

Sunday, January 17, 2010

Page 1 of 3  
REQUEST NUMBER: 10-1304

**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: 10-1304  
Per Agreement Number: 126310011  
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated.

SHIP DATE: 1/18/2010

TURNAROUND/REPORT DUE: 2/17/2010

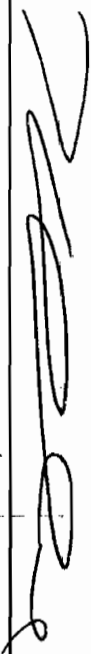
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:8082		1	RE15-10-7164	R	1/13/2010	
		1	RE15-10-7165	R	1/13/2010	
		1	RE15-10-7166	R	1/13/2010	
		1	RE15-10-7167	R	1/13/2010	
		1	RE15-10-7168	R	1/13/2010	
		1	RE15-10-7169	R	1/13/2010	
		1	RE15-10-7170	R	1/13/2010	
		1	RE15-10-7171	R	1/13/2010	
SW-846:8260B		1	RE15-10-7164	R	1/13/2010	

Sunday, January 17, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:8260B						
1		1	RE15-10-7165	R	1/13/2010	
1		1	RE15-10-7166	R	1/13/2010	
1		1	RE15-10-7167	R	1/13/2010	
1		1	RE15-10-7168	R	1/13/2010	
1		1	RE15-10-7169	R	1/13/2010	
1		1	RE15-10-7170	R	1/13/2010	
1		1	RE15-10-7171	R	1/13/2010	
1		1	RE15-10-7176	R	1/13/2010	
1		1	RE15-10-7177	R	1/13/2010	
1		1	RE15-10-7178	R	1/13/2010	
1		1	RE15-10-7179	R	1/13/2010	
1		1	RE15-10-7180	R	1/13/2010	
1		1	RE15-10-7181	R	1/13/2010	
1		1	RE15-10-7182	R	1/13/2010	
1		1	RE15-10-7183	R	1/13/2010	
SW-846:8270C						
1		1	RE15-10-7164	R	1/13/2010	
1		1	RE15-10-7165	R	1/13/2010	
1		1	RE15-10-7166	R	1/13/2010	
1		1	RE15-10-7167	R	1/13/2010	
1		1	RE15-10-7168	R	1/13/2010	
1		1	RE15-10-7169	R	1/13/2010	
1		1	RE15-10-7170	R	1/13/2010	
1		1	RE15-10-7171	R	1/13/2010	
1		1	RE15-10-7176	R	1/13/2010	
1		1	RE15-10-7177	R	1/13/2010	
1		1	RE15-10-7178	R	1/13/2010	
1		1	RE15-10-7179	R	1/13/2010	
1		1	RE15-10-7180	R	1/13/2010	

Sunday, January 17, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:8321A_MOD		1	RE15-10-7181	R	1/13/2010	
		1	RE15-10-7182	R	1/13/2010	
		1	RE15-10-7183	R	1/13/2010	
		1	RE15-10-7164	R	1/13/2010	
		1	RE15-10-7165	R	1/13/2010	
		1	RE15-10-7166	R	1/13/2010	
		1	RE15-10-7167	R	1/13/2010	
		1	RE15-10-7168	R	1/13/2010	
		1	RE15-10-7169	R	1/13/2010	
		1	RE15-10-7170	R	1/13/2010	
		1	RE15-10-7171	R	1/13/2010	
		1	RE15-10-7176	R	1/13/2010	
		1	RE15-10-7177	R	1/13/2010	
		1	RE15-10-7178	R	1/13/2010	
		1	RE15-10-7179	R	1/13/2010	
		1	RE15-10-7180	R	1/13/2010	
		1	RE15-10-7181	R	1/13/2010	
		1	RE15-10-7182	R	1/13/2010	
		1	RE15-10-7183	R	1/13/2010	

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LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1304C

**LOS ALAMOS**

REQUEST NUMBER: 10-1304

**NATIONAL LABORATORY**

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 2/17/2010

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
RE15-10-7165	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7171	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7170	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7164	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7167	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7169	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7168	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7166	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7177	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7177	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7181	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7181	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7178	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7178	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7182	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7182	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7183	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7183	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7176	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7176	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7180	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7180	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7179	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7179	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7165	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7171	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7170	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7166	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7164	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7167	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7169	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7168	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R



Relinquished By:

Date

Time

Received By:

Date

Time



7/18/10

3:00

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

10 - 1304

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2479

EVENT NAME: 4th Qtr. FY09 - AOC 15-014(h) - Threemile Canyon

SAMPLE ID: RE15-10-7164

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/13/2010		MEDIA:	OBT3		All h
TIME COLLECTED (HH:MM)		0821		SUB-MEDIA:	TUFF 1		NA
PRS ID:	15-014(h)	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	15-610503			FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	2.0		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	3.9		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	Regular	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	
1		Met+U+CLO4+CN	1 GAL POLY Liter LC 12/16/09	Ice	Y	
1		8082+8270+NME D-EXP	500 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	

SAMPLE DESC: Brown silty sand, some tuff fragments  
FTB RE15-10-7234

SAMPLE COMMENTS: NA

LOCATION DESC: 14h-1 below pavement

## FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  33 dpm  
Beta/Gamma  $\leq$  2070 dpm

PID  $\frac{\text{Ambient Reading}}{0.0} = 0.0$  ppm

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) JON MARIN (Signature) Jon R. Marin	Date/Time 1/14/10 7:48	RECEIVED BY (Printed Name) [Signature] (Signature) [Signature]	Date/Time 1/14/10 7:48
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2479

EVENT NAME: 4th Qtr. FY09 - AOC 15-014(h) - Threemile Canyon

SAMPLE ID: RE15-10-7165

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/13/2010	MEDIA:	QBT3	A11h
TIME COLLECTED (HH:MM)		0851	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-014(h)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610503	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	7.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	8.8	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES/NO/NA		
COMPOSITE TYPE:	NA		COMPOSITE TIME INTERVAL:	NA	
			WATER FLOWING: YES/NO/NA		
BOREHOLE: YES/NO/NA			BOREHOLE DECLINATION:	NA	
			BOREHOLE DIRECTION:	NA	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	
1		Met+U+CLO4+CN	1 GAL POLY Liter RC 12/16/09	Ice	Y	
1		8082+8270+NME D-EXP	500 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	

SAMPLE DESC:

Brown clay, and silty sand, tuff fragments

SAMPLE COMMENTS:

NA

LOCATION DESC: 14h-1 below pavement

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  27 dpmBeta/Gamma  $\leq$  1983 dpmPID  $\frac{\text{Ambient Reading}}{0.0} = 0.0$  ppm

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

R. Saunders

RELINQUISHED BY (Printed Name) JON MARIN (Signature) Jon R. Marin	Date/Time 1/14/10 7:48	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) Sheri Sherwood	Date/Time 1/14/10 7:48
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2479

EVENT NAME: 4th Qtr. FY09 - AOC 15-014(h) - Threemile Canyon

SAMPLE ID: RE15-10-7166

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/13/2010		MEDIA:		QBT3	
TIME COLLECTED(HH:MM)		1038		SUB-MEDIA:		TUFF 1	
PRS ID:	15-014(h)	ok		SAMPLE TECH CODE:		HA	
LOCATION ID:	15-610504	↓		FIELD QC TYPE:		NA	
LOCATION TYPE:	GENERIC	↓		FIELD PREP:		NA	
TOP DEPTH:	0	0.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH:	0	1.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	SED		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	
1		Met+U+CLO4+C N	1 GAL POLY Liter Xc 12/16/09	Ice	Y	
1		8082+8270+NME D-EXP	500 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	


SAMPLE DESC: moist brown and black sand with roots

SAMPLE COMMENTS: NA

LOCATION DESC: 14h-20, drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 22 dpm  
Beta/Gamma = 2070 dpm

4.5 mg  
PID 

COLLECTED BY (PRINT)

REVIEWED BY (PRINT)

R. Saunders

RELINQUISHED BY

(Printed Name) JON MARIN  
(Signature) Jon Marin

Date/Time

1/14/10  
7:48

RECEIVED BY

(Printed Name) Sheri Sherwood  
(Signature) Sheri Sherwood

Date/Time

1/14/10  
7:48

RELINQUISHED BY

(Printed Name)

Date/Time

RECEIVED BY

(Printed Name)

Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2479

EVENT NAME: 4th Qtr. FY09 - AOC 15-014(h) - Threemile Canyon

SAMPLE ID: RE15-10-7167

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/13/2010		MEDIA: OBT3		SED	
TIME COLLECTED (HH:MM)		1115		SUB-MEDIA: TUFF 1		NA	
PRS ID: 15-014(h)		OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID: 15-610504		↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE: GENERIC		↓		FIELD PREP: NA		↓	
TOP DEPTH: 0		1.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		2.2		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		SED		EXCAVATED: YES/NO NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO NA			
BOREHOLE: YES/NO NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	8260B	125 ML SEPTUM AMBER GLASS	Ice	y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	y	
1		Met+U+CLO4+C N	1 GAL POLY LITER Rc 12/14/09	Ice	y	
1		8082+8270+NME D-EXP	500 ML AMBER GLASS	Ice	y	
1	✓	H3	500 ML POLY	Ice	y	

SAMPLE DESC:

Black and brown silty clay

SAMPLE COMMENTS:

NA

LOCATION DESC:

14h-20, drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  22 dpm  
Beta/Gamma  $\leq$  2370 dpm

PID  $\frac{\text{Ambient Reading}}{0.0} = 0.0$  ppm

COLLECTED BY (PRINT)

T. McFarlane

REVIEWED BY (PRINT)

R. Saunders

RELINQUISHED BY (Printed Name) JOW MARIN (Signature) Jow Marin	Date/Time 1/14/10 7:45	RECEIVED BY (Printed Name) M. L. White (Signature) M. L. White	Date/Time 1/14/10 7:45
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2479

EVENT NAME: 4th Qtr. FY09 - AOC 15-014(h) - Threemile Canyon

SAMPLE ID: RE15-10-7168

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/13/2010		MEDIA:	QBT3		SED
TIME COLLECTED (HH:MM)		1025		SUB-MEDIA:	TUFF 1		NA
PRS ID:	15-014(h)	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	15-610505			FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	0.0		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	0.5		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	SED		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
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	Yes	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None		
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None		
1		Met+U+CLO4+C N	1 GAL POLY liter RC 12/16/09	Ice		
1		8082+8270+NME D-EXP	500 ML AMBER GLASS	Ice		
1		H3	500 ML POLY	Ice		

SAMPLE DESC: dry silt, roots and small rocks

SAMPLE COMMENTS:

NA

LOCATION DESC: 14h-12, drainage

FIELD SCREENING/MEASUREMENT RESULTS:

HE neg

Alpha  $\leq$  22 dpm  
Beta/Gamma  $\leq$  2050 dpm

PID  $\frac{\text{Ambient Reading}}{0.0}$  ppm

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) MARIN (Signature) <i>John R. Marin</i>	Date/Time 1/14/10 7:49	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) <i>Sherri Sherwood</i>	Date/Time 1/14/10 7:49
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2479

EVENT NAME: 4th Qtr. FY09 - AOC 15-014(h) - Threemile Canyon

SAMPLE ID: RE15-10-7169

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/13/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		1035	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-014(h)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610505	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.1	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	OK	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	Yes	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Yes	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Yes	
1		Met+U+CLO4+C N	1 GAL POLY LITER LC 12/16/09	Ice	Yes	
1		8082+8270+NME D-EXP	500 ML AMBER GLASS	Ice	Yes	
1		H3	500 ML POLY	Ice	Yes	

SAMPLE DESC: pinkish grey weathered tuff

FR: RE15-10-7224

SAMPLE COMMENTS:

NA

LOCATION DESC: 14h-12, drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 16 dpm  
Beta/Gamma = 2160 dpm

PID Ambient Reading 20 ppm

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) MARIN (Signature) J. R. Marin	Date/Time 1/14/10 7:49	RECEIVED BY (Printed Name) M. L. McFarland (Signature) M. L. McFarland	Date/Time 1/14/10 7:49
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2479

EVENT NAME: 4th Qtr. FY09 - AOC 15-014(h) - Threemile Canyon

SAMPLE ID: RE15-10-7170

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/13/2010		MEDIA:		OBT3	
TIME COLLECTED (HH:MM)		1314		SUB-MEDIA:		TUFF 1	
PRS ID: 15-014(h)		OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID: 15-610506		↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE: GENERIC		↓		FIELD PREP: NA		↓	
TOP DEPTH: 0		0.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		0.7		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		SED		EXCAVATED: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> NA			
BOREHOLE: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> 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		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	
1		Met+U+CLO4+C N	1 GAL POLY Liter LC 12/16/09	Ice	Y	
1		8082+8270+NME D-EXP	500 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	

SAMPLE DESC:

Brown clayey silt, roots and rocks

FD RE15-10-7219

SAMPLE COMMENTS:

NA

LOCATION DESC:

14h-14, drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 3% dpm

Beta/Gamma = 2300 dpm

HE negative

PID Ambient Reading 0.0 ppm

COLLECTED BY (PRINT)

Th McFarland

REVIEWED BY (PRINT)

R. Saunders

RELINQUISHED BY (Printed Name) MARIN (Signature) <i>for R. Marin</i>	Date/Time 1/14/10 7:52	RECEIVED BY (Printed Name) <i>Miss White</i> (Signature) <i>M. White</i>	Date/Time 1/14/10 7:52
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2479

EVENT NAME: 4th Qtr. FY09 - AOC 15-014(h) - Threemile Canyon

SAMPLE ID: RE15-10-7171

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/13/2010	MEDIA:		OBT3
TIME COLLECTED (HH:MM)		1325	SUB-MEDIA:		TUFF 1
PRS ID:	15-014(h)	OK	SAMPLE TECH CODE:		HA
LOCATION ID:	15-610506	↓	FIELD QC TYPE:		NA
LOCATION TYPE:	GENERIC	↓	FIELD PREP:		NA
TOP DEPTH:	0	1.0	SAMPLE USAGE:		INV
BOTTOM DEPTH:	0	2.1	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		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	
1		Met+U+CLO4+C N	1 GAE POLY Liter LC 12/14/09	Ice	Y	
1		8082+8270+NME D-EXP	500 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	

SAMPLE DESC:

Brown sand, few roots and few small rocks

SAMPLE COMMENTS:

NA

LOCATION DESC:

14h-14 drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  38 dpm  
Beta/Gamma  $\leq$  2350 dpm

PID  $\frac{\text{Ambient Reading}}{0.0} = 0.0$  ppm

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) <u>MAVIN</u> (Signature) <u>[Signature]</u>	Date/Time <u>1/14/10</u> <u>7:52</u>	RECEIVED BY (Printed Name) <u>Shawn Sherwood</u> (Signature) <u>[Signature]</u>	Date/Time <u>1/14/10</u> <u>7:52</u>
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2479

EVENT NAME: 4th Qtr. FY09 - AOC 15-014(h) - Threemile Canyon

SAMPLE ID: RE15-10-7176

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/13/2010		MEDIA: OBT3		ALLH	
TIME COLLECTED (HH:MM)		0850		SUB-MEDIA: TUFF 1		NA	
PRS ID:	15-014(h)	OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID:	15-610509	↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE:	GENERIC	↓		FIELD PREP: NA		↓	
TOP DEPTH:	0	0.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH:	0	0.50.12/10 0.50.6		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		
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None		
1		H3	500 ML POLY	Ice		
1		Met+U+CLO4+C N	1 GAL POLY Ltr LC 12/16/09	Ice		
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	✓	

SAMPLE DESC: dark-brown loose top soil with some roots and pine needles

SAMPLE COMMENTS:

NA

LOCATION DESC: 14h-10

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 33 dpm  
Beta/Gamma = 2300 dpmPID  $\frac{\text{Ambient}}{\text{Reading}} = \frac{0.0}{0.0} \text{ ppm}$ 

HE = NEG

COLLECTED BY (PRINT)

R. Saunders

REVIEWED BY (PRINT)

LARRY A. LOPEZ

RELINQUISHED BY (Printed Name) JON MARIN (Signature) Jon R. Marin	Date/Time 1/14/10 7:49	RECEIVED BY (Printed Name) [Signature] (Signature) [Signature]	Date/Time 1/14/10 7:49
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2479

EVENT NAME: 4th Qtr. FY09 - AOC 15-014(h) - Threemile Canyon

SAMPLE ID: RE15-10-7177

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/13/2010		MEDIA: QRT3		ALLH	
TIME COLLECTED (HH:MM)		0930		SUB-MEDIA: TUFF 1		NA	
PRS ID:	15-014(h)	OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID:	15-610509	↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE:	GENERIC	↓		FIELD PREP: NA		↓	
TOP DEPTH:	0	1.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH:	0	2.0		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	Yes	
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		Met+U+CLO4+C N	1 GAL POLY liter Le 12/14/09	Ice	↓	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	✓	

SAMPLE DESC: brown silty sand with whiteish grey pumice fragments

SAMPLE COMMENTS: hit pumice at 1.3'

LOCATION DESC: 14h-10

## FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  38 dpm  
 Beta/Gamma  $\leq$  2520 dpm

PID Ambient 0.0  
 Reading 0.0 ppm

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT)

T. McFarland

RELINQUISHED BY (Printed Name) JON MARIN (Signature) Jon R. Marin	Date/Time 1/14/10 7:49	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	Date/Time 1/14/10 7:49
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

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

EVENT ID: 2479

EVENT NAME: 4th Qtr. FY09 - AOC 15-014(h) - Threemile Canyon

SAMPLE ID: RE15-10-7178

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/13/2010		MEDIA:	QBT3	72m 1/13/10	
TIME COLLECTED (HH:MM)		0946		SUB-MEDIA:	TUFF 1	ATH SED	
PRS ID:	15-014(h)	ok		SAMPLE TECH CODE:	HA	ok	
LOCATION ID:	15-610510			FIELD QC TYPE:	NA	NA	
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA	↓	
TOP DEPTH:	0	0.0		SAMPLE USAGE:	INV	↓	
BOTTOM DEPTH:	0	0.5		SCREEN/PORT DESC:	NA		
FIELD MATRIX:	R	SED		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+C N	1 GAL POLY Liter cc 12/16/09	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt, few roots and rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 14h-11, drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  44 dpm  
Beta/Gamma  $\leq$  2310 dpm

HE negative  
PID  $\frac{\text{Ambient Reading}}{0.0} = 0.0$  ppm

COLLECTED BY (PRINT)

TL McFarlane

REVIEWED BY (PRINT)

LETREY A. LOPEZ

RELINQUISHED BY (Printed Name) MARIN (Signature) JmR. Marin	Date/Time 1/14/10 7:50	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	Date/Time 1/14/10 7:50
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2479

EVENT NAME: 4th Qtr. FY09 - AOC 15-014(h) - Threemile Canyon

SAMPLE ID: RE15-10-7179

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/13/2010		MEDIA: QBT3		ALLH	
TIME COLLECTED (HH:MM)		1005		SUB-MEDIA: TUFF 1		NA	
PRS ID:	15-014(h)	OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID:	15-610510	↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE:	GENERIC	↓		FIELD PREP: NA		↓	
TOP DEPTH:	0	1.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH:	0	2.0		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	Yes	
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		Met+U+CLO4+C N	1 GAL POLY 6-liter LC 12/16/09	Ice		
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	↓	

SAMPLE DESC: brown silty sand, some rock + root

SAMPLE COMMENTS:

NA

LOCATION DESC:

14h-11, drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  27 dpmBeta/Gamma  $\leq$  2120 dpmPID  $\frac{\text{Ambient Reading}}{0.0}$  ppm

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) MARIN (Signature) <i>for R. Marin</i>	Date/Time 1/14/10 7:50	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) <i>Sherri Sherwood</i>	Date/Time 1/14/10 7:50
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2479

EVENT NAME: 4th Qtr. FY09 - AOC 15-014(h) - Threemile Canyon

SAMPLE ID: RE15-10-7180

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/13/2010	MEDIA:	QBT3	SED
TIME COLLECTED (HH:MM)		0955	SUB-MEDIA:	TUFF1	NA
PRS ID:	15-014(h)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610511	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	SED	EXCAVATED: YES/NO/NA		
COMPOSITE TYPE:	NA		COMPOSITE TIME INTERVAL:	NA	
			WATER FLOWING: YES/NO/NA		
BOREHOLE: YES/NO/NA			BOREHOLE DECLINATION:	NA	
			BOREHOLE DIRECTION:	NA	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+C N	1 GAL POLY Liter XC 12/14/09	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown pebbly sand, roots

SAMPLE COMMENTS:

NA

LOCATION DESC:

14h - 19, drainage

FIELD SCREENING/MEASUREMENT RESULTS:

HE neg

Alpha = 22 dpm  
Beta/Gamma = 2260 dpmPID  $\frac{\text{Ambient Reading}}{0.0} = 0.0$  ppm

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

R. Saunders

RELINQUISHED BY (Printed Name) MARIN	Date/Time 1/14/10 7:50	RECEIVED BY (Printed Name) R. Saunders	Date/Time 1/14/10 7:50
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

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

EVENT ID: 2479

EVENT NAME: 4th Qtr. FY09 - AOC 15-014(h) - Threemile Canyon

SAMPLE ID: RE15-10-7181

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/13/2010	MEDIA:		QBT3
TIME COLLECTED (HH:MM)		1007	SUB-MEDIA:		TUFF 1
PRS ID:	15-014(h)	ok	SAMPLE TECH CODE:		HA
LOCATION ID:	15-610511	↓	FIELD QC TYPE:		NA
LOCATION TYPE:	GENERIC	↓	FIELD PREP:		NA
TOP DEPTH:	0	1.0	SAMPLE USAGE:		INV
BOTTOM DEPTH:	0	1.9	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES/NO/NA		NA
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA	WATER FLOWING: YES/NO/NA		NO
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA	BOREHOLE DIRECTION: NA		NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+C N	1 GAL POLY liter to 12/12/09	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown silty sand, rocks and roots

SAMPLE COMMENTS:

NA

LOCATION DESC:

14h-19, drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  33 dpm  
Beta/Gamma  $\leq$  2280 dpm

PID  $\frac{\text{Ambient Reading}}{5.0} = 0.0$  ppm

COLLECTED BY (PRINT)

T. McFarland

REVIEWED BY (PRINT)

R Saunders

RELINQUISHED BY (Printed Name) <u>MARIN</u> (Signature) <u>Jan R. Marin</u>	Date/Time <u>1/14/10</u> <u>7:51</u>	RECEIVED BY (Printed Name) <u>Sherrin Sherwood</u> (Signature) <u>Sherrin Sherwood</u>	Date/Time <u>1/14/10</u> <u>7:51</u>
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2479

EVENT NAME: 4th Qtr. FY09 - AOC 15-014(h) - Threemile Canyon

SAMPLE ID: RE15-10-7182

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		01/13/2010		MEDIA:	QBT3	01/13/10	ALLH SED
TIME COLLECTED (HH:MM)		1120		SUB-MEDIA:	TUFF 1		NA
PRS ID:	15-014(h)	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	15-610512	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	0.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	0.6		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	SED		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	Yes	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Yes	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Yes	
1		H3	500 ML POLY	Ice	Yes	
1		Met+U+CLO4+C N	1 GAL POLY 2 liter RC 12/16/09	Ice	Yes	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Yes	

SAMPLE DESC: Moist brown sand with lots of roots

SAMPLE COMMENTS:

NA

LOCATION DESC: 14h-13 drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 27 dpm  
Beta/Gamma = 2540 dpm

HE neg  
PID Ambient 0.0  
Reading 00 ppm

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarlane

RELINQUISHED BY (Printed Name) MARIN	Date/Time 1/14/10 7:51	RECEIVED BY (Printed Name) [Signature]	Date/Time 1/14/10 7:51
(Signature) [Signature]		(Signature) [Signature]	
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2479

EVENT NAME: 4th Qtr. FY09 - AOC 15-014(h) - Threemile Canyon

SAMPLE ID: RE15-10-7183

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		<u>01/13/2010</u>		MEDIA:		<u>QBT3</u>	
TIME COLLECTED (HH:MM)		<u>1157</u>		SUB-MEDIA:		<u>TUFF 1</u>	
PRS ID:	<u>15-014(h)</u>	<u>OK</u>		SAMPLE TECH CODE:		<u>HA</u>	
LOCATION ID:	<u>15-610512</u>	<u>↓</u>		FIELD QC TYPE:		<u>NA</u>	
LOCATION TYPE:	<u>GENERIC</u>	<u>↓</u>		FIELD PREP:		<u>NA</u>	
TOP DEPTH:	<u>0</u>	<u>1.0</u>		SAMPLE USAGE:		<u>INV</u>	
BOTTOM DEPTH:	<u>0</u>	<u>1.8</u>		SCREEN/PORT DESC:		<u>NA</u>	
FIELD MATRIX:	<u>R</u>	<u>R</u>		EXCAVATED: YES/NO/NA		<u>NO/NA</u>	
COMPOSITE TYPE: <u>NA</u>		COMPOSITE TIME INTERVAL: <u>NA</u>		WATER FLOWING: YES/NO/NA		<u>NO/NA</u>	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: <u>NA</u>		BOREHOLE DIRECTION: <u>NA</u>			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	<u>normal</u>	8260B	125 ML SEPTUM AMBER GLASS	Ice	<u>Yes</u>	
1	<u>↓</u>	8270C+NMED Exp	500 ML AMBER GLASS	Ice	<u>Yes</u>	
1	<u>↓</u>	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	<u>Yes</u>	
1	<u>↓</u>	H3	500 ML POLY	Ice	<u>Yes</u>	
1	<u>↓</u>	Met+U+CLO4+C N	1 <u>LITER</u> POLY <u>Liter</u> <u>xc 12/10/09</u>	Ice	<u>Yes</u>	
1	<u>↓</u>	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	<u>Yes</u>	

SAMPLE DESC:

Pinch gray tuff

SAMPLE COMMENTS:

NALOCATION DESC: 14h-13 drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  27 dpm  
Beta/Gamma  $\leq$  253 dpm

PID  $\frac{\text{Ambient}}{\text{Reading}} = \frac{0.0}{0.6}$  ppm

COLLECTED BY (PRINT)

R SaundersREVIEWED BY (PRINT) TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) <u>MARIN</u>	<u>1/14/10</u>	(Printed Name) <u>M. L. White</u>	<u>1/14/10</u>
(Signature) <u>[Signature]</u>	<u>7:51</u>	(Signature) <u>[Signature]</u>	<u>7:51</u>
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	

## Rad Screening Data Release Form

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

RE15-10-7164

7165

7176

7177

7166

7167

7168

7169

7178

7179

RE15-10-7180

7181

7185

7184

7182

7183

7121

7170

7219

7189

7186

RE15-10-7187

7190

7191

7192

7193

7194

7195

7196

7197

7188

7178

ARM  
1/14/10

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

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

RE15-10-7234

FTB

7224

FR

7228

FR

7227

FR


Reason:

Print Last Name MARIN

Signature

for R. Marin

Date 1/14/10

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

Section I.		
REQUEST NUMBER: <u>10-1304</u>	VALIDATION DATE: <u>2/24/10</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"/> TPH-DRO	<input type="checkbox"/> METALS	<input type="checkbox"/> PCB CONGENERS
<input type="checkbox"/> GENERAL CHEMISTRY	<input type="checkbox"/> RADIOCHEMISTRY	<input type="checkbox"/> LCMSMS HIGH EXPLOSIVES
		<input type="checkbox"/> LCMSMS PERCHLORATES
		<input type="checkbox"/> ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
<input checked="" type="checkbox"/> OTHER (DESCRIBE): <u>VOCs</u>		

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

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


1. In the FTB, sample RE15-10-7234 from RN 10-1301, associated with samples -7164 and -7165, acetone was detected. The associated sample results were NDs and, thus, were not qualified.
2. The ICV and/or CCV %Ds were >20% for dichlorodifluoromethane, chloromethane, acetone and trichlorotrifluoroethane. The acetone result for sample -7166 was a detect and, thus, was qualified J,V7c. All the other associated sample results were NDs and, thus, were qualified UJ,V7c.
3. The bromofluorobenzene surrogate %Rs for samples -7168 and -7182 were > the laboratory's UAL. The tetrachloroethylene result for sample -7168 was a detect and, thus, was qualified J+,V3b. All the other associated sample results were NDs and, thus, were not qualified.


Reviewed by: Monica Dymerski Level I Date: 02/25/10

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


*Eric T. Mink*

DATE: 2/24/10

DATA VALIDATION COVER SHEET	
<b>5114-1</b>  <b>Data Validation Cover Sheet</b>	Records Use only  Los Alamos NATIONAL LABORATORY EST. 1945
Form 5114-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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

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

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

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

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

5114-2

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

Records Use only



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

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

5114-2

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

Records Use only



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



**Volatile  
Certificate of Analysis  
Sample Summary**

Page 1 of 2

SDG Number: 10-1304

Lab Sample ID: 245106001

Date Collected: 01/13/2010 12:00

Date Received: 01/20/2010 08:45

Matrix: R

%Moisture: 19.4

Client: LANL010

Project: LANL01004

Client ID: RE15-10-7165

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 945552

Inst: VOA5.I

Dilution: 1

Run Date: 01/26/2010 22:27

Analyst: DXK1

Purge Vol: 5 mL

Prep Date: 01/26/2010 14:40

Allquot: 5 g

Final Volume: 5 mL

Data File: 012610V5V227.D

Column: DB-624

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.422	1.24 UJ,V7c
74-87-3	Chloromethane	U	1.24	ug/kg	0.372	1.24 UJ,V7c
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.372	1.24
74-83-9	Bromomethane	U	1.24	ug/kg	0.372	1.24
75-00-3	Chloroethane	U	1.24	ug/kg	0.372	1.24
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.372	1.24
67-64-1	Acetone	U	6.21	ug/kg	2.06	6.21 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.372	1.24
74-88-4	Iodomethane	U	6.21	ug/kg	1.99	6.21
75-09-2	Methylene chloride	U	6.21	ug/kg	2.48	6.21
75-15-0	Carbon disulfide	U	6.21	ug/kg	1.55	6.21
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.372	1.24
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.372	1.24
78-93-3	2-Butanone	U	6.21	ug/kg	1.86	6.21
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.372	1.24
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.372	1.24
67-66-3	Chloroform	U	1.24	ug/kg	0.372	1.24
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.410	1.24
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.372	1.24
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.372	1.24
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.372	1.24
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.372	1.24
71-43-2	Benzene	U	1.24	ug/kg	0.372	1.24
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.410	1.24
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.372	1.24
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.372	1.24
74-95-3	Dibromomethane	U	1.24	ug/kg	0.372	1.24
108-10-1	4-Methyl-2-pentanone	U	6.21	ug/kg	1.55	6.21
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.372	1.24
108-88-3	Toluene	U	1.24	ug/kg	0.372	1.24
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.372	1.24
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.372	1.24
591-78-6	2-Hexanone	U	6.21	ug/kg	1.86	6.21
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.372	1.24
127-18-4	Tetrachloroethylene	U	1.24	ug/kg	0.372	1.24
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.372	1.24
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.372	1.24
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.372	1.24

ETM  
2/24/10

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1304  
Lab Sample ID: 245106001

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOAS.I  
Analyst: DXK1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 19.4  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE15-10-7165  
Batch ID: 945552  
Run Date: 01/26/2010 22:27  
Prep Date: 01/26/2010 14:40  
Data File: 012610V5SV227.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.372	1.24
179601-23-1	m,p-Xylenes	U	2.48	ug/kg	0.372	2.48
95-47-6	o-Xylene	U	1.24	ug/kg	0.372	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.372	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.372	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.372	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.372	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.372	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.372	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.372	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.372	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.372	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.372	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.372	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.372	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.372	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.372	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.372	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.372	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane <i>Trichlorotrifluoroethane</i>	U	6.21	ug/kg	1.99	6.21 UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.372	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24

## Tentatively Identified Compound Summary

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

ETM  
2/24/10

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106002	Date Received: 01/20/2010 08:45	%Moisture: 7.8
Client ID: RE15-10-7171	Client: LANL010	Project: LANL01004
Batch ID: 945552	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 01/26/2010 22:53	Inst: VOA5.1	Dilution: 1
Prep Date: 01/26/2010 14:41	Analyst: DXK1	Purge Vol: 5 mL
Data File: 012610V5\5V228.D	Aliquot: 5 g	Final Volume: 5 mL
	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.369	1.08 UJ,V7c
74-87-3	Chloromethane	U	1.08	ug/kg	0.325	1.08 UJ,V7c
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.325	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.325	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.325	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.325	1.08
67-64-1	Acetone	U	5.42	ug/kg	1.80	5.42 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
74-88-4	Iodomethane	U	5.42	ug/kg	1.74	5.42
75-09-2	Methylene chloride	U	5.42	ug/kg	2.17	5.42
75-15-0	Carbon disulfide	U	5.42	ug/kg	1.36	5.42
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.325	1.08
78-93-3	2-Butanone	U	5.42	ug/kg	1.63	5.42
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.325	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.358	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.325	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.325	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.325	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.325	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.325	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.358	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.325	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.325	1.08
108-10-1	4-Methyl-2-pentanone	U	5.42	ug/kg	1.36	5.42
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.325	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.325	1.08
591-78-6	2-Hexanone	U	5.42	ug/kg	1.63	5.42
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.325	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.325	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.325	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.325	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.325	1.08

ETM  
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**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106002	Date Received: 01/20/2010 08:45	%Moisture: 7.8
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7171	Method: SW846 8260 B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5.1	Dilution: 1
Run Date: 01/26/2010 22:53	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/26/2010 14:41	Aliquot: 5 g	Final Volume: 5 mL
Data File: 012610V5\SV228.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.325	1.08
179601-23-1	m,p-Xylenes	J	0.369	ug/kg	0.325	2.17
95-47-6	o-Xylene	U	1.08	ug/kg	0.325	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.325	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.325	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.325	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.325	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.325	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.325	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.325	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.325	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.325	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.325	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.325	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane <i>Trichlorotrifluoroethane</i>	U	5.42	ug/kg	1.74	5.42 UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08

## Tentatively Identified Compound Summary

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

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106003	Date Received: 01/20/2010 08:45	%Moisture: 23.2
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7170	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5.I	Dilution: 1
Run Date: 01/26/2010 23:19	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/26/2010 14:42	Aliquot: 5 g	Final Volume: 5 mL
Data File: 012610V5SV229.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.30	ug/kg	0.443	1.30 UJ,V7c
74-87-3	Chloromethane	U	1.30	ug/kg	0.391	1.30 UJ,V7c
75-01-4	Vinyl chloride	U	1.30	ug/kg	0.391	1.30
74-83-9	Bromomethane	U	1.30	ug/kg	0.391	1.30
75-00-3	Chloroethane	U	1.30	ug/kg	0.391	1.30
75-69-4	Trichlorofluoromethane	U	1.30	ug/kg	0.391	1.30
67-64-1	Acetone	U	6.51	ug/kg	2.16	6.51 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.30	ug/kg	0.391	1.30
74-88-4	Iodomethane	U	6.51	ug/kg	2.08	6.51
75-09-2	Methylene chloride	J	3.41	ug/kg	2.60	6.51
75-15-0	Carbon disulfide	U	6.51	ug/kg	1.63	6.51
156-60-5	trans-1,2-Dichloroethylene	U	1.30	ug/kg	0.391	1.30
75-34-3	1,1-Dichloroethane	U	1.30	ug/kg	0.391	1.30
78-93-3	2-Butanone	U	6.51	ug/kg	1.95	6.51
156-59-2	cis-1,2-Dichloroethylene	U	1.30	ug/kg	0.391	1.30
594-20-7	2,2-Dichloropropane	U	1.30	ug/kg	0.391	1.30
67-66-3	Chloroform	U	1.30	ug/kg	0.391	1.30
74-97-5	Bromochloromethane	U	1.30	ug/kg	0.430	1.30
71-55-6	1,1,1-Trichloroethane	U	1.30	ug/kg	0.391	1.30
563-58-6	1,1-Dichloropropene	U	1.30	ug/kg	0.391	1.30
56-23-5	Carbon tetrachloride	U	1.30	ug/kg	0.391	1.30
107-06-2	1,2-Dichloroethane	U	1.30	ug/kg	0.391	1.30
71-43-2	Benzene	U	1.30	ug/kg	0.391	1.30
79-01-6	Trichloroethylene	U	1.30	ug/kg	0.430	1.30
78-87-5	1,2-Dichloropropane	U	1.30	ug/kg	0.391	1.30
75-27-4	Bromodichloromethane	U	1.30	ug/kg	0.391	1.30
74-95-3	Dibromomethane	U	1.30	ug/kg	0.391	1.30
108-10-1	4-Methyl-2-pentanone	U	6.51	ug/kg	1.63	6.51
10061-01-5	cis-1,3-Dichloropropylene	U	1.30	ug/kg	0.391	1.30
108-88-3	Toluene	U	1.30	ug/kg	0.391	1.30
10061-02-6	trans-1,3-Dichloropropylene	U	1.30	ug/kg	0.391	1.30
79-00-5	1,1,2-Trichloroethane	U	1.30	ug/kg	0.391	1.30
591-78-6	2-Hexanone	U	6.51	ug/kg	1.95	6.51
142-28-9	1,3-Dichloropropane	U	1.30	ug/kg	0.391	1.30
127-18-4	Tetrachloroethylene	U	1.30	ug/kg	0.391	1.30
124-48-1	Dibromochloromethane	U	1.30	ug/kg	0.391	1.30
106-93-4	1,2-Dibromoethane	U	1.30	ug/kg	0.391	1.30
108-90-7	Chlorobenzene	U	1.30	ug/kg	0.391	1.30

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

SDG Number: 10-1304  
 Lab Sample ID: 245106003

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 23.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE15-10-7170  
 Batch ID: 945552  
 Run Date: 01/26/2010 23:19  
 Prep Date: 01/26/2010 14:42  
 Data File: 012610V5SV229.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.30	ug/kg	0.391	1.30
179601-23-1	m,p-Xylenes	U	2.60	ug/kg	0.391	2.60
95-47-6	o-Xylene	U	1.30	ug/kg	0.391	1.30
100-42-5	Styrene	U	1.30	ug/kg	0.391	1.30
75-25-2	Bromoform	U	1.30	ug/kg	0.391	1.30
79-34-5	1,1,2,2-Tetrachloroethane	U	1.30	ug/kg	0.391	1.30
96-18-4	1,2,3-Trichloropropane	U	1.30	ug/kg	0.391	1.30
108-86-1	Bromobenzene	U	1.30	ug/kg	0.391	1.30
103-65-1	n-Propylbenzene	U	1.30	ug/kg	0.391	1.30
95-49-8	2-Chlorotoluene	U	1.30	ug/kg	0.391	1.30
98-82-8	Isopropylbenzene	U	1.30	ug/kg	0.391	1.30
108-67-8	1,3,5-Trimethylbenzene	U	1.30	ug/kg	0.391	1.30
106-43-4	4-Chlorotoluene	U	1.30	ug/kg	0.391	1.30
98-06-6	tert-Butylbenzene	U	1.30	ug/kg	0.391	1.30
95-63-6	1,2,4-Trimethylbenzene	U	1.30	ug/kg	0.391	1.30
135-98-8	sec-Butylbenzene	U	1.30	ug/kg	0.391	1.30
99-87-6	4-Isopropyltoluene	U	1.30	ug/kg	0.391	1.30
541-73-1	1,3-Dichlorobenzene	U	1.30	ug/kg	0.391	1.30
106-46-7	1,4-Dichlorobenzene	U	1.30	ug/kg	0.391	1.30
104-51-8	n-Butylbenzene	U	1.30	ug/kg	0.391	1.30
96-12-8	1,2-Dibromo-3-chloropropane	U	1.30	ug/kg	0.391	1.30
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.51	ug/kg	2.08	6.51 UJ,V7c
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.30	ug/kg	0.391	1.30
95-50-1	1,2-Dichlorobenzene	U	1.30	ug/kg	0.391	1.30

## 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**

Page 1 of 2

SDG Number: 10-1304  
 Lab Sample ID: 245106004

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 17.7  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE15-10-7164  
 Batch ID: 945552  
 Run Date: 01/26/2010 23:45  
 Prep Date: 01/26/2010 14:43  
 Data File: 012610V55V230.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.413	1.22 UJ,V7c
74-87-3	Chloromethane	U	1.22	ug/kg	0.365	1.22 UJ,V7c
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.365	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.365	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.365	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.365	1.22
67-64-1	Acetone	U	6.08	ug/kg	2.02	6.08 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
74-88-4	Iodomethane	U	6.08	ug/kg	1.94	6.08
75-09-2	Methylene chloride	U	6.08	ug/kg	2.43	6.08
75-15-0	Carbon disulfide	U	6.08	ug/kg	1.52	6.08
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.365	1.22
78-93-3	2-Butanone	U	6.08	ug/kg	1.82	6.08
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.365	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.401	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.365	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.365	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.365	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.365	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.365	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.401	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.365	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.365	1.22
108-10-1	4-Methyl-2-pentanone	U	6.08	ug/kg	1.52	6.08
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.365	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.365	1.22
591-78-6	2-Hexanone	U	6.08	ug/kg	1.82	6.08
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.365	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.365	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.365	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.365	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.365	1.22

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106004	Date Received: 01/20/2010 08:45	%Moisture: 17.7
Client ID: RE15-10-7164	Client: LANL010	Project: LANL01004
Batch ID: 945552	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 01/26/2010 23:45	Inst: VOA5.I	Dilution: 1
Prep Date: 01/26/2010 14:43	Analyst: DXK1	Purge Vol: 5 mL
Data File: 012610V5\SV230.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	1.22	ug/kg	0.365	1.22
179601-23-1	m,p-Xylenes	U	2.43	ug/kg	0.365	2.43
95-47-6	o-Xylene	U	1.22	ug/kg	0.365	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.365	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.365	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.365	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.365	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.365	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.365	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.365	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.365	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.365	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.365	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.365	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.365	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.365	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.08	ug/kg	1.94	6.08 UJ,V7c
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown siloxane	16.55	13.4	ug/kg	0	J



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

SDG Number:	10-1304	Date Collected:	01/13/2010 12:00	Matrix:	R
Lab Sample ID:	245106005	Date Received:	01/20/2010 08:45	%Moisture:	22
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7167	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	945552	Inst:	VOA5.1	Dilution:	1
Run Date:	01/27/2010 00:10	Analyst:	DXK1	Purge Vol:	5 mL
Prep Date:	01/26/2010 14:44	Alliquot:	5 g	Final Volume:	5 mL
Data File:	012610V5\SV231.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.28	ug/kg	0.436	1.28 UJ,V7c
74-87-3	Chloromethane	U	1.28	ug/kg	0.385	1.28 UJ,V7c
75-01-4	Vinyl chloride	U	1.28	ug/kg	0.385	1.28
74-83-9	Bromomethane	U	1.28	ug/kg	0.385	1.28
75-00-3	Chloroethane	U	1.28	ug/kg	0.385	1.28
75-69-4	Trichlorofluoromethane	U	1.28	ug/kg	0.385	1.28
67-64-1	Acetone	U	6.41	ug/kg	2.13	6.41 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.28	ug/kg	0.385	1.28
74-88-4	Iodomethane	U	6.41	ug/kg	2.05	6.41
75-09-2	Methylene chloride	U	6.41	ug/kg	2.56	6.41
75-15-0	Carbon disulfide	U	6.41	ug/kg	1.60	6.41
156-60-5	trans-1,2-Dichloroethylene	U	1.28	ug/kg	0.385	1.28
75-34-3	1,1-Dichloroethane	U	1.28	ug/kg	0.385	1.28
78-93-3	2-Butanone	U	6.41	ug/kg	1.92	6.41
156-59-2	cis-1,2-Dichloroethylene	U	1.28	ug/kg	0.385	1.28
594-20-7	2,2-Dichloropropane	U	1.28	ug/kg	0.385	1.28
67-66-3	Chloroform	U	1.28	ug/kg	0.385	1.28
74-97-5	Bromochloromethane	U	1.28	ug/kg	0.423	1.28
71-55-6	1,1,1-Trichloroethane	U	1.28	ug/kg	0.385	1.28
563-58-6	1,1-Dichloropropene	U	1.28	ug/kg	0.385	1.28
56-23-5	Carbon tetrachloride	U	1.28	ug/kg	0.385	1.28
107-06-2	1,2-Dichloroethane	U	1.28	ug/kg	0.385	1.28
71-43-2	Benzene	U	1.28	ug/kg	0.385	1.28
79-01-6	Trichloroethylene	U	1.28	ug/kg	0.423	1.28
78-87-5	1,2-Dichloropropane	U	1.28	ug/kg	0.385	1.28
75-27-4	Bromodichloromethane	U	1.28	ug/kg	0.385	1.28
74-95-3	Dibromomethane	U	1.28	ug/kg	0.385	1.28
108-10-1	4-Methyl-2-pentanone	U	6.41	ug/kg	1.60	6.41
10061-01-5	cis-1,3-Dichloropropylene	U	1.28	ug/kg	0.385	1.28
108-88-3	Toluene	U	1.28	ug/kg	0.385	1.28
10061-02-6	trans-1,3-Dichloropropylene	U	1.28	ug/kg	0.385	1.28
79-00-5	1,1,2-Trichloroethane	U	1.28	ug/kg	0.385	1.28
591-78-6	2-Hexanone	U	6.41	ug/kg	1.92	6.41
142-28-9	1,3-Dichloropropane	U	1.28	ug/kg	0.385	1.28
127-18-4	Tetrachloroethylene	U	1.28	ug/kg	0.385	1.28
124-48-1	Dibromochloromethane	U	1.28	ug/kg	0.385	1.28
106-93-4	1,2-Dibromoethane	U	1.28	ug/kg	0.385	1.28
108-90-7	Chlorobenzene	U	1.28	ug/kg	0.385	1.28

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

SDG Number: 10-1304  
 Lab Sample ID: 245106005

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 22  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE15-10-7167  
 Batch ID: 945552  
 Run Date: 01/27/2010 00:10  
 Prep Date: 01/26/2010 14:44  
 Data File: 012610V5\SV231.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.28	ug/kg	0.385	1.28
179601-23-1	m,p-Xylenes	U	2.56	ug/kg	0.385	2.56
95-47-6	o-Xylene	U	1.28	ug/kg	0.385	1.28
100-42-5	Styrene	U	1.28	ug/kg	0.385	1.28
75-25-2	Bromoform	U	1.28	ug/kg	0.385	1.28
79-34-5	1,1,2,2-Tetrachloroethane	U	1.28	ug/kg	0.385	1.28
96-18-4	1,2,3-Trichloropropane	U	1.28	ug/kg	0.385	1.28
108-86-1	Bromobenzene	U	1.28	ug/kg	0.385	1.28
103-65-1	n-Propylbenzene	U	1.28	ug/kg	0.385	1.28
95-49-8	2-Chlorotoluene	U	1.28	ug/kg	0.385	1.28
98-82-8	Isopropylbenzene	U	1.28	ug/kg	0.385	1.28
108-67-8	1,3,5-Trimethylbenzene	U	1.28	ug/kg	0.385	1.28
106-43-4	4-Chlorotoluene	U	1.28	ug/kg	0.385	1.28
98-06-6	tert-Butylbenzene	U	1.28	ug/kg	0.385	1.28
95-63-6	1,2,4-Trimethylbenzene	U	1.28	ug/kg	0.385	1.28
135-98-8	sec-Butylbenzene	U	1.28	ug/kg	0.385	1.28
99-87-6	4-Isopropyltoluene	U	1.28	ug/kg	0.385	1.28
541-73-1	1,3-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28
106-46-7	1,4-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28
104-51-8	n-Butylbenzene	U	1.28	ug/kg	0.385	1.28
96-12-8	1,2-Dibromo-3-chloropropane	U	1.28	ug/kg	0.385	1.28
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.41	ug/kg	2.05	6.41 UJ,V7c
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.28	ug/kg	0.385	1.28
95-50-1	1,2-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.55	9.08	ug/kg	0	J

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106006	Date Received: 01/20/2010 08:45	%Moisture: 8.9
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7169	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5.I	Dilution: 1
Run Date: 01/27/2010 00:36	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/26/2010 14:45	Aliquot: 5 g	Final Volume: 5 mL
Data File: 012610V5\SV232.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 UJ,V7c
74-87-3	Chloromethane	U	1.10	ug/kg	0.329	1.10 UJ,V7c
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	5.49	ug/kg	1.82	5.49 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
74-88-4	Iodomethane	U	5.49	ug/kg	1.76	5.49
75-09-2	Methylene chloride	U	5.49	ug/kg	2.20	5.49
75-15-0	Carbon disulfide	U	5.49	ug/kg	1.37	5.49
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	5.49	ug/kg	1.65	5.49
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	5.49	ug/kg	1.37	5.49
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	5.49	ug/kg	1.65	5.49
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: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106006	Date Received: 01/20/2010 08:45	%Moisture: 8.9
Client ID: RE15-10-7169	Client: LANL010	Project: LANL01004
Batch ID: 945552	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 01/27/2010 00:36	Inst: VOA5.I	Dilution: 1
Prep Date: 01/26/2010 14:45	Analyst: DXK1	Purge Vol: 5 mL
Data File: 012610V5\SV232.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	1.10	ug/kg	0.329	1.10
179601-23-1	m,p-Xylenes	J	0.483	ug/kg	0.329	2.20
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	U	1.10	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	5.49	ug/kg	1.76	5.49 UJ,V7c
	<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
	unknown siloxane	16.55	6.97	ug/kg	0	J

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106007	Date Received: 01/20/2010 08:45	%Moisture: 19.2
Client ID: RE15-10-7168	Client: LANL010	Project: LANL01004
Batch ID: 945552	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 01/27/2010 01:06	Inst: VOA5.1	Dilution: 1
Prep Date: 01/26/2010 14:46	Analyst: DXK1	Purge Vol: 5 mL
Data File: 012610V5\5V233.D	Aliquot: 5 g	Final Volume: 5 mL
	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.421	1.24 UJ,V7c
74-87-3	Chloromethane	U	1.24	ug/kg	0.371	1.24 UJ,V7c
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.371	1.24
74-83-9	Bromomethane	U	1.24	ug/kg	0.371	1.24
75-00-3	Chloroethane	U	1.24	ug/kg	0.371	1.24
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.371	1.24
67-64-1	Acetone	U	6.19	ug/kg	2.05	6.19 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.371	1.24
74-88-4	Iodomethane	U	6.19	ug/kg	1.98	6.19
75-09-2	Methylene chloride	U	6.19	ug/kg	2.47	6.19
75-15-0	Carbon disulfide	U	6.19	ug/kg	1.55	6.19
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.371	1.24
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.371	1.24
78-93-3	2-Butanone	U	6.19	ug/kg	1.86	6.19
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.371	1.24
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.371	1.24
67-66-3	Chloroform	U	1.24	ug/kg	0.371	1.24
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.408	1.24
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.371	1.24
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.371	1.24
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.371	1.24
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.371	1.24
71-43-2	Benzene	U	1.24	ug/kg	0.371	1.24
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.408	1.24
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.371	1.24
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.371	1.24
74-95-3	Dibromomethane	U	1.24	ug/kg	0.371	1.24
108-10-1	4-Methyl-2-pentanone	U	6.19	ug/kg	1.55	6.19
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.371	1.24
108-88-3	Toluene	U	1.24	ug/kg	0.371	1.24
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.371	1.24
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.371	1.24
591-78-6	2-Hexanone	U	6.19	ug/kg	1.86	6.19
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.371	1.24
127-18-4	Tetrachloroethylene	J	1.04	ug/kg	0.371	1.24 J+,V3b
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.371	1.24
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.371	1.24
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.371	1.24

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

SDG Number: 10-1304  
 Lab Sample ID: 245106007

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 19.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE15-10-7168

Batch ID: 945552

Run Date: 01/27/2010 01:06

Prep Date: 01/26/2010 14:46

Data File: 012610V5V233.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.371	1.24
179601-23-1	m,p-Xylenes	U	2.47	ug/kg	0.371	2.47
95-47-6	o-Xylene	U	1.24	ug/kg	0.371	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.371	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.371	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.371	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.371	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.371	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.371	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.371	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.371	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.371	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.371	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.371	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.371	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.371	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.371	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.371	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.371	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.19	ug/kg	1.98	6.19 UJ,V7c
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.371	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.59	10.1	ug/kg	0	J
	unknown siloxane	16.54	10.8	ug/kg	0	J

ETM  
2/24/10

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

SDG Number:	10-1304	Date Collected:	01/13/2010 12:00	Matrix:	R
Lab Sample ID:	245106008	Date Received:	01/20/2010 08:45	%Moisture:	31.6
Client ID:	RE15-10-7166	Client:	LANL010	Project:	LANL01004
Batch ID:	945552	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Run Date:	01/27/2010 01:32	Inst:	VOA5.I	Dilution:	1
Prep Date:	01/26/2010 14:47	Analyst:	DXK1	Purge Vol:	5 mL
Data File:	012610V5\SV234.D	Aliquot:	5 g	Final Volume:	5 mL
		Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.46	ug/kg	0.497	1.46 UJ,V7c
74-87-3	Chloromethane	U	1.46	ug/kg	0.438	1.46 UJ,V7c
75-01-4	Vinyl chloride	U	1.46	ug/kg	0.438	1.46
74-83-9	Bromomethane	U	1.46	ug/kg	0.438	1.46
75-00-3	Chloroethane	U	1.46	ug/kg	0.438	1.46
75-69-4	Trichlorofluoromethane	U	1.46	ug/kg	0.438	1.46
67-64-1	Acetone		29.5	ug/kg	2.43	7.31 J,V7c
75-35-4	1,1-Dichloroethylene	U	1.46	ug/kg	0.438	1.46
74-88-4	Iodomethane	U	7.31	ug/kg	2.34	7.31
75-09-2	Methylene chloride	J	5.87	ug/kg	2.92	7.31
75-15-0	Carbon disulfide	U	7.31	ug/kg	1.83	7.31
156-60-5	trans-1,2-Dichloroethylene	U	1.46	ug/kg	0.438	1.46
75-34-3	1,1-Dichloroethane	U	1.46	ug/kg	0.438	1.46
78-93-3	2-Butanone	U	7.31	ug/kg	2.19	7.31
156-59-2	cis-1,2-Dichloroethylene	U	1.46	ug/kg	0.438	1.46
594-20-7	2,2-Dichloropropane	U	1.46	ug/kg	0.438	1.46
67-66-3	Chloroform	U	1.46	ug/kg	0.438	1.46
74-97-5	Bromochloromethane	U	1.46	ug/kg	0.482	1.46
71-55-6	1,1,1-Trichloroethane	U	1.46	ug/kg	0.438	1.46
563-58-6	1,1-Dichloropropene	U	1.46	ug/kg	0.438	1.46
56-23-5	Carbon tetrachloride	U	1.46	ug/kg	0.438	1.46
107-06-2	1,2-Dichloroethane	U	1.46	ug/kg	0.438	1.46
71-43-2	Benzene	U	1.46	ug/kg	0.438	1.46
79-01-6	Trichloroethylene	U	1.46	ug/kg	0.482	1.46
78-87-5	1,2-Dichloropropane	U	1.46	ug/kg	0.438	1.46
75-27-4	Bromodichloromethane	U	1.46	ug/kg	0.438	1.46
74-95-3	Dibromomethane	U	1.46	ug/kg	0.438	1.46
108-10-1	4-Methyl-2-pentanone	U	7.31	ug/kg	1.83	7.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.46	ug/kg	0.438	1.46
108-88-3	Toluene	J	1.45	ug/kg	0.438	1.46
10061-02-6	trans-1,3-Dichloropropylene	U	1.46	ug/kg	0.438	1.46
79-00-5	1,1,2-Trichloroethane	U	1.46	ug/kg	0.438	1.46
591-78-6	2-Hexanone	U	7.31	ug/kg	2.19	7.31
142-28-9	1,3-Dichloropropane	U	1.46	ug/kg	0.438	1.46
127-18-4	Tetrachloroethylene	U	1.46	ug/kg	0.438	1.46
124-48-1	Dibromochloromethane	U	1.46	ug/kg	0.438	1.46
106-93-4	1,2-Dibromoethane	U	1.46	ug/kg	0.438	1.46
108-90-7	Chlorobenzene	U	1.46	ug/kg	0.438	1.46

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

SDG Number: 10-1304  
 Lab Sample ID: 245106808

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 % Moisture: 31.6  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE15-10-7166  
 Batch ID: 945552  
 Run Date: 01/27/2010 01:32  
 Prep Date: 01/26/2010 14:47  
 Data File: 012610V55V234.D

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.46	ug/kg	0.438	1.46
179601-23-1	m,p-Xylenes	J	1.07	ug/kg	0.438	2.92
95-47-6	o-Xylene	U	1.46	ug/kg	0.438	1.46
100-42-5	Styrene	U	1.46	ug/kg	0.438	1.46
75-25-2	Bromoform	U	1.46	ug/kg	0.438	1.46
79-34-5	1,1,2,2-Tetrachloroethane	U	1.46	ug/kg	0.438	1.46
96-18-4	1,2,3-Trichloropropane	U	1.46	ug/kg	0.438	1.46
108-86-1	Bromobenzene	U	1.46	ug/kg	0.438	1.46
103-65-1	n-Propylbenzene	U	1.46	ug/kg	0.438	1.46
95-49-8	2-Chlorotoluene	U	1.46	ug/kg	0.438	1.46
98-82-8	Isopropylbenzene	U	1.46	ug/kg	0.438	1.46
108-67-8	1,3,5-Trimethylbenzene	U	1.46	ug/kg	0.438	1.46
106-43-4	4-Chlorotoluene	U	1.46	ug/kg	0.438	1.46
98-06-6	tert-Butylbenzene	U	1.46	ug/kg	0.438	1.46
95-63-6	1,2,4-Trimethylbenzene	U	1.46	ug/kg	0.438	1.46
135-98-8	sec-Butylbenzene	U	1.46	ug/kg	0.438	1.46
99-87-6	4-Isopropyltoluene	U	42.5	ug/kg	0.438	1.46
541-73-1	1,3-Dichlorobenzene	U	1.46	ug/kg	0.438	1.46
106-46-7	1,4-Dichlorobenzene	U	1.46	ug/kg	0.438	1.46
104-51-8	n-Butylbenzene	U	1.46	ug/kg	0.438	1.46
96-12-8	1,2-Dibromo-3-chloropropane	U	1.46	ug/kg	0.438	1.46
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane Trichlorotrifluoroethane	U	7.31	ug/kg	2.34	7.31 UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.46	ug/kg	0.438	1.46
95-50-1	1,2-Dichlorobenzene	U	1.46	ug/kg	0.438	1.46

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	9.4	42.6	ug/kg	0	J
007785-70-8	1R- $\alpha$ -Pinene	14.56	9.38	ug/kg	96	NJ

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106009	Date Received: 01/20/2010 08:45	%Moisture: 7.5
Client ID: RE15-10-7177	Client: LANL010	Project: LANL01004
Batch ID: 945552	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 01/27/2010 16:18	Inst: VOA5.I	Dilution: 1
Prep Date: 01/27/2010 13:09	Analyst: DXK1	Purge Vol: 5 mL
Data File: 012710V5\SV312.D	Aliquot: 5 g	Final Volume: 5 mL
	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.367	1.08 UJ,V7c
74-87-3	Chloromethane	U	1.08	ug/kg	0.324	1.08 UJ,V7c
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.324	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.324	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.324	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.324	1.08
67-64-1	Acetone	U	5.40	ug/kg	1.79	5.40 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
74-88-4	Iodomethane	U	5.40	ug/kg	1.73	5.40
75-09-2	Methylene chloride	U	5.40	ug/kg	2.16	5.40
75-15-0	Carbon disulfide	U	5.40	ug/kg	1.35	5.40
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.324	1.08
78-93-3	2-Butanone	U	5.40	ug/kg	1.62	5.40
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.324	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.357	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.324	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.324	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.324	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.324	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.324	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.357	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.324	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.324	1.08
108-10-1	4-Methyl-2-pentanone	U	5.40	ug/kg	1.35	5.40
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.324	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.324	1.08
591-78-6	2-Hexanone	U	5.40	ug/kg	1.62	5.40
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.324	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.324	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.324	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.324	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.324	1.08

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106009	Date Received: 01/20/2010 08:45	%Moisture: 7.5
Client ID: RE15-10-7177	Client: LANL010	Project: LANL01004
Batch ID: 945552	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 01/27/2010 16:18	Inst: VOA5.I	Dilution: 1
Prep Date: 01/27/2010 13:09	Analyst: DXK1	Purge Vol: 5 mL
Data File: 012710V5\SV312.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	1.08	ug/kg	0.324	1.08
179601-23-1	m,p-Xylenes	U	2.16	ug/kg	0.324	2.16
95-47-6	o-Xylene	U	1.08	ug/kg	0.324	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.324	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.324	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.324	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.324	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.324	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.324	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.324	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.324	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.324	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.324	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.324	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.40	ug/kg	1.73	5.40 UJ,V7c
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.99	18	ug/kg	0	J

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

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SDG Number: 10-1304  
 Lab Sample ID: 245106010

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE15-10-7181  
 Batch ID: 945552  
 Run Date: 01/27/2010 16:44  
 Prep Date: 01/27/2010 13:10  
 Data File: 012710VS\SV313.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.387	1.14 UJ,V7c
74-87-3	Chloromethane	U	1.14	ug/kg	0.341	1.14 UJ,V7c
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.341	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.341	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.341	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.341	1.14
67-64-1	Acetone	U	5.69	ug/kg	1.89	5.69 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.341	1.14
74-88-4	Iodomethane	U	5.69	ug/kg	1.82	5.69
75-09-2	Methylene chloride	U	5.69	ug/kg	2.28	5.69
75-15-0	Carbon disulfide	U	5.69	ug/kg	1.42	5.69
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.341	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.341	1.14
78-93-3	2-Butanone	U	5.69	ug/kg	1.71	5.69
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.341	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.341	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.341	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.376	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.341	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.341	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.341	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.341	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.341	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.376	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.341	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.341	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.341	1.14
108-10-1	4-Methyl-2-pentanone	U	5.69	ug/kg	1.42	5.69
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.341	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.341	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.341	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.341	1.14
591-78-6	2-Hexanone	U	5.69	ug/kg	1.71	5.69
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.341	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.341	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.341	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.341	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.341	1.14

ETM  
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**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1304  
Lab Sample ID: 245106010

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.1  
Analyst: DXK1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 12.1  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE15-10-7181  
Batch ID: 945552  
Run Date: 01/27/2010 16:44  
Prep Date: 01/27/2010 13:10  
Data File: 012710V5SV313.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.341	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.341	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.341	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.341	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.341	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.341	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.341	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.341	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.341	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.341	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.341	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.341	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.341	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.341	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.341	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.341	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.341	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.341	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.341	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane Trichlorotrifluoroethane	U	5.69	ug/kg	1.82	5.69 UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.341	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.55	13.2	ug/kg	0	J

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

SDG Number:	10-1304	Date Collected:	01/13/2010 12:00	Matrix:	R
Lab Sample ID:	245106011	Date Received:	01/20/2010 08:45	%Moisture:	21.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7178	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	945552	Inst:	VOA5.I	Dilution:	1
Run Date:	01/27/2010 17:09	Analyst:	DXK1	Purge Vol:	5 mL
Prep Date:	01/27/2010 13:11	Aliquot:	5 g	Final Volume:	5 mL
Data File:	012710V5\SV314.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.27	ug/kg	0.433	1.27 UJ,V7c
74-87-3	Chloromethane	U	1.27	ug/kg	0.382	1.27 UJ,V7c
75-01-4	Vinyl chloride	U	1.27	ug/kg	0.382	1.27
74-83-9	Bromomethane	U	1.27	ug/kg	0.382	1.27
75-00-3	Chloroethane	U	1.27	ug/kg	0.382	1.27
75-69-4	Trichlorofluoromethane	U	1.27	ug/kg	0.382	1.27
67-64-1	Acetone	U	6.36	ug/kg	2.11	6.36 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.27	ug/kg	0.382	1.27
74-88-4	Iodomethane	U	6.36	ug/kg	2.04	6.36
75-09-2	Methylene chloride	U	6.36	ug/kg	2.54	6.36
75-15-0	Carbon disulfide	U	6.36	ug/kg	1.59	6.36
156-60-5	trans-1,2-Dichloroethylene	U	1.27	ug/kg	0.382	1.27
75-34-3	1,1-Dichloroethane	U	1.27	ug/kg	0.382	1.27
78-93-3	2-Butanone	U	6.36	ug/kg	1.91	6.36
156-59-2	cis-1,2-Dichloroethylene	U	1.27	ug/kg	0.382	1.27
594-20-7	2,2-Dichloropropane	U	1.27	ug/kg	0.382	1.27
67-66-3	Chloroform	U	1.27	ug/kg	0.382	1.27
74-97-5	Bromochloromethane	U	1.27	ug/kg	0.420	1.27
71-55-6	1,1,1-Trichloroethane	U	1.27	ug/kg	0.382	1.27
563-58-6	1,1-Dichloropropene	U	1.27	ug/kg	0.382	1.27
56-23-5	Carbon tetrachloride	U	1.27	ug/kg	0.382	1.27
107-06-2	1,2-Dichloroethane	U	1.27	ug/kg	0.382	1.27
71-43-2	Benzene	U	1.27	ug/kg	0.382	1.27
79-01-6	Trichloroethylene	U	1.27	ug/kg	0.420	1.27
78-87-5	1,2-Dichloropropane	U	1.27	ug/kg	0.382	1.27
75-27-4	Bromodichloromethane	U	1.27	ug/kg	0.382	1.27
74-95-3	Dibromomethane	U	1.27	ug/kg	0.382	1.27
108-10-1	4-Methyl-2-pentanone	U	6.36	ug/kg	1.59	6.36
10061-01-5	cis-1,3-Dichloropropylene	U	1.27	ug/kg	0.382	1.27
108-88-3	Toluene	U	1.27	ug/kg	0.382	1.27
10061-02-6	trans-1,3-Dichloropropylene	U	1.27	ug/kg	0.382	1.27
79-00-5	1,1,2-Trichloroethane	U	1.27	ug/kg	0.382	1.27
591-78-6	2-Hexanone	U	6.36	ug/kg	1.91	6.36
142-28-9	1,3-Dichloropropane	U	1.27	ug/kg	0.382	1.27
127-18-4	Tetrachloroethylene	U	1.27	ug/kg	0.382	1.27
124-48-1	Dibromochloromethane	U	1.27	ug/kg	0.382	1.27
106-93-4	1,2-Dibromoethane	U	1.27	ug/kg	0.382	1.27
108-90-7	Chlorobenzene	U	1.27	ug/kg	0.382	1.27

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

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SDG Number: 10-1304  
 Lab Sample ID: 245106011

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 21.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE15-10-7178  
 Batch ID: 945552  
 Run Date: 01/27/2010 17:09  
 Prep Date: 01/27/2010 13:11  
 Data File: 012710V5SV314.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.27	ug/kg	0.382	1.27
179601-23-1	m,p-Xylenes	U	2.54	ug/kg	0.382	2.54
95-47-6	o-Xylene	U	1.27	ug/kg	0.382	1.27
100-42-5	Styrene	U	1.27	ug/kg	0.382	1.27
75-25-2	Bromoform	U	1.27	ug/kg	0.382	1.27
79-34-5	1,1,2,2-Tetrachloroethane	U	1.27	ug/kg	0.382	1.27
96-18-4	1,2,3-Trichloropropane	U	1.27	ug/kg	0.382	1.27
108-86-1	Bromobenzene	U	1.27	ug/kg	0.382	1.27
103-65-1	n-Propylbenzene	U	1.27	ug/kg	0.382	1.27
95-49-8	2-Chlorotoluene	U	1.27	ug/kg	0.382	1.27
98-82-8	Isopropylbenzene	U	1.27	ug/kg	0.382	1.27
108-67-8	1,3,5-Trimethylbenzene	U	1.27	ug/kg	0.382	1.27
106-43-4	4-Chlorotoluene	U	1.27	ug/kg	0.382	1.27
98-06-6	tert-Butylbenzene	U	1.27	ug/kg	0.382	1.27
95-63-6	1,2,4-Trimethylbenzene	U	1.27	ug/kg	0.382	1.27
135-98-8	sec-Butylbenzene	U	1.27	ug/kg	0.382	1.27
99-87-6	4-Isopropyltoluene	U	1.27	ug/kg	0.382	1.27
541-73-1	1,3-Dichlorobenzene	U	1.27	ug/kg	0.382	1.27
106-46-7	1,4-Dichlorobenzene	U	1.27	ug/kg	0.382	1.27
104-51-8	n-Butylbenzene	U	1.27	ug/kg	0.382	1.27
96-12-8	1,2-Dibromo-3-chloropropane	U	1.27	ug/kg	0.382	1.27
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane Trichlorotrifluoroethane	U	6.36	ug/kg	2.04	6.36 UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.27	ug/kg	0.382	1.27
95-50-1	1,2-Dichlorobenzene	U	1.27	ug/kg	0.382	1.27

## Tentatively Identified Compound Summary

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

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

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SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106012	Date Received: 01/20/2010 08:45	%Moisture: 18
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7182	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5.I	Dilution: 1
Run Date: 01/27/2010 17:35	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/27/2010 13:12	Allquot: 5 g	Final Volume: 5 mL
Data File: 012710V5\SV315.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.415	1.22 UJ,V7c
74-87-3	Chloromethane	U	1.22	ug/kg	0.366	1.22 UJ,V7c
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.366	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.366	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.366	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.366	1.22
67-64-1	Acetone	U	6.10	ug/kg	2.02	6.10 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
74-88-4	Iodomethane	U	6.10	ug/kg	1.95	6.10
75-09-2	Methylene chloride	U	6.10	ug/kg	2.44	6.10
75-15-0	Carbon disulfide	U	6.10	ug/kg	1.52	6.10
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.366	1.22
78-93-3	2-Butanone	U	6.10	ug/kg	1.83	6.10
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.366	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.402	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.366	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.366	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.366	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.366	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.366	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.402	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.366	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.366	1.22
108-10-1	4-Methyl-2-pentanone	U	6.10	ug/kg	1.52	6.10
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.366	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.366	1.22
591-78-6	2-Hexanone	U	6.10	ug/kg	1.83	6.10
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.366	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.366	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.366	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.366	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.366	1.22

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

SDG Number: 10-1304  
 Lab Sample ID: 245106012

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 18  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE15-10-7182  
 Batch ID: 945552  
 Run Date: 01/27/2010 17:35  
 Prep Date: 01/27/2010 13:12  
 Data File: 012710V5\SV315.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.366	1.22
179601-23-1	m,p-Xylenes	U	2.44	ug/kg	0.366	2.44
95-47-6	o-Xylene	U	1.22	ug/kg	0.366	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.366	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.366	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.366	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.366	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.366	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.366	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.366	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.366	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.366	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.366	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.366	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.10	ug/kg	1.95	6.10 UJ,V7c
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.59	6.41	ug/kg	0	J

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106013	Date Received: 01/20/2010 08:45	%Moisture: 12.2
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7183	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5.I	Dilution: 1
Run Date: 01/27/2010 18:01	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/27/2010 13:13	Aliquot: 5 g	Final Volume: 5 mL
Data File: 012710V5\SV316.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.387	1.14 UJ,V7c
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14 UJ,V7c
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14
67-64-1	Acetone	U	5.70	ug/kg	1.89	5.70 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
74-88-4	Iodomethane	U	5.70	ug/kg	1.82	5.70
75-09-2	Methylene chloride	U	5.70	ug/kg	2.28	5.70
75-15-0	Carbon disulfide	U	5.70	ug/kg	1.42	5.70
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14
78-93-3	2-Butanone	U	5.70	ug/kg	1.71	5.70
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.376	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.376	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone	U	5.70	ug/kg	1.42	5.70
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14
591-78-6	2-Hexanone	U	5.70	ug/kg	1.71	5.70
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106013	Date Received: 01/20/2010 08:45	%Moisture: 12.2
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7183	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5.1	Dilution: 1
Run Date: 01/27/2010 18:01	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/27/2010 13:13	Allquot: 5 g	Final Volume: 5 mL
Data File: 012710V5\SV316.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.70	ug/kg	1.82	5.70 UJ,V7c
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

**Tentatively Identified Compound Summary**

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

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

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SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106014	Date Received: 01/20/2010 08:45	%Moisture: 4.7
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7176	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5.I	Dilution: 1
Run Date: 01/27/2010 18:27	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/27/2010 13:14	Aliquot: 5 g	Final Volume: 5 mL
Data File: 012710V5SV317.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.357	1.05 UJ,V7c
74-87-3	Chloromethane	U	1.05	ug/kg	0.315	1.05 UJ,V7c
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.315	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.315	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.315	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.315	1.05
67-64-1	Acetone	U	5.24	ug/kg	1.74	5.24 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
74-88-4	Iodomethane	U	5.24	ug/kg	1.68	5.24
75-09-2	Methylene chloride	U	5.24	ug/kg	2.10	5.24
75-15-0	Carbon disulfide	U	5.24	ug/kg	1.31	5.24
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.315	1.05
78-93-3	2-Butanone	U	5.24	ug/kg	1.57	5.24
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.315	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.346	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.315	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.315	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.315	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.315	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.315	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.346	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.315	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.315	1.05
108-10-1	4-Methyl-2-pentanone	U	5.24	ug/kg	1.31	5.24
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.315	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.315	1.05
591-78-6	2-Hexanone	U	5.24	ug/kg	1.57	5.24
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.315	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.315	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.315	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.315	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.315	1.05

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

SDG Number: 10-1304  
 Lab Sample ID: 245106014

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 4.7  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE15-10-7176  
 Batch ID: 945552  
 Run Date: 01/27/2010 18:27  
 Prep Date: 01/27/2010 13:14  
 Data File: 012710V5\SV317.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.315	1.05
179601-23-1	m,p-Xylenes	U	2.10	ug/kg	0.315	2.10
95-47-6	o-Xylene	U	1.05	ug/kg	0.315	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.315	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.315	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.315	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.315	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.315	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.315	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.315	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.315	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.315	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.315	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.315	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.24	ug/kg	1.68	5.24 UJ,V7c
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05

## 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: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106015	Date Received: 01/20/2010 08:45	%Moisture: 13.4
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7180	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5.I	Dilution: 1
Run Date: 01/27/2010 18:53	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/27/2010 13:15	Allquot: 5 g	Final Volume: 5 mL
Data File: 012710V5SV318.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.392	1.15 UJ,V7c
74-87-3	Chloromethane	U	1.15	ug/kg	0.346	1.15 UJ,V7c
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.346	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.346	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.346	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.346	1.15
67-64-1	Acetone	U	5.77	ug/kg	1.92	5.77 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
74-88-4	Iodomethane	U	5.77	ug/kg	1.85	5.77
75-09-2	Methylene chloride	U	5.77	ug/kg	2.31	5.77
75-15-0	Carbon disulfide	U	5.77	ug/kg	1.44	5.77
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.346	1.15
78-93-3	2-Butanone	U	5.77	ug/kg	1.73	5.77
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.346	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.381	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.346	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.346	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.346	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.346	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.346	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.381	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.346	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.346	1.15
108-10-1	4-Methyl-2-pentanone	U	5.77	ug/kg	1.44	5.77
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.346	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.346	1.15
591-78-6	2-Hexanone	U	5.77	ug/kg	1.73	5.77
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.346	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.346	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.346	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.346	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.346	1.15

ETM  
2/24/10

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

SDG Number: 10-1304  
 Lab Sample ID: 245106015

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 13.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE15-10-7180  
 Batch ID: 945552  
 Run Date: 01/27/2010 18:53  
 Prep Date: 01/27/2010 13:15  
 Data File: 012710V5SV318.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.346	1.15
179601-23-1	m,p-Xylenes	U	2.31	ug/kg	0.346	2.31
95-47-6	o-Xylene	U	1.15	ug/kg	0.346	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.346	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.346	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.346	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.346	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.346	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.346	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.346	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.346	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.346	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.346	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.346	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.346	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.346	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.77	ug/kg	1.85	5.77 UJ,V7c
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.346	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: 10-1304  
Lab Sample ID: 245106016

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: DXK1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 20.3  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE15-10-7179  
Batch ID: 945552  
Run Date: 01/27/2010 19:19  
Prep Date: 01/27/2010 13:16  
Data File: 012710V5\SV319.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.25	ug/kg	0.427	1.25 UJ,V7c
74-87-3	Chloromethane	U	1.25	ug/kg	0.376	1.25 UJ,V7c
75-01-4	Vinyl chloride	U	1.25	ug/kg	0.376	1.25
74-83-9	Bromomethane	U	1.25	ug/kg	0.376	1.25
75-00-3	Chloroethane	U	1.25	ug/kg	0.376	1.25
75-69-4	Trichlorofluoromethane	U	1.25	ug/kg	0.376	1.25
67-64-1	Acetone	U	6.27	ug/kg	2.08	6.27 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.25	ug/kg	0.376	1.25
74-88-4	Iodomethane	U	6.27	ug/kg	2.01	6.27
75-09-2	Methylene chloride	J	4.72	ug/kg	2.51	6.27
75-15-0	Carbon disulfide	U	6.27	ug/kg	1.57	6.27
156-60-5	trans-1,2-Dichloroethylene	U	1.25	ug/kg	0.376	1.25
75-34-3	1,1-Dichloroethane	U	1.25	ug/kg	0.376	1.25
78-93-3	2-Butanone	U	6.27	ug/kg	1.88	6.27
156-59-2	cis-1,2-Dichloroethylene	U	1.25	ug/kg	0.376	1.25
594-20-7	2,2-Dichloropropane	U	1.25	ug/kg	0.376	1.25
67-66-3	Chloroform	U	1.25	ug/kg	0.376	1.25
74-97-5	Bromochloromethane	U	1.25	ug/kg	0.414	1.25
71-55-6	1,1,1-Trichloroethane	U	1.25	ug/kg	0.376	1.25
563-58-6	1,1-Dichloropropene	U	1.25	ug/kg	0.376	1.25
56-23-5	Carbon tetrachloride	U	1.25	ug/kg	0.376	1.25
107-06-2	1,2-Dichloroethane	U	1.25	ug/kg	0.376	1.25
71-43-2	Benzene	U	1.25	ug/kg	0.376	1.25
79-01-6	Trichloroethylene	U	1.25	ug/kg	0.414	1.25
78-87-5	1,2-Dichloropropane	U	1.25	ug/kg	0.376	1.25
75-27-4	Bromodichloromethane	U	1.25	ug/kg	0.376	1.25
74-95-3	Dibromomethane	U	1.25	ug/kg	0.376	1.25
108-10-1	4-Methyl-2-pentanone	U	6.27	ug/kg	1.57	6.27
10061-01-5	cis-1,3-Dichloropropylene	U	1.25	ug/kg	0.376	1.25
108-88-3	Toluene	J	0.464	ug/kg	0.376	1.25
10061-02-6	trans-1,3-Dichloropropylene	U	1.25	ug/kg	0.376	1.25
79-00-5	1,1,2-Trichloroethane	U	1.25	ug/kg	0.376	1.25
591-78-6	2-Hexanone	U	6.27	ug/kg	1.88	6.27
142-28-9	1,3-Dichloropropane	U	1.25	ug/kg	0.376	1.25
127-18-4	Tetrachloroethylene	U	1.25	ug/kg	0.376	1.25
124-48-1	Dibromochloromethane	U	1.25	ug/kg	0.376	1.25
106-93-4	1,2-Dibromoethane	U	1.25	ug/kg	0.376	1.25
108-90-7	Chlorobenzene	U	1.25	ug/kg	0.376	1.25

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

SDG Number: 10-1304  
 Lab Sample ID: 245106016

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 20.3  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE15-10-7179  
 Batch ID: 945552  
 Run Date: 01/27/2010 19:19  
 Prep Date: 01/27/2010 13:16  
 Data File: 012710V5SV319.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.25	ug/kg	0.376	1.25
179601-23-1	m,p-Xylenes	U	2.51	ug/kg	0.376	2.51
95-47-6	o-Xylene	U	1.25	ug/kg	0.376	1.25
100-42-5	Styrene	U	1.25	ug/kg	0.376	1.25
75-25-2	Bromoform	U	1.25	ug/kg	0.376	1.25
79-34-5	1,1,2,2-Tetrachloroethane	U	1.25	ug/kg	0.376	1.25
96-18-4	1,2,3-Trichloropropane	U	1.25	ug/kg	0.376	1.25
108-86-1	Bromobenzene	U	1.25	ug/kg	0.376	1.25
103-65-1	n-Propylbenzene	U	1.25	ug/kg	0.376	1.25
95-49-8	2-Chlorotoluene	U	1.25	ug/kg	0.376	1.25
98-82-8	Isopropylbenzene	U	1.25	ug/kg	0.376	1.25
108-67-8	1,3,5-Trimethylbenzene	U	1.25	ug/kg	0.376	1.25
106-43-4	4-Chlorotoluene	U	1.25	ug/kg	0.376	1.25
98-06-6	tert-Butylbenzene	U	1.25	ug/kg	0.376	1.25
95-63-6	1,2,4-Trimethylbenzene	U	1.25	ug/kg	0.376	1.25
135-98-8	sec-Butylbenzene	U	1.25	ug/kg	0.376	1.25
99-87-6	4-Isopropyltoluene	U	1.25	ug/kg	0.376	1.25
541-73-1	1,3-Dichlorobenzene	U	1.25	ug/kg	0.376	1.25
106-46-7	1,4-Dichlorobenzene	U	1.25	ug/kg	0.376	1.25
104-51-8	n-Butylbenzene	U	1.25	ug/kg	0.376	1.25
96-12-8	1,2-Dibromo-3-chloropropane	U	1.25	ug/kg	0.376	1.25
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane <i>Trichlorotrifluoroethane</i>	U	6.27	ug/kg	2.01	6.27 UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.25	ug/kg	0.376	1.25
95-50-1	1,2-Dichlorobenzene	U	1.25	ug/kg	0.376	1.25

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.55	14.6	ug/kg	0	J

ETM  
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## DATA VALIDATION COVER SHEET

5115-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-1304 VALIDATION DATE: 2/24/10 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 | 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):


- In the ICV associated with sample RE15-10-7176, the %Ds were >20% for 2-methyl-4,6-dinitrophenol; indeno(1,2,3-cd)pyrene and benzo(g,h,i)perylene. In the ICV associated with all the other samples, the %Ds were >20% for naphthalene; hexachlorocyclopentadiene and 2-methyl-4,6-dinitrophenol. In the CCV associated with sample -7176, the %Ds were >20% for bis(2-chloroisopropyl)ether, benzoic acid; o-nitroaniline; m-nitroaniline; 2,4-dinitrophenol; 4-nitrophenol; p-nitroaniline; indeno(1,2,3-cd)pyrene and benzo(g,h,i)perylene. In the CCV associated with samples -7178 through -7183, the %Ds were >20% for 4-nitrophenol and p-nitroaniline. In the CCV associated with all the other samples, the %D was >20% for benzoic acid. All the associated sample results were NDs and, thus, were qualified UJ,SV7c.
- The nitrobenzene-d5 surrogate %R for sample 7176 was > the laboratory's UAL. The sample was analyzed at a dilution and, thus, no sample data were qualified.
- It should be noted that a few MS/MSD %Rs and RPDs were not within the laboratory's QC limits. However, MS/MSD analyses are not required for this analysis and, thus, no sample data were qualified.


Reviewed by: Monica Dymerski Level I Date: 02/25/10

VALIDATOR'S SIGNATURE:


Eric T. Mink

DATE: 2/24/10


DATA VALIDATION COVER SHEET	
<b>5115-1</b>  <b>Data Validation Cover Sheet</b>	Records Use only   LOS ALAMOS Environmental Restoration Project
Form 5115-1, Revision 0.0	

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

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input 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 ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
<input checked="" type="checkbox"/>	<input 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

5115-2

## Semivolatile Organic Compound (SVOC) 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"/>	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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  
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Sample Summary

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SDG Number: 10-1304  
Lab Sample ID: 245106004

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.1  
Analyst: AMY  
Allquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 17.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7164  
Batch ID: 944591  
Run Date: 01/29/2010 00:04  
Prep Date: 01/25/2010 14:38  
Data File: s1a2822.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	405	ug/kg	81.0	405
108-95-2	Phenol	U	405	ug/kg	81.0	405
95-57-8	2-Chlorophenol	U	405	ug/kg	81.0	405
106-46-7	1,4-Dichlorobenzene	U	405	ug/kg	81.0	405
621-64-7	N-Nitrosodipropylamine	U	405	ug/kg	81.0	405
59-50-7	4-Chloro-3-methylphenol	U	405	ug/kg	81.0	405
83-32-9	Acenaphthene	U	40.5	ug/kg	13.4	40.5
121-14-2	2,4-Dinitrotoluene	U	405	ug/kg	40.5	405
100-02-7	4-Nitrophenol	U	405	ug/kg	134	405
87-86-5	Pentachlorophenol	U	405	ug/kg	101	405
129-00-0	Pyrene	U	40.5	ug/kg	12.1	40.5
110-86-1	Pyridine	U	405	ug/kg	81.0	405
62-53-3	Aniline	U	405	ug/kg	121	405
111-44-4	bis(2-Chloroethyl) ether	U	405	ug/kg	81.0	405
541-73-1	1,3-Dichlorobenzene	U	405	ug/kg	81.0	405
100-51-6	Benzyl alcohol	U	405	ug/kg	121	405
95-50-1	1,2-Dichlorobenzene	U	405	ug/kg	81.0	405
108-60-1	bis(2-Chloroisopropyl) ether	U	405	ug/kg	81.0	405
95-48-7	o-Cresol	U	405	ug/kg	81.0	405
65794-96-9	m,p-Cresols	U	405	ug/kg	121	405
67-72-1	Hexachloroethane	U	405	ug/kg	81.0	405
98-95-3	Nitrobenzene	U	405	ug/kg	81.0	405
78-59-1	Isophorone	U	405	ug/kg	81.0	405
88-75-5	2-Nitrophenol	U	405	ug/kg	81.0	405
105-67-9	2,4-Dimethylphenol	U	405	ug/kg	142	405
111-91-1	bis(2-Chloroethoxy)methane	U	405	ug/kg	81.0	405
120-83-2	2,4-Dichlorophenol	U	405	ug/kg	81.0	405
65-85-0	Benzoic acid	U	810	ug/kg	202	810 UJ,SV7c
91-20-3	Naphthalene	U	40.5	ug/kg	12.1	40.5 UJ,SV7c
106-47-8	4-Chloroaniline	U	405	ug/kg	81.0	405
87-68-3	Hexachlorobutadiene	U	405	ug/kg	81.0	405
91-57-6	2-Methylnaphthalene	U	40.5	ug/kg	8.10	40.5
77-47-4	Hexachlorocyclopentadiene	U	405	ug/kg	81.0	405 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	405	ug/kg	81.0	405
95-95-4	2,4,5-Trichlorophenol	U	405	ug/kg	81.0	405
91-58-7	2-Chloronaphthalene	U	40.5	ug/kg	13.4	40.5
88-74-4	2-Nitroaniline	U	405	ug/kg	81.0	405
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	405	ug/kg	81.0	405

Semi-Volatile  
Certificate of Analysis  
Sample Summary

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SDG Number: 10-1304  
Lab Sample ID: 245106004

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.02 g  
Column: J&W DB-SMS

Matrix: R  
%Moisture: 17.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
606-20-2	Dimethylphthalate	U	405	ug/kg	81.0	405
208-96-8	2,6-Dinitrotoluene	U	405	ug/kg	40.5	405
51-28-5	Acenaphthylene	U	40.5	ug/kg	12.1	40.5
132-64-9	2,4-Dinitrophenol	U	810	ug/kg	154	810
84-66-2	Dibenzofuran	U	405	ug/kg	81.0	405
86-73-7	Diethylphthalate	U	405	ug/kg	81.0	405
7005-72-3	Fluorene	U	40.5	ug/kg	12.1	40.5
534-52-1	4-Chlorophenylphenylether	U	405	ug/kg	81.0	405
100-01-6	2-Methyl-4,6-dinitrophenol	U	405	ug/kg	81.0	405 UJ,SV7c
122-39-4	4-Nitroaniline	U	405	ug/kg	121	405
122-66-7	<i>p</i> -Nitroaniline					
101-55-3	Diphenylamine	U	405	ug/kg	81.0	405
118-74-1	Azobenzene	U	405	ug/kg	81.0	405
85-01-8	1,2-Diphenylhydrazine					
120-12-7	4-Bromophenylphenylether	U	405	ug/kg	81.0	405
84-74-2	Hexachlorobenzene	U	405	ug/kg	81.0	405
206-44-0	Phenanthrene	U	40.5	ug/kg	12.1	40.5
85-68-7	Anthracene	U	40.5	ug/kg	8.10	40.5
56-55-3	Di-n-butylphthalate	U	405	ug/kg	81.0	405
91-94-1	Fluoranthene	U	40.5	ug/kg	12.1	40.5
218-01-9	Butylbenzylphthalate	U	405	ug/kg	81.0	405
117-81-7	Benzo(a)anthracene	U	40.5	ug/kg	12.1	40.5
117-84-0	3,3'-Dichlorobenzidine	U	405	ug/kg	121	405
205-99-2	Chrysene	U	40.5	ug/kg	12.1	40.5
207-08-9	bis(2-Ethylhexyl)phthalate	U	405	ug/kg	81.0	405
50-32-8	Di-n-octylphthalate	U	405	ug/kg	81.0	405
193-39-5	Benzo(b)fluoranthene	U	40.5	ug/kg	12.1	40.5
53-70-3	Benzo(k)fluoranthene	U	40.5	ug/kg	12.1	40.5
191-24-2	Benzo(a)pyrene	U	40.5	ug/kg	12.1	40.5
120-82-1	Indeno(1,2,3-cd)pyrene	U	40.5	ug/kg	12.1	40.5
	Dibenzo(a,h)anthracene	U	40.5	ug/kg	12.1	40.5
	Benzo(ghi)perylene	U	40.5	ug/kg	12.1	40.5
	1,2,4-Trichlorobenzene	U	405	ug/kg	81.0	405

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.67	222	ug/kg		J
	Unknown Aldol Condensate	3.09	772	ug/kg		JA



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SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106004	Date Received: 01/20/2010 08:45	%Moisture: 17.7
Client ID: RE15-10-7164	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/29/2010 00:04	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: s1a2822.d	Allquot: 30.02 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	13.02	340	ug/kg		J
54832-82-5	Tricyclo[4.3.0.0(7,9)]nonane, 2,2,5,5,8,	15.36	528	ug/kg	90	NJ
	Unknown	16.06	728	ug/kg		J

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**Semi-Volatile  
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Sample Summary**

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106001	Date Received: 01/20/2010 08:45	%Moisture: 19.4
Client ID: RE15-10-7165	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/28/2010 21:46	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: sla2817.d	Allquot: 30 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	414	ug/kg	82.8	414
108-95-2	Phenol	U	414	ug/kg	82.8	414
95-57-8	2-Chlorophenol	U	414	ug/kg	82.8	414
106-46-7	1,4-Dichlorobenzene	U	414	ug/kg	82.8	414
621-64-7	N-Nitrosodipropylamine	U	414	ug/kg	82.8	414
59-50-7	4-Chloro-3-methylphenol	U	414	ug/kg	82.8	414
83-32-9	Acenaphthene	U	41.4	ug/kg	13.7	41.4
121-14-2	2,4-Dinitrotoluene	U	414	ug/kg	41.4	414
100-02-7	4-Nitrophenol	U	414	ug/kg	137	414
87-86-5	Pentachlorophenol	U	414	ug/kg	103	414
129-00-0	Pyrene	U	41.4	ug/kg	12.4	41.4
110-86-1	Pyridine	U	414	ug/kg	82.8	414
62-53-3	Aniline	U	414	ug/kg	124	414
111-44-4	bis(2-Chloroethyl) ether	U	414	ug/kg	82.8	414
541-73-1	1,3-Dichlorobenzene	U	414	ug/kg	82.8	414
100-51-6	Benzyl alcohol	U	414	ug/kg	124	414
95-50-1	1,2-Dichlorobenzene	U	414	ug/kg	82.8	414
108-60-1	bis(2-Chloroisopropyl)ether	U	414	ug/kg	82.8	414
95-48-7	o-Cresol	U	414	ug/kg	82.8	414
65794-96-9	m,p-Cresols	U	414	ug/kg	124	414
67-72-1	Hexachloroethane	U	414	ug/kg	82.8	414
98-95-3	Nitrobenzene	U	414	ug/kg	82.8	414
78-59-1	Isophorone	U	414	ug/kg	82.8	414
88-75-5	2-Nitrophenol	U	414	ug/kg	82.8	414
105-67-9	2,4-Dimethylphenol	U	414	ug/kg	145	414
111-91-1	bis(2-Chloroethoxy)methane	U	414	ug/kg	82.8	414
120-83-2	2,4-Dichlorophenol	U	414	ug/kg	82.8	414
65-85-0	Benzoic acid	U	828	ug/kg	207	828 UJ,SV7c
91-20-3	Naphthalene	U	41.4	ug/kg	12.4	41.4 UJ,SV7c
106-47-8	4-Chloroaniline	U	414	ug/kg	82.8	414
87-68-3	Hexachlorobutadiene	U	414	ug/kg	82.8	414
91-57-6	2-Methylnaphthalene	U	41.4	ug/kg	8.28	41.4
77-47-4	Hexachlorocyclopentadiene	U	414	ug/kg	82.8	414 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	414	ug/kg	82.8	414
95-95-4	2,4,5-Trichlorophenol	U	414	ug/kg	82.8	414
91-58-7	2-Chloronaphthalene	U	41.4	ug/kg	13.7	41.4
88-74-4	2-Nitroaniline	U	414	ug/kg	82.8	414
99-09-2	o-Nitroaniline	U	414	ug/kg	82.8	414
	3-Nitroaniline					

ETM  
2/24/10

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106001	Date Received: 01/20/2010 08:45	%Moisture: 19.4
Client ID: RE15-10-7165	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/28/2010 21:46	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: s1a2817.d	Aliquot: 30 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	414	ug/kg	82.8	414
606-20-2	2,6-Dinitrotoluene	U	414	ug/kg	41.4	414
208-96-8	Acenaphthylene	U	41.4	ug/kg	12.4	41.4
51-28-5	2,4-Dinitrophenol	U	828	ug/kg	157	828
132-64-9	Dibenzofuran	U	414	ug/kg	82.8	414
84-66-2	Diethylphthalate	U	414	ug/kg	82.8	414
86-73-7	Fluorene	U	41.4	ug/kg	12.4	41.4
7005-72-3	4-Chlorophenylphenylether	U	414	ug/kg	82.8	414
534-52-1	2-Methyl-4,6-dinitrophenol	U	414	ug/kg	82.8	414 UJ,SV7c
100-01-6	4-Nitroaniline	U	414	ug/kg	124	414
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	414	ug/kg	82.8	414
122-66-7	Azobenzene	U	414	ug/kg	82.8	414
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	414	ug/kg	82.8	414
118-74-1	Hexachlorobenzene	U	414	ug/kg	82.8	414
85-01-8	Phenanthrene	U	41.4	ug/kg	12.4	41.4
120-12-7	Anthracene	U	41.4	ug/kg	8.28	41.4
84-74-2	Di-n-butylphthalate	U	414	ug/kg	82.8	414
206-44-0	Fluoranthene	U	41.4	ug/kg	12.4	41.4
85-68-7	Butylbenzylphthalate	U	414	ug/kg	82.8	414
56-55-3	Benzo(a)anthracene	U	41.4	ug/kg	12.4	41.4
91-94-1	3,3'-Dichlorobenzidine	U	414	ug/kg	124	414
218-01-9	Chrysene	U	41.4	ug/kg	12.4	41.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	414	ug/kg	82.8	414
117-84-0	Di-n-octylphthalate	U	414	ug/kg	82.8	414
205-99-2	Benzo(b)fluoranthene	U	41.4	ug/kg	12.4	41.4
207-08-9	Benzo(k)fluoranthene	U	41.4	ug/kg	12.4	41.4
50-32-8	Benzo(a)pyrene	U	41.4	ug/kg	12.4	41.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.4	ug/kg	12.4	41.4
53-70-3	Dibenzo(a,h)anthracene	U	41.4	ug/kg	12.4	41.4
191-24-2	Benzo(ghi)perylene	U	41.4	ug/kg	12.4	41.4
120-82-1	1,2,4-Trichlorobenzene	U	414	ug/kg	82.8	414

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.69	216	ug/kg		J
	Unknown Aldol Condensate	3.1	735	ug/kg		JA

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

SDG Number:	10-1304	Date Collected:	01/13/2010 12:00	Matrix:	R
Lab Sample ID:	245106001	Date Received:	01/20/2010 08:45	%Moisture:	19.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7165	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	944591	Inst:	MSD1.1	Dilution:	1
Run Date:	01/28/2010 21:46	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	01/25/2010 14:38	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s1a2817.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
Tentatively Identified Compound Summary							
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	FIt	Qual
	Unknown		3.82	633	ug/kg		J

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

Page 1 of 3

SDG Number: 10-1304  
Lab Sample ID: 245106008

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 31.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7166  
Batch ID: 944591  
Run Date: 01/29/2010 01:53  
Prep Date: 01/25/2010 14:38  
Data File: s1n2826.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	486	ug/kg	97.1	486
108-95-2	Phenol	U	486	ug/kg	97.1	486
95-57-8	2-Chlorophenol	U	486	ug/kg	97.1	486
106-46-7	1,4-Dichlorobenzene	U	486	ug/kg	97.1	486
621-64-7	N-Nitrosodipropylamine	U	486	ug/kg	97.1	486
59-50-7	4-Chloro-3-methylphenol	U	486	ug/kg	97.1	486
83-32-9	Acenaphthene	U	48.6	ug/kg	16.0	48.6
121-14-2	2,4-Dinitrotoluene	U	486	ug/kg	48.6	486
100-02-7	4-Nitrophenol	U	486	ug/kg	160	486
87-86-5	Pentachlorophenol	U	486	ug/kg	121	486
129-00-0	Pyrene	U	48.6	ug/kg	14.6	48.6
110-86-1	Pyridine	U	486	ug/kg	97.1	486
62-53-3	Aniline	U	486	ug/kg	146	486
111-44-4	bis(2-Chloroethyl) ether	U	486	ug/kg	97.1	486
541-73-1	1,3-Dichlorobenzene	U	486	ug/kg	97.1	486
100-51-6	Benzyl alcohol	U	486	ug/kg	146	486
95-50-1	1,2-Dichlorobenzene	U	486	ug/kg	97.1	486
108-60-1	bis(2-Chloroisopropyl)ether	U	486	ug/kg	97.1	486
95-48-7	o-Cresol	U	486	ug/kg	97.1	486
65794-96-9	m,p-Cresols	U	486	ug/kg	146	486
67-72-1	Hexachloroethane	U	486	ug/kg	97.1	486
98-95-3	Nitrobenzene	U	486	ug/kg	97.1	486
78-59-1	Isophorone	U	486	ug/kg	97.1	486
88-75-5	2-Nitrophenol	U	486	ug/kg	97.1	486
105-67-9	2,4-Dimethylphenol	U	486	ug/kg	170	486
111-91-1	bis(2-Chloroethoxy)methane	U	486	ug/kg	97.1	486
120-83-2	2,4-Dichlorophenol	U	486	ug/kg	97.1	486
65-85-0	Benzoic acid	U	971	ug/kg	243	971 UJ,SV7c
91-20-3	Naphthalene	U	48.6	ug/kg	14.6	48.6 UJ,SV7c
106-47-8	4-Chloroaniline	U	486	ug/kg	97.1	486
87-68-3	Hexachlorobutadiene	U	486	ug/kg	97.1	486
91-57-6	2-Methylnaphthalene	U	48.6	ug/kg	9.71	48.6
77-47-4	Hexachlorocyclopentadiene	U	486	ug/kg	97.1	486 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	486	ug/kg	97.1	486
95-95-4	2,4,5-Trichlorophenol	U	486	ug/kg	97.1	486
91-58-7	2-Chloronaphthalene	U	48.6	ug/kg	16.0	48.6
88-74-4	2-Nitroaniline	U	486	ug/kg	97.1	486
99-09-2	<i>o</i> -Nitroaniline	U	486	ug/kg	97.1	486
	3-Nitroaniline					

ETM  
2/24/10

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106008	Date Received: 01/20/2010 08:45	%Moisture: 31.6
Client ID: RE15-10-7166	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/29/2010 01:53	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: s1a2826.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
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	486	ug/kg	97.1	486
606-20-2	2,6-Dinitrotoluene	U	486	ug/kg	48.6	486
208-96-8	Acenaphthylene	U	48.6	ug/kg	14.6	48.6
51-28-5	2,4-Dinitrophenol	U	971	ug/kg	185	971
132-64-9	Dibenzofuran	U	486	ug/kg	97.1	486
84-66-2	Diethylphthalate	U	486	ug/kg	97.1	486
86-73-7	Fluorene	U	48.6	ug/kg	14.6	48.6
7005-72-3	4-Chlorophenylphenylether	U	486	ug/kg	97.1	486
534-52-1	2-Methyl-4,6-dinitrophenol	U	486	ug/kg	97.1	486 UJ,SV7c
100-01-6	4-Nitroaniline	U	486	ug/kg	146	486
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	486	ug/kg	97.1	486
122-66-7	Azobenzene	U	486	ug/kg	97.1	486
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	486	ug/kg	97.1	486
118-74-1	Hexachlorobenzene	U	486	ug/kg	97.1	486
85-01-8	Phenanthrene	U	48.6	ug/kg	14.6	48.6
120-12-7	Anthracene	U	48.6	ug/kg	9.71	48.6
84-74-2	Di-n-butylphthalate	U	486	ug/kg	97.1	486
206-44-0	Fluoranthene	U	48.6	ug/kg	14.6	48.6
85-68-7	Butylbenzylphthalate	U	486	ug/kg	97.1	486
56-55-3	Benzo(a)anthracene	U	48.6	ug/kg	14.6	48.6
91-94-1	3,3'-Dichlorobenzidine	U	486	ug/kg	146	486
218-01-9	Chrysene	U	48.6	ug/kg	14.6	48.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	486	ug/kg	97.1	486
117-84-0	Di-n-octylphthalate	U	486	ug/kg	97.1	486
205-99-2	Benzo(b)fluoranthene	U	48.6	ug/kg	14.6	48.6
207-08-9	Benzo(k)fluoranthene	U	48.6	ug/kg	14.6	48.6
50-32-8	Benzo(a)pyrene	U	48.6	ug/kg	14.6	48.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	48.6	ug/kg	14.6	48.6
53-70-3	Dibenzo(a,h)anthracene	U	48.6	ug/kg	14.6	48.6
191-24-2	Benzo(ghi)perylene	U	48.6	ug/kg	14.6	48.6
120-82-1	1,2,4-Trichlorobenzene	U	486	ug/kg	97.1	486

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
79-09-4	Propanoic acid	2.15	257	ug/kg	81	NJ
	Unknown Aldol Condensate	3.09	1010	ug/kg		JA

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106008	Date Received: 01/20/2010 08:45	%Moisture: 31.6
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7166	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/29/2010 01:53	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s1a2826.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
4630-07-3	Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	7.15	257	ug/kg	98	NJ
	Unknown	7.2	258	ug/kg		J
	Unknown	10.48	216	ug/kg		J
5155-70-4	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.79	343	ug/kg	94	NJ
	Unknown	15.39	1190	ug/kg		J
1000188-72-8	2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-e	16.06	1490	ug/kg	87	NJ
83-46-5	.beta.-Sitosterol	16.82	801	ug/kg	93	NJ

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106005	Date Received: 01/20/2010 08:45	%Moisture: 22
Client ID: RE15-10-7167	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/29/2010 00:31	Inst: MSD1.1	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: sla2823.d	Aliquot: 30.05 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	427	ug/kg	85.3	427
108-95-2	Phenol	U	427	ug/kg	85.3	427
95-57-8	2-Chlorophenol	U	427	ug/kg	85.3	427
106-46-7	1,4-Dichlorobenzene	U	427	ug/kg	85.3	427
621-64-7	N-Nitrosodipropylamine	U	427	ug/kg	85.3	427
59-50-7	4-Chloro-3-methylphenol	U	427	ug/kg	85.3	427
83-32-9	Acenaphthene	U	42.7	ug/kg	14.1	42.7
121-14-2	2,4-Dinitrotoluene	U	427	ug/kg	42.7	427
100-02-7	4-Nitrophenol	U	427	ug/kg	141	427
87-86-5	Pentachlorophenol	U	427	ug/kg	107	427
129-00-0	Pyrene	U	42.7	ug/kg	12.8	42.7
110-86-1	Pyridine	U	427	ug/kg	85.3	427
62-53-3	Aniline	U	427	ug/kg	128	427
111-44-4	bis(2-Chloroethyl) ether	U	427	ug/kg	85.3	427
541-73-1	1,3-Dichlorobenzene	U	427	ug/kg	85.3	427
100-51-6	Benzyl alcohol	U	427	ug/kg	128	427
95-50-1	1,2-Dichlorobenzene	U	427	ug/kg	85.3	427
108-60-1	bis(2-Chloroisopropyl)ether	U	427	ug/kg	85.3	427
95-48-7	o-Cresol	U	427	ug/kg	85.3	427
65794-96-9	m,p-Cresols	U	427	ug/kg	128	427
67-72-1	Hexachloroethane	U	427	ug/kg	85.3	427
98-95-3	Nitrobenzene	U	427	ug/kg	85.3	427
78-59-1	Isophorone	U	427	ug/kg	85.3	427
88-75-5	2-Nitrophenol	U	427	ug/kg	85.3	427
105-67-9	2,4-Dimethylphenol	U	427	ug/kg	149	427
111-91-1	bis(2-Chloroethoxy)methane	U	427	ug/kg	85.3	427
120-83-2	2,4-Dichlorophenol	U	427	ug/kg	85.3	427
65-85-0	Benzoic acid	U	853	ug/kg	213	853 UJ,SV7c
91-20-3	Naphthalene	U	42.7	ug/kg	12.8	42.7 UJ,SV7c
106-47-8	4-Chloroaniline	U	427	ug/kg	85.3	427
87-68-3	Hexachlorobutadiene	U	427	ug/kg	85.3	427
91-57-6	2-Methylnaphthalene	U	42.7	ug/kg	8.53	42.7
77-47-4	Hexachlorocyclopentadiene	U	427	ug/kg	85.3	427 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	427	ug/kg	85.3	427
95-95-4	2,4,5-Trichlorophenol	U	427	ug/kg	85.3	427
91-58-7	2-Chloronaphthalene	U	42.7	ug/kg	14.1	42.7
88-74-4	2-Nitroaniline	U	427	ug/kg	85.3	427
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	427	ug/kg	85.3	427



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

SDG Number:	10-1304	Date Collected:	01/13/2010 12:00	Matrix:	R
Lab Sample ID:	245106005	Date Received:	01/20/2010 08:45	%Moisture:	22
Client ID:	RE15-10-7167	Client:	LANL010	Project:	LANL01004
Batch ID:	944591	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Run Date:	01/29/2010 00:31	Inst:	MSD1.I	Dilution:	1
Prep Date:	01/25/2010 14:38	Analyst:	AMY	Inj. Vol:	.5 uL
Data File:	s1a2823.d	Aliquot:	30.05 g	Final Volume:	1 mL
		Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	427	ug/kg	85.3	427
606-20-2	2,6-Dinitrotoluene	U	427	ug/kg	42.7	427
208-96-8	Acenaphthylene	U	42.7	ug/kg	12.8	42.7
51-28-5	2,4-Dinitrophenol	U	853	ug/kg	162	853
132-64-9	Dibenzofuran	U	427	ug/kg	85.3	427
84-66-2	Diethylphthalate	U	427	ug/kg	85.3	427
86-73-7	Fluorene	U	42.7	ug/kg	12.8	42.7
7005-72-3	4-Chlorophenylphenylether	U	427	ug/kg	85.3	427
534-52-1	2-Methyl-4,6-dinitrophenol	U	427	ug/kg	85.3	427 UJ,SV7c
100-01-6	4-Nitroaniline	U	427	ug/kg	128	427
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	427	ug/kg	85.3	427
122-66-7	Azobenzene	U	427	ug/kg	85.3	427
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	427	ug/kg	85.3	427
118-74-1	Hexachlorobenzene	U	427	ug/kg	85.3	427
85-01-8	Phenanthrene	U	42.7	ug/kg	12.8	42.7
120-12-7	Anthracene	U	42.7	ug/kg	8.53	42.7
84-74-2	Di-n-butylphthalate	U	427	ug/kg	85.3	427
206-44-0	Fluoranthene	U	42.7	ug/kg	12.8	42.7
85-68-7	Butylbenzylphthalate	U	427	ug/kg	85.3	427
56-55-3	Benzo(a)anthracene	U	42.7	ug/kg	12.8	42.7
91-94-1	3,3'-Dichlorobenzidine	U	427	ug/kg	128	427
218-01-9	Chrysene	U	42.7	ug/kg	12.8	42.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	427	ug/kg	85.3	427
117-84-0	Di-n-octylphthalate	U	427	ug/kg	85.3	427
205-99-2	Benzo(b)fluoranthene	U	42.7	ug/kg	12.8	42.7
207-08-9	Benzo(k)fluoranthene	U	42.7	ug/kg	12.8	42.7
50-32-8	Benzo(a)pyrene	U	42.7	ug/kg	12.8	42.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.7	ug/kg	12.8	42.7
53-70-3	Dibenzo(a,h)anthracene	U	42.7	ug/kg	12.8	42.7
191-24-2	Benzo(ghi)perylene	U	42.7	ug/kg	12.8	42.7
120-82-1	1,2,4-Trichlorobenzene	U	427	ug/kg	85.3	427

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.11	172	ug/kg		JA
	Unknown Aldol Condensate	3.09	770	ug/kg		JA

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

SDG Number: 10-1304  
Lab Sample ID: 245106007

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 19.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7168  
Batch ID: 944591  
Run Date: 01/29/2010 01:25  
Prep Date: 01/25/2010 14:38  
Data File: sla2825.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	412	ug/kg	82.5	412
108-95-2	Phenol	U	412	ug/kg	82.5	412
95-57-8	2-Chlorophenol	U	412	ug/kg	82.5	412
106-46-7	1,4-Dichlorobenzene	U	412	ug/kg	82.5	412
621-64-7	N-Nitrosodipropylamine	U	412	ug/kg	82.5	412
59-50-7	4-Chloro-3-methylphenol	U	412	ug/kg	82.5	412
83-32-9	Acenaphthene	U	41.2	ug/kg	13.6	41.2
121-14-2	2,4-Dinitrotoluene	U	412	ug/kg	41.2	412
100-02-7	4-Nitrophenol	U	412	ug/kg	136	412
87-86-5	Pentachlorophenol	U	412	ug/kg	103	412
129-00-0	Pyrene	U	41.2	ug/kg	12.4	41.2
110-86-1	Pyridine	U	412	ug/kg	82.5	412
62-53-3	Aniline	U	412	ug/kg	124	412
111-44-4	bis(2-Chloroethyl) ether	U	412	ug/kg	82.5	412
541-73-1	1,3-Dichlorobenzene	U	412	ug/kg	82.5	412
100-51-6	Benzyl alcohol	U	412	ug/kg	124	412
95-50-1	1,2-Dichlorobenzene	U	412	ug/kg	82.5	412
108-60-1	bis(2-Chloroisopropyl) ether	U	412	ug/kg	82.5	412
95-48-7	o-Cresol	U	412	ug/kg	82.5	412
65794-96-9	m,p-Cresols	U	412	ug/kg	124	412
67-72-1	Hexachloroethane	U	412	ug/kg	82.5	412
98-95-3	Nitrobenzene	U	412	ug/kg	82.5	412
78-59-1	Isophorone	U	412	ug/kg	82.5	412
88-75-5	2-Nitrophenol	U	412	ug/kg	82.5	412
105-67-9	2,4-Dimethylphenol	U	412	ug/kg	144	412
111-91-1	bis(2-Chloroethoxy)methane	U	412	ug/kg	82.5	412
120-83-2	2,4-Dichlorophenol	U	412	ug/kg	82.5	412
65-85-0	Benzoic acid	U	825	ug/kg	206	825 UJ,SV7c
91-20-3	Naphthalene	U	41.2	ug/kg	12.4	41.2 UJ,SV7c
106-47-8	4-Chloroaniline	U	412	ug/kg	82.5	412
87-68-3	Hexachlorobutadiene	U	412	ug/kg	82.5	412
91-57-6	2-Methylnaphthalene	U	41.2	ug/kg	8.25	41.2
77-47-4	Hexachlorocyclopentadiene	U	412	ug/kg	82.5	412 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	412	ug/kg	82.5	412
95-95-4	2,4,5-Trichlorophenol	U	412	ug/kg	82.5	412
91-58-7	2-Chloronaphthalene	U	41.2	ug/kg	13.6	41.2
88-74-4	2-Nitroaniline	U	412	ug/kg	82.5	412
99-09-2	<i>o</i> -Nitroaniline	U	412	ug/kg	82.5	412
	3-Nitroaniline					

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

SDG Number: 10-1304  
Lab Sample ID: 245106007

Client ID: RE15-10-7168  
Batch ID: 944591  
Run Date: 01/29/2010 01:25  
Prep Date: 01/25/2010 14:38  
Data File: s1a2825.d

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 19.2  
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					
131-11-3	Dimethylphthalate	U	412	ug/kg	82.5	412
606-20-2	2,6-Dinitrotoluene	U	412	ug/kg	41.2	412
208-96-8	Acenaphthylene	U	41.2	ug/kg	12.4	41.2
51-28-5	2,4-Dinitrophenol	U	825	ug/kg	157	825
132-64-9	Dibenzofuran	U	412	ug/kg	82.5	412
84-66-2	Diethylphthalate	U	412	ug/kg	82.5	412
86-73-7	Fluorene	U	41.2	ug/kg	12.4	41.2
7005-72-3	4-Chlorophenylphenylether	U	412	ug/kg	82.5	412
534-52-1	2-Methyl-4,6-dinitrophenol	U	412	ug/kg	82.5	412 UJ,SV7c
100-01-6	4-Nitroaniline	U	412	ug/kg	124	412
122-39-4	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	412	ug/kg	82.5	412
122-66-7	Azobenzene	U	412	ug/kg	82.5	412
101-55-3	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	412	ug/kg	82.5	412
118-74-1	Hexachlorobenzene	U	412	ug/kg	82.5	412
85-01-8	Phenanthrene	U	41.2	ug/kg	12.4	41.2
120-12-7	Anthracene	U	41.2	ug/kg	8.25	41.2
84-74-2	Di-n-butylphthalate	U	412	ug/kg	82.5	412
206-44-0	Fluoranthene	U	41.2	ug/kg	12.4	41.2
85-68-7	Butylbenzylphthalate	U	412	ug/kg	82.5	412
56-55-3	Benzo(a)anthracene	U	41.2	ug/kg	12.4	41.2
91-94-1	3,3'-Dichlorobenzidine	U	412	ug/kg	124	412
218-01-9	Chrysene	U	41.2	ug/kg	12.4	41.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	412	ug/kg	82.5	412
117-84-0	Di-n-octylphthalate	U	412	ug/kg	82.5	412
205-99-2	Benzo(b)fluoranthene	U	41.2	ug/kg	12.4	41.2
207-08-9	Benzo(k)fluoranthene	U	41.2	ug/kg	12.4	41.2
50-32-8	Benzo(a)pyrene	U	41.2	ug/kg	12.4	41.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.2	ug/kg	12.4	41.2
53-70-3	Dibenzo(a,h)anthracene	U	41.2	ug/kg	12.4	41.2
191-24-2	Benzo(ghi)perylene	U	41.2	ug/kg	12.4	41.2
120-82-1	1,2,4-Trichlorobenzene	U	412	ug/kg	82.5	412

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.69	265	ug/kg		J
79-09-4	Propanoic acid	2.13	207	ug/kg	87	NJ

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106007	Date Received: 01/20/2010 08:45	%Moisture: 19.2
Client ID: RE15-10-7168	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/29/2010 01:25	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: sla2825.d	Aliquot: 30.01 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown Aldol Condensate	3.08	709	ug/kg		JA
2867-05-2	Bicyclo[3.1.0]hex-2-ene, 2-methyl-5-(1-m	3.75	234	ug/kg	91	NJ
3387-41-5	Bicyclo[3.1.0]hexane, 4-methylene-1-(1-m	4.12	335	ug/kg	93	NJ
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.15	1220	ug/kg	98	NJ
120-08-1	2H-1-Benzopyran-2-one, 6,7-dimethoxy-	9.88	265	ug/kg	98	NJ
1686-66-4	Phenanthrene, 7-ethenyl-1,2,3,4,4a,4b,5,	10.13	183	ug/kg	89	NJ
1000190-13-7	Octadec-9-enoic acid	10.48	241	ug/kg	93	NJ
	Unknown	11.3	210	ug/kg		J
334-48-5	n-Decanoic acid	11.35	191	ug/kg	89	NJ
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.39	192	ug/kg	98	NJ
	Unknown	11.44	229	ug/kg		J
	Unknown	11.69	295	ug/kg		J
	Unknown	11.82	2230	ug/kg		J
	Unknown	12.06	177	ug/kg		J
646-30-0	Nonadecanoic acid	12.14	322	ug/kg	90	NJ
557-59-5	Tetracosanoic acid	13.06	235	ug/kg	97	NJ
	Unknown	15	209	ug/kg		J
54832-82-5	Tricyclo[4.3.0.0(7,9)]nonane, 2,2,5,5,8,	15.36	572	ug/kg	90	NJ
70038-20-9	7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	16.06	827	ug/kg	93	NJ
83-47-6	.gamma.-Sitosterol	16.8	1740	ug/kg	97	NJ

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

SDG Number: 10-1304  
Lab Sample ID: 245106006

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7169  
Batch ID: 944591  
Run Date: 01/29/2010 00:58  
Prep Date: 01/25/2010 14:38  
Data File: s1a2824.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	366	ug/kg	73.2	366
108-95-2	Phenol	U	366	ug/kg	73.2	366
95-57-8	2-Chlorophenol	U	366	ug/kg	73.2	366
106-46-7	1,4-Dichlorobenzene	U	366	ug/kg	73.2	366
621-64-7	N-Nitrosodipropylamine	U	366	ug/kg	73.2	366
59-50-7	4-Chloro-3-methylphenol	U	366	ug/kg	73.2	366
83-32-9	Acenaphthene	U	36.6	ug/kg	12.1	36.6
121-14-2	2,4-Dinitrotoluene	U	366	ug/kg	36.6	366
100-02-7	4-Nitrophenol	U	366	ug/kg	121	366
87-86-5	Pentachlorophenol	U	366	ug/kg	91.5	366
129-00-0	Pyrene	U	36.6	ug/kg	11.0	36.6
110-86-1	Pyridine	U	366	ug/kg	73.2	366
62-53-3	Aniline	U	366	ug/kg	110	366
111-44-4	bis(2-Chloroethyl) ether	U	366	ug/kg	73.2	366
541-73-1	1,3-Dichlorobenzene	U	366	ug/kg	73.2	366
100-51-6	Benzyl alcohol	U	366	ug/kg	110	366
95-50-1	1,2-Dichlorobenzene	U	366	ug/kg	73.2	366
108-60-1	bis(2-Chloroisopropyl)ether	U	366	ug/kg	73.2	366
95-48-7	o-Cresol	U	366	ug/kg	73.2	366
65794-96-9	m,p-Cresols	U	366	ug/kg	110	366
67-72-1	Hexachloroethane	U	366	ug/kg	73.2	366
98-95-3	Nitrobenzene	U	366	ug/kg	73.2	366
78-59-1	Isophorone	U	366	ug/kg	73.2	366
88-75-5	2-Nitrophenol	U	366	ug/kg	73.2	366
105-67-9	2,4-Dimethylphenol	U	366	ug/kg	128	366
111-91-1	bis(2-Chloroethoxy)methane	U	366	ug/kg	73.2	366
120-83-2	2,4-Dichlorophenol	U	366	ug/kg	73.2	366
65-85-0	Benzoic acid	U	732	ug/kg	183	732 UJ,SV7c
91-20-3	Naphthalene	U	36.6	ug/kg	11.0	36.6 UJ,SV7c
106-47-8	4-Chloroaniline	U	366	ug/kg	73.2	366
87-68-3	Hexachlorobutadiene	U	366	ug/kg	73.2	366
91-57-6	2-Methylnaphthalene	U	36.6	ug/kg	7.32	36.6
77-47-4	Hexachlorocyclopentadiene	U	366	ug/kg	73.2	366 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	366	ug/kg	73.2	366
95-95-4	2,4,5-Trichlorophenol	U	366	ug/kg	73.2	366
91-58-7	2-Chloronaphthalene	U	36.6	ug/kg	12.1	36.6
88-74-4	2-Nitroaniline	U	366	ug/kg	73.2	366
99-09-2	<i>o</i> -Nitroaniline	U	366	ug/kg	73.2	366
	3-Nitroaniline					

ETM  
2/24/10

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106006	Date Received: 01/20/2010 08:45	%Moisture: 8.9
Client ID: RE15-10-7169	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/29/2010 00:58	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: s1a2824.d	Allquot: 30.01 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	366	ug/kg	73.2	366
606-20-2	2,6-Dinitrotoluene	U	366	ug/kg	36.6	366
208-96-8	Acenaphthylene	U	36.6	ug/kg	11.0	36.6
51-28-5	2,4-Dinitrophenol	U	732	ug/kg	139	732
132-64-9	Dibenzofuran	U	366	ug/kg	73.2	366
84-66-2	Diethylphthalate	U	366	ug/kg	73.2	366
86-73-7	Fluorene	U	36.6	ug/kg	11.0	36.6
7005-72-3	4-Chlorophenylphenylether	U	366	ug/kg	73.2	366
534-52-1	2-Methyl-4,6-dinitrophenol	U	366	ug/kg	73.2	366 UJ,SV7c
100-01-6	4-Nitroaniline	U	366	ug/kg	110	366
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	366	ug/kg	73.2	366
122-66-7	Azobenzene	U	366	ug/kg	73.2	366
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	366	ug/kg	73.2	366
118-74-1	Hexachlorobenzene	U	366	ug/kg	73.2	366
85-01-8	Phenanthrene	U	36.6	ug/kg	11.0	36.6
120-12-7	Anthracene	U	36.6	ug/kg	7.32	36.6
84-74-2	Di-n-butylphthalate	U	366	ug/kg	73.2	366
206-44-0	Fluoranthene	U	36.6	ug/kg	11.0	36.6
85-68-7	Butylbenzylphthalate	U	366	ug/kg	73.2	366
56-55-3	Benzo(a)anthracene	U	36.6	ug/kg	11.0	36.6
91-94-1	3,3'-Dichlorobenzidine	U	366	ug/kg	110	366
218-01-9	Chrysene	U	36.6	ug/kg	11.0	36.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	366	ug/kg	73.2	366
117-84-0	Di-n-octylphthalate	U	366	ug/kg	73.2	366
205-99-2	Benzo(b)fluoranthene	U	36.6	ug/kg	11.0	36.6
207-08-9	Benzo(k)fluoranthene	U	36.6	ug/kg	11.0	36.6
50-32-8	Benzo(a)pyrene	U	36.6	ug/kg	11.0	36.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.6	ug/kg	11.0	36.6
53-70-3	Dibenzo(a,h)anthracene	U	36.6	ug/kg	11.0	36.6
191-24-2	Benzo(ghi)perylene	U	36.6	ug/kg	11.0	36.6
120-82-1	1,2,4-Trichlorobenzene	U	366	ug/kg	73.2	366

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.68	158	ug/kg		J
	Unknown	1.75	240	ug/kg		J

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106006	Date Received: 01/20/2010 08:45	%Moisture: 8.9
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7169	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/29/2010 00:58	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Allquot: 30.01 g	Final Volume: 1 mL
Data File: s1a2824.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.95	163	ug/kg		J
	Unknown	2.16	202	ug/kg		J
	Unknown Aldol Condensate	3.1	755	ug/kg		JA
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.8	608	ug/kg	94	NJ
112-85-6	Docosanoic acid	12.13	171	ug/kg	90	NJ
	Unknown	15.34	189	ug/kg		J
	Unknown	16.05	218	ug/kg		J
	Unknown	16.17	342	ug/kg		J
83-46-5	.beta.-Sitosterol	16.87	249	ug/kg	94	NJ
	Unknown	17	291	ug/kg		J

Semi-Volatile  
Certificate of Analysis  
Sample Summary

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SDG Number: 10-1304  
Lab Sample ID: 245106003

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 23.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7170  
Batch ID: 944591  
Run Date: 01/28/2010 23:36  
Prep Date: 01/25/2010 14:38  
Data File: sta2821.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	433	ug/kg	86.5	433
108-95-2	Phenol	U	433	ug/kg	86.5	433
95-57-8	2-Chlorophenol	U	433	ug/kg	86.5	433
106-46-7	1,4-Dichlorobenzene	U	433	ug/kg	86.5	433
621-64-7	N-Nitrosodipropylamine	U	433	ug/kg	86.5	433
59-50-7	4-Chloro-3-methylphenol	U	433	ug/kg	86.5	433
83-32-9	Acenaphthene	U	43.3	ug/kg	14.3	43.3
121-14-2	2,4-Dinitrotoluene	U	433	ug/kg	43.3	433
100-02-7	4-Nitrophenol	U	433	ug/kg	143	433
87-86-5	Pentachlorophenol	U	433	ug/kg	108	433
129-00-0	Pyrene	U	43.3	ug/kg	13.0	43.3
110-86-1	Pyridine	U	433	ug/kg	86.5	433
62-53-3	Aniline	U	433	ug/kg	130	433
111-44-4	bis(2-Chloroethyl) ether	U	433	ug/kg	86.5	433
541-73-1	1,3-Dichlorobenzene	U	433	ug/kg	86.5	433
100-51-6	Benzyl alcohol	U	433	ug/kg	130	433
95-50-1	1,2-Dichlorobenzene	U	433	ug/kg	86.5	433
108-60-1	bis(2-Chloroisopropyl)ether	U	433	ug/kg	86.5	433
95-48-7	o-Cresol	U	433	ug/kg	86.5	433
65794-96-9	m,p-Cresols	U	433	ug/kg	130	433
67-72-1	Hexachloroethane	U	433	ug/kg	86.5	433
98-95-3	Nitrobenzene	U	433	ug/kg	86.5	433
78-59-1	Isophorone	U	433	ug/kg	86.5	433
88-75-5	2-Nitrophenol	U	433	ug/kg	86.5	433
105-67-9	2,4-Dimethylphenol	U	433	ug/kg	151	433
111-91-1	bis(2-Chloroethoxy)methane	U	433	ug/kg	86.5	433
120-83-2	2,4-Dichlorophenol	U	433	ug/kg	86.5	433
65-85-0	Benzoic acid	U	865	ug/kg	216	865 UJ,SV7c
91-20-3	Naphthalene	U	43.3	ug/kg	13.0	43.3 UJ,SV7c
106-47-8	4-Chloroaniline	U	433	ug/kg	86.5	433
87-68-3	Hexachlorobutadiene	U	433	ug/kg	86.5	433
91-57-6	2-Methylnaphthalene	U	43.3	ug/kg	8.65	43.3
77-47-4	Hexachlorocyclopentadiene	U	433	ug/kg	86.5	433 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	433	ug/kg	86.5	433
95-95-4	2,4,5-Trichlorophenol	U	433	ug/kg	86.5	433
91-58-7	2-Chloronaphthalene	U	43.3	ug/kg	14.3	43.3
88-74-4	2-Nitroaniline	U	433	ug/kg	86.5	433
99-09-2	<i>o</i> -Nitroaniline	U	433	ug/kg	86.5	433
	3-Nitroaniline					



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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106003	Date Received: 01/20/2010 08:45	%Moisture: 23.2
Client ID: RE15-10-7170	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/28/2010 23:36	Inst: MSD1.1	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: sla2821.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
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	433	ug/kg	86.5	433
606-20-2	2,6-Dinitrotoluene	U	433	ug/kg	43.3	433
208-96-8	Acenaphthylene	U	43.3	ug/kg	13.0	43.3
51-28-5	2,4-Dinitrophenol	U	865	ug/kg	164	865
132-64-9	Dibenzofuran	U	433	ug/kg	86.5	433
84-66-2	Diethylphthalate	U	433	ug/kg	86.5	433
86-73-7	Fluorene	U	43.3	ug/kg	13.0	43.3
7005-72-3	4-Chlorophenylphenylether	U	433	ug/kg	86.5	433
534-52-1	2-Methyl-4,6-dinitrophenol	U	433	ug/kg	86.5	433 UJ,SV7c
100-01-6	4-Nitroaniline	U	433	ug/kg	130	433
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	433	ug/kg	86.5	433
122-66-7	Azobenzene	U	433	ug/kg	86.5	433
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	433	ug/kg	86.5	433
118-74-1	Hexachlorobenzene	U	433	ug/kg	86.5	433
85-01-8	Phenanthrene	U	43.3	ug/kg	13.0	43.3
120-12-7	Anthracene	U	43.3	ug/kg	8.65	43.3
84-74-2	Di-n-butylphthalate	U	433	ug/kg	86.5	433
206-44-0	Fluoranthene	U	43.3	ug/kg	13.0	43.3
85-68-7	Butylbenzylphthalate	U	433	ug/kg	86.5	433
56-55-3	Benzo(a)anthracene	U	43.3	ug/kg	13.0	43.3
91-94-1	3,3'-Dichlorobenzidine	U	433	ug/kg	130	433
218-01-9	Chrysene	U	43.3	ug/kg	13.0	43.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	433	ug/kg	86.5	433
117-84-0	Di-n-octylphthalate	U	433	ug/kg	86.5	433
205-99-2	Benzo(b)fluoranthene	U	43.3	ug/kg	13.0	43.3
207-08-9	Benzo(k)fluoranthene	U	43.3	ug/kg	13.0	43.3
50-32-8	Benzo(a)pyrene	U	43.3	ug/kg	13.0	43.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	43.3	ug/kg	13.0	43.3
53-70-3	Dibenzo(a,h)anthracene	U	43.3	ug/kg	13.0	43.3
191-24-2	Benzo(ghi)perylene	U	43.3	ug/kg	13.0	43.3
120-82-1	1,2,4-Trichlorobenzene	U	433	ug/kg	86.5	433

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.09	505	ug/kg		JA
	Unknown	11.69	179	ug/kg		J

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106003	Date Received: 01/20/2010 08:45	%Moisture: 23.2
Client ID: RE15-10-7170	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/28/2010 23:36	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: sla2821.d	Aliquot: 30.09 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
5155-70-4	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.8	455	ug/kg	94	NJ
	Unknown	13.02	432	ug/kg		J
	Unknown	15	186	ug/kg		J
	Unknown	15.35	438	ug/kg		J
1000144-10-6	1-Methylene-2b-hydroxymethyl-3,3-dimethy	16.05	503	ug/kg	81	NJ
83-46-5	.beta.-Sitosterol	16.8	263	ug/kg	97	NJ
	Unknown	17.09	224	ug/kg		J

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

SDG Number: 10-1304  
Lab Sample ID: 245106002

Client ID: RE15-10-7171  
Batch ID: 944591  
Run Date: 01/28/2010 23:08  
Prep Date: 01/25/2010 14:38  
Data File: sla2820.d

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 7.8  
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	361	ug/kg	72.3	361
108-95-2	Phenol	U	361	ug/kg	72.3	361
95-57-8	2-Chlorophenol	U	361	ug/kg	72.3	361
106-46-7	1,4-Dichlorobenzene	U	361	ug/kg	72.3	361
621-64-7	N-Nitrosodipropylamine	U	361	ug/kg	72.3	361
59-50-7	4-Chloro-3-methylphenol	U	361	ug/kg	72.3	361
83-32-9	Acenaphthene	U	36.1	ug/kg	11.9	36.1
121-14-2	2,4-Dinitrotoluene	U	361	ug/kg	36.1	361
100-02-7	4-Nitrophenol	U	361	ug/kg	119	361
87-86-5	Pentachlorophenol	U	361	ug/kg	90.4	361
129-00-0	Pyrene	U	36.1	ug/kg	10.8	36.1
110-86-1	Pyridine	U	361	ug/kg	72.3	361
62-53-3	Aniline	U	361	ug/kg	108	361
111-44-4	bis(2-Chloroethyl) ether	U	361	ug/kg	72.3	361
541-73-1	1,3-Dichlorobenzene	U	361	ug/kg	72.3	361
100-51-6	Benzyl alcohol	U	361	ug/kg	108	361
95-50-1	1,2-Dichlorobenzene	U	361	ug/kg	72.3	361
108-60-1	bis(2-Chloroisopropyl)ether	U	361	ug/kg	72.3	361
95-48-7	o-Cresol	U	361	ug/kg	72.3	361
65794-96-9	m,p-Cresols	U	361	ug/kg	108	361
67-72-1	Hexachloroethane	U	361	ug/kg	72.3	361
98-95-3	Nitrobenzene	U	361	ug/kg	72.3	361
78-59-1	Isophorone	U	361	ug/kg	72.3	361
88-75-5	2-Nitrophenol	U	361	ug/kg	72.3	361
105-67-9	2,4-Dimethylphenol	U	361	ug/kg	126	361
111-91-1	bis(2-Chloroethoxy)methane	U	361	ug/kg	72.3	361
120-83-2	2,4-Dichlorophenol	U	361	ug/kg	72.3	361
65-85-0	Benzoic acid	U	723	ug/kg	181	723 UJ,SV7c
91-20-3	Naphthalene	U	36.1	ug/kg	10.8	36.1 UJ,SV7c
106-47-8	4-Chloroaniline	U	361	ug/kg	72.3	361
87-68-3	Hexachlorobutadiene	U	361	ug/kg	72.3	361
91-57-6	2-Methylnaphthalene	U	36.1	ug/kg	7.23	36.1
77-47-4	Hexachlorocyclopentadiene	U	361	ug/kg	72.3	361 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	361	ug/kg	72.3	361
95-95-4	2,4,5-Trichlorophenol	U	361	ug/kg	72.3	361
91-58-7	2-Chloronaphthalene	U	36.1	ug/kg	11.9	36.1
88-74-4	2-Nitroaniline	U	361	ug/kg	72.3	361
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	361	ug/kg	72.3	361

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106002	Date Received: 01/20/2010 08:45	%Moisture: 7.8
Client ID: RE15-10-7171	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/28/2010 23:08	Inst: MSD1.1	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: s1a2820.d	Aliquot: 30.01 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

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

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.1	714	ug/kg		JA

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

SDG Number: 10-1304  
Lab Sample ID: 245106014

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.I  
Analyst: JLD1  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 4.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 10  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7176  
Batch ID: 944591  
Run Date: 02/11/2010 16:19  
Prep Date: 01/25/2010 14:38  
Data File: s3b1120.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	3490	ug/kg	699	3490
108-95-2	Phenol	U	3490	ug/kg	699	3490
95-57-8	2-Chlorophenol	U	3490	ug/kg	699	3490
106-46-7	1,4-Dichlorobenzene	U	3490	ug/kg	699	3490
621-64-7	N-Nitrosodipropylamine	U	3490	ug/kg	699	3490
59-50-7	4-Chloro-3-methylphenol	U	3490	ug/kg	699	3490
83-32-9	Acenaphthene	U	349	ug/kg	115	349
121-14-2	2,4-Dinitrotoluene	U	3490	ug/kg	349	3490
100-02-7	4-Nitrophenol	U	3490	ug/kg	1150	3490 UJ,SV7c
87-86-5	Pentachlorophenol	U	3490	ug/kg	874	3490
129-00-0	Pyrene	U	349	ug/kg	105	349
110-86-1	Pyridine	U	3490	ug/kg	699	3490
62-53-3	Aniline	U	3490	ug/kg	1050	3490
111-44-4	bis(2-Chloroethyl) ether	U	3490	ug/kg	699	3490
541-73-1	1,3-Dichlorobenzene	U	3490	ug/kg	699	3490
100-51-6	Benzyl alcohol	U	3490	ug/kg	1050	3490
95-50-1	1,2-Dichlorobenzene	U	3490	ug/kg	699	3490
108-60-1	bis(2-Chloroisopropyl)ether	U	3490	ug/kg	699	3490 UJ,SV7c
95-48-7	o-Cresol	U	3490	ug/kg	699	3490
65794-96-9	m,p-Cresols	U	3490	ug/kg	1050	3490
67-72-1	Hexachloroethane	U	3490	ug/kg	699	3490
98-95-3	Nitrobenzene	U	3490	ug/kg	699	3490
78-59-1	Isophorone	U	3490	ug/kg	699	3490
88-75-5	2-Nitrophenol	U	3490	ug/kg	699	3490
105-67-9	2,4-Dimethylphenol	U	3490	ug/kg	1220	3490
111-91-1	bis(2-Chloroethoxy)methane	U	3490	ug/kg	699	3490
120-83-2	2,4-Dichlorophenol	U	3490	ug/kg	699	3490
65-85-0	Benzoic acid	U	6990	ug/kg	1750	6990 UJ,SV7c
91-20-3	Naphthalene	U	349	ug/kg	105	349
106-47-8	4-Chloroaniline	U	3490	ug/kg	699	3490
87-68-3	Hexachlorobutadiene	U	3490	ug/kg	699	3490
91-57-6	2-Methylnaphthalene	U	349	ug/kg	69.9	349
77-47-4	Hexachlorocyclopentadiene	U	3490	ug/kg	699	3490
88-06-2	2,4,6-Trichlorophenol	U	3490	ug/kg	699	3490
95-95-4	2,4,5-Trichlorophenol	U	3490	ug/kg	699	3490
91-58-7	2-Chloronaphthalene	U	349	ug/kg	115	349
88-74-4	2-Nitroaniline	U	3490	ug/kg	699	3490 UJ,SV7c
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	3490	ug/kg	699	3490 UJ,SV7c

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

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SDG Number: 10-1304  
Lab Sample ID: 245106014

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.I  
Analyst: JLD1  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 4.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 10  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7176  
Batch ID: 944591  
Run Date: 02/11/2010 16:19  
Prep Date: 01/25/2010 14:38  
Data File: s3b1120.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	3490	ug/kg	699	3490
606-20-2	2,6-Dinitrotoluene	U	3490	ug/kg	349	3490
208-96-8	Acenaphthylene	U	349	ug/kg	105	349
51-28-5	2,4-Dinitrophenol	U	6990	ug/kg	1330	6990 UJ,SV7c
132-64-9	Dibenzofuran	U	3490	ug/kg	699	3490
84-66-2	Diethylphthalate	U	3490	ug/kg	699	3490
86-73-7	Fluorene	U	349	ug/kg	105	349
7005-72-3	4-Chlorophenylphenylether	U	3490	ug/kg	699	3490
534-52-1	2-Methyl-4,6-dinitrophenol	U	3490	ug/kg	699	3490 UJ,SV7c
100-01-6	4-Nitroaniline	U	3490	ug/kg	1050	3490 UJ,SV7c
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	3490	ug/kg	699	3490
122-66-7	Azobenzene	U	3490	ug/kg	699	3490
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	3490	ug/kg	699	3490
118-74-1	Hexachlorobenzene	U	3490	ug/kg	699	3490
85-01-8	Phenanthrene	U	349	ug/kg	105	349
120-12-7	Anthracene	U	349	ug/kg	69.9	349
84-74-2	Di-n-butylphthalate	U	3490	ug/kg	699	3490
206-44-0	Fluoranthene	U	349	ug/kg	105	349
85-68-7	Butylbenzylphthalate	U	3490	ug/kg	699	3490
56-55-3	Benzo(a)anthracene	U	349	ug/kg	105	349
91-94-1	3,3'-Dichlorobenzidine	U	3490	ug/kg	1050	3490
218-01-9	Chrysene	U	349	ug/kg	105	349
117-81-7	bis(2-Ethylhexyl)phthalate	U	3490	ug/kg	699	3490
117-84-0	Di-n-octylphthalate	U	3490	ug/kg	699	3490
205-99-2	Benzo(b)fluoranthene	U	349	ug/kg	105	349
207-08-9	Benzo(k)fluoranthene	U	349	ug/kg	105	349
50-32-8	Benzo(a)pyrene	U	349	ug/kg	105	349
193-39-5	Indeno(1,2,3-cd)pyrene	U	349	ug/kg	105	349 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	349	ug/kg	105	349
191-24-2	Benzo(ghi)perylene	U	349	ug/kg	105	349 UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	3490	ug/kg	699	3490

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	10.91	2100	ug/kg		J
	Unknown	11.33	2150	ug/kg		J

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106014	Date Received: 01/20/2010 08:45	%Moisture: 4.7
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7176	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD3.I	Dilution: 10
Run Date: 02/11/2010 16:19	Analyst: JLD1	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s3b1120.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
1235-74-1	Unknown	11.39	5460	ug/kg		J
	Unknown	11.49	5920	ug/kg		J
	Unknown	11.54	3040	ug/kg		J
	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.59	2860	ug/kg	99	NJ
	Unknown	11.63	6080	ug/kg		J
	Unknown	11.7	3190	ug/kg		J
	Unknown	11.73	2700	ug/kg		J
	Unknown	11.8	3570	ug/kg		J
	Unknown	11.85	2020	ug/kg		J
	Unknown	11.92	5970	ug/kg		J
	Unknown	11.94	3250	ug/kg		J
	Unknown	11.99	2580	ug/kg		J
	Unknown	12.06	19900	ug/kg		J
	Unknown	12.13	5540	ug/kg		J
	Unknown	12.18	2820	ug/kg		J
	Unknown	12.31	3050	ug/kg		J
	Unknown	12.4	5180	ug/kg		J
	Unknown	12.44	2010	ug/kg		J
	Unknown	12.49	3950	ug/kg		J
	Unknown	12.54	2120	ug/kg		J
	Unknown	12.62	4570	ug/kg		J
	Unknown	12.7	3310	ug/kg		J
	Unknown	12.78	2780	ug/kg		J
	Unknown	12.85	2220	ug/kg		J
	Unknown	12.91	2680	ug/kg		J
	Unknown	12.96	2010	ug/kg		J
	Unknown	13	2290	ug/kg		J
	Unknown	13.15	2760	ug/kg		J

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106009	Date Received: 01/20/2010 08:45	%Moisture: 7.5
Client ID: RE15-10-7177	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/29/2010 02:20	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: s1a2827.d	Aliquot: 30 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	360	ug/kg	72.0	360
108-95-2	Phenol	U	360	ug/kg	72.0	360
95-57-8	2-Chlorophenol	U	360	ug/kg	72.0	360
106-46-7	1,4-Dichlorobenzene	U	360	ug/kg	72.0	360
621-64-7	N-Nitrosodipropylamine	U	360	ug/kg	72.0	360
59-50-7	4-Chloro-3-methylphenol	U	360	ug/kg	72.0	360
83-32-9	Acenaphthene	U	36.0	ug/kg	11.9	36.0
121-14-2	2,4-Dinitrotoluene	U	360	ug/kg	36.0	360
100-02-7	4-Nitrophenol	U	360	ug/kg	119	360
87-86-5	Pentachlorophenol	U	360	ug/kg	90.1	360
129-00-0	Pyrene	U	36.0	ug/kg	10.8	36.0
110-86-1	Pyridine	U	360	ug/kg	72.0	360
62-53-3	Aniline	U	360	ug/kg	108	360
111-44-4	bis(2-Chloroethyl) ether	U	360	ug/kg	72.0	360
541-73-1	1,3-Dichlorobenzene	U	360	ug/kg	72.0	360
100-51-6	Benzyl alcohol	U	360	ug/kg	108	360
95-50-1	1,2-Dichlorobenzene	U	360	ug/kg	72.0	360
108-60-1	bis(2-Chloroisopropyl) ether	U	360	ug/kg	72.0	360
95-48-7	o-Cresol	U	360	ug/kg	72.0	360
65794-96-9	m,p-Cresols	U	360	ug/kg	108	360
67-72-1	Hexachloroethane	U	360	ug/kg	72.0	360
98-95-3	Nitrobenzene	U	360	ug/kg	72.0	360
78-59-1	Isophorone	U	360	ug/kg	72.0	360
88-75-5	2-Nitrophenol	U	360	ug/kg	72.0	360
105-67-9	2,4-Dimethylphenol	U	360	ug/kg	126	360
111-91-1	bis(2-Chloroethoxy)methane	U	360	ug/kg	72.0	360
120-83-2	2,4-Dichlorophenol	U	360	ug/kg	72.0	360
65-85-0	Benzoic acid	U	720	ug/kg	180	720 UJ,SV7c
91-20-3	Naphthalene	U	36.0	ug/kg	10.8	36.0 UJ,SV7c
106-47-8	4-Chloroaniline	U	360	ug/kg	72.0	360
87-68-3	Hexachlorobutadiene	U	360	ug/kg	72.0	360
91-57-6	2-Methylnaphthalene	U	36.0	ug/kg	7.20	36.0
77-47-4	Hexachlorocyclopentadiene	U	360	ug/kg	72.0	360 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	360	ug/kg	72.0	360
95-95-4	2,4,5-Trichlorophenol	U	360	ug/kg	72.0	360
91-58-7	2-Chloronaphthalene	U	36.0	ug/kg	11.9	36.0
88-74-4	2-Nitroaniline	U	360	ug/kg	72.0	360
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	360	ug/kg	72.0	360

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106009	Date Received: 01/20/2010 08:45	%Moisture: 7.5
Client ID: RE15-10-7177	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/29/2010 02:20	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: s1a2827.d	Aliquot: 30 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	360	ug/kg	72.0	360
606-20-2	2,6-Dinitrotoluene	U	360	ug/kg	36.0	360
208-96-8	Acenaphthylene	U	36.0	ug/kg	10.8	36.0
51-28-5	2,4-Dinitrophenol	U	720	ug/kg	137	720
132-64-9	Dibenzofuran	U	360	ug/kg	72.0	360
84-66-2	Diethylphthalate	U	360	ug/kg	72.0	360
86-73-7	Fluorene	U	36.0	ug/kg	10.8	36.0
7005-72-3	4-Chlorophenylphenylether	U	360	ug/kg	72.0	360
534-52-1	2-Methyl-4,6-dinitrophenol	U	360	ug/kg	72.0	360 UJ,SV7c
100-01-6	4-Nitroaniline	U	360	ug/kg	108	360
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	360	ug/kg	72.0	360
122-66-7	Azobenzene	U	360	ug/kg	72.0	360
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	360	ug/kg	72.0	360
118-74-1	Hexachlorobenzene	U	360	ug/kg	72.0	360
85-01-8	Phenanthrene	U	36.0	ug/kg	10.8	36.0
120-12-7	Anthracene	U	36.0	ug/kg	7.20	36.0
84-74-2	Di-n-butylphthalate	U	360	ug/kg	72.0	360
206-44-0	Fluoranthene	U	36.0	ug/kg	10.8	36.0
85-68-7	Butylbenzylphthalate	U	360	ug/kg	72.0	360
56-55-3	Benzo(a)anthracene	U	36.0	ug/kg	10.8	36.0
91-94-1	3,3'-Dichlorobenzidine	U	360	ug/kg	108	360
218-01-9	Chrysene	U	36.0	ug/kg	10.8	36.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	360	ug/kg	72.0	360
117-84-0	Di-n-octylphthalate	U	360	ug/kg	72.0	360
205-99-2	Benzo(b)fluoranthene	U	36.0	ug/kg	10.8	36.0
207-08-9	Benzo(k)fluoranthene	U	36.0	ug/kg	10.8	36.0
50-32-8	Benzo(a)pyrene	U	36.0	ug/kg	10.8	36.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.0	ug/kg	10.8	36.0
53-70-3	Dibenzo(a,h)anthracene	U	36.0	ug/kg	10.8	36.0
191-24-2	Benzo(ghi)perylene	U	36.0	ug/kg	10.8	36.0
120-82-1	1,2,4-Trichlorobenzene	U	360	ug/kg	72.0	360

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.71	152	ug/kg		J
	Unknown	2.16	228	ug/kg		J

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106009	Date Received: 01/20/2010 08:45	%Moisture: 7.5
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7177	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/29/2010 02:20	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30 g	Final Volume: 1 mL
Data File: s1a2827.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.09	813	ug/kg		JA
121-33-5	Vanillin	6.97	155	ug/kg	97	NJ
4630-07-3	Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	7.15	539	ug/kg	99	NJ
1135-24-6	2-Propenoic acid, 3-(4-hydroxy-3-methoxy	9.38	373	ug/kg	98	NJ
109-29-5	Oxacycloheptadecan-2-one	10.48	201	ug/kg	95	NJ
	Unknown	11.45	240	ug/kg		J
	Unknown	11.66	150	ug/kg		J
	Unknown	11.69	230	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.81	1030	ug/kg	94	NJ
112-85-6	Docosanoic acid	12.13	213	ug/kg	90	NJ
580-72-3	2(3H)-Furanone, dihydro-3,4-bis[(4-hydro	15.2	2540	ug/kg	94	NJ
	Unknown	15.8	190	ug/kg		J
	Unknown	15.93	2440	ug/kg		J
	Unknown	16.05	337	ug/kg		J
	Unknown	16.17	272	ug/kg		J
83-46-5	.beta.-Sitosterol	16.75	918	ug/kg	96	NJ

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

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SDG Number: 10-1304  
Lab Sample ID: 245106011

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Allquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 21.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7178  
Batch ID: 944591  
Run Date: 01/29/2010 22:13  
Prep Date: 01/25/2010 14:38  
Data File: sla2919.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	424	ug/kg	84.7	424
108-95-2	Phenol	U	424	ug/kg	84.7	424
95-57-8	2-Chlorophenol	U	424	ug/kg	84.7	424
106-46-7	1,4-Dichlorobenzene	U	424	ug/kg	84.7	424
621-64-7	N-Nitrosodipropylamine	U	424	ug/kg	84.7	424
59-50-7	4-Chloro-3-methylphenol	U	424	ug/kg	84.7	424
83-32-9	Acenaphthene	U	42.4	ug/kg	14.0	42.4
121-14-2	2,4-Dinitrotoluene	U	424	ug/kg	42.4	424
100-02-7	4-Nitrophenol	U	424	ug/kg	140	424 UJ,SV7c
87-86-5	Pentachlorophenol	U	424	ug/kg	106	424
129-00-0	Pyrene	U	42.4	ug/kg	12.7	42.4
110-86-1	Pyridine	U	424	ug/kg	84.7	424
62-53-3	Aniline	U	424	ug/kg	127	424
111-44-4	bis(2-Chloroethyl) ether	U	424	ug/kg	84.7	424
541-73-1	1,3-Dichlorobenzene	U	424	ug/kg	84.7	424
100-51-6	Benzyl alcohol	U	424	ug/kg	127	424
95-50-1	1,2-Dichlorobenzene	U	424	ug/kg	84.7	424
108-60-1	bis(2-Chloroisopropyl)ether	U	424	ug/kg	84.7	424
95-48-7	o-Cresol	U	424	ug/kg	84.7	424
65794-96-9	m,p-Cresols	U	424	ug/kg	127	424
67-72-1	Hexachloroethane	U	424	ug/kg	84.7	424
98-95-3	Nitrobenzene	U	424	ug/kg	84.7	424
78-59-1	Isophorone	U	424	ug/kg	84.7	424
88-75-5	2-Nitrophenol	U	424	ug/kg	84.7	424
105-67-9	2,4-Dimethylphenol	U	424	ug/kg	148	424
111-91-1	bis(2-Chloroethoxy)methane	U	424	ug/kg	84.7	424
120-83-2	2,4-Dichlorophenol	U	424	ug/kg	84.7	424
65-85-0	Benzoic acid	U	847	ug/kg	212	847
91-20-3	Naphthalene	U	42.4	ug/kg	12.7	42.4 UJ,SV7c
106-47-8	4-Chloroaniline	U	424	ug/kg	84.7	424
87-68-3	Hexachlorobutadiene	U	424	ug/kg	84.7	424
91-57-6	2-Methylnaphthalene	U	42.4	ug/kg	8.47	42.4
77-47-4	Hexachlorocyclopentadiene	U	424	ug/kg	84.7	424 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	424	ug/kg	84.7	424
95-95-4	2,4,5-Trichlorophenol	U	424	ug/kg	84.7	424
91-58-7	2-Chloronaphthalene	U	42.4	ug/kg	14.0	42.4
88-74-4	2-Nitroaniline	U	424	ug/kg	84.7	424
99-09-2	o-Nitroaniline	U	424	ug/kg	84.7	424
	3-Nitroaniline					

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106011	Date Received: 01/20/2010 08:45	%Moisture: 21.4
Client ID: RE15-10-7178	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/29/2010 22:13	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: s1a2919.d	Aliquot: 30.03 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	424	ug/kg	84.7	424
606-20-2	2,6-Dinitrotoluene	U	424	ug/kg	42.4	424
208-96-8	Acenaphthylene	U	42.4	ug/kg	12.7	42.4
51-28-5	2,4-Dinitrophenol	U	847	ug/kg	161	847
132-64-9	Dibenzofuran	U	424	ug/kg	84.7	424
84-66-2	Diethylphthalate	U	424	ug/kg	84.7	424
86-73-7	Fluorene	U	42.4	ug/kg	12.7	42.4
7005-72-3	4-Chlorophenylphenylether	U	424	ug/kg	84.7	424
534-52-1	2-Methyl-4,6-dinitrophenol	U	424	ug/kg	84.7	424 UJ,SV7c
100-01-6	4-Nitroaniline	U	424	ug/kg	127	424 UJ,SV7c
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	424	ug/kg	84.7	424
122-66-7	Azobenzene	U	424	ug/kg	84.7	424
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	424	ug/kg	84.7	424
118-74-1	Hexachlorobenzene	U	424	ug/kg	84.7	424
85-01-8	Phenanthrene	U	42.4	ug/kg	12.7	42.4
120-12-7	Anthracene	U	42.4	ug/kg	8.47	42.4
84-74-2	Di-n-butylphthalate	U	424	ug/kg	84.7	424
206-44-0	Fluoranthene	U	42.4	ug/kg	12.7	42.4
85-68-7	Butylbenzylphthalate	U	424	ug/kg	84.7	424
56-55-3	Benzo(a)anthracene	U	42.4	ug/kg	12.7	42.4
91-94-1	3,3'-Dichlorobenzidine	U	424	ug/kg	127	424
218-01-9	Chrysene	U	42.4	ug/kg	12.7	42.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	424	ug/kg	84.7	424
117-84-0	Di-n-octylphthalate	U	424	ug/kg	84.7	424
205-99-2	Benzo(b)fluoranthene	U	42.4	ug/kg	12.7	42.4
207-08-9	Benzo(k)fluoranthene	U	42.4	ug/kg	12.7	42.4
50-32-8	Benzo(a)pyrene	U	42.4	ug/kg	12.7	42.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.4	ug/kg	12.7	42.4
53-70-3	Dibenzo(a,h)anthracene	U	42.4	ug/kg	12.7	42.4
191-24-2	Benzo(ghi)perylene	U	42.4	ug/kg	12.7	42.4
120-82-1	1,2,4-Trichlorobenzene	U	424	ug/kg	84.7	424

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.08	665	ug/kg		JA
57-10-3	n-Hexadecanoic acid	9.71	199	ug/kg	99	NJ

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106011	Date Received: 01/20/2010 08:45	%Moisture: 21.4
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7178	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/29/2010 22:13	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Allquot: 30.03 g	Final Volume: 1 mL
Data File: sla2919.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
120-08-1	2H-1-Benzopyran-2-one, 6,7-dimethoxy-	9.87	193	ug/kg	97	NJ
1000190-13-7	Octadec-9-enoic acid	10.47	227	ug/kg	92	NJ
	Unknown	11.69	676	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.8	915	ug/kg	94	NJ
	Unknown	12.7	282	ug/kg		J
	Unknown	12.8	307	ug/kg		J
25269-17-4	Thunbergol	12.86	281	ug/kg	91	NJ
112-95-8	Eicosane	13.71	230	ug/kg	91	NJ
	Unknown	14.88	259	ug/kg		J
	Unknown	14.99	287	ug/kg		J
	Unknown	15.34	1900	ug/kg		J
	Unknown	16.04	1940	ug/kg		J
	Unknown	16.77	1060	ug/kg		J

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106016	Date Received: 01/20/2010 08:45	%Moisture: 20.3
Client ID: RE15-10-7179	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/30/2010 00:29	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: s1a2924.d	Aliquot: 30.05 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	418	ug/kg	83.5	418
108-95-2	Phenol	U	418	ug/kg	83.5	418
95-57-8	2-Chlorophenol	U	418	ug/kg	83.5	418
106-46-7	1,4-Dichlorobenzene	U	418	ug/kg	83.5	418
621-64-7	N-Nitrosodipropylamine	U	418	ug/kg	83.5	418
59-50-7	4-Chloro-3-methylphenol	U	418	ug/kg	83.5	418
83-32-9	Acenaphthene	U	41.8	ug/kg	13.8	41.8
121-14-2	2,4-Dinitrotoluene	U	418	ug/kg	41.8	418
100-02-7	4-Nitrophenol	U	418	ug/kg	138	418 UJ,SV7c
87-86-5	Pentachlorophenol	U	418	ug/kg	104	418
129-00-0	Pyrene	U	41.8	ug/kg	12.5	41.8
110-86-1	Pyridine	U	418	ug/kg	83.5	418
62-53-3	Aniline	U	418	ug/kg	125	418
111-44-4	bis(2-Chloroethyl) ether	U	418	ug/kg	83.5	418
541-73-1	1,3-Dichlorobenzene	U	418	ug/kg	83.5	418
100-51-6	Benzyl alcohol	U	418	ug/kg	125	418
95-50-1	1,2-Dichlorobenzene	U	418	ug/kg	83.5	418
108-60-1	bis(2-Chloroisopropyl)ether	U	418	ug/kg	83.5	418
95-48-7	o-Cresol	U	418	ug/kg	83.5	418
65794-96-9	m,p-Cresols	U	418	ug/kg	125	418
67-72-1	Hexachloroethane	U	418	ug/kg	83.5	418
98-95-3	Nitrobenzene	U	418	ug/kg	83.5	418
78-59-1	Isophorone	U	418	ug/kg	83.5	418
88-75-5	2-Nitrophenol	U	418	ug/kg	83.5	418
105-67-9	2,4-Dimethylphenol	U	418	ug/kg	146	418
111-91-1	bis(2-Chloroethoxy)methane	U	418	ug/kg	83.5	418
120-83-2	2,4-Dichlorophenol	U	418	ug/kg	83.5	418
65-85-0	Benzoic acid	U	835	ug/kg	209	835
91-20-3	Naphthalene	U	41.8	ug/kg	12.5	41.8 UJ,SV7c
106-47-8	4-Chloroaniline	U	418	ug/kg	83.5	418
87-68-3	Hexachlorobutadiene	U	418	ug/kg	83.5	418
91-57-6	2-Methylnaphthalene	U	41.8	ug/kg	8.35	41.8
77-47-4	Hexachlorocyclopentadiene	U	418	ug/kg	83.5	418 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	418	ug/kg	83.5	418
95-95-4	2,4,5-Trichlorophenol	U	418	ug/kg	83.5	418
91-58-7	2-Chloronaphthalene	U	41.8	ug/kg	13.8	41.8
88-74-4	2-Nitroaniline	U	418	ug/kg	83.5	418
99-09-2	<i>o</i> -Nitroaniline	U	418	ug/kg	83.5	418
	3-Nitroaniline					

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106016	Date Received: 01/20/2010 08:45	%Moisture: 20.3
Client ID: RE15-10-7179	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/30/2010 00:29	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: s1a2924.d	Aliquot: 30.05 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	418	ug/kg	83.5	418
606-20-2	2,6-Dinitrotoluene	U	418	ug/kg	41.8	418
208-96-8	Acenaphthylene	U	41.8	ug/kg	12.5	41.8
51-28-5	2,4-Dinitrophenol	U	835	ug/kg	159	835
132-64-9	Dibenzofuran	U	418	ug/kg	83.5	418
84-66-2	Diethylphthalate	U	418	ug/kg	83.5	418
86-73-7	Fluorene	U	41.8	ug/kg	12.5	41.8
7005-72-3	4-Chlorophenylphenylether	U	418	ug/kg	83.5	418
534-52-1	2-Methyl-4,6-dinitrophenol	U	418	ug/kg	83.5	418 UJ,SV7c
100-01-6	4-Nitroaniline	U	418	ug/kg	125	418 UJ,SV7c
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	418	ug/kg	83.5	418
122-66-7	Azobenzene	U	418	ug/kg	83.5	418
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	418	ug/kg	83.5	418
118-74-1	Hexachlorobenzene	U	418	ug/kg	83.5	418
85-01-8	Phenanthrene	U	41.8	ug/kg	12.5	41.8
120-12-7	Anthracene	U	41.8	ug/kg	8.35	41.8
84-74-2	Di-n-butylphthalate	U	418	ug/kg	83.5	418
206-44-0	Fluoranthene	U	41.8	ug/kg	12.5	41.8
85-68-7	Butylbenzylphthalate	U	418	ug/kg	83.5	418
56-55-3	Benzo(a)anthracene	U	41.8	ug/kg	12.5	41.8
91-94-1	3,3'-Dichlorobenzidine	U	418	ug/kg	125	418
218-01-9	Chrysene	U	41.8	ug/kg	12.5	41.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	418	ug/kg	83.5	418
117-84-0	Di-n-octylphthalate	U	418	ug/kg	83.5	418
205-99-2	Benzo(b)fluoranthene	U	41.8	ug/kg	12.5	41.8
207-08-9	Benzo(k)fluoranthene	U	41.8	ug/kg	12.5	41.8
50-32-8	Benzo(a)pyrene	U	41.8	ug/kg	12.5	41.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.8	ug/kg	12.5	41.8
53-70-3	Dibenzo(a,h)anthracene	U	41.8	ug/kg	12.5	41.8
191-24-2	Benzo(ghi)perylene	U	41.8	ug/kg	12.5	41.8
120-82-1	1,2,4-Trichlorobenzene	U	418	ug/kg	83.5	418

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.09	553	ug/kg		JA
91-64-5	2H-1-Benzopyran-2-one	7.27	177	ug/kg	98	NJ

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

SDG Number:	10-1304	Date Collected:	01/13/2010 12:00	Matrix:	R
Lab Sample ID:	245106016	Date Received:	01/20/2010 08:45	%Moisture:	20.3
Client ID:	RE15-10-7179	Client:	LANL010	Project:	LANL01004
Batch ID:	944591	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Run Date:	01/30/2010 00:29	Inst:	MSD1.1	Dilution:	1
Prep Date:	01/25/2010 14:38	Analyst:	AMY	Inj. Vol:	.5 uL
Data File:	s1a2924.d	Aliquot:	30.05 g	Final Volume:	1 mL
		Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)		RT	Estimated	Units	Fit Qual
	Unknown		15.38	1790	ug/kg	J
	Unknown		16.06	2580	ug/kg	J
	Unknown		16.64	387	ug/kg	J



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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106015	Date Received: 01/20/2010 08:45	%Moisture: 13.4
Client ID: RE15-10-7180	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/30/2010 00:02	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: sla2923.d	Allquot: 30.02 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	385	ug/kg	76.9	385
108-95-2	Phenol	U	385	ug/kg	76.9	385
95-57-8	2-Chlorophenol	U	385	ug/kg	76.9	385
106-46-7	1,4-Dichlorobenzene	U	385	ug/kg	76.9	385
621-64-7	N-Nitrosodipropylamine	U	385	ug/kg	76.9	385
59-50-7	4-Chloro-3-methylphenol	U	385	ug/kg	76.9	385
83-32-9	Acenaphthene	U	38.5	ug/kg	12.7	38.5
121-14-2	2,4-Dinitrotoluene	U	385	ug/kg	38.5	385
100-02-7	4-Nitrophenol	U	385	ug/kg	127	385 UJ,SV7c
87-86-5	Pentachlorophenol	U	385	ug/kg	96.1	385
129-00-0	Pyrene	U	38.5	ug/kg	11.5	38.5
110-86-1	Pyridine	U	385	ug/kg	76.9	385
62-53-3	Aniline	U	385	ug/kg	115	385
111-44-4	bis(2-Chloroethyl) ether	U	385	ug/kg	76.9	385
541-73-1	1,3-Dichlorobenzene	U	385	ug/kg	76.9	385
100-51-6	Benzyl alcohol	U	385	ug/kg	115	385
95-50-1	1,2-Dichlorobenzene	U	385	ug/kg	76.9	385
108-60-1	bis(2-Chloroisopropyl)ether	U	385	ug/kg	76.9	385
95-48-7	o-Cresol	U	385	ug/kg	76.9	385
65794-96-9	m,p-Cresols	U	385	ug/kg	115	385
67-72-1	Hexachloroethane	U	385	ug/kg	76.9	385
98-95-3	Nitrobenzene	U	385	ug/kg	76.9	385
78-59-1	Isophorone	U	385	ug/kg	76.9	385
88-75-5	2-Nitrophenol	U	385	ug/kg	76.9	385
105-67-9	2,4-Dimethylphenol	U	385	ug/kg	135	385
111-91-1	bis(2-Chloroethoxy)methane	U	385	ug/kg	76.9	385
120-83-2	2,4-Dichlorophenol	U	385	ug/kg	76.9	385
65-85-0	Benzoic acid	U	769	ug/kg	192	769
91-20-3	Naphthalene	U	38.5	ug/kg	11.5	38.5 UJ,SV7c
106-47-8	4-Chloroaniline	U	385	ug/kg	76.9	385
87-68-3	Hexachlorobutadiene	U	385	ug/kg	76.9	385
91-57-6	2-Methylnaphthalene	U	38.5	ug/kg	7.69	38.5
77-47-4	Hexachlorocyclopentadiene	U	385	ug/kg	76.9	385 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	385	ug/kg	76.9	385
95-95-4	2,4,5-Trichlorophenol	U	385	ug/kg	76.9	385
91-58-7	2-Chloronaphthalene	U	38.5	ug/kg	12.7	38.5
88-74-4	2-Nitroaniline	U	385	ug/kg	76.9	385
99-09-2	o-Nitroaniline	U	385	ug/kg	76.9	385
	3-Nitroaniline					

ETM  
2/24/10

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106015	Date Received: 01/20/2010 08:45	%Moisture: 13.4
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7180	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/30/2010 00:02	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s1a2923.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	385	ug/kg	76.9	385
606-20-2	2,6-Dinitrotoluene	U	385	ug/kg	38.5	385
208-96-8	Acenaphthylene	U	38.5	ug/kg	11.5	38.5
51-28-5	2,4-Dinitrophenol	U	769	ug/kg	146	769
132-64-9	Dibenzofuran	U	385	ug/kg	76.9	385
84-66-2	Diethylphthalate	U	385	ug/kg	76.9	385
86-73-7	Fluorene	U	38.5	ug/kg	11.5	38.5
7005-72-3	4-Chlorophenylphenylether	U	385	ug/kg	76.9	385
534-52-1	2-Methyl-4,6-dinitrophenol	U	385	ug/kg	76.9	385 UJ,SV7c
100-01-6	4-Nitroaniline	U	385	ug/kg	115	385 UJ,SV7c
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	385	ug/kg	76.9	385
122-66-7	Azobenzene	U	385	ug/kg	76.9	385
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	385	ug/kg	76.9	385
118-74-1	Hexachlorobenzene	U	385	ug/kg	76.9	385
85-01-8	Phenanthrene	U	38.5	ug/kg	11.5	38.5
120-12-7	Anthracene	U	38.5	ug/kg	7.69	38.5
84-74-2	Di-n-butylphthalate	U	385	ug/kg	76.9	385
206-44-0	Fluoranthene	U	38.5	ug/kg	11.5	38.5
85-68-7	Butylbenzylphthalate	U	385	ug/kg	76.9	385
56-55-3	Benzo(a)anthracene	U	38.5	ug/kg	11.5	38.5
91-94-1	3,3'-Dichlorobenzidine	U	385	ug/kg	115	385
218-01-9	Chrysene	U	38.5	ug/kg	11.5	38.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	385	ug/kg	76.9	385
117-84-0	Di-n-octylphthalate	U	385	ug/kg	76.9	385
205-99-2	Benzo(b)fluoranthene	U	38.5	ug/kg	11.5	38.5
207-08-9	Benzo(k)fluoranthene	U	38.5	ug/kg	11.5	38.5
50-32-8	Benzo(a)pyrene	U	38.5	ug/kg	11.5	38.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.5	ug/kg	11.5	38.5
53-70-3	Dibenzo(a,h)anthracene	U	38.5	ug/kg	11.5	38.5
191-24-2	Benzo(ghi)perylene	U	38.5	ug/kg	11.5	38.5
120-82-1	1,2,4-Trichlorobenzene	U	385	ug/kg	76.9	385

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.09	531	ug/kg		JA
7785-70-8	IR-.alpha.-Pinene	3.83	865	ug/kg	97	NJ

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

SDG Number: 10-1304  
Lab Sample ID: 245106015

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 13.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.97	195	ug/kg		J
24048-44-0	Spiro[4.5]dec-7-ene, 1,8-dimethyl-4-(1-m	7.42	183	ug/kg	83	NJ
19912-83-5	Spiro[5.5]undeca-1,8-diene, 1,5,5,9-tetr	7.67	456	ug/kg	96	NJ
77-53-2	Cedrol	8.26	413	ug/kg	95	NJ
112-79-8	9-Octadecenoic acid, (E)-	10.48	216	ug/kg	95	NJ
	Unknown	10.87	246	ug/kg		J
	Unknown	11.01	161	ug/kg		J
	Unknown	11.06	156	ug/kg		J
	Unknown	11.19	240	ug/kg		J
3513-69-7	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.29	427	ug/kg	98	NJ
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	11.32	1440	ug/kg	95	NJ
	Unknown	11.44	363	ug/kg		J
	Unknown	11.69	2050	ug/kg		J
	Unknown	11.72	1040	ug/kg		J
	Unknown	11.82	918	ug/kg		J
	Unknown	12.06	164	ug/kg		J
112-85-6	Docosanoic acid	12.13	182	ug/kg	92	NJ
	Unknown	12.28	637	ug/kg		J
	Unknown	15.39	392	ug/kg		J
	Unknown	16.05	580	ug/kg		J
	Unknown	16.64	1070	ug/kg		J

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

SDG Number: 10-1304  
Lab Sample ID: 245106010

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.1  
Analyst: AMY  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7181  
Batch ID: 944591  
Run Date: 01/29/2010 21:45  
Prep Date: 01/25/2010 14:38  
Data File: sla2918.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	379	ug/kg	75.9	379
108-95-2	Phenol	U	379	ug/kg	75.9	379
95-57-8	2-Chlorophenol	U	379	ug/kg	75.9	379
106-46-7	1,4-Dichlorobenzene	U	379	ug/kg	75.9	379
621-64-7	N-Nitrosodipropylamine	U	379	ug/kg	75.9	379
59-50-7	4-Chloro-3-methylphenol	U	379	ug/kg	75.9	379
83-32-9	Acenaphthene	U	37.9	ug/kg	12.5	37.9
121-14-2	2,4-Dinitrotoluene	U	379	ug/kg	37.9	379
100-02-7	4-Nitrophenol	U	379	ug/kg	125	379 UJ,SV7c
87-86-5	Pentachlorophenol	U	379	ug/kg	94.9	379
129-00-0	Pyrene	U	37.9	ug/kg	11.4	37.9
110-86-1	Pyridine	U	379	ug/kg	75.9	379
62-53-3	Aniline	U	379	ug/kg	114	379
111-44-4	bis(2-Chloroethyl) ether	U	379	ug/kg	75.9	379
541-73-1	1,3-Dichlorobenzene	U	379	ug/kg	75.9	379
100-51-6	Benzyl alcohol	U	379	ug/kg	114	379
95-50-1	1,2-Dichlorobenzene	U	379	ug/kg	75.9	379
108-60-1	bis(2-Chloroisopropyl)ether	U	379	ug/kg	75.9	379
95-48-7	o-Cresol	U	379	ug/kg	75.9	379
65794-96-9	m,p-Cresols	U	379	ug/kg	114	379
67-72-1	Hexachloroethane	U	379	ug/kg	75.9	379
98-95-3	Nitrobenzene	U	379	ug/kg	75.9	379
78-59-1	Isophorone	U	379	ug/kg	75.9	379
88-75-5	2-Nitrophenol	U	379	ug/kg	75.9	379
105-67-9	2,4-Dimethylphenol	U	379	ug/kg	133	379
111-91-1	bis(2-Chloroethoxy)methane	U	379	ug/kg	75.9	379
120-83-2	2,4-Dichlorophenol	U	379	ug/kg	75.9	379
65-85-0	Benzoic acid	U	759	ug/kg	190	759
91-20-3	Naphthalene	U	37.9	ug/kg	11.4	37.9 UJ,SV7c
106-47-8	4-Chloroaniline	U	379	ug/kg	75.9	379
87-68-3	Hexachlorobutadiene	U	379	ug/kg	75.9	379
91-57-6	2-Methylnaphthalene	U	37.9	ug/kg	7.59	37.9
77-47-4	Hexachlorocyclopentadiene	U	379	ug/kg	75.9	379 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	379	ug/kg	75.9	379
95-95-4	2,4,5-Trichlorophenol	U	379	ug/kg	75.9	379
91-58-7	2-Chloronaphthalene	U	37.9	ug/kg	12.5	37.9
88-74-4	2-Nitroaniline	U	379	ug/kg	75.9	379
99-09-2	o-Nitroaniline	U	379	ug/kg	75.9	379
	3-Nitroaniline	U	379	ug/kg	75.9	379

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

SDG Number: 10-1304  
Lab Sample ID: 245106010

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	379	ug/kg	75.9	379
606-20-2	2,6-Dinitrotoluene	U	379	ug/kg	37.9	379
208-96-8	Acenaphthylene	U	37.9	ug/kg	11.4	37.9
51-28-5	2,4-Dinitrophenol	U	759	ug/kg	144	759
132-64-9	Dibenzofuran	U	379	ug/kg	75.9	379
84-66-2	Diethylphthalate	U	379	ug/kg	75.9	379
86-73-7	Fluorene	U	37.9	ug/kg	11.4	37.9
7005-72-3	4-Chlorophenylphenylether	U	379	ug/kg	75.9	379
534-52-1	2-Methyl-4,6-dinitrophenol	U	379	ug/kg	75.9	379 UJ,SV7c
100-01-6	4-Nitroaniline	U	379	ug/kg	114	379 UJ,SV7c
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	379	ug/kg	75.9	379
122-66-7	Azobenzene	U	379	ug/kg	75.9	379
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	379	ug/kg	75.9	379
118-74-1	Hexachlorobenzene	U	379	ug/kg	75.9	379
85-01-8	Phenanthrene	U	37.9	ug/kg	11.4	37.9
120-12-7	Anthracene	U	37.9	ug/kg	7.59	37.9
84-74-2	Di-n-butylphthalate	U	379	ug/kg	75.9	379
206-44-0	Fluoranthene	U	37.9	ug/kg	11.4	37.9
85-68-7	Butylbenzylphthalate	U	379	ug/kg	75.9	379
56-55-3	Benzo(a)anthracene	U	37.9	ug/kg	11.4	37.9
91-94-1	3,3'-Dichlorobenzidine	U	379	ug/kg	114	379
218-01-9	Chrysene	U	37.9	ug/kg	11.4	37.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	379	ug/kg	75.9	379
117-84-0	Di-n-octylphthalate	U	379	ug/kg	75.9	379
205-99-2	Benzo(b)fluoranthene	U	37.9	ug/kg	11.4	37.9
207-08-9	Benzo(k)fluoranthene	U	37.9	ug/kg	11.4	37.9
50-32-8	Benzo(a)pyrene	U	37.9	ug/kg	11.4	37.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.9	ug/kg	11.4	37.9
53-70-3	Dibenzo(a,h)anthracene	U	37.9	ug/kg	11.4	37.9
191-24-2	Benzo(ghi)perylene	U	37.9	ug/kg	11.4	37.9
120-82-1	1,2,4-Trichlorobenzene	U	379	ug/kg	75.9	379

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.96	420	ug/kg		J
	Unknown	2.17	221	ug/kg		J

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106010	Date Received: 01/20/2010 08:45	%Moisture: 12.1
Client ID: RE15-10-7181	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/29/2010 21:45	Inst: MSD1.1	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: sla2918.d	Aliquot: 30 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.1	852	ug/kg		JA
	Unknown	11.29	273	ug/kg		J
	Unknown	11.43	304	ug/kg		J
	Unknown	11.66	467	ug/kg		J
	Unknown	11.69	630	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.8	844	ug/kg	94	NJ
	Unknown	12.26	213	ug/kg		J
83-46-5	.beta.-Sitosterol	16.92	274	ug/kg	96	NJ

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

SDG Number: 10-1304  
Lab Sample ID: 245106012

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.1  
Analyst: AMY  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 18  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7182  
Batch ID: 944591  
Run Date: 01/29/2010 22:40  
Prep Date: 01/25/2010 14:38  
Data File: s1a2920.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	406	ug/kg	81.3	406
108-95-2	Phenol	U	406	ug/kg	81.3	406
95-57-8	2-Chlorophenol	U	406	ug/kg	81.3	406
106-46-7	1,4-Dichlorobenzene	U	406	ug/kg	81.3	406
621-64-7	N-Nitrosodipropylamine	U	406	ug/kg	81.3	406
59-50-7	4-Chloro-3-methylphenol	U	406	ug/kg	81.3	406
83-32-9	Acenaphthene	U	40.6	ug/kg	13.4	40.6
121-14-2	2,4-Dinitrotoluene	U	406	ug/kg	40.6	406
100-02-7	4-Nitrophenol	U	406	ug/kg	134	406 UJ,SV7c
87-86-5	Pentachlorophenol	U	406	ug/kg	102	406
129-00-0	Pyrene	U	40.6	ug/kg	12.2	40.6
110-86-1	Pyridine	U	406	ug/kg	81.3	406
62-53-3	Aniline	U	406	ug/kg	122	406
111-44-4	bis(2-Chloroethyl) ether	U	406	ug/kg	81.3	406
541-73-1	1,3-Dichlorobenzene	U	406	ug/kg	81.3	406
100-51-6	Benzyl alcohol	U	406	ug/kg	122	406
95-50-1	1,2-Dichlorobenzene	U	406	ug/kg	81.3	406
108-60-1	bis(2-Chloroisopropyl)ether	U	406	ug/kg	81.3	406
95-48-7	o-Cresol	U	406	ug/kg	81.3	406
65794-96-9	m,p-Cresols	U	406	ug/kg	122	406
67-72-1	Hexachloroethane	U	406	ug/kg	81.3	406
98-95-3	Nitrobenzene	U	406	ug/kg	81.3	406
78-59-1	Isophorone	U	406	ug/kg	81.3	406
88-75-5	2-Nitrophenol	U	406	ug/kg	81.3	406
105-67-9	2,4-Dimethylphenol	U	406	ug/kg	142	406
111-91-1	bis(2-Chloroethoxy)methane	U	406	ug/kg	81.3	406
120-83-2	2,4-Dichlorophenol	U	406	ug/kg	81.3	406
65-85-0	Benzoic acid	U	813	ug/kg	203	813
91-20-3	Naphthalene	U	40.6	ug/kg	12.2	40.6 UJ,SV7c
106-47-8	4-Chloroaniline	U	406	ug/kg	81.3	406
87-68-3	Hexachlorobutadiene	U	406	ug/kg	81.3	406
91-57-6	2-Methylnaphthalene	U	40.6	ug/kg	8.13	40.6
77-47-4	Hexachlorocyclopentadiene	U	406	ug/kg	81.3	406 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	406	ug/kg	81.3	406
95-95-4	2,4,5-Trichlorophenol	U	406	ug/kg	81.3	406
91-58-7	2-Chloronaphthalene	U	40.6	ug/kg	13.4	40.6
88-74-4	2-Nitroaniline	U	406	ug/kg	81.3	406
99-09-2	<i>o</i> -Nitroaniline 3-Nitroaniline	U	406	ug/kg	81.3	406

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106012	Date Received: 01/20/2010 08:45	%Moisture: 18
Client ID: RE15-10-7182	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/29/2010 22:40	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: sla2920.d	Aliquot: 30 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	406	ug/kg	81.3	406
606-20-2	2,6-Dinitrotoluene	U	406	ug/kg	40.6	406
208-96-8	Acenaphthylene	U	40.6	ug/kg	12.2	40.6
51-28-5	2,4-Dinitrophenol	U	813	ug/kg	154	813
132-64-9	Dibenzofuran	U	406	ug/kg	81.3	406
84-66-2	Diethylphthalate	U	406	ug/kg	81.3	406
86-73-7	Fluorene	U	40.6	ug/kg	12.2	40.6
7005-72-3	4-Chlorophenylphenylether	U	406	ug/kg	81.3	406
534-52-1	2-Methyl-4,6-dinitrophenol	U	406	ug/kg	81.3	406 UJ,SV7c
100-01-6	4-Nitroaniline	U	406	ug/kg	122	406 UJ,SV7c
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	406	ug/kg	81.3	406
122-66-7	Azobenzene	U	406	ug/kg	81.3	406
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	406	ug/kg	81.3	406
118-74-1	Hexachlorobenzene	U	406	ug/kg	81.3	406
85-01-8	Phenanthrene	U	40.6	ug/kg	12.2	40.6
120-12-7	Anthracene	U	40.6	ug/kg	8.13	40.6
84-74-2	Di-n-butylphthalate	U	406	ug/kg	81.3	406
206-44-0	Fluoranthene	U	40.6	ug/kg	12.2	40.6
85-68-7	Butylbenzylphthalate	U	406	ug/kg	81.3	406
56-55-3	Benzo(a)anthracene	U	40.6	ug/kg	12.2	40.6
91-94-1	3,3'-Dichlorobenzidine	U	406	ug/kg	122	406
218-01-9	Chrysene	U	40.6	ug/kg	12.2	40.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	406	ug/kg	81.3	406
117-84-0	Di-n-octylphthalate	U	406	ug/kg	81.3	406
205-99-2	Benzo(b)fluoranthene	U	40.6	ug/kg	12.2	40.6
207-08-9	Benzo(k)fluoranthene	U	40.6	ug/kg	12.2	40.6
50-32-8	Benzo(a)pyrene	U	40.6	ug/kg	12.2	40.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.6	ug/kg	12.2	40.6
53-70-3	Dibenzo(a,h)anthracene	U	40.6	ug/kg	12.2	40.6
191-24-2	Benzo(ghi)perylene	U	40.6	ug/kg	12.2	40.6
120-82-1	1,2,4-Trichlorobenzene	U	406	ug/kg	81.3	406

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.09	752	ug/kg		JA
58037-87-9	Bicyclo[3.1.0]hexane, 4-methyl-1-(1-meth	3.75	443	ug/kg	93	NJ

ETM  
2/24/10



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

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SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106012	Date Received: 01/20/2010 08:45	%Moisture: 18
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7182	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/29/2010 22:40	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Allquot: 30 g	Final Volume: 1 mL
Data File: s1a2920.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.11	543	ug/kg		J
57-10-3	n-Hexadecanoic acid	9.72	492	ug/kg	92	NJ
	Unknown	9.9	772	ug/kg		J
1686-66-4	Phenanthrene, 7-ethenyl-1,2,3,4,4a,4b,5,	10.12	735	ug/kg	89	NJ
109-29-5	Oxacycloheptadecan-2-one	10.48	836	ug/kg	93	NJ
57-11-4	Octadecanoic acid	10.56	336	ug/kg	95	NJ
1139-30-6	Caryophyllene oxide	10.71	458	ug/kg	91	NJ
	Unknown	11.1	332	ug/kg		J
	Unknown	11.13	354	ug/kg		J
	Unknown	11.2	1070	ug/kg		J
24174-25-2	5.alpha.,14.beta.-Androstane, 16.alpha.,	11.3	866	ug/kg	91	NJ
506-30-9	Eicosanoic acid	11.35	613	ug/kg	83	NJ
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.39	468	ug/kg	98	NJ
	Unknown	11.42	1110	ug/kg		J
	Unknown	11.45	1680	ug/kg		J
	Unknown	11.59	1510	ug/kg		J
1686-62-0	1-Phenanthrenecarboxylic acid, 7-ethenyl	11.71	2080	ug/kg	80	NJ
	Unknown	11.86	7770	ug/kg		J
	Unknown	12.07	372	ug/kg		J
112-85-6	Docosanoic acid	12.15	1170	ug/kg	98	NJ
	Unknown	12.23	942	ug/kg		J
557-59-5	Tetracosanoic acid	13.06	954	ug/kg	99	NJ
	Unknown	15	810	ug/kg		J
	Unknown	15.89	682	ug/kg		J
62600-05-9	Cedran-diol, 8S,14-	16.04	591	ug/kg	83	NJ
1000214-20-7	Stigmasterol, 22,23-dihydro-	16.65	3100	ug/kg	97	NJ
	Unknown	17.09	2300	ug/kg		J

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

SDG Number: 10-1304  
Lab Sample ID: 245106013

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7183  
Batch ID: 944591  
Run Date: 01/29/2010 23:07  
Prep Date: 01/25/2010 14:38  
Data File: s1a2921.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	380	ug/kg	75.9	380
108-95-2	Phenol	U	380	ug/kg	75.9	380
95-57-8	2-Chlorophenol	U	380	ug/kg	75.9	380
106-46-7	1,4-Dichlorobenzene	U	380	ug/kg	75.9	380
621-64-7	N-Nitrosodipropylamine	U	380	ug/kg	75.9	380
59-50-7	4-Chloro-3-methylphenol	U	380	ug/kg	75.9	380
83-32-9	Acenaphthene	U	38.0	ug/kg	12.5	38.0
121-14-2	2,4-Dinitrotoluene	U	380	ug/kg	38.0	380
100-02-7	4-Nitrophenol	U	380	ug/kg	125	380 UJ,SV7c
87-86-5	Pentachlorophenol	U	380	ug/kg	94.9	380
129-00-0	Pyrene	U	38.0	ug/kg	11.4	38.0
110-86-1	Pyridine	U	380	ug/kg	75.9	380
62-53-3	Aniline	U	380	ug/kg	114	380
111-44-4	bis(2-Chloroethyl) ether	U	380	ug/kg	75.9	380
541-73-1	1,3-Dichlorobenzene	U	380	ug/kg	75.9	380
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380
95-50-1	1,2-Dichlorobenzene	U	380	ug/kg	75.9	380
108-60-1	bis(2-Chloroisopropyl)ether	U	380	ug/kg	75.9	380
95-48-7	o-Cresol	U	380	ug/kg	75.9	380
65794-96-9	m,p-Cresols	U	380	ug/kg	114	380
67-72-1	Hexachloroethane	U	380	ug/kg	75.9	380
98-95-3	Nitrobenzene	U	380	ug/kg	75.9	380
78-59-1	Isophorone	U	380	ug/kg	75.9	380
88-75-5	2-Nitrophenol	U	380	ug/kg	75.9	380
105-67-9	2,4-Dimethylphenol	U	380	ug/kg	133	380
111-91-1	bis(2-Chloroethoxy)methane	U	380	ug/kg	75.9	380
120-83-2	2,4-Dichlorophenol	U	380	ug/kg	75.9	380
65-85-0	Benzoic acid	U	759	ug/kg	190	759
91-20-3	Naphthalene	U	38.0	ug/kg	11.4	38.0 UJ,SV7c
106-47-8	4-Chloroaniline	U	380	ug/kg	75.9	380
87-68-3	Hexachlorobutadiene	U	380	ug/kg	75.9	380
91-57-6	2-Methylnaphthalene	U	38.0	ug/kg	7.59	38.0
77-47-4	Hexachlorocyclopentadiene	U	380	ug/kg	75.9	380 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	380	ug/kg	75.9	380
95-95-4	2,4,5-Trichlorophenol	U	380	ug/kg	75.9	380
91-58-7	2-Chloronaphthalene	U	38.0	ug/kg	12.5	38.0
88-74-4	2-Nitroaniline	U	380	ug/kg	75.9	380
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	380	ug/kg	75.9	380

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106013	Date Received: 01/20/2010 08:45	%Moisture: 12.2
Client ID: RE15-10-7183	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/29/2010 23:07	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: sla2921.d	Allquot: 30.02 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
606-20-2	Dimethylphthalate	U	380	ug/kg	75.9	380
208-96-8	2,6-Dinitrotoluene	U	380	ug/kg	38.0	380
51-28-5	Acenaphthylene	U	38.0	ug/kg	11.4	38.0
132-64-9	2,4-Dinitrophenol	U	759	ug/kg	144	759
84-66-2	Dibenzofuran	U	380	ug/kg	75.9	380
86-73-7	Diethylphthalate	U	380	ug/kg	75.9	380
7005-72-3	Fluorene	U	38.0	ug/kg	11.4	38.0
534-52-1	4-Chlorophenylphenylether	U	380	ug/kg	75.9	380
100-01-6	2-Methyl-4,6-dinitrophenol	U	380	ug/kg	75.9	380 UJ,SV7c
	4-Nitroaniline	U	380	ug/kg	114	380 UJ,SV7c
122-39-4	<i>p</i> -Nitroaniline					
122-66-7	Diphenylamine	U	380	ug/kg	75.9	380
101-55-3	Azobenzene	U	380	ug/kg	75.9	380
118-74-1	1,2-Diphenylhydrazine					
85-01-8	4-Bromophenylphenylether	U	380	ug/kg	75.9	380
120-12-7	Hexachlorobenzene	U	380	ug/kg	75.9	380
84-74-2	Phenanthrene	U	38.0	ug/kg	11.4	38.0
206-44-0	Anthracene	U	38.0	ug/kg	7.59	38.0
85-68-7	Di-n-butylphthalate	U	380	ug/kg	75.9	380
56-55-3	Fluoranthene	U	38.0	ug/kg	11.4	38.0
91-94-1	Butylbenzylphthalate	U	380	ug/kg	75.9	380
218-01-9	Benzo(a)anthracene	U	38.0	ug/kg	11.4	38.0
117-81-7	3,3'-Dichlorobenzidine	U	380	ug/kg	114	380
117-84-0	Chrysene	U	38.0	ug/kg	11.4	38.0
205-99-2	bis(2-Ethylhexyl)phthalate	U	380	ug/kg	75.9	380
207-08-9	Di-n-octylphthalate	U	380	ug/kg	75.9	380
50-32-8	Benzo(b)fluoranthene	U	38.0	ug/kg	11.4	38.0
193-39-5	Benzo(k)fluoranthene	U	38.0	ug/kg	11.4	38.0
53-70-3	Benzo(a)pyrene	U	38.0	ug/kg	11.4	38.0
191-24-2	Indeno(1,2,3-cd)pyrene	U	38.0	ug/kg	11.4	38.0
120-82-1	Dibenzo(a,h)anthracene	U	38.0	ug/kg	11.4	38.0
	Benzo(ghi)perylene	U	38.0	ug/kg	11.4	38.0
	1,2,4-Trichlorobenzene	U	380	ug/kg	75.9	380


## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.94	302	ug/kg		J
79-09-4	Propanoic acid	2.17	238	ug/kg	87	NJ

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106013	Date Received: 01/20/2010 08:45	%Moisture: 12.2
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7183	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/29/2010 23:07	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s1a2921.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.09	919	ug/kg		JA
1000130-90-5	2-Methyl-Z,Z-3,13-octadecadienol	10.47	193	ug/kg	95	NJ
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	10.89	284	ug/kg	89	NJ
511-02-4	Naphthalene, decahydro-1,1,4a-trimethyl-	11.2	201	ug/kg	80	NJ
506-30-9	Eicosanoic acid	11.34	233	ug/kg	98	NJ
	Unknown	11.43	565	ug/kg		J
	Unknown	11.59	227	ug/kg		J
	Unknown	11.69	342	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.81	1710	ug/kg	91	NJ
112-85-6	Docosanoic acid	12.13	448	ug/kg	97	NJ
	Unknown	13.02	182	ug/kg		J
557-59-5	Tetracosanoic acid	13.05	571	ug/kg	90	NJ
	Unknown	14.46	216	ug/kg		J
	Unknown	14.65	246	ug/kg		J
	Unknown	14.99	227	ug/kg		J
	Unknown	15.4	2820	ug/kg		J
	Unknown	15.62	242	ug/kg		J
	Unknown	15.88	319	ug/kg		J
	Unknown	16.07	3390	ug/kg		J
	Unknown	16.2	212	ug/kg		J
1000214-20-7	Stigmasterol, 22,23-dihydro-	16.64	1090	ug/kg	93	NJ
	Unknown	16.76	471	ug/kg		J
1000159-38-5	Cycloheptane, 4-methylene-1-methyl-2-(2-	17.08	556	ug/kg	90	NJ

DATA VALIDATION COVER SHEET	
<b>5122-1</b>  <p style="text-align: center;"><b>Data Validation Cover Sheet</b></p>	Records Use only  

Section I.		
REQUEST NUMBER: <u>10-1304</u>	VALIDATION DATE: <u>2/24/10</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"/> TPH-DRO	<input type="checkbox"/> METALS	<input type="checkbox"/> PCB CONGENERS
<input type="checkbox"/> GENERAL CHEMISTRY	<input type="checkbox"/> RADIOCHEMISTRY	<input checked="" type="checkbox"/> LCMSMS HIGH EXPLOSIVES
		<input type="checkbox"/> LCMSMS PERCHLORATES
		<input type="checkbox"/> ORGANOCHLORINE 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):


1. 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.
2. The CCV %Ds were >20% with a positive bias for RDX. The associated sample results were NDs and, thus, were not qualified. The CCV %D was >20% but ≤40% with a negative bias for 2,6-diamino-4-nitrotoluene. The associated sample results were NDs and, thus, were qualified UJ,HE7c.
3. The LCS %R was < the laboratory's LAL but ≥10% for tetryl. The associated sample results were NDs and, thus, were qualified UJ,HE12a.

Reviewed by: Monica Dymerski Level I Date: 02/25/10


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

*Eric T. Mink*


DATE: 2/24/10

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"/>	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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
<input 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  (Check One)			Assign Qualifier Listed Below If Criterion = Yes	Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7165

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106001

Sample Amount 2

Moisture: 19.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208015a

Date Analyzed: 08-FEB-10 21:37

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	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

ETM  
2/24/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7165

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106001

Sample Amount 2

Moisture: 19.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010024.wiff

Date Analyzed: 01-FEB-10 23:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	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: RE15-10-7171

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106002

Sample Amount 2

Moisture: 7.8

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208Q18a

Date Analyzed: 08-FEB-10 23:05

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 <span style="float: right;">UJ,HE12a</span>	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

ETM  
2/24/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7171

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106002

Sample Amount 2

Moisture: 7.8

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010027.wiff

Date Analyzed: 02-FEB-10 00:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	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  
2/24/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7170

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106003

Sample Amount 2

Moisture: 23.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208019a

Date Analyzed: 08-FEB-10 23:35

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	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

ETM  
2/24/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7170

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106003

Sample Amount 2

Moisture: 23.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010028.wiff

Date Analyzed: 02-FEB-10 00:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	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  
2/24/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7164

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106004

Sample Amount 2

Moisture: 17.7

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208020a

Date Analyzed: 09-FEB-10 00:04

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	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

ETM  
2/24/10



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7164

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106004

Sample Amount 2

Moisture: 17.7

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010029.wiff

Date Analyzed: 02-FEB-10 00:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	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  
2/24/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7167

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106005

Sample Amount 2

Moisture: 22.0

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208021a

Date Analyzed: 09-FEB-10 00:34

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	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

ETM  
2/24/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7167

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106005

Sample Amount 2

Moisture: 22.0

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010030.wiff

Date Analyzed: 02-FEB-10 00:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	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  
2/24/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7169

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106006

Sample Amount 2

Moisture: 3.9

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208022a

Date Analyzed: 09-FEB-10 01:03

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	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: RE15-10-7169

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106006

Sample Amount 2

Moisture: 8.9

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010031.wiff

Date Analyzed: 02-FEB-10 01:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	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  
2/24/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7168

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106007

Sample Amount 2

Moisture: 12.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208026a

Date Analyzed: 09-FEB-10 03:01

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	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

ETM  
2/24/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7168

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106007

Sample Amount 2

Moisture: 19.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010035.wiff

Date Analyzed: 02-FEB-10 02:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	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  
2/24/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7166

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106008

Sample Amount 2

Moisture: 31.6

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208027a

Date Analyzed: 09-FEB-10 03:31

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	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: RE15-10-7166

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106008

Sample Amount 2

Moisture: 31.6

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010036.wiff

Date Analyzed: 02-FEB-10 02:31

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	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: RE15-10-7177

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106009

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208028a

Date Analyzed: 09-FEB-10 04:00

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	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

ETM  
2/24/10

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7177

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106009

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010037.wiff

Date Analyzed: 02-FEB-10 02:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	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  
2/24/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7181

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106010

Sample Amount 2

Moisture: 12.1

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208029a

Date Analyzed: 09-FEB-10 04:30

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	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

ETM  
2/24/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7181

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106010

Sample Amount 2

Moisture: 12.1

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010038.wiff

Date Analyzed: 02-FEB-10 03:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	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  
2/24/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7178

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106011

Sample Amount 2

Moisture: 21.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208030a

Date Analyzed: 09-FEB-10 04:59

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 UJ,HE12a	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

ETM  
2/24/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7178

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106011

Sample Amount 2

Moisture: 21.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010039.wiff

Date Analyzed: 02-FEB-10 03:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	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  
2/24/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7182

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106012

Sample Amount 2

Moisture: 18.0

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208031a

Date Analyzed: 09-FEB-10 05:29

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

ETM  
2/24/10



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7182

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106012

Sample Amount 2

Moisture: 18.0

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010040.wiff

Date Analyzed: 02-FEB-10 03:34

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	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  $\times$   $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$   $\times$  Dilution Factor

ETM  
2/24/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7183

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106013

Sample Amount 2

Moisture: 12.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208032a

Date Analyzed: 09-FEB-10 05:58

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	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

ETM  
2/24/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7183

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106013

Sample Amount 2

Moisture: 12.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010041.wiff

Date Analyzed: 02-FEB-10 03:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	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  
2/24/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7176

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106014

Sample Amount 2

Moisture: 4.7

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208033a

Date Analyzed: 09-FEB-10 06:28

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	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

ETM  
2/24/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7176

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106014

Sample Amount 2

Moisture: 4.7

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010042.wiff

Date Analyzed: 02-FEB-10 04:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	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  
2/24/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7180

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106015

Sample Amount 2

Moisture: 13.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208034a

Date Analyzed: 09-FEB-10 06:58

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	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

ETM  
2/24/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7180

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106015

Sample Amount 2

Moisture: 13.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010043.wiff

Date Analyzed: 02-FEB-10 04:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	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  
2/24/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7179

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106016

Sample Amount 2

Moisture: 20.3

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208035a

Date Analyzed: 09-FEB-10 07:27

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	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

ETM  
2/24/10



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7179

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106016

Sample Amount 2

Moisture: 20.3

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010044.wiff

Date Analyzed: 02-FEB-10 04:36


Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene UJ,HE7c	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  
2/24/10

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>10-1304</u>	VALIDATION DATE: <u>2/24/10</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):

None.

**Reviewed by:** Monica Dymerski **Level I** **Date:** 02/25/10

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

*Eric T. Mink*

DATE: 2/24/10

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

5116-2

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

Records Use only



Yes No N/A (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 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**

5116-2

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

Records Use only



Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	21. The surrogate is < the Lower Acceptance Level (LAL) but $\geq 10\%R$ . Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
<input 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**

5116-2

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

Records Use only



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

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

SDG Number: 10-1304  
Lab Sample ID: 245106004

Client ID: RE15-10-7164  
Batch ID: 943953  
Run Date: 01/22/2010 17:38  
Prep Date: 01/21/2010 19:38  
Data File: 063f6301.d  
063b6301.d

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1AJ  
Analyst: YS1  
Aliquot: 30.12 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 17.7  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.04	ug/kg	1.34	4.04	1
11104-28-2	Aroclor-1221	U	4.04	ug/kg	1.34	4.04	1
11141-16-5	Aroclor-1232	U	4.04	ug/kg	1.34	4.04	1
53469-21-9	Aroclor-1242	U	4.04	ug/kg	1.34	4.04	1
12672-29-6	Aroclor-1248	U	4.04	ug/kg	1.34	4.04	1
11097-69-1	Aroclor-1254	U	4.04	ug/kg	1.34	4.04	1
11096-82-5	Aroclor-1260	U	4.04	ug/kg	1.34	4.04	1

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## PCB

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## Certificate of Analysis

## Sample Summary

SDG Number: 10-1304  
Lab Sample ID: 245106001

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YSI  
Aliquot: 30.15 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 19.4  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7165  
Batch ID: 943953  
Run Date: 01/22/2010 16:35  
Prep Date: 01/21/2010 19:38  
Data File: 058f5801.d  
058b5801.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.12	ug/kg	1.37	4.12	1
11104-28-2	Aroclor-1221	U	4.12	ug/kg	1.37	4.12	1
11141-16-5	Aroclor-1232	U	4.12	ug/kg	1.37	4.12	1
53469-21-9	Aroclor-1242	U	4.12	ug/kg	1.37	4.12	1
12672-29-6	Aroclor-1248	U	4.12	ug/kg	1.37	4.12	1
11097-69-1	Aroclor-1254	U	4.12	ug/kg	1.37	4.12	1
11096-82-5	Aroclor-1260	U	4.12	ug/kg	1.37	4.12	1

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## PCB

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Certificate of Analysis  
Sample Summary

SDG Number:	10-1304	Date Collected:	01/13/2010 12:00	Matrix:	R
Lab Sample ID:	245106008	Date Received:	01/20/2010 08:45	%Moisture:	31.6
Client ID:	RE15-10-7166	Client:	LANL010	Project:	LANL01004
Batch ID:	943953	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Run Date:	01/22/2010 18:54	Inst:	ECD1A.I	Dilution:	1
Prep Date:	01/21/2010 19:38	Analyst:	YS1	Inj. Vol:	1 uL
Data File:	069f6901.d	Aliquot:	30.19 g	Final Volume:	1 mL
	069b6901.d	Column:	1 CLP1	Level:	LOW
			2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.84	ug/kg	1.61	4.84	1
11104-28-2	Aroclor-1221	U	4.84	ug/kg	1.61	4.84	1
11141-16-5	Aroclor-1232	U	4.84	ug/kg	1.61	4.84	1
53469-21-9	Aroclor-1242	U	4.84	ug/kg	1.61	4.84	1
12672-29-6	Aroclor-1248	U	4.84	ug/kg	1.61	4.84	1
11097-69-1	Aroclor-1254	U	4.84	ug/kg	1.61	4.84	1
11096-82-5	Aroclor-1260	U	4.84	ug/kg	1.61	4.84	1

ETM  
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## PCB

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Certificate of Analysis  
Sample SummarySDG Number: 10-1304  
Lab Sample ID: 245106005Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.02 g  
Column: 1 CLP1  
2 CLP2Matrix: R  
%Moisture: 22  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.27	ug/kg	1.42	4.27	1
11104-28-2	Aroclor-1221	U	4.27	ug/kg	1.42	4.27	1
11141-16-5	Aroclor-1232	U	4.27	ug/kg	1.42	4.27	1
53469-21-9	Aroclor-1242	U	4.27	ug/kg	1.42	4.27	1
12672-29-6	Aroclor-1248	U	4.27	ug/kg	1.42	4.27	1
11097-69-1	Aroclor-1254	U	4.27	ug/kg	1.42	4.27	1
11096-82-5	Aroclor-1260	U	4.27	ug/kg	1.42	4.27	1

## PCB

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Certificate of Analysis  
Sample SummarySDG Number: 10-1304  
Lab Sample ID: 245106007Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.J  
Analyst: YS1  
Aliquot: 30.02 g  
Column: 1 CLP1  
2 CLP2Matrix: R  
%Moisture: 19.2  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.12	ug/kg	1.37	4.12	1
11104-28-2	Aroclor-1221	U	4.12	ug/kg	1.37	4.12	1
11141-16-5	Aroclor-1232	U	4.12	ug/kg	1.37	4.12	1
53469-21-9	Aroclor-1242	U	4.12	ug/kg	1.37	4.12	1
12672-29-6	Aroclor-1248	U	4.12	ug/kg	1.37	4.12	1
11097-69-1	Aroclor-1254	U	4.12	ug/kg	1.37	4.12	1
11096-82-5	Aroclor-1260	U	4.12	ug/kg	1.37	4.12	1

ETM  
2/24/10

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

SDG Number: 10-1304  
Lab Sample ID: 245106006

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.01 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 8.9  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.66	ug/kg	1.22	3.66	1
11104-28-2	Aroclor-1221	U	3.66	ug/kg	1.22	3.66	1
11141-16-5	Aroclor-1232	U	3.66	ug/kg	1.22	3.66	1
53469-21-9	Aroclor-1242	U	3.66	ug/kg	1.22	3.66	1
12672-29-6	Aroclor-1248	U	3.66	ug/kg	1.22	3.66	1
11097-69-1	Aroclor-1254	U	3.66	ug/kg	1.22	3.66	1
11096-82-5	Aroclor-1260	U	3.66	ug/kg	1.22	3.66	1

ETM  
2/24/10

## PCB

Page 1 of 1

Certificate of Analysis  
Sample SummarySDG Number: 10-1304  
Lab Sample ID: 245106003Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.15 g  
Column: 1 CLP1  
2 CLP2Matrix: R  
%Moisture: 23.2  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 5  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOWClient ID: RE15-10-7170  
Batch ID: 943953  
Run Date: 01/22/2010 17:26  
Prep Date: 01/21/2010 19:38  
Data File: 062f6201.d  
062b6201.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	21.6	ug/kg	7.19	21.6	1
11104-28-2	Aroclor-1221	U	21.6	ug/kg	7.19	21.6	1
11141-16-5	Aroclor-1232	U	21.6	ug/kg	7.19	21.6	1
53469-21-9	Aroclor-1242	U	21.6	ug/kg	7.19	21.6	1
12672-29-6	Aroclor-1248	U	21.6	ug/kg	7.19	21.6	1
11097-69-1	Aroclor-1254	U	21.6	ug/kg	7.19	21.6	1
11096-82-5	Aroclor-1260	U	21.6	ug/kg	7.19	21.6	1

ETM  
2/24/10

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

SDG Number: 10-1304  
Lab Sample ID: 245106002

Client ID: RE15-10-7171  
Batch ID: 943953  
Run Date: 01/22/2010 17:13  
Prep Date: 01/21/2010 19:38  
Data File: 061f6101.d  
061b6101.d

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.J  
Analyst: YS1  
Aliquot: 30.17 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 7.8  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.59	ug/kg	1.20	3.59	1
11104-28-2	Aroclor-1221	U	3.59	ug/kg	1.20	3.59	1
11141-16-5	Aroclor-1232	U	3.59	ug/kg	1.20	3.59	1
53469-21-9	Aroclor-1242	U	3.59	ug/kg	1.20	3.59	1
12672-29-6	Aroclor-1248	U	3.59	ug/kg	1.20	3.59	1
11097-69-1	Aroclor-1254	U	3.59	ug/kg	1.20	3.59	1
11096-82-5	Aroclor-1260	U	3.59	ug/kg	1.20	3.59	1

ETM  
2/24/10

Sunday, January 17, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1304C

LOS ALAMOS

REQUEST NUMBER: 10-1304

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 2/17/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

2451067.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7165	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7171	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7170	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7164	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7167	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7169	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7168	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7166	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7177	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7177	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7181	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7181	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7178	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7178	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7182	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7182	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7183	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7183	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7176	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7176	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7180	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7180	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7179	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7179	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7165	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7171	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7170	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7166	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7164	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7167	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7169	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7168	1	AMBER GLASS	8082+8270+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

10-1304



REQUEST NUMBER: 10-1304

Sunday, January 17, 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: 10-1304

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

**SHIP DATE: 1/18/2010****TURNAROUND/REPORT DUE: 2/17/2010****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	RE15-10-7164	R	1/13/2010	
		1	RE15-10-7165	R	1/13/2010	
		1	RE15-10-7166	R	1/13/2010	
		1	RE15-10-7167	R	1/13/2010	
		1	RE15-10-7168	R	1/13/2010	
		1	RE15-10-7169	R	1/13/2010	
		1	RE15-10-7170	R	1/13/2010	
		1	RE15-10-7171	R	1/13/2010	
	SW-846:8260B	1	RE15-10-7164	R	1/13/2010	

Sunday, January 17, 2010

REQUEST NUMBER: 10-1304

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE15-10-7165	R	1/13/2010	
		1	RE15-10-7166	R	1/13/2010	
		1	RE15-10-7167	R	1/13/2010	
		1	RE15-10-7168	R	1/13/2010	
		1	RE15-10-7169	R	1/13/2010	
		1	RE15-10-7170	R	1/13/2010	
		1	RE15-10-7171	R	1/13/2010	
		1	RE15-10-7176	R	1/13/2010	
		1	RE15-10-7177	R	1/13/2010	
		1	RE15-10-7178	R	1/13/2010	
		1	RE15-10-7179	R	1/13/2010	
		1	RE15-10-7180	R	1/13/2010	
		1	RE15-10-7181	R	1/13/2010	
		1	RE15-10-7182	R	1/13/2010	
		1	RE15-10-7183	R	1/13/2010	
	SW-846:8270C	1	RE15-10-7184	R	1/13/2010	
		1	RE15-10-7185	R	1/13/2010	
		1	RE15-10-7166	R	1/13/2010	
		1	RE15-10-7167	R	1/13/2010	
		1	RE15-10-7168	R	1/13/2010	
		1	RE15-10-7169	R	1/13/2010	
		1	RE15-10-7170	R	1/13/2010	
		1	RE15-10-7171	R	1/13/2010	
		1	RE15-10-7176	R	1/13/2010	
		1	RE15-10-7177	R	1/13/2010	
		1	RE15-10-7178	R	1/13/2010	
		1	RE15-10-7179	R	1/13/2010	
		1	RE15-10-7180	R	1/13/2010	

Sunday, January 17, 2010

REQUEST NUMBER: 10-1304

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE15-10-7181	R	1/13/2010	
		1	RE15-10-7182	R	1/13/2010	
		1	RE15-10-7183	R	1/13/2010	
	SW-846:8321A_MOD	1	RE15-10-7164	R	1/13/2010	
		1	RE15-10-7165	R	1/13/2010	
		1	RE15-10-7166	R	1/13/2010	
		1	RE15-10-7167	R	1/13/2010	
		1	RE15-10-7168	R	1/13/2010	
		1	RE15-10-7169	R	1/13/2010	
		1	RE15-10-7170	R	1/13/2010	
		1	RE15-10-7171	R	1/13/2010	
		1	RE15-10-7176	R	1/13/2010	
		1	RE15-10-7177	R	1/13/2010	
		1	RE15-10-7178	R	1/13/2010	
		1	RE15-10-7179	R	1/13/2010	
		1	RE15-10-7180	R	1/13/2010	
		1	RE15-10-7181	R	1/13/2010	
		1	RE15-10-7182	R	1/13/2010	
		1	RE15-10-7183	R	1/13/2010	

Final Page of REQUEST NUMBER 10-1304



January 22, 2010

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

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

Re: LANL ER Project  
Work Order: 245106  
SDG: 10-1304

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 20, 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,

A handwritten signature in black ink, appearing to read "Valerie Davis" with a stylized flourish at the end.

Valerie Davis  
Project Manager

Purchase Order: 72733-001-09  
Chain of Custody: 10-1304  
Enclosures

**Los Alamos National Laboratory (72733-001-09)**  
**LANL ER Project**  
**Work Order #: 245106**  
**SDG: 10-1304**

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# Case Narrative



**Case Narrative for  
Los Alamos National Laboratory (72733-001-09)  
LANL ER Project  
Workorder #: 245106  
SDG # : 10-1304**

**January 22, 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 January 20, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

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


<b><u>Laboratory ID</u></b>	<b><u>Client ID</u></b>
245106001	RE15-10-7165
245106002	RE15-10-7171
245106003	RE15-10-7170
245106004	RE15-10-7164
245106005	RE15-10-7167
245106006	RE15-10-7169
245106007	RE15-10-7168
245106008	RE15-10-7166
245106009	RE15-10-7177
245106010	RE15-10-7181
245106011	RE15-10-7178
245106012	RE15-10-7182
245106013	RE15-10-7183
245106014	RE15-10-7176
245106015	RE15-10-7180
245106016	RE15-10-7179

**Case Narrative**

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

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

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

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

Valerie Davis

Project Manager

**List of current GEL Certifications as of 22 January 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**

Sunday, January 17, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1304C

LOS ALAMOS

REQUEST NUMBER: 10-1304

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 2/17/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

2451067.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7165	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7171	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7170	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7164	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7167	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7169	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7168	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7166	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7177	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7177	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7181	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7181	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7178	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7178	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7182	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7182	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7183	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7183	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7176	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7176	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7180	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7180	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7179	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7179	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7165	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7171	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7170	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7166	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7164	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7167	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7169	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7168	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R

<b>Relinquished By:</b>	<b>Date</b>	<b>Time</b>	<b>Received By:</b>	<b>Date</b>	<b>Time</b>
<u>7622</u>	<u>1/18/10</u>	<u>3:00</u>	<u>Greg Tyler</u>	<u>1-20-10</u>	<u>0845</u>
Printed Name			Printed Name		
Signature			Signature		

Printed Name	Signature
--------------	-----------

Printed Name	Signature
--------------	-----------

<b>Received for DISPOSAL By:</b>	<b>Date</b>	<b>Time</b>	<b>Remarks:</b>
----------------------------------	-------------	-------------	-----------------

Printed Name	Signature
--------------	-----------

10 - 1304

Sunday, January 17, 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: 10-1304

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

SHIP DATE: 1/18/2010

TURNAROUND/REPORT DUE: 2/17/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANLER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-7164	R	1/13/2010	
		1	RE15-10-7165	R	1/13/2010	
		1	RE15-10-7166	R	1/13/2010	
		1	RE15-10-7167	R	1/13/2010	
		1	RE15-10-7168	R	1/13/2010	
		1	RE15-10-7169	R	1/13/2010	
		1	RE15-10-7170	R	1/13/2010	
		1	RE15-10-7171	R	1/13/2010	
	SW-846:8260B	1	RE15-10-7164	R	1/13/2010	

Sunday, January 17, 2010

Page 2 of 3  
REQUEST NUMBER: 10-1304

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE15-10-7165	R	1/13/2010	
		1	RE15-10-7166	R	1/13/2010	
		1	RE15-10-7167	R	1/13/2010	
		1	RE15-10-7168	R	1/13/2010	
		1	RE15-10-7169	R	1/13/2010	
		1	RE15-10-7170	R	1/13/2010	
		1	RE15-10-7171	R	1/13/2010	
		1	RE15-10-7176	R	1/13/2010	
		1	RE15-10-7177	R	1/13/2010	
		1	RE15-10-7178	R	1/13/2010	
		1	RE15-10-7179	R	1/13/2010	
		1	RE15-10-7180	R	1/13/2010	
		1	RE15-10-7181	R	1/13/2010	
		1	RE15-10-7182	R	1/13/2010	
		1	RE15-10-7183	R	1/13/2010	
	SW-846:8270C	1	RE15-10-7184	R	1/13/2010	
		1	RE15-10-7185	R	1/13/2010	
		1	RE15-10-7186	R	1/13/2010	
		1	RE15-10-7167	R	1/13/2010	
		1	RE15-10-7168	R	1/13/2010	
		1	RE15-10-7169	R	1/13/2010	
		1	RE15-10-7170	R	1/13/2010	
		1	RE15-10-7171	R	1/13/2010	
		1	RE15-10-7176	R	1/13/2010	
		1	RE15-10-7177	R	1/13/2010	
		1	RE15-10-7178	R	1/13/2010	
		1	RE15-10-7179	R	1/13/2010	
		1	RE15-10-7180	R	1/13/2010	



Sunday, January 17, 2010

Page 3 of 3

REQUEST NUMBER: 10-1304

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE15-10-7181	R	1/13/2010	
		1	RE15-10-7182	R	1/13/2010	
		1	RE15-10-7183	R	1/13/2010	
	SW-846:8321A_MOD	1	RE15-10-7164	R	1/13/2010	
		1	RE15-10-7165	R	1/13/2010	
		1	RE15-10-7166	R	1/13/2010	
		1	RE15-10-7167	R	1/13/2010	
		1	RE15-10-7168	R	1/13/2010	
		1	RE15-10-7169	R	1/13/2010	
		1	RE15-10-7170	R	1/13/2010	
		1	RE15-10-7171	R	1/13/2010	
		1	RE15-10-7176	R	1/13/2010	
		1	RE15-10-7177	R	1/13/2010	
		1	RE15-10-7178	R	1/13/2010	
		1	RE15-10-7179	R	1/13/2010	
		1	RE15-10-7180	R	1/13/2010	
		1	RE15-10-7181	R	1/13/2010	
		1	RE15-10-7182	R	1/13/2010	
		1	RE15-10-7183	R	1/13/2010	

Final Page of REQUEST NUMBER 10-1304



Laboratories LLC

## SAMPLE RECEIPT &amp; REVIEW FORM

Client: LANL			SDG/ARCO/Work Order: 10-1304		
Received By: Greg Tyler			Date Received: 1/20/10		
Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.		
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: 80cpm		
Classified Radioactive II by RSO?		X			
COC/Samples marked containing PCBs?		X			
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:		
Samples identified as Foreign Soil?		X			

Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags    blue ice    dry ice    none    other 2-5    12-15, 17
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: 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 7849 5644 2C    7209 7849 5714 4C    7209 7849 5699 13C  
 7209 7849 5725 2C    7209 7849 5828 4C    7209 7849 5817 14C  
 7209 7849 5736 2C    7209 7849 5839 4C    7209 7849 5872 14C  
 7209 7849 5840 2C    7209 7849 5861 4C    7209 7849 5703 15C  
 7209 7849 5688 3C    7209 7849 5883 4C    7209 7849 5633 17C  
 7209 7849 5850 3C    7209 7849 5747 5C  
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SHIP DATE: 19JAN10  
ACTWT: 62.0 LB MAN  
CAD: 0014176/CAFE2449

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PRIORITY OVERNIGHT  
TUE - 19JAN



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3 of 3  
NPS# 7209 7849 5644  
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ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 19JAN10  
ACTWT: 62.0 LB MAN  
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PRIORITY OVERNIGHT

2 of 2  
NPS# 7209 7849 5736  
MatrN 7209 7849 5725 0201

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2 of 1535

ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 19JAN10  
ACTWT: 61.0 LB MAN  
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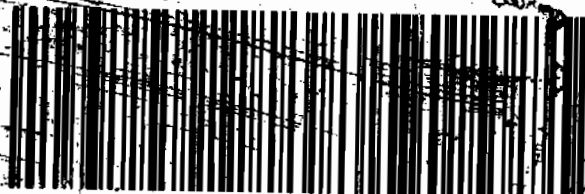


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ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 19JAN10  
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NPS# 7209 7849 5840  
MatrN 7209 7849 5839 0201

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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
1200 BLDG 1237 DPU 83  
LOS ALAMOS, NM 87545  
UNITED STATES US

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ACTWGT: 52.0 LB MAN  
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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
1200 BLDG 1237 DPU 83

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NPSH 7209 7849 5655  
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ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
1200 BLDG 1237 DPU 83

SHIP DATE: 19JAN10  
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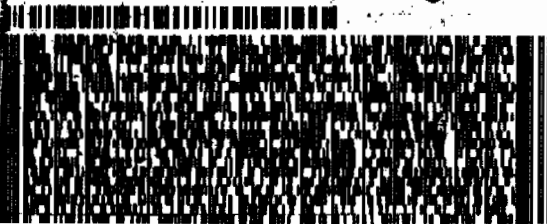
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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
1200 BLDG 1237 DPU 83

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ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

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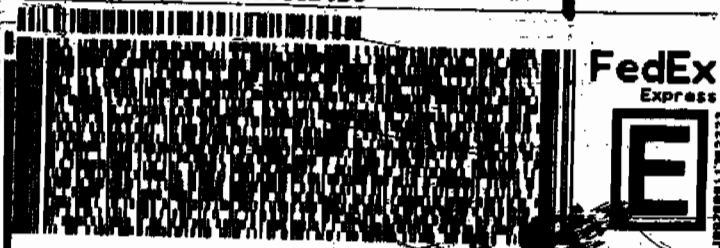
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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

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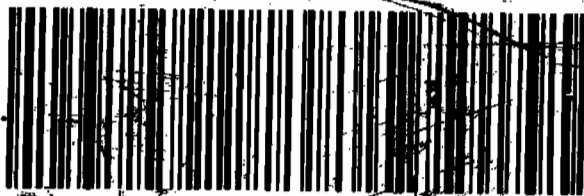


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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

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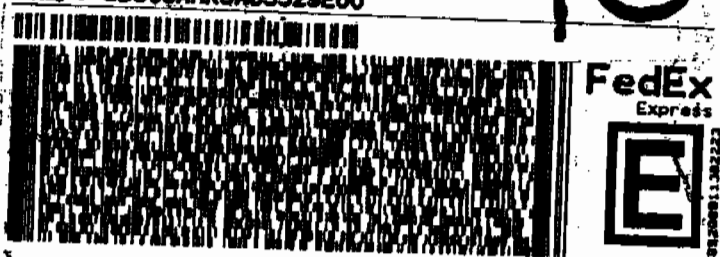
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LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US

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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

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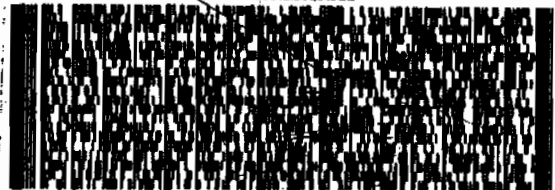
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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

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CRD: 0014176/CAFE2449

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PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 666-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 19JAN10  
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JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGG BLDG 1237 DPU 83

LOS ALAMOS, NM 87545  
UNITED STATES US

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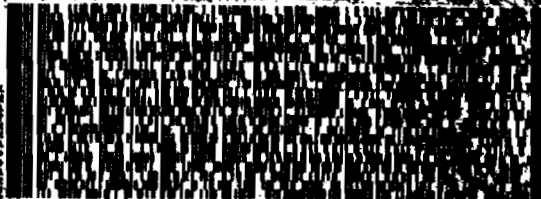
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Part 8 15618-434 NRT V3 04-01

ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGG BLDG 1237 DPU 83

LOS ALAMOS, NM 87545  
UNITED STATES US

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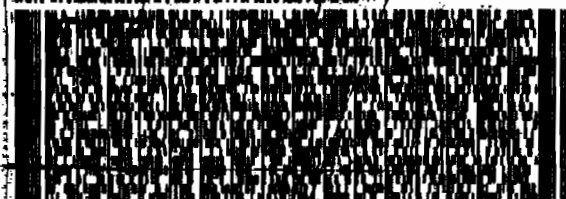
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J05109911302223

TRK# 7209 7849 5817

Matr# 7209 7849 5806 0201

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Part 8 15618-434 NRT V3 04-01

ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGG BLDG 1237 DPU 83

LOS ALAMOS, NM 87545  
UNITED STATES US

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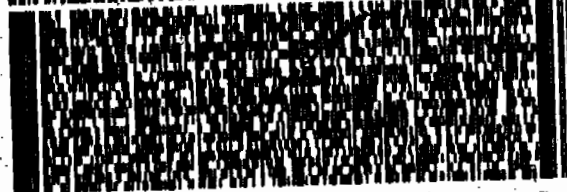
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CHARLESTON SC 29407

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REF: 68010AMR3A0352VA00

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

ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 19JAN10  
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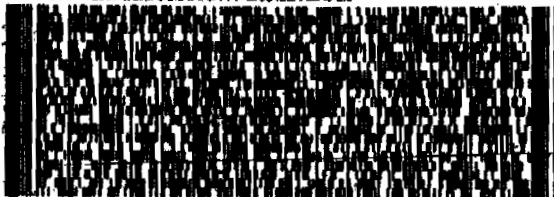
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GENERAL ENGINEERING LAB  
840 SAVAGE RD

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2 of 3

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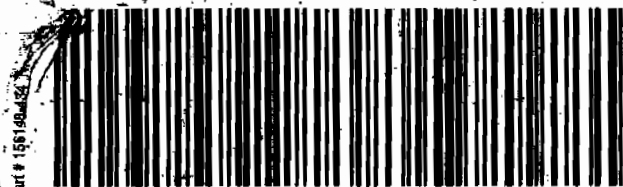
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ORIGIN ID: SAFA (505) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGO BLDG 1237 DPU 03

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UNITED STATES US

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# **Data Review Qualifier Flag Definition Sheet**

## Data Review Qualifier Definitions

Qualifier    Explanation

- \*    A quality control analyte recovery is outside of specified acceptance criteria
- \*\*   Analyte is a surrogate compound
- <    Result is less than value reported
- >    Result is greater than value reported
- ^    RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- A    The TIC is a suspected aldol-condensation product
- B    Target analyte was detected in the associated blank
- B    Metals-Either presence of analyte detected in the associated blank, or  
MDL/IDL < sample value < PQL
- BD   Results are either below the MDC or tracer recovery is low
- C    Analyte has been confirmed by GC/MS analysis
- D    Results are reported from a diluted aliquot of the sample
- d    5-day BOD-The 2:1 depletion requirement was not met for this sample
- E    Organics-Concentration of the target analyte exceeds the instrument calibration range
- E    Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- H    Analytical holding time was exceeded
- h    Preparation or preservation holding time was exceeded
- J    Value is estimated
- N    Metals-The Matrix spike sample recovery is not within specified control limits
- N    Organics-Presumptive evidence based on mass spectral library search to make a tentative  
identification of the analyte (TIC). Quantitation is based on nearest internal standard  
response factor
- N/A   Spike recovery limits do not apply. Sample concentration exceeds spike concentration  
by 4X or more
- ND   Analyte concentration is not detected above the reporting limit
- UI   Gamma Spectroscopy-Uncertain identification
- X    Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y    QC Samples were not spiked with this compound
- Z    Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

# **GC/MS Volatile Analysis**

# Case Narrative

**ChemStation Case Narrative**  
**Los Alamos National Laboratory (LANL)**  
**SDG 10-1304**

**Method/Analysis Information**

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer  
Analytical Method: SW846 8260B  
Prep Method: SW846 5030  
Analytical Batch Number: 945552  
Prep Batch Number: 945549

**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>
245106001	RE15-10-7165
245106002	RE15-10-7171
245106003	RE15-10-7170
245106004	RE15-10-7164
245106005	RE15-10-7167
245106006	RE15-10-7169
245106007	RE15-10-7168
245106008	RE15-10-7166
245106009	RE15-10-7177
245106010	RE15-10-7181
245106011	RE15-10-7178
245106012	RE15-10-7182
245106013	RE15-10-7183
245106014	RE15-10-7176
245106015	RE15-10-7180
245106016	RE15-10-7179
1202025121	Method Blank (MB)
1202025122	Laboratory Control Sample (LCS)
1202025125	Laboratory Control Sample (LCS)
1202031265	Method Blank (MB)
1202031266	Laboratory Control Sample (LCS)
1202031267	Laboratory Control Sample (LCS)
1202025123	245106001(RE15-10-7165) Post Spike (PS)
1202025124	245106001(RE15-10-7165) 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# 13.

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**

Samples 245106007 (RE15-10-7168), 245106012 (RE15-10-7182) and 245106016 (RE15-10-7179) did not pass surrogate recoveries. The samples were re-analyzed and confirmed the results. See DER 787770.

##### **Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

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

Sample 245106001 (RE15-10-7165) 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**

In samples 245106003 (RE15-10-7170), 245106007 (RE15-10-7168), 245106008 (RE15-10-7166), 245106011 (RE15-10-7178), 245106012 (RE15-10-7182), 245106013 (RE15-10-7183), 245106015 (RE15-10-7180) and 245106016 (RE15-10-7179), internal standard responses were outside the required acceptance criteria. The samples were re-analyzed and confirmed the results. See DER 787770.

## **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 required for samples in this SDG due to unacceptable recoveries in the initial analysis.

## **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 # 787770 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 required for this sample delivery group/work order. The tentatively identified compounds included some silanols. These compounds were due to column or septum bleed and were not native to the affected samples. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

### **Additional Comments**

Additional comments were not required for this SDG.

### **Residual Chlorine**

Residual Chlorine was not detected in any of the samples in this SDG.

**System Configuration**

The Volatile-GC/MS analysis was performed on the following instrument configuration:

<b>Instrument ID</b>	<b>Instrument</b>	<b>System Configuration</b>	<b>Column ID</b>	<b>Column Description</b>	<b>P &amp; T Trap</b>
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: 10-1304 GEL Work Order: 245106

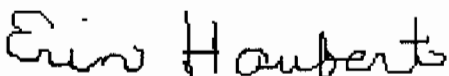
**The Qualifiers in this report are defined as follows:**

- \* 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:** 13 FEB 2010

**Title:** Data Validator

# **Sample Data Summary**

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

SDG Number: 10-1304  
 Lab Sample ID: 245106001  
 Client ID: RE15-10-7165  
 Batch ID: 945552  
 Run Date: 01/26/2010 22:27  
 Prep Date: 01/26/2010 14:40  
 Data File: 012610V55V227.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 19.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.422	1.24
74-87-3	Chloromethane	U	1.24	ug/kg	0.372	1.24
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.372	1.24
74-83-9	Bromomethane	U	1.24	ug/kg	0.372	1.24
75-00-3	Chloroethane	U	1.24	ug/kg	0.372	1.24
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.372	1.24
67-64-1	Acetone	U	6.21	ug/kg	2.06	6.21
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.372	1.24
74-88-4	Iodomethane	U	6.21	ug/kg	1.99	6.21
75-09-2	Methylene chloride	U	6.21	ug/kg	2.48	6.21
75-15-0	Carbon disulfide	U	6.21	ug/kg	1.55	6.21
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.372	1.24
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.372	1.24
78-93-3	2-Butanone	U	6.21	ug/kg	1.86	6.21
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.372	1.24
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.372	1.24
67-66-3	Chloroform	U	1.24	ug/kg	0.372	1.24
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.410	1.24
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.372	1.24
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.372	1.24
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.372	1.24
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.372	1.24
71-43-2	Benzene	U	1.24	ug/kg	0.372	1.24
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.410	1.24
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.372	1.24
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.372	1.24
74-95-3	Dibromomethane	U	1.24	ug/kg	0.372	1.24
108-10-1	4-Methyl-2-pentanone	U	6.21	ug/kg	1.55	6.21
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.372	1.24
108-88-3	Toluene	U	1.24	ug/kg	0.372	1.24
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.372	1.24
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.372	1.24
591-78-6	2-Hexanone	U	6.21	ug/kg	1.86	6.21
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.372	1.24
127-18-4	Tetrachloroethylene	U	1.24	ug/kg	0.372	1.24
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.372	1.24
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.372	1.24
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.372	1.24

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1304  
Lab Sample ID: 245106001  
  
Client ID: RE15-10-7165  
Batch ID: 945552  
Run Date: 01/26/2010 22:27  
Prep Date: 01/26/2010 14:40  
Data File: 012610V5SV227.D

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.1  
Analyst: DXK1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 19.4  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.372	1.24
179601-23-1	m,p-Xylenes	U	2.48	ug/kg	0.372	2.48
95-47-6	o-Xylene	U	1.24	ug/kg	0.372	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.372	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.372	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.372	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.372	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.372	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.372	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.372	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.372	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.372	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.372	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.372	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.372	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.372	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.372	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.372	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.372	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.21	ug/kg	1.99	6.21
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.372	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24

**Tentatively Identified Compound Summary**

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

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106002	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 7.8
<b>Client ID:</b> RE15-10-7171	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 945552	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Run Date:</b> 01/26/2010 22:53	<b>Inst:</b> VOA5.J	<b>Dilution:</b> 1
<b>Prep Date:</b> 01/26/2010 14:41	<b>Analyst:</b> DXK1	<b>Purge Vol:</b> 5 mL
<b>Data File:</b> 012610V5SV228.D	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.369	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.325	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.325	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.325	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.325	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.325	1.08
67-64-1	Acetone	U	5.42	ug/kg	1.80	5.42
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
74-88-4	Iodomethane	U	5.42	ug/kg	1.74	5.42
75-09-2	Methylene chloride	U	5.42	ug/kg	2.17	5.42
75-15-0	Carbon disulfide	U	5.42	ug/kg	1.36	5.42
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.325	1.08
78-93-3	2-Butanone	U	5.42	ug/kg	1.63	5.42
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.325	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.358	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.325	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.325	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.325	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.325	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.325	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.358	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.325	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.325	1.08
108-10-1	4-Methyl-2-pentanone	U	5.42	ug/kg	1.36	5.42
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.325	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.325	1.08
591-78-6	2-Hexanone	U	5.42	ug/kg	1.63	5.42
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.325	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.325	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.325	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.325	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.325	1.08

**Volatile  
Certificate of Analysis  
Sample Summary**

**SDG Number:** 10-1304  
**Lab Sample ID:** 245106002  
  
**Client ID:** RE15-10-7171  
**Batch ID:** 945552  
**Run Date:** 01/26/2010 22:53  
**Prep Date:** 01/26/2010 14:41  
**Data File:** 012610V55V228.D

**Date Collected:** 01/13/2010 12:00  
**Date Received:** 01/20/2010 08:45  
**Client:** LANL010  
**Method:** SW846 8260B  
**Inst:** VOA5.1  
**Analyst:** DXK1  
**Aliquot:** 5 g  
**Column:** DB-624

**Matrix:** R  
**%Moisture:** 7.8  
**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	1.08	ug/kg	0.325	1.08
179601-23-1	m,p-Xylenes	J	0.369	ug/kg	0.325	2.17
95-47-6	o-Xylene	U	1.08	ug/kg	0.325	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.325	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.325	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.325	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.325	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.325	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.325	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.325	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.325	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.325	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.325	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.325	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.42	ug/kg	1.74	5.42
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08

**Tentatively Identified Compound Summary**

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

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106003	Date Received: 01/20/2010 08:45	%Moisture: 23.2
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7170	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOAS.I	Dilution: 1
Run Date: 01/26/2010 23:19	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/26/2010 14:42	Aliquot: 5 g	Final Volume: 5 mL
Data File: 012610V5\5V229.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.30	ug/kg	0.443	1.30
74-87-3	Chloromethane	U	1.30	ug/kg	0.391	1.30
75-01-4	Vinyl chloride	U	1.30	ug/kg	0.391	1.30
74-83-9	Bromomethane	U	1.30	ug/kg	0.391	1.30
75-00-3	Chloroethane	U	1.30	ug/kg	0.391	1.30
75-69-4	Trichlorofluoromethane	U	1.30	ug/kg	0.391	1.30
67-64-1	Acetone	U	6.51	ug/kg	2.16	6.51
75-35-4	1,1-Dichloroethylene	U	1.30	ug/kg	0.391	1.30
74-88-4	Iodomethane	U	6.51	ug/kg	2.08	6.51
75-09-2	Methylene chloride	J	3.41	ug/kg	2.60	6.51
75-15-0	Carbon disulfide	U	6.51	ug/kg	1.63	6.51
156-60-5	trans-1,2-Dichloroethylene	U	1.30	ug/kg	0.391	1.30
75-34-3	1,1-Dichloroethane	U	1.30	ug/kg	0.391	1.30
78-93-3	2-Butanone	U	6.51	ug/kg	1.95	6.51
156-59-2	cis-1,2-Dichloroethylene	U	1.30	ug/kg	0.391	1.30
594-20-7	2,2-Dichloropropane	U	1.30	ug/kg	0.391	1.30
67-66-3	Chloroform	U	1.30	ug/kg	0.391	1.30
74-97-5	Bromochloromethane	U	1.30	ug/kg	0.430	1.30
71-55-6	1,1,1-Trichloroethane	U	1.30	ug/kg	0.391	1.30
563-58-6	1,1-Dichloropropene	U	1.30	ug/kg	0.391	1.30
56-23-5	Carbon tetrachloride	U	1.30	ug/kg	0.391	1.30
107-06-2	1,2-Dichloroethane	U	1.30	ug/kg	0.391	1.30
71-43-2	Benzene	U	1.30	ug/kg	0.391	1.30
79-01-6	Trichloroethylene	U	1.30	ug/kg	0.430	1.30
78-87-5	1,2-Dichloropropane	U	1.30	ug/kg	0.391	1.30
75-27-4	Bromodichloromethane	U	1.30	ug/kg	0.391	1.30
74-95-3	Dibromomethane	U	1.30	ug/kg	0.391	1.30
108-10-1	4-Methyl-2-pentanone	U	6.51	ug/kg	1.63	6.51
10061-01-5	cis-1,3-Dichloropropylene	U	1.30	ug/kg	0.391	1.30
108-88-3	Toluene	U	1.30	ug/kg	0.391	1.30
10061-02-6	trans-1,3-Dichloropropylene	U	1.30	ug/kg	0.391	1.30
79-00-5	1,1,2-Trichloroethane	U	1.30	ug/kg	0.391	1.30
591-78-6	2-Hexanone	U	6.51	ug/kg	1.95	6.51
142-28-9	1,3-Dichloropropane	U	1.30	ug/kg	0.391	1.30
127-18-4	Tetrachloroethylene	U	1.30	ug/kg	0.391	1.30
124-48-1	Dibromochloromethane	U	1.30	ug/kg	0.391	1.30
106-93-4	1,2-Dibromoethane	U	1.30	ug/kg	0.391	1.30
108-90-7	Chlorobenzene	U	1.30	ug/kg	0.391	1.30

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1304  
Lab Sample ID: 245106003  
  
Client ID: RE15-10-7170  
Batch ID: 945552  
Run Date: 01/26/2010 23:19  
Prep Date: 01/26/2010 14:42  
Data File: 012610V5SV229.D

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: DXK1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 23.2  
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	1.30	ug/kg	0.391	1.30
179601-23-1	m,p-Xylenes	U	2.60	ug/kg	0.391	2.60
95-47-6	o-Xylene	U	1.30	ug/kg	0.391	1.30
100-42-5	Styrene	U	1.30	ug/kg	0.391	1.30
75-25-2	Bromoform	U	1.30	ug/kg	0.391	1.30
79-34-5	1,1,2,2-Tetrachloroethane	U	1.30	ug/kg	0.391	1.30
96-18-4	1,2,3-Trichloropropane	U	1.30	ug/kg	0.391	1.30
108-86-1	Bromobenzene	U	1.30	ug/kg	0.391	1.30
103-65-1	n-Propylbenzene	U	1.30	ug/kg	0.391	1.30
95-49-8	2-Chlorotoluene	U	1.30	ug/kg	0.391	1.30
98-82-8	Isopropylbenzene	U	1.30	ug/kg	0.391	1.30
108-67-8	1,3,5-Trimethylbenzene	U	1.30	ug/kg	0.391	1.30
106-43-4	4-Chlorotoluene	U	1.30	ug/kg	0.391	1.30
98-06-6	tert-Butylbenzene	U	1.30	ug/kg	0.391	1.30
95-63-6	1,2,4-Trimethylbenzene	U	1.30	ug/kg	0.391	1.30
135-98-8	sec-Butylbenzene	U	1.30	ug/kg	0.391	1.30
99-87-6	4-Isopropyltoluene	U	1.30	ug/kg	0.391	1.30
541-73-1	1,3-Dichlorobenzene	U	1.30	ug/kg	0.391	1.30
106-46-7	1,4-Dichlorobenzene	U	1.30	ug/kg	0.391	1.30
104-51-8	n-Butylbenzene	U	1.30	ug/kg	0.391	1.30
96-12-8	1,2-Dibromo-3-chloropropane	U	1.30	ug/kg	0.391	1.30
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane Trichlorotrifluoroethane	U	6.51	ug/kg	2.08	6.51
630-20-6	1,1,1,2-Tetrachloroethane	U	1.30	ug/kg	0.391	1.30
95-50-1	1,2-Dichlorobenzene	U	1.30	ug/kg	0.391	1.30

**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: 10-1304  
 Lab Sample ID: 245106004

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXX1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 17.7  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE15-10-7164  
 Batch ID: 945552  
 Run Date: 01/26/2010 23:45  
 Prep Date: 01/26/2010 14:43  
 Data File: 012610V5SV230.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.413	1.22
74-87-3	Chloromethane	U	1.22	ug/kg	0.365	1.22
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.365	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.365	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.365	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.365	1.22
67-64-1	Acetone	U	6.08	ug/kg	2.02	6.08
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
74-88-4	Iodomethane	U	6.08	ug/kg	1.94	6.08
75-09-2	Methylene chloride	U	6.08	ug/kg	2.43	6.08
75-15-0	Carbon disulfide	U	6.08	ug/kg	1.52	6.08
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.365	1.22
78-93-3	2-Butanone	U	6.08	ug/kg	1.82	6.08
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.365	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.401	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.365	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.365	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.365	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.365	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.365	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.401	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.365	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.365	1.22
108-10-1	4-Methyl-2-pentanone	U	6.08	ug/kg	1.52	6.08
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.365	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.365	1.22
591-78-6	2-Hexanone	U	6.08	ug/kg	1.82	6.08
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.365	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.365	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.365	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.365	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.365	1.22

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106004	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 17.7
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7164	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 945552	<b>Inst:</b> VOAS.I	<b>Dilution:</b> 1
<b>Run Date:</b> 01/26/2010 23:45	<b>Analyst:</b> DXK1	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 01/26/2010 14:43	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 012610V5SV230.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.365	1.22
179601-23-1	m,p-Xylenes	U	2.43	ug/kg	0.365	2.43
95-47-6	o-Xylene	U	1.22	ug/kg	0.365	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.365	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.365	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.365	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.365	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.365	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.365	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.365	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.365	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.365	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.365	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.365	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.365	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.365	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.08	ug/kg	1.94	6.08
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.55	13.4	ug/kg	0	J

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

SDG Number: 10-1304  
 Lab Sample ID: 245106005  
 Client ID: RE15-10-7167  
 Batch ID: 945552  
 Run Date: 01/27/2010 00:10  
 Prep Date: 01/26/2010 14:44  
 Data File: 012610V55V231.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 22  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.28	ug/kg	0.436	1.28
74-87-3	Chloromethane	U	1.28	ug/kg	0.385	1.28
75-01-4	Vinyl chloride	U	1.28	ug/kg	0.385	1.28
74-83-9	Bromomethane	U	1.28	ug/kg	0.385	1.28
75-00-3	Chloroethane	U	1.28	ug/kg	0.385	1.28
75-69-4	Trichlorofluoromethane	U	1.28	ug/kg	0.385	1.28
67-64-1	Acetone	U	6.41	ug/kg	2.13	6.41
75-35-4	1,1-Dichloroethylene	U	1.28	ug/kg	0.385	1.28
74-88-4	Iodomethane	U	6.41	ug/kg	2.05	6.41
75-09-2	Methylene chloride	U	6.41	ug/kg	2.56	6.41
75-15-0	Carbon disulfide	U	6.41	ug/kg	1.60	6.41
156-60-5	trans-1,2-Dichloroethylene	U	1.28	ug/kg	0.385	1.28
75-34-3	1,1-Dichloroethane	U	1.28	ug/kg	0.385	1.28
78-93-3	2-Butanone	U	6.41	ug/kg	1.92	6.41
156-59-2	cis-1,2-Dichloroethylene	U	1.28	ug/kg	0.385	1.28
594-20-7	2,2-Dichloropropane	U	1.28	ug/kg	0.385	1.28
67-66-3	Chloroform	U	1.28	ug/kg	0.385	1.28
74-97-5	Bromochloromethane	U	1.28	ug/kg	0.423	1.28
71-55-6	1,1,1-Trichloroethane	U	1.28	ug/kg	0.385	1.28
563-58-6	1,1-Dichloropropene	U	1.28	ug/kg	0.385	1.28
56-23-5	Carbon tetrachloride	U	1.28	ug/kg	0.385	1.28
107-06-2	1,2-Dichloroethane	U	1.28	ug/kg	0.385	1.28
71-43-2	Benzene	U	1.28	ug/kg	0.385	1.28
79-01-6	Trichloroethylene	U	1.28	ug/kg	0.423	1.28
78-87-5	1,2-Dichloropropane	U	1.28	ug/kg	0.385	1.28
75-27-4	Bromodichloromethane	U	1.28	ug/kg	0.385	1.28
74-95-3	Dibromomethane	U	1.28	ug/kg	0.385	1.28
108-10-1	4-Methyl-2-pentanone	U	6.41	ug/kg	1.60	6.41
10061-01-5	cis-1,3-Dichloropropylene	U	1.28	ug/kg	0.385	1.28
108-88-3	Toluene	U	1.28	ug/kg	0.385	1.28
10061-02-6	trans-1,3-Dichloropropylene	U	1.28	ug/kg	0.385	1.28
79-00-5	1,1,2-Trichloroethane	U	1.28	ug/kg	0.385	1.28
591-78-6	2-Hexanone	U	6.41	ug/kg	1.92	6.41
142-28-9	1,3-Dichloropropane	U	1.28	ug/kg	0.385	1.28
127-18-4	Tetrachloroethylene	U	1.28	ug/kg	0.385	1.28
124-48-1	Dibromochloromethane	U	1.28	ug/kg	0.385	1.28
106-93-4	1,2-Dibromoethane	U	1.28	ug/kg	0.385	1.28
108-90-7	Chlorobenzene	U	1.28	ug/kg	0.385	1.28

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106005	Date Received: 01/20/2010 08:45	%Moisture: 22
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7167	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5.1	Dilution: 1
Run Date: 01/27/2010 00:10	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/26/2010 14:44	Aliquot: 5 g	Final Volume: 5 mL
Data File: 012610V55V231.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.28	ug/kg	0.385	1.28
179601-23-1	m,p-Xylenes	U	2.56	ug/kg	0.385	2.56
95-47-6	o-Xylene	U	1.28	ug/kg	0.385	1.28
100-42-5	Styrene	U	1.28	ug/kg	0.385	1.28
75-25-2	Bromoform	U	1.28	ug/kg	0.385	1.28
79-34-5	1,1,2,2-Tetrachloroethane	U	1.28	ug/kg	0.385	1.28
96-18-4	1,2,3-Trichloropropane	U	1.28	ug/kg	0.385	1.28
108-86-1	Bromobenzene	U	1.28	ug/kg	0.385	1.28
103-65-1	n-Propylbenzene	U	1.28	ug/kg	0.385	1.28
95-49-8	2-Chlorotoluene	U	1.28	ug/kg	0.385	1.28
98-82-8	Isopropylbenzene	U	1.28	ug/kg	0.385	1.28
108-67-8	1,3,5-Trimethylbenzene	U	1.28	ug/kg	0.385	1.28
106-43-4	4-Chlorotoluene	U	1.28	ug/kg	0.385	1.28
98-06-6	tert-Butylbenzene	U	1.28	ug/kg	0.385	1.28
95-63-6	1,2,4-Trimethylbenzene	U	1.28	ug/kg	0.385	1.28
135-98-8	sec-Butylbenzene	U	1.28	ug/kg	0.385	1.28
99-87-6	4-Isopropyltoluene	U	1.28	ug/kg	0.385	1.28
541-73-1	1,3-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28
106-46-7	1,4-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28
104-51-8	n-Butylbenzene	U	1.28	ug/kg	0.385	1.28
96-12-8	1,2-Dibromo-3-chloropropane	U	1.28	ug/kg	0.385	1.28
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.41	ug/kg	2.05	6.41
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.28	ug/kg	0.385	1.28
95-50-1	1,2-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.55	9.08	ug/kg	0	J

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106006	Date Received: 01/20/2010 08:45	%Moisture: 8.9
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7169	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5.I	Dilution: 1
Run Date: 01/27/2010 00:36	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/26/2010 14:45	Aliquot: 5 g	Final Volume: 5 mL
Data File: 012610V55V232.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	5.49	ug/kg	1.82	5.49
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
74-88-4	Iodomethane	U	5.49	ug/kg	1.76	5.49
75-09-2	Methylene chloride	U	5.49	ug/kg	2.20	5.49
75-15-0	Carbon disulfide	U	5.49	ug/kg	1.37	5.49
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	5.49	ug/kg	1.65	5.49
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	5.49	ug/kg	1.37	5.49
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	5.49	ug/kg	1.65	5.49
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: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106006	Date Received: 01/20/2010 08:45	%Moisture: 8.9
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7169	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOAS.I	Dilution: 1
Run Date: 01/27/2010 00:36	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/26/2010 14:45	Aliquot: 5 g	Final Volume: 5 mL
Data File: 012610V5SV232.D	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	J	0.483	ug/kg	0.329	2.20
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	U	1.10	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	5.49	ug/kg	1.76	5.49
	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
	unknown siloxane	16.55	6.97	ug/kg	0	J

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

SDG Number: 10-1304  
 Lab Sample ID: 245106007  
 Client ID: RE15-10-7168  
 Batch ID: 945552  
 Run Date: 01/27/2010 01:06  
 Prep Date: 01/26/2010 14:46  
 Data File: 012610V5SV233.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 19.2  
 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	1.24	ug/kg	0.421	1.24
74-87-3	Chloromethane	U	1.24	ug/kg	0.371	1.24
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.371	1.24
74-83-9	Bromomethane	U	1.24	ug/kg	0.371	1.24
75-00-3	Chloroethane	U	1.24	ug/kg	0.371	1.24
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.371	1.24
67-64-1	Acetone	U	6.19	ug/kg	2.05	6.19
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.371	1.24
74-88-4	Iodomethane	U	6.19	ug/kg	1.98	6.19
75-09-2	Methylene chloride	U	6.19	ug/kg	2.47	6.19
75-15-0	Carbon disulfide	U	6.19	ug/kg	1.55	6.19
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.371	1.24
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.371	1.24
78-93-3	2-Butanone	U	6.19	ug/kg	1.86	6.19
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.371	1.24
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.371	1.24
67-66-3	Chloroform	U	1.24	ug/kg	0.371	1.24
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.408	1.24
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.371	1.24
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.371	1.24
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.371	1.24
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.371	1.24
71-43-2	Benzene	U	1.24	ug/kg	0.371	1.24
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.408	1.24
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.371	1.24
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.371	1.24
74-95-3	Dibromomethane	U	1.24	ug/kg	0.371	1.24
108-10-1	4-Methyl-2-pentanone	U	6.19	ug/kg	1.55	6.19
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.371	1.24
108-88-3	Toluene	U	1.24	ug/kg	0.371	1.24
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.371	1.24
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.371	1.24
591-78-6	2-Hexanone	U	6.19	ug/kg	1.86	6.19
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.371	1.24
127-18-4	Tetrachloroethylene	J	1.04	ug/kg	0.371	1.24
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.371	1.24
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.371	1.24
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.371	1.24

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

SDG Number: 10-1304  
 Lab Sample ID: 245106007  
 Client ID: RE15-10-7168  
 Batch ID: 945552  
 Run Date: 01/27/2010 01:06  
 Prep Date: 01/26/2010 14:46  
 Data File: 012610V55V233.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOAS.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 19.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDI/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.371	1.24
179601-23-1	m,p-Xylenes	U	2.47	ug/kg	0.371	2.47
95-47-6	o-Xylene	U	1.24	ug/kg	0.371	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.371	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.371	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.371	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.371	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.371	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.371	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.371	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.371	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.371	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.371	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.371	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.371	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.371	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.371	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.371	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.371	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.19	ug/kg	1.98	6.19
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.371	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.59	10.1	ug/kg	0	J
	unknown siloxane	16.54	10.8	ug/kg	0	J



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

SDG Number: 10-1304  
 Lab Sample ID: 245106008  
 Client ID: RE15-10-7166  
 Batch ID: 945552  
 Run Date: 01/27/2010 01:32  
 Prep Date: 01/26/2010 14:47  
 Data File: 012610V5V234.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 31.6  
 Project: LANL01004  
 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
75-71-8	Dichlorodifluoromethane	U	1.46	ug/kg	0.497	1.46
74-87-3	Chloromethane	U	1.46	ug/kg	0.438	1.46
75-01-4	Vinyl chloride	U	1.46	ug/kg	0.438	1.46
74-83-9	Bromomethane	U	1.46	ug/kg	0.438	1.46
75-00-3	Chloroethane	U	1.46	ug/kg	0.438	1.46
75-69-4	Trichlorofluoromethane	U	1.46	ug/kg	0.438	1.46
67-64-1	Acetone		29.5	ug/kg	2.43	7.31
75-35-4	1,1-Dichloroethylene	U	1.46	ug/kg	0.438	1.46
74-88-4	Iodomethane	U	7.31	ug/kg	2.34	7.31
75-09-2	Methylene chloride	J	5.87	ug/kg	2.92	7.31
75-15-0	Carbon disulfide	U	7.31	ug/kg	1.83	7.31
156-60-5	trans-1,2-Dichloroethylene	U	1.46	ug/kg	0.438	1.46
75-34-3	1,1-Dichloroethane	U	1.46	ug/kg	0.438	1.46
78-93-3	2-Butanone	U	7.31	ug/kg	2.19	7.31
156-59-2	cis-1,2-Dichloroethylene	U	1.46	ug/kg	0.438	1.46
594-20-7	2,2-Dichloropropane	U	1.46	ug/kg	0.438	1.46
67-66-3	Chloroform	U	1.46	ug/kg	0.438	1.46
74-97-5	Bromochloromethane	U	1.46	ug/kg	0.482	1.46
71-55-6	1,1,1-Trichloroethane	U	1.46	ug/kg	0.438	1.46
563-58-6	1,1-Dichloropropene	U	1.46	ug/kg	0.438	1.46
56-23-5	Carbon tetrachloride	U	1.46	ug/kg	0.438	1.46
107-06-2	1,2-Dichloroethane	U	1.46	ug/kg	0.438	1.46
71-43-2	Benzene	U	1.46	ug/kg	0.438	1.46
79-01-6	Trichloroethylene	U	1.46	ug/kg	0.482	1.46
78-87-5	1,2-Dichloropropane	U	1.46	ug/kg	0.438	1.46
75-27-4	Bromodichloromethane	U	1.46	ug/kg	0.438	1.46
74-95-3	Dibromomethane	U	1.46	ug/kg	0.438	1.46
108-10-1	4-Methyl-2-pentanone	U	7.31	ug/kg	1.83	7.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.46	ug/kg	0.438	1.46
108-88-3	Toluene	J	1.45	ug/kg	0.438	1.46
10061-02-6	trans-1,3-Dichloropropylene	U	1.46	ug/kg	0.438	1.46
79-00-5	1,1,2-Trichloroethane	U	1.46	ug/kg	0.438	1.46
591-78-6	2-Hexanone	U	7.31	ug/kg	2.19	7.31
142-28-9	1,3-Dichloropropane	U	1.46	ug/kg	0.438	1.46
127-18-4	Tetrachloroethylene	U	1.46	ug/kg	0.438	1.46
124-48-1	Dibromochloromethane	U	1.46	ug/kg	0.438	1.46
106-93-4	1,2-Dibromoethane	U	1.46	ug/kg	0.438	1.46
108-90-7	Chlorobenzene	U	1.46	ug/kg	0.438	1.46

Volatile  
Certificate of Analysis  
Sample Summary

Page 2 of 2

SDG Number: 10-1304  
Lab Sample ID: 245106008

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.1  
Analyst: DXK1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
% Moisture: 31.6  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE15-10-7166  
Batch ID: 945552  
Run Date: 01/27/2010 01:32  
Prep Date: 01/26/2010 14:47  
Data File: 012610V55V234.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.46	ug/kg	0.438	1.46
179601-23-1	m,p-Xylenes	J	1.07	ug/kg	0.438	2.92
95-47-6	o-Xylene	U	1.46	ug/kg	0.438	1.46
100-42-5	Styrene	U	1.46	ug/kg	0.438	1.46
75-25-2	Bromoform	U	1.46	ug/kg	0.438	1.46
79-34-5	1,1,2,2-Tetrachloroethane	U	1.46	ug/kg	0.438	1.46
96-18-4	1,2,3-Trichloropropane	U	1.46	ug/kg	0.438	1.46
108-86-1	Bromobenzene	U	1.46	ug/kg	0.438	1.46
103-65-1	n-Propylbenzene	U	1.46	ug/kg	0.438	1.46
95-49-8	2-Chlorotoluene	U	1.46	ug/kg	0.438	1.46
98-82-8	Isopropylbenzene	U	1.46	ug/kg	0.438	1.46
108-67-8	1,3,5-Trimethylbenzene	U	1.46	ug/kg	0.438	1.46
106-43-4	4-Chlorotoluene	U	1.46	ug/kg	0.438	1.46
98-06-6	tert-Butylbenzene	U	1.46	ug/kg	0.438	1.46
95-63-6	1,2,4-Trimethylbenzene	U	1.46	ug/kg	0.438	1.46
135-98-8	sec-Butylbenzene	U	1.46	ug/kg	0.438	1.46
99-87-6	4-Isopropyltoluene		42.5	ug/kg	0.438	1.46
541-73-1	1,3-Dichlorobenzene	U	1.46	ug/kg	0.438	1.46
106-46-7	1,4-Dichlorobenzene	U	1.46	ug/kg	0.438	1.46
104-51-8	n-Butylbenzene	U	1.46	ug/kg	0.438	1.46
96-12-8	1,2-Dibromo-3-chloropropane	U	1.46	ug/kg	0.438	1.46
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	7.31	ug/kg	2.34	7.31
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.46	ug/kg	0.438	1.46
95-50-1	1,2-Dichlorobenzene	U	1.46	ug/kg	0.438	1.46

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	9.4	42.6	ug/kg	0	J
007785-70-8	1R-.alpha.-Pinene	14.56	9.38	ug/kg	96	NJ

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106009	Date Received: 01/20/2010 08:45	%Moisture: 7.5
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7177	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5.I	Dilution: 1
Run Date: 01/27/2010 16:18	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/27/2010 13:09	Aliquot: 5 g	Final Volume: 5 mL
Data File: 012710V55V312.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.367	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.324	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.324	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.324	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.324	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.324	1.08
67-64-1	Acetone	U	5.40	ug/kg	1.79	5.40
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
74-88-4	Iodomethane	U	5.40	ug/kg	1.73	5.40
75-09-2	Methylene chloride	U	5.40	ug/kg	2.16	5.40
75-15-0	Carbon disulfide	U	5.40	ug/kg	1.35	5.40
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.324	1.08
78-93-3	2-Butanone	U	5.40	ug/kg	1.62	5.40
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.324	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.357	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.324	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.324	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.324	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.324	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.324	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.357	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.324	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.324	1.08
108-10-1	4-Methyl-2-pentanone	U	5.40	ug/kg	1.35	5.40
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.324	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.324	1.08
591-78-6	2-Hexanone	U	5.40	ug/kg	1.62	5.40
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.324	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.324	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.324	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.324	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.324	1.08

**Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106009	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 7.5
<b>Client ID:</b> RE15-10-7177	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 945552	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Run Date:</b> 01/27/2010 16:18	<b>Inst:</b> VOA5.I	<b>Dilution:</b> 1
<b>Prep Date:</b> 01/27/2010 13:09	<b>Analyst:</b> DXK1	<b>Purge Vol:</b> 5 mL
<b>Data File:</b> 012710V55V312.D	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.324	1.08
179601-23-1	m,p-Xylenes	U	2.16	ug/kg	0.324	2.16
95-47-6	o-Xylene	U	1.08	ug/kg	0.324	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.324	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.324	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.324	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.324	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.324	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.324	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.324	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.324	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.324	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.324	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.324	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.40	ug/kg	1.73	5.40
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.99	18	ug/kg	0	J

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106010	<b>Date Received:</b> 01/20/2010 08:45	<b>% Moisture:</b> 12.1
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7181	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 945552	<b>Inst:</b> VOA5.J	<b>Dilution:</b> 1
<b>Run Date:</b> 01/27/2010 16:44	<b>Analyst:</b> DXK1	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 01/27/2010 13:10	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 012710V5\SV313.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.387	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.341	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.341	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.341	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.341	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.341	1.14
67-64-1	Acetone	U	5.69	ug/kg	1.89	5.69
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.341	1.14
74-88-4	Iodomethane	U	5.69	ug/kg	1.82	5.69
75-09-2	Methylene chloride	U	5.69	ug/kg	2.28	5.69
75-15-0	Carbon disulfide	U	5.69	ug/kg	1.42	5.69
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.341	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.341	1.14
78-93-3	2-Butanone	U	5.69	ug/kg	1.71	5.69
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.341	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.341	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.341	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.376	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.341	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.341	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.341	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.341	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.341	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.376	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.341	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.341	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.341	1.14
108-10-1	4-Methyl-2-pentanone	U	5.69	ug/kg	1.42	5.69
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.341	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.341	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.341	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.341	1.14
591-78-6	2-Hexanone	U	5.69	ug/kg	1.71	5.69
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.341	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.341	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.341	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.341	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.341	1.14

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

SDG Number: 10-1304  
 Lab Sample ID: 245106010  
  
 Client ID: RE15-10-7181  
 Batch ID: 945552  
 Run Date: 01/27/2010 16:44  
 Prep Date: 01/27/2010 13:10  
 Data File: 012710V5V313.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDI/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.341	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.341	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.341	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.341	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.341	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.341	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.341	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.341	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.341	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.341	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.341	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.341	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.341	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.341	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.341	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.341	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.341	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.341	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.341	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.69	ug/kg	1.82	5.69
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.341	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.55	13.2	ug/kg	0	J

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

SDG Number: 10-1304  
 Lab Sample ID: 245106011

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 21.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE15-10-7178  
 Batch ID: 945552  
 Run Date: 01/27/2010 17:09  
 Prep Date: 01/27/2010 13:11  
 Data File: 012710V55V314.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.27	ug/kg	0.433	1.27
74-87-3	Chloromethane	U	1.27	ug/kg	0.382	1.27
75-01-4	Vinyl chloride	U	1.27	ug/kg	0.382	1.27
74-83-9	Bromomethane	U	1.27	ug/kg	0.382	1.27
75-00-3	Chloroethane	U	1.27	ug/kg	0.382	1.27
75-69-4	Trichlorofluoromethane	U	1.27	ug/kg	0.382	1.27
67-64-1	Acetone	U	6.36	ug/kg	2.11	6.36
75-35-4	1,1-Dichloroethylene	U	1.27	ug/kg	0.382	1.27
74-88-4	Iodomethane	U	6.36	ug/kg	2.04	6.36
75-09-2	Methylene chloride	U	6.36	ug/kg	2.54	6.36
75-15-0	Carbon disulfide	U	6.36	ug/kg	1.59	6.36
156-60-5	trans-1,2-Dichloroethylene	U	1.27	ug/kg	0.382	1.27
75-34-3	1,1-Dichloroethane	U	1.27	ug/kg	0.382	1.27
78-93-3	2-Butanone	U	6.36	ug/kg	1.91	6.36
156-59-2	cis-1,2-Dichloroethylene	U	1.27	ug/kg	0.382	1.27
594-20-7	2,2-Dichloropropane	U	1.27	ug/kg	0.382	1.27
67-66-3	Chloroform	U	1.27	ug/kg	0.382	1.27
74-97-5	Bromochloromethane	U	1.27	ug/kg	0.420	1.27
71-55-6	1,1,1-Trichloroethane	U	1.27	ug/kg	0.382	1.27
563-58-6	1,1-Dichloropropene	U	1.27	ug/kg	0.382	1.27
56-23-5	Carbon tetrachloride	U	1.27	ug/kg	0.382	1.27
107-06-2	1,2-Dichloroethane	U	1.27	ug/kg	0.382	1.27
71-43-2	Benzene	U	1.27	ug/kg	0.382	1.27
79-01-6	Trichloroethylene	U	1.27	ug/kg	0.420	1.27
78-87-5	1,2-Dichloropropane	U	1.27	ug/kg	0.382	1.27
75-27-4	Bromodichloromethane	U	1.27	ug/kg	0.382	1.27
74-95-3	Dibromomethane	U	1.27	ug/kg	0.382	1.27
108-10-1	4-Methyl-2-pentanone	U	6.36	ug/kg	1.59	6.36
10061-01-5	cis-1,3-Dichloropropylene	U	1.27	ug/kg	0.382	1.27
108-88-3	Toluene	U	1.27	ug/kg	0.382	1.27
10061-02-6	trans-1,3-Dichloropropylene	U	1.27	ug/kg	0.382	1.27
79-00-5	1,1,2-Trichloroethane	U	1.27	ug/kg	0.382	1.27
591-78-6	2-Hexanone	U	6.36	ug/kg	1.91	6.36
142-28-9	1,3-Dichloropropane	U	1.27	ug/kg	0.382	1.27
127-18-4	Tetrachloroethylene	U	1.27	ug/kg	0.382	1.27
124-48-1	Dibromochloromethane	U	1.27	ug/kg	0.382	1.27
106-93-4	1,2-Dibromoethane	U	1.27	ug/kg	0.382	1.27
108-90-7	Chlorobenzene	U	1.27	ug/kg	0.382	1.27

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

SDG Number: 10-1304  
 Lab Sample ID: 245106011  
 Client ID: RE15-10-7178  
 Batch ID: 945552  
 Run Date: 01/27/2010 17:09  
 Prep Date: 01/27/2010 13:11  
 Data File: 012710V5SV314.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 21.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.27	ug/kg	0.382	1.27
179601-23-1	m,p-Xylenes	U	2.54	ug/kg	0.382	2.54
95-47-6	o-Xylene	U	1.27	ug/kg	0.382	1.27
100-42-5	Styrene	U	1.27	ug/kg	0.382	1.27
75-25-2	Bromoform	U	1.27	ug/kg	0.382	1.27
79-34-5	1,1,2,2-Tetrachloroethane	U	1.27	ug/kg	0.382	1.27
96-18-4	1,2,3-Trichloropropane	U	1.27	ug/kg	0.382	1.27
108-86-1	Bromobenzene	U	1.27	ug/kg	0.382	1.27
103-65-1	n-Propylbenzene	U	1.27	ug/kg	0.382	1.27
95-49-8	2-Chlorotoluene	U	1.27	ug/kg	0.382	1.27
98-82-8	Isopropylbenzene	U	1.27	ug/kg	0.382	1.27
108-67-8	1,3,5-Trimethylbenzene	U	1.27	ug/kg	0.382	1.27
106-43-4	4-Chlorotoluene	U	1.27	ug/kg	0.382	1.27
98-06-6	tert-Butylbenzene	U	1.27	ug/kg	0.382	1.27
95-63-6	1,2,4-Trimethylbenzene	U	1.27	ug/kg	0.382	1.27
135-98-8	sec-Butylbenzene	U	1.27	ug/kg	0.382	1.27
99-87-6	4-Isopropyltoluene	U	1.27	ug/kg	0.382	1.27
541-73-1	1,3-Dichlorobenzene	U	1.27	ug/kg	0.382	1.27
106-46-7	1,4-Dichlorobenzene	U	1.27	ug/kg	0.382	1.27
104-51-8	n-Butylbenzene	U	1.27	ug/kg	0.382	1.27
96-12-8	1,2-Dibromo-3-chloropropane	U	1.27	ug/kg	0.382	1.27
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.36	ug/kg	2.04	6.36
630-20-6	1,1,1,2-Tetrachloroethane	U	1.27	ug/kg	0.382	1.27
95-50-1	1,2-Dichlorobenzene	U	1.27	ug/kg	0.382	1.27

**Tentatively Identified Compound Summary**

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



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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106012	Date Received: 01/20/2010 08:45	%Moisture: 18
Client ID: RE15-10-7182	Client: LANL010	Project: LANL01004
Batch ID: 945552	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 01/27/2010 17:35	Inst: VOA5.1	Dilution: 1
Prep Date: 01/27/2010 13:12	Analyst: DXK1	Purge Vol: 5 mL
Data File: 012710V5SV315.D	Aliquot: 5 g	Final Volume: 5 mL
	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.415	1.22
74-87-3	Chloromethane	U	1.22	ug/kg	0.366	1.22
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.366	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.366	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.366	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.366	1.22
67-64-1	Acetone	U	6.10	ug/kg	2.02	6.10
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
74-88-4	Iodomethane	U	6.10	ug/kg	1.95	6.10
75-09-2	Methylene chloride	U	6.10	ug/kg	2.44	6.10
75-15-0	Carbon disulfide	U	6.10	ug/kg	1.52	6.10
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.366	1.22
78-93-3	2-Butanone	U	6.10	ug/kg	1.83	6.10
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.366	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.402	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.366	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.366	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.366	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.366	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.366	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.402	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.366	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.366	1.22
108-10-1	4-Methyl-2-pentanone	U	6.10	ug/kg	1.52	6.10
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.366	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.366	1.22
591-78-6	2-Hexanone	U	6.10	ug/kg	1.83	6.10
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.366	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.366	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.366	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.366	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.366	1.22

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106012	Date Received: 01/20/2010 08:45	%Moisture: 18
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7182	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5.1	Dilution: 1
Run Date: 01/27/2010 17:35	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/27/2010 13:12	Aliquot: 5 g	Final Volume: 5 mL
Data File: 012710V5SV315.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.366	1.22
179601-23-1	m,p-Xylenes	U	2.44	ug/kg	0.366	2.44
95-47-6	o-Xylene	U	1.22	ug/kg	0.366	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.366	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.366	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.366	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.366	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.366	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.366	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.366	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.366	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.366	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.366	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.366	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.10	ug/kg	1.95	6.10
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.59	6.41	ug/kg	0	J

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106013	Date Received: 01/20/2010 08:45	%Moisture: 12.2
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7183	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5.I	Dilution: 1
Run Date: 01/27/2010 18:01	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/27/2010 13:13	Aliquot: 5 g	Final Volume: 5 mL
Data File: 012710V55V316.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.387	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14
67-64-1	Acetone	U	5.70	ug/kg	1.89	5.70
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
74-88-4	Iodomethane	U	5.70	ug/kg	1.82	5.70
75-09-2	Methylene chloride	U	5.70	ug/kg	2.28	5.70
75-15-0	Carbon disulfide	U	5.70	ug/kg	1.42	5.70
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14
78-93-3	2-Butanone	U	5.70	ug/kg	1.71	5.70
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.376	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.376	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone	U	5.70	ug/kg	1.42	5.70
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14
591-78-6	2-Hexanone	U	5.70	ug/kg	1.71	5.70
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14

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

SDG Number: 10-1304  
 Lab Sample ID: 245106013  
 Client ID: RE15-10-7183  
 Batch ID: 945552  
 Run Date: 01/27/2010 18:01  
 Prep Date: 01/27/2010 13:13  
 Data File: 012710V5SV316.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.2  
 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	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.70	ug/kg	1.82	5.70
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

**Tentatively Identified Compound Summary**

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

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1304  
Lab Sample ID: 245106014  
  
Client ID: RE15-10-7176  
Batch ID: 945552  
Run Date: 01/27/2010 18:27  
Prep Date: 01/27/2010 13:14  
Data File: 012710V5SV317.D

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.1  
Analyst: DXK1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
% Moisture: 4.7  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.357	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.315	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.315	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.315	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.315	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.315	1.05
67-64-1	Acetone	U	5.24	ug/kg	1.74	5.24
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
74-88-4	Iodomethane	U	5.24	ug/kg	1.68	5.24
75-09-2	Methylene chloride	U	5.24	ug/kg	2.10	5.24
75-15-0	Carbon disulfide	U	5.24	ug/kg	1.31	5.24
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.315	1.05
78-93-3	2-Butanone	U	5.24	ug/kg	1.57	5.24
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.315	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.346	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.315	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.315	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.315	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.315	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.315	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.346	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.315	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.315	1.05
108-10-1	4-Methyl-2-pentanone	U	5.24	ug/kg	1.31	5.24
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.315	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.315	1.05
591-78-6	2-Hexanone	U	5.24	ug/kg	1.57	5.24
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.315	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.315	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.315	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.315	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.315	1.05

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

SDG Number: 10-1304  
 Lab Sample ID: 245106014  
 Client ID: RE15-10-7176  
 Batch ID: 945552  
 Run Date: 01/27/2010 18:27  
 Prep Date: 01/27/2010 13:14  
 Data File: 012710V55V317.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 4.7  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.315	1.05
179601-23-1	m,p-Xylenes	U	2.10	ug/kg	0.315	2.10
95-47-6	o-Xylene	U	1.05	ug/kg	0.315	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.315	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.315	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.315	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.315	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.315	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.315	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.315	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.315	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.315	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.315	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.315	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.24	ug/kg	1.68	5.24
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05

**Tentatively Identified Compound Summary**

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

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106015	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 13.4
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7180	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 945552	<b>Inst:</b> VOA5.1	<b>Dilution:</b> 1
<b>Run Date:</b> 01/27/2010 18:53	<b>Analyst:</b> DXK1	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 01/27/2010 13:15	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 012710V5SV318.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.392	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.346	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.346	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.346	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.346	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.346	1.15
67-64-1	Acetone	U	5.77	ug/kg	1.92	5.77
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
74-88-4	Iodomethane	U	5.77	ug/kg	1.85	5.77
75-09-2	Methylene chloride	U	5.77	ug/kg	2.31	5.77
75-15-0	Carbon disulfide	U	5.77	ug/kg	1.44	5.77
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.346	1.15
78-93-3	2-Butanone	U	5.77	ug/kg	1.73	5.77
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.346	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.381	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.346	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.346	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.346	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.346	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.346	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.381	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.346	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.346	1.15
108-10-1	4-Methyl-2-pentanone	U	5.77	ug/kg	1.44	5.77
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.346	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.346	1.15
591-78-6	2-Hexanone	U	5.77	ug/kg	1.73	5.77
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.346	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.346	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.346	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.346	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.346	1.15

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106015	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 13.4
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7180	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 945552	<b>Inst:</b> VOA5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 01/27/2010 18:53	<b>Analyst:</b> DXK1	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 01/27/2010 13:15	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 012710V5SV318.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.346	1.15
179601-23-1	m,p-Xylenes	U	2.31	ug/kg	0.346	2.31
95-47-6	o-Xylene	U	1.15	ug/kg	0.346	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.346	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.346	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.346	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.346	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.346	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.346	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.346	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.346	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.346	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.346	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.346	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.346	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.346	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.77	ug/kg	1.85	5.77
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.346	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: 10-1304  
 Lab Sample ID: 245106016  
 Client ID: RE15-10-7179  
 Batch ID: 945552  
 Run Date: 01/27/2010 19:19  
 Prep Date: 01/27/2010 13:16  
 Data File: 012710V55V319.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5J  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 20.3  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.25	ug/kg	0.427	1.25
74-87-3	Chloromethane	U	1.25	ug/kg	0.376	1.25
75-01-4	Vinyl chloride	U	1.25	ug/kg	0.376	1.25
74-83-9	Bromomethane	U	1.25	ug/kg	0.376	1.25
75-00-3	Chloroethane	U	1.25	ug/kg	0.376	1.25
75-69-4	Trichlorofluoromethane	U	1.25	ug/kg	0.376	1.25
67-64-1	Acetone	U	6.27	ug/kg	2.08	6.27
75-35-4	1,1-Dichloroethylene	U	1.25	ug/kg	0.376	1.25
74-88-4	Iodomethane	U	6.27	ug/kg	2.01	6.27
75-09-2	Methylene chloride	J	4.72	ug/kg	2.51	6.27
75-15-0	Carbon disulfide	U	6.27	ug/kg	1.57	6.27
156-60-5	trans-1,2-Dichloroethylene	U	1.25	ug/kg	0.376	1.25
75-34-3	1,1-Dichloroethane	U	1.25	ug/kg	0.376	1.25
78-93-3	2-Butanone	U	6.27	ug/kg	1.88	6.27
156-59-2	cis-1,2-Dichloroethylene	U	1.25	ug/kg	0.376	1.25
594-20-7	2,2-Dichloropropane	U	1.25	ug/kg	0.376	1.25
67-66-3	Chloroform	U	1.25	ug/kg	0.376	1.25
74-97-5	Bromochloromethane	U	1.25	ug/kg	0.414	1.25
71-55-6	1,1,1-Trichloroethane	U	1.25	ug/kg	0.376	1.25
563-58-6	1,1-Dichloropropene	U	1.25	ug/kg	0.376	1.25
56-23-5	Carbon tetrachloride	U	1.25	ug/kg	0.376	1.25
107-06-2	1,2-Dichloroethane	U	1.25	ug/kg	0.376	1.25
71-43-2	Benzene	U	1.25	ug/kg	0.376	1.25
79-01-6	Trichloroethylene	U	1.25	ug/kg	0.414	1.25
78-87-5	1,2-Dichloropropane	U	1.25	ug/kg	0.376	1.25
75-27-4	Bromodichloromethane	U	1.25	ug/kg	0.376	1.25
74-95-3	Dibromomethane	U	1.25	ug/kg	0.376	1.25
108-10-1	4-Methyl-2-pentanone	U	6.27	ug/kg	1.57	6.27
10061-01-5	cis-1,3-Dichloropropylene	U	1.25	ug/kg	0.376	1.25
108-88-3	Toluene	J	0.464	ug/kg	0.376	1.25
10061-02-6	trans-1,3-Dichloropropylene	U	1.25	ug/kg	0.376	1.25
79-00-5	1,1,2-Trichloroethane	U	1.25	ug/kg	0.376	1.25
591-78-6	2-Hexanone	U	6.27	ug/kg	1.88	6.27
142-28-9	1,3-Dichloropropane	U	1.25	ug/kg	0.376	1.25
127-18-4	Tetrachloroethylene	U	1.25	ug/kg	0.376	1.25
124-48-1	Dibromochloromethane	U	1.25	ug/kg	0.376	1.25
106-93-4	1,2-Dibromoethane	U	1.25	ug/kg	0.376	1.25
108-90-7	Chlorobenzene	U	1.25	ug/kg	0.376	1.25

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

SDG Number: 10-1304  
 Lab Sample ID: 245106016  
 Client ID: RE15-10-7179  
 Batch ID: 945552  
 Run Date: 01/27/2010 19:19  
 Prep Date: 01/27/2010 13:16  
 Data File: 012710V5SV319.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.J  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 20.3  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.25	ug/kg	0.376	1.25
179601-23-1	m,p-Xylenes	U	2.51	ug/kg	0.376	2.51
95-47-6	o-Xylene	U	1.25	ug/kg	0.376	1.25
100-42-5	Styrene	U	1.25	ug/kg	0.376	1.25
75-25-2	Bromoform	U	1.25	ug/kg	0.376	1.25
79-34-5	1,1,2,2-Tetrachloroethane	U	1.25	ug/kg	0.376	1.25
96-18-4	1,2,3-Trichloropropane	U	1.25	ug/kg	0.376	1.25
108-86-1	Bromobenzene	U	1.25	ug/kg	0.376	1.25
103-65-1	n-Propylbenzene	U	1.25	ug/kg	0.376	1.25
95-49-8	2-Chlorotoluene	U	1.25	ug/kg	0.376	1.25
98-82-8	Isopropylbenzene	U	1.25	ug/kg	0.376	1.25
108-67-8	1,3,5-Trimethylbenzene	U	1.25	ug/kg	0.376	1.25
106-43-4	4-Chlorotoluene	U	1.25	ug/kg	0.376	1.25
98-06-6	tert-Butylbenzene	U	1.25	ug/kg	0.376	1.25
95-63-6	1,2,4-Trimethylbenzene	U	1.25	ug/kg	0.376	1.25
135-98-8	sec-Butylbenzene	U	1.25	ug/kg	0.376	1.25
99-87-6	4-Isopropyltoluene	U	1.25	ug/kg	0.376	1.25
541-73-1	1,3-Dichlorobenzene	U	1.25	ug/kg	0.376	1.25
106-46-7	1,4-Dichlorobenzene	U	1.25	ug/kg	0.376	1.25
104-51-8	n-Butylbenzene	U	1.25	ug/kg	0.376	1.25
96-12-8	1,2-Dibromo-3-chloropropane	U	1.25	ug/kg	0.376	1.25
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.27	ug/kg	2.01	6.27
630-20-6	1,1,1,2-Tetrachloroethane	U	1.25	ug/kg	0.376	1.25
95-50-1	1,2-Dichlorobenzene	U	1.25	ug/kg	0.376	1.25

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.55	14.6	ug/kg	0	J

# **Quality Control Summary**

**Volatile**  
**Surrogate Recovery Report**

Page 1 of 1

SDG Number: 10-1304

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202025122	LCS for batch 945549	92	96	97
1202025125	LCS for batch 945549	93	95	101
1202025121	MB for batch 945549	97	96	102
245106001	RE15-10-7165	97	95	100
245106002	RE15-10-7171	99	98	113
245106003	RE15-10-7170	105	104	127
245106004	RE15-10-7164	99	98	116
245106005	RE15-10-7167	99	100	112
245106006	RE15-10-7169	102	101	119
245106007	RE15-10-7168	107	110	136 *
245106008	RE15-10-7166	98	115	131
1202031266	LCS for batch 945549	91	92	93
1202031267	LCS for batch 945549	91	93	102
1202031265	MB for batch 945549	92	93	99
245106009	RE15-10-7177	102	95	109
245106010	RE15-10-7181	100	95	111
245106011	RE15-10-7178	104	101	123
245106012	RE15-10-7182	98	113	138 *
245106013	RE15-10-7183	102	104	124
245106014	RE15-10-7176	115	99	115
245106015	RE15-10-7180	103	99	117
245106016	RE15-10-7179	111	107	133
1202025123	RE15-10-7165PS	93	94	100
1202025124	RE15-10-7165PSD	95	93	95

**Surrogate****Acceptance Limits**

DCED4 = 1,2-Dichloroethane-d4

(68%-131%)

TOL = Toluene-d8

(75%-129%)

BFB = Bromofluorobenzene

(68%-133%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

## Volatile

Page 1 of 3

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 945549

Matrix: SOIL

Lab Sample ID:1202025122

Instrument: VOA5.I

Analysis Date: 01/26/2010 21:06

Dilution: 1

Analyst: DXK1

Pre Batch ID 945549

Purge Vol: 5 mL

Batch ID: 945552

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	42.9	86	33-155
74-87-3	LCS Chloromethane	50.0	0.0	47.4	95	53-132
75-01-4	LCS Vinyl chloride	50.0	0.0	48.1	96	61-128
74-83-9	LCS Bromomethane	50.0	0.0	50.7	101	63-126
75-00-3	LCS Chloroethane	50.0	0.0	47.8	96	67-124
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	47.3	95	67-151
67-64-1	LCS Acetone	250	0.0	247	99	29-160
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	51.4	103	70-125
74-88-4	LCS Iodomethane	250	0.0	240	96	74-131
75-09-2	LCS Methylene chloride	50.0	0.0	46.0	92	72-127
75-15-0	LCS Carbon disulfide	250	0.0	255	102	64-127
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	49.3	99	71-122
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	49.0	98	75-120
78-93-3	LCS 2-Butanone	250	0.0	263	105	35-162
156-59-2	LCS cis-1,2-Dichloroethylene	50.0	0.0	48.9	98	76-122
594-20-7	LCS 2,2-Dichloropropane	50.0	0.0	45.4	91	74-135
67-66-3	LCS Chloroform	50.0	0.0	49.2	98	77-120
74-97-5	LCS Bromochloromethane	50.0	0.0	47.8	96	76-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	49.0	98	75-128
563-58-6	LCS 1,1-Dichloropropene	50.0	0.0	49.3	99	77-125
56-23-5	LCS Carbon tetrachloride	50.0	0.0	50.2	100	77-134
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	48.9	98	72-120

**Volatile**  
**Quality Control Summary**  
**Spike Recovery Report**

SDG Number: 10-1304

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 945549

Matrix: SOIL

Lab Sample ID: 1202025122

Instrument: VOA5.I

Analysis Date: 01/26/2010 21:06

Dilution: 1

Analyst: DXK1

Pren Batch II 945549

Purge Vol: 5 mL

Batch ID: 945552

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS Benzene	50.0	0.0	48.2	96	72-120
79-01-6	LCS Trichloroethylene	50.0	0.0	50.1	100	78-121
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	49.9	100	74-120
75-27-4	LCS Bromodichloromethane	50.0	0.0	51.9	104	79-125
74-95-3	LCS Dibromomethane	50.0	0.0	50.2	100	78-122
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	266	106	71-134
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	50.6	101	80-125
108-88-3	LCS Toluene	50.0	0.0	47.9	96	65-124
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	52.1	104	71-134
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	49.6	99	76-120
591-78-6	LCS 2-Hexanone	250	0.0	262	105	42-159
142-28-9	LCS 1,3-Dichloropropane	50.0	0.0	49.0	98	72-120
127-18-4	LCS Tetrachloroethylene	50.0	0.0	47.7	95	74-123
124-48-1	LCS Dibromochloromethane	50.0	0.0	52.5	105	83-128
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	52.4	105	79-121
108-90-7	LCS Chlorobenzene	50.0	0.0	48.2	96	75-120
100-41-4	LCS Ethylbenzene	50.0	0.0	49.2	98	74-120
179601-23-1	LCS m,p-Xylenes	100	0.0	97.7	98	74-120
95-47-6	LCS o-Xylene	50.0	0.0	50.6	101	74-120
100-42-5	LCS Styrene	50.0	0.0	53.4	107	76-125
75-25-2	LCS Bromoform	50.0	0.0	54.7	109	77-138
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	49.4	99	72-122

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 3 of 3

SDG Number: 10-1304

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 945549

Matrix: SOIL

Lab Sample ID: 1202025122

Instrument: VOA5.J

Analysis Date: 01/26/2010 21:06

Dilution: 1

Analyst: DXK1

Pren Batch ID: 945549

Purge Vol: 5 mL

Batch ID: 945552

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS 1,2,3-Trichloropropane	50.0	0.0	51.9	104	75-135
108-86-1	LCS Bromobenzene	50.0	0.0	48.2	96	73-120
103-65-1	LCS n-Propylbenzene	50.0	0.0	48.7	97	68-121
95-49-8	LCS 2-Chlorotoluene	50.0	0.0	49.3	99	69-120
98-82-8	LCS Isopropylbenzene	50.0	0.0	49.3	99	66-127
108-67-8	LCS 1,3,5-Trimethylbenzene	50.0	0.0	49.9	100	67-126
106-43-4	LCS 4-Chlorotoluene	50.0	0.0	48.0	96	72-120
98-06-6	LCS tert-Butylbenzene	50.0	0.0	48.6	97	72-124
95-63-6	LCS 1,2,4-Trimethylbenzene	50.0	0.0	49.7	99	72-122
135-98-8	LCS sec-Butylbenzene	50.0	0.0	48.7	97	71-124
99-87-6	LCS 4-Isopropyltoluene	50.0	0.0	49.6	99	72-130
541-73-1	LCS 1,3-Dichlorobenzene	50.0	0.0	47.4	95	73-120
106-46-7	LCS 1,4-Dichlorobenzene	50.0	0.0	46.1	92	73-120
104-51-8	LCS n-Butylbenzene	50.0	0.0	48.4	97	72-128
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	57.0	114	68-145
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	51.2	102	78-121
95-50-1	LCS 1,2-Dichlorobenzene	50.0	0.0	48.1	96	74-120

## Volatile

Page 1 of 6

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Post Spike

Client ID: RE15-10-7165PS

Matrix: R

Lab Sample ID: J202025123

%Moisture: 19.4

Instrument: VOA5.I

Analysis Date: 01/27/2010 21:55

Dilution: 1

Analyst: DXK1

Pren Batch II 945549

Purge Vol: 5 mL

Batch ID: 945552

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	41.0	82	25-149
74-87-3	PS Chloromethane	50.0	0.00 U	52.7	105	39-140
75-01-4	PS Vinyl chloride	50.0	0.00 U	52.1	104	47-129
74-83-9	PS Bromomethane	50.0	0.00 U	46.0	92	31-135
75-00-3	PS Chloroethane	50.0	0.00 U	44.6	89	53-128
75-69-4	PS Trichlorofluoromethane	50.0	0.00 U	46.5	93	51-151
67-64-1	PS Acetone	250	0.00 U	164	65	21-153
75-35-4	PS 1,1-Dichloroethylene	50.0	0.00 U	50.9	102	61-125
74-88-4	PS Iodomethane	250	0.00 U	212	85	53-142
75-09-2	PS Methylene chloride	50.0	0.00 U	46.5	93	59-136
75-15-0	PS Carbon disulfide	250	0.00 U	231	92	46-129
156-60-5	PS trans-1,2-Dichloroethylene	50.0	0.00 U	48.3	97	56-126
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	181	72	26-152
156-59-2	PS cis-1,2-Dichloroethylene	50.0	0.00 U	48.6	97	60-130
594-20-7	PS 2,2-Dichloropropane	50.0	0.00 U	43.3	87	55-135
67-66-3	PS Chloroform	50.0	0.00 U	49.2	98	60-127
74-97-5	PS Bromochloromethane	50.0	0.00 U	45.7	91	61-131
71-55-6	PS 1,1,1-Trichloroethane	50.0	0.00 U	47.8	96	59-131
563-58-6	PS 1,1-Dichloropropene	50.0	0.00 U	47.5	95	57-128
56-23-5	PS Carbon tetrachloride	50.0	0.00 U	48.2	96	58-136
107-06-2	PS 1,2-Dichloroethane	50.0	0.00 U	50.1	100	58-126



## Volatile

Page 2 of 6

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Post Spike

Client ID: RE15-10-7165PS

Matrix: R

Lab Sample ID: 1202025123

% Moisture: 19.4

Instrument: VOA5.I

Analysis Date: 01/27/2010 21:55

Dilution: 1

Analyst: DXK1

Prep Batch ID: 945549

Purge Vol: 5 mL

Batch ID: 945552

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	45.8	92	56-123
79-01-6	PS Trichloroethylene	50.0	0.00 U	48.1	96	51-137
78-87-5	PS 1,2-Dichloropropane	50.0	0.00 U	50.2	100	60-126
75-27-4	PS Bromodichloromethane	50.0	0.00 U	51.9	104	55-138
74-95-3	PS Dibromomethane	50.0	0.00 U	47.7	95	60-132
108-10-1	PS 4-Methyl-2-pentanone	250	0.00 U	217	87	58-136
10061-01-5	PS cis-1,3-Dichloropropylene	50.0	0.00 U	47.1	94	54-133
108-88-3	PS Toluene	50.0	0.00 U	46.6	93	52-128
10061-02-6	PS trans-1,3-Dichloropropylene	50.0	0.00 U	48.5	97	53-137
79-00-5	PS 1,1,2-Trichloroethane	50.0	0.00 U	46.6	93	59-130
591-78-6	PS 2-Hexanone	250	0.00 U	185	74	31-148
142-28-9	PS 1,3-Dichloropropane	50.0	0.00 U	47.8	96	57-127
127-18-4	PS Tetrachloroethylene	50.0	0.00 U	43.9	88	51-128
124-48-1	PS Dibromochloromethane	50.0	0.00 U	49.2	98	59-139
106-93-4	PS 1,2-Dibromoethane	50.0	0.00 U	45.9	92	57-133
108-90-7	PS Chlorobenzene	50.0	0.00 U	44.9	90	53-122
100-41-4	PS Ethylbenzene	50.0	0.00 U	47.0	94	51-125
179601-23-1	PS m,p-Xylenes	100	0.00 U	92.3	92	50-126
95-47-6	PS o-Xylene	50.0	0.00 U	49.4	99	52-127
100-42-5	PS Styrene	50.0	0.00 U	49.3	99	49-135
75-25-2	PS Bromoform	50.0	0.00 U	51.0	102	57-149
79-34-5	PS 1,1,2,2-Tetrachloroethane	50.0	0.00 U	48.9	98	63-127

Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Post Spike

Client ID: RE15-10-7165PS

Matrix: R

Lab Sample ID: 1202025123

%Moisture: 19.4

Instrument: VOA5.I

Analysis Date: 01/27/2010 21:55

Dilution: 1

Analyst: DXK1

Pre Batch ID: 945549

Purge Vol: 5 mL

Batch ID: 945552

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	48.3	97	57-149
108-86-1	PS Bromobenzene	50.0	0.00 U	47.6	95	49-131
103-65-1	PS n-Propylbenzene	50.0	0.00 U	50.6	101	40-136
95-49-8	PS 2-Chlorotoluene	50.0	0.00 U	51.4	103	44-135
98-82-8	PS Isopropylbenzene	50.0	0.00 U	51.7	103	44-140
108-67-8	PS 1,3,5-Trimethylbenzene	50.0	0.00 U	51.9	104	42-140
106-43-4	PS 4-Chlorotoluene	50.0	0.00 U	47.7	95	44-132
98-06-6	PS tert-Butylbenzene	50.0	0.00 U	49.8	100	42-142
95-63-6	PS 1,2,4-Trimethylbenzene	50.0	0.00 U	48.8	98	43-137
135-98-8	PS sec-Butylbenzene	50.0	0.00 U	49.3	99	39-139
99-87-6	PS 4-Isopropyltoluene	50.0	0.00 U	48.7	97	38-145
541-73-1	PS 1,3-Dichlorobenzene	50.0	0.00 U	43.4	87	43-129
106-46-7	PS 1,4-Dichlorobenzene	50.0	0.00 U	41.5	83	44-125
104-51-8	PS n-Butylbenzene	50.0	0.00 U	45.3	91	36-141
96-12-8	PS 1,2-Dibromo-3-chloropropane	50.0	0.00 U	42.7	85	47-151
630-20-6	PS 1,1,1,2-Tetrachloroethane	50.0	0.00 U	50.0	100	59-131
95-50-1	PS 1,2-Dichlorobenzene	50.0	0.00 U	42.1	84	43-129

Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Post Spike Duplicate

Client ID: RE15-10-716SPSD

Matrix: R

Lab Sample ID: 1202025124

% Moisture: 19.4

Instrument: VOA5.I

Analysis Date: 01/27/2010 22:21

Dilution: 1

Analyst: DXK1

Pren Batch II 945549

Purge Vol: 5 mL

Batch ID: 945552

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 40.6	81	25-149	1	0-25
74-87-3	PSD Chloromethane	50.0	0.00	U 52.0	104	39-140	1	0-25
75-01-4	PSD Vinyl chloride	50.0	0.00	U 52.2	104	47-129	0	0-25
74-83-9	PSD Bromomethane	50.0	0.00	U 44.8	90	31-135	3	0-25
75-00-3	PSD Chloroethane	50.0	0.00	U 44.0	88	53-128	1	0-25
75-69-4	PSD Trichlorofluoromethane	50.0	0.00	U 46.1	92	51-151	1	0-25
67-64-1	PSD Acetone	250	0.00	U 159	64	21-153	3	0-25
75-35-4	PSD 1,1-Dichloroethylene	50.0	0.00	U 50.4	101	61-125	1	0-25
74-88-4	PSD Iodomethane	250	0.00	U 205	82	53-142	4	0-25
75-09-2	PSD Methylene chloride	50.0	0.00	U 45.8	92	59-136	1	0-25
75-15-0	PSD Carbon disulfide	250	0.00	U 220	88	46-129	5	0-25
156-60-5	PSD trans-1,2-Dichloroethylene	50.0	0.00	U 47.6	95	56-126	1	0-25
75-34-3	PSD 1,1-Dichloroethane	50.0	0.00	U 48.8	98	62-125	1	0-25
78-93-3	PSD 2-Butanone	250	0.00	U 182	73	26-152	0	0-25
156-59-2	PSD cis-1,2-Dichloroethylene	50.0	0.00	U 48.1	96	60-130	1	0-25
594-20-7	PSD 2,2-Dichloropropane	50.0	0.00	U 42.4	85	55-135	2	0-25
67-66-3	PSD Chloroform	50.0	0.00	U 49.4	99	60-127	0	0-25
74-97-5	PSD Bromochloromethane	50.0	0.00	U 44.7	89	61-131	2	0-25
71-55-6	PSD 1,1,1-Trichloroethane	50.0	0.00	U 48.6	97	59-131	2	0-25
563-58-6	PSD 1,1-Dichloropropene	50.0	0.00	U 48.3	97	57-128	2	0-25
56-23-5	PSD Carbon tetrachloride	50.0	0.00	U 49.5	99	58-136	3	0-25
107-06-2	PSD 1,2-Dichloroethane	50.0	0.00	U 50.3	101	58-126	0	0-25

Volatile  
Quality Control Summary  
Spike Recovery Report

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SDG Number: 10-1304

Sample Type: Post Spike Duplicate

Client ID: RE15-10-7165PSD

Matrix: R

Lab Sample ID: 1202025124

%Moisture: 19.4

Instrument: VOA5.I

Analysis Date: 01/27/2010 22:21

Dilution: 1

Analyst: DXK1

Prep Batch ID: 945549

Purge Vol: 5 mL

Batch ID: 945552

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	46.1	92	56-123	1	0-25
79-01-6	PSD Trichloroethylene	50.0	0.00 U	48.0	96	51-137	0	0-25
78-87-5	PSD 1,2-Dichloropropane	50.0	0.00 U	50.0	100	60-126	0	0-25
75-27-4	PSD Bromodichloromethane	50.0	0.00 U	51.6	103	55-138	0	0-25
74-95-3	PSD Dibromomethane	50.0	0.00 U	48.1	96	60-132	1	0-25
108-10-1	PSD 4-Methyl-2-pentanone	250	0.00 U	226	90	58-136	4	0-25
10061-01-5	PSD cis-1,3-Dichloropropylene	50.0	0.00 U	46.2	92	54-133	2	0-25
108-88-3	PSD Toluene	50.0	0.00 U	46.7	93	52-128	0	0-25
10061-02-6	PSD trans-1,3-Dichloropropylene	50.0	0.00 U	48.6	97	53-137	0	0-25
79-00-5	PSD 1,1,2-Trichloroethane	50.0	0.00 U	46.7	93	59-130	0	0-25
591-78-6	PSD 2-Hexanone	250	0.00 U	189	75	31-148	2	0-25
142-28-9	PSD 1,3-Dichloropropane	50.0	0.00 U	47.8	96	57-127	0	0-25
127-18-4	PSD Tetrachloroethylene	50.0	0.00 U	44.9	90	51-128	2	0-25
124-48-1	PSD Dibromochloromethane	50.0	0.00 U	49.6	99	59-139	1	0-25
106-93-4	PSD 1,2-Dibromoethane	50.0	0.00 U	46.1	92	57-133	1	0-25
108-90-7	PSD Chlorobenzene	50.0	0.00 U	44.4	89	53-122	1	0-25
100-41-4	PSD Ethylbenzene	50.0	0.00 U	47.6	95	51-125	1	0-25
179601-23-1	PSD m,p-Xylenes	100	0.00 U	93.9	94	50-126	2	0-25
95-47-6	PSD o-Xylene	50.0	0.00 U	49.9	100	52-127	1	0-25
100-42-5	PSD Styrene	50.0	0.00 U	50.0	100	49-135	2	0-25
75-25-2	PSD Bromoform	50.0	0.00 U	48.6	97	57-149	5	0-25
79-34-5	PSD 1,1,2,2-Tetrachloroethane	50.0	0.00 U	48.0	96	63-127	2	0-25

## Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Post Spike Duplicate

Client ID: RE15-10-7165PSD

Matrix: R

Lab Sample ID: 1202025124

%Moisture: 19.4

Instrument: VOA5.I

Analysis Date: 01/27/2010 22:21

Dilution: 1

Analyst: DXK1

Prep Batch ID: 945549

Purge Vol: 5 mL

Batch ID: 945552

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 48.8	98	57-149	1	0-25
108-86-1	PSD Bromobenzene	50.0	0.00	U 45.7	91	49-131	4	0-25
103-65-1	PSD n-Propylbenzene	50.0	0.00	U 49.6	99	40-136	2	0-25
95-49-8	PSD 2-Chlorotoluene	50.0	0.00	U 48.9	98	44-135	5	0-25
98-82-8	PSD Isopropylbenzene	50.0	0.00	U 49.5	99	44-140	4	0-25
108-67-8	PSD 1,3,5-Trimethylbenzene	50.0	0.00	U 50.9	102	42-140	2	0-25
106-43-4	PSD 4-Chlorotoluene	50.0	0.00	U 46.4	93	44-132	3	0-25
98-06-6	PSD tert-Butylbenzene	50.0	0.00	U 48.8	98	42-142	2	0-25
95-63-6	PSD 1,2,4-Trimethylbenzene	50.0	0.00	U 48.2	96	43-137	1	0-25
135-98-8	PSD sec-Butylbenzene	50.0	0.00	U 48.0	96	39-139	3	0-25
99-87-6	PSD 4-Isopropyltoluene	50.0	0.00	U 48.2	96	38-145	1	0-25
541-73-1	PSD 1,3-Dichlorobenzene	50.0	0.00	U 43.1	86	43-129	1	0-25
106-46-7	PSD 1,4-Dichlorobenzene	50.0	0.00	U 41.7	83	44-125	0	0-25
104-51-8	PSD n-Butylbenzene	50.0	0.00	U 45.6	91	36-141	1	0-25
96-12-8	PSD 1,2-Dibromo-3-chloropropane	50.0	0.00	U 46.2	92	47-151	8	0-25
630-20-6	PSD 1,1,1,2-Tetrachloroethane	50.0	0.00	U 50.0	100	59-131	0	0-25
95-50-1	PSD 1,2-Dichlorobenzene	50.0	0.00	U 42.3	85	43-129	0	0-25

## Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 945549

Matrix: SOIL

Lab Sample ID: 1202025125

Instrument: VOA5.I

Analysis Date: 01/26/2010 21:32

Dilution: 1

Analyst: DXK1

Pre Batch ID: 945549

Purge Vol: 5 mL

Batch ID: 945552

CAS No	Paramname	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	311	124	52-139

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 3

SDG Number: 10-1304

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 945549

Matrix: SOIL

Lab Sample ID: 1202031266

Instrument: VOA5.I

Analysis Date: 01/27/2010 12:26

Dilution: 1

Analyst: DXK1

Pre Batch II 945549

Purge Vol: 5 mL

Batch ID: 945552

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	42.0	84	33-155
74-87-3	LCS Chloromethane	50.0	0.0	49.5	99	53-132
75-01-4	LCS Vinyl chloride	50.0	0.0	50.4	101	61-128
74-83-9	LCS Bromomethane	50.0	0.0	49.8	100	63-126
75-00-3	LCS Chloroethane	50.0	0.0	47.7	95	67-124
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	50.0	100	67-151
67-64-1	LCS Acetone	250	0.0	235	94	29-160
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	53.8	108	70-125
74-88-4	LCS Iodomethane	250	0.0	237	95	74-131
75-09-2	LCS Methylene chloride	50.0	0.0	45.7	91	72-127
75-15-0	LCS Carbon disulfide	250	0.0	259	104	64-127
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	50.1	100	71-122
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	49.9	100	75-120
78-93-3	LCS 2-Butanone	250	0.0	247	99	35-162
156-59-2	LCS cis-1,2-Dichloroethylene	50.0	0.0	49.4	99	76-122
594-20-7	LCS 2,2-Dichloropropane	50.0	0.0	47.7	95	74-135
67-66-3	LCS Chloroform	50.0	0.0	49.8	100	77-120
74-97-5	LCS Bromochloromethane	50.0	0.0	47.8	96	76-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	50.3	101	75-128
563-58-6	LCS 1,1-Dichloropropene	50.0	0.0	51.7	103	77-125
56-23-5	LCS Carbon tetrachloride	50.0	0.0	53.1	106	77-134
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	48.3	97	72-120

## Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 945549

Matrix: SOIL

Lab Sample ID:1202031266

Instrument: VOA5.I

Analysis Date: 01/27/2010 12:26

Dilution: 1

Analyst: DXK1

Prep Batch II 945549

Purge Vol: 5 mL

Batch ID: 945552

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS Benzene	50.0	0.0	48.7	97	72-120
79-01-6	LCS Trichloroethylene	50.0	0.0	51.7	103	78-121
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	50.2	100	74-120
75-27-4	LCS Bromodichloromethane	50.0	0.0	51.9	104	79-125
74-95-3	LCS Dibromomethane	50.0	0.0	48.9	98	78-122
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	246	98	71-134
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	51.0	102	80-125
108-88-3	LCS Toluene	50.0	0.0	48.4	97	65-124
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	51.3	103	71-134
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	46.9	94	76-120
591-78-6	LCS 2-Hexanone	250	0.0	255	102	42-159
142-28-9	LCS 1,3-Dichloropropane	50.0	0.0	47.8	96	72-120
127-18-4	LCS Tetrachloroethylene	50.0	0.0	49.1	98	74-123
124-48-1	LCS Dibromochloromethane	50.0	0.0	50.5	101	83-128
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	49.2	98	79-121
108-90-7	LCS Chlorobenzene	50.0	0.0	47.9	96	75-120
100-41-4	LCS Ethylbenzene	50.0	0.0	50.0	100	74-120
179601-23-1	LCS m,p-Xylenes	100	0.0	99.7	100	74-120
95-47-6	LCS o-Xylene	50.0	0.0	51.4	103	74-120
100-42-5	LCS Styrene	50.0	0.0	53.7	107	76-125
75-25-2	LCS Bromoform	50.0	0.0	51.1	102	77-138
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	47.4	95	72-122



## Volatile

Page 3 of 3

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 945549

Matrix: SOIL

Lab Sample ID: 1202031266

Instrument: VOA5.I

Analysis Date: 01/27/2010 12:26

Dilution: 1

Analyst: DXK1

Prep Batch ID: 945549

Purge Vol: 5 mL

Batch ID: 945552

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	46.7	93	75-135
108-86-1	LCS Bromobenzene	50.0	0.0	47.1	94	73-120
103-65-1	LCS n-Propylbenzene	50.0	0.0	49.8	100	68-121
95-49-8	LCS 2-Chlorotoluene	50.0	0.0	49.5	99	69-120
98-82-8	LCS Isopropylbenzene	50.0	0.0	50.4	101	66-127
108-67-8	LCS 1,3,5-Trimethylbenzene	50.0	0.0	50.7	101	67-126
106-43-4	LCS 4-Chlorotoluene	50.0	0.0	48.4	97	72-120
98-06-6	LCS tert-Butylbenzene	50.0	0.0	49.4	99	72-124
95-63-6	LCS 1,2,4-Trimethylbenzene	50.0	0.0	50.4	101	72-122
135-98-8	LCS sec-Butylbenzene	50.0	0.0	49.9	100	71-124
99-87-6	LCS 4-Isopropyltoluene	50.0	0.0	51.3	103	72-130
541-73-1	LCS 1,3-Dichlorobenzene	50.0	0.0	47.8	96	73-120
106-46-7	LCS 1,4-Dichlorobenzene	50.0	0.0	46.4	93	73-120
104-51-8	LCS n-Butylbenzene	50.0	0.0	50.7	101	72-128
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	49.8	100	68-145
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	50.6	101	78-121
95-50-1	LCS 1,2-Dichlorobenzene	50.0	0.0	47.2	94	74-120

## Volatile

Page 1 of 1

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 945549

Matrix: SOIL

Lab Sample ID:1202031267

Instrument: VOA5.I

Analysis Date: 01/27/2010 13:17

Dilution: 1

Analyst: DXK1

Prep Batch II 945549

Purge Vol: 5 mL

Batch ID: 945552

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS 1,1,2-Trichloro-1,2,2-Trifluor Trichlorotrifluoroethane	250	0.0	336	134	52-139

## Method Blank Summary

Page 1 of 1

SDG Number:	10-1304	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 945549	Instrument ID:	VOA5.I	Data File:	012610V5SV226BL.D
Lab Sample ID:	1202025121	Prep Date:	01/26/2010 08:00	Analyzed:	01/26/10 22:01
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 945549	1202025122	012610V5SV224LL.D	01/26/10	2106
02 LCS for batch 945549	1202025125	012610V5SV225SL.D	01/26/10	2132
03 RE15-10-7165	245106001	012610V5SV227.D	01/26/10	2227
04 RE15-10-7171	245106002	012610V5SV228.D	01/26/10	2253
05 RE15-10-7170	245106003	012610V5SV229.D	01/26/10	2319
06 RE15-10-7164	245106004	012610V5SV230.D	01/26/10	2345
07 RE15-10-7167	245106005	012610V5SV231.D	01/27/10	0010
08 RE15-10-7169	245106006	012610V5SV232.D	01/27/10	0036
09 RE15-10-7168	245106007	012610V5SV233.D	01/27/10	0106
10 RE15-10-7166	245106008	012610V5SV234.D	01/27/10	0132

## Method Blank Summary

Page 1 of 1

SDG Number:	10-1304	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 945549	Instrument ID:	VOA5.I	Data File:	012710V5SV307BL.D
Lab Sample ID:	1202031265	Prep Date:	01/27/2010 08:00	Analyzed:	01/27/10 14:08
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 945549	1202031266	012710V5SV303LL.D	01/27/10	1226
02 LCS for batch 945549	1202031267	012710V5SV305SL.D	01/27/10	1317
03 RE15-10-7177	245106009	012710V5SV312.D	01/27/10	1618
04 RE15-10-7181	245106010	012710V5SV313.D	01/27/10	1644
05 RE15-10-7178	245106011	012710V5SV314.D	01/27/10	1709
06 RE15-10-7182	245106012	012710V5SV315.D	01/27/10	1735
07 RE15-10-7183	245106013	012710V5SV316.D	01/27/10	1801
08 RE15-10-7176	245106014	012710V5SV317.D	01/27/10	1827
09 RE15-10-7180	245106015	012710V5SV318.D	01/27/10	1853
10 RE15-10-7179	245106016	012710V5SV319.D	01/27/10	1919
11 RE15-10-7165PS	1202025123	012710V5SV325.D	01/27/10	2155
12 RE15-10-7165PSD	1202025124	012710V5SV326.D	01/27/10	2221

## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-1304

Instrument ID: VOA5.1

Injection Date/Time: 08-JAN-10 13:05

Column Description: DB-624

Lab File ID 010810V5\SS505.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	21.1
75	30.0 - 60.0% of mass 95	43.7
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.7
174	50.0 - 100.0% of mass 95	80.9
175	5.0 - 9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	95.3
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
ICALMIX[A]	W5VM100108-01	010810V5\SS506.D	08-JAN-10 13:40
ICALMIX[A]	W5VM100108-02	010810V5\SS507.D	08-JAN-10 14:05
ICALMIX[A]	W5VM100108-03	010810V5\SS508.D	08-JAN-10 14:31
ICALMIX[A]	W5VM100108-04	010810V5\SS509.D	08-JAN-10 14:57
ICALMIX[A]	W5VM100108-05	010810V5\SS511.D	08-JAN-10 15:23
ICALMIX[A]	W5VM100108-06	010810V5\SS512.D	08-JAN-10 15:49
ICALMIX[A]	W5VM100108-07	010810V5\SS513.D	08-JAN-10 16:14
ICALMIX[A]	W5VM100108-08	010810V5\SS515.D	08-JAN-10 17:06
ICALMIX[B]	W5VM100108-11	010810V5\SS518.D	08-JAN-10 18:24
ICALMIX[B]	W5VM100108-12	010810V5\SS519.D	08-JAN-10 18:50
ICALMIX[B]	W5VM100108-13	010810V5\SS520.D	08-JAN-10 19:16
ICALMIX[B]	W5VM100108-14	010810V5\SS521.D	08-JAN-10 19:42
ICALMIX[B]	W5VM100108-15	010810V5\SS522.D	08-JAN-10 20:07
ICALMIX[B]	W5VM100108-16	010810V5\SS523.D	08-JAN-10 20:33
ICALMIX[B]	W5VM100108-17	010810V5\SS524.D	08-JAN-10 20:59
ICVMIX[B]01	W5VM100108-18	010810V5\SS526.D	08-JAN-10 21:50

## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-1304

Instrument ID: VOA5.I

Injection Date/Time: 11-JAN-10 10:13

Column Description: DB-624

Lab File ID 011110V55T102.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.7
75	30.0 - 60.0% of mass 95	42.7
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	87.3
175	5.0 - 9.0% of mass 174	6.8
176	95.0 - 101.0% of mass 174	96.7
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD, BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICVMIX[A]02	W5VM100111-01	011110V55T103.D	11-JAN-10 10:39

## Instrument Performance Check

## BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-1304

Instrument ID: VOA5.I

Injection Date/Time: 26-JAN-10 20:40

Column Description: DB-624

Lab File ID 012610V5\SV223BFB.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.5
75	30.0 - 60.0% of mass 95	44.2
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	82.6
175	5.0 - 9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	95.6
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD, BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]04	W5VM100126-04	012610V5\SV223.D	26-JAN-10 20:40
BLK01LCS	1202025122	012610V5\SV224LL.D	26-JAN-10 21:06
CCVMIX[B]05	W5VM100126-06	012610V5\SV225.D	26-JAN-10 21:32
BLK01SLCS	1202025125	012610V5\SV225SL.D	26-JAN-10 21:32
BLK01	1202025121	012610V5\SV226BL.D	26-JAN-10 22:01
RE15-10-7165	245106001	012610V5\SV227.D	26-JAN-10 22:27
RE15-10-7171	245106002	012610V5\SV228.D	26-JAN-10 22:53
RE15-10-7170	245106003	012610V5\SV229.D	26-JAN-10 23:19
RE15-10-7164	245106004	012610V5\SV230.D	26-JAN-10 23:45
RE15-10-7167	245106005	012610V5\SV231.D	27-JAN-10 00:10
RE15-10-7169	245106006	012610V5\SV232.D	27-JAN-10 00:36
RE15-10-7168	245106007	012610V5\SV233.D	27-JAN-10 01:06
RE15-10-7166	245106008	012610V5\SV234.D	27-JAN-10 01:32

## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-1304

Instrument ID: VOA5.1

Injection Date/Time: 27-JAN-10 11:34

Column Description: DB-624

Lab File ID 012710V5\SV301.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	22.3
75	30.0 - 60.0% of mass 95	46.7
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	77.5
175	5.0 - 9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	97.2
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD, BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]06	W5VM100127-99	012710V5\SV302.D	27-JAN-10 12:00
BLK02LCS	1202031266	012710V5\SV303LL.D	27-JAN-10 12:26
CCVMIX[B]07	W5VM100127-03	012710V5\SV304.D	27-JAN-10 12:51
BLK02SLCS	1202031267	012710V5\SV305SL.D	27-JAN-10 13:17
BLK02	1202031265	012710V5\SV307BL.D	27-JAN-10 14:08
RE15-10-7177	245106009	012710V5\SV312.D	27-JAN-10 16:18
RE15-10-7181	245106010	012710V5\SV313.D	27-JAN-10 16:44
RE15-10-7178	245106011	012710V5\SV314.D	27-JAN-10 17:09
RE15-10-7182	245106012	012710V5\SV315.D	27-JAN-10 17:35
RE15-10-7183	245106013	012710V5\SV316.D	27-JAN-10 18:01
RE15-10-7176	245106014	012710V5\SV317.D	27-JAN-10 18:27
RE15-10-7180	245106015	012710V5\SV318.D	27-JAN-10 18:53
RE15-10-7179	245106016	012710V5\SV319.D	27-JAN-10 19:19
RE15-10-7165MS	1202025123	012710V5\SV325.D	27-JAN-10 21:55
RE15-10-7165MSD	1202025124	012710V5\SV326.D	27-JAN-10 22:21



### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-1304

Instrument: VOA5.1

STD Analysis Time: 26-JAN-10 20:40

GC Column: DB-624

Data File: C:\msdchem\1\DATA\012610V5\5V223.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1269748		10.4	894549		13.6	482999		16.0
Upper Limit	2539496		10.9	1789098		14.1	965998		16.5
Lower Limit	634874		9.88	447275		13.1	241500		15.5
Sample ID									
BLK01LCS	1257925		10.4	880060		13.6	469404		16.0
BLK01SLCS	1283087		10.4	891763		13.6	457809		16.0
BLK01	1230902		10.4	852509		13.6	422746		16.0
RE15-10-7165	1187800		10.4	820362		13.6	407177		16.0
RE15-10-7171	1151795		10.4	786254		13.6	343781		16.0
RE15-10-7170	970959		10.4	591934		13.6	210328	*	16.0
RE15-10-7164	1086462		10.4	737786		13.6	306998		16.0
RE15-10-7167	1014281		10.4	667221		13.6	277826		16.0
RE15-10-7169	966872		10.4	631690		13.6	252429		16.0
RE15-10-7168	941122		10.4	563430		13.6	180700	*	16.0
RE15-10-7166	980506		10.4	547226		13.6	163840	*	16.0

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Value outside of QC Limits

### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-1304

Instrument: VOA5.1

STD Analysis Time: 27-JAN-10 12:00

GC Column: DB-624

Data File: C:\msdchem\1\DATA\012710V5\5V302.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT	Area	#	RT	Area	#	RT
12 Hour STD	1177332		10.4	849939		13.5	465989		16.0
Upper Limit	2354664		10.9	1699878		14.0	931978		16.5
Lower Limit	588666		9.87	424970		13.0	232995		15.5
Sample ID									
BLK02LCS	1250313		10.4	894146		13.6	483431		16.0
BLK02SLCS	1262944		10.4	888320		13.6	444506		16.0
BLK02	1116175		10.4	777465		13.6	381436		16.0
RE15-10-7177	934736		10.4	657750		13.6	283927		16.0
RE15-10-7181	980606		10.4	681092		13.6	298332		16.0
RE15-10-7178	900964		10.4	575178		13.6	219344	*	16.0
RE15-10-7182	900756		10.4	497204		13.6	137235	*	16.0
RE15-10-7183	892915		10.4	557231		13.6	196482	*	16.0
RE15-10-7176	855859		10.4	580336		13.6	246430		16.0
RE15-10-7180	891490		10.4	586387		13.6	223562	*	16.0
RE15-10-7179	726742		10.4	412667	*	13.6	126182	*	16.0
RE15-10-7165MS	1109690		10.4	779059		13.6	381875		16.0
RE15-10-7165MSD	1129044		10.4	795679		13.6	412441		16.0

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Value outside of QC Limits

# Sample Data

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

SDG Number: 10-1304  
 Lab Sample ID: 245106001  
 Client ID: RE15-10-7165  
 Batch ID: 945552  
 Run Date: 01/26/2010 22:27  
 Prep Date: 01/26/2010 14:40  
 Data File: 012610V5SV227.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOAS.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 19.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.422	1.24
74-87-3	Chloromethane	U	1.24	ug/kg	0.372	1.24
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.372	1.24
74-83-9	Bromomethane	U	1.24	ug/kg	0.372	1.24
75-00-3	Chloroethane	U	1.24	ug/kg	0.372	1.24
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.372	1.24
67-64-1	Acetone	U	6.21	ug/kg	2.06	6.21
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.372	1.24
74-88-4	Iodomethane	U	6.21	ug/kg	1.99	6.21
75-09-2	Methylene chloride	U	6.21	ug/kg	2.48	6.21
75-15-0	Carbon disulfide	U	6.21	ug/kg	1.55	6.21
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.372	1.24
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.372	1.24
78-93-3	2-Butanone	U	6.21	ug/kg	1.86	6.21
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.372	1.24
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.372	1.24
67-66-3	Chloroform	U	1.24	ug/kg	0.372	1.24
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.410	1.24
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.372	1.24
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.372	1.24
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.372	1.24
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.372	1.24
71-43-2	Benzene	U	1.24	ug/kg	0.372	1.24
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.410	1.24
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.372	1.24
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.372	1.24
74-95-3	Dibromomethane	U	1.24	ug/kg	0.372	1.24
108-10-1	4-Methyl-2-pentanone	U	6.21	ug/kg	1.55	6.21
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.372	1.24
108-88-3	Toluene	U	1.24	ug/kg	0.372	1.24
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.372	1.24
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.372	1.24
591-78-6	2-Hexanone	U	6.21	ug/kg	1.86	6.21
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.372	1.24
127-18-4	Tetrachloroethylene	U	1.24	ug/kg	0.372	1.24
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.372	1.24
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.372	1.24
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.372	1.24

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

SDG Number: 10-1304  
 Lab Sample ID: 245106001  
 Client ID: RE15-10-7165  
 Batch ID: 945552  
 Run Date: 01/26/2010 22:27  
 Prep Date: 01/26/2010 14:40  
 Data File: 012610V5SV227.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 19.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.372	1.24
179601-23-1	m,p-Xylenes	U	2.48	ug/kg	0.372	2.48
95-47-6	o-Xylene	U	1.24	ug/kg	0.372	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.372	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.372	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.372	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.372	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.372	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.372	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.372	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.372	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.372	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.372	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.372	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.372	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.372	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.372	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.372	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.372	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.21	ug/kg	1.99	6.21
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.372	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.372	1.24

**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\012610V5\  
Data File : 5V227.D  
Acq On : 26 Jan 2010 10:27 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106001|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jan 27 15:24:16 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.375	10.375	1.000	96	1187800	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	820362	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.963	15.962	1.000	152	407177	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	1187800	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	820362	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.963	15.962	1.000	152	407177	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	267797	48.51	ug/L	0.00
Spiked Amount	50.000	Range 68 - 131	Recovery	=	97.02%			
43) Toluene-d8	12.016	12.016	0.887	98	1060795	47.41	ug/L	0.00
Spiked Amount	50.000	Range 75 - 129	Recovery	=	94.82%			
61) Bromofluorobenzene	14.739	14.739	0.923	95	389264	50.10	ug/L	0.00
Spiked Amount	50.000	Range 68 - 133	Recovery	=	100.20%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	6.733	6.733	0.649	59	155	N.D.		
9) Acetone	7.100	7.100	0.684	43	2139	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	0.000	7.450	0.000		0	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	7.525	7.511	0.725	76	111	N.D.		
15) Methylene chloride	7.680	7.691	0.740	84	4901	N.D.		
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	0.000	9.077	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.368	10.127	0.999	78	263	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V227.D  
Acq On : 26 Jan 2010 10:27 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106001|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jan 27 15:24:16 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:43:00 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.087	12.090	0.892	91	2933	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	12.638	12.631	0.933	43	107	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	12.691	12.691	0.937	164	484	N.D.	
50) Dibromochloromethane	12.681	12.928	0.936	129	143	N.D.	
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.639	13.639	1.007	91	1702	N.D.	
55) m,p-Xylenes	13.749	13.749	1.015	106	1816	N.D.	
56) o-Xylene	14.177	14.184	1.046	106	256	N.D.	
57) Styrene	14.191	14.184	1.048	104	1201	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.537	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.810	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	14.972	14.965	0.938	91	443	N.D.	
66) 1,3,5-Trimethylbenzene	15.114	15.114	0.947	105	142	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	15.216	15.216	0.953	91	626	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.528	15.527	0.973	105	981	N.D.	
71) sec-Butylbenzene	0.000	15.711	0.000		0	N.D.	
72) 4-Isopropyltoluene	15.828	15.832	0.992	119	135	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	15.984	15.991	1.001	146	771	N.D.	
75) n-Butylbenzene	16.281	16.277	1.020	91	253	N.D.	
76) 1,2-Dichlorobenzene	16.429	16.422	1.029	146	107	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.378	18.371	1.151	180	150	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	18.762	18.762	1.175	128	2173	N.D.	
81) 1,2,3-Trichlorobenzene	19.116	19.116	1.198	180	170	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	0.000	7.546	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.088	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V227.D  
Acq On : 26 Jan 2010 10:27 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106001|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jan 27 15:24:16 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.466	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.693	0.000		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	0.000	14.856	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.550	16.497	1.037	45	990	N.D.	

