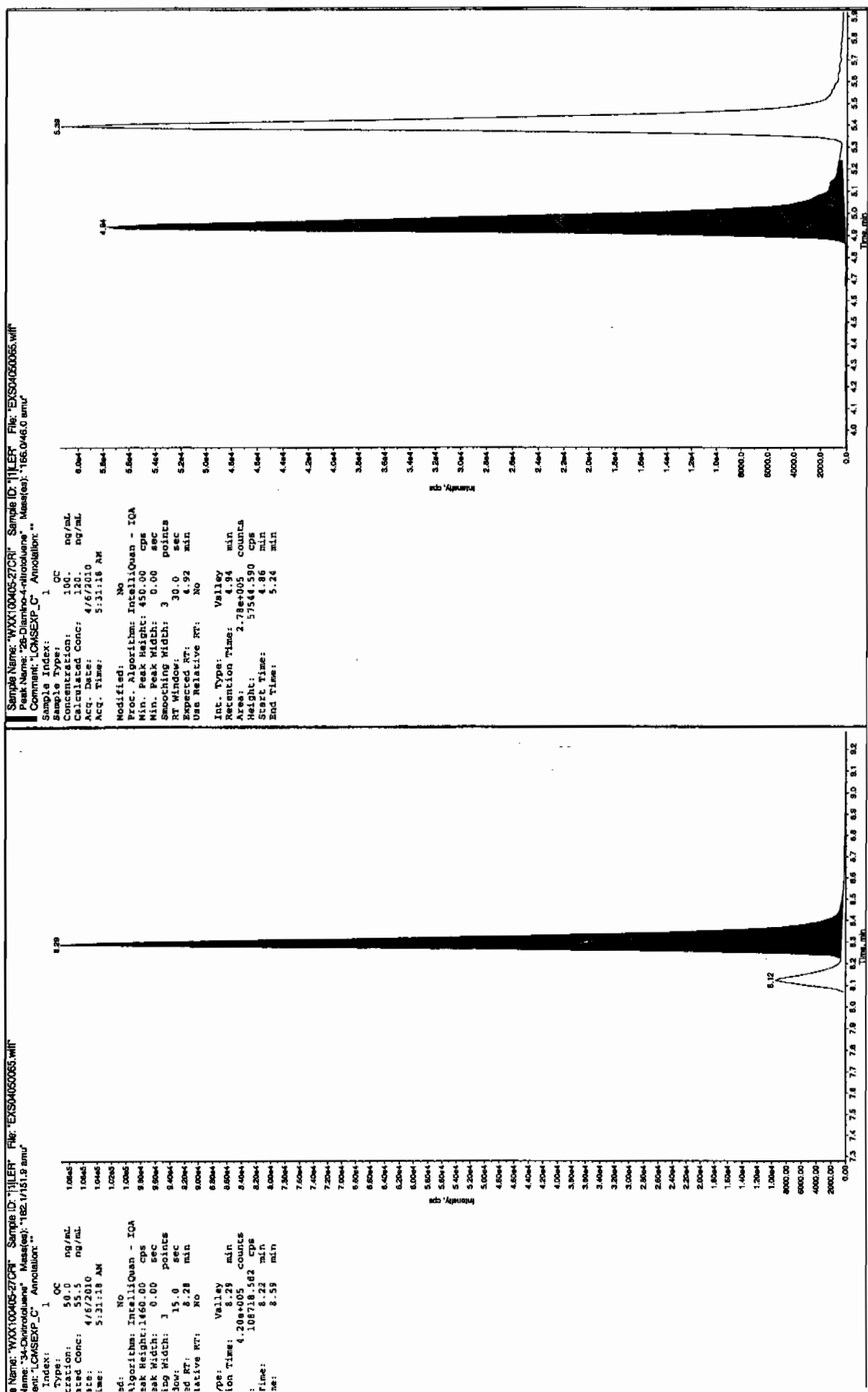
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits





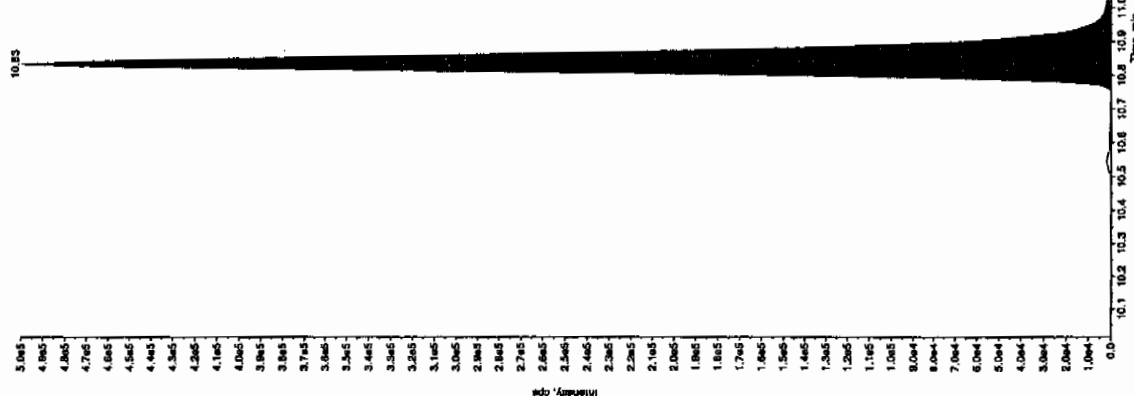






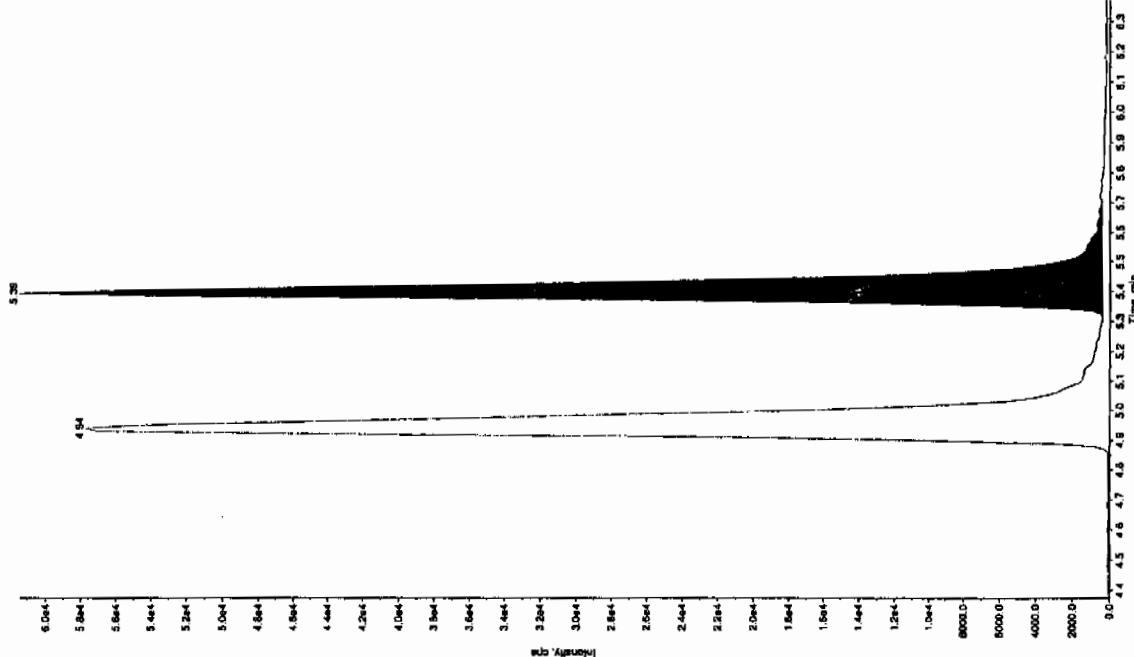
Sample Name: "WXX100405-2703" Sample ID: "111ER" File: "EXS04050065.wit"  
 Peak Name: "Ins(p-cra) phosphate" Mass(es): "369.1910 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 112. ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 5:31:18 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 3.00 sec  
 Retention Width: 30.0 points  
 Retention RT: 10.8 min  
 Expected RT: No  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 2.03e+006 counts  
 Height: 499661.285 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



Sample Name: "WXX100405-2703" Sample ID: "111ER" File: "EXS04050065.wit"  
 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: 127. ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 5:31:18 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 3.00 sec  
 Retention Width: 30.0 points  
 Retention RT: 5.37 min  
 Expected RT: No  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.39 min  
 Area: 2.40e+005 counts  
 Height: 60972.054 cps  
 Start Time: 5.31 min  
 End Time: 5.70 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): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050071.wiff

Analysis Date: 06-APR-10 07:05

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	529	106	
2,6-Diamino-4-nitrotoluene	500	498	100	
3,4-Dinitrotoluene	250	232	93	
3,5-Dinitroaniline	500	508	102	
TATB	500	485	97	
tris(o-cresyl) phosphate	500	500	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%

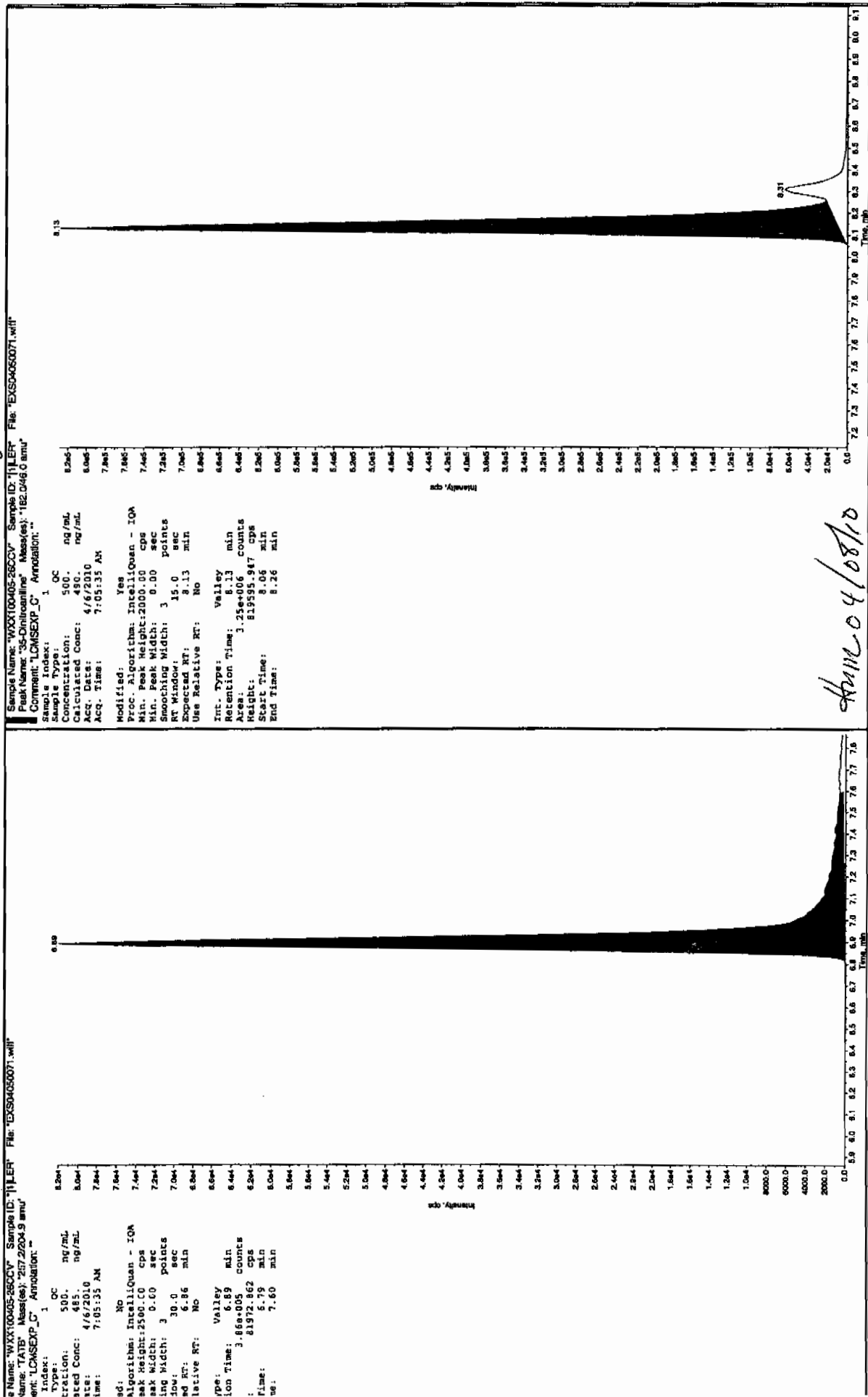
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

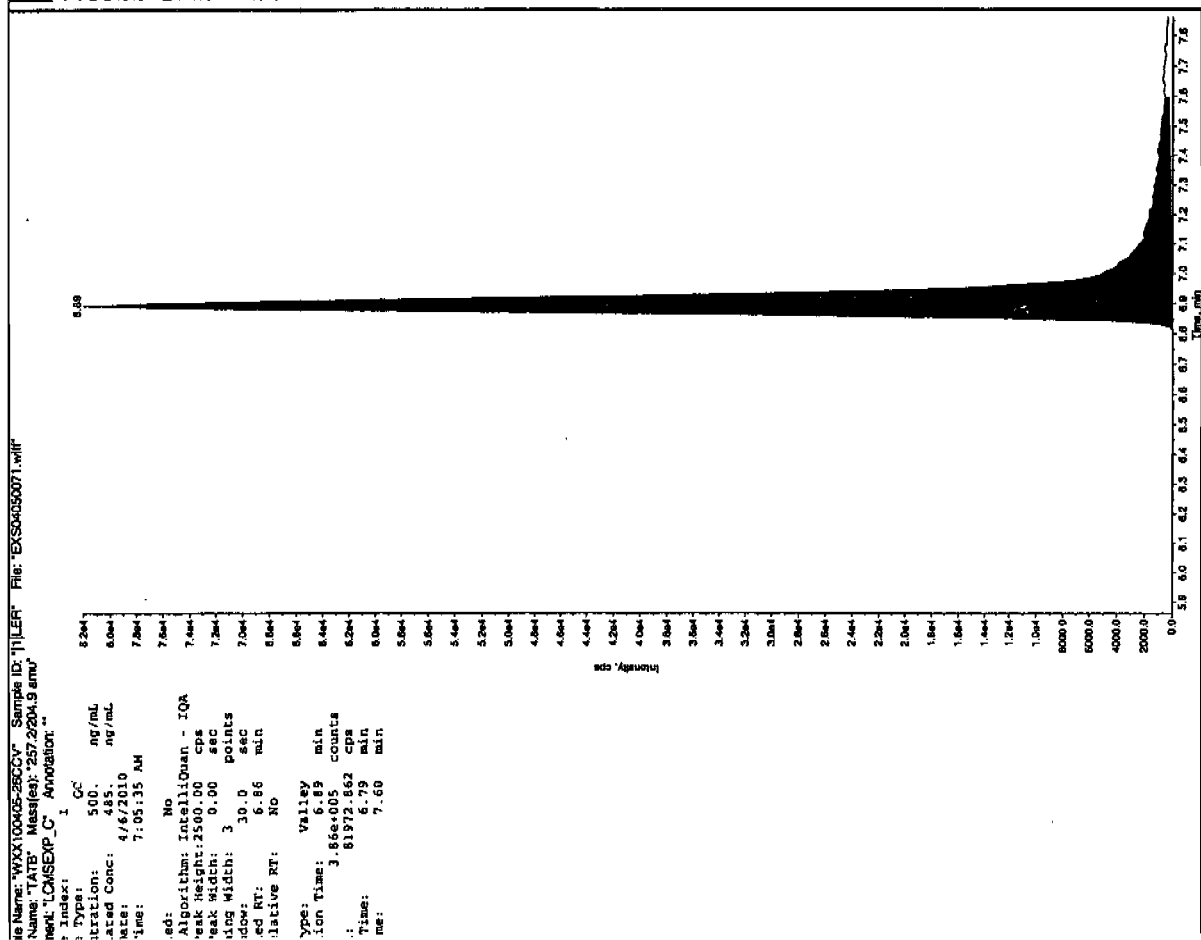


Before Sep 4/10



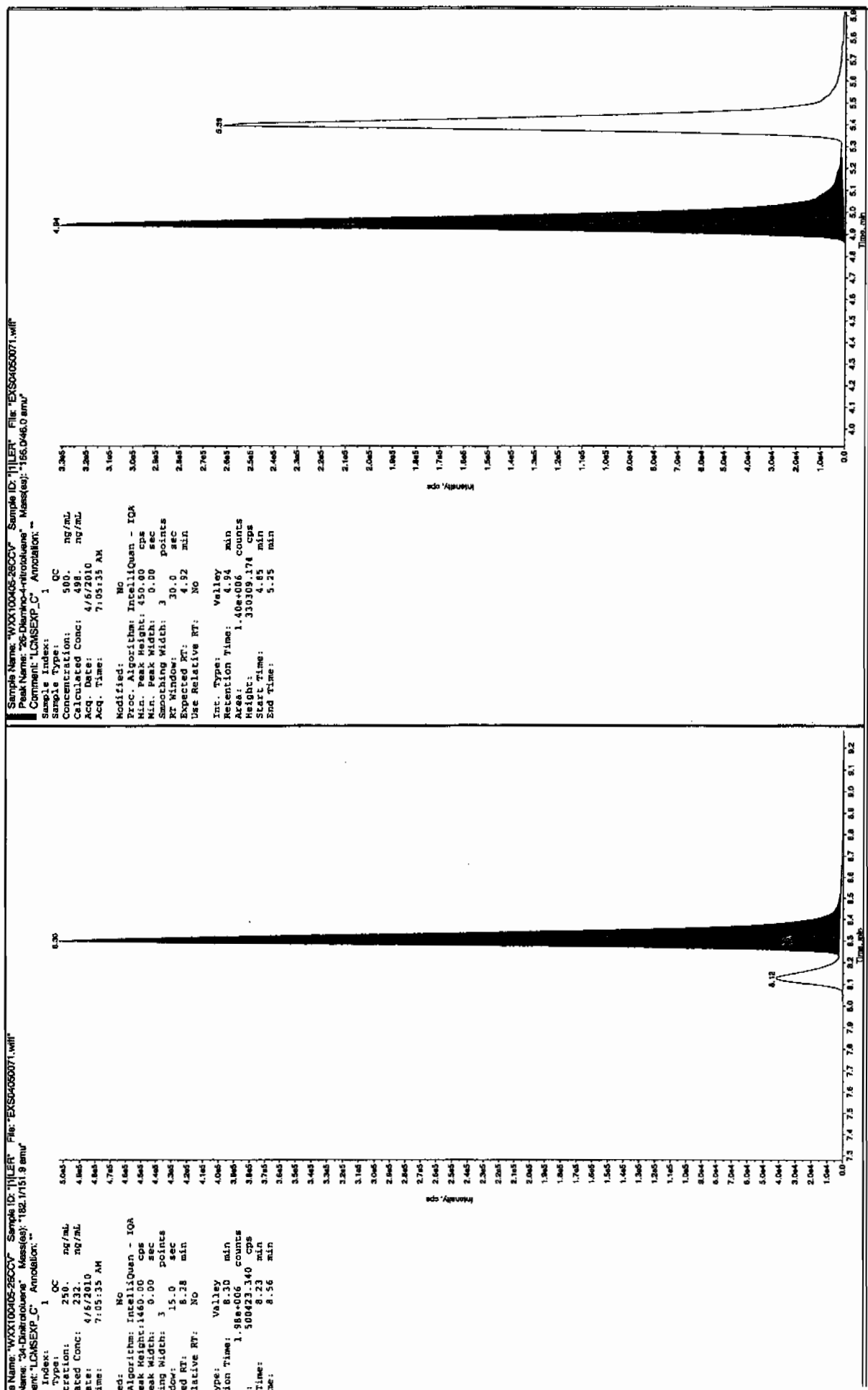
SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





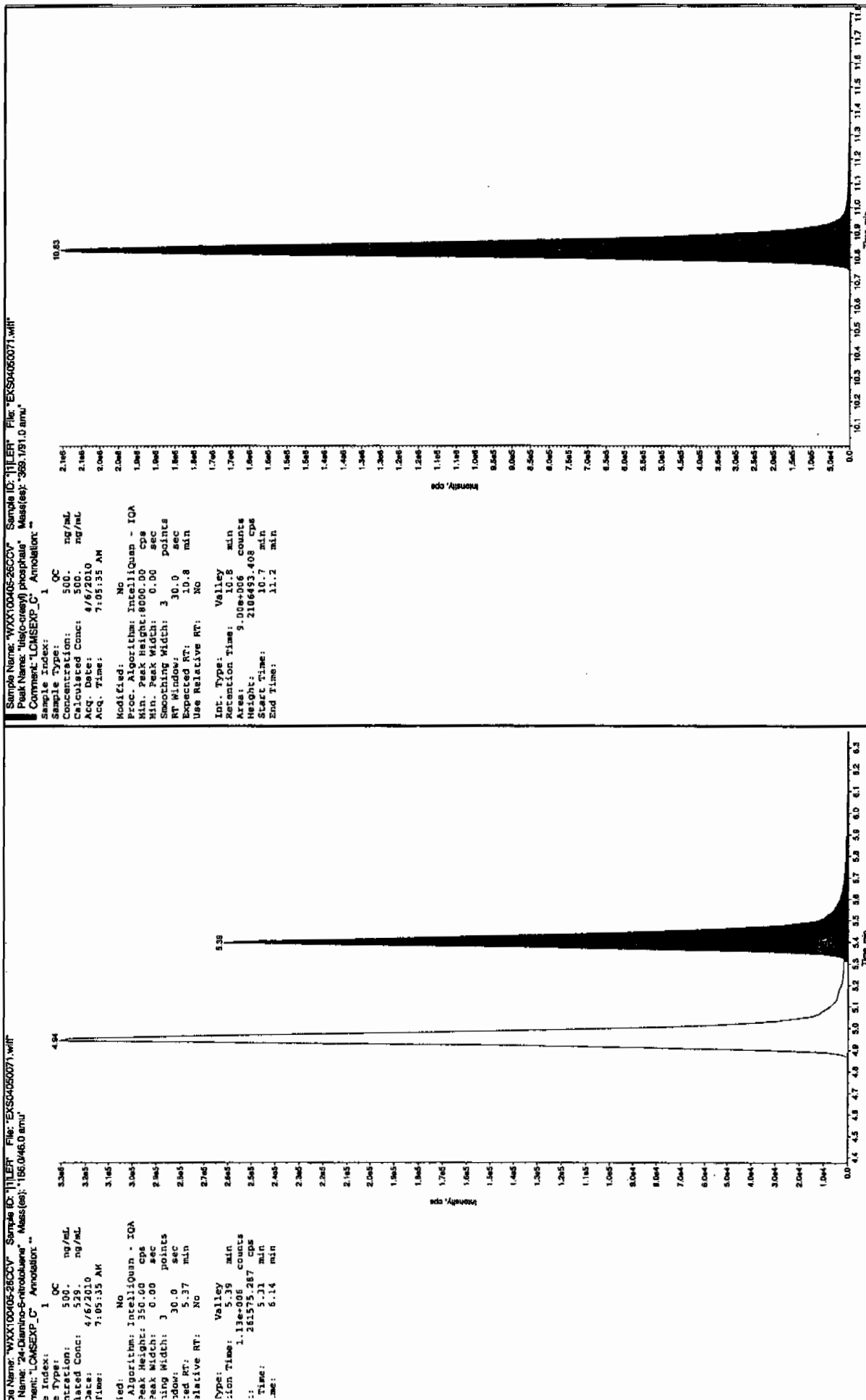
SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050073.wiff

Analysis Date: 06-APR-10 07:37

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	131	131	
2,6-Diamino-4-nitrotoluene	100	124	124	
3,4-Dinitrotoluene	50	54.8	110	
3,5-Dinitroaniline	100	119	119	
TATB	100	109	109	
tris(o-cresyl) phosphate	100	113	113	

**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

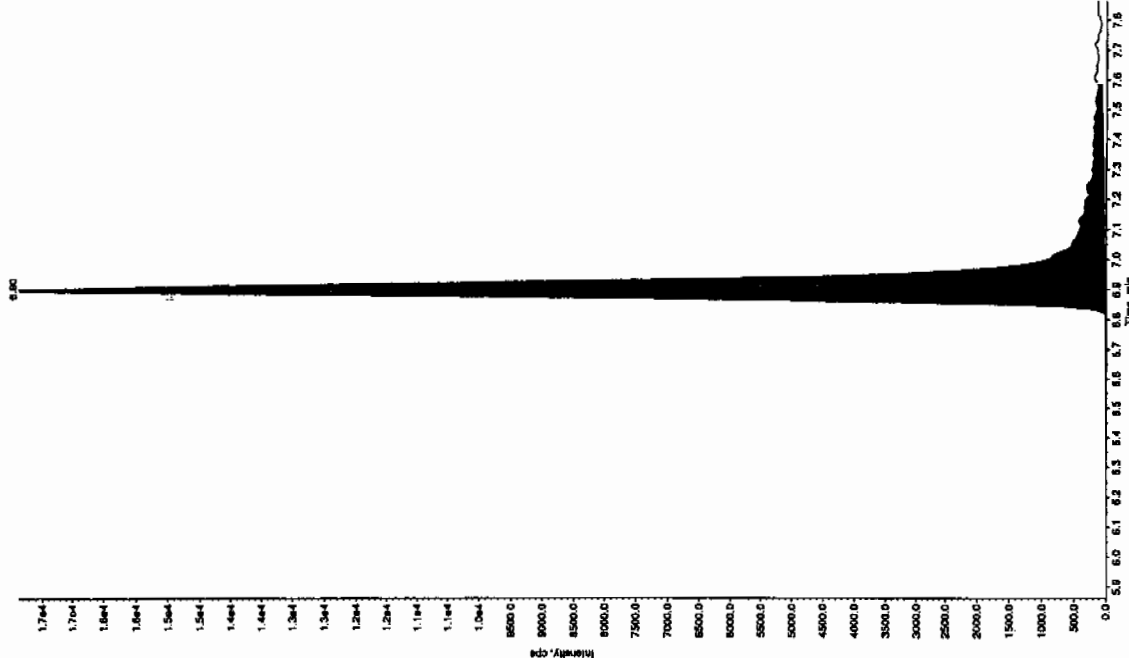
\* Value outside of Recovery Limits



Scan 4/27/10

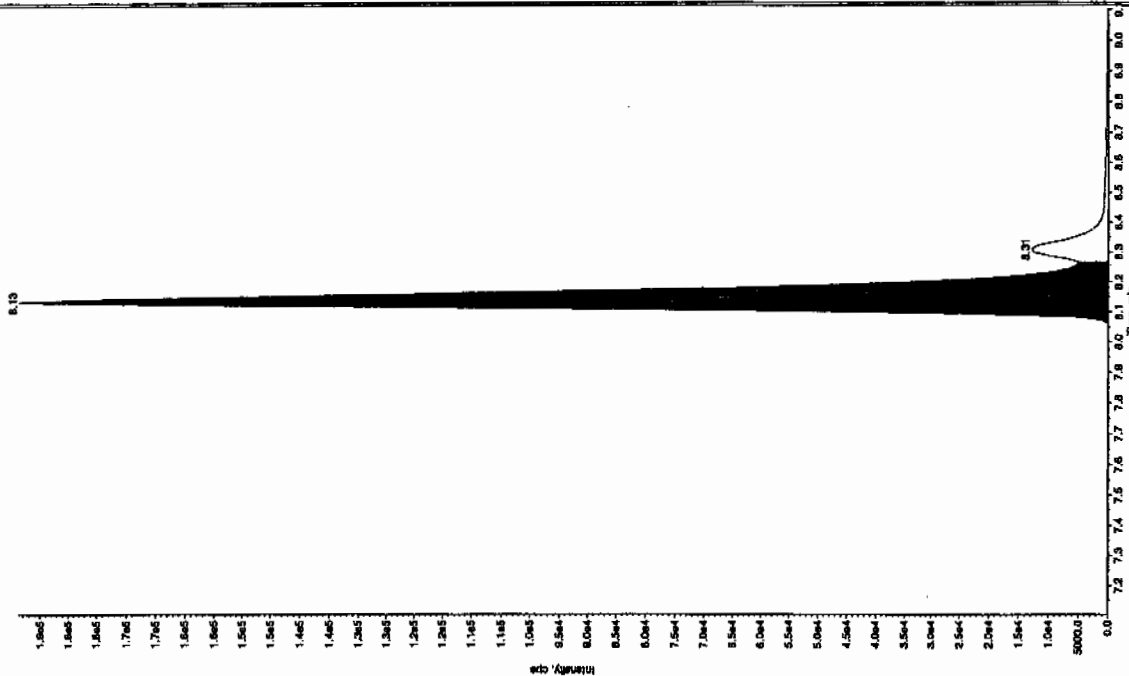
File Name: "WXX100405-2701" Sample ID: "JLIER" File: "EXS04050073.wif"  
 Peak Name: "TATB" Mass(es): 257.204.9 amu  
 Comment: "LCMSEXP\_C" Annotation:

Sample Index: 1  
 Sample Type: 100  
 Concentration: 109 ng/mL  
 Calculated Conc: 109 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 7:37:00 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 2500.00 cps  
 Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 6.86 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 6.86 min  
 Peak Height: 17556.895 counts  
 Start Time: 6.78 min  
 End Time: 7.53 min



Sample Name: "WXX100405-2701" Sample ID: "JLIER" File: "EXS04050073.wif"  
 Peak Name: "35-Dichloromethane" Mass(es): 182.046.0 amu  
 Comment: "LCMSEXP\_C" Annotation:

Sample Index: 1  
 Sample Type: 100  
 Concentration: 213 ng/mL  
 Calculated Conc: 213 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 7:37:00 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 2000.00 cps  
 Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.10 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.10 min  
 Peak Height: 7764005 counts  
 Start Time: 8.04 min  
 End Time: 8.27 min

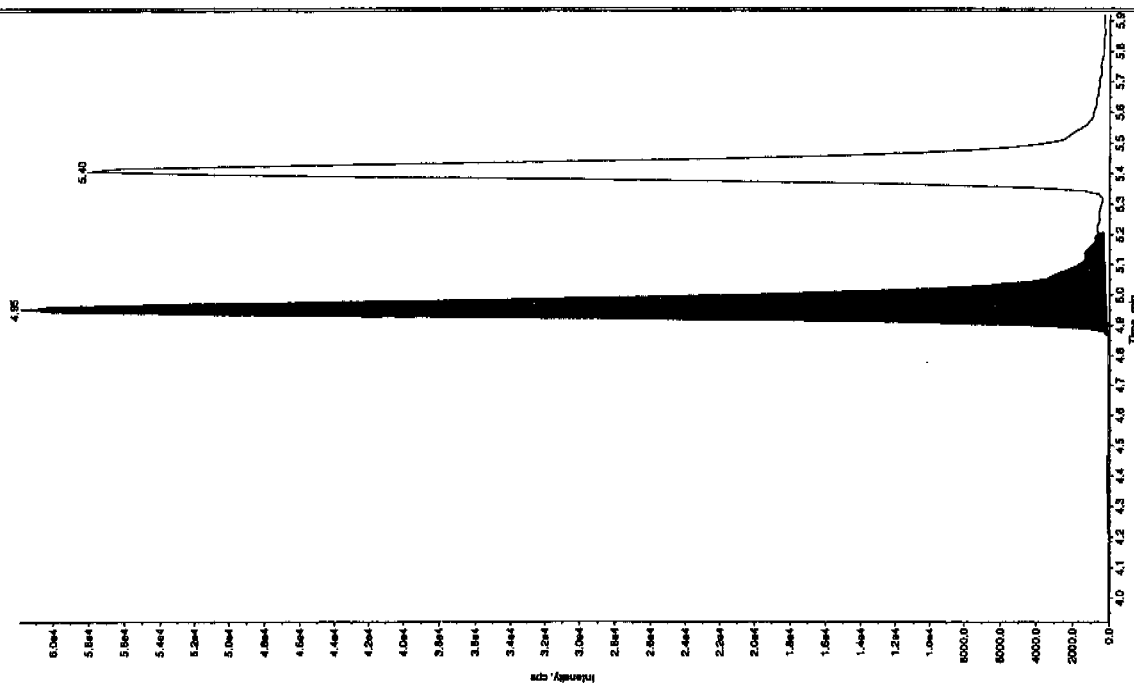


Scan 04/08/10



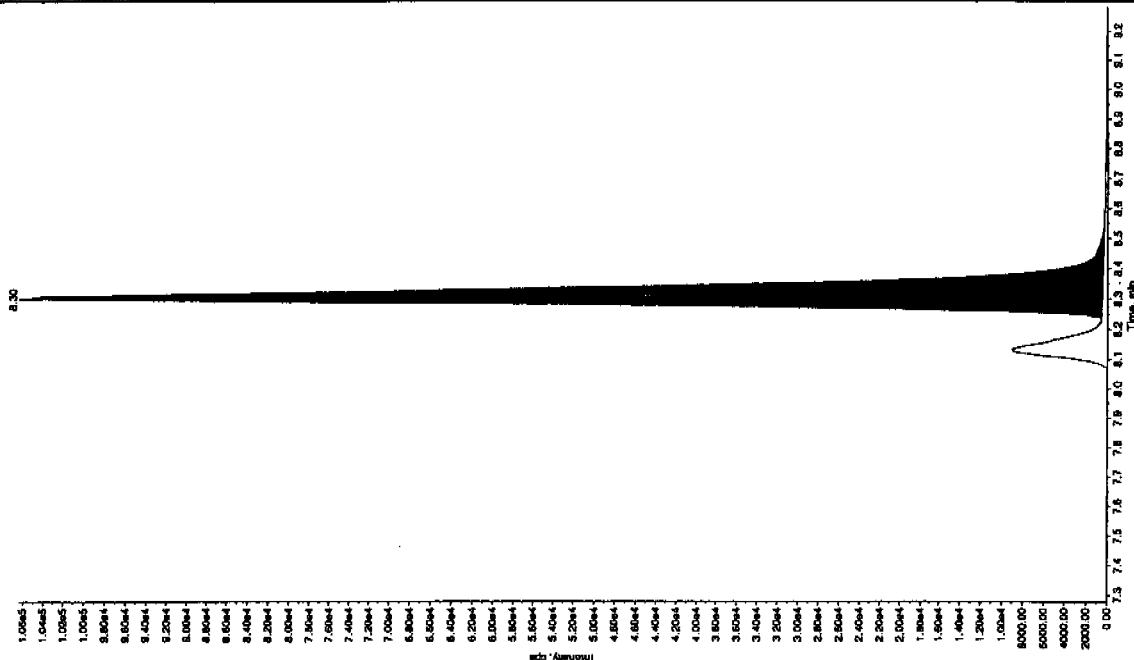
Sample Name: "WXX100405-27C91" Sample ID: "J1LER" File: "EXS04050073.wif"  
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: OC  
 Concentration: 100. ng/mL  
 Calculated Conc: 124. ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 7:37:00 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 450.00 cps  
 Peak Width: 0.00 sec  
 Sampling Width: 30.0 points  
 RT Retention: 4.92 min  
 Expected RT: 4.92 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.95 min  
 Area: 2.92e+005 counts  
 Height: 51837.967 cps  
 Start Time: 4.85 min  
 End Time: 5.21 min



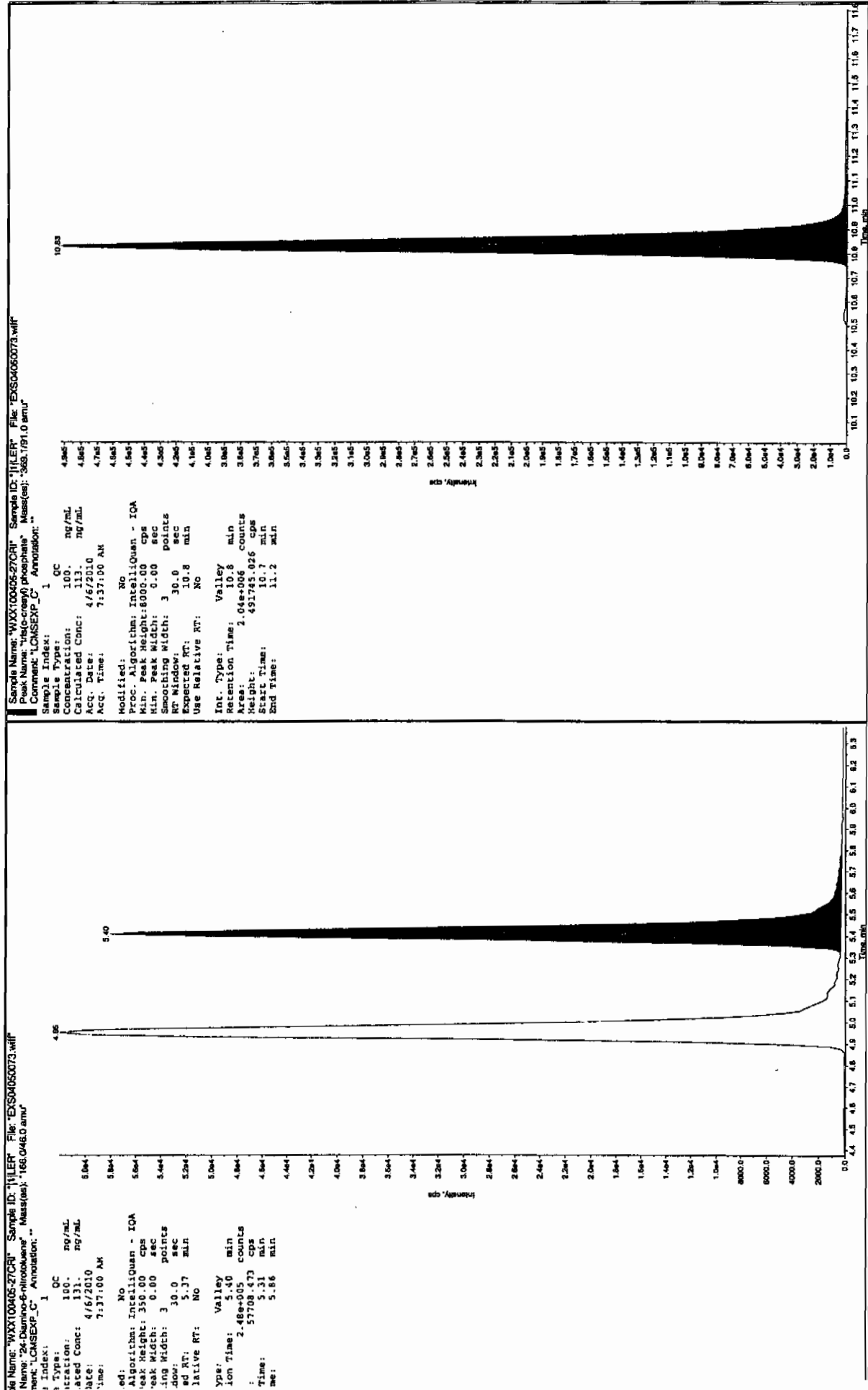
Sample Name: "WXX100405-27C91" Sample ID: "J1LER" File: "EXS04050073.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1715.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: OC  
 Concentration: 50.0 ng/mL  
 Calculated Conc: 54.8 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 7:37:00 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1460.00 cps  
 Peak Width: 0.00 sec  
 Sampling Width: 15.0 points  
 RT Retention: 8.26 min  
 Expected RT: 8.26 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.30 min  
 Area: 4.13e+005 counts  
 Height: 105831.650 cps  
 Start Time: 8.23 min  
 End Time: 8.64 min



SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050084.wiff

Analysis Date: 06-APR-10 10:29

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	566	113	
2,6-Diamino-4-nitrotoluene	500	502	100	
3,4-Dinitrotoluene	250	227	91	
3,5-Dinitroaniline	500	526	105	
TATB	500	521	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

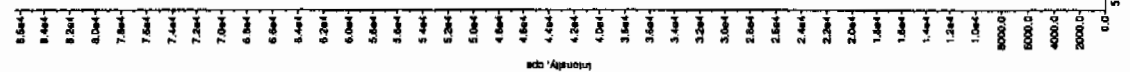
\* Value outside of Recovery Limits



Dec 4/10

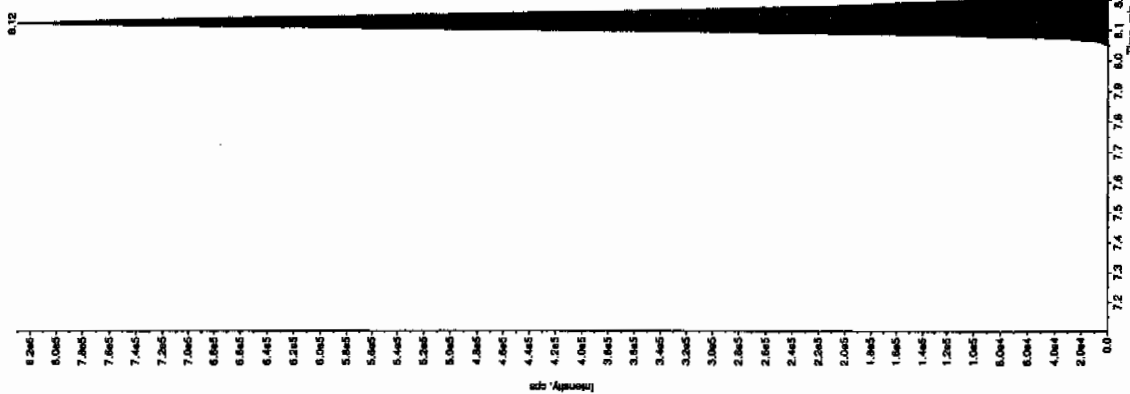
Sample Name: "WXX100405-260CV" Sample ID: "111ER" File: "EXS04050084.will"  
 Peak Name: "TATB" Mass(es): "257.2/204.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 526. ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 10:23:45 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: 6.86 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 6.88 min  
 Area: 4.15e+005 counts  
 Height: 86418.762 cps  
 Start Time: 6.77 min  
 End Time: 7.89 min



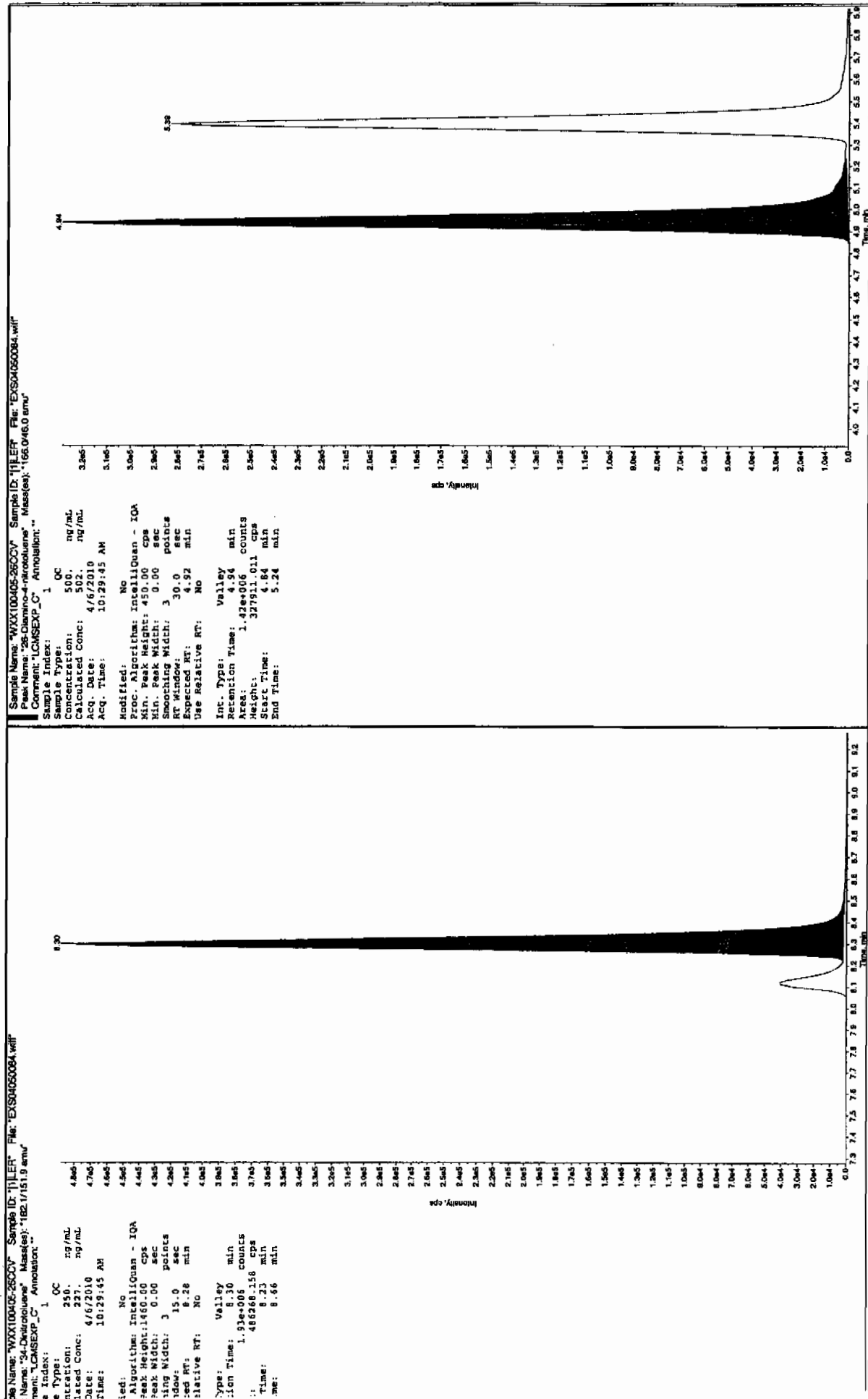
Sample Name: "WXX100405-260CV" Sample ID: "111ER" File: "EXS04050084.will"  
 Peak Name: "35-Dinitroindole" Mass(es): "182.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 526. ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 10:23:45 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: 8.10 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.12 min  
 Area: 3.48e+006 counts  
 Height: 83025.952 cps  
 Start Time: 8.03 min  
 End Time: 8.25 min



Dec 4/10



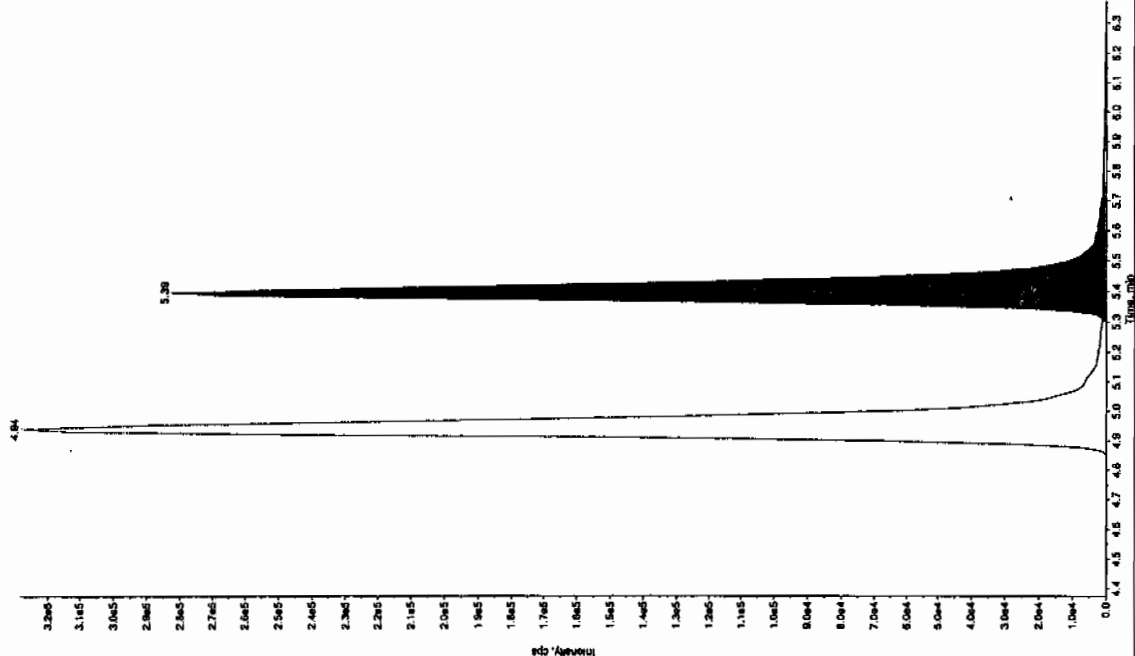


SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



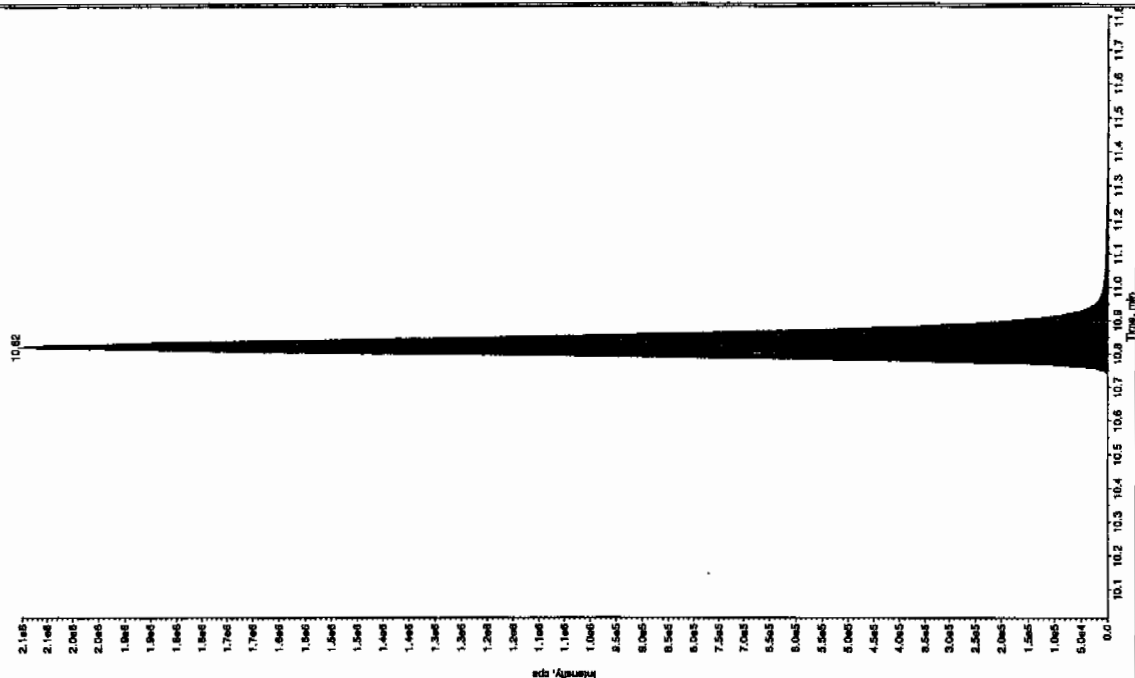
File Name: "WXX100405-2800V" Sample ID: "HLEP" File: "EXS04050084.wif"  
 Peak Name: "24-Oximin-6-nitrofluorene" Mass(es): 166.046.0 amu  
 Method: "LCMSXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500 ng/mL  
 Calculated Conc: 491 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 10:29:45 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: 8.64e+006 counts  
 Height: 2101439.941 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



Sample Name: "WXX100405-2800V" Sample ID: "HLEP" File: "EXS04050084.wif"  
 Peak Name: "Tri(o-cresyl) phosphine" Mass(es): 385.191.0 amu  
 Method: "LCMSXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500 ng/mL  
 Calculated Conc: 491 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 10:29:45 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: 8.64e+006 counts  
 Height: 2101439.941 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050086.wiff

Analysis Date: 06-APR-10 11:01

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	121	121	
2,6-Diamino-4-nitrotoluene	100	122	122	
3,4-Dinitrotoluene	50	54.1	108	
3,5-Dinitroaniline	100	114	114	
TATB	100	98.7	99	
tris(o-cresyl) phosphate	100	109	109	

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%

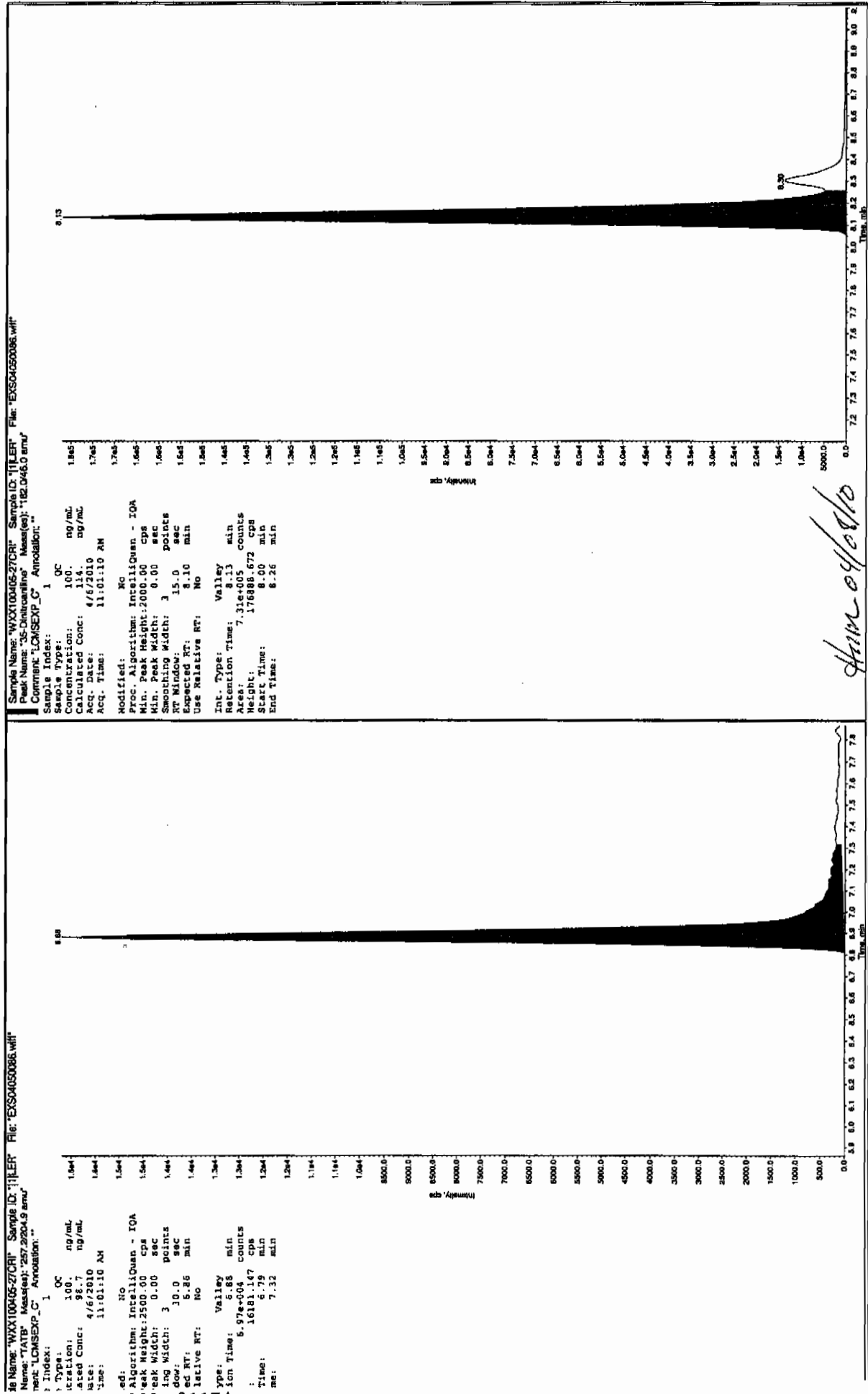
Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

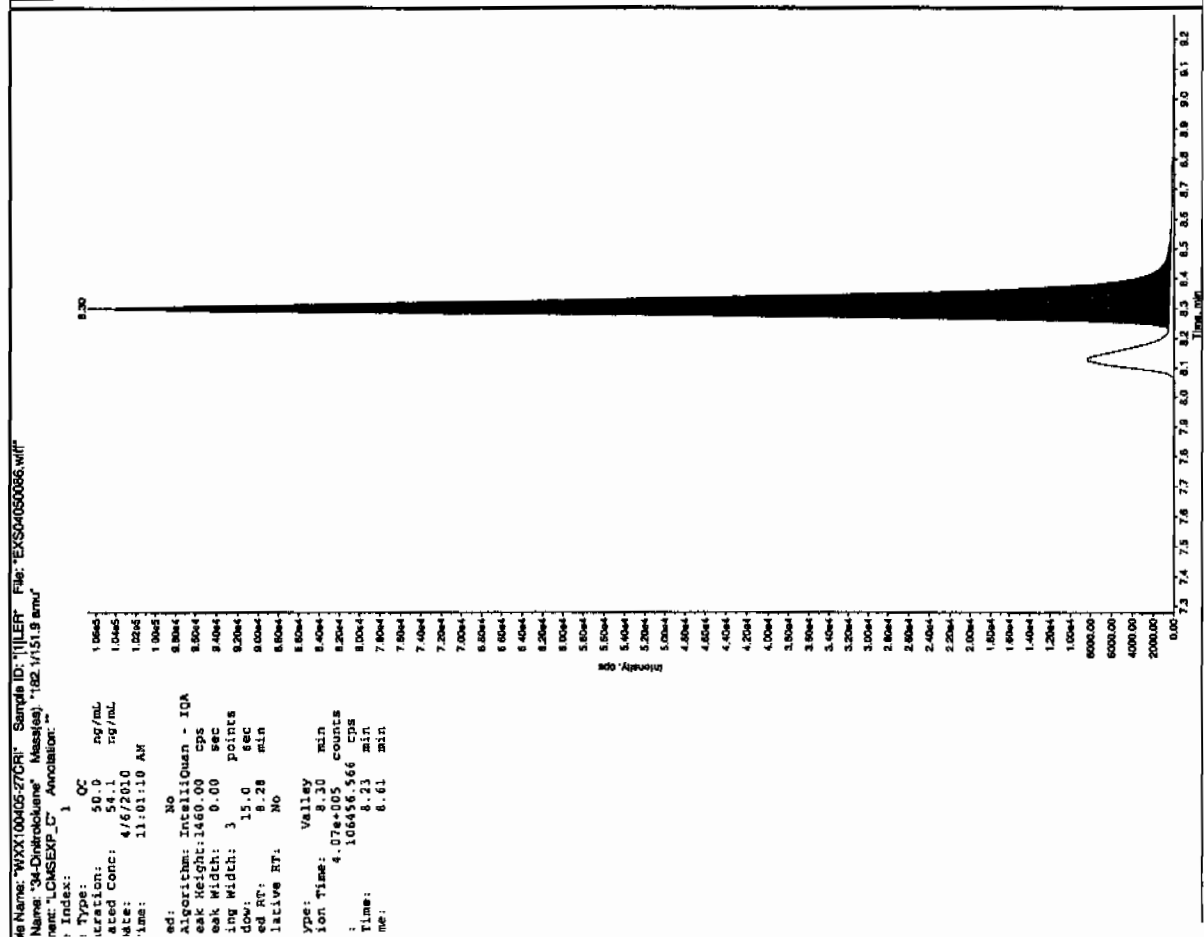
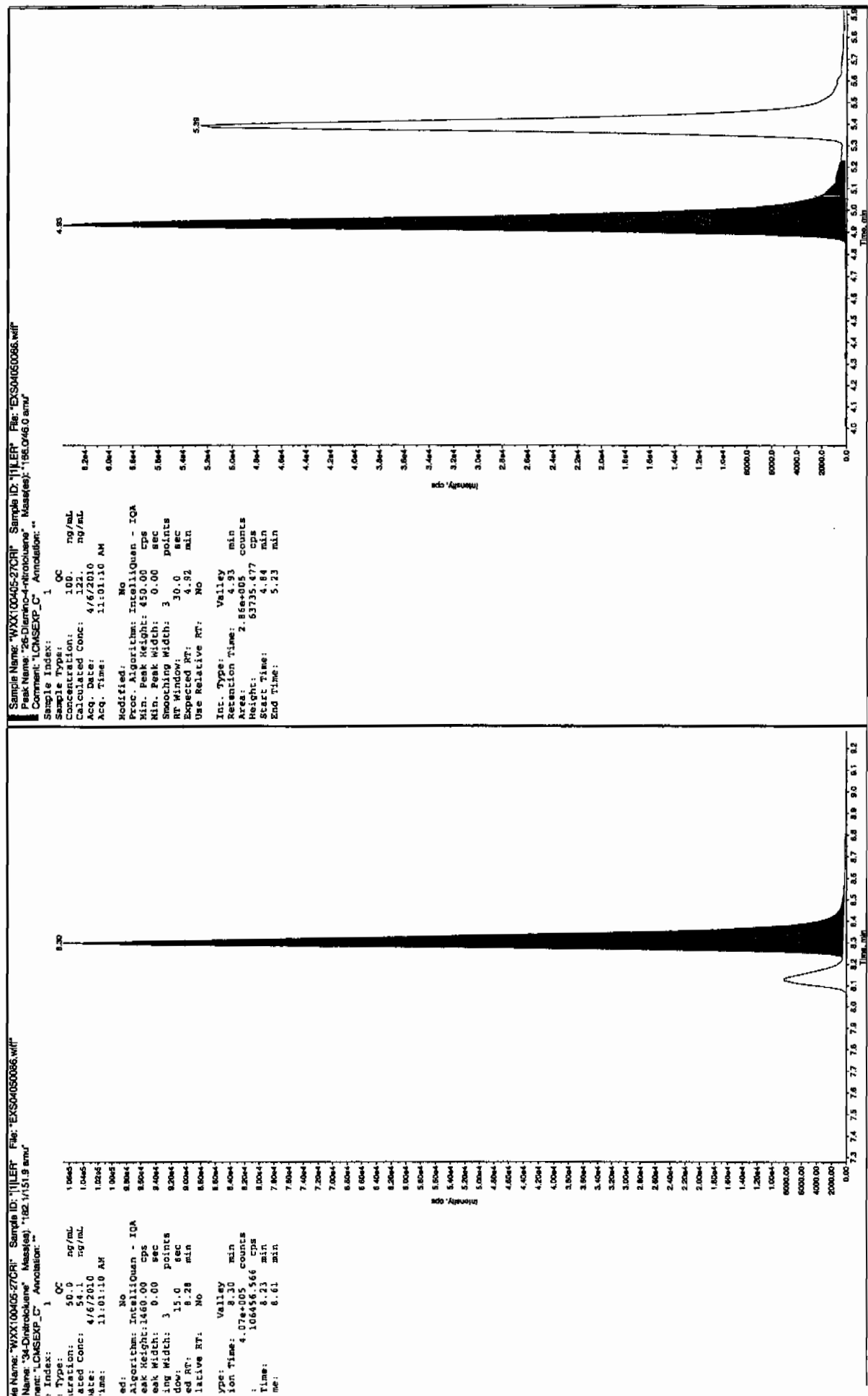


Scan 4/7/10



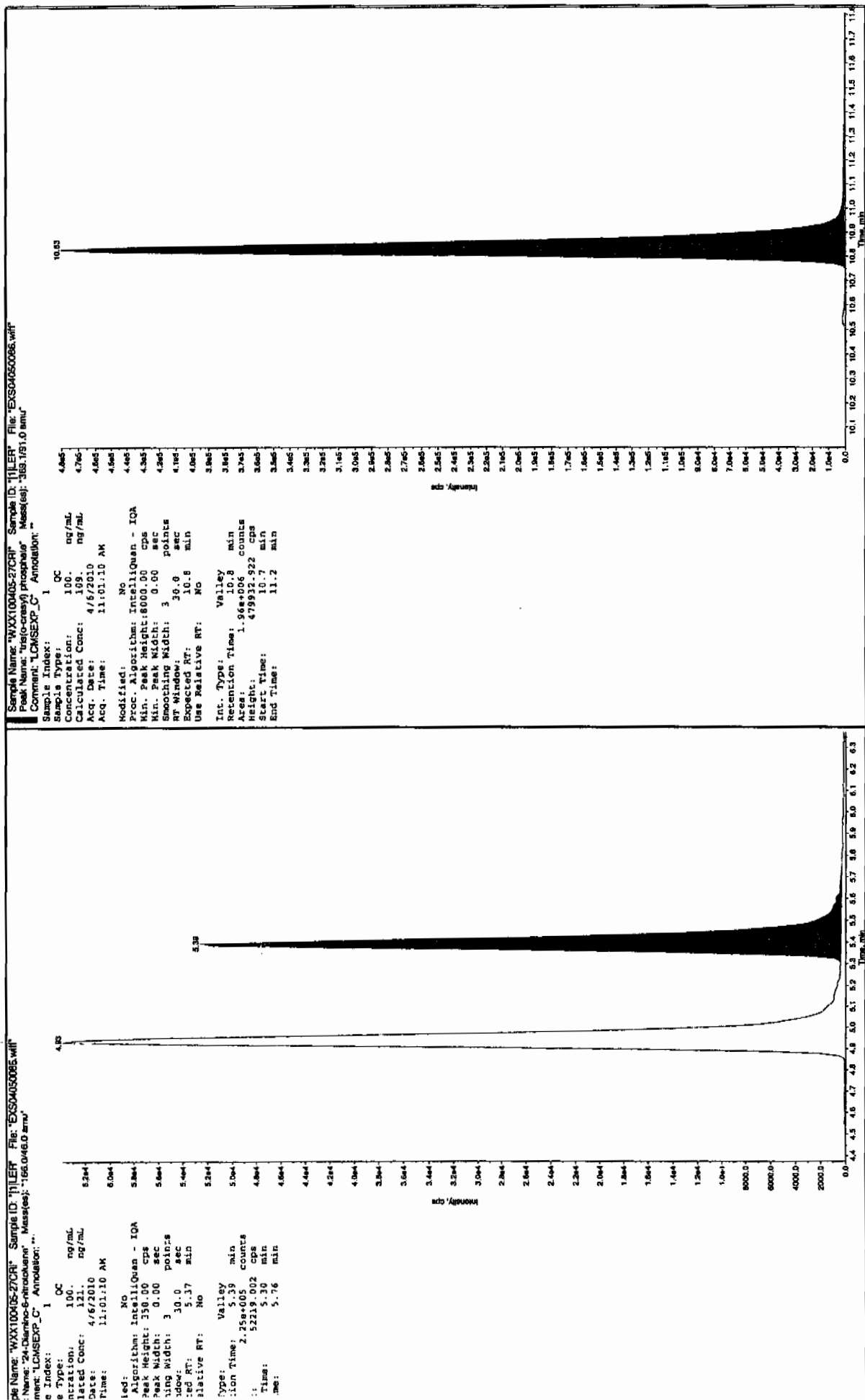
SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050097.wiff

Analysis Date: 06-APR-10 13:53

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	615	123	
2,6-Diamino-4-nitrotoluene	500	592	118	
3,4-Dinitrotoluene	250	263	105	
3,5-Dinitroaniline	500	621	124	
TATB	500	549	110	
tris(o-cresyl) phosphate	500	486	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%

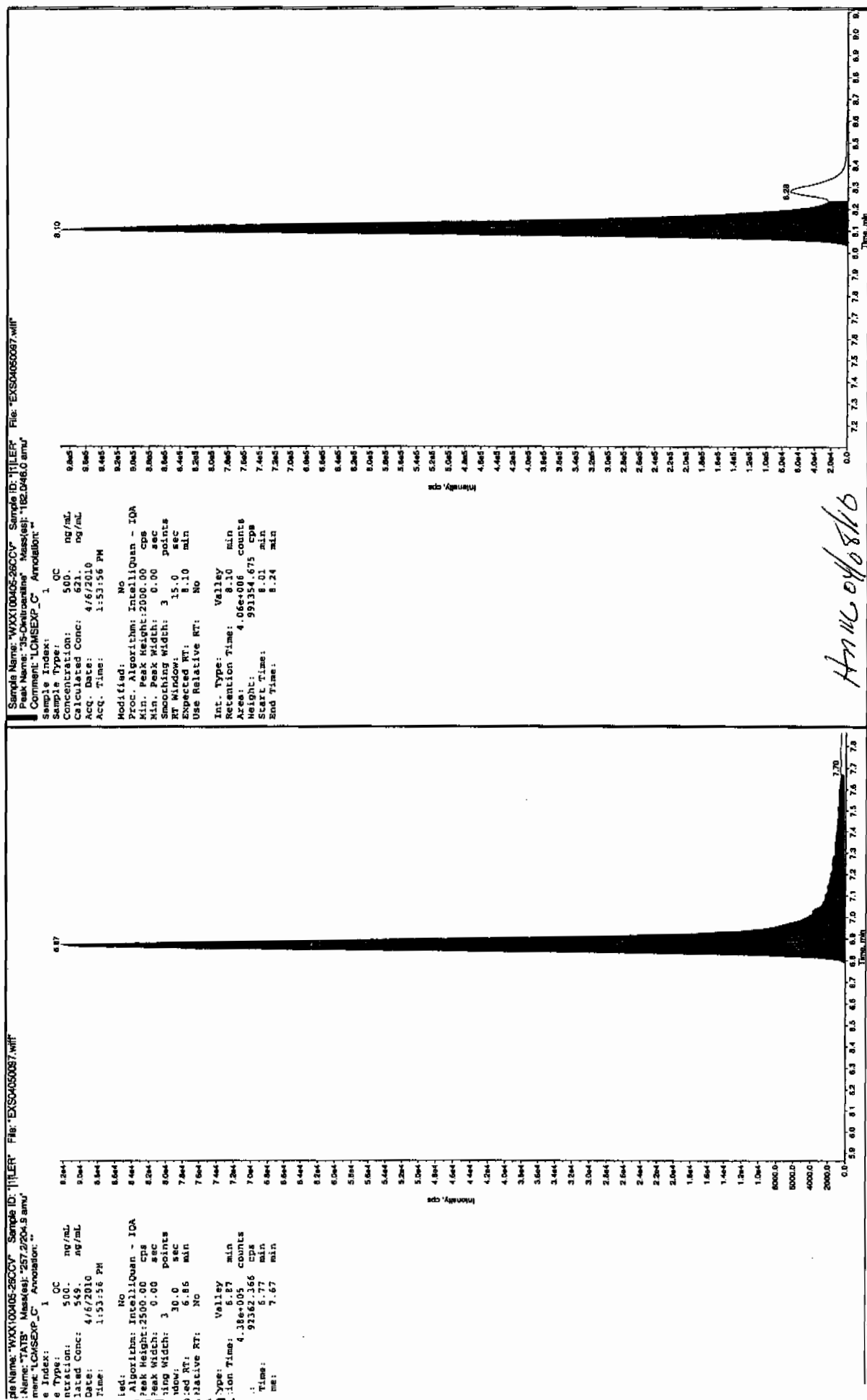
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

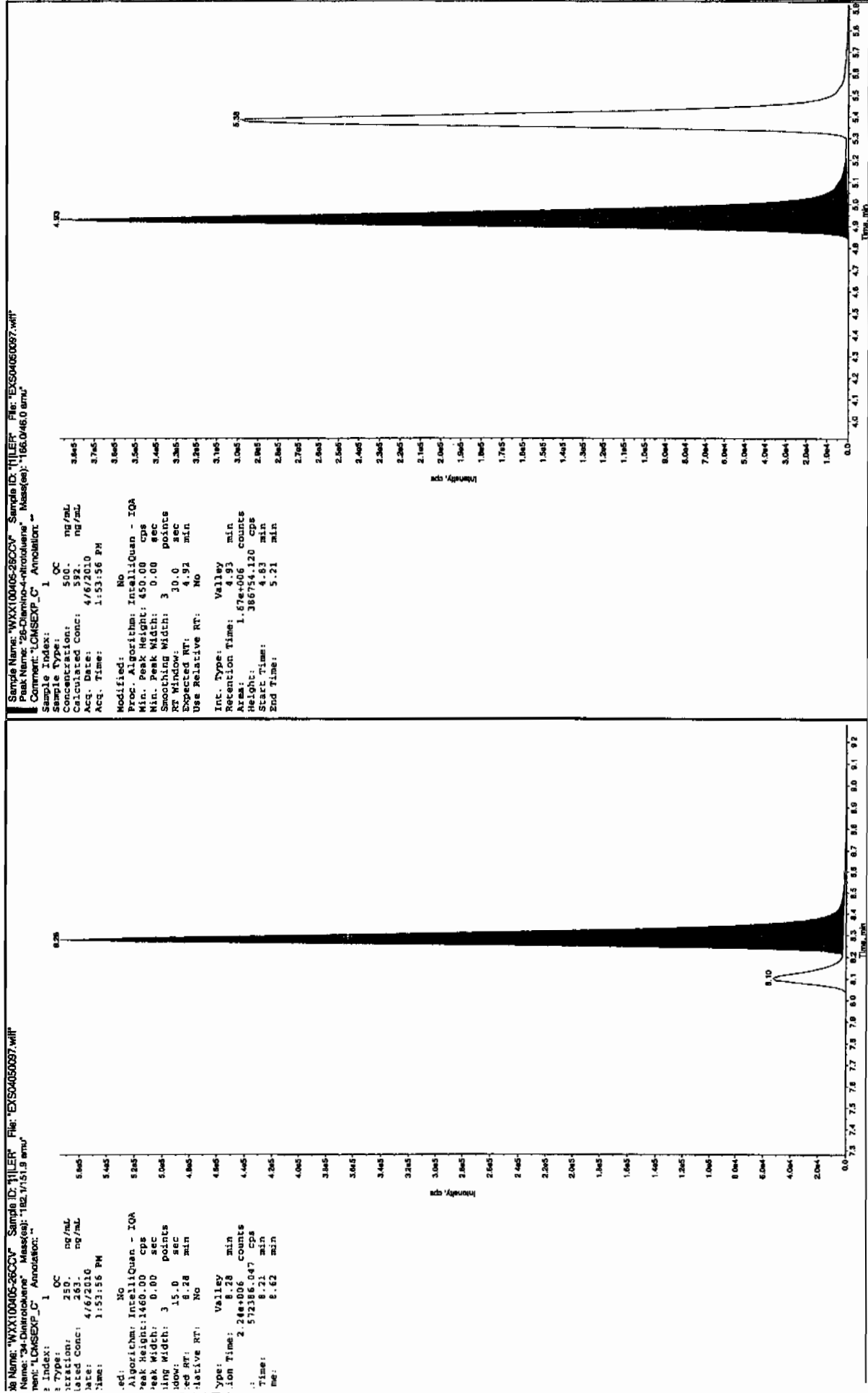
\* Value outside of Recovery Limits



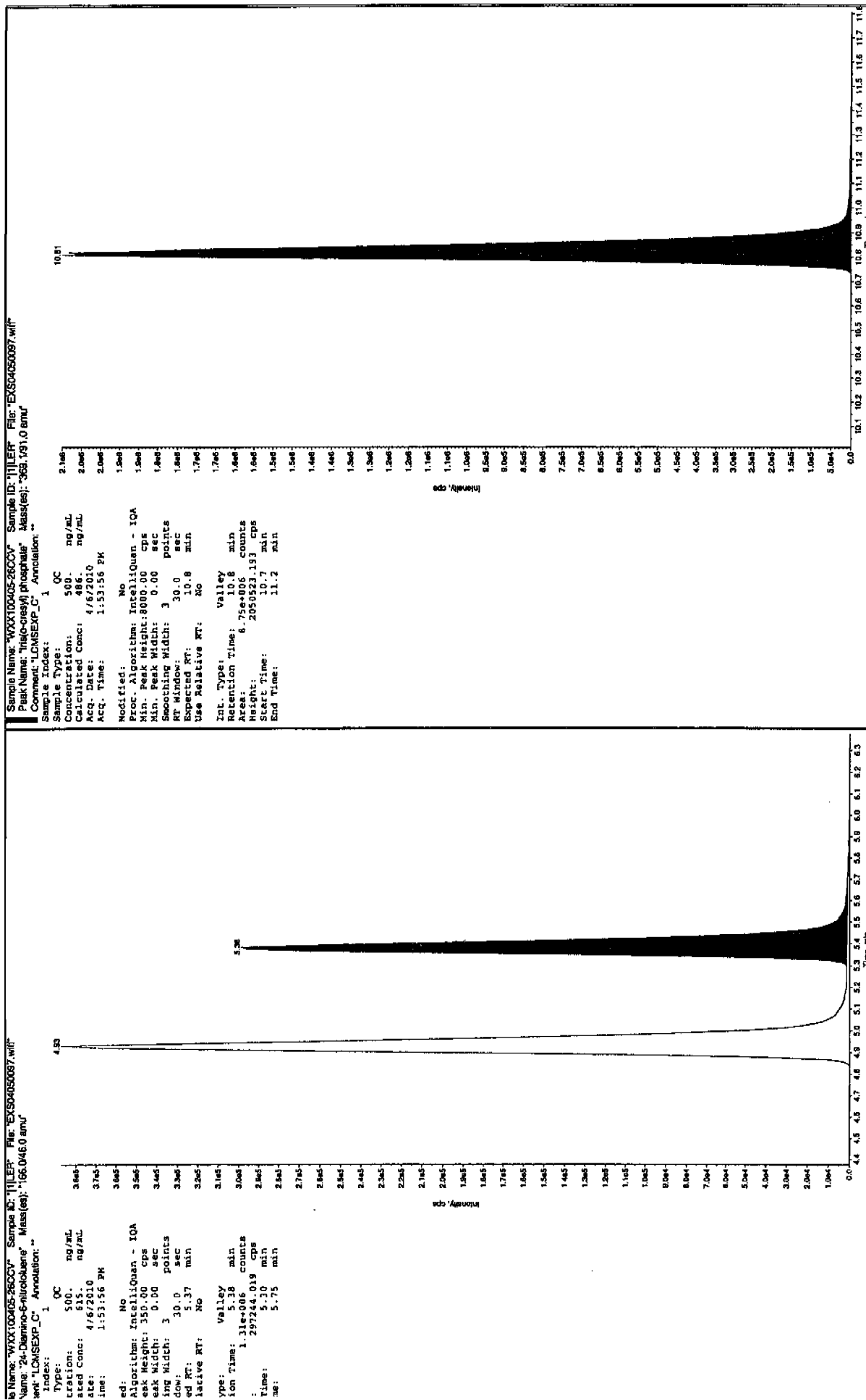
See 4/7/10











SOP GL-OA-E-056, Method 8321A-Modified LCMSSMS#4



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050099.wiff

Analysis Date: 06-APR-10 14:25

LCMSMS ID: 1358

Column ID: Sphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	80.7	81	
2,6-Diamino-4-nitrotoluene	100	52.5	53	
3,4-Dinitrotoluene	50	60.3	121	
3,5-Dinitroaniline	100	136	136	
TATB	100	106	106	
tris(o-cresyl) phosphate	100	108	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 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits



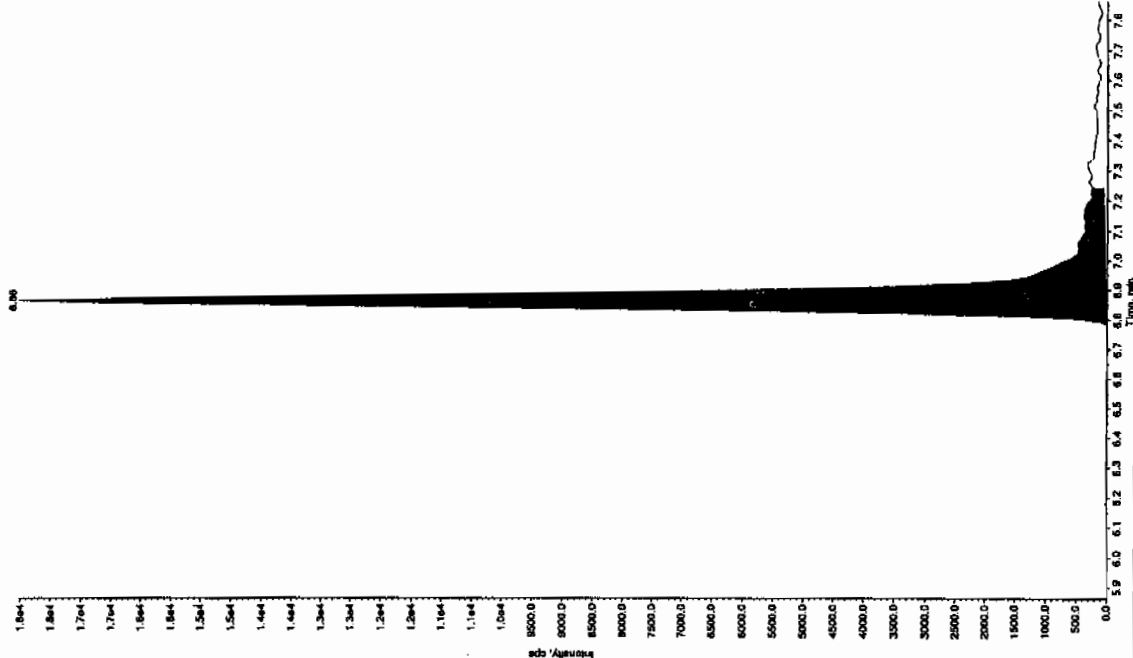
Sen 4/7/10

File Name: "WXX100405-270CR" Sample ID: "111ER" File: "EXS04050089.wif"  
 Name: "TATB" Mass(es): "257.2204.9 amu"  
 Name: "LCMSEXP\_C" Annotation: ""

Index: 1  
 Type: OC  
 Concentration: 100. ng/mL  
 Calculated Conc: 106. ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 2:25:19 PM

Modified: NO  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 3.00 sec  
 Spectral Width: 30.0 sec  
 RT Window: 6.36 min  
 Use Relative RT: NO

Int. Type: Valley  
 Retention Time: 6.86 min  
 Area: 7.57e+004 counts  
 Height: 18003.672 cps  
 Start Time: 6.76 min  
 End Time: 7.24 min

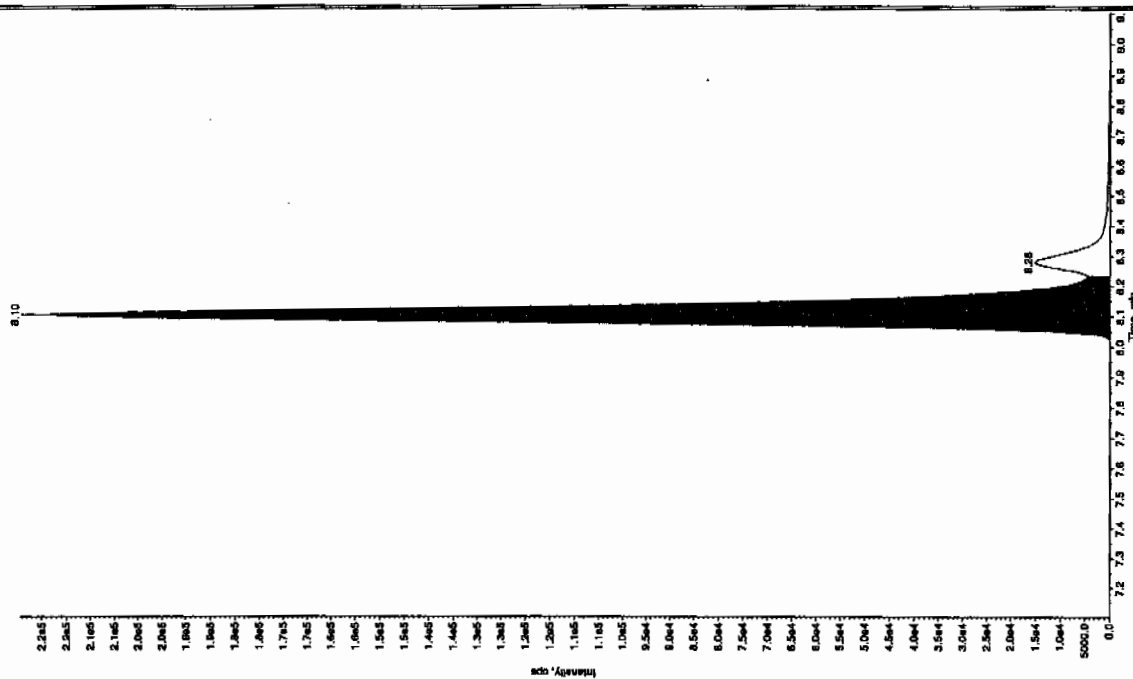


File Name: "WXX100405-270CR" Sample ID: "111ER" File: "EXS04050089.wif"  
 Name: "TATB" Mass(es): "257.2204.9 amu"  
 Name: "LCMSEXP\_C" Annotation: ""

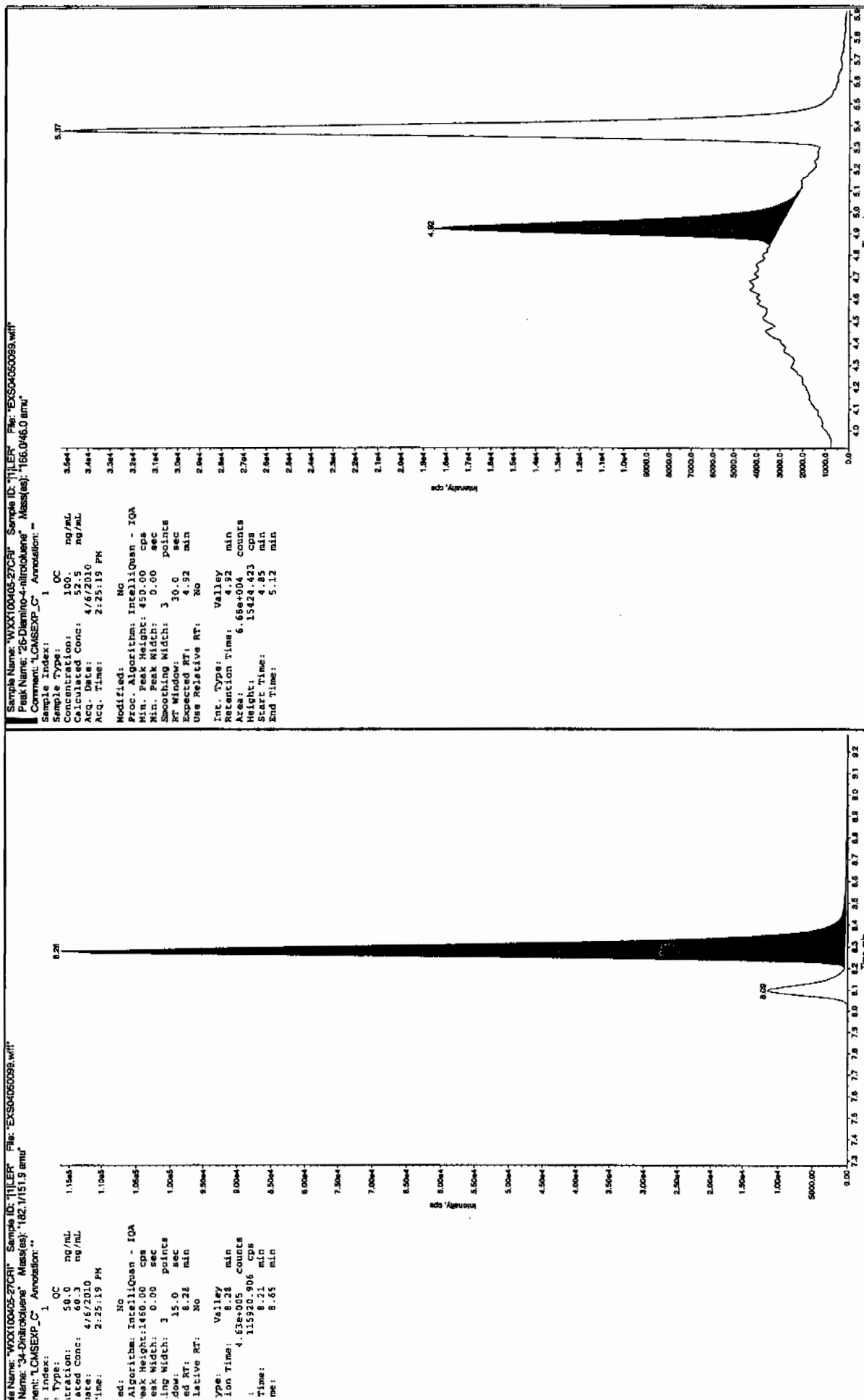
Index: 1  
 Type: OC  
 Concentration: 100. ng/mL  
 Calculated Conc: 136. ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 2:25:19 PM

Modified: NO  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2000.00 cps  
 Min. Peak Width: 3.00 sec  
 Spectral Width: 30.0 sec  
 RT Window: 15.0 min  
 Use Relative RT: NO

Int. Type: Valley  
 Retention Time: 8.10 min  
 Area: 8.83e+005 counts  
 Height: 224300.751 cps  
 Start Time: 8.01 min  
 End Time: 8.24 min

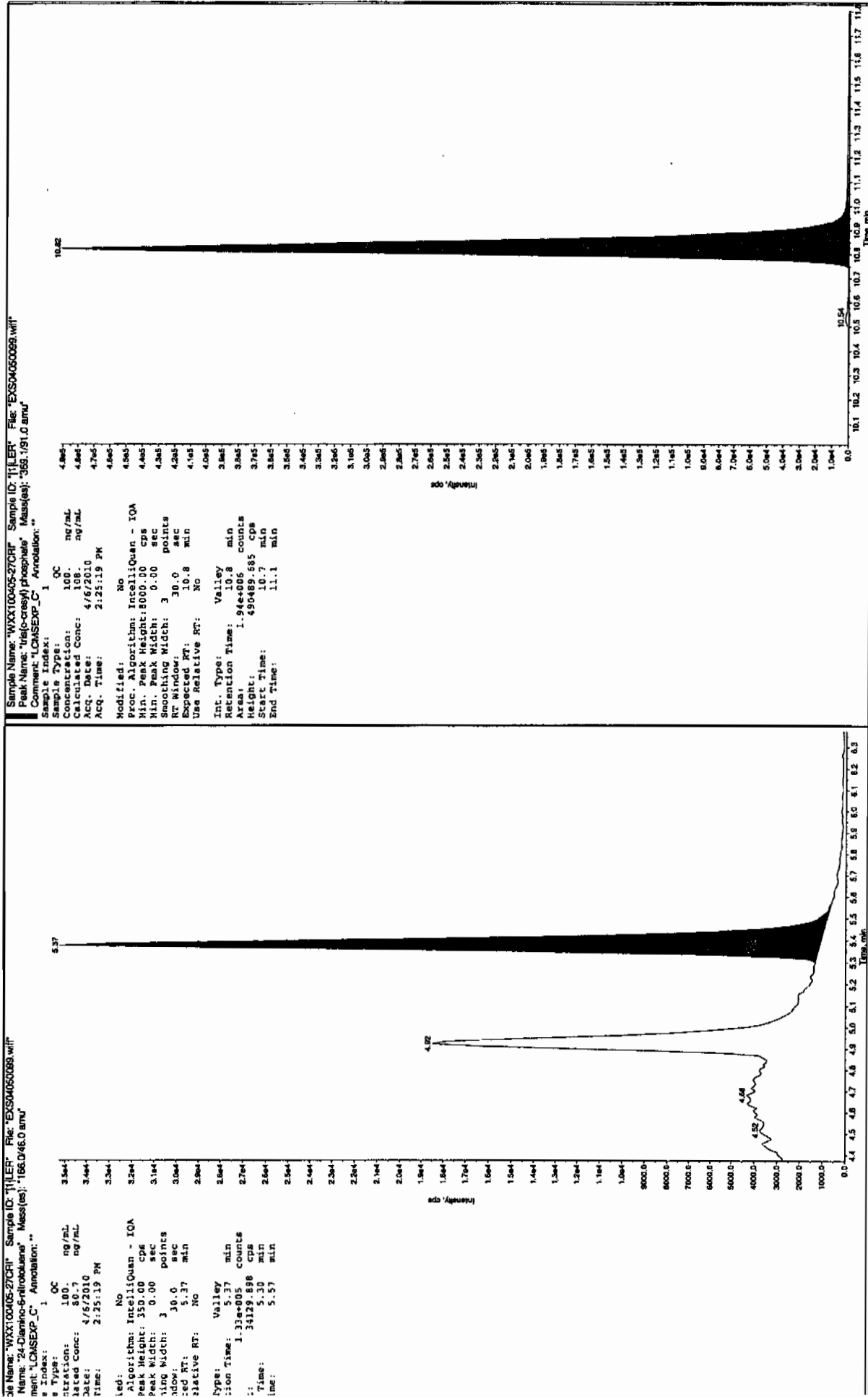






SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4





J SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04080013.wiff

Analysis Date: 08-APR-10 19:58

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	101	101	
2,6-Diamino-4-nitrotoluene	100	106	106	
3,4-Dinitrotoluene	50	48.1	96	
3,5-Dinitroaniline	100	89.4	89	
TATB	100	97.8	98	
tris(o-cresyl) phosphate	100	103	103	

**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%

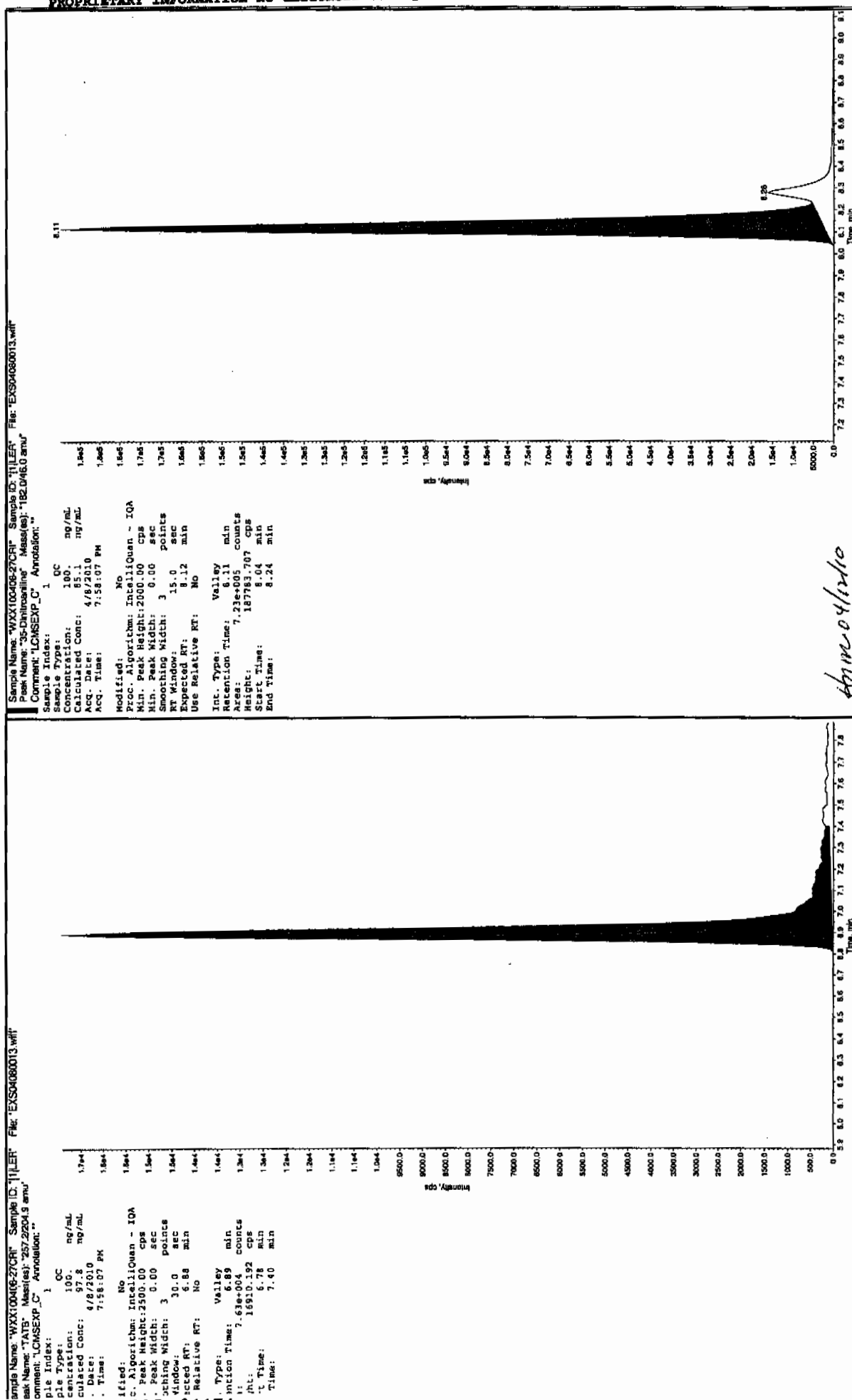
Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits



Before Jan 4/10



After Jan 4/10



after scan 41210

Sample Name: "WXX100408-27C91" Sample ID: "111ER" File: "EXS04080013.wif"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCMSEXP\_C" Annotation: ""

File Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 97.8 ng/mL

Date: 4/8/2010

Acq. Time: 7:58:07 PM

Modified: No

RT Window: 15.0 sec

Expected RT: 8.12 min

Use Relative RT: No

Int. Type: Manual

Retention Time: 8.11 min

Area: 7.56e+005 counts

Height: 19047.539 cps

Start Time: 8.02 min

End Time: 8.24 min

Algorithm: Interpolated

Peak Width: 2500.00 cps

Peak Width: 3.00 sec

Indow: 30.0 sec

ected RT: 6.88 min

Relative RT: No

Type: Valley

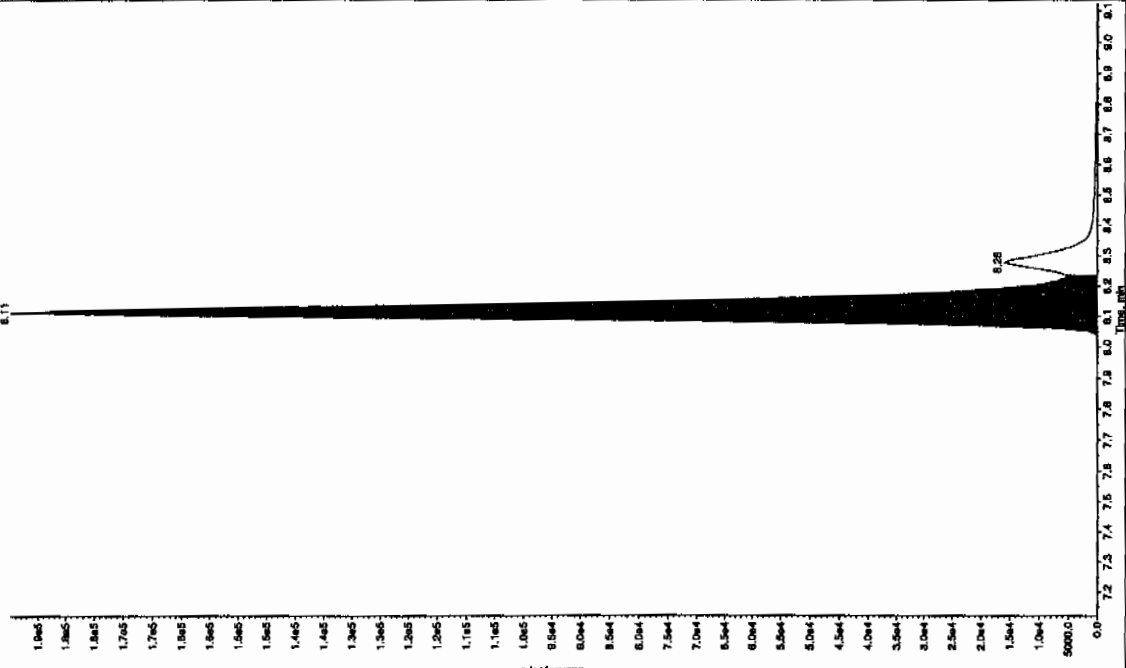
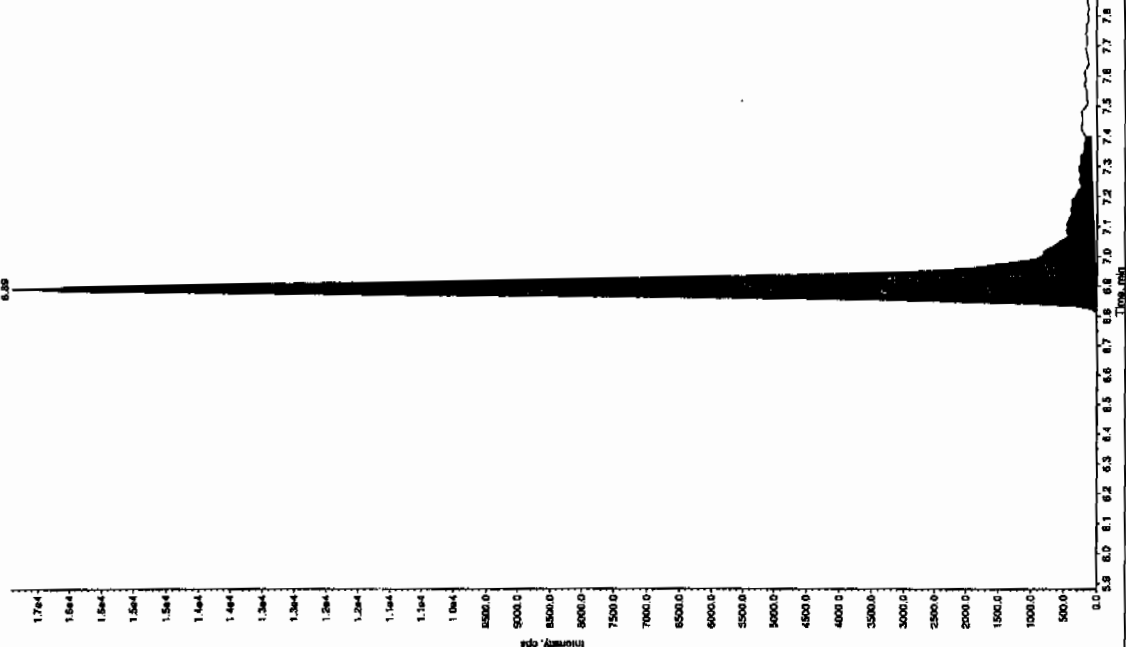
ction Time: 6.89 min

ht: 7.53e+004 counts

t Time: 16910.182 cps

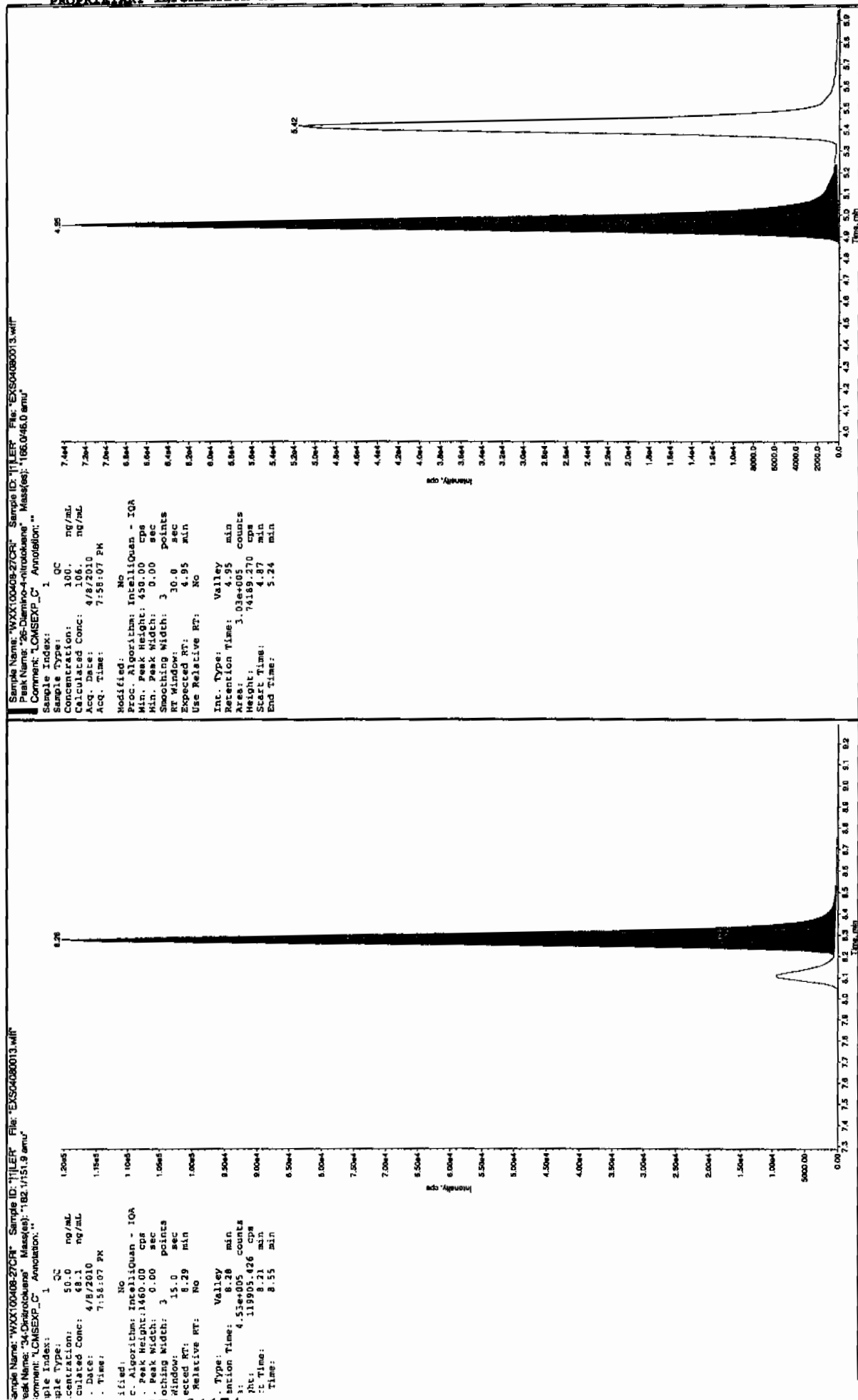
Time: 6.73 min

Time: 7.40 min



SOP GL-OA-E-056, Method 8321A-Modified LCMMS#4



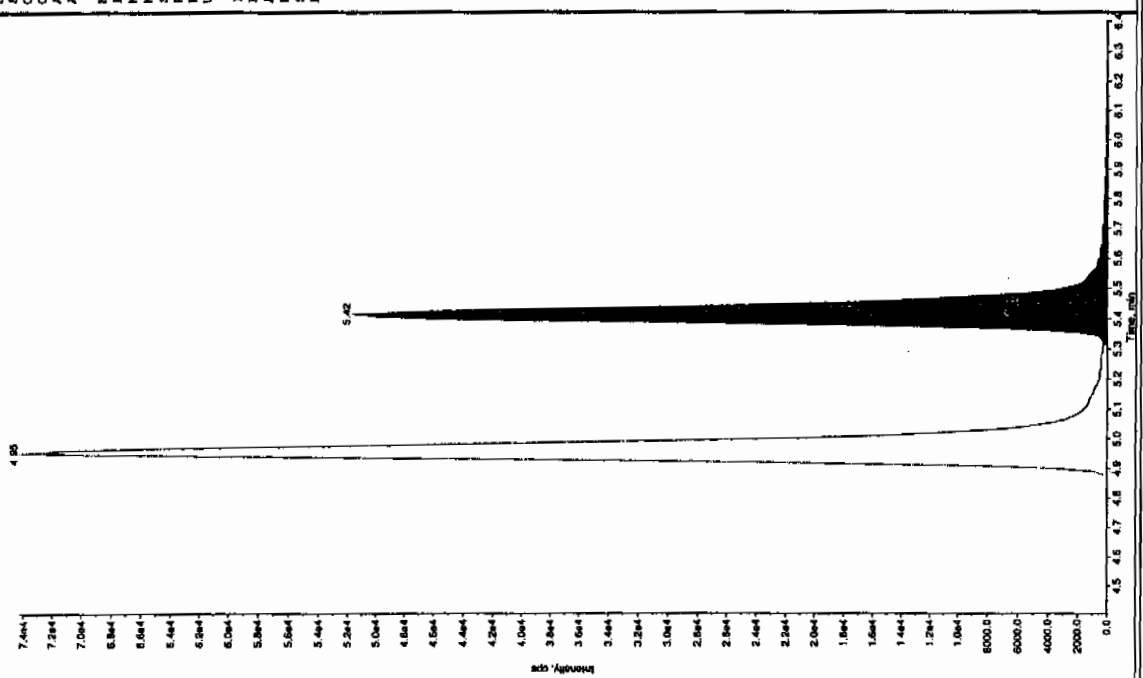


SOP GL-OA-E-056, Method 8321A-Modified LCMSEXP#4



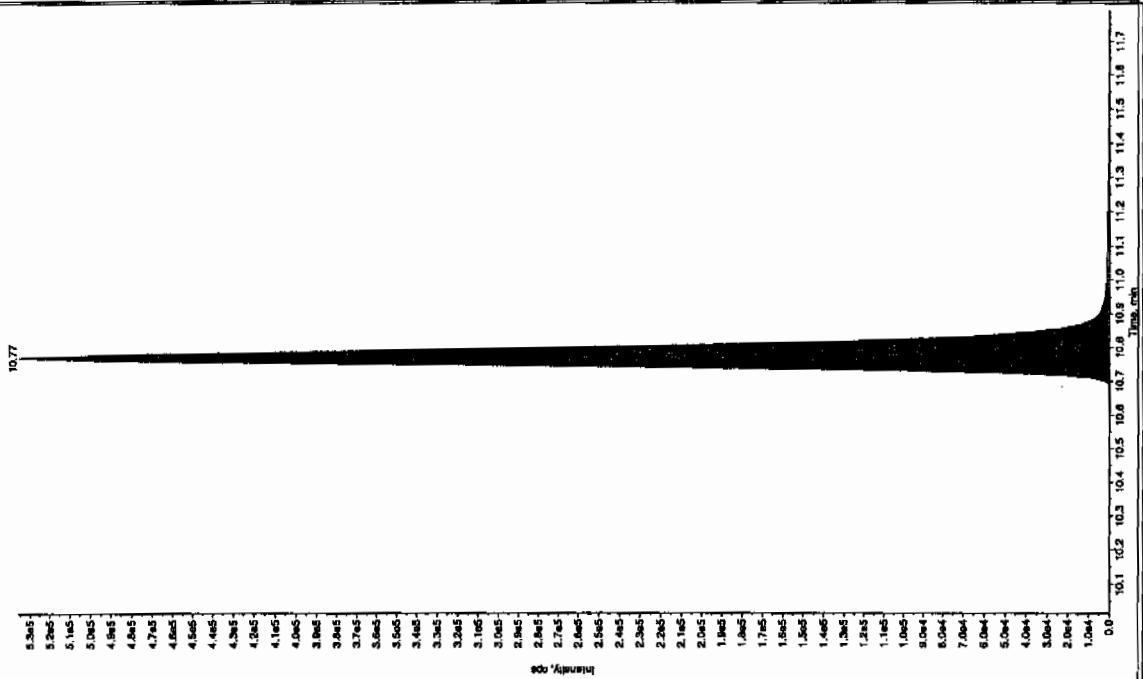
Sample Name: "WXX100408-270R" Sample ID: "JL1ER" File: "EXS04080013.wif"  
 Peak Name: "24-Diamino-6-Nitroguano" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 103. ng/mL  
 Acq. Date: 4/8/2010  
 Acq. Time: 7:58:07 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 3.00 sec  
 Ret. Window: 30.0 sec  
 Expected RT: 5.40 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.42 min  
 Area: 51542.145 counts  
 Start Time: 5.31 min  
 End Time: 5.98 min



Sample Name: "WXX100408-270R" Sample ID: "JL1ER" File: "EXS04080013.wif"  
 Peak Name: "tris(o-ethyl) phosphite" Mass(es): "308.189.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 103. ng/mL  
 Acq. Date: 4/8/2010  
 Acq. Time: 7:58:07 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 800.00 cps  
 Min. Peak Width: 3.00 sec  
 Ret. 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  
 Start Time: 10.7 min  
 End Time: 11.0 min





7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04080024.wiff

Analysis Date: 08-APR-10 22:50

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	460	92	
2,6-Diamino-4-nitrotoluene	500	466	93	
3,4-Dinitrotoluene	250	212	85	
3,5-Dinitroaniline	500	462	92	
TATB	500	534	107	
tris(o-cresyl) phosphate	500	500	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%

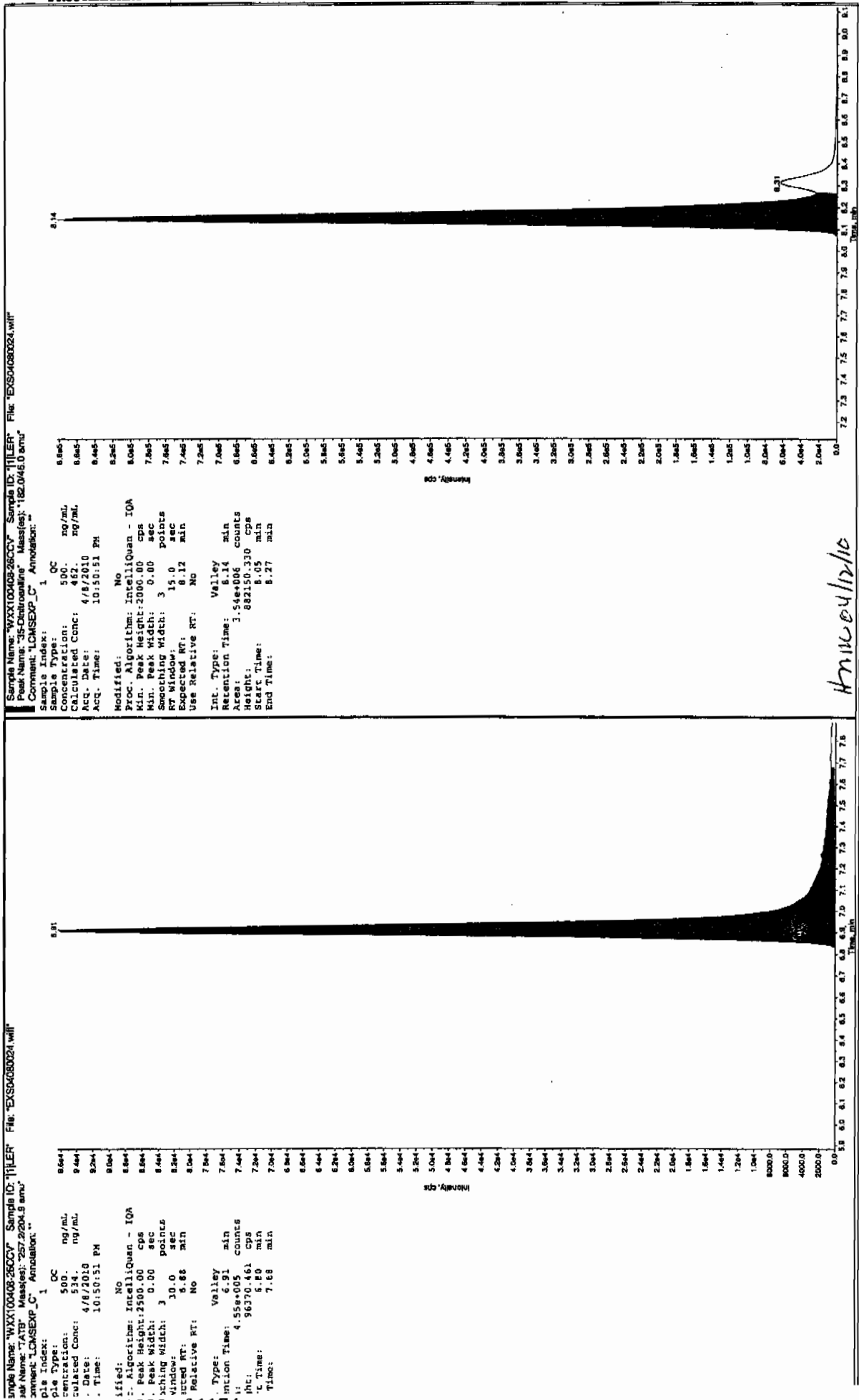
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits



Jan 4/12/10

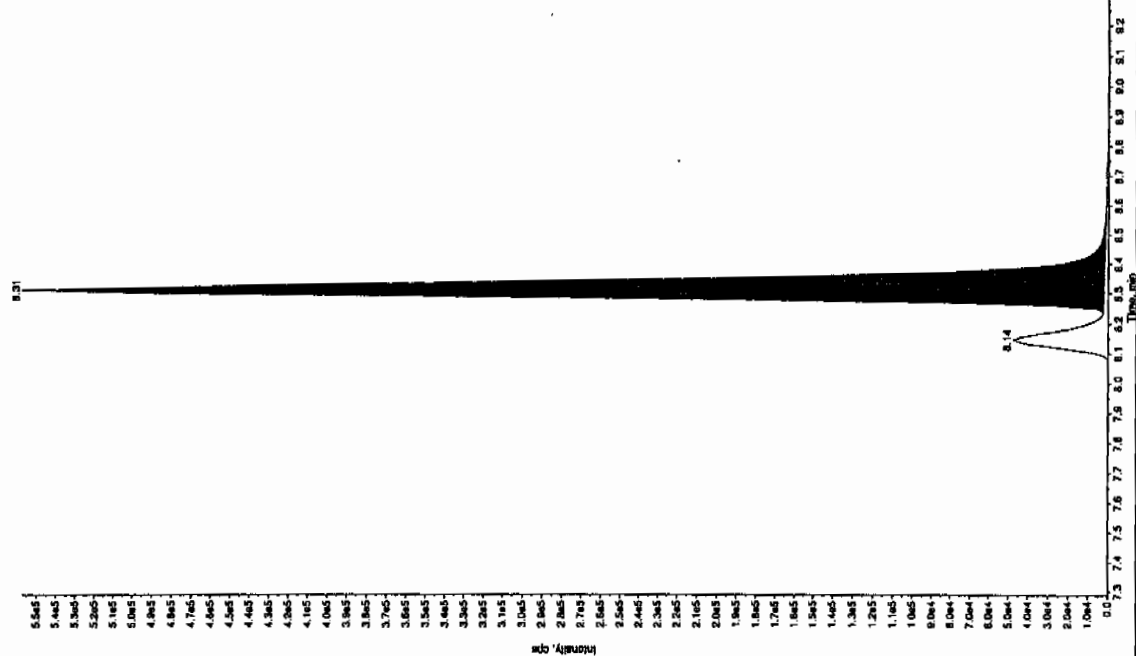


Jan 4/12/10



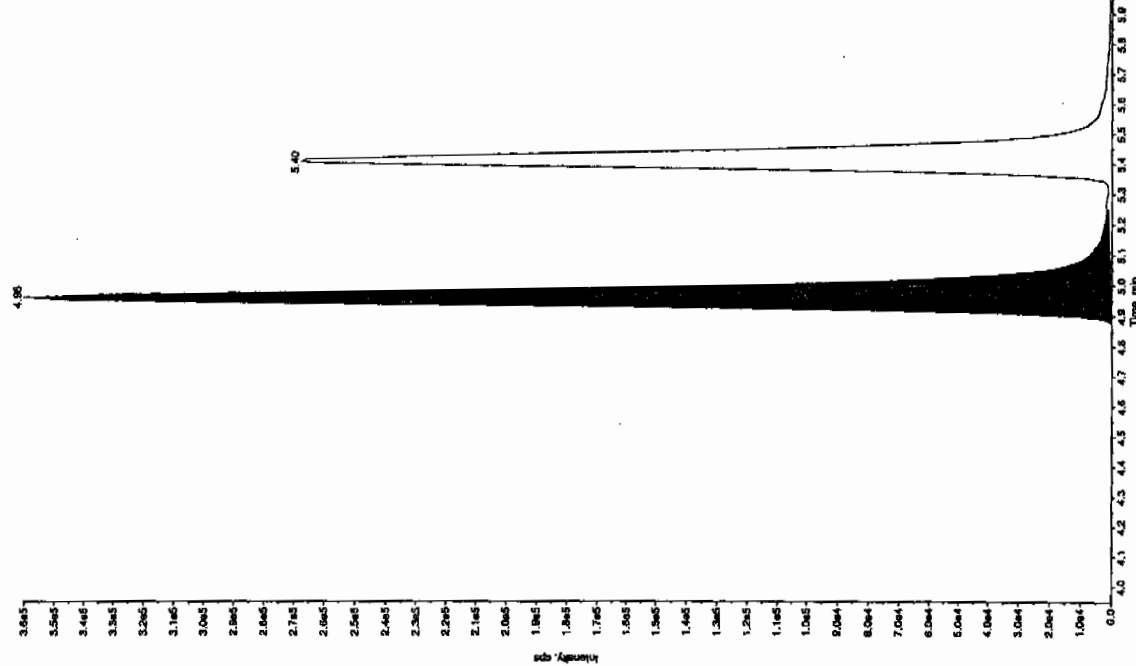
Sample Name: "WXX100408-260CV" Sample ID: "HILF" File: "EXS04080024.wit"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 250. ng/mL  
 Calculated Conc: 212. ng/mL  
 Acq. Date: 4/8/2010  
 Acq. Time: 10:50:51 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: 8.29 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.31 min  
 Area: 2.17e+006 counts  
 Height: 355089.501 cps  
 Start Time: 8.24 min  
 End Time: 8.63 min

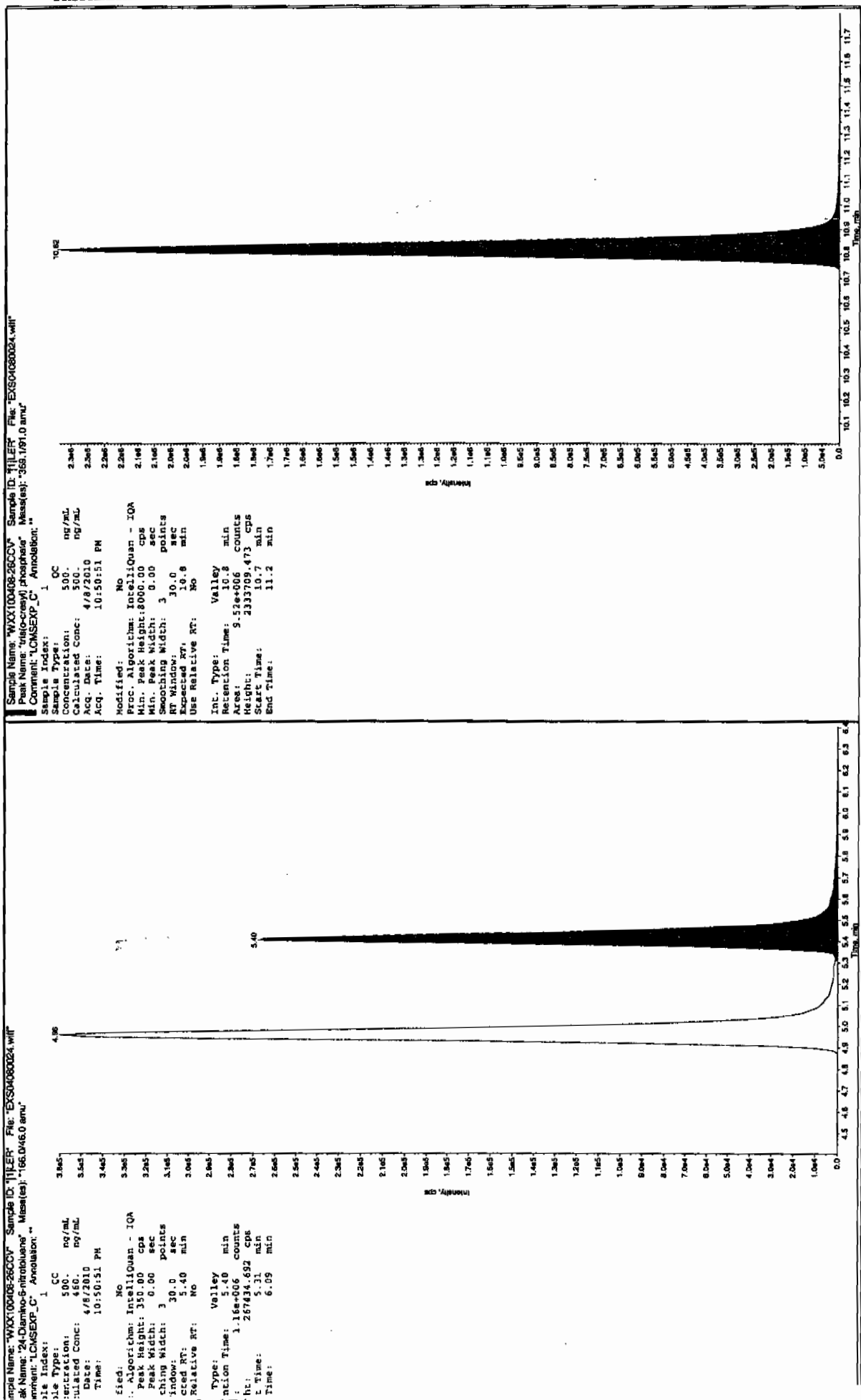


Sample Name: "WXX100408-260CV" Sample ID: "HILF" File: "EXS04080024.wit"  
 Peak Name: "25-Dinitro-4-nitrotoluene" Mass(es): "166.0/165.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 466. ng/mL  
 Acq. Date: 4/8/2010  
 Acq. Time: 10:50:51 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: 1.53e+006 counts  
 Height: 359946.930 cps  
 Start Time: 4.87 min  
 End Time: 5.23 min







J SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2137

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04080026.wiff

Analysis Date: 08-APR-10 23:22

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	103	103	
2,6-Diamino-4-nitrotoluene	100	101	101	
3,4-Dinitrotoluene	50	46.3	93	
3,5-Dinitroaniline	100	83.8	84	
TATB	100	104	104	
tris(o-cresyl) phosphate	100	103	103	

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



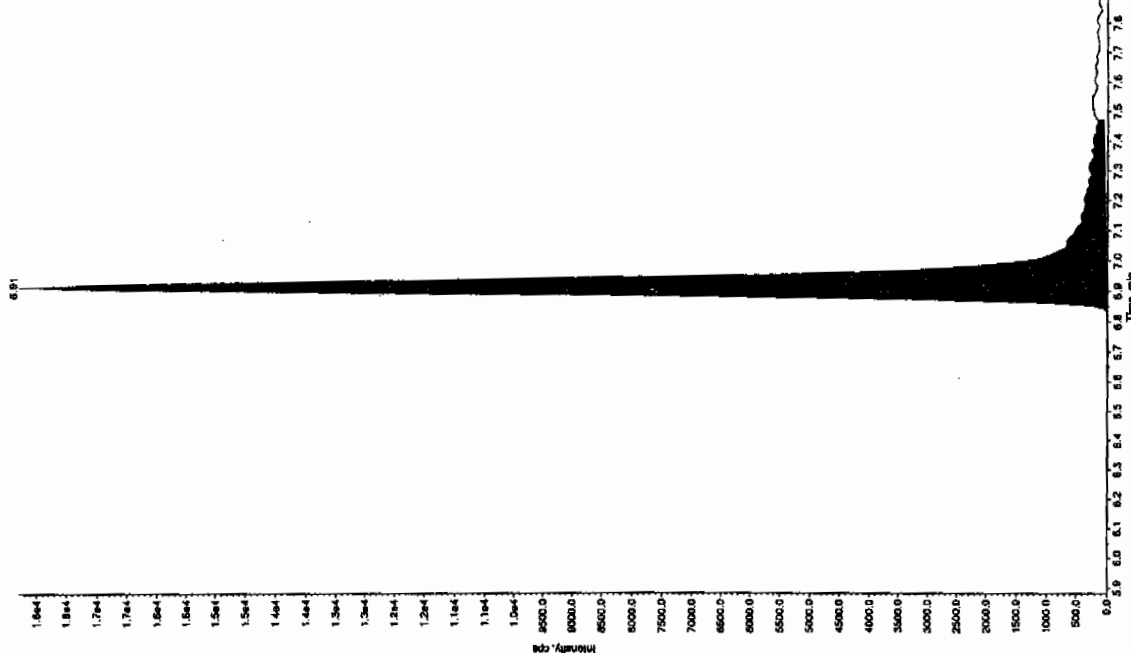
Jan 4/12/10

Sample Name: "WXX10408-2709" Sample ID: "111ER" File: "EX50408X08.wif"  
 Peak Name: "TAIB" Mass(es): "257.2204.9 amu"  
 Comment: "LCMSXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 83.6 ng/mL  
 Acq. Date: 4/8/2010  
 Acq. Time: 11:22:16 PM

Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 3.00 sec  
 Retention Window: 30.0 points  
 Expected RT: 6.88 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 6.91 min  
 Area: 8.14e+004 counts  
 Height: 18276.764 cps  
 Start Time: 6.82 min  
 End Time: 7.47 min

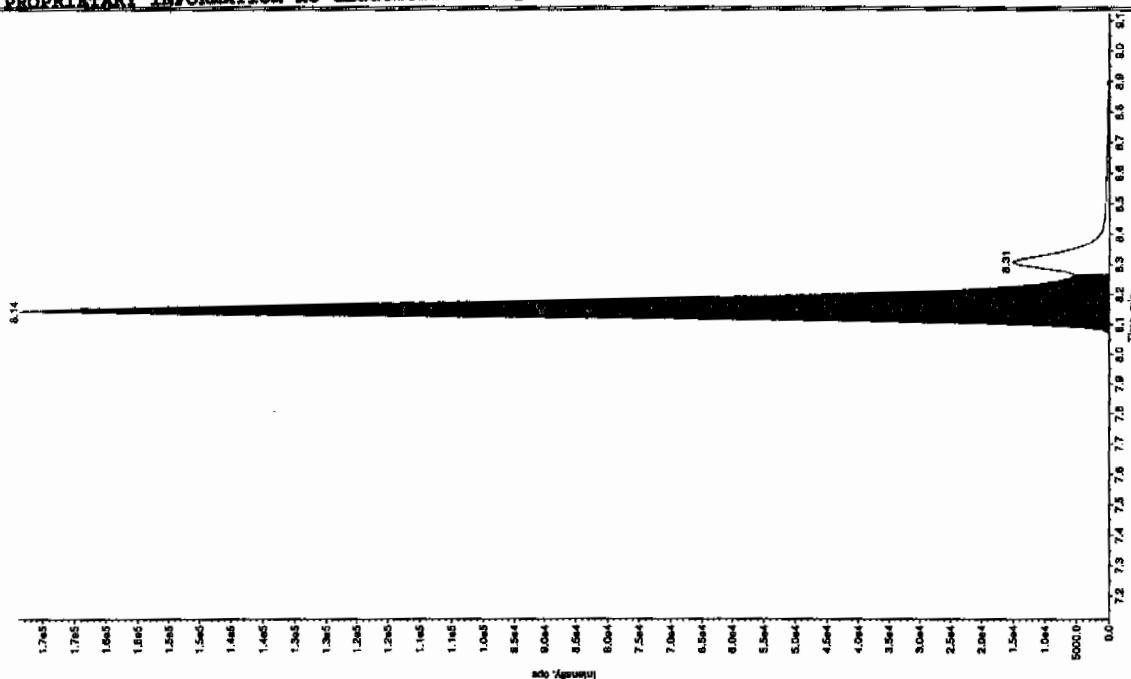


Sample Name: "WXX10408-2709" Sample ID: "111ER" File: "EX50408X08.wif"  
 Peak Name: "35-Dikroantline" Mass(es): "182.046.0 amu"  
 Comment: "LCMSXP\_C" Annotation: ""

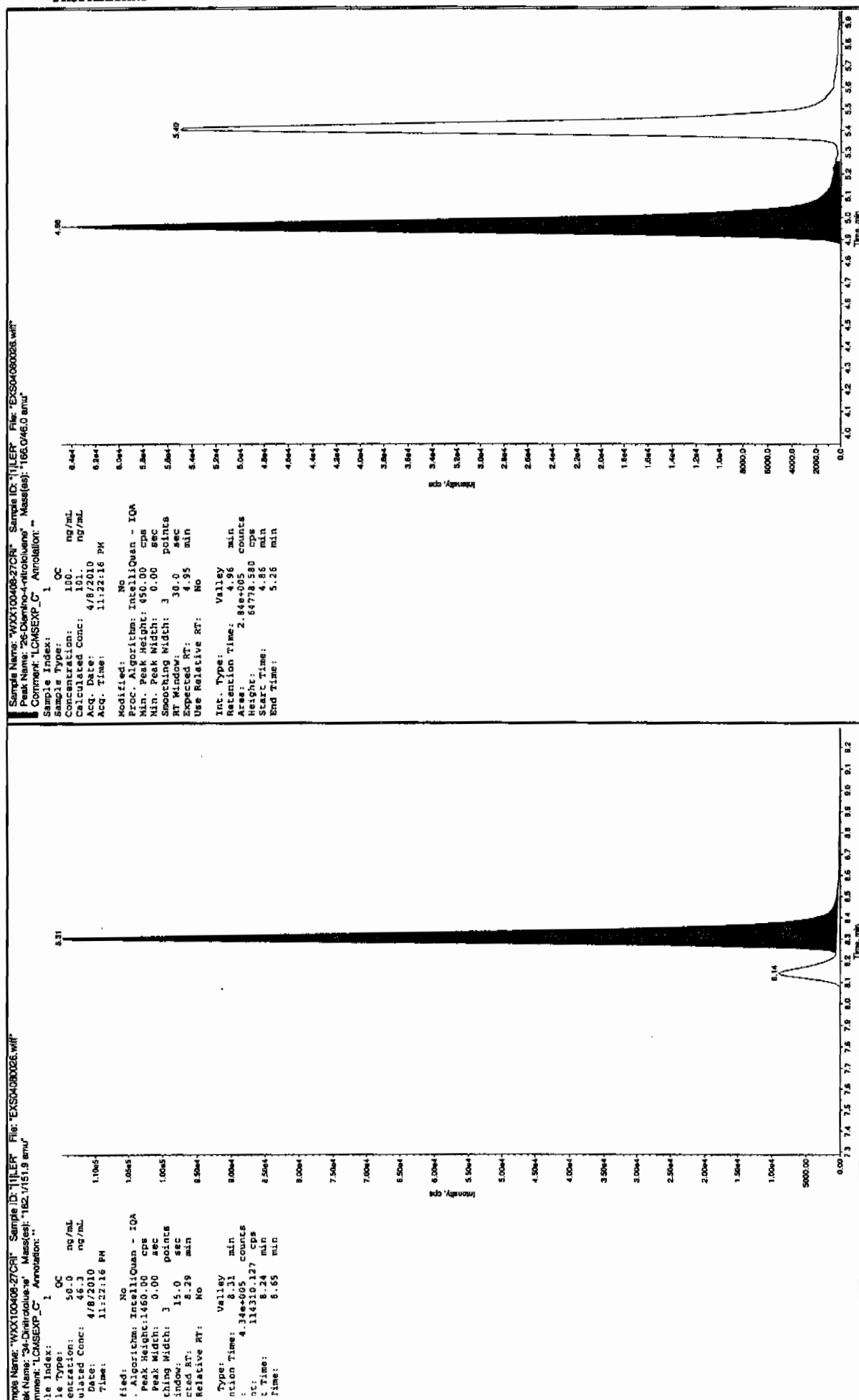
Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 83.6 ng/mL  
 Acq. Date: 4/8/2010  
 Acq. Time: 11:22:16 PM

Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2000.00 cps  
 Min. Peak Width: 3.00 sec  
 Retention Window: 30.0 points  
 Expected RT: 8.12 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 8.14 min  
 Area: 7.12e+005 counts  
 Height: 173802.795 cps  
 Start Time: 8.05 min  
 End Time: 8.27 min

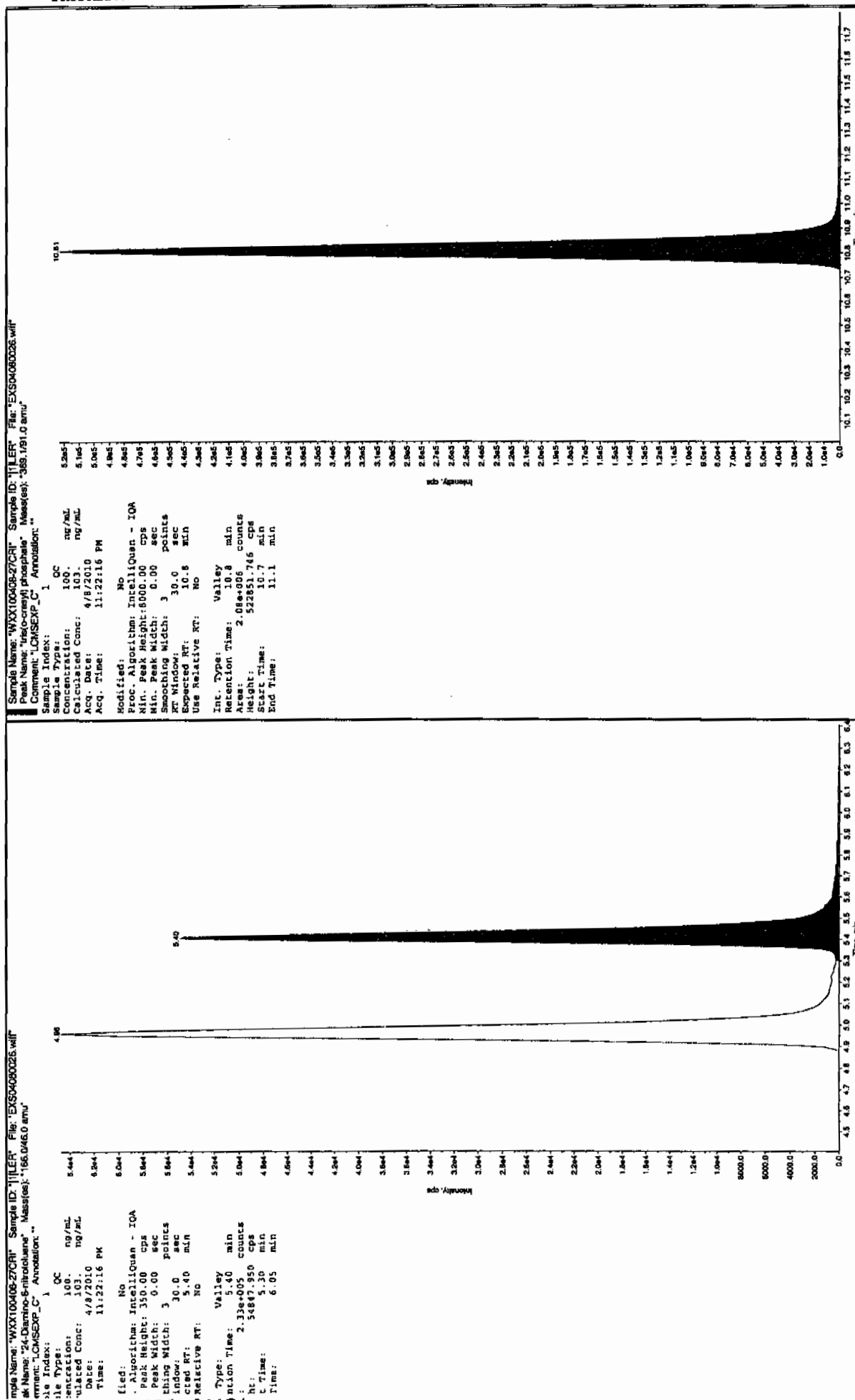






SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4







# QUALITY CONTROL DATA



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 959337

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 1202057500

Sample Amount 2

Moisture:

Amount Units g

Date Received: 01-MAR-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412144a

Date Analyzed: 15-APR-10 13:59

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



Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Method: C:\MASSLYNX\New\_Exp.PRO\MethDB\041210\expa.mdb, Time: Tue Apr 13 09:03:30 2010  
Calibration: C:\MASSLYNX\New\_Exp.PRO\CurveDB\041210\expa.cdb, Time: Tue Apr 13 11:12:22 2010

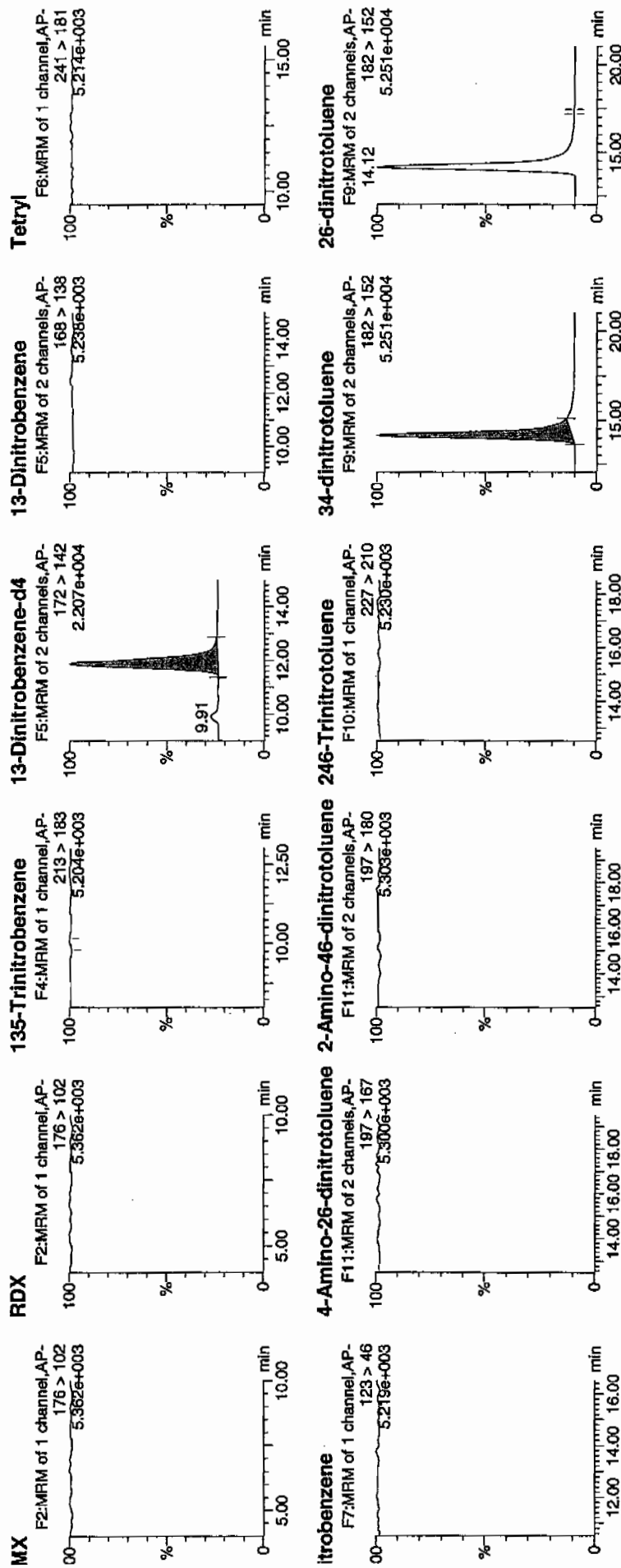
Page 10  
Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412144a

ate: 15-Apr-2010

me: 13:59:40

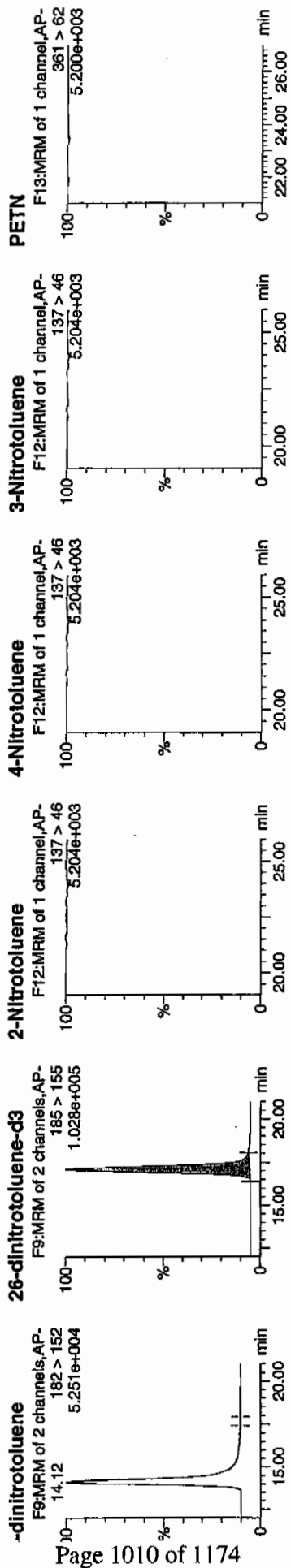
**1: 1202057500**

**|al: 4:1,A**



Done 04/18/10



[illegible]



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 959337

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 1202057500

Sample Amount 2

Moisture:

Amount Units g

Date Received: 01-MAR-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050087.wiff

Date Analyzed: 06-APR-10 11:16

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 4/17/10

Sample Name: "120057507" Sample ID: "95333921ER" File: "EXS04050087.wif"

Peak Name: "35-Dinitrochloride" Mass(es): "182.046.0 amu"

Comment: "LCX832125" Annotation: "

Sample Index: 1

Sample Name: Unknown

Concentration: 0.00 ng/mL

Acq. Date: 4/6/2010

Acq. Time: 11:16:55 AM

Modified: No

Intensity, cps

5.1e4

5.0e4

4.8e4

4.6e4

4.4e4

4.2e4

4.0e4

3.8e4

3.6e4

3.4e4

3.2e4

3.0e4

2.8e4

2.6e4

2.4e4

2.2e4

2.0e4

1.8e4

1.6e4

1.4e4

1.2e4

1.0e4

8000.0

6000.0

4000.0

2000.0

1000.0

0.0

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9

2.0

2.1

2.2

2.3

2.4

2.5

2.6

2.7

2.8

2.9

3.0

3.1

3.2

3.3

3.4

3.5

3.6

3.7

3.8

3.9

4.0

4.1

4.2

4.3

4.4

4.5

4.6

4.7

4.8

4.9

5.0

5.1

5.2

5.3

5.4

5.5

5.6

5.7

5.8

5.9

6.0

Intensity, cps

4.5

4.0

3.5

3.0

2.5

2.0

1.5

1.0

0.5

0.0

0.5

1.0

1.5

2.0

2.5

3.0

3.5

4.0

4.5

5.0

5.5

6.0

6.5

7.0

7.5

8.0

8.5

9.0

9.5

10.0

10.5

11.0

11.5

12.0

12.5

13.0

13.5

14.0

14.5

15.0

15.5

16.0

16.5

17.0

17.5

18.0

18.5

19.0

19.5

20.0

20.5

21.0

21.5

22.0

22.5

23.0

23.5

24.0

24.5

25.0

25.5

26.0

26.5

27.0

27.5

28.0

28.5

29.0

29.5

30.0

30.5

31.0

31.5

32.0

32.5

33.0

Intensity, cps

4.5

4.0

3.5

3.0

2.5

2.0

1.5

1.0

0.5

0.0

0.5

1.0

1.5

2.0

2.5

3.0

3.5

4.0

4.5

5.0

5.5

6.0

6.5

7.0

7.5

8.0

8.5

9.0

9.5

10.0

10.5

11.0

11.5

12.0

12.5

13.0

13.5

14.0

14.5

15.0

15.5

16.0

16.5

17.0

17.5

18.0

18.5

19.0

19.5

20.0

20.5

21.0

21.5

22.0

22.5

23.0

23.5

24.0

24.5

25.0

25.5

26.0

26.5

27.0

27.5

28.0

28.5

29.0

29.5

30.0

30.5

31.0

31.5

32.0

32.5

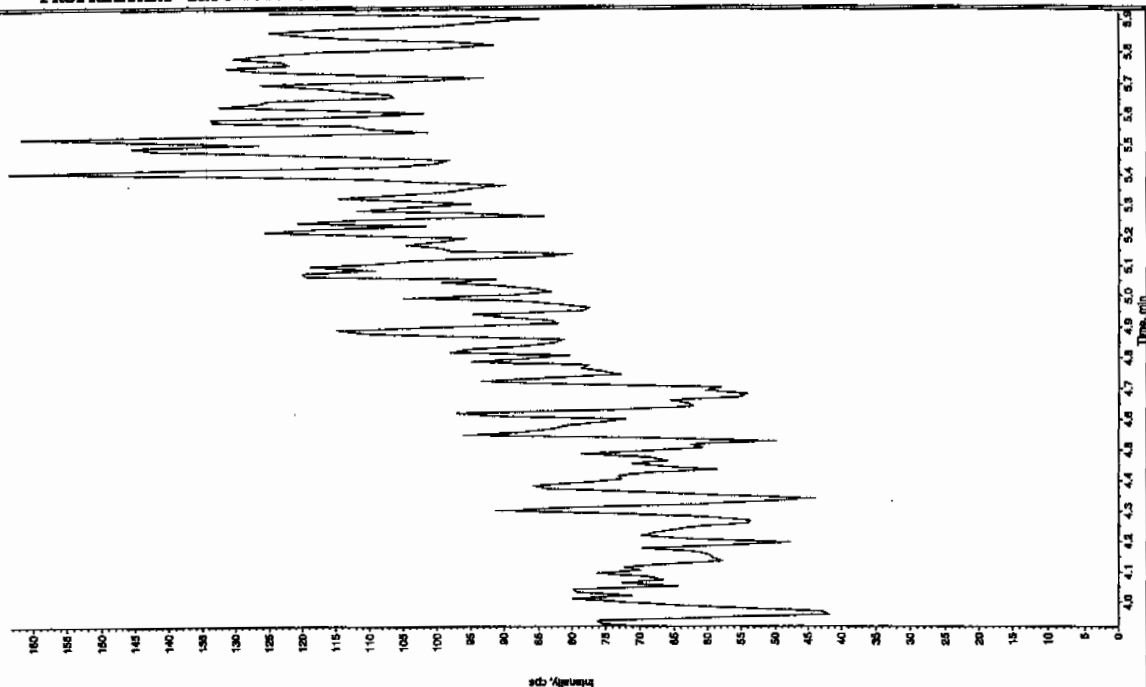
33.0

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



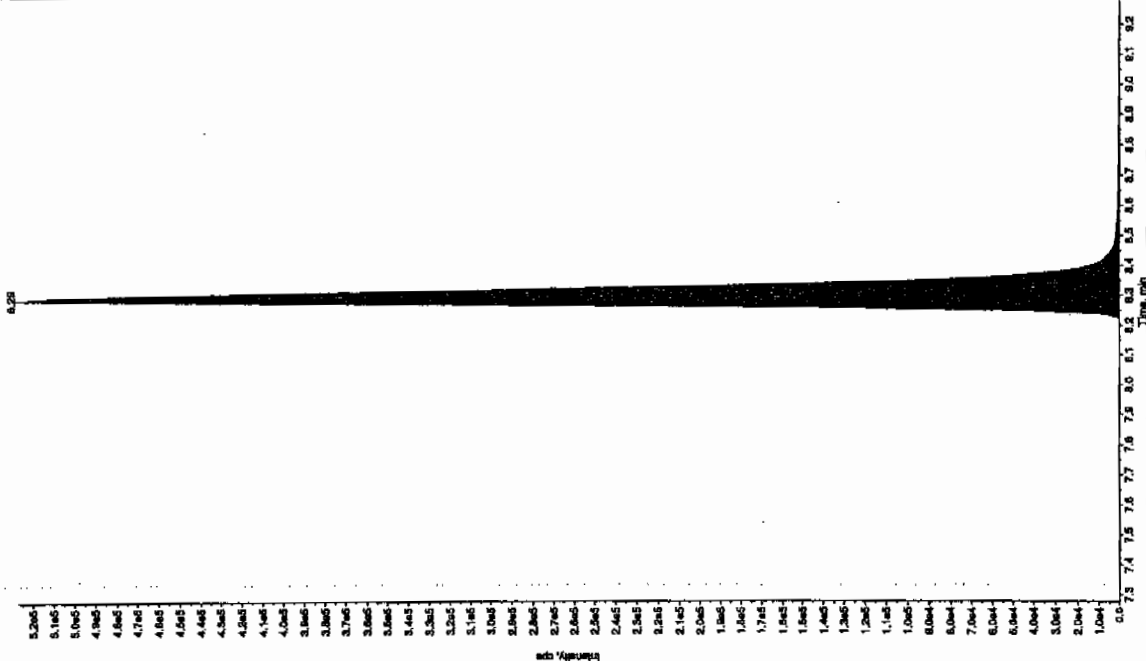
Sample Name: 1200575007 Sample ID: 95833821 LEFF File: EX504650087.wiff  
 Peak Name: 28-Diamino-4-nitrotoluene Mass(es): 166.045.0 amu  
 Comment: LCX032125 Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 11:16:55 AM  
 Modified: No



Sample Name: 1200575007 Sample ID: 95833821 LEFF File: EX504650087.wiff  
 Peak Name: 28-Diamino-4-nitrotoluene Mass(es): 162.1151.9 amu  
 Comment: LCX032125 Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 246 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 11:16:55 AM  
 Modified: No



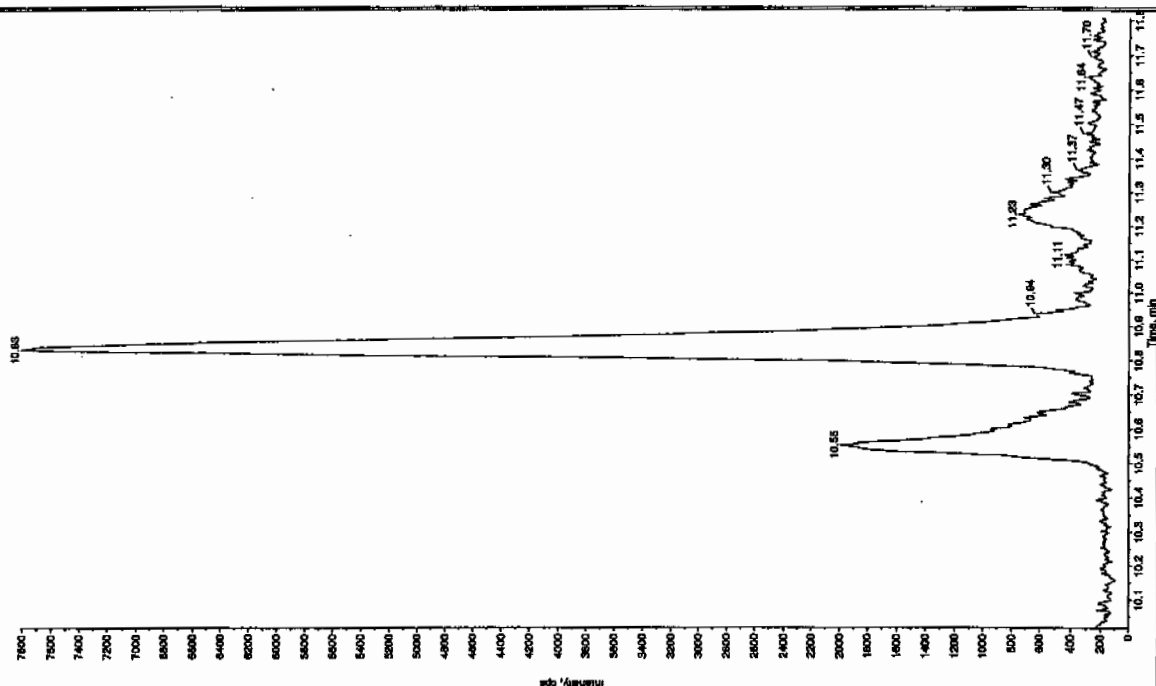
Algorithm: IntelliQuan - IQA  
 Peak Height: 1460.00 cps  
 Peak Width: 0.00 sec  
 Window Width: 3 points  
 Window: 15.0 sec  
 Retention Time: 8.29 min  
 Relative RT: No  
 Type: Valley  
 Retention Time: 8.29 min  
 Counts: 526799.072 cps  
 Time: 8.29 min  
 Time: 8.70 min

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



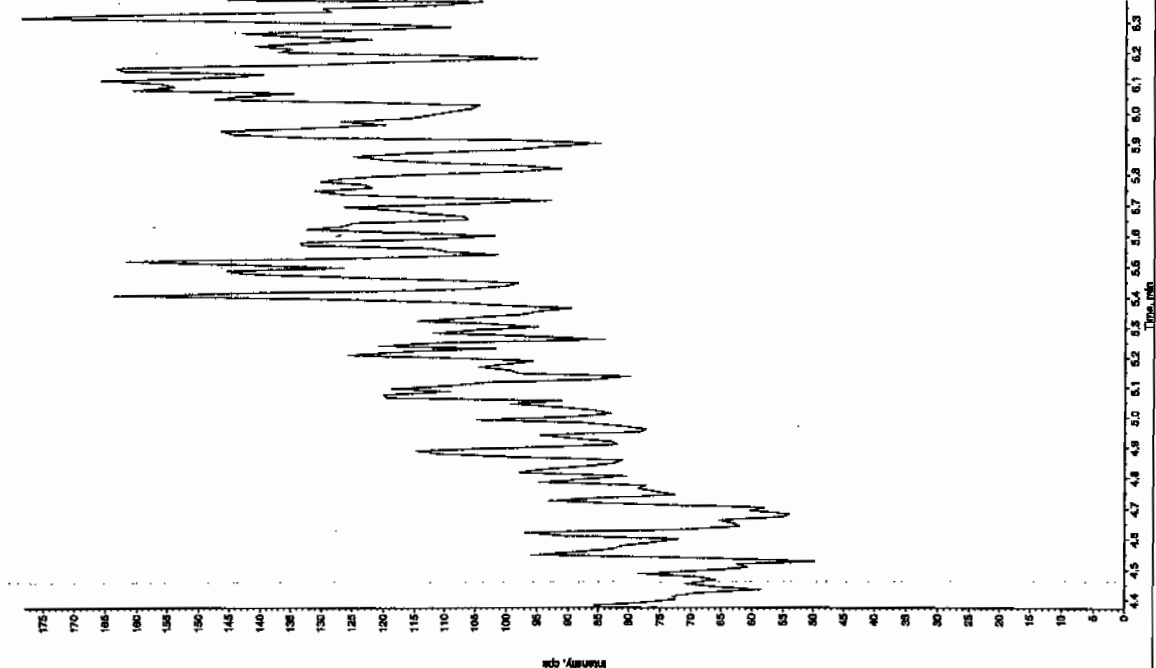
Sample Name: "1202057500" Sample ID: "558382121" File: "EXS04050087.wif"  
 Peak Name: "tri(o-methyl) phosphite" Mass(es): "393.191.0 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 11:16:55 AM  
 Modified: No



File Name: "1202057500" Sample ID: "558382121" File: "EXS04050087.wif"  
 Name: "24-Diamino-6-nitrotoluene" Mass(es): "196.046.0 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 11:16:55 AM  
 Modified: No



J. SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 959337

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 1202057501

Sample Amount 2

Moisture:

Amount Units g

Date Received: 01-MAR-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412145a

Date Analyzed: 15-APR-10 14:29

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5320	
121-14-2	2,4-Dinitrotoluene	4990	
121-82-4	RDX	5360	
19406-51-0	4-Amino-2,6-dinitrotoluene	5120	
2691-41-0	HMX	4730	
35572-78-2	2-Amino-4,6-dinitrotoluene	5520	
479-45-8	Tetryl	1010	
606-20-2	2,6-Dinitrotoluene	4680	
78-11-5	PETN	5260	
88-72-2	o-Nitrotoluene	3920	
98-95-3	Nitrobenzene	4620	
99-08-1	m-Nitrotoluene	4030	
99-35-4	1,3,5-Trinitrobenzene	3640	
99-65-0	m-Dinitrobenzene	4560	
99-99-0	p-Nitrotoluene	4320	

\*Concentration =

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



# Identify Sample Report

EL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Apr 16 09:46:23 2010, Page 3 of 71

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412145a

Acquisition Date: 15-Apr-2010

Time: 14:29:17

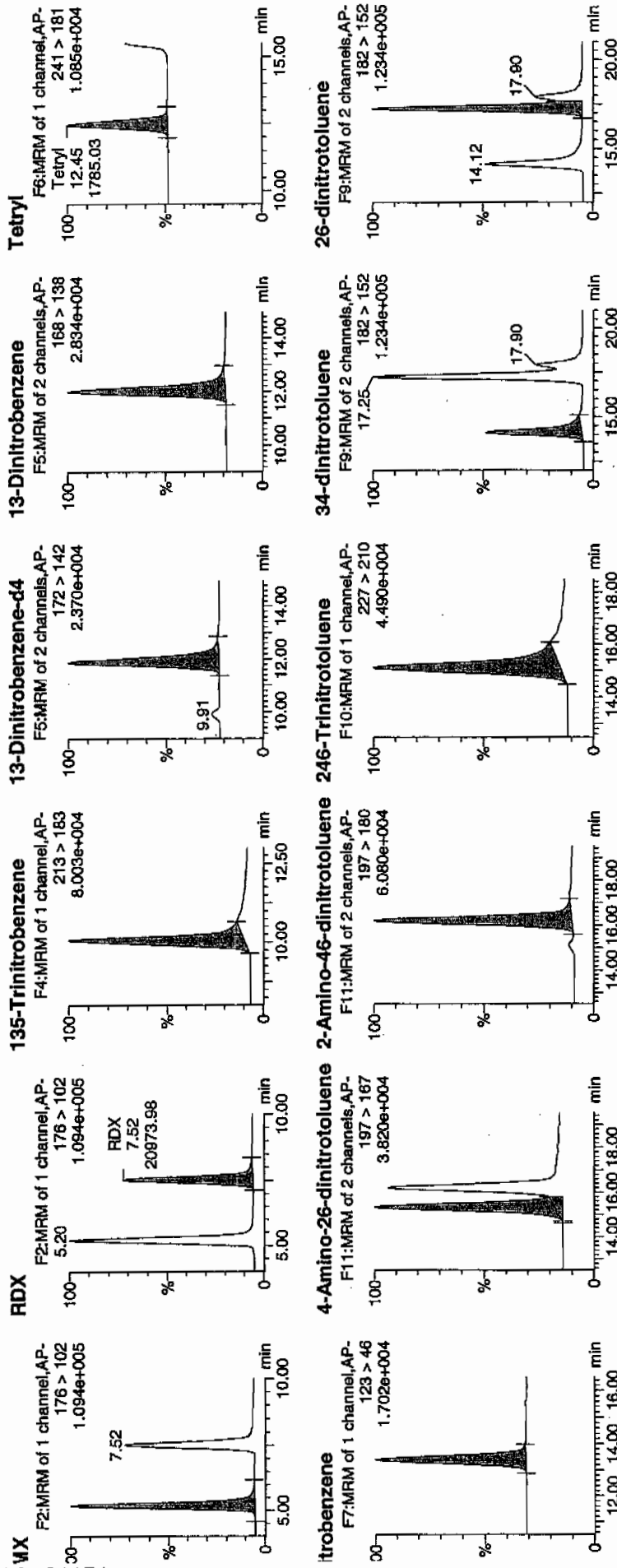
File: 1202057501

Ratio: 4:1,B

Handwritten notes: *LAU 959338* and *08/21*

Handwritten note: *10/16/10*

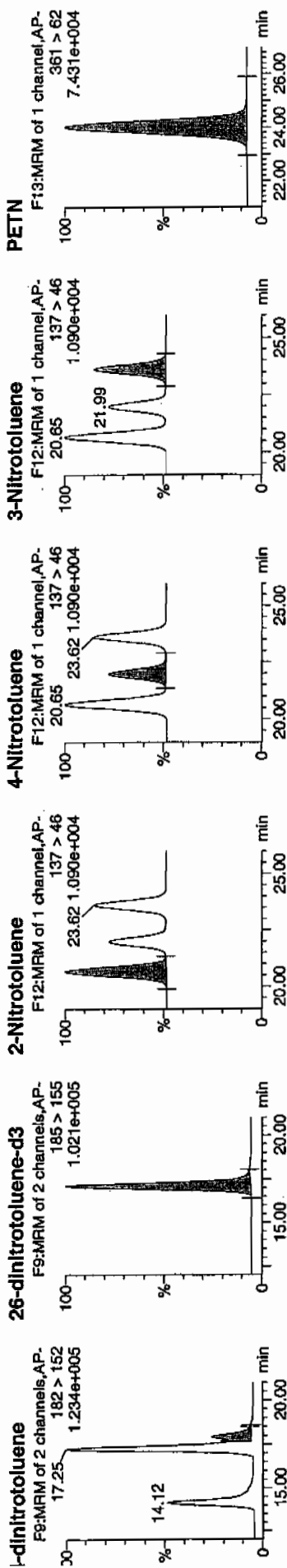
Handwritten note: *Tetryl*



Handwritten note: *04/18/10*



Dataset: C:\MASSLYNX\New\_Exp\_PROV041210expA3.qld, Time: Fri Apr 16 09:45:39 2010



Sample	Retention Time (min)	Mass Ratio (m/z)	Area	Height	Width	Signal	Time	Area	Height	Width	Signal	Time	Area	Height	Width	Signal	Time	Area	Height	Width	Signal
202057501	176 > 102	5.20	27399.258	6831.294	27399.258	6831.294	16-Apr-10	27399.258	6831.294	27399.258	6831.294	16-Apr-10	27399.258	6831.294	27399.258	6831.294	16-Apr-10	27399.258	6831.294	27399.258	6831.294
202057501	176 > 102	7.52	20973.980	6831.294	20973.980	6831.294	16-Apr-10	20973.980	6831.294	20973.980	6831.294	16-Apr-10	20973.980	6831.294	20973.980	6831.294	16-Apr-10	20973.980	6831.294	20973.980	6831.294
202057501	213 > 183	10.05	21493.660	6831.294	21493.660	6831.294	16-Apr-10	21493.660	6831.294	21493.660	6831.294	16-Apr-10	21493.660	6831.294	21493.660	6831.294	16-Apr-10	21493.660	6831.294	21493.660	6831.294
202057501	172 > 142	11.87	6831.294	6831.294	6831.294	6831.294	16-Apr-10	6831.294	6831.294	6831.294	6831.294	16-Apr-10	6831.294	6831.294	6831.294	6831.294	16-Apr-10	6831.294	6831.294	6831.294	6831.294
202057501	168 > 138	12.00	8327.267	6831.294	8327.267	6831.294	16-Apr-10	8327.267	6831.294	8327.267	6831.294	16-Apr-10	8327.267	6831.294	8327.267	6831.294	16-Apr-10	8327.267	6831.294	8327.267	6831.294
202057501	241 > 181	12.45	1785.034	6831.294	1785.034	6831.294	16-Apr-10	1785.034	6831.294	1785.034	6831.294	16-Apr-10	1785.034	6831.294	1785.034	6831.294	16-Apr-10	1785.034	6831.294	1785.034	6831.294
202057501	Nitrobenzene	13.41	3957.863	6831.294	3957.863	6831.294	16-Apr-10	3957.863	6831.294	3957.863	6831.294	16-Apr-10	3957.863	6831.294	3957.863	6831.294	16-Apr-10	3957.863	6831.294	3957.863	6831.294
202057501	4-Amino-26-dinitrotoluene	15.36	13732.473	39683.051	13732.473	39683.051	16-Apr-10	13732.473	39683.051	13732.473	39683.051	16-Apr-10	13732.473	39683.051	13732.473	39683.051	16-Apr-10	13732.473	39683.051	13732.473	39683.051
202057501	2-Amino-46-dinitrotoluene	16.23	22446.744	39683.051	22446.744	39683.051	16-Apr-10	22446.744	39683.051	22446.744	39683.051	16-Apr-10	22446.744	39683.051	22446.744	39683.051	16-Apr-10	22446.744	39683.051	22446.744	39683.051
202057501	246-Trinitrotoluene	15.14	18375.547	39683.051	18375.547	39683.051	16-Apr-10	18375.547	39683.051	18375.547	39683.051	16-Apr-10	18375.547	39683.051	18375.547	39683.051	16-Apr-10	18375.547	39683.051	18375.547	39683.051
202057501	34-dinitrotoluene	14.12	22601.758	39683.051	22601.758	39683.051	16-Apr-10	22601.758	39683.051	22601.758	39683.051	16-Apr-10	22601.758	39683.051	22601.758	39683.051	16-Apr-10	22601.758	39683.051	22601.758	39683.051
202057501	26-dinitrotoluene	17.25	43989.012	39683.051	43989.012	39683.051	16-Apr-10	43989.012	39683.051	43989.012	39683.051	16-Apr-10	43989.012	39683.051	43989.012	39683.051	16-Apr-10	43989.012	39683.051	43989.012	39683.051
202057501	24-dinitrotoluene	17.90	10340.527	39683.051	10340.527	39683.051	16-Apr-10	10340.527	39683.051	10340.527	39683.051	16-Apr-10	10340.527	39683.051	10340.527	39683.051	16-Apr-10	10340.527	39683.051	10340.527	39683.051
202057501	26-dinitrotoluene-d3	17.09	39683.051	39683.051	39683.051	39683.051	16-Apr-10	39683.051	39683.051	39683.051	39683.051	16-Apr-10	39683.051	39683.051	39683.051	39683.051	16-Apr-10	39683.051	39683.051	39683.051	39683.051
202057501	2-Nitrotoluene	20.65	2693.139	39683.051	2693.139	39683.051	16-Apr-10	2693.139	39683.051	2693.139	39683.051	16-Apr-10	2693.139	39683.051	2693.139	39683.051	16-Apr-10	2693.139	39683.051	2693.139	39683.051
202057501	4-Nitrotoluene	21.99	1423.045	39683.051	1423.045	39683.051	16-Apr-10	1423.045	39683.051	1423.045	39683.051	16-Apr-10	1423.045	39683.051	1423.045	39683.051	16-Apr-10	1423.045	39683.051	1423.045	39683.051
202057501	3-Nitrotoluene	23.62	1866.483	39683.051	1866.483	39683.051	16-Apr-10	1866.483	39683.051	1866.483	39683.051	16-Apr-10	1866.483	39683.051	1866.483	39683.051	16-Apr-10	1866.483	39683.051	1866.483	39683.051
202057501	PETN	361 > 62	24.02	37957.758	37957.758	39683.051	16-Apr-10	37957.758	39683.051	37957.758	39683.051	16-Apr-10	37957.758	39683.051	37957.758	39683.051	16-Apr-10	37957.758	39683.051	37957.758	39683.051



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 959337

Lab Code: GEL

GEL Job No (SDG) 10-2137

Matrix: SOIL

GEL Sample ID: 1202057501

Sample Amount 2

Moisture:

Amount Units g

Date Received: 01-MAR-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050088.wiff

Date Analyzed: 06-APR-10 11:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	6540	
59229-75-3	2,6-Diamino-4-nitrotoluene	4900	
618-87-1	3,5-Dinitroaniline	5460	
6629-29-4	2,4-Diamino-6-nitrotoluene	5260	
78-30-8	tris(o-cresyl) phosphate	4850	

\*Concentration =

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



Jan 4/7/10

Sample Name: "1202057501" Sample ID: "5653382125" File: "EX504050068.wif"

Peak Name: "95-Diethylamine" Mass(es): "182.0463.0 amu"

Comment: "LCX832125" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 546 ng/mL

Acq. Date: 4/6/2010

Acq. Time: 11:32:37 AM

Modified: No

Proc. Algorithm: IntelliQuan - ICA

Min. Peak Height: 2000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.10 min

Use Relative RT: No

Int. Type: Valley

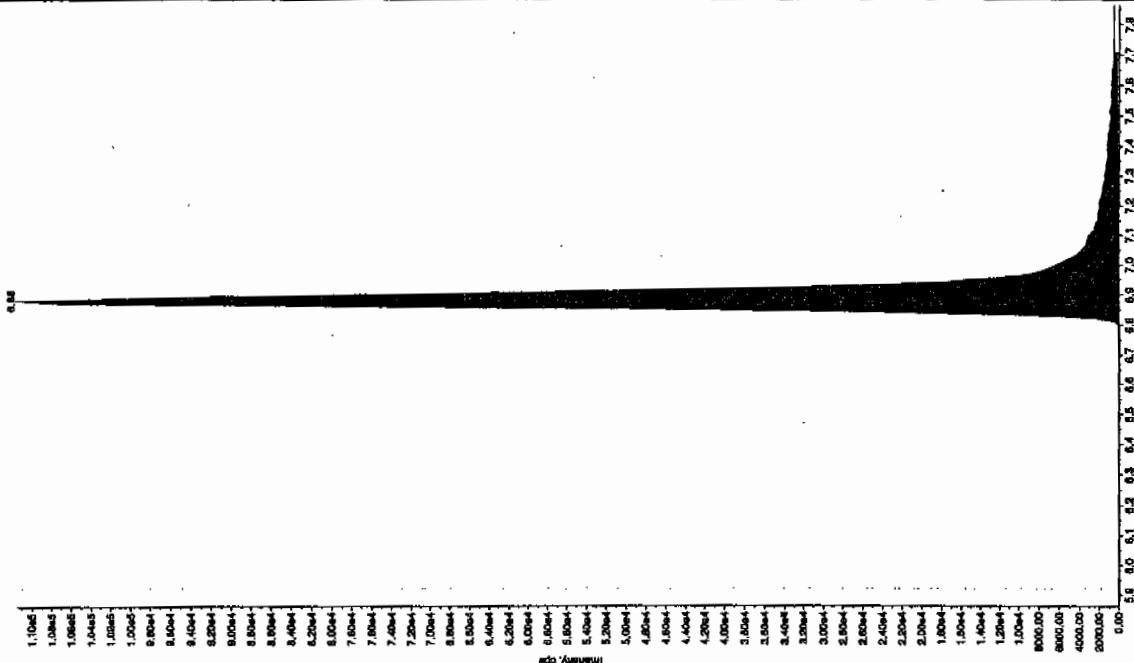
Retention Time: 8.12 min

Area: 3.60e+006 counts

Height: 551942.871 cps

Start Time: 7.96 min

End Time: 8.35 min



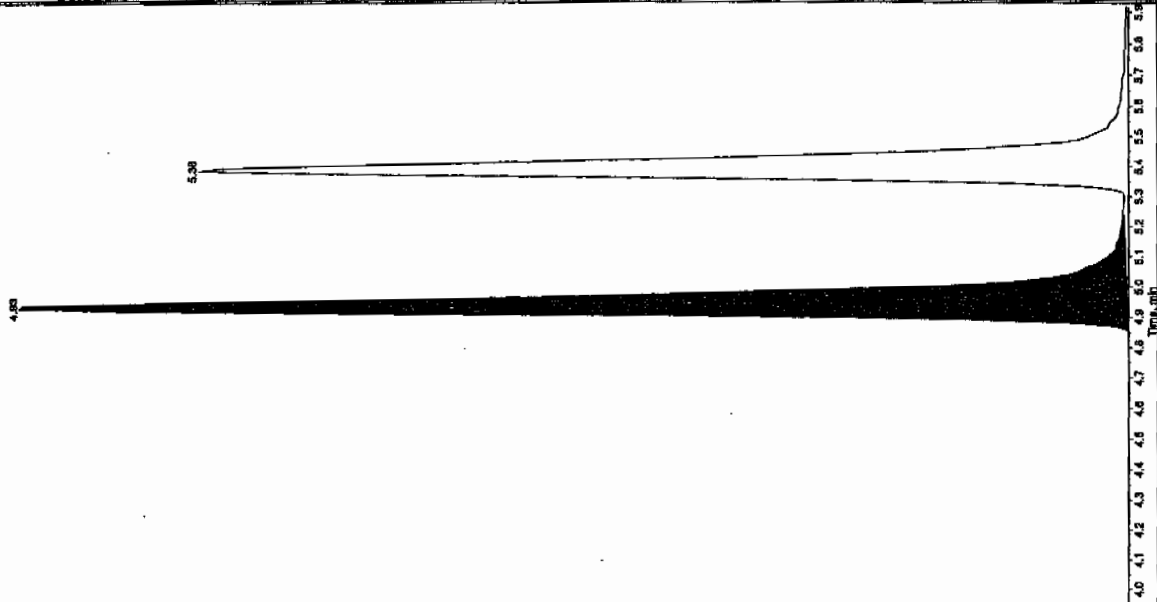
Amc 04/08/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



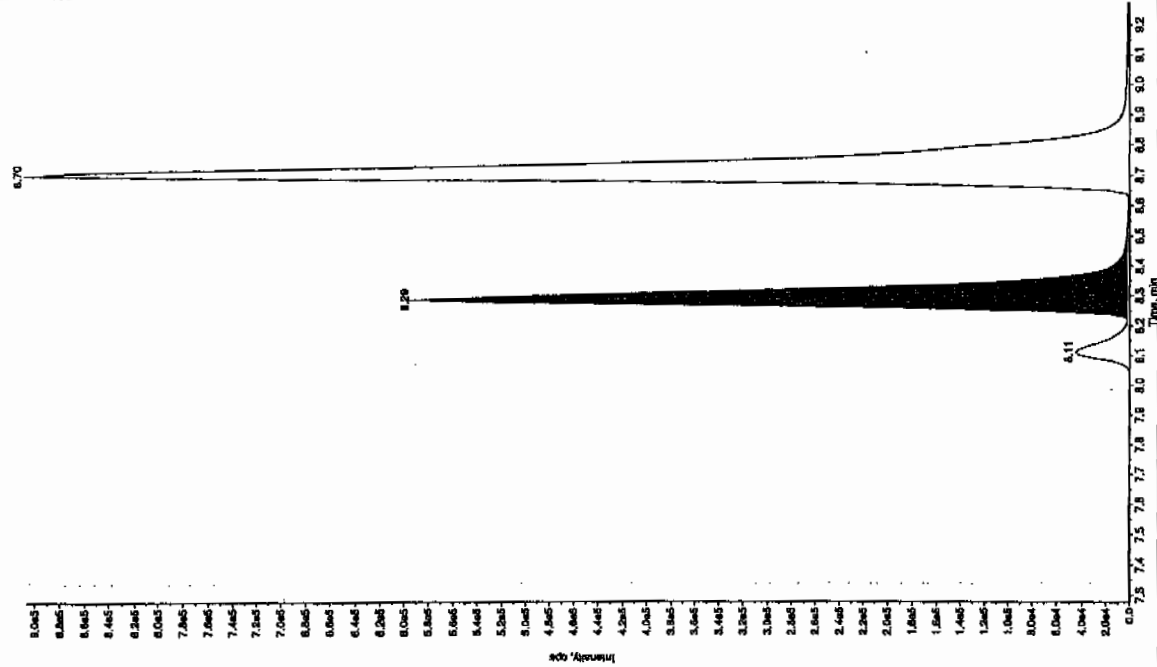
Sample Name: "1202057501" Sample ID: "9563382125" File: "EX504050088.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1751.9 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 490 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 11:32:37 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: 4.92 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.93 min  
 Area: 1.38e+005 counts  
 Height: 300410.034 cps  
 Start Time: 4.85 min  
 End Time: 5.24 min



Sample Name: "1202057501" Sample ID: "9563382125" File: "EX504050088.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1751.9 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 265 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 11:32:37 AM  
 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: 8.28 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.29 min  
 Area: 2.26e+006 counts  
 Height: 590466.125 cps  
 Start Time: 8.22 min  
 End Time: 8.53 min



L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



Sample Name: "1202057501" Sample ID: "585382123" File: "EXS04050088.wif"

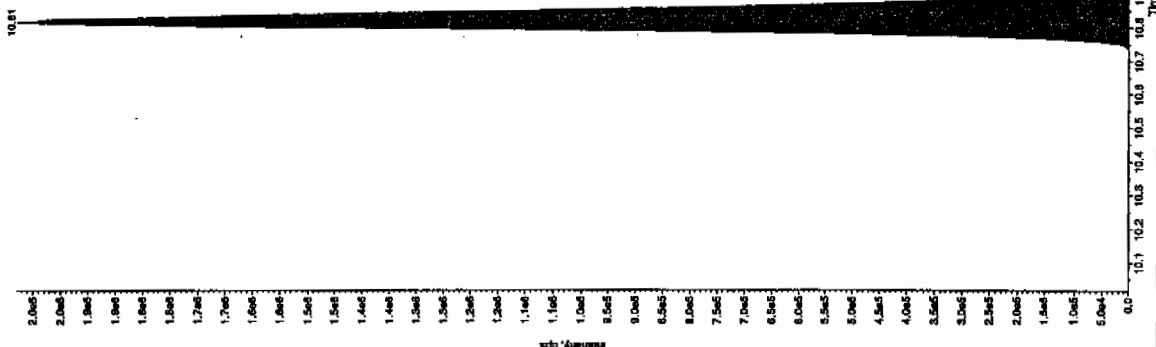
Peak Name: "bis(2-oxo-2-oxaphosphoryl) phosphite" Mass(es): "389.191.0 amu"

Comment: "LCX832123" Annotation: "

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 485. ng/mL  
Acq. Date: 4/6/2010  
Acq. Time: 11:32:37 AM

Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 8000.00 cps  
Min. Peak Width: 3.00 sec  
Smoothing Width: 3.00 points  
RT Window: 30.0 sec  
Reported RT: 10.8 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 10.8 min  
Area: 8.74e+006 counts  
Height: 2026634.277 cps  
Start Time: 10.7 min  
End Time: 11.2 min



Sample Name: "1202057501" Sample ID: "585382123" File: "EXS04050088.wif"

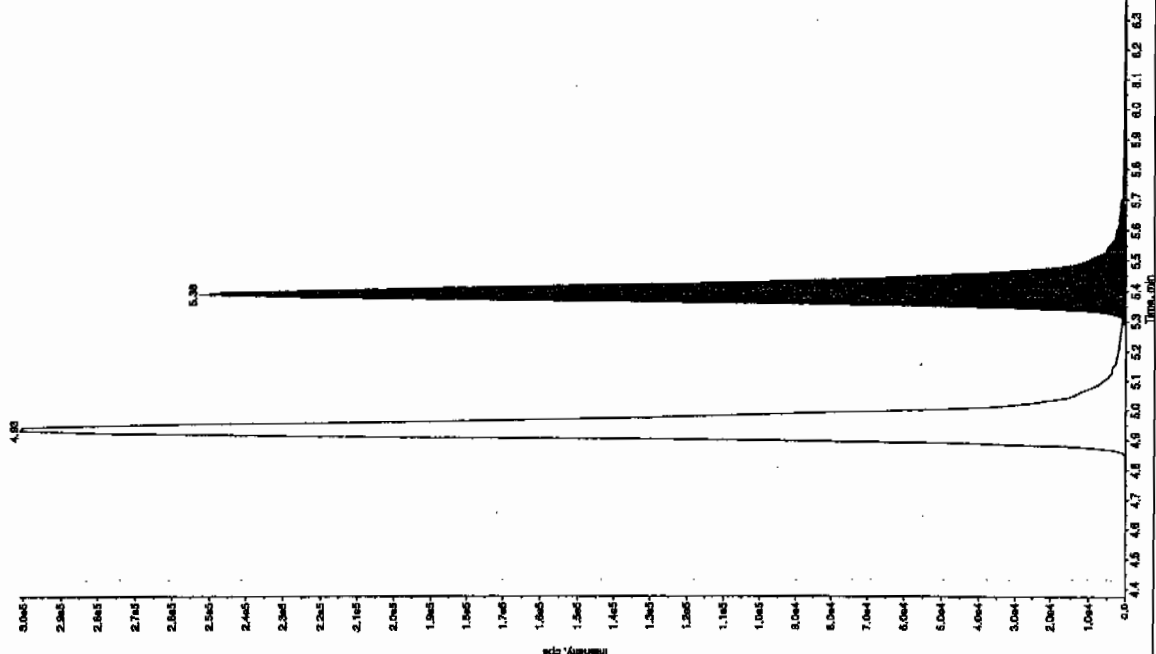
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.046.0 amu"

Comment: "LCX832123" Annotation: "

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 526. ng/mL  
Acq. Date: 4/6/2010  
Acq. Time: 11:32:37 AM

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  
Reported RT: 5.37 min  
Use Relative RT: No

Int. Type: Valley  
Retention Time: 5.37 min  
Area: 1.12e+006 counts  
Height: 252084.997 cps  
Start Time: 5.29 min  
End Time: 6.01 min



L. SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



# MISCELLANEOUS DATA



# Prep Logbook Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 959337 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)
1202057500 MB	08-MAR-2010 17:52:00	2	10	5
1202057501 LCS	08-MAR-2010 17:52:00	2	10	5
248244001	08-MAR-2010 17:52:00	2	10	5
248244002	08-MAR-2010 17:52:00	2	10	5
248244003	08-MAR-2010 17:52:00	2	10	5
248244004	08-MAR-2010 17:52:00	2	10	5
248244005	08-MAR-2010 17:52:00	2	10	5
248244006	08-MAR-2010 17:52:00	2	10	5
248244007	08-MAR-2010 17:52:00	2	10	5
248244008	08-MAR-2010 17:52:00	2	10	5
248249001	08-MAR-2010 17:52:00	2	10	5
1202057502 MS (248249001)	08-MAR-2010 17:52:00	2	10	5
1202057503 MSD (248249001)	08-MAR-2010 17:52:00	2	10	5
248249002	08-MAR-2010 17:52:00	2	10	5
248249003	08-MAR-2010 17:52:00	2	10	5
248249004	08-MAR-2010 17:52:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments
LCS	1202057501	8321 Explosives LCS	DCX100225-03	.1	mL	Final Solvent: ACN
LCS	1202057501	8321 LANL Explosives Mix 10mg/L	UXX100223-02.02	1	mL	
MS	1202057502	8321 Explosives LCS	DCX100225-03	.1	mL	
MS	1202057502	8321 LANL Explosives Mix 10mg/L	UXX100223-02.02	1	mL	
MSD	1202057503	8321 Explosives LCS	DCX100225-03	.1	mL	
MSD	1202057503	8321 LANL Explosives Mix 10mg/L	UXX100223-02.02	1	mL	
SURR	All	3,4-Dinitrotoluene (8330 Surc.) 100ppm	EXP100304-02	.05	mL	



GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 04/12/10  
 Extr. Injection Volume: 50uL  
 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: *[Signature]*  
 Date: 04/18/10  
 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	958603	Various	2	LANL	USE	S
EXP0412114a	1202055878	MAP	4/14/10 23:14	958603	Various	2	LANL	DUSE-RA	S
EXP0412115a	248102001	MAP	4/14/10 23:43	958603	10-2089	2	LANL	USE	S
EXP0412116a	1202055879	MAP	4/15/10 0:13	958603	10-2089	2	LANL	USE	S
EXP0412117a	1202055880	MAP	4/15/10 0:42	958603	10-2089	2	LANL	USE	S
EXP0412118a	248102002	MAP	4/15/10 1:12	958603	10-2089	2	LANL	USE	S
EXP0412119a	248102003	MAP	4/15/10 1:41	958603	10-2089	2	LANL	USE	S
EXP0412120a	248102004	MAP	4/15/10 2:11	958603	10-2089	2	LANL	USE	S
EXP0412121a	248102005	MAP	4/15/10 2:40	958603	10-2089	2	LANL	USE	S
EXP0412122a	248102006	MAP	4/15/10 3:10	958603	10-2089	2	LANL	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	958603	10-2089	2	LANL	USE	S
EXP0412127a	248102008	MAP	4/15/10 5:37	958603	10-2089	2	LANL	USE	S
EXP0412128a	248114002	MAP	4/15/10 6:07	958603	10-2092	2	LANL	USE	S
EXP0412129a	248114003	MAP	4/15/10 6:36	958603	10-2092	2	LANL	USE	S
EXP0412130a	248114004	MAP	4/15/10 7:06	958603	10-2092	2	LANL	USE	S
EXP0412131a	248114005	MAP	4/15/10 7:35	958603	10-2092	2	LANL	USE	S
EXP0412132a	248114006	MAP	4/15/10 8:05	958603	10-2092	2	LANL	USE	S
EXP0412133a	248114007	MAP	4/15/10 8:34	958603	10-2092	2	LANL	USE	S
EXP0412134a	248114008	MAP	4/15/10 9:04	958603	10-2092	2	LANL	USE	S
EXP0412135a	WXXCCV	MAP	4/15/10 9:33			1		USE	C
EXP0412136a	XIBLK18	MAP	4/15/10 10:03			1		USE	B
EXP0412137a	WXXCRI	MAP	4/15/10 10:33			1		USE	C
EXP0412138a	248043016	MAP	4/15/10 11:02	958262	10-2074	2	LANL	USE	S
EXP0412139a	1202055878	MAP	4/15/10 11:32	958603	Various	2	LANL	USE	S
EXP0412140a	248102003	MAP	4/15/10 12:01	958603	10-2089	2	LANL	DUSE	S







EXP0412178a	WXXCRI	MAP	4/16/10 6:42	960305	10-2150	1	LANL	USE	C
EXP0412179a	248370007	MAP	4/16/10 7:12	960305	10-2150	2	LANL	USE	S
EXP0412180a	248370008	MAP	4/16/10 7:41	960305	10-2150	2	LANL	USE	S
EXP0412181a	248370009	MAP	4/16/10 8:11	960305	10-2150	2	LANL	USE	S
EXP0412182a	248370010	MAP	4/16/10 8:40	960305	10-2150	2	LANL	USE	S
EXP0412183a	248370011	MAP	4/16/10 9:10	960305	10-2150	2	LANL	USE	S
EXP0412184a	248370012	MAP	4/16/10 9:39	960305	10-2150	2	LANL	USE	S
EXP0412185a	248370013	MAP	4/16/10 10:09	960305	10-2150	2	LANL	USE	S
EXP0412186a	248370014	MAP	4/16/10 10:38	960305	10-2150	2	LANL	USE	S
EXP0412187a	248370015	MAP	4/16/10 11:08	960305	10-2150	2	LANL	USE	S
EXP0412188a	248370016	MAP	4/16/10 11:37	960305	10-2150	2	LANL	USE	S
EXP0412189a	WXXCCV	MAP	4/16/10 12:07			1		USE	C
EXP0412190a	XIBLK23	MAP	4/16/10 12:36			1		USE	B
EXP0412191a	WXXCRI	MAP	4/16/10 13:06			1		USE	C
EXP0412192a	248370017	MAP	4/16/10 13:36	960305	10-2150	2	LANL	USE	S
EXP0412193a	248370018	MAP	4/16/10 14:05	960305	10-2150	2	LANL	USE	S
EXP0412194a	248370019	MAP	4/16/10 14:35	960305	10-2150	2	LANL	USE	S
EXP0412195a	248370020	MAP	4/16/10 15:04	960305	10-2150	2	LANL	USE	S
EXP0412196a	248244004	MAP	4/16/10 15:34	959338	10-2137	2	LANL	USE	S
EXP0412197a	248249001	MAP	4/16/10 16:03	959338	10-2140	2	LANL	USE	S
EXP0412198a	248249004	MAP	4/16/10 16:33	959338	10-2140	2	LANL	USE	S
EXP0412199a	1202059811	MAP	4/16/10 17:02	960305	10-2150	2	LANL	USE	S
EXP0412200a	248370019	MAP	4/16/10 17:32	960305	10-2150	2	LANL	USE	S
EXP0412201a	WXXCCV	MAP	4/16/10 18:01			1		USE	C
EXP0412202a	XIBLK24	MAP	4/16/10 18:31			1		USE	B
EXP0412203a	WXXCRI	MAP	4/16/10 19:00			1		USE	C
EXP0412204a	1202059812	MAP	4/16/10 19:30	960307	10-2154	2	LANL	USE	S
EXP0412205a	1202059813	MAP	4/16/10 19:59	960307	10-2154	2	LANL	USE	S
EXP0412206a	248373001	MAP	4/16/10 20:29	960307	10-2154	2	LANL	USE	S
EXP0412207a	1202059814	MAP	4/16/10 20:58	960307	10-2154	2	LANL	USE	S
EXP0412208a	1202059815	MAP	4/16/10 21:28	960307	10-2154	2	LANL	USE	S
EXP0412209a	248373002	MAP	4/16/10 21:57	960307	10-2154	2	LANL	USE	S
EXP0412210a	248373003	MAP	4/16/10 22:27	960307	10-2154	2	LANL	USE	S
EXP0412211a	248373004	MAP	4/16/10 22:56	960307	10-2154	2	LANL	USE	S
EXP0412212a	248373005	MAP	4/16/10 23:26	960307	10-2154	2	LANL	USE	S
EXP0412213a	248373006	MAP	4/16/10 23:55	960307	10-2154	2	LANL	USE	S
EXP0412214a	WXXCCV	MAP	4/17/10 0:25			1		USE	C



EXP0412215a	XIBLK25	MAP	4/17/10 0:54	960307	10-2154	1	LANL	USE	B
EXP0412216a	WXXCRI	MAP	4/17/10 1:24			1		USE	C
EXP0412217a	248373007	MAP	4/17/10 1:53	960307	10-2154	2	LANL	USE	S
EXP0412218a	248373008	MAP	4/17/10 2:23	960307	10-2154	2	LANL	USE	S
EXP0412219a	248373009	MAP	4/17/10 2:52	960307	10-2154	2	LANL	USE	S
EXP0412220a	248373010	MAP	4/17/10 3:22	960307	10-2154	2	LANL	USE	S
EXP0412221a	248373011	MAP	4/17/10 3:51	960307	10-2154	2	LANL	USE	S
EXP0412222a	248373014	MAP	4/17/10 4:21	960307	10-2154	2	LANL	USE	S
EXP0412223a	248373015	MAP	4/17/10 4:50	960307	10-2154	2	LANL	USE	S
EXP0412224a	WXXCCV	MAP	4/17/10 5:20			1		DUSE-RA	C
EXP0412225a	XIBLK26	MAP	4/17/10 5:49			1		USE	B
EXP0412226a	WXXCRI	MAP	4/17/10 6:19			1		USE	C



GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 04/05/10  
 Extr. Injection Volume: 10uL  
 Sequence Number: 040510exs  
 Initial Calibration Date: 040510  
 Method: 8321A-Modified  
 Int. Std.: N/A  
 Mobile Phase Lot#: 1268566, 1268568  
 Standard-Samp Reagent Lot#: 1292884, 1284736  
 Reviewed By: *gmm*  
 Date: *24/08/10*  
 SOP: GL-OA-E-056 Rev.12  
 Alt Check Std. ID: WXX100405-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS04050001.wiff	XIBLK01	LER	4/5/2010 12:43			1		USE	B
EXS04050002.wiff	XIBLK01	LER	4/5/2010 12:59			1		USE	B
EXS04050003.wiff	WXXICAL-19	LER	4/5/2010 13:15			1		USE	I
EXS04050004.wiff	WXXICAL-20	LER	4/5/2010 13:30			1		USE	I
EXS04050005.wiff	WXXICAL-21	LER	4/5/2010 13:46			1		USE	I
EXS04050006.wiff	WXXICAL-22	LER	4/5/2010 14:02			1		USE	I
EXS04050007.wiff	WXXICAL-23	LER	4/5/2010 14:18			1		USE	I
EXS04050008.wiff	WXXICAL-24	LER	4/5/2010 14:33			1		USE	I
EXS04050009.wiff	WXXICAL-25	LER	4/5/2010 14:51			1		USE	I
EXS04050010.wiff	XIBLK02	LER	4/5/2010 15:07			1		USE	B
EXS04050011.wiff	WXXICV	LER	4/5/2010 15:22			1		USE	C
EXS04050012.wiff	XIBLK03	LER	4/5/2010 15:38			1		USE	B
EXS04050013.wiff	WXXCRI	LER	4/5/2010 15:54			1		USE	C
EXS04050014.wiff	1202059808	LER	4/5/2010 16:09	960305	10-2150	2	LANL	USE	S
EXS04050015.wiff	1202059809	LER	4/5/2010 16:25	960305	10-2150	2	LANL	USE	S
EXS04050016.wiff	248370001	LER	4/5/2010 16:41	960305	10-2150	2	LANL	USE	S
EXS04050017.wiff	1202059810	LER	4/5/2010 16:57	960305	10-2150	2	LANL	USE	S
EXS04050018.wiff	1202059811	LER	4/5/2010 17:12	960305	10-2150	2	LANL	USE	S
EXS04050019.wiff	248370002	LER	4/5/2010 17:28	960305	10-2150	2	LANL	USE	S
EXS04050020.wiff	248370003	LER	4/5/2010 17:44	960305	10-2150	2	LANL	USE	S
EXS04050021.wiff	248370004	LER	4/5/2010 17:59	960305	10-2150	2	LANL	USE	S
EXS04050022.wiff	248370005	LER	4/5/2010 18:15	960305	10-2150	2	LANL	USE	S
EXS04050023.wiff	248370006	LER	4/5/2010 18:31	960305	10-2150	2	LANL	USE	S
EXS04050024.wiff	WXXCCV	LER	4/5/2010 18:47			1		USE	C
EXS04050025.wiff	XIBLK04	LER	4/5/2010 19:02			1		USE	B
EXS04050026.wiff	WXXCRI	LER	4/5/2010 19:18			1		USE	C
EXS04050027.wiff	248370007	LER	4/5/2010 19:34	960305	10-2150	2	LANL	USE	S
EXS04050028.wiff	248370008	LER	4/5/2010 19:49	960305	10-2150	2	LANL	USE	S
EXS04050029.wiff	248370009	LER	4/5/2010 20:05	960305	10-2150	2	LANL	USE	S
EXS04050030.wiff	248370010	LER	4/5/2010 20:21	960305	10-2150	2	LANL	USE	S



EXS04050031.wiff	248370011	LER	4/5/2010 20:37	960305	10-2150	2	LANL	USE	S
EXS04050032.wiff	248370012	LER	4/5/2010 20:52	960305	10-2150	2	LANL	USE	S
EXS04050033.wiff	248370013	LER	4/5/2010 21:08	960305	10-2150	2	LANL	USE	S
EXS04050034.wiff	248370014	LER	4/5/2010 21:24	960305	10-2150	2	LANL	USE	S
EXS04050035.wiff	248370015	LER	4/5/2010 21:39	960305	10-2150	2	LANL	USE	S
EXS04050036.wiff	248370016	LER	4/5/2010 21:55	960305	10-2150	2	LANL	USE	S
EXS04050037.wiff	WXXCCV	LER	4/5/2010 22:11			1		USE	C
EXS04050038.wiff	XIBLK05	LER	4/5/2010 22:27			1		USE	B
EXS04050039.wiff	WXXCRI	LER	4/5/2010 22:42			1		USE	C
EXS04050040.wiff	248370017	LER	4/5/2010 22:58	960305	10-2150	2	LANL	USE	S
EXS04050041.wiff	248370018	LER	4/5/2010 23:14	960305	10-2150	2	LANL	USE	S
EXS04050042.wiff	248370019	LER	4/5/2010 23:29	960305	10-2150	2	LANL	USE	S
EXS04050043.wiff	248370020	LER	4/5/2010 23:45	960305	10-2150	2	LANL	USE	S
EXS04050044.wiff	XIBLK06	LER	4/6/2010 0:01			1		USE	B
EXS04050045.wiff	1202064670	LER	4/6/2010 0:17	962462	VARIOUS	2	LANL	USE	S
EXS04050046.wiff	1202064671	LER	4/6/2010 0:32	962462	VARIOUS	2	LANL	USE	S
EXS04050047.wiff	248790001	LER	4/6/2010 0:48	962462	10-2286-1	2	LANL	USE	S
EXS04050048.wiff	1202064672	LER	4/6/2010 1:04	962462	10-2286-1	2	LANL	USE	S
EXS04050049.wiff	1202064673	LER	4/6/2010 1:19	962462	10-2286-1	2	LANL	USE	S
EXS04050050.wiff	WXXCCV	LER	4/6/2010 1:35			1		USE	C
EXS04050051.wiff	XIBLK07	LER	4/6/2010 1:51			1		USE	B
EXS04050052.wiff	WXXCRI	LER	4/6/2010 2:06			1		USE	C
EXS04050053.wiff	248790002	LER	4/6/2010 2:22	962462	10-2286-1	2	LANL	USE	S
EXS04050054.wiff	248790003	LER	4/6/2010 2:38	962462	10-2286-1	2	LANL	USE	S
EXS04050055.wiff	248790004	LER	4/6/2010 2:54	962462	10-2286-1	2	LANL	USE	S
EXS04050056.wiff	248794002	LER	4/6/2010 3:09	962462	10-2288	2	LANL	USE	S
EXS04050057.wiff	248794003	LER	4/6/2010 3:25	962462	10-2288	2	LANL	USE	S
EXS04050058.wiff	248794004	LER	4/6/2010 3:41	962462	10-2288	2	LANL	USE	S
EXS04050059.wiff	248794005	LER	4/6/2010 3:57	962462	10-2288	2	LANL	USE	S
EXS04050060.wiff	248794006	LER	4/6/2010 4:12	962462	10-2288	2	LANL	USE	S
EXS04050061.wiff	248794007	LER	4/6/2010 4:28	962462	10-2288	2	LANL	USE	S
EXS04050062.wiff	248794008	LER	4/6/2010 4:44	962462	10-2288	2	LANL	USE	S
EXS04050063.wiff	WXXCCV	LER	4/6/2010 4:59			1		USE	C
EXS04050064.wiff	XIBLK08	LER	4/6/2010 5:15			1		USE	B
EXS04050065.wiff	WXXCRI	LER	4/6/2010 5:31			1		USE	C
EXS04050066.wiff	248794009	LER	4/6/2010 5:47	962462	10-2288	2	LANL	USE	S
EXS04050067.wiff	248794010	LER	4/6/2010 6:02	962462	10-2288	2	LANL	USE	S



EXS04050068.wiff	248794011	LER	4/6/2010 6:18	962462	10-2288	2	LANL	USE	S
EXS04050069.wiff	248794012	LER	4/6/2010 6:34	962462	10-2288	2	LANL	USE	S
EXS04050070.wiff	248794013	LER	4/6/2010 6:49	962462	10-2288	2	LANL	USE	S
EXS04050071.wiff	WXXCCV	LER	4/6/2010 7:05			1		USE	C
EXS04050072.wiff	XIBLK09	LER	4/6/2010 7:21			1		USE	B
EXS04050073.wiff	WXXCRI	LER	4/6/2010 7:37			1		USE	C
EXS04050074.wiff	1202055078	LER	4/6/2010 7:52	958282	VARIOUS	2	LANL	USE	S
EXS04050075.wiff	1202055079	LER	4/6/2010 8:08	958282	VARIOUS	2	LANL	USE	S
EXS04050076.wiff	248017003	LER	4/6/2010 8:24	958282	10-2039	2	LANL	USE	S
EXS04050077.wiff	1202055080	LER	4/6/2010 8:39	958282	10-2039	2	LANL	USE	S
EXS04050078.wiff	1202055081	LER	4/6/2010 8:55	958282	10-2039	2	LANL	USE	S
EXS04050079.wiff	248042002	LER	4/6/2010 9:11	958282	10-2057	2	LANL	USE	S
EXS04050080.wiff	248042008	LER	4/6/2010 9:26	958282	10-2057	2	LANL	USE	S
EXS04050081.wiff	248042010	LER	4/6/2010 9:42	958282	10-2057	2	LANL	USE	S
EXS04050082.wiff	248047003	LER	4/6/2010 9:58	958282	10-2045	2	LANL	USE	S
EXS04050083.wiff	248047007	LER	4/6/2010 10:14	958282	10-2045	2	LANL	USE	S
EXS04050084.wiff	WXXCCV	LER	4/6/2010 10:29			1		USE	C
EXS04050085.wiff	XIBLK10	LER	4/6/2010 10:45			1		USE	B
EXS04050086.wiff	WXXCRI	LER	4/6/2010 11:01			1		USE	C
EXS04050087.wiff	1202057500	LER	4/6/2010 11:16	959338	VARIOUS	2	LANL	USE	S
EXS04050088.wiff	1202057501	LER	4/6/2010 11:32	959338	VARIOUS	2	LANL	USE	S
EXS04050089.wiff	248244001	LER	4/6/2010 11:48	959338	10-2137	2	LANL	USE	S
EXS04050090.wiff	248244002	LER	4/6/2010 12:04	959338	10-2137	2	LANL	USE	S
EXS04050091.wiff	248244003	LER	4/6/2010 12:19	959338	10-2137	2	LANL	USE	S
EXS04050092.wiff	248244004	LER	4/6/2010 12:35	959338	10-2137	2	LANL	USE	S
EXS04050093.wiff	248244005	LER	4/6/2010 12:51	959338	10-2137	2	LANL	USE	S
EXS04050094.wiff	248244006	LER	4/6/2010 13:06	959338	10-2137	2	LANL	USE	S
EXS04050095.wiff	248244007	LER	4/6/2010 13:22	959338	10-2137	2	LANL	USE	S
EXS04050096.wiff	248244008	LER	4/6/2010 13:38	959338	10-2137	2	LANL	USE	S
EXS04050097.wiff	WXXCCV	LER	4/6/2010 13:53			1	LANL	DUSE-RA	S
EXS04050098.wiff	XIBLK11	LER	4/6/2010 14:09			1		USE	C
EXS04050099.wiff	WXXCRI	LER	4/6/2010 14:25			1		USE	B
EXS04050100.wiff	248249001	LER	4/6/2010 14:41	959338	10-2140	2	LANL	USE	C
EXS04050101.wiff	1202057502	LER	4/6/2010 14:56	959338	10-2140	2	LANL	USE	S
EXS04050102.wiff	1202057503	LER	4/6/2010 15:12	959338	10-2140	2	LANL	USE	S
EXS04050103.wiff	248249002	LER	4/6/2010 15:28	959338	10-2140	2	LANL	USE	S
EXS04050104.wiff	248249003	LER	4/6/2010 15:43	959338	10-2140	2	LANL	USE	S



EXS04050105.wiff	248249004	LER	4/6/2010 15:59	959338	10-2140	2	LANL	USE	S
EXS04050106.wiff	WXXCCV	LER	4/6/2010 16:15			1		USE	C
EXS04050107.wiff	XIBLK12	LER	4/6/2010 16:30			1		USE	B
EXS04050108.wiff	WXXCRI	LER	4/6/2010 16:46			1		USE	C



GEL ORGANIC RUN LOG

INSTRUMENT ID: LCM SMS4

Date: 04/08/10  
 Extr. Injection Volume: 10uL  
 Sequence Number: 040810exs  
 Initial Calibration Date: 040810  
 Method: 8321A-Modified  
 Int. Std.: N/A  
 Mobile Phase Lot#: 1269686, 1293224  
 Standard-Samp Reagent Lot#: 1292884, 1284736  
 Reviewed By: *hmc*  
 Date: *5/12/10*  
 SOP: GL-OA-E-056 Rev.12  
 Alt Check Std. ID: WXX100408-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS04080001.wiff	XIBLK01	LER	4/8/2010 16:49			1		USE	B
EXS04080002.wiff	XIBLK01	LER	4/8/2010 17:05			1		USE	B
EXS04080003.wiff	WXXICAL-19	LER	4/8/2010 17:21			1		USE	I
EXS04080004.wiff	WXXICAL-20	LER	4/8/2010 17:36			1		USE	I
EXS04080005.wiff	WXXICAL-21	LER	4/8/2010 17:52			1		USE	I
EXS04080006.wiff	WXXICAL-22	LER	4/8/2010 18:08			1		USE	I
EXS04080007.wiff	WXXICAL-23	LER	4/8/2010 18:23			1		USE	I
EXS04080008.wiff	WXXICAL-24	LER	4/8/2010 18:39			1		USE	I
EXS04080009.wiff	WXXICAL-25	LER	4/8/2010 18:55			1		USE	I
EXS04080010.wiff	XIBLK02	LER	4/8/2010 19:11			1		USE	B
EXS04080011.wiff	WXXICV	LER	4/8/2010 19:26			1		USE	C
EXS04080012.wiff	XIBLK03	LER	4/8/2010 19:42			1		USE	B
EXS04080013.wiff	WXXCRI	LER	4/8/2010 19:58			1		USE	C
EXS04080014.wiff	248244008	LER	4/8/2010 20:13	959338	10-2137	2	LANL	DUSE	S
EXS04080015.wiff	248244008	LER	4/8/2010 20:29	959338	10-2137	2	LANL	USE	S
EXS04080016.wiff	1202059812	LER	4/8/2010 20:45	960307	10-2154	2	LANL	USE	S
EXS04080017.wiff	1202059813	LER	4/8/2010 21:00	960307	10-2154	2	LANL	USE	S
EXS04080018.wiff	248373001	LER	4/8/2010 21:16	960307	10-2154	2	LANL	USE	S
EXS04080019.wiff	1202059814	LER	4/8/2010 21:32	960307	10-2154	2	LANL	USE	S
EXS04080020.wiff	1202059815	LER	4/8/2010 21:48	960307	10-2154	2	LANL	USE	S
EXS04080021.wiff	248373002	LER	4/8/2010 22:03	960307	10-2154	2	LANL	USE	S
EXS04080022.wiff	248373003	LER	4/8/2010 22:19	960307	10-2154	2	LANL	USE	S
EXS04080023.wiff	248373004	LER	4/8/2010 22:35	960307	10-2154	2	LANL	USE	S
EXS04080024.wiff	WXXCCV	LER	4/8/2010 22:50			1		USE	C
EXS04080025.wiff	XIBLK04	LER	4/8/2010 23:06			1		USE	B
EXS04080026.wiff	WXXCRI	LER	4/8/2010 23:22			1		USE	C
EXS04080027.wiff	248373005	LER	4/8/2010 23:37	960307	10-2154	2	LANL	USE	S
EXS04080028.wiff	248373006	LER	4/8/2010 23:53	960307	10-2154	2	LANL	USE	S
EXS04080029.wiff	248373007	LER	4/9/2010 0:09	960307	10-2154	2	LANL	USE	S
EXS04080030.wiff	248373008	LER	4/9/2010 0:25	960307	10-2154	2	LANL	USE	S



EXS04080031.wiff	248373009	LER	4/9/2010 0:40	960307	10-2154	2	LANL	USE	S
EXS04080032.wiff	248373010	LER	4/9/2010 0:56	960307	10-2154	2	LANL	USE	S
EXS04080033.wiff	248373011	LER	4/9/2010 1:12	960307	10-2154	2	LANL	USE	S
EXS04080034.wiff	248373014	LER	4/9/2010 1:28	960307	10-2154	2	LANL	USE	S
EXS04080035.wiff	248373015	LER	4/9/2010 1:43	960307	10-2154	2	LANL	USE	S
EXS04080036.wiff	WXXCCV	LER	4/9/2010 1:59			1		USE	C
EXS04080037.wiff	XIBLK05	LER	4/9/2010 2:15			1		USE	B
EXS04080038.wiff	WXXCRI	LER	4/9/2010 2:30			1		USE	C



Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

me: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0412158a

le: 15-Apr-2010

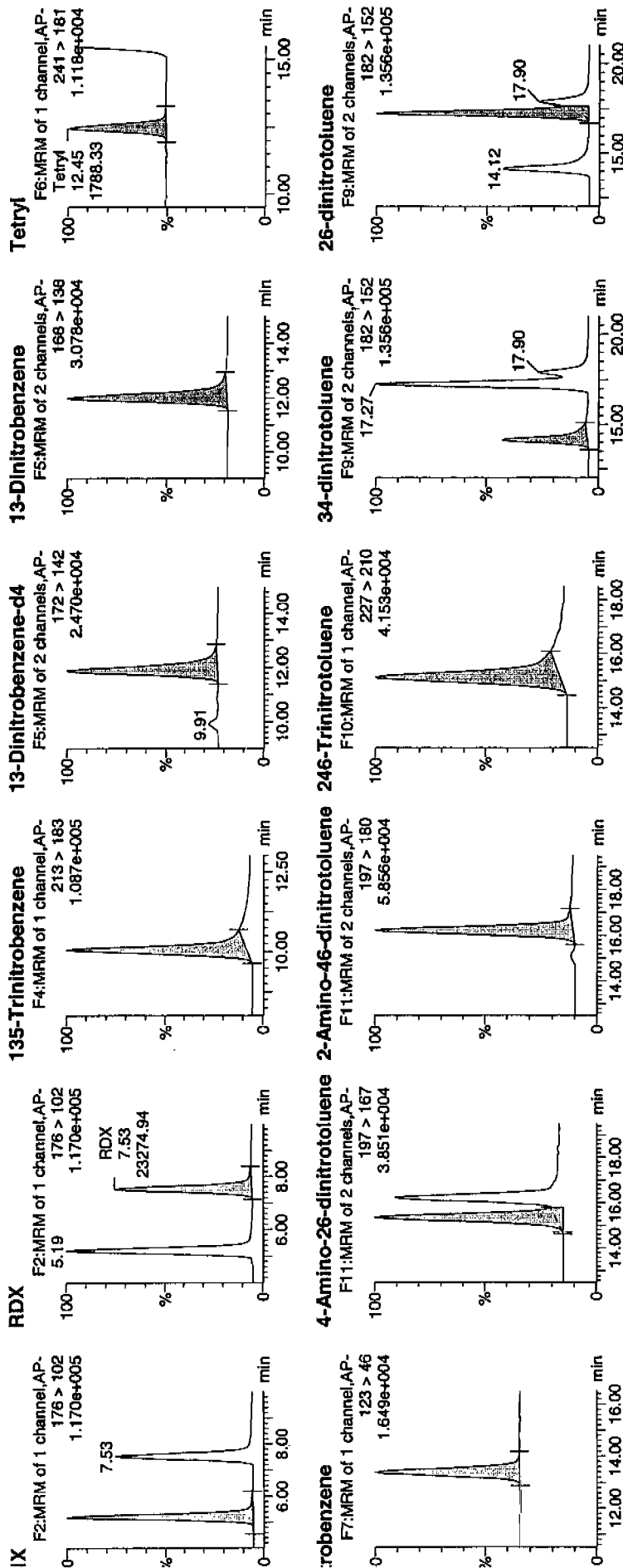
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1202057502

li: 4:2,F

1077  
4/16/10

2482490148 / 21



477 HU  
04/18/10



Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

**1-Nitrotoluene**  
F9:MRM of 2 channels, AP-  
182 > 152  
1.356e+005  
17.27 14.12

**26-dinitrotoluene-d3**  
F9:MRM of 2 channels, AP-  
185 > 155  
1.121e+005  
min

**2-Nitrotoluene**  
F12:MRM of 1 channel, AP-  
137 > 46  
1.133e+004  
23.62 1.133e+004

**4-Nitrotoluene**  
F12:MRM of 1 channel, AP-  
137 > 46  
1.133e+004  
20.66 23.62 1.133e+004

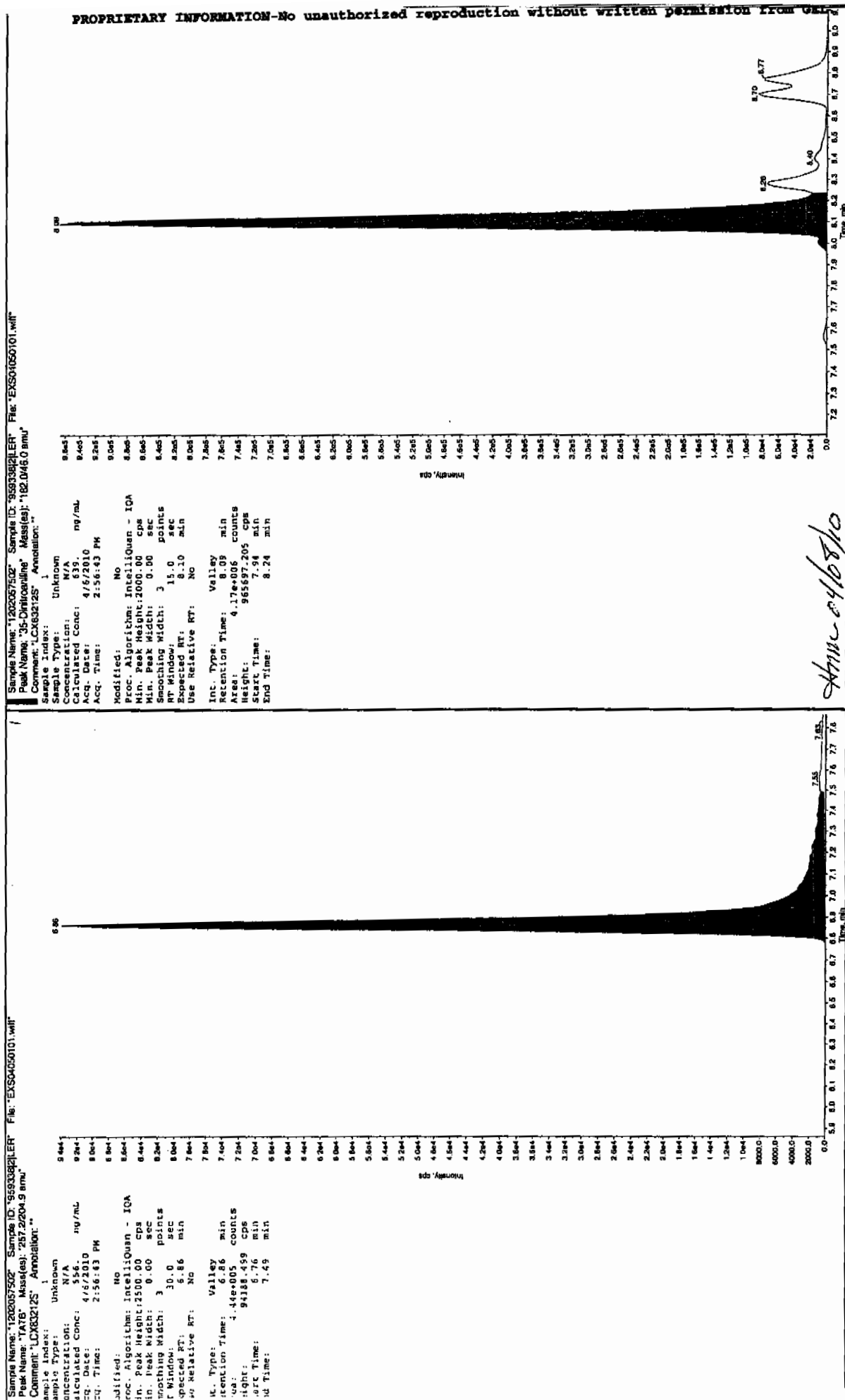
**3-Nitrotoluene**  
F12:MRM of 1 channel, AP-  
137 > 46  
1.133e+004  
20.66 22.00 1.133e+004

**PETN**  
F13:MRM of 1 channel, AP-  
361 > 62  
7.807e+004  
min

Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Amount	Conc	Dev	SN
HM-X	2057502	176 > 102	5.19	29113.354	7176.646	29113.354	2028.340	bb		478.5326	95.7	-4.3	3433.1
RD-X	2057502	176 > 102	7.53	23274.943	7176.646	23274.943	1621.575	bb		566.5483	113.3	13.3	2534.8
135-Trinitrobenzene	2057502	213 > 183	10.06	29008.773	7176.646	29008.773	2021.054	bb		467.5140	93.5	-6.5	2117.9
13-Dinitrobenzene-d4	2057502	172 > 142	11.87	7176.646		7176.646	7176.646	bb		610.2213	122.0	22.0	491.1
13-Dinitrobenzene	2057502	168 > 138	12.00	9025.495	7176.646	9025.495	628.810	bb		470.2698	94.1	-5.9	736.9
Tetryl	2057502	241 > 181	12.45	1788.333	7176.646	1788.333	124.594	bb		96.1170	19.2	-80.8	217.1
Nitrobenzene	2057502	123 > 46	13.40	3726.190	7176.646	3726.190	259.605	bb		413.8477	82.8	-17.2	273.8
4-Amino-26-dinitrotoluene	2057502	197 > 167	15.35	13630.812	43107.738	13530.812	156.942	MM	16-Apr-10 09:38:39	464.6513	92.9	-7.1	179.0
2-Amino-46-dinitrotoluene	2057502	187 > 180	16.22	21506.334	43107.738	21506.334	249.449	bb		487.0166	97.4	-2.6	493.8
246-Trinitrotoluene	2057502	227 > 210	15.13	16810.402	43107.738	16810.402	194.981	bb		448.1989	89.6	-10.4	818.2
34-dinitrotoluene	2057502	182 > 152	14.12	22235.393	43107.738	22235.393	257.905	bb		250.1192	100.0	0.0	718.3
26-dinitrotoluene	2057502	182 > 152	17.27	47675.609	43107.738	47675.609	552.982	MM	16-Apr-10 09:40:32	467.2279	93.4	-6.6	1816.7
24-dinitrotoluene	2057502	182 > 152	17.90	11937.880	43107.738	11937.880	138.466	MM	16-Apr-10 09:44:49	530.5118	106.1	6.1	404.7
26-dinitrotoluene-d3	2057502	185 > 155	17.09	43107.738		43107.738	43107.738	bb		616.1209	123.2	23.2	4126.1
2-Nitrotoluene	2057502	137 > 46	20.66	2683.962	43107.738	2683.962	31.131	bb		359.5277	71.9	-28.1	593.8
4-Nitrotoluene	2057502	137 > 46	22.00	1404.070	43107.738	1404.070	16.286	bb		392.6190	78.5	-21.5	331.6
3-Nitrotoluene	2057502	137 > 46	23.62	1836.596	43107.738	1836.596	21.302	bb		365.3800	73.1	-26.9	409.8
PETN	2057502	361 > 62	24.02	40085.059	43107.738	40065.059	484.708	bb		508.7003	101.7	1.7	6387.2



Run 4/17/10

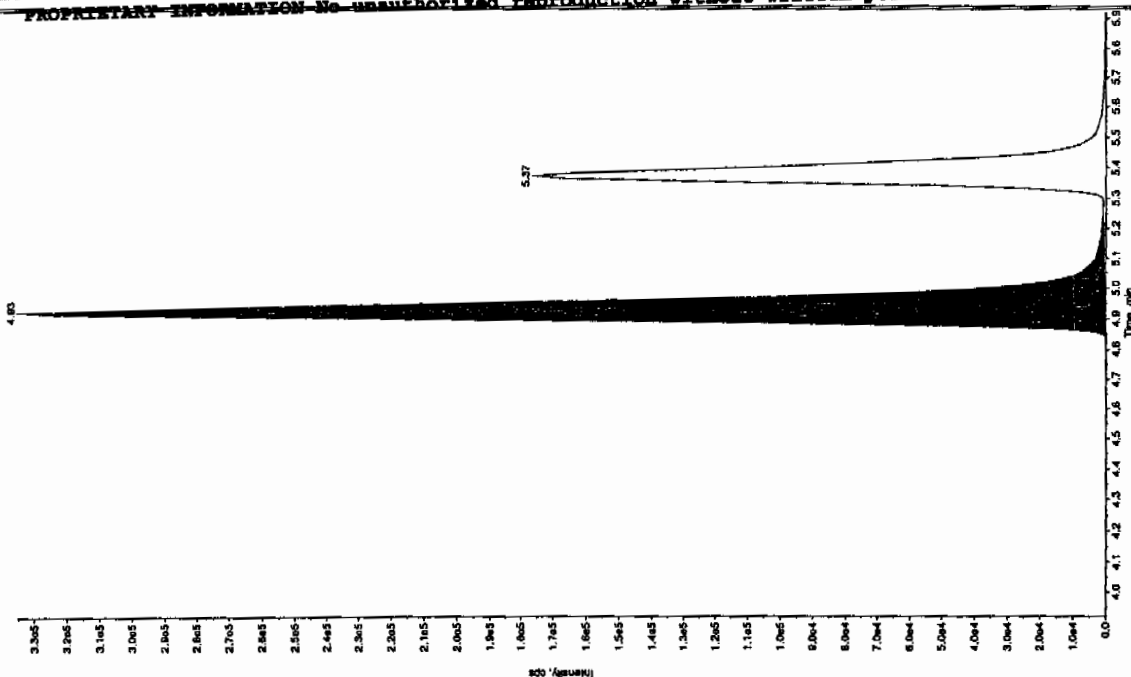


Run 04/08/10



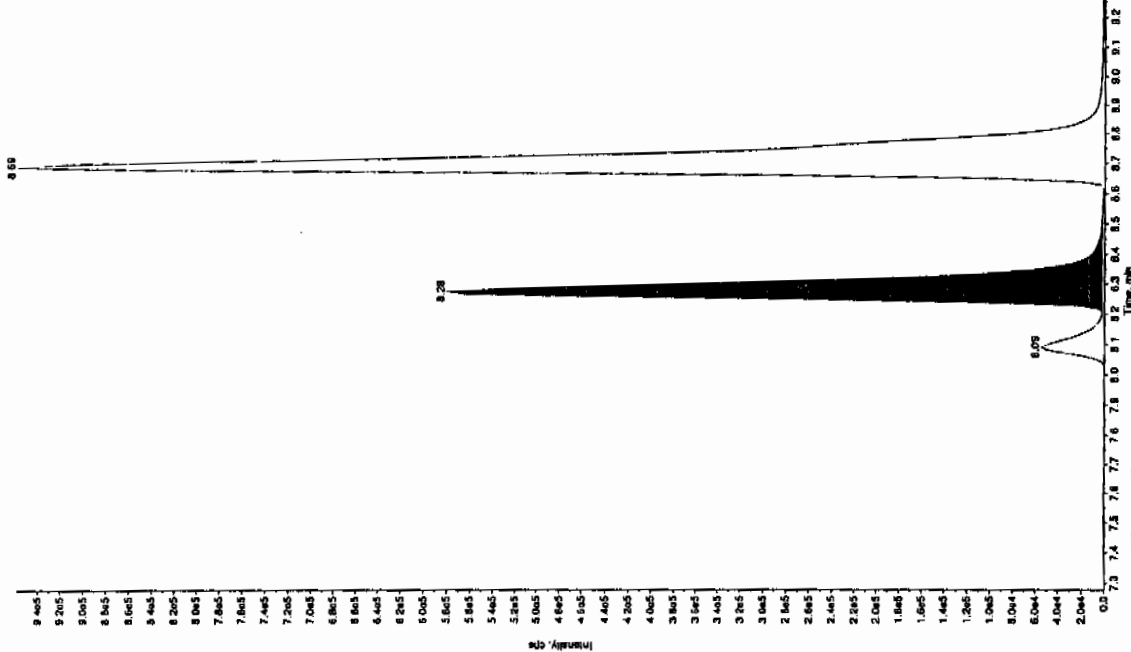
Sample Name: "1202057502" Sample ID: "9583381LIF" File: "EXS04050101.wit"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "152.1/151.9 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 519 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 2:56:43 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: 4.92 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.93 min  
 Area: 1.46e+006 counts  
 Height: 335181.274 cps  
 Start Time: 4.82 min  
 End Time: 5.23 min



Sample Name: "1202057502" Sample ID: "9583381LIF" File: "EXS04050101.wit"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "152.1/151.9 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 281 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 2:56:43 PM  
 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: 8.28 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.28 min  
 Area: 2.39e+006 counts  
 Height: 577879.272 cps  
 Start Time: 8.21 min  
 End Time: 8.52 min

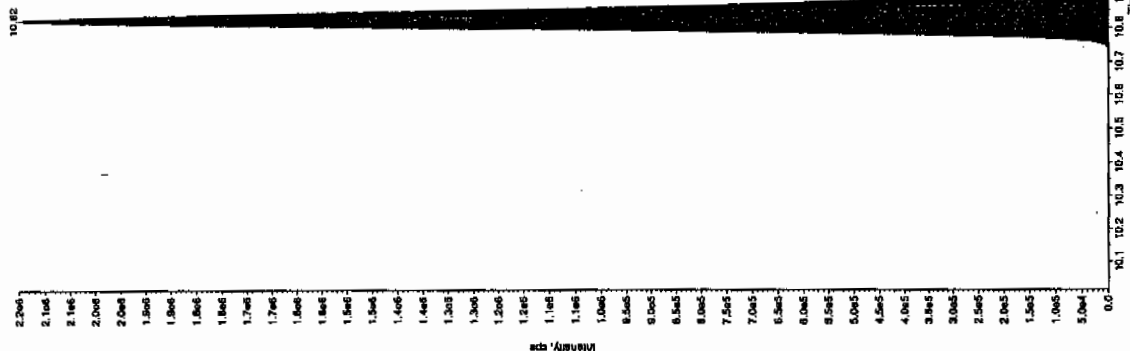


L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



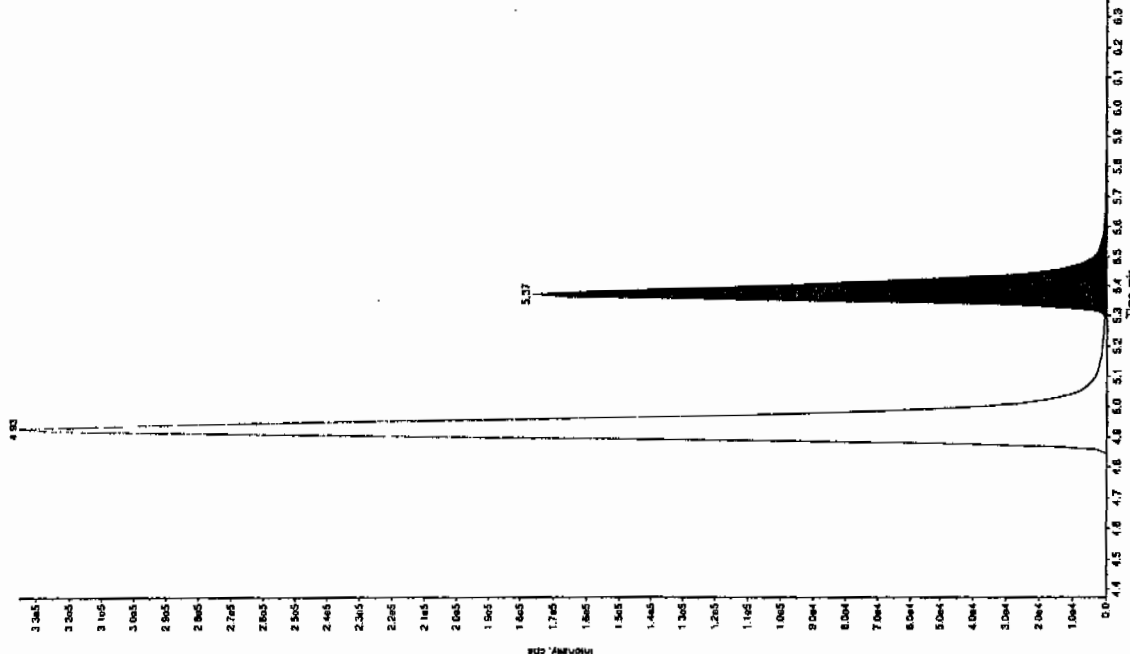
Sample Name: 1202057502 Sample ID: 958338[9]L1R1 File: EX504060101.wif  
 Peak Name: (H4O-Crasy) Phosphat Mass(es): 368.1791.0 amu  
 Comment: LCM832125 Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 509 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 2:56:43 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: 10.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 9.16e006 counts  
 Height: 218980.711 cps  
 Retention Time: 10.7 min  
 End Time: 11.2 min



Sample Name: 1202057502 Sample ID: 958338[9]L1R1 File: EX504060101.wif  
 Peak Name: 24-Dimethylphosphatolactone Mass(es): 166.046.0 amu  
 Comment: LCM832125 Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 351 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 2:56:43 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: 5.37 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.37 min  
 Area: 7.41e005 counts  
 Height: 176940.894 cps  
 Retention Time: 5.29 min  
 End Time: 5.84 min



IEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qtd, Time: Fri Apr 16 09:45:39 2010

Sample Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412159a

Date: 15-Apr-2010

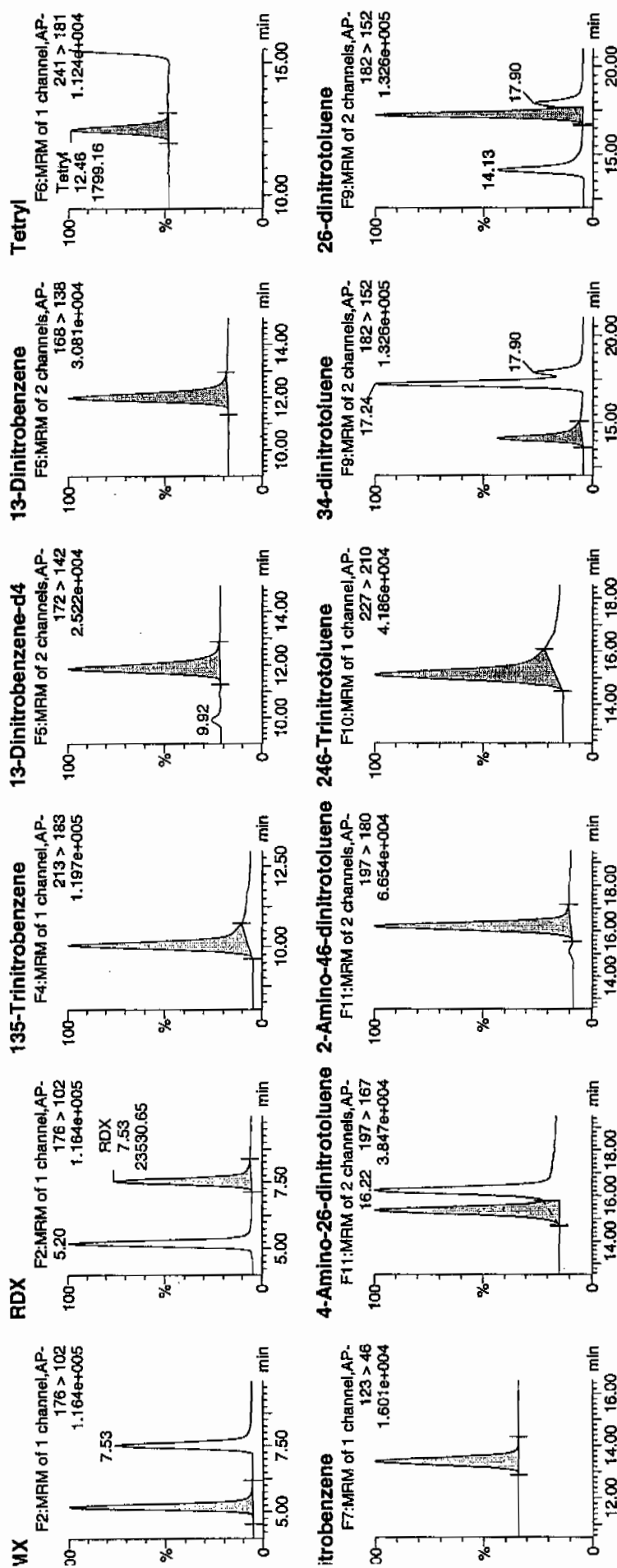
Time: 21:22:15

Sample ID: 1202057503

Lot: 4:3A

1447  
4/16/10

LAUL 959338 / 248249001 / 2-1

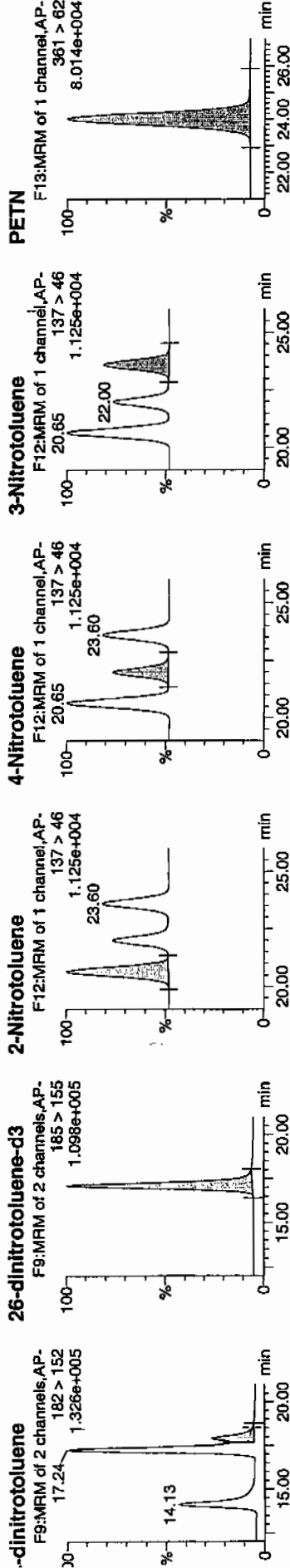


4/16/10



Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Page 1043 of 1174

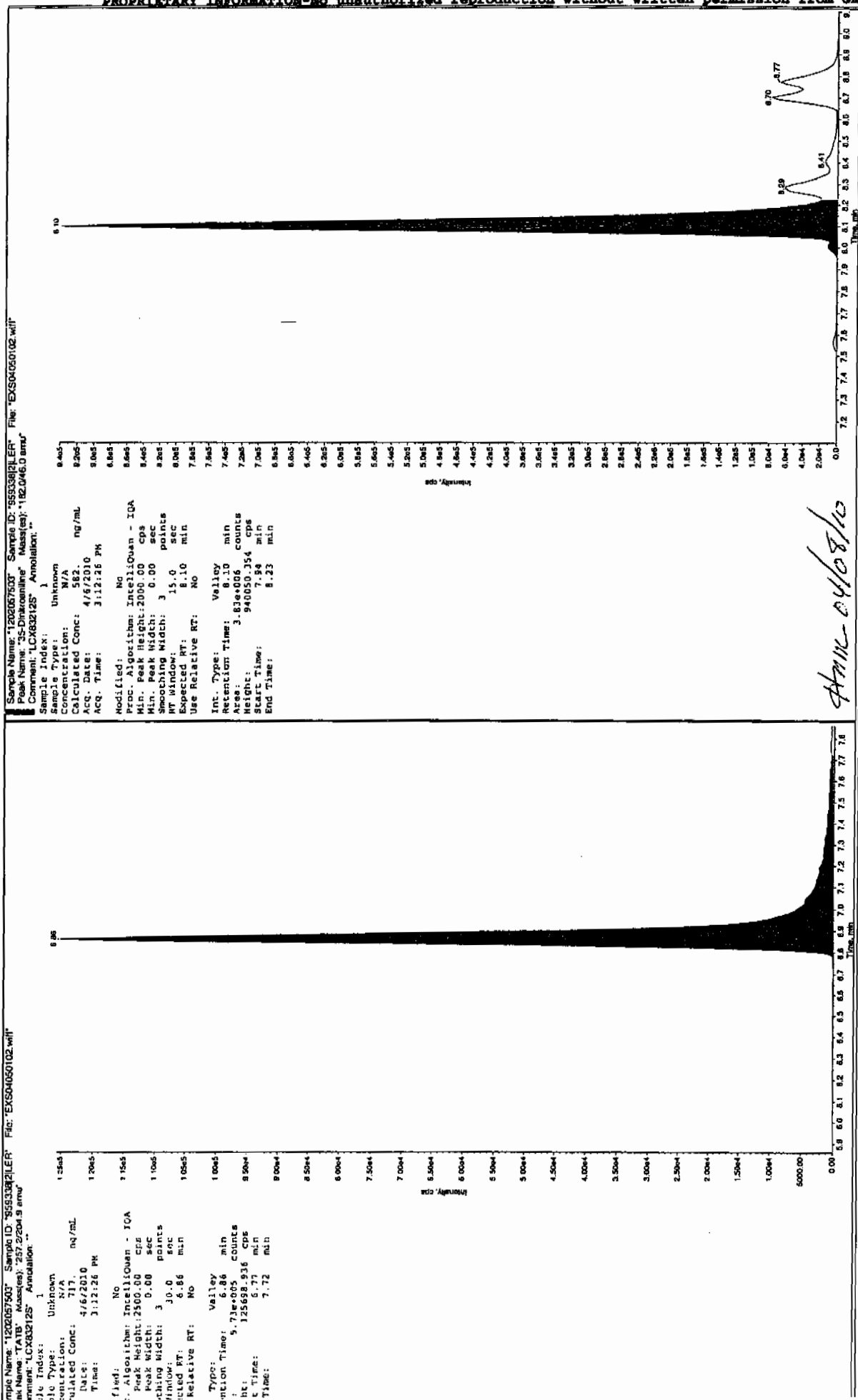


Name	Trace	RT	Area	SA Area	Abs Resp	Response	Flags	Mod Date	Mod Time	File Name	Exp Rec	Pack ID	SN
HMX	2020057503	176 > 102	5.20	28980.275	7599.440	28980.275	1906.738	bb		449.8438	90.0	-10.0	2832.9
RDX	2020057503	176 > 102	7.53	23530.646	7599.440	23530.646	1548.183	bb		540.9064	108.2	8.2	2102.8
135-Trinitrobenzene	2020057503	213 > 183	10.06	32727.363	7599.440	32727.363	2153.275	bb		498.0997	99.6	-0.4	3002.0
13-Dinitrobenzene-d4	2020057503	172 > 142	11.87	7599.440		7599.440	7599.440	bb		646.1709	129.2	29.2	1291.0
13-Dinitrobenzene	2020057503	168 > 138	12.00	9229.408	7599.440	9229.408	607.243	bb		454.1594	90.8	-9.2	1562.6
Tetryl	2020057503	241 > 181	12.46	1799.162	7599.440	1799.162	118.375	bb		91.3192	18.3	-81.7	185.5
Nitrobenzene	2020057503	123 > 46	13.41	3751.260	7599.440	3751.260	246.812	bb		393.4528	78.7	-21.3	396.3
4-Amino-26-dinitrotoluene	2020057503	197 > 167	15.36	13521.822	42772.023	13521.822	158.069	MM	16-Apr-10 09:38:30	467.9872	93.6	-6.4	342.8
2-Amino-46-dinitrotoluene	2020057503	197 > 180	16.19	24959.672	42772.023	24959.672	291.776	bb		569.6548	113.9	13.9	1038.9
246-Trinitrotoluene	2020057503	227 > 210	15.14	17176.555	42772.023	17176.555	200.782	bb		461.5558	92.3	-7.7	879.2
34-dinitrotoluene	2020057503	182 > 152	14.13	22229.049	42772.023	22229.049	259.855	bb		252.0105	100.8	0.8	856.2
26-dinitrotoluene	2020057503	182 > 152	17.24	47547.727	42772.023	47547.727	555.827	MM	16-Apr-10 09:40:42	469.6320	93.9	-6.1	2101.2
24-dinitrotoluene	2020057503	182 > 152	17.90	11893.898	42772.023	11893.898	139.038	MM	16-Apr-10 09:44:37	532.7058	106.5	6.5	470.1
26-dinitrotoluene-d3	2020057503	185 > 155	17.09	42772.023		42772.023	42772.023	bb		611.3227	122.3	22.3	2698.7
2-Nitrotoluene	2020057503	137 > 46	20.65	2748.096	42772.023	2748.096	32.125	bb		371.0081	74.2	-25.8	644.2
4-Nitrotoluene	2020057503	137 > 46	22.00	1376.571	42772.023	1376.571	16.092	bb		387.9507	77.6	-22.4	346.9
3-Nitrotoluene	2020057503	137 > 46	23.60	1788.667	42772.023	1788.667	20.909	bb		358.6378	71.7	-28.3	412.1
PETN	2020057503	361 > 62	24.01	41027.633	42772.023	41027.633	479.608	bb		527.8410	105.6	5.6	10455.0

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification



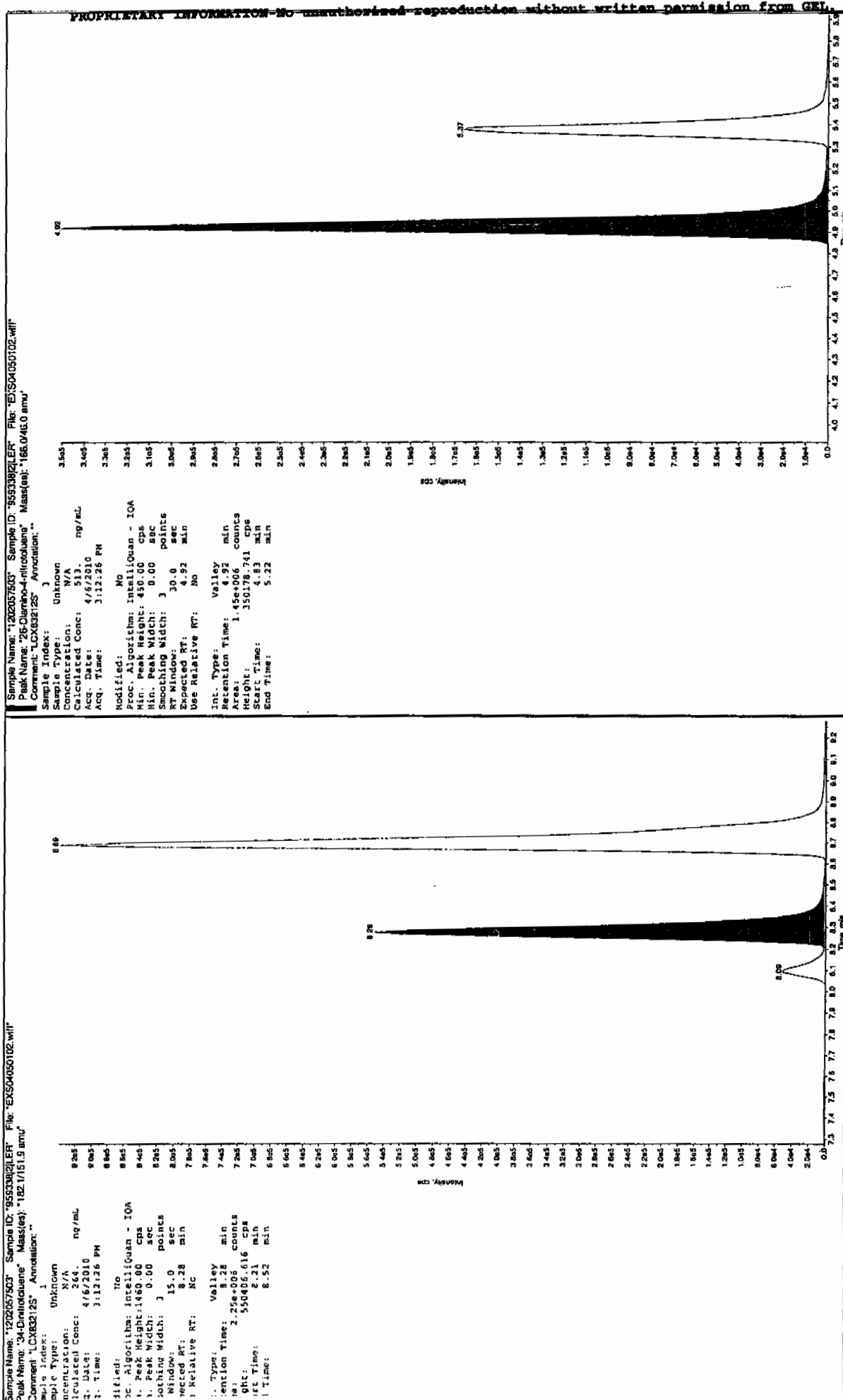
Scan 4/11/10



Amc-04/08/10

IL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



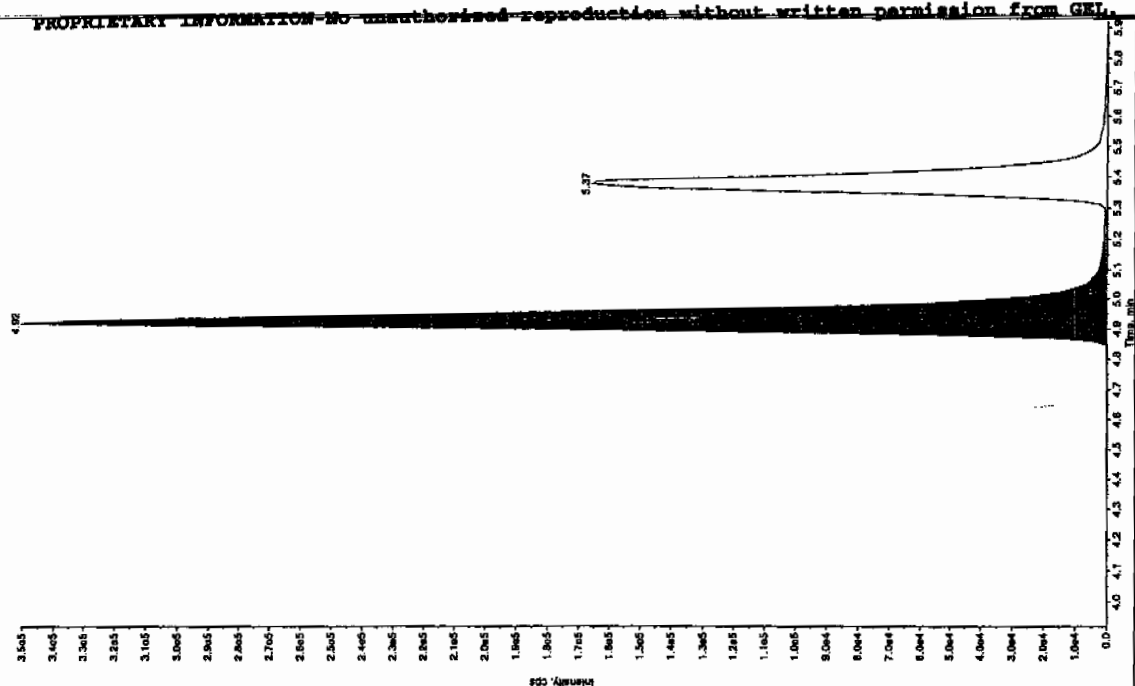


Sample Name: "1202057503" Sample ID: "95533921LER" File: "E:\S04050102.wif"  
Peak Name: "26-Clonidine" Mass(es): "186.0/163.0 amu"  
Comment: "LCX832125" Annotation: ""

Sample Index: 3  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 513. ng/mL  
Acq. Date: 4/6/2010  
Acq. Time: 3:12:26 PM

Modified: NO  
Proc. Algorithm: Intalliquan - IOA  
Min. Peak Height: 450.00 cps  
Min. Peak Width: 0.00 points  
Smoothing Width: 3  
ST Window: 30.0 sec  
Expected RT: 4.92 min  
Use Relative RT: NO

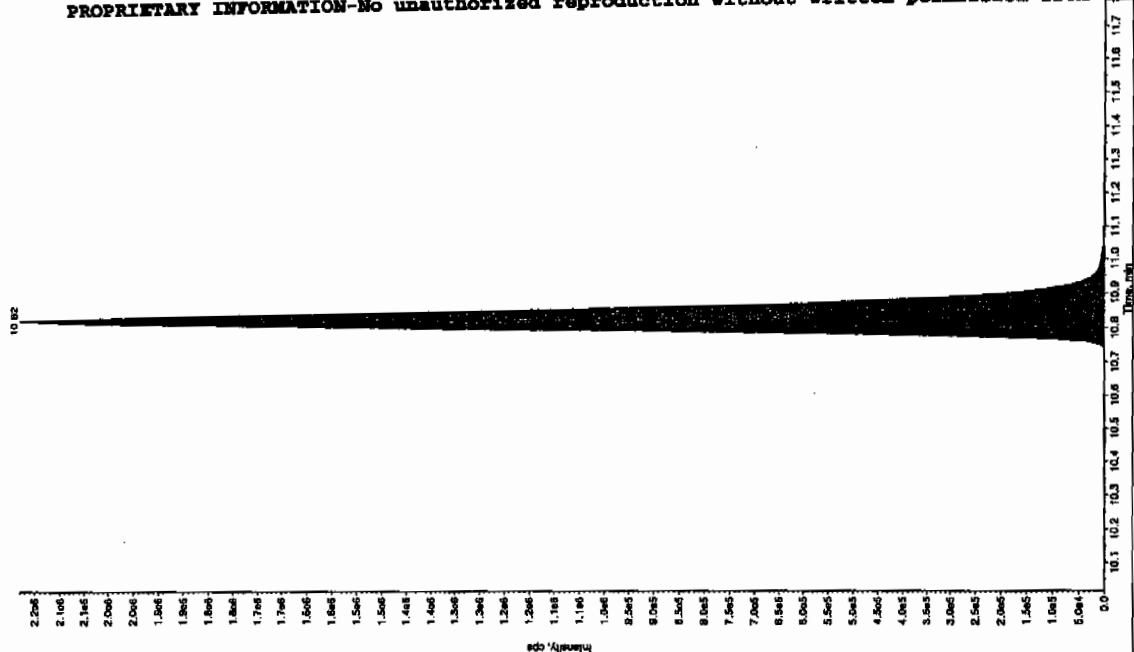
Int. Type: Valley  
Retention Time: 4.92 min  
Area: 1.45e+006 counts  
Height: 350178.741 cps  
Start Time: 4.83 min  
End Time: 5.22 min





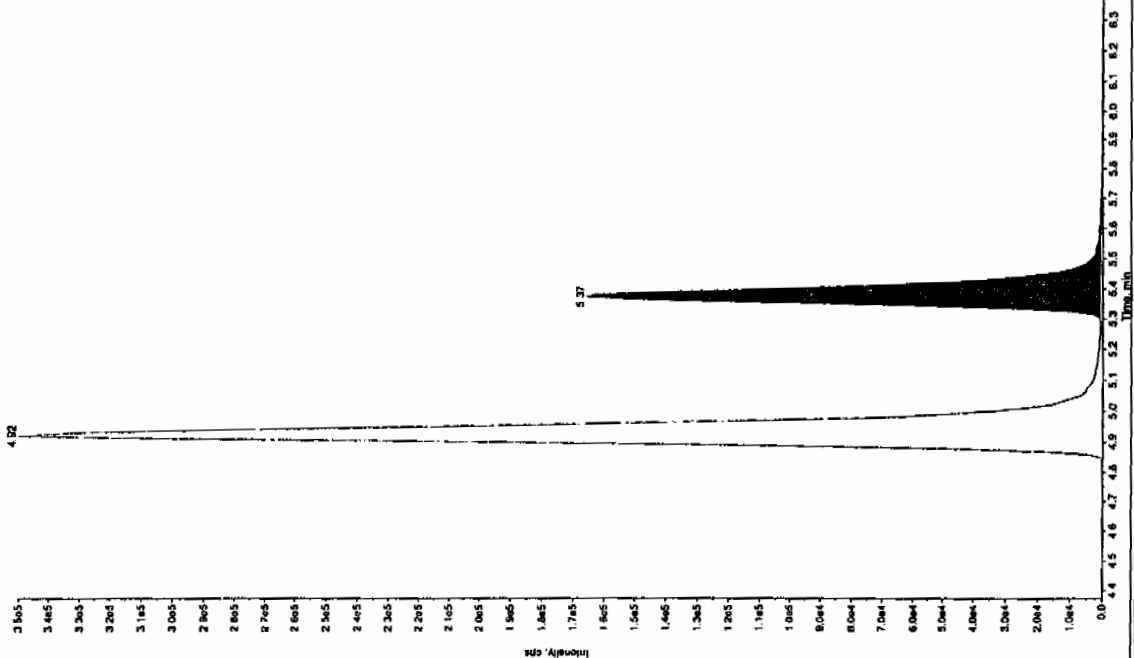
Sample Name: "1202057503" Sample ID: "95933821.ER" File: "EXS04050102.wit"  
 Peak Name: "tris(o-cresyl) phosphate" Mass(es): "389.191.0 amu"  
 Comment: "LCX532125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 507. ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 3:12:26 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 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: 9.14e+006 counts  
 Height: 2179718.282 cps  
 Start Time: 10.7 min  
 End Time: 11.1 min



Sample Name: "1202057503" Sample ID: "95933821.ER" File: "EXS04050102.wit"  
 Peak Name: "24-Diamino-6-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCX532125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 318. ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 3:12:26 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: 5.37 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.37 min  
 Area: 6.92e+005 counts  
 Height: 165213.593 cps  
 Start Time: 5.30 min  
 End Time: 5.84 min



EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



GEL Laboratories LLC  
Form GEL-DER

DER Report No.: 818320  
Revision No.: 1

### DATA EXCEPTION REPORT

<b>Mo.Day Yr.</b> 17-APR-10	<b>Division:</b> Federal	<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> 959338	<b>Sample Numbers:</b> 1202057501, 1202057502, 1202057503		
<b>Potentially affected work order(s)(SDG):</b> 248244(10-2137), 248249(10-2140) <b>Application Issues:</b> Failed Recovery for MSD/PSD Failed Recovery for LCS/LCSD Failed Recovery for MS/PS			
<b>Specification and Requirements</b>		<b>DER Disposition:</b>	
<b>Exception Description:</b>  1. The LCS (1202057501) did not meet spike recovery limits for Tetra at 20.2%. The recovery limits are 51-112%.  2. The MS (1202057502) did not meet spike recovery limits for Tetra at 19.2%. The recovery limits are 36-124%.  3. The MSD (1202057503) did not meet spike recovery limits for Tetra at 18.3%. The recovery limits are 36-124%.		1., 2., & 3. Since the recoveries fall within the DOD QSM limits of 10-150%, and the samples are greater than two times out of hold, the data are reported with the appropriate DER. The discrepancies are noted in the case narrative.	