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

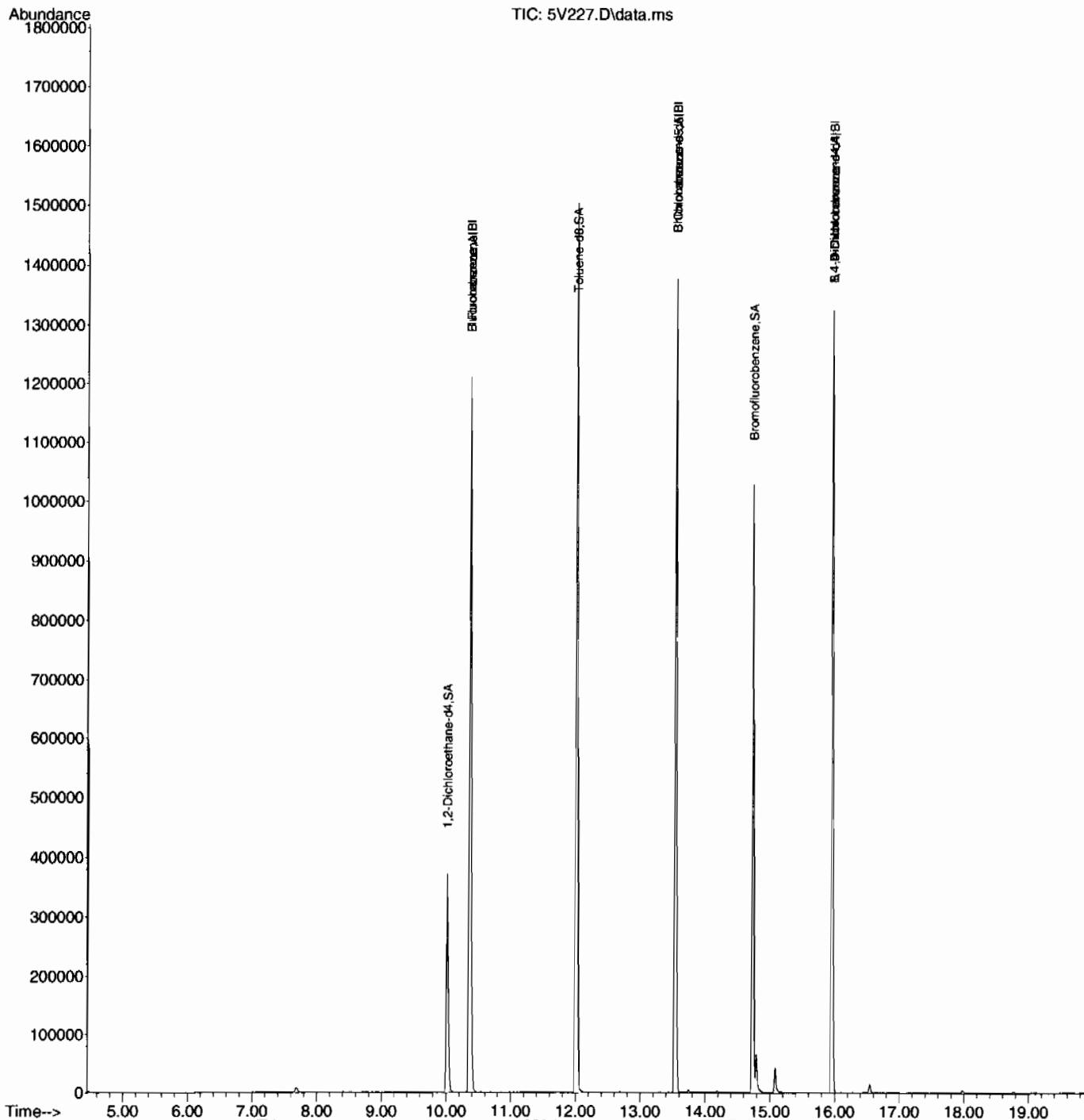


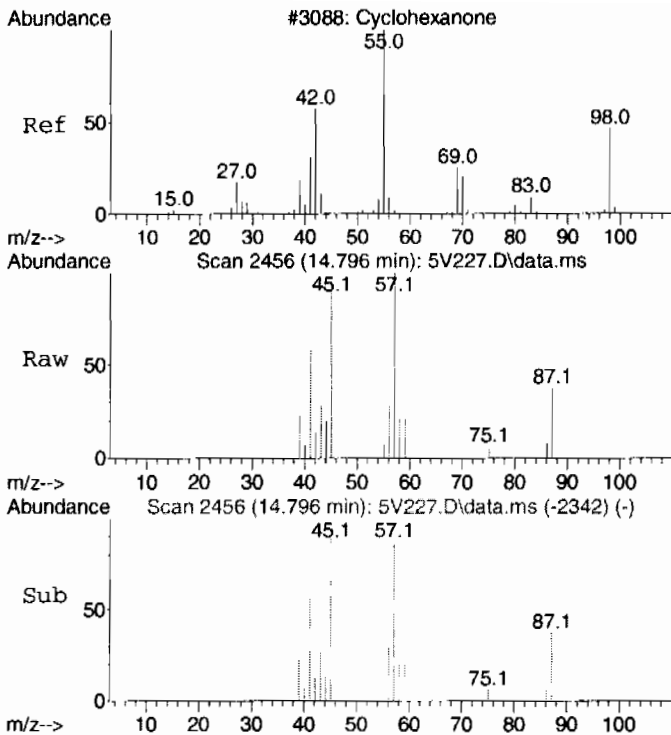
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V227.D  
Acq On : 26 Jan 2010 10:27 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106001|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jan 27 15:24:16 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

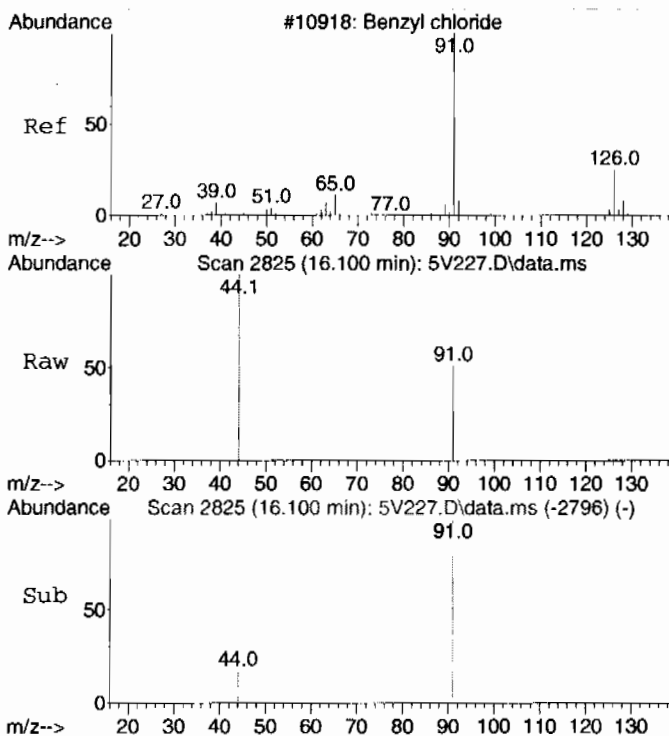
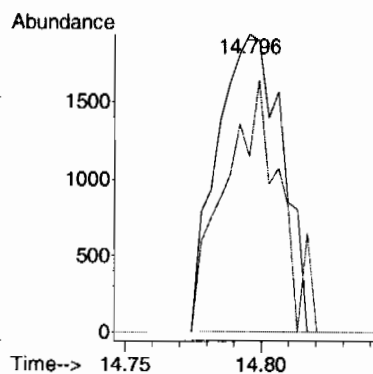
SubList :





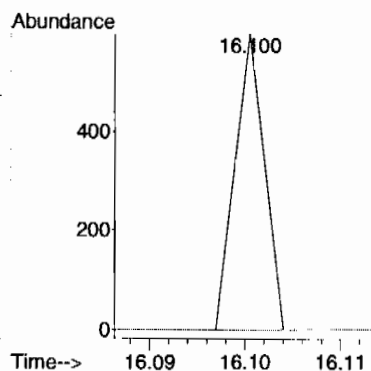
#108 BEFORE analyst DELETION  
Cyclohexanone  
Concen: 34.80 ug/L  
RT: 14.796 min Scan# 2456  
Delta R.T. 0.103 min  
Lab File: 5V227.D  
Acq: 26 Jan 2010 10:27 pm

Tgt Ion: 42 Resp: 3173  
Ion Ratio Lower Upper  
42 100  
55 72.9 104.7 164.7#  
98 0.0 21.5 81.5#



#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 4.48 ug/L  
RT: 16.100 min Scan# 2825  
Delta R.T. 0.000 min  
Lab File: 5V227.D  
Acq: 26 Jan 2010 10:27 pm

Tgt Ion: 91 Resp: 127  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.6  
65 0.0 0.0 41.9



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V227.D  
Acq On : 26 Jan 2010 10:27 pm  
Operator : DXK1  
Sample : |245106001|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.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\012610V5\  
Data File : 5V227.D  
Acq On : 26 Jan 2010 10:27 pm  
Operator : DXK1  
Sample : |245106001|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.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: 10-1304  
 Lab Sample ID: 245106002  
 Client ID: RE15-10-7171  
 Batch ID: 945552  
 Run Date: 01/26/2010 22:53  
 Prep Date: 01/26/2010 14:41  
 Data File: 012610V5SV228.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOAS.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 7.8  
 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	1.08	ug/kg	0.369	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.325	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.325	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.325	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.325	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.325	1.08
67-64-1	Acetone	U	5.42	ug/kg	1.80	5.42
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
74-88-4	Iodomethane	U	5.42	ug/kg	1.74	5.42
75-09-2	Methylene chloride	U	5.42	ug/kg	2.17	5.42
75-15-0	Carbon disulfide	U	5.42	ug/kg	1.36	5.42
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.325	1.08
78-93-3	2-Butanone	U	5.42	ug/kg	1.63	5.42
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.325	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.358	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.325	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.325	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.325	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.325	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.325	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.358	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.325	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.325	1.08
108-10-1	4-Methyl-2-pentanone	U	5.42	ug/kg	1.36	5.42
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.325	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.325	1.08
591-78-6	2-Hexanone	U	5.42	ug/kg	1.63	5.42
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.325	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.325	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.325	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.325	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.325	1.08

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

SDG Number: 10-1304  
 Lab Sample ID: 245106002  
 Client ID: RE15-10-7171  
 Batch ID: 945552  
 Run Date: 01/26/2010 22:53  
 Prep Date: 01/26/2010 14:41  
 Data File: 012610V5SV228.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOAS.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 7.8  
 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	1.08	ug/kg	0.325	1.08
179601-23-1	m,p-Xylenes	J	0.369	ug/kg	0.325	2.17
95-47-6	o-Xylene	U	1.08	ug/kg	0.325	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.325	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.325	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.325	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.325	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.325	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.325	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.325	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.325	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.325	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.325	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.325	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.42	ug/kg	1.74	5.42
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08

**Tentatively Identified Compound Summary**

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V228.D  
Acq On : 26 Jan 2010 10:53 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106002|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jan 27 08:53:04 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.375	10.375	1.000	96	1151795	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	786254	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	343781	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	1151795	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	786254	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	343781	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	264934	49.49	ug/L	0.00
Spiked Amount 50.000	Range 68	- 131	Recovery	=	98.98%			
43) Toluene-d8	12.019	12.016	0.887	98	1051173	49.02	ug/L	0.00
Spiked Amount 50.000	Range 75	- 129	Recovery	=	98.04%			
61) Bromofluorobenzene	14.739	14.739	0.924	95	369228	56.28	ug/L	0.00
Spiked Amount 50.000	Range 68	- 133	Recovery	=	112.56%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	0.000	6.733	0.000		0	N.D.		
9) Acetone	7.104	7.100	0.685	43	126	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	0.000	7.450	0.000		0	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	7.500	7.511	0.723	76	669	N.D.		
15) Methylene chloride	7.687	7.691	0.741	84	4689	N.D.		
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	9.091	9.077	0.876	43	220	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.368	10.127	0.999	78	257	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V228.D  
Acq On : 26 Jan 2010 10:53 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106002|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jan 27 08:53:04 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.094	12.090	0.893	91	2339	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.631	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	12.688	12.691	0.937	164	374	N.D.	
50) Dibromochloromethane	12.688	12.928	0.937	129	254	N.D.	
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.636	13.639	1.007	91	237	N.D.	
55) m,p-Xylenes	13.742	13.749	1.014	106	2704	0.34 ug/L #	78
56) o-Xylene	14.177	14.184	1.046	106	570	N.D.	
57) Styrene	0.000	14.184	0.000		0	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	14.594	14.537	0.914	105	1358	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.810	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	14.739	14.965	0.924	91	216	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.114	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	15.223	15.216	0.954	91	237	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.524	15.527	0.973	105	253	N.D.	
71) sec-Butylbenzene	0.000	15.711	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.832	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	15.984	15.991	1.002	146	121	N.D.	
75) n-Butylbenzene	0.000	16.277	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.422	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.371	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	18.762	18.762	1.176	128	1217	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.116	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	0.000	7.546	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	9.091	9.088	0.876	43	220	N.D.	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V228.D  
Acq On : 26 Jan 2010 10:53 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106002|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jan 27 08:53:04 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.466	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.693	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.856	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.497	0.000		0m	N.D.	d

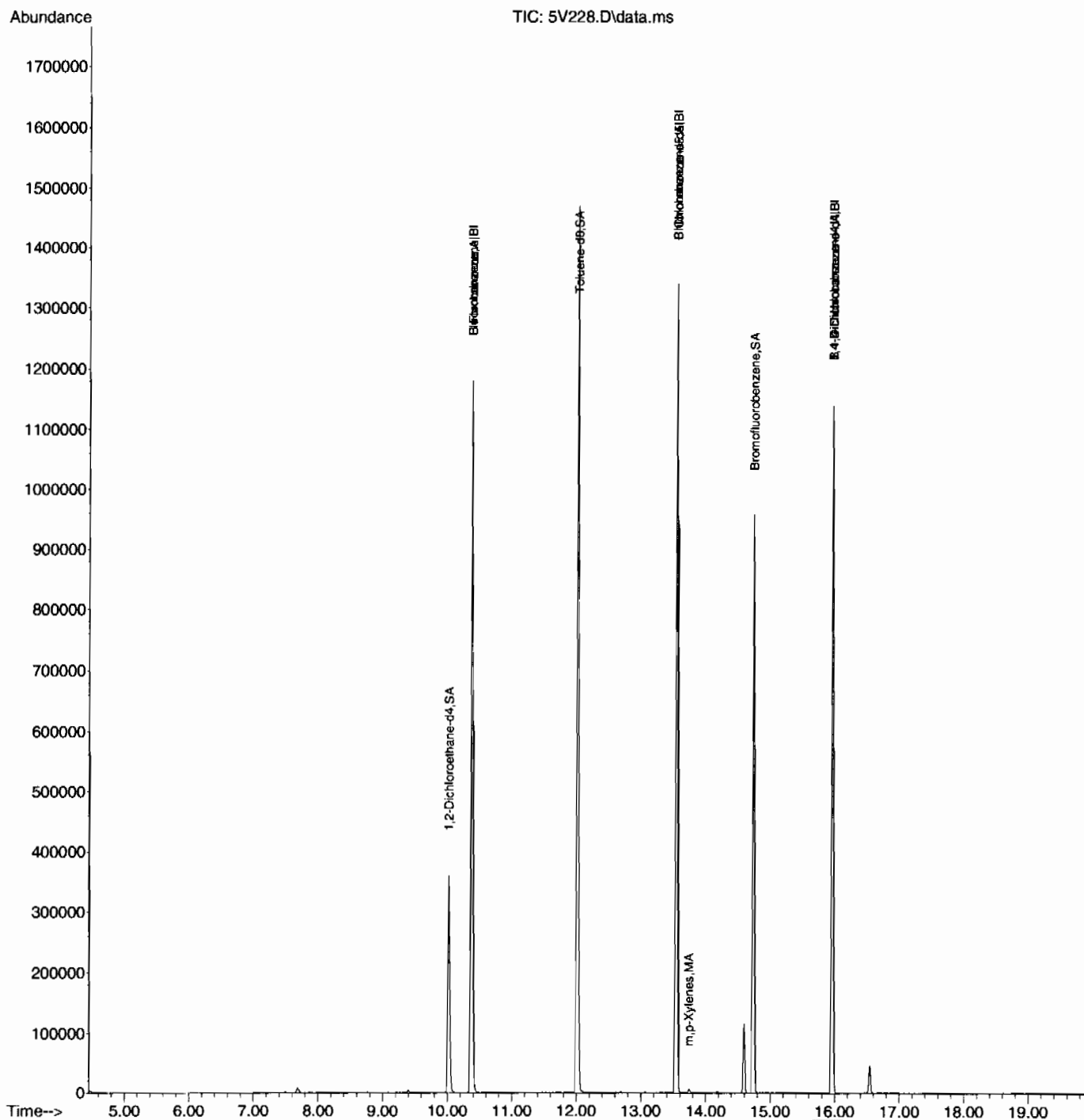
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

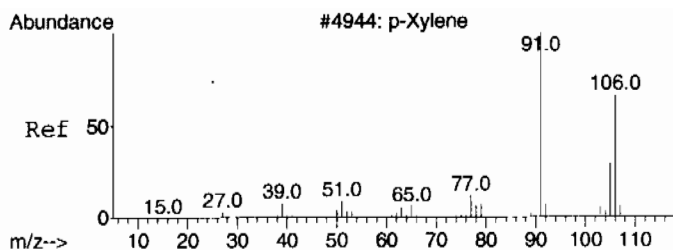
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V228.D  
Acq On : 26 Jan 2010 10:53 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106002|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jan 27 08:53:04 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

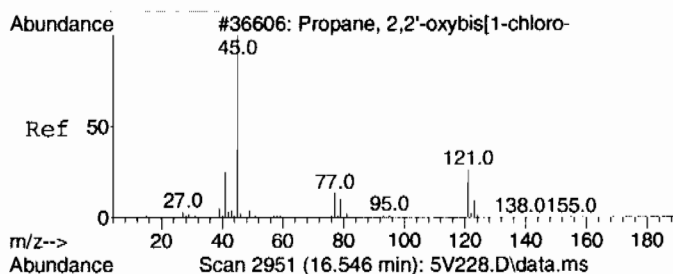
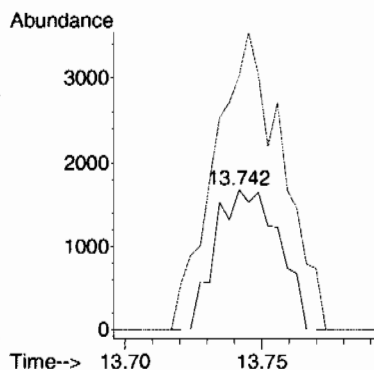
SubList :





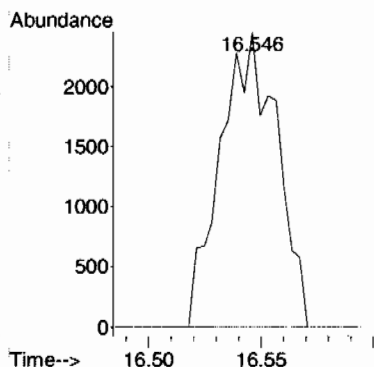
#55  
m,p-Xylenes  
Concen: 0.34 ug/L  
RT: 13.742 min Scan# 2158  
Delta R.T. -0.007 min  
Lab File: 5V228.D  
Acq: 26 Jan 2010 10:53 pm

Tgt Ion	Ratio	Lower	Upper
106	100		
91	224.9	162.6	222.6#



#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl)ether  
Concen: 1.86 ug/L  
RT: 16.546 min Scan# 2951  
Delta R.T. 0.049 min  
Lab File: 5V228.D  
Acq: 26 Jan 2010 10:53 pm

Tgt Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	49.2



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V228.D  
Acq On : 26 Jan 2010 10:53 pm  
Operator : DXK1  
Sample : |245106002|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.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\012610V5\  
Data File : 5V228.D  
Acq On : 26 Jan 2010 10:53 pm  
Operator : DXK1  
Sample : |245106002|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.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: 10-1304  
 Lab Sample ID: 245106003  
  
 Client ID: RE15-10-7170  
 Batch ID: 945552  
 Run Date: 01/26/2010 23:19  
 Prep Date: 01/26/2010 14:42  
 Data File: 012610V55V229.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 23.2  
 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	1.30	ug/kg	0.443	1.30
74-87-3	Chloromethane	U	1.30	ug/kg	0.391	1.30
75-01-4	Vinyl chloride	U	1.30	ug/kg	0.391	1.30
74-83-9	Bromomethane	U	1.30	ug/kg	0.391	1.30
75-00-3	Chloroethane	U	1.30	ug/kg	0.391	1.30
75-69-4	Trichlorofluoromethane	U	1.30	ug/kg	0.391	1.30
67-64-1	Acetone	U	6.51	ug/kg	2.16	6.51
75-35-4	1,1-Dichloroethylene	U	1.30	ug/kg	0.391	1.30
74-88-4	Iodomethane	U	6.51	ug/kg	2.08	6.51
75-09-2	Methylene chloride	J	3.41	ug/kg	2.60	6.51
75-15-0	Carbon disulfide	U	6.51	ug/kg	1.63	6.51
156-60-5	trans-1,2-Dichloroethylene	U	1.30	ug/kg	0.391	1.30
75-34-3	1,1-Dichloroethane	U	1.30	ug/kg	0.391	1.30
78-93-3	2-Butanone	U	6.51	ug/kg	1.95	6.51
156-59-2	cis-1,2-Dichloroethylene	U	1.30	ug/kg	0.391	1.30
594-20-7	2,2-Dichloropropane	U	1.30	ug/kg	0.391	1.30
67-66-3	Chloroform	U	1.30	ug/kg	0.391	1.30
74-97-5	Bromochloromethane	U	1.30	ug/kg	0.430	1.30
71-55-6	1,1,1-Trichloroethane	U	1.30	ug/kg	0.391	1.30
563-58-6	1,1-Dichloropropene	U	1.30	ug/kg	0.391	1.30
56-23-5	Carbon tetrachloride	U	1.30	ug/kg	0.391	1.30
107-06-2	1,2-Dichloroethane	U	1.30	ug/kg	0.391	1.30
71-43-2	Benzene	U	1.30	ug/kg	0.391	1.30
79-01-6	Trichloroethylene	U	1.30	ug/kg	0.430	1.30
78-87-5	1,2-Dichloropropane	U	1.30	ug/kg	0.391	1.30
75-27-4	Bromodichloromethane	U	1.30	ug/kg	0.391	1.30
74-95-3	Dibromomethane	U	1.30	ug/kg	0.391	1.30
108-10-1	4-Methyl-2-pentanone	U	6.51	ug/kg	1.63	6.51
10061-01-5	cis-1,3-Dichloropropylene	U	1.30	ug/kg	0.391	1.30
108-88-3	Toluene	U	1.30	ug/kg	0.391	1.30
10061-02-6	trans-1,3-Dichloropropylene	U	1.30	ug/kg	0.391	1.30
79-00-5	1,1,2-Trichloroethane	U	1.30	ug/kg	0.391	1.30
591-78-6	2-Hexanone	U	6.51	ug/kg	1.95	6.51
142-28-9	1,3-Dichloropropane	U	1.30	ug/kg	0.391	1.30
127-18-4	Tetrachloroethylene	U	1.30	ug/kg	0.391	1.30
124-48-1	Dibromochloromethane	U	1.30	ug/kg	0.391	1.30
106-93-4	1,2-Dibromoethane	U	1.30	ug/kg	0.391	1.30
108-90-7	Chlorobenzene	U	1.30	ug/kg	0.391	1.30

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106003	Date Received: 01/20/2010 08:45	%Moisture: 23.2
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7170	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5.1	Dilution: 1
Run Date: 01/26/2010 23:19	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/26/2010 14:42	Aliquot: 5 g	Final Volume: 5 mL
Data File: 012610V5SV229.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.30	ug/kg	0.391	1.30
179601-23-1	m,p-Xylencs	U	2.60	ug/kg	0.391	2.60
95-47-6	o-Xylene	U	1.30	ug/kg	0.391	1.30
100-42-5	Styrene	U	1.30	ug/kg	0.391	1.30
75-25-2	Bromoform	U	1.30	ug/kg	0.391	1.30
79-34-5	1,1,2,2-Tetrachloroethane	U	1.30	ug/kg	0.391	1.30
96-18-4	1,2,3-Trichloropropane	U	1.30	ug/kg	0.391	1.30
108-86-1	Bromobenzene	U	1.30	ug/kg	0.391	1.30
103-65-1	n-Propylbenzene	U	1.30	ug/kg	0.391	1.30
95-49-8	2-Chlorotoluene	U	1.30	ug/kg	0.391	1.30
98-82-8	Isopropylbenzene	U	1.30	ug/kg	0.391	1.30
108-67-8	1,3,5-Trimethylbenzene	U	1.30	ug/kg	0.391	1.30
106-43-4	4-Chlorotoluene	U	1.30	ug/kg	0.391	1.30
98-06-6	tert-Butylbenzene	U	1.30	ug/kg	0.391	1.30
95-63-6	1,2,4-Trimethylbenzene	U	1.30	ug/kg	0.391	1.30
135-98-8	sec-Butylbenzene	U	1.30	ug/kg	0.391	1.30
99-87-6	4-Isopropyltoluene	U	1.30	ug/kg	0.391	1.30
541-73-1	1,3-Dichlorobenzene	U	1.30	ug/kg	0.391	1.30
106-46-7	1,4-Dichlorobenzene	U	1.30	ug/kg	0.391	1.30
104-51-8	n-Butylbenzene	U	1.30	ug/kg	0.391	1.30
96-12-8	1,2-Dibromo-3-chloropropane	U	1.30	ug/kg	0.391	1.30
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.51	ug/kg	2.08	6.51
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.30	ug/kg	0.391	1.30
95-50-1	1,2-Dichlorobenzene	U	1.30	ug/kg	0.391	1.30

**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\012610V5\  
Data File : 5V229.D  
Acq On : 26 Jan 2010 11:19 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106003|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jan 27 08:53:21 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.375	10.375	1.000	96	970959	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	591934	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	210328	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	970959	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	591934	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	210328	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	237180	52.56	ug/L	0.00
Spiked Amount	50.000	Range 68 - 131	Recovery	=	105.12%			
43) Toluene-d8	12.016	12.016	0.887	98	841838	52.15	ug/L	0.00
Spiked Amount	50.000	Range 75 - 129	Recovery	=	104.30%			
61) Bromofluorobenzene	14.739	14.739	0.924	95	254028	63.29	ug/L	0.00
Spiked Amount	50.000	Range 68 - 133	Recovery	=	126.58%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	6.733	6.733	0.649	59	168	N.D.		
9) Acetone	7.114	7.100	0.686	43	113	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	0.000	7.450	0.000		0	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	7.496	7.511	0.723	76	299	N.D.		
15) Methylene chloride	7.691	7.691	0.741	84	10863	2.62	ug/L	92
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	0.000	9.077	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.382	10.127	1.001	78	595	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V229.D  
Acq On : 26 Jan 2010 11:19 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106003|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jan 27 08:53:21 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:43:00 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.094	12.090	0.893	91	1528	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.631	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.691	0.000		0m	N.D.	d
50) Dibromochloromethane	0.000	12.928	0.000		0m	N.D.	d
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.628	13.639	1.006	91	132	N.D.	
55) m,p-Xylenes	13.745	13.749	1.015	106	1384	N.D.	
56) o-Xylene	14.180	14.184	1.047	106	374	N.D.	
57) Styrene	0.000	14.184	0.000		0	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	14.594	14.537	0.914	105	1127	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.810	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.965	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.114	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.216	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.531	15.527	0.973	105	121	N.D.	
71) sec-Butylbenzene	0.000	15.711	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.832	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	15.991	15.991	1.002	146	114	N.D.	
75) n-Butylbenzene	0.000	16.277	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.422	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.371	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	18.769	18.762	1.176	128	640	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.116	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	0.000	7.546	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.088	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V229.D  
Acq On : 26 Jan 2010 11:19 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106003|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jan 27 08:53:21 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:43:00 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	9.477	9.466	0.913	42	116	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.693	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.856	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.497	0.000		0m	N.D.	d

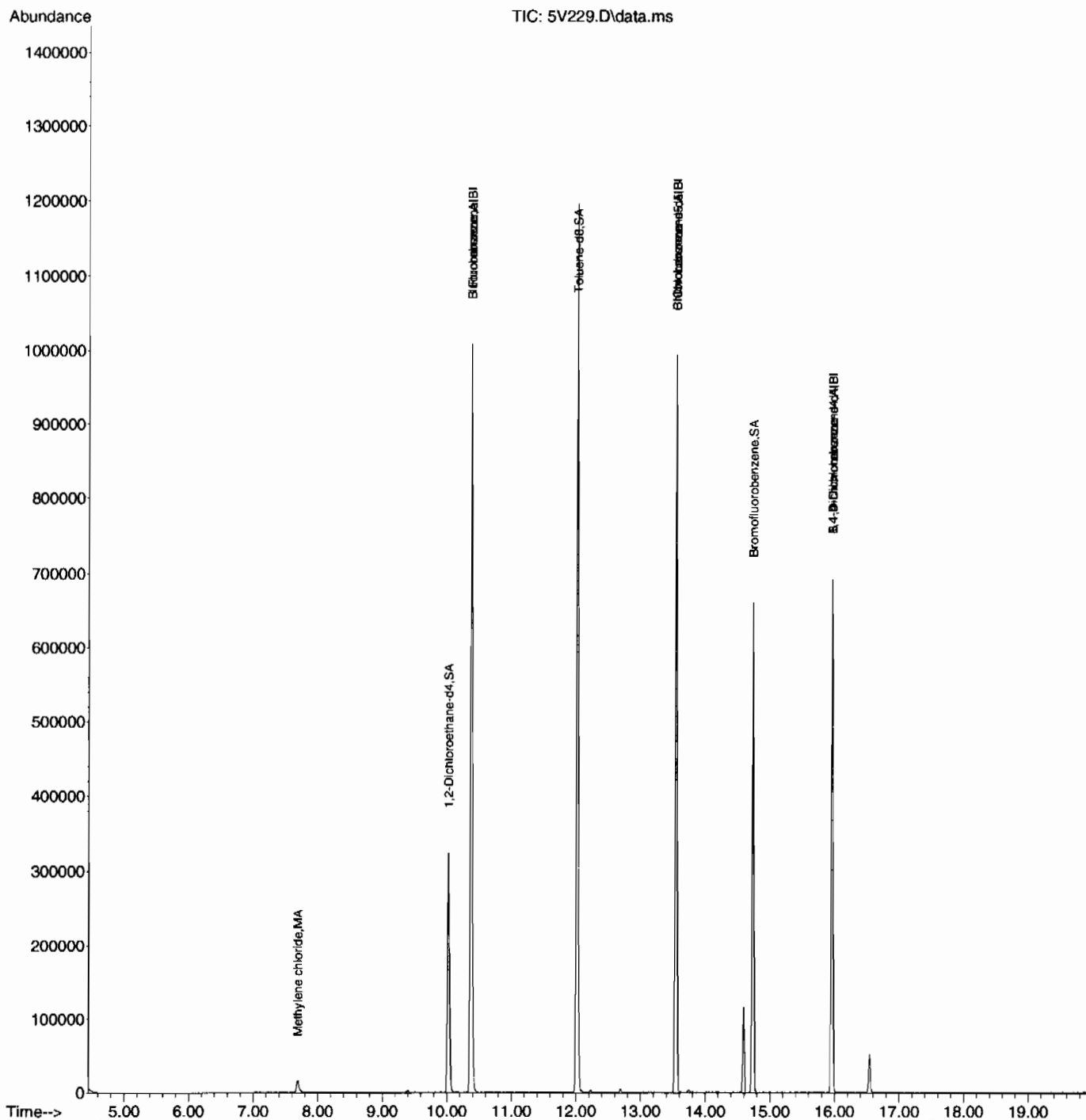
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

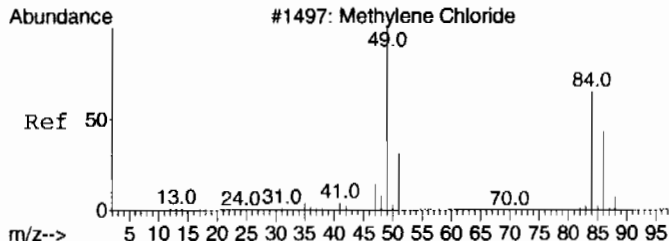
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V229.D  
Acq On : 26 Jan 2010 11:19 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106003|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jan 27 08:53:21 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

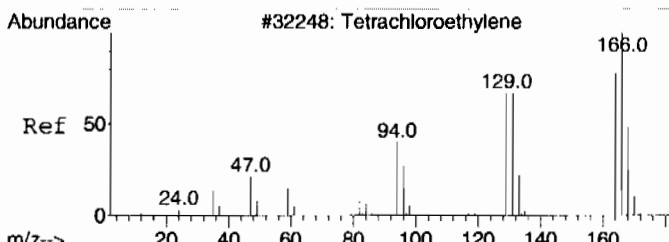
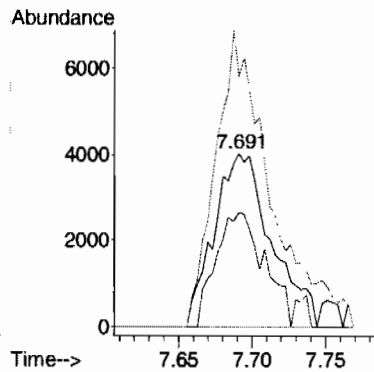
SubList :





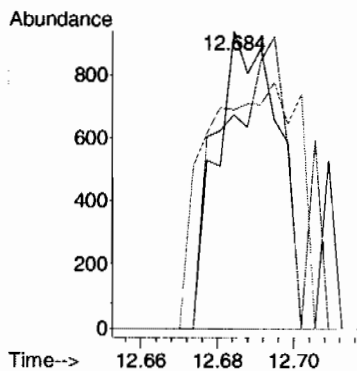
#15  
Methylene chloride  
Concen: 2.62 ug/L  
RT: 7.691 min Scan# 447  
Delta R.T. -0.000 min  
Lab File: 5V229.D  
Acq: 26 Jan 2010 11:19 pm

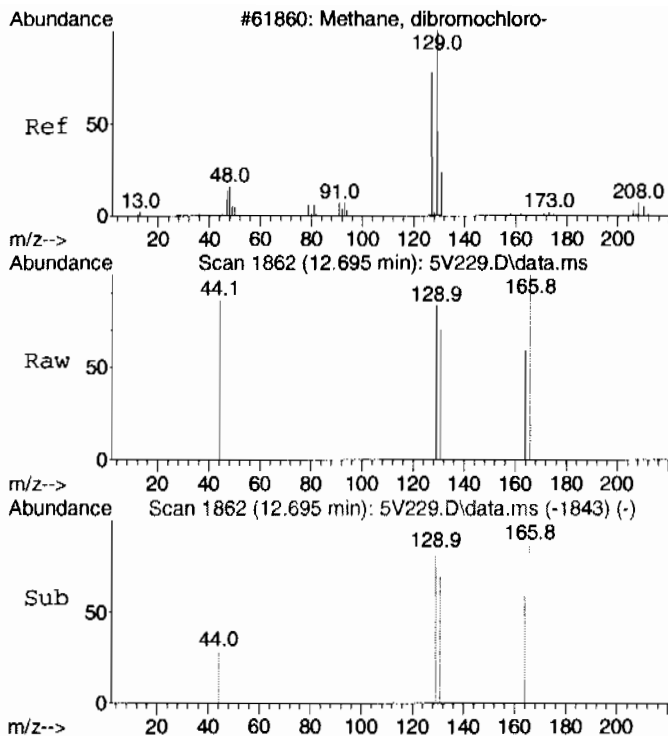
Tgt Ion	Ratio	Lower	Upper
84	100		
86	55.8	33.2	93.2
49	164.6	125.4	185.4



#49 BEFORE analyst DELETION  
Tetrachloroethylene  
Concen: 0.39 ug/L  
RT: 12.684 min Scan# 1859  
Delta R.T. -0.007 min  
Lab File: 5V229.D  
Acq: 26 Jan 2010 11:19 pm

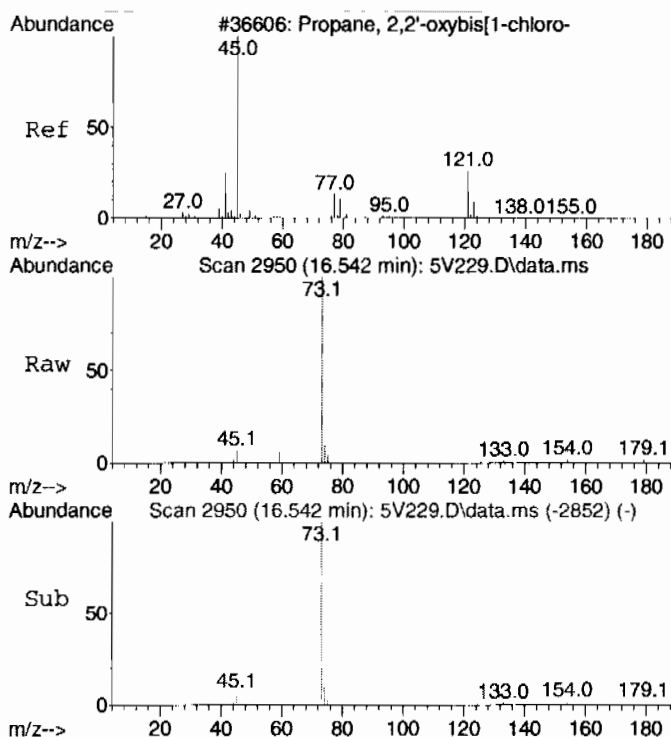
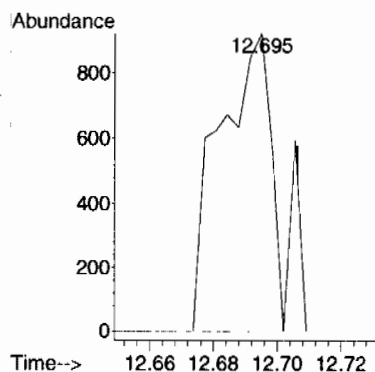
Tgt Ion	Ratio	Lower	Upper
164	100		
129	111.2	60.1	120.1
131	124.1	58.9	118.9#





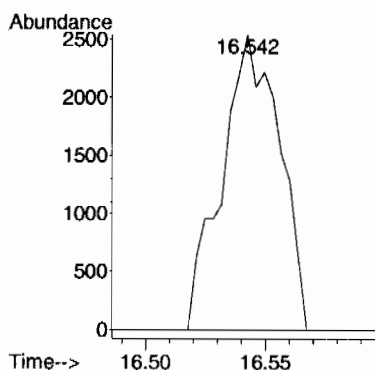
#50 BEFORE analyst DELETION  
Dibromochloromethane  
Concen: 0.41 ug/L  
RT: 12.695 min Scan# 1862  
Delta R.T. -0.233 min  
Lab File: 5V229.D  
Acq: 26 Jan 2010 11:19 pm

Tgt Ion: 129 Resp: 1158  
Ion Ratio Lower Upper  
129 100  
127 0.0 48.5 108.5#



#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl)ether  
Concen: 3.03 ug/L  
RT: 16.542 min Scan# 2950  
Delta R.T. 0.045 min  
Lab File: 5V229.D  
Acq: 26 Jan 2010 11:19 pm

Tgt Ion: 45 Resp: 4244  
Ion Ratio Lower Upper  
45 100  
121 0.0 0.0 49.2



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V229.D  
Acq On : 26 Jan 2010 11:19 pm  
Operator : DXK1  
Sample : |245106003|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.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\012610V5\  
Data File : 5V229.D  
Acq On : 26 Jan 2010 11:19 pm  
Operator : DXK1  
Sample : |245106003|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.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: 10-1304  
 Lab Sample ID: 245106004  
 Client ID: RE15-10-7164  
 Batch ID: 945552  
 Run Date: 01/26/2010 23:45  
 Prep Date: 01/26/2010 14:43  
 Data File: 012610V5SV230.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 17.7  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.413	1.22
74-87-3	Chloromethane	U	1.22	ug/kg	0.365	1.22
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.365	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.365	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.365	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.365	1.22
67-64-1	Acetone	U	6.08	ug/kg	2.02	6.08
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
74-88-4	Iodomethane	U	6.08	ug/kg	1.94	6.08
75-09-2	Methylene chloride	U	6.08	ug/kg	2.43	6.08
75-15-0	Carbon disulfide	U	6.08	ug/kg	1.52	6.08
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.365	1.22
78-93-3	2-Butanone	U	6.08	ug/kg	1.82	6.08
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.365	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.401	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.365	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.365	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.365	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.365	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.365	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.401	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.365	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.365	1.22
108-10-1	4-Methyl-2-pentanone	U	6.08	ug/kg	1.52	6.08
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.365	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.365	1.22
591-78-6	2-Hexanone	U	6.08	ug/kg	1.82	6.08
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.365	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.365	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.365	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.365	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.365	1.22



**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1304  
Lab Sample ID: 245106004  
  
Client ID: RE15-10-7164  
Batch ID: 945552  
Run Date: 01/26/2010 23:45  
Prep Date: 01/26/2010 14:43  
Data File: 012610V55V230.D

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: DXK1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 17.7  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.365	1.22
179601-23-1	m,p-Xylenes	U	2.43	ug/kg	0.365	2.43
95-47-6	o-Xylene	U	1.22	ug/kg	0.365	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.365	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.365	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.365	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.365	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.365	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.365	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.365	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.365	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.365	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.365	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.365	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.365	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.365	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.08	ug/kg	1.94	6.08
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.55	13.4	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V230.D  
Acq On : 26 Jan 2010 11:45 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106004|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jan 27 08:53:32 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.375	10.375	1.000	96	1086462	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	737786	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	306998	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	1086462	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	737786	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	306998	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.018	10.021	0.966	65	249897	49.49	ug/L	0.00
Spiked Amount	50.000	Range 68 - 131	Recovery	=	98.98%			
43) Toluene-d8	12.016	12.016	0.887	98	988398	49.12	ug/L	0.00
Spiked Amount	50.000	Range 75 - 129	Recovery	=	98.24%			
61) Bromofluorobenzene	14.739	14.739	0.924	95	340653	58.15	ug/L	0.00
Spiked Amount	50.000	Range 68 - 133	Recovery	=	116.30%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	0.000	6.733	0.000		0	N.D.		
9) Acetone	7.090	7.100	0.683	43	137	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	0.000	7.450	0.000		0	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	7.503	7.511	0.723	76	540	N.D.		
15) Methylene chloride	7.687	7.691	0.741	84	5973	N.D.		
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	0.000	9.077	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.368	10.127	0.999	78	395	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V230.D  
Acq On : 26 Jan 2010 11:45 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106004|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jan 27 08:53:32 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.090	12.090	0.892	91	1080	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.631	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	12.684	12.691	0.936	164	512	N.D.	
50) Dibromochloromethane	12.681	12.928	0.936	129	130	N.D.	
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.636	13.639	1.007	91	2281	N.D.	
55) m,p-Xylenes	13.745	13.749	1.015	106	2266	0.30	ug/L 87
56) o-Xylene	0.000	14.184	0.000		0	N.D.	
57) Styrene	14.187	14.184	1.047	104	378	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.537	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.810	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	14.739	14.965	0.924	91	350	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.114	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.216	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.524	15.527	0.973	105	210	N.D.	
71) sec-Butylbenzene	0.000	15.711	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.832	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.991	0.000		0	N.D.	
75) n-Butylbenzene	0.000	16.277	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.422	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.371	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	18.762	18.762	1.176	128	424	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.116	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	0.000	7.546	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.088	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V230.D  
Acq On : 26 Jan 2010 11:45 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106004|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jan 27 08:53:32 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.466	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.693	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.856	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.497	0.000		0m	N.D.	d

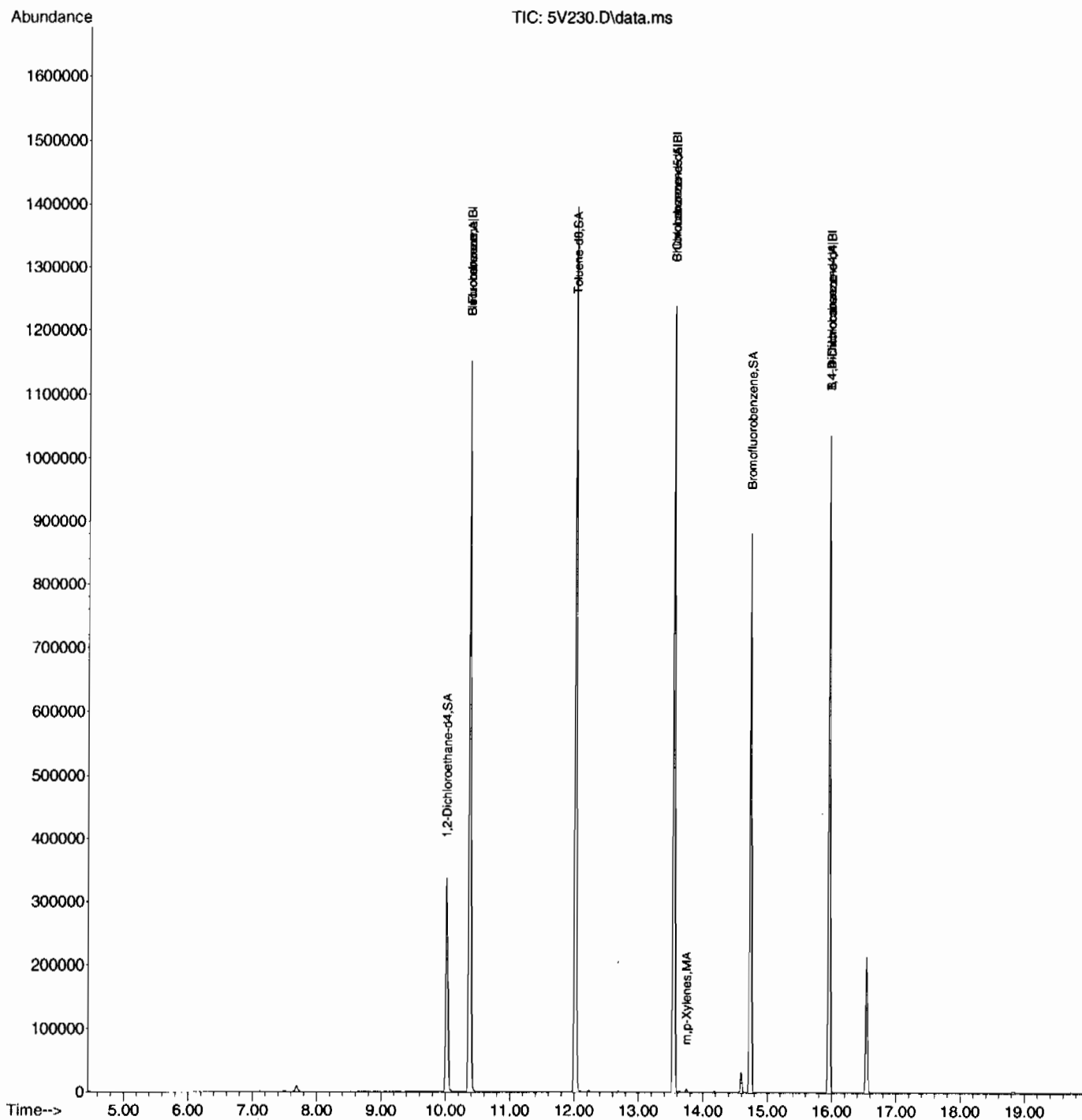
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

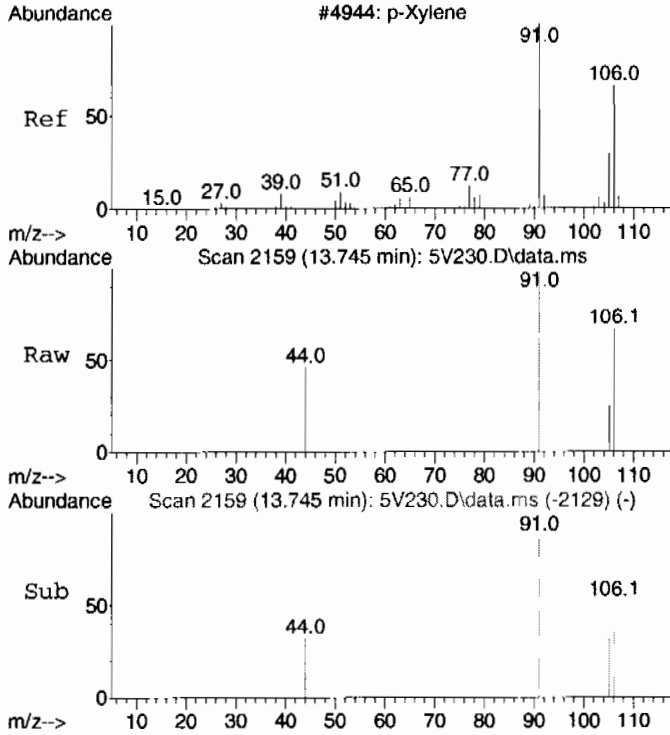
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V230.D  
Acq On : 26 Jan 2010 11:45 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106004|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jan 27 08:53:32 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

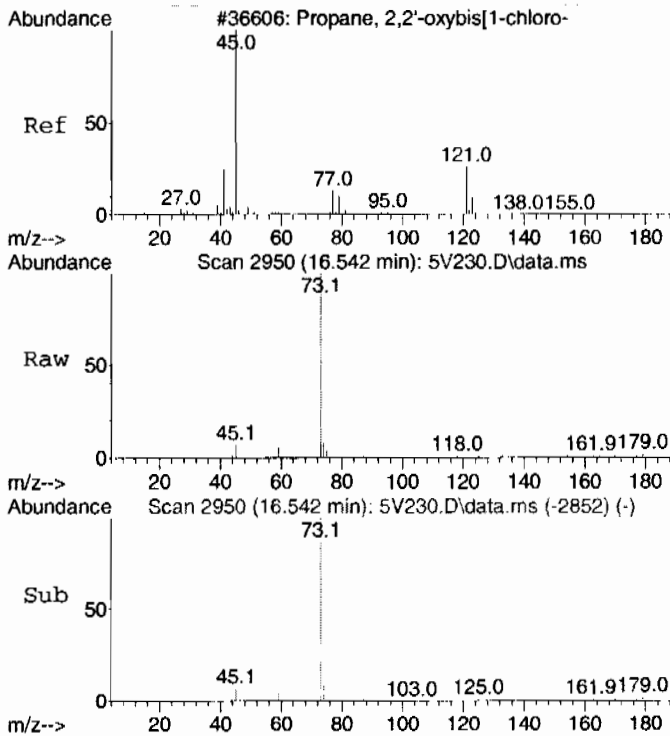
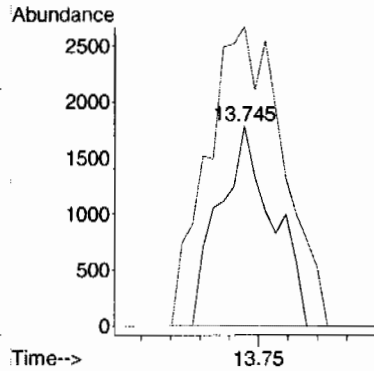
SubList :





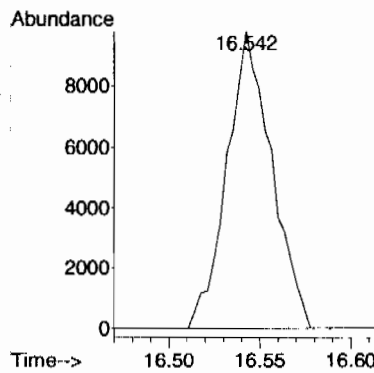
#55  
m,p-Xylenes  
Concen: 0.30 ug/L  
RT: 13.745 min Scan# 2159  
Delta R.T. -0.004 min  
Lab File: 5V230.D  
Acq: 26 Jan 2010 11:45 pm

Tgt Ion	Ratio	Lower	Upper
106	100		
91	211.4	162.6	222.6



#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl)ether  
Concen: 8.21 ug/L  
RT: 16.542 min Scan# 2950  
Delta R.T. 0.045 min  
Lab File: 5V230.D  
Acq: 26 Jan 2010 11:45 pm

Tgt Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	49.2



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V230.D  
Acq On : 26 Jan 2010 11:45 pm  
Operator : DXK1  
Sample : |245106004|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 30 Sample Multiplier: 1

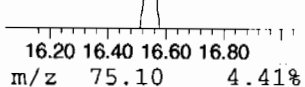
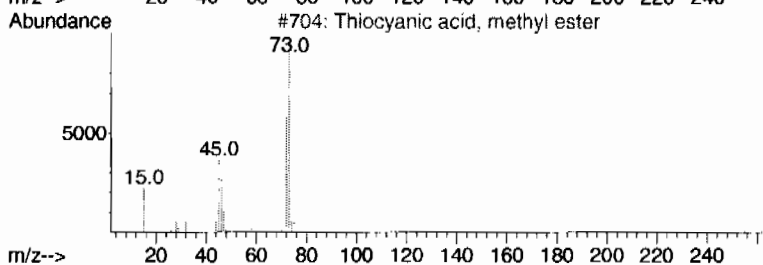
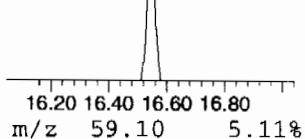
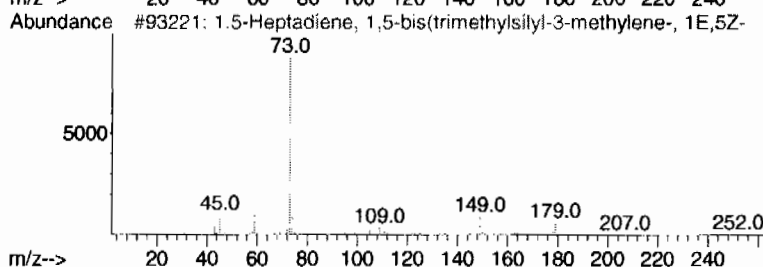
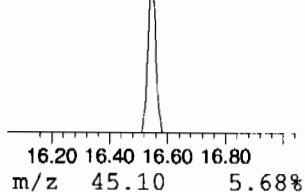
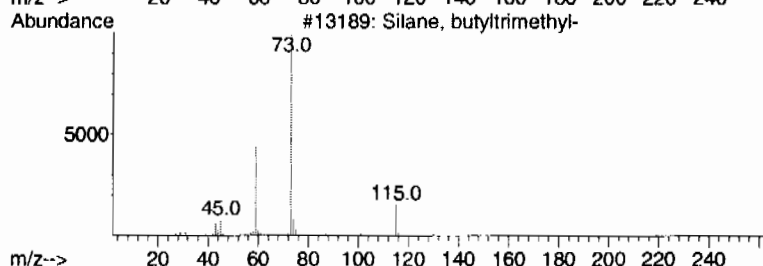
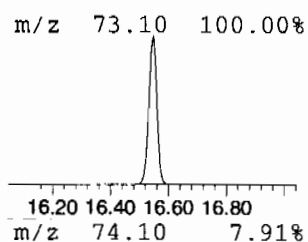
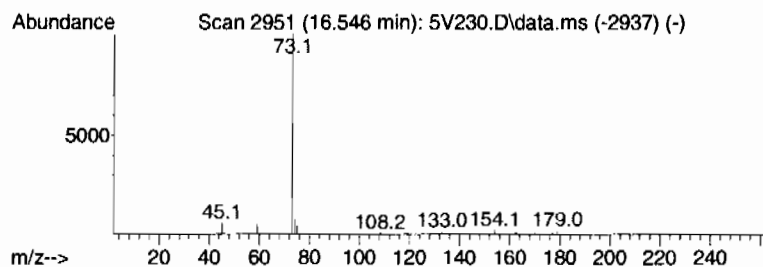
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B

SubList :

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

\*\*\*\*\*  
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.		
16.546	11.06 ug/L	399872	B 1,4-Dichlorobenzene-d4	15.959		
Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Silane, butyltrimethyl-	130	C7H18Si	001000-49-3	9
2		1,5-Heptadiene, 1,5-bis(trimethy...	252	C14H28Si2	1000153-97-1	9
3		Thiocyanic acid, methyl ester	73	C2H3NS	000556-64-9	4
4		1-Propene-1-thiol	74	C3H6S	000925-89-3	4
5		Methane, isothiocyanato-	73	C2H3NS	000556-61-6	4



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V230.D  
Acq On : 26 Jan 2010 11:45 pm  
Operator : DXK1  
Sample : |245106004|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B

SubList :

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

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
unknown siloxane	16.546	11.1	ug/L	399872	6	15.959	1807900	50.0



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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106005	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 22
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7167	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 945552	<b>Inst:</b> VOA5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 01/27/2010 00:10	<b>Analyst:</b> DXK1	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 01/26/2010 14:44	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 012610V5\SV231.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.28	ug/kg	0.436	1.28
74-87-3	Chloromethane	U	1.28	ug/kg	0.385	1.28
75-01-4	Vinyl chloride	U	1.28	ug/kg	0.385	1.28
74-83-9	Bromomethane	U	1.28	ug/kg	0.385	1.28
75-00-3	Chloroethane	U	1.28	ug/kg	0.385	1.28
75-69-4	Trichlorofluoromethane	U	1.28	ug/kg	0.385	1.28
67-64-1	Acetone	U	6.41	ug/kg	2.13	6.41
75-35-4	1,1-Dichloroethylene	U	1.28	ug/kg	0.385	1.28
74-88-4	Iodomethane	U	6.41	ug/kg	2.05	6.41
75-09-2	Methylene chloride	U	6.41	ug/kg	2.56	6.41
75-15-0	Carbon disulfide	U	6.41	ug/kg	1.60	6.41
156-60-5	trans-1,2-Dichloroethylene	U	1.28	ug/kg	0.385	1.28
75-34-3	1,1-Dichloroethane	U	1.28	ug/kg	0.385	1.28
78-93-3	2-Butanone	U	6.41	ug/kg	1.92	6.41
156-59-2	cis-1,2-Dichloroethylene	U	1.28	ug/kg	0.385	1.28
594-20-7	2,2-Dichloropropane	U	1.28	ug/kg	0.385	1.28
67-66-3	Chloroform	U	1.28	ug/kg	0.385	1.28
74-97-5	Bromochloromethane	U	1.28	ug/kg	0.423	1.28
71-55-6	1,1,1-Trichloroethane	U	1.28	ug/kg	0.385	1.28
563-58-6	1,1-Dichloropropene	U	1.28	ug/kg	0.385	1.28
56-23-5	Carbon tetrachloride	U	1.28	ug/kg	0.385	1.28
107-06-2	1,2-Dichloroethane	U	1.28	ug/kg	0.385	1.28
71-43-2	Benzene	U	1.28	ug/kg	0.385	1.28
79-01-6	Trichloroethylene	U	1.28	ug/kg	0.423	1.28
78-87-5	1,2-Dichloropropane	U	1.28	ug/kg	0.385	1.28
75-27-4	Bromodichloromethane	U	1.28	ug/kg	0.385	1.28
74-95-3	Dibromomethane	U	1.28	ug/kg	0.385	1.28
108-10-1	4-Methyl-2-pentanone	U	6.41	ug/kg	1.60	6.41
10061-01-5	cis-1,3-Dichloropropylene	U	1.28	ug/kg	0.385	1.28
108-88-3	Toluene	U	1.28	ug/kg	0.385	1.28
10061-02-6	trans-1,3-Dichloropropylene	U	1.28	ug/kg	0.385	1.28
79-00-5	1,1,2-Trichloroethane	U	1.28	ug/kg	0.385	1.28
591-78-6	2-Hexanone	U	6.41	ug/kg	1.92	6.41
142-28-9	1,3-Dichloropropane	U	1.28	ug/kg	0.385	1.28
127-18-4	Tetrachloroethylene	U	1.28	ug/kg	0.385	1.28
124-48-1	Dibromochloromethane	U	1.28	ug/kg	0.385	1.28
106-93-4	1,2-Dibromoethane	U	1.28	ug/kg	0.385	1.28
108-90-7	Chlorobenzene	U	1.28	ug/kg	0.385	1.28

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1304  
Lab Sample ID: 245106005  
  
Client ID: RE15-10-7167  
Batch ID: 945552  
Run Date: 01/27/2010 00:10  
Prep Date: 01/26/2010 14:44  
Data File: 012610V5SV231.D

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: DXK1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 22  
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	1.28	ug/kg	0.385	1.28
179601-23-1	m,p-Xylenes	U	2.56	ug/kg	0.385	2.56
95-47-6	o-Xylene	U	1.28	ug/kg	0.385	1.28
100-42-5	Styrene	U	1.28	ug/kg	0.385	1.28
75-25-2	Bromoform	U	1.28	ug/kg	0.385	1.28
79-34-5	1,1,2,2-Tetrachloroethane	U	1.28	ug/kg	0.385	1.28
96-18-4	1,2,3-Trichloropropane	U	1.28	ug/kg	0.385	1.28
108-86-1	Bromobenzene	U	1.28	ug/kg	0.385	1.28
103-65-1	n-Propylbenzene	U	1.28	ug/kg	0.385	1.28
95-49-8	2-Chlorotoluene	U	1.28	ug/kg	0.385	1.28
98-82-8	Isopropylbenzene	U	1.28	ug/kg	0.385	1.28
108-67-8	1,3,5-Trimethylbenzene	U	1.28	ug/kg	0.385	1.28
106-43-4	4-Chlorotoluene	U	1.28	ug/kg	0.385	1.28
98-06-6	tert-Butylbenzene	U	1.28	ug/kg	0.385	1.28
95-63-6	1,2,4-Trimethylbenzene	U	1.28	ug/kg	0.385	1.28
135-98-8	sec-Butylbenzene	U	1.28	ug/kg	0.385	1.28
99-87-6	4-Isopropyltoluene	U	1.28	ug/kg	0.385	1.28
541-73-1	1,3-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28
106-46-7	1,4-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28
104-51-8	n-Butylbenzene	U	1.28	ug/kg	0.385	1.28
96-12-8	1,2-Dibromo-3-chloropropane	U	1.28	ug/kg	0.385	1.28
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.41	ug/kg	2.05	6.41
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.28	ug/kg	0.385	1.28
95-50-1	1,2-Dichlorobenzene	U	1.28	ug/kg	0.385	1.28

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.55	9.08	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V231.D  
Acq On : 27 Jan 2010 12:10 am  
Operator : DXK1  
InstName : VOA5  
Sample : |245106005|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jan 27 08:53:40 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.375	10.375	1.000	96	1014281	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	667221	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	277826	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	1014281	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	667221	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	277826	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	232523	49.33	ug/L	0.00
Spiked Amount	50.000	Range 68 - 131	Recovery	=	98.66%			
43) Toluene-d8	12.016	12.016	0.887	98	909091	49.96	ug/L	0.00
Spiked Amount	50.000	Range 75 - 129	Recovery	=	99.92%			
61) Bromofluorobenzene	14.739	14.739	0.924	95	297427	56.10	ug/L	0.00
Spiked Amount	50.000	Range 68 - 133	Recovery	=	112.20%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	6.723	6.733	0.648	59	152	N.D.		
9) Acetone	0.000	7.100	0.000		0	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	0.000	7.450	0.000		0	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	7.514	7.511	0.724	76	118	N.D.		
15) Methylene chloride	7.691	7.691	0.741	84	5242	N.D.		
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	0.000	9.077	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.361	10.127	0.999	78	133	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V231.D  
Acq On : 27 Jan 2010 12:10 am  
Operator : DXK1  
InstName : VOA5  
Sample : |245106005|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jan 27 08:53:40 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.087	12.090	0.892	91	506	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.631	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	12.695	12.691	0.937	164	272	N.D.	
50) Dibromochloromethane	12.695	12.928	0.937	129	128	N.D.	
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.547	13.639	1.000	91	653	N.D.	
55) m,p-Xylenes	13.745	13.749	1.015	106	642	N.D.	
56) o-Xylene	0.000	14.184	0.000		0	N.D.	
57) Styrene	0.000	14.184	0.000		0	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.537	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.810	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	14.739	14.965	0.924	91	356	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.114	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.216	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.527	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	15.711	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.832	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.991	0.000		0	N.D.	
75) n-Butylbenzene	0.000	16.277	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.422	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.371	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	18.769	18.762	1.176	128	304	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.116	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	0.000	7.546	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.088	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V231.D  
Acq On : 27 Jan 2010 12:10 am  
Operator : DXK1  
InstName : VOA5  
Sample : |245106005|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jan 27 08:53:40 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.466	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.693	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.856	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.497	0.000		0m	N.D.	d

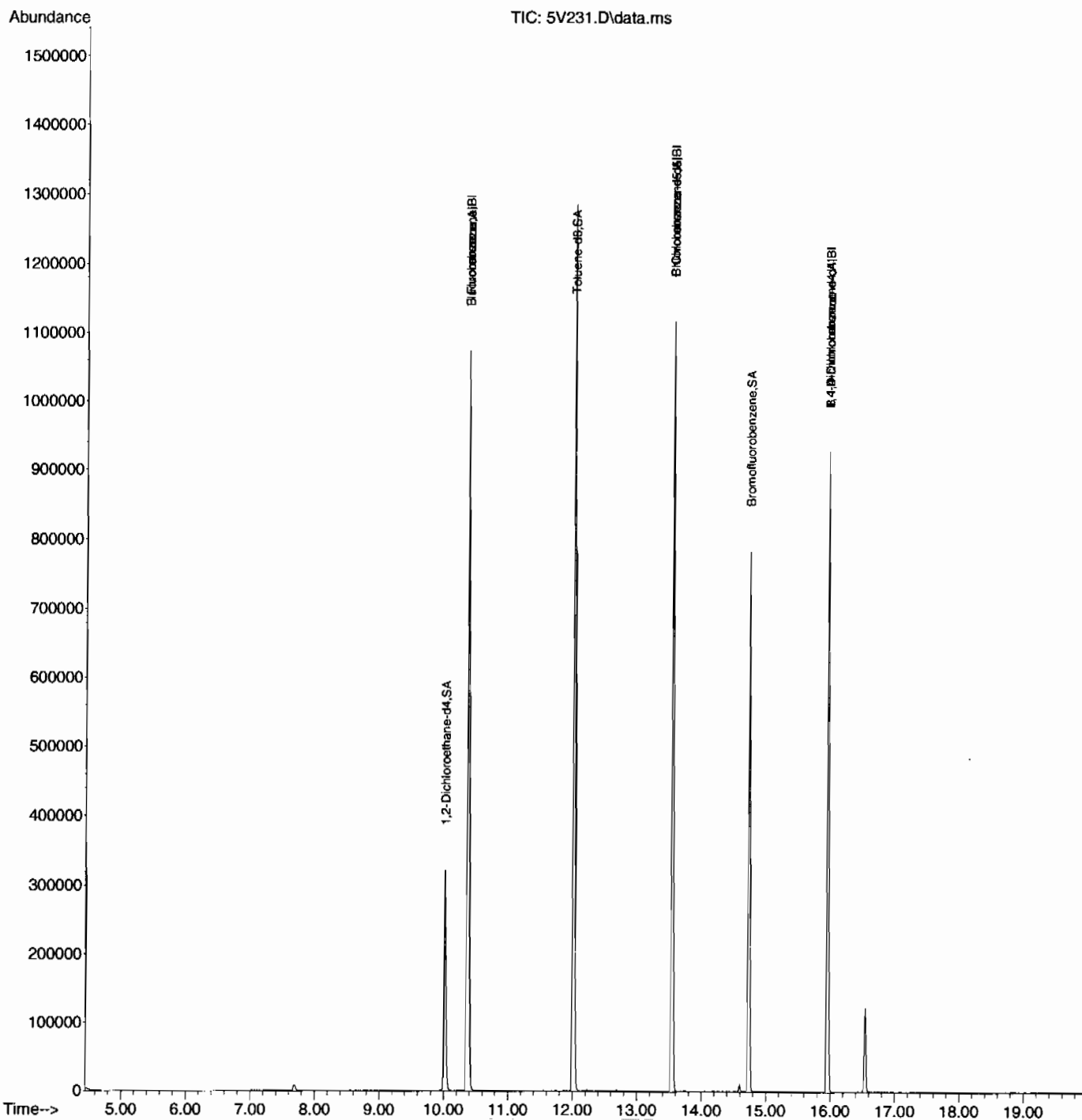
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(E) = Over the calibration range (d) = deleted

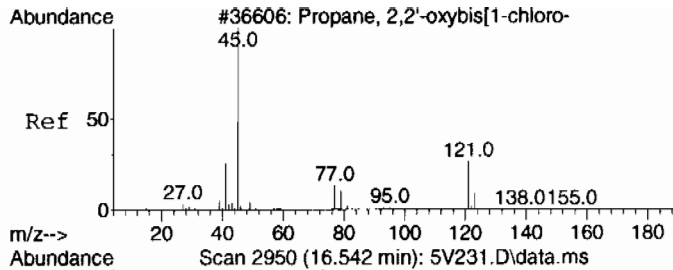
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V231.D  
Acq On : 27 Jan 2010 12:10 am  
Operator : DXK1  
InstName : VOA5  
Sample : |245106005|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jan 27 08:53:40 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

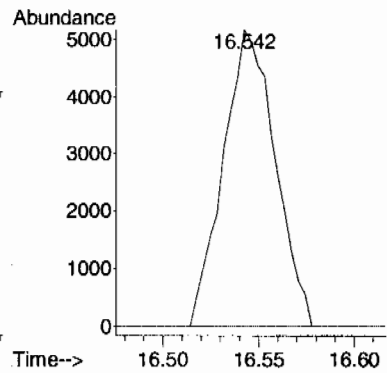
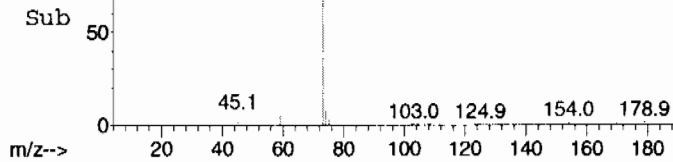
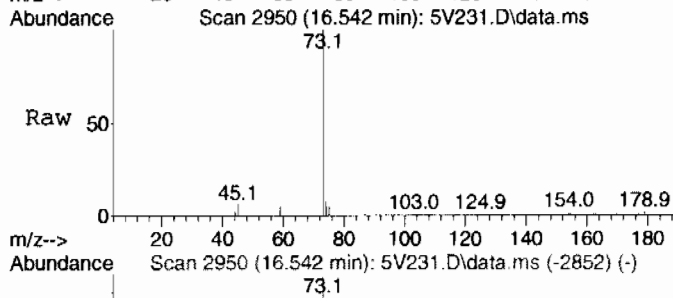
SubList :





#112 BEFORE analyst DELETION  
 bis(2-Chloroisopropyl)ether  
 Concen: 5.25 ug/L  
 RT: 16.542 min Scan# 2950  
 Delta R.T. 0.045 min  
 Lab File: 5V231.D  
 Acq: 27 Jan 2010 12:10 am

Tgt Ion: 45 Resp: 9723  
 Ion Ratio Lower Upper  
 45 100  
 121 0.0 0.0 49.2



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V231.D  
Acq On : 27 Jan 2010 12:10 am  
Operator : DXK1  
Sample : |245106005|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

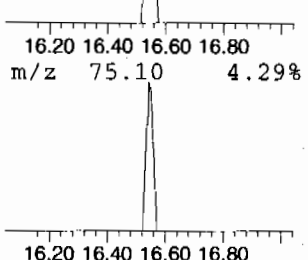
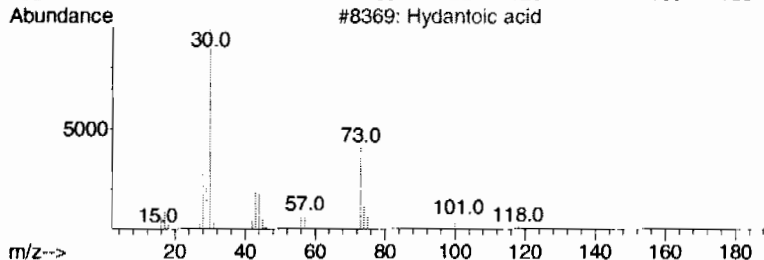
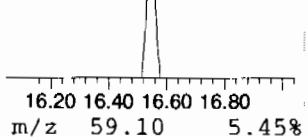
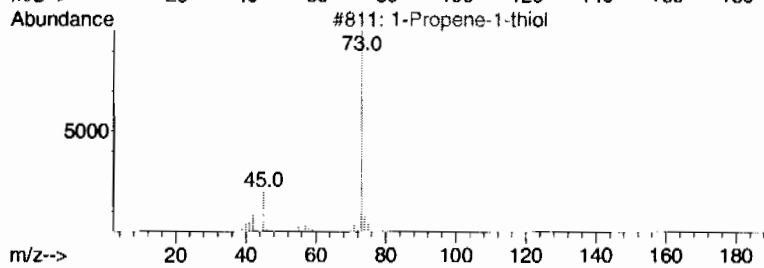
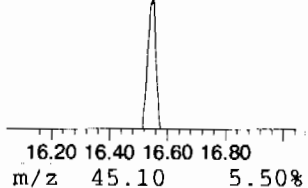
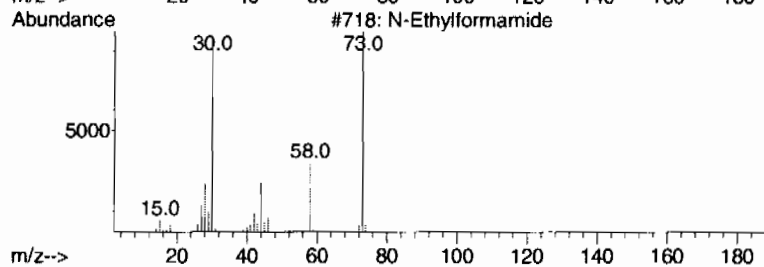
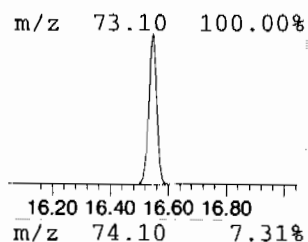
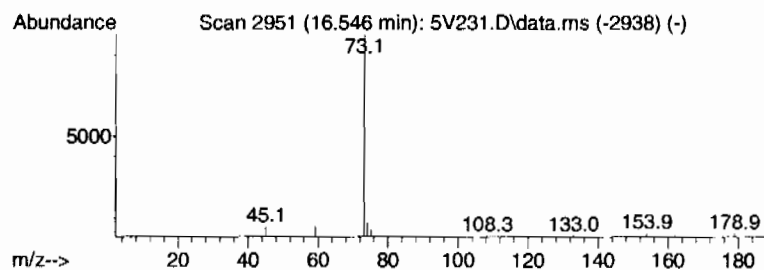
SubList :

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

\*\*\*\*\*  
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.546	7.08 ug/L	231111	B 1,4-Dichlorobenzene-d4	15.959

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			N-Ethylformamide	73	C3H7NO	000627-45-2	4
2			1-Propene-1-thiol	74	C3H6S	000925-89-3	4
3			Hydantoic acid	118	C3H6N2O3	000462-60-2	4
4			Acetaldehyde, O-methyloxime	73	C3H7NO	033581-43-0	4
5			2-Cyclohexene-1-thione, 3,6,6-tr...	154	C9H14S	038693-71-9	4





Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V231.D  
Acq On : 27 Jan 2010 12:10 am  
Operator : DXK1  
Sample : |245106005|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown siloxane	16.546	7.1	ug/L	231111	6	15.959	1632480	50.0

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

SDG Number: 10-1304  
 Lab Sample ID: 245106006  
 Client ID: RE15-10-7169  
 Batch ID: 945552  
 Run Date: 01/27/2010 00:36  
 Prep Date: 01/26/2010 14:45  
 Data File: 012610V55V232.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 8.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	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	5.49	ug/kg	1.82	5.49
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.329	1.10
74-88-4	Iodomethane	U	5.49	ug/kg	1.76	5.49
75-09-2	Methylene chloride	U	5.49	ug/kg	2.20	5.49
75-15-0	Carbon disulfide	U	5.49	ug/kg	1.37	5.49
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	5.49	ug/kg	1.65	5.49
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	5.49	ug/kg	1.37	5.49
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	5.49	ug/kg	1.65	5.49
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.329	1.10
127-18-4	Tetrachloroethylen	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: 10-1304  
 Lab Sample ID: 245106006  
  
 Client ID: RE15-10-7169  
 Batch ID: 945552  
 Run Date: 01/27/2010 00:36  
 Prep Date: 01/26/2010 14:45  
 Data File: 012610V5SV232.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 8.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.329	1.10
179601-23-1	m,p-Xylenes	J	0.483	ug/kg	0.329	2.20
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	U	1.10	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 Trichlorotrifluoroethane	U	5.49	ug/kg	1.76	5.49
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
	unknown siloxane	16.55	6.97	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V232.D  
Acq On : 27 Jan 2010 12:36 am  
Operator : DXK1  
InstName : VOA5  
Sample : |245106006|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jan 27 08:53:49 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.375	10.375	1.000	96	966872	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	631690	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.962	15.962	1.000	152	252429	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	966872	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	631690	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.962	15.962	1.000	152	252429	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	228307	50.81	ug/L	0.00
Spiked Amount 50.000	Range 68	- 131	Recovery	=	101.62%			
43) Toluene-d8	12.016	12.016	0.887	98	868201	50.40	ug/L	0.00
Spiked Amount 50.000	Range 75	- 129	Recovery	=	100.80%			
61) Bromofluorobenzene	14.739	14.739	0.923	95	287038	59.59	ug/L	0.00
Spiked Amount 50.000	Range 68	- 133	Recovery	=	119.18%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	0.000	6.733	0.000		0	N.D.		
9) Acetone	7.111	7.100	0.685	43	126	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	0.000	7.450	0.000		0	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	7.496	7.511	0.723	76	347	N.D.		
15) Methylene chloride	7.694	7.691	0.742	84	3445	N.D.		
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	0.000	9.077	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.375	10.127	1.000	78	560	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V232.D  
Acq On : 27 Jan 2010 12:36 am  
Operator : DXK1  
InstName : VOA5  
Sample : |245106006|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jan 27 08:53:49 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:43:00 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.079	12.090	0.892	91	926	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.631	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	12.684	12.691	0.936	164	245	N.D.	
50) Dibromochloromethane	12.681	12.928	0.936	129	602	N.D.	
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.540	13.639	0.999	91	888	N.D.	
55) m,p-Xylenes	13.749	13.749	1.015	106	2816	0.44 ug/L	85
56) o-Xylene	14.180	14.184	1.047	106	225	N.D.	
57) Styrene	0.000	14.184	0.000		0	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	14.590	14.537	0.914	105	2596	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.810	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	14.739	14.965	0.923	91	256	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.114	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.216	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.524	15.527	0.973	105	222	N.D.	
71) sec-Butylbenzene	0.000	15.711	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.832	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	15.984	15.991	1.001	146	113	N.D.	
75) n-Butylbenzene	0.000	16.277	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.422	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.371	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	18.769	18.762	1.176	128	360	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.116	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	0.000	7.546	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.088	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V232.D  
Acq On : 27 Jan 2010 12:36 am  
Operator : DXK1  
InstName : VOA5  
Sample : |245106006|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jan 27 08:53:49 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.466	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.693	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.856	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.497	0.000		0m	N.D.	d

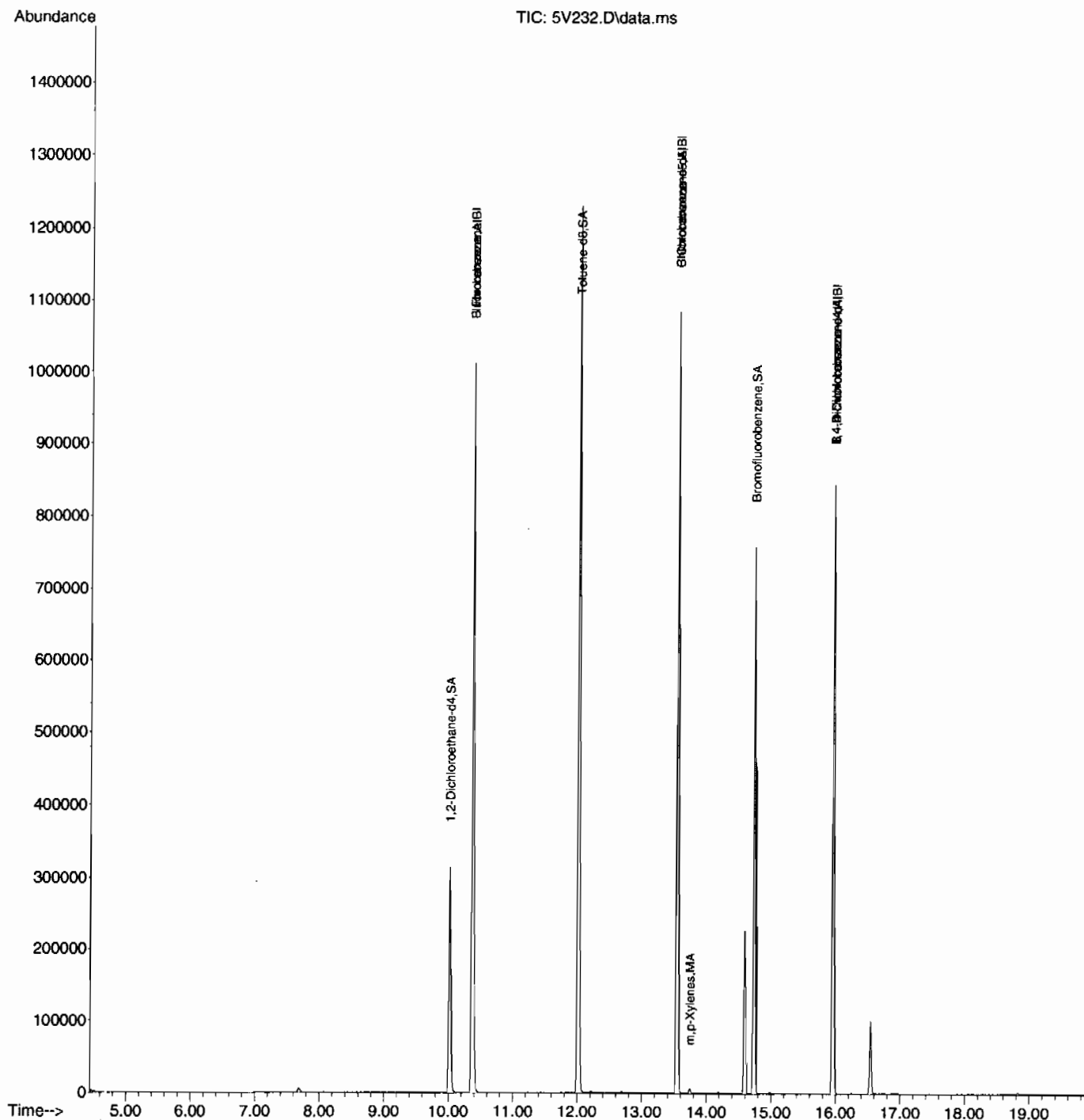
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

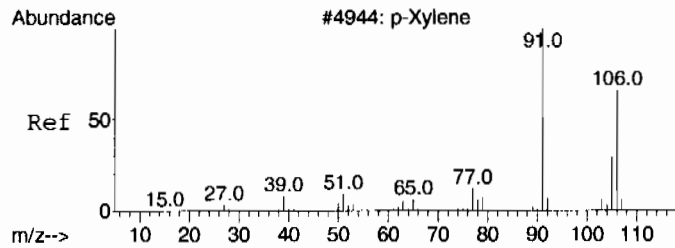
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V232.D  
Acq On : 27 Jan 2010 12:36 am  
Operator : DXK1  
InstName : VOA5  
Sample : |245106006|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jan 27 08:53:49 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

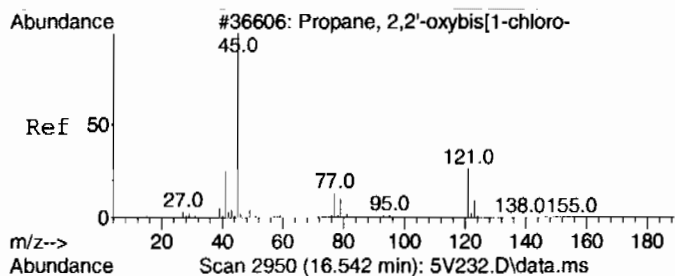
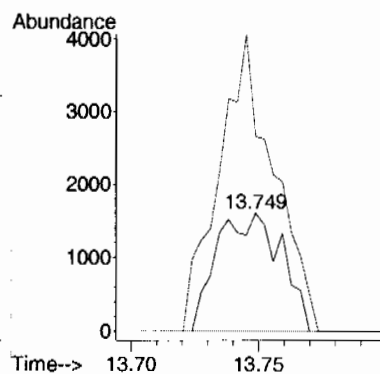
SubList :





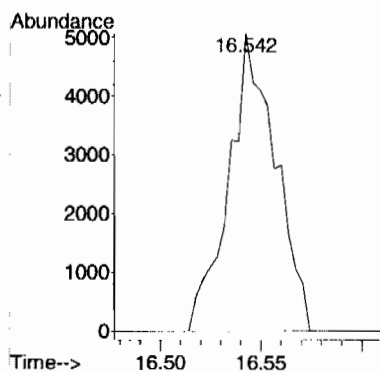
#55  
m, p-Xylenes  
Concen: 0.44 ug/L  
RT: 13.749 min Scan# 2160  
Delta R.T. -0.000 min  
Lab File: 5V232.D  
Acq: 27 Jan 2010 12:36 am

Tgt Ion: 106 Resp: 2816  
Ion Ratio Lower Upper  
106 100  
91 214.4 162.6 222.6



#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl)ether  
Concen: 4.85 ug/L  
RT: 16.542 min Scan# 2950  
Delta R.T. 0.045 min  
Lab File: 5V232.D  
Acq: 27 Jan 2010 12:36 am

Tgt Ion: 45 Resp: 8161  
Ion Ratio Lower Upper  
45 100  
121 0.0 0.0 49.2





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V232.D  
Acq On : 27 Jan 2010 12:36 am  
Operator : DXK1  
Sample : |245106006|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B

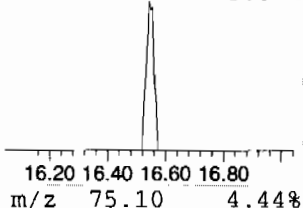
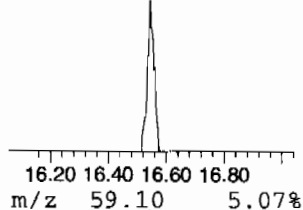
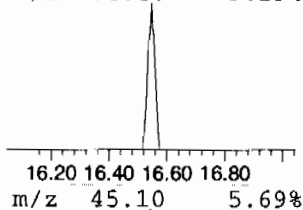
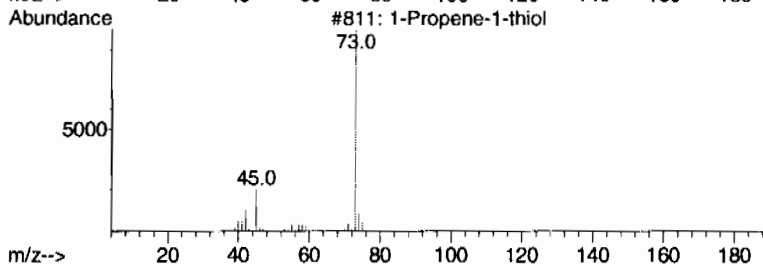
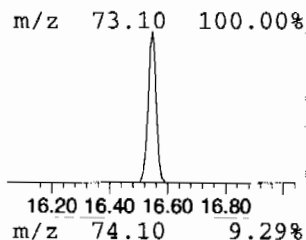
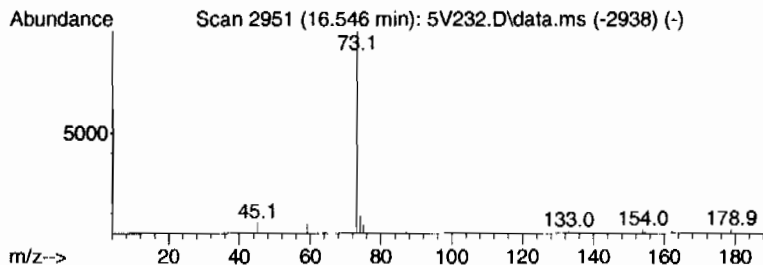
SubList :

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

\*\*\*\*\*  
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.546	6.35 ug/L	190577	B 1,4-Dichlorobenzene-d4	15.962

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			1-Propene-1-thiol	74	C3H6S	000925-89-3	4
2			1-Propanol, 2-methyl-	74	C4H10O	000078-83-1	4
3			Acetaldehyde, O-methyloxime	73	C3H7NO	033581-43-0	4
4			Silane, butyltrimethyl-	130	C7H18Si	001000-49-3	4
5			1,3-Dioxolane	74	C3H6O2	000646-06-0	3



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V232.D  
Acq On : 27 Jan 2010 12:36 am  
Operator : DXK1  
Sample : |245106006|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown siloxane	16.546	6.3	ug/L	190577	6	15.962	1499540	50.0

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

SDG Number: 10-1304  
 Lab Sample ID: 245106007

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 19.2  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE15-10-7168  
 Batch ID: 945552  
 Run Date: 01/27/2010 01:06  
 Prep Date: 01/26/2010 14:46  
 Data File: 012610V5SV233.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.421	1.24
74-87-3	Chloromethane	U	1.24	ug/kg	0.371	1.24
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.371	1.24
74-83-9	Bromomethane	U	1.24	ug/kg	0.371	1.24
75-00-3	Chloroethane	U	1.24	ug/kg	0.371	1.24
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.371	1.24
67-64-1	Acetone	U	6.19	ug/kg	2.05	6.19
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.371	1.24
74-88-4	Iodomethane	U	6.19	ug/kg	1.98	6.19
75-09-2	Methylene chloride	U	6.19	ug/kg	2.47	6.19
75-15-0	Carbon disulfide	U	6.19	ug/kg	1.55	6.19
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.371	1.24
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.371	1.24
78-93-3	2-Butanone	U	6.19	ug/kg	1.86	6.19
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.371	1.24
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.371	1.24
67-66-3	Chloroform	U	1.24	ug/kg	0.371	1.24
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.408	1.24
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.371	1.24
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.371	1.24
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.371	1.24
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.371	1.24
71-43-2	Benzene	U	1.24	ug/kg	0.371	1.24
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.408	1.24
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.371	1.24
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.371	1.24
74-95-3	Dibromomethane	U	1.24	ug/kg	0.371	1.24
108-10-1	4-Methyl-2-pentanone	U	6.19	ug/kg	1.55	6.19
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.371	1.24
108-88-3	Toluene	U	1.24	ug/kg	0.371	1.24
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.371	1.24
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.371	1.24
591-78-6	2-Hexanone	U	6.19	ug/kg	1.86	6.19
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.371	1.24
127-18-4	Tetrachloroethylene	J	1.04	ug/kg	0.371	1.24
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.371	1.24
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.371	1.24
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.371	1.24

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

SDG Number: 10-1304  
 Lab Sample ID: 245106007  
 Client ID: RE15-10-7168  
 Batch ID: 945552  
 Run Date: 01/27/2010 01:06  
 Prep Date: 01/26/2010 14:46  
 Data File: 012610V55V233.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 19.2  
 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	1.24	ug/kg	0.371	1.24
179601-23-1	m,p-Xylenes	U	2.47	ug/kg	0.371	2.47
95-47-6	o-Xylene	U	1.24	ug/kg	0.371	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.371	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.371	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.371	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.371	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.371	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.371	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.371	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.371	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.371	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.371	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.371	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.371	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.371	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.371	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.371	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.371	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.19	ug/kg	1.98	6.19
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.371	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.59	10.1	ug/kg	0	J
	unknown siloxane	16.54	10.8	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V233.D  
Acq On : 27 Jan 2010 1:06 am  
Operator : DXK1  
InstName : VOA5  
Sample : |245106007|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jan 27 08:54:08 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.375	10.375	1.000	96	941122	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	563430	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	180700	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	941122	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	563430	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	180700	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	233397	53.36	ug/L	0.00
Spiked Amount	50.000	Range 68 - 131	Recovery	=	106.72%			
43) Toluene-d8	12.016	12.016	0.887	98	841466	54.76	ug/L	0.00
Spiked Amount	50.000	Range 75 - 129	Recovery	=	109.52%			
61) Bromofluorobenzene	14.739	14.739	0.924	95	233994	67.86	ug/L	0.00
Spiked Amount	50.000	Range 68 - 133	Recovery	=	135.72%#			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	0.000	6.733	0.000		0	N.D.		
9) Acetone	7.114	7.100	0.686	43	122	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	0.000	7.450	0.000		0	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	7.503	7.511	0.723	76	117	N.D.		
15) Methylene chloride	7.687	7.691	0.741	84	1472	N.D.		
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	0.000	9.077	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.375	10.127	1.000	78	386	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V233.D  
Acq On : 27 Jan 2010 1:06 am  
Operator : DXK1  
InstName : VOA5  
Sample : |245106007|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jan 27 08:54:08 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.094	12.090	0.893	91	465	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.631	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	12.695	12.691	0.937	164	2121	0.84 ug/L	96
50) Dibromochloromethane	0.000	12.928	0.000		0m	N.D.	d
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.643	13.639	1.007	91	123	N.D.	
55) m,p-Xylenes	13.745	13.749	1.015	106	707	N.D.	
56) o-Xylene	0.000	14.184	0.000		0	N.D.	
57) Styrene	0.000	14.184	0.000		0	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.537	0.000		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	14.587	14.810	0.914	83	171	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	14.739	14.965	0.924	91	121	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.114	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.216	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.527	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	15.711	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.832	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.991	0.000		0	N.D.	
75) n-Butylbenzene	0.000	16.277	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.422	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.371	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	18.769	18.762	1.176	128	391	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.116	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	0.000	7.546	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.088	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V233.D  
Acq On : 27 Jan 2010 1:06 am  
Operator : DXK1  
InstName : VOA5  
Sample : |245106007|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jan 27 08:54:08 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.466	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.693	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.856	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.497	0.000		0m	N.D.	d

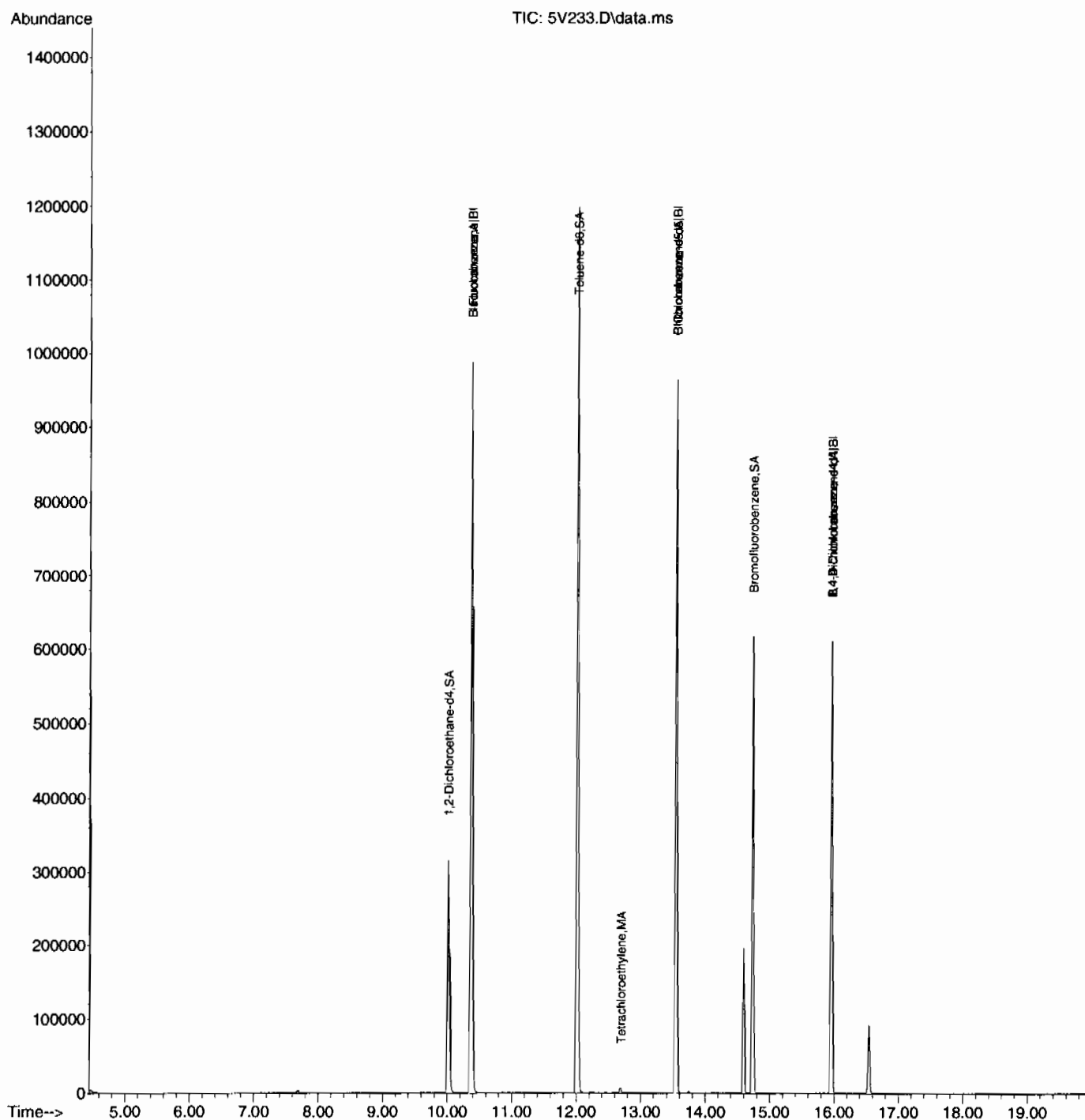
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

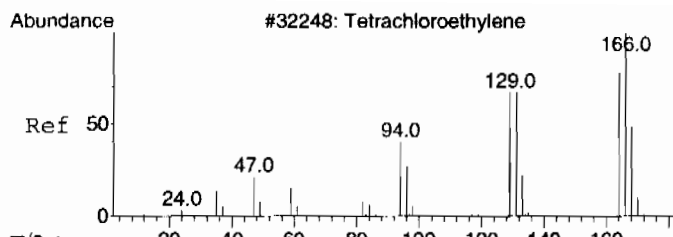
Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V233.D  
Acq On : 27 Jan 2010 1:06 am  
Operator : DXK1  
InstName : VOA5  
Sample : |245106007|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jan 27 08:54:08 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

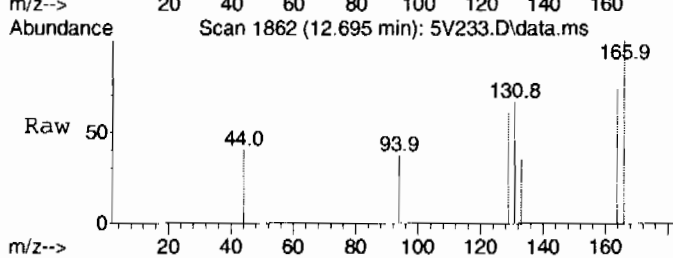
SubList :



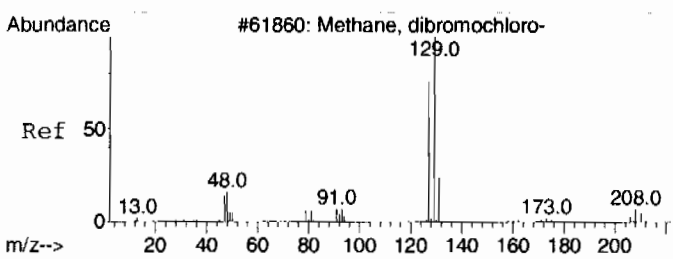
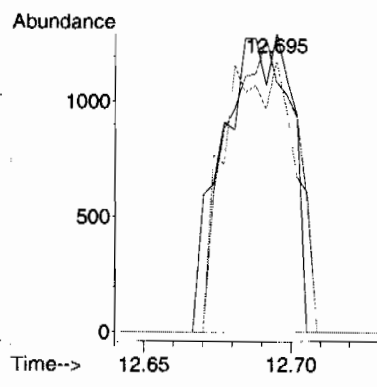
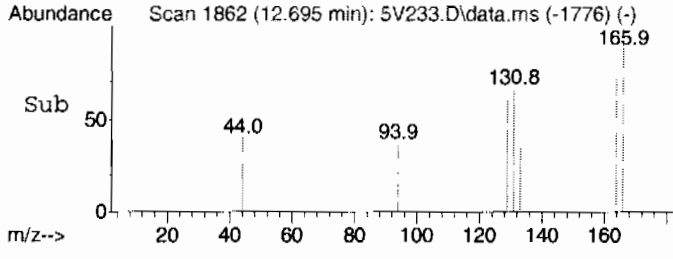




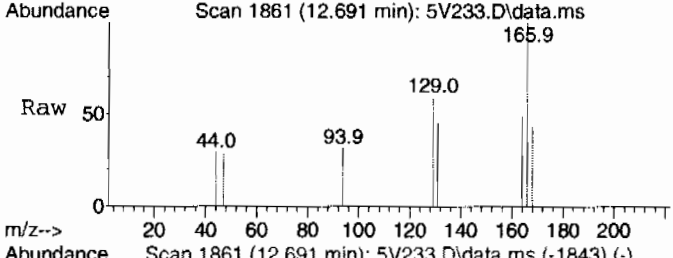
#49  
 Tetrachloroethylene  
 Concen: 0.84 ug/L  
 RT: 12.695 min Scan# 1862  
 Delta R.T. 0.004 min  
 Lab File: 5V233.D  
 Acq: 27 Jan 2010 1:06 am



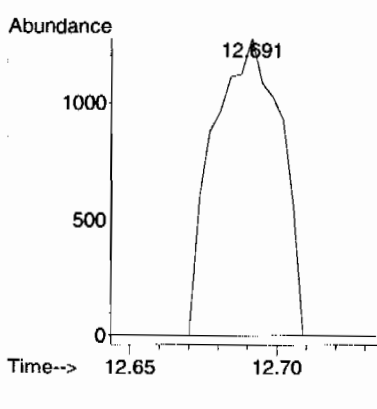
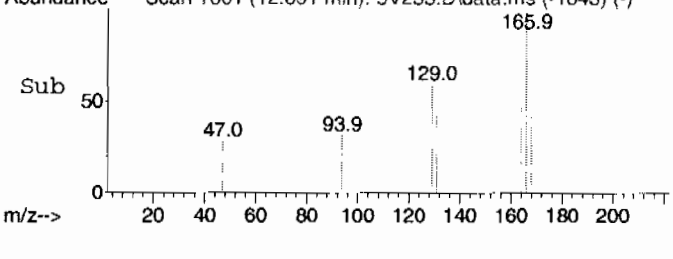
Tgt Ion:	164	Resp:	2121
Ion	Ratio	Lower	Upper
164	100		
129	95.8	60.1	120.1
131	91.5	58.9	118.9

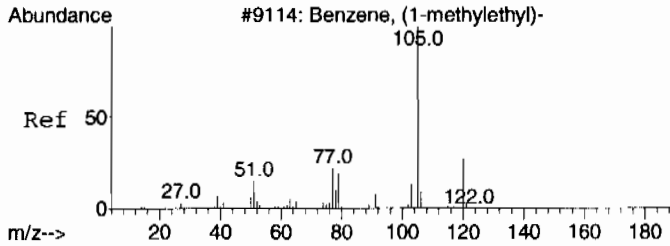


#50 BEFORE analyst DELETION  
 Dibromochloromethane  
 Concen: 0.75 ug/L  
 RT: 12.691 min Scan# 1861  
 Delta R.T. -0.237 min  
 Lab File: 5V233.D  
 Acq: 27 Jan 2010 1:06 am



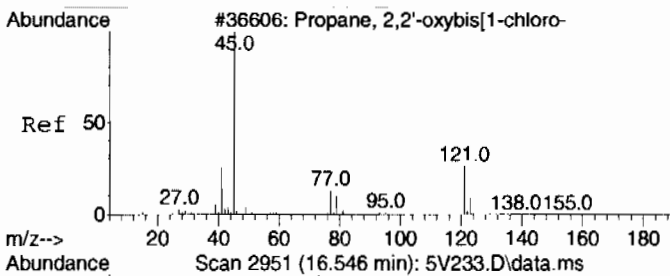
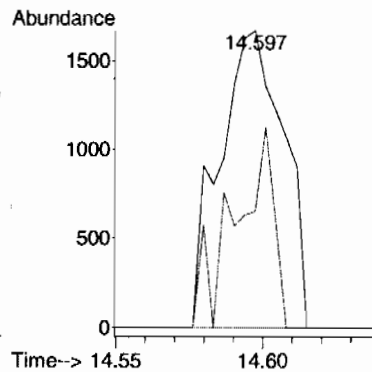
Tgt Ion:	129	Resp:	2032
Ion	Ratio	Lower	Upper
129	100		
127	0.0	48.5	108.5#





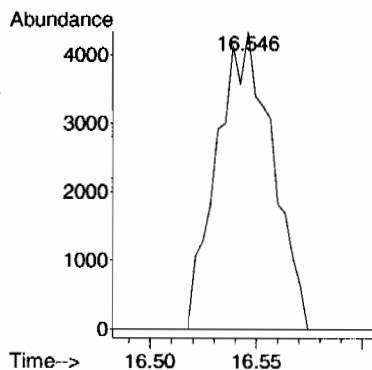
#60 BEFORE analyst DELETION  
Isopropylbenzene  
Concen: 0.31 ug/L  
RT: 14.597 min Scan# 2400  
Delta R.T. 0.060 min  
Lab File: 5V233.D  
Acq: 27 Jan 2010 1:06 am

Tgt Ion: 105 Resp: 2520  
Ion Ratio Lower Upper  
105 100  
120 41.1 0.0 57.9



#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl)ether  
Concen: 6.53 ug/L  
RT: 16.546 min Scan# 2951  
Delta R.T. 0.049 min  
Lab File: 5V233.D  
Acq: 27 Jan 2010 1:06 am

Tgt Ion: 45 Resp: 7864  
Ion Ratio Lower Upper  
45 100  
121 0.0 0.0 49.2



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V233.D  
Acq On : 27 Jan 2010 1:06 am  
Operator : DXK1  
Sample : |245106007|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B

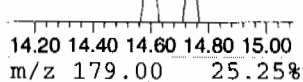
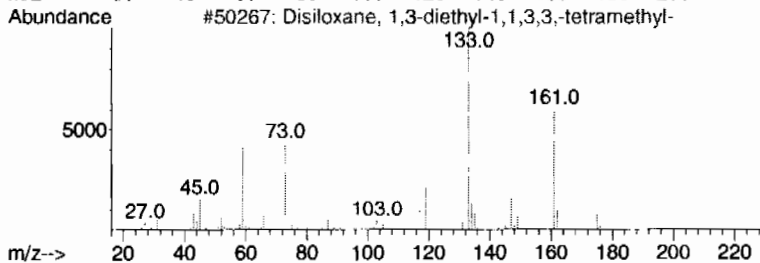
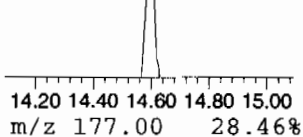
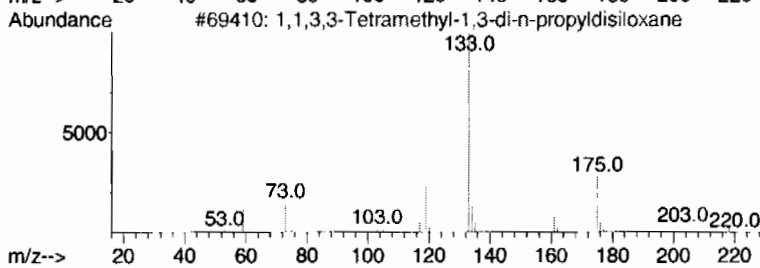
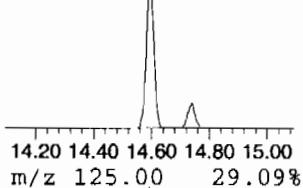
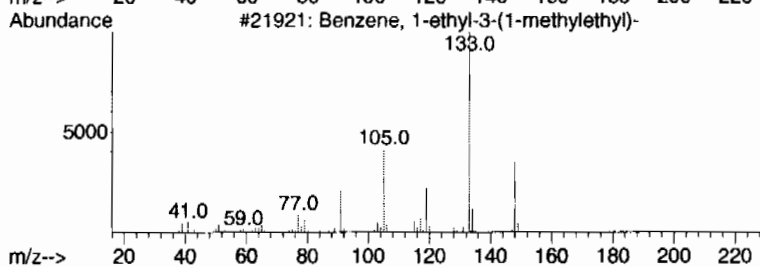
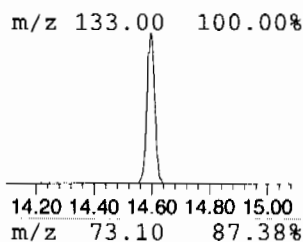
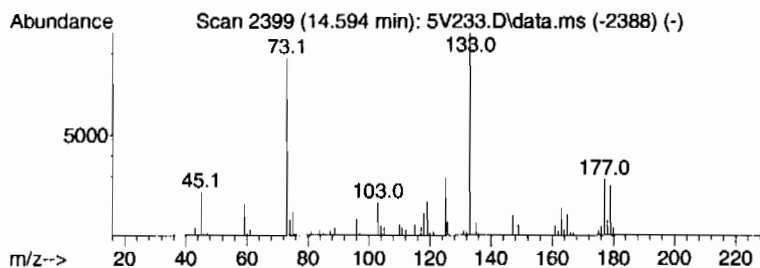
SubList :

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

\*\*\*\*\*  
Peak Number 1 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.594	8.16 ug/L	288471	B Chlorobenzene-d5	13.547

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Benzene, 1-ethyl-3-(1-methylethyl)-	148	C11H16	004920-99-4	25
2			1,1,3,3-Tetramethyl-1,3-di-n-pro...	218	C10H26OSi2	018001-73-5	25
3			Disiloxane, 1,3-diethyl-1,1,3,3,...	190	C8H22OSi2	002295-17-2	17
4			4-Ethylbenzoic acid, 2-bromo-4-f...	322	C15H12BrFO2	1000293-61-1	12
5			Benzene, 2-(chloromethyl)-1,3,5-...	168	C10H13Cl	001585-16-6	12



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V233.D  
Acq On : 27 Jan 2010 1:06 am  
Operator : DXK1  
Sample : |245106007|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

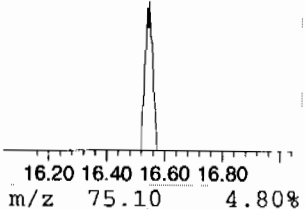
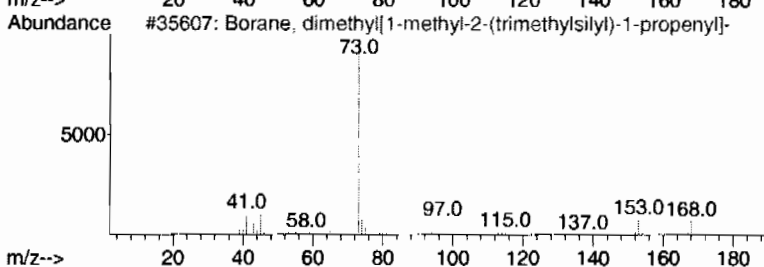
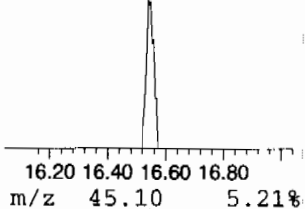
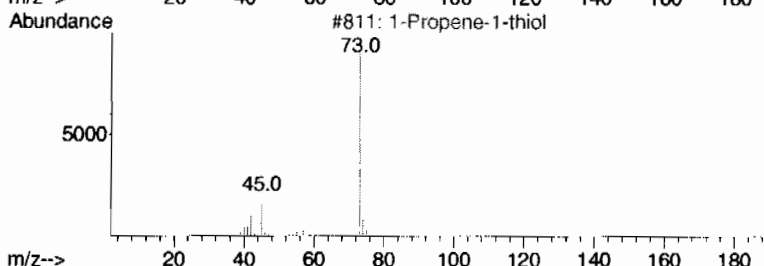
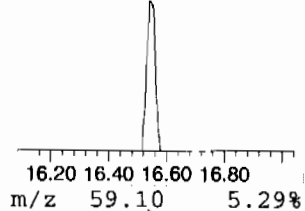
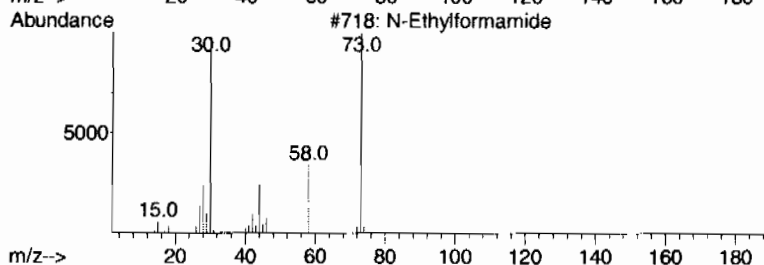
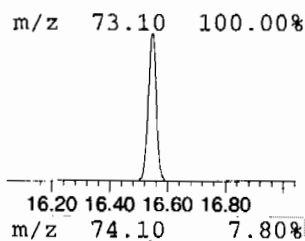
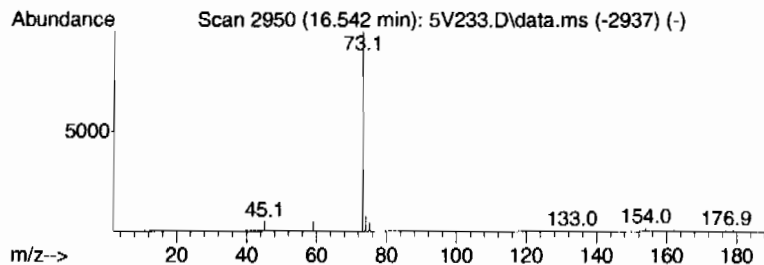
SubList :

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

\*\*\*\*\*  
Peak Number 2 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.542	8.69 ug/L	184590	B 1,4-Dichlorobenzene-d4	15.959

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			N-Ethylformamide	73	C3H7NO	000627-45-2	4
2			1-Propene-1-thiol	74	C3H6S	000925-89-3	4
3			Borane, dimethyl[1-methyl-2-(tri...	168	C9H21BSi	062108-35-4	4
4			N-Ethylformamide	73	C3H7NO	000627-45-2	3
5			Guanidine, methyl-	73	C2H7N3	000471-29-4	3



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V233.D  
Acq On : 27 Jan 2010 1:06 am  
Operator : DXK1  
Sample : |245106007|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :

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

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown siloxane	14.594	8.2	ug/L	288471	4	13.547	1767800	50.0
unknown siloxane	16.542	8.7	ug/L	184590	6	15.959	1062210	50.0

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

SDG Number: 10-1304  
 Lab Sample ID: 245106008  
 Client ID: RE15-10-7166  
 Batch ID: 945552  
 Run Date: 01/27/2010 01:32  
 Prep Date: 01/26/2010 14:47  
 Data File: 012610V5SV234.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 31.6  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.46	ug/kg	0.497	1.46
74-87-3	Chloromethane	U	1.46	ug/kg	0.438	1.46
75-01-4	Vinyl chloride	U	1.46	ug/kg	0.438	1.46
74-83-9	Bromomethane	U	1.46	ug/kg	0.438	1.46
75-00-3	Chloroethane	U	1.46	ug/kg	0.438	1.46
75-69-4	Trichlorofluoromethane	U	1.46	ug/kg	0.438	1.46
67-64-1	Acetone		29.5	ug/kg	2.43	7.31
75-35-4	1,1-Dichloroethylene	U	1.46	ug/kg	0.438	1.46
74-88-4	Iodomethane	U	7.31	ug/kg	2.34	7.31
75-09-2	Methylene chloride	J	5.87	ug/kg	2.92	7.31
75-15-0	Carbon disulfide	U	7.31	ug/kg	1.83	7.31
156-60-5	trans-1,2-Dichloroethylene	U	1.46	ug/kg	0.438	1.46
75-34-3	1,1-Dichloroethane	U	1.46	ug/kg	0.438	1.46
78-93-3	2-Butanone	U	7.31	ug/kg	2.19	7.31
156-59-2	cis-1,2-Dichloroethylene	U	1.46	ug/kg	0.438	1.46
594-20-7	2,2-Dichloropropane	U	1.46	ug/kg	0.438	1.46
67-66-3	Chloroform	U	1.46	ug/kg	0.438	1.46
74-97-5	Bromochloromethane	U	1.46	ug/kg	0.482	1.46
71-55-6	1,1,1-Trichloroethane	U	1.46	ug/kg	0.438	1.46
563-58-6	1,1-Dichloropropene	U	1.46	ug/kg	0.438	1.46
56-23-5	Carbon tetrachloride	U	1.46	ug/kg	0.438	1.46
107-06-2	1,2-Dichloroethane	U	1.46	ug/kg	0.438	1.46
71-43-2	Benzene	U	1.46	ug/kg	0.438	1.46
79-01-6	Trichloroethylenc	U	1.46	ug/kg	0.482	1.46
78-87-5	1,2-Dichloropropane	U	1.46	ug/kg	0.438	1.46
75-27-4	Bromodichloromethane	U	1.46	ug/kg	0.438	1.46
74-95-3	Dibromomethane	U	1.46	ug/kg	0.438	1.46
108-10-1	4-Methyl-2-pentanone	U	7.31	ug/kg	1.83	7.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.46	ug/kg	0.438	1.46
108-88-3	Toluene	J	1.45	ug/kg	0.438	1.46
10061-02-6	trans-1,3-Dichloropropylene	U	1.46	ug/kg	0.438	1.46
79-00-5	1,1,2-Trichloroethane	U	1.46	ug/kg	0.438	1.46
591-78-6	2-Hexanone	U	7.31	ug/kg	2.19	7.31
142-28-9	1,3-Dichloropropane	U	1.46	ug/kg	0.438	1.46
127-18-4	Tetrachloroethylene	U	1.46	ug/kg	0.438	1.46
124-48-1	Dibromochloromethane	U	1.46	ug/kg	0.438	1.46
106-93-4	1,2-Dibromoethane	U	1.46	ug/kg	0.438	1.46
108-90-7	Chlorobenzene	U	1.46	ug/kg	0.438	1.46

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1304

Lab Sample ID: 245106008

Client ID: RE15-10-7166

Batch ID: 945552

Run Date: 01/27/2010 01:32

Prep Date: 01/26/2010 14:47

Data File: 012610V55V234.D

Date Collected: 01/13/2010 12:00

Date Received: 01/20/2010 08:45

Client: LANL010

Method: SW846 8260B

Inst: VOA5.1

Analyst: DXK1

Aliquot: 5 g

Column: DB-624

Matrix: R

%Moisture: 31.6

Project: LANL01004

SOP Ref: GL-OA-E-038

Dilution: 1

Purge Vol: 5 mL

Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.46	ug/kg	0.438	1.46
179601-23-1	m,p-Xylenes	J	1.07	ug/kg	0.438	2.92
95-47-6	o-Xylene	U	1.46	ug/kg	0.438	1.46
100-42-5	Styrene	U	1.46	ug/kg	0.438	1.46
75-25-2	Bromoform	U	1.46	ug/kg	0.438	1.46
79-34-5	1,1,2,2-Tetrachloroethane	U	1.46	ug/kg	0.438	1.46
96-18-4	1,2,3-Trichloropropane	U	1.46	ug/kg	0.438	1.46
108-86-1	Bromobenzene	U	1.46	ug/kg	0.438	1.46
103-65-1	n-Propylbenzene	U	1.46	ug/kg	0.438	1.46
95-49-8	2-Chlorotoluene	U	1.46	ug/kg	0.438	1.46
98-82-8	Isopropylbenzene	U	1.46	ug/kg	0.438	1.46
108-67-8	1,3,5-Trimethylbenzene	U	1.46	ug/kg	0.438	1.46
106-43-4	4-Chlorotoluene	U	1.46	ug/kg	0.438	1.46
98-06-6	tert-Butylbenzene	U	1.46	ug/kg	0.438	1.46
95-63-6	1,2,4-Trimethylbenzene	U	1.46	ug/kg	0.438	1.46
135-98-8	sec-Butylbenzene	U	1.46	ug/kg	0.438	1.46
99-87-6	4-Isopropyltoluene		42.5	ug/kg	0.438	1.46
541-73-1	1,3-Dichlorobenzene	U	1.46	ug/kg	0.438	1.46
106-46-7	1,4-Dichlorobenzene	U	1.46	ug/kg	0.438	1.46
104-51-8	n-Butylbenzene	U	1.46	ug/kg	0.438	1.46
96-12-8	1,2-Dibromo-3-chloropropane	U	1.46	ug/kg	0.438	1.46
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	7.31	ug/kg	2.34	7.31
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.46	ug/kg	0.438	1.46
95-50-1	1,2-Dichlorobenzene	U	1.46	ug/kg	0.438	1.46

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	9.4	42.6	ug/kg	0	J
007785-70-8	1R-.alpha.-Pinene	14.56	9.38	ug/kg	96	NJ

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V234.D  
Acq On : 27 Jan 2010 1:32 am  
Operator : DXK1  
InstName : VOA5  
Sample : |245106008|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jan 27 08:55:03 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.375	10.375	1.000	96	980506	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	547226	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	163840	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	980506	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	547226	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	163840	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	223943	49.14	ug/L	0.00
Spiked Amount 50.000	Range 68	- 131	Recovery	=	98.28%			
43) Toluene-d8	12.016	12.016	0.887	98	859712	57.60	ug/L	0.00
Spiked Amount 50.000	Range 75	- 129	Recovery	=	115.20%			
61) Bromofluorobenzene	14.739	14.739	0.924	95	204802	65.51	ug/L	0.00
Spiked Amount 50.000	Range 68	- 133	Recovery	=	131.02%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	6.733	6.733	0.649	59	224	N.D.		
9) Acetone	7.104	7.100	0.685	43	74189	20.18	ug/L	89
10) 1,1-Dichloroethylene	7.259	7.125	0.700	61	269	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	7.684	7.450	0.741	41	132	N.D.		
13) Methyl acetate	7.298	7.493	0.703	43	227	N.D.		
14) Carbon disulfide	7.507	7.511	0.724	76	107	N.D.		
15) Methylene chloride	7.687	7.691	0.741	84	16831	4.02	ug/L	93
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	8.250	8.030	0.795	61	127	N.D.		
18) Vinyl acetate	8.317	8.458	0.802	43	784	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	9.088	9.077	0.876	43	3834	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0m	N.D.	d	
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.127	10.127	0.976	78	1436	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V234.D  
Acq On : 27 Jan 2010 1:32 am  
Operator : DXK1  
InstName : VOA5  
Sample : |245106008|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jan 27 08:55:03 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.090	12.090	0.892	91	13018	0.99 ug/L	99
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.631	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	12.695	12.691	0.937	164	139	N.D.	
50) Dibromochloromethane	0.000	12.928	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.642	13.639	1.007	91	408	N.D.	
55) m,p-Xylenes	13.738	13.749	1.014	106	4048	0.73 ug/L	90
56) o-Xylene	14.191	14.184	1.048	106	1403	N.D.	
57) Styrene	14.184	14.184	1.047	104	428	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.537	0.000		0m	N.D. d	
62) 1,1,2,2-Tetrachloroethane	0.000	14.810	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	14.898	14.965	0.934	91	506	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.114	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.216	0.000		0m	N.D. d	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.534	15.527	0.973	105	108	N.D.	
71) sec-Butylbenzene	15.651	15.711	0.981	105	723	N.D.	
72) 4-Isopropyltoluene	15.832	15.832	0.992	119	186959	29.07 ug/L	95
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.991	0.000		0	N.D.	
75) n-Butylbenzene	16.111	16.277	1.010	91	593	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.422	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.371	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	18.754	18.762	1.175	128	744	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.116	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0m	N.D. d	
88) Allyl chloride	7.684	7.546	0.741	41	132	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	9.088	9.088	0.876	43	3834	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V234.D  
Acq On : 27 Jan 2010 1:32 am  
Operator : DXK1  
InstName : VOA5  
Sample : |245106008|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jan 27 08:55:03 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:43:00 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.466	0.000		0	N.D.	
98) Isobutyl alcohol	9.823	9.770	0.947	41	428	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0m	N.D.	d
108) Cyclohexanone	0.000	14.693	0.000		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	0.000	14.856	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	0.000	16.497	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed

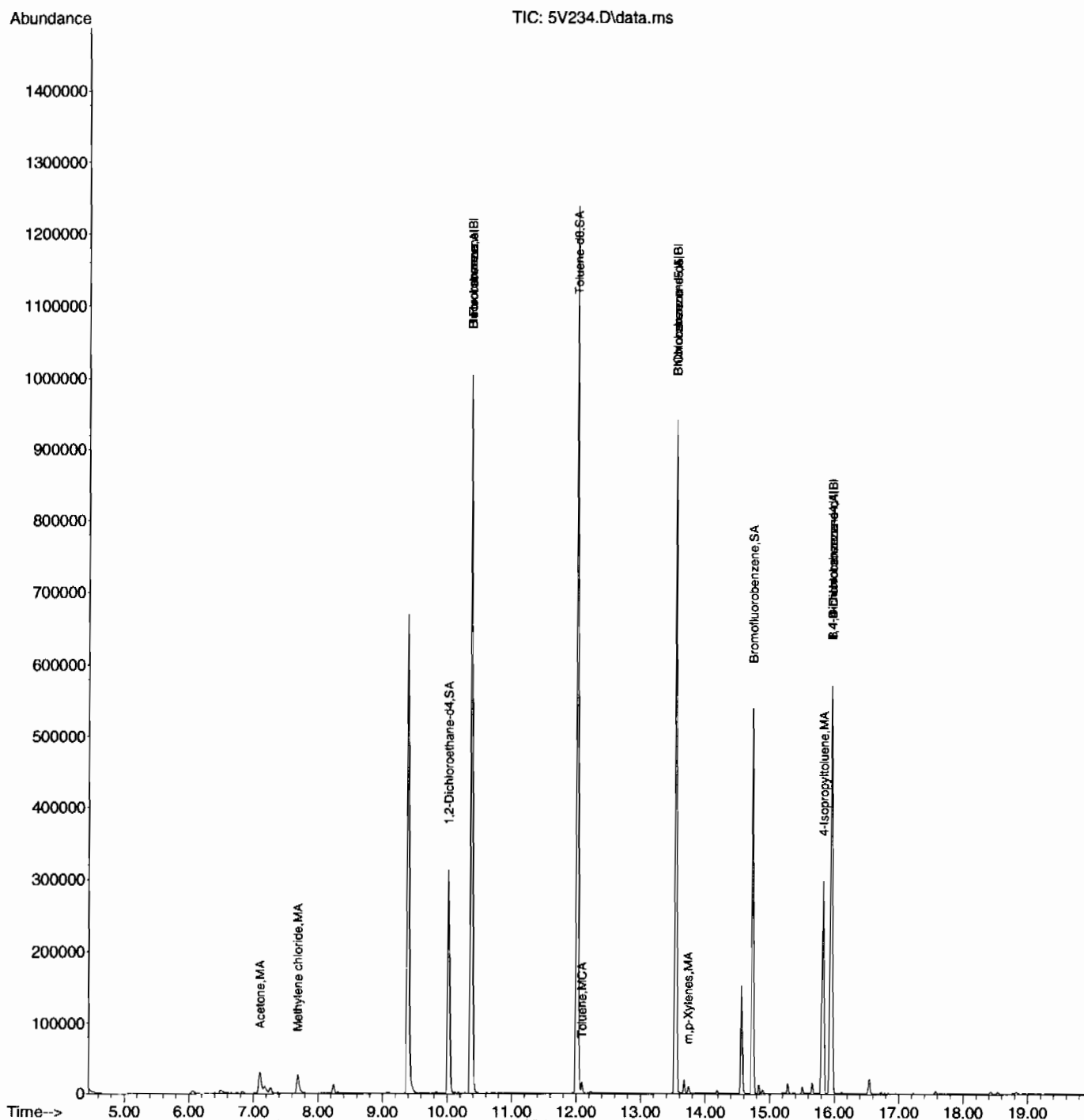
(E) = Over the calibration range (d) = deleted

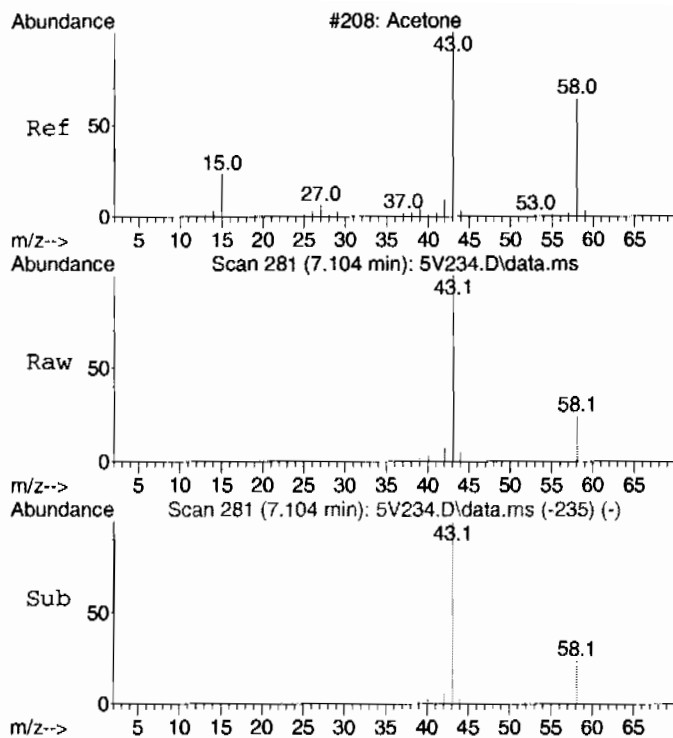
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V234.D  
Acq On : 27 Jan 2010 1:32 am  
Operator : DXK1  
InstName : VOA5  
Sample : |245106008|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jan 27 08:55:03 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

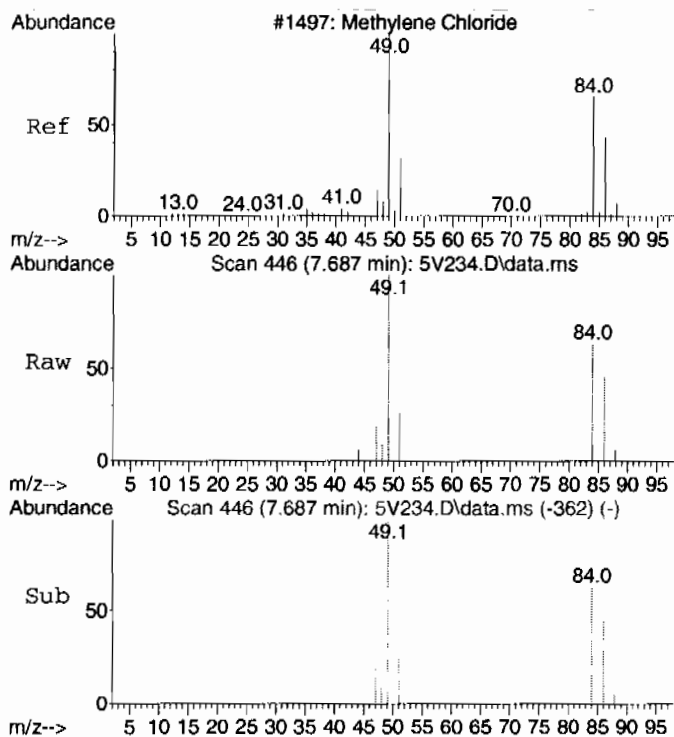
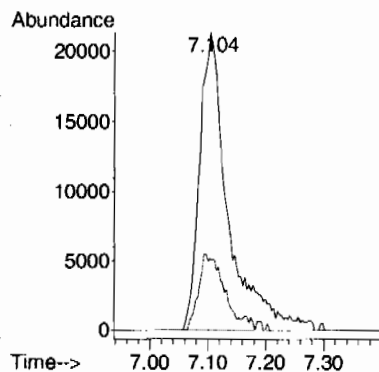
SubList :





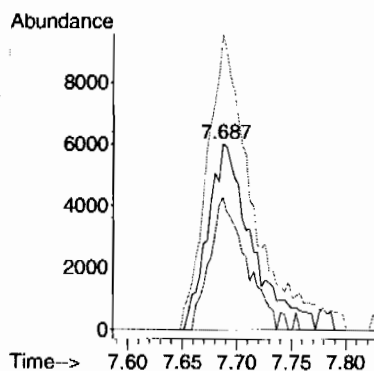
#9  
Acetone  
Concen: 20.18 ug/L  
RT: 7.104 min Scan# 281  
Delta R.T. 0.004 min  
Lab File: 5V234.D  
Acq: 27 Jan 2010 1:32 am

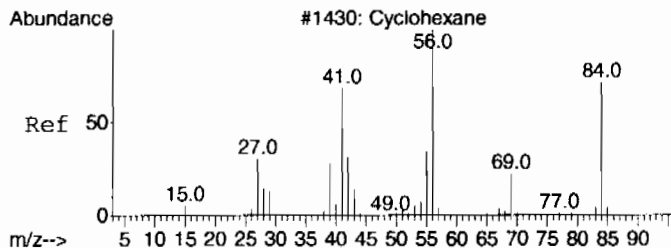
Tgt Ion: 43 Resp: 74189  
Ion Ratio Lower Upper  
43 100  
58 23.5 0.0 59.5



#15  
Methylene chloride  
Concen: 4.02 ug/L  
RT: 7.687 min Scan# 446  
Delta R.T. -0.004 min  
Lab File: 5V234.D  
Acq: 27 Jan 2010 1:32 am

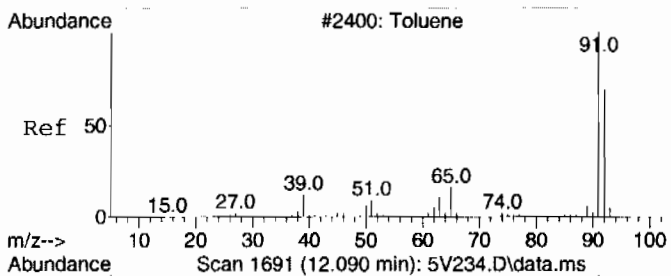
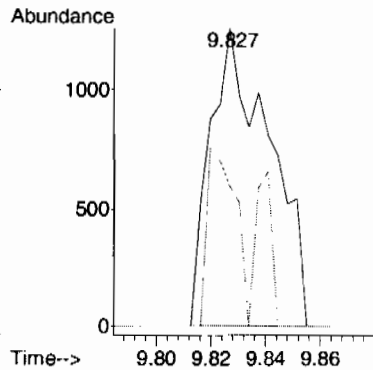
Tgt Ion: 84 Resp: 16831  
Ion Ratio Lower Upper  
84 100  
86 57.9 33.2 93.2  
49 164.2 125.4 185.4





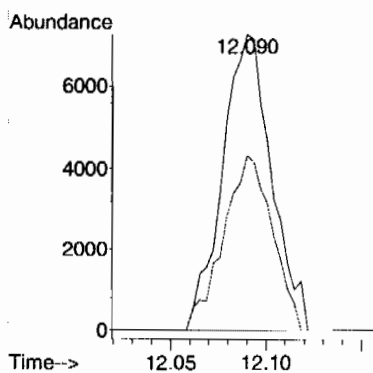
#26 BEFORE analyst DELETION  
Cyclohexane  
Concen: 0.32 ug/L  
RT: 9.827 min Scan# 1051  
Delta R.T. -0.003 min  
Lab File: 5V234.D  
Acq: 27 Jan 2010 1:32 am

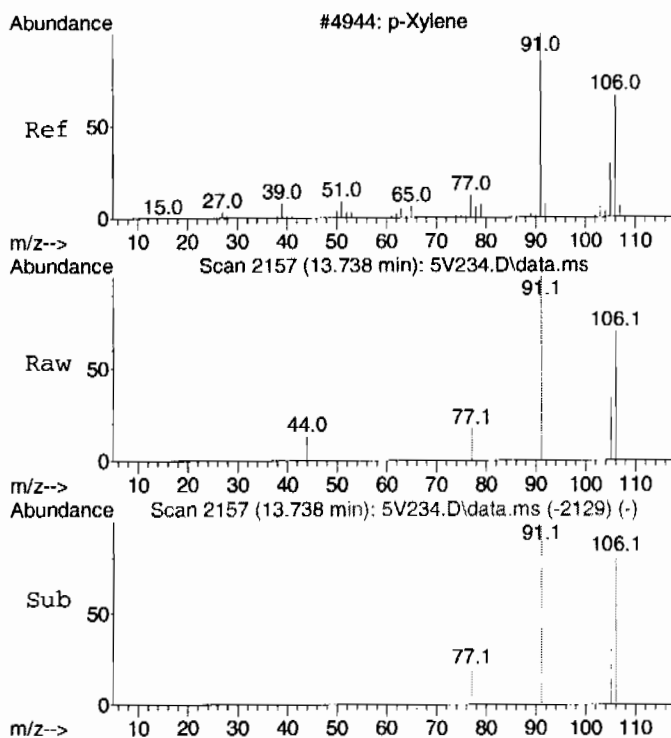
Tgt Ion: 56 Resp: 1915  
Ion Ratio Lower Upper  
56 100  
69 0.0 0.0 56.0  
84 28.7 43.0 103.0#



#44  
Toluene  
Concen: 0.99 ug/L  
RT: 12.090 min Scan# 1691  
Delta R.T. 0.000 min  
Lab File: 5V234.D  
Acq: 27 Jan 2010 1:32 am

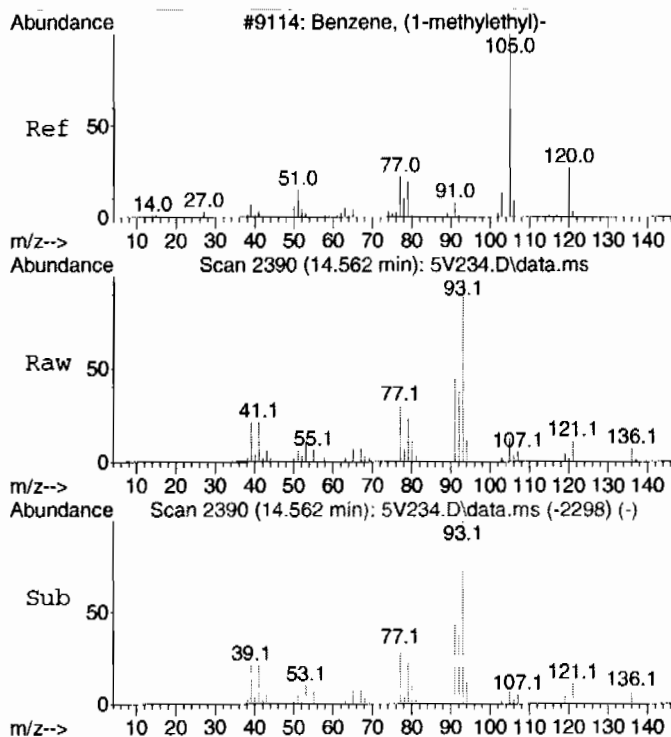
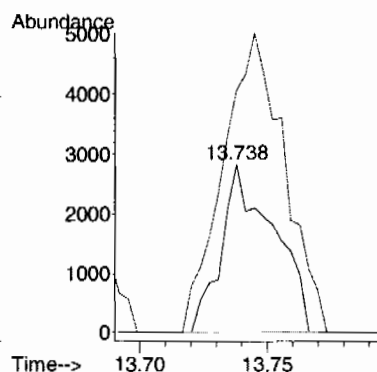
Tgt Ion: 91 Resp: 13018  
Ion Ratio Lower Upper  
91 100  
92 59.2 28.7 88.7





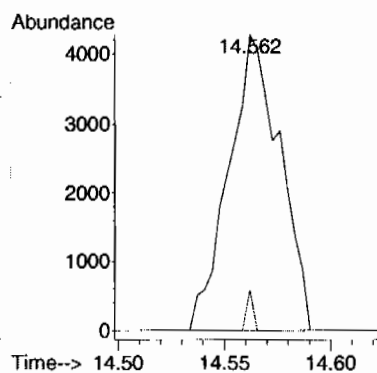
#55  
m,p-Xylenes  
Concen: 0.73 ug/L  
RT: 13.738 min Scan# 2157  
Delta R.T. -0.011 min  
Lab File: 5V234.D  
Acq: 27 Jan 2010 1:32 am

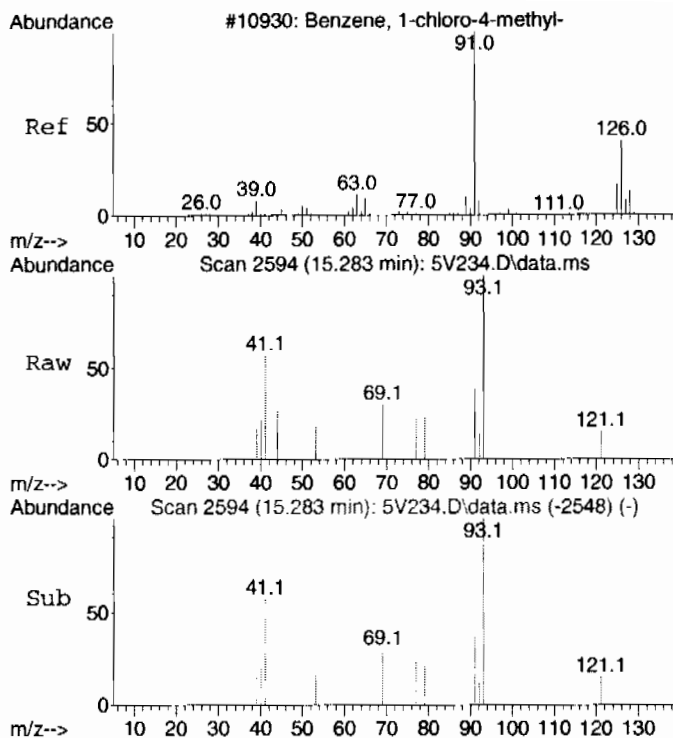
Tgt Ion:106 Resp: 4048  
Ion Ratio Lower Upper  
106 100  
91 207.8 162.6 222.6



#60 BEFORE analyst DELETION  
Isopropylbenzene  
Concen: 0.97 ug/L  
RT: 14.562 min Scan# 2390  
Delta R.T. 0.025 min  
Lab File: 5V234.D  
Acq: 27 Jan 2010 1:32 am

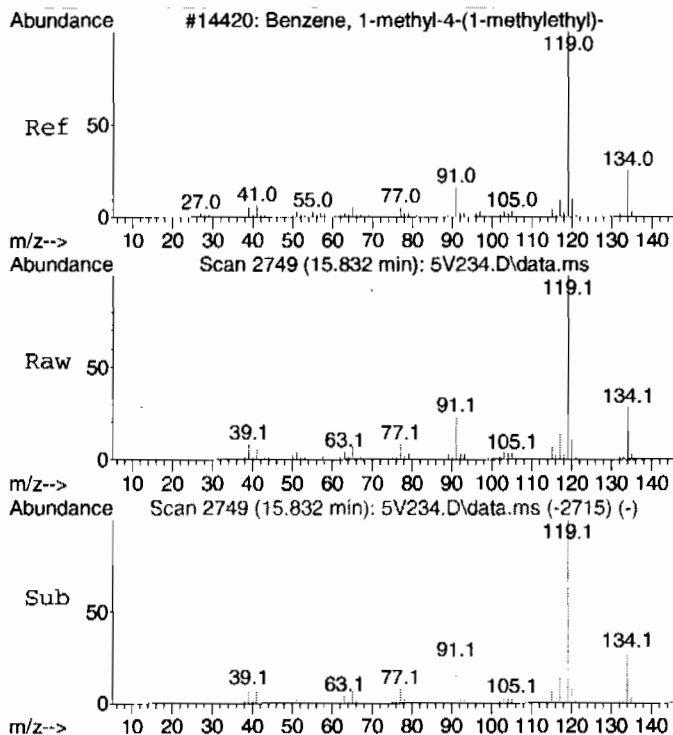
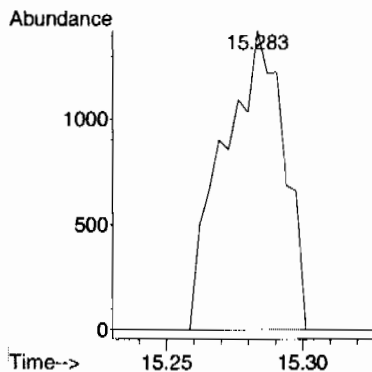
Tgt Ion:105 Resp: 7186  
Ion Ratio Lower Upper  
105 100  
120 1.7 0.0 57.9





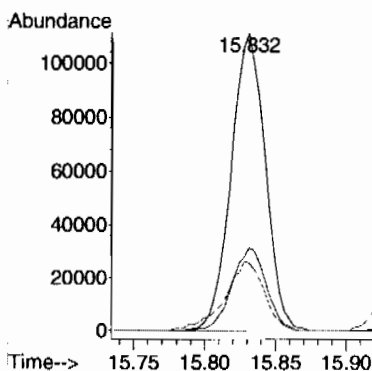
#68 BEFORE analyst DELETION  
4-Chlorotoluene  
Concen: 0.39 ug/L  
RT: 15.283 min Scan# 2594  
Delta R.T. 0.067 min  
Lab File: 5V234.D  
Acq: 27 Jan 2010 1:32 am

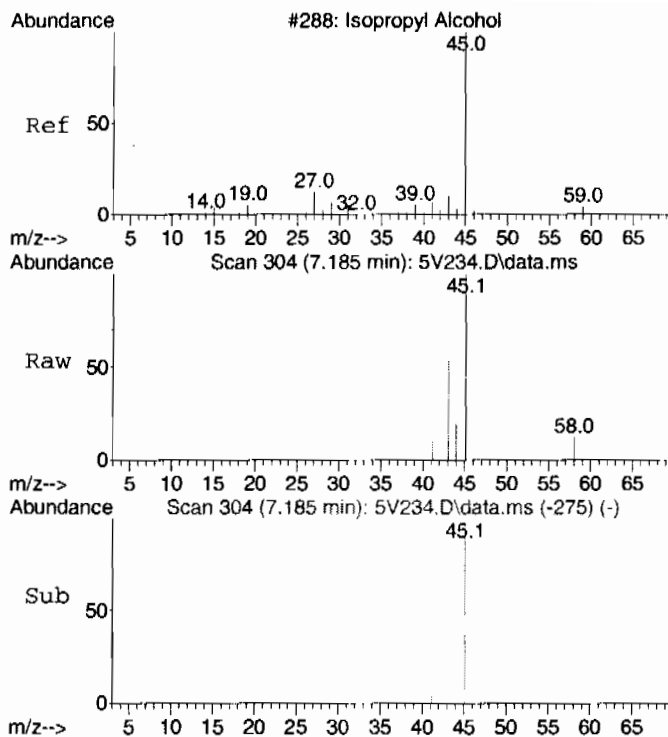
Tgt Ion	Ratio	Lower	Upper
91	100		
126	0.0	3.9	63.9#



#72  
4-Isopropyltoluene  
Concen: 29.07 ug/L  
RT: 15.832 min Scan# 2749  
Delta R.T. -0.001 min  
Lab File: 5V234.D  
Acq: 27 Jan 2010 1:32 am

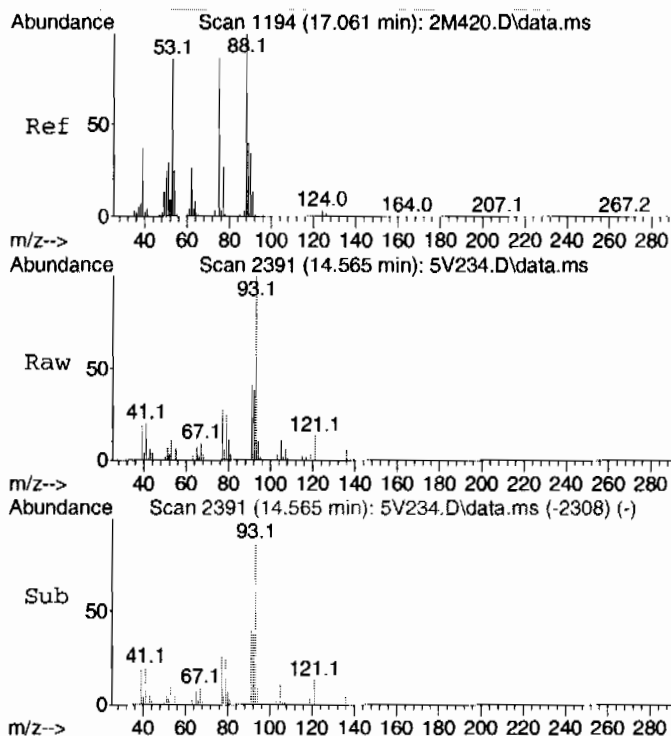
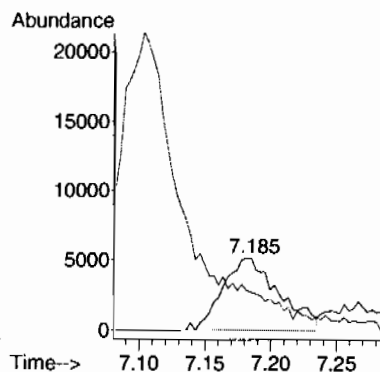
Tgt Ion	Ratio	Lower	Upper
119	100		
134	28.2	0.0	58.7
91	27.2	0.0	51.7





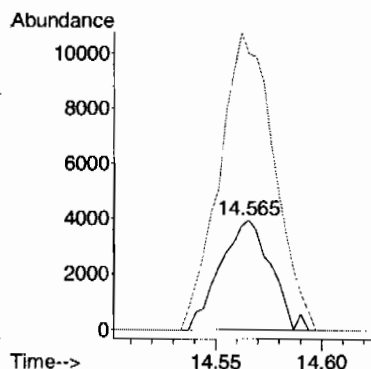
#87 BEFORE analyst DELETION  
Isopropyl Alcohol  
Concen: 52.46 ug/L  
RT: 7.185 min Scan# 304  
Delta R.T. 0.010 min  
Lab File: 5V234.D  
Acq: 27 Jan 2010 1:32 am

Tgt Ion: 45 Resp: 15313  
Ion Ratio Lower Upper  
45 100  
43 0.0 0.0 50.1

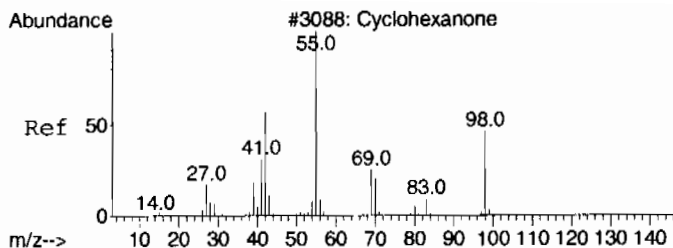


#107 BEFORE analyst DELETION  
cis-1,4-Dichloro-2-butene  
Concen: 10.48 ug/L  
RT: 14.565 min Scan# 2391  
Delta R.T. -0.008 min  
Lab File: 5V234.D  
Acq: 27 Jan 2010 1:32 am

Tgt Ion: 53 Resp: 6503  
Ion Ratio Lower Upper  
53 100  
88 0.0 50.2 110.2#  
77 295.5 0.0 59.6#

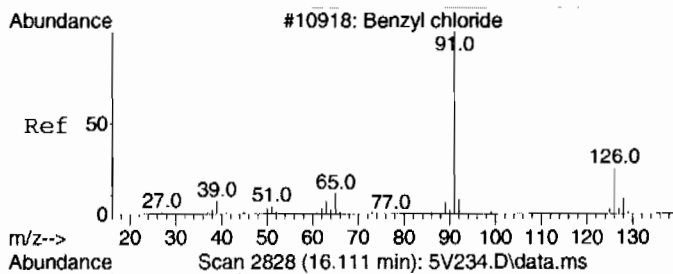
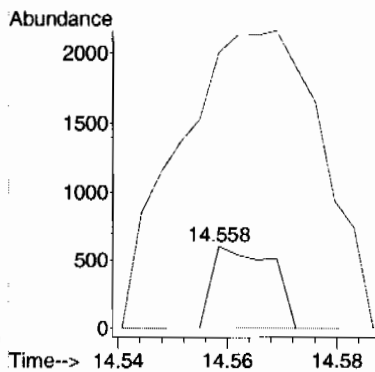
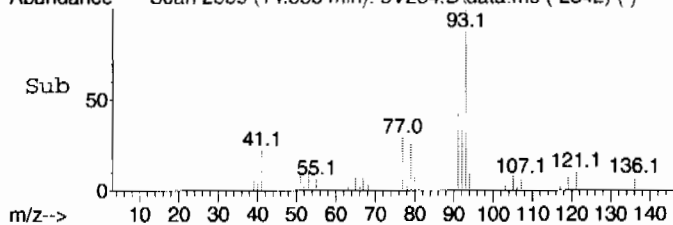
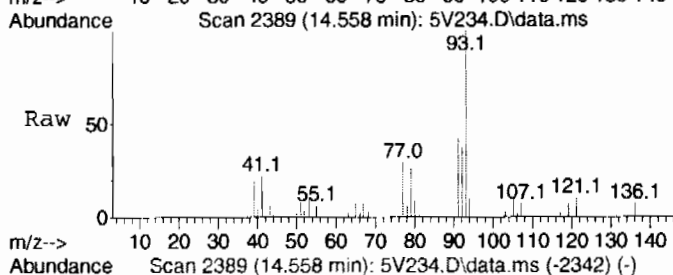






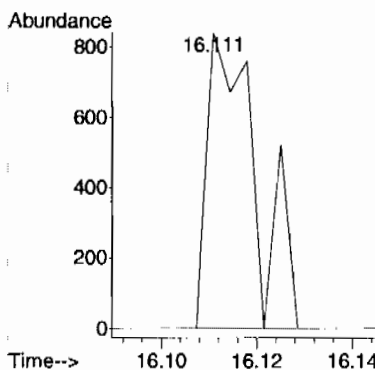
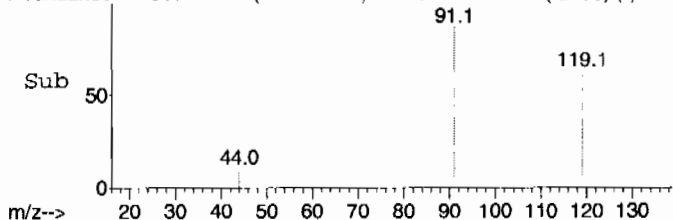
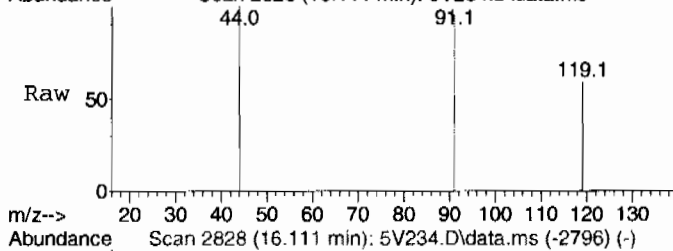
#108 BEFORE analyst DELETION  
Cyclohexanone  
Concen: 30.50 ug/L  
RT: 14.558 min Scan# 2389  
Delta R.T. -0.135 min  
Lab File: 5V234.D  
Acq: 27 Jan 2010 1:32 am

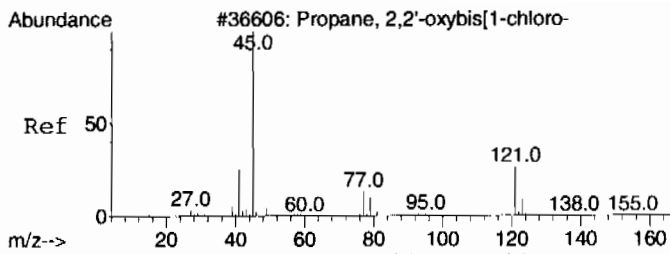
Tgt Ion: 42 Resp: 458  
Ion Ratio Lower Upper  
42 100  
55 858.5 104.7 164.7#  
98 0.0 21.5 81.5#



#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 4.65 ug/L  
RT: 16.111 min Scan# 2828  
Delta R.T. 0.011 min  
Lab File: 5V234.D  
Acq: 27 Jan 2010 1:32 am

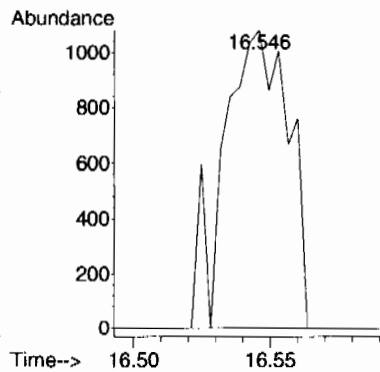
Tgt Ion: 91 Resp: 593  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.6  
65 0.0 0.0 41.9





#112 BEFORE analyst DELETION  
 bis(2-Chloroisopropyl)ether  
 Concen: 1.63 ug/L  
 RT: 16.546 min Scan# 2951  
 Delta R.T. 0.049 min  
 Lab File: 5V234.D  
 Acq: 27 Jan 2010 1:32 am

Tgt Ion: 45 Resp: 1776  
 Ion Ratio Lower Upper  
 45 100  
 121 0.0 0.0 49.2



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V234.D  
Acq On : 27 Jan 2010 1:32 am  
Operator : DXK1  
Sample : |245106008|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B

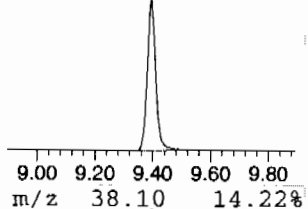
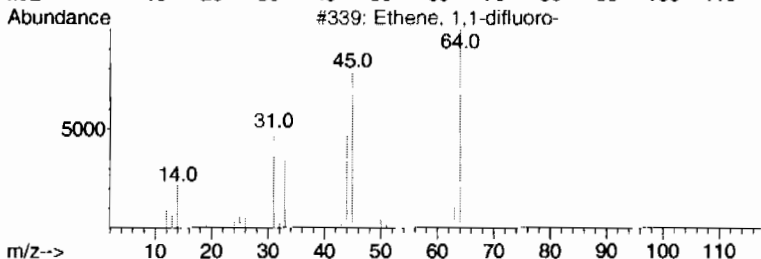
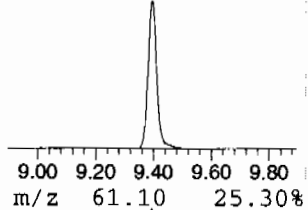
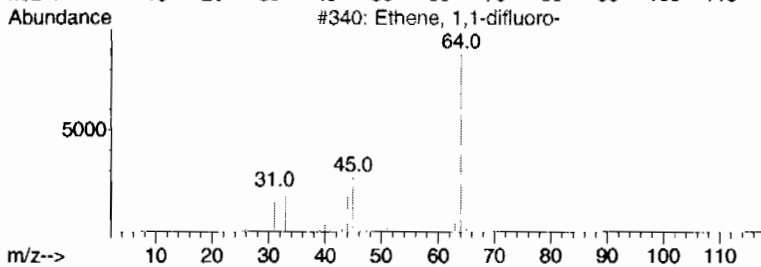
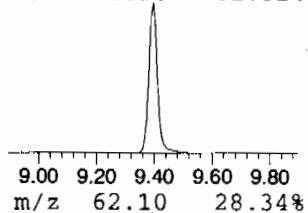
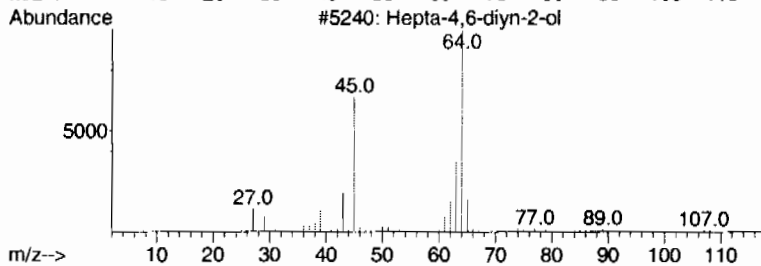
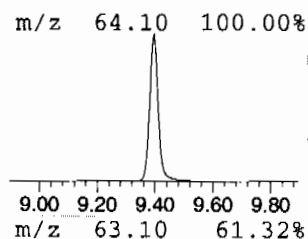
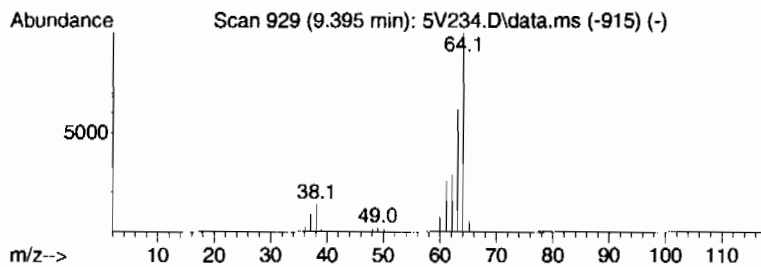
SubList :

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

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

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.395	29.17 ug/L	1217410	Fluorobenzene	10.375

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Hepta-4,6-diyn-2-ol	108	C7H8O	1000154-66-3	9
2			Ethene, 1,1-difluoro-	64	C2H2F2	000075-38-7	3
3			Ethene, 1,1-difluoro-	64	C2H2F2	000075-38-7	3
4			Ethene, 1,2-difluoro-	64	C2H2F2	001691-13-0	3
5			Ethene, 1,1-difluoro-	64	C2H2F2	000075-38-7	3



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V234.D  
Acq On : 27 Jan 2010 1:32 am  
Operator : DXK1  
Sample : |245106008|945552|1|VOA|1|VOA8260BS|  
Misc : LANTL 5.0g N/A SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B

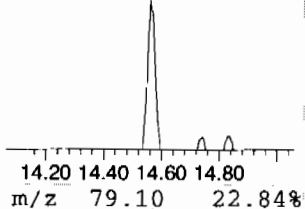
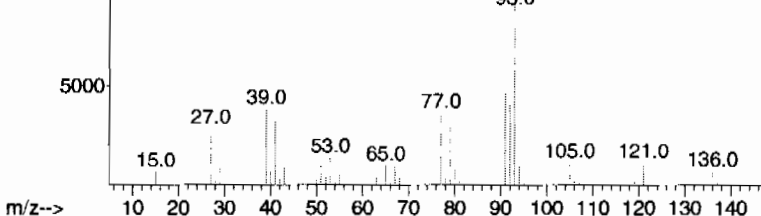
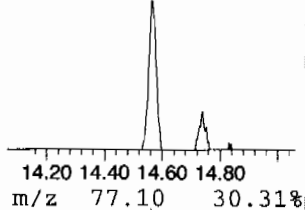
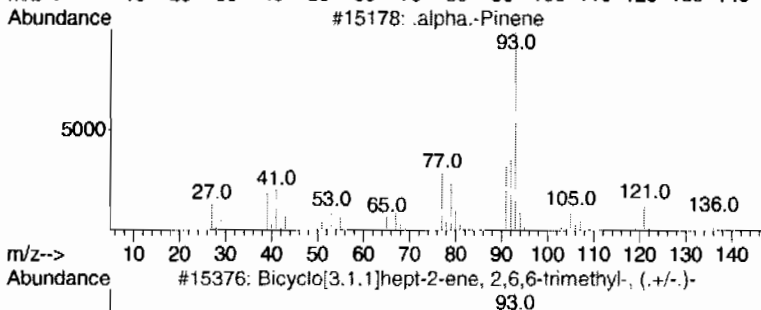
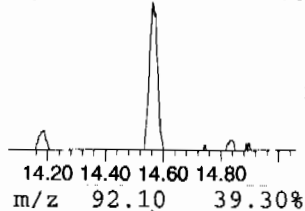
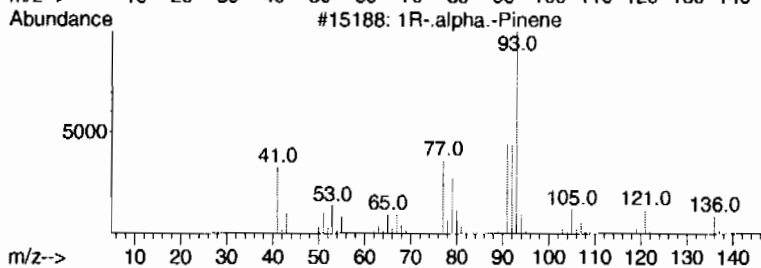
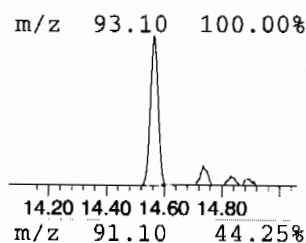
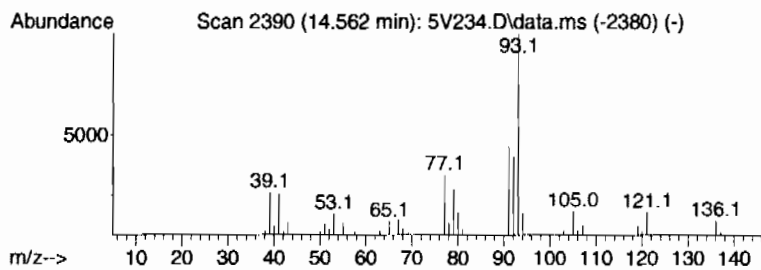
SubList :

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

\*\*\*\*\*  
Peak Number 2 1R-.alpha.-Pinene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.562	6.42 ug/L	221045	B Chlorobenzene-d5	13.547

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			1R-.alpha.-Pinene	136	C10H16	007785-70-8	96
2			.alpha.-Pinene	136	C10H16	000080-56-8	94
3			Bicyclo[3.1.1]hept-2-ene, 2,6,6-...	136	C10H16	002437-95-8	94
4			1R-.alpha.-Pinene	136	C10H16	007785-70-8	91
5			.alpha.-Pinene	136	C10H16	000080-56-8	91



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V234.D  
Acq On : 27 Jan 2010 1:32 am  
Operator : DXK1  
Sample : |245106008|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :

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

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown	9.395	29.2	ug/L	1217410	1	10.375	2086680	50.0
1R-.alpha.-Pinene	14.562	6.4	ug/L	221045	4	13.547	1721840	50.0

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

SDG Number: 10-1304  
 Lab Sample ID: 245106009  
 Client ID: RE15-10-7177  
 Batch ID: 945552  
 Run Date: 01/27/2010 16:18  
 Prep Date: 01/27/2010 13:09  
 Data File: 012710V5SV312.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 7.5  
 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	1.08	ug/kg	0.367	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.324	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.324	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.324	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.324	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.324	1.08
67-64-1	Acetone	U	5.40	ug/kg	1.79	5.40
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
74-88-4	Iodomethane	U	5.40	ug/kg	1.73	5.40
75-09-2	Methylene chloride	U	5.40	ug/kg	2.16	5.40
75-15-0	Carbon disulfide	U	5.40	ug/kg	1.35	5.40
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.324	1.08
78-93-3	2-Butanone	U	5.40	ug/kg	1.62	5.40
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.324	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.324	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.357	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.324	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.324	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.324	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.324	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.324	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.357	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.324	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.324	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.324	1.08
108-10-1	4-Methyl-2-pentanone	U	5.40	ug/kg	1.35	5.40
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.324	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.324	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.324	1.08
591-78-6	2-Hexanone	U	5.40	ug/kg	1.62	5.40
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.324	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.324	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.324	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.324	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.324	1.08

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

SDG Number: 10-1304  
 Lab Sample ID: 245106009  
 Client ID: RE15-10-7177  
 Batch ID: 945552  
 Run Date: 01/27/2010 16:18  
 Prep Date: 01/27/2010 13:09  
 Data File: 012710V55V312.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 7.5  
 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	1.08	ug/kg	0.324	1.08
179601-23-1	m,p-Xylenes	U	2.16	ug/kg	0.324	2.16
95-47-6	o-Xylene	U	1.08	ug/kg	0.324	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.324	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.324	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.324	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.324	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.324	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.324	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.324	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.324	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.324	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.324	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.324	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.324	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.324	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.40	ug/kg	1.73	5.40
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.324	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.324	1.08

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.99	18	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V312.D  
Acq On : 27 Jan 2010 4:18 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106009|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 28 09:50:31 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.375	10.375	1.000	96	934736	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	657750	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.962	15.962	1.000	152	283927	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	934736	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	657750	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.962	15.962	1.000	152	283927	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.025	10.021	0.966	65	220705	50.80	ug/L	0.00
Spiked Amount 50.000	Range 68	- 131	Recovery	=	101.60%			
43) Toluene-d8	12.016	12.016	0.887	98	849466	47.35	ug/L	0.00
Spiked Amount 50.000	Range 75	- 129	Recovery	=	94.70%			
61) Bromofluorobenzene	14.739	14.739	0.923	95	295619	54.56	ug/L	0.00
Spiked Amount 50.000	Range 68	- 133	Recovery	=	109.12%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	0.000	6.733	0.000		0	N.D.		
9) Acetone	7.104	7.100	0.685	43	702	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	0.000	7.450	0.000		0	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	7.503	7.511	0.723	76	158	N.D.		
15) Methylene chloride	7.687	7.691	0.741	84	3281	N.D.		
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	0.000	9.077	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.371	10.127	1.000	78	416	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V312.D  
Acq On : 27 Jan 2010 4:18 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106009|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 28 09:50:31 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:56:29 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.087	12.090	0.892	91	2804	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.631	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	12.691	12.691	0.937	164	135	N.D.	
50) Dibromochloromethane	12.695	12.928	0.937	129	115	N.D.	
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	13.476	13.636	0.995	131	108	N.D.	
54) Ethylbenzene	13.727	13.639	1.013	91	136	N.D.	
55) m,p-Xylenes	0.000	13.749	0.000		0	N.D.	
56) o-Xylene	0.000	14.184	0.000		0	N.D.	
57) Styrene	0.000	14.184	0.000		0	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.537	0.000		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	0.000	14.810	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.965	0.000		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	0.000	15.114	0.000		0m	N.D.	d
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.216	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.580	15.527	0.976	105	1040	N.D.	
71) sec-Butylbenzene	15.580	15.711	0.976	105	1040	N.D.	
72) 4-Isopropyltoluene	15.835	15.832	0.992	119	527	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.991	0.000		0	N.D.	
75) n-Butylbenzene	0.000	16.277	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.422	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.371	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	18.776	18.762	1.176	128	233	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.116	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	0.000	7.546	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.088	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V312.D  
Acq On : 27 Jan 2010 4:18 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106009|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 28 09:50:31 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.466	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0m	N.D.	d
108) Cyclohexanone	0.000	14.693	0.000		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	14.894	14.856	0.933	53	133	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.497	0.000		0m	N.D.	d

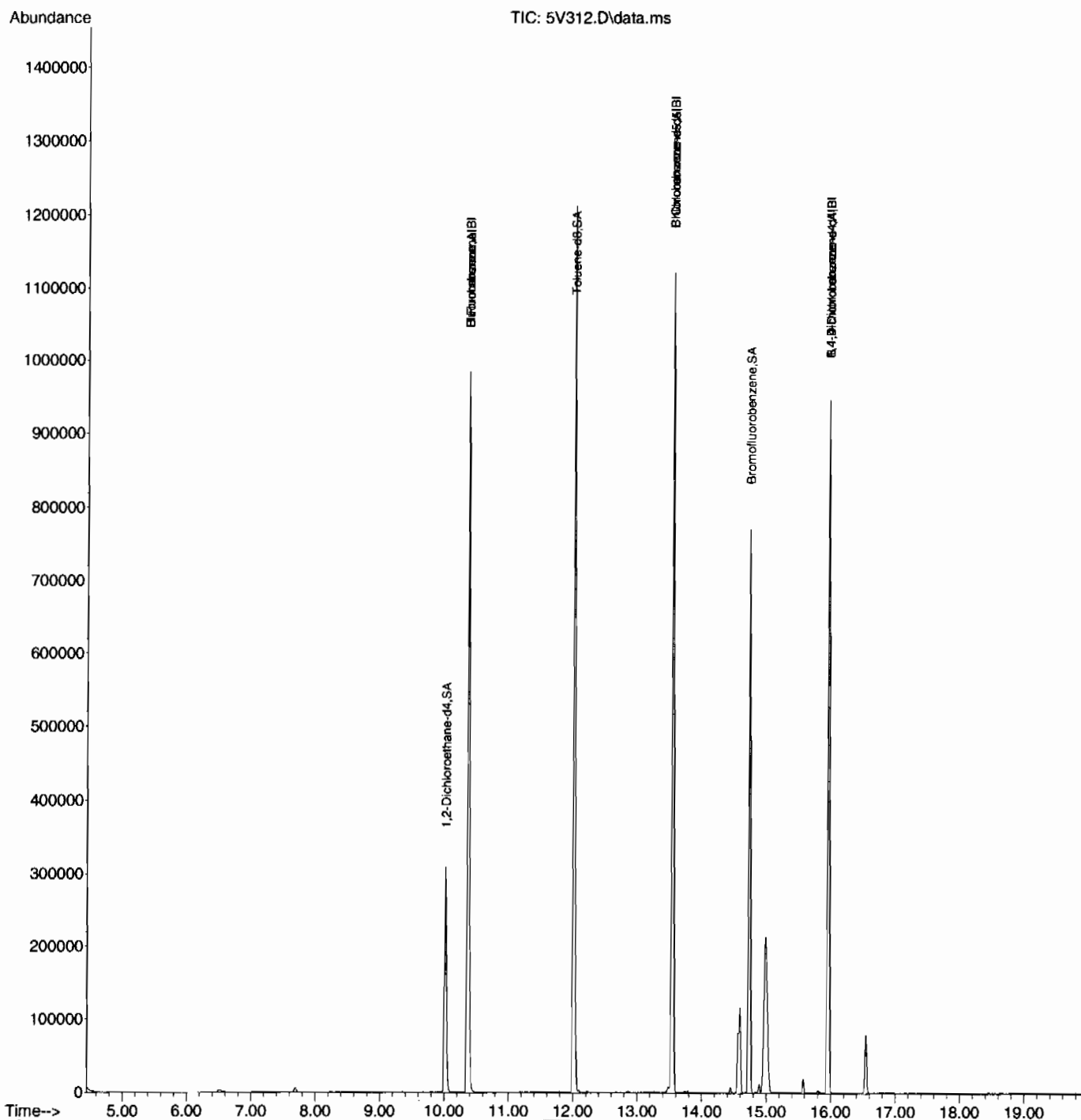
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

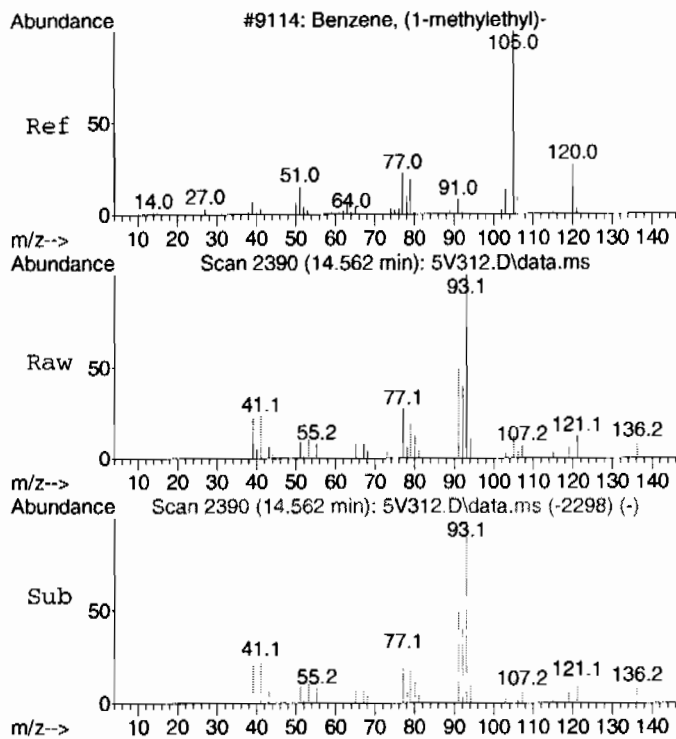
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V312.D  
Acq On : 27 Jan 2010 4:18 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106009|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 28 09:50:31 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

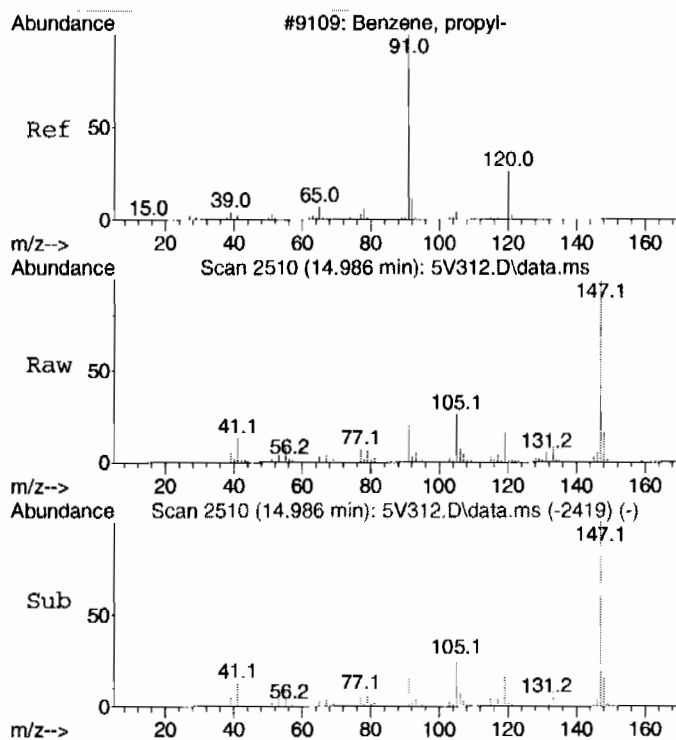
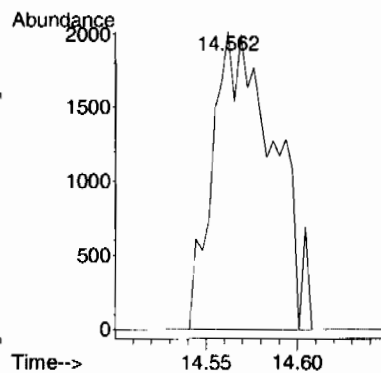
SubList :





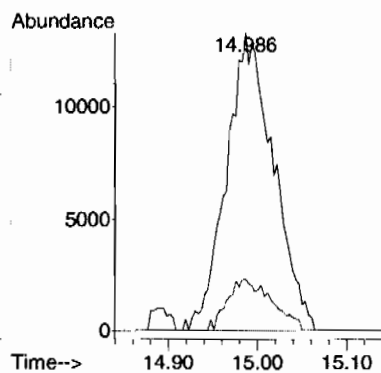
#60 BEFORE analyst DELETION  
Isopropylbenzene  
Concen: 0.36 ug/L  
RT: 14.562 min Scan# 2390  
Delta R.T. 0.025 min  
Lab File: 5V312.D  
Acq: 27 Jan 2010 4:18 pm

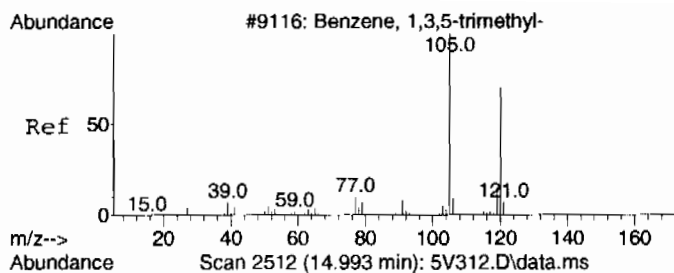
Tgt Ion: 105 Resp: 4688  
Ion Ratio Lower Upper  
105 100  
120 0.0 0.0 57.9



#65 BEFORE analyst DELETION  
n-Propylbenzene  
Concen: 3.16 ug/L  
RT: 14.986 min Scan# 2510  
Delta R.T. 0.021 min  
Lab File: 5V312.D  
Acq: 27 Jan 2010 4:18 pm

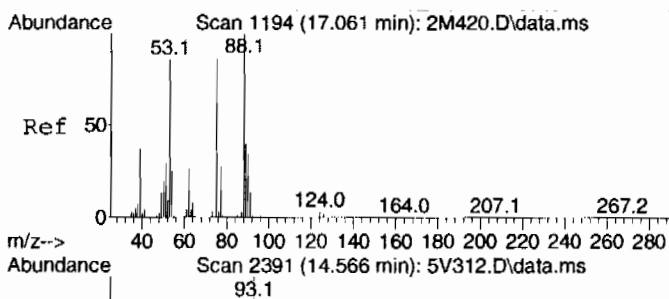
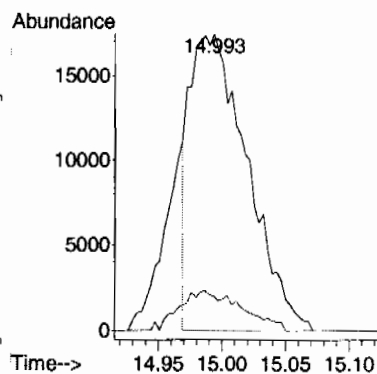
Tgt Ion: 91 Resp: 48815  
Ion Ratio Lower Upper  
91 100  
120 16.4 0.0 53.6





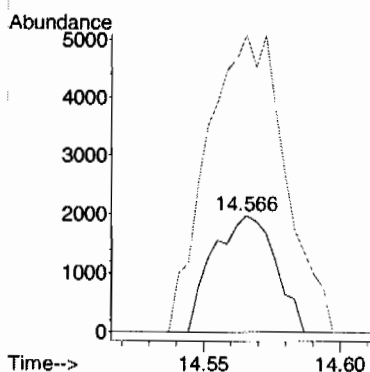
#66 BEFORE analyst DELETION  
1,3,5-Trimethylbenzene  
Concen: 5.20 ug/L  
RT: 14.993 min Scan# 2512  
Delta R.T. -0.121 min  
Lab File: 5V312.D  
Acq: 27 Jan 2010 4:18 pm

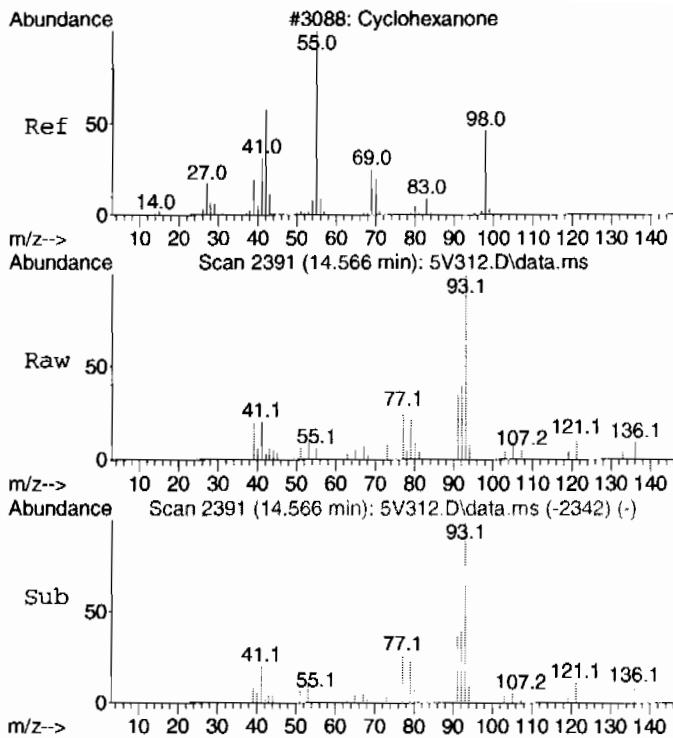
Tgt Ion:105 Resp: 54777  
Ion Ratio Lower Upper  
105 100  
120 12.3 21.1 81.1#



#107 BEFORE analyst DELETION  
cis-1,4-Dichloro-2-butene  
Concen: 2.93 ug/L  
RT: 14.566 min Scan# 2391  
Delta R.T. -0.007 min  
Lab File: 5V312.D  
Acq: 27 Jan 2010 4:18 pm

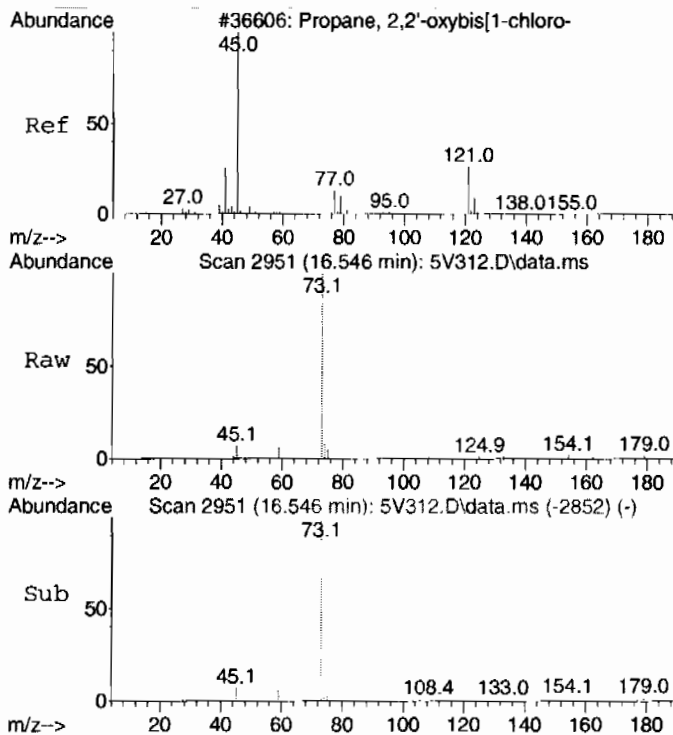
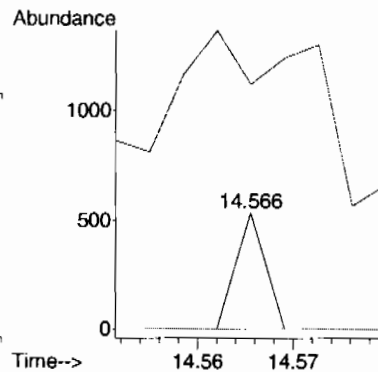
Tgt Ion: 53 Resp: 3147  
Ion Ratio Lower Upper  
53 100  
88 0.0 50.2 110.2#  
77 319.2 0.0 59.6#





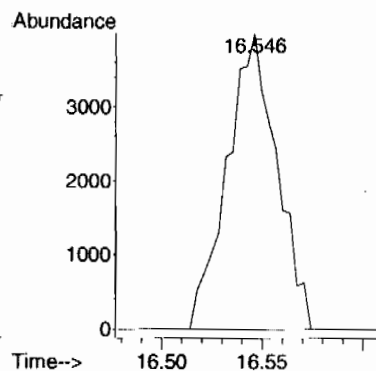
#108 BEFORE analyst DELETION  
Cyclohexanone  
Concen: 28.44 ug/L  
RT: 14.566 min Scan# 2391  
Delta R.T. -0.127 min  
Lab File: 5V312.D  
Acq: 27 Jan 2010 4:18 pm

Tgt Ion: 42 Resp: 114  
Ion Ratio Lower Upper  
42 100  
55 1688.6 104.7 164.7#  
98 0.0 21.5 81.5#



#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl)ether  
Concen: 3.61 ug/L  
RT: 16.546 min Scan# 2951  
Delta R.T. 0.049 min  
Lab File: 5V312.D  
Acq: 27 Jan 2010 4:18 pm

Tgt Ion: 45 Resp: 6828  
Ion Ratio Lower Upper  
45 100  
121 0.0 0.0 49.2



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V312.D  
Acq On : 27 Jan 2010 4:18 pm  
Operator : DXK1  
Sample : |245106009|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B

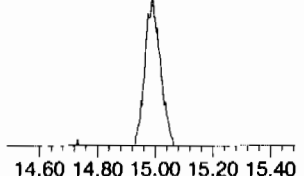
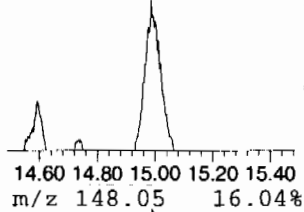
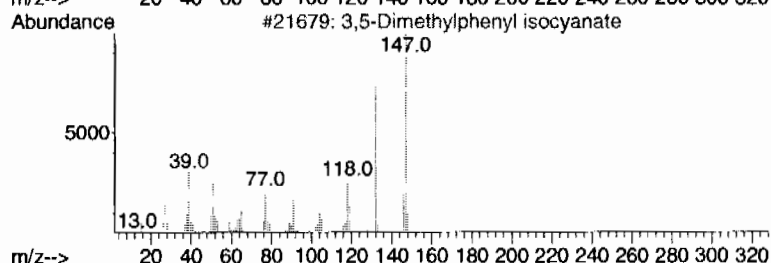
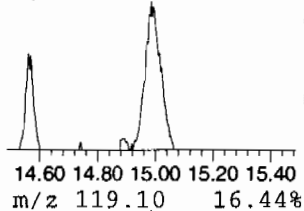
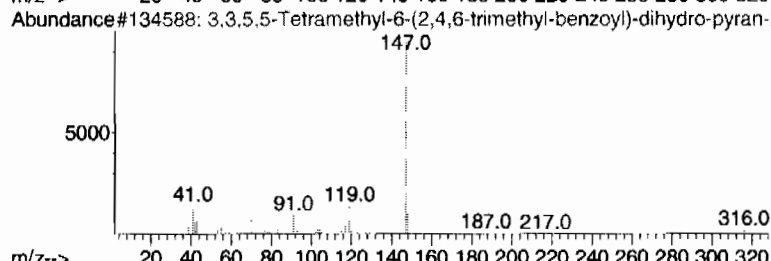
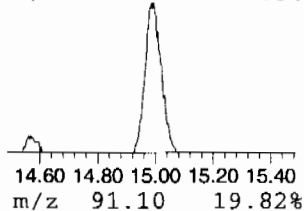
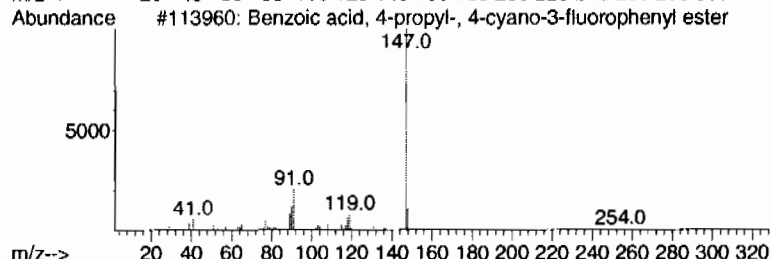
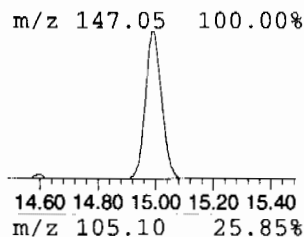
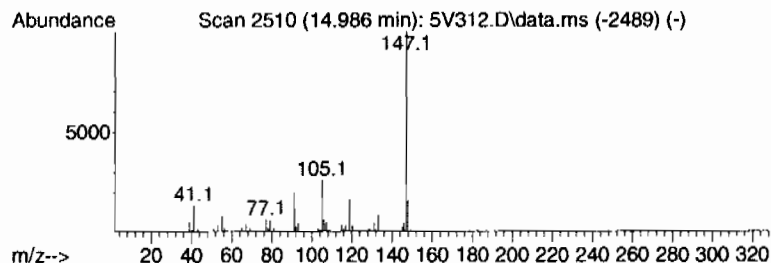
SubList :

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

\*\*\*\*\*  
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.986	16.67 ug/L	562215	1,4-Dichlorobenzene-d4	15.962

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Benzoic acid, 4-propyl-, 4-cyano...	283	C17H14FNO2	086776-51-4	53
2			3,3,5,5-Tetramethyl-6-(2,4,6-tri...	316	C19H24O4	1000300-11-3	53
3			3,5-Dimethylphenyl isocyanate	147	C9H9NO	054132-75-1	50
4			2H-Indol-2-one, 1,3-dihydro-1-me...	147	C9H9NO	000061-70-1	50
5			2,2-Dimethyl-1-(2,4,6-trimethylp...	204	C14H20O	002700-84-7	45



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V312.D  
Acq On : 27 Jan 2010 4:18 pm  
Operator : DXK1  
Sample : |245106009|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B

SubList :

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

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown siloxane	14.986	16.7	ug/L	562215	5	15.962	1686120	50.0



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

SDG Number: 10-1304  
 Lab Sample ID: 245106010

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE15-10-7181  
 Batch ID: 945552  
 Run Date: 01/27/2010 16:44  
 Prep Date: 01/27/2010 13:10  
 Data File: 012710V5SV313.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.387	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.341	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.341	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.341	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.341	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.341	1.14
67-64-1	Acetone	U	5.69	ug/kg	1.89	5.69
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.341	1.14
74-88-4	Iodomethane	U	5.69	ug/kg	1.82	5.69
75-09-2	Methylene chloride	U	5.69	ug/kg	2.28	5.69
75-15-0	Carbon disulfide	U	5.69	ug/kg	1.42	5.69
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.341	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.341	1.14
78-93-3	2-Butanone	U	5.69	ug/kg	1.71	5.69
156-59-2	cis-1,2-Dichloroethylen	U	1.14	ug/kg	0.341	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.341	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.341	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.376	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.341	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.341	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.341	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.341	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.341	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.376	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.341	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.341	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.341	1.14
108-10-1	4-Methyl-2-pentanone	U	5.69	ug/kg	1.42	5.69
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.341	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.341	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.341	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.341	1.14
591-78-6	2-Hexanone	U	5.69	ug/kg	1.71	5.69
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.341	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.341	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.341	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.341	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.341	1.14

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

SDG Number: 10-1304  
 Lab Sample ID: 245106010  
 Client ID: RE15-10-7181  
 Batch ID: 945552  
 Run Date: 01/27/2010 16:44  
 Prep Date: 01/27/2010 13:10  
 Data File: 012710V5SV313.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.341	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.341	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.341	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.341	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.341	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.341	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.341	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.341	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.341	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.341	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.341	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.341	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.341	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.341	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.341	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.341	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.341	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.341	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.341	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.69	ug/kg	1.82	5.69
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.341	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.55	13.2	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V313.D  
Acq On : 27 Jan 2010 4:44 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106010|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 28 09:50:50 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.375	10.375	1.000	96	980606	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	681092	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	298332	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	980606	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	681092	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	298332	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	228034	50.03	ug/L	0.00
Spiked Amount	50.000	Range 68 - 131	Recovery	=	100.06%			
43) Toluene-d8	12.020	12.016	0.887	98	883812	47.58	ug/L	0.00
Spiked Amount	50.000	Range 75 - 129	Recovery	=	95.16%			
61) Bromofluorobenzene	14.739	14.739	0.924	95	317157	55.71	ug/L	0.00
Spiked Amount	50.000	Range 68 - 133	Recovery	=	111.42%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	0.000	6.733	0.000		0	N.D.		
9) Acetone	7.107	7.100	0.685	43	373	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	0.000	7.450	0.000		0	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.511	0.000		0	N.D.		
15) Methylene chloride	7.698	7.691	0.742	84	607	N.D.		
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	0.000	9.077	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.368	10.127	0.999	78	576	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V313.D  
Acq On : 27 Jan 2010 4:44 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106010|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 28 09:50:50 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.090	12.090	0.892	91	2753	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.631	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.691	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.928	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.643	13.639	1.007	91	727	N.D.	
55) m,p-Xylenes	0.000	13.749	0.000		0	N.D.	
56) o-Xylene	14.191	14.184	1.048	106	121	N.D.	
57) Styrene	0.000	14.184	0.000		0	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.537	0.000		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	14.601	14.810	0.915	83	156	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.965	0.000		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	0.000	15.114	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	15.192	15.216	0.952	91	148	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.574	15.527	0.976	105	1084	N.D.	
71) sec-Butylbenzene	15.574	15.711	0.976	105	1084	N.D.	
72) 4-Isopropyltoluene	15.825	15.832	0.992	119	247	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.991	0.000		0	N.D.	
75) n-Butylbenzene	0.000	16.277	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.422	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.371	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	18.769	18.762	1.176	128	114	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.116	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	0.000	7.546	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.088	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

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Operator : DXK1  
InstName : VOA5  
Sample : |245106010|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 28 09:50:50 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.466	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0m	N.D.	d
108) Cyclohexanone	0.000	14.693	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	14.817	14.856	0.928	53	111	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.497	0.000		0m	N.D.	d

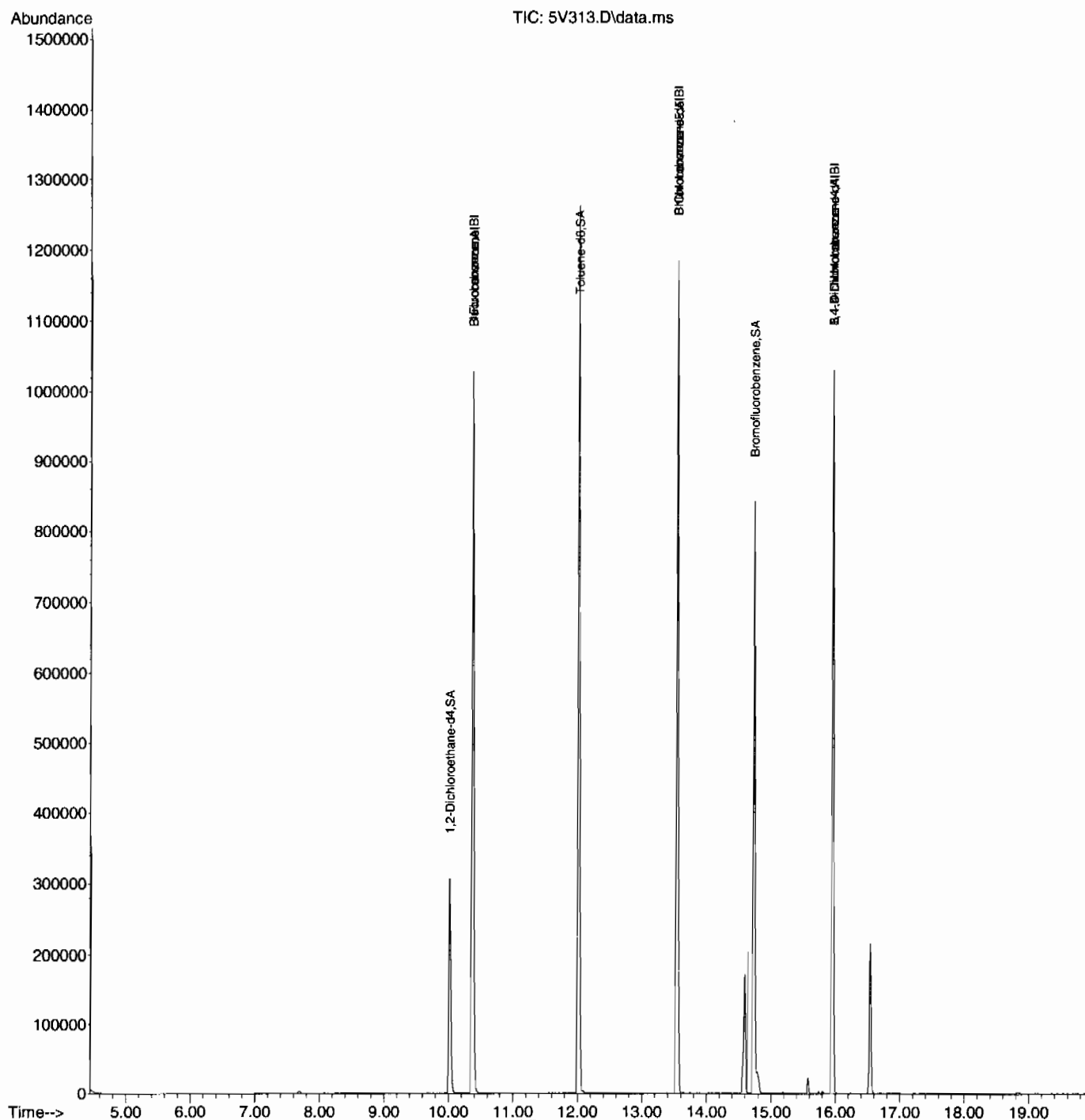
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

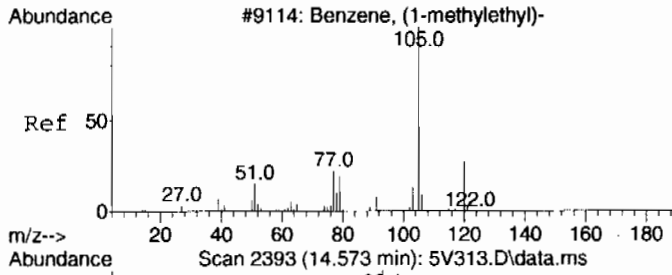
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V313.D  
Acq On : 27 Jan 2010 4:44 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106010|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 28 09:50:50 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

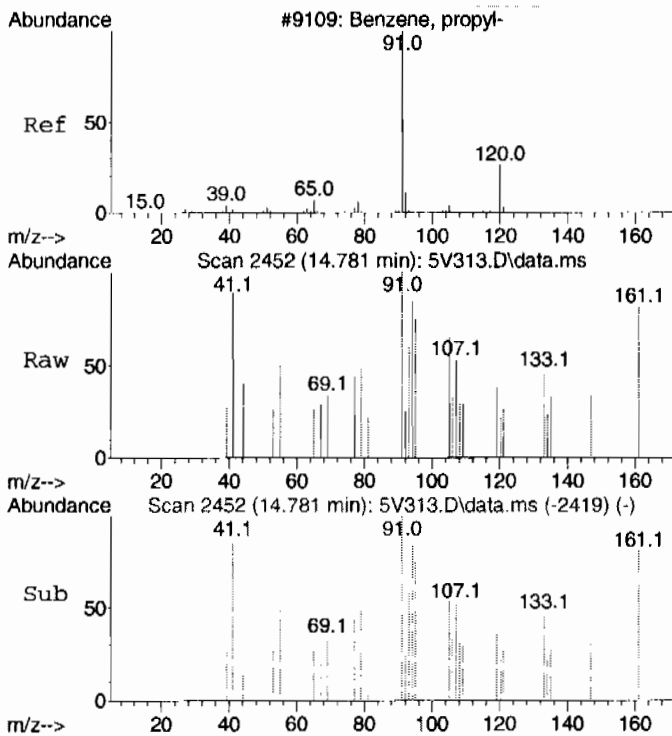
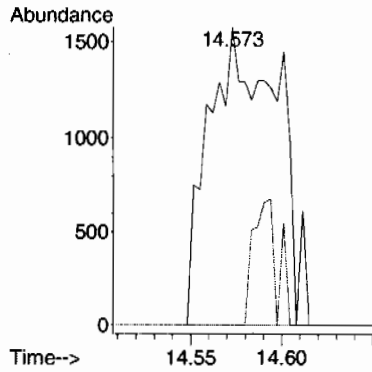
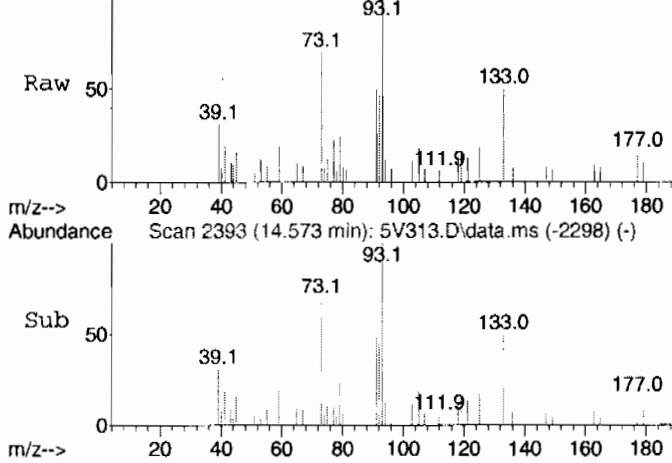
SubList :





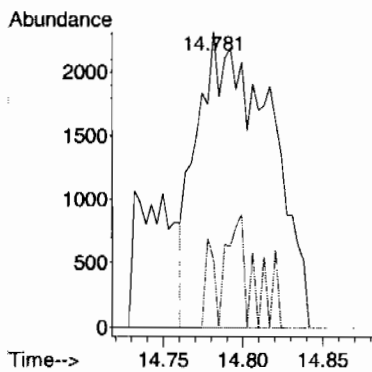
#60 BEFORE analyst DELETION  
Isopropylbenzene  
Concen: 0.31 ug/L  
RT: 14.573 min Scan# 2393  
Delta R.T. 0.036 min  
Lab File: 5V313.D  
Acq: 27 Jan 2010 4:44 pm

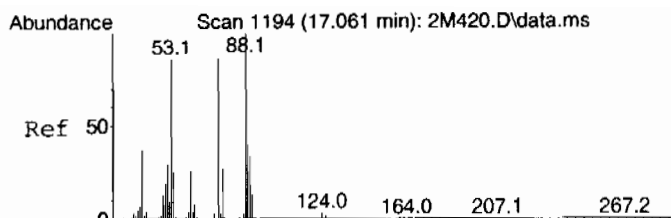
Tgt Ion: 105 Resp: 4177  
Ion Ratio Lower Upper  
105 100  
120 14.8 0.0 57.9



#65 BEFORE analyst DELETION  
n-Propylbenzene  
Concen: 0.45 ug/L  
RT: 14.781 min Scan# 2452  
Delta R.T. -0.184 min  
Lab File: 5V313.D  
Acq: 27 Jan 2010 4:44 pm

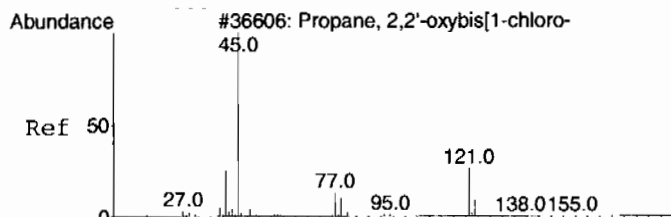
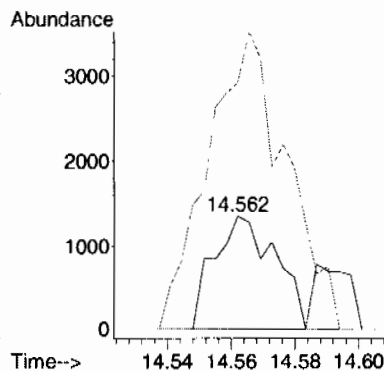
Tgt Ion: 91 Resp: 7353  
Ion Ratio Lower Upper  
91 100  
120 3.5 0.0 53.6





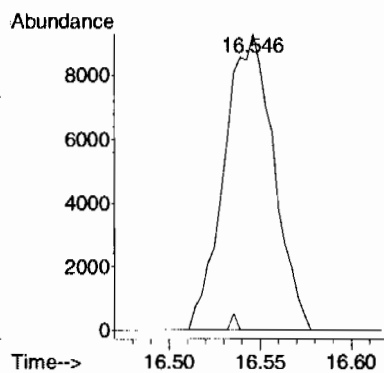
#107 BEFORE analyst DELETION  
 cis-1,4-Dichloro-2-butene  
 Concen: 1.63 ug/L  
 RT: 14.562 min Scan# 2390  
 Delta R.T. -0.011 min  
 Lab File: 5V313.D  
 Acq: 27 Jan 2010 4:44 pm

Tgt Ion	Resp	Lower	Upper
53	100		
88	32.8	50.2	110.2#
77	327.6	0.0	59.6#



#112 BEFORE analyst DELETION  
 bis(2-Chloroisopropyl)ether  
 Concen: 8.84 ug/L  
 RT: 16.546 min Scan# 2951  
 Delta R.T. 0.049 min  
 Lab File: 5V313.D  
 Acq: 27 Jan 2010 4:44 pm

Tgt Ion	Resp	Lower	Upper
45	100		
121	0.6	0.0	49.2





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V313.D  
Acq On : 27 Jan 2010 4:44 pm  
Operator : DXK1  
Sample : |245106010|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B

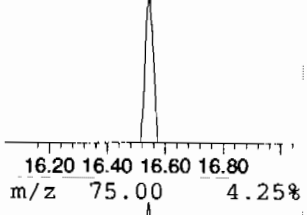
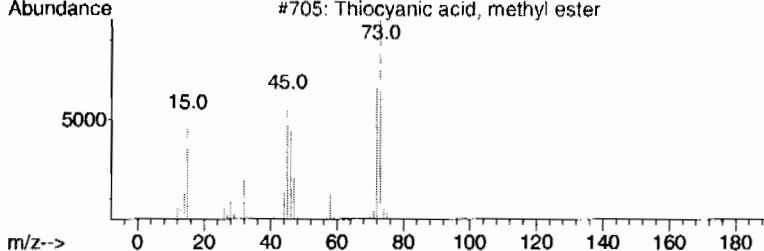
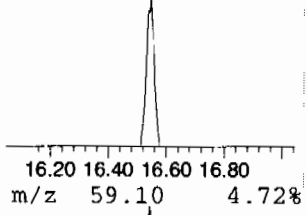
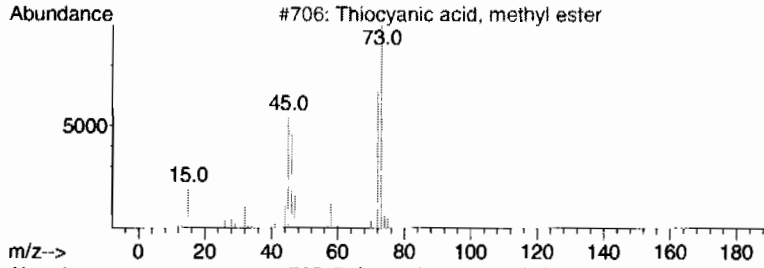
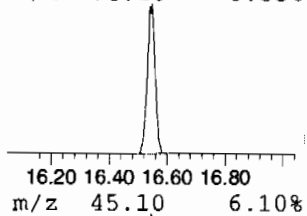
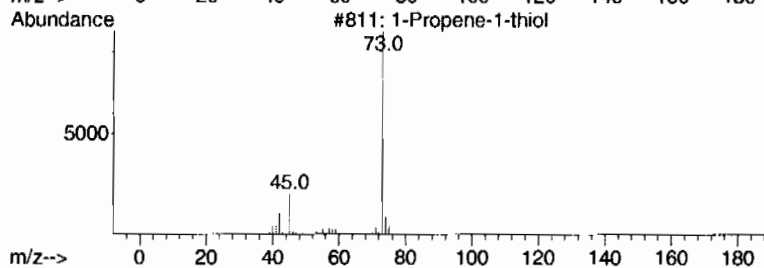
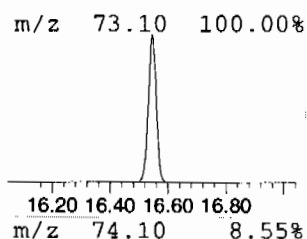
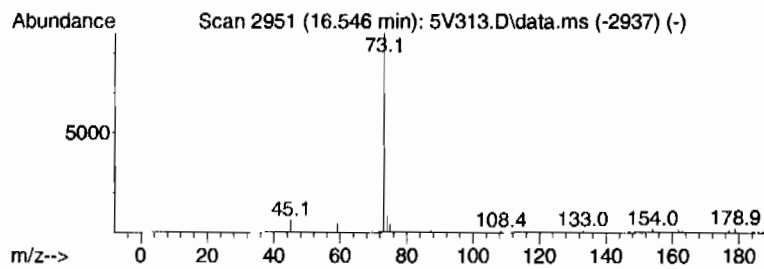
SubList :

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

\*\*\*\*\*  
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.546	11.59 ug/L	412695	B 1,4-Dichlorobenzene-d4	15.959

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			1-Propene-1-thiol	74	C3H6S	000925-89-3	7
2			Thiocyanic acid, methyl ester	73	C2H3NS	000556-64-9	4
3			Thiocyanic acid, methyl ester	73	C2H3NS	000556-64-9	4
4			Silane, trimethyl(1-methyl-1-pro...	128	C7H16Si	010111-13-4	4
5			Borane, dimethyl[1-methyl-2-(tri...	168	C9H21BSi	062108-35-4	4



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V313.D  
Acq On : 27 Jan 2010 4:44 pm  
Operator : DXK1  
Sample : |245106010|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown siloxane	16.546	11.6	ug/L	412695	6	15.959	1780380	50.0

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

SDG Number: 10-1304  
 Lab Sample ID: 245106011

Client ID: RE15-10-7178  
 Batch ID: 945552  
 Run Date: 01/27/2010 17:09  
 Prep Date: 01/27/2010 13:11  
 Data File: 012710V5SV314.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOAS.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 21.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQI/LOQ
75-71-8	Dichlorodifluoromethane	U	1.27	ug/kg	0.433	1.27
74-87-3	Chloromethane	U	1.27	ug/kg	0.382	1.27
75-01-4	Vinyl chloride	U	1.27	ug/kg	0.382	1.27
74-83-9	Bromomethane	U	1.27	ug/kg	0.382	1.27
75-00-3	Chloroethane	U	1.27	ug/kg	0.382	1.27
75-69-4	Trichlorofluoromethane	U	1.27	ug/kg	0.382	1.27
67-64-1	Acetone	U	6.36	ug/kg	2.11	6.36
75-35-4	1,1-Dichloroethylene	U	1.27	ug/kg	0.382	1.27
74-88-4	Iodomethane	U	6.36	ug/kg	2.04	6.36
75-09-2	Methylene chloride	U	6.36	ug/kg	2.54	6.36
75-15-0	Carbon disulfide	U	6.36	ug/kg	1.59	6.36
156-60-5	trans-1,2-Dichloroethylene	U	1.27	ug/kg	0.382	1.27
75-34-3	1,1-Dichloroethane	U	1.27	ug/kg	0.382	1.27
78-93-3	2-Butanone	U	6.36	ug/kg	1.91	6.36
156-59-2	cis-1,2-Dichloroethylene	U	1.27	ug/kg	0.382	1.27
594-20-7	2,2-Dichloropropane	U	1.27	ug/kg	0.382	1.27
67-66-3	Chloroform	U	1.27	ug/kg	0.382	1.27
74-97-5	Bromochloromethane	U	1.27	ug/kg	0.420	1.27
71-55-6	1,1,1-Trichloroethane	U	1.27	ug/kg	0.382	1.27
563-58-6	1,1-Dichloropropene	U	1.27	ug/kg	0.382	1.27
56-23-5	Carbon tetrachloride	U	1.27	ug/kg	0.382	1.27
107-06-2	1,2-Dichloroethane	U	1.27	ug/kg	0.382	1.27
71-43-2	Benzene	U	1.27	ug/kg	0.382	1.27
79-01-6	Trichloroethylene	U	1.27	ug/kg	0.420	1.27
78-87-5	1,2-Dichloropropane	U	1.27	ug/kg	0.382	1.27
75-27-4	Bromodichloromethane	U	1.27	ug/kg	0.382	1.27
74-95-3	Dibromomethane	U	1.27	ug/kg	0.382	1.27
108-10-1	4-Methyl-2-pentanone	U	6.36	ug/kg	1.59	6.36
10061-01-5	cis-1,3-Dichloropropylene	U	1.27	ug/kg	0.382	1.27
108-88-3	Toluene	U	1.27	ug/kg	0.382	1.27
10061-02-6	trans-1,3-Dichloropropylene	U	1.27	ug/kg	0.382	1.27
79-00-5	1,1,2-Trichloroethane	U	1.27	ug/kg	0.382	1.27
591-78-6	2-Hexanone	U	6.36	ug/kg	1.91	6.36
142-28-9	1,3-Dichloropropane	U	1.27	ug/kg	0.382	1.27
127-18-4	Tetrachloroethylene	U	1.27	ug/kg	0.382	1.27
124-48-1	Dibromochloromethane	U	1.27	ug/kg	0.382	1.27
106-93-4	1,2-Dibromoethane	U	1.27	ug/kg	0.382	1.27
108-90-7	Chlorobenzene	U	1.27	ug/kg	0.382	1.27

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

SDG Number: 10-1304  
 Lab Sample ID: 245106011  
 Client ID: RE15-10-7178  
 Batch ID: 945552  
 Run Date: 01/27/2010 17:09  
 Prep Date: 01/27/2010 13:11  
 Data File: 012710V5SV314.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOAS.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 21.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.27	ug/kg	0.382	1.27
179601-23-1	m,p-Xylenes	U	2.54	ug/kg	0.382	2.54
95-47-6	o-Xylene	U	1.27	ug/kg	0.382	1.27
100-42-5	Styrene	U	1.27	ug/kg	0.382	1.27
75-25-2	Bromoform	U	1.27	ug/kg	0.382	1.27
79-34-5	1,1,2,2-Tetrachloroethane	U	1.27	ug/kg	0.382	1.27
96-18-4	1,2,3-Trichloropropane	U	1.27	ug/kg	0.382	1.27
108-86-1	Bromobenzene	U	1.27	ug/kg	0.382	1.27
103-65-1	n-Propylbenzene	U	1.27	ug/kg	0.382	1.27
95-49-8	2-Chlorotoluene	U	1.27	ug/kg	0.382	1.27
98-82-8	Isopropylbenzene	U	1.27	ug/kg	0.382	1.27
108-67-8	1,3,5-Trimethylbenzene	U	1.27	ug/kg	0.382	1.27
106-43-4	4-Chlorotoluene	U	1.27	ug/kg	0.382	1.27
98-06-6	tert-Butylbenzene	U	1.27	ug/kg	0.382	1.27
95-63-6	1,2,4-Trimethylbenzene	U	1.27	ug/kg	0.382	1.27
135-98-8	sec-Butylbenzene	U	1.27	ug/kg	0.382	1.27
99-87-6	4-Isopropyltoluene	U	1.27	ug/kg	0.382	1.27
541-73-1	1,3-Dichlorobenzene	U	1.27	ug/kg	0.382	1.27
106-46-7	1,4-Dichlorobenzene	U	1.27	ug/kg	0.382	1.27
104-51-8	n-Butylbenzene	U	1.27	ug/kg	0.382	1.27
96-12-8	1,2-Dibromo-3-chloropropane	U	1.27	ug/kg	0.382	1.27
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.36	ug/kg	2.04	6.36
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.27	ug/kg	0.382	1.27
95-50-1	1,2-Dichlorobenzene	U	1.27	ug/kg	0.382	1.27

**Tentatively Identified Compound Summary**

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V314.D  
Acq On : 27 Jan 2010 5:09 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106011|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 28 09:51:08 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:56:29 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.375	10.375	1.000	96	900964	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	575178	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	219344	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	900964	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	575178	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	219344	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	216847	51.79	ug/L	0.00
Spiked Amount	50.000	Range 68 - 131	Recovery	=	103.58%			
43) Toluene-d8	12.016	12.016	0.887	98	794208	50.63	ug/L	0.00
Spiked Amount	50.000	Range 75 - 129	Recovery	=	101.26%			
61) Bromofluorobenzene	14.739	14.739	0.924	95	258369	61.73	ug/L	0.00
Spiked Amount	50.000	Range 68 - 133	Recovery	=	123.46%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	0.000	6.733	0.000		0	N.D.		
9) Acetone	7.100	7.100	0.684	43	109	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	0.000	7.450	0.000		0	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.511	0.000		0	N.D.		
15) Methylene chloride	7.691	7.691	0.741	84	6079	N.D.		
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	0.000	9.077	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.371	10.127	1.000	78	659	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V314.D  
Acq On : 27 Jan 2010 5:09 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106011|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 28 09:51:08 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:56:29 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.094	12.090	0.893	91	111	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.631	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.691	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.928	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.540	13.639	0.999	91	261	N.D.	
55) m,p-Xylenes	0.000	13.749	0.000		0	N.D.	
56) o-Xylene	0.000	14.184	0.000		0	N.D.	
57) Styrene	0.000	14.184	0.000		0	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.537	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.810	0.000		0m	N.D.	d
63) 1,2,3-Trichloropropane	14.792	14.898	0.927	110	146	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.965	0.000		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	0.000	15.114	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.216	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.527	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	15.711	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.832	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.991	0.000		0	N.D.	
75) n-Butylbenzene	0.000	16.277	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.422	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.371	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	0.000	18.762	0.000		0	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.116	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	0.000	7.546	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.088	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V314.D  
Acq On : 27 Jan 2010 5:09 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106011|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 28 09:51:08 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.466	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0m	N.D.	d
108) Cyclohexanone	0.000	14.693	0.000		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	0.000	14.856	0.000		0m	N.D.	d
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	16.546	16.497	1.037	45	795	N.D.	

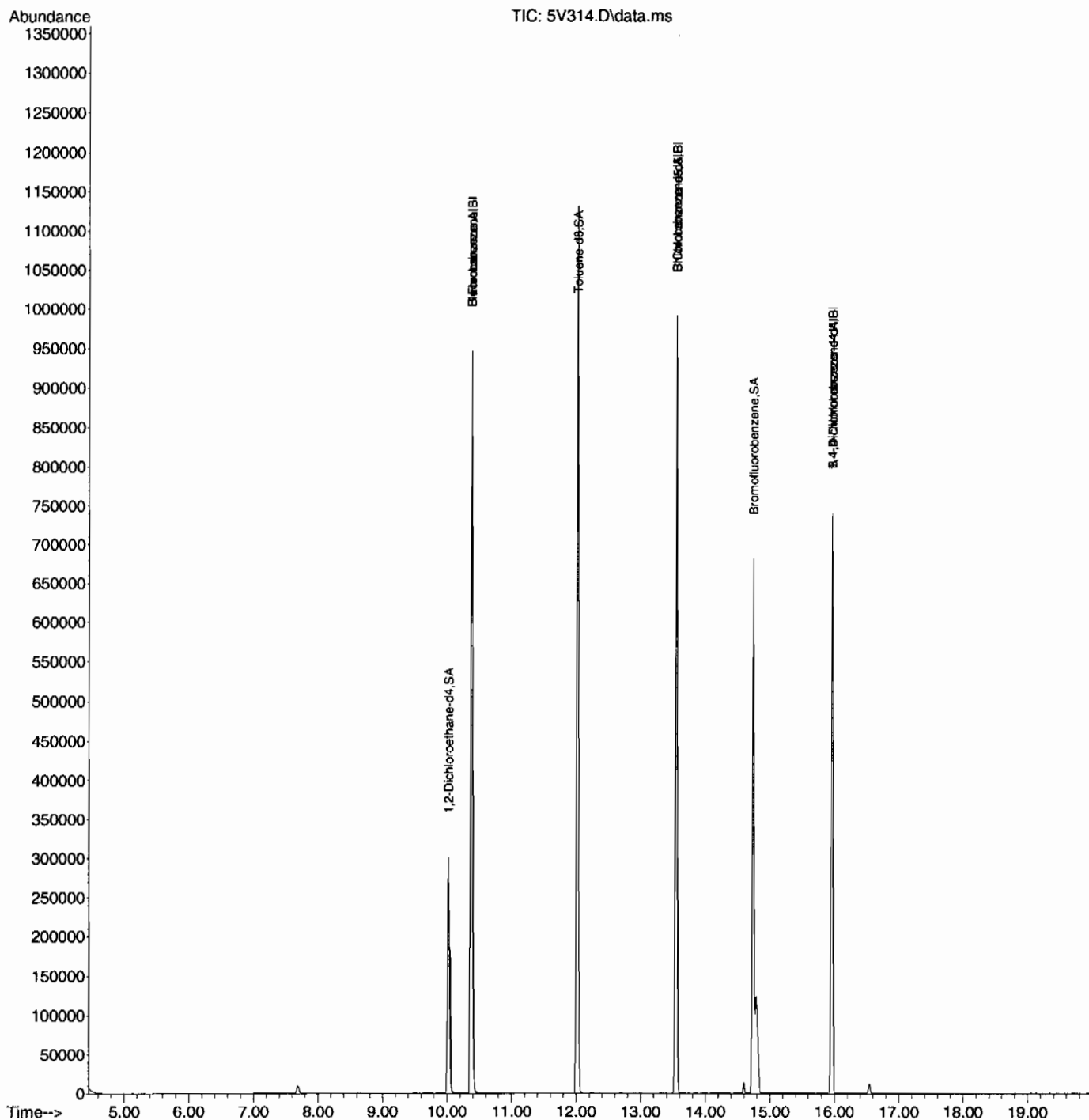
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

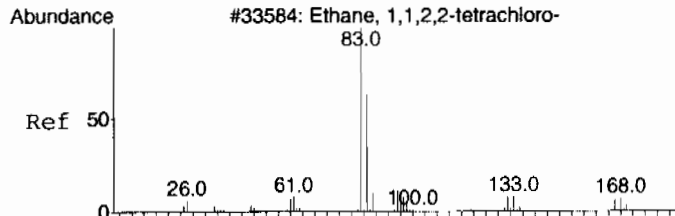
Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V314.D  
Acq On : 27 Jan 2010 5:09 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106011|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 28 09:51:08 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

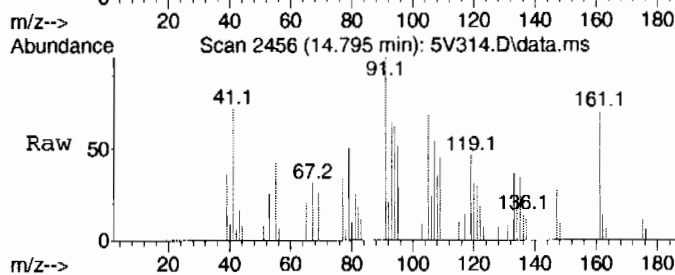
SubList :



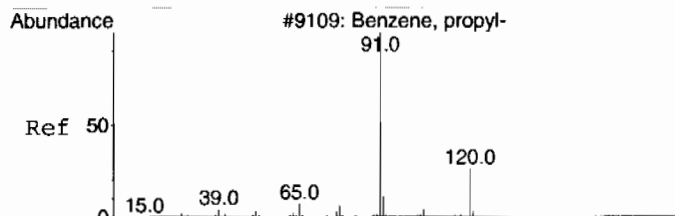
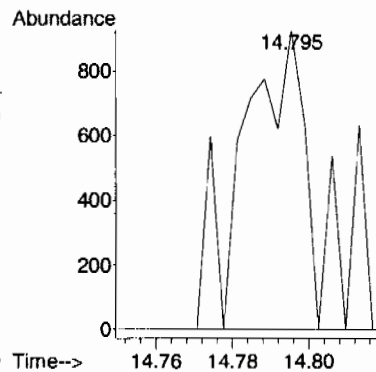
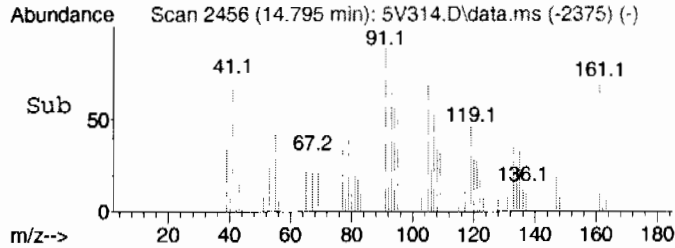




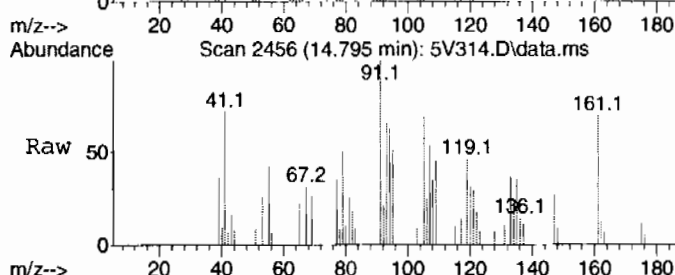
#62 BEFORE analyst DELETION  
1,1,2,2-Tetrachloroethane  
Concen: 0.41 ug/L  
RT: 14.795 min Scan# 2456  
Delta R.T. -0.015 min  
Lab File: 5V314.D  
Acq: 27 Jan 2010 5:09 pm



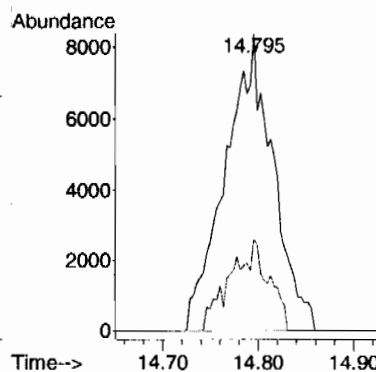
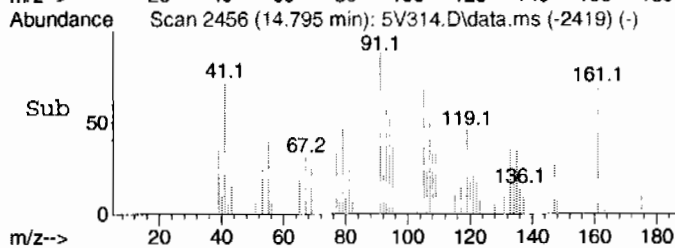
Tgt Ion: 83 Resp: 1029  
Ion Ratio Lower Upper  
83 100  
85 0.0 33.6 93.6#

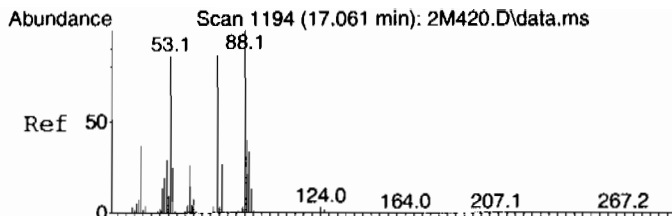


#65 BEFORE analyst DELETION  
n-Propylbenzene  
Concen: 2.45 ug/L  
RT: 14.795 min Scan# 2456  
Delta R.T. -0.170 min  
Lab File: 5V314.D  
Acq: 27 Jan 2010 5:09 pm

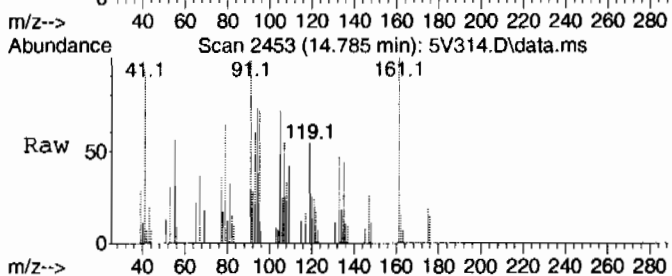


Tgt Ion: 91 Resp: 29211  
Ion Ratio Lower Upper  
91 100  
120 11.0 0.0 53.6

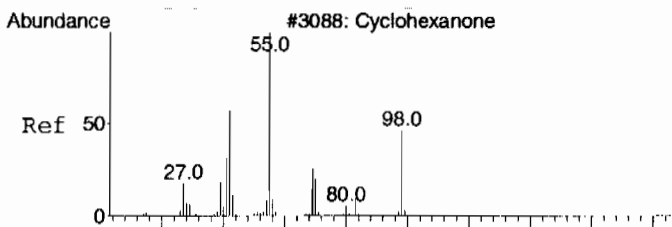
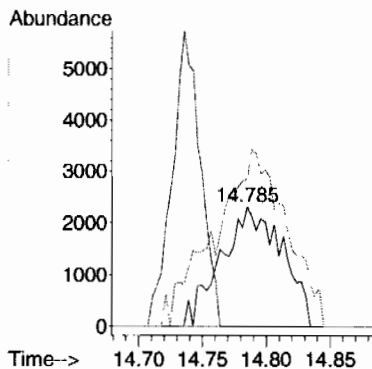
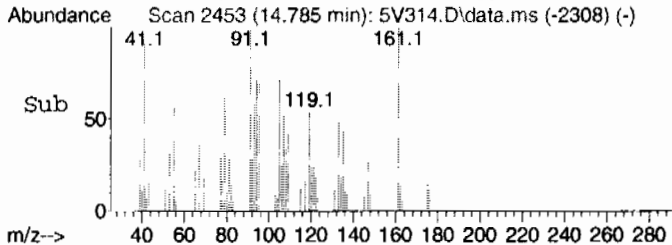




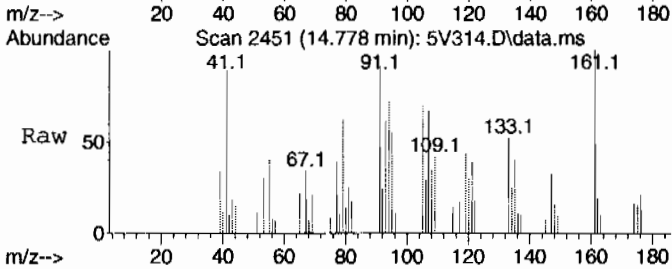
#107 BEFORE analyst DELETION  
 cis-1,4-Dichloro-2-butene  
 Concen: 9.24 ug/L  
 RT: 14.785 min Scan# 2453  
 Delta R.T. 0.212 min  
 Lab File: 5V314.D  
 Acq: 27 Jan 2010 5:09 pm



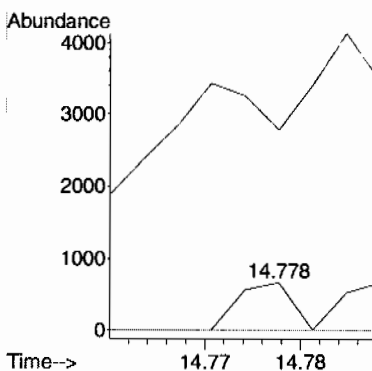
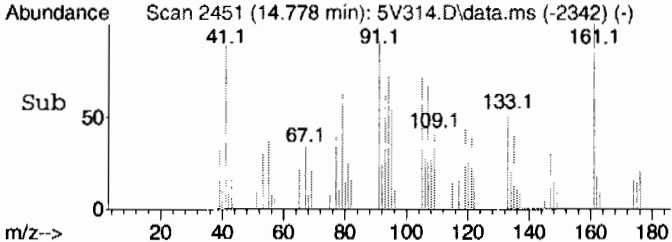
Tgt Ion: 53 Resp: 7676  
 Ion Ratio Lower Upper  
 53 100  
 88 0.0 50.2 110.2#  
 77 173.7 0.0 59.6#

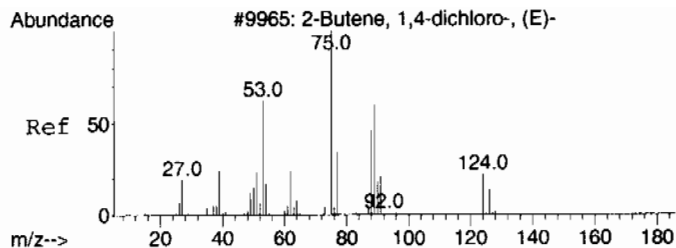


#108 BEFORE analyst DELETION  
 Cyclohexanone  
 Concen: 29.12 ug/L  
 RT: 14.778 min Scan# 2451  
 Delta R.T. 0.085 min  
 Lab File: 5V314.D  
 Acq: 27 Jan 2010 5:09 pm

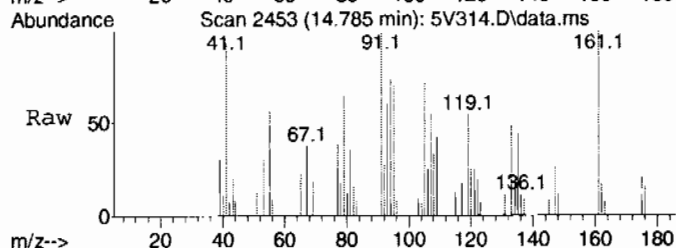


Tgt Ion: 42 Resp: 262  
 Ion Ratio Lower Upper  
 42 100  
 55 3579.0 104.7 164.7#  
 98 0.0 21.5 81.5#

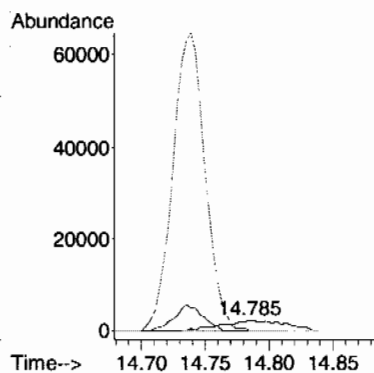
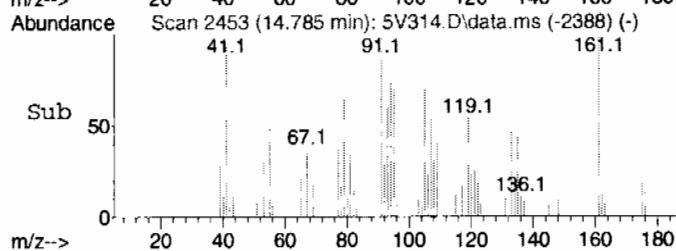




#109 BEFORE analyst DELETION  
 trans-1,4-Dichloro-2-butene  
 Concen: 9.64 ug/L  
 RT: 14.785 min Scan# 2453  
 Delta R.T. -0.071 min  
 Lab File: 5V314.D  
 Acq: 27 Jan 2010 5:09 pm



Tgt Ion: 53 Resp: 7676  
 Ion Ratio Lower Upper  
 53 100  
 88 115.2 7.6 67.6#  
 75 1486.6 86.0 146.0#



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V314.D  
Acq On : 27 Jan 2010 5:09 pm  
Operator : DXK1  
Sample : |245106011|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.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\012710V5\  
Data File : SV314.D  
Acq On : 27 Jan 2010 5:09 pm  
Operator : DXK1  
Sample : |245106011|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.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: 10-1304  
 Lab Sample ID: 245106012  
 Client ID: RE15-10-7182  
 Batch ID: 945552  
 Run Date: 01/27/2010 17:35  
 Prep Date: 01/27/2010 13:12  
 Data File: 012710V5SV315.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOAS.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 18  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: I  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.415	1.22
74-87-3	Chloromethane	U	1.22	ug/kg	0.366	1.22
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.366	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.366	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.366	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.366	1.22
67-64-1	Acetone	U	6.10	ug/kg	2.02	6.10
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
74-88-4	Iodomethane	U	6.10	ug/kg	1.95	6.10
75-09-2	Methylene chloride	U	6.10	ug/kg	2.44	6.10
75-15-0	Carbon disulfide	U	6.10	ug/kg	1.52	6.10
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.366	1.22
78-93-3	2-Butanone	U	6.10	ug/kg	1.83	6.10
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.366	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.402	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.366	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.366	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.366	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.366	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.366	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.402	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.366	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.366	1.22
108-10-1	4-Methyl-2-pentanone	U	6.10	ug/kg	1.52	6.10
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.366	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.366	1.22
591-78-6	2-Hexanone	U	6.10	ug/kg	1.83	6.10
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.366	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.366	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.366	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.366	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.366	1.22

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

SDG Number: 10-1304  
 Lab Sample ID: 245106012  
 Client ID: RE15-10-7182  
 Batch ID: 945552  
 Run Date: 01/27/2010 17:35  
 Prep Date: 01/27/2010 13:12  
 Data File: 012710V5SV315.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 18  
 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	1.22	ug/kg	0.366	1.22
179601-23-1	m,p-Xylenes	U	2.44	ug/kg	0.366	2.44
95-47-6	o-Xylene	U	1.22	ug/kg	0.366	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.366	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.366	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.366	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.366	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.366	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.366	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.366	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.366	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.366	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.366	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.366	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.10	ug/kg	1.95	6.10
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	14.59	6.41	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V315.D  
Acq On : 27 Jan 2010 5:35 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106012|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 28 09:51:18 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:56:29 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.375	10.375	1.000	96	900756	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	497204	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	137235	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	900756	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	497204	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	137235	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	205051	48.98	ug/L	0.00
Spiked Amount	50.000	Range 68 - 131	Recovery	=	97.96%			
43) Toluene-d8	12.016	12.016	0.887	98	767803	56.62	ug/L	0.00
Spiked Amount	50.000	Range 75 - 129	Recovery	=	113.24%			
61) Bromofluorobenzene	14.735	14.739	0.923	95	180353	68.87	ug/L	0.00
Spiked Amount	50.000	Range 68 - 133	Recovery	=	137.74%#			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	0.000	6.733	0.000		0	N.D.		
9) Acetone	7.100	7.100	0.684	43	1025	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	0.000	7.450	0.000		0	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	7.510	7.511	0.724	76	108	N.D.		
15) Methylene chloride	7.691	7.691	0.741	84	4652	N.D.		
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	0.000	9.077	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.375	10.127	1.000	78	404	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V315.D  
Acq On : 27 Jan 2010 5:35 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106012|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 28 09:51:18 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:56:29 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.090	12.090	0.892	91	1784	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.631	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	12.688	12.691	0.937	164	550	N.D.	
50) Dibromochloromethane	12.691	12.928	0.937	129	288	N.D.	
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.551	13.639	1.000	91	686	N.D.	
55) m,p-Xylenes	0.000	13.749	0.000		0	N.D.	
56) o-Xylene	0.000	14.184	0.000		0	N.D.	
57) Styrene	0.000	14.184	0.000		0	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	14.597	14.537	0.915	105	1654	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.810	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.965	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.114	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.216	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.527	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	15.711	0.000		0	N.D.	
72) 4-Isopropyltoluene	15.828	15.832	0.992	119	119	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.991	0.000		0	N.D.	
75) n-Butylbenzene	0.000	16.277	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.422	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.371	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	18.769	18.762	1.176	128	151	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.116	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	0.000	7.546	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.088	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V315.D  
Acq On : 27 Jan 2010 5:35 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106012|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 28 09:51:18 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.466	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.693	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.856	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.497	0.000		0m	N.D.	d

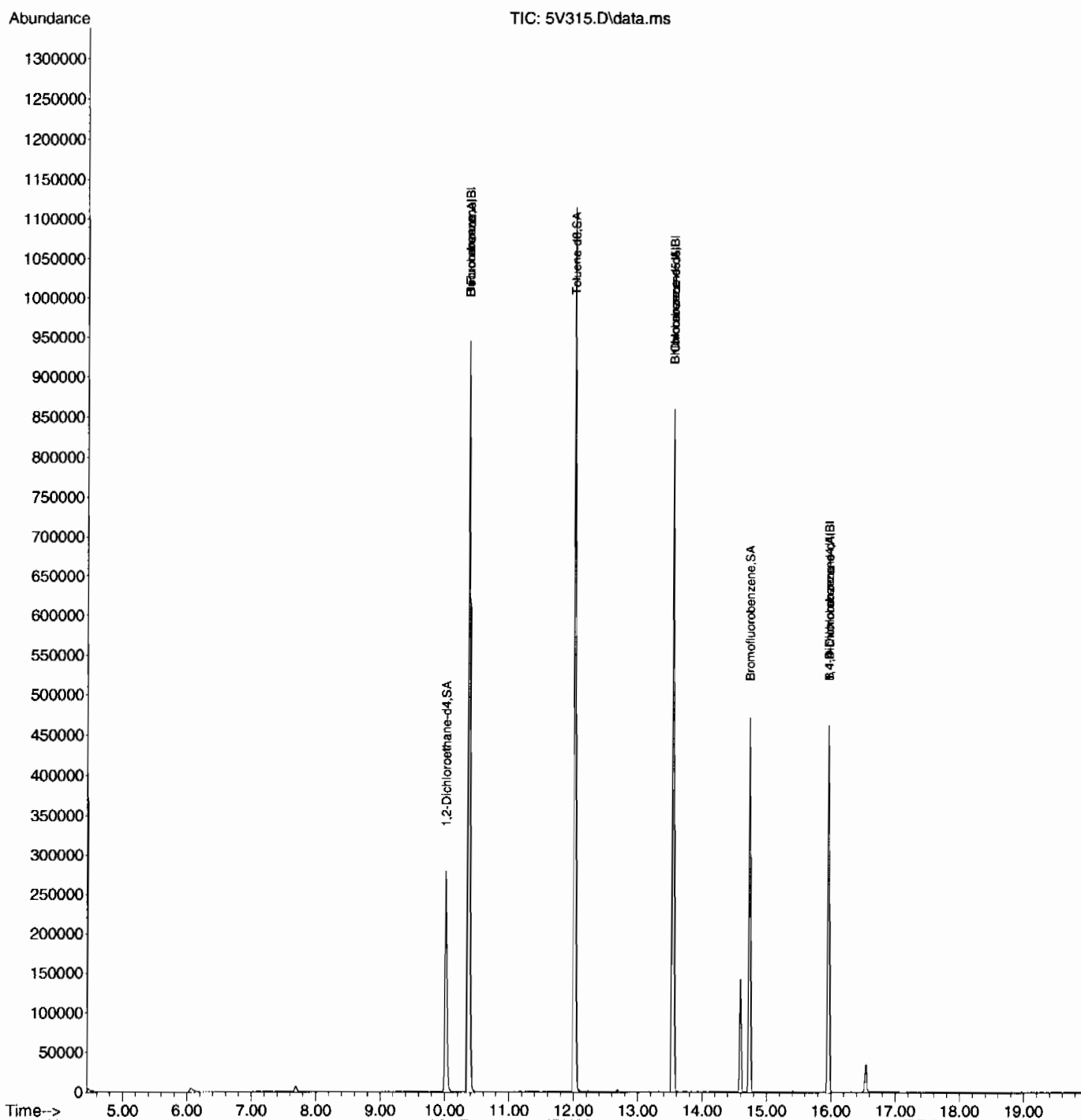
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(E) = Over the calibration range (d) = deleted

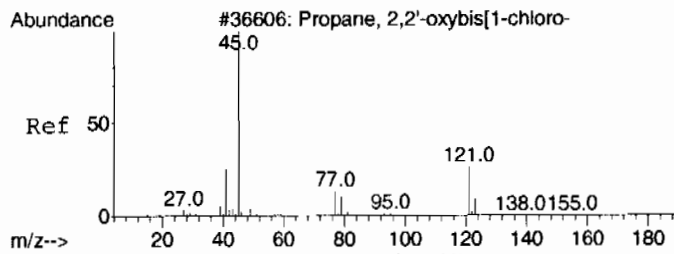
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V315.D  
Acq On : 27 Jan 2010 5:35 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106012|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 28 09:51:18 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

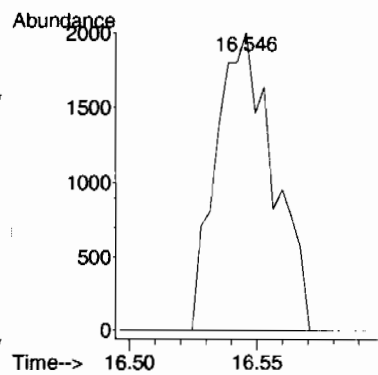
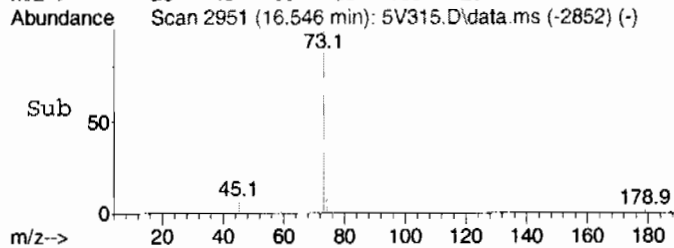
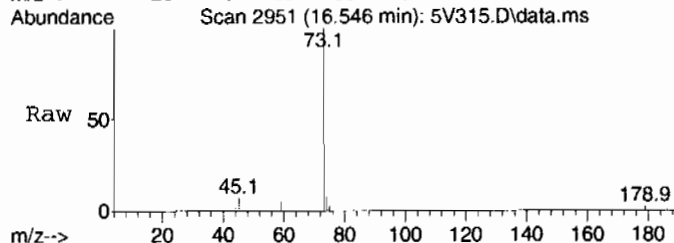
SubList :





#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl)ether  
Concen: 3.42 ug/L  
RT: 16.546 min Scan# 2951  
Delta R.T. 0.049 min  
Lab File: 5V315.D  
Acq: 27 Jan 2010 5:35 pm

Tgt Ion: 45 Resp: 3125  
Ion Ratio Lower Upper  
45 100  
121 0.0 0.0 49.2



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V315.D  
Acq On : 27 Jan 2010 5:35 pm  
Operator : DXK1  
Sample : |245106012|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B

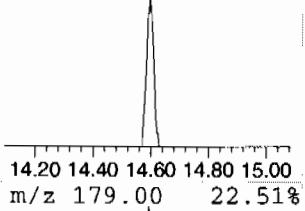
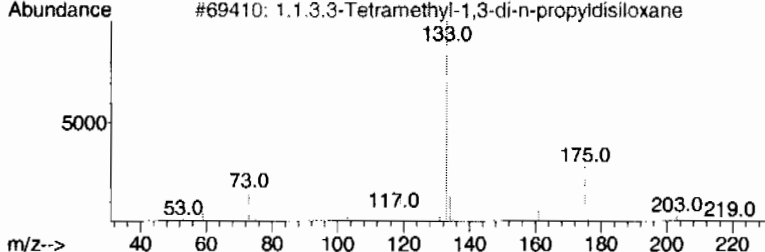
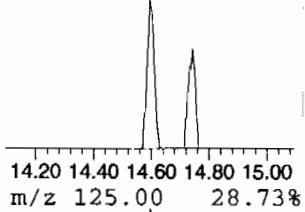
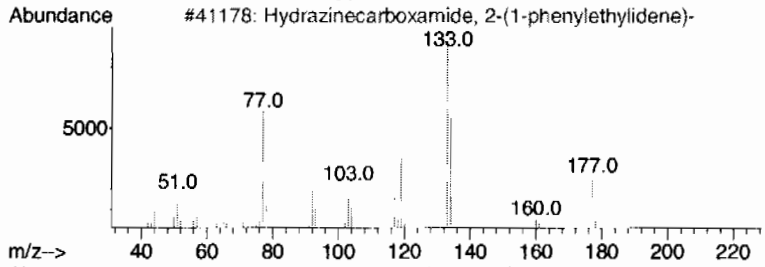
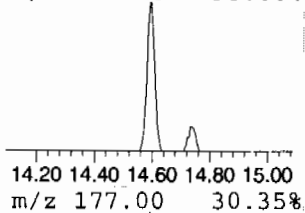
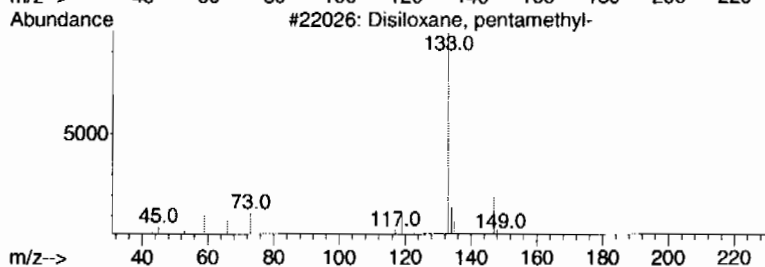
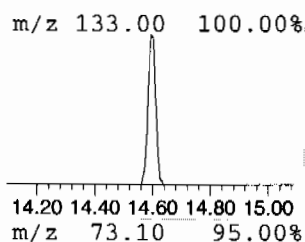
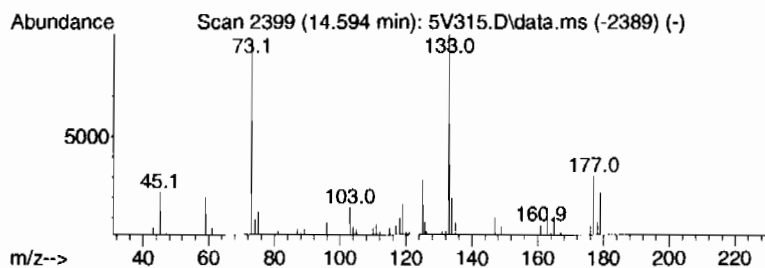
SubList :

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

\*\*\*\*\*  
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.594	5.26 ug/L	165761	B Chlorobenzene-d5	13.547

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Disiloxane, pentamethyl-	148	C5H16OSi2	001438-82-0	37
2			Hydrazinecarboxamide, 2-(1-pheny...	177	C9H11N3O	002492-30-0	27
3			1,1,3,3-Tetramethyl-1,3-di-n-pro...	218	C10H26OSi2	018001-73-5	25
4			1,3-Bis[methyl(trimethylene)sily...	244	C11H24O2Si2	1000217-00-1	23
5			Benzene, 1-ethyl-3-(1-methylethyl)-	148	C11H16	004920-99-4	22



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V315.D  
Acq On : 27 Jan 2010 5:35 pm  
Operator : DXK1  
Sample : |245106012|945552|1|VOA|1|VOA8260BS|  
Misc : LANTL 5.0g N/A SOIL  
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown siloxane	14.594	5.3	ug/L	165761	4	13.547	1574550	50.0

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

SDG Number: 10-1304  
 Lab Sample ID: 245106013  
 Client ID: RE15-10-7183  
 Batch ID: 945552  
 Run Date: 01/27/2010 18:01  
 Prep Date: 01/27/2010 13:13  
 Data File: 012710V5SV316.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.2  
 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	1.14	ug/kg	0.387	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14
67-64-1	Acetone	U	5.70	ug/kg	1.89	5.70
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
74-88-4	Iodomethane	U	5.70	ug/kg	1.82	5.70
75-09-2	Methylene chloride	U	5.70	ug/kg	2.28	5.70
75-15-0	Carbon disulfide	U	5.70	ug/kg	1.42	5.70
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14
78-93-3	2-Butanone	U	5.70	ug/kg	1.71	5.70
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.376	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.376	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone	U	5.70	ug/kg	1.42	5.70
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14
591-78-6	2-Hexanone	U	5.70	ug/kg	1.71	5.70
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14

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

SDG Number: 10-1304  
 Lab Sample ID: 245106013  
 Client ID: RE15-10-7183  
 Batch ID: 945552  
 Run Date: 01/27/2010 18:01  
 Prep Date: 01/27/2010 13:13  
 Data File: 012710V55V316.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 12.2  
 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	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.70	ug/kg	1.82	5.70
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

**Tentatively Identified Compound Summary**

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



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V316.D  
Acq On : 27 Jan 2010 6:01 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106013|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 28 09:51:26 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.375	10.375	1.000	96	892915	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	557231	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	196482	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	892915	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	557231	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	196482	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	212581	51.22	ug/L	0.00
Spiked Amount 50.000	Range 68	- 131	Recovery	=	102.44%			
43) Toluene-d8	12.016	12.016	0.887	98	788480	51.88	ug/L	0.00
Spiked Amount 50.000	Range 75	- 129	Recovery	=	103.76%			
61) Bromofluorobenzene	14.739	14.739	0.924	95	231723	61.80	ug/L	0.00
Spiked Amount 50.000	Range 68	- 133	Recovery	=	123.60%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	0.000	6.733	0.000		0	N.D.		
9) Acetone	7.111	7.100	0.685	43	107	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	0.000	7.450	0.000		0	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.511	0.000		0	N.D.		
15) Methylene chloride	7.691	7.691	0.741	84	5300	N.D.		
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	0.000	9.077	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.375	10.127	1.000	78	428	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V316.D  
Acq On : 27 Jan 2010 6:01 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106013|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 28 09:51:26 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	0.000	12.090	0.000		0	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.631	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	12.684	12.691	0.936	164	651	N.D.	
50) Dibromochloromethane	12.698	12.928	0.937	129	135	N.D.	
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.544	13.639	1.000	91	568	N.D.	
55) m,p-Xylenes	13.749	13.749	1.015	106	414	N.D.	
56) o-Xylene	0.000	14.184	0.000		0	N.D.	
57) Styrene	0.000	14.184	0.000		0	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	14.587	14.537	0.914	105	1164	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.810	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.965	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.114	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.216	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.527	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	15.711	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.832	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.991	0.000		0	N.D.	
75) n-Butylbenzene	0.000	16.277	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.422	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.371	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	0.000	18.762	0.000		0	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.116	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	0.000	7.546	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.088	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V316.D  
Acq On : 27 Jan 2010 6:01 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106013|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 28 09:51:26 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.466	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.693	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.856	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.497	0.000		0m	N.D.	d

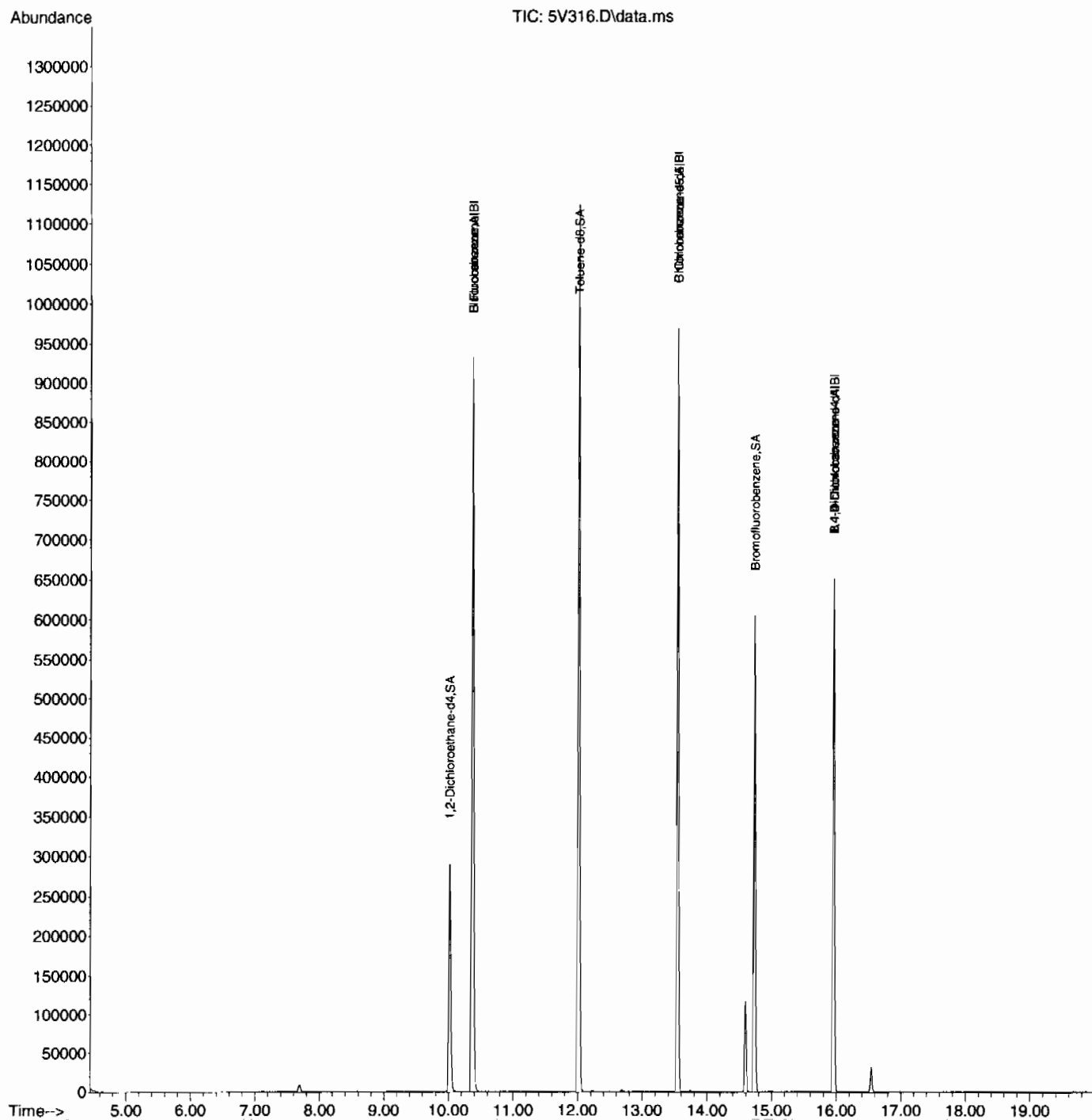
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

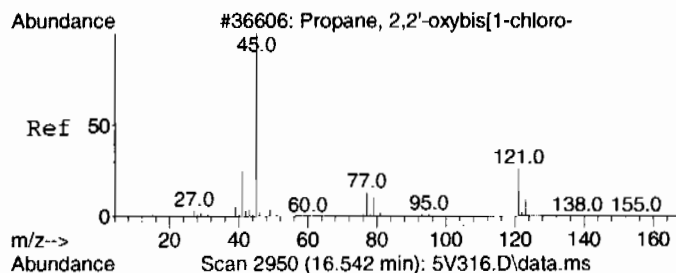
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V316.D  
Acq On : 27 Jan 2010 6:01 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106013|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 28 09:51:26 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

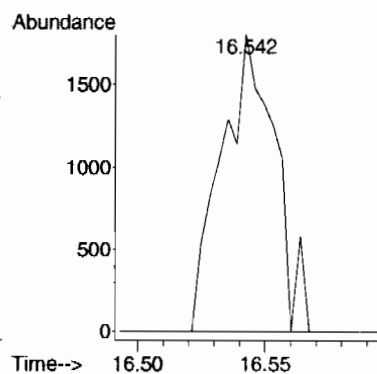
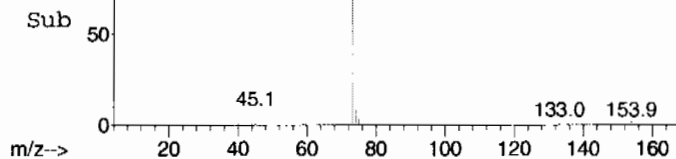
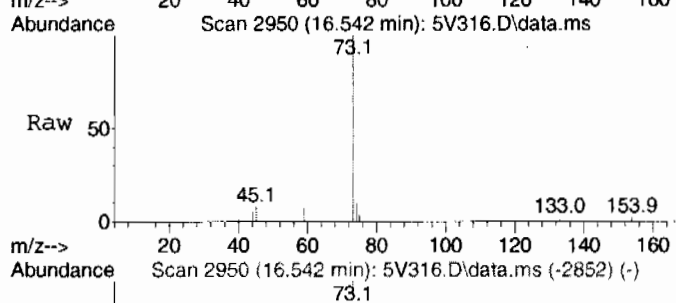
SubList :





#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl)ether  
Concen: 2.01 ug/L  
RT: 16.542 min Scan# 2950  
Delta R.T. 0.045 min  
Lab File: 5V316.D  
Acq: 27 Jan 2010 6:01 pm

Tgt Ion: 45 Resp: 2632  
Ion Ratio Lower Upper  
45 100  
121 0.0 0.0 49.2



Library Search Compound Report

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\

Data File : 5V316.D

Acq On : 27 Jan 2010 6:01 pm

Operator : DXK1

Sample : |245106013|945552|1|VOA|1|VOA8260BS|

Misc : LANL 5.0g N/A SOIL

ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.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\012710V5\  
Data File : 5V316.D  
Acq On : 27 Jan 2010 6:01 pm  
Operator : DXK1  
Sample : |245106013|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.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: 10-1304  
 Lab Sample ID: 245106014  
 Client ID: RE15-10-7176  
 Batch ID: 945552  
 Run Date: 01/27/2010 18:27  
 Prep Date: 01/27/2010 13:14  
 Data File: 012710V55V317.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 4.7  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.357	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.315	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.315	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.315	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.315	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.315	1.05
67-64-1	Acetone	U	5.24	ug/kg	1.74	5.24
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
74-88-4	Iodomethane	U	5.24	ug/kg	1.68	5.24
75-09-2	Methylene chloride	U	5.24	ug/kg	2.10	5.24
75-15-0	Carbon disulfide	U	5.24	ug/kg	1.31	5.24
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.315	1.05
78-93-3	2-Butanone	U	5.24	ug/kg	1.57	5.24
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.315	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.346	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.315	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.315	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.315	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.315	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.315	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.346	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.315	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.315	1.05
108-10-1	4-Methyl-2-pentanone	U	5.24	ug/kg	1.31	5.24
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.315	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.315	1.05
591-78-6	2-Hexanone	U	5.24	ug/kg	1.57	5.24
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.315	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.315	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.315	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.315	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.315	1.05



**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1304  
Lab Sample ID: 245106014  
  
Client ID: RE15-10-7176  
Batch ID: 945552  
Run Date: 01/27/2010 18:27  
Prep Date: 01/27/2010 13:14  
Data File: 012710V55V317.D

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.J  
Analyst: DXK1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 4.7  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.315	1.05
179601-23-1	m,p-Xylenes	U	2.10	ug/kg	0.315	2.10
95-47-6	o-Xylene	U	1.05	ug/kg	0.315	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.315	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.315	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.315	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.315	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.315	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.315	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.315	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.315	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.315	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.315	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.315	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.24	ug/kg	1.68	5.24
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05

**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\012710V5\  
Data File : 5V317.D  
Acq On : 27 Jan 2010 6:27 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106014|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 28 09:42:34 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.375	10.375	1.000	96	855859	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	580336	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	246430	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	855859	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	580336	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	246430	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.022	10.021	0.966	65	228470	57.44	ug/L	0.00
Spiked Amount	50.000	Range 68 - 131	Recovery	=	114.88%			
43) Toluene-d8	12.016	12.016	0.887	98	781150	49.35	ug/L	0.00
Spiked Amount	50.000	Range 75 - 129	Recovery	=	98.70%			
61) Bromofluorobenzene	14.735	14.739	0.923	95	270257	57.47	ug/L	0.00
Spiked Amount	50.000	Range 68 - 133	Recovery	=	114.94%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	0.000	6.733	0.000		0	N.D.		
9) Acetone	7.104	7.100	0.685	43	1058	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	0.000	7.450	0.000		0	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.511	0.000		0	N.D.		
15) Methylene chloride	7.698	7.691	0.742	84	2964	N.D.		
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	0.000	9.077	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.379	10.127	1.000	78	628	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V317.D  
Acq On : 27 Jan 2010 6:27 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106014|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 28 09:42:34 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:56:29 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.087	12.090	0.892	91	134	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.631	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	12.695	12.691	0.937	164	131	N.D.	
50) Dibromochloromethane	0.000	12.928	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.547	13.639	1.000	91	623	N.D.	
55) m,p-Xylenes	0.000	13.749	0.000		0	N.D.	
56) o-Xylene	0.000	14.184	0.000		0	N.D.	
57) Styrene	0.000	14.184	0.000		0	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	14.598	14.537	0.915	105	125	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.810	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	14.746	14.965	0.924	91	120	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.114	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.216	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.527	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	15.711	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.832	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.991	0.000		0	N.D.	
75) n-Butylbenzene	0.000	16.277	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.422	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.371	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	0.000	18.762	0.000		0	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.116	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	0.000	7.546	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.088	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V317.D  
Acq On : 27 Jan 2010 6:27 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106014|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 28 09:42:34 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.466	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.693	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.856	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	16.535	16.497	1.036	45	118	N.D.	

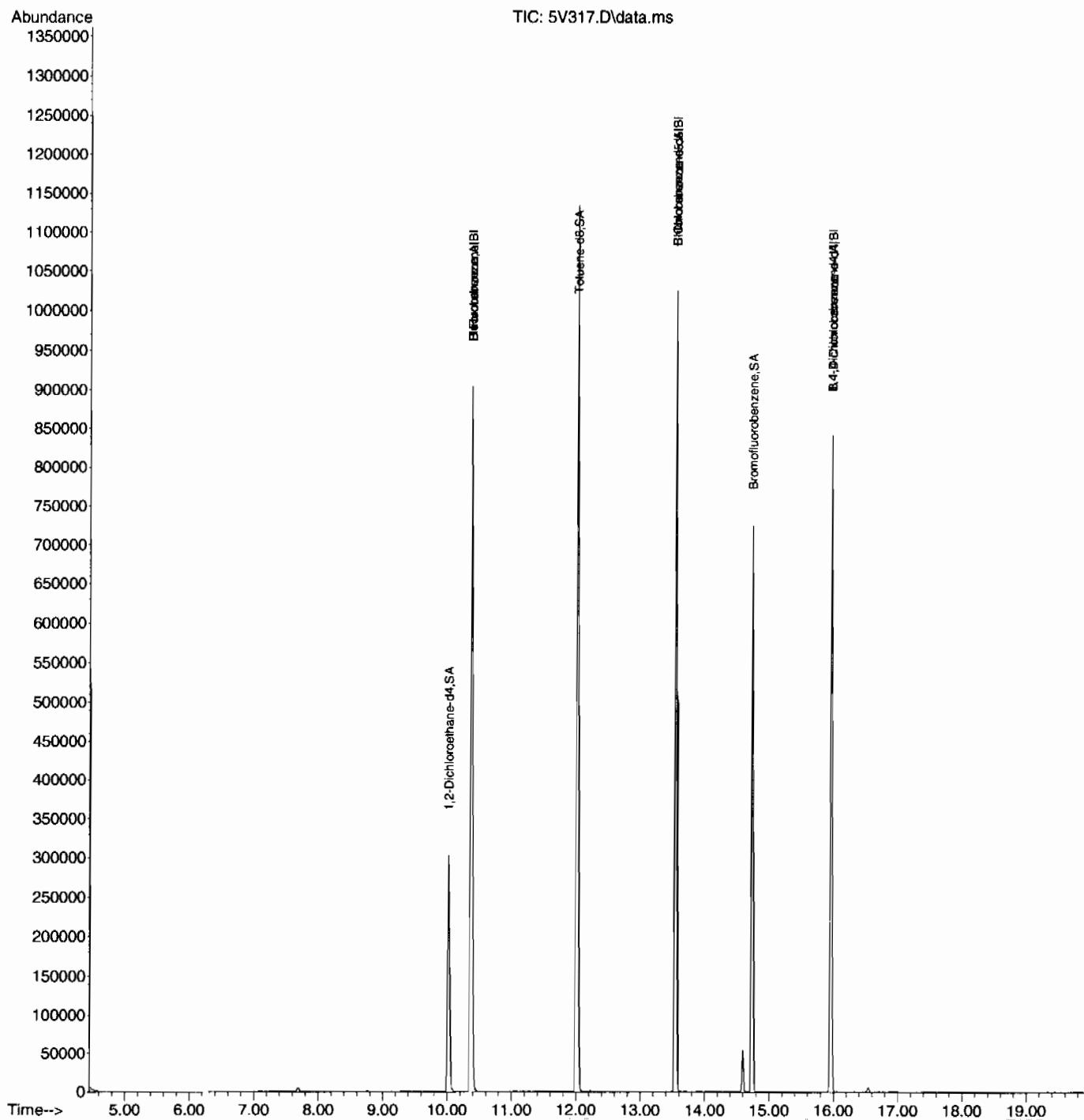
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V317.D  
Acq On : 27 Jan 2010 6:27 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106014|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 28 09:42:34 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V317.D  
Acq On : 27 Jan 2010 6:27 pm  
Operator : DXK1  
Sample : |245106014|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.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\012710V5\  
Data File : 5V317.D  
Acq On : 27 Jan 2010 6:27 pm  
Operator : DXK1  
Sample : |245106014|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard-- # RT Resp Conc
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**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-1304  
 Lab Sample ID: 245106015  
 Client ID: RE15-10-7180  
 Batch ID: 945552  
 Run Date: 01/27/2010 18:53  
 Prep Date: 01/27/2010 13:15  
 Data File: 012710VSV318.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 13.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.392	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.346	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.346	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.346	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.346	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.346	1.15
67-64-1	Acetone	U	5.77	ug/kg	1.92	5.77
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
74-88-4	Iodomethane	U	5.77	ug/kg	1.85	5.77
75-09-2	Methylene chloride	U	5.77	ug/kg	2.31	5.77
75-15-0	Carbon disulfide	U	5.77	ug/kg	1.44	5.77
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.346	1.15
78-93-3	2-Butanone	U	5.77	ug/kg	1.73	5.77
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.346	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.381	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.346	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.346	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.346	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.346	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.346	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.381	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.346	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.346	1.15
108-10-1	4-Methyl-2-pentanone	U	5.77	ug/kg	1.44	5.77
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.346	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.346	1.15
591-78-6	2-Hexanone	U	5.77	ug/kg	1.73	5.77
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.346	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.346	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.346	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.346	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.346	1.15



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

SDG Number: 10-1304  
 Lab Sample ID: 245106015  
 Client ID: RE15-10-7180  
 Batch ID: 945552  
 Run Date: 01/27/2010 18:53  
 Prep Date: 01/27/2010 13:15  
 Data File: 012710V5SV318.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 13.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.346	1.15
179601-23-1	m,p-Xylenes	U	2.31	ug/kg	0.346	2.31
95-47-6	o-Xylene	U	1.15	ug/kg	0.346	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.346	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.346	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.346	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.346	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.346	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.346	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.346	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.346	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.346	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.346	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.346	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.346	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.346	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.77	ug/kg	1.85	5.77
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.346	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\012710V5\  
Data File : 5V318.D  
Acq On : 27 Jan 2010 6:53 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106015|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 28 09:51:43 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.375	10.375	1.000	96	891490	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	586387	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	223562	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	891490	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	586387	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	223562	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	212419	51.27	ug/L	0.00
Spiked Amount 50.000	Range 68	- 131	Recovery	=	102.54%			
43) Toluene-d8	12.016	12.016	0.887	98	794772	49.70	ug/L	0.00
Spiked Amount 50.000	Range 75	- 129	Recovery	=	99.40%			
61) Bromofluorobenzene	14.739	14.739	0.924	95	249286	58.43	ug/L	0.00
Spiked Amount 50.000	Range 68	- 133	Recovery	=	116.86%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	0.000	6.733	0.000		0	N.D.		
9) Acetone	7.100	7.100	0.684	43	449	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	0.000	7.450	0.000		0	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.511	0.000		0	N.D.		
15) Methylene chloride	7.687	7.691	0.741	84	124	N.D.		
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	0.000	9.077	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.372	10.127	1.000	78	673	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V318.D  
Acq On : 27 Jan 2010 6:53 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106015|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 28 09:51:43 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:56:29 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.083	12.090	0.892	91	520	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.631	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.691	0.000		0m	N.D.	d
50) Dibromochloromethane	12.691	12.928	0.937	129	585	N.D.	
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.554	13.639	1.001	91	269	N.D.	
55) m,p-Xylenes	0.000	13.749	0.000		0	N.D.	
56) o-Xylene	0.000	14.184	0.000		0	N.D.	
57) Styrene	0.000	14.184	0.000		0	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	14.566	14.537	0.913	105	140	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.810	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	14.742	14.965	0.924	91	231	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.114	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.216	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.577	15.527	0.976	105	557	N.D.	
71) sec-Butylbenzene	15.577	15.711	0.976	105	557	N.D.	
72) 4-Isopropyltoluene	0.000	15.832	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.991	0.000		0	N.D.	
75) n-Butylbenzene	0.000	16.277	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.422	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.371	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	18.769	18.762	1.176	128	112	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.116	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	0.000	7.546	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.088	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V318.D  
Acq On : 27 Jan 2010 6:53 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106015|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 28 09:51:43 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:56:29 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.466	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.693	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.856	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	16.535	16.497	1.036	45	755	N.D.	