**Originator's Name:**  
Michael Penny      17-APR-10

**Data Validator/Group Leader:**  
Herbert Maier      18-APR-10



GC  
SEMIVOLATILE  
PCB  
ANALYSIS



**PCB Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2137**

**Method/Analysis Information**

**Procedure:** Analysis of Polychlorinated Biphenyls by ECD  
**Analytical Method:** SW846 8082  
**Prep Method:** SW846 3550B  
**Analytical Batch Number:** 965805  
**Prep Batch Number:** 965798

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8082:

<b>Sample ID</b>	<b>Client ID</b>
248244001	RE36-10-8464
1202072502	Method Blank (MB)
1202072503	Laboratory Control Sample (LCS)
1202072504	248389002(WST16-10-13296) Matrix Spike (MS)
1202072505	248389002(WST16-10-13296) 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 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.



**Continuing Calibration Verification (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 SDG met the acceptance criteria.

**Surrogate Recoveries**

Sample 248244001 (RE36-10-8464) did not meet the surrogate recovery acceptance criteria due to dilution. See DER #805920 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 (#10-2165) 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 recoveries were within the established acceptance limits.

**Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD recoveries were within the established acceptance limits.

**MS/MSD Relative Percent Difference (RPD) Statement**

The RPD between the MS and MSD met the acceptance limits.

**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**

Sample 248244001 (RE36-10-8464) was diluted at 1:5 due to the oily matrix of the extract.

**Sample Re-extraction/Re-analysis**

Re-extractions or re-analyses 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 (DER) Documentation**

Data Exception Report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. DER # 805920 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 VII's 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:

<b>Instrument ID</b>	<b>Instrument</b>	<b>System Configuration</b>	<b>Column ID</b>	<b>Column Description</b>
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: Jimmy Cao

Date: 3/26/10



## Roadmap for LANL 10-2137 PCB

This roadmap was analyzed by yip00818 on 03-18-2010, 10:14.

This roadmap was packaged by yml on 03-26-2010, 09:34.

This roadmap was validated by jim01140 on 03-26-2010, 13:42.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/023f2301.d	248244001	sample	17-MAR-2010	10:01	10-2137.sub	RE36-10-8464	5.00000	965805	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/023b2301.d	248244001	sample	17-MAR-2010	10:01	10-2137.sub	RE36-10-8464	5.00000	965805	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/019f1901-1.d	1202072502	mb	17-MAR-2010	09:14	10-2137.sub	PBLK01	1.00000	965805	
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/020f2001-1.d	1202072503	lcs	17-MAR-2010	09:25	10-2137.sub	PBLK01LCS	1.00000	965805	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/019b1901-1.d	1202072502	mb	17-MAR-2010	09:14	10-2137.sub	PBLK01	1.00000	965805	
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/020b2001-1.d	1202072503	lcs	17-MAR-2010	09:25	10-2137.sub	PBLK01LCS	1.00000	965805	



# SAMPLE DATA SUMMARY



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

SDG Number: 10-2137	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248244001	Date Received: 02/27/2010 09:10	%Moisture: 9.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8464	Method: SW846 8082	SOP Ref: GL-OA-E-040
Batch ID: 965805	Inst: ECD1A.I	Dilution: 5
Run Date: 03/17/2010 10:01	Analyst: YS1	Inj. Vol: 1 uL
Prep Date: 03/16/2010 21:02	Aliquot: 30.18 g	Final Volume: 1 mL
Data File: 023f2301.d	Column: 1 CLP1	Level: LOW
023b2301.d	2 CLP2	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	18.3	ug/kg	6.10	18.3	1
11104-28-2	Aroclor-1221	U	18.3	ug/kg	6.10	18.3	1
11141-16-5	Aroclor-1232	U	18.3	ug/kg	6.10	18.3	1
53469-21-9	Aroclor-1242	U	18.3	ug/kg	6.10	18.3	1
12672-29-6	Aroclor-1248	U	18.3	ug/kg	6.10	18.3	1
11097-69-1	Aroclor-1254	U	18.3	ug/kg	6.10	18.3	1
11096-82-5	Aroclor-1260	U	18.3	ug/kg	6.10	18.3	1



# QUALITY CONTROL SUMMARY



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PCB  
Surrogate Recovery Report

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Page 1 of 1

SDG Number: 10-2137

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 #
1202072502	MB for batch 965798	64	64	64	65
1202072503	LCS for batch 965798	64	63	63	66
248244001	RE36-10-8464	25 * D	27 * D	28 * D	35 D

**Surrogate****Acceptance Limits**

4CMX = 4cmx

(32%-120%)

DCB = Decachlorobiphenyl

(30%-116%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted



PCB  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2137

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 965798

Matrix: SOIL

Lab Sample ID:1202072503

Instrument: ECD1A.I

Analysis Date: 03/17/2010 09:25

Dilution: 1

Analyst: YS1

Prep Batch ID 965798

Inj. Vol: 1 uL

Batch ID: 965805

CAS No	Parmname	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	19.6	59	39-102
11096-82-5	LCS Aroclor-1260	33.3	0.0	21.6	65	45-118



PCB

Page 1 of 2

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2165

Client ID: WST16-10-13296MS

Lab Sample ID:1202072504

Instrument: ECD1A.I

Analyst: YSI

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: R

%Moisture: 17

Analysis Date: 03/17/2010 14:19

Dilution: 1

Pre Batch ID: 965798

Batch ID: 965805

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS Aroclor-1016	40.1	0.00 U	24.3	61	23-119
11096-82-5	MS Aroclor-1260	40.1	0.00 U	30.2	75	28-124



PCB

Page 2 of 2

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2165

Sample Type: Matrix Spike Duplicate

Client ID: WST16-10-13296MSD

Matrix: R

Lab Sample ID:1202072505

%Moisture: 17

Instrument: ECD1A.I

Analysis Date: 03/17/2010 14:32

Dilution: 1

Analyst: YS1

Prep Batch II 965798

Inj. Vol: 1 uL

Batch ID: 965805

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	40.1	0.00 U	23.2	58	23-119	5	0-28
11096-82-5	MSD Aroclor-1260	40.1	0.00 U	30.5	76	28-124	1	0-30



## Method Blank Summary

Page 1 of 1

SDG Number:	10-2137	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965798	Instrument ID:	ECD1A.I_2	Data File:	019b1901-1.d
Lab Sample ID:	1202072502		ECD1A.I_1		019f1901-1.d
Column:	CLP2	Prep Date:	03/16/2010 21:02	Analyzed:	03/17/10 09:14
	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 965798	1202072503	020f2001-1.d 020b2001-1.d	03/17/10	0925
02 RE36-10-8464	248244001	023f2301.d 023b2301.d	03/17/10	1001



# SAMPLE DATA



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

SDG Number: 10-2137  
Lab Sample ID: 248244001

Client ID: RE36-10-8464  
Batch ID: 965805  
Run Date: 03/17/2010 10:01  
Prep Date: 03/16/2010 21:02  
Data File: 023f2301.d  
023b2301.d

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.18 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 9.5  
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	18.3	ug/kg	6.10	18.3	1
11104-28-2	Aroclor-1221	U	18.3	ug/kg	6.10	18.3	1
11141-16-5	Aroclor-1232	U	18.3	ug/kg	6.10	18.3	1
53469-21-9	Aroclor-1242	U	18.3	ug/kg	6.10	18.3	1
12672-29-6	Aroclor-1248	U	18.3	ug/kg	6.10	18.3	1
11097-69-1	Aroclor-1254	U	18.3	ug/kg	6.10	18.3	1
11096-82-5	Aroclor-1260	U	18.3	ug/kg	6.10	18.3	1



Data File: /chem/ecdla.i/0317107.b/023f2301.d  
Report Date: 17-Mar-2010 11:20

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/023f2301.d  
Lab Smp Id: 248244001 Client Smp ID: RE36-10-8464  
Inj Date : 17-MAR-2010 10:01  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |248244001|5|  
Misc Info : |ECD82P\_1S|965805|SVA|LANL|SOIL|RE36-10-8464|||  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 09:56 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 23  
Dil Factor: 5.00000  
Integrator: Falcon Compound Sublist: 10-2137.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpc1p1

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

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	30.18000	Weight of sample extracted (g)
M	9.53760	% 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						
1.912	1.913	-0.001	3923470	10.0725	1.8 80.00- 120.00	100.00 (R)
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
5.215	5.216	-0.001	3360528	11.3176	2.1 80.00- 120.00	100.00 (R)
-----						

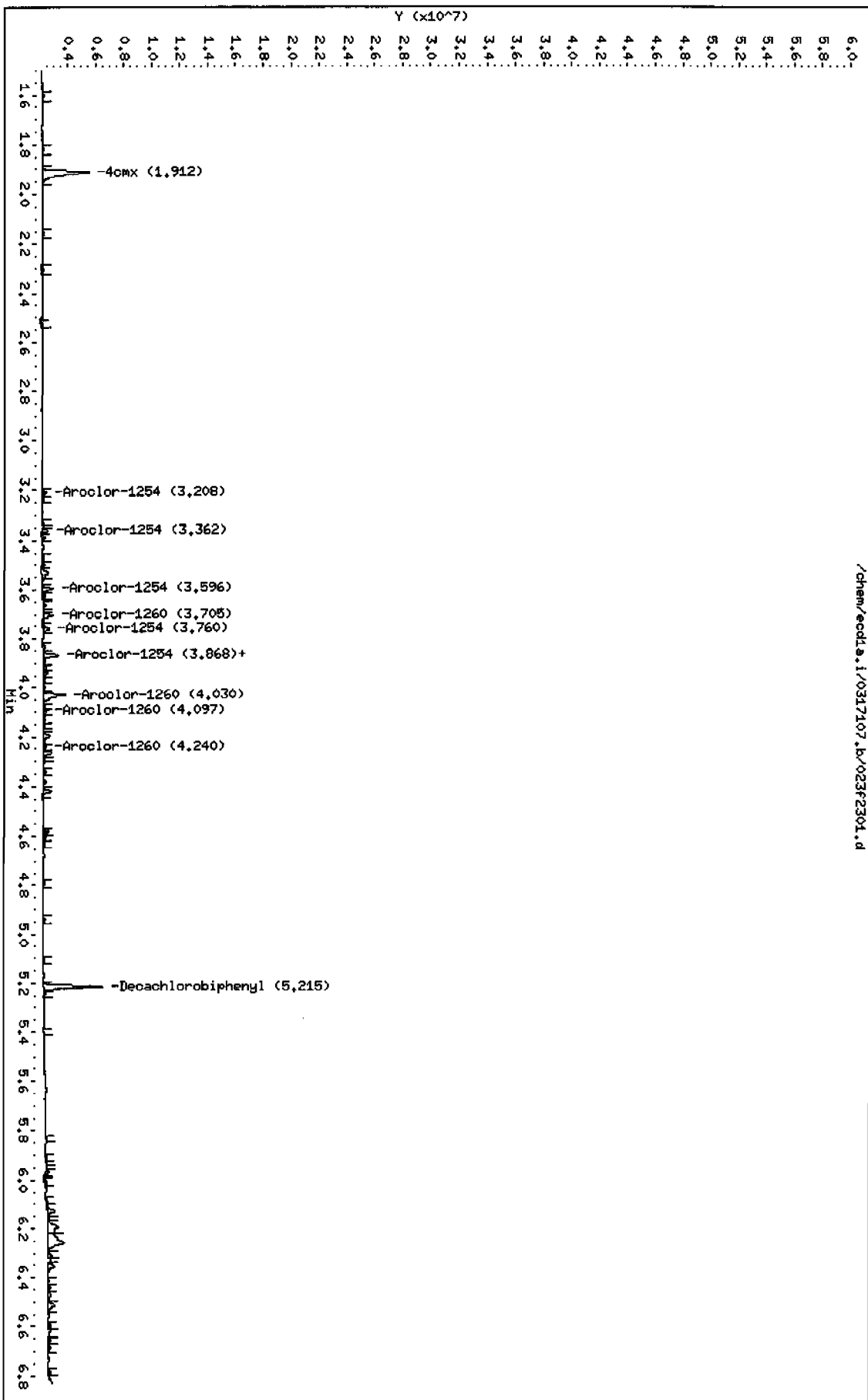
QC Flag Legend

R - Spike/Surrogate failed recovery limits.



Data File: /chem/ecdl.a.i/0317107.k/023f2301.d  
Date : 17-MAR-2010 10:01  
Client ID: RE36-10-8464  
Sample Info: 1248244001151  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: ecdl.a.i  
Operator: YSI  
Column diameter: 0.25





Data File: /chem/ecdl1a.i/0317107.b/023b2301.d  
 Report Date: 17-Mar-2010 11:20

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/023b2301.d  
 Lab Smp Id: 248244001 Client Smp ID: RE36-10-8464  
 Inj Date : 17-MAR-2010 10:01  
 Operator : YSl Inst ID: ecd1a.i  
 Smp Info : |248244001|5|  
 Misc Info : |ECD82P\_1S|965805|SVA|LANL|SOIL|RE36-10-8464|||  
 Comment :  
 Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
 Meth Date : 17-Mar-2010 09:56 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 23  
 Dil Factor: 5.00000  
 Integrator: Falcon Compound Sublist: 10-2137.sub  
 Target Version: 3.50 Sample Matrix: Soil  
 Processing Host: hpclp1

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

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	30.18000	Weight of sample extracted (g)
M	9.53760	% 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	
2.271	2.271	0.000	2803485 10.6868	2.0	80.00- 120.00	100.00(R)
-----						
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3	
5.912	5.913	-0.001	2619282 13.9939	2.6	80.00- 120.00	100.00

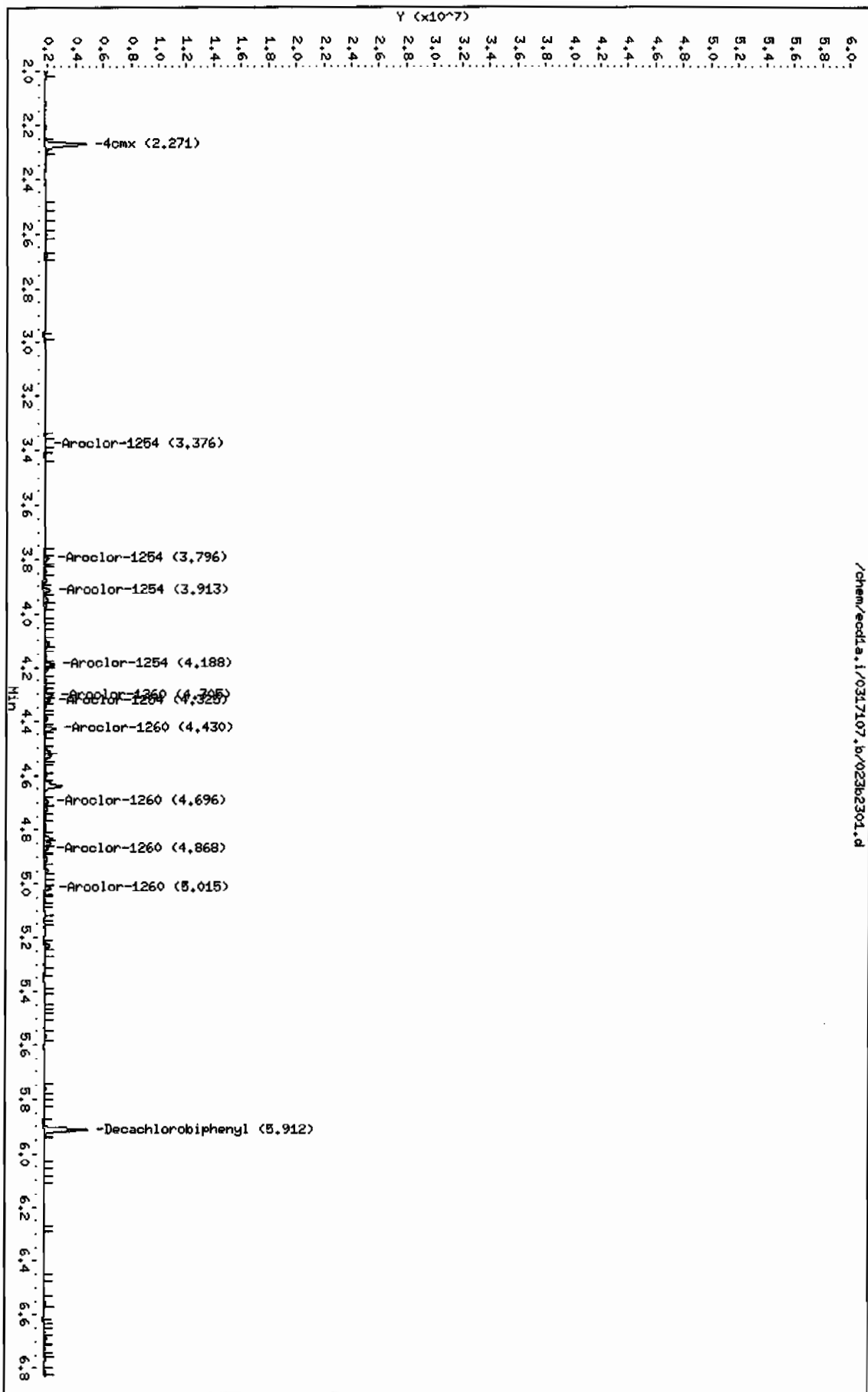
QC Flag Legend

R - Spike/Surrogate failed recovery limits.



Data File: /chem/eodla.i/0317107.b/023b2301.d  
Date: 17-MAR-2010 10:01  
Client ID: RE36-10-8464  
Sample Info: 1248244001151  
Volume Injected (ul): 1.0  
Column phase: CLP2

Instrument: eodla.i  
Operator: YS4  
Column diameter: 0.25





# STANDARDS DATA



Report Date: 18-Mar-2010 09:29

### Calibration History

Method : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m  
Start Cal Date: 22-FEB-2010 06:31  
End Cal Date : 11-MAR-2010 20:22

#### 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/032f3201.d
11-MAR-2010 19:40	AR1248	/chem/ecdl1a.i/031110b.b/029f2901.d
11-MAR-2010 18:37	AR1242	/chem/ecdl1a.i/031110b.b/023f2301.d
11-MAR-2010 17:34	AR1254	/chem/ecdl1a.i/031110b.b/017f1701.d
11-MAR-2010 16:31	AR1660	/chem/ecdl1a.i/031110b.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecdl1a.i/022210.b/033f3301.d
11-MAR-2010 19:51	AR1248	/chem/ecdl1a.i/031110b.b/030f3001.d
11-MAR-2010 18:48	AR1242	/chem/ecdl1a.i/031110b.b/024f2401.d
11-MAR-2010 17:45	AR1254	/chem/ecdl1a.i/031110b.b/018f1801.d
11-MAR-2010 16:41	AR1660	/chem/ecdl1a.i/031110b.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecdl1a.i/022210.b/034f3401.d
11-MAR-2010 20:01	AR1248	/chem/ecdl1a.i/031110b.b/031f3101.d
11-MAR-2010 18:58	AR1242	/chem/ecdl1a.i/031110b.b/025f2501.d
11-MAR-2010 17:55	AR1254	/chem/ecdl1a.i/031110b.b/019f1901.d
11-MAR-2010 16:52	AR1660	/chem/ecdl1a.i/031110b.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecdl1a.i/022210.b/035f3501.d
11-MAR-2010 20:12	AR1248	/chem/ecdl1a.i/031110b.b/032f3201.d
11-MAR-2010 19:09	AR1242	/chem/ecdl1a.i/031110b.b/026f2601.d
11-MAR-2010 18:06	AR1254	/chem/ecdl1a.i/031110b.b/020f2001.d
11-MAR-2010 17:02	AR1660	/chem/ecdl1a.i/031110b.b/014f1401.d
11-MAR-2010 16:10	AR1262	/chem/ecdl1a.i/031110b.b/009f0901.d
11-MAR-2010 15:59	AR1221	/chem/ecdl1a.i/031110b.b/008f0801.d
11-MAR-2010 15:49	AR1232	/chem/ecdl1a.i/031110b.b/007f0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecdl1a.i/031110b.b/010f1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecdl1a.i/022210.b/036f3601.d
11-MAR-2010 20:22	AR1248	/chem/ecdl1a.i/031110b.b/033f3301.d
11-MAR-2010 19:19	AR1242	/chem/ecdl1a.i/031110b.b/027f2701.d
11-MAR-2010 18:16	AR1254	/chem/ecdl1a.i/031110b.b/021f2101.d
11-MAR-2010 17:13	AR1660	/chem/ecdl1a.i/031110b.b/015f1501.d



Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 21:49   AR1660	/chem/ecd1a.i/0317107.b/080f8001.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 20:08   AR1660	/chem/ecd1a.i/0317107.b/072f7201.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 17:49   AR1660	/chem/ecd1a.i/0317107.b/061f6101.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 16:00   AR1660	/chem/ecd1a.i/0317107.b/052f5201.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 13:45   AR1660	/chem/ecd1a.i/0317107.b/041f4101.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 11:16   AR1660	/chem/ecd1a.i/0317107.b/029f2901.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 08:53   AR1660	/chem/ecd1a.i/0317107.b/017f1701.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 07:22   AR1262	/chem/ecd1a.i/0317107.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 07:11   AR1221	/chem/ecd1a.i/0317107.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 07:01   AR1232	/chem/ecd1a.i/0317107.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 06:50   AR1268	/chem/ecd1a.i/0317107.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 06:39   AR1248	/chem/ecd1a.i/0317107.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 06:29   AR1242	/chem/ecd1a.i/0317107.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 06:18   AR1254	/chem/ecd1a.i/0317107.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000	
17-MAR-2010 06:08   AR1660	/chem/ecd1a.i/0317107.b/002f0201.d



Report Date: 18-Mar-2010 09:29

### Calibration History

Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
Start Cal Date: 22-FEB-2010 06:31  
End Cal Date : 11-MAR-2010 20:22

#### 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
11-MAR-2010 19:40	AR1248	/chem/ecdl1a.i/031110b.b/029b2901.d
11-MAR-2010 18:37	AR1242	/chem/ecdl1a.i/031110b.b/023b2301.d
11-MAR-2010 17:34	AR1254	/chem/ecdl1a.i/031110b.b/017b1701.d
11-MAR-2010 16:31	AR1660	/chem/ecdl1a.i/031110b.b/011b1101.d

Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecdl1a.i/022210.b/033b3301.d
11-MAR-2010 19:51	AR1248	/chem/ecdl1a.i/031110b.b/030b3001.d
11-MAR-2010 18:48	AR1242	/chem/ecdl1a.i/031110b.b/024b2401.d
11-MAR-2010 17:45	AR1254	/chem/ecdl1a.i/031110b.b/018b1801.d
11-MAR-2010 16:41	AR1660	/chem/ecdl1a.i/031110b.b/012b1201.d

Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecdl1a.i/022210.b/034b3401.d
11-MAR-2010 20:01	AR1248	/chem/ecdl1a.i/031110b.b/031b3101.d
11-MAR-2010 18:58	AR1242	/chem/ecdl1a.i/031110b.b/025b2501.d
11-MAR-2010 17:55	AR1254	/chem/ecdl1a.i/031110b.b/019b1901.d
11-MAR-2010 16:52	AR1660	/chem/ecdl1a.i/031110b.b/013b1301.d

Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecdl1a.i/022210.b/035b3501.d
11-MAR-2010 20:12	AR1248	/chem/ecdl1a.i/031110b.b/032b3201.d
11-MAR-2010 19:09	AR1242	/chem/ecdl1a.i/031110b.b/026b2601.d
11-MAR-2010 18:06	AR1254	/chem/ecdl1a.i/031110b.b/020b2001.d
11-MAR-2010 17:02	AR1660	/chem/ecdl1a.i/031110b.b/014b1401.d
11-MAR-2010 16:10	AR1262	/chem/ecdl1a.i/031110b.b/009b0901.d
11-MAR-2010 15:59	AR1221	/chem/ecdl1a.i/031110b.b/008b0801.d
11-MAR-2010 15:49	AR1232	/chem/ecdl1a.i/031110b.b/007b0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecdl1a.i/031110b.b/010b1001.d

Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecdl1a.i/022210.b/036b3601.d
11-MAR-2010 20:22	AR1248	/chem/ecdl1a.i/031110b.b/033b3301.d
11-MAR-2010 19:19	AR1242	/chem/ecdl1a.i/031110b.b/027b2701.d
11-MAR-2010 18:16	AR1254	/chem/ecdl1a.i/031110b.b/021b2101.d
11-MAR-2010 17:13	AR1660	/chem/ecdl1a.i/031110b.b/015b1501.d

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4



Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 21:49	AR1660	/chem/ecdla.i/0317107.b/080b8001.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 20:08	AR1660	/chem/ecdla.i/0317107.b/072b7201.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 17:49	AR1660	/chem/ecdla.i/0317107.b/061b6101.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 16:00	AR1660	/chem/ecdla.i/0317107.b/052b5201.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 13:45	AR1660	/chem/ecdla.i/0317107.b/041b4101.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 11:16	AR1660	/chem/ecdla.i/0317107.b/029b2901.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 08:53	AR1660	/chem/ecdla.i/0317107.b/017b1701.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 07:22	AR1262	/chem/ecdla.i/0317107.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 07:11	AR1221	/chem/ecdla.i/0317107.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 07:01	AR1232	/chem/ecdla.i/0317107.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 06:50	AR1268	/chem/ecdla.i/0317107.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 06:39	AR1248	/chem/ecdla.i/0317107.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 06:29	AR1242	/chem/ecdla.i/0317107.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 06:18	AR1254	/chem/ecdla.i/0317107.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 06:08	AR1660	/chem/ecdla.i/0317107.b/002b0201.d



## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m  
 Quant Method : ESTD Target Version : 3.50  
 Last Update : 18-Mar-2010 06:43 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	2.366	2.336-2.396	1.518e+04
	2.651	2.621-2.681	1.894e+04
	2.732	2.702-2.762	1.244e+04
	2.768	2.738-2.798	7.348e+03
	2.978	2.948-3.008	9.518e+03
63 4,4-DDD	3.888	3.868-3.908	3.140e+05
64 4,4-DDE	3.539	3.519-3.559	3.727e+05
62 4,4-DDT	4.052	4.032-4.072	2.363e+05
2 Aroclor-1221	2.026	1.996-2.056	4.466e+03
	2.118	2.088-2.148	2.447e+03
	2.144	2.114-2.174	1.083e+04
3 Aroclor-1232	2.365	2.335-2.395	6.667e+03
	2.652	2.622-2.682	8.344e+03
	2.732	2.702-2.762	5.531e+03
	2.847	2.817-2.877	2.649e+03
	3.234	3.204-3.264	3.555e+03
4 Aroclor-1242	2.365	2.335-2.395	1.233e+04
	2.652	2.622-2.682	1.490e+04
	2.769	2.739-2.799	5.896e+03
	2.980	2.950-3.010	7.735e+03
	3.233	3.203-3.263	7.285e+03



## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.846	2.816-2.876	1.000e+04
	2.981	2.951-3.011	1.314e+04
	3.234	3.204-3.264	1.430e+04
	3.366	3.336-3.396	1.190e+04
	3.598	3.568-3.628	8.005e+03
6 Aroclor-1254	3.209	3.179-3.239	1.326e+04
	3.364	3.334-3.394	1.783e+04
	3.598	3.568-3.628	2.237e+04
	3.760	3.730-3.790	1.649e+04
	3.869	3.839-3.899	1.596e+04
7 Aroclor-1260	3.703	3.673-3.733	1.833e+04
	3.866	3.836-3.896	2.689e+04
	4.028	3.998-4.058	2.832e+04
	4.096	4.066-4.126	1.616e+04
	4.238	4.208-4.268	1.681e+04
8 Aroclor-1262	3.706	3.676-3.736	1.423e+04
	3.868	3.838-3.898	1.874e+04
	4.099	4.069-4.129	2.315e+04
	4.241	4.211-4.271	2.110e+04
	4.421	4.391-4.451	4.350e+04
9 Aroclor-1268	4.606	4.576-4.636	4.848e+04
	4.628	4.598-4.658	5.448e+04
	4.741	4.711-4.771	3.862e+04
	4.943	4.913-4.973	1.635e+04
	5.108	5.078-5.138	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	1.913	1.883-1.943	3.895e+05
\$ 12 Decachlorobiphenyl	5.216	5.186-5.246	2.969e+05



## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
Quant Method : ESTD Target Version : 3.50  
Last Update : 18-Mar-2010 06:43 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	3.166	3.136-3.196	1.258e+04
	3.248	3.218-3.278	8.634e+03
	3.312	3.282-3.342	5.287e+03
	3.538	3.508-3.568	6.893e+03
	3.614	3.584-3.644	6.423e+03
62 4,4-DDT	4.642	4.622-4.662	7.489e+04
63 4,4-DDE	4.111	4.091-4.131	2.469e+05
64 4,4-DDD	4.455	4.435-4.475	1.989e+05
2 Aroclor-1221	2.468	2.438-2.498	3.250e+03
	2.562	2.532-2.592	2.084e+03
	2.603	2.573-2.633	7.320e+03
3 Aroclor-1232	2.869	2.839-2.899	5.054e+03
	3.166	3.136-3.196	5.712e+03
	3.250	3.220-3.280	3.888e+03
	3.540	3.510-3.570	2.840e+03
4 Aroclor-1242	3.774	3.744-3.804	2.821e+03
	3.167	3.137-3.197	1.014e+04
	3.249	3.219-3.279	7.097e+03
	3.540	3.510-3.570	5.514e+03
	3.773	3.743-3.803	5.722e+03
	3.802	3.772-3.832	6.370e+03



## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.376	3.346-3.406	7.604e+03
	3.541	3.511-3.571	9.470e+03
	3.774	3.744-3.804	1.093e+04
	3.801	3.771-3.831	1.216e+04
6 Aroclor-1254	3.938	3.908-3.968	1.181e+04
	3.375	3.345-3.405	6.021e+03
	3.797	3.767-3.827	1.082e+04
	3.914	3.884-3.944	1.193e+04
7 Aroclor-1260	4.189	4.159-4.219	1.644e+04
	4.325	4.295-4.355	1.212e+04
	4.304	4.274-4.334	1.308e+04
	4.429	4.399-4.459	1.555e+04
8 Aroclor-1262	4.695	4.665-4.725	1.190e+04
	4.868	4.838-4.898	1.229e+04
	5.015	4.985-5.045	2.639e+04
	4.431	4.401-4.461	1.160e+04
9 Aroclor-1268	4.696	4.666-4.726	1.620e+04
	4.869	4.839-4.899	1.484e+04
	5.016	4.986-5.046	2.937e+04
	5.229	5.199-5.259	2.065e+04
M 10 Aroclor-Total	5.228	5.198-5.258	3.730e+04
	5.256	5.226-5.286	3.492e+04
	5.405	5.375-5.435	2.658e+04
	5.570	5.540-5.600	1.223e+04
\$ 11 4cmx	5.763	5.733-5.793	7.433e+04
\$ 12 Decachlorobiphenyl	1.000	0.980-1.020	
	2.271	2.241-2.301	2.623e+05
	5.913	5.883-5.943	1.872e+05



GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m  
 Cal Date : 18-Mar-2010 06:43 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)	17517	15916	14941	14342	13168	15177	10.833
(2)	20378	19291	18809	18310	17891	18936	5.082
(3)	13830	13020	12255	11836	11271	12442	8.071
(4)	7957	7573	7201	7091	6919	7348	5.665
(5)	10680	9850	9332	8998	8729	9518	8.119
63 4,4-DDD	+++++	+++++	+++++	313980	+++++	313980	0.000
64 4,4-DDE	+++++	+++++	+++++	372684	+++++	372684	0.000
62 4,4-DDT	+++++	+++++	+++++	236265	+++++	236265	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4466	+++++	4466	0.000
(2)	+++++	+++++	+++++	2447	+++++	2447	0.000
(3)	+++++	+++++	+++++	10828	+++++	10828	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6667	+++++	6667	0.000
(2)	+++++	+++++	+++++	8344	+++++	8344	0.000
(3)	+++++	+++++	+++++	5531	+++++	5531	0.000
(4)	+++++	+++++	+++++	2649	+++++	2649	0.000
(5)	+++++	+++++	+++++	3555	+++++	3555	0.000
4 Aroclor-1242(1)	14179	12973	12200	11692	10617	12332	10.871
(2)	16141	15119	14927	14559	13766	14903	5.801
(3)	6352	6182	5816	5703	5424	5896	6.324
(4)	8823	8005	7582	7293	6975	7735	9.260
(5)	7955	7511	7149	7022	6787	7285	6.273
5 Aroclor-1248(1)	11183	10572	9738	9526	8980	10000	8.748
(2)	14876	13683	12753	12517	11873	13140	8.885
(3)	15448	14508	14083	13911	13564	14303	5.068
(4)	13161	12385	11501	11480	10960	11898	7.335
(5)	8649	8385	7955	7608	7427	8005	6.411



## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m  
 Cal Date : 18-Mar-2010 06:43 yip00818  
 Curve Type : Average

Compound	100.000	250.000	500.000	1000.000	4000.000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
(2)	20126	18408	17163	17147	16322	17833	8.313
(3)	24516	23104	21642	21571	21024	22371	6.372
(4)	18056	17097	15691	15840	15766	16490	6.365
(5)	18024	16683	15151	15091	14874	15964	8.504
7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
(2)	29345	27114	26401	26314	25275	26890	5.656
(3)	30716	28501	27786	27176	27398	28315	5.062
(4)	17775	16311	15776	15627	15300	16158	6.034
(5)	18203	16850	16463	16434	16114	16813	4.876
8 Aroclor-1262(1)	+++++	+++++	+++++	14232	+++++	14232	0.000
(2)	+++++	+++++	+++++	18742	+++++	18742	0.000
(3)	+++++	+++++	+++++	23151	+++++	23151	0.000
(4)	+++++	+++++	+++++	21098	+++++	21098	0.000
(5)	+++++	+++++	+++++	43500	+++++	43500	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	407603	391717	384007	385362	378927	389523	2.846
\$ 12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438



GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m  
 Cal Date : 18-Mar-2010 06:43 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)	14376	12782	12025	12307	11436	12585	8.846
(2)	10090	9074	8445	8099	7462	8634	11.594
(3)	6137	5472	5151	4973	4701	5287	10.435
(4)	7962	7103	6817	6522	6060	6893	10.318
(5)	7497	6686	6263	5965	5703	6423	10.948
62 4,4-DDT	++++	++++	++++	74891	++++	74891	0.000
63 4,4-DDE	++++	++++	++++	246875	++++	246875	0.000
64 4,4-DDD	++++	++++	++++	198885	++++	198885	0.000
2 Aroclor-1221(1)	++++	++++	++++	3250	++++	3250	0.000
(2)	++++	++++	++++	2084	++++	2084	0.000
(3)	++++	++++	++++	7320	++++	7320	0.000
3 Aroclor-1232(1)	++++	++++	++++	5054	++++	5054	0.000
(2)	++++	++++	++++	5712	++++	5712	0.000
(3)	++++	++++	++++	3888	++++	3888	0.000
(4)	++++	++++	++++	2840	++++	2840	0.000
(5)	++++	++++	++++	2821	++++	2821	0.000
4 Aroclor-1242(1)	11230	10514	10117	9526	9309	10139	7.634
(2)	8350	7546	6909	6642	6036	7097	12.487
(3)	6442	5836	5387	5177	4727	5514	11.868
(4)	6626	6011	5573	5400	4999	5722	10.877
(5)	7365	6655	6241	6005	5582	6370	10.658
5 Aroclor-1248(1)	9056	8166	7435	6980	6383	7604	13.684
(2)	11093	10088	9257	8814	8097	9470	12.242
(3)	12505	11602	10677	10284	9581	10930	10.466
(4)	13890	12873	11986	11379	10657	12157	10.405
(5)	13590	12468	11541	11009	10453	11812	10.502



GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
 Cal Date : 18-Mar-2010 06:43 yip00818  
 Curve Type : Average

	100.000	250.000	500.000	1000.000	4000.000		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	++++	++++	++++	11597	++++	11597	0.000
(2)	++++	++++	++++	16200	++++	16200	0.000
(3)	++++	++++	++++	14838	++++	14838	0.000
(4)	++++	++++	++++	29366	++++	29366	0.000
(5)	++++	++++	++++	20651	++++	20651	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
M 10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
\$ 11 4cmx	286554	267083	258607	255362	244057	262333	6.044
\$ 12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178



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.: 10-2137  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 0608  
 Lab File ID: 002F0201 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	13679.245	0.01	-9.9	15.0
(2)	18935.774	17352.542	0.01	-8.4	15.0
(3)	12442.153	10865.667	0.01	-12.7	15.0
(4)	7348.319	6489.606	0.01	-11.7	15.0
(5)	9517.775	8337.119	0.01	-12.4	15.0
Aroclor-1260	18330.091	17103.795	0.01	-6.7	15.0
(2)	26889.831	24999.856	0.01	-7.0	15.0
(3)	28315.304	26757.729	0.01	-5.5	15.0
(4)	16157.873	15105.144	0.01	-6.5	15.0
(5)	16812.669	15681.925	0.01	-6.7	15.0
4cmx	389523.02	384270.94	0.01	-1.3	15.0
Decachlorobiphenyl	296930.38	280327.80	0.01	-5.6	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.: 10-2137  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 0608  
 Lab File ID: 002B0201 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11257.869	0.01	-10.5	15.0
(2)	8634.207	7602.660	0.01	-11.9	15.0
(3)	5286.637	4622.469	0.01	-12.6	15.0
(4)	6892.719	6158.940	0.01	-10.6	15.0
(5)	6422.564	5755.354	0.01	-10.4	15.0
Aroclor-1260	13080.231	12494.202	0.01	-4.5	15.0
(2)	15549.023	15069.938	0.01	-3.1	15.0
(3)	11896.069	11423.166	0.01	-4.0	15.0
(4)	12289.216	11829.647	0.01	-3.7	15.0
(5)	26394.638	26003.137	0.01	-1.5	15.0
4cmx	262332.66	257488.80	0.01	-1.8	15.0
Decachlorobiphenyl	187173.38	178998.77	0.01	-4.4	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.: 10-2137  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 0853  
 Lab File ID: 017F1701 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	13072.214	0.01	-13.9	15.0
(2)	18935.774	16743.348	0.01	-11.6	15.0
(3)	12442.153	10753.369	0.01	-13.6	15.0
(4)	7348.319	6446.442	0.01	-12.3	15.0
(5)	9517.775	8110.441	0.01	-14.8	15.0
Aroclor-1260	18330.091	16962.461	0.01	-7.5	15.0
(2)	26889.831	24950.358	0.01	-7.2	15.0
(3)	28315.304	26635.100	0.01	-5.9	15.0
(4)	16157.873	14960.531	0.01	-7.4	15.0
(5)	16812.669	15562.577	0.01	-7.4	15.0
4cmx	389523.02	378611.37	0.01	-2.8	15.0
Decachlorobiphenyl	296930.38	274816.37	0.01	-7.4	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.: 10-2137  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 0853  
 Lab File ID: 017B1701 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11589.187	0.01	-7.9	15.0
(2)	8634.207	7549.847	0.01	-12.6	15.0
(3)	5286.637	4630.370	0.01	-12.4	15.0
(4)	6892.719	6092.955	0.01	-11.6	15.0
(5)	6422.564	5704.793	0.01	-11.2	15.0
Aroclor-1260	13080.231	12259.396	0.01	-6.3	15.0
(2)	15549.023	14795.087	0.01	-4.8	15.0
(3)	11896.069	11161.788	0.01	-6.2	15.0
(4)	12289.216	11576.871	0.01	-5.8	15.0
(5)	26394.638	25583.684	0.01	-3.1	15.0
4cmx	262332.66	254467.07	0.01	-3.0	15.0
Decachlorobiphenyl	187173.38	175017.13	0.01	-6.5	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.: 10-2137  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 1116  
 Lab File ID: 029F2901 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	13459.448	0.01	-11.3	15.0
(2)	18935.774	17913.772	0.01	-5.4	15.0
(3)	12442.153	11186.273	0.01	-10.1	15.0
(4)	7348.319	6757.155	0.01	-8.0	15.0
(5)	9517.775	8551.705	0.01	-10.2	15.0
Aroclor-1260	18330.091	17641.116	0.01	-3.8	15.0
(2)	26889.831	26151.299	0.01	-2.7	15.0
(3)	28315.304	28122.089	0.01	-0.7	15.0
(4)	16157.873	15875.614	0.01	-1.7	15.0
(5)	16812.669	16480.192	0.01	-2.0	15.0
4cmx	389523.02	390929.60	0.01	0.4	15.0
Decachlorobiphenyl	296930.38	291264.44	0.01	-1.9	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.: 10-2137  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 1116  
 Lab File ID: 029B2901 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11451.255	0.01	-9.0	15.0
(2)	8634.207	7723.504	0.01	-10.5	15.0
(3)	5286.637	4799.447	0.01	-9.2	15.0
(4)	6892.719	6302.422	0.01	-8.6	15.0
(5)	6422.564	5927.749	0.01	-7.7	15.0
Aroclor-1260	13080.231	12518.850	0.01	-4.3	15.0
(2)	15549.023	15297.014	0.01	-1.6	15.0
(3)	11896.069	11499.757	0.01	-3.3	15.0
(4)	12289.216	11961.723	0.01	-2.7	15.0
(5)	26394.638	26522.429	0.01	0.5	15.0
4cmx	262332.66	259596.09	0.01	-1.0	15.0
Decachlorobiphenyl	187173.38	181439.93	0.01	-3.1	15.0

FORM VII PEST



Data File: /chem/ecdl1a.i/0317107.b/002f0201.d  
Report Date: 17-Mar-2010 08:52

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/002f0201.d

Lab Smp Id: WAR100222-60 01

Client Smp ID: AR166001

Inj Date : 17-MAR-2010 06:08

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 01

Misc Info :

Comment :

Method : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m

Meth Date : 17-Mar-2010 08:52 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

Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
11	4cmx				CAS #: 877-09-8	
1.913	1.913	0.000	38427094 100.000	98.6	80.00- 120.00	100.00
12	Decachlorobiphenyl				CAS #: 2051-24-3	
5.216	5.216	0.000	28032780 100.000	94.4	80.00- 120.00	100.00
1	Aroclor-1016				CAS #: 12674-11-2	
2.366	2.366	0.000	13679245 1000.00	901	80.00- 120.00	100.00
2.651	2.651	0.000	17352542 1000.00	916	106.85- 146.85	126.85
2.732	2.732	0.000	10865667 1000.00	873	59.43- 99.43	79.43
2.768	2.768	0.000	6489606 1000.00	883	27.44- 67.44	47.44
2.978	2.978	0.000	8337119 1000.00	876	40.95- 80.95	60.95
Average of Peak Amounts =				890		
7	Aroclor-1260				CAS #: 11096-82-5	
3.703	3.703	0.000	17103795 1000.00	933	80.00- 120.00	100.00
3.866	3.866	0.000	24999856 1000.00	930	126.17- 166.17	146.17
4.028	4.028	0.000	26757729 1000.00	945	136.44- 176.44	156.44
4.096	4.096	0.000	15105144 1000.00	935	68.31- 108.31	88.31
4.238	4.238	0.000	15681925 1000.00	933	71.69- 111.69	91.69
Average of Peak Amounts =				935		

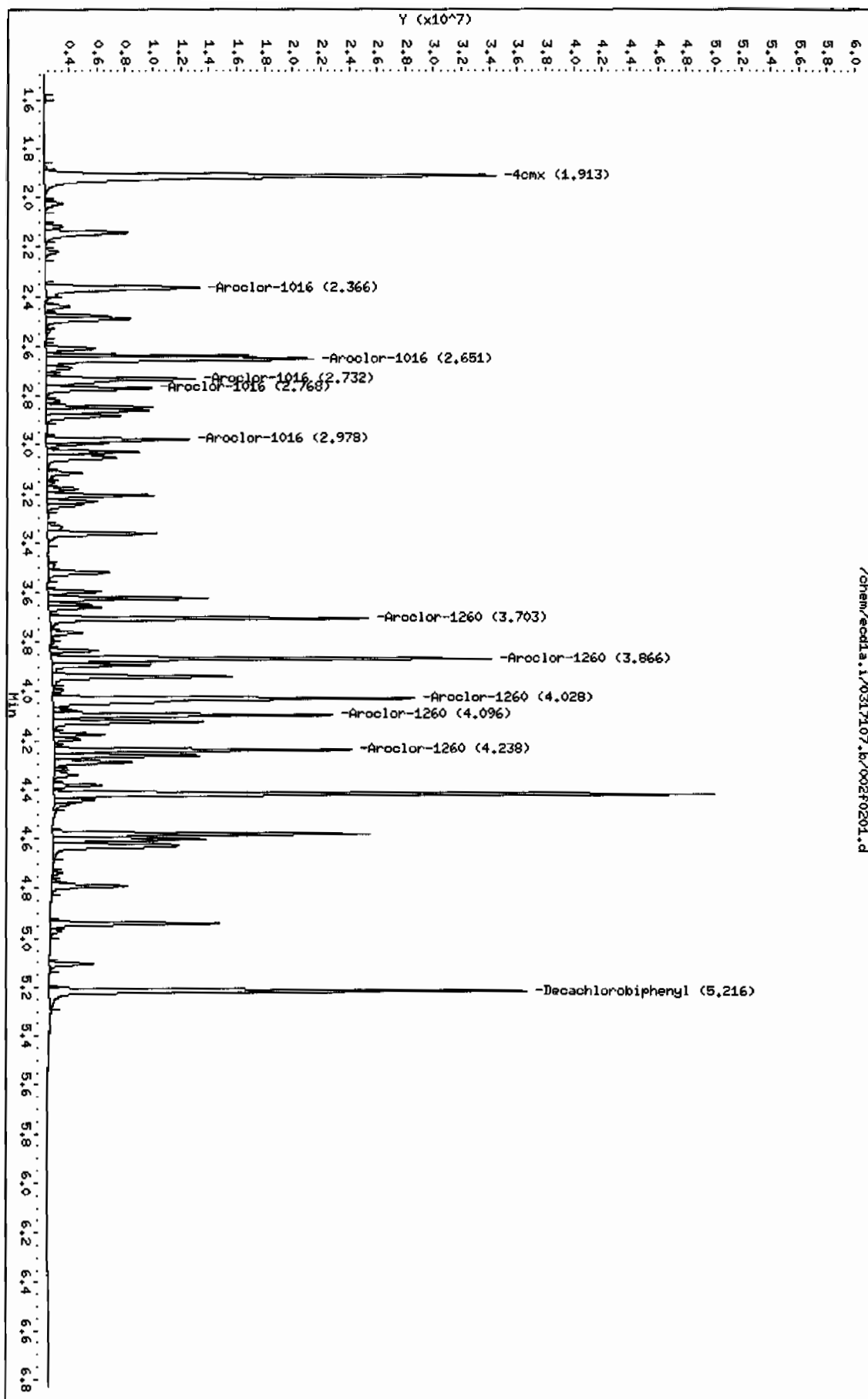


Data File: /chem/ecdl1.i/0317107.b/002f0201.d  
Date: 17-MAR-2010 06:08  
Client ID: AR166001  
Sample Info: 14AR100222-60 01

Column phase: CLP1

Instrument: ecdl1.i  
Operator: YS1  
Column diameter: 0.25

/chem/ecdl1.i/0317107.b/002f0201.d





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/002b0201.d  
 Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001  
 Inj Date : 17-MAR-2010 06:08  
 Operator : YS1 Inst ID: ecd1a.i  
 Smp Info : |WAR100222-60 01  
 Misc Info :  
 Comment :  
 Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
 Meth Date : 17-Mar-2010 08:52 yip00818 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: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
11 4cmx			CAS #: 877-09-8			
2.271	2.271	0.000	25748880 100.000	98.2	80.00- 120.00	100.00
12 Decachlorobiphenyl			CAS #: 2051-24-3			
5.913	5.913	0.000	17899877 100.000	95.6	80.00- 120.00	100.00
1 Aroclor-1016			CAS #: 12674-11-2			
3.166	3.166	0.000	11257869 1000.00	894	80.00- 120.00	100.00(M)
3.248	3.248	0.000	7602660 1000.00	880	47.53- 87.53	67.53
3.312	3.312	0.000	4622469 1000.00	874	21.06- 61.06	41.06
3.538	3.538	0.000	6158940 1000.00	894	34.71- 74.71	54.71
3.614	3.614	0.000	5755354 1000.00	896	31.12- 71.12	51.12
Average of Peak Amounts =			888			
7 Aroclor-1260			CAS #: 11096-82-5			
4.304	4.304	0.000	12494202 1000.00	955	80.00- 120.00	100.00
4.429	4.429	0.000	15069938 1000.00	969	100.62- 140.62	120.62
4.695	4.695	0.000	11423166 1000.00	960	71.43- 111.43	91.43
4.868	4.868	0.000	11829647 1000.00	963	74.68- 114.68	94.68
5.015	5.015	0.000	26003137 1000.00	985	188.12- 228.12	208.12
Average of Peak Amounts =			966			



QC Flag Legend

M - Compound response manually integrated.