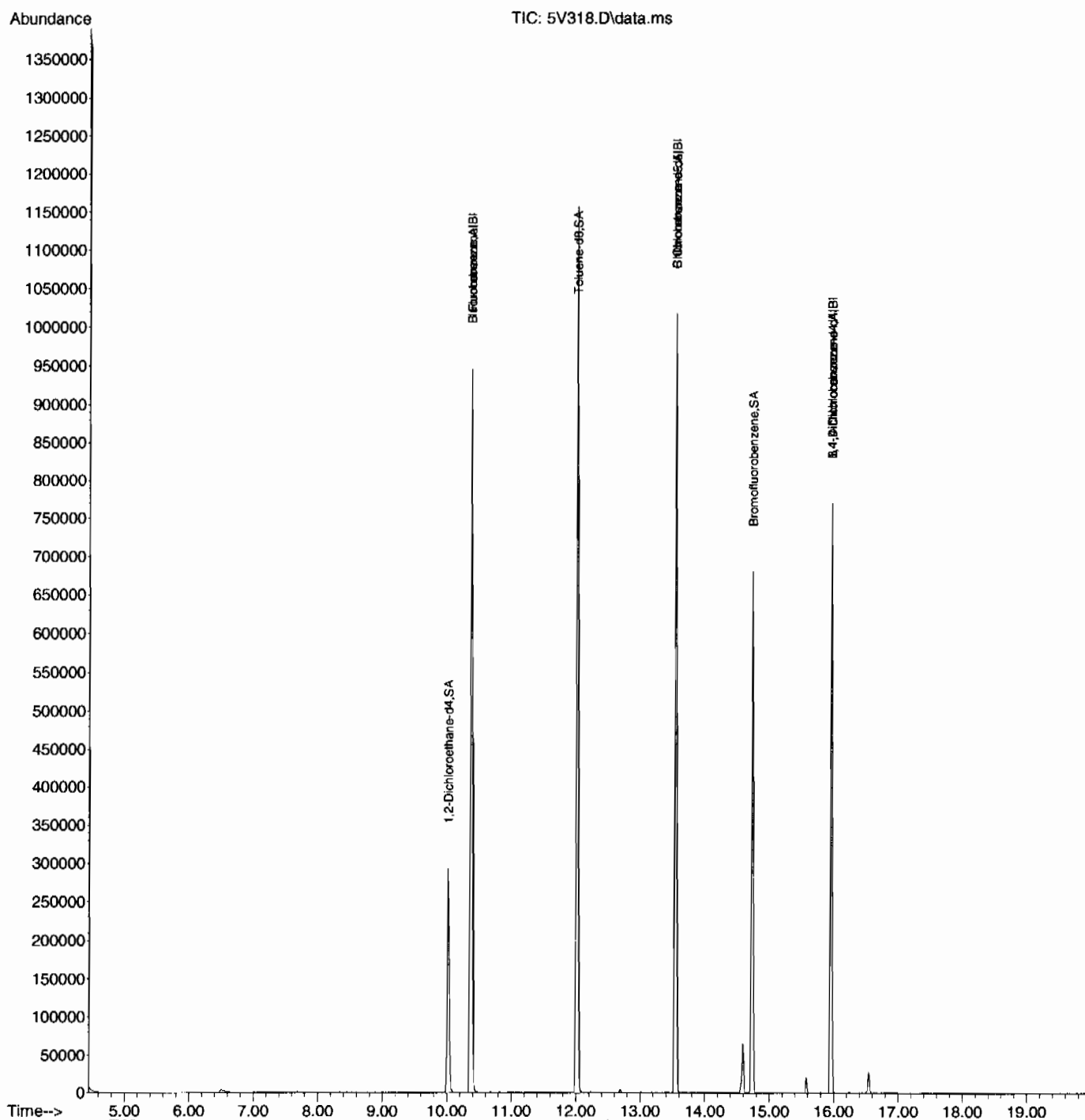
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

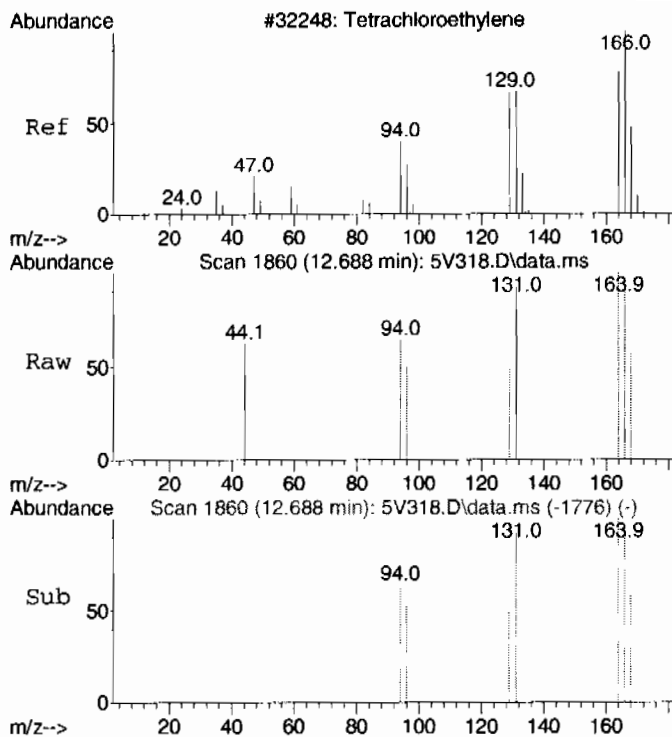
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V318.D  
Acq On : 27 Jan 2010 6:53 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106015|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 28 09:51:43 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

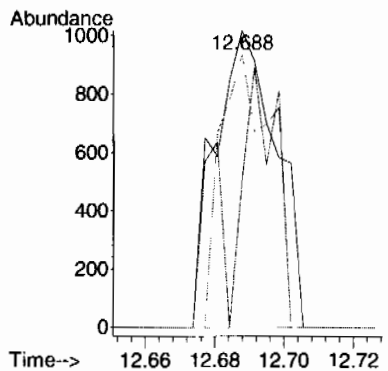
SubList :





#49 BEFORE analyst DELETION  
Tetrachloroethylene  
Concen: 0.47 ug/L  
RT: 12.688 min Scan# 1860  
Delta R.T. -0.003 min  
Lab File: 5V318.D  
Acq: 27 Jan 2010 6:53 pm

Tgt Ion:164 Resp: 1243  
Ion Ratio Lower Upper  
164 100  
129 47.1 60.1 120.1#  
131 76.8 58.9 118.9



Library Search Compound Report

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V318.D  
Acq On : 27 Jan 2010 6:53 pm  
Operator : DXK1  
Sample : |245106015|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.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\012710V5\  
Data File : 5V318.D  
Acq On : 27 Jan 2010 6:53 pm  
Operator : DXK1  
Sample : |245106015|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard-- # RT Resp Conc
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**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-1304  
 Lab Sample ID: 245106016  
 Client ID: RE15-10-7179  
 Batch ID: 945552  
 Run Date: 01/27/2010 19:19  
 Prep Date: 01/27/2010 13:16  
 Data File: 012710V55V319.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXX1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 20.3  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.25	ug/kg	0.427	1.25
74-87-3	Chloromethane	U	1.25	ug/kg	0.376	1.25
75-01-4	Vinyl chloride	U	1.25	ug/kg	0.376	1.25
74-83-9	Bromomethane	U	1.25	ug/kg	0.376	1.25
75-00-3	Chloroethane	U	1.25	ug/kg	0.376	1.25
75-69-4	Trichlorofluoromethane	U	1.25	ug/kg	0.376	1.25
67-64-1	Acetone	U	6.27	ug/kg	2.08	6.27
75-35-4	1,1-Dichloroethylene	U	1.25	ug/kg	0.376	1.25
74-88-4	Iodomethane	U	6.27	ug/kg	2.01	6.27
75-09-2	Methylene chloride	J	4.72	ug/kg	2.51	6.27
75-15-0	Carbon disulfide	U	6.27	ug/kg	1.57	6.27
156-60-5	trans-1,2-Dichloroethylene	U	1.25	ug/kg	0.376	1.25
75-34-3	1,1-Dichloroethane	U	1.25	ug/kg	0.376	1.25
78-93-3	2-Butanone	U	6.27	ug/kg	1.88	6.27
156-59-2	cis-1,2-Dichloroethylene	U	1.25	ug/kg	0.376	1.25
594-20-7	2,2-Dichloropropane	U	1.25	ug/kg	0.376	1.25
67-66-3	Chloroform	U	1.25	ug/kg	0.376	1.25
74-97-5	Bromochloromethane	U	1.25	ug/kg	0.414	1.25
71-55-6	1,1,1-Trichloroethane	U	1.25	ug/kg	0.376	1.25
563-58-6	1,1-Dichloropropene	U	1.25	ug/kg	0.376	1.25
56-23-5	Carbon tetrachloride	U	1.25	ug/kg	0.376	1.25
107-06-2	1,2-Dichloroethane	U	1.25	ug/kg	0.376	1.25
71-43-2	Benzene	U	1.25	ug/kg	0.376	1.25
79-01-6	Trichloroethylene	U	1.25	ug/kg	0.414	1.25
78-87-5	1,2-Dichloropropane	U	1.25	ug/kg	0.376	1.25
75-27-4	Bromodichloromethane	U	1.25	ug/kg	0.376	1.25
74-95-3	Dibromomethane	U	1.25	ug/kg	0.376	1.25
108-10-1	4-Methyl-2-pentanone	U	6.27	ug/kg	1.57	6.27
10061-01-5	cis-1,3-Dichloropropylene	U	1.25	ug/kg	0.376	1.25
108-88-3	Toluene	J	0.464	ug/kg	0.376	1.25
10061-02-6	trans-1,3-Dichloropropylene	U	1.25	ug/kg	0.376	1.25
79-00-5	1,1,2-Trichloroethane	U	1.25	ug/kg	0.376	1.25
591-78-6	2-Hexanone	U	6.27	ug/kg	1.88	6.27
142-28-9	1,3-Dichloropropane	U	1.25	ug/kg	0.376	1.25
127-18-4	Tetrachloroethylene	U	1.25	ug/kg	0.376	1.25
124-48-1	Dibromochloromethane	U	1.25	ug/kg	0.376	1.25
106-93-4	1,2-Dibromoethane	U	1.25	ug/kg	0.376	1.25
108-90-7	Chlorobenzene	U	1.25	ug/kg	0.376	1.25

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

SDG Number: 10-1304  
 Lab Sample ID: 245106016  
 Client ID: RE15-10-7179  
 Batch ID: 945552  
 Run Date: 01/27/2010 19:19  
 Prep Date: 01/27/2010 13:16  
 Data File: 012710V5SV319.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 20.3  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDI/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.25	ug/kg	0.376	1.25
179601-23-1	m,p-Xylenes	U	2.51	ug/kg	0.376	2.51
95-47-6	o-Xylene	U	1.25	ug/kg	0.376	1.25
100-42-5	Styrene	U	1.25	ug/kg	0.376	1.25
75-25-2	Bromoform	U	1.25	ug/kg	0.376	1.25
79-34-5	1,1,2,2-Tetrachloroethane	U	1.25	ug/kg	0.376	1.25
96-18-4	1,2,3-Trichloropropane	U	1.25	ug/kg	0.376	1.25
108-86-1	Bromobenzene	U	1.25	ug/kg	0.376	1.25
103-65-1	n-Propylbenzene	U	1.25	ug/kg	0.376	1.25
95-49-8	2-Chlorotoluene	U	1.25	ug/kg	0.376	1.25
98-82-8	Isopropylbenzene	U	1.25	ug/kg	0.376	1.25
108-67-8	1,3,5-Trimethylbenzene	U	1.25	ug/kg	0.376	1.25
106-43-4	4-Chlorotoluene	U	1.25	ug/kg	0.376	1.25
98-06-6	tert-Butylbenzene	U	1.25	ug/kg	0.376	1.25
95-63-6	1,2,4-Trimethylbenzene	U	1.25	ug/kg	0.376	1.25
135-98-8	sec-Butylbenzene	U	1.25	ug/kg	0.376	1.25
99-87-6	4-Isopropyltoluene	U	1.25	ug/kg	0.376	1.25
541-73-1	1,3-Dichlorobenzene	U	1.25	ug/kg	0.376	1.25
106-46-7	1,4-Dichlorobenzene	U	1.25	ug/kg	0.376	1.25
104-51-8	n-Butylbenzene	U	1.25	ug/kg	0.376	1.25
96-12-8	1,2-Dibromo-3-chloropropane	U	1.25	ug/kg	0.376	1.25
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.27	ug/kg	2.01	6.27
630-20-6	1,1,1,2-Tetrachloroethane	U	1.25	ug/kg	0.376	1.25
95-50-1	1,2-Dichlorobenzene	U	1.25	ug/kg	0.376	1.25

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.55	14.6	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V319.D  
Acq On : 27 Jan 2010 7:19 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106016|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 28 09:52:14 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.375	10.375	1.000	96	726742	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	412667	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.963	15.962	1.000	152	126182	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	726742	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	412667	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.963	15.962	1.000	152	126182	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	187345	55.47	ug/L	0.00
Spiked Amount 50.000	Range 68	- 131	Recovery	=	110.94%			
43) Toluene-d8	12.016	12.016	0.887	98	600632	53.37	ug/L	0.00
Spiked Amount 50.000	Range 75	- 129	Recovery	=	106.74%			
61) Bromofluorobenzene	14.735	14.739	0.923	95	160397	66.61	ug/L	0.00
Spiked Amount 50.000	Range 68	- 133	Recovery	=	133.22%#			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	6.733	6.733	0.649	59	169	N.D.		
9) Acetone	7.111	7.100	0.685	43	1153	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	0.000	7.450	0.000		0	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	7.511	7.511	0.724	76	107	N.D.		
15) Methylene chloride	7.691	7.691	0.741	84	11670	3.76	ug/L	83
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	0.000	9.077	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.375	10.127	1.000	78	509	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V319.D  
Acq On : 27 Jan 2010 7:19 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106016|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 28 09:52:14 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:56:29 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.094	12.090	0.893	91	3656	0.37 ug/L	62
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.631	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.691	0.000		0m	N.D.	d
50) Dibromochloromethane	12.698	12.928	0.937	129	576	N.D.	
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.558	13.639	1.001	91	126	N.D.	
55) m,p-Xylenes	0.000	13.749	0.000		0m	N.D.	d
56) o-Xylene	14.180	14.184	1.047	106	251	N.D.	
57) Styrene	0.000	14.184	0.000		0	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	14.771	14.537	0.925	105	791	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.810	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.965	0.000		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	0.000	15.114	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.216	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.527	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	15.711	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.832	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.991	0.000		0	N.D.	
75) n-Butylbenzene	0.000	16.277	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.422	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.371	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	0.000	18.762	0.000		0	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.116	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	0.000	7.546	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.088	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V319.D  
Acq On : 27 Jan 2010 7:19 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106016|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 28 09:52:14 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.466	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.774	14.573	0.926	53	123	N.D.	
108) Cyclohexanone	0.000	14.693	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	14.774	14.856	0.926	53	123	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.497	0.000		0m	N.D.	d

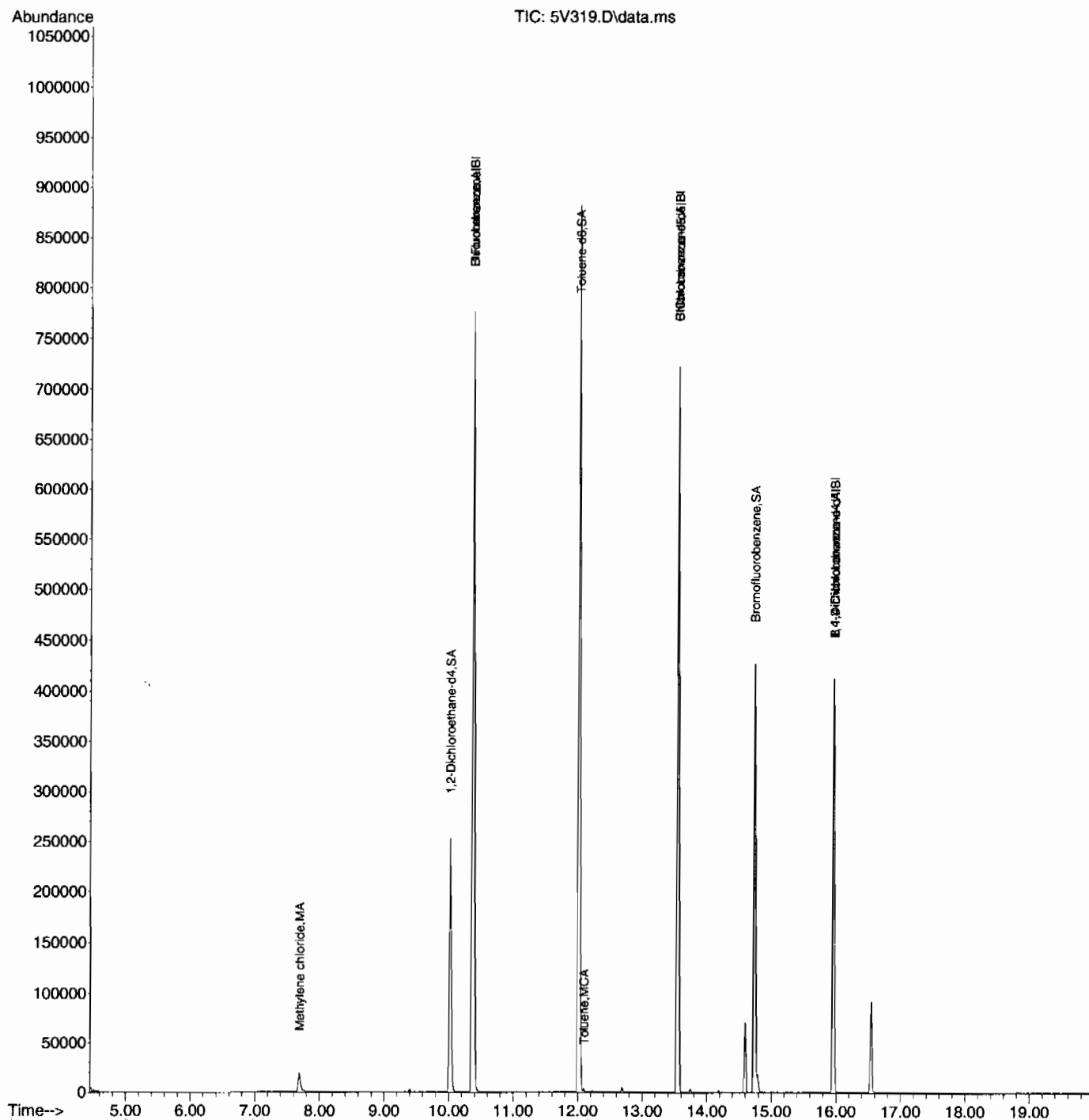
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(E) = Over the calibration range (d) = deleted

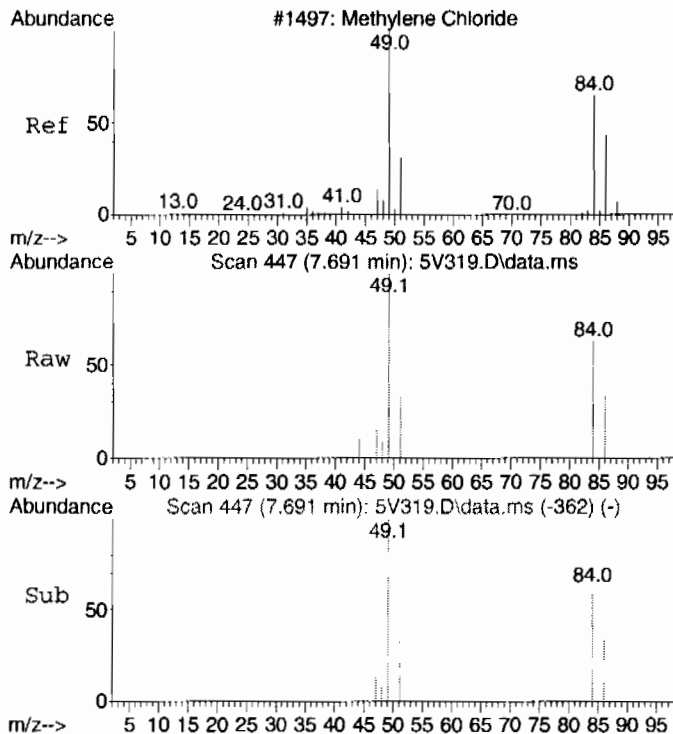
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V319.D  
Acq On : 27 Jan 2010 7:19 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |245106016|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 28 09:52:14 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

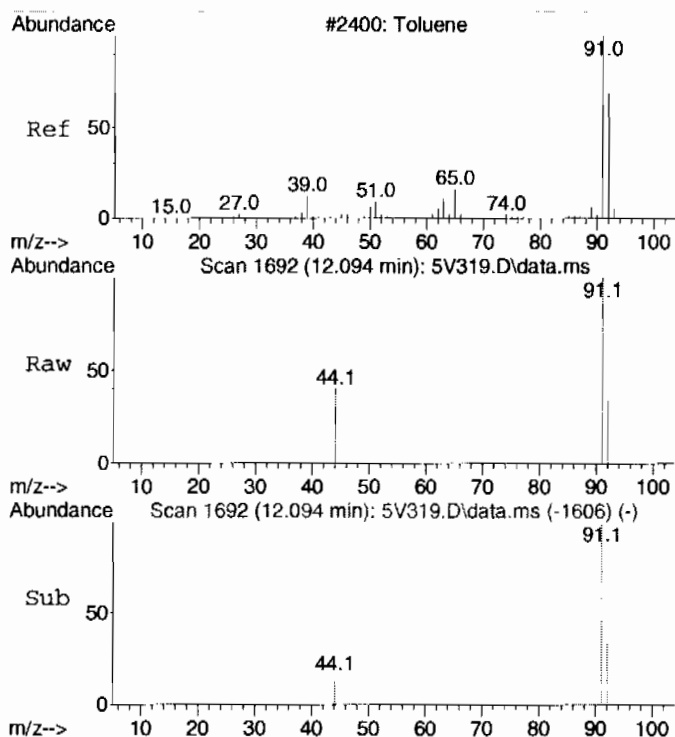
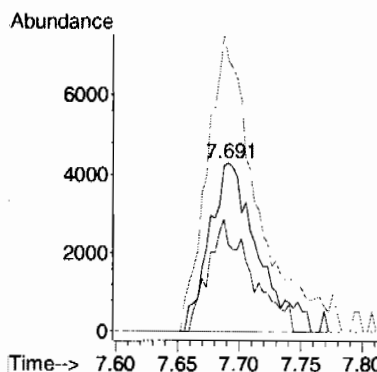
SubList :





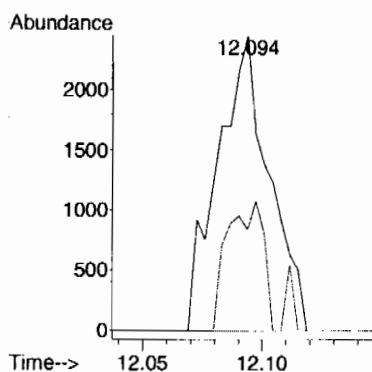
#15  
Methylene chloride  
Concen: 3.76 ug/L  
RT: 7.691 min Scan# 447  
Delta R.T. -0.000 min  
Lab File: 5V319.D  
Acq: 27 Jan 2010 7:19 pm

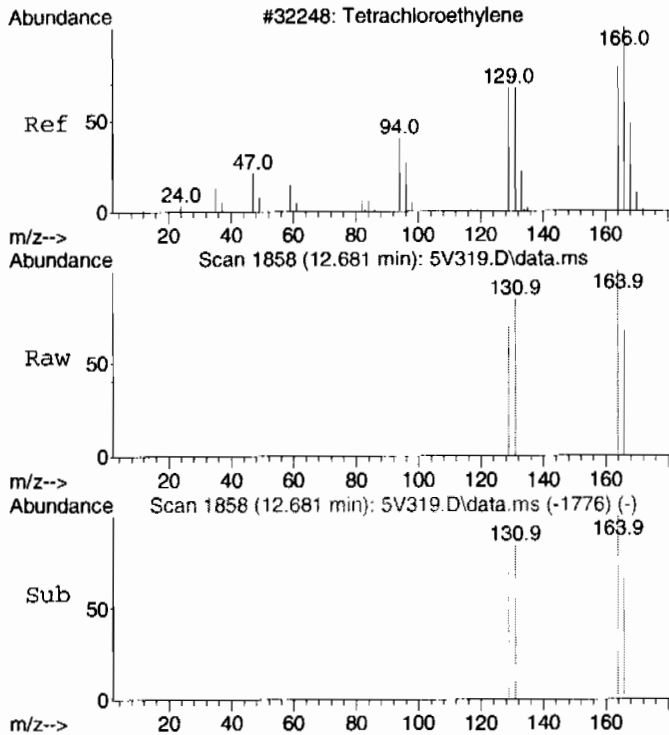
Tgt Ion: 84 Resp: 11670  
Ion Ratio Lower Upper  
84 100  
86 60.1 33.2 93.2  
49 183.9 125.4 185.4



#44  
Toluene  
Concen: 0.37 ug/L  
RT: 12.094 min Scan# 1692  
Delta R.T. 0.004 min  
Lab File: 5V319.D  
Acq: 27 Jan 2010 7:19 pm

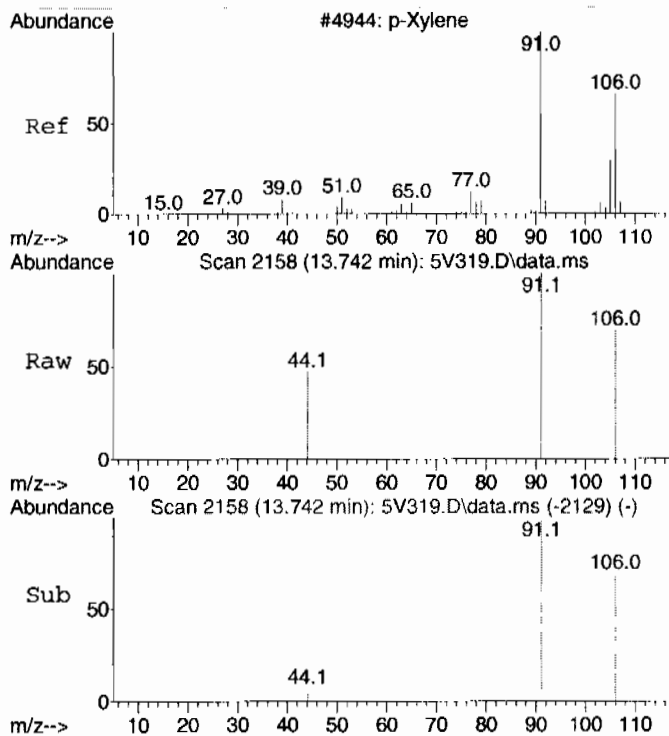
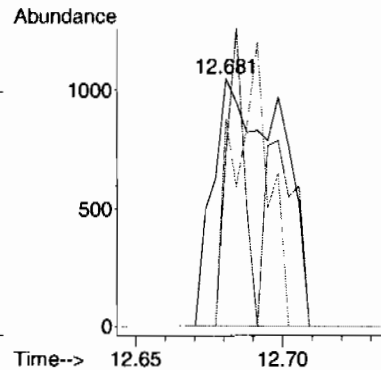
Tgt Ion: 91 Resp: 3656  
Ion Ratio Lower Upper  
91 100  
92 30.6 28.7 88.7





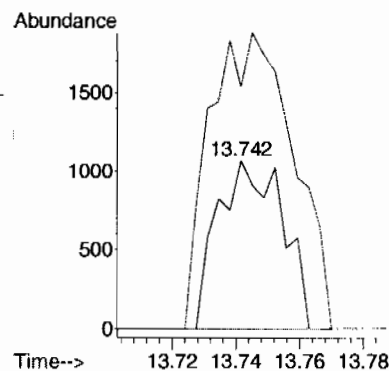
#49 BEFORE analyst DELETION  
Tetrachloroethylene  
Concen: 0.90 ug/L  
RT: 12.681 min Scan# 1858  
Delta R.T. -0.010 min  
Lab File: 5V319.D  
Acq: 27 Jan 2010 7:19 pm

Tgt Ion	Ratio	Lower	Upper
164	100		
129	31.8	60.1	120.1#
131	0.0	58.9	118.9#

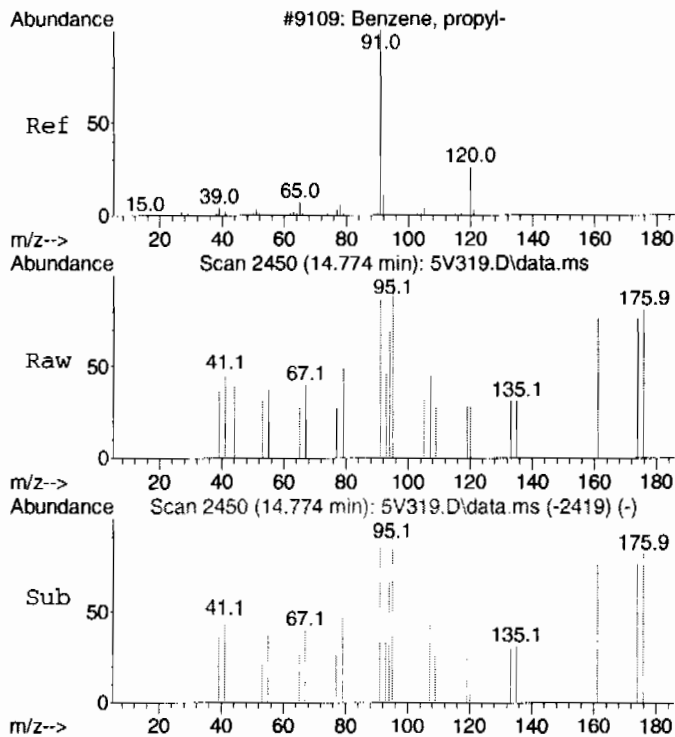


#55 BEFORE analyst DELETION  
m,p-Xylenes  
Concen: 0.36 ug/L  
RT: 13.742 min Scan# 2158  
Delta R.T. -0.007 min  
Lab File: 5V319.D  
Acq: 27 Jan 2010 7:19 pm

Tgt Ion	Ratio	Lower	Upper
106	100		
91	227.6	162.6	222.6#

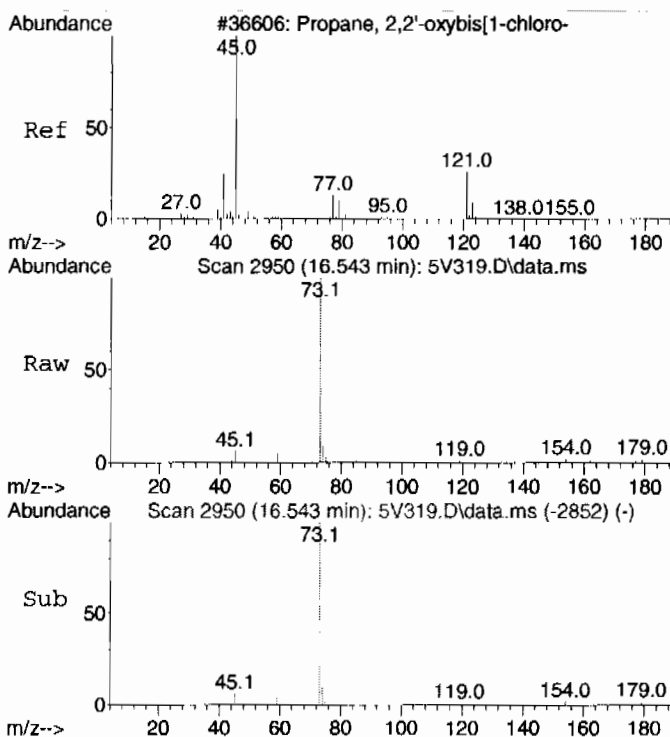
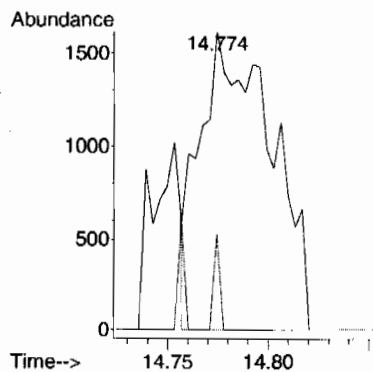






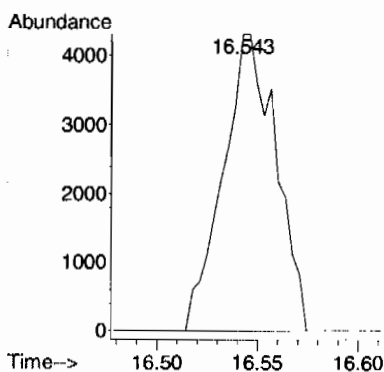
#65 BEFORE analyst DELETION  
n-Propylbenzene  
Concen: 0.58 ug/L  
RT: 14.774 min Scan# 2450  
Delta R.T. -0.191 min  
Lab File: 5V319.D  
Acq: 27 Jan 2010 7:19 pm

Tgt Ion: 91 Resp: 4014  
Ion Ratio Lower Upper  
91 100  
120 2.8 0.0 53.6



#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl)ether  
Concen: 9.39 ug/L  
RT: 16.543 min Scan# 2950  
Delta R.T. 0.046 min  
Lab File: 5V319.D  
Acq: 27 Jan 2010 7:19 pm

Tgt Ion: 45 Resp: 7895  
Ion Ratio Lower Upper  
45 100  
121 0.0 0.0 49.2



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V319.D  
Acq On : 27 Jan 2010 7:19 pm  
Operator : DXK1  
Sample : |245106016|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B

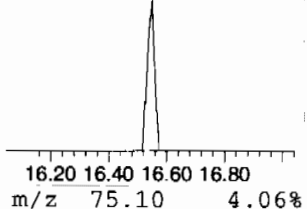
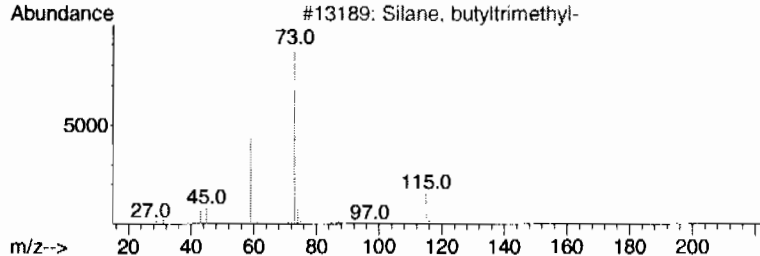
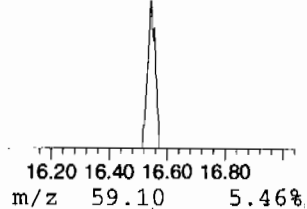
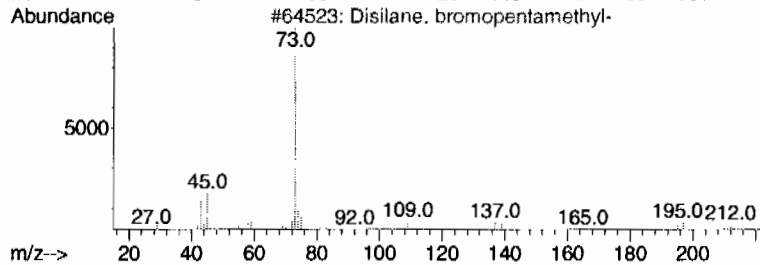
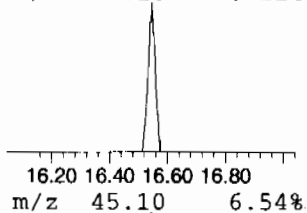
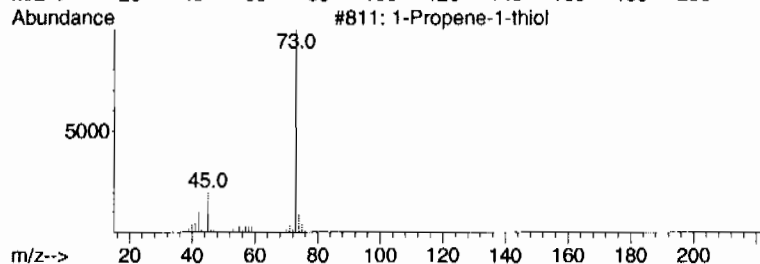
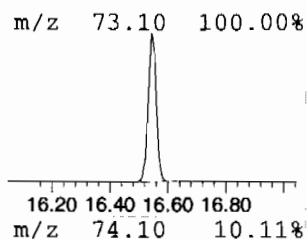
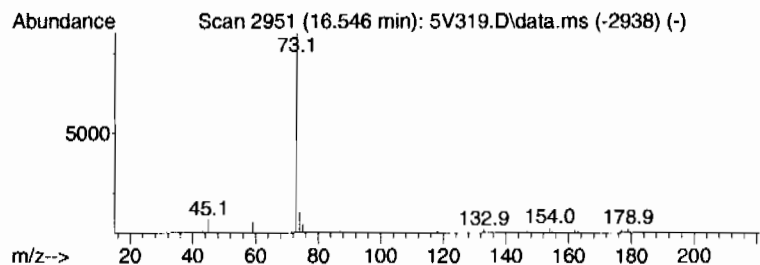
SubList :

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

\*\*\*\*\*  
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.546	11.64 ug/L	173977	B 1,4-Dichlorobenzene-d4	15.963

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			1-Propene-1-thiol	74	C3H6S	000925-89-3	4
2			Disilane, bromopentamethyl-	210	C5H15BrSi2	018139-94-1	4
3			Silane, butyltrimethyl-	130	C7H18Si	001000-49-3	4
4			Silane, trimethyl-3-penten-2-yl-...	142	C8H18Si	053264-56-5	4
5			D-Mannoheptadecane-1,2,3,4,5-pen...	320	C17H36O5	1000160-74-6	4



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V319.D  
Acq On : 27 Jan 2010 7:19 pm  
Operator : DXK1  
Sample : |245106016|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL  
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B

SubList :

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

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown siloxane	16.546	11.6	ug/L	173977	6	15.963	747179	50.0

# Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624  
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropene		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

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Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

## Calibration History Report VOA5

GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Last Update : Mon Jan 11 08:56:29 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\010810V5\5S515.D

Injection Date	Mix	Calibration File
8 Jan 2010 5:06 pm	A	C:\msdchem\1\DATA\010810V5\5S515.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\010810V5\5S518.D

Injection Date	Mix	Calibration File
8 Jan 2010 1:40 pm	A	C:\msdchem\1\DATA\010810V5\5S506.D
8 Jan 2010 6:24 pm	B	C:\msdchem\1\DATA\010810V5\5S518.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\010810V5\5S519.D

Injection Date	Mix	Calibration File
8 Jan 2010 2:05 pm	A	C:\msdchem\1\DATA\010810V5\5S507.D
8 Jan 2010 6:50 pm	B	C:\msdchem\1\DATA\010810V5\5S519.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\010810V5\5S520.D

Injection Date	Mix	Calibration File
8 Jan 2010 2:31 pm	A	C:\msdchem\1\DATA\010810V5\5S508.D
8 Jan 2010 7:16 pm	B	C:\msdchem\1\DATA\010810V5\5S520.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\010810V5\5S521.D

Injection Date	Mix	Calibration File
8 Jan 2010 2:57 pm	A	C:\msdchem\1\DATA\010810V5\5S509.D
8 Jan 2010 7:42 pm	B	C:\msdchem\1\DATA\010810V5\5S521.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\010810V5\5S522.D

Injection Date	Mix	Calibration File
8 Jan 2010 3:23 pm	A	C:\msdchem\1\DATA\010810V5\5S511.D
8 Jan 2010 8:07 pm	B	C:\msdchem\1\DATA\010810V5\5S522.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\010810V5\5S523.D

Injection Date	Mix	Calibration File
8 Jan 2010 3:49 pm	A	C:\msdchem\1\DATA\010810V5\5S512.D
8 Jan 2010 8:33 pm	B	C:\msdchem\1\DATA\010810V5\5S523.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\010810V5\5S524.D

Injection Date	Mix	Calibration File
8 Jan 2010 4:14 pm	A	C:\msdchem\1\DATA\010810V5\5S513.D
8 Jan 2010 8:59 pm	B	C:\msdchem\1\DATA\010810V5\5S524.D

VOA5-8260-010810.M Mon Feb 08 13:51:36 2010

VOA5-8260-010810.M Mon Feb 08 13:50:26 2010

Page: 1



# Response Factor Report VOA5

GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Last Update : Mon Jan 11 08:56:29 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

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

b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
2)MA	Dichlorodifluoromethane	2340	7607	20085	72311				LINR		0.9989
-0.0004	0.1082   0.00	379470									
3)MPA	Chloromethane	0.2654872	0.2457297	0.2589139	0.2387123			0.2459	AVRG		5.8641
		0.2282941	0.2298656								
4)MCA	Vinyl chloride	0.2274156	0.2215468	0.2278750	0.2194092			0.2195	AVRG		4.9583
		0.2036642	0.2057360								
5)MA	Bromomethane	0.1452190	0.1530936	0.1644957	0.1581118			0.1560	AVRG		4.0115
		0.1525237	0.1587163								
6)MA	Chloroethane	0.1405792	0.1363793	0.1574374	0.1504196			0.1479	AVRG		5.2903
		0.1441700	0.1504267								
7)MA	Trichlorofluoromethane	0.1978556	0.2170444	0.2190664	0.2204643			0.2161	AVRG		4.9080
		0.2095063	0.2160745								
8)MA	Ethyl ether	0.1809861	0.1764935	0.1811904	0.1813892			0.1830	AVRG		2.9381
		0.1825733	0.1939374								
9)MA	Acetone	0.2192482	0.1878532	0.1807430	0.1688123			0.1874	AVRG		8.6124
		0.1787143	0.1819607								
10)MCA	1,1-Dichloroethylene	0.2249881	0.1857993	0.2192244	0.2335377			0.2331	AVRG		11.6886
		0.2538833	0.2706837								
11)MA	Iodomethane	0.2961596	0.2647750	0.2744143	0.2575681			0.2791	AVRG		5.2022
		0.2793988	0.2928487								
12)MA	Acetonitrile	0.0351303	0.0286696	0.0308680	0.0291327			0.0310	AVRG		7.3657
		0.0301808	0.0299262								
13)MA	Methyl acetate	0.2087885	0.1879014	0.1883663	0.1693328			0.1875	AVRG		6.1371
		0.1852170	0.1852844								
14)MA	Carbon disulfide	0.5696852	0.5228732	0.5337503	0.4865620			0.5450	AVRG		6.1650
		0.5470618	0.5804955								
15)MA	Methylene chloride							0.2133	AVRG		10.5032
		0.1978243	0.2067856								
16)MA	tert-Butyl methyl ether	0.4302491	0.4062469	0.4030751	0.3823335			0.4128	AVRG		4.1549
		0.4147694	0.4240451								

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Method File : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Last Update : Mon Jan 11 08:56:29 2010  
Integrator : (RTE Integrator)

Response via : Initial Calibration

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

b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
21)MA	trans-1,2-Dichloroethylene	0.2626134	0.2609702 0.2759295	0.2438023	0.2465729	0.2686014	0.2521579	0.2587	AVRG		4.5392
28)MA	Vinyl acetate	0.4670416	0.4074307 0.4684276	0.4242290	0.4452909	0.5161669	0.5048961	0.4619	AVRG		8.6253
19)MPA	1,1-Dichloroethane	0.3297755	0.3325043 0.3399312	0.3116833	0.3262931	0.3414296	0.3151054	0.3281	AVRG		3.4784
20)MA	2-Butanone	0.2125314	0.2344154 0.2237327	0.2033930	0.2061188	0.2201018	0.2025915	0.2147	AVRG		5.5512
21)MA	cis-1,2-Dichloroethylene	0.2913185	0.3009162 0.3014225	0.2858891	0.2941675	0.3012226	0.2799548	0.2936	AVRG		2.8636
22)MA	2,2-Dichloropropane	0.1646744	0.1817543 0.1724728	0.1458507	0.1622082	0.1674530	0.1579975	0.1646	AVRG		6.8598
23)MA	Bromochloromethane	0.0991148	0.1093598 0.1013362	0.0908593	0.0981653	0.0988674	0.0935860	0.0988	AVRG		5.9717
24)MCA	Chloroform	0.2976335	0.3126235 0.3110908	0.2817633	0.3043789	0.3072980	0.2901339	0.3007	AVRG		3.8083
25)MA	1,1,1-Trichloroethane	0.2142529	0.2057526 0.2221108	0.1996676	0.2034838	0.2172198	0.2065190	0.2099	AVRG		3.8718
26)MA	Cyclohexane	0.3034751	0.3227022 0.3140283	0.2865065	0.3023758	0.3169315	0.2873290	0.3048	AVRG		4.6410
27)MA	1,1-Dichloropropene	0.2340935	0.2389999 0.2406632	0.2171800	0.2219731	0.2369135	0.2198693	0.2300	AVRG		4.3147
28)MA	Carbon tetrachloride	0.1924722	0.1802793 0.2034554	0.1664499	0.1780246	0.1906617	0.1810536	0.1846	AVRG		6.4775
29)SA	1,2-Dichloroethane-d4	0.2266622	0.2359376 0.2285876	0.2306435	0.2362458	0.2395776	0.2290443	0.2324	AVRG		2.0833
30)MA	1,2-Dichloroethane	0.2398935	0.2551934 0.2460069	0.2397819	0.2439252	0.2519777	0.2365536	0.2448	AVRG		2.7861
31)MA	Benzene	0.7636980	0.8284492 0.7894428	0.7578336	0.7724384	0.7867736	0.7358136	0.7763	AVRG		3.7759

# Response Factor Report VOA5

GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Last Update : Mon Jan 11 08:56:29 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

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

Page	b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
252 of 1535	32)MA	Cyclohexene	0.3725051	0.3660897 0.3875023	0.3249493	0.3547349	0.3676622	0.3467316	0.3600	AVRG		5.6023
	33)MA	n-Butyl alcohol -0.0146   0.0075   0.00	8127 1262472	15859 2574494	33404	85918	214645	447479		LINR	#	0.9996
	34)MA	Trichloroethylene	0.1825334	0.1813548 0.1880934	0.1734519	0.1779993	0.1800827	0.1761458	0.1800	AVRG		2.6406
	35)MCA	1,2-Dichloropropane	0.2049485	0.2039397 0.2088780	0.1900155	0.1965266	0.2052808	0.1983974	0.2011	AVRG		3.2215
	36)MA	Methylcyclohexane	0.3245596	0.3357307 0.3286407	0.2943667	0.3099144	0.3241581	0.3033099	0.3172	AVRG		4.7181
	37)MA	Dibromomethane	0.1066846	0.1023847 0.1101054	0.1014450	0.1054385	0.1085408	0.1048568	0.1056	AVRG		2.9507
	38)MA	Bromodichloromethane	0.2257271	0.2064593 0.2411172	0.1904522	0.2119007	0.2192030	0.2185651	0.2162	AVRG		7.3194
	39)MA	2-Chloroethylvinyl ether	0.1152453	0.0952927 0.1177567	0.0962952	0.1317871	0.1121050	0.1122357	0.1115	AVRG		11.3384
	40)MA	cis-1,3-Dichloropropylene	0.3006928	0.2594646 0.3133904	0.2591614	0.2711790	0.2829472	0.2844347	0.2816	AVRG		7.2297
	42)MA	4-Methyl-2-pentanone	0.1405361	0.1262814 0.1422055	0.1178461	0.1259550	0.1397557	0.1336108	0.1323	AVRG		6.9588
	43)SA	Toluene-d8	1.3598352	1.3603023 1.3411479	1.3537887	1.3868622	1.3856492	1.3578207	1.3636	AVRG		1.2293
	44)MCA	Toluene	1.1741949	1.3054266 1.1806311	1.1978198	1.1643270	1.2142143	1.1450555	1.1974	AVRG		4.3936
	45)MA	trans-1,3-Dichloropropyl	0.3865274	0.3368120 0.3982106	0.3151689	0.3390693	0.3580129	0.3620809	0.3566	AVRG		8.1564
	46)MA	1,1,2-Trichloroethane	0.2017597	0.2103373 0.2045388	0.1833741	0.1927111	0.2046970	0.1979341	0.1993	AVRG		4.5027
	47)MA	2-Hexanone	0.4198327	0.3647691 0.4293756	0.3467987	0.3717753	0.4147972	0.3953495	0.3918	AVRG		8.0006

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

Page	b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
253 of 1535	48)MA	1,3-Dichloropropane	0.4218932	0.4231346 0.4151334	0.4209349	0.4241582	0.4324170	0.4158145	0.4219	AVRG		1.3717
	49)MA	Tetrachloroethylene	0.2199141	0.2418791 0.2237514	0.2161599	0.2217201	0.2248894	0.2152654	0.2234	AVRG		3.9933
	50)MA	Dibromochloromethane	0.2599069	0.2133245 0.2718974	0.2099026	0.2344721	0.2411463	0.2428912	0.2391	AVRG		9.4544
	51)MA	1,2-Dibromoethane	0.2353970	0.1992230 0.2402204	0.2100546	0.2231873	0.2258006	0.2301785	0.2234	AVRG		6.4372
	52)MPA	Chlorobenzene	0.7423830	0.8241285 0.7534998	0.7538328	0.7504302	0.7587789	0.7366442	0.7600	AVRG		3.8520
	53)MA	1,1,1,2-Tetrachloroethane	0.2554985	0.2434166 0.2628426	0.2194623	0.2456029	0.2467502	0.2457009	0.2456	AVRG		5.4740
	54)MCA	Ethylbenzene	1.2908296	1.2902707 1.2937762	1.2111166	1.2257685	1.2796337	1.2443953	1.2623	AVRG		2.7372
	55)MA	m,p-Xylenes	0.5194769	0.5255796 0.5179842	0.4836819	0.4994973	0.5099817	0.5007144	0.5081	AVRG		2.8530
	56)MA	o-Xylene	0.5083785	0.4600359 0.5083754	0.4480934	0.4807452	0.5118658	0.4931835	0.4872	AVRG		5.1989
	57)MA	Styrene	0.8569223	0.6782367 0.8648429	0.6513041	0.7253519	0.7824841	0.7946321	0.7648	AVRG		10.8907
	59)MPA	Bromoform	0.3047952	0.2663349 0.3269764	0.2508676	0.2489458	0.2761669	0.2884635	0.2804	AVRG		10.2000
	60)MA	Isopropylbenzene	2.3296240	2.2568196 2.3253400	2.1697409	2.2368178	2.2934068	2.2577786	2.2671	AVRG		2.4547
	61)SA	Bromofluorobenzene	0.9409832	0.9624044 0.9419742	0.9624167	0.9700651	0.9526554	0.9482525	0.9541	AVRG		1.1705
	62)MPA	1,1,2,2-Tetrachloroethane	0.5808242	0.5842296 0.5934897	0.5484485	0.5767767	0.5885986	0.5748650	0.5782	AVRG		2.5296
	63)MA	1,2,3-Trichloropropane	0.1553798	0.1480405 0.1573292	0.1542340	0.1583400	0.1586045	0.1580088	0.1557	AVRG		2.4075

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

b	Compound m1   m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA	Bromobenzene	0.5803109	0.6388071 0.5772241	0.5793797	0.5982328	0.5895839	0.5770215	0.5915	AVRG		3.7629
65)MA	n-Propylbenzene	2.7777303	2.7268071 2.7502319	2.6797891	2.6570670	2.7521726	2.6965183	2.7200	AVRG		1.6065
66)MA	1,3,5-Trimethylbenzene	1.9348697	1.7912293 1.9190685	1.7241292	1.8352801	1.9130821	1.8775470	1.8565	AVRG		4.1686
67)MA	2-Chlorotoluene	0.5740853	0.5580186 0.5615418	0.5584916	0.5820415	0.5834570	0.5611863	0.5684	AVRG		1.9672
68)MA	4-Chlorotoluene	1.6837817	1.7615695 1.6936796	1.6538694	1.6858989	1.6878349	1.6483747	1.6879	AVRG		2.1905
69)MA	tert-Butylbenzene	0.4429995	0.4485186 0.4461049	0.4105029	0.4318144	0.4436306	0.4351547	0.4370	AVRG		2.9954
70)MA	1,2,4-Trimethylbenzene	2.0008575	1.8623612 2.0021183	1.7167445	1.8955056	1.9283332	1.9421310	1.9069	AVRG		5.1502
71)MA	sec-Butylbenzene	2.5810901	2.5187573 2.5593424	2.3496736	2.4396235	2.5602922	2.4735990	2.4975	AVRG		3.3091
72)MA	4-Isopropyltoluene	2.0923104	1.8333911 2.0873405	1.7781849	1.9233657	2.0326068	1.9938863	1.9630	AVRG		6.2567
73)MA	1,3-Dichlorobenzene	1.1333956	1.2398497 1.1434447	1.1244523	1.1301985	1.1388626	1.1247180	1.1478	AVRG		3.5863
74)MA	1,4-Dichlorobenzene	1.1511797	1.3518500 1.1552950	1.2143764	1.1759416	1.1650179	1.1392703	1.1933	AVRG		6.1981
75)MA	n-Butylbenzene	2.0197327	1.8208891 2.0234049	1.7306699	1.8037779	1.9241934	1.9259811	1.8927	AVRG		5.8929
76)MA	1,2-Dichlorobenzene	1.0810824	1.1275045 1.0977128	1.0945760	1.0845073	1.0864857	1.0714280	1.0919	AVRG		1.6420
77)MA	1,2-Dibromo-3-chloroprop	0.1137244	0.0998433 0.1236173	0.0977730	0.0957497	0.1039176	0.1045495	0.1056	AVRG		9.3588
78)MA	1,2,4-Trichlorobenzene	0.7851531	0.7339083 0.8088410	0.6848749	0.7435403	0.7590099	0.7684634	0.7548	AVRG		5.2713

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	0.4404484	0.4317919 0.4361762	0.4066207	0.4075274	0.4174422	0.4204530	0.4229	AVRG		3.2021
80)MA	Naphthalene	1.8510303	1.4709204 1.8946562	1.4595894	1.5204817	1.6967024	1.7378801	1.6616	AVRG		10.8310
81)MA	1,2,3-Trichlorobenzene	0.6828319	0.6198386 0.6989836	0.5916593	0.6161675	0.6658061	0.6722564	0.6496	AVRG		6.1827
83)B	Chlorotrifluoroethylene	0.1017979	0.0812634 0.1105826	0.1001070	0.0885625	0.0873287	0.1134004	0.0976	AVRG		12.5248
84)B	2-Chloro-1,1,1-trifluoro	0.2111319	0.1920832 0.2074648	0.2074643	0.1982370	0.1941973	0.2006302	0.2016	AVRG		3.6070
85)B	Acrolein	0.0233536	0.0311225 0.0255589	0.0276138	0.0288597	0.0255727	0.0244949	0.0267	AVRG		10.1226
86)B	Trichlorotrifluoroethane	0.0403944	0.0261870 0.0429467	0.0390746	0.0371082	0.0414136	0.0402636	0.0382	AVRG		14.6620
87)B	Isopropyl Alcohol	0.0157291	0.0132320 0.0177188	0.0120625	0.0145641	0.0147163	0.0161722	0.0149	AVRG		12.6372
88)B	Allyl chloride	0.3195784	0.3142778 0.3335062	0.3137850	0.3138401	0.3125867	0.3098713	0.3168	AVRG		2.5016
89)B	tert-Butyl Alcohol	0.0210624	0.0187408 0.0234482	0.0178554	0.0193253	0.0197551	0.0218027	0.0203	AVRG		9.5262
90)B	Acrylonitrile	0.0766984	0.0696567 0.0812049	0.0679702	0.0766522	0.0775402	0.0788102	0.0755	AVRG		6.4265
91)B	Isopropyl ether	0.7977431	0.6749144 0.8488001	0.7438972	0.7512602	0.7463190	0.7692851	0.7617	AVRG		7.0159
92)B	2-Chloro-1,3-butadiene	0.2610890	0.2136173 0.2767700	0.2269519	0.2454530	0.2463628	0.2446208	0.2450	AVRG		8.4662
93)B	Ethyl tert-butyl ether	0.5466319	0.4636149 0.5935835	0.5000680	0.5136506	0.5116460	0.5368159	0.5237	AVRG		7.7939
94)B	Ethyl acetate	0.2264389	0.2499637 0.2367210	0.2108485	0.2257773	0.2269925	0.2322419	0.2299	AVRG		5.1932

Response Factor Report VOA5  
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Last Update : Mon Jan 11 08:56:29 2010  
Integrator : (RTE Integrator)

Response via : Initial Calibration

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

b	Compound	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r <sup>2</sup>
95)B	Propionitrile	0.0301574	0.0240500 0.0315788	0.0220309	0.0286188	0.0302604	0.0310657	0.0283	AVRG		13.1762
96)B	Methacrylonitrile	0.1411254	0.1282213 0.1471095	0.1266668	0.1387552	0.1415413	0.1436904	0.1382	AVRG		5.6232
97)B	Tetrahydrofuran	0.0714558	0.0727661 0.0742141	0.0687995	0.0727258	0.0718850	0.0748852	0.0724	AVRG		2.7528
98)B	Isobutyl alcohol	0.0089052	0.0077854 0.0095531	0.0070949	0.0081366	0.0084172	0.0091191	0.0084	AVRG	#	9.9791
99)B	Methyl tert-amyl ether	0.4657519	0.4007763 0.5029949	0.4164557	0.4248282	0.4389278	0.4585908	0.4440	AVRG		7.7940
100)B	Methyl methacrylate	0.1363513	0.1125668 0.1389626	0.1115240	0.1261373	0.1311181	0.1352273	0.1274	AVRG		8.8482
101)B	1,4-Dioxane	0.0018760	0.0014925 0.0020574	0.0017683	0.0018487	0.0018537	0.0020104	0.0018	AVRG	#	9.9916
102)B	2-Nitropropane	534767	7542 1155866	14139	42649	92496	202250		LINR		0.9988
104)B	Ethyl methacrylate	0.3616494	0.2933895 0.3516777	0.2947180	0.3349716	0.3535748	0.3654809	0.3365	AVRG		9.0798
106)B	1-Chlorohexane	0.5239404	0.4625887 0.5252741	0.4687767	0.4979576	0.4978088	0.5039134	0.4972	AVRG		4.8959
107)B	cis-1,4-Dichloro-2-buten	0.2082263	0.1647392 0.2173874	0.1582413	0.1832733	0.1939345	0.2002780	0.1894	AVRG		11.5915
108)B	Cyclohexanone	872875	9493	19548	63614	140600	333688		LINR		0.9992
109)B	trans-1,4-Dichloro-2-but	0.1942590	0.1573282 0.2011104	0.1631469	0.1774183	0.1846363	0.1928108	0.1815	AVRG		9.0599
110)B	Pentachloroethane	0.2128169	0.1850355 0.2071820	0.1733272	0.2086050	0.2100927	0.1958114	0.1990	AVRG		7.5032
111)B	Benzyl chloride	3059465	41965 6410200	83071	252023	541021	1139942		LINR		0.9999

# Response Factor Report VOA5

GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Last Update : Mon Jan 11 08:56:29 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

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

Compound		8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
b	m1   m2	6	7								
12)B	bis(2-Chloroisopropyl)et	0.3456380	0.2951284	0.2694040	0.3704000	0.3433998	0.3581821	0.3332	AVRG		11.0104

#) = Out of Range



## Continuing Calibration Summary

Client SDG: 10-1304

Instrument ID: VOA5.1

Injection Date 08-JAN-10 21:50

Data File: 010810V5\5S526.D

Init. Cal. Date(s) 08-JAN-10 13:40 - 08-JAN-10 20:59

Lab Sample ID W5VM100108-18

Quant Type ISTD

Method:VOA5-8260-010810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.2324	0.2279		.01		-1.93632	30		Averaged
S Toluene-d8	1.3636	1.29954		.01		-4.69786	30		Averaged
S Bromofluorobenzene	0.9541	0.9624		.01		0.86993	30		Averaged
Chlorotrifluoroethylene	0.0976	0.08552		.01		-12.37705	30		Averaged
2-Chloro-1,1,1-trifluoroethane	0.2016	0.20198		.01		0.18849	30		Averaged
Acrolein	0.0267	0.0188		.01		-29.58801	30		Averaged
Trichlorotrifluoroethane	0.0382	0.03576		.01		-6.38743	30		Averaged
Isopropyl Alcohol	0.0149	0.01676		.01		12.48322	40		Averaged
Allyl chloride	0.3168	0.27462		.01		-13.31439	30		Averaged
tert-Butyl Alcohol	0.0203	0.02189		.01		7.83251	40		Averaged
Acrylonitrile	0.0755	0.06991		.01		-7.40397	30		Averaged
Isopropyl ether	0.7617	0.78583		.01		3.16791	30		Averaged
2-Chloro-1,3-butadiene	0.245	0.21519		.01		-12.16735	30		Averaged
Ethyl tert-butyl ether	0.5237	0.54161		.01		3.4199	30		Averaged
Ethyl acetate	0.2299	0.1938		.01		-15.70248	40		Averaged
Propionitrile	0.0283	0.0264		.01		-6.71378	30		Averaged
Methacrylonitrile	0.1382	0.12508		.01		-9.49349	30		Averaged
Tetrahydrofuran	0.0724	0.0647		.01		-10.63536	30		Averaged
Isobutyl alcohol	0.0084	0.00764		.01		-9.04762	40		Averaged
Methyl tert-amyl ether	0.444	0.46578		.01		4.90541	30		Averaged
Methyl methacrylate	0.1274	0.11973		.01		-6.02041	30		Averaged
1,4-Dioxane	0.0018	0.00167		.01		-7.22222	40		Averaged
2-Nitropropane	250	209.47	250			-16.212	30		Linear
Ethyl methacrylate	0.3365	0.3209		.01		-4.63596	30		Averaged
1-Chlorohexane	0.4972	0.50574		.01		1.71762	30		Averaged
cis-1,4-Dichloro-2-butene	0.1894	0.18841		.01		-0.5227	30		Averaged
Cyclohexanone	1250	430.53	1250			-65.5576	40	*	Linear
trans-1,4-Dichloro-2-butene	0.1815	0.17818		.01		-1.8292	30		Averaged
Pentachloroethane	0.199	0.17851		.01		-10.29648	30		Averaged
Benzyl chloride	250	195.52	250			-21.792	30		Linear
bis(2-Chloroisopropyl)ether	0.3332	0.30719		.01		-7.80612	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010810V5\  
Data File : 5S526.D  
Acq On : 8 Jan 2010 9:50 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100108-18|ICV|1|VOA|1|  
Misc : ICV 5mL N/A MIX[B]  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jan 11 09:00:37 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	10.375	96	1702056	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	117	1195743	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	152	626055	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	96	1702056	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	117	1195743	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	152	626055	50.00	ug/L	0.00

System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	10.021	65	387895	49.03	ug/L	0.00
43) Toluene-d8	12.016	98	1553916	47.65	ug/L	0.00
61) Bromofluorobenzene	14.739	95	602518	50.43	ug/L	0.00

Target Compounds				Qvalue		
2) Dichlorodifluoromethane	4.598		0m	N.D.	d	
3) Chloromethane	5.253		0m	N.D.	d	
4) Vinyl chloride	5.404		0m	N.D.	d	
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
9) Acetone	7.100		0m	N.D.	d	
10) 1,1-Dichloroethylene	0.000		0	N.D.		
11) Iodomethane	7.366		0m	N.D.	d	
12) Acetonitrile	7.433		0m	N.D.	d	
13) Methyl acetate	7.493		0m	N.D.	d	
14) Carbon disulfide	7.549		0m	N.D.	d	
15) Methylene chloride	7.684		0m	N.D.	d	
16) tert-Butyl methyl ether	7.981		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.		
18) Vinyl acetate	8.480		0m	N.D.	d	
19) 1,1-Dichloroethane	8.614		0m	N.D.	d	
20) 2-Butanone	9.088		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.091		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000		0	N.D.		
23) Bromochloromethane	0.000		0	N.D.		
24) Chloroform	9.452		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000		0	N.D.		
26) Cyclohexane	9.866		0m	N.D.	d	
27) 1,1-Dichloropropene	9.763		0m	N.D.	d	
28) Carbon tetrachloride	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.103		0m	N.D.	d	
31) Benzene	10.127		0m	N.D.	d	
32) Cyclohexene	0.000		0	N.D.		
33) n-Butyl alcohol	10.467		0m	N.D.	d	
34) Trichloroethylene	10.764		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000		0	N.D.		
36) Methylcyclohexane	11.019		0m	N.D.	d	
37) Dibromomethane	0.000		0	N.D.		
38) Bromodichloromethane	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	11.461		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010810V5\  
Data File : 5S526.D  
Acq On : 8 Jan 2010 9:50 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100108-18|ICV|1|VOA|1|  
Misc : ICV 5mL N/A MIX[B]  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jan 11 09:00:37 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) 4-Methyl-2-pentanone	11.793		0m	N.D.	d	
44) Toluene	12.094		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	12.239		0m	N.D.	d	
46) 1,1,2-Trichloroethane	12.688		0m	N.D.	d	
47) 2-Hexanone	12.631		0m	N.D.	d	
48) 1,3-Dichloropropane	12.702		0m	N.D.	d	
49) Tetrachloroethylene	12.688		0m	N.D.	d	
50) Dibromochloromethane	12.691		0m	N.D.	d	
51) 1,2-Dibromoethane	0.000		0	N.D.		
52) Chlorobenzene	13.579		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
54) Ethylbenzene	13.636		0m	N.D.	d	
55) m,p-Xylenes	13.756		0m	N.D.	d	
56) o-Xylene	14.187		0m	N.D.	d	
57) Styrene	14.191		0m	N.D.	d	
59) Bromoform	0.000		0	N.D.		
60) Isopropylbenzene	14.534		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	14.856		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000		0	N.D.		
64) Bromobenzene	0.000		0	N.D.		
65) n-Propylbenzene	14.962		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	15.114		0m	N.D.	d	
67) 2-Chlorotoluene	15.121		0m	N.D.	d	
68) 4-Chlorotoluene	15.220		0m	N.D.	d	
69) tert-Butylbenzene	15.559		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.528		0m	N.D.	d	
71) sec-Butylbenzene	15.704		0m	N.D.	d	
72) 4-Isopropyltoluene	15.825		0m	N.D.	d	
73) 1,3-Dichlorobenzene	15.909		0m	N.D.	d	
74) 1,4-Dichlorobenzene	15.991		0m	N.D.	d	
75) n-Butylbenzene	16.277		0m	N.D.	d	
76) 1,2-Dichlorobenzene	16.422		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	18.371		0m	N.D.	d	
79) Hexachlorobutadiene	0.000		0	N.D.		
80) Naphthalene	18.762		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	19.116		0m	N.D.	d	
83) Chlorotrifluoroethylene	4.608	116	436664	131.46	ug/L	99
84) 2-Chloro-1,1,1-trifluo...	5.414	118	1031356	150.28	ug/L	99
85) Acrolein	6.914	56	159996	176.34	ug/L #	66
86) Trichlorotrifluoroethane	7.079	85	304328	234.04	ug/L	99
87) Isopropyl Alcohol	7.175	45	1426525	2815.31	ug/L	99
88) Allyl chloride	7.546	41	2337054	216.73	ug/L	98
89) tert-Butyl Alcohol	7.673	59	1862673	2697.57	ug/L	97
90) Acrylonitrile	7.924	53	594927	231.47	ug/L	98
91) Isopropyl ether	8.483	45	1337518	51.58	ug/L	98
92) 2-Chloro-1,3-butadiene	8.614	53	366267	43.92	ug/L	94
93) Ethyl tert-butyl ether	8.886	59	921854	51.71	ug/L	97
94) Ethyl acetate	9.088	43	1649323	210.79	ug/L	98
95) Propionitrile	9.151	54	224684	233.63	ug/L	100
96) Methacrylonitrile	9.332	41	1064443	226.33	ug/L	100
97) Tetrahydrofuran	9.463	42	550589	223.43	ug/L	97

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010810V5\  
Data File : 5S526.D  
Acq On : 8 Jan 2010 9:50 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100108-18|ICV|1|VOA|1|  
Misc : ICV 5mL N/A MIX[B]  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jan 11 09:00:37 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:56:29 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98) Isobutyl alcohol	9.770	41	650537	2266.88	ug/L	96
99) Methyl tert-amyl ether	10.138	73	792780	52.45	ug/L	95
100) Methyl methacrylate	10.969	69	1018925	234.92	ug/L	97
101) 1,4-Dioxane	11.086	88	142218	2265.80	ug/L	93
102) 2-Nitropropane	11.447	43	471321	209.47	ug/L	96
104) Ethyl methacrylate	12.235	69	1918566	238.41	ug/L	99
106) 1-Chlorohexane	13.438	55	316620	50.86	ug/L	94
107) cis-1,4-Dichloro-2-butene	14.573	53	589769	248.64	ug/L	92
108) Cyclohexanone	14.689	42	292637	430.53	ug/L	98
109) trans-1,4-Dichloro-2-b...	14.856	53	557739	245.38	ug/L	97
110) Pentachloroethane	15.563	167	558797	224.28	ug/L	100
111) Benzyl chloride	16.100	91	2432609	195.52	ug/L	100
112) bis(2-Chloroisopropyl)...	16.496	45	961585	230.49	ug/L	96

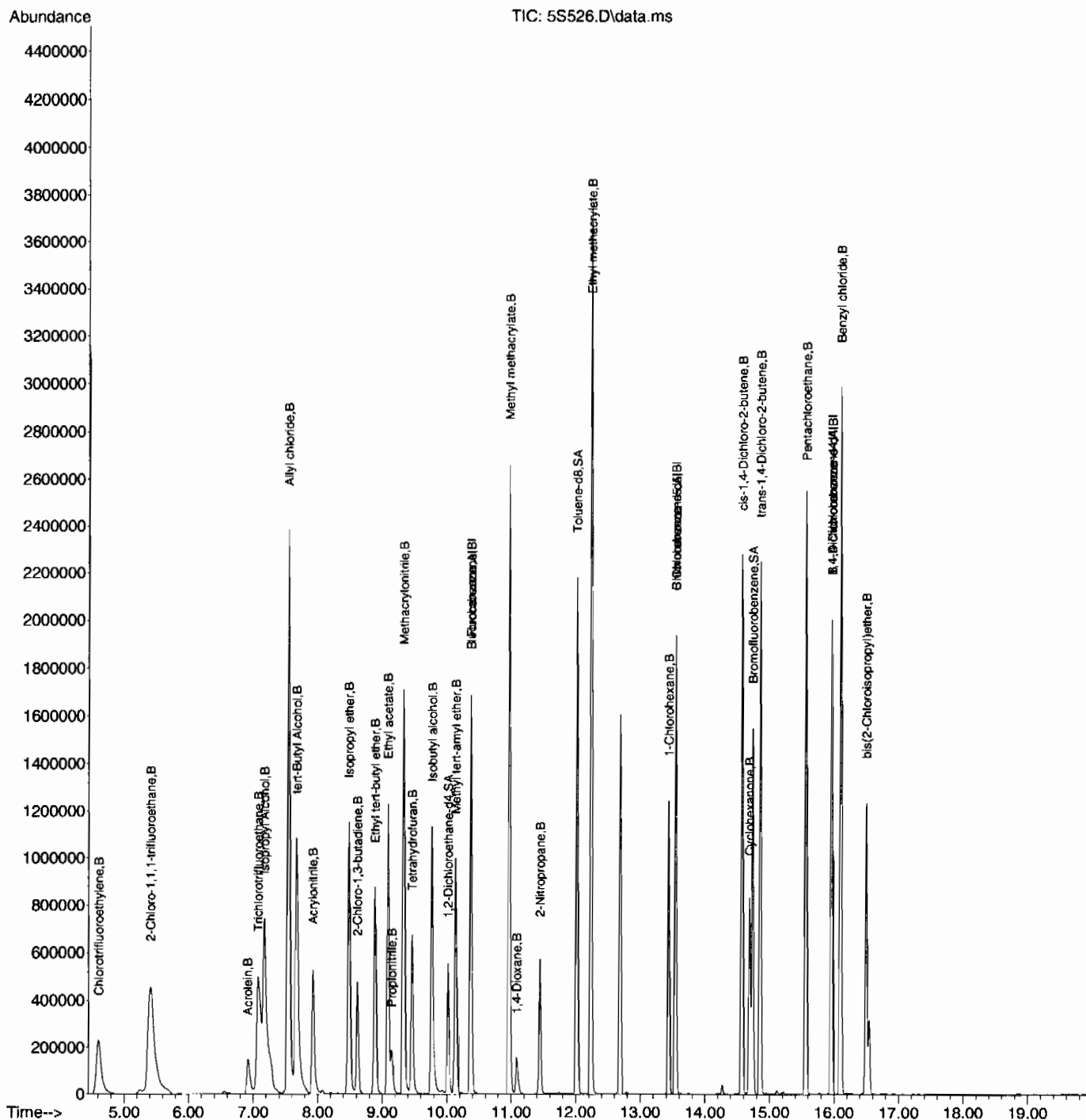
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010810V5\  
Data File : 5S526.D  
Acq On : 8 Jan 2010 9:50 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100108-18|ICV|1|VOA|1|  
Misc : ICV 5mL N/A MIX[B]  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jan 11 09:00:37 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :



## Continuing Calibration Summary

Client SDG: 10-1304

Instrument ID: VOA5.J

Injection Date 11-JAN-10 10:39

Data File: 011110V55T103.D

Init. Cal. Date(s) 08-JAN-10 13:40 - 08-JAN-10 20:59

Lab Sample ID W5VM100111-01

Quant Type ISTD

Method:VOA5-8260-010810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.2324	0.22184		.01		-4.54389	30		Averaged
SToluene-d8	1.3636	1.31648		.01		-3.45556	30		Averaged
SBromofluorobenzene	0.9541	0.93976		.01		-1.50299	30		Averaged
Dichlorodifluoromethane	50	35.61	50			-28.78	30		Linear
Chloromethane	0.2459	0.18973		.1		-22.84262	30		Averaged spcc
Vinyl chloride	0.2195	0.18639		.01		-15.08428	20		Averaged ccc
Bromomethane	0.156	0.14412		.01		-7.61538	30		Averaged
Chloroethane	0.1479	0.13592		.01		-8.10007	30		Averaged
Trichlorofluoromethane	0.2161	0.20021		.01		-7.35308	30		Averaged
Ethyl ether	0.183	0.16789		.01		-8.25683	30		Averaged
Acetone	0.1874	0.14518		.01		-22.52935	40		Averaged
1,1-Dichloroethylene	0.2331	0.24127		.01		3.50493	20		Averaged ccc
Iodomethane	0.2791	0.26132		.01		-6.37048	30		Averaged
Acetonitrile	0.031	0.02908		.01		-6.19355	30		Averaged
Methyl acetate	0.1875	0.16961		.01		-9.54133	40		Averaged
Carbon disulfide	0.545	0.54934		.01		0.79633	30		Averaged
Methylene chloride	0.2133	0.18937		.01		-11.21894	30		Averaged
tert-Butyl methyl ether	0.4128	0.36891		.01		-10.63227	30		Averaged
trans-1,2-Dichloroethylene	0.2587	0.25892		.01		0.08504	30		Averaged
Vinyl acetate	0.4619	0.49912		.01		8.05802	40		Averaged
1,1-Dichloroethane	0.3281	0.32541		.1		-0.81987	30		Averaged spcc
2-Butanone	0.2147	0.1737		.01		-19.09641	40		Averaged
cis-1,2-Dichloroethylene	0.2936	0.28593		.01		-2.6124	30		Averaged
2,2-Dichloropropane	0.1646	0.16845		.01		2.339	30		Averaged
Bromochloromethane	0.0988	0.09279		.01		-6.083	30		Averaged
Chloroform	0.3007	0.2974		.01		-1.09744	20		Averaged ccc
1,1,1-Trichloroethane	0.2099	0.21783		.01		3.77799	30		Averaged
Cyclohexane	0.3048	0.31022		.01		1.77822	30		Averaged
1,1-Dichloropropene	0.23	0.23919		.01		3.99565	30		Averaged
Carbon tetrachloride	0.1846	0.20083		.01		8.79198	30		Averaged
1,2-Dichloroethane	0.2448	0.23022		.01		-5.95588	30		Averaged
Benzene	0.7763	0.76366		.01		-1.62824	30		Averaged
Cyclohexene	0.36	0.37357		.01		3.76944	30		Averaged
n-Butyl alcohol	5000	4983.33	5000			-0.3334	40		Linear
Trichloroethylene	0.18	0.18334		.01		1.85556	30		Averaged
1,2-Dichloropropane	0.2011	0.19867		.01		-1.20835	20		Averaged ccc
Methylcyclohexane	0.3172	0.33005		.01		4.05107	30		Averaged

## Continuing Calibration Summary

Instrument ID: VOA5.I

Injection Date 11-JAN-10 10:39

Data File: 011110V5\5T103.D

Init. Cal. Date(s) 08-JAN-10 13:40 08-JAN-10 20:59

Lab Sample ID W5VM100111-01

Quant Type ISTD

Method:VOA5-8260-010810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Dibromomethane	0.1056	0.10165		.01		-3.74053	30		Averaged
Bromodichloromethane	0.2162	0.22324		.01		3.25624	30		Averaged
2-Chloroethylvinyl ether	0.1115	0.09491		.01		-14.87892	30		Averaged
cis-1,3-Dichloropropylene	0.2816	0.28697		.01		1.90696	30		Averaged
4-Methyl-2-pentanone	0.1323	0.12908		.01		-2.43386	40		Averaged
Toluene	1.1974	1.16776		.01		-2.47536	20		Averaged ccc
trans-1,3-Dichloropropylene	0.3566	0.36886		.01		3.43803	30		Averaged
1,1,2-Trichloroethane	0.1993	0.18945		.01		-4.9423	30		Averaged
2-Hexanone	0.3918	0.33739		.01		-13.88719	40		Averaged
1,3-Dichloropropane	0.4219	0.39766		.01		-5.74544	30		Averaged
Tetrachloroethylene	0.2234	0.22609		.01		1.20412	30		Averaged
Dibromochloromethane	0.2391	0.24741		.01		3.47553	30		Averaged
1,2-Dibromoethane	0.2234	0.22443		.01		0.46106	30		Averaged
Chlorobenzene	0.76	0.73604		.3		-3.15263	30		Averaged spcc
1,1,1,2-Tetrachloroethane	0.2456	0.25103		.01		2.21091	30		Averaged
Ethylbenzene	1.2623	1.28309		.01		1.64699	20		Averaged ccc
m,p-Xylenes	0.5081	0.51866		.01		2.07833	30		Averaged
o-Xylene	0.4872	0.50403		.01		3.45443	30		Averaged
Styrene	0.7648	0.82729		.01		8.17076	30		Averaged
Bromoform	0.2804	0.29851		.1		6.45863	30		Averaged spcc
Isopropylbenzene	2.2671	2.35729		.01		3.97821	30		Averaged
1,1,2,2-Tetrachloroethane	0.5782	0.56257		.3		-2.70322	30		Averaged spcc
1,2,3-Trichloropropane	0.1557	0.15346		.01		-1.43866	30		Averaged
Bromobenzene	0.5915	0.56692		.01		-4.15554	30		Averaged
n-Propylbenzene	2.72	2.78647		.01		2.44375	30		Averaged
1,3,5-Trimethylbenzene	1.8565	1.93377		.01		4.16213	30		Averaged
2-Chlorotoluene	0.5684	0.57046		.01		0.36242	30		Averaged
4-Chlorotoluene	1.6879	1.68139		.01		-0.38569	30		Averaged
tert-Butylbenzene	0.437	0.44726		.01		2.34783	30		Averaged
1,2,4-Trimethylbenzene	1.9069	1.98973		.01		4.3437	30		Averaged
sec-Butylbenzene	2.4975	2.59908		.01		4.06727	30		Averaged
4-Isopropyltoluene	1.963	2.08912		.01		6.42486	30		Averaged
1,3-Dichlorobenzene	1.1478	1.12497		.01		-1.98902	30		Averaged
1,4-Dichlorobenzene	1.1933	1.14148		.01		-4.34258	30		Averaged
n-Butylbenzene	1.8927	2.02771		.01		7.1332	30		Averaged
1,2-Dichlorobenzene	1.0919	1.0614		.01		-2.7933	30		Averaged
1,2-Dibromo-3-chloropropane	0.1056	0.11508		.01		8.97727	30		Averaged

## Continuing Calibration Summary

Instrument ID: VOA5.I

Injection Date 11-JAN-10 10:39

Data File: 011110V5\5T103.D

Init. Cal. Date(s) 08-JAN-10 13:40 08-JAN-10 20:59

Lab Sample ID W5VM100111-01 Quant Type ISTD

Method:VOA5-8260-010810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.7548	0.76956		.01		1.95548	30		Averaged
Hexachlorobutadiene	0.4229	0.43388		.01		2.59636	30		Averaged
Naphthalene	1.6616	1.76172		.01		6.02552	30		Averaged
1,2,3-Trichlorobenzene	0.6496	0.68253		.01		5.06927	30		Averaged



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\011110V5\  
Data File : 5T103.D  
Acq On : 11 Jan 2010 10:39 am  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100111-01|ICV|1|VOA|1|VOA8260BL|  
Misc : ICV 5mL N/A MIX[A]  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 11 13:27:41 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	10.375	96	1767464	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	117	1245156	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	152	665347	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	96	1767464	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	117	1245156	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	152	665347	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	10.021	65	392093	47.73	ug/L	0.00
43) Toluene-d8	12.016	98	1639227	48.27	ug/L	0.00
61) Bromofluorobenzene	14.739	95	625267	49.25	ug/L	0.00
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	4.689	85	135452	35.61	ug/L	99
3) Chloromethane	5.051	50	335339	38.57	ug/L	98
4) Vinyl chloride	5.283	62	329435	42.45	ug/L	100
5) Bromomethane	5.877	94	254721	46.19	ug/L	100
6) Chloroethane	6.018	64	240225	45.95	ug/L	98
7) Trichlorofluoromethane	6.391	101	353866	46.33	ug/L	100
8) Ethyl ether	6.733	59	296737	45.88	ug/L	97
9) Acetone	7.097	43	1282957	193.63	ug/L	100
10) 1,1-Dichloroethylene	7.122	61	426428	51.74	ug/L	96
11) Iodomethane	7.369	142	2309321	234.04	ug/L	98
12) Acetonitrile	7.447	41	1284899	1173.88	ug/L	100
13) Methyl acetate	7.493	43	1498896	226.17	ug/L	99
14) Carbon disulfide	7.507	76	4854701	252.00	ug/L	99
15) Methylene chloride	7.691	84	334701	44.40	ug/L	95
16) tert-Butyl methyl ether	7.981	73	652032	44.68	ug/L	97
17) trans-1,2-Dichloroethy...	8.030	61	457626	50.05	ug/L	96
18) Vinyl acetate	8.455	43	4410847	270.13	ug/L	98
19) 1,1-Dichloroethane	8.508	63	575146	49.59	ug/L	99
20) 2-Butanone	9.077	43	1535049	202.26	ug/L	98
21) cis-1,2-Dichloroethylene	9.144	61	505367	48.70	ug/L	94
22) 2,2-Dichloropropane	9.169	77	297726	51.16	ug/L	93
23) Bromochloromethane	9.417	128	164001	46.98	ug/L	93
24) Chloroform	9.448	83	525646	49.45	ug/L	100
25) 1,1,1-Trichloroethane	9.731	97	385011	51.90	ug/L	97
26) Cyclohexane	9.827	56	548301	50.89	ug/L	95
27) 1,1-Dichloropropene	9.887	75	422762	52.01	ug/L	98
28) Carbon tetrachloride	9.926	117	354955	54.39	ug/L	99
30) 1,2-Dichloroethane	10.103	62	406905	47.03	ug/L	99
31) Benzene	10.127	78	1349740	49.18	ug/L	99
32) Cyclohexene	10.244	67	660265	51.88	ug/L	96
33) n-Butyl alcohol	10.456	56	1287647	4983.33	ug/L	100
34) Trichloroethylene	10.768	95	324040	50.94	ug/L	99
35) 1,2-Dichloropropane	11.004	63	351133	49.38	ug/L	100
36) Methylcyclohexane	11.019	83	583356	52.02	ug/L	96
37) Dibromomethane	11.142	93	179670	48.12	ug/L	99
38) Bromodichloromethane	11.252	83	394572	51.63	ug/L	100
39) 2-Chloroethylvinyl ether	11.468	63	838708	212.73	ug/L	98
40) cis-1,3-Dichloropropylene	11.701	75	507210	50.95	ug/L	97

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\011110V5\  
Data File : 5T103.D  
Acq On : 11 Jan 2010 10:39 am  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100111-01|ICV|1|VOA|1|VOA8260BL|  
Misc : ICV 5mL N/A MIX[A]  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 11 13:27:41 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) 4-Methyl-2-pentanone	11.782	58	803647	243.90	ug/L	99
44) Toluene	12.090	91	1454040	48.76	ug/L	99
45) trans-1,3-Dichloroprop...	12.239	75	459287	51.73	ug/L	97
46) 1,1,2-Trichloroethane	12.461	83	235899	47.52	ug/L	98
47) 2-Hexanone	12.631	43	2100507	215.27	ug/L	99
48) 1,3-Dichloropropane	12.652	76	495153	47.12	ug/L	84
49) Tetrachloroethylene	12.691	164	281518	50.61	ug/L	100
50) Dibromochloromethane	12.925	129	308063	51.74	ug/L	99
51) 1,2-Dibromoethane	13.094	107	279447	50.22	ug/L	99
52) Chlorobenzene	13.579	112	916483	48.43	ug/L	98
53) 1,1,1,2-Tetrachloroethane	13.632	131	312570	51.10	ug/L	98
54) Ethylbenzene	13.636	91	1597647	50.83	ug/L	99
55) m,p-Xylenes	13.745	106	1291617	102.07	ug/L	99
56) o-Xylene	14.180	106	627594	51.72	ug/L	100
57) Styrene	14.180	104	1030110	54.08	ug/L	100
59) Bromoform	14.445	173	198613	53.24	ug/L	99
60) Isopropylbenzene	14.537	105	1568416	51.99	ug/L	100
62) 1,1,2,2-Tetrachloroethane	14.810	83	374301	48.65	ug/L	100
63) 1,2,3-Trichloropropane	14.898	110	102105	49.28	ug/L	90
64) Bromobenzene	14.951	156	377196	47.92	ug/L	99
65) n-Propylbenzene	14.962	91	1853968	51.22	ug/L	99
66) 1,3,5-Trimethylbenzene	15.114	105	1286629	52.08	ug/L	100
67) 2-Chlorotoluene	15.117	126	379552	50.18	ug/L	99
68) 4-Chlorotoluene	15.216	91	1118707	49.81	ug/L	100
69) tert-Butylbenzene	15.485	134	297583	51.18	ug/L	98
70) 1,2,4-Trimethylbenzene	15.527	105	1323858	52.17	ug/L	99
71) sec-Butylbenzene	15.711	105	1729291	52.03	ug/L	100
72) 4-Isopropyltoluene	15.832	119	1389993	53.21	ug/L	99
73) 1,3-Dichlorobenzene	15.902	146	748494	49.00	ug/L	99
74) 1,4-Dichlorobenzene	15.987	146	759482	47.83	ug/L	100
75) n-Butylbenzene	16.277	91	1349133	53.57	ug/L	99
76) 1,2-Dichlorobenzene	16.419	146	706200	48.60	ug/L	99
77) 1,2-Dibromo-3-chloropr...	17.293	157	76570	54.49	ug/L	97
78) 1,2,4-Trichlorobenzene	18.371	180	512027	50.98	ug/L	100
79) Hexachlorobutadiene	18.548	225	288678	51.29	ug/L	98
80) Naphthalene	18.762	128	1172155	53.01	ug/L	100
81) 1,2,3-Trichlorobenzene	19.109	180	454118	52.53	ug/L	99
83) Chlorotrifluoroethylene	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.		
85) Acrolein	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000		0	N.D.		
87) Isopropyl Alcohol	7.168		0m	N.D.	d	
88) Allyl chloride	7.447		0m	N.D.	d	
89) tert-Butyl Alcohol	7.698		0m	N.D.	d	
90) Acrylonitrile	7.988		0m	N.D.	d	
91) Isopropyl ether	8.451		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.610		0m	N.D.	d	
93) Ethyl tert-butyl ether	0.000		0	N.D.		
94) Ethyl acetate	9.077		0m	N.D.	d	
95) Propionitrile	9.077		0m	N.D.	d	
96) Methacrylonitrile	9.169		0m	N.D.	d	
97) Tetrahydrofuran	9.466		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\011110V5\  
Data File : 5T103.D  
Acq On : 11 Jan 2010 10:39 am  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100111-01|ICV|1|VOA|1|VOA8260BL|  
Misc : ICV 5mL N/A MIX[A]  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 11 13:27:41 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98) Isobutyl alcohol	9.562		0m	N.D.	d	
99) Methyl tert-amyl ether	10.124		0m	N.D.	d	
100) Methyl methacrylate	11.012		0m	N.D.	d	
101) 1,4-Dioxane	11.132		0m	N.D.	d	
102) 2-Nitropropane	11.192		0m	N.D.	d	
104) Ethyl methacrylate	12.235		0m	N.D.	d	
106) 1-Chlorohexane	0.000		0	N.D.		
107) cis-1,4-Dichloro-2-butene	14.541		0m	N.D.	d	
108) Cyclohexanone	14.700		0m	N.D.	d	
109) trans-1,4-Dichloro-2-b...	14.849		0m	N.D.	d	
110) Pentachloroethane	15.563		0m	N.D.	d	
111) Benzyl chloride	16.100		0m	N.D.	d	
112) bis(2-Chloroisopropyl)...	16.500		0m	N.D.	d	

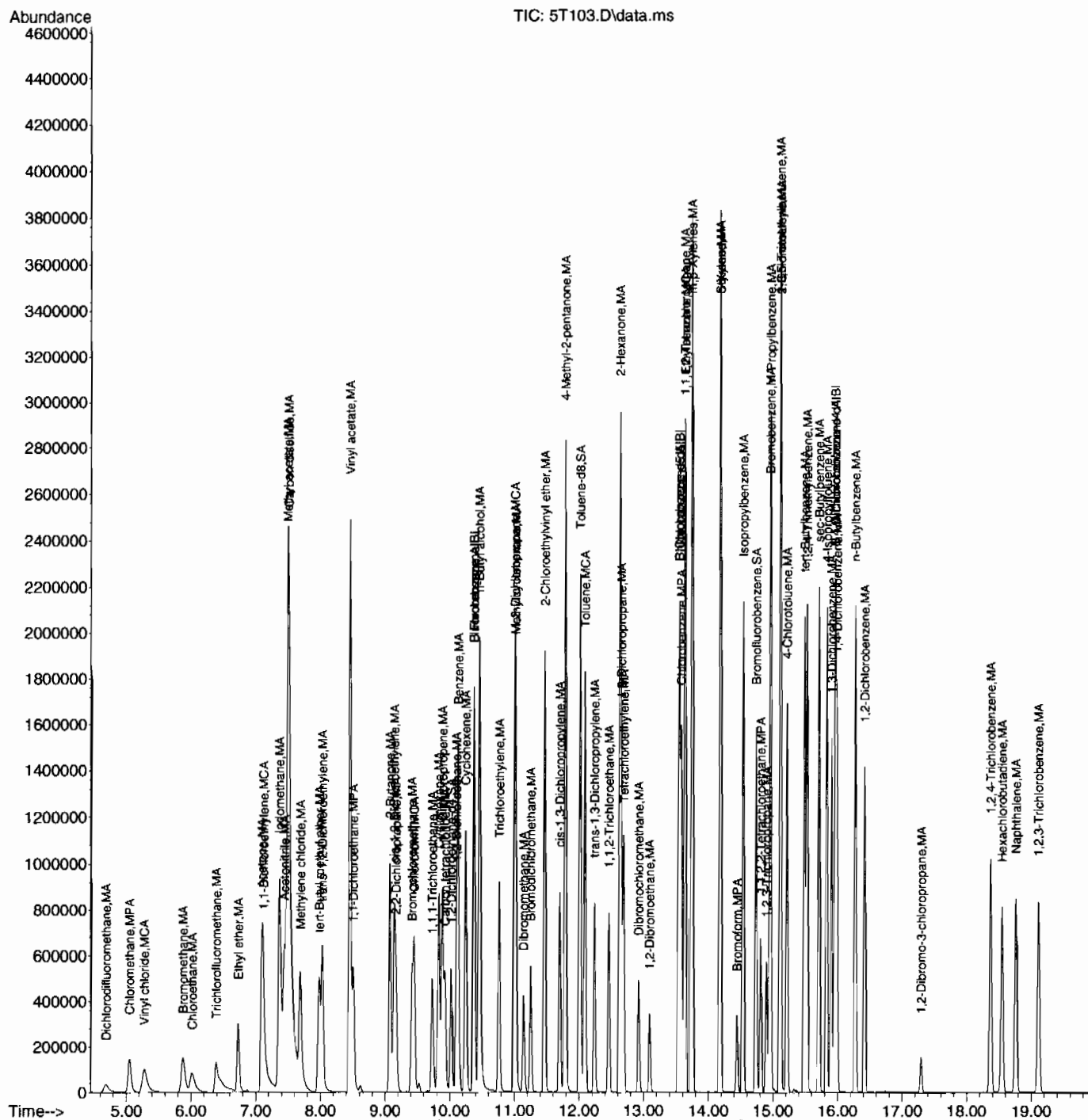
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\011110V5\  
Data File : 5T103.D  
Acq On : 11 Jan 2010 10:39 am  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100111-01|ICV|1|VOA|1|VOA8260BL|  
Misc : ICV 5mL N/A MIX[A]  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 11 13:27:41 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :



## Continuing Calibration Summary

Client SDG: 10-1304

Instrument ID: VOA5.1

Injection Date: 26-JAN-10 20:40

Data File: 012610V5\5V223.D

Init. Cal. Date(s) 08-JAN-10 13:40 - 08-JAN-10 20:59

Lab Sample ID W5VM100126-04

Quant Type ISTD

Method:VOA5-8260-010810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S1,2-Dichloroethane-d4	0.2324	0.21852		.01		-5.97246	30		Averaged	
SToluene-d8	1.3636	1.29759		.01		-4.84086	30		Averaged	
SBromofluorobenzene	0.9541	0.92605		.01		-2.93994	30		Averaged	
Dichlorodifluoromethane		37.93				NA	30		Linear	
Chloromethane	0.2459	0.23349		.1		-5.04677	30		Averaged	spcc
Vinyl chloride	0.2195	0.19933		.01		-9.18907	20		Averaged	ccc
Bromomethane	0.156	0.1478		.01		-5.25641	30		Averaged	
Chloroethane	0.1479	0.13496		.01		-8.74915	30		Averaged	
Trichlorofluoromethane	0.2161	0.19412		.01		-10.17122	30		Averaged	
Ethyl ether	0.183	0.17508		.01		-4.32787	30		Averaged	
Acetone	0.1874	0.17279		.01		-7.79616	40		Averaged	
1,1-Dichloroethylene	0.2331	0.25008		.01		7.28443	20		Averaged	ccc
Iodomethane	0.2791	0.27745		.01		-0.59119	30		Averaged	
Acetonitrile	0.031	0.02961		.01		-4.48387	30		Averaged	
Methyl acetate	0.1875	0.18722		.01		-0.14933	40		Averaged	
Carbon disulfide	0.545	0.53764		.01		-1.35046	30		Averaged	
Methylene chloride	0.2133	0.19735		.01		-7.47773	30		Averaged	
tert-Butyl methyl ether	0.4128	0.37985		.01		-7.98207	30		Averaged	
trans-1,2-Dichloroethylene	0.2587	0.25657		.01		-0.82335	30		Averaged	
Vinyl acetate	0.4619	0.42192		.01		-8.65555	40		Averaged	
1,1-Dichloroethane	0.3281	0.32167		.1		-1.95977	30		Averaged	spcc
2-Butanone	0.2147	0.2084		.01		-2.93433	40		Averaged	
cis-1,2-Dichloroethylene	0.2936	0.28409		.01		-3.2391	30		Averaged	
2,2-Dichloropropane	0.1646	0.14637		.01		-11.07533	30		Averaged	
Bromochloromethane	0.0988	0.09663		.01		-2.19636	30		Averaged	
Chloroform	0.3007	0.29425		.01		-2.145	20		Averaged	ccc
1,1,1-Trichloroethane	0.2099	0.20353		.01		-3.03478	30		Averaged	
Cyclohexane	0.3048	0.28044		.01		-7.99213	30		Averaged	
1,1-Dichloropropene	0.23	0.22084		.01		-3.98261	30		Averaged	
Carbon tetrachloride	0.1846	0.1798		.01		-2.60022	30		Averaged	
1,2-Dichloroethane	0.2448	0.23978		.01		-2.05065	30		Averaged	
Benzene	0.7763	0.742		.01		-4.41839	30		Averaged	
Cyclohexene	0.36	0.34971		.01		-2.85833	30		Averaged	
n-Butyl alcohol		4945.13				NA	40		Linear	
Trichloroethylene	0.18	0.17604		.01		-2.2	30		Averaged	
1,2-Dichloropropane	0.2011	0.19956		.01		-0.76579	20		Averaged	ccc
Methylcyclohexane	0.3172	0.28428		.01		-10.37831	30		Averaged	

## Continuing Calibration Summary

Instrument ID: VOA5.1

Injection Date 26-JAN-10 20:40

Data File: 012610V5V223.D

Init. Cal. Date(s) 08-JAN-10 13:40

08-JAN-10 20:59

Lab Sample ID W5VM100126-04

Quant Type ISTD

Method:VOA5-8260-010810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1056	0.10575		.01		0.14205	30		Averaged	
Bromodichloromethane	0.2162	0.22361		.01		3.42738	30		Averaged	
2-Chloroethylvinyl ether	0.1115	0.11358		.01		1.86547	30		Averaged	
cis-1,3-Dichloropropylene	0.2816	0.28991		.01		2.95099	30		Averaged	
4-Methyl-2-pentanone	0.1323	0.13376		.01		1.10355	40		Averaged	
Toluene	1.1974	1.12506		.01		-6.04142	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3566	0.37194		.01		4.30174	30		Averaged	
1,1,2-Trichloroethane	0.1993	0.19506		.01		-2.12745	30		Averaged	
2-Hexanone	0.3918	0.39439		.01		0.66105	40		Averaged	
1,3-Dichloropropane	0.4219	0.41114		.01		-2.55037	30		Averaged	
Tetrachloroethylene	0.2234	0.2067		.01		-7.47538	30		Averaged	
Dibromochloromethane	0.2391	0.25353		.01		6.03513	30		Averaged	
1,2-Dibromoethane	0.2234	0.22772		.01		1.93375	30		Averaged	
Chlorobenzene	0.76	0.71451		.3		-5.98553	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.2456	0.25122		.01		2.28827	30		Averaged	
Ethylbenzene	1.2623	1.21747		.01		-3.55145	20		Averaged	ccc
m,p-Xylenes	0.5081	0.4889		.01		-3.77878	30		Averaged	
o-Xylene	0.4872	0.48637		.01		-0.17036	30		Averaged	
Styrene	0.7648	0.81316		.01		6.32322	30		Averaged	
Bromoform	0.2804	0.30027		.1		7.08631	30		Averaged	spcc
Isopropylbenzene	2.2671	2.18566		.01		-3.59225	30		Averaged	
1,1,2,2-Tetrachloroethane	0.5782	0.55946		.3		-3.24109	30		Averaged	spcc
1,2,3-Trichloropropane	0.1557	0.15566		.01		-0.02569	30		Averaged	
Bromobenzene	0.5915	0.55336		.01		-6.44801	30		Averaged	
n-Propylbenzene	2.72	2.5643		.01		-5.72426	30		Averaged	
1,3,5-Trimethylbenzene	1.8565	1.80194		.01		-2.93886	30		Averaged	
2-Chlorotoluene	0.5684	0.53991		.01		-5.01232	30		Averaged	
4-Chlorotoluene	1.6879	1.56906		.01		-7.0407	30		Averaged	
tert-Butylbenzene	0.437	0.41215		.01		-5.6865	30		Averaged	
1,2,4-Trimethylbenzene	1.9069	1.85756		.01		-2.58745	30		Averaged	
sec-Butylbenzene	2.4975	2.3508		.01		-5.87387	30		Averaged	
4-Isopropyltoluene	1.963	1.89541		.01		-3.4432	30		Averaged	
1,3-Dichlorobenzene	1.1478	1.05504		.01		-8.08155	30		Averaged	
1,4-Dichlorobenzene	1.1933	1.08065		.01		-9.44021	30		Averaged	
n-Butylbenzene	1.8927	1.77523		.01		-6.20648	30		Averaged	
1,2-Dichlorobenzene	1.0919	1.0198		.01		-6.60317	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1056	0.11033		.01		4.47917	30		Averaged	

## Continuing Calibration Summary

Instrument ID: VOA5.I

Injection Date 26-JAN-10 20:40

Data File: 012610V55V223.D

Init. Cal. Date(s) 08-JAN-10 13:40 08-JAN-10 20:59

Lab Sample ID W5VM100126-04 Quant Type ISTD

Method:VOA5-8260-010810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.7548	0.67681		.01		-10.33254	30		Averaged
Hexachlorobutadiene	0.4229	0.37007		.01		-12.49231	30		Averaged
Naphthalene	1.6616	1.67142		.01		0.591	30		Averaged
1,2,3-Trichlorobenzene	0.6496	0.61076		.01		-5.97906	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V223.D  
Acq On : 26 Jan 2010 8:40 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100126-04|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL N/A MIX[A]  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 27 08:06:11 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.375	10.375	1.000	96	1269748	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	894549	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	482999	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	1269748	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	894549	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	482999	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	277470	47.02	ug/L	0.00
43) Toluene-d8	12.016	12.016	0.887	98	1160759	47.58	ug/L	0.00
61) Bromofluorobenzene	14.739	14.739	0.923	95	447283	48.53	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.709	4.689	0.452	85	103691	37.93	ug/L	98
3) Chloromethane	5.061	5.051	0.487	50	296470	47.47	ug/L	100
4) Vinyl chloride	5.273	5.283	0.509	62	253095	45.40	ug/L	99
5) Bromomethane	5.867	5.877	0.566	94	187672	47.38	ug/L	99
6) Chloroethane	6.008	6.018	0.580	64	171367	45.63	ug/L	99
7) Trichlorofluoromethane	6.391	6.391	0.616	101	246484	44.92	ug/L	99
8) Ethyl ether	6.733	6.733	0.649	59	222307	47.85	ug/L	98
9) Acetone	7.097	7.100	0.684	43	1096980	230.45	ug/L	99
10) 1,1-Dichloroethylene	7.125	7.125	0.687	61	317534	53.63	ug/L	97
11) Iodomethane	7.369	7.373	0.711	142	1761475	248.49	ug/L	98
12) Acetonitrile	7.450	7.450	0.718	41	940077	1195.50	ug/L	98
13) Methyl acetate	7.493	7.493	0.722	43	1188602	249.66	ug/L	99
14) Carbon disulfide	7.507	7.511	0.724	76	3413335	246.63	ug/L	100
15) Methylene chloride	7.687	7.691	0.741	84	250581	46.27	ug/L	95
16) tert-Butyl methyl ether	7.981	7.984	0.770	73	482317	46.01	ug/L	98
17) trans-1,2-Dichloroethy...	8.030	8.030	0.774	61	325782	49.60	ug/L	96
18) Vinyl acetate	8.455	8.458	0.815	43	2678670	228.35	ug/L	99
19) 1,1-Dichloroethane	8.508	8.511	0.820	63	408440	49.02	ug/L	99
20) 2-Butanone	9.077	9.077	0.875	43	1323075	242.67	ug/L	99
21) cis-1,2-Dichloroethylene	9.141	9.144	0.881	61	360717	48.39	ug/L	94
22) 2,2-Dichloropropane	9.169	9.173	0.884	77	185852	44.45	ug/L	95
23) Bromochloromethane	9.417	9.417	0.908	128	122691	48.92	ug/L	94
24) Chloroform	9.448	9.452	0.911	83	373626	48.93	ug/L	100
25) 1,1,1-Trichloroethane	9.731	9.735	0.938	97	258435	48.49	ug/L	97
26) Cyclohexane	9.827	9.830	0.947	56	356084	46.01	ug/L	96
27) 1,1-Dichloropropene	9.887	9.887	0.953	75	280417	48.02	ug/L	98
28) Carbon tetrachloride	9.926	9.929	0.957	117	228305	48.69	ug/L	98
30) 1,2-Dichloroethane	10.103	10.103	0.974	62	304460	48.98	ug/L	99
31) Benzene	10.127	10.127	0.976	78	942151	47.79	ug/L	99
32) Cyclohexene	10.244	10.248	0.988	67	444046	48.57	ug/L	97
33) n-Butyl alcohol	10.456	10.460	1.008	56	917814	4945.13	ug/L	99
34) Trichloroethylene	10.764	10.768	1.038	95	223530	48.91	ug/L	99
35) 1,2-Dichloropropane	11.008	11.004	1.061	63	253397	49.61	ug/L	99
36) Methylcyclohexane	11.015	11.019	1.062	83	360958	44.80	ug/L	97
37) Dibromomethane	11.142	11.146	1.074	93	134280	50.06	ug/L	98
38) Bromodichloromethane	11.252	11.256	1.085	83	283925	51.71	ug/L	100
39) 2-Chloroethylvinyl ether	11.468	11.468	1.105	63	721115	254.60	ug/L	99
40) cis-1,3-Dichloropropylene	11.701	11.705	1.128	75	368111	51.47	ug/L	99



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V223.D  
Acq On : 26 Jan 2010 8:40 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100126-04|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL N/A MIX[A]  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 27 08:06:11 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
42) 4-Methyl-2-pentanone	11.783	11.786	0.870	58	598267	252.73	ug/L 99
44) Toluene	12.090	12.090	0.892	91	1006425	46.98	ug/L 99
45) trans-1,3-Dichloroprop...	12.239	12.239	0.903	75	332718	52.16	ug/L 99
46) 1,1,2-Trichloroethane	12.461	12.465	0.920	83	174493	48.93	ug/L 99
47) 2-Hexanone	12.631	12.631	0.932	43	1764027	251.65	ug/L 99
48) 1,3-Dichloropropane	12.652	12.656	0.934	76	367785	48.72	ug/L 91
49) Tetrachloroethylene	12.688	12.691	0.937	164	184906	46.27	ug/L 100
50) Dibromochloromethane	12.925	12.928	0.954	129	226799	53.02	ug/L 99
51) 1,2-Dibromoethane	13.098	13.094	0.967	107	203707	50.96	ug/L 99
52) Chlorobenzene	13.579	13.579	1.002	112	639161	47.01	ug/L 99
53) 1,1,1,2-Tetrachloroethane	13.628	13.636	1.007	131	224726	51.14	ug/L 98
54) Ethylbenzene	13.636	13.639	1.007	91	1089091	48.23	ug/L 99
55) m,p-Xylenes	13.745	13.749	1.015	106	874689	96.22	ug/L 100
56) o-Xylene	14.180	14.184	1.047	106	435082	49.91	ug/L 99
57) Styrene	14.184	14.184	1.047	104	727412	53.16	ug/L 99
59) Bromoform	14.445	14.445	0.905	173	145030	53.55	ug/L 100
60) Isopropylbenzene	14.537	14.537	0.911	105	1055674	48.20	ug/L 100
62) 1,1,2,2-Tetrachloroethane	14.810	14.810	0.928	83	270218	48.38	ug/L 100
63) 1,2,3-Trichloropropane	14.898	14.898	0.933	110	75186	49.99	ug/L 92
64) Bromobenzene	14.951	14.951	0.937	156	267274	46.78	ug/L 97
65) n-Propylbenzene	14.962	14.965	0.938	91	1238552	47.14	ug/L 99
66) 1,3,5-Trimethylbenzene	15.114	15.114	0.947	105	870335	48.53	ug/L 100
67) 2-Chlorotoluene	15.117	15.117	0.947	126	260777	47.49	ug/L 100
68) 4-Chlorotoluene	15.216	15.216	0.953	91	757856	46.48	ug/L 99
69) tert-Butylbenzene	15.489	15.489	0.970	134	199067	47.16	ug/L 99
70) 1,2,4-Trimethylbenzene	15.528	15.527	0.973	105	897200	48.71	ug/L 100
71) sec-Butylbenzene	15.711	15.711	0.984	105	1135434	47.06	ug/L 100
72) 4-Isopropyltoluene	15.832	15.832	0.992	119	915481	48.28	ug/L 99
73) 1,3-Dichlorobenzene	15.902	15.902	0.996	146	509582	45.96	ug/L 99
74) 1,4-Dichlorobenzene	15.987	15.991	1.002	146	521951	45.28	ug/L 99
75) n-Butylbenzene	16.277	16.277	1.020	91	857432	46.90	ug/L 99
76) 1,2-Dichlorobenzene	16.419	16.422	1.029	146	492563	46.70	ug/L 100
77) 1,2-Dibromo-3-chloropr...	17.293	17.293	1.083	157	53288	52.24	ug/L 98
78) 1,2,4-Trichlorobenzene	18.371	18.371	1.151	180	326898	44.83	ug/L 100
79) Hexachlorobutadiene	18.548	18.548	1.162	225	178743	43.75	ug/L 99
80) Naphthalene	18.762	18.762	1.175	128	807292	50.30	ug/L 100
81) 1,2,3-Trichlorobenzene	19.109	19.116	1.198	180	294997	47.01	ug/L 100
83) Chlorotrifluoroethylene	0.000	4.608	0.444		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.414	0.522		0	N.D.	
85) Acrolein	0.000	6.924	0.667		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.682		0	N.D.	
87) Isopropyl Alcohol	7.122	7.175	0.692		0m	N.D. d	
88) Allyl chloride	7.450	7.546	0.727		0m	N.D. d	
89) tert-Butyl Alcohol	7.705	7.673	0.740		0m	N.D. d	
90) Acrylonitrile	7.970	7.928	0.764		0m	N.D. d	
91) Isopropyl ether	8.458	8.483	0.818		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	8.614	8.617	0.831		0m	N.D. d	
93) Ethyl tert-butyl ether	0.000	8.890	0.857		0	N.D.	
94) Ethyl acetate	9.077	9.088	0.876		0m	N.D. d	
95) Propionitrile	9.070	9.148	0.882		0m	N.D. d	
96) Methacrylonitrile	9.169	9.332	0.899		0m	N.D. d	
97) Tetrahydrofuran	9.463	9.466	0.912		0m	N.D. d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V223.D  
Acq On : 26 Jan 2010 8:40 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100126-04|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL N/A MIX[A]  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 27 08:06:11 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

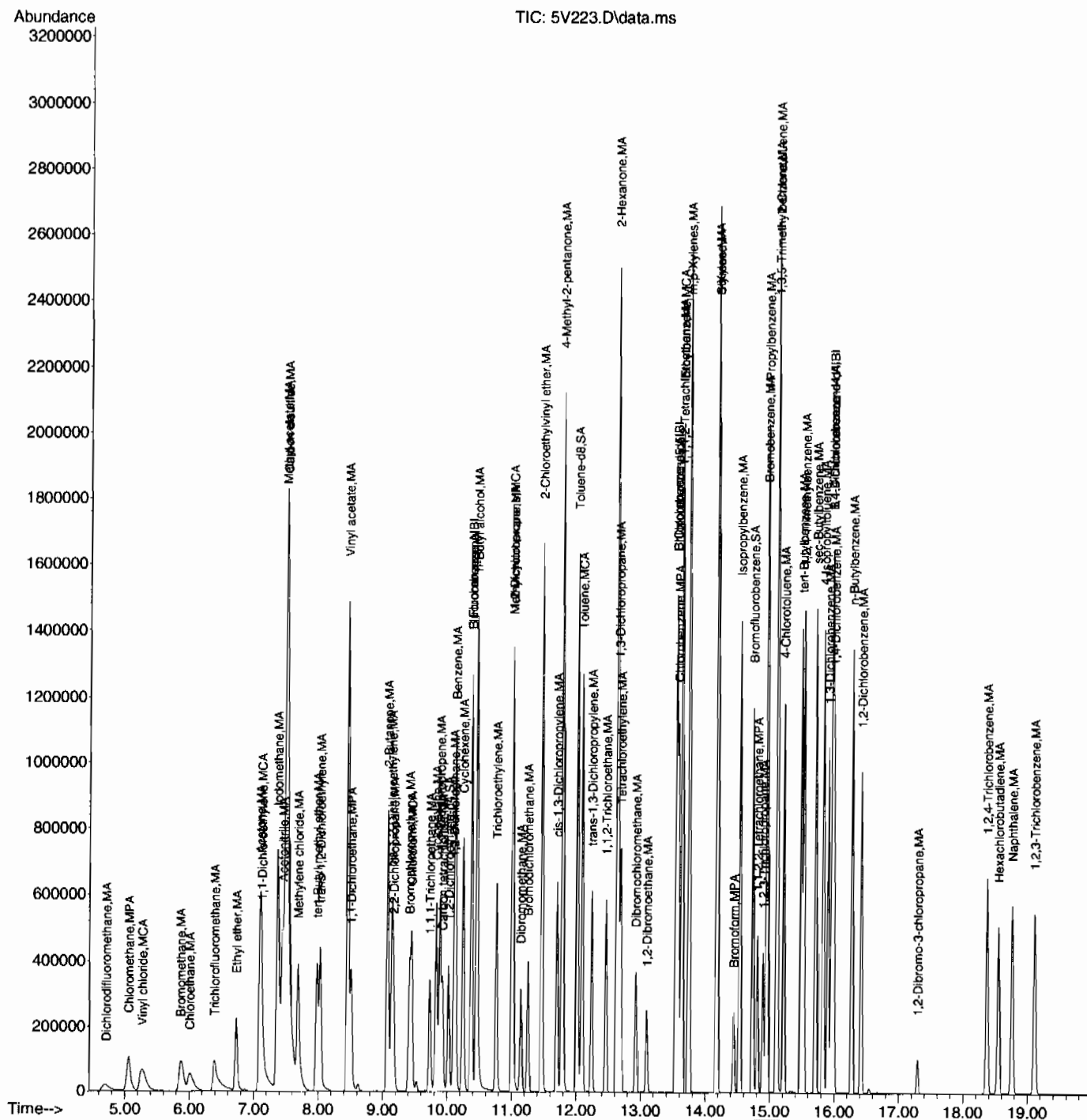
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	9.827	9.770	0.942		0m	N.D.	d
99) Methyl tert-amyl ether	10.127	10.138	0.977		0m	N.D.	d
100) Methyl methacrylate	11.015	10.969	1.057		0m	N.D.	d
101) 1,4-Dioxane	0.000	11.089	1.069		0	N.D.	
102) 2-Nitropropane	11.231	11.443	1.103		0m	N.D.	d
104) Ethyl methacrylate	12.242	12.235	0.903		0m	N.D.	d
106) 1-Chlorohexane	0.000	13.438	0.842		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.534	14.573	0.913		0m	N.D.	d
108) Cyclohexanone	14.537	14.693	0.920		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	14.965	14.856	0.931		0m	N.D.	d
110) Pentachloroethane	15.566	15.559	0.975		0m	N.D.	d
111) Benzyl chloride	16.104	16.100	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.550	16.497	1.034		0m	N.D.	d

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

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Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V223.D  
Acq On : 26 Jan 2010 8:40 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100126-04|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL N/A MIX[A]  
ALS Vial : 23 Sample Multiplier: 1
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Quant Time: Jan 27 08:06:11 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :



## Continuing Calibration Summary

Client SDG: 10-1304

Instrument ID: VOA5.1

Injection Date 26-JAN-10 21:32

Data File: 012610V5V225.D

Init. Cal. Date(s) 08-JAN-10 13:40 - 08-JAN-10 20:59

Lab Sample ID W5VM100126-06

Quant Type ISTD

Method:VOA5-8260-010810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S 1,2-Dichloroethane-d4	0.2324	0.21719		.01		-6.54475	30		Averaged
S Toluene-d8	1.3636	1.2995		.01		-4.70079	30		Averaged
S Bromofluorobenzene	0.9541	0.96507		.01		1.14977	30		Averaged
Acrolein	0.0267	0.02243		.01		-15.99251	30		Averaged
Trichlorotrifluoroethane	0.0382	0.04745		.01		24.21466	30		Averaged
Allyl chloride	0.3168	0.33686		.01		6.33207	30		Averaged
Acrylonitrile	0.0755	0.07841		.01		3.8543	30		Averaged
2-Chloro-1,3-butadiene	0.245	0.2677		.01		9.26531	30		Averaged
Ethyl acetate	0.2299	0.21788		.01		-5.22836	40		Averaged
Propionitrile	0.0283	0.03078		.01		8.76325	30		Averaged
Methacrylonitrile	0.1382	0.14255		.01		3.14761	30		Averaged
Tetrahydrofuran	0.0724	0.07546		.01		4.22652	30		Averaged
Isobutyl alcohol	0.0084	0.0093		.01		10.71429	40		Averaged
Methyl methacrylate	0.1274	0.1355		.01		6.35793	30		Averaged
1,4-Dioxane	0.0018	0.00216		.01		20	40		Averaged
2-Nitropropane	250	245.29	250			-1.884	30		Linear
Ethyl methacrylate	0.3365	0.36765		.01		9.25706	30		Averaged
cis-1,4-Dichloro-2-butene	0.1894	0.2204		.01		16.36748	30		Averaged
Cyclohexanone	1250	562.16	1250			-55.0272	40	*	Linear
trans-1,4-Dichloro-2-butene	0.1815	0.20676		.01		13.91736	30		Averaged
Pentachloroethane	0.199	0.18956		.01		-4.74372	30		Averaged
Benzyl chloride	250	232.39	250			-7.044	30		Linear
bis(2-Chloroisopropyl)ether	0.3332	0.34121		.01		2.40396	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V225.D  
Acq On : 26 Jan 2010 9:32 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100126-06|CCV|1|VOA|1|VOA8260BS|  
Misc : CCV 5g N/A SOIL MIX[B]  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 27 08:41:48 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.375	10.375	1.000	96	1283087	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	891763	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	457809	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	1283087	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	891763	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	457809	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	278677	46.73	ug/L	0.00
43) Toluene-d8	12.016	12.016	0.887	98	1158846	47.65	ug/L	0.00
61) Bromofluorobenzene	14.735	14.739	0.923	95	441817	50.57	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.689	0.452		0	N.D.		
3) Chloromethane	5.031	5.051	0.487		0m	N.D.	d	
4) Vinyl chloride	5.263	5.283	0.509		0m	N.D.	d	
5) Bromomethane	0.000	5.877	0.566		0	N.D.		
6) Chloroethane	0.000	6.018	0.580		0	N.D.		
7) Trichlorofluoromethane	6.391	6.391	0.616		0m	N.D.	d	
8) Ethyl ether	6.733	6.733	0.649		0m	N.D.	d	
9) Acetone	7.107	7.100	0.684		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.125	7.125	0.687		0m	N.D.	d	
11) Iodomethane	7.369	7.373	0.711		0m	N.D.	d	
12) Acetonitrile	7.458	7.450	0.718		0m	N.D.	d	
13) Methyl acetate	7.496	7.493	0.722		0m	N.D.	d	
14) Carbon disulfide	7.549	7.511	0.724		0m	N.D.	d	
15) Methylene chloride	7.691	7.691	0.741		0m	N.D.	d	
16) tert-Butyl methyl ether	7.974	7.984	0.770		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.030	8.030	0.774		0m	N.D.	d	
18) Vinyl acetate	8.458	8.458	0.815		0m	N.D.	d	
19) 1,1-Dichloroethane	8.518	8.511	0.820		0m	N.D.	d	
20) 2-Butanone	9.091	9.077	0.875		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.091	9.144	0.881		0m	N.D.	d	
22) 2,2-Dichloropropane	9.169	9.173	0.884		0m	N.D.	d	
23) Bromochloromethane	0.000	9.417	0.908		0	N.D.		
24) Chloroform	9.449	9.452	0.911		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.739	9.735	0.938		0m	N.D.	d	
26) Cyclohexane	9.774	9.830	0.947		0m	N.D.	d	
27) 1,1-Dichloropropene	9.891	9.887	0.953		0m	N.D.	d	
28) Carbon tetrachloride	9.926	9.929	0.957		0m	N.D.	d	
30) 1,2-Dichloroethane	10.099	10.103	0.974		0m	N.D.	d	
31) Benzene	10.128	10.127	0.976		0m	N.D.	d	
32) Cyclohexene	10.255	10.248	0.988		0m	N.D.	d	
33) n-Butyl alcohol	10.463	10.460	1.008		0m	N.D.	d	
34) Trichloroethylene	10.775	10.768	1.038		0m	N.D.	d	
35) 1,2-Dichloropropane	11.005	11.004	1.061		0m	N.D.	d	
36) Methylcyclohexane	11.022	11.019	1.062		0m	N.D.	d	
37) Dibromomethane	11.142	11.146	1.074		0m	N.D.	d	
38) Bromodichloromethane	11.252	11.256	1.085		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.471	11.468	1.105		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.701	11.705	1.128		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V225.D  
Acq On : 26 Jan 2010 9:32 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100126-06|CCV|1|VOA|1|VOA8260BS|  
Misc : CCV 5g N/A SOIL MIX[B]  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 27 08:41:48 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
42) 4-Methyl-2-pentanone	11.783	11.786	0.870		0m	N.D.	d
44) Toluene	12.087	12.090	0.892		0m	N.D.	d
45) trans-1,3-Dichloroprop...	12.239	12.239	0.903		0m	N.D.	d
46) 1,1,2-Trichloroethane	12.458	12.465	0.920		0m	N.D.	d
47) 2-Hexanone	12.631	12.631	0.932		0m	N.D.	d
48) 1,3-Dichloropropane	12.649	12.656	0.934		0m	N.D.	d
49) Tetrachloroethylene	12.688	12.691	0.937		0m	N.D.	d
50) Dibromochloromethane	12.928	12.928	0.954		0m	N.D.	d
51) 1,2-Dibromoethane	13.098	13.094	0.967		0m	N.D.	d
52) Chlorobenzene	13.575	13.579	1.002		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	13.629	13.636	1.007		0m	N.D.	d
54) Ethylbenzene	13.643	13.639	1.007		0m	N.D.	d
55) m,p-Xylenes	13.738	13.749	1.015		0m	N.D.	d
56) o-Xylene	14.184	14.184	1.047		0m	N.D.	d
57) Styrene	14.184	14.184	1.047		0m	N.D.	d
59) Bromoform	14.456	14.445	0.905		0m	N.D.	d
60) Isopropylbenzene	14.537	14.537	0.911		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	14.813	14.810	0.928		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	14.898	0.933		0	N.D.	
64) Bromobenzene	14.955	14.951	0.937		0m	N.D.	d
65) n-Propylbenzene	14.962	14.965	0.938		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	15.114	15.114	0.947		0m	N.D.	d
67) 2-Chlorotoluene	15.114	15.117	0.947		0m	N.D.	d
68) 4-Chlorotoluene	15.220	15.216	0.953		0m	N.D.	d
69) tert-Butylbenzene	15.482	15.489	0.970		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	15.528	15.527	0.973		0m	N.D.	d
71) sec-Butylbenzene	15.715	15.711	0.984		0m	N.D.	d
72) 4-Isopropyltoluene	15.832	15.832	0.992		0m	N.D.	d
73) 1,3-Dichlorobenzene	15.906	15.902	0.996		0m	N.D.	d
74) 1,4-Dichlorobenzene	15.984	15.991	1.002		0m	N.D.	d
75) n-Butylbenzene	16.274	16.277	1.020		0m	N.D.	d
76) 1,2-Dichlorobenzene	16.415	16.422	1.029		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	17.294	17.293	1.083		0m	N.D.	d
78) 1,2,4-Trichlorobenzene	18.371	18.371	1.151		0m	N.D.	d
79) Hexachlorobutadiene	18.555	18.548	1.162		0m	N.D.	d
80) Naphthalene	18.762	18.762	1.175		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	19.116	19.116	1.198		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.608	0.444		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.414	0.522		0	N.D.	
85) Acrolein	6.924	6.924	0.667	56	143930	210.43 ug/L	87
86) Trichlorotrifluoroethane	7.083	7.079	0.682	85	304393	310.53 ug/L	94
87) Isopropyl Alcohol	0.000	7.175	0.692		0m	N.D.	d
88) Allyl chloride	7.549	7.546	0.727	41	2161098	265.85 ug/L	97
89) tert-Butyl Alcohol	7.546	7.673	0.740	59	251	N.D.	
90) Acrylonitrile	7.931	7.928	0.764	53	503052	259.63 ug/L	99
91) Isopropyl ether	0.000	8.483	0.818		0	N.D.	
92) 2-Chloro-1,3-butadiene	8.621	8.617	0.831	53	343477	54.64 ug/L	95
93) Ethyl tert-butyl ether	9.088	8.890	0.857	59	220	N.D.	
94) Ethyl acetate	9.091	9.088	0.876	43	1397813	236.98 ug/L	99
95) Propionitrile	9.155	9.148	0.882	54	197472	272.38 ug/L	100
96) Methacrylonitrile	9.332	9.332	0.899	41	914540	257.95 ug/L	100
97) Tetrahydrofuran	9.463	9.466	0.912	42	484102	260.60 ug/L	98

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V225.D  
Acq On : 26 Jan 2010 9:32 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100126-06|CCV|1|VOA|1|VOA8260BS|  
Misc : CCV 5g N/A SOIL MIX[B]  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 27 08:41:48 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98) Isobutyl alcohol	9.770	9.770	0.942	41	596447	2757.06	ug/L	99
99) Methyl tert-amyl ether	0.000	10.138	0.977		0	N.D.		
100) Methyl methacrylate	10.973	10.969	1.057	69	869278	265.86	ug/L	98
101) 1,4-Dioxane	11.086	11.089	1.069	88	138263	2922.07	ug/L	94
102) 2-Nitropropane	11.443	11.443	1.103	43	418451	245.29	ug/L	96
104) Ethyl methacrylate	12.235	12.235	0.903	69	1639297	273.15	ug/L	99
106) 1-Chlorohexane	0.000	13.438	0.842		0	N.D.		
107) cis-1,4-Dichloro-2-butene	14.573	14.573	0.913	53	504509	290.86	ug/L	92
108) Cyclohexanone	14.689	14.693	0.920	42	283992	562.16	ug/L	98
109) trans-1,4-Dichloro-2-b...	14.856	14.856	0.931	53	473283	284.75	ug/L	97
110) Pentachloroethane	15.563	15.559	0.975	167	433902	238.16	ug/L	100
111) Benzyl chloride	16.100	16.100	1.009	91	2122180	232.39	ug/L	100
112) bis(2-Chloroisopropyl)...	16.497	16.497	1.034	45	781048	256.02	ug/L	96

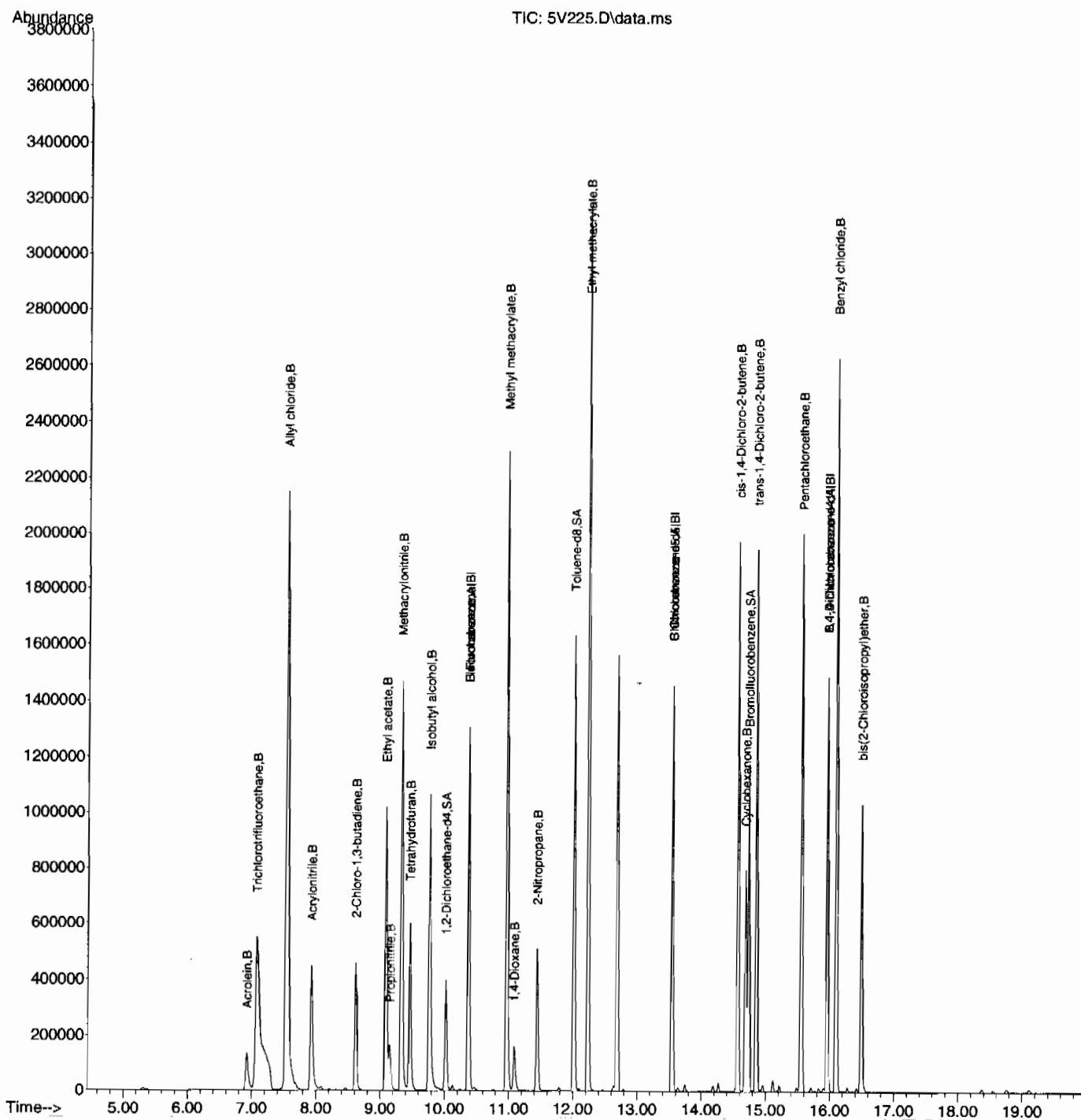
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V225.D  
Acq On : 26 Jan 2010 9:32 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100126-06|CCV|1|VOA|1|VOA8260BS|  
Misc : CCV 5g N/A SOIL MIX[B]  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 27 08:41:48 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :





## Continuing Calibration Summary

Client SDG: 10-1304

Instrument ID: VOA5.1

Injection Date 27-JAN-10 12:00

Data File: 012710V5\5V302.D

Init. Cal. Date(s) 08-JAN-10 13:40 - 08-JAN-10 20:59

Lab Sample ID W5VM100127-99

Quant Type ISTD

Method:VOA5-8260-010810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S 1,2-Dichloroethane-d4	0.2324	0.21246		.01		-8.58003	30		Averaged	
S Toluene-d8	1.3636	1.25404		.01		-8.03461	30		Averaged	
S Bromofluorobenzene	0.9541	0.89064		.01		-6.65129	30		Averaged	
Dichlorodifluoromethane	50	41.5	50			-17	30		Linear	
Chloromethane	0.2459	0.24954		.1		1.48028	30		Averaged	spcc
Vinyl chloride	0.2195	0.23014		.01		4.84738	20		Averaged	ccc
Bromomethane	0.156	0.15152		.01		-2.87179	30		Averaged	
Chloroethane	0.1479	0.13637		.01		-7.79581	30		Averaged	
Trichlorofluoromethane	0.2161	0.2129		.01		-1.4808	30		Averaged	
Ethyl ether	0.183	0.16186		.01		-11.55191	30		Averaged	
Acetone	0.1874	0.17706		.01		-5.51761	40		Averaged	
1,1-Dichloroethylene	0.2331	0.25247		.01		8.30974	20		Averaged	ccc
Iodomethane	0.2791	0.25512		.01		-8.5919	30		Averaged	
Acetonitrile	0.031	0.02892		.01		-6.70968	30		Averaged	
Methyl acetate	0.1875	0.17108		.01		-8.75733	40		Averaged	
Carbon disulfide	0.545	0.56605		.01		3.86239	30		Averaged	
Methylene chloride	0.2133	0.18699		.01		-12.33474	30		Averaged	
tert-Butyl methyl ether	0.4128	0.34773		.01		-15.76308	30		Averaged	
trans-1,2-Dichloroethylene	0.2587	0.26256		.01		1.49208	30		Averaged	
Vinyl acetate	0.4619	0.50247		.01		8.78329	40		Averaged	
1,1-Dichloroethane	0.3281	0.33035		.1		0.68577	30		Averaged	spcc
2-Butanone	0.2147	0.21737		.01		1.2436	40		Averaged	
cis-1,2-Dichloroethylene	0.2936	0.29145		.01		-0.73229	30		Averaged	
2,2-Dichloropropane	0.1646	0.15846		.01		-3.73026	30		Averaged	
Bromochloromethane	0.0988	0.09103		.01		-7.86437	30		Averaged	
Chloroform	0.3007	0.29831		.01		-0.79481	20		Averaged	ccc
1,1,1-Trichloroethane	0.2099	0.21345		.01		1.69128	30		Averaged	
Cyclohexane	0.3048	0.31133		.01		2.14239	30		Averaged	
1,1-Dichloropropene	0.23	0.2397		.01		4.21739	30		Averaged	
Carbon tetrachloride	0.1846	0.19528		.01		5.78548	30		Averaged	
1,2-Dichloroethane	0.2448	0.23869		.01		-2.49592	30		Averaged	
Benzene	0.7763	0.75282		.01		-3.0246	30		Averaged	
Cyclohexene	0.36	0.37014		.01		2.81667	30		Averaged	
n-Butyl alcohol	5000	4935.47	5000			-1.2906	40		Linear	
Trichloroethylene	0.18	0.18483		.01		2.68333	30		Averaged	
1,2-Dichloropropane	0.2011	0.20445		.01		1.66584	20		Averaged	ccc
Methylcyclohexane	0.3172	0.31785		.01		0.20492	30		Averaged	

## Continuing Calibration Summary

Instrument ID: VOA5.1

Injection Date 27-JAN-10 12:00

Data File: 012710V5\SV302.D

Init. Cal. Date(s) 08-JAN-10 13:40 08-JAN-10 20:59

Lab Sample ID W5VM100127-99

Quant Type ISTD

Method:VOA5-8260-010810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Dibromomethane	0.1056	0.10357		.01		-1.92235	30		Averaged
Bromodichloromethane	0.2162	0.22594		.01		4.50509	30		Averaged
2-Chloroethylvinyl ether	0.1115	0.09814		.01		-11.98206	30		Averaged
cis-1,3-Dichloropropylene	0.2816	0.28825		.01		2.36151	30		Averaged
4-Methyl-2-pentanone	0.1323	0.13229		.01		-0.00756	40		Averaged
Toluene	1.1974	1.1687		.01		-2.39686	20		Averaged ccc
trans-1,3-Dichloropropylene	0.3566	0.36628		.01		2.71453	30		Averaged
1,1,2-Trichloroethane	0.1993	0.19265		.01		-3.33668	30		Averaged
2-Hexanone	0.3918	0.40403		.01		3.12149	40		Averaged
1,3-Dichloropropane	0.4219	0.40679		.01		-3.58142	30		Averaged
Tetrachloroethylene	0.2234	0.22003		.01		-1.5085	30		Averaged
Dibromochloromethane	0.2391	0.24298		.01		1.62275	30		Averaged
1,2-Dibromoethane	0.2234	0.2204		.01		-1.34288	30		Averaged
Chlorobenzene	0.76	0.73336		.3		-3.50526	30		Averaged spcc
1,1,1,2-Tetrachloroethane	0.2456	0.24808		.01		1.00977	30		Averaged
Ethylbenzene	1.2623	1.27451		.01		0.96728	20		Averaged ccc
m,p-Xylenes	0.5081	0.51453		.01		1.2655	30		Averaged
o-Xylene	0.4872	0.51273		.01		5.24015	30		Averaged
Styrene	0.7648	0.83439		.01		9.09911	30		Averaged
Bromoform	0.2804	0.28308		.1		0.95578	30		Averaged spcc
Isopropylbenzene	2.2671	2.29448		.01		1.20771	30		Averaged
1,1,2,2-Tetrachloroethane	0.5782	0.54638		.3		-5.50329	30		Averaged spcc
1,2,3-Trichloropropane	0.1557	0.14825		.01		-4.78484	30		Averaged
Bromobenzene	0.5915	0.54965		.01		-7.07523	30		Averaged
n-Propylbenzene	2.72	2.72763		.01		0.28051	30		Averaged
1,3,5-Trimethylbenzene	1.8565	1.91015		.01		2.88985	30		Averaged
2-Chlorotoluene	0.5684	0.56628		.01		-0.37298	30		Averaged
4-Chlorotoluene	1.6879	1.63173		.01		-3.3278	30		Averaged
tert-Butylbenzene	0.437	0.43516		.01		-0.42105	30		Averaged
1,2,4-Trimethylbenzene	1.9069	1.9314		.01		1.28481	30		Averaged
sec-Butylbenzene	2.4975	2.54825		.01		2.03203	30		Averaged
4-Isopropyltoluene	1.963	2.04181		.01		4.01477	30		Averaged
1,3-Dichlorobenzene	1.1478	1.09845		.01		-4.29953	30		Averaged
1,4-Dichlorobenzene	1.1933	1.10157		.01		-7.68709	30		Averaged
n-Butylbenzene	1.8927	1.96567		.01		3.85534	30		Averaged
1,2-Dichlorobenzene	1.0919	1.02262		.01		-6.3449	30		Averaged
1,2-Dibromo-3-chloropropane	0.1056	0.10356		.01		-1.93182	30		Averaged

## Continuing Calibration Summary

Instrument ID: VOA5.I

Injection Date 27-JAN-10 12:00

Data File: 012710V5\5V302.D

Init. Cal. Date(s) 08-JAN-10 13:40 08-JAN-10 20:59

Lab Sample ID W5VM100127-99 Quant Type ISTD

Method:VOA5-8260-010810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.7548	0.71008		.01		-5.92475	30		Averaged
Hexachlorobutadiene	0.4229	0.40823		.01		-3.46891	30		Averaged
Naphthalene	1.6616	1.62486		.01		-2.21112	30		Averaged
1,2,3-Trichlorobenzene	0.6496	0.64049		.01		-1.4024	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V302.D  
Acq On : 27 Jan 2010 12:00 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100127-01|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL N/A MIX[A]  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 27 12:39:20 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.371	10.375	1.000	96	1177332	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.543	13.547	1.000	117	849939	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	465989	50.00	ug/L	0.00
82) B Fluorobenzene	10.371	10.375	1.000	96	1177332	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.543	13.547	1.000	117	849939	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	465989	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	250138	45.71	ug/L	0.00
43) Toluene-d8	12.016	12.016	0.887	98	1065860	45.98	ug/L	0.00
61) Bromofluorobenzene	14.739	14.739	0.924	95	415029	46.67	ug/L	0.00
Target Compounds								
2) Dichlorodifluoromethane	4.688	4.689	0.452	85	105226	41.50	ug/L	98
3) Chloromethane	5.061	5.051	0.488	50	293795	50.73	ug/L	100
4) Vinyl chloride	5.272	5.283	0.508	62	270946	52.42	ug/L	99
5) Bromomethane	5.877	5.877	0.567	94	178391	48.57	ug/L	99
6) Chloroethane	6.008	6.018	0.579	64	160550	46.10	ug/L	100
7) Trichlorofluoromethane	6.390	6.391	0.616	101	250650	49.26	ug/L	98
8) Ethyl ether	6.733	6.733	0.649	59	190559	44.23	ug/L	98
9) Acetone	7.097	7.100	0.684	43	1042273	236.15	ug/L	98
10) 1,1-Dichloroethylene	7.125	7.125	0.687	61	297236	54.15	ug/L	100
11) Iodomethane	7.369	7.373	0.711	142	1501800	228.49	ug/L	97
12) Acetonitrile	7.447	7.450	0.718	41	851230	1167.49	ug/L	99
13) Methyl acetate	7.489	7.493	0.722	43	1007106	228.14	ug/L	99
14) Carbon disulfide	7.507	7.511	0.724	76	3332167	259.66	ug/L	100
15) Methylene chloride	7.687	7.691	0.741	84	220146	43.84	ug/L	99
16) tert-Butyl methyl ether	7.981	7.984	0.769	73	409389	42.12	ug/L	97
17) trans-1,2-Dichloroethy...	8.030	8.030	0.774	61	309120	50.75	ug/L	98
18) Vinyl acetate	8.455	8.458	0.815	43	2957881	271.94	ug/L	100
19) 1,1-Dichloroethane	8.508	8.511	0.820	63	388936	50.34	ug/L	99
20) 2-Butanone	9.073	9.077	0.875	43	1279582	253.11	ug/L	99
21) cis-1,2-Dichloroethylene	9.141	9.144	0.881	61	343132	49.64	ug/L	96
22) 2,2-Dichloropropane	9.169	9.173	0.884	77	186555	48.12	ug/L	98
23) Bromochloromethane	9.416	9.417	0.908	128	107169	46.09	ug/L	99
24) Chloroform	9.452	9.452	0.911	83	351205	49.60	ug/L	99
25) 1,1,1-Trichloroethane	9.731	9.735	0.938	97	251296	50.85	ug/L	99
26) Cyclohexane	9.827	9.830	0.947	56	366533	51.08	ug/L	97
27) 1,1-Dichloropropene	9.883	9.887	0.953	75	282201	52.12	ug/L	98
28) Carbon tetrachloride	9.929	9.929	0.957	117	229913	52.89	ug/L	99
30) 1,2-Dichloroethane	10.102	10.103	0.974	62	281019	48.76	ug/L	99
31) Benzene	10.124	10.127	0.976	78	886315	48.48	ug/L	99
32) Cyclohexene	10.244	10.248	0.988	67	435778	51.40	ug/L	99
33) n-Butyl alcohol	10.456	10.460	1.008	56	849316	4935.47	ug/L	100
34) Trichloroethylene	10.764	10.768	1.038	95	217612	51.36	ug/L	99
35) 1,2-Dichloropropane	11.004	11.004	1.061	63	240708	50.82	ug/L	100
36) Methylcyclohexane	11.015	11.019	1.062	83	374215	50.10	ug/L	97
37) Dibromomethane	11.142	11.146	1.074	93	121940	49.02	ug/L	97
38) Bromodichloromethane	11.252	11.256	1.085	83	266010	52.25	ug/L	100
39) 2-Chloroethylvinyl ether	11.464	11.468	1.105	63	577710	219.98	ug/L	99
40) cis-1,3-Dichloropropylene	11.701	11.705	1.128	75	339368	51.18	ug/L	100

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V302.D  
Acq On : 27 Jan 2010 12:00 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100127-01|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL N/A MIX[A]  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 27 12:39:20 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
42) 4-Methyl-2-pentanone	11.782	11.786	0.870	58	562200	249.96 ug/L	98
44) Toluene	12.090	12.090	0.893	91	993322	48.80 ug/L	100
45) trans-1,3-Dichloroprop...	12.238	12.239	0.904	75	311315	51.36 ug/L	100
46) 1,1,2-Trichloroethane	12.458	12.465	0.920	83	163743	48.32 ug/L	99
47) 2-Hexanone	12.631	12.631	0.933	43	1717010	257.80 ug/L	99
48) 1,3-Dichloropropane	12.649	12.656	0.934	76	345745	48.21 ug/L	93
49) Tetrachloroethylene	12.688	12.691	0.937	164	187013	49.25 ug/L	100
50) Dibromochloromethane	12.925	12.928	0.954	129	206518	50.82 ug/L	98
51) 1,2-Dibromoethane	13.094	13.094	0.967	107	187329	49.32 ug/L	98
52) Chlorobenzene	13.579	13.579	1.003	112	623311	48.25 ug/L	99
53) 1,1,1,2-Tetrachloroethane	13.628	13.636	1.006	131	210855	50.50 ug/L	98
54) Ethylbenzene	13.635	13.639	1.007	91	1083255	50.49 ug/L	99
55) m,p-Xylenes	13.745	13.749	1.015	106	874630	101.26 ug/L	99
56) o-Xylene	14.180	14.184	1.047	106	435791	52.62 ug/L	99
57) Styrene	14.180	14.184	1.047	104	709183	54.55 ug/L	100
59) Bromoform	14.445	14.445	0.905	173	131913	50.48 ug/L	99
60) Isopropylbenzene	14.537	14.537	0.911	105	1069203	50.60 ug/L	100
62) 1,1,2,2-Tetrachloroethane	14.809	14.810	0.928	83	254608	47.25 ug/L	100
63) 1,2,3-Trichloropropane	14.898	14.898	0.934	110	69081	47.60 ug/L	92
64) Bromobenzene	14.951	14.951	0.937	156	256130	46.46 ug/L	98
65) n-Propylbenzene	14.961	14.965	0.938	91	1271045	50.14 ug/L	99
66) 1,3,5-Trimethylbenzene	15.114	15.114	0.947	105	890109	51.45 ug/L	100
67) 2-Chlorotoluene	15.117	15.117	0.947	126	263878	49.81 ug/L	99
68) 4-Chlorotoluene	15.216	15.216	0.953	91	760370	48.34 ug/L	99
69) tert-Butylbenzene	15.485	15.489	0.970	134	202780	49.79 ug/L	99
70) 1,2,4-Trimethylbenzene	15.524	15.527	0.973	105	900009	50.64 ug/L	100
71) sec-Butylbenzene	15.708	15.711	0.984	105	1187455	51.02 ug/L	100
72) 4-Isopropyltoluene	15.828	15.832	0.992	119	951461	52.01 ug/L	99
73) 1,3-Dichlorobenzene	15.902	15.902	0.996	146	511865	47.85 ug/L	100
74) 1,4-Dichlorobenzene	15.987	15.991	1.002	146	513321	46.16 ug/L	100
75) n-Butylbenzene	16.277	16.277	1.020	91	915979	51.93 ug/L	100
76) 1,2-Dichlorobenzene	16.418	16.422	1.029	146	476529	46.83 ug/L	99
77) 1,2-Dibromo-3-chloropr...	17.293	17.293	1.084	157	48259	49.04 ug/L	100
78) 1,2,4-Trichlorobenzene	18.371	18.371	1.151	180	330890	47.04 ug/L	98
79) Hexachlorobutadiene	18.548	18.548	1.162	225	190232	48.26 ug/L	99
80) Naphthalene	18.754	18.762	1.175	128	757165	48.89 ug/L	100
81) 1,2,3-Trichlorobenzene	19.108	19.116	1.197	180	298461	49.30 ug/L	100
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	7.100	7.175	0.685		0m	N.D. d	
88) Allyl chloride	7.447	7.546	0.718		0m	N.D. d	
89) tert-Butyl Alcohol	7.669	7.673	0.739		0m	N.D. d	
90) Acrylonitrile	7.977	7.928	0.769		0m	N.D. d	
91) Isopropyl ether	8.455	8.483	0.815		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	8.621	8.617	0.831		0m	N.D. d	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	9.073	9.088	0.875		0m	N.D. d	
95) Propionitrile	9.073	9.148	0.875		0m	N.D. d	
96) Methacrylonitrile	9.165	9.332	0.884		0m	N.D. d	
97) Tetrahydrofuran	9.452	9.466	0.911		0m	N.D. d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V302.D  
Acq On : 27 Jan 2010 12:00 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100127-01|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL N/A MIX[A]  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 27 12:39:20 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	9.823	9.770	0.947		0m	N.D.	d
99) Methyl tert-amyl ether	10.124	10.138	0.976		0m	N.D.	d
100) Methyl methacrylate	11.015	10.969	1.062		0m	N.D.	d
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	11.262	11.443	1.086		0m	N.D.	d
104) Ethyl methacrylate	12.235	12.235	0.903		0m	N.D.	d
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.537	14.573	0.911		0m	N.D.	d
108) Cyclohexanone	14.534	14.693	0.911		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	14.961	14.856	0.938		0m	N.D.	d
110) Pentachloroethane	15.566	15.559	0.975		0m	N.D.	d
111) Benzyl chloride	16.097	16.100	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.496	16.497	1.034		0m	N.D.	d

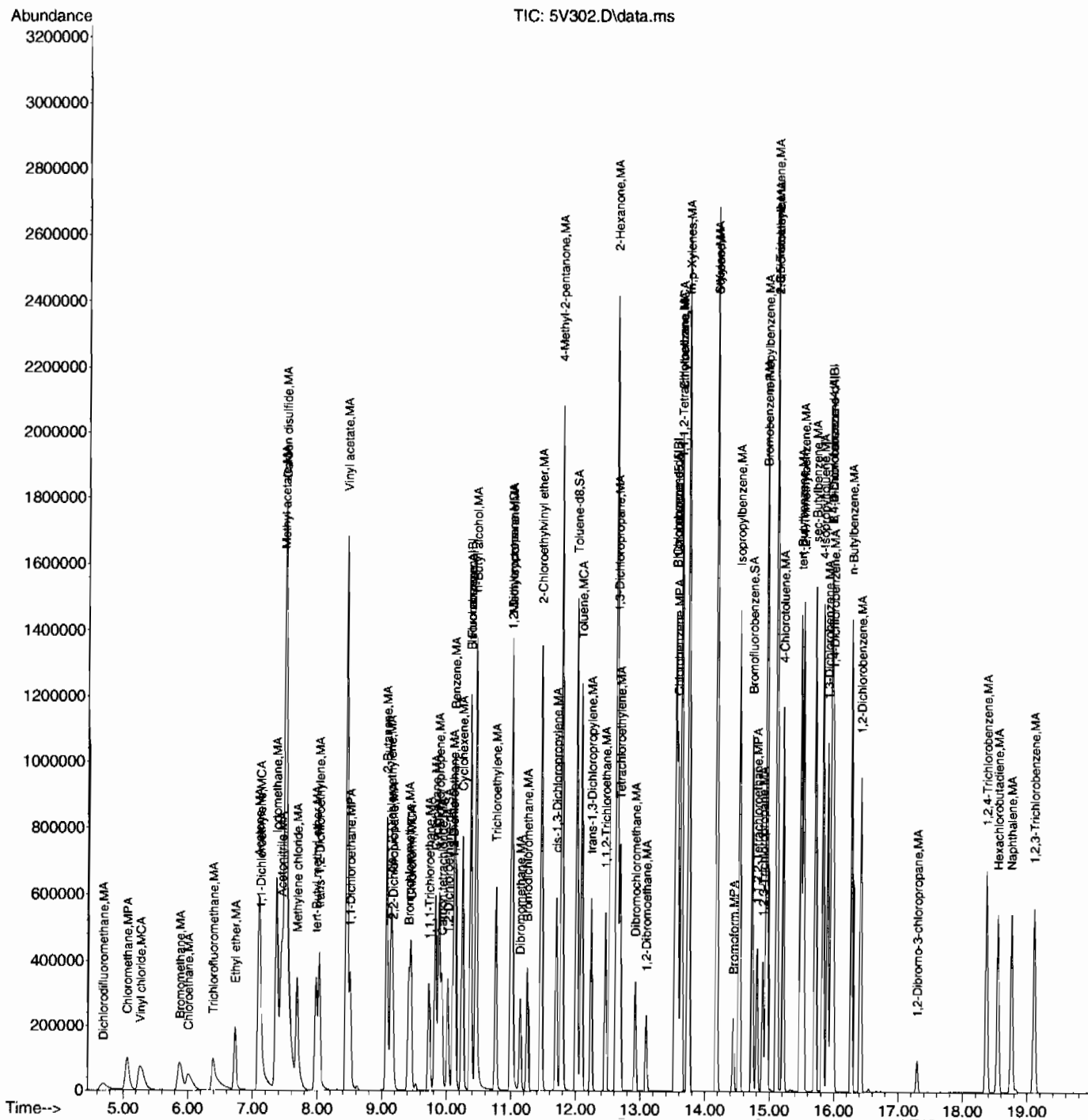
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

ALS Vial : 2 Sample Multiplier: 1

Integrator: RTE

SubList :



## Continuing Calibration Summary

Client SDG: 10-1304

Instrument ID: VOA5.I

Injection Date 27-JAN-10 12:51

Data File: 012710V5\5V304.D

Init. Cal. Date(s) 08-JAN-10 13:40 - 08-JAN-10 20:59

Lab Sample ID W5VM100127-03

Quant Type ISTD

Method:VOA5-8260-010810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S1,2-Dichloroethane-d4	0.2324	0.2128		.01		-8.43373	30		Averaged
SToluene-d8	1.3636	1.25333		.01		-8.08668	30		Averaged
SBromofluorobenzene	0.9541	0.97909		.01		2.61922	30		Averaged
Acrolein	0.0267	0.02229		.01		-16.51685	30		Averaged
Trichlorotrifluoroethane	0.0382	0.05169		.01		35.31414	30	*	Averaged
Allyl chloride	0.3168	0.34349		.01		8.42487	30		Averaged
Acrylonitrile	0.0755	0.07461		.01		-1.17881	30		Averaged
2-Chloro-1,3-butadiene	0.245	0.28145		.01		14.87755	30		Averaged
Ethyl acetate	0.2299	0.21218		.01		-7.7077	40		Averaged
Propionitrile	0.0283	0.02891		.01		2.15548	30		Averaged
Methacrylonitrile	0.1382	0.13897		.01		0.55716	30		Averaged
Tetrahydrofuran	0.0724	0.0717		.01		-0.96685	30		Averaged
Isobutyl alcohol	0.0084	0.00864		.01		2.85714	40		Averaged
Methyl methacrylate	0.1274	0.13336		.01		4.67818	30		Averaged
1,4-Dioxane	0.0018	0.00209		.01		16.11111	40		Averaged
2-Nitropropane	250	235.93	250			-5.628	30		Linear
Ethyl methacrylate	0.3365	0.36529		.01		8.55572	30		Averaged
cis-1,4-Dichloro-2-butene	0.1894	0.2266		.01		19.64097	30		Averaged
Cyclohexanone	1250	544.45	1250			-56.444	40	*	Linear
trans-1,4-Dichloro-2-butene	0.1815	0.21414		.01		17.98347	30		Averaged
Pentachloroethane	0.199	0.23303		.01		17.1005	30		Averaged
Benzyl chloride	250	264.47	250			5.788	30		Linear
bis(2-Chloroisopropyl)ether	0.3332	0.32091		.01		-3.68848	30		Averaged



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V304.D  
Acq On : 27 Jan 2010 12:51 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100127-03|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL N/A MIX[B]  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 27 14:08:15 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.375	10.375	1.000	96	1254915	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	886070	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	440152	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	1254915	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	886070	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	440152	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	267045	45.79	ug/L	0.00
43) Toluene-d8	12.016	12.016	0.887	98	1110542	45.96	ug/L	0.00
61) Bromofluorobenzene	14.739	14.739	0.924	95	430948	51.31	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	5.303	5.051	0.511		0m	N.D.	d	
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	0.000	6.733	0.000		0	N.D.		
9) Acetone	7.111	7.100	0.685		0m	N.D.	d	
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	7.380	7.373	0.711		0m	N.D.	d	
12) Acetonitrile	7.454	7.450	0.718		0m	N.D.	d	
13) Methyl acetate	7.493	7.493	0.722		0m	N.D.	d	
14) Carbon disulfide	7.546	7.511	0.727		0m	N.D.	d	
15) Methylene chloride	7.684	7.691	0.741		0m	N.D.	d	
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	8.462	8.458	0.816		0m	N.D.	d	
19) 1,1-Dichloroethane	8.614	8.511	0.830		0m	N.D.	d	
20) 2-Butanone	9.088	9.077	0.876		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.180	9.144	0.885		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	9.770	9.830	0.942		0m	N.D.	d	
27) 1,1-Dichloropropene	9.767	9.887	0.941		0m	N.D.	d	
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.128	10.127	0.976		0m	N.D.	d	
32) Cyclohexene	10.241	10.248	0.987		0m	N.D.	d	
33) n-Butyl alcohol	10.471	10.460	1.009		0m	N.D.	d	
34) Trichloroethylene	10.768	10.768	1.038		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	11.015	11.019	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		
38) Bromodichloromethane	11.015	11.256	1.062		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V304.D  
Acq On : 27 Jan 2010 12:51 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100127-03|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL N/A MIX[B]  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 27 14:08:15 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
42) 4-Methyl-2-pentanone	11.783	11.786	0.870		0m	N.D.	d
44) Toluene	12.094	12.090	0.893		0m	N.D.	d
45) trans-1,3-Dichloroprop...	12.242	12.239	0.904		0m	N.D.	d
46) 1,1,2-Trichloroethane	12.465	12.465	0.920		0m	N.D.	d
47) 2-Hexanone	12.638	12.631	0.933		0m	N.D.	d
48) 1,3-Dichloropropane	12.649	12.656	0.934		0m	N.D.	d
49) Tetrachloroethylene	12.688	12.691	0.937		0m	N.D.	d
50) Dibromochloromethane	12.688	12.928	0.937		0m	N.D.	d
51) 1,2-Dibromoethane	13.095	13.094	0.967		0m	N.D.	d
52) Chlorobenzene	13.572	13.579	1.002		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.636	13.639	1.007		0m	N.D.	d
55) m,p-Xylenes	13.745	13.749	1.015		0m	N.D.	d
56) o-Xylene	14.177	14.184	1.046		0m	N.D.	d
57) Styrene	14.184	14.184	1.047		0m	N.D.	d
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	14.537	14.537	0.911		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	14.852	14.810	0.931		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	14.948	14.951	0.937		0m	N.D.	d
65) n-Propylbenzene	14.962	14.965	0.938		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	15.114	15.114	0.947		0m	N.D.	d
67) 2-Chlorotoluene	15.114	15.117	0.947		0m	N.D.	d
68) 4-Chlorotoluene	15.216	15.216	0.953		0m	N.D.	d
69) tert-Butylbenzene	15.559	15.489	0.975		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	15.528	15.527	0.973		0m	N.D.	d
71) sec-Butylbenzene	15.711	15.711	0.984		0m	N.D.	d
72) 4-Isopropyltoluene	15.832	15.832	0.992		0m	N.D.	d
73) 1,3-Dichlorobenzene	15.906	15.902	0.997		0m	N.D.	d
74) 1,4-Dichlorobenzene	15.984	15.991	1.002		0m	N.D.	d
75) n-Butylbenzene	16.277	16.277	1.020		0m	N.D.	d
76) 1,2-Dichlorobenzene	16.415	16.422	1.029		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.371	18.371	1.151		0m	N.D.	d
79) Hexachlorobutadiene	18.548	18.548	1.162		0m	N.D.	d
80) Naphthalene	18.762	18.762	1.176		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	19.101	19.116	1.197		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.414	0.000		0	N.D.	
85) Acrolein	6.924	6.924	0.667	56	139860	209.07 ug/L	89
86) Trichlorotrifluoroethane	7.079	7.079	0.682	85	324352	338.32 ug/L	94
87) Isopropyl Alcohol	0.000	7.175	0.000		0m	N.D.	d
88) Allyl chloride	7.546	7.546	0.727	41	2155284	271.08 ug/L	97
89) tert-Butyl Alcohol	7.535	7.673	0.726	59	914	N.D.	
90) Acrylonitrile	7.928	7.928	0.764	53	468132	247.03 ug/L	99
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	8.618	8.617	0.831	53	353198	57.44 ug/L	95
93) Ethyl tert-butyl ether	9.095	8.890	0.877	59	578	N.D.	
94) Ethyl acetate	9.088	9.088	0.876	43	1331365	230.78 ug/L	99
95) Propionitrile	9.144	9.148	0.881	54	181398	255.83 ug/L	100
96) Methacrylonitrile	9.332	9.332	0.899	41	871950	251.46 ug/L	99
97) Tetrahydrofuran	9.463	9.466	0.912	42	449881	247.61 ug/L	97

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V304.D  
Acq On : 27 Jan 2010 12:51 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100127-03|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL N/A MIX[B]  
ALS Vial : 4 Sample Multiplier: 1

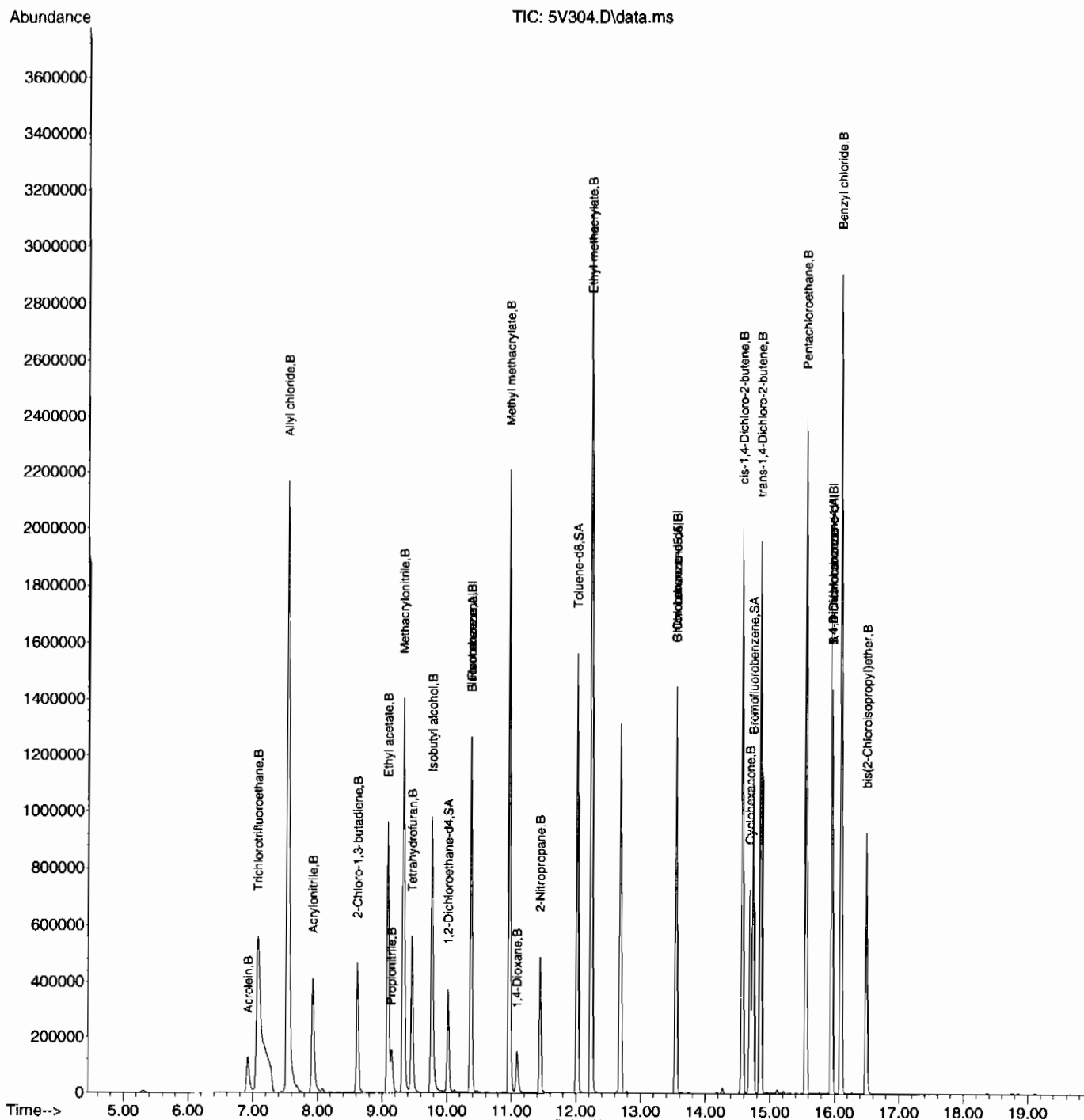
Quant Time: Jan 27 14:08:15 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98) Isobutyl alcohol	9.770	9.770	0.942	41	542348	2563.27	ug/L	99
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.		
100) Methyl methacrylate	10.969	10.969	1.057	69	836750	261.66	ug/L	99
101) 1,4-Dioxane	11.086	11.089	1.069	88	130880	2828.13	ug/L	93
102) 2-Nitropropane	11.443	11.443	1.103	43	393118	235.93	ug/L	97
104) Ethyl methacrylate	12.235	12.235	0.903	69	1618348	271.39	ug/L	99
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.		
107) cis-1,4-Dichloro-2-butene	14.573	14.573	0.913	53	498695	299.04	ug/L	93
108) Cyclohexanone	14.689	14.693	0.920	42	263981	544.45	ug/L	97
109) trans-1,4-Dichloro-2-b...	14.856	14.856	0.931	53	471261	294.90	ug/L	98
110) Pentachloroethane	15.559	15.559	0.975	167	512836	292.77	ug/L	100
111) Benzyl chloride	16.101	16.100	1.009	91	2327484	264.47	ug/L	99
112) bis(2-Chloroisopropyl)...	16.497	16.497	1.034	45	706238	240.78	ug/L	95

(#) = 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\012710V5\  
Data File : 5V304.D  
Acq On : 27 Jan 2010 12:51 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |W5VM100127-03|CCV|1|VOA|1|VOA8260BL|  
Misc : CCV 5mL N/A MIX[B]  
ALS Vial : 4 Sample Multiplier: 1
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SubList :



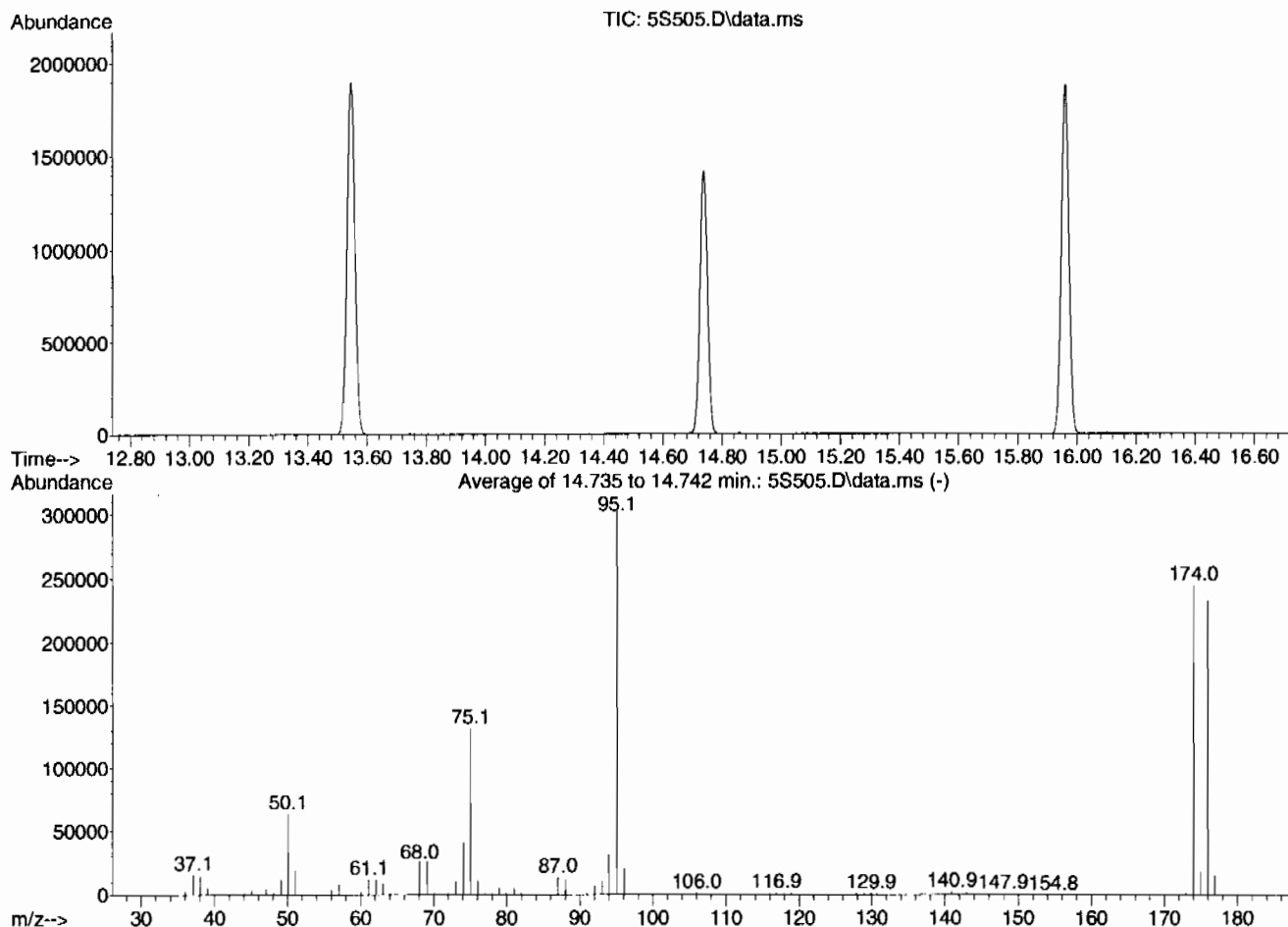
# Quality Control Data

Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\010810V5\  
Data File : 5S505.D  
Acq On : 8 Jan 2010 1:05 pm  
Operator : DXK1  
Sample : |UVM091117-02|BFB|1|VOA|1|  
Misc : GEL 5mL N/A  
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Title : Volatile Organics 8260B  
Last Update : Mon Jan 11 08:56:29 2010  
SubList :



AutoFind: Scans 2439, 2440, 2441; Background Corrected with Scan 2425

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.1	63680	PASS
75	95	30	60	43.7	132048	PASS
95	95	100	100	100.0	301888	PASS
96	95	5	9	6.8	20637	PASS
173	174	0.00	2	0.7	1750	PASS
174	95	50	100	80.9	244224	PASS
175	174	5	9	7.1	17424	PASS
176	174	95	101	95.3	232725	PASS
177	176	5	9	6.6	15330	PASS

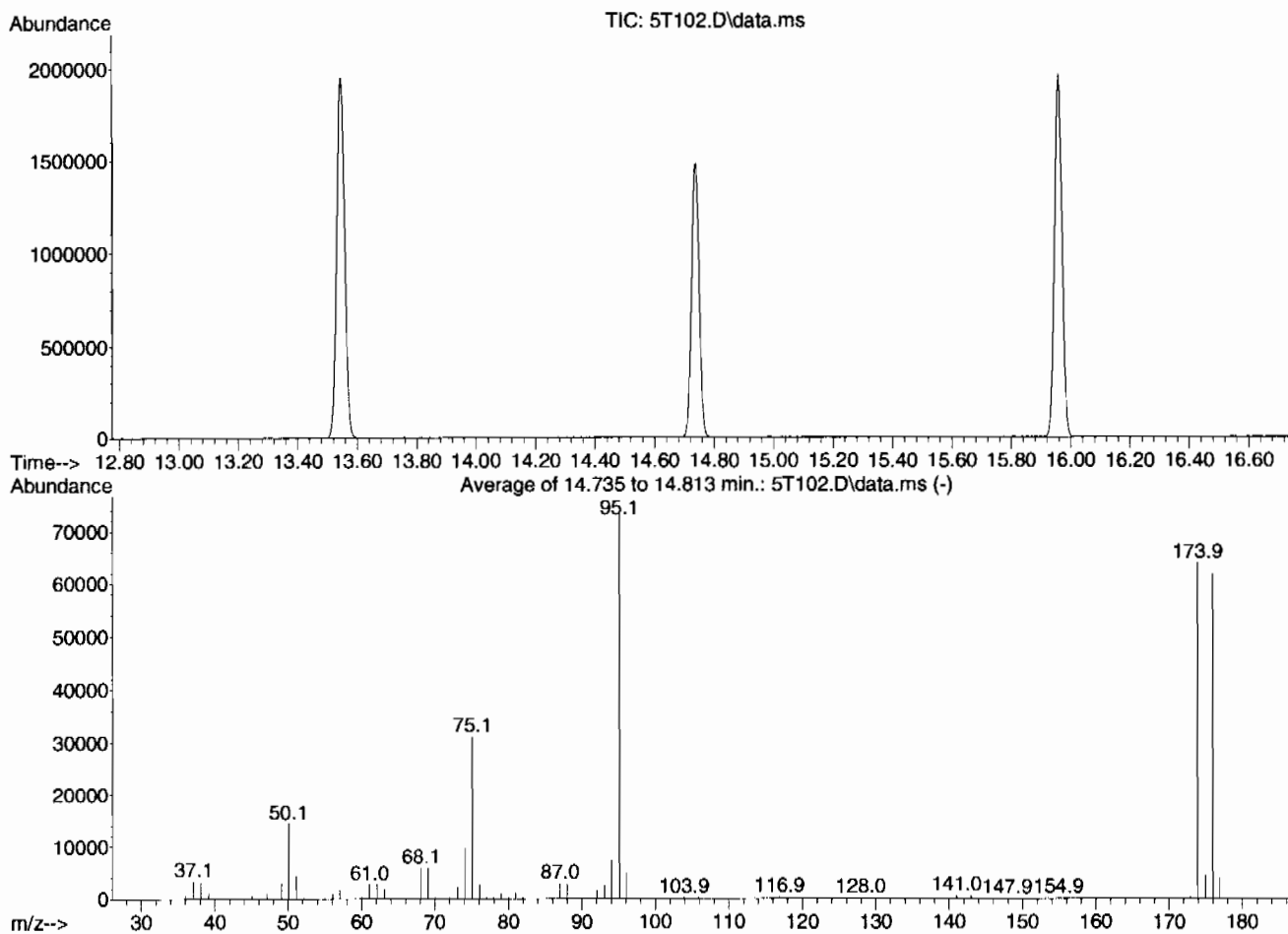
Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\011110V5\  
Data File : 5T102.D  
Acq On : 11 Jan 2010 10:13 am  
Operator : DXK1  
Sample : |UVM091117-02|BFB|1|VOA|1|  
Misc : GEL 5mL N/A  
ALS Vial : 2 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Title : Volatile Organics 8260B  
Last Update : Mon Jan 11 08:56:29 2010

SubList :



Spectrum Information: Average of 14.735 to 14.813 min.

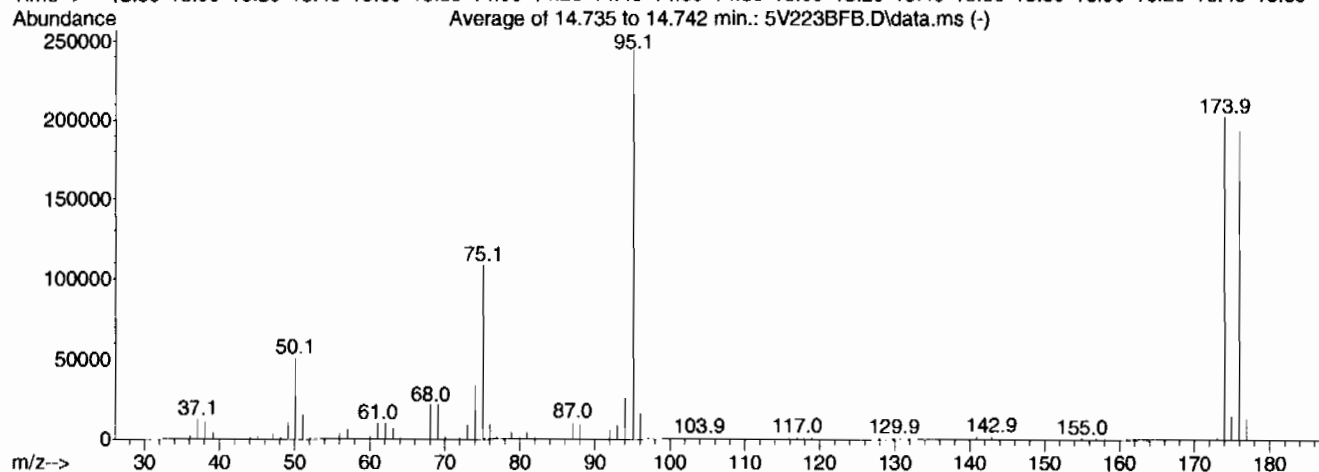
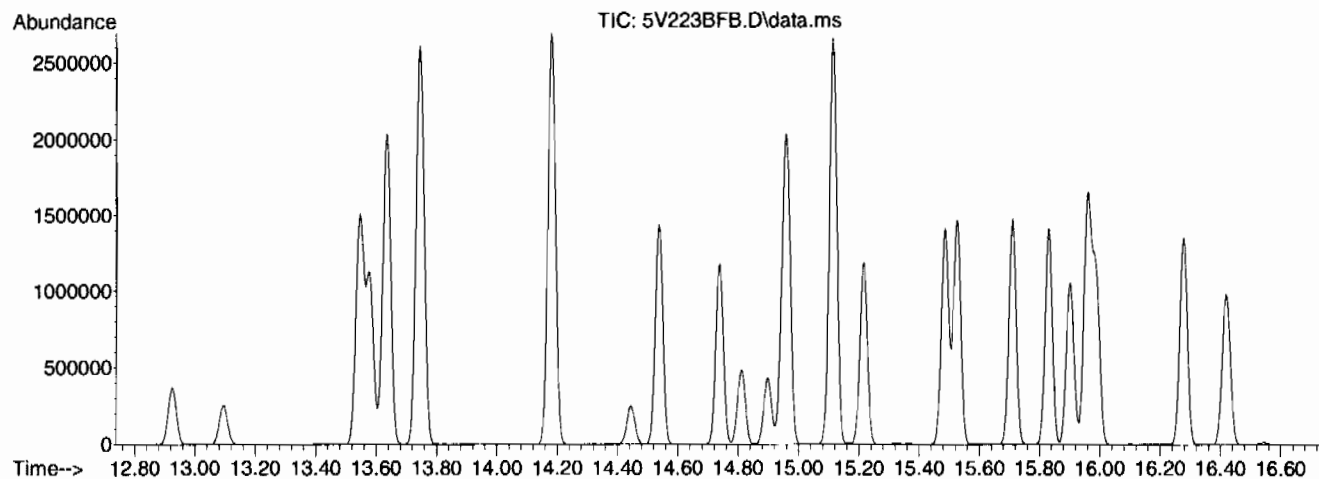
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.7	14365	PASS
75	95	30	60	42.7	31141	PASS
95	95	100	100	100.0	73000	PASS
96	95	5	9	6.8	4941	PASS
173	174	0.00	2	0.6	404	PASS
174	95	50	100	87.3	63742	PASS
175	174	5	9	6.8	4364	PASS
176	174	95	101	96.7	61653	PASS
177	176	5	9	6.5	3989	PASS

Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V223BFB.D  
Acq On : 26 Jan 2010 8:40 pm  
Operator : DXK1  
Sample : |W5VM100126-04|BFB|1|VOA|1|VOA8260BL|  
Misc : BFB 5mL N/A MIX[A]  
ALS Vial : 23 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Title : Volatile Organics 8260B SubList :  
Last Update : Mon Jan 11 08:43:00 2010



AutoFind: Scans 2439, 2440, 2441; Background Corrected with Scan 2425

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.5	50224	PASS
75	95	30	60	44.2	108069	PASS
95	95	100	100	100.0	244501	PASS
96	95	5	9	6.6	16117	PASS
173	174	0.00	2	0.8	1560	PASS
174	95	50	100	82.6	201984	PASS
175	174	5	9	7.2	14604	PASS
176	174	95	101	95.6	193131	PASS
177	176	5	9	6.7	12995	PASS



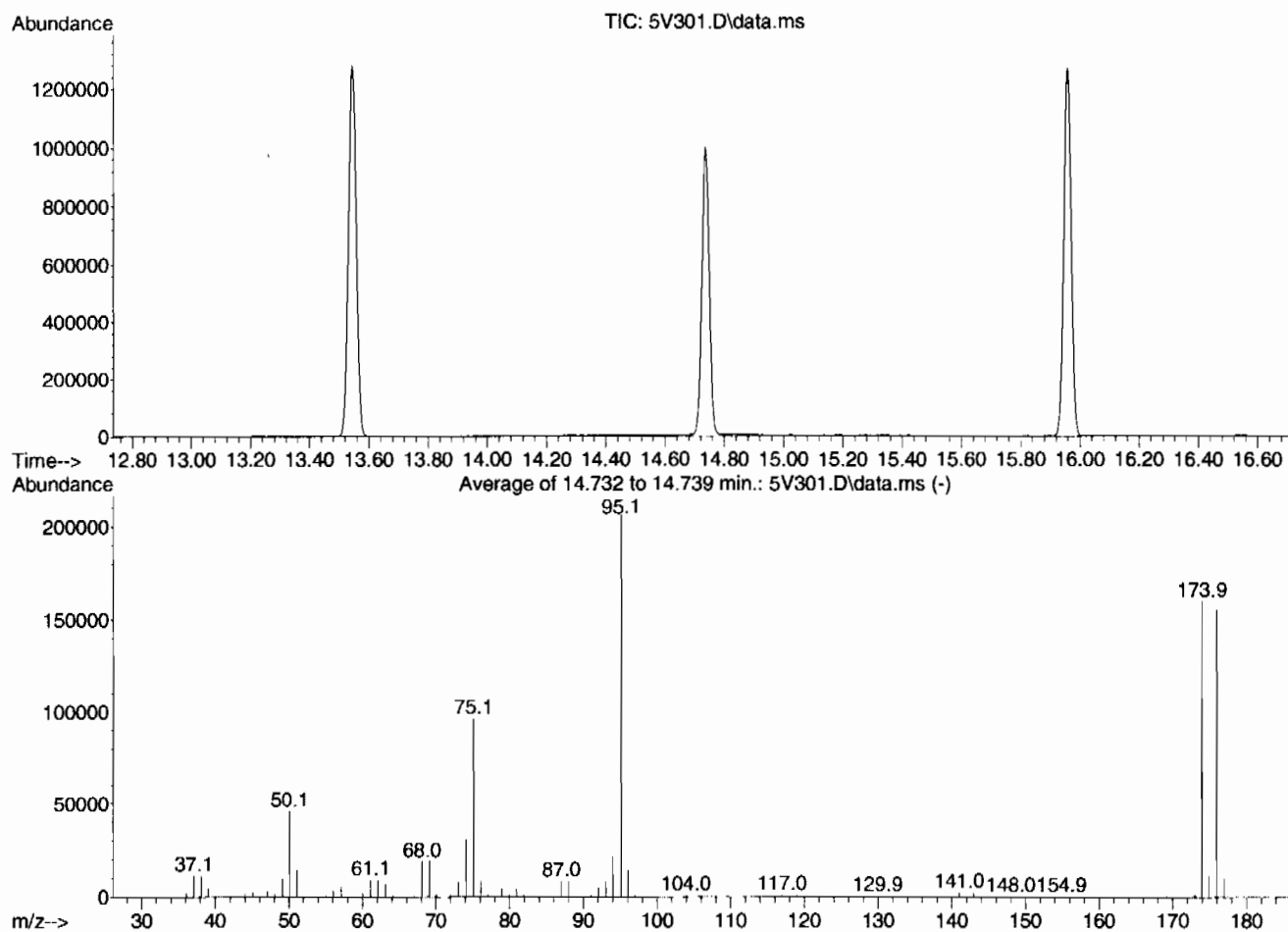
Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V301.D  
Acq On : 27 Jan 2010 11:34 am  
Operator : DXK1  
Sample : |UVM091216-10|BFB|1|VOA|1|  
Misc : BFB 5mL N/A  
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Title : Volatile Organics 8260B  
Last Update : Mon Jan 11 08:43:00 2010

SubList :



AutoFind: Scans 2438, 2439, 2440; Background Corrected with Scan 2426

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.3	45979	PASS
75	95	30	60	46.7	96357	PASS
95	95	100	100	100.0	206165	PASS
96	95	5	9	6.8	14001	PASS
173	174	0.00	2	0.8	1352	PASS
174	95	50	100	77.5	159744	PASS
175	174	5	9	7.1	11402	PASS
176	174	95	101	97.2	155243	PASS
177	176	5	9	6.5	10100	PASS

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

SDG Number: 10-1304  
 Lab Sample ID: 1202025121  
 Client Sample: QC for batch 945549  
 Client ID: MB for batch 945549  
 Batch ID: 945552  
 Run Date: 01/26/2010 22:01  
 Prep Date: 01/26/2010 08:00  
 Data File: 012610V5SV226BL.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 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: 10-1304  
 Lab Sample ID: 1202025121  
 Client Sample: QC for batch 945549  
 Client ID: MB for batch 945549  
 Batch ID: 945552  
 Run Date: 01/26/2010 22:01  
 Prep Date: 01/26/2010 08:00  
 Data File: 012610V5SV226BLD

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

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

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

**Tentatively Identified Compound Summary**

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V226BL.D  
Acq On : 26 Jan 2010 10:01 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025121|945552|1|VOA|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 09 12:55:09 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.375	10.375	1.000	96	1230902	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	852509	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	422746	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	1230902	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	852509	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	422746	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	277977	48.59	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	97.18%			
43) Toluene-d8	12.016	12.016	0.887	98	1121074	48.22	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	96.44%			
61) Bromofluorobenzene	14.735	14.739	0.923	95	412095	51.08	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	102.16%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	0.000	6.733	0.000		0	N.D.		
9) Acetone	7.107	7.100	0.685	43	751	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	7.461	7.450	0.719	41	112	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	7.503	7.511	0.723	76	1994	N.D.		
15) Methylene chloride	7.677	7.691	0.740	84	2692	N.D.		
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	9.102	9.077	0.877	43	700	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.364	10.127	0.999	78	265	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V226BL.D  
Acq On : 26 Jan 2010 10:01 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025121|945552|1|VOA|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 09 12:55:09 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:56:29 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.086	12.090	0.892	91	471	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	12.628	12.631	0.932	43	234	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.691	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.928	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	13.582	13.579	1.003	112	264	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.554	13.639	1.001	91	1288	N.D.	
55) m,p-Xylenes	0.000	13.749	0.000		0	N.D.	
56) o-Xylene	0.000	14.184	0.000		0	N.D.	
57) Styrene	14.187	14.184	1.047	104	110	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	14.530	14.537	0.910	105	110	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.810	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	14.969	14.965	0.938	91	419	N.D.	
66) 1,3,5-Trimethylbenzene	15.110	15.114	0.947	105	880	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	15.213	15.216	0.953	91	1141	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.527	15.527	0.973	105	740	N.D.	
71) sec-Butylbenzene	0.000	15.711	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.832	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	15.899	15.902	0.996	146	449	N.D.	
74) 1,4-Dichlorobenzene	15.994	15.991	1.002	146	955	N.D.	
75) n-Butylbenzene	16.281	16.277	1.020	91	391	N.D.	
76) 1,2-Dichlorobenzene	16.426	16.422	1.029	146	107	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.378	18.371	1.152	180	584	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	18.762	18.762	1.176	128	2521	N.D.	
81) 1,2,3-Trichlorobenzene	19.108	19.116	1.197	180	411	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	7.542	7.546	0.727	41	108	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	9.102	9.088	0.877	43	700	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V226BL.D  
Acq On : 26 Jan 2010 10:01 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025121|945552|1|VOA|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 09 12:55:09 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	9.473	9.466	0.913	42	306	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	12.239	12.235	0.903	69	811	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.693	0.000		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	14.859	14.856	0.931	53	112	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.500	16.497	1.034	45	1007	N.D.	

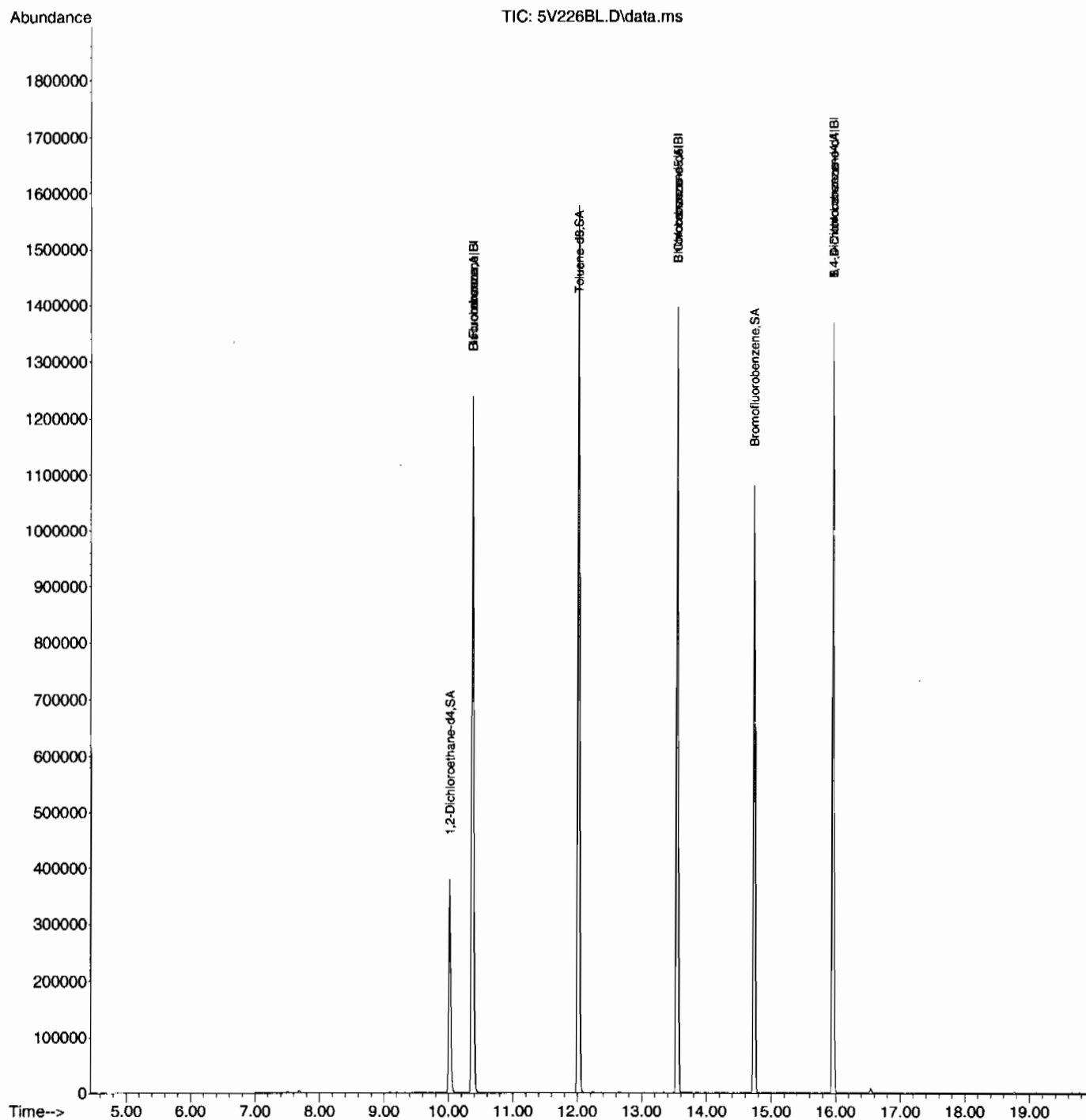
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

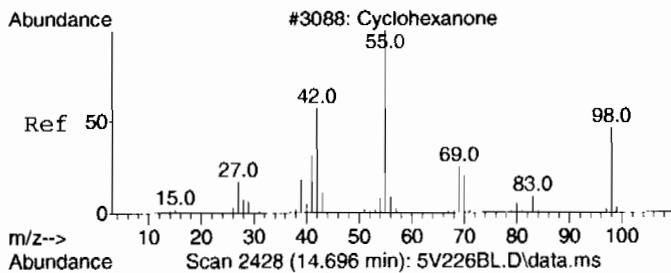
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V226BL.D  
Acq On : 26 Jan 2010 10:01 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025121|945552|1|VOA|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 09 12:55:09 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

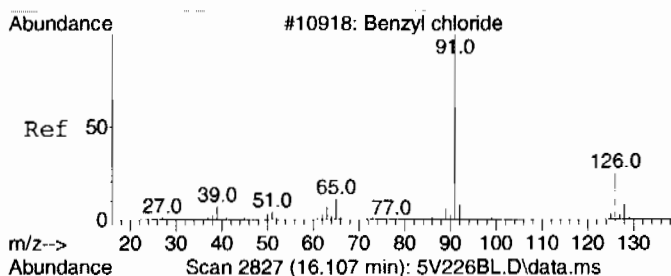
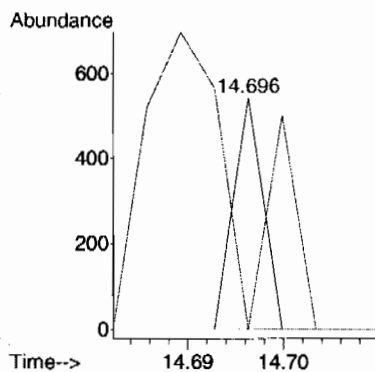
SubList :





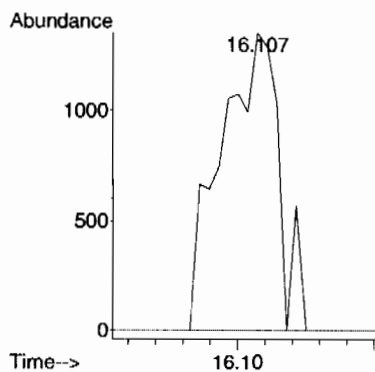
#108 BEFORE analyst DELETION  
Cyclohexanone  
Concen: 28.33 ug/L  
RT: 14.696 min Scan# 2428  
Delta R.T. 0.003 min  
Lab File: 5V226BL.D  
Acq: 26 Jan 2010 10:01 pm

Tgt Ion: 42 Resp: 115  
Ion Ratio Lower Upper  
42 100  
55 521.7 104.7 164.7#  
98 0.0 21.5 81.5#



#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 4.70 ug/L  
RT: 16.107 min Scan# 2827  
Delta R.T. 0.007 min  
Lab File: 5V226BL.D  
Acq: 26 Jan 2010 10:01 pm

Tgt Ion: 91 Resp: 1996  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.6  
65 0.0 0.0 41.9





Library Search Compound Report

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V226BL.D  
Acq On : 26 Jan 2010 10:01 pm  
Operator : DXK1  
Sample : |1202025121|945552|1|VOA|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.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\012610V5\  
Data File : 5V226BL.D  
Acq On : 26 Jan 2010 10:01 pm  
Operator : DXK1  
Sample : |1202025121|945552|1|VOA|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.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: 10-1304  
 Lab Sample ID: 1202031265  
 Client Sample: QC for batch 945549  
 Client ID: MB for batch 945549  
 Batch ID: 945552  
 Run Date: 01/27/2010 14:08  
 Prep Date: 01/27/2010 08:00  
 Data File: 012710V5SV307BL.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: DXK1  
 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: 10-1304  
Lab Sample ID: 1202031265  
Client Sample: QC for batch 945549  
Client ID: MB for batch 945549  
Batch ID: 945552  
Run Date: 01/27/2010 14:08  
Prep Date: 01/27/2010 08:00  
Data File: 012710V55V307BLD

Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: DXK1  
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 <i>Trichlorotrifluoroethane</i>	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\012710V5\  
Data File : 5V307BL.D  
Acq On : 27 Jan 2010 2:08 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202031265|945552|1|VOA|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 27 15:15:23 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.375	10.375	1.000	96	1116175	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	777465	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	381436	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	1116175	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	777465	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	381436	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	239329	46.13	ug/L	0.00
Spiked Amount 50.000	Range 68	- 131	Recovery	=	92.26%			
43) Toluene-d8	12.016	12.016	0.887	98	989117	46.65	ug/L	0.00
Spiked Amount 50.000	Range 75	- 129	Recovery	=	93.30%			
61) Bromofluorobenzene	14.735	14.739	0.923	95	359683	49.42	ug/L	0.00
Spiked Amount 50.000	Range 68	- 133	Recovery	=	98.84%			
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	0.000	6.733	0.000		0	N.D.		
9) Acetone	7.104	7.100	0.685	43	144	N.D.		
10) 1,1-Dichloroethylene	0.000	7.125	0.000		0	N.D.		
11) Iodomethane	0.000	7.373	0.000		0	N.D.		
12) Acetonitrile	0.000	7.450	0.000		0	N.D.		
13) Methyl acetate	0.000	7.493	0.000		0	N.D.		
14) Carbon disulfide	7.507	7.511	0.724	76	116	N.D.		
15) Methylene chloride	7.691	7.691	0.741	84	8246	N.D.		
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.458	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.511	0.000		0	N.D.		
20) 2-Butanone	0.000	9.077	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.144	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	0.000	9.830	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.887	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.375	10.127	1.000	78	950	N.D.		
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.460	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.768	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.019	0.000		0	N.D.		
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V307BL.D  
Acq On : 27 Jan 2010 2:08 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202031265|945552|1|VOA|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 27 15:15:23 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:43:00 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	0.000	12.090	0.000		0	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.239	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.465	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.631	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.656	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.691	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.928	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.579	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.540	13.639	0.999	91	1141	N.D.	
55) m,p-Xylenes	0.000	13.749	0.000		0	N.D.	
56) o-Xylene	0.000	14.184	0.000		0	N.D.	
57) Styrene	0.000	14.184	0.000		0	N.D.	
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.537	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.810	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	14.746	14.965	0.924	91	141	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.114	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.117	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.216	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.489	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.527	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	15.711	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.832	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.902	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.991	0.000		0	N.D.	
75) n-Butylbenzene	16.104	16.277	1.009	91	220	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.422	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.371	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	18.762	18.762	1.176	128	477	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.116	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.175	0.000		0	N.D.	
88) Allyl chloride	0.000	7.546	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.673	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.928	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.088	0.000		0	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V307BL.D  
Acq On : 27 Jan 2010 2:08 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202031265|945552|1|VOA|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 27 15:15:23 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.148	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.332	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.466	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	9.770	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.	
100) Methyl methacrylate	0.000	10.969	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.443	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.573	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.693	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	14.856	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	0.000	16.497	0.000		0	N.D.	

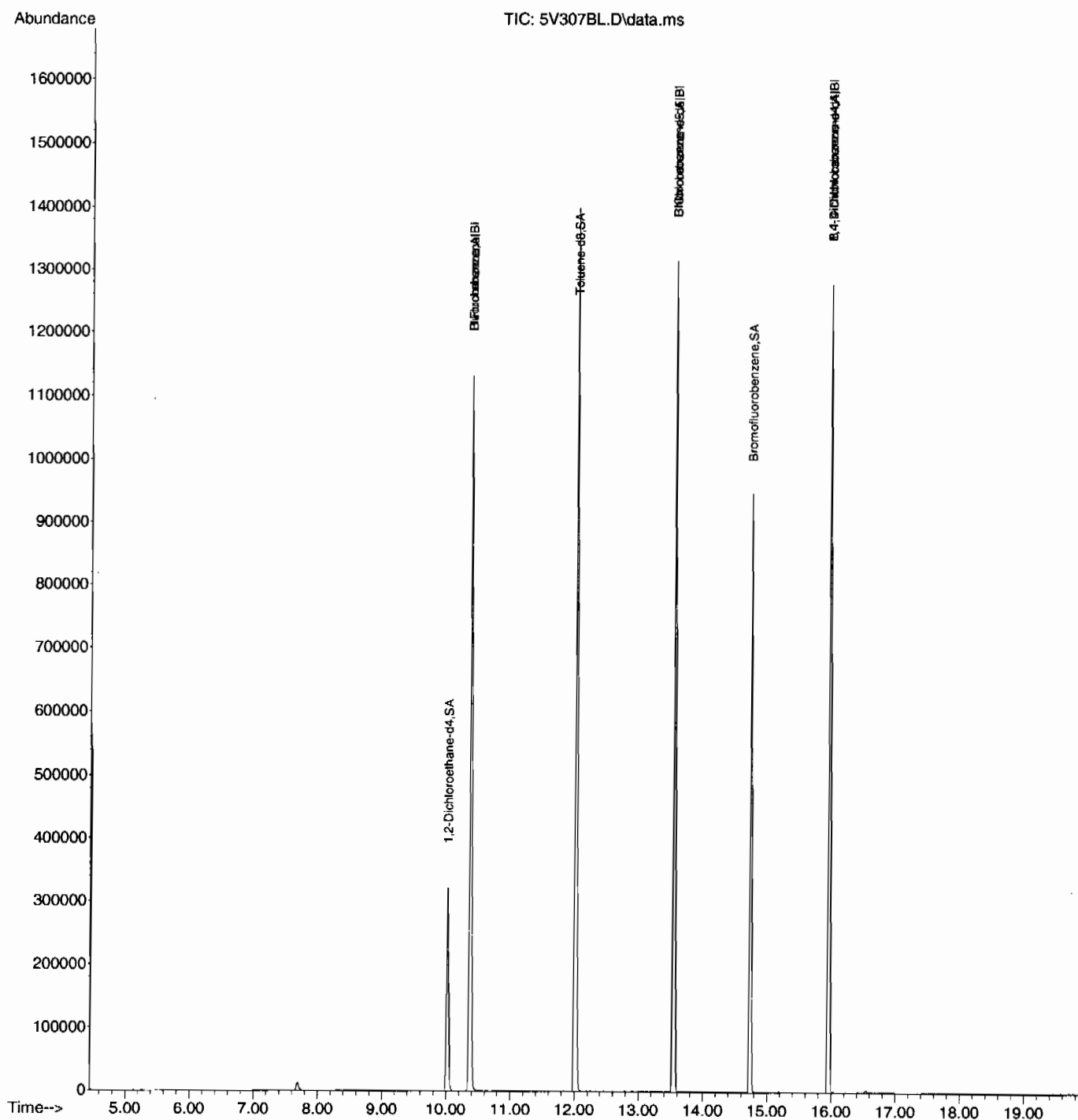
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

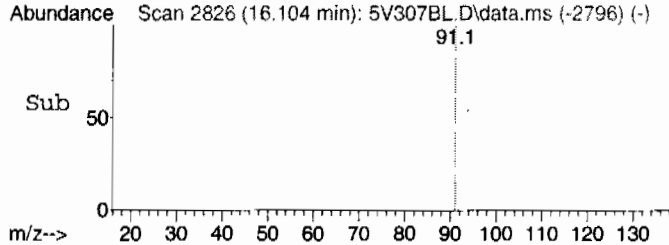
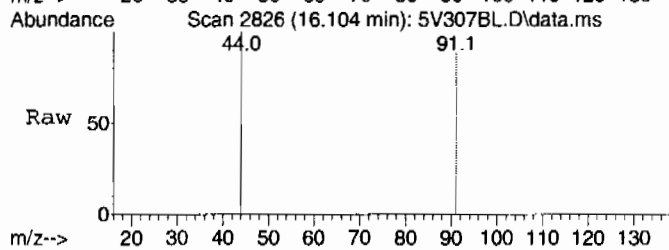
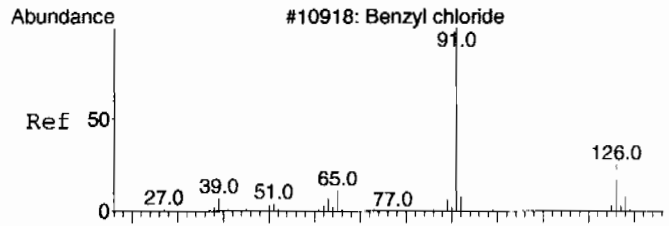
Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V307BL.D  
Acq On : 27 Jan 2010 2:08 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202031265|945552|1|VOA|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 27 15:15:23 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

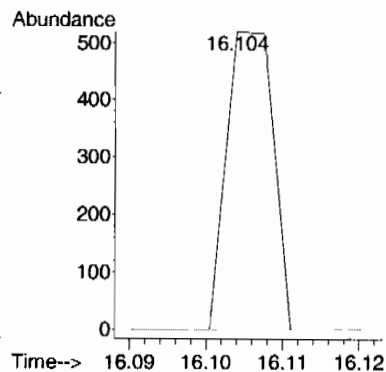






#111 BEFORE analyst DELETION  
Benzyl chloride  
Concen: 4.50 ug/L  
RT: 16.104 min Scan# 2826  
Delta R.T. 0.004 min  
Lab File: 5V307BL.D  
Acq: 27 Jan 2010 2:08 pm

Tgt Ion: 91 Resp: 220  
Ion Ratio Lower Upper  
91 100  
126 0.0 0.0 51.6  
65 0.0 0.0 41.9



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V307BL.D  
Acq On : 27 Jan 2010 2:08 pm  
Operator : DXK1  
Sample : |1202031265|945552|1|VOA|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.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\012710V5\  
Data File : 5V307BL.D  
Acq On : 27 Jan 2010 2:08 pm  
Operator : DXK1  
Sample : |1202031265|945552|1|VOA|1|VOA8260BS|  
Misc : BLANK 5g N/A SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.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:** 10-1304  
**Lab Sample ID:** 1202025122  
**Client Sample:** QC for batch 945549  
**Client ID:** LCS for batch 945549  
**Batch ID:** 945552  
**Run Date:** 01/26/2010 21:06  
**Prep Date:** 01/26/2010 08:00  
**Data File:** 012610V5V224LLD

**Client:** LANL010  
**Method:** SW846 8260B  
**Inst:** VOA5.I  
**Analyst:** DXK1  
**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		42.9	ug/kg	0.340	1.00
74-87-3	Chloromethane		47.4	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		48.1	ug/kg	0.300	1.00
74-83-9	Bromomethane		50.7	ug/kg	0.300	1.00
75-00-3	Chloroethane		47.8	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		47.3	ug/kg	0.300	1.00
67-64-1	Acetone		247	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		51.4	ug/kg	0.300	1.00
74-88-4	Iodomethane		240	ug/kg	1.60	5.00
75-09-2	Methylene chloride		46.0	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		255	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		49.3	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		49.0	ug/kg	0.300	1.00
78-93-3	2-Butanone		263	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		48.9	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		45.4	ug/kg	0.300	1.00
67-66-3	Chloroform		49.2	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		47.8	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		49.0	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		49.3	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		50.2	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		48.9	ug/kg	0.300	1.00
71-43-2	Benzene		48.2	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		50.1	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		49.9	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		51.9	ug/kg	0.300	1.00
74-95-3	Dibromomethane		50.2	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		266	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		50.6	ug/kg	0.300	1.00
108-88-3	Toluene		47.9	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		52.1	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		49.6	ug/kg	0.300	1.00
591-78-6	2-Hexanone		262	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		49.0	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		47.7	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		52.5	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		52.4	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		48.2	ug/kg	0.300	1.00

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

SDG Number: 10-1304  
 Lab Sample ID: 1202025122  
 Client Sample: QC for batch 945549  
 Client ID: LCS for batch 945549  
 Batch ID: 945552  
 Run Date: 01/26/2010 21:06  
 Prep Date: 01/26/2010 08:00  
 Data File: 012610V55V224LL.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 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		49.2	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		97.7	ug/kg	0.300	2.00
95-47-6	o-Xylene		50.6	ug/kg	0.300	1.00
100-42-5	Styrene		53.4	ug/kg	0.300	1.00
75-25-2	Bromoform		54.7	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		49.4	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		51.9	ug/kg	0.300	1.00
108-86-1	Bromobenzene		48.2	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		48.7	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		49.3	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		49.3	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		49.9	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		48.0	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		48.6	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		49.7	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		48.7	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		49.6	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		47.4	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		46.1	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		48.4	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		57.0	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		51.2	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		48.1	ug/kg	0.300	1.00

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V224LL.D  
Acq On : 26 Jan 2010 9:06 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025122|945552|1|VOA|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[A]  
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jan 27 08:07:00 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.375	10.375	1.000	96	1257925	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	880060	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	469404	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	1257925	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	880060	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	469404	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	268127	45.86	ug/L	0.00
Spiked Amount	50.000	Range 68 - 131	Recovery	=	91.72%			
43) Toluene-d8	12.016	12.016	0.887	98	1146486	47.77	ug/L	0.00
Spiked Amount	50.000	Range 75 - 129	Recovery	=	95.54%			
61) Bromofluorobenzene	14.739	14.739	0.924	95	435663	48.64	ug/L	0.00
Spiked Amount	50.000	Range 68 - 133	Recovery	=	97.28%			
Target Compounds								
2) Dichlorodifluoromethane	4.709	4.689	0.454	85	116240	42.90	ug/L	100
3) Chloromethane	5.071	5.051	0.489	50	293357	47.41	ug/L	100
4) Vinyl chloride	5.283	5.283	0.509	62	265417	48.06	ug/L	100
5) Bromomethane	5.887	5.877	0.567	94	199038	50.72	ug/L	100
6) Chloroethane	6.018	6.018	0.580	64	177679	47.75	ug/L	98
7) Trichlorofluoromethane	6.390	6.391	0.616	101	257328	47.34	ug/L	100
8) Ethyl ether	6.733	6.733	0.649	59	218679	47.51	ug/L	97
9) Acetone	7.100	7.100	0.684	43	1163347	246.69	ug/L	100
10) 1,1-Dichloroethylene	7.125	7.125	0.687	61	301461	51.40	ug/L	97
11) Iodomethane	7.369	7.373	0.710	142	1683159	239.67	ug/L	98
12) Acetonitrile	7.450	7.450	0.718	41	1015924	1304.10	ug/L	100
13) Methyl acetate	7.493	7.493	0.722	43	1187041	251.67	ug/L	99
14) Carbon disulfide	7.507	7.511	0.724	76	3490381	254.57	ug/L	100
15) Methylene chloride	7.687	7.691	0.741	84	246929	46.02	ug/L	95
16) tert-Butyl methyl ether	7.981	7.984	0.769	73	470058	45.26	ug/L	98
17) trans-1,2-Dichloroethy...	8.030	8.030	0.774	61	320938	49.32	ug/L	97
18) Vinyl acetate	8.458	8.458	0.815	43	3044675	261.99	ug/L	99
19) 1,1-Dichloroethane	8.511	8.511	0.820	63	404369	48.99	ug/L	99
20) 2-Butanone	9.077	9.077	0.875	43	1417919	262.51	ug/L	99
21) cis-1,2-Dichloroethylene	9.144	9.144	0.881	61	360753	48.85	ug/L	95
22) 2,2-Dichloropropane	9.169	9.173	0.884	77	187819	45.35	ug/L	93
23) Bromochloromethane	9.417	9.417	0.908	128	118660	47.76	ug/L	94
24) Chloroform	9.455	9.452	0.911	83	372234	49.20	ug/L	99
25) 1,1,1-Trichloroethane	9.731	9.735	0.938	97	258546	48.97	ug/L	97
26) Cyclohexane	9.830	9.830	0.948	56	357199	46.59	ug/L	97
27) 1,1-Dichloropropene	9.887	9.887	0.953	75	285030	49.27	ug/L	99
28) Carbon tetrachloride	9.926	9.929	0.957	117	233259	50.22	ug/L	100
30) 1,2-Dichloroethane	10.103	10.103	0.974	62	301339	48.94	ug/L	99
31) Benzene	10.127	10.127	0.976	78	941600	48.21	ug/L	99
32) Cyclohexene	10.244	10.248	0.987	67	438494	48.41	ug/L	98
33) n-Butyl alcohol	10.456	10.460	1.008	56	1053853	5715.94	ug/L	100
34) Trichloroethylene	10.767	10.768	1.038	95	226698	50.07	ug/L	99
35) 1,2-Dichloropropane	11.004	11.004	1.061	63	252367	49.87	ug/L	99
36) Methylcyclohexane	11.015	11.019	1.062	83	362714	45.45	ug/L	96
37) Dibromomethane	11.146	11.146	1.074	93	133502	50.23	ug/L	97

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V224LL.D  
Acq On : 26 Jan 2010 9:06 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025122|945552|1|VOA|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[A]  
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jan 27 08:07:00 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	11.255	11.256	1.085	83	282232	51.89	ug/L 99
39) 2-Chloroethylvinyl ether	11.468	11.468	1.105	63	641124	228.49	ug/L 99
40) cis-1,3-Dichloropropylene	11.701	11.705	1.128	75	358396	50.59	ug/L 99
42) 4-Methyl-2-pentanone	11.786	11.786	0.870	58	618644	265.64	ug/L 98
44) Toluene	12.090	12.090	0.892	91	1009647	47.91	ug/L 100
45) trans-1,3-Dichloroprop...	12.242	12.239	0.904	75	327102	52.12	ug/L 98
46) 1,1,2-Trichloroethane	12.461	12.465	0.920	83	174022	49.60	ug/L 99
47) 2-Hexanone	12.631	12.631	0.932	43	1804050	261.59	ug/L 99
48) 1,3-Dichloropropane	12.652	12.656	0.934	76	363904	49.00	ug/L 92
49) Tetrachloroethylene	12.688	12.691	0.937	164	187706	47.74	ug/L 100
50) Dibromochloromethane	12.925	12.928	0.954	129	220868	52.49	ug/L 99
51) 1,2-Dibromoethane	13.098	13.094	0.967	107	205964	52.37	ug/L 100
52) Chlorobenzene	13.579	13.579	1.002	112	645074	48.23	ug/L 99
53) 1,1,1,2-Tetrachloroethane	13.632	13.636	1.006	131	221282	51.19	ug/L 99
54) Ethylbenzene	13.639	13.639	1.007	91	1092907	49.19	ug/L 99
55) m,p-Xylenes	13.745	13.749	1.015	106	873347	97.65	ug/L 99
56) o-Xylene	14.180	14.184	1.047	106	434213	50.63	ug/L 100
57) Styrene	14.184	14.184	1.047	104	718145	53.35	ug/L 100
59) Bromoform	14.449	14.445	0.905	173	143915	54.68	ug/L 99
60) Isopropylbenzene	14.537	14.537	0.911	105	1048637	49.27	ug/L 100
62) 1,1,2,2-Tetrachloroethane	14.813	14.810	0.928	83	268066	49.39	ug/L 98
63) 1,2,3-Trichloropropane	14.898	14.898	0.934	110	75902	51.92	ug/L 91
64) Bromobenzene	14.951	14.951	0.937	156	267573	48.18	ug/L 98
65) n-Propylbenzene	14.962	14.965	0.938	91	1242434	48.65	ug/L 99
66) 1,3,5-Trimethylbenzene	15.114	15.114	0.947	105	869476	49.89	ug/L 100
67) 2-Chlorotoluene	15.117	15.117	0.947	126	263210	49.33	ug/L 100
68) 4-Chlorotoluene	15.216	15.216	0.953	91	760623	48.00	ug/L 99
69) tert-Butylbenzene	15.488	15.489	0.971	134	199334	48.59	ug/L 98
70) 1,2,4-Trimethylbenzene	15.527	15.527	0.973	105	889180	49.67	ug/L 100
71) sec-Butylbenzene	15.711	15.711	0.984	105	1140801	48.66	ug/L 99
72) 4-Isopropyltoluene	15.832	15.832	0.992	119	913362	49.56	ug/L 99
73) 1,3-Dichlorobenzene	15.902	15.902	0.996	146	510624	47.38	ug/L 99
74) 1,4-Dichlorobenzene	15.991	15.991	1.002	146	516076	46.07	ug/L 99
75) n-Butylbenzene	16.277	16.277	1.020	91	859978	48.40	ug/L 99
76) 1,2-Dichlorobenzene	16.419	16.422	1.029	146	492960	48.09	ug/L 100
77) 1,2-Dibromo-3-chloropr...	17.293	17.293	1.084	157	56536	57.03	ug/L 99
78) 1,2,4-Trichlorobenzene	18.371	18.371	1.151	180	327139	46.16	ug/L 99
79) Hexachlorobutadiene	18.548	18.548	1.162	225	183215	46.14	ug/L 99
80) Naphthalene	18.762	18.762	1.176	128	828573	53.12	ug/L 100
81) 1,2,3-Trichlorobenzene	19.116	19.116	1.198	180	305178	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	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	7.097	7.175	0.684		0m	N.D.	d
88) Allyl chloride	7.450	7.546	0.718		0m	N.D.	d
89) tert-Butyl Alcohol	7.698	7.673	0.742		0m	N.D.	d
90) Acrylonitrile	7.981	7.928	0.769		0m	N.D.	d
91) Isopropyl ether	8.458	8.483	0.815		0m	N.D.	d
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	9.077	9.088	0.875		0m	N.D.	d

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V224LL.D  
Acq On : 26 Jan 2010 9:06 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025122|945552|1|VOA|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[A]  
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jan 27 08:07:00 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

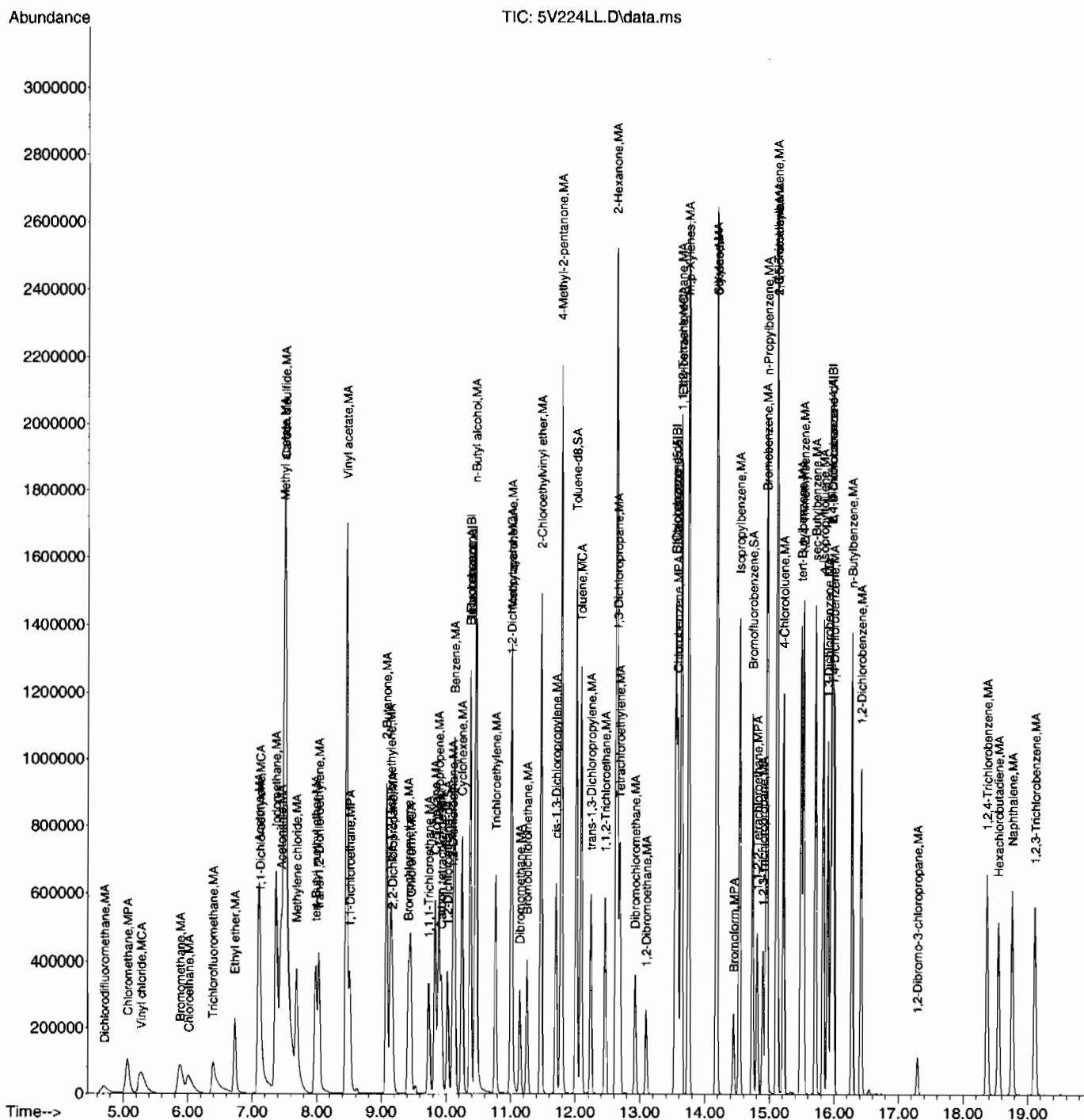
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	9.073	9.148	0.875		0m	N.D.	d
96) Methacrylonitrile	9.169	9.332	0.884		0m	N.D.	d
97) Tetrahydrofuran	9.466	9.466	0.912		0m	N.D.	d
98) Isobutyl alcohol	9.830	9.770	0.948		0m	N.D.	d
99) Methyl tert-amyl ether	10.127	10.138	0.976		0m	N.D.	d
100) Methyl methacrylate	11.019	10.969	1.062		0m	N.D.	d
101) 1,4-Dioxane	11.142	11.089	1.074		0m	N.D.	d
102) 2-Nitropropane	11.468	11.443	1.105		0m	N.D.	d
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.537	14.573	0.911		0m	N.D.	d
108) Cyclohexanone	14.534	14.693	0.911		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	14.962	14.856	0.938		0m	N.D.	d
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	16.539	16.497	1.036		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\012610V5\  
Data File : 5V224LL.D  
Acq On : 26 Jan 2010 9:06 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025122|945552|1|VOA|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[A]  
ALS Vial : 24 Sample Multiplier: 1
```

SubList :



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

SDG Number: 10-1304		Matrix: SOIL
Lab Sample ID: 1202025125		
Client Sample: QC for batch 945549	Client: LANL010	Project: QC
Client ID: LCS for batch 945549	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5.I	Dilution: 1
Run Date: 01/26/2010 21:32	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/26/2010 08:00	Aliquot: 5 g	Final Volume: 5 mL
Data File: 012610V5SV225SLD	Column: DB-624	

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

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

SDG Number: 10-1304  
 Lab Sample ID: 1202025125  
 Client Sample: QC for batch 945549  
 Client ID: LCS for batch 945549  
 Batch ID: 945552  
 Run Date: 01/26/2010 21:32  
 Prep Date: 01/26/2010 08:00  
 Data File: 012610V55V225SL.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: DXK1  
 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		311	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\012610V5\  
Data File : 5V225SL.D  
Acq On : 26 Jan 2010 9:32 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025125|945552|1|VOA|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[B]  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 27 08:38:38 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.375	10.375	1.000	96	1283087	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	891763	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	457809	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	1283087	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	891763	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	457809	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	278677	46.73	ug/L	0.00
Spiked Amount	50.000	Range	68 - 131	Recovery	=	93.46%		
43) Toluene-d8	12.016	12.016	0.887	98	1158846	47.65	ug/L	0.00
Spiked Amount	50.000	Range	75 - 129	Recovery	=	95.30%		
61) Bromofluorobenzene	14.735	14.739	0.923	95	441817	50.57	ug/L	0.00
Spiked Amount	50.000	Range	68 - 133	Recovery	=	101.14%		
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	5.031	5.051	0.485		0m	N.D.	d	
4) Vinyl chloride	5.263	5.283	0.507		0m	N.D.	d	
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	6.391	6.391	0.616		0m	N.D.	d	
8) Ethyl ether	6.733	6.733	0.649		0m	N.D.	d	
9) Acetone	7.107	7.100	0.685		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.125	7.125	0.687		0m	N.D.	d	
11) Iodomethane	7.369	7.373	0.710		0m	N.D.	d	
12) Acetonitrile	7.458	7.450	0.719		0m	N.D.	d	
13) Methyl acetate	7.496	7.493	0.723		0m	N.D.	d	
14) Carbon disulfide	7.549	7.511	0.728		0m	N.D.	d	
15) Methylene chloride	7.691	7.691	0.741		0m	N.D.	d	
16) tert-Butyl methyl ether	7.974	7.984	0.769		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.030	8.030	0.774		0m	N.D.	d	
18) Vinyl acetate	8.458	8.458	0.815		0m	N.D.	d	
19) 1,1-Dichloroethane	8.518	8.511	0.821		0m	N.D.	d	
20) 2-Butanone	9.091	9.077	0.876		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.091	9.144	0.876		0m	N.D.	d	
22) 2,2-Dichloropropane	9.169	9.173	0.884		0m	N.D.	d	
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	9.449	9.452	0.911		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.739	9.735	0.939		0m	N.D.	d	
26) Cyclohexane	9.774	9.830	0.942		0m	N.D.	d	
27) 1,1-Dichloropropene	9.891	9.887	0.953		0m	N.D.	d	
28) Carbon tetrachloride	9.926	9.929	0.957		0m	N.D.	d	
30) 1,2-Dichloroethane	10.099	10.103	0.973		0m	N.D.	d	
31) Benzene	10.128	10.127	0.976		0m	N.D.	d	
32) Cyclohexene	10.255	10.248	0.988		0m	N.D.	d	
33) n-Butyl alcohol	10.463	10.460	1.009		0m	N.D.	d	
34) Trichloroethylene	10.775	10.768	1.039		0m	N.D.	d	
35) 1,2-Dichloropropane	11.005	11.004	1.061		0m	N.D.	d	
36) Methylcyclohexane	11.022	11.019	1.062		0m	N.D.	d	
37) Dibromomethane	11.142	11.146	1.074		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V225SL.D  
Acq On : 26 Jan 2010 9:32 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025125|945552|1|VOA|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[B]  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 27 08:38:38 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	11.252	11.256	1.085		0m	N.D.	d
39) 2-Chloroethylvinyl ether	11.471	11.468	1.106		0m	N.D.	d
40) cis-1,3-Dichloropropylene	11.701	11.705	1.128		0m	N.D.	d
42) 4-Methyl-2-pentanone	11.783	11.786	0.870		0m	N.D.	d
44) Toluene	12.087	12.090	0.892		0m	N.D.	d
45) trans-1,3-Dichloroprop...	12.239	12.239	0.903		0m	N.D.	d
46) 1,1,2-Trichloroethane	12.458	12.465	0.920		0m	N.D.	d
47) 2-Hexanone	12.631	12.631	0.932		0m	N.D.	d
48) 1,3-Dichloropropane	12.649	12.656	0.934		0m	N.D.	d
49) Tetrachloroethylene	12.688	12.691	0.937		0m	N.D.	d
50) Dibromochloromethane	12.928	12.928	0.954		0m	N.D.	d
51) 1,2-Dibromoethane	13.098	13.094	0.967		0m	N.D.	d
52) Chlorobenzene	13.575	13.579	1.002		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	13.629	13.636	1.006		0m	N.D.	d
54) Ethylbenzene	13.643	13.639	1.007		0m	N.D.	d
55) m,p-Xylenes	13.738	13.749	1.014		0m	N.D.	d
56) o-Xylene	14.184	14.184	1.047		0m	N.D.	d
57) Styrene	14.184	14.184	1.047		0m	N.D.	d
59) Bromoform	14.456	14.445	0.906		0m	N.D.	d
60) Isopropylbenzene	14.537	14.537	0.911		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	14.813	14.810	0.928		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	14.955	14.951	0.937		0m	N.D.	d
65) n-Propylbenzene	14.962	14.965	0.938		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	15.114	15.114	0.947		0m	N.D.	d
67) 2-Chlorotoluene	15.114	15.117	0.947		0m	N.D.	d
68) 4-Chlorotoluene	15.220	15.216	0.954		0m	N.D.	d
69) tert-Butylbenzene	15.482	15.489	0.970		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	15.528	15.527	0.973		0m	N.D.	d
71) sec-Butylbenzene	15.715	15.711	0.985		0m	N.D.	d
72) 4-Isopropyltoluene	15.832	15.832	0.992		0m	N.D.	d
73) 1,3-Dichlorobenzene	15.906	15.902	0.997		0m	N.D.	d
74) 1,4-Dichlorobenzene	15.984	15.991	1.002		0m	N.D.	d
75) n-Butylbenzene	16.274	16.277	1.020		0m	N.D.	d
76) 1,2-Dichlorobenzene	16.415	16.422	1.029		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	17.294	17.293	1.084		0m	N.D.	d
78) 1,2,4-Trichlorobenzene	18.371	18.371	1.151		0m	N.D.	d
79) Hexachlorobutadiene	18.555	18.548	1.163		0m	N.D.	d
80) Naphthalene	18.762	18.762	1.176		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	19.116	19.116	1.198		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.414	0.000		0	N.D.	
85) Acrolein	6.924	6.924	0.667	56	143930	210.43 ug/L	87
86) Trichlorotrifluoroethane	7.083	7.079	0.683	85	304393	310.53 ug/L	94
87) Isopropyl Alcohol	0.000	7.175	0.000		0m	N.D.	d
88) Allyl chloride	7.549	7.546	0.728	41	2161098	265.85 ug/L	97
89) tert-Butyl Alcohol	7.546	7.673	0.727	59	251	N.D.	
90) Acrylonitrile	7.931	7.928	0.764	53	503052	259.63 ug/L	99
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	8.621	8.617	0.831	53	343477	54.64 ug/L	95
93) Ethyl tert-butyl ether	9.088	8.890	0.876	59	220	N.D.	
94) Ethyl acetate	9.091	9.088	0.876	43	1397813	236.98 ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V225SL.D  
Acq On : 26 Jan 2010 9:32 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025125|945552|1|VOA|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[B]  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 27 08:38:38 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95) Propionitrile	9.155	9.148	0.882	54	197472	272.38	ug/L	100
96) Methacrylonitrile	9.332	9.332	0.899	41	914540	257.95	ug/L	100
97) Tetrahydrofuran	9.463	9.466	0.912	42	484102	260.60	ug/L	98
98) Isobutyl alcohol	9.770	9.770	0.942	41	596447	2757.06	ug/L	99
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.		
100) Methyl methacrylate	10.973	10.969	1.058	69	869278	265.86	ug/L	98
101) 1,4-Dioxane	11.086	11.089	1.069	88	138263	2922.07	ug/L	94
102) 2-Nitropropane	11.443	11.443	1.103	43	418451	245.29	ug/L	96
104) Ethyl methacrylate	12.235	12.235	0.903	69	1639297	273.15	ug/L	99
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.		
107) cis-1,4-Dichloro-2-butene	14.573	14.573	0.913	53	504509	290.86	ug/L	92
108) Cyclohexanone	14.689	14.693	0.920	42	283992	562.16	ug/L	98
109) trans-1,4-Dichloro-2-b...	14.856	14.856	0.931	53	473283	284.75	ug/L	97
110) Pentachloroethane	15.563	15.559	0.975	167	433902	238.16	ug/L	100
111) Benzyl chloride	16.100	16.100	1.009	91	2122180	232.39	ug/L	100
112) bis(2-Chloroisopropyl)...	16.497	16.497	1.034	45	781048	256.02	ug/L	96

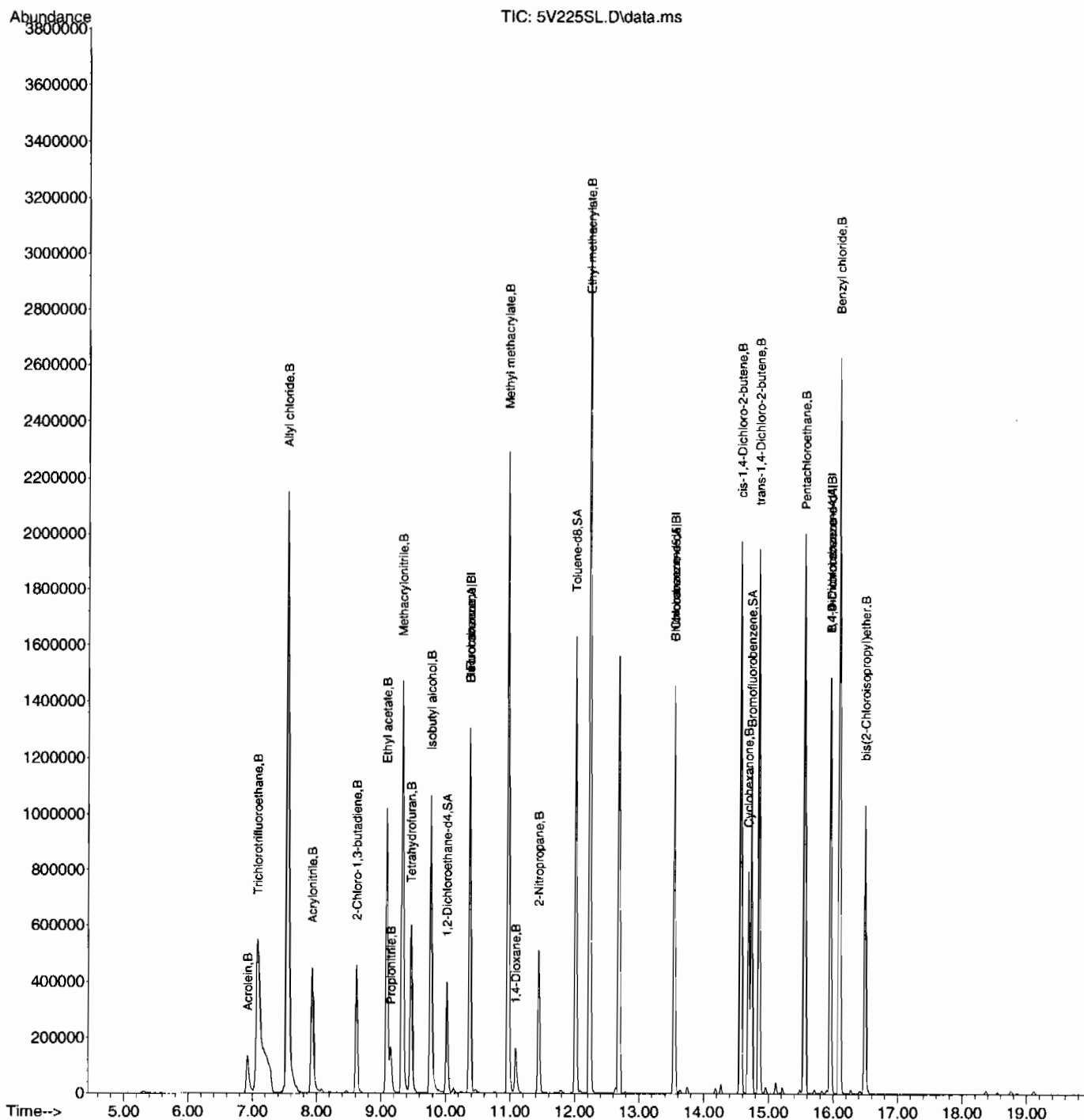
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012610V5\  
Data File : 5V225SL.D  
Acq On : 26 Jan 2010 9:32 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025125|945552|1|VOA|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[B]  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 27 08:38:38 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :



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

SDG Number: 10-1304  
 Lab Sample ID: 1202031266  
 Client Sample: QC for batch 945549  
 Client ID: LCS for batch 945549  
 Batch ID: 945552  
 Run Date: 01/27/2010 12:26  
 Prep Date: 01/27/2010 08:00  
 Data File: 012710V55V303LL.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 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		42.0	ug/kg	0.340	1.00
74-87-3	Chloromethane		49.5	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		50.4	ug/kg	0.300	1.00
74-83-9	Bromomethane		49.8	ug/kg	0.300	1.00
75-00-3	Chloroethane		47.7	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		50.0	ug/kg	0.300	1.00
67-64-1	Acetone		235	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		53.8	ug/kg	0.300	1.00
74-88-4	Iodomethane		237	ug/kg	1.60	5.00
75-09-2	Methylene chloride		45.7	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		259	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		50.1	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		49.9	ug/kg	0.300	1.00
78-93-3	2-Butanone		247	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		49.4	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		47.7	ug/kg	0.300	1.00
67-66-3	Chloroform		49.8	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		47.8	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		50.3	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		51.7	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		53.1	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		48.3	ug/kg	0.300	1.00
71-43-2	Benzene		48.7	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		51.7	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		50.2	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		51.9	ug/kg	0.300	1.00
74-95-3	Dibromomethane		48.9	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		246	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		51.0	ug/kg	0.300	1.00
108-88-3	Toluene		48.4	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		51.3	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		46.9	ug/kg	0.300	1.00
591-78-6	2-Hexanone		255	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		47.8	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		49.1	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		50.5	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		49.2	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		47.9	ug/kg	0.300	1.00



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

SDG Number: 10-1304  
 Lab Sample ID: 1202031266  
 Client Sample: QC for batch 945549  
 Client ID: LCS for batch 945549  
 Batch ID: 945552  
 Run Date: 01/27/2010 12:26  
 Prep Date: 01/27/2010 08:00  
 Data File: 012710V5SV303LL.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

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

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		50.0	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		99.7	ug/kg	0.300	2.00
95-47-6	o-Xylene		51.4	ug/kg	0.300	1.00
100-42-5	Styrene		53.7	ug/kg	0.300	1.00
75-25-2	Bromoform		51.1	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.4	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		46.7	ug/kg	0.300	1.00
108-86-1	Bromobenzene		47.1	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		49.8	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		49.5	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		50.4	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		50.7	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		48.4	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		49.4	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		50.4	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		49.9	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		51.3	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		47.8	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		46.4	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		50.7	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		49.8	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.00	ug/kg	1.60	5.00
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		50.6	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		47.2	ug/kg	0.300	1.00

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V303LL.D  
Acq On : 27 Jan 2010 12:26 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202031266|945552|1|VOA|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[A]  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 27 12:43:33 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.375	10.375	1.000	96	1250313	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	894146	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	483431	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	1250313	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	894146	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	483431	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	263388	45.33	ug/L	0.00
Spiked Amount	50.000	Range 68 - 131	Recovery	=	90.66%			
43) Toluene-d8	12.016	12.016	0.887	98	1119006	45.89	ug/L	0.00
Spiked Amount	50.000	Range 75 - 129	Recovery	=	91.78%			
61) Bromofluorobenzene	14.735	14.739	0.923	95	429590	46.57	ug/L	0.00
Spiked Amount	50.000	Range 68 - 133	Recovery	=	93.14%			
Target Compounds								QValue
2) Dichlorodifluoromethane	4.689	4.689	0.452	85	113156	42.02	ug/L	98
3) Chloromethane	5.061	5.051	0.488	50	304647	49.53	ug/L	100
4) Vinyl chloride	5.273	5.283	0.508	62	276694	50.40	ug/L	99
5) Bromomethane	5.867	5.877	0.565	94	194421	49.84	ug/L	100
6) Chloroethane	6.008	6.018	0.579	64	176535	47.73	ug/L	99
7) Trichlorofluoromethane	6.391	6.391	0.616	101	269953	49.96	ug/L	99
8) Ethyl ether	6.733	6.733	0.649	59	209502	45.79	ug/L	98
9) Acetone	7.097	7.100	0.684	43	1101581	235.02	ug/L	99
10) 1,1-Dichloroethylene	7.122	7.125	0.686	61	313407	53.76	ug/L	96
11) Iodomethane	7.366	7.373	0.710	142	1654694	237.05	ug/L	98
12) Acetonitrile	7.447	7.450	0.718	41	908068	1172.75	ug/L	99
13) Methyl acetate	7.489	7.493	0.722	43	1074638	229.23	ug/L	99
14) Carbon disulfide	7.507	7.511	0.724	76	3527332	258.83	ug/L	99
15) Methylene chloride	7.687	7.691	0.741	84	243687	45.70	ug/L	96
16) tert-Butyl methyl ether	7.981	7.984	0.769	73	433171	41.96	ug/L	97
17) trans-1,2-Dichloroethy...	8.030	8.030	0.774	61	323851	50.07	ug/L	95
18) Vinyl acetate	8.455	8.458	0.815	43	3030107	262.32	ug/L	99
19) 1,1-Dichloroethane	8.508	8.511	0.820	63	409474	49.91	ug/L	100
20) 2-Butanone	9.077	9.077	0.875	43	1323538	246.52	ug/L	99
21) cis-1,2-Dichloroethylene	9.144	9.144	0.881	61	362383	49.37	ug/L	95
22) 2,2-Dichloropropane	9.166	9.173	0.883	77	196159	47.65	ug/L	95
23) Bromochloromethane	9.417	9.417	0.908	128	117916	47.75	ug/L	95
24) Chloroform	9.452	9.452	0.911	83	374678	49.83	ug/L	98
25) 1,1,1-Trichloroethane	9.731	9.735	0.938	97	263826	50.27	ug/L	98
26) Cyclohexane	9.830	9.830	0.948	56	374155	49.10	ug/L	96
27) 1,1-Dichloropropene	9.887	9.887	0.953	75	297081	51.66	ug/L	99
28) Carbon tetrachloride	9.929	9.929	0.957	117	245179	53.11	ug/L	99
30) 1,2-Dichloroethane	10.103	10.103	0.974	62	295493	48.28	ug/L	100
31) Benzene	10.127	10.127	0.976	78	945295	48.69	ug/L	99
32) Cyclohexene	10.244	10.248	0.987	67	458043	50.88	ug/L	97
33) n-Butyl alcohol	10.456	10.460	1.008	56	922367	5044.90	ug/L	100
34) Trichloroethylene	10.764	10.768	1.037	95	232417	51.65	ug/L	100
35) 1,2-Dichloropropane	11.004	11.004	1.061	63	252258	50.15	ug/L	100
36) Methylcyclohexane	11.015	11.019	1.062	83	383896	48.39	ug/L	96
37) Dibromomethane	11.142	11.146	1.074	93	129044	48.85	ug/L	97

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V303LL.D  
Acq On : 27 Jan 2010 12:26 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202031266|945552|1|VOA|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[A]  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 27 12:43:33 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	11.252	11.256	1.085	83	280710	51.92	ug/L 99
39) 2-Chloroethylvinyl ether	11.468	11.468	1.105	63	617977	221.58	ug/L 99
40) cis-1,3-Dichloropropylene	11.701	11.705	1.128	75	358882	50.96	ug/L 99
42) 4-Methyl-2-pentanone	11.786	11.786	0.870	58	581281	245.67	ug/L 97
44) Toluene	12.090	12.090	0.892	91	1036238	48.39	ug/L 100
45) trans-1,3-Dichloroprop...	12.239	12.239	0.903	75	327118	51.30	ug/L 100
46) 1,1,2-Trichloroethane	12.461	12.465	0.920	83	167090	46.87	ug/L 98
47) 2-Hexanone	12.631	12.631	0.932	43	1789924	255.46	ug/L 99
48) 1,3-Dichloropropane	12.652	12.656	0.934	76	360960	47.84	ug/L 92
49) Tetrachloroethylene	12.688	12.691	0.937	164	195975	49.06	ug/L 100
50) Dibromochloromethane	12.925	12.928	0.954	129	215932	50.51	ug/L 100
51) 1,2-Dibromoethane	13.094	13.094	0.967	107	196407	49.15	ug/L 99
52) Chlorobenzene	13.579	13.579	1.002	112	650442	47.86	ug/L 98
53) 1,1,1,2-Tetrachloroethane	13.632	13.636	1.006	131	222077	50.56	ug/L 98
54) Ethylbenzene	13.636	13.639	1.007	91	1128525	49.99	ug/L 100
55) m,p-Xylenes	13.745	13.749	1.015	106	905644	99.67	ug/L 100
56) o-Xylene	14.180	14.184	1.047	106	447641	51.37	ug/L 100
57) Styrene	14.180	14.184	1.047	104	735012	53.74	ug/L 99
59) Bromoform	14.445	14.445	0.905	173	138459	51.08	ug/L 100
60) Isopropylbenzene	14.537	14.537	0.911	105	1103835	50.36	ug/L 100
62) 1,1,2,2-Tetrachloroethane	14.810	14.810	0.928	83	265059	47.42	ug/L 100
63) 1,2,3-Trichloropropane	14.898	14.898	0.934	110	70295	46.69	ug/L 95
64) Bromobenzene	14.951	14.951	0.937	156	269316	47.09	ug/L 98
65) n-Propylbenzene	14.962	14.965	0.938	91	1309600	49.80	ug/L 99
66) 1,3,5-Trimethylbenzene	15.114	15.114	0.947	105	909047	50.65	ug/L 100
67) 2-Chlorotoluene	15.117	15.117	0.947	126	271748	49.45	ug/L 100
68) 4-Chlorotoluene	15.216	15.216	0.953	91	789970	48.41	ug/L 100
69) tert-Butylbenzene	15.489	15.489	0.971	134	208782	49.42	ug/L 98
70) 1,2,4-Trimethylbenzene	15.527	15.527	0.973	105	929592	50.42	ug/L 100
71) sec-Butylbenzene	15.711	15.711	0.984	105	1205611	49.93	ug/L 99
72) 4-Isopropyltoluene	15.832	15.832	0.992	119	973798	51.31	ug/L 99
73) 1,3-Dichlorobenzene	15.902	15.902	0.996	146	530624	47.81	ug/L 100
74) 1,4-Dichlorobenzene	15.987	15.991	1.002	146	535671	46.43	ug/L 99
75) n-Butylbenzene	16.277	16.277	1.020	91	927186	50.67	ug/L 100
76) 1,2-Dichlorobenzene	16.419	16.422	1.029	146	498583	47.23	ug/L 100
77) 1,2-Dibromo-3-chloropr...	17.293	17.293	1.084	157	50816	49.77	ug/L 99
78) 1,2,4-Trichlorobenzene	18.371	18.371	1.151	180	347649	47.64	ug/L 100
79) Hexachlorobutadiene	18.548	18.548	1.162	225	194684	47.61	ug/L 99
80) Naphthalene	18.762	18.762	1.176	128	815304	50.75	ug/L 100
81) 1,2,3-Trichlorobenzene	19.116	19.116	1.198	180	313301	49.88	ug/L 99
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.414	0.000		0	N.D.	
85) Acrolein	0.000	6.924	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.	
87) Isopropyl Alcohol	7.100	7.175	0.684		0m	N.D.	d
88) Allyl chloride	7.447	7.546	0.718		0m	N.D.	d
89) tert-Butyl Alcohol	7.680	7.673	0.740		0m	N.D.	d
90) Acrylonitrile	7.977	7.928	0.769		0m	N.D.	d
91) Isopropyl ether	8.458	8.483	0.815		0m	N.D.	d
92) 2-Chloro-1,3-butadiene	8.614	8.617	0.830		0m	N.D.	d
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.	
94) Ethyl acetate	9.077	9.088	0.875		0m	N.D.	d

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V303LL.D  
Acq On : 27 Jan 2010 12:26 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202031266|945552|1|VOA|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[A]  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 27 12:43:33 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

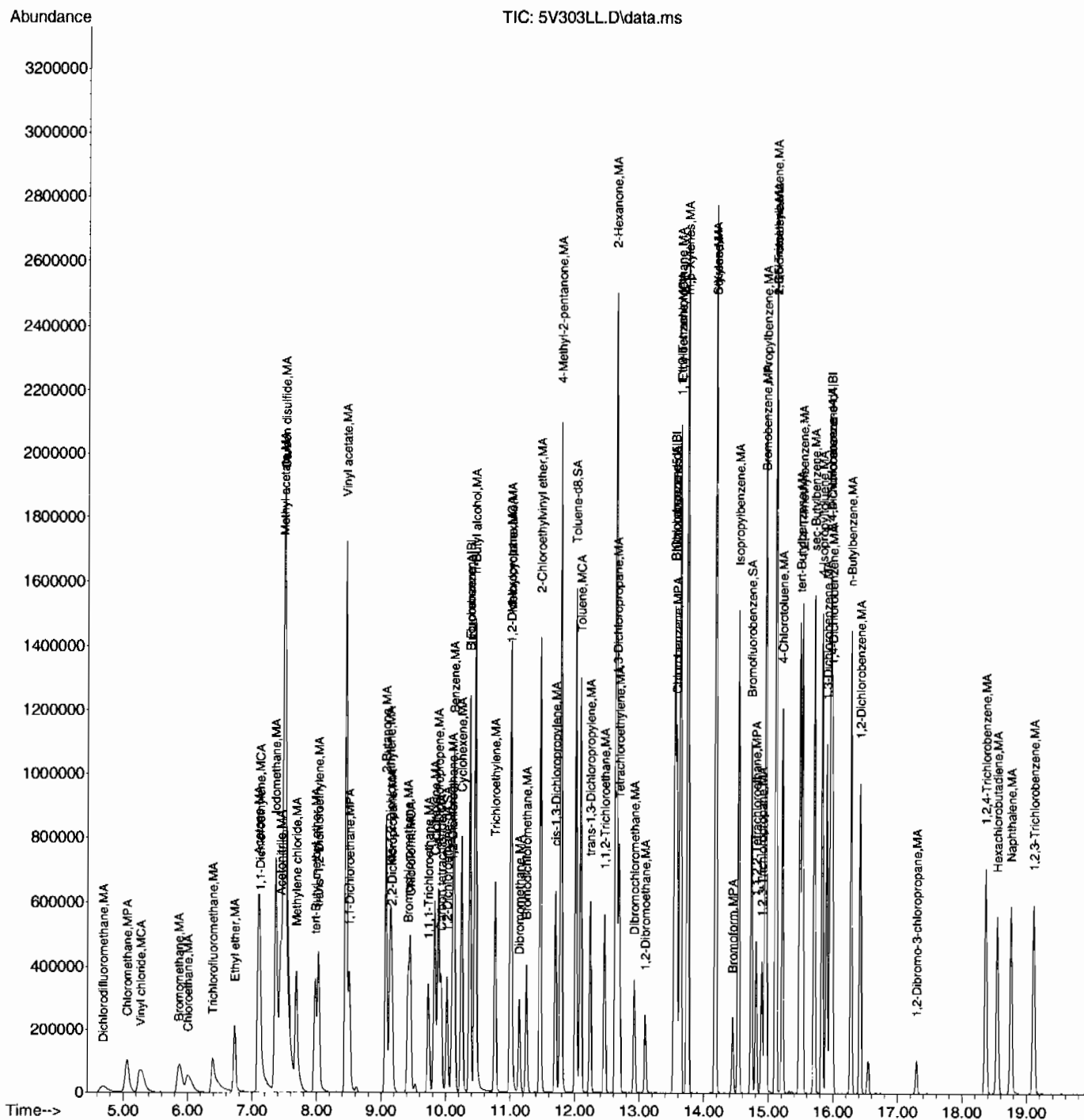
SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	9.077	9.148	0.875		0m	N.D.	d
96) Methacrylonitrile	9.169	9.332	0.884		0m	N.D.	d
97) Tetrahydrofuran	9.463	9.466	0.912		0m	N.D.	d
98) Isobutyl alcohol	9.827	9.770	0.947		0m	N.D.	d
99) Methyl tert-amyl ether	10.120	10.138	0.975		0m	N.D.	d
100) Methyl methacrylate	11.015	10.969	1.062		0m	N.D.	d
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	11.637	11.443	1.122		0m	N.D.	d
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.541	14.573	0.911		0m	N.D.	d
108) Cyclohexanone	14.541	14.693	0.911		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	14.958	14.856	0.937		0m	N.D.	d
110) Pentachloroethane	15.563	15.559	0.975		0m	N.D.	d
111) Benzyl chloride	16.093	16.100	1.008		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.549	16.497	1.037		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\012710V5\  
Data File : 5V303LL.D  
Acq On : 27 Jan 2010 12:26 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202031266|945552|1|VOA|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[A]  
ALS Vial : 3 Sample Multiplier: 1
```

SubList :



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

SDG Number: 10-1304  
 Lab Sample ID: 1202031267  
 Client Sample: QC for batch 945549  
 Client ID: LCS for batch 945549  
 Batch ID: 945552  
 Run Date: 01/27/2010 13:17  
 Prep Date: 01/27/2010 08:00  
 Data File: 012710VS\SV305SL.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOAS.I  
 Analyst: DXK1  
 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: 10-1304  
 Lab Sample ID: 1202031267  
 Client Sample: QC for batch 945549  
 Client ID: LCS for batch 945549  
 Batch ID: 945552  
 Run Date: 01/27/2010 13:17  
 Prep Date: 01/27/2010 08:00  
 Data File: 012710V5SV305SLD

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: DXK1  
 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		336	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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V305SL.D  
Acq On : 27 Jan 2010 1:17 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202031267|945552|1|VOA|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[B]  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 27 14:03:39 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.375	10.375	1.000	96	1262944	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	888320	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	444506	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	1262944	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	888320	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	444506	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	267263	45.53	ug/L	0.00
Spiked Amount	50.000	Range	68 - 131	Recovery	=	91.06%		
43) Toluene-d8	12.016	12.016	0.887	98	1122028	46.31	ug/L	0.00
Spiked Amount	50.000	Range	75 - 129	Recovery	=	92.62%		
61) Bromofluorobenzene	14.739	14.739	0.924	95	433973	51.16	ug/L	0.00
Spiked Amount	50.000	Range	68 - 133	Recovery	=	102.32%		
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.689	0.000		0	N.D.		
3) Chloromethane	0.000	5.051	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.283	0.000		0	N.D.		
5) Bromomethane	0.000	5.877	0.000		0	N.D.		
6) Chloroethane	0.000	6.018	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.391	0.000		0	N.D.		
8) Ethyl ether	0.000	6.733	0.000		0	N.D.		
9) Acetone	7.107	7.100	0.685		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.086	7.125	0.683		0m	N.D.	d	
11) Iodomethane	7.365	7.373	0.710		0m	N.D.	d	
12) Acetonitrile	7.457	7.450	0.719		0m	N.D.	d	
13) Methyl acetate	7.496	7.493	0.723		0m	N.D.	d	
14) Carbon disulfide	7.546	7.511	0.727		0m	N.D.	d	
15) Methylene chloride	7.698	7.691	0.742		0m	N.D.	d	
16) tert-Butyl methyl ether	0.000	7.984	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.030	0.000		0	N.D.		
18) Vinyl acetate	8.458	8.458	0.815		0m	N.D.	d	
19) 1,1-Dichloroethane	8.621	8.511	0.831		0m	N.D.	d	
20) 2-Butanone	9.088	9.077	0.876		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.088	9.144	0.876		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	9.173	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.417	0.000		0	N.D.		
24) Chloroform	0.000	9.452	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.735	0.000		0	N.D.		
26) Cyclohexane	9.767	9.830	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	9.767	9.887	0.941		0m	N.D.	d	
28) Carbon tetrachloride	0.000	9.929	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.103	0.000		0	N.D.		
31) Benzene	10.127	10.127	0.976		0m	N.D.	d	
32) Cyclohexene	0.000	10.248	0.000		0	N.D.		
33) n-Butyl alcohol	10.463	10.460	1.009		0m	N.D.	d	
34) Trichloroethylene	10.757	10.768	1.037		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	11.004	0.000		0	N.D.		
36) Methylcyclohexane	10.969	11.019	1.057		0m	N.D.	d	
37) Dibromomethane	0.000	11.146	0.000		0	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V305SL.D  
Acq On : 27 Jan 2010 1:17 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202031267|945552|1|VOA|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[B]  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 27 14:03:39 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:43:00 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.256	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.468	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.705	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.786	0.000		0	N.D.	
44) Toluene	12.083	12.090	0.892		0m	N.D.	d
45) trans-1,3-Dichloroprop...	12.242	12.239	0.904		0m	N.D.	d
46) 1,1,2-Trichloroethane	12.461	12.465	0.920		0m	N.D.	d
47) 2-Hexanone	12.638	12.631	0.933		0m	N.D.	d
48) 1,3-Dichloropropane	12.691	12.656	0.937		0m	N.D.	d
49) Tetrachloroethylene	12.688	12.691	0.937		0m	N.D.	d
50) Dibromochloromethane	12.688	12.928	0.937		0m	N.D.	d
51) 1,2-Dibromoethane	0.000	13.094	0.000		0	N.D.	
52) Chlorobenzene	13.579	13.579	1.002		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	0.000	13.636	0.000		0	N.D.	
54) Ethylbenzene	13.632	13.639	1.006		0m	N.D.	d
55) m,p-Xylenes	13.749	13.749	1.015		0m	N.D.	d
56) o-Xylene	0.000	14.184	0.000		0	N.D.	
57) Styrene	14.184	14.184	1.047		0m	N.D.	d
59) Bromoform	0.000	14.445	0.000		0	N.D.	
60) Isopropylbenzene	14.541	14.537	0.911		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	14.852	14.810	0.931		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	14.898	0.000		0	N.D.	
64) Bromobenzene	0.000	14.951	0.000		0	N.D.	
65) n-Propylbenzene	15.117	14.965	0.947		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	15.110	15.114	0.947		0m	N.D.	d
67) 2-Chlorotoluene	15.117	15.117	0.947		0m	N.D.	d
68) 4-Chlorotoluene	15.213	15.216	0.953		0m	N.D.	d
69) tert-Butylbenzene	15.559	15.489	0.975		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	15.524	15.527	0.973		0m	N.D.	d
71) sec-Butylbenzene	15.711	15.711	0.984		0m	N.D.	d
72) 4-Isopropyltoluene	15.828	15.832	0.992		0m	N.D.	d
73) 1,3-Dichlorobenzene	15.913	15.902	0.997		0m	N.D.	d
74) 1,4-Dichlorobenzene	15.980	15.991	1.001		0m	N.D.	d
75) n-Butylbenzene	16.281	16.277	1.020		0m	N.D.	d
76) 1,2-Dichlorobenzene	16.419	16.422	1.029		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	0.000	17.293	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.378	18.371	1.152		0m	N.D.	d
79) Hexachlorobutadiene	0.000	18.548	0.000		0	N.D.	
80) Naphthalene	18.754	18.762	1.175		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	19.116	19.116	1.198		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.414	0.000		0	N.D.	
85) Acrolein	6.924	6.924	0.667	56	136185	202.28 ug/L	93
86) Trichlorotrifluoroethane	7.079	7.079	0.682	85	324374	336.19 ug/L	98
87) Isopropyl Alcohol	7.185	7.175	0.693	45	11101	N.D.	
88) Allyl chloride	7.546	7.546	0.727	41	2158511	269.76 ug/L	97
89) tert-Butyl Alcohol	7.556	7.673	0.728	59	109	N.D.	
90) Acrylonitrile	7.928	7.928	0.764	53	464156	243.37 ug/L	99
91) Isopropyl ether	0.000	8.483	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	8.617	8.617	0.831	53	352935	57.04 ug/L	95
93) Ethyl tert-butyl ether	9.088	8.890	0.876	59	352	N.D.	
94) Ethyl acetate	9.088	9.088	0.876	43	1307392	225.18 ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V305SL.D  
Acq On : 27 Jan 2010 1:17 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202031267|945552|1|VOA|1|VOA8260BS|  
Misc : LCS 5g N/A SOIL MIX[B]  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 27 14:03:39 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:43:00 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95) Propionitrile	9.148	9.148	0.882	54	179139	251.03	ug/L	99
96) Methacrylonitrile	9.332	9.332	0.899	41	863236	247.36	ug/L	99
97) Tetrahydrofuran	9.463	9.466	0.912	42	442060	241.76	ug/L	97
98) Isobutyl alcohol	9.770	9.770	0.942	41	518986	2437.26	ug/L	99
99) Methyl tert-amyl ether	0.000	10.138	0.000		0	N.D.		
100) Methyl methacrylate	10.969	10.969	1.057	69	835550	259.62	ug/L	99
101) 1,4-Dioxane	11.089	11.089	1.069	88	125330	2690.98	ug/L	93
102) 2-Nitropropane	11.443	11.443	1.103	43	385184	229.90	ug/L	97
104) Ethyl methacrylate	12.235	12.235	0.903	69	1612311	269.69	ug/L	98
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.		
107) cis-1,4-Dichloro-2-butene	14.569	14.573	0.913	53	492977	292.72	ug/L	93
108) Cyclohexanone	14.689	14.693	0.920	42	255711	523.37	ug/L	97
109) trans-1,4-Dichloro-2-b...	14.856	14.856	0.931	53	468273	290.16	ug/L	98
110) Pentachloroethane	15.559	15.559	0.975	167	427524	241.68	ug/L	99
111) Benzyl chloride	16.100	16.100	1.009	91	2281976	256.88	ug/L	99
112) bis(2-Chloroisopropyl)...	16.496	16.497	1.034	45	680909	229.87	ug/L	96

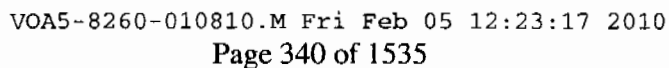
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