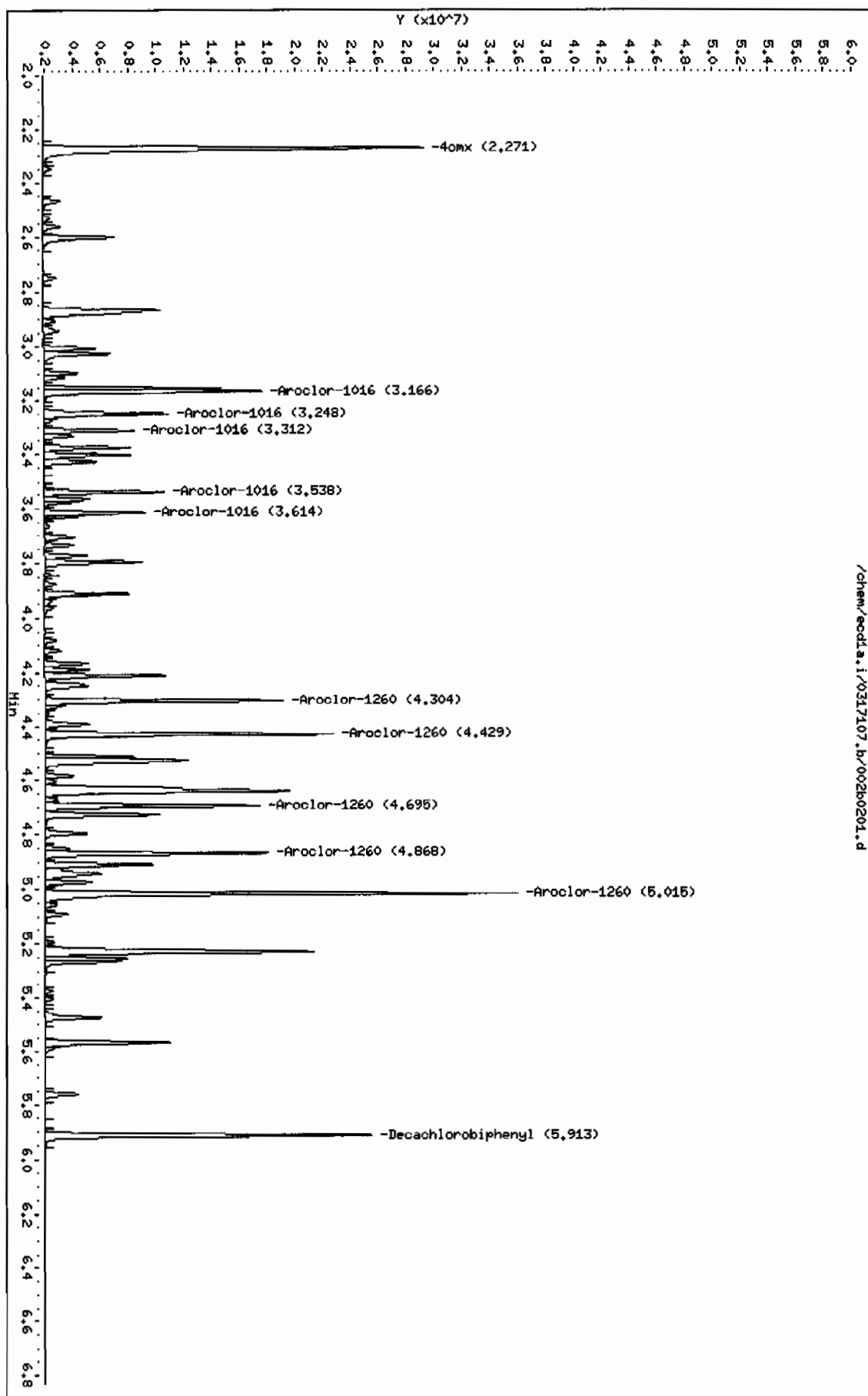
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Date: 17-MAR-2010 06:08  
Client ID: AR16001  
Sample Info: IMA100222-60 01

Instrument: ecdda.i

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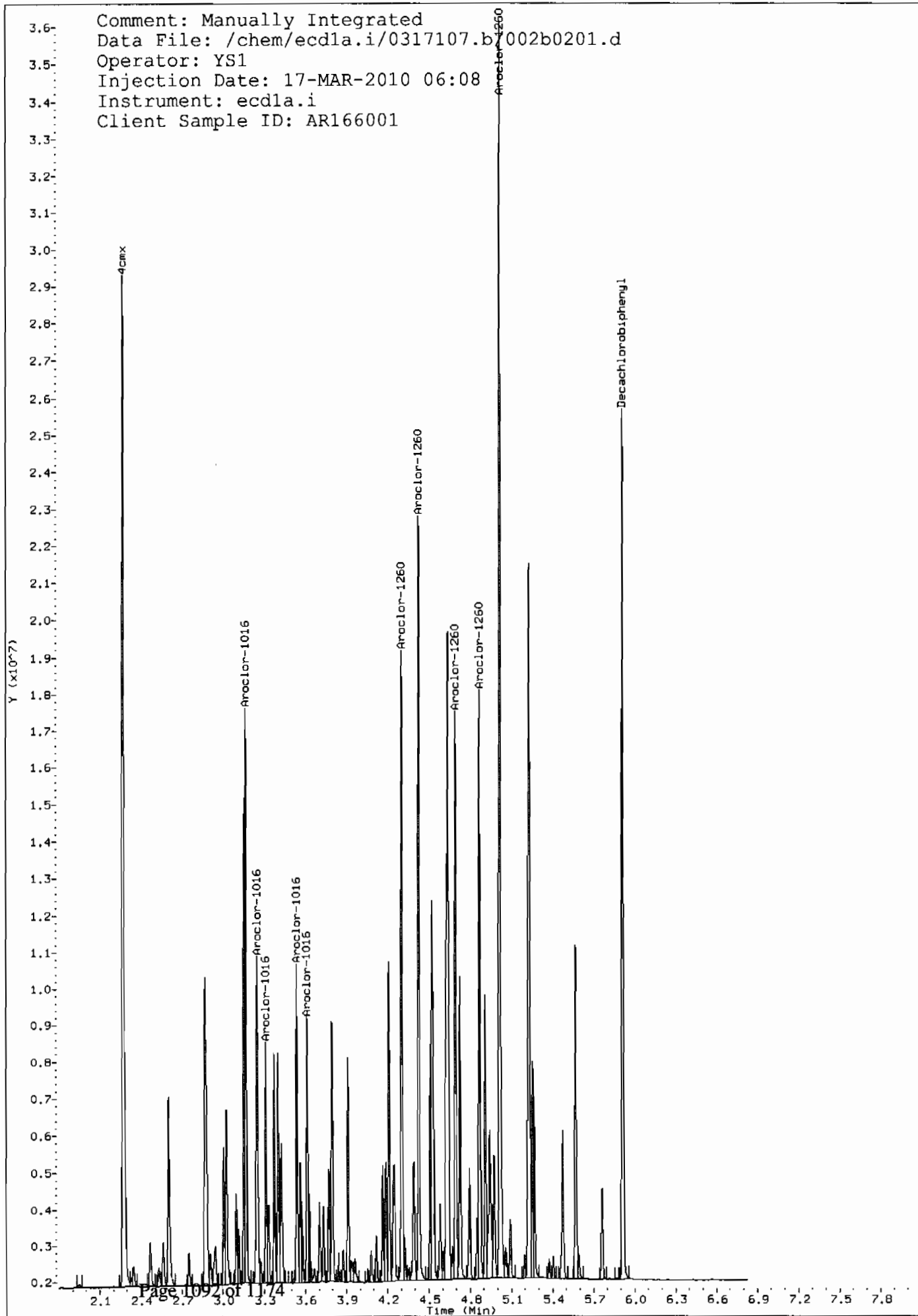
Column phase: CLP2

Operator: YSL  
Column diameter: 0.25



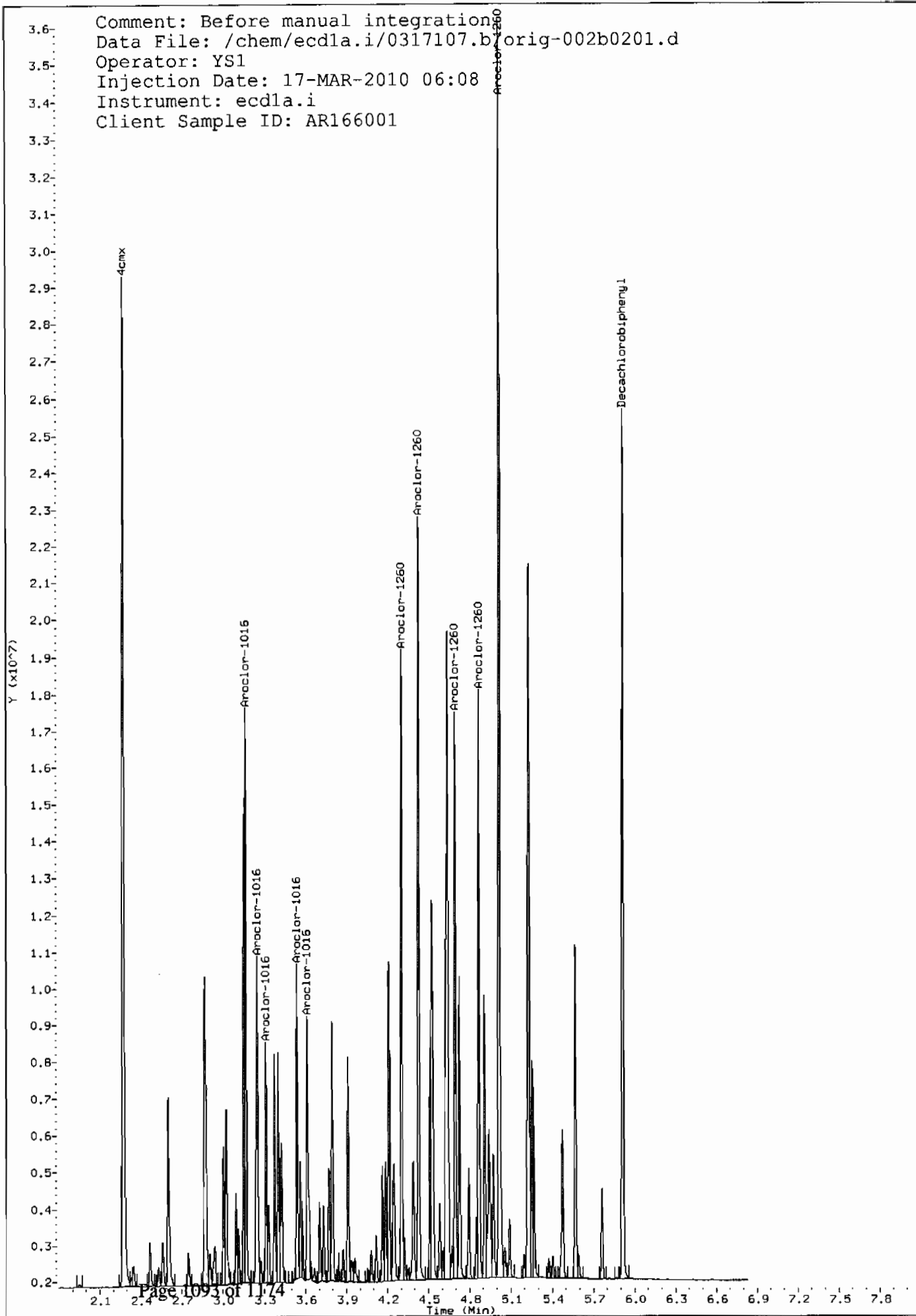


Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/0317107.b7002b0201.d  
Operator: YS1  
Injection Date: 17-MAR-2010 06:08  
Instrument: ecdl1a.i  
Client Sample ID: AR166001





Comment: Before manual integration  
Data File: /chem/ecdl1.i/0317107.b orig-002b0201.d  
Operator: YS1  
Injection Date: 17-MAR-2010 06:08  
Instrument: ecd1a.i  
Client Sample ID: AR166001





Data File: /chem/ecdla.i/0317107.b/003f0301.d  
Report Date: 17-Mar-2010 08:52

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/003f0301.d  
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401  
Inj Date : 17-MAR-2010 06:18  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR100219-54  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 08:52 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  
Processing Host: hpc1p1

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	
3.209	3.209	0.000	11804928 1000.00	890	80.00- 120.00	100.00
3.364	3.364	0.000	15624759 1000.00	876	112.36- 152.36	132.36
3.598	3.598	0.000	20223062 1000.00	904	151.31- 191.31	171.31
3.760	3.760	0.000	14731608 1000.00	893	104.79- 144.79	124.79
3.869	3.869	0.000	14915377 1000.00	934	106.35- 146.35	126.35
Average of Peak Amounts =				900		



Data File: /chem/ecodla.i/0317107.b/003f0301.d

Date : 17-MAR-2010 06:18

Client ID: AR125401

Sample Info: 1MAR100219-54

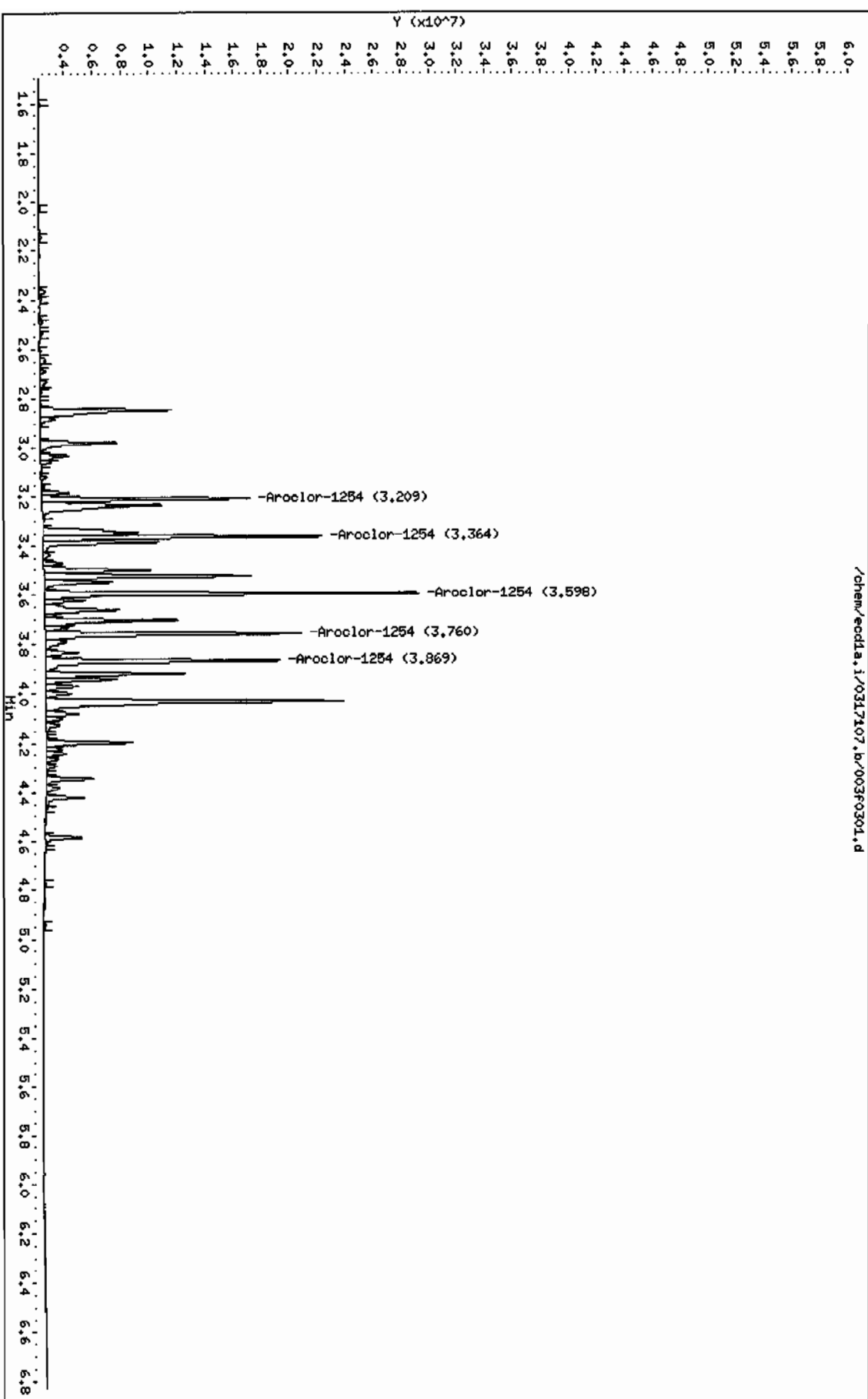
Column phase: CLP1

Instrument: ecodla.i

Operator: VS1

Column diameter: 0.25

/chem/ecodla.i/0317107.b/003f0301.d





Data File: /chem/ecdl1a.i/0317107.b/003b0301.d  
Report Date: 17-Mar-2010 08:52

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/003b0301.d  
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401  
Inj Date : 17-MAR-2010 06:18  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100219-54  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 08:52 yip00818 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: hpclp1

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	
3.375	3.375	0.000	5433555 1000.00	902	80.00- 120.00	100.00
3.797	3.797	0.000	9922138 1000.00	917	162.61- 202.61	182.61
3.914	3.914	0.000	10795731 1000.00	905	178.69- 218.69	198.69
4.189	4.189	0.000	15040936 1000.00	915	256.82- 296.82	276.82
4.325	4.325	0.000	11339611 1000.00	936	188.70- 228.70	208.70
Average of Peak Amounts =				915		



Data File: /chem/eodla.i/0317107.b/003b0301.d  
Date: 17-MAR-2010 06:18  
Client ID: AR125401  
Sample Info: IHR100219-54

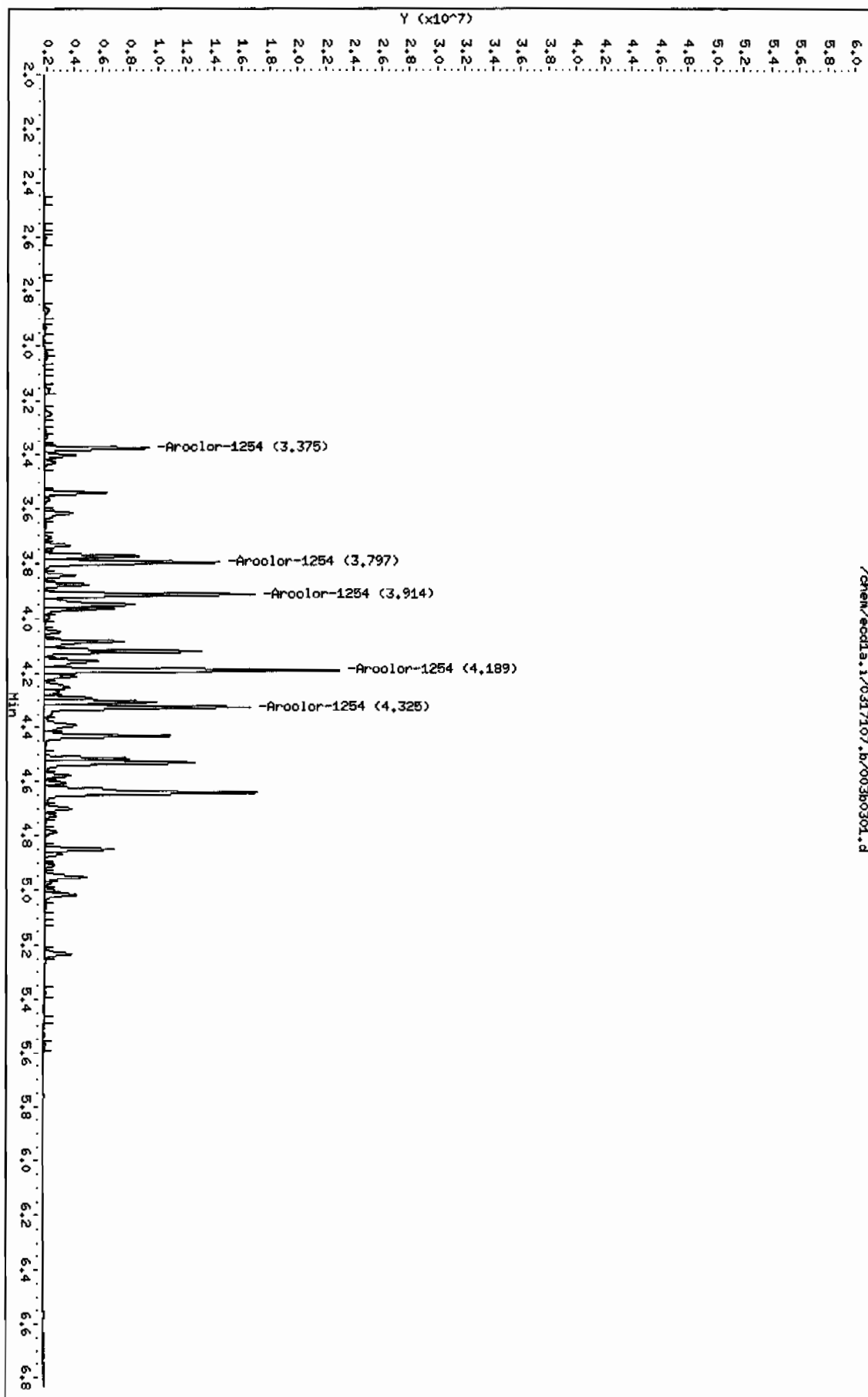
Instrument: eodla.i

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Column phase: CLP2

Operator: YSL  
Column diameter: 0.25

/chem/eodla.i/0317107.b/003b0301.d





Data File: /chem/ecdl1a.i/0317107.b/004f0401.d  
Report Date: 17-Mar-2010 08:53

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/004f0401.d  
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201  
Inj Date : 17-MAR-2010 06:29  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100219-42  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 08:53 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  
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9	
2.365	2.365	0.000	11593290 1000.00	940	80.00- 120.00	100.00
2.652	2.652	0.000	14537144 1000.00	975	105.39- 145.39	125.39
2.769	2.769	0.000	5553924 1000.00	942	27.91- 67.91	47.91
2.980	2.980	0.000	7095279 1000.00	917	41.20- 81.20	61.20
3.233	3.233	0.000	6386220 1000.00	877	35.09- 75.09	55.09
Average of Peak Amounts =				930		



Data File: /chem/eod1a.i/0317107.b/004f0401.d

Date: 17-MAR-2010 06:29

Client ID: AR124201

Sample Info: 1MAR100219-42

Column phase: CLP1

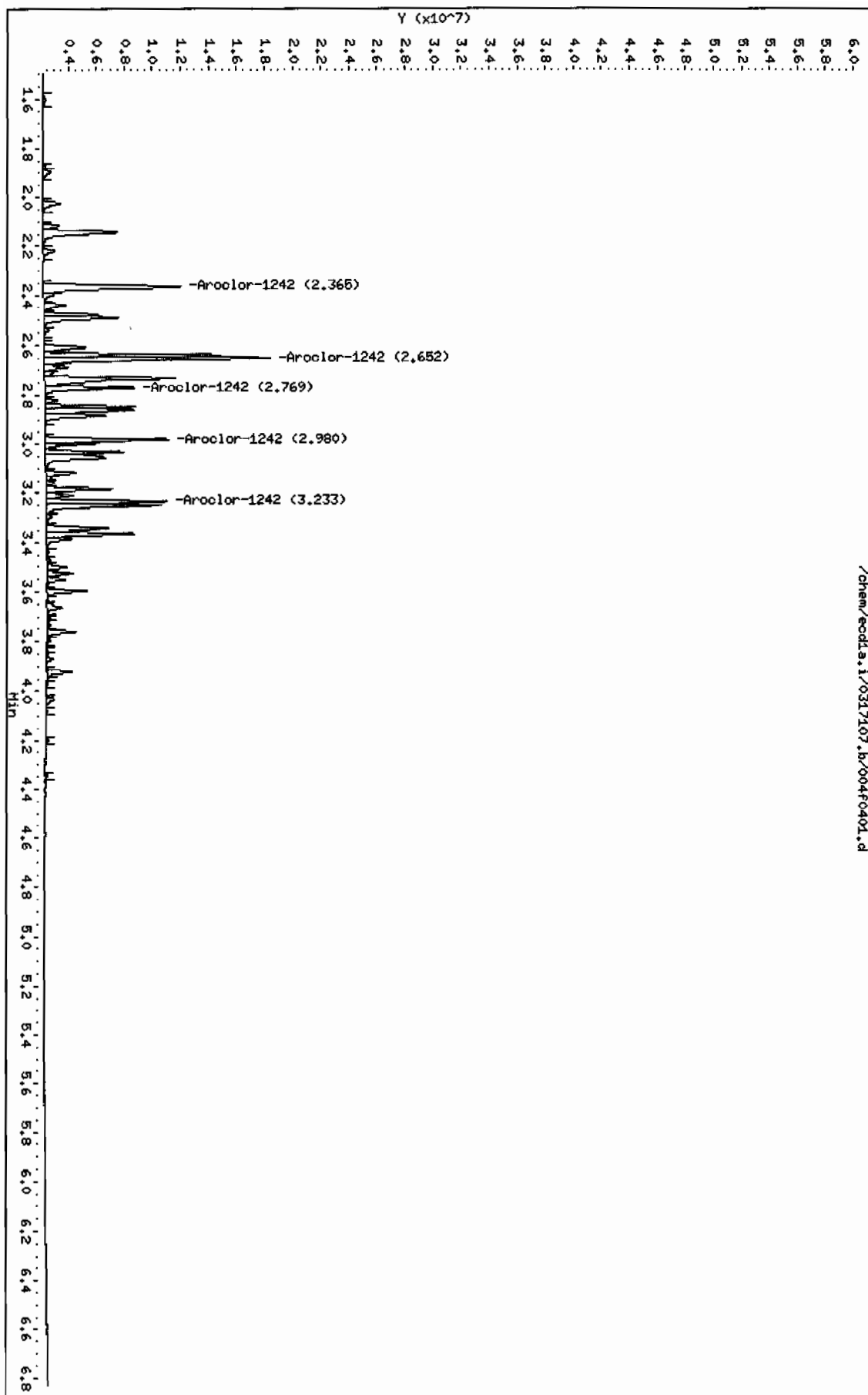
Instrument: eod1a.i

Operator: YSL

Column diameter: 0.25

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/chem/eod1a.i/0317107.b/004f0401.d





Data File: /chem/ecdl1a.i/0317107.b/004b0401.d  
Report Date: 17-Mar-2010 08:52

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/004b0401.d  
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201  
Inj Date : 17-MAR-2010 06:29  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100219-42  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 08:52 yip00818 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: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242				CAS #: 53469-21-9		
3.167	3.167	0.000	9708362 1000.00	958	80.00- 120.00	100.00
3.249	3.249	0.000	6621849 1000.00	933	48.21- 88.21	68.21
3.540	3.540	0.000	5140297 1000.00	932	32.95- 72.95	52.95
3.773	3.773	0.000	5254316 1000.00	918	34.12- 74.12	54.12
3.802	3.802	0.000	5963672 1000.00	936	41.43- 81.43	61.43
Average of Peak Amounts =				935		



Data File: /chem/ecdl.a.i/0317107.b/004b0401.d

Date: 17-MAR-2010 06:29

Client ID: AR124201

Sample Info: 1MAR100219-42

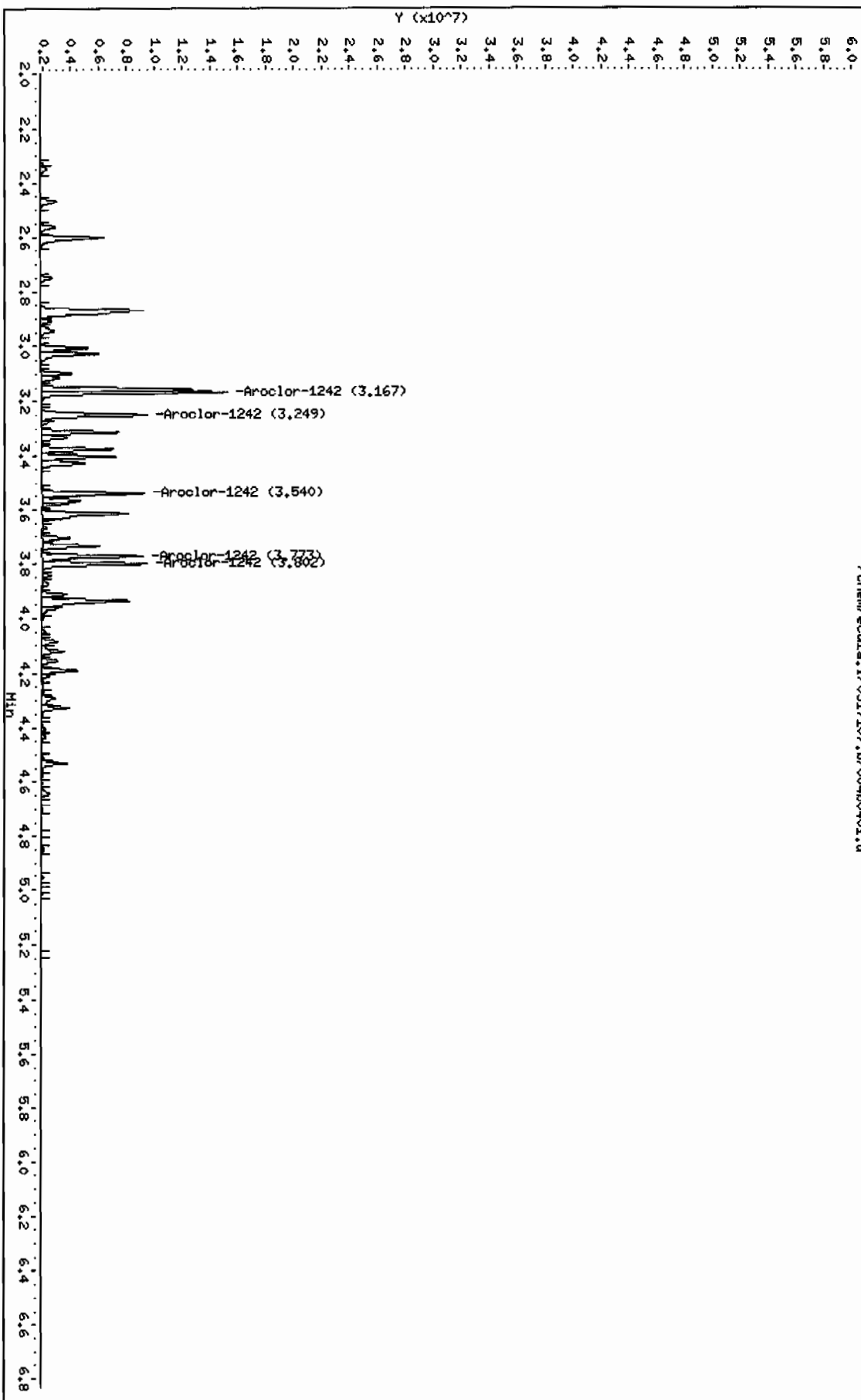
Column phase: CLP2

Instrument: ecdl.a.i

Operator: YSL

Column diameter: 0.25

/chem/ecdl.a.i/0317107.b/004b0401.d





Data File: /chem/ecdl1a.i/0317107.b/005f0501.d  
Report Date: 17-Mar-2010 08:53

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/005f0501.d

Lab Smp Id: WAR100223-48

Client Smp ID: AR124801

Inj Date : 17-MAR-2010 06:39

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100223-48

Misc Info :

Comment :

Method : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m

Meth Date : 17-Mar-2010 08:53 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

Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT	ON-COL	TARGET RANGE	RATIO
==	=====	=====	RESPONSE ( ug/L)	( ug/L)	=====	=====
			CAS #: 12672-29-6			
2.846	2.846	0.000	9510059 1000.00	951	80.00- 120.00	100.00 (M)
2.981	2.981	0.000	12717454 1000.00	968	113.73- 153.73	133.73
3.234	3.234	0.000	13366114 1000.00	934	120.55- 160.55	140.55
3.366	3.366	0.000	10901124 1000.00	916	94.63- 134.63	114.63
3.598	3.598	0.000	7582151 1000.00	947	59.73- 99.73	79.73
Average of Peak Amounts =			943			

QC Flag Legend

M - Compound response manually integrated.

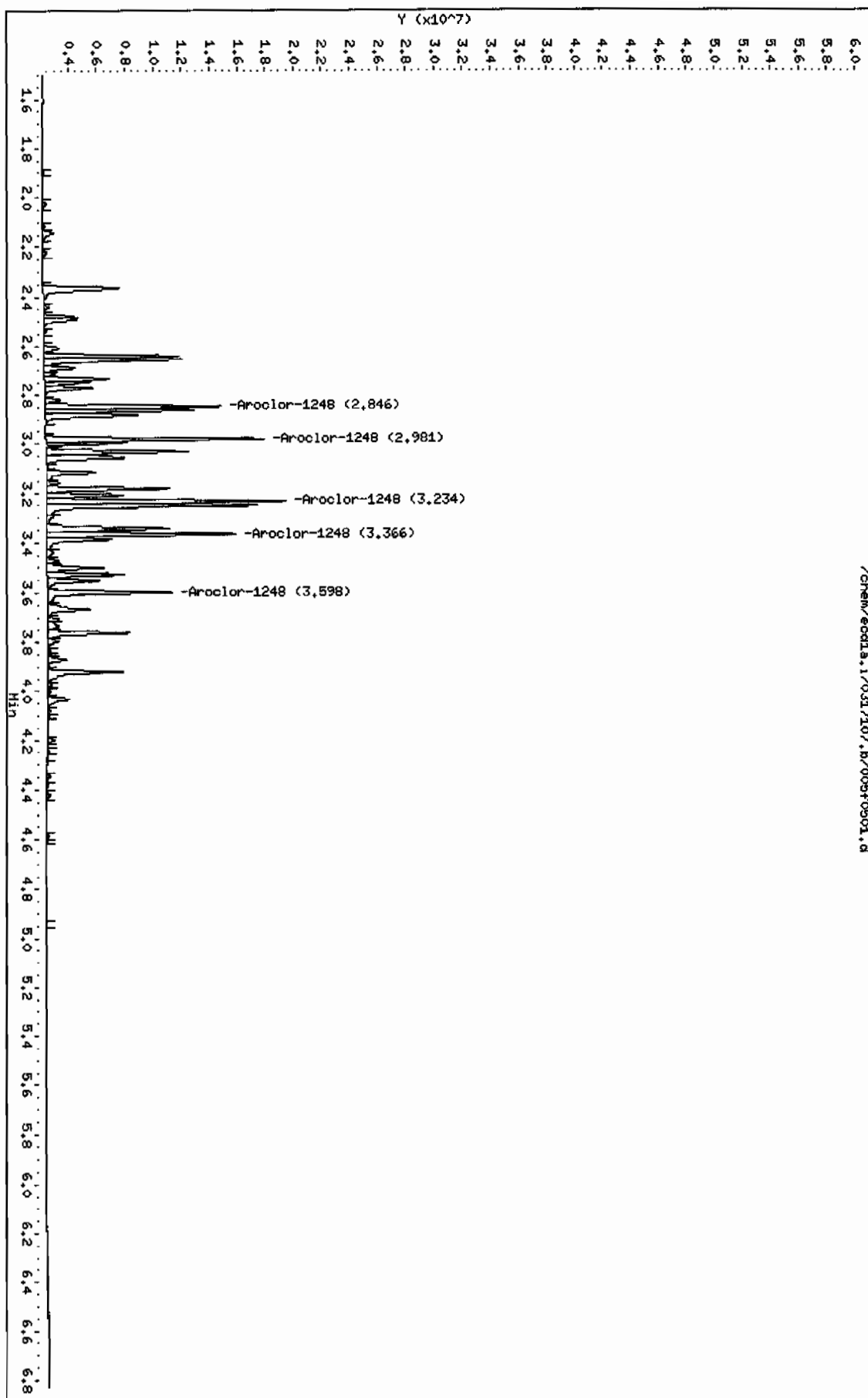


Data File: /chem/ecdl1.i/0317107.b/005f0501.d  
Date: 17-MAR-2010 06:39  
Client ID: PR124801  
Sample Info: 1MAR100223-48

Column phase: CLP1

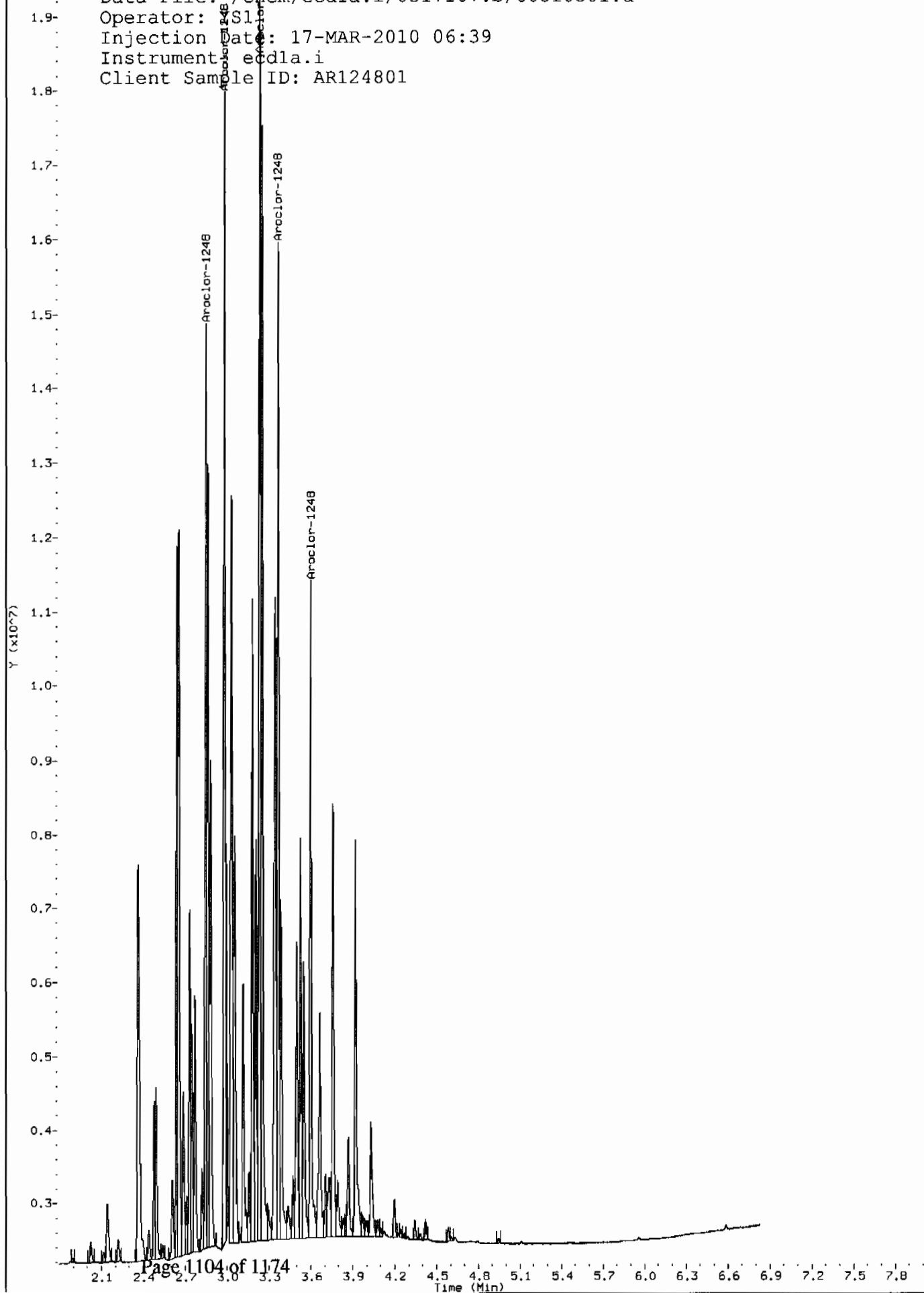
Instrument: ecdl1.i  
Operator: YSL  
Column diameter: 0.25

/chem/ecdl1.i/0317107.b/005f0501.d



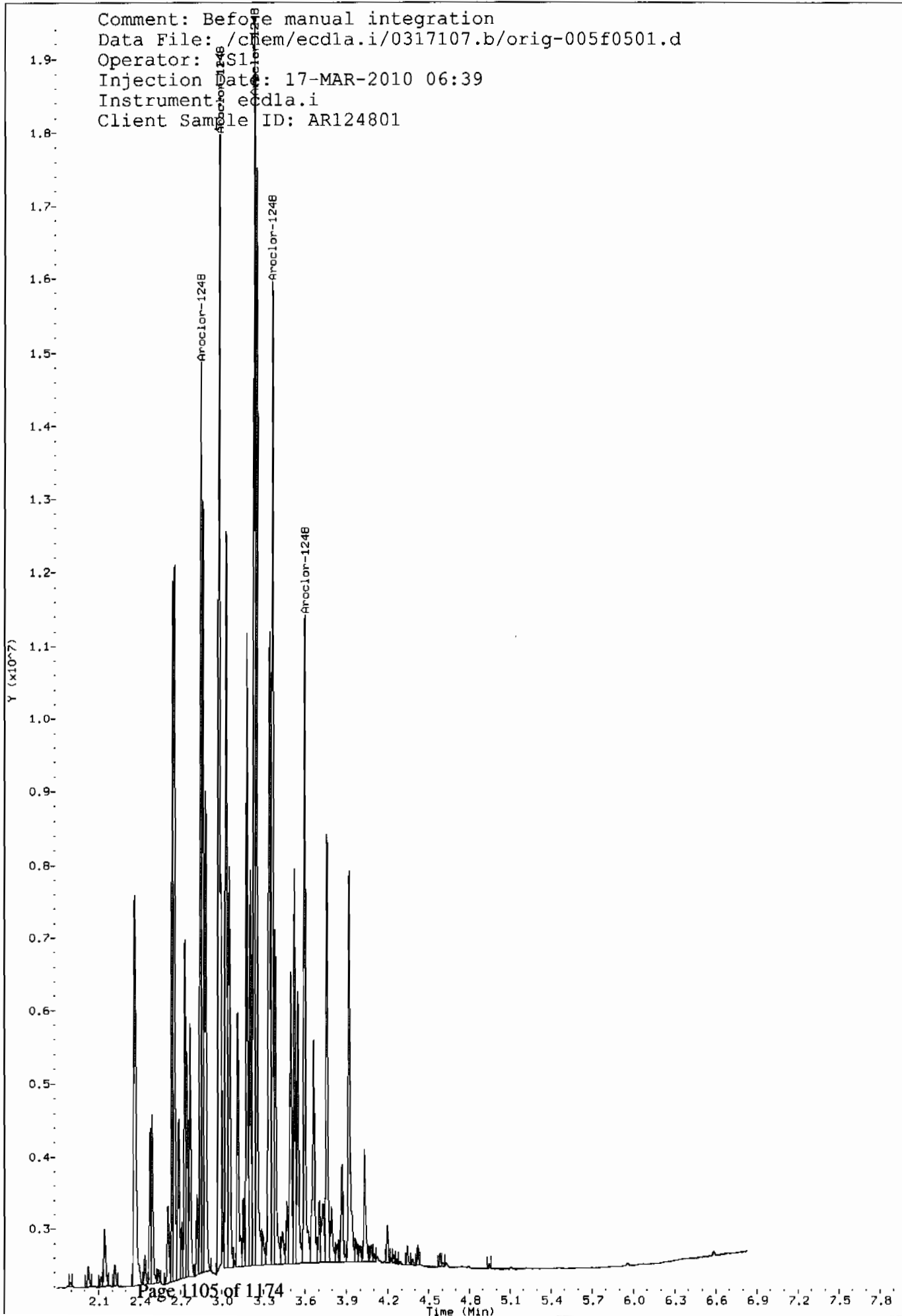


Comment: Manually Integrated  
Data File: /chem/ecdla.i/0317107.b/005f0501.d  
Operator: S1  
Injection Date: 17-MAR-2010 06:39  
Instrument: ecdla.i  
Client Sample ID: AR124801





Comment: Before manual integration  
Data File: /chem/ecdla.i/0317107.b/orig-005f0501.d  
Operator: S1  
Injection Date: 17-MAR-2010 06:39  
Instrument: ecdla.i  
Client Sample ID: AR124801





Data File: /chem/ecdla.i/0317107.b/005b0501.d  
Report Date: 17-Mar-2010 08:53

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/005b0501.d  
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801  
Inj Date : 17-MAR-2010 06:39  
Operator : YSl Inst ID: ecdla.i  
Smp Info : |WAR100223-48  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 08:53 yip00818 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: hpc1p1

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	
3.376	3.376	0.000	7236477 1000.00	952	80.00- 120.00	100.00
3.541	3.541	0.000	9076536 1000.00	958	105.43- 145.43	125.43
3.774	3.774	0.000	10292916 1000.00	942	122.24- 162.24	142.24
3.801	3.801	0.000	11574901 1000.00	952	139.95- 179.95	159.95
3.938	3.938	0.000	11003666 1000.00	932	132.06- 172.06	152.06
Average of Peak Amounts =				947		



Data File: /chem/eod1a.i/0317107.b/005b0501.d

Date: 17-MAR-2010 06:39

Client ID: AR124801

Sample Info: 1MAR100223-48

Column phase: CLP2

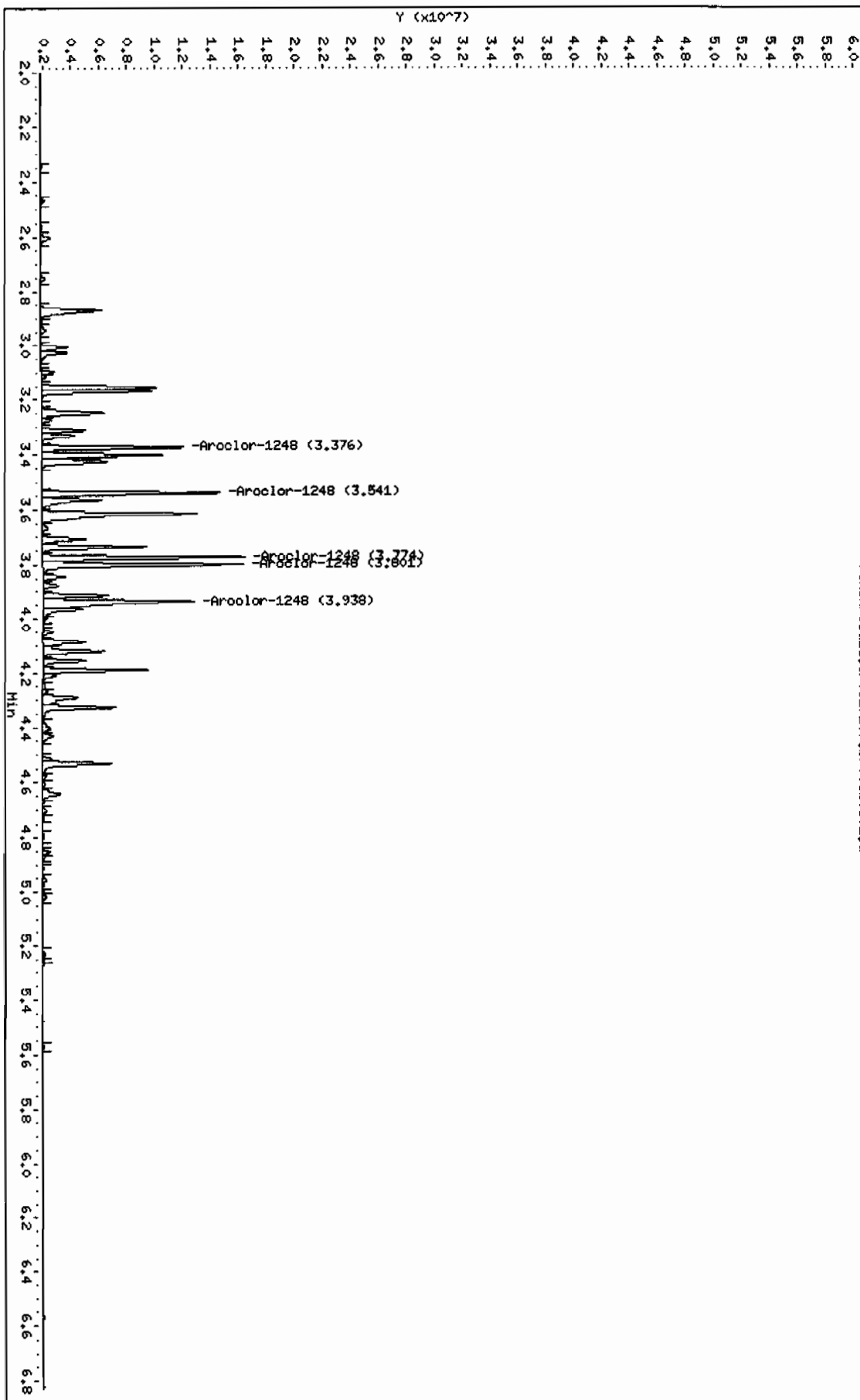
Instrument: eod1a.i

Operator: YSL

Column diameter: 0.25

Page 1

/chem/eod1a.i/0317107.b/005b0501.d





Data File: /chem/ecdla.i/0317107.b/007f0701.d  
Report Date: 17-Mar-2010 08:54

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/007f0701.d  
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201  
Inj Date : 17-MAR-2010 07:01  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR100104-32  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 08:54 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  
Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.365	2.365	0.000	6445549 1000.00	967	80.00- 120.00	100.00
2.652	2.652	0.000	8203940 1000.00	983	107.28- 147.28	127.28
2.732	2.732	0.000	5266309 1000.00	952	61.70- 101.70	81.70
2.847	2.847	0.000	2540896 1000.00	959	19.42- 59.42	39.42
3.234	3.234	0.000	3243941 1000.00	912	30.33- 70.33	50.33
Average of Peak Amounts =				955		



Data File: /chem/ecdda.i/0317107.k/007f0701.d

Date: 17-MAR-2010 07:01

Client ID: AR123201

Sample Info: IMAR100104-32

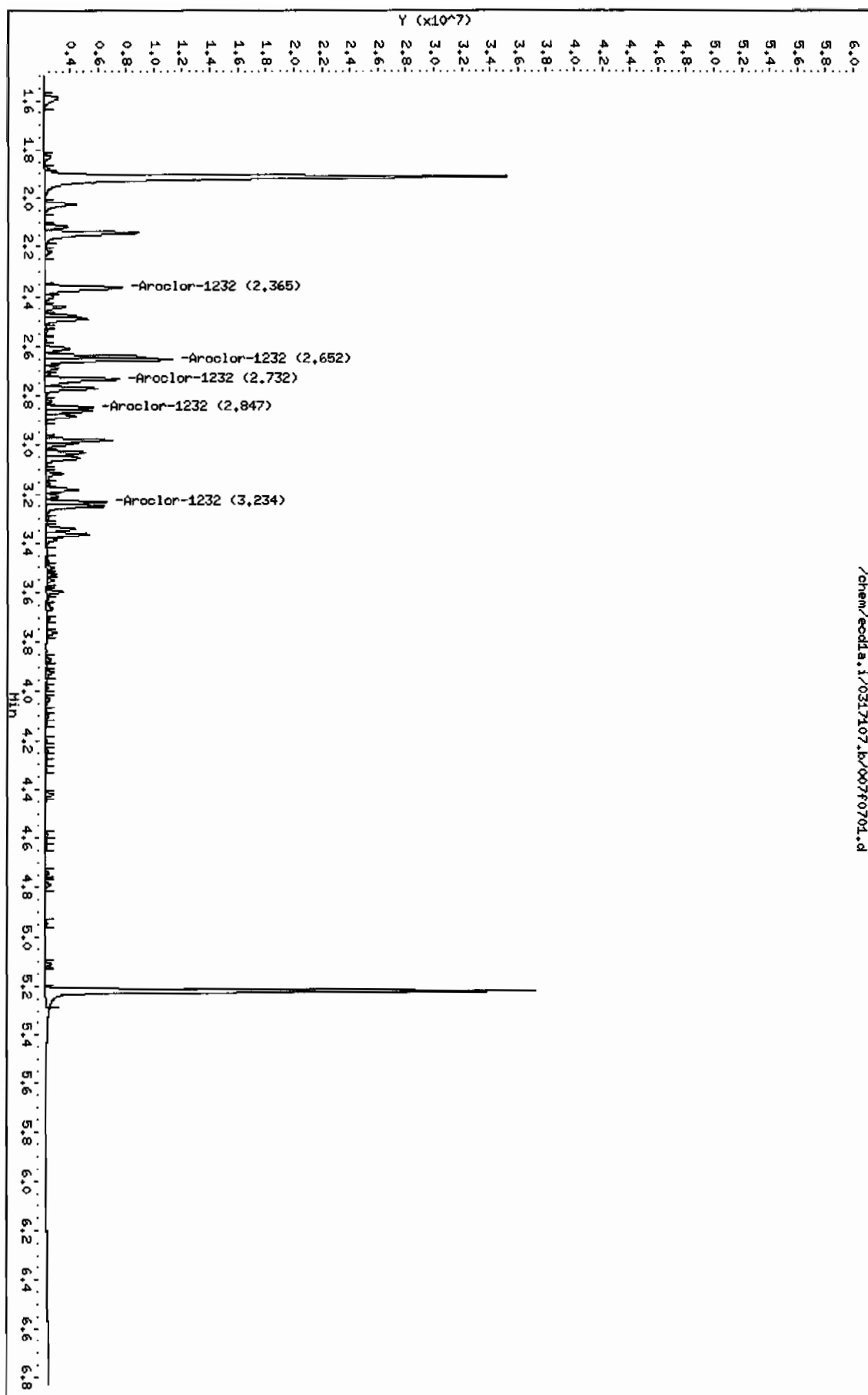
Column phase: CLP1

Instrument: ecdda.i

Operator: YSL

Column diameter: 0.25

/chem/ecdda.i/0317107.k/007f0701.d





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/007b0701.d

Lab Smp Id: WAR100104-32

Client Smp ID: AR123201

Inj Date : 17-MAR-2010 07:01

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR100104-32

Misc Info :

Comment :

Method : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m

Meth Date : 17-Mar-2010 08:54 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

Processing Host: hpc1p1

AMOUNTS

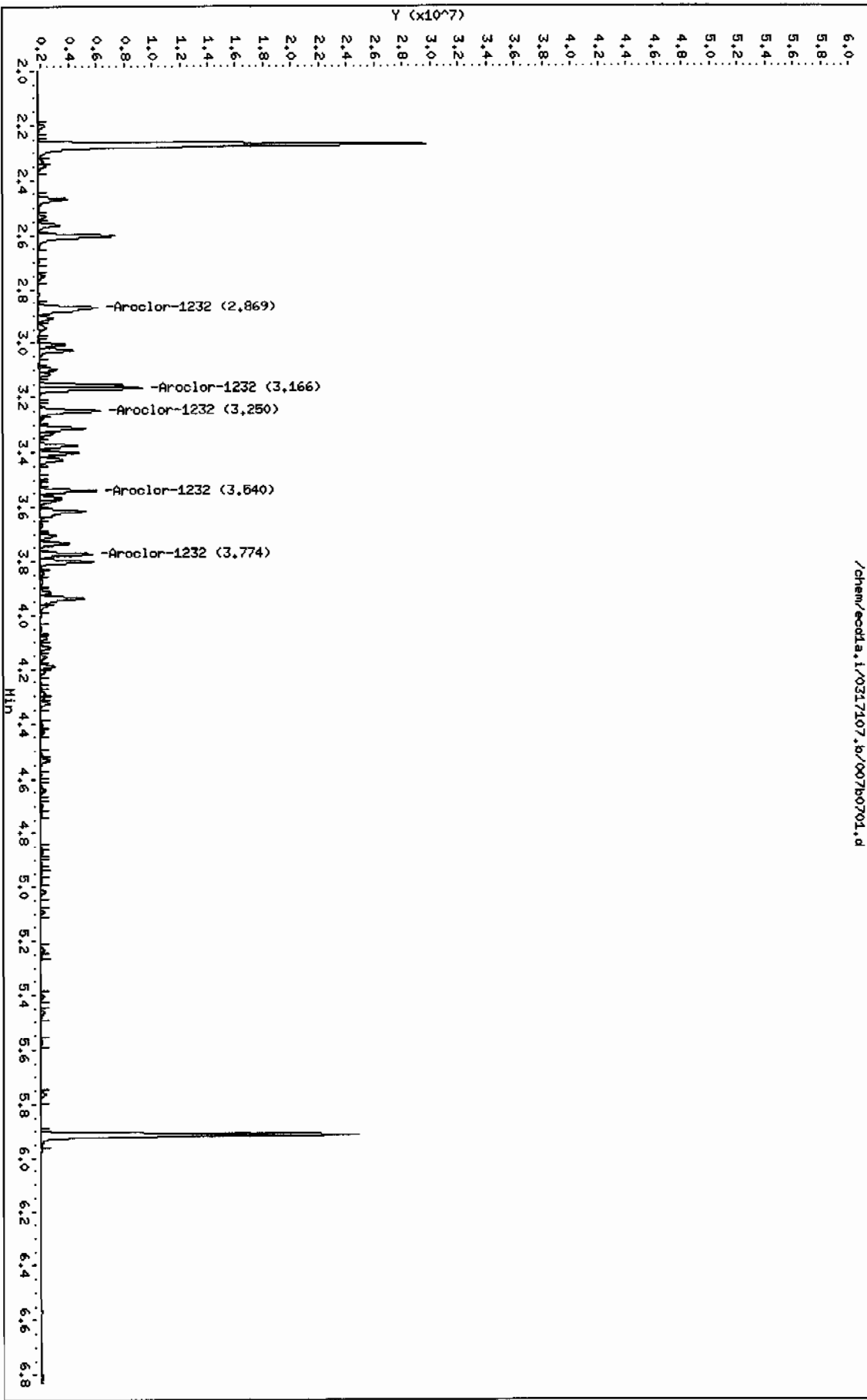
RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.869	2.869	0.000	5036995 1000.00	997	80.00- 120.00	100.00
3.166	3.166	0.000	5500554 1000.00	963	89.20- 129.20	109.20
3.250	3.250	0.000	3863614 1000.00	994	56.70- 96.70	76.70
3.540	3.540	0.000	2837390 1000.00	999	36.33- 76.33	56.33
3.774	3.774	0.000	2755344 1000.00	977	34.70- 74.70	54.70
Average of Peak Amounts =				986		



Data File: /chem/eod1a.i/0317107.b/007b0701.d  
Date: 17-MAR-2010 07:01  
Client ID: AR123201  
Sample Info: 1MAR100104-32

Column phase: CLP2

Instrument: eod1a.i  
Operator: YSI  
Column diameter: 0.25





Data File: /chem/ecdla.i/0317107.b/008f0801.d  
Report Date: 17-Mar-2010 08:54

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/008f0801.d

Lab Smp Id: WAR100104-21 Client Smp ID: AR122101

Inj Date : 17-MAR-2010 07:11

Operator : YSl Inst ID: ecdla.i

Smp Info : |WAR100104-21

Misc Info :

Comment :

Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m

Meth Date : 17-Mar-2010 08:54 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

Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.026	2.026	0.000	4337779 1000.00	971 80.00- 120.00	100.00	
2.118	2.118	0.000	2415598 1000.00	987 35.69- 75.69	55.69	
2.144	2.144	0.000	10371015 1000.00	958 219.09- 259.09	239.09	
Average of Peak Amounts =				972		



Data File: /chem/eodla.i/0317107.b/008f0801.d

Date: 17-MAR-2010 07:11

Client ID: AR122101

Sample Info: HMR100104-21

Column Phase: CLP1

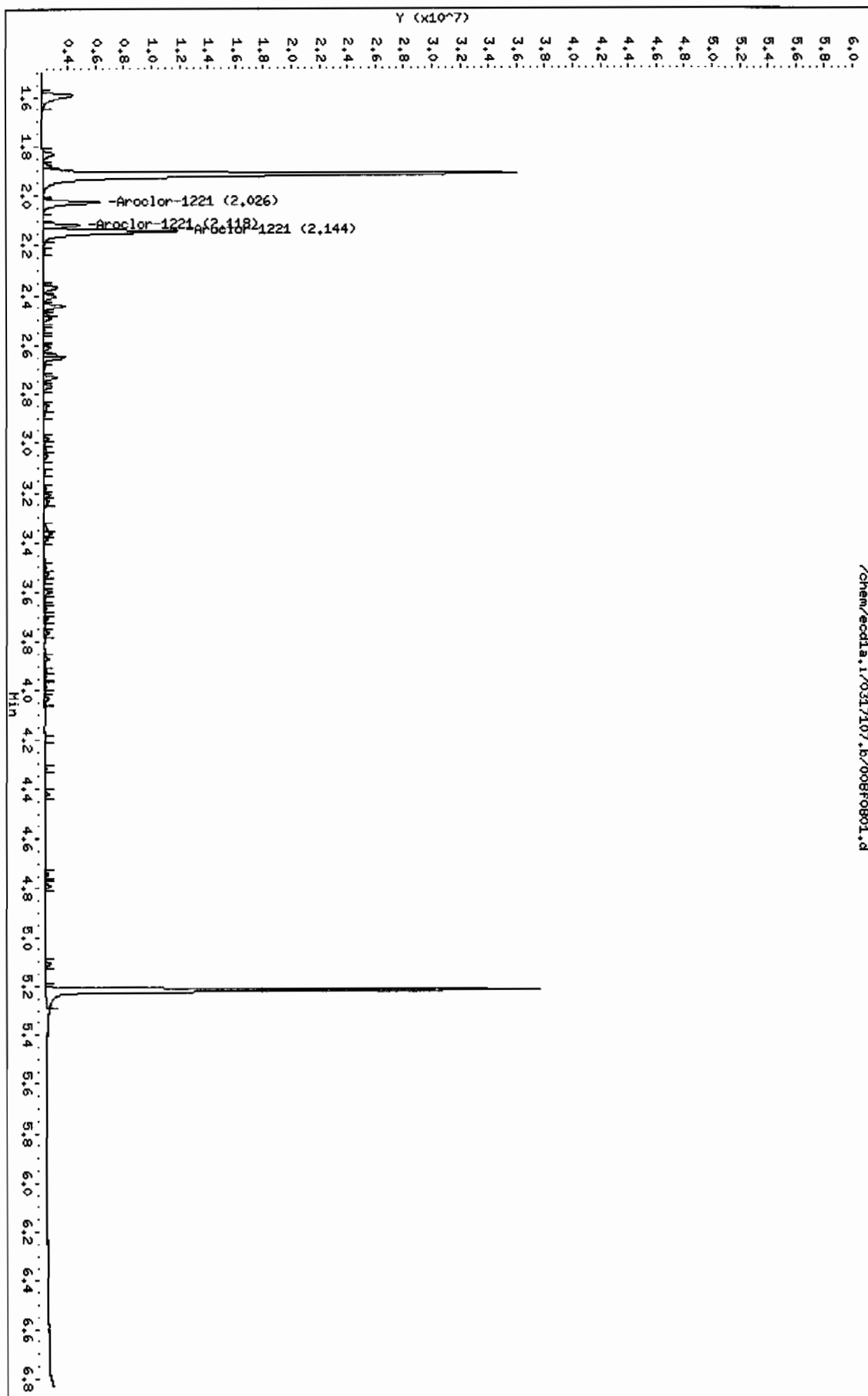
Page 1

Instrument: eodla.i

Operator: YSI

Column diameter: 0.25

/chem/eodla.i/0317107.b/008f0801.d





Data File: /chem/ecdl1a.i/0317107.b/008b0801.d  
Report Date: 17-Mar-2010 08:54

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/008b0801.d

Lab Smp Id: WAR100104-21

Client Smp ID: AR122101

Inj Date : 17-MAR-2010 07:11

Operator : YSl

Inst ID: ecd1a.i

Smp Info : |WAR100104-21

Misc Info :

Comment :

Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m

Meth Date : 17-Mar-2010 08:54 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

Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.468	2.468	0.000	3218980 1000.00	990	80.00- 120.00	100.00
2.562	2.562	0.000	2068793 1000.00	993	44.27- 84.27	64.27
2.603	2.603	0.000	7132830 1000.00	974	201.59- 241.59	221.59

Average of Peak Amounts =

986



Data File: /chem/ecdda.1/0317107.b/0080801.d

Date: 17-MAR-2010 07:11

Client ID: AR122101

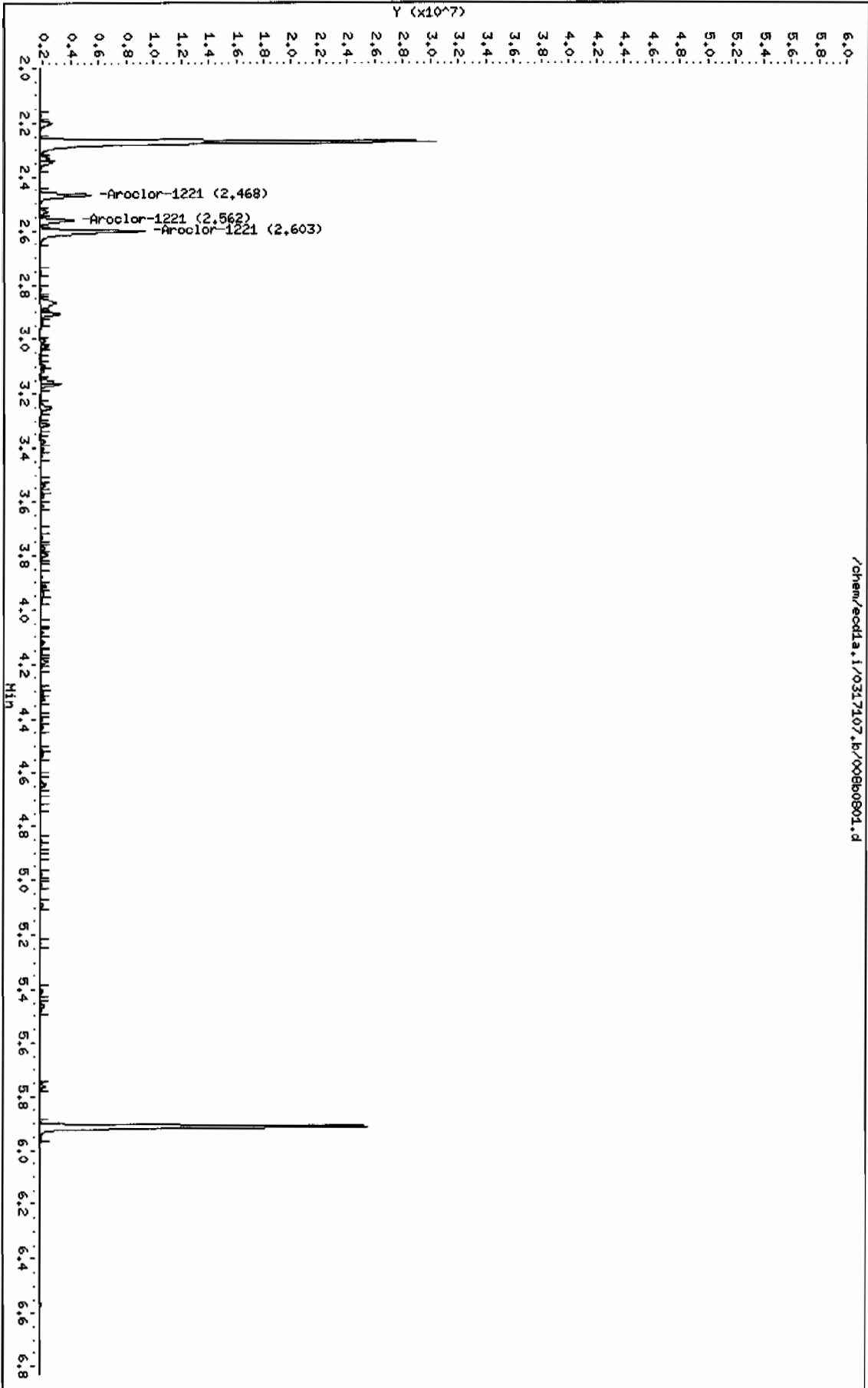
Sample Info: 1MAR100104-21

Column phase: CLP2

Instrument: ecdda.i

Operator: YSA

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/017f1701.d  
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002  
Inj Date : 17-MAR-2010 08:53  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR100222-60 02  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 09:56 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 17 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1660.sub  
Target Version: 3.50 Sample Matrix: None

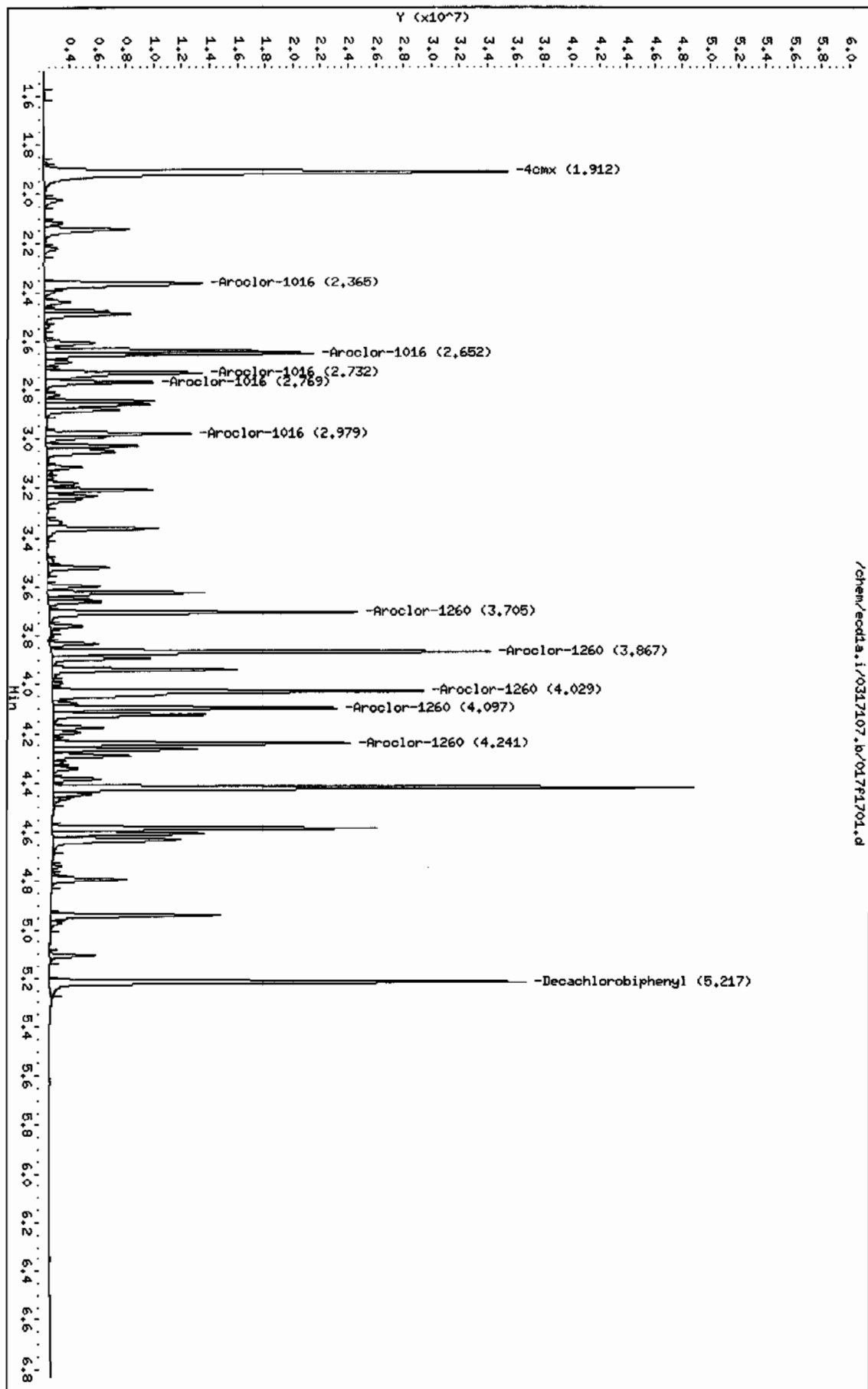
AMOUNTS							
			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx					CAS #: 877-09-8		
1.912	1.913	-0.001	37861137	100.000	97.2	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.217	5.216	0.001	27481637	100.000	92.6	80.00- 120.00	100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
2.365	2.366	-0.001	13072214	1000.00	861	80.00- 120.00	100.00
2.652	2.651	0.001	16743348	1000.00	884	108.08- 148.08	128.08
2.732	2.732	0.000	10753369	1000.00	864	62.26- 102.26	82.26
2.769	2.768	0.001	6446442	1000.00	877	29.31- 69.31	49.31
2.979	2.978	0.001	8110441	1000.00	852	42.04- 82.04	62.04
Average of Peak Amounts =					868		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
3.705	3.703	0.002	16962461	1000.00	925	80.00- 120.00	100.00
3.867	3.866	0.001	24950358	1000.00	928	127.09- 167.09	147.09
4.029	4.028	0.001	26635100	1000.00	941	137.02- 177.02	157.02
4.097	4.096	0.001	14960531	1000.00	926	68.20- 108.20	88.20
4.241	4.238	0.003	15562577	1000.00	926	71.75- 111.75	91.75
Average of Peak Amounts =					929		



Data File: /chem/ecdda.i/0317107.b/0171701.d  
Date: 17-MAR-2010 08:53  
Client ID: AR16002  
Sample Info: 1MAR100222-60 02

Column phase: CLP1

Instrument: ecdda.i  
Operator: YSI  
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/017b1701.d  
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002  
Inj Date : 17-MAR-2010 08:53  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100222-60 02  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 09:56 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 17 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			
2.271	2.271	0.000	25446707	100.000	97.0	80.00- 120.00	100.00	
-----								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.913	5.913	0.000	17501713	100.000	93.5	80.00- 120.00	100.00	
-----								
1 Aroclor-1016					CAS #: 12674-11-2			
3.166	3.166	0.000	11589187	1000.00	921	80.00- 120.00	100.00 (M)	
3.249	3.248	0.001	7549847	1000.00	874	45.15- 85.15	65.15	
3.312	3.312	0.000	4630370	1000.00	876	19.95- 59.95	39.95	
3.539	3.538	0.001	6092955	1000.00	884	32.57- 72.57	52.57	
3.615	3.614	0.001	5704793	1000.00	888	29.23- 69.23	49.23	
Average of Peak Amounts =					889			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
4.305	4.304	0.001	12259396	1000.00	937	80.00- 120.00	100.00	
4.430	4.429	0.001	14795087	1000.00	952	100.68- 140.68	120.68	
4.696	4.695	0.001	11161788	1000.00	938	71.05- 111.05	91.05	
4.869	4.868	0.001	11576871	1000.00	942	74.43- 114.43	94.43	
5.016	5.015	0.001	25583684	1000.00	969	188.69- 228.69	208.69	
Average of Peak Amounts =					948			



Data File: /chem/ecdl1a.i/0317107.b/017b1701.d  
Report Date: 17-Mar-2010 09:56

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#### QC Flag Legend

M - Compound response manually integrated.

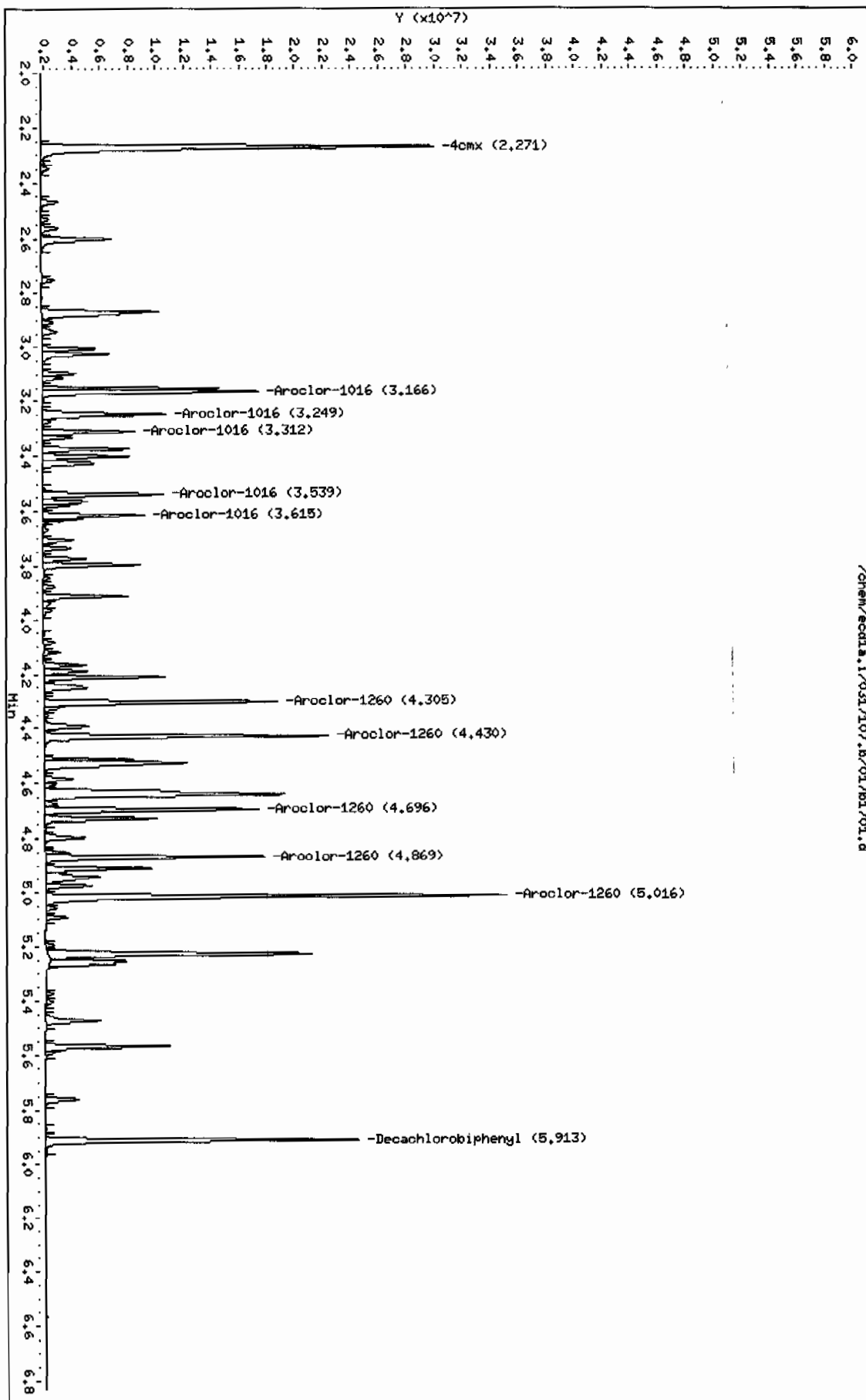


Data File: /chem/ecdl1a.i/0317107.b/017b1701.d  
Date: 17-MAR-2010 09:53  
Client ID: AR166002  
Sample Info: 1MAR100222-60 02

Column phase: CLP2

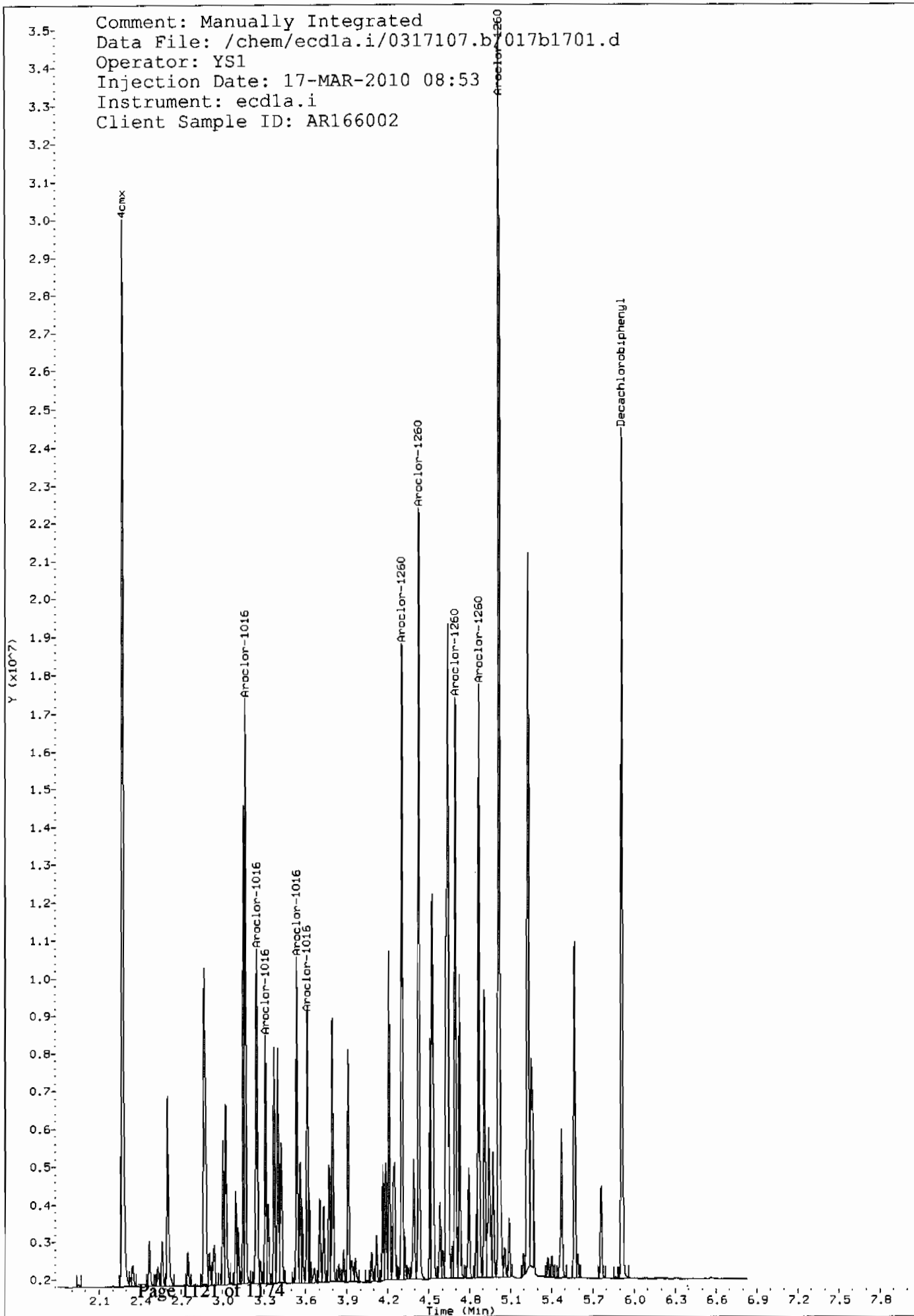
Instrument: ecdl1a.i  
Operator: YSL  
Column diameter: 0.25

/chem/ecdl1a.i/0317107.b/017b1701.d



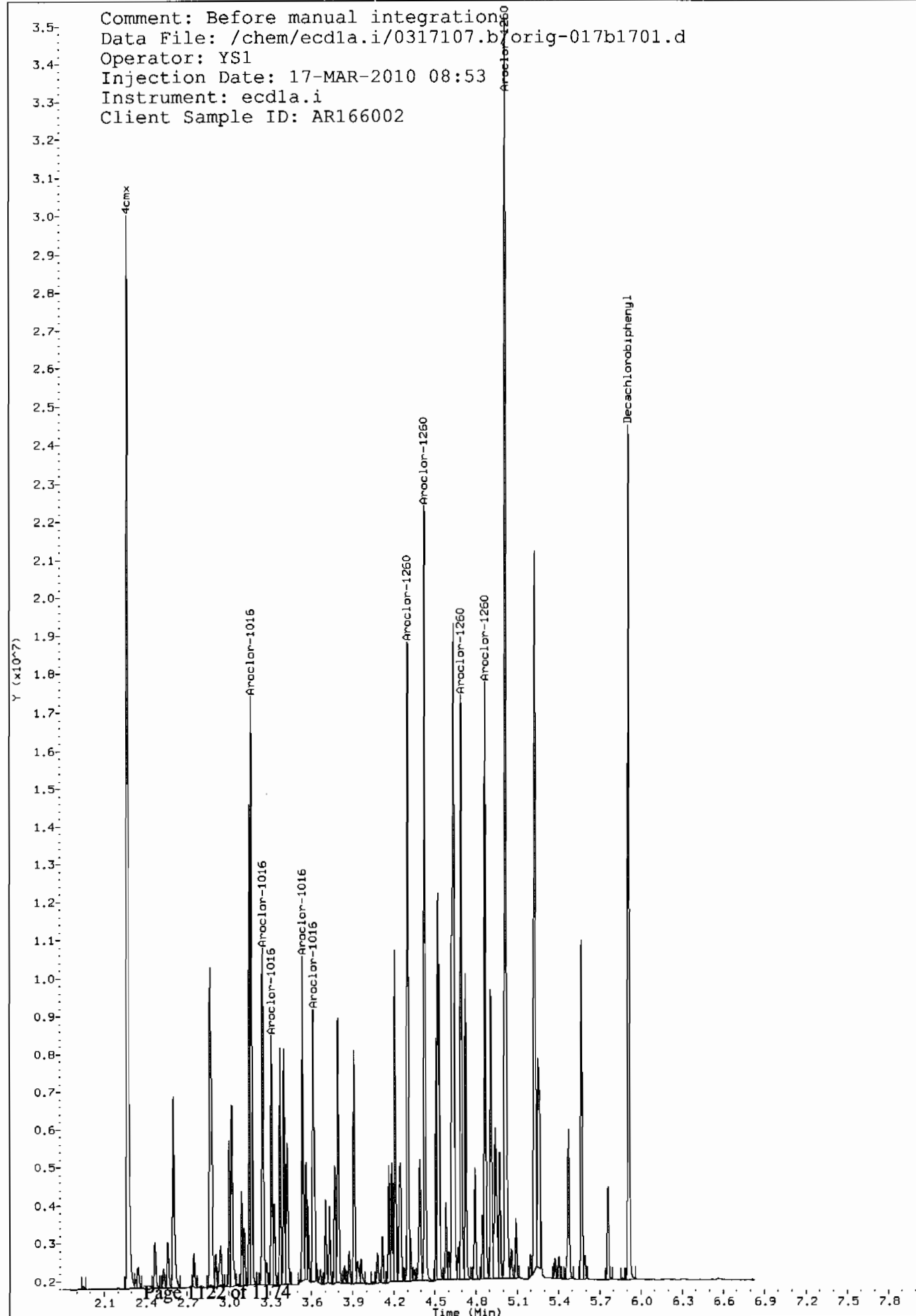


Comment: Manually Integrated  
Data File: /chem/ecdla.i/0317107.b 017b1701.d  
Operator: YS1  
Injection Date: 17-MAR-2010 08:53  
Instrument: ecdla.i  
Client Sample ID: AR166002





Comment: Before manual integration  
Data File: /chem/ecdl1.i/0317107.b/orig-017b1701.d  
Operator: YS1  
Injection Date: 17-MAR-2010 08:53  
Instrument: ecd1a.i  
Client Sample ID: AR166002





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1.i/0317107.b/029f2901.d

Lab Smp Id: WAR100222-60 03

Client Smp ID: AR166003

Inj Date : 17-MAR-2010 11:16

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 03

Misc Info :

Comment :

Method : /chem/ecdl1.i/0317107.b/ECD1-F-8082-031110b.m

Meth Date : 17-Mar-2010 12:02 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d

Als bottle: 29

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			
1.911	1.913	-0.002	39092960	100.000	100	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.216	5.216	0.000	29126444	100.000	98.1	80.00- 120.00	100.00
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
2.364	2.366	-0.002	13459448	1000.00	887	80.00- 120.00	100.00
2.650	2.651	-0.001	17913772	1000.00	946	113.09- 153.09	133.09
2.731	2.732	-0.001	11186272	1000.00	899	63.11- 103.11	83.11
2.769	2.768	0.001	6757155	1000.00	920	30.20- 70.20	50.20
2.979	2.978	0.001	8551705	1000.00	898	43.54- 83.54	63.54
Average of Peak Amounts =					910		
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
3.704	3.703	0.001	17641116	1000.00	962	80.00- 120.00	100.00
3.867	3.866	0.001	26151299	1000.00	972	128.24- 168.24	148.24
4.029	4.028	0.001	28122088	1000.00	993	139.41- 179.41	159.41
4.097	4.096	0.001	15875613	1000.00	982	69.99- 109.99	89.99
4.239	4.238	0.001	16480191	1000.00	980	73.42- 113.42	93.42
Average of Peak Amounts =					978		



Data File: /chem/ecdl.a.i/0317107.b/029f2901.d

Date : 17-MAR-2010 11:16

Client ID: AR166003

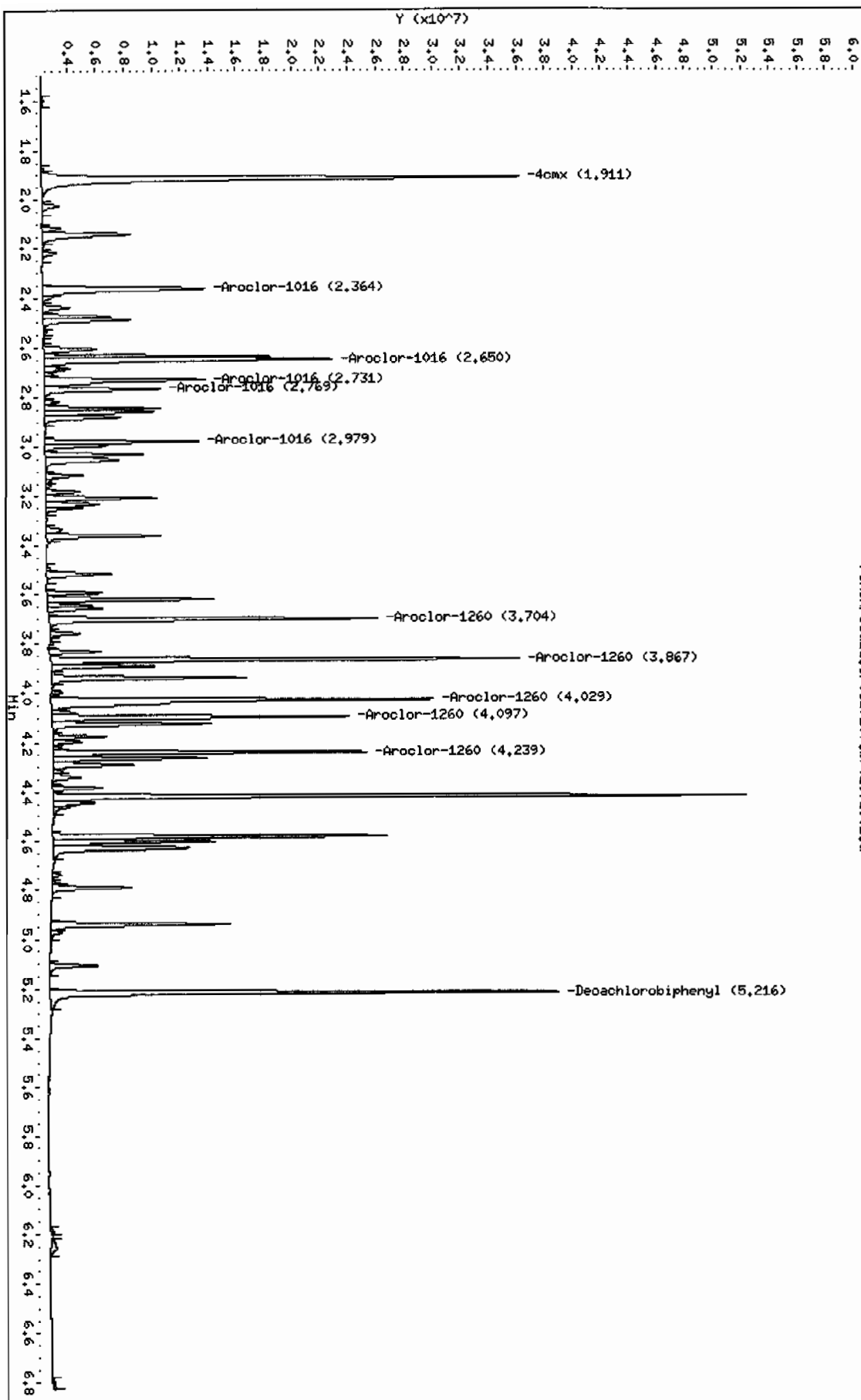
Sample Info: 1MAR00222-60 03

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Column phase: CLP1

Operator: YSL  
Column diameter: 0.25

/chem/ecdl.a.i/0317107.b/029f2901.d





Data File: /chem/ecdl1a.i/0317107.b/029b2901.d  
Report Date: 17-Mar-2010 12:01

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/029b2901.d  
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003  
Inj Date : 17-MAR-2010 11:16  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100222-60 03  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 11:59 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 29 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1660.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
-----						
\$ 11 4cmx				CAS #: 877-09-8		
2.270	2.271	-0.001	25959609 100.000	99.0	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.913	5.913	0.000	18143993 100.000	96.9	80.00- 120.00	100.00
-----						
1 Aroclor-1016				CAS #: 12674-11-2		
3.165	3.166	-0.001	11451255 1000.00	910	80.00- 120.00	100.00 (M)
3.249	3.248	0.001	7723504 1000.00	894	47.45- 87.45	67.45
3.312	3.312	0.000	4799447 1000.00	908	21.91- 61.91	41.91
3.539	3.538	0.001	6302421 1000.00	914	32.85- 72.85	55.04
3.614	3.614	0.000	5927748 1000.00	923	39.54- 79.54	61.54
Average of Peak Amounts =				910		
-----						
7 Aroclor-1260				CAS #: 11096-82-5		
4.304	4.304	0.000	12518850 1000.00	957	80.00- 120.00	100.00
4.429	4.429	0.000	15297014 1000.00	984	102.19- 142.19	122.19
4.694	4.695	-0.001	11499757 1000.00	967	71.86- 111.86	91.86
4.869	4.868	0.001	11961723 1000.00	973	75.55- 115.55	95.55
5.015	5.015	0.000	26522429 1000.00	1000	191.86- 231.86	211.86
Average of Peak Amounts =				977		
-----						



Data File: /chem/ecdl1a.i/0317107.b/029b2901.d  
Report Date: 17-Mar-2010 12:01

Page 2

#### QC Flag Legend

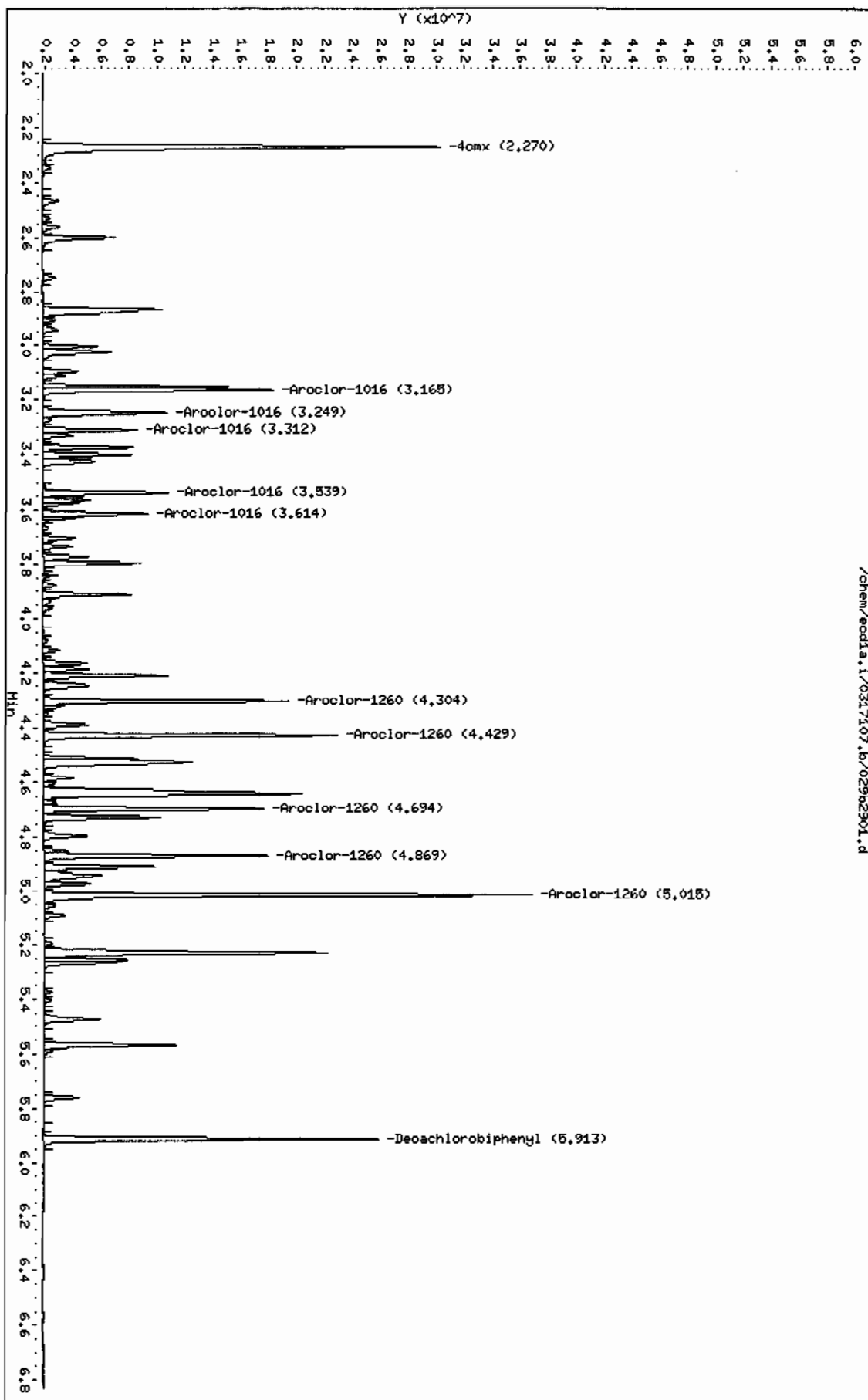
M - Compound response manually integrated.



Data File: /chem/eod1a.i/0317107.b/029b2901.d  
Date: 17-MAR-2010 11:16  
Client ID: AR16003  
Sample Info: MAR10022-60 03

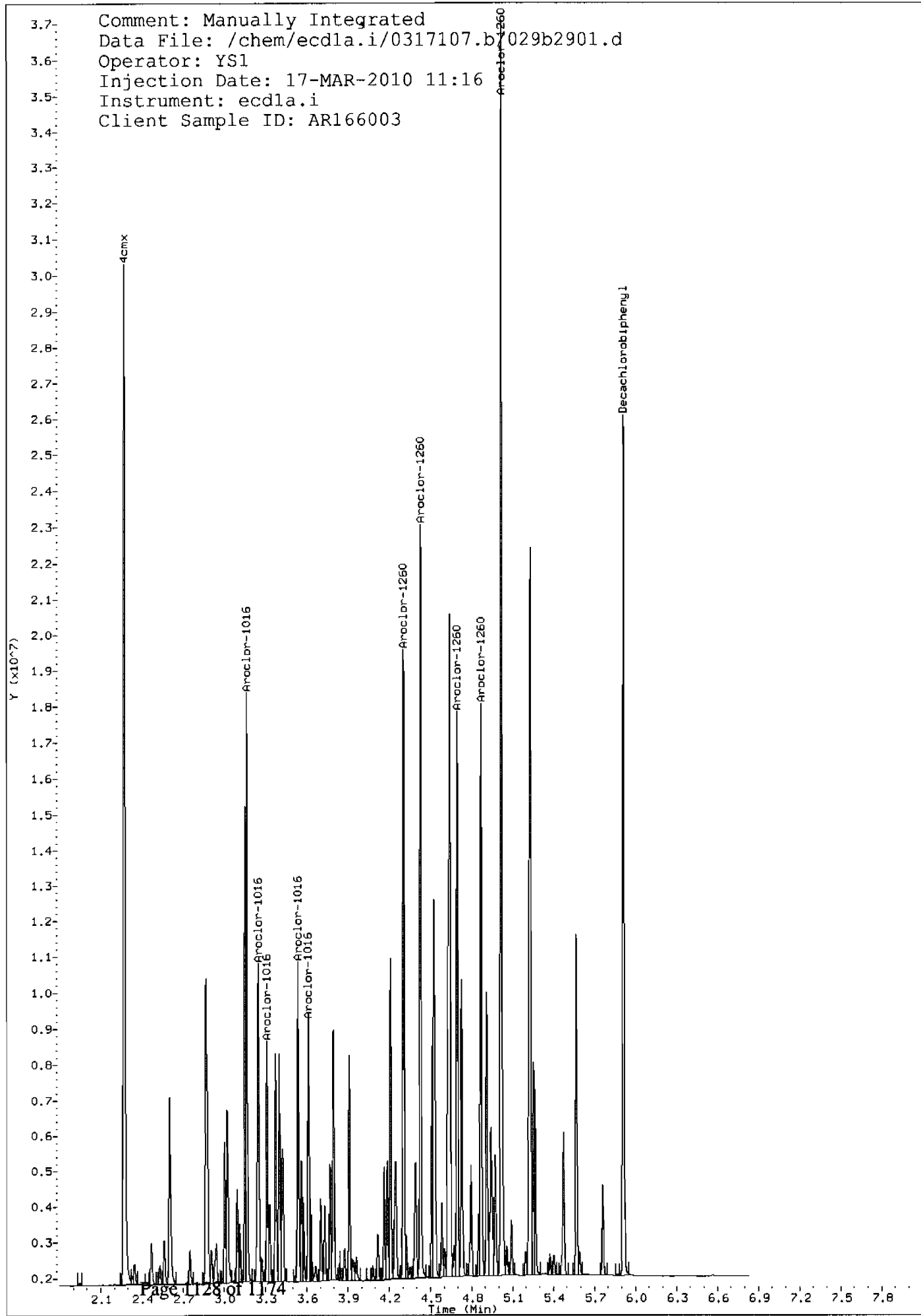
Column phase: CLP2

Instrument: eod1a.i  
Operator: Y31  
Column diameter: 0.25



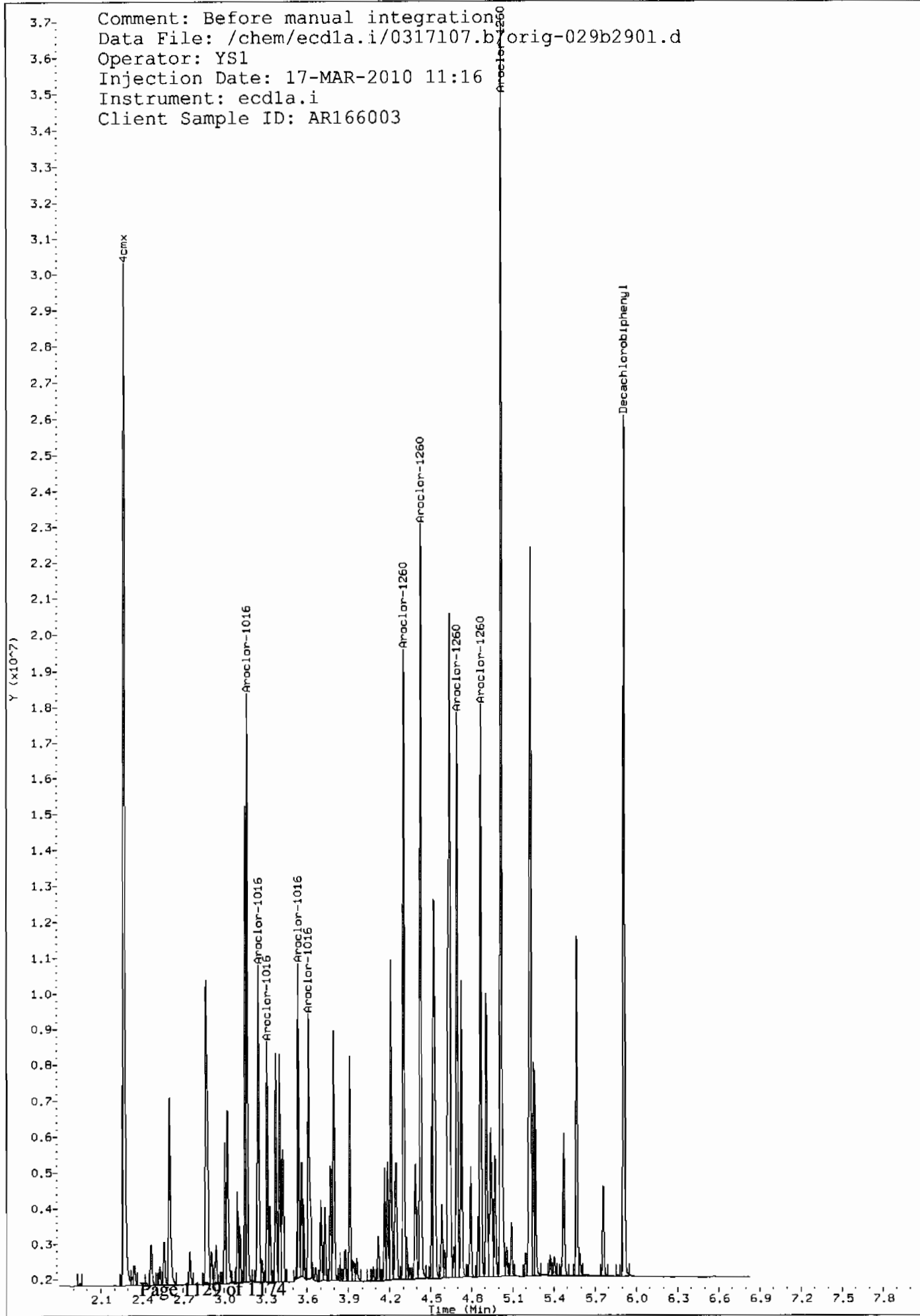


Comment: Manually Integrated  
Data File: /chem/ecdl1.i/0317107.b7029b2901.d  
Operator: YS1  
Injection Date: 17-MAR-2010 11:16  
Instrument: ecd1a.i  
Client Sample ID: AR166003





Comment: Before manual integration  
Data File: /chem/ecdl1a.i/0317107.b/orig-029b2901.d  
Operator: YS1  
Injection Date: 17-MAR-2010 11:16  
Instrument: ecd1a.i  
Client Sample ID: AR166003





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.: 10-2137

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 1.91			DCB: 5.22			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	DCB RT
						#
01	PIBLK01	WAR100219-99	03/11/10	1446	1.91	5.23
02	ZZZZZ	ZZZZZ	03/11/10	1456	1.92	5.22
03	ZZZZZ	ZZZZZ	03/11/10	1507		
04	ZZZZZ	ZZZZZ	03/11/10	1517		
05	ZZZZZ	ZZZZZ	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	1.92	5.22
12	AR166002	WAR100311-02	03/11/10	1641	1.92	5.22
13	AR166003	WAR100311-03	03/11/10	1652	1.92	5.22
14	AR166004	WAR100311-04	03/11/10	1702	1.91	5.22
15	AR166005	IAR100311-01	03/11/10	1713	1.92	5.22
16	AR166001	WAR100222-60	03/11/10	1724	1.91	5.22
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

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.: 10-2137  
 GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10  
 Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
 SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 1.91			DCB: 5.22		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022	
02	AR124801	WAR100223-48	03/11/10	2033	
03	PIBLK02	WAR100219-99	03/11/10	2044	1.91 5.22
04	ZZZZZ	ZZZZZ	03/11/10	2054	1.92 5.22
05	ZZZZZ	ZZZZZ	03/11/10	2105	1.92 5.22
06	ZZZZZ	ZZZZZ	03/11/10	2115	1.92 5.22
07	ZZZZZ	ZZZZZ	03/11/10	2126	1.92 5.22
08	ZZZZZ	ZZZZZ	03/11/10	2136	1.92 5.22
09	ZZZZZ	ZZZZZ	03/11/10	2147	1.92 5.22
10	ZZZZZ	ZZZZZ	03/11/10	2157	1.92 5.22
11	ZZZZZ	ZZZZZ	03/11/10	2208	1.92 5.22
12	ZZZZZ	ZZZZZ	03/11/10	2218	1.92 5.22
13	ZZZZZ	ZZZZZ	03/11/10	2229	1.92 5.22
14	AR166002	WAR100222-60	03/11/10	2239	1.91 5.22
15	PIBLK03	WAR100219-99	03/11/10	2250	1.91 5.22
16	ZZZZZ	ZZZZZ	03/11/10	2300	1.90 5.23
17	ZZZZZ	ZZZZZ	03/11/10	2311	1.92 5.22
18	ZZZZZ	ZZZZZ	03/11/10	2321	1.91 5.22
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
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.: 10-2137  
 GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10  
 Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
 SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 2.27			DCB: 5.92		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10 1446	2.27	5.92
02	ZZZZZ	ZZZZZ	03/11/10 1456	2.27	5.92
03	ZZZZZ	ZZZZZ	03/11/10 1507		
04	ZZZZZ	ZZZZZ	03/11/10 1517		
05	ZZZZZ	ZZZZZ	03/11/10 1528		
06	AR126801	WAR100107-68	03/11/10 1538		
07	AR123201	WAR100104-32	03/11/10 1549		
08	AR122101	WAR100104-21	03/11/10 1559		
09	AR126201	WAR100104-62	03/11/10 1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10 1621		
11	AR166001	WAR100311-01	03/11/10 1631	2.27	5.92
12	AR166002	WAR100311-02	03/11/10 1641	2.27	5.92
13	AR166003	WAR100311-03	03/11/10 1652	2.27	5.92
14	AR166004	WAR100311-04	03/11/10 1702	2.27	5.92
15	AR166005	IAR100311-01	03/11/10 1713	2.27	5.92
16	AR166001	WAR100222-60	03/11/10 1724	2.27	5.92
17	AR125401	WAR100311-05	03/11/10 1734		
18	AR125402	WAR100311-06	03/11/10 1745		
19	AR125403	WAR100311-07	03/11/10 1755		
20	AR125404	WAR100311-08	03/11/10 1806		
21	AR125405	IAR100219-02	03/11/10 1816		
22	AR125401	WAR100219-54	03/11/10 1827		
23	AR124201	WAR100311-09	03/11/10 1837		
24	AR124202	WAR100311-10	03/11/10 1848		
25	AR124203	WAR100311-11	03/11/10 1858		
26	AR124204	WAR100311-12	03/11/10 1909		
27	AR124205	IAR100219-01	03/11/10 1919		
28	AR124201	WAR100219-42	03/11/10 1930		
29	AR124801	WAR100311-13	03/11/10 1940		
30	AR124802	WAR100311-14	03/11/10 1951		
31	AR124803	WAR100311-15	03/11/10 2001		
32	AR124804	WAR100311-16	03/11/10 2012		

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.: 10-2137

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 2.27		DCB: 5.92			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022	
02	AR124801	WAR100223-48	03/11/10	2033	
03	PIBLK02	WAR100219-99	03/11/10	2044	2.27 5.92
04	ZZZZZ	ZZZZZ	03/11/10	2054	2.28 5.92
05	ZZZZZ	ZZZZZ	03/11/10	2105	2.28 5.92
06	ZZZZZ	ZZZZZ	03/11/10	2115	2.28 5.92
07	ZZZZZ	ZZZZZ	03/11/10	2126	2.28 5.92
08	ZZZZZ	ZZZZZ	03/11/10	2136	2.28 5.92
09	ZZZZZ	ZZZZZ	03/11/10	2147	2.28 5.92
10	ZZZZZ	ZZZZZ	03/11/10	2157	2.28 5.92
11	ZZZZZ	ZZZZZ	03/11/10	2208	2.28 5.92
12	ZZZZZ	ZZZZZ	03/11/10	2218	2.28 5.92
13	ZZZZZ	ZZZZZ	03/11/10	2229	2.28 5.92
14	AR166002	WAR100222-60	03/11/10	2239	2.27 5.92
15	PIBLK03	WAR100219-99	03/11/10	2250	2.27 5.92
16	ZZZZZ	ZZZZZ	03/11/10	2300	5.92
17	ZZZZZ	ZZZZZ	03/11/10	2311	5.23*
18	ZZZZZ	ZZZZZ	03/11/10	2321	
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
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.: 10-2137

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 1.91			DCB: 5.22			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #	
01	PIBLK01	WAR100219-99	03/17/10	0557	1.91	5.21
02	AR166001	WAR100222-60	03/17/10	0608	1.91	5.22
03	AR125401	WAR100219-54	03/17/10	0618		
04	AR124201	WAR100219-42	03/17/10	0629		
05	AR124801	WAR100223-48	03/17/10	0639		
06	AR126801	WAR100107-68	03/17/10	0650		
07	AR123201	WAR100104-32	03/17/10	0701		
08	AR122101	WAR100104-21	03/17/10	0711		
09	AR126201	WAR100104-62	03/17/10	0722		
10	DDTANALOGSTD	WAR091219-DD	03/17/10	0736		
11	PIBLK02	WAR100219-99	03/17/10	0746	1.91	5.22
12	ZZZZZ	ZZZZZ	03/17/10	0757	1.91	5.22
13	ZZZZZ	ZZZZZ	03/17/10	0807	1.91	5.22
14	ZZZZZ	ZZZZZ	03/17/10	0818	1.91	5.22
15	ZZZZZ	ZZZZZ	03/17/10	0828	1.91	5.22
16	ZZZZZ	ZZZZZ	03/17/10	0841	1.91	5.22
17	AR166002	WAR100222-60	03/17/10	0853	1.91	5.22
18	PIBLK03	WAR100219-99	03/17/10	0904	1.91	5.22
19	PBLK01	1202072502	03/17/10	0914	1.91	5.22
20	PBLK01LCS	1202072503	03/17/10	0925	1.91	5.22
21	ZZZZZ	ZZZZZ	03/17/10	0935	1.91	5.22
22	ZZZZZ	ZZZZZ	03/17/10	0948	1.91	5.22
23	RE36-10-8464	248244001	03/17/10	1001	1.91	5.22
24	ZZZZZ	ZZZZZ	03/17/10	1013	1.91	5.22
25	ZZZZZ	ZZZZZ	03/17/10	1026	1.91	5.21
26	ZZZZZ	ZZZZZ	03/17/10	1038	1.91	5.21
27	ZZZZZ	ZZZZZ	03/17/10	1051	1.91	5.21
28	ZZZZZ	ZZZZZ	03/17/10	1104	1.91	5.21
29	AR166003	WAR100222-60	03/17/10	1116	1.91	5.22
30	PIBLK04	WAR100219-99	03/17/10	1129	1.91	5.22
31	ZZZZZ	ZZZZZ	03/17/10	1141	1.91	5.21
32	ZZZZZ	ZZZZZ	03/17/10	1152	1.91	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.: 10-2137

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.27			DCB: 5.91			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#	DCB RT
						#
01	PIBLK01	WAR100219-99	03/17/10	0557	2.27	5.91
02	AR166001	WAR100222-60	03/17/10	0608	2.27	5.91
03	AR125401	WAR100219-54	03/17/10	0618		
04	AR124201	WAR100219-42	03/17/10	0629		
05	AR124801	WAR100223-48	03/17/10	0639		
06	AR126801	WAR100107-68	03/17/10	0650		
07	AR123201	WAR100104-32	03/17/10	0701		
08	AR122101	WAR100104-21	03/17/10	0711		
09	AR126201	WAR100104-62	03/17/10	0722		
10	DDTANALOGSTD	WAR091219-DD	03/17/10	0736		
11	PIBLK02	WAR100219-99	03/17/10	0746	2.27	5.91
12	ZZZZZ	ZZZZZ	03/17/10	0757	2.27	5.91
13	ZZZZZ	ZZZZZ	03/17/10	0807	2.27	5.91
14	ZZZZZ	ZZZZZ	03/17/10	0818	2.27	5.91
15	ZZZZZ	ZZZZZ	03/17/10	0828	2.27	5.91
16	ZZZZZ	ZZZZZ	03/17/10	0841	2.27	5.91
17	AR166002	WAR100222-60	03/17/10	0853	2.27	5.91
18	PIBLK03	WAR100219-99	03/17/10	0904	2.27	5.91
19	PBLK01	1202072502	03/17/10	0914	2.27	5.91
20	PBLK01LCS	1202072503	03/17/10	0925	2.27	5.91
21	ZZZZZ	ZZZZZ	03/17/10	0935	2.27	5.91
22	ZZZZZ	ZZZZZ	03/17/10	0948	2.27	5.91
23	RE36-10-8464	248244001	03/17/10	1001	2.27	5.91
24	ZZZZZ	ZZZZZ	03/17/10	1013	2.27	5.91
25	ZZZZZ	ZZZZZ	03/17/10	1026	2.27	5.91
26	ZZZZZ	ZZZZZ	03/17/10	1038	2.27	5.91
27	ZZZZZ	ZZZZZ	03/17/10	1051	2.27	5.91
28	ZZZZZ	ZZZZZ	03/17/10	1104	2.27	5.91
29	AR166003	WAR100222-60	03/17/10	1116	2.27	5.91
30	PIBLK04	WAR100219-99	03/17/10	1129	2.27	5.91
31	ZZZZZ	ZZZZZ	03/17/10	1141	2.27	5.91
32	ZZZZZ	ZZZZZ	03/17/10	1152	2.27	5.91

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: 10-2137

Client ID: LCS for batch 965798

Lab Sample ID: 1202072503

Data File: 020f2001.d

Data File: 020b2001.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 17-MAR-10 09:25

Analyzed: 17-MAR-10 09:25

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							1.56
Column 1	1	2.37	2.34 - 2.4	19.8		ug/kg	
	2	2.65	2.62 - 2.68	19.1		ug/kg	
	3	2.73	2.7 - 2.76	19.1		ug/kg	
	4	2.77	2.74 - 2.8	19.3		ug/kg	
	5	2.98	2.95 - 3.01	19.3		ug/kg	
					19.3		
Column 2	1	3.17	3.14 - 3.2	19.8		ug/kg	
	2	3.25	3.22 - 3.28	19.5		ug/kg	
	3	3.31	3.28 - 3.34	19.2		ug/kg	
	4	3.54	3.51 - 3.57	19.6		ug/kg	
	5	3.62	3.58 - 3.64	20.1		ug/kg	
					19.6		
Aroclor-1260							1.26
Column 1	1	3.71	3.67 - 3.73	21		ug/kg	
	2	3.87	3.84 - 3.9	21.2		ug/kg	
	3	4.03	4 - 4.06	21.6		ug/kg	
	4	4.1	4.07 - 4.13	21.4		ug/kg	
	5	4.24	4.21 - 4.27	21.5		ug/kg	
					21.3		
Column 2	1	4.31	4.27 - 4.33	21		ug/kg	
	2	4.43	4.4 - 4.46	21.4		ug/kg	
	3	4.7	4.67 - 4.73	21.4		ug/kg	
	4	4.87	4.84 - 4.9	21.7		ug/kg	
	5	5.02	4.99 - 5.05	22.5		ug/kg	
					21.6		



# QUALITY CONTROL DATA



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

Page 1 of 1

SDG Number: 10-2137  
Lab Sample ID: 1202072502  
Client Sample: QC for batch 965798  
Client ID: MB for batch 965798  
Batch ID: 965805  
Run Date: 03/17/2010 09:14  
Prep Date: 03/16/2010 21:02  
Data File: 019f1901-1.d  
019b1901-1.d

Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
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.	Parname	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	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	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/ecd1a.i/0317107.b/019f1901-1.d  
Lab Smp Id: 1202072502 Client Smp ID: PBLK01  
Inj Date : 17-MAR-2010 09:14  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |1202072502|1|  
Misc Info : |ECD82P\_1S|965805|SVA|QC A|SOIL|MB|||  
Comment :  
Method : /chem/ecd1a.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 12:03 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 19 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2137.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpclp1

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	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

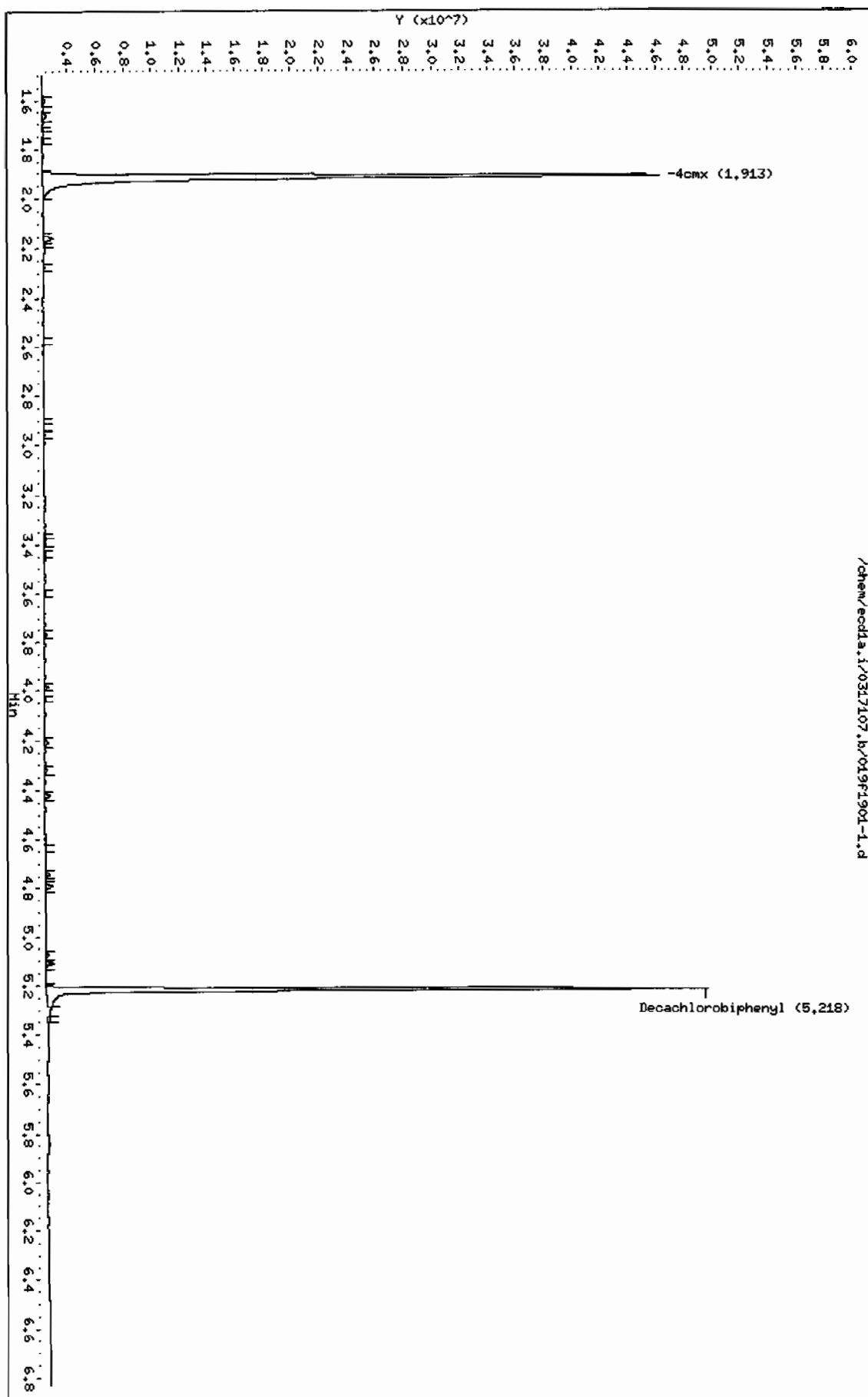
CONCENTRATIONS							
			ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
\$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	49954676	128.246	4.3 80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.218	5.216	0.002	38276751	128.908	4.3 80.00- 120.00	100.00	
-----							



Data File: /chem/ecdl1a.i/0317107.b/019f1901-1.d  
Date: 17-Mar-2010 09:14  
Client ID: PRLK01  
Sample Info: 11202072502111  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: ecdl1a.i  
Operator: VSI  
Column diameter: 0.25

Page 1





Data File: /chem/ecdla.i/0317107.b/019b1901-1.d  
Report Date: 17-Mar-2010 13:50

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdla.i/0317107.b/019b1901-1.d  
Lab Smp Id: 1202072502 Client Smp ID: PBLK01  
Inj Date : 17-MAR-2010 09:14  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |1202072502|1|  
Misc Info : |ECD82P\_1S|965805|SVA|QC A|SOIL|MB|||  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 11:59 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 19 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2137.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	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
==	=====	=====	=====	=====	=====	=====
CAS #: 817-09-8						
\$ 11 4cmx						
2.271	2.271	0.000	33641968 128.242	4.3	80.00- 120.00	100.00
-----						
CAS #: 2051-24-3						
\$ 12 Decachlorobiphenyl						
5.914	5.913	0.001	24504990 130.921	4.4	80.00- 120.00	100.00
-----						



Data File: /chem/ecdl1a.i/0317107.b/019b1901-1.d  
Date: 17-Mar-2010 09:14

Client ID: PBLK01

Sample Info: 1120207250211

Volume Injected (ul): 1.0

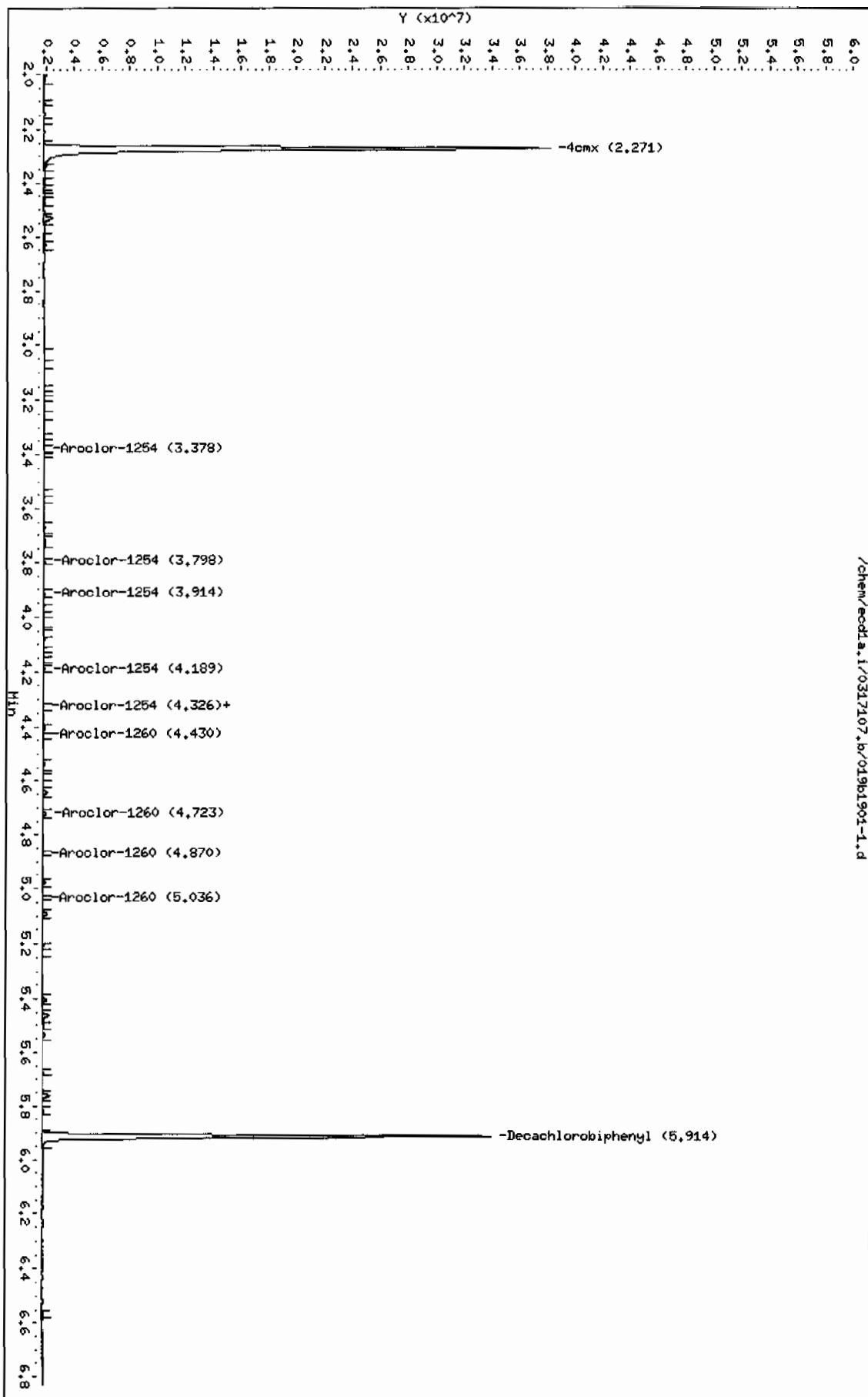
Column phase: CLP2

Instrument: ecdl1a.i

Operator: YSL

Column diameter: 0.25

/chem/ecdl1a.i/0317107.b/019b1901-1.d





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

Page 1 of 1

SDG Number: 10-2137

Matrix: SOIL

Lab Sample ID: 1202072503

Client Sample: QC for batch 965798

Client: LANL010

Project: QC

Client ID: LCS for batch 965798

Method: SW846 8082

SOP Ref: GL-OA-E-040

Batch ID: 965805

Inst: ECD1A.I

Dilution: 1

Run Date: 03/17/2010 09:25

Analyst: YSI

Inj. Vol: 1 uL

Prep Date: 03/16/2010 21:02

Aliquot: 30 g

Final Volume: 1 mL

Data File: 020f2001-1.d

Column: 1 CLP1

Level: LOW

020b2001-1.d

2 CLP2

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		19.6	ug/kg	1.11	3.33	2
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		21.6	ug/kg	1.11	3.33	2



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/020f2001-1.d

Lab Smp Id: 1202072503

Client Smp ID: PBLK01LCS

Inj Date : 17-MAR-2010 09:25

Operator : YS1

Inst ID: ecdla.i

Smp Info : |1202072503|1|

Misc Info : |ECD82P\_1S|965805|SVA|QC A|SOIL|LCS|

Comment :

Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m

Meth Date : 17-Mar-2010 12:03 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 20

QC Sample: LCS

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2137.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			
1.914	1.913	0.001	49554639 127.219	4.2	80.00-	120.00	100.00
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.218	5.216	0.002	37446239 126.111	4.2	80.00-	120.00	100.00
1 Aroclor-1016				CAS #: 12674-11-2			
2.367	2.366	0.001	8997695 592.858	19.8	80.00-	120.00	100.00
2.653	2.651	0.002	10841864 572.560	19.1	113.09-	153.09	120.50
2.734	2.732	0.002	7136270 573.556	19.1	63.11-	103.11	79.31
2.771	2.768	0.003	4248605 578.174	19.3	30.20-	70.20	47.22