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Data Path : C:\msdchem\1\DATA\012710V5\
Data File : 5V305SL.D
Acq On    : 27 Jan 2010    1:17 pm
Operator  : DXK1
InstName  : VOA5
Sample    : |1202031267|945552|1|VOA|1|VOA8260BS|
Misc      : LCS 5g N/A SOIL MIX[B]
ALS Vial  : 5    Sample Multiplier: 1

```

SubList :



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

SDG Number: 10-1304  
 Lab Sample ID: 1202025123  
 Client Sample: QC for batch 945549  
 Client ID: RE15-10-7165PS  
 Batch ID: 945552  
 Run Date: 01/27/2010 21:55  
 Prep Date: 01/27/2010 13:17  
 Data File: 012710V5SV325.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: DXK1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 19.4  
 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		50.9	ug/kg	0.422	1.24
74-87-3	Chloromethane		65.4	ug/kg	0.372	1.24
75-01-4	Vinyl chloride		64.6	ug/kg	0.372	1.24
74-83-9	Bromomethane		57.1	ug/kg	0.372	1.24
75-00-3	Chloroethane		55.3	ug/kg	0.372	1.24
75-69-4	Trichlorofluoromethane		57.7	ug/kg	0.372	1.24
67-64-1	Acetone		203	ug/kg	2.06	6.21
75-35-4	1,1-Dichloroethylene		63.2	ug/kg	0.372	1.24
74-88-4	Iodomethane		264	ug/kg	1.99	6.21
75-09-2	Methylene chloride		57.7	ug/kg	2.48	6.21
75-15-0	Carbon disulfide		287	ug/kg	1.55	6.21
156-60-5	trans-1,2-Dichloroethylene		59.9	ug/kg	0.372	1.24
75-34-3	1,1-Dichloroethane		60.2	ug/kg	0.372	1.24
78-93-3	2-Butanone		224	ug/kg	1.86	6.21
156-59-2	cis-1,2-Dichloroethylene		60.3	ug/kg	0.372	1.24
594-20-7	2,2-Dichloropropane		53.8	ug/kg	0.372	1.24
67-66-3	Chloroform		61.1	ug/kg	0.372	1.24
74-97-5	Bromochloromethane		56.7	ug/kg	0.410	1.24
71-55-6	1,1,1-Trichloroethane		59.3	ug/kg	0.372	1.24
563-58-6	1,1-Dichloropropene		59.0	ug/kg	0.372	1.24
56-23-5	Carbon tetrachloride		59.9	ug/kg	0.372	1.24
107-06-2	1,2-Dichloroethane		62.1	ug/kg	0.372	1.24
71-43-2	Benzene		56.9	ug/kg	0.372	1.24
79-01-6	Trichloroethylene		59.7	ug/kg	0.410	1.24
78-87-5	1,2-Dichloropropane		62.3	ug/kg	0.372	1.24
75-27-4	Bromodichloromethane		64.4	ug/kg	0.372	1.24
74-95-3	Dibromomethane		59.2	ug/kg	0.372	1.24
108-10-1	4-Methyl-2-pentanone		270	ug/kg	1.55	6.21
10061-01-5	cis-1,3-Dichloropropylene		58.4	ug/kg	0.372	1.24
108-88-3	Toluene		57.9	ug/kg	0.372	1.24
10061-02-6	trans-1,3-Dichloropropylene		60.1	ug/kg	0.372	1.24
79-00-5	1,1,2-Trichloroethane		57.8	ug/kg	0.372	1.24
591-78-6	2-Hexanone		229	ug/kg	1.86	6.21
142-28-9	1,3-Dichloropropane		59.3	ug/kg	0.372	1.24
127-18-4	Tetrachloroethylene		54.5	ug/kg	0.372	1.24
124-48-1	Dibromochloromethane		61.1	ug/kg	0.372	1.24
106-93-4	1,2-Dibromoethane		56.9	ug/kg	0.372	1.24
108-90-7	Chlorobenzene		55.7	ug/kg	0.372	1.24

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 1202025123	Date Received: 01/20/2010 08:45	%Moisture: 19.4
Client Sample: QC for batch 945549	Client: LANL010	Project: QC
Client ID: RE15-10-7165PS	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5.J	Dilution: 1
Run Date: 01/27/2010 21:55	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/27/2010 13:17	Aliquot: 5 g	Final Volume: 5 mL
Data File: 012710V55V325.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		58.3	ug/kg	0.372	1.24
179601-23-1	m,p-Xylenes		115	ug/kg	0.372	2.48
95-47-6	o-Xylene		61.3	ug/kg	0.372	1.24
100-42-5	Styrene		61.2	ug/kg	0.372	1.24
75-25-2	Bromoform		63.3	ug/kg	0.372	1.24
79-34-5	1,1,2,2-Tetrachloroethane		60.6	ug/kg	0.372	1.24
96-18-4	1,2,3-Trichloropropane		59.9	ug/kg	0.372	1.24
108-86-1	Bromobenzene		59.0	ug/kg	0.372	1.24
103-65-1	n-Propylbenzene		62.8	ug/kg	0.372	1.24
95-49-8	2-Chlorotoluene		63.8	ug/kg	0.372	1.24
98-82-8	Isopropylbenzene		64.1	ug/kg	0.372	1.24
108-67-8	1,3,5-Trimethylbenzene		64.5	ug/kg	0.372	1.24
106-43-4	4-Chlorotoluene		59.2	ug/kg	0.372	1.24
98-06-6	tert-Butylbenzene		61.8	ug/kg	0.372	1.24
95-63-6	1,2,4-Trimethylbenzene		60.5	ug/kg	0.372	1.24
135-98-8	sec-Butylbenzene		61.2	ug/kg	0.372	1.24
99-87-6	4-Isopropyltoluene		60.5	ug/kg	0.372	1.24
541-73-1	1,3-Dichlorobenzene		53.8	ug/kg	0.372	1.24
106-46-7	1,4-Dichlorobenzene		51.5	ug/kg	0.372	1.24
104-51-8	n-Butylbenzene		56.2	ug/kg	0.372	1.24
96-12-8	1,2-Dibromo-3-chloropropane		53.0	ug/kg	0.372	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.21	ug/kg	1.99	6.21
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		62.1	ug/kg	0.372	1.24
95-50-1	1,2-Dichlorobenzene		52.3	ug/kg	0.372	1.24

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V325.D  
Acq On : 27 Jan 2010 9:55 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025123|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL MIX[A] MS245106001  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 28 09:42:53 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:56:29 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.375	10.375	1.000	96	1109690	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	779059	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.963	15.962	1.000	152	381875	50.00	ug/L	0.00
82) B Fluorobenzene	10.375	10.375	1.000	96	1109690	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	779059	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.963	15.962	1.000	152	381875	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.021	10.021	0.966	65	240385	46.61	ug/L	0.00
Spiked Amount	50.000	Range 68 - 131	Recovery	=	93.22%			
43) Toluene-d8	12.016	12.016	0.887	98	998008	46.97	ug/L	0.00
Spiked Amount	50.000	Range 75 - 129	Recovery	=	93.94%			
61) Bromofluorobenzene	14.739	14.739	0.923	95	365061	50.10	ug/L	0.00
Spiked Amount	50.000	Range 68 - 133	Recovery	=	100.20%			
Target Compounds								QValue
2) Dichlorodifluoromethane	4.699	4.689	0.453	85	97914	40.97	ug/L	99
3) Chloromethane	5.071	5.051	0.489	50	287511	52.67	ug/L	100
4) Vinyl chloride	5.263	5.283	0.507	62	253689	52.07	ug/L	99
5) Bromomethane	5.877	5.877	0.566	94	159166	45.98	ug/L	100
6) Chloroethane	6.018	6.018	0.580	64	146329	44.58	ug/L	100
7) Trichlorofluoromethane	6.391	6.391	0.616	101	223029	46.51	ug/L	99
8) Ethyl ether	6.733	6.733	0.649	59	180850	44.54	ug/L	98
9) Acetone	7.100	7.100	0.684	43	680543	163.59	ug/L	97
10) 1,1-Dichloroethylene	7.125	7.125	0.687	61	263463	50.92	ug/L	99
11) Iodomethane	7.369	7.373	0.710	142	1316127	212.44	ug/L	96
12) Acetonitrile	7.454	7.450	0.718	41	698620	1016.59	ug/L	98
13) Methyl acetate	7.493	7.493	0.722	43	848069	203.82	ug/L	100
14) Carbon disulfide	7.507	7.511	0.724	76	2796157	231.18	ug/L	100
15) Methylene chloride	7.691	7.691	0.741	84	220150	46.51	ug/L	100
16) tert-Butyl methyl ether	7.981	7.984	0.769	73	398779	43.52	ug/L	98
17) trans-1,2-Dichloroethy...	8.034	8.030	0.774	61	276992	48.25	ug/L	99
18) Vinyl acetate	8.458	8.458	0.815	43	145164	14.16	ug/L	99
19) 1,1-Dichloroethane	8.508	8.511	0.820	63	353068	48.49	ug/L	99
20) 2-Butanone	9.077	9.077	0.875	43	860695	180.63	ug/L	100
21) cis-1,2-Dichloroethylene	9.144	9.144	0.881	61	316279	48.55	ug/L	97
22) 2,2-Dichloropropane	9.173	9.173	0.884	77	158334	43.33	ug/L	99
23) Bromochloromethane	9.417	9.417	0.908	128	100141	45.69	ug/L	100
24) Chloroform	9.452	9.452	0.911	83	328421	49.21	ug/L	99
25) 1,1,1-Trichloroethane	9.731	9.735	0.938	97	222431	47.76	ug/L	99
26) Cyclohexane	9.834	9.830	0.948	56	306458	45.31	ug/L	88
27) 1,1-Dichloropropene	9.887	9.887	0.953	75	242365	47.49	ug/L	97
28) Carbon tetrachloride	9.930	9.929	0.957	117	197657	48.24	ug/L	100
30) 1,2-Dichloroethane	10.106	10.103	0.974	62	271923	50.06	ug/L	100
31) Benzene	10.128	10.127	0.976	78	789124	45.80	ug/L	99
32) Cyclohexene	10.248	10.248	0.988	67	370804	46.41	ug/L	99
33) n-Butyl alcohol	10.456	10.460	1.008	56	654452	4052.73	ug/L	98
34) Trichloroethylene	10.764	10.768	1.037	95	191985	48.07	ug/L	98
35) 1,2-Dichloropropane	11.005	11.004	1.061	63	224177	50.22	ug/L	99
36) Methylcyclohexane	11.015	11.019	1.062	83	304191	43.20	ug/L	99
37) Dibromomethane	11.146	11.146	1.074	93	111804	47.69	ug/L	95

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V325.D  
Acq On : 27 Jan 2010 9:55 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025123|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL MIX[A] MS245106001  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 28 09:42:53 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	11.256	11.256	1.085	83	248797	51.85	ug/L	99
39) 2-Chloroethylvinyl ether	11.701	11.468	1.128	63	948	N.D.		
40) cis-1,3-Dichloropropylene	11.701	11.705	1.128	75	294090	47.05	ug/L	98
42) 4-Methyl-2-pentanone	11.786	11.786	0.870	58	448376	217.49	ug/L	97
44) Toluene	12.090	12.090	0.892	91	869583	46.61	ug/L	100
45) trans-1,3-Dichloroprop...	12.242	12.239	0.904	75	269147	48.45	ug/L	99
46) 1,1,2-Trichloroethane	12.462	12.465	0.920	83	144738	46.60	ug/L	100
47) 2-Hexanone	12.631	12.631	0.932	43	1128090	184.78	ug/L	99
48) 1,3-Dichloropropane	12.653	12.656	0.934	76	313989	47.76	ug/L #	81
49) Tetrachloroethylene	12.691	12.691	0.937	164	152905	43.93	ug/L	98
50) Dibromochloromethane	12.928	12.928	0.954	129	183302	49.21	ug/L	99
51) 1,2-Dibromoethane	13.095	13.094	0.967	107	159657	45.86	ug/L	100
52) Chlorobenzene	13.579	13.579	1.002	112	531098	44.85	ug/L	100
53) 1,1,1,2-Tetrachloroethane	13.632	13.636	1.006	131	191382	50.01	ug/L	98
54) Ethylbenzene	13.636	13.639	1.007	91	923398	46.95	ug/L	100
55) m,p-Xylenes	13.745	13.749	1.015	106	730592	92.28	ug/L	99
56) o-Xylene	14.184	14.184	1.047	106	374716	49.36	ug/L	100
57) Styrene	14.184	14.184	1.047	104	587113	49.27	ug/L	98
59) Bromoform	14.445	14.445	0.905	173	109180	50.99	ug/L	98
60) Isopropylbenzene	14.537	14.537	0.911	105	894288	51.65	ug/L	100
62) 1,1,2,2-Tetrachloroethane	14.810	14.810	0.928	83	215725	48.85	ug/L	100
63) 1,2,3-Trichloropropane	14.898	14.898	0.933	110	57374	48.25	ug/L	95
64) Bromobenzene	14.951	14.951	0.937	156	214822	47.55	ug/L	99
65) n-Propylbenzene	14.962	14.965	0.937	91	1050393	50.56	ug/L	100
66) 1,3,5-Trimethylbenzene	15.114	15.114	0.947	105	736482	51.94	ug/L	99
67) 2-Chlorotoluene	15.117	15.117	0.947	126	223074	51.39	ug/L	99
68) 4-Chlorotoluene	15.216	15.216	0.953	91	614312	47.65	ug/L	100
69) tert-Butylbenzene	15.489	15.489	0.970	134	166174	49.79	ug/L	98
70) 1,2,4-Trimethylbenzene	15.528	15.527	0.973	105	709951	48.75	ug/L	99
71) sec-Butylbenzene	15.711	15.711	0.984	105	941036	49.33	ug/L	99
72) 4-Isopropyltoluene	15.832	15.832	0.992	119	730385	48.72	ug/L	99
73) 1,3-Dichlorobenzene	15.902	15.902	0.996	146	380086	43.36	ug/L	99
74) 1,4-Dichlorobenzene	15.987	15.991	1.002	146	378292	41.51	ug/L	99
75) n-Butylbenzene	16.277	16.277	1.020	91	654312	45.26	ug/L	99
76) 1,2-Dichlorobenzene	16.419	16.422	1.029	146	351196	42.11	ug/L	99
77) 1,2-Dibromo-3-chloropr...	17.294	17.293	1.083	157	34419	42.68	ug/L	97
78) 1,2,4-Trichlorobenzene	18.371	18.371	1.151	180	164958	28.61	ug/L	100
79) Hexachlorobutadiene	18.548	18.548	1.162	225	102181	31.63	ug/L	100
80) Naphthalene	18.762	18.762	1.175	128	376979	29.71	ug/L	100
81) 1,2,3-Trichlorobenzene	19.109	19.116	1.197	180	140598	28.34	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.414	0.000		0	N.D.		
85) Acrolein	0.000	6.924	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.		
87) Isopropyl Alcohol	7.171	7.175	0.691		0m	N.D.	d	
88) Allyl chloride	7.454	7.546	0.718		0m	N.D.	d	
89) tert-Butyl Alcohol	7.705	7.673	0.743		0m	N.D.	d	
90) Acrylonitrile	7.977	7.928	0.769		0m	N.D.	d	
91) Isopropyl ether	8.483	8.483	0.818		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.		
94) Ethyl acetate	9.077	9.088	0.875		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V325.D  
Acq On : 27 Jan 2010 9:55 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025123|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL MIX[A] MS245106001  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 28 09:42:53 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	9.084	9.148	0.876		0m	N.D.	d
96) Methacrylonitrile	9.166	9.332	0.883		0m	N.D.	d
97) Tetrahydrofuran	9.466	9.466	0.912		0m	N.D.	d
98) Isobutyl alcohol	9.827	9.770	0.947		0m	N.D.	d
99) Methyl tert-amyl ether	10.124	10.138	0.976		0m	N.D.	d
100) Methyl methacrylate	11.012	10.969	1.061		0m	N.D.	d
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	11.648	11.443	1.123		0m	N.D.	d
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.537	14.573	0.911		0m	N.D.	d
108) Cyclohexanone	14.792	14.693	0.927		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	14.803	14.856	0.927		0m	N.D.	d
110) Pentachloroethane	0.000	15.559	0.000		0	N.D.	
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	16.546	16.497	1.037		0m	N.D.	d

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

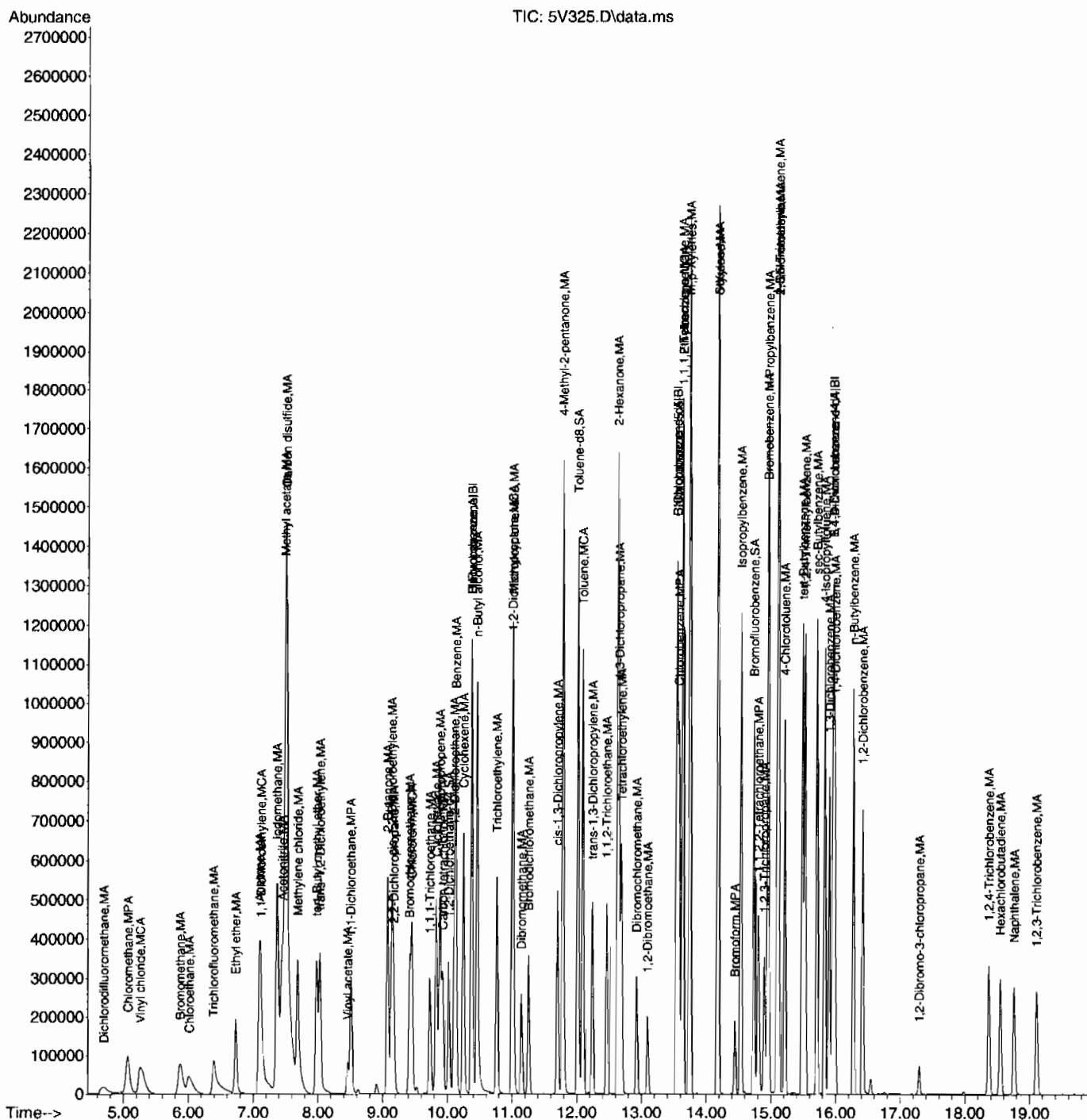


Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V325.D  
Acq On : 27 Jan 2010 9:55 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025123|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL MIX[A] MS245106001  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jan 28 09:42:53 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

SubList :



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

SDG Number: 10-1304  
 Lab Sample ID: 1202025124  
 Client Sample: QC for batch 945549  
 Client ID: RE15-10-7165PSD  
 Batch ID: 945552  
 Run Date: 01/27/2010 22:21  
 Prep Date: 01/27/2010 13:18  
 Data File: 012710V55V326.D

Date Collected: 01/13/2010 12:00  
 Date Received: 01/20/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: DXX1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 19.4  
 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		50.3	ug/kg	0.422	1.24
74-87-3	Chloromethane		64.5	ug/kg	0.372	1.24
75-01-4	Vinyl chloride		64.8	ug/kg	0.372	1.24
74-83-9	Bromomethane		55.6	ug/kg	0.372	1.24
75-00-3	Chloroethane		54.6	ug/kg	0.372	1.24
75-69-4	Trichlorofluoromethane		57.2	ug/kg	0.372	1.24
67-64-1	Acetone		197	ug/kg	2.06	6.21
75-35-4	1,1-Dichloroethylene		62.6	ug/kg	0.372	1.24
74-88-4	Iodomethane		254	ug/kg	1.99	6.21
75-09-2	Methylene chloride		56.9	ug/kg	2.48	6.21
75-15-0	Carbon disulfide		272	ug/kg	1.55	6.21
156-60-5	trans-1,2-Dichloroethylene		59.1	ug/kg	0.372	1.24
75-34-3	1,1-Dichloroethane		60.6	ug/kg	0.372	1.24
78-93-3	2-Butanone		225	ug/kg	1.86	6.21
156-59-2	cis-1,2-Dichloroethylene		59.6	ug/kg	0.372	1.24
594-20-7	2,2-Dichloropropane		52.6	ug/kg	0.372	1.24
67-66-3	Chloroform		61.3	ug/kg	0.372	1.24
74-97-5	Bromochloromethane		55.5	ug/kg	0.410	1.24
71-55-6	1,1,1-Trichloroethane		60.3	ug/kg	0.372	1.24
563-58-6	1,1-Dichloropropene		59.9	ug/kg	0.372	1.24
56-23-5	Carbon tetrachloride		61.5	ug/kg	0.372	1.24
107-06-2	1,2-Dichloroethane		62.4	ug/kg	0.372	1.24
71-43-2	Benzene		57.3	ug/kg	0.372	1.24
79-01-6	Trichloroethylene		59.6	ug/kg	0.410	1.24
78-87-5	1,2-Dichloropropane		62.1	ug/kg	0.372	1.24
75-27-4	Bromodichloromethane		64.1	ug/kg	0.372	1.24
74-95-3	Dibromomethane		59.7	ug/kg	0.372	1.24
108-10-1	4-Methyl-2-pentanone		280	ug/kg	1.55	6.21
10061-01-5	cis-1,3-Dichloropropylene		57.4	ug/kg	0.372	1.24
108-88-3	Toluene		58.0	ug/kg	0.372	1.24
10061-02-6	trans-1,3-Dichloropropylene		60.3	ug/kg	0.372	1.24
79-00-5	1,1,2-Trichloroethane		58.0	ug/kg	0.372	1.24
591-78-6	2-Hexanone		234	ug/kg	1.86	6.21
142-28-9	1,3-Dichloropropane		59.4	ug/kg	0.372	1.24
127-18-4	Tetrachloroethylene		55.7	ug/kg	0.372	1.24
124-48-1	Dibromochloromethane		61.5	ug/kg	0.372	1.24
106-93-4	1,2-Dibromoethane		57.2	ug/kg	0.372	1.24
108-90-7	Chlorobenzene		55.1	ug/kg	0.372	1.24

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 1202025124	Date Received: 01/20/2010 08:45	%Moisture: 19.4
Client Sample: QC for batch 945549	Client: LANL010	Project: QC
Client ID: RE15-10-716SPSD	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 945552	Inst: VOA5J	Dilution: 1
Run Date: 01/27/2010 22:21	Analyst: DXK1	Purge Vol: 5 mL
Prep Date: 01/27/2010 13:18	Aliquot: 5 g	Final Volume: 5 mL
Data File: 012710V55V326.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		59.1	ug/kg	0.372	1.24
179601-23-1	m,p-Xylenes		117	ug/kg	0.372	2.48
95-47-6	o-Xylene		62.0	ug/kg	0.372	1.24
100-42-5	Styrene		62.1	ug/kg	0.372	1.24
75-25-2	Bromoform		60.4	ug/kg	0.372	1.24
79-34-5	1,1,2,2-Tetrachloroethane		59.6	ug/kg	0.372	1.24
96-18-4	1,2,3-Trichloropropane		60.6	ug/kg	0.372	1.24
108-86-1	Bromobenzene		56.7	ug/kg	0.372	1.24
103-65-1	n-Propylbenzene		61.5	ug/kg	0.372	1.24
95-49-8	2-Chlorotoluene		60.7	ug/kg	0.372	1.24
98-82-8	Isopropylbenzene		61.5	ug/kg	0.372	1.24
108-67-8	1,3,5-Trimethylbenzene		63.2	ug/kg	0.372	1.24
106-43-4	4-Chlorotoluene		57.6	ug/kg	0.372	1.24
98-06-6	tert-Butylbenzene		60.5	ug/kg	0.372	1.24
95-63-6	1,2,4-Trimethylbenzene		59.8	ug/kg	0.372	1.24
135-98-8	sec-Butylbenzene		59.6	ug/kg	0.372	1.24
99-87-6	4-Isopropyltoluene		59.8	ug/kg	0.372	1.24
541-73-1	1,3-Dichlorobenzene		53.5	ug/kg	0.372	1.24
106-46-7	1,4-Dichlorobenzene		51.7	ug/kg	0.372	1.24
104-51-8	n-Butylbenzene		56.6	ug/kg	0.372	1.24
96-12-8	1,2-Dibromo-3-chloropropane		57.3	ug/kg	0.372	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.21	ug/kg	1.99	6.21
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		62.0	ug/kg	0.372	1.24
95-50-1	1,2-Dichlorobenzene		52.5	ug/kg	0.372	1.24

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V326.D  
Acq On : 27 Jan 2010 10:21 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025124|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL MIX[A] MSD245106001  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jan 28 09:42:56 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:56:29 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev (Min)
Internal Standards								
1) Fluorobenzene	10.379	10.375	1.000	96	1129044	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.547	13.547	1.000	117	795679	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	412441	50.00	ug/L	0.00
82) B Fluorobenzene	10.379	10.375	1.000	96	1129044	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.547	13.547	1.000	117	795679	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.959	15.962	1.000	152	412441	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	10.025	10.021	0.966	65	249402	47.53	ug/L	0.00
Spiked Amount	50.000	Range 68	- 131	Recovery	= 95.06%			
43) Toluene-d8	12.016	12.016	0.887	98	1014112	46.73	ug/L	0.00
Spiked Amount	50.000	Range 75	- 129	Recovery	= 93.46%			
61) Bromofluorobenzene	14.739	14.739	0.924	95	375215	47.68	ug/L	0.00
Spiked Amount	50.000	Range 68	- 133	Recovery	= 95.36%			
Target Compounds								
2) Dichlorodifluoromethane	4.689	4.689	0.452	85	98592	40.55	ug/L	99
3) Chloromethane	5.071	5.051	0.489	50	288747	51.99	ug/L	100
4) Vinyl chloride	5.273	5.283	0.508	62	258663	52.18	ug/L	99
5) Bromomethane	5.877	5.877	0.566	94	157830	44.81	ug/L	99
6) Chloroethane	6.018	6.018	0.580	64	147022	44.02	ug/L	100
7) Trichlorofluoromethane	6.391	6.391	0.616	101	224955	46.10	ug/L	99
8) Ethyl ether	6.733	6.733	0.649	59	185722	44.95	ug/L	99
9) Acetone	7.100	7.100	0.684	43	673091	159.02	ug/L	97
10) 1,1-Dichloroethylene	7.125	7.125	0.687	61	265398	50.41	ug/L	99
11) Iodomethane	7.373	7.373	0.710	142	1291116	204.83	ug/L	97
12) Acetonitrile	7.454	7.450	0.718	41	735210	1051.49	ug/L	98
13) Methyl acetate	7.493	7.493	0.722	43	902236	213.12	ug/L	100
14) Carbon disulfide	7.507	7.511	0.723	76	2701274	219.50	ug/L	99
15) Methylene chloride	7.691	7.691	0.741	84	220680	45.83	ug/L	99
16) tert-Butyl methyl ether	7.984	7.984	0.769	73	399060	42.81	ug/L	98
17) trans-1,2-Dichloroethy...	8.030	8.030	0.774	61	277833	47.57	ug/L	99
18) Vinyl acetate	8.458	8.458	0.815	43	208321	19.97	ug/L	99
19) 1,1-Dichloroethane	8.508	8.511	0.820	63	361862	48.84	ug/L	99
20) 2-Butanone	9.077	9.077	0.875	43	880052	181.53	ug/L	100
21) cis-1,2-Dichloroethylene	9.144	9.144	0.881	61	318525	48.05	ug/L	97
22) 2,2-Dichloropropane	9.173	9.173	0.884	77	157519	42.37	ug/L	97
23) Bromochloromethane	9.420	9.417	0.908	128	99706	44.71	ug/L	95
24) Chloroform	9.452	9.452	0.911	83	335216	49.37	ug/L	99
25) 1,1,1-Trichloroethane	9.731	9.735	0.938	97	230120	48.56	ug/L	99
26) Cyclohexane	9.830	9.830	0.947	56	310202	45.08	ug/L	99
27) 1,1-Dichloropropene	9.887	9.887	0.953	75	250537	48.25	ug/L	98
28) Carbon tetrachloride	9.926	9.929	0.956	117	206395	49.51	ug/L	100
30) 1,2-Dichloroethane	10.103	10.103	0.973	62	277963	50.29	ug/L	99
31) Benzene	10.128	10.127	0.976	78	808795	46.14	ug/L	99
32) Cyclohexene	10.248	10.248	0.987	67	384014	47.24	ug/L	99
33) n-Butyl alcohol	10.456	10.460	1.007	56	716361	4352.66	ug/L	99
34) Trichloroethylene	10.764	10.768	1.037	95	195216	48.04	ug/L	100
35) 1,2-Dichloropropane	11.008	11.004	1.061	63	227194	50.02	ug/L	100
36) Methylcyclohexane	11.015	11.019	1.061	83	308463	43.06	ug/L	97
37) Dibromomethane	11.146	11.146	1.074	93	114658	48.07	ug/L	96

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V326.D  
Acq On : 27 Jan 2010 10:21 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025124|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL MIX[A] MSD245106001  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jan 28 09:42:56 2010

Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Jan 11 08:56:29 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	11.256	11.256	1.085	83	252025	51.62	ug/L	100
39) 2-Chloroethylvinyl ether	11.701	11.468	1.127	63	1008	N.D.		
40) cis-1,3-Dichloropropylene	11.701	11.705	1.127	75	293972	46.23	ug/L	98
42) 4-Methyl-2-pentanone	11.786	11.786	0.870	58	475735	225.94	ug/L	97
44) Toluene	12.090	12.090	0.892	91	890580	46.74	ug/L	100
45) trans-1,3-Dichloroprop...	12.239	12.239	0.903	75	275798	48.61	ug/L	98
46) 1,1,2-Trichloroethane	12.462	12.465	0.920	83	148245	46.73	ug/L	99
47) 2-Hexanone	12.631	12.631	0.932	43	1176717	188.72	ug/L	99
48) 1,3-Dichloropropane	12.653	12.656	0.934	76	321202	47.84	ug/L #	81
49) Tetrachloroethylene	12.688	12.691	0.937	164	159502	44.87	ug/L	98
50) Dibromochloromethane	12.928	12.928	0.954	129	188591	49.57	ug/L	98
51) 1,2-Dibromoethane	13.098	13.094	0.967	107	163921	46.10	ug/L	100
52) Chlorobenzene	13.579	13.579	1.002	112	536637	44.37	ug/L	99
53) 1,1,1,2-Tetrachloroethane	13.632	13.636	1.006	131	195306	49.97	ug/L	98
54) Ethylbenzene	13.639	13.639	1.007	91	955642	47.58	ug/L	100
55) m,p-Xylenes	13.745	13.749	1.015	106	759241	93.89	ug/L	99
56) o-Xylene	14.184	14.184	1.047	106	387043	49.92	ug/L	99
57) Styrene	14.184	14.184	1.047	104	608758	50.02	ug/L	99
59) Bromoform	14.445	14.445	0.905	173	112472	48.63	ug/L	99
60) Isopropylbenzene	14.537	14.537	0.911	105	926090	49.52	ug/L	100
62) 1,1,2,2-Tetrachloroethane	14.810	14.810	0.928	83	229018	48.02	ug/L	100
63) 1,2,3-Trichloropropane	14.902	14.898	0.934	110	62733	48.84	ug/L	92
64) Bromobenzene	14.951	14.951	0.937	156	222870	45.68	ug/L	99
65) n-Propylbenzene	14.962	14.965	0.938	91	1111862	49.55	ug/L	100
66) 1,3,5-Trimethylbenzene	15.114	15.114	0.947	105	779280	50.89	ug/L	99
67) 2-Chlorotoluene	15.114	15.117	0.947	126	229071	48.86	ug/L	97
68) 4-Chlorotoluene	15.216	15.216	0.953	91	646535	46.44	ug/L	99
69) tert-Butylbenzene	15.485	15.489	0.970	134	175764	48.76	ug/L	99
70) 1,2,4-Trimethylbenzene	15.528	15.527	0.973	105	757534	48.16	ug/L	99
71) sec-Butylbenzene	15.711	15.711	0.984	105	989487	48.03	ug/L	100
72) 4-Isopropyltoluene	15.832	15.832	0.992	119	779848	48.16	ug/L	99
73) 1,3-Dichlorobenzene	15.902	15.902	0.996	146	408004	43.09	ug/L	100
74) 1,4-Dichlorobenzene	15.987	15.991	1.002	146	410155	41.67	ug/L	99
75) n-Butylbenzene	16.277	16.277	1.020	91	712297	45.62	ug/L	100
76) 1,2-Dichlorobenzene	16.419	16.422	1.029	146	380921	42.29	ug/L	99
77) 1,2-Dibromo-3-chloropr...	17.294	17.293	1.084	157	40216	46.17	ug/L	97
78) 1,2,4-Trichlorobenzene	18.371	18.371	1.151	180	191421	30.74	ug/L	99
79) Hexachlorobutadiene	18.548	18.548	1.162	225	105630	30.28	ug/L	99
80) Naphthalene	18.762	18.762	1.176	128	438257	31.97	ug/L	100
81) 1,2,3-Trichlorobenzene	19.109	19.116	1.197	180	164242	30.65	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.414	0.000		0	N.D.		
85) Acrolein	0.000	6.924	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.079	0.000		0	N.D.		
87) Isopropyl Alcohol	7.171	7.175	0.691		0m	N.D.	d	
88) Allyl chloride	7.454	7.546	0.718		0m	N.D.	d	
89) tert-Butyl Alcohol	7.666	7.673	0.739		0m	N.D.	d	
90) Acrylonitrile	7.977	7.928	0.769		0m	N.D.	d	
91) Isopropyl ether	8.458	8.483	0.815		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	8.617	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	8.890	0.000		0	N.D.		
94) Ethyl acetate	9.077	9.088	0.875		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\012710V5\  
Data File : 5V326.D  
Acq On : 27 Jan 2010 10:21 pm  
Operator : DXK1  
InstName : VOA5  
Sample : |1202025124|945552|1|VOA|1|VOA8260BS|  
Misc : LANL 5.0g N/A SOIL MIX[A] MSD245106001  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jan 28 09:42:56 2010  
Quant Method : C:\msdchem\1\METHODS\VOA5-8260-010810.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Jan 11 08:56:29 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	9.067	9.148	0.874		0m	N.D.	d
96) Methacrylonitrile	9.169	9.332	0.883		0m	N.D.	d
97) Tetrahydrofuran	9.456	9.466	0.911		0m	N.D.	d
98) Isobutyl alcohol	9.830	9.770	0.947		0m	N.D.	d
99) Methyl tert-amyl ether	10.131	10.138	0.976		0m	N.D.	d
100) Methyl methacrylate	11.015	10.969	1.061		0m	N.D.	d
101) 1,4-Dioxane	0.000	11.089	0.000		0	N.D.	
102) 2-Nitropropane	11.669	11.443	1.124		0m	N.D.	d
104) Ethyl methacrylate	0.000	12.235	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.438	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	14.537	14.573	0.911		0m	N.D.	d
108) Cyclohexanone	14.796	14.693	0.927		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	14.788	14.856	0.927		0m	N.D.	d
110) Pentachloroethane	15.559	15.559	0.975		0m	N.D.	d
111) Benzyl chloride	0.000	16.100	0.000		0	N.D.	
112) bis(2-Chloroisopropyl)...	16.543	16.497	1.037		0m	N.D.	d

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



# Miscellaneous



# Prep Logbook Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: 945549

Analyst: David Kingsbury

Method: SW846 5030

Lab SOP: GL-OA-E-038 REV# 13

Instrument: Sartorius Balance B-001

Verified by:

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
1202025121 MB	26-JAN-2010 08:00:00	Soil	5	5	1	N/A						
1202025122 LCS	26-JAN-2010 08:00:00	Soil	5	5	1	N/A						
1202025125 LCS	26-JAN-2010 08:00:00	Soil	5	5	1	N/A						
245106001	26-JAN-2010 14:40:00	Soil	5	5	1	N/A						
245106002	26-JAN-2010 14:41:00	Soil	5	5	1	N/A						
245106003	26-JAN-2010 14:42:00	Soil	5	5	1	N/A						
245106004	26-JAN-2010 14:43:00	Soil	5	5	1	N/A						
245106005	26-JAN-2010 14:44:00	Soil	5	5	1	N/A						
245106006	26-JAN-2010 14:45:00	Soil	5	5	1	N/A						
245106007	26-JAN-2010 14:46:00	Soil	5	5	1	N/A						
245106008	26-JAN-2010 14:47:00	Soil	5	5	1	N/A						
1202031265 MB	27-JAN-2010 08:00:00	Soil	5	5	1	N/A						
1202031266 LCS	27-JAN-2010 08:00:00	Soil	5	5	1	N/A						
1202031267 LCS	27-JAN-2010 08:00:00	Soil	5	5	1	N/A						
245106009	27-JAN-2010 13:09:00	Soil	5	5	1	N/A						
245106010	27-JAN-2010 13:10:00	Soil	5	5	1	N/A						
245106011	27-JAN-2010 13:11:00	Soil	5	5	1	N/A						
245106012	27-JAN-2010 13:12:00	Soil	5	5	1	N/A						
245106013	27-JAN-2010 13:13:00	Soil	5	5	1	N/A						
245106014	27-JAN-2010 13:14:00	Soil	5	5	1	N/A						
245106015	27-JAN-2010 13:15:00	Soil	5	5	1	N/A						
245106016	27-JAN-2010 13:16:00	Soil	5	5	1	N/A						
1202025123 PS (245106001)	27-JAN-2010 13:17:00	Soil	5	5	1	N/A						
1202025124 PSD (245106001)	27-JAN-2010 13:18:00	Soil	5	5	1	N/A						

Reagent/Solvent Lot ID

Description

Amount

Comments:

REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Multiplier Voltage: 1529

DXK1

## Method

Date: 1/8/2010

Daily Instrument Readings:  
Multiplier Voltage: 1529

1

## HARDWARE CONFIGURATION

### CCALIBRATION & CC INFORMATION:

Purge Amount

Daily Standard Volume Added for Purge (ul)

1/8/2010

Initial Calibration Date:

Water Purge Vol:	5
Soil Purge Wt.	n/a
Mid level ext. MeO	n/a
ul	n/a
Methanol Lot #	n/a
Heated Purge	X

ICV-A	see 011110v5		5+5	
IS	UVM091216-09	1	1	
SS	UVM091117-02	1	1	
ICV-B	W5VM100108-18		5+5	
BFB	UVM091117-02			1
	n/a		n/a	n/a
	n/a		n/a	n/a

(See pg. 6 for iCAL Std. Sci. Ids)

Sample	MeOH Vol:
n/a	Mid level ext.

SS	UVM091117-02	1	1
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NaHSO4 lot # n/a

n/a	Methanol Lot #
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BFB	UVM091117-02		1
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CI test lot # n/a

X Heated Purge

	n/a	n/a	n/a
	n/a	n/a	n/a

Sequence Number: 010810v5

Analysis Date			Wt.(g) or Vol.(ml/ul)										Dil.		AS		Matrix		Analyst		Cl test		Accepta	
Date	Time	Data File	Lab Sample ID	Client	Batch #	Vol.(ml/ul)	Factor	pH	Slot #	w	s													
8 Jan 2010	11:05	5S501.D	UVM091117-02	GEL	BFB	5mL	1	N/A	1	w		DXK1	N/A											
8 Jan 2010	11:30	5S502.D	W5VM100108-01	GEL	CCV	5mL	1	N/A	2	w		DXK1	N/A											
8 Jan 2010	11:56	5S503.D	W5VM100108-02	GEL	CCV	5mL	1	N/A	3	w		DXK1	N/A											
8 Jan 2010	12:22	5S504.D	W5VM100108-03	GEL	CCV	5mL	1	N/A	4	w		DXK1	N/A											
8 Jan 2010	13:05	5S505.D	UVM091117-02	GEL	BFB	5mL	1	N/A	1	w		DXK1	N/A											
8 Jan 2010	13:40	5S506.D	W5VM100108-01	VSTD001	ICAL	5mL	1	N/A	2	w		DXK1	N/A											
8 Jan 2010	14:05	5S507.D	W5VM100108-02	VSTD002	ICAL	5mL	1	N/A	3	w		DXK1	N/A											
8 Jan 2010	14:31	5S508.D	W5VM100108-03	VSTD005	ICAL	5mL	1	N/A	4	w		DXK1	N/A											
8 Jan 2010	14:57	5S509.D	W5VM100108-04	VSTD010	ICAL	5mL	1	N/A	5	w		DXK1	N/A											
8 Jan 2010	15:23	5S511.D	W5VM100108-05	VSTD020	ICAL	5mL	1	N/A	7	w		DXK1	N/A											
8 Jan 2010	15:49	5S512.D	W5VM100108-06	VSTD050	ICAL	5mL	1	N/A	7	w		DXK1	N/A											
8 Jan 2010	16:14	5S513.D	W5VM100108-07	VSTD100	ICAL	5mL	1	N/A	8	w		DXK1	N/A											
8 Jan 2010	16:40	5S514.D	RINSE	GEL	BLANK	5mL	1	N/A	9	w		DXK1	N/A											
8 Jan 2010	17:06	5S515.D	W5VM100108-08	VSTD0005	ICAL	5mL	1	N/A	10	w		DXK1	N/A											
8 Jan 2010	17:32	5S516.D	W5VM100108-09	ICV	ICV	5mL	1	N/A	11	w		DXK1	N/A											
8 Jan 2010	17:58	5S517.D	W5VM100108-10	ICV	ICV	5mL	1	N/A	12	w		DXK1	N/A											
8 Jan 2010	18:24	5S518.D	W5VM100108-11	ICAL	ICAL	5mL	1	N/A	13	w		DXK1	N/A											
8 Jan 2010	18:50	5S519.D	W5VM100108-12	ICAL	ICAL	5mL	1	N/A	14	w		DXK1	N/A											
8 Jan 2010	19:16	5S520.D	W5VM100108-13	ICAL	ICAL	5mL	1	N/A	15	w		DXK1	N/A											
8 Jan 2010	19:42	5S521.D	W5VM100108-14	ICAL	ICAL	5mL	1	N/A	16	w		DXK1	N/A											
8 Jan 2010	20:07	5S522.D	W5VM100108-15	ICAL	ICAL	5mL	1	N/A	17	w		DXK1	N/A											
8 Jan 2010	20:33	5S523.D	W5VM100108-16	ICAL	ICAL	5mL	1	N/A	18	w		DXK1	N/A											
8 Jan 2010	20:59	5S524.D	W5VM100108-17	ICAL	ICAL	5mL	1	N/A	19	w		DXK1	N/A											
8 Jan 2010	21:25	5S525.D	RINSE	GEL	BLANK	5mL	1	N/A	20	w		DXK1	N/A											
8 Jan 2010	21:50	5S526.D	W5VM100108-18	ICV	ICV	5mL	1	N/A	21	w		DXK1	N/A											
8 Jan 2010	22:16	5S527.D	RINSE	GEL	BLANK	5mL	1	N/A	22	w		DXK1	N/A											

Date: 1/11/2010 Method 8260/624 Operator: DXK1  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Daily Instrument Readings: \_\_\_\_\_  
Multiplier Voltage: 1529

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 1/11/2010

(See pg. 6 for I/CAL Std. Sol. Ids)

NaHSO4 lot # n/a

Cl test lot # 81710

Sequence Number: 011110v5

Daily Standard Volume Added for Purge (ul)

Soln ID#	CCV	W5VM100111-01	IS	UVM091216-09	SS	UVM091117-02	LCS	W5VM100111-01/02	BFB	UVM091117-02	SHORT	W5VM100111-03/04
CCV	5+5											
IS	1											
SS	1											
LCS	5+5											
BFB	1											
SHORT	5											
	n/a											

Purge Amount

5	Water Purge Vol:
5	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	Analyst	Cl test (Y/N)	Accepta ble(O/X)	Comments
1/11/2010	9:48	5T101.D	RINSE	GEL	BLANK	5mL	1	1	N/A	1	w	DXK1	N/A	X	rinse
1/11/2010	10:13	5T102.D	UVM091117-02	GEL	BFB	5mL	1	1	N/A	2	w	DXK1	N/A	O	
1/11/2010	10:39	5T103.D	W5VM100111-01	GEL	ICV/CCV/LCS	5mL	1	1	N/A	3	w	DXK1	N/A	O	UVM091214-01F+IVM100105-01
1/11/2010	11:05	5T104.D	W5VM100111-02	GEL	LCS	5g	1	1	N/A	4	s	DXK1	N/A	O	UVM091214-01F+IVM100105-02
1/11/2010	11:31	5T105.D	W5VM100111-03	GEL	CCV	5mL	1	1	N/A	5	w	DXK1	N/A	O	UVM091216-06
1/11/2010	11:57	5T106.D	W5VM100111-04	GEL	LCS	5g	1	1	N/A	6	s	DXK1	N/A	O	UVM091216-08A
1/11/2010	12:22	5T107.D	12020...	GEL	BLANK	5mL	1	1	N/A	7	w	DXK1	N/A	O	
1/11/2010	12:48	5T108.D	12020...	GEL	BLANK	5g	1	1	N/A	8	s	DXK1	N/A	O	
1/11/2010	14:45	5T109.D	243902001	COAN	940469	5mL	1	1	pH2	9	w	DXK1	N	O	OR, see 5T118
1/11/2010	15:10	5T110.D	244146001	WSRS	940469	5mL	1	1	pH2	10	w	DXK1	N	O	OR, see 5T119
1/11/2010	15:36	5T111.D	244010001	STOL	940468	5mL	1	1	pH2	11	w	DXK1	N	X	CO (through rest of batch)
1/11/2010	16:02	5T112.D	1202012674	STOL	940468	5mL	1	1	pH2	12	w	DXK1	N	X	DUP244010001
1/11/2010	16:28	5T113.D	244010002	STOL	940468	5mL	1	1	pH2	13	w	DXK1	N	X	
1/11/2010	16:54	5T114.D	244010003	STOL	940468	5mL	1	1	pH2	14	w	DXK1	N	X	
1/11/2010	17:20	5T115.D	244010005	STOL	940468	5mL	1	1	pH2	15	w	DXK1	N	X	
1/11/2010	17:46	5T116.D	244010006	STOL	940468	5mL	1	1	pH2	16	w	DXK1	N	X	
1/11/2010	18:11	5T117.D	244017003	BOSH	940468	5mL	1	1	pH2	17	w	DXK1	N	X	
1/11/2010	18:38	5T118.D	243902001	COAN	940469	2.5mL	2	1	pH2	18	w	DXK1	N	O	DL for 5T109
1/11/2010	19:03	5T119.D	244146001	WSRS	940469	50uL	100	1	pH2	19	w	DXK1	N	O	DL for 5T110
1/11/2010	19:29	5T120.D	1202012677	WSRS	940469	50uL	100	1	pH2	20	w	DXK1	N	O	MIX[A] MS244146001
1/11/2010	19:55	5T121.D	1202012678	WSRS	940469	50uL	100	1	pH2	21	w	DXK1	N	O	MIX[A] MSD244146001
1/11/2010	20:21	5T122.D	1202012675	STOL	940468	5mL	1	1	pH2	22	w	DXK1	N	X	MIX[A] MS244010001
1/11/2010	20:47	5T123.D	1202012675	STOL	940468	5mL	1	1	pH2	23	w	DXK1	N	X	MIX[A] MS244010001
1/11/2010	21:13	5T124.D	RINSE	GEL	BLANK	5mL	1	1	N/A	24	w	DXK1	N/A	X	rinse
1/11/2010	21:38	5T125.D	RINSE	GEL	BLANK	5mL	1	1	N/A	25	w	DXK1	N/A	X	rinse
1/11/2010	22:04	5T126.D	RINSE	GEL	BLANK	5mL	1	1	N/A	26	w	DXK1	N/A	X	rinse
1/11/2010	22:30	5T127.D	154734-A	O2SI	SCREEN	5mL	1	1	N/A	27	w	DXK1	N/A	X	BISULFATE
1/11/2010	22:56	5T128.D	154734-B	O2SI	SCREEN	5mL	1	1	N/A	28	w	DXK1	N/A	X	BISULFATE

Date: 1/26/2010 Method 8260/624 Operator: DXK1  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Daily Instrument Readings: \_\_\_\_\_  
Multiplier Voltage: 1529

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 1/8/2010  
(See pg. 6 for ICAL Std. Sci. Ids)  
NaHSO4 lot # n/a  
Cl test lot # 81710  
Sequence Number: 012610v5pm

Daily Standard	Solution ID#	Volume Added for Purge (ul)	Blk/ MS/	Smpl	CCV	LCS	BFB	Purge Amount
CCV	W5VM100126-04	5+5						5
IS	UVM100114-01	1	1	1				5.0
SS	UVM091216-10	1	1	1				n/a
LCS/MS	W5VM100126-05				5+5			n/a
BFB	UVM091216-10					1		n/a
SHORT	W5VM100126-06	n/a			5	5		X

Water Purge Vol: 5  
Soil Purge Wt: 5.0  
Mid level ext. MeOH Vol: n/a  
Methanol Lot #: n/a  
Heated Purge: X

Analysis		Date		Time		Data File		Lab Sample ID		Client		Batch #		Wt.(g) or Vol(ml/ul)		Dil.		Factor pH		AS		Matrix		Analyst		CI test		Accepta		Comments	
1/26/2010	20:40	5V223.D	W5VM100126-04	GEL																											
1/26/2010	21:06	5V224.D	W5VM100126-05	GEL																											
1/26/2010	21:32	5V225.D	W5VM100126-06	GEL																											
1/26/2010	22:01	5V226.D	12020---	BLANK																											
1/26/2010	22:27	5V227.D	245106001	LANL																											
1/26/2010	22:53	5V228.D	245106002	LANL																											
1/26/2010	23:19	5V229.D	245106003	LANL																											
1/26/2010	23:45	5V230.D	245106004	LANL																											
1/27/2010	0:10	5V231.D	245106005	LANL																											
1/27/2010	0:36	5V232.D	245106006	LANL																											
1/27/2010	1:06	5V233.D	245106007	LANL																											
1/27/2010	1:32	5V234.D	245106008	LANL																											
1/27/2010	1:32	5V235.D	No MS or GC data present																												

Date: 1/27/2010 Method 8260/624 Operator: DXK1  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Daily Instrument Readings: \_\_\_\_\_  
Multiplier Voltage: 1600

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 1/8/2010  
(See pg. 6 for ICAL Std. Sol. Ids)  
NaHSO4 lot # n/a  
Cl test lot # 81710  
Sequence Number: 012710v5

Daily Standard Volume Added for Purge (ul)  
Bk/ MS/ Smp/ CCV LCS BFB

Solution ID#	CCV	W5VM100127-01	IS	UVM100114-01	1	1	1
SS	UVM091216-10	1	1	1	1	1	1
LCS/MS	W5VM100127-01/02					5+5	
BFB	UVM091216-10						1
SHORT	W5VM100127-03/04				5	5	n/a

Purge Amount

5	Water Purge Vol:
5.0	Soil Purge Wt.
x	Mid level ext. MeOH Vol:
100	ul
CZ937	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
1/27/2010	11:34	5V301.D	UVM091216-10	GEL	BFB	5mL	1	N/A	1	W	N/A	O	
1/27/2010	12:00	5V302.D	W5VM100127-99	GEL	CCV/LCS	5mL	1	N/A	2	W	N/A	O	UVM091214-01+UVM100120-03
1/27/2010	12:26	5V303.D	W5VM100127-02	GEL	LCS	5g	1	N/A	3	S	N/A	O	UVM091214-01+UVM100120-03
1/27/2010	12:51	5V304.D	W5VM100127-03	GEL	CCV/LCS	5mL	1	N/A	4	W	N/A	O	UVM100118-08A
1/27/2010	13:17	5V305.D	W5VM100127-04	GEL	LCS	5g	1	N/A	5	S	N/A	O	UVM100118-08A
1/27/2010	13:42	5V306.D	12020---	BLANK	BLANK	5mL	1	N/A	6	W	N/A	O	
1/27/2010	14:08	5V307.D	12020---	BLANK	BLANK	5g	1	N/A	7	S	N/A	O	
1/27/2010	14:34	5V308.D	12020---	HB	HB	100uL	50	N/A	8	S	N/A	O	
1/27/2010	15:00	5V309.D	245106003	LANL	945552	5.0g	1	N/A	9	S	N/A	X	IS low, SS high / report 5v229
1/27/2010	15:26	5V310.D	245106007	LANL	945552	5.0g	1	N/A	10	S	N/A	X	IS low, SS high / report 5v233
1/27/2010	15:52	5V311.D	245106008	LANL	945552	5.0g	1	N/A	11	S	N/A	X	IS low / report 5v234
1/27/2010	16:18	5V312.D	245106009	LANL	945552	5.0g	1	N/A	12	S	N/A	O	
1/27/2010	16:44	5V313.D	245106010	LANL	945552	5.0g	1	N/A	13	S	N/A	O	
1/27/2010	17:09	5V314.D	245106011	LANL	945552	5.0g	1	N/A	14	S	N/A	O	IS low / confirmed by 5v706
1/27/2010	17:35	5V315.D	245106012	LANL	945552	5.0g	1	N/A	15	S	N/A	O	IS low SS high / confirmed by 5v707
1/27/2010	18:01	5V316.D	245106013	LANL	945552	5.0g	1	N/A	16	S	N/A	O	IS low / confirmed by 5v706
1/27/2010	18:27	5V317.D	245106014	LANL	945552	5.0g	1	N/A	17	S	N/A	O	
1/27/2010	18:53	5V318.D	245106015	LANL	945552	5.0g	1	N/A	18	S	N/A	O	IS low / confirmed by 5v709
1/27/2010	19:19	5V319.D	245106016	LANL	945552	5.0g	1	N/A	19	S	N/A	O	IS low SS high / confirmed by 5v710
1/27/2010	19:45	5V320.D	245162003	SANT	946004	100uL	50	N/A	20	S	N/A	O	
1/27/2010	20:11	5V321.D	245252001	MECP	946004	100uL	50	N/A	21	S	N/A	O	
1/27/2010	20:37	5V322.D	245479001	PAES	946004	100uL	50	N/A	22	S	N/A	O	
1/27/2010	21:03	5V323.D	1202023854	LANL	945005	5mL	1	pH2	23	W	N/A	O	MIX[A] MSD244838002
1/27/2010	21:29	5V324.D	1202023855	LANL	945005	5mL	1	pH2	24	W	N/A	O	MIX[A] MSD244838002
1/27/2010	21:55	5V325.D	1202025123	LANL	945552	5.0g	1	N/A	25	S	N/A	O	SOIL MIX[A] MSD245106001
1/27/2010	22:21	5V326.D	1202025124	LANL	945552	5.0g	1	N/A	26	S	N/A	O	SOIL MIX[A] MSD245106001
1/27/2010	22:47	5V327.D	1202026230	PAES	946004	100uL	50	N/A	27	W	N/A	O	SOIL MIX[A] MSD245479001
1/27/2010	23:13	5V328.D	1202026230	PAES	946004	100uL	50	N/A	28	W	N/A	O	SOIL MIX[A] MSD245479001

### DATA EXCEPTION REPORT

<b>Mo.Day Yr.</b> 05-FEB-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> 945552	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG): 245106(10-1304)</b>			
<b>Application Issues:</b> Failed Recovery for Surrogate or Tracer			
<b>Specification and Requirements Exception Description:</b>		<b>DER Disposition:</b>	
1. The following samples did not pass surrogate recoveries:  245106007,012,016  2. The following samples did not have acceptable internal standard responses:  245106003,007,008,011,012,013,015,016		1. Narrate and report data. The samples were re-analyzed and confirmed the results. It is believed that matrix interference has been demonstrated. The initial results are reported.  2. Narrate and report data. The samples were re-analyzed and confirmed the results. It is believed that matrix interference has been demonstrated. The initial results are reported.	

**Originator's Name:**

David Kingsbury 05-FEB-10

**Data Validator/Group Leader:**

Erin Haubert 13-FEB-10

# **GC/MS Semivolatile Analysis**

## Roadmap for LANL 10-1304 SVOA

This roadmap was analyzed by amy01291 on 02-12-2010, 16:39.

This roadmap was reviewed by dan01134 on 02-15-2010, 15:49.

Sample										
exclude	manual	datafile	smplid	injdte	injtime	sublst	chemid	dilution	batchid	comment
<input type="checkbox"/>	N	/chem/MSD1.i/s012810.b/s1a2817.d	245106001	28-JAN-2010	21:46	10-1304.sub	RE15-10-7165	1	944591	REPORT
<input type="checkbox"/>	N	/chem/MSD1.i/s012810.b/s1a2820.d	245106002	28-JAN-2010	23:08	10-1304.sub	RE15-10-7171	1	944591	REPORT
<input type="checkbox"/>	N	/chem/MSD1.i/s012810.b/s1a2821.d	245106003	28-JAN-2010	23:36	10-1304.sub	RE15-10-7170	1	944591	REPORT
<input type="checkbox"/>	N	/chem/MSD1.i/s012810.b/s1a2822.d	245106004	29-JAN-2010	00:04	10-1304.sub	RE15-10-7164	1	944591	REPORT
<input type="checkbox"/>	N	/chem/MSD1.i/s012810.b/s1a2823.d	245106005	29-JAN-2010	00:31	10-1304.sub	RE15-10-7167	1	944591	REPORT
<input type="checkbox"/>	N	/chem/MSD1.i/s012810.b/s1a2824.d	245106006	29-JAN-2010	00:58	10-1304.sub	RE15-10-7169	1	944591	REPORT
<input type="checkbox"/>	N	/chem/MSD1.i/s012810.b/s1a2825.d	245106007	29-JAN-2010	01:25	10-1304.sub	RE15-10-7168	1	944591	REPORT
<input type="checkbox"/>	N	/chem/MSD1.i/s012810.b/s1a2826.d	245106008	29-JAN-2010	01:53	10-1304.sub	RE15-10-7166	1	944591	REPORT
<input type="checkbox"/>	N	/chem/MSD1.i/s012810.b/s1a2827.d	245106009	29-JAN-2010	02:30	10-1304.sub	RE15-10-7177	1	944591	REPORT
<input type="checkbox"/>	N	/chem/MSD1.i/s012910.b/s1a2918.d	245106010	29-JAN-2010	21:45	10-1304.sub	RE15-10-7181	1	944591	REPORT
<input type="checkbox"/>	N	/chem/MSD1.i/s012910.b/s1a2919.d	245106011	29-JAN-2010	22:13	10-1304.sub	RE15-10-7178	1	944591	REPORT
<input type="checkbox"/>	N	/chem/MSD1.i/s012910.b/s1a2920.d	245106012	29-JAN-2010	22:40	10-1304.sub	RE15-10-7182	1	944591	REPORT
<input type="checkbox"/>	N	/chem/MSD1.i/s012910.b/s1a2921.d	245106013	29-JAN-2010	23:07	10-1304.sub	RE15-10-7183	1	944591	REPORT
<input checked="" type="checkbox"/>	N	/chem/MSD1.i/s012910.b/s1a2922.d	245106014	29-JAN-2010	23:35	10-1304.sub	RE15-10-7176	1	944591	DOSE-fail istd-Report 10X RR s3b1120
<input type="checkbox"/>	N	/chem/MSD1.i/s012910.b/s1a2923.d	245106015	30-JAN-2010	00:02	10-1304.sub	RE15-10-7180	1	944591	REPORT
<input type="checkbox"/>	N	/chem/MSD1.i/s012910.b/s1a2924.d	245106016	30-JAN-2010	00:29	10-1304.sub	RE15-10-7179	1	944591	REPORT-fail istd-rr s3b1119-istd pass but very low.
<input checked="" type="checkbox"/>	N	/chem/MSD3.i/s021110.b/s3b1119.d	245106016	11-FEB-2010	15:54	10-1304.sub	RE15-10-7179	1	944591	DOSE; RR OF S1A2924; ISTD PASS ON LOW SIDE/SURR LOW
<input type="checkbox"/>	N	/chem/MSD3.i/s021110.b/s3b1120.d	245106014	11-FEB-2010	16:19	10-1304.sub	RE15-10-7176	10	944591	DOSE; RR OF S1A2922; ISTD PASS/SURR HIGH

QC Sample											
exclude	manual	datafile	smplid	sampletype	injdte	injtime	sublst	chemid	dilution	batchid	comment
<input type="checkbox"/>	N	/chem/MSD1.i/s012810.b/s1a2812.d	1202022801	mb	28-JAN-2010	19:28	10-1304.sub	SBLK01	1	944591	REPORT
<input type="checkbox"/>	N	/chem/MSD1.i/s012810.b/s1a2813.d	1202022802	tes	28-JAN-2010	19:56	10-1304.sub	SBLK01LCS	1	944591	REPORT
<input type="checkbox"/>	N	/chem/MSD1.i/s012810.b/s1a2818.d	1202022803	ms	28-JAN-2010	22:14	10-1304.sub	RE15-10-7165MS	1	944591	REPORT-many spike failures, MSD confirms
<input type="checkbox"/>	N	/chem/MSD1.i/s012810.b/s1a2819.d	1202022804	msd	28-JAN-2010	22:41	10-1304.sub	RE15-10-7165MSD	1	944591	REPORT-many spike failures, MS confirms



# Sample Data Summary

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106004	Date Received: 01/20/2010 08:45	% Moisture: 17.7
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7164	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1J	Dilution: 1
Run Date: 01/29/2010 00:04	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s1a2822.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	405	ug/kg	81.0	405
108-95-2	Phenol	U	405	ug/kg	81.0	405
95-57-8	2-Chlorophenol	U	405	ug/kg	81.0	405
106-46-7	1,4-Dichlorobenzene	U	405	ug/kg	81.0	405
621-64-7	N-Nitrosodipropylamine	U	405	ug/kg	81.0	405
59-50-7	4-Chloro-3-methylphenol	U	405	ug/kg	81.0	405
83-32-9	Acenaphthene	U	40.5	ug/kg	13.4	40.5
121-14-2	2,4-Dinitrotoluene	U	405	ug/kg	40.5	405
100-02-7	4-Nitrophenol	U	405	ug/kg	134	405
87-86-5	Pentachlorophenol	U	405	ug/kg	101	405
129-00-0	Pyrene	U	40.5	ug/kg	12.1	40.5
110-86-1	Pyridine	U	405	ug/kg	81.0	405
62-53-3	Aniline	U	405	ug/kg	121	405
111-44-4	bis(2-Chloroethyl) ether	U	405	ug/kg	81.0	405
541-73-1	1,3-Dichlorobenzene	U	405	ug/kg	81.0	405
100-51-6	Benzyl alcohol	U	405	ug/kg	121	405
95-50-1	1,2-Dichlorobenzene	U	405	ug/kg	81.0	405
108-60-1	bis(2-Chloroisopropyl)ether	U	405	ug/kg	81.0	405
95-48-7	o-Cresol	U	405	ug/kg	81.0	405
65794-96-9	m,p-Cresols	U	405	ug/kg	121	405
67-72-1	Hexachloroethane	U	405	ug/kg	81.0	405
98-95-3	Nitrobenzene	U	405	ug/kg	81.0	405
78-59-1	Isophorone	U	405	ug/kg	81.0	405
88-75-5	2-Nitrophenol	U	405	ug/kg	81.0	405
105-67-9	2,4-Dimethylphenol	U	405	ug/kg	142	405
111-91-1	bis(2-Chloroethoxy)methane	U	405	ug/kg	81.0	405
120-83-2	2,4-Dichlorophenol	U	405	ug/kg	81.0	405
65-85-0	Benzoic acid	U	810	ug/kg	202	810
91-20-3	Naphthalene	U	40.5	ug/kg	12.1	40.5
106-47-8	4-Chloroaniline	U	405	ug/kg	81.0	405
87-68-3	Hexachlorobutadiene	U	405	ug/kg	81.0	405
91-57-6	2-Methylnaphthalene	U	40.5	ug/kg	8.10	40.5
77-47-4	Hexachlorocyclopentadiene	U	405	ug/kg	81.0	405
88-06-2	2,4,6-Trichlorophenol	U	405	ug/kg	81.0	405
95-95-4	2,4,5-Trichlorophenol	U	405	ug/kg	81.0	405
91-58-7	2-Chloronaphthalene	U	40.5	ug/kg	13.4	40.5
88-74-4	2-Nitroaniline	U	405	ug/kg	81.0	405
99-09-2	<i>o</i> -Nitroaniline	U	405	ug/kg	81.0	405
	3-Nitroaniline					

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106004	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 17.7
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7164	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD1.1	<b>Dilution:</b> 1
<b>Run Date:</b> 01/29/2010 00:04	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30.02 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s1a2822.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	405	ug/kg	81.0	405
606-20-2	2,6-Dinitrotoluene	U	405	ug/kg	40.5	405
208-96-8	Accnaphthylene	U	40.5	ug/kg	12.1	40.5
51-28-5	2,4-Dinitrophenol	U	810	ug/kg	154	810
132-64-9	Dibenzofuran	U	405	ug/kg	81.0	405
84-66-2	Diethylphthalate	U	405	ug/kg	81.0	405
86-73-7	Fluorene	U	40.5	ug/kg	12.1	40.5
7005-72-3	4-Chlorophenylphenylether	U	405	ug/kg	81.0	405
534-52-1	2-Methyl-4,6-dinitrophenol	U	405	ug/kg	81.0	405
100-01-6	4-Nitroaniline	U	405	ug/kg	121	405
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	405	ug/kg	81.0	405
122-66-7	Azobenzene	U	405	ug/kg	81.0	405
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	405	ug/kg	81.0	405
118-74-1	Hexachlorobenzene	U	405	ug/kg	81.0	405
85-01-8	Phenanthrene	U	40.5	ug/kg	12.1	40.5
120-12-7	Anthracene	U	40.5	ug/kg	8.10	40.5
84-74-2	Di-n-butylphthalate	U	405	ug/kg	81.0	405
206-44-0	Fluoranthene	U	40.5	ug/kg	12.1	40.5
85-68-7	Butylbenzylphthalate	U	405	ug/kg	81.0	405
56-55-3	Benzo(a)anthracene	U	40.5	ug/kg	12.1	40.5
91-94-1	3,3'-Dichlorobenzidine	U	405	ug/kg	121	405
218-01-9	Chrysene	U	40.5	ug/kg	12.1	40.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	405	ug/kg	81.0	405
117-84-0	Di-n-octylphthalate	U	405	ug/kg	81.0	405
205-99-2	Benzo(b)fluoranthene	U	40.5	ug/kg	12.1	40.5
207-08-9	Benzo(k)fluoranthene	U	40.5	ug/kg	12.1	40.5
50-32-8	Benzo(a)pyrene	U	40.5	ug/kg	12.1	40.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.5	ug/kg	12.1	40.5
53-70-3	Dibenzo(a,h)anthracene	U	40.5	ug/kg	12.1	40.5
191-24-2	Benzo(ghi)perylene	U	40.5	ug/kg	12.1	40.5
120-82-1	1,2,4-Trichlorobenzene	U	405	ug/kg	81.0	405

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.67	222	ug/kg		J
	Unknown Aldol Condensate	3.09	772	ug/kg		JA

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106004	Date Received: 01/20/2010 08:45	%Moisture: 17.7
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7164	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/29/2010 00:04	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s1a2822.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary				Estimated		
CAS No.	Tentatively Identified Compound (TIC)		RT	Units	Fit	Qual
54832-82-5	Unknown		13.02	340	ug/kg	J
	Tricyclo[4.3.0.0(7,9)]nonane, 2,2,5,5,8,		15.36	528	ug/kg	90 NJ
	Unknown		16.06	728	ug/kg	J

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

SDG Number: 10-1304  
Lab Sample ID: 245106001

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: I.ANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 19.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	414	ug/kg	82.8	414
108-95-2	Phenol	U	414	ug/kg	82.8	414
95-57-8	2-Chlorophenol	U	414	ug/kg	82.8	414
106-46-7	1,4-Dichlorobenzene	U	414	ug/kg	82.8	414
621-64-7	N-Nitrosodipropylamine	U	414	ug/kg	82.8	414
59-50-7	4-Chloro-3-methylphenol	U	414	ug/kg	82.8	414
83-32-9	Acenaphthene	U	41.4	ug/kg	13.7	41.4
121-14-2	2,4-Dinitrotoluene	U	414	ug/kg	41.4	414
100-02-7	4-Nitrophenol	U	414	ug/kg	137	414
87-86-5	Pentachlorophenol	U	414	ug/kg	103	414
129-00-0	Pyrene	U	41.4	ug/kg	12.4	41.4
110-86-1	Pyridine	U	414	ug/kg	82.8	414
62-53-3	Aniline	U	414	ug/kg	124	414
111-44-4	bis(2-Chloroethyl) ether	U	414	ug/kg	82.8	414
541-73-1	1,3-Dichlorobenzene	U	414	ug/kg	82.8	414
100-51-6	Benzyl alcohol	U	414	ug/kg	124	414
95-50-1	1,2-Dichlorobenzene	U	414	ug/kg	82.8	414
108-60-1	bis(2-Chloroisopropyl)ether	U	414	ug/kg	82.8	414
95-48-7	o-Cresol	U	414	ug/kg	82.8	414
65794-96-9	m,p-Cresols	U	414	ug/kg	124	414
67-72-1	Hexachloroethane	U	414	ug/kg	82.8	414
98-95-3	Nitrobenzene	U	414	ug/kg	82.8	414
78-59-1	Isophorone	U	414	ug/kg	82.8	414
88-75-5	2-Nitrophenol	U	414	ug/kg	82.8	414
105-67-9	2,4-Dimethylphenol	U	414	ug/kg	145	414
111-91-1	bis(2-Chloroethoxy)methane	U	414	ug/kg	82.8	414
120-83-2	2,4-Dichlorophenol	U	414	ug/kg	82.8	414
65-85-0	Benzoic acid	U	828	ug/kg	207	828
91-20-3	Naphthalene	U	41.4	ug/kg	12.4	41.4
106-47-8	4-Chloroaniline	U	414	ug/kg	82.8	414
87-68-3	Hexachlorobutadiene	U	414	ug/kg	82.8	414
91-57-6	2-Methylnaphthalene	U	41.4	ug/kg	8.28	41.4
77-47-4	Hexachlorocyclopentadiene	U	414	ug/kg	82.8	414
88-06-2	2,4,6-Trichlorophenol	U	414	ug/kg	82.8	414
95-95-4	2,4,5-Trichlorophenol	U	414	ug/kg	82.8	414
91-58-7	2-Chloronaphthalene	U	41.4	ug/kg	13.7	41.4
88-74-4	2-Nitroaniline	U	414	ug/kg	82.8	414
99-09-2	<i>o</i> -Nitroaniline	U	414	ug/kg	82.8	414
	3-Nitroaniline					

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

SDG Number: 10-1304  
Lab Sample ID: 245106001

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.1  
Analyst: AMY  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 19.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	414	ug/kg	82.8	414
606-20-2	2,6-Dinitrotoluene	U	414	ug/kg	41.4	414
208-96-8	Acenaphthylene	U	41.4	ug/kg	12.4	41.4
51-28-5	2,4-Dinitrophenol	U	828	ug/kg	157	828
132-64-9	Dibenzofuran	U	414	ug/kg	82.8	414
84-66-2	Diethylphthalate	U	414	ug/kg	82.8	414
86-73-7	Fluorene	U	41.4	ug/kg	12.4	41.4
7005-72-3	4-Chlorophenylphenylether	U	414	ug/kg	82.8	414
534-52-1	2-Methyl-4,6-dinitrophenol	U	414	ug/kg	82.8	414
100-01-6	4-Nitroaniline	U	414	ug/kg	124	414
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	414	ug/kg	82.8	414
122-66-7	Azobenzene	U	414	ug/kg	82.8	414
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	414	ug/kg	82.8	414
118-74-1	Hexachlorobenzene	U	414	ug/kg	82.8	414
85-01-8	Phenanthrene	U	41.4	ug/kg	12.4	41.4
120-12-7	Anthracene	U	41.4	ug/kg	8.28	41.4
84-74-2	Di-n-butylphthalate	U	414	ug/kg	82.8	414
206-44-0	Fluoranthene	U	41.4	ug/kg	12.4	41.4
85-68-7	Butylbenzylphthalate	U	414	ug/kg	82.8	414
56-55-3	Benzo(a)anthracene	U	41.4	ug/kg	12.4	41.4
91-94-1	3,3'-Dichlorobenzidine	U	414	ug/kg	124	414
218-01-9	Chrysene	U	41.4	ug/kg	12.4	41.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	414	ug/kg	82.8	414
117-84-0	Di-n-octylphthalate	U	414	ug/kg	82.8	414
205-99-2	Benzo(b)fluoranthene	U	41.4	ug/kg	12.4	41.4
207-08-9	Benzo(k)fluoranthene	U	41.4	ug/kg	12.4	41.4
50-32-8	Benzo(a)pyrene	U	41.4	ug/kg	12.4	41.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.4	ug/kg	12.4	41.4
53-70-3	Dibenzo(a,h)anthracene	U	41.4	ug/kg	12.4	41.4
191-24-2	Benzo(ghi)perylene	U	41.4	ug/kg	12.4	41.4
120-82-1	1,2,4-Trichlorobenzene	U	414	ug/kg	82.8	414

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.69	216	ug/kg		J
	Unknown Aldol Condensate	3.1	735	ug/kg		JA

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106001	Date Received: 01/20/2010 08:45	%Moisture: 19.4
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7165	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/28/2010 21:46	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30 g	Final Volume: 1 mL
Data File: s1a2817.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	3.82	633	ug/kg		J

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

SDG Number: 10-1304  
Lab Sample ID: 245106008

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 31.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7166  
Batch ID: 944591  
Run Date: 01/29/2010 01:53  
Prep Date: 01/25/2010 14:38  
Data File: s1a2826.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	486	ug/kg	97.1	486
108-95-2	Phenol	U	486	ug/kg	97.1	486
95-57-8	2-Chlorophenol	U	486	ug/kg	97.1	486
106-46-7	1,4-Dichlorobenzene	U	486	ug/kg	97.1	486
621-64-7	N-Nitrosodipropylamine	U	486	ug/kg	97.1	486
59-50-7	4-Chloro-3-methylphenol	U	486	ug/kg	97.1	486
83-32-9	Acenaphthene	U	48.6	ug/kg	16.0	48.6
121-14-2	2,4-Dinitrotoluene	U	486	ug/kg	48.6	486
100-02-7	4-Nitrophenol	U	486	ug/kg	160	486
87-86-5	Pentachlorophenol	U	486	ug/kg	121	486
129-00-0	Pyrene	U	48.6	ug/kg	14.6	48.6
110-86-1	Pyridine	U	486	ug/kg	97.1	486
62-53-3	Aniline	U	486	ug/kg	146	486
111-44-4	bis(2-Chloroethyl) ether	U	486	ug/kg	97.1	486
541-73-1	1,3-Dichlorobenzene	U	486	ug/kg	97.1	486
100-51-6	Benzyl alcohol	U	486	ug/kg	146	486
95-50-1	1,2-Dichlorobenzene	U	486	ug/kg	97.1	486
108-60-1	bis(2-Chloroisopropyl)ether	U	486	ug/kg	97.1	486
95-48-7	o-Cresol	U	486	ug/kg	97.1	486
65794-96-9	m,p-Cresols	U	486	ug/kg	146	486
67-72-1	Hexachloroethane	U	486	ug/kg	97.1	486
98-95-3	Nitrobenzene	U	486	ug/kg	97.1	486
78-59-1	Isophorone	U	486	ug/kg	97.1	486
88-75-5	2-Nitrophenol	U	486	ug/kg	97.1	486
105-67-9	2,4-Dimethylphenol	U	486	ug/kg	170	486
111-91-1	bis(2-Chloroethoxy)methane	U	486	ug/kg	97.1	486
120-83-2	2,4-Dichlorophenol	U	486	ug/kg	97.1	486
65-85-0	Benzoic acid	U	971	ug/kg	243	971
91-20-3	Naphthalene	U	48.6	ug/kg	14.6	48.6
106-47-8	4-Chloroaniline	U	486	ug/kg	97.1	486
87-68-3	Hexachlorobutadiene	U	486	ug/kg	97.1	486
91-57-6	2-Methylnaphthalene	U	48.6	ug/kg	9.71	48.6
77-47-4	Hexachlorocyclopentadiene	U	486	ug/kg	97.1	486
88-06-2	2,4,6-Trichlorophenol	U	486	ug/kg	97.1	486
95-95-4	2,4,5-Trichlorophenol	U	486	ug/kg	97.1	486
91-58-7	2-Chloronaphthalene	U	48.6	ug/kg	16.0	48.6
88-74-4	2-Nitroaniline	U	486	ug/kg	97.1	486
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	486	ug/kg	97.1	486



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

SDG Number: 10-1304  
Lab Sample ID: 245106008

Client ID: RE15-10-7166  
Batch ID: 944591  
Run Date: 01/29/2010 01:53  
Prep Date: 01/25/2010 14:38  
Data File: s1a2826.d

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.J  
Analyst: AMY  
Aliquot: 30.09 g  
Column: J&W DB-SMS

Matrix: R  
%Moisture: 31.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	486	ug/kg	97.1	486
606-20-2	2,6-Dinitrotoluene	U	486	ug/kg	48.6	486
208-96-8	Acenaphthylene	U	48.6	ug/kg	14.6	48.6
51-28-5	2,4-Dinitrophenol	U	971	ug/kg	185	971
132-64-9	Dibenzofuran	U	486	ug/kg	97.1	486
84-66-2	Diethylphthalate	U	486	ug/kg	97.1	486
86-73-7	Fluorene	U	48.6	ug/kg	14.6	48.6
7005-72-3	4-Chlorophenylphenylether	U	486	ug/kg	97.1	486
534-52-1	2-Methyl-4,6-dinitrophenol	U	486	ug/kg	97.1	486
100-01-6	4-Nitroaniline	U	486	ug/kg	146	486
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	486	ug/kg	97.1	486
122-66-7	Azobenzene	U	486	ug/kg	97.1	486
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	486	ug/kg	97.1	486
118-74-1	Hexachlorobenzene	U	486	ug/kg	97.1	486
85-01-8	Phenanthrene	U	48.6	ug/kg	14.6	48.6
120-12-7	Anthracene	U	48.6	ug/kg	9.71	48.6
84-74-2	Di-n-butylphthalate	U	486	ug/kg	97.1	486
206-44-0	Fluoranthene	U	48.6	ug/kg	14.6	48.6
85-68-7	Butylbenzylphthalate	U	486	ug/kg	97.1	486
56-55-3	Benzo(a)anthracene	U	48.6	ug/kg	14.6	48.6
91-94-1	3,3'-Dichlorobenzidine	U	486	ug/kg	146	486
218-01-9	Chrysene	U	48.6	ug/kg	14.6	48.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	486	ug/kg	97.1	486
117-84-0	Di-n-octylphthalate	U	486	ug/kg	97.1	486
205-99-2	Benzo(b)fluoranthene	U	48.6	ug/kg	14.6	48.6
207-08-9	Benzo(k)fluoranthene	U	48.6	ug/kg	14.6	48.6
50-32-8	Benzo(a)pyrene	U	48.6	ug/kg	14.6	48.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	48.6	ug/kg	14.6	48.6
53-70-3	Dibenzo(a,h)anthracene	U	48.6	ug/kg	14.6	48.6
191-24-2	Benzo(ghi)perylene	U	48.6	ug/kg	14.6	48.6
120-82-1	1,2,4-Trichlorobenzene	U	486	ug/kg	97.1	486

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
79-09-4	Propanoic acid	2.15	257	ug/kg	81	NJ
	Unknown Aldol Condensate	3.09	1010	ug/kg		JA

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106008	Date Received: 01/20/2010 08:45	%Moisture: 31.6
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7166	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1J	Dilution: 1
Run Date: 01/29/2010 01:53	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s1a2826.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
4630-07-3	Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	7.15	257	ug/kg	98	NJ
	Unknown	7.2	258	ug/kg		J
	Unknown	10.48	216	ug/kg		J
5155-70-4	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.79	343	ug/kg	94	NJ
	Unknown	15.39	1190	ug/kg		J
1000188-72-8	2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-e	16.06	1490	ug/kg	87	NJ
83-46-5	.beta.-Sitosterol	16.82	801	ug/kg	93	NJ

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

SDG Number: 10-1304  
Lab Sample ID: 245106005

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.J  
Analyst: AMY  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22  
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	427	ug/kg	85.3	427
108-95-2	Phenol	U	427	ug/kg	85.3	427
95-57-8	2-Chlorophenol	U	427	ug/kg	85.3	427
106-46-7	1,4-Dichlorobenzene	U	427	ug/kg	85.3	427
621-64-7	N-Nitrosodipropylamine	U	427	ug/kg	85.3	427
59-50-7	4-Chloro-3-methylphenol	U	427	ug/kg	85.3	427
83-32-9	Acenaphthene	U	42.7	ug/kg	14.1	42.7
121-14-2	2,4-Dinitrotoluene	U	427	ug/kg	42.7	427
100-02-7	4-Nitrophenol	U	427	ug/kg	141	427
87-86-5	Pentachlorophenol	U	427	ug/kg	107	427
129-00-0	Pyrene	U	42.7	ug/kg	12.8	42.7
110-86-1	Pyridine	U	427	ug/kg	85.3	427
62-53-3	Aniline	U	427	ug/kg	128	427
111-44-4	bis(2-Chloroethyl) ether	U	427	ug/kg	85.3	427
541-73-1	1,3-Dichlorobenzene	U	427	ug/kg	85.3	427
100-51-6	Benzyl alcohol	U	427	ug/kg	128	427
95-50-1	1,2-Dichlorobenzene	U	427	ug/kg	85.3	427
108-60-1	bis(2-Chloroisopropyl)ether	U	427	ug/kg	85.3	427
95-48-7	o-Cresol	U	427	ug/kg	85.3	427
65794-96-9	m,p-Cresols	U	427	ug/kg	128	427
67-72-1	Hexachloroethane	U	427	ug/kg	85.3	427
98-95-3	Nitrobenzene	U	427	ug/kg	85.3	427
78-59-1	Isophorone	U	427	ug/kg	85.3	427
88-75-5	2-Nitrophenol	U	427	ug/kg	85.3	427
105-67-9	2,4-Dimethylphenol	U	427	ug/kg	149	427
111-91-1	bis(2-Chloroethoxy)methane	U	427	ug/kg	85.3	427
120-83-2	2,4-Dichlorophenol	U	427	ug/kg	85.3	427
65-85-0	Benzoic acid	U	853	ug/kg	213	853
91-20-3	Naphthalene	U	42.7	ug/kg	12.8	42.7
106-47-8	4-Chloroaniline	U	427	ug/kg	85.3	427
87-68-3	Hexachlorobutadiene	U	427	ug/kg	85.3	427
91-57-6	2-Methylnaphthalene	U	42.7	ug/kg	8.53	42.7
77-47-4	Hexachlorocyclopentadiene	U	427	ug/kg	85.3	427
88-06-2	2,4,6-Trichlorophenol	U	427	ug/kg	85.3	427
95-95-4	2,4,5-Trichlorophenol	U	427	ug/kg	85.3	427
91-58-7	2-Chloronaphthalene	U	42.7	ug/kg	14.1	42.7
88-74-4	2-Nitroaniline	U	427	ug/kg	85.3	427
99-09-2	<i>o</i> -Nitroaniline	U	427	ug/kg	85.3	427
	3-Nitroaniline					

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

SDG Number: 10-1304  
Lab Sample ID: 245106005

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22  
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
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	427	ug/kg	85.3	427
606-20-2	2,6-Dinitrotoluene	U	427	ug/kg	42.7	427
208-96-8	Acenaphthylene	U	42.7	ug/kg	12.8	42.7
51-28-5	2,4-Dinitrophenol	U	853	ug/kg	162	853
132-64-9	Dibenzofuran	U	427	ug/kg	85.3	427
84-66-2	Diethylphthalate	U	427	ug/kg	85.3	427
86-73-7	Fluorene	U	42.7	ug/kg	12.8	42.7
7005-72-3	4-Chlorophenylphenylether	U	427	ug/kg	85.3	427
534-52-1	2-Methyl-4,6-dinitrophenol	U	427	ug/kg	85.3	427
100-01-6	4-Nitroaniline	U	427	ug/kg	128	427
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	427	ug/kg	85.3	427
122-66-7	Azobenzene	U	427	ug/kg	85.3	427
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	427	ug/kg	85.3	427
118-74-1	Hexachlorobenzene	U	427	ug/kg	85.3	427
85-01-8	Phenanthrene	U	42.7	ug/kg	12.8	42.7
120-12-7	Anthracene	U	42.7	ug/kg	8.53	42.7
84-74-2	Di-n-butylphthalate	U	427	ug/kg	85.3	427
206-44-0	Fluoranthene	U	42.7	ug/kg	12.8	42.7
85-68-7	Butylbenzylphthalate	U	427	ug/kg	85.3	427
56-55-3	Benzo(a)anthracene	U	42.7	ug/kg	12.8	42.7
91-94-1	3,3'-Dichlorobenzidine	U	427	ug/kg	128	427
218-01-9	Chrysene	U	42.7	ug/kg	12.8	42.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	427	ug/kg	85.3	427
117-84-0	Di-n-octylphthalate	U	427	ug/kg	85.3	427
205-99-2	Benzo(b)fluoranthene	U	42.7	ug/kg	12.8	42.7
207-08-9	Benzo(k)fluoranthene	U	42.7	ug/kg	12.8	42.7
50-32-8	Benzo(a)pyrene	U	42.7	ug/kg	12.8	42.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.7	ug/kg	12.8	42.7
53-70-3	Dibenzo(a,h)anthracene	U	42.7	ug/kg	12.8	42.7
191-24-2	Benzo(ghi)perylene	U	42.7	ug/kg	12.8	42.7
120-82-1	1,2,4-Trichlorobenzene	U	427	ug/kg	85.3	427

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.11	172	ug/kg		JA
	Unknown Aldol Condensate	3.09	770	ug/kg		JA

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

SDG Number: 10-1304  
Lab Sample ID: 245106007

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.J  
Analyst: AMY  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 19.2  
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	412	ug/kg	82.5	412
108-95-2	Phenol	U	412	ug/kg	82.5	412
95-57-8	2-Chlorophenol	U	412	ug/kg	82.5	412
106-46-7	1,4-Dichlorobenzene	U	412	ug/kg	82.5	412
621-64-7	N-Nitrosodipropylamine	U	412	ug/kg	82.5	412
59-50-7	4-Chloro-3-methylphenol	U	412	ug/kg	82.5	412
83-32-9	Acenaphthene	U	41.2	ug/kg	13.6	41.2
121-14-2	2,4-Dinitrotoluene	U	412	ug/kg	41.2	412
100-02-7	4-Nitrophenol	U	412	ug/kg	136	412
87-86-5	Pentachlorophenol	U	412	ug/kg	103	412
129-00-0	Pyrene	U	41.2	ug/kg	12.4	41.2
110-86-1	Pyridine	U	412	ug/kg	82.5	412
62-53-3	Aniline	U	412	ug/kg	124	412
111-44-4	bis(2-Chloroethyl) ether	U	412	ug/kg	82.5	412
541-73-1	1,3-Dichlorobenzene	U	412	ug/kg	82.5	412
100-51-6	Benzyl alcohol	U	412	ug/kg	124	412
95-50-1	1,2-Dichlorobenzene	U	412	ug/kg	82.5	412
108-60-1	bis(2-Chloroisopropyl)ether	U	412	ug/kg	82.5	412
95-48-7	o-Cresol	U	412	ug/kg	82.5	412
65794-96-9	m,p-Cresols	U	412	ug/kg	124	412
67-72-1	Hexachloroethane	U	412	ug/kg	82.5	412
98-95-3	Nitrobenzene	U	412	ug/kg	82.5	412
78-59-1	Isophorone	U	412	ug/kg	82.5	412
88-75-5	2-Nitrophenol	U	412	ug/kg	82.5	412
105-67-9	2,4-Dimethylphenol	U	412	ug/kg	144	412
111-91-1	bis(2-Chloroethoxy)methane	U	412	ug/kg	82.5	412
120-83-2	2,4-Dichlorophenol	U	412	ug/kg	82.5	412
65-85-0	Benzoic acid	U	825	ug/kg	206	825
91-20-3	Naphthalene	U	41.2	ug/kg	12.4	41.2
106-47-8	4-Chloroaniline	U	412	ug/kg	82.5	412
87-68-3	Hexachlorobutadiene	U	412	ug/kg	82.5	412
91-57-6	2-Methylnaphthalene	U	41.2	ug/kg	8.25	41.2
77-47-4	Hexachlorocyclopentadiene	U	412	ug/kg	82.5	412
88-06-2	2,4,6-Trichlorophenol	U	412	ug/kg	82.5	412
95-95-4	2,4,5-Trichlorophenol	U	412	ug/kg	82.5	412
91-58-7	2-Chloronaphthalene	U	41.2	ug/kg	13.6	41.2
88-74-4	2-Nitroaniline	U	412	ug/kg	82.5	412
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	412	ug/kg	82.5	412

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

SDG Number: 10-1304  
Lab Sample ID: 245106007

Client ID: RE15-10-7168  
Batch ID: 944591  
Run Date: 01/29/2010 01:25  
Prep Date: 01/25/2010 14:38  
Data File: s1a2825.d

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 19.2  
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
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	412	ug/kg	82.5	412
606-20-2	2,6-Dinitrotoluene	U	412	ug/kg	41.2	412
208-96-8	Acenaphthylene	U	41.2	ug/kg	12.4	41.2
51-28-5	2,4-Dinitrophenol	U	825	ug/kg	157	825
132-64-9	Dibenzofuran	U	412	ug/kg	82.5	412
84-66-2	Diethylphthalate	U	412	ug/kg	82.5	412
86-73-7	Fluorene	U	41.2	ug/kg	12.4	41.2
7005-72-3	4-Chlorophenylphenylether	U	412	ug/kg	82.5	412
534-52-1	2-Methyl-4,6-dinitrophenol	U	412	ug/kg	82.5	412
100-01-6	4-Nitroaniline	U	412	ug/kg	124	412
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	412	ug/kg	82.5	412
122-66-7	Azobenzene	U	412	ug/kg	82.5	412
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	412	ug/kg	82.5	412
118-74-1	Hexachlorobenzene	U	412	ug/kg	82.5	412
85-01-8	Phenanthrene	U	41.2	ug/kg	12.4	41.2
120-12-7	Anthracene	U	41.2	ug/kg	8.25	41.2
84-74-2	Di-n-butylphthalate	U	412	ug/kg	82.5	412
206-44-0	Fluoranthene	U	41.2	ug/kg	12.4	41.2
85-68-7	Butylbenzylphthalate	U	412	ug/kg	82.5	412
56-55-3	Benzo(a)anthracene	U	41.2	ug/kg	12.4	41.2
91-94-1	3,3'-Dichlorobenzidine	U	412	ug/kg	124	412
218-01-9	Chrysene	U	41.2	ug/kg	12.4	41.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	412	ug/kg	82.5	412
117-84-0	Di-n-octylphthalate	U	412	ug/kg	82.5	412
205-99-2	Benzo(b)fluoranthene	U	41.2	ug/kg	12.4	41.2
207-08-9	Benzo(k)fluoranthene	U	41.2	ug/kg	12.4	41.2
50-32-8	Benzo(a)pyrene	U	41.2	ug/kg	12.4	41.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.2	ug/kg	12.4	41.2
53-70-3	Dibenzo(a,h)anthracene	U	41.2	ug/kg	12.4	41.2
191-24-2	Benzo(ghi)perylene	U	41.2	ug/kg	12.4	41.2
120-82-1	1,2,4-Trichlorobenzene	U	412	ug/kg	82.5	412

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.69	265	ug/kg		J
79-09-4	Propanoic acid	2.13	207	ug/kg	87	NJ

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

SDG Number: 10-1304  
Lab Sample ID: 245106007  
  
Client ID: RE15-10-7168  
Batch ID: 944591  
Run Date: 01/29/2010 01:25  
Prep Date: 01/25/2010 14:38  
Data File: s1a2825.d

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.01 g  
Column: J&W DB-SMS

Matrix: R  
%Moisture: 19.2  
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
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.08	709	ug/kg		JA
2867-05-2	Bicyclo[3.1.0]hex-2-ene, 2-methyl-5-(1-m	3.75	234	ug/kg	91	NJ
3387-41-5	Bicyclo[3.1.0]hexane, 4-methylene-1-(1-m	4.12	335	ug/kg	93	NJ
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.15	1220	ug/kg	98	NJ
120-08-1	2H-1-Benzopyran-2-one, 6,7-dimethoxy-	9.88	265	ug/kg	98	NJ
1686-66-4	Phenanthrene, 7-ethenyl-1,2,3,4,4a,4b,5,	10.13	183	ug/kg	89	NJ
1000190-13-7	Octadec-9-enoic acid	10.48	241	ug/kg	93	NJ
	Unknown	11.3	210	ug/kg		J
334-48-5	n-Decanoic acid	11.35	191	ug/kg	89	NJ
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.39	192	ug/kg	98	NJ
	Unknown	11.44	229	ug/kg		J
	Unknown	11.69	295	ug/kg		J
	Unknown	11.82	2230	ug/kg		J
	Unknown	12.06	177	ug/kg		J
646-30-0	Nonadecanoic acid	12.14	322	ug/kg	90	NJ
557-59-5	Tetracosanoic acid	13.06	235	ug/kg	97	NJ
	Unknown	15	209	ug/kg		J
54832-82-5	Tricyclo[4.3.0.0(7,9)]nonane, 2,2,5,5,8,	15.36	572	ug/kg	90	NJ
70038-20-9	7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	16.06	827	ug/kg	93	NJ
83-47-6	.gamma.-Sitosterol	16.8	1740	ug/kg	97	NJ

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106006	Date Received: 01/20/2010 08:45	%Moisture: 8.9
Client ID: RE15-10-7169	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/29/2010 00:58	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: s1a2824.d	Aliquot: 30.01 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	366	ug/kg	73.2	366
108-95-2	Phenol	U	366	ug/kg	73.2	366
95-57-8	2-Chlorophenol	U	366	ug/kg	73.2	366
106-46-7	1,4-Dichlorobenzene	U	366	ug/kg	73.2	366
621-64-7	N-Nitrosodipropylamine	U	366	ug/kg	73.2	366
59-50-7	4-Chloro-3-methylphenol	U	366	ug/kg	73.2	366
83-32-9	Accenaphthene	U	36.6	ug/kg	12.1	36.6
121-14-2	2,4-Dinitrotoluene	U	366	ug/kg	36.6	366
100-02-7	4-Nitrophenol	U	366	ug/kg	121	366
87-86-5	Pentachlorophenol	U	366	ug/kg	91.5	366
129-00-0	Pyrene	U	36.6	ug/kg	11.0	36.6
110-86-1	Pyridine	U	366	ug/kg	73.2	366
62-53-3	Aniline	U	366	ug/kg	110	366
111-44-4	bis(2-Chloroethyl) ether	U	366	ug/kg	73.2	366
541-73-1	1,3-Dichlorobenzene	U	366	ug/kg	73.2	366
100-51-6	Benzyl alcohol	U	366	ug/kg	110	366
95-50-1	1,2-Dichlorobenzene	U	366	ug/kg	73.2	366
108-60-1	bis(2-Chloroisopropyl)ether	U	366	ug/kg	73.2	366
95-48-7	o-Cresol	U	366	ug/kg	73.2	366
65794-96-9	m,p-Crcsols	U	366	ug/kg	110	366
67-72-1	Hexachloroethane	U	366	ug/kg	73.2	366
98-95-3	Nitrobenzene	U	366	ug/kg	73.2	366
78-59-1	Isophorone	U	366	ug/kg	73.2	366
88-75-5	2-Nitrophenol	U	366	ug/kg	73.2	366
105-67-9	2,4-Dimethylphenol	U	366	ug/kg	128	366
111-91-1	bis(2-Chloroethoxy)methane	U	366	ug/kg	73.2	366
120-83-2	2,4-Dichlorophenol	U	366	ug/kg	73.2	366
65-85-0	Benzoic acid	U	732	ug/kg	183	732
91-20-3	Naphthalene	U	36.6	ug/kg	11.0	36.6
106-47-8	4-Chloroaniline	U	366	ug/kg	73.2	366
87-68-3	Hexachlorobutadiene	U	366	ug/kg	73.2	366
91-57-6	2-Methylnaphthalene	U	36.6	ug/kg	7.32	36.6
77-47-4	Hexachlorocyclopentadiene	U	366	ug/kg	73.2	366
88-06-2	2,4,6-Trichlorophenol	U	366	ug/kg	73.2	366
95-95-4	2,4,5-Trichlorophenol	U	366	ug/kg	73.2	366
91-58-7	2-Chloronaphthalene	U	36.6	ug/kg	12.1	36.6
88-74-4	2-Nitroaniline	U	366	ug/kg	73.2	366
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	366	ug/kg	73.2	366



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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106006	Date Received: 01/20/2010 08:45	%Moisture: 8.9
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7169	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/29/2010 00:58	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s1a2824.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	366	ug/kg	73.2	366
606-20-2	2,6-Dinitrotoluene	U	366	ug/kg	36.6	366
208-96-8	Acenaphthylene	U	36.6	ug/kg	11.0	36.6
51-28-5	2,4-Dinitrophenol	U	732	ug/kg	139	732
132-64-9	Dibenzofuran	U	366	ug/kg	73.2	366
84-66-2	Diethylphthalate	U	366	ug/kg	73.2	366
86-73-7	Fluorene	U	36.6	ug/kg	11.0	36.6
7005-72-3	4-Chlorophenylphenylether	U	366	ug/kg	73.2	366
534-52-1	2-Methyl-4,6-dinitrophenol	U	366	ug/kg	73.2	366
100-01-6	4-Nitroaniline	U	366	ug/kg	110	366
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	366	ug/kg	73.2	366
122-66-7	Azobenzene	U	366	ug/kg	73.2	366
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	366	ug/kg	73.2	366
118-74-1	Hexachlorobenzene	U	366	ug/kg	73.2	366
85-01-8	Phenanthrene	U	36.6	ug/kg	11.0	36.6
120-12-7	Anthracene	U	36.6	ug/kg	7.32	36.6
84-74-2	Di-n-butylphthalate	U	366	ug/kg	73.2	366
206-44-0	Fluoranthene	U	36.6	ug/kg	11.0	36.6
85-68-7	Butylbenzylphthalate	U	366	ug/kg	73.2	366
56-55-3	Benzo(a)anthracene	U	36.6	ug/kg	11.0	36.6
91-94-1	3,3'-Dichlorobenzidine	U	366	ug/kg	110	366
218-01-9	Chrysene	U	36.6	ug/kg	11.0	36.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	366	ug/kg	73.2	366
117-84-0	Di-n-octylphthalate	U	366	ug/kg	73.2	366
205-99-2	Benzo(b)fluoranthene	U	36.6	ug/kg	11.0	36.6
207-08-9	Benzo(k)fluoranthene	U	36.6	ug/kg	11.0	36.6
50-32-8	Benzo(a)pyrene	U	36.6	ug/kg	11.0	36.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.6	ug/kg	11.0	36.6
53-70-3	Dibenzo(a,h)anthracene	U	36.6	ug/kg	11.0	36.6
191-24-2	Benzo(ghi)perylene	U	36.6	ug/kg	11.0	36.6
120-82-1	1,2,4-Trichlorobenzene	U	366	ug/kg	73.2	366

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.68	158	ug/kg		J
	Unknown	1.75	240	ug/kg		J

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106006	Date Received: 01/20/2010 08:45	%Moisture: 8.9
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7169	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/29/2010 00:58	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s1a2824.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.95	163	ug/kg		J
	Unknown	2.16	202	ug/kg		J
	Unknown Aldol Condensate	3.1	755	ug/kg		JA
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.8	608	ug/kg	94	NJ
112-85-6	Docosanoic acid	12.13	171	ug/kg	90	NJ
	Unknown	15.34	189	ug/kg		J
	Unknown	16.05	218	ug/kg		J
	Unknown	16.17	342	ug/kg		J
83-46-5	.beta.-Sitosterol	16.87	249	ug/kg	94	NJ
	Unknown	17	291	ug/kg		J

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

SDG Number: 10-1304  
Lab Sample ID: 245106003

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.J  
Analyst: AMY  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 23.2  
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	433	ug/kg	86.5	433
108-95-2	Phenol	U	433	ug/kg	86.5	433
95-57-8	2-Chlorophenol	U	433	ug/kg	86.5	433
106-46-7	1,4-Dichlorobenzene	U	433	ug/kg	86.5	433
621-64-7	N-Nitrosodipropylamine	U	433	ug/kg	86.5	433
59-50-7	4-Chloro-3-methylphenol	U	433	ug/kg	86.5	433
83-32-9	Acenaphthene	U	43.3	ug/kg	14.3	43.3
121-14-2	2,4-Dinitrotoluene	U	433	ug/kg	43.3	433
100-02-7	4-Nitrophenol	U	433	ug/kg	143	433
87-86-5	Pentachlorophenol	U	433	ug/kg	108	433
129-00-0	Pyrene	U	43.3	ug/kg	13.0	43.3
110-86-1	Pyridine	U	433	ug/kg	86.5	433
62-53-3	Aniline	U	433	ug/kg	130	433
111-44-4	bis(2-Chloroethyl) ether	U	433	ug/kg	86.5	433
541-73-1	1,3-Dichlorobenzene	U	433	ug/kg	86.5	433
100-51-6	Benzyl alcohol	U	433	ug/kg	130	433
95-50-1	1,2-Dichlorobenzene	U	433	ug/kg	86.5	433
108-60-1	bis(2-Chloroisopropyl)ether	U	433	ug/kg	86.5	433
95-48-7	o-Cresol	U	433	ug/kg	86.5	433
65794-96-9	m,p-Cresols	U	433	ug/kg	130	433
67-72-1	Hexachloroethane	U	433	ug/kg	86.5	433
98-95-3	Nitrobenzene	U	433	ug/kg	86.5	433
78-59-1	Isophorone	U	433	ug/kg	86.5	433
88-75-5	2-Nitrophenol	U	433	ug/kg	86.5	433
105-67-9	2,4-Dimethylphenol	U	433	ug/kg	151	433
111-91-1	bis(2-Chloroethoxy)methane	U	433	ug/kg	86.5	433
120-83-2	2,4-Dichlorophenol	U	433	ug/kg	86.5	433
65-85-0	Benzoic acid	U	865	ug/kg	216	865
91-20-3	Naphthalene	U	43.3	ug/kg	13.0	43.3
106-47-8	4-Chloroaniline	U	433	ug/kg	86.5	433
87-68-3	Hexachlorobutadiene	U	433	ug/kg	86.5	433
91-57-6	2-Methylnaphthalene	U	43.3	ug/kg	8.65	43.3
77-47-4	Hexachlorocyclopentadiene	U	433	ug/kg	86.5	433
88-06-2	2,4,6-Trichlorophenol	U	433	ug/kg	86.5	433
95-95-4	2,4,5-Trichlorophenol	U	433	ug/kg	86.5	433
91-58-7	2-Chloronaphthalene	U	43.3	ug/kg	14.3	43.3
88-74-4	2-Nitroaniline	U	433	ug/kg	86.5	433
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	433	ug/kg	86.5	433

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

SDG Number: 10-1304  
Lab Sample ID: 245106003

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 23.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	433	ug/kg	86.5	433
606-20-2	2,6-Dinitrotoluene	U	433	ug/kg	43.3	433
208-96-8	Acenaphthylene	U	43.3	ug/kg	13.0	43.3
51-28-5	2,4-Dinitrophenol	U	865	ug/kg	164	865
132-64-9	Dibenzofuran	U	433	ug/kg	86.5	433
84-66-2	Diethylphthalate	U	433	ug/kg	86.5	433
86-73-7	Fluorene	U	43.3	ug/kg	13.0	43.3
7005-72-3	4-Chlorophenylphenylether	U	433	ug/kg	86.5	433
534-52-1	2-Methyl-4,6-dinitrophenol	U	433	ug/kg	86.5	433
100-01-6	4-Nitroaniline	U	433	ug/kg	130	433
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	433	ug/kg	86.5	433
122-66-7	Azobenzene	U	433	ug/kg	86.5	433
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	433	ug/kg	86.5	433
118-74-1	Hexachlorobenzene	U	433	ug/kg	86.5	433
85-01-8	Phenanthrene	U	43.3	ug/kg	13.0	43.3
120-12-7	Anthracene	U	43.3	ug/kg	8.65	43.3
84-74-2	Di-n-butylphthalate	U	433	ug/kg	86.5	433
206-44-0	Fluoranthene	U	43.3	ug/kg	13.0	43.3
85-68-7	Butylbenzylphthalate	U	433	ug/kg	86.5	433
56-55-3	Benzo(a)anthracene	U	43.3	ug/kg	13.0	43.3
91-94-1	3,3'-Dichlorobenzidine	U	433	ug/kg	130	433
218-01-9	Chrysene	U	43.3	ug/kg	13.0	43.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	433	ug/kg	86.5	433
117-84-0	Di-n-octylphthalate	U	433	ug/kg	86.5	433
205-99-2	Benzo(b)fluoranthene	U	43.3	ug/kg	13.0	43.3
207-08-9	Benzo(k)fluoranthene	U	43.3	ug/kg	13.0	43.3
50-32-8	Benzo(a)pyrene	U	43.3	ug/kg	13.0	43.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	43.3	ug/kg	13.0	43.3
53-70-3	Dibenzo(a,h)anthracene	U	43.3	ug/kg	13.0	43.3
191-24-2	Benzo(ghi)perylene	U	43.3	ug/kg	13.0	43.3
120-82-1	1,2,4-Trichlorobenzene	U	433	ug/kg	86.5	433

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.09	505	ug/kg		JA
	Unknown	11.69	179	ug/kg		J

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106003	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 23.2
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7170	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD1.1	<b>Dilution:</b> 1
<b>Run Date:</b> 01/28/2010 23:36	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s1a2821.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Paramname	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
5155-70-4	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.8	455	ug/kg	94	NJ
	Unknown	13.02	432	ug/kg		J
	Unknown	15	186	ug/kg		J
	Unknown	15.35	438	ug/kg		J
1000144-10-6	1-Methylene-2b-hydroxymethyl-3,3-dimethy	16.05	503	ug/kg	81	NJ
83-46-5	.beta.-Sitosterol	16.8	263	ug/kg	97	NJ
	Unknown	17.09	224	ug/kg		J

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

SDG Number: 10-1304  
Lab Sample ID: 245106002

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 7.8  
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	361	ug/kg	72.3	361
108-95-2	Phenol	U	361	ug/kg	72.3	361
95-57-8	2-Chlorophenol	U	361	ug/kg	72.3	361
106-46-7	1,4-Dichlorobenzene	U	361	ug/kg	72.3	361
621-64-7	N-Nitrosodipropylamine	U	361	ug/kg	72.3	361
59-50-7	4-Chloro-3-methylphenol	U	361	ug/kg	72.3	361
83-32-9	Acenaphthene	U	36.1	ug/kg	11.9	36.1
121-14-2	2,4-Dinitrotoluene	U	361	ug/kg	36.1	361
100-02-7	4-Nitrophenol	U	361	ug/kg	119	361
87-86-5	Pentachlorophenol	U	361	ug/kg	90.4	361
129-00-0	Pyrene	U	36.1	ug/kg	10.8	36.1
110-86-1	Pyridine	U	361	ug/kg	72.3	361
62-53-3	Aniline	U	361	ug/kg	108	361
111-44-4	bis(2-Chloroethyl) ether	U	361	ug/kg	72.3	361
541-73-1	1,3-Dichlorobenzene	U	361	ug/kg	72.3	361
100-51-6	Benzyl alcohol	U	361	ug/kg	108	361
95-50-1	1,2-Dichlorobenzene	U	361	ug/kg	72.3	361
108-60-1	bis(2-Chloroisopropyl)ether	U	361	ug/kg	72.3	361
95-48-7	o-Cresol	U	361	ug/kg	72.3	361
65794-96-9	m,p-Cresols	U	361	ug/kg	108	361
67-72-1	Hexachloroethane	U	361	ug/kg	72.3	361
98-95-3	Nitrobenzene	U	361	ug/kg	72.3	361
78-59-1	Isophorone	U	361	ug/kg	72.3	361
88-75-5	2-Nitrophenol	U	361	ug/kg	72.3	361
105-67-9	2,4-Dimethylphenol	U	361	ug/kg	126	361
111-91-1	bis(2-Chloroethoxy)methane	U	361	ug/kg	72.3	361
120-83-2	2,4-Dichlorophenol	U	361	ug/kg	72.3	361
65-85-0	Benzoic acid	U	723	ug/kg	181	723
91-20-3	Naphthalene	U	36.1	ug/kg	10.8	36.1
106-47-8	4-Chloroaniline	U	361	ug/kg	72.3	361
87-68-3	Hexachlorobutadiene	U	361	ug/kg	72.3	361
91-57-6	2-Methylnaphthalene	U	36.1	ug/kg	7.23	36.1
77-47-4	Hexachlorocyclopentadiene	U	361	ug/kg	72.3	361
88-06-2	2,4,6-Trichlorophenol	U	361	ug/kg	72.3	361
95-95-4	2,4,5-Trichlorophenol	U	361	ug/kg	72.3	361
91-58-7	2-Chloronaphthalene	U	36.1	ug/kg	11.9	36.1
88-74-4	2-Nitroaniline	U	361	ug/kg	72.3	361
99-09-2	o-Nitroaniline	U	361	ug/kg	72.3	361
	3-Nitroaniline	U	361	ug/kg	72.3	361

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

SDG Number: 10-1304  
Lab Sample ID: 245106002

Client ID: RE15-10-7171  
Batch ID: 944591  
Run Date: 01/28/2010 23:08  
Prep Date: 01/25/2010 14:38  
Data File: sla2820.d

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.J  
Analyst: AMY  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 7.8  
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
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	361	ug/kg	72.3	361
606-20-2	2,6-Dinitrotoluene	U	361	ug/kg	36.1	361
208-96-8	Acenaphthylene	U	36.1	ug/kg	10.8	36.1
51-28-5	2,4-Dinitrophenol	U	723	ug/kg	137	723
132-64-9	Dibenzofuran	U	361	ug/kg	72.3	361
84-66-2	Diethylphthalate	U	361	ug/kg	72.3	361
86-73-7	Fluorene	U	36.1	ug/kg	10.8	36.1
7005-72-3	4-Chlorophenylphenylether	U	361	ug/kg	72.3	361
534-52-1	2-Methyl-4,6-dinitrophenol	U	361	ug/kg	72.3	361
100-01-6	4-Nitroaniline	U	361	ug/kg	108	361
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	361	ug/kg	72.3	361
122-66-7	Azobenzene	U	361	ug/kg	72.3	361
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	361	ug/kg	72.3	361
118-74-1	Hexachlorobenzene	U	361	ug/kg	72.3	361
85-01-8	Phenanthrene	U	36.1	ug/kg	10.8	36.1
120-12-7	Anthracene	U	36.1	ug/kg	7.23	36.1
84-74-2	Di-n-butylphthalate	U	361	ug/kg	72.3	361
206-44-0	Fluoranthene	U	36.1	ug/kg	10.8	36.1
85-68-7	Butylbenzylphthalate	U	361	ug/kg	72.3	361
56-55-3	Benzo(a)anthracene	U	36.1	ug/kg	10.8	36.1
91-94-1	3,3'-Dichlorobenzidine	U	361	ug/kg	108	361
218-01-9	Chrysene	U	36.1	ug/kg	10.8	36.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	361	ug/kg	72.3	361
117-84-0	Di-n-octylphthalate	U	361	ug/kg	72.3	361
205-99-2	Benzo(b)fluoranthene	U	36.1	ug/kg	10.8	36.1
207-08-9	Benzo(k)fluoranthene	U	36.1	ug/kg	10.8	36.1
50-32-8	Benzo(a)pyrene	U	36.1	ug/kg	10.8	36.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.1	ug/kg	10.8	36.1
53-70-3	Dibenzo(a,h)anthracene	U	36.1	ug/kg	10.8	36.1
191-24-2	Benzo(ghi)perylene	U	36.1	ug/kg	10.8	36.1
120-82-1	1,2,4-Trichlorobenzene	U	361	ug/kg	72.3	361

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.1	714	ug/kg		JA

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106014	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 4.7
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7176	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD3I	<b>Dilution:</b> 10
<b>Run Date:</b> 02/11/2010 16:19	<b>Analyst:</b> JLD1	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30.02 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s3b1120.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	3490	ug/kg	699	3490
108-95-2	Phenol	U	3490	ug/kg	699	3490
95-57-8	2-Chlorophenol	U	3490	ug/kg	699	3490
106-46-7	1,4-Dichlorobenzene	U	3490	ug/kg	699	3490
621-64-7	N-Nitrosodipropylamine	U	3490	ug/kg	699	3490
59-50-7	4-Chloro-3-methylphenol	U	3490	ug/kg	699	3490
83-32-9	Acenaphthene	U	349	ug/kg	115	349
121-14-2	2,4-Dinitrotoluene	U	3490	ug/kg	349	3490
100-02-7	4-Nitrophenol	U	3490	ug/kg	1150	3490
87-86-5	Pentachlorophenol	U	3490	ug/kg	874	3490
129-00-0	Pyrene	U	349	ug/kg	105	349
110-86-1	Pyridine	U	3490	ug/kg	699	3490
62-53-3	Aniline	U	3490	ug/kg	1050	3490
111-44-4	bis(2-Chloroethyl) ether	U	3490	ug/kg	699	3490
541-73-1	1,3-Dichlorobenzene	U	3490	ug/kg	699	3490
100-51-6	Benzyl alcohol	U	3490	ug/kg	1050	3490
95-50-1	1,2-Dichlorobenzene	U	3490	ug/kg	699	3490
108-60-1	bis(2-Chloroisopropyl) ether	U	3490	ug/kg	699	3490
95-48-7	o-Cresol	U	3490	ug/kg	699	3490
65794-96-9	m,p-Cresols	U	3490	ug/kg	1050	3490
67-72-1	Hexachloroethane	U	3490	ug/kg	699	3490
98-95-3	Nitrobenzene	U	3490	ug/kg	699	3490
78-59-1	Isophorone	U	3490	ug/kg	699	3490
88-75-5	2-Nitrophenol	U	3490	ug/kg	699	3490
105-67-9	2,4-Dimethylphenol	U	3490	ug/kg	1220	3490
111-91-1	bis(2-Chloroethoxy)methane	U	3490	ug/kg	699	3490
120-83-2	2,4-Dichlorophenol	U	3490	ug/kg	699	3490
65-85-0	Benzoic acid	U	6990	ug/kg	1750	6990
91-20-3	Naphthalene	U	349	ug/kg	105	349
106-47-8	4-Chloroaniline	U	3490	ug/kg	699	3490
87-68-3	Hexachlorobutadiene	U	3490	ug/kg	699	3490
91-57-6	2-Methylnaphthalene	U	349	ug/kg	69.9	349
77-47-4	Hexachlorocyclopentadiene	U	3490	ug/kg	699	3490
88-06-2	2,4,6-Trichlorophenol	U	3490	ug/kg	699	3490
95-95-4	2,4,5-Trichlorophenol	U	3490	ug/kg	699	3490
91-58-7	2-Chloronaphthalene	U	349	ug/kg	115	349
88-74-4	2-Nitroaniline	U	3490	ug/kg	699	3490
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	3490	ug/kg	699	3490



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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106014	Date Received: 01/20/2010 08:45	%Moisture: 4.7
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7176	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD3.I	Dilution: 10
Run Date: 02/11/2010 16:19	Analyst: JLD1	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s3b1120.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	3490	ug/kg	699	3490
606-20-2	2,6-Dinitrotoluene	U	3490	ug/kg	349	3490
208-96-8	Acenaphthylene	U	349	ug/kg	105	349
51-28-5	2,4-Dinitrophenol	U	6990	ug/kg	1330	6990
132-64-9	Dibenzofuran	U	3490	ug/kg	699	3490
84-66-2	Diethylphthalate	U	3490	ug/kg	699	3490
86-73-7	Fluorene	U	349	ug/kg	105	349
7005-72-3	4-Chlorophenylphenylether	U	3490	ug/kg	699	3490
534-52-1	2-Methyl-4,6-dinitrophenol	U	3490	ug/kg	699	3490
100-01-6	4-Nitroaniline	U	3490	ug/kg	1050	3490
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	3490	ug/kg	699	3490
122-66-7	Azobenzene	U	3490	ug/kg	699	3490
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	3490	ug/kg	699	3490
118-74-1	Hexachlorobenzene	U	3490	ug/kg	699	3490
85-01-8	Phenanthrene	U	349	ug/kg	105	349
120-12-7	Anthracene	U	349	ug/kg	69.9	349
84-74-2	Di-n-butylphthalate	U	3490	ug/kg	699	3490
206-44-0	Fluoranthene	U	349	ug/kg	105	349
85-68-7	Butylbenzylphthalate	U	3490	ug/kg	699	3490
56-55-3	Benzo(a)anthracene	U	349	ug/kg	105	349
91-94-1	3,3'-Dichlorobenzidine	U	3490	ug/kg	1050	3490
218-01-9	Chrysene	U	349	ug/kg	105	349
117-81-7	bis(2-Ethylhexyl)phthalate	U	3490	ug/kg	699	3490
117-84-0	Di-n-octylphthalate	U	3490	ug/kg	699	3490
205-99-2	Benzo(b)fluoranthene	U	349	ug/kg	105	349
207-08-9	Benzo(k)fluoranthene	U	349	ug/kg	105	349
50-32-8	Benzo(a)pyrene	U	349	ug/kg	105	349
193-39-5	Indeno(1,2,3-cd)pyrene	U	349	ug/kg	105	349
53-70-3	Dibenzo(a,h)anthracene	U	349	ug/kg	105	349
191-24-2	Benzo(ghi)perylene	U	349	ug/kg	105	349
120-82-1	1,2,4-Trichlorobenzene	U	3490	ug/kg	699	3490

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	10.91	2100	ug/kg		J
	Unknown	11.33	2150	ug/kg		J

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

SDG Number: 10-1304  
Lab Sample ID: 245106014

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.I  
Analyst: JLD1  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 4.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 10  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7176  
Batch ID: 944591  
Run Date: 02/11/2010 16:19  
Prep Date: 01/25/2010 14:38  
Data File: s3b1120.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
1235-74-1	Unknown	11.39	5460	ug/kg	99	J
	Unknown	11.49	5920	ug/kg		J
	Unknown	11.54	3040	ug/kg		J
	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.59	2860	ug/kg		NJ
	Unknown	11.63	6080	ug/kg		J
	Unknown	11.7	3190	ug/kg		J
	Unknown	11.73	2700	ug/kg		J
	Unknown	11.8	3570	ug/kg		J
	Unknown	11.85	2020	ug/kg		J
	Unknown	11.92	5970	ug/kg		J
	Unknown	11.94	3250	ug/kg		J
	Unknown	11.99	2580	ug/kg		J
	Unknown	12.06	19900	ug/kg		J
	Unknown	12.13	5540	ug/kg		J
	Unknown	12.18	2820	ug/kg		J
	Unknown	12.31	3050	ug/kg		J
	Unknown	12.4	5180	ug/kg		J
	Unknown	12.44	2010	ug/kg		J
	Unknown	12.49	3950	ug/kg		J
	Unknown	12.54	2120	ug/kg		J
	Unknown	12.62	4570	ug/kg		J
	Unknown	12.7	3310	ug/kg		J
	Unknown	12.78	2780	ug/kg		J
	Unknown	12.85	2220	ug/kg		J
	Unknown	12.91	2680	ug/kg		J
	Unknown	12.96	2010	ug/kg		J
	Unknown	13	2290	ug/kg		J
	Unknown	13.15	2760	ug/kg		J

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106009	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 7.5
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7177	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD1.I	<b>Dilution:</b> 1
<b>Run Date:</b> 01/29/2010 02:20	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s1a2827.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	360	ug/kg	72.0	360
108-95-2	Phenol	U	360	ug/kg	72.0	360
95-57-8	2-Chlorophenol	U	360	ug/kg	72.0	360
106-46-7	1,4-Dichlorobenzene	U	360	ug/kg	72.0	360
621-64-7	N-Nitrosodipropylamine	U	360	ug/kg	72.0	360
59-50-7	4-Chloro-3-methylphenol	U	360	ug/kg	72.0	360
83-32-9	Acenaphthene	U	36.0	ug/kg	11.9	36.0
121-14-2	2,4-Dinitrotoluene	U	360	ug/kg	36.0	360
100-02-7	4-Nitrophenol	U	360	ug/kg	119	360
87-86-5	Pentachlorophenol	U	360	ug/kg	90.1	360
129-00-0	Pyrene	U	36.0	ug/kg	10.8	36.0
110-86-1	Pyridine	U	360	ug/kg	72.0	360
62-53-3	Aniline	U	360	ug/kg	108	360
111-44-4	bis(2-Chloroethyl) ether	U	360	ug/kg	72.0	360
541-73-1	1,3-Dichlorobenzene	U	360	ug/kg	72.0	360
100-51-6	Benzyl alcohol	U	360	ug/kg	108	360
95-50-1	1,2-Dichlorobenzene	U	360	ug/kg	72.0	360
108-60-1	bis(2-Chloroisopropyl)ether	U	360	ug/kg	72.0	360
95-48-7	o-Cresol	U	360	ug/kg	72.0	360
65794-96-9	m,p-Cresols	U	360	ug/kg	108	360
67-72-1	Hexachloroethane	U	360	ug/kg	72.0	360
98-95-3	Nitrobenzene	U	360	ug/kg	72.0	360
78-59-1	Isophorone	U	360	ug/kg	72.0	360
88-75-5	2-Nitrophenol	U	360	ug/kg	72.0	360
105-67-9	2,4-Dimethylphenol	U	360	ug/kg	126	360
111-91-1	bis(2-Chloroethoxy)methane	U	360	ug/kg	72.0	360
120-83-2	2,4-Dichlorophenol	U	360	ug/kg	72.0	360
65-85-0	Benzoic acid	U	720	ug/kg	180	720
91-20-3	Naphthalene	U	36.0	ug/kg	10.8	36.0
106-47-8	4-Chloroaniline	U	360	ug/kg	72.0	360
87-68-3	Hexachlorobutadiene	U	360	ug/kg	72.0	360
91-57-6	2-Methylnaphthalene	U	36.0	ug/kg	7.20	36.0
77-47-4	Hexachlorocyclopentadiene	U	360	ug/kg	72.0	360
88-06-2	2,4,6-Trichlorophenol	U	360	ug/kg	72.0	360
95-95-4	2,4,5-Trichlorophenol	U	360	ug/kg	72.0	360
91-58-7	2-Chloronaphthalene	U	36.0	ug/kg	11.9	36.0
88-74-4	2-Nitroaniline	U	360	ug/kg	72.0	360
99-09-2	<i>o</i> -Nitroaniline	U	360	ug/kg	72.0	360
	3-Nitroaniline					

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106009	Date Received: 01/20/2010 08:45	%Moisture: 7.5
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7177	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1J	Dilution: 1
Run Date: 01/29/2010 02:20	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30 g	Final Volume: 1 mL
Data File: s1a2827.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	360	ug/kg	72.0	360
606-20-2	2,6-Dinitrotoluene	U	360	ug/kg	36.0	360
208-96-8	Acenaphthylene	U	36.0	ug/kg	10.8	36.0
51-28-5	2,4-Dinitrophenol	U	720	ug/kg	137	720
132-64-9	Dibenzofuran	U	360	ug/kg	72.0	360
84-66-2	Diethylphthalate	U	360	ug/kg	72.0	360
86-73-7	Fluorene	U	36.0	ug/kg	10.8	36.0
7005-72-3	4-Chlorophenylphenylether	U	360	ug/kg	72.0	360
534-52-1	2-Methyl-4,6-dinitrophenol	U	360	ug/kg	72.0	360
100-01-6	4-Nitroaniline	U	360	ug/kg	108	360
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	360	ug/kg	72.0	360
122-66-7	Azobenzene	U	360	ug/kg	72.0	360
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	360	ug/kg	72.0	360
118-74-1	Hexachlorobenzene	U	360	ug/kg	72.0	360
85-01-8	Phenanthrene	U	36.0	ug/kg	10.8	36.0
120-12-7	Anthracene	U	36.0	ug/kg	7.20	36.0
84-74-2	Di-n-butylphthalate	U	360	ug/kg	72.0	360
206-44-0	Fluoranthene	U	36.0	ug/kg	10.8	36.0
85-68-7	Butylbenzylphthalate	U	360	ug/kg	72.0	360
56-55-3	Benzo(a)anthracene	U	36.0	ug/kg	10.8	36.0
91-94-1	3,3'-Dichlorobenzidine	U	360	ug/kg	108	360
218-01-9	Chrysene	U	36.0	ug/kg	10.8	36.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	360	ug/kg	72.0	360
117-84-0	Di-n-octylphthalate	U	360	ug/kg	72.0	360
205-99-2	Benzo(b)fluoranthene	U	36.0	ug/kg	10.8	36.0
207-08-9	Benzo(k)fluoranthene	U	36.0	ug/kg	10.8	36.0
50-32-8	Benzo(a)pyrene	U	36.0	ug/kg	10.8	36.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.0	ug/kg	10.8	36.0
53-70-3	Dibenzo(a,h)anthracene	U	36.0	ug/kg	10.8	36.0
191-24-2	Benzo(ghi)perylene	U	36.0	ug/kg	10.8	36.0
120-82-1	1,2,4-Trichlorobenzene	U	360	ug/kg	72.0	360

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.71	152	ug/kg		J
	Unknown	2.16	228	ug/kg		J

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

SDG Number: 10-1304  
Lab Sample ID: 245106009

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 7.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7177  
Batch ID: 944591  
Run Date: 01/29/2010 02:20  
Prep Date: 01/25/2010 14:38  
Data File: s1a2827.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown Aldol Condensate	3.09	813	ug/kg		JA
121-33-5	Vanillin	6.97	155	ug/kg	97	NJ
4630-07-3	Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	7.15	539	ug/kg	99	NJ
1135-24-6	2-Propenoic acid, 3-(4-hydroxy-3-methoxy	9.38	373	ug/kg	98	NJ
109-29-5	Oxacycloheptadecan-2-one	10.48	201	ug/kg	95	NJ
	Unknown	11.45	240	ug/kg		J
	Unknown	11.66	150	ug/kg		J
	Unknown	11.69	230	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.81	1030	ug/kg	94	NJ
112-85-6	Docosanoic acid	12.13	213	ug/kg	90	NJ
580-72-3	2(3H)-Furanone, dihydro-3,4-bis[(4-hydro	15.2	2540	ug/kg	94	NJ
	Unknown	15.8	190	ug/kg		J
	Unknown	15.93	2440	ug/kg		J
	Unknown	16.05	337	ug/kg		J
	Unknown	16.17	272	ug/kg		J
83-46-5	.beta.-Sitosterol	16.75	918	ug/kg	96	NJ

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106011	Date Received: 01/20/2010 08:45	%Moisture: 21.4
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7178	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: J
Run Date: 01/29/2010 22:13	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.03 g	Final Volume: 1 mL
Data File: s1a2919.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	424	ug/kg	84.7	424
108-95-2	Phenol	U	424	ug/kg	84.7	424
95-57-8	2-Chlorophenol	U	424	ug/kg	84.7	424
106-46-7	1,4-Dichlorobenzene	U	424	ug/kg	84.7	424
621-64-7	N-Nitrosodipropylamine	U	424	ug/kg	84.7	424
59-50-7	4-Chloro-3-methylphenol	U	424	ug/kg	84.7	424
83-32-9	Acenaphthene	U	42.4	ug/kg	14.0	42.4
121-14-2	2,4-Dinitrotoluene	U	424	ug/kg	42.4	424
100-02-7	4-Nitrophenol	U	424	ug/kg	140	424
87-86-5	Pentachlorophenol	U	424	ug/kg	106	424
129-00-0	Pyrene	U	42.4	ug/kg	12.7	42.4
110-86-1	Pyridine	U	424	ug/kg	84.7	424
62-53-3	Aniline	U	424	ug/kg	127	424
111-44-4	bis(2-Chloroethyl) ether	U	424	ug/kg	84.7	424
541-73-1	1,3-Dichlorobenzene	U	424	ug/kg	84.7	424
100-51-6	Benzyl alcohol	U	424	ug/kg	127	424
95-50-1	1,2-Dichlorobenzene	U	424	ug/kg	84.7	424
108-60-1	bis(2-Chloroisopropyl) ether	U	424	ug/kg	84.7	424
95-48-7	o-Cresol	U	424	ug/kg	84.7	424
65794-96-9	m,p-Cresols	U	424	ug/kg	127	424
67-72-1	Hexachloroethane	U	424	ug/kg	84.7	424
98-95-3	Nitrobenzene	U	424	ug/kg	84.7	424
78-59-1	Isophorone	U	424	ug/kg	84.7	424
88-75-5	2-Nitrophenol	U	424	ug/kg	84.7	424
105-67-9	2,4-Dimethylphenol	U	424	ug/kg	148	424
111-91-1	bis(2-Chloroethoxy)methane	U	424	ug/kg	84.7	424
120-83-2	2,4-Dichlorophenol	U	424	ug/kg	84.7	424
65-85-0	Benzoic acid	U	847	ug/kg	212	847
91-20-3	Naphthalene	U	42.4	ug/kg	12.7	42.4
106-47-8	4-Chloroaniline	U	424	ug/kg	84.7	424
87-68-3	Hexachlorobutadiene	U	424	ug/kg	84.7	424
91-57-6	2-Methylnaphthalene	U	42.4	ug/kg	8.47	42.4
77-47-4	Hexachlorocyclopentadiene	U	424	ug/kg	84.7	424
88-06-2	2,4,6-Trichlorophenol	U	424	ug/kg	84.7	424
95-95-4	2,4,5-Trichlorophenol	U	424	ug/kg	84.7	424
91-58-7	2-Chloronaphthalene	U	42.4	ug/kg	14.0	42.4
88-74-4	2-Nitroaniline	U	424	ug/kg	84.7	424
99-09-2	<i>o</i> -Nitroaniline	U	424	ug/kg	84.7	424
	3-Nitroaniline					

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

SDG Number: 10-1304  
Lab Sample ID: 245106011

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.J  
Analyst: AMY  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 21.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7178  
Batch ID: 944591  
Run Date: 01/29/2010 22:13  
Prep Date: 01/25/2010 14:38  
Data File: s1a2919.d

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	424	ug/kg	84.7	424
606-20-2	2,6-Dinitrotoluene	U	424	ug/kg	42.4	424
208-96-8	Acenaphthylene	U	42.4	ug/kg	12.7	42.4
51-28-5	2,4-Dinitrophenol	U	847	ug/kg	161	847
132-64-9	Dibenzofuran	U	424	ug/kg	84.7	424
84-66-2	Diethylphthalate	U	424	ug/kg	84.7	424
86-73-7	Fluorene	U	42.4	ug/kg	12.7	42.4
7005-72-3	4-Chlorophenylphenylether	U	424	ug/kg	84.7	424
534-52-1	2-Methyl-4,6-dinitrophenol	U	424	ug/kg	84.7	424
100-01-6	4-Nitroaniline	U	424	ug/kg	127	424
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	424	ug/kg	84.7	424
122-66-7	Azobenzene	U	424	ug/kg	84.7	424
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	424	ug/kg	84.7	424
118-74-1	Hexachlorobenzene	U	424	ug/kg	84.7	424
85-01-8	Phenanthrene	U	42.4	ug/kg	12.7	42.4
120-12-7	Anthracene	U	42.4	ug/kg	8.47	42.4
84-74-2	Di-n-butylphthalate	U	424	ug/kg	84.7	424
206-44-0	Fluoranthene	U	42.4	ug/kg	12.7	42.4
85-68-7	Butylbenzylphthalate	U	424	ug/kg	84.7	424
56-55-3	Benzo(a)anthracene	U	42.4	ug/kg	12.7	42.4
91-94-1	3,3'-Dichlorobenzidine	U	424	ug/kg	127	424
218-01-9	Chrysene	U	42.4	ug/kg	12.7	42.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	424	ug/kg	84.7	424
117-84-0	Di-n-octylphthalate	U	424	ug/kg	84.7	424
205-99-2	Benzo(b)fluoranthene	U	42.4	ug/kg	12.7	42.4
207-08-9	Benzo(k)fluoranthene	U	42.4	ug/kg	12.7	42.4
50-32-8	Benzo(a)pyrene	U	42.4	ug/kg	12.7	42.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.4	ug/kg	12.7	42.4
53-70-3	Dibenzo(a,h)anthracene	U	42.4	ug/kg	12.7	42.4
191-24-2	Benzo(ghi)perylene	U	42.4	ug/kg	12.7	42.4
120-82-1	1,2,4-Trichlorobenzene	U	424	ug/kg	84.7	424

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.08	665	ug/kg		JA
57-10-3	n-Hexadecanoic acid	9.71	199	ug/kg	99	NJ

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

SDG Number: 10-1304  
Lab Sample ID: 245106011

Client ID: RE15-10-7178  
Batch ID: 944591  
Run Date: 01/29/2010 22:13  
Prep Date: 01/25/2010 14:38  
Data File: s1a2919.d

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 21.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
120-08-1	2H-1-Benzopyran-2-one, 6,7-dimethoxy-	9.87	193	ug/kg	97	NJ
1000190-13-7	Octadec-9-enoic acid	10.47	227	ug/kg	92	NJ
	Unknown	11.69	676	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.8	915	ug/kg	94	NJ
	Unknown	12.7	282	ug/kg		J
	Unknown	12.8	307	ug/kg		J
25269-17-4	Thunbergol	12.86	281	ug/kg	91	NJ
112-95-8	Eicosane	13.71	230	ug/kg	91	NJ
	Unknown	14.88	259	ug/kg		J
	Unknown	14.99	287	ug/kg		J
	Unknown	15.34	1900	ug/kg		J
	Unknown	16.04	1940	ug/kg		J
	Unknown	16.77	1060	ug/kg		J



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

SDG Number: 10-1304  
Lab Sample ID: 245106016

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.J  
Analyst: AMY  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7179  
Batch ID: 944591  
Run Date: 01/30/2010 00:29  
Prep Date: 01/25/2010 14:38  
Data File: s1a2924.d

CAS No.	Parmname	Qualifier	Result	Units	MDI/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	418	ug/kg	83.5	418
108-95-2	Phenol	U	418	ug/kg	83.5	418
95-57-8	2-Chlorophenol	U	418	ug/kg	83.5	418
106-46-7	1,4-Dichlorobenzene	U	418	ug/kg	83.5	418
621-64-7	N-Nitrosodipropylamine	U	418	ug/kg	83.5	418
59-50-7	4-Chloro-3-methylphenol	U	418	ug/kg	83.5	418
83-32-9	Acenaphthene	U	41.8	ug/kg	13.8	41.8
121-14-2	2,4-Dinitrotoluene	U	418	ug/kg	41.8	418
100-02-7	4-Nitrophenol	U	418	ug/kg	138	418
87-86-5	Pentachlorophenol	U	418	ug/kg	104	418
129-00-0	Pyrene	U	41.8	ug/kg	12.5	41.8
110-86-1	Pyridine	U	418	ug/kg	83.5	418
62-53-3	Aniline	U	418	ug/kg	125	418
111-44-4	bis(2-Chloroethyl) ether	U	418	ug/kg	83.5	418
541-73-1	1,3-Dichlorobenzene	U	418	ug/kg	83.5	418
100-51-6	Benzyl alcohol	U	418	ug/kg	125	418
95-50-1	1,2-Dichlorobenzene	U	418	ug/kg	83.5	418
108-60-1	bis(2-Chloroisopropyl)ether	U	418	ug/kg	83.5	418
95-48-7	o-Cresol	U	418	ug/kg	83.5	418
65794-96-9	m,p-Cresols	U	418	ug/kg	125	418
67-72-1	Hexachloroethane	U	418	ug/kg	83.5	418
98-95-3	Nitrobenzene	U	418	ug/kg	83.5	418
78-59-1	Isophorone	U	418	ug/kg	83.5	418
88-75-5	2-Nitrophenol	U	418	ug/kg	83.5	418
105-67-9	2,4-Dimethylphenol	U	418	ug/kg	146	418
111-91-1	bis(2-Chloroethoxy)methane	U	418	ug/kg	83.5	418
120-83-2	2,4-Dichlorophenol	U	418	ug/kg	83.5	418
65-85-0	Benzoic acid	U	835	ug/kg	209	835
91-20-3	Naphthalene	U	41.8	ug/kg	12.5	41.8
106-47-8	4-Chloroaniline	U	418	ug/kg	83.5	418
87-68-3	Hexachlorobutadiene	U	418	ug/kg	83.5	418
91-57-6	2-Methylnaphthalene	U	41.8	ug/kg	8.35	41.8
77-47-4	Hexachlorocyclopentadiene	U	418	ug/kg	83.5	418
88-06-2	2,4,6-Trichlorophenol	U	418	ug/kg	83.5	418
95-95-4	2,4,5-Trichlorophenol	U	418	ug/kg	83.5	418
91-58-7	2-Chloronaphthalene	U	41.8	ug/kg	13.8	41.8
88-74-4	2-Nitroaniline	U	418	ug/kg	83.5	418
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	418	ug/kg	83.5	418

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106016	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 20.3
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7179	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD1.I	<b>Dilution:</b> 1
<b>Run Date:</b> 01/30/2010 00:29	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30.05 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s1a2924.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	418	ug/kg	83.5	418
606-20-2	2,6-Dinitrotoluene	U	418	ug/kg	41.8	418
208-96-8	Acenaphthylene	U	41.8	ug/kg	12.5	41.8
51-28-5	2,4-Dinitrophenol	U	835	ug/kg	159	835
132-64-9	Dibenzofuran	U	418	ug/kg	83.5	418
84-66-2	Diethylphthalate	U	418	ug/kg	83.5	418
86-73-7	Fluorene	U	41.8	ug/kg	12.5	41.8
7005-72-3	4-Chlorophenylphenylether	U	418	ug/kg	83.5	418
534-52-1	2-Methyl-4,6-dinitrophenol	U	418	ug/kg	83.5	418
100-01-6	4-Nitroaniline	U	418	ug/kg	125	418
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	418	ug/kg	83.5	418
122-66-7	Azobenzene	U	418	ug/kg	83.5	418
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	418	ug/kg	83.5	418
118-74-1	Hexachlorobenzene	U	418	ug/kg	83.5	418
85-01-8	Phenanthrene	U	41.8	ug/kg	12.5	41.8
120-12-7	Anthracene	U	41.8	ug/kg	8.35	41.8
84-74-2	Di-n-butylphthalate	U	418	ug/kg	83.5	418
206-44-0	Fluoranthene	U	41.8	ug/kg	12.5	41.8
85-68-7	Butylbenzylphthalate	U	418	ug/kg	83.5	418
56-55-3	Benzo(a)anthracene	U	41.8	ug/kg	12.5	41.8
91-94-1	3,3'-Dichlorobenzidine	U	418	ug/kg	125	418
218-01-9	Chrysene	U	41.8	ug/kg	12.5	41.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	418	ug/kg	83.5	418
117-84-0	Di-n-octylphthalate	U	418	ug/kg	83.5	418
205-99-2	Benzo(b)fluoranthene	U	41.8	ug/kg	12.5	41.8
207-08-9	Benzo(k)fluoranthene	U	41.8	ug/kg	12.5	41.8
50-32-8	Benzo(a)pyrene	U	41.8	ug/kg	12.5	41.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.8	ug/kg	12.5	41.8
53-70-3	Dibenzo(a,h)anthracene	U	41.8	ug/kg	12.5	41.8
191-24-2	Benzo(ghi)perylene	U	41.8	ug/kg	12.5	41.8
120-82-1	1,2,4-Trichlorobenzene	U	418	ug/kg	83.5	418

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.09	553	ug/kg		JA
91-64-5	2H-1-Benzopyran-2-one	7.27	177	ug/kg	98	NJ

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106016	Date Received: 01/20/2010 08:45	%Moisture: 20.3
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7179	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.1	Dilution: 1
Run Date: 01/30/2010 00:29	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s1a2924.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
Tentatively Identified Compound Summary				Estimated			
CAS No.	Tentatively Identified Compound (TIC)		RT		Units	Fit	Qual
	Unknown		15.38	1790	ug/kg		J
	Unknown		16.06	2580	ug/kg		J
	Unknown		16.64	387	ug/kg		J

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

SDG Number: 10-1304  
Lab Sample ID: 245106015

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 13.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7180  
Batch ID: 944591  
Run Date: 01/30/2010 00:02  
Prep Date: 01/25/2010 14:38  
Data File: s1a2923.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	385	ug/kg	76.9	385
108-95-2	Phenol	U	385	ug/kg	76.9	385
95-57-8	2-Chlorophenol	U	385	ug/kg	76.9	385
106-46-7	1,4-Dichlorobenzene	U	385	ug/kg	76.9	385
621-64-7	N-Nitrosodipropylamine	U	385	ug/kg	76.9	385
59-50-7	4-Chloro-3-methylphenol	U	385	ug/kg	76.9	385
83-32-9	Acenaphthene	U	38.5	ug/kg	12.7	38.5
121-14-2	2,4-Dinitrotoluene	U	385	ug/kg	38.5	385
100-02-7	4-Nitrophenol	U	385	ug/kg	127	385
87-86-5	Pentachlorophenol	U	385	ug/kg	96.1	385
129-00-0	Pyrene	U	38.5	ug/kg	11.5	38.5
110-86-1	Pyridine	U	385	ug/kg	76.9	385
62-53-3	Aniline	U	385	ug/kg	115	385
111-44-4	bis(2-Chloroethyl) ether	U	385	ug/kg	76.9	385
541-73-1	1,3-Dichlorobenzene	U	385	ug/kg	76.9	385
100-51-6	Benzyl alcohol	U	385	ug/kg	115	385
95-50-1	1,2-Dichlorobenzene	U	385	ug/kg	76.9	385
108-60-1	bis(2-Chloroisopropyl)ether	U	385	ug/kg	76.9	385
95-48-7	o-Cresol	U	385	ug/kg	76.9	385
65794-96-9	m,p-Cresols	U	385	ug/kg	115	385
67-72-1	Hexachloroethane	U	385	ug/kg	76.9	385
98-95-3	Nitrobenzene	U	385	ug/kg	76.9	385
78-59-1	Isophorone	U	385	ug/kg	76.9	385
88-75-5	2-Nitrophenol	U	385	ug/kg	76.9	385
105-67-9	2,4-Dimethylphenol	U	385	ug/kg	135	385
111-91-1	bis(2-Chloroethoxy)methane	U	385	ug/kg	76.9	385
120-83-2	2,4-Dichlorophenol	U	385	ug/kg	76.9	385
65-85-0	Benzoic acid	U	769	ug/kg	192	769
91-20-3	Naphthalene	U	38.5	ug/kg	11.5	38.5
106-47-8	4-Chloroaniline	U	385	ug/kg	76.9	385
87-68-3	Hexachlorobutadiene	U	385	ug/kg	76.9	385
91-57-6	2-Methylnaphthalene	U	38.5	ug/kg	7.69	38.5
77-47-4	Hexachlorocyclopentadiene	U	385	ug/kg	76.9	385
88-06-2	2,4,6-Trichlorophenol	U	385	ug/kg	76.9	385
95-95-4	2,4,5-Trichlorophenol	U	385	ug/kg	76.9	385
91-58-7	2-Chloronaphthalene	U	38.5	ug/kg	12.7	38.5
88-74-4	2-Nitroaniline	U	385	ug/kg	76.9	385
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	385	ug/kg	76.9	385

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

SDG Number: 10-1304  
Lab Sample ID: 245106015

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 13.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7180  
Batch ID: 944591  
Run Date: 01/30/2010 00:02  
Prep Date: 01/25/2010 14:38  
Data File: s1a2923.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<i>m-Nitroaniline</i>						
131-11-3	Dimethylphthalate	U	385	ug/kg	76.9	385
606-20-2	2,6-Dinitrotoluene	U	385	ug/kg	38.5	385
208-96-8	Acenaphthylene	U	38.5	ug/kg	11.5	38.5
51-28-5	2,4-Dinitrophenol	U	769	ug/kg	146	769
132-64-9	Dibenzofuran	U	385	ug/kg	76.9	385
84-66-2	Diethylphthalate	U	385	ug/kg	76.9	385
86-73-7	Fluorene	U	38.5	ug/kg	11.5	38.5
7005-72-3	4-Chlorophenylphenylether	U	385	ug/kg	76.9	385
534-52-1	2-Methyl-4,6-dinitrophenol	U	385	ug/kg	76.9	385
100-01-6	4-Nitroaniline	U	385	ug/kg	115	385
<i>p-Nitroaniline</i>						
122-39-4	Diphenylamine	U	385	ug/kg	76.9	385
122-66-7	Azobenzene	U	385	ug/kg	76.9	385
<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenylphenylether	U	385	ug/kg	76.9	385
118-74-1	Hexachlorobenzene	U	385	ug/kg	76.9	385
85-01-8	Phenanthrene	U	38.5	ug/kg	11.5	38.5
120-12-7	Anthracene	U	38.5	ug/kg	7.69	38.5
84-74-2	Di-n-butylphthalate	U	385	ug/kg	76.9	385
206-44-0	Fluoranthene	U	38.5	ug/kg	11.5	38.5
85-68-7	Butylbenzylphthalate	U	385	ug/kg	76.9	385
56-55-3	Benzo(a)anthracene	U	38.5	ug/kg	11.5	38.5
91-94-1	3,3'-Dichlorobenzidine	U	385	ug/kg	115	385
218-01-9	Chrysene	U	38.5	ug/kg	11.5	38.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	385	ug/kg	76.9	385
117-84-0	Di-n-octylphthalate	U	385	ug/kg	76.9	385
205-99-2	Benzo(b)fluoranthene	U	38.5	ug/kg	11.5	38.5
207-08-9	Benzo(k)fluoranthene	U	38.5	ug/kg	11.5	38.5
50-32-8	Benzo(a)pyrene	U	38.5	ug/kg	11.5	38.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.5	ug/kg	11.5	38.5
53-70-3	Dibenzo(a,h)anthracene	U	38.5	ug/kg	11.5	38.5
191-24-2	Benzo(ghi)perylene	U	38.5	ug/kg	11.5	38.5
120-82-1	1,2,4-Trichlorobenzene	U	385	ug/kg	76.9	385

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.09	531	ug/kg		JA
7785-70-8	1R-.alpha.-Pinene	3.83	865	ug/kg	97	NJ

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106015	Date Received: 01/20/2010 08:45	%Moisture: 13.4
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7180	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/30/2010 00:02	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s1a2923.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown	4.97	195	ug/kg		J
24048-44-0	Spiro[4.5]dec-7-ene, 1,8-dimethyl-4-(1-m	7.42	183	ug/kg	83	NJ
19912-83-5	Spiro[5.5]undeca-1,8-diene, 1,5,5,9-tetr	7.67	456	ug/kg	96	NJ
77-53-2	Cedrol	8.26	413	ug/kg	95	NJ
112-79-8	9-Octadecenoic acid, (E)-	10.48	216	ug/kg	95	NJ
	Unknown	10.87	246	ug/kg		J
	Unknown	11.01	161	ug/kg		J
	Unknown	11.06	156	ug/kg		J
	Unknown	11.19	240	ug/kg		J
3513-69-7	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.29	427	ug/kg	98	NJ
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	11.32	1440	ug/kg	95	NJ
	Unknown	11.44	363	ug/kg		J
	Unknown	11.69	2050	ug/kg		J
	Unknown	11.72	1040	ug/kg		J
	Unknown	11.82	918	ug/kg		J
	Unknown	12.06	164	ug/kg		J
112-85-6	Docosanoic acid	12.13	182	ug/kg	92	NJ
	Unknown	12.28	637	ug/kg		J
	Unknown	15.39	392	ug/kg		J
	Unknown	16.05	580	ug/kg		J
	Unknown	16.64	1070	ug/kg		J

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

SDG Number: 10-1304  
Lab Sample ID: 245106010

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1J  
Analyst: AMY  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7181  
Batch ID: 944591  
Run Date: 01/29/2010 21:45  
Prep Date: 01/25/2010 14:38  
Data File: s1a2918.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	379	ug/kg	75.9	379
108-95-2	Phenol	U	379	ug/kg	75.9	379
95-57-8	2-Chlorophenol	U	379	ug/kg	75.9	379
106-46-7	1,4-Dichlorobenzene	U	379	ug/kg	75.9	379
621-64-7	N-Nitrosodipropylamine	U	379	ug/kg	75.9	379
59-50-7	4-Chloro-3-methylphenol	U	379	ug/kg	75.9	379
83-32-9	Acenaphthene	U	37.9	ug/kg	12.5	37.9
121-14-2	2,4-Dinitrotoluene	U	379	ug/kg	37.9	379
100-02-7	4-Nitrophenol	U	379	ug/kg	125	379
87-86-5	Pentachlorophenol	U	379	ug/kg	94.9	379
129-00-0	Pyrene	U	37.9	ug/kg	11.4	37.9
110-86-1	Pyridine	U	379	ug/kg	75.9	379
62-53-3	Aniline	U	379	ug/kg	114	379
111-44-4	bis(2-Chloroethyl) ether	U	379	ug/kg	75.9	379
541-73-1	1,3-Dichlorobenzene	U	379	ug/kg	75.9	379
100-51-6	Benzyl alcohol	U	379	ug/kg	114	379
95-50-1	1,2-Dichlorobenzene	U	379	ug/kg	75.9	379
108-60-1	bis(2-Chloroisopropyl)ether	U	379	ug/kg	75.9	379
95-48-7	o-Cresol	U	379	ug/kg	75.9	379
65794-96-9	m,p-Cresols	U	379	ug/kg	114	379
67-72-1	Hexachloroethane	U	379	ug/kg	75.9	379
98-95-3	Nitrobenzene	U	379	ug/kg	75.9	379
78-59-1	Isophorone	U	379	ug/kg	75.9	379
88-75-5	2-Nitrophenol	U	379	ug/kg	75.9	379
105-67-9	2,4-Dimethylphenol	U	379	ug/kg	133	379
111-91-1	bis(2-Chloroethoxy)methane	U	379	ug/kg	75.9	379
120-83-2	2,4-Dichlorophenol	U	379	ug/kg	75.9	379
65-85-0	Benzoic acid	U	759	ug/kg	190	759
91-20-3	Naphthalene	U	37.9	ug/kg	11.4	37.9
106-47-8	4-Chloroaniline	U	379	ug/kg	75.9	379
87-68-3	Hexachlorobutadiene	U	379	ug/kg	75.9	379
91-57-6	2-Methylnaphthalene	U	37.9	ug/kg	7.59	37.9
77-47-4	Hexachlorocyclopentadiene	U	379	ug/kg	75.9	379
88-06-2	2,4,6-Trichlorophenol	U	379	ug/kg	75.9	379
95-95-4	2,4,5-Trichlorophenol	U	379	ug/kg	75.9	379
91-58-7	2-Chloronaphthalene	U	37.9	ug/kg	12.5	37.9
88-74-4	2-Nitroaniline	U	379	ug/kg	75.9	379
99-09-2	<i>o</i> -Nitroaniline	U	379	ug/kg	75.9	379
	3-Nitroaniline					

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106010	Date Received: 01/20/2010 08:45	%Moisture: 12.1
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7181	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/29/2010 21:45	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30 g	Final Volume: 1 mL
Data File: s1a2918.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	379	ug/kg	75.9	379
606-20-2	2,6-Dinitrotoluene	U	379	ug/kg	37.9	379
208-96-8	Acenaphthylene	U	37.9	ug/kg	11.4	37.9
51-28-5	2,4-Dinitrophenol	U	759	ug/kg	144	759
132-64-9	Dibenzofuran	U	379	ug/kg	75.9	379
84-66-2	Diethylphthalate	U	379	ug/kg	75.9	379
86-73-7	Fluorene	U	37.9	ug/kg	11.4	37.9
7005-72-3	4-Chlorophenylphenylether	U	379	ug/kg	75.9	379
534-52-1	2-Methyl-4,6-dinitrophenol	U	379	ug/kg	75.9	379
100-01-6	4-Nitroaniline	U	379	ug/kg	114	379
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	379	ug/kg	75.9	379
122-66-7	Azobenzene	U	379	ug/kg	75.9	379
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	379	ug/kg	75.9	379
118-74-1	Hexachlorobenzene	U	379	ug/kg	75.9	379
85-01-8	Phenanthrene	U	37.9	ug/kg	11.4	37.9
120-12-7	Anthracene	U	37.9	ug/kg	7.59	37.9
84-74-2	Di-n-butylphthalate	U	379	ug/kg	75.9	379
206-44-0	Fluoranthene	U	37.9	ug/kg	11.4	37.9
85-68-7	Butylbenzylphthalate	U	379	ug/kg	75.9	379
56-55-3	Benzo(a)anthracene	U	37.9	ug/kg	11.4	37.9
91-94-1	3,3'-Dichlorobenzidine	U	379	ug/kg	114	379
218-01-9	Chrysene	U	37.9	ug/kg	11.4	37.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	379	ug/kg	75.9	379
117-84-0	Di-n-octylphthalate	U	379	ug/kg	75.9	379
205-99-2	Benzo(b)fluoranthene	U	37.9	ug/kg	11.4	37.9
207-08-9	Benzo(k)fluoranthene	U	37.9	ug/kg	11.4	37.9
50-32-8	Benzo(a)pyrene	U	37.9	ug/kg	11.4	37.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.9	ug/kg	11.4	37.9
53-70-3	Dibenzo(a,h)anthracene	U	37.9	ug/kg	11.4	37.9
191-24-2	Benzo(ghi)perylene	U	37.9	ug/kg	11.4	37.9
120-82-1	1,2,4-Trichlorobenzene	U	379	ug/kg	75.9	379

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.96	420	ug/kg		J
	Unknown	2.17	221	ug/kg		J



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

Page 3 of 3

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106010	Date Received: 01/20/2010 08:45	%Moisture: 12.1
Client ID: RE15-10-7181	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/29/2010 21:45	Inst: MSD1.1	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: s1a2918.d	Aliquot: 30 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown Aldol Condensate	3.1	852	ug/kg		JA
	Unknown	11.29	273	ug/kg		J
	Unknown	11.43	304	ug/kg		J
	Unknown	11.66	467	ug/kg		J
	Unknown	11.69	630	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.8	844	ug/kg	94	NJ
	Unknown	12.26	213	ug/kg		J
83-46-5	.beta.-Sitosterol	16.92	274	ug/kg	96	NJ

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

SDG Number: 10-1304  
Lab Sample ID: 245106012

Client ID: RE15-10-7182  
Batch ID: 944591  
Run Date: 01/29/2010 22:40  
Prep Date: 01/25/2010 14:38  
Data File: s1a2920.d

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1J  
Analyst: AMY  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 18  
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	406	ug/kg	81.3	406
108-95-2	Phenol	U	406	ug/kg	81.3	406
95-57-8	2-Chlorophenol	U	406	ug/kg	81.3	406
106-46-7	1,4-Dichlorobenzene	U	406	ug/kg	81.3	406
621-64-7	N-Nitrosodipropylamine	U	406	ug/kg	81.3	406
59-50-7	4-Chloro-3-methylphenol	U	406	ug/kg	81.3	406
83-32-9	Acenaphthene	U	40.6	ug/kg	13.4	40.6
121-14-2	2,4-Dinitrotoluene	U	406	ug/kg	40.6	406
100-02-7	4-Nitrophenol	U	406	ug/kg	134	406
87-86-5	Pentachlorophenol	U	406	ug/kg	102	406
129-00-0	Pyrene	U	40.6	ug/kg	12.2	40.6
110-86-1	Pyridine	U	406	ug/kg	81.3	406
62-53-3	Aniline	U	406	ug/kg	122	406
111-44-4	bis(2-Chloroethyl) ether	U	406	ug/kg	81.3	406
541-73-1	1,3-Dichlorobenzene	U	406	ug/kg	81.3	406
100-51-6	Benzyl alcohol	U	406	ug/kg	122	406
95-50-1	1,2-Dichlorobenzene	U	406	ug/kg	81.3	406
108-60-1	bis(2-Chloroisopropyl)ether	U	406	ug/kg	81.3	406
95-48-7	o-Cresol	U	406	ug/kg	81.3	406
65794-96-9	m,p-Cresols	U	406	ug/kg	122	406
67-72-1	Hexachloroethane	U	406	ug/kg	81.3	406
98-95-3	Nitrobenzene	U	406	ug/kg	81.3	406
78-59-1	Isophorone	U	406	ug/kg	81.3	406
88-75-5	2-Nitrophenol	U	406	ug/kg	81.3	406
105-67-9	2,4-Dimethylphenol	U	406	ug/kg	142	406
111-91-1	bis(2-Chloroethoxy)methane	U	406	ug/kg	81.3	406
120-83-2	2,4-Dichlorophenol	U	406	ug/kg	81.3	406
65-85-0	Benzoic acid	U	813	ug/kg	203	813
91-20-3	Naphthalene	U	40.6	ug/kg	12.2	40.6
106-47-8	4-Chloroaniline	U	406	ug/kg	81.3	406
87-68-3	Hexachlorobutadiene	U	406	ug/kg	81.3	406
91-57-6	2-Methylnaphthalene	U	40.6	ug/kg	8.13	40.6
77-47-4	Hexachlorocyclopentadiene	U	406	ug/kg	81.3	406
88-06-2	2,4,6-Trichlorophenol	U	406	ug/kg	81.3	406
95-95-4	2,4,5-Trichlorophenol	U	406	ug/kg	81.3	406
91-58-7	2-Chloronaphthalene	U	40.6	ug/kg	13.4	40.6
88-74-4	2-Nitroaniline	U	406	ug/kg	81.3	406
99-09-2	<i>o</i> -Nitroaniline	U	406	ug/kg	81.3	406
	3-Nitroaniline					

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106012	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 18
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7182	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD1.1	<b>Dilution:</b> 1
<b>Run Date:</b> 01/29/2010 22:40	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s1a2920.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	406	ug/kg	81.3	406
606-20-2	2,6-Dinitrotoluene	U	406	ug/kg	40.6	406
208-96-8	Acenaphthylene	U	40.6	ug/kg	12.2	40.6
51-28-5	2,4-Dinitrophenol	U	813	ug/kg	154	813
132-64-9	Dibenzofuran	U	406	ug/kg	81.3	406
84-66-2	Diethylphthalate	U	406	ug/kg	81.3	406
86-73-7	Fluorene	U	40.6	ug/kg	12.2	40.6
7005-72-3	4-Chlorophenylphenylether	U	406	ug/kg	81.3	406
534-52-1	2-Methyl-4,6-dinitrophenol	U	406	ug/kg	81.3	406
100-01-6	4-Nitroaniline	U	406	ug/kg	122	406
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	406	ug/kg	81.3	406
122-66-7	Azobenzene	U	406	ug/kg	81.3	406
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	406	ug/kg	81.3	406
118-74-1	Hexachlorobenzene	U	406	ug/kg	81.3	406
85-01-8	Phenanthrene	U	40.6	ug/kg	12.2	40.6
120-12-7	Anthracene	U	40.6	ug/kg	8.13	40.6
84-74-2	Di-n-butylphthalate	U	406	ug/kg	81.3	406
206-44-0	Fluoranthene	U	40.6	ug/kg	12.2	40.6
85-68-7	Butylbenzylphthalate	U	406	ug/kg	81.3	406
56-55-3	Benzo(a)anthracene	U	40.6	ug/kg	12.2	40.6
91-94-1	3,3'-Dichlorobenzidine	U	406	ug/kg	122	406
218-01-9	Chrysene	U	40.6	ug/kg	12.2	40.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	406	ug/kg	81.3	406
117-84-0	Di-n-octylphthalate	U	406	ug/kg	81.3	406
205-99-2	Benzo(b)fluoranthene	U	40.6	ug/kg	12.2	40.6
207-08-9	Benzo(k)fluoranthene	U	40.6	ug/kg	12.2	40.6
50-32-8	Benzo(a)pyrene	U	40.6	ug/kg	12.2	40.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.6	ug/kg	12.2	40.6
53-70-3	Dibenzo(a,h)anthracene	U	40.6	ug/kg	12.2	40.6
191-24-2	Benzo(ghi)perylene	U	40.6	ug/kg	12.2	40.6
120-82-1	1,2,4-Trichlorobenzene	U	406	ug/kg	81.3	406

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.09	752	ug/kg		JA
58037-87-9	Bicyclo[3.1.0]hexane, 4-methyl-1-(1-meth	3.75	443	ug/kg	93	NJ

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106012	Date Received: 01/20/2010 08:45	% Moisture: 18
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7182	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1J	Dilution: 1
Run Date: 01/29/2010 22:40	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30 g	Final Volume: 1 mL
Data File: s1a2920.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown	4.11	543	ug/kg		J
57-10-3	n-Hexadecanoic acid	9.72	492	ug/kg	92	NJ
	Unknown	9.9	772	ug/kg		J
1686-66-4	Phenanthrene, 7-ethenyl-1,2,3,4,4a,4b,5,	10.12	735	ug/kg	89	NJ
109-29-5	Oxacycloheptadecan-2-one	10.48	836	ug/kg	93	NJ
57-11-4	Octadecanoic acid	10.56	336	ug/kg	95	NJ
1139-30-6	Caryophyllene oxide	10.71	458	ug/kg	91	NJ
	Unknown	11.1	332	ug/kg		J
	Unknown	11.13	354	ug/kg		J
	Unknown	11.2	1070	ug/kg		J
24174-25-2	5.alpha.,14.beta.-Androstane, 16.alpha.,	11.3	866	ug/kg	91	NJ
506-30-9	Eicosanoic acid	11.35	613	ug/kg	83	NJ
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.39	468	ug/kg	98	NJ
	Unknown	11.42	1110	ug/kg		J
	Unknown	11.45	1680	ug/kg		J
	Unknown	11.59	1510	ug/kg		J
1686-62-0	1-Phenanthrenecarboxylic acid, 7-ethenyl	11.71	2080	ug/kg	80	NJ
	Unknown	11.86	7770	ug/kg		J
	Unknown	12.07	372	ug/kg		J
112-85-6	Docosanoic acid	12.15	1170	ug/kg	98	NJ
	Unknown	12.23	942	ug/kg		J
557-59-5	Tetracosanoic acid	13.06	954	ug/kg	99	NJ
	Unknown	15	810	ug/kg		J
	Unknown	15.89	682	ug/kg		J
62600-05-9	Cedran-diol, 8S,14-	16.04	591	ug/kg	83	NJ
1000214-20-7	Stigmasterol, 22,23-dihydro-	16.65	3100	ug/kg	97	NJ
	Unknown	17.09	2300	ug/kg		J

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106013	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 12.2
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7183	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD1.I	<b>Dilution:</b> 1
<b>Run Date:</b> 01/29/2010 23:07	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30.02 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s1a2921.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	380	ug/kg	75.9	380
108-95-2	Phenol	U	380	ug/kg	75.9	380
95-57-8	2-Chlorophenol	U	380	ug/kg	75.9	380
106-46-7	1,4-Dichlorobenzene	U	380	ug/kg	75.9	380
621-64-7	N-Nitrosodipropylamine	U	380	ug/kg	75.9	380
59-50-7	4-Chloro-3-methylphenol	U	380	ug/kg	75.9	380
83-32-9	Acenaphthene	U	38.0	ug/kg	12.5	38.0
121-14-2	2,4-Dinitrotoluene	U	380	ug/kg	38.0	380
100-02-7	4-Nitrophenol	U	380	ug/kg	125	380
87-86-5	Pentachlorophenol	U	380	ug/kg	94.9	380
129-00-0	Pyrene	U	38.0	ug/kg	11.4	38.0
110-86-1	Pyridine	U	380	ug/kg	75.9	380
62-53-3	Aniline	U	380	ug/kg	114	380
111-44-4	bis(2-Chloroethyl) ether	U	380	ug/kg	75.9	380
541-73-1	1,3-Dichlorobenzene	U	380	ug/kg	75.9	380
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380
95-50-1	1,2-Dichlorobenzene	U	380	ug/kg	75.9	380
108-60-1	bis(2-Chloroisopropyl) ether	U	380	ug/kg	75.9	380
95-48-7	o-Cresol	U	380	ug/kg	75.9	380
65794-96-9	m,p-Cresols	U	380	ug/kg	114	380
67-72-1	Hexachloroethane	U	380	ug/kg	75.9	380
98-95-3	Nitrobenzene	U	380	ug/kg	75.9	380
78-59-1	Isophorone	U	380	ug/kg	75.9	380
88-75-5	2-Nitrophenol	U	380	ug/kg	75.9	380
105-67-9	2,4-Dimethylphenol	U	380	ug/kg	133	380
111-91-1	bis(2-Chloroethoxy)methane	U	380	ug/kg	75.9	380
120-83-2	2,4-Dichlorophenol	U	380	ug/kg	75.9	380
65-85-0	Benzoic acid	U	759	ug/kg	190	759
91-20-3	Naphthalene	U	38.0	ug/kg	11.4	38.0
106-47-8	4-Chloroaniline	U	380	ug/kg	75.9	380
87-68-3	Hexachlorobutadiene	U	380	ug/kg	75.9	380
91-57-6	2-Methylnaphthalene	U	38.0	ug/kg	7.59	38.0
77-47-4	Hexachlorocyclopentadiene	U	380	ug/kg	75.9	380
88-06-2	2,4,6-Trichlorophenol	U	380	ug/kg	75.9	380
95-95-4	2,4,5-Trichlorophenol	U	380	ug/kg	75.9	380
91-58-7	2-Chloronaphthalene	U	38.0	ug/kg	12.5	38.0
88-74-4	2-Nitroaniline	U	380	ug/kg	75.9	380
99-09-2	<i>o</i> -Nitroaniline	U	380	ug/kg	75.9	380
	3-Nitroaniline					

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

SDG Number: 10-1304  
Lab Sample ID: 245106013

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7183  
Batch ID: 944591  
Run Date: 01/29/2010 23:07  
Prep Date: 01/25/2010 14:38  
Data File: s1a2921.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	380	ug/kg	75.9	380
606-20-2	2,6-Dinitrotoluene	U	380	ug/kg	38.0	380
208-96-8	Accenaphthylene	U	38.0	ug/kg	11.4	38.0
51-28-5	2,4-Dinitrophenol	U	759	ug/kg	144	759
132-64-9	Dibenzofuran	U	380	ug/kg	75.9	380
84-66-2	Diethylphthalate	U	380	ug/kg	75.9	380
86-73-7	Fluorene	U	38.0	ug/kg	11.4	38.0
7005-72-3	4-Chlorophenylphenylether	U	380	ug/kg	75.9	380
534-52-1	2-Methyl-4,6-dinitrophenol	U	380	ug/kg	75.9	380
100-01-6	4-Nitroaniline	U	380	ug/kg	114	380
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	380	ug/kg	75.9	380
122-66-7	Azobenzene	U	380	ug/kg	75.9	380
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	380	ug/kg	75.9	380
118-74-1	Hexachlorobenzene	U	380	ug/kg	75.9	380
85-01-8	Phenanthrene	U	38.0	ug/kg	11.4	38.0
120-12-7	Anthracene	U	38.0	ug/kg	7.59	38.0
84-74-2	Di-n-butylphthalate	U	380	ug/kg	75.9	380
206-44-0	Fluoranthene	U	38.0	ug/kg	11.4	38.0
85-68-7	Butylbenzylphthalate	U	380	ug/kg	75.9	380
56-55-3	Benzo(a)anthracene	U	38.0	ug/kg	11.4	38.0
91-94-1	3,3'-Dichlorobenzidine	U	380	ug/kg	114	380
218-01-9	Chrysene	U	38.0	ug/kg	11.4	38.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	380	ug/kg	75.9	380
117-84-0	Di-n-octylphthalate	U	380	ug/kg	75.9	380
205-99-2	Benzo(b)fluoranthene	U	38.0	ug/kg	11.4	38.0
207-08-9	Benzo(k)fluoranthene	U	38.0	ug/kg	11.4	38.0
50-32-8	Benzo(a)pyrene	U	38.0	ug/kg	11.4	38.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.0	ug/kg	11.4	38.0
53-70-3	Dibenzo(a,h)anthracene	U	38.0	ug/kg	11.4	38.0
191-24-2	Benzo(ghi)perylene	U	38.0	ug/kg	11.4	38.0
120-82-1	1,2,4-Trichlorobenzene	U	380	ug/kg	75.9	380

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.94	302	ug/kg		J
79-09-4	Propanoic acid	2.17	238	ug/kg	87	NJ

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106013	Date Received: 01/20/2010 08:45	%Moisture: 12.2
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7183	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1J	Dilution: 1
Run Date: 01/29/2010 23:07	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s1a2921.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown Aldol Condensate	3.09	919	ug/kg		JA
1000130-90-5	2-Methyl-Z,Z-3,13-octadecadienol	10.47	193	ug/kg	95	NJ
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	10.89	284	ug/kg	89	NJ
511-02-4	Naphthalene, decahydro-1,1,4a-trimethyl-	11.2	201	ug/kg	80	NJ
506-30-9	Eicosanoic acid	11.34	233	ug/kg	98	NJ
	Unknown	11.43	565	ug/kg		J
	Unknown	11.59	227	ug/kg		J
	Unknown	11.69	342	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.81	1710	ug/kg	91	NJ
112-85-6	Docosanoic acid	12.13	448	ug/kg	97	NJ
	Unknown	13.02	182	ug/kg		J
557-59-5	Tetracosanoic acid	13.05	571	ug/kg	90	NJ
	Unknown	14.46	216	ug/kg		J
	Unknown	14.65	246	ug/kg		J
	Unknown	14.99	227	ug/kg		J
	Unknown	15.4	2820	ug/kg		J
	Unknown	15.62	242	ug/kg		J
	Unknown	15.88	319	ug/kg		J
	Unknown	16.07	3390	ug/kg		J
	Unknown	16.2	212	ug/kg		J
1000214-20-7	Stigmasterol, 22,23-dihydro-	16.64	1090	ug/kg	93	NJ
	Unknown	16.76	471	ug/kg		J
1000159-38-5	Cycloheptane, 4-methylene-1-methyl-2-(2-	17.08	556	ug/kg	90	NJ

# QC Summary



Semi-Volatile  
Surrogate Recovery Report

Page 1 of 1

SDG Number: 10-1304

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
1202022801	MB for batch 944590	58	57	66	66	50	78
1202022802	LCS for batch 944590	58	59	69	69	64	87
245106001	RE15-10-7165	45	47	52	49	44	55
1202022803	RE15-10-7165MS	43	44	48	51	53	66
1202022804	RE15-10-7165MSD	43	42	47	48	41	55
245106002	RE15-10-7171	56	57	65	64	56	72
245106003	RE15-10-7170	41	42	48	48	41	49
245106004	RE15-10-7164	51	52	56	55	47	71
245106005	RE15-10-7167	46	48	55	50	48	63
245106006	RE15-10-7169	59	62	67	69	62	82
245106007	RE15-10-7168	50	51	56	58	52	67
245106008	RE15-10-7166	48	49	53	45	46	54
245106009	RE15-10-7177	55	58	64	64	62	76
245106010	RE15-10-7181	53	57	61	62	56	74
245106011	RE15-10-7178	47	50	54	56	50	70
245106012	RE15-10-7182	52	55	57	60	58	76
245106013	RE15-10-7183	59	61	67	68	64	80
245106015	RE15-10-7180	38	40	43	48	47	69
245106016	RE15-10-7179	38	41	43	44	39	54
245106014	RE15-10-7176	91 D	86 D	109 * D	104 D	77 D	117 D

## Surrogate

## Acceptance Limits

2FP	= 2-Fluorophenol	(29%-99%)
2FP	= 2-Fluorophenol	(35%-96%)
PHL	= Phenol-d5	(33%-98%)
PHL	= Phenol-d5	(36%-96%)
NBZ	= Nitrobenzene-d5	(31%-105%)
NBZ	= Nitrobenzene-d5	(34%-104%)
FBP	= 2-Fluorobiphenyl	(25%-109%)
FBP	= 2-Fluorobiphenyl	(36%-100%)
TBP	= 2,4,6-Tribromophenol	(37%-106%)
TPH	= p-Terphenyl-d14	(13%-150%)
TPH	= p-Terphenyl-d14	(40%-124%)

\* 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: 10-1304

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 944590

Matrix: SOIL

Lab Sample ID: 1202022802

Instrument: MSD1.I

Analysis Date: 01/28/2010 19:56

Dilution: 1

Analyst: AMY

Pre Batch II 944590

Inj. Vol: .5 uL

Batch ID: 944591

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	896	54	31-95
108-95-2	LCS Phenol	1670	0.0	1020	61	37-104
95-57-8	LCS 2-Chlorophenol	1670	0.0	1030	62	40-105
106-46-7	LCS 1,4-Dichlorobenzene	1670	0.0	944	57	34-103
621-64-7	LCS N-Nitrosodipropylamine	1670	0.0	944	57	36-110
59-50-7	LCS 4-Chloro-3-methylphenol	1670	0.0	1150	69	46-114
83-32-9	LCS Acenaphthene	1670	0.0	1010	60	40-105
121-14-2	LCS 2,4-Dinitrotoluene	1670	0.0	1140	68	49-107
100-02-7	LCS 4-Nitrophenol	1670	0.0	863	52	33-110
87-86-5	LCS Pentachlorophenol	1670	0.0	768	46	38-116
129-00-0	LCS Pyrene	1670	0.0	1370	82	43-108
110-86-1	LCS Pyridine	1670	0.0	793	48	13-129
62-53-3	LCS Aniline	1670	0.0	917	55	30-121
111-44-4	LCS bis(2-Chloroethyl) ether	1670	0.0	916	55	37-106
541-73-1	LCS 1,3-Dichlorobenzene	1670	0.0	922	55	33-103
100-51-6	LCS Benzyl alcohol	1670	0.0	1130	68	31-100
95-50-1	LCS 1,2-Dichlorobenzene	1670	0.0	938	56	34-108
108-60-1	LCS bis(2-Chloroisopropyl)ether	1670	0.0	988	59	34-120
95-48-7	LCS o-Cresol	1670	0.0	966	58	39-111
65794-96-9	LCS m,p-Cresols	1670	0.0	1080	65	43-118
67-72-1	LCS Hexachloroethane	1670	0.0	955	57	34-105
98-95-3	LCS Nitrobenzene	1670	0.0	1010	60	37-110

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 2 of 4

SDG Number: 10-1304

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 944590

Matrix: SOIL

Lab Sample ID: 1202022802

Instrument: MSD1.1

Analysis Date: 01/28/2010 19:56

Dilution: 1

Analyst: AMY

Pre Batch ID: 944590

Inj. Vol: .5 uL

Batch ID: 944591

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	1130	68	41-108
88-75-5	LCS 2-Nitrophenol	1670	0.0	1050	63	35-112
105-67-9	LCS 2,4-Dimethylphenol	1670	0.0	968	58	35-114
111-91-1	LCS bis(2-Chloroethoxy)methane	1670	0.0	978	59	40-109
120-83-2	LCS 2,4-Dichlorophenol	1670	0.0	1070	64	45-109
65-85-0	LCS Benzoic acid	3330	0.0	2140	64	27-137
91-20-3	LCS Naphthalene	1670	0.0	876	53	35-105
106-47-8	LCS 4-Chloroaniline	1670	0.0	875	52	30-122
87-68-3	LCS Hexachlorobutadiene	1670	0.0	869	52	37-111
91-57-6	LCS 2-Methylnaphthalene	1670	0.0	1040	62	40-106
77-47-4	LCS Hexachlorocyclopentadiene	1670	0.0	1420	85	24-135
88-06-2	LCS 2,4,6-Trichlorophenol	1670	0.0	1100	66	46-107
95-95-4	LCS 2,4,5-Trichlorophenol	1670	0.0	1190	71	44-110
91-58-7	LCS 2-Chloronaphthalene	1670	0.0	1030	62	44-104
88-74-4	LCS 2-Nitroaniline <i>o</i> -Nitroaniline	1670	0.0	1060	63	44-113
99-09-2	LCS 3-Nitroaniline <i>m</i> -Nitroaniline	1670	0.0	1010	61	48-113
131-11-3	LCS Dimethylphthalate	1670	0.0	1180	71	47-104
606-20-2	LCS 2,6-Dinitrotoluene	1670	0.0	1090	66	47-103
208-96-8	LCS Acenaphthylene	1670	0.0	1110	67	43-104
51-28-5	LCS 2,4-Dinitrophenol	1670	0.0	929	56	32-114
132-64-9	LCS Dibenzofuran	1670	0.0	1260	76	47-112
84-66-2	LCS Diethylphthalate	1670	0.0	1220	73	50-108

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 944590

Matrix: SOIL

Lab Sample ID: 1202022802

Instrument: MSD1.I

Analysis Date: 01/28/2010 19:56

Dilution: 1

Analyst: AMY

Pre Batch II 944590

Inj. Vol: .5 uL

Batch ID: 944591

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	1050	63	49-102
7005-72-3	LCS 4-Chlorophenylphenylether	1670	0.0	1100	66	50-109
534-52-1	LCS 2-Methyl-4,6-dinitrophenol	1670	0.0	1010	61	35-114
100-01-6	LCS 4-Nitroaniline <i>p</i> -Nitroaniline	1670	0.0	1100	66	44-139
122-39-4	LCS Diphenylamine	1670	0.0	1150	69	46-111
122-66-7	LCS Azobenzene <i>1,2</i> -Diphenylhydrazine	1670	0.0	1130	68	40-119
101-55-3	LCS 4-Bromophenylphenylether	1670	0.0	1150	69	45-112
118-74-1	LCS Hexachlorobenzene	1670	0.0	1040	62	44-115
85-01-8	LCS Phenanthrene	1670	0.0	1120	67	45-107
120-12-7	LCS Anthracene	1670	0.0	1110	67	46-106
84-74-2	LCS Di-n-butylphthalate	1670	0.0	1240	74	52-115
206-44-0	LCS Fluoranthene	1670	0.0	1090	65	50-115
85-68-7	LCS Butylbenzylphthalate	1670	0.0	1340	80	49-115
56-55-3	LCS Benzo(a)anthracene	1670	0.0	1120	67	48-105
91-94-1	LCS 3,3'-Dichlorobenzidine	1670	0.0	1090	65	45-98
218-01-9	LCS Chrysene	1670	0.0	1190	72	48-105
117-81-7	LCS bis(2-Ethylhexyl)phthalate	1670	0.0	1250	75	50-117
117-84-0	LCS Di-n-octylphthalate	1670	0.0	1330	80	39-123
205-99-2	LCS Benzo(b)fluoranthene	1670	0.0	1230	74	46-111
207-08-9	LCS Benzo(k)fluoranthene	1670	0.0	1280	77	46-114
50-32-8	LCS Benzo(a)pyrene	1670	0.0	1270	76	49-112
193-39-5	LCS Indeno(1,2,3-cd)pyrene	1670	0.0	1190	71	45-128

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 944590

Matrix: SOIL

Lab Sample ID:1202022802

Instrument: MSD1.I

Analysis Date: 01/28/2010 19:56

Dilution: 1

Analyst: AMY

Prep Batch II 944590

Inj. Vol: .5 uL

Batch ID: 944591

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	1160	69	44-131
191-24-2	LCS Benzo(ghi)perylene	1670	0.0	1100	66	42-128
120-82-1	LCS 1,2,4-Trichlorobenzene	1670	0.0	1050	63	36-109

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 8

SDG Number: 10-1304

Sample Type: Matrix Spike

Client ID: RE15-10-7165MS

Matrix: R

Lab Sample ID: 1202022803

%Moisture: 19.4

Instrument: MSD1.I

Analysis Date: 01/28/2010 22:14

Dilution: 1

Analyst: AMY

Prep Batch ID: 944590

Inj. Vol: .5 uL

Batch ID: 944591

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	2070	0.00 U	846	41	32-90
108-95-2	MS Phenol	2070	0.00 U	930	45	32-105
95-57-8	MS 2-Chlorophenol	2070	0.00 U	886	43	33-106
106-46-7	MS 1,4-Dichlorobenzene	2070	0.00 U	495	24 *	33-95
621-64-7	MS N-Nitrosodipropylamine	2070	0.00 U	852	41	31-109
59-50-7	MS 4-Chloro-3-methylphenol	2070	0.00 U	1080	52	38-119
83-32-9	MS Acenaphthene	2070	0.00 U	912	44	39-100
121-14-2	MS 2,4-Dinitrotoluene	2070	0.00 U	1100	53	42-107
100-02-7	MS 4-Nitrophenol	2070	0.00 U	786	38	24-120
87-86-5	MS Pentachlorophenol	2070	0.00 U	837	40	26-121
129-00-0	MS Pyrene	2070	0.00 U	1270	61	34-120
110-86-1	MS Pyridine	2070	0.00 U	684	33	30-95
62-53-3	MS Aniline	2070	0.00 U	732	35	34-111
111-44-4	MS bis(2-Chloroethyl) ether	2070	0.00 U	746	36	34-101
541-73-1	MS 1,3-Dichlorobenzene	2070	0.00 U	455	22 *	31-97
100-51-6	MS Benzyl alcohol	2070	0.00 U	871	42	17-120
95-50-1	MS 1,2-Dichlorobenzene	2070	0.00 U	534	26 *	32-102
108-60-1	MS bis(2-Chloroisopropyl)ether	2070	0.00 U	758	37	32-113
95-48-7	MS o-Cresol	2070	0.00 U	853	41	31-119
65794-96-9	MS m,p-Cresols	2070	0.00 U	963	47	35-125
67-72-1	MS Hexachloroethane	2070	0.00 U	421	20 *	30-100
98-95-3	MS Nitrobenzene	2070	0.00 U	814	39	33-108

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 2 of 8

SDG Number: 10-1304

Sample Type: Matrix Spike

Client ID: RE15-10-7165MS

Matrix: R

Lab Sample ID: 1202022803

%Moisture: 19.4

Instrument: MSD1.I

Analysis Date: 01/28/2010 22:14

Dilution: 1

Analyst: AMY

Prep Batch ID: 944590

Inj. Vol: .5 uL

Batch ID: 944591

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS Isophorone	2070	0.00 U	987	48	34-110
88-75-5	MS 2-Nitrophenol	2070	0.00 U	872	42	32-108
105-67-9	MS 2,4-Dimethylphenol	2070	0.00 U	755	36	32-115
111-91-1	MS bis(2-Chloroethoxy)methane	2070	0.00 U	847	41	35-108
120-83-2	MS 2,4-Dichlorophenol	2070	0.00 U	960	46	38-110
65-85-0	MS Benzoic acid	4140	0.00 U	1180	29	18-134
91-20-3	MS Naphthalene	2070	0.00 U	681	33	31-105
106-47-8	MS 4-Chloroaniline	2070	0.00 U	756	37	29-123
87-68-3	MS Hexachlorobutadiene	2070	0.00 U	507	25 *	31-109
91-57-6	MS 2-Methylnaphthalene	2070	0.00 U	851	41	32-110
77-47-4	MS Hexachlorocyclopentadiene	2070	0.00 U	840	41	21-122
88-06-2	MS 2,4,6-Trichlorophenol	2070	0.00 U	1050	51	37-108
95-95-4	MS 2,4,5-Trichlorophenol	2070	0.00 U	1130	55	37-116
91-58-7	MS 2-Chloronaphthalene	2070	0.00 U	908	44	37-103
88-74-4	MS 2-Nitroaniline o-Nitroaniline	2070	0.00 U	980	47	36-115
99-09-2	MS 3-Nitroaniline m-Nitroaniline	2070	0.00 U	988	48	39-117
131-11-3	MS Dimethylphthalate	2070	0.00 U	1110	54	41-105
606-20-2	MS 2,6-Dinitrotoluene	2070	0.00 U	1010	49	41-103
208-96-8	MS Acenaphthylene	2070	0.00 U	997	48	41-103
51-28-5	MS 2,4-Dinitrophenol	2070	0.00 U	903	44	25-104
132-64-9	MS Dibenzofuran	2070	0.00 U	1170	57	40-114
84-66-2	MS Diethylphthalate	2070	0.00 U	1170	57	43-110

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Matrix Spike

Client ID: RE15-10-7165MS

Matrix: R

Lab Sample ID: 1202022803

% Moisture: 19.4

Instrument: MSD1.I

Analysis Date: 01/28/2010 22:14

Dilution: 1

Analyst: AMY

Prep Batch II 944590

Inj. Vol: .5 uL

Batch ID: 944591

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS Fluorene	2070	0.00 U	1000	49	48-99
7005-72-3	MS 4-Chlorophenylphenylether	2070	0.00 U	1060	51	42-111
534-52-1	MS 2-Methyl-4,6-dinitrophenol	2070	0.00 U	952	46	19-118
100-01-6	MS 4-Nitroaniline <i>p</i> -Nitroaniline	2070	0.00 U	1080	52	35-139
122-39-4	MS Diphenylamine	2070	0.00 U	1040	50	41-112
122-66-7	MS Azobenzene <i>1,2</i> -Diphenylhydrazine	2070	0.00 U	1050	51	37-118
101-55-3	MS 4-Bromophenylphenylether	2070	0.00 U	1120	54	39-112
118-74-1	MS Hexachlorobenzene	2070	0.00 U	982	47	38-113
85-01-8	MS Phenanthrene	2070	0.00 U	1090	53	38-110
120-12-7	MS Anthracene	2070	0.00 U	1090	53	38-112
84-74-2	MS Di-n-butylphthalate	2070	0.00 U	1250	60	42-119
206-44-0	MS Fluoranthene	2070	0.00 U	1080	52	38-119
85-68-7	MS Butylbenzylphthalate	2070	0.00 U	1310	64	39-126
56-55-3	MS Benzo(a)anthracene	2070	0.00 U	1090	53	39-110
91-94-1	MS 3,3'-Dichlorobenzidine	2070	0.00 U	810	39	35-106
218-01-9	MS Chrysene	2070	0.00 U	1180	57	39-109
117-81-7	MS bis(2-Ethylhexyl)phthalate	2070	0.00 U	1260	61	40-125
117-84-0	MS Di-n-octylphthalate	2070	0.00 U	1380	67	30-147
205-99-2	MS Benzo(b)fluoranthene	2070	0.00 U	1160	56	38-117
207-08-9	MS Benzo(k)fluoranthene	2070	0.00 U	1250	60	39-120
50-32-8	MS Benzo(a)pyrene	2070	0.00 U	1220	59	40-115
193-39-5	MS Indeno(1,2,3-cd)pyrene	2070	0.00 U	1130	55	32-120



## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Matrix Spike

Client ID: RE15-10-7165MS

Matrix: R

Lab Sample ID:1202022803

%Moisture: 19.4

Instrument: MSD1.I

Analysis Date: 01/28/2010 22:14

Dilution: 1

Analyst: AMY

Prep Batch ID: 944590

Inj. Vol: .5 uL

Batch ID: 944591

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	2070	0.00 U	1120	54	32-124
191-24-2	MS Benzo(ghi)perylene	2070	0.00 U	1020	50	28-119
120-82-1	MS 1,2,4-Trichlorobenzene	2070	0.00 U	706	34	31-105

# Quality Control Summary Spike Recovery Report

SDG Number: 10-1304

Sample Type: Matrix Spike Duplicate

Client ID: RE15-10-7165MSD

Matrix: R

Lab Sample ID: 1202022804

%Moisture: 19.4

Instrument: MSD1.I

Analysis Date: 01/28/2010 22:41

Dilution: 1

Analyst: AMY

Prep Batch ID: 944590

Inj. Vol: .5 uL

Batch ID: 944591

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	2070	0.00 U	876	42	32-90	3	0-30
108-95-2	MSD Phenol	2070	0.00 U	928	45	32-105	0	0-30
95-57-8	MSD 2-Chlorophenol	2070	0.00 U	891	43	33-106	1	0-30
106-46-7	MSD 1,4-Dichlorobenzene	2070	0.00 U	584	28 *	33-95	17	0-30
621-64-7	MSD N-Nitrosodipropylamine	2070	0.00 U	839	41	31-109	2	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	2070	0.00 U	933	45	38-119	15	0-30
83-32-9	MSD Acenaphthene	2070	0.00 U	835	40	39-100	9	0-30
121-14-2	MSD 2,4-Dinitrotoluene	2070	0.00 U	899	44	42-107	20	0-30
100-02-7	MSD 4-Nitrophenol	2070	0.00 U	177	9 *	24-120	127 *	0-30
87-86-5	MSD Pentachlorophenol	2070	0.00 U	594	29	26-121	34 *	0-30
129-00-0	MSD Pyrene	2070	0.00 U	1080	52	34-120	16	0-30
110-86-1	MSD Pyridine	2070	0.00 U	731	35	30-95	7	0-30
62-53-3	MSD Aniline	2070	0.00 U	688	33 *	34-111	6	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	2070	0.00 U	785	38	34-101	5	0-30
541-73-1	MSD 1,3-Dichlorobenzene	2070	0.00 U	551	27 *	31-97	19	0-30
100-51-6	MSD Benzyl alcohol	2070	0.00 U	822	40	17-120	6	0-30
95-50-1	MSD 1,2-Dichlorobenzene	2070	0.00 U	618	30 *	32-102	15	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	2070	0.00 U	782	38	32-113	3	0-30
95-48-7	MSD o-Cresol	2070	0.00 U	838	41	31-119	2	0-30
65794-96-9	MSD m,p-Cresols	2070	0.00 U	919	44	35-125	5	0-30
67-72-1	MSD Hexachloroethane	2070	0.00 U	520	25 *	30-100	21	0-30
98-95-3	MSD Nitrobenzene	2070	0.00 U	845	41	33-108	4	0-30

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Matrix Spike Duplicate

Client ID: RE15-10-7165MSD

Matrix: R

Lab Sample ID: 1202022804

% Moisture: 19.4

Instrument: MSD1.I

Analysis Date: 01/28/2010 22:41

Dilution: 1

Analyst: AMY

Prep Batch ID: 944590

Inj. Vol: .5 uL

Batch ID: 944591

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	2070	0.00 U	971	47	34-110	2	0-30
88-75-5	MSD 2-Nitrophenol	2070	0.00 U	881	43	32-108	1	0-30
105-67-9	MSD 2,4-Dimethylphenol	2070	0.00 U	737	36	32-115	2	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	2070	0.00 U	840	41	35-108	1	0-30
120-83-2	MSD 2,4-Dichlorophenol	2070	0.00 U	905	44	38-110	6	0-30
65-85-0	MSD Benzoic acid	4130	0.00 U	836	20	18-134	34 *	0-30
91-20-3	MSD Naphthalene	2070	0.00 U	708	34	31-105	4	0-30
106-47-8	MSD 4-Chloroaniline	2070	0.00 U	776	38	29-123	3	0-30
87-68-3	MSD Hexachlorobutadiene	2070	0.00 U	569	28 *	31-109	11	0-30
91-57-6	MSD 2-Methylnaphthalene	2070	0.00 U	835	40	32-110	2	0-30
77-47-4	MSD Hexachlorocyclopentadiene	2070	0.00 U	738	36	21-122	13	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	2070	0.00 U	930	45	37-108	12	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	2070	0.00 U	958	46	37-116	17	0-30
91-58-7	MSD 2-Chloronaphthalene	2070	0.00 U	853	41	37-103	6	0-30
88-74-4	MSD 2-Nitroaniline	2070	0.00 U	842	41	36-115	15	0-30
99-09-2	MSD 3-Nitroaniline	2070	0.00 U	828	40	39-117	18	0-30
131-11-3	MSD Dimethylphthalate	2070	0.00 U	965	47	41-105	14	0-30
606-20-2	MSD 2,6-Dinitrotoluene	2070	0.00 U	870	42	41-103	15	0-30
208-96-8	MSD Acenaphthylene	2070	0.00 U	917	44	41-103	8	0-30
51-28-5	MSD 2,4-Dinitrophenol	2070	0.00 U	702	34	25-104	25	0-30
132-64-9	MSD Dibenzofuran	2070	0.00 U	1040	50	40-114	12	0-30
84-66-2	MSD Diethylphthalate	2070	0.00 U	979	47	43-110	18	0-30

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Matrix Spike Duplicate

Client ID: RE15-10-7165MSD

Matrix: R

Lab Sample ID: 1202022804

%Moisture: 19.4

Instrument: MSD1.I

Analysis Date: 01/28/2010 22:41

Dilution: 1

Analyst: AMY

Prep Batch ID: 944590

Inj. Vol: .5 uL

Batch ID: 944591

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD Fluorene	2070	0.00 U	870	42 *	48-99	14	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	2070	0.00 U	908	44	42-111	15	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	2070	0.00 U	646	31	19-118	38 *	0-30
100-01-6	MSD 4-Nitroaniline <i>p</i> -Nitroaniline	2070	0.00 U	836	40	35-139	25	0-30
122-39-4	MSD Diphenylamine	2070	0.00 U	884	43	41-112	16	0-30
122-66-7	MSD Azobenzene <i>1,2</i> -Diphenylhydrazine	2070	0.00 U	906	44	37-118	15	0-30
101-55-3	MSD 4-Bromophenylphenylether	2070	0.00 U	936	45	39-112	18	0-30
118-74-1	MSD Hexachlorobenzene	2070	0.00 U	845	41	38-113	15	0-30
85-01-8	MSD Phenanthrene	2070	0.00 U	896	43	38-110	20	0-30
120-12-7	MSD Anthracene	2070	0.00 U	891	43	38-112	20	0-30
84-74-2	MSD Di-n-butylphthalate	2070	0.00 U	998	48	42-119	22	0-30
206-44-0	MSD Fluoranthene	2070	0.00 U	853	41	38-119	24	0-30
85-68-7	MSD Butylbenzylphthalate	2070	0.00 U	1070	52	39-126	21	0-30
56-55-3	MSD Benzo(a)anthracene	2070	0.00 U	860	42	39-110	24	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	2070	0.00 U	647	31 *	35-106	22	0-30
218-01-9	MSD Chrysene	2070	0.00 U	914	44	39-109	25	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	2070	0.00 U	1020	49	40-125	22	0-30
117-84-0	MSD Di-n-octylphthalate	2070	0.00 U	1130	55	30-147	20	0-30
205-99-2	MSD Benzo(b)fluoranthene	2070	0.00 U	897	43	38-117	26	0-30
207-08-9	MSD Benzo(k)fluoranthene	2070	0.00 U	1000	49	39-120	22	0-30
50-32-8	MSD Benzo(a)pyrene	2070	0.00 U	937	45	40-115	26	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	2070	0.00 U	799	39	32-120	34 *	0-30

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 8 of 8

SDG Number: 10-1304

Sample Type: Matrix Spike Duplicate

Client ID: RE15-10-7165MSD

Matrix: R

Lab Sample ID: 1202022804

%Moisture: 19.4

Instrument: MSD1.I

Analysis Date: 01/28/2010 22:41

Dilution: 1

Analyst: AMY

Prep Batch ID: 944590

Inj. Vol: .5 uL

Batch ID: 944591

CAS No	Paramname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	Acceptance RPD	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	2070	0.00 U	794	38	32-124	34 *	0-30
191-24-2	MSD Benzo(ghi)perylene	2070	0.00 U	715	35	28-119	36 *	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	2070	0.00 U	759	37	31-105	7	0-30

## Method Blank Summary

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SDG Number:	10-1304	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 944590	Instrument ID:	MSD1.I	Data File:	s1a2812.d
Lab Sample ID:	1202022801	Prep Date:	01/25/2010 14:38	Analyzed:	01/28/10 19:28
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 944590	1202022802	s1a2813.d	01/28/10	1956
02 RE15-10-7165	245106001	s1a2817.d	01/28/10	2146
03 RE15-10-7165MS	1202022803	s1a2818.d	01/28/10	2214
04 RE15-10-7165MSD	1202022804	s1a2819.d	01/28/10	2241
05 RE15-10-7171	245106002	s1a2820.d	01/28/10	2308
06 RE15-10-7170	245106003	s1a2821.d	01/28/10	2336
07 RE15-10-7164	245106004	s1a2822.d	01/29/10	0004
08 RE15-10-7167	245106005	s1a2823.d	01/29/10	0031
09 RE15-10-7169	245106006	s1a2824.d	01/29/10	0058
10 RE15-10-7168	245106007	s1a2825.d	01/29/10	0125
11 RE15-10-7166	245106008	s1a2826.d	01/29/10	0153
12 RE15-10-7177	245106009	s1a2827.d	01/29/10	0220
13 RE15-10-7181	245106010	s1a2918.d	01/29/10	2145
14 RE15-10-7178	245106011	s1a2919.d	01/29/10	2213
15 RE15-10-7182	245106012	s1a2920.d	01/29/10	2240
16 RE15-10-7183	245106013	s1a2921.d	01/29/10	2307
17 RE15-10-7180	245106015	s1a2923.d	01/30/10	0002
18 RE15-10-7179	245106016	s1a2924.d	01/30/10	0029
19 RE15-10-7176	245106014	s3b1120.d	02/11/10	1619

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-1304

Instrument ID: MSD1.I

Injection Date/Time: 22-JAN-10 13:28

Column Description: J&amp;W DB-5MS

Lab File ID /chem/MSD1.i/s012210.b/s1a2201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	48.3
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	35.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	48.7
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	25.3
365	Greater than 1% of mass 198	3
441	Present, but less than mass 443	73.5
442	Greater than 40% of mass 198	98.4
443	17 - 23% of mass 442	19.8

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	WBN100121-16	/chem/MSD1.i/s012210.b/s1a2201	22-JAN-10 14:28
MEGA010	WBN100121-15	/chem/MSD1.i/s012210.b/s1a2201	22-JAN-10 15:06
MEGA020	WBN100121-14	/chem/MSD1.i/s012210.b/s1a2201	22-JAN-10 15:43
MEGA040	WBN100121-13.1	/chem/MSD1.i/s012210.b/s1a2201	22-JAN-10 16:20
MEGA050	WBN100121-12	/chem/MSD1.i/s012210.b/s1a2201	22-JAN-10 16:55
MEGA080	WBN100121-11	/chem/MSD1.i/s012210.b/s1a2201	22-JAN-10 17:31
MEGA100	WBN100121-10	/chem/MSD1.i/s012210.b/s1a2201	22-JAN-10 18:07
MEGA120	WBN100121-09	/chem/MSD1.i/s012210.b/s1a2201	22-JAN-10 18:43
AP010	WBN100120-01	/chem/MSD1.i/s012210.b/s1a2201	22-JAN-10 19:19
AP020	WBN100120-02	/chem/MSD1.i/s012210.b/s1a2201	22-JAN-10 19:50
AP040	WBN100120-03.1	/chem/MSD1.i/s012210.b/s1a2201	22-JAN-10 20:21
AP050	WBN100120-04	/chem/MSD1.i/s012210.b/s1a2201	22-JAN-10 20:52
AP080	WBN100120-05	/chem/MSD1.i/s012210.b/s1a2201	22-JAN-10 21:24
AP100	WBN100120-06	/chem/MSD1.i/s012210.b/s1a2201	22-JAN-10 21:55
AP120	WBN100120-07	/chem/MSD1.i/s012210.b/s1a2201	22-JAN-10 22:26
MEGAICV	WBN091121-17.1	/chem/MSD1.i/s012210.b/s1a2201	22-JAN-10 22:57

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-1304

Instrument ID: MSD1.1

Injection Date/Time: 22-JAN-10 13:28

Column Description: J&amp;W DB-5MS

Lab File ID /chem/MSD1.i/s012210.b/s1a2201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	48.3
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	35.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	48.7
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	25.3
365	Greater than 1% of mass 198	3
441	Present, but less than mass 443	73.5
442	Greater than 40% of mass 198	98.4
443	17 - 23% of mass 442	19.8

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
APICV	WBN100120-08.1	/chem/MSD1.i/s012210.b/s1a221	22-JAN-10 23:33



## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-1304

Instrument ID: MSD1.I

Injection Date/Time: 28-JAN-10 17:48

Column Description: J&amp;W DB-5MS

Lab File ID /chem/MSD1.i/s012810.b/s1a2808.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	46.2
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	34.5
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	47.4
197	0 - 1% of mass 198	0.3
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	23.1
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	75.7
442	Greater than 40% of mass 198	92
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD, BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100121-17.1	/chem/MSD1.i/s012810.b/s1a2810	28-JAN-10 18:30
APCVS	WBN100120-03.2	/chem/MSD1.i/s012810.b/s1a2810	28-JAN-10 19:01
SBLK01	1202022801	/chem/MSD1.i/s012810.b/s1a2810	28-JAN-10 19:28
SBLK01LCS	1202022802	/chem/MSD1.i/s012810.b/s1a2810	28-JAN-10 19:56
RE15-10-7165	245106001	/chem/MSD1.i/s012810.b/s1a2810	28-JAN-10 21:46
RE15-10-7165MS	1202022803	/chem/MSD1.i/s012810.b/s1a2810	28-JAN-10 22:14
RE15-10-7165MSD	1202022804	/chem/MSD1.i/s012810.b/s1a2810	28-JAN-10 22:41
RE15-10-7171	245106002	/chem/MSD1.i/s012810.b/s1a2820	28-JAN-10 23:08
RE15-10-7170	245106003	/chem/MSD1.i/s012810.b/s1a2820	28-JAN-10 23:36
RE15-10-7164	245106004	/chem/MSD1.i/s012810.b/s1a2820	29-JAN-10 00:04
RE15-10-7167	245106005	/chem/MSD1.i/s012810.b/s1a2820	29-JAN-10 00:31
RE15-10-7169	245106006	/chem/MSD1.i/s012810.b/s1a2820	29-JAN-10 00:58
RE15-10-7168	245106007	/chem/MSD1.i/s012810.b/s1a2820	29-JAN-10 01:25
RE15-10-7166	245106008	/chem/MSD1.i/s012810.b/s1a2820	29-JAN-10 01:53
RE15-10-7177	245106009	/chem/MSD1.i/s012810.b/s1a2820	29-JAN-10 02:20

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-1304

Instrument ID: MSD1.I

Injection Date/Time: 29-JAN-10 19:07

Column Description: J&amp;W DB-5MS

Lab File ID /chem/MSD1.i/s012910.b/s1a2912.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.4
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	34.1
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	47.7
197	0 - 1% of mass 198	0.1
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.1
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	75.8
442	Greater than 40% of mass 198	90.2
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	WBN100121-17.1	/chem/MSD1.i/s012910.b/s1a2912.d	29-JAN-10 19:51
APCVS	WBN100120-03.2	/chem/MSD1.i/s012910.b/s1a2912.d	29-JAN-10 20:22
RE15-10-7181	245106010	/chem/MSD1.i/s012910.b/s1a2912.d	29-JAN-10 21:45
RE15-10-7178	245106011	/chem/MSD1.i/s012910.b/s1a2912.d	29-JAN-10 22:13
RE15-10-7182	245106012	/chem/MSD1.i/s012910.b/s1a2912.d	29-JAN-10 22:40
RE15-10-7183	245106013	/chem/MSD1.i/s012910.b/s1a2912.d	29-JAN-10 23:07
RE15-10-7180	245106015	/chem/MSD1.i/s012910.b/s1a2912.d	30-JAN-10 00:02
RE15-10-7179	245106016	/chem/MSD1.i/s012910.b/s1a2912.d	30-JAN-10 00:29

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-1304

Instrument ID: MSD3.I

Injection Date/Time: 11-FEB-10 10:03

Column Description: J&amp;W DB-5MS

Lab File ID /chem/MSD3.i/s021110.b/s3b1106.d

m/e	Ion Abundance Criteria	% Relative Abundance
51	30 - 60% of mass 198	51.5
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	52.5
70	Less than 2% of mass 69	0.3
127	40 - 60% of mass 198	56.4
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	7.1
275	10 - 30% of mass 198	21.8
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	78.7
442	Greater than 40% of mass 198	45.7
443	17 - 23% of mass 442	19.1
198	Base Peak, 100% Relative Abundance	100

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	WBN100121-17.4	/chem/MSD3.i/s021110.b/s3b110	11-FEB-10 10:15
APCVS	WBN100120-08.4	/chem/MSD3.i/s021110.b/s3b110	11-FEB-10 11:22
RE15-10-7176	245106014	/chem/MSD3.i/s021110.b/s3b112	11-FEB-10 16:19

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-1304

Instrument ID: MSD3.I

Injection Date/Time: 20-JAN-10 17:17

Column Description: J&amp;W DB-5MS

Lab File ID /chem/MSD3.i/s012010a.b/s3a2013.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	51.6
68	Less than 2% of mass 69	1.9
69	Mass 69 Relative Abundance	48.3
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	53
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	26.4
365	Greater than 1% of mass 198	3.5
441	Present, but less than mass 443	74
442	Greater than 40% of mass 198	98
443	17 - 23% of mass 442	20.6

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
MEGAICAL01	WBN100112-08	/chem/MSD3.i/s012010a.b/s3a20	20-JAN-10 17:59
MEGAICAL010	WBN100112-07	/chem/MSD3.i/s012010a.b/s3a20	20-JAN-10 18:29
MEGAICAL020	WBN100112-06	/chem/MSD3.i/s012010a.b/s3a20	20-JAN-10 18:58
MEGAICAL040	WBN100112-05	/chem/MSD3.i/s012010a.b/s3a20	20-JAN-10 19:28
MEGAICAL050	WBN100112-04	/chem/MSD3.i/s012010a.b/s3a20	20-JAN-10 19:58
MEGAICAL080	WBN100112-03	/chem/MSD3.i/s012010a.b/s3a20	20-JAN-10 20:27
MEGAICAL100	WBN100112-02	/chem/MSD3.i/s012010a.b/s3a20	20-JAN-10 20:57
MEGAICAL120	WBN100112-01	/chem/MSD3.i/s012010a.b/s3a20	20-JAN-10 21:26
APICAL010	WBN100103-01	/chem/MSD3.i/s012010a.b/s3a20	20-JAN-10 21:56
APICAL020	WBN100103-02	/chem/MSD3.i/s012010a.b/s3a20	20-JAN-10 22:22
APICAL040	WBN100103-03.1	/chem/MSD3.i/s012010a.b/s3a20	20-JAN-10 22:48
APICAL050	WBN100103-04	/chem/MSD3.i/s012010a.b/s3a20	20-JAN-10 23:15
APICAL080	WBN100103-05	/chem/MSD3.i/s012010a.b/s3a20	20-JAN-10 23:41
APICAL100	WBN100103-06	/chem/MSD3.i/s012010a.b/s3a20	21-JAN-10 00:07
APICAL120	WBN100103-07	/chem/MSD3.i/s012010a.b/s3a20	21-JAN-10 00:33
MEGAICV	WBN100106-09.3	/chem/MSD3.i/s012010a.b/s3a20	21-JAN-10 00:59

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-1304

Instrument ID: MSD3.I

Injection Date/Time: 20-JAN-10 17:17

Column Description: J&amp;W DB-5MS

Lab File ID /chem/MSD3.i/s012010a.b/s3a2013.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	51.6
68	Less than 2% of mass 69	1.9
69	Mass 69 Relative Abundance	48.3
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	53
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	26.4
365	Greater than 1% of mass 198	3.5
441	Present, but less than mass 443	74
442	Greater than 40% of mass 198	98
443	17 - 23% of mass 442	20.6

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
APICV	WBN100103-08.1	/chem/MSD3.i/s012010a.b/s3a2013.d	21-JAN-10 01:29

### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-1304

Instrument: MSD1.J

STD Analysis Time: 28-JAN-10 18:30

GC Column: J&amp;W DB-5MS

Data File: s1a2810.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	254377		4.43	1043318		5.69	554113		7.54	875506		9.14	672640		12.0	543664		14.1
Upper Limit	508754		4.93	2086636		6.19	1108226		8.04	1751012		9.64	1345280		12.5	1087328		14.6
Lower Limit	127189		3.93	521659		5.19	277057		7.04	437753		8.64	336320		11.5	271832		13.6
Sample ID																		
BLK01	266781		4.43	1057093		5.69	558445		7.54	896983		9.13	688475		12.0	508429		14.1
BLK01LCS	268891		4.44	1073566		5.69	570514		7.54	904479		9.14	639843		12.0	502052		14.1
RE15-10-7165	293768		4.43	1152763		5.69	611599		7.54	982779		9.14	754674		12.0	562399		14.1
RE15-10-7165MS	277111		4.43	1126580		5.69	598353		7.54	960529		9.14	731884		12.0	597571		14.1
RE15-10-7165MSD	283396		4.43	1148403		5.69	609917		7.54	965647		9.14	674953		12.0	495574		14.1
RE15-10-7171	280536		4.43	1098874		5.69	581666		7.54	936273		9.14	721425		12.0	533094		14.1
RE15-10-7170	276072		4.43	1086460		5.69	580806		7.54	923809		9.14	681055		12.0	455798		14.1
RE15-10-7164	270532		4.43	1059427		5.69	568256		7.54	900531		9.14	612682		12.0	399603		14.1
RE15-10-7167	295044		4.43	1156731		5.69	618072		7.54	985929		9.14	713043		12.0	488432		14.1
RE15-10-7169	268061		4.43	1064338		5.69	571486		7.54	907472		9.14	622766		12.0	408029		14.1
RE15-10-7168	269720		4.43	1065909		5.69	573992		7.54	904445		9.14	655060		12.0	421242		14.1
RE15-10-7166	283193		4.43	1107795		5.69	599106		7.54	937860		9.14	639937		12.0	418443		14.1
RE15-10-7177	283424		4.43	1109277		5.69	607722		7.54	973811		9.14	747268		12.0	536118		14.1

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: 10-1304

Instrument: MSD1.1

STD Analysis Time: 29-JAN-10 19:51

GC Column: J&amp;W DB-5MS

Data File: s1a2914.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	275589		4.43	1120211		5.68	596863		7.54	949640		9.13	762448		12.0	663788		14.1
Upper Limit	551178		4.93	2240422		6.18	1193726		8.04	1899280		9.63	1524896		12.5	1327576		14.6
Lower Limit	137795		3.93	560106		5.18	298432		7.04	474820		8.63	381224		11.5	331894		13.6
Sample ID																		
RE15-10-7181	288168		4.43	1138236		5.68	616631		7.53	952209		9.13	751399		12.0	598988		14.1
RE15-10-7178	297035		4.43	1200890		5.68	655118		7.53	1007439		9.13	672548		12.0	332712		14.1
RE15-10-7182	242152		4.43	995288		5.68	553156		7.53	865775		9.13	618421		12.0	386701		14.1
RE15-10-7183	274852		4.43	1112960		5.68	605236		7.53	948368		9.13	729676		12.0	454300		14.1
RE15-10-7180	289525		4.43	1154618		5.68	625821		7.54	969588		9.13	637994		12.0	393983		14.1
RE15-10-7179	283136		4.43	1133348		5.68	626964		7.54	969505		9.13	647417		12.0	329503	*	14.1

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: 10-1304

Instrument: MSD3.J

STD Analysis Time: 11-FEB-10 10:15

GC Column: J&amp;W DB-5MS

Data File: s3b1107.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	478290		4.59		1706089		5.86		936064		7.73		1531177		9.33		1549732		12.3		1267095		14.5	
Upper Limit	956580		5.09		3412178		6.36		1872128		8.23		3062354		9.83		3099464		12.8		2534190		15.0	
Lower Limit	239145		4.09		853045		5.36		468032		7.23		765589		8.83		774866		11.8		633548		14.0	
Sample ID																								
RE15-10-7176	492068		4.59		1779066		5.86		1020051		7.72		1743263		9.33		1371822		12.3		715621		14.5	

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:** 10-1304  
**Lab Sample ID:** 245106004

**Date Collected:** 01/13/2010 12:00  
**Date Received:** 01/20/2010 08:45  
**Client:** LANL010  
**Method:** SW846 8270C  
**Inst:** MSD1.1  
**Analyst:** AMY  
**Aliquot:** 30.02 g  
**Column:** J&W DB-5MS

**Matrix:** R  
**%Moisture:** 17.7  
**Project:** LANL01004  
**SOP Ref:** GL-OA-E-009  
**Dilution:** 1  
**Inj. Vol:** .5 uL  
**Final Volume:** 1 mL  
**Level:** LOW

**Client ID:** RE15-10-7164  
**Batch ID:** 944591  
**Run Date:** 01/29/2010 00:04  
**Prep Date:** 01/25/2010 14:38  
**Data File:** s1a2822.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	405	ug/kg	81.0	405
108-95-2	Phenol	U	405	ug/kg	81.0	405
95-57-8	2-Chlorophenol	U	405	ug/kg	81.0	405
106-46-7	1,4-Dichlorobenzene	U	405	ug/kg	81.0	405
621-64-7	N-Nitrosodipropylamine	U	405	ug/kg	81.0	405
59-50-7	4-Chloro-3-methylphenol	U	405	ug/kg	81.0	405
83-32-9	Acenaphthene	U	40.5	ug/kg	13.4	40.5
121-14-2	2,4-Dinitrotoluene	U	405	ug/kg	40.5	405
100-02-7	4-Nitrophenol	U	405	ug/kg	134	405
87-86-5	Pentachlorophenol	U	405	ug/kg	101	405
129-00-0	Pyrene	U	40.5	ug/kg	12.1	40.5
110-86-1	Pyridine	U	405	ug/kg	81.0	405
62-53-3	Aniline	U	405	ug/kg	121	405
111-44-4	bis(2-Chloroethyl) ether	U	405	ug/kg	81.0	405
541-73-1	1,3-Dichlorobenzene	U	405	ug/kg	81.0	405
100-51-6	Benzyl alcohol	U	405	ug/kg	121	405
95-50-1	1,2-Dichlorobenzene	U	405	ug/kg	81.0	405
108-60-1	bis(2-Chloroisopropyl)ether	U	405	ug/kg	81.0	405
95-48-7	o-Cresol	U	405	ug/kg	81.0	405
65794-96-9	m,p-Cresols	U	405	ug/kg	121	405
67-72-1	Hexachloroethane	U	405	ug/kg	81.0	405
98-95-3	Nitrobenzene	U	405	ug/kg	81.0	405
78-59-1	Isophorone	U	405	ug/kg	81.0	405
88-75-5	2-Nitrophenol	U	405	ug/kg	81.0	405
105-67-9	2,4-Dimethylphenol	U	405	ug/kg	142	405
111-91-1	bis(2-Chloroethoxy)methane	U	405	ug/kg	81.0	405
120-83-2	2,4-Dichlorophenol	U	405	ug/kg	81.0	405
65-85-0	Benzoic acid	U	810	ug/kg	202	810
91-20-3	Naphthalene	U	40.5	ug/kg	12.1	40.5
106-47-8	4-Chloroaniline	U	405	ug/kg	81.0	405
87-68-3	Hexachlorobutadiene	U	405	ug/kg	81.0	405
91-57-6	2-Methylnaphthalene	U	40.5	ug/kg	8.10	40.5
77-47-4	Hexachlorocyclopentadiene	U	405	ug/kg	81.0	405
88-06-2	2,4,6-Trichlorophenol	U	405	ug/kg	81.0	405
95-95-4	2,4,5-Trichlorophenol	U	405	ug/kg	81.0	405
91-58-7	2-Chloronaphthalene	U	40.5	ug/kg	13.4	40.5
88-74-4	2-Nitroaniline	U	405	ug/kg	81.0	405
99-09-2	<i>o</i> -Nitroaniline	U	405	ug/kg	81.0	405
	3-Nitroaniline					

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106004	Date Received: 01/20/2010 08:45	%Moisture: 17.7
Client ID: RE15-10-7164	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/29/2010 00:04	Inst: MSD1.1	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: s1a2822.d	Aliquot: 30.02 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	405	ug/kg	81.0	405
606-20-2	2,6-Dinitrotoluene	U	405	ug/kg	40.5	405
208-96-8	Acenaphthylene	U	40.5	ug/kg	12.1	40.5
51-28-5	2,4-Dinitrophenol	U	810	ug/kg	154	810
132-64-9	Dibenzofuran	U	405	ug/kg	81.0	405
84-66-2	Diethylphthalate	U	405	ug/kg	81.0	405
86-73-7	Fluorene	U	40.5	ug/kg	12.1	40.5
7005-72-3	4-Chlorophenylphenylether	U	405	ug/kg	81.0	405
534-52-1	2-Methyl-4,6-dinitrophenol	U	405	ug/kg	81.0	405
100-01-6	4-Nitroaniline	U	405	ug/kg	121	405
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	405	ug/kg	81.0	405
122-66-7	Azobenzene	U	405	ug/kg	81.0	405
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	405	ug/kg	81.0	405
118-74-1	Hexachlorobenzene	U	405	ug/kg	81.0	405
85-01-8	Phenanthrene	U	40.5	ug/kg	12.1	40.5
120-12-7	Anthracene	U	40.5	ug/kg	8.10	40.5
84-74-2	Di-n-butylphthalate	U	405	ug/kg	81.0	405
206-44-0	Fluoranthene	U	40.5	ug/kg	12.1	40.5
85-68-7	Butylbenzylphthalate	U	405	ug/kg	81.0	405
56-55-3	Benzo(a)anthracene	U	40.5	ug/kg	12.1	40.5
91-94-1	3,3'-Dichlorobenzidine	U	405	ug/kg	121	405
218-01-9	Chrysene	U	40.5	ug/kg	12.1	40.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	405	ug/kg	81.0	405
117-84-0	Di-n-octylphthalate	U	405	ug/kg	81.0	405
205-99-2	Benzo(b)fluoranthene	U	40.5	ug/kg	12.1	40.5
207-08-9	Benzo(k)fluoranthene	U	40.5	ug/kg	12.1	40.5
50-32-8	Benzo(a)pyrene	U	40.5	ug/kg	12.1	40.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.5	ug/kg	12.1	40.5
53-70-3	Dibenzo(a,h)anthracene	U	40.5	ug/kg	12.1	40.5
191-24-2	Benzo(ghi)perylene	U	40.5	ug/kg	12.1	40.5
120-82-1	1,2,4-Trichlorobenzene	U	405	ug/kg	81.0	405

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.67	222	ug/kg		J
	Unknown Aldol Condensate	3.09	772	ug/kg		JA

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106004	Date Received: 01/20/2010 08:45	%Moisture: 17.7
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7164	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1J	Dilution: 1
Run Date: 01/29/2010 00:04	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s1a2822.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	13.02	340	ug/kg		J
54832-82-5	Tricyclo[4.3.0.0(7,9)]nonane, 2,2,5,5,8,	15.36	528	ug/kg	90	NJ
	Unknown	16.06	728	ug/kg		J

Data File: /chem/MSD1.i/s012810.b/sla2822.d  
Report Date: 29-Jan-2010 12:04

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GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2822.d  
Lab Smp Id: 245106004 Client Smp ID: RE15-10-7164  
Inj Date : 29-JAN-2010 00:04  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106004|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 11  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.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	17.73550	% 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	4.434	4.434	(1.000)	270532	40.0000	
* 29 Naphthalene-d8		136	5.686	5.687	(1.000)	1059427	40.0000	
* 46 Acenaphthene-d10		164	7.539	7.540	(1.000)	568256	40.0000	
* 67 Phenanthrene-d10		188	9.139	9.139	(1.000)	900531	40.0000	
* 91 Chrysene-d12		240	12.033	12.039	(1.000)	612682	40.0000	
* 98 Perylene-d12		264	14.115	14.121	(1.000)	399603	40.0000	
\$ 3 2-Fluorophenol		112	3.316	3.304	(0.748)	428468	51.2079	2070
\$ 5 Phenol-d5		99	4.063	4.063	(0.916)	542799	52.2294	2110
\$ 20 Nitrobenzene-d5		82	4.957	4.957	(0.872)	217933	27.8716	1130
\$ 39 2-Fluorobiphenyl		172	6.810	6.810	(0.903)	402311	27.4809	1110
\$ 60 2,4,6-Tribromophenol		329	8.380	8.387	(1.112)	96953	47.1496	1910
\$ 81 p-Terphenyl-d14		244	10.845	10.845	(0.901)	391323	35.5942	1440

## ION RATIO REPORT

## SV REPORT

Data file: sla2822.d

Report Date: 01/29/2010 11:29

Lab. ID: 245106004

SampleType: SAMPLE

Injection Date: 29-JAN-2010 00:04

Operator: AMY

Instrument: MSD1.i

Sample Info: |245106004|944591|1|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100107-03|

Comment:

Method used: /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	26435	4.06	4.13	80-120	100	(T)
93	127	4.12	4.13	213-273	0	(Q)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	28894	4.96	4.81	80-120	100	(T)
42	18365	4.96	4.81	54-114	64	(T)
-----						
44	2,6-Dinitrotoluene	CAS#: 606-20-2				
165	72446	7.54	7.31	80-120	100	(T)
63	800	7.54	7.31	41-101	1	(QT)
-----						
50	2,4-Dinitrotoluene	CAS#: 121-14-2				
165	72446	7.54	7.75	80-120	100	(T)
89	720	7.54	7.75	55-115	1	(QT)
63	800	7.54	7.75	50-110	1	(QT)
-----						
55	2-Methyl-4,6-dinitrophenol	CAS#: 534-52-1				
198	139	8.38	8.18	80-120	100	(T)
105	663	8.38	8.18	14- 74	477	(QT)
51	852	8.38	8.18	46-106	613	(QT)

Q qualifier indicates ion failed ratio requirement

Data File: /chem/MSD1.i/s012810.b/sla2822.d  
Report Date: 29-Jan-2010 12:04

Page 1

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2822.d  
Lab Smp Id: 245106004 Client Smp ID: RE15-10-7164  
Inj Date : 29-JAN-2010 00:04  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106004|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 11  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.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	30.02000	weight of sample
M	17.73550	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.434	1729207	40.000
* 91 Chrysene-d12	12.033	1707408	40.000
* 98 Perylene-d12	14.115	1104895	40.000

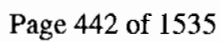
CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/uI)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

RT	AREA	CONCENTRATIONS		QUAL	QUANT		CPND #
		ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown				CAS #:			
1.669	236508	5.47090670	222	0		0	10
Unknown Aldol Condensate				CAS #:			
3.093	824026	19.0613489	772	0		0	10
Unknown				CAS #:			
13.021	358362	8.39546622	340	0		0	91
Tricyclo[4.3.0.0(7,9)]nonane, 2,2,5,5,8,				CAS #: 54832-82-5			
15.362	360384	13.0468131	528	90	NIST05.L	61566	98
Unknown				CAS #:			
16.056	496911	17.9894536	728	0		0	98



Instrument: HSD1.i  
Operator: AMY  
Column diameter: 0.20

/chem/MSD1,1/s012810,b/s1a2822,d



Date : 29-JAN-2010 00:04

Client ID: RE15-10-7164

Instrument: MSD1.i

Sample Info: 1245106004194459111SVMF11ILANL

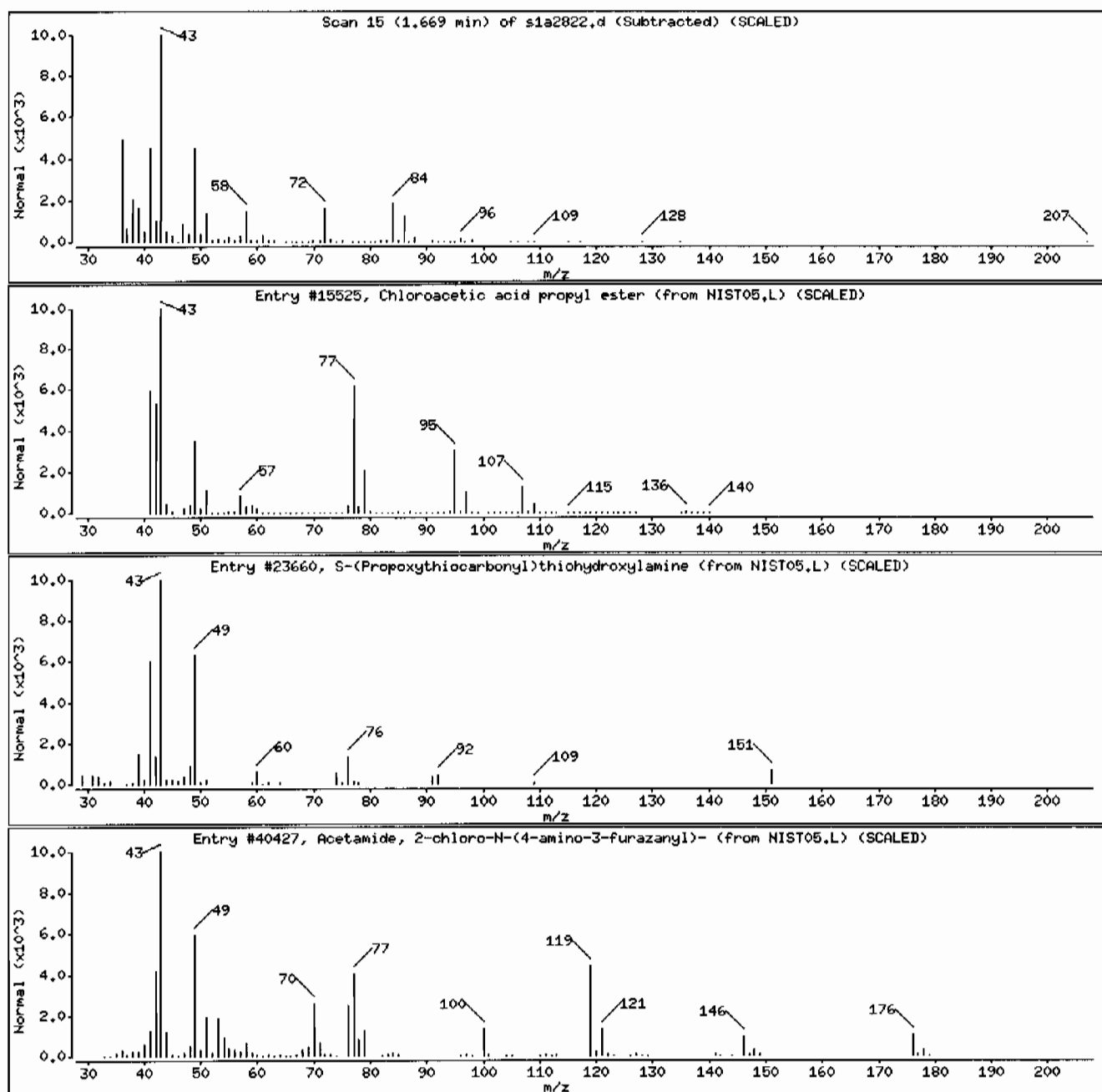
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Chloroacetic acid propyl ester	5396-24-7	NIST05.L	15525	39	C5H9ClO2	136
S-(Propoxythiocarbonyl)thiohydroxylamine	35659-79-1	NIST05.L	23660	9	C4H9NOS2	151
Acetamide, 2-chloro-N-(4-amino-3-furazan	101140-12-9	NIST05.L	40427	9	C4H5ClN4O2	176



Date : 29-JAN-2010 00:04

Client ID: RE15-10-7164

Instrument: MSD1.i

Sample Info: 1245106004194459111SVMF11ILANL

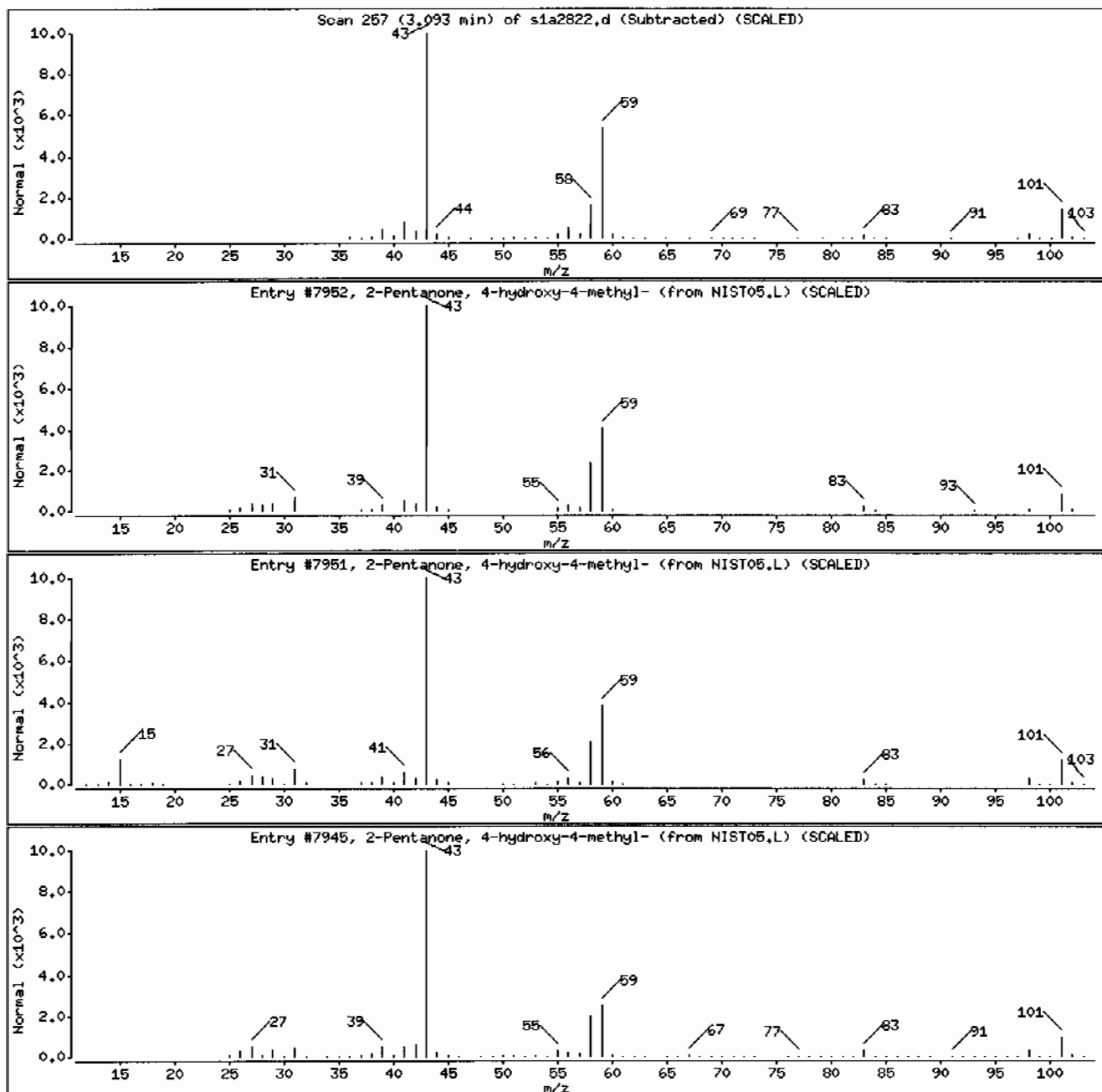
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	45	C6H12O2	116



Date : 29-JAN-2010 00:04

Client ID: RE15-10-7164

Instrument: MSD1.i

Sample Info: 1245106004194459111SVHF11ILANL

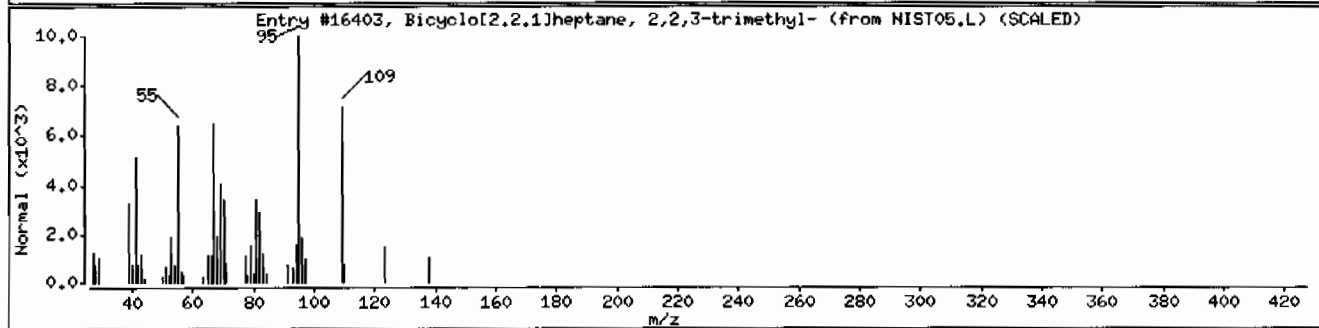
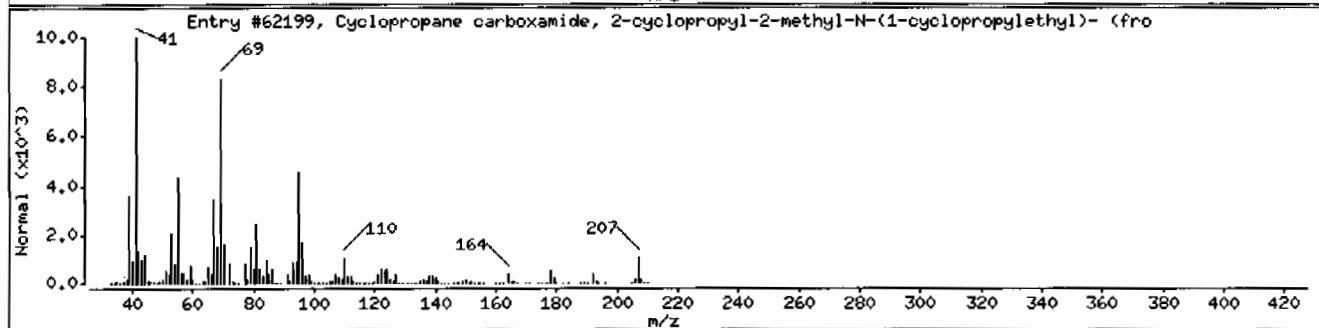
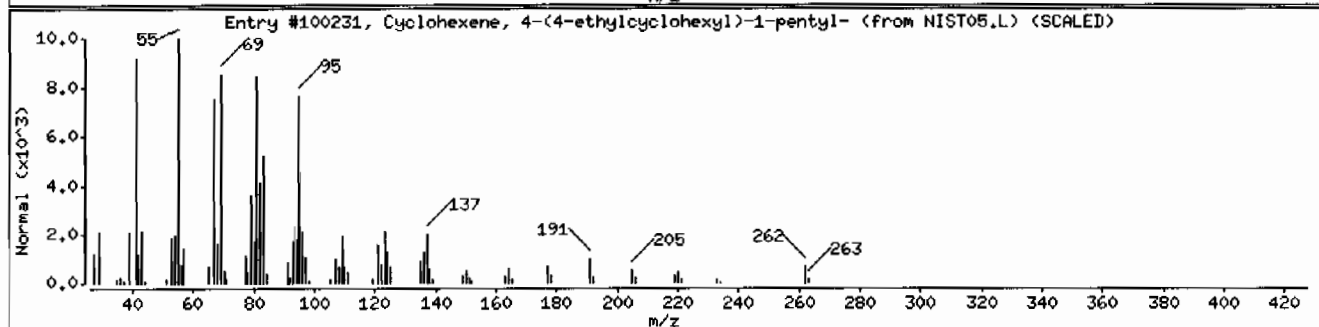
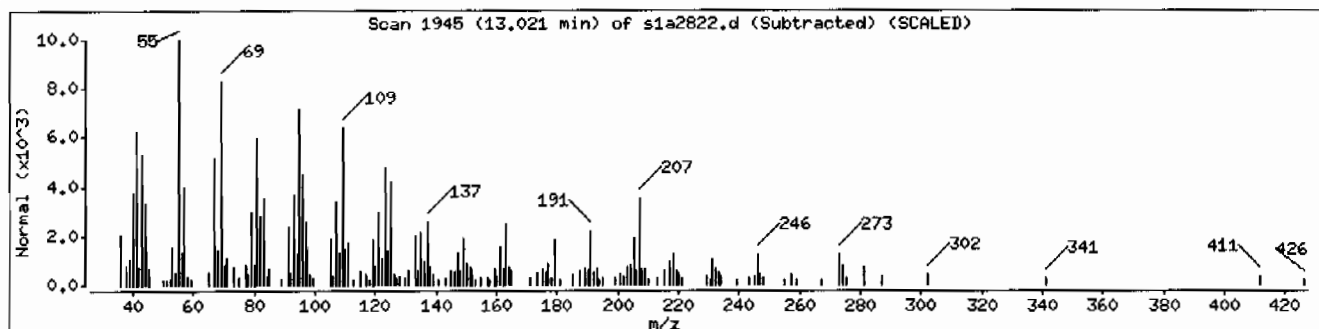
Volume Injected (uL): 0.5

Operator: AHY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexene, 4-(4-ethylcyclohexyl)-1-pen	301643-32-3	NIST05.L	100231	41	C19H34	262
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	41	C13H21NO	207
Bicyclo[2.2.1]heptane, 2,2,3-trimethyl-	473-19-8	NIST05.L	16403	35	C10H18	138



Date : 29-JAN-2010 00:04

Client ID: RE15-10-7164

Instrument: MSD1.i

Sample Info: 1245106004194459111SVHF111LANL

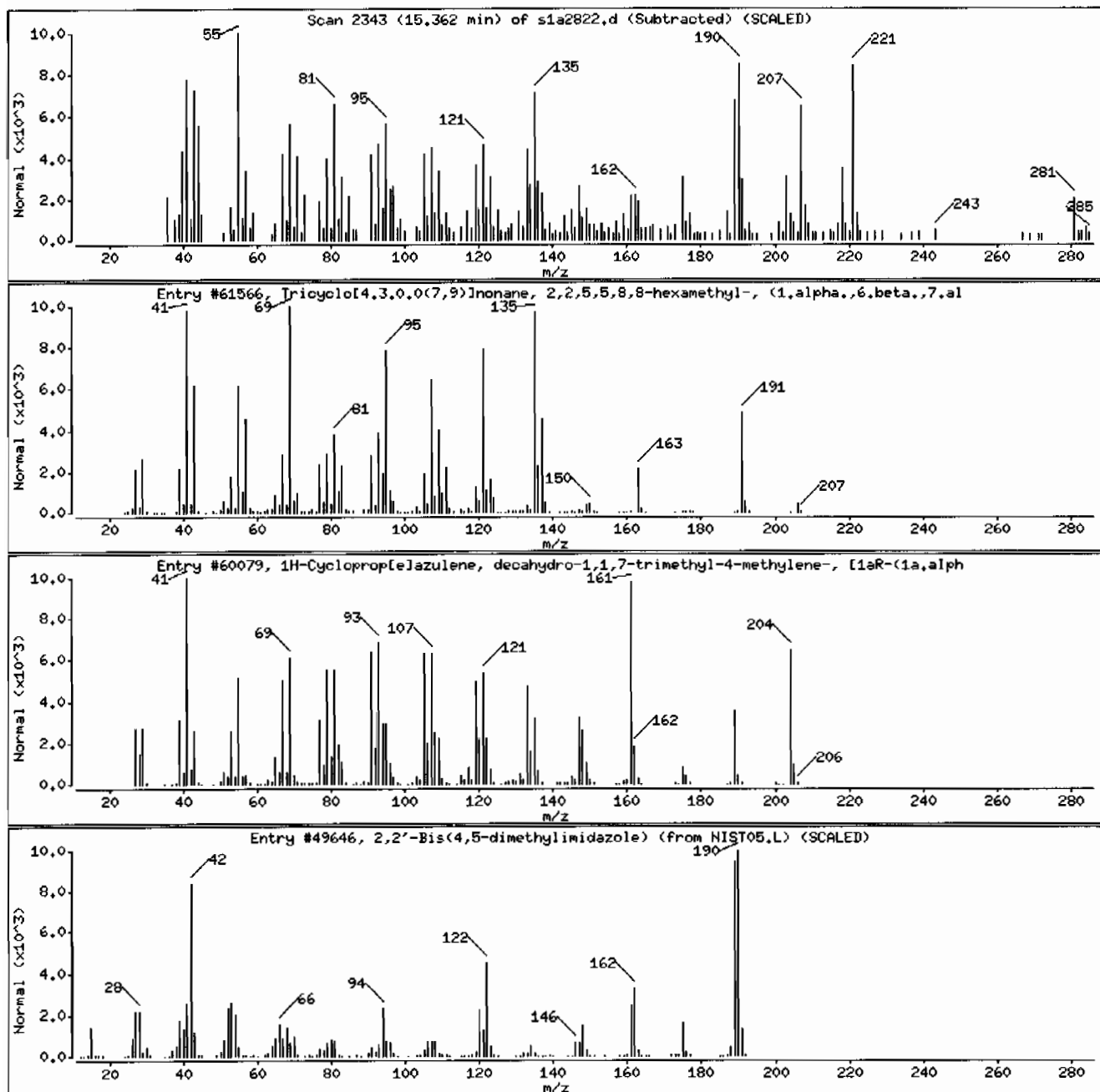
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tricyclo[4.3.0.0(7,9)]nonane, 2,2,5,5,8,8-hexamethyl-, (1.alpha.,6.beta.,7.alpha.)	54832-82-5	NIST05.L	61566	90	C15H26	206
1H-Cycloprop[elazulene, decahydro-1,1,7-trimethyl-4-methylene-, [1aR-(1a,alph	489-39-4	NIST05.L	60079	44	C15H24	204
2,2'-Bis(4,5-dimethylimidazole)	69286-06-2	NIST05.L	49646	41	C10H14N4	190



Date : 29-JAN-2010 00:04

Client ID: RE15-10-7164

Instrument: MSD1.i

Sample Info: 1245106004194459111SVNF11ILANL

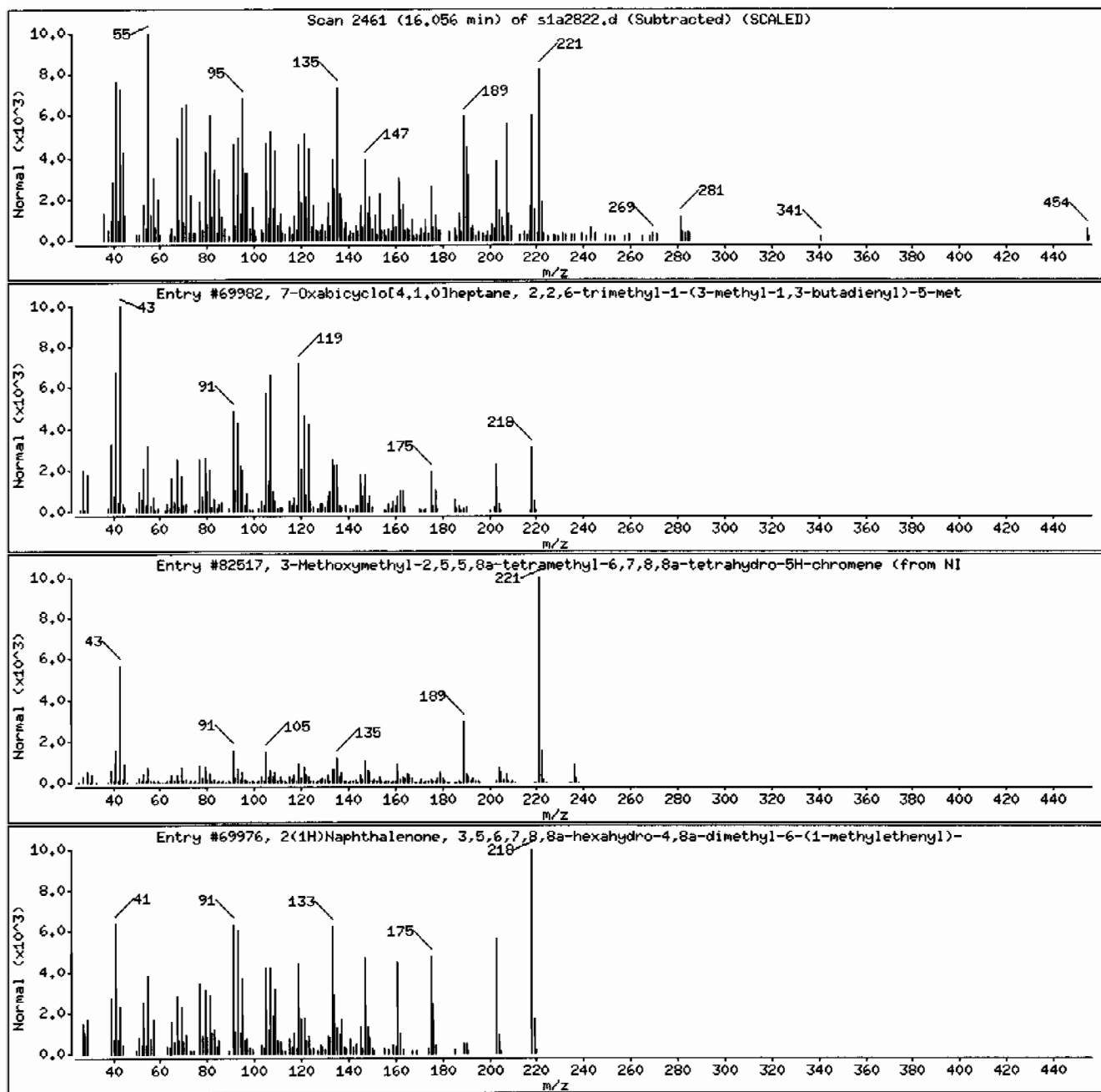
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	70038-20-9	NIST05.L	69982	56	C15H22O	218
3-Methoxymethyl-2,5,5,8a-tetramethyl-6,7	64201-73-6	NIST05.L	82517	42	C15H24O2	236
2(1H)Naphthalenone, 3,5,6,7,8,8a-hexahyd	1000188-66-5	NIST05.L	69976	35	C15H22O	218



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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106001	Date Received: 01/20/2010 08:45	%Moisture: 19.4
	Client: LANI.010	Project: LANL01004
Client ID: RE15-10-7165	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/28/2010 21:46	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30 g	Final Volume: 1 mL
Data File: s1a2817.d	Column: J&W DB-SMS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	414	ug/kg	82.8	414
108-95-2	Phenol	U	414	ug/kg	82.8	414
95-57-8	2-Chlorophenol	U	414	ug/kg	82.8	414
106-46-7	1,4-Dichlorobenzene	U	414	ug/kg	82.8	414
621-64-7	N-Nitrosodipropylamine	U	414	ug/kg	82.8	414
59-50-7	4-Chloro-3-methylphenol	U	414	ug/kg	82.8	414
83-32-9	Acenaphthene	U	41.4	ug/kg	13.7	41.4
121-14-2	2,4-Dinitrotoluene	U	414	ug/kg	41.4	414
100-02-7	4-Nitrophenol	U	414	ug/kg	137	414
87-86-5	Pentachlorophenol	U	414	ug/kg	103	414
129-00-0	Pyrene	U	41.4	ug/kg	12.4	41.4
110-86-1	Pyridine	U	414	ug/kg	82.8	414
62-53-3	Aniline	U	414	ug/kg	124	414
111-44-4	bis(2-Chloroethyl) ether	U	414	ug/kg	82.8	414
541-73-1	1,3-Dichlorobenzene	U	414	ug/kg	82.8	414
100-51-6	Benzyl alcohol	U	414	ug/kg	124	414
95-50-1	1,2-Dichlorobenzene	U	414	ug/kg	82.8	414
108-60-1	bis(2-Chloroisopropyl)ether	U	414	ug/kg	82.8	414
95-48-7	o-Cresol	U	414	ug/kg	82.8	414
65794-96-9	m,p-Cresols	U	414	ug/kg	124	414
67-72-1	Hexachloroethane	U	414	ug/kg	82.8	414
98-95-3	Nitrobenzene	U	414	ug/kg	82.8	414
78-59-1	Isophorone	U	414	ug/kg	82.8	414
88-75-5	2-Nitrophenol	U	414	ug/kg	82.8	414
105-67-9	2,4-Dimethylphenol	U	414	ug/kg	145	414
111-91-1	bis(2-Chloroethoxy)methane	U	414	ug/kg	82.8	414
120-83-2	2,4-Dichlorophenol	U	414	ug/kg	82.8	414
65-85-0	Benzoic acid	U	828	ug/kg	207	828
91-20-3	Naphthalene	U	41.4	ug/kg	12.4	41.4
106-47-8	4-Chloroaniline	U	414	ug/kg	82.8	414
87-68-3	Hexachlorobutadiene	U	414	ug/kg	82.8	414
91-57-6	2-Methylnaphthalene	U	41.4	ug/kg	8.28	41.4
77-47-4	Hexachlorocyclopentadiene	U	414	ug/kg	82.8	414
88-06-2	2,4,6-Trichlorophenol	U	414	ug/kg	82.8	414
95-95-4	2,4,5-Trichlorophenol	U	414	ug/kg	82.8	414
91-58-7	2-Chloronaphthalene	U	41.4	ug/kg	13.7	41.4
88-74-4	2-Nitroaniline	U	414	ug/kg	82.8	414
99-09-2	<i>o</i> -Nitroaniline	U	414	ug/kg	82.8	414
	3-Nitroaniline					

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106001	Date Received: 01/20/2010 08:45	%Moisture: 19.4
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7165	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/28/2010 21:46	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30 g	Final Volume: 1 mL
Data File: s1a2817.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	414	ug/kg	82.8	414
606-20-2	2,6-Dinitrotoluene	U	414	ug/kg	41.4	414
208-96-8	Acenaphthylene	U	41.4	ug/kg	12.4	41.4
51-28-5	2,4-Dinitrophenol	U	828	ug/kg	157	828
132-64-9	Dibenzofuran	U	414	ug/kg	82.8	414
84-66-2	Diethylphthalate	U	414	ug/kg	82.8	414
86-73-7	Fluorene	U	41.4	ug/kg	12.4	41.4
7005-72-3	4-Chlorophenylphenylether	U	414	ug/kg	82.8	414
534-52-1	2-Methyl-4,6-dinitrophenol	U	414	ug/kg	82.8	414
100-01-6	4-Nitroaniline	U	414	ug/kg	124	414
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	414	ug/kg	82.8	414
122-66-7	Azobenzene	U	414	ug/kg	82.8	414
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	414	ug/kg	82.8	414
118-74-1	Hexachlorobenzene	U	414	ug/kg	82.8	414
85-01-8	Phenanthrene	U	41.4	ug/kg	12.4	41.4
120-12-7	Anthracene	U	41.4	ug/kg	8.28	41.4
84-74-2	Di-n-butylphthalate	U	414	ug/kg	82.8	414
206-44-0	Fluoranthene	U	41.4	ug/kg	12.4	41.4
85-68-7	Butylbenzylphthalate	U	414	ug/kg	82.8	414
56-55-3	Benzo(a)anthracene	U	41.4	ug/kg	12.4	41.4
91-94-1	3,3'-Dichlorobenzidine	U	414	ug/kg	124	414
218-01-9	Chrysene	U	41.4	ug/kg	12.4	41.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	414	ug/kg	82.8	414
117-84-0	Di-n-octylphthalate	U	414	ug/kg	82.8	414
205-99-2	Benzo(b)fluoranthene	U	41.4	ug/kg	12.4	41.4
207-08-9	Benzo(k)fluoranthene	U	41.4	ug/kg	12.4	41.4
50-32-8	Benzo(a)pyrene	U	41.4	ug/kg	12.4	41.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.4	ug/kg	12.4	41.4
53-70-3	Dibenzo(a,h)anthracene	U	41.4	ug/kg	12.4	41.4
191-24-2	Benzo(ghi)perylene	U	41.4	ug/kg	12.4	41.4
120-82-1	1,2,4-Trichlorobenzene	U	414	ug/kg	82.8	414

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.69	216	ug/kg		J
	Unknown Aldol Condensate	3.1	735	ug/kg		JA



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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106001	Date Received: 01/20/2010 08:45	%Moisture: 19.4
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7165	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/28/2010 21:46	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30 g	Final Volume: 1 mL
Data File: s1a2817.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	3.82	633	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2817.d  
Lab Smp Id: 245106001 Client Smp ID: RE15-10-7165  
Inj Date : 28-JAN-2010 21:46  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106001|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 6  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.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	30.00000	weight of sample
M	19.44320	% 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	4.434	4.434	(1.000)	293768	40.0000	
* 29 Naphthalene-d8	136	5.686	5.687	(1.000)	1152763	40.0000	
* 46 Acenaphthene-d10	164	7.539	7.540	(1.000)	611599	40.0000	
* 67 Phenanthrene-d10	188	9.139	9.139	(1.000)	982779	40.0000	
* 91 Chrysene-d12	240	12.033	12.039	(1.000)	754674	40.0000	
* 98 Perylene-d12	264	14.121	14.121	(1.000)	562399	40.0000	
\$ 3 2-Fluorophenol	112	3.322	3.304	(0.749)	411210	45.2581	1870
\$ 5 Phenol-d5	99	4.063	4.063	(0.916)	528334	46.8165	1940
\$ 20 Nitrobenzene-d5	82	4.957	4.957	(0.872)	219383	25.7853	1070
\$ 39 2-Fluorobiphenyl	172	6.810	6.810	(0.903)	386791	24.5484	1020
\$ 60 2,4,6-Tribromophenol	329	8.380	8.387	(1.112)	97274	43.9533	1820
\$ 81 p-Terphenyl-d14	244	10.845	10.845	(0.901)	373871	27.6084	1140

## ION RATIO REPORT

## SV REPORT

Data file: sla2817.d

Report Date: 01/29/2010 11:27

Lab. ID: 245106001

SampleType: SAMPLE

Injection Date: 28-JAN-2010 21:46

Operator: AMY

Instrument: MSD1.i

Sample Info: |245106001|944591|1|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100107-03|

Comment:

Method used: /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	25487	4.06	4.13	80-120	100	(T)
93	156	4.12	4.13	213-273	1	(Q)
-----						
17	N-Nitrosodipropylamine		CAS#: 621-64-7			
70	28739	4.96	4.81	80-120	100	(T)
42	18428	4.96	4.81	54-114	64	(T)
-----						
44	2,6-Dinitrotoluene		CAS#: 606-20-2			
165	78774	7.54	7.31	80-120	100	(T)
63	1007	7.54	7.31	41-101	1	(QT)
-----						
50	2,4-Dinitrotoluene		CAS#: 121-14-2			
165	78774	7.54	7.75	80-120	100	(T)
89	742	7.54	7.75	55-115	1	(QT)
63	1007	7.54	7.75	50-110	1	(QT)
-----						
55	2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1			
198	270	8.38	8.18	80-120	100	(T)
105	620	8.38	8.18	14- 74	229	(QT)
51	708	8.38	8.18	46-106	262	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/s1a2817.d  
Lab Smp Id: 245106001 Client Smp ID: RE15-10-7165  
Inj Date : 28-JAN-2010 21:46  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106001|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270 S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 6  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.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	30.00000	weight of sample
M	19.44320	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.434	1888733	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown					CAS #:		
1.693	246543	5.22133777	216	0		0	10
Unknown Aldol Condensate					CAS #:		
3.098	838744	17.7631014	735	0		0	10

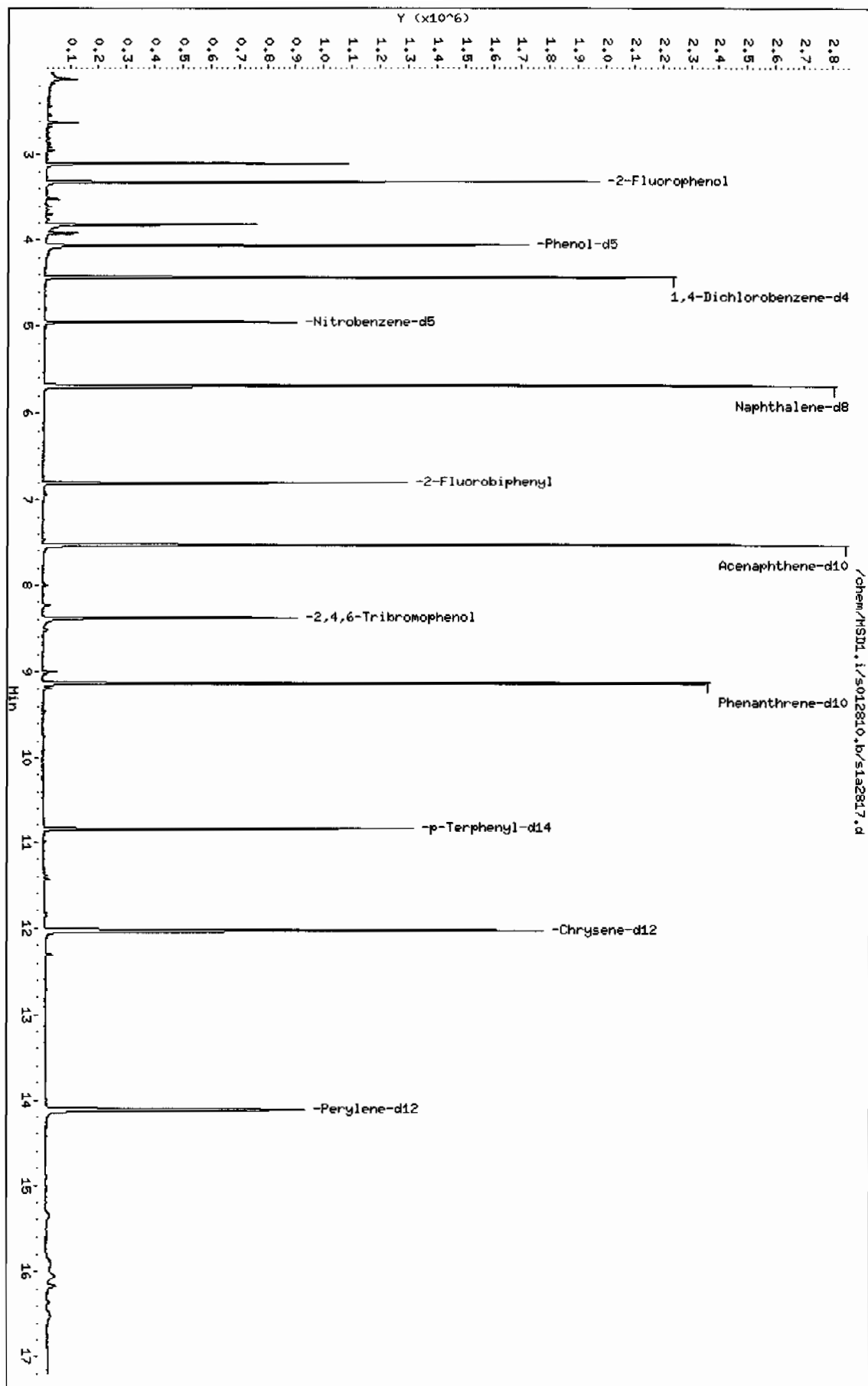
Data File: /chem/MSD1.i/s012810.b/s1a2817.d  
Report Date: 29-Jan-2010 11:52

Page 2

RT	AREA	CONCENTRATIONS		QUAL	QUANT		CPND #
		ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
====	====	=====	=====	=====	=====	=====	=====
Unknown				CAS #:			
3.816	722833	15.3083044	633	0		0	10

Data File: /chem/MSD1.i/s012810.b/s1a2817.d  
Date: 28-JAN-2010 21:46  
Client ID: RE15-10-7165  
Sample Info: 1245106001194459111SVHF111LNL  
Volume Injected (uL): 0.5  
Column Phase: 3M DB-SMS

Instrument: MSD1.i  
Operator: AMY  
Column diameter: 0.20



Date : 28-JAN-2010 21:46

Client ID: RE15-10-7165

Instrument: HSD1.i

Sample Info: 12451060011944591111SVMF11ILANL

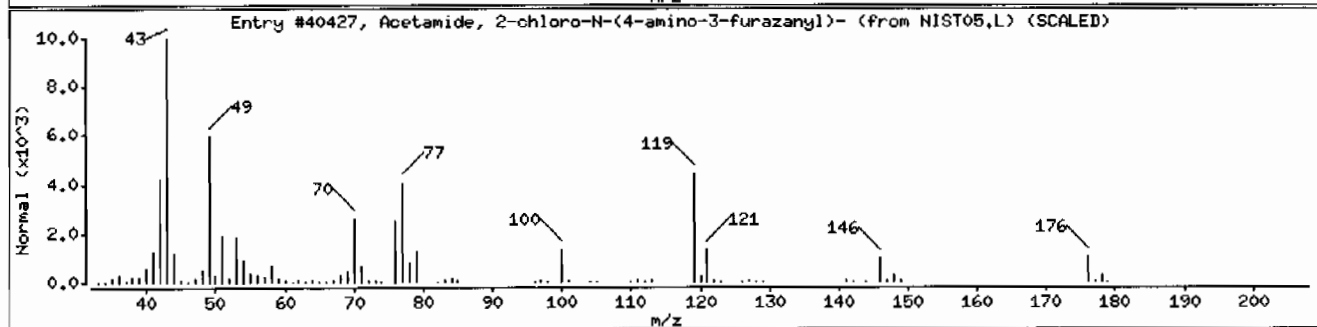
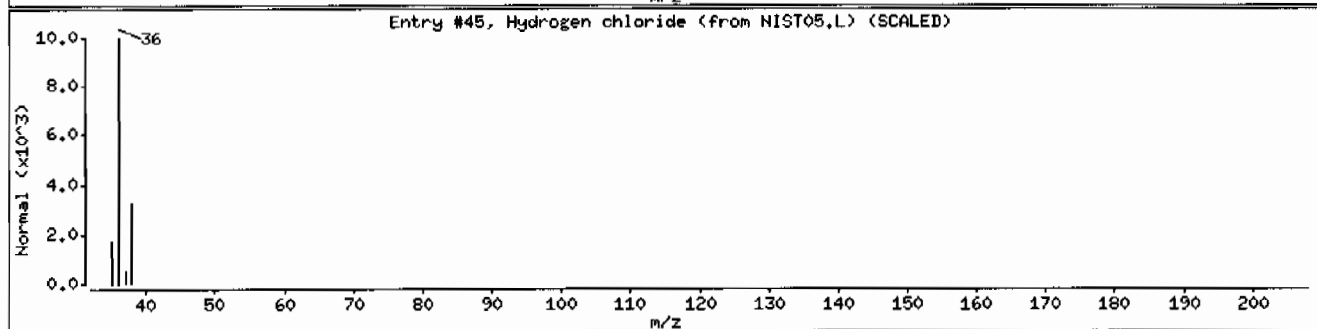
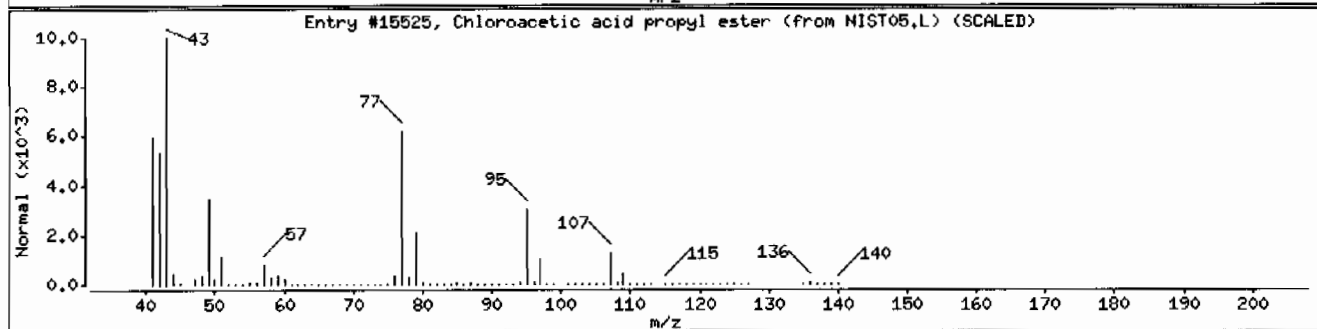
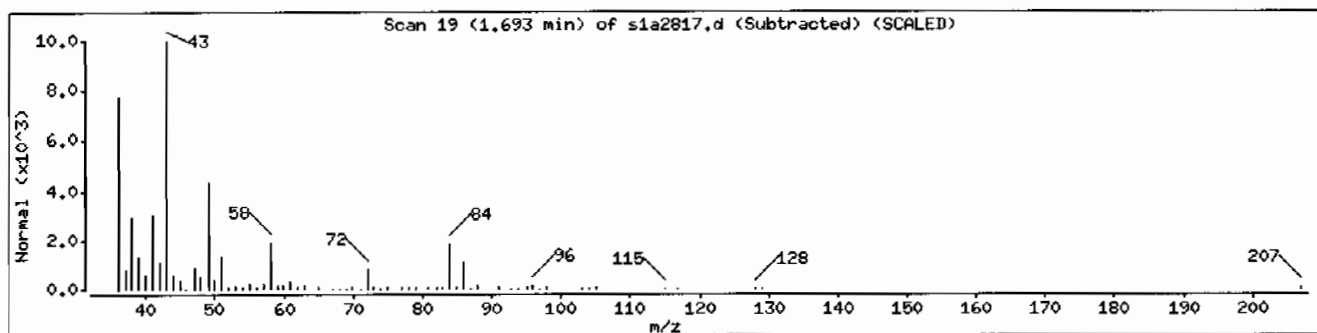
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Chloroacetic acid propyl ester	5396-24-7	NIST05.L	15525	38	C5H9ClO2	136
Hydrogen chloride	7647-01-0	NIST05.L	45	9	ClH	36
Acetamide, 2-chloro-N-(4-amino-3-furazan	101140-12-9	NIST05.L	40427	9	C4H5ClN4O2	176



Date : 28-JAN-2010 21:46

Client ID: RE15-10-7165

Instrument: MSD1.i

Sample Info: 1245106001194459111SVHF11ILANL

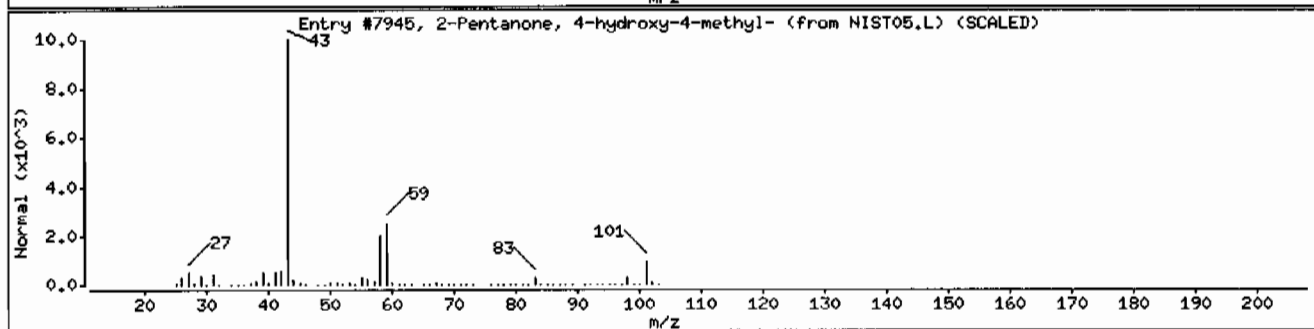
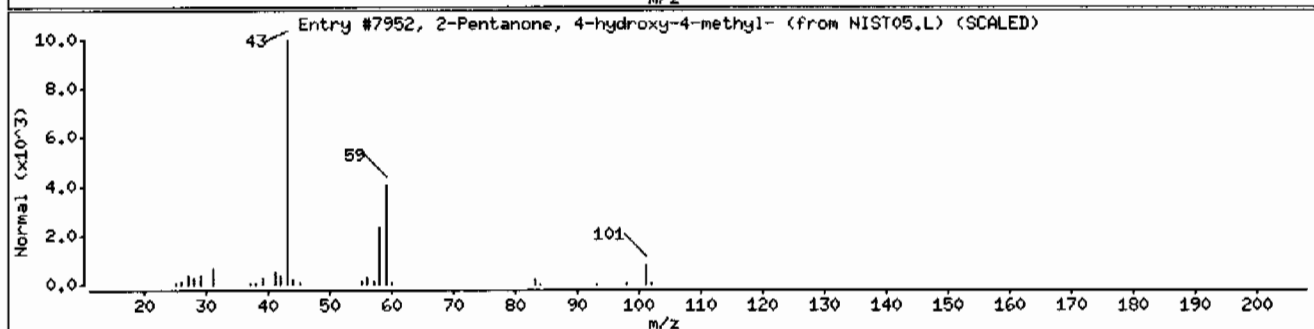
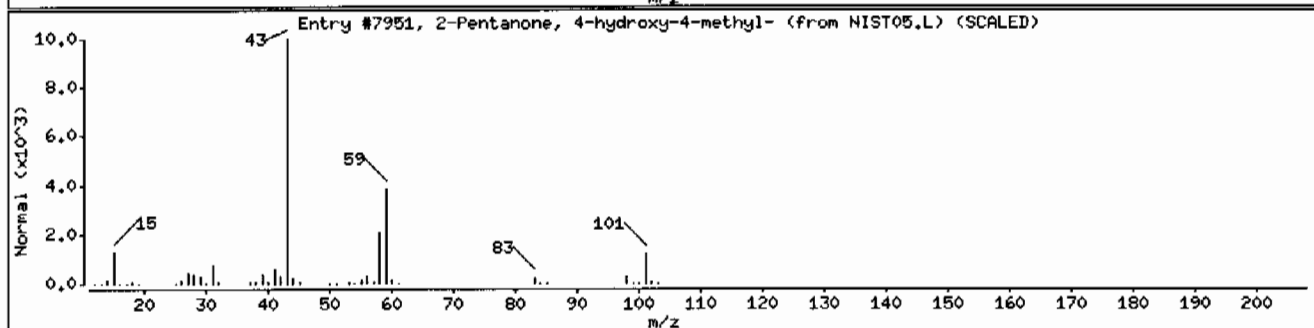
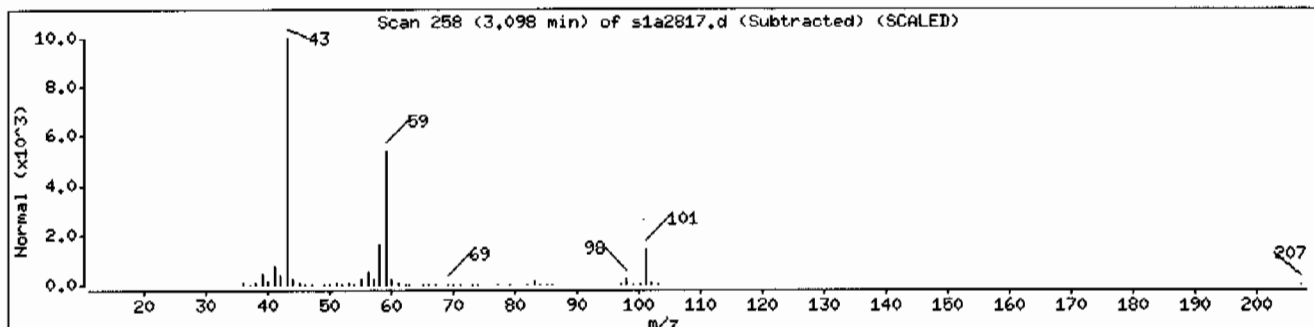
Volume Injected (uL): 0.5

Operator: AMY

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	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	45	C6H12O2	116





Date : 28-JAN-2010 21:46

Client ID: RE15-10-7165

Instrument: MSD1.i

Sample Info: 124510600194459111SVHF111LANL

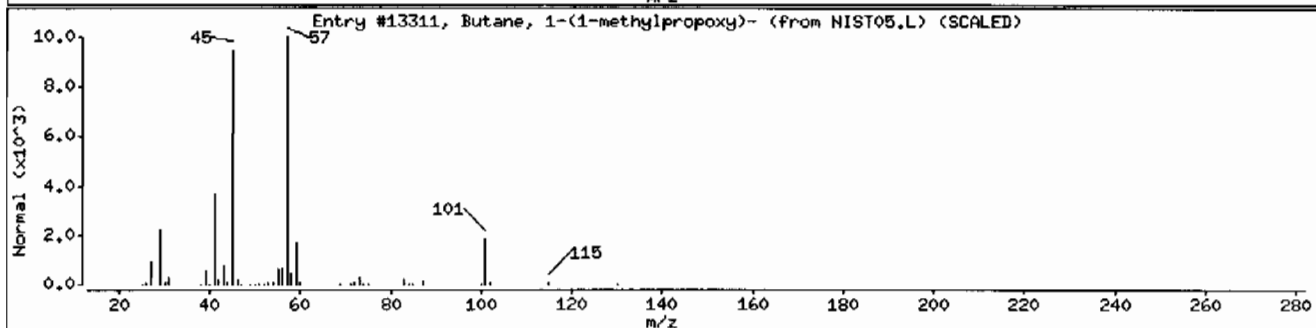
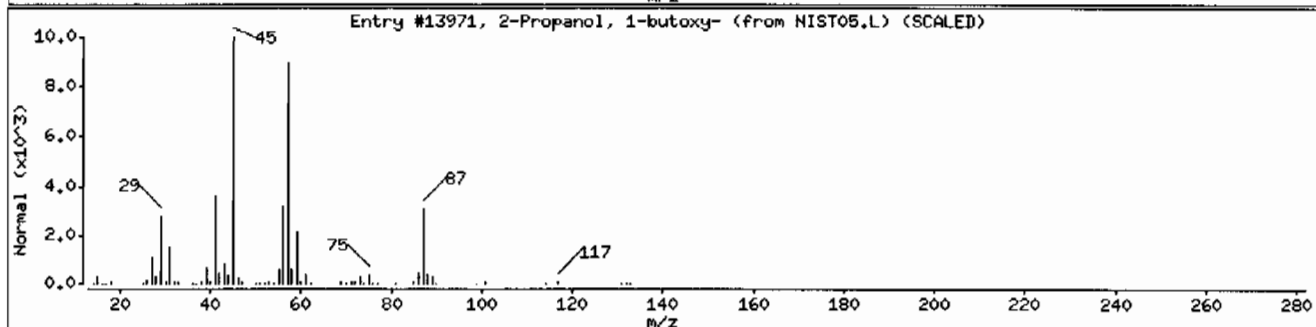
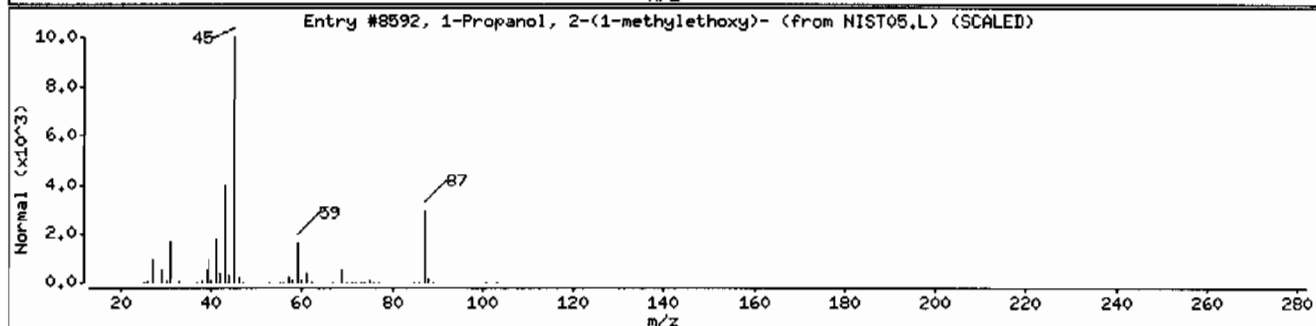
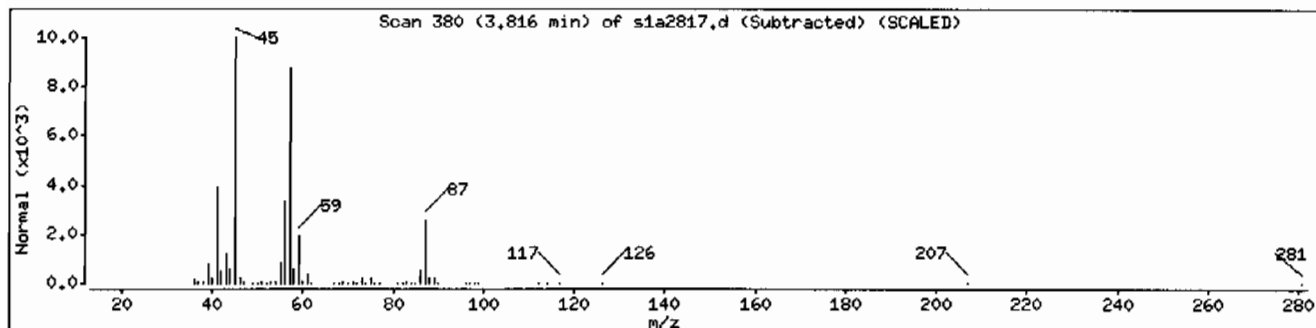
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Propanol, 2-(1-methylethoxy)-	3944-37-4	NIST05.L	8592	53	C6H14O2	118
2-Propanol, 1-butoxy-	5131-66-8	NIST05.L	13971	53	C7H16O2	132
Butane, 1-(1-methylpropoxy)-	999-65-5	NIST05.L	13311	53	C8H18O	130



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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106008	<b>Date Received:</b> 01/20/2010 08:45	<b>% Moisture:</b> 31.6
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7166	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD1.I	<b>Dilution:</b> 1
<b>Run Date:</b> 01/29/2010 01:53	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s1a2826.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	486	ug/kg	97.1	486
108-95-2	Phenol	U	486	ug/kg	97.1	486
95-57-8	2-Chlorophenol	U	486	ug/kg	97.1	486
106-46-7	1,4-Dichlorobenzene	U	486	ug/kg	97.1	486
621-64-7	N-Nitrosodipropylamine	U	486	ug/kg	97.1	486
59-50-7	4-Chloro-3-methylphenol	U	486	ug/kg	97.1	486
83-32-9	Acenaphthene	U	48.6	ug/kg	16.0	48.6
121-14-2	2,4-Dinitrotoluene	U	486	ug/kg	48.6	486
100-02-7	4-Nitrophenol	U	486	ug/kg	160	486
87-86-5	Pentachlorophenol	U	486	ug/kg	121	486
129-00-0	Pyrene	U	48.6	ug/kg	14.6	48.6
110-86-1	Pyridine	U	486	ug/kg	97.1	486
62-53-3	Aniline	U	486	ug/kg	146	486
111-44-4	bis(2-Chloroethyl) ether	U	486	ug/kg	97.1	486
541-73-1	1,3-Dichlorobenzene	U	486	ug/kg	97.1	486
100-51-6	Benzyl alcohol	U	486	ug/kg	146	486
95-50-1	1,2-Dichlorobenzene	U	486	ug/kg	97.1	486
108-60-1	bis(2-Chloroisopropyl)ether	U	486	ug/kg	97.1	486
95-48-7	o-Cresol	U	486	ug/kg	97.1	486
65794-96-9	m,p-Cresols	U	486	ug/kg	146	486
67-72-1	Hexachloroethane	U	486	ug/kg	97.1	486
98-95-3	Nitrobenzene	U	486	ug/kg	97.1	486
78-59-1	Isophorone	U	486	ug/kg	97.1	486
88-75-5	2-Nitrophenol	U	486	ug/kg	97.1	486
105-67-9	2,4-Dimethylphenol	U	486	ug/kg	170	486
111-91-1	bis(2-Chloroethoxy)methane	U	486	ug/kg	97.1	486
120-83-2	2,4-Dichlorophenol	U	486	ug/kg	97.1	486
65-85-0	Benzoic acid	U	971	ug/kg	243	971
91-20-3	Naphthalene	U	48.6	ug/kg	14.6	48.6
106-47-8	4-Chloroaniline	U	486	ug/kg	97.1	486
87-68-3	Hexachlorobutadiene	U	486	ug/kg	97.1	486
91-57-6	2-Methylnaphthalene	U	48.6	ug/kg	9.71	48.6
77-47-4	Hexachlorocyclopentadiene	U	486	ug/kg	97.1	486
88-06-2	2,4,6-Trichlorophenol	U	486	ug/kg	97.1	486
95-95-4	2,4,5-Trichlorophenol	U	486	ug/kg	97.1	486
91-58-7	2-Chloronaphthalene	U	48.6	ug/kg	16.0	48.6
88-74-4	2-Nitroaniline	U	486	ug/kg	97.1	486
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	486	ug/kg	97.1	486

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106008	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 31.6
<b>Client ID:</b> RE15-10-7166	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 944591	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Run Date:</b> 01/29/2010 01:53	<b>Inst:</b> MSD1.J	<b>Dilution:</b> 1
<b>Prep Date:</b> 01/25/2010 14:38	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Data File:</b> s1a2826.d	<b>Aliquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	486	ug/kg	97.1	486
606-20-2	2,6-Dinitrotoluene	U	486	ug/kg	48.6	486
208-96-8	Acenaphthylene	U	48.6	ug/kg	14.6	48.6
51-28-5	2,4-Dinitrophenol	U	971	ug/kg	185	971
132-64-9	Dibenzofuran	U	486	ug/kg	97.1	486
84-66-2	Diethylphthalate	U	486	ug/kg	97.1	486
86-73-7	Fluorene	U	48.6	ug/kg	14.6	48.6
7005-72-3	4-Chlorophenylphenylether	U	486	ug/kg	97.1	486
534-52-1	2-Methyl-4,6-dinitrophenol	U	486	ug/kg	97.1	486
100-01-6	4-Nitroaniline	U	486	ug/kg	146	486
122-39-4	<i>p</i> -Nitroaniline					
	Diphenylamine	U	486	ug/kg	97.1	486
122-66-7	Azobenzene	U	486	ug/kg	97.1	486
101-55-3	<i>1,2</i> -Diphenylhydrazine					
	4-Bromophenylphenylether	U	486	ug/kg	97.1	486
118-74-1	Hexachlorobenzene	U	486	ug/kg	97.1	486
85-01-8	Phenanthrene	U	48.6	ug/kg	14.6	48.6
120-12-7	Anthracene	U	48.6	ug/kg	9.71	48.6
84-74-2	Di-n-butylphthalate	U	486	ug/kg	97.1	486
206-44-0	Fluoranthene	U	48.6	ug/kg	14.6	48.6
85-68-7	Butylbenzylphthalate	U	486	ug/kg	97.1	486
56-55-3	Benzo(a)anthracene	U	48.6	ug/kg	14.6	48.6
91-94-1	3,3'-Dichlorobenzidine	U	486	ug/kg	146	486
218-01-9	Chrysene	U	48.6	ug/kg	14.6	48.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	486	ug/kg	97.1	486
117-84-0	Di-n-octylphthalate	U	486	ug/kg	97.1	486
205-99-2	Benzo(b)fluoranthene	U	48.6	ug/kg	14.6	48.6
207-08-9	Benzo(k)fluoranthene	U	48.6	ug/kg	14.6	48.6
50-32-8	Benzo(a)pyrene	U	48.6	ug/kg	14.6	48.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	48.6	ug/kg	14.6	48.6
53-70-3	Dibenzo(a,h)anthracene	U	48.6	ug/kg	14.6	48.6
191-24-2	Benzo(ghi)perylene	U	48.6	ug/kg	14.6	48.6
120-82-1	1,2,4-Trichlorobenzene	U	486	ug/kg	97.1	486

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
79-09-4	Propanoic acid	2.15	257	ug/kg	81	NJ
	Unknown Aldol Condensate	3.09	1010	ug/kg		JA

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106008	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 31.6
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7166	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD1J	<b>Dilution:</b> 1
<b>Run Date:</b> 01/29/2010 01:53	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s1a2826.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> 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
4630-07-3	Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	7.15	257	ug/kg	98	NJ
	Unknown	7.2	258	ug/kg		J
	Unknown	10.48	216	ug/kg		J
5155-70-4	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.79	343	ug/kg	94	NJ
	Unknown	15.39	1190	ug/kg		J
1000188-72-8	2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-e	16.06	1490	ug/kg	87	NJ
83-46-5	.beta.-Sitosterol	16.82	801	ug/kg	93	NJ

Data File: /chem/MSD1.i/s012810.b/sla2826.d  
 Report Date: 15-Feb-2010 15:09

Page 1

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Data file : /chem/MSD1.i/s012810.b/sla2826.d  
 Lab Smp Id: 245106008 Client Smp ID: RE15-10-7166  
 Inj Date : 29-JAN-2010 01:53  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |245106008|944591|1|SVMF|1|LANL  
 Misc Info : |MSD8270\_S|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
 Als bottle: 15  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1304.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	31.55810	% 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	4.434	4.434	(1.000)	283193	40.0000	
* 29 Naphthalene-d8	136	5.687	5.687	(1.000)	1107795	40.0000	
* 46 Acenaphthene-d10	164	7.539	7.540	(1.000)	599106	40.0000	
* 67 Phenanthrene-d10	188	9.139	9.139	(1.000)	937860	40.0000	
* 91 Chrysene-d12	240	12.033	12.039	(1.000)	639937	40.0000	
* 98 Perylene-d12	264	14.121	14.121	(1.000)	418443	40.0000	
\$ 3 2-Fluorophenol	112	3.322	3.304	(0.749)	416888	47.5964	2310
\$ 5 Phenol-d5	99	4.063	4.063	(0.916)	535754	49.2467	2390
\$ 20 Nitrobenzene-d5	82	4.957	4.957	(0.872)	214641	26.2520	1270
\$ 39 2-Fluorobiphenyl	172	6.810	6.810	(0.903)	348895	22.6050	1100
\$ 60 2,4,6-Tribromophenol	329	8.386	8.387	(1.112)	98841	45.5926	2210
\$ 81 p-Terphenyl-d14	244	10.845	10.845	(0.901)	307580	26.7855	1300

## ION RATIO REPORT

## SV REPORT

Data file: sla2826.d

Report Date: 01/29/2010 11:30

Lab. ID: 245106008

SampleType: SAMPLE

Injection Date: 29-JAN-2010 01:53

Operator: AMY

Instrument: MSD1.i

Sample Info: |245106008|944591|1|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100107-03|

Comment:

Method used: /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	24789	4.06	4.13	80-120	100	(T)
93	8053	4.12	4.13	213-273	32	(Q)
-----						
17	N-Nitrosodipropylamine		CAS#: 621-64-7			
70	27882	4.96	4.81	80-120	100	(T)
42	18331	4.96	4.81	54-114	66	(T)
-----						
44	2,6-Dinitrotoluene		CAS#: 606-20-2			
165	76754	7.54	7.31	80-120	100	(T)
63	10786	7.55	7.31	41-101	14	(QT)
-----						
45	Acenaphthylene		CAS#: 208-96-8			
152	54749	7.55	7.39	80-120	100	(T)
151	14594	7.55	7.39	0- 49	27	(T)
153	55605	7.55	7.39	0- 43	102	(QT)
-----						
47	Acenaphthene		CAS#: 83-32-9			
154	47858	7.55	7.57	80-120	100	( )
153	55605	7.55	7.57	76-136	116	( )
152	54749	7.55	7.57	21- 81	114	(Q)
-----						
50	2,4-Dinitrotoluene		CAS#: 121-14-2			
165	76754	7.54	7.75	80-120	100	(T)
89	3893	7.55	7.75	55-115	5	(QT)
63	10786	7.55	7.75	50-110	14	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	291	8.39	8.18	80-120	100	(T)
105	579	8.38	8.18	14- 74	198	(QT)
51	554	8.38	8.18	46-106	190	(QT)

-----  
Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2826.d  
Lab Smp Id: 245106008 Client Smp ID: RE15-10-7166  
Inj Date : 29-JAN-2010 01:53  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106008|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 15  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.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	30.09000	weight of sample
M	31.55810	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.434	1825740	40.000
* 46 Acenaphthene-d10	7.539	2889727	40.000
* 67 Phenanthrene-d10	9.139	2394280	40.000
* 91 Chrysene-d12	12.033	1792902	40.000
* 98 Perylene-d12	14.121	1261522	40.000

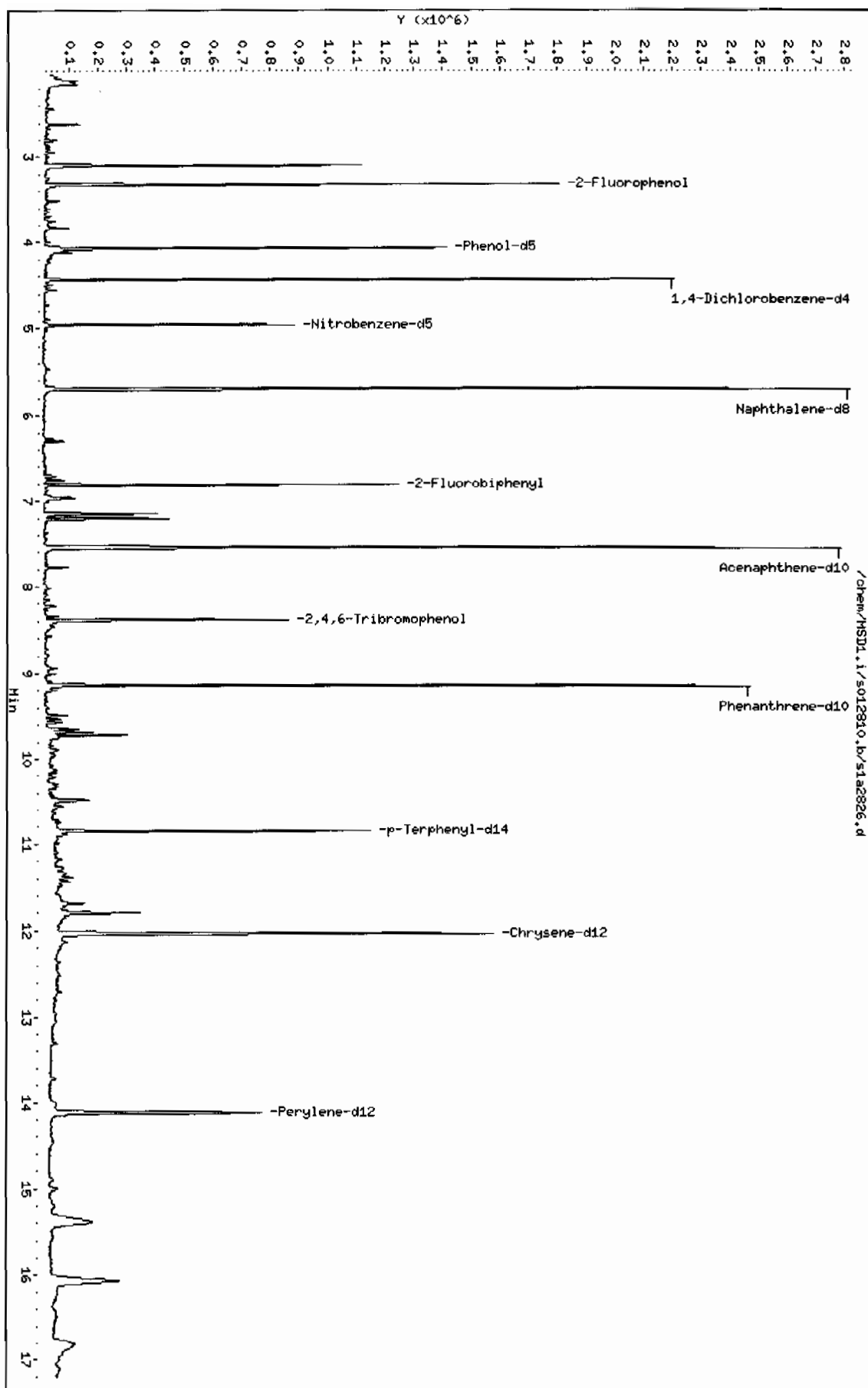
CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====



RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
-----	----	-----	-----	----	-----	-----	-----
Propanoic acid					CAS #: 79-09-4		
2.151	241919	5.30018076	257	81	NIST05.L	793	10
Unknown Aldol Condensate					CAS #:		
3.093	946151	20.7291564	1010	0		0	10
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-					CAS #: 4630-07-3		
7.145	382639	5.29653480	257	98	NIST05.L	60047	46
Unknown					CAS #:		
7.204	384295	5.31945852	258	0		0	46
Unknown					CAS #:		
10.480	266299	4.44891585	216	0		0	67
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 5155-70-4		
11.792	316814	7.06817170	343	94	NIST05.L	125035	91
Unknown					CAS #:		
15.386	771032	24.4476550	1190	0		0	98
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-e					CAS #: 1000188-72-8		
16.062	964932	30.5957872	1480	87	NIST05.L	69963	98
.beta.-Sitosterol					CAS #: 83-46-5		
16.815	520053	16.4896968	801	93	NIST05.L	174399	98

Data File: /chem/MSD1.i/s012810.b/s1a2826.d  
Date: 29-JAN-2010 01:53  
Client ID: RE15-10-7166  
Sample Info: 1245106008194459111SVHF111LNL  
Volume Injected (uL): 0.5  
Column Phase: 3uM DB-SMS

Instrument: MSD1.i  
Operator: AMY  
Column diameter: 0.20



Date : 29-JAN-2010 01:53

Client ID: RE15-10-7166

Instrument: MSD1.i

Sample Info: I245106008194459111SVMF11ILANL

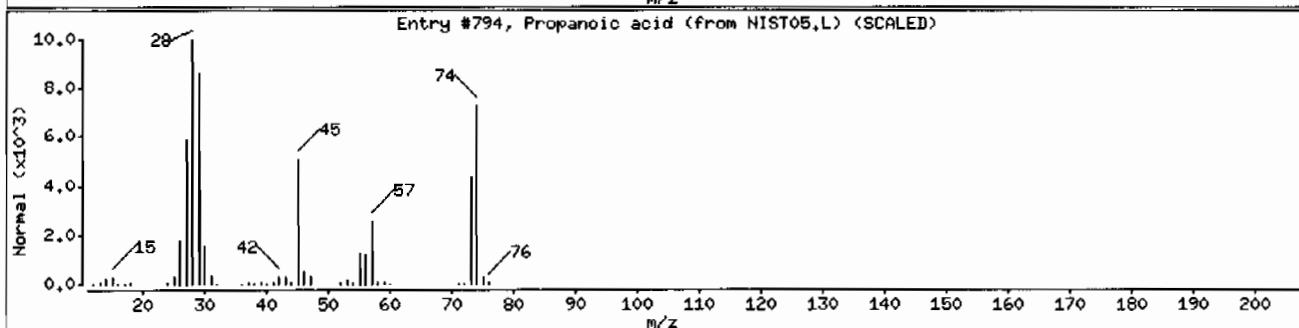
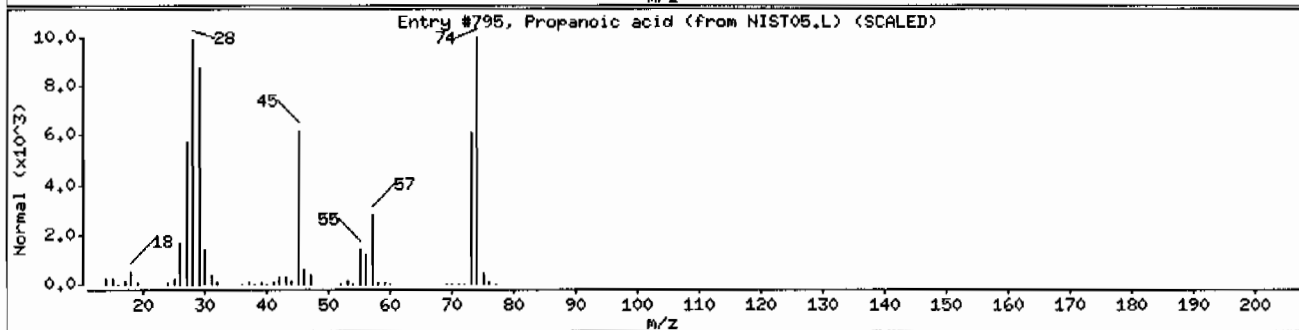
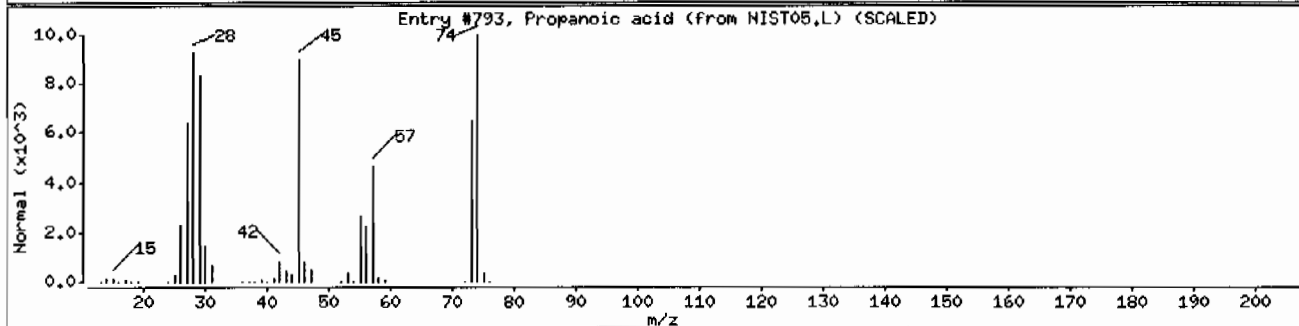
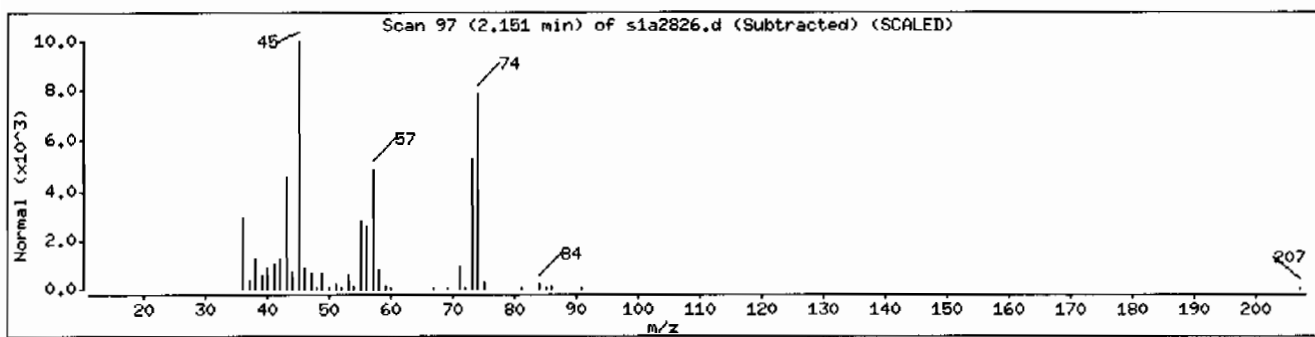
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Propanoic acid	79-09-4	NIST05.L	793	81	C3H6O2	74
Propanoic acid	79-09-4	NIST05.L	795	80	C3H6O2	74
Propanoic acid	79-09-4	NIST05.L	794	72	C3H6O2	74



Date : 29-JAN-2010 01:53

Client ID: RE15-10-7166

Instrument: HSD1.i

Sample Info: 1245106008194459111SVMF111LANL

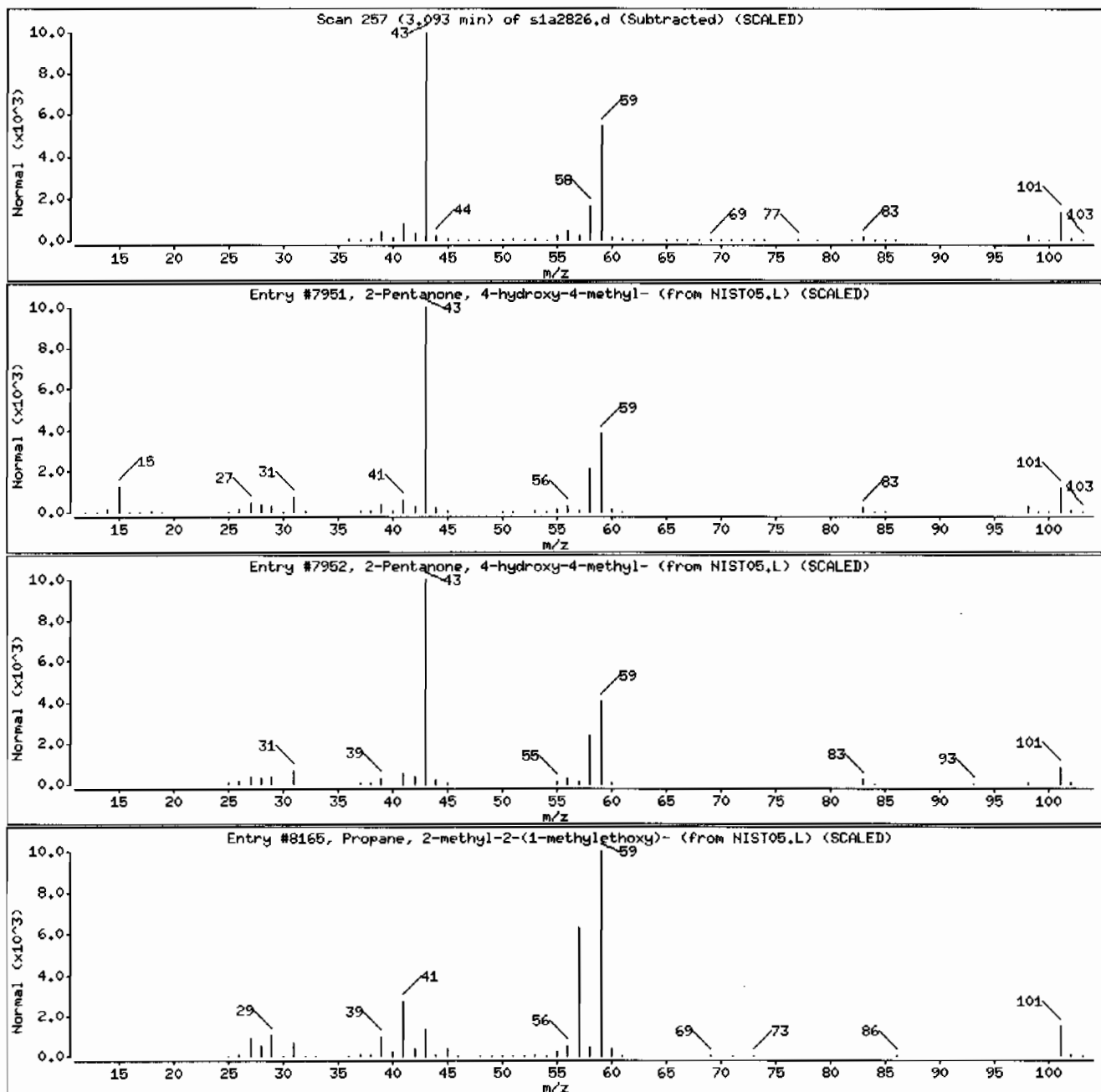
Volume Injected (uL): 0.5

Operator: AMY

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	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Propane, 2-methyl-2-(1-methylethoxy)-	17348-59-3	NIST05.L	8165	36	C7H16O	116



Date : 29-JAN-2010 01:53

Client ID: RE15-10-7166

Instrument: MSD1.i

Sample Info: 1245106008194459111SVMF111LANL

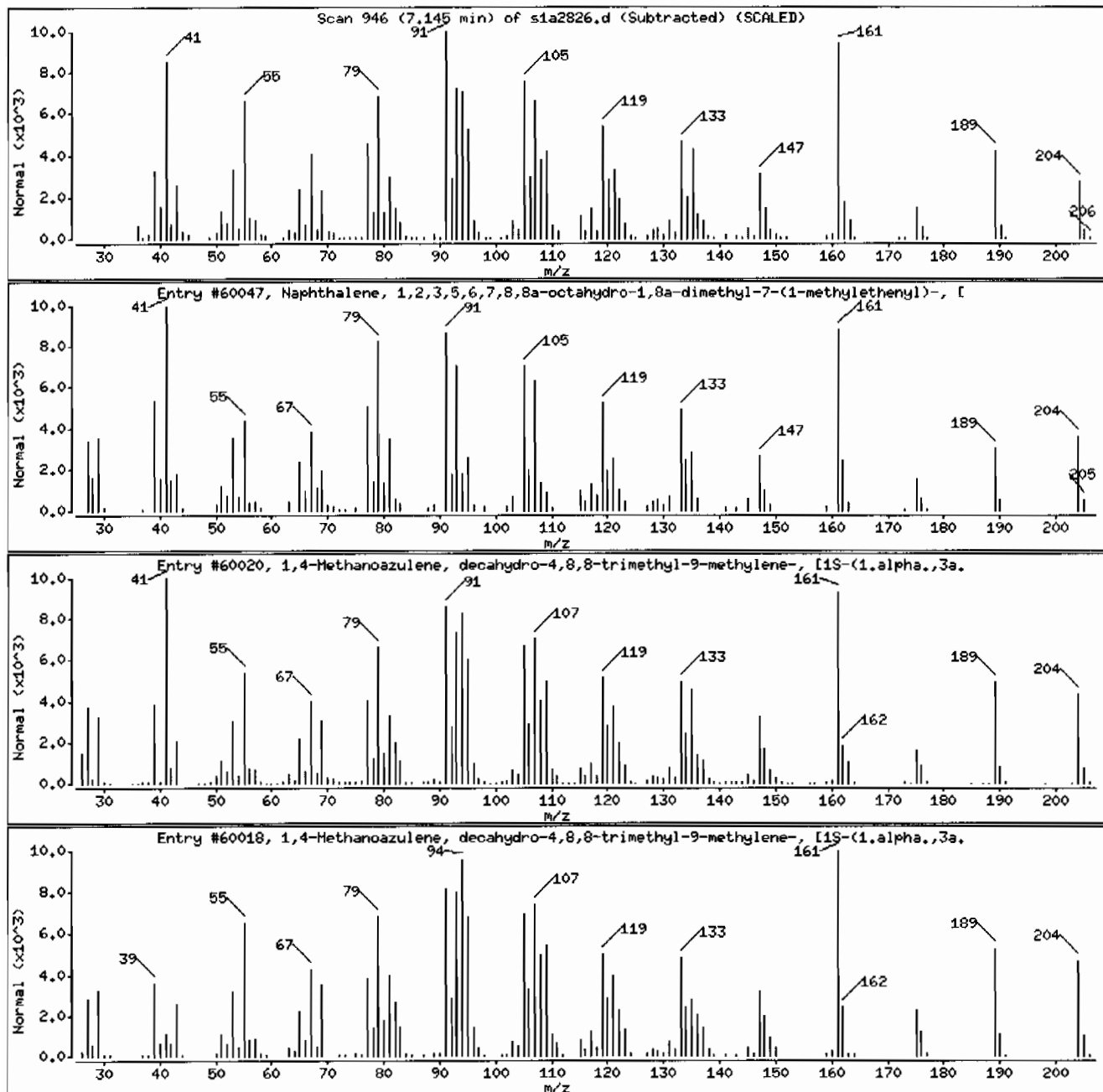
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60047	98	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60020	98	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60018	97	C15H24	204



Date : 29-JAN-2010 01:53

Client ID: RE15-10-7166

Instrument: HSD1.i

Sample Info: 1245106008194459111SVHF11ILANL

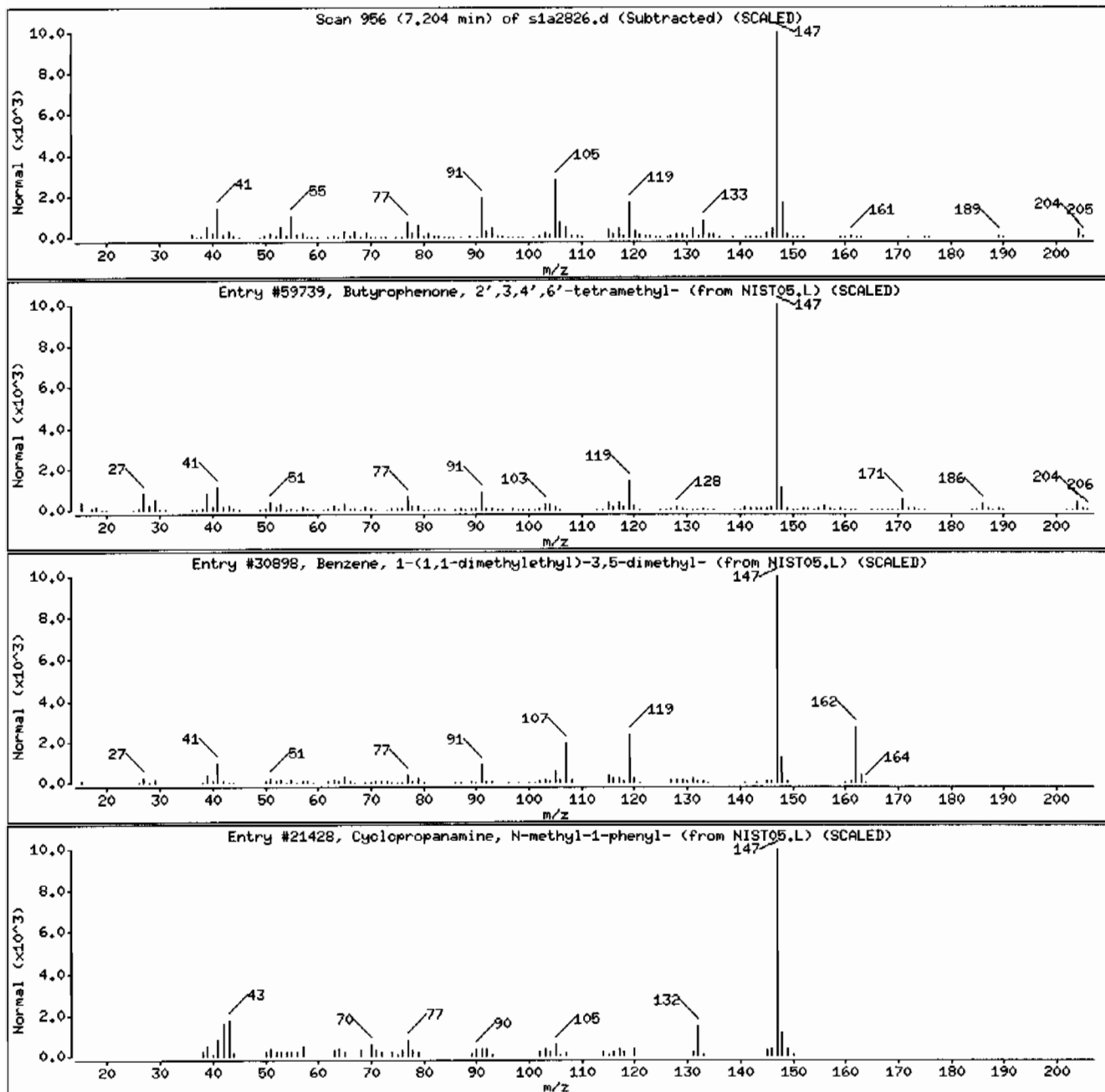
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Butyrophenone, 2',3,4',6'-tetramethyl-	5344-18-3	NIST05.L	59739	64	C14H20O	204
Benzene, 1-(1,1-dimethylethyl)-3,5-dimet	98-19-1	NIST05.L	30898	53	C12H18	162
Cyclopropanamine, N-methyl-1-phenyl-	56771-48-3	NIST05.L	21428	50	C10H13N	147



Date : 29-JAN-2010 01:53

Client ID: RE15-10-7166

Instrument: HSD1.i

Sample Info: 1245106008194459111SVHF11ILANL

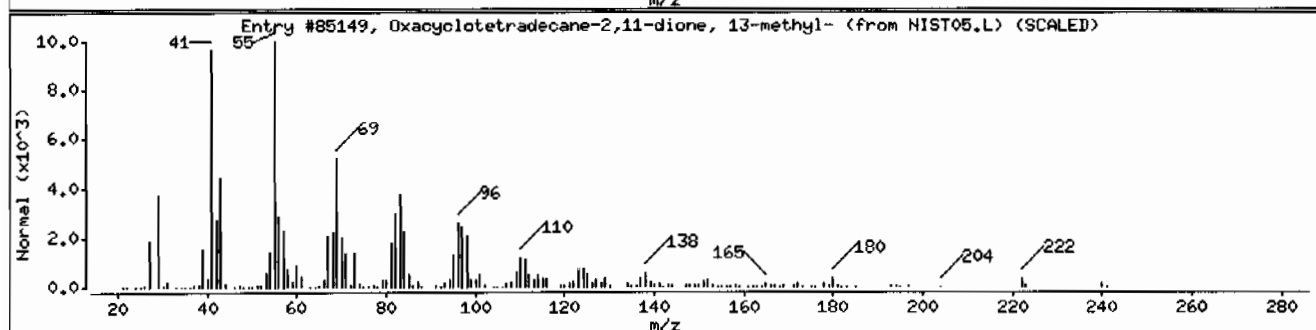
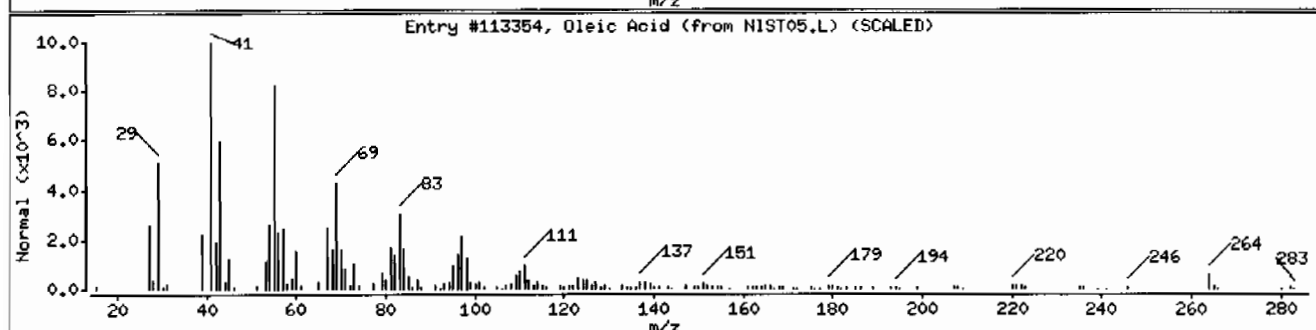
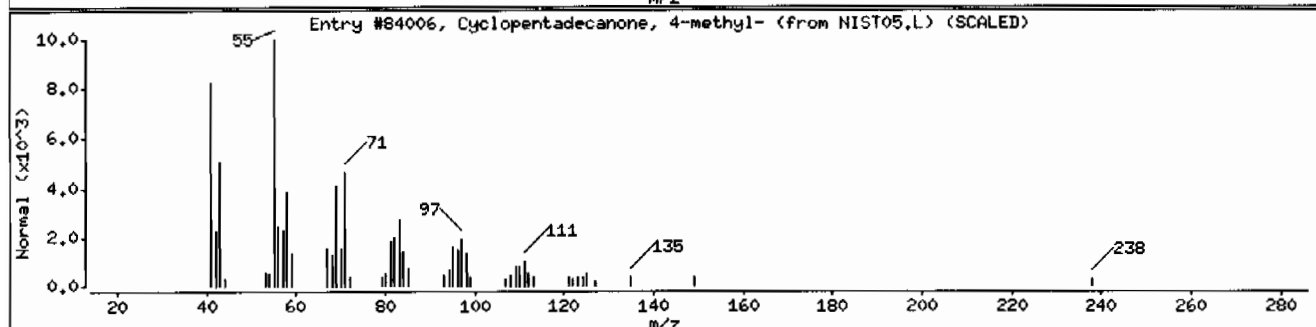
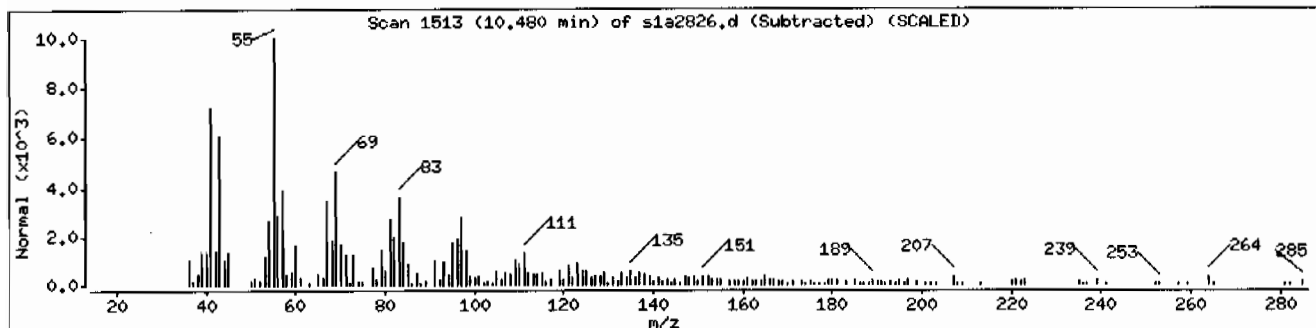
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclopentadecanone, 4-methyl-	34894-60-5	NIST05.L	84006	74	C16H30O	238
Oleic Acid	112-80-1	NIST05.L	113354	72	C18H34O2	282
Oxacyclotetradecane-2,11-dione, 13-methyl-	74685-36-2	NIST05.L	85149	68	C14H24O3	240



Date: 29-JAN-2010 01:53

Client ID: RE15-10-7166

Instrument: HSD1.i

Sample Info: 1245106008194459111SVHF111LANL

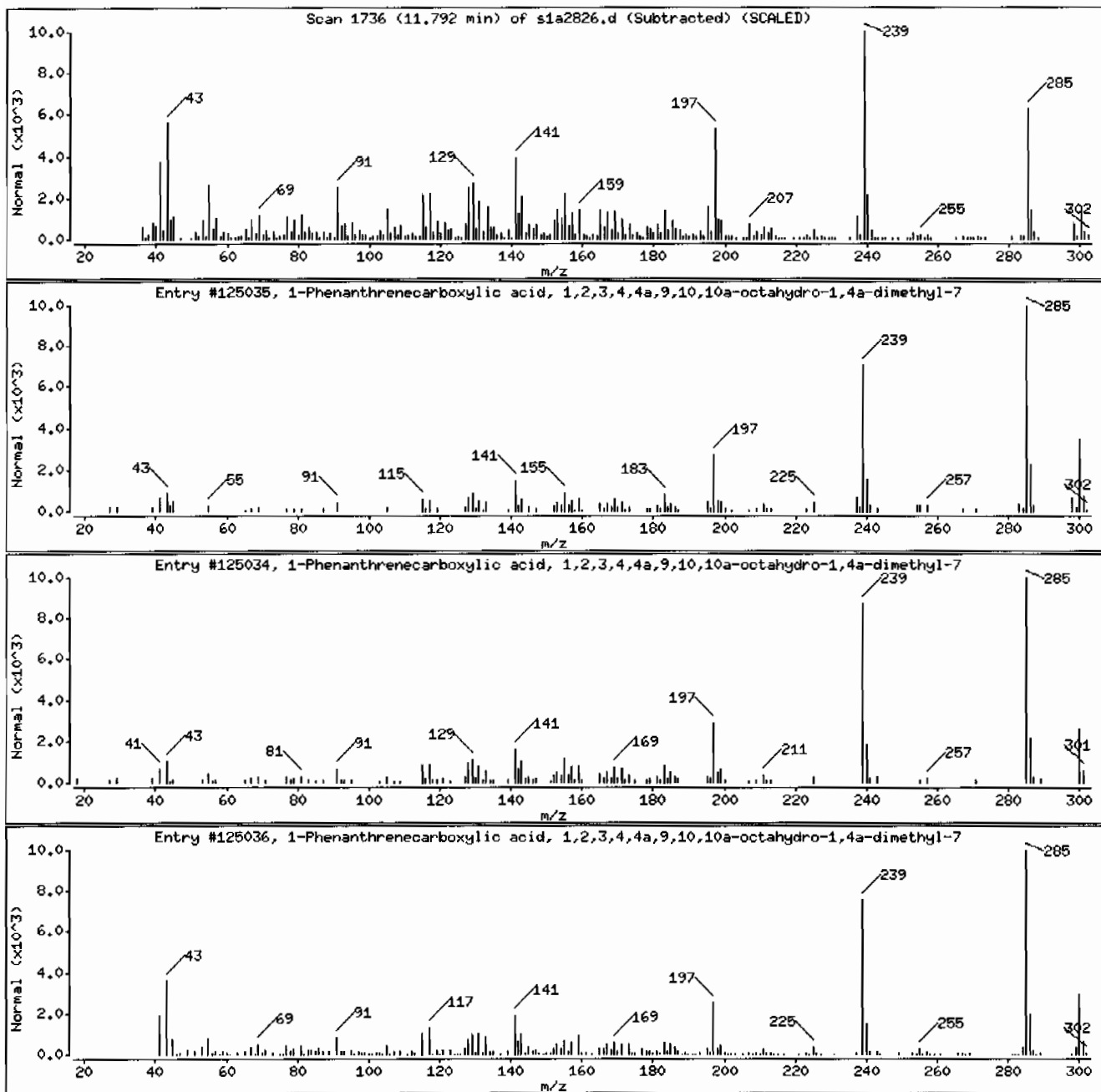
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	5155-70-4	NIST05.L	125035	94	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	94	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125036	93	C20H28O2	300





Date : 29-JAN-2010 01:53

Client ID: RE15-10-7166

Instrument: HSD1.i

Sample Info: 1245106008194459111|SVHF11|LANL

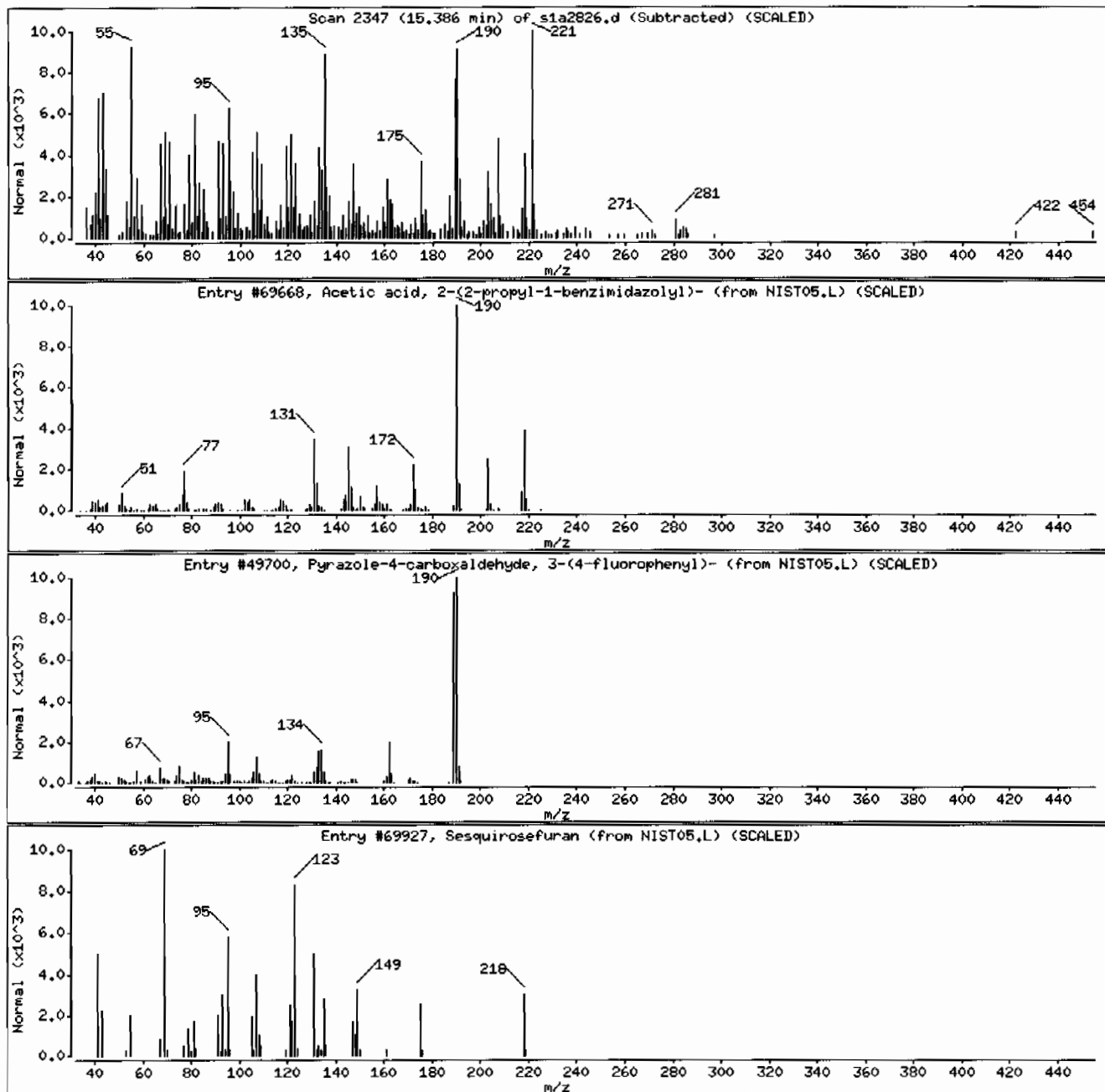
Volume Injected (uL): 0.5

Operator: AMY

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, 2-(2-propyl-1-benzimidazolyl	331736-92-6	NIST05.L	69668	53	C12H14N2O2	218
Pyrazole-4-carboxaldehyde, 3-(4-fluoroph	306936-57-2	NIST05.L	49700	43	C10H7FN2O	190
Sesquirosefuran	39007-93-7	NIST05.L	69927	25	C15H22O	218



Date: 29-JAN-2010 01:53

Client ID: RE15-10-7166

Instrument: MSD1.i

Sample Info: 1245106008194459111SVHF11ILANL

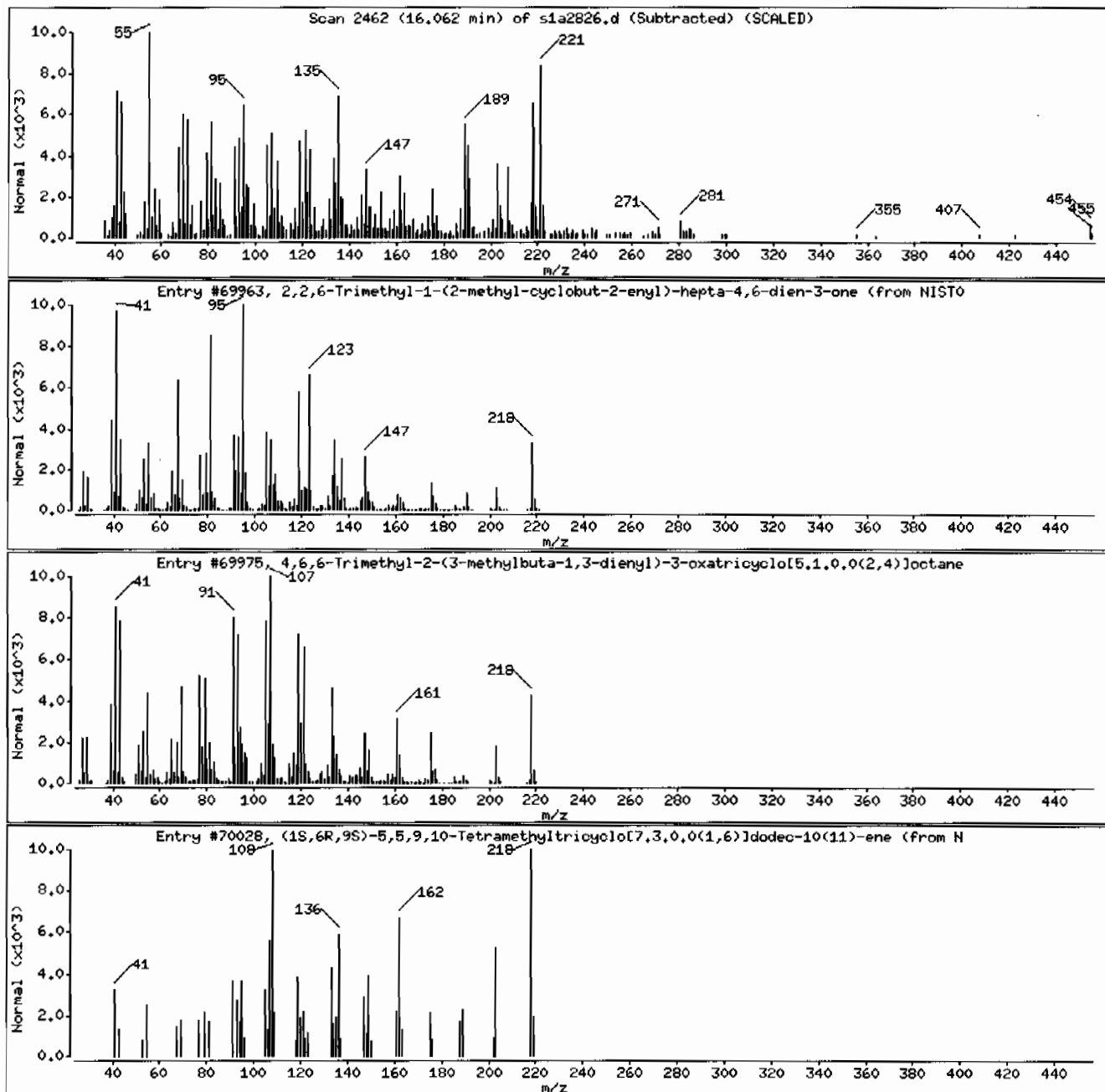
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-yl)-hepta-4,6-dien-3-one	1000188-72-8	NIST05.L	69963	87	C <sub>15</sub> H <sub>22</sub> O	218
4,6,6-Trimethyl-2-(3-methylbuta-1,3-dienyl)-3-oxatricyclo[5.1.0.0(2,4)]octane	1000190-22-2	NIST05.L	69975	52	C <sub>15</sub> H <sub>22</sub> O	218
(1S,6R,9S)-5,5,9,10-Tetramethyltricyclo[7.3.0.0(1,6)]dodec-10(11)-ene	1000298-97-8	NIST05.L	70028	25	C <sub>16</sub> H <sub>26</sub>	218



Date : 29-JAN-2010 01:53

Client ID: RE15-10-7166

Instrument: MSD1.i

Sample Info: 1245106008194459111SVMF11ILANL

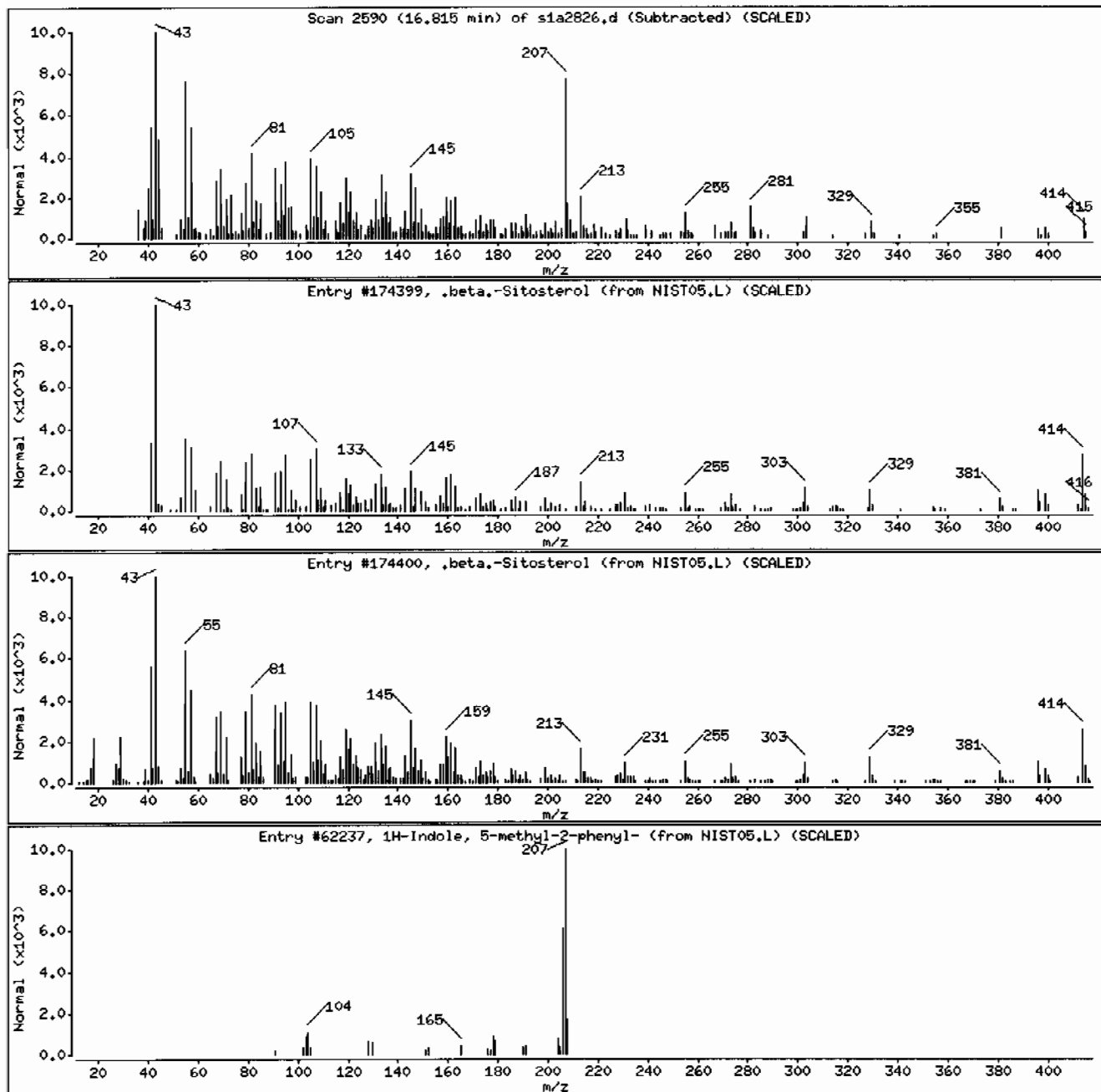
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174399	93	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174400	91	C29H50O	414
1H-Indole, 5-methyl-2-phenyl-	13228-36-9	NIST05.L	62237	55	C15H13N	207



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

SDG Number: 10-1304  
Lab Sample ID: 245106005

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7167  
Batch ID: 944591  
Run Date: 01/29/2010 00:31  
Prep Date: 01/25/2010 14:38  
Data File: s1a2823.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	427	ug/kg	85.3	427
108-95-2	Phenol	U	427	ug/kg	85.3	427
95-57-8	2-Chlorophenol	U	427	ug/kg	85.3	427
106-46-7	1,4-Dichlorobenzene	U	427	ug/kg	85.3	427
621-64-7	N-Nitrosodipropylamine	U	427	ug/kg	85.3	427
59-50-7	4-Chloro-3-methylphenol	U	427	ug/kg	85.3	427
83-32-9	Acenaphthene	U	42.7	ug/kg	14.1	42.7
121-14-2	2,4-Dinitrotoluene	U	427	ug/kg	42.7	427
100-02-7	4-Nitrophenol	U	427	ug/kg	141	427
87-86-5	Pentachlorophenol	U	427	ug/kg	107	427
129-00-0	Pyrene	U	42.7	ug/kg	12.8	42.7
110-86-1	Pyridine	U	427	ug/kg	85.3	427
62-53-3	Aniline	U	427	ug/kg	128	427
111-44-4	bis(2-Chloroethyl) ether	U	427	ug/kg	85.3	427
541-73-1	1,3-Dichlorobenzene	U	427	ug/kg	85.3	427
100-51-6	Benzyl alcohol	U	427	ug/kg	128	427
95-50-1	1,2-Dichlorobenzene	U	427	ug/kg	85.3	427
108-60-1	bis(2-Chloroisopropyl)ether	U	427	ug/kg	85.3	427
95-48-7	o-Cresol	U	427	ug/kg	85.3	427
65794-96-9	m,p-Cresols	U	427	ug/kg	128	427
67-72-1	Hexachloroethane	U	427	ug/kg	85.3	427
98-95-3	Nitrobenzene	U	427	ug/kg	85.3	427
78-59-1	Isophorone	U	427	ug/kg	85.3	427
88-75-5	2-Nitrophenol	U	427	ug/kg	85.3	427
105-67-9	2,4-Dimethylphenol	U	427	ug/kg	149	427
111-91-1	bis(2-Chloroethoxy)methane	U	427	ug/kg	85.3	427
120-83-2	2,4-Dichlorophenol	U	427	ug/kg	85.3	427
65-85-0	Benzoic acid	U	853	ug/kg	213	853
91-20-3	Naphthalene	U	42.7	ug/kg	12.8	42.7
106-47-8	4-Chloroaniline	U	427	ug/kg	85.3	427
87-68-3	Hexachlorobutadiene	U	427	ug/kg	85.3	427
91-57-6	2-Methylnaphthalene	U	42.7	ug/kg	8.53	42.7
77-47-4	Hexachlorocyclopentadiene	U	427	ug/kg	85.3	427
88-06-2	2,4,6-Trichlorophenol	U	427	ug/kg	85.3	427
95-95-4	2,4,5-Trichlorophenol	U	427	ug/kg	85.3	427
91-58-7	2-Chloronaphthalene	U	42.7	ug/kg	14.1	42.7
88-74-4	2-Nitroaniline	U	427	ug/kg	85.3	427
99-09-2	3-Nitroaniline	U	427	ug/kg	85.3	427

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

SDG Number: 10-1304  
Lab Sample ID: 245106005

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7167  
Batch ID: 944591  
Run Date: 01/29/2010 00:31  
Prep Date: 01/25/2010 14:38  
Data File: s1a2823.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	427	ug/kg	85.3	427
606-20-2	2,6-Dinitrotoluene	U	427	ug/kg	42.7	427
208-96-8	Acenaphthylene	U	42.7	ug/kg	12.8	42.7
51-28-5	2,4-Dinitrophenol	U	853	ug/kg	162	853
132-64-9	Dibenzofuran	U	427	ug/kg	85.3	427
84-66-2	Diethylphthalate	U	427	ug/kg	85.3	427
86-73-7	Fluorene	U	42.7	ug/kg	12.8	42.7
7005-72-3	4-Chlorophenylphenylether	U	427	ug/kg	85.3	427
534-52-1	2-Methyl-4,6-dinitrophenol	U	427	ug/kg	85.3	427
100-01-6	4-Nitroaniline	U	427	ug/kg	128	427
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	427	ug/kg	85.3	427
122-66-7	Azobenzene	U	427	ug/kg	85.3	427
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	427	ug/kg	85.3	427
118-74-1	Hexachlorobenzene	U	427	ug/kg	85.3	427
85-01-8	Phenanthrene	U	42.7	ug/kg	12.8	42.7
120-12-7	Anthracene	U	42.7	ug/kg	8.53	42.7
84-74-2	Di-n-butylphthalate	U	427	ug/kg	85.3	427
206-44-0	Fluoranthene	U	42.7	ug/kg	12.8	42.7
85-68-7	Butylbenzylphthalate	U	427	ug/kg	85.3	427
56-55-3	Benzo(a)anthracene	U	42.7	ug/kg	12.8	42.7
91-94-1	3,3'-Dichlorobenzidine	U	427	ug/kg	128	427
218-01-9	Chrysene	U	42.7	ug/kg	12.8	42.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	427	ug/kg	85.3	427
117-84-0	Di-n-octylphthalate	U	427	ug/kg	85.3	427
205-99-2	Benzo(b)fluoranthene	U	42.7	ug/kg	12.8	42.7
207-08-9	Benzo(k)fluoranthene	U	42.7	ug/kg	12.8	42.7
50-32-8	Benzo(a)pyrene	U	42.7	ug/kg	12.8	42.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.7	ug/kg	12.8	42.7
53-70-3	Dibenzo(a,h)anthracene	U	42.7	ug/kg	12.8	42.7
191-24-2	Benzo(ghi)perylene	U	42.7	ug/kg	12.8	42.7
120-82-1	1,2,4-Trichlorobenzene	U	427	ug/kg	85.3	427

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.11	172	ug/kg		JA
	Unknown Aldol Condensate	3.09	770	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2823.d  
 Lab Smp Id: 245106005 Client Smp ID: RE15-10-7167  
 Inj Date : 29-JAN-2010 00:31  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |245106005|944591|1|SVMF|1|LANL  
 Misc Info : |MSD8270\_S|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
 Als bottle: 12  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1304.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	30.05000	weight of sample
M	21.99090	% 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	4.434	4.434	(1.000)	295044	40.0000	
* 29 Naphthalene-d8	136	5.687	5.687	(1.000)	1156731	40.0000	
* 46 Acenaphthene-d10	164	7.539	7.540	(1.000)	618072	40.0000	
* 67 Phenanthrene-d10	188	9.139	9.139	(1.000)	985929	40.0000	
* 91 Chrysene-d12	240	12.033	12.039	(1.000)	713043	40.0000	
* 98 Perylene-d12	264	14.121	14.121	(1.000)	488432	40.0000	
\$ 3 2-Fluorophenol	112	3.316	3.304	(0.748)	419653	45.9876	1960
\$ 5 Phenol-d5	99	4.063	4.063	(0.916)	539302	47.5817	2030
\$ 20 Nitrobenzene-d5	82	4.957	4.957	(0.872)	233791	27.3845	1170
\$ 39 2-Fluorobiphenyl	172	6.810	6.810	(0.903)	395516	24.8393	1060
\$ 60 2,4,6-Tribromophenol	329	8.381	8.387	(1.112)	106486	47.6118	2030
\$ 81 p-Terphenyl-d14	244	10.845	10.845	(0.901)	402259	31.4390	1340

## ION RATIO REPORT

## SV REPORT

Data file: sla2823.d

Report Date: 01/29/2010 11:29

Lab. ID: 245106005

SampleType: SAMPLE

Injection Date: 29-JAN-2010 00:31

Operator: AMY

Instrument: MSD1.i

Sample Info: |245106005|944591|1|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100107-03|

Comment:

Method used: /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline CAS#: 62-53-3						
66	25246	4.06	4.13	80-120	100	(T)
93	925	4.12	4.13	213-273	4	(Q)
-----						
17 N-Nitrosodipropylamine CAS#: 621-64-7						
70	31152	4.96	4.81	80-120	100	(T)
42	19747	4.96	4.81	54-114	63	(T)
-----						
44 2,6-Dinitrotoluene CAS#: 606-20-2						
165	78896	7.54	7.31	80-120	100	(T)
63	6091	7.55	7.31	41-101	8	(QT)
-----						
45 Acenaphthylene CAS#: 208-96-8						
152	28122	7.55	7.39	80-120	100	(T)
151	7475	7.55	7.39	0- 49	27	(T)
153	29245	7.55	7.39	0- 43	104	(QT)
-----						
47 Acenaphthene CAS#: 83-32-9						
154	24673	7.55	7.57	80-120	100	( )
153	29245	7.55	7.57	76-136	119	( )
152	28122	7.55	7.57	21- 81	114	(Q)
-----						
50 2,4-Dinitrotoluene CAS#: 121-14-2						
165	78896	7.54	7.75	80-120	100	(T)
89	2467	7.55	7.75	55-115	3	(QT)
63	6091	7.55	7.75	50-110	8	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	293	8.38	8.18	80-120	100	(T)
105	745	8.38	8.18	14- 74	254	(QT)
51	791	8.38	8.18	46-106	269	(QT)

-----  
 Q qualifier indicates ion failed ratio requirement



GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2823.d  
 Lab Smp Id: 245106005 Client Smp ID: RE15-10-7167  
 Inj Date : 29-JAN-2010 00:31  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |245106005|944591|1|SVMF|1|LANL  
 Misc Info : |MSD8270\_S|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
 Als bottle: 12  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1304.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	30.05000	weight of sample
M	21.99090	% moisture

Cpnd Variable Local Compound Variable

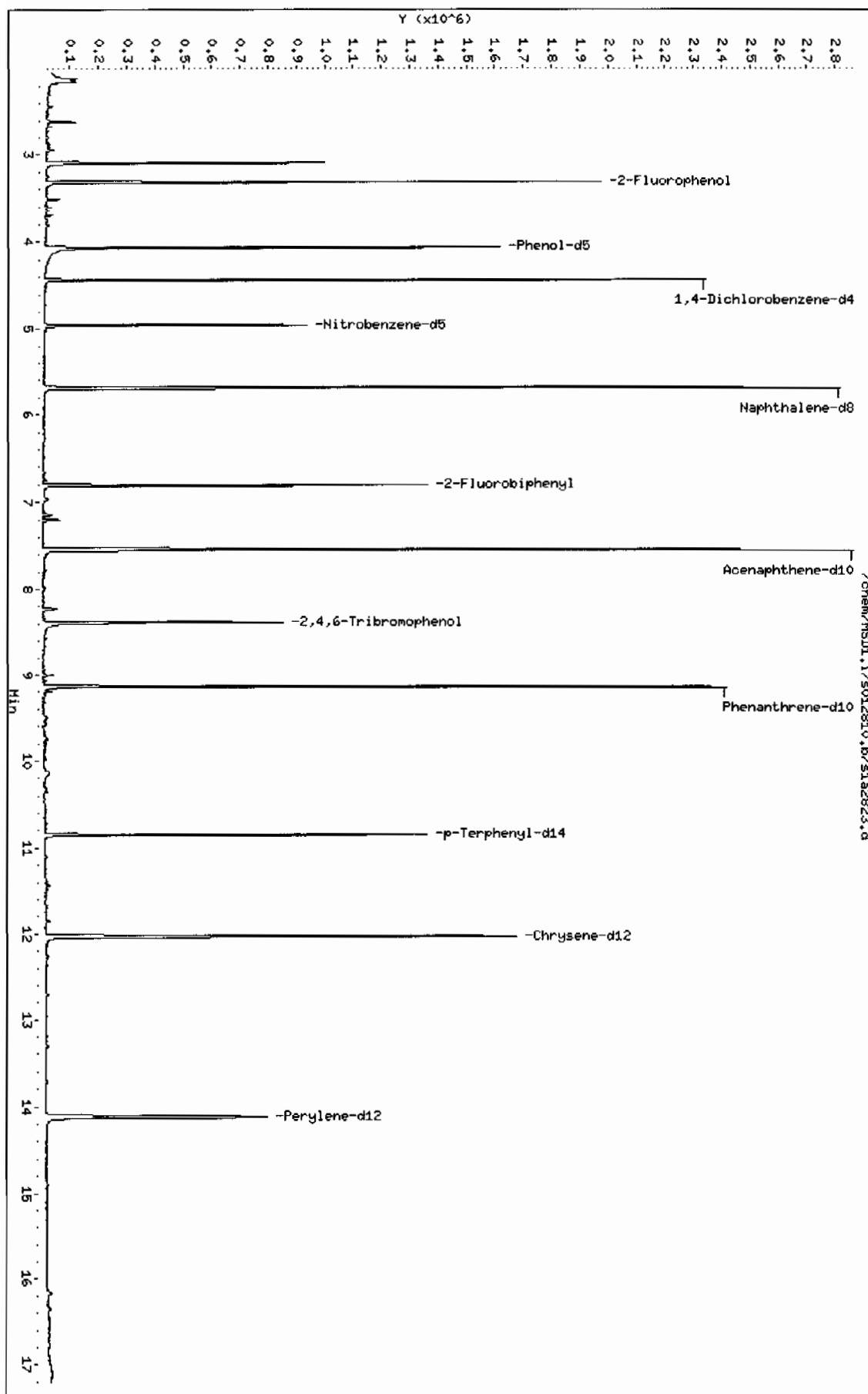
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.434	1891288	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown					CAS #:		
2.110	190677	4.03273591	172	0		0	10
Unknown Aldol Condensate					CAS #:		
3.093	852917	18.0388524	770	0		0	10

Data File: /chem/HSD1.i/s012810.b/s1a2823.d  
Date: 29-JAN-2010 00:31  
Client ID: RE15-10-7467  
Sample Info: 12451060051944591115WHF111.LANL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5MS

Instrument: HSD1.i  
Operator: AMY  
Column diameter: 0.20

Page 1



Date : 29-JAN-2010 00:31

Client ID: RE15-10-7167

Instrument: MSD1.i

Sample Info: I245106005I944591I1ISVMF11ILANL

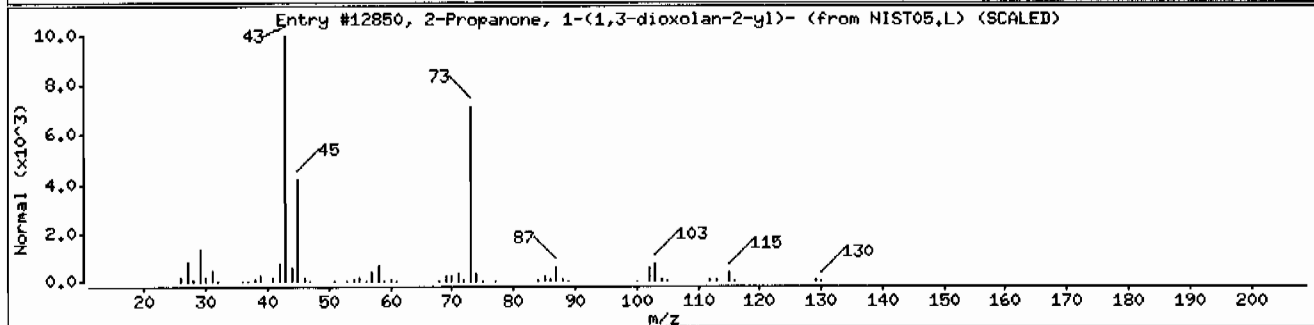
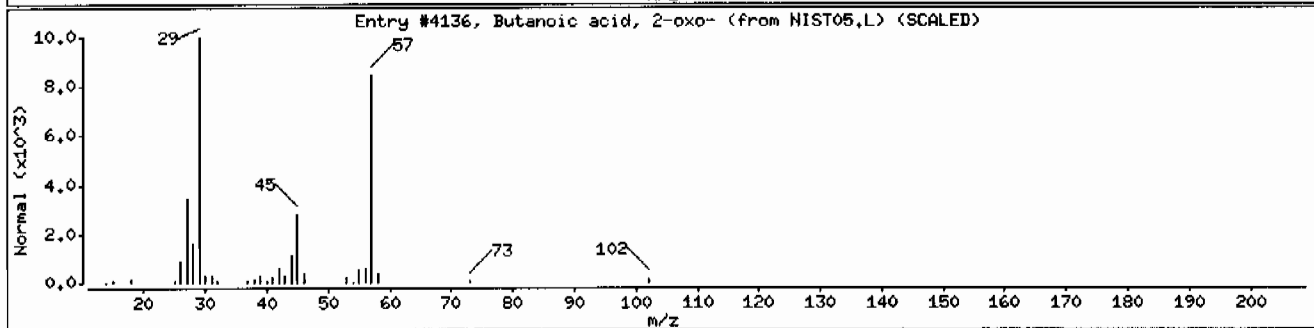
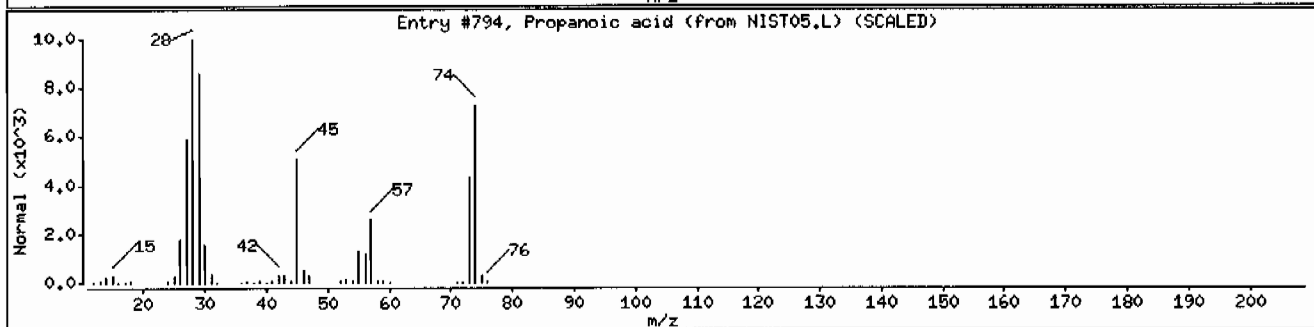
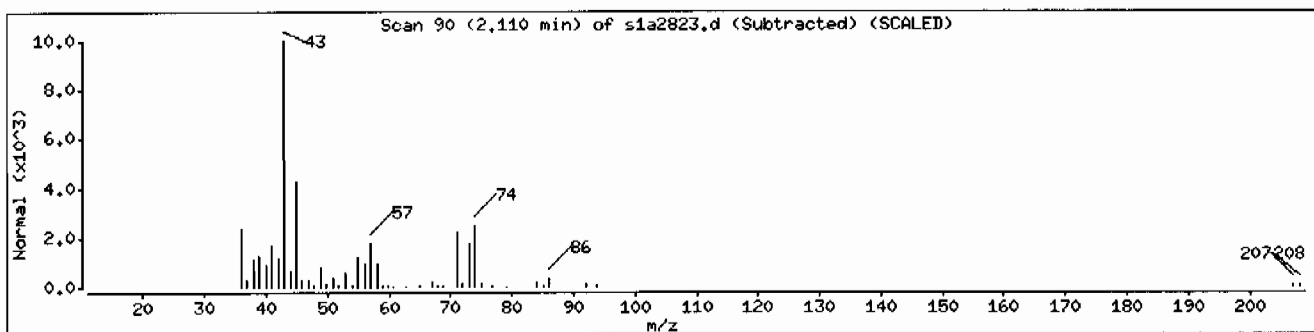
Volume Injected (uL): 0.5

Operator: AMY

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	79-09-4	NIST05.L	794	12	C3H6O2	74
Butanoic acid, 2-oxo-	600-18-0	NIST05.L	4136	12	C4H6O3	102
2-Propanone, 1-(1,3-dioxolan-2-yl)-	767-04-4	NIST05.L	12850	10	C6H10O3	130



Date : 29-JAN-2010 00:31

Client ID: RE15-10-7167

Instrument: MSD1.i

Sample Info: 1245106005194459111ISVHF111LANL

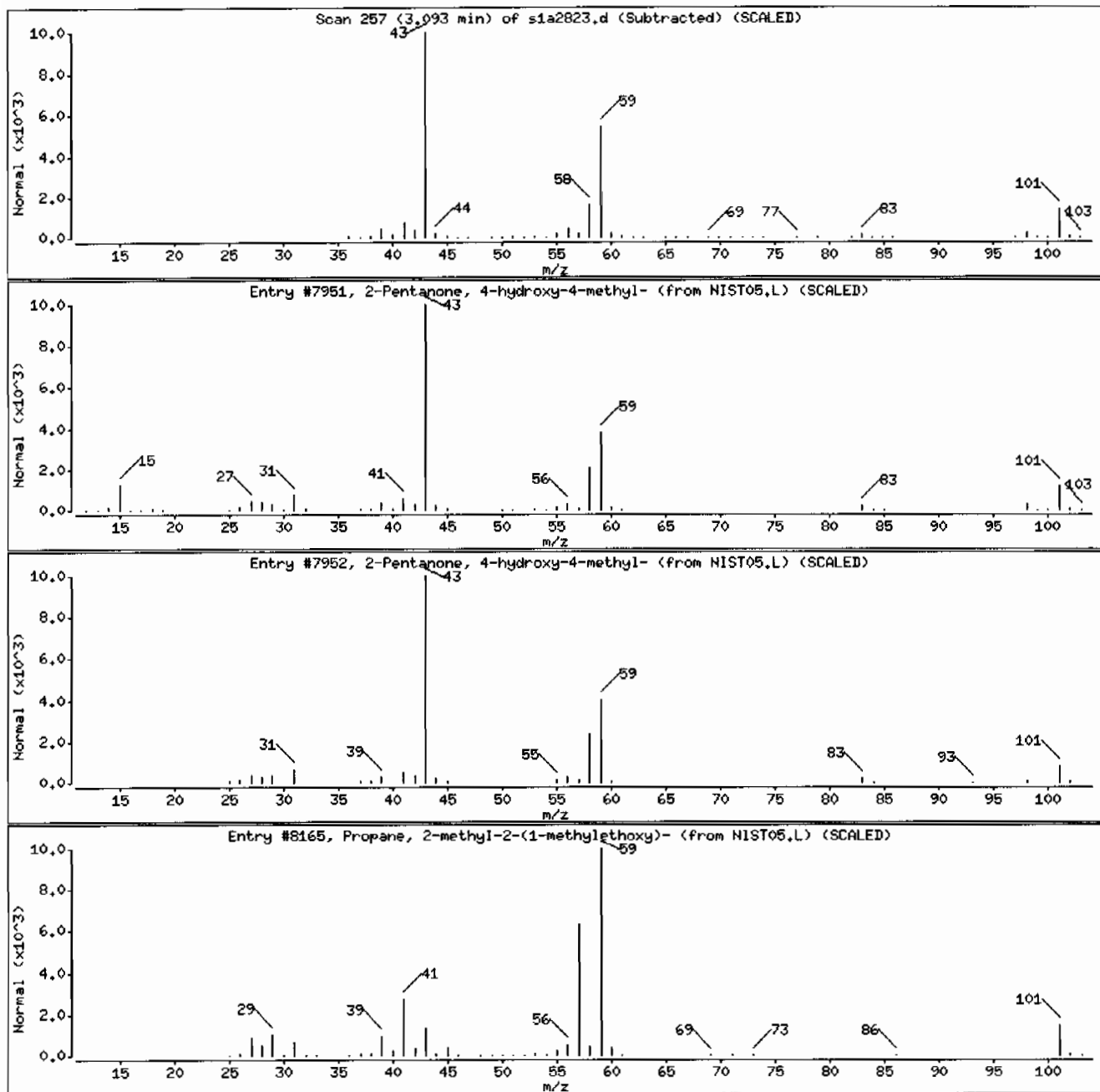
Volume Injected (uL): 0.5

Operator: AMY

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	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Propane, 2-methyl-2-(1-methylethoxy)-	17348-59-3	NIST05.L	8165	36	C7H16O	116



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

SDG Number: 10-1304  
Lab Sample ID: 245106007

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 19.2  
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	412	ug/kg	82.5	412
108-95-2	Phenol	U	412	ug/kg	82.5	412
95-57-8	2-Chlorophenol	U	412	ug/kg	82.5	412
106-46-7	1,4-Dichlorobenzene	U	412	ug/kg	82.5	412
621-64-7	N-Nitrosodipropylamine	U	412	ug/kg	82.5	412
59-50-7	4-Chloro-3-methylphenol	U	412	ug/kg	82.5	412
83-32-9	Acenaphthene	U	41.2	ug/kg	13.6	41.2
121-14-2	2,4-Dinitrotoluene	U	412	ug/kg	41.2	412
100-02-7	4-Nitrophenol	U	412	ug/kg	136	412
87-86-5	Pentachlorophenol	U	412	ug/kg	103	412
129-00-0	Pyrene	U	41.2	ug/kg	12.4	41.2
110-86-1	Pyridine	U	412	ug/kg	82.5	412
62-53-3	Aniline	U	412	ug/kg	124	412
111-44-4	bis(2-Chloroethyl) ether	U	412	ug/kg	82.5	412
541-73-1	1,3-Dichlorobenzene	U	412	ug/kg	82.5	412
100-51-6	Benzyl alcohol	U	412	ug/kg	124	412
95-50-1	1,2-Dichlorobenzene	U	412	ug/kg	82.5	412
108-60-1	bis(2-Chloroisopropyl)ether	U	412	ug/kg	82.5	412
95-48-7	o-Cresol	U	412	ug/kg	82.5	412
65794-96-9	m,p-Cresols	U	412	ug/kg	124	412
67-72-1	Hexachloroethane	U	412	ug/kg	82.5	412
98-95-3	Nitrobenzene	U	412	ug/kg	82.5	412
78-59-1	Isophorone	U	412	ug/kg	82.5	412
88-75-5	2-Nitrophenol	U	412	ug/kg	82.5	412
105-67-9	2,4-Dimethylphenol	U	412	ug/kg	144	412
111-91-1	bis(2-Chloroethoxy)methane	U	412	ug/kg	82.5	412
120-83-2	2,4-Dichlorophenol	U	412	ug/kg	82.5	412
65-85-0	Benzoic acid	U	825	ug/kg	206	825
91-20-3	Naphthalene	U	41.2	ug/kg	12.4	41.2
106-47-8	4-Chloroaniline	U	412	ug/kg	82.5	412
87-68-3	Hexachlorobutadiene	U	412	ug/kg	82.5	412
91-57-6	2-Methylnaphthalene	U	41.2	ug/kg	8.25	41.2
77-47-4	Hexachlorocyclopentadiene	U	412	ug/kg	82.5	412
88-06-2	2,4,6-Trichlorophenol	U	412	ug/kg	82.5	412
95-95-4	2,4,5-Trichlorophenol	U	412	ug/kg	82.5	412
91-58-7	2-Chloronaphthalene	U	41.2	ug/kg	13.6	41.2
88-74-4	2-Nitroaniline	U	412	ug/kg	82.5	412
99-09-2	<i>o</i> -Nitroaniline	U	412	ug/kg	82.5	412
	3-Nitroaniline					

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

SDG Number: 10-1304  
Lab Sample ID: 245106007

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 19.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	412	ug/kg	82.5	412
606-20-2	2,6-Dinitrotoluene	U	412	ug/kg	41.2	412
208-96-8	Acenaphthylene	U	41.2	ug/kg	12.4	41.2
51-28-5	2,4-Dinitrophenol	U	825	ug/kg	157	825
132-64-9	Dibenzofuran	U	412	ug/kg	82.5	412
84-66-2	Diethylphthalate	U	412	ug/kg	82.5	412
86-73-7	Fluorene	U	41.2	ug/kg	12.4	41.2
7005-72-3	4-Chlorophenylphenylether	U	412	ug/kg	82.5	412
534-52-1	2-Methyl-4,6-dinitrophenol	U	412	ug/kg	82.5	412
100-01-6	4-Nitroaniline	U	412	ug/kg	124	412
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	412	ug/kg	82.5	412
122-66-7	Azobenzene	U	412	ug/kg	82.5	412
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	412	ug/kg	82.5	412
118-74-1	Hexachlorobenzene	U	412	ug/kg	82.5	412
85-01-8	Phenanthrene	U	41.2	ug/kg	12.4	41.2
120-12-7	Anthracene	U	41.2	ug/kg	8.25	41.2
84-74-2	Di-n-butylphthalate	U	412	ug/kg	82.5	412
206-44-0	Fluoranthene	U	41.2	ug/kg	12.4	41.2
85-68-7	Butylbenzylphthalate	U	412	ug/kg	82.5	412
56-55-3	Benzo(a)anthracene	U	41.2	ug/kg	12.4	41.2
91-94-1	3,3'-Dichlorobenzidine	U	412	ug/kg	124	412
218-01-9	Chrysene	U	41.2	ug/kg	12.4	41.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	412	ug/kg	82.5	412
117-84-0	Di-n-octylphthalate	U	412	ug/kg	82.5	412
205-99-2	Benzo(b)fluoranthene	U	41.2	ug/kg	12.4	41.2
207-08-9	Benzo(k)fluoranthene	U	41.2	ug/kg	12.4	41.2
50-32-8	Benzo(a)pyrene	U	41.2	ug/kg	12.4	41.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.2	ug/kg	12.4	41.2
53-70-3	Dibenzo(a,h)anthracene	U	41.2	ug/kg	12.4	41.2
191-24-2	Benzo(ghi)perylene	U	41.2	ug/kg	12.4	41.2
120-82-1	1,2,4-Trichlorobenzene	U	412	ug/kg	82.5	412

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.69	265	ug/kg		J
79-09-4	Propanoic acid	2.13	207	ug/kg	87	NJ

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106007	Date Received: 01/20/2010 08:45	%Moisture: 19.2
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7168	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.1	Dilution: 1
Run Date: 01/29/2010 01:25	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s1a2825.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
---------	----------	-----------	--------	-------	---------	---------

Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown Aldol Condensate	3.08	709	ug/kg		JA
2867-05-2	Bicyclo[3.1.0]hex-2-ene, 2-methyl-5-(1-m	3.75	234	ug/kg	91	NJ
3387-41-5	Bicyclo[3.1.0]hexane, 4-methylene-1-(1-m	4.12	335	ug/kg	93	NJ
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.15	1220	ug/kg	98	NJ
120-08-1	2H-1-Benzopyran-2-one, 6,7-dimethoxy-	9.88	265	ug/kg	98	NJ
1686-66-4	Phenanthrene, 7-ethenyl-1,2,3,4,4a,4b,5,	10.13	183	ug/kg	89	NJ
1000190-13-7	Octadec-9-enoic acid	10.48	241	ug/kg	93	NJ
	Unknown	11.3	210	ug/kg		J
334-48-5	n-Decanoic acid	11.35	191	ug/kg	89	NJ
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.39	192	ug/kg	98	NJ
	Unknown	11.44	229	ug/kg		J
	Unknown	11.69	295	ug/kg		J
	Unknown	11.82	2230	ug/kg		J
	Unknown	12.06	177	ug/kg		J
646-30-0	Nonadecanoic acid	12.14	322	ug/kg	90	NJ
557-59-5	Tetracosanoic acid	13.06	235	ug/kg	97	NJ
	Unknown	15	209	ug/kg		J
54832-82-5	Tricyclo[4.3.0.0(7,9)]nonane, 2,2,5,5,8,	15.36	572	ug/kg	90	NJ
70038-20-9	7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	16.06	827	ug/kg	93	NJ
83-47-6	gamma.-Sitosterol	16.8	1740	ug/kg	97	NJ

Data File: /chem/MSD1.i/s012810.b/sla2825.d  
Report Date: 15-Feb-2010 15:07

Page 1

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2825.d  
Lab Smp Id: 245106007 Client Smp ID: RE15-10-7168  
Inj Date : 29-JAN-2010 01:25  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106007|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 14  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.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	30.01000	weight of sample
M	19.18620	% 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	4.434	4.434 (1.000)	269720	40.0000	
* 29 Naphthalene-d8	136	5.687	5.687 (1.000)	1065909	40.0000	
* 46 Acenaphthene-d10	164	7.540	7.540 (1.000)	573992	40.0000	
* 67 Phenanthrene-d10	188	9.139	9.139 (1.000)	904445	40.0000	
* 91 Chrysene-d12	240	12.033	12.039 (1.000)	655060	40.0000	
* 98 Perylene-d12	264	14.121	14.121 (1.000)	421242	40.0000	
\$ 3 2-Fluorophenol	112	3.310	3.304 (0.747)	413287	49.5423	2040
\$ 5 Phenol-d5	99	4.063	4.063 (0.916)	532199	51.3636	2120
\$ 20 Nitrobenzene-d5	82	4.957	4.957 (0.872)	219857	27.9466	1150
\$ 39 2-Fluorobiphenyl	172	6.810	6.810 (0.903)	428756	28.9947	1200
\$ 60 2,4,6-Tribromophenol	329	8.387	8.387 (1.112)	107435	51.7251	2130
\$ 81 p-Terphenyl-d14	244	10.845	10.845 (0.901)	395093	33.6122	1380



## ION RATIO REPORT

## SV REPORT

Data file: sla2825.d

Report Date: 01/29/2010 11:30

Lab. ID: 245106007

SampleType: SAMPLE

Injection Date: 29-JAN-2010 01:25

Operator: AMY

Instrument: MSD1.i

Sample Info: |245106007|944591|1|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100107-03|