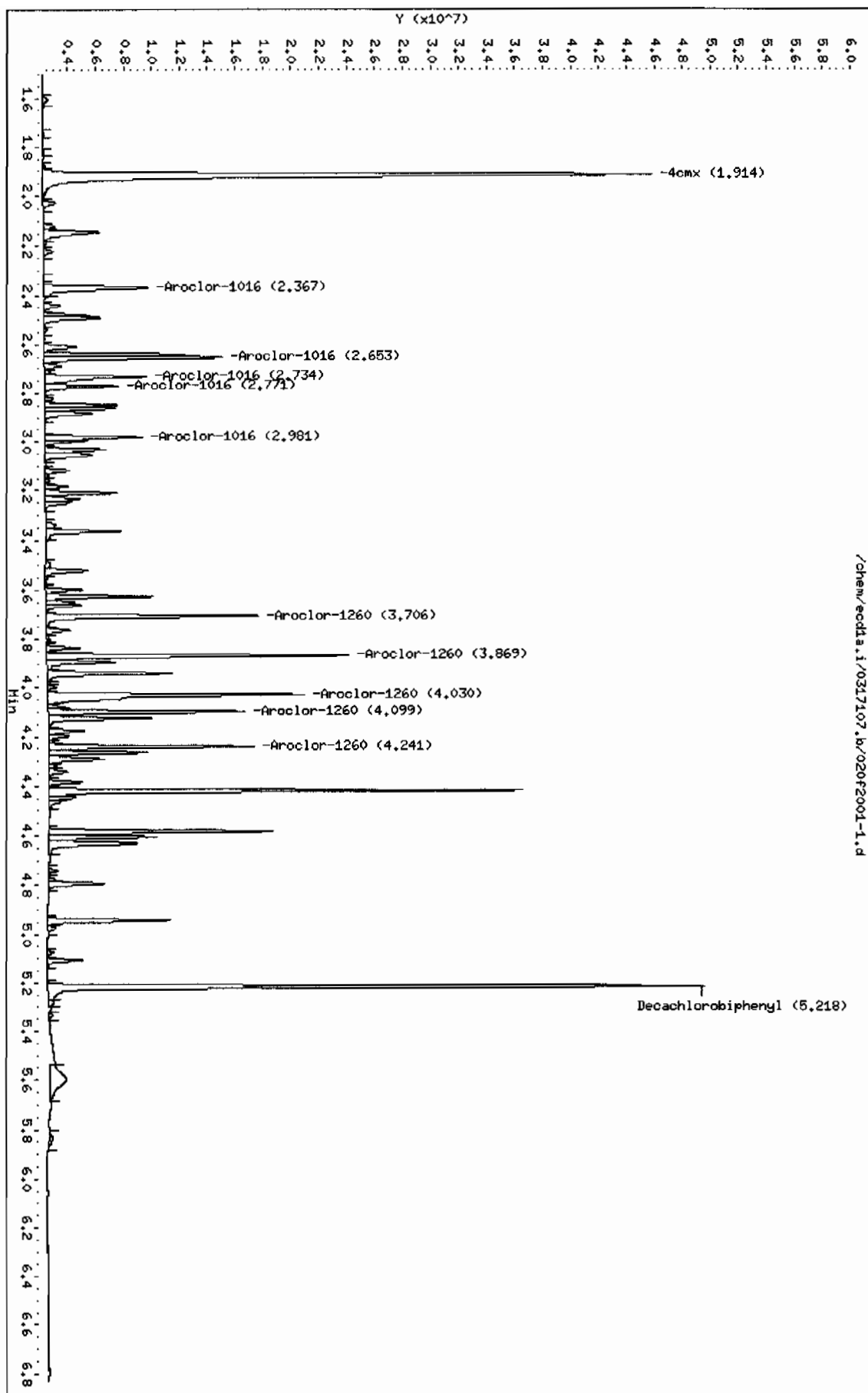


CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)								
2.981	2.978	0.003	5516490	579.599	19.3	43.54-	83.54	61.31
Average of Peak Concentrations =					19.3			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.706	3.703	0.003	11541540	629.650	21.0	80.00-	120.00	100.00
3.869	3.866	0.003	17098736	635.881	21.2	128.24-	168.24	148.15
4.030	4.028	0.002	18362288	648.493	21.6	139.41-	179.41	159.10
4.099	4.096	0.003	10373752	642.025	21.4	69.99-	109.99	89.88
4.241	4.238	0.003	10862707	646.102	21.5	73.42-	113.42	94.12
Average of Peak Concentrations =					21.3			



Data File: /chem/ecdda.i/0317107.b/020f2001-1.d  
Date: 17-MAR-2010 09:25  
Client ID: PBLK01LCS  
Sample Info: 1120207250311  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: ecdda.i  
Operator: YS1  
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/020b2001-1.d

Lab Smp Id: 1202072503

Client Smp ID: PBLK01LCS

Inj Date : 17-MAR-2010 09:25

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |1202072503|1|

Misc Info : |ECD82P\_1S|965805|SVA|QC A|SOIL|LCS|

Comment :

Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m

Meth Date : 17-Mar-2010 11:59 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 20

QC Sample: LCS

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2137.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		RATIO
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/Kg)	TARGET RANGE		
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx							
			CAS #: 877-09-8				
2.272	2.271	0.001	33156462	126.391	4.2	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl							
			CAS #: 2051-24-3				
5.914	5.913	0.001	24557073	131.200	4.4	80.00- 120.00	100.00
-----							
1 Aroclor-1016							
			CAS #: 12674-11-2				
3.167	3.166	0.001	7458425	592.645	19.8	80.00- 120.00	100.00(M)
3.249	3.248	0.001	5041193	583.863	19.5	47.45- 87.45	67.59
3.314	3.312	0.002	3038818	574.811	19.2	21.91- 61.91	40.74
3.540	3.538	0.002	4059566	588.964	19.6	35.04- 75.04	54.43



CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO	
==	==	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)									
3.615	3.614	0.001	3866323	601.991	20.1	31.77-	71.77	51.84	
Average of Peak Concentrations =					19.6				
-----									
7 Aroclor-1260					CAS #: 11096-82-5				
4.305	4.304	0.001	8255324	631.130	21.0	80.00-	120.00	100.00(H)	
4.430	4.429	0.001	10005162	643.459	21.4	102.19-	142.19	121.20	
4.696	4.695	0.001	7653246	643.342	21.4	71.86-	111.86	92.71	
4.869	4.868	0.001	7993649	650.460	21.7	75.55-	115.55	96.83	
5.017	5.015	0.002	17803224	674.502	22.5	191.86-	231.86	215.66	
Average of Peak Concentrations =					21.6				
-----									

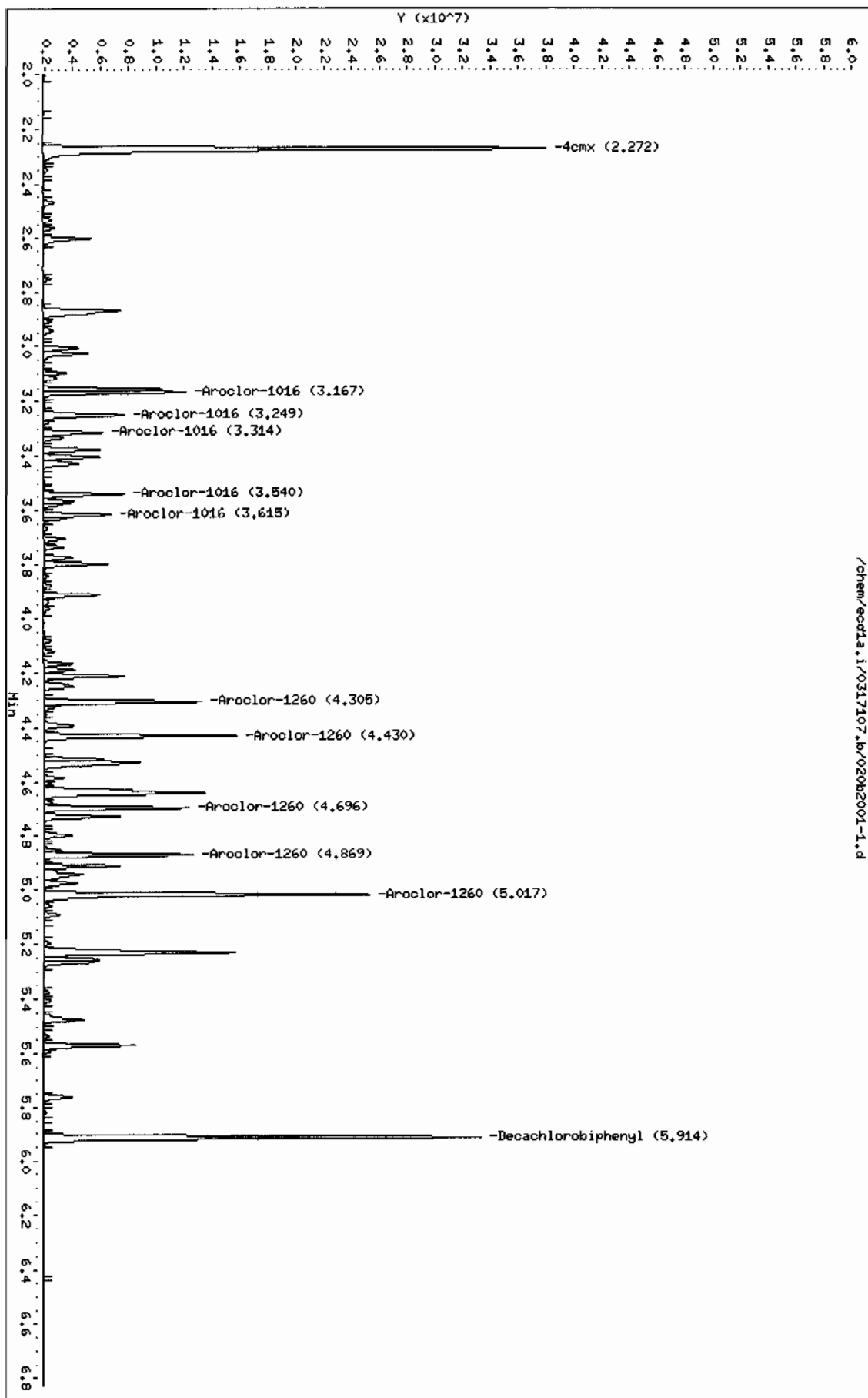
#### QC Flag Legend

M - Compound response manually integrated.  
 H - Operator selected an alternate compound hit.



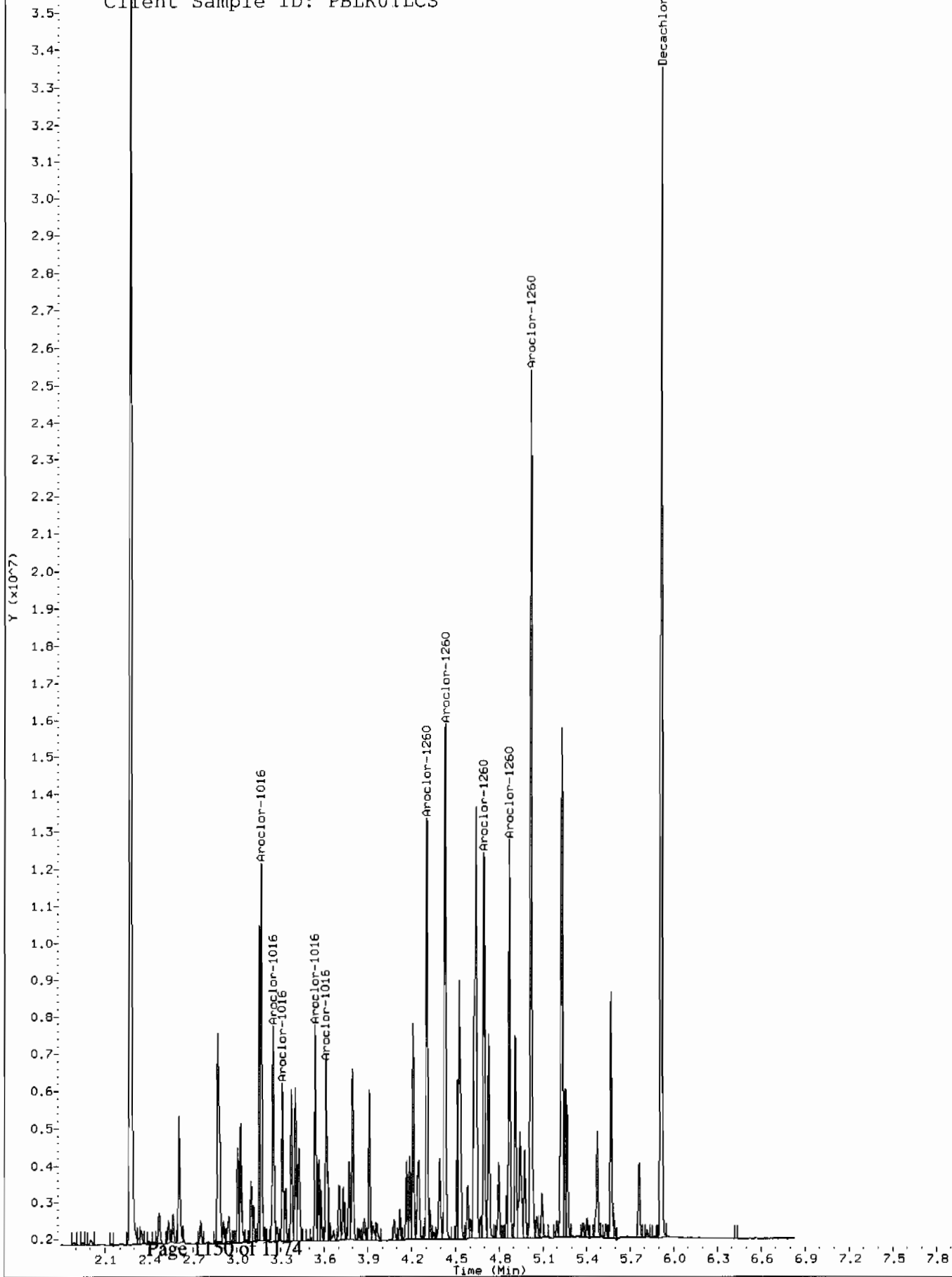
Data File: /chem/ecod1a.i/0317107.b/02062001-1.d  
Date: 17-MAR-2010 09:25  
Client ID: PBLK01LCS  
Sample Info: 1120207250311  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: ecod1a.i  
Operator: YSI  
Column diameter: 0.25



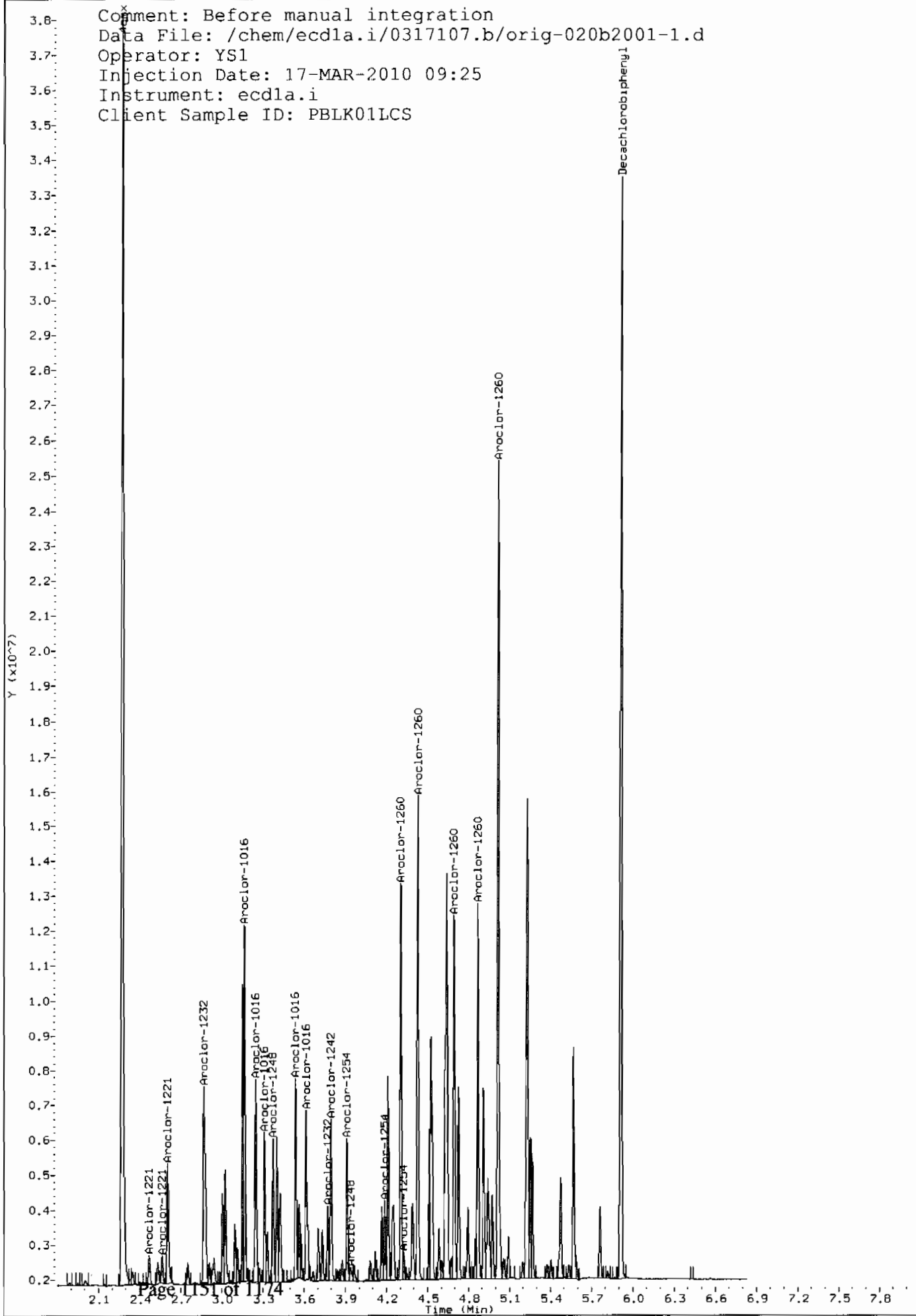


Comment: Manually Integrated  
Data File: /chem/ecdl1.i/0317107.b/020b2001-1.d  
Operator: YS1  
Injection Date: 17-MAR-2010 09:25  
Instrument: ecd1a.i  
Client Sample ID: PBLK01LCS





Comment: Before manual integration  
Data File: /chem/ecdla.i/0317107.b/orig-020b2001-1.d  
Operator: YSl  
Injection Date: 17-MAR-2010 09:25  
Instrument: ecdla.i  
Client Sample ID: PBLK01LCS





# MISCELLANEOUS DATA



# GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD1

DATE: 03/12/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR: YS1 REVIEWED BY: \_\_\_\_\_

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936  
ALUMINA LOT 1281992-A  
COPPER LOT 1249397-A

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 Time,  
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/031110b.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	11-MAR-2010 14:46		031110b	1.01		ICLEAN
002f0201.d	WAR100222-60 01	YS1	11-MAR-2010 14:56		031110b	1.01		IDUSE RE-ICAL
003f0301.d	WAR100219-54	YS1	11-MAR-2010 15:07		031110b	1.01		IDUSE RE-ICAL
004f0401.d	WAR100219-42	YS1	11-MAR-2010 15:17		031110b	1.01		IDUSE RE-ICAL
005f0501.d	WAR100223-48	YS1	11-MAR-2010 15:28		031110b	1.01		IDUSE RE-ICAL
006f0601.d	WAR100107-68	YS1	11-MAR-2010 15:38		031110b	1.01		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	11-MAR-2010 15:49		031110b	1.01		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	11-MAR-2010 15:59		031110b	1.01		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	11-MAR-2010 16:10		031110b	1.01		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	11-MAR-2010 16:21		031110b	1.01		IDDT ANALOG STANDARD
011f1101.d	WAR100311-01	YS1	11-MAR-2010 16:31		031110b	1.01		AR1660 I-CAL LEVEL 1
012f1201.d	WAR100311-02	YS1	11-MAR-2010 16:41		031110b	1.01		AR1660 I-CAL LEVEL 2
013f1301.d	WAR100311-03	YS1	11-MAR-2010 16:52		031110b	1.01		AR1660 I-CAL LEVEL 3
014f1401.d	WAR100311-04	YS1	11-MAR-2010 17:02		031110b	1.01		AR1660 I-CAL LEVEL 4
015f1501.d	WAR100311-01	YS1	11-MAR-2010 17:13		031110b	1.01		AR1660 I-CAL LEVEL 5

Page: 1

Instrument Batch: /chem/ecd1a.i/031110b.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
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016f1601.d	WAR100222-60 01	YS1	11-MAR-2010 17:24		031110b	1.0	PASSED ON BOTH COLUMNS
017f1701.d	WAR100311-05	YS1	11-MAR-2010 17:34		031110b	1.0	AR1254 I-CAL LEVEL 1
018f1801.d	WAR100311-06	YS1	11-MAR-2010 17:45		031110b	1.0	AR1254 I-CAL LEVEL 2
019f1901.d	WAR100311-07	YS1	11-MAR-2010 17:55		031110b	1.0	AR1254 I-CAL LEVEL 3
020f2001.d	WAR100311-08	YS1	11-MAR-2010 18:06		031110b	1.0	AR1254 I-CAL LEVEL 4
021f2101.d	WAR100219-02	YS1	11-MAR-2010 18:16		031110b	1.0	AR1254 I-CAL LEVEL 5
022f2201.d	WAR100219-54	YS1	11-MAR-2010 18:27		031110b	1.0	PASSED ON BOTH COLUMNS
023f2301.d	WAR100311-09	YS1	11-MAR-2010 18:37		031110b	1.0	AR1242 I-CAL LEVEL 1
024f2401.d	WAR100311-10	YS1	11-MAR-2010 18:48		031110b	1.0	AR1242 I-CAL LEVEL 2
025f2501.d	WAR100311-11	YS1	11-MAR-2010 18:58		031110b	1.0	AR1242 I-CAL LEVEL 3
026f2601.d	WAR100311-12	YS1	11-MAR-2010 19:09		031110b	1.0	AR1242 I-CAL LEVEL 4
027f2701.d	WAR100219-01	YS1	11-MAR-2010 19:19		031110b	1.0	AR1242 I-CAL LEVEL 5
028f2801.d	WAR100219-42	YS1	11-MAR-2010 19:30		031110b	1.0	PASSED ON BOTH COLUMNS
029f2901.d	WAR100311-13	YS1	11-MAR-2010 19:40		031110b	1.0	AR1248 I-CAL LEVEL 1
030f3001.d	WAR100311-14	YS1	11-MAR-2010 19:51		031110b	1.0	AR1248 I-CAL LEVEL 2
031f3101.d	WAR100311-15	YS1	11-MAR-2010 20:01		031110b	1.0	AR1248 I-CAL LEVEL 3
032f3201.d	WAR100311-16	YS1	11-MAR-2010 20:12		031110b	1.0	AR1248 I-CAL LEVEL 4
033f3301.d	WAR100211-01	YS1	11-MAR-2010 20:22		031110b	1.0	AR1248 I-CAL LEVEL 5
034f3401.d	WAR100223-48	YS1	11-MAR-2010 20:33		031110b	1.0	PASSED ON BOTH COLUMNS
035f3501.d	WAR100219-99 02	YS1	11-MAR-2010 20:44		031110b	1.0	CLEAN

Instrument Batch: /chem/ecdla.i/031110b.b

Page: 2

Data File	CEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202067743	YS1	11-MAR-2010 20:54	963869	1246954	1.01MB		DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
037f3701.d	1202067744	YS1	11-MAR-2010 21:05	963869	1246954	1.01LCS		DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
038f3801.d	1246954003	YS1	11-MAR-2010 21:15	963869	1246954	1.01BBES		DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
039f3901.d	1202067745	YS1	11-MAR-2010 21:26	963869	1246954	1.01MS		DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
040f4001.d	1202067746	YS1	11-MAR-2010 21:36	963869	1246954	1.01MSD		DUSE CON FIRMATION FOR THE SAMPLES HAD HIT







REVIEWED BY:

DA936

1249397-A

5

GC/MS Data Summary - March 2010									
Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments	
001f0101.d	WARI00219-99-01	YYS1	17-MAR-2010 05:57	1	0317107	1	1.0	CLEAN	
002f0201.d	WARI00222-60-01	YYS1	17-MAR-2010 06:08	1	0317107	1	1.0	PASSED ON BOTH COLUMNS	
003f0301.d	WARI00219-54	YYS1	17-MAR-2010 06:18	1	0317107	1	1.0	PASSED ON BOTH COLUMNS	
004f0401.d	WARI00219-42	YYS1	17-MAR-2010 06:29	1	0317107	1	1.0	PASSED ON BOTH COLUMNS	
005f0501.d	WARI00223-48	YYS1	17-MAR-2010 06:39	1	0317107	1	1.0	PASSED ON BOTH COLUMNS	
006f0601.d	WARI00107-68	YYS1	17-MAR-2010 06:50	1	0317107	1	1.0	PASSED ON BOTH COLUMNS	
007f0701.d	WARI00104-32	YYS1	17-MAR-2010 07:01	1	0317107	1	1.0	PATTERN ONLY	
008f0801.d	WARI00104-21	YYS1	17-MAR-2010 07:11	1	0317107	1	1.0	PATTERN ONLY	
009f0901.d	WARI00104-62	YYS1	17-MAR-2010 07:22	1	0317107	1	1.0	PATTERN ONLY	
010f1001.d	WARI091219-DDT	YYS1	17-MAR-2010 07:36	1	0317107	1	1.0	DDT ANALOG STANDARD	
011f1101.d	WARI00219-99-02	YYS1	17-MAR-2010 07:46	1	0317107	1	1.0	CLEAN	
012f1201.d	1202071118	YYS1	17-MAR-2010 07:57	1965286	0317107	1	1.0	QC A	
013f1301.d	1202071119	YYS1	17-MAR-2010 08:07	1965286	0317107	1	1.0	QC A	
014f1401.d	1202071120	YYS1	17-MAR-2010 08:18	1965286	15	1	1.0	QC A	
015f1501.d	1248998005	YYS1	17-MAR-2010 08:28	1965286	1248998	1	1.0	GC E	DUSE CONFIRMATION FOR DCB LOW



1016f1601.d	1248202002	YS1	17-MAR-2010 08:41	965380	10-2124	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1017f1701.d	124820222-60 02	YS1	17-MAR-2010 08:53		10317107	1.0		PASSED ON BOTH COLUMNS
1018f1801.d	124820222-99 03	YS1	17-MAR-2010 09:04		10317107	1.0		CLEAN
1019f1901.d	1248202502	YS1	17-MAR-2010 09:14	965805	10-2134	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
1020f2001.d	1248202503	YS1	17-MAR-2010 09:25	965805	10-2134	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
1021f2101.d	1248240009	YS1	17-MAR-2010 09:35	965805	10-2134	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1022f2201.d	1248240010	YS1	17-MAR-2010 09:48	965805	10-2134	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1023f2301.d	1248244001	YS1	17-MAR-2010 10:01	965805	10-2137	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1024f2401.d	1248249001	YS1	17-MAR-2010 10:13	965805	10-2140	1.0	LANL	DUSE RR 5X AFTER MORE SULFUR CLEANED
1025f2501.d	1248249002	YS1	17-MAR-2010 10:26	965805	10-2140	1.0	LANL	DUSE RR 5X AFTER MORE SULFUR CLEANED
1026f2601.d	1248249003	YS1	17-MAR-2010 10:38	965805	10-2140	1.0	LANL	DUSE RR 5X AFTER MORE SULFUR CLEANED
1027f2701.d	1248249004	YS1	17-MAR-2010 10:51	965805	10-2140	1.0	LANL	DUSE RR 5X AFTER MORE SULFUR CLEANED
1028f2801.d	1248373011	YS1	17-MAR-2010 11:04	965805	10-2154	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1029f2901.d	1248373012	YS1	17-MAR-2010 11:16		10317107	1.0		PASSED ON BOTH COLUMNS
1030f3001.d	1248373013	YS1	17-MAR-2010 11:29		10317107	1.0		CLEAN
1031f3101.d	1248373014	YS1	17-MAR-2010 11:41	965805	10-2154	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1032f3201.d	1248373015	YS1	17-MAR-2010 11:52	965805	10-2154	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1033f3301.d	1248377002	YS1	17-MAR-2010 12:05	965805	10-2157	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1034f3401.d	1248377003	YS1	17-MAR-2010 12:17	965805	10-2157	1.0	LANL	DUSE RR 10X
1035f3501.d	1248377004	YS1	17-MAR-2010 12:30	965805	10-2157	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
1036f3601.d	1248377005	YS1	17-MAR-2010 12:42	965805	10-2157	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1037f3701.d	1248377006	YS1	17-MAR-2010 12:55	965805	10-2157	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1038f3801.d	1248377007	YS1	17-MAR-2010 13:08	965805	10-2157	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1039f3901.d	1248386003	YS1	17-MAR-2010 13:20	965805	10-2164	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1040f4001.d	1248386004	YS1	17-MAR-2010 13:33	965805	10-2164	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER



041f4101.d	WAR100222-60 03	YS1	17-MAR-2010 13:45		0317107	1.0	PASSED ON BOTH COLUMNS
042f4201.d	WAR100219-99 04	YS1	17-MAR-2010 13:56		0317107	1.0	CLEAN
043f4301.d	248389002	YS1	17-MAR-2010 14:06	965805	10-2165	1.0	LANL UP-LOAD BOTH COLUMNS, USE HIGHER
044f4401.d	1202072504	YS1	17-MAR-2010 14:19	965805	10-2165	1.0	QC A UP-LOAD BOTH COLUMNS, USE HIGHER
045f4501.d	1202072505	YS1	17-MAR-2010 14:32	965805	10-2165	1.0	QC A UP-LOAD BOTH COLUMNS, USE HIGHER
046f4601.d	248389003	YS1	17-MAR-2010 14:44	965805	10-2165	5.0	LANL UP-LOAD BOTH COLUMNS, USE HIGHER
047f4701.d	1248249001	YS1	17-MAR-2010 14:57	965805	10-2140	5.0	LANL UP-LOAD BOTH COLUMNS, USE HIGHER
048f4801.d	1248249002	YS1	17-MAR-2010 15:09	965805	10-2140	5.0	LANL UP-LOAD BOTH COLUMNS, USE HIGHER
049f4901.d	248249003	YS1	17-MAR-2010 15:22	965805	10-2140	5.0	LANL UP-LOAD BOTH COLUMNS, USE HIGHER
050f5001.d	1248249004	YS1	17-MAR-2010 15:35	965805	10-2140	5.0	LANL UP-LOAD BOTH COLUMNS, USE HIGHER
051f5101.d	1248377003	YS1	17-MAR-2010 15:47	965805	10-2157	10.0	LANL UP-LOAD BOTH COLUMNS, USE HIGHER
052f5201.d	WAR100222-60 05	YS1	17-MAR-2010 16:00		0317107	1.0	PASSED ON BOTH COLUMNS
053f5301.d	WAR100219-99 06	YS1	17-MAR-2010 16:10		0317107	1.0	CLEAN
054f5401.d	1202071505	YS1	17-MAR-2010 16:21	965431	249169	1.0	QC A UP-LOAD BOTH COLUMNS, USE FRONT
055f5501.d	1202071506	YS1	17-MAR-2010 16:34	965431	249169	1.0	QC A UP-LOAD BOTH COLUMNS, USE FRONT

Instrument Batch: /chem/ecdl.a.i/0317107.b

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Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	1249169011	YS1	17-MAR-2010 16:46	965431	249169	1.0	CDMF	UP-LOAD BOTH COLUMNS, USE FRONT
057f5701.d	249169012	YS1	17-MAR-2010 16:59	965431	249169	5.0	CDMF	DUSE RR 2X
058f5801.d	249169013	YS1	17-MAR-2010 17:11	965431	249169	10.0	CDMF	DUSE RR 2X
059f5901.d	1249169014	YS1	17-MAR-2010 17:24	965431	249169	10.0	CDMF	DUSE RR 2X
060f6001.d	1249169015	YS1	17-MAR-2010 17:37	965431	249169	10.0	CDMF	DUSE RR 2X
061f6101.d	WAR100222-60 06	YS1	17-MAR-2010 17:49		0317107	1.0		PASSED ON BOTH COLUMNS
062f6201.d	WAR100219-99 07	YS1	17-MAR-2010 18:02		0317107	1.0		CLEAN
063f6301.d	1248480001	YS1	17-MAR-2010 18:15	965431	249480	5.0	ENRG	UP-LOAD BOTH COLUMNS, USE FRONT
064f6401.d	249106001	YS1	17-MAR-2010 18:27	965431	249106	5.0	COMM	UP-LOAD BOTH COLUMNS, USE FRONT



1065f6501.d	1249106002	YS1	17-MAR-2010 18:40	1965431	1249106	5.0 COMM	UPLOAD BOTH COLUMNS, USE FRONT
1066f6601.d	1249106004	YS1	17-MAR-2010 18:52	1965431	1249106	5.0 COMM	UPLOAD BOTH COLUMNS, USE FRONT
1067f6701.d	1249181001	YS1	17-MAR-2010 19:05	1965431	1249181	5.0 COMM	UPLOAD BOTH COLUMNS, USE FRONT
1068f6801.d	1249181002	YS1	17-MAR-2010 19:18	1965431	1249181	10.0 COMM	UPLOAD BOTH COLUMNS, USE FRONT
1069f6901.d	1249181004	YS1	17-MAR-2010 19:30	1965431	1249181	10.0 COMM	UPLOAD BOTH COLUMNS, USE FRONT
1070f7001.d	1249196001	YS1	17-MAR-2010 19:43	1965431	1249196	5.0 ENRG	UPLOAD BOTH COLUMNS, USE FRONT
1071f7101.d	1249231003	YS1	17-MAR-2010 19:56	1965431	1249231	5.0 PCGE	UPLOAD BOTH COLUMNS, USE FRONT
1072f7201.d	1249100222-60 07	YS1	17-MAR-2010 20:08		10317107	1.0	PASSED ON BOTH COLUMNS
1073f7301.d	1249100219-99 08	YS1	17-MAR-2010 20:21		10317107	1.0	CLEAN
1074f7401.d	1249293001	YS1	17-MAR-2010 20:33	1965431	1249293	20.0 LLNL	UPLOAD BOTH COLUMNS, USE FRONT
1075f7501.d	12492071507	YS1	17-MAR-2010 20:46	1965431	1249293	20.0 QC A	UPLOAD BOTH COLUMNS, USE FRONT

Instrument Batch: /chem/ecdl1a.i/0317107.b

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Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
1076f7601.d	1202071508	YS1	17-MAR-2010 20:59	965431	1249293	20.0 QC A	UPLOAD BOTH COLUMNS, USE FRONT	
1077f7701.d	249293002	YS1	17-MAR-2010 21:11	965431	1249293	20.0 LLNL	UPLOAD BOTH COLUMNS, USE FRONT	
1078f7801.d	249293003	YS1	17-MAR-2010 21:24	965431	1249293	10.0 LLNL	UPLOAD BOTH COLUMNS, USE FRONT	
1079f7901.d	249293004	YS1	17-MAR-2010 21:37	965431	1249293	10.0 LLNL	UPLOAD BOTH COLUMNS, USE FRONT	
1080f8001.d	1249100222-60 08	YS1	17-MAR-2010 21:49		10317107	1.0	PASSED ON BOTH COLUMNS	
1081f8101.d	1249100219-99 09	YS1	17-MAR-2010 22:02		10317107	1.0	CLEAN	







GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/044b4401.d  
 Lab Smp Id: 1202072504 Client Smp ID: WST16-10-13296MS  
 Inj Date : 17-MAR-2010 14:19  
 Operator : YS1 Inst ID: ecdl1a.i  
 Smp Info : |1202072504|1|  
 Misc Info : |ECD82P\_1S|965805|SVA|QC A|SOIL|MS|||  
 Comment :  
 Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
 Meth Date : 17-Mar-2010 14:02 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 44 QC Sample: MS  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-2165.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	30.08000	Weight of sample extracted (g)
M	17.02150	% 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		
2.271	2.271	0.000	36298126	138.367	5.5 80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.913	5.913	0.000	28834864	154.054	6.2 80.00- 120.00	100.00
-----						
1 Aroclor-1016				CAS #: 12674-11-2		
3.166	3.166	0.000	8003781	635.979	25.5 80.00- 120.00	100.00(M)
3.249	3.248	0.001	5261600	609.390	24.4 44.76- 84.76	65.74
3.312	3.312	0.000	3205339	606.310	24.3 20.23- 60.23	40.05
3.540	3.538	0.002	4368811	633.830	25.4 32.28- 72.28	54.58



CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	LIT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)									
3.615	3.614	0.001	4094510	637.520	25.5	27.98-	67.98	51.16	
Average of Peak Concentrations =					25.0				
-----									
7 Aroclor-1260					CAS #: 11096-82-5				
4.305	4.304	0.001	9465177	723.625	29.0	80.00-	120.00	100.00	
4.429	4.429	0.000	11828092	760.697	30.5	101.65-	141.65	124.96	
4.696	4.695	0.001	9153955	769.494	30.8	71.12-	111.12	96.71	
4.868	4.868	0.000	8993680	731.835	29.3	74.79-	114.79	95.02	
5.016	5.015	0.001	20781563	787.340	31.5	189.81-	229.81	219.56	
Average of Peak Concentrations =					30.2				
-----									

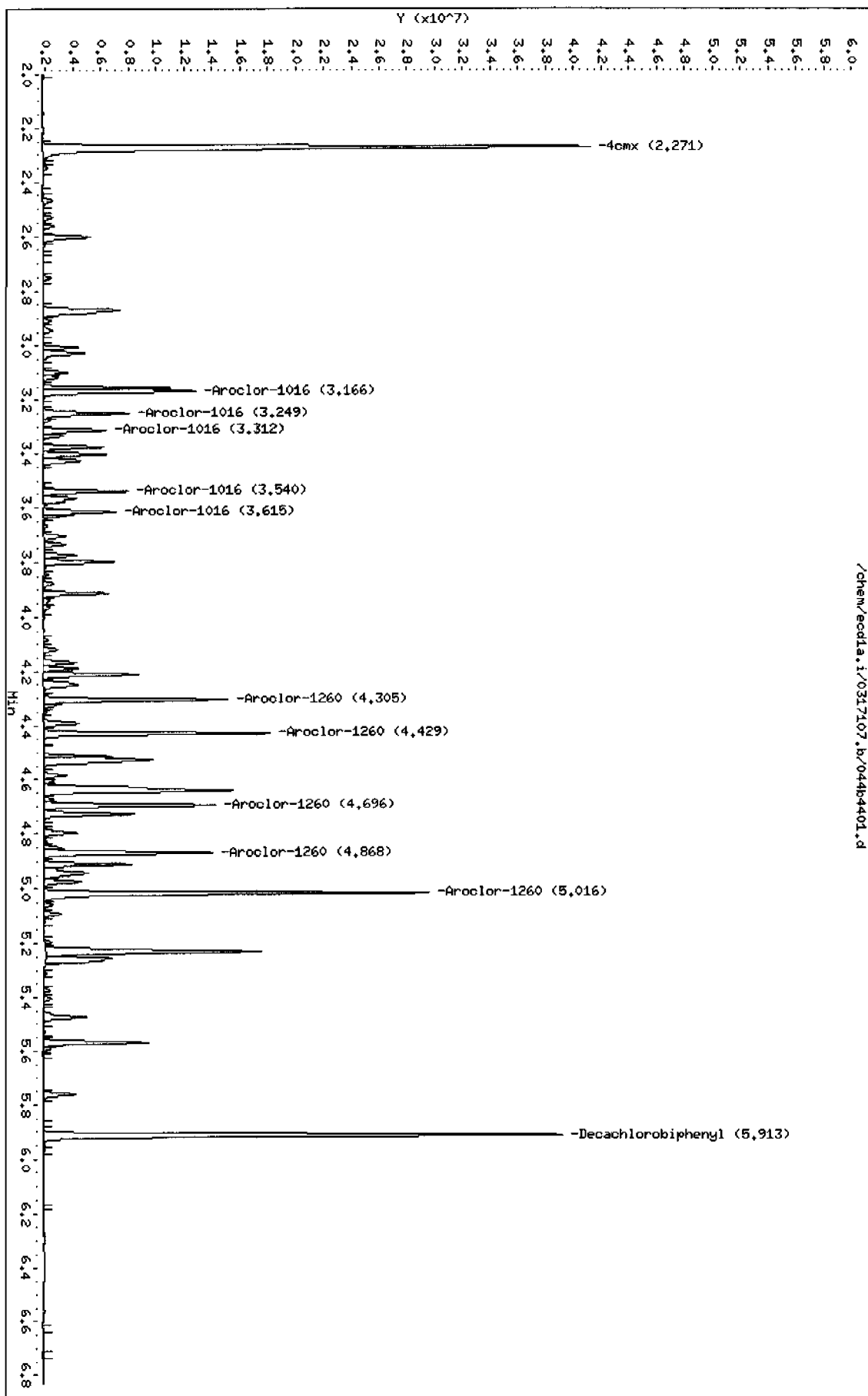
QC Flag Legend

M - Compound response manually integrated.



Data File: /chem/ecdl1.i/0317107.b/044b4401.d  
Date: 17-MAR-2010 14:19  
Client ID: MST16-10-13296HS  
Sample Info: 1120207250411  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: ecdl1.i  
Operator: YS1  
Column diameter: 0.25





Data File: /chem/ecdl1a.i/0317107.b/044f4401.d  
Report Date: 17-Mar-2010 14:40

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/044f4401.d

Lab Smp Id: 1202072504

Client Smp ID: WST16-10-13296MS

Inj Date : 17-MAR-2010 14:19

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |1202072504|1|

Misc Info : |ECD82P\_1S|965805|SVA|QC A|SOIL|MS|||

Comment :

Method : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m

Meth Date : 17-Mar-2010 14:02 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 44

QC Sample: MS

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2165.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	30.08000	Weight of sample extracted (g)
M	17.02150	% 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		
1.913	1.913	0.000	54506059	139.930	5.6	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.216	5.216	0.000	44165345	148.740	6.0	80.00- 120.00	100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
2.365	2.366	-0.001	9061065	597.034	23.9	80.00- 120.00	100.00
2.651	2.651	0.000	11572641	611.152	24.5	108.88- 148.88	127.72
2.731	2.732	-0.001	7405104	595.163	23.8	62.57- 102.57	81.72
2.770	2.768	0.002	4427709	602.547	24.1	30.09- 70.09	48.87

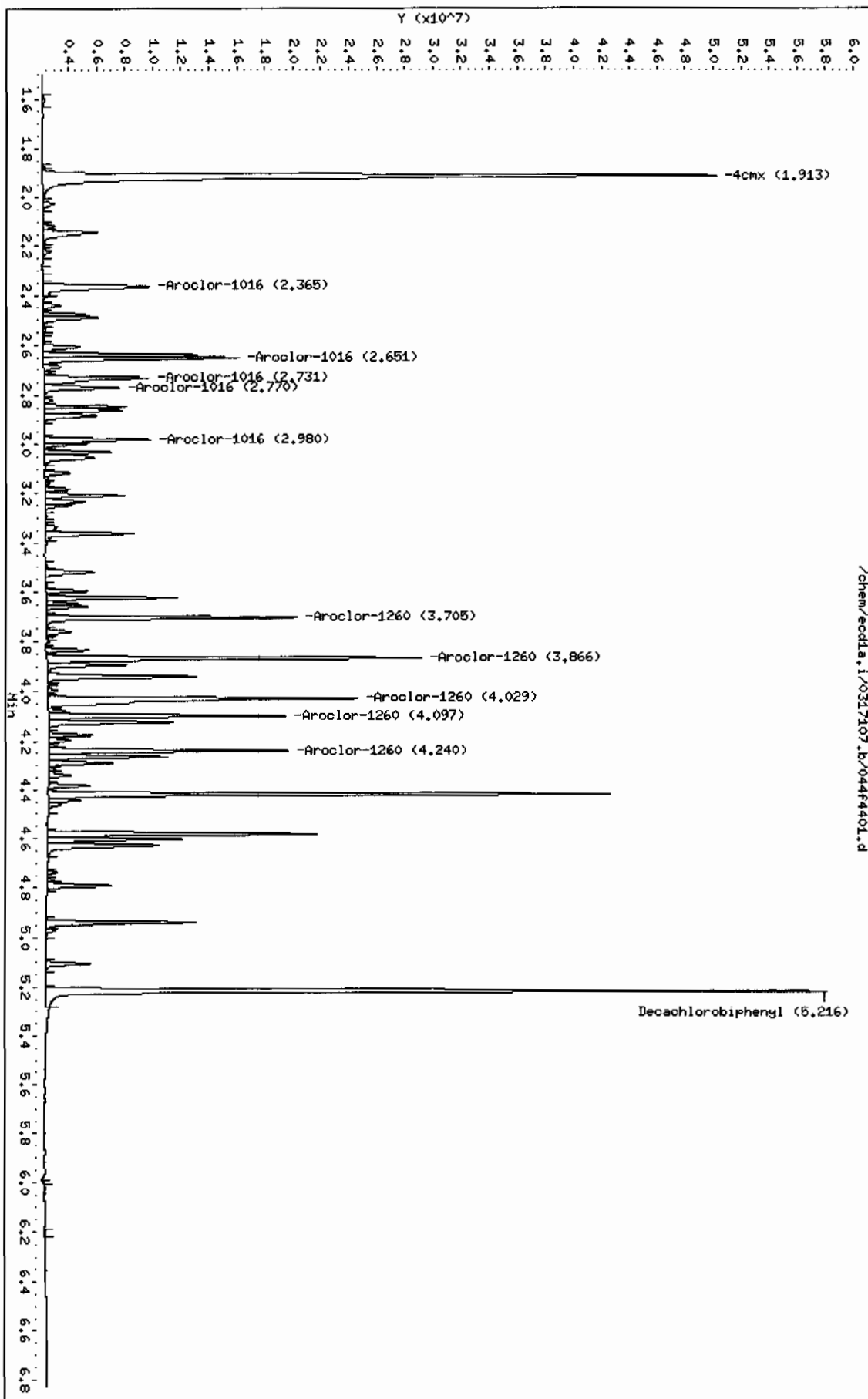


CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)								
2.980	2.978	0.002	5935425	623.615	25.0	44.27-	84.27	65.50
Average of Peak Concentrations =					24.3			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.705	3.703	0.002	13298576	725.505	29.1	80.00-	120.00	100.00
3.866	3.866	0.000	20495470	762.202	30.5	126.76-	166.76	154.12
4.029	4.028	0.001	21502407	759.392	30.4	137.71-	177.71	161.69
4.097	4.096	0.001	12508443	774.139	31.0	69.00-	109.00	94.06
4.240	4.238	0.002	12671124	753.665	30.2	72.73-	112.73	95.28
Average of Peak Concentrations =					30.2			



Data File: /chem/ecdl1.i/0317107.b/0444401.d  
Date: 17-MAR-2010 14:19  
Client ID: MST16-10-13296HS  
Sample Info: 1120207250411  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: ecdl1.i  
Operator: YSL  
Column diameter: 0.25





Data File: /chem/ecdl1a.i/0317107.b/045b4501.d  
Report Date: 17-Mar-2010 14:48

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/045b4501.d

Lab Smp Id: 1202072505

Client Smp ID: WST16-10-13296MSD

Inj Date : 17-MAR-2010 14:32

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |1202072505|1|

Misc Info : |ECD82P\_1S|965805|SVA|QC A|SOIL|MSD|

Comment :

Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m

Meth Date : 17-Mar-2010 14:02 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 45

QC Sample: MSD

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2165.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	30.02000	Weight of sample extracted (g)
M	17.02150	% 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		
2.271	2.271	0.000	37294616	142.165	5.7	80.00-	120.00 100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.912	5.913	-0.001	29153594	155.757	6.2	80.00-	120.00 100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
3.166	3.166	0.000	7669613	609.426	24.5	80.00-	120.00 100.00 (M)
3.248	3.248	0.000	5018513	581.236	23.3	44.76-	84.76 65.43
3.312	3.312	0.000	3010073	569.374	22.8	20.23-	60.23 39.25
3.538	3.538	0.000	4172869	605.403	24.3	32.28-	72.28 54.41



CONCENTRATIONS								
			ON-COL	FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO		
==	=====	=====	=====	=====	=====	=====		
1 Aroclor-1016 (continued)								
3.614	3.614	0.000	3888666	605.470	24.3	27.98-	67.98	50.70
Average of Peak Concentrations =				23.8				
-----								
7 Aroclor-1260				CAS #: 11096-82-5				
4.304	4.304	0.000	9272696	708.909	28.4	80.00-	120.00	100.00
4.429	4.429	0.000	11716957	753.549	30.2	101.65-	141.65	126.36
4.695	4.695	0.000	9295199	781.367	31.4	71.12-	111.12	100.24
4.868	4.868	0.000	8801108	716.165	28.7	74.79-	114.79	94.91
5.015	5.015	0.000	20936611	793.215	31.8	189.81-	229.81	225.79
Average of Peak Concentrations =				30.1				
-----								

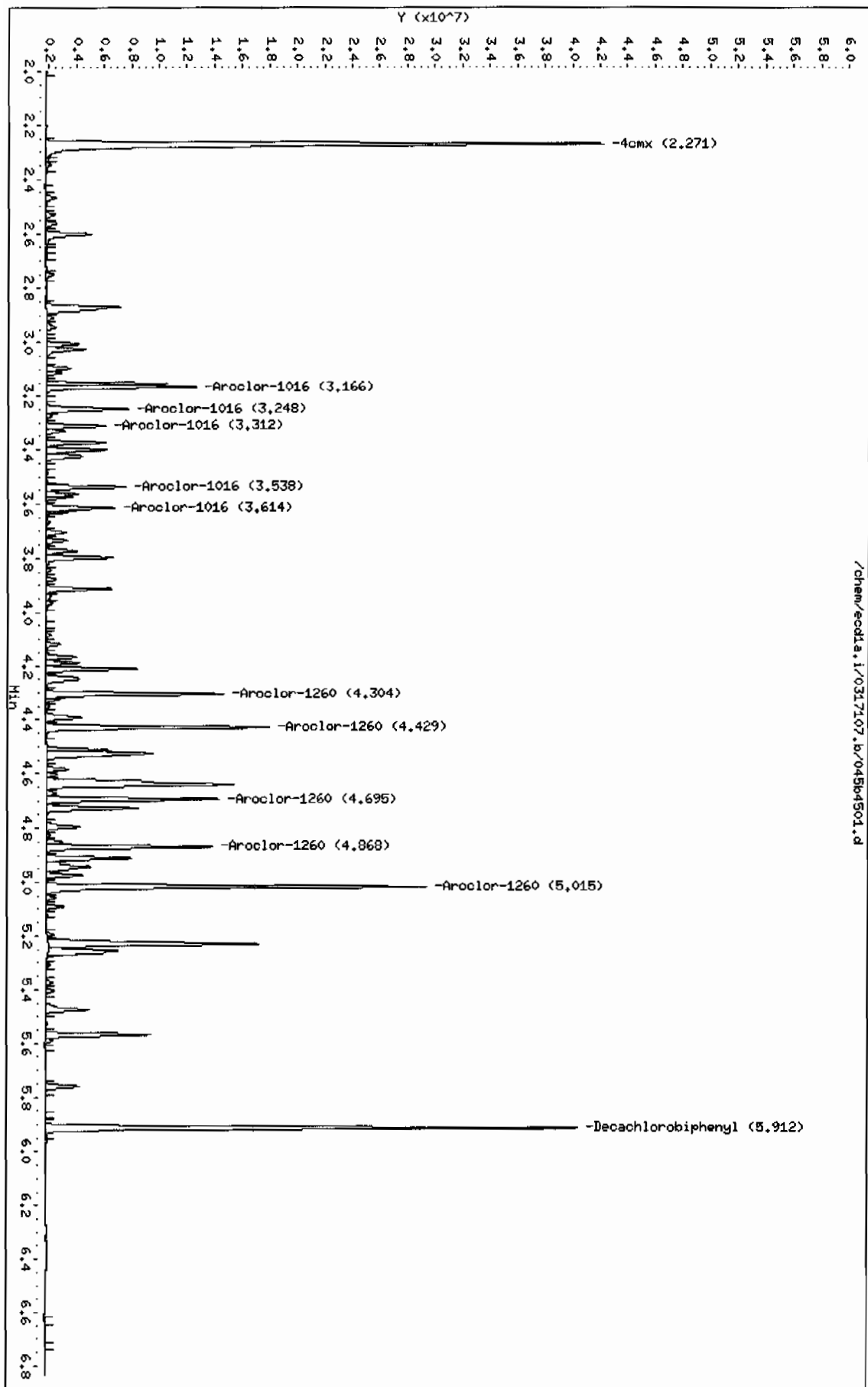
#### QC Flag Legend

M - Compound response manually integrated.



Data File: /chem/eod1a.i/0317107.b/045b4501.d  
Date: 17-MAR-2010 14:32  
Client ID: MST16-10-13296HSD  
Sample Info: 11202072505/11  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: eod1a.i  
Operator: YSI  
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/045f4501.d  
 Lab Smp Id: 1202072505 Client Smp ID: WST16-10-13296MSD  
 Inj Date : 17-MAR-2010 14:32  
 Operator : YS1 Inst ID: ecd1a.i  
 Smp Info : |1202072505|1|  
 Misc Info : |ECD82P\_1S|965805|SVA|QC A|SOIL|MSD|||  
 Comment :  
 Method : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m  
 Meth Date : 17-Mar-2010 14:02 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
 Als bottle: 45 QC Sample: MSD  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-2165.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	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	17.02150	% 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							
1.913	1.913	0.000	55803151	143.260	5.8	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3							
5.216	5.216	0.000	44069366	148.416	6.0	80.00- 120.00	100.00
-----							
1 Aroclor-1016 CAS #: 12674-11-2							
2.365	2.366	-0.001	8633253	568.845	22.8	80.00- 120.00	100.00
2.651	2.651	0.000	11708779	618.342	24.8	108.88- 148.88	135.62
2.731	2.732	-0.001	6935672	557.433	22.4	62.57- 102.57	80.34
2.769	2.768	0.001	4152301	565.068	22.7	30.09- 70.09	48.10

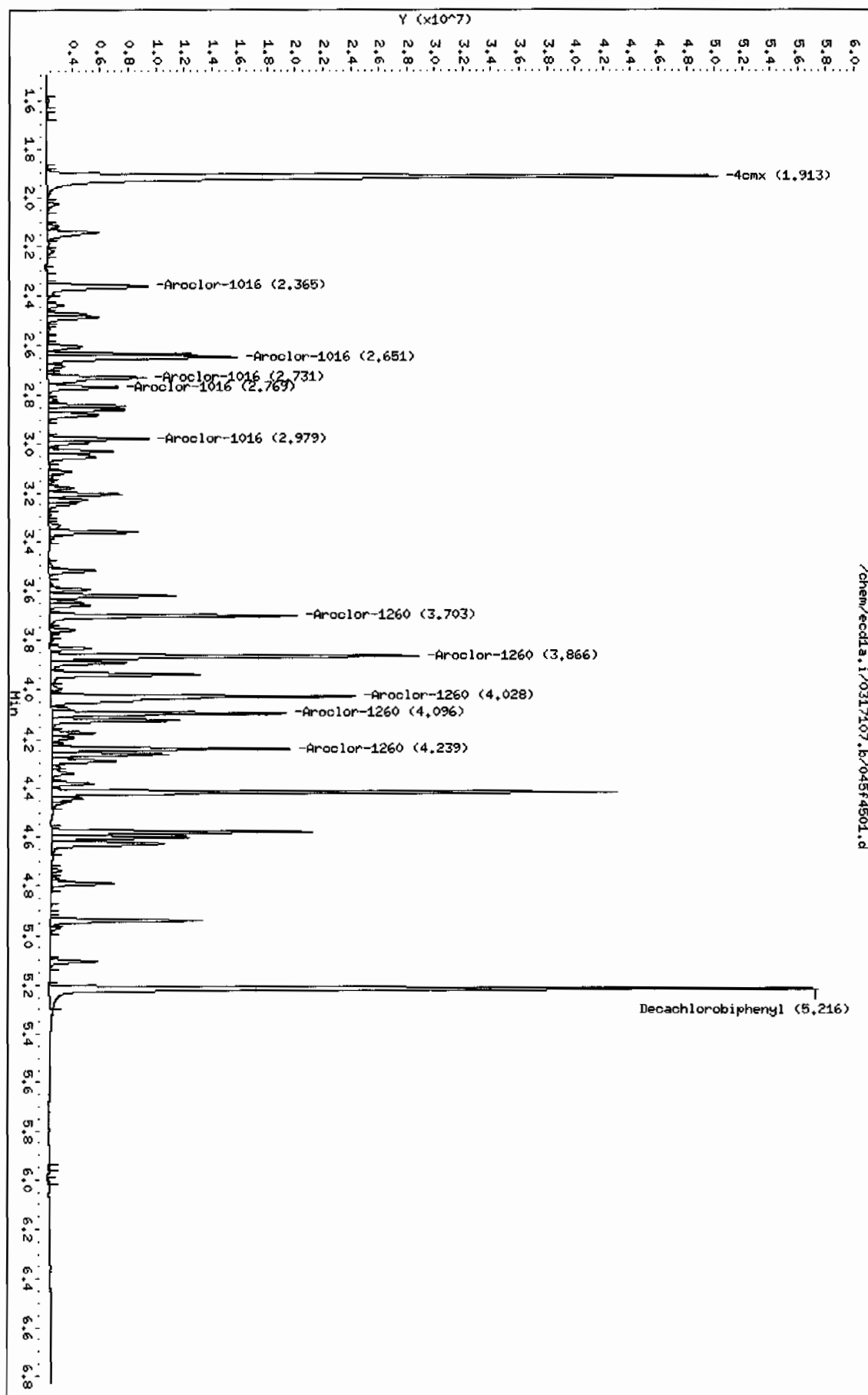


CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====		=====	=====	=====	
1 Aroclor-1016 (continued)								
2.979	2.978	0.001	5513261	579.259	23.2	44.27-	84.27	63.86
Average of Peak Concentrations =					23.2			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.703	3.703	0.000	13184981	719.308	28.9	80.00-	120.00	100.00
3.866	3.866	0.000	20548456	764.172	30.7	126.76-	166.76	155.85
4.028	4.028	0.000	21920213	774.147	31.1	137.71-	177.71	166.25
4.096	4.096	0.000	12695880	785.740	31.5	69.00-	109.00	96.29
4.239	4.238	0.001	12590927	748.895	30.1	72.73-	112.73	95.49
Average of Peak Concentrations =					30.5			



Data File: /chem/ecdl1a.i/0317107.b/045f4501.d  
Date: 17-MAR-2010 14:32  
Client ID: MS116-10-13296HSD  
Sample Info: 1120207250511  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: ecdl1a.i  
Operator: VSI  
Column diameter: 0.25





# Prep Logbook Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 965798  
 Analyst: Andrew Schwemin  
 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)
1202072502 MB	16-MAR-2010 21:02:00	30	H2SO4/K/M12		2	9	1	0.03333
1202072503 LCS	16-MAR-2010 21:02:00	30	H2SO4/K/M12		2	9	1	0.03333
248240009	16-MAR-2010 21:02:00	30.14	H2SO4/K/M12		2	9	1	0.03318
248240010	16-MAR-2010 21:02:00	30.17	H2SO4/K/M12		2	9	1	0.03315
248244001	16-MAR-2010 21:02:00	30.18	H2SO4/K/M12		2	9	1	0.03313
248249001	16-MAR-2010 21:02:00	30.03	H2SO4/K/M12		2	9	1	0.0333
248249002	16-MAR-2010 21:02:00	30.18	H2SO4/K/M12		2	9	1	0.03313
248249003	16-MAR-2010 21:02:00	30.04	H2SO4/K/M12		2	9	1	0.03329
248249004	16-MAR-2010 21:02:00	30.02	H2SO4/K/M12		2	9	1	0.03331
248373011	16-MAR-2010 21:02:00	30.19	H2SO4/K/M12		2	9	1	0.03312
248373014	16-MAR-2010 21:02:00	30.14	H2SO4/K/M12		2	9	1	0.03318
248373015	16-MAR-2010 21:02:00	30.01	H2SO4/K/M12		2	9	1	0.03332
248377002	16-MAR-2010 21:02:00	30.08	H2SO4/K/M12		2	9	1	0.03324
248377003	16-MAR-2010 21:02:00	30.08	H2SO4/K/M12		2	9	1	0.03324
248377004	16-MAR-2010 21:02:00	30.16	H2SO4/K/M12		2	9	1	0.03316
248377005	16-MAR-2010 21:02:00	30.07	H2SO4/K/M12		2	9	1	0.03326
248377006	16-MAR-2010 21:02:00	30.03	H2SO4/K/M12		2	9	1	0.0333
248377007	16-MAR-2010 21:02:00	30.01	H2SO4/K/M12		2	9	1	0.03332
248386003	16-MAR-2010 21:02:00	30.19	H2SO4/K/M12		2	9	1	0.03312
248386004	16-MAR-2010 21:02:00	30.12	H2SO4/K/M12		2	9	1	0.0332
248389002	16-MAR-2010 21:02:00	30.01	H2SO4/K/M12		2	9	1	0.03332
1202072504 MS (248389002)	16-MAR-2010 21:02:00	30.08	H2SO4/K/M12		2	9	1	0.03324
1202072505 MSD (248389002)	16-MAR-2010 21:02:00	30.02	H2SO4/K/M12		2	9	1	0.03331
248389003	16-MAR-2010 21:02:00	30.07	H2SO4/K/M12		2	9	1	0.03326
Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:		
LCS	1202072503	PCB Laboratory Control	WEI00224-07	1	mL	Clean up Date: 3/16/10		
MS	1202072504	PCB Laboratory Control	WEI00224-07	1	mL	Clean up Initials: AJS		
MSD	1202072505	PCB Laboratory Control	WEI00224-07	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> 18-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> 965805	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG):</b> 248240(10-2134),248244(10-2137),248249(10-2140),248373(10-2154),248377(10-2157),248386(10-2164),248389(10-2165) <b>Application Issues:</b> Failed Yield for Surrogates			
<b>Specification and Requirements</b>		<b>DER Disposition:</b>	
<b>Exception Description:</b>			
1. Failed Yield for Surrogates:  248244 001		The sample was diluted. the result was reported.	

**Originator's Name:**

Yiping Shi 18-MAR-10

**Data Validator/Group Leader:**

Robert Whitlock 19-MAR-10