Comment:

Method used: /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	25356	4.06	4.13	80-120	100	(T)
93	80122	4.12	4.13	213-273	316	(Q)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	30058	4.96	4.81	80-120	100	(T)
42	19632	4.95	4.81	54-114	65	(T)
-----						
40	2-Chloronaphthalene	CAS#: 91-58-7				
162	19706	7.15	6.95	80-120	100	(T)
164	1195	7.15	6.95	2- 62	6	(T)
127	1445	7.15	6.95	8- 68	7	(QT)
-----						
42	o-Nitroaniline	CAS#: 88-74-4				
65	25191	7.15	7.05	80-120	100	(T)
92	29975	7.15	7.05	29- 89	119	(QT)
138	2375	7.15	7.05	68-128	9	(QT)
-----						
44	2,6-Dinitrotoluene	CAS#: 606-20-2				
165	74752	7.54	7.31	80-120	100	(T)
63	7561	7.55	7.31	41-101	10	(QT)
-----						
45	Acenaphthylene	CAS#: 208-96-8				
152	33692	7.55	7.39	80-120	100	(T)
151	8931	7.55	7.39	0- 49	27	(T)
153	34167	7.55	7.39	0- 43	101	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
47 Acenaphthene			CAS#: 83-32-9			
154	29188	7.55	7.57	80-120	100	( )
153	34167	7.55	7.57	76-136	117	( )
152	33560	7.55	7.57	21- 81	115	(Q)
-----						
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	74752	7.54	7.75	80-120	100	(T)
89	2634	7.55	7.75	55-115	4	(QT)
63	7561	7.55	7.75	50-110	10	(QT)
-----						
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	351	8.39	8.18	80-120	100	(T)
105	756	8.38	8.18	14- 74	215	(QT)
51	836	8.38	8.18	46-106	238	(QT)

-----

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/s1a2825.d  
 Lab Smp Id: 245106007 Client Smp ID: RE15-10-7168  
 Inj Date : 29-JAN-2010 01:25  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |245106007|944591|1|SVMF|1|LANL  
 Misc Info : |MSD8270 S|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: s1a2203.d  
 Als bottle: 14  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1304.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	30.01000	weight of sample
M	19.18620	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.434	1799985	40.000
* 46 Acenaphthene-d10	7.540	2668266	40.000
* 67 Phenanthrene-d10	9.139	2321618	40.000
* 91 Chrysene-d12	12.033	1799531	40.000
* 98 Perylene-d12	14.121	1211453	40.000

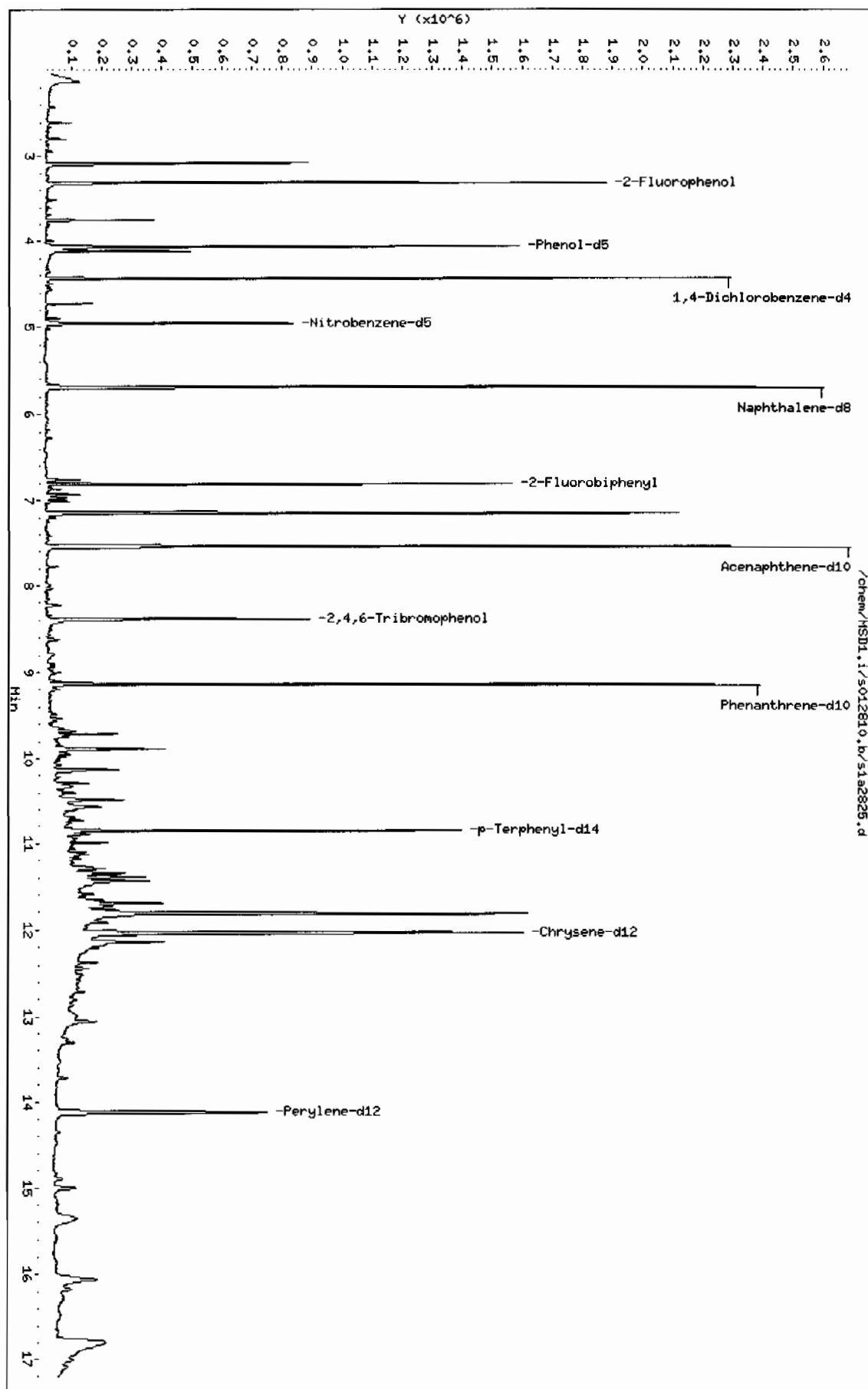
CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
----	----	-----	-----	----	-----	-----	-----

RT	CONCENTRATIONS		QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)		LIBRARY	LIE ENTRY	
=====	=====	=====	=====	=====	=====	=====
Unknown				CAS #:		
1.693	288962	6.42143103	265	0	0	10
Propanoic acid				CAS #: 79-09-4		
2.134	225400	5.00892307	206	87	NIST05.L	793
Unknown Aldol Condensate				CAS #:		
3.081	774303	17.2068814	709	0	0	10
Bicyclo[3.1.0]hex-2-ene, 2-methyl-5-(1-m				CAS #: 2867-05-2		
3.752	255000	5.66671299	234	91	NIST05.L	15375
Bicyclo[3.1.0]hexane, 4-methylene-1-(1-m				CAS #: 3387-41-5		
4.116	365295	8.11774279	335	93	NIST05.L	15373
1,4-Methanoazulene, decahydro-4,8,8-trim				CAS #: 475-20-7		
7.145	1980984	29.6969385	1220	98	NIST05.L	60023
2H-1-Benzopyran-2-one, 6,7-dimethoxy-				CAS #: 120-08-1		
9.881	373642	6.43760751	265	98	NIST05.L	61031
Phenanthrene, 7-ethenyl-1,2,3,4,4a,4b,5,				CAS #: 1686-66-4		
10.128	258058	4.44618262	183	89	NIST05.L	107106
Octadec-9-enoic acid				CAS #: 1000190-13-7		
10.480	338546	5.83292615	240	93	NIST05.L	113356
Unknown				CAS #:		
11.298	228679	5.08307129	210	0	0	91
n-Decanoic acid				CAS #: 334-48-5		
11.345	208571	4.63612117	191	89	NIST05.L	37498
1-Phenanthrenecarboxylic acid, 1,2,3,4,4				CAS #: 1235-74-1		
11.392	209977	4.66737511	192	98	NIST05.L	133618
Unknown				CAS #:		
11.439	249577	5.54761153	229	0	0	91
Unknown				CAS #:		
11.692	321452	7.14523982	295	0	0	91
Unknown				CAS #:		
11.816	2427930	53.9680557	2220	0	0	91

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown					CAS #:		
12.063	192637	4.28192826	176	0		0	91
Nonadecanoic acid					CAS #: 646-30-0		
12.139	351658	7.81664814	322	90	NIST05.L	123687	91
Tetracosanoic acid					CAS #: 557-59-5		
13.057	256673	5.70532286	235	97	NIST05.L	160633	91
Unknown					CAS #:		
15.004	153790	5.07786762	209	0		0	98
Tricyclo[4.3.0.0(7,9)]nonane, 2,2,5,5,8,					CAS #: 54832-82-5		
15.357	420490	13.8838029	572	90	NIST05.L	61566	98
7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet					CAS #: 70038-20-9		
16.057	607457	20.0571172	827	93	NIST05.L	69982	98
.gamma.-Sitosterol					CAS #: 83-47-6		
16.804	1277505	42.1808852	1740	97	NIST05.L	174402	98

Data File: /chem/MSD1.i/5012810.b/s1a2825.d  
Date: 29-Jan-2010 01:25  
Client ID: RE15-10-7168  
Sample Info: 1245106007194459111SMF111LANL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5MS

Instrument: MSD1.i  
Operator: AMV  
Column diameter: 0.20



Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: MSD1.i

Sample Info: I245106007194459111SVHF11ILANL

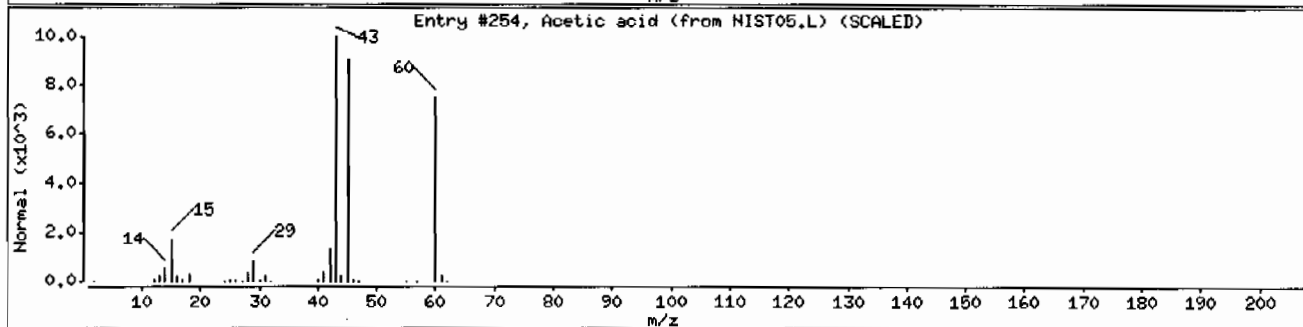
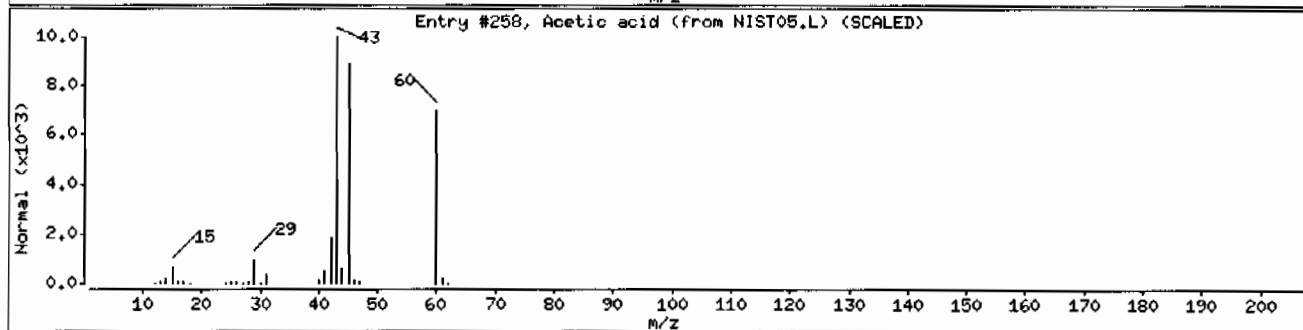
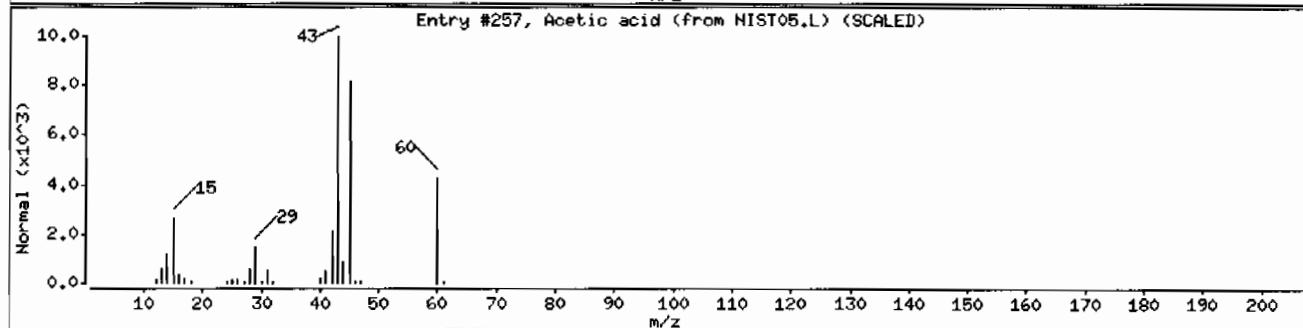
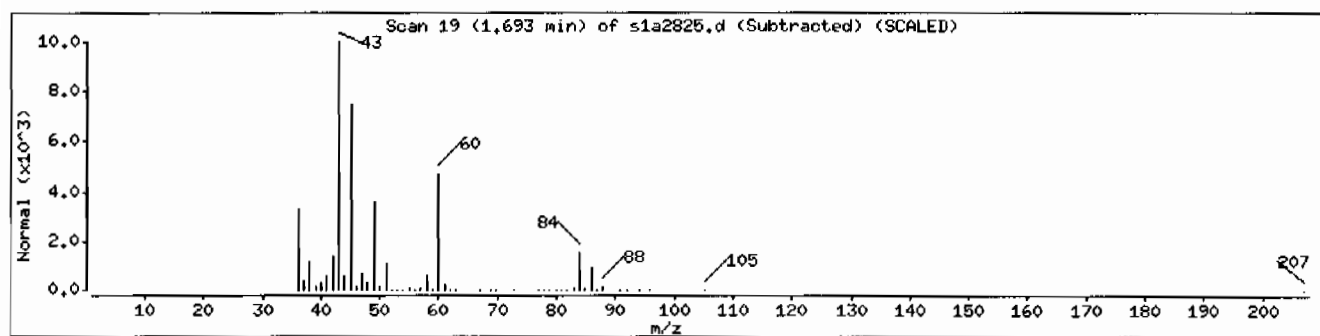
Volume Injected (uL): 0.5

Operator: AMY

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	64-19-7	NIST05.L	257	38	C2H4O2	60
Acetic acid	64-19-7	NIST05.L	258	38	C2H4O2	60
Acetic acid	64-19-7	NIST05.L	254	38	C2H4O2	60



Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: MSD1.i

Sample Info: 1245106007194459111SVMF111LANL

Volume Injected (uL): 0.5

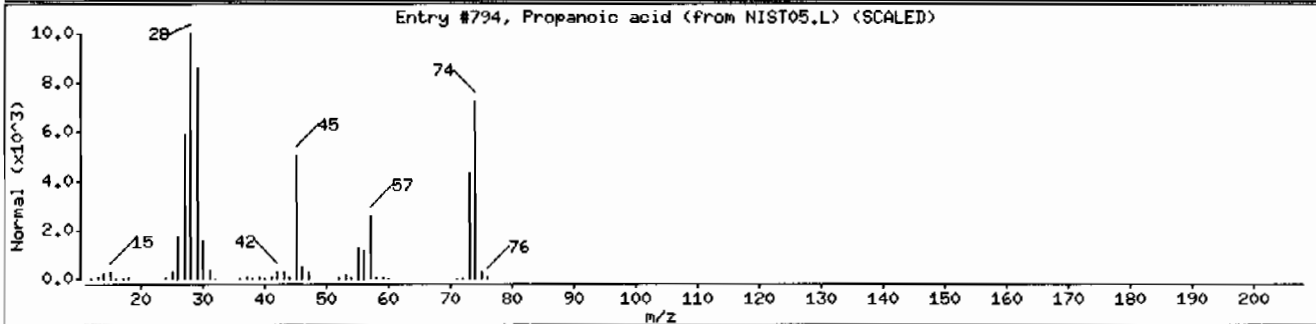
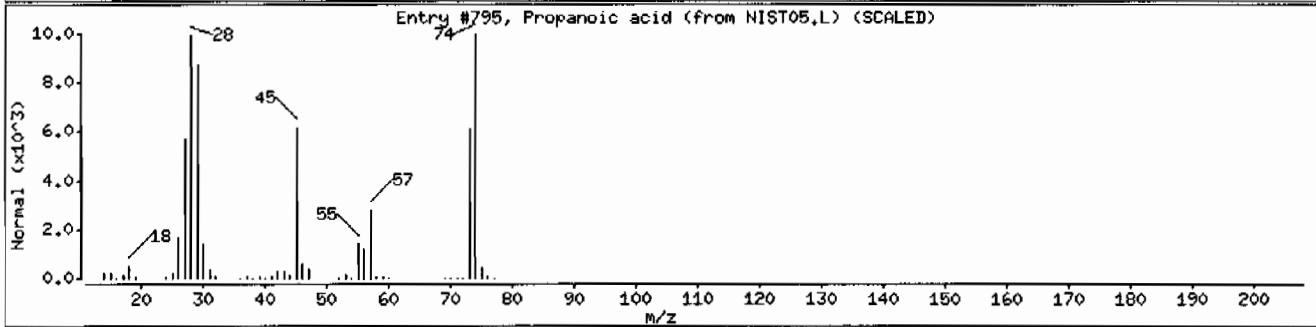
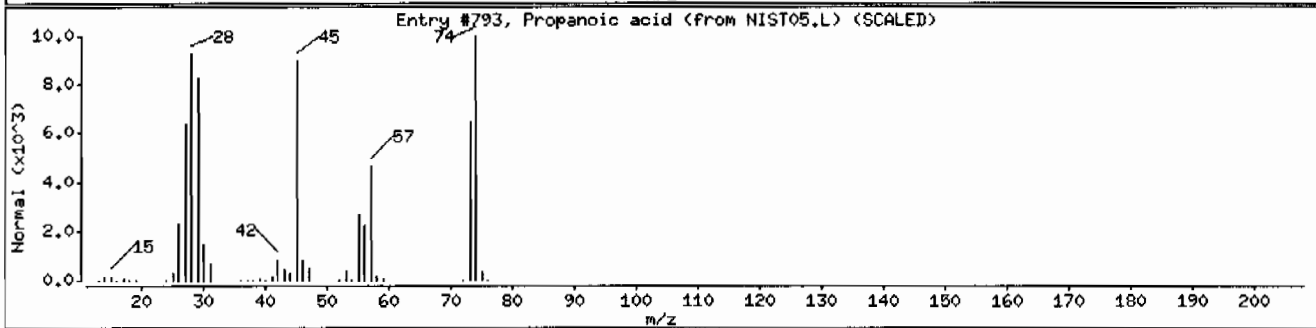
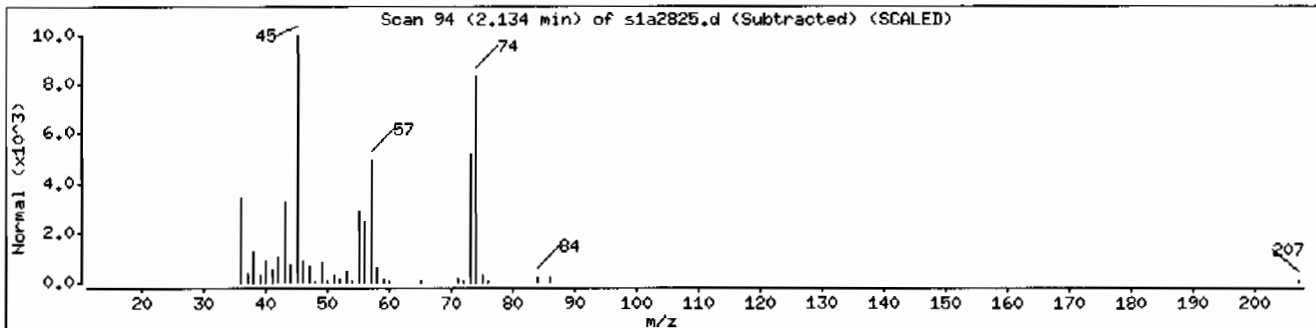
Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

## Library Search Compound Match

	CAS Number	Library	Entry	Quality	Formula	Weight
Propanoic acid	79-09-4	NIST05.L	793	87	C3H6O2	74
Propanoic acid	79-09-4	NIST05.L	795	80	C3H6O2	74
Propanoic acid	79-09-4	NIST05.L	794	72	C3H6O2	74





Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: MSD1.i

Sample Info: 1245106007194459111SVHF111LANL

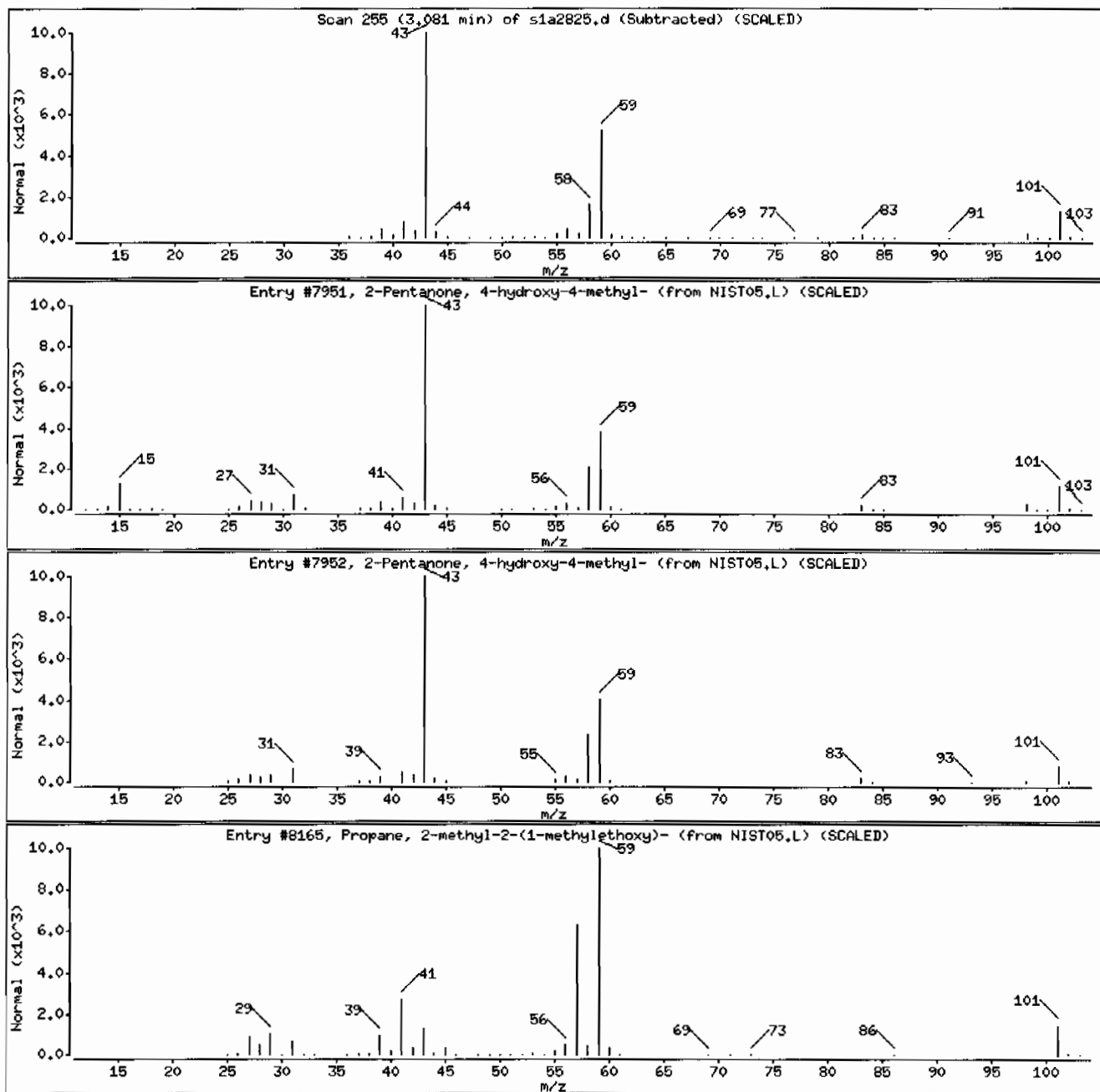
Volume Injected (uL): 0.5

Operator: AMY

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	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Propane, 2-methyl-2-(1-methylethoxy)-	17348-59-3	NIST05.L	8165	36	C7H16O	116



Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: MSD1.i

Sample Info: 1245106007194459111SVMF111LANL

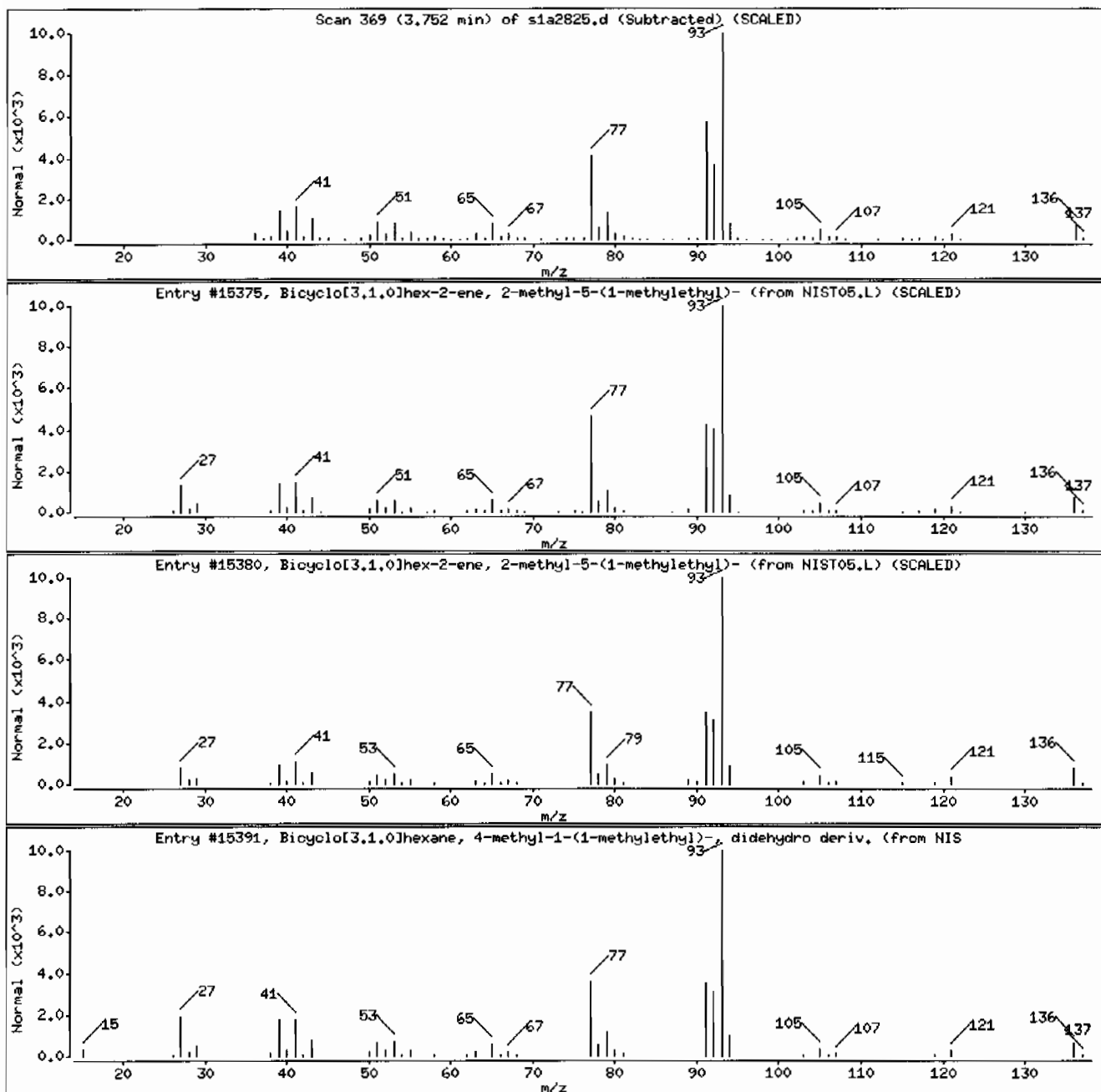
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[3.1.0]hex-2-ene, 2-methyl-5-(1-m	2867-05-2	NIST05.L	15375	91	C10H16	136
Bicyclo[3.1.0]hex-2-ene, 2-methyl-5-(1-m	2867-05-2	NIST05.L	15380	91	C10H16	136
Bicyclo[3.1.0]hexane, 4-methyl-1-(1-meth	58037-87-9	NIST05.L	15391	91	C10H16	136



Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: MSD1.i

Sample Info: 1245106007194459111SVMF111LANL

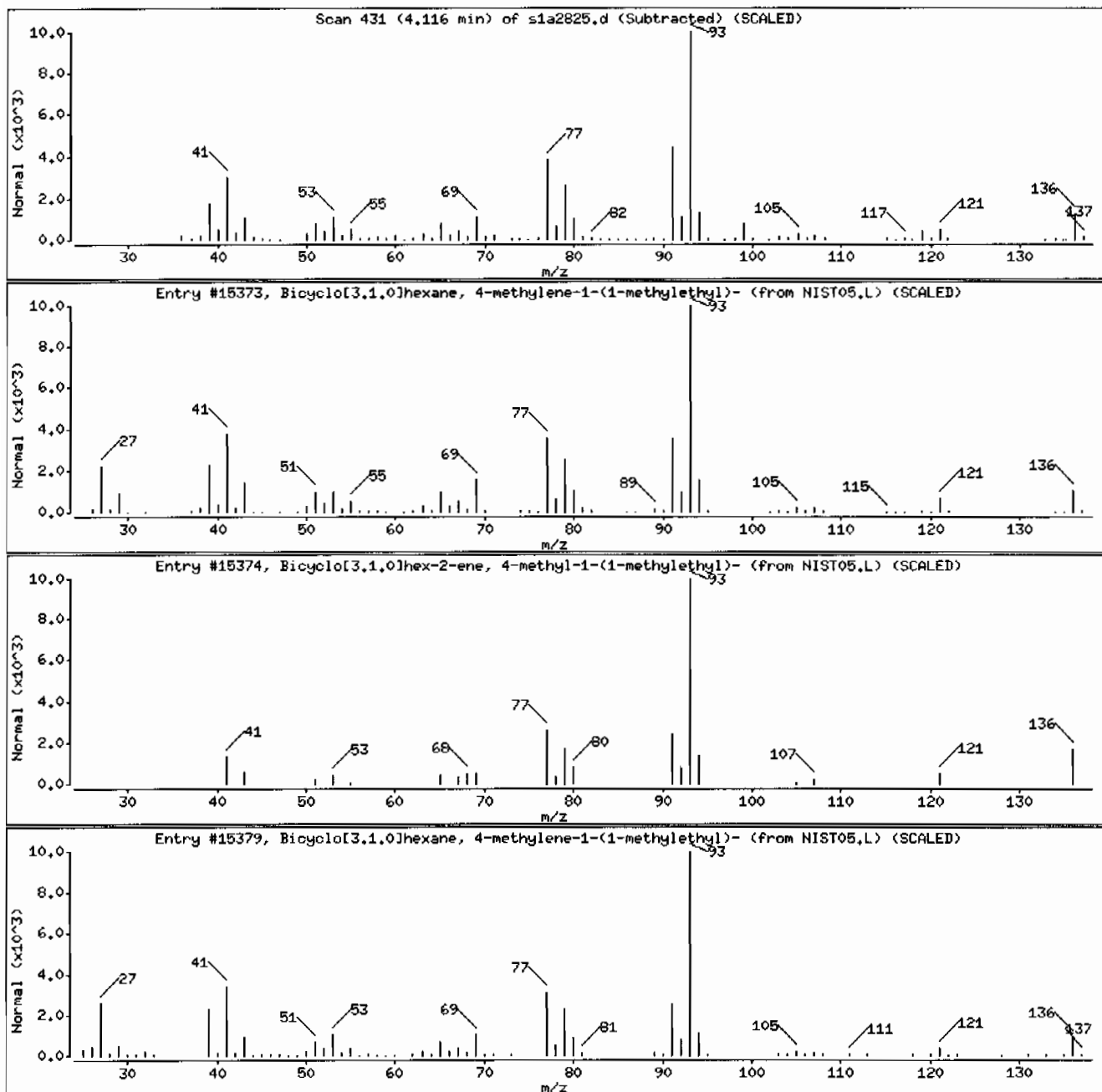
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[3.1.0]hexane, 4-methylene-1-(1-m	3387-41-5	NIST05.L	15373	93	C10H16	136
Bicyclo[3.1.0]hex-2-ene, 4-methyl-1-(1-m	28634-89-1	NIST05.L	15374	91	C10H16	136
Bicyclo[3.1.0]hexane, 4-methylene-1-(1-m	3387-41-5	NIST05.L	15379	91	C10H16	136



Date: 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: MSD1.i

Sample Info: 1245106007194459111SVHF111LANL

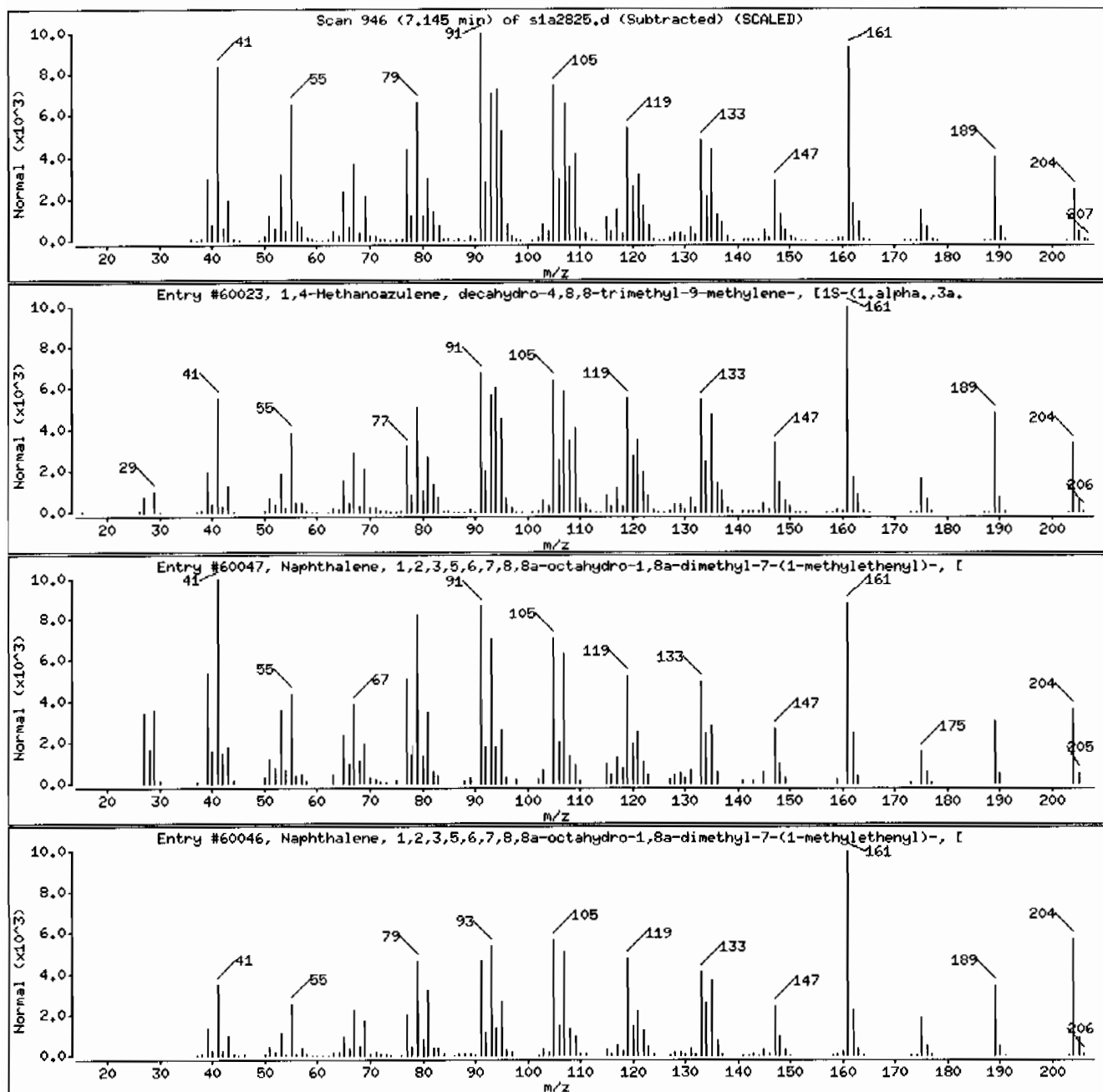
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60023	98	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60047	97	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60046	97	C15H24	204



Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: HSD1.i

Sample Info: 1245106007194459111SVHF11ILANL

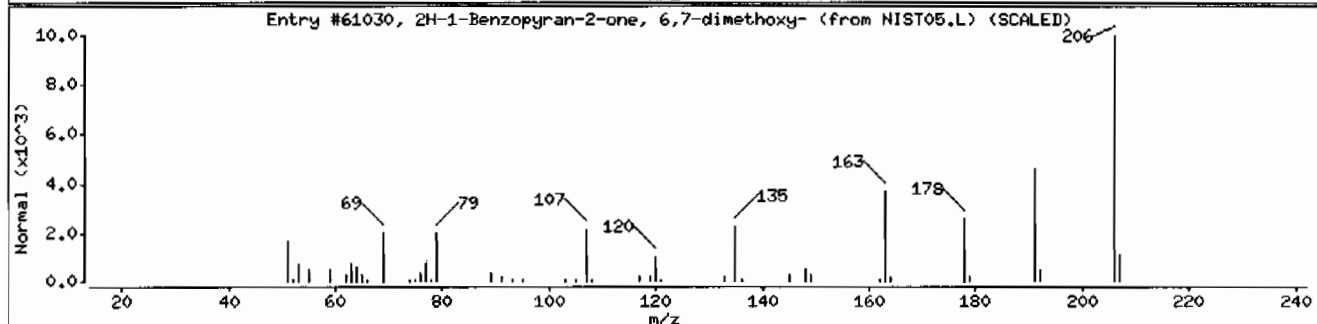
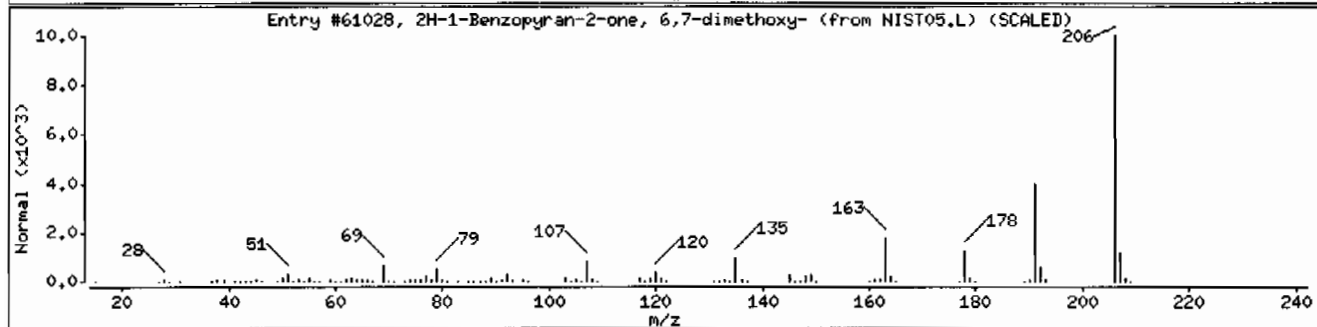
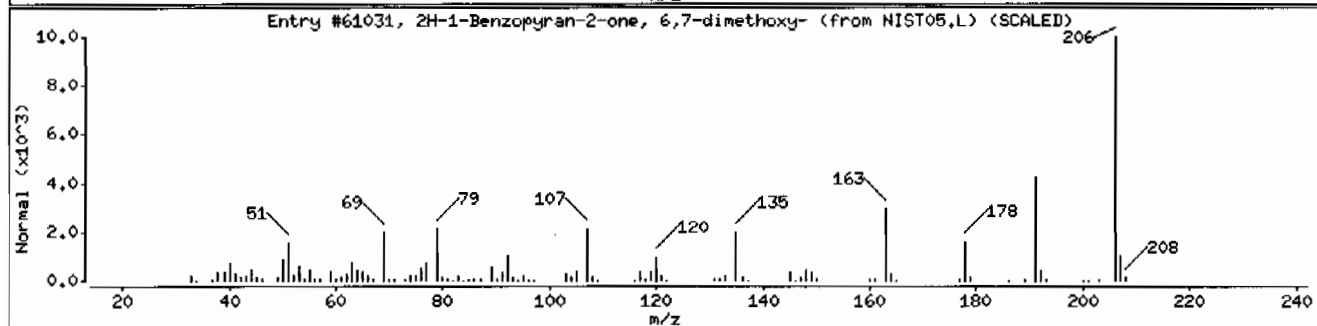
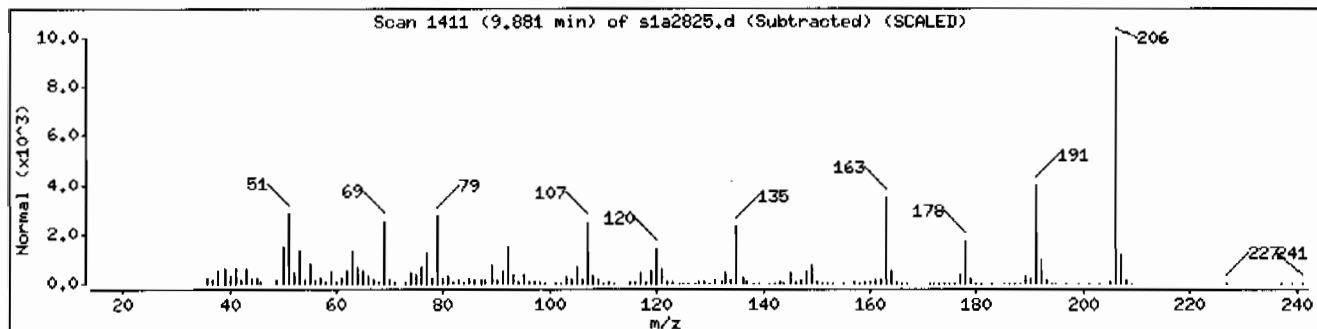
Volume Injected (uL): 0.5

Operator: AMY

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	98	C11H10O4	206
2H-1-Benzopyran-2-one, 6,7-dimethoxy-	120-08-1	NIST05.L	61028	98	C11H10O4	206
2H-1-Benzopyran-2-one, 6,7-dimethoxy-	120-08-1	NIST05.L	61030	93	C11H10O4	206



Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: HSD1.i

Sample Info: 1245106007194459111SVMF111LANL

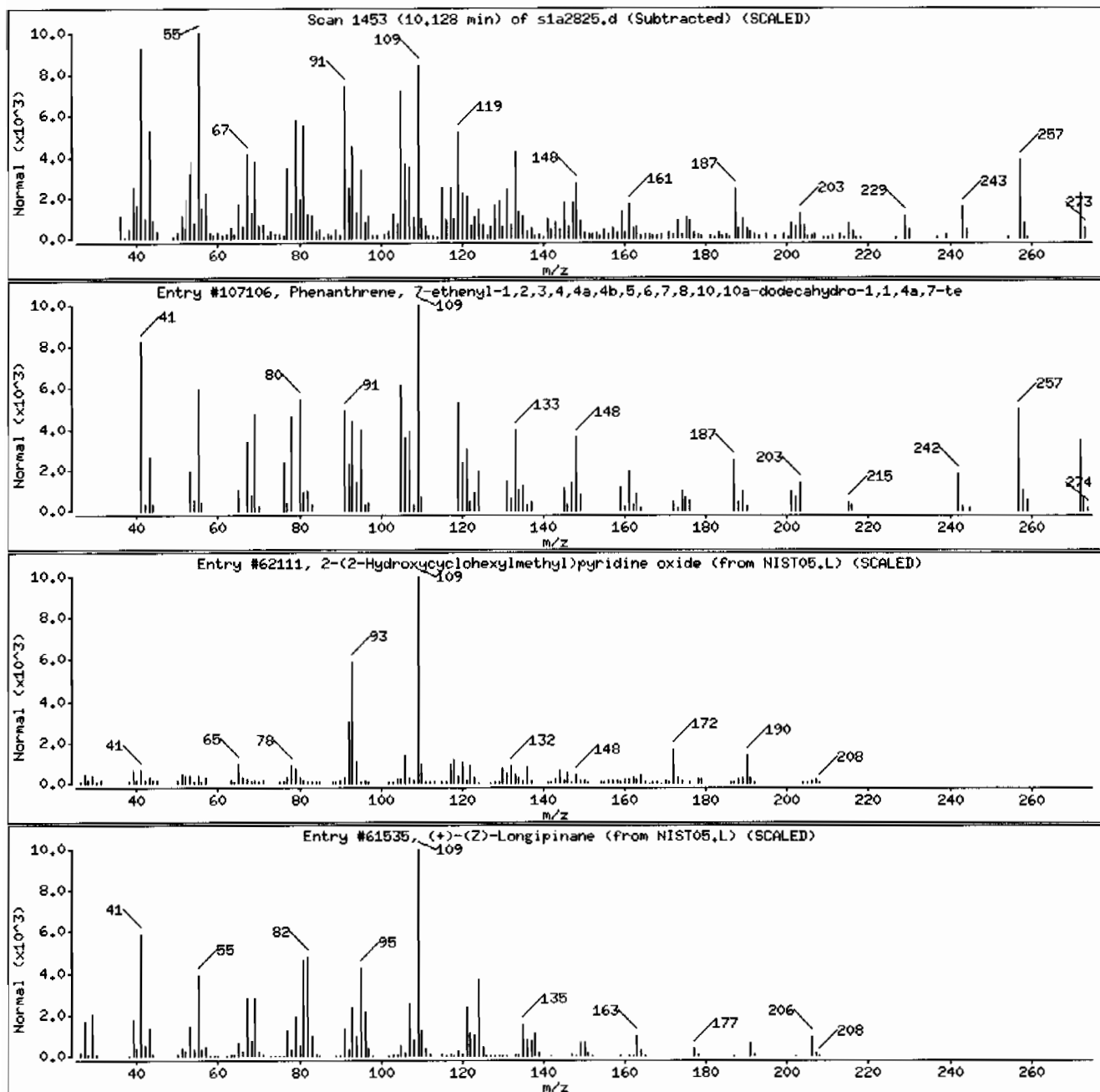
Volume Injected (uL): 0.5

Operator: AHY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 7-ethenyl-1,2,3,4,4a,4b,5,	1686-66-4	NIST05.L	107106	89	C20H32	272
2-(2-Hydroxycyclohexylmethyl)pyridine ox	1000195-29-8	NIST05.L	62111	15	C12H17NO2	207
(+)-(Z)-Longipinane	1000156-12-3	NIST05.L	61535	15	C15H26	206



Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: MSD1.i

Sample Info: 1245106007194459111SVMF11ILANL

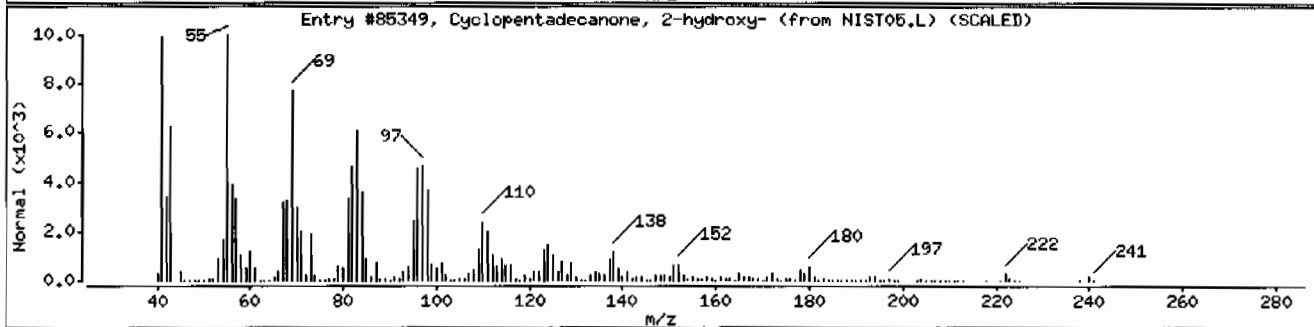
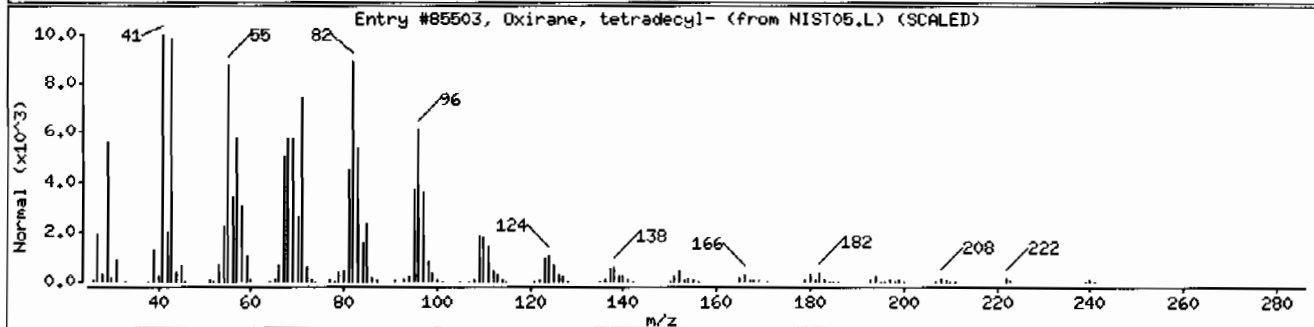
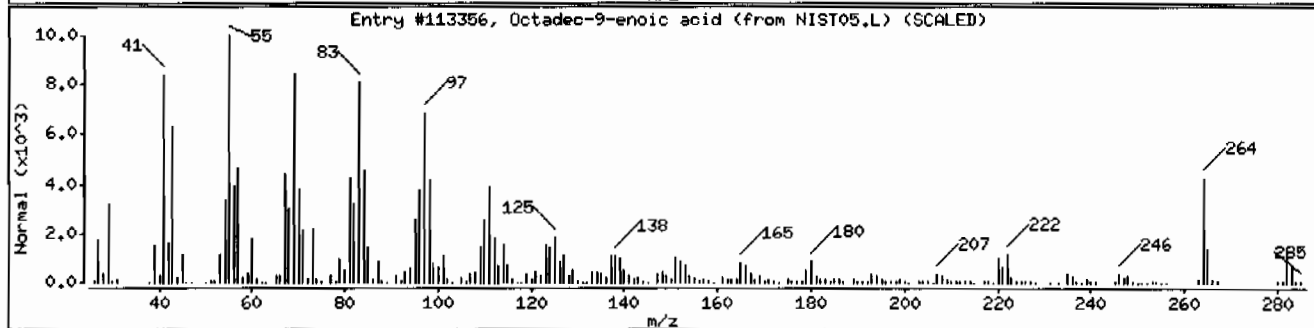
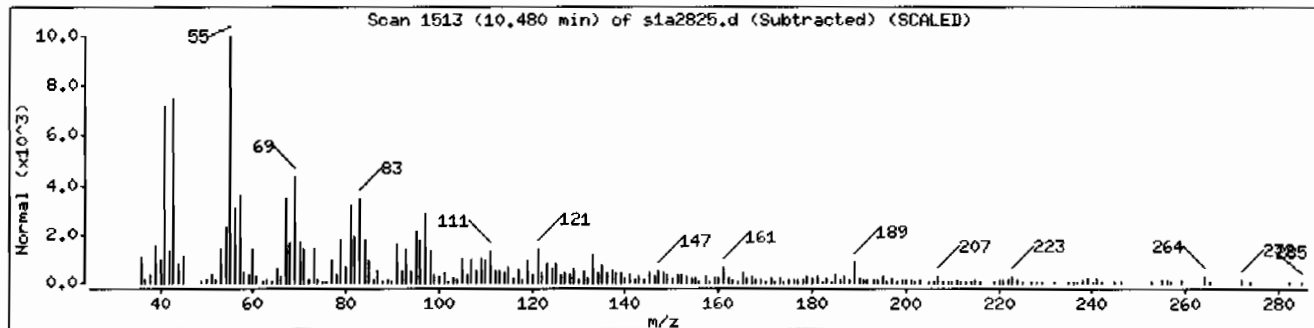
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadec-9-enoic acid	1000190-13-7	NIST05.L	113356	93	C18H34O2	282
Oxirane, tetradecyl-	7320-37-8	NIST05.L	85503	78	C16H32O	240
Cyclopentadecanone, 2-hydroxy-	4727-18-8	NIST05.L	85349	60	C15H28O2	240



Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: MSD1.i

Sample Info: 1245106007194459111SVMF111LANL

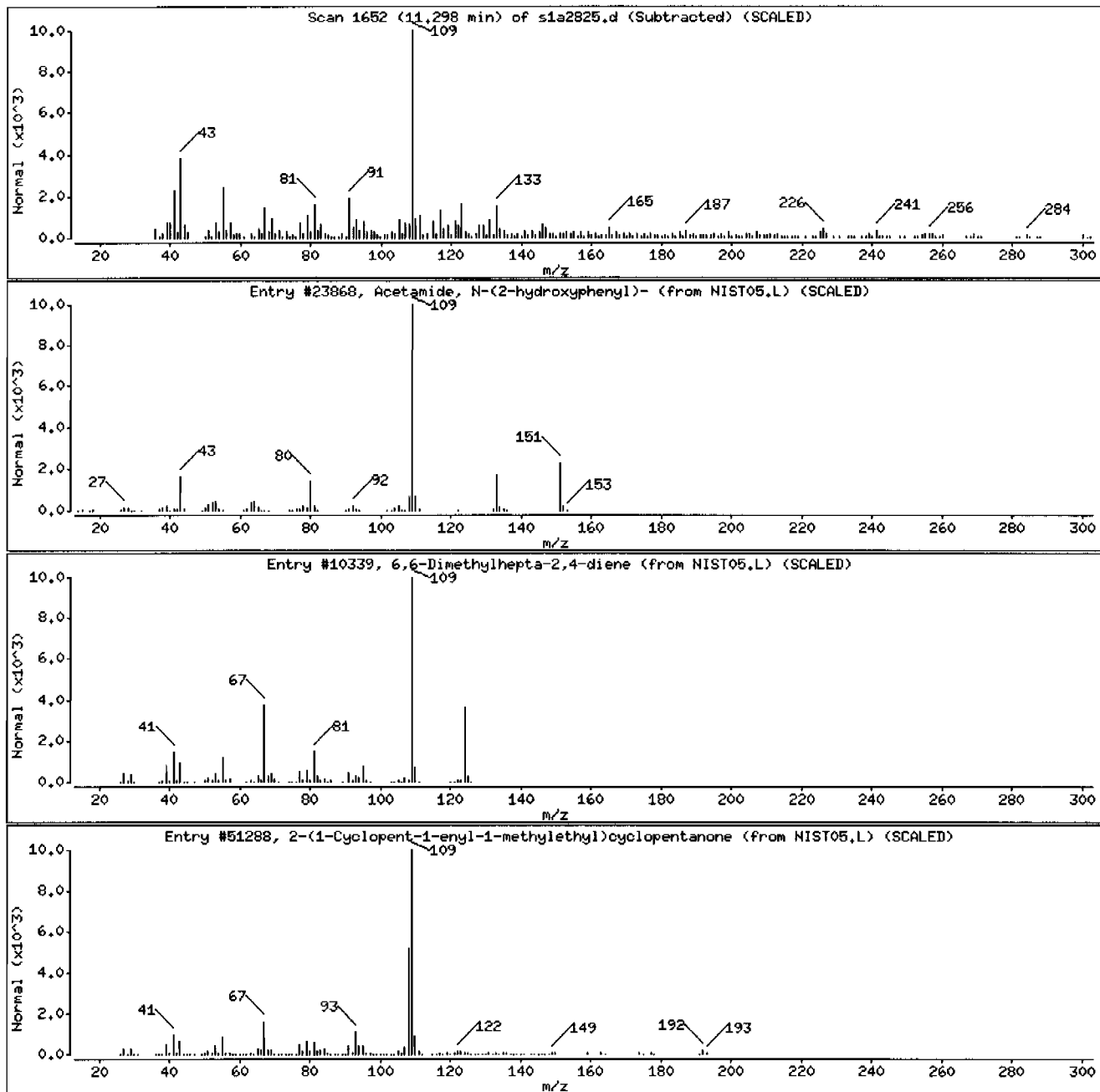
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acetamide, N-(2-hydroxyphenyl)-	614-80-2	NIST05.L	23868	53	C8H9NO2	151
6,6-Dimethylhepta-2,4-diene	1000195-03-3	NIST05.L	10339	52	C9H16	124
2-(1-Cyclopent-1-enyl-1-methylethyl)cycl	1000190-57-4	NIST05.L	51288	52	C13H20O	192





Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: MSD1.i

Sample Info: 1245106007194459111SVMF111LANL

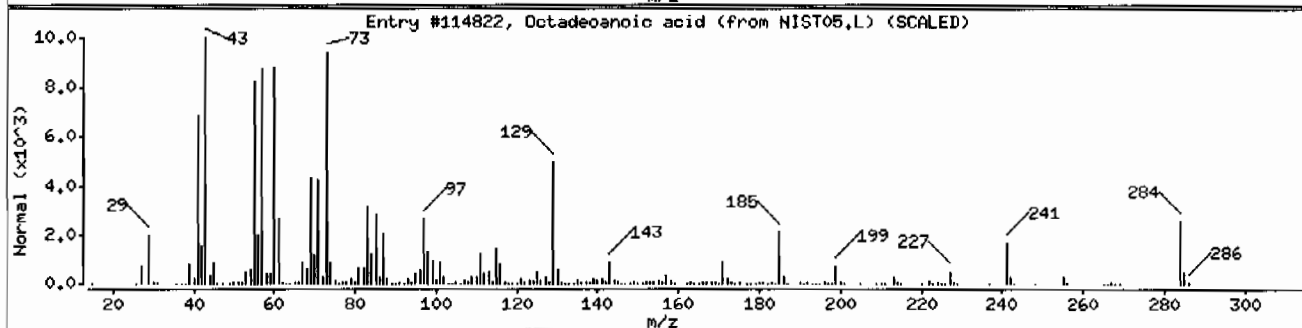
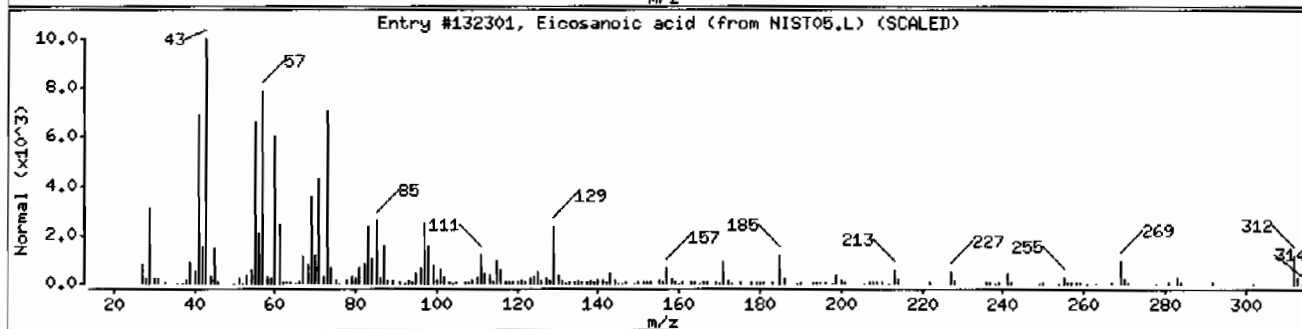
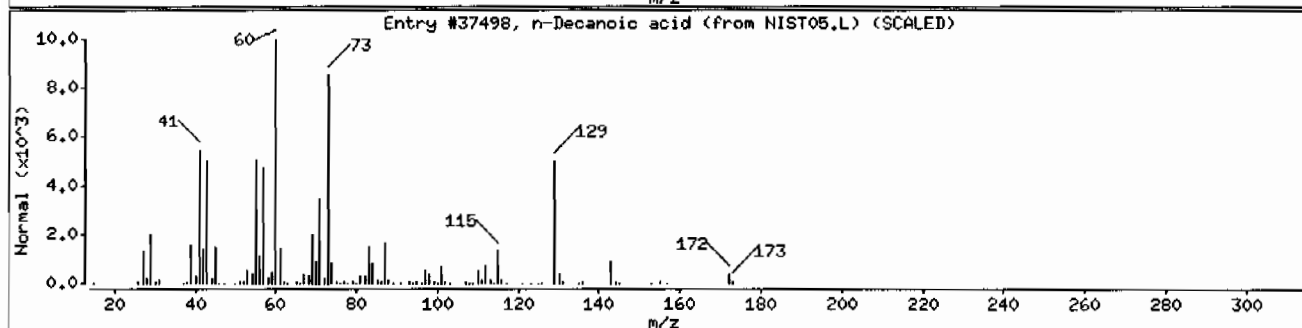
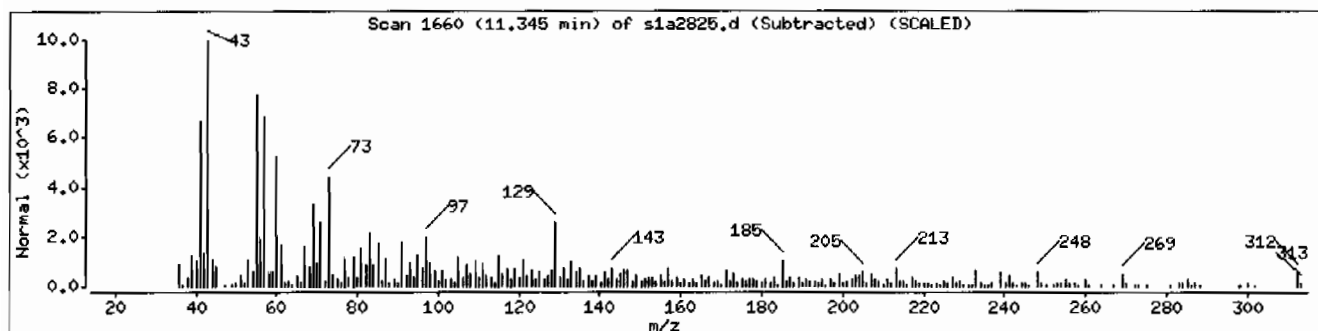
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
n-Decanoic acid	334-48-5	NIST05.L	37498	89	C10H20O2	172
Eicosanoic acid	506-30-9	NIST05.L	132301	83	C20H40O2	312
Octadecanoic acid	57-11-4	NIST05.L	114822	58	C18H36O2	284



Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: MSD1.i

Sample Info: 1245106007194459111ISVMF111LANL

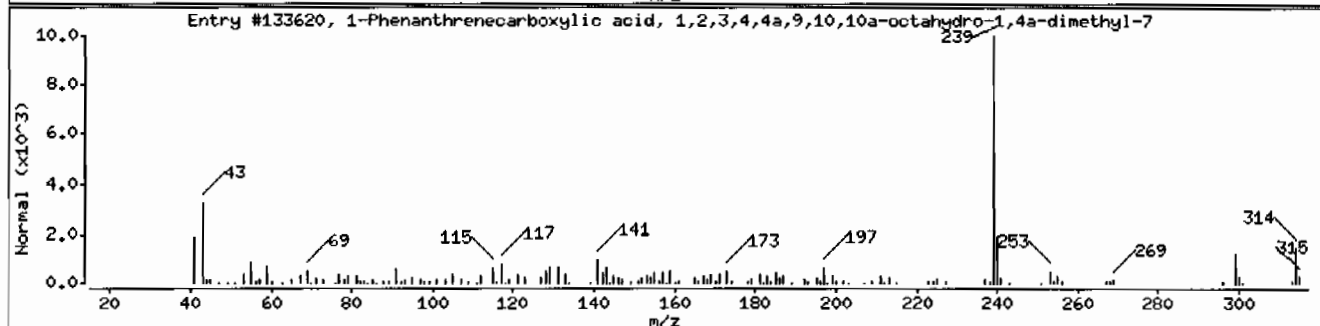
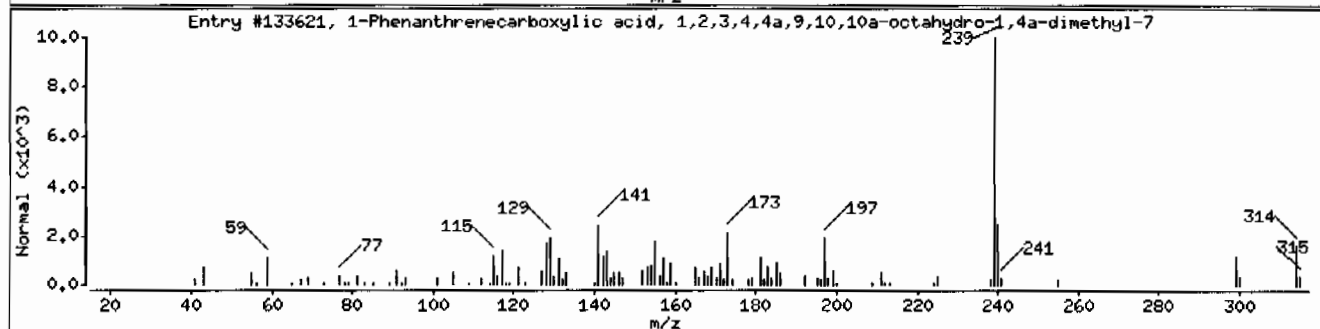
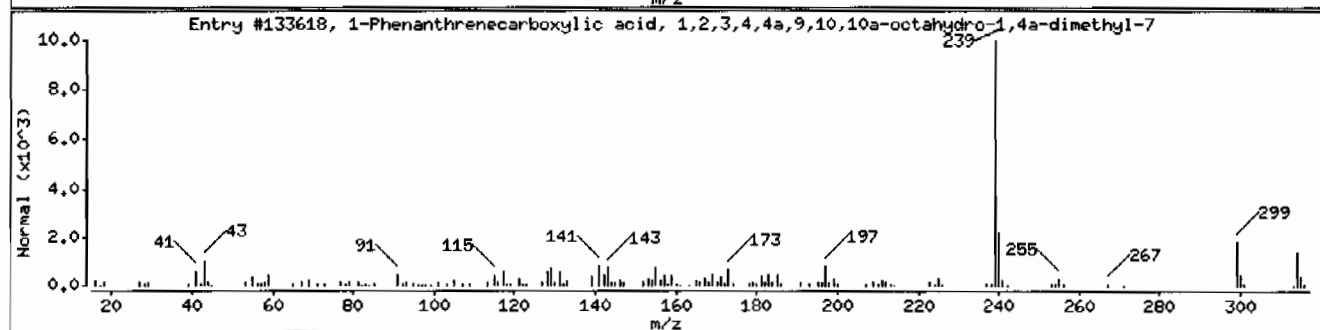
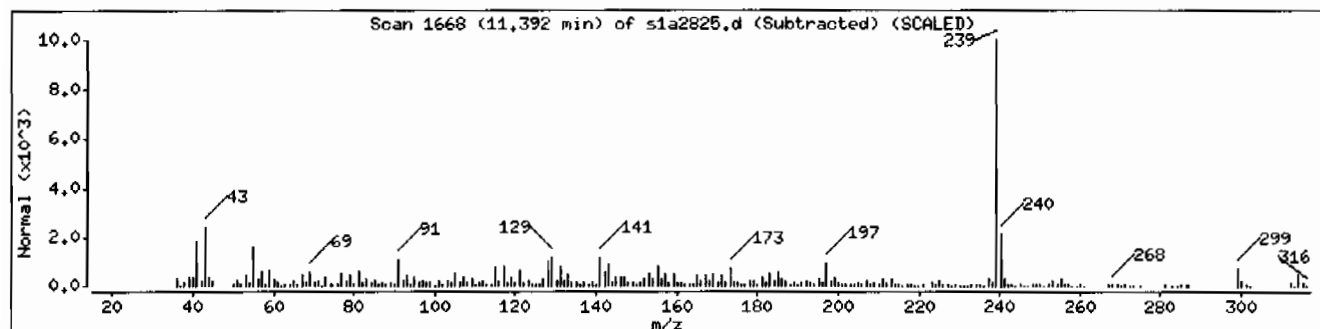
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133618	98	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133621	96	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133620	93	C21H30O2	314



Date: 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: HSD1.i

Sample Info: 1245106007194459111SVHF111LANL

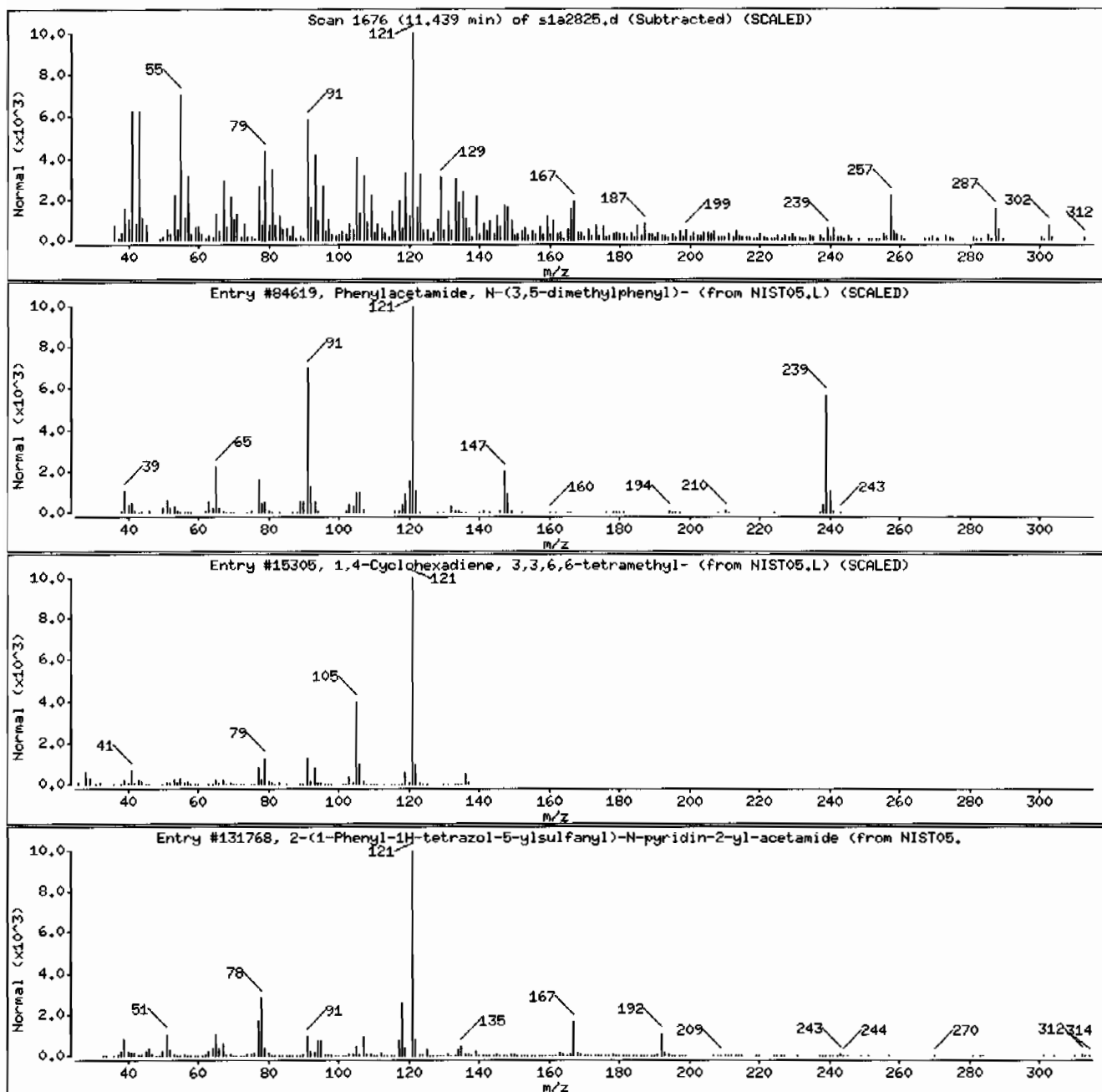
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Phenylacetamide, N-(3,5-dimethylphenyl)-	329937-72-6	NIST05.L	84619	35	C16H17NO	239
1,4-Cyclohexadiene, 3,3,6,6-tetramethyl-	2223-54-3	NIST05.L	15305	35	C10H16	136
2-(1-Phenyl-1H-tetrazol-5-ylsulfanyl)-N-	133506-44-2	NIST05.L	131768	30	C14H12N6OS	312



Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: HSD1.i

Sample Info: 1245106007194459111SVMF111LANL

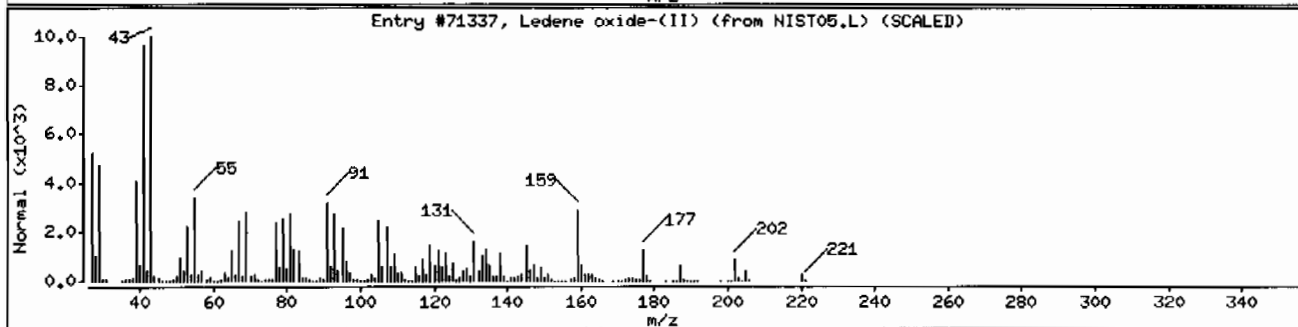
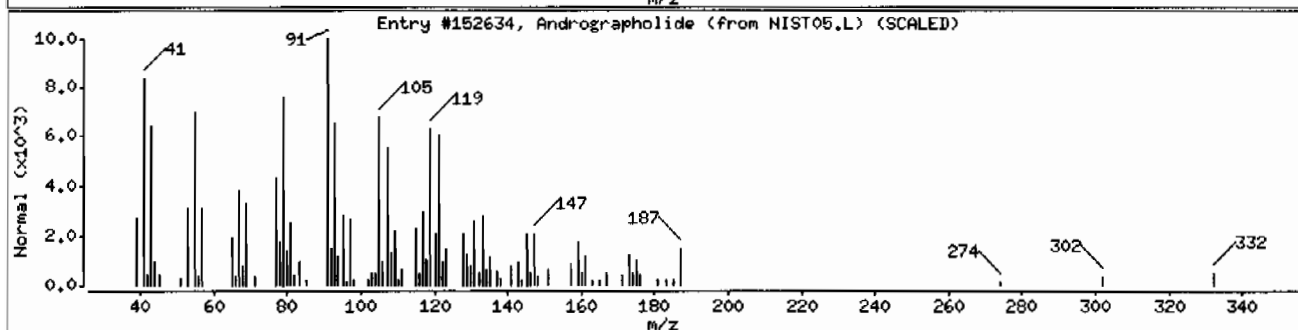
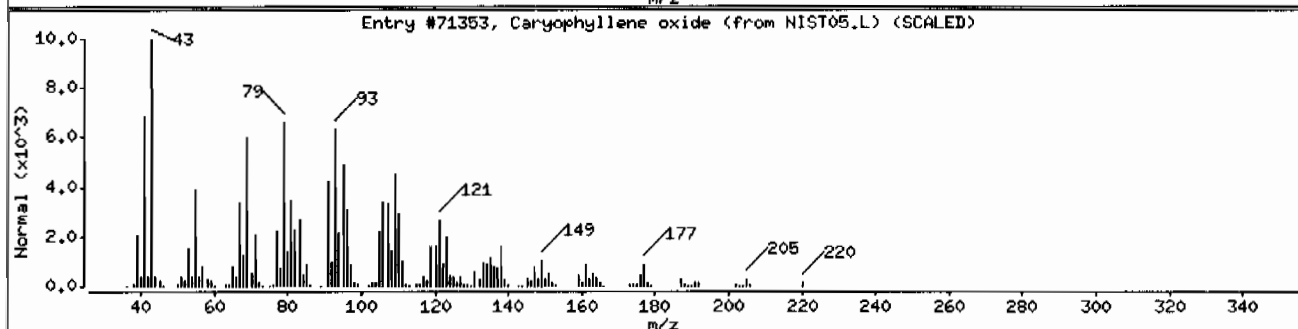
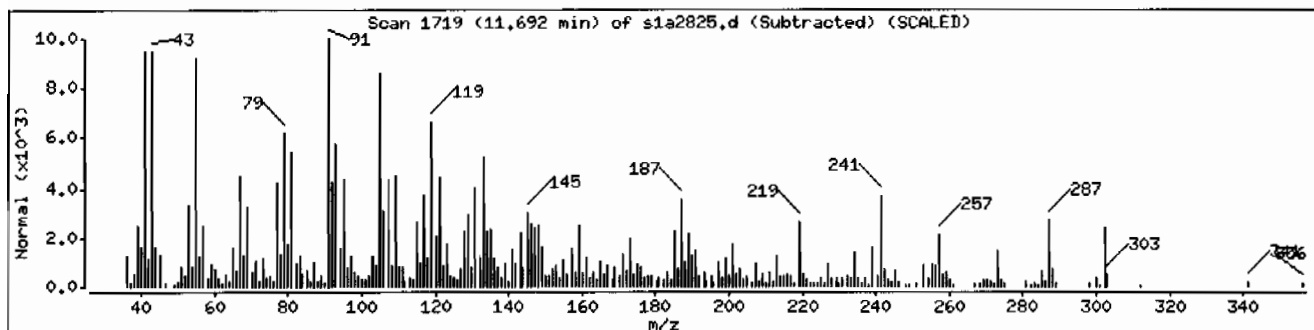
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Caryophyllene oxide	1139-30-6	NIST05.L	71353	49	C15H24O	220
Andrographolide	5508-58-7	NIST05.L	152634	41	C20H30O5	350
Ledene oxide-(II)	1000159-36-7	NIST05.L	71337	38	C15H24O	220



Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: HSD1.i

Sample Info: 1245106007194459111SVMF11ILANL

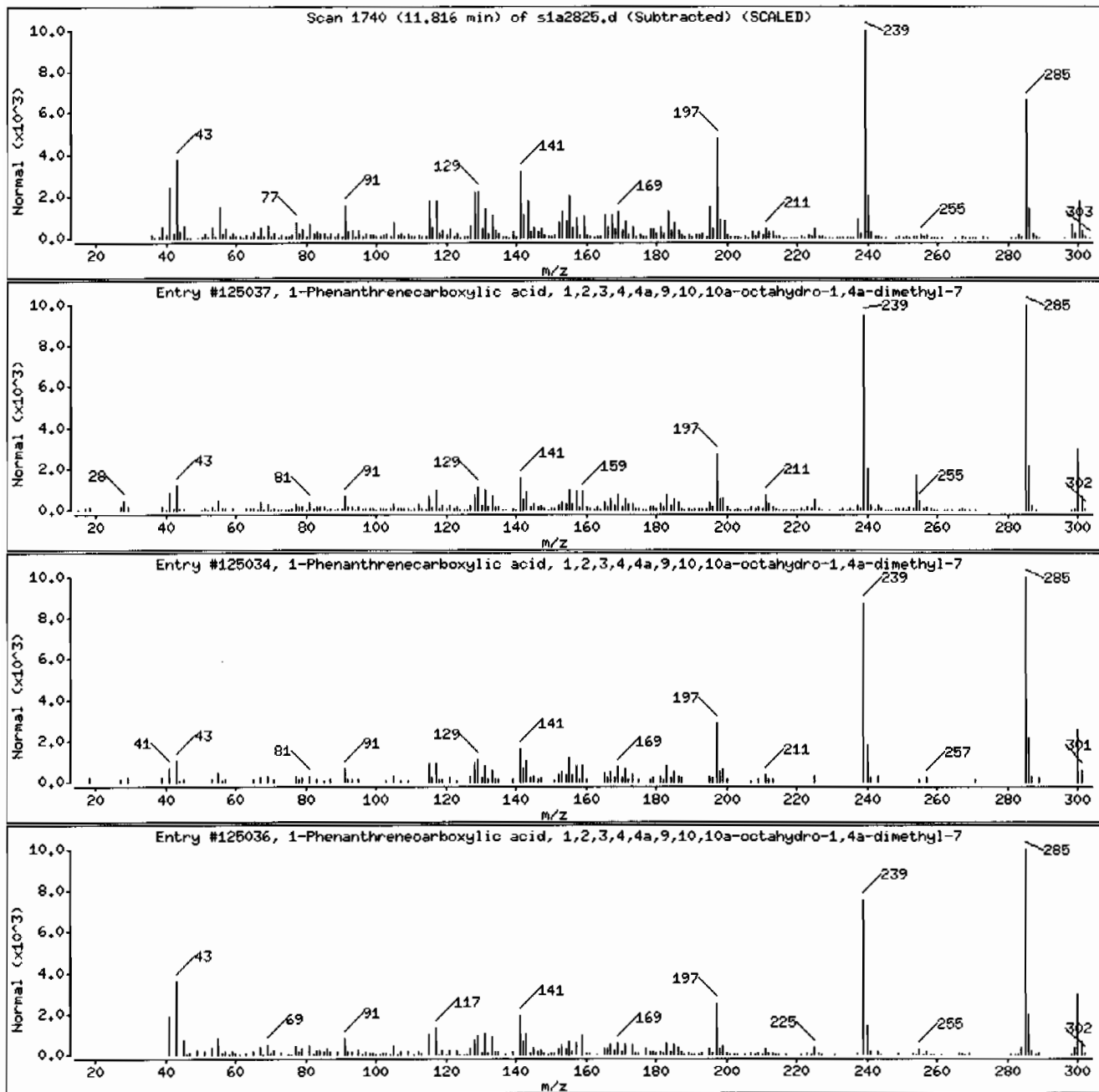
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125037	93	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	90	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125036	83	C20H28O2	300



Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: MSD1.i

Sample Info: I245106007194459111SVHF111LANL

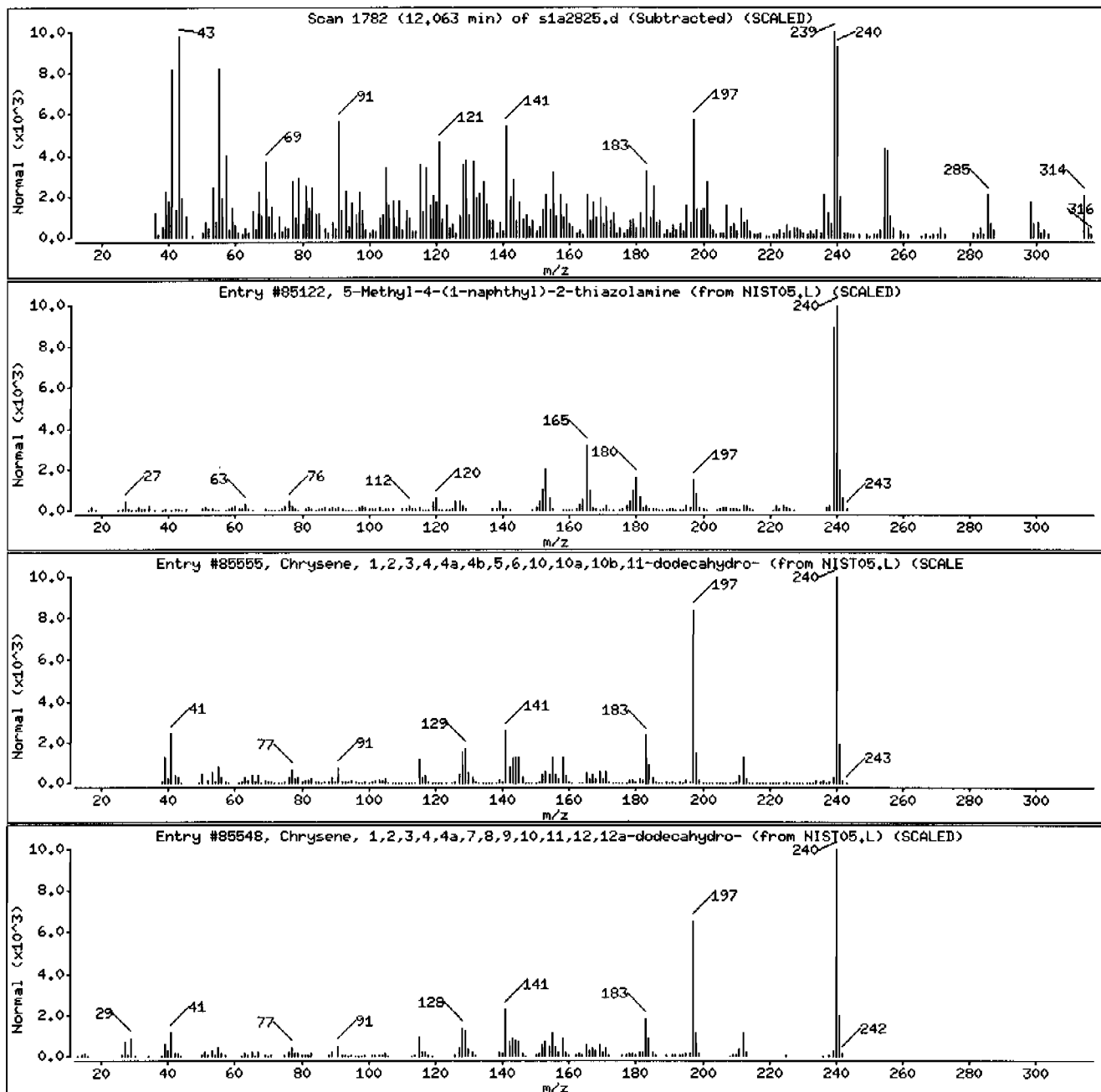
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
5-Methyl-4-(1-naphthyl)-2-thiazolamine	107411-05-2	NIST05.L	85122	55	C14H12N2S	240
Chrysene, 1,2,3,4,4a,4b,5,6,10,10a,10b,1	55133-97-6	NIST05.L	85555	51	C18H24	240
Chrysene, 1,2,3,4,4a,7,8,9,10,11,12,12a-	1610-22-6	NIST05.L	85548	49	C18H24	240



Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: MSD1.i

Sample Info: 1245106007194459111SVMF111LANL

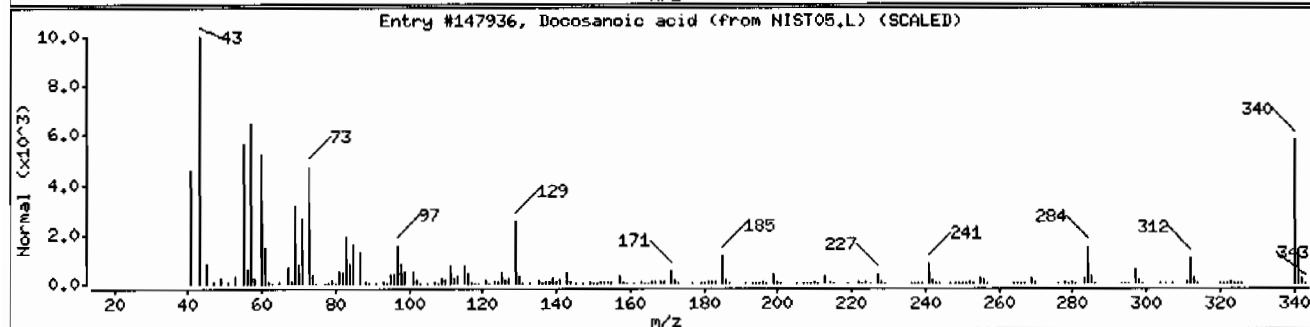
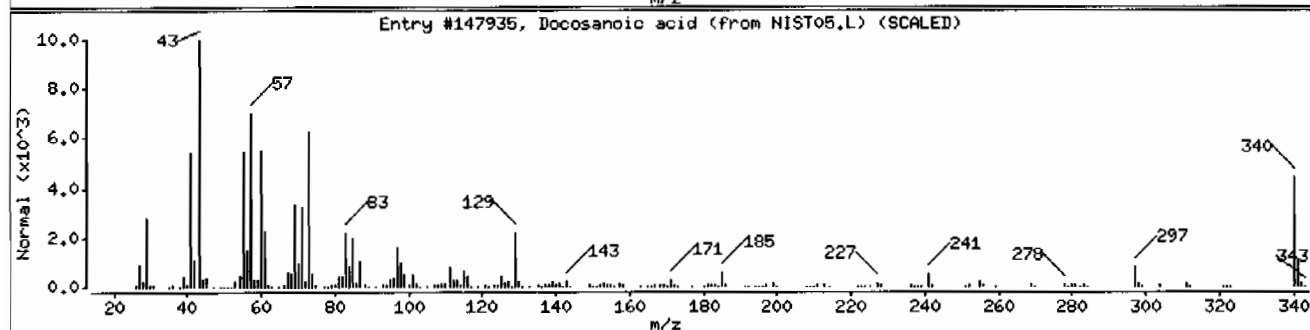
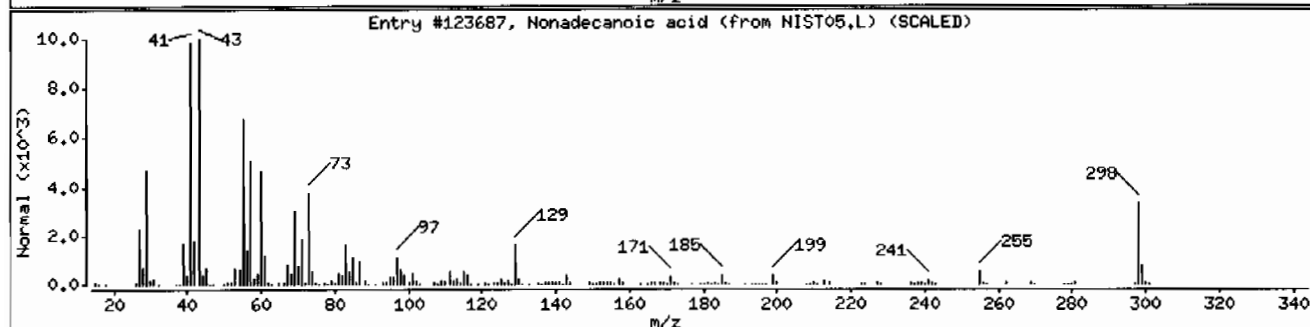
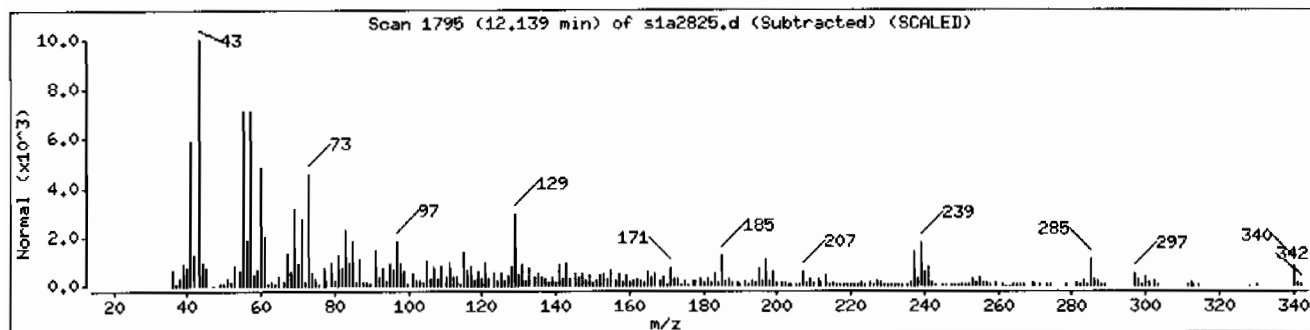
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Nonadecanoic acid	646-30-0	NIST05.L	123687	90	C19H38O2	298
Docosanoic acid	112-85-6	NIST05.L	147935	90	C22H44O2	340
Docosanoic acid	112-85-6	NIST05.L	147936	78	C22H44O2	340



Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: MSD1.i

Sample Info: 1245106007194459111SVHF11ILANL

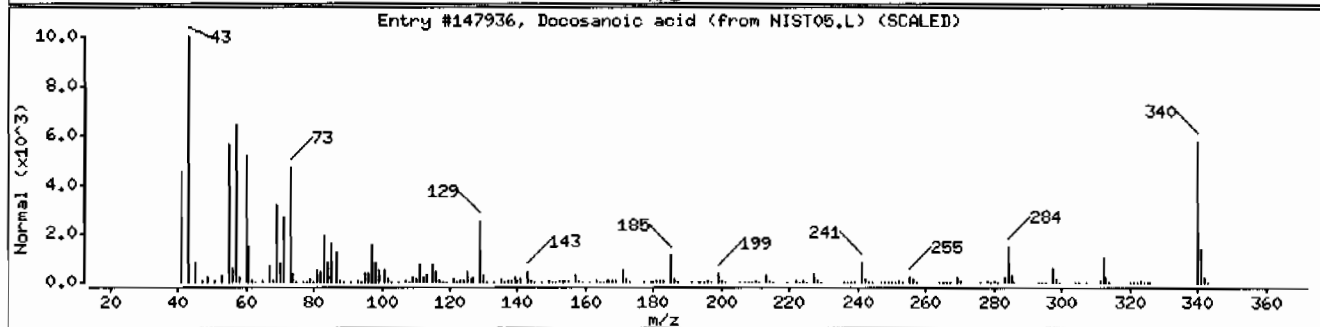
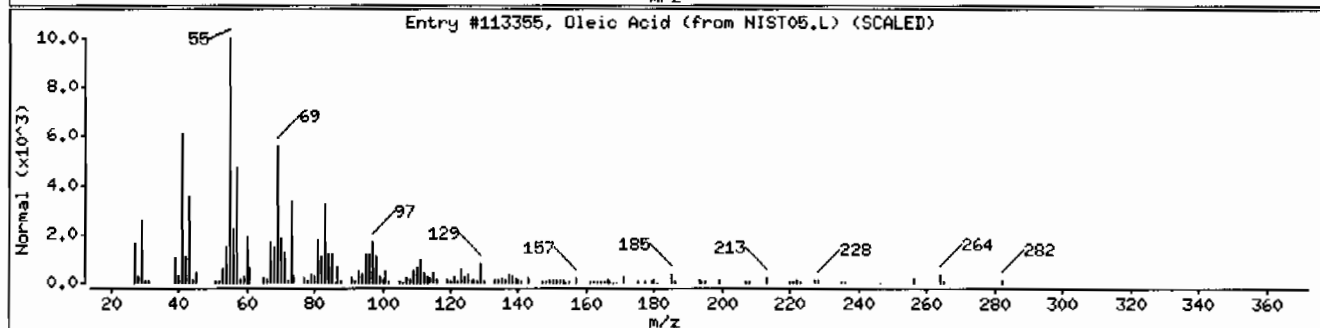
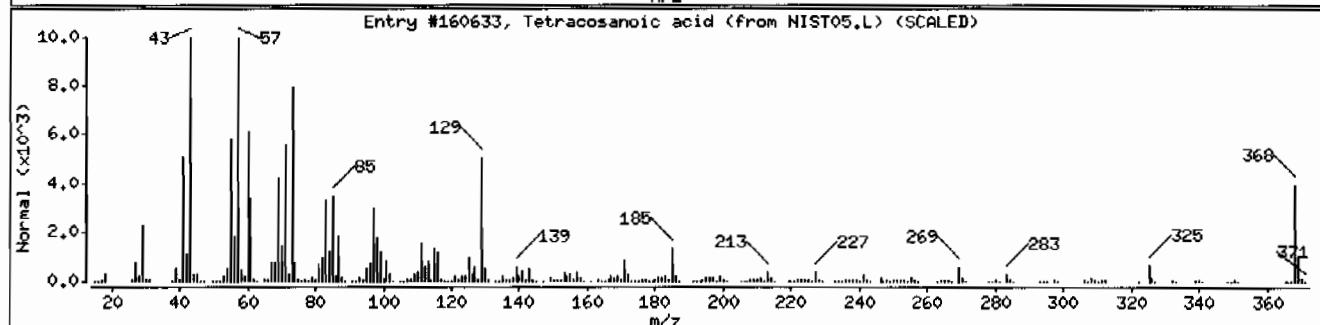
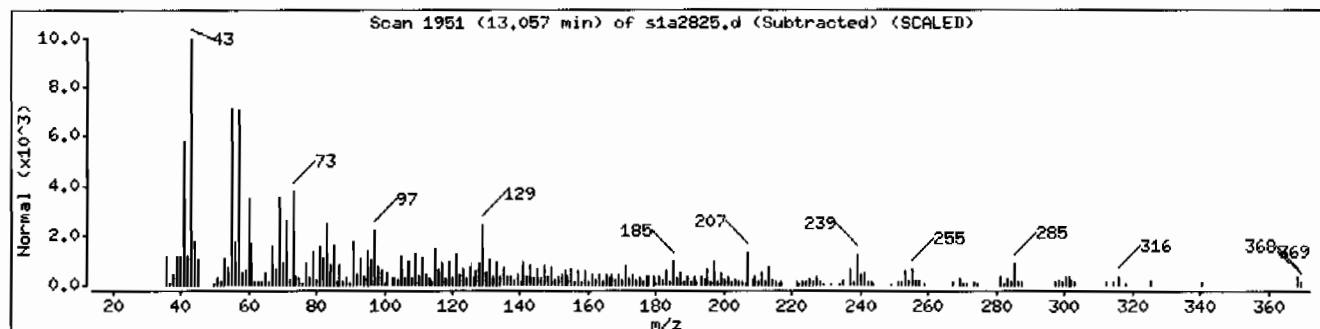
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetracosanoic acid	557-59-5	NIST05.L	160633	97	C <sub>24</sub> H <sub>48</sub> O <sub>2</sub>	368
Oleic Acid	112-80-1	NIST05.L	113355	86	C <sub>18</sub> H <sub>34</sub> O <sub>2</sub>	282
Docosanoic acid	112-85-6	NIST05.L	147936	50	C <sub>22</sub> H <sub>44</sub> O <sub>2</sub>	340





Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: MSD1.i

Sample Info: I245106007194459111SVMF111LANL

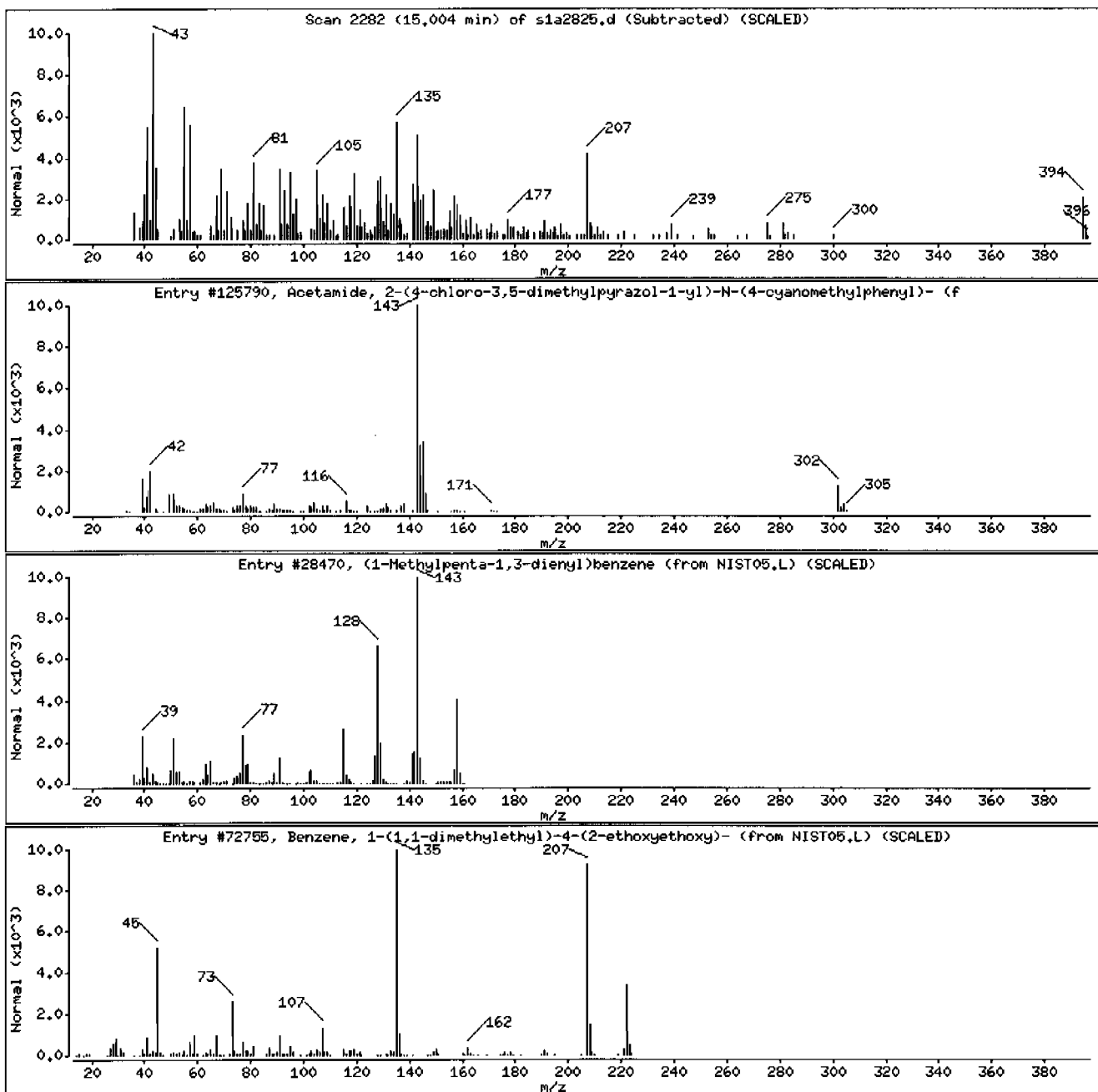
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acetamide, 2-(4-chloro-3,5-dimethylpyrazol-1-yl)-N-(4-cyanomethylphenyl)-	1000304-79-7	NIST05.L	125790	14	C15H15ClN4O	302
(1-Methylpenta-1,3-dienyl)benzene	116669-49-9	NIST05.L	28470	11	C12H14	158
Benzene, 1-(1,1-dimethylethyl)-4-(2-ethoxy	54889-97-3	NIST05.L	72755	10	C14H22O2	222



Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: HSD1.i

Sample Info: 1245106007194459111SVMF11ILANL

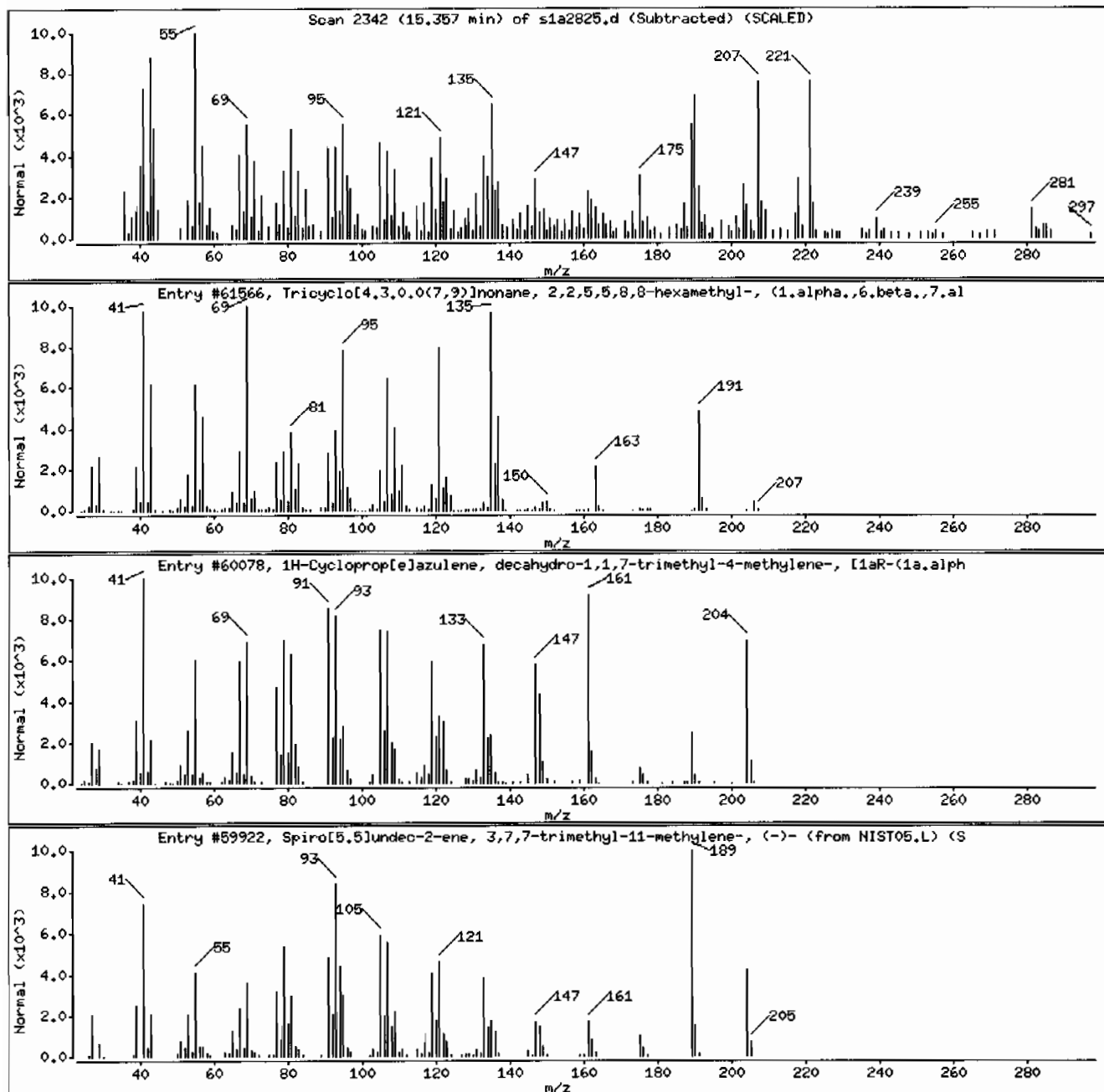
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tricyclo[4.3.0.0(7,9)]nonane, 2,2,5,5,8,8-hexamethyl-, (1.alpha.,6.beta.,7.alpha.)	54932-82-5	NIST05.L	61566	90	C15H26	206
1H-Cycloprop[elazulene, decahydro-1,1,7-trimethyl-4-methylene-, [1aR-(1a.alpha.)]	489-39-4	NIST05.L	60078	35	C15H24	204
Spiro[5.5]undec-2-ene, 3,7,7-trimethyl-11-methylene-, (-)- (from NIST05.L) (S	18431-82-8	NIST05.L	59922	25	C15H24	204



Date : 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: MSD1.i

Sample Info: 1245106007194459111SVMF11ILANL

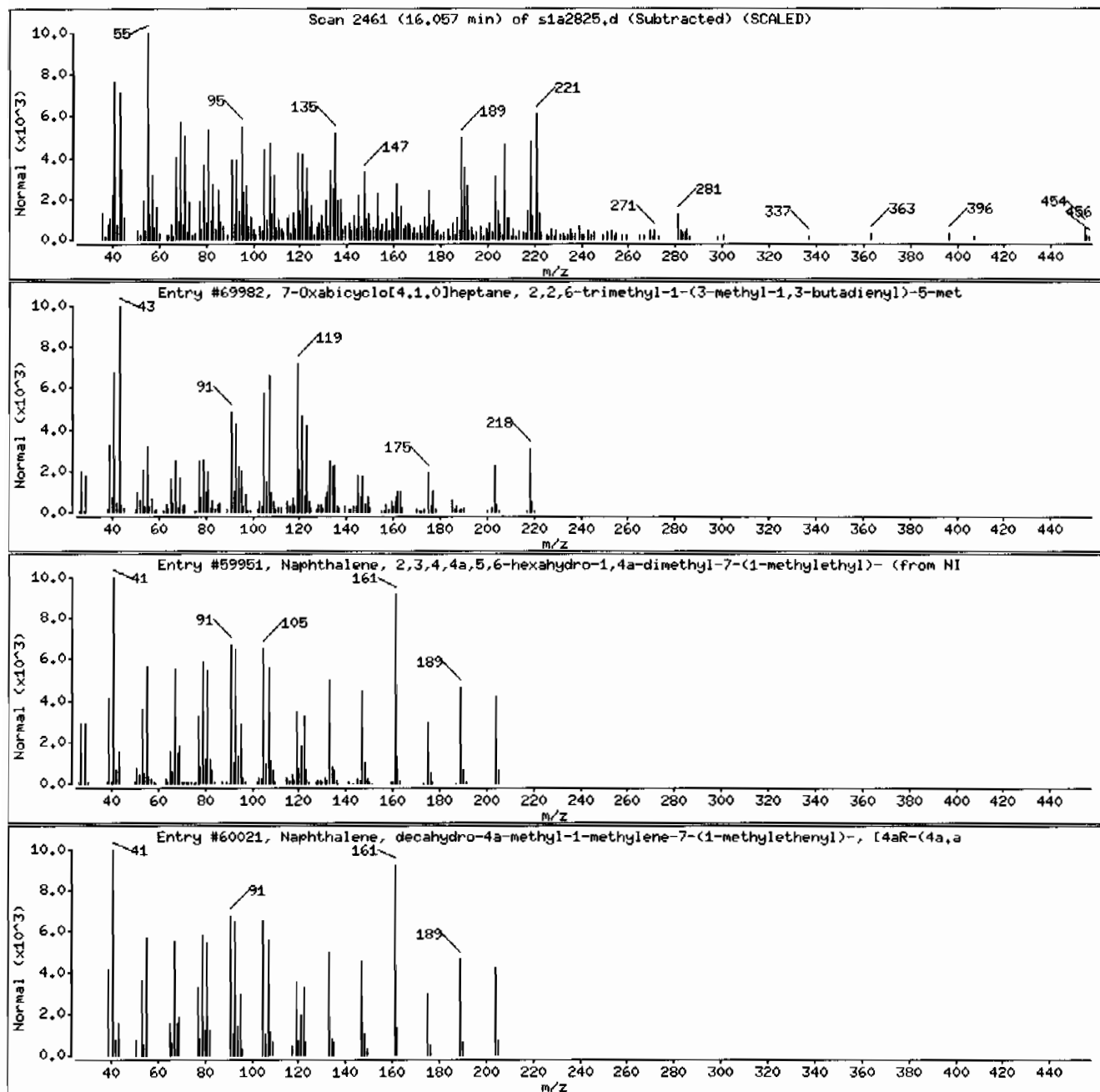
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	70038-20-9	NIST05.L	69982	93	C15H22O	218
Naphthalene, 2,3,4,4a,5,6-hexahydro-1,4a	473-14-3	NIST05.L	59951	45	C15H24	204
Naphthalene, decahydro-4a-methyl-1-methy	17066-67-0	NIST05.L	60021	45	C15H24	204



Date: 29-JAN-2010 01:25

Client ID: RE15-10-7168

Instrument: MSD1.i

Sample Info: 1245106007194459111SVMF111LANL

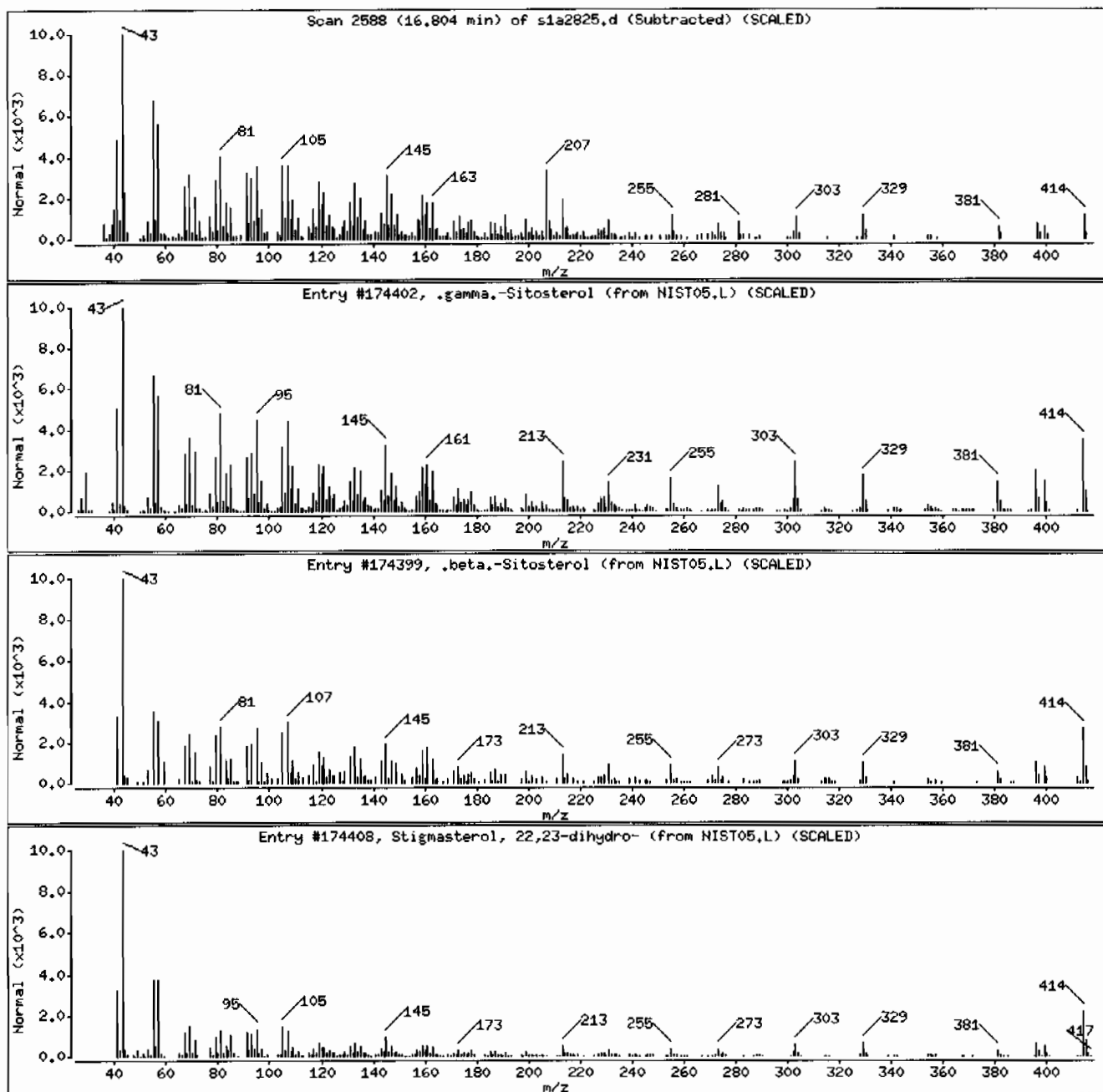
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	97	C <sub>29</sub> H <sub>50</sub> O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174399	95	C <sub>29</sub> H <sub>50</sub> O	414
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST05.L	174408	91	C <sub>29</sub> H <sub>50</sub> O	414



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

SDG Number: 10-1304  
Lab Sample ID: 245106006

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1J  
Analyst: AMY  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7169  
Batch ID: 944591  
Run Date: 01/29/2010 00:58  
Prep Date: 01/25/2010 14:38  
Data File: s1a2824.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	366	ug/kg	73.2	366
108-95-2	Phenol	U	366	ug/kg	73.2	366
95-57-8	2-Chlorophenol	U	366	ug/kg	73.2	366
106-46-7	1,4-Dichlorobenzene	U	366	ug/kg	73.2	366
621-64-7	N-Nitrosodipropylamine	U	366	ug/kg	73.2	366
59-50-7	4-Chloro-3-methylphenol	U	366	ug/kg	73.2	366
83-32-9	Acenaphthene	U	36.6	ug/kg	12.1	36.6
121-14-2	2,4-Dinitrotoluene	U	366	ug/kg	36.6	366
100-02-7	4-Nitrophenol	U	366	ug/kg	121	366
87-86-5	Pentachlorophenol	U	366	ug/kg	91.5	366
129-00-0	Pyrene	U	36.6	ug/kg	11.0	36.6
110-86-1	Pyridine	U	366	ug/kg	73.2	366
62-53-3	Aniline	U	366	ug/kg	110	366
111-44-4	bis(2-Chloroethyl) ether	U	366	ug/kg	73.2	366
541-73-1	1,3-Dichlorobenzene	U	366	ug/kg	73.2	366
100-51-6	Benzyl alcohol	U	366	ug/kg	110	366
95-50-1	1,2-Dichlorobenzene	U	366	ug/kg	73.2	366
108-60-1	bis(2-Chloroisopropyl)ether	U	366	ug/kg	73.2	366
95-48-7	o-Cresol	U	366	ug/kg	73.2	366
65794-96-9	m,p-Cresols	U	366	ug/kg	110	366
67-72-1	Hexachloroethane	U	366	ug/kg	73.2	366
98-95-3	Nitrobenzene	U	366	ug/kg	73.2	366
78-59-1	Isophorone	U	366	ug/kg	73.2	366
88-75-5	2-Nitrophenol	U	366	ug/kg	73.2	366
105-67-9	2,4-Dimethylphenol	U	366	ug/kg	128	366
111-91-1	bis(2-Chloroethoxy)methane	U	366	ug/kg	73.2	366
120-83-2	2,4-Dichlorophenol	U	366	ug/kg	73.2	366
65-85-0	Benzoic acid	U	732	ug/kg	183	732
91-20-3	Naphthalene	U	36.6	ug/kg	11.0	36.6
106-47-8	4-Chloroaniline	U	366	ug/kg	73.2	366
87-68-3	Hexachlorobutadiene	U	366	ug/kg	73.2	366
91-57-6	2-Methylnaphthalene	U	36.6	ug/kg	7.32	36.6
77-47-4	Hexachlorocyclopentadiene	U	366	ug/kg	73.2	366
88-06-2	2,4,6-Trichlorophenol	U	366	ug/kg	73.2	366
95-95-4	2,4,5-Trichlorophenol	U	366	ug/kg	73.2	366
91-58-7	2-Chloronaphthalene	U	36.6	ug/kg	12.1	36.6
88-74-4	2-Nitroaniline	U	366	ug/kg	73.2	366
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	366	ug/kg	73.2	366

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106006	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 8.9
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7169	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD1.J	<b>Dilution:</b> 1
<b>Run Date:</b> 01/29/2010 00:58	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30.01 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s1a2824.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	366	ug/kg	73.2	366
606-20-2	2,6-Dinitrotoluene	U	366	ug/kg	36.6	366
208-96-8	Accnaphthylene	U	36.6	ug/kg	11.0	36.6
51-28-5	2,4-Dinitrophenol	U	732	ug/kg	139	732
132-64-9	Dibenzofuran	U	366	ug/kg	73.2	366
84-66-2	Diethylphthalate	U	366	ug/kg	73.2	366
86-73-7	Fluorene	U	36.6	ug/kg	11.0	36.6
7005-72-3	4-Chlorophenylphenylether	U	366	ug/kg	73.2	366
534-52-1	2-Methyl-4,6-dinitrophenol	U	366	ug/kg	73.2	366
100-01-6	4-Nitroaniline	U	366	ug/kg	110	366
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	366	ug/kg	73.2	366
122-66-7	Azobenzene	U	366	ug/kg	73.2	366
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	366	ug/kg	73.2	366
118-74-1	Hexachlorobenzene	U	366	ug/kg	73.2	366
85-01-8	Phenanthrene	U	36.6	ug/kg	11.0	36.6
120-12-7	Anthracene	U	36.6	ug/kg	7.32	36.6
84-74-2	Di-n-butylphthalate	U	366	ug/kg	73.2	366
206-44-0	Fluoranthene	U	36.6	ug/kg	11.0	36.6
85-68-7	Butylbenzylphthalate	U	366	ug/kg	73.2	366
56-55-3	Benzo(a)anthracene	U	36.6	ug/kg	11.0	36.6
91-94-1	3,3'-Dichlorobenzidine	U	366	ug/kg	110	366
218-01-9	Chrysene	U	36.6	ug/kg	11.0	36.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	366	ug/kg	73.2	366
117-84-0	Di-n-octylphthalate	U	366	ug/kg	73.2	366
205-99-2	Benzo(b)fluoranthene	U	36.6	ug/kg	11.0	36.6
207-08-9	Benzo(k)fluoranthene	U	36.6	ug/kg	11.0	36.6
50-32-8	Benzo(a)pyrene	U	36.6	ug/kg	11.0	36.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.6	ug/kg	11.0	36.6
53-70-3	Dibenzo(a,h)anthracene	U	36.6	ug/kg	11.0	36.6
191-24-2	Benzo(ghi)perylene	U	36.6	ug/kg	11.0	36.6
120-82-1	1,2,4-Trichlorobenzene	U	366	ug/kg	73.2	366

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.68	158	ug/kg		J
	Unknown	1.75	240	ug/kg		J

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

SDG Number: 10-1304  
Lab Sample ID: 245106006

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7169  
Batch ID: 944591  
Run Date: 01/29/2010 00:58  
Prep Date: 01/25/2010 14:38  
Data File: s1a2824.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
	Unknown	1.95	163	ug/kg		J
	Unknown	2.16	202	ug/kg		J
	Unknown Aldol Condensate	3.1	755	ug/kg		JA
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.8	608	ug/kg	94	NJ
112-85-6	Docosanoic acid	12.13	171	ug/kg	90	NJ
	Unknown	15.34	189	ug/kg		J
	Unknown	16.05	218	ug/kg		J
	Unknown	16.17	342	ug/kg		J
83-46-5	.beta.-Sitosterol	16.87	249	ug/kg	94	NJ
	Unknown	17	291	ug/kg		J

Data File: /chem/MSD1.i/s012810.b/s1a2824.d  
Report Date: 15-Feb-2010 15:05

Page 1

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/s1a2824.d  
Lab Smp Id: 245106006 Client Smp ID: RE15-10-7169  
Inj Date : 29-JAN-2010 00:58  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106006|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: s1a2203.d  
Als bottle: 13  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.sub  
Target Version: 3.50  
Processing Host: hpc1pl

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	8.93310	% 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	4.434	4.434	(1.000)	268061	40.0000
* 29 Naphthalene-d8	136	5.687	5.687	(1.000)	1064338	40.0000
* 46 Acenaphthene-d10	164	7.539	7.540	(1.000)	571486	40.0000
* 67 Phenanthrene-d10	188	9.139	9.139	(1.000)	907472	40.0000
* 91 Chrysene-d12	240	12.033	12.039	(1.000)	622766	40.0000
* 98 Perylene-d12	264	14.121	14.121	(1.000)	408029	40.0000
\$ 3 2-Fluorophenol	112	3.322	3.304	(0.749)	492323	59.3819 2170
\$ 5 Phenol-d5	99	4.069	4.063	(0.918)	640515	62.2000 2280
\$ 20 Nitrobenzene-d5	82	4.957	4.957	(0.872)	264375	33.6551 1230
\$ 39 2-Fluorobiphenyl	172	6.810	6.810	(0.903)	505416	34.3287 1260
\$ 60 2,4,6-Tribromophenol	329	8.386	8.387	(1.112)	127221	61.5197 2250
\$ 81 p-Terphenyl-d14	244	10.845	10.845	(0.901)	457885	40.9741 1500



## ION RATIO REPORT

## SV REPORT

Data file: sla2824.d

Report Date: 01/29/2010 11:29

Lab. ID: 245106006

SampleType: SAMPLE

Injection Date: 29-JAN-2010 00:58

Operator: AMY

Instrument: MSD1.i

Sample Info: |245106006|944591|1|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100107-03|

Comment:

Method used: /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	30084	4.07	4.13	80-120	100	( )
93	30943	4.12	4.13	213-273	103	(Q)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	35225	4.96	4.81	80-120	100	(T)
42	22035	4.96	4.81	54-114	63	(T)
-----						
40 2-Chloronaphthalene		CAS#: 91-58-7				
162	9522	7.15	6.95	80-120	100	(T)
164	498	7.15	6.95	2- 62	5	(T)
127	690	7.15	6.95	8- 68	7	(QT)
-----						
42 o-Nitroaniline		CAS#: 88-74-4				
65	13030	7.15	7.05	80-120	100	(T)
92	14940	7.15	7.05	29- 89	115	(QT)
138	943	7.15	7.05	68-128	7	(QT)
-----						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	73957	7.54	7.31	80-120	100	(T)
63	9245	7.55	7.31	41-101	13	(QT)
-----						
45 Acenaphthylene		CAS#: 208-96-8				
152	47212	7.55	7.39	80-120	100	(T)
151	12422	7.55	7.39	0- 49	26	(T)
153	48062	7.55	7.39	0- 43	102	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
47 Acenaphthene				CAS#: 83-32-9		
154	41109	7.55	7.57	80-120	100	( )
153	48062	7.55	7.57	76-136	117	( )
152	47210	7.55	7.57	21- 81	115	(Q)
-----						
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	73957	7.54	7.75	80-120	100	(T)
89	3201	7.55	7.75	55-115	4	(QT)
63	9245	7.55	7.75	50-110	13	(QT)
-----						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	336	8.38	8.18	80-120	100	(T)
105	971	8.39	8.18	14- 74	289	(QT)
51	1112	8.38	8.18	46-106	331	(QT)

-----

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2824.d  
Lab Smp Id: 245106006 Client Smp ID: RE15-10-7169  
Inj Date : 29-JAN-2010 00:58  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106006|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 13  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.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	30.01000	weight of sample
M	8.93310	% moisture

Cpnd Variable

Local Compound Variable

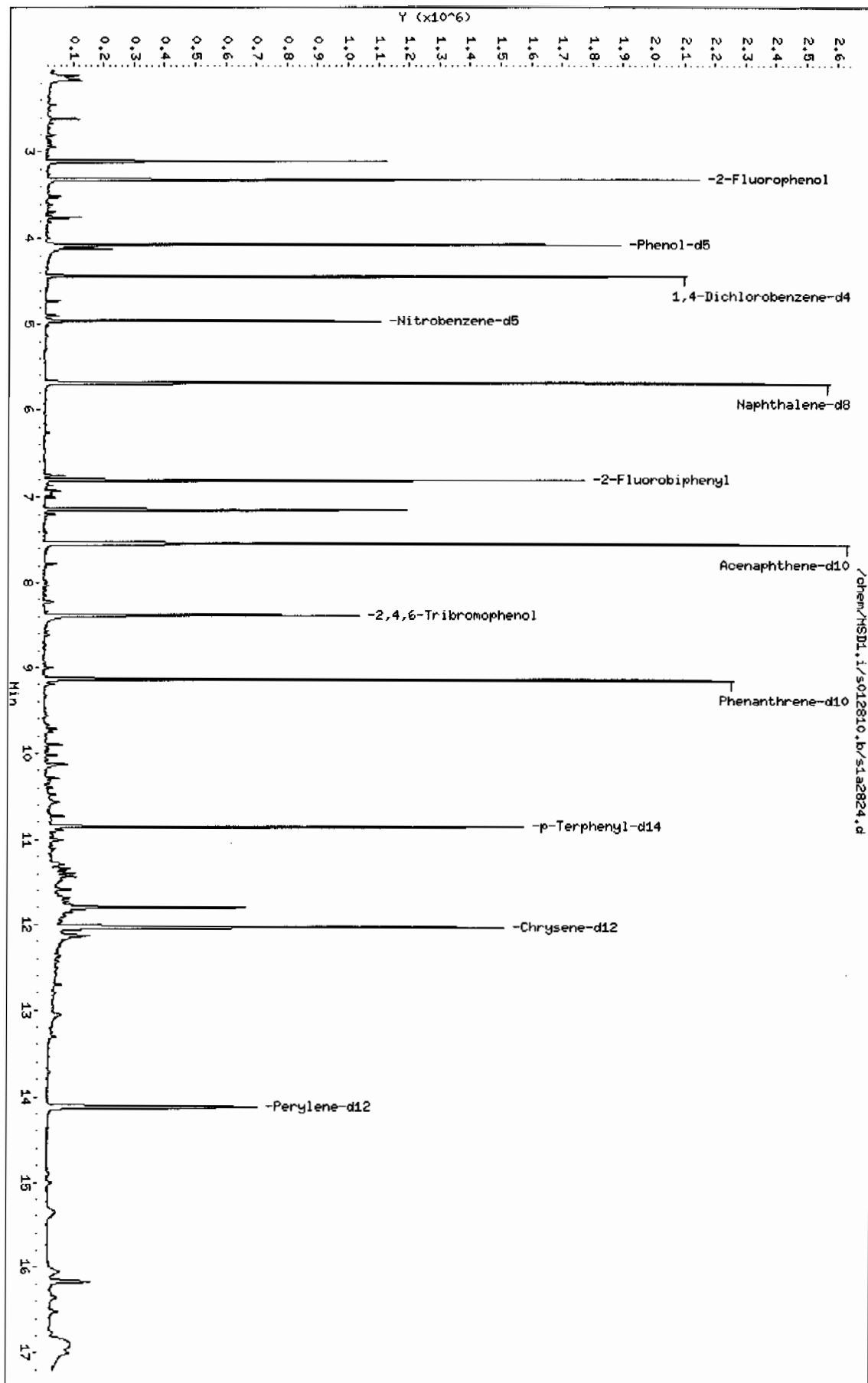
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.434	1747968	40.000
* 91 Chrysene-d12	12.033	1686090	40.000
* 98 Perylene-d12	14.121	1161861	40.000

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 #:			
1.675	189164	4.32877124	158	0		0	10
Unknown				CAS #:			
1.752	286600	6.55846238	240	0		0	10
Unknown				CAS #:			
1.952	194763	4.45690402	163	0		0	10
Unknown				CAS #:			
2.163	241086	5.51695058	202	0		0	10
Unknown Aldol Condensate				CAS #:			
3.104	901709	20.6344391	755	0		0	10
1-Phenanthrenecarboxylic acid, 1,2,3,4,4				CAS #: 1740-19-8			
11.798	700653	16.6219644	608	94	NIST05.L	125034	91
Docosanoic acid				CAS #: 112-85-6			
12.133	196512	4.66196487	170	90	NIST05.L	147936	91
Unknown				CAS #:			
15.345	150248	5.17265827	189	0		0	98
Unknown				CAS #:			
16.051	173191	5.96254926	218	0		0	98
Unknown				CAS #:			
16.168	271263	9.33891422	342	0		0	98
.beta.-Sitosterol				CAS #: 83-46-5			
16.874	197851	6.81151265	249	94	NIST05.L	174399	98
Unknown				CAS #:			
17.003	231208	7.95990316	291	0		0	98

Data File: /chem/MSD1.i/s012810.b/s1a2824.d  
Date: 29-JAN-2010 00:58  
Client ID: RE15-10-7169  
Sample Info: 1245106006194459111SVHF11LNL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-SHS

Instrument: MSD1.i  
Operator: AMY  
Column diameter: 0.20



Date : 29-JAN-2010 00:58

Client ID: RE15-10-7169

Instrument: MSD1.i

Sample Info: I245106006194459111SVMF11ILANL

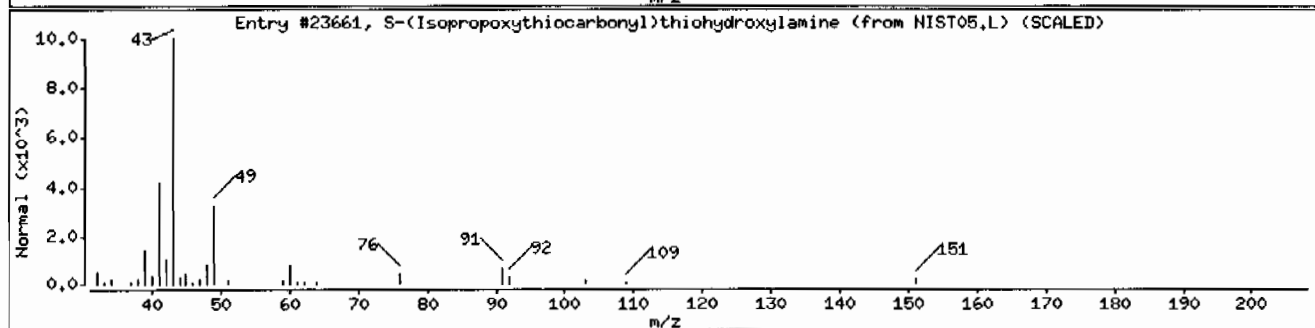
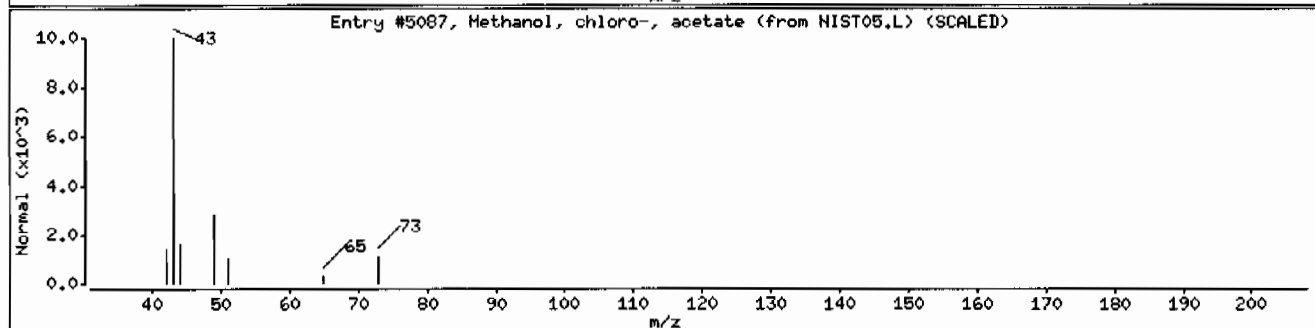
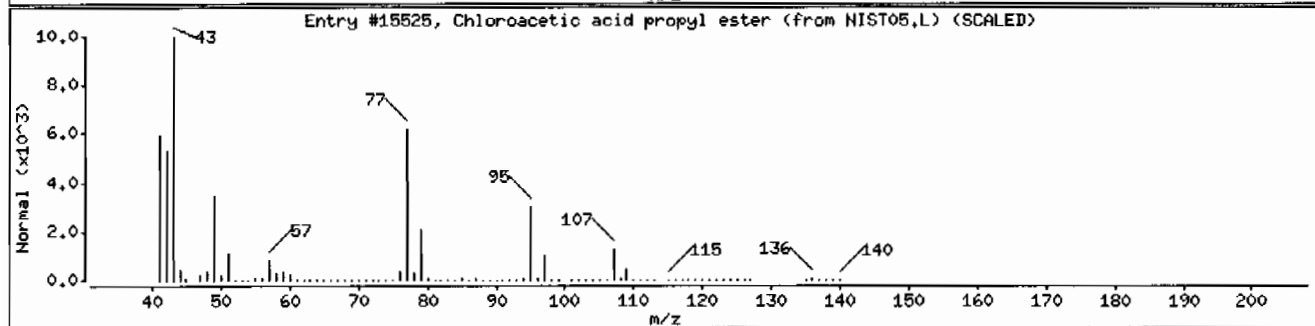
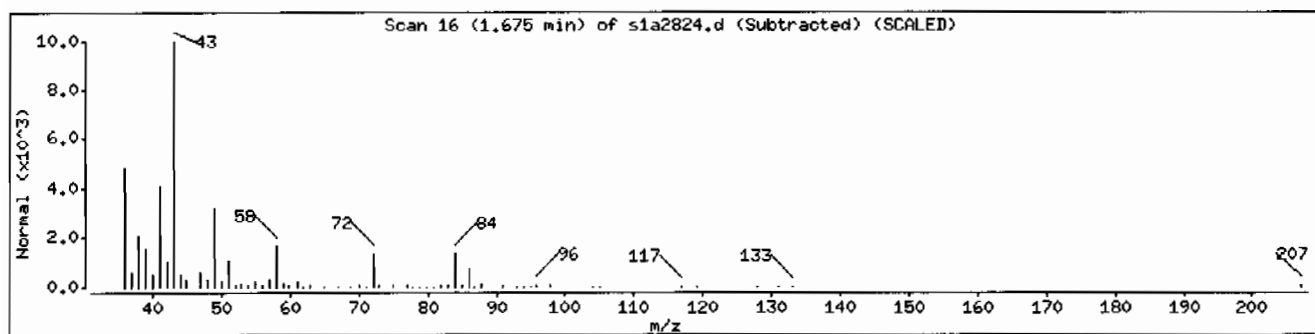
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Chloroacetic acid propyl ester	5396-24-7	NIST05.L	15525	36	C5H9ClO2	136
Methanol, chloro-, acetate	625-56-9	NIST05.L	5087	9	C3H5ClO2	108
S-(Isopropoxythiocarbonyl)thiohydroxylam	35659-80-4	NIST05.L	23661	9	C4H9NOS2	151



Date : 29-JAN-2010 00:58

Client ID: RE15-10-7169

Instrument: MSD1.i

Sample Info: 1245106006194459111SVMF111LANL

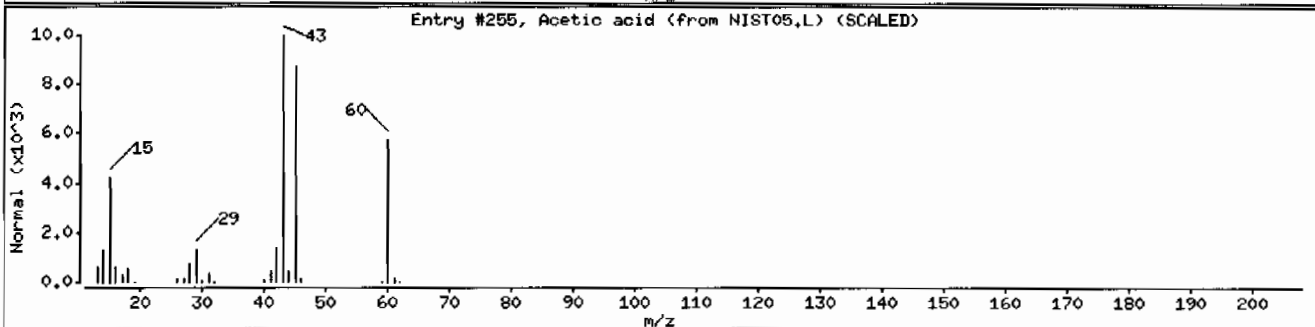
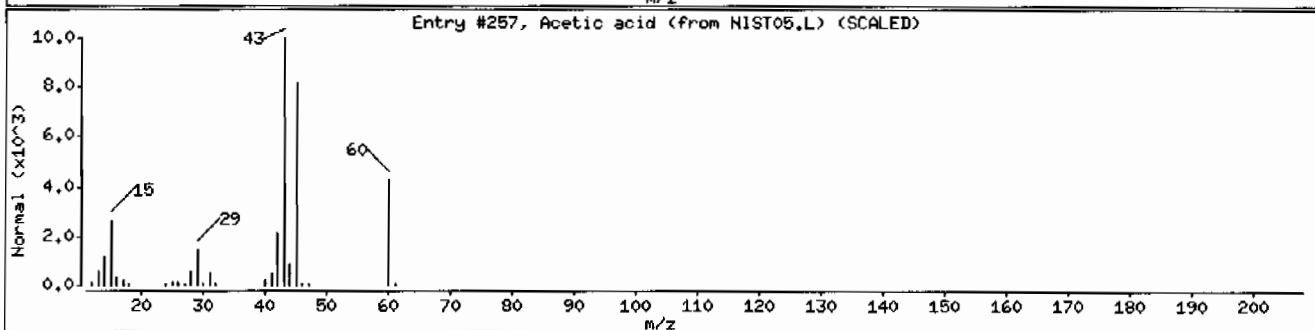
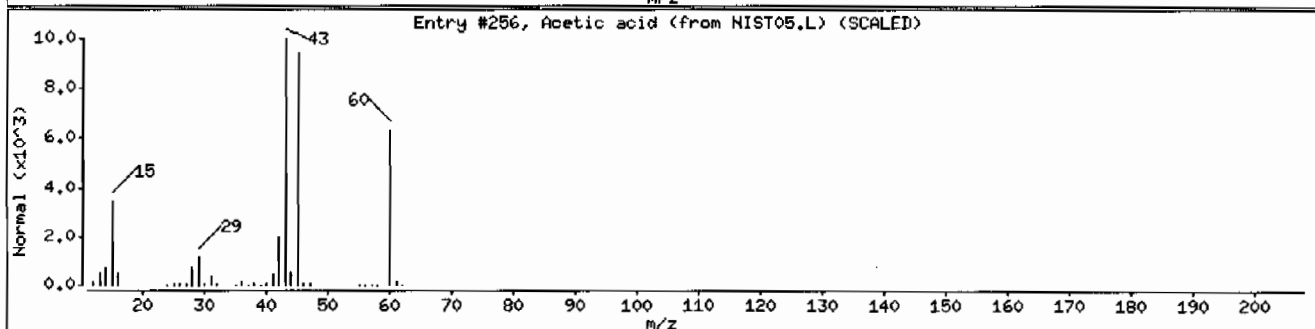
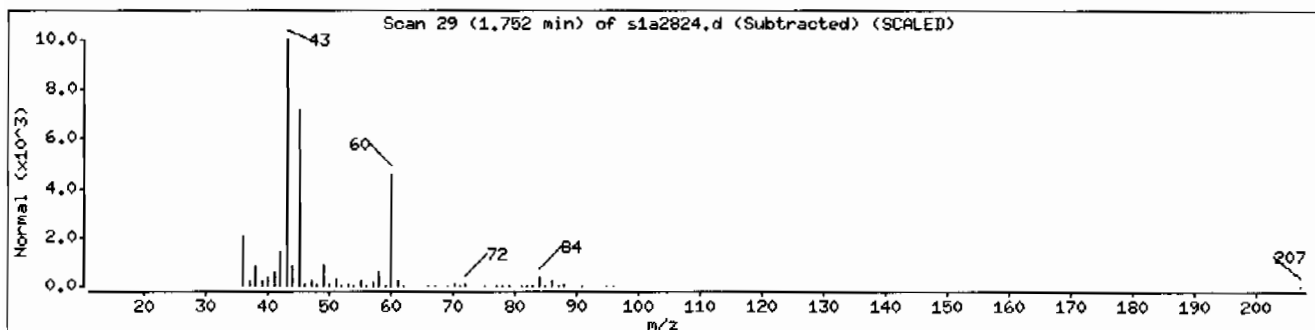
Volume Injected (uL): 0.5

Operator: AMY

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	64-19-7	NIST05.L	256	58	C2H4O2	60
Acetic acid	64-19-7	NIST05.L	257	53	C2H4O2	60
Acetic acid	64-19-7	NIST05.L	255	53	C2H4O2	60



Date : 29-JAN-2010 00:58

Client ID: RE15-10-7169

Instrument: MSD1.i

Sample Info: 1245106006194459111SVHF11ILANL

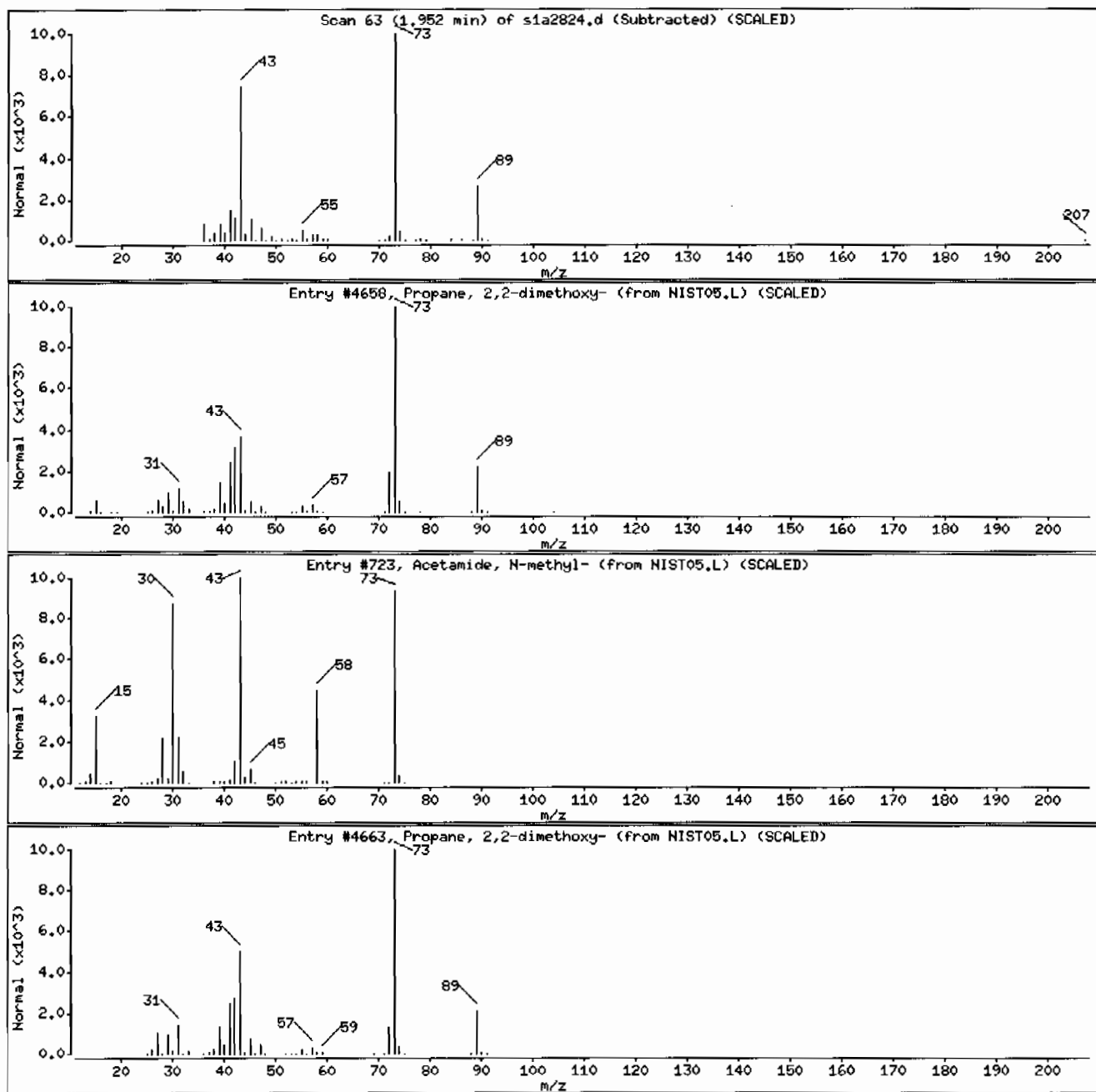
Volume Injected (UL): 0.5

Operator: AMY

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	4658	40	C5H12O2	104
Acetamide, N-methyl-	79-16-3	NIST05.L	723	38	C3H7NO	73
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	36	C5H12O2	104





Date : 29-JAN-2010 00:58

Client ID: RE15-10-7169

Instrument: MSD1.i

Sample Info: 1245106006194459111SVHF11ILANL

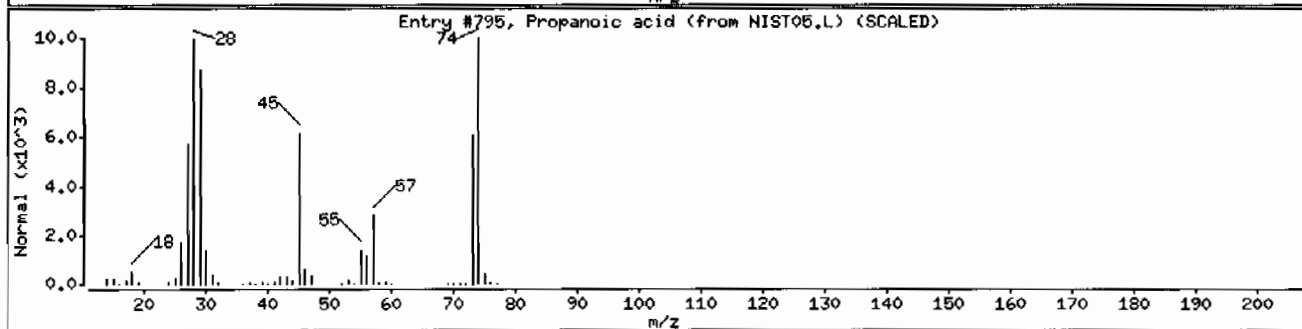
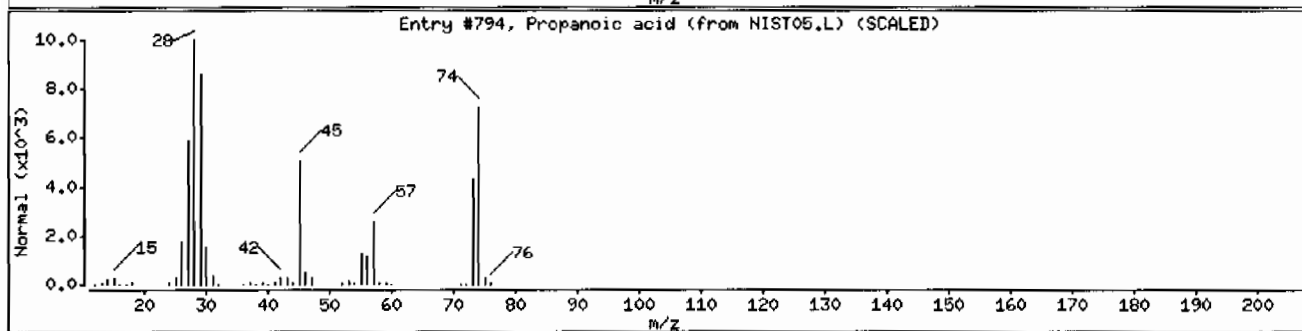
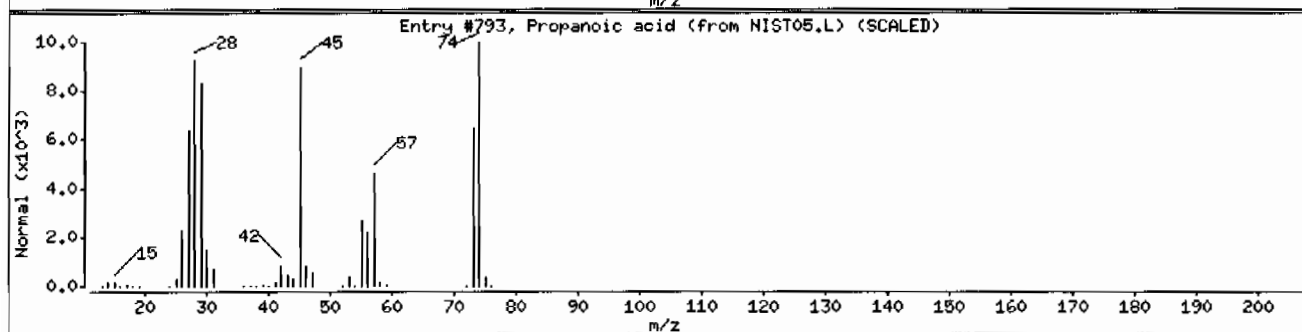
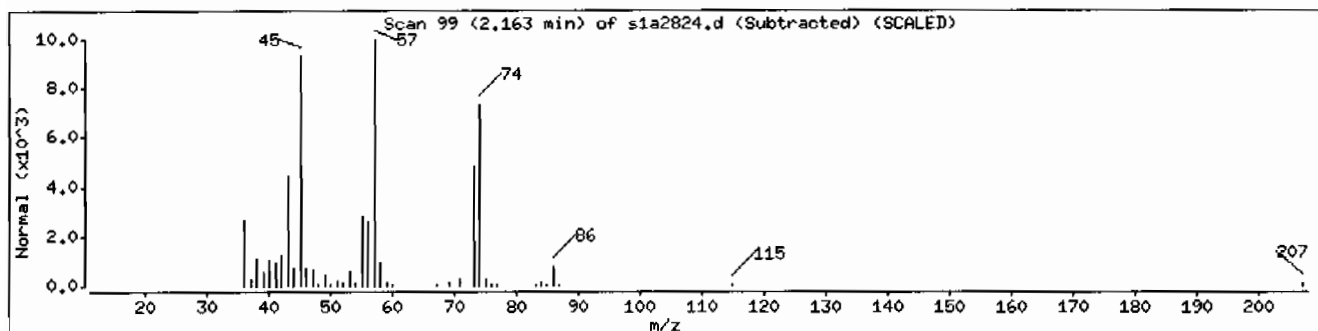
Volume Injected (uL): 0.5

Operator: AMY

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	79-09-4	NIST05.L	793	64	C3H6O2	74
Propanoic acid	79-09-4	NIST05.L	794	64	C3H6O2	74
Propanoic acid	79-09-4	NIST05.L	795	64	C3H6O2	74



Date : 29-JAN-2010 00:58

Client ID: RE15-10-7169

Instrument: HSD1.i

Sample Info: 1245106006194459111SVMF11ILANL

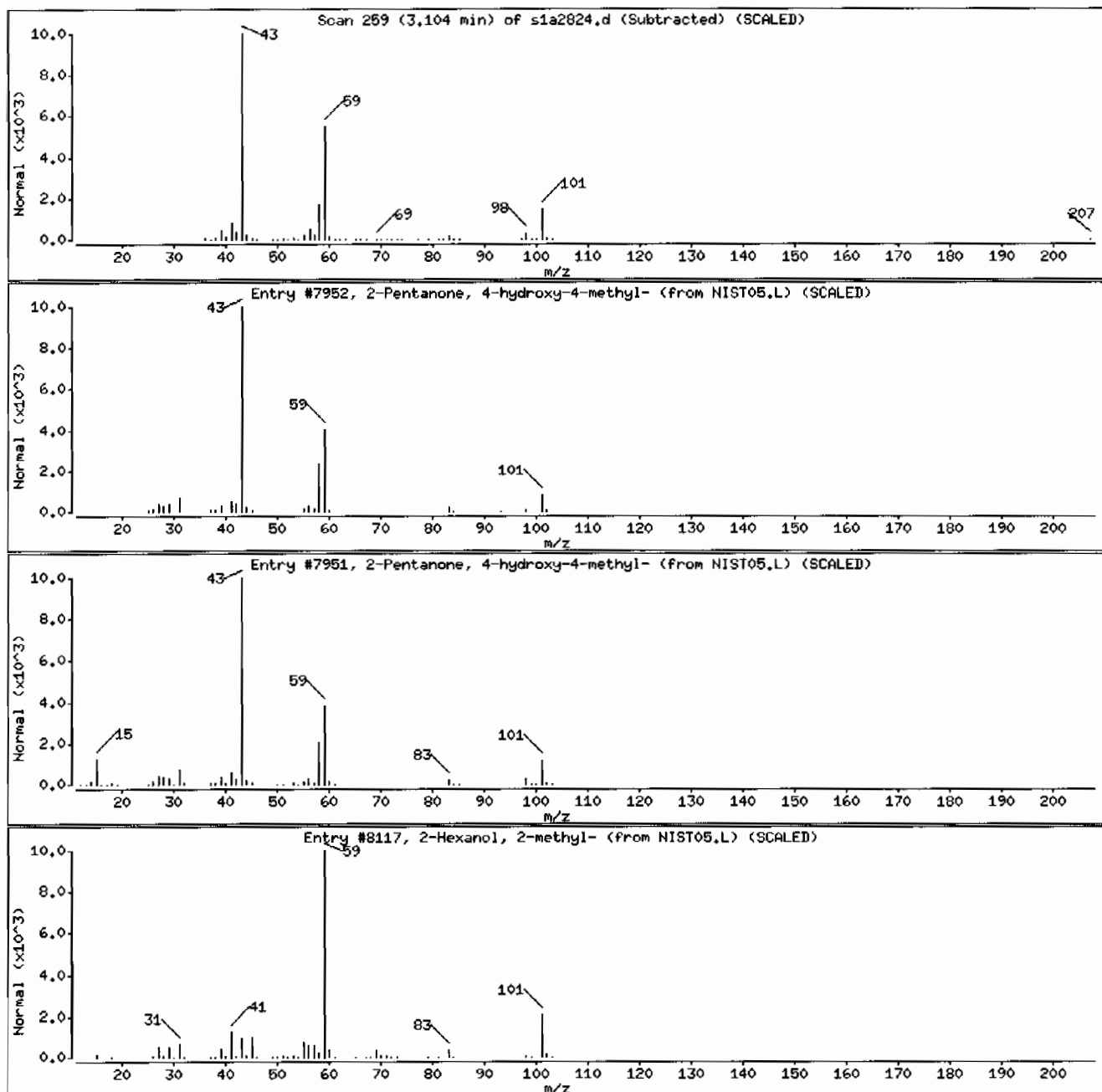
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Hexanol, 2-methyl-	625-23-0	NIST05.L	8117	28	C7H16O	116



Date : 29-JAN-2010 00:58

Client ID: RE15-10-7169

Instrument: MSD1.i

Sample Info: 1245106006194459111SVHF11ILANL

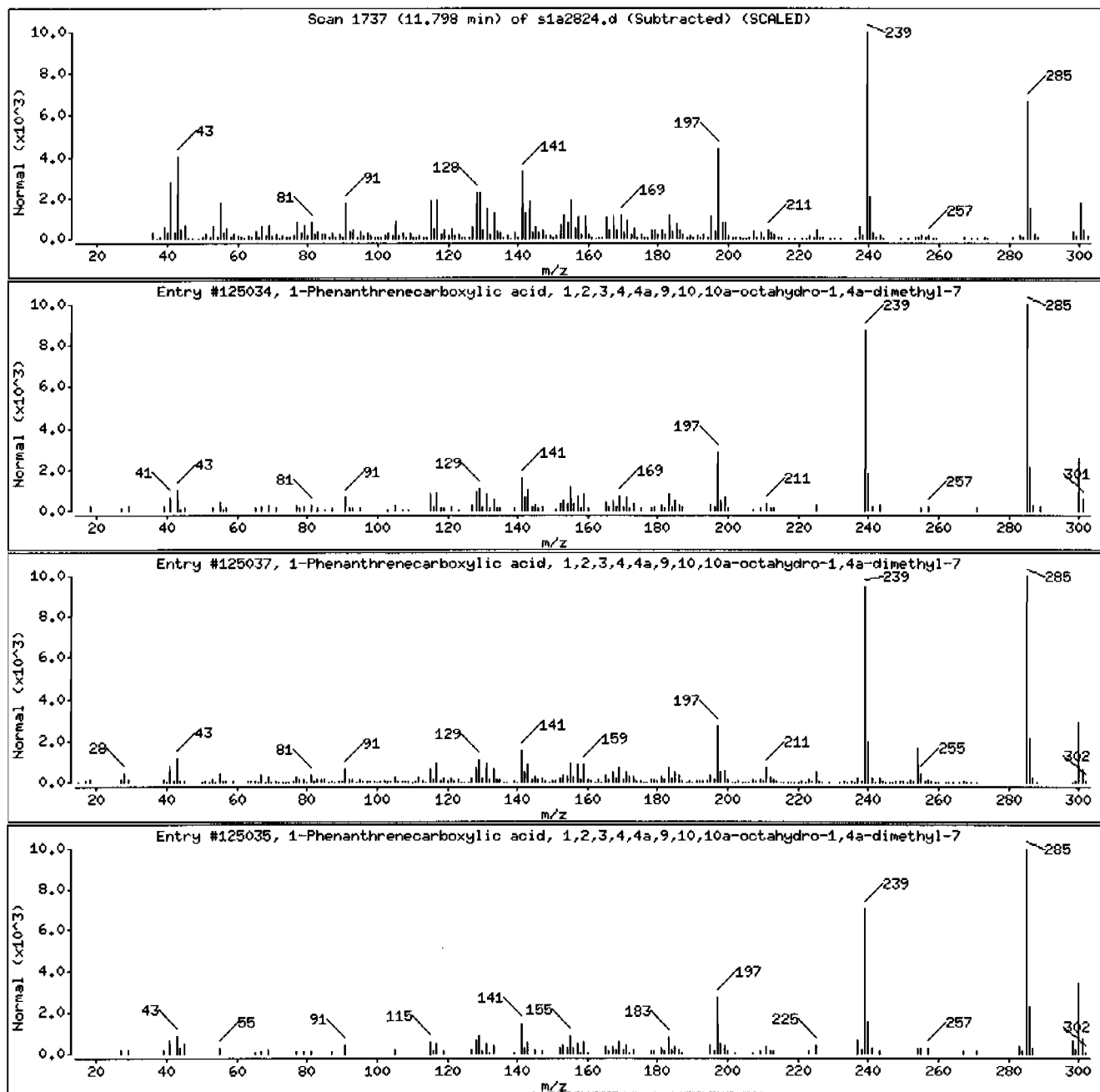
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	94	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125037	90	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	5155-70-4	NIST05.L	125035	64	C20H28O2	300



Date : 29-JAN-2010 00:58

Client ID: RE15-10-7169

Instrument: MSD1.i

Sample Info: 1245106006194459111SVHF11ILANL

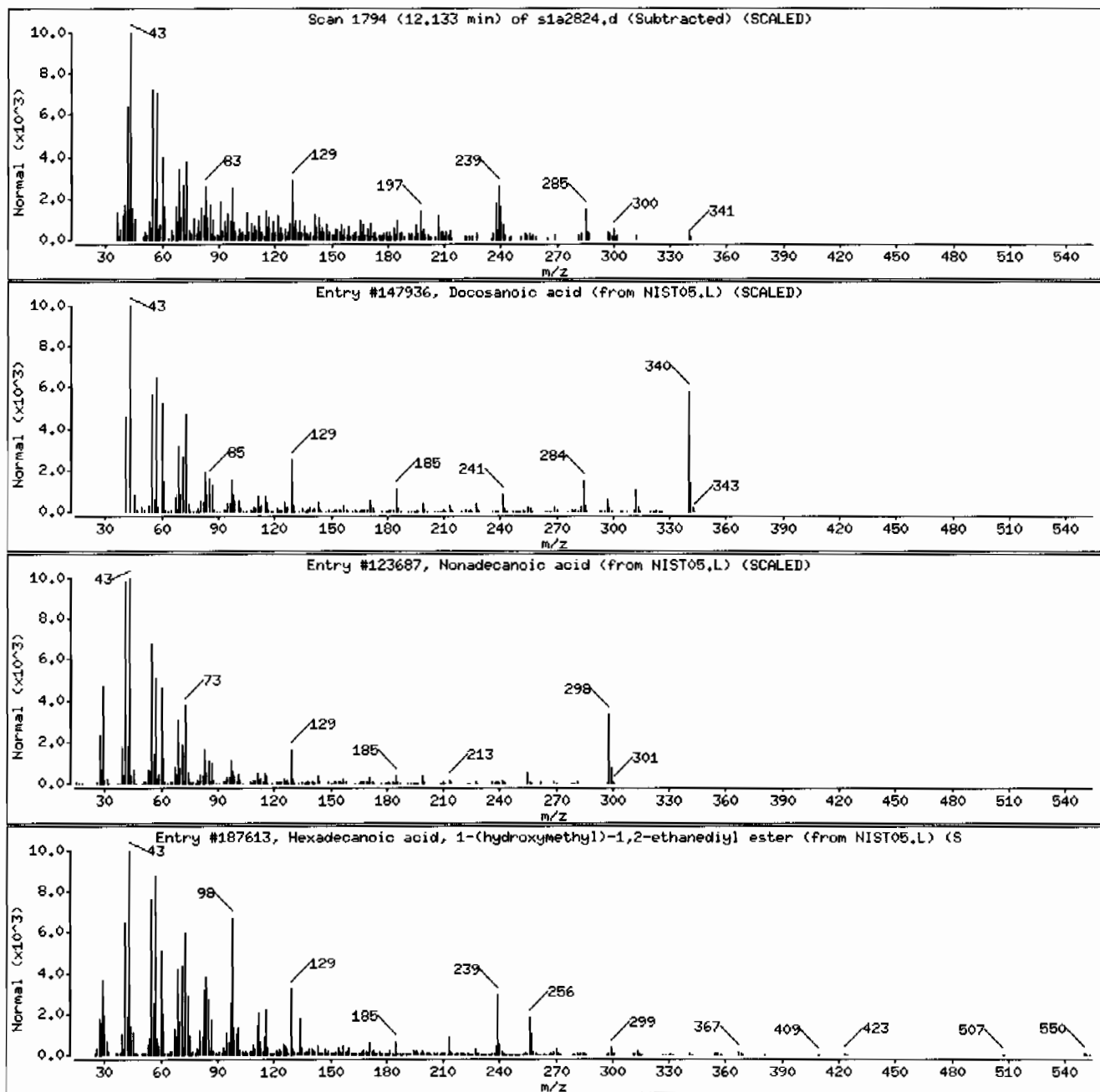
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Docosanoic acid	112-85-6	NIST05.L	147936	90	C22H44O2	340
Nonadecanoic acid	646-30-0	NIST05.L	123687	50	C19H38O2	298
Hexadecanoic acid, 1-(hydroxymethyl)-1,2	761-35-3	NIST05.L	187613	47	C35H68O5	569



Date : 29-JAN-2010 00:58

Client ID: RE15-10-7169

Instrument: MSD1.i

Sample Info: 1245106006194459111SVHF111LANL

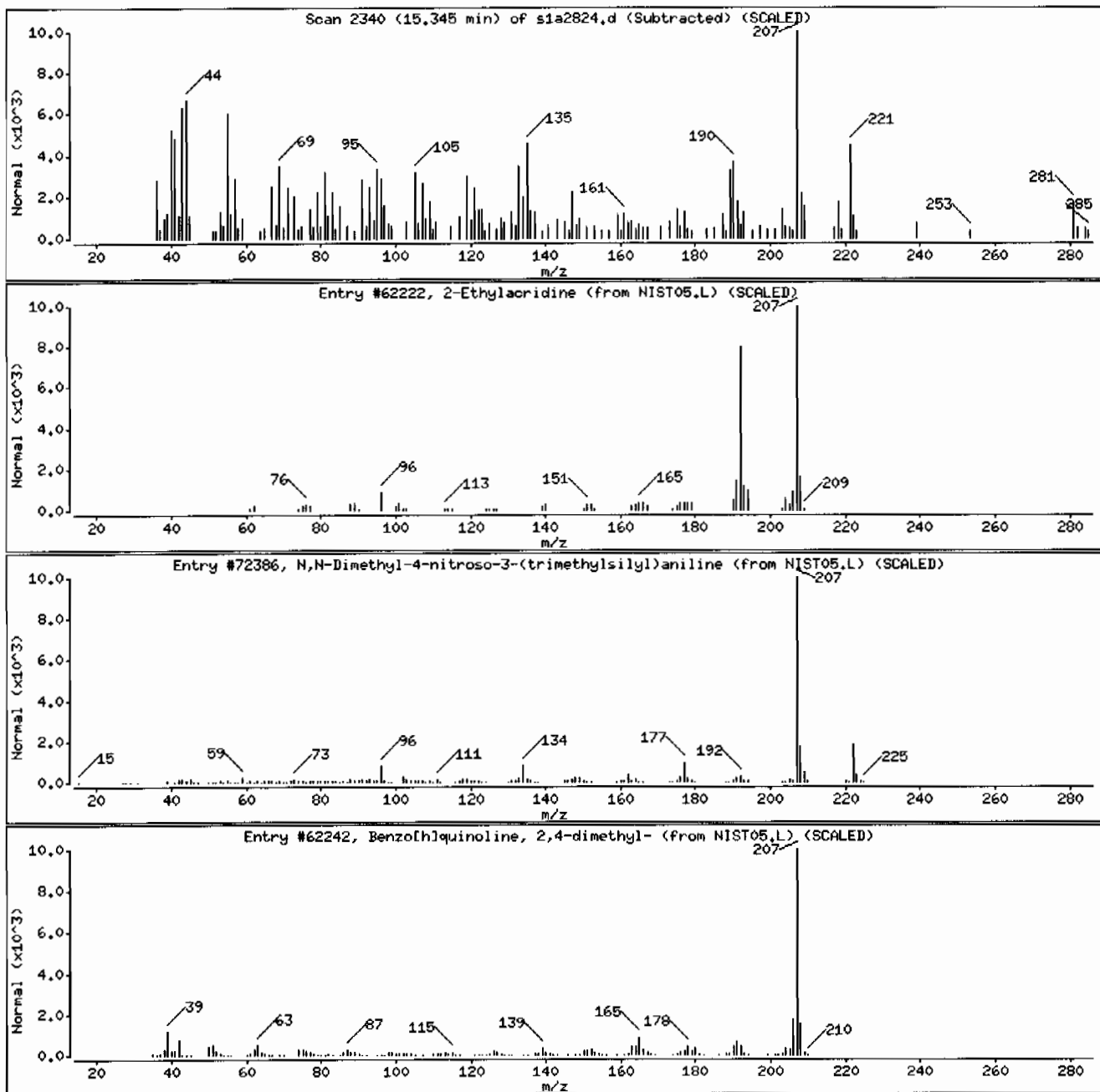
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethylacridine	55751-83-2	NIST05.L	62222	51	C15H13N	207
N,N-Dimethyl-4-nitroso-3-(trimethylsilyl)	17993-84-9	NIST05.L	72386	46	C11H16N2OSi	222
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62242	38	C15H13N	207



Date : 29-JAN-2010 00:58

Client ID: RE15-10-7169

Instrument: MSD1.i

Sample Info: 1245106006194459111SVMF111LANL

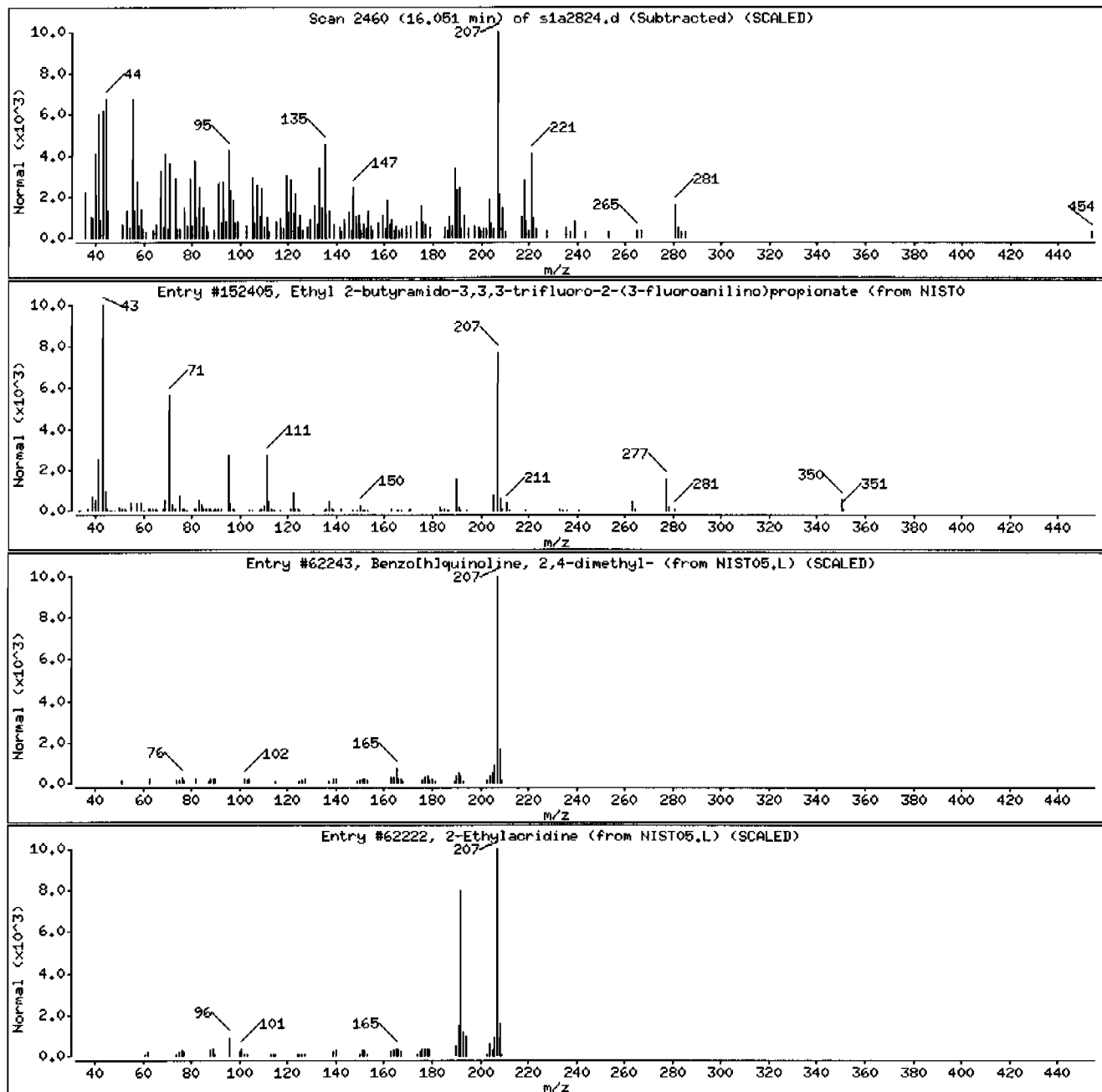
Volume Injected (uL): 0.5

Operator: AHY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ethyl 2-butylamido-3,3,3-trifluoro-2-(3-	1000224-16-1	NIST05.L	152405	38	C15H18F4N2O3	350
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	30	C15H13N	207
2-Ethylacridine	55751-83-2	NIST05.L	62222	30	C15H13N	207



Date : 29-JAN-2010 00:58

Client ID: RE15-10-7169

Instrument: MSD1.i

Sample Info: 1245106006194459111SVHF111LANL

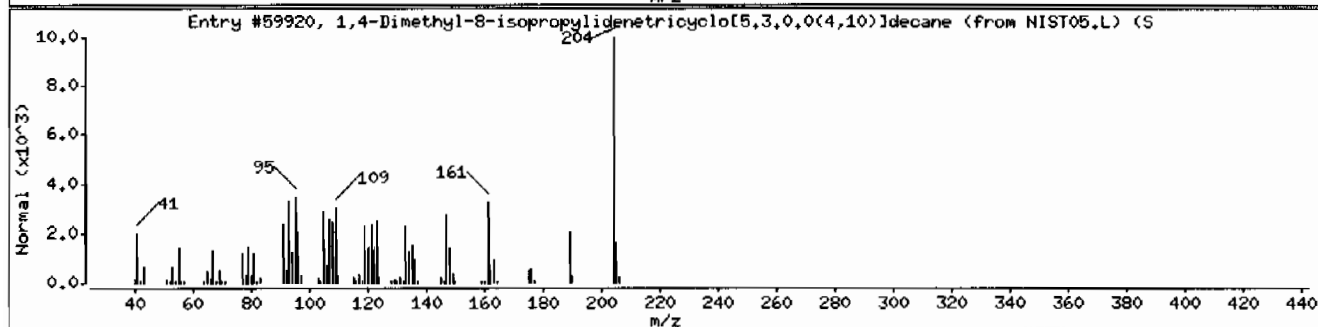
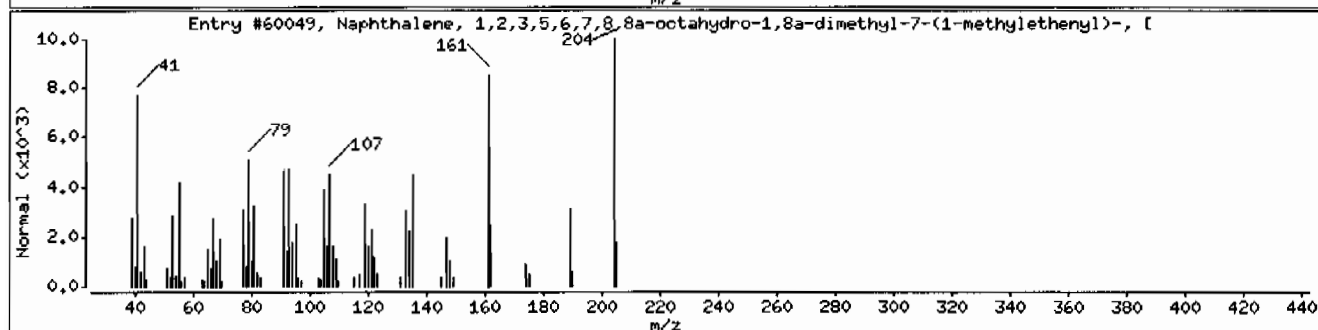
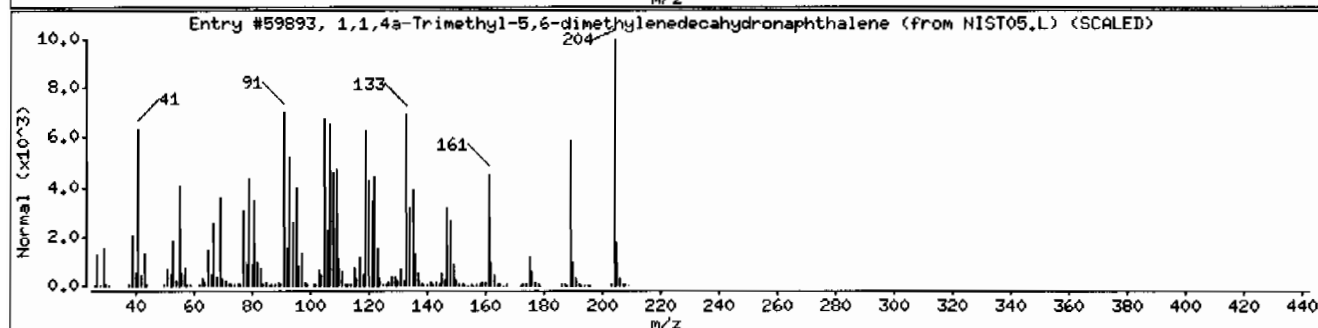
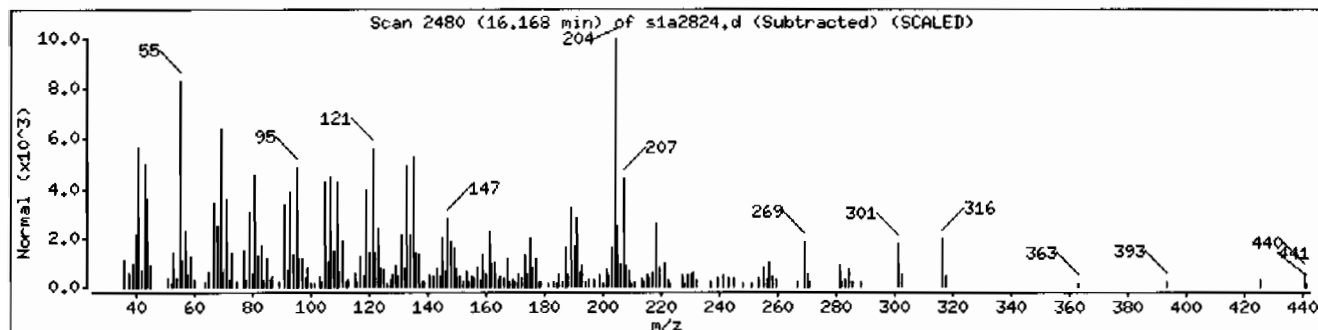
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,1,4a-Trimethyl-5,6-dimethylenedecahydr	1000193-60-8	NIST05.L	59893	70	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60049	64	C15H24	204
1,4-Dimethyl-8-isopropylidenetricyclo[5.	1000140-07-7	NIST05.L	59920	62	C15H24	204



Date : 29-JAN-2010 00:58

Client ID: RE15-10-7169

Instrument: HSD1.i

Sample Info: 1245106006194459111SVHF111LANL

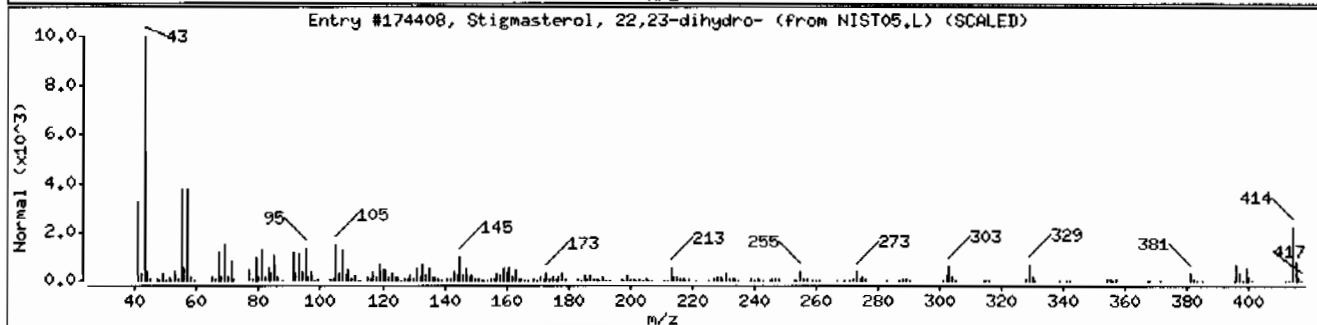
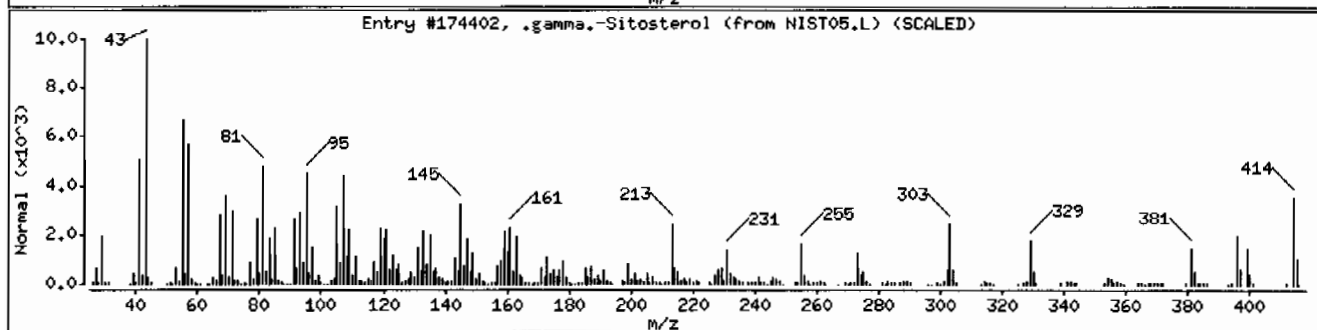
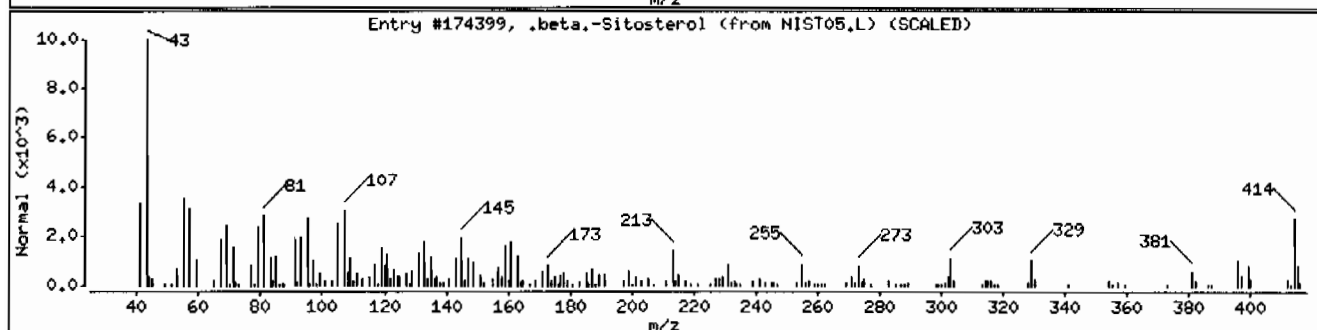
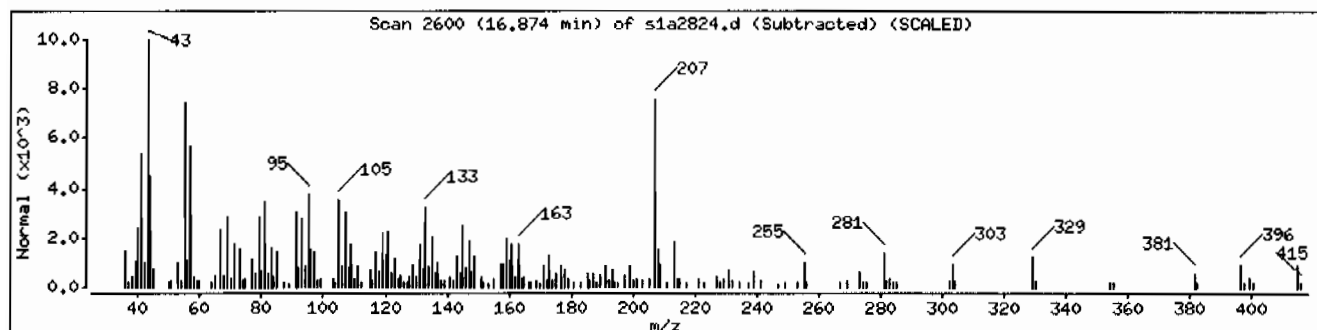
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174399	94	C29H50O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	94	C29H50O	414
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST05.L	174408	59	C29H50O	414





Date : 29-JAN-2010 00:58

Client ID: RE15-10-7169

Instrument: MSD1.i

Sample Info: 1245106006194459111SVMF111LANL

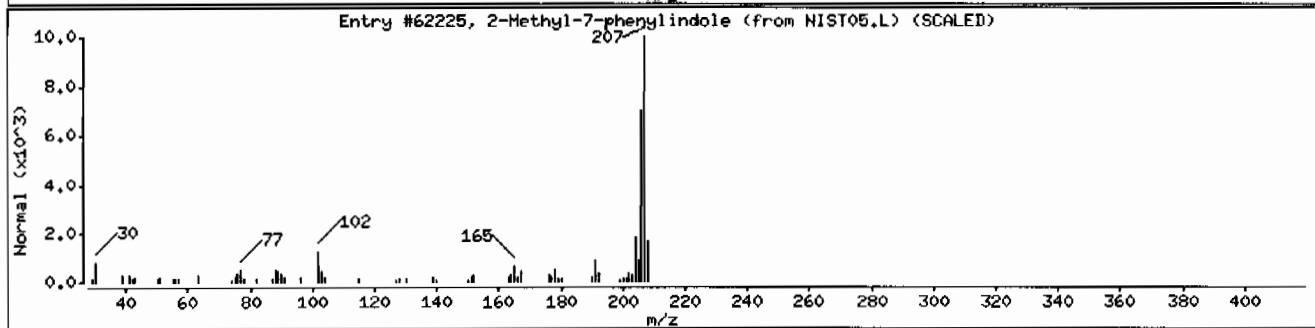
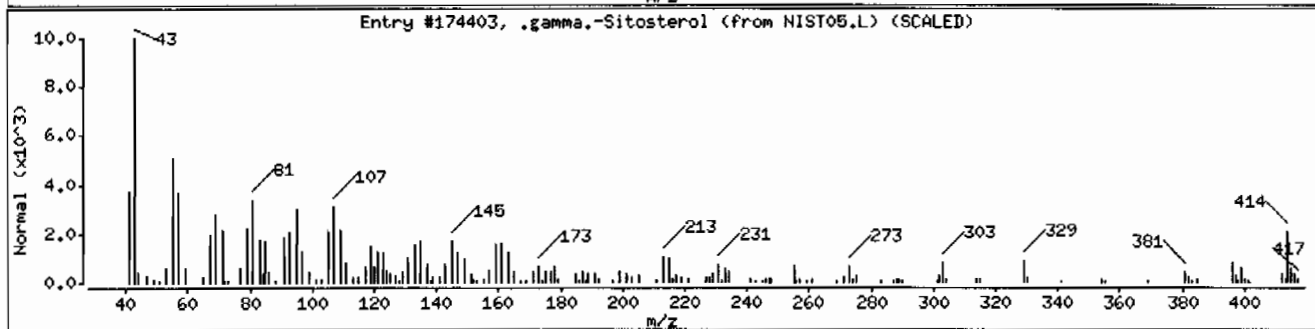
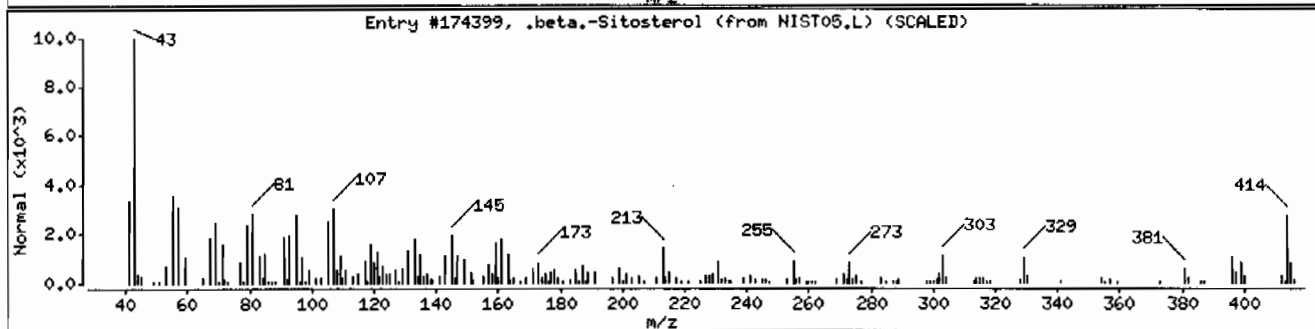
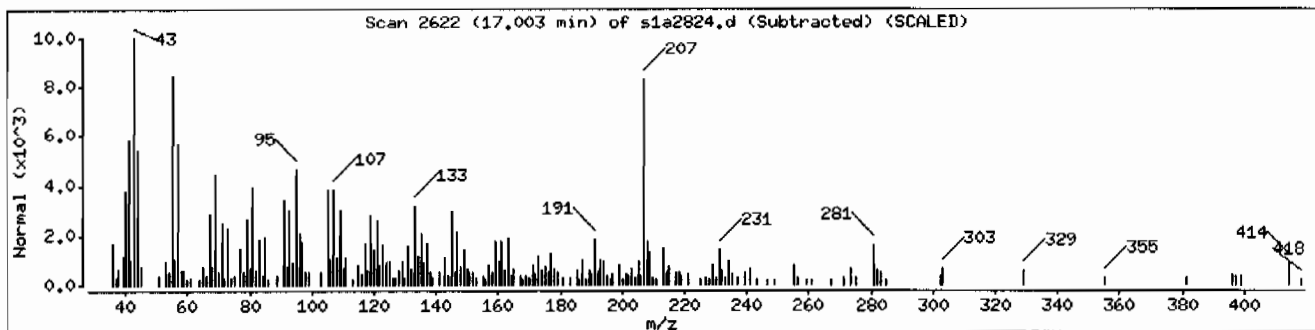
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
.beta.-Sitosterol	83-46-5	NIST05.L	174399	55	C <sub>29</sub> H <sub>50</sub> O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174403	47	C <sub>29</sub> H <sub>50</sub> O	414
2-Methyl-7-phenylindole	1140-08-5	NIST05.L	62225	38	C <sub>15</sub> H <sub>13</sub> N	207



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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106003	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 23.2
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7170	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD1.I	<b>Dilution:</b> 1
<b>Run Date:</b> 01/28/2010 23:36	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s1a2821.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	433	ug/kg	86.5	433
108-95-2	Phenol	U	433	ug/kg	86.5	433
95-57-8	2-Chlorophenol	U	433	ug/kg	86.5	433
106-46-7	1,4-Dichlorobenzene	U	433	ug/kg	86.5	433
621-64-7	N-Nitrosodipropylamine	U	433	ug/kg	86.5	433
59-50-7	4-Chloro-3-methylphenol	U	433	ug/kg	86.5	433
83-32-9	Acenaphthene	U	43.3	ug/kg	14.3	43.3
121-14-2	2,4-Dinitrotoluene	U	433	ug/kg	43.3	433
100-02-7	4-Nitrophenol	U	433	ug/kg	143	433
87-86-5	Pentachlorophenol	U	433	ug/kg	108	433
129-00-0	Pyrene	U	43.3	ug/kg	13.0	43.3
110-86-1	Pyridine	U	433	ug/kg	86.5	433
62-53-3	Aniline	U	433	ug/kg	130	433
111-44-4	bis(2-Chloroethyl) ether	U	433	ug/kg	86.5	433
541-73-1	1,3-Dichlorobenzene	U	433	ug/kg	86.5	433
100-51-6	Benzyl alcohol	U	433	ug/kg	130	433
95-50-1	1,2-Dichlorobenzene	U	433	ug/kg	86.5	433
108-60-1	bis(2-Chloroisopropyl)ether	U	433	ug/kg	86.5	433
95-48-7	o-Cresol	U	433	ug/kg	86.5	433
65794-96-9	m,p-Cresols	U	433	ug/kg	130	433
67-72-1	Hexachloroethane	U	433	ug/kg	86.5	433
98-95-3	Nitrobenzene	U	433	ug/kg	86.5	433
78-59-1	Isophorone	U	433	ug/kg	86.5	433
88-75-5	2-Nitrophenol	U	433	ug/kg	86.5	433
105-67-9	2,4-Dimethylphenol	U	433	ug/kg	151	433
111-91-1	bis(2-Chloroethoxy)methane	U	433	ug/kg	86.5	433
120-83-2	2,4-Dichlorophenol	U	433	ug/kg	86.5	433
65-85-0	Benzoic acid	U	865	ug/kg	216	865
91-20-3	Naphthalene	U	43.3	ug/kg	13.0	43.3
106-47-8	4-Chloroaniline	U	433	ug/kg	86.5	433
87-68-3	Hexachlorobutadiene	U	433	ug/kg	86.5	433
91-57-6	2-Methylnaphthalene	U	43.3	ug/kg	8.65	43.3
77-47-4	Hexachlorocyclopentadiene	U	433	ug/kg	86.5	433
88-06-2	2,4,6-Trichlorophenol	U	433	ug/kg	86.5	433
95-95-4	2,4,5-Trichlorophenol	U	433	ug/kg	86.5	433
91-58-7	2-Chloronaphthalene	U	43.3	ug/kg	14.3	43.3
88-74-4	2-Nitroaniline	U	433	ug/kg	86.5	433
99-09-2	<i>o</i> -Nitroaniline	U	433	ug/kg	86.5	433
	3-Nitroaniline					

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106003	Date Received: 01/20/2010 08:45	%Moisture: 23.2
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7170	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.1	Dilution: 1
Run Date: 01/28/2010 23:36	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s1a2821.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQI/LOQ
<i>m-Nitroaniline</i>						
131-11-3	Dimethylphthalate	U	433	ug/kg	86.5	433
606-20-2	2,6-Dinitrotoluene	U	433	ug/kg	43.3	433
208-96-8	Acenaphthylene	U	43.3	ug/kg	13.0	43.3
51-28-5	2,4-Dinitrophenol	U	865	ug/kg	164	865
132-64-9	Dibenzofuran	U	433	ug/kg	86.5	433
84-66-2	Diethylphthalate	U	433	ug/kg	86.5	433
86-73-7	Fluorene	U	43.3	ug/kg	13.0	43.3
7005-72-3	4-Chlorophenylphenylether	U	433	ug/kg	86.5	433
534-52-1	2-Methyl-4,6-dinitrophenol	U	433	ug/kg	86.5	433
100-01-6	4-Nitroaniline	U	433	ug/kg	130	433
<i>p-Nitroaniline</i>						
122-39-4	Diphenylamine	U	433	ug/kg	86.5	433
122-66-7	Azobenzene	U	433	ug/kg	86.5	433
<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenylphenylether	U	433	ug/kg	86.5	433
118-74-1	Hexachlorobenzene	U	433	ug/kg	86.5	433
85-01-8	Phenanthrene	U	43.3	ug/kg	13.0	43.3
120-12-7	Anthracene	U	43.3	ug/kg	8.65	43.3
84-74-2	Di-n-butylphthalate	U	433	ug/kg	86.5	433
206-44-0	Fluoranthene	U	43.3	ug/kg	13.0	43.3
85-68-7	Butylbenzylphthalate	U	433	ug/kg	86.5	433
56-55-3	Benzo(a)anthracene	U	43.3	ug/kg	13.0	43.3
91-94-1	3,3'-Dichlorobenzidine	U	433	ug/kg	130	433
218-01-9	Chrysene	U	43.3	ug/kg	13.0	43.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	433	ug/kg	86.5	433
117-84-0	Di-n-octylphthalate	U	433	ug/kg	86.5	433
205-99-2	Benzo(b)fluoranthene	U	43.3	ug/kg	13.0	43.3
207-08-9	Benzo(k)fluoranthene	U	43.3	ug/kg	13.0	43.3
50-32-8	Benzo(a)pyrene	U	43.3	ug/kg	13.0	43.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	43.3	ug/kg	13.0	43.3
53-70-3	Dibenzo(a,h)anthracene	U	43.3	ug/kg	13.0	43.3
191-24-2	Benzo(ghi)perylene	U	43.3	ug/kg	13.0	43.3
120-82-1	1,2,4-Trichlorobenzene	U	433	ug/kg	86.5	433

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.09	505	ug/kg		JA
	Unknown	11.69	179	ug/kg		J

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106003	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 23.2
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7170	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD1.I	<b>Dilution:</b> 1
<b>Run Date:</b> 01/28/2010 23:36	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> sla2821.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
5155-70-4	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.8	455	ug/kg	94	NJ
	Unknown	13.02	432	ug/kg		J
	Unknown	15	186	ug/kg		J
	Unknown	15.35	438	ug/kg		J
1000144-10-6	1-Methylene-2b-hydroxymethyl-3,3-dimethy	16.05	503	ug/kg	81	NJ
83-46-5	.beta.- Sitosterol	16.8	263	ug/kg	97	NJ
	Unknown	17.09	224	ug/kg		J

Data File: /chem/MSD1.i/s012810.b/sla2821.d  
Report Date: 15-Feb-2010 15:00

Page 1

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2821.d  
Lab Smp Id: 245106003 Client Smp ID: RE15-10-7170  
Inj Date : 28-JAN-2010 23:36  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106003|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 10  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.sub  
Target Version: 3.50  
Processing Host: hpc1pl

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	23.19660	% 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	4.434	4.434	(1.000)	276072	40.0000
* 29 Naphthalene-d8	136	5.687	5.687	(1.000)	1086460	40.0000
* 46 Acenaphthene-d10	164	7.539	7.540	(1.000)	580806	40.0000
* 67 Phenanthrene-d10	188	9.139	9.139	(1.000)	923809	40.0000
* 91 Chrysene-d12	240	12.033	12.039	(1.000)	681055	40.0000
* 98 Perylene-d12	264	14.121	14.121	(1.000)	455798	40.0000
\$ 3 2-Fluorophenol	112	3.316	3.304	(0.748)	347018	40.6412 1760
\$ 5 Phenol-d5	99	4.063	4.063	(0.916)	443014	41.7724 1810
\$ 20 Nitrobenzene-d5	82	4.957	4.957	(0.872)	191012	23.8208 1030
\$ 39 2-Fluorobiphenyl	172	6.810	6.810	(0.903)	355422	23.7535 1030
\$ 60 2,4,6-Tribromophenol	329	8.380	8.387	(1.112)	86231	41.0292 1780
\$ 81 p-Terphenyl-d14	244	10.845	10.845	(0.901)	302102	24.7201 1070

## ION RATIO REPORT

## SV REPORT

Data file: sla2821.d

Report Date: 01/29/2010 11:29

Lab. ID: 245106003

SampleType: SAMPLE

Injection Date: 28-JAN-2010 23:36

Operator: AMY

Instrument: MSD1.i

Sample Info: |245106003|944591|1|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100107-03|

Comment:

Method used: /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	20319	4.06	4.13	80-120	100	(T)
93	3218	4.12	4.13	213-273	16	(Q)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	24925	4.95	4.81	80-120	100	(T)
42	15921	4.95	4.81	54-114	64	(T)
-----						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	75168	7.54	7.31	80-120	100	(T)
63	6599	7.55	7.31	41-101	9	(QT)
-----						
45 Acenaphthylene		CAS#: 208-96-8				
152	31306	7.55	7.39	80-120	100	(T)
151	8283	7.55	7.39	0- 49	26	(T)
153	32431	7.55	7.39	0- 43	104	(QT)
-----						
47 Acenaphthene		CAS#: 83-32-9				
154	27812	7.55	7.57	80-120	100	( )
153	32431	7.55	7.57	76-136	117	( )
152	31306	7.55	7.57	21- 81	113	(Q)
-----						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	75168	7.54	7.75	80-120	100	(T)
89	2504	7.55	7.75	55-115	3	(QT)
63	6599	7.55	7.75	50-110	9	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	264	8.39	8.18	80-120	100	(T)
105	480	8.38	8.18	14- 74	181	(QT)
51	565	8.38	8.18	46-106	214	(QT)

-----  
 Q qualifier indicates ion failed ratio requirement

Data File: /chem/MSD1.i/s012810.b/sla2821.d  
Report Date: 15-Feb-2010 15:00

Page 1

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2821.d  
Lab Smp Id: 245106003 Client Smp ID: RE15-10-7170  
Inj Date : 28-JAN-2010 23:36  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106003|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 10  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.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	30.09000	weight of sample
M	23.19660	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.434	1778308	40.000
* 91 Chrysene-d12	12.033	1982754	40.000
* 98 Perylene-d12	14.121	1316065	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

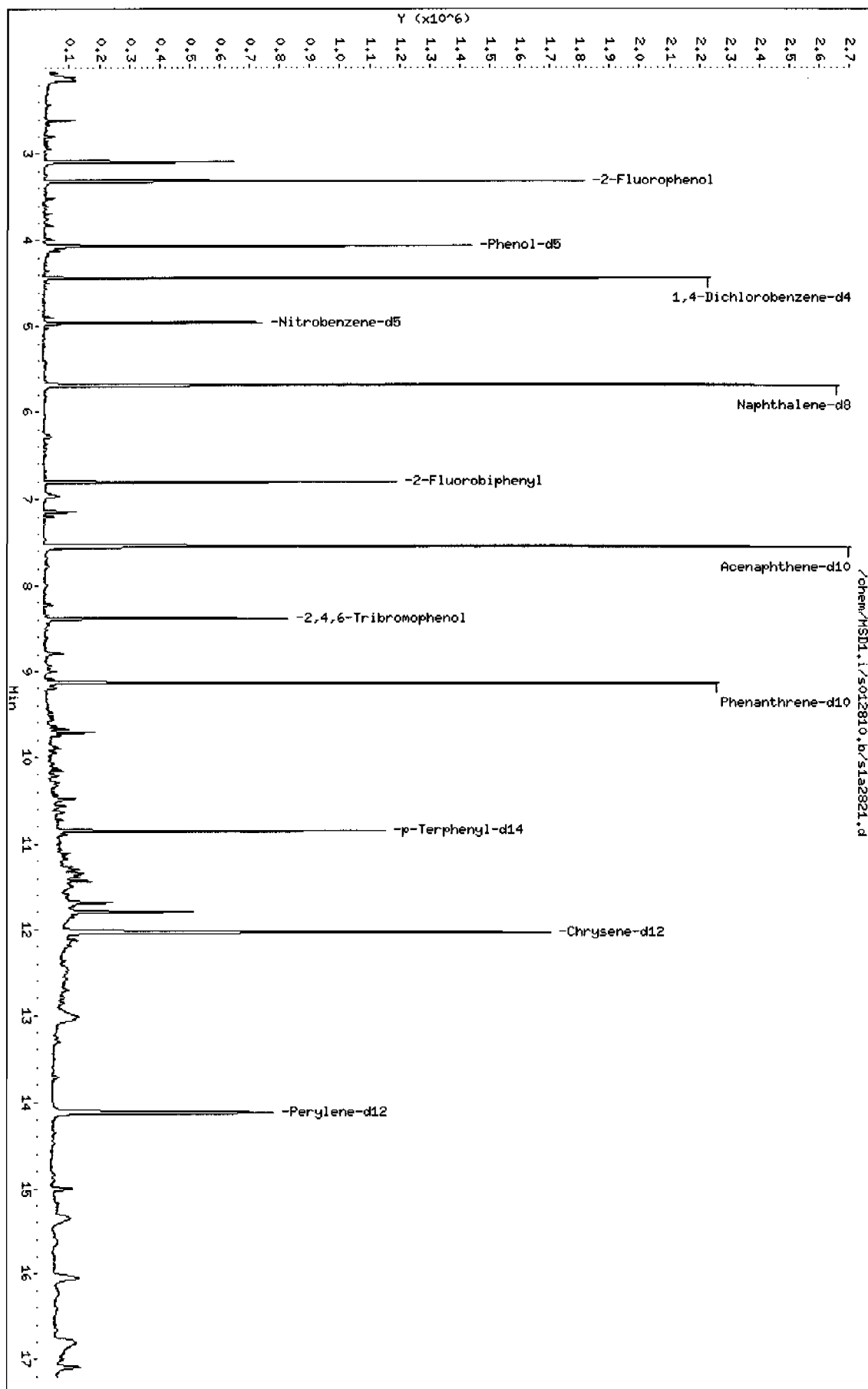


RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate					CAS #:		
3.093	518816	11.6698694	505	0		0	10
Unknown					CAS #:		
11.686	204924	4.13412646	179	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 5155-70-4		
11.798	521789	10.5265454	455	94	NIST05.L	125035	91
Unknown					CAS #:		
13.015	494584	9.97770565	432	0		0	91
Unknown					CAS #:		
14.998	141340	4.29584851	186	0		0	98
Unknown					CAS #:		
15.351	332997	10.1209749	438	0		0	98
1-Methylene-2b-hydroxymethyl-3,3-dimethy					CAS #: 1000144-10-6		
16.051	382180	11.6158271	503	81	NIST05.L	72989	98
.beta.-Sitosterol					CAS #: 83-46-5		
16.803	200194	6.08462329	263	97	NIST05.L	174399	98
Unknown					CAS #:		
17.086	170505	5.18226681	224	0		0	98

Data File: /chem/HSD1.i/s012810.b/s1a2821.d  
Date: 28-Jan-2010 23:36  
Client ID: REL5-10-7170  
Sample Info: 12461060031944591.11SVHF1.1L6NL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5MS

Instrument: HSD1.i  
Operator: AMY  
Column diameter: 0.20

Page 1



Date : 28-JAN-2010 23:36

Client ID: RE15-10-7170

Instrument: MSD1.i

Sample Info: 1245106003194459111SVMF11ILANL

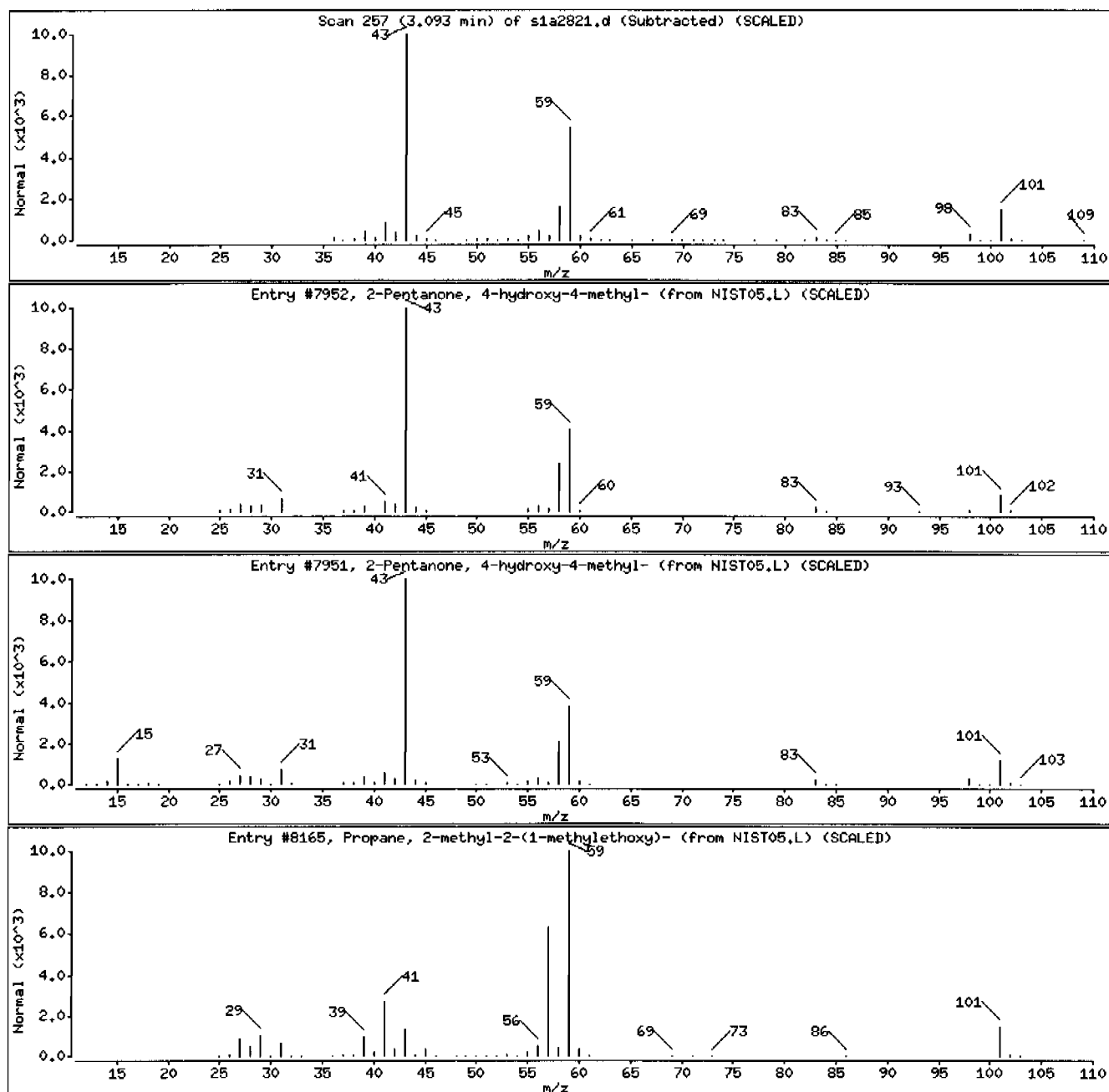
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
Propane, 2-methyl-2-(1-methylethoxy)-	17348-59-3	NIST05.L	8165	36	C7H16O	116



Date : 28-JAN-2010 23:36

Client ID: RE15-10-7170

Instrument: HSD1.i

Sample Info: 1245106003194459111SVMF111LANL

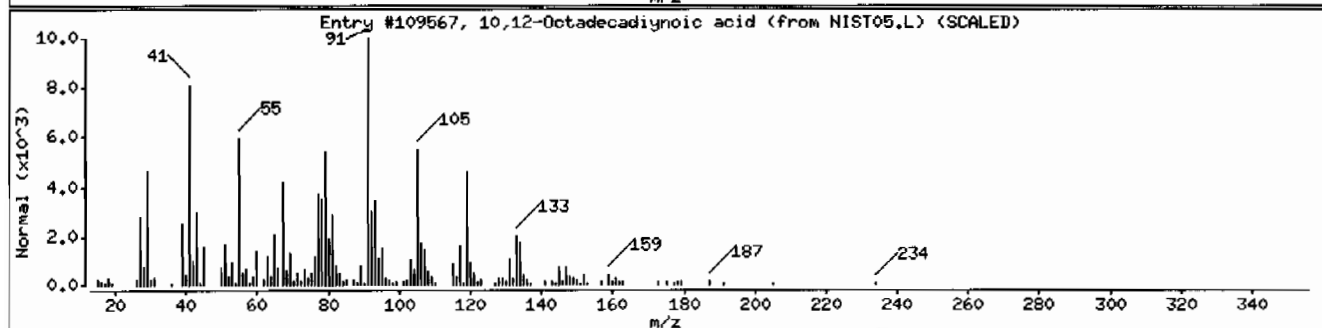
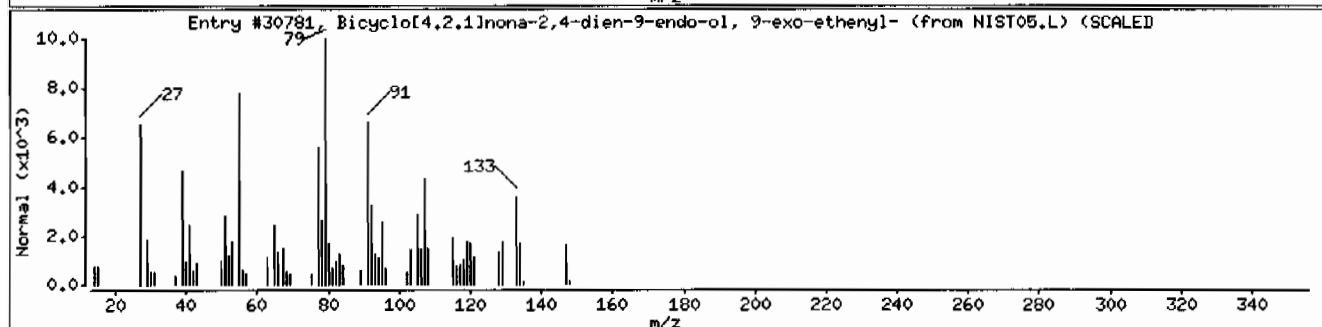
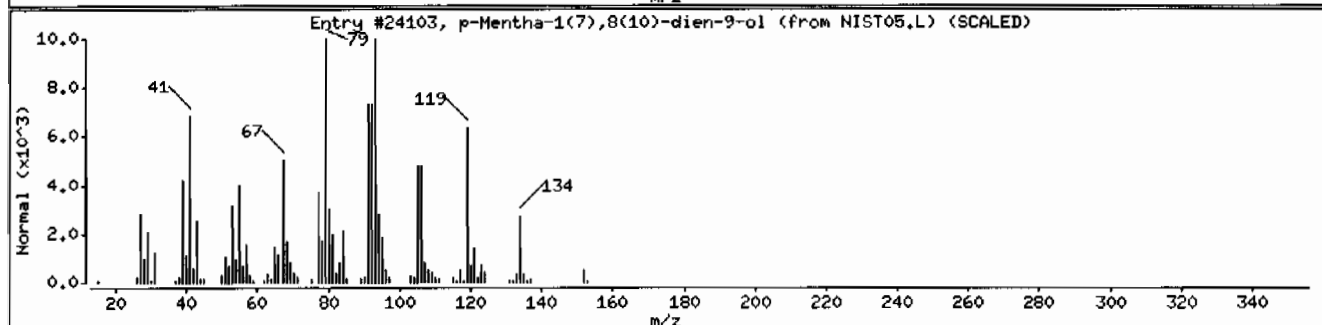
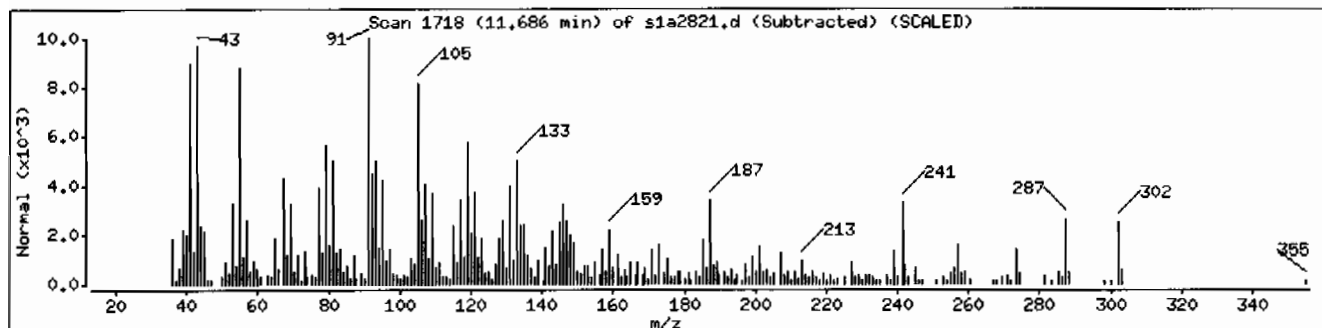
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
p-Mentha-1(7),8(10)-dien-9-ol	29548-13-8	NIST05.L	24103	35	C10H16O	152
Bicyclo[4.2.1]nona-2,4-dien-9-endo-ol, 9	138146-02-8	NIST05.L	30781	35	C11H14O	162
10,12-Octadecadiynoic acid	7333-25-7	NIST05.L	109567	30	C18H28O2	276



Date : 28-JAN-2010 23:36

Client ID: RE15-10-7170

Instrument: MSD1.i

Sample Info: I245106003194459111SVMF111LANL

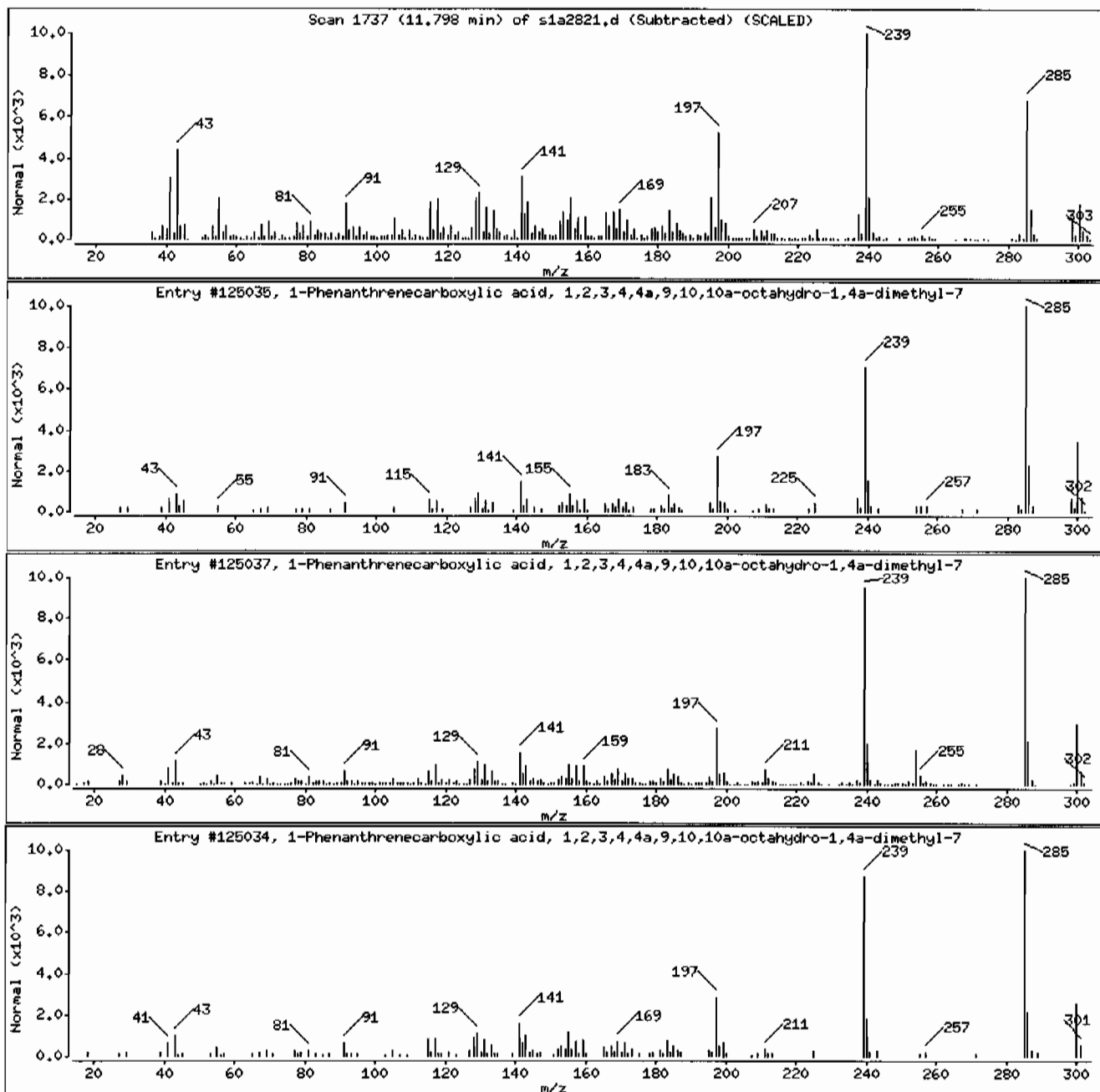
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	5155-70-4	NIST05.L	125035	94	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125037	93	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	90	C20H28O2	300



Date : 28-JAN-2010 23:36

Client ID: RE15-10-7170

Instrument: HSD1.i

Sample Info: 1245106003194459111SVHF11ILANL

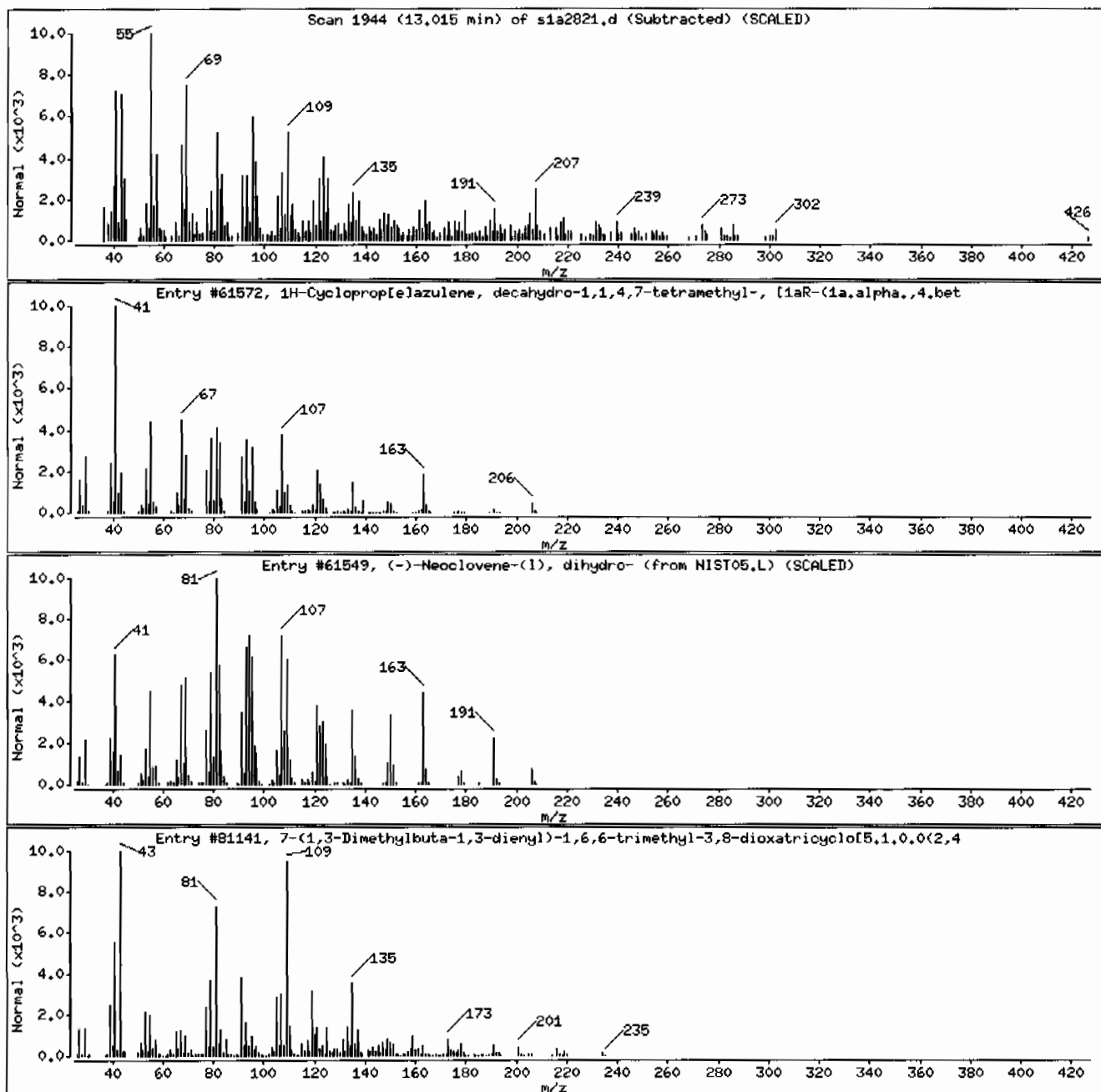
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Cycloprop[elazulene, decahydro-1,1,4,	28580-43-0	NIST05.L	61572	56	C15H26	206
(-)-Neoclovene-(I), dihydro-	1000152-82-1	NIST05.L	61549	48	C15H26	206
7-(1,3-Dimethylbuta-1,3-dienyl)-1,6,6-tr	1000190-22-7	NIST05.L	81141	48	C15H22O2	234



Date : 28-JAN-2010 23:36

Client ID: RE15-10-7170

Instrument: MSD1.i

Sample Info: 1245106003194459111SVMF111LANL

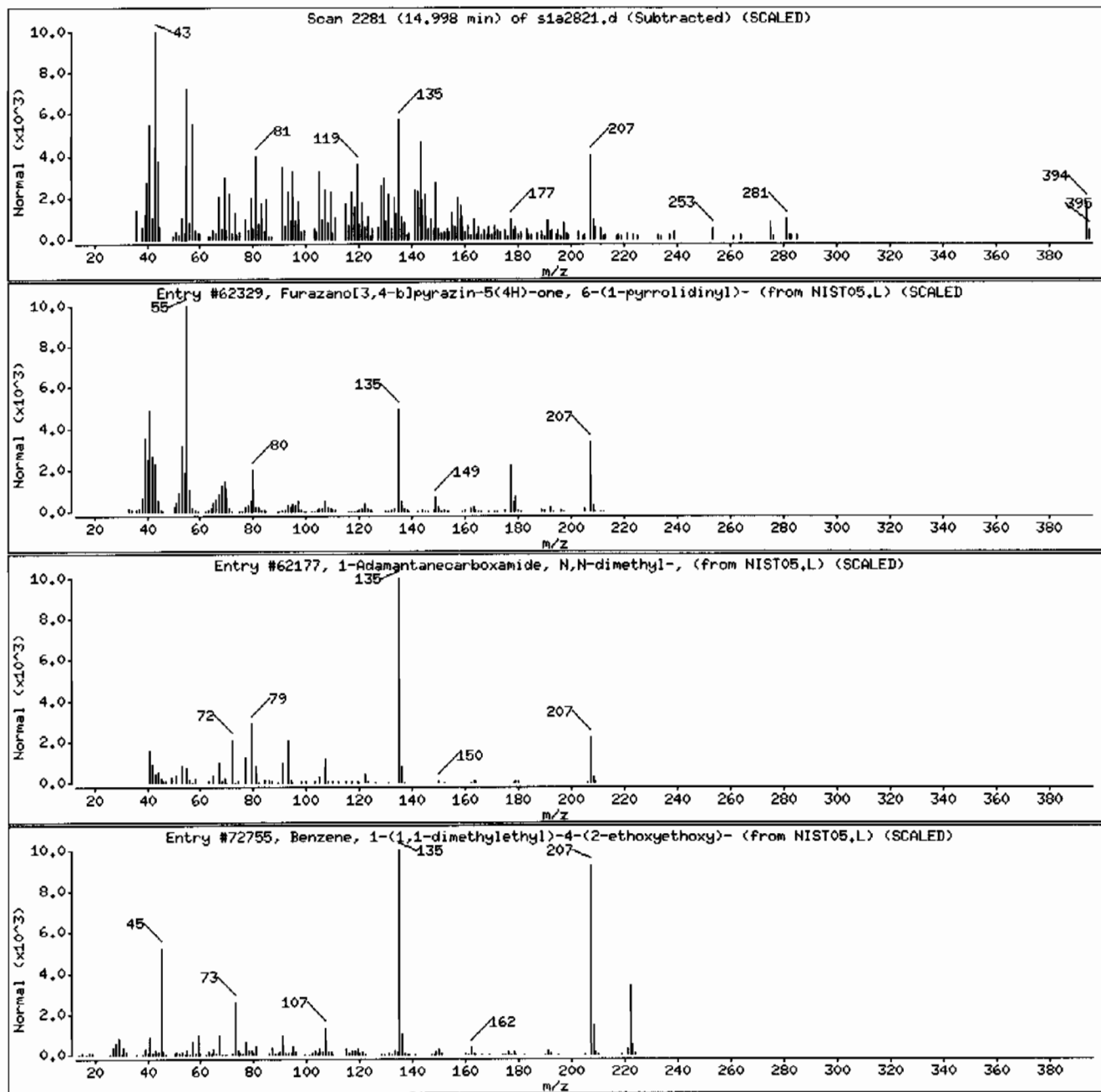
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Furazano[3,4-b]pyrazin-5(4H)-one, 6-(1-p	332099-72-6	NIST05.L	62329	22	C8H9N5O2	207
1-Adamantanecarboxamide, N,N-dimethyl-,	1502-00-7	NIST05.L	62177	22	C13H21NO	207
Benzene, 1-(1,1-dimethylethyl)-4-(2-etho	54889-97-3	NIST05.L	72755	16	C14H22O2	222



Date : 28-JAN-2010 23:36

Client ID: RE15-10-7170

Instrument: MSD1.i

Sample Info: 1245106003194459111SVHF111LANL

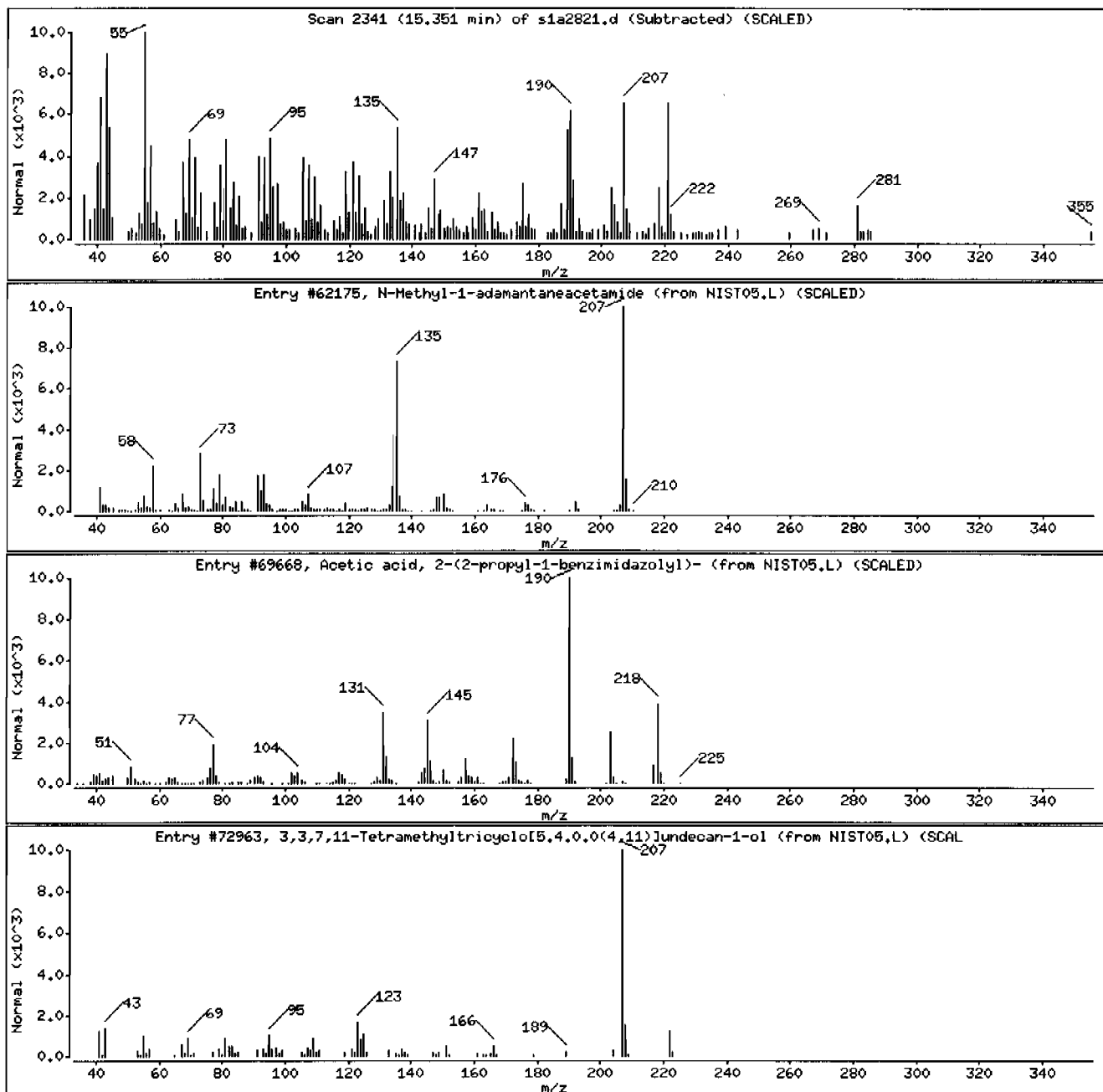
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	35	C13H21NO	207
Acetic acid, 2-(2-propyl-1-benzimidazolyl)	331736-92-6	NIST05.L	69668	25	C12H14N2O2	218
3,3,7,11-Tetramethyltricyclo[5.4.0.0(4,1)	117591-80-7	NIST05.L	72963	25	C15H26O	222





Date: 28-JAN-2010 23:36

Client ID: RE15-10-7170

Instrument: MSD1.i

Sample Info: 1245106003194459111SVHF111LANL

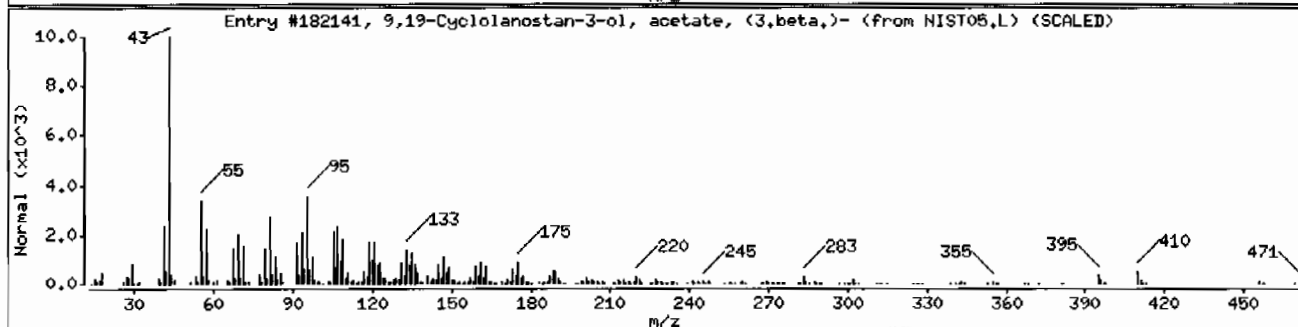
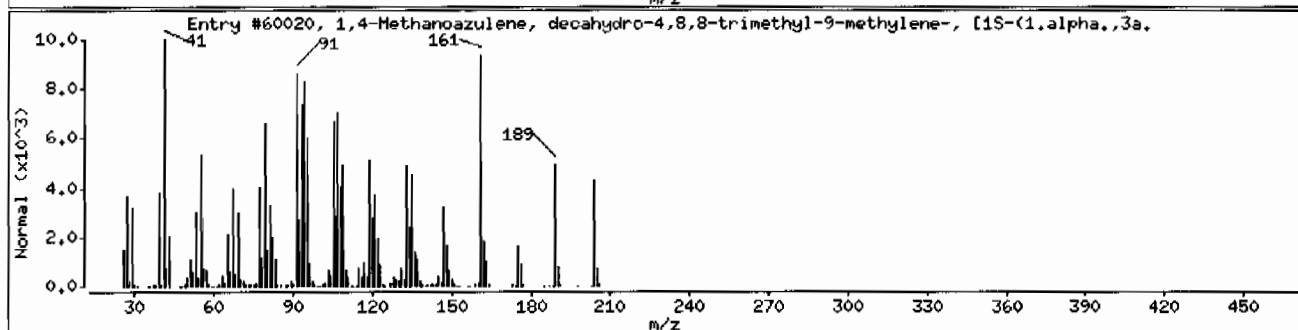
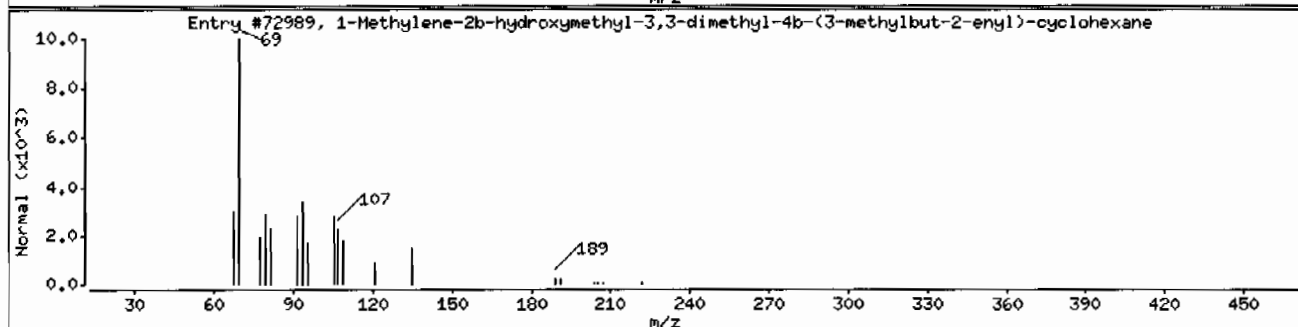
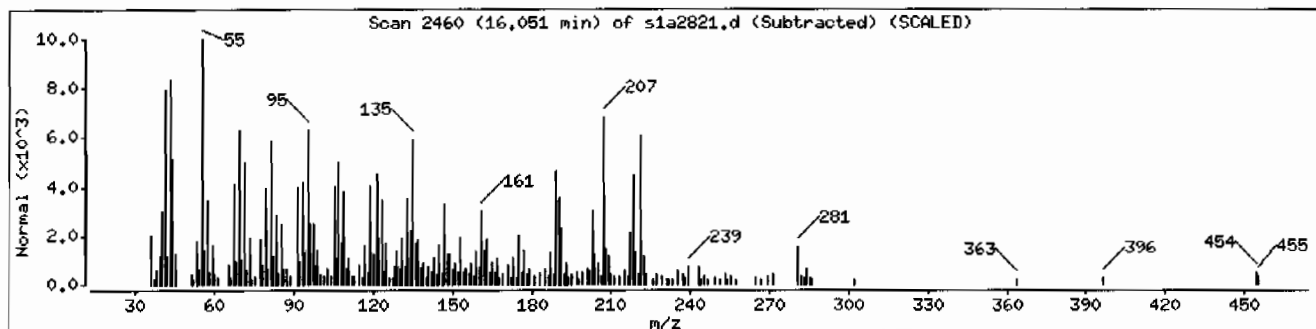
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Methylene-2b-hydroxymethyl-3,3-dimethyl	1000144-10-6	NIST05.L	72989	81	C15H26O	222
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60020	49	C15H24	204
9,19-Cyclolanostan-3-ol, acetate, (3,bet	4575-74-0	NIST05.L	182141	43	C32H54O2	470



Date : 28-JAN-2010 23:36

Client ID: RE15-10-7170

Instrument: HSD1.i

Sample Info: 12451060031944591111SVHF111LANL

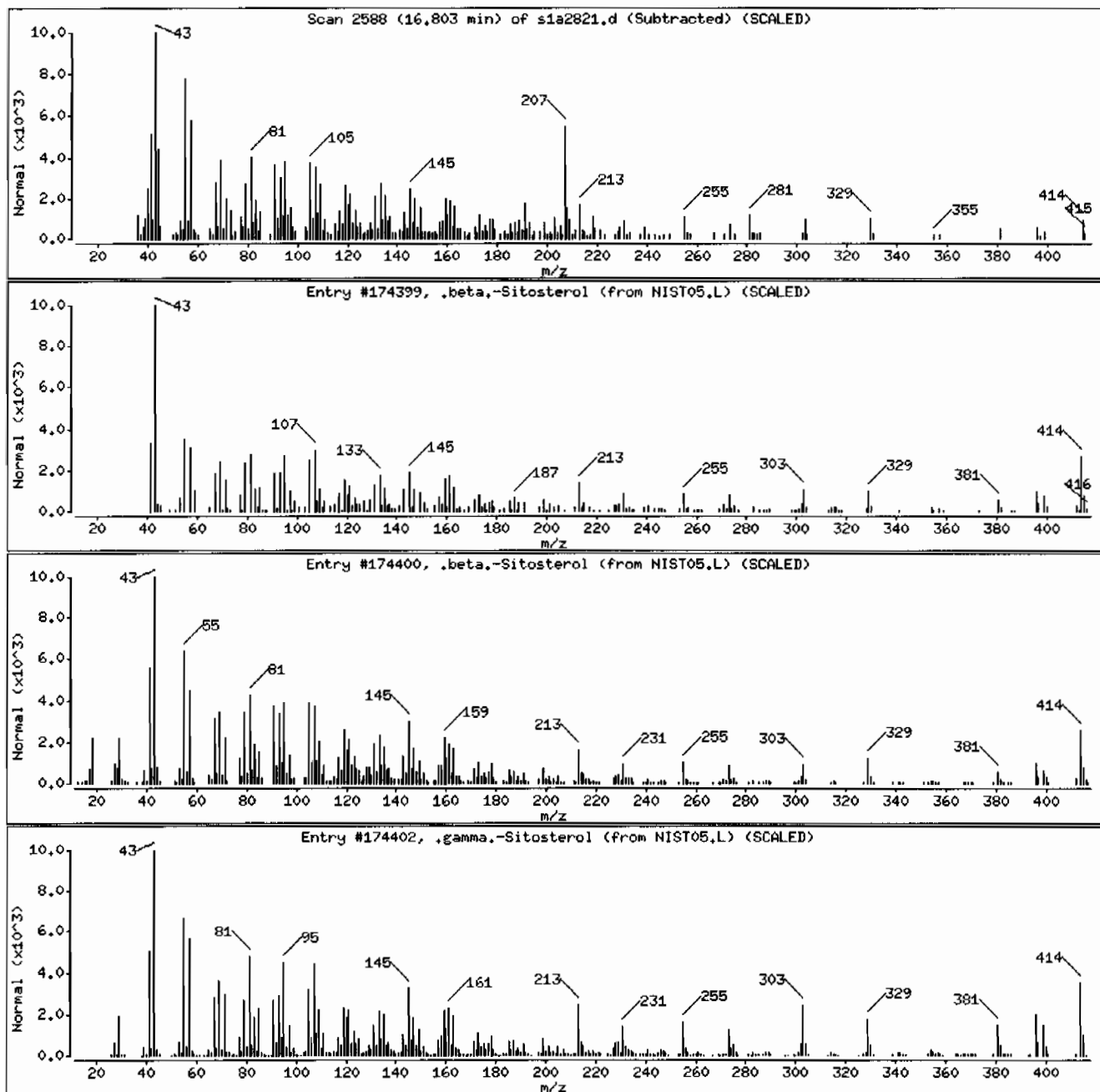
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174399	97	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174400	96	C29H50O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	95	C29H50O	414



Date : 28-JAN-2010 23:36

Client ID: RE15-10-7170

Instrument: HSD1.i

Sample Info: 1245106003194459111SVHF111LANL

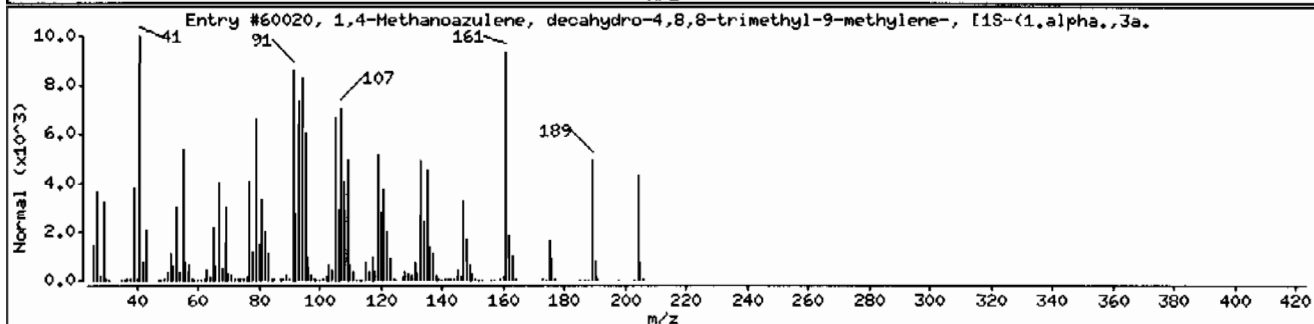
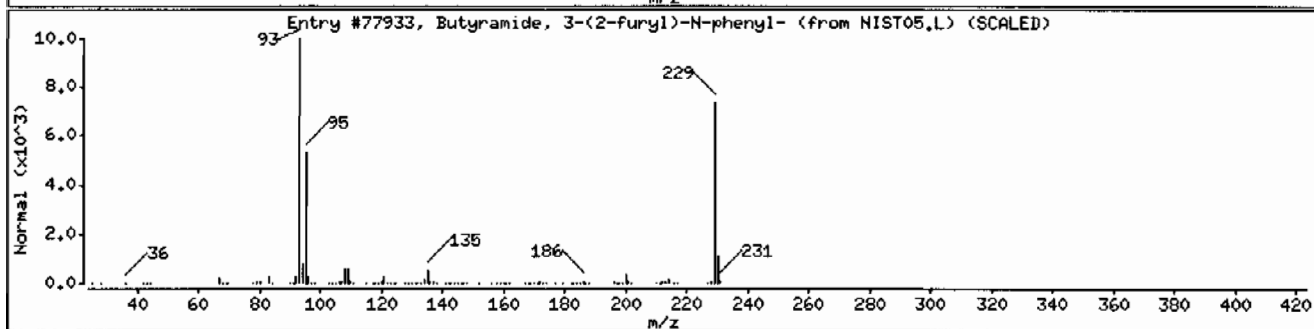
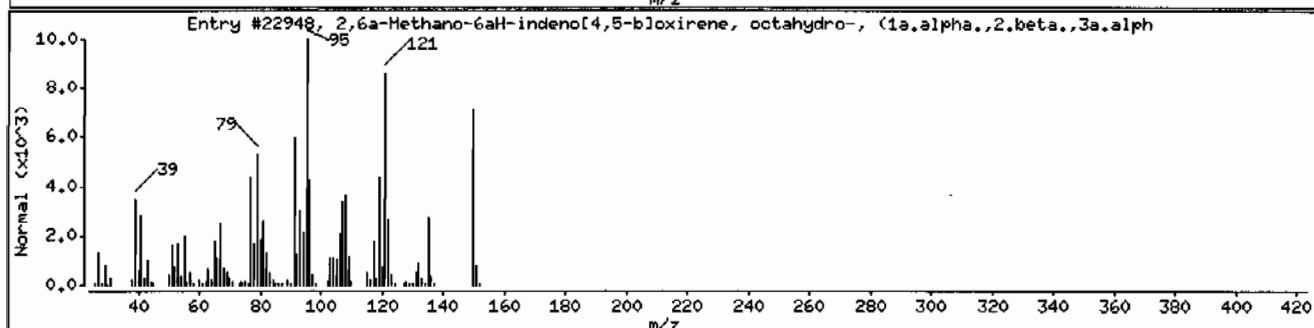
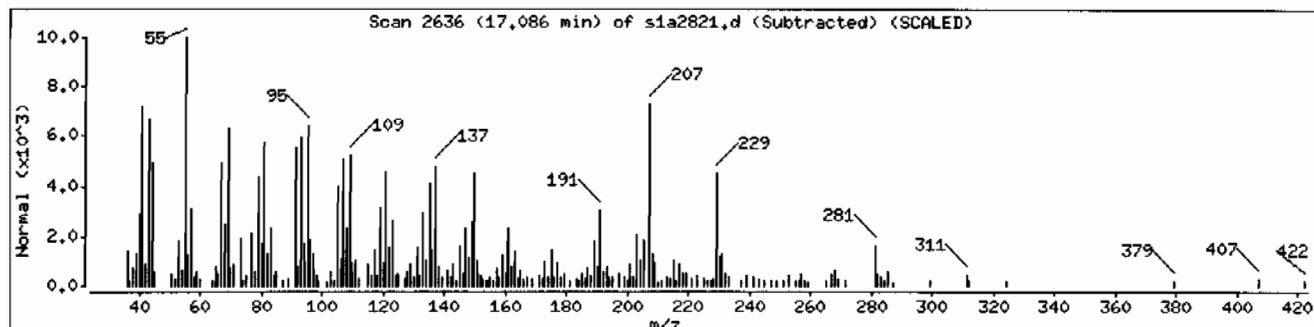
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,6a-Methano-6aH-indeno[4,5-b]oxirene, o	16489-32-0	NIST05.L	22948	60	C10H14O	150
Butyramide, 3-(2-furyl)-N-phenyl-	1000156-94-9	NIST05.L	77933	42	C14H15NO2	229
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60020	35	C15H24	204



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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106002	Date Received: 01/20/2010 08:45	%Moisture: 7.8
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7171	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1J	Dilution: 1
Run Date: 01/28/2010 23:08	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s1a2820.d	Column: J&W DB-5MS	Level: LOW

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

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106002	Date Received: 01/20/2010 08:45	%Moisture: 7.8
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-171	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.1	Dilution: 1
Run Date: 01/28/2010 23:08	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s1a2820.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	361	ug/kg	72.3	361
606-20-2	2,6-Dinitrotoluene	U	361	ug/kg	36.1	361
208-96-8	Acenaphthylene	U	36.1	ug/kg	10.8	36.1
51-28-5	2,4-Dinitrophenol	U	723	ug/kg	137	723
132-64-9	Dibenzofuran	U	361	ug/kg	72.3	361
84-66-2	Diethylphthalate	U	361	ug/kg	72.3	361
86-73-7	Fluorene	U	36.1	ug/kg	10.8	36.1
7005-72-3	4-Chlorophenylphenylether	U	361	ug/kg	72.3	361
534-52-1	2-Methyl-4,6-dinitrophenol	U	361	ug/kg	72.3	361
100-01-6	4-Nitroaniline	U	361	ug/kg	108	361
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	361	ug/kg	72.3	361
122-66-7	Azobenzene	U	361	ug/kg	72.3	361
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	361	ug/kg	72.3	361
118-74-1	Hexachlorobenzene	U	361	ug/kg	72.3	361
85-01-8	Phenanthrene	U	36.1	ug/kg	10.8	36.1
120-12-7	Anthracene	U	36.1	ug/kg	7.23	36.1
84-74-2	Di-n-butylphthalate	U	361	ug/kg	72.3	361
206-44-0	Fluoranthene	U	36.1	ug/kg	10.8	36.1
85-68-7	Butylbenzylphthalate	U	361	ug/kg	72.3	361
56-55-3	Benzo(a)anthracene	U	36.1	ug/kg	10.8	36.1
91-94-1	3,3'-Dichlorobenzidine	U	361	ug/kg	108	361
218-01-9	Chrysene	U	36.1	ug/kg	10.8	36.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	361	ug/kg	72.3	361
117-84-0	Di-n-octylphthalate	U	361	ug/kg	72.3	361
205-99-2	Benzo(b)fluoranthene	U	36.1	ug/kg	10.8	36.1
207-08-9	Benzo(k)fluoranthene	U	36.1	ug/kg	10.8	36.1
50-32-8	Benzo(a)pyrene	U	36.1	ug/kg	10.8	36.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.1	ug/kg	10.8	36.1
53-70-3	Dibenzo(a,h)anthracene	U	36.1	ug/kg	10.8	36.1
191-24-2	Benzo(ghi)perylene	U	36.1	ug/kg	10.8	36.1
120-82-1	1,2,4-Trichlorobenzene	U	361	ug/kg	72.3	361

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.1	714	ug/kg		JA

Data File: /chem/MSD1.i/s012810.b/sla2820.d  
Report Date: 15-Feb-2010 14:59

Page 1

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2820.d  
Lab Smp Id: 245106002 Client Smp ID: RE15-10-7171  
Inj Date : 28-JAN-2010 23:08  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106002|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 9  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.sub  
Target Version: 3.50  
Processing Host: hpcpl1

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	7.79820	% 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	4.434	4.434	(1.000)	280536	40.0000	
* 29 Naphthalene-d8	136	5.687	5.687	(1.000)	1098874	40.0000	
* 46 Acenaphthene-d10	164	7.540	7.540	(1.000)	581666	40.0000	
* 67 Phenanthrene-d10	188	9.139	9.139	(1.000)	936273	40.0000	
* 91 Chrysene-d12	240	12.033	12.039	(1.000)	721425	40.0000	
* 98 Perylene-d12	264	14.121	14.121	(1.000)	533094	40.0000	
\$ 3 2-Fluorophenol	112	3.322	3.304	(0.749)	483273	55.6982	2010
\$ 5 Phenol-d5	99	4.063	4.063	(0.916)	615049	57.0710	2060
\$ 20 Nitrobenzene-d5	82	4.957	4.957	(0.872)	261593	32.2543	1160
\$ 39 2-Fluorobiphenyl	172	6.810	6.810	(0.903)	481356	32.1223	1160
\$ 60 2,4,6-Tribromophenol	329	8.381	8.387	(1.112)	118411	56.2574	2030
\$ 81 p-Terphenyl-d14	244	10.845	10.845	(0.901)	466594	36.0434	1300

## ION RATIO REPORT

## SV REPORT

Data file: sla2820.d

Report Date: 01/29/2010 11:28

Lab. ID: 245106002

SampleType: SAMPLE

Injection Date: 28-JAN-2010 23:08

Operator: AMY

Instrument: MSD1.i

Sample Info: |245106002|944591|1|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100107-03|

Comment:

Method used: /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	28657	4.06	4.13	80-120	100	(T)
93	1638	4.12	4.13	213-273	6	(Q)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	34998	4.96	4.81	80-120	100	(T)
42	21327	4.96	4.81	54-114	61	(T)
-----						
44	2,6-Dinitrotoluene	CAS#: 606-20-2				
165	75030	7.54	7.31	80-120	100	(T)
63	2058	7.55	7.31	41-101	3	(QT)
-----						
45	Acenaphthylene	CAS#: 208-96-8				
152	7034	7.55	7.39	80-120	100	(T)
151	1894	7.55	7.39	0- 49	27	(T)
153	7153	7.55	7.39	0- 43	102	(QT)
-----						
47	Acenaphthene	CAS#: 83-32-9				
154	7862	7.55	7.57	80-120	100	( )
153	7153	7.55	7.57	76-136	91	( )
152	7034	7.55	7.57	21- 81	89	(Q)
-----						
50	2,4-Dinitrotoluene	CAS#: 121-14-2				
165	75030	7.54	7.75	80-120	100	(T)
89	1180	7.54	7.75	55-115	2	(QT)
63	2058	7.55	7.75	50-110	3	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	505	8.38	8.18	80-120	100	(T)
105	985	8.38	8.18	14- 74	195	(QT)
51	1010	8.38	8.18	46-106	200	(QT)

Q qualifier indicates ion failed ratio requirement



GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/s1a2820.d  
 Lab Smp Id: 245106002 Client Smp ID: RE15-10-7171  
 Inj Date : 28-JAN-2010 23:08  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |245106002|944591|1|SVMF|1|LANL  
 Misc Info : |MSD8270 S|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: s1a2203.d  
 Als bottle: 9  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1304.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	30.01000	weight of sample
M	7.79820	% moisture

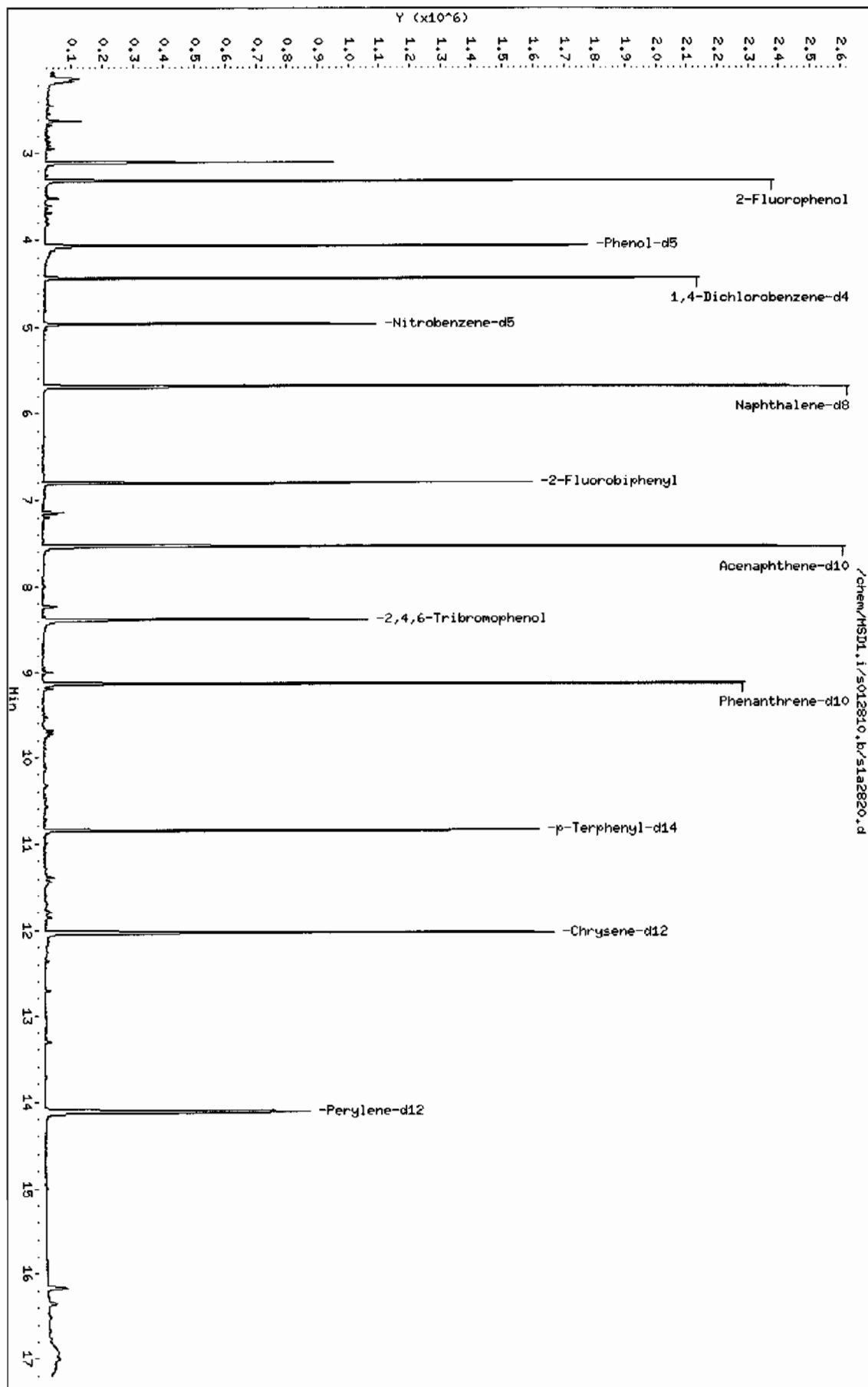
Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.434	1786779	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/uI)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate				CAS #:			
3.104	882682	19.7602864	714	0		0	10

Data File: /chem/MSD1.i/s012810.b/s1a2820.d  
Date: 28-JAN-2010 23:08  
Client ID: RE15-10-7171  
Sample Info: 1245106002194459111SVHF11LNL  
Volume Injected (uL): 0.5  
Column phase: 3M DB-SHS

Instrument: MSD1.i  
Operator: AMY  
Column diameter: 0.20



Date : 28-JAN-2010 23:08

Client ID: RE15-10-7171

Instrument: MSD1.i

Sample Info: 1245106002194459111SVHF11ILANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

## Library Search Compound Match

Unknown Aldol Condensate

2-Pentanone, 4-hydroxy-4-methyl-

2-Pentanone, 4-hydroxy-4-methyl-

2-Hexanol, 2-methyl-

CAS Number

Library

Entry

Quality

Formula

Weight

123-42-2

NIST05.L

7951

50

C6H12O2

116

123-42-2

NIST05.L

7952

50

C6H12O2

116

625-23-0

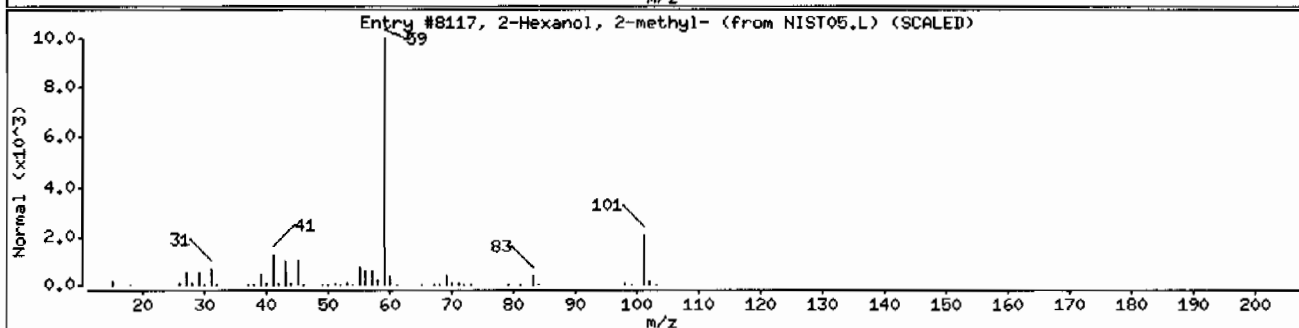
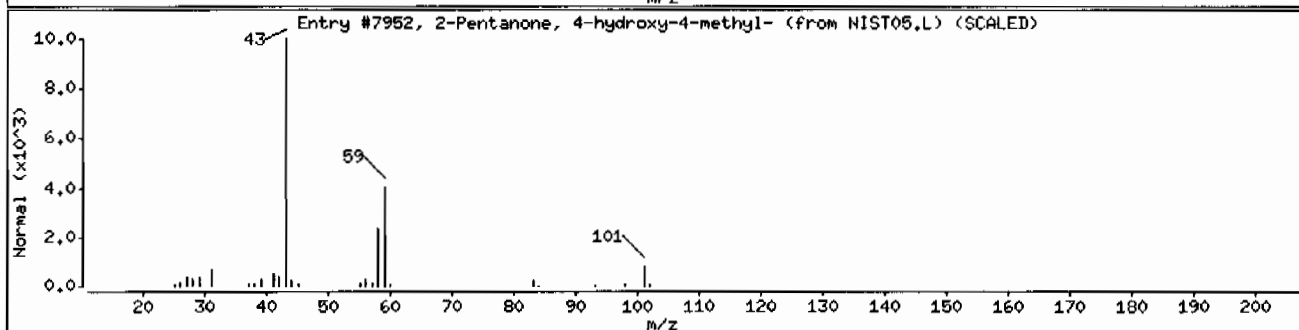
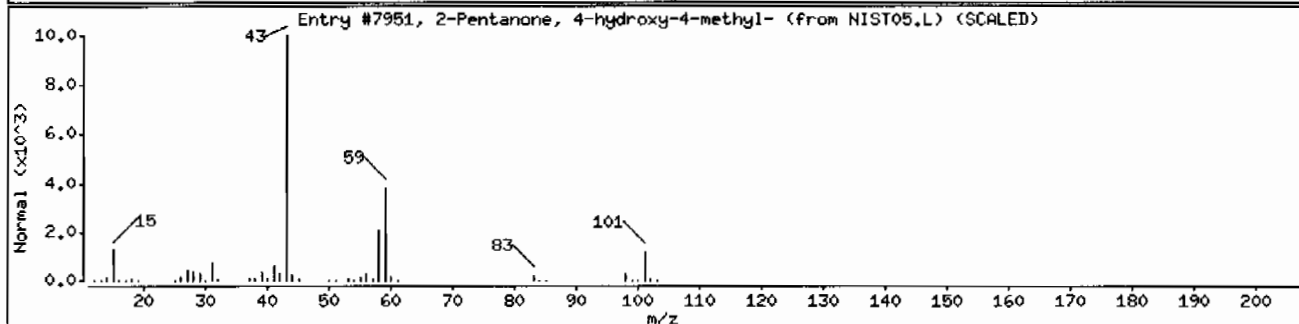
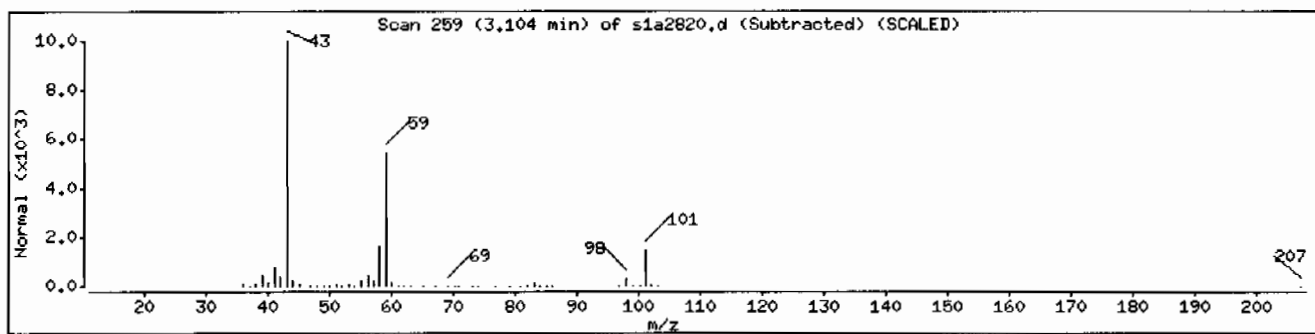
NIST05.L

8117

28

C7H16O

116



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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106014	Date Received: 01/20/2010 08:45	%Moisture: 4.7
Client ID: RE15-10-7176	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 02/11/2010 16:19	Inst: MSD3.I	Dilution: 10
Prep Date: 01/25/2010 14:38	Analyst: JLD1	Inj. Vol: .5 uL
Data File: s3b1120.d	Aliquot: 30.02 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	3490	ug/kg	699	3490
108-95-2	Phenol	U	3490	ug/kg	699	3490
95-57-8	2-Chlorophenol	U	3490	ug/kg	699	3490
106-46-7	1,4-Dichlorobenzene	U	3490	ug/kg	699	3490
621-64-7	N-Nitrosodipropylamine	U	3490	ug/kg	699	3490
59-50-7	4-Chloro-3-methylphenol	U	3490	ug/kg	699	3490
83-32-9	Acenaphthene	U	349	ug/kg	115	349
121-14-2	2,4-Dinitrotoluene	U	3490	ug/kg	349	3490
100-02-7	4-Nitrophenol	U	3490	ug/kg	1150	3490
87-86-5	Pentachlorophenol	U	3490	ug/kg	874	3490
129-00-0	Pyrene	U	349	ug/kg	105	349
110-86-1	Pyridine	U	3490	ug/kg	699	3490
62-53-3	Aniline	U	3490	ug/kg	1050	3490
111-44-4	bis(2-Chloroethyl) ether	U	3490	ug/kg	699	3490
541-73-1	1,3-Dichlorobenzene	U	3490	ug/kg	699	3490
100-51-6	Benzyl alcohol	U	3490	ug/kg	1050	3490
95-50-1	1,2-Dichlorobenzene	U	3490	ug/kg	699	3490
108-60-1	bis(2-Chloroisopropyl)ether	U	3490	ug/kg	699	3490
95-48-7	o-Cresol	U	3490	ug/kg	699	3490
65794-96-9	m,p-Cresols	U	3490	ug/kg	1050	3490
67-72-1	Hexachloroethane	U	3490	ug/kg	699	3490
98-95-3	Nitrobenzene	U	3490	ug/kg	699	3490
78-59-1	Isophorone	U	3490	ug/kg	699	3490
88-75-5	2-Nitrophenol	U	3490	ug/kg	699	3490
105-67-9	2,4-Dimethylphenol	U	3490	ug/kg	1220	3490
111-91-1	bis(2-Chloroethoxy)methane	U	3490	ug/kg	699	3490
120-83-2	2,4-Dichlorophenol	U	3490	ug/kg	699	3490
65-85-0	Benzoic acid	U	6990	ug/kg	1750	6990
91-20-3	Naphthalene	U	349	ug/kg	105	349
106-47-8	4-Chloroaniline	U	3490	ug/kg	699	3490
87-68-3	Hexachlorobutadiene	U	3490	ug/kg	699	3490
91-57-6	2-Methylnaphthalene	U	349	ug/kg	69.9	349
77-47-4	Hexachlorocyclopentadiene	U	3490	ug/kg	699	3490
88-06-2	2,4,6-Trichlorophenol	U	3490	ug/kg	699	3490
95-95-4	2,4,5-Trichlorophenol	U	3490	ug/kg	699	3490
91-58-7	2-Chloronaphthalene	U	349	ug/kg	115	349
88-74-4	2-Nitroaniline	U	3490	ug/kg	699	3490
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	3490	ug/kg	699	3490

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106014	Date Received: 01/20/2010 08:45	%Moisture: 4.7
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7176	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD3.I	Dilution: 10
Run Date: 02/11/2010 16:19	Analyst: JLD1	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s3b1120.d	Column: J&W DB-SMS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	3490	ug/kg	699	3490
606-20-2	2,6-Dinitrotoluene	U	3490	ug/kg	349	3490
208-96-8	Acenaphthylene	U	349	ug/kg	105	349
51-28-5	2,4-Dinitrophenol	U	6990	ug/kg	1330	6990
132-64-9	Dibenzofuran	U	3490	ug/kg	699	3490
84-66-2	Diethylphthalate	U	3490	ug/kg	699	3490
86-73-7	Fluorene	U	349	ug/kg	105	349
7005-72-3	4-Chlorophenylphenylether	U	3490	ug/kg	699	3490
534-52-1	2-Methyl-4,6-dinitrophenol	U	3490	ug/kg	699	3490
100-01-6	4-Nitroaniline	U	3490	ug/kg	1050	3490
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	3490	ug/kg	699	3490
122-66-7	Azobenzene	U	3490	ug/kg	699	3490
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	3490	ug/kg	699	3490
118-74-1	Hexachlorobenzene	U	3490	ug/kg	699	3490
85-01-8	Phenanthrene	U	349	ug/kg	105	349
120-12-7	Anthracene	U	349	ug/kg	69.9	349
84-74-2	Di-n-butylphthalate	U	3490	ug/kg	699	3490
206-44-0	Fluoranthene	U	349	ug/kg	105	349
85-68-7	Butylbenzylphthalate	U	3490	ug/kg	699	3490
56-55-3	Benzo(a)anthracene	U	349	ug/kg	105	349
91-94-1	3,3'-Dichlorobenzidine	U	3490	ug/kg	1050	3490
218-01-9	Chrysene	U	349	ug/kg	105	349
117-81-7	bis(2-Ethylhexyl)phthalate	U	3490	ug/kg	699	3490
117-84-0	Di-n-octylphthalate	U	3490	ug/kg	699	3490
205-99-2	Benzo(b)fluoranthene	U	349	ug/kg	105	349
207-08-9	Benzo(k)fluoranthene	U	349	ug/kg	105	349
50-32-8	Benzo(a)pyrene	U	349	ug/kg	105	349
193-39-5	Indeno(1,2,3-cd)pyrene	U	349	ug/kg	105	349
53-70-3	Dibenzo(a,h)anthracene	U	349	ug/kg	105	349
191-24-2	Benzo(ghi)perylene	U	349	ug/kg	105	349
120-82-1	1,2,4-Trichlorobenzene	U	3490	ug/kg	699	3490

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	10.91	2100	ug/kg		J
	Unknown	11.33	2150	ug/kg		J

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

SDG Number: 10-1304  
Lab Sample ID: 245106014

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD3.I  
Analyst: JLD1  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 4.7  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 10  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7176  
Batch ID: 944591  
Run Date: 02/11/2010 16:19  
Prep Date: 01/25/2010 14:38  
Data File: s3b1120.d

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQI/LQ
---------	---------	-----------	--------	-------	---------	--------

Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
1235-74-1	Unknown	11.39	5460	ug/kg		J
	Unknown	11.49	5920	ug/kg		J
	Unknown	11.54	3040	ug/kg		J
	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.59	2860	ug/kg	99	NJ
	Unknown	11.63	6080	ug/kg		J
	Unknown	11.7	3190	ug/kg		J
	Unknown	11.73	2700	ug/kg		J
	Unknown	11.8	3570	ug/kg		J
	Unknown	11.85	2020	ug/kg		J
	Unknown	11.92	5970	ug/kg		J
	Unknown	11.94	3250	ug/kg		J
	Unknown	11.99	2580	ug/kg		J
	Unknown	12.06	19900	ug/kg		J
	Unknown	12.13	5540	ug/kg		J
	Unknown	12.18	2820	ug/kg		J
	Unknown	12.31	3050	ug/kg		J
	Unknown	12.4	5180	ug/kg		J
	Unknown	12.44	2010	ug/kg		J
	Unknown	12.49	3950	ug/kg		J
	Unknown	12.54	2120	ug/kg		J
	Unknown	12.62	4570	ug/kg		J
	Unknown	12.7	3310	ug/kg		J
	Unknown	12.78	2780	ug/kg		J
	Unknown	12.85	2220	ug/kg		J
	Unknown	12.91	2680	ug/kg		J
	Unknown	12.96	2010	ug/kg		J
	Unknown	13	2290	ug/kg		J
	Unknown	13.15	2760	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD3.i/s021110.b/s3b1120.d  
 Lab Smp Id: 245106014 Client Smp ID: RE15-10-7176  
 Inj Date : 11-FEB-2010 16:19  
 Operator : JLD1 Inst ID: MSD3.i  
 Smp Info : |245106014|944591|10|SVMF|1|LANL  
 Misc Info : |MSD8270\_S|WBN100205-01|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m  
 Meth Date : 12-Feb-2010 08:04 jen00986 Quant Type: ISTD  
 Cal Date : 29-JAN-2010 22:17 Cal File: s3a2925.d  
 Als bottle: 13  
 Dil Factor: 10.00000  
 Integrator: HP RTE Compound Sublist: 10-1304.sub  
 Target Version: 3.50  
 Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	4.66440	% 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	4.589	4.594	(1.000)	492068	40.0000	
* 29 Naphthalene-d8	136	5.858	5.863	(1.000)	1779066	40.0000	
* 46 Acenaphthene-d10	164	7.719	7.727	(1.000)	1020051	40.0000	
* 67 Phenanthrene-d10	188	9.329	9.332	(1.000)	1743263	40.0000	
* 91 Chrysene-d12	240	12.278	12.280	(1.000)	1371822	40.0000	
* 98 Perylene-d12	264	14.472	14.476	(1.000)	715621	40.0000	
\$ 3 2-Fluorophenol	112	3.444	3.446	(0.750)	116542	9.10183	3180
\$ 5 Phenol-d5	99	4.216	4.227	(0.919)	137690	8.55633	2990
\$ 20 Nitrobenzene-d5	82	5.126	5.135	(0.875)	71910	5.47187	1910 (R)
\$ 39 2-Fluorobiphenyl	172	6.984	6.989	(0.905)	137241	5.20519	1820
\$ 60 2,4,6-Tribromophenol	329	8.569	8.576	(1.110)	22411	7.66396	2680
\$ 81 p-Terphenyl-d14	244	11.038	11.042	(0.899)	137490	5.83103	2040

QC Flag Legend

R - Spike/Surrogate failed recovery limits.



## ION RATIO REPORT

## SV REPORT

Data file: s3b1120.d

Report Date: 02/11/2010 16:36

Lab. ID: 245106014

SampleType: SAMPLE

Injection Date: 11-FEB-2010 16:19

Operator: JLD1

Instrument: MSD3.i

Sample Info: |245106014|944591|10|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100122-01|

Comment:

Method used: /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m

Dilution Factor= 10.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
40	2-Chloronaphthalene			CAS#: 91-58-7		
162	43823	7.32	7.13	80-120	100	(T)
164	2748	7.32	7.13	2- 62	6	(T)
127	4393	7.32	7.13	12- 72	10	(QT)
-----						
42	o-Nitroaniline			CAS#: 88-74-4		
65	68385	7.32	7.24	80-120	100	(T)
92	76536	7.32	7.24	32- 92	112	(QT)
138	5647	7.32	7.24	57-117	8	(QT)
-----						
41	m-Nitroaniline			CAS#: 99-09-2		
138	444	7.72	7.69	80-120	100	( )
92	7317	7.72	7.69	89-149	1646	(Q)
108	26211	7.72	7.69	0- 40	5896	(Q)
-----						
44	2,6-Dinitrotoluene			CAS#: 606-20-2		
165	133307	7.72	7.50	80-120	100	(T)
63	2366	7.72	7.49	48-108	2	(QT)
-----						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	133307	7.72	7.93	80-120	100	(T)
89	2228	7.72	7.93	74-134	2	(QT)
63	2366	7.72	7.93	36- 96	2	(QT)
-----						
56	p-Nitroaniline			CAS#: 100-01-6		
138	246	8.34	8.35	80-120	100	( )
108	435	8.38	8.35	60-120	176	(Q)
92	530	8.37	8.35	32- 92	215	(Q)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
90	3,3'-Dichlorobenzidine			CAS#: 91-94-1		
252	579	12.21	12.22	80-120	100	( )
254	5550	12.25	12.22	34- 94	958	(Q)
126	5489	12.27	12.22	0- 47	947	(Q)

Q qualifier indicates ion failed ratio requirement

Data File: /chem/MSD3.i/s021110.b/s3b1120.d  
Report Date: 12-Feb-2010 15:18

Page 1

GEL Laboratories LLC

Data file : /chem/MSD3.i/s021110.b/s3b1120.d  
Lab Smp Id: 245106014 Client Smp ID: RE15-10-7176  
Inj Date : 11-FEB-2010 16:19  
Operator : JLD1 Inst ID: MSD3.i  
Smp Info : |245106014|944591|10|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100205-01|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m  
Meth Date : 12-Feb-2010 08:04 jen00986 Quant Type: ISTD  
Cal Date : 29-JAN-2010 22:17 Cal File: s3a2925.d  
Als bottle: 13  
Dil Factor: 10.00000  
Integrator: HP RTE Compound Sublist: 10-1304.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	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	4.66440	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 91 Chrysene-d12	12.278	8247335	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown					CAS #:		
10.908	1241012	6.01897350	2100	0		0	91
Unknown					CAS #:		
11.328	1267864	6.14920423	2150	0		0	91

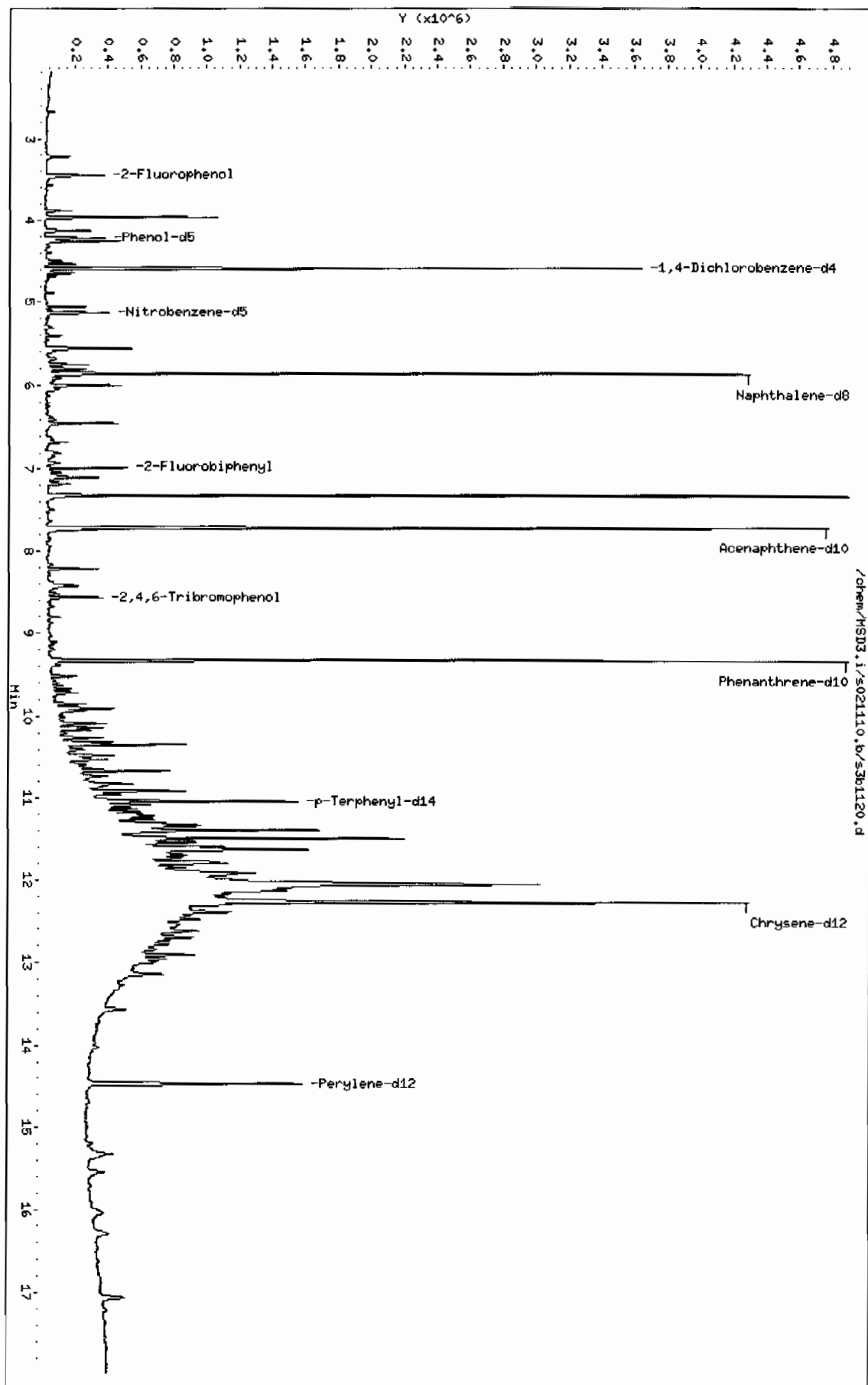
RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
====	=====	=====	=====	=====	=====	=====	=====
Unknown				CAS #:			
11.393	3223169	15.6325330	5460	0		0	91
Unknown				CAS #:			
11.493	3491817	16.9354928	5920	0		0	91
Unknown				CAS #:			
11.544	1794809	8.70491652	3040	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4				CAS #: 1235-74-1			
11.594	1688285	8.18826875	2860	99	NIST05.L	133618	91
Unknown				CAS #:			
11.626	3587122	17.3977235	6080	0		0	91
Unknown				CAS #:			
11.700	1882283	9.12916822	3190	0		0	91
Unknown				CAS #:			
11.727	1594396	7.73290290	2700	0		0	91
Unknown				CAS #:			
11.798	2108672	10.2271652	3570	0		0	91
Unknown				CAS #:			
11.851	1193506	5.78856277	2020	0		0	91
Unknown				CAS #:			
11.922	3525077	17.0968035	5970	0		0	91
Unknown				CAS #:			
11.943	1917633	9.30061960	3250	0		0	91
Unknown				CAS #:			
11.993	1524004	7.39149687	2580	0		0	91
Unknown				CAS #:			
12.056	11745679	56.9671425	19900	0		0	91
Unknown				CAS #:			
12.133	3267157	15.8458789	5540	0		0	91
Unknown				CAS #:			
12.180	1661567	8.05868350	2820	0		0	91

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown				CAS #:			
12.307	1798406	8.72236271	3050	0		0	91
Unknown				CAS #:			
12.396	3055011	14.8169601	5180	0		0	91
Unknown				CAS #:			
12.444	1186819	5.75613127	2010	0		0	91
Unknown				CAS #:			
12.485	2329791	11.2996037	3950	0		0	91
Unknown				CAS #:			
12.541	1248966	6.05754822	2120	0		0	91
Unknown				CAS #:			
12.624	2698959	13.0900895	4570	0		0	91
Unknown				CAS #:			
12.698	1955202	9.48283121	3310	0		0	91
Unknown				CAS #:			
12.784	1642233	7.96491516	2780	0		0	91
Unknown				CAS #:			
12.846	1312536	6.36586712	2220	0		0	91
Unknown				CAS #:			
12.911	1584087	7.68290160	2680	0		0	91
Unknown				CAS #:			
12.965	1185066	5.74763189	2010	0		0	91
Unknown				CAS #:			
13.000	1353964	6.56679248	2290	0		0	91
Unknown				CAS #:			
13.145	1626526	7.88873420	2760	0		0	91

Data File: /chem/MSD3.i/s021110.b/s3b1120.d  
Date: 11-FEB-2010 16:19  
Client ID: RE15-10-7176  
Sample Info: 124510601419445911101SVHF111LNL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5MS

Instrument: MSD3.i  
Operator: JLD1  
Column diameter: 0.20

Page 1



Date: 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 12451060141944591110ISVMF111LANL

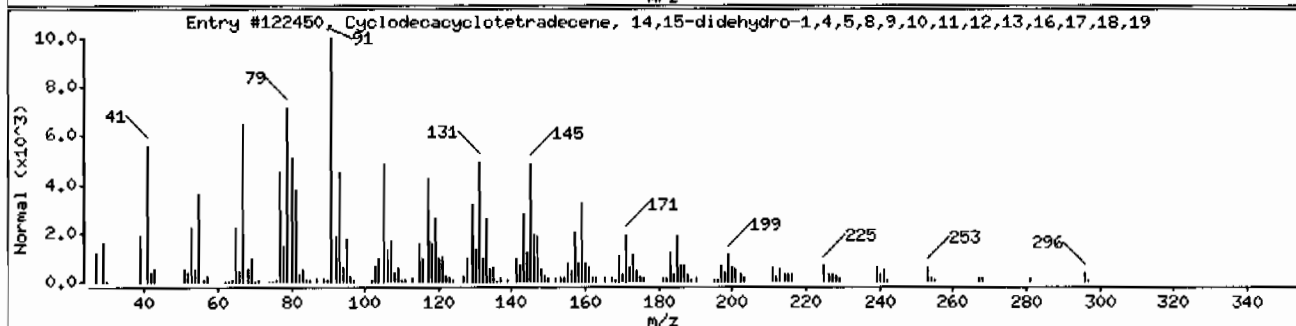
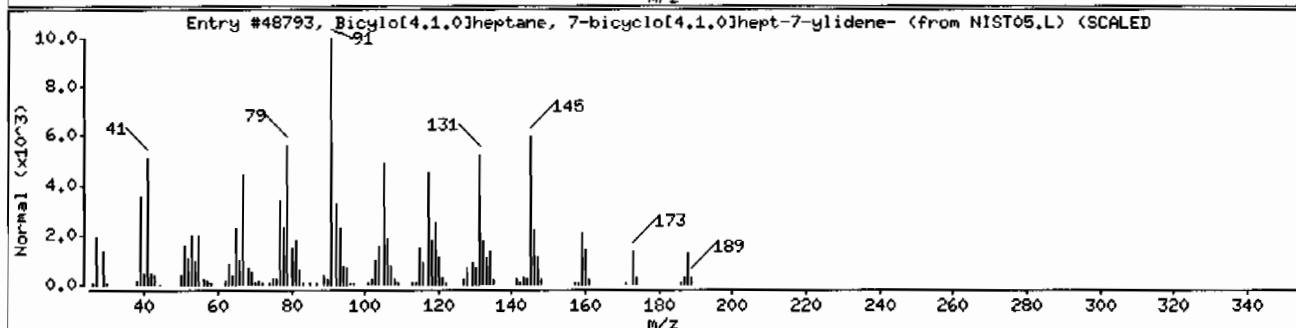
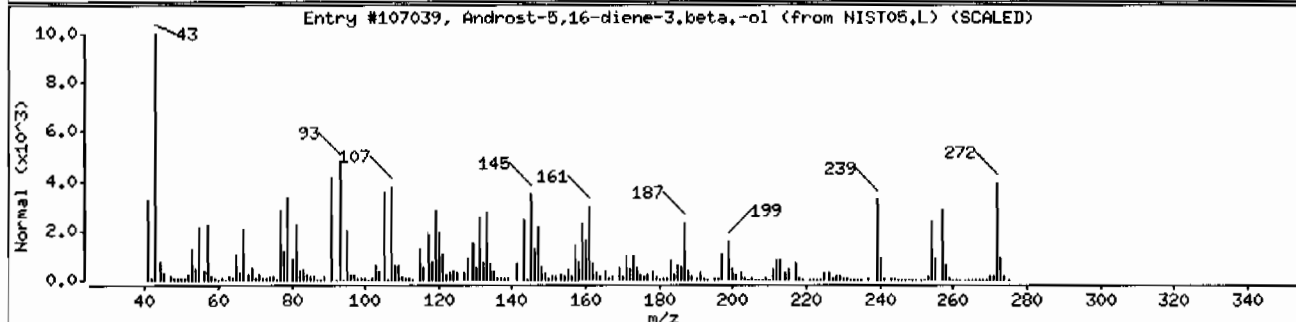
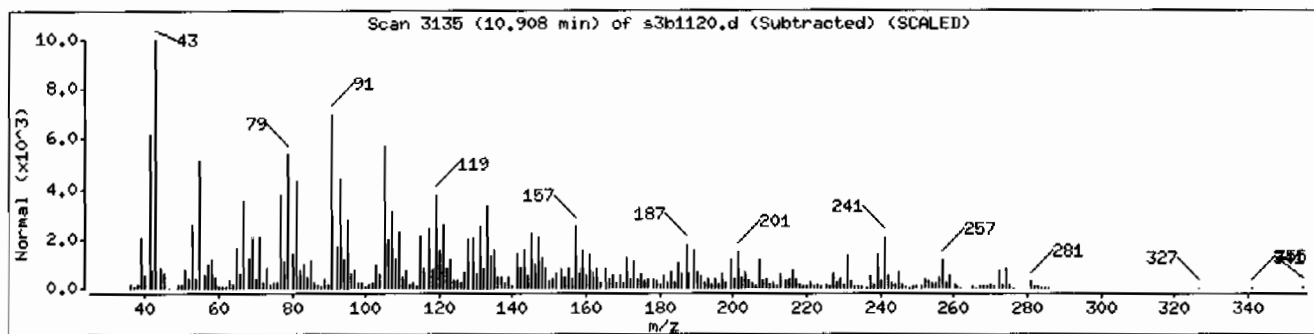
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Androst-5,16-diene-3,β,-ol	1224-94-8	NIST05.L	107039	59	C19H28O	272
Bicyclo[4.1.0]heptane, 7-bicyclo[4.1.0]he	1000152-39-9	NIST05.L	48793	42	C14H20	188
Cyclodecacyclotetradecene, 14,15-didehyd	14113-61-2	NIST05.L	122450	38	C22H32	296



Date: 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 12451060141944591101SVMF111LANL

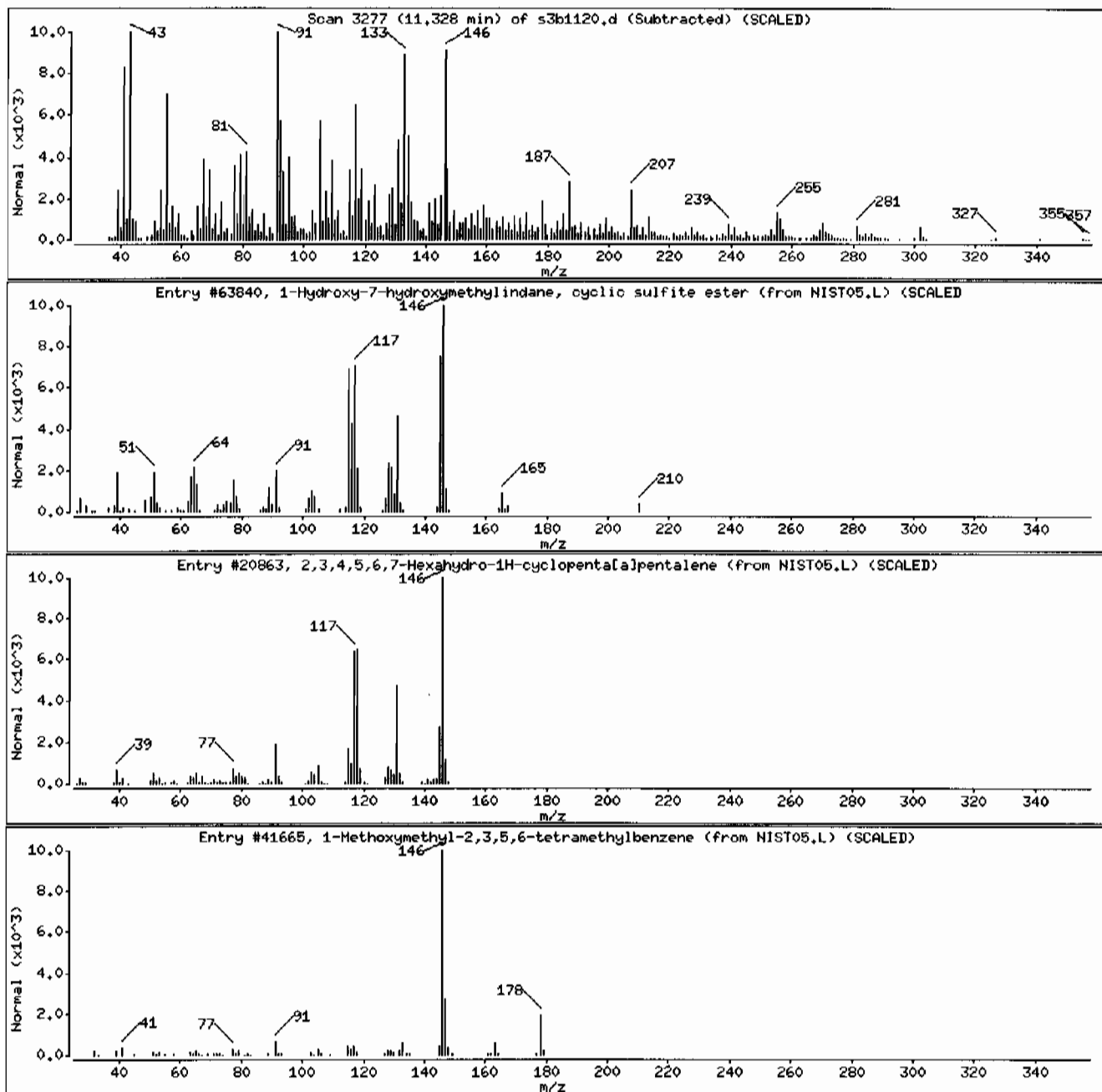
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Hydroxy-7-hydroxymethylindane, cyclic	1000284-47-6	NIST05.L	63840	42	C10H10O3S	210
2,3,4,5,6,7-Hexahydro-1H-cyclopenta[1,2]pe	1000189-31-0	NIST05.L	20863	30	C11H14	146
1-Methoxymethyl-2,3,5,6-tetramethylbenze	18922-11-7	NIST05.L	41665	25	C12H18O	178





Date: 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 12451060141944591101SVMF11ILANL

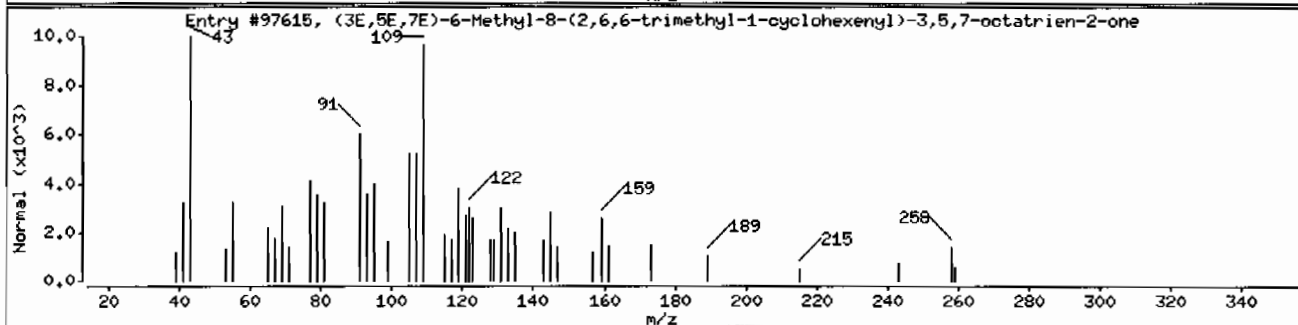
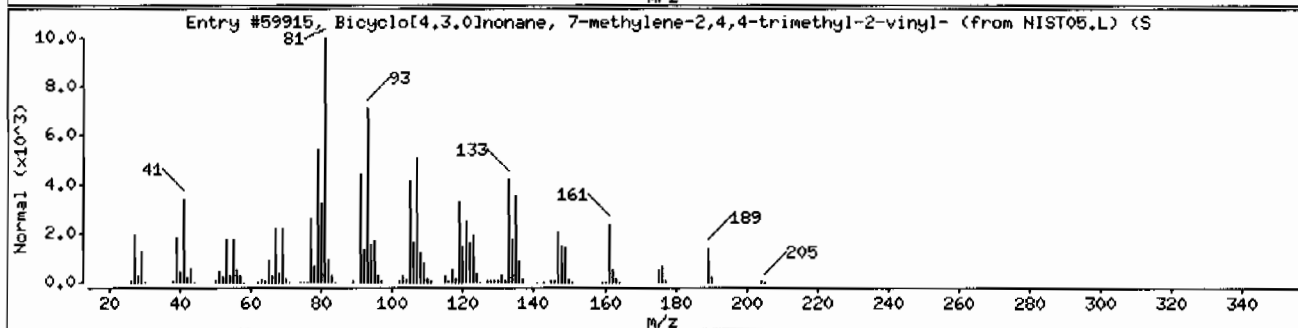
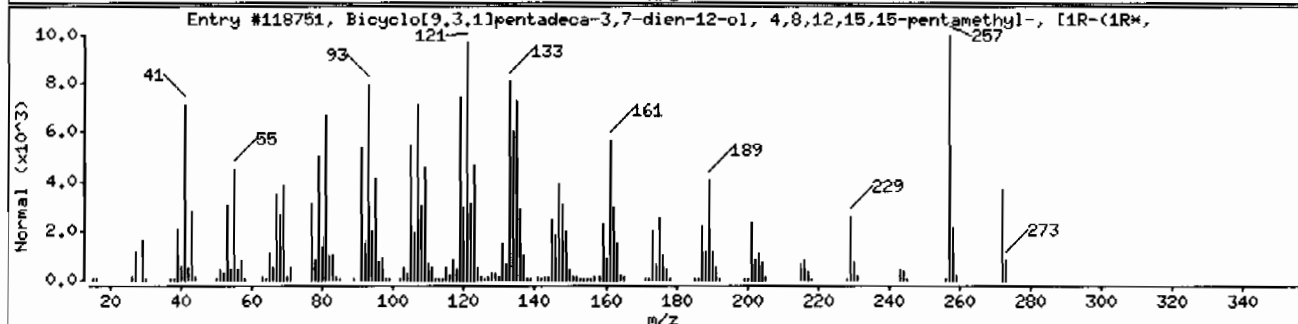
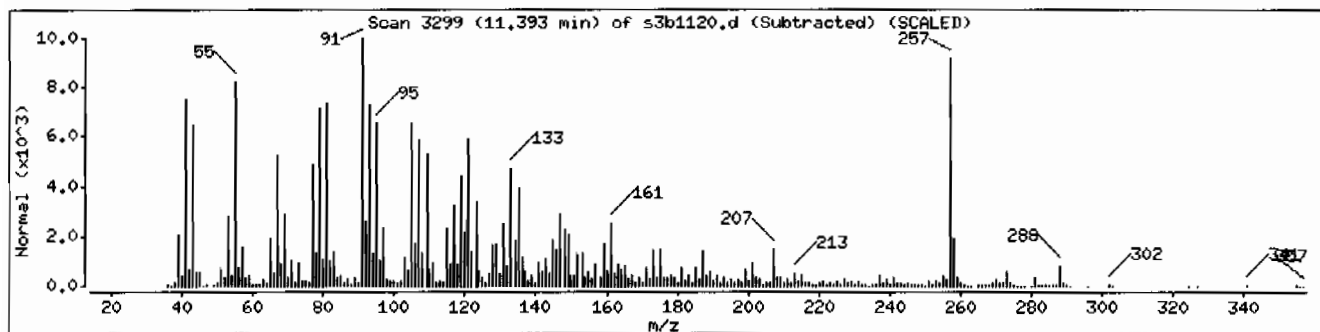
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[9.3.1]pentadeca-3,7-dien-12-ol,	70000-19-0	NIST05.L	118751	58	C20H34O	290
Bicyclo[4.3.0]nonane, 7-methylene-2,4,4-	1000156-11-9	NIST05.L	59915	55	C15H24	204
(3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1-	17974-57-1	NIST05.L	97615	41	C18H26O	258



Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: HSD3.i

Sample Info: 12451060141944591101SVHF111LANL

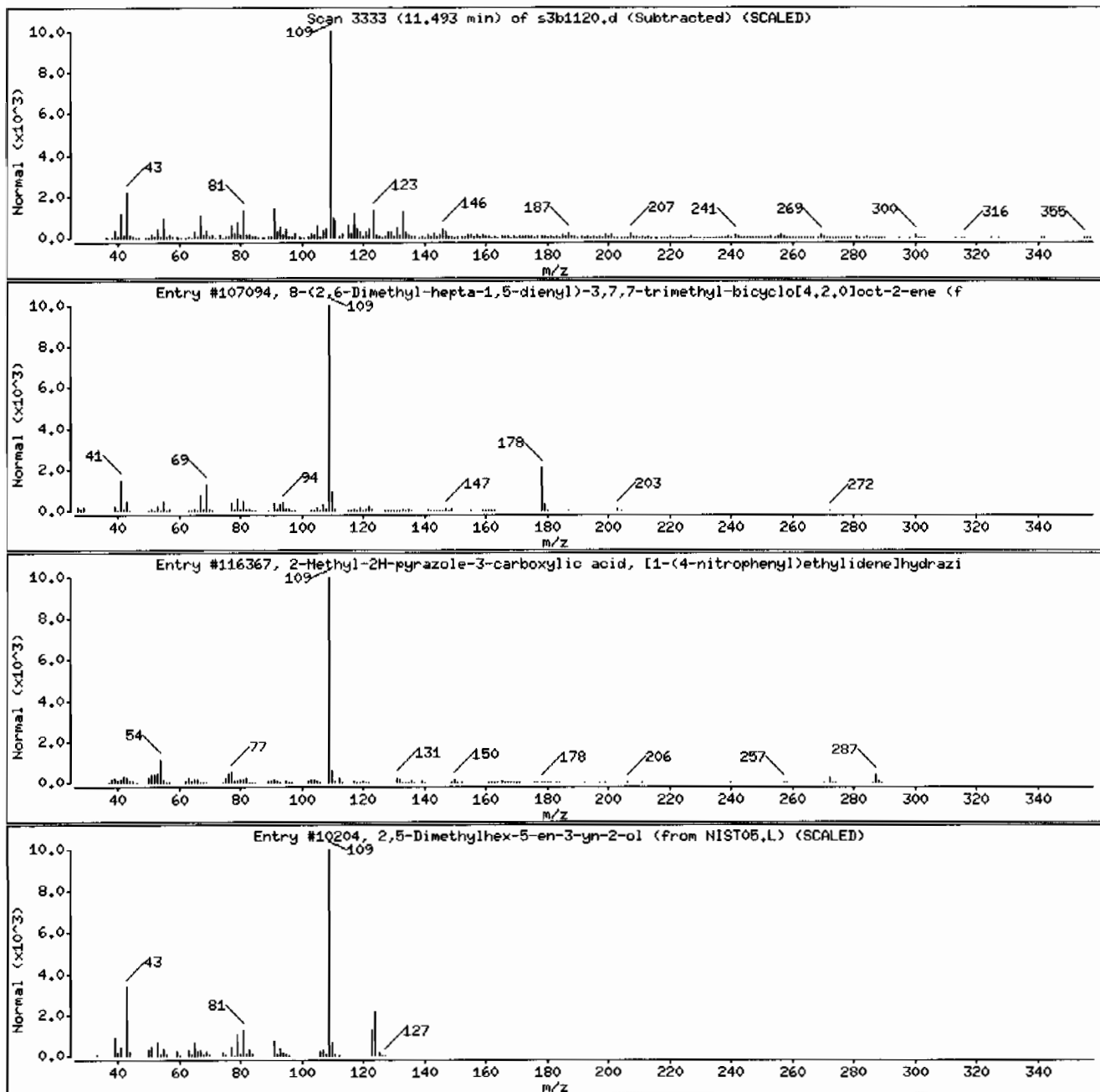
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
8-(2,6-Dimethyl-hepta-1,5-dienyl)-3,7,7-	113725-56-7	NIST05.L	107094	52	C20H32	272
2-Methyl-2H-pyrazole-3-carboxylic acid,	1000260-41-7	NIST05.L	116367	50	C13H13N5O3	287
2,5-Dimethylhex-5-en-3-yn-2-ol	1000302-74-9	NIST05.L	10204	50	C8H12O	124



Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 12451060141944591101SVHF11ILANL

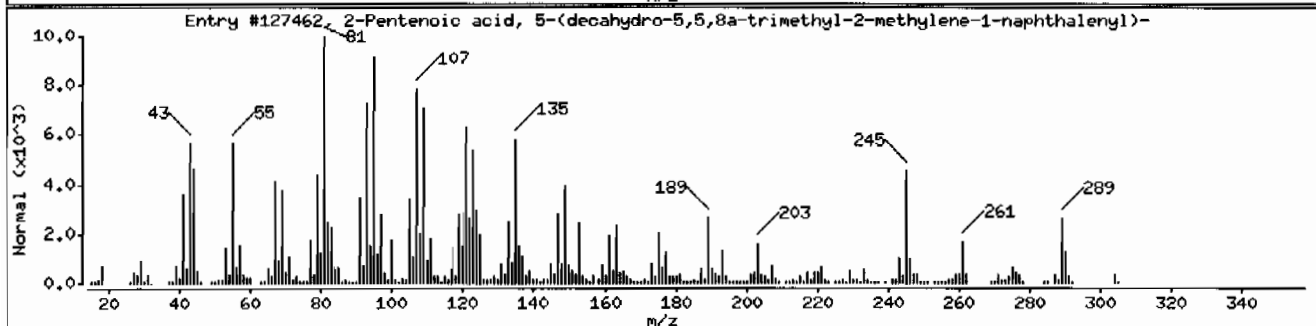
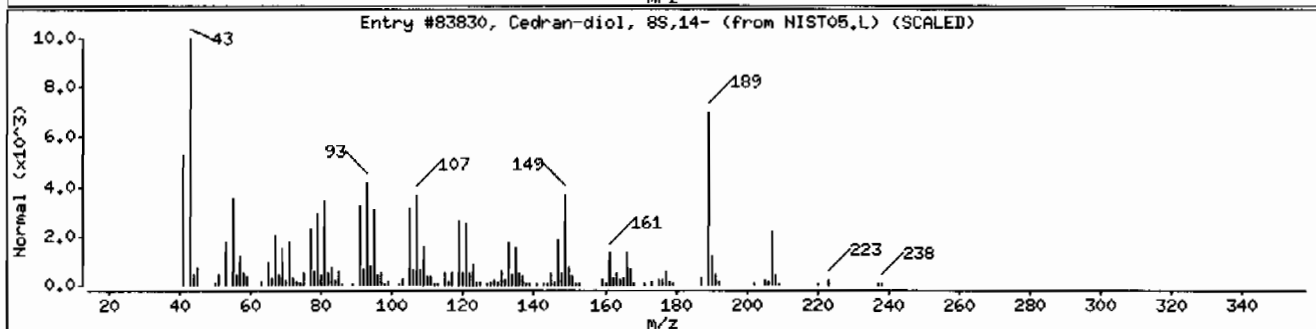
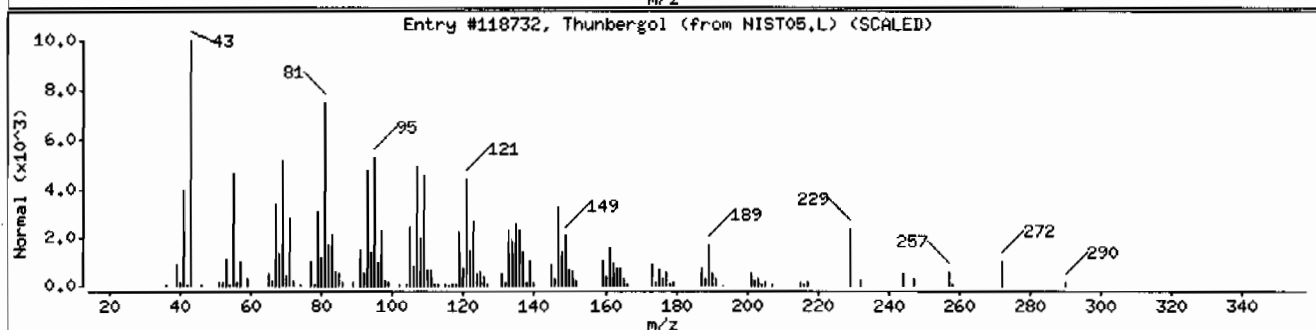
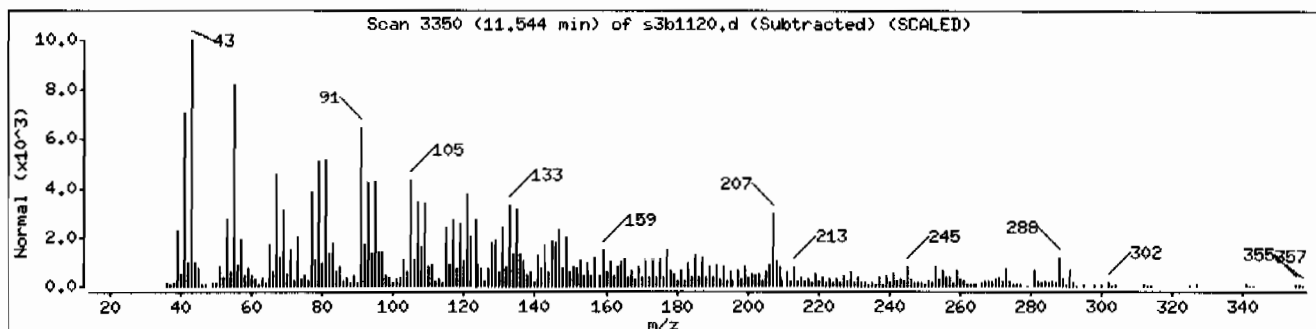
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Thunbergol	25269-17-4	NIST05.L	118732	45	C20H34O	290
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	45	C15H26O2	238
2-Pentenoic acid, 5-(decahydro-5,5,8a-trimethyl-2-methylene-1-naphthalenyl)-	24470-48-2	NIST05.L	127462	43	C20H32O2	304



Date: 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 12451060141944591101SVHF11ILANL

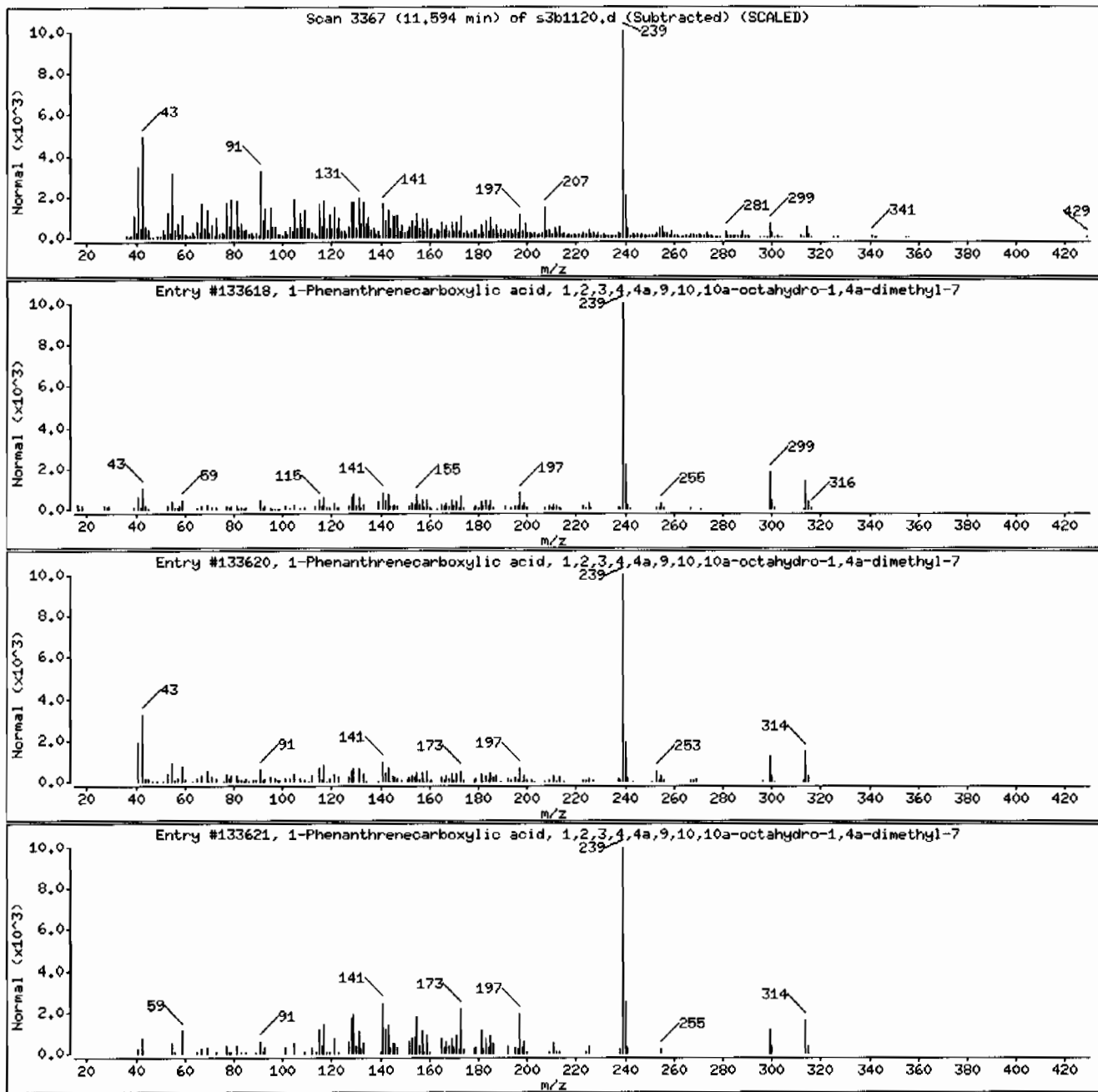
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133618	99	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133620	94	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133621	86	C21H30O2	314



Date: 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: HSD3.i

Sample Info: 12451060141944591101SVHF111LANL

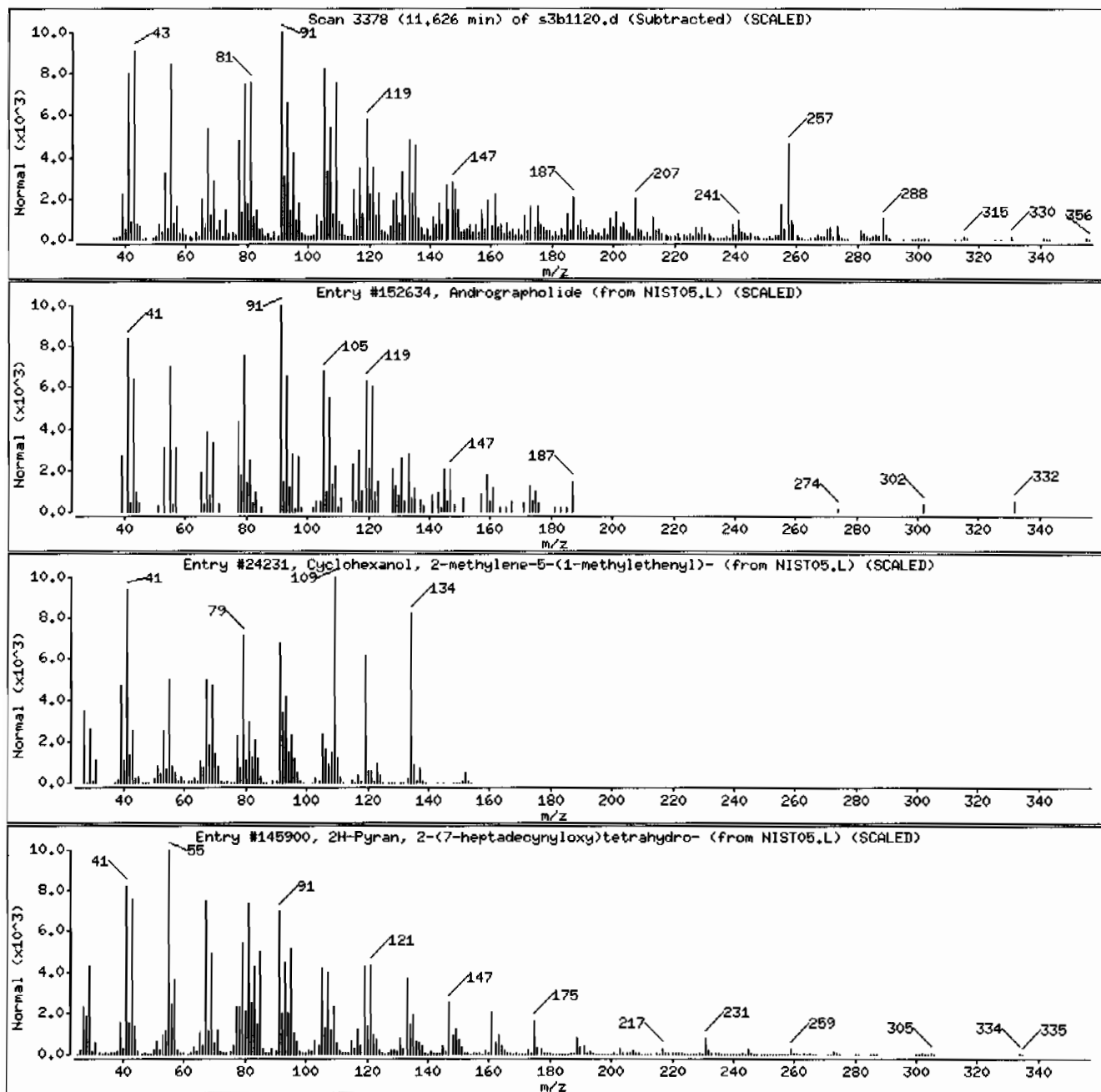
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Andrographolide	5508-58-7	NIST05.L	152634	46	C20H30O5	350
Cyclohexanol, 2-methylene-5-(1-methyleth	35907-10-9	NIST05.L	24231	42	C10H16O	152
2H-Pyran, 2-(7-heptadecyloxy)tetrahydr	56599-50-9	NIST05.L	145900	35	C22H40O2	336



Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 124510601419445911101SVHF111LANL

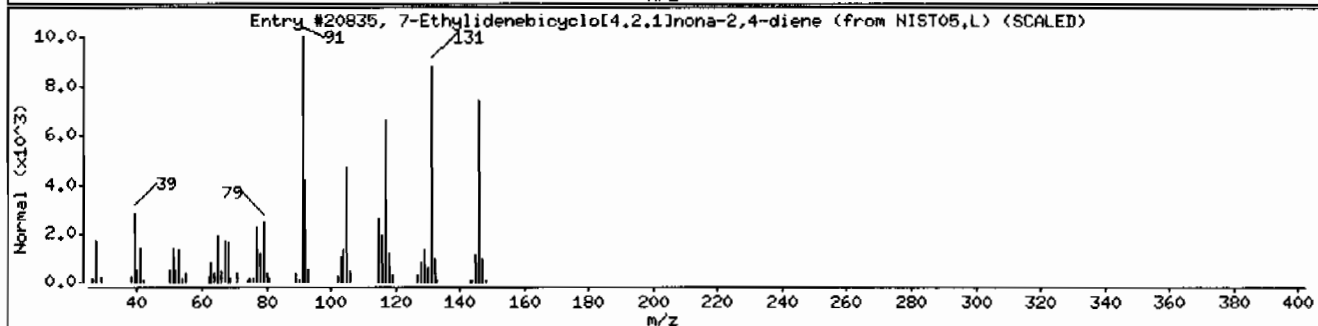
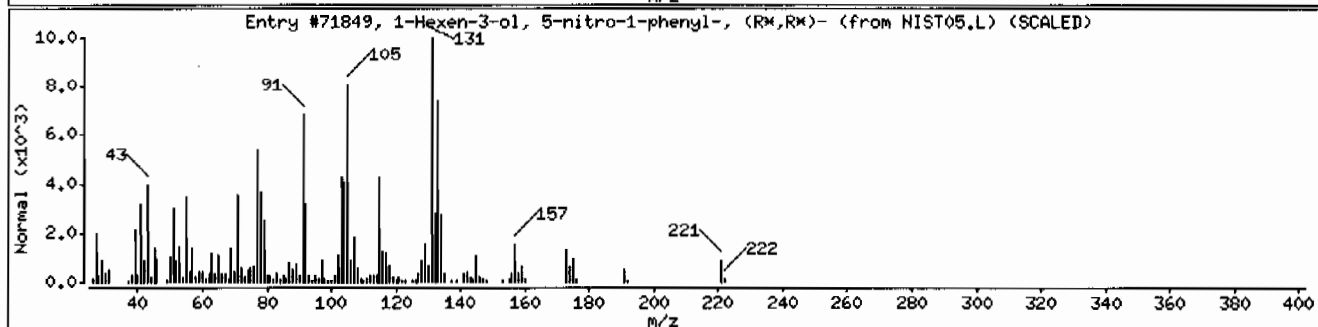
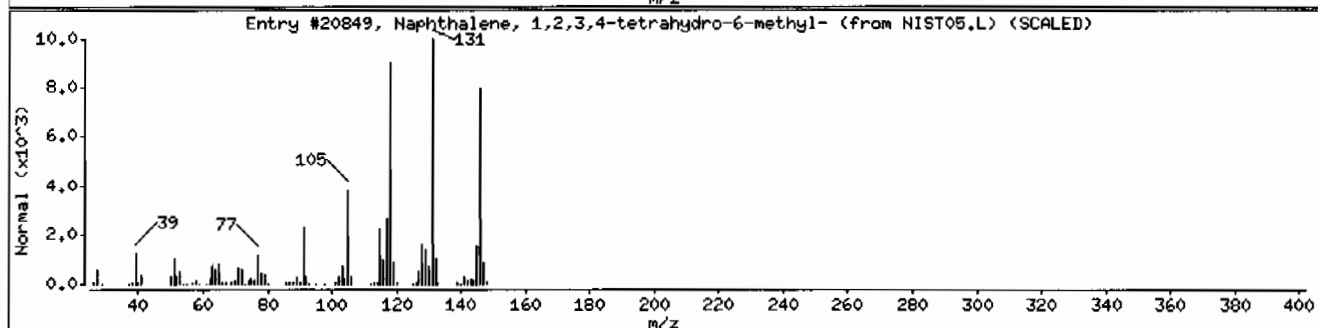
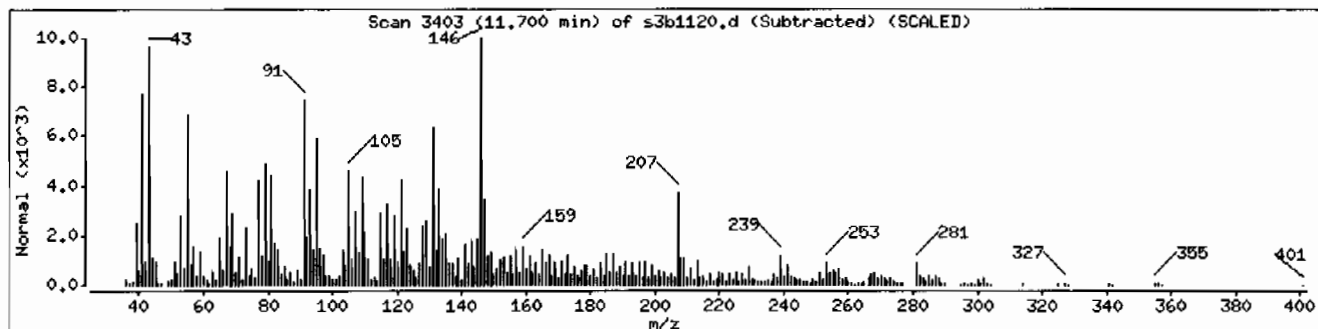
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Naphthalene, 1,2,3,4-tetrahydro-6-methyl	1680-51-9	NIST05.L	20849	47	C11H14	146
1-Hexen-3-ol, 5-nitro-1-phenyl-, (R*,R*)	103077-72-1	NIST05.L	71849	46	C12H15NO3	221
7-Ethylidenebicyclo[4.2.1]nona-2,4-diene	94400-10-9	NIST05.L	20835	42	C11H14	146



Date: 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: HSD3.i

Sample Info: 124510601419445911101SVHF11ILANL

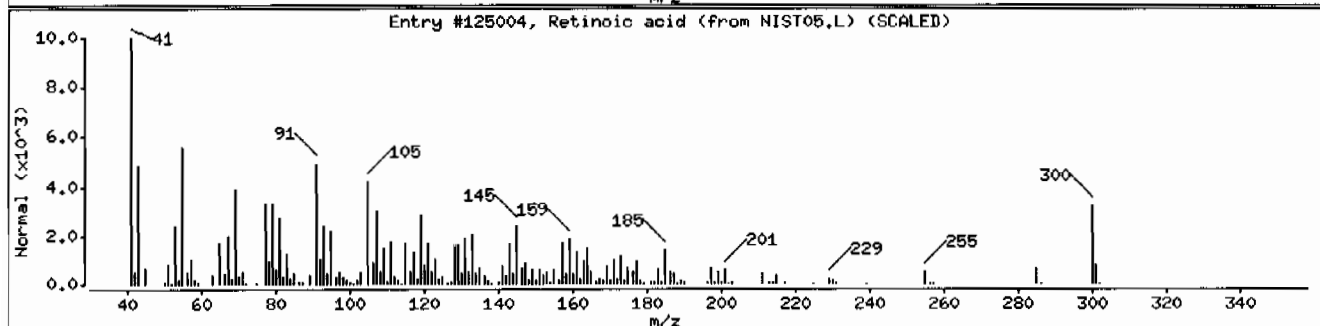
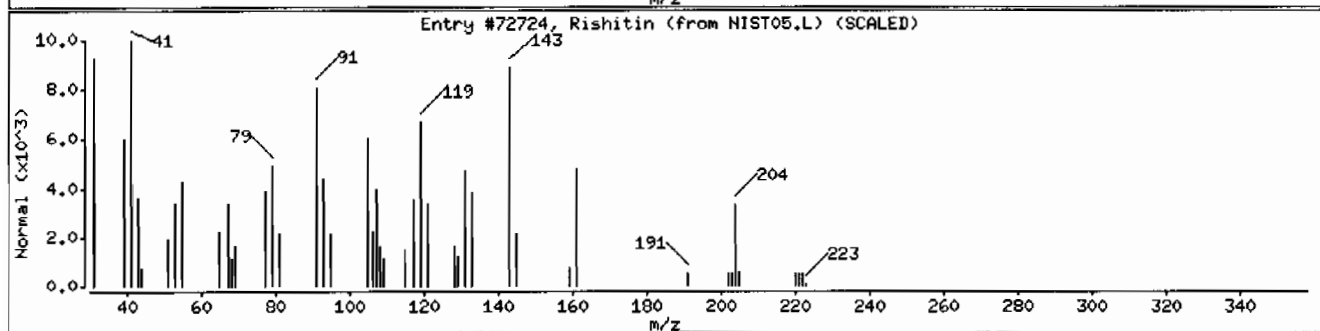
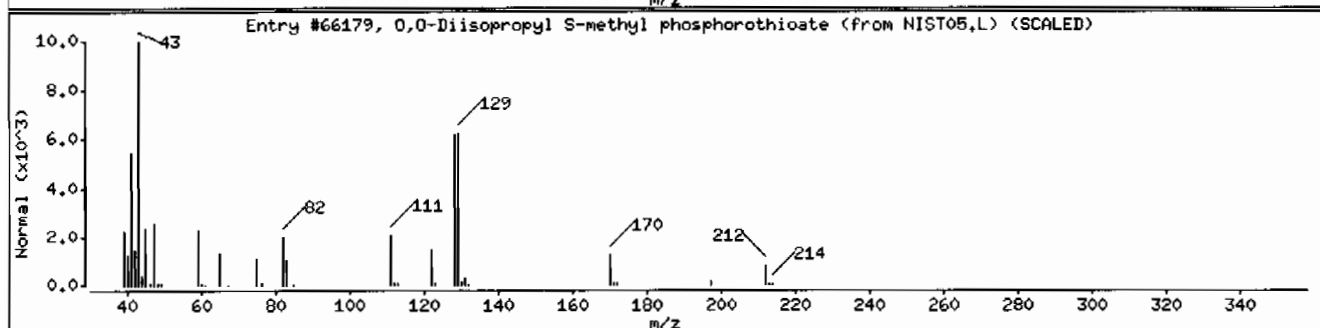
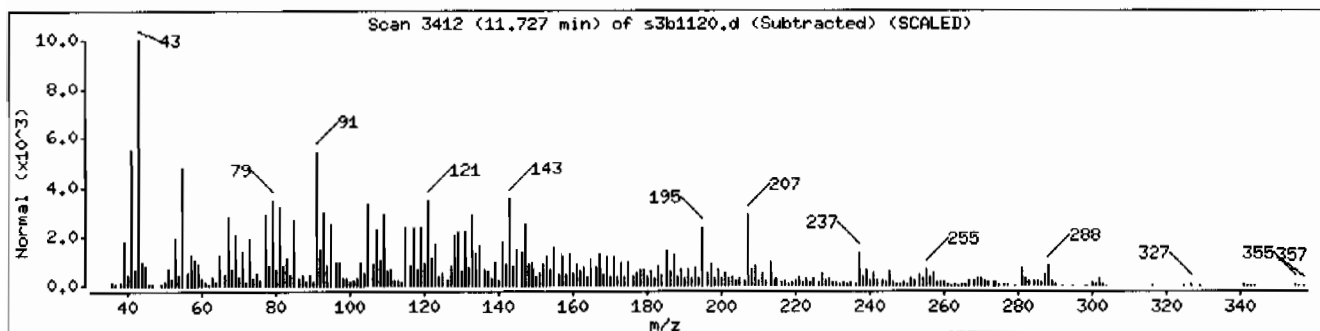
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
O,O-Diisopropyl S-methyl phosphorothioat	1000306-07-2	NIST05.L	66179	25	C7H17O3PS	212
Rishitin	18178-54-6	NIST05.L	72724	16	C14H22O2	222
Retinoic acid	302-79-4	NIST05.L	125004	15	C20H28O2	300



Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.1

Sample Info: I245106014I944591I10ISVMFI1ILANL

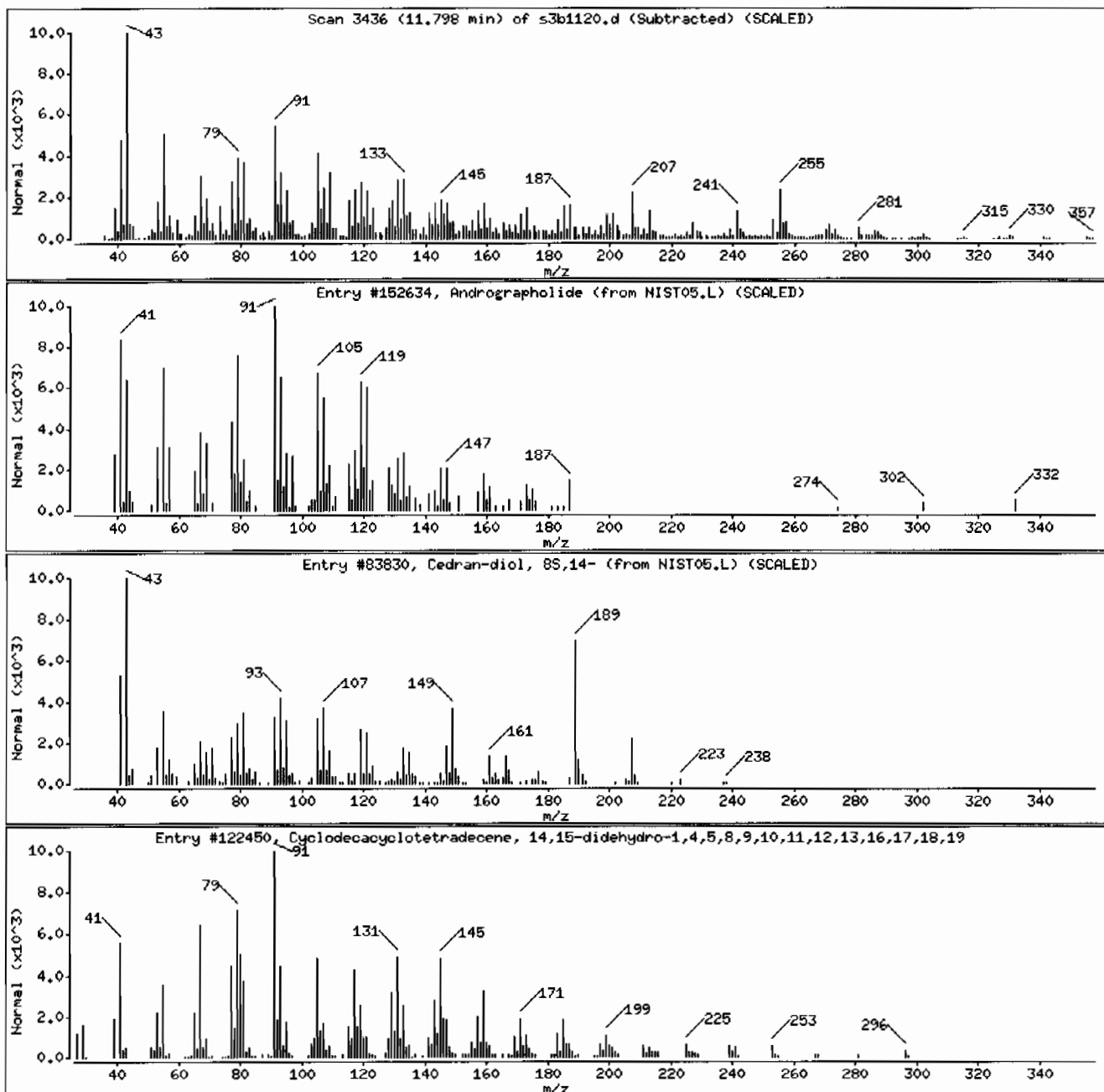
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Andrographolide	5508-58-7	NIST05.L	152634	43	C20H30O5	350
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	41	C15H26O2	238
Cyclodecacyclotetradecene, 14,15-didehyd	14113-61-2	NIST05.L	122450	27	C22H32	296





Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 12451060141944591101SVHF111LANL

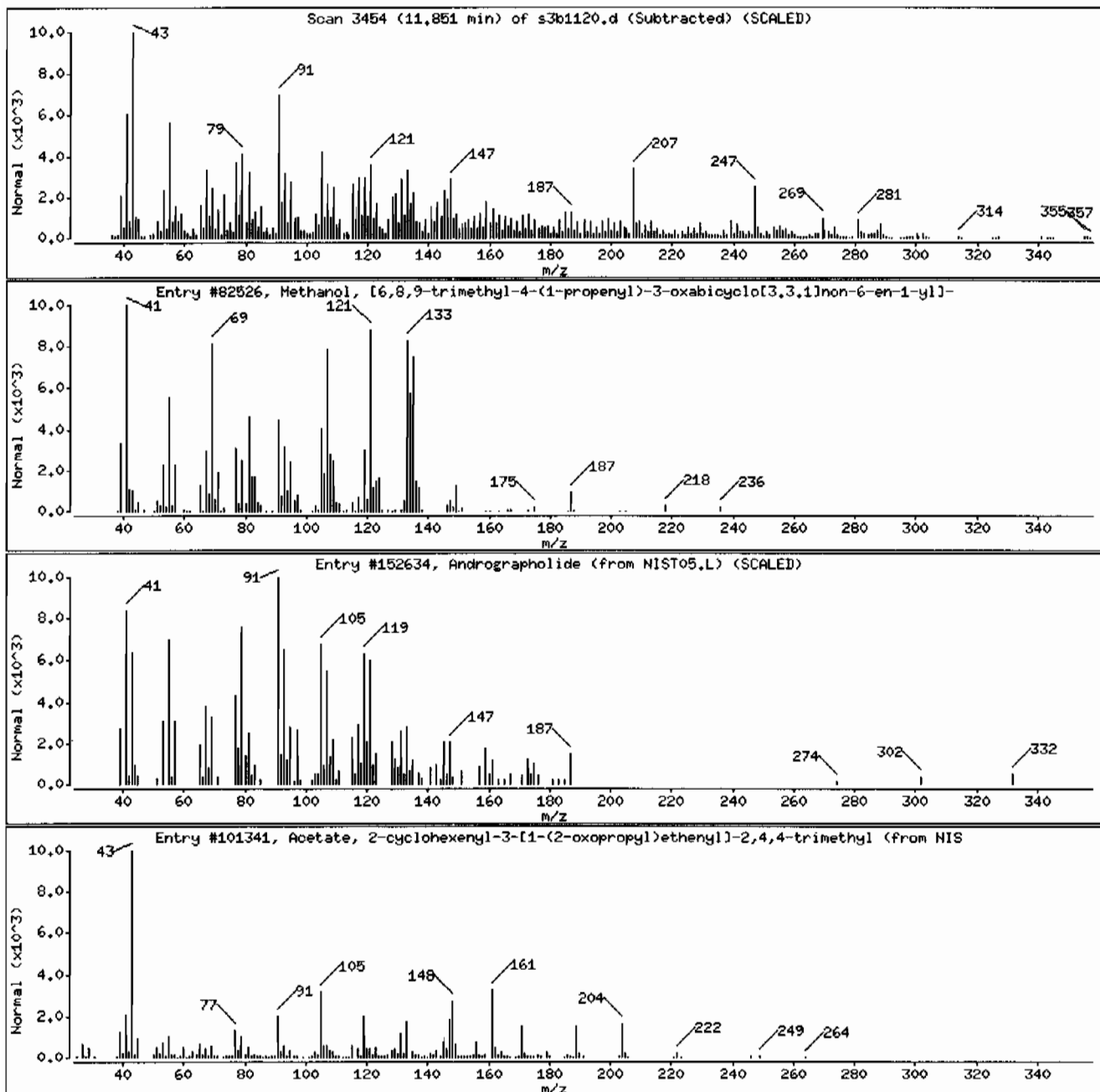
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Methanol, [6,8,9-trimethyl-4-(1-propenyl)	1000277-60-9	NIST05.L	82526	59	C15H24O2	236
Andrographolide	5508-58-7	NIST05.L	152634	41	C20H30O5	350
Acetate, 2-cyclohexenyl-3-[1-(2-oxopropyl)	1000196-78-1	NIST05.L	101341	38	C16H24O3	264



Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 124510601419445911101SVMF111LANL

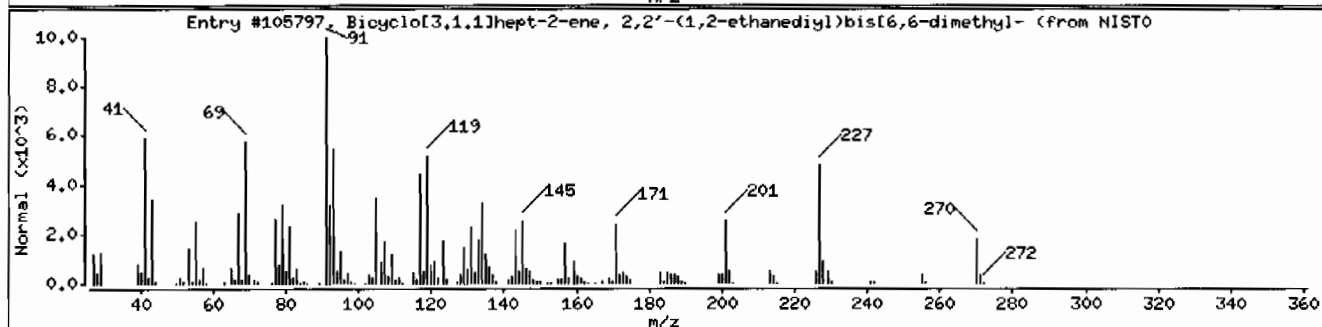
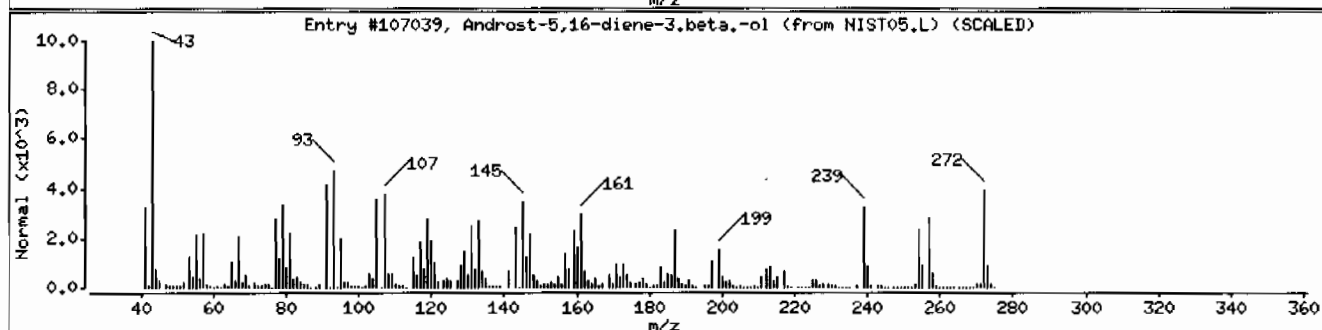
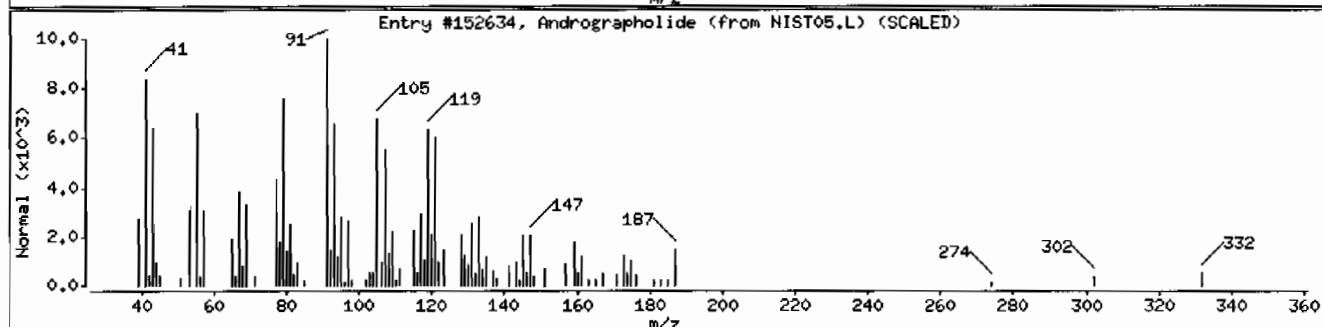
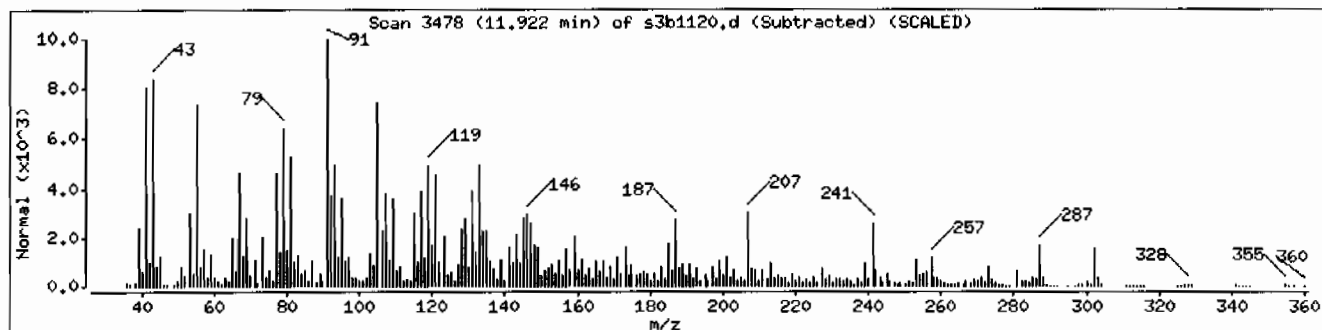
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Andrographolide	5508-58-7	NIST05.L	152634	38	C20H30O5	350
Androst-5,16-diene-3,β-ol	1224-94-8	NIST05.L	107039	38	C19H28O	272
Bicyclo[3.1.1]hept-2-ene, 2,2'-(1,2-etha	57988-82-6	NIST05.L	105797	30	C20H30	270



Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 12451060141944591101SVMF111LANL

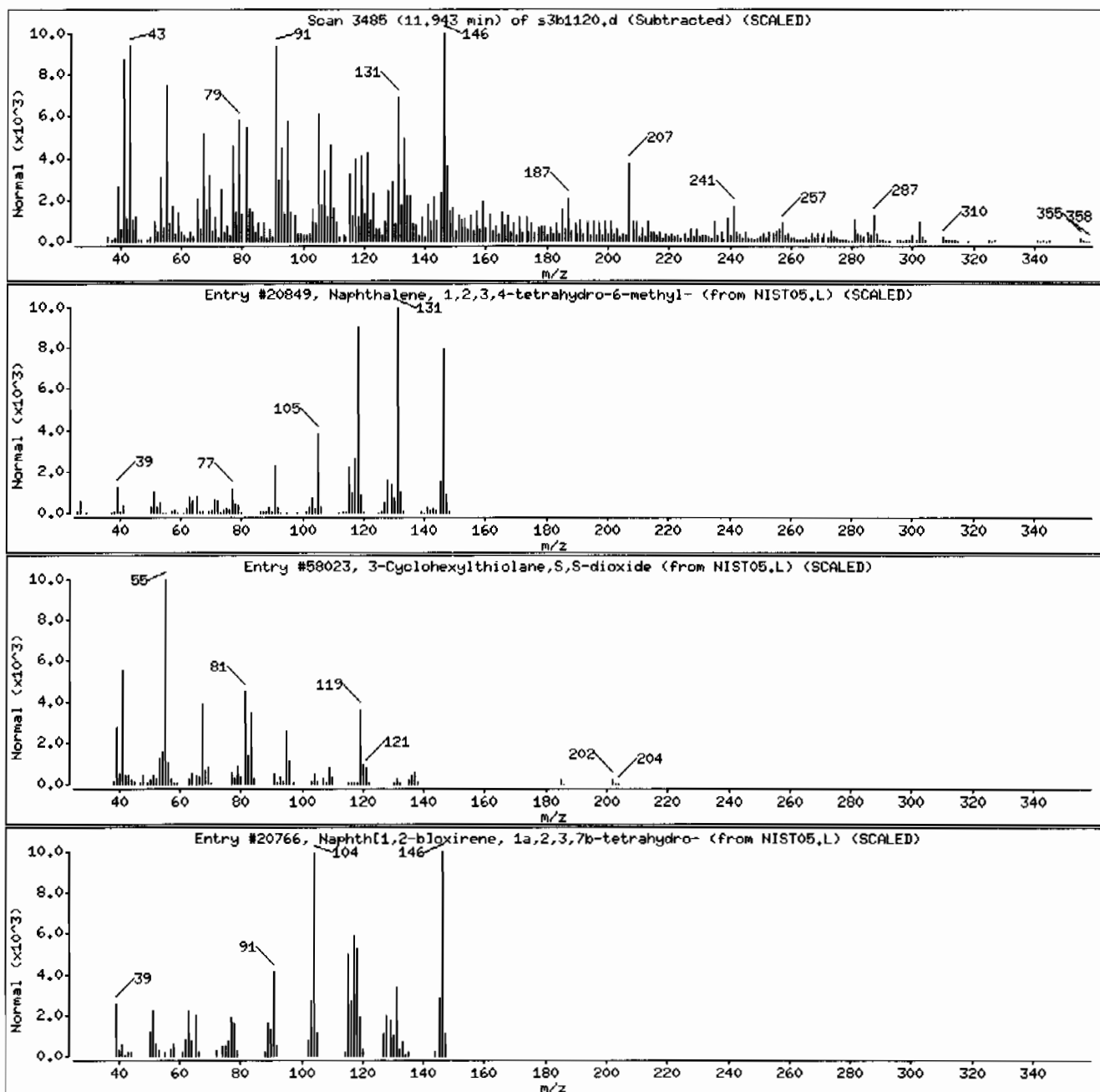
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Naphthalene, 1,2,3,4-tetrahydro-6-methyl	1680-51-9	NIST05.L	20849	51	C11H14	146
3-Cyclohexylthiolane,S,S-dioxide	71053-08-2	NIST05.L	58023	44	C10H18O2S	202
Naphth[1,2-b]oxirene, 1a,2,3,7b-tetrahyd	2461-34-9	NIST05.L	20766	42	C10H10O	146



Date: 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 12451060141944591101SVMF11ILANL

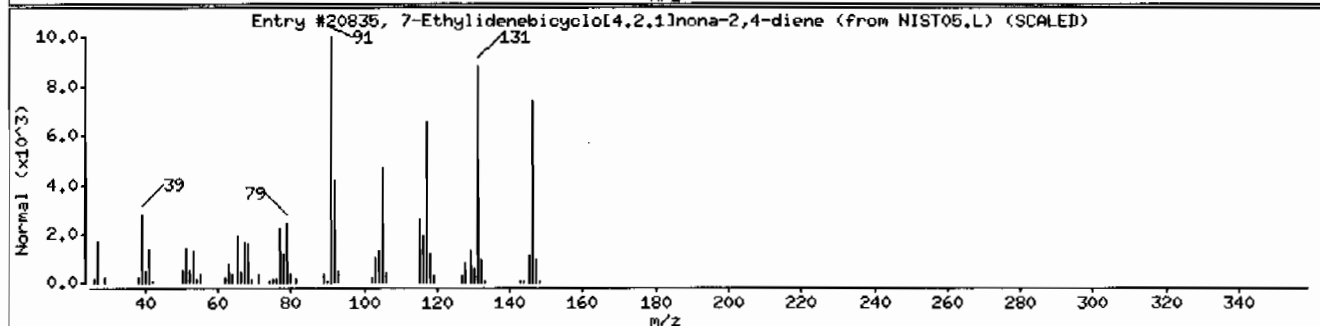
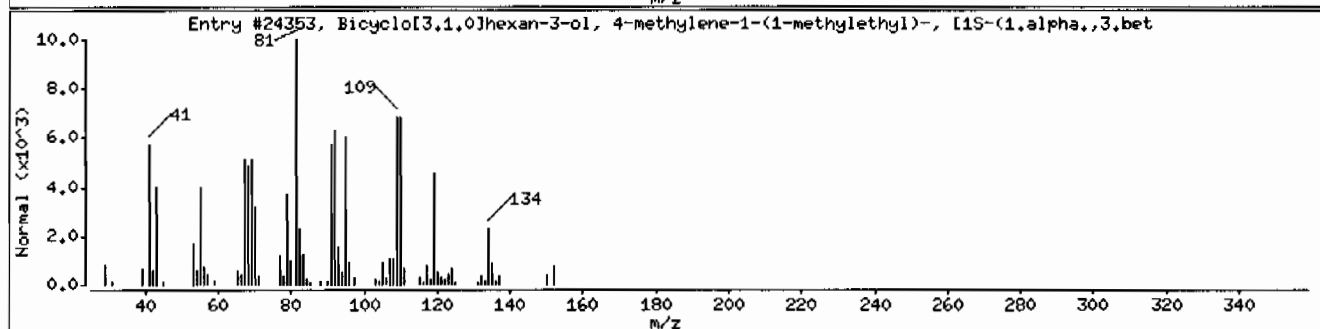
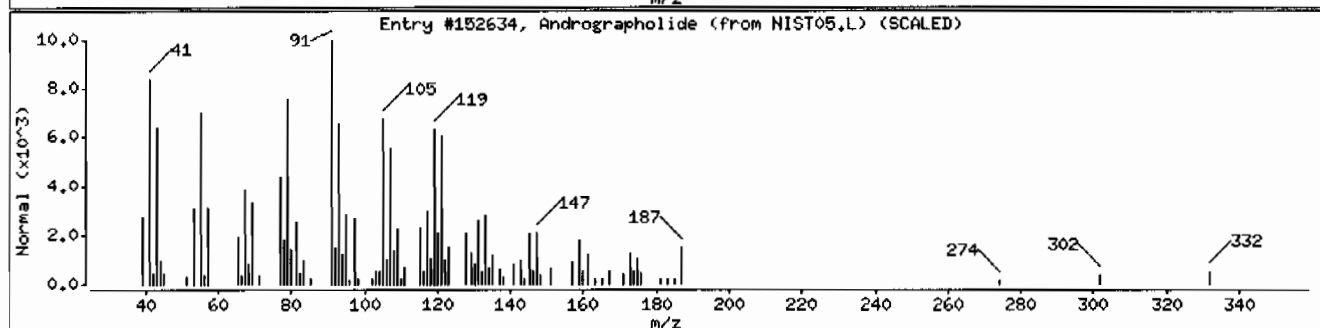
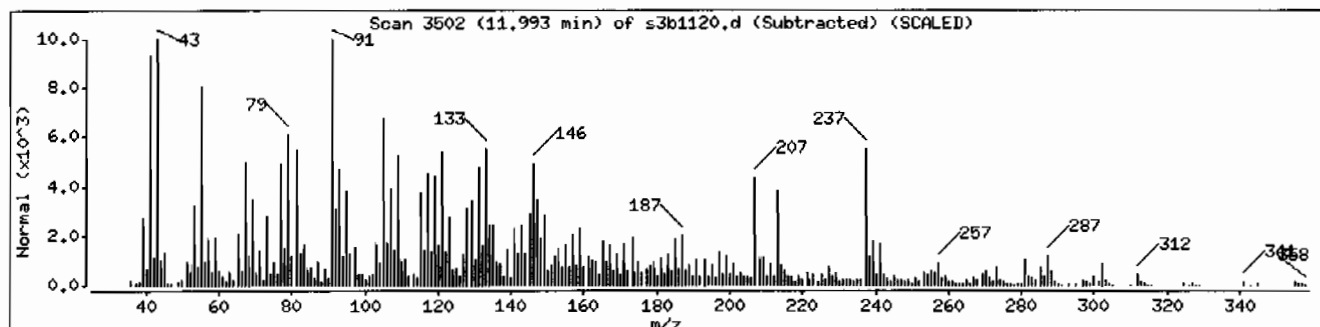
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Andrographolide	5508-58-7	NIST05.L	152634	25	C20H30O5	350
Bicyclo[3.1.0]hexan-3-ol, 4-methylene-1-	471-16-9	NIST05.L	24353	25	C10H16O	152
7-Ethylidenebicyclo[4.2.1]nona-2,4-diene	94400-10-9	NIST05.L	20835	20	C11H14	146



Date: 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: I245106014|944591|10|SVHF|1|LANL

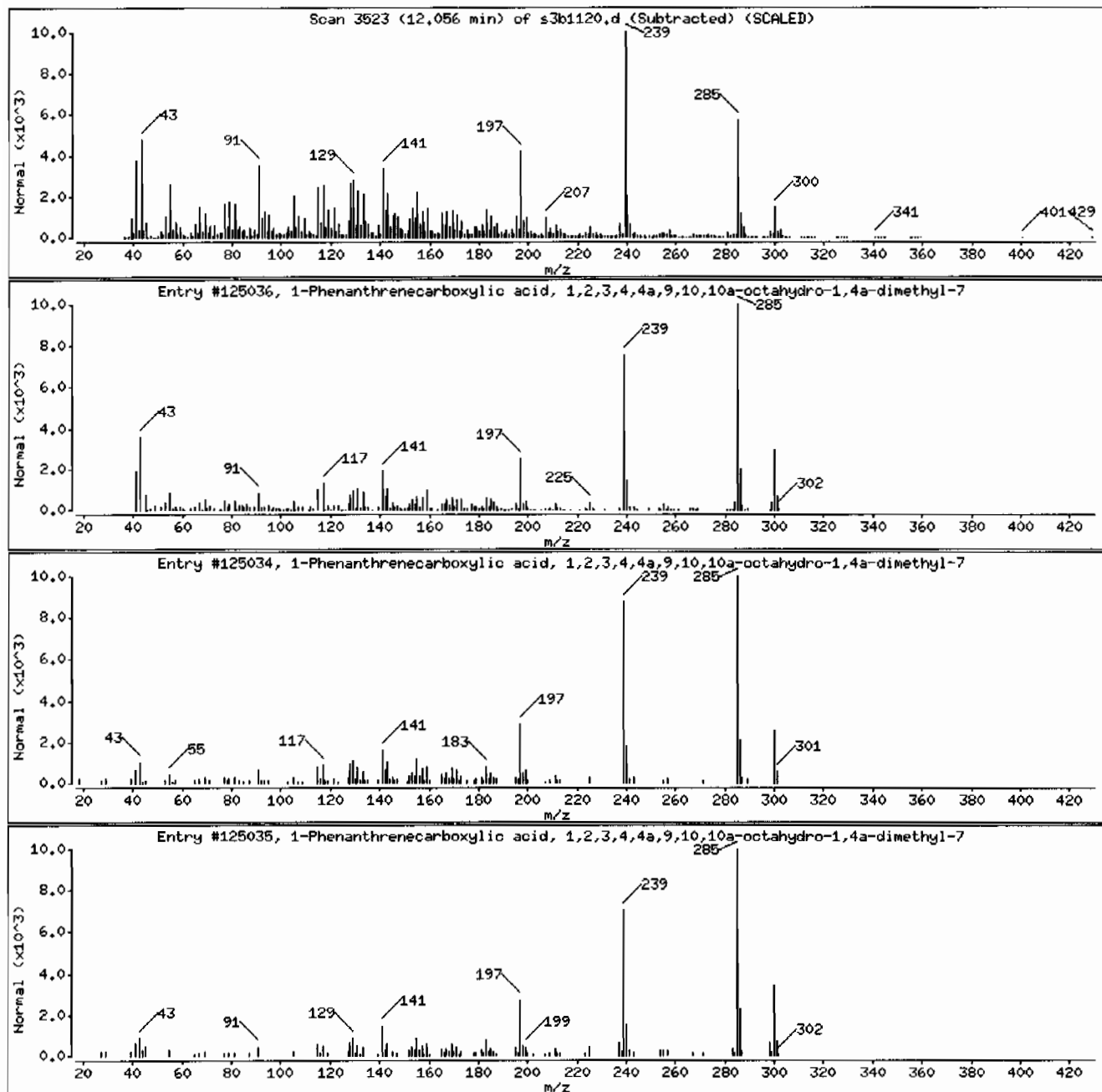
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125036	96	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	93	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	5155-70-4	NIST05.L	125035	87	C20H28O2	300



Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: HSD3.i

Sample Info: 124510601419445911101SVHF111LANL

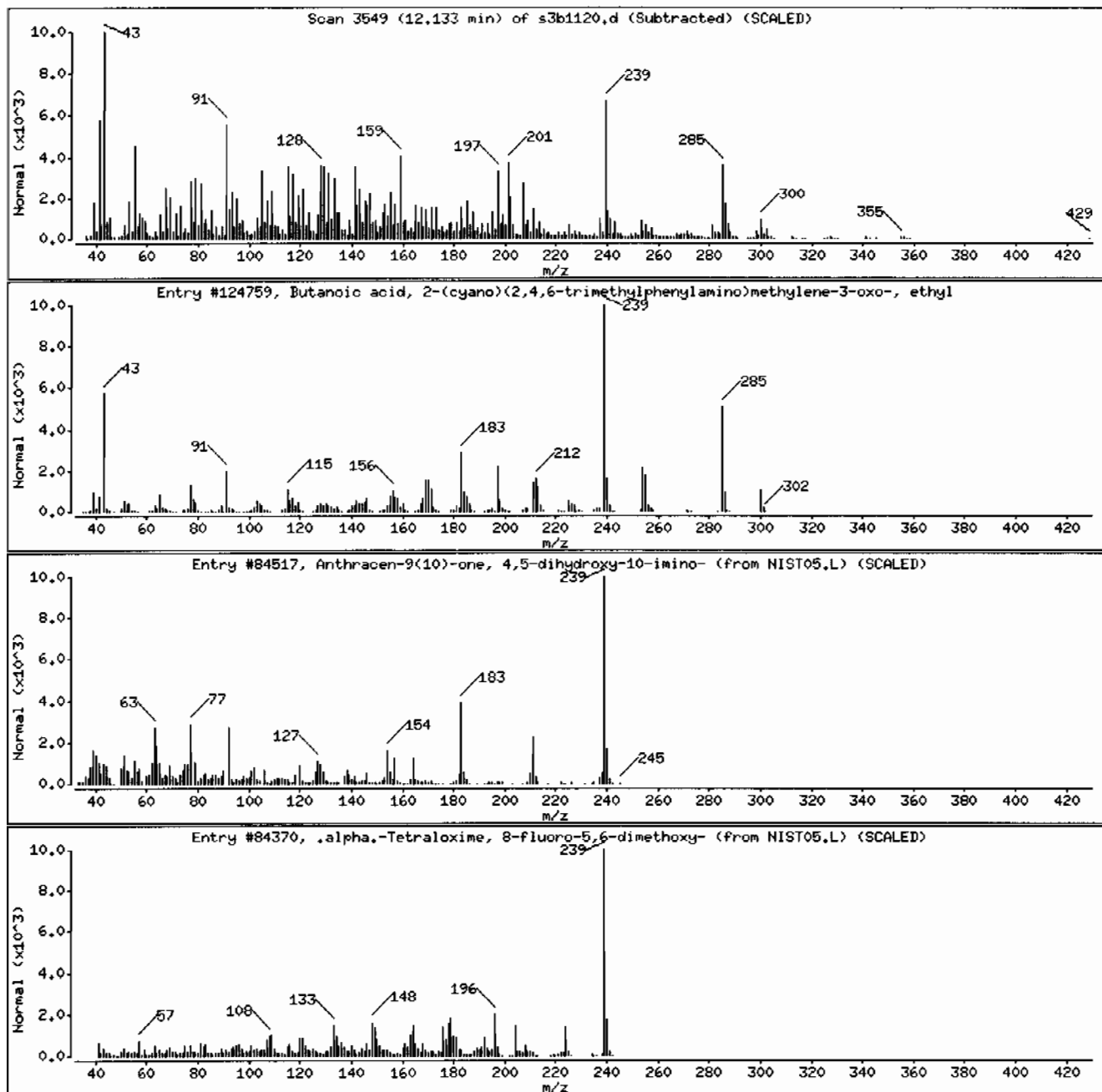
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Butanoic acid, 2-(cyano)(2,4,6-trimethyl	1000267-71-7	NIST05.L	124759	50	C17H20N2O3	300
Anthracen-9(10)-one, 4,5-dihydroxy-10-im	22816-78-5	NIST05.L	84517	15	C14H9NO3	239
.alpha.-Tetraoxime, 8-fluoro-5,6-dimeth	1000125-88-0	NIST05.L	84370	15	C12H14FN03	239



Date: 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 12451060141944591101SVMF11ILANL

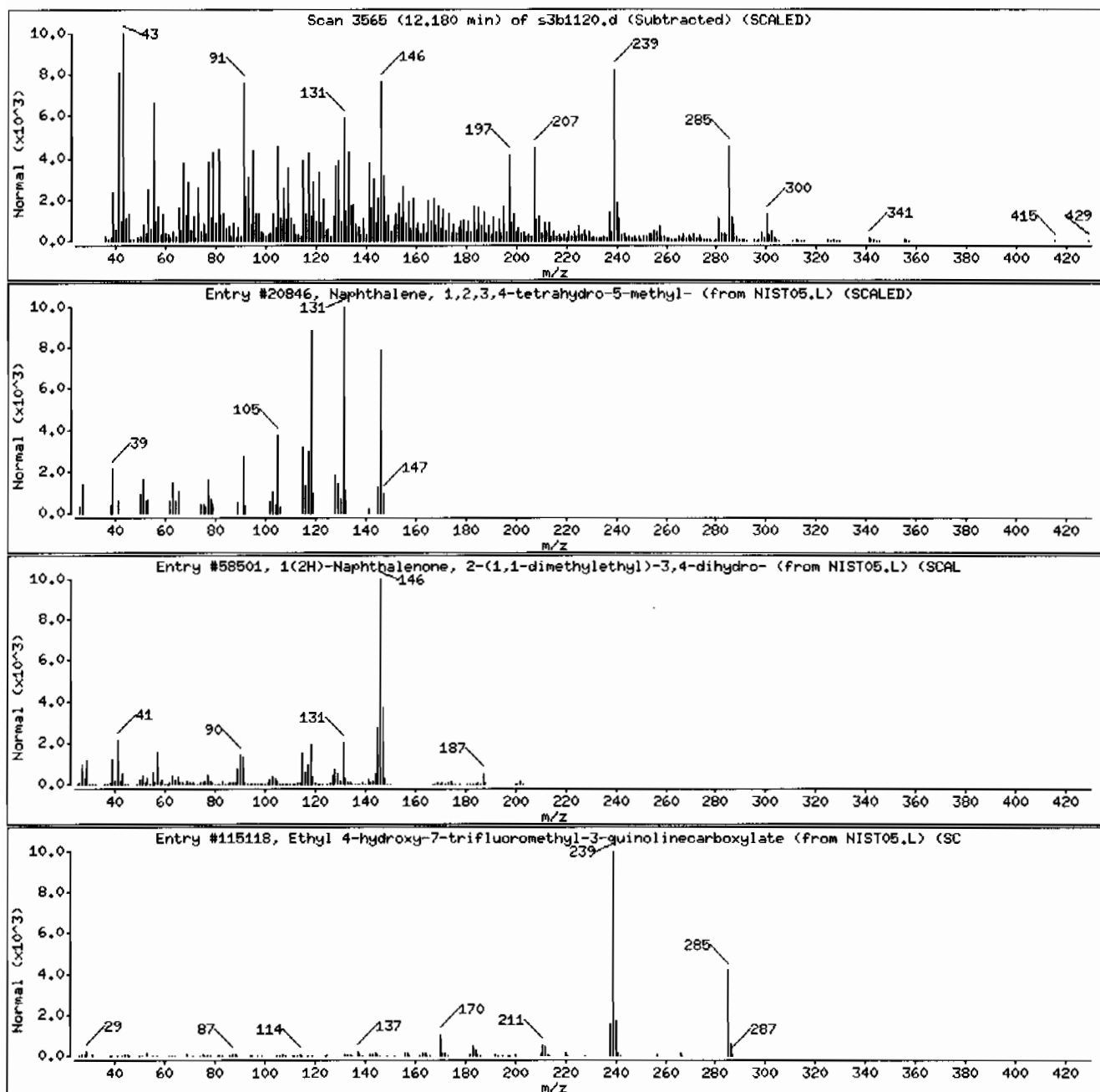
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Naphthalene, 1,2,3,4-tetrahydro-5-methyl	2809-64-5	NIST05.L	20846	15	C11H14	146
1(2H)-Naphthalenone, 2-(1,1-dimethylethy	42981-75-9	NIST05.L	58501	15	C14H18O	202
Ethyl 4-hydroxy-7-trifluoromethyl-3-quin	391-02-6	NIST05.L	115118	15	C13H10F3NO3	285



Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 124510601419445911101SVHF111LANL

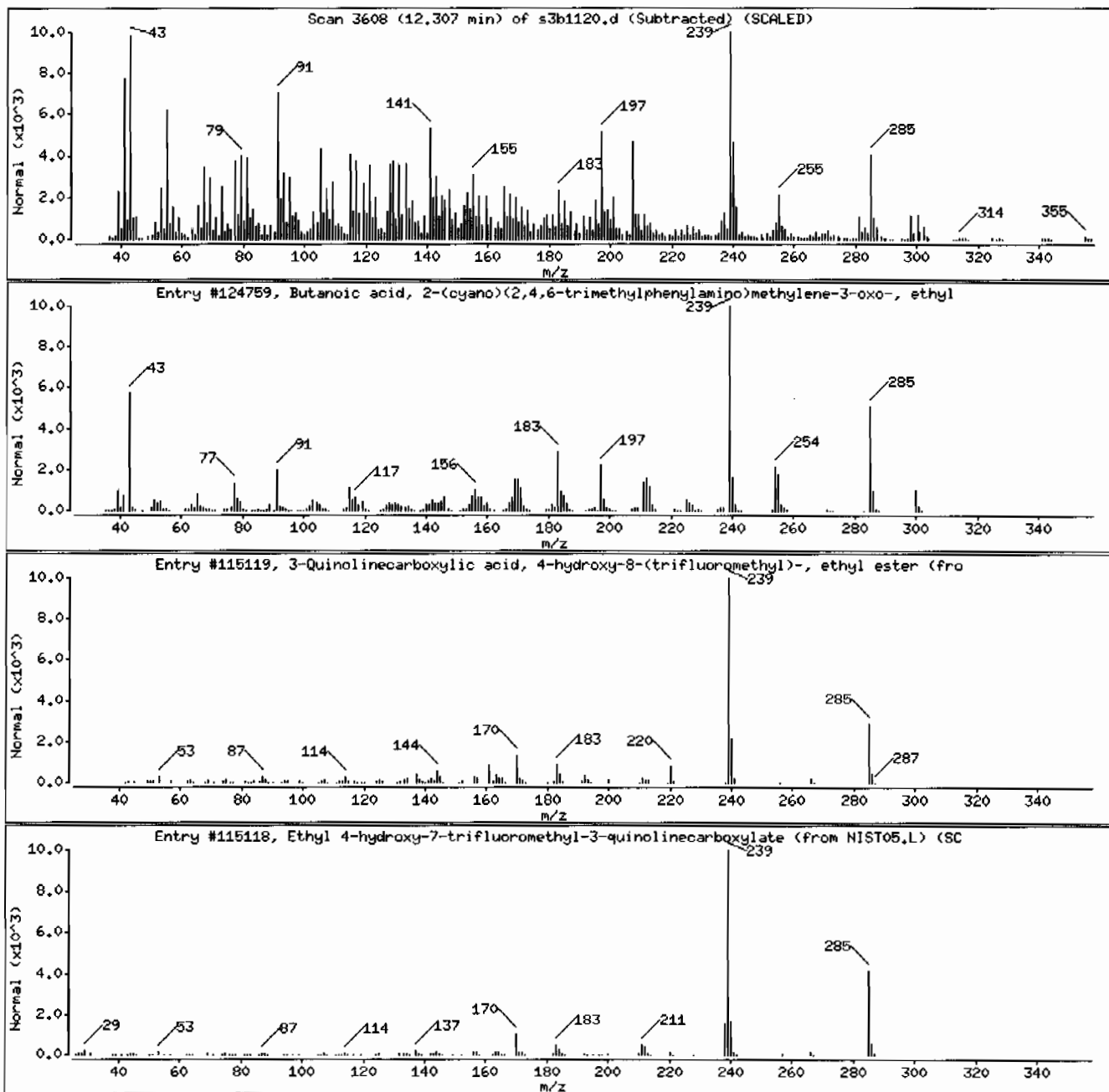
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Butanoic acid, 2-(cyano)(2,4,6-trimethyl	1000267-71-7	NIST05.L	124759	42	C17H20N2O3	300
3-Quinolinescarboxylic acid, 4-hydroxy-8-	23851-84-5	NIST05.L	115119	38	C13H10F3NO3	285
Ethyl 4-hydroxy-7-trifluoromethyl-3-quin	391-02-6	NIST05.L	115118	30	C13H10F3NO3	285





Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 1245106014|944591|10|SVMF11|LANL

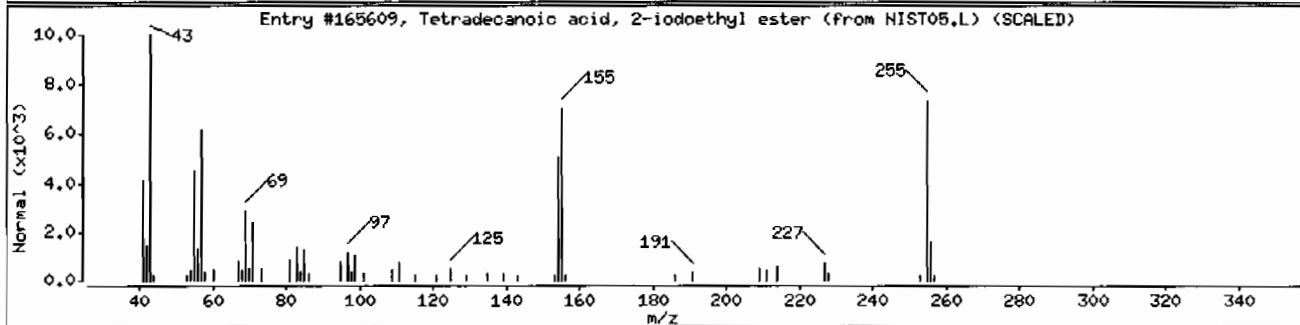
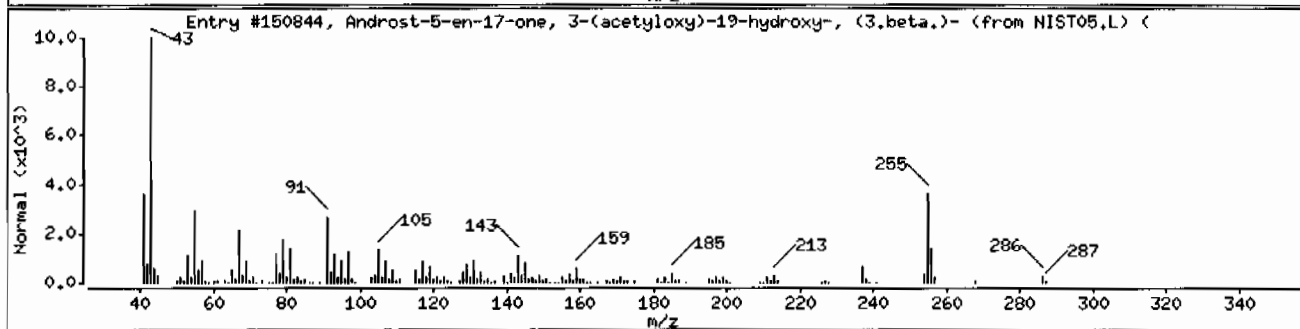
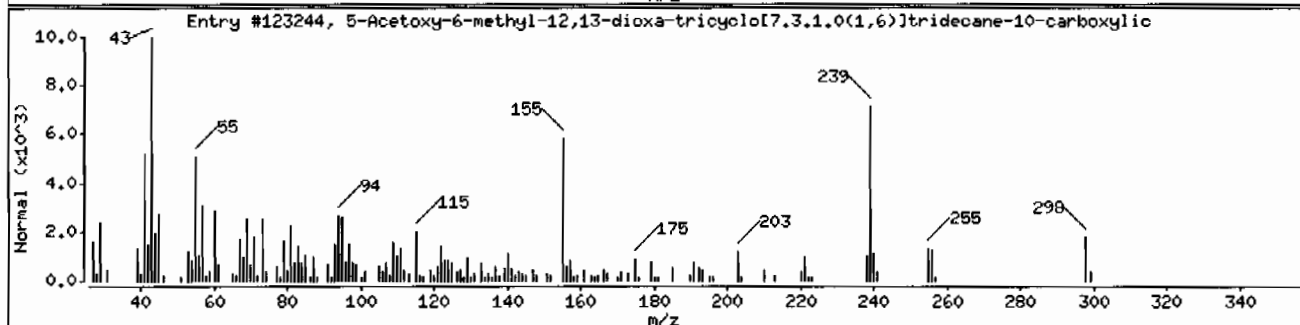
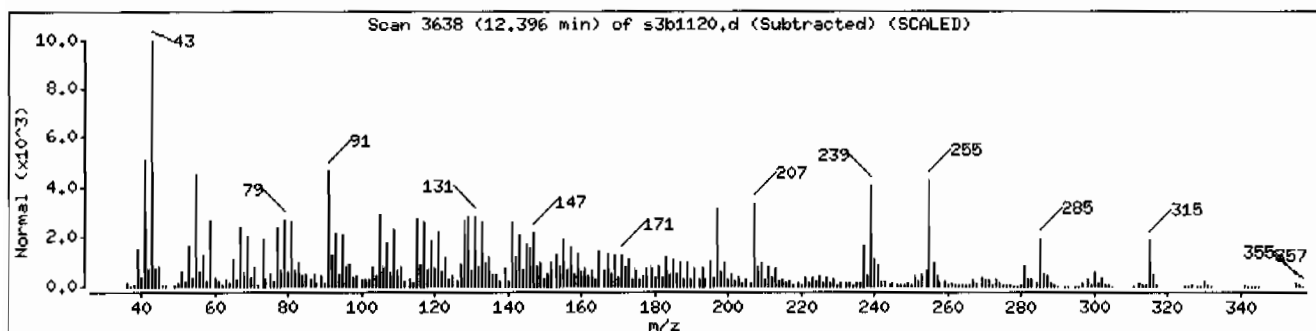
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
5-Acetoxy-6-methyl-12,13-dioxo-tricyclo[	1000194-29-0	NIST05.L	123244	10	C15H22O6	298
Androst-5-en-17-one, 3-(acetyloxy)-19-hy	2857-42-3	NIST05.L	150844	9	C21H30O4	346
Tetradecanoic acid, 2-iodoethyl ester	83763-20-6	NIST05.L	165609	9	C16H31O2	382



Date: 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 12451060141944591110ISVMF111LANL

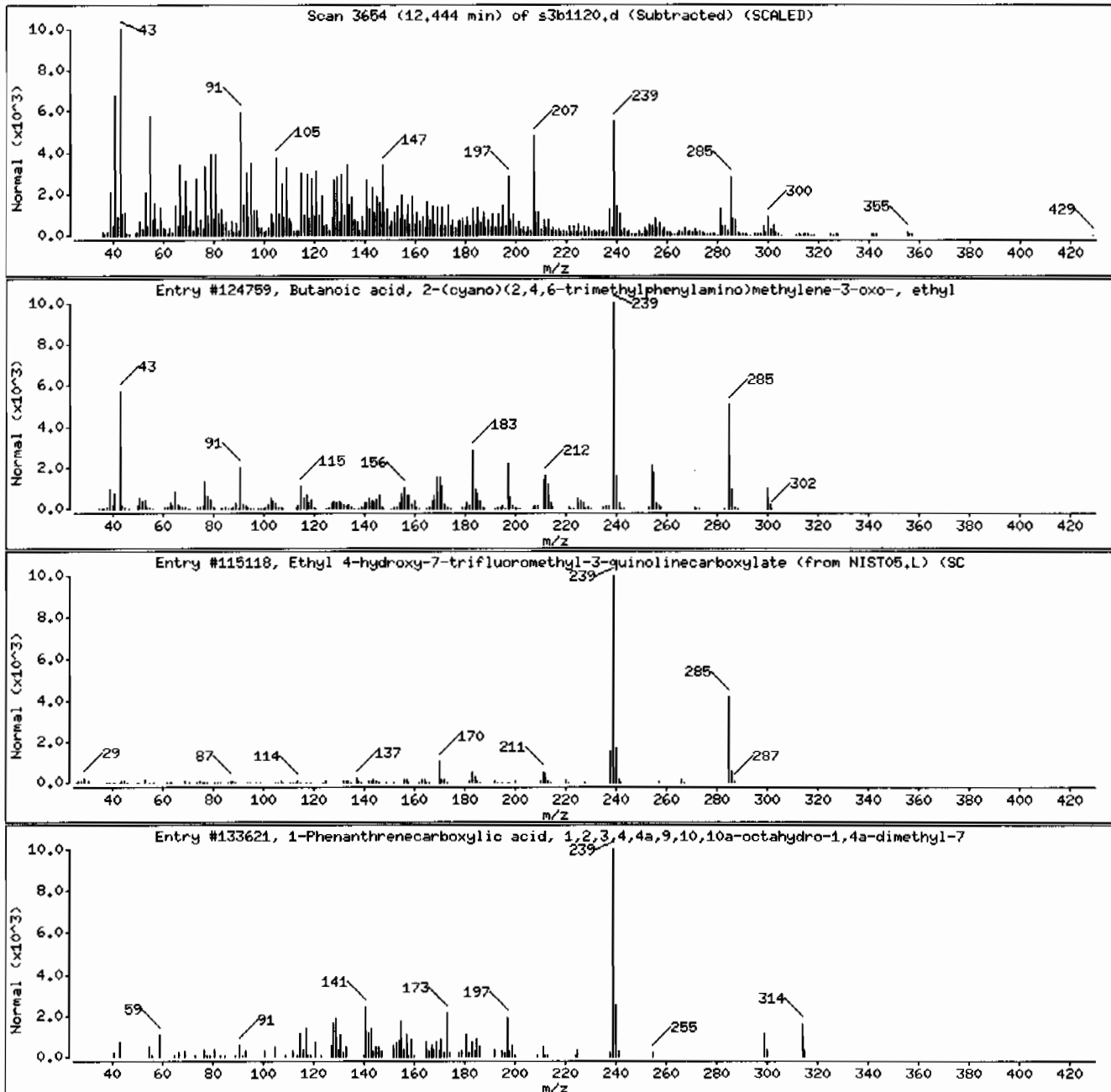
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Butanoic acid, 2-(cyano)(2,4,6-trimethyl	1000267-71-7	NIST05.L	124759	30	C17H20N2O3	300
Ethyl 4-hydroxy-7-trifluoromethyl-3-quin	391-02-6	NIST05.L	115118	30	C13H10F3NO3	285
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133621	25	C21H30O2	314



Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: HSD3.i

Sample Info: 12451060141944591101SVMF11ILANL

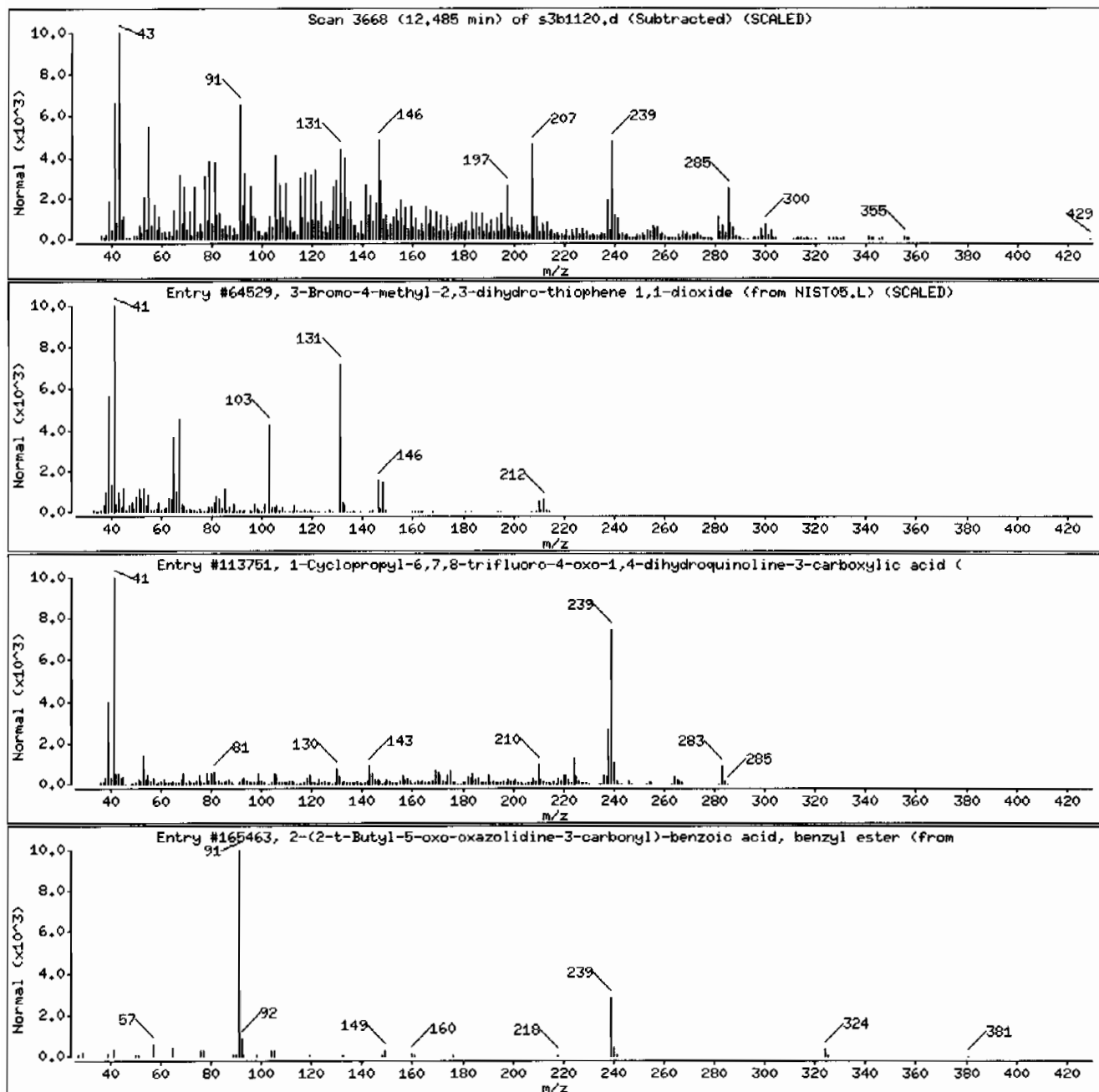
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-Bromo-4-methyl-2,3-dihydro-thiophene 1	65017-48-3	NIST05.L	64529	15	C5H7Br02S	210
1-Cyclopropyl-6,7,8-trifluoro-4-oxo-1,4-	94695-52-0	NIST05.L	113751	11	C13H8F3NO3	283
2-(2-t-Butyl-5-oxo-oxazolidine-3-carbonyl)-benzoic acid, benzyl ester	1000189-63-6	NIST05.L	165463	10	C22H23NO5	381



Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: HSD3.i

Sample Info: 124510601419445911101SVMF111LANL

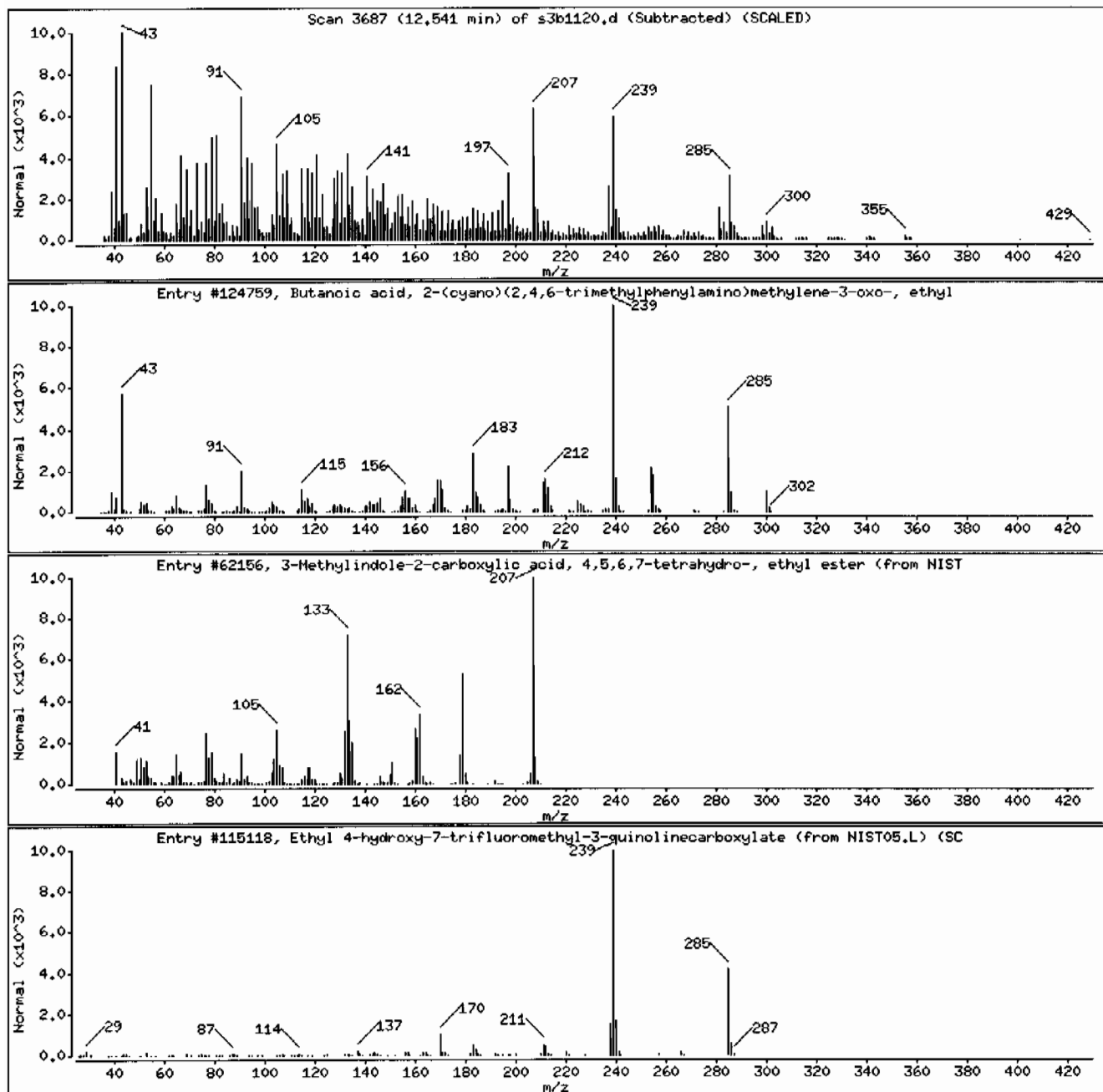
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Butanoic acid, 2-(cyano)(2,4,6-trimethyl	1000267-71-7	NIST05.L	124759	53	C17H20N2O3	300
3-Methylindole-2-carboxylic acid, 4,5,6,	37945-37-2	NIST05.L	62156	38	C12H17NO2	207
Ethyl 4-hydroxy-7-trifluoromethyl-3-quin	391-02-6	NIST05.L	115118	35	C13H10F3NO3	285



Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 12451060141944591101SVHF11ILANL

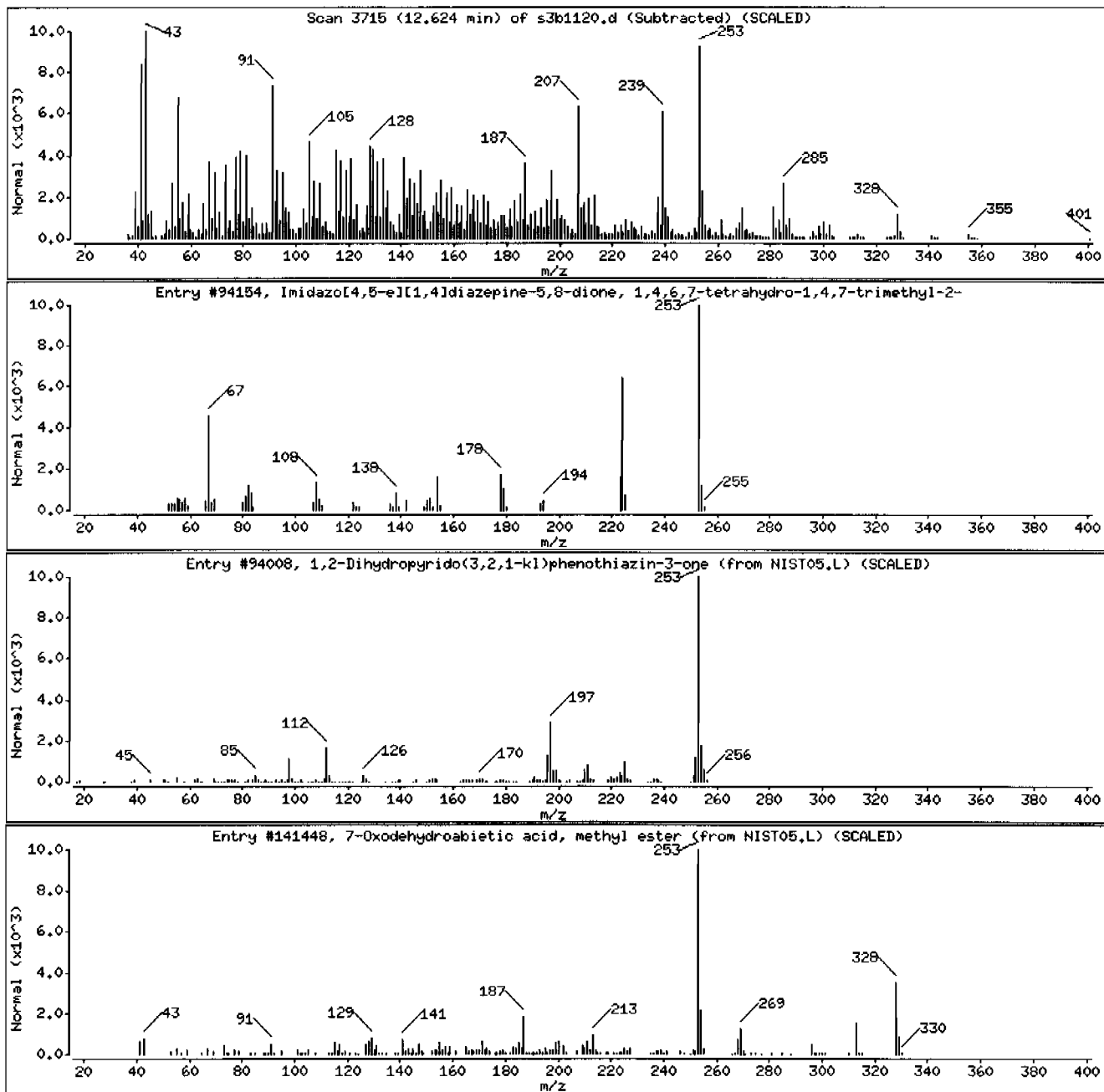
Volume Injected (ul): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Imidazo[4,5-e][1,4]diazepine-5,8-dione,	148259-68-1	NIST05.L	94154	44	C9H11N5O4	253
1,2-Dihydropyrido(3,2,1-k)phenothiazin-	69513-42-4	NIST05.L	94008	43	C15H11NOS	253
7-Oxodehydroabiatic acid, methyl ester	110936-78-2	NIST05.L	141448	35	C21H28O3	328



Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 12451060141944591101SVMF11ILANL

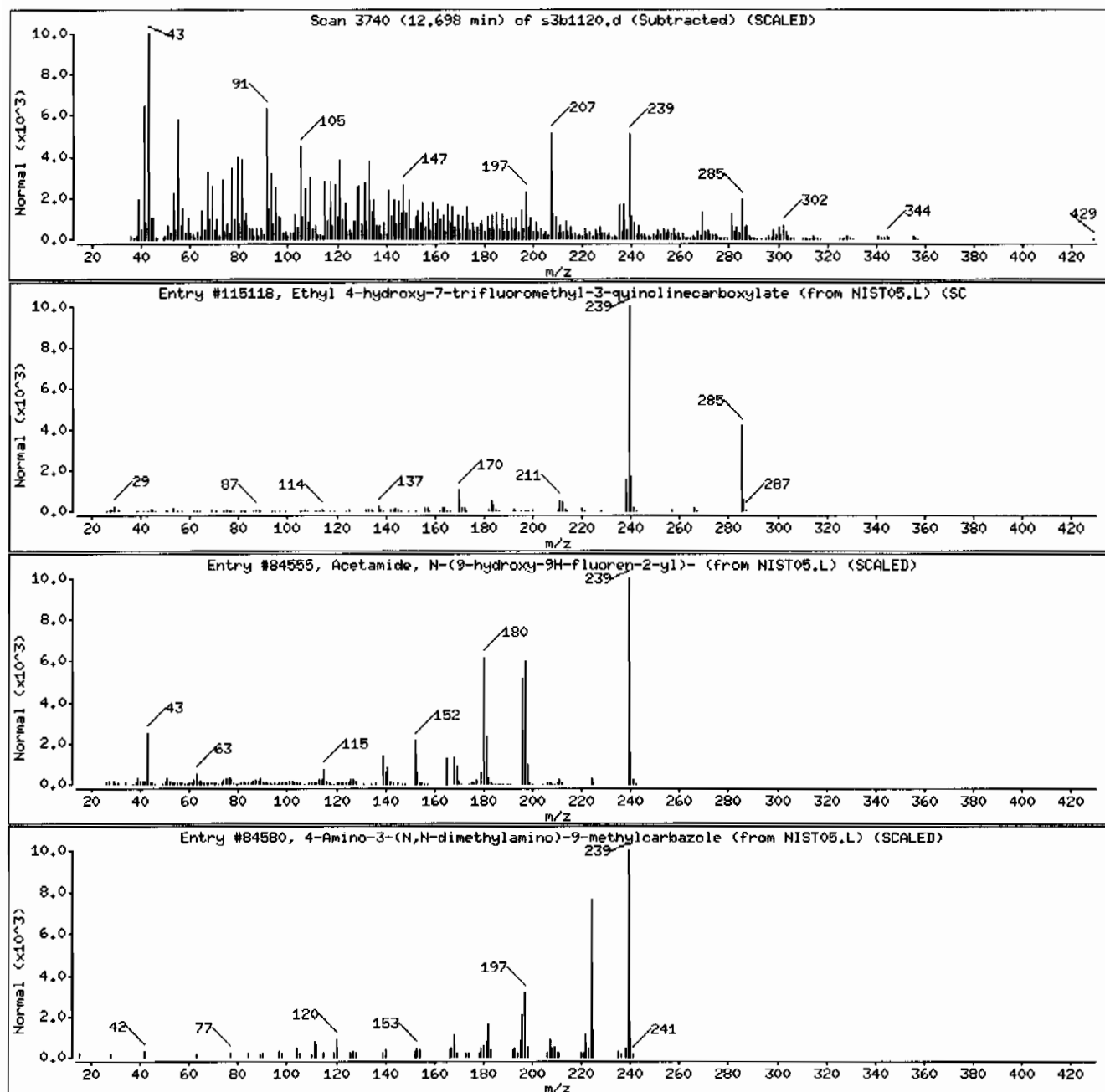
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ethyl 4-hydroxy-7-trifluoromethyl-3-quin	391-02-6	NIST05.L	115118	38	C13H10F3NO3	285
Acetamide, N-(9-hydroxy-9H-fluoren-2-yl)	57229-41-1	NIST05.L	84555	38	C15H13NO2	239
4-Amino-3-(N,N-dimethylamino)-9-methylca	94127-27-2	NIST05.L	84580	30	C15H17N3	239



Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 12451060141944591101SVHF11ILANL

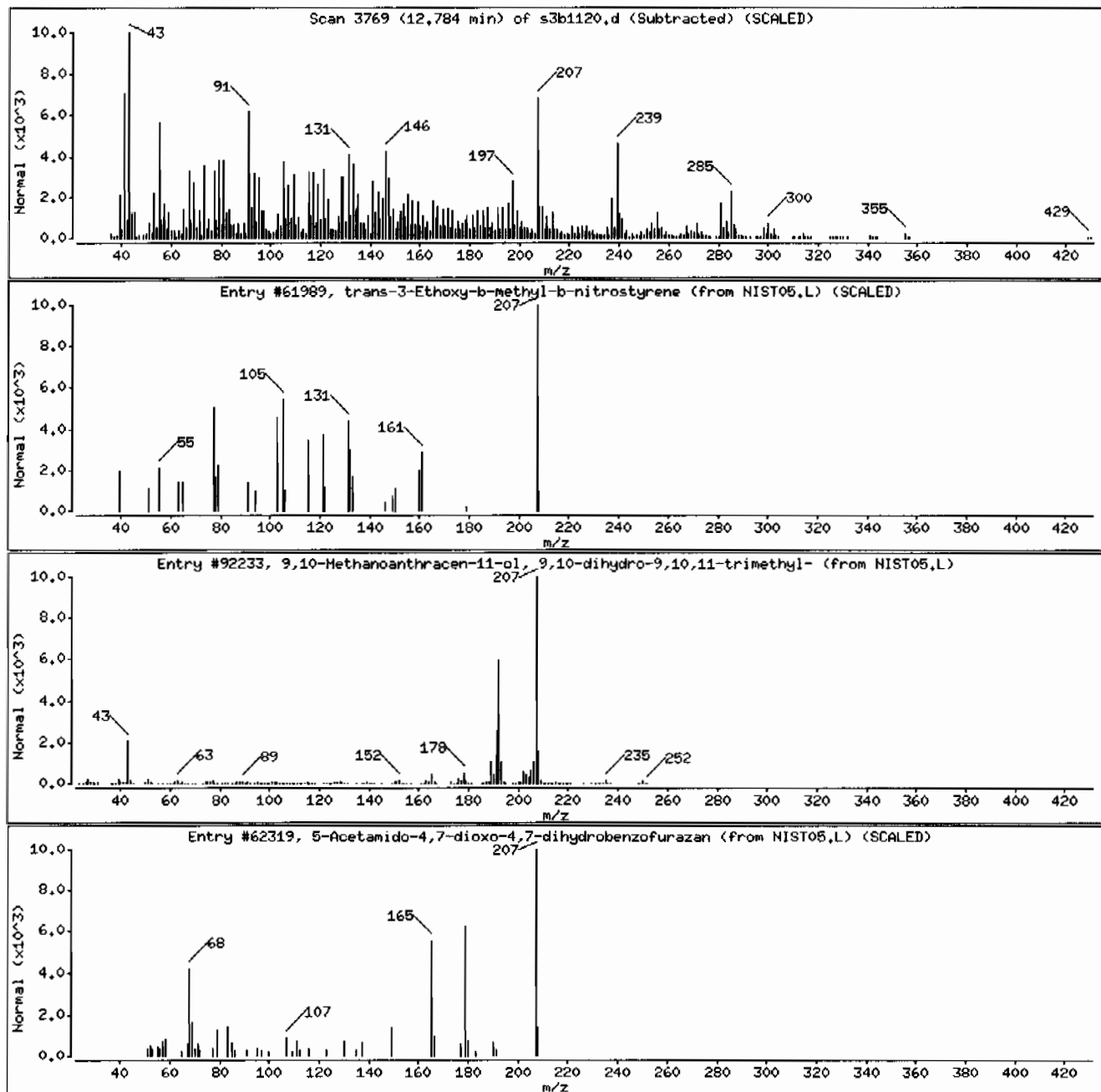
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
trans-3-Ethoxy-b-methyl-b-nitrostyrene	23037-46-9	NIST05.L	61989	38	C11H13NO3	207
9,10-Methanoanthracen-11-ol, 9,10-dihydr	126615-74-5	NIST05.L	92233	25	C18H18O	250
5-Acetamido-4,7-dioxo-4,7-dihydrobenzofu	153136-27-7	NIST05.L	62319	25	CBH5N3O4	207



Date: 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 12451060141944591110ISVHF111LANL

Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

## Library Search Compound Match

Unknown

Silicic acid, diethyl bis(trimethylsilyl)

CAS Number

Library

Entry

Quality

Formula

Weight

3555-45-1

NIST05.L

121708

38

C10H28O4Si3

296

2-Methyl-6-(5-methyl-2-thiazolin-2-ylami

339352-50-0

NIST05.L

61889

30

C10H13N3S

207

3,5-Dimethylbenzaldehyde thiocarbamoylhy

1000195-15-1

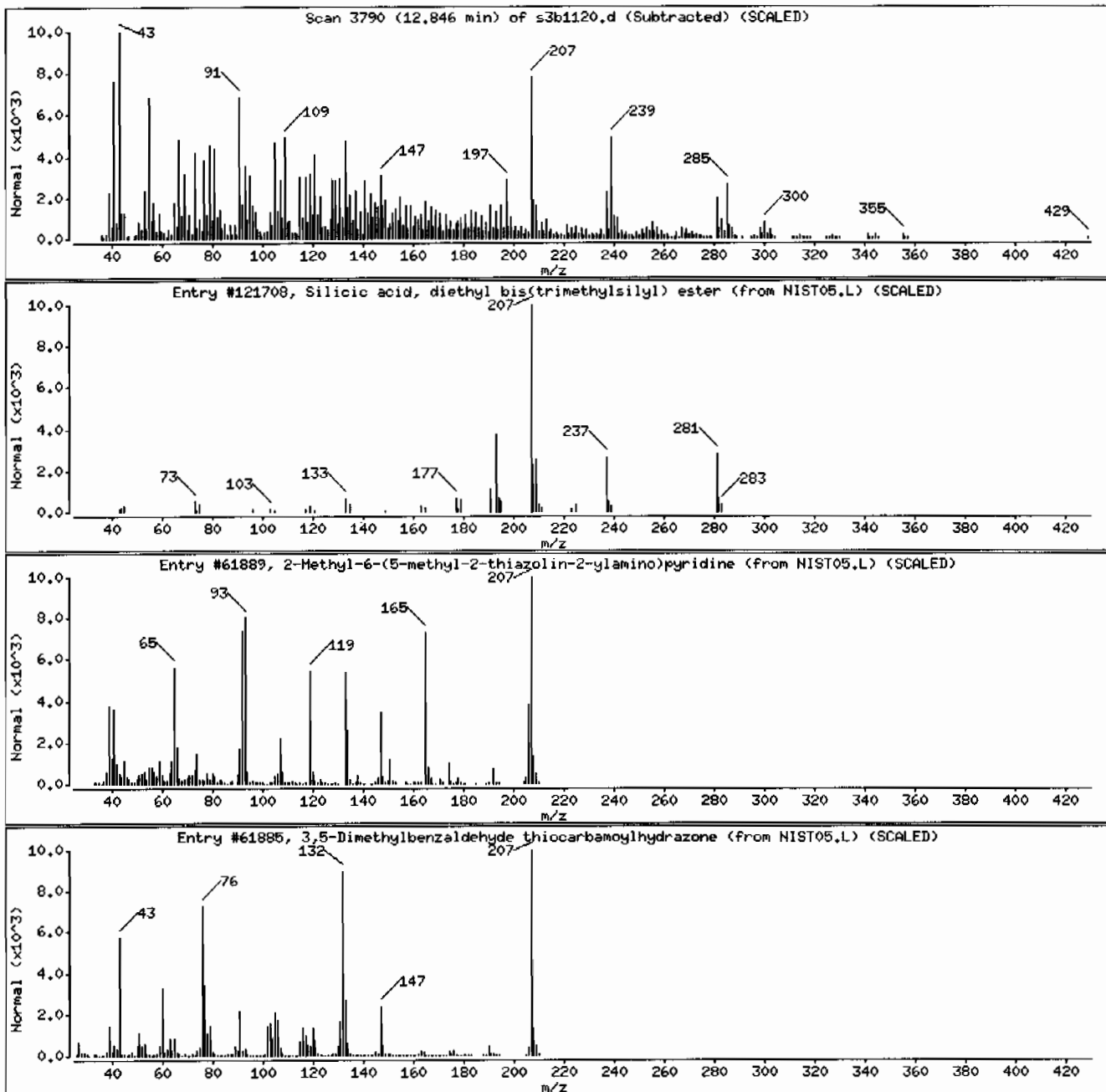
NIST05.L

61885

25

C10H13N3S

207





Date: 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: HSD3,i

Sample Info: 12451060141944591101SVMF111LANL

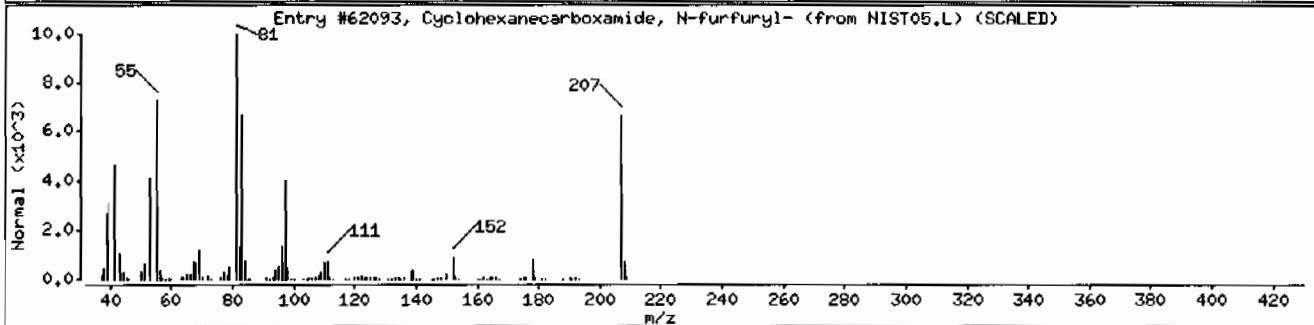
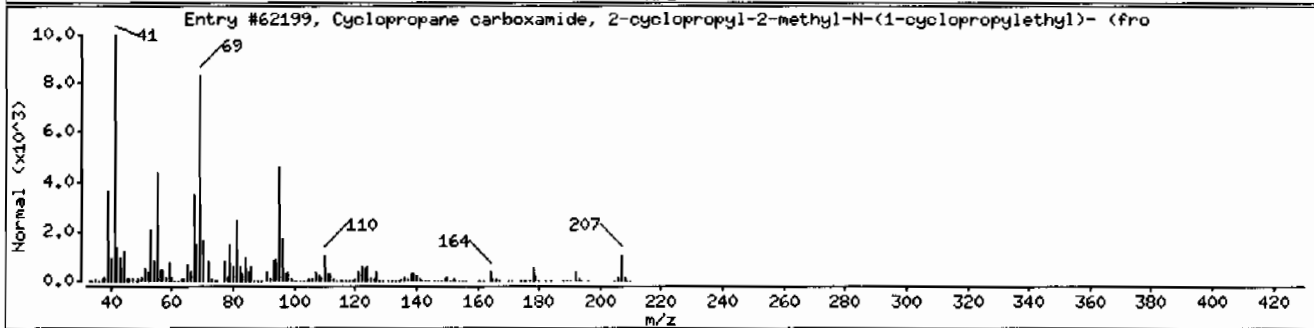
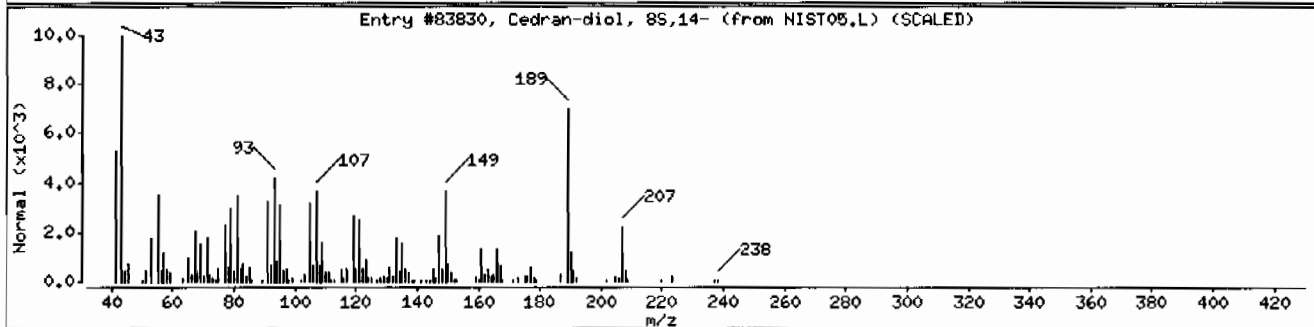
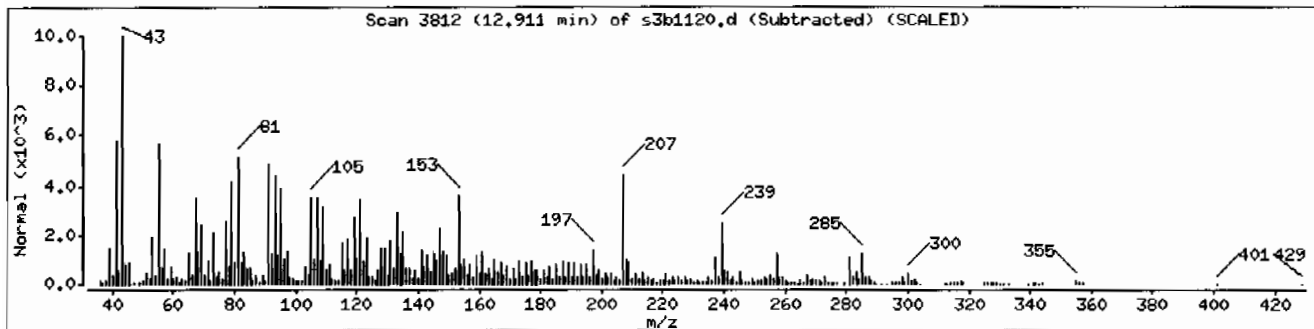
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	38	C15H26O2	238
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	38	C13H21NO	207
Cyclohexanecarboxamide, N-furfuryl-	6341-32-8	NIST05.L	62093	11	C12H17NO2	207



Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: I2451060141944591101SVHF11ILANL

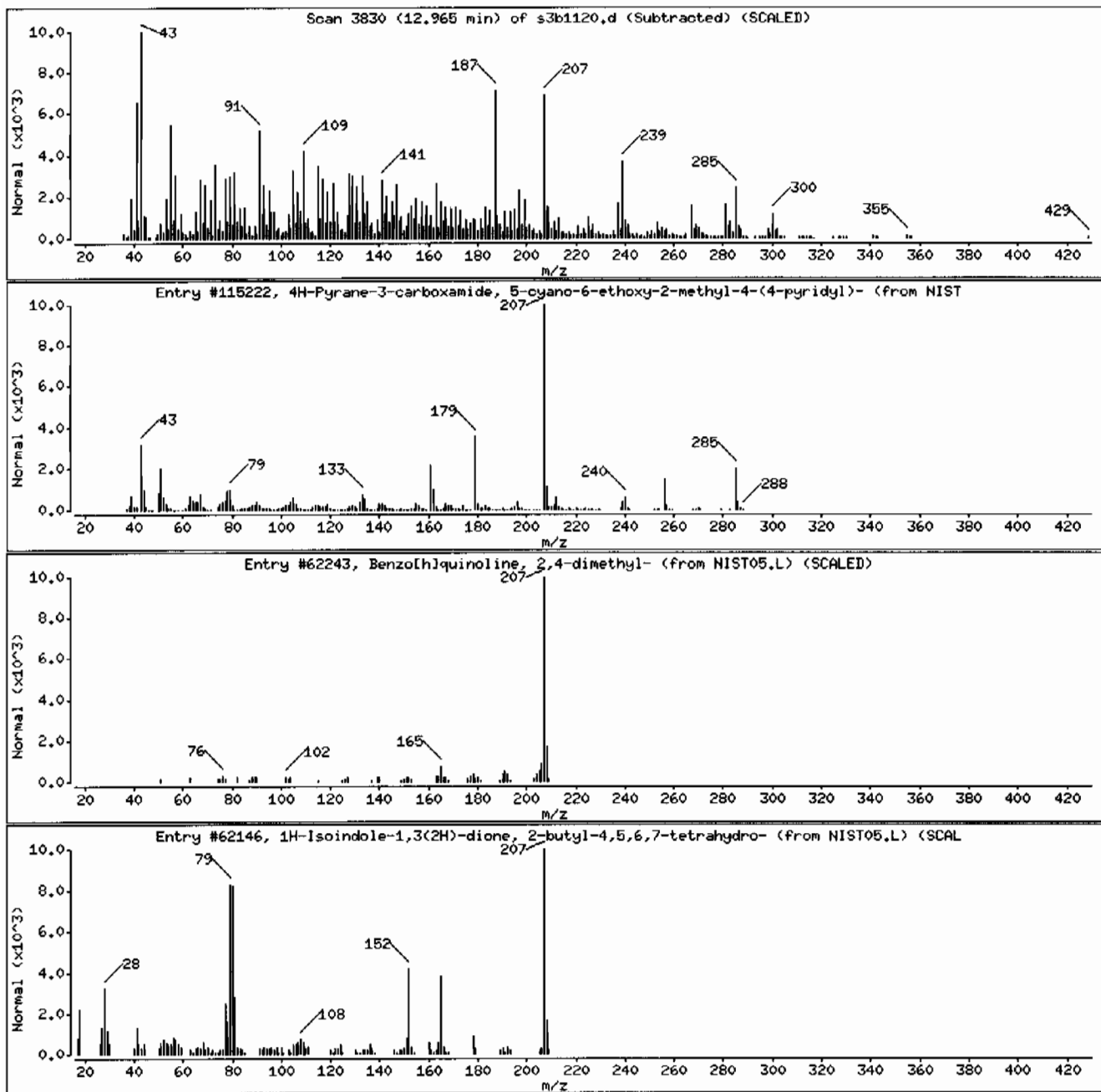
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4H-Pyran-3-carboxamide, 5-cyano-6-ethox	330593-30-1	NIST05.L	115222	35	C15H15N3O3	285
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	25	C15H13N	207
1H-Indole-1,3(2H)-dione, 2-butyl-4,5,	54934-85-9	NIST05.L	62146	25	C12H17N2O2	207



Date: 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: MSD3.i

Sample Info: 124510601419445911101SVMF111LANL

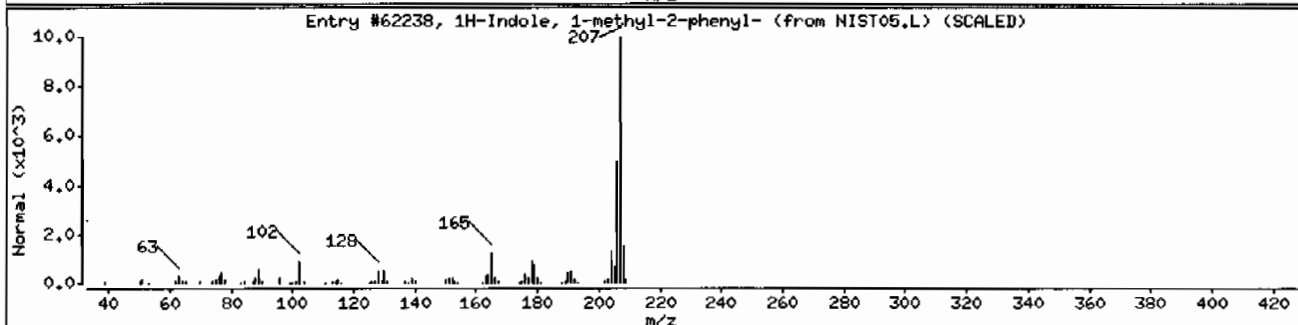
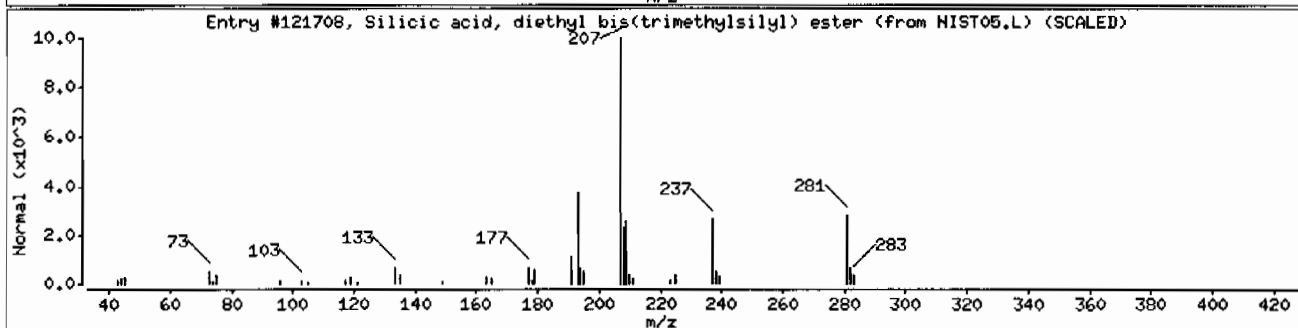
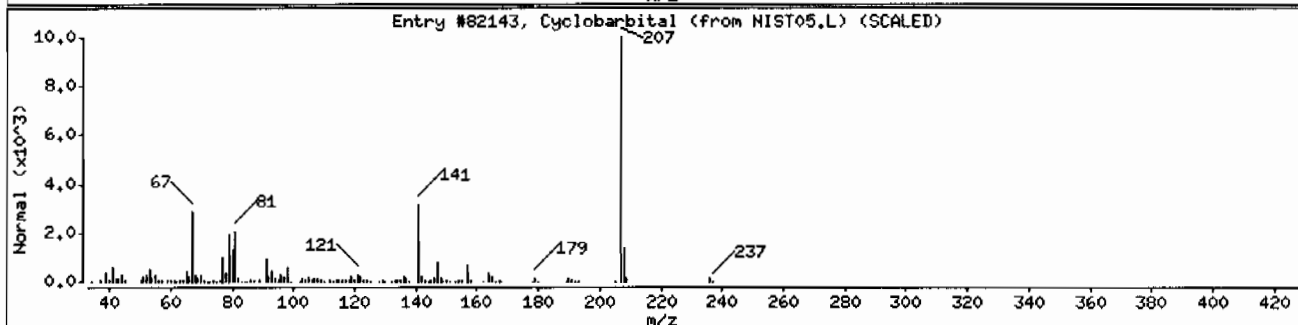
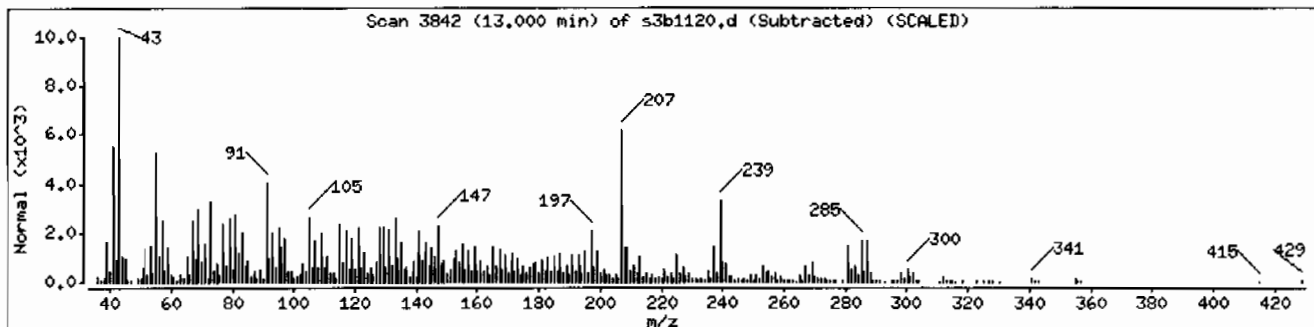
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclobarbitol	52-31-3	NIST05.L	82143	30	C12H16N2O3	236
Silicic acid, diethyl bis(trimethylsilyl)	3555-45-1	NIST05.L	121708	30	C10H28O4Si3	296
1H-Indole, 1-methyl-2-phenyl-	3558-24-5	NIST05.L	62238	25	C15H13N	207



Date : 11-FEB-2010 16:19

Client ID: RE15-10-7176

Instrument: HSD3.i

Sample Info: I245106014I944591I10ISVMFI1ILANL

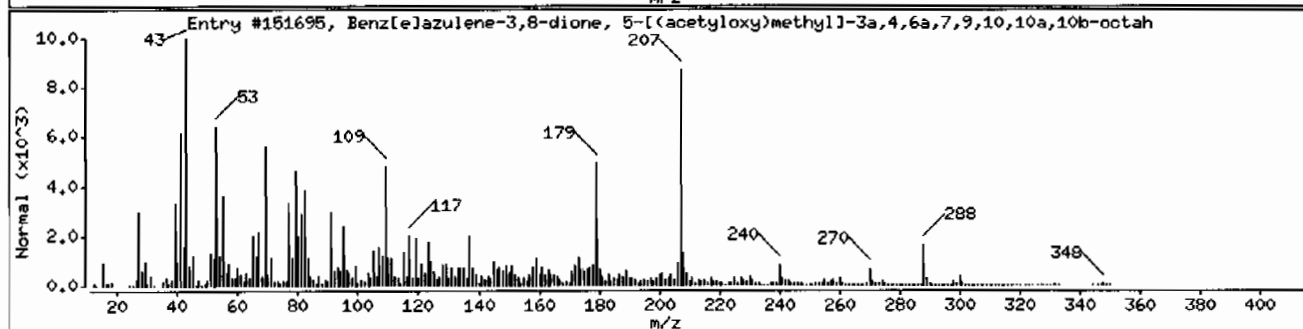
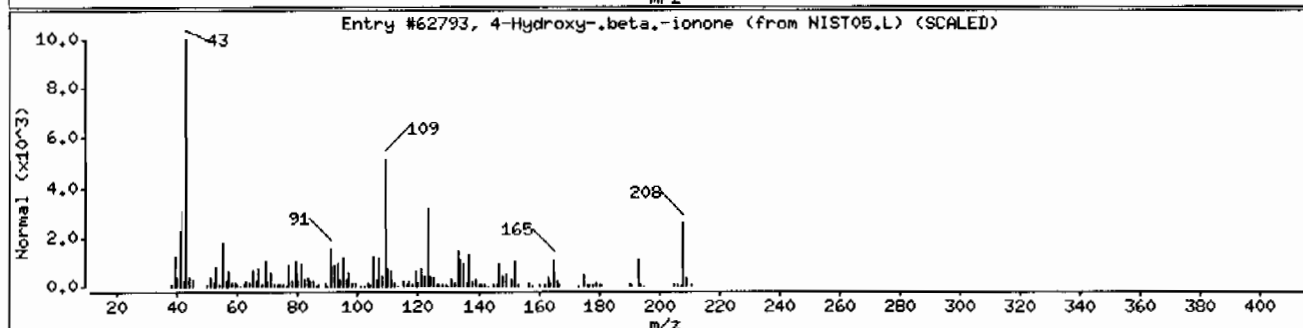
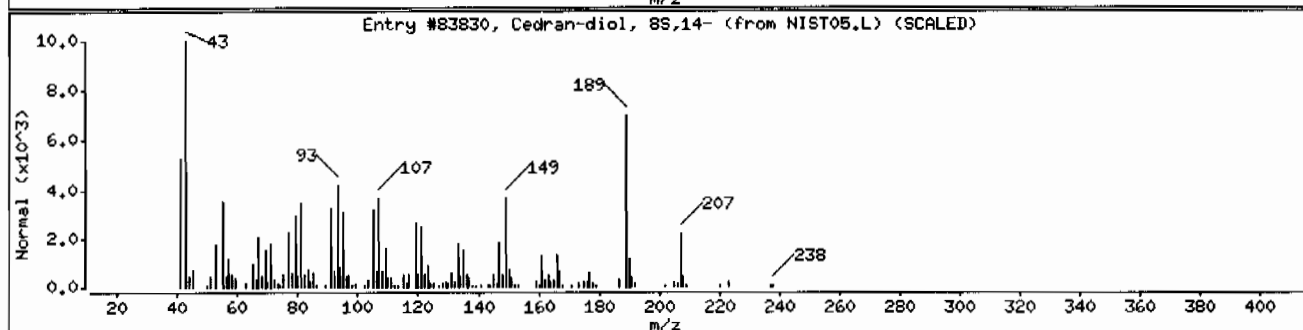
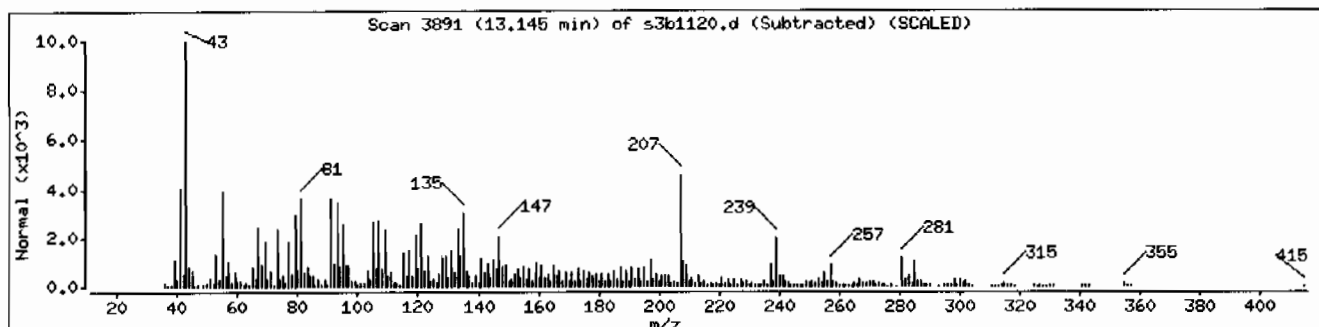
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	12	C15H26O2	238
4-Hydroxy-.beta.-ionone	15401-34-0	NIST05.L	62793	10	C13H20O2	208
Benz[e]azulene-3,8-dione, 5-[(acetyloxy)	25536-74-7	NIST05.L	151695	10	C19H24O6	348



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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106009	Date Received: 01/20/2010 08:45	%Moisture: 7.5
Client ID: RE15-10-7177	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/29/2010 02:20	Inst: MSD1J	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: s1a2827.d	Aliquot: 30 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	360	ug/kg	72.0	360
108-95-2	Phenol	U	360	ug/kg	72.0	360
95-57-8	2-Chlorophenol	U	360	ug/kg	72.0	360
106-46-7	1,4-Dichlorobenzene	U	360	ug/kg	72.0	360
621-64-7	N-Nitrosodipropylamine	U	360	ug/kg	72.0	360
59-50-7	4-Chloro-3-methylphenol	U	360	ug/kg	72.0	360
83-32-9	Acenaphthene	U	36.0	ug/kg	11.9	36.0
121-14-2	2,4-Dinitrotoluene	U	360	ug/kg	36.0	360
100-02-7	4-Nitrophenol	U	360	ug/kg	119	360
87-86-5	Pentachlorophenol	U	360	ug/kg	90.1	360
129-00-0	Pyrene	U	36.0	ug/kg	10.8	36.0
110-86-1	Pyridine	U	360	ug/kg	72.0	360
62-53-3	Aniline	U	360	ug/kg	108	360
111-44-4	bis(2-Chloroethyl) ether	U	360	ug/kg	72.0	360
541-73-1	1,3-Dichlorobenzene	U	360	ug/kg	72.0	360
100-51-6	Benzyl alcohol	U	360	ug/kg	108	360
95-50-1	1,2-Dichlorobenzene	U	360	ug/kg	72.0	360
108-60-1	bis(2-Chloroisopropyl)ether	U	360	ug/kg	72.0	360
95-48-7	o-Cresol	U	360	ug/kg	72.0	360
65794-96-9	m,p-Cresols	U	360	ug/kg	108	360
67-72-1	Hexachloroethane	U	360	ug/kg	72.0	360
98-95-3	Nitrobenzene	U	360	ug/kg	72.0	360
78-59-1	Isophorone	U	360	ug/kg	72.0	360
88-75-5	2-Nitrophenol	U	360	ug/kg	72.0	360
105-67-9	2,4-Dimethylphenol	U	360	ug/kg	126	360
111-91-1	bis(2-Chloroethoxy)methane	U	360	ug/kg	72.0	360
120-83-2	2,4-Dichlorophenol	U	360	ug/kg	72.0	360
65-85-0	Benzoic acid	U	720	ug/kg	180	720
91-20-3	Naphthalene	U	36.0	ug/kg	10.8	36.0
106-47-8	4-Chloroaniline	U	360	ug/kg	72.0	360
87-68-3	Hexachlorobutadiene	U	360	ug/kg	72.0	360
91-57-6	2-Methylnaphthalene	U	36.0	ug/kg	7.20	36.0
77-47-4	Hexachlorocyclopentadiene	U	360	ug/kg	72.0	360
88-06-2	2,4,6-Trichlorophenol	U	360	ug/kg	72.0	360
95-95-4	2,4,5-Trichlorophenol	U	360	ug/kg	72.0	360
91-58-7	2-Chloronaphthalene	U	36.0	ug/kg	11.9	36.0
88-74-4	2-Nitroaniline	U	360	ug/kg	72.0	360
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	360	ug/kg	72.0	360

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106009	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 7.5
<b>Client ID:</b> RE15-10-7177	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 944591	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Run Date:</b> 01/29/2010 02:20	<b>Inst:</b> MSD1.I	<b>Dilution:</b> 1
<b>Prep Date:</b> 01/25/2010 14:38	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Data File:</b> s1a2827.d	<b>Aliquot:</b> 30 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					
606-20-2	Dimethylphthalate	U	360	ug/kg	72.0	360
208-96-8	2,6-Dinitrotoluene	U	360	ug/kg	36.0	360
51-28-5	Accenaphthylene	U	36.0	ug/kg	10.8	36.0
132-64-9	2,4-Dinitrophenol	U	720	ug/kg	137	720
84-66-2	Dibenzofuran	U	360	ug/kg	72.0	360
86-73-7	Diethylphthalate	U	360	ug/kg	72.0	360
7005-72-3	Fluorene	U	36.0	ug/kg	10.8	36.0
534-52-1	4-Chlorophenylphenylether	U	360	ug/kg	72.0	360
100-01-6	2-Methyl-4,6-dinitrophenol	U	360	ug/kg	72.0	360
122-39-4	4-Nitroaniline	U	360	ug/kg	108	360
122-66-7	<i>p</i> -Nitroaniline					
101-55-3	Diphenylamine	U	360	ug/kg	72.0	360
118-74-1	Azobenzene	U	360	ug/kg	72.0	360
85-01-8	<i>1,2</i> -Diphenylhydrazine					
120-12-7	4-Bromophenylphenylether	U	360	ug/kg	72.0	360
84-74-2	Hexachlorobenzene	U	360	ug/kg	72.0	360
206-44-0	Phenanthrene	U	36.0	ug/kg	10.8	36.0
85-68-7	Anthracene	U	36.0	ug/kg	7.20	36.0
56-55-3	Di-n-butylphthalate	U	360	ug/kg	72.0	360
91-94-1	Fluoranthene	U	36.0	ug/kg	10.8	36.0
218-01-9	Butylbenzylphthalate	U	360	ug/kg	72.0	360
117-81-7	Benzo(a)anthracene	U	36.0	ug/kg	10.8	36.0
117-84-0	3,3'-Dichlorobenzidine	U	360	ug/kg	108	360
205-99-2	Chrysene	U	36.0	ug/kg	10.8	36.0
207-08-9	bis(2-Ethylhexyl)phthalate	U	360	ug/kg	72.0	360
50-32-8	Di-n-octylphthalate	U	360	ug/kg	72.0	360
193-39-5	Benzo(b)fluoranthene	U	36.0	ug/kg	10.8	36.0
53-70-3	Benzo(k)fluoranthene	U	36.0	ug/kg	10.8	36.0
191-24-2	Benzo(a)pyrene	U	36.0	ug/kg	10.8	36.0
120-82-1	Indeno(1,2,3-cd)pyrene	U	36.0	ug/kg	10.8	36.0
	Dibenzo(a,h)anthracene	U	36.0	ug/kg	10.8	36.0
	Benzo(ghi)perylene	U	36.0	ug/kg	10.8	36.0
	1,2,4-Trichlorobenzene	U	360	ug/kg	72.0	360

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.71	152	ug/kg		J
	Unknown	2.16	228	ug/kg		J

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

SDG Number: 10-1304  
Lab Sample ID: 245106009

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.J  
Analyst: AMY  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 7.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7177  
Batch ID: 944591  
Run Date: 01/29/2010 02:20  
Prep Date: 01/25/2010 14:38  
Data File: s1a2827.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.09	813	ug/kg		JA
121-33-5	Vanillin	6.97	155	ug/kg	97	NJ
4630-07-3	Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	7.15	539	ug/kg	99	NJ
1135-24-6	2-Propenoic acid, 3-(4-hydroxy-3-methoxy	9.38	373	ug/kg	98	NJ
109-29-5	Oxacycloheptadecan-2-one	10.48	201	ug/kg	95	NJ
	Unknown	11.45	240	ug/kg		J
	Unknown	11.66	150	ug/kg		J
	Unknown	11.69	230	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.81	1030	ug/kg	94	NJ
112-85-6	Docosanoic acid	12.13	213	ug/kg	90	NJ
580-72-3	2(3H)-Furanone, dihydro-3,4-bis[(4-hydro	15.2	2540	ug/kg	94	NJ
	Unknown	15.8	190	ug/kg		J
	Unknown	15.93	2440	ug/kg		J
	Unknown	16.05	337	ug/kg		J
	Unknown	16.17	272	ug/kg		J
83-46-5	.beta.-Sitosterol	16.75	918	ug/kg	96	NJ

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2827.d  
 Lab Smp Id: 245106009 Client Smp ID: RE15-10-7177  
 Inj Date : 29-JAN-2010 02:20  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |245106009|944591|1|SVMF|1|LANL  
 Misc Info : |MSD8270\_S|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
 Als bottle: 16  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1304.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	30.00000	weight of sample
M	7.46330	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	ON-COLUMN	FINAL
					(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.434	4.434	(1.000)	283424	40.0000
* 29 Naphthalene-d8	136	5.687	5.687	(1.000)	1109277	40.0000
* 46 Acenaphthene-d10	164	7.539	7.540	(1.000)	607722	40.0000
* 67 Phenanthrene-d10	188	9.139	9.139	(1.000)	973811	40.0000
* 91 Chrysene-d12	240	12.039	12.039	(1.000)	747268	40.0000
* 98 Perylene-d12	264	14.127	14.121	(1.000)	536118	40.0000
\$ 3 2-Fluorophenol	112	3.316	3.304	(0.748)	480706	54.8378 1980
\$ 5 Phenol-d5	99	4.069	4.063	(0.918)	631016	57.9560 2090
\$ 20 Nitrobenzene-d5	82	4.957	4.957	(0.872)	261957	31.9963 1150
\$ 39 2-Fluorobiphenyl	172	6.810	6.810	(0.903)	500324	31.9566 1150
\$ 60 2,4,6-Tribromophenol	329	8.386	8.387	(1.112)	135420	61.5799 2220
\$ 81 p-Terphenyl-d14	244	10.851	10.845	(0.901)	506978	37.8086 1360



## ION RATIO REPORT

## SV REPORT

Data file: sla2827.d

Report Date: 01/29/2010 11:31

Lab. ID: 245106009

SampleType: SAMPLE

Injection Date: 29-JAN-2010 02:20

Operator: AMY

Instrument: MSD1.i

Sample Info: |245106009|944591|1|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100107-03|

Comment:

Method used: /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	29349	4.07	4.13	80-120	100	( )
93	11993	4.12	4.13	213-273	41	(Q)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	34577	4.96	4.81	80-120	100	(T)
42	22607	4.96	4.81	54-114	65	(T)
-----						
40	2-Chloronaphthalene	CAS#: 91-58-7				
162	9500	7.15	6.95	80-120	100	(T)
164	533	7.15	6.95	2- 62	6	(T)
127	679	7.15	6.95	8- 68	7	(QT)
-----						
42	o-Nitroaniline	CAS#: 88-74-4				
65	12224	7.15	7.05	80-120	100	(T)
92	15004	7.15	7.05	29- 89	123	(QT)
138	1144	7.15	7.05	68-128	9	(QT)
-----						
44	2,6-Dinitrotoluene	CAS#: 606-20-2				
165	78340	7.54	7.31	80-120	100	(T)
63	1111	7.54	7.31	41-101	1	(QT)
-----						
50	2,4-Dinitrotoluene	CAS#: 121-14-2				
165	78340	7.54	7.75	80-120	100	(T)
89	926	7.54	7.75	55-115	1	(QT)
63	1111	7.54	7.75	50-110	1	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	273	8.39	8.18	80-120	100	(T)
105	1124	8.39	8.18	14- 74	412	(QT)
51	1251	8.38	8.18	46-106	458	(QT)

-----						
85	Butylbenzylphthalate			CAS#: 85-68-7		
149	22966	11.45	11.37	80-120	100	(T)
91	36165	11.45	11.37	46-106	157	(QT)
206	668	11.44	11.37	0- 50	3	(T)

-----

Q qualifier indicates ion failed ratio requirement

Data File: /chem/MSD1.i/s012810.b/sla2827.d  
 Report Date: 29-Jan-2010 12:21

Page 1

# GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2827.d  
 Lab Smp Id: 245106009 Client Smp ID: RE15-10-7177  
 Inj Date : 29-JAN-2010 02:20  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |245106009|944591|1|SVMF|1|LANL  
 Misc Info : |MSD8270\_S|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
 Als bottle: 16  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1304.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	7.46330	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.434	1843363	40.000
* 46 Acenaphthene-d10	7.539	2563548	40.000
* 67 Phenanthrene-d10	9.139	2488208	40.000
* 91 Chrysene-d12	12.039	2141279	40.000
* 98 Perylene-d12	14.127	1534449	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
----	----	-----	-----	----	-----	-----	-----

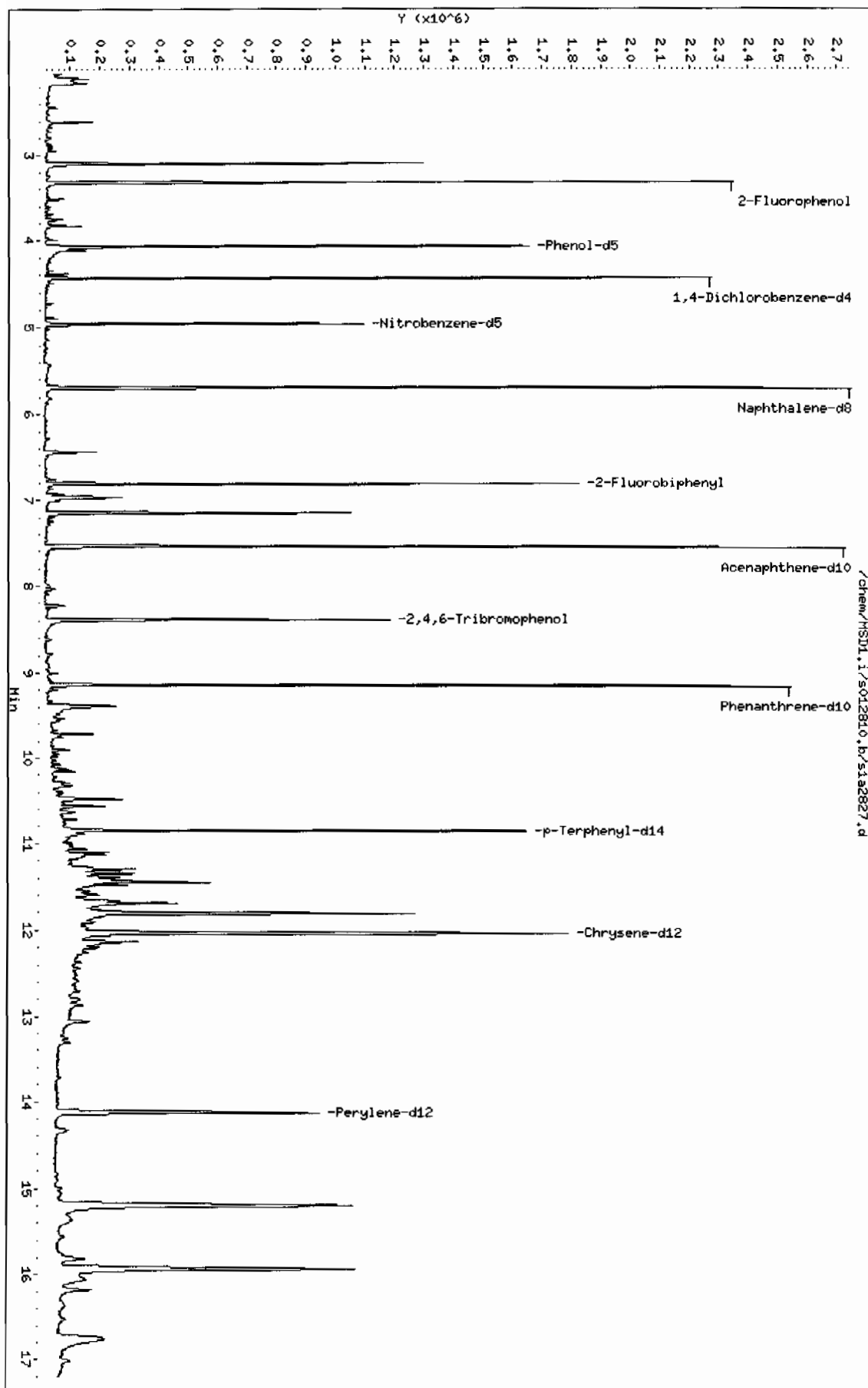
RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Unknown					CAS #:		
1.710	194779	4.22660206	152	0		0	10
Unknown					CAS #:		
2.157	291302	6.32110618	228	0		0	10
Unknown Aldol Condensate					CAS #:		
3.093	1040033	22.5681627	813	0		0	10
Vanillin					CAS #: 121-33-5		
6.969	276138	4.30868428	155	97	NIST05.L	24745	46
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-					CAS #: 4630-07-3		
7.145	958822	14.9608599	539	99	NIST05.L	60047	46
2-Propenoic acid, 3-(4-hydroxy-3-methoxy					CAS #: 1135-24-6		
9.380	643830	10.3501034	373	98	NIST05.L	52319	67
Oxacycloheptadecan-2-one					CAS #: 109-29-5		
10.480	346944	5.57740983	201	95	NIST05.L	94746	67
Unknown					CAS #:		
11.451	356149	6.65302256	240	0		0	91
Unknown					CAS #:		
11.663	222972	4.16521483	150	0		0	91
Unknown					CAS #:		
11.692	341971	6.38815732	230	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1740-19-8		
11.810	1532896	28.6351532	1030	94	NIST05.L	125034	91
Docosanoic acid					CAS #: 112-85-6		
12.133	316569	5.91363774	213	90	NIST05.L	147935	91
2(3H)-Furanone, dihydro-3,4-bis[(4-hydro					CAS #: 580-72-3		
15.198	2704069	70.4896207	2540	94	NIST05.L	156200	98
Unknown					CAS #:		
15.804	202161	5.26991977	190	0		0	98
Unknown					CAS #:		
15.927	2594264	67.6272149	2440	0		0	98

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
====	====	=====	=====	====	=====	=====	=====
Unknown					CAS #:		
16.051	358920	9.35631060	337	0		0	98
Unknown					CAS #:		
16.174	289836	7.55543637	272	0		0	98
.beta.-Sitosterol					CAS #: 83-46-5		
16.751	977760	25.4882187	918	96	NIST05.L	174399	98

Data File: /chem/HSD1.i/5012810.b/s1a2827.d  
Date: 29-Jan-2010 02:20  
Client ID: RE15-10-7177  
Sample Info: 1245106009194459111SVHFI11LANL  
Volume Injected (uL): 0.5  
Column phase: 3M DB-5MS

Instrument: HSD1.i  
Operator: AMY  
Column diameter: 0.20

Page 1



Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: MSD1.i

Sample Info: 1245106009194459111SVMF111LANL

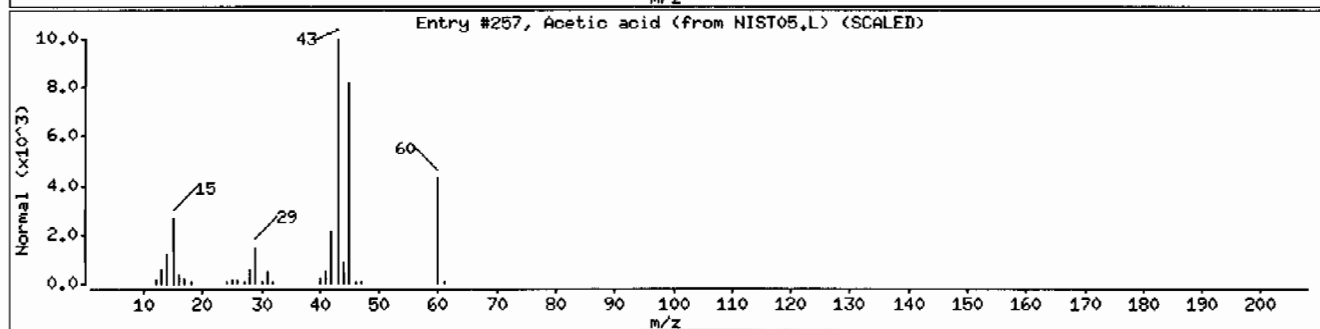
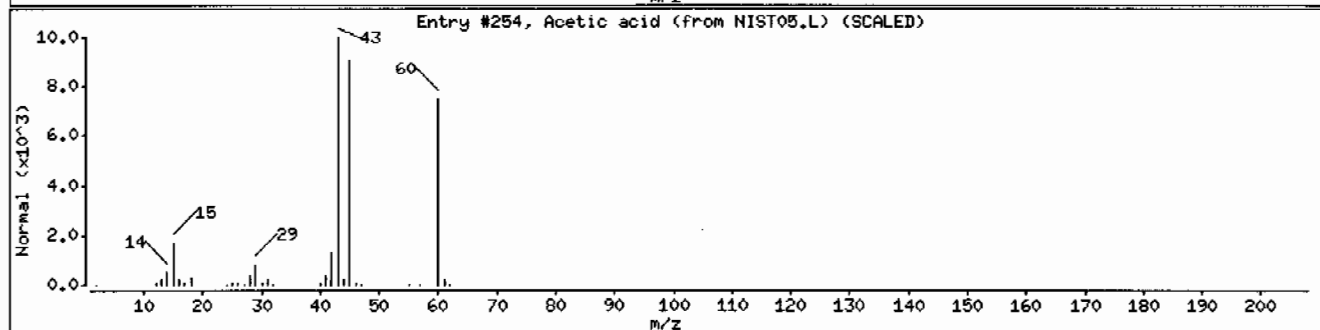
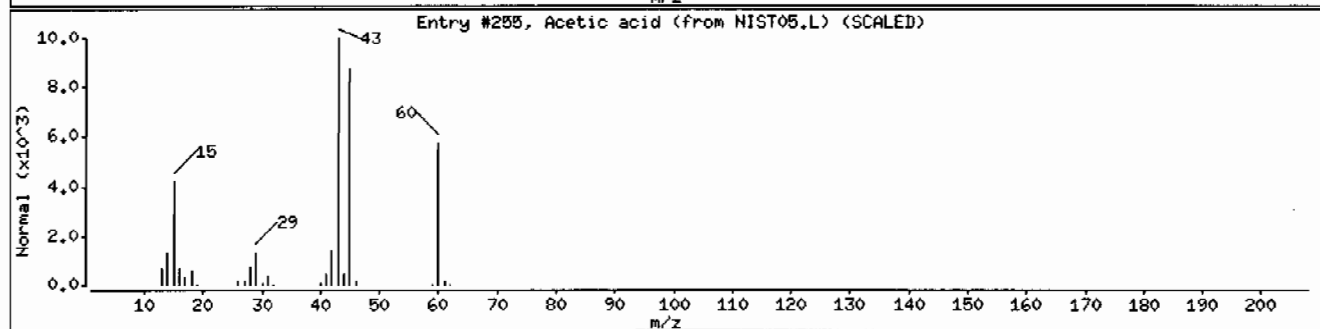
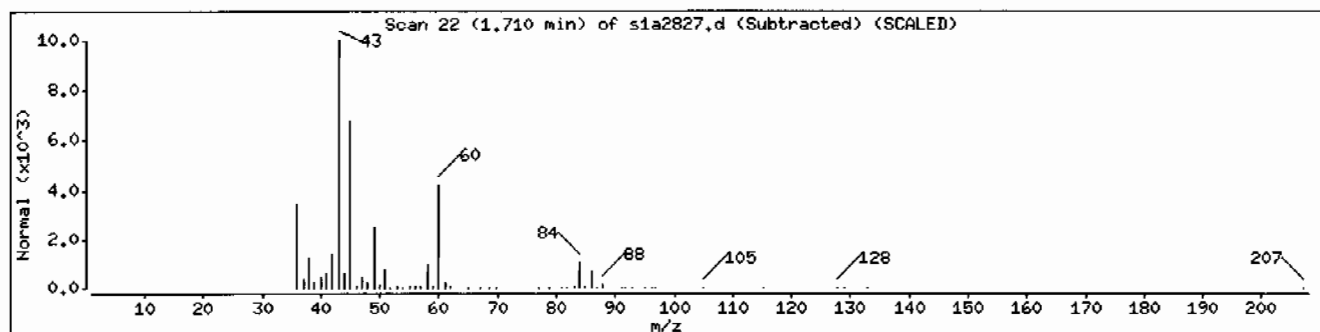
Volume Injected (uL): 0.5

Operator: AMY

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	64-19-7	NIST05.L	255	30	C2H4O2	60
Acetic acid	64-19-7	NIST05.L	254	27	C2H4O2	60
Acetic acid	64-19-7	NIST05.L	257	27	C2H4O2	60



Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: MSD1.i

Sample Info: 1245106009194459111SVMF111LANL

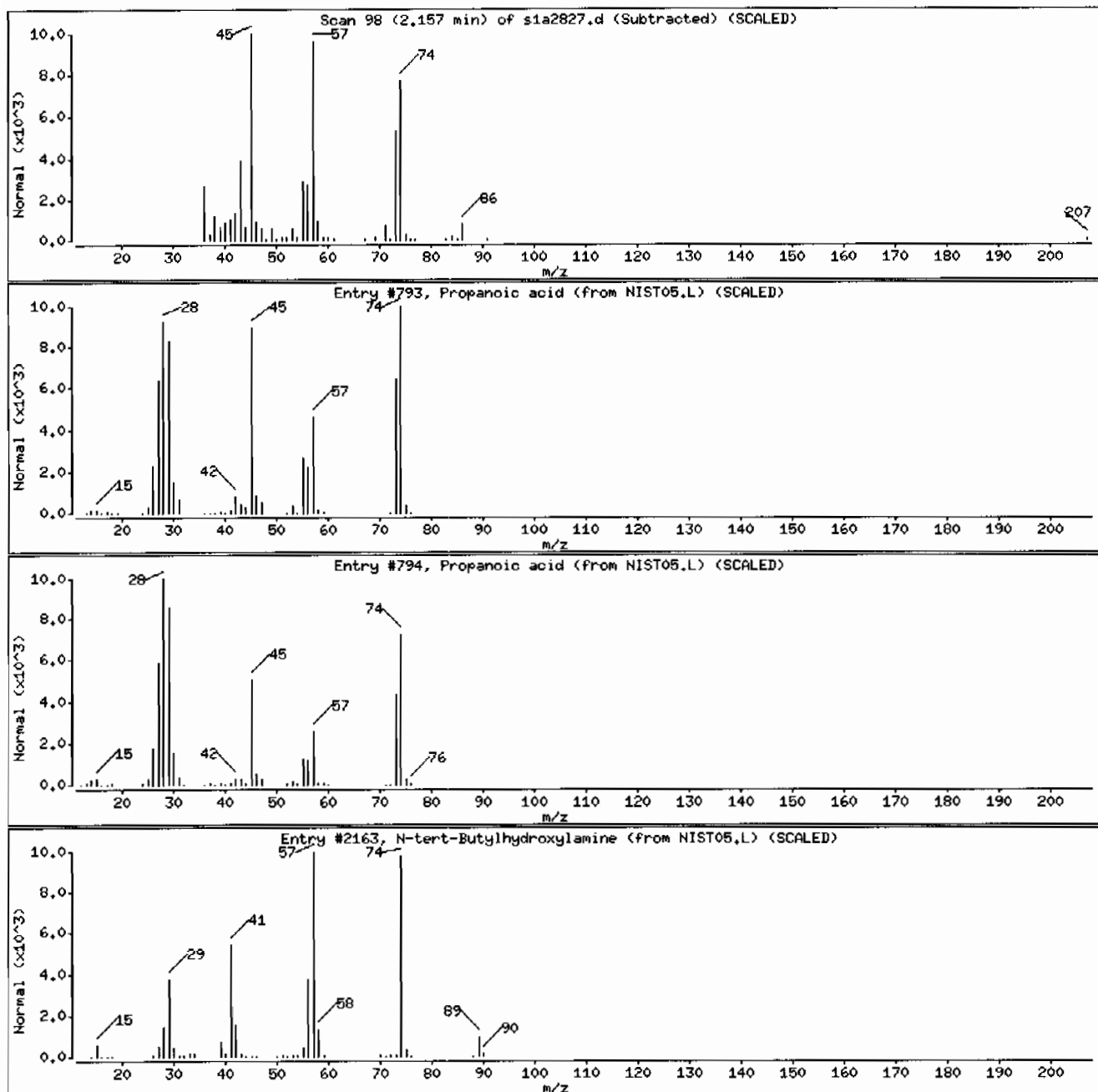
Volume Injected (uL): 0.5

Operator: AMY

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	79-09-4	NIST05.L	793	64	C3H6O2	74
Propanoic acid	79-09-4	NIST05.L	794	47	C3H6O2	74
N-tert-Butylhydroxylamine	1000239-48-8	NIST05.L	2163	25	C4H11NO	89





Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: MSD1.i

Sample Info: 1245106009194459111SVHF11ILANL

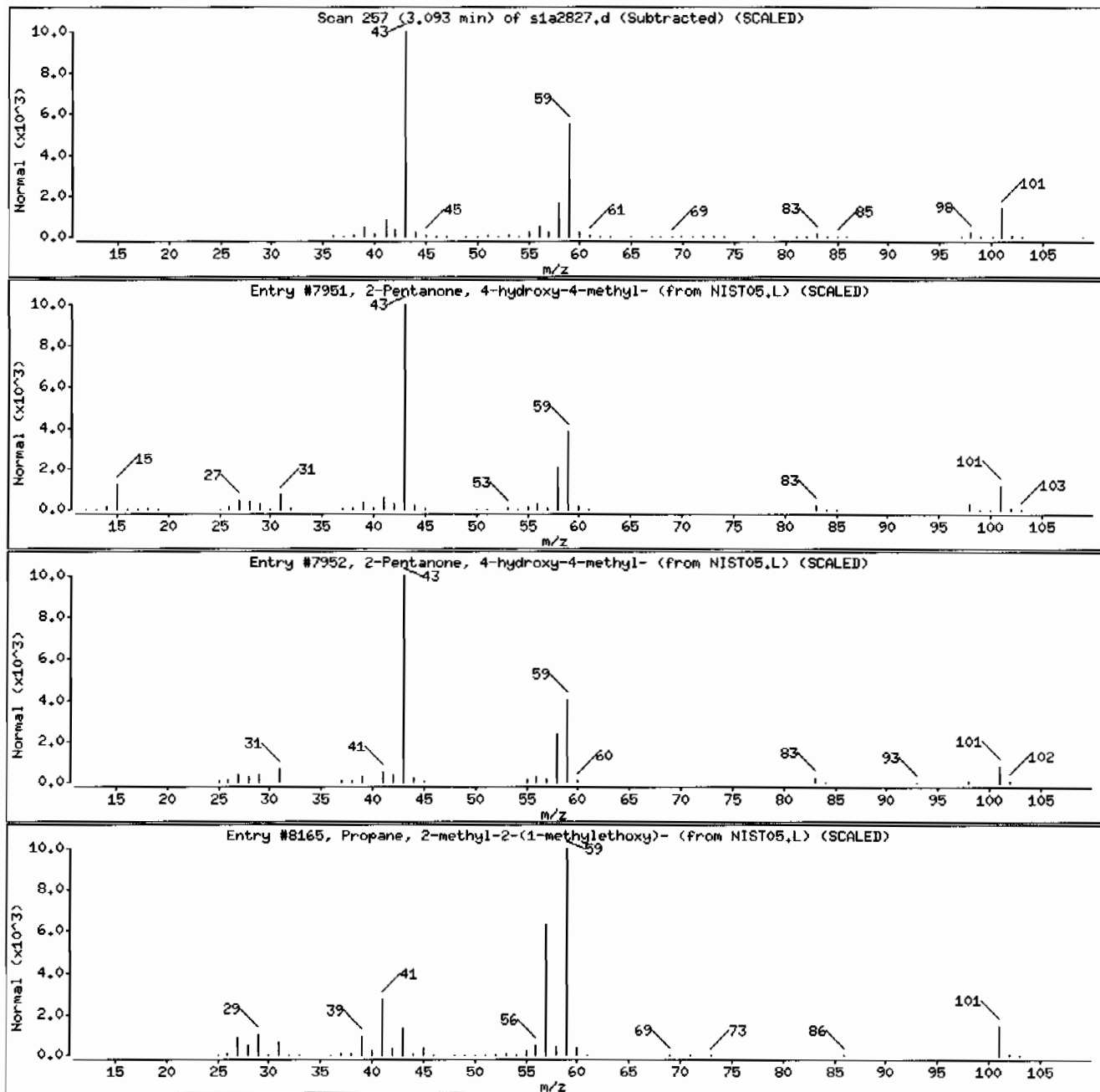
Volume Injected (uL): 0.5

Operator: AMY

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	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Propane, 2-methyl-2-(1-methylethoxy)-	17348-59-3	NIST05.L	8165	36	C7H16O	116



Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: MSD1.i

Sample Info: 1245106009194459111SVHF11ILANL

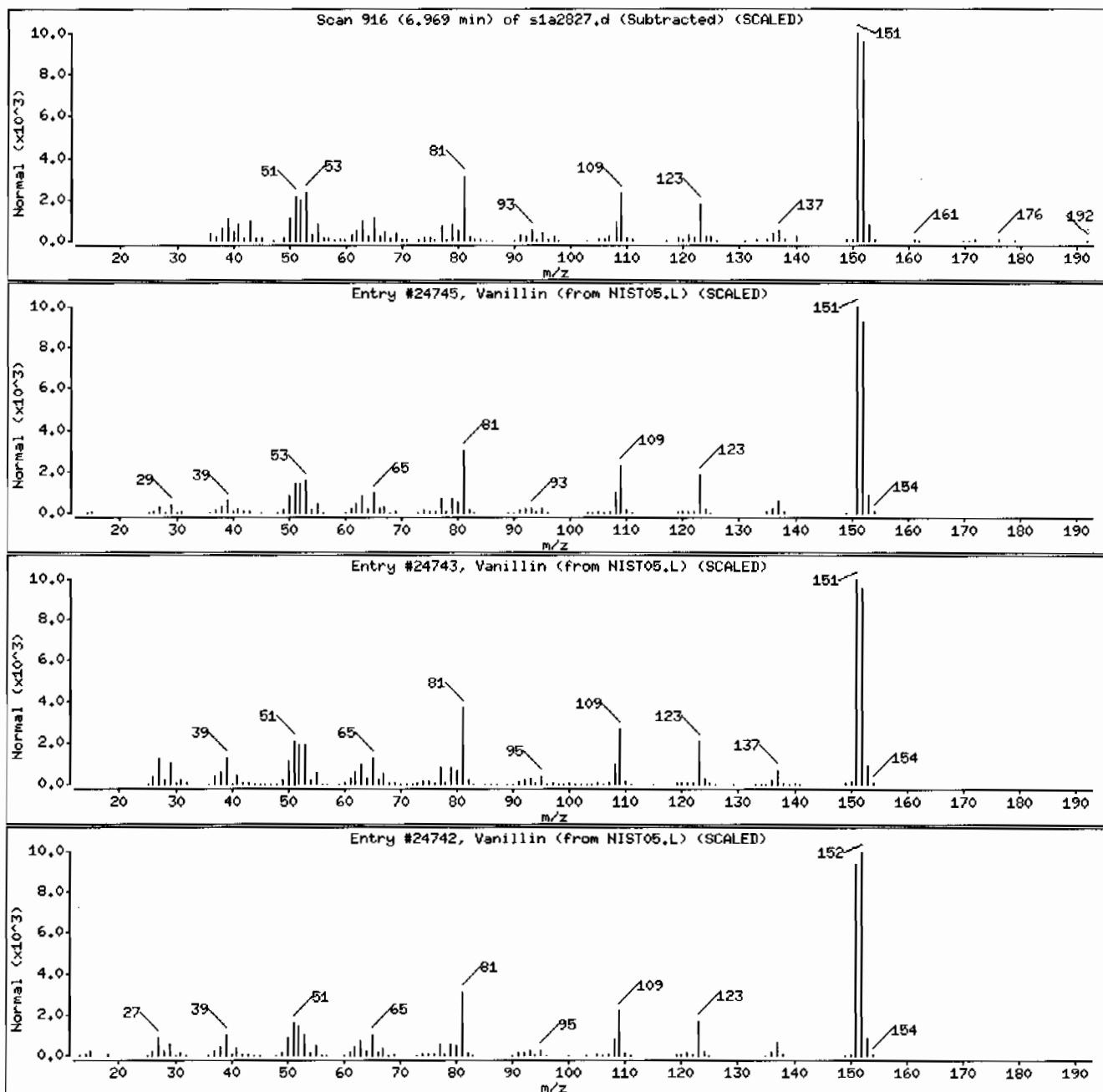
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Vanillin	121-33-5	NIST05.L	24745	97	C8H8O3	152
Vanillin	121-33-5	NIST05.L	24743	97	C8H8O3	152
Vanillin	121-33-5	NIST05.L	24742	95	C8H8O3	152



Date: 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: HSD1.i

Sample Info: 1245106009194459111SVMF111LANL

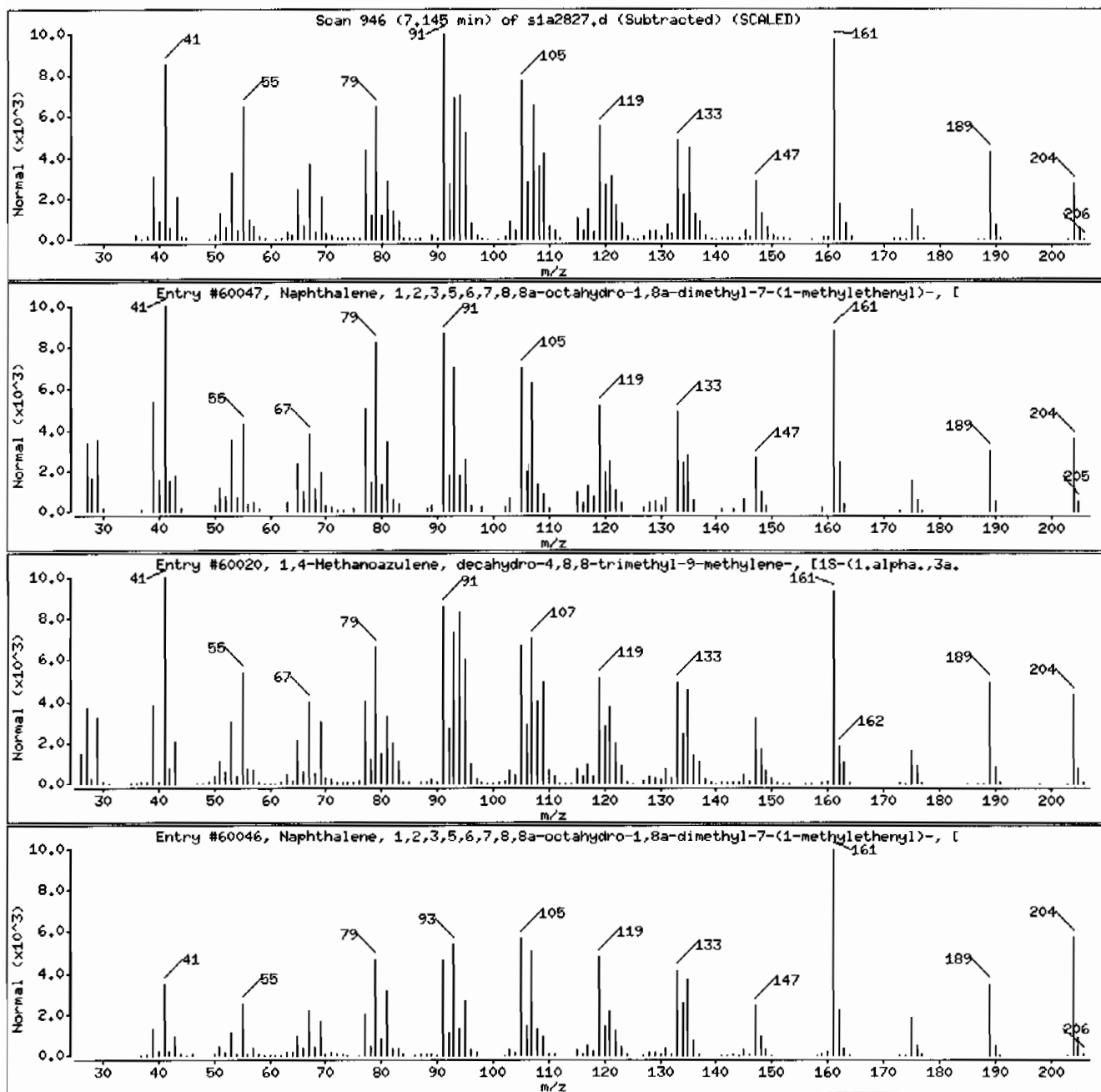
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60047	99	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60020	97	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60046	97	C15H24	204



Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: MSD1.i

Sample Info: 1245106009194459111SVHF111LANL

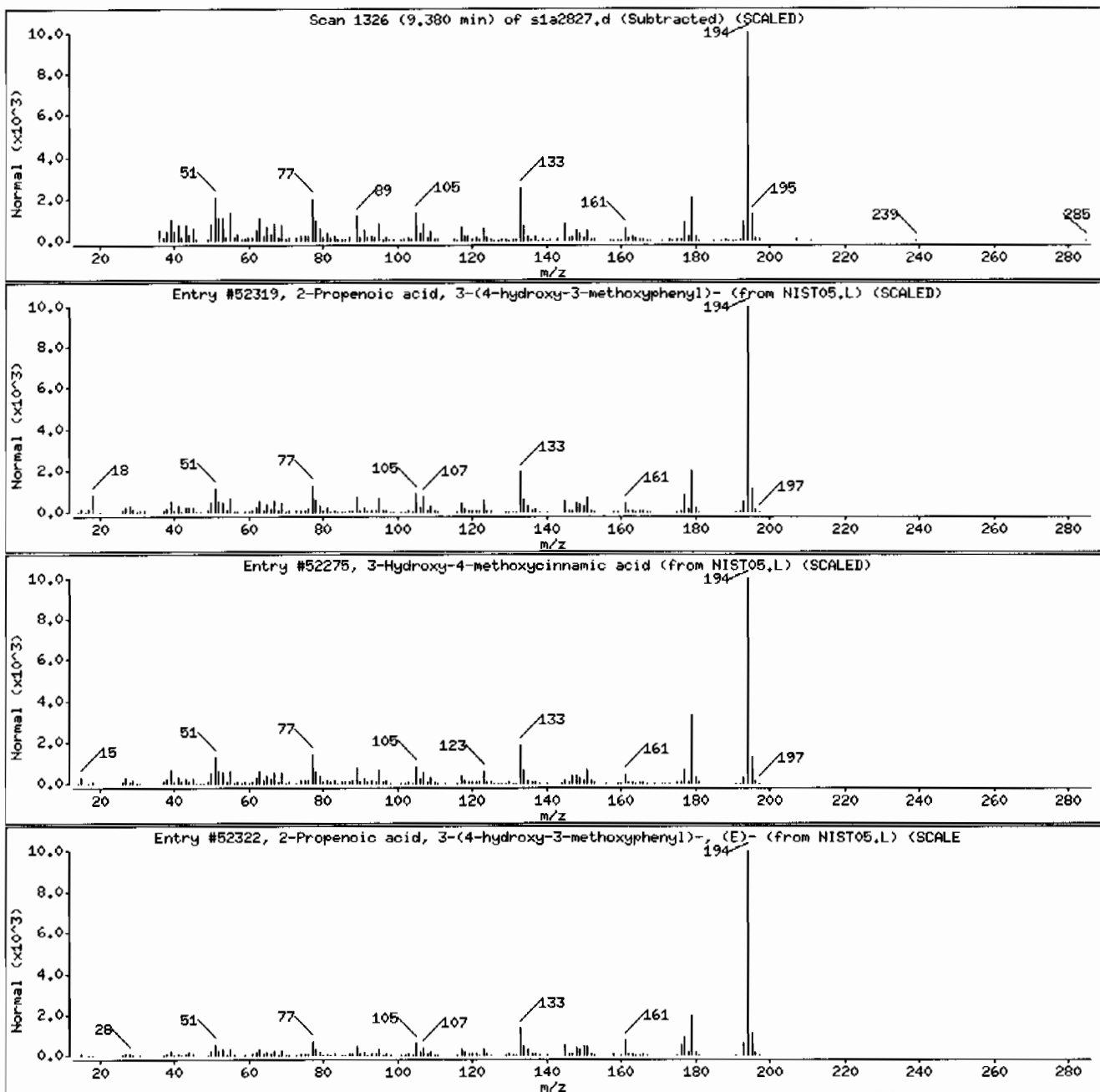
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Propenoic acid, 3-(4-hydroxy-3-methoxy	1135-24-6	NIST05.L	52319	98	C10H10O4	194
3-Hydroxy-4-methoxycinnamic acid	537-73-5	NIST05.L	52275	91	C10H10O4	194
2-Propenoic acid, 3-(4-hydroxy-3-methoxy	537-98-4	NIST05.L	52322	90	C10H10O4	194



Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: MSD1.i

Sample Info: 1245106009194459111SVMF111LANL

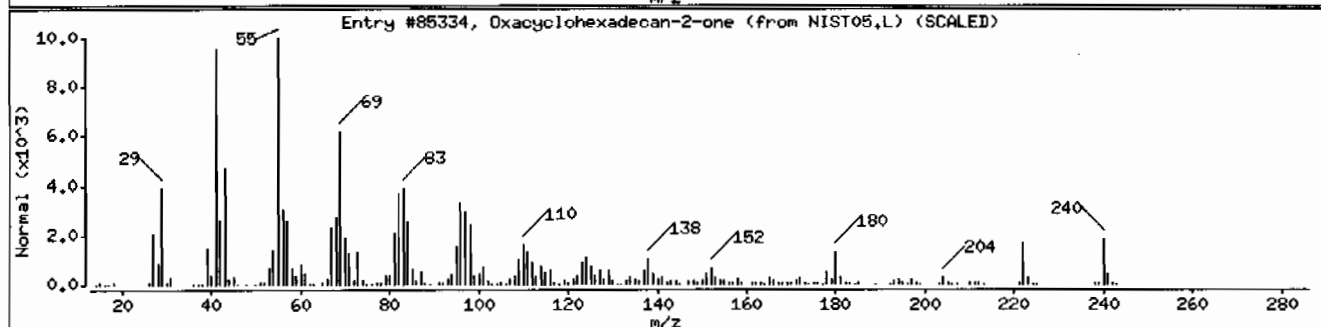
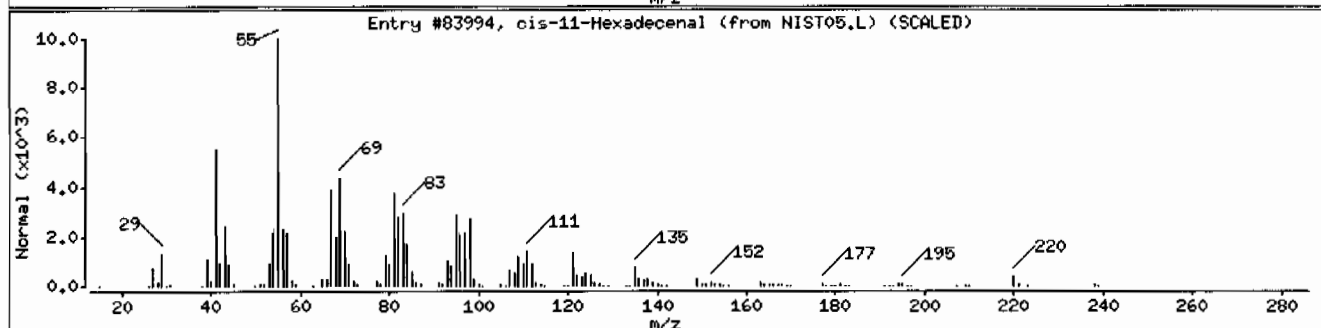
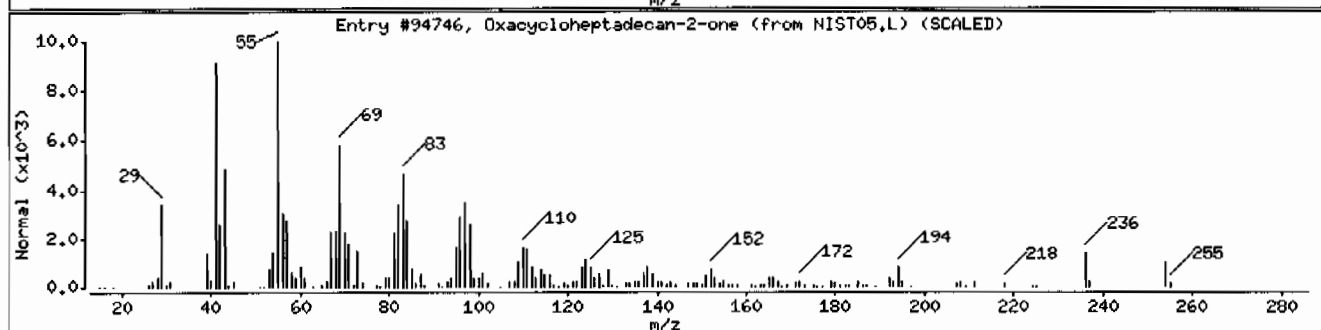
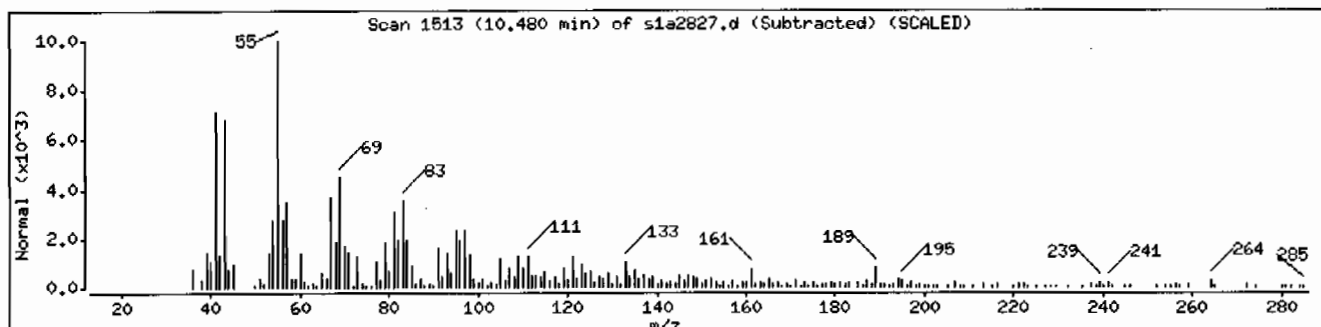
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Oxacycloheptadecan-2-one	109-29-5	NIST05.L	94746	95	C16H30O2	254
cis-11-Hexadecenal	53939-28-9	NIST05.L	83994	89	C16H30O	238
Oxacyclohexadecan-2-one	106-02-5	NIST05.L	85334	70	C15H28O2	240



Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: HSD1.i

Sample Info: 1245106009194459111SVHF11ILANL

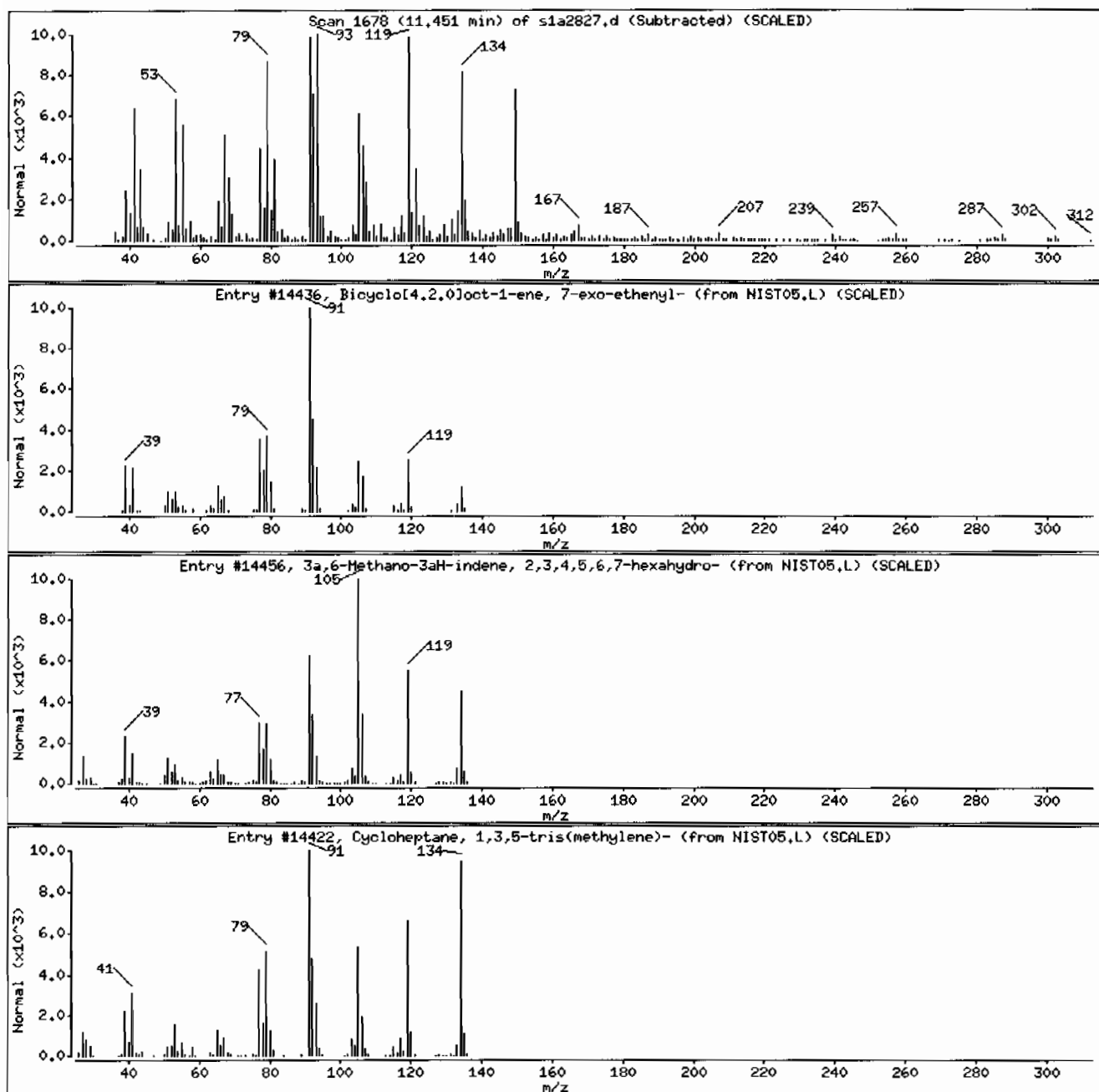
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[4.2.0]oct-1-ene, 7-exo-ethenyl-	1000142-18-2	NIST05.L	14436	45	C10H14	134
3a,6-Methano-3aH-indene, 2,3,4,5,6,7-hex	98640-10-9	NIST05.L	14456	38	C10H14	134
Cycloheptane, 1,3,5-tris(methylene)-	68284-24-2	NIST05.L	14422	38	C10H14	134



Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: MSD1.i

Sample Info: 1245106009194459111SVMF111LANL

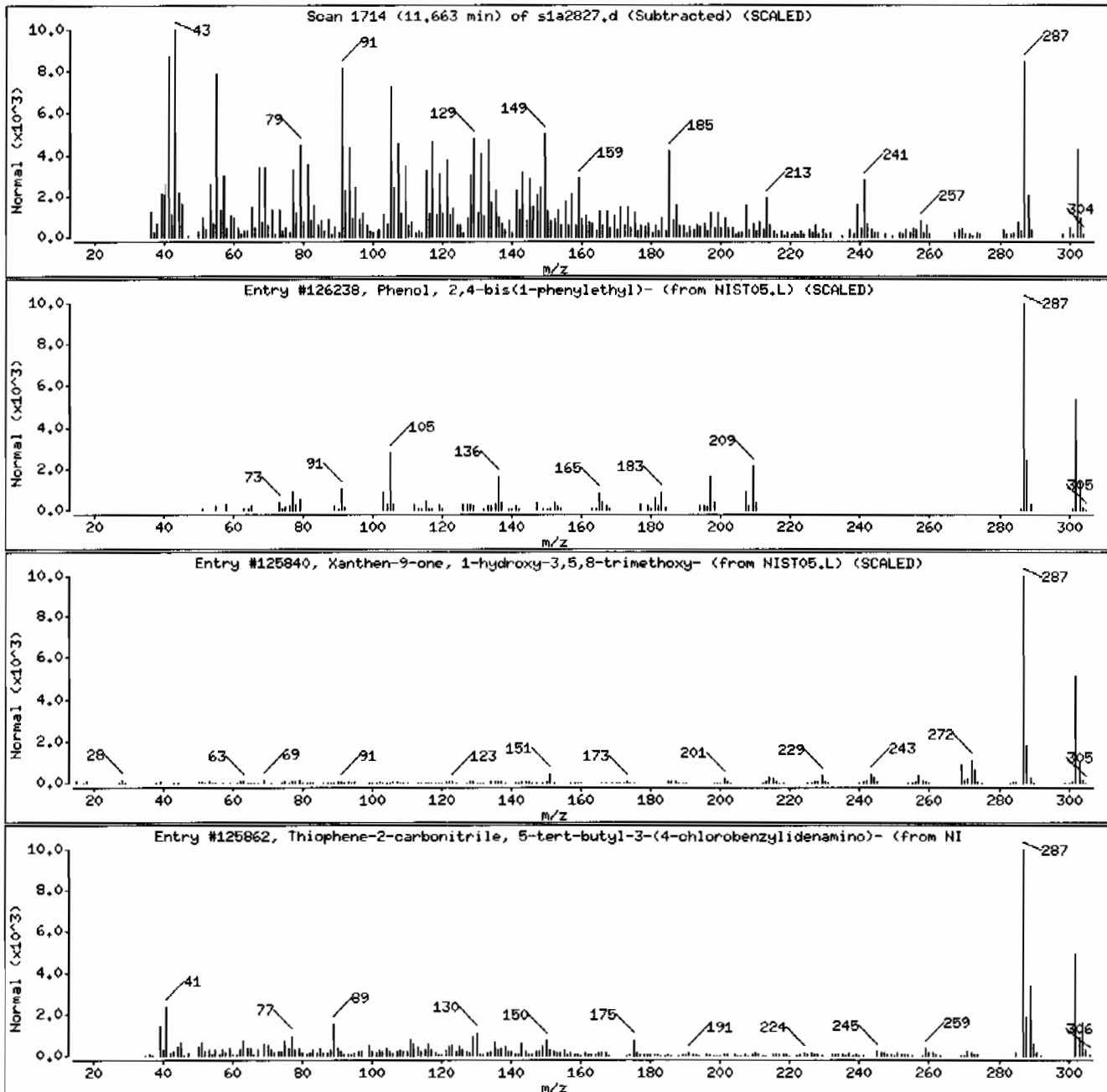
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Phenol, 2,4-bis(1-phenylethyl)-	2769-94-0	NIST05.L	126238	48	C22H22O	302
Xanthen-9-one, 1-hydroxy-3,5,8-trimethoxy-	49599-09-9	NIST05.L	125840	35	C16H14O6	302
Thiophene-2-carbonitrile, 5-tert-butyl-3	1000268-00-9	NIST05.L	125862	35	C16H15CN2S	302



Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: MSD1.i

Sample Info: 1245106009194459111SVHF111LANL

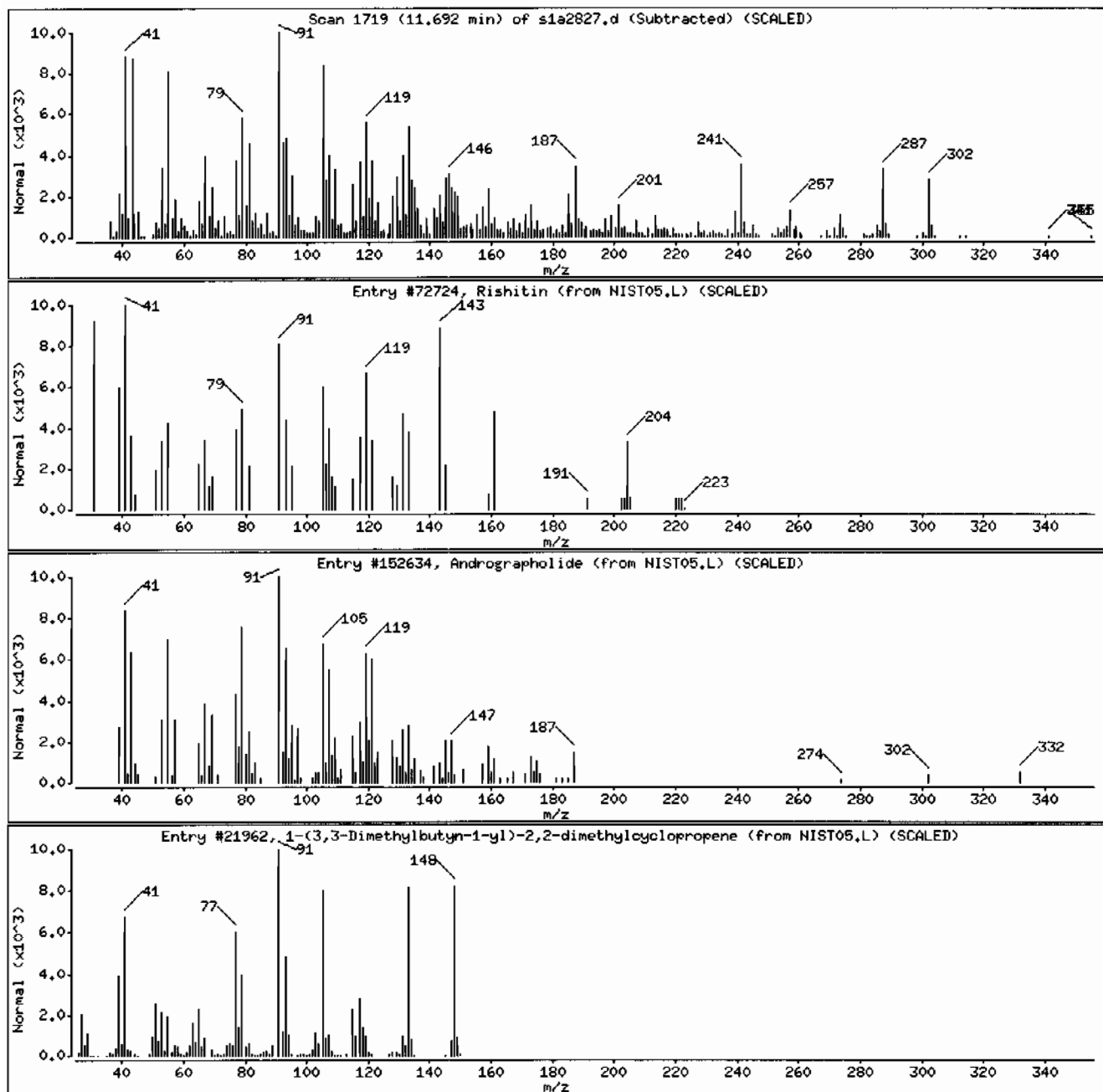
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Rishitin	18178-54-6	NIST05.L	72724	43	C14H22O2	222
Andrographolide	5508-58-7	NIST05.L	152634	38	C20H30O5	350
1-(3,3-Dimethylbutyn-1-yl)-2,2-dimethylcyclopropene	1000222-04-6	NIST05.L	21962	25	C11H16	148





Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: HSD1.i

Sample Info: 1245106009194459111SVMF11ILANL

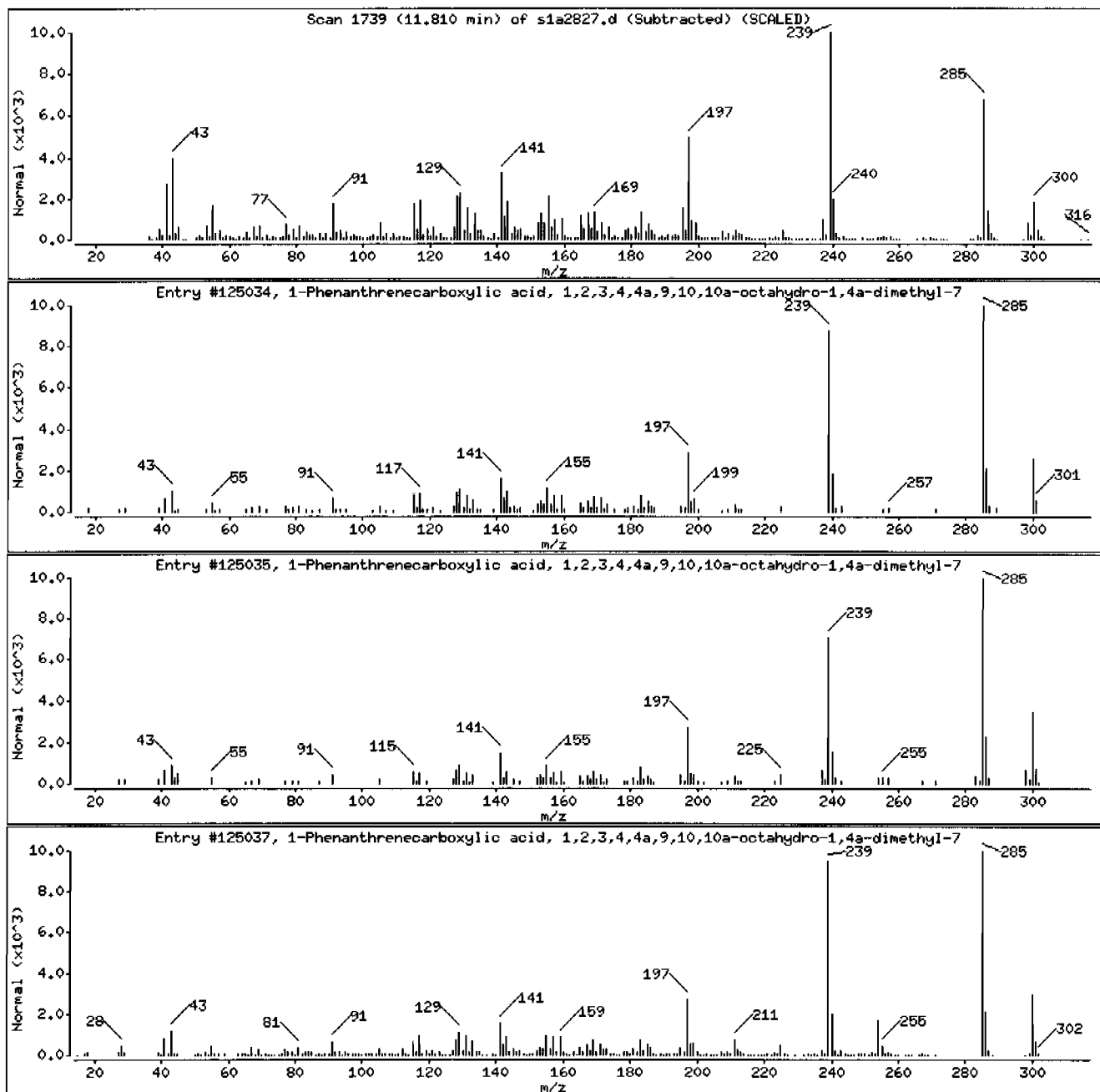
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	94	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	5155-70-4	NIST05.L	125035	91	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125037	91	C20H28O2	300



Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: MSD1.i

Sample Info: 1245106009194459111|SVMF11|LANL

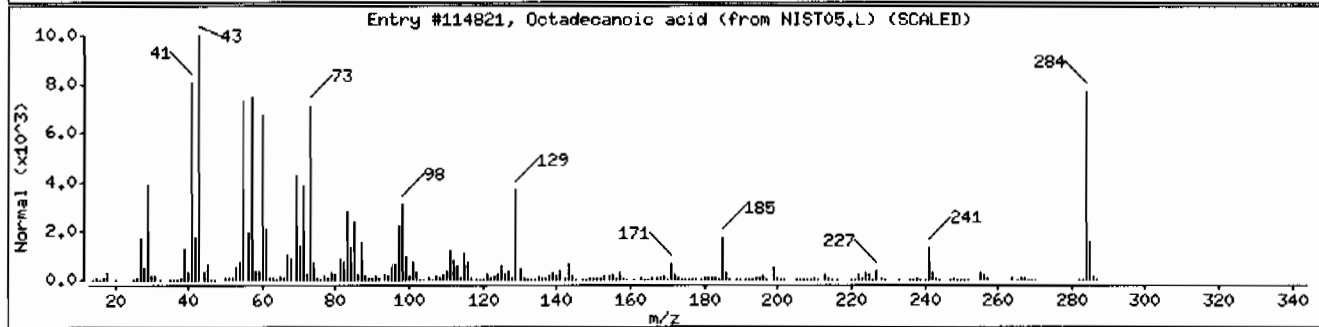
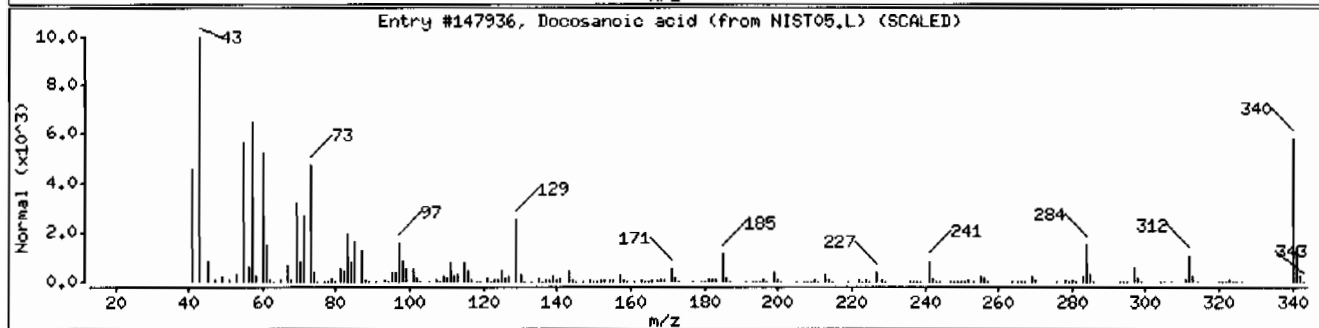
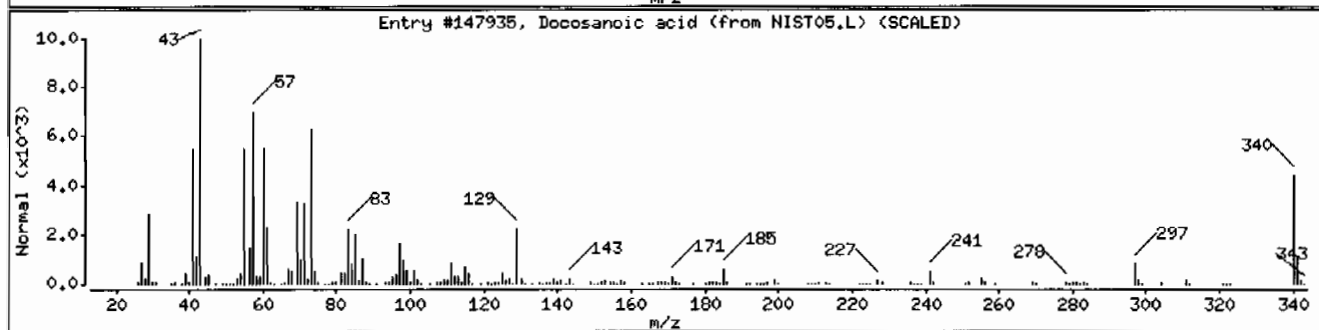
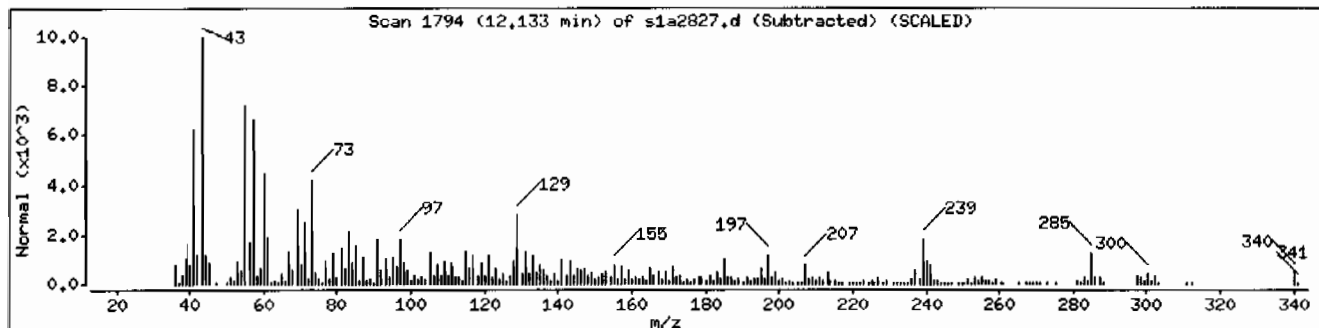
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Docosanoic acid	112-85-6	NIST05.L	147935	90	C22H44O2	340
Docosanoic acid	112-85-6	NIST05.L	147936	78	C22H44O2	340
Octadecanoic acid	57-11-4	NIST05.L	114821	60	C18H36O2	284



Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: MSD1.i

Sample Info: 1245106009194459111(SVHF)11(LANL)

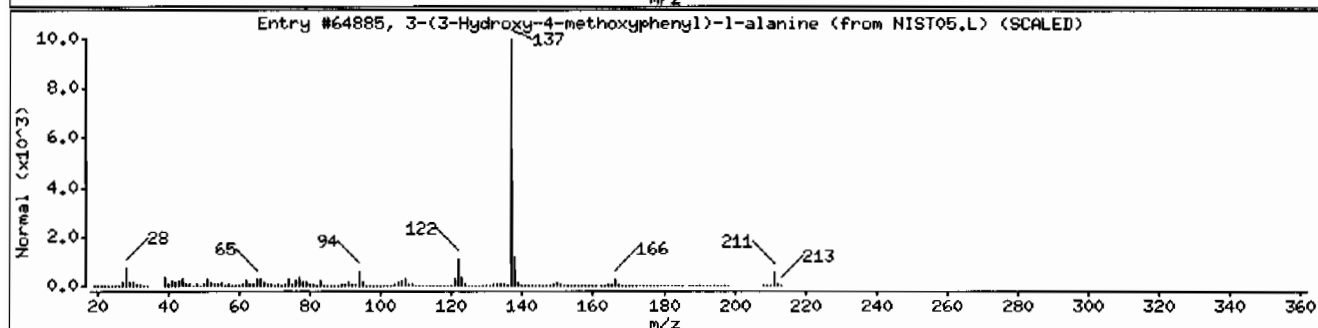
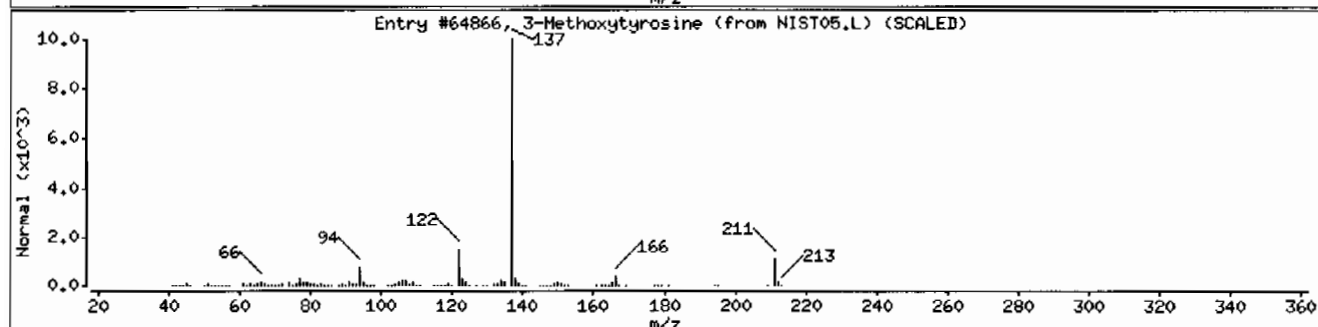
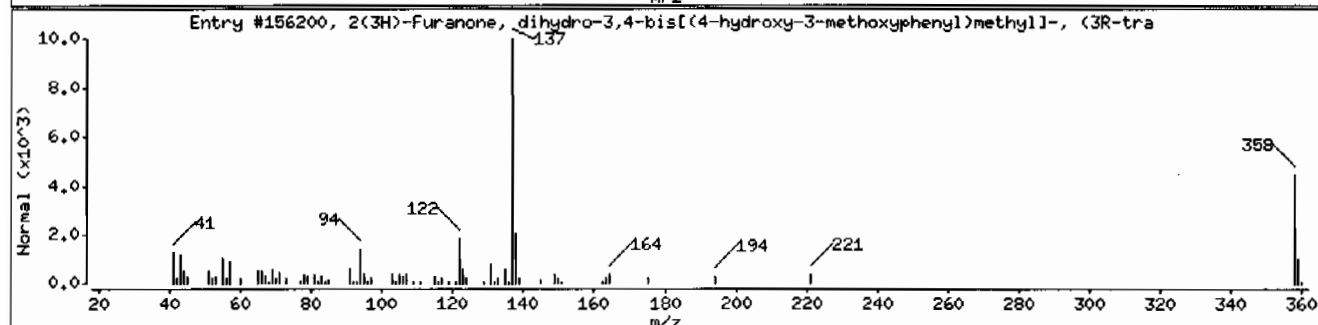
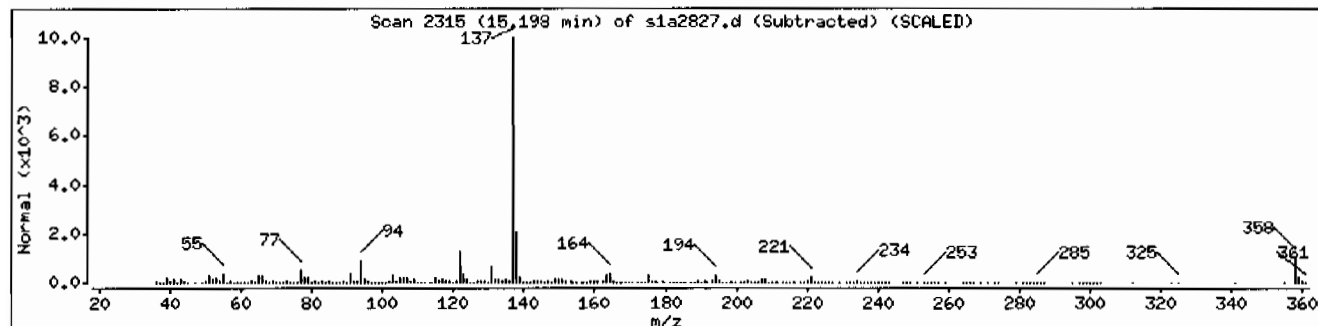
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R-tra	580-72-3	NIST05.L	156200	94	C20H22O6	358
3-Methoxytyrosine	1000226-93-6	NIST05.L	64866	58	C10H13NO4	211
3-(3-Hydroxy-4-methoxyphenyl)-L-alanine	1000103-80-4	NIST05.L	64885	53	C10H13NO4	211



Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: MSD1.i

Sample Info: I245106009194459111SVMF111LANL

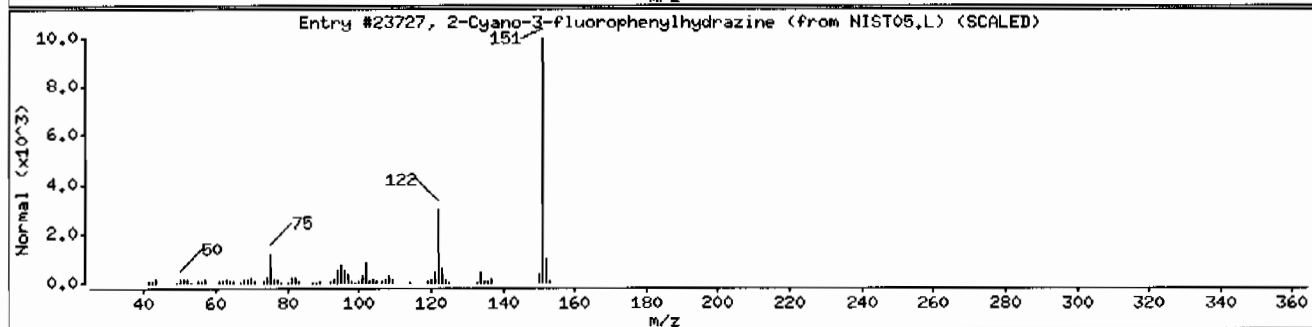
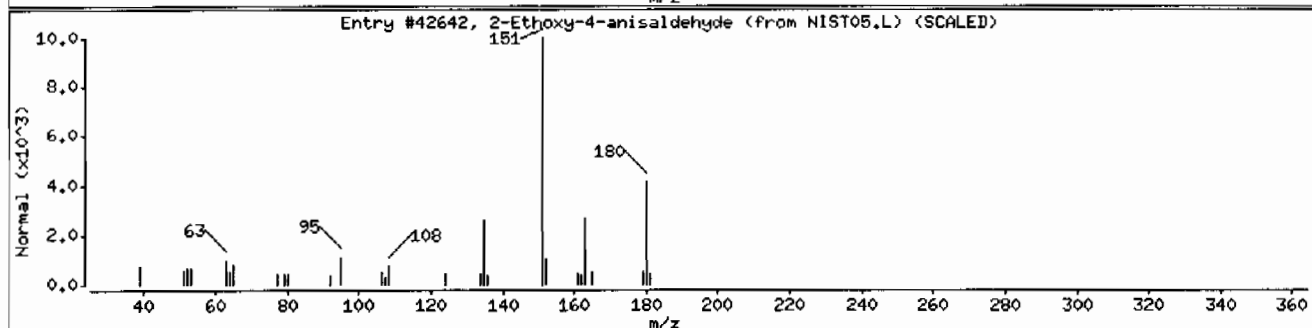
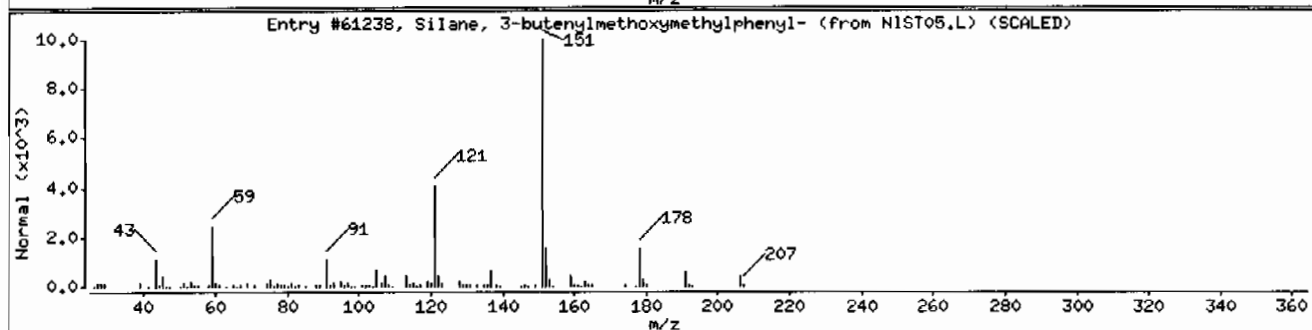
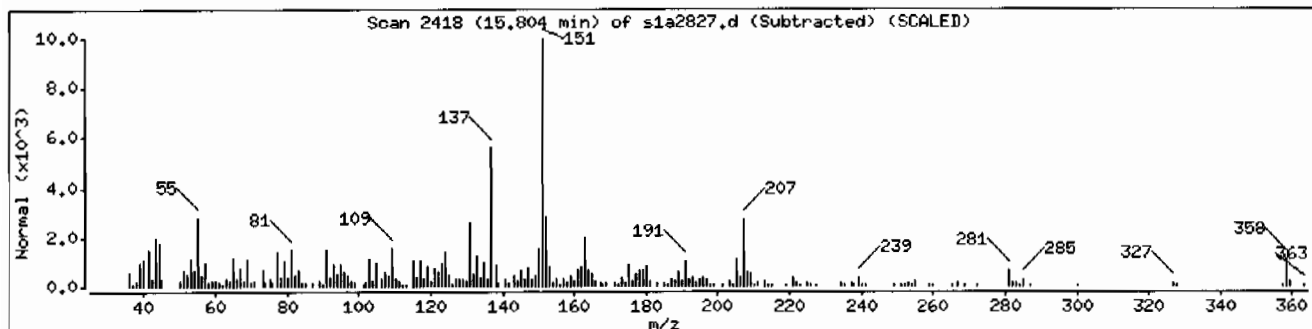
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Silane, 3-butenylmethoxymethylphenyl-	76557-75-0	NIST05.L	61238	38	C12H18OSi	206
2-Ethoxy-4-anisaldehyde	42924-37-8	NIST05.L	42642	35	C10H12O3	180
2-Cyano-3-fluorophenylhydrazine	1000131-91-9	NIST05.L	23727	27	C7H6FN3	151



Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: MSD1.i

Sample Info: 12451060091944591111SVMF111LANL

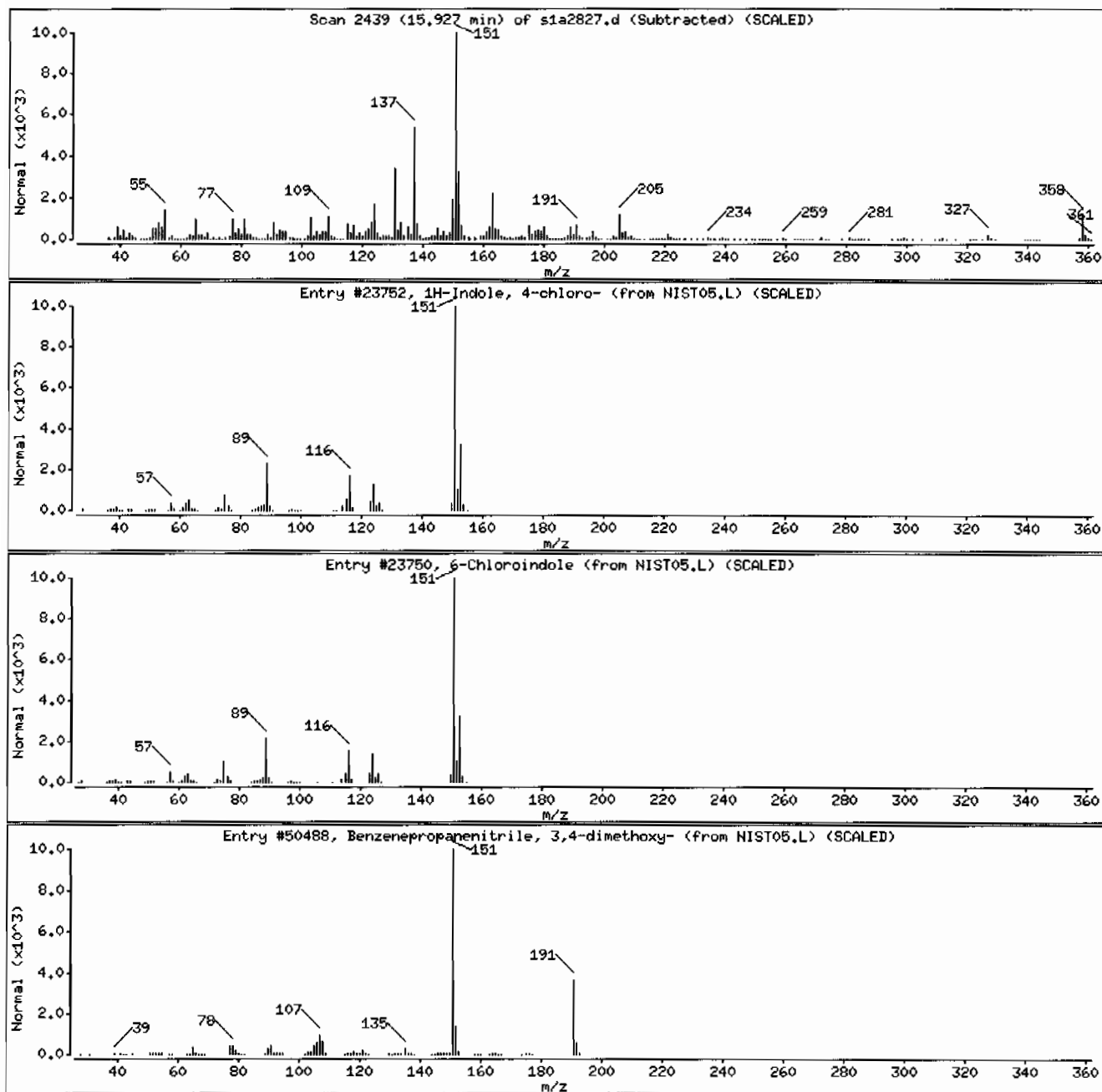
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indole, 4-chloro-	25235-85-2	NIST05.L	23752	35	C8H6ClN	151
6-Chloroindole	17422-33-2	NIST05.L	23750	35	C8H6ClN	151
Benzenepropanenitrile, 3,4-dimethoxy-	49621-56-9	NIST05.L	50488	30	C11H13NO2	191



Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: MSD1.i

Sample Info: 1245106009194459111SVMF11ILANL

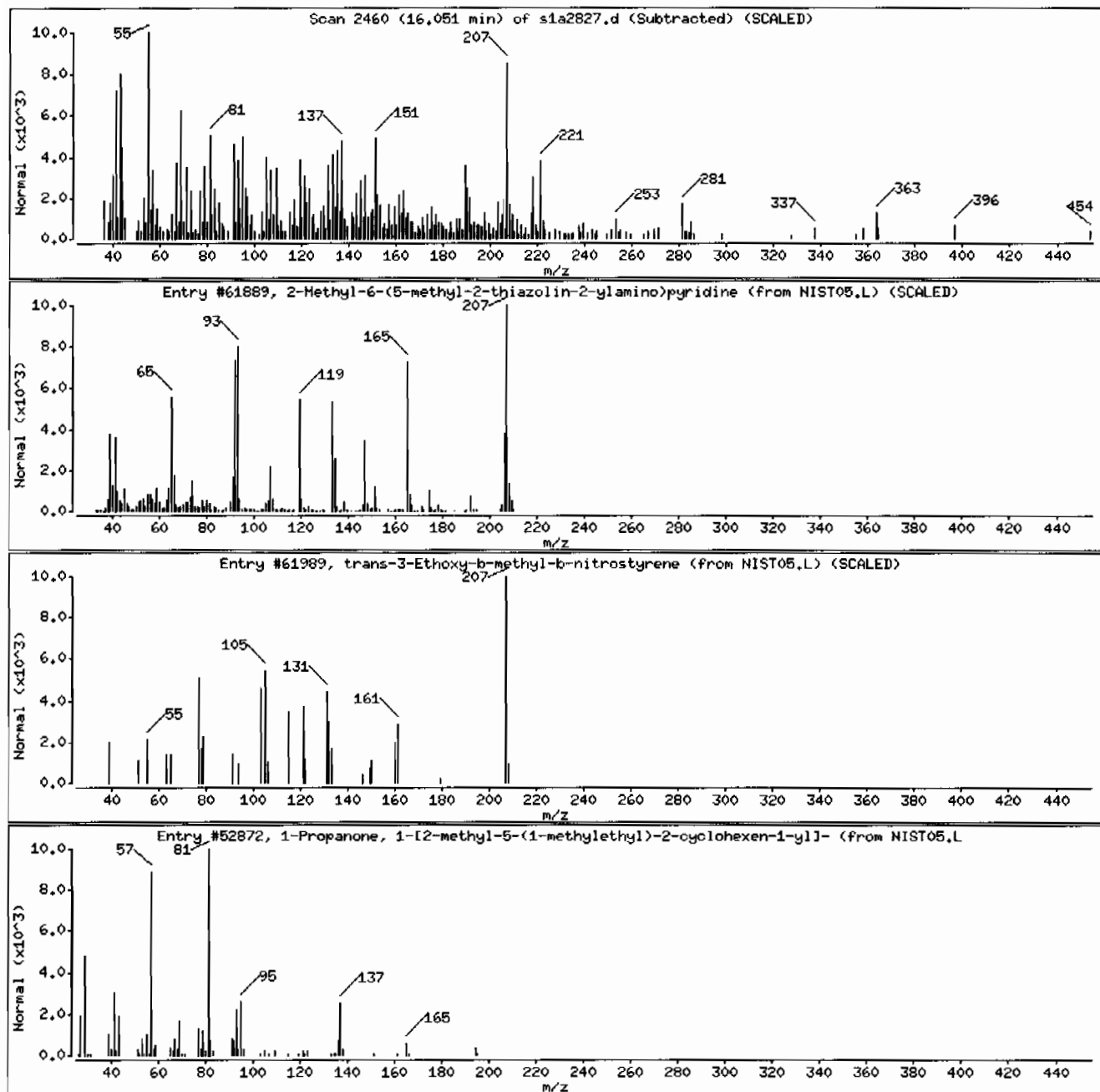
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Methyl-6-(5-methyl-2-thiazolin-2-ylamino	339352-50-0	NIST05.L	61889	27	C10H13N3S	207
trans-3-Ethoxy-b-methyl-b-nitrostyrene	23037-46-9	NIST05.L	61989	25	C11H13NO3	207
1-Propanone, 1-[2-methyl-5-(1-methylethy	31375-17-4	NIST05.L	52872	25	C13H22O	194



Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: HSD1.i

Sample Info: 1245106009194459111SVHF111LANL

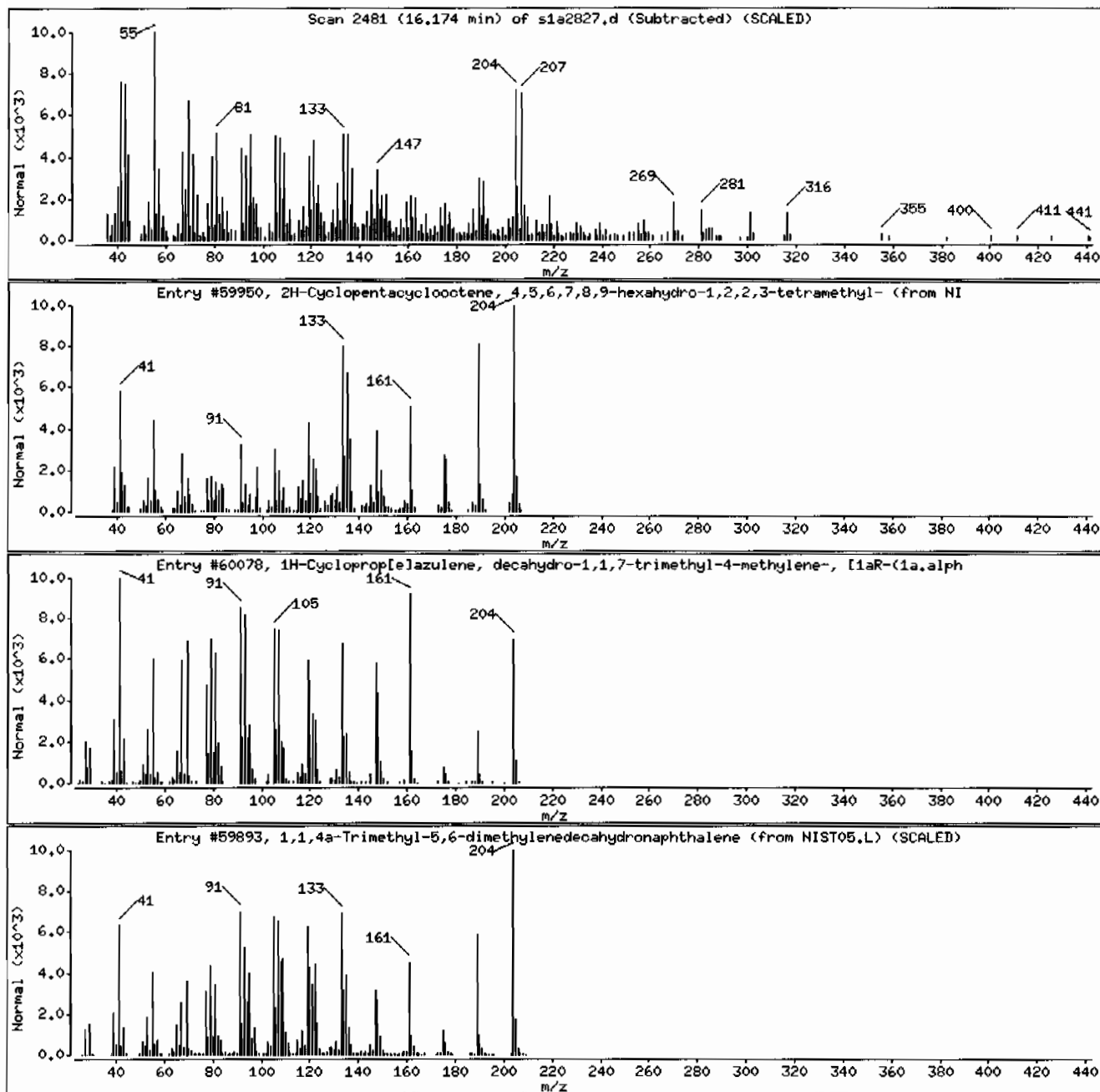
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2H-Cyclopentacyclooctene, 4,5,6,7,8,9-hexahydro-1,2,2,3-tetramethyl-	1000221-85-8	NIST05.L	59950	64	C15H24	204
1H-Cycloprop[elazulene, decahydro-1,1,7-trimethyl-4-methylene-, [1aR-(1a.alpha.)]	489-39-4	NIST05.L	60078	50	C15H24	204
1,1,4a-Trimethyl-5,6-dimethylenedecahydronaphthalene	1000193-60-8	NIST05.L	59893	49	C15H24	204



Date : 29-JAN-2010 02:20

Client ID: RE15-10-7177

Instrument: MSD1.i

Sample Info: 1245106009194459111SVHF111LANL

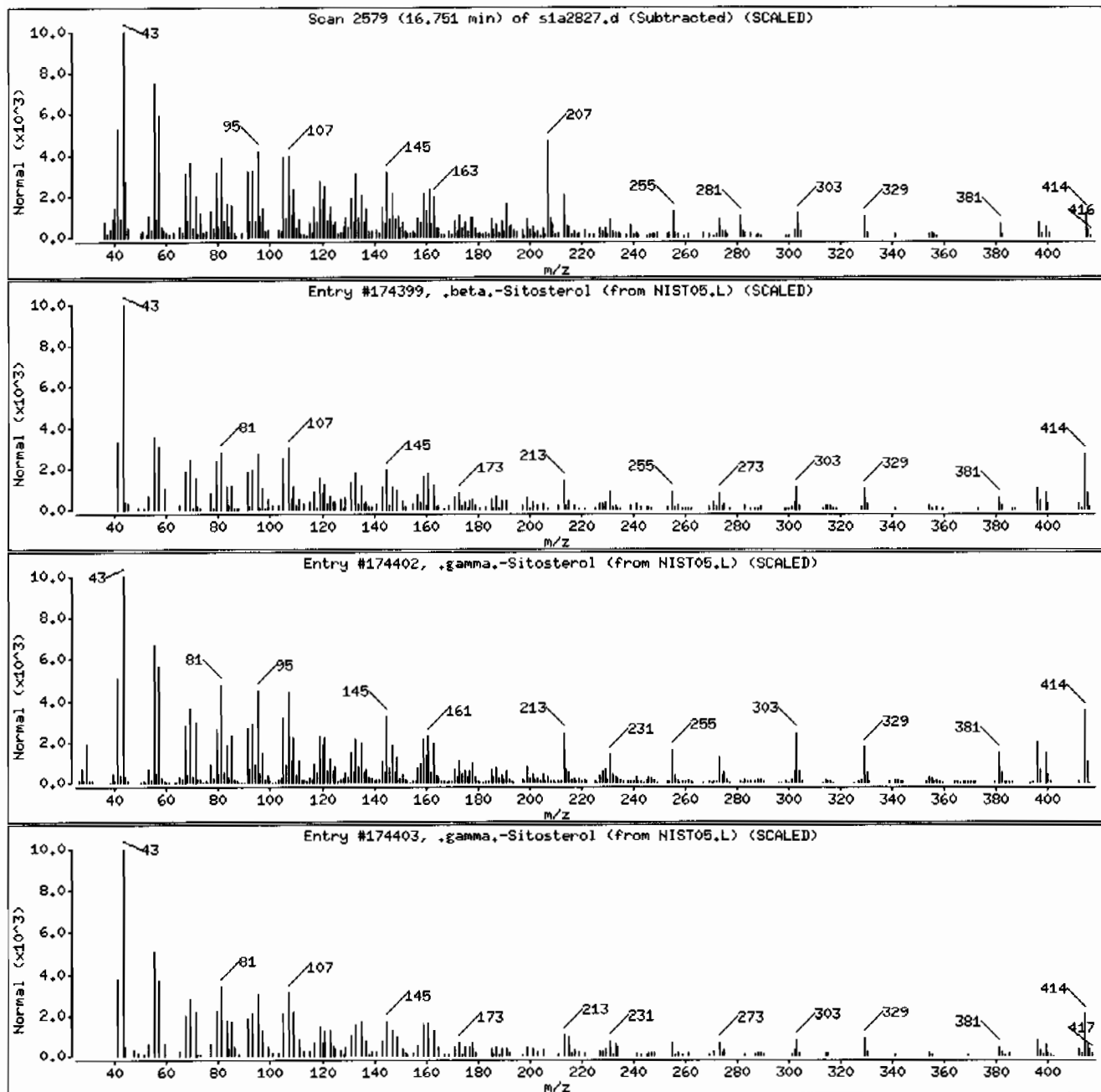
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174399	96	C29H50O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	92	C29H50O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174403	91	C29H50O	414





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

SDG Number: 10-1304  
Lab Sample ID: 245106011

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.1  
Analyst: AMY  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 21.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	424	ug/kg	84.7	424
108-95-2	Phenol	U	424	ug/kg	84.7	424
95-57-8	2-Chlorophenol	U	424	ug/kg	84.7	424
106-46-7	1,4-Dichlorobenzene	U	424	ug/kg	84.7	424
621-64-7	N-Nitrosodipropylamine	U	424	ug/kg	84.7	424
59-50-7	4-Chloro-3-methylphenol	U	424	ug/kg	84.7	424
83-32-9	Acenaphthene	U	42.4	ug/kg	14.0	42.4
121-14-2	2,4-Dinitrotoluene	U	424	ug/kg	42.4	424
100-02-7	4-Nitrophenol	U	424	ug/kg	140	424
87-86-5	Pentachlorophenol	U	424	ug/kg	106	424
129-00-0	Pyrene	U	42.4	ug/kg	12.7	42.4
110-86-1	Pyridine	U	424	ug/kg	84.7	424
62-53-3	Aniline	U	424	ug/kg	127	424
111-44-4	bis(2-Chloroethyl) ether	U	424	ug/kg	84.7	424
541-73-1	1,3-Dichlorobenzene	U	424	ug/kg	84.7	424
100-51-6	Benzyl alcohol	U	424	ug/kg	127	424
95-50-1	1,2-Dichlorobenzene	U	424	ug/kg	84.7	424
108-60-1	bis(2-Chloroisopropyl) ether	U	424	ug/kg	84.7	424
95-48-7	o-Cresol	U	424	ug/kg	84.7	424
65794-96-9	m,p-Cresols	U	424	ug/kg	127	424
67-72-1	Hexachloroethane	U	424	ug/kg	84.7	424
98-95-3	Nitrobenzene	U	424	ug/kg	84.7	424
78-59-1	Isophorone	U	424	ug/kg	84.7	424
88-75-5	2-Nitrophenol	U	424	ug/kg	84.7	424
105-67-9	2,4-Dimethylphenol	U	424	ug/kg	148	424
111-91-1	bis(2-Chloroethoxy)methane	U	424	ug/kg	84.7	424
120-83-2	2,4-Dichlorophenol	U	424	ug/kg	84.7	424
65-85-0	Benzoic acid	U	847	ug/kg	212	847
91-20-3	Naphthalene	U	42.4	ug/kg	12.7	42.4
106-47-8	4-Chloroaniline	U	424	ug/kg	84.7	424
87-68-3	Hexachlorobutadiene	U	424	ug/kg	84.7	424
91-57-6	2-Methylnaphthalene	U	42.4	ug/kg	8.47	42.4
77-47-4	Hexachlorocyclopentadiene	U	424	ug/kg	84.7	424
88-06-2	2,4,6-Trichlorophenol	U	424	ug/kg	84.7	424
95-95-4	2,4,5-Trichlorophenol	U	424	ug/kg	84.7	424
91-58-7	2-Chloronaphthalene	U	42.4	ug/kg	14.0	42.4
88-74-4	2-Nitroaniline	U	424	ug/kg	84.7	424
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	424	ug/kg	84.7	424

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

SDG Number: 10-1304  
Lab Sample ID: 245106011

Client ID: RE15-10-7178  
Batch ID: 944591  
Run Date: 01/29/2010 22:13  
Prep Date: 01/25/2010 14:38  
Data File: s1a2919.d

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.1  
Analyst: AMY  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 21.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	424	ug/kg	84.7	424
606-20-2	2,6-Dinitrotoluene	U	424	ug/kg	42.4	424
208-96-8	Acenaphthylene	U	42.4	ug/kg	12.7	42.4
51-28-5	2,4-Dinitrophenol	U	847	ug/kg	161	847
132-64-9	Dibenzofuran	U	424	ug/kg	84.7	424
84-66-2	Diethylphthalate	U	424	ug/kg	84.7	424
86-73-7	Fluorene	U	42.4	ug/kg	12.7	42.4
7005-72-3	4-Chlorophenylphenylether	U	424	ug/kg	84.7	424
534-52-1	2-Methyl-4,6-dinitrophenol	U	424	ug/kg	84.7	424
100-01-6	4-Nitroaniline	U	424	ug/kg	127	424
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	424	ug/kg	84.7	424
122-66-7	Azobenzene	U	424	ug/kg	84.7	424
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	424	ug/kg	84.7	424
118-74-1	Hexachlorobenzene	U	424	ug/kg	84.7	424
85-01-8	Phenanthrene	U	42.4	ug/kg	12.7	42.4
120-12-7	Anthracene	U	42.4	ug/kg	8.47	42.4
84-74-2	Di-n-butylphthalate	U	424	ug/kg	84.7	424
206-44-0	Fluoranthene	U	42.4	ug/kg	12.7	42.4
85-68-7	Butylbenzylphthalate	U	424	ug/kg	84.7	424
56-55-3	Benzo(a)anthracene	U	42.4	ug/kg	12.7	42.4
91-94-1	3,3'-Dichlorobenzidine	U	424	ug/kg	127	424
218-01-9	Chrysene	U	42.4	ug/kg	12.7	42.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	424	ug/kg	84.7	424
117-84-0	Di-n-octylphthalate	U	424	ug/kg	84.7	424
205-99-2	Benzo(b)fluoranthene	U	42.4	ug/kg	12.7	42.4
207-08-9	Benzo(k)fluoranthene	U	42.4	ug/kg	12.7	42.4
50-32-8	Benzo(a)pyrene	U	42.4	ug/kg	12.7	42.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.4	ug/kg	12.7	42.4
53-70-3	Dibenzo(a,h)anthracene	U	42.4	ug/kg	12.7	42.4
191-24-2	Benzo(ghi)perylene	U	42.4	ug/kg	12.7	42.4
120-82-1	1,2,4-Trichlorobenzene	U	424	ug/kg	84.7	424

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.08	665	ug/kg		JA
57-10-3	n-Hexadecanoic acid	9.71	199	ug/kg	99	NJ

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106011	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 21.4
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7178	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD1.J	<b>Dilution:</b> 1
<b>Run Date:</b> 01/29/2010 22:13	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30.03 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s1a2919.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> 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
120-08-1	2H-1-Benzopyran-2-one, 6,7-dimethoxy-		9.87	193	ug/kg	97	NJ
1000190-13-7	Octadec-9-enoic acid		10.47	227	ug/kg	92	NJ
	Unknown		11.69	676	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4		11.8	915	ug/kg	94	NJ
	Unknown		12.7	282	ug/kg		J
	Unknown		12.8	307	ug/kg		J
25269-17-4	Thunbergol		12.86	281	ug/kg	91	NJ
112-95-8	Eicosane		13.71	230	ug/kg	91	NJ
	Unknown		14.88	259	ug/kg		J
	Unknown		14.99	287	ug/kg		J
	Unknown		15.34	1900	ug/kg		J
	Unknown		16.04	1940	ug/kg		J
	Unknown		16.77	1060	ug/kg		J

Data File: /chem/MSD1.i/s012910.b/sla2919.d  
Report Date: 15-Feb-2010 15:12

Page 1

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012910.b/sla2919.d  
Lab Smp Id: 245106011 Client Smp ID: RE15-10-7178  
Inj Date : 29-JAN-2010 22:13  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106011|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m  
Meth Date : 30-Jan-2010 13:22 llo00884 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 7  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	21.40780	% 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	4.428	4.428 (1.000)	297035	40.0000	
* 29 Naphthalene-d8	136	5.681	5.681 (1.000)	1200890	40.0000	
* 46 Acenaphthene-d10	164	7.534	7.539 (1.000)	655118	40.0000	
* 67 Phenanthrene-d10	188	9.133	9.133 (1.000)	1007439	40.0000	
* 91 Chrysene-d12	240	12.027	12.033 (1.000)	672548	40.0000	
* 98 Perylene-d12	264	14.110	14.115 (1.000)	332712	40.0000	
\$ 3 2-Fluorophenol	112	3.310	3.304 (0.748)	431541	46.9734	1990
\$ 5 Phenol-d5	99	4.063	4.057 (0.918)	570430	49.9907	2120
\$ 20 Nitrobenzene-d5	82	4.951	4.957 (0.872)	240350	27.1175	1150
\$ 39 2-Fluorobiphenyl	172	6.804	6.804 (0.903)	473092	28.0311	1190
\$ 60 2,4,6-Tribromophenol	329	8.380	8.380 (1.112)	117786	49.6861	2100
\$ 81 p-Terphenyl-d14	244	10.839	10.839 (0.901)	425319	35.2428	1490

## ION RATIO REPORT

## SV REPORT

Data file: sla2919.d

Report Date: 01/30/2010 13:26

Lab. ID: 245106011

SampleType: SAMPLE

Injection Date: 29-JAN-2010 22:13

Operator: AMY

Instrument: MSD1.i

Sample Info: |245106011|944591|1|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100107-03|

Comment:

Method used: /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	28109	4.06	4.13	80-120	100	(T)
93	5345	4.11	4.13	212-272	19	(Q)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	32624	4.95	4.80	80-120	100	(T)
42	20702	4.95	4.80	52-112	63	(T)
-----						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	84745	7.53	7.31	80-120	100	(T)
63	6138	7.55	7.31	38- 98	7	(QT)
-----						
45 Acenaphthylene		CAS#: 208-96-8				
152	28749	7.55	7.39	80-120	100	(T)
151	7684	7.55	7.39	0- 49	27	(T)
153	29827	7.55	7.39	0- 43	104	(QT)
-----						
47 Acenaphthene		CAS#: 83-32-9				
154	26376	7.55	7.57	80-120	100	( )
153	29848	7.55	7.57	75-135	113	( )
152	28749	7.55	7.57	20- 80	109	(Q)
-----						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	84745	7.53	7.74	80-120	100	(T)
89	2658	7.55	7.74	55-115	3	(QT)
63	6138	7.55	7.74	49-109	7	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	401	8.37	8.17	80-120	100	(T)
105	748	8.37	8.17	16- 76	186	(QT)
51	1061	8.37	8.17	41-101	264	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012910.b/sla2919.d  
Lab Smp Id: 245106011 Client Smp ID: RE15-10-7178  
Inj Date : 29-JAN-2010 22:13  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106011|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m  
Meth Date : 30-Jan-2010 13:22 llo00884 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 7  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	21.40780	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.428	1926685	40.000
* 67 Phenanthrene-d10	9.133	2568551	40.000
* 91 Chrysene-d12	12.027	1914419	40.000
* 98 Perylene-d12	14.110	921220	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate					CAS #:		
3.081	756463	15.7049616	665	0		0	10
n-Hexadecanoic acid					CAS #: 57-10-3		
9.710	301492	4.69512413	199	99	NIST05.L	96235	67
2H-1-Benzopyran-2-one, 6,7-dimethoxy-					CAS #: 120-08-1		
9.869	291905	4.54583753	193	97	NIST05.L	61031	67
Octadec-9-enoic acid					CAS #: 1000190-13-7		
10.474	343491	5.34917095	227	92	NIST05.L	113356	67
Unknown					CAS #:		
11.686	763570	15.9540807	676	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1740-19-8		
11.798	1033571	21.5955036	915	94	NIST05.L	125036	91
Unknown					CAS #:		
12.698	318456	6.65385089	282	0		0	91
Unknown					CAS #:		
12.798	347078	7.25187538	307	0		0	91
Thunbergol					CAS #: 25269-17-4		
12.857	317384	6.63143681	281	91	NIST05.L	118732	91
Eicosane					CAS #: 112-95-8		
13.710	124806	5.41917111	230	91	NIST05.L	113490	98
Unknown					CAS #:		
14.880	140973	6.12113224	259	0		0	98
Unknown					CAS #:		
14.992	155801	6.76496861	287	0		0	98
Unknown					CAS #:		
15.339	1032368	44.8260809	1900	0		0	98
Unknown					CAS #:		
16.039	1053285	45.7343352	1940	0		0	98
Unknown					CAS #:		
16.774	577424	25.0721170	1060	0		0	98



Data File: /chem/HSD1.i/s012910.b/s1a2919.d

Date: 29-JAN-2010 22:13

Client ID: RE15-10-7178

Sample Info: 124510601194459111SWF111LNL

Volume Injected (uL): 0.5

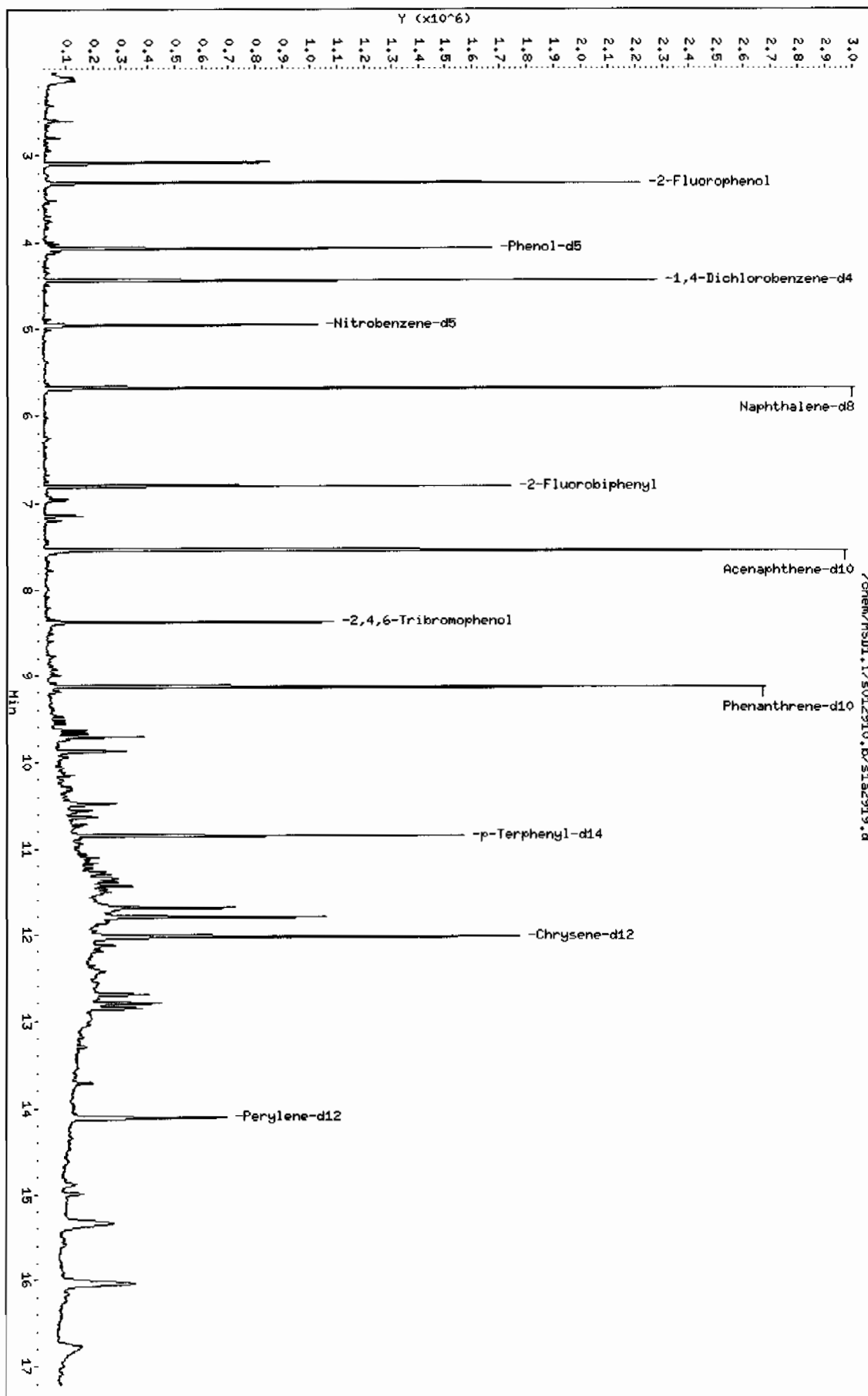
Column phase: J&W DB-SHS

Instrument: MSD1.i

Operator: RMV

Column diameter: 0.20

Page 1



Date : 29-JAN-2010 22:13

Client ID: RE15-10-7178

Instrument: MSD1.i

Sample Info: 1245106011194459111SVMF11ILANL

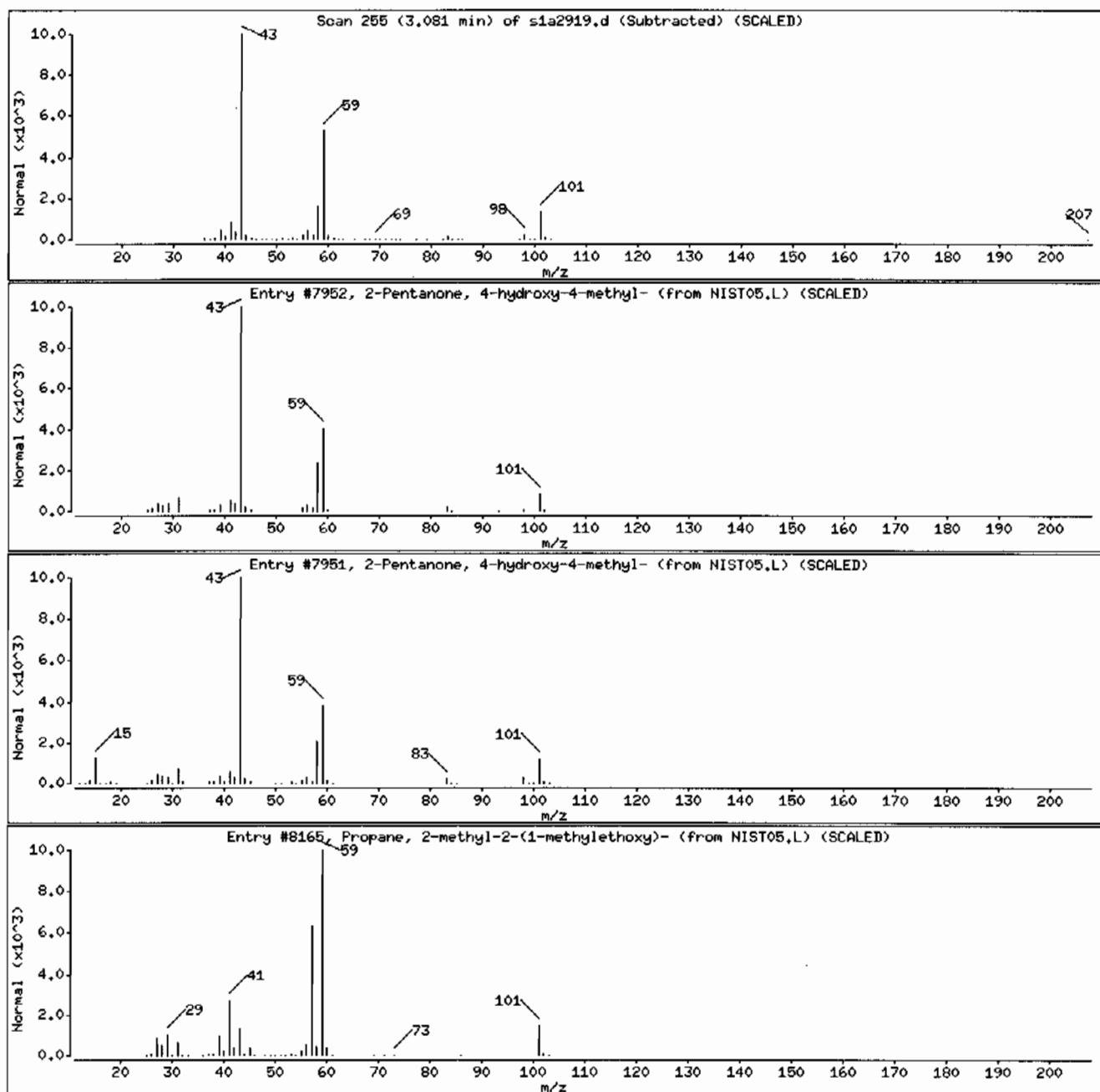
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
Propane, 2-methyl-2-(1-methylethoxy)-	17348-59-3	NIST05.L	8165	42	C7H16O	116



Date: 29-JAN-2010 22:13

Client ID: RE15-10-7178

Instrument: MSD1.i

Sample Info: 1245106011194459111SVMF111LANL

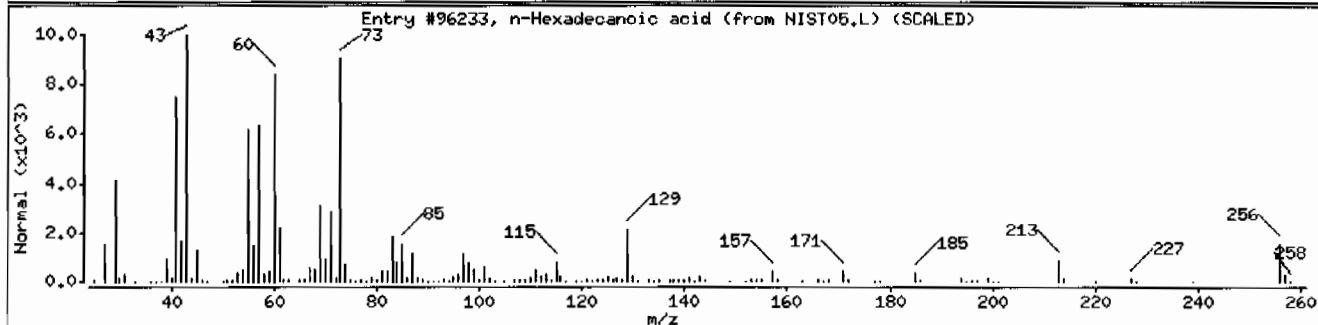
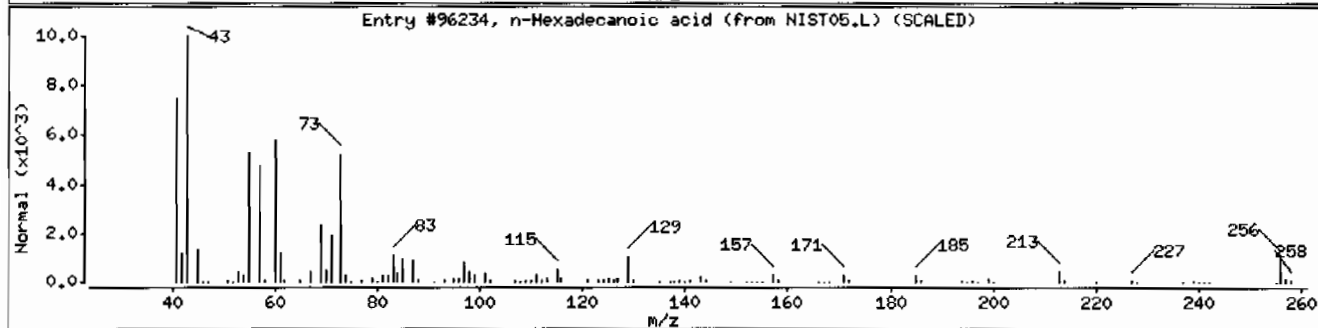
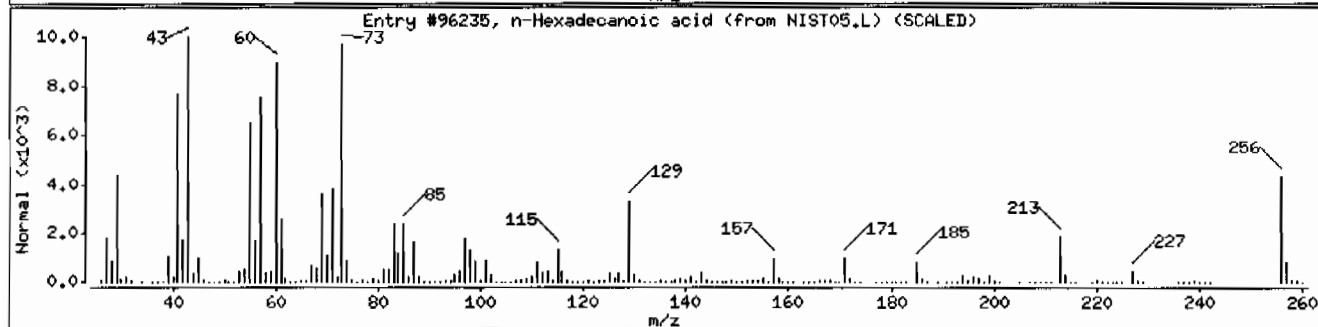
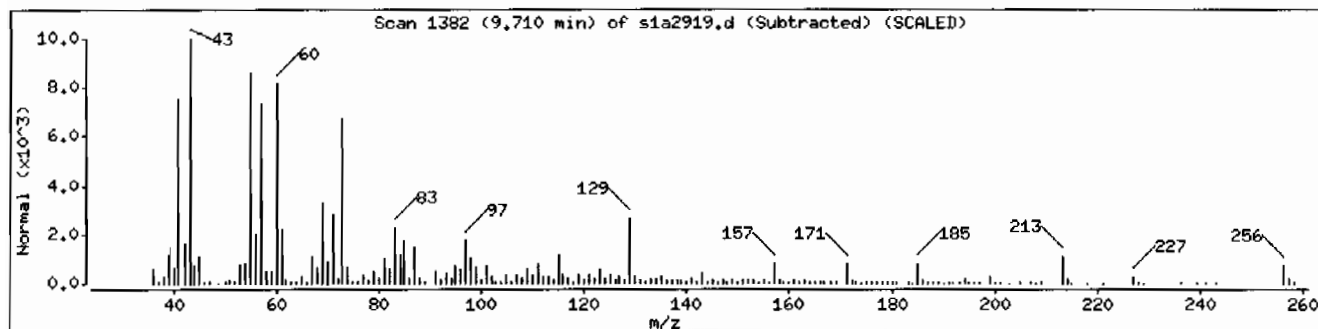
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
n-Hexadecanoic acid	57-10-3	NIST05.L	96235	99	C16H32O2	256
n-Hexadecanoic acid	57-10-3	NIST05.L	96234	95	C16H32O2	256
n-Hexadecanoic acid	57-10-3	NIST05.L	96233	87	C16H32O2	256



Date : 29-JAN-2010 22:13

Client ID: RE15-10-7178

Instrument: HSD1.i

Sample Info: 1245106011194459111SVHF11ILANL

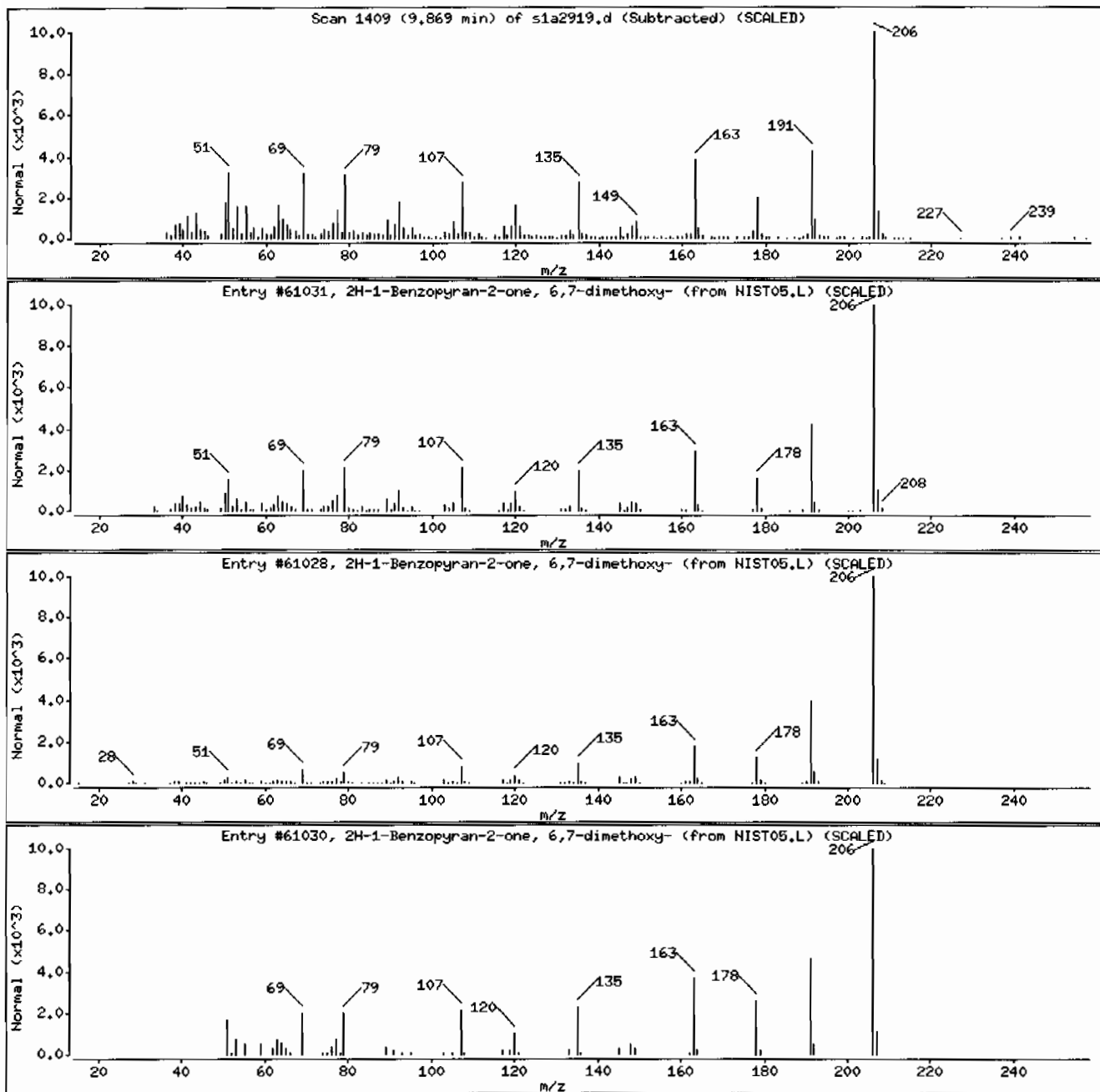
Volume Injected (uL): 0.5

Operator: AMY

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	97	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	97	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	91	C <sub>11</sub> H <sub>10</sub> O <sub>4</sub>	206



Date : 29-JAN-2010 22:13

Client ID: RE15-10-7178

Instrument: MSD1.i

Sample Info: 1245106011194459111SVHF111LANL

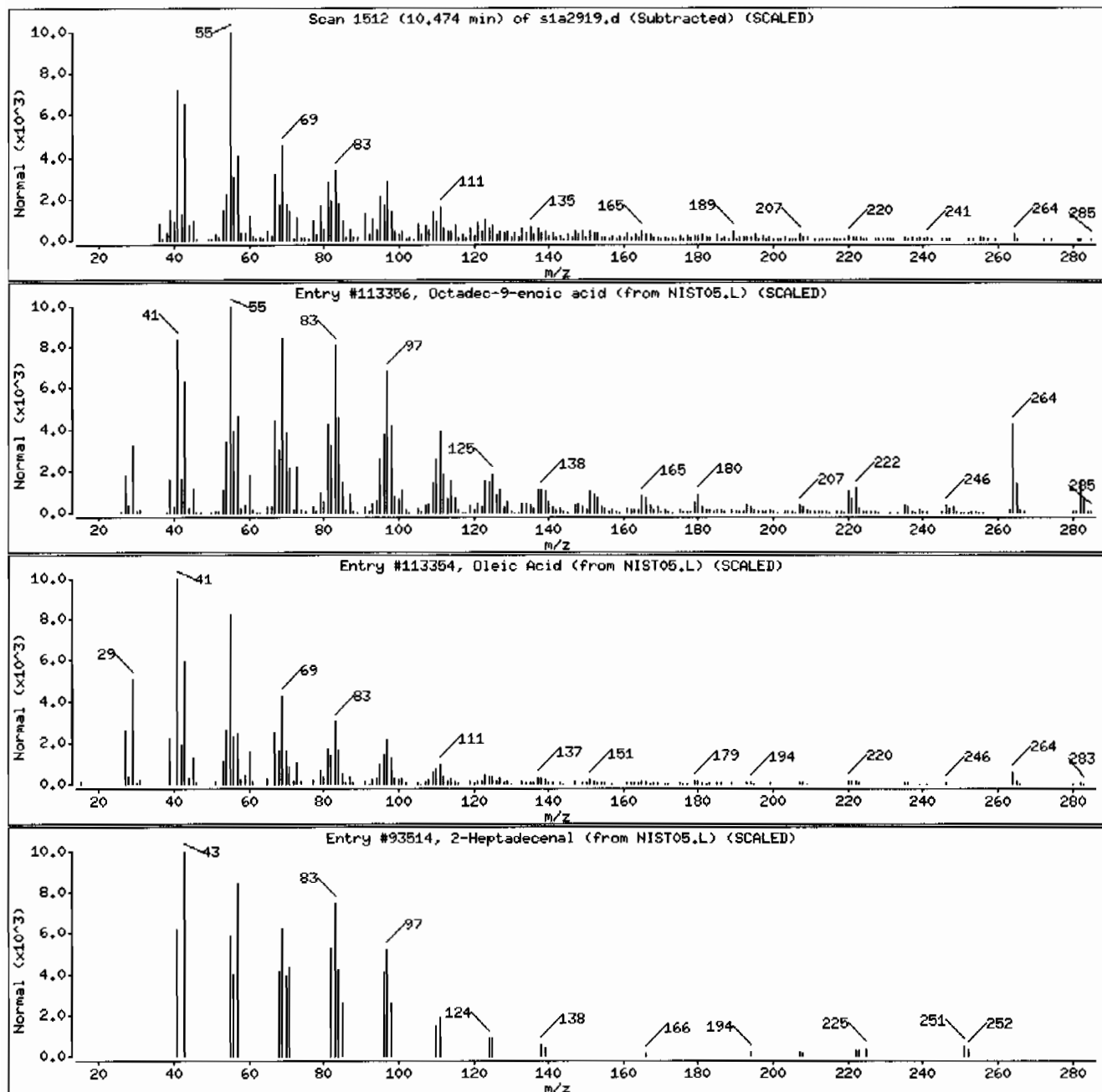
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadec-9-enoic acid	1000190-13-7	NIST05.L	113356	92	C18H34O2	282
Oleic Acid	112-80-1	NIST05.L	113354	87	C18H34O2	282
2-Heptadecenal	1000143-48-6	NIST05.L	93514	83	C17H32O	252



Date : 29-JAN-2010 22:13

Client ID: RE15-10-7178

Instrument: MSD1.i

Sample Info: I245106011/94459111/SVMF11/LANL

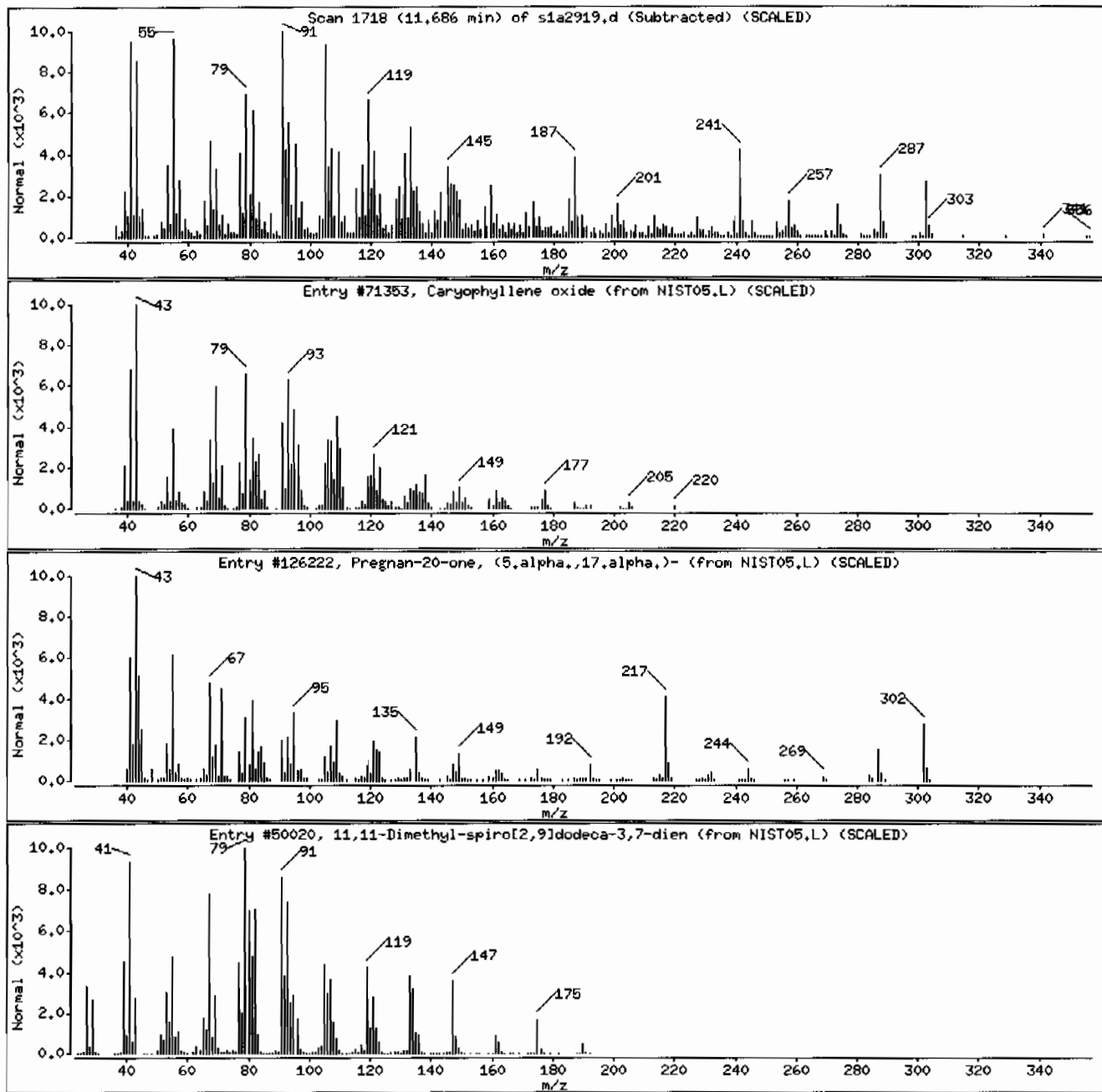
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Caryophyllene oxide	1139-30-6	NIST05.L	71353	51	C15H24O	220
Pregnan-20-one, (5.alpha.,17.alpha.)-	7704-90-7	NIST05.L	126222	43	C21H34O	302
11,11-Dimethyl-spiro[2,9]dodeca-3,7-dien	1000062-28-4	NIST05.L	50020	25	C14H22	190



Date: 29-JAN-2010 22:13

Client ID: RE15-10-7178

Instrument: MSD1.i

Sample Info: 1245106011194459111SVHF111LANL

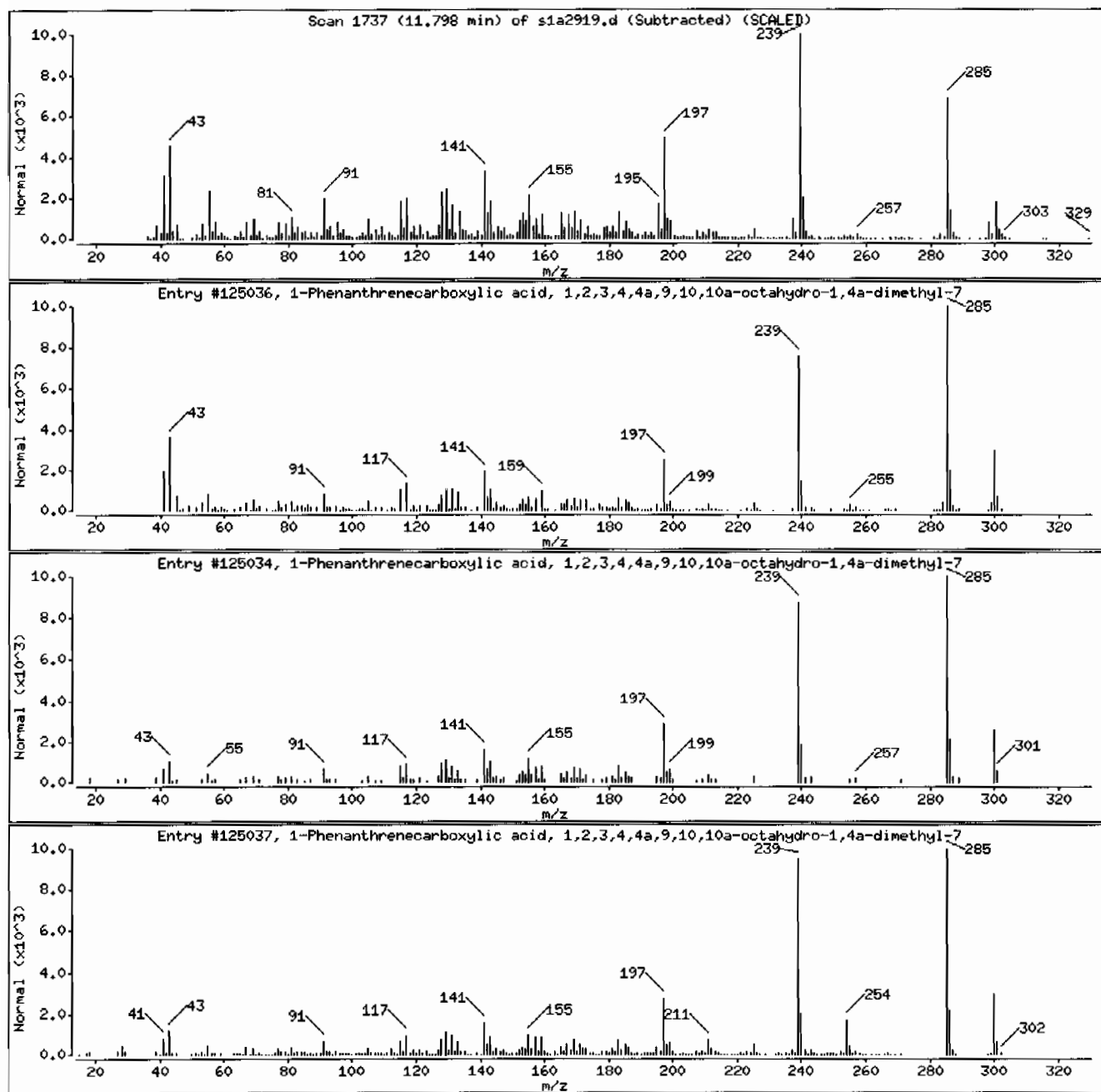
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125036	94	C <sub>20</sub> H <sub>28</sub> O <sub>2</sub>	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	94	C <sub>20</sub> H <sub>28</sub> O <sub>2</sub>	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125037	93	C <sub>20</sub> H <sub>28</sub> O <sub>2</sub>	300



Date : 29-JAN-2010 22:13

Client ID: RE15-10-7178

Instrument: HSD1.i

Sample Info: 1245106011194459111SVMF11ILANL

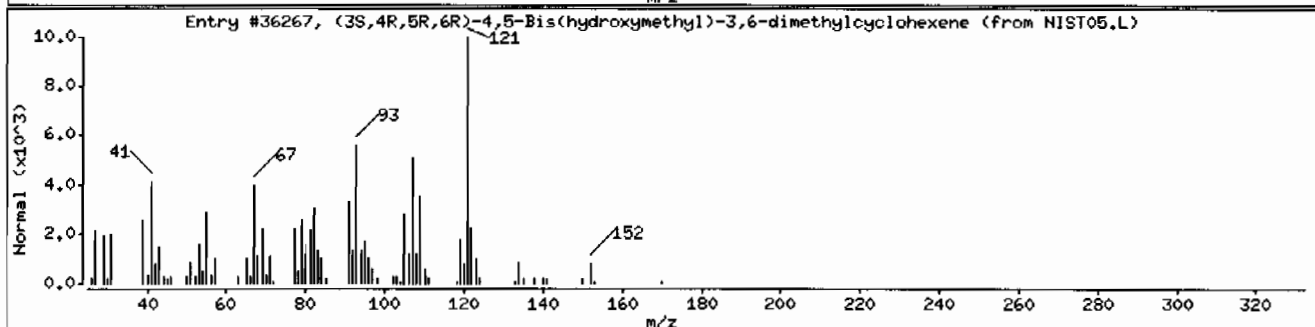
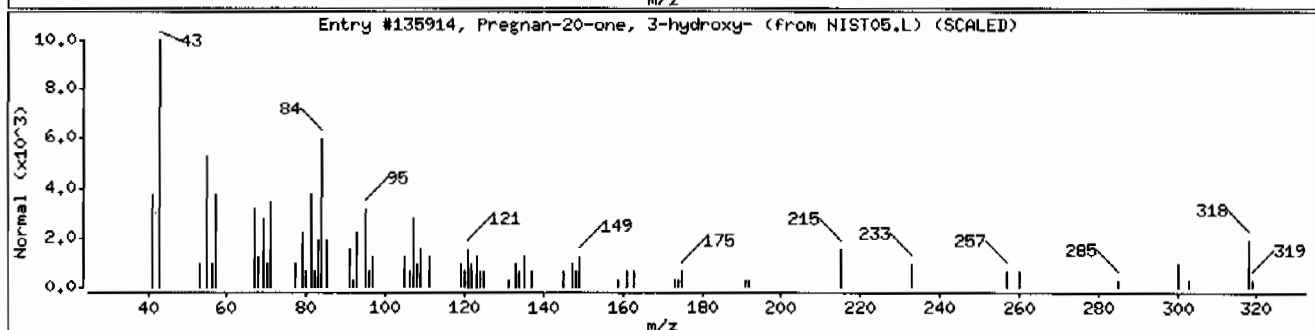
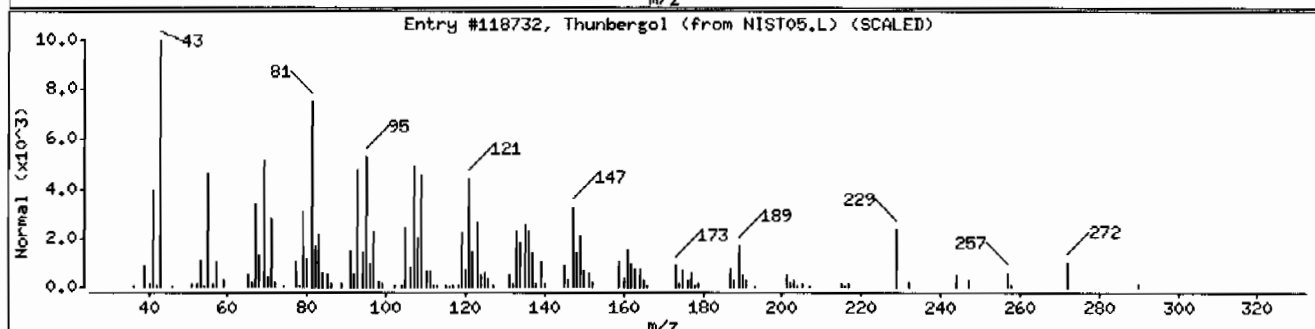
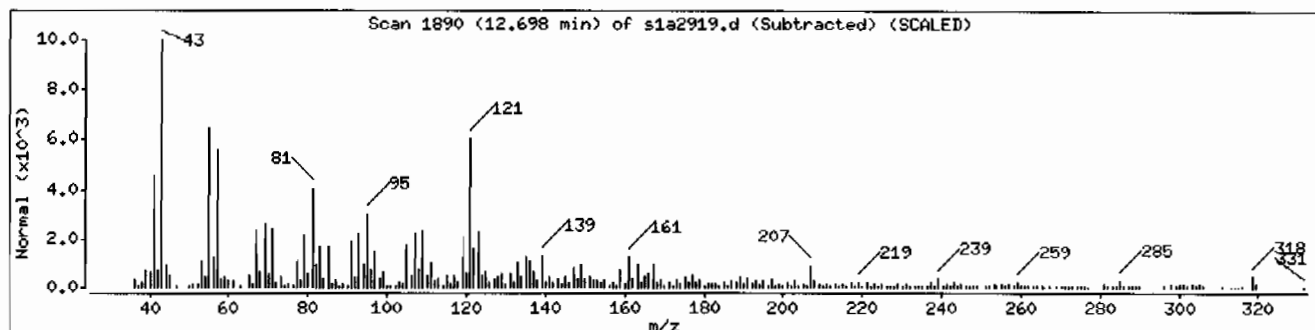
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Thunbergol	25269-17-4	NIST05.L	118732	78	C20H34O	290
Pregnan-20-one, 3-hydroxy-	4406-35-3	NIST05.L	135914	64	C21H34O2	318
(3S,4R,5R,6R)-4,5-Bis(hydroxymethyl)-3,6	1000099-24-3	NIST05.L	36267	62	C10H18O2	170





Date : 29-JAN-2010 22:13

Client ID: RE15-10-7178

Instrument: MSD1.i

Sample Info: 1245106011|9445911|SVHF11|LANL

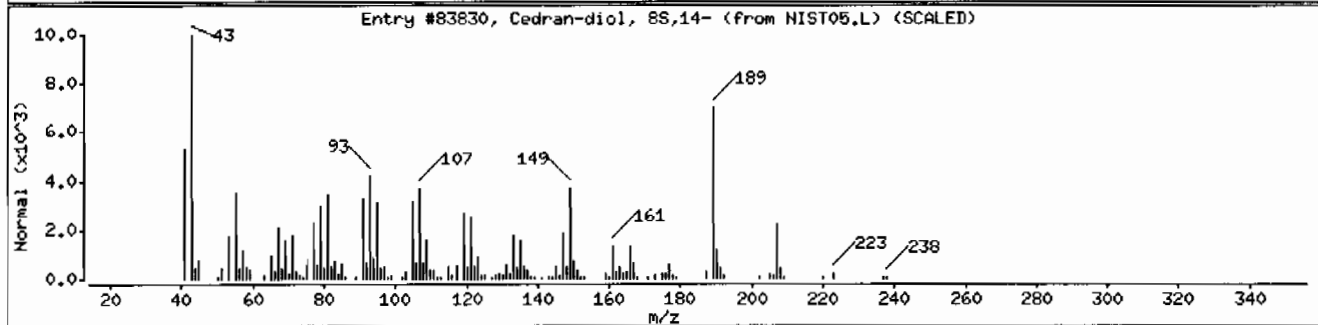
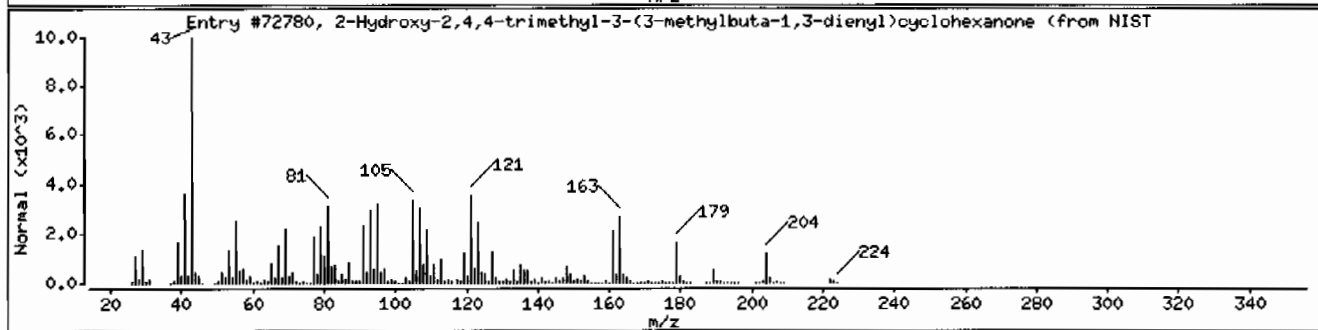
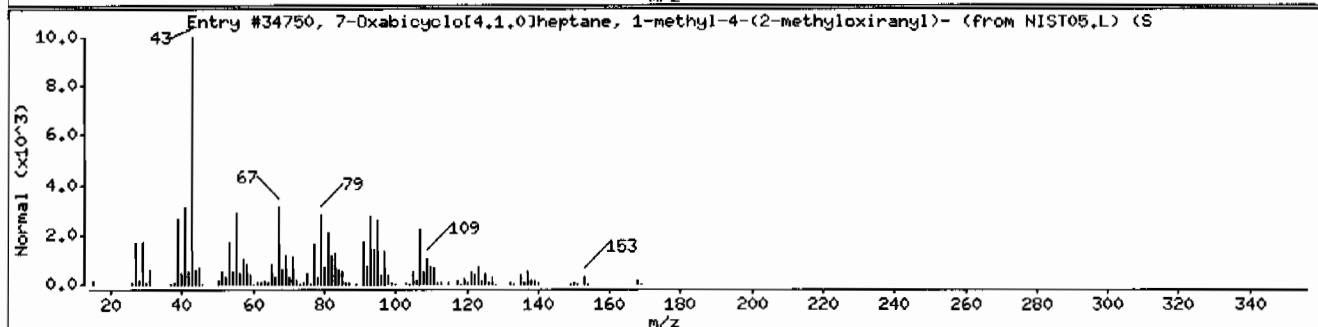
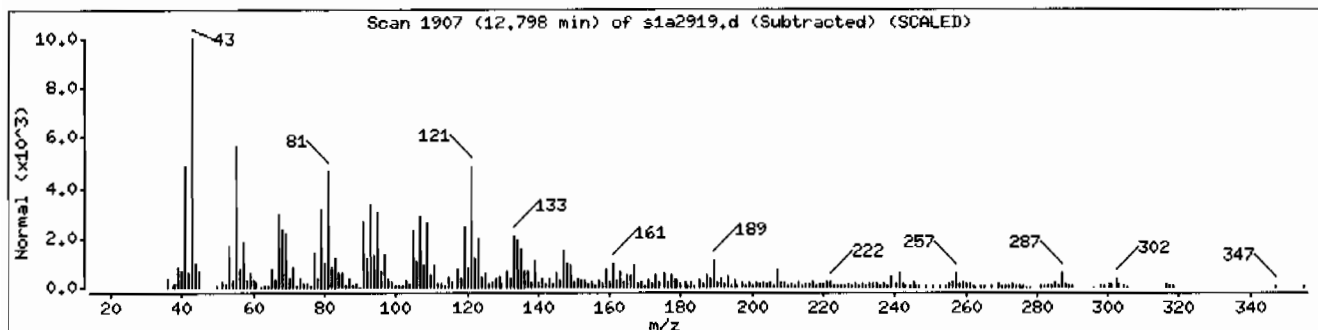
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
7-Oxabicyclo[4.1.0]heptane, 1-methyl-4-(	96-08-2	NIST05.L	34750	70	C10H16O2	168
2-Hydroxy-2,4,4-trimethyl-3-(3-methylbut	1000191-17-4	NIST05.L	72780	49	C14H22O2	222
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	46	C15H26O2	238



Date : 29-JAN-2010 22:13

Client ID: RE15-10-7178

Instrument: MSD1.i

Sample Info: 1245106011|9445911|1SVHF11|LANL

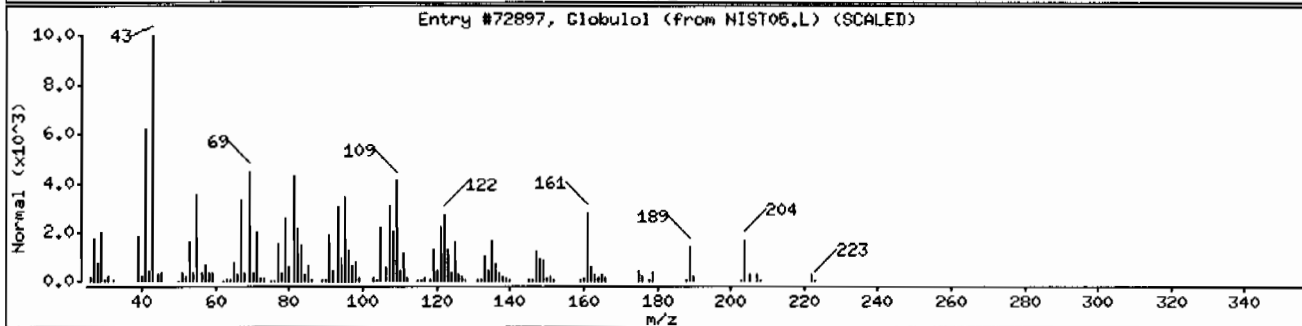
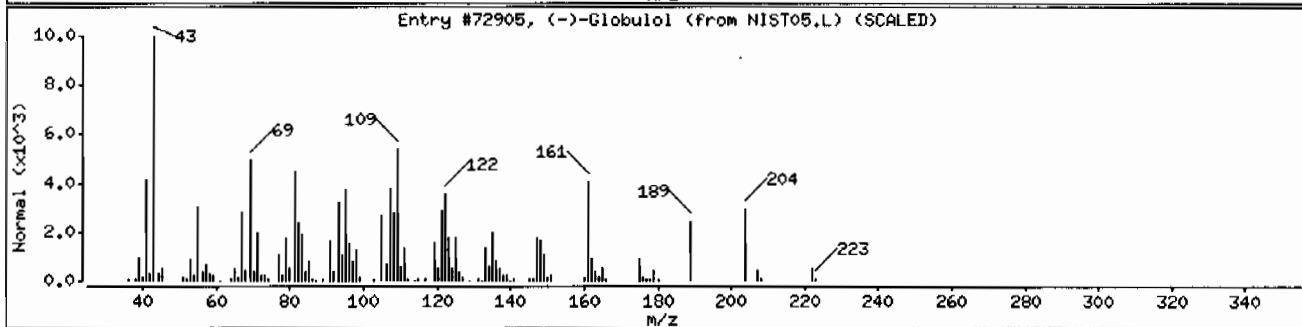
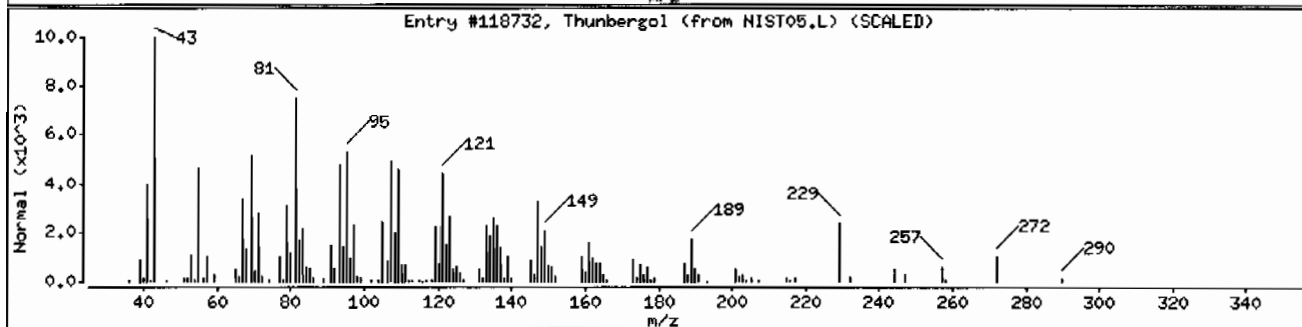
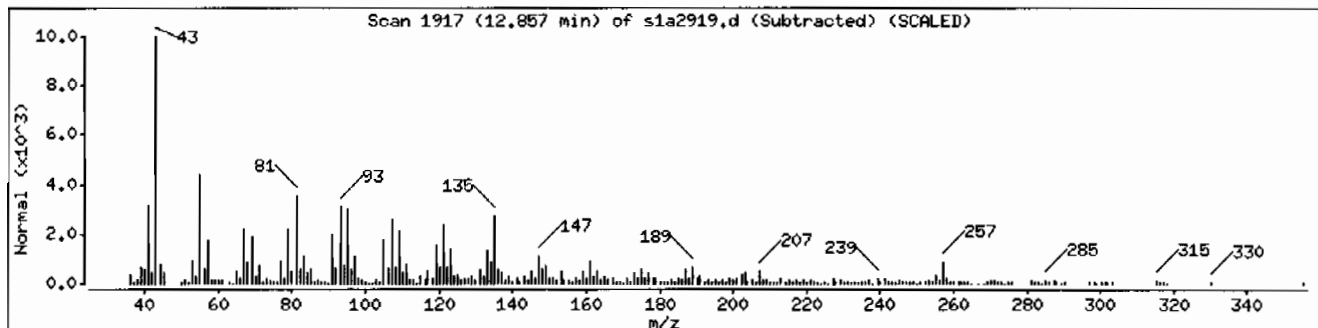
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Thunbergol	25269-17-4	NIST05.L	118732	91	C20H34O	290
(-)-Globulol	489-41-8	NIST05.L	72905	53	C15H26O	222
Globulol	51371-47-2	NIST05.L	72897	49	C15H26O	222



Date : 29-JAN-2010 22:13

Client ID: RE15-10-7178

Instrument: MSD1.i

Sample Info: 1245106011194459111ISVMF111LANL

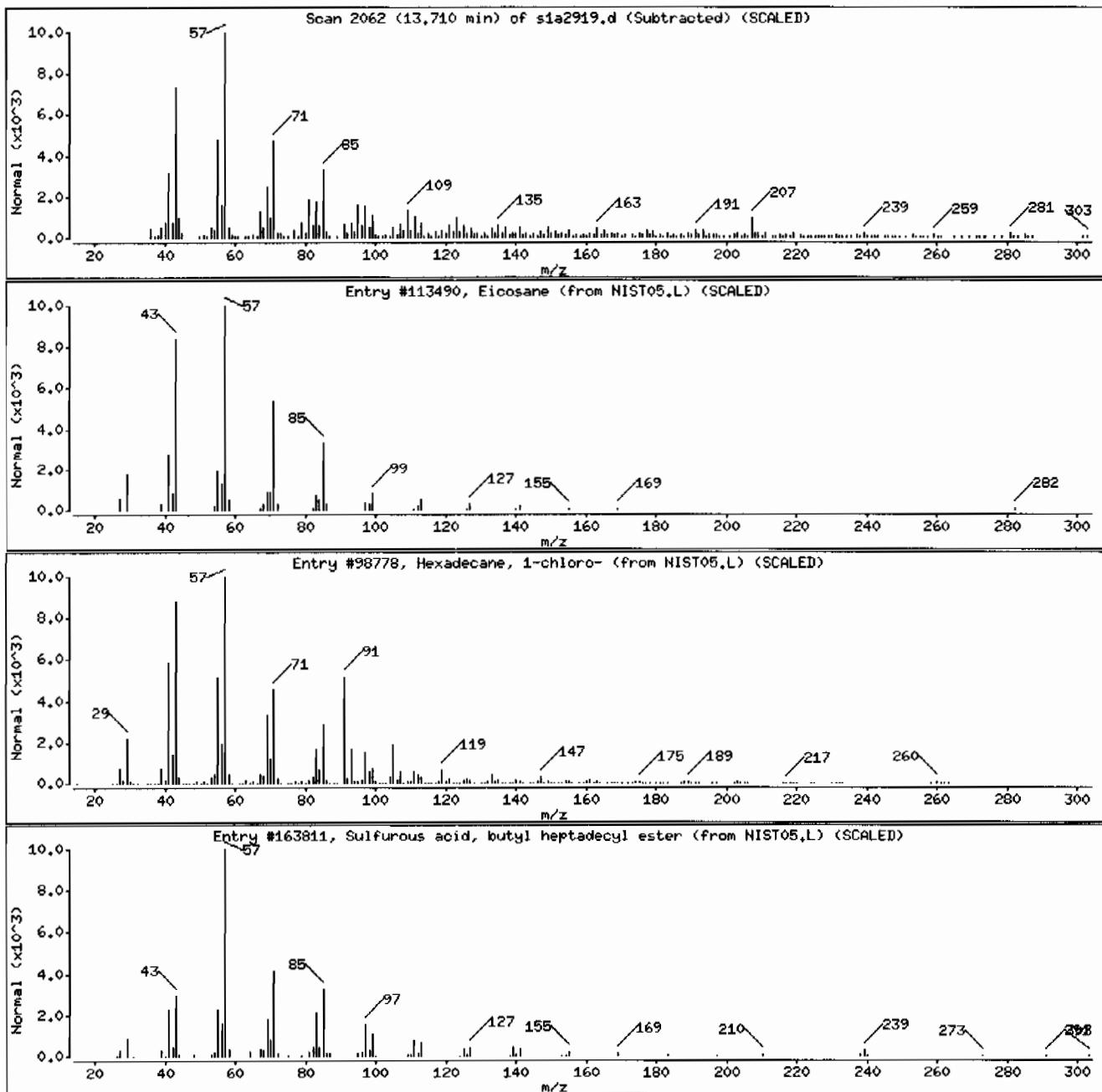
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113490	91	C20H42	282
Hexadecane, 1-chloro-	4860-03-1	NIST05.L	98778	86	C16H33Cl	260
Sulfurous acid, butyl heptadecyl ester	1000309-18-4	NIST05.L	163811	76	C21H44O3S	376



Date : 29-JAN-2010 22:13

Client ID: RE15-10-7178

Instrument: MSD1.i

Sample Info: 1245106011194459111SVHF111LANL

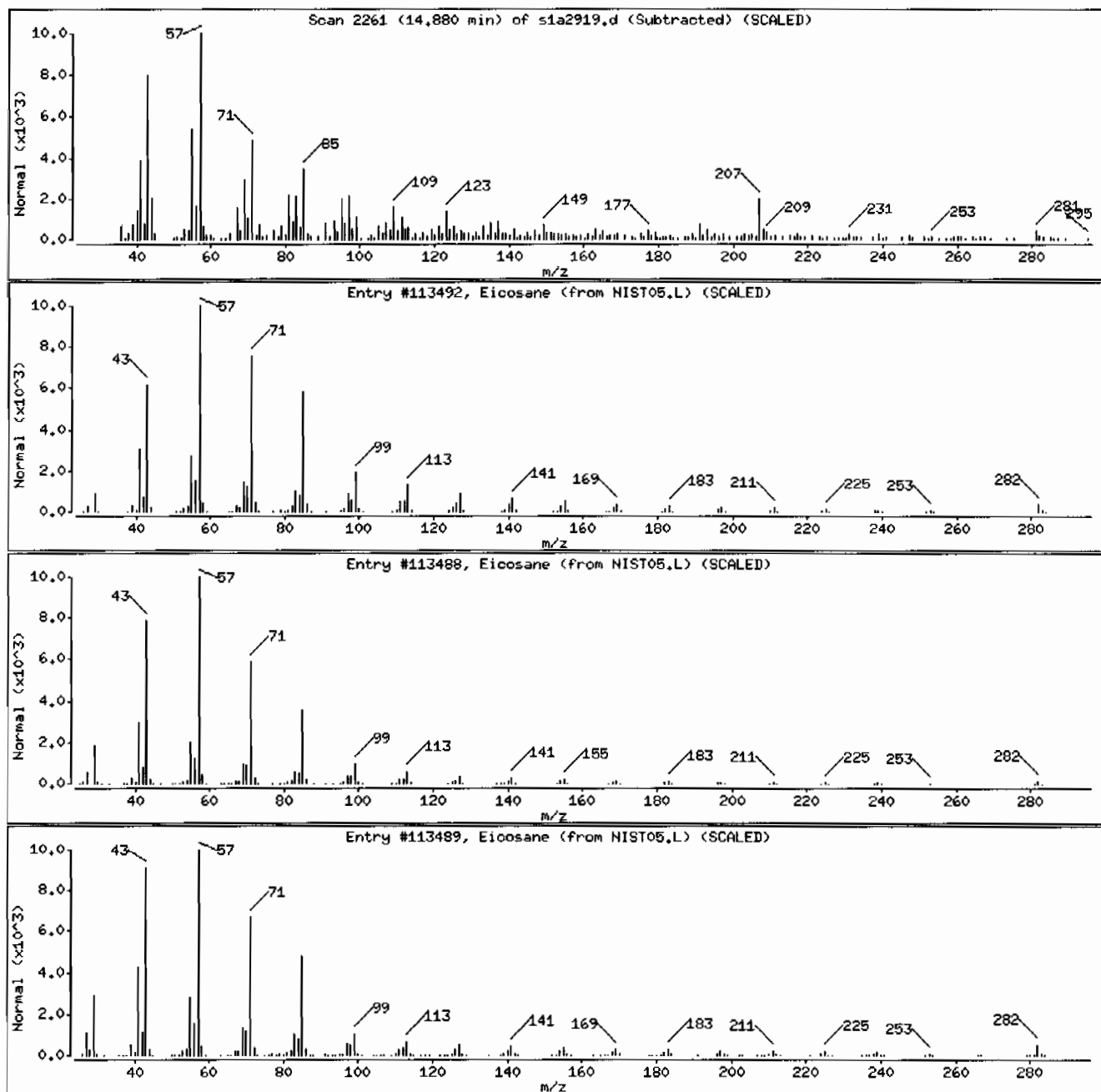
Volume Injected (UL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113492	86	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113488	83	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113489	83	C <sub>20</sub> H <sub>42</sub>	282



Date : 29-JAN-2010 22:13

Client ID: RE15-10-7178

Instrument: HSD1.i

Sample Info: 1245106011/94489111/SVMF11/LANL

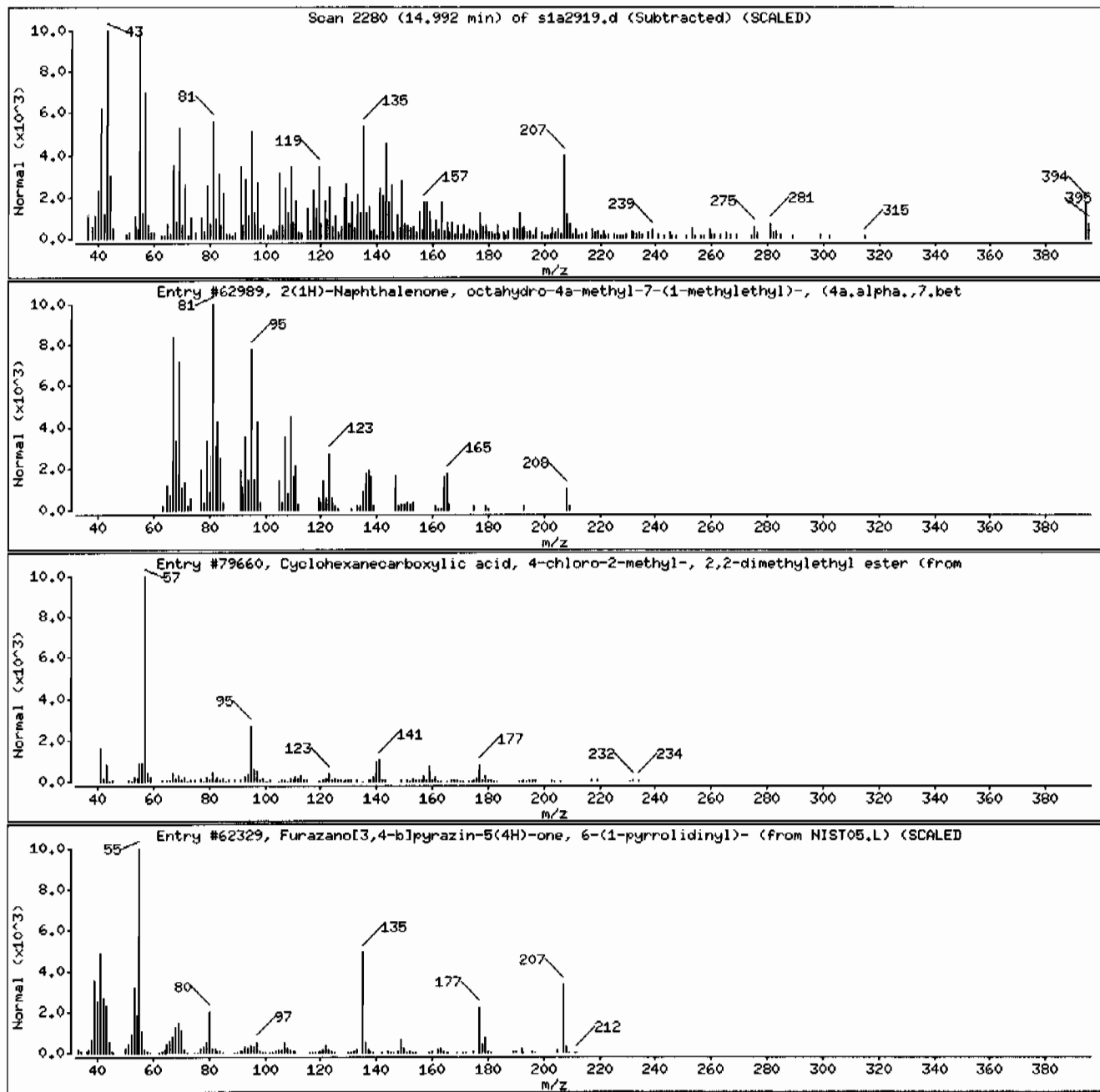
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2(1H)-Naphthalenone, octahydro-4a-methyl	54594-42-2	NIST05.L	62989	25	C14H24O	208
Cyclohexanecarboxylic acid, 4-chloro-2-m	1000131-92-5	NIST05.L	79660	15	C12H21ClO2	232
Furazano[3,4-b]pyrazin-5(4H)-one, 6-(1-p	332099-72-6	NIST05.L	62329	14	C8H9N5O2	207



Date : 29-JAN-2010 22:13

Client ID: RE15-10-7178

Instrument: MSD1.i

Sample Info: 1245106011194459111SVMF11ILANL

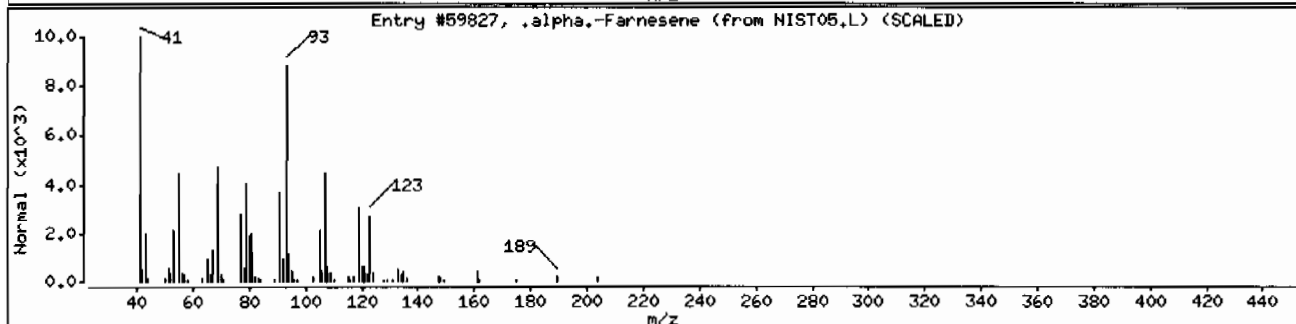
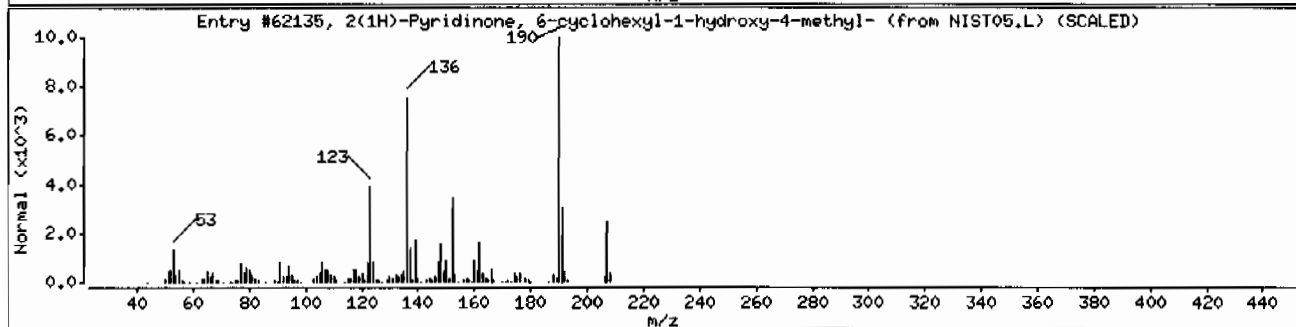
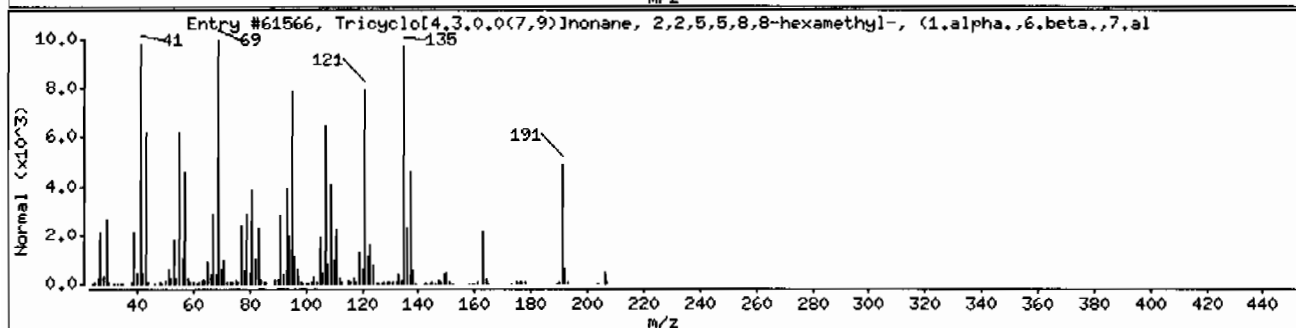
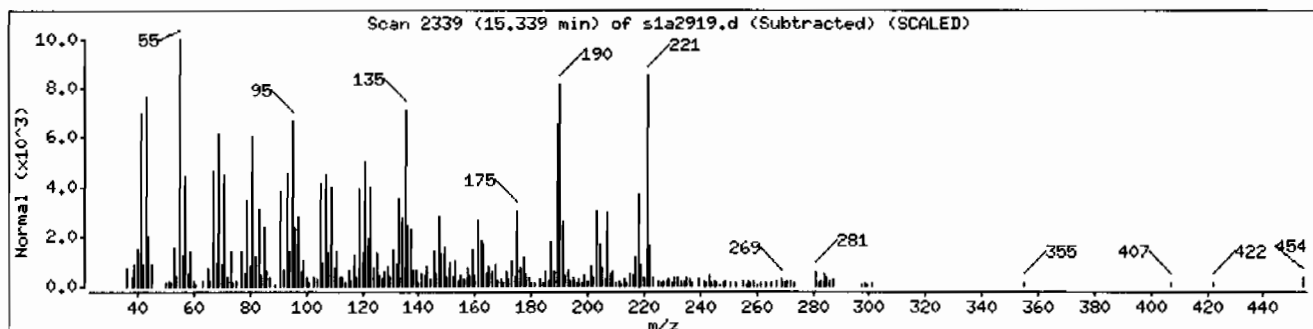
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Tricyclo[4.3.0.0(7,9)]nonane, 2,2,5,5,8,8-hexamethyl-, (1.alpha.,6.beta.,7.alpha.)	54832-82-5	NIST05.L	61566	68	C15H26	206
2(1H)-Pyridinone, 6-cyclohexyl-1-hydroxy	29342-05-0	NIST05.L	62135	44	C12H17NO2	207
.alpha.-Farnesene	502-61-4	NIST05.L	59827	40	C15H24	204



Date: 29-JAN-2010 22:13

Client ID: RE15-10-7178

Instrument: HSD1.i

Sample Info: 124510601194459111SVHF11ILANL

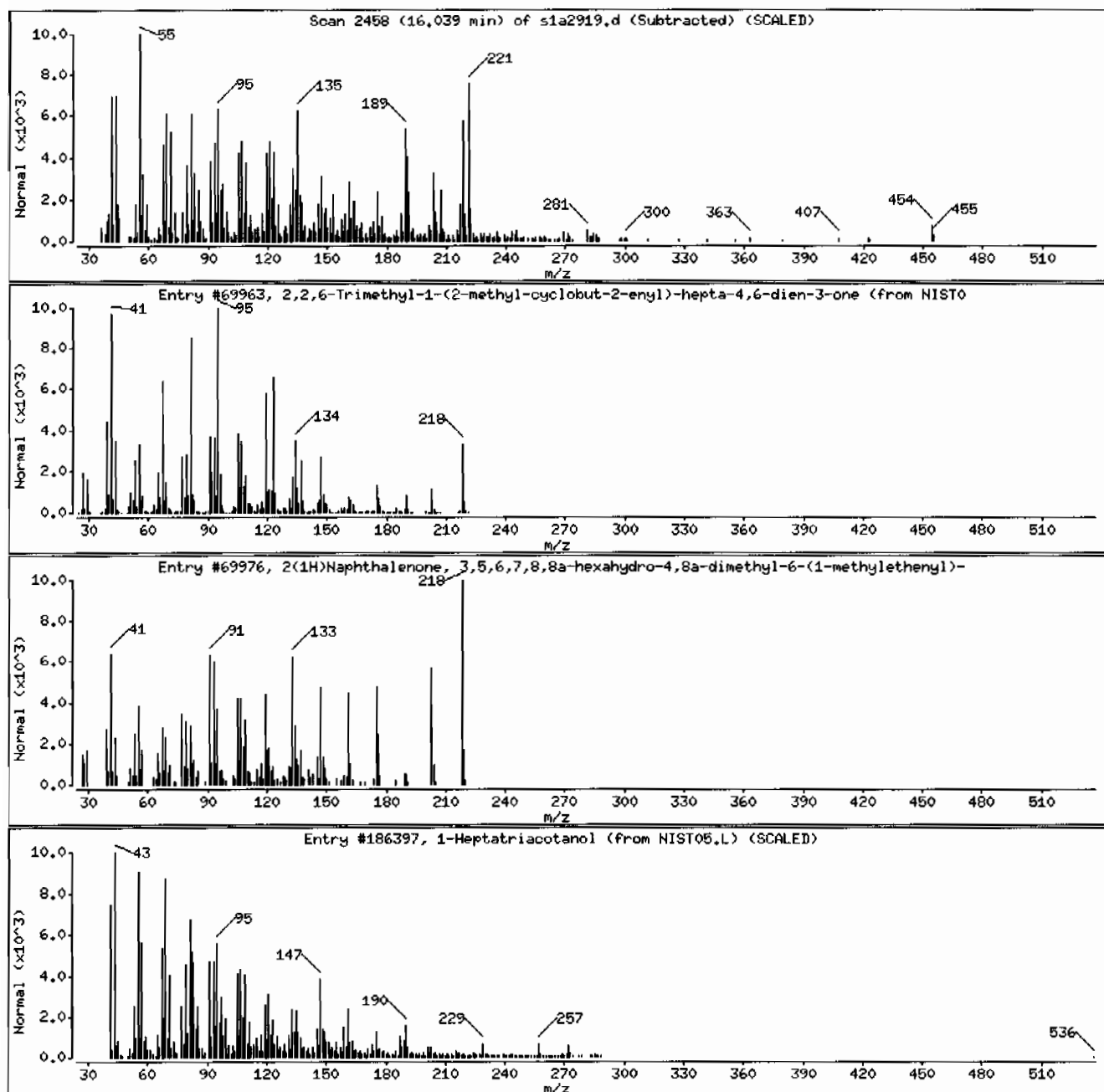
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-yl)-hepta-4,6-dien-3-one	1000188-72-8	NIST05.L	69963	41	C15H22O	218
2(1H)Naphthalenone, 3,5,6,7,8,8a-hexahydro-4,8a-dimethyl-6-(1-methylethenyl)-	1000188-66-5	NIST05.L	69976	38	C15H22O	218
1-Heptatriacotanol	105794-58-9	NIST05.L	186397	25	C37H76O	537



Date : 29-JAN-2010 22:13

Client ID: RE15-10-7178

Instrument: MSD1.i

Sample Info: 124510601194459111SVHF111LANL

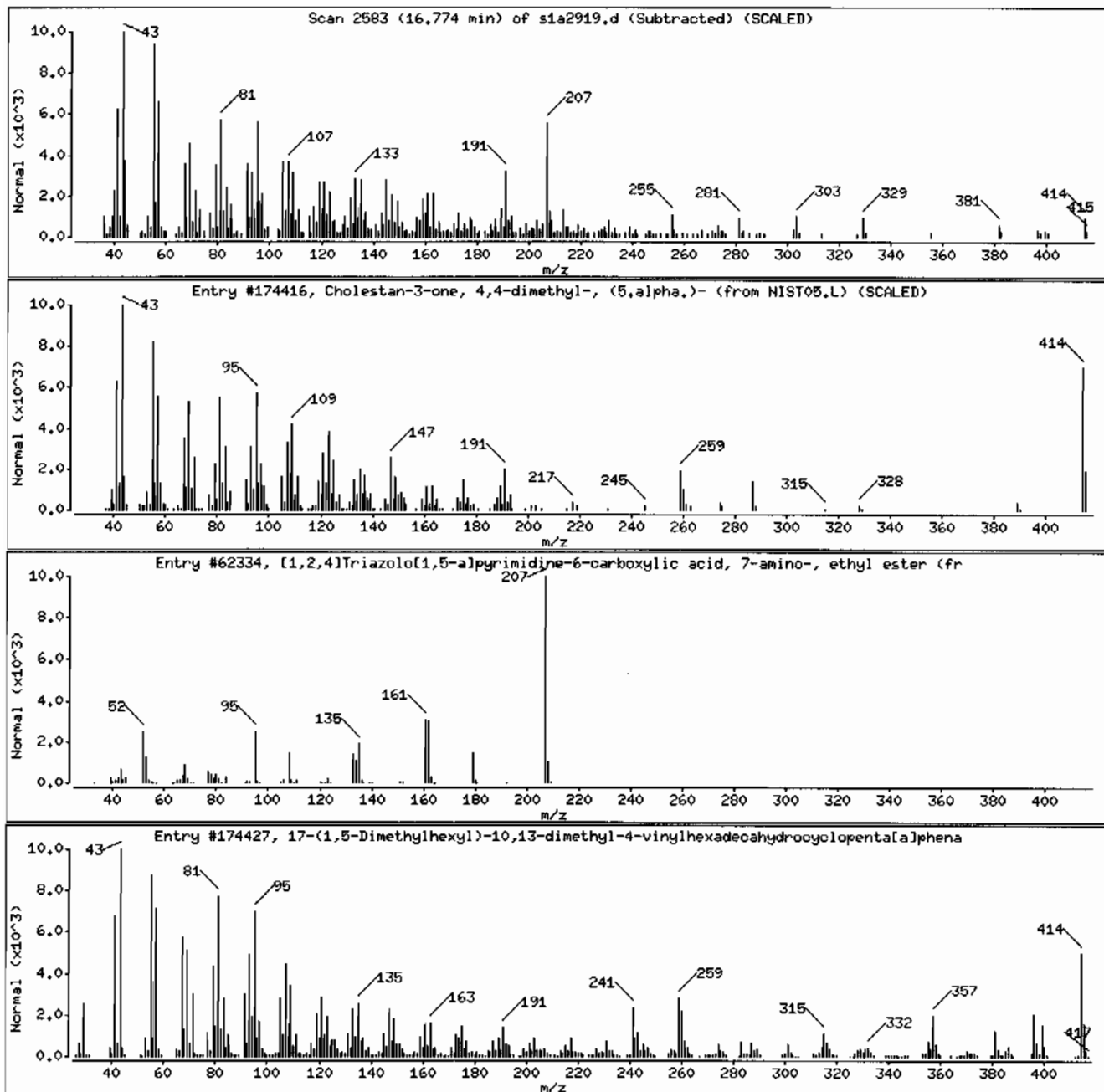
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cholestan-3-one, 4,4-dimethyl-, (5.alpha.)	2097-85-0	NIST05.L	174416	38	C29H50O	414
[1,2,4]Triazolo[1,5-a]pyrimidine-6-carbo	1000316-75-8	NIST05.L	62334	30	C8H9N5O2	207
17-(1,5-Dimethylhexyl)-10,13-dimethyl-4-	1000210-86-9	NIST05.L	174427	25	C29H50O	414





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

SDG Number: 10-1304  
Lab Sample ID: 245106016

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7179  
Batch ID: 944591  
Run Date: 01/30/2010 00:29  
Prep Date: 01/25/2010 14:38  
Data File: s1a2924.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	418	ug/kg	83.5	418
108-95-2	Phenol	U	418	ug/kg	83.5	418
95-57-8	2-Chlorophenol	U	418	ug/kg	83.5	418
106-46-7	1,4-Dichlorobenzene	U	418	ug/kg	83.5	418
621-64-7	N-Nitrosodipropylamine	U	418	ug/kg	83.5	418
59-50-7	4-Chloro-3-methylphenol	U	418	ug/kg	83.5	418
83-32-9	Acenaphthene	U	41.8	ug/kg	13.8	41.8
121-14-2	2,4-Dinitrotoluene	U	418	ug/kg	41.8	418
100-02-7	4-Nitrophenol	U	418	ug/kg	138	418
87-86-5	Pentachlorophenol	U	418	ug/kg	104	418
129-00-0	Pyrene	U	41.8	ug/kg	12.5	41.8
110-86-1	Pyridine	U	418	ug/kg	83.5	418
62-53-3	Aniline	U	418	ug/kg	125	418
111-44-4	bis(2-Chloroethyl) ether	U	418	ug/kg	83.5	418
541-73-1	1,3-Dichlorobenzene	U	418	ug/kg	83.5	418
100-51-6	Benzyl alcohol	U	418	ug/kg	125	418
95-50-1	1,2-Dichlorobenzene	U	418	ug/kg	83.5	418
108-60-1	bis(2-Chloroisopropyl)ether	U	418	ug/kg	83.5	418
95-48-7	o-Cresol	U	418	ug/kg	83.5	418
65794-96-9	m,p-Cresols	U	418	ug/kg	125	418
67-72-1	Hexachloroethane	U	418	ug/kg	83.5	418
98-95-3	Nitrobenzene	U	418	ug/kg	83.5	418
78-59-1	Isophorone	U	418	ug/kg	83.5	418
88-75-5	2-Nitrophenol	U	418	ug/kg	83.5	418
105-67-9	2,4-Dimethylphenol	U	418	ug/kg	146	418
111-91-1	bis(2-Chloroethoxy)methane	U	418	ug/kg	83.5	418
120-83-2	2,4-Dichlorophenol	U	418	ug/kg	83.5	418
65-85-0	Benzoic acid	U	835	ug/kg	209	835
91-20-3	Naphthalene	U	41.8	ug/kg	12.5	41.8
106-47-8	4-Chloroaniline	U	418	ug/kg	83.5	418
87-68-3	Hexachlorohutadiene	U	418	ug/kg	83.5	418
91-57-6	2-Methylnaphthalene	U	41.8	ug/kg	8.35	41.8
77-47-4	Hexachlorocyclopentadiene	U	418	ug/kg	83.5	418
88-06-2	2,4,6-Trichlorophenol	U	418	ug/kg	83.5	418
95-95-4	2,4,5-Trichlorophenol	U	418	ug/kg	83.5	418
91-58-7	2-Chloronaphthalene	U	41.8	ug/kg	13.8	41.8
88-74-4	2-Nitroaniline	U	418	ug/kg	83.5	418
99-09-2	o-Nitroaniline	U	418	ug/kg	83.5	418
	3-Nitroaniline	U	418	ug/kg	83.5	418

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

SDG Number: 10-1304  
Lab Sample ID: 245106016

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.J  
Analyst: AMY  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7179  
Batch ID: 944591  
Run Date: 01/30/2010 00:29  
Prep Date: 01/25/2010 14:38  
Data File: s1a2924.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	418	ug/kg	83.5	418
606-20-2	2,6-Dinitrotoluene	U	418	ug/kg	41.8	418
208-96-8	Acenaphthylene	U	41.8	ug/kg	12.5	41.8
51-28-5	2,4-Dinitrophenol	U	835	ug/kg	159	835
132-64-9	Dibenzofuran	U	418	ug/kg	83.5	418
84-66-2	Diethylphthalate	U	418	ug/kg	83.5	418
86-73-7	Fluorene	U	41.8	ug/kg	12.5	41.8
7005-72-3	4-Chlorophenylphenylether	U	418	ug/kg	83.5	418
534-52-1	2-Methyl-4,6-dinitrophenol	U	418	ug/kg	83.5	418
100-01-6	4-Nitroaniline	U	418	ug/kg	125	418
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	418	ug/kg	83.5	418
122-66-7	Azobenzene	U	418	ug/kg	83.5	418
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	418	ug/kg	83.5	418
118-74-1	Hexachlorobenzene	U	418	ug/kg	83.5	418
85-01-8	Phenanthrene	U	41.8	ug/kg	12.5	41.8
120-12-7	Anthracene	U	41.8	ug/kg	8.35	41.8
84-74-2	Di-n-butylphthalate	U	418	ug/kg	83.5	418
206-44-0	Fluoranthene	U	41.8	ug/kg	12.5	41.8
85-68-7	Butylbenzylphthalate	U	418	ug/kg	83.5	418
56-55-3	Benzo(a)anthracene	U	41.8	ug/kg	12.5	41.8
91-94-1	3,3'-Dichlorobenzidine	U	418	ug/kg	125	418
218-01-9	Chrysene	U	41.8	ug/kg	12.5	41.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	418	ug/kg	83.5	418
117-84-0	Di-n-octylphthalate	U	418	ug/kg	83.5	418
205-99-2	Benzo(b)fluoranthene	U	41.8	ug/kg	12.5	41.8
207-08-9	Benzo(k)fluoranthene	U	41.8	ug/kg	12.5	41.8
50-32-8	Benzo(a)pyrene	U	41.8	ug/kg	12.5	41.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.8	ug/kg	12.5	41.8
53-70-3	Dibenzo(a,h)anthracene	U	41.8	ug/kg	12.5	41.8
191-24-2	Benzo(ghi)perylene	U	41.8	ug/kg	12.5	41.8
120-82-1	1,2,4-Trichlorobenzene	U	418	ug/kg	83.5	418

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.09	553	ug/kg		JA
91-64-5	2H-1-Benzopyran-2-one	7.27	177	ug/kg	98	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary****SDG Number:** 10-1304  
**Lab Sample ID:** 245106016**Date Collected:** 01/13/2010 12:00  
**Date Received:** 01/20/2010 08:45  
**Client:** LANL010  
**Method:** SW846 8270C  
**Inst:** MSD1.I  
**Analyst:** AMY  
**Aliquot:** 30.05 g  
**Column:** J&W DB-5MS**Matrix:** R  
**%Moisture:** 20.3  
**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	15.38	1790	ug/kg		J
	Unknown	16.06	2580	ug/kg		J
	Unknown	16.64	387	ug/kg		J

Data File: /chem/MSD1.i/s012910.b/sla2924.d  
Report Date: 15-Feb-2010 15:18

Page 1

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012910.b/sla2924.d  
Lab Smp Id: 245106016 Client Smp ID: RE15-10-7179  
Inj Date : 30-JAN-2010 00:29  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106016|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m  
Meth Date : 30-Jan-2010 13:22 llo00884 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 12  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	20.30540	% 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	4.434	4.428 (1.000)	283136	40.0000	
* 29 Naphthalene-d8	136	5.681	5.681 (1.000)	1133348	40.0000	
* 46 Acenaphthene-d10	164	7.540	7.539 (1.000)	626964	40.0000	
* 67 Phenanthrene-d10	188	9.134	9.133 (1.000)	969505	40.0000	
* 91 Chrysene-d12	240	12.033	12.033 (1.000)	647417	40.0000	
* 98 Perylene-d12	264	14.122	14.115 (1.000)	329503	40.0000	
\$ 3 2-Fluorophenol	112	3.316	3.304 (0.748)	330942	37.7915	1580
\$ 5 Phenol-d5	99	4.069	4.057 (0.918)	441293	40.5720	1690
\$ 20 Nitrobenzene-d5	82	4.952	4.957 (0.872)	178621	21.3540	892
\$ 39 2-Fluorobiphenyl	172	6.804	6.804 (0.902)	357416	22.1282	924
\$ 60 2,4,6-Tribromophenol	329	8.387	8.380 (1.112)	88548	39.0299	1630
\$ 81 p-Terphenyl-d14	244	10.845	10.839 (0.901)	311239	26.7910	1120

## ION RATIO REPORT

## SV REPORT

Data file: sla2924.d

Report Date: 01/30/2010 13:28

Lab. ID: 245106016

SampleType: SAMPLE

Injection Date: 30-JAN-2010 00:29

Operator: AMY

Instrument: MSD1.i

Sample Info: |245106016|944591|1|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100107-03|

Comment:

Method used: /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
-----						
4	Aniline	CAS#: 62-53-3				
66	20747	4.07	4.13	80-120	100	( )
93	2103	4.11	4.13	212-272	10	(Q)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	23883	4.95	4.80	80-120	100	(T)
42	15388	4.95	4.80	52-112	64	(T)
-----						
44	2,6-Dinitrotoluene	CAS#: 606-20-2				
165	80305	7.54	7.31	80-120	100	(T)
63	3573	7.55	7.31	38- 98	4	(QT)
-----						
45	Acenaphthylene	CAS#: 208-96-8				
152	15061	7.55	7.39	80-120	100	(T)
151	4382	7.55	7.39	0- 49	29	(T)
153	15044	7.55	7.39	0- 43	100	(QT)
-----						
47	Acenaphthene	CAS#: 83-32-9				
154	14350	7.55	7.57	80-120	100	( )
153	15082	7.55	7.57	75-135	105	( )
152	15061	7.55	7.57	20- 80	105	(Q)
-----						
50	2,4-Dinitrotoluene	CAS#: 121-14-2				
165	80305	7.54	7.74	80-120	100	(T)
89	1953	7.55	7.74	55-115	2	(QT)
63	3546	7.55	7.74	49-109	4	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	256	8.38	8.17	80-120	100	(T)
105	712	8.38	8.17	16- 76	278	(QT)
51	766	8.38	8.17	41-101	299	(QT)

-----  
 Q qualifier indicates ion failed ratio requirement

Data File: /chem/MSD1.i/s012910.b/s1a2924.d  
Report Date: 15-Feb-2010 15:18

Page 1

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012910.b/s1a2924.d  
Lab Smp Id: 245106016 Client Smp ID: RE15-10-7179  
Inj Date : 30-JAN-2010 00:29  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106016|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270 S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m  
Meth Date : 30-Jan-2010 13:22 11o00884 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: s1a2203.d  
Als bottle: 12  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	20.30540	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.434	1814910	40.000
* 46 Acenaphthene-d10	7.540	2775760	40.000
* 98 Perylene-d12	14.122	895748	40.000

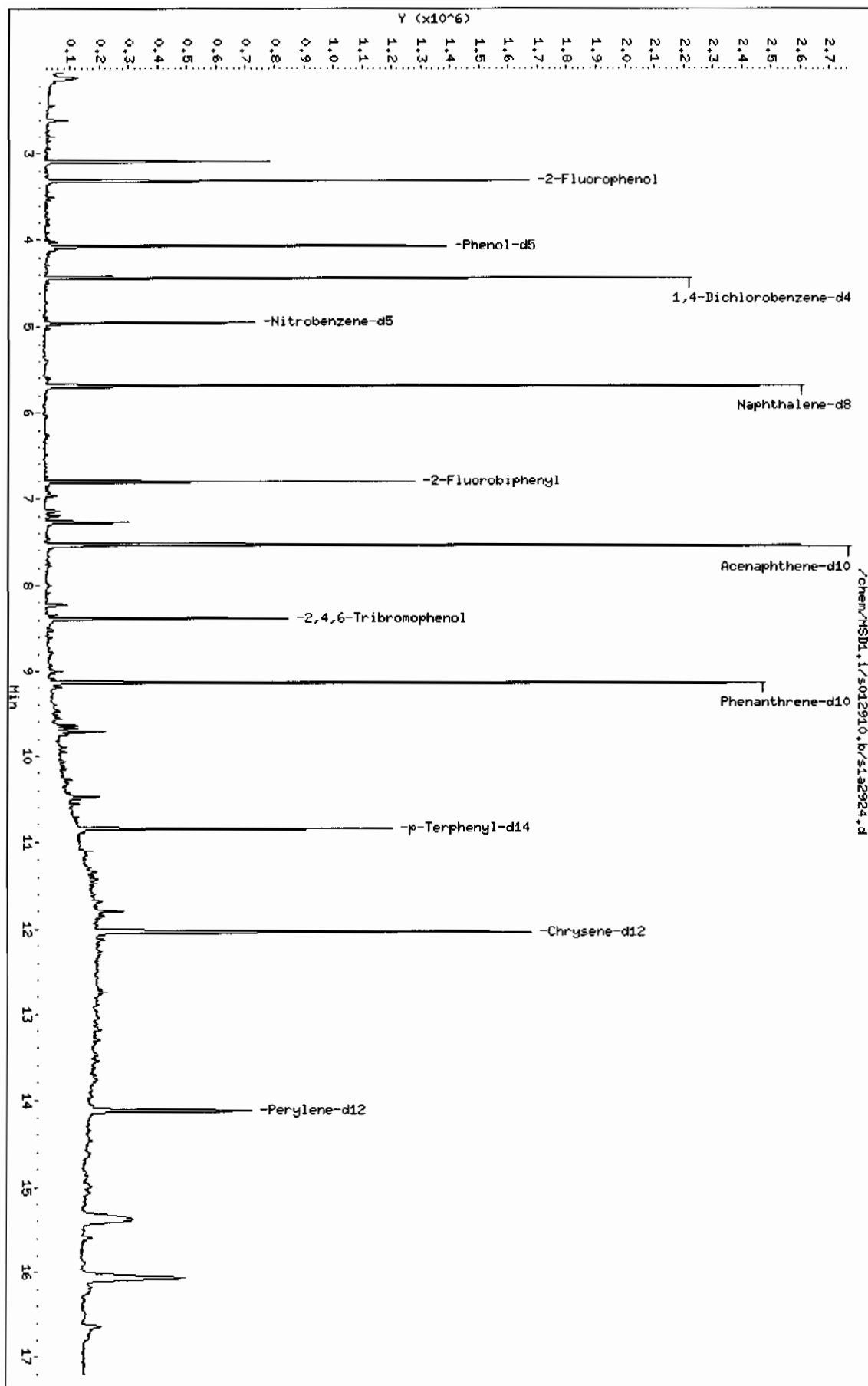
CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
====	====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate					CAS #:		
3.087	600910	13.2438385	553	0		0	10
2H-1-Benzopyran-2-one					CAS #: 91-64-5		
7.275	294095	4.23805101	177	98	NIST05.L	21396	46
Unknown					CAS #:		
15.380	962078	42.9620032	1790	0		0	98
Unknown					CAS #:		
16.057	1382894	61.7536846	2580	0		0	98
Unknown					CAS #:		
16.639	207799	9.27933631	387	0		0	98



Data File: /chem/HSD1.i/5012910.b/s1a2924.d  
Date: 30-JAN-2010 00:29  
Client ID: RE15-10-7179  
Sample Info: 12451060161944591.11.SMH.11.LANL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5MS

Instrument: HSD1.i  
Operator: AMY  
Column diameter: 0.20



Date : 30-JAN-2010 00:29

Client ID: RE15-10-7179

Instrument: HSD1.i

Sample Info: I245106016194459111SVMF111LANL

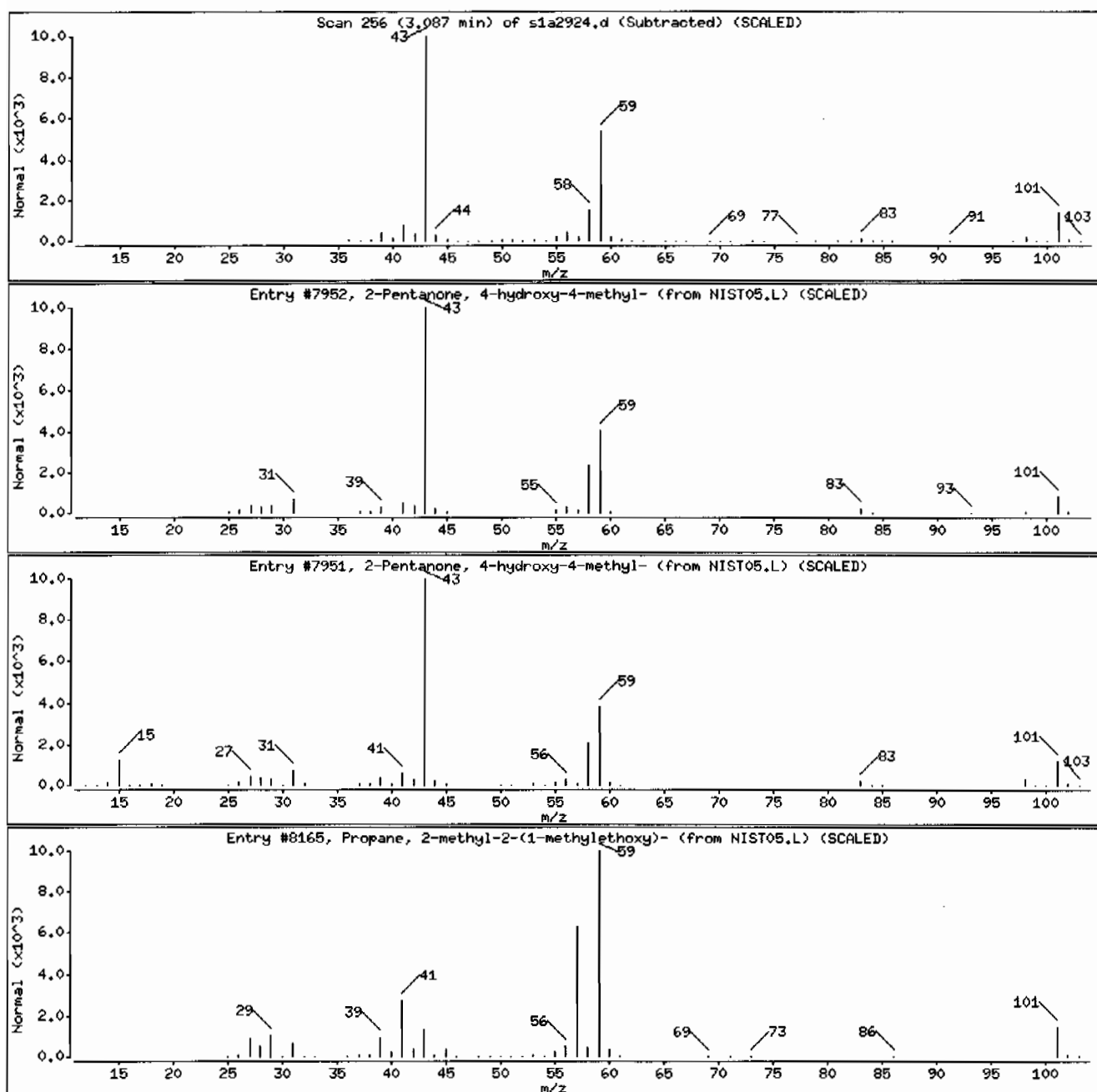
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
Propane, 2-methyl-2-(1-methylethoxy)-	17348-59-3	NIST05.L	8165	42	C7H16O	116



Date: 30-JAN-2010 00:29

Client ID: RE15-10-7179

Instrument: MSD1.i

Sample Info: I245106016194459111SVMF111LANL

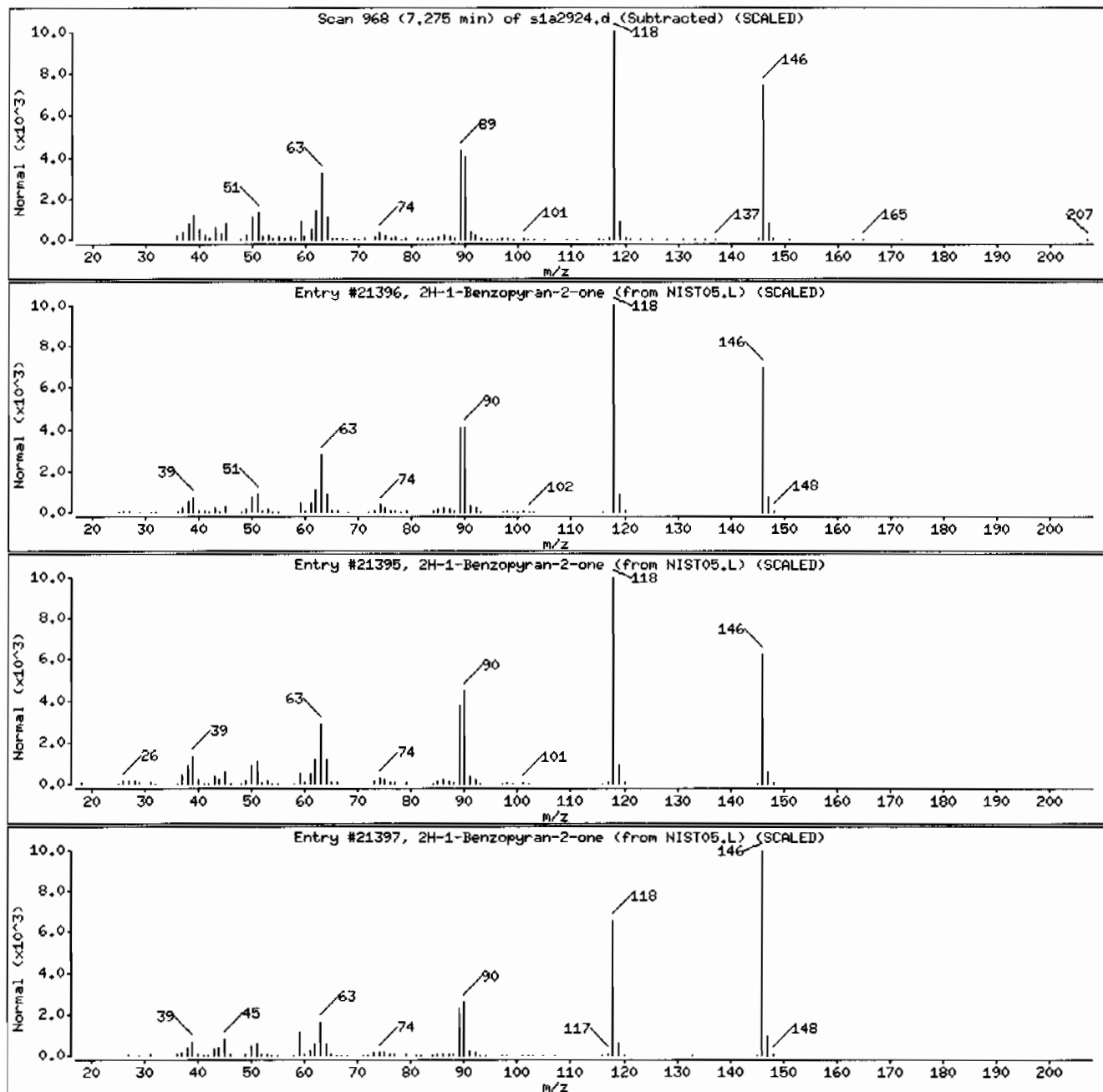
Volume Injected (uL): 0.5

Operator: AMY

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	91-64-5	NIST05.L	21396	98	C9H6O2	146
2H-1-Benzopyran-2-one	91-64-5	NIST05.L	21395	98	C9H6O2	146
2H-1-Benzopyran-2-one	91-64-5	NIST05.L	21397	94	C9H6O2	146



Date: 30-JAN-2010 00:29

Client ID: RE15-10-7179

Instrument: HSD1.i

Sample Info: 1245106016194459111SVMF11ILANL

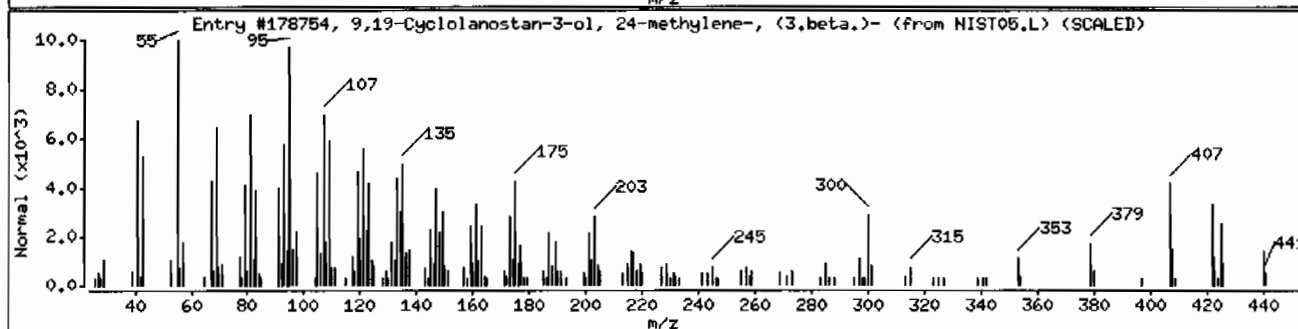
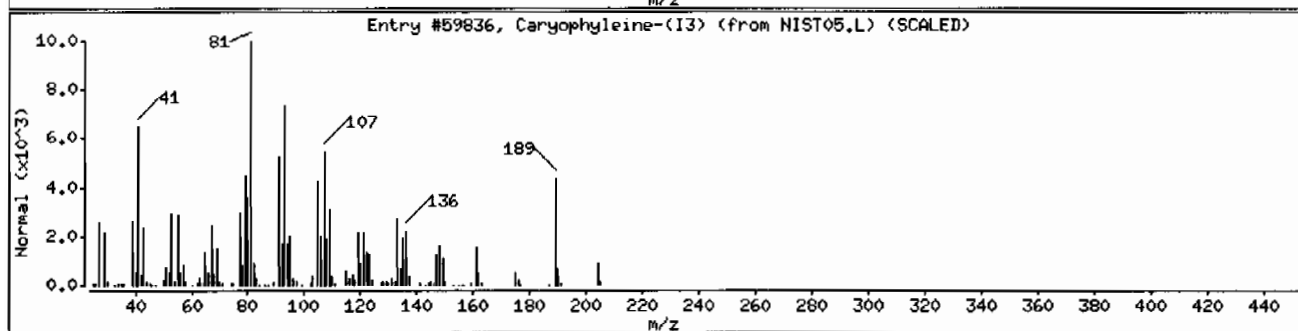
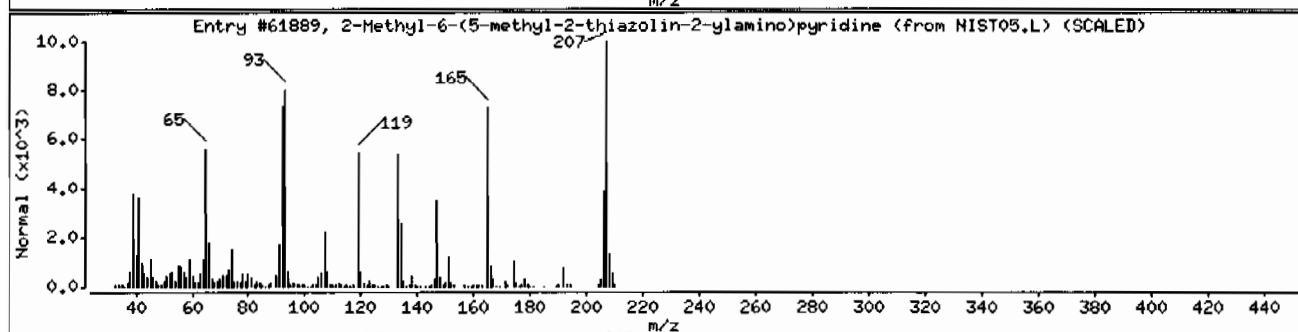
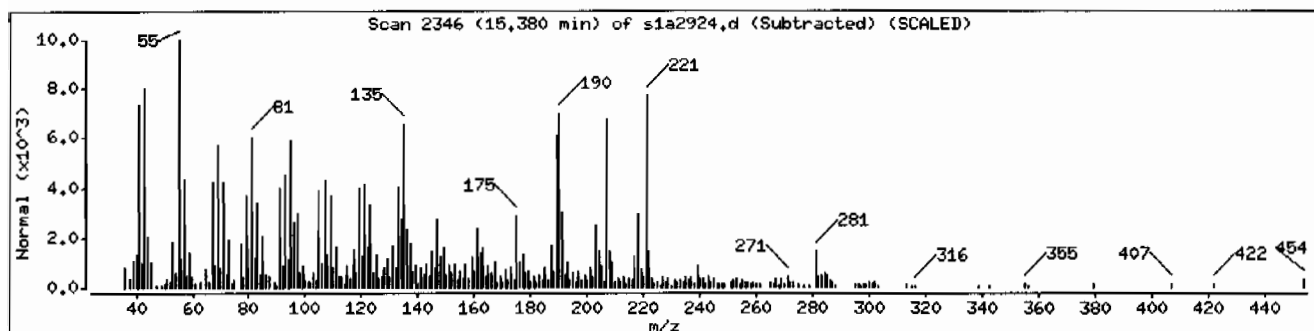
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Methyl-6-(5-methyl-2-thiazolin-2-ylamino)	339352-50-0	NIST05.L	61889	35	C10H13N3S	207
Caryophyllene-(13)	136296-37-2	NIST05.L	59836	30	C15H24	204
9,19-Cyclolanostan-3-ol, 24-methylene-,	1449-09-8	NIST05.L	178754	27	C31H52O	440



Date : 30-JAN-2010 00:29

Client ID: RE15-10-7179

Instrument: MSD1.i

Sample Info: I245106016194459111SVMF111LANL

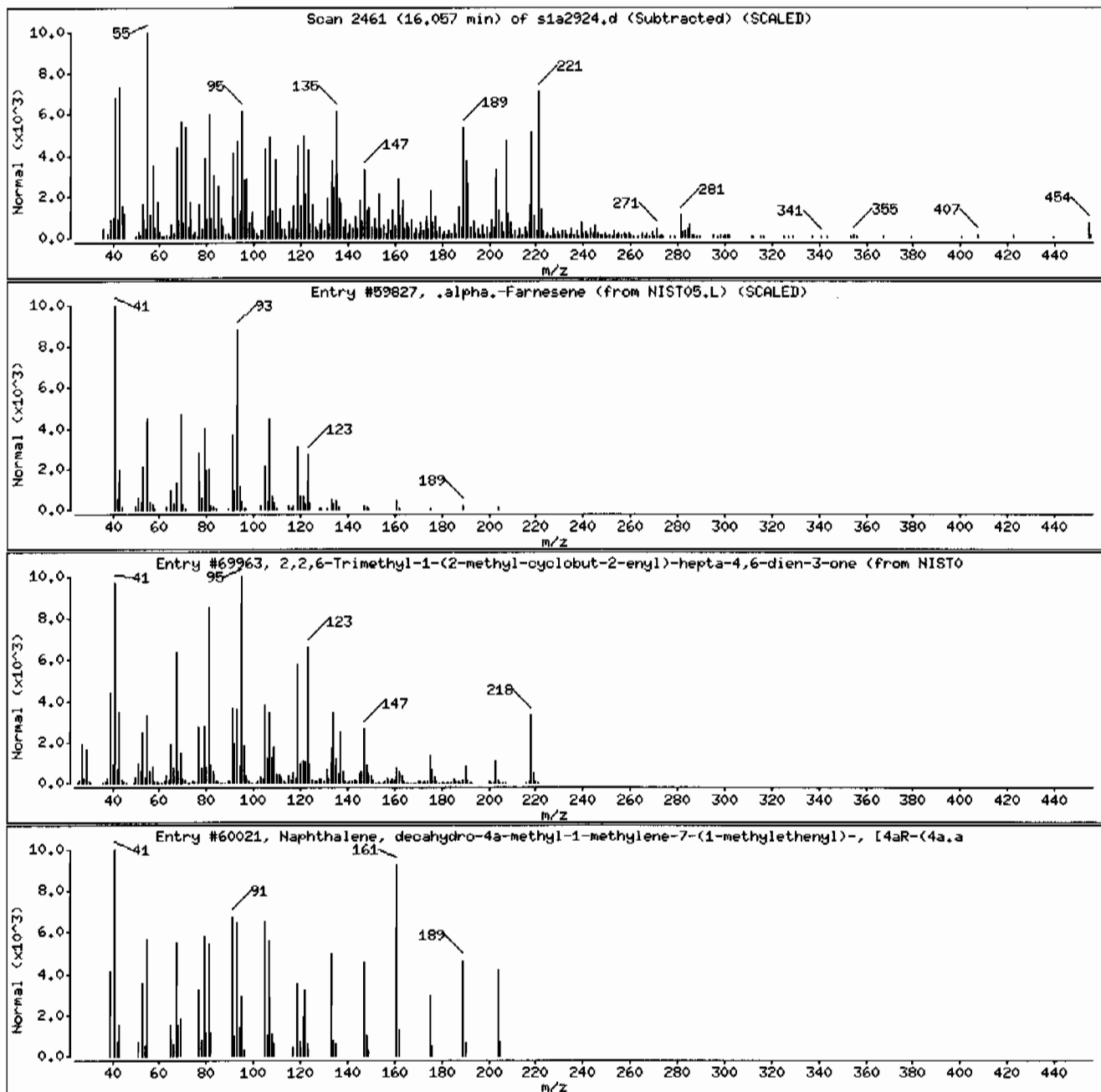
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
.alpha.-Farnesene	502-61-4	NIST05.L	59827	62	C15H24	204
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-yl)-hepta-4,6-dien-3-one	1000188-72-8	NIST05.L	69963	49	C15H22O	218
Naphthalene, decahydro-4a-methyl-1-methylene-	17066-67-0	NIST05.L	60021	44	C15H24	204



Date : 30-JAN-2010 00:29

Client ID: RE15-10-7179

Instrument: HSD1.i

Sample Info: I245106016194459111SVHF11ILANL

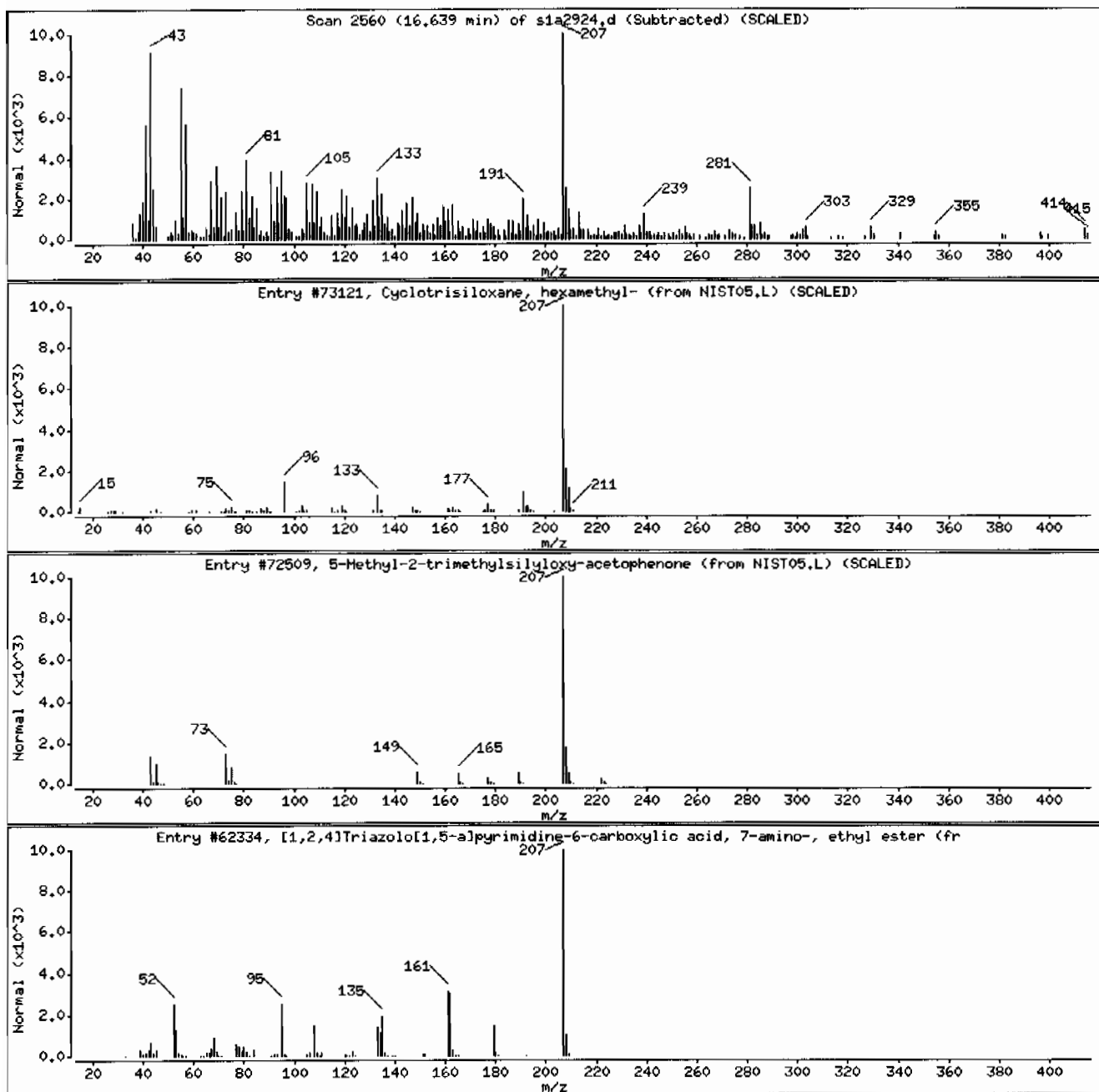
Volume Injected (uL): 0.5

Operator: AHY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73121	46	C <sub>6</sub> H <sub>18</sub> O <sub>3</sub> Si <sub>3</sub>	222
5-Methyl-2-trimethylsilyloxy-acetophenon	97389-69-0	NIST05.L	72509	38	C <sub>12</sub> H <sub>18</sub> O <sub>2</sub> Si	222
[1,2,4]Triazolo[1,5-a]pyrimidine-6-carbo	1000316-75-8	NIST05.L	62334	35	C <sub>8</sub> H <sub>9</sub> N <sub>5</sub> O <sub>2</sub>	207



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

**SDG Number:** 10-1304  
**Lab Sample ID:** 245106015

**Date Collected:** 01/13/2010 12:00  
**Date Received:** 01/20/2010 08:45  
**Client:** LANL010  
**Method:** SW846 8270C  
**Inst:** MSD1.1  
**Analyst:** AMY  
**Aliquot:** 30.02 g  
**Column:** J&W DB-5MS

**Matrix:** R  
**%Moisture:** 13.4  
**Project:** LANL01004  
**SOP Ref:** GL-OA-E-009  
**Dilution:** 1  
**Inj. Vol:** .5 uL  
**Final Volume:** 1 mL  
**Level:** LOW

**Client ID:** RE15-10-7180  
**Batch ID:** 944591  
**Run Date:** 01/30/2010 00:02  
**Prep Date:** 01/25/2010 14:38  
**Data File:** sla2923.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	385	ug/kg	76.9	385
108-95-2	Phenol	U	385	ug/kg	76.9	385
95-57-8	2-Chlorophenol	U	385	ug/kg	76.9	385
106-46-7	1,4-Dichlorobenzene	U	385	ug/kg	76.9	385
621-64-7	N-Nitrosodipropylamine	U	385	ug/kg	76.9	385
59-50-7	4-Chloro-3-methylphenol	U	385	ug/kg	76.9	385
83-32-9	Acenaphthene	U	38.5	ug/kg	12.7	38.5
121-14-2	2,4-Dinitrotoluene	U	385	ug/kg	38.5	385
100-02-7	4-Nitrophenol	U	385	ug/kg	127	385
87-86-5	Pentachlorophenol	U	385	ug/kg	96.1	385
129-00-0	Pyrene	U	38.5	ug/kg	11.5	38.5
110-86-1	Pyridine	U	385	ug/kg	76.9	385
62-53-3	Aniline	U	385	ug/kg	115	385
111-44-4	bis(2-Chloroethyl) ether	U	385	ug/kg	76.9	385
541-73-1	1,3-Dichlorobenzene	U	385	ug/kg	76.9	385
100-51-6	Benzyl alcohol	U	385	ug/kg	115	385
95-50-1	1,2-Dichlorobenzene	U	385	ug/kg	76.9	385
108-60-1	bis(2-Chloroisopropyl)ether	U	385	ug/kg	76.9	385
95-48-7	o-Cresol	U	385	ug/kg	76.9	385
65794-96-9	m,p-Cresols	U	385	ug/kg	115	385
67-72-1	Hexachloroethane	U	385	ug/kg	76.9	385
98-95-3	Nitrobenzene	U	385	ug/kg	76.9	385
78-59-1	Isophorone	U	385	ug/kg	76.9	385
88-75-5	2-Nitrophenol	U	385	ug/kg	76.9	385
105-67-9	2,4-Dimethylphenol	U	385	ug/kg	135	385
111-91-1	bis(2-Chloroethoxy)methane	U	385	ug/kg	76.9	385
120-83-2	2,4-Dichlorophenol	U	385	ug/kg	76.9	385
65-85-0	Benzoic acid	U	769	ug/kg	192	769
91-20-3	Naphthalene	U	38.5	ug/kg	11.5	38.5
106-47-8	4-Chloroaniline	U	385	ug/kg	76.9	385
87-68-3	Hexachlorobutadiene	U	385	ug/kg	76.9	385
91-57-6	2-Methylnaphthalene	U	38.5	ug/kg	7.69	38.5
77-47-4	Hexachlorocyclopentadiene	U	385	ug/kg	76.9	385
88-06-2	2,4,6-Trichlorophenol	U	385	ug/kg	76.9	385
95-95-4	2,4,5-Trichlorophenol	U	385	ug/kg	76.9	385
91-58-7	2-Chloronaphthalene	U	38.5	ug/kg	12.7	38.5
88-74-4	2-Nitroaniline	U	385	ug/kg	76.9	385
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	385	ug/kg	76.9	385

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106015	Date Received: 01/20/2010 08:45	%Moisture: 13.4
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7180	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.1	Dilution: 1
Run Date: 01/30/2010 00:02	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s1a2923.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m-Nitroaniline</i>					
131-11-3	Dimethylphthalate	U	385	ug/kg	76.9	385
606-20-2	2,6-Dinitrotoluene	U	385	ug/kg	38.5	385
208-96-8	Acenaphthylene	U	38.5	ug/kg	11.5	38.5
51-28-5	2,4-Dinitrophenol	U	769	ug/kg	146	769
132-64-9	Dibenzofuran	U	385	ug/kg	76.9	385
84-66-2	Diethylphthalate	U	385	ug/kg	76.9	385
86-73-7	Fluorene	U	38.5	ug/kg	11.5	38.5
7005-72-3	4-Chlorophenylphenylether	U	385	ug/kg	76.9	385
534-52-1	2-Methyl-4,6-dinitrophenol	U	385	ug/kg	76.9	385
100-01-6	4-Nitroaniline	U	385	ug/kg	115	385
	<i>p-Nitroaniline</i>					
122-39-4	Diphenylamine	U	385	ug/kg	76.9	385
122-66-7	Azobenzene	U	385	ug/kg	76.9	385
	<i>1,2-Diphenylhydrazine</i>					
101-55-3	4-Bromophenylphenylether	U	385	ug/kg	76.9	385
118-74-1	Hexachlorobenzene	U	385	ug/kg	76.9	385
85-01-8	Phenanthrene	U	38.5	ug/kg	11.5	38.5
120-12-7	Anthracene	U	38.5	ug/kg	7.69	38.5
84-74-2	Di-n-butylphthalate	U	385	ug/kg	76.9	385
206-44-0	Fluoranthene	U	38.5	ug/kg	11.5	38.5
85-68-7	Butylbenzylphthalate	U	385	ug/kg	76.9	385
56-55-3	Benzo(a)anthracene	U	38.5	ug/kg	11.5	38.5
91-94-1	3,3'-Dichlorobenzidine	U	385	ug/kg	115	385
218-01-9	Chrysene	U	38.5	ug/kg	11.5	38.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	385	ug/kg	76.9	385
117-84-0	Di-n-octylphthalate	U	385	ug/kg	76.9	385
205-99-2	Benzo(b)fluoranthene	U	38.5	ug/kg	11.5	38.5
207-08-9	Benzo(k)fluoranthene	U	38.5	ug/kg	11.5	38.5
50-32-8	Benzo(a)pyrene	U	38.5	ug/kg	11.5	38.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.5	ug/kg	11.5	38.5
53-70-3	Dibenzo(a,h)anthracene	U	38.5	ug/kg	11.5	38.5
191-24-2	Benzo(ghi)perylene	U	38.5	ug/kg	11.5	38.5
120-82-1	1,2,4-Trichlorobenzene	U	385	ug/kg	76.9	385

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.09	531	ug/kg		JA
7785-70-8	1R-.alpha.-Pinene	3.83	865	ug/kg	97	NJ



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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106015	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 13.4
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7180	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD1.I	<b>Dilution:</b> 1
<b>Run Date:</b> 01/30/2010 00:02	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30.02 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> sla2923.d	<b>Column:</b> J&W DB-SMS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
---------	----------	-----------	--------	-------	---------	---------

Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.97	195	ug/kg		J
24048-44-0	Spiro[4.5]dec-7-ene, 1,8-dimethyl-4-(1-m	7.42	183	ug/kg	83	NJ
19912-83-5	Spiro[5.5]undeca-1,8-diene, 1,5,5,9-tetr	7.67	456	ug/kg	96	NJ
77-53-2	Cedrol	8.26	413	ug/kg	95	NJ
112-79-8	9-Octadecenoic acid, (E)-	10.48	216	ug/kg	95	NJ
	Unknown	10.87	246	ug/kg		J
	Unknown	11.01	161	ug/kg		J
	Unknown	11.06	156	ug/kg		J
	Unknown	11.19	240	ug/kg		J
3513-69-7	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.29	427	ug/kg	98	NJ
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	11.32	1440	ug/kg	95	NJ
	Unknown	11.44	363	ug/kg		J
	Unknown	11.69	2050	ug/kg		J
	Unknown	11.72	1040	ug/kg		J
	Unknown	11.82	918	ug/kg		J
	Unknown	12.06	164	ug/kg		J
112-85-6	Docosanoic acid	12.13	182	ug/kg	92	NJ
	Unknown	12.28	637	ug/kg		J
	Unknown	15.39	392	ug/kg		J
	Unknown	16.05	580	ug/kg		J
	Unknown	16.64	1070	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012910.b/sla2923.d  
 Lab Smp Id: 245106015 Client Smp ID: RE15-10-7180  
 Inj Date : 30-JAN-2010 00:02  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |245106015|944591|1|SVMF|1|LANL  
 Misc Info : |MSD8270\_S|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 30-Jan-2010 13:22 llo00884 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
 Als bottle: 11  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1304.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	13.37120	% moisture

Cpnd Variable Local Compound Variable

						CONCENTRATIONS	
QUANT SIG						ON-COLUMN	FINAL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng/ul)	(ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	152	4.434	4.428	(1.000)	289525	40.0000	
* 29 Naphthalene-d8	136	5.681	5.681	(1.000)	1154618	40.0000	
* 46 Acenaphthene-d10	164	7.539	7.539	(1.000)	625821	40.0000	
* 67 Phenanthrene-d10	188	9.133	9.133	(1.000)	969588	40.0000	
* 91 Chrysene-d12	240	12.039	12.033	(1.000)	637994	40.0000	
* 98 Perylene-d12	264	14.121	14.115	(1.000)	393983	40.0000	
\$ 3 2-Fluorophenol	112	3.316	3.304	(0.748)	342847	38.2870	1470
\$ 5 Phenol-d5	99	4.069	4.057	(0.918)	447031	40.1926	1540
\$ 20 Nitrobenzene-d5	82	4.951	4.957	(0.872)	185008	21.7101	835
\$ 39 2-Fluorobiphenyl	172	6.804	6.804	(0.902)	389298	24.1460	928
\$ 60 2,4,6-Tribromophenol	329	8.386	8.380	(1.112)	105640	46.6487	1790
\$ 81 p-Terphenyl-d14	244	10.845	10.839	(0.901)	393559	34.3773	1320

## ION RATIO REPORT

## SV REPORT

Data file: sla2923.d

Report Date: 01/30/2010 13:28

Lab. ID: 245106015

SampleType: SAMPLE

Injection Date: 30-JAN-2010 00:02

Operator: AMY

Instrument: MSD1.i

Sample Info: |245106015|944591|1|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100107-03|

Comment:

Method used: /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	21302	4.07	4.13	80-120	100	( )
93	23306	4.11	4.13	212-272	109	(Q)
-----						
15	o-Cresol		CAS#: 95-48-7			
107	25974	4.39	4.63	80-120	100	(T)
108	5546	4.39	4.63	87-147	21	(QT)
77	125528	4.39	4.63	15- 75	483	(QT)
-----						
17	N-Nitrosodipropylamine		CAS#: 621-64-7			
70	24117	4.95	4.80	80-120	100	(T)
42	15737	4.95	4.80	52-112	65	(T)
-----						
40	2-Chloronaphthalene		CAS#: 91-58-7			
162	55271	7.15	6.94	80-120	100	(T)
164	2771	7.15	6.94	3- 63	5	(T)
127	3534	7.15	6.94	8- 68	6	(QT)
-----						
42	o-Nitroaniline		CAS#: 88-74-4			
65	17386	7.10	7.05	80-120	100	( )
92	56627	7.10	7.05	29- 89	326	(Q)
138	4993	7.15	7.05	68-128	29	(QT)
-----						
44	2,6-Dinitrotoluene		CAS#: 606-20-2			
165	80303	7.54	7.31	80-120	100	(T)
63	1273	7.54	7.31	38- 98	2	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	80303	7.54	7.74	80-120	100	(T)
89	1187	7.54	7.74	55-115	1	(QT)
63	1273	7.54	7.74	49-109	2	(QT)

-----						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	349	8.38	8.17	80-120	100	(T)
105	2049	8.33	8.17	16- 76	586	(QT)
51	964	8.38	8.17	41-101	276	(QT)

-----

Q qualifier indicates ion failed ratio requirement

Data File: /chem/MSD1.i/s012910.b/sla2923.d  
Report Date: 30-Jan-2010 14:02

Page 1

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012910.b/sla2923.d  
Lab Smp Id: 245106015 Client Smp ID: RE15-10-7180  
Inj Date : 30-JAN-2010 00:02  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106015|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m  
Meth Date : 30-Jan-2010 13:22 llo00884 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 11  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	13.37120	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.434	1879304	40.000
* 46 Acenaphthene-d10	7.539	2594778	40.000
* 67 Phenanthrene-d10	9.133	2516439	40.000
* 91 Chrysene-d12	12.039	3136103	40.000
* 98 Perylene-d12	14.121	1100551	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

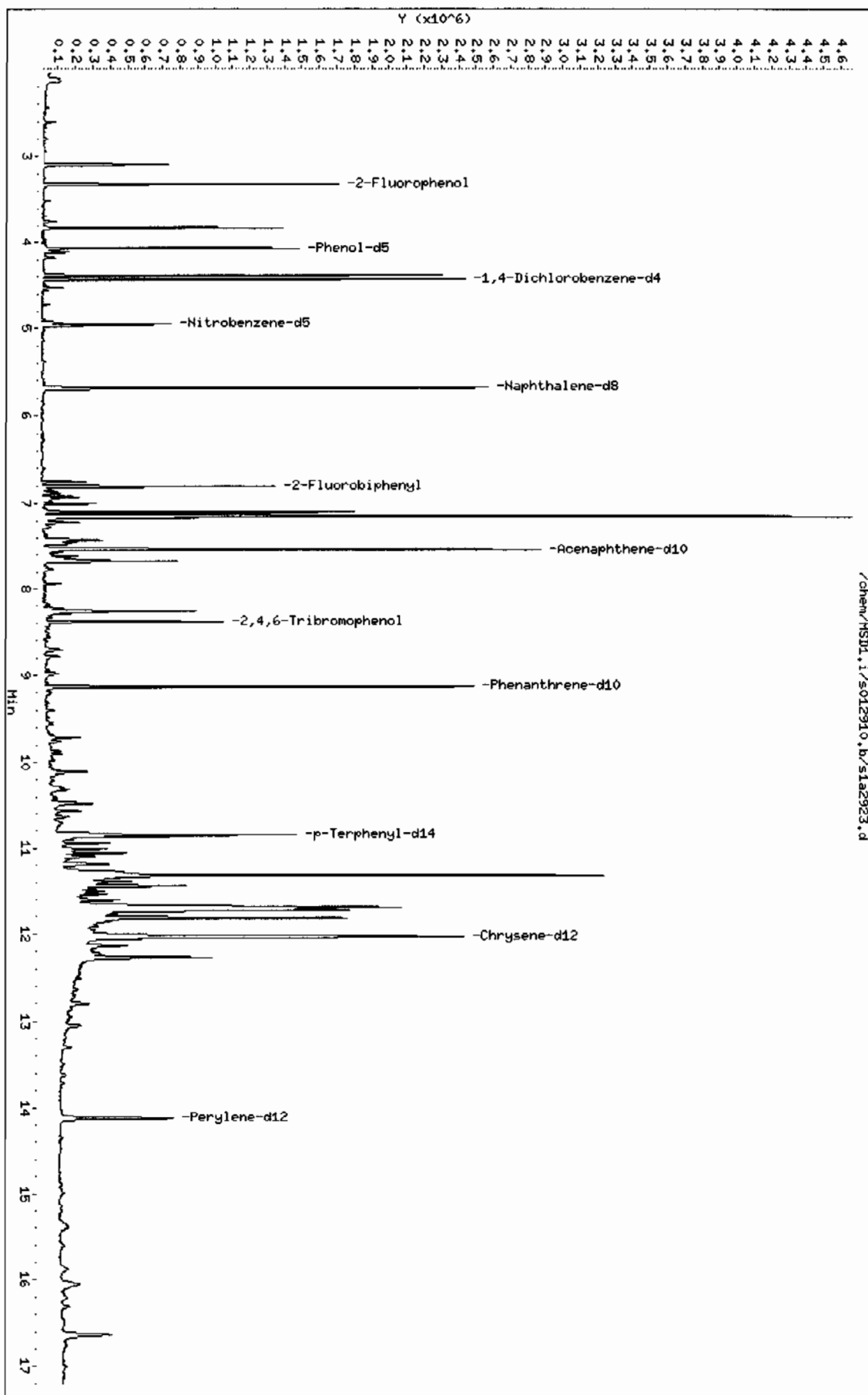
RT	CONCENTRATIONS				QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIE ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate					CAS #:		
3.087	648559	13.8042279	531	0		0	10
1R-.alpha.-Pinene					CAS #: 7785-70-8		
3.828	1057136	22.5005656	865	97	NIST05.L	15188	10
Unknown					CAS #:		
4.969	238541	5.07721290	195	0		0	10
Spiro[4.5]dec-7-ene, 1,8-dimethyl-4-(1-m					CAS #: 24048-44-0		
7.416	308449	4.75491814	183	83	NIST05.L	59996	46
Spiro[5.5]undeca-1,8-diene, 1,5,5,9-tetr					CAS #: 19912-83-5		
7.675	769404	11.8608079	456	96	NIST05.L	59903	46
Cedrol					CAS #: 77-53-2		
8.257	695993	10.7291305	412	95	NIST05.L	72887	46
9-Octadecenoic acid, (E)-					CAS #: 112-79-8		
10.480	352621	5.60508239	216	95	NIST05.L	113363	67
Unknown					CAS #:		
10.869	502212	6.40555438	246	0		0	91
Unknown					CAS #:		
11.010	327570	4.17804482	161	0		0	91
Unknown					CAS #:		
11.057	318222	4.05881670	156	0		0	91
Unknown					CAS #:		
11.186	489043	6.23759281	240	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 3513-69-7		
11.292	870320	11.1006534	427	98	NIST05.L	134778	91
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa					CAS #: 511-15-9		
11.321	2927052	37.3336155	1440	95	NIST05.L	116239	91
Unknown					CAS #:		
11.439	740931	9.45034452	363	0		0	91
Unknown					CAS #:		
11.692	4184969	53.3779416	2050	0		0	91

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown				CAS #:			
11.721	2121420	27.0580371	1040	0		0	91
Unknown				CAS #:			
11.821	1872319	23.8808279	918	0		0	91
Unknown				CAS #:			
12.063	334933	4.27196043	164	0		0	91
Docosanoic acid				CAS #: 112-85-6			
12.133	371989	4.74459639	182	92	NIST05.L	147935	91
Unknown				CAS #:			
12.280	1298868	16.5666457	637	0		0	91
Unknown				CAS #:			
15.386	280367	10.1900439	392	0		0	98
Unknown				CAS #:			
16.051	414858	15.0781755	580	0		0	98
Unknown				CAS #:			
16.639	763389	27.7456887	1070	0		0	98

Data File: /chem/MSD1.i/s012910.b/s1a2923.d  
 Date: 30-JAN-2010 00:02  
 Client ID: RE15-10-7180  
 Sample Info: 1245106015194459111SVHF11.LANL  
 Volume Injected (uL): 0.5  
 Column phase: 364 DB-SHS

Instrument: MSD1.i  
 Operator: AMY  
 Column diameter: 0.20

/chem/MSD1.i/s012910.b/s1a2923.d





Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: HSD1.i

Sample Info: 1245106015194459111SVMF11ILANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

## Library Search Compound Match

Unknown Aldol Condensate

2-Pentanone, 4-hydroxy-4-methyl-

CAS Number

Library

Entry

Quality

Formula

Weight

123-42-2

NIST05.L

7952

50

C6H12O2

116

2-Pentanone, 4-hydroxy-4-methyl-

123-42-2

NIST05.L

7951

50

C6H12O2

116

2-Pentanone, 4-hydroxy-4-methyl-

123-42-2

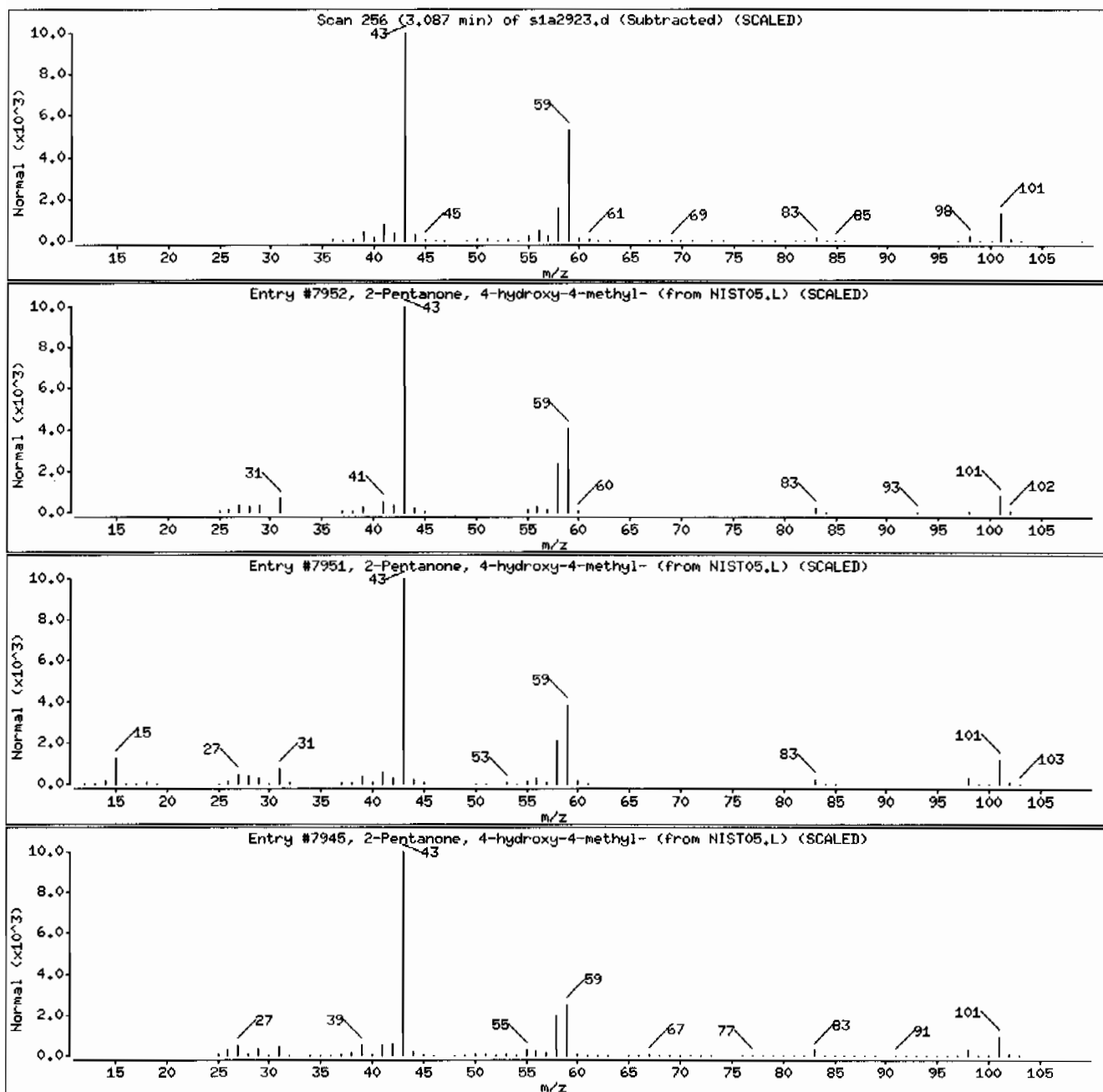
NIST05.L

7945

45

C6H12O2

116



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: I245106015194459111SVMF111LANL

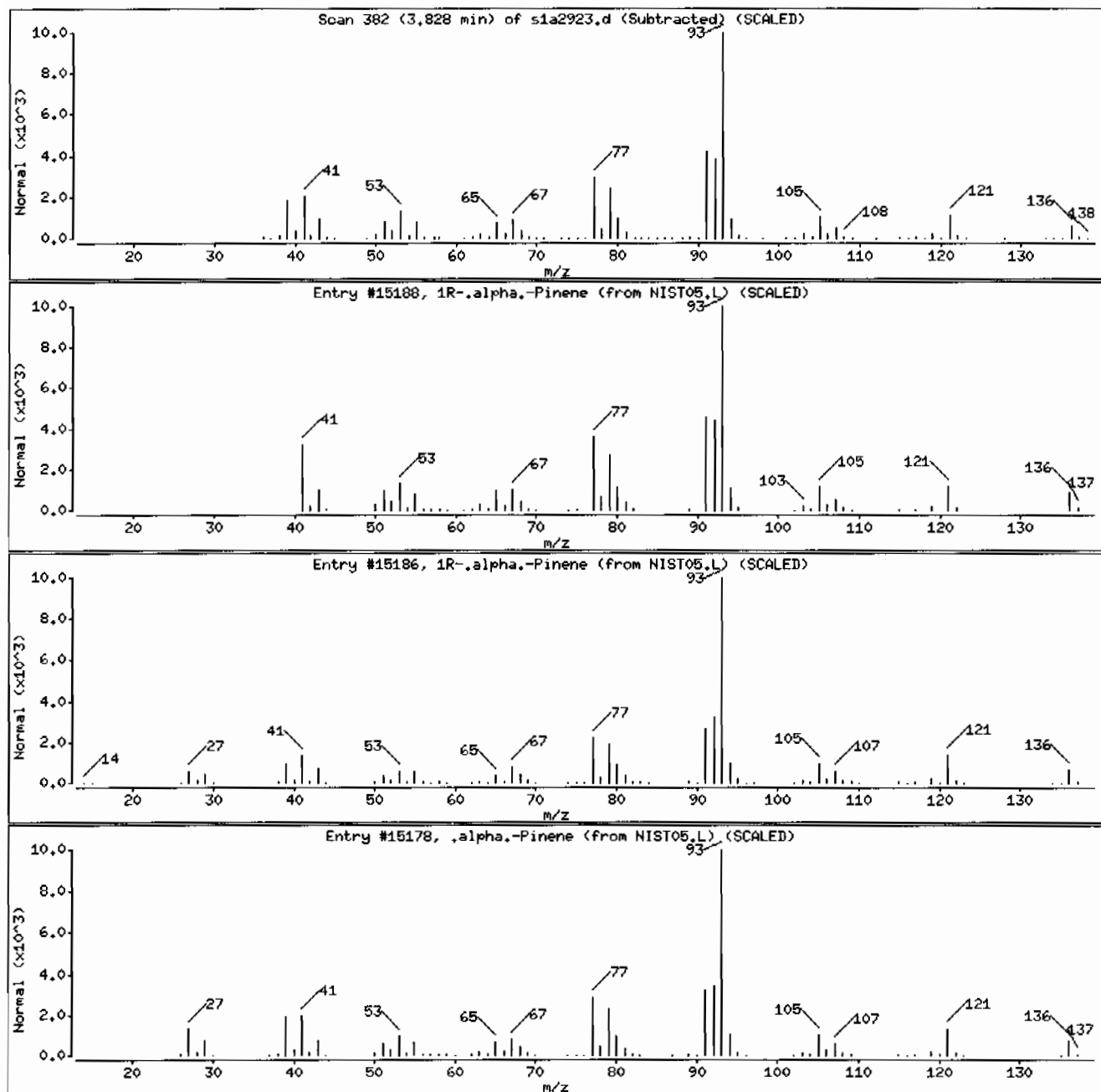
Volume Injected (uL): 0.5

Operator: AMY

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 : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: I245106015I944591I1ISVMF1IILANL

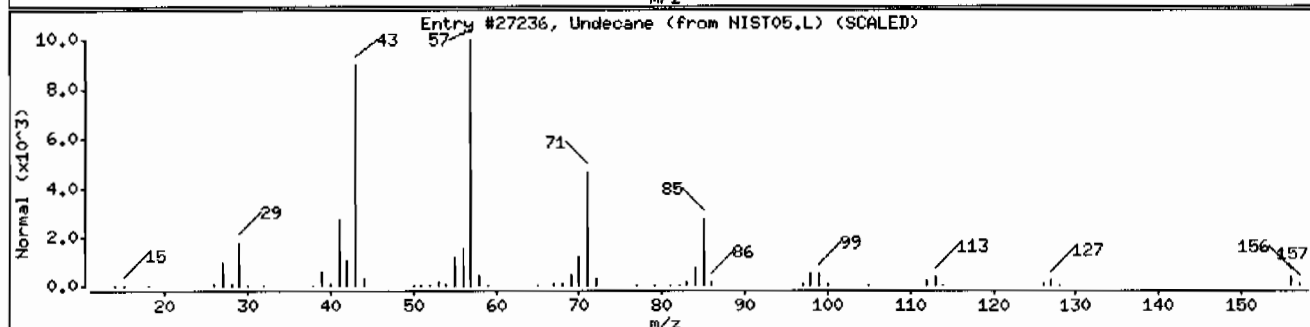
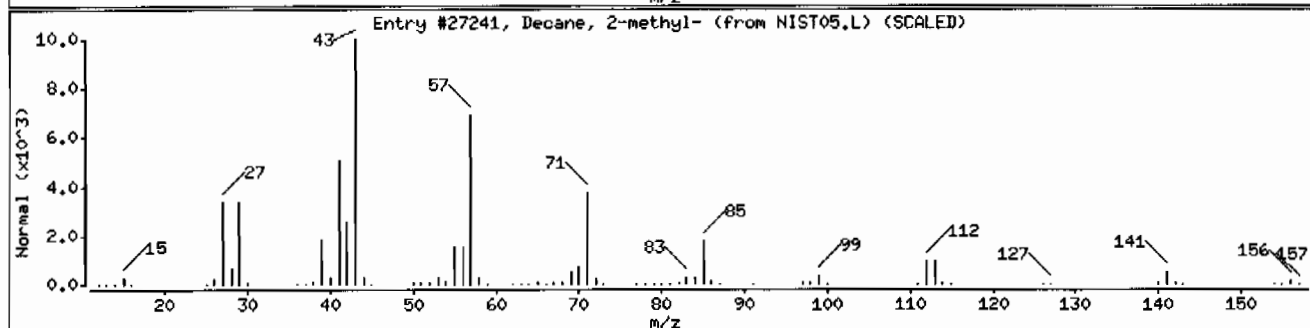
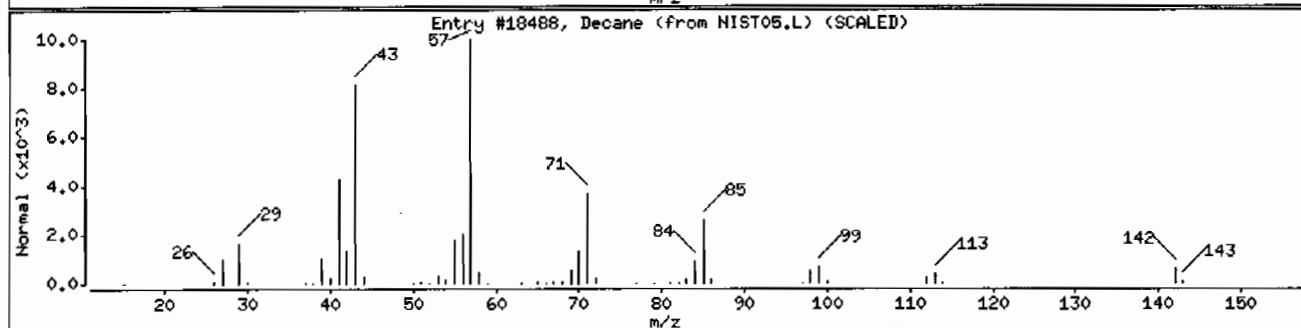
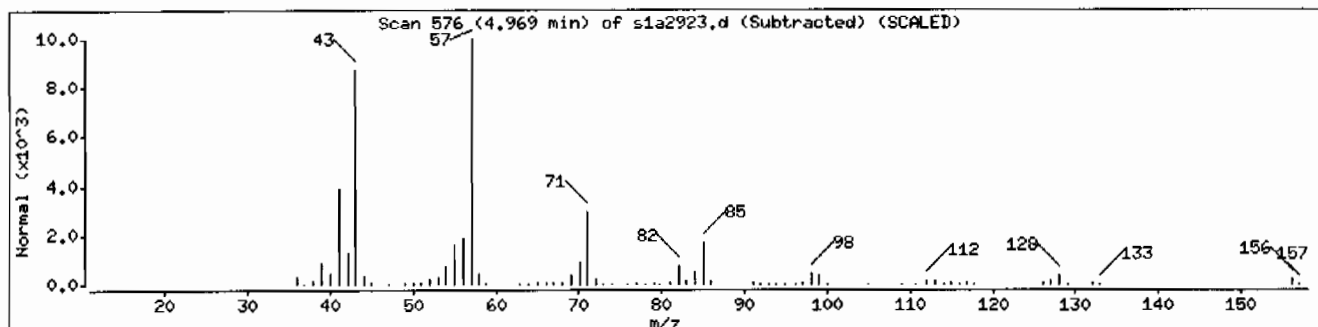
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Decane	124-18-5	NIST05.L	18488	78	C10H22	142
Decane, 2-methyl-	6975-98-0	NIST05.L	27241	72	C11H24	156
Undecane	1120-21-4	NIST05.L	27236	68	C11H24	156



Date: 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: HSD1.i

Sample Info: 1245106015194459111/SVHF11ILANL

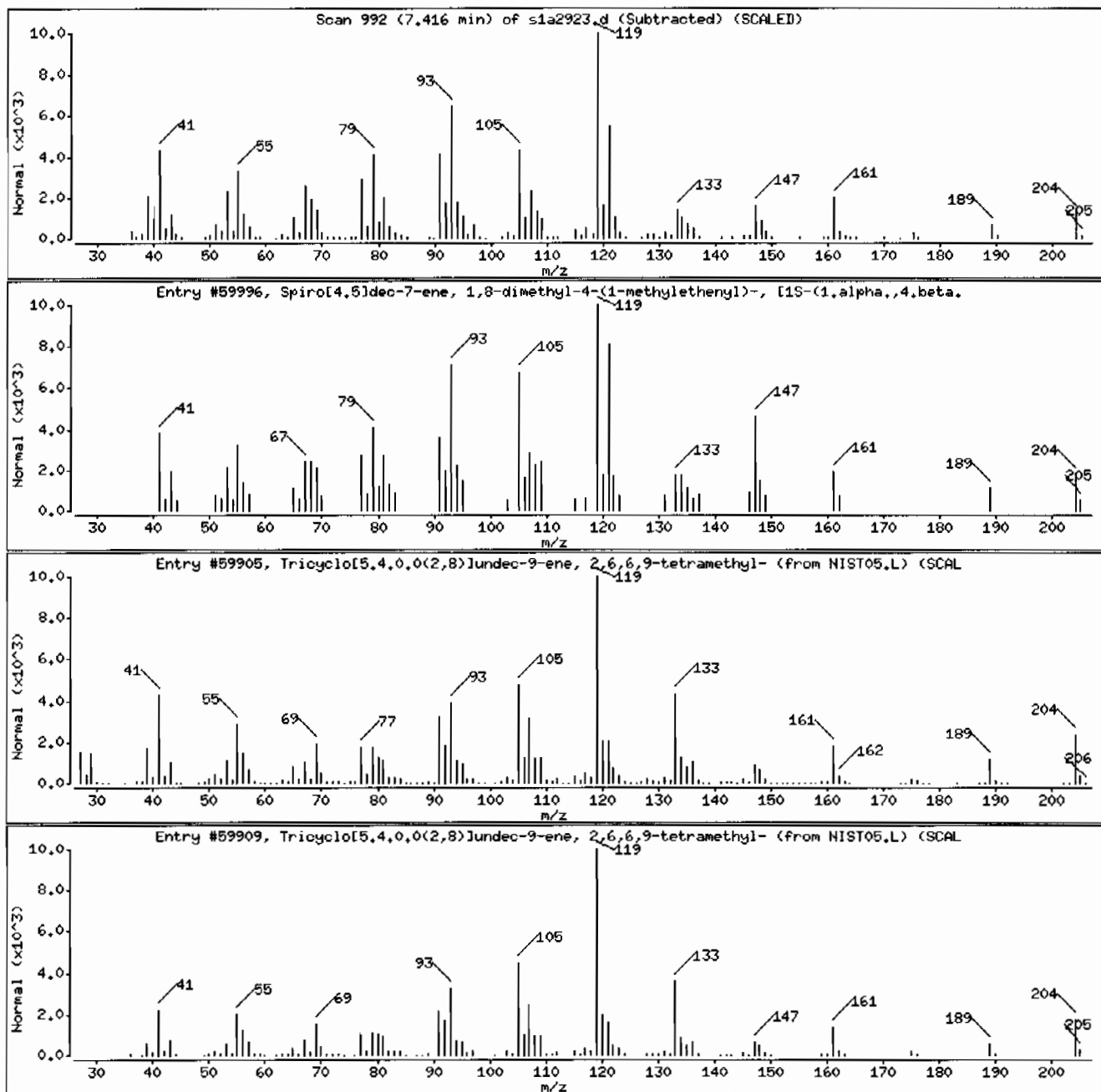
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Spiro[4.5]dec-7-ene, 1,8-dimethyl-4-(1-m	24048-44-0	NIST05.L	59996	83	C15H24	204
Tricyclo[5.4.0.0(2,8)]undec-9-ene, 2,6,6	5989-08-2	NIST05.L	59905	78	C15H24	204
Tricyclo[5.4.0.0(2,8)]undec-9-ene, 2,6,6	5989-08-2	NIST05.L	59909	70	C15H24	204



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVHF11ILANL

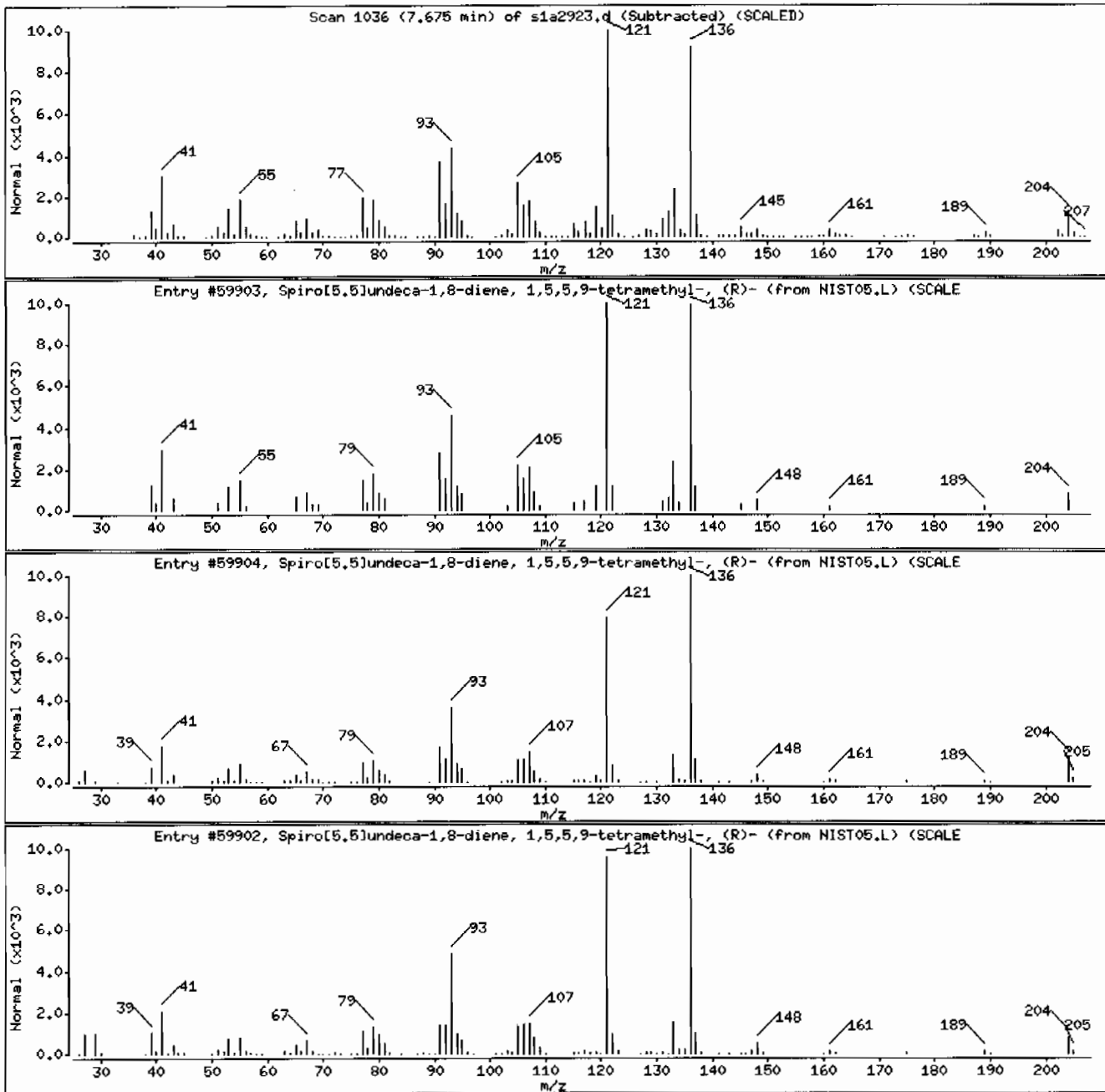
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Spiro[5.5]undeca-1,8-diene, 1,5,5,9-tetr	19912-83-5	NIST05.L	59903	96	C15H24	204
Spiro[5.5]undeca-1,8-diene, 1,5,5,9-tetr	19912-83-5	NIST05.L	59904	96	C15H24	204
Spiro[5.5]undeca-1,8-diene, 1,5,5,9-tetr	19912-83-5	NIST05.L	59902	93	C15H24	204



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVMF111LANL

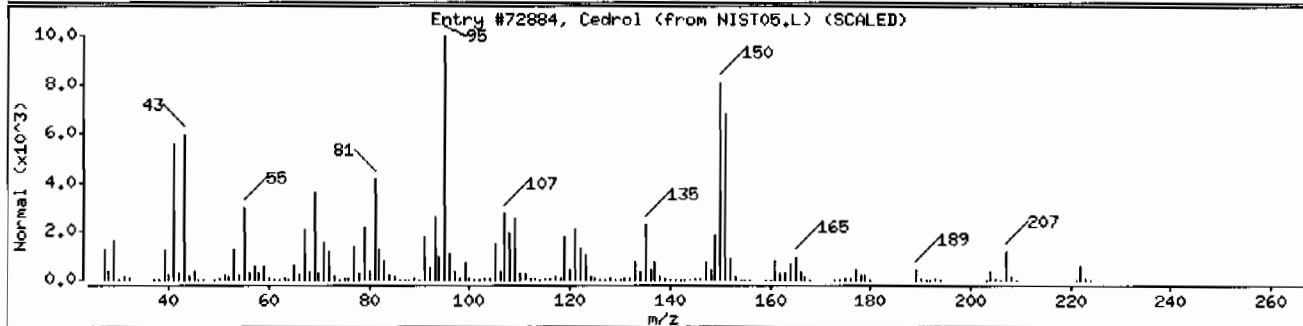
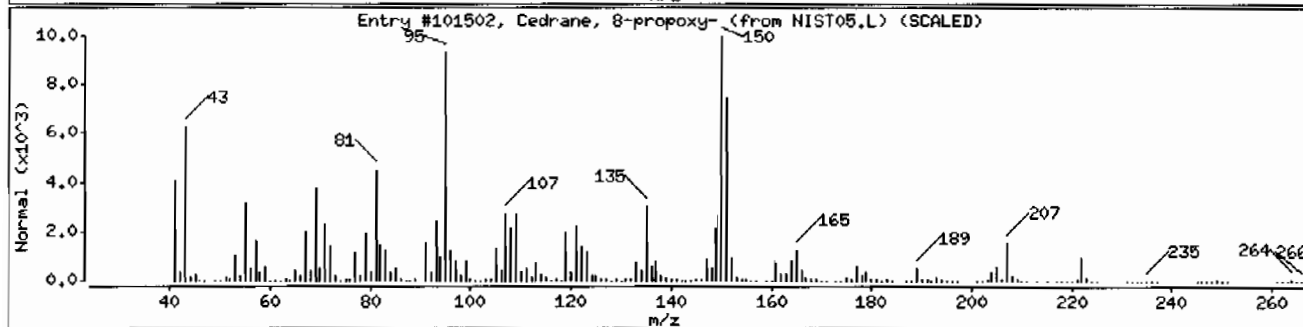
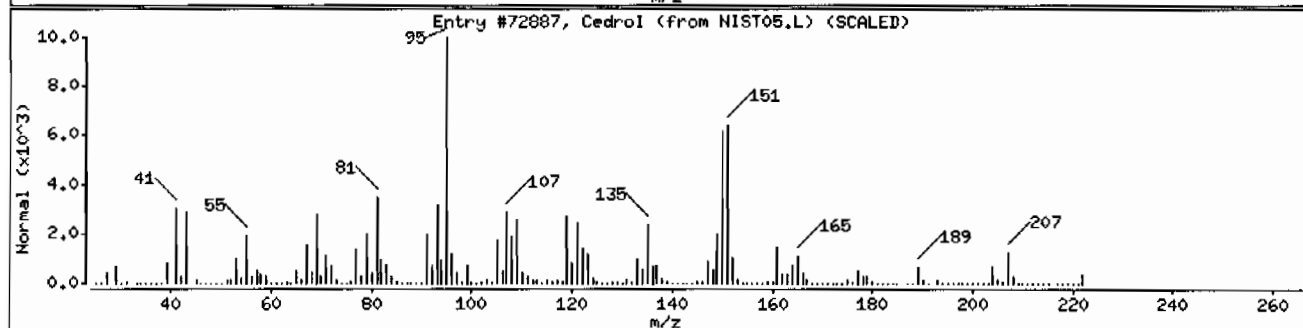
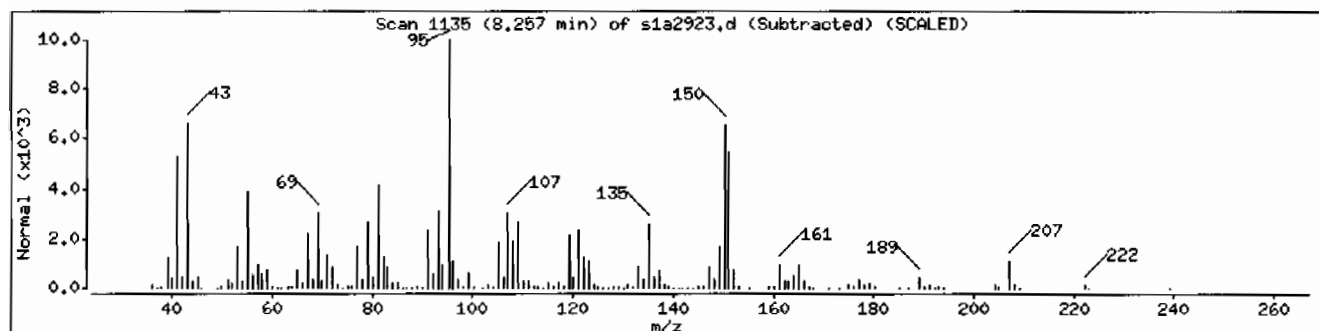
Volume Injected (uL): 0.5

Operator: AMY

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	72887	95	C15H26O	222
Cedrane, 8-propoxy-	19870-75-8	NIST05.L	101502	91	C18H32O	264
Cedrol	77-53-2	NIST05.L	72884	91	C15H26O	222



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVMF111LANL

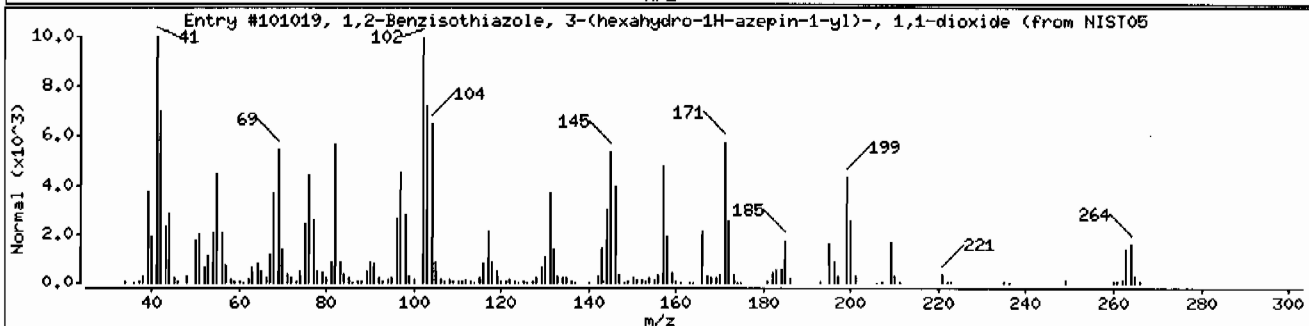
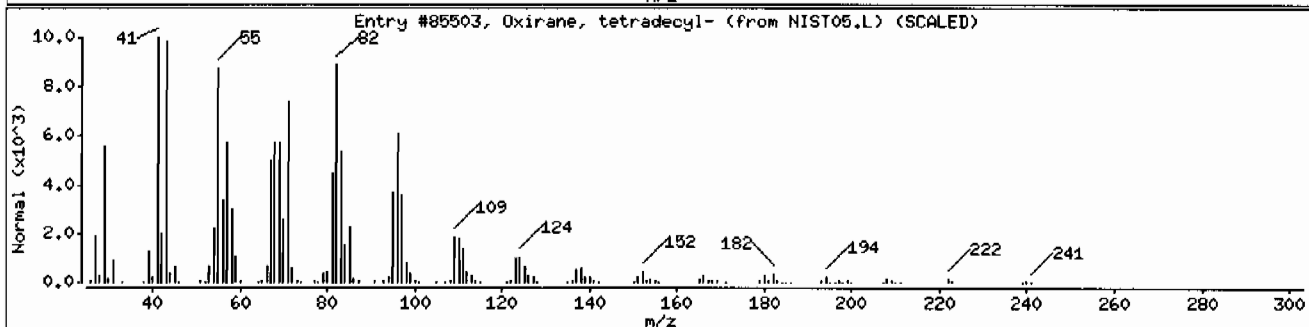
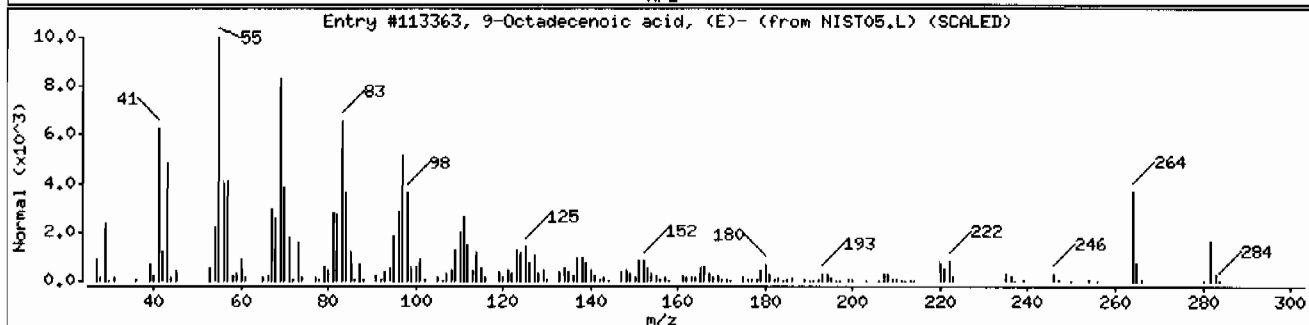
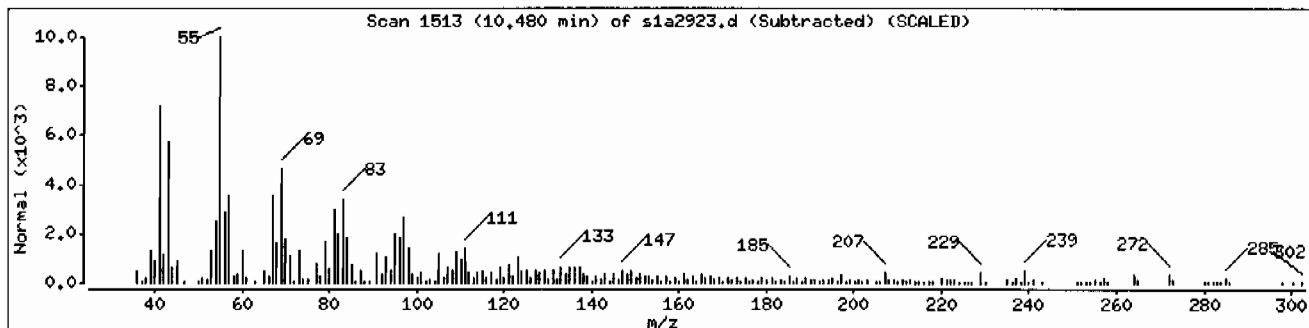
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenoic acid, (E)-	112-79-8	NIST05.L	113363	95	C18H34O2	282
Oxirane, tetradecyl-	7320-37-8	NIST05.L	85503	93	C16H32O	240
1,2-Benzisothiazole, 3-(hexahydro-1H-azepin-1-yl)-, 1,1-dioxide	309735-29-3	NIST05.L	101019	91	C13H16N2O2S	264



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: HSD1.i

Sample Info: I245106015194459111SVMF111LANL

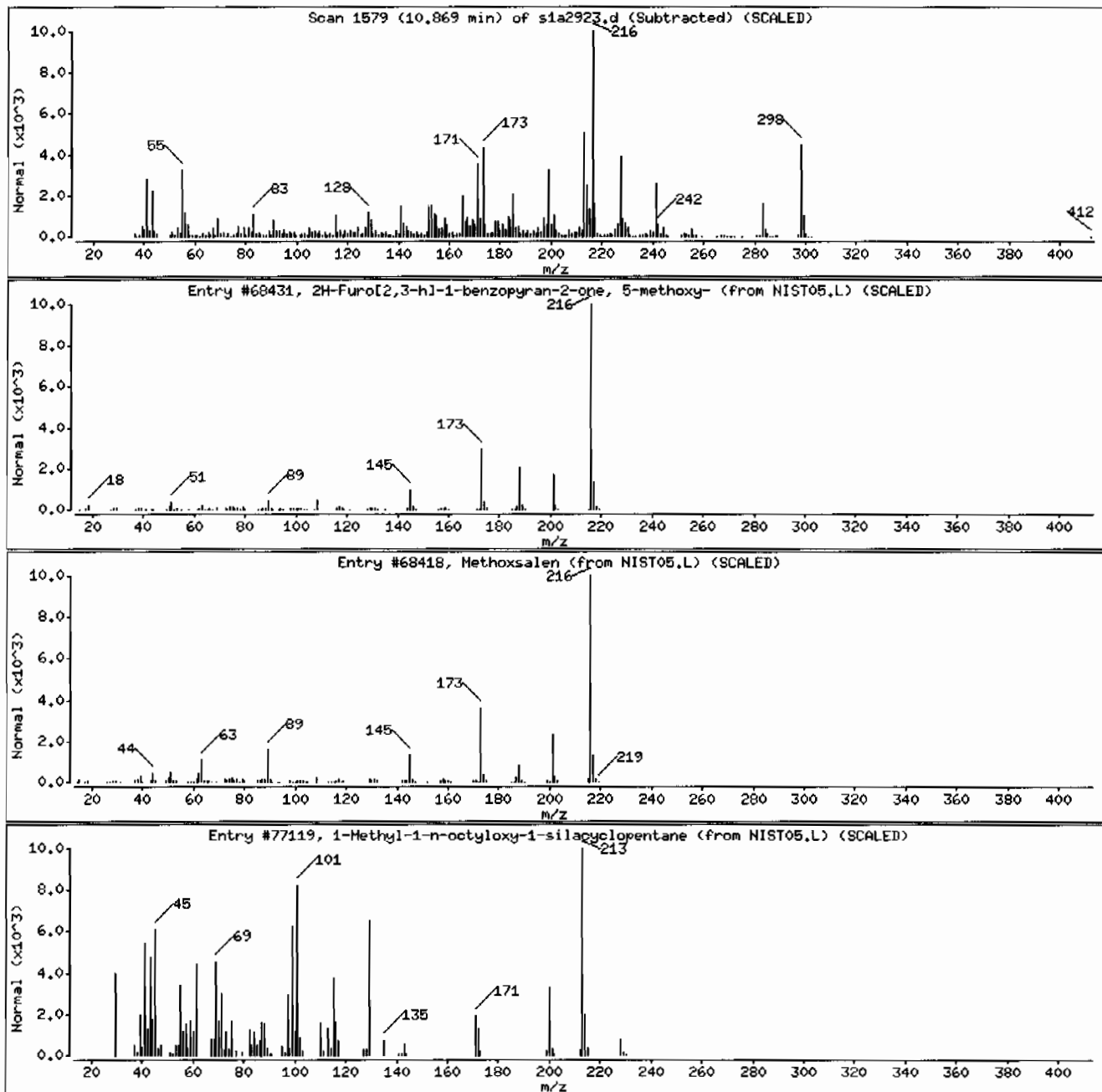
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2H-Furo[2,3-h]-1-benzopyran-2-one, 5-met	482-48-4	NIST05.L	68431	25	C12H8O4	216
Methoxsalen	298-81-7	NIST05.L	68418	25	C12H8O4	216
1-Methyl-1-n-octyloxy-1-silacyclopentane	1000216-91-0	NIST05.L	77119	25	C13H28OSi	228





Date: 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVMF111LANL

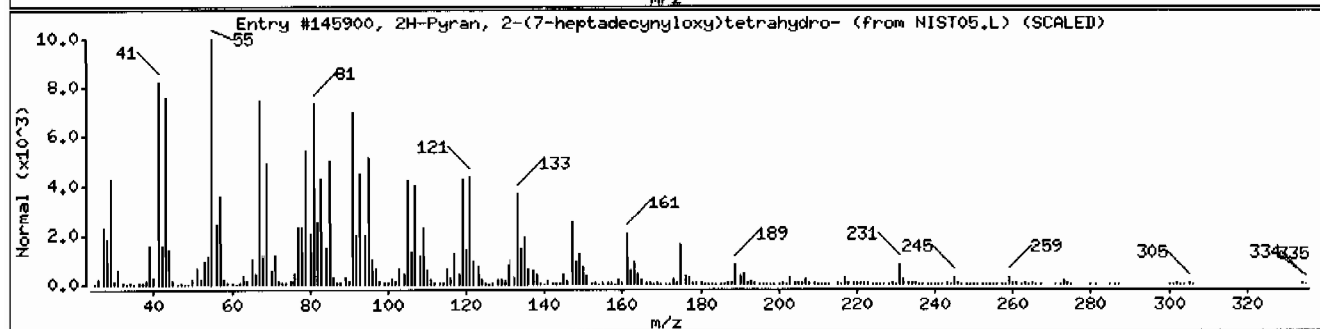
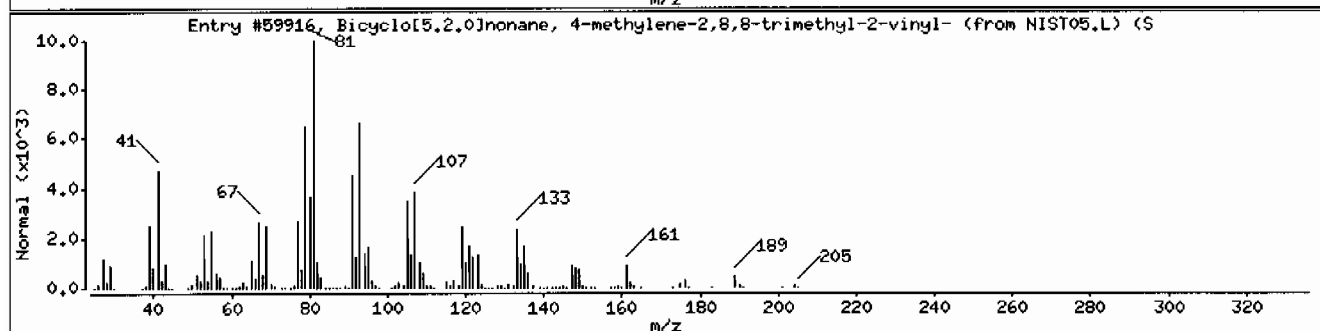
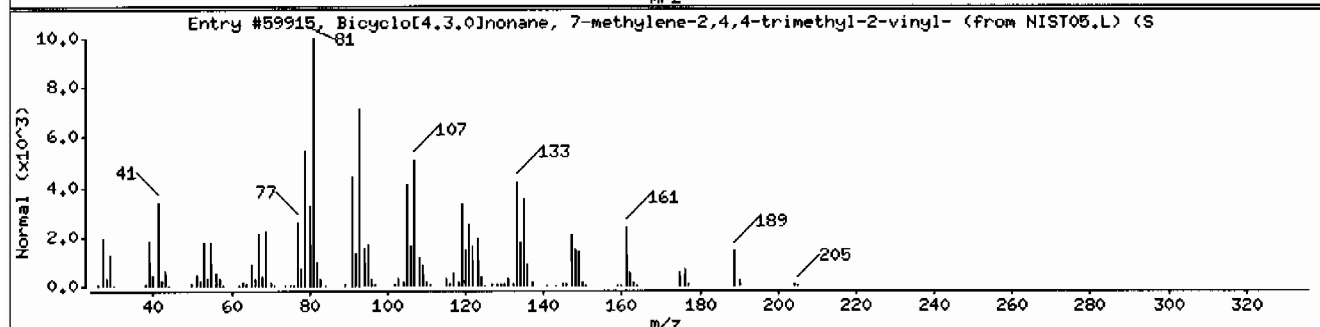
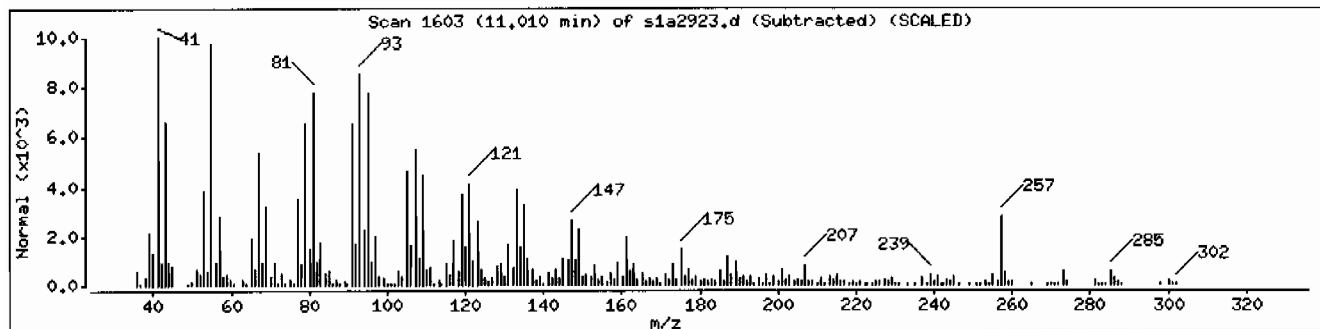
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[4.3.0]nonane, 7-methylene-2,4,4-	1000156-11-9	NIST05.L	59915	56	C15H24	204
Bicyclo[5.2.0]nonane, 4-methylene-2,8,8-	1000159-38-2	NIST05.L	59916	47	C15H24	204
2H-Pyran, 2-(7-heptadecyloxy)tetrahydr	56599-50-9	NIST05.L	145900	45	C22H40O2	336



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVHF111LANL

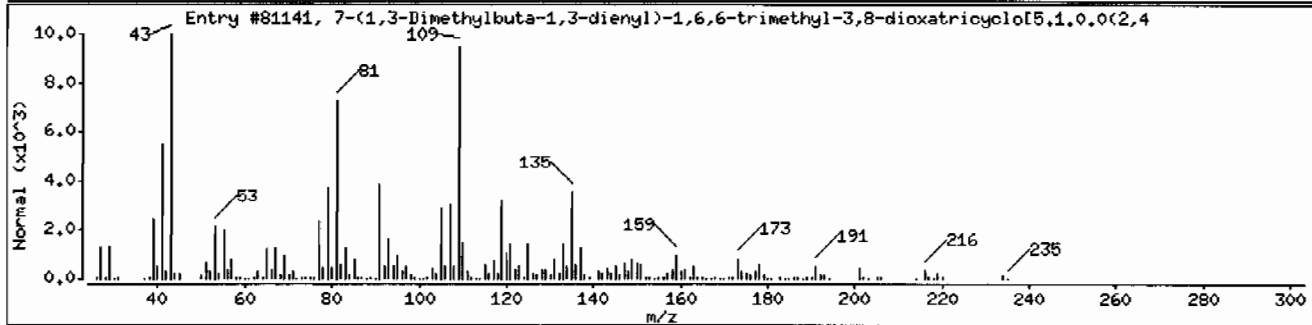
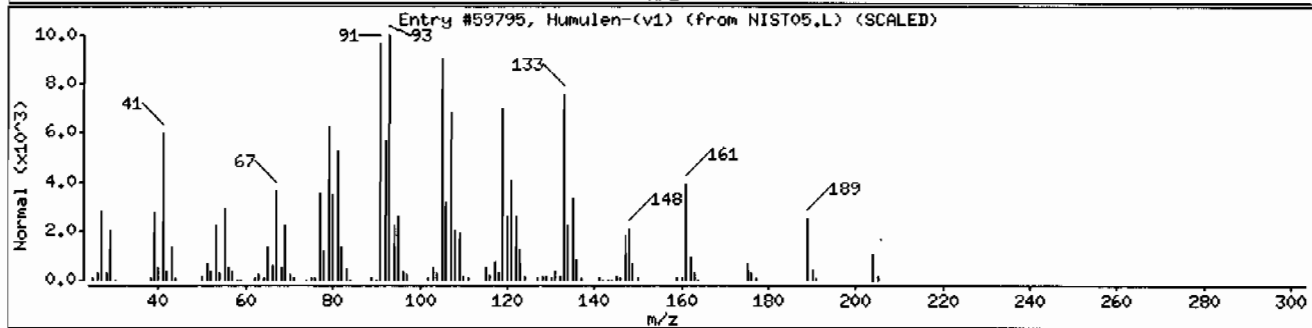
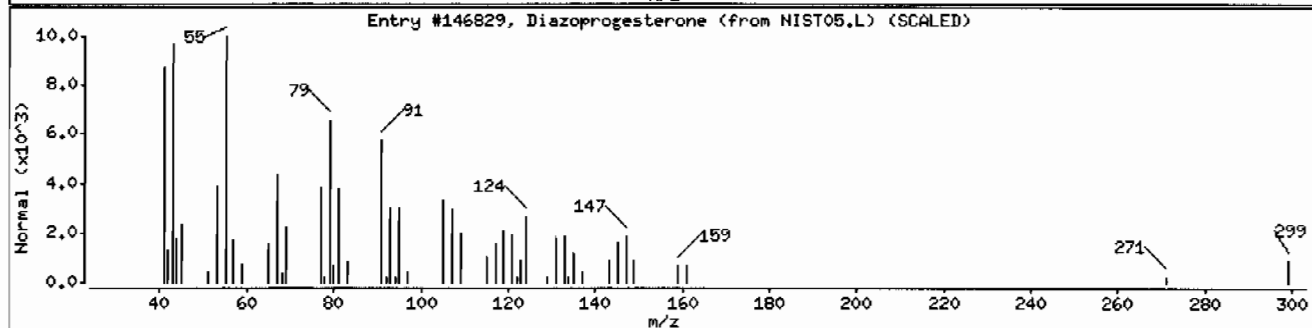
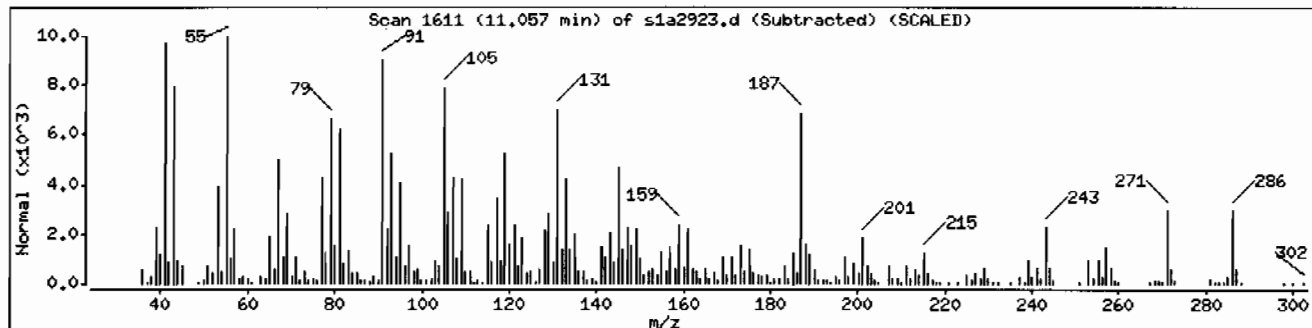
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Diazoprogesterone	1000255-30-9	NIST05.L	146829	47	C21H30N4	338
Humulen-(v1)	1000159-39-4	NIST05.L	59795	45	C15H24	204
7-(1,3-Dimethylbuta-1,3-dienyl)-1,6,6-tr	1000190-22-7	NIST05.L	81141	38	C15H22O2	234



Date: 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVMF11ILANL

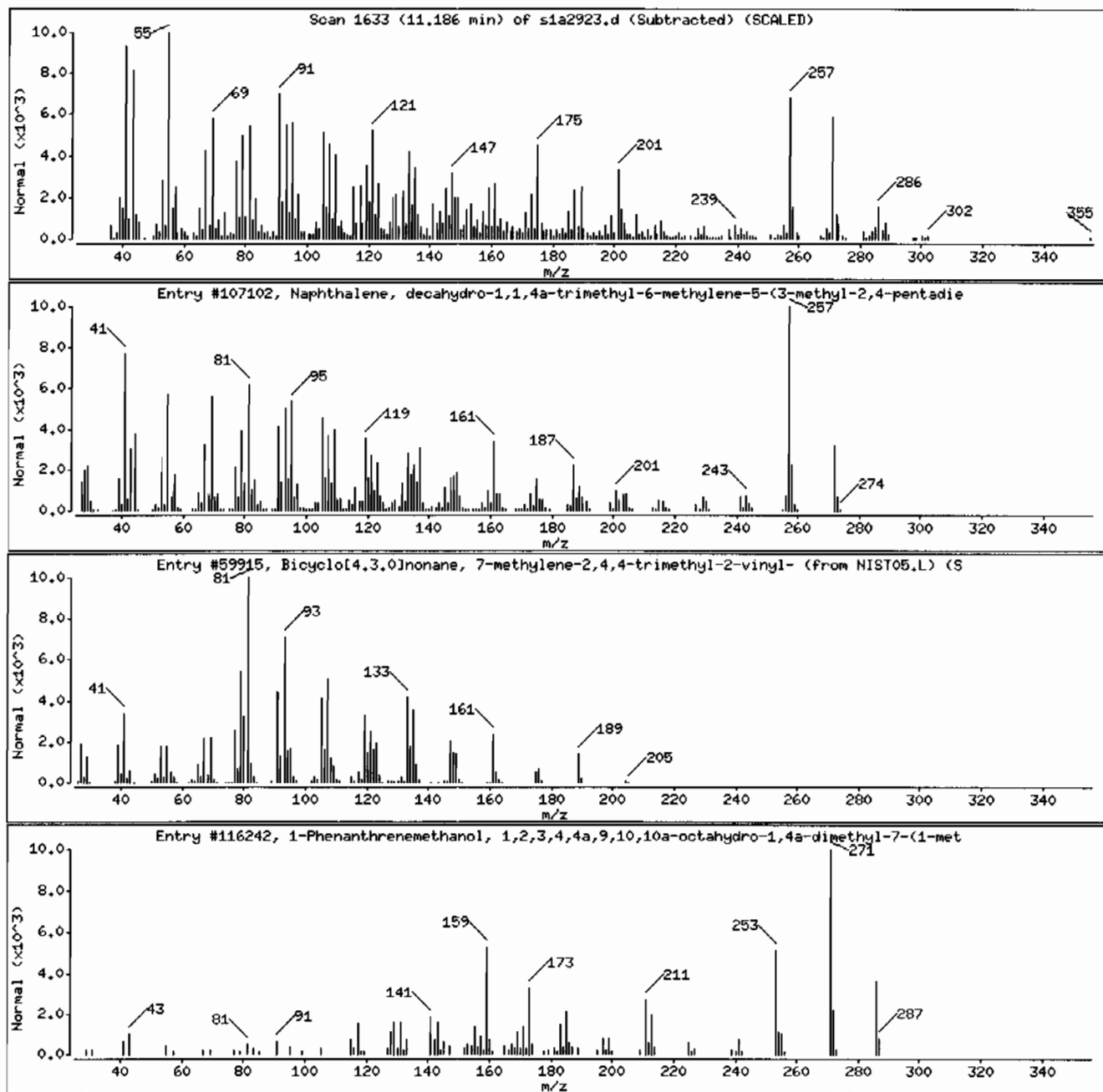
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Naphthalene, decahydro-1,1,4a-trimethyl-	5957-33-5	NIST05.L	107102	49	C20H32	272
Bicyclo[4.3.0]nonane, 7-methylene-2,4,4-	1000156-11-9	NIST05.L	59915	43	C15H24	204
1-Phenanthrenemethanol, 1,2,3,4,4a,9,10,	24035-43-6	NIST05.L	116242	41	C20H30O	286



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 12451060151944591111SVMF111LANL

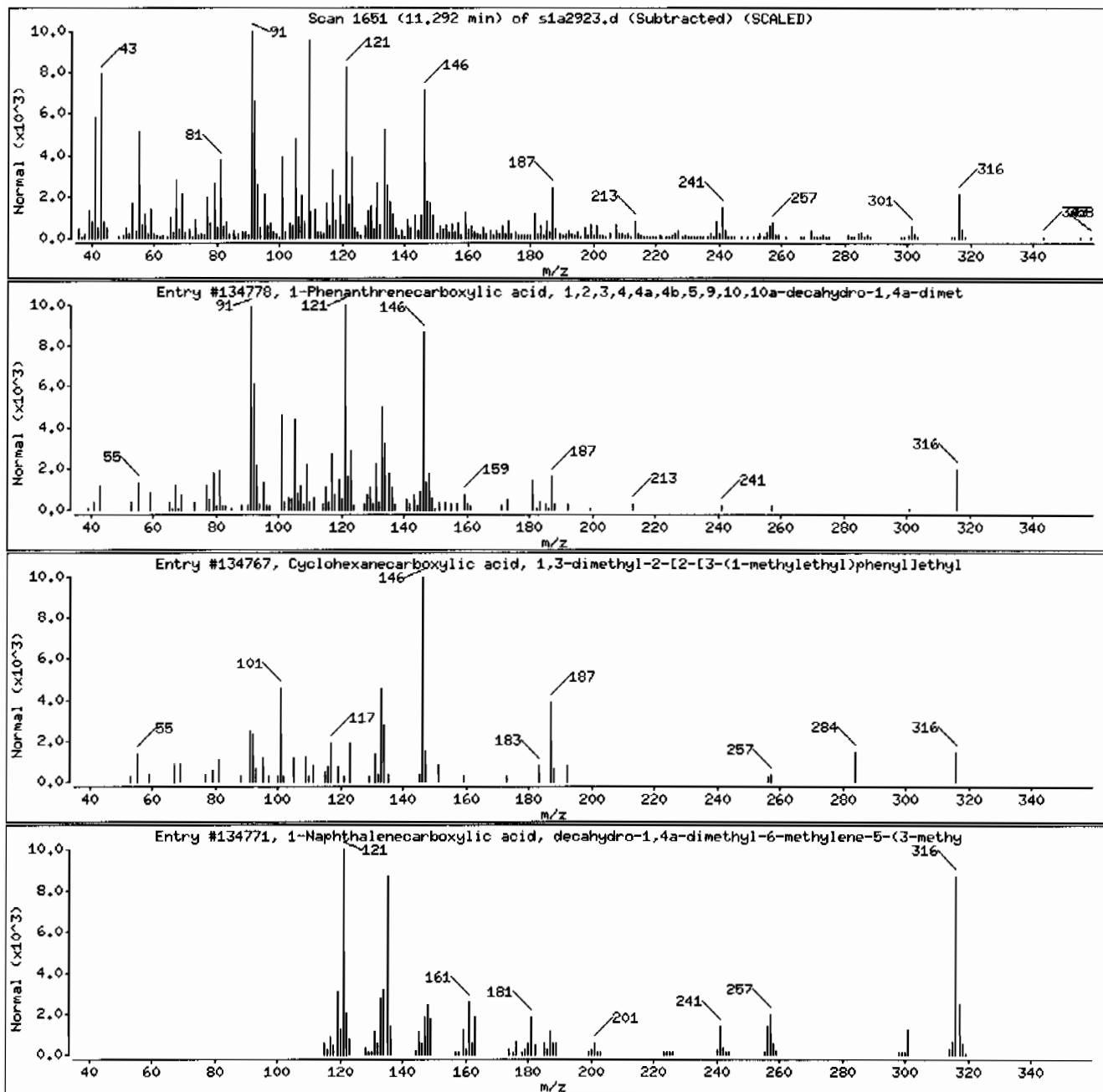
Volume Injected (UL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	3513-69-7	NIST05.L	134778	98	C21H32O2	316
Cyclohexanecarboxylic acid, 1,3-dimethyl	41298-29-7	NIST05.L	134767	46	C21H32O2	316
1-Naphthalenecarboxylic acid, decahydro-	1235-39-8	NIST05.L	134771	45	C21H32O2	316



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVHF11ILANL

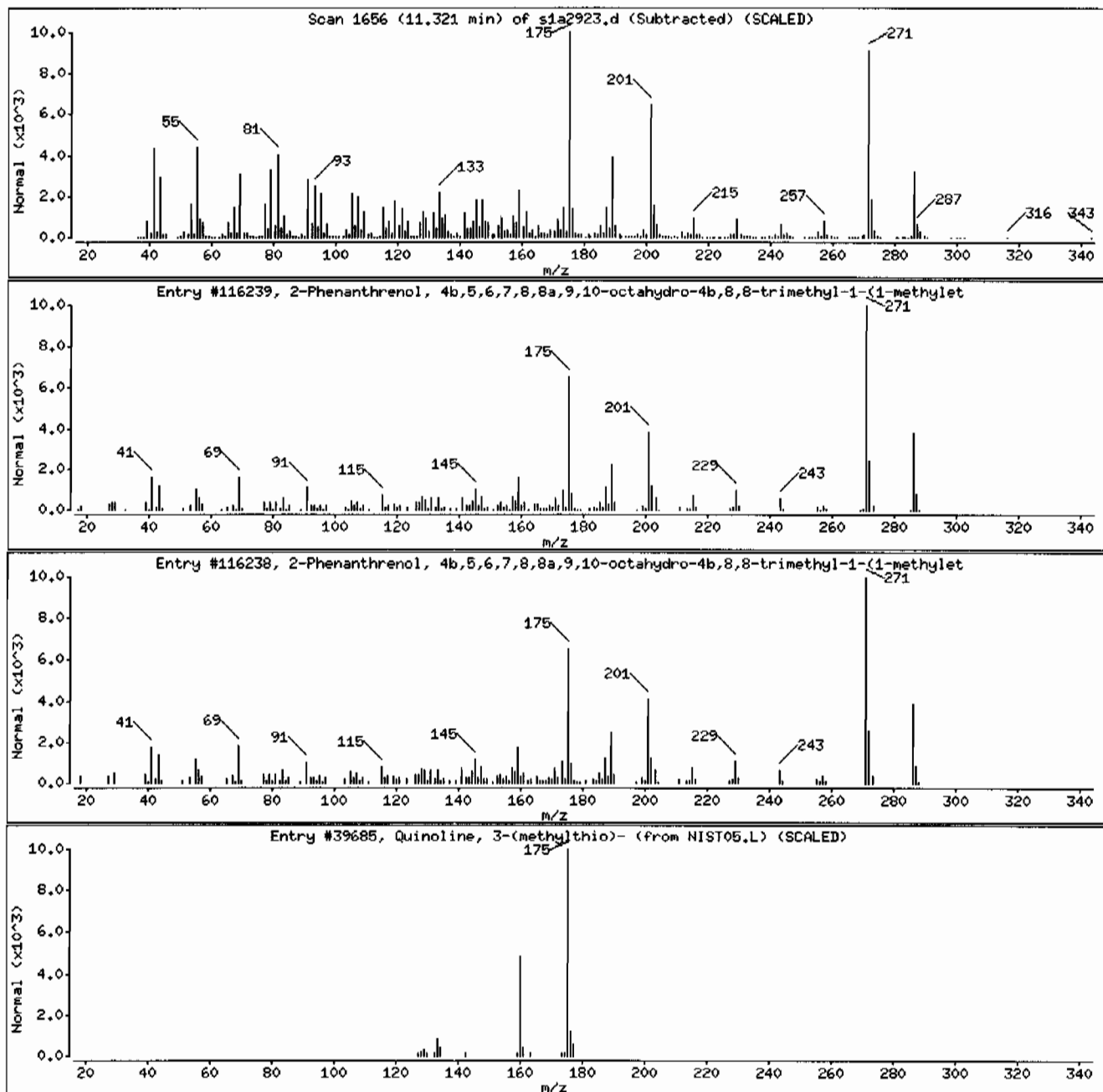
Volume Injected (uL): 0.5

Operator: AMY

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	95	C20H30O	286
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116238	74	C20H30O	286
Quinoline, 3-(methylthio)-	51934-46-4	NIST05.L	39685	35	C10H9NS	175



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVMF11ILANL

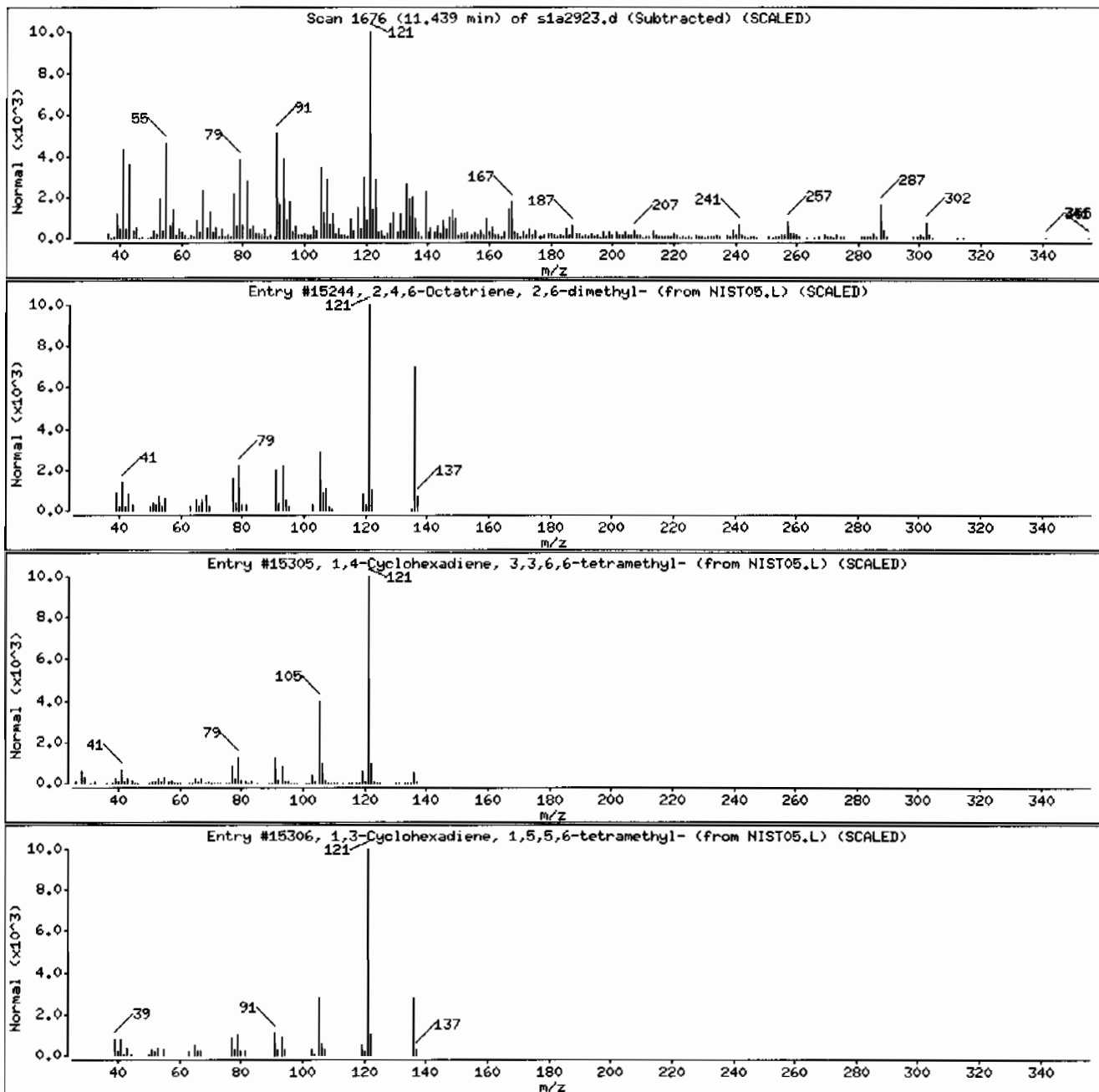
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,4,6-Octatriene, 2,6-dimethyl-	673-84-7	NIST05.L	15244	60	C10H16	136
1,4-Cyclohexadiene, 3,3,6,6-tetramethyl-	2223-54-3	NIST05.L	15305	41	C10H16	136
1,3-Cyclohexadiene, 1,5,5,6-tetramethyl-	514-94-3	NIST05.L	15306	35	C10H16	136



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVMF111LANL

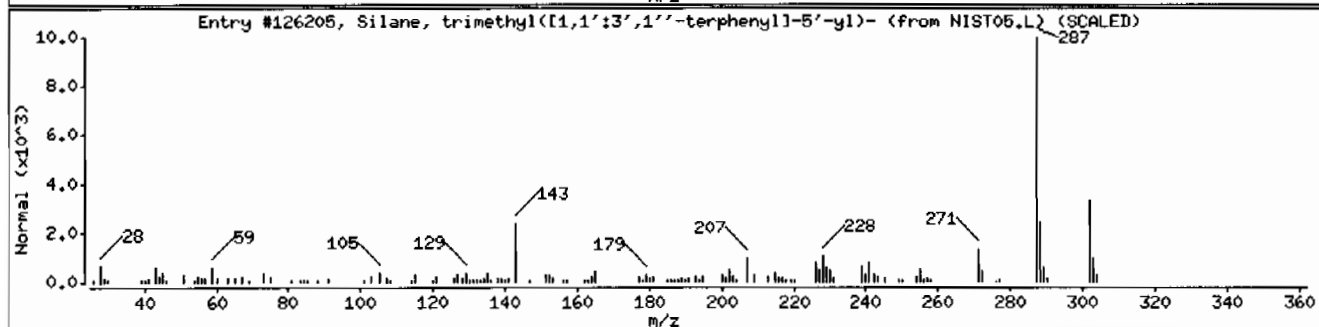
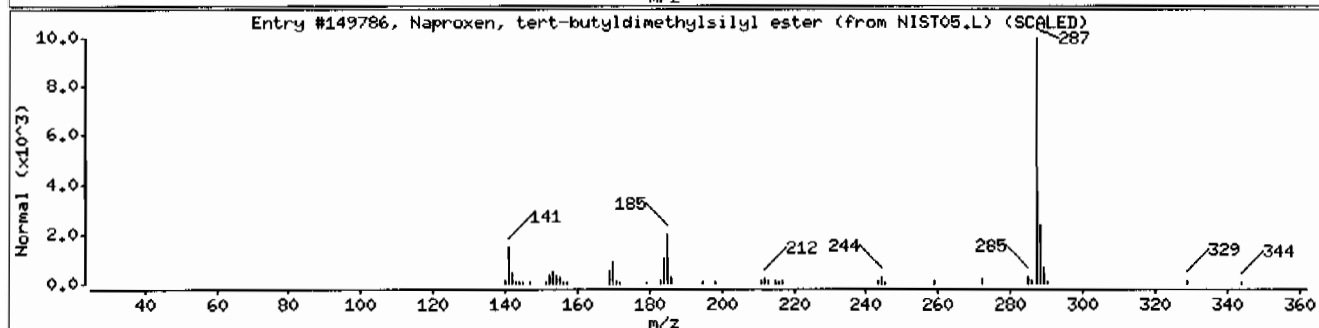
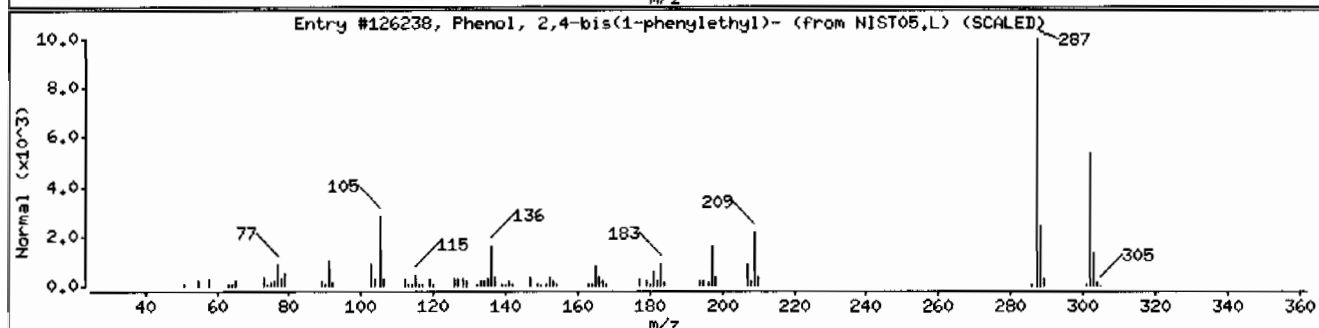
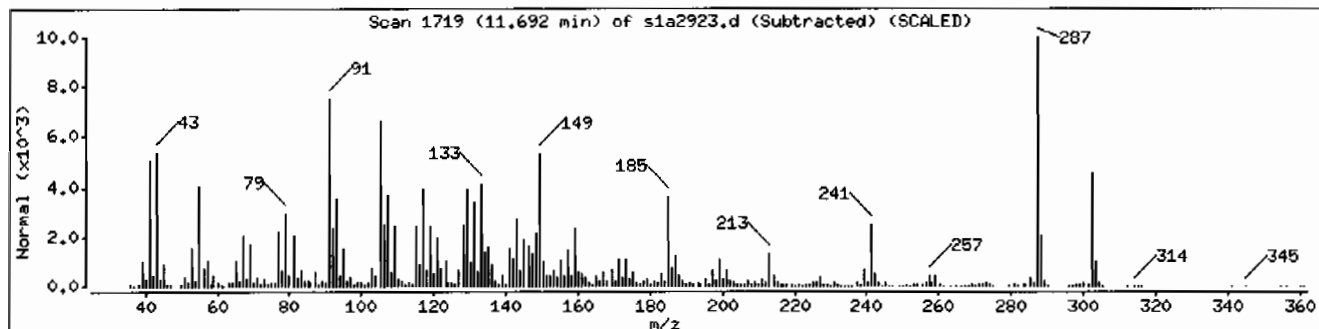
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Phenol, 2,4-bis(1-phenylethyl)-	2769-94-0	NIST05.L	126238	42	C22H22O	302
Naproxen, tert-butyldimethylsilyl ester	1000314-43-3	NIST05.L	149786	35	C20H28O3Si	344
Silane, trimethyl(1,1':3',1''-terphenyl	128388-53-4	NIST05.L	126205	27	C21H22Si	302



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVHF111LANL

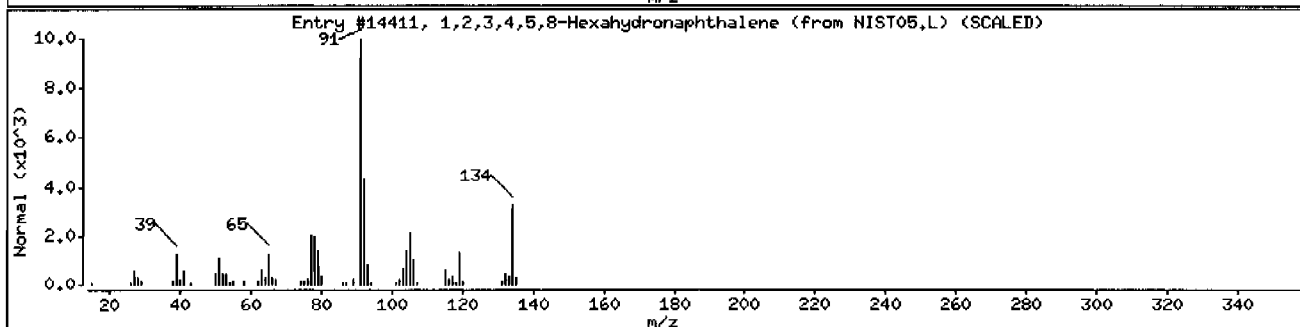
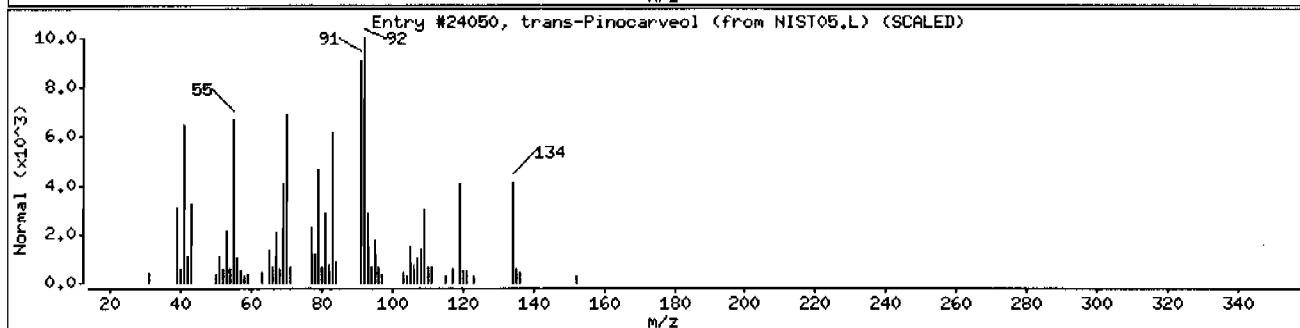
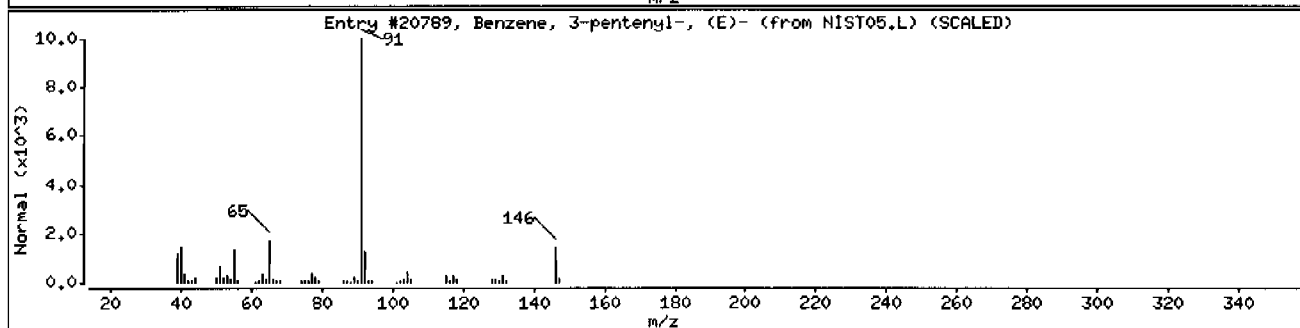
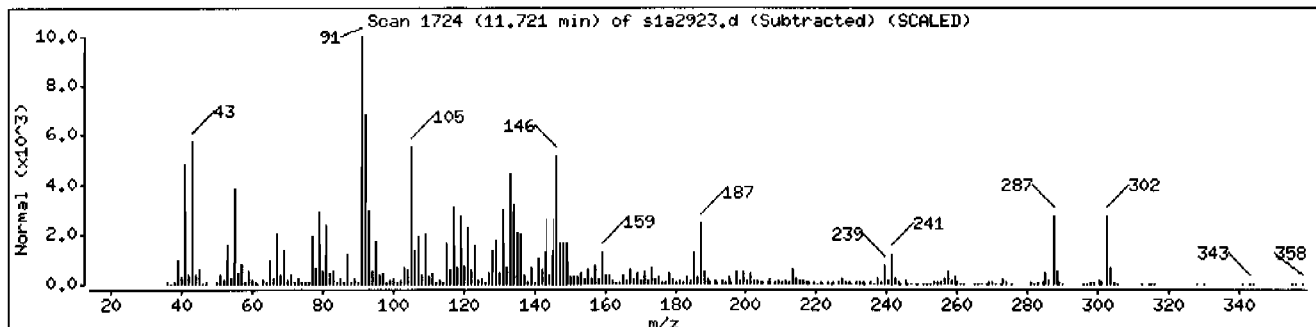
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzene, 3-pentenyl-, (E)-	16091-23-9	NIST05.L	20789	22	C11H14	146
trans-Pinocarveol	1000292-85-4	NIST05.L	24050	15	C10H16O	152
1,2,3,4,5,8-Hexahydronaphthalene	36231-13-7	NIST05.L	14411	11	C10H14	134





Date: 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVMF111LANL

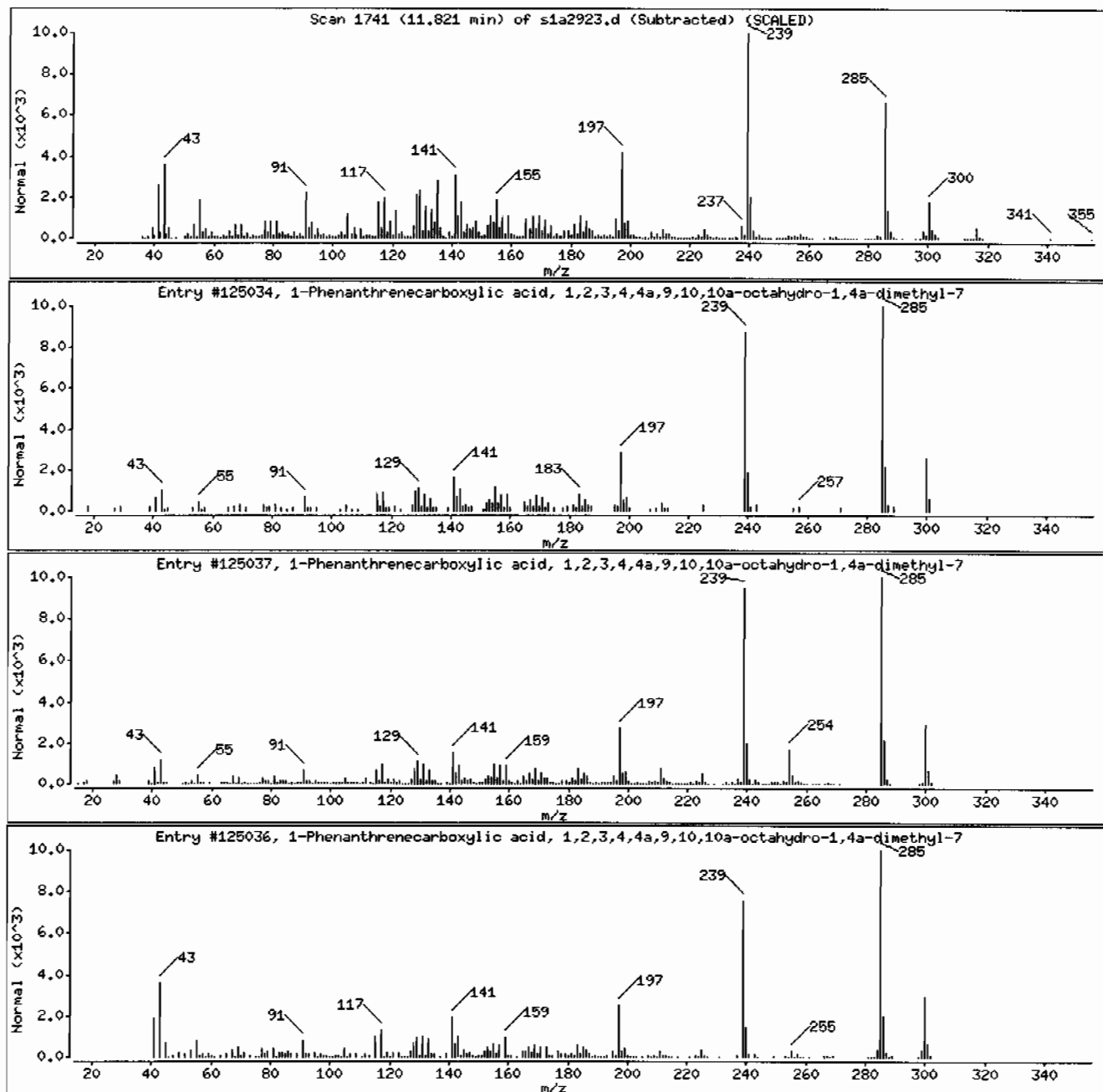
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	93	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125037	87	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125036	86	C20H28O2	300



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVMF111LANL

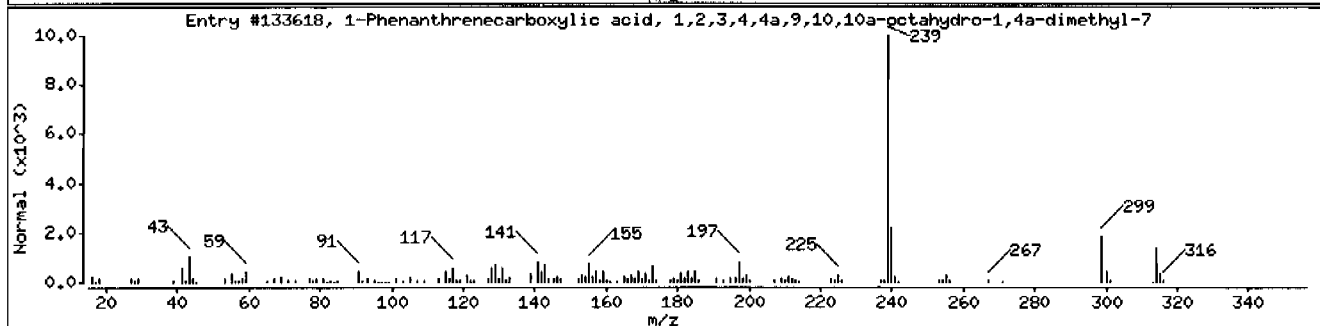
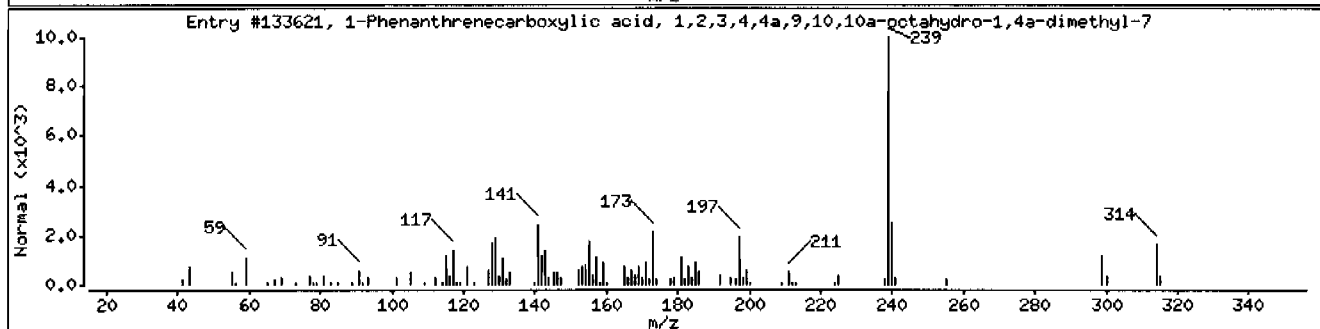
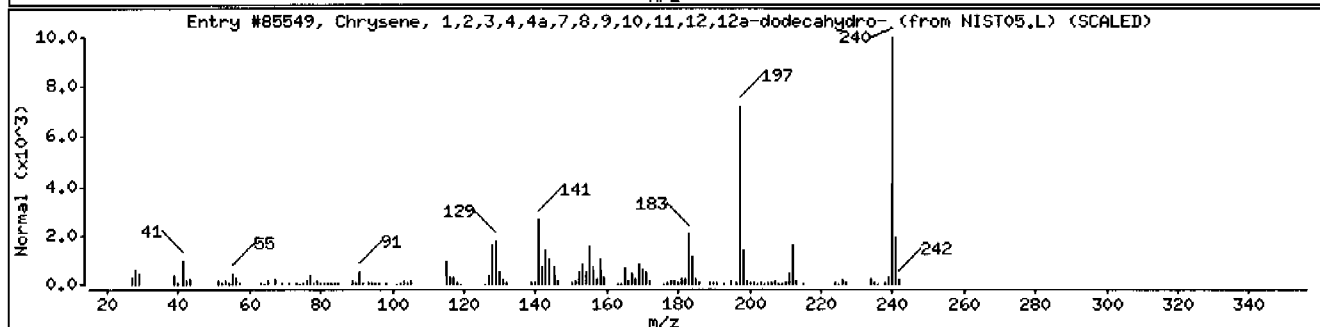
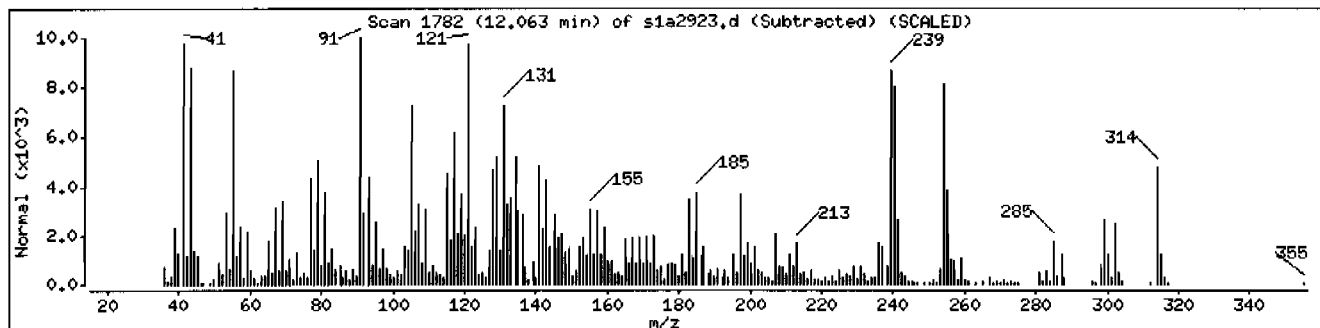
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5HS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Chrysene, 1,2,3,4,4a,7,8,9,10,11,12,12a-	1610-22-6	NIST05.L	85549	58	C18H24	240
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133621	47	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133618	44	C21H30O2	314



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVHF111LANL

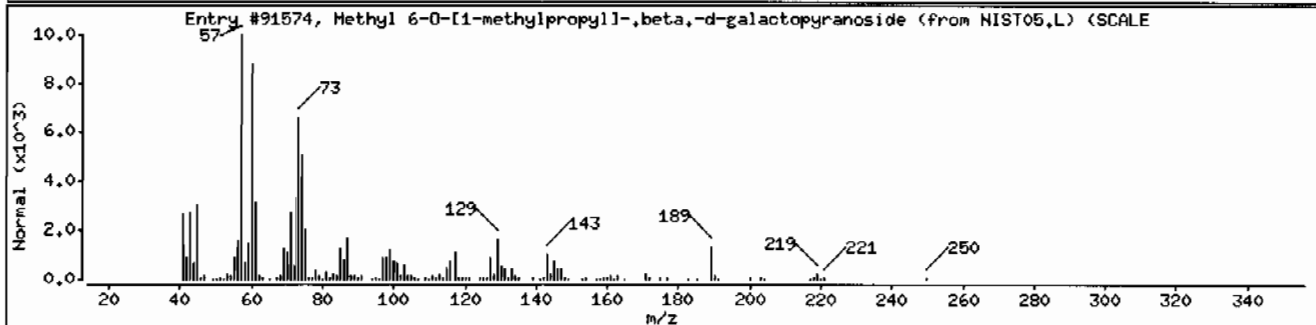
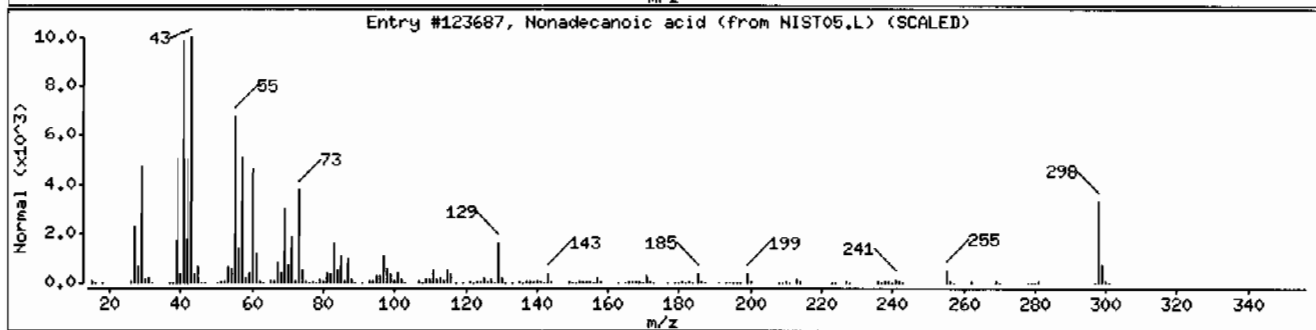
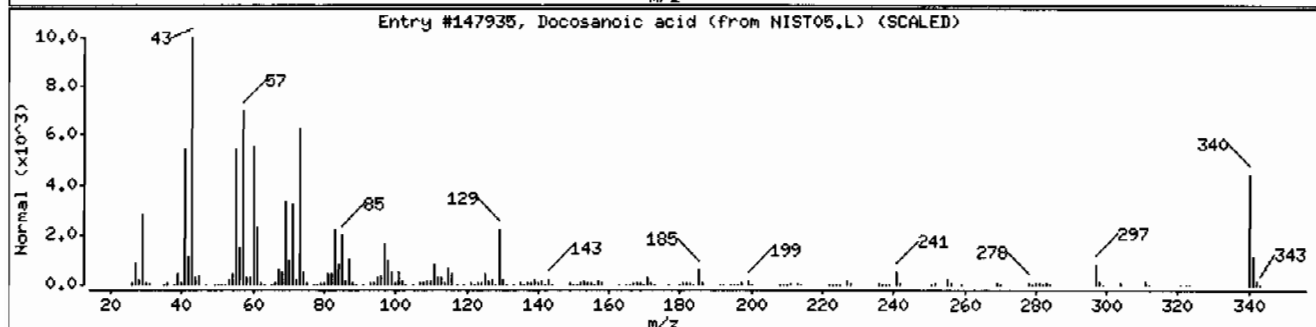
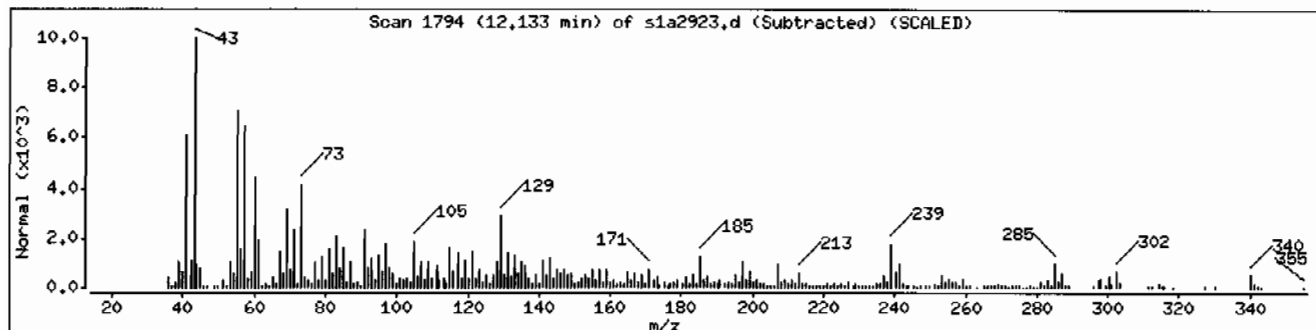
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Docosanoic acid	112-85-6	NIST05.L	147935	92	C22H44O2	340
Nonadecanoic acid	646-30-0	NIST05.L	123687	55	C19H38O2	298
Methyl 6-O-[1-methylpropyl]-.beta.-d-gal	1000126-15-7	NIST05.L	91574	45	C11H22O6	250



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVHF11ILANL

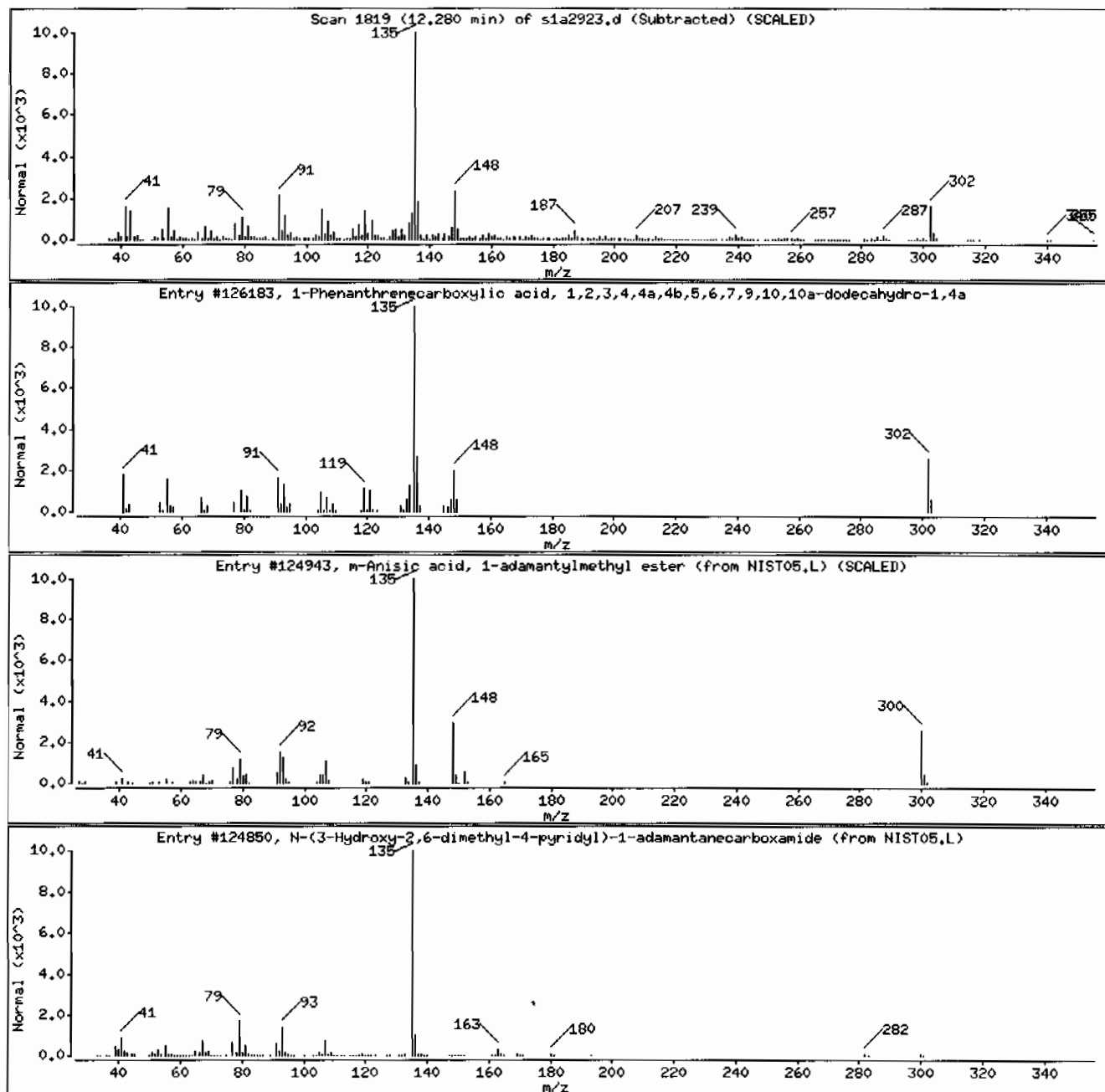
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	471-77-2	NIST05.L	126183	94	C20H30O2	302
m-Anisic acid, 1-adamantylmethyl ester	1000292-25-3	NIST05.L	124943	58	C19H24O3	300
N-(3-Hydroxy-2,6-dimethyl-4-pyridyl)-1-a	1000260-99-3	NIST05.L	124850	55	C18H24N2O2	300



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVMF111LANL

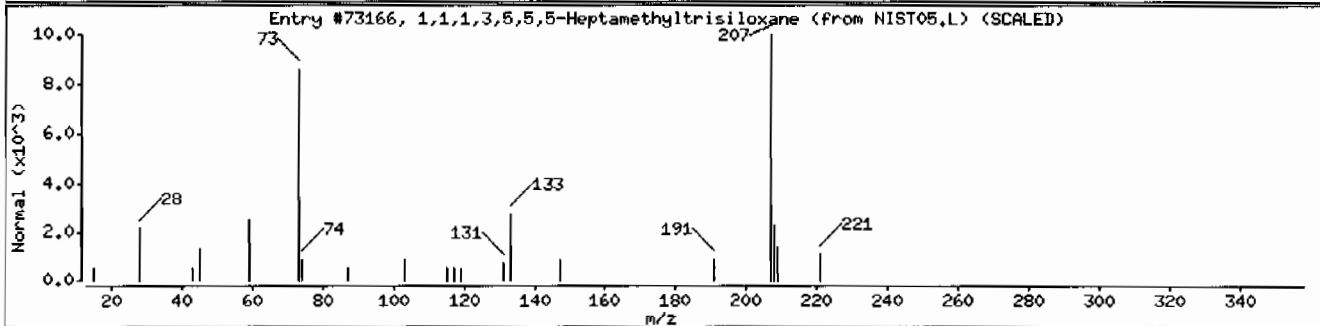
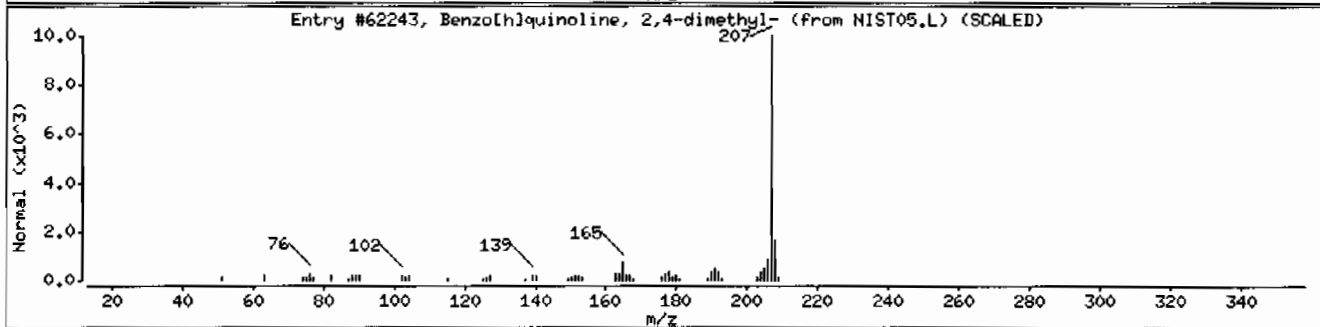
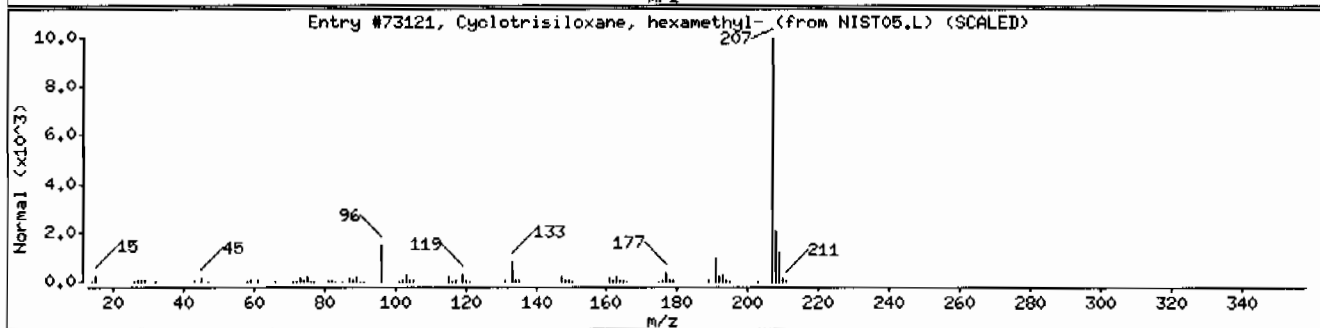
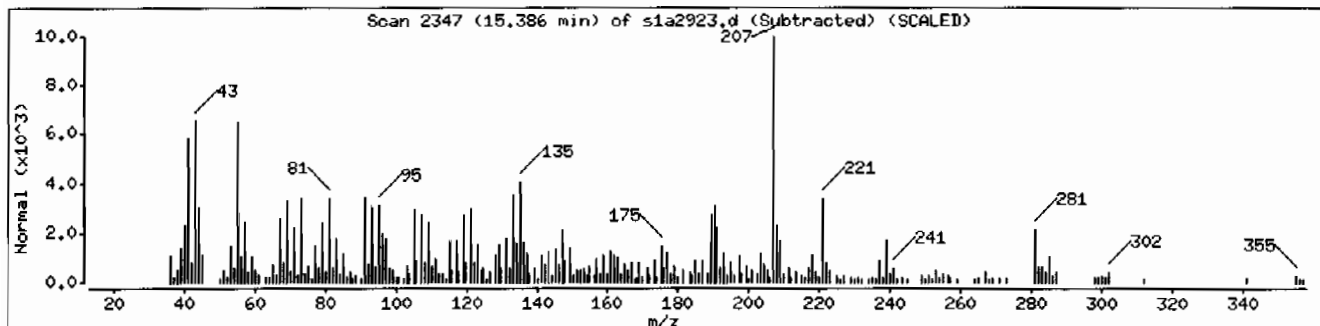
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73121	38	C6H18OSi3	222
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	38	C15H13N	207
1,1,1,3,5,5-Heptamethyltrisiloxane	1873-88-7	NIST05.L	73166	35	C7H22OSi3	222



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVMF111LANL

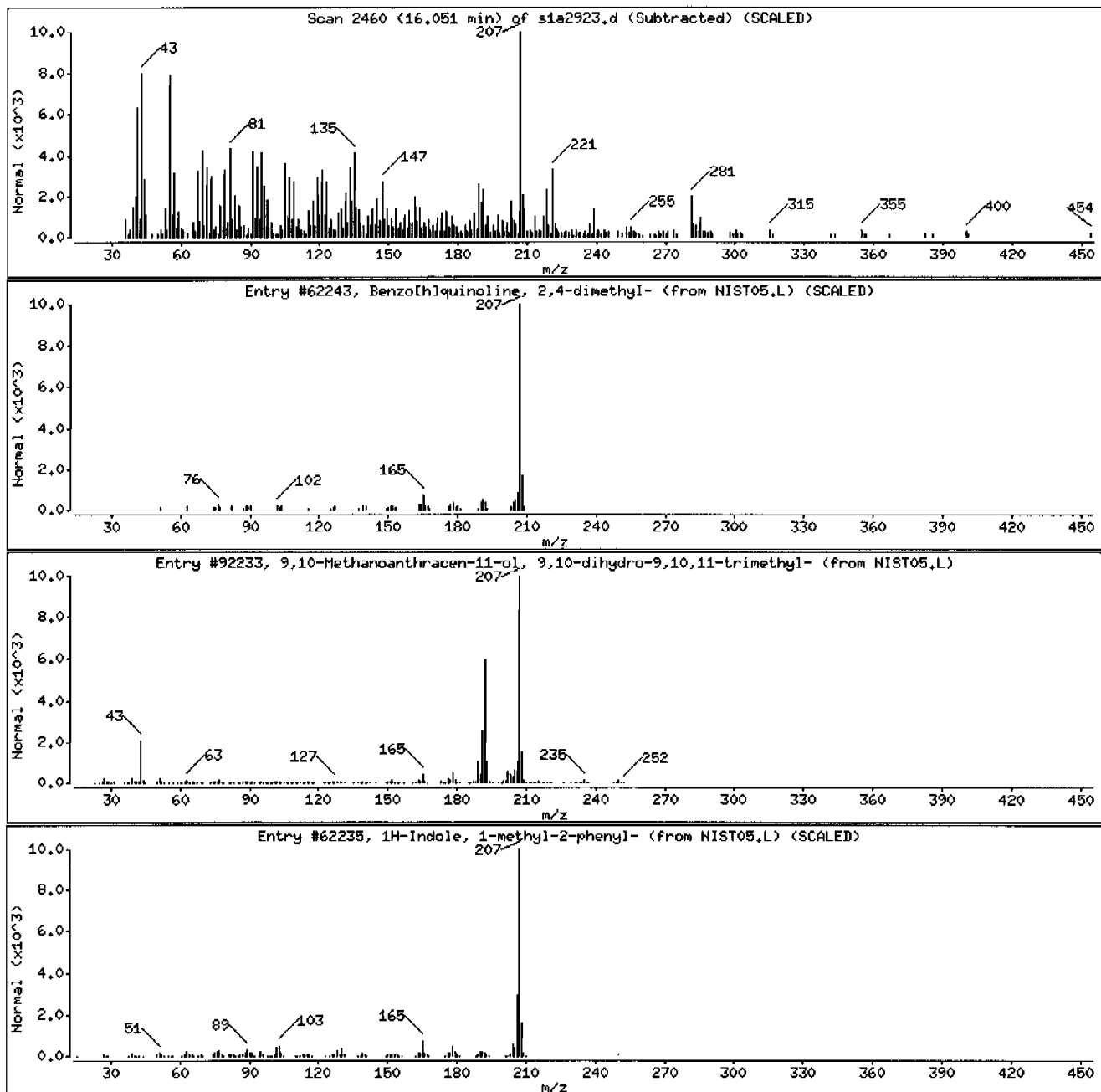
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	30	C15H13N	207
9,10-Methanoanthracen-11-ol, 9,10-dihydr	126615-74-5	NIST05.L	92233	27	C18H18O	250
1H-Indole, 1-methyl-2-phenyl-	3558-24-5	NIST05.L	62235	25	C15H13N	207



Date : 30-JAN-2010 00:02

Client ID: RE15-10-7180

Instrument: MSD1.i

Sample Info: 1245106015194459111SVMF11ILANL

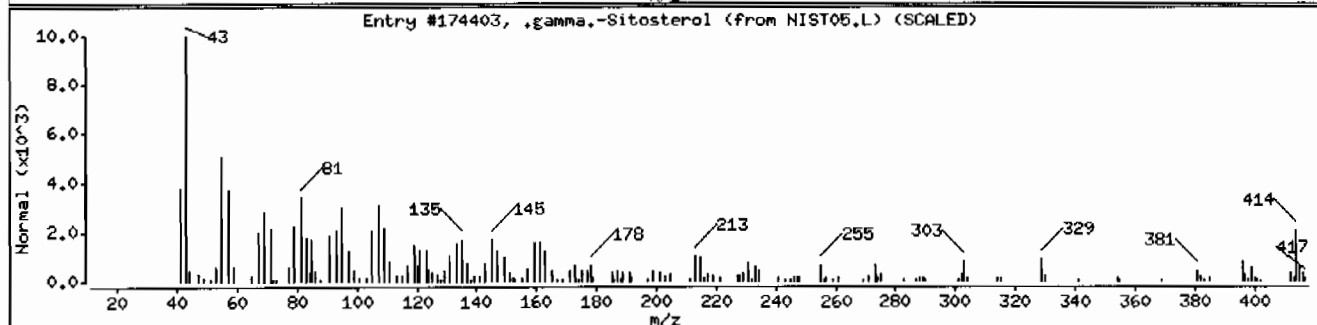
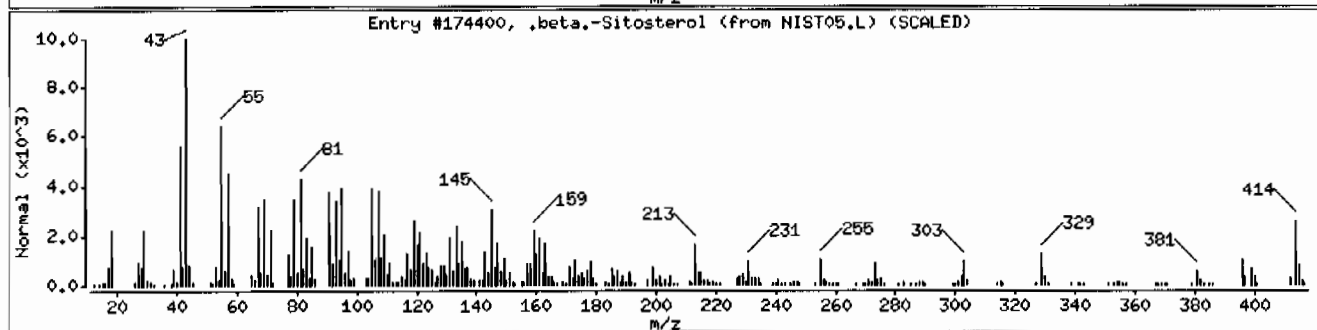
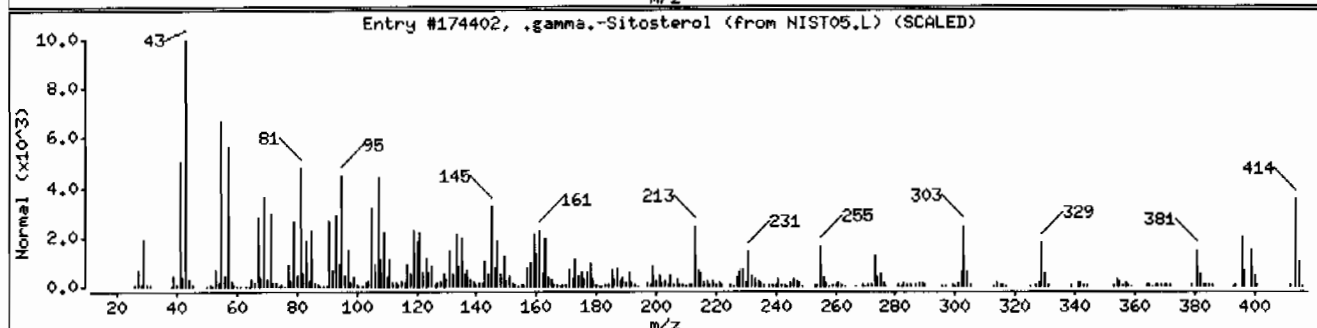
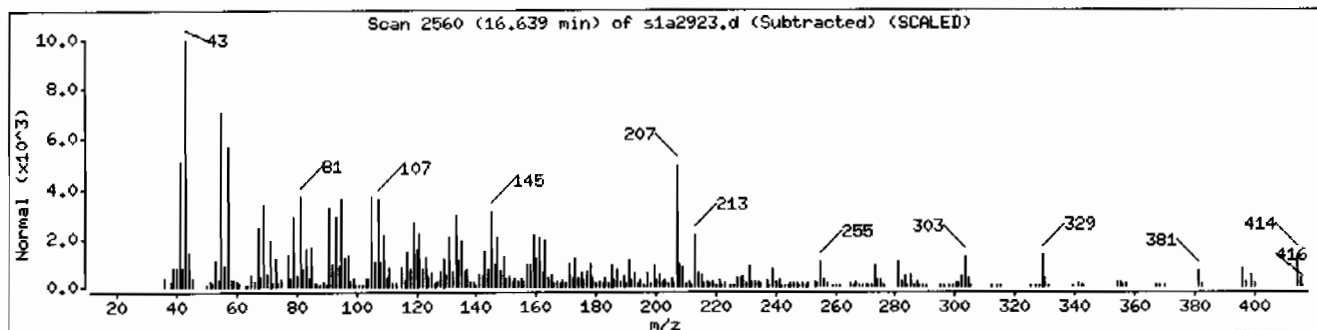
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	60	C <sub>29</sub> H <sub>50</sub> O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174400	55	C <sub>29</sub> H <sub>50</sub> O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174403	55	C <sub>29</sub> H <sub>50</sub> O	414



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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106010	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 12.1
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7181	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD1.I	<b>Dilution:</b> 1
<b>Run Date:</b> 01/29/2010 21:45	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s1a2918.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	379	ug/kg	75.9	379
108-95-2	Phenol	U	379	ug/kg	75.9	379
95-57-8	2-Chlorophenol	U	379	ug/kg	75.9	379
106-46-7	1,4-Dichlorobenzene	U	379	ug/kg	75.9	379
621-64-7	N-Nitrosodipropylamine	U	379	ug/kg	75.9	379
59-50-7	4-Chloro-3-methylphenol	U	379	ug/kg	75.9	379
83-32-9	Acenaphthene	U	37.9	ug/kg	12.5	37.9
121-14-2	2,4-Dinitrotoluene	U	379	ug/kg	37.9	379
100-02-7	4-Nitrophenol	U	379	ug/kg	125	379
87-86-5	Pentachlorophenol	U	379	ug/kg	94.9	379
129-00-0	Pyrene	U	37.9	ug/kg	11.4	37.9
110-86-1	Pyridine	U	379	ug/kg	75.9	379
62-53-3	Aniline	U	379	ug/kg	114	379
111-44-4	bis(2-Chloroethyl) ether	U	379	ug/kg	75.9	379
541-73-1	1,3-Dichlorobenzene	U	379	ug/kg	75.9	379
100-51-6	Benzyl alcohol	U	379	ug/kg	114	379
95-50-1	1,2-Dichlorobenzene	U	379	ug/kg	75.9	379
108-60-1	bis(2-Chloroisopropyl)ether	U	379	ug/kg	75.9	379
95-48-7	o-Cresol	U	379	ug/kg	75.9	379
65794-96-9	m,p-Cresols	U	379	ug/kg	114	379
67-72-1	Hexachloroethane	U	379	ug/kg	75.9	379
98-95-3	Nitrobenzene	U	379	ug/kg	75.9	379
78-59-1	Isophorone	U	379	ug/kg	75.9	379
88-75-5	2-Nitrophenol	U	379	ug/kg	75.9	379
105-67-9	2,4-Dimethylphenol	U	379	ug/kg	133	379
111-91-1	bis(2-Chloroethoxy)methane	U	379	ug/kg	75.9	379
120-83-2	2,4-Dichlorophenol	U	379	ug/kg	75.9	379
65-85-0	Benzoic acid	U	759	ug/kg	190	759
91-20-3	Naphthalene	U	37.9	ug/kg	11.4	37.9
106-47-8	4-Chloroaniline	U	379	ug/kg	75.9	379
87-68-3	Hexachlorobutadiene	U	379	ug/kg	75.9	379
91-57-6	2-Methylnaphthalene	U	37.9	ug/kg	7.59	37.9
77-47-4	Hexachlorocyclopentadiene	U	379	ug/kg	75.9	379
88-06-2	2,4,6-Trichlorophenol	U	379	ug/kg	75.9	379
95-95-4	2,4,5-Trichlorophenol	U	379	ug/kg	75.9	379
91-58-7	2-Chloronaphthalene	U	37.9	ug/kg	12.5	37.9
88-74-4	2-Nitroaniline	U	379	ug/kg	75.9	379
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	379	ug/kg	75.9	379



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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106010	Date Received: 01/20/2010 08:45	%Moisture: 12.1
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7181	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1J	Dilution: 1
Run Date: 01/29/2010 21:45	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30 g	Final Volume: 1 mL
Data File: s1a2918.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	379	ug/kg	75.9	379
606-20-2	2,6-Dinitrotoluene	U	379	ug/kg	37.9	379
208-96-8	Acenaphthylene	U	37.9	ug/kg	11.4	37.9
51-28-5	2,4-Dinitrophenol	U	759	ug/kg	144	759
132-64-9	Dibenzofuran	U	379	ug/kg	75.9	379
84-66-2	Diethylphthalate	U	379	ug/kg	75.9	379
86-73-7	Fluorene	U	37.9	ug/kg	11.4	37.9
7005-72-3	4-Chlorophenylphenylether	U	379	ug/kg	75.9	379
534-52-1	2-Methyl-4,6-dinitrophenol	U	379	ug/kg	75.9	379
100-01-6	4-Nitroaniline	U	379	ug/kg	114	379
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	379	ug/kg	75.9	379
122-66-7	Azobenzene	U	379	ug/kg	75.9	379
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	379	ug/kg	75.9	379
118-74-1	Hexachlorobenzene	U	379	ug/kg	75.9	379
85-01-8	Phenanthrene	U	37.9	ug/kg	11.4	37.9
120-12-7	Anthracene	U	37.9	ug/kg	7.59	37.9
84-74-2	Di-n-butylphthalate	U	379	ug/kg	75.9	379
206-44-0	Fluoranthene	U	37.9	ug/kg	11.4	37.9
85-68-7	Butylbenzylphthalate	U	379	ug/kg	75.9	379
56-55-3	Benzo(a)anthracene	U	37.9	ug/kg	11.4	37.9
91-94-1	3,3'-Dichlorobenzidine	U	379	ug/kg	114	379
218-01-9	Chrysene	U	37.9	ug/kg	11.4	37.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	379	ug/kg	75.9	379
117-84-0	Di-n-octylphthalate	U	379	ug/kg	75.9	379
205-99-2	Benzo(b)fluoranthene	U	37.9	ug/kg	11.4	37.9
207-08-9	Benzo(k)fluoranthene	U	37.9	ug/kg	11.4	37.9
50-32-8	Benzo(a)pyrene	U	37.9	ug/kg	11.4	37.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.9	ug/kg	11.4	37.9
53-70-3	Dibenzo(a,h)anthracene	U	37.9	ug/kg	11.4	37.9
191-24-2	Benzo(ghi)perylene	U	37.9	ug/kg	11.4	37.9
120-82-1	1,2,4-Trichlorobenzene	U	379	ug/kg	75.9	379

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.96	420	ug/kg		J
	Unknown	2.17	221	ug/kg		J

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

SDG Number: 10-1304  
Lab Sample ID: 245106010

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE15-10-7181  
Batch ID: 944591  
Run Date: 01/29/2010 21:45  
Prep Date: 01/25/2010 14:38  
Data File: s1a2918.d

CAS No.	Parmname	Qualifier	Result	Units	MDI/LOD	PQL/LOQ
---------	----------	-----------	--------	-------	---------	---------

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.1	852	ug/kg		JA
	Unknown	11.29	273	ug/kg		J
	Unknown	11.43	304	ug/kg		J
	Unknown	11.66	467	ug/kg		J
	Unknown	11.69	630	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.8	844	ug/kg	94	NJ
	Unknown	12.26	213	ug/kg		J
83-46-5	.beta.-Sitosterol	16.92	274	ug/kg	96	NJ

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012910.b/sla2918.d  
 Lab Smp Id: 245106010 Client Smp ID: RE15-10-7181  
 Inj Date : 29-JAN-2010 21:45  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |245106010|944591|1|SVMF|1|LANL  
 Misc Info : |MSD8270\_S|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 30-Jan-2010 13:22 llo00884 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
 Als bottle: 6  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1304.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	12.14460	% 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	4.434	4.428	(1.000)	288168	40.0000
* 29 Naphthalene-d8	136	5.681	5.681	(1.000)	1138236	40.0000
* 46 Acenaphthene-d10	164	7.534	7.539	(1.000)	616631	40.0000
* 67 Phenanthrene-d10	188	9.133	9.133	(1.000)	952209	40.0000
* 91 Chrysene-d12	240	12.027	12.033	(1.000)	751399	40.0000
* 98 Perylene-d12	264	14.116	14.115	(1.000)	598988	40.0000
\$ 3 2-Fluorophenol	112	3.316	3.304	(0.748)	474036	53.1867 2020
\$ 5 Phenol-d5	99	4.063	4.057	(0.916)	628553	56.7794 2150
\$ 20 Nitrobenzene-d5	82	4.951	4.957	(0.872)	255621	30.4280 1150
\$ 39 2-Fluorobiphenyl	172	6.804	6.804	(0.903)	491330	30.9287 1170
\$ 60 2,4,6-Tribromophenol	329	8.375	8.380	(1.112)	125849	56.4008 2140
\$ 81 p-Terphenyl-d14	244	10.839	10.839	(0.901)	497050	36.8645 1400

## ION RATIO REPORT

## SV REPORT

Data file: sla2918.d

Report Date: 01/30/2010 13:25

Lab. ID: 245106010

SampleType: SAMPLE

Injection Date: 29-JAN-2010 21:45

Operator: AMY

Instrument: MSD1.i

Sample Info: |245106010|944591|1|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100107-03|

Comment:

Method used: /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	30946	4.06	4.13	80-120	100	(T)
93	9598	4.11	4.13	212-272	31	(Q)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	35086	4.95	4.80	80-120	100	(T)
42	21705	4.95	4.80	52-112	62	(T)
-----						
40	2-Chloronaphthalene	CAS#: 91-58-7				
162	14923	7.14	6.94	80-120	100	(T)
164	741	7.14	6.94	3- 63	5	(T)
127	1073	7.14	6.94	8- 68	7	(QT)
-----						
42	o-Nitroaniline	CAS#: 88-74-4				
65	17852	7.14	7.05	80-120	100	(T)
92	22098	7.14	7.05	29- 89	124	(QT)
138	1517	7.14	7.05	68-128	8	(QT)
-----						
44	2,6-Dinitrotoluene	CAS#: 606-20-2				
165	78383	7.53	7.31	80-120	100	(T)
63	984	7.53	7.31	38- 98	1	(QT)
-----						
50	2,4-Dinitrotoluene	CAS#: 121-14-2				
165	78383	7.53	7.74	80-120	100	(T)
89	862	7.53	7.74	55-115	1	(QT)
63	984	7.53	7.74	49-109	1	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	386	8.37	8.17	80-120	100	(T)
105	1092	8.37	8.17	16- 76	283	(QT)
51	1511	8.37	8.17	41-101	391	(QT)

-----

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012910.b/sla2918.d  
Lab Smp Id: 245106010 Client Smp ID: RE15-10-7181  
Inj Date : 29-JAN-2010 21:45  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106010|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270 S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m  
Meth Date : 30-Jan-2010 13:22 llo00884 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 6  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	12.14460	% moisture

Cpnd Variable

Local Compound Variable

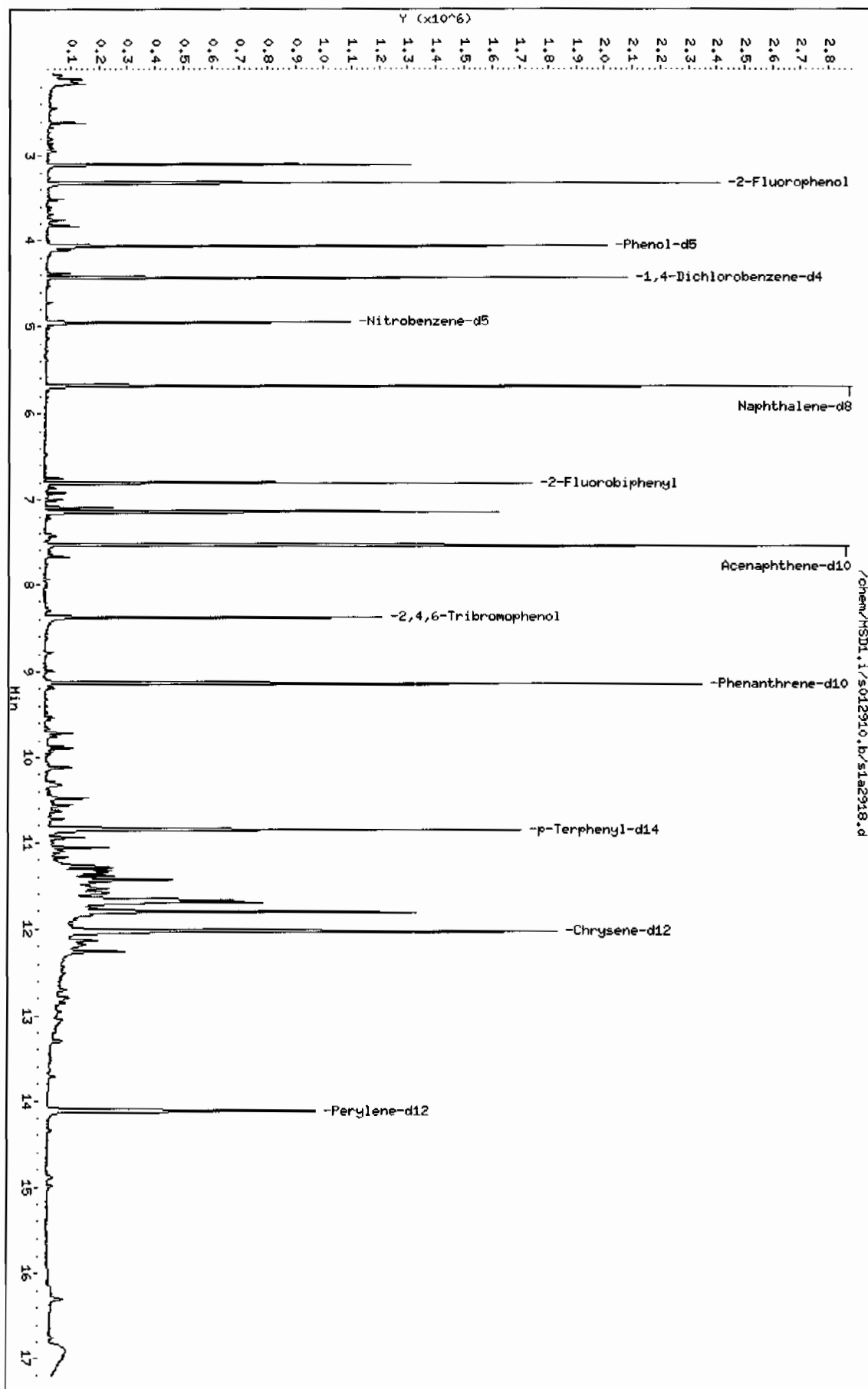
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.434	1867610	40.000
* 91 Chrysene-d12	12.027	2601667	40.000
* 98 Perylene-d12	14.116	1721554	40.000

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 #:			
1.958	516651	11.0654969	420	0		0	10
Unknown				CAS #:			
2.169	271840	5.82220325	221	0		0	10
Unknown Aldol Condensate				CAS #:			
3.099	1048576	22.4581176	852	0		0	10
Unknown				CAS #:			
11.286	468373	7.20112179	273	0		0	91
Unknown				CAS #:			
11.427	521121	8.01210980	304	0		0	91
Unknown				CAS #:			
11.663	800666	12.3100388	467	0		0	91
Unknown				CAS #:			
11.692	1080564	16.6134016	630	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4				CAS #: 1740-19-8			
11.804	1447505	22.2550286	844	94	NIST05.L	125034	91
Unknown				CAS #:			
12.257	365239	5.61546489	213	0		0	91
.beta.-Sitosterol				CAS #: 83-46-5			
16.915	310662	7.21817398	274	96	NIST05.L	174399	98

Data File: /chem/MSD1.i/5012910.b/s1a2918.d  
Date: 29-JAN-2010 21:45  
Client ID: RELS-10-7181  
Sample Info: 12451060101944591115VWF11LLANL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5MS

Instrument: MSD1.i  
Operator: AMY  
Column diameter: 0.20





Date : 29-JAN-2010 21:45

Client ID: RE15-10-7181

Instrument: HSD1.i

Sample Info: 1245106010194459111SVMF11ILANL

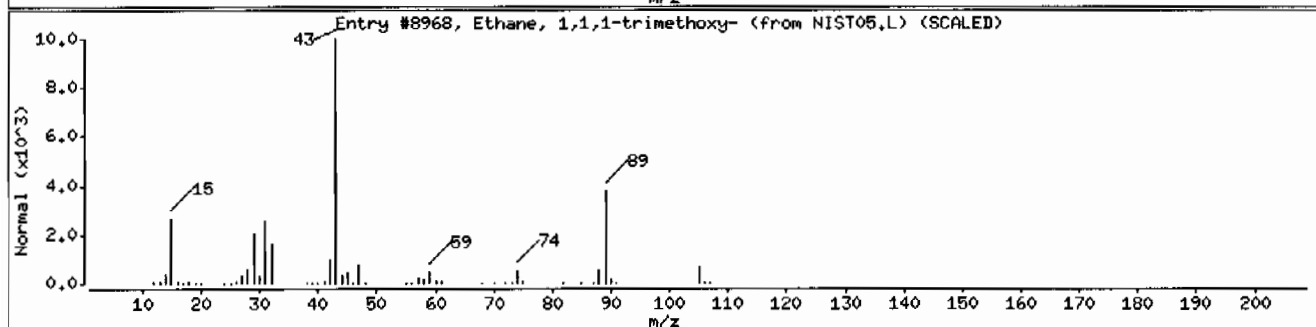
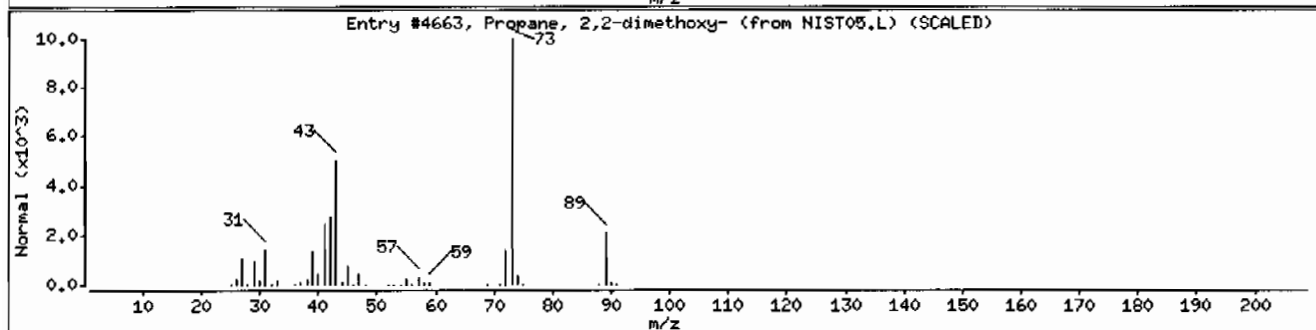
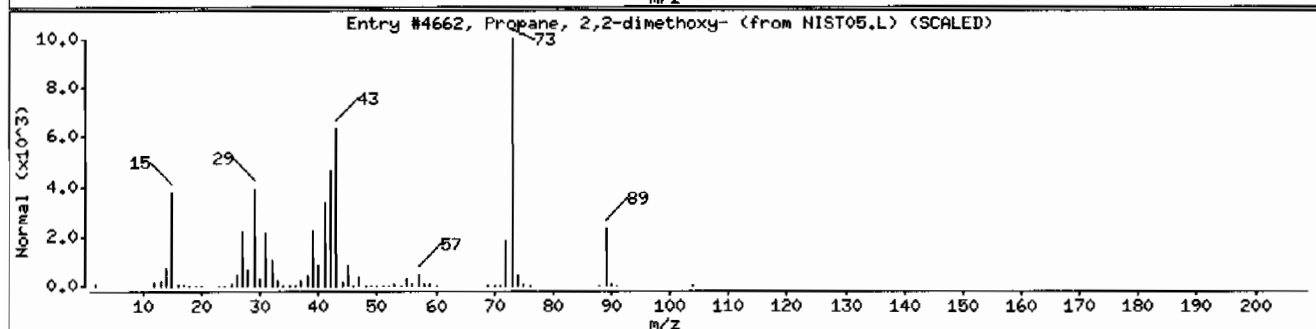
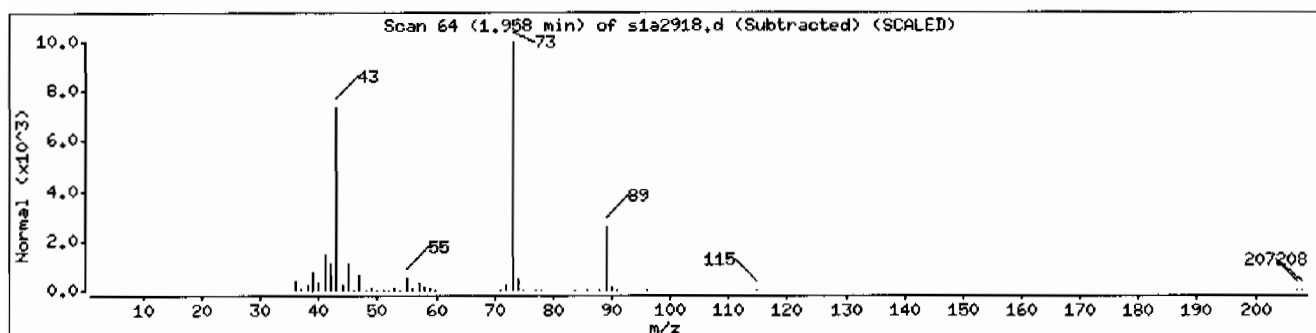
Volume Injected (uL): 0.5

Operator: AMY

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	4662	64	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	56	C5H12O2	104
Ethane, 1,1,1-trimethoxy-	1445-45-0	NIST05.L	8968	40	C5H12O3	120



Date : 29-JAN-2010 21:45

Client ID: RE15-10-7181

Instrument: MSD1.i

Sample Info: I245106010194459111SVHF111LANL

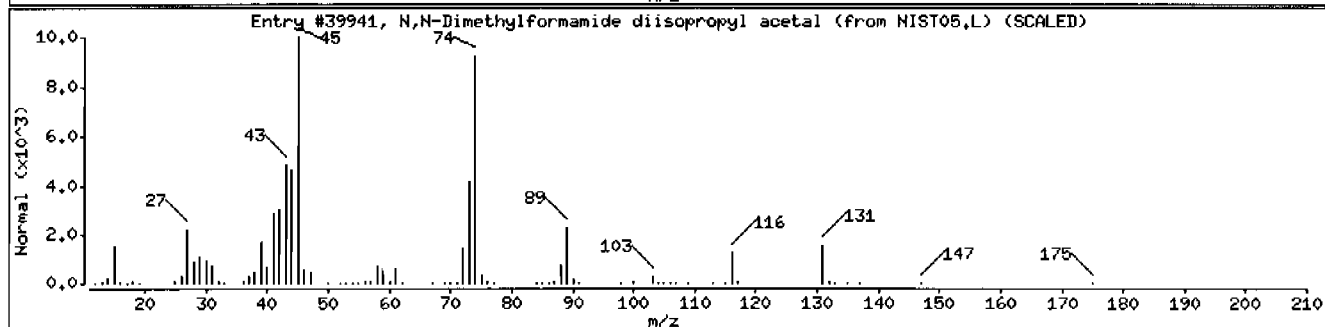
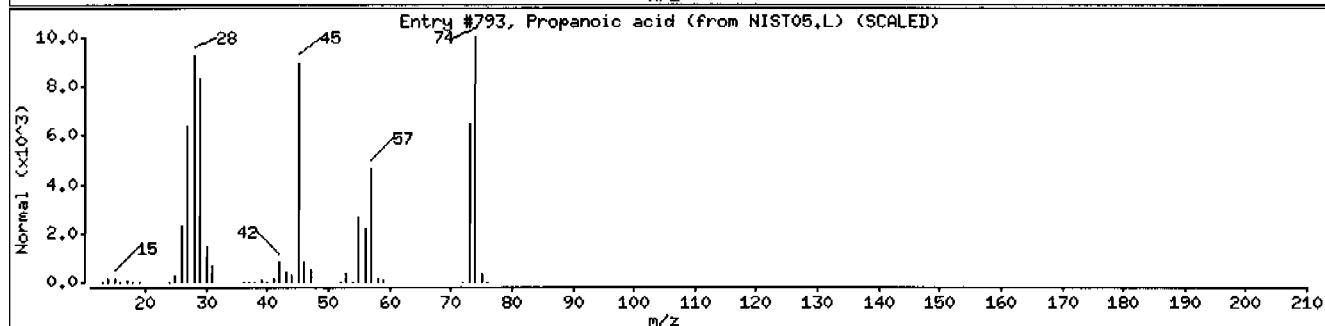
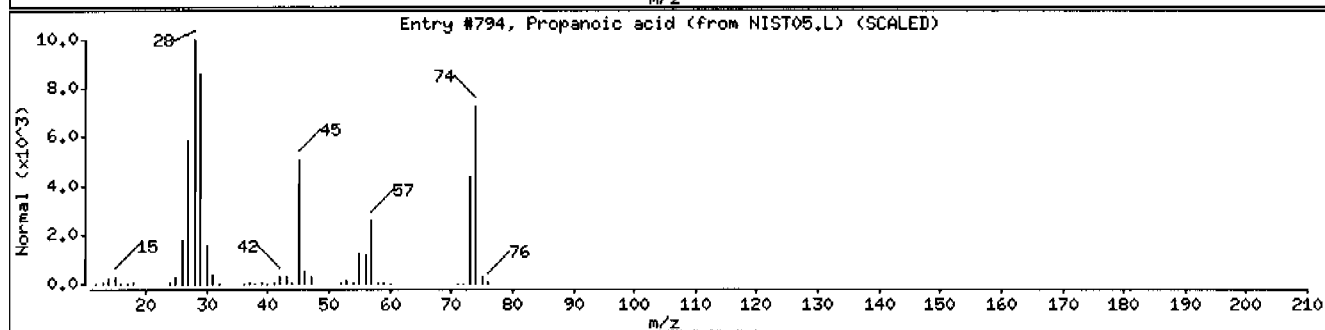
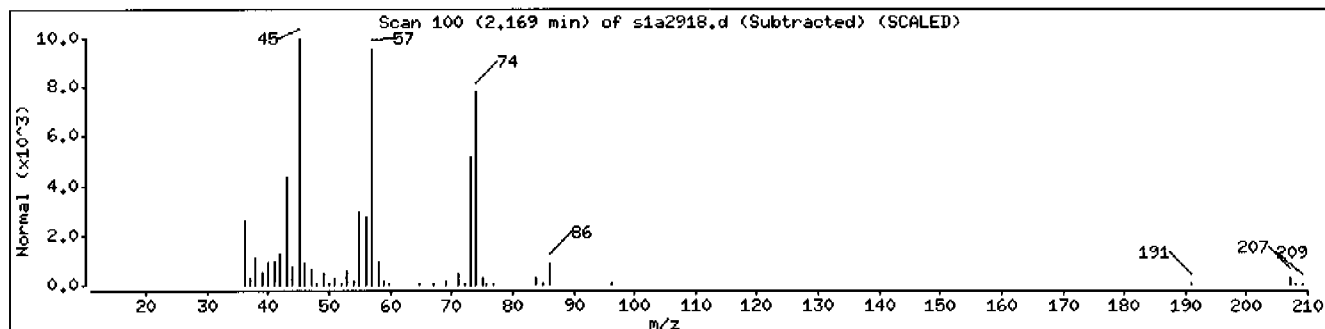
Volume Injected (uL): 0.5

Operator: AMY

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	79-09-4	NIST05.L	794	72	C3H6O2	74
Propanoic acid	79-09-4	NIST05.L	793	64	C3H6O2	74
N,N-Dimethylformamide diisopropyl acetal	18503-89-4	NIST05.L	39941	42	C9H21NO2	175



Date : 29-JAN-2010 21:45

Client ID: RE15-10-7181

Instrument: MSD1.i

Sample Info: 1245106010194459111SVHF111LANL

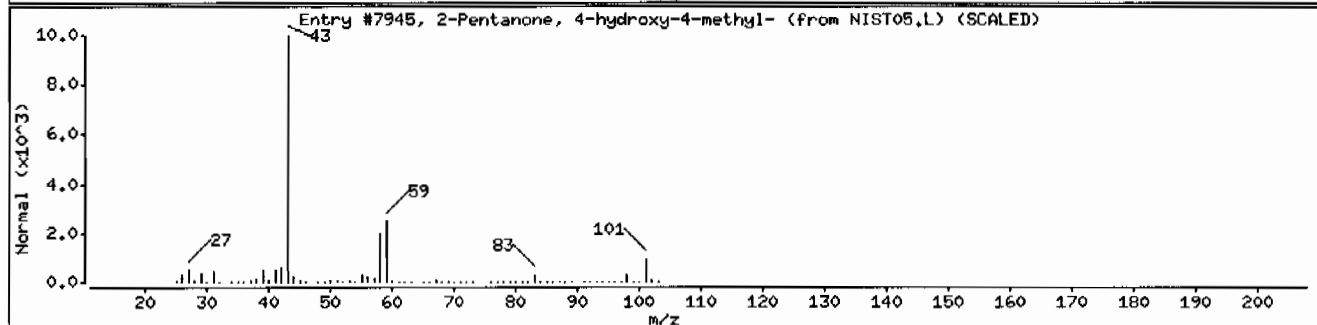
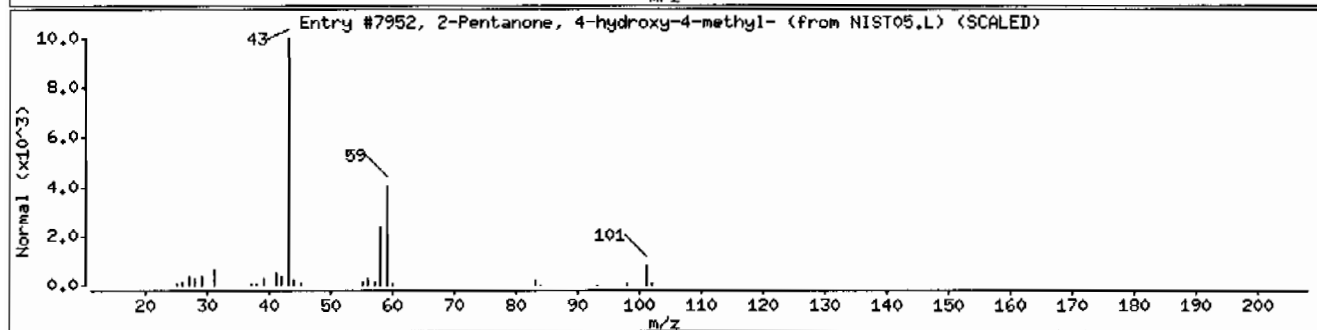
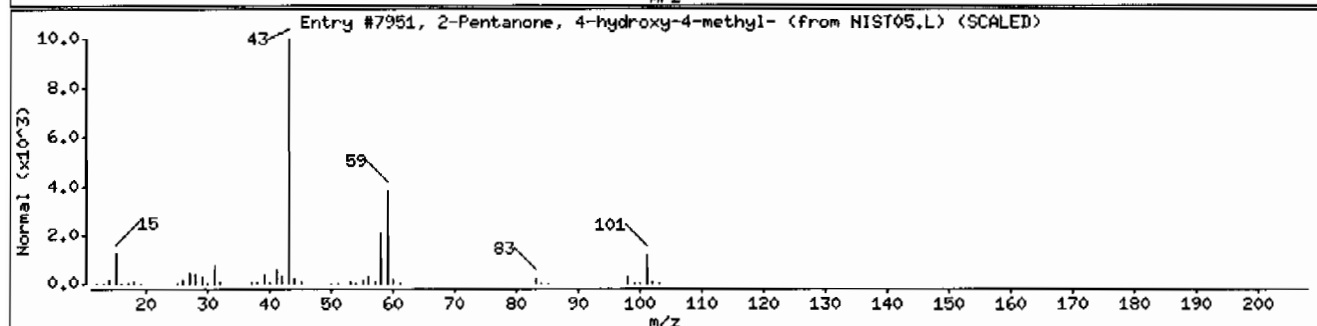
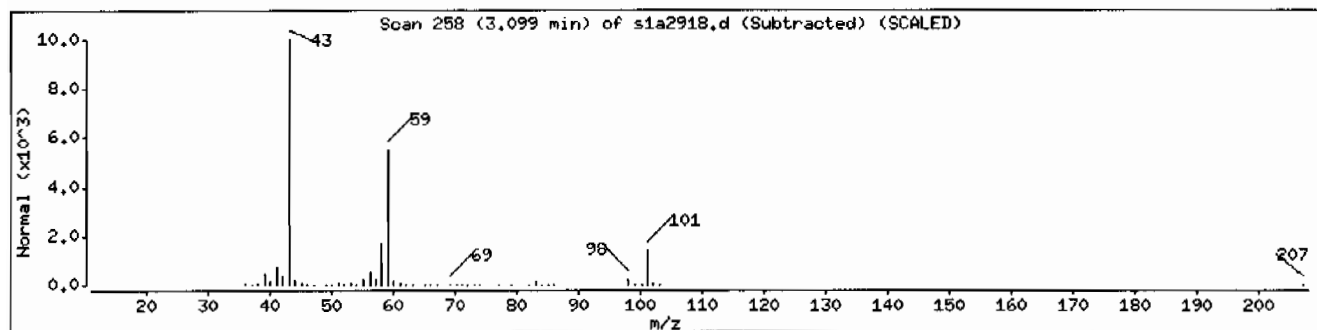
Volume Injected (UL): 0.5

Operator: AMY

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	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	45	C6H12O2	116



Date : 29-JAN-2010 21:45

Client ID: RE15-10-7181

Instrument: MSD1.i

Sample Info: 1245106010194459111SUMF11ILANL

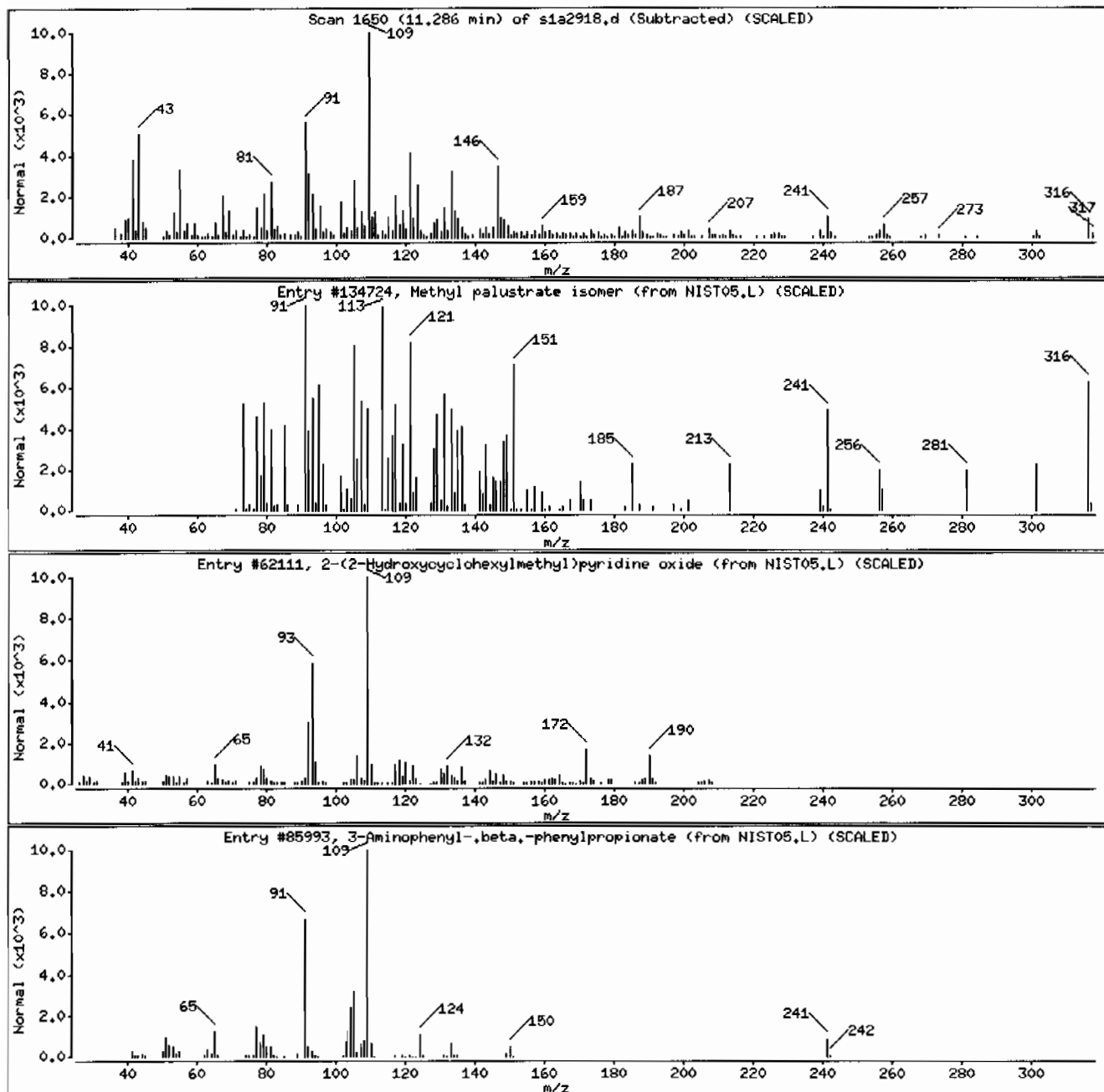
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Methyl palustrate isomer	3310-94-9	NIST05.L	134724	53	C21H32O2	316
2-(2-Hydroxycyclohexylmethyl)pyridine ox	1000195-29-8	NIST05.L	62111	38	C12H17NO2	207
3-Aminophenyl-.beta.-phenylpropionate	1000129-40-1	NIST05.L	85993	35	C15H15NO2	241



Date : 29-JAN-2010 21:45

Client ID: RE15-10-7181

Instrument: MSD1.i

Sample Info: 1245106010194459111SVHF111LANL

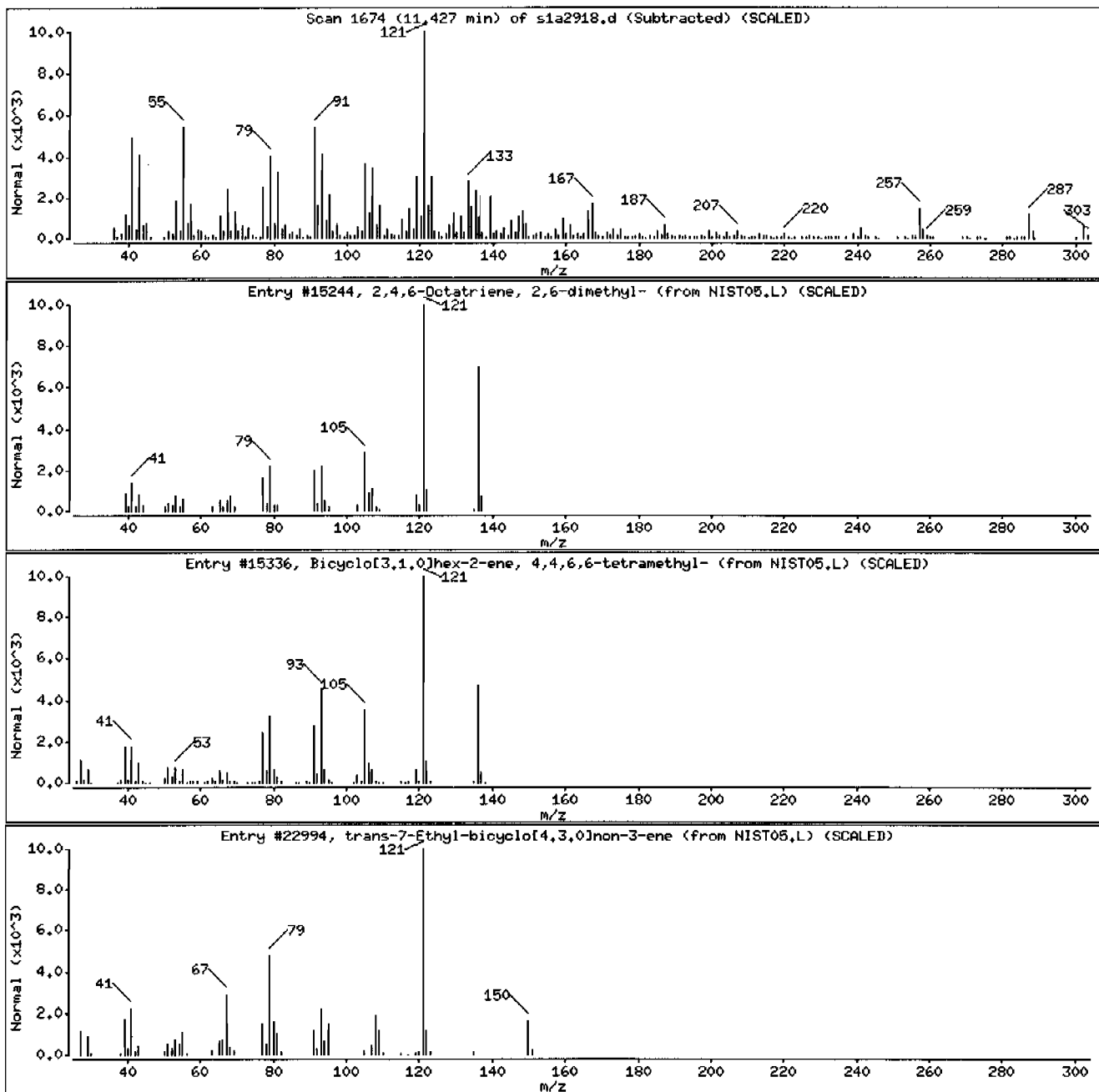
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,4,6-Octatriene, 2,6-dimethyl-	673-84-7	NIST05.L	15244	45	C10H16	136
Bicyclo[3.1.0]hex-2-ene, 4,4,6,6-tetramethyl-	19487-09-3	NIST05.L	15336	35	C10H16	136
trans-7-Ethyl-bicyclo[4.3.0]non-3-ene	1000145-84-7	NIST05.L	22994	35	C11H18	150



Date : 29-JAN-2010 21:45

Client ID: RE15-10-7181

Instrument: MSD1.i

Sample Info: 1245106010194459111SVHF11ILANL

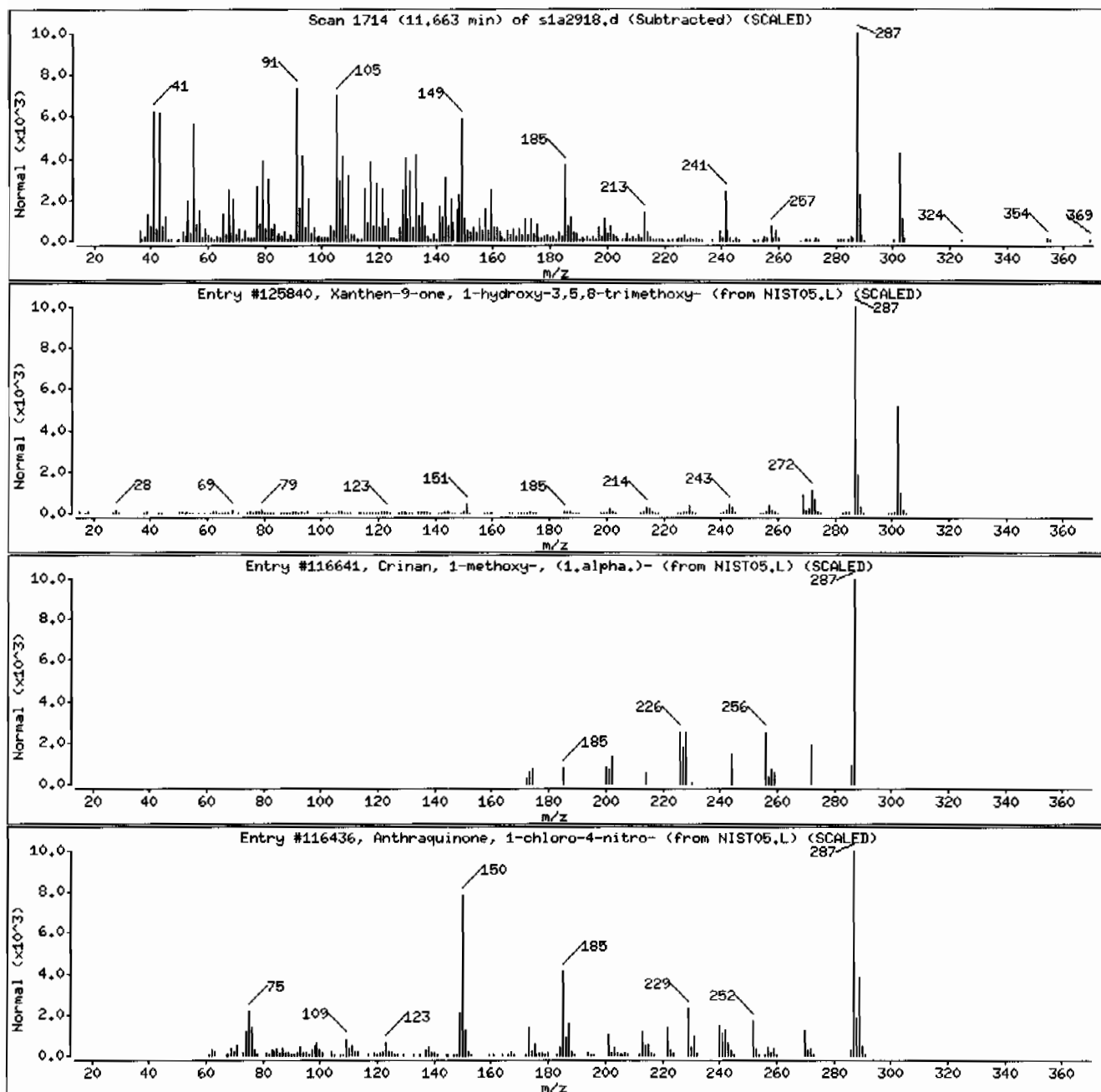
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Xanthen-9-one, 1-hydroxy-3,5,8-trimethox	49599-09-9	NIST05.L	125840	42	C16H14O6	302
Crinan, 1-methoxy-, (1.alpha.)-	41928-92-1	NIST05.L	116641	25	C17H21NO3	287
Anthraquinone, 1-chloro-4-nitro-	6337-82-2	NIST05.L	116436	11	C14H6ClNO4	287



Date : 29-JAN-2010 21:45

Client ID: RE15-10-7181

Instrument: MSD1.i

Sample Info: 1245106010194459111SVMF111LANL

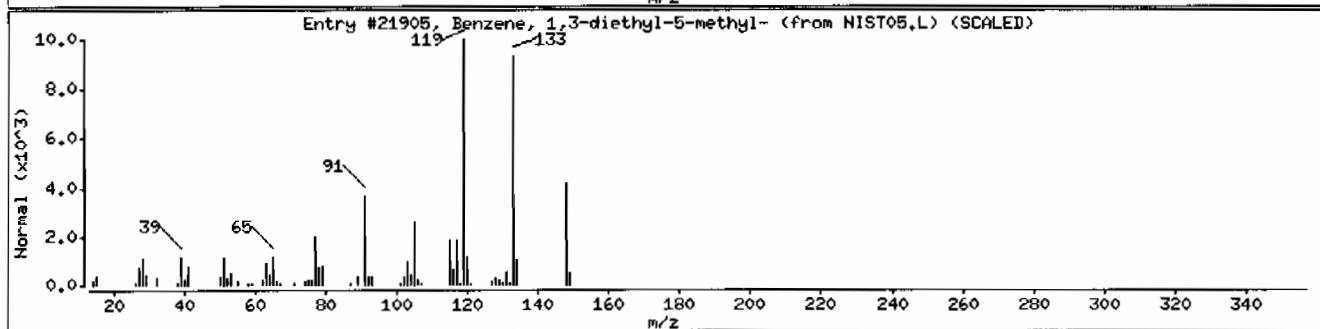
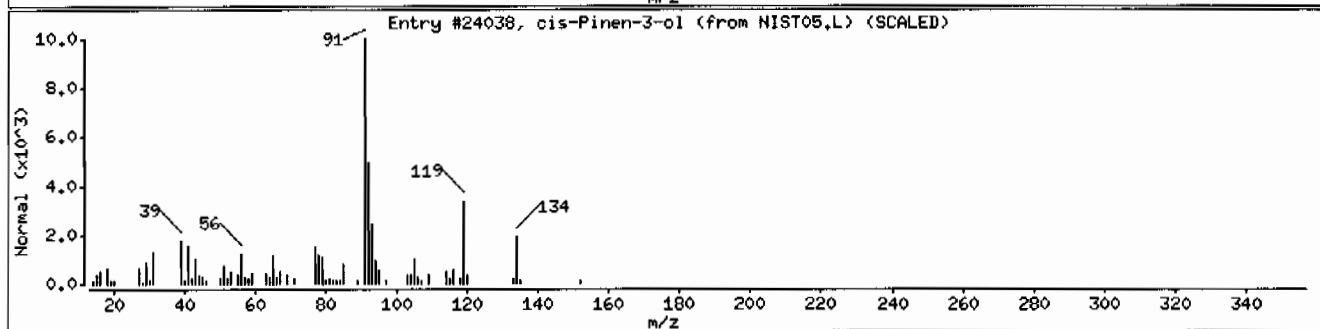
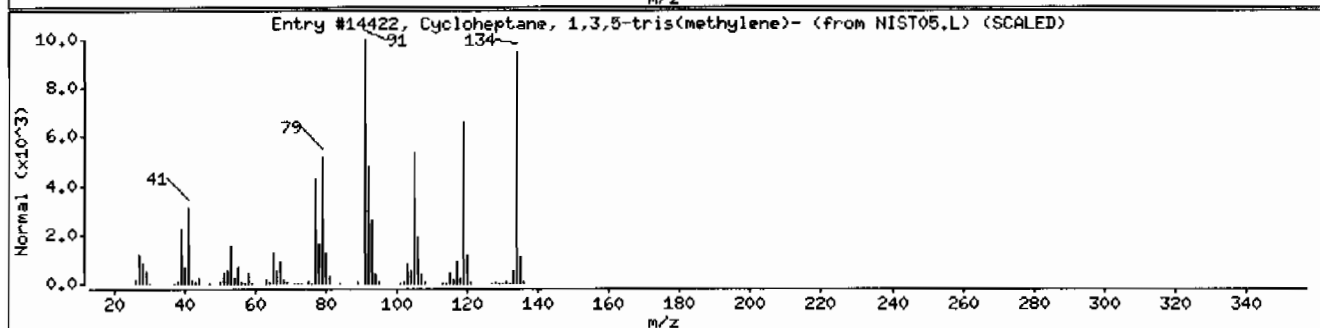
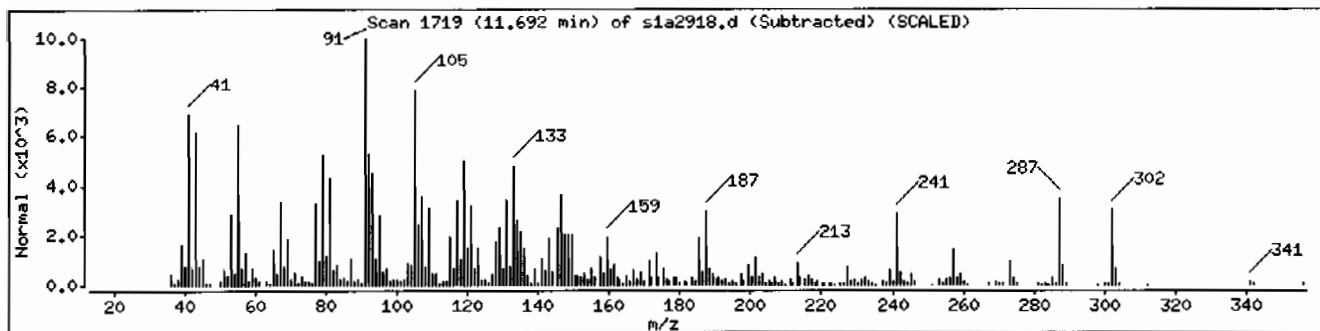
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cycloheptane, 1,3,5-tris(methylene)-	68284-24-2	NIST05.L	14422	35	C10H14	134
cis-Pinen-3-ol	1000292-85-2	NIST05.L	24038	20	C10H16O	152
Benzene, 1,3-diethyl-5-methyl-	2050-24-0	NIST05.L	21905	18	C11H16	148



Date : 29-JAN-2010 21:45

Client ID: RE15-10-7181

Instrument: MSD1.i

Sample Info: 1245106010194459111SVMF111LANL

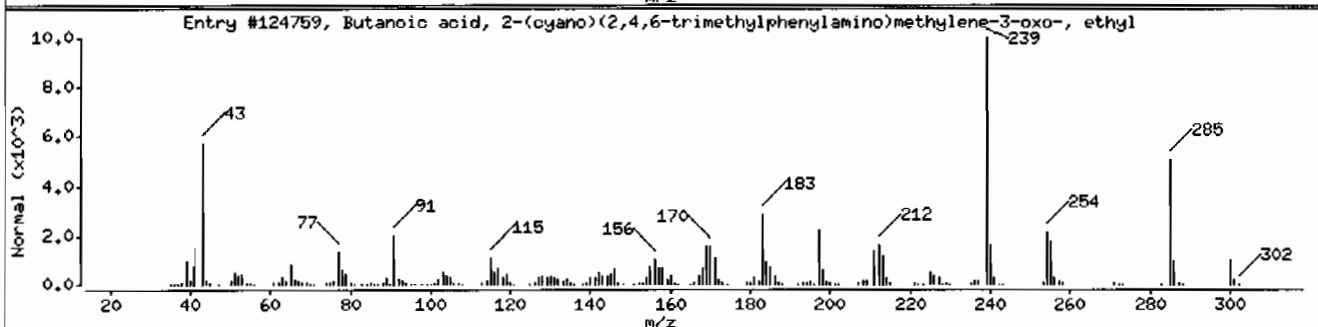
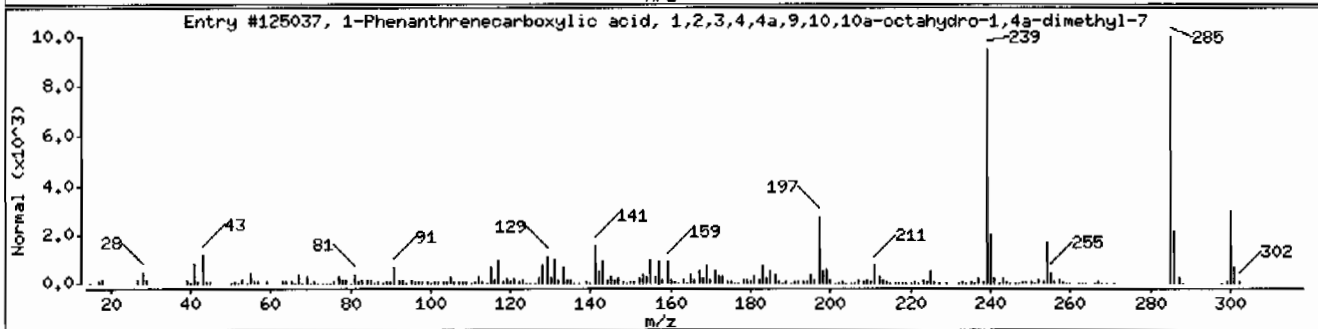
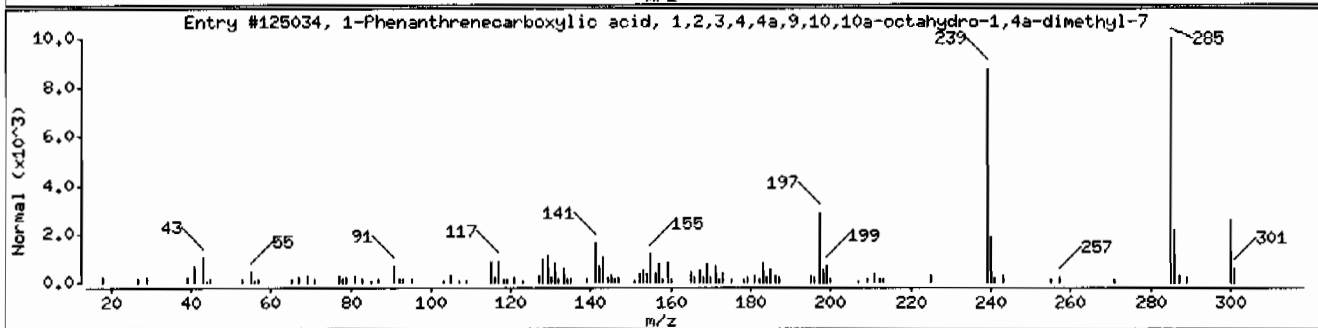
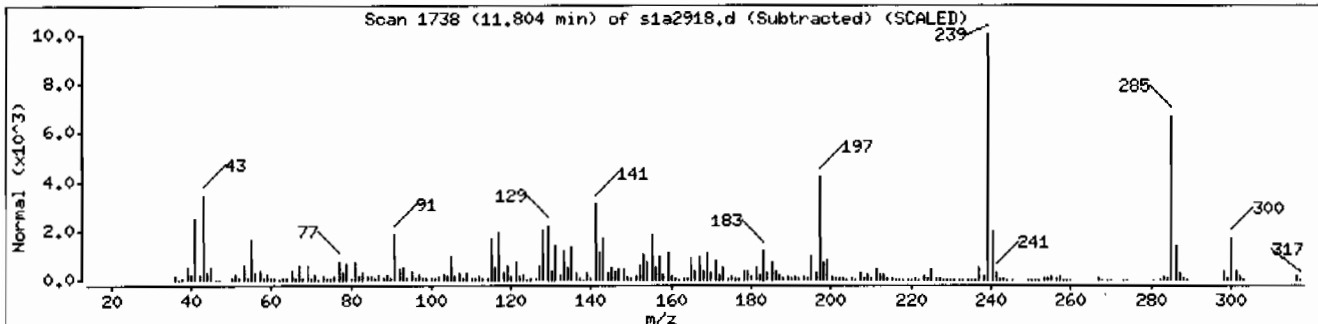
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	94	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125037	90	C20H28O2	300
Butanoic acid, 2-(cyano)(2,4,6-trimethyl	1000267-71-7	NIST05.L	124759	64	C17H20N2O3	300





Date: 29-JAN-2010 21:45

Client ID: RE15-10-7181

Instrument: MSD1.i

Sample Info: 1245106010194459111SVMF111LANL

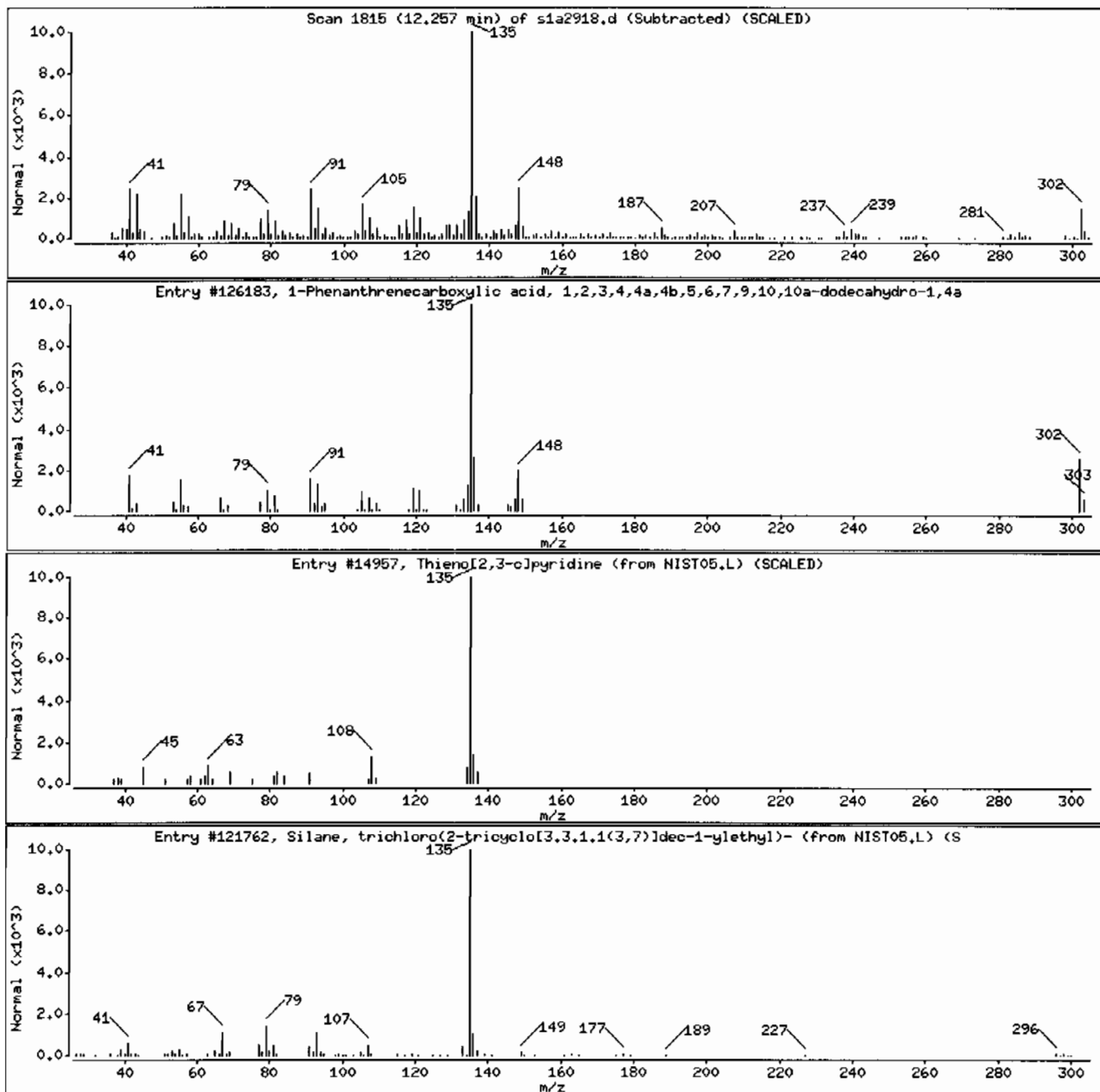
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	471-77-2	NIST05.L	126183	94	C20H30O2	302
Thieno[2,3-c]pyridine	272-12-8	NIST05.L	14957	49	C7H5NS	135
Silane, trichloro(2-tricyclo[3.3.1.1(3,7	37843-11-1	NIST05.L	121762	49	C12H19Cl3Si	296



Date : 29-JAN-2010 21:45

Client ID: RE15-10-7181

Instrument: MSD1.i

Sample Info: 1245106010194459111SVMF11ILANL

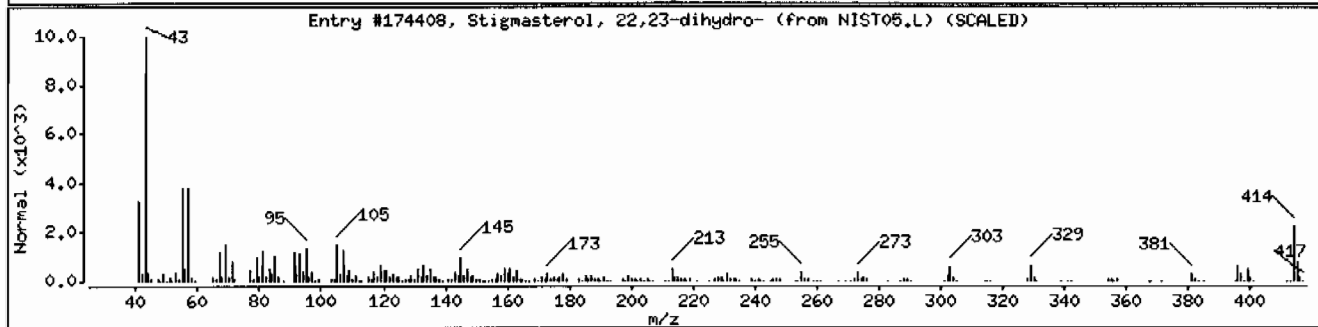
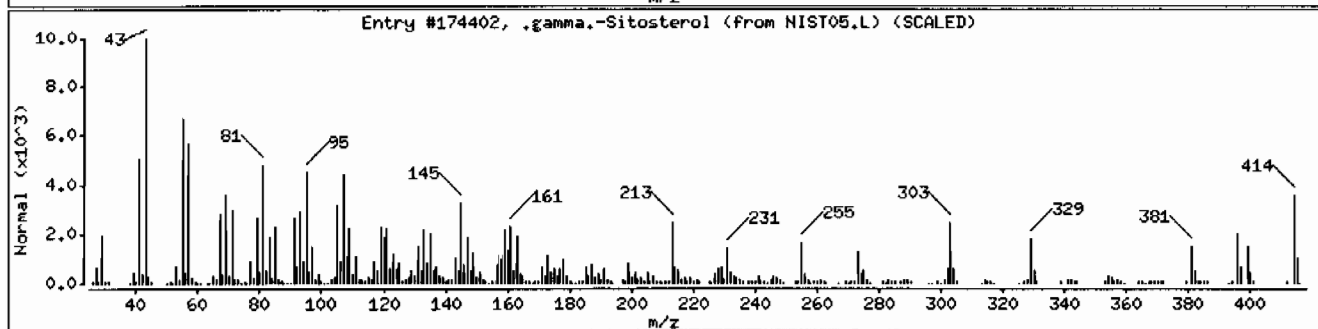
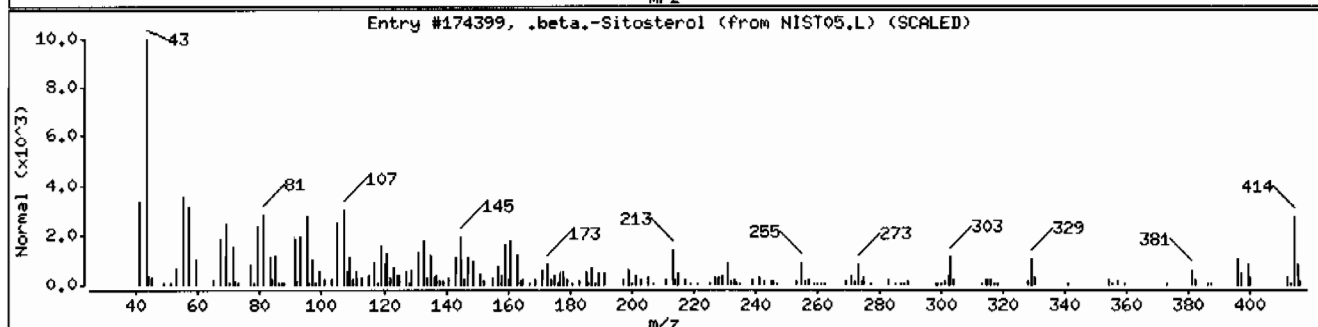
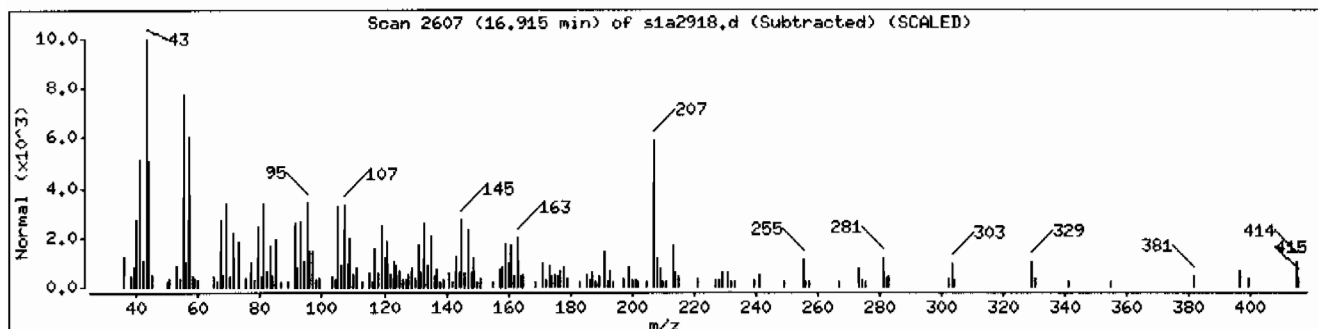
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174399	96	C29H50O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	94	C29H50O	414
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST05.L	174408	55	C29H50O	414



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

**SDG Number:** 10-1304  
**Lab Sample ID:** 245106012

**Date Collected:** 01/13/2010 12:00  
**Date Received:** 01/20/2010 08:45  
**Client:** LANL010  
**Method:** SW846 8270C  
**Inst:** MSD1.I  
**Analyst:** AMY  
**Aliquot:** 30 g  
**Column:** J&W DB-5MS

**Matrix:** R  
**%Moisture:** 18  
**Project:** LANL01004  
**SOP Ref:** GL-OA-E-009  
**Dilution:** 1  
**Inj. Vol:** .5 uL  
**Final Volume:** 1 mL  
**Level:** LOW

**Client ID:** RE15-10-7182  
**Batch ID:** 944591  
**Run Date:** 01/29/2010 22:40  
**Prep Date:** 01/25/2010 14:38  
**Data File:** s1a2920.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQI/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	406	ug/kg	81.3	406
108-95-2	Phenol	U	406	ug/kg	81.3	406
95-57-8	2-Chlorophenol	U	406	ug/kg	81.3	406
106-46-7	1,4-Dichlorobenzene	U	406	ug/kg	81.3	406
621-64-7	N-Nitrosodipropylamine	U	406	ug/kg	81.3	406
59-50-7	4-Chloro-3-methylphenol	U	406	ug/kg	81.3	406
83-32-9	Acenaphthene	U	40.6	ug/kg	13.4	40.6
121-14-2	2,4-Dinitrotoluene	U	406	ug/kg	40.6	406
100-02-7	4-Nitrophenol	U	406	ug/kg	134	406
87-86-5	Pentachlorophenol	U	406	ug/kg	102	406
129-00-0	Pyrene	U	40.6	ug/kg	12.2	40.6
110-86-1	Pyridine	U	406	ug/kg	81.3	406
62-53-3	Aniline	U	406	ug/kg	122	406
111-44-4	bis(2-Chloroethyl) ether	U	406	ug/kg	81.3	406
541-73-1	1,3-Dichlorobenzene	U	406	ug/kg	81.3	406
100-51-6	Benzyl alcohol	U	406	ug/kg	122	406
95-50-1	1,2-Dichlorobenzene	U	406	ug/kg	81.3	406
108-60-1	bis(2-Chloroisopropyl)ether	U	406	ug/kg	81.3	406
95-48-7	o-Cresol	U	406	ug/kg	81.3	406
65794-96-9	m,p-Cresols	U	406	ug/kg	122	406
67-72-1	Hexachloroethane	U	406	ug/kg	81.3	406
98-95-3	Nitrobenzene	U	406	ug/kg	81.3	406
78-59-1	Isophorone	U	406	ug/kg	81.3	406
88-75-5	2-Nitrophenol	U	406	ug/kg	81.3	406
105-67-9	2,4-Dimethylphenol	U	406	ug/kg	142	406
111-91-1	bis(2-Chloroethoxy)methane	U	406	ug/kg	81.3	406
120-83-2	2,4-Dichlorophenol	U	406	ug/kg	81.3	406
65-85-0	Benzoic acid	U	813	ug/kg	203	813
91-20-3	Naphthalene	U	40.6	ug/kg	12.2	40.6
106-47-8	4-Chloroaniline	U	406	ug/kg	81.3	406
87-68-3	Hexachlorobutadiene	U	406	ug/kg	81.3	406
91-57-6	2-Methylnaphthalene	U	40.6	ug/kg	8.13	40.6
77-47-4	Hexachlorocyclopentadiene	U	406	ug/kg	81.3	406
88-06-2	2,4,6-Trichlorophenol	U	406	ug/kg	81.3	406
95-95-4	2,4,5-Trichlorophenol	U	406	ug/kg	81.3	406
91-58-7	2-Chloronaphthalene	U	40.6	ug/kg	13.4	40.6
88-74-4	2-Nitroaniline	U	406	ug/kg	81.3	406
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	406	ug/kg	81.3	406

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106012	Date Received: 01/20/2010 08:45	%Moisture: 18
	Client: LANL010	Project: LANL01004
Client ID: RE15-J0-7182	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/29/2010 22:40	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30 g	Final Volume: 1 mL
Data File: s1a2920.d	Column: J&W DB-SMS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	406	ug/kg	81.3	406
606-20-2	2,6-Dinitrotoluene	U	406	ug/kg	40.6	406
208-96-8	Acenaphthylene	U	40.6	ug/kg	12.2	40.6
51-28-5	2,4-Dinitrophenol	U	813	ug/kg	154	813
132-64-9	Dibenzofuran	U	406	ug/kg	81.3	406
84-66-2	Diethylphthalate	U	406	ug/kg	81.3	406
86-73-7	Fluorene	U	40.6	ug/kg	12.2	40.6
7005-72-3	4-Chlorophenylphenylether	U	406	ug/kg	81.3	406
534-52-1	2-Methyl-4,6-dinitrophenol	U	406	ug/kg	81.3	406
100-01-6	4-Nitroaniline	U	406	ug/kg	122	406
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	406	ug/kg	81.3	406
122-66-7	Azobenzene	U	406	ug/kg	81.3	406
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	406	ug/kg	81.3	406
118-74-1	Hexachlorobenzene	U	406	ug/kg	81.3	406
85-01-8	Phenanthrene	U	40.6	ug/kg	12.2	40.6
120-12-7	Anthracene	U	40.6	ug/kg	8.13	40.6
84-74-2	Di-n-butylphthalate	U	406	ug/kg	81.3	406
206-44-0	Fluoranthene	U	40.6	ug/kg	12.2	40.6
85-68-7	Butylbenzylphthalate	U	406	ug/kg	81.3	406
56-55-3	Benzo(a)anthracene	U	40.6	ug/kg	12.2	40.6
91-94-1	3,3'-Dichlorobenzidine	U	406	ug/kg	122	406
218-01-9	Chrysene	U	40.6	ug/kg	12.2	40.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	406	ug/kg	81.3	406
117-84-0	Di-n-octylphthalate	U	406	ug/kg	81.3	406
205-99-2	Benzo(b)fluoranthene	U	40.6	ug/kg	12.2	40.6
207-08-9	Benzo(k)fluoranthene	U	40.6	ug/kg	12.2	40.6
50-32-8	Benzo(a)pyrene	U	40.6	ug/kg	12.2	40.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.6	ug/kg	12.2	40.6
53-70-3	Dibenzo(a,h)anthracene	U	40.6	ug/kg	12.2	40.6
191-24-2	Benzo(ghi)perylene	U	40.6	ug/kg	12.2	40.6
120-82-1	1,2,4-Trichlorobenzene	U	406	ug/kg	81.3	406

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.09	752	ug/kg		JA
58037-87-9	Bicyclo[3.1.0]hexane, 4-methyl-1-(1-meth	3.75	443	ug/kg	93	NJ

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106012	Date Received: 01/20/2010 08:45	%Moisture: 18
Client ID: RE15-10-7182	Client: LANL010	Project: LANL01004
Batch ID: 944591	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 01/29/2010 22:40	Inst: MSD1.I	Dilution: 1
Prep Date: 01/25/2010 14:38	Analyst: AMY	Inj. Vol: .5 uL
Data File: sla2920.d	Aliquot: 30 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
---------	----------	-----------	--------	-------	---------	---------

Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.11	543	ug/kg		J
57-10-3	n-Hexadecanoic acid	9.72	492	ug/kg	92	NJ
	Unknown	9.9	772	ug/kg		J
1686-66-4	Phenanthrene, 7-ethenyl-1,2,3,4,4a,4b,5,	10.12	735	ug/kg	89	NJ
109-29-5	Oxacycloheptadecan-2-one	10.48	836	ug/kg	93	NJ
57-11-4	Octadecanoic acid	10.56	336	ug/kg	95	NJ
1139-30-6	Caryophyllene oxide	10.71	458	ug/kg	91	NJ
	Unknown	11.1	332	ug/kg		J
	Unknown	11.13	354	ug/kg		J
	Unknown	11.2	1070	ug/kg		J
24174-25-2	5.alpha.,14.beta.-Androstane, 16.alpha.,	11.3	866	ug/kg	91	NJ
506-30-9	Eicosanoic acid	11.35	613	ug/kg	83	NJ
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.39	468	ug/kg	98	NJ
	Unknown	11.42	1110	ug/kg		J
	Unknown	11.45	1680	ug/kg		J
	Unknown	11.59	1510	ug/kg		J
1686-62-0	1-Phenanthrenecarboxylic acid, 7-ethenyl	11.71	2080	ug/kg	80	NJ
	Unknown	11.86	7770	ug/kg		J
	Unknown	12.07	372	ug/kg		J
112-85-6	Docosanoic acid	12.15	1170	ug/kg	98	NJ
	Unknown	12.23	942	ug/kg		J
557-59-5	Tetracosanoic acid	13.06	954	ug/kg	99	NJ
	Unknown	15	810	ug/kg		J
	Unknown	15.89	682	ug/kg		J
62600-05-9	Cedran-diol, 8S,14-	16.04	591	ug/kg	83	NJ
1000214-20-7	Stigmasterol, 22,23-dihydro-	16.65	3100	ug/kg	97	NJ
	Unknown	17.09	2300	ug/kg		J

Data File: /chem/MSD1.i/s012910.b/sla2920.d  
Report Date: 30-Jan-2010 13:58

Page 1

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012910.b/sla2920.d  
Lab Smp Id: 245106012 Client Smp ID: RE15-10-7182  
Inj Date : 29-JAN-2010 22:40  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106012|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m  
Meth Date : 30-Jan-2010 13:22 llo00884 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 8  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	17.99440	% 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	4.428	4.428	(1.000)	242152	40.0000	
* 29 Naphthalene-d8	136	5.681	5.681	(1.000)	995288	40.0000	
* 46 Acenaphthene-d10	164	7.534	7.539	(1.000)	553156	40.0000	
* 67 Phenanthrene-d10	188	9.134	9.133	(1.000)	865775	40.0000	
* 91 Chrysene-d12	240	12.039	12.033	(1.000)	618421	40.0000	
* 98 Perylene-d12	264	14.127	14.115	(1.000)	386701	40.0000	
\$ 3 2-Fluorophenol	112	3.310	3.304	(0.748)	391892	52.3258	2130
\$ 5 Phenol-d5	99	4.063	4.057	(0.918)	514633	55.3228	2250
\$ 20 Nitrobenzene-d5	82	4.951	4.957	(0.872)	210906	28.7111	1170
\$ 39 2-Fluorobiphenyl	172	6.804	6.804	(0.903)	424912	29.8171	1210
\$ 60 2,4,6-Tribromophenol	329	8.381	8.380	(1.112)	115193	57.5492	2340
\$ 81 p-Terphenyl-d14	244	10.845	10.839	(0.901)	422659	38.0877	1550

## ION RATIO REPORT

## SV REPORT

Data file: sla2920.d

Report Date: 01/30/2010 13:26

Lab. ID: 245106012

SampleType: SAMPLE

Injection Date: 29-JAN-2010 22:40

Operator: AMY

Instrument: MSD1.i

Sample Info: |245106012|944591|1|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100107-03|

Comment:

Method used: /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	24965	4.06	4.13	80-120	100	(T)
93	136500	4.11	4.13	212-272	547	(Q)
-----						
17	N-Nitrosodipropylamine		CAS#: 621-64-7			
70	28857	4.95	4.80	80-120	100	(T)
42	18874	4.95	4.80	52-112	65	(T)
-----						
40	2-Chloronaphthalene		CAS#: 91-58-7			
162	48155	7.15	6.94	80-120	100	(T)
164	2950	7.15	6.94	3- 63	6	(T)
127	3324	7.15	6.94	8- 68	7	(QT)
-----						
42	o-Nitroaniline		CAS#: 88-74-4			
65	59951	7.15	7.05	80-120	100	(T)
92	71590	7.15	7.05	29- 89	119	(QT)
138	5512	7.15	7.05	68-128	9	(QT)
-----						
44	2,6-Dinitrotoluene		CAS#: 606-20-2			
165	72565	7.53	7.31	80-120	100	(T)
63	1093	7.53	7.31	38- 98	2	(QT)
-----						
50	2,4-Dinitrotoluene		CAS#: 121-14-2			
165	72565	7.53	7.74	80-120	100	(T)
89	1245	7.53	7.74	55-115	2	(QT)
63	1093	7.53	7.74	49-109	2	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	426	8.38	8.17	80-120	100	(T)
105	2446	8.38	8.17	16- 76	574	(QT)
51	1564	8.37	8.17	41-101	367	(QT)

-----						
90	3,3'-Dichlorobenzidine			CAS#: 91-94-1		
252	23753	11.92	11.97	80-120	100	( )
254	855	11.92	11.97	33- 93	4	(Q)
126	2117	11.92	11.97	0- 46	9	( )

-----

Q qualifier indicates ion failed ratio requirement



GEL Laboratories LLC

Data file : /chem/MSD1.i/s012910.b/sla2920.d  
 Lab Smp Id: 245106012 Client Smp ID: RE15-10-7182  
 Inj Date : 29-JAN-2010 22:40  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |245106012|944591|1|SVMF|1|LANL  
 Misc Info : |MSD8270\_S|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 30-Jan-2010 13:22 llo00884 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
 Als bottle: 8  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1304.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	17.99440	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.428	1765515	40.000
* 67 Phenanthrene-d10	9.134	2268477	40.000
* 91 Chrysene-d12	12.039	2032272	40.000
* 98 Perylene-d12	14.127	1149661	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

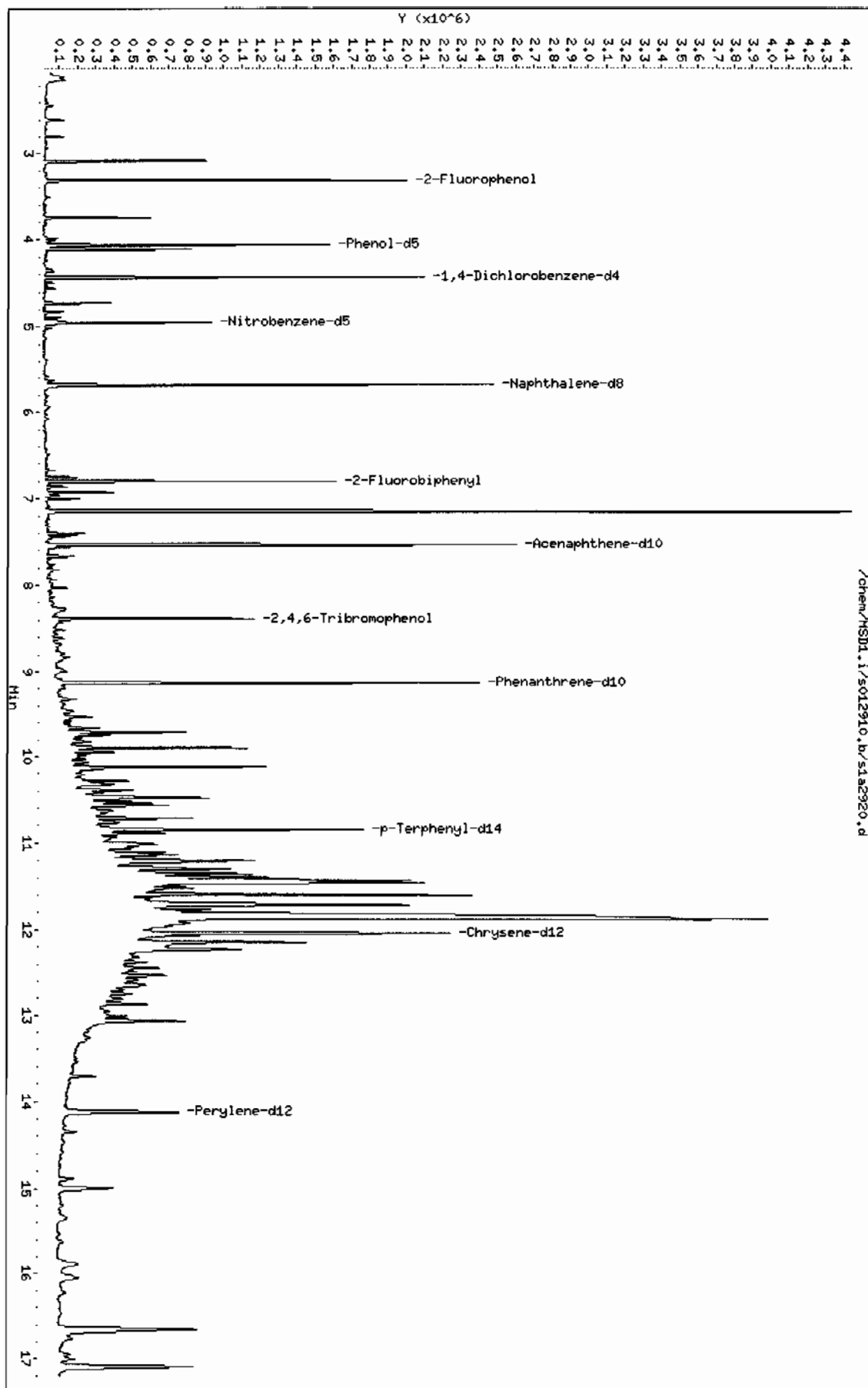
RT	CONCENTRATIONS				QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate				CAS #:			
3.087	816106	18.4899133	752	0		0	10
Bicyclo[3.1.0]hexane, 4-methyl-1-(1-meth				CAS #: 58037-87-9			
3.746	481466	10.9082198	443	93	NIST05.L	15391	10
Unknown				CAS #:			
4.110	589586	13.3578232	543	0		0	10
n-Hexadecanoic acid				CAS #: 57-10-3			
9.716	686006	12.0963176	492	92	NIST05.L	96235	67
Unknown				CAS #:			
9.898	1077017	18.9910128	772	0		0	67
Phenanthrene, 7-ethenyl-1,2,3,4,4a,4b,5,				CAS #: 1686-66-4			
10.122	1025518	18.0829254	735	89	NIST05.L	107106	67
Oxacycloheptadecan-2-one				CAS #: 109-29-5			
10.480	1165990	20.5598605	836	93	NIST05.L	94746	67
Octadecanoic acid				CAS #: 57-11-4			
10.563	468713	8.26479631	336	95	NIST05.L	114818	67
Caryophyllene oxide				CAS #: 1139-30-6			
10.710	572141	11.2611032	458	91	NIST05.L	71352	91
Unknown				CAS #:			
11.104	415157	8.17128580	332	0		0	91
Unknown				CAS #:			
11.133	443082	8.72091345	354	0		0	91
Unknown				CAS #:			
11.198	1339892	26.3723004	1070	0		0	91
5.alpha.,14.beta.-Androstane, 16.alpha.,				CAS #: 24174-25-2			
11.298	1082659	21.3093340	866	91	NIST05.L	108339	91
Eicosanoic acid				CAS #: 506-30-9			
11.351	766169	15.0800530	613	83	NIST05.L	132301	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4				CAS #: 1235-74-1			
11.392	585425	11.5225801	468	98	NIST05.L	133618	91

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Unknown					CAS #:		
11.422	1381806	27.1972734	1100	0		0	91
Unknown					CAS #:		
11.451	2106013	41.4513957	1680	0		0	91
Unknown					CAS #:		
11.592	1889477	37.1894473	1510	0		0	91
1-Phenanthrenecarboxylic acid, 7-ethenyl					CAS #: 1686-62-0		
11.710	2605172	51.2760514	2080	80	NIST05.L	134785	91
Unknown					CAS #:		
11.863	9717642	191.266551	7770	0		0	91
Unknown					CAS #:		
12.069	465106	9.15440612	372	0		0	91
Docosanoic acid					CAS #: 112-85-6		
12.145	1459953	28.7353935	1170	98	NIST05.L	147935	91
Unknown					CAS #:		
12.227	1176919	23.1645994	942	0		0	91
Tetracosanoic acid					CAS #: 557-59-5		
13.063	1191942	23.4602909	954	99	NIST05.L	160633	91
Unknown					CAS #:		
14.998	572823	19.9301573	810	0		0	98
Unknown					CAS #:		
15.886	482091	16.7733087	682	0		0	98
Cedran-diol, 8S,14-					CAS #: 62600-05-9		
16.045	417729	14.5339840	591	83	NIST05.L	83830	98
Stigmasterol, 22,23-dihydro-					CAS #: 1000214-20-7		
16.651	2195034	76.3715030	3100	97	NIST05.L	174408	98
Unknown					CAS #:		
17.092	1628749	56.6688390	2300	0		0	98

Data File: /chem/MSD1.i/s012910.b/s1a2920.d  
Date : 29-JAN-2010 22:40  
Client ID: REA5-10-7182  
Sample Info: 1245106012194439111SVNF11LNL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-SMS

Instrument: MSD1.i  
Operator: AMY  
Column diameter: 0.20

Page 1



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVMF111LANL

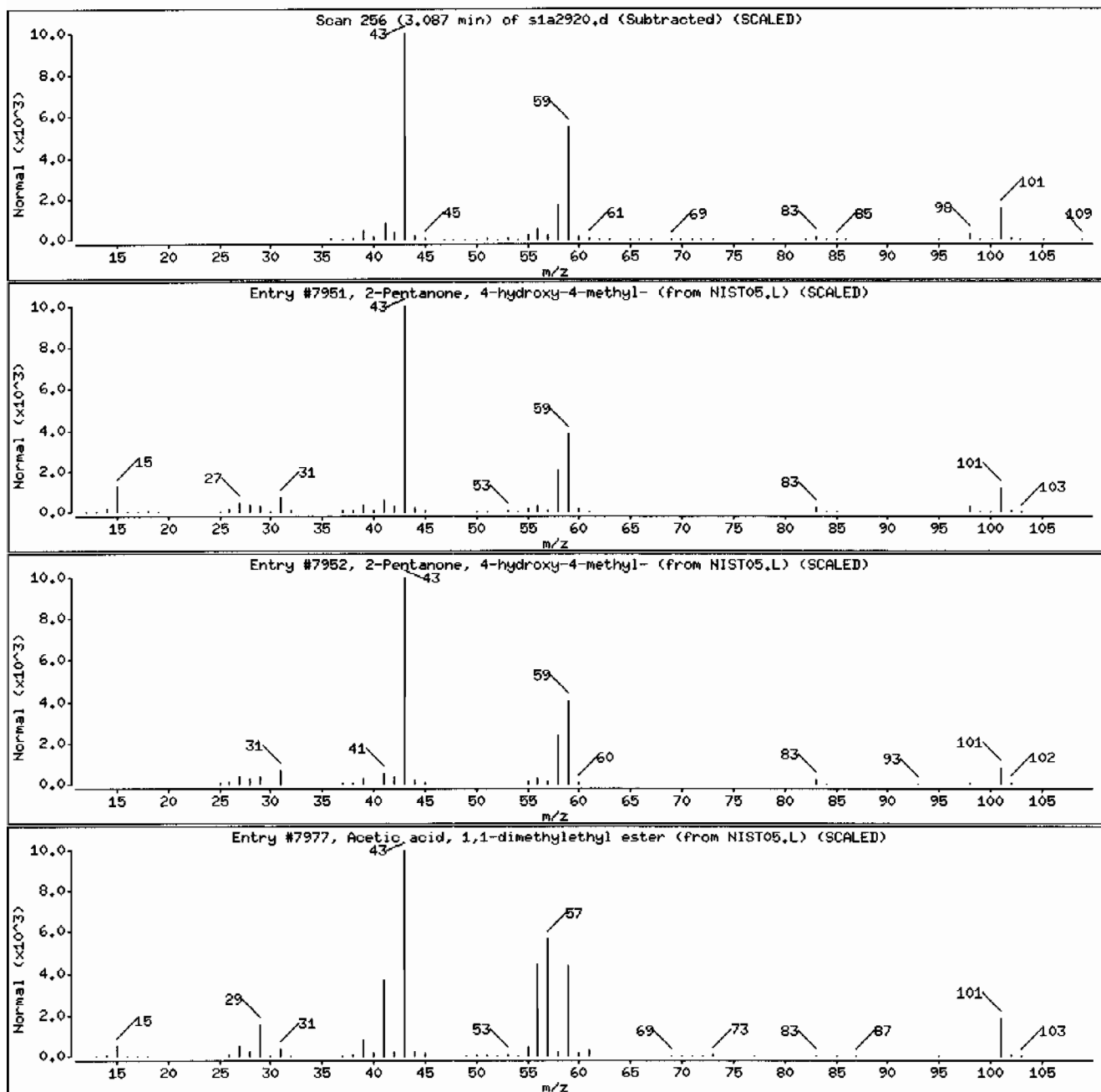
Volume Injected (uL): 0.5

Operator: AMY

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	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7977	39	C6H12O2	116



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVMF111LANL

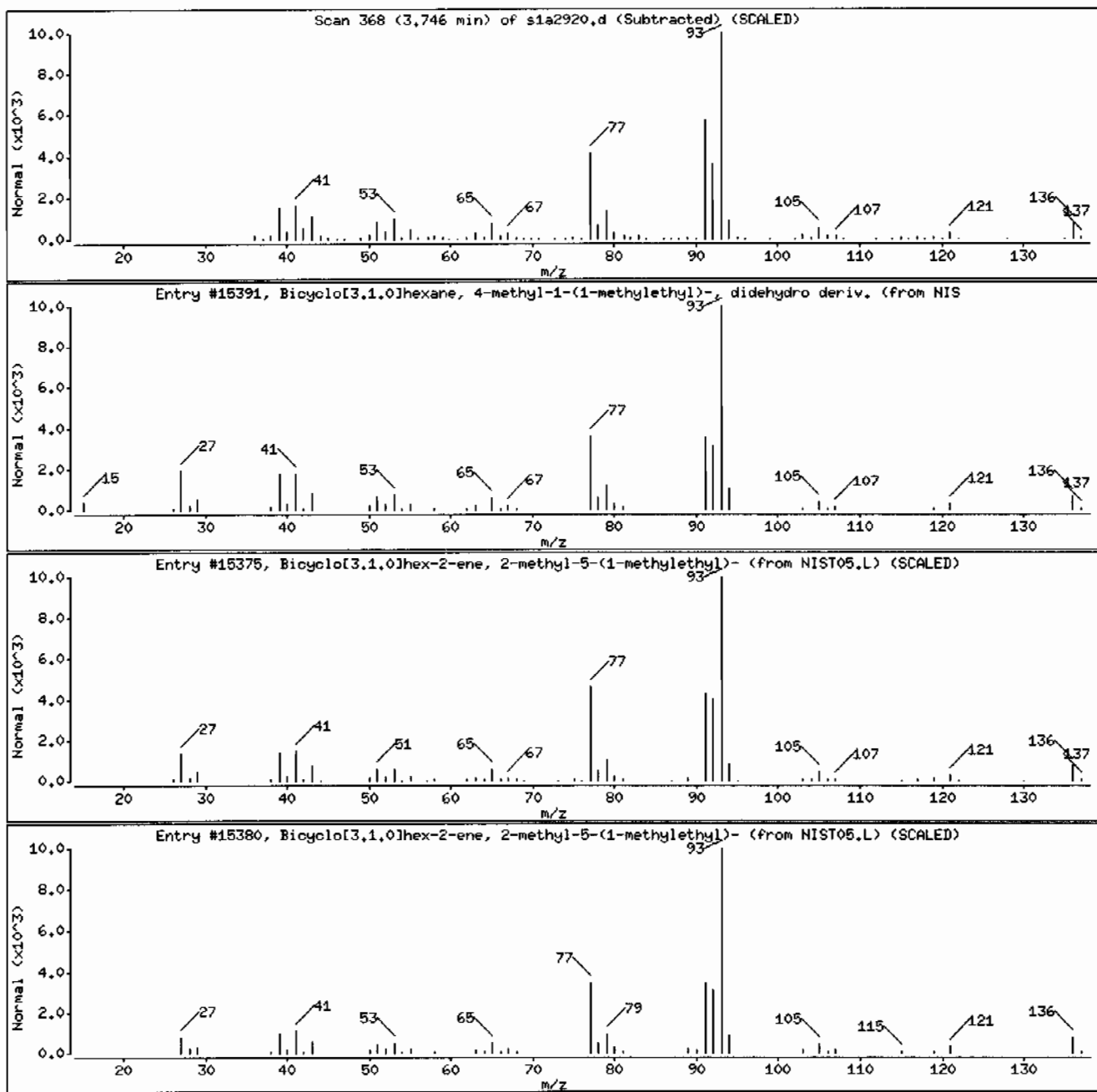
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[3,1,0]hexane, 4-methyl-1-(1-meth	58037-87-9	NIST05.L	15391	93	C10H16	136
Bicyclo[3,1,0]hex-2-ene, 2-methyl-5-(1-m	2867-05-2	NIST05.L	15375	90	C10H16	136
Bicyclo[3,1,0]hex-2-ene, 2-methyl-5-(1-m	2867-05-2	NIST05.L	15380	90	C10H16	136



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVHF111LANL

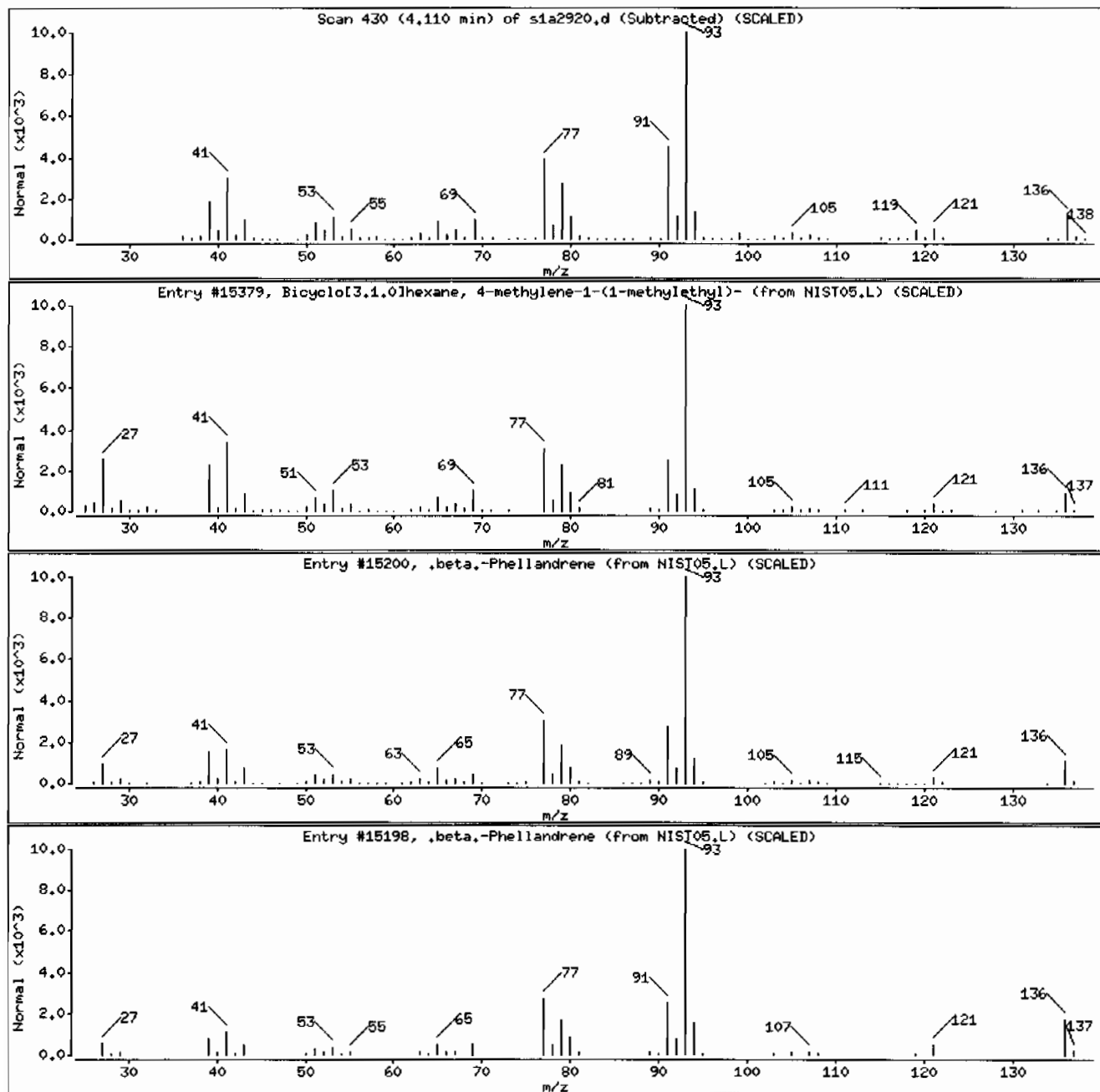
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[3.1.0]hexane, 4-methylene-1-(1-m	3387-41-5	NIST05.L	15379	91	C10H16	136
.beta.-Phellandrene	555-10-2	NIST05.L	15200	91	C10H16	136
.beta.-Phellandrene	555-10-2	NIST05.L	15198	91	C10H16	136



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVHF11ILANL

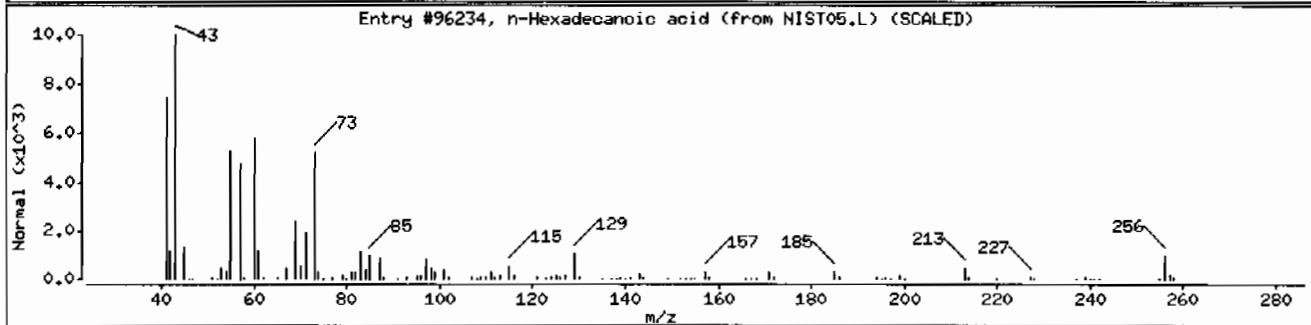
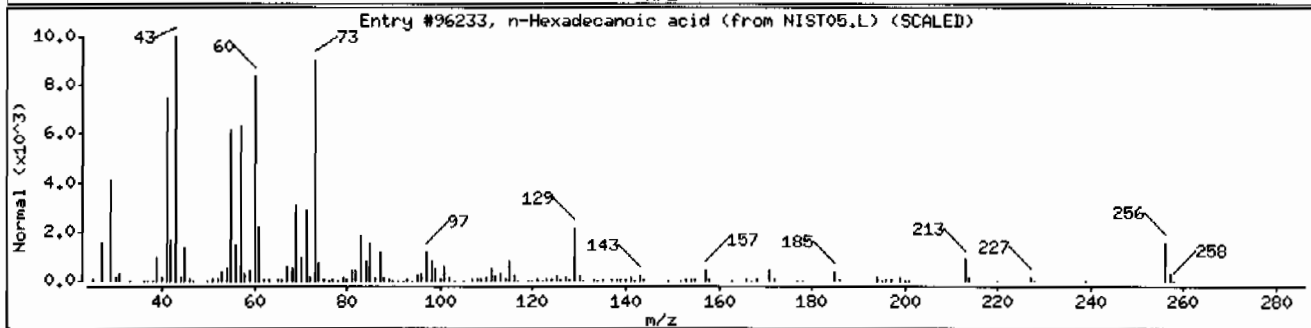
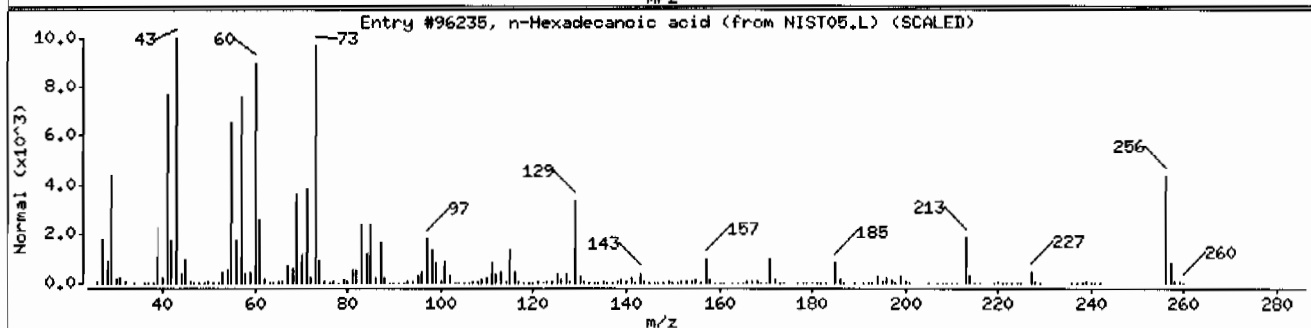
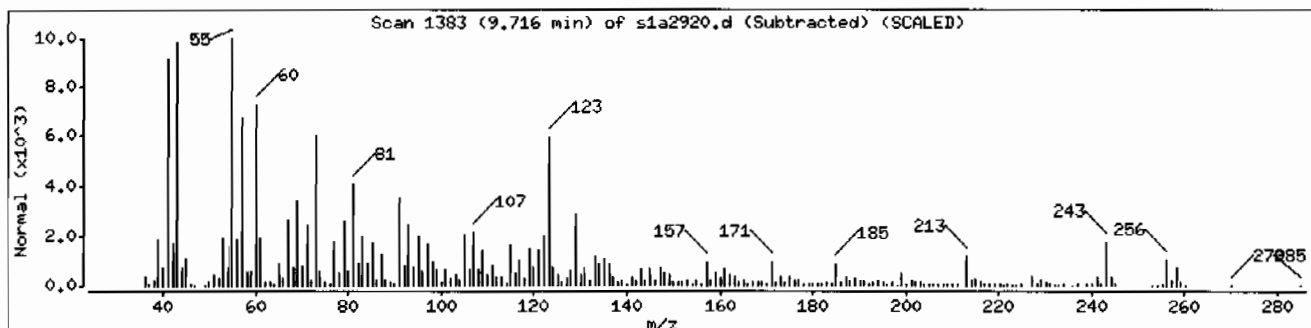
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
n-Hexadecanoic acid	57-10-3	NIST05.L	96235	92	C16H32O2	256
n-Hexadecanoic acid	57-10-3	NIST05.L	96233	68	C16H32O2	256
n-Hexadecanoic acid	57-10-3	NIST05.L	96234	60	C16H32O2	256





Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: HSD1.i

Sample Info: 1245106012194459111SVMF111LANL

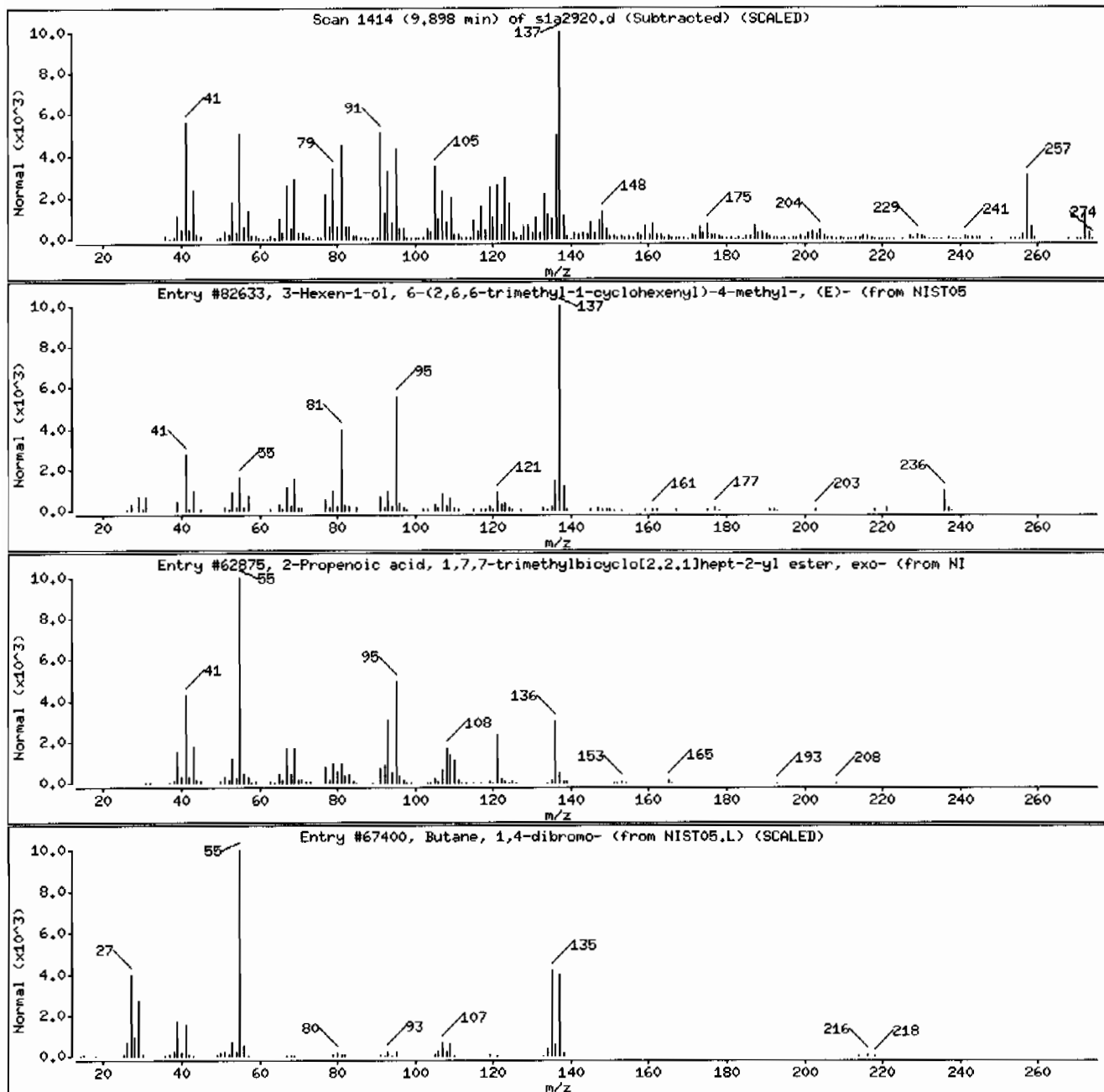
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Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-Hexen-1-ol, 6-(2,6,6-trimethyl-1-cyclo	110202-07-8	NIST05.L	82633	38	C16H28O	236
2-Propenoic acid, 1,7,7-trimethylbicyclo	5888-33-5	NIST05.L	62875	38	C13H20O2	208
Butane, 1,4-dibromo-	110-52-1	NIST05.L	67400	38	C4H8Br2	214



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVHF11ILANL

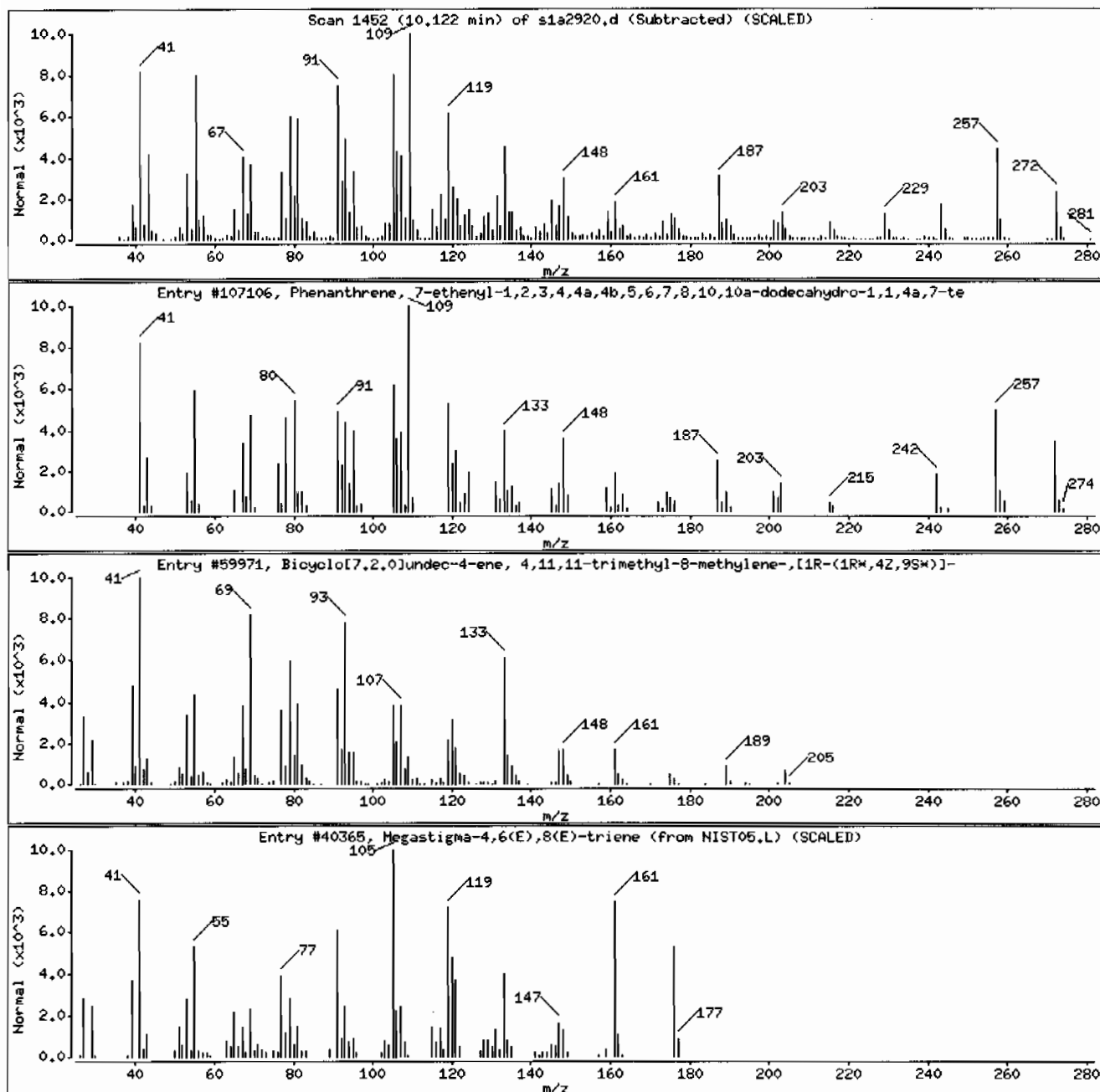
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 7-ethenyl-1,2,3,4,4a,4b,5,	1686-66-4	NIST05.L	107106	89	C20H32	272
Bicyclo[7.2.0]undec-4-ene, 4,11,11-trime	118-65-0	NIST05.L	59971	38	C15H24	204
Megastigma-4,6(E),8(E)-triene	51468-86-1	NIST05.L	40365	30	C13H20	176



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: HSD1.i

Sample Info: 1245106012194459111SVHF111LANL

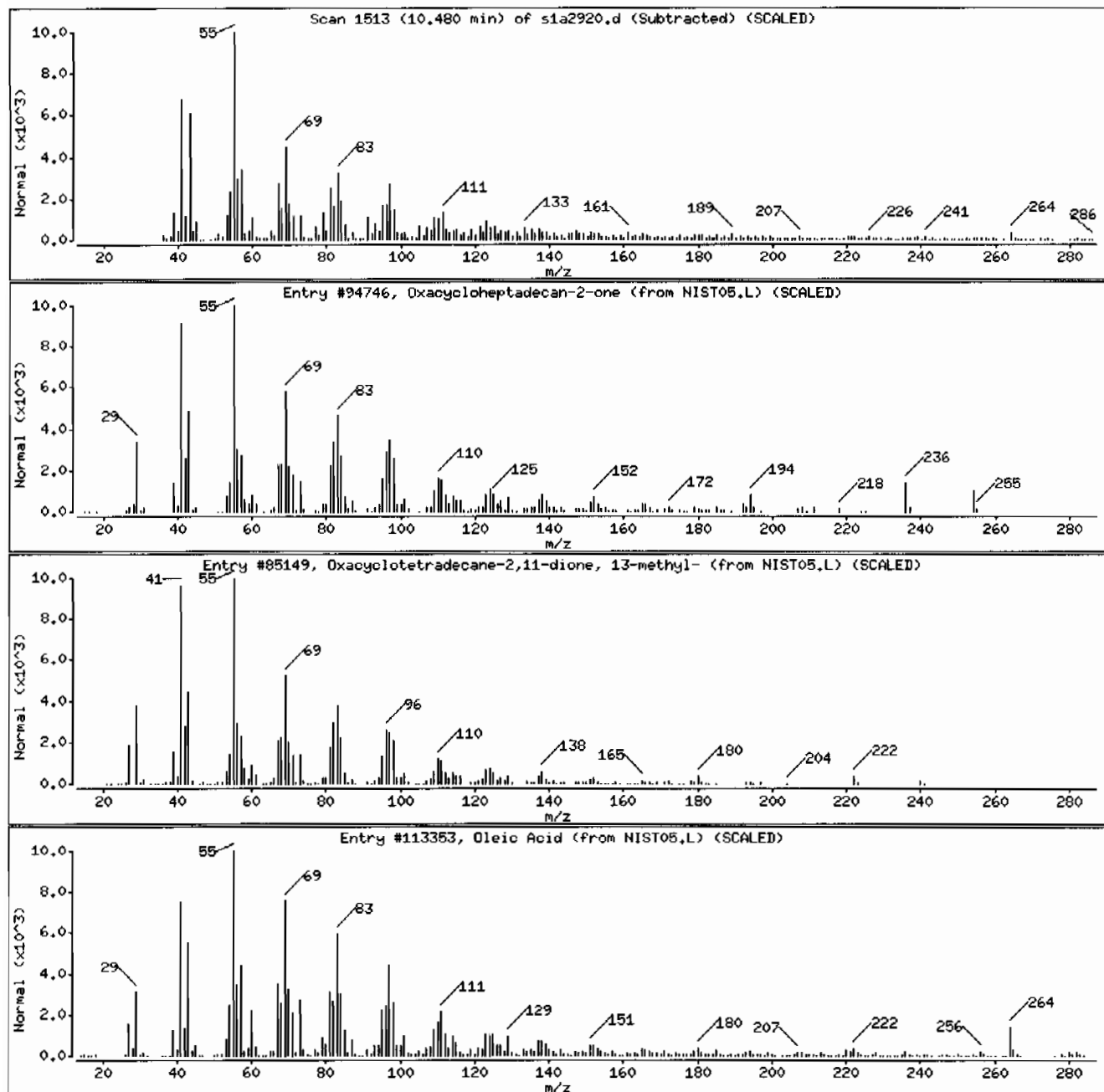
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Oxacycloheptadecan-2-one	109-29-5	NIST05.L	94746	93	C16H30O2	254
Oxacyclotetradecane-2,11-dione, 13-methy	74685-36-2	NIST05.L	85149	93	C14H24O3	240
Oleic Acid	112-80-1	NIST05.L	113353	87	C18H34O2	282



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: HSD1.i

Sample Info: 1245106012194459111SVHF11ILANL

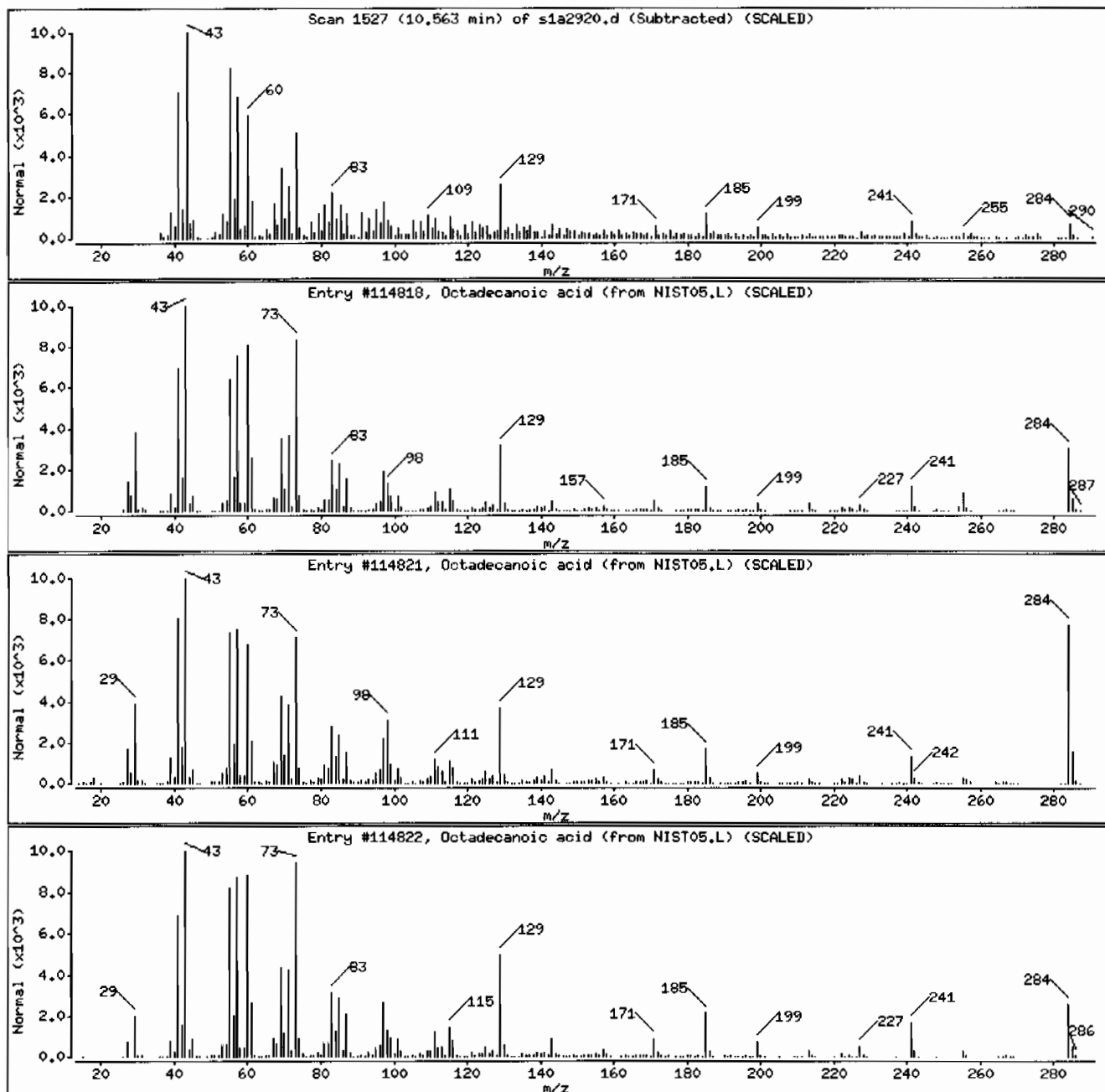
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadecanoic acid	57-11-4	NIST05.L	114818	95	C18H36O2	284
Octadecanoic acid	57-11-4	NIST05.L	114821	94	C18H36O2	284
Octadecanoic acid	57-11-4	NIST05.L	114822	74	C18H36O2	284



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVMF11ILANL

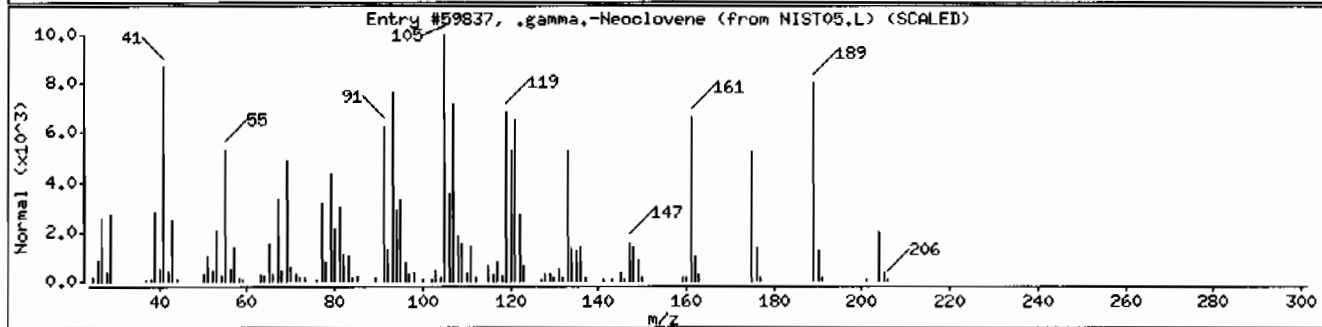
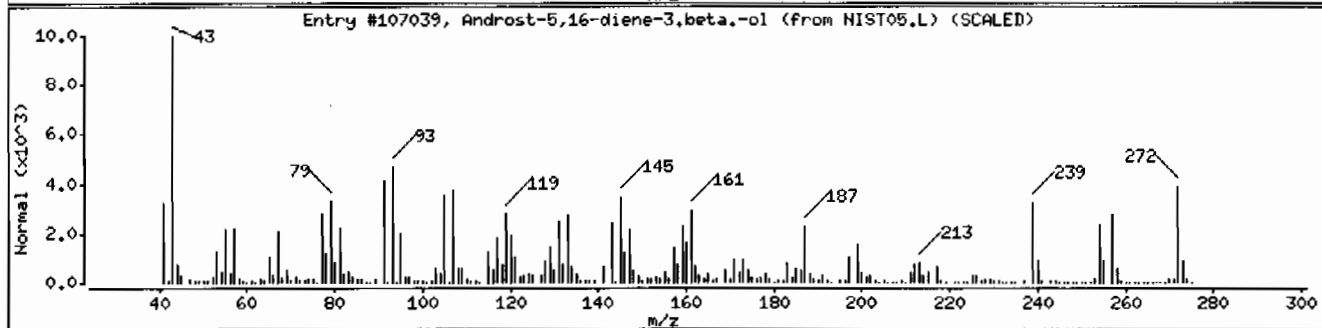
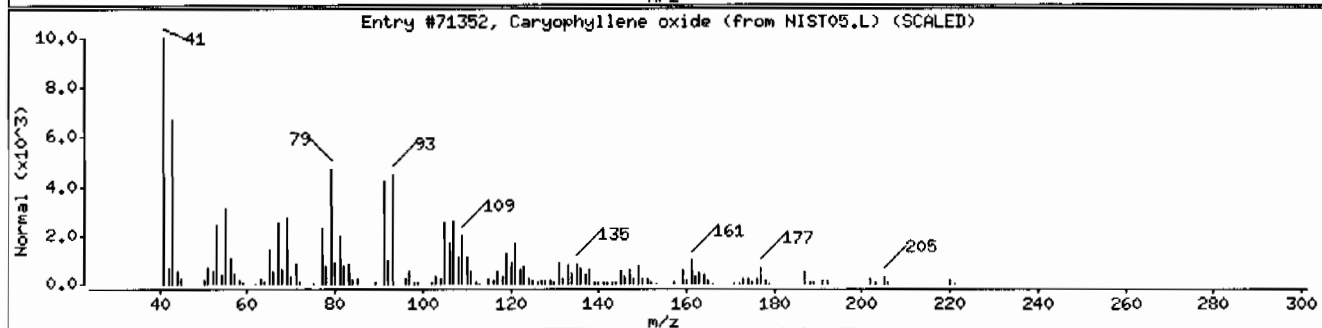
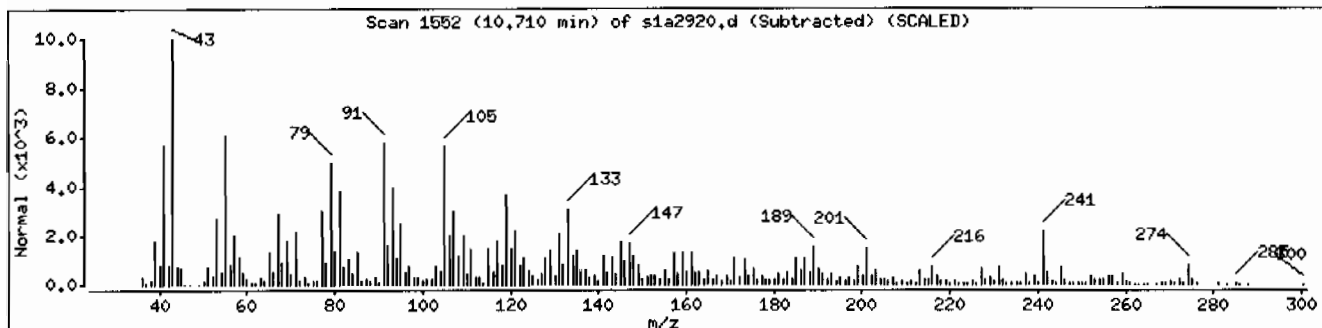
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Caryophyllene oxide	1139-30-6	NIST05.L	71352	91	C15H24O	220
Androst-5,16-diene-3,β,-ol	1224-94-8	NIST05.L	107039	55	C19H28O	272
.gamma.-Neoclovene	1000156-11-7	NIST05.L	59837	50	C15H24	204



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVMF11ILANL

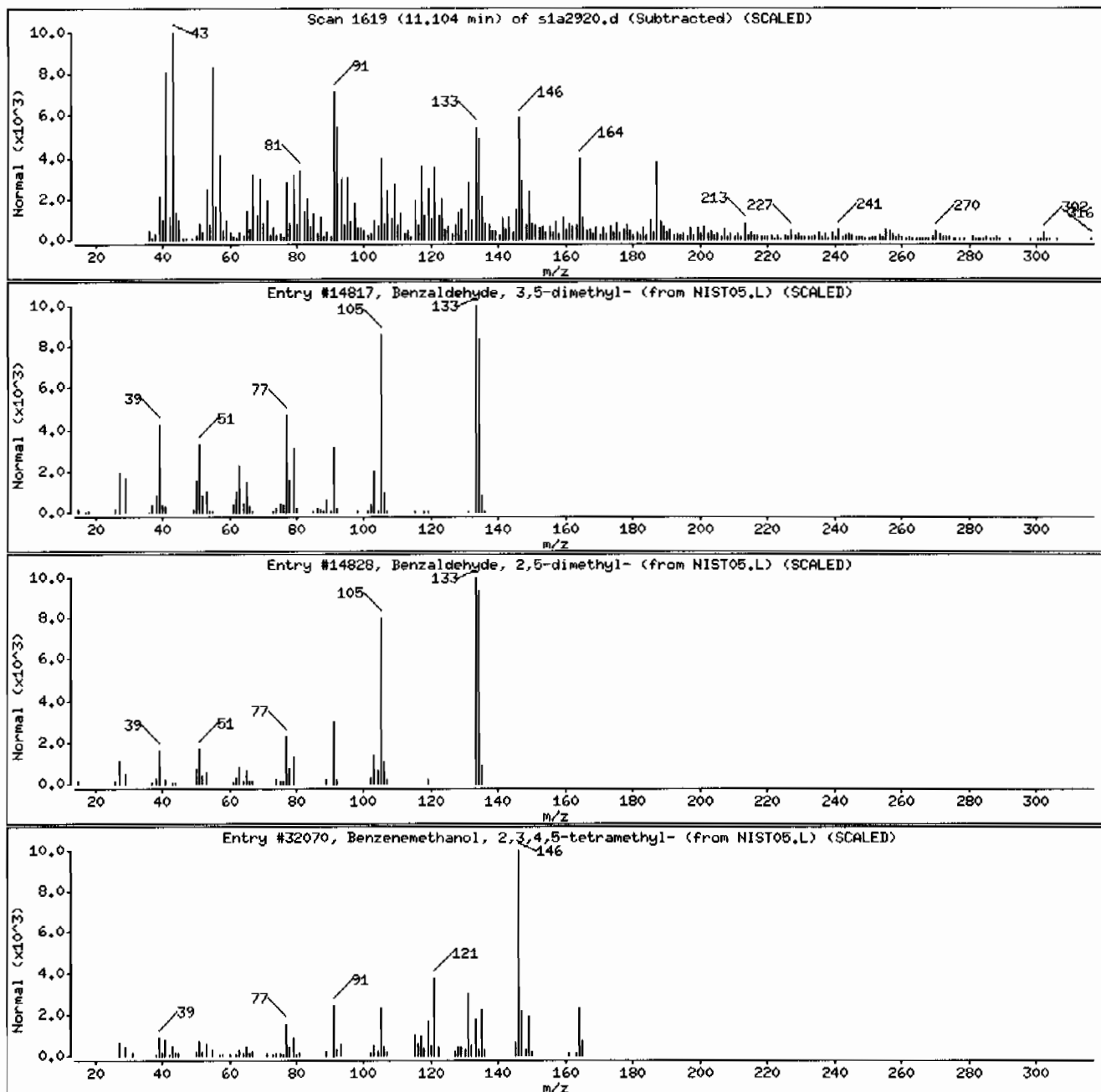
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzaldehyde, 3,5-dimethyl-	5779-95-3	NIST05.L	14817	25	C9H10O	134
Benzaldehyde, 2,5-dimethyl-	5779-94-2	NIST05.L	14828	18	C9H10O	134
Benzenemethanol, 2,3,4,5-tetramethyl-	20020-94-4	NIST05.L	32070	18	C11H16O	164



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVHF111LANL

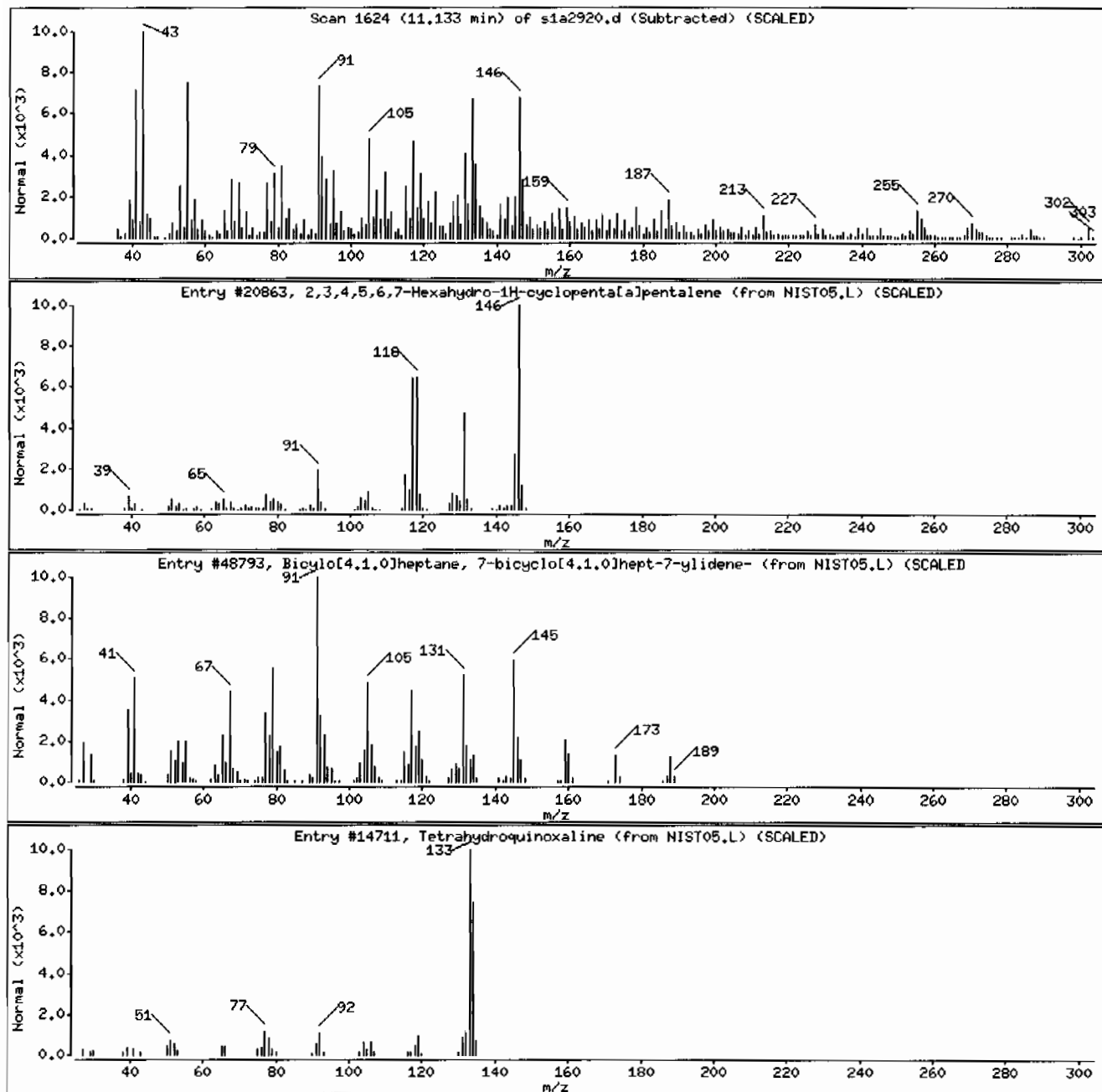
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,3,4,5,6,7-Hexahydro-1H-cyclopenta[a]pe	1000189-31-0	NIST05.L	20863	43	C11H14	146
Bicyclo[4.1.0]heptane, 7-bicyclo[4.1.0]he	1000152-39-9	NIST05.L	48793	42	C14H20	188
Tetrahydroquinoxaline	3476-89-9	NIST05.L	14711	38	C8H10N2	134



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: HSD1.i

Sample Info: 1245106012194459111SVMF111LANL

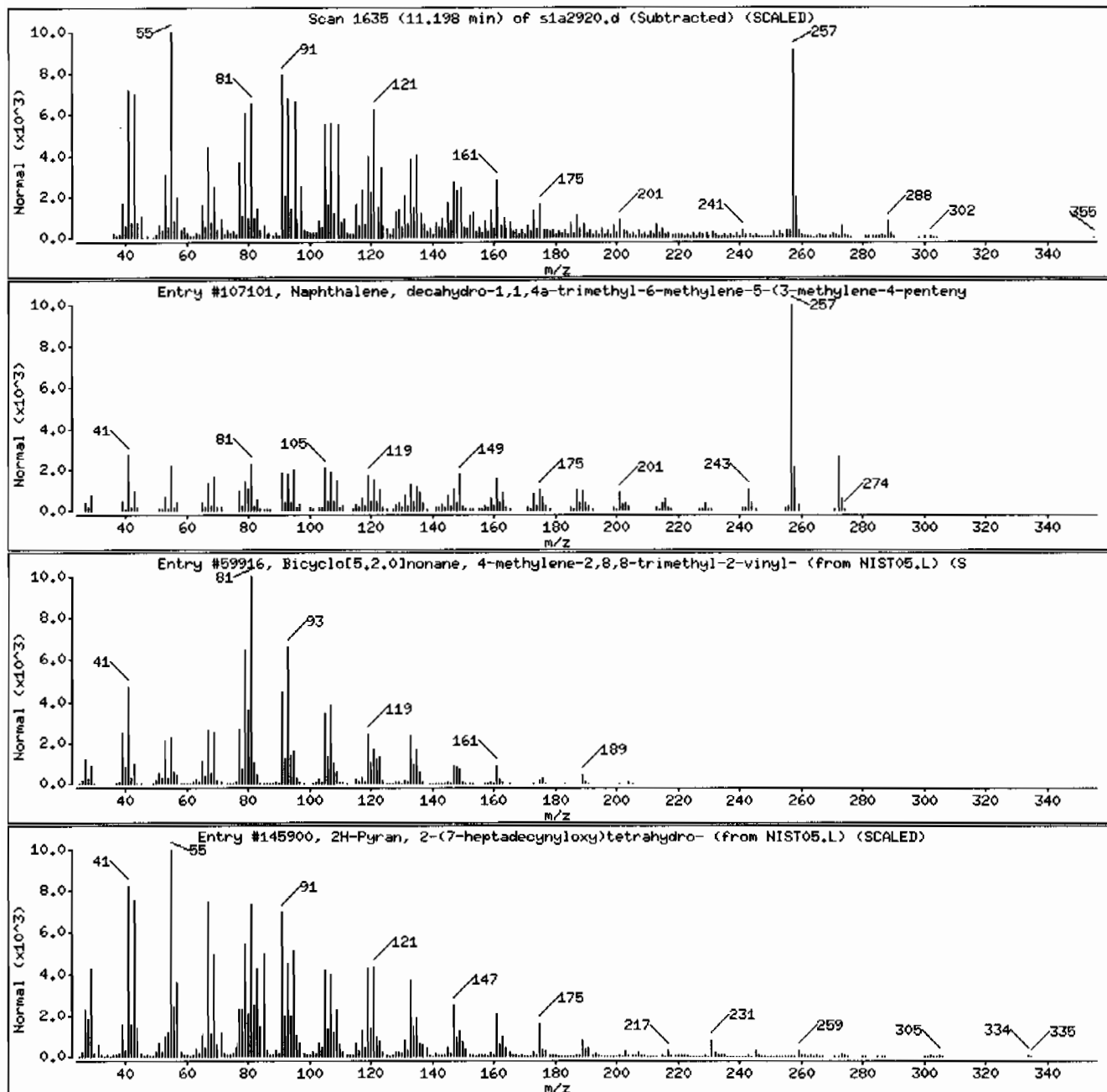
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Naphthalene, decahydro-1,1,4a-trimethyl-	511-02-4	NIST05.L	107101	78	C20H32	272
Bicyclo[5.2.0]nonane, 4-methylene-2,8,8-	1000159-38-2	NIST05.L	59916	38	C15H24	204
2H-Pyran, 2-(7-heptadecyloxy)tetrahydr	56599-50-9	NIST05.L	145900	35	C22H40O2	336





Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: HSD1.i

Sample Info: 1245106012194459111SVMF111LANL

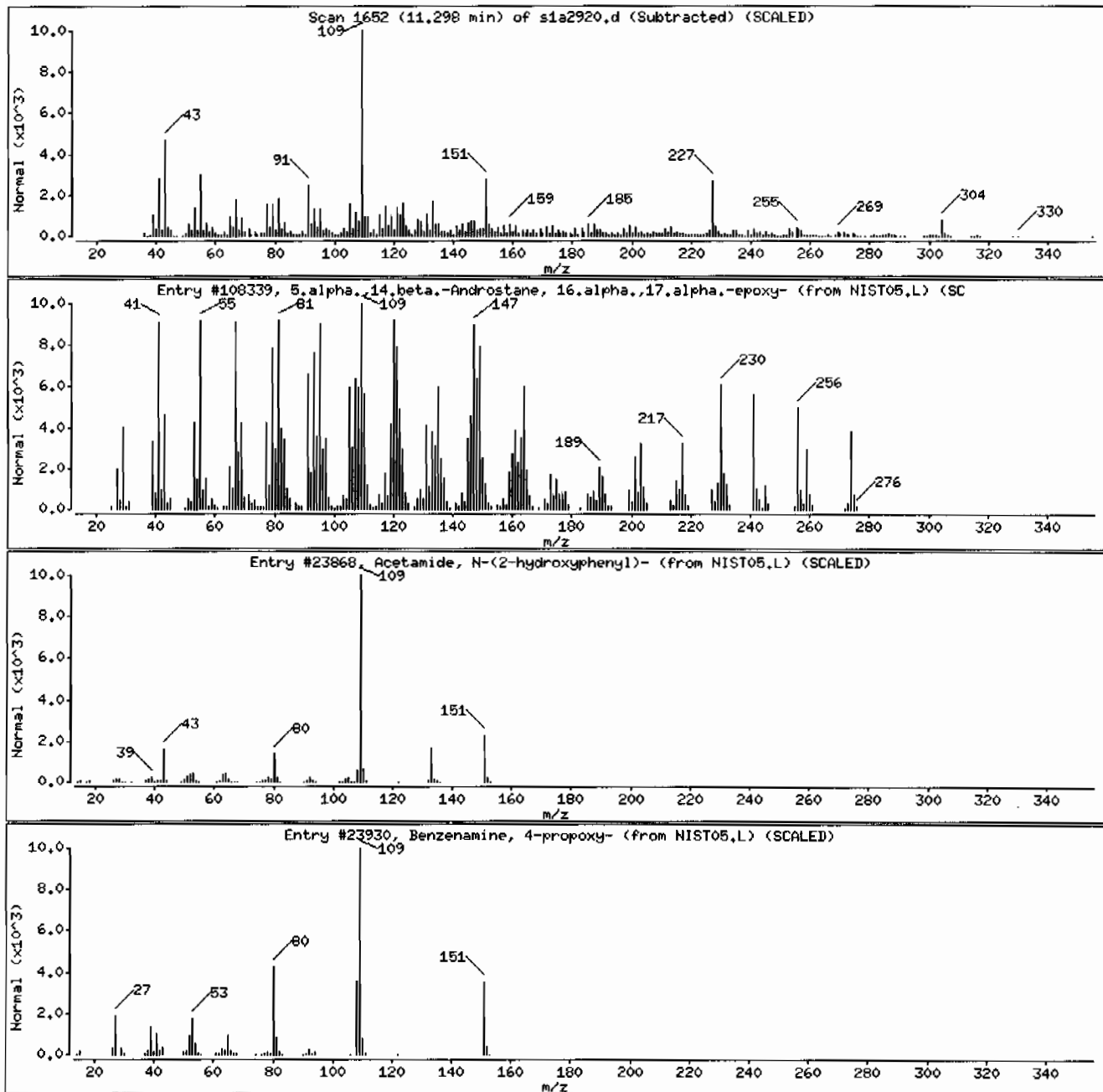
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
5.alpha.,14.beta.-Androstane, 16.alpha.,	24174-25-2	NIST05.L	108339	91	C19H30O	274
Acetamide, N-(2-hydroxyphenyl)-	614-80-2	NIST05.L	23868	47	C8H9NO2	151
Benzenamine, 4-propoxy-	4469-80-1	NIST05.L	23930	46	C9H11NO	151



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVMF111LANL

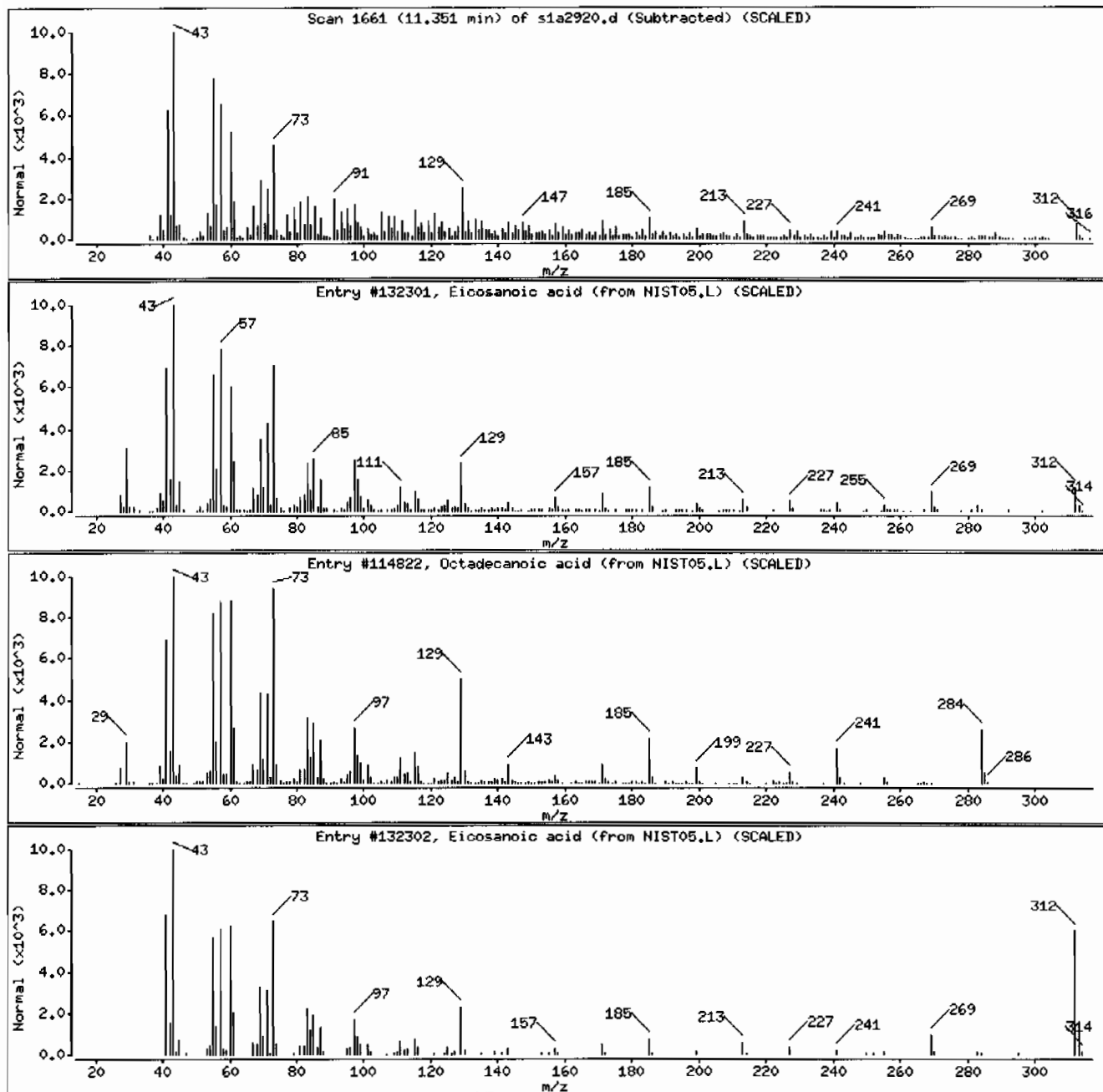
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosanoic acid	506-30-9	NIST05.L	132301	83	C20H40O2	312
Octadecanoic acid	57-11-4	NIST05.L	114822	53	C18H36O2	284
Eicosanoic acid	506-30-9	NIST05.L	132302	50	C20H40O2	312



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: HSD1.i

Sample Info: 1245106012194459111SVMF11ILANL

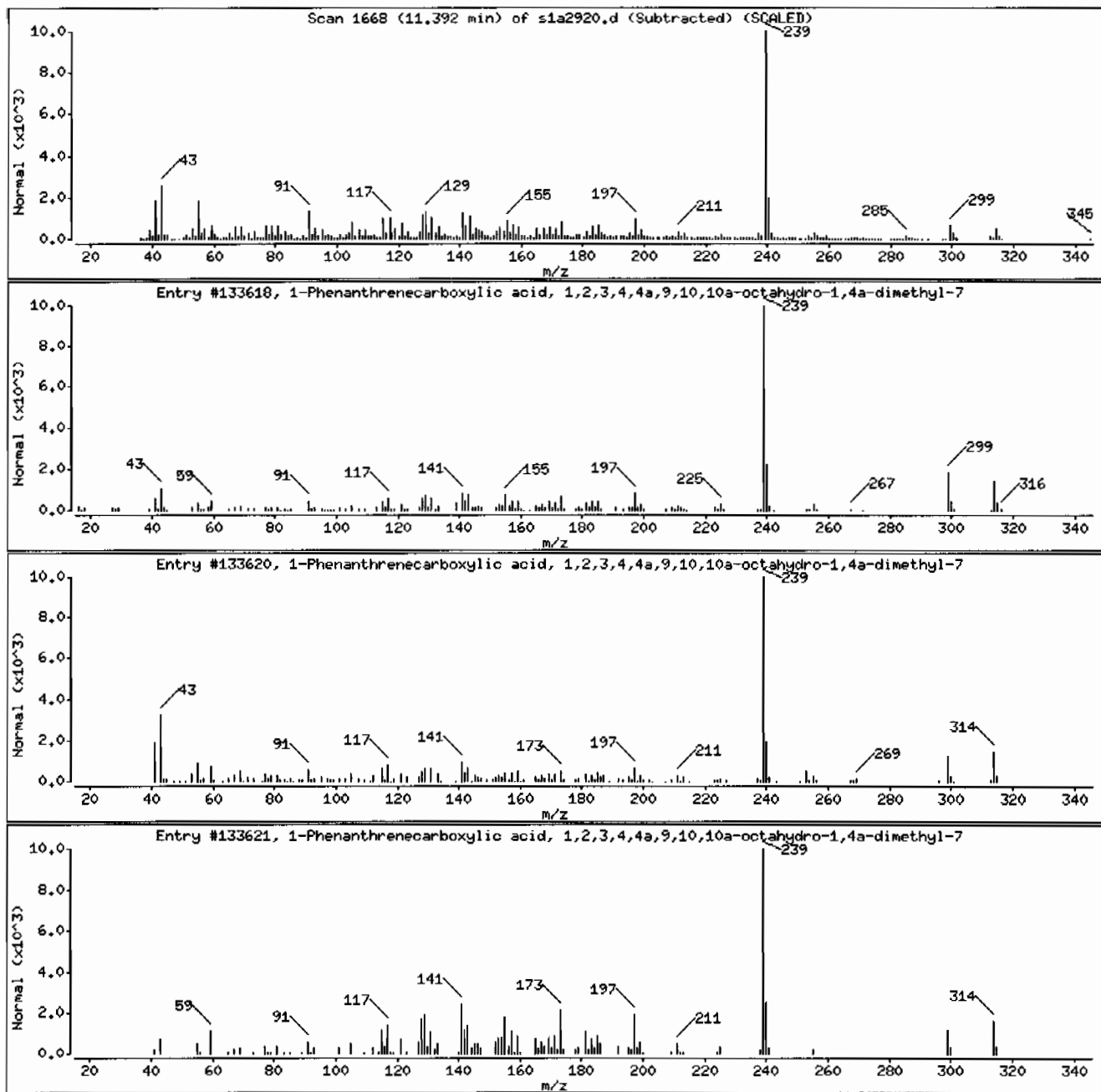
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133618	98	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133620	93	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133621	80	C21H30O2	314



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: HSD1.i

Sample Info: 1245106012194459111SVMF111LANL

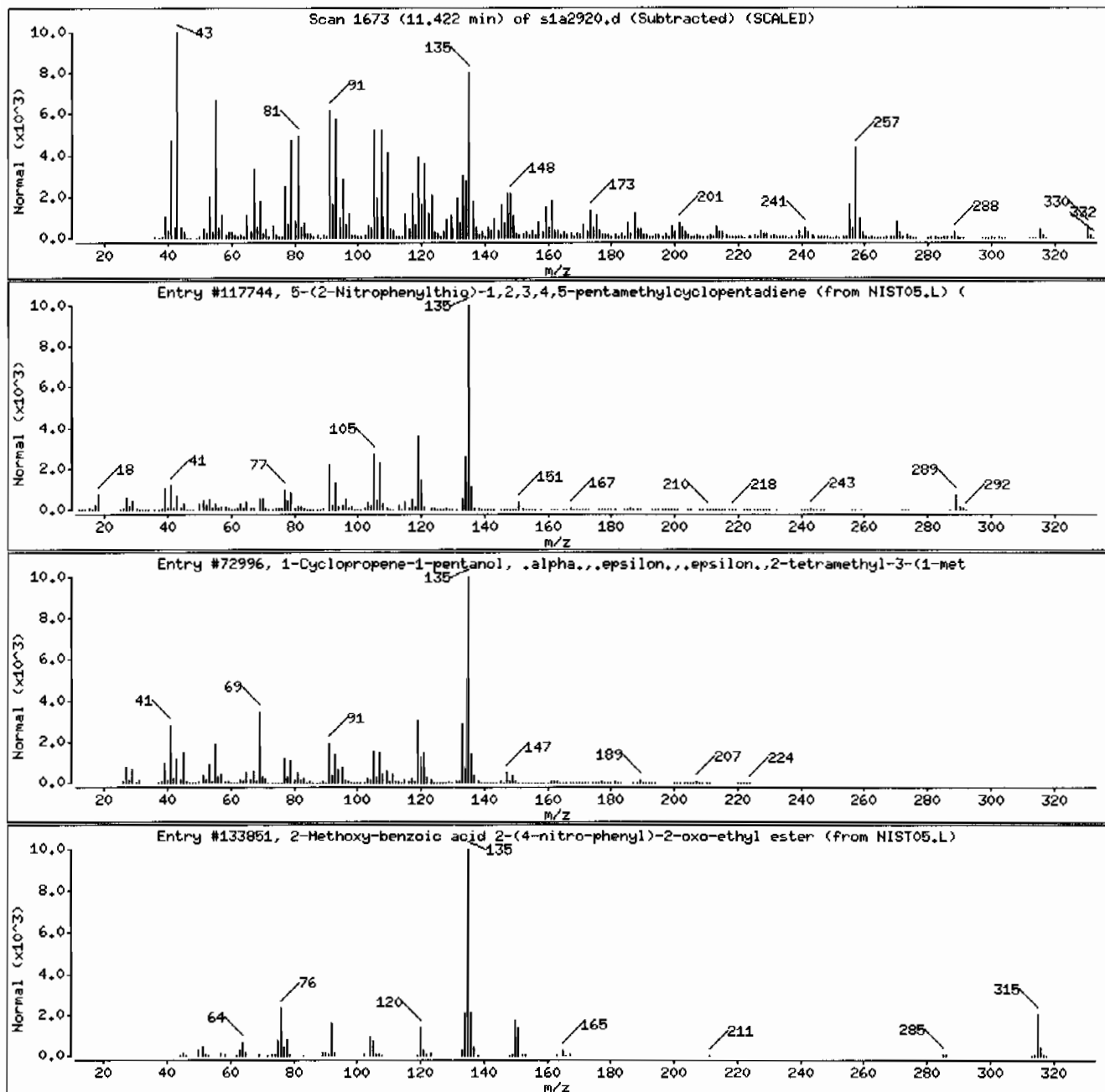
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
5-(2-Nitrophenylthio)-1,2,3,4,5-pentamet	187338-98-3	NIST05.L	117744	35	C16H19NO2S	289
1-Cyclopropene-1-pentanol, .alpha.,.epsi	90165-06-3	NIST05.L	72996	27	C15H26O	222
2-Methoxy-benzoic acid 2-(4-nitro-phenyl	1000297-38-7	NIST05.L	133851	25	C16H13NO6	315



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: I245106012I944591I1ISVMFI1ILANL

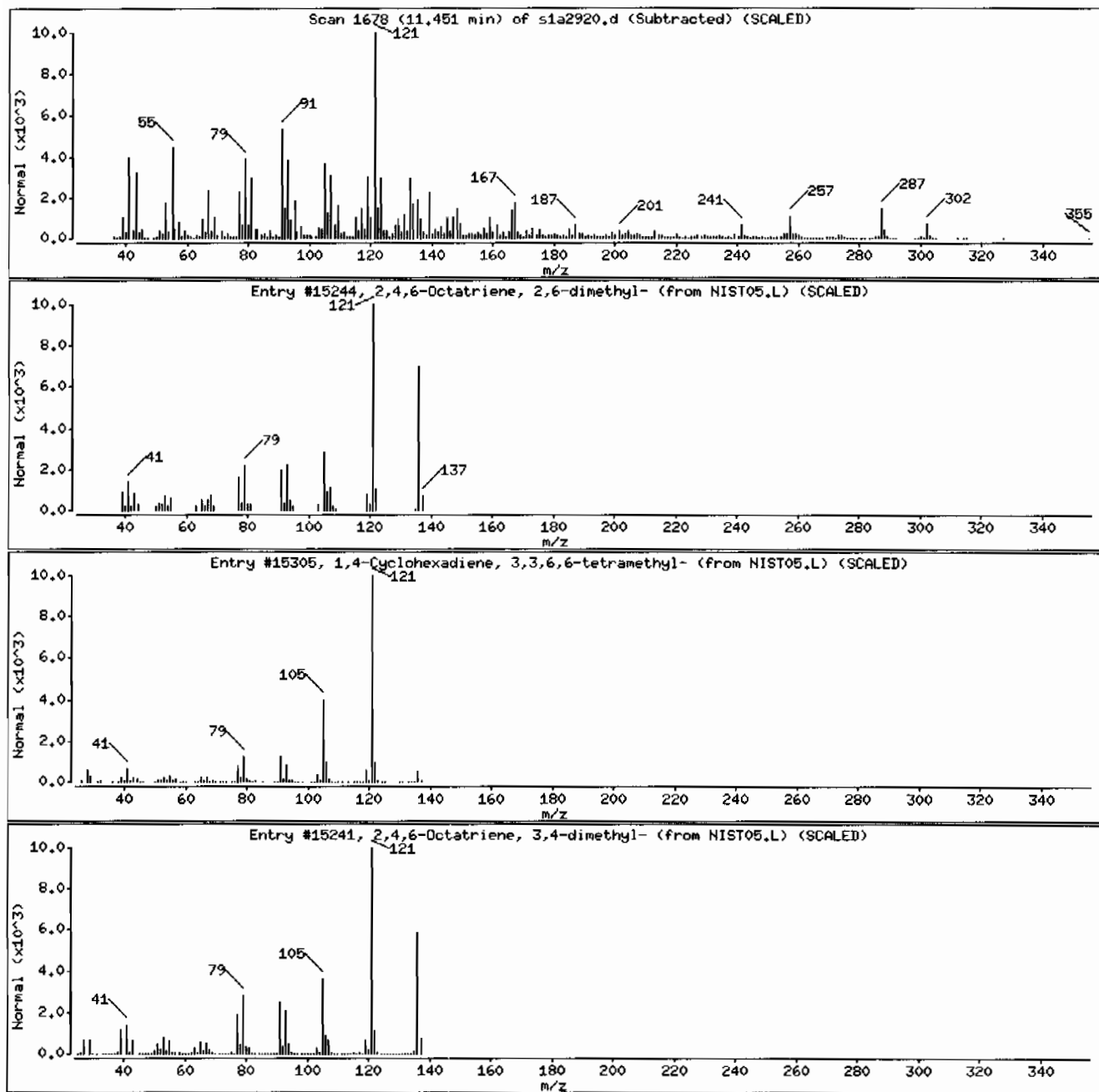
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,4,6-Octatriene, 2,6-dimethyl-	673-84-7	NIST05.L	15244	60	C10H16	136
1,4-Cyclohexadiene, 3,3,6,6-tetramethyl-	2223-54-3	NIST05.L	15305	50	C10H16	136
2,4,6-Octatriene, 3,4-dimethyl-	57396-75-5	NIST05.L	15241	49	C10H16	136



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVMF111LANL

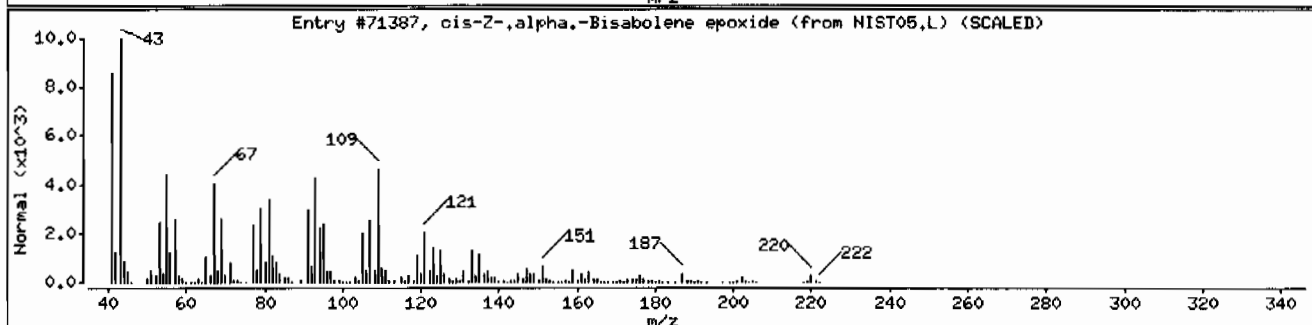
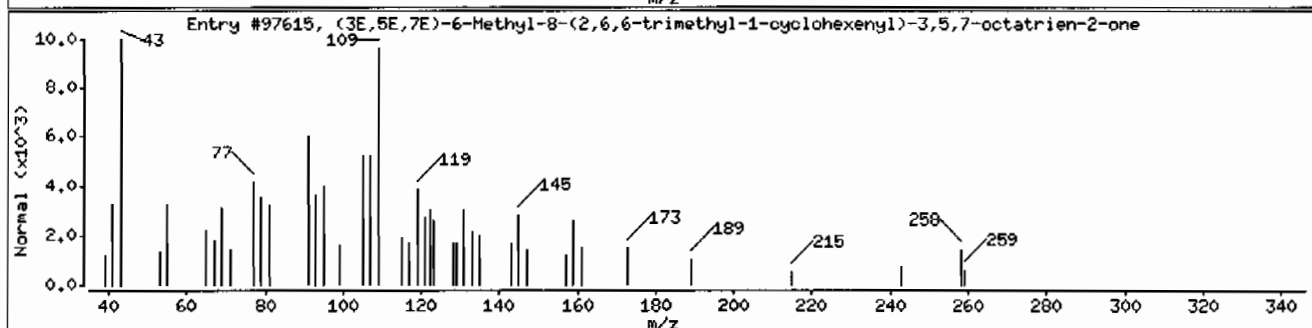
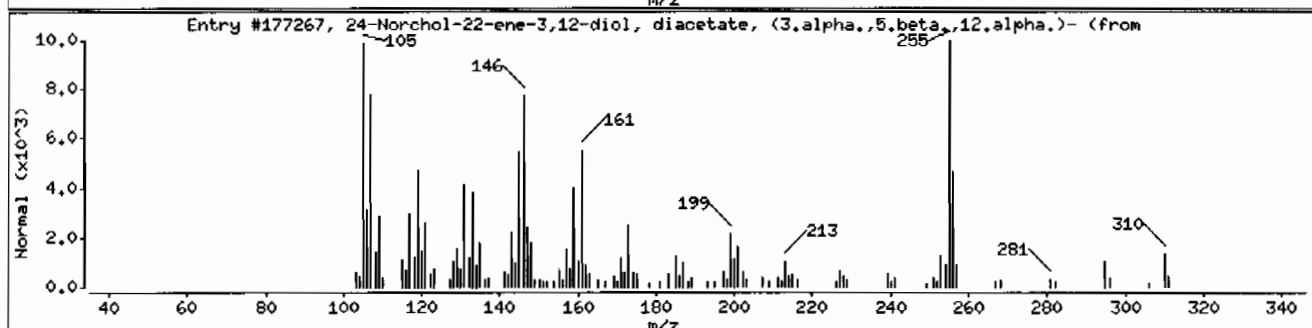
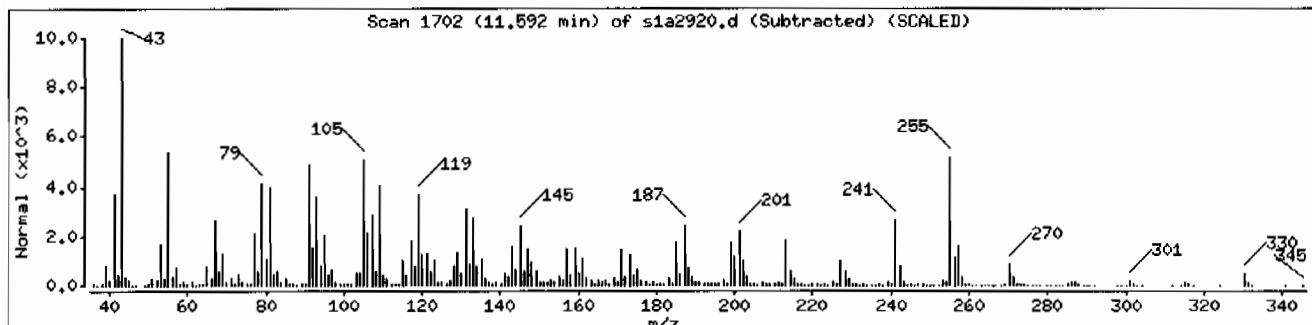
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
24-Norchol-22-ene-3,12-diol, diacetate,	21152-87-4	NIST05.L	177267	25	C27H42O4	430
(3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1	17974-57-1	NIST05.L	97615	10	C18H26O	258
cis-2-,alpha.-Bisabolene epoxide	1000131-71-2	NIST05.L	71387	10	C15H24O	220



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVHF111LANL

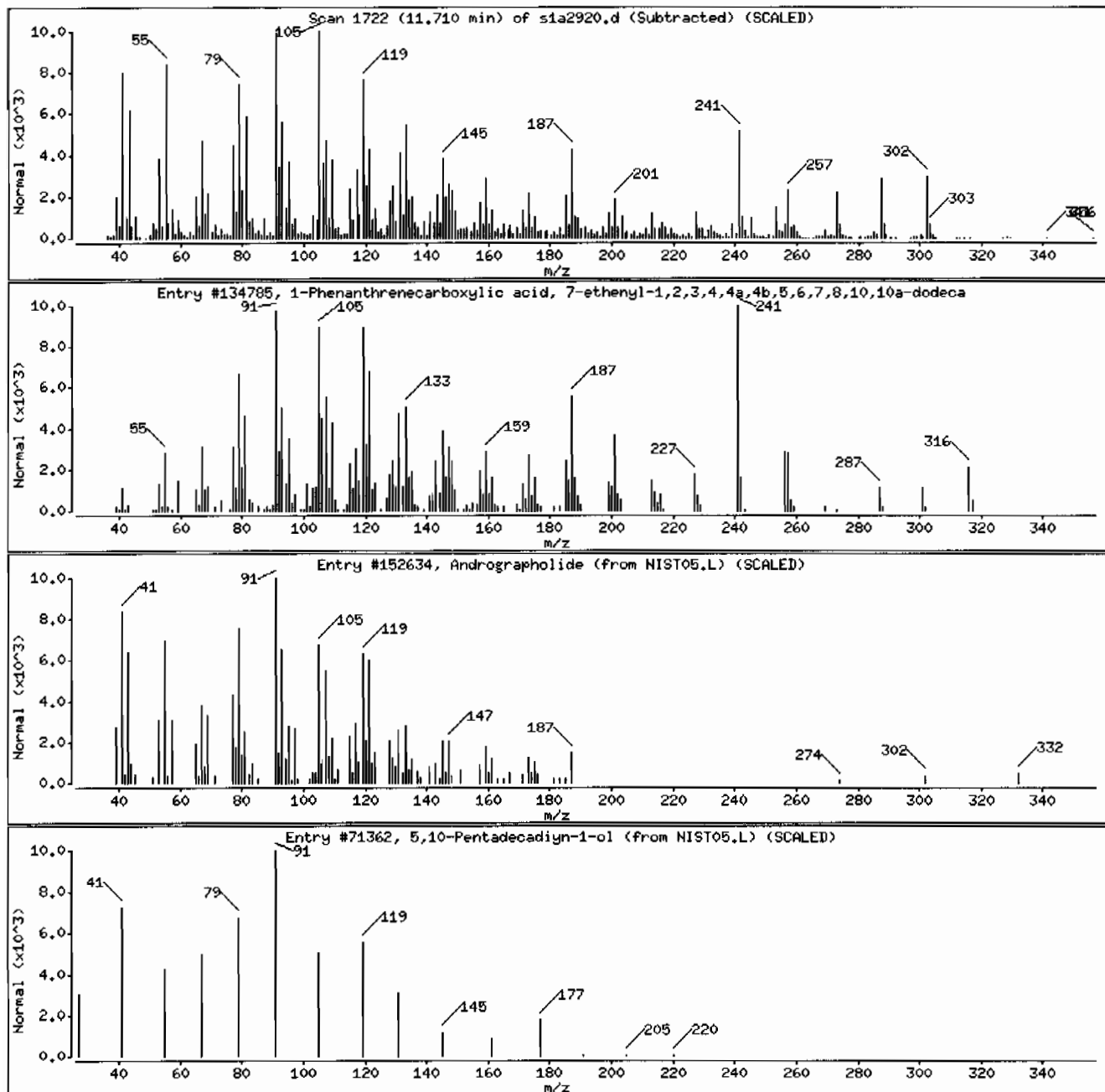
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 7-ethenyl	1686-62-0	NIST05.L	134785	80	C21H32O2	316
Andrographolide	5508-58-7	NIST05.L	152634	41	C20H30O5	350
5,10-Pentadecadiyn-1-ol	64275-50-9	NIST05.L	71362	30	C15H24O	220



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVMF11ILANL

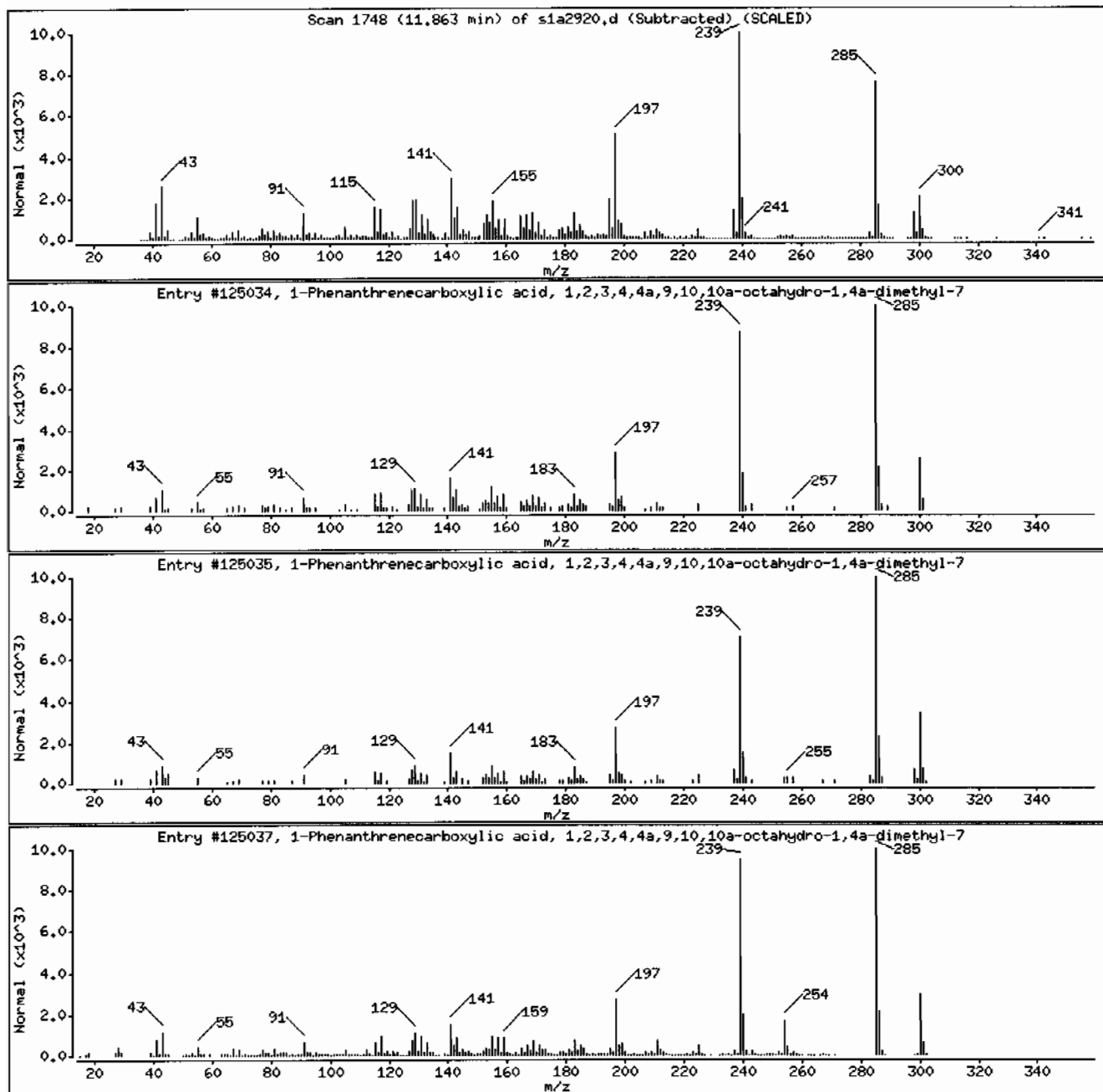
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	96	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	5155-70-4	NIST05.L	125035	93	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125037	83	C20H28O2	300





Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVHF111LANL

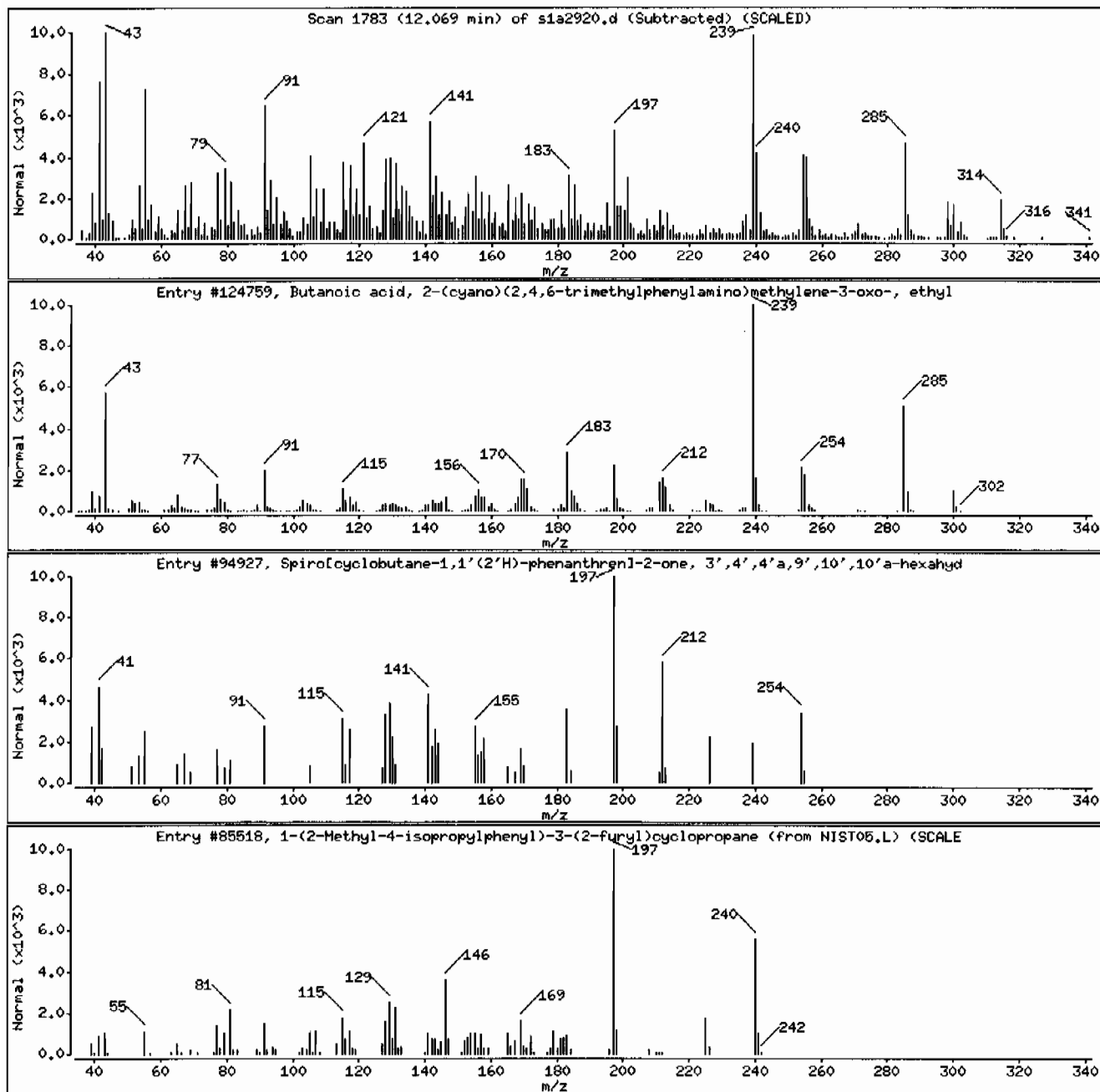
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Butanoic acid, 2-(cyano)(2,4,6-trimethyl	1000267-71-7	NIST05.L	124759	51	C17H20N2O3	300
Spiro[cyclobutane-1,1'-(2'H)-phenanthren]	41487-68-7	NIST05.L	94927	42	C18H22O	254
1-(2-Methyl-4-isopropylphenyl)-3-(2-furyl	84922-07-6	NIST05.L	85518	42	C17H20O	240



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVMF111LANL

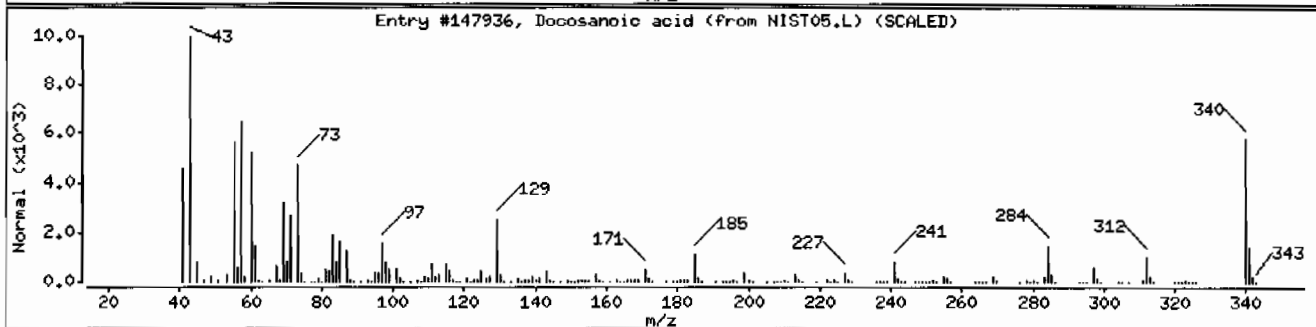
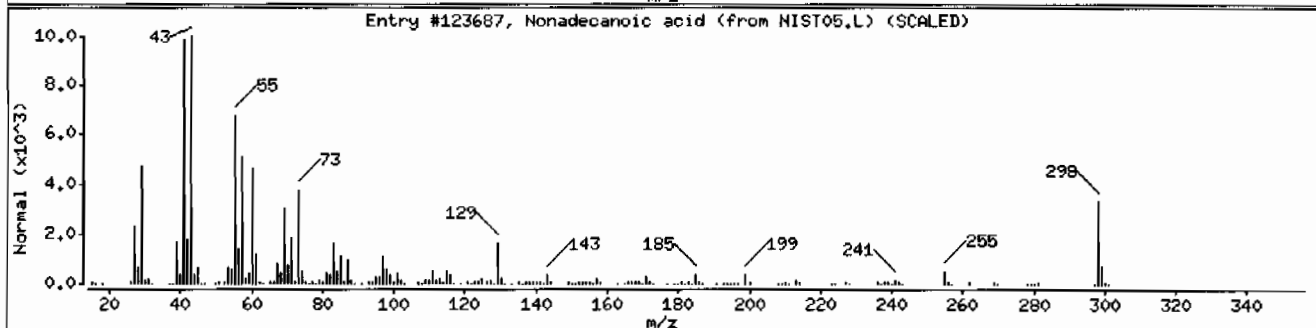
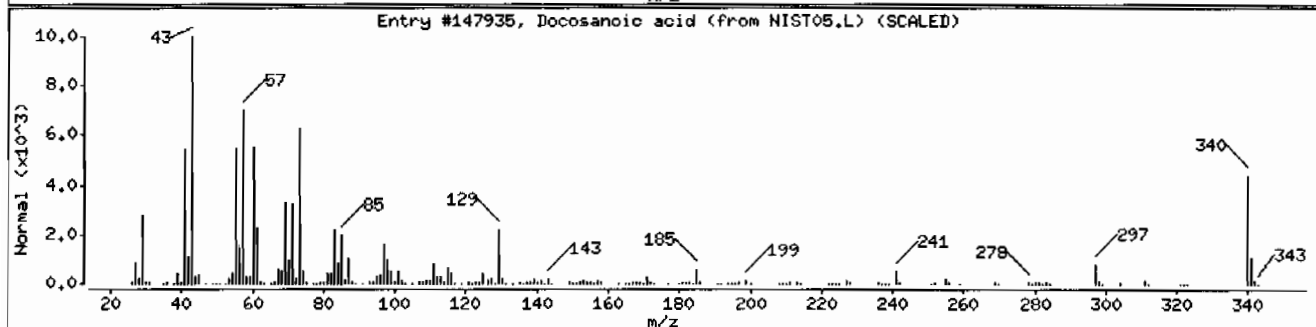
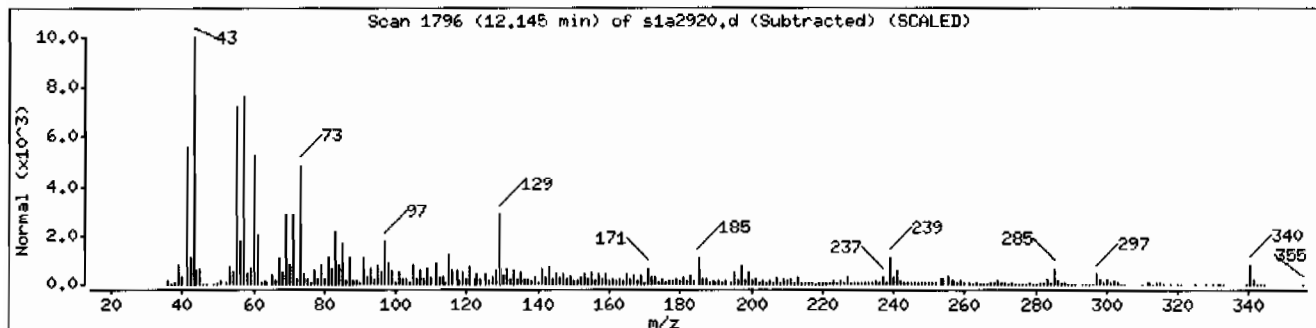
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Docosanoic acid	112-85-6	NIST05.L	147935	98	C22H44O2	340
Nonadecanoic acid	646-30-0	NIST05.L	123687	97	C19H38O2	298
Docosanoic acid	112-85-6	NIST05.L	147936	93	C22H44O2	340



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: HSD1.i

Sample Info: 1245106012194459111SVHF111LANL

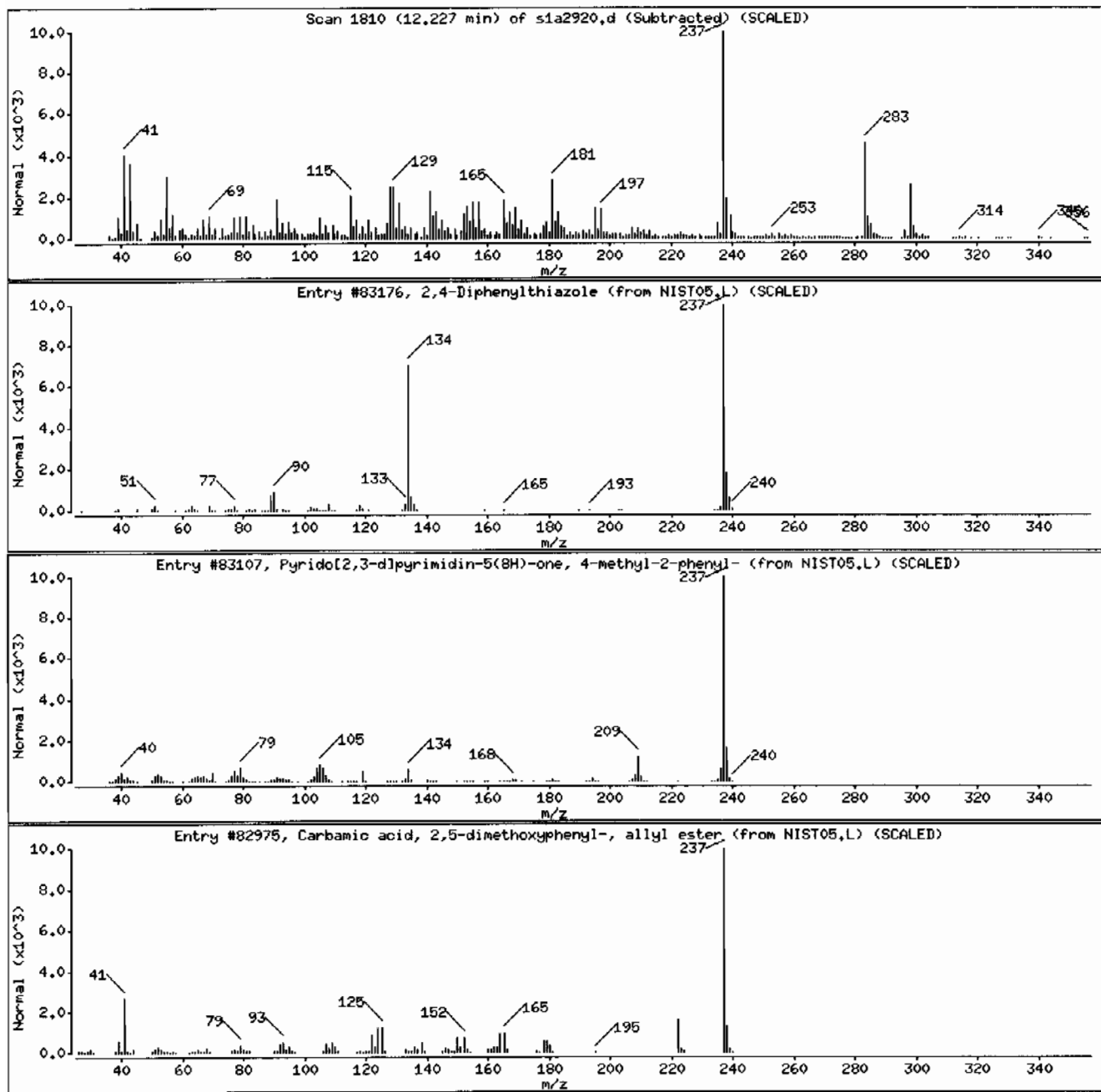
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,4-Diphenylthiazole	1826-14-8	NIST05.L	83176	38	C15H11NS	237
Pyrido[2,3-d]pyrimidin-5(8H)-one, 4-meth	161465-98-1	NIST05.L	83107	30	C14H11N3O	237
Carbamic acid, 2,5-dimethoxyphenyl-, all	1000314-77-7	NIST05.L	82975	30	C12H15NO4	237



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVMF111LANL

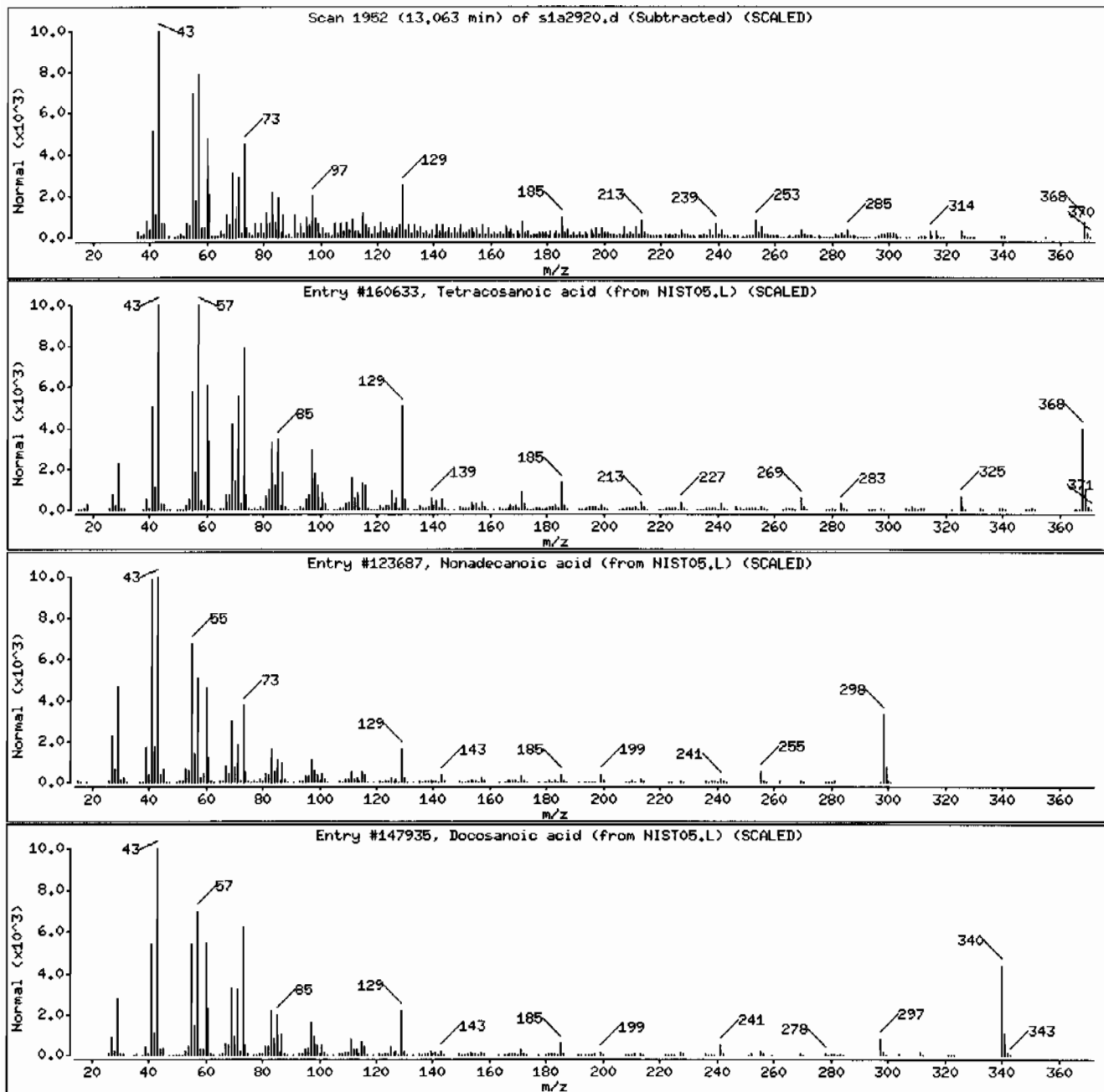
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetracosanoic acid	557-59-5	NIST05.L	160633	99	C24H48O2	368
Nonadecanoic acid	646-30-0	NIST05.L	123687	93	C19H38O2	298
Docosanoic acid	112-85-6	NIST05.L	147935	62	C22H44O2	340



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVMF111LANL

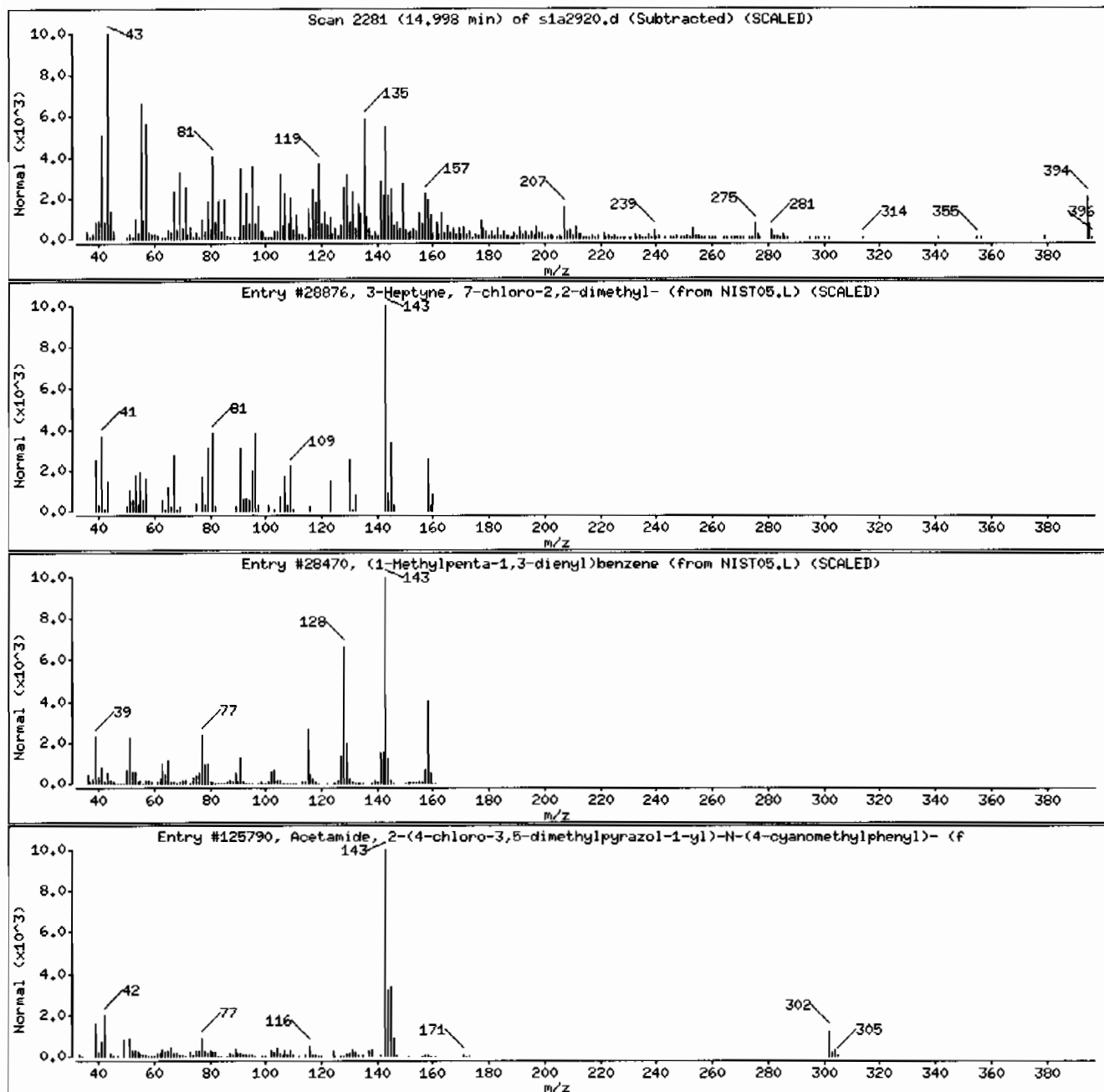
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-Heptyne, 7-chloro-2,2-dimethyl-	55402-10-3	NIST05.L	28876	25	C <sub>9</sub> H <sub>15</sub> Cl	158
(1-Methylpenta-1,3-dienyl)benzene	116669-49-9	NIST05.L	28470	18	C <sub>12</sub> H <sub>14</sub>	158
Acetamide, 2-(4-chloro-3,5-dimethylpyraz	1000304-79-7	NIST05.L	125790	18	C <sub>15</sub> H <sub>15</sub> ClN <sub>4</sub> O	302



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVHF111LANL

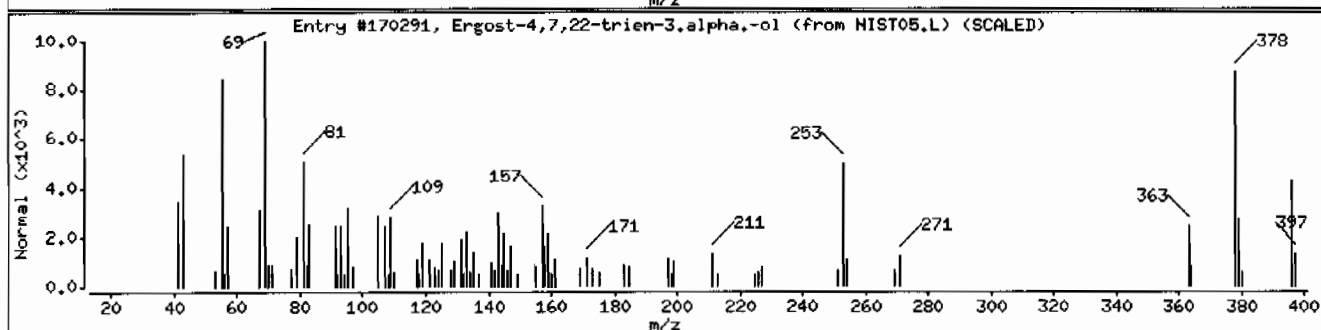
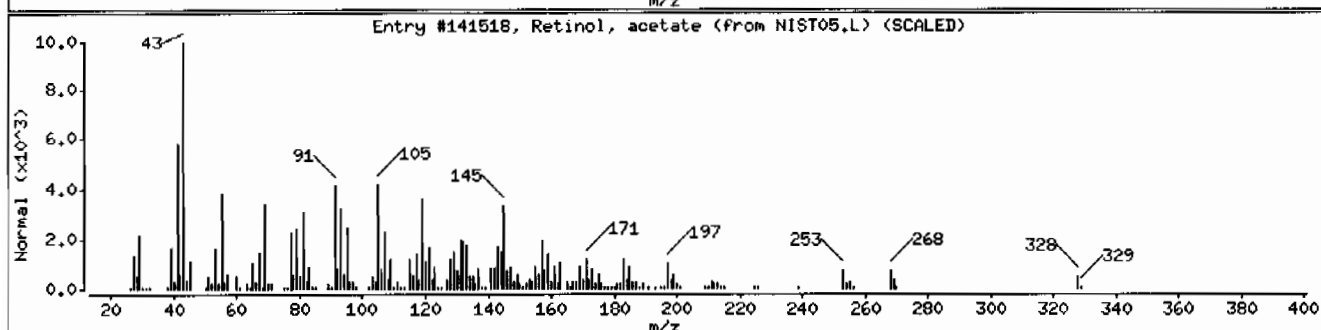
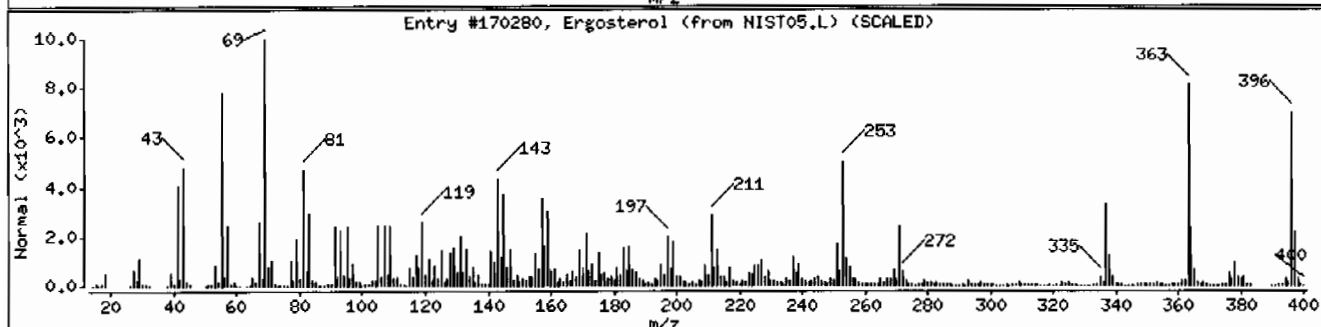
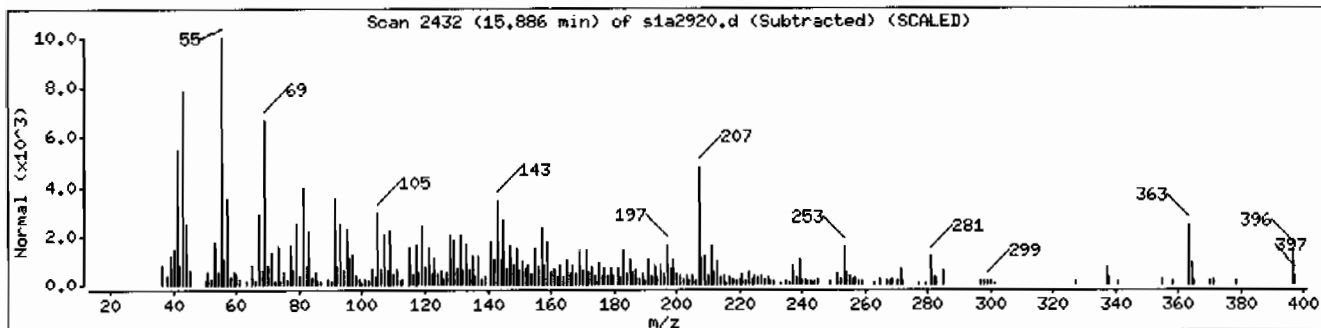
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ergosterol	57-87-4	NIST05.L	170280	25	C <sub>28</sub> H <sub>44</sub> O	396
Retinol, acetate	127-47-9	NIST05.L	141518	15	C <sub>22</sub> H <sub>32</sub> O <sub>2</sub>	328
Ergost-4,7,22-trien-3.alpha.-ol	6538-05-2	NIST05.L	170291	14	C <sub>28</sub> H <sub>44</sub> O	396



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVMF11ILANL

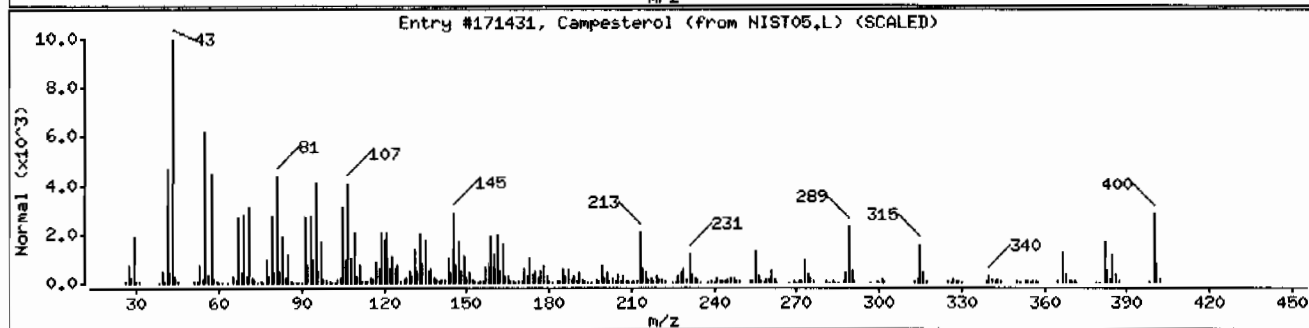
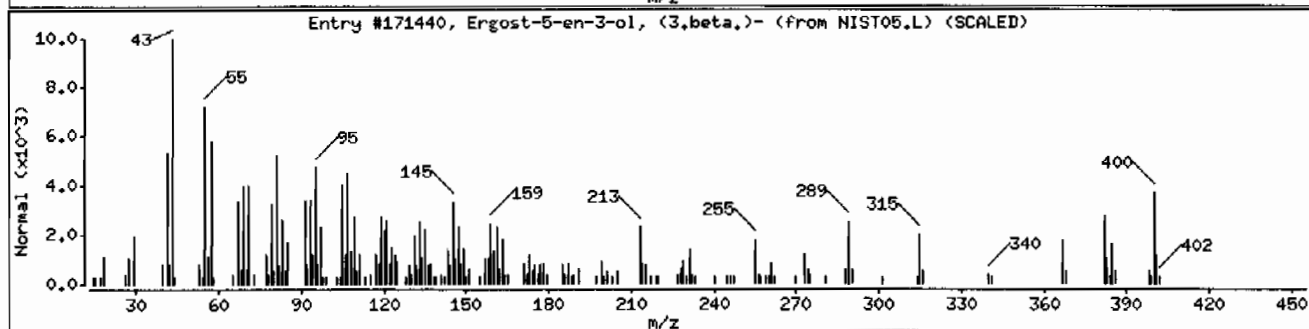
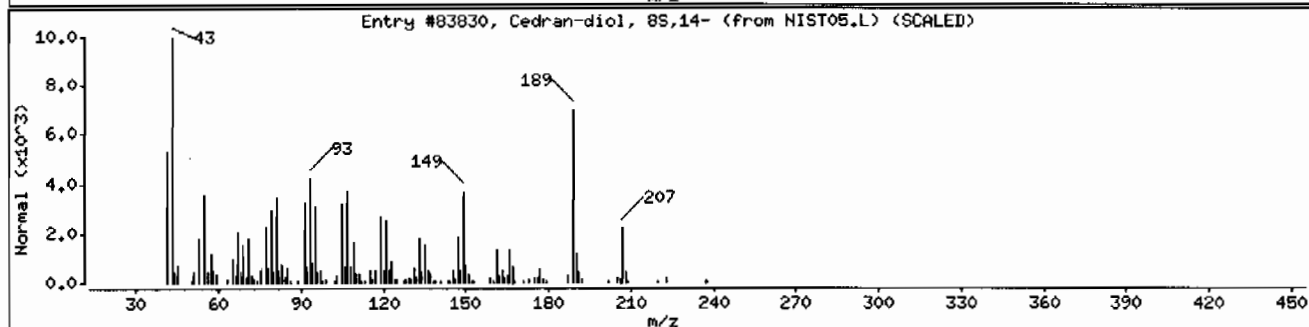
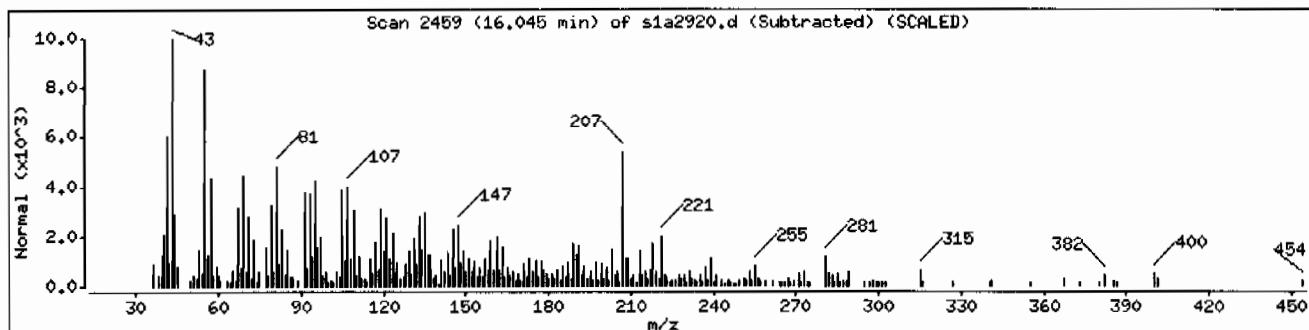
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	83	C15H26O2	238
Ergost-5-en-3-ol, (3,beta,-)	4651-51-8	NIST05.L	171440	70	C28H48O	400
Campesterol	474-62-4	NIST05.L	171431	64	C28H48O	400



Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: I245106012194459111SVHF11ILANL

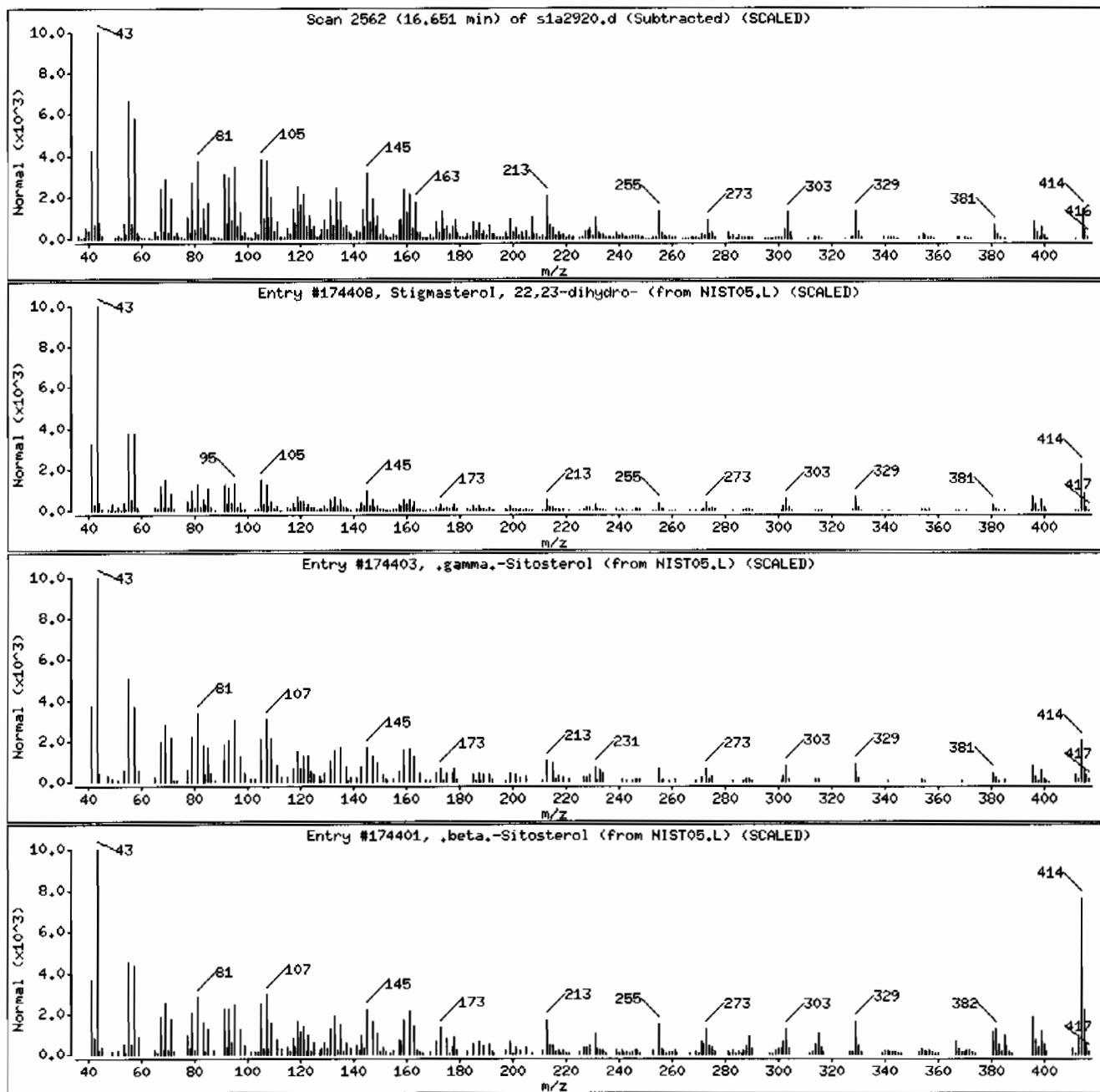
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST05.L	174408	97	C <sub>29</sub> H <sub>50</sub> O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174403	92	C <sub>29</sub> H <sub>50</sub> O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174401	91	C <sub>29</sub> H <sub>50</sub> O	414





Date : 29-JAN-2010 22:40

Client ID: RE15-10-7182

Instrument: MSD1.i

Sample Info: 1245106012194459111SVHF11ILANL

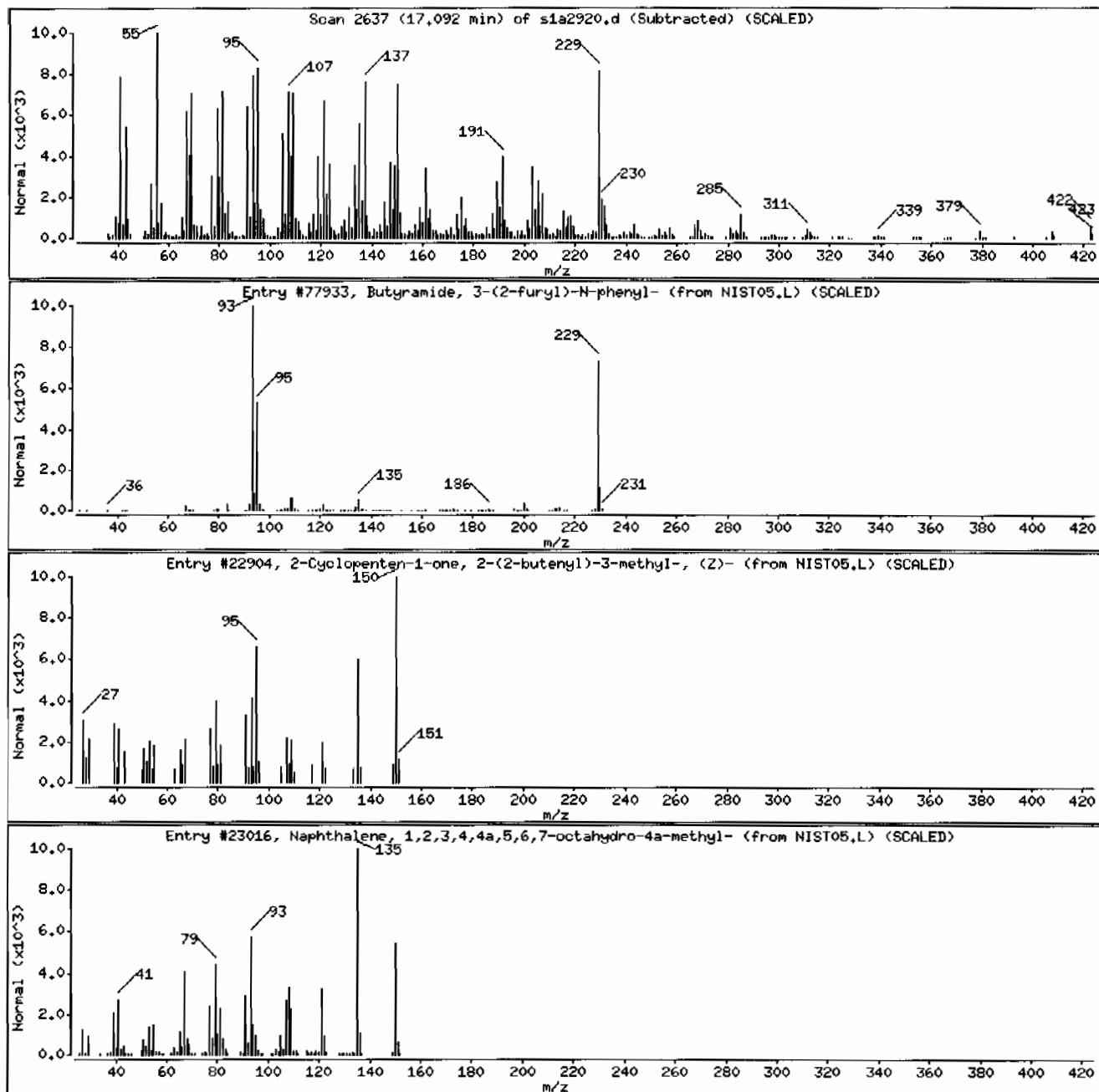
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Butyramide, 3-(2-furyl)-N-phenyl-	1000156-94-9	NIST05.L	77933	59	C14H15NO2	229
2-Cyclopenten-1-one, 2-(2-butenyl)-3-met	17190-71-5	NIST05.L	22904	46	C10H14O	150
Naphthalene, 1,2,3,4,4a,5,6,7-octahydro-	13943-77-6	NIST05.L	23016	35	C11H18	150



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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 245106013	Date Received: 01/20/2010 08:45	%Moisture: 12.2
	Client: LANL010	Project: LANL01004
Client ID: RE15-10-7183	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/29/2010 23:07	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s1a2921.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	380	ug/kg	75.9	380
108-95-2	Phenol	U	380	ug/kg	75.9	380
95-57-8	2-Chlorophenol	U	380	ug/kg	75.9	380
106-46-7	1,4-Dichlorobenzene	U	380	ug/kg	75.9	380
621-64-7	N-Nitrosodipropylamine	U	380	ug/kg	75.9	380
59-50-7	4-Chloro-3-methylphenol	U	380	ug/kg	75.9	380
83-32-9	Acenaphthene	U	38.0	ug/kg	12.5	38.0
121-14-2	2,4-Dinitrotoluene	U	380	ug/kg	38.0	380
100-02-7	4-Nitrophenol	U	380	ug/kg	125	380
87-86-5	Pentachlorophenol	U	380	ug/kg	94.9	380
129-00-0	Pyrene	U	38.0	ug/kg	11.4	38.0
110-86-1	Pyridine	U	380	ug/kg	75.9	380
62-53-3	Aniline	U	380	ug/kg	114	380
111-44-4	bis(2-Chloroethyl) ether	U	380	ug/kg	75.9	380
541-73-1	1,3-Dichlorobenzene	U	380	ug/kg	75.9	380
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380
95-50-1	1,2-Dichlorobenzene	U	380	ug/kg	75.9	380
108-60-1	bis(2-Chloroisopropyl) ether	U	380	ug/kg	75.9	380
95-48-7	o-Cresol	U	380	ug/kg	75.9	380
65794-96-9	m,p-Cresols	U	380	ug/kg	114	380
67-72-1	Hexachloroethane	U	380	ug/kg	75.9	380
98-95-3	Nitrobenzene	U	380	ug/kg	75.9	380
78-59-1	Isophorone	U	380	ug/kg	75.9	380
88-75-5	2-Nitrophenol	U	380	ug/kg	75.9	380
105-67-9	2,4-Dimethylphenol	U	380	ug/kg	133	380
111-91-1	bis(2-Chloroethoxy)methane	U	380	ug/kg	75.9	380
120-83-2	2,4-Dichlorophenol	U	380	ug/kg	75.9	380
65-85-0	Benzoic acid	U	759	ug/kg	190	759
91-20-3	Naphthalene	U	38.0	ug/kg	11.4	38.0
106-47-8	4-Chloroaniline	U	380	ug/kg	75.9	380
87-68-3	Hexachlorobutadiene	U	380	ug/kg	75.9	380
91-57-6	2-Methylnaphthalene	U	38.0	ug/kg	7.59	38.0
77-47-4	Hexachlorocyclopentadiene	U	380	ug/kg	75.9	380
88-06-2	2,4,6-Trichlorophenol	U	380	ug/kg	75.9	380
95-95-4	2,4,5-Trichlorophenol	U	380	ug/kg	75.9	380
91-58-7	2-Chloronaphthalene	U	38.0	ug/kg	12.5	38.0
88-74-4	2-Nitroaniline	U	380	ug/kg	75.9	380
99-09-2	o-Nitroaniline	U	380	ug/kg	75.9	380
	3-Nitroaniline					

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

SDG Number: 10-1304  
Lab Sample ID: 245106013

Client ID: RE15-10-7183  
Batch ID: 944591  
Run Date: 01/29/2010 23:07  
Prep Date: 01/25/2010 14:38  
Data File: s1a2921.d

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.I  
Analyst: AMY  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 12.2  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	380	ug/kg	75.9	380
606-20-2	2,6-Dinitrotoluene	U	380	ug/kg	38.0	380
208-96-8	Acenaphthylene	U	38.0	ug/kg	11.4	38.0
51-28-5	2,4-Dinitrophenol	U	759	ug/kg	144	759
132-64-9	Dibenzofuran	U	380	ug/kg	75.9	380
84-66-2	Diethylphthalate	U	380	ug/kg	75.9	380
86-73-7	Fluorene	U	38.0	ug/kg	11.4	38.0
7005-72-3	4-Chlorophenylphenylether	U	380	ug/kg	75.9	380
534-52-1	2-Methyl-4,6-dinitrophenol	U	380	ug/kg	75.9	380
100-01-6	4-Nitroaniline	U	380	ug/kg	114	380
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	380	ug/kg	75.9	380
122-66-7	Azobenzene	U	380	ug/kg	75.9	380
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	380	ug/kg	75.9	380
118-74-1	Hexachlorobenzene	U	380	ug/kg	75.9	380
85-01-8	Phenanthrene	U	38.0	ug/kg	11.4	38.0
120-12-7	Anthracene	U	38.0	ug/kg	7.59	38.0
84-74-2	Di-n-butylphthalate	U	380	ug/kg	75.9	380
206-44-0	Fluoranthene	U	38.0	ug/kg	11.4	38.0
85-68-7	Butylbenzylphthalate	U	380	ug/kg	75.9	380
56-55-3	Benzo(a)anthracene	U	38.0	ug/kg	11.4	38.0
91-94-1	3,3'-Dichlorobenzidine	U	380	ug/kg	114	380
218-01-9	Chrysene	U	38.0	ug/kg	11.4	38.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	380	ug/kg	75.9	380
117-84-0	Di-n-octylphthalate	U	380	ug/kg	75.9	380
205-99-2	Benzo(b)fluoranthene	U	38.0	ug/kg	11.4	38.0
207-08-9	Benzo(k)fluoranthene	U	38.0	ug/kg	11.4	38.0
50-32-8	Benzo(a)pyrene	U	38.0	ug/kg	11.4	38.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.0	ug/kg	11.4	38.0
53-70-3	Dibenzo(a,h)anthracene	U	38.0	ug/kg	11.4	38.0
191-24-2	Benzo(ghi)perylene	U	38.0	ug/kg	11.4	38.0
120-82-1	1,2,4-Trichlorobenzene	U	380	ug/kg	75.9	380

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.94	302	ug/kg		J
79-09-4	Propanoic acid	2.17	238	ug/kg	87	NJ

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 245106013	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 12.2
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE15-10-7183	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD1.I	<b>Dilution:</b> 1
<b>Run Date:</b> 01/29/2010 23:07	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30.02 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s1a2921.d	<b>Column:</b> J&W DB-SMS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary		Estimated				
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown Aldol Condensate	3.09	919	ug/kg		JA
1000130-90-5	2-Methyl-Z,Z-3,13-octadecadienol	10.47	193	ug/kg	95	NJ
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	10.89	284	ug/kg	89	NJ
511-02-4	Naphthalene, decahydro-1,1,4a-trimethyl-	11.2	201	ug/kg	80	NJ
506-30-9	Eicosanoic acid	11.34	233	ug/kg	98	NJ
	Unknown	11.43	565	ug/kg		J
	Unknown	11.59	227	ug/kg		J
	Unknown	11.69	342	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	11.81	1710	ug/kg	91	NJ
112-85-6	Docosanoic acid	12.13	448	ug/kg	97	NJ
	Unknown	13.02	182	ug/kg		J
557-59-5	Tetracosanoic acid	13.05	571	ug/kg	90	NJ
	Unknown	14.46	216	ug/kg		J
	Unknown	14.65	246	ug/kg		J
	Unknown	14.99	227	ug/kg		J
	Unknown	15.4	2820	ug/kg		J
	Unknown	15.62	242	ug/kg		J
	Unknown	15.88	319	ug/kg		J
	Unknown	16.07	3390	ug/kg		J
	Unknown	16.2	212	ug/kg		J
1000214-20-7	Stigmasterol, 22,23-dihydro-	16.64	1090	ug/kg	93	NJ
	Unknown	16.76	471	ug/kg		J
1000159-38-5	Cycloheptane, 4-methylene-1-methyl-2-(2-	17.08	556	ug/kg	90	NJ

Data File: /chem/MSD1.i/s012910.b/sla2921.d  
Report Date: 15-Feb-2010 15:15

Page 1

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012910.b/sla2921.d  
Lab Smp Id: 245106013 Client Smp ID: RE15-10-7183  
Inj Date : 29-JAN-2010 23:07  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106013|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m  
Meth Date : 30-Jan-2010 13:22 llo00884 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 9  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	12.23710	% 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	4.434	4.428	(1.000)	274852	40.0000	
* 29 Naphthalene-d8	136	5.681	5.681	(1.000)	1112960	40.0000	
* 46 Acenaphthene-d10	164	7.534	7.539	(1.000)	605236	40.0000	
* 67 Phenanthrene-d10	188	9.133	9.133	(1.000)	948368	40.0000	
* 91 Chrysene-d12	240	12.033	12.033	(1.000)	729676	40.0000	
* 98 Perylene-d12	264	14.115	14.115	(1.000)	454300	40.0000	
\$ 3 2-Fluorophenol	112	3.316	3.304	(0.748)	502797	59.1468	2240
\$ 5 Phenol-d5	99	4.069	4.057	(0.918)	641472	60.7538	2300
\$ 20 Nitrobenzene-d5	82	4.951	4.957	(0.872)	273340	33.2762	1260
\$ 39 2-Fluorobiphenyl	172	6.804	6.804	(0.903)	532988	34.1827	1300
\$ 60 2,4,6-Tribromophenol	329	8.381	8.380	(1.112)	140477	64.1419	2430
\$ 81 p-Terphenyl-d14	244	10.845	10.839	(0.901)	523244	39.9625	1520

## ION RATIO REPORT

## SV REPORT

Data file: sla2921.d

Report Date: 01/30/2010 13:27

Lab. ID: 245106013

SampleType: SAMPLE

Injection Date: 29-JAN-2010 23:07

Operator: AMY

Instrument: MSD1.i

Sample Info: |245106013|944591|1|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100107-03|

Comment:

Method used: /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	31157	4.06	4.13	80-120	100	(T)
93	26606	4.11	4.13	212-272	85	(Q)
-----						
17	N-Nitrosodipropylamine		CAS#: 621-64-7			
70	36312	4.95	4.80	80-120	100	(T)
42	24122	4.95	4.80	52-112	66	(T)
-----						
40	2-Chloronaphthalene		CAS#: 91-58-7			
162	8948	7.14	6.94	80-120	100	(T)
164	487	7.14	6.94	3- 63	5	(T)
127	684	7.14	6.94	8- 68	8	(QT)
-----						
44	2,6-Dinitrotoluene		CAS#: 606-20-2			
165	79540	7.53	7.31	80-120	100	(T)
63	3566	7.55	7.31	38- 98	4	(QT)
-----						
45	Acenaphthylene		CAS#: 208-96-8			
152	13280	7.55	7.39	80-120	100	(T)
151	3658	7.55	7.39	0- 49	28	(T)
153	13584	7.55	7.39	0- 43	102	(QT)
-----						
47	Acenaphthene		CAS#: 83-32-9			
154	13332	7.55	7.57	80-120	100	( )
153	13584	7.55	7.57	75-135	102	( )
152	13280	7.55	7.57	20- 80	100	(Q)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	79540	7.53	7.74	80-120	100	(T)
89	1775	7.55	7.74	55-115	2	(QT)
63	3566	7.55	7.74	49-109	4	(QT)

-----						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	392	8.38	8.17	80-120	100	(T)
105	1102	8.38	8.17	16- 76	281	(QT)
51	1064	8.38	8.17	41-101	271	(QT)

-----

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012910.b/s1a2921.d  
Lab Smp Id: 245106013 Client Smp ID: RE15-10-7183  
Inj Date : 29-JAN-2010 23:07  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |245106013|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270 S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m  
Meth Date : 30-Jan-2010 13:22 llo00884 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: s1a2203.d  
Als bottle: 9  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	12.23710	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.434	1799237	40.000
* 67 Phenanthrene-d10	9.133	2448380	40.000
* 91 Chrysene-d12	12.033	2064270	40.000
* 98 Perylene-d12	14.115	1356224	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
----	----	-----	-----	----	-----	-----	-----

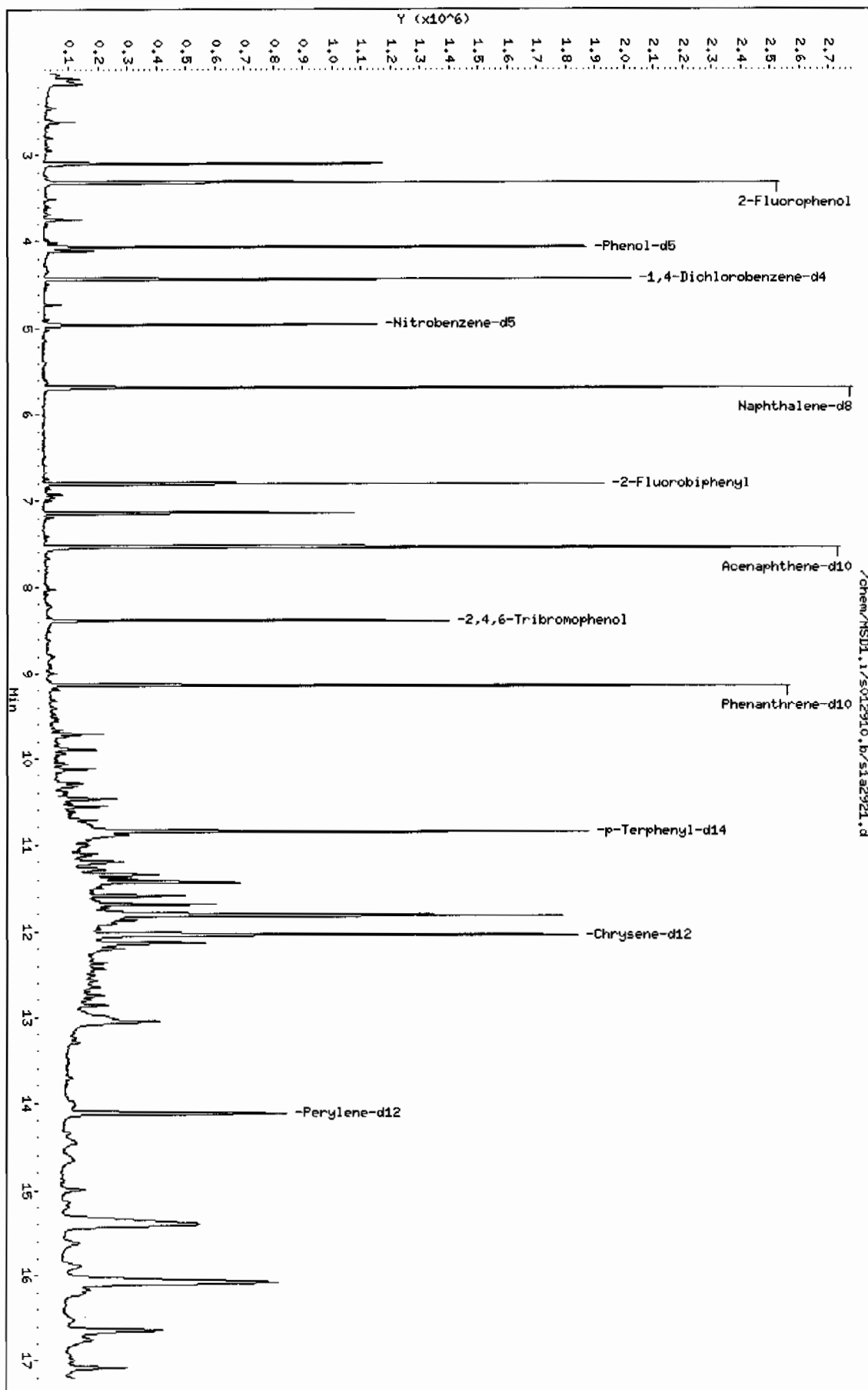


RT	CONCENTRATIONS				QUANT		
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
1.940	358254	7.96457608	302	0		0	10
Propanoic acid					CAS #: 79-09-4		
2.169	281873	6.26649301	238	87	NIST05.L	793	10
Unknown Aldol Condensate					CAS #:		
3.093	1089267	24.2161913	919	0		0	10
2-Methyl-2,2-3,13-octadecadienol					CAS #: 1000130-90-5		
10.469	310845	5.07837330	193	95	NIST05.L	112083	67
Androst-4-en-3-one, 17-hydroxy-, (17.bet					CAS #: 58-22-0		
10.886	386258	7.48464639	284	89	NIST05.L	117326	91
Naphthalene, decahydro-1,1,4a-trimethyl-					CAS #: 511-02-4		
11.198	273517	5.30001311	201	80	NIST05.L	107101	91
Eicosanoic acid					CAS #: 506-30-9		
11.339	317178	6.14604559	233	98	NIST05.L	132302	91
Unknown					CAS #:		
11.433	768425	14.8900099	565	0		0	91
Unknown					CAS #:		
11.586	308719	5.98213851	227	0		0	91
Unknown					CAS #:		
11.686	464330	8.99745886	342	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1740-19-8		
11.810	2328467	45.1194010	1710	91	NIST05.L	125034	91
Docosanoic acid					CAS #: 112-85-6		
12.127	608710	11.7951613	448	97	NIST05.L	147935	91
Unknown					CAS #:		
13.016	248133	4.80814602	182	0		0	91
Tetracosanoic acid					CAS #: 557-59-5		
13.051	776541	15.0472664	571	90	NIST05.L	160633	91
Unknown					CAS #:		
14.457	193060	5.69404912	216	0		0	98

RT	CONCENTRATIONS				QUANT		
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
14.651	219887	6.48528268	246	0		0	98
Unknown				CAS #:			
14.992	202471	5.97160477	227	0		0	98
Unknown				CAS #:			
15.398	2521291	74.3620467	2820	0		0	98
Unknown				CAS #:			
15.615	216095	6.37342291	242	0		0	98
Unknown				CAS #:			
15.880	284760	8.39859905	319	0		0	98
Unknown				CAS #:			
16.074	3031635	89.4139688	3390	0		0	98
Unknown				CAS #:			
16.204	189676	5.59422982	212	0		0	98
Stigmasterol, 22,23-dihydro-				CAS #: 1000214-20-7			
16.639	976019	28.7863474	1090	93	NIST05.L	174408	98
Unknown				CAS #:			
16.756	420437	12.4002114	471	0		0	98
Cycloheptane, 4-methylene-1-methyl-2-(2-				CAS #: 1000159-38-5			
17.080	496415	14.6410988	556	90	NIST05.L	59957	98

Data File: /chem/MSD1.i/s012910.b/s1a2921.d  
 Date: 29-JAN-2010 23:07  
 Client ID: RE15-10-7183  
 Sample Info: 12451060131944591.11SVNF1.11LNL  
 Volume Injected (uL): 0.5  
 Column phase: 3uM DB-5MS

Instrument: MSD1.i  
 Operator: RMV  
 Column diameter: 0.20



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111SVMF11ILANL

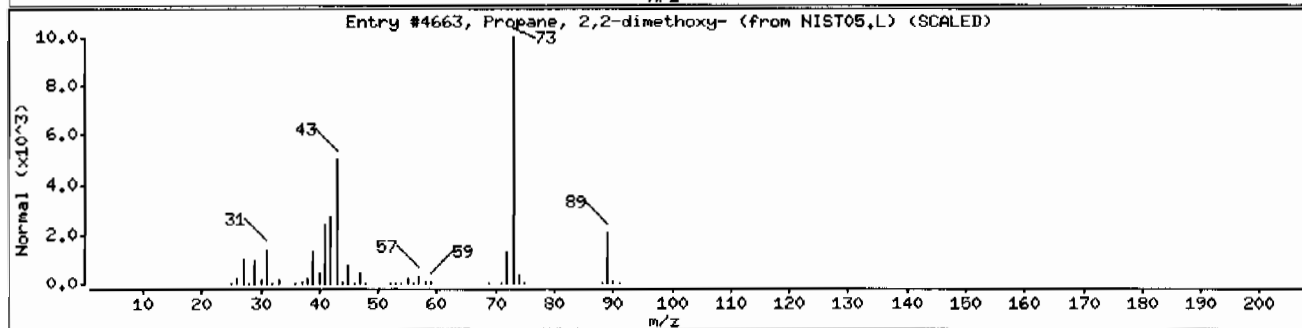
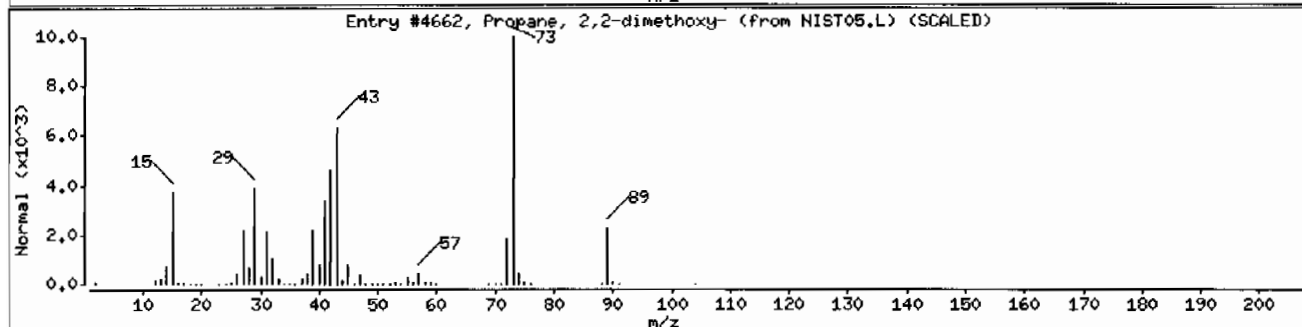
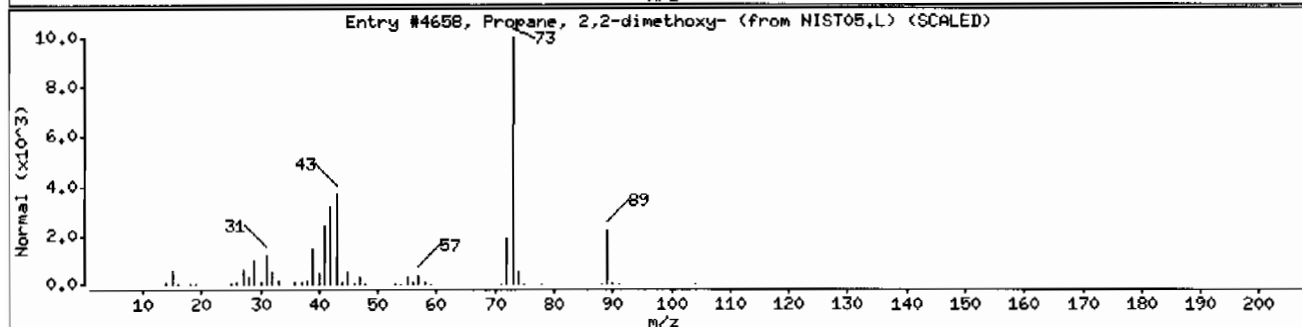
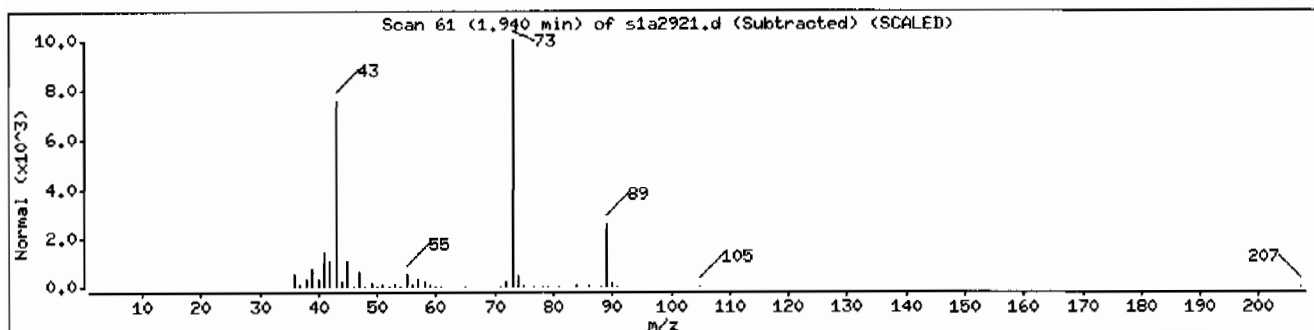
Volume Injected (uL): 0.5

Operator: AMY

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	4658	40	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	39	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	36	C5H12O2	104



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111SVHF111LANL

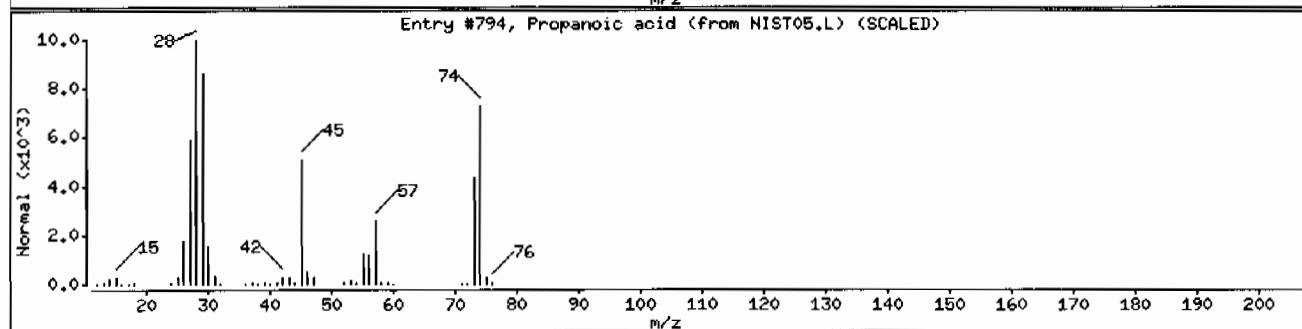
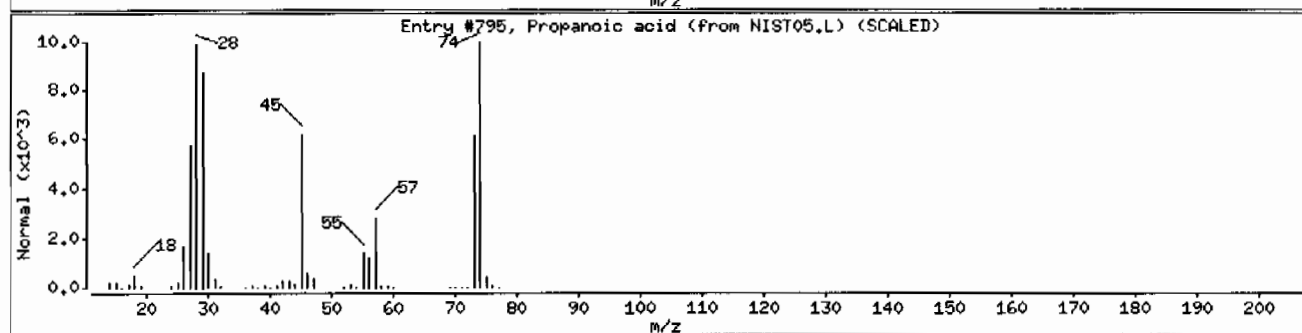
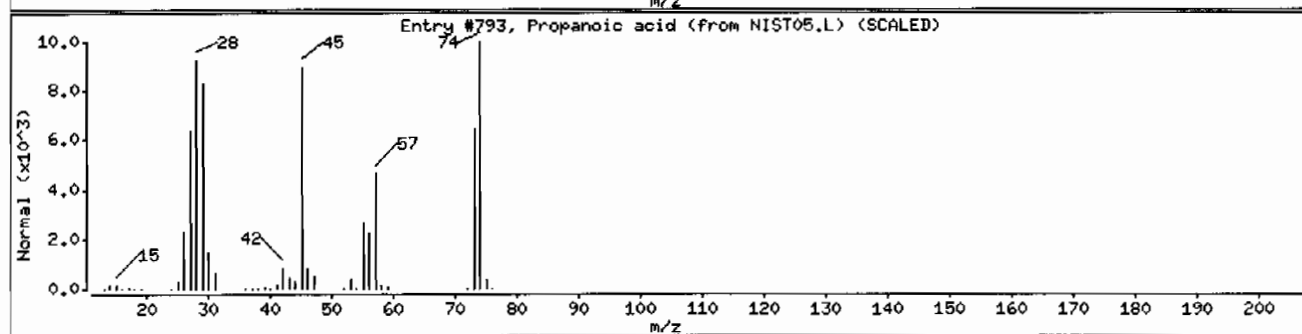
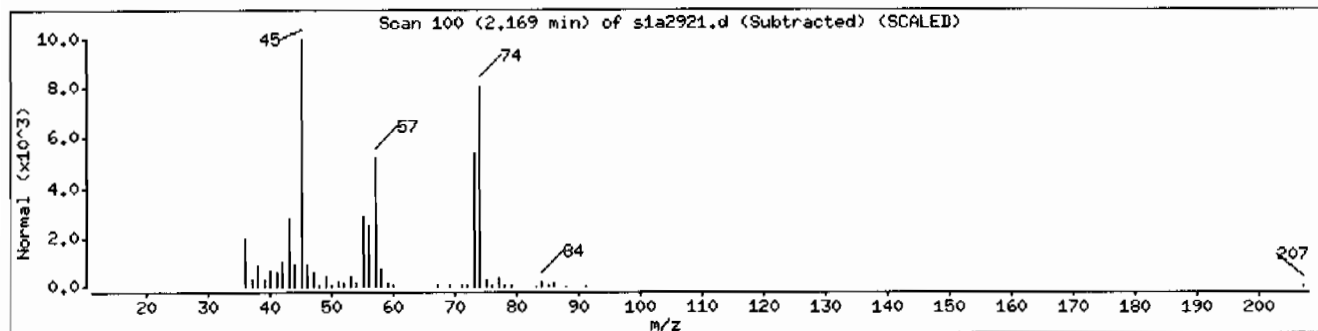
Volume Injected (uL): 0.5

Operator: AHY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Propanoic acid	79-09-4	NIST05.L	793	87	C3H6O2	74
Propanoic acid	79-09-4	NIST05.L	795	80	C3H6O2	74
Propanoic acid	79-09-4	NIST05.L	794	50	C3H6O2	74



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111SVMF111LANL

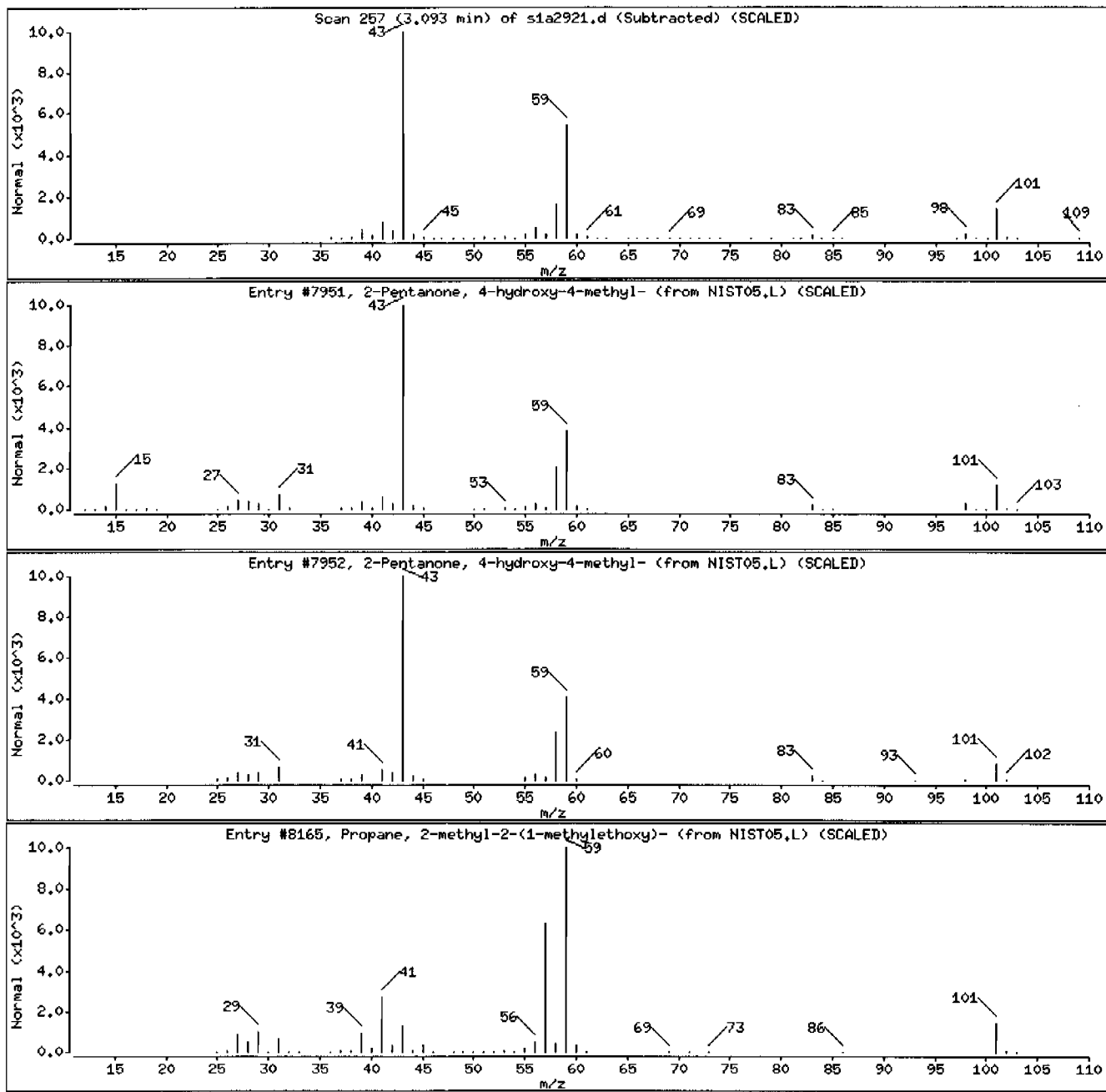
Volume Injected (uL): 0.5

Operator: AMY

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	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Propane, 2-methyl-2-(1-methylethoxy)-	17348-59-3	NIST05.L	8165	36	C7H16O	116



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111SVHF111LANL

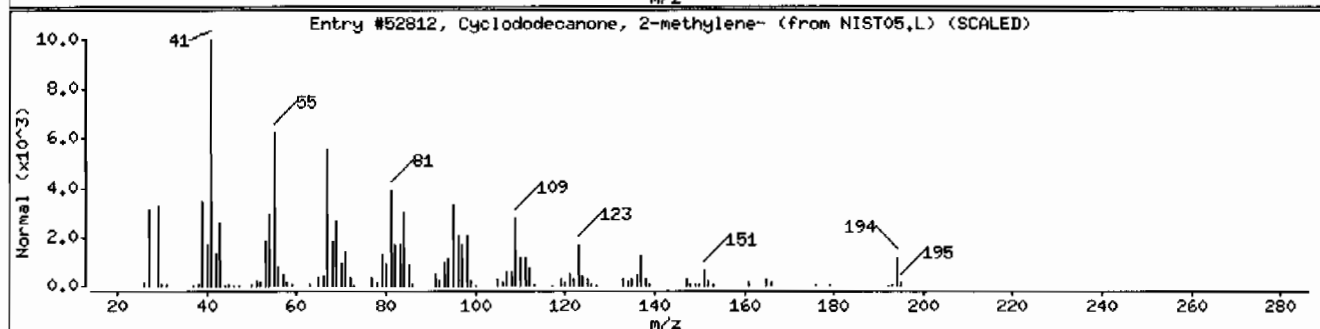
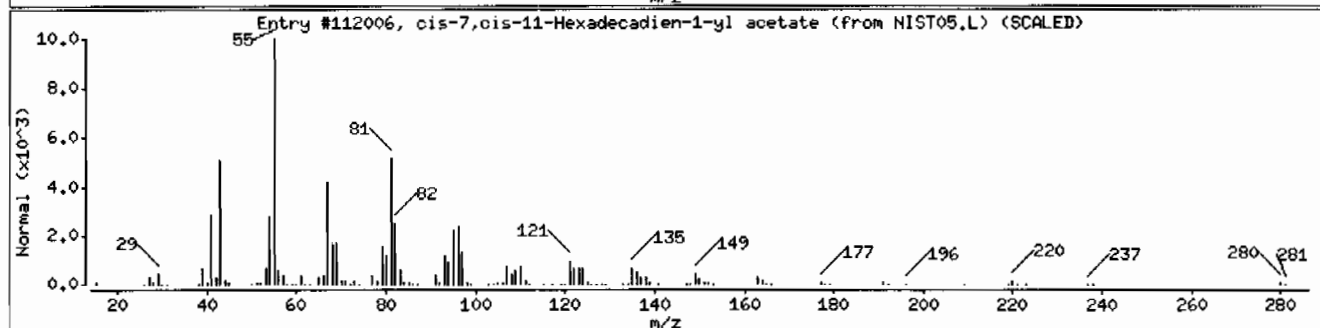
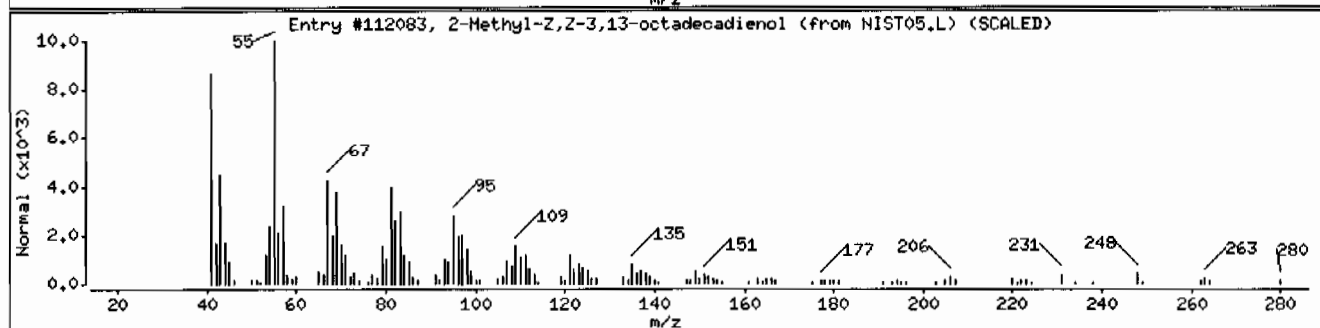
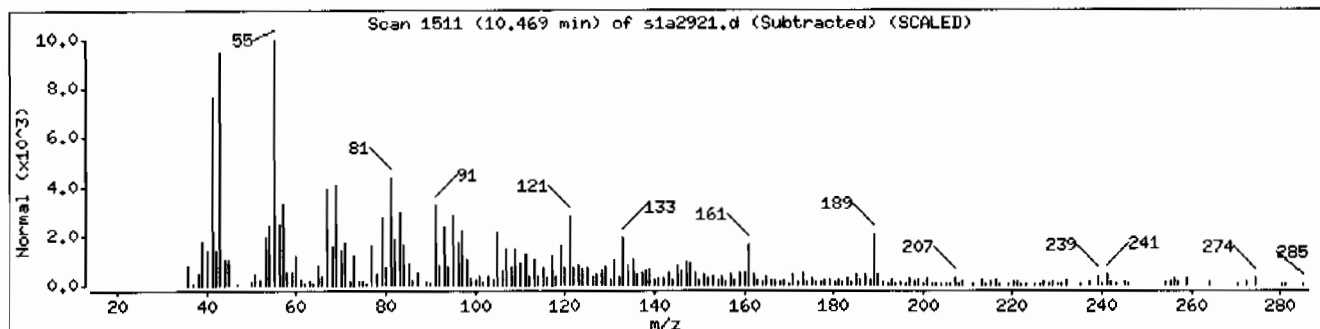
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Methyl-Z,Z-3,13-octadecadienol	1000130-90-5	NIST05.L	112083	95	C19H36O	280
cis-7,cis-11-Hexadecadien-1-yl acetate	52207-99-5	NIST05.L	112006	74	C18H32O2	280
Cyclododecanone, 2-methylene-	3045-76-9	NIST05.L	52812	70	C13H22O	194



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111SVHF11ILANL

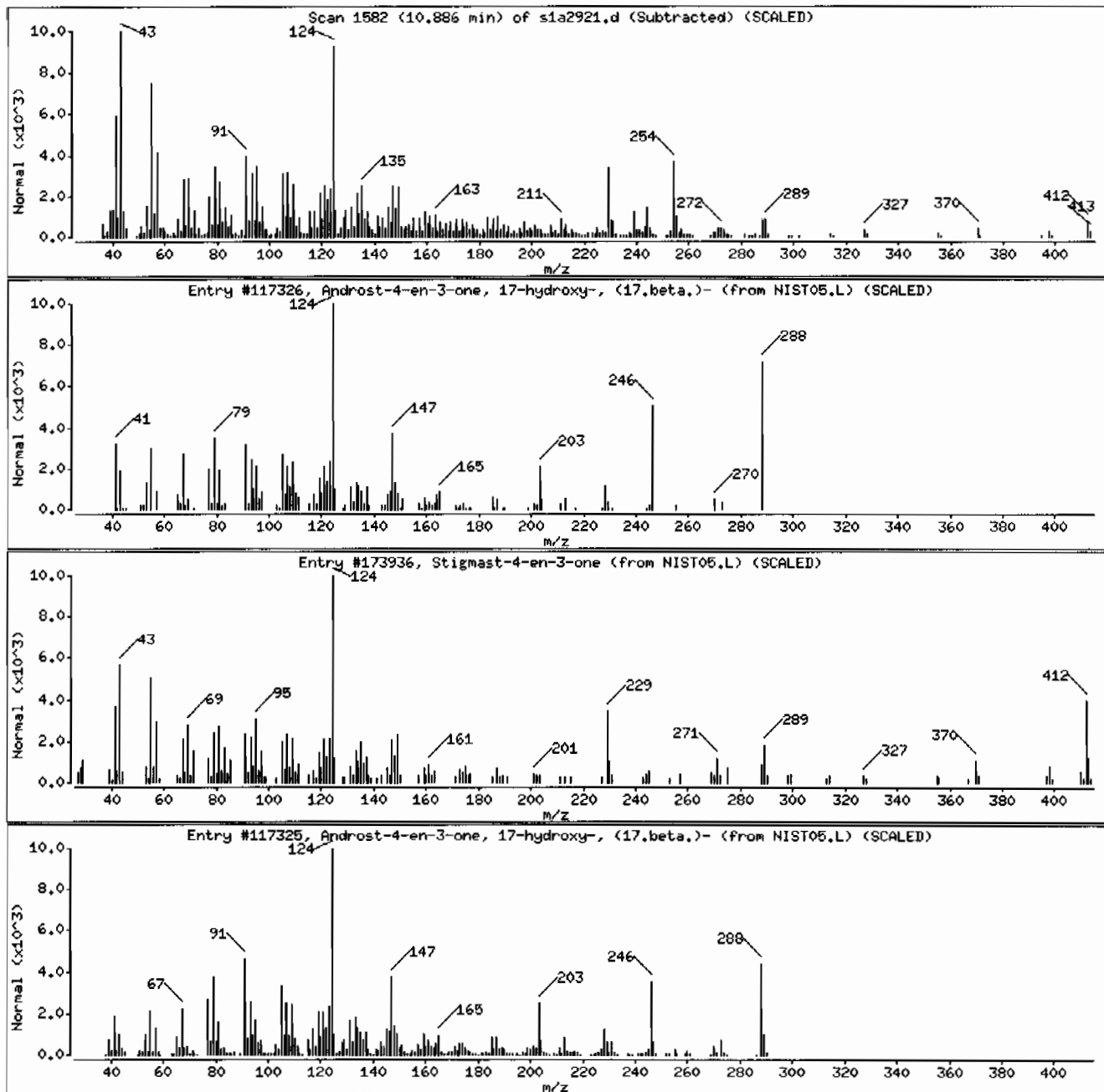
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117326	89	C19H28O2	288
Stigmast-4-en-3-one	1068-61-3	NIST05.L	173936	89	C29H48O	412
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117325	70	C19H28O2	288





Date: 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111SVMF11LANL

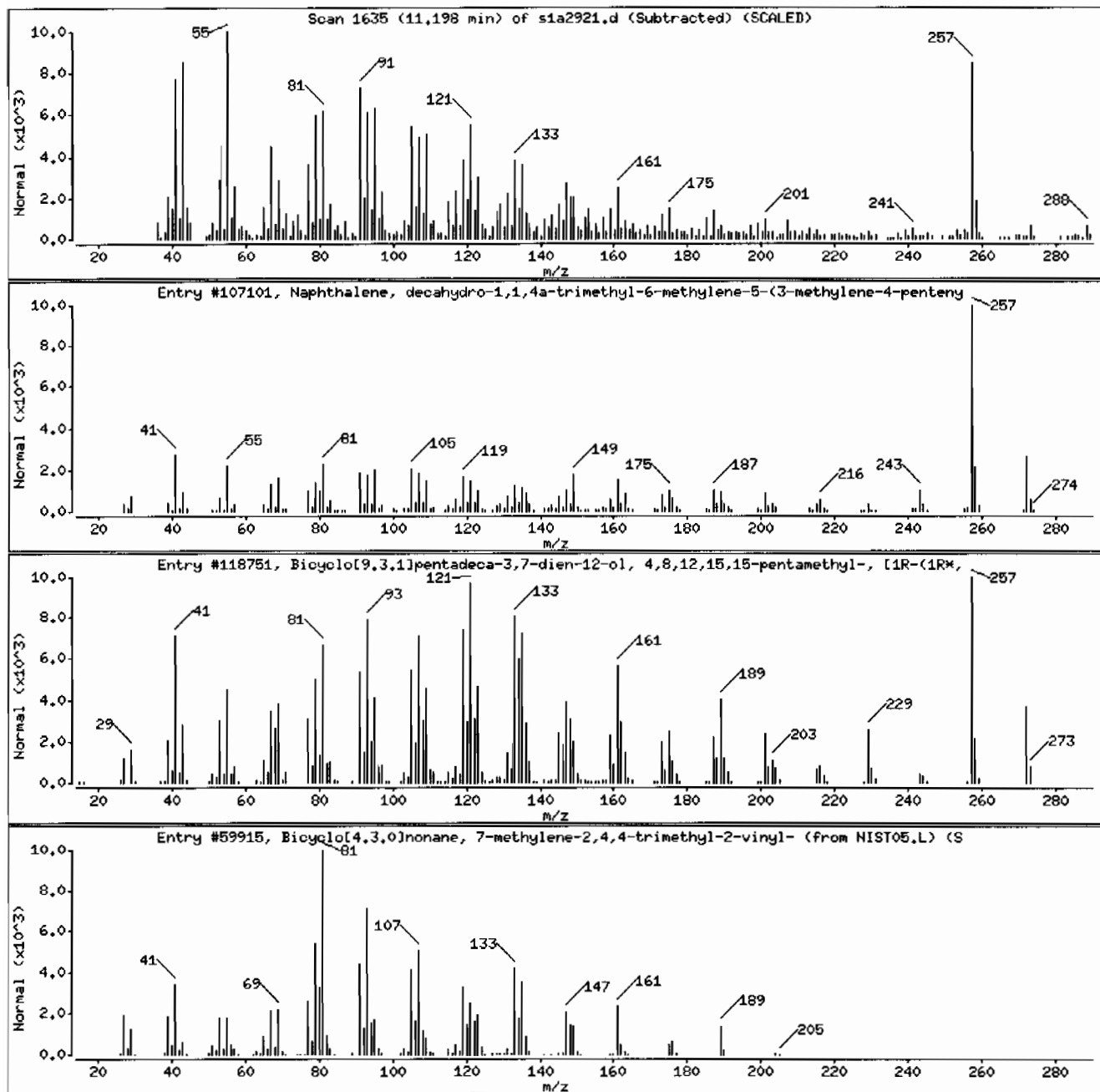
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, decahydro-1,1,4a-trimethyl-	511-02-4	NIST05.L	107101	80	C20H32	272
Bicyclo[9.3.1]pentadeca-3,7-dien-12-ol,	70000-19-0	NIST05.L	118751	64	C20H34O	290
Bicyclo[4.3.0]nonane, 7-methylene-2,4,4-	1000156-11-9	NIST05.L	59915	56	C15H24	204



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111SVMF11ILANL

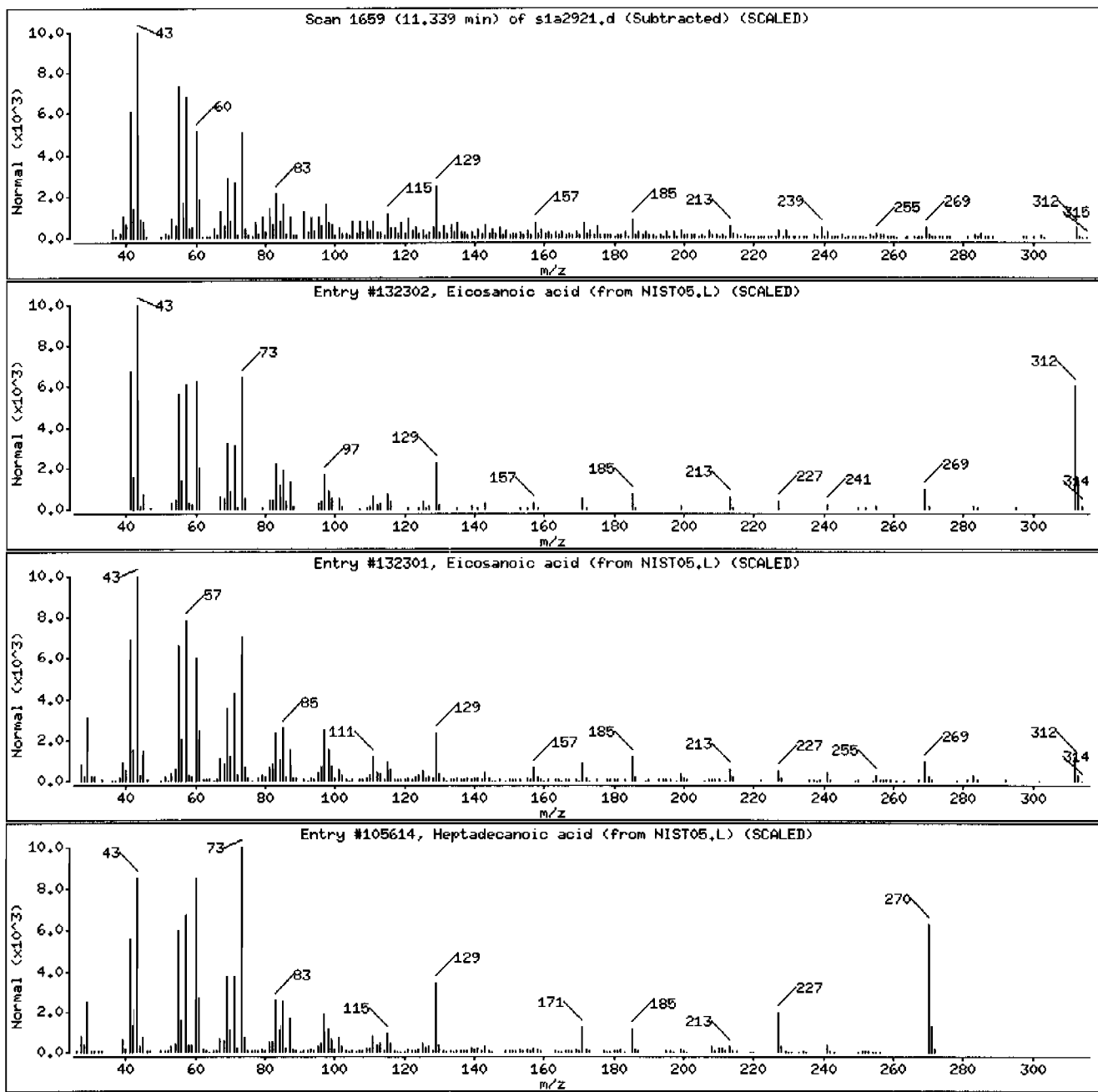
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosanoic acid	506-30-9	NIST05.L	132302	98	C20H40O2	312
Eicosanoic acid	506-30-9	NIST05.L	132301	91	C20H40O2	312
Heptadecanoic acid	506-12-7	NIST05.L	105614	76	C17H34O2	270



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: HSD1.i

Sample Info: 1245106013194459111SVMF111LANL

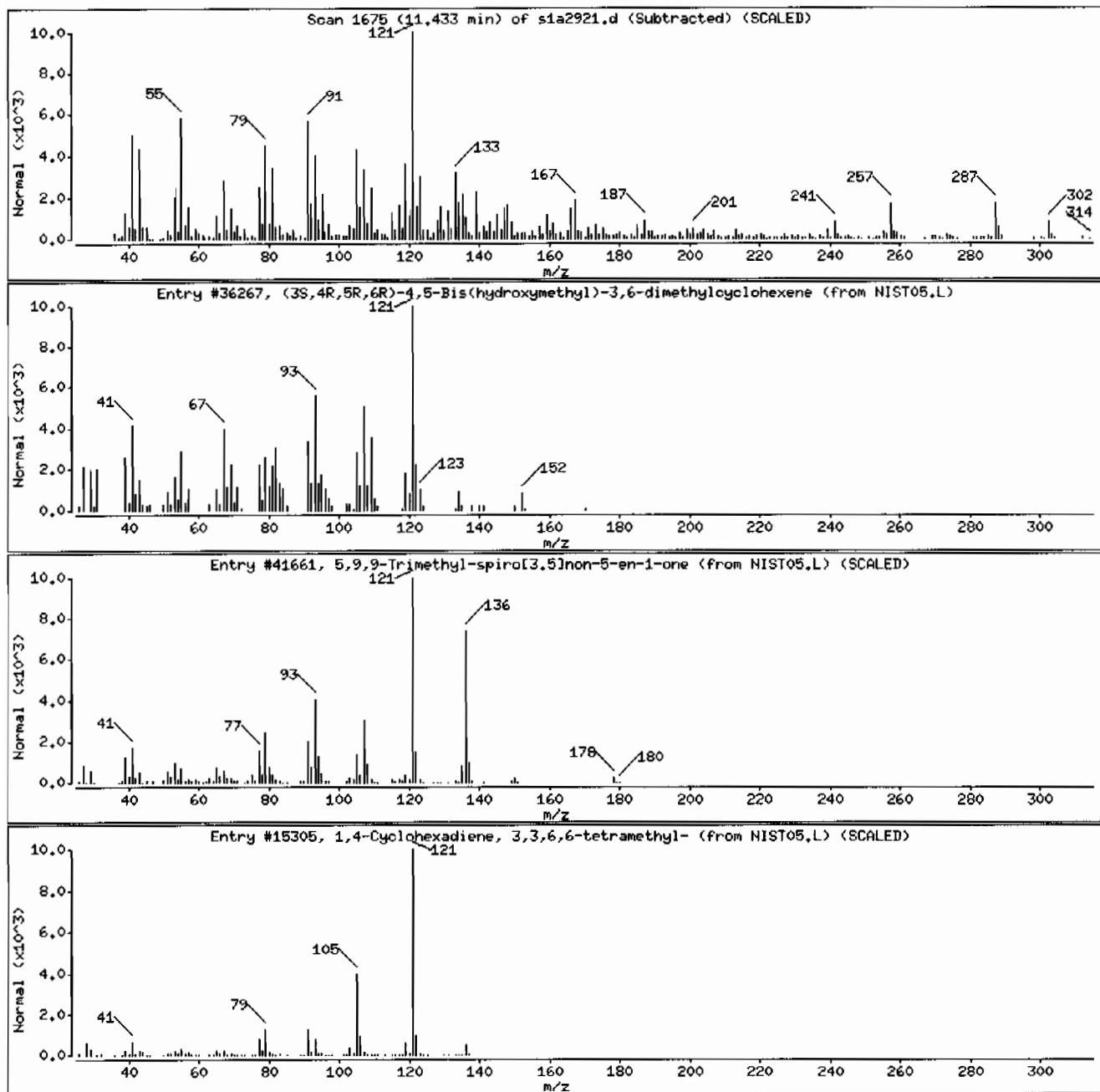
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
(3S,4R,5R,6R)-4,5-Bis(hydroxymethyl)-3,6	1000099-24-3	NIST05.L	36267	55	C10H18O2	170
5,9,9-Trimethyl-spiro[3.5]non-5-en-1-one	1000185-13-4	NIST05.L	41661	38	C12H18O	178
1,4-Cyclohexadiene, 3,3,6,6-tetramethyl-	2223-54-3	NIST05.L	15305	38	C10H16	136



Date: 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111SVHF111LANL

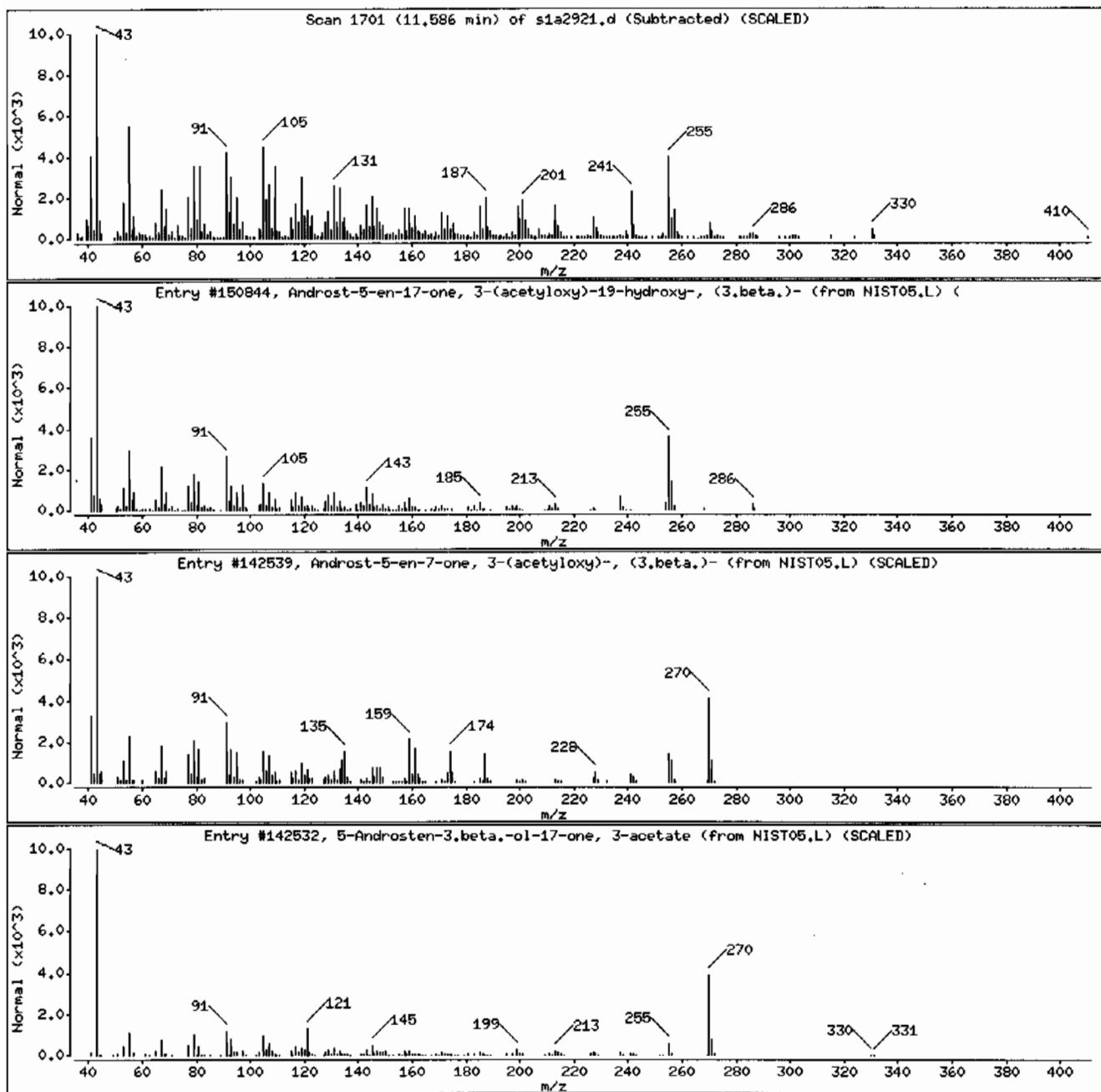
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Androst-5-en-17-one, 3-(acetyloxy)-19-hy	2857-42-3	NIST05.L	150844	10	C21H30O4	346
Androst-5-en-7-one, 3-(acetyloxy)-, (3,b	25845-92-5	NIST05.L	142539	9	C21H30O3	330
5-Androsten-3,β-ol-17-one, 3-acetate	1000127-30-4	NIST05.L	142532	8	C21H30O3	330



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111(SVHF11)LANL

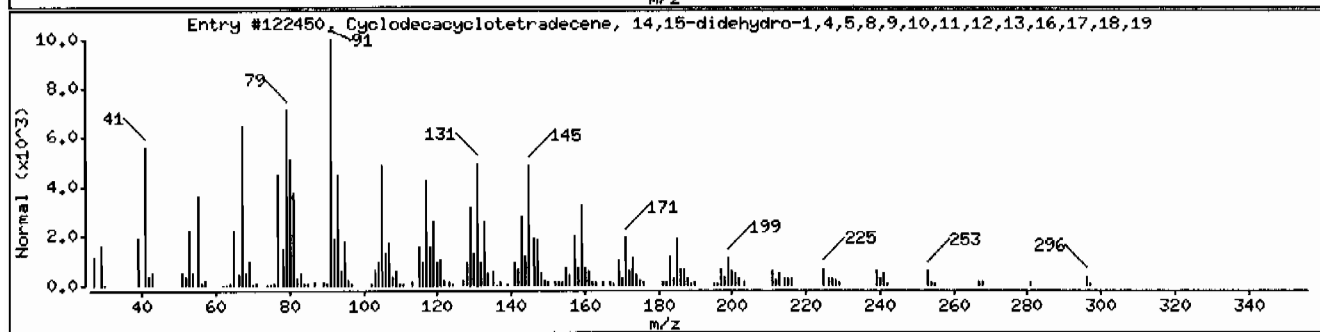
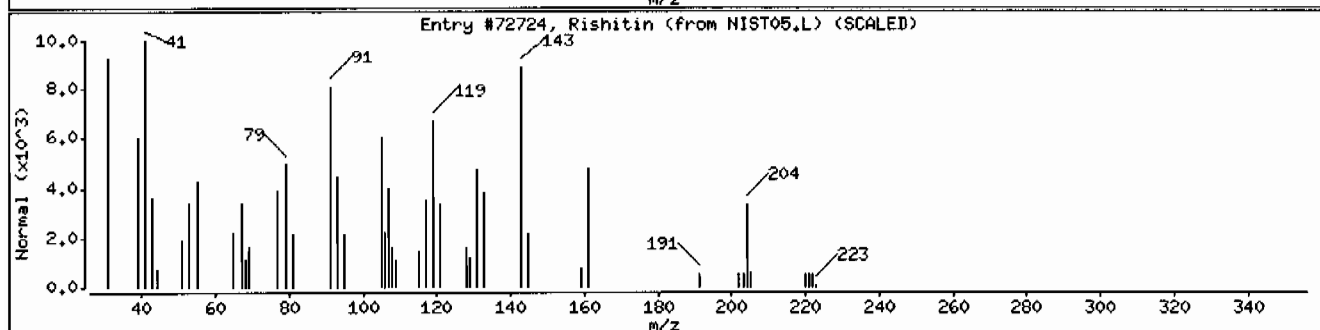
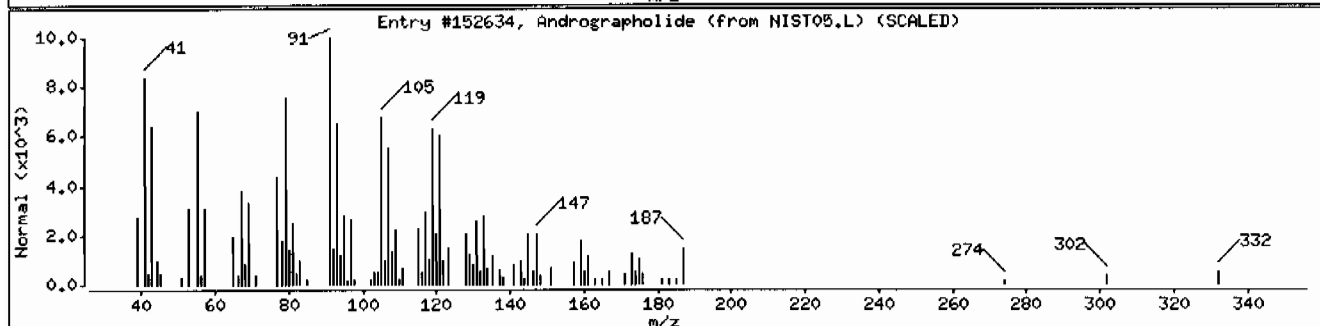
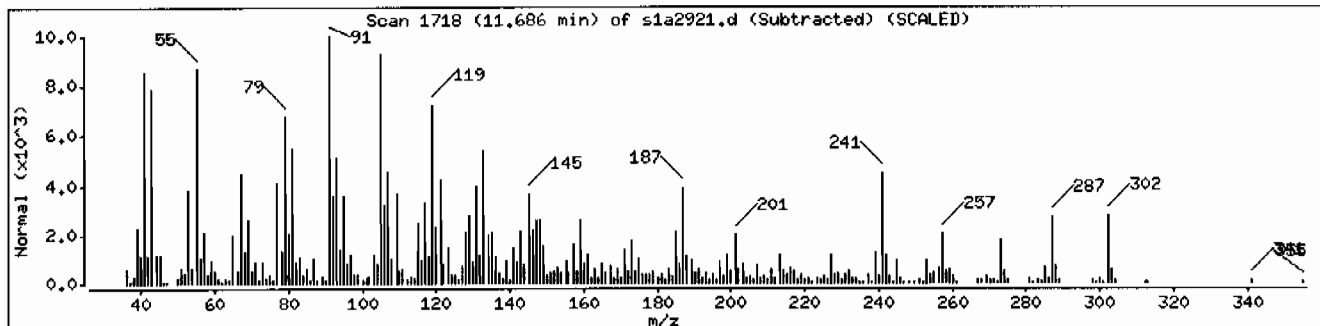
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Andrographolide	5508-58-7	NIST05.L	152634	38	C20H30O5	350
Rishitin	18178-54-6	NIST05.L	72724	35	C14H22O2	222
Cyclodecacyclotetradecene, 14,15-didehyd	14113-61-2	NIST05.L	122450	25	C22H32	296



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: HSD1.i

Sample Info: 1245106013194459111SVMF11ILANL

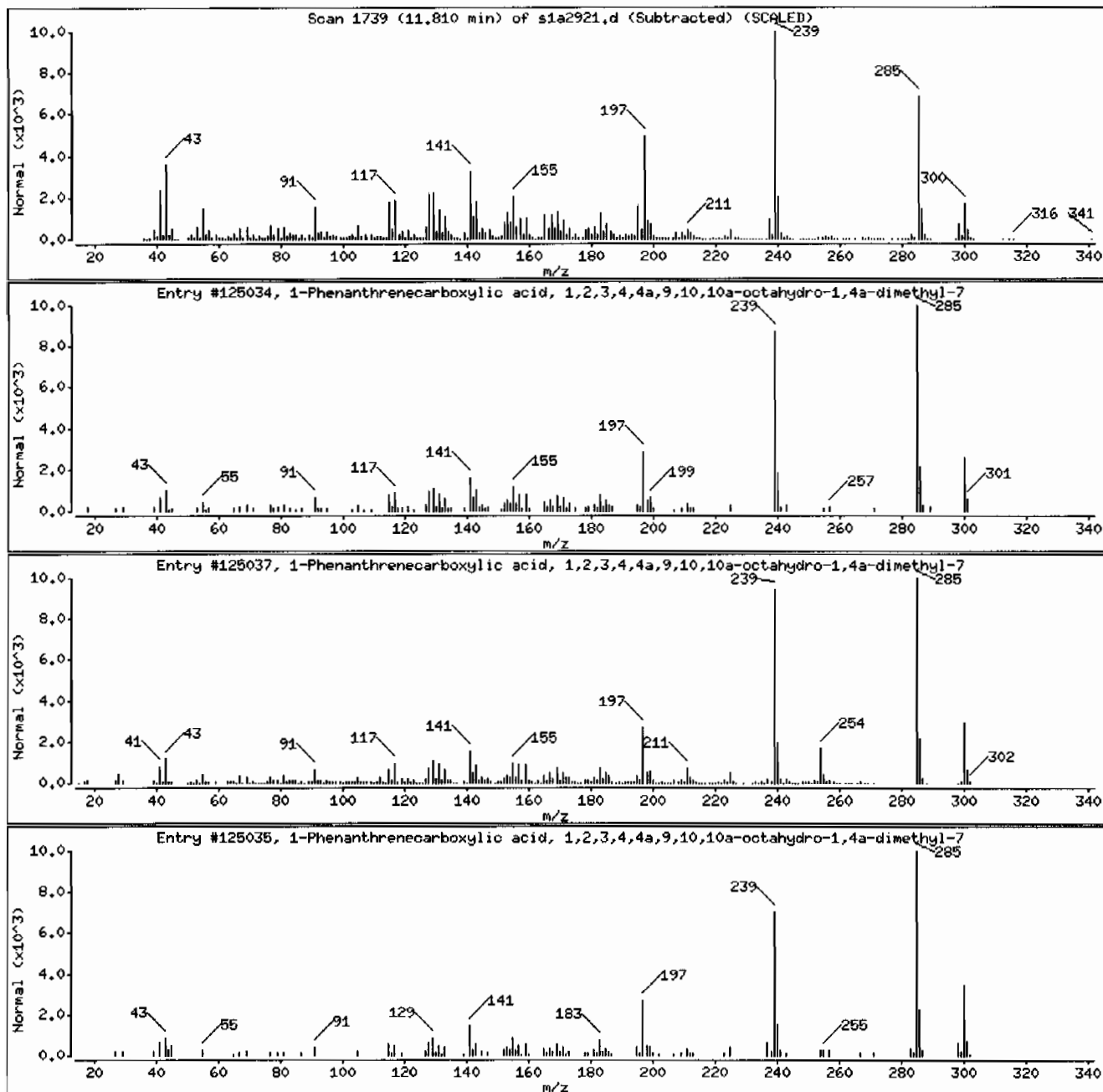
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	91	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125037	91	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	5155-70-4	NIST05.L	125035	90	C20H28O2	300



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111SVMF111LANL

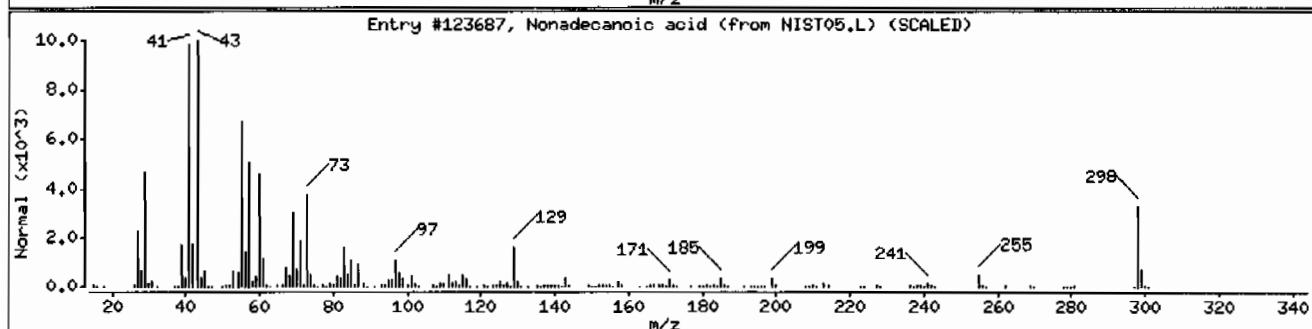
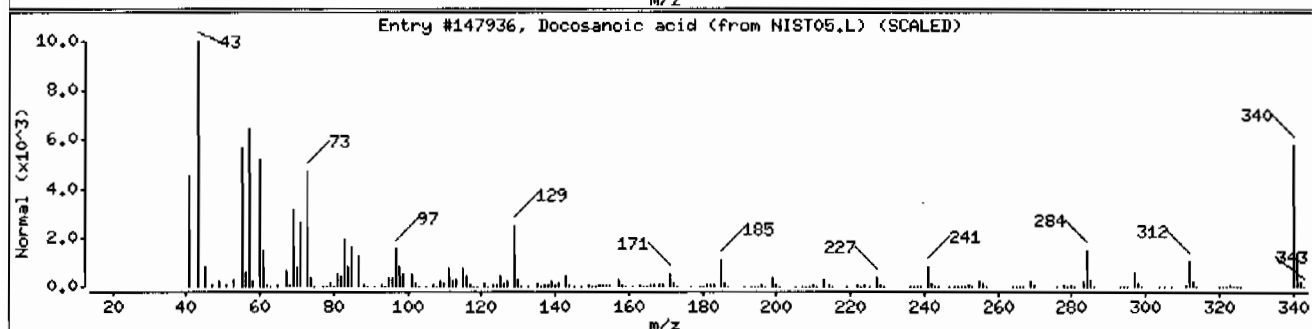
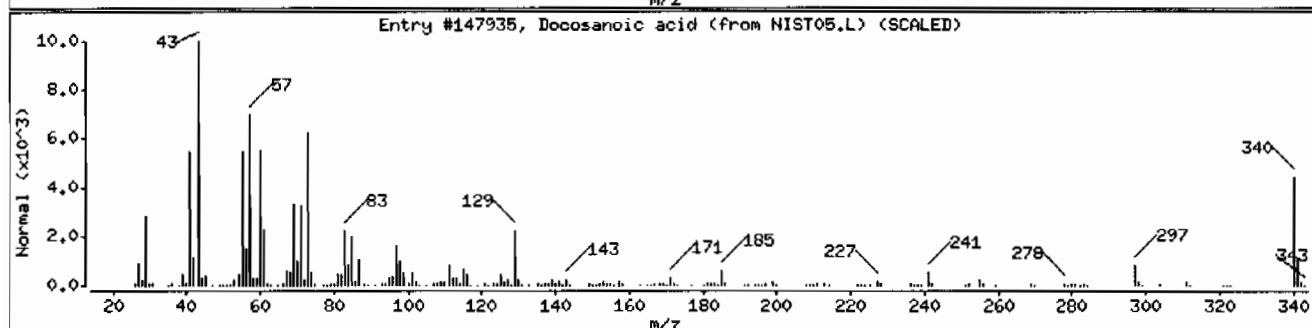
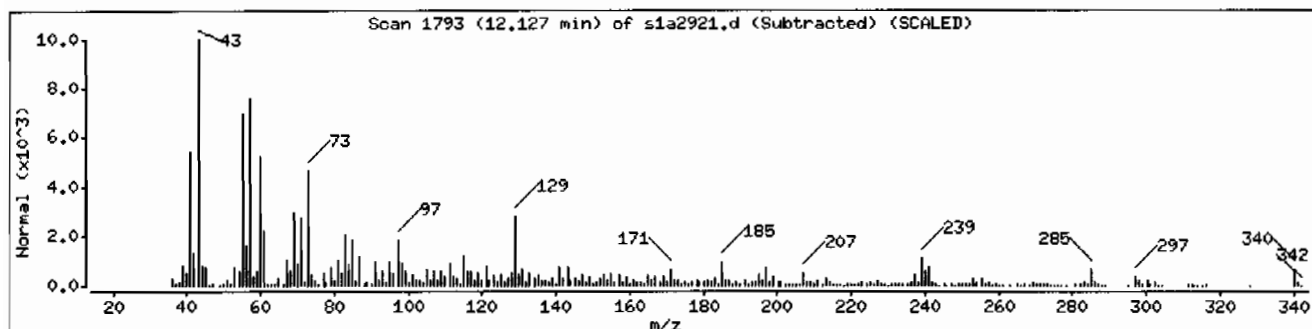
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Docosanoic acid	112-85-6	NIST05.L	147935	97	C22H44O2	340
Docosanoic acid	112-85-6	NIST05.L	147936	93	C22H44O2	340
Nonadecanoic acid	646-30-0	NIST05.L	123687	50	C19H38O2	298



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194489111SVHF111LANL

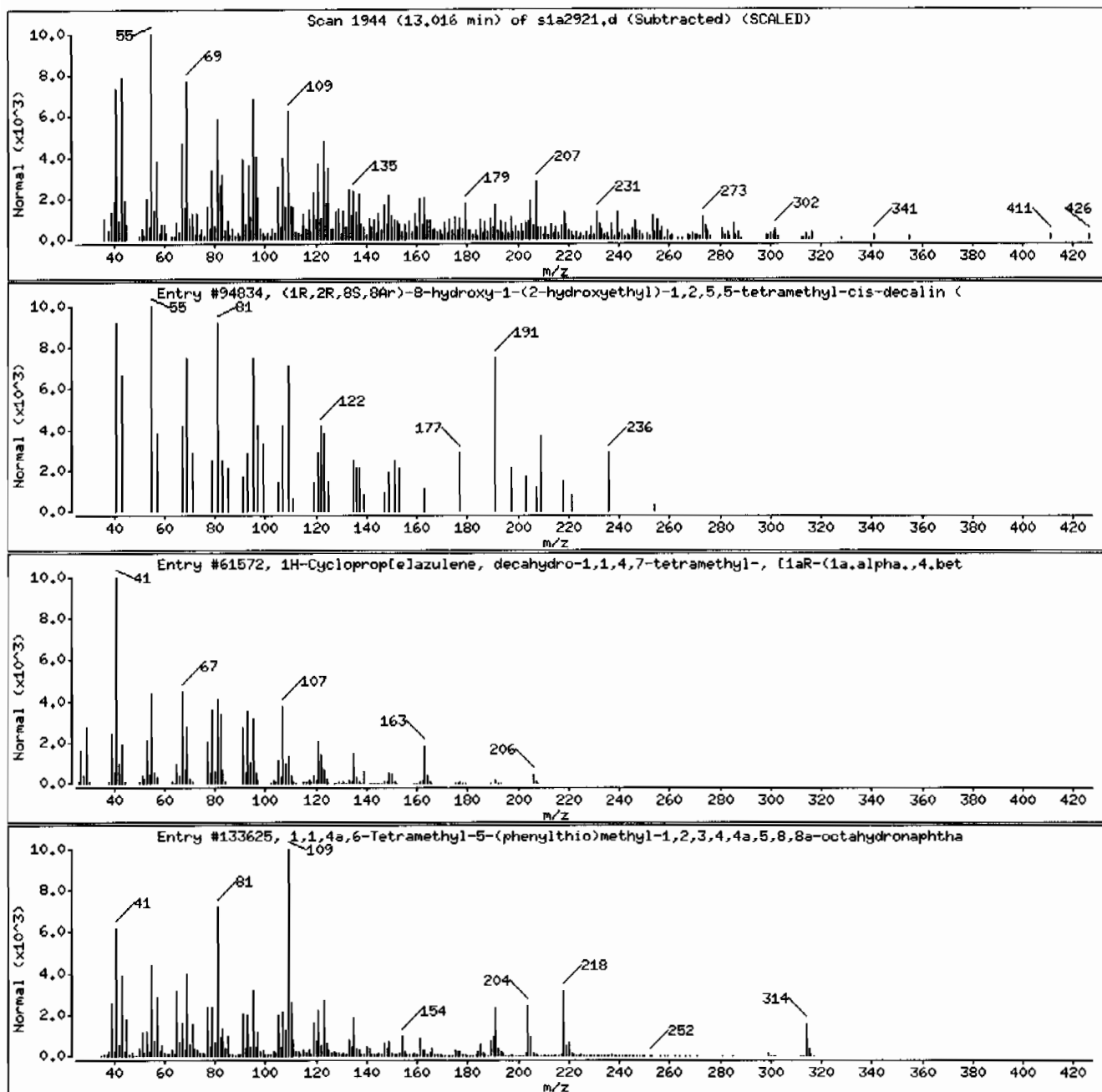
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
(1R,2R,8S,8Ar)-8-hydroxy-1-(2-hydroxyethyl)-1,2,5,5-tetramethyl-cis-decalin (	1000298-98-6	NIST05.L	94834	62	C16H30O2	254
1H-Cycloprop[elazulene, decahydro-1,1,4,7-tetramethyl-, [1aR-(1a.alpha.,4.beta	28580-43-0	NIST05.L	61572	56	C15H26	206
1,1,4a,6-Tetramethyl-5-(phenylthio)methyl-1,2,3,4,4a,5,8,8a-octahydronaphtha	155191-62-1	NIST05.L	133625	51	C21H30S	314





Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111SVHF11ILANL

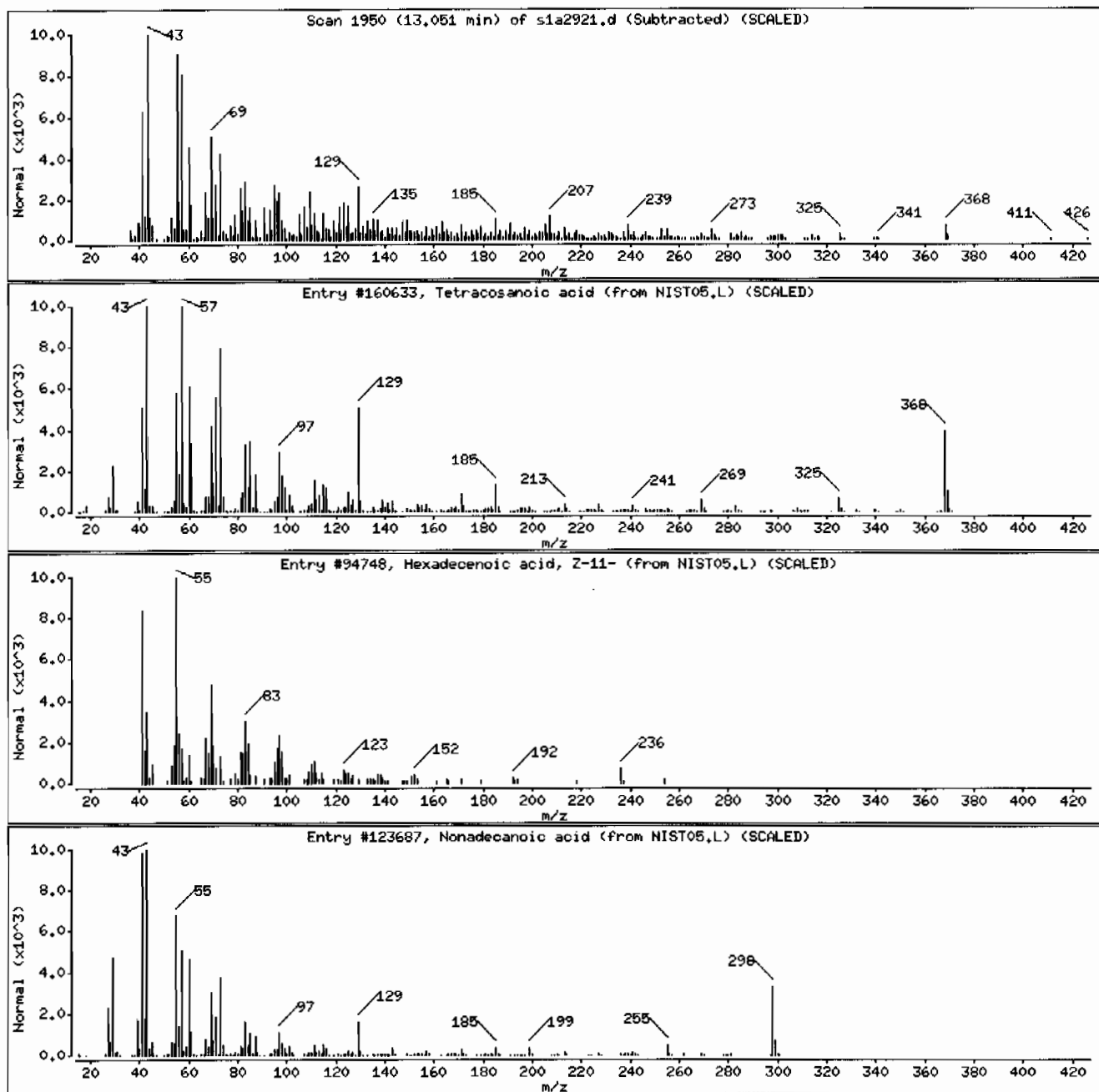
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetracosanoic acid	557-59-5	NIST05.L	160633	90	C <sub>24</sub> H <sub>48</sub> O <sub>2</sub>	368
Hexadecenoic acid, Z-11-	2416-20-8	NIST05.L	94748	45	C <sub>16</sub> H <sub>30</sub> O <sub>2</sub>	254
Nonadecanoic acid	646-30-0	NIST05.L	123687	42	C <sub>19</sub> H <sub>38</sub> O <sub>2</sub>	298



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111SVMF111LANL

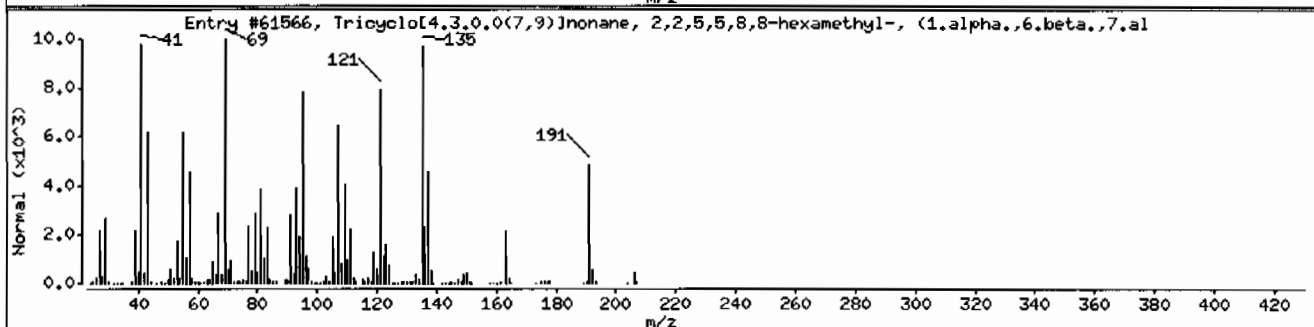
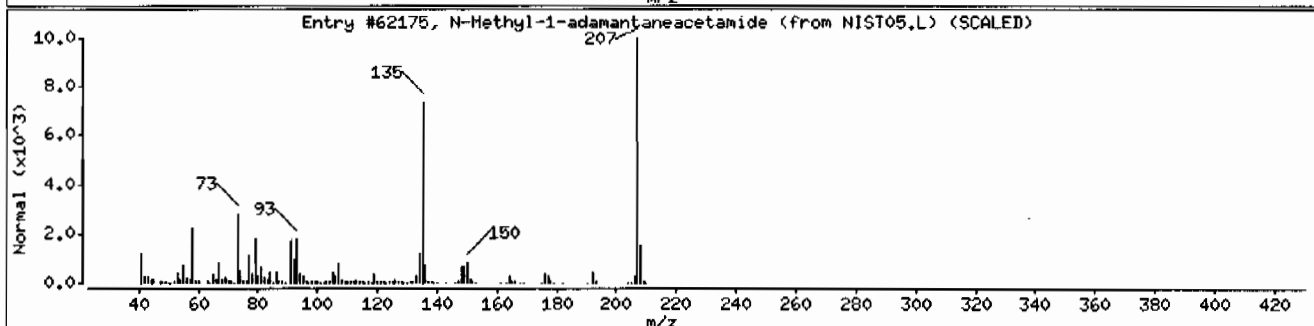
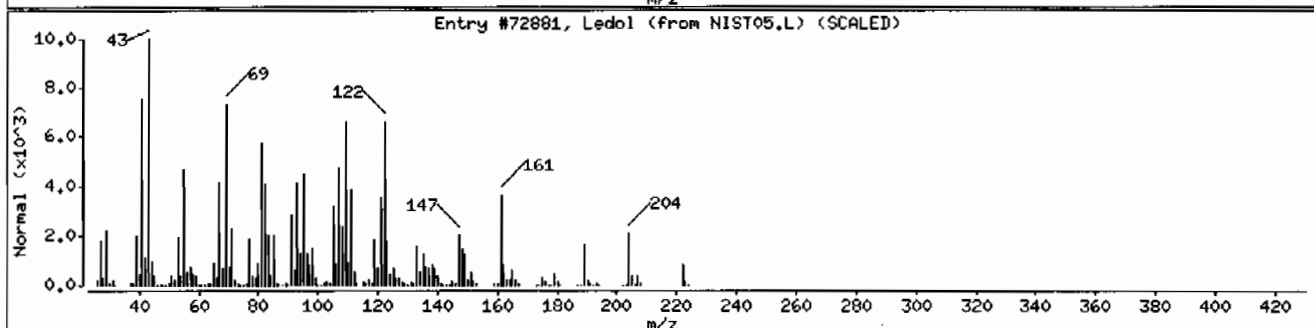
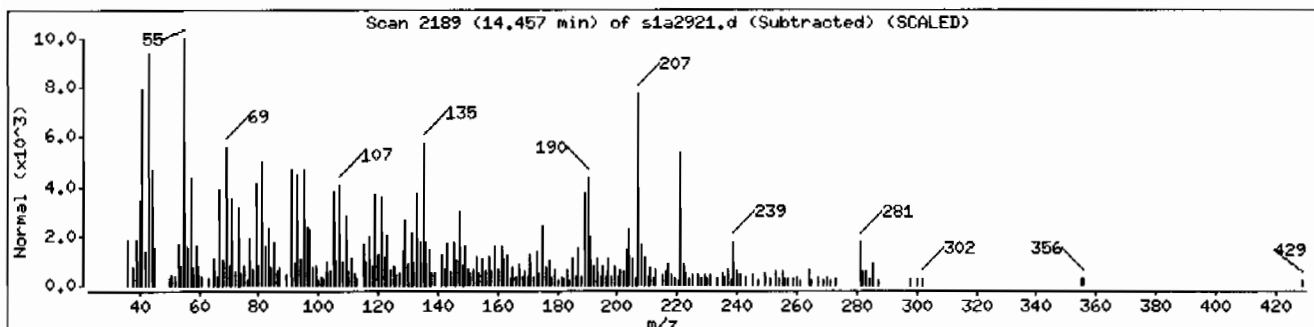
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ledol	577-27-5	NIST05.L	72881	44	C15H26O	222
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	42	C13H21NO	207
Tricyclo[4.3.0.0(7,9)]nonane, 2,2,5,5,8,8-hexamethyl-, (1.alpha.,6.beta.,7.alpha.)	54832-82-5	NIST05.L	61566	38	C15H26	206



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: I245106013|944591|1|SVMF|1|LANL

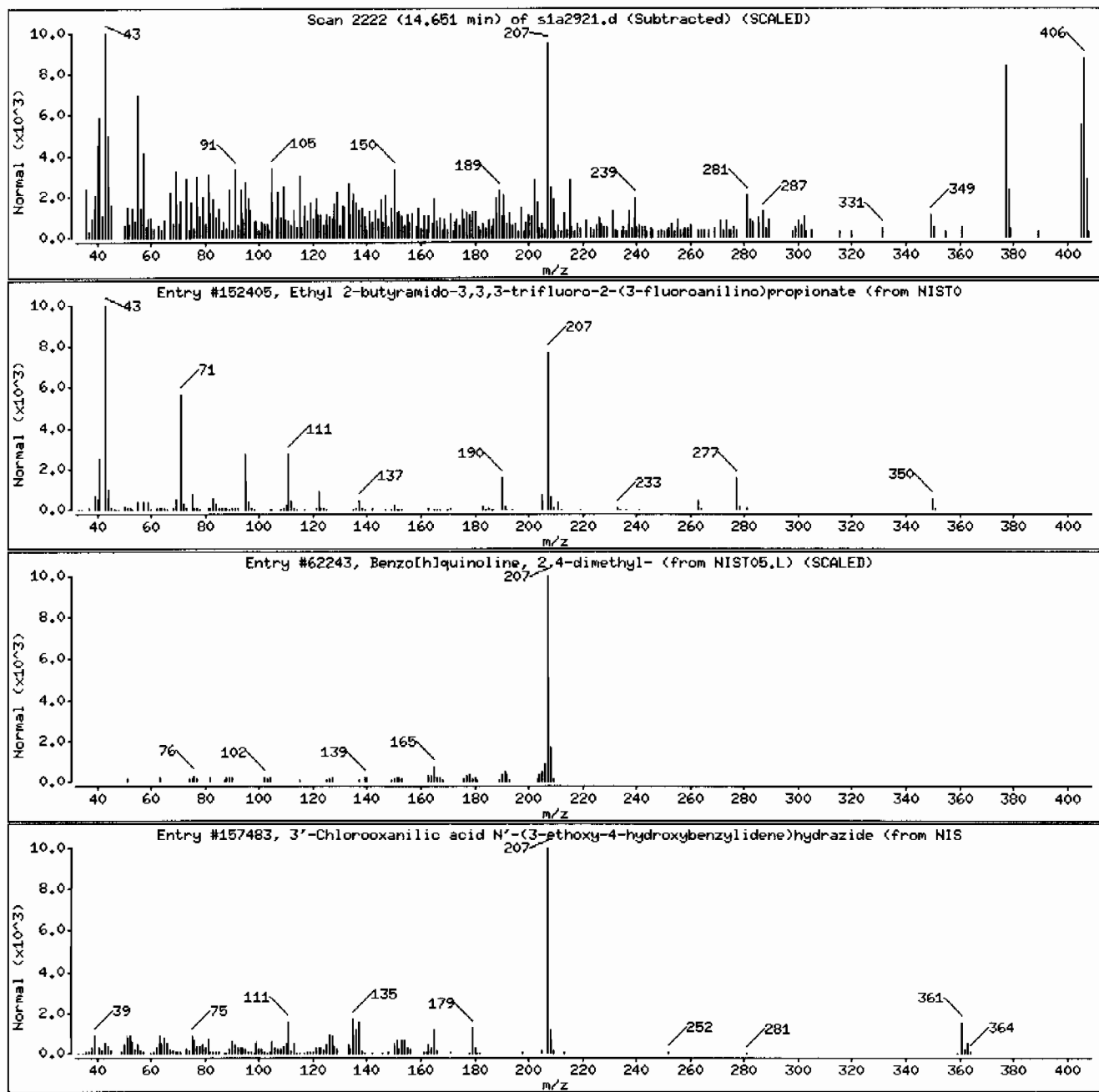
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ethyl 2-butyramido-3,3,3-trifluoro-2-(3-Benzo[h]quinoline, 2,4-dimethyl-	1000224-16-1	NIST05.L	152405	25	C15H18F4N2O3	350
3'-Chlorooxanilic acid N'-(3-ethoxy-4-hy	605-67-4	NIST05.L	62243	25	C15H13N	207
	328018-74-2	NIST05.L	157483	25	C17H16ClN3O4	361



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: HSD1.i

Sample Info: 1245106013194459111SVMF11ILANL

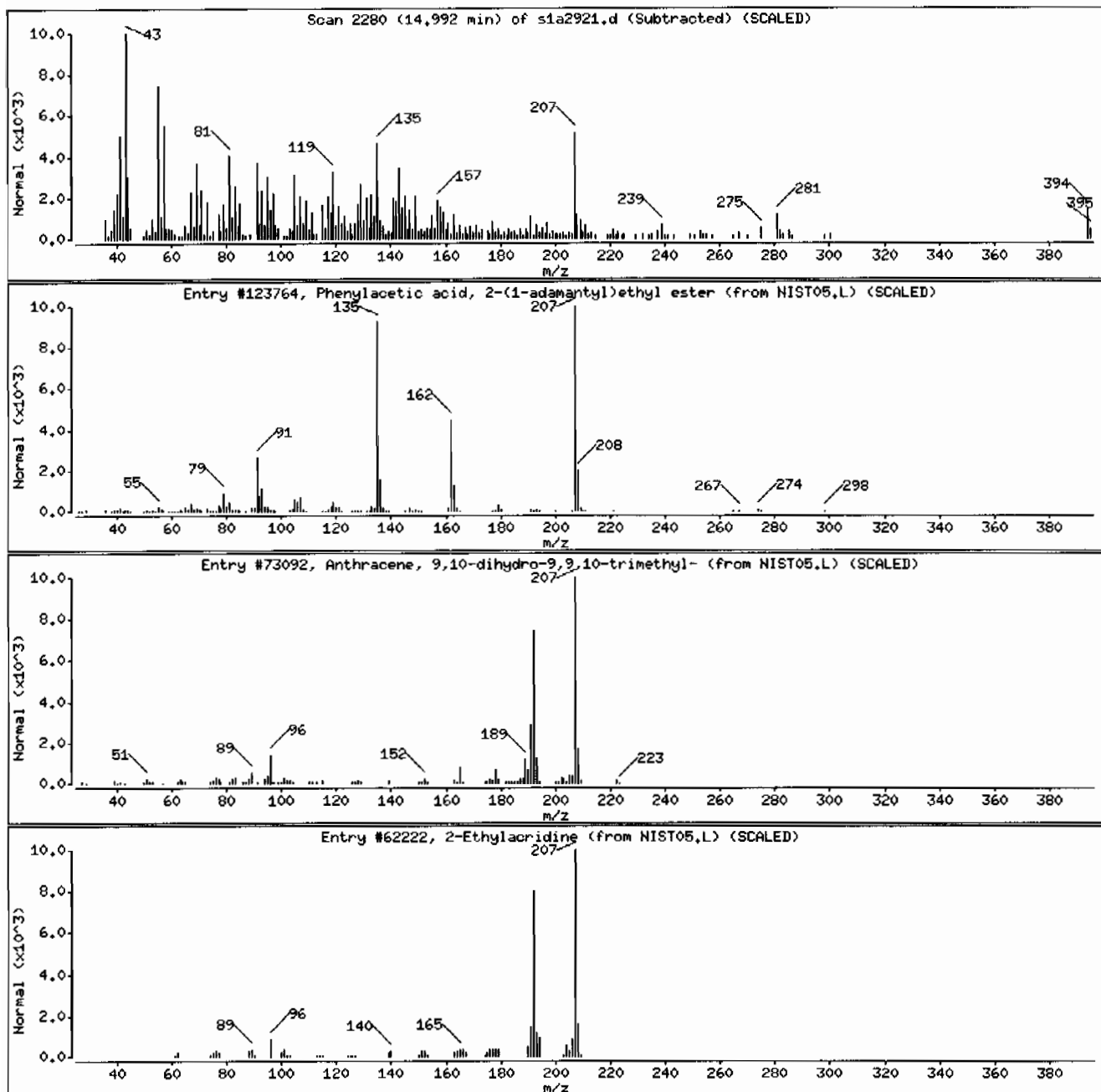
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Phenylacetic acid, 2-(1-adamantyl)ethyl	1000282-91-2	NIST05.L	123764	35	C20H26O2	298
Anthracene, 9,10-dihydro-9,9,10-trimethyl	14923-29-6	NIST05.L	73092	25	C17H18	222
2-Ethylacridine	55751-83-2	NIST05.L	62222	15	C15H13N	207



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111SVMF11ILANL

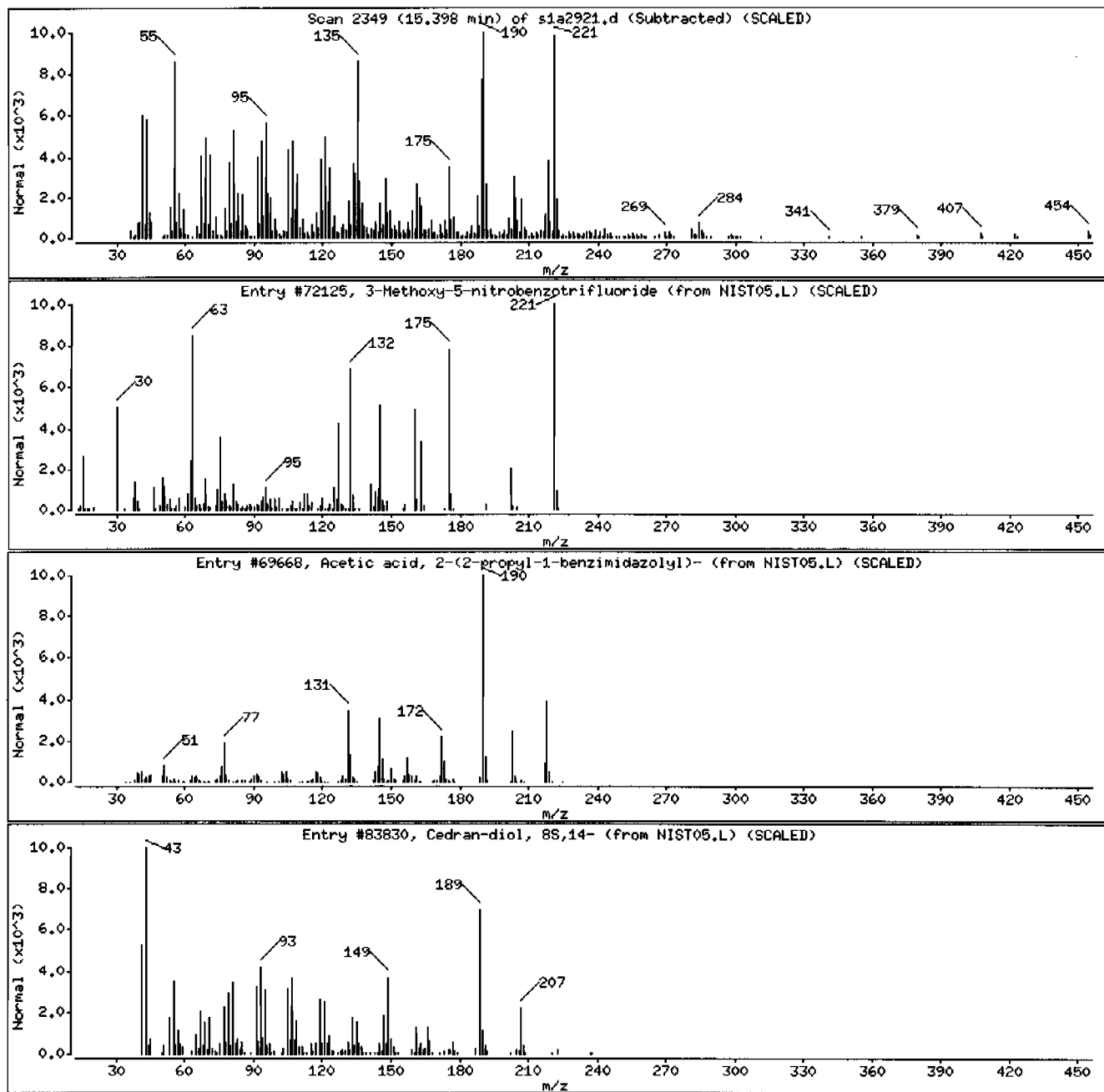
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-Methoxy-5-nitrobenzotrifluoride	328-79-0	NIST05.L	72125	53	C8H6F3NO3	221
Acetic acid, 2-(2-propyl-1-benzimidazolyl)-	331736-92-6	NIST05.L	69668	44	C12H14N2O2	218
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	41	C15H26O2	238



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111SVHF111LANL

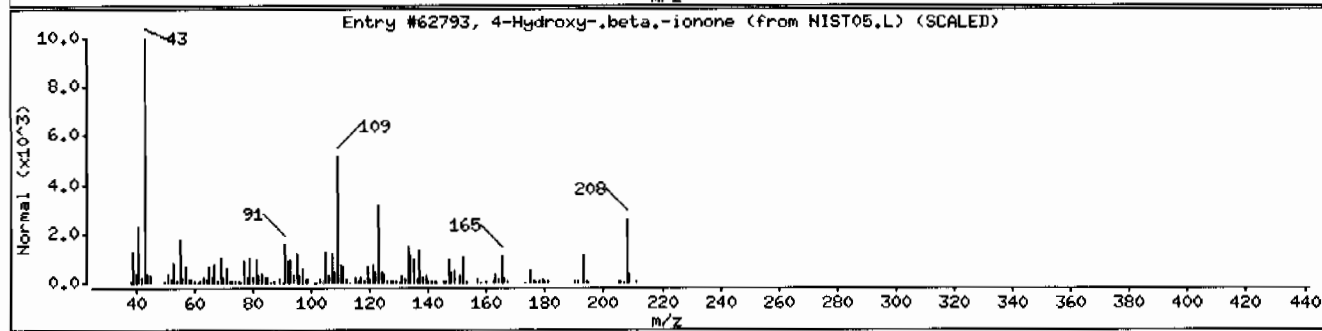
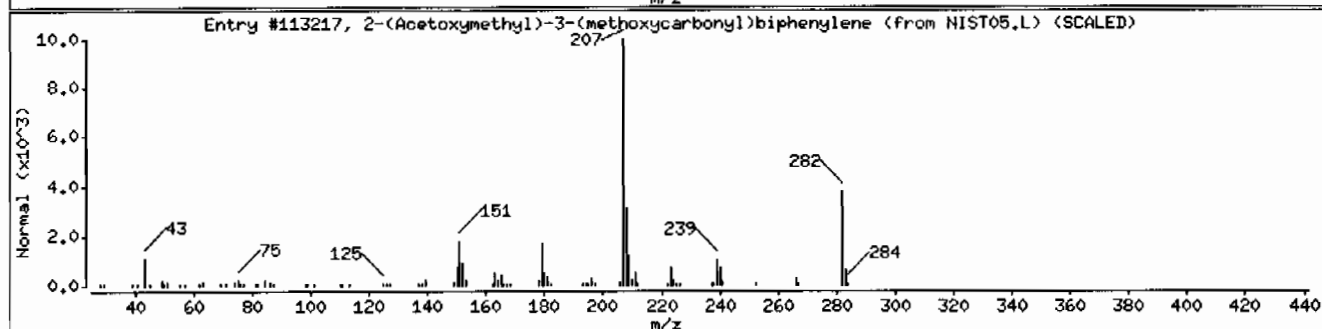
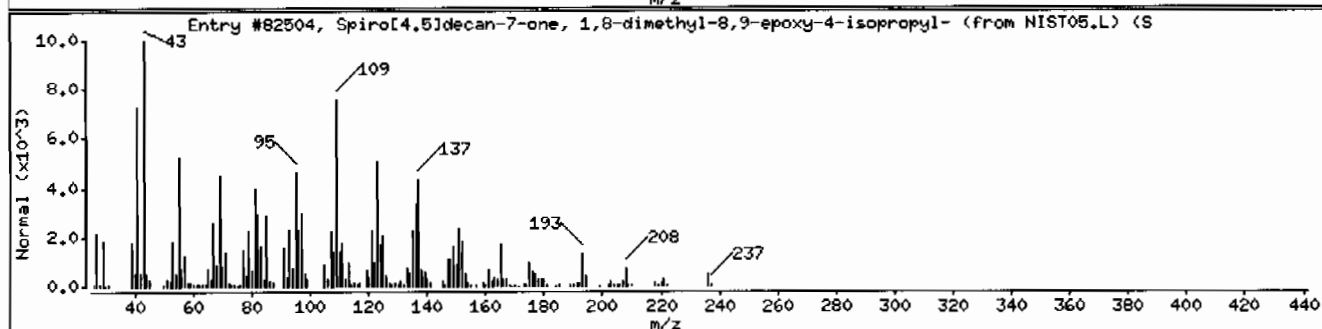
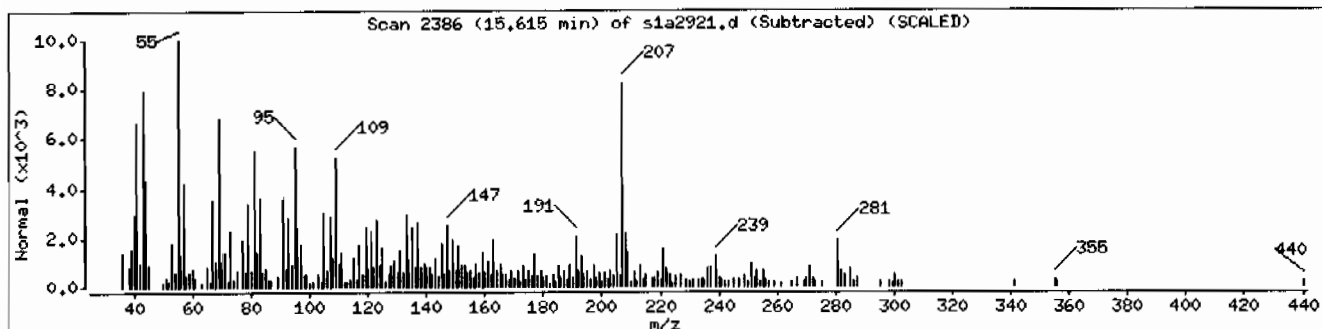
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Spiro[4.5]decan-7-one, 1,8-dimethyl-8,9-	61050-91-7	NIST05.L	82504	45	C15H24O2	236
2-(Acetoxymethyl)-3-(methoxycarbonyl)bip	93103-70-9	NIST05.L	113217	38	C17H14O4	282
4-Hydroxy-.beta.-ionone	15401-34-0	NIST05.L	62793	35	C13H20O2	208



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: HSD1.i

Sample Info: 1245106013194459111SVHF11ILANL

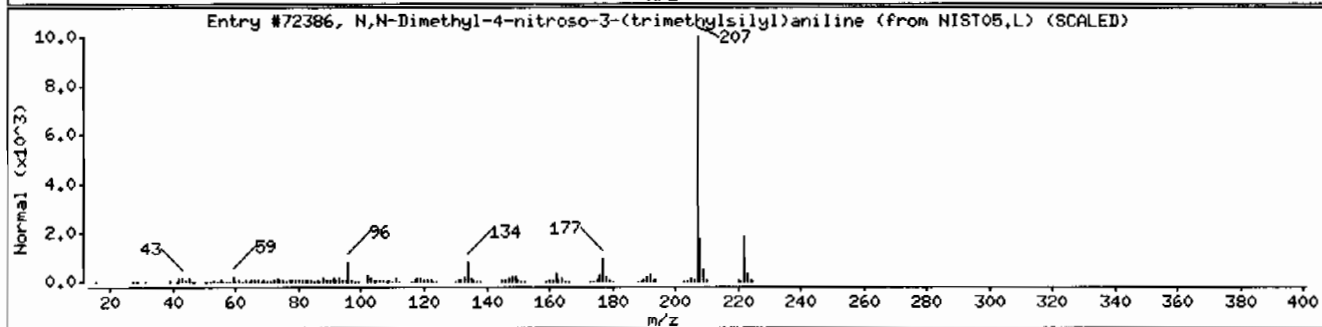
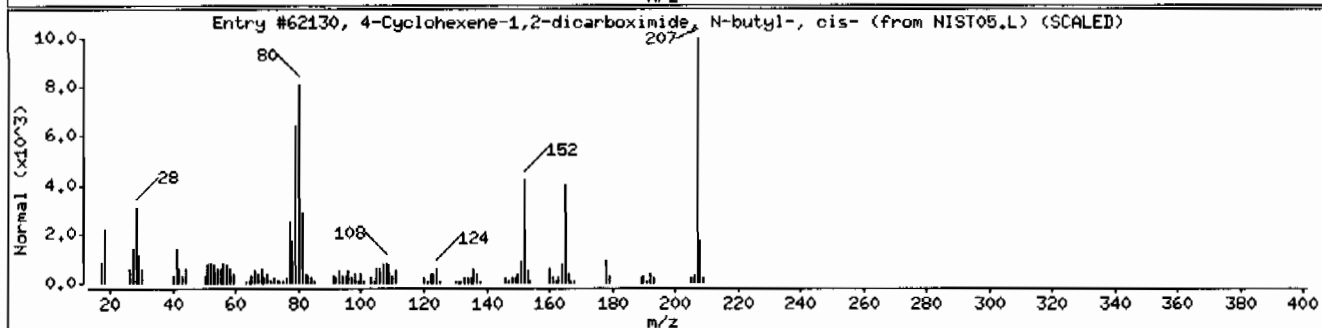
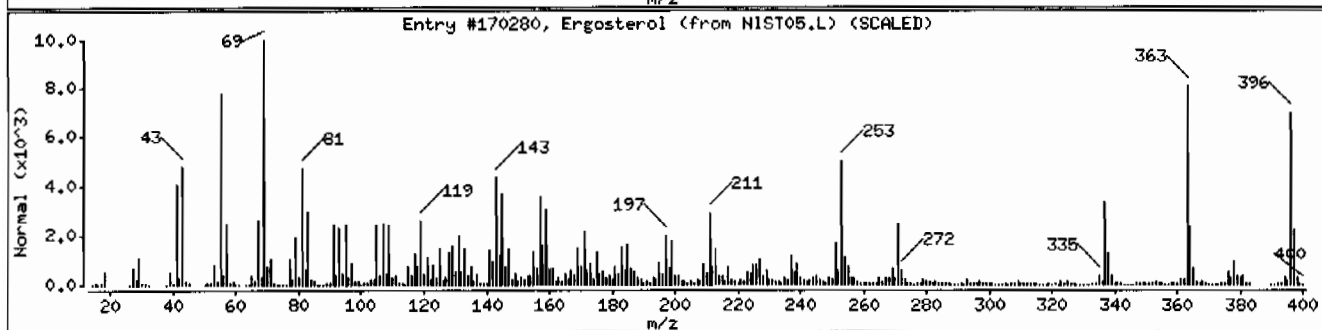
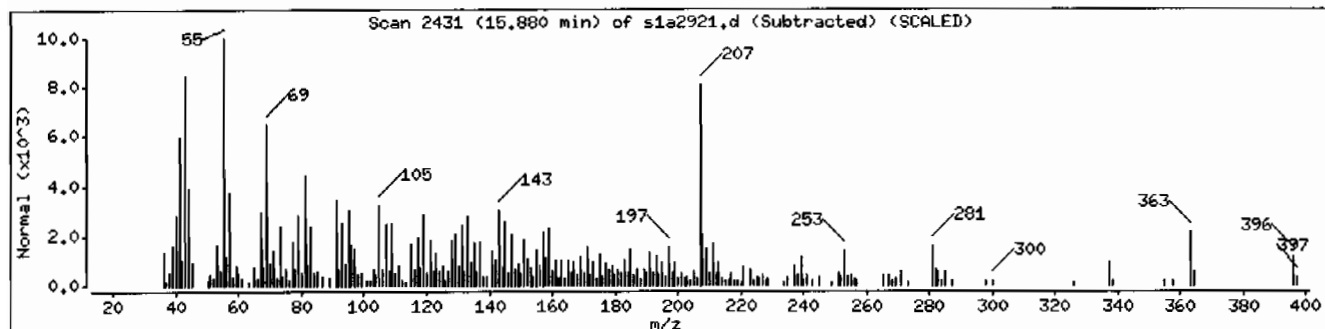
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ergosterol	57-87-4	NIST05.L	170280	38	C <sub>28</sub> H <sub>44</sub> O	386
4-Cyclohexene-1,2-dicarboximide, N-butyl	28916-00-9	NIST05.L	62130	38	C <sub>12</sub> H <sub>17</sub> N <sub>2</sub> O <sub>2</sub>	207
N,N-Dimethyl-4-nitroso-3-(trimethylsilyl)	17993-84-9	NIST05.L	72386	35	C <sub>11</sub> H <sub>18</sub> N <sub>2</sub> OSi	222



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111SVMF111LANL

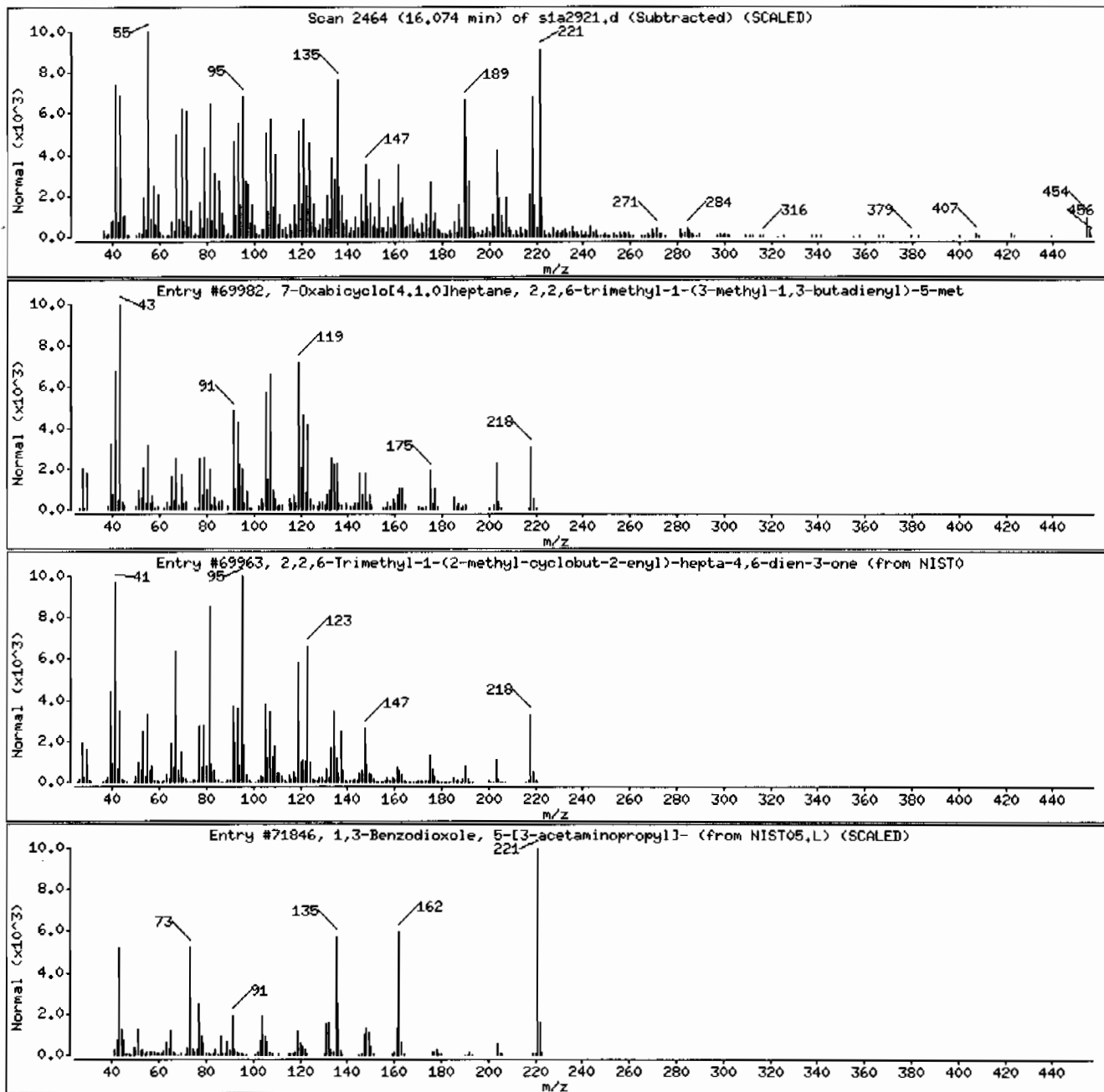
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	70038-20-9	NIST05.L	69982	78	C15H22O	218
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-e	1000188-72-8	NIST05.L	69963	40	C15H22O	218
1,3-Benzodioxole, 5-[3-acetaminopropyl]-	1000124-33-0	NIST05.L	71846	38	C12H15NO3	221





Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111SVHF11ILANL

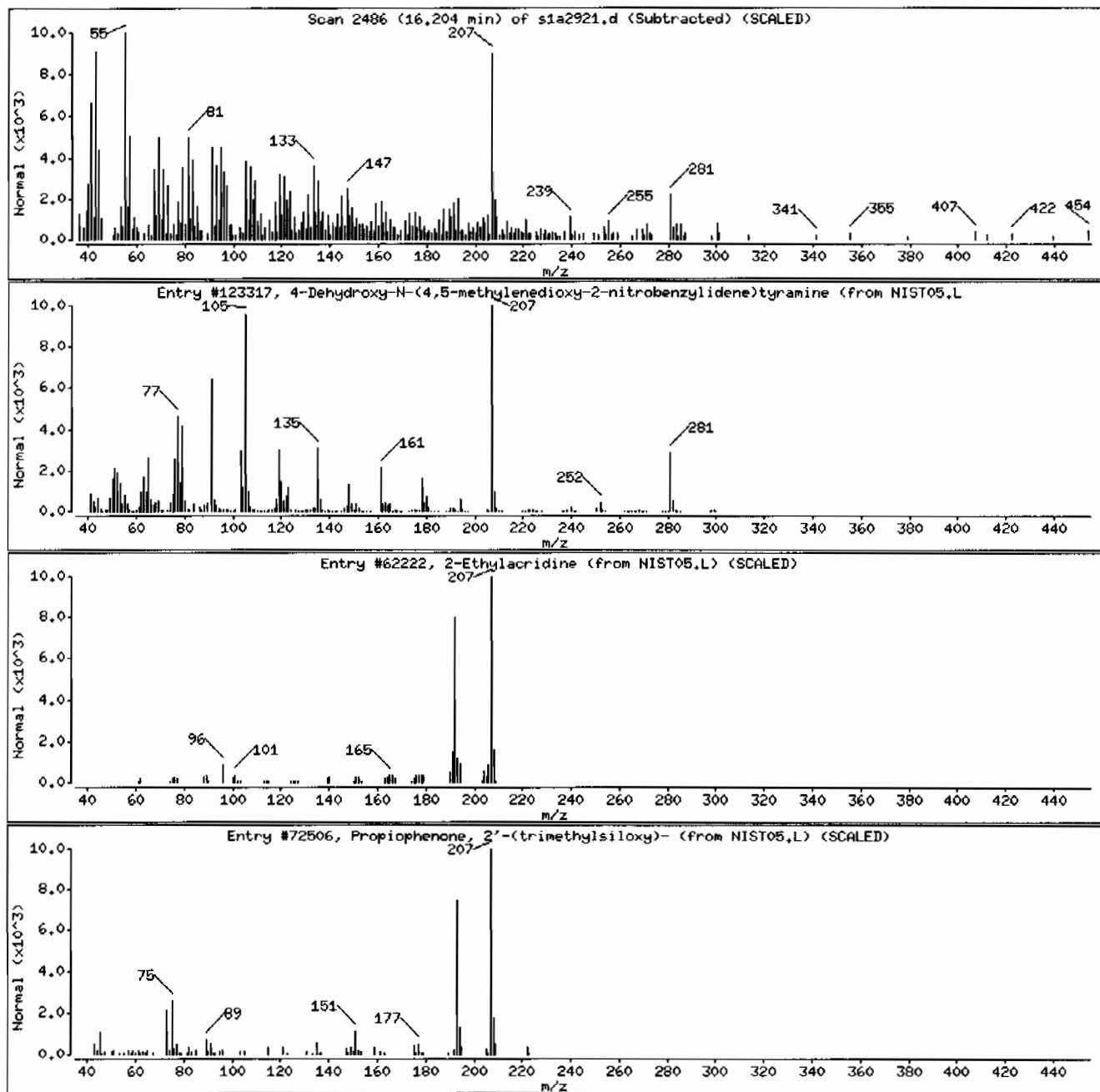
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4-Dehydroxy-N-(4,5-methylenedioxy-2-nitr	1000111-66-9	NIST05.L	123317	43	C16H14N2O4	298
2-Ethylacridine	55751-83-2	NIST05.L	62222	38	C15H13N	207
Propiophenone, 2'-(trimethylsiloxy)-	33342-87-9	NIST05.L	72506	30	C12H18O2Si	222



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111SVHF111LANL

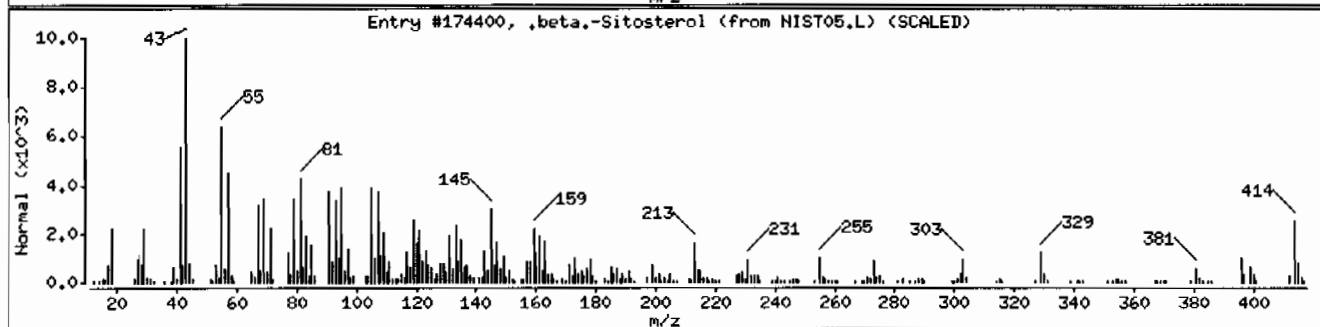
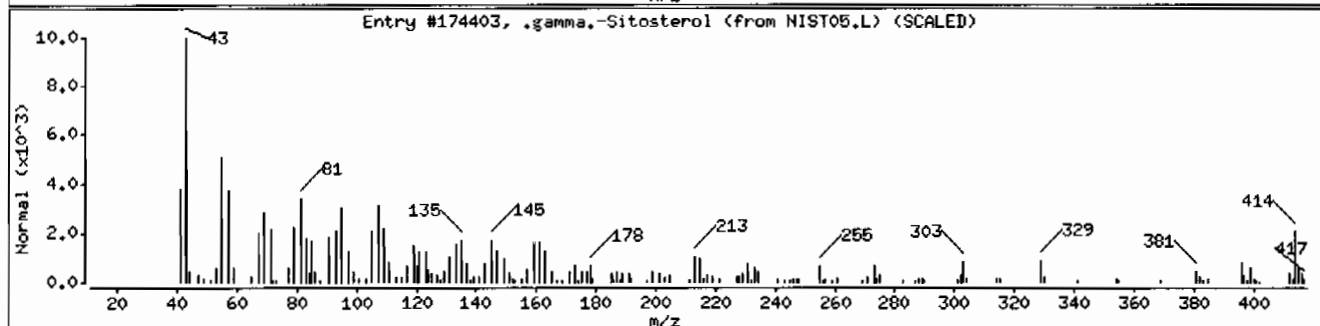
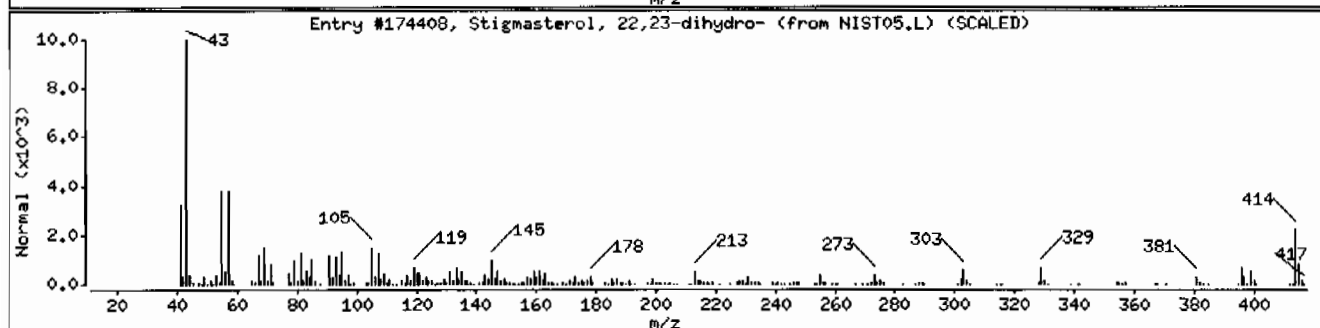
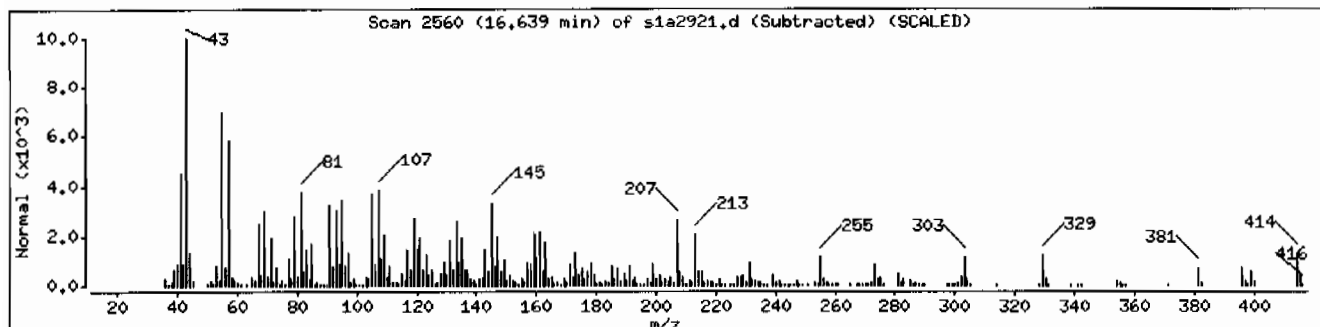
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST05.L	174408	93	C29H50O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174403	93	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174400	83	C29H50O	414



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: HSD1.i

Sample Info: 1245106013194459111SVHF111LANL

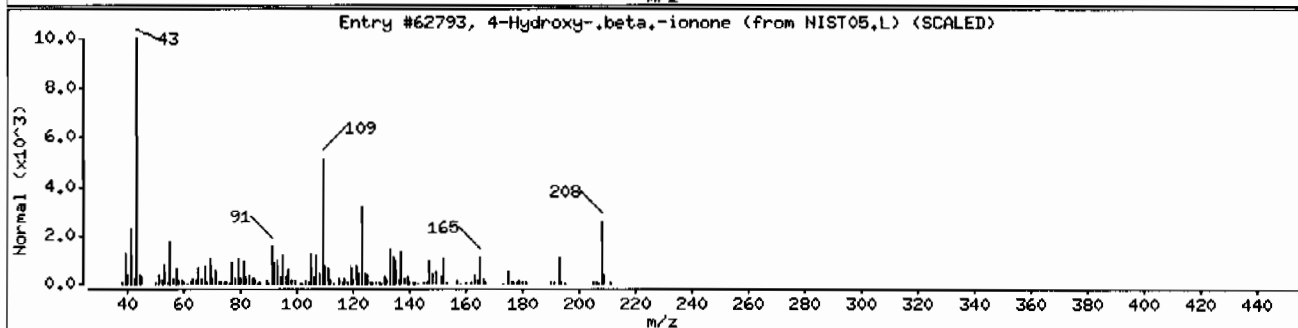
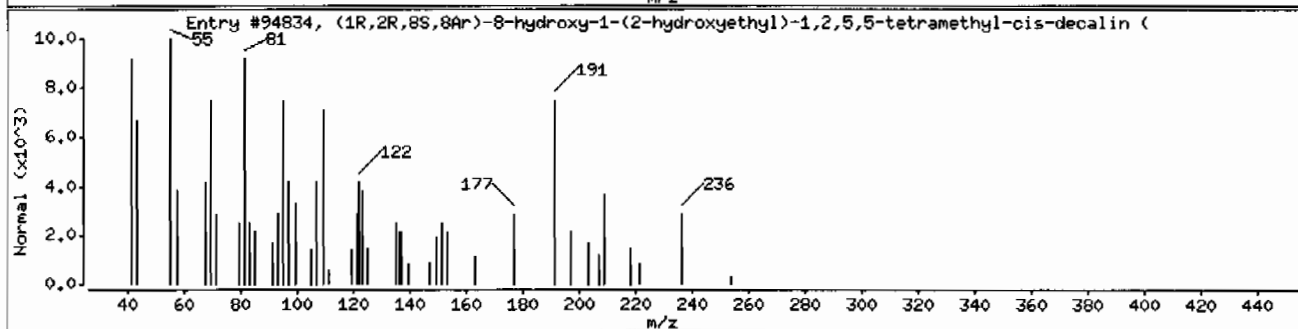
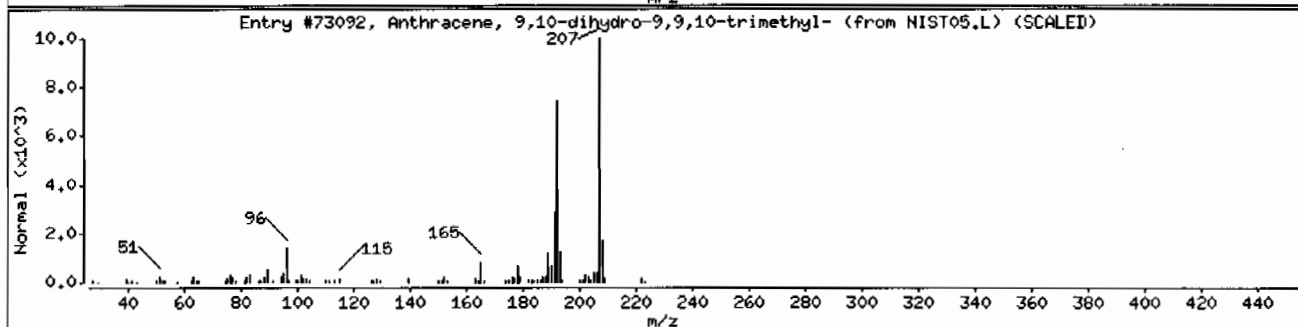
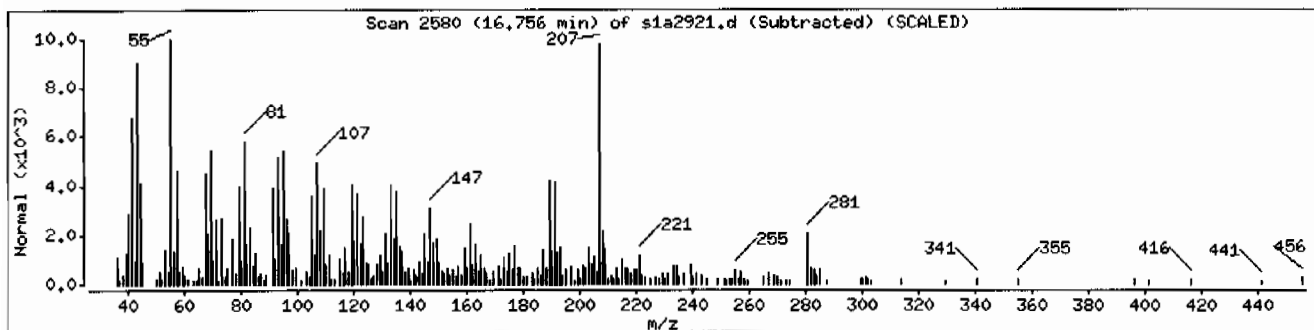
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Anthracene, 9,10-dihydro-9,9,10-trimethyl	14923-29-6	NIST05.L	73092	38	C17H18	222
(1R,2R,8S,8Ar)-8-hydroxy-1-(2-hydroxyethyl	1000298-98-6	NIST05.L	94834	30	C16H30O2	254
4-Hydroxy-.beta.-ionone	15401-34-0	NIST05.L	62793	25	C13H20O2	208



Date : 29-JAN-2010 23:07

Client ID: RE15-10-7183

Instrument: MSD1.i

Sample Info: 1245106013194459111/SVMF111/LANL

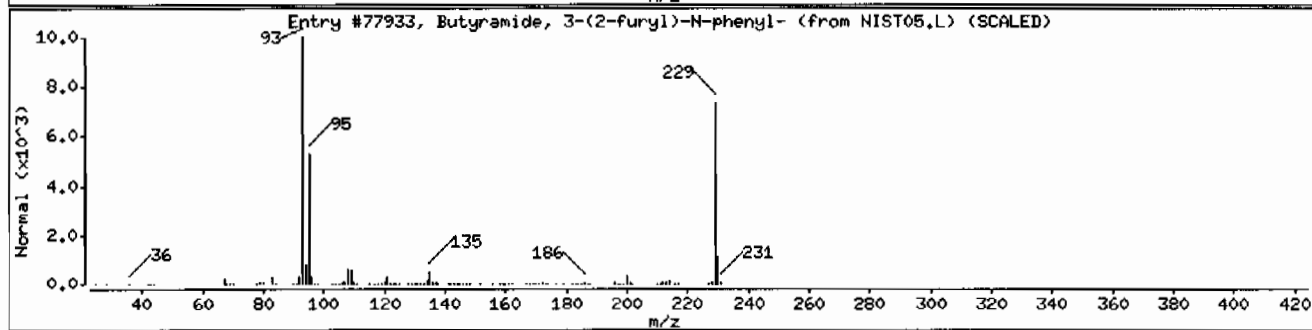
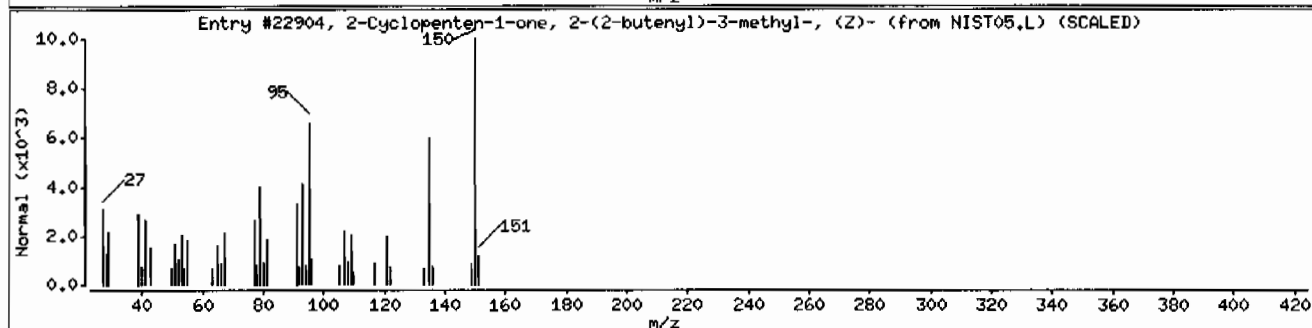
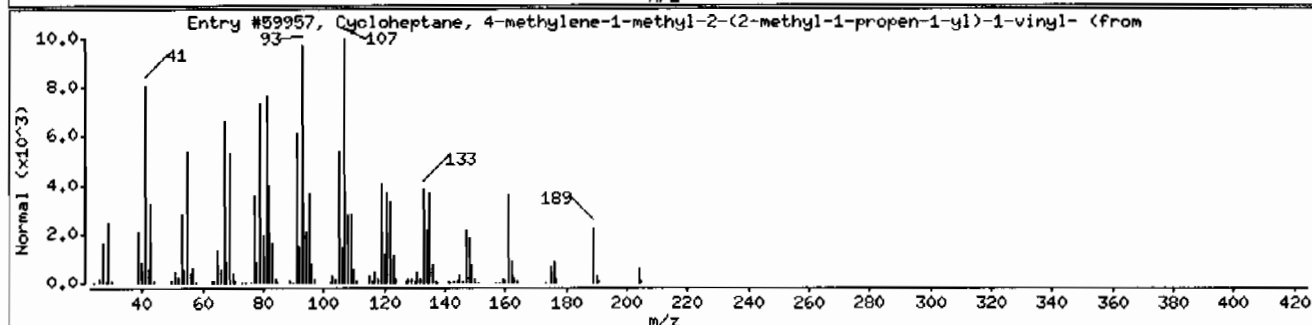
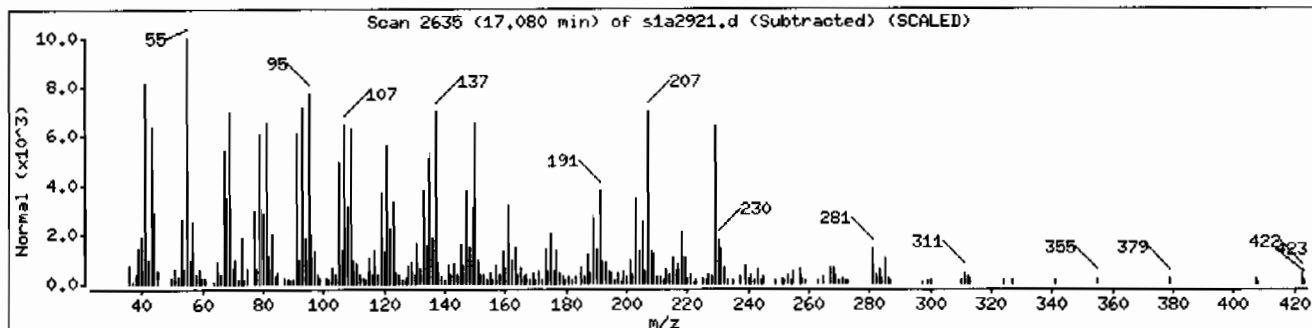
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cycloheptane, 4-methylene-1-methyl-2-(2-	1000159-38-5	NIST05.L	59957	90	C15H24	204
2-Cyclopenten-1-one, 2-(2-butenyl)-3-met	17190-71-5	NIST05.L	22904	50	C10H14O	150
Butyramide, 3-(2-furyl)-N-phenyl-	1000156-94-9	NIST05.L	77933	46	C14H15NO2	229



# 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(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,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: 28-Jan-2010 19:30

### Calibration History

Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
Start Cal Date: 22-JAN-2010 14:28  
End Cal Date : 24-JAN-2010 00:53

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
22-JAN-2010 14:28	MEGAIICARE	/chem/MSD1.i/s012210.b/s1a2203.d
Cal Level: 2 , Cal Amount: 10.00000		
23-JAN-2010 22:22	hex	/chem/MSD1.i/s012210.b/s1a2229.d
23-JAN-2010 18:49	pest	/chem/MSD1.i/s012210.b/s1a2222.d
22-JAN-2010 19:19	ap12	/chem/MSD1.i/s012210.b/s1a2211.d
22-JAN-2010 15:06	MEGAIICARE	/chem/MSD1.i/s012210.b/s1a2204.d
Cal Level: 3 , Cal Amount: 20.00000		
23-JAN-2010 22:52	hex	/chem/MSD1.i/s012210.b/s1a2230.d
23-JAN-2010 19:19	pest	/chem/MSD1.i/s012210.b/s1a2223.d
22-JAN-2010 19:50	ap12	/chem/MSD1.i/s012210.b/s1a2212.d
22-JAN-2010 15:43	MEGAIICARE	/chem/MSD1.i/s012210.b/s1a2205.d
Cal Level: 4 , Cal Amount: 40.00000		
23-JAN-2010 23:22	hex	/chem/MSD1.i/s012210.b/s1a2231.d
23-JAN-2010 19:50	pest	/chem/MSD1.i/s012210.b/s1a2224.d
22-JAN-2010 20:21	ap12	/chem/MSD1.i/s012210.b/s1a2213.d
22-JAN-2010 16:20	MEGAIICARE	/chem/MSD1.i/s012210.b/s1a2206.d
Cal Level: 5 , Cal Amount: 50.00000		
23-JAN-2010 23:53	hex	/chem/MSD1.i/s012210.b/s1a2232.d
23-JAN-2010 20:20	pest	/chem/MSD1.i/s012210.b/s1a2225.d
22-JAN-2010 20:52	ap12	/chem/MSD1.i/s012210.b/s1a2214.d
22-JAN-2010 16:55	MEGAIICARE	/chem/MSD1.i/s012210.b/s1a2207.d
Cal Level: 6 , Cal Amount: 80.00000		
24-JAN-2010 00:23	hex	/chem/MSD1.i/s012210.b/s1a2233.d
23-JAN-2010 20:51	pest	/chem/MSD1.i/s012210.b/s1a2226.d
22-JAN-2010 21:24	ap12	/chem/MSD1.i/s012210.b/s1a2215.d
22-JAN-2010 17:31	MEGAIICARE	/chem/MSD1.i/s012210.b/s1a2208.d
Cal Level: 7 , Cal Amount: 100.00000		
24-JAN-2010 00:53	hex	/chem/MSD1.i/s012210.b/s1a2234.d
23-JAN-2010 21:21	pest	/chem/MSD1.i/s012210.b/s1a2227.d
22-JAN-2010 21:55	ap12	/chem/MSD1.i/s012210.b/s1a2216.d
22-JAN-2010 18:07	MEGAIICARE	/chem/MSD1.i/s012210.b/s1a2209.d

Cal Level: 8 , Cal Amount: 120.00000		
23-JAN-2010 21:51	pest	/chem/MSD1.i/s012210.b/s1a2228.d
22-JAN-2010 22:26	ap12	/chem/MSD1.i/s012210.b/s1a2217.d
22-JAN-2010 18:43	MEGAIICARE	/chem/MSD1.i/s012210.b/s1a2210.d

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
28-JAN-2010 19:01	ap12	/chem/MSD1.i/s012810.b/s1a2811.d
Ccal Level: 4 , Ccal Amount: 40.0		
28-JAN-2010 18:30	MEGAIICARE	/chem/MSD1.i/s012810.b/s1a2810.d
Ccal Level: 4 , Ccal Amount: 40.0		
28-JAN-2010 18:03	MEGAIICARE	/chem/MSD1.i/s012810.b/s1a2809.d
Ccal Level: 4 , Ccal Amount: 40.0		
28-JAN-2010 16:46	MEGAIICARE	/chem/MSD1.i/s012810.b/s1a2807.d
Ccal Level: 4 , Ccal Amount: 40.0		
28-JAN-2010 11:50	ap12	/chem/MSD1.i/s012810.b/s1a2804.d
Ccal Level: 4 , Ccal Amount: 40.0		
28-JAN-2010 11:20	MEGAIICARE	/chem/MSD1.i/s012810.b/s1a2803.d

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 22-JAN-2010 14:28  
 End Cal Date : 24-JAN-2010 00:53  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Cal Date : 28-Jan-2010 19:24 amy01291

## Calibration File Names:

Level 1: /chem/MSD1.i/s012210.b/sla2203.d  
 Level 2: /chem/MSD1.i/s012210.b/sla2229.d  
 Level 3: /chem/MSD1.i/s012210.b/sla2230.d  
 Level 4: /chem/MSD1.i/s012210.b/sla2231.d  
 Level 5: /chem/MSD1.i/s012210.b/sla2232.d  
 Level 6: /chem/MSD1.i/s012210.b/sla2233.d  
 Level 7: /chem/MSD1.i/s012210.b/sla2234.d  
 Level 8: /chem/MSD1.i/s012210.b/sla2228.d

Compound	1	10	20	40	50	80	Curve	b	Coefficients	m2	%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6					
1 N-Methyl-N-nitrosomethylamine	++++ 0.71089	0.80135 0.70489	0.79144	0.77690	0.73103	0.69045	AVRG		0.74385		6.08284
2 Pyridine	++++ 1.18686	1.21552 1.13236	1.33753	1.22373	1.19612	1.15274	AVRG		1.20641		5.50107
4 Aniline	++++ 0.67490	0.72910 0.62777	0.70266	0.68797	0.68197	0.65357	AVRG		0.67969		4.82079
209 Benzaldehyde	++++ 0.91849	1.06023 0.84811	1.13056	1.03242	1.00439	0.93462	AVRG		0.98983		9.67362
6 Phenol	++++ 1.50296	1.83217 1.32373	1.78493	1.69078	1.64510	1.52891	AVRG		1.61551		10.94210

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-JAN-2010 14:28  
 End Cal Date : 24-JAN-2010 00:53  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Cal Date : 28-Jan-2010 19:24 amy01291

Compound	1	10	20	40	50	80	Curve	b	Coefficients m1	m2	%RSD or R^2
7 bis(2-Chloroethyl) ether	Level 1 1.14268	Level 2 1.12721	Level 3 1.30118	Level 4 1.26189	Level 5 1.22855	Level 6 1.14314	AVRG		1.22689		6.43118
8 2-Chlorophenol	++++ 1.14611	1.41711 1.11440	1.40913	1.34156	1.30827	1.18298	AVRG		1.27422		9.85380
203 n-Decane	++++ ++++	2.28439 ++++	2.19443	2.01947	1.91367	1.56173	AVRG		1.99474		14.14515
9 1,3-Dichlorobenzene	++++ 1.23992	1.61803 1.20314	1.56223	1.44881	1.40143	1.26229	AVRG		1.39084		11.70444
11 1,4-Dichlorobenzene	++++ 1.19548	1.59913 1.43356	1.54735	1.41696	1.37431	1.21402	AVRG		1.35583		13.15365
12 Benzyl alcohol	++++ 0.85318	0.93966 0.81091	0.92056	0.88952	0.90747	0.86303	AVRG		0.88347		5.00793
13 1,2-Dichlorobenzene	++++ 1.18913	1.55866 1.14398	1.52008	1.40778	1.36736	1.21160	AVRG		1.34266		12.28354
14 bis(2-Chloroisopropyl) ether	++++ 2.81273	3.52497 2.65826	3.44111	3.24370	3.20030	2.84092	AVRG		3.10314		10.78765
15 o-Cresol	++++ 0.97028	1.15979 0.93864	1.12947	1.08390	1.07907	0.96250	AVRG		1.04624		8.43044

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 22-JAN-2010 14:28  
 End Cal Date : 24-JAN-2010 00:53  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Cal Date : 28-Jan-2010 19:24 amy01291

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									
16 Acetophenone	++++ 1.24710	1.42038 1.17561	1.47724	1.39380	1.35471	1.27310	AVRG		1.33456		7.99622
17 N-Nitrosodipropylamine	0.90574 0.78471	1.02075 0.80527	1.03116	0.98082	0.96621	0.92363	AVRG		0.92729		9.95093
18 m,p-Cresols	++++ 1.29186	1.44758 1.27012	1.43978	1.37495	1.34977	1.28335	AVRG		1.35106		5.43903
19 Hexachloroethane	++++ 0.49734	0.61207 0.47599	0.61140	0.58304	0.57074	0.50660	AVRG		0.55103		10.28494
21 Nitrobenzene	++++ 0.30443	0.38064 0.30930	0.37624	0.34304	0.33451	0.30090	AVRG		0.33558		9.88655
22 Isophorone	++++ 0.55411	0.62921 0.56437	0.62971	0.58476	0.57868	0.53726	AVRG		0.58259		6.11357
23 2-Nitrophenol	++++ 0.15071	0.16924 0.15158	0.16838	0.16059	0.15890	0.14646	AVRG		0.15798		5.59627
24 2,4-Dimethylphenol	++++ 0.27290	0.33342 0.27350	0.32990	0.30169	0.29446	0.26641	AVRG		0.29604		9.25046
25 bis(2-Chloroethoxy)methane	++++ 0.34148	0.42846 0.33686	0.42643	0.38524	0.37442	0.33727	AVRG		0.37574		10.64930

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 22-JAN-2010 14:28  
 End Cal Date : 24-JAN-2010 00:53  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Cal Date : 28-Jan-2010 19:24 amy01291

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									
26 2,4-Dichlorophenol	++++ 0.22713	0.27125 0.22465	0.27480	0.25226	0.24738	0.22011	AVRG	0.24537			9.09504
27 Benzoic acid	++++ 0.18746	++++ 0.19964	0.16211	0.17897	0.18714	0.20289	AVRG	0.18637			7.93595
28 1,2,4-Trichlorobenzene	++++ 0.23184	0.31594 0.22791	0.30698	0.27308	0.26286	0.22775	AVRG	0.26377			4.08279
30 Naphthalene	1.07645 ++++	1.06033 ++++	0.98957	0.85405	0.80251	++++	AVRG				12.85359
204 alpha-Terpineol	++++ 0.20538	0.31541 0.19124	0.30932	0.27042	0.26028	0.21122	AVRG	0.25189			20.00953
31 4-Chloroaniline	++++ 0.30586	0.28443 0.29852	0.32911	0.30939	0.33541	0.28519	AVRG	0.30399			8.05751
189 Caprolactam	++++ 0.06886	0.07497 0.06728	0.08802	0.07574	0.08408	0.07198	AVRG	0.07585			10.12486
32 Hexachlorobutadiene	++++ 0.14614	0.19603 0.14217	0.19130	0.17179	0.16485	0.14387	AVRG	0.16516			13.59133
33 4-Chloro-3-methylphenol	++++ 0.23771	0.28624 0.23711	0.29496	0.26629	0.26057	0.23511	AVRG	0.25971			9.41838



## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 22-JAN-2010 14:28  
 End Cal Date : 24-JAN-2010 00:53  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Cal Date : 28-Jan-2010 19:24 amy01291

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>
34 2-Methylnaphthalene	0.670801 0.496781	0.683501 0.489911	0.657361	0.590631	0.56452	0.494411 AVRG	AVRG	0.580991	0.524821		14.20151
35 1-Methylnaphthalene	0.614931 0.445671	0.619051 0.438971	0.598851	0.527691	0.50841	0.444981 AVRG	AVRG	0.524821			14.89341
36 Hexachlorocyclopentadiene	0.415801 0.141411	0.399111 0.130201	0.348991	0.318191	0.305121	0.271471 AVRG	AVRG	0.476871	0.141661		5.326561
208 1,1'-Biphenyl	1.063121	1.299291	1.289601	1.200161	1.176011	1.086701 AVRG	AVRG	1.158591			9.963681
205 2,3-Dichloroaniline	0.415801 0.270381	0.399111 0.246041	0.348991	0.318191	0.305121	0.271471 AVRG	AVRG	0.476871	0.302031		13.686561
37 2,4,6-Trichlorophenol	0.301991 1.195631	0.315381 1.236471	1.190781	1.095881	1.059311	0.945591 AVRG	AVRG	1.063991	0.347021		9.31754
38 2,4,5-Trichlorophenol	0.911741 0.417411	0.876531	0.426111	0.411601	0.399351	0.384931 AVRG	AVRG	0.399801			13.125951
40 2-Chloronaphthalene	0.384651	0.374571					AVRG				4.820761

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 22-JAN-2010 14:28  
 End Cal Date : 24-JAN-2010 00:53  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Cal Date : 28-Jan-2010 19:24 amy01291

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									
41 m-Nitroaniline	++++ ++++	29651 ++++	89720 ++++	178680 ++++	225466 ++++	362791 ++++	LINEAR	0.00927	0.27852		0.99020
43 Dimethylphthalate	++++ ++++	1.31942 ++++	1.31707 ++++	1.21483 ++++	1.05487 ++++	0.93182 ++++	AVRG		1.16760		14.57999
44 2,6-Dinitrotoluene	++++ 0.26070	0.30797 0.24353	0.31410 0.24353	0.29627 0.24353	0.29082 0.24353	0.26492 0.24353	AVRG		0.28262		9.37092
45 Acenaphthylene	1.74433 1.32751	1.87158 1.26027	1.81954 1.26027	1.64708 1.26027	1.58676 1.26027	1.38264 1.26027	AVRG		1.57997		14.72496
47 Acenaphthene	1.06513 0.81745	1.13761 0.79087	1.10293 0.79087	1.01325 0.79087	0.98759 0.79087	0.85837 0.79087	AVRG		0.97165		13.74142
48 2,4-Dinitrophenol	++++ 206628	++++ 268554	25210 268554	59914 268554	84992 268554	180829 268554	LINEAR	0.28314	0.14766		0.99622
49 Dibenzofuran	++++ 1.18311	1.71573 ++++	1.64647 ++++	1.48253 ++++	1.42023 ++++	1.24215 ++++	AVRG		1.44837		14.66475
50 2,4-Dinitrotoluene	++++ 0.33196	0.38873 0.30533	0.40621 0.30533	0.38404 0.30533	0.37445 0.30533	0.33912 0.30533	AVRG		0.36140		10.06878
51 Diethylphthalate	++++ 0.97114	1.25975 0.93988	1.23818 0.93988	1.13803 0.93988	1.11031 0.93988	1.01043 0.93988	AVRG		1.09539		11.56459

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Compound	1	10	20	40	50	80	Curve	b	Coefficients m1	m2	%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6					
	100	120									
	Level 7	Level 8									
52 4-Nitrophenol	++++	0.21885	0.24202	0.23612	0.23572	0.20565					
	0.22667	0.21698					AVRG		0.22600		5.71409
53 Fluorene	1.33734	1.34057	1.26232	1.12044	1.07455	0.96901					
	0.93261	++++					AVRG		1.14812		14.68625
54 4-Chlorophenylphenylether	++++	0.59065	0.55867	0.49713	0.46988	0.41920					
	0.40817	++++					AVRG		0.49062		14.97986
55 2-Methyl-4,6-dinitrophenol	++++	15782	49834	106565	143180	232498					
	276162	354309					LINR	0.08983	0.1722		0.99744
56 p-Nitroaniline	++++	0.26066	0.27046	0.28237	0.27527	0.28086					
	0.28385	0.25314					AVRG		0.27237		4.29982
133 Diphenylamine	++++	0.67374	0.65258	0.58490	0.56991	0.54604					
	0.53172	0.52623					AVRG		0.58359		10.00782
58 1,2-Diphenylhydrazine	++++	0.90290	0.89143	0.81660	0.80095	0.75535					
	0.72035	0.71009					AVRG		0.79967		9.63884
59 Tributylphosphate	++++	1.33782	1.39049	1.27094	1.33134	1.21699					
	1.19123	1.14058					AVRG		1.26848		7.09728
61 4-Bromophenylphenylether	++++	0.18925	0.19099	0.17222	0.17091	0.16241					
	0.15922	0.16053					AVRG		0.17222		7.66788

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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>
	Level 7	Level 8									
63 Hexachlorobenzene	++++ 0.19483	0.24234 0.19797	0.24001	0.21464	0.21062	0.20247	AVRG		0.21470		9.01313
207 Atrazine	++++ 0.04062	0.04825 ++++	0.04977	0.04579	0.04519	0.04139	AVRG		0.04517		8.04342
65 Pentachlorophenol	++++ 0.14113	0.13122 0.14249	0.15057	0.14772	0.14588	0.14787	AVRG		0.14384		4.47977
206 n-Octadecane	++++ ++++	0.78939 ++++	0.77351	0.68692	0.66069	0.57767	AVRG		0.69764		12.42363
68 Phenanthrene	1.16375 0.85782	1.13302 0.86970	1.09948	0.97252	0.93975	0.89114	AVRG		0.99090		12.48715
69 Anthracene	1.12648 0.88153	1.15043 0.88763	1.11323	0.99640	0.96470	0.92571	AVRG		1.00576		10.93202
72 Di-n-butylphthalate	++++ 0.98567	1.28436 0.99689	1.27236	1.14448	1.11506	1.06556	AVRG		1.12348		10.71372
76 Fluoranthene	1.12624 0.94332	1.20393 0.96256	1.19026	1.05215	1.02295	1.00891	AVRG		1.06379		9.34037
77 Benzidine	++++ 0.43821	0.34732 0.45282	0.37405	0.40081	0.39634	0.42593	AVRG		0.40507		9.12978

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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
79 Pyrene	1.24507 1.10248	1.32634 1.13368	1.31067 1.10248	1.22261 1.10248	1.20793 1.10248	1.22119 1.10248	AVRG AVRG	1.22125	1.22125		6.30952
85 Butylbenzylphthalate	++++ 0.51091	0.58745 0.53805	0.60098 0.53805	0.56958 0.53805	0.56896 0.53805	0.59115 0.53805	AVRG AVRG	0.56673	0.56673		5.64952
89 Benzo(a)anthracene	1.13744 0.89178	1.10007 0.98035	1.08648 0.98035	1.00072 0.98035	0.98132 0.98035	1.08423 0.98035	AVRG AVRG	1.03280	1.03280		7.96065
90 3,3'-Dichlorobenzidine	++++ 0.31622	0.30174 0.31021	0.34731 0.31021	0.33075 0.31021	0.32705 0.31021	0.31446 0.31021	AVRG AVRG	0.32111	0.32111		4.71742
92 Chrysene	1.04934 0.95177	1.13182 0.90931	1.11902 0.90931	1.04250 0.90931	0.98488 0.90931	1.02314 0.90931	AVRG AVRG	1.02647	1.02647		7.50022
93 bis(2-Ethylhexyl)phthalate	0.55596 0.58053	0.80511 0.57231	0.79125 0.57231	0.72945 0.57231	0.71185 0.57231	0.69679 0.57231	AVRG AVRG	0.68040	0.68040		14.55448
94 Di-n-octylphthalate	++++ 1.17363	1.37193 1.22447	1.46542 1.22447	1.38654 1.22447	1.40144 1.22447	1.28804 1.22447	AVRG AVRG	1.33021	1.33021		7.86936
95 Benzo(b)fluoranthene	0.79354 1.03534	1.03995 1.16122	1.10983 1.16122	1.04062 1.16122	1.04685 1.16122	1.12863 1.16122	AVRG AVRG	1.04450	1.04450		10.73943
96 Benzo(k)fluoranthene	0.92286 0.90617	1.19702 1.19702	1.18297 1.19702	1.10790 1.19702	1.02263 1.19702	0.86637 1.19702	AVRG AVRG	1.02942	1.02942		13.21318

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 Cal Date : 28-Jan-2010 19:24 amy01291

Compound	1	10	20	40	50	80	Curve	b	Coefficients m1	m2	%RSD or R^2
97 Benzo(a)pyrene	0.68088 0.89021	0.94266 0.89702	1.00814	0.96221	0.92522	0.91850	AVRG		0.90311		10.78482
99 Indeno(1,2,3-cd)pyrene	0.62432 0.87896	0.92070 0.91460	0.99705	0.97067	0.91265	0.94257	AVRG		0.89519		12.89561
100 Dibenzo(a,h)anthracene	0.56081 0.72043	0.78177 0.74805	0.85166	0.82138	0.77464	0.77576	AVRG		0.75431		11.66895
101 Benzo(ghi)perylene	0.66657 0.74455	0.85790 0.79938	0.88822	0.86131	0.80916	0.83575	AVRG		0.80785		8.95594
102 1,4-Dioxane	0.33567	0.29823	0.43039	0.40121	0.38891	0.36460	AVRG		0.37945		13.27275
103 Methyl methacrylate	0.16871	0.15159	0.21859	0.19753	0.20357	0.18844	AVRG		0.19309		13.41400
104 Ethyl methacrylate	0.79728	0.73824	0.93243	0.88645	0.87920	0.84002	AVRG		0.85975		8.57802
105 2-Picoline	1.28578	1.18161	1.43931	1.43338	1.42362	1.31207	AVRG		1.36641		8.00219
106 N-Nitrosomethylethylamine	0.58172	0.56098	0.61449	0.58588	0.57366	0.56765	AVRG		0.57778		3.27166

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 Cal Date : 28-Jan-2010 19:24 amy01291

Compound	i	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
		Level 7	120	Level 8													
107 Methyl methanesulfonate	++++	0.51569	0.52284	0.59232	0.56153	0.54365	0.51922	AVRG	0.53721	5.73171							
108 N-Nitrosodiethylamine	++++	0.56680	0.58468	0.63120	0.60143	0.57537	0.55849	AVRG	0.58057	4.92866							
109 Ethyl Methanesulfonate	++++	0.71670	0.72099	0.77928	0.74988	0.72695	0.69989	AVRG	0.72637	4.14211							
110 Pentachloroethane	++++	0.32158	0.34368	0.36370	0.34868	0.33873	0.32645	AVRG	0.33502	6.20569							
111 N-Nitrosopyrrolidine	++++	0.48141	0.59961	0.68507	0.65753	0.63365	0.59510	AVRG	0.60873	11.68805							
113 N-Nitrosomorpholine	++++	0.92495	0.99237	1.08225	1.03748	1.01015	0.94754	AVRG	0.96535	10.74936							
114 o-Toluidine	++++	1.81206	2.03246	2.11800	1.98607	1.89422	1.78310	AVRG	1.90568	7.67438							
115 N-Nitrosopiperidine	++++	0.15133	0.15532	0.16289	0.15693	0.15317	0.14968	AVRG	0.15346	3.72897							
116 a,a-Dimethylphenethylamine	++++	1.28810	1.00257	1.18170	1.25183	1.23830	1.26785	AVRG	1.21469	8.20308							

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 Cal Date : 28-Jan-2010 19:24 amy01291

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
117 Triethylphosphorothioate	++++ 0.11985	0.14415 0.11956	0.14023 0.11956	0.13209 0.11956	0.13811 0.11956	0.12590 0.11956	AVRG	0.13141	7.54535		
118 2,6-Dichlorophenol	++++ 0.21247	0.21642 0.20161	0.23315 0.20161	0.22738 0.20161	0.22163 0.20161	0.21195 0.20161	AVRG	0.21780	4.84603		
119 Hexachloropropene	++++ 0.10018	0.07541 0.09990	0.10693 0.09990	0.10468 0.09990	0.09649 0.09990	0.09860 0.09990	AVRG	0.09745	10.62853		
120 p-Phenylenediamine	++++ 0.23214	0.28048 0.23214	0.33421 0.23214	0.30775 0.23214	0.27747 0.23214	0.24362 0.23214	AVRG	0.27928	13.70584		
121 N-Nitrosodi-n-butylamine	++++ 0.21371	0.24780 0.20179	0.27084 0.20179	0.24446 0.20331	0.22748 0.19772	0.21554 0.18589	AVRG	0.23166	10.35309		
122 Safrole	++++ 0.18077	0.20683 0.17304	0.21474 0.17304	0.20331 0.17304	0.19772 0.17304	0.18589 0.17304	AVRG	0.19462	7.77299		
123 1,2,4,5-Tetrachlorobenzene	++++ 0.39853	0.46189 0.37638	0.46537 0.37638	0.43632 0.37638	0.42677 0.37638	0.40317 0.35212	AVRG	0.42406	7.85458		
124 Isosafrole	++++ 0.34973	0.37758 0.33284	0.39236 0.33284	0.37860 0.33284	0.37062 0.33284	0.35212 0.27905	AVRG	0.36483	5.65782		
125 1,4-Naphthoquinone	++++ 0.27411	0.34589 0.27411	0.38386 0.27411	0.33865 0.27411	0.32435 0.27411	0.27905 0.27411	AVRG	0.32432	12.92524		



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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									
126 m-Dinitrobenzene	++++ 0.18108	0.19939 0.17609	0.20731	0.20018	0.19932	0.17977	AVRG		0.19188		6.49285
127 Pentachlorobenzene	++++ 0.36609	0.42646 0.34565	0.42878	0.39873	0.39039	0.37030	AVRG		0.38949		8.00608
128 1-Naphthylamine	++++ 0.86413	0.96887 0.83967	1.04272	0.98105	0.94148	0.88347	AVRG		0.93163		7.78985
129 2-Naphthylamine	++++ 0.94685	1.10386 0.89561	1.13033	1.06959	1.03122	0.96531	AVRG		1.02040		8.54393
130 2,3,4,6-Tetrachlorophenol	++++ 0.25240	0.28728 0.24960	0.28873	0.27891	0.27158	0.25947	AVRG		0.26971		5.99278
131 5-Nitro-o-toluidine	++++ 0.29779	0.28863 0.29337	0.32096	0.32266	0.30867	0.29769	AVRG		0.30425		4.41846
132 Thionazin	++++ 0.17052	0.18659 0.16517	0.19374	0.18190	0.19032	0.17427	AVRG		0.18036		5.91946
134 Sulfotepp	++++ 0.09635	0.09531 0.10007	0.09396	0.08922	0.09643	0.09376	AVRG		0.09501		3.48030
135 Phorate	++++ 0.42059	0.45432 0.42419	0.45368	0.43145	0.45014	0.43236	AVRG		0.43810		3.26598

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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>
136 1,3,5-Trinitrobenzene	++++ 0.13221	0.08846 0.12880	0.13483	0.13918	0.13193	0.11554	AVRG		0.12442		14.05219
137 Phenacetin	++++ 0.31875	0.29676 0.26784	0.32701	0.33135	0.32151	0.31193	AVRG		0.31074		7.08314
138 Diallyl	++++ 0.25393	0.28584 0.22578	0.29254	0.27307	0.27695	0.25913	AVRG		0.26675		8.48572
139 Dimethoate	++++ 0.30173	0.25006 0.30429	0.27061	0.27648	0.29740	0.29405	AVRG		0.28495		7.00102
140 4-Aminobiphenyl	++++ 0.58415	0.67240 0.47091	0.72120	0.68285	0.66219	0.60332	AVRG		0.62815		13.32651
141 Pentachloronitrobenzene	++++ 0.06819	0.07630 0.06170	0.07912	0.07599	0.07586	0.07004	AVRG		0.07246		8.41373
142 Pronamide	++++ 0.26574	0.29498 0.24557	0.30640	0.29260	0.28787	0.26455	AVRG		0.27967		7.68122
143 Dinoseb	++++ 333473	17477 421218	57461	123765	166796	308816	AVRG	0.11036	0.14400		0.99538
144 Disulfoton	++++ 0.33668	0.42823 0.33536	0.39437	0.35739	0.37627	0.34912	AVRG		0.36820		9.21460

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Compound	1	Level 1	10	Level 2	20	Level 3	40	Level 4	50	Level 5	80	Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
		Level 7	Level 8														
145 Methyl parathion	++++		0.186121		0.212731		0.218581		0.237041		0.233561						
	0.237471		0.239801										AVRG		0.223621		8.722281
146 4-Nitroquinoline-1-oxide	++++		0.020541		0.030011		0.023141		0.020541		0.019181						
	0.018081		0.014541										AVRG		0.020861		23.125461<-
147 Methapyrilene	++++		0.586391		0.650191		0.614501		0.592931		0.538631						
	0.535811		0.509721										AVRG		0.575451		8.626041
148 Isodrin	++++		0.116101		0.121181		0.116081		0.112211		0.103441						
	0.102741		0.093941										AVRG		0.109381		8.792851
149 Aramite	++++		0.045921		0.053541		0.052841		0.049291		0.047561						
	0.046871		0.043201										AVRG		0.048461		7.681301
150 Kepone	++++		0.060521		0.073831		0.069001		0.066731		0.066241						
	0.071041		0.066061										AVRG		0.067631		6.266291
151 p-(Dimethylamino)azobenzene	++++		0.307021		0.323741		0.302171		0.313831		0.295891						
	0.293891		0.269181										AVRG		0.300821		5.771591
152 Chlorobenzilate	++++		0.270631		0.284511		0.264201		0.276961		0.259631						
	0.265251		0.240731										AVRG		0.265991		5.243871
153 3,3'-Dimethylbenzidine	++++		0.509141		0.566111		0.538471		0.533381		0.524031						
	0.524621		0.519211										AVRG		0.530711		3.440231

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-JAN-2010 14:28  
 End Cal Date : 24-JAN-2010 00:53  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Cal Date : 28-Jan-2010 19:24 amy01291

Compound	i	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	ml	m2	%RSD or R^2
	100	120										
	Level 7	Level 8										
154 Famphur	++++	0.29942	0.3213	0.32197	0.33729	0.32299		AVRG		0.32225		3.69235
		0.32039	0.32157									
155 2-Acetylaminofluorene	++++	0.26297	0.33977	0.34526	0.33993	0.33878		AVRG		0.32695		8.59713
		0.33942	0.32249									
157 7,12Dimethylbenz(a)anthracene	++++	0.44892	0.47900	0.45878	0.46615	0.44081		AVRG		0.45173		4.46980
		0.45299	0.41545									
158 3-Methylcholeanthrene	++++	0.34041	0.38780	0.39339	0.39621	0.39171		AVRG		0.38431		5.28694
		0.39818	0.38046									
26 Phthalic anhydride	++++	0.09150	0.11434	0.12033	0.11996	0.11908		AVRG		0.11304		10.86312
		0.99941	1.06421	1.03994	0.93814	0.86996						
173 Carbazole	0.82313	0.83394						AVRG		0.93028		10.15113
174 Hexachlorophene	++++	0.04446	0.05816	0.0613	0.05793	0.05762		AVRG		0.05647		10.68837
		0.05934										
179 Dibenz(a,e)pyrene	++++	0.42166	0.40989	0.38714	0.37832	0.53605		AVRG		0.41743		14.65012
		0.37152	++++									
185 (2,3-Dibromopropyl)phosphate	++++	++++	++++	++++	++++	++++		AVRG		0.000e+00		0.000e+00
		++++	++++									

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 22-JAN-2010 14:28  
 End Cal Date : 24-JAN-2010 00:53  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Cal Date : 28-Jan-2010 19:24 amy01291

Compound	1	Level 1	10	Level 2	20	Level 3	40	Level 4	50	Level 5	80	Level 6	Curve	b	Coefficients	m1	m2	%RSD or R^2
		Level 7	120	Level 8														
184 p-Benzquinone	++++		0.06372	0.06036			0.07786		0.07154		0.06850		AVRG			0.06922		8.56540
	0.07384		0.06874															
191 Parathion	++++		0.05787	0.06606			0.06596		0.07254		0.06978		AVRG			0.06825		8.01634
	0.07236		0.07316															
192 Methoxychlor	++++		0.53032	0.59391			0.55879		0.53768		0.49814		AVRG			0.51603		10.79732
	0.45444		0.43892															
210 m-Toluidine	++++		0.99177	0.93510			0.96502		1.01453		0.86643		AVRG			0.90820		13.73002
	0.67634		++++															
211 p-Toluidine	++++		0.67117	0.71933			0.73418		0.68392		0.89675		AVRG			0.74107		12.23943
	++++		++++															
212 Cis Diallate	++++		0.29118	0.29909			0.29792		0.30675		0.29824		AVRG			0.29778		2.71067
	0.30695		0.28433															
213 Trans Diallate	++++		0.33628	0.34416			0.32126		0.32582		0.30485		AVRG			0.31382		8.48572
	0.29874		0.26563															
214 1,4-Dinitrobenzene	++++		0.16896	0.18176			0.17955		0.17945		0.17503		AVRG			0.17273		4.83753
	0.16364		0.16075															
215 2-Ethoxyethanol	++++		0.86484	0.95944			1.06321		0.88002		0.81800		AVRG			0.88737		10.54997
	0.81828		0.80785															

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

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 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Cal Date : 28-Jan-2010 19:24 amy01291

Compound	1	10	20	40	50	80	Curve	b	Coefficients ml	m2	%RSD or R^2
216 Methylenebis (2-chloroaniline)	++++ 0.12973	Level 2 0.11515 0.12028	Level 3 0.12149	Level 4 0.13886	Level 5 0.14398	Level 6 0.15362	AVRG		0.13187		10.70227
229 2,2'-Dichlorobenzil	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+03		0.000e+03
230 4-Chlorothioanisole	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e-00		0.000e+00
231 4-Chlorothiophenol	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+00
232 bis (p-Chlorophenyl) sulfone	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+00
233 bis (p-Chlorophenyl) disulfide	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+00
234 Diphenyl disulfide	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+00
235 Diphenyl sulfide	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+03		0.000e+03
236 Phenyl sulfone	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	++++ ++++	AVRG		0.000e+00		0.000e+03

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 22-JAN-2010 14:28  
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 Target Version : 3.50  
 Integrator : HP RTE  
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 Cal Date : 28-Jan-2010 19:24 amy01291

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
237 Hydroxymethyl phthalimide	++++ Level 7	++++ Level 3	++++ Level 3	++++ Level 4	++++ Level 5	++++ Level 6	AVRG		0.000e+00		0.000e+00
238 Phthalic acid	++++ Level 7	++++ Level 3	++++ Level 3	++++ Level 4	++++ Level 5	++++ Level 6	AVRG		0.000e+00		0.000e+00
239 Thiophenol	++++ Level 7	++++ Level 3	++++ Level 3	++++ Level 4	++++ Level 5	++++ Level 6	AVRG		0.000e+00		0.000e+00
240 bis (Chloromethyl) ether	++++ Level 7	++++ Level 3	++++ Level 3	++++ Level 4	++++ Level 5	++++ Level 6	AVRG		0.000e+00		0.000e+00
241 Octachlorostyrene	++++ Level 7	++++ Level 3	++++ Level 3	++++ Level 4	++++ Level 5	++++ Level 6	AVRG		0.000e+00		0.000e+00
IM 225 Trichlorophenols	0.28618 Level 7	0.36488 Level 3	0.37174 Level 3	0.33710 Level 4	0.32649 Level 5	0.30458 Level 6	AVRG		0.000e+00		0.000e+00
IM 226 Tetrachlorophenols	0.28618 Level 7	0.28071 Level 3	0.28728 Level 3	0.27891 Level 4	0.27158 Level 5	0.25947 Level 6	AVRG		0.32452		1.11507
IM 227 Benzo(b,k)fluoranthene	0.25240 Level 7	0.24960 Level 3	1.14640 Level 3	1.07426 Level 4	1.03474 Level 5	0.99750 Level 6	AVRG		0.26971		5.99278
IM 228 TTO Sum Semivolatiles	0.97075 Level 7	0.97313 Level 3	0.97313 Level 3	0.97313 Level 4	0.97313 Level 5	0.97313 Level 6	AVRG		0.000e+00		9.07111
IM 228 TTO Sum Semivolatiles	0.97075 Level 7	0.97313 Level 3	0.97313 Level 3	0.97313 Level 4	0.97313 Level 5	0.97313 Level 6	AVRG		0.000e+00		3.000e+00

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 22-JAN-2010 14:28  
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 Integrator : HP RTE  
 Method file : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Cal Date : 28-Jan-2010 19:24 amy01291

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 <sup>2</sup>
	100	120									
	Level 7	Level 8									
\$ 3 2-Fluorophenol	++++ 1.15955	1.35089 1.11362	1.34391	1.28807	1.26911	1.13491	AVRG		1.23715		8.06179
\$ 5 Phenol-d5	++++ 1.45291	1.64911 1.43070	1.65590	1.56903	1.54702	1.45165	AVRG		1.53662		6.14436
\$ 187 2-Chlorophenol-d4	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG		0.000e+00		0.300e-00
\$ 188 1,2-Dichlorobenzene-d4	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00
\$ 20 Nitrobenzene-d5	++++ 0.27611	0.32541 0.27641	0.32550	0.30141	0.29377	0.26795	AVRG		0.29522		7.98137
\$ 39 2-Fluorobiphenyl	++++ 0.89827	1.23099 0.86079	1.18190	1.07530	1.03476	0.93147	AVRG		1.03050		13.79422
\$ 60 2,4,6-Tribromophenol	++++ 0.13525	0.15100 0.13282	0.15536	0.15136	0.14840	0.13901	AVRG		0.14474		6.14243
\$ 81 p-Terphenyl-d14	++++ 0.65291	0.77797 0.68262	0.76575	0.71668	0.70260	0.72582	AVRG		0.71776		6.14281



## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 22-JAN-2010 14:28  
End Cal Date : 24-JAN-2010 00:53  
Quant Method : ISTD  
Target Version : 3.50  
Integrator : HP RTE  
Method file : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
Cal Date : 28-Jan-2010 19:24 amy01291

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Report Date: 11-Feb-2010 12:06

### Calibration History

Method : /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m  
Start Cal Date: 20-JAN-2010 17:59  
End Cal Date : 29-JAN-2010 22:17

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
20-JAN-2010 17:59	MEGAI	/chem/MSD3.i/s012010a.b/s3a2015.d
Cal Level: 2 , Cal Amount: 10.00000		
29-JAN-2010 19:16	BJCO	/chem/MSD3.i/s012910a.b/s3a2919.d
21-JAN-2010 16:14	NEV	/chem/MSD3.i/s012110.b/s3a2118.d
21-JAN-2010 12:44	HEX	/chem/MSD3.i/s012110.b/s3a2110.d
21-JAN-2010 09:39	PEST	/chem/MSD3.i/s012110.b/s3a2103.d
20-JAN-2010 21:56	AP12	/chem/MSD3.i/s012010a.b/s3a2023.d
20-JAN-2010 18:29	MEGAI	/chem/MSD3.i/s012010a.b/s3a2016.d
Cal Level: 3 , Cal Amount: 20.00000		
29-JAN-2010 19:46	BJCO	/chem/MSD3.i/s012910a.b/s3a2920.d
21-JAN-2010 16:41	NEV	/chem/MSD3.i/s012110.b/s3a2119.d
21-JAN-2010 13:10	HEX	/chem/MSD3.i/s012110.b/s3a2111.d
21-JAN-2010 10:05	PEST	/chem/MSD3.i/s012110.b/s3a2104.d
20-JAN-2010 22:22	AP12	/chem/MSD3.i/s012010a.b/s3a2024.d
20-JAN-2010 18:58	MEGAI	/chem/MSD3.i/s012010a.b/s3a2017.d
Cal Level: 4 , Cal Amount: 40.00000		
29-JAN-2010 20:16	BJCO	/chem/MSD3.i/s012910a.b/s3a2921.d
21-JAN-2010 17:07	NEV	/chem/MSD3.i/s012110.b/s3a2120.d
21-JAN-2010 13:36	HEX	/chem/MSD3.i/s012110.b/s3a2112.d
21-JAN-2010 10:31	PEST	/chem/MSD3.i/s012110.b/s3a2105.d
20-JAN-2010 22:48	AP12	/chem/MSD3.i/s012010a.b/s3a2025.d
20-JAN-2010 19:28	MEGAI	/chem/MSD3.i/s012010a.b/s3a2018.d
Cal Level: 5 , Cal Amount: 50.00000		
29-JAN-2010 20:46	BJCO	/chem/MSD3.i/s012910a.b/s3a2922.d
21-JAN-2010 17:33	NEV	/chem/MSD3.i/s012110.b/s3a2121.d
21-JAN-2010 14:03	HEX	/chem/MSD3.i/s012110.b/s3a2113.d
21-JAN-2010 10:58	PEST	/chem/MSD3.i/s012110.b/s3a2106.d
20-JAN-2010 23:15	AP12	/chem/MSD3.i/s012010a.b/s3a2026.d
20-JAN-2010 19:58	MEGAI	/chem/MSD3.i/s012010a.b/s3a2019.d
Cal Level: 6 , Cal Amount: 80.00000		
29-JAN-2010 21:16	BJCO	/chem/MSD3.i/s012910a.b/s3a2923.d
21-JAN-2010 17:59	NEV	/chem/MSD3.i/s012110.b/s3a2122.d
21-JAN-2010 14:29	HEX	/chem/MSD3.i/s012110.b/s3a2114.d
21-JAN-2010 11:24	PEST	/chem/MSD3.i/s012110.b/s3a2107.d
20-JAN-2010 23:41	AP12	/chem/MSD3.i/s012010a.b/s3a2027.d
20-JAN-2010 20:27	MEGAI	/chem/MSD3.i/s012010a.b/s3a2020.d

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+-----+
| Cal Level: 7 , Cal Amount: 100.00000 |
+-----+
| 29-JAN-2010 21:46 |BJCO          | /chem/MSD3.i/s012910a.b/s3a2924.d |
| 21-JAN-2010 18:26 |NEV          | /chem/MSD3.i/s012110.b/s3a2123.d |
| 21-JAN-2010 14:55 |HEX          | /chem/MSD3.i/s012110.b/s3a2115.d |
| 21-JAN-2010 11:51 |PEST         | /chem/MSD3.i/s012110.b/s3a2108.d |
| 21-JAN-2010 00:07 |AP12         | /chem/MSD3.i/s012010a.b/s3a2028.d |
| 20-JAN-2010 20:57 |MEGAI1       | /chem/MSD3.i/s012010a.b/s3a2021.d |
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+-----+
| Cal Level: 8 , Cal Amount: 120.00000 |
+-----+
| 29-JAN-2010 22:17 |BJCO          | /chem/MSD3.i/s012910a.b/s3a2925.d |
| 21-JAN-2010 18:52 |NEV          | /chem/MSD3.i/s012110.b/s3a2124.d |
| 21-JAN-2010 12:17 |PEST         | /chem/MSD3.i/s012110.b/s3a2109.d |
| 21-JAN-2010 00:33 |AP12         | /chem/MSD3.i/s012010a.b/s3a2029.d |
| 20-JAN-2010 21:26 |MEGAI1       | /chem/MSD3.i/s012010a.b/s3a2022.d |
+-----+

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# Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

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+-----+
+-----+
| Ccal Level: 4 , Ccal Amount: 40.0 |
+-----+
| 11-FEB-2010 11:47 |PEST         | /chem/MSD3.i/s021110.b/s3b1110.d |
+-----+
| Ccal Level: 4 , Ccal Amount: 40.0 |
+-----+
| 11-FEB-2010 11:22 |AP12         | /chem/MSD3.i/s021110.b/s3b1109.d |
+-----+
| Ccal Level: 4 , Ccal Amount: 40.0 |
+-----+
| 11-FEB-2010 10:53 |BJCO          | /chem/MSD3.i/s021110.b/s3b1108.d |
+-----+
| Ccal Level: 4 , Ccal Amount: 40.0 |
+-----+
| 11-FEB-2010 10:15 |MEGAI1       | /chem/MSD3.i/s021110.b/s3b1107.d |
+-----+
| Ccal Level: 4 , Ccal Amount: 40.0 |
+-----+
| 11-FEB-2010 09:24 |MEGAI1       | /chem/MSD3.i/s021110.b/s3b1105.d |
+-----+
| Ccal Level: 4 , Ccal Amount: 40.0 |
+-----+
| 11-FEB-2010 08:35 |MEGAI1       | /chem/MSD3.i/s021110.b/s3b1103.d |
+-----+

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## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 20-JAN-2010 17:59  
 End Cal Date : 29-JAN-2010 22:17  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m  
 Cal Date : 11-Feb-2010 12:04 jen00986

## Calibration File Names:

Level 1: /chem/MSD3.i/s012010a.b/s3a2015.d  
 Level 2: /chem/MSD3.i/s012910a.b/s3a2919.d  
 Level 3: /chem/MSD3.i/s012910a.b/s3a2920.d  
 Level 4: /chem/MSD3.i/s012910a.b/s3a2921.d  
 Level 5: /chem/MSD3.i/s012910a.b/s3a2922.d  
 Level 6: /chem/MSD3.i/s012910a.b/s3a2923.d  
 Level 7: /chem/MSD3.i/s012910a.b/s3a2924.d  
 Level 8: /chem/MSD3.i/s012910a.b/s3a2925.d

Compound	1	10	20	40	50	80	Curve	b	Coefficients	m1	m2	%RSD or R^2
1 N-Methyl-N-nitrosomethylamine	++++ 0.71804	0.74577 0.71044	0.76146	0.72551	0.69783	0.73979	AVRG			0.72841		3.01664
2 Pyridine	++++ 0.81224	0.79588 0.81235	0.83002	0.81037	0.79171	0.84563	AVRG			0.81403		2.29912
4 Aniline	++++ 0.61494	0.60427 0.61068	0.61520	0.60118	0.58219	0.63983	AVRG			0.60975		2.86056
209 Benzaldehyde	++++ 0.91392	1.05611 0.90096	1.10141	1.06522	1.00879	0.97526	AVRG			1.00310		7.67114
6 Phenol	++++ 1.32420	1.45109 1.31412	1.47647	1.39073	1.32949	1.39749	AVRG			1.38337		4.63856

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 20-JAN-2010 17:59  
 End Cal Date : 29-JAN-2010 22:17  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m  
 Cal Date : 11-Feb-2010 12:04 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
7 bis(2-Chloroethyl) ether	1.29780 1.01762	1.13083 1.00099	1.13339	1.07640	1.02407	1.07371	AVRG		1.09435		8.77407
8 2-Chlorophenol	++++ 0.99834	1.11214 0.99913	1.13276	1.05500	1.00421	1.05178	AVRG		1.05048		5.22731
203 n-Decane	++++ 1.17770	2.16402 1.12930	2.05496	1.72403	1.58287	1.33003	AVRG		1.59470		25.77078
9 1,3-Dichlorobenzene	++++ 1.13505	1.30193 1.14162	1.31338	1.21877	1.16294	1.19332	AVRG		1.20957		6.03757
11 1,4-Dichlorobenzene	++++ 1.15021	1.32370 1.15134	1.33377	1.23734	1.17929	1.20844	AVRG		1.22630		6.23668
12 Benzyl alcohol	++++ 0.72663	0.71914 0.71449	0.75592	0.73787	0.70446	0.75970	AVRG		0.73117		2.86237
13 1,2-Dichlorobenzene	++++ 1.08272	1.24142 1.07421	1.24897	1.16585	1.09982	1.13727	AVRG		1.15004		6.28599
14 bis(2-Chloroisopropyl) ether	++++ 2.27523	2.97224 2.17682	2.93925	2.70633	2.55941	2.50797	AVRG		2.59134		11.78103
15 o-Cresol	++++ 0.86852	0.93464 0.85370	0.94239	0.91543	0.86771	0.91509	AVRG		0.89964		3.96610

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 20-JAN-2010 17:59  
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 Method file : /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m  
 Cal Date : 11-Feb-2010 12:04 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
16 Acetophenone	++++ 1.22284	1.38007 1.21950	1.42805	1.39773	1.31853	1.28837	AVRG		1.32216		6.31545
17 N-Nitrosodipropylamine	0.92182 0.87724	0.87489 0.85115	0.91703	0.89073	0.85524	0.92446	AVRG		0.88907		3.30197
18 m,p-Cresols	++++ 1.15036	1.17673 1.14193	1.22218	1.17299	1.11972	1.20881	AVRG		1.17039		3.11662
19 Hexachloroethane	++++ 0.50820	0.53827 0.50664	0.55727	0.52939	0.51037	0.53604	AVRG		0.52660		3.61498
21 Nitrobenzene	++++ 0.27913	0.34106 0.26801	0.34935	0.32421	0.30872	0.30431	AVRG		0.31068		9.71142
22 Isophorone	++++ 0.51082	0.59931 0.47987	0.60707	0.56759	0.54067	0.54924	AVRG		0.55065		8.30085
23 2-Nitrophenol	++++ 0.12796	0.18445 0.12201	0.14902	0.14104	0.13526	0.13811	AVRG		0.14255		14.33925
24 2,4-Dimethylphenol	++++ 0.22363	0.27318 0.21300	0.27704	0.25586	0.24108	0.24128	AVRG		0.24644		9.70792
25 bis(2-Chloroethoxy)methane	++++ 0.28620	0.36537 0.27088	0.36244	0.33070	0.31239	0.30990	AVRG		0.31970		11.19776

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 Integrator : HP RTE  
 Method file : /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m  
 Cal Date : 11-Feb-2010 12:04 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>
26 2,4-Dichlorophenol	++++ 0.19076	0.22327 0.18158	0.23204	0.21422	0.20393	0.20591	AVRG		0.20739		8.49755
27 Benzoic acid	++++ 0.19403	++++ 0.18846	0.13182	0.16272	0.16509	0.19870	AVRG		0.17347		14.59461
28 1,2,4-Trichlorobenzene	++++ 0.20734	0.26132 0.19936	0.26161	0.23595	0.22435	0.22238	AVRG		0.23033		10.57200
30 Naphthalene	1.02686 ++++	0.86157 ++++	0.85332	0.75506	0.70931	++++	AVRG		0.84122		14.54030
204 alpha-Terpineol	++++ 0.23859	0.31672 0.21885	0.31918	0.29694	0.28376	0.26561	AVRG		0.27709		13.81104
31 4-Chloroaniline	++++ 1379044	72758 ++++	242968	529597	626017	1163354	LINR	0.01089	0.257181		0.99290
189 Caprolactam	++++ 0.08130	0.07902 0.08273	0.08980	0.09255	0.08930	0.08562	AVRG		0.08576		5.82184
32 Hexachlorobutadiene	++++ 0.12191	0.14410 0.11643	0.14601	0.13380	0.12786	0.13013	AVRG		0.13146		8.26801
33 4-Chloro-3-methylphenol	++++ 0.21751	0.25053 0.20470	0.26138	0.24440	0.23250	0.23425	AVRG		0.23504		8.25058

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
34 2-Methylnaphthalene	0.63264 0.41605 ++++	0.54425 ++++	0.54385	0.48947	0.46292	0.45129	AVRG		0.50578		14.47183
35 1-Methylnaphthalene	0.62882 ++++	0.53834 ++++	0.53831	0.48101	0.45128	0.44067	AVRG		0.51307		13.71568
36 Hexachlorocyclopentadiene	++++ 0.21973	0.22113 0.21336	0.23923	0.23488	0.22522	0.24003	AVRG		0.22766		4.58941
208 1,1'-Biphenyl	++++ 1.12738	1.34163 1.09426	1.32307	1.25148	1.18543	1.14943	AVRG		1.21038		8.00473
205 2,3-Dichloroaniline	++++ 0.48856	0.54650 0.48828	0.55336	0.50388	0.48092	0.50829	AVRG		0.50997		5.67758
37 2,4,6-Trichlorophenol	++++ 0.28898	0.27875 0.29197	0.29479	0.28152	0.27265	0.29824	AVRG		0.28670		3.24410
38 2,4,5-Trichlorophenol	++++ 0.31122	0.29964 0.30377	0.32339	0.31035	0.29888	0.32105	AVRG		0.30976		3.15349
40 2-Chloronaphthalene	1.09282 0.87595	0.98378 0.87244	0.99396	0.93198	0.88980	0.91989	AVRG		0.94508		7.96150
42 o-Nitroaniline	++++ 0.37301	0.35292 0.36862	0.37905	0.37354	0.35917	0.39187	AVRG		0.37117		3.44867



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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
41 m-Nitroaniline	++++ 595969	24160 653033	84099	223402	264703	508263	LINEAR	0.10772	0.24761		0.99638
43 Dimethylphthalate	++++ 1.04210	1.15017 1.00230	1.17429	1.09296	1.04860	1.08333	AVRG		1.08482		5.61871
44 2,6-Dinitrotoluene	++++ 0.24973	0.26127 0.24227	0.27649	0.26356	0.25029	0.26094	AVRG		0.25779		4.38601
45 Acenaphthylene	1.71149 1.34102	1.60018 1.31035	1.60779	1.48849	1.41330	1.42295	AVRG		1.48695		9.50591
47 Acenaphthene	1.11629 0.88661	0.96542 0.86196	0.99725	0.93059	0.89065	0.92656	AVRG		0.94692		8.58539
48 2,4-Dinitrophenol	++++ 0.12947	++++ 0.12286	0.08845	0.10958	0.10655	0.13215	AVRG		0.11484		14.42064
49 Dibenzofuran	++++ 1.13932	1.32487 1.10909	1.32975	1.22403	1.17119	1.20294	AVRG		1.21446		7.07746
50 2,4-Dinitrotoluene	++++ 0.31737	0.31324 0.30020	0.34041	0.32689	0.31515	0.32940	AVRG		0.32038		4.06899
51 Diethylphthalate	++++ 1.02940	1.15017 0.96851	1.18217	1.09898	1.05156	1.06689	AVRG		1.07824		6.73832

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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
	Level 7	120 Level 8									
52 4-Nitrophenol	++++ 0.19482	0.14809 0.18715	0.18079	0.18484	0.18183	0.20200	AVRG		0.18279		9.33220
53 Fluorene	1.23652 0.95214	1.08915 0.90970	1.09417	0.99304	0.94867	0.98295	AVRG		1.02579		10.47717
54 4-Chlorophenylphenylether	++++ 0.47769	0.50916 0.46080	0.50927	0.47449	0.45641	0.48845	AVRG		0.48232		4.39927
55 2-Methy-4,6-dinitrophenol	++++ 0.11208	0.07609 0.10901	0.09887	0.10491	0.10417	0.11609	AVRG		0.10303		12.75423
56 p-Nitroaniline	++++ 601084	34121 638900	79188	198035	248695	506405	LinR	0.13043	0.24657		0.99437
133 Diphenylamine	++++ 0.52356	0.55707 0.52539	0.53334	0.51872	0.50649	0.54589	AVRG		0.53006		3.21154
58 1,2-Diphenylhydrazine	++++ 0.74423	0.82487 0.74173	0.83334	0.77782	0.75952	0.78845	AVRG		0.78142		4.69737
59 Tributylphosphate	++++ 1.09555	1.32216 1.12968	1.18297	1.12399	1.17926	1.10515	AVRG		1.16268		6.71052
61 4-Bromophenylphenylether	++++ 0.17775	0.16761 0.17588	0.17020	0.16317	0.16052	0.17788	AVRG		0.17043		4.13286

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
	100	120									
	Level 7	Level 8									
63 Hexachlorobenzene	++++	0.7615	0.17524	0.16870	0.16457	0.18527	AVRG		0.17700		4.69442
	0.18616	0.18291									
207 Atrazine	++++	0.04948	0.05167	0.04892	0.04705	0.04516	AVRG		0.04628		9.21030
	0.34175	0.03993									
65 Pentachlorophenol	++++	0.07673	0.09660	0.10008	0.09851	0.11103	AVRG		0.10027		11.91792
	0.11029	0.10862									
206 n-Octadecane	++++	0.77057	0.76149	0.67942	0.64819	0.61274	AVRG		0.65176		14.20920
	0.55457	0.53533									
68 Phenanthrene	1.09161	0.93858	0.93460	0.84726	0.80961	0.83068	AVRG		0.87923		11.83793
	0.80188	0.77958									
69 Anthracene	0.98204	0.92939	0.93865	0.85644	0.83100	0.84315	AVRG		0.87768		7.18623
	0.82966	0.81107									
72 Di-n-butylphthalate	++++	1.16683	1.20960	1.09849	1.03930	1.01395	AVRG		1.06159		9.57727
	0.96977	0.93322									
76 Fluoranthene	0.90168	0.87949	0.90349	0.78704	0.74569	0.73752	AVRG		0.80003		10.03388
	0.72012	0.72879									
77 Benzidine	++++	68247	157088	368997	517823	799002	AVRG		0.43103		0.99259
	1242269	1396665					LINR	0.18762			

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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									
79 Pyrene	1.20782	1.17367	1.19363	1.15436	1.14505	1.11019	AVRG		1.14589		3.98562
	1.0515	1.07728									
85 Butylbenzylphthalate	++++	0.53315	0.59279	0.58620	0.57351	0.57865	AVRG		0.57344		3.34401
	0.57757	0.57218									
89 Benzo(a)anthracene	1.04947	0.92578	0.93249	0.87547	0.85953	0.91526	AVRG		0.91588		6.53649
	0.89123	0.87778									
90 3,3'-Dichlorobenzidine	++++	50313	128838	311549	418224	630554	LINE	0.08574	0.29947		0.99849
	870778	992474									
92 Chrysene	0.97877	0.87284	0.88778	0.83077	0.81096	0.85332	AVRG		0.86151		6.25094
	0.83239	0.82524									
93 bis(2-Ethylhexyl)phthalate	0.64865	0.80656	0.85756	0.83189	0.81753	0.80790	AVRG		0.78921		8.26795
	0.79914	0.74447									
94 Di-n-octylphthalate	++++	1.35964	1.60765	1.55720	1.51913	1.74200	AVRG		1.61982		9.63151
	1.77023	1.78288									
95 Benzo(b)Fluoranthene	0.80148	0.90924	0.94818	0.90443	0.89079	1.02086	AVRG		0.93870		8.28907
	1.01895	1.01572									
96 Benzo(k)Fluoranthene	0.88969	0.97441	1.01339	0.93213	0.93572	1.02950	AVRG		0.97450		5.35398
	0.98776	1.03666									

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
	100	120									
	Level 7	Level 8									
97 Benzo(a)pyrene	0.63975 0.86859	0.78545 0.86572	0.85523	0.82144	0.81380	0.89384	AVRG		0.81798		9.78413
99 Indeno(1,2,3-cd)pyrene	0.53271 0.65475	0.64912 0.61858	0.78240	0.73167	0.69198	0.67705	AVRG		0.66728		11.19617
100 Dibenzo(a,h)anthracene	0.38835 0.55412	0.51473 0.51898	0.63534	0.59869	0.57749	0.56896	AVRG		0.54458		13.68691
101 Benzo(ghi)perylene	0.53024 0.50458	0.55394 0.47119	0.65192	0.60056	0.54802	0.52127	AVRG		0.54772		10.33074
102 1,4-Dioxane	++++ 0.33737	0.40284 0.33393	0.40910	0.38885	0.36418	0.35721	AVRG		0.37050		8.19005
103 Methyl methacrylate	++++ 0.19656	0.22937 0.19380	0.23413	0.22455	0.20925	0.20687	AVRG		0.21351		7.49623
104 Ethyl methacrylate	++++ 0.82833	0.94017 0.81644	0.96408	0.94490	0.87906	0.87421	AVRG		0.89246		6.55903
105 2-Picoline	++++ 1.19098	1.39790 1.17745	1.42601	1.37405	1.28232	1.25646	AVRG		1.30074		7.69147
106 N-Nitrosomethylethylamine	++++ 0.56140	0.57250 0.56139	0.60188	0.60267	0.57117	0.57548	AVRG		0.57807		3.00772

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
	100	120									
	Level 7	Level 8									
107 Methyl methanesulfonate	++++ 0.57075	0.61804 0.56788	0.63933	0.63301	0.60159	0.59587	AVRG		0.60378		4.66950
108 N-Nitrosodiethylamine	++++ 0.55646	0.58134 0.55701	0.61446	0.60838	0.57663	0.57742	AVRG		0.58167		3.89262
109 Ethyl Methanesulfonate	++++ 0.71730	0.75021 0.71916	0.78366	0.77467	0.73862	0.74097	AVRG		0.74637		3.40767
110 Pentachloroethane	++++ 0.30943	0.34206 0.30715	0.35291	0.34546	0.32303	0.32328	AVRG		0.32905		5.46741
111 N-Nitrosopyrrolidine	++++ 0.53121	0.60763 0.54193	0.65600	0.64807	0.62006	0.59922	AVRG		0.60059		8.04589
113 N-Nitrosomorpholine	++++ 0.87036	1.06306 0.83070	1.10704	1.07185	1.00687	0.95244	AVRG		0.98604		10.71783
114 o-Toluidine	++++ 1.67531	1.92126 1.65506	1.98267	1.89353	1.78515	1.73854	AVRG		1.80736		7.03491
115 N-Nitrosopiperidine	++++ 0.14519	0.15118 0.14450	0.15925	0.15757	0.14997	0.14991	AVRG		0.15108		3.71838
116 a,a-Dimethylphenethylamine	++++ 1.14477	0.96436 1.14654	1.10317	1.16948	1.12786	1.17544	AVRG		1.11880		6.46576

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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>
	100	120									
	Level 7	Level 8									
117 Triethylphosphorothioate	++++ 0.12504	0.14096 0.12852	0.12675	0.12671	0.12709	0.12431	AVRG		0.12848		4.41389
118 2,6-Dichlorophenol	++++ 0.21091	0.20730 0.20837	0.22246	0.22551	0.21620	0.21642	AVRG		0.21531		3.22282
119 Hexachloropropene	++++ 0.11936	0.10458 0.11763	0.11742	0.12274	0.11836	0.11947	AVRG		0.11708		4.94585
120 p-Phenylenediamine	++++ 0.21382	0.24630 0.20452	0.29054	0.28023	0.26426	0.23686	AVRG		0.24808		13.05955
121 N-Nitrosodi-n-butylamine	++++ 0.21235	0.26153 0.21050	0.27739	0.24051	0.22685	0.22052	AVRG		0.23566		10.84221
122 Safrole	++++ 0.18084	0.20311 0.17990	0.20717	0.20248	0.19097	0.18811	AVRG		0.19323		5.74835
123 1,2,4,5-Tetrachlorobenzene	++++ 0.42012	0.44070 0.41536	0.44504	0.42857	0.41216	0.41546	AVRG		0.42534		3.08394
124 Isosafrole	++++ 0.34682	0.36248 0.33695	0.37728	0.36959	0.35298	0.34957	AVRG		0.35652		3.92605
125 1,4-Naphthoquinone	++++ ++++	0.35549 ++++	0.38126	0.33900	0.32053	0.28095	AVRG		0.33545		11.25882

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
126 m-Dinitrobenzene	++++ 0.18723	0.17442 0.18207	0.19169	0.18527	0.18037	0.19440	AVRG		0.18506		3.69258
127 Pentachlorobenzene	++++ 0.36872	0.37423 0.37073	0.37911	0.37490	0.35909	0.36746	AVRG		0.37060		1.74192
128 1-Naphthylamine	++++ 0.87269	0.89660 0.85274	0.97285	0.96776	0.92853	0.89575	AVRG		0.91242		5.03087
129 2-Naphthylamine	++++ 0.94805	1.05353 0.92273	1.06610	1.04929	1.01007	0.96861	AVRG		1.00263		5.66741
130 2,3,4,6-Tetrachlorophenol	++++ 0.24841	0.23053 0.24174	0.25006	0.24208	0.23646	0.25408	AVRG		0.24334		3.36290
131 5-Nitro-o-toluidine	++++ 0.29827	0.26341 0.29683	0.29456	0.30662	0.30452	0.30310	AVRG		0.29533		4.98830
132 Thionazin	++++ 0.16225	0.18286 0.16825	0.16965	0.16716	0.17350	0.16496	AVRG		0.16981		3.97911
134 Sulfotepp	++++ 0.09338	0.08201 0.10136	0.07662	0.07979	0.08274	0.08803	AVRG		0.08627		10.00671
135 Phorate	++++ 0.39466	0.45434 0.37860	0.42143	0.42115	0.40948	0.39752	AVRG		0.41103		5.95211



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 Method file : /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m  
 Cal Date : 11-Feb-2010 12:04 jen00986

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					
136 1,3,5-Trinitrobenzene	++++ 0.14789	0.11115 0.15095	0.15254	0.16071	0.16238	0.15691	AVRG		0.14894		11.72228
137 Phenacetin	++++ 0.33711	0.29223 0.33088	0.32768	0.33875	0.34208	0.35004	AVRG		0.33125		5.64272
138 Diallyl	++++ 0.29918	0.33060 0.29006	0.34769	0.33140	0.31546	0.31296	AVRG		0.31820		6.26753
139 Dimethoate	++++ 0.24875	0.26282 0.26233	0.24782	0.25053	0.26811	0.25122	AVRG		0.25594		3.21186
140 4-Aminobiphenyl	++++ 0.63808	0.60889 0.62249	0.60889	0.65926	0.65886	0.65614	AVRG		0.63580		3.53941
141 Pentachloronitrobenzene	++++ 0.07382	0.07920 0.07181	0.08536	0.08213	0.07899	0.07836	AVRG		0.07853		5.87331
142 Pronamide	++++ 0.27884	0.30210 0.27568	0.31704	0.30741	0.29794	0.29432	AVRG		0.29619		5.01473
143 Dinoseb	++++ 0.15547	0.10128 0.14836	0.13894	0.14777	0.14435	0.15742	AVRG		0.14194		13.38497
144 Disulfoton	++++ 0.32392	0.38381 0.32137	0.35580	0.34624	0.34548	0.32535	AVRG		0.34314		6.50461

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 20-JAN-2010 17:59  
 End Cal Date : 29-JAN-2010 22:17  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m  
 Cal Date : 11-Feb-2010 12:04 jen00986

Compound	1	10	20	40	50	80	Curve	b	Coefficients	m2	%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1		or R^2
	100	120									
	Level 7	Level 8									
145 Methyl parathion	++++	0.18112	0.18572	0.19503	0.21595	0.20096	AVRG		0.19924		6.77966
	0.19984	0.21607									
146 4-Nitroquinoline-1-oxide	++++	0.03400	0.03957	0.03524	0.03285	0.02772	AVRG		0.03387		12.63095
	++++	++++									
147 Methapyrilene	++++	0.56834	0.60091	0.57196	0.54842	0.50433	AVRG		0.52598		12.04463
	0.45174	0.43613									
148 Isodrin	++++	0.11363	0.11886	0.11337	0.11000	0.11015	AVRG		0.11094		4.37564
	0.10509	0.10547									
149 Aramite	++++	0.04104	0.04681	0.04847	0.04868	0.04772	AVRG		0.04585		6.21308
	0.04447	0.04376									
150 Kepone	++++	0.06390	0.07066	0.06797	0.06703	0.06757	AVRG		0.06767		3.06053
	0.06744	0.06910									
151 p-(Dimethylamino)azobenzene	++++	0.38603	0.41569	0.41479	0.39936	0.40281	AVRG		0.39647		4.02605
	0.38016	0.37647									
152 Chlorobenzilate	++++	0.29852	0.32418	0.32853	0.31604	0.33558	AVRG		0.32229		3.80049
	0.32216	0.33106									
153 3,3'-Dimethylbenzidine	++++	0.44454	0.51712	0.52940	0.52712	0.53071	AVRG		0.51678		6.36003
	0.54403	0.52456									

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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									
154 Famphur	++++	0.37855	0.36235	0.38371	0.37553	0.38280	AVRG				
	0.37941	0.37565							0.37686		1.89344
155 2-Acetylaminofluorene	++++	54358	146603	347782	471601	730946	LINE	0.12725	0.36004		0.99818
	1039733	1181312									
157 7,12Dimethylbenz(a)anthracene	++++	0.49065	0.53222	0.55091	0.53464	0.55350	AVRG				
	0.52084	0.52780							0.53008		3.96662
158 3-Methylcholanthrene	++++	0.32173	0.36538	0.39456	0.39877	0.41088	AVRG				
	0.40379	0.39477							0.38427		8.07973
26 Phthalic anhydride	++++	0.09112	0.08833	0.11036	0.11415	0.11552	AVRG				
	0.10937	++++							0.10481		11.38965
173 Catbazole		0.86479	0.71586	0.64023	0.67237	0.68439	AVRG				
	0.70180	0.68929							0.71254		9.46599
174 Hexachlorophene	++++	0.06527	0.07987	0.07491	0.07520	0.06851	AVRG				
	0.07477	++++							0.07309		7.20745
179 Dibenzo(a,e)pyrene	++++	0.20398	0.30269	0.26880	0.22289	0.23884	AVRG				
	0.23424	0.20708							0.23979		14.71273
185 (2,3-Dibromopropyl)phosphate	++++	++++	++++	++++	++++	++++	AVRG				
	++++	++++							0.000e+00		0.000e+00 <-

## GEL Laboratories LLC

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 Cal Date : 11-Feb-2010 12:04 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
184 p-Benzoinone	++++ 0.11632	0.05055 0.13440	0.06219	0.08664	0.08181	0.11534	AVRG		0.03247		33.25064
191 Parathion	++++ 0.05929	0.05232 0.06990	0.05250	0.05390	0.06077	0.05809	AVRG		0.05811		10.65746
192 Methoxychlor	++++ 0.50867	0.47888 0.48210	0.55020	0.54492	0.52330	0.52850	AVRG		0.51665		5.47062
210 m-Toluidine	++++ 1.42086	1.20660 1.35651	1.13863	1.34833	1.30013	1.34859	AVRG		1.30281		7.49486
211 p-Toluidine	++++ 0.87001	0.82792 0.88427	0.92751	0.95009	0.93687	0.99354	AVRG		0.91289		6.09139
212 Cis Diallate	++++ 0.33303	0.32530 0.32933	0.35061	0.34315	0.33383	0.34948	AVRG		0.33782		2.94956
213 Trans Diallate	++++ 0.35198	0.38895 0.34125	0.40905	0.38989	0.37113	0.36829	AVRG		0.37435		6.26753
214 1,4-Dinitrobenzene	++++ 0.22066	0.19443 0.21678	0.21635	0.21508	0.21009	0.22936	AVRG		0.21468		4.99410
215 2-Ethoxyethanol	++++ 0.80779	0.87726 0.81374	0.90209	0.85383	0.83647	0.85701	AVRG		0.84974		3.96160

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 Cal Date : 11-Feb-2010 12:04 jen00986

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	ml	m2	%RSD or R^2
	Level 7	Level 8									
216 Methylenebis(2-chloroaniline)	++++ 0.13842	0.06616 0.13549	0.07608	0.09079	0.10448	0.14208	AVRG		0.10764		29.17866
229 2,2'-Dichlorobenzil	++++ 0.76403	0.77468 0.70142	0.81672	0.78001	0.77122	++++	AVRG		0.76801		4.87929
230 4-Chlorothioanisole	++++ 0.24233	0.21756 0.23147	0.22713	0.23458	0.23450	++++	AVRG		0.23125		3.61952
231 4-Chlorothiophenol	++++ 1322620	13915 1786788	145785	449073	465253	++++	LINE	0.27132	0.21350		0.99388
232 bis(p-Chlorophenyl) sulfone	++++ 0.40821	0.47388 0.37583	0.45390	0.41761	0.41127	++++	AVRG		0.42345		8.28402
233 bis(p-Chlorophenyl) disulfide	++++ 0.17420	0.19441 0.16308	0.19838	0.17851	0.21138	++++	AVRG		0.18666		9.54234
234 Diphenyl disulfide	++++ 0.24334	0.28343 0.23143	0.27802	0.26242	0.26450	++++	AVRG		0.26052		7.66126
235 Diphenyl sulfide	++++ 0.68944	0.77450 0.64311	0.73432	0.69665	0.69787	++++	AVRG		0.70598		6.29545
236 Phenyl sulfone	++++ 0.42641	0.49686 0.40051	0.45278	0.45366	0.44706	++++	AVRG		0.44621		7.18905

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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										
237 Hydroxymethyl phthalimide	++++ 338664	43062 ++++	70788 ++++	158625 ++++	184195 ++++	++++	LINEAR	-0.20385		0.08483		0.99591
238 Phthalic acid	++++ 817425	17549 1057677	67240 ++++	222077 ++++	286654 ++++	++++	LINEAR	0.30649		0.13018		0.99095
239 Thiophenol	++++ 1859333	40472 2488746	249069 ++++	669124 ++++	791770 ++++	++++	LINEAR	0.17391		1.07612		0.99866
240 bis(Chloromethyl) ether	++++ 0.69380	0.92896 0.63914	0.78750 ++++	0.71357 ++++	0.72008 ++++	++++	AVRG			0.74718		13.52417
241 Octachlorostyrene	++++ 0.07623	0.07090 0.07200	0.06572 ++++	0.06994 ++++	0.07114 ++++	++++	AVRG			0.07099		4.77390
243 Dibenzo(a,h)pyrene	++++ 0.30062	0.22943 0.22303	0.24586 ++++	0.23618 ++++	0.22483 ++++	0.21649 ++++	AVRG			0.23949		11.93776
244 Benzo(j)fluoranthene	++++ 1.00046	0.92880 0.97779	0.96788 ++++	0.93641 ++++	0.98140 ++++	0.97037 ++++	AVRG			0.96616		2.6201
245 Dibenzo(a,j)acridine	++++ 0.53751	0.47787 0.50113	0.50447 ++++	0.49446 ++++	0.52898 ++++	0.51307 ++++	AVRG			0.50821		4.00594
246 Dibenzo(a,h)acridine	++++ 0.52652	0.45675 0.48294	0.45462 ++++	0.48450 ++++	0.51587 ++++	0.49591 ++++	AVRG			0.48816		5.57984

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Compound	1	10	20	40	50	80	Curve	b	Coefficients ml	m2	%RSD or R^2
247 Quinoline	++++ 0.50168	0.52985 0.48136	0.53083	0.51007	0.52280	0.49560	AVRG		0.51031		3.65526<-
248 2,4-Toluene Diisocyanate	++++ 0.34139	0.34471 0.32876	0.36182	0.34708	0.36459	0.34468	AVRG		0.34758		3.52621<-
249 Dibenzo(a,i)pyrene	++++ 0.20514	0.14517 0.14858	0.14638	0.15581	0.14933	0.14244	AVRG		0.15612		14.10166<-
250 1-Nitropyrene	++++ 494550	22899 588676	58845	174126	226970	401558	1LINR	0.15806	0.18517		0.99898<-
251 5-Methylchrysene	++++ 0.49819	0.49153 0.48854	0.49737	0.48759	0.51199	0.50191	AVRG		0.49673		1.72374<-
252 Dibenzo(a,l)pyrene	++++ 0.27621	0.23991 0.22694	0.24880	0.23601	0.24255	0.22878	AVRG		0.24274		6.84187<-
253 7H-Dibenzo(c,g)carbazole	++++ 0.40218	0.33425 0.35198	0.35475	0.35475	0.36878	0.35247	AVRG		0.35988		5.88956<-
254 1-Hexanol	++++ 1.09485	1.19340 1.00386	1.19248	1.18321	1.20314	1.12664	AVRG		1.14251		6.40852<-
256 Thioacetamide (1)	++++ +++++	++++ +++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00<-
(2)	++++ +++++	++++ +++++	++++	++++	++++	++++	AVRG		0.009e+00		0.000e+00<-

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Compound	i	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	Coefficients m	m2	RSD or R^2
	100	120										
	Level 7	Level 8										
M 225 Trichlorophenols	++++	0.28920	0.30909	0.29593	0.28576	0.30965	AVRG			0.29823		3.04328
	0.30010	0.29787										
M 226 Tetrachlorophenols	++++	0.23053	0.25006	0.24208	0.23646	0.25408	AVRG			0.24334		3.36290
	0.24841	0.24174										
M 227 Benzo(b,k)fluoranthene	0.84558	0.94032	0.98063	0.91828	0.91325	1.02518	AVRG			0.95660		6.64057
	1.00336	1.02619										
M 228 TTO Sum Semivolatiles	++++	++++	++++	++++	++++	++++	AVRG			0.000e+00		0.000e+00
	++++	++++	++++	++++	++++	++++						
\$ 3 2-Fluorophenol	++++	1.07851	1.11123	1.04855	1.00806	1.04546	AVRG			1.04085		4.18326
	0.99425	0.99990										
\$ 5 Phenol-d5	++++	1.34878	1.37895	1.30637	1.25573	1.33301	AVRG			1.30813		3.61651
	1.26953	1.26451										
\$ 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	++++	0.31580	0.32342	0.30479	0.29159	0.29502	AVRG			0.29548		7.27263
	0.27418	0.26353										



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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	3RSD or R^2
IS 39 2-Fluorobiphenyl	+++ 0.97352	1.12515 0.96556	1.12690	1.04189	0.99112	1.01327	AVRG		1.03392		6.56122
IS 60 2,4,6-Tribromophenol	+++ 0.12894	0.09835 0.12196	0.11081	0.10988	0.10815	0.12459	AVRG		0.11467		9.43255
IS 81 p-Terphenyl-d14	+++ 0.70914	0.66516 0.69369	0.69226	0.68049	0.68287	0.68936	AVRG		0.68752		1.97038

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Cal Date : 11-Feb-2010 12:04 jen00986

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Data File: /chem/MSD1.i/s012210.b/s1a2218.d  
Report Date: 23-Jan-2010 17:45

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GEL Laboratories LLC  
CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 22-JAN-2010 22:57  
Lab File ID: s1a2218.d Init. Cal. Date(s): 22-JAN-2010 22-JAN-2010  
Analysis Type: Init. Cal. Times: 14:28 22:26  
Lab Sample ID: WBN091121-17.1 Quant Type: ISTD  
Method: /chem/MSD1.i/s012210.b/MSD1-M8270AQAP-012210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
\$ 3 2-Fluorophenol	1.23715	1.20149	1.20149 0.000	-2.88224	60.00000	Averaged	
\$ 5 Phenol-d5	1.53662	1.49468	1.49468 0.000	-2.72929	60.00000	Averaged	
\$ 20 Nitrobenzene-d5	0.29522	0.31828	0.31828 0.000	7.80849	60.00000	Averaged	
\$ 39 2-Fluorobiphenyl	1.03050	1.12096	1.12096 0.000	8.77875	60.00000	Averaged	
\$ 60 2,4,6-Tribromophenol	0.14474	0.14104	0.14104 0.000	-2.56187	60.00000	Averaged	
\$ 81 p-Terphenyl-d14	0.71776	0.71820	0.71820 0.000	0.06106	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.74385	0.75330	0.75330 0.000	1.27010	60.00000	Averaged	
2 Pyridine	1.20641	0.96419	0.96419 0.000	-20.07797	60.00000	Averaged	
4 Aniline	0.67969	0.68969	0.68969 0.000	1.47117	60.00000	Averaged	
6 Phenol	1.61551	1.57645	1.57645 0.001	-2.41809	20.00000	Averaged ccc	
7 bis(2-Chloroethyl) ether	1.22689	1.12998	1.12998 0.000	-7.89960	60.00000	Averaged	
8 2-Chlorophenol	1.27422	1.23005	1.23005 0.000	-3.46701	60.00000	Averaged	
203 n-Decane	1.99474	2.00590	2.00590 0.000	0.55977	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.39084	1.34047	1.34047 0.000	-3.62142	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.35583	1.28474	1.28474 0.001	-5.24331	20.00000	Averaged ccc	
13 1,2-Dichlorobenzene	1.34266	1.20692	1.20692 0.000	-10.10935	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	3.10314	3.01788	3.01788 0.000	-2.74751	60.00000	Averaged	
12 Benzyl alcohol	0.88347	0.83116	0.83116 0.000	-5.92110	60.00000	Averaged	
15 o-Cresol	1.04624	1.01985	1.01985 0.000	-2.52246	60.00000	Averaged	
18 m,p-Cresols	1.35106	1.31990	1.31990 0.000	-2.30648	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.92729	0.94710	0.94710 0.050	2.13710	60.00000	Averaged spcc	
19 Hexachloroethane	0.55103	0.53975	0.53975 0.000	-2.04721	60.00000	Averaged	
21 Nitrobenzene	0.33558	0.32082	0.32082 0.000	-4.39664	60.00000	Averaged	
22 Isophorone	0.58259	0.59359	0.59359 0.000	1.88807	60.00000	Averaged	
23 2-Nitrophenol	0.15798	0.15704	0.15704 0.001	-0.59462	20.00000	Averaged ccc	
24 2,4-Dimethylphenol	0.29604	0.28299	0.28299 0.000	-4.40952	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.37574	0.33230	0.33230 0.000	-11.55907	60.00000	Averaged	
26 2,4-Dichlorophenol	0.24537	0.24085	0.24085 0.001	-1.84139	20.00000	Averaged ccc	
27 Benzoic acid	0.18637	0.19953	0.19953 0.000	7.06198	60.00000	Averaged	
28 1,2,4-Trichlorobenzene	0.26377	0.24933	0.24933 0.000	-5.47319	60.00000	Averaged	
30 Naphthalene	0.95658	0.72370	0.72370 0.000	-24.34539	60.00000	Averaged	
204 alpha-Terpineol	0.25189	0.27449	0.27449 0.000	8.96881	60.00000	Averaged	
31 4-Chloroaniline	0.30399	0.29019	0.29019 0.000	-4.53826	60.00000	Averaged	
32 Hexachlorobutadiene	0.16516	0.14751	0.14751 0.001	-10.68830	20.00000	Averaged ccc	
33 4-Chloro-3-methylphenol	0.25971	0.25940	0.25940 0.001	-0.12091	20.00000	Averaged ccc	
34 2-Methylnaphthalene	0.58099	0.53525	0.53525 0.000	-7.87220	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 22-JAN-2010 22:57  
Lab File ID: sla2218.d Init. Cal. Date(s): 22-JAN-2010 22-JAN-2010  
Analysis Type: Init. Cal. Times: 14:28 22:26  
Lab Sample ID: WBN091121-17.1 Quant Type: ISTD  
Method: /chem/MSD1.i/s012210.b/MSD1-M8270AQAP-012210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.52482	0.50486	0.50486	0.000	-3.80366	Averaged
36 Hexachlorocyclopentadiene	0.14166	0.20341	0.20341	0.050	43.59317	Averaged spcc
205 2,3-Dichloroaniline	0.47687	0.51912	0.51912	0.000	8.86048	Averaged
37 2,4,6-Trichlorophenol	0.30203	0.28500	0.28500	0.001	-5.63870	Averaged ccc
38 2,4,5-Trichlorophenol	0.34702	0.36569	0.36569	0.000	5.38155	Averaged
40 2-Chloronaphthalene	1.06399	1.00455	1.00455	0.000	-5.58691	Averaged
42 o-Nitroaniline	0.39980	0.37448	0.37448	0.000	-6.33269	Averaged
41 m-Nitroaniline	37.55862	40.00000	0.25894	0.000	-6.10345	Linear
43 Dimethylphthalate	1.16760	1.15496	1.15496	0.000	-1.08255	Averaged
44 2,6-Dinitrotoluene	0.28262	0.26834	0.26834	0.000	-5.05286	Averaged
50 2,4-Dinitrotoluene	0.36140	0.35064	0.35064	0.000	-2.97835	Averaged
45 Acenaphthylene	1.57997	1.53921	1.53921	0.000	-2.57946	Averaged
47 Acenaphthene	0.97165	0.91553	0.91553	0.001	-5.77563	Averaged ccc
48 2,4-Dinitrophenol	41.87960	40.00000	0.11279	0.050	4.69900	Linear spcc
49 Dibenzofuran	1.44837	1.33904	1.33904	0.000	-7.54837	Averaged
51 Diethylphthalate	1.09539	1.10109	1.10109	0.000	0.52013	Averaged
52 4-Nitrophenol	0.22600	0.24170	0.24170	0.050	6.94941	Averaged spcc
53 Fluorene	1.14812	1.01967	1.01967	0.000	-11.18770	Averaged
54 4-Chlorophenylphenylether	0.49062	0.47441	0.47441	0.000	-3.30414	Averaged
55 2-Methyl-4,6-dinitrophenol	51.94393	40.00000	0.14170	0.000	29.85983	Linear
56 p-Nitroaniline	0.27237	0.26432	0.26432	0.000	-2.95623	Averaged
133 Diphenylamine	0.58359	0.55180	0.55180	0.001	-5.44711	Averaged ccc
58 1,2-Diphenylhydrazine	0.79967	0.74917	0.74917	0.000	-6.31483	Averaged
61 4-Bromophenylphenylether	0.17222	0.18137	0.18137	0.000	5.31110	Averaged
63 Hexachlorobenzene	0.21470	0.19439	0.19439	0.000	-9.46070	Averaged
65 Pentachlorophenol	0.14384	0.12326	0.12326	0.001	-14.30864	Averaged ccc
206 n-Octadecane	0.69764	0.67298	0.67298	0.000	-3.53449	Averaged
68 Phenanthrene	0.99090	0.87752	0.87752	0.000	-11.44149	Averaged
69 Anthracene	1.00576	0.89185	0.89185	0.000	-11.32564	Averaged
72 Di-n-butylphthalate	1.12348	1.10240	1.10240	0.000	-1.87667	Averaged
76 Fluoranthene	1.06379	0.95876	0.95876	0.001	-9.87370	Averaged ccc
79 Pyrene	1.22125	1.04732	1.04732	0.000	-14.24200	Averaged
85 Butylbenzylphthalate	0.56673	0.50673	0.50673	0.000	-10.58565	Averaged
89 Benzo(a)anthracene	1.03280	0.90305	0.90305	0.000	-12.56294	Averaged
92 Chrysene	1.02647	0.91094	0.91094	0.000	-11.25487	Averaged
93 bis(2-Ethylhexyl)phthalate	0.68040	0.64993	0.64993	0.000	-4.47881	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 22-JAN-2010 22:57  
Lab File ID: sla2218.d Init. Cal. Date(s): 22-JAN-2010 22-JAN-2010  
Analysis Type: Init. Cal. Times: 14:28 22:26  
Lab Sample ID: WBN091121-17.1 Quant Type: ISTD  
Method: /chem/MSD1.i/s012210.b/MSD1-M8270AQAP-012210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
94 Di-n-octylphthalate	1.33021	1.22100	1.22100	0.001	-8.21044	20.00000	Averaged ccc
95 Benzo(b)fluoranthene	1.04450	0.96336	0.96336	0.000	-7.76798	60.00000	Averaged
96 Benzo(k)fluoranthene	1.02942	0.92642	0.92642	0.000	-10.00520	60.00000	Averaged
97 Benzo(a)pyrene	0.90311	0.88880	0.88880	0.001	-1.58353	20.00000	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.89519	0.90397	0.90397	0.000	0.98051	60.00000	Averaged
100 Dibenzo(a,h)anthracene	0.75431	0.74054	0.74054	0.000	-1.82625	60.00000	Averaged
101 Benzo(ghi)perylene	0.80785	0.77054	0.77054	0.000	-4.61897	60.00000	Averaged
126 m-Dinitrobenzene	0.19188	0.19545	0.19545	0.000	1.86141	60.00000	Averaged
130 2,3,4,6-Tetrachlorophenol	0.26971	0.27183	0.27183	0.000	0.78727	60.00000	Averaged
143 Dinoseb	44.51464	40.00000	0.14436	0.000	11.28661	60.00000	Linear
173 Carbazole	0.93028	0.84400	0.84400	0.000	-9.27462	60.00000	Averaged
184 p-Benzoquinone	0.06922	0.10118	0.10118	0.000	46.16730	60.00000	Averaged
192 Methoxychlor	0.51603	0.56111	0.56111	0.000	8.73659	60.00000	Averaged
211 p-Toluidine	0.74107	1.22209	1.22209	0.000	64.90898	60.00000	Averaged <-
210 m-Toluidine	0.90820	1.54763	1.54763	0.000	70.40645	60.00000	Averaged <-
26 Phthalic anhydride	0.11304	0.13746	0.13746	0.000	21.60267	60.00000	Averaged
179 Dibenzo(a,e)pyrene	0.41743	0.31743	0.31743	0.000	-23.95671	60.00000	Averaged
214 1,4-Dinitrobenzene	0.17273	0.18088	0.18088	0.000	4.71466	60.00000	Averaged
215 2-Ethoxyethanol	0.88737	1.07188	1.07188	0.000	20.79190	60.00000	Averaged
216 Methylenebis(2-chloroanilin	0.13187	0.17430	0.17430	0.000	32.16924	60.00000	Averaged
M 225 Trichlorophenols	0.32452	0.32535	0.32535	0.000	0.25333	60.00000	Averaged
M 226 Tetrachlorophenols	0.26971	0.27183	0.27183	0.000	0.78727	60.00000	Averaged
M 227 Benzo(b,k)fluoranthene	1.02166	0.94489	0.94489	0.000	-7.51620	60.00000	Averaged

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Data file : /chem/MSD1.i/s012210.b/sla2218.d  
 Lab Smp Id: WBN091121-17.1 Client Smp ID: MEGAICV  
 Inj Date : 22-JAN-2010 22:57  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |WBN091121-17.1|40 PPM|1|SVMF|1|MEGAICV  
 Misc Info : |MSD8270|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012210.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 23-Jan-2010 17:45 amy01291 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 22:26 Cal File: sla2217.d  
 Als bottle: 11 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: MEGAICARE.sub  
 Target Version: 3.50  
 Processing Host: hpc1p1

Compounds	QUANT SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.551	4.551 (1.000)	351421	40.0000	
* 29 Naphthalene-d8	136	5.822	5.822 (1.000)	1488898	40.0000	
* 46 Acenaphthene-d10	164	7.687	7.687 (1.000)	764688	40.0000	
* 67 Phenanthrene-d10	188	9.286	9.286 (1.000)	1252716	40.0000	
* 91 Chrysene-d12	240	12.222	12.222 (1.000)	1187401	40.0000	
* 98 Perylene-d12	264	14.380	14.380 (1.000)	1169552	40.0000	
\$ 3 2-Fluorophenol	112	3.387	3.387 (0.744)	422230	40.0000	38.8
\$ 5 Phenol-d5	99	4.169	4.169 (0.916)	525261	40.0000	38.9
\$ 20 Nitrobenzene-d5	82	5.087	5.087 (0.874)	473880	40.0000	43.1
\$ 39 2-Fluorobiphenyl	172	6.951	6.951 (0.904)	857185	40.0000	43.5
\$ 60 2,4,6-Tribromophenol	329	8.528	8.528 (1.109)	107848	40.0000	39.0
\$ 81 p-Terphenyl-d14	244	10.992	10.992 (0.899)	852794	40.0000	40.0
1 N-Methyl-N-nitrosomethylamine	74	2.428	2.428 (0.533)	264725	40.0000	40.5
2 Pyridine	79	2.463	2.463 (0.541)	338835	40.0000	32.0
4 Aniline	66	4.246	4.246 (0.933)	242372	40.0000	40.6
6 Phenol	94	4.187	4.187 (0.920)	553997	40.0000	39.0 (Q)
7 bis(2-Chloroethyl) ether	63	4.287	4.287 (0.942)	397097	40.0000	36.8
8 2-Chlorophenol	128	4.351	4.351 (0.956)	432264	40.0000	38.6
203 n-Decane	43	4.369	4.369 (0.960)	704916	40.0000	40.2
9 1,3-Dichlorobenzene	146	4.499	4.499 (0.988)	471070	40.0000	38.6
11 1,4-Dichlorobenzene	146	4.569	4.569 (1.004)	451485	40.0000	37.9
13 1,2-Dichlorobenzene	146	4.716	4.716 (1.036)	424138	40.0000	36.0
14 bis(2-Chloroisopropyl) ether	45	4.793	4.793 (1.053)	1060547	40.0000	38.9
12 Benzyl alcohol	108	4.669	4.669 (1.026)	292088	40.0000	37.6
15 o-Cresol	107	4.757	4.757 (1.045)	358395	40.0000	39.0
18 m,p-Cresols	107	4.916	4.916 (1.080)	463840	40.0000	39.1

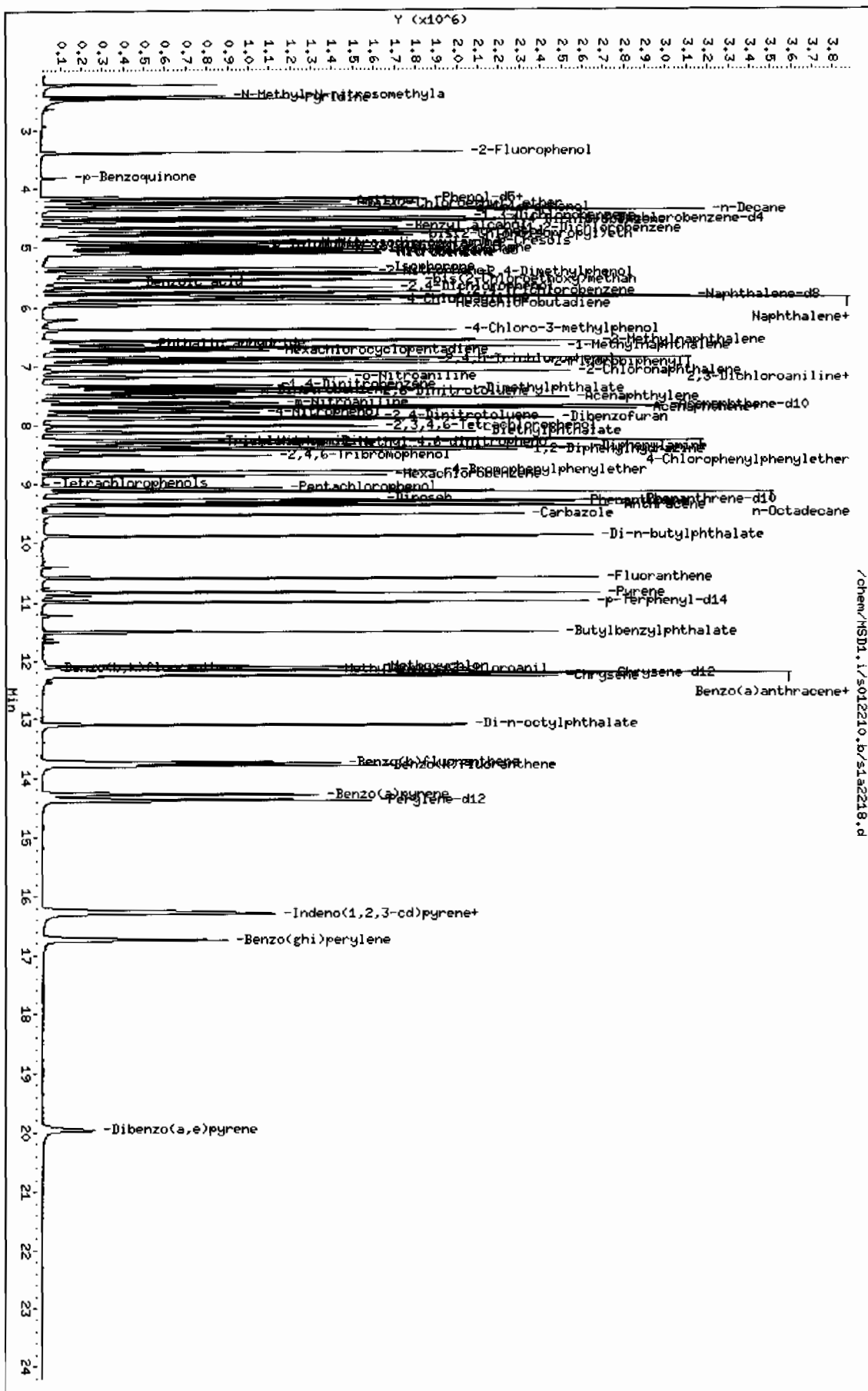
Compounds	QUANT SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	=====	=====	=====	=====	=====
17 N-Nitrosodipropylamine	70	4.934	4.934 (1.084)	332832	40.0000	40.8
19 Hexachloroethane	117	5.046	5.046 (1.109)	189678	40.0000	39.2
21 Nitrobenzene	77	5.110	5.110 (0.878)	477674	40.0000	38.2
22 Isophorone	82	5.346	5.346 (0.918)	883789	40.0000	40.8
23 2-Nitrophenol	139	5.422	5.422 (0.931)	233816	40.0000	39.8
24 2,4-Dimethylphenol	122	5.446	5.446 (0.935)	421337	40.0000	38.2
25 bis(2-Chloroethoxy)methane	93	5.546	5.546 (0.952)	494768	40.0000	35.4
26 2,4-Dichlorophenol	162	5.663	5.663 (0.973)	358602	40.0000	39.3
27 Benzoic acid	105	5.575	5.575 (0.958)	297080	40.0000	42.8
28 1,2,4-Trichlorobenzene	180	5.757	5.757 (0.989)	371227	40.0000	37.8
30 Naphthalene	128	5.846	5.846 (1.004)	1077513	40.0000	30.3
204 alpha-Terpineol	59	5.840	5.840 (1.003)	408682	40.0000	43.6
31 4-Chloroaniline	127	5.887	5.887 (1.011)	432065	40.0000	38.2
32 Hexachlorobutadiene	225	5.963	5.963 (1.024)	219628	40.0000	35.7
33 4-Chloro-3-methylphenol	107	6.375	6.375 (1.095)	386218	40.0000	40.0
34 2-Methylnaphthalene	142	6.563	6.563 (1.127)	796937	40.0000	36.8
35 1-Methylnaphthalene	142	6.675	6.675 (1.146)	751680	40.0000	38.5
36 Hexachlorocyclopentadiene	237	6.728	6.728 (0.875)	155547	40.0000	57.4
205 2,3-Dichloroaniline	161	6.863	6.863 (0.893)	396967	40.0000	43.5
37 2,4,6-Trichlorophenol	196	6.857	6.857 (0.892)	217937	40.0000	37.7
38 2,4,5-Trichlorophenol	196	6.892	6.892 (0.897)	279640	40.0000	42.2
40 2-Chloronaphthalene	162	7.087	7.087 (0.922)	768166	40.0000	37.8
42 o-Nitroaniline	65	7.187	7.187 (0.935)	286364	40.0000	37.5
41 m-Nitroaniline	138	7.634	7.634 (0.993)	198010	40.0000	37.6
43 Dimethylphthalate	163	7.387	7.387 (0.961)	883184	40.0000	39.6
44 2,6-Dinitrotoluene	165	7.451	7.451 (0.969)	205194	40.0000	38.0
50 2,4-Dinitrotoluene	165	7.881	7.881 (1.025)	268130	40.0000	38.8
45 Acenaphthylene	152	7.534	7.534 (0.980)	1177016	40.0000	39.0
47 Acenaphthene	154	7.722	7.722 (1.005)	700096	40.0000	37.7
48 2,4-Dinitrophenol	184	7.739	7.739 (1.007)	86248	40.0000	41.9(Q)
49 Dibenzofuran	168	7.904	7.904 (1.028)	1023950	40.0000	37.0
51 Diethylphthalate	149	8.134	8.134 (1.058)	841987	40.0000	40.2
52 4-Nitrophenol	139	7.792	7.792 (1.014)	184828	40.0000	42.8
53 Fluorene	166	8.275	8.275 (1.077)	779730	40.0000	35.5
54 4-Chlorophenylphenylether	204	8.263	8.263 (1.075)	362774	40.0000	38.7
55 2-Methyl-4,6-dinitrophenol	198	8.322	8.322 (0.896)	177506	40.0000	51.9
56 p-Nitroaniline	138	8.292	8.292 (1.079)	202122	40.0000	38.8
133 Diphenylamine	169	8.392	8.392 (0.904)	691249	40.0000	37.8
58 1,2-Diphenylhydrazine	77	8.434	8.434 (0.908)	938497	40.0000	37.5
61 4-Bromophenylphenylether	248	8.792	8.792 (0.947)	227199	40.0000	42.1
63 Hexachlorobenzene	284	8.869	8.869 (0.955)	243510	40.0000	36.2
65 Pentachlorophenol	266	9.069	9.069 (0.977)	154407	40.0000	34.3
206 n-Octadecane	57	9.139	9.139 (0.984)	843052	40.0000	38.6
68 Phenanthrene	178	9.316	9.316 (1.003)	1099289	40.0000	35.4
69 Anthracene	178	9.369	9.369 (1.009)	1117241	40.0000	35.5
72 Di-n-butylphthalate	149	9.886	9.886 (1.065)	1380994	40.0000	39.2
76 Fluoranthene	202	10.592	10.592 (1.141)	1201050	40.0000	36.0

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
79 Pyrene	202	10.839	10.839	(0.887)	1243584	40.0000	34.3
85 Butylbenzylphthalate	149	11.510	11.510	(0.942)	601696	40.0000	35.8
89 Benzo(a)anthracene	228	12.198	12.198	(0.998)	1072281	40.0000	35.0
92 Chrysene	228	12.251	12.251	(1.002)	1081656	40.0000	35.5
93 bis(2-Ethylhexyl)phthalate	149	12.186	12.186	(0.997)	771727	40.0000	38.2
94 Di-n-octylphthalate	149	13.098	13.098	(0.911)	1428018	40.0000	36.7
95 Benzo(b)fluoranthene	252	13.745	13.745	(0.956)	1126701	40.0000	36.9(H)
96 Benzo(k)fluoranthene	252	13.792	13.792	(0.959)	1083498	40.0000	36.0
97 Benzo(a)pyrene	252	14.286	14.286	(0.993)	1039503	40.0000	39.4
99 Indeno(1,2,3-cd)pyrene	276	16.251	16.251	(1.130)	1057235	40.0000	40.4
100 Dibenzo(a,h)anthracene	278	16.286	16.286	(1.133)	866098	40.0000	39.3
101 Benzo(ghi)perylene	276	16.739	16.739	(1.164)	901185	40.0000	38.2(Q)
126 m-Dinitrobenzene	168	7.422	7.422	(0.966)	149458	40.0000	40.7
130 2,3,4,6-Tetrachlorophenol	232	8.028	8.028	(1.044)	207866	40.0000	40.3
143 Dinoseb	211	9.263	9.263	(0.997)	180838	40.0000	44.5
173 Carbazole	167	9.533	9.533	(1.027)	1057296	40.0000	36.3
184 p-Benzoquinone	54	3.810	3.810	(0.837)	35557	40.0000	58.5
192 Methoxychlor	227	12.092	12.092	(0.989)	666263	40.0000	43.5
211 p-Toluidine	106	4.975	4.975	(1.093)	429467	40.0000	66.0
210 m-Toluidine	106	5.010	5.010	(1.101)	543870	40.0000	68.2(H)
26 Phthalic anhydride	104	6.622	6.622	(1.137)	204667	40.0000	48.6
179 Dibenzo(a,c)pyrene	302	19.962	19.962	(1.388)	371248	40.0000	30.4
214 1,4-Dinitrobenzene	168	7.334	7.334	(0.954)	138315	40.0000	41.9
215 2-Ethoxyethanol	59	2.222	2.222	(0.488)	376680	40.0000	48.3
216 Methylenebis(2-chloroaniline)	231	12.157	12.157	(0.995)	206959	40.0000	52.9(Q)
M 225 Trichlorophenols	196				497577	80.0000	80.2
M 226 Tetrachlorophenols	232				207866	40.0000	40.3
M 227 Benzo(b,k)fluoranthene	252				2210199	80.0000	74.0

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.  
H - Operator selected an alternate compound hit.





Data File: /chem/MSD1.i/s012210.b/s1a2218.d  
 Date: 22-JAN-2010 22:57  
 Client ID: MEGACV  
 Sample Info: IWB091121-17.1140 PPH11SYNFI11MEGACV

Column phase: 3M DB-SHS  
 Instrument: MSD1.i  
 Operator: RHY  
 Column diameter: 0.20

/chem/MSD1.i/s012210.b/s1a2218.d

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 22-JAN-2010 23:33  
Lab File ID: sla2219.d Init. Cal. Date(s): 22-JAN-2010 22-JAN-2010  
Analysis Type: Init. Cal. Times: 14:28 22:26  
Lab Sample ID: WBN100120-08.1 Quant Type: ISTD  
Method: /chem/MSD1.i/s012210.b/MSD1-M8270AQAP-012210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.98983	0.84931	0.84931	0.000	-14.19577	60.00000	Averaged
16 Acetophenone	1.33456	1.32795	1.32795	0.000	-0.49548	60.00000	Averaged
189 Caprolactam	0.07585	0.08783	0.08783	0.000	15.79982	60.00000	Averaged
208 1,1'-Biphenyl	1.15859	1.19780	1.19780	0.000	3.38441	60.00000	Averaged
207 Atrazine	0.04517	0.04857	0.04857	0.000	7.54375	60.00000	Averaged
77 Benzidine	0.40507	0.42737	0.42737	0.000	5.50684	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.32111	0.32901	0.32901	0.000	2.46284	60.00000	Averaged
102 1,4-Dioxane	0.37945	0.47469	0.47469	0.000	25.09873	60.00000	Averaged
103 Methyl methacrylate	0.19309	0.23700	0.23700	0.000	22.73669	60.00000	Averaged
104 Ethyl methacrylate	0.85975	1.03889	1.03889	0.000	20.83657	60.00000	Averaged
105 2-Picoline	1.36641	1.40730	1.40730	0.000	2.99207	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.57778	0.58869	0.58869	0.000	1.88920	60.00000	Averaged
107 Methyl methanesulfonate	0.53721	0.58659	0.58659	0.000	9.19269	60.00000	Averaged
108 N-Nitrosodiethylamine	0.58057	0.58952	0.58952	0.000	1.54085	60.00000	Averaged
109 Ethyl Methanesulfonate	0.72637	0.88166	0.88166	0.000	21.37893	60.00000	Averaged
110 Pentachloroethane	0.33502	0.45639	0.45639	0.000	36.22721	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.60873	0.61319	0.61319	0.000	0.73238	60.00000	Averaged
113 N-Nitrosomorpholine	0.96535	0.99546	0.99546	0.000	3.11862	60.00000	Averaged
114 o-Toluidine	1.90568	1.85134	1.85134	0.000	-2.85129	60.00000	Averaged
115 N-Nitrosopiperidine	0.15346	0.15195	0.15195	0.000	-0.98490	60.00000	Averaged
116 a,a-Dimethylphenethylamine	1.21469	1.19548	1.19548	0.000	-1.58112	60.00000	Averaged
118 2,6-Dichlorophenol	0.21780	0.22715	0.22715	0.000	4.29029	60.00000	Averaged
119 Hexachloropropene	0.09745	0.15390	0.15390	0.000	57.92383	60.00000	Averaged
120 p-Phenylenediamine	0.27928	0.28625	0.28625	0.000	2.49671	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.23166	0.26004	0.26004	0.000	12.24992	60.00000	Averaged
122 Safrole	0.19462	0.22683	0.22683	0.000	16.55206	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42406	0.45690	0.45690	0.000	7.74513	60.00000	Averaged
124 Isosafrole	0.36483	0.47852	0.47852	0.000	31.15957	60.00000	Averaged
125 1,4-Naphthoquinone	0.32432	0.33398	0.33398	0.000	2.97847	60.00000	Averaged
127 Pentachlorobenzene	0.38949	0.40200	0.40200	0.000	3.21258	60.00000	Averaged
128 1-Naphthylamine	0.93163	0.97260	0.97260	0.000	4.39821	60.00000	Averaged
129 2-Naphthylamine	1.02040	1.06355	1.06355	0.000	4.22879	60.00000	Averaged
131 5-Nitro-o-toluidine	0.30425	0.30306	0.30306	0.000	-0.39401	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.12442	0.17048	0.17048	0.000	37.01819	60.00000	Averaged
137 Phenacetin	0.31074	0.32290	0.32290	0.000	3.91323	60.00000	Averaged
138 Diallate	0.26675	0.26298	0.26298	0.000	-1.41302	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 22-JAN-2010 23:33  
Lab File ID: sla2219.d Init. Cal. Date(s): 22-JAN-2010 22-JAN-2010  
Analysis Type: Init. Cal. Times: 14:28 22:26  
Lab Sample ID: WBN100120-08.1 Quant Type: ISTD  
Method: /chem/MSD1.i/s012210.b/MSD1-M8270AQAP-012210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
RRF	%D / %DRIFT	%D / %DRIFT	RRF	%D / %DRIFT	%D / %DRIFT	
212 Cis Diallate	0.29778	0.38323	0.38323	0.000	28.69607	60.00000 Averaged
213 Trans Diallate	0.31382	0.30939	0.30939	0.000	-1.41302	60.00000 Averaged
140 4-Aminobiphenyl	0.62815	0.66338	0.66338	0.000	5.60998	60.00000 Averaged
141 Pentachloronitrobenzene	0.07246	0.07788	0.07788	0.000	7.48400	60.00000 Averaged
142 Pronamide	0.27967	0.29919	0.29919	0.000	6.98042	60.00000 Averaged
146 4-Nitroquinoline-1-oxide	0.02086	0.02817	0.02817	0.000	35.04619	60.00000 Averaged
147 Methapyrilene	0.57545	0.65741	0.65741	0.000	14.24232	60.00000 Averaged
148 Isodrin	0.10938	0.10581	0.10581	0.000	-3.26572	60.00000 Averaged
149 Aramite	0.04846	0.04668	0.04668	0.000	-3.67253	60.00000 Averaged
150 Kepone	0.06763	0.06793	0.06793	0.000	0.43444	60.00000 Averaged
151 p-(Dimethylamino)azobenzene	0.30082	0.29639	0.29639	0.000	-1.47157	60.00000 Averaged
152 Chlorobenzilate	0.26599	0.26893	0.26893	0.000	1.10696	60.00000 Averaged
153 3,3'-Dimethylbenzidine	0.53071	0.53117	0.53117	0.000	0.08599	60.00000 Averaged
155 2-Acetylaminofluorene	0.32695	0.33353	0.33353	0.000	2.01448	60.00000 Averaged
157 7,12Dimethylbenz(a)anthracene	0.45173	0.42527	0.42527	0.000	-5.85707	60.00000 Averaged
158 3-Methylcholanthrene	0.38431	0.40989	0.40989	0.000	6.65776	60.00000 Averaged

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Data file : /chem/MSD1.i/s012210.b/sla2219.d  
Lab Smp Id: WBN100120-08.1 Client Smp ID: APICV  
Inj Date : 22-JAN-2010 23:33  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |WBN100120-08.1|40 PPM|1|SVMF|1|APICV  
Misc Info : |MSD8270|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012210.b/MSD1-M8270AQAP-012210.m  
Meth Date : 23-Jan-2010 17:45 amy01291 Quant Type: ISTD  
Cal Date : 22-JAN-2010 22:26 Cal File: sla2217.d  
Als bottle: 19 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 (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.545	4.545	(1.000)	307820	40.0000	
* 29 Naphthalene-d8	136	5.816	5.816	(1.000)	1216118	40.0000	
* 46 Acenaphthene-d10	164	7.680	7.680	(1.000)	661318	40.0000	
* 67 Phenanthrene-d10	188	9.286	9.286	(1.000)	1089466	40.0000	
* 91 Chrysene-d12	240	12.210	12.210	(1.000)	1046653	40.0000	
* 98 Perylene-d12	264	14.368	14.368	(1.000)	929333	40.0000	
209 Benzaldehyde	77	4.145	4.145	(0.912)	261436	40.0000	34.3
16 Acetophenone	105	4.928	4.928	(1.084)	408770	40.0000	39.8
189 Caprolactam	113	6.251	6.251	(1.075)	106813	40.0000	46.3
208 1,1'-Biphenyl	154	7.057	7.057	(0.919)	792127	40.0000	41.4
207 Atrazine	173	8.957	8.957	(0.965)	52919	40.0000	43.0
77 Benzidine	184	10.721	10.721	(0.878)	447313	40.0000	42.2
90 3,3'-Dichlorobenzidine	252	12.145	12.145	(0.995)	344363	40.0000	41.0
102 1,4-Dioxane	88	2.222	2.222	(0.489)	146118	40.0000	50.0
103 Methyl methacrylate	100	2.216	2.216	(0.488)	72952	40.0000	49.1
104 Ethyl methacrylate	69	2.722	2.722	(0.599)	319792	40.0000	48.3
105 2-Picoline	93	2.969	2.969	(0.653)	433194	40.0000	41.2
106 N-Nitrosomethylethylamine	88	3.040	3.040	(0.669)	181212	40.0000	40.8
107 Methyl methanesulfonate	80	3.263	3.263	(0.718)	180564	40.0000	43.7
108 N-Nitrosodiethylamine	102	3.592	3.592	(0.790)	181465	40.0000	40.6
109 Ethyl Methanesulfonate	79	3.828	3.828	(0.842)	271394	40.0000	48.6
110 Pentachloroethane	167	4.287	4.287	(0.943)	140486	40.0000	54.5
111 N-Nitrosopyrrolidine	100	4.910	4.910	(1.080)	188751	40.0000	40.3(Q)
113 N-Nitrosomorpholine	56	4.945	4.945	(1.088)	306422	40.0000	41.2
114 o-Toluidine	106	4.963	4.963	(1.092)	569881	40.0000	38.8
115 N-Nitrosopiperidine	114	5.251	5.251	(0.903)	184789	40.0000	39.6

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
116 a,a-Dimethylphenethylamine	58	5.663	5.663	(0.974)	1453849	40.0000	39.4
118 2,6-Dichlorophenol	162	5.892	5.892	(1.013)	276238	40.0000	41.7
119 Hexachloropropene	213	5.928	5.928	(1.019)	187165	40.0000	63.2
120 p-Phenylenediamine	108	6.257	6.257	(1.076)	348112	40.0000	41.0
121 N-Nitrosodi-n-butylamine	84	6.234	6.234	(1.072)	316237	40.0000	44.9(Q)
122 Safrole	162	6.463	6.463	(1.111)	275850	40.0000	46.6
123 1,2,4,5-Tetrachlorobenzene	216	6.739	6.739	(0.877)	302159	40.0000	43.1
124 Isosafrole	162	7.016	7.016	(0.913)	316451	40.0000	52.5
125 1,4-Naphthoquinone	158	7.269	7.269	(0.946)	220866	40.0000	41.2
127 Pentachlorobenzene	250	7.857	7.857	(1.023)	265850	40.0000	41.3
128 1-Naphthylamine	143	7.980	7.980	(1.039)	643198	40.0000	41.8
129 2-Naphthylamine	143	8.063	8.063	(1.050)	703342	40.0000	41.7
131 5-Nitro-o-toluidine	152	8.275	8.275	(1.077)	200416	40.0000	39.8
136 1,3,5-Trinitrobenzene	75	8.657	8.657	(0.932)	185732	40.0000	54.8
137 Phenacetin	108	8.722	8.722	(0.939)	351784	40.0000	41.6(Q)
138 Diallate	86	8.692	8.692	(0.936)	286507	40.0000	39.4
212 Cis Diallate	86	8.786	8.786	(0.946)	62628	6.00000	7.7
213 Trans Diallate	86	8.692	8.692	(0.936)	286507	34.0000	33.5
140 4-Aminobiphenyl	169	9.069	9.069	(0.977)	722735	40.0000	42.2
141 Pentachloronitrobenzene	237	9.086	9.086	(0.978)	84846	40.0000	43.0(Q)
142 Pronamide	173	9.127	9.127	(0.983)	325962	40.0000	42.8
146 4-Nitroquinoline-1-oxide	101	10.133	10.133	(1.091)	30694	40.0000	54.0
147 Methapyrilene	58	10.204	10.204	(1.099)	716227	40.0000	45.7
148 Isodrin	193	10.427	10.427	(1.123)	115279	40.0000	38.7
149 Aramite	185	10.951	10.951	(1.179)	50855	40.0000	38.5
150 Kepone	272	11.580	11.580	(1.247)	74003	40.0000	40.2
151 p-(Dimethylamino)azobenzene	120	11.139	11.139	(0.912)	310217	40.0000	39.4
152 Chlorobenzilate	251	11.186	11.186	(0.916)	281479	40.0000	40.4
153 3,3'-Dimethylbenzidine	212	11.504	11.504	(0.942)	555946	40.0000	40.0
155 2-Acetylaminofluorene	181	11.798	11.798	(0.966)	349093	40.0000	40.8
157 7,12Dimethylbenz(a)anthracene	256	13.721	13.721	(0.955)	395218	40.0000	37.6
158 3-Methylcholanthrene	268	14.862	14.862	(1.034)	380928	40.0000	42.7(Q)

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/HSD1.i/s012210.b/s1a2219.d

Date : 22-JAN-2010 23:33

Client ID: APICV

Sample Info: IWBH00120-08.1140 PPH11SWH11APICV

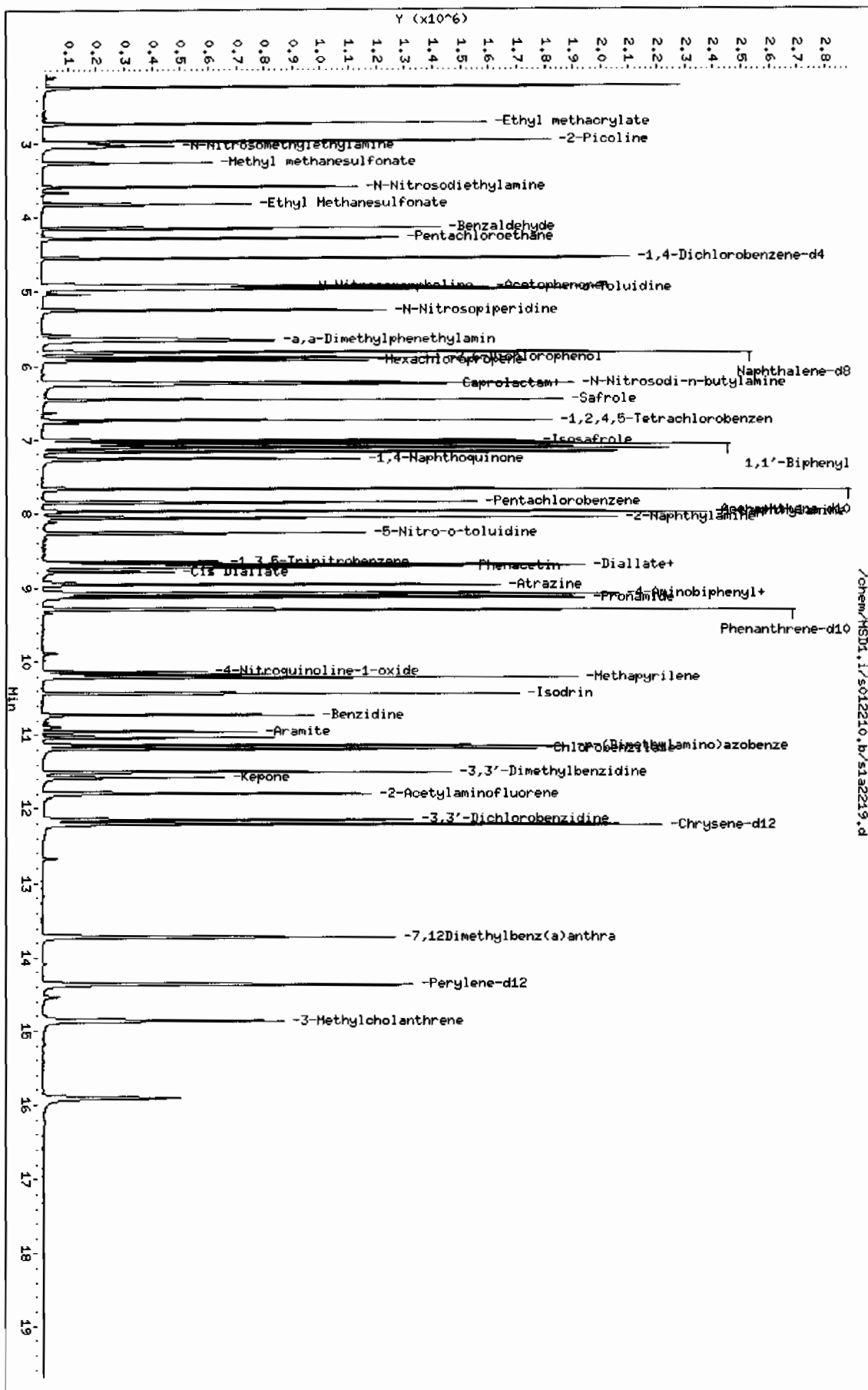
Column phase: J&W DB-5MS

Instrument: HSD1.i

Operator: RMY

Column diameter: 0.20

Page 1



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 21-JAN-2010 00:59  
Lab File ID: s3a2030.d Init. Cal. Date(s): 20-JAN-2010 21-JAN-2010  
Analysis Type: Init. Cal. Times: 17:59 00:33  
Lab Sample ID: WBN100106-09.3 Quant Type: ISTD  
Method: /chem/MSD3.i/s012010a.b/MSD3-8270R-AQA-012010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
3 2-Fluorophenol	1.04085	1.06783	1.06783	0.000	2.59199	60.00000	Averaged
5 Phenol-d5	1.30813	1.30677	1.30677	0.000	-0.10402	60.00000	Averaged
20 Nitrobenzene-d5	0.29548	0.31664	0.31664	0.000	7.16229	60.00000	Averaged
39 2-Fluorobiphenyl	1.03392	1.08338	1.08338	0.000	4.78365	60.00000	Averaged
60 2,4,6-Tribromophenol	0.11467	0.11591	0.11591	0.000	1.08552	60.00000	Averaged
81 p-Terphenyl-d14	0.68752	0.74803	0.74803	0.000	8.80081	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.72841	0.71079	0.71079	0.000	-2.41905	60.00000	Averaged
2 Pyridine	0.81403	0.88918	0.88918	0.000	9.23243	60.00000	Averaged
4 Aniline	0.60975	0.61910	0.61910	0.000	1.53283	60.00000	Averaged
6 Phenol	1.38337	1.37047	1.37047	0.001	-0.93241	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.09435	1.02455	1.02455	0.000	-6.37835	60.00000	Averaged
8 2-Chlorophenol	1.05048	1.03520	1.03520	0.000	-1.45436	60.00000	Averaged
203 n-Decane	1.59470	1.65263	1.65263	0.000	3.63239	60.00000	Averaged
9 1,3-Dichlorobenzene	1.20957	1.21368	1.21368	0.000	0.33934	60.00000	Averaged
11 1,4-Dichlorobenzene	1.22630	1.21738	1.21738	0.001	-0.72770	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.15004	1.15443	1.15443	0.000	0.38143	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.59104	2.64106	2.64106	0.000	1.93048	60.00000	Averaged
12 Benzyl alcohol	0.73117	0.73463	0.73463	0.000	0.47315	60.00000	Averaged
15 o-Cresol	0.89964	0.91779	0.91779	0.000	2.01760	60.00000	Averaged
18 m,p-Cresols	1.17039	1.20984	1.20984	0.000	3.37103	60.00000	Averaged
17 N-Nitrosodipropylamine	0.88907	0.89937	0.89937	0.050	1.15804	60.00000	Averaged spcc
19 Hexachloroethane	0.52660	0.50914	0.50914	0.000	-3.31499	60.00000	Averaged
21 Nitrobenzene	0.31068	0.33352	0.33352	0.000	7.35138	60.00000	Averaged
22 Isophorone	0.55065	0.57659	0.57659	0.000	4.71165	60.00000	Averaged
23 2-Nitrophenol	0.14255	0.14316	0.14316	0.001	0.42846	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.24644	0.25783	0.25783	0.000	4.62060	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.31970	0.32968	0.32968	0.000	3.12270	60.00000	Averaged
26 2,4-Dichlorophenol	0.20739	0.21530	0.21530	0.001	3.81337	20.00000	Averaged ccc
27 Benzoic acid	0.17347	0.18935	0.18935	0.000	9.15625	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.23033	0.23735	0.23735	0.000	3.04924	60.00000	Averaged
30 Naphthalene	0.84122	0.82716	0.82716	0.000	-1.67175	60.00000	Averaged
204 alpha-Terpineol	0.27709	0.27641	0.27641	0.000	-0.24655	60.00000	Averaged
31 4-Chloroaniline	45.06758	40.00000	0.28696	0.000	12.66895	60.00000	Linear
32 Hexachlorobutadiene	0.13146	0.13632	0.13632	0.001	3.69370	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.23504	0.24535	0.24535	0.001	4.38906	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.50578	0.56566	0.56566	0.000	11.83960	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 21-JAN-2010 00:59  
Lab File ID: s3a2030.d Init. Cal. Date(s): 20-JAN-2010 21-JAN-2010  
Analysis Type: Init. Cal. Times: 17:59 00:33  
Lab Sample ID: WBN100106-09.3 Quant Type: ISTD  
Method: /chem/MSD3.i/s012010a.b/MSD3-8270R-AQA-012010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.51307	0.53284	0.53284	0.000	3.85247	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.22766	0.19950	0.19950	0.050	-12.36610	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.50997	0.51708	0.51708	0.000	1.39502	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.28670	0.27613	0.27613	0.001	-3.68730	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.30976	0.33054	0.33054	0.000	6.70890	60.00000	Averaged
40 2-Chloronaphthalene	0.94508	0.94123	0.94123	0.000	-0.40707	60.00000	Averaged
42 o-Nitroaniline	0.37117	0.37692	0.37692	0.000	1.55024	60.00000	Averaged
41 m-Nitroaniline	44.14116	40.00000	0.24658	0.000	10.35290	60.00000	Linear
43 Dimethylphthalate	1.08482	1.16081	1.16081	0.000	7.00511	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25779	0.27155	0.27155	0.000	5.33431	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32038	0.35318	0.35318	0.000	10.23660	60.00000	Averaged
45 Acenaphthylene	1.48695	1.67702	1.67702	0.000	12.78290	60.00000	Averaged
47 Acenaphthene	0.94692	1.00401	1.00401	0.001	6.02959	20.00000	Averaged ccc
48 2,4-Dinitrophenol	0.11484	0.10141	0.10141	0.050	-11.69404	60.00000	Averaged spcc
49 Dibenzofuran	1.21446	1.27596	1.27596	0.000	5.06408	60.00000	Averaged
51 Diethylphthalate	1.07824	1.17796	1.17796	0.000	9.24894	60.00000	Averaged
52 4-Nitrophenol	0.18279	0.19161	0.19161	0.050	4.82259	60.00000	Averaged spcc
53 Fluorene	1.02579	1.11808	1.11808	0.000	8.99688	60.00000	Averaged
54 4-Chlorophenylphenylether	0.48232	0.49999	0.49999	0.000	3.66212	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	0.10303	0.13047	0.13047	0.000	26.63294	60.00000	Averaged
56 p-Nitroaniline	40.51800	40.00000	0.21760	0.000	1.29499	60.00000	Linear
133 Diphenylamine	0.53006	0.53974	0.53974	0.001	1.82484	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.78142	0.80468	0.80468	0.000	2.97642	60.00000	Averaged
61 4-Bromophenylphenylether	0.17043	0.16965	0.16965	0.000	-0.46057	60.00000	Averaged
63 Hexachlorobenzene	0.17700	0.17250	0.17250	0.000	-2.54123	60.00000	Averaged
65 Pentachlorophenol	0.10027	0.10278	0.10278	0.001	2.51088	20.00000	Averaged ccc
206 n-Octadecane	0.65176	0.65600	0.65600	0.000	0.65012	60.00000	Averaged
68 Phenanthrene	0.87923	0.94546	0.94546	0.000	7.53310	60.00000	Averaged
69 Anthracene	0.87768	0.98015	0.98015	0.000	11.67622	60.00000	Averaged
72 Di-n-butylphthalate	1.06159	1.15927	1.15927	0.000	9.20088	60.00000	Averaged
76 Fluoranthene	0.80003	0.91399	0.91399	0.001	14.24505	20.00000	Averaged ccc
79 Pyrene	1.14589	1.22409	1.22409	0.000	6.82447	60.00000	Averaged
85 Butylbenzylphthalate	0.57344	0.61854	0.61854	0.000	7.86585	60.00000	Averaged
89 Benzo(a)anthracene	0.91588	1.00476	1.00476	0.000	9.70420	60.00000	Averaged
92 Chrysene	0.86151	0.94852	0.94852	0.000	10.09975	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.78921	0.85269	0.85269	0.000	8.04326	60.00000	Averaged



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 21-JAN-2010 00:59  
Lab File ID: s3a2030.d Init. Cal. Date(s): 20-JAN-2010 21-JAN-2010  
Analysis Type: Init. Cal. Times: 17:59 00:33  
Lab Sample ID: WBN100106-09.3 Quant Type: ISTD  
Method: /chem/MSD3.i/s012010a.b/MSD3-8270R-AQA-012010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
94 Di-n-octylphthalate	1.61982	1.70872	1.70872	0.001	5.48833	20.00000	Averaged ccc
95 Benzo(b)fluoranthene	0.93870	1.09274	1.09274	0.000	16.40938	60.00000	Averaged
96 Benzo(k)fluoranthene	0.97450	1.10633	1.10633	0.000	13.52818	60.00000	Averaged
97 Benzo(a)pyrene	0.81798	0.96500	0.96500	0.001	17.97377	20.00000	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.66728	0.80721	0.80721	0.000	20.96896	60.00000	Averaged
100 Dibenzo(a,h)anthracene	0.54458	0.66537	0.66537	0.000	22.17901	60.00000	Averaged
101 Benzo(ghi)perylene	0.54772	0.65631	0.65631	0.000	19.82602	60.00000	Averaged
126 m-Dinitrobenzene	0.18506	0.19464	0.19464	0.000	5.17721	60.00000	Averaged
130 2,3,4,6-Tetrachlorophenol	0.24334	0.24186	0.24186	0.000	-0.60826	60.00000	Averaged
143 Dinoseb	0.14194	0.14693	0.14693	0.000	3.51444	60.00000	Averaged
173 Carbazole	0.71254	0.72438	0.72438	0.000	1.66242	60.00000	Averaged
184 p-Benzoquinone	0.09247	0.17801	0.17801	0.000	92.51512	60.00000	Averaged <-
192 Methoxychlor	0.51665	0.57043	0.57043	0.000	10.40900	60.00000	Averaged
211 p-Toluidine	0.91289	0.99695	0.99695	0.000	9.20880	60.00000	Averaged
210 m-Toluidine	1.30281	1.16582	1.16582	0.000	-10.51463	60.00000	Averaged
26 Phthalic anhydride	0.10481	0.13887	0.13887	0.000	32.49582	60.00000	Averaged
179 Dibenzo(a,e)pyrene	0.23979	0.19603	0.19603	0.000	-18.24896	60.00000	Averaged
214 1,4-Dinitrobenzene	0.21468	0.22373	0.22373	0.000	4.21365	60.00000	Averaged
215 2-Ethoxyethanol	0.84974	0.88902	0.88902	0.000	4.62255	60.00000	Averaged
216 Methylenebis(2-chloroanilin	0.10764	0.13594	0.13594	0.000	26.28659	60.00000	Averaged
IM 225 Trichlorophenols	0.29823	0.30333	0.30333	0.000	1.71173	60.00000	Averaged
IM 226 Tetrachlorophenols	0.24334	0.24186	0.24186	0.000	-0.60826	60.00000	Averaged
IM 227 Benzo(b,k)fluoranthene	0.95660	1.09953	1.09953	0.000	14.94183	60.00000	Averaged

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Data file : /chem/MSD3.i/s012010a.b/s3a2030.d  
Lab Smp Id: WBN100106-09.3 Client Smp ID: MEGAICV  
Inj Date : 21-JAN-2010 00:59  
Operator : JLD1 Inst ID: MSD3.i  
Smp Info : |WBN100106-09.3|40PPM|1|SVMF|1|MEGAICV  
Misc Info : |MSD8270|WBN100107-02|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD3.i/s012010a.b/MSD3-8270R-AQA-012010.m  
Meth Date : 21-Jan-2010 09:23 jen00986 Quant Type: ISTD  
Cal Date : 20-JAN-2010 21:56 Cal File: s3a2023.d  
Als bottle: 11 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: MEGAI.sub  
Target Version: 3.50  
Processing Host: hpcpl1

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	4.782	4.782 (1.000)		478316	40.0000	
* 29 Naphthalene-d8		136	6.065	6.065 (1.000)		1900671	40.0000	
* 46 Acenaphthene-d10		164	7.942	7.942 (1.000)		949249	40.0000	
* 67 Phenanthrene-d10		188	9.555	9.555 (1.000)		1476723	40.0000	
* 91 Chrysene-d12		240	12.577	12.577 (1.000)		1131079	40.0000	
* 98 Perylene-d12		264	14.896	14.896 (1.000)		833917	40.0000	
\$ 3 2-Fluorophenol		112	3.592	3.592 (0.751)		510760	40.0000	41.0
\$ 5 Phenol-d5		99	4.380	4.380 (0.916)		625047	40.0000	40.0
\$ 20 Nitrobenzene-d5		82	5.322	5.322 (0.878)		601825	40.0000	42.9
\$ 39 2-Fluorobiphenyl		172	7.193	7.193 (0.906)		1028393	40.0000	41.9
\$ 60 2,4,6-Tribromophenol		329	8.791	8.791 (1.107)		110031	40.0000	40.4
\$ 81 p-Terphenyl-d14		244	11.270	11.270 (0.896)		846084	40.0000	43.5
1 N-Methyl-N-nitrosomethylamine		74	2.601	2.601 (0.544)		339980	40.0000	39.0
2 Pyridine		79	2.642	2.642 (0.552)		425311	40.0000	43.7
4 Aniline		66	4.468	4.468 (0.934)		296126	40.0000	40.6
6 Phenol		94	4.395	4.395 (0.919)		655519	40.0000	39.6(Q)
7 bis(2-Chloroethyl) ether		63	4.506	4.506 (0.942)		490059	40.0000	37.4
8 2-Chlorophenol		128	4.577	4.577 (0.957)		495153	40.0000	39.4
203 n-Decane		43	4.583	4.583 (0.958)		790478	40.0000	41.4
9 1,3-Dichlorobenzene		146	4.729	4.729 (0.989)		580521	40.0000	40.1
11 1,4-Dichlorobenzene		146	4.800	4.800 (1.004)		582290	40.0000	39.7
13 1,2-Dichlorobenzene		146	4.947	4.947 (1.034)		552180	40.0000	40.2
14 bis(2-Chloroisopropyl)ether		45	5.014	5.014 (1.048)		1263259	40.0000	40.8
12 Benzyl alcohol		108	4.894	4.894 (1.023)		351387	40.0000	40.2
15 o-Cresol		107	4.976	4.976 (1.041)		438993	40.0000	40.8
18 m,p-Cresols		107	5.129	5.129 (1.072)		578688	40.0000	41.3

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.155	5.155	(1.078)	430182	40.0000	40.5
19 Hexachloroethane	117	5.281	5.281	(1.104)	243530	40.0000	38.7
21 Nitrobenzene	77	5.343	5.343	(0.881)	633918	40.0000	42.9
22 Isophorone	82	5.578	5.578	(0.920)	1095915	40.0000	41.9
23 2-Nitrophenol	139	5.660	5.660	(0.933)	272103	40.0000	40.2
24 2,4-Dimethylphenol	122	5.669	5.669	(0.935)	490044	40.0000	41.8
25 bis(2-Chloroethoxy)methane	93	5.777	5.777	(0.953)	626612	40.0000	41.2
26 2,4-Dichlorophenol	162	5.898	5.898	(0.972)	409207	40.0000	41.5
27 Benzoic acid	105	5.771	5.771	(0.952)	359896	40.0000	43.7 (H)
28 1,2,4-Trichlorobenzene	180	5.995	5.995	(0.988)	451131	40.0000	41.2
30 Naphthalene	128	6.089	6.089	(1.004)	1572162	40.0000	39.3
204 alpha-Terpineol	59	6.074	6.074	(1.001)	525364	40.0000	39.9
31 4-Chloroaniline	127	6.127	6.127	(1.010)	545416	40.0000	45.1
32 Hexachlorobutadiene	225	6.195	6.195	(1.021)	259095	40.0000	41.5
33 4-Chloro-3-methylphenol	107	6.608	6.608	(1.090)	466334	40.0000	41.8
34 2-Methylnaphthalene	142	6.814	6.814	(1.123)	1075137	40.0000	44.7
35 1-Methylnaphthalene	142	6.920	6.920	(1.141)	1012751	40.0000	41.5
36 Hexachlorocyclopentadiene	237	6.967	6.967	(0.877)	189378	40.0000	35.0
205 2,3-Dichloroaniline	161	7.111	7.111	(0.895)	490842	40.0000	40.6
37 2,4,6-Trichlorophenol	196	7.102	7.102	(0.894)	262115	40.0000	38.5
38 2,4,5-Trichlorophenol	196	7.137	7.137	(0.899)	313762	40.0000	42.7
40 2-Chloronaphthalene	162	7.337	7.337	(0.924)	893462	40.0000	39.8
42 o-Nitroaniline	65	7.437	7.437	(0.936)	357794	40.0000	40.6
41 m-Nitroaniline	138	7.883	7.883	(0.993)	234062	40.0000	44.1
43 Dimethylphthalate	163	7.628	7.628	(0.960)	1101902	40.0000	42.8
44 2,6-Dinitrotoluene	165	7.698	7.698	(0.969)	257764	40.0000	42.1
50 2,4-Dinitrotoluene	165	8.130	8.130	(1.024)	335252	40.0000	44.1
45 Acenaphthylene	152	7.792	7.792	(0.981)	1591910	40.0000	45.1
47 Acenaphthene	154	7.977	7.977	(1.004)	953057	40.0000	42.4
48 2,4-Dinitrophenol	184	7.992	7.992	(1.006)	96267	40.0000	35.3
49 Dibenzofuran	168	8.159	8.159	(1.027)	1211202	40.0000	42.0
51 Diethylphthalate	149	8.380	8.380	(1.055)	1118181	40.0000	43.7
52 4-Nitrophenol	139	8.033	8.033	(1.011)	181882	40.0000	41.9
53 Fluorene	166	8.533	8.533	(1.074)	1061338	40.0000	43.6
54 4-Chlorophenylphenylether	204	8.518	8.518	(1.073)	474613	40.0000	41.5
55 2-Methyl-4,6-dinitrophenol	198	8.574	8.574	(0.897)	192668	40.0000	50.6
56 p-Nitroaniline	138	8.547	8.547	(1.076)	206560	40.0000	40.5
133 Diphenylamine	169	8.647	8.647	(0.905)	797043	40.0000	40.7
58 1,2-Diphenylhydrazine	77	8.694	8.694	(0.910)	1188292	40.0000	41.2
61 4-Bromophenylphenylether	248	9.053	9.053	(0.947)	250520	40.0000	39.8
63 Hexachlorobenzene	284	9.123	9.123	(0.955)	254740	40.0000	39.0
65 Pentachlorophenol	266	9.329	9.329	(0.976)	151784	40.0000	41.0
206 n-Octadecane	57	9.382	9.382	(0.982)	968723	40.0000	40.3
68 Phenanthrene	178	9.585	9.585	(1.003)	1396181	40.0000	43.0
69 Anthracene	178	9.641	9.641	(1.009)	1447417	40.0000	44.7
72 Di-n-butylphthalate	149	10.146	10.146	(1.062)	1711919	40.0000	43.7
76 Fluoranthene	202	10.876	10.876	(1.138)	1349711	40.0000	45.7

Compounds	QUANT SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
79 Pyrene	202	11.126	11.126 (0.885)	1384548	40.0000	42.7
85 Butylbenzylphthalate	149	11.801	11.801 (0.938)	699620	40.0000	43.1
89 Benzo(a)anthracene	228	12.557	12.557 (0.998)	1136459	40.0000	43.9
92 Chrysene	228	12.613	12.613 (1.003)	1072849	40.0000	44.0
93 bis(2-Ethylhexyl)phthalate	149	12.521	12.521 (0.996)	964461	40.0000	43.2
94 Di-n-octylphthalate	149	13.508	13.508 (0.907)	1424930	40.0000	42.2
95 Benzo(b)fluoranthene	252	14.221	14.221 (0.955)	911254	40.0000	46.6
96 Benzo(k)fluoranthene	252	14.271	14.271 (0.958)	922585	40.0000	45.4
97 Benzo(a)pyrene	252	14.796	14.796 (0.993)	804729	40.0000	47.2
99 Indeno(1,2,3-cd)pyrene	276	16.877	16.877 (1.133)	673143	40.0000	48.4
100 Dibenzo(a,h)anthracene	278	16.909	16.909 (1.135)	554860	40.0000	48.9
101 Benzo(ghi)perylene	276	17.388	17.388 (1.167)	547305	40.0000	47.9(Q)
126 m-Dinitrobenzene	168	7.669	7.669 (0.966)	184765	40.0000	42.1
130 2,3,4,6-Tetrachlorophenol	232	8.280	8.280 (1.043)	229581	40.0000	39.8
143 Dinoseb	211	9.517	9.517 (0.996)	216974	40.0000	41.4
173 Carbazole	167	9.802	9.802 (1.026)	1069713	40.0000	40.7
184 p-Benzoquinone	54	4.034	4.034 (0.844)	85145	40.0000	77.0
192 Methoxychlor	227	12.427	12.427 (0.988)	645202	40.0000	44.2
211 p-Toluidine	106	5.202	5.202 (1.088)	476859	40.0000	43.7
210 m-Toluidine	106	5.234	5.234 (1.095)	557632	40.0000	35.8
26 Phthalic anhydride	104	6.870	6.870 (1.133)	263941	40.0000	53.0
179 Dibenzo(a,e)pyrene	302	21.055	21.055 (1.413)	163472	40.0000	32.7
214 1,4-Dinitrobenzene	75	7.590	7.590 (0.956)	212371	40.0000	41.7
215 2-Ethoxyethanol	59	2.387	2.387 (0.499)	425233	40.0000	41.8
216 Methylenebis(2-chloroaniline)	231	12.504	12.504 (0.994)	153759	40.0000	50.5(Q)
M 225 Trichlorophenols	196			575877	80.0000	81.4
M 226 Tetrachlorophenols	232			229581	40.0000	39.8
M 227 Benzo(b,k)fluoranthene	252			1833839	80.0000	92.0

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.  
H - Operator selected an alternate compound hit.

Data File: /chem/HSD3.i/5012010a.b/s3a2030.d

Date : 21-JAN-2010 00:59

Client ID: HECALCV

Sample Info: 1MR100106-09.3140PH115WFI11HECALCV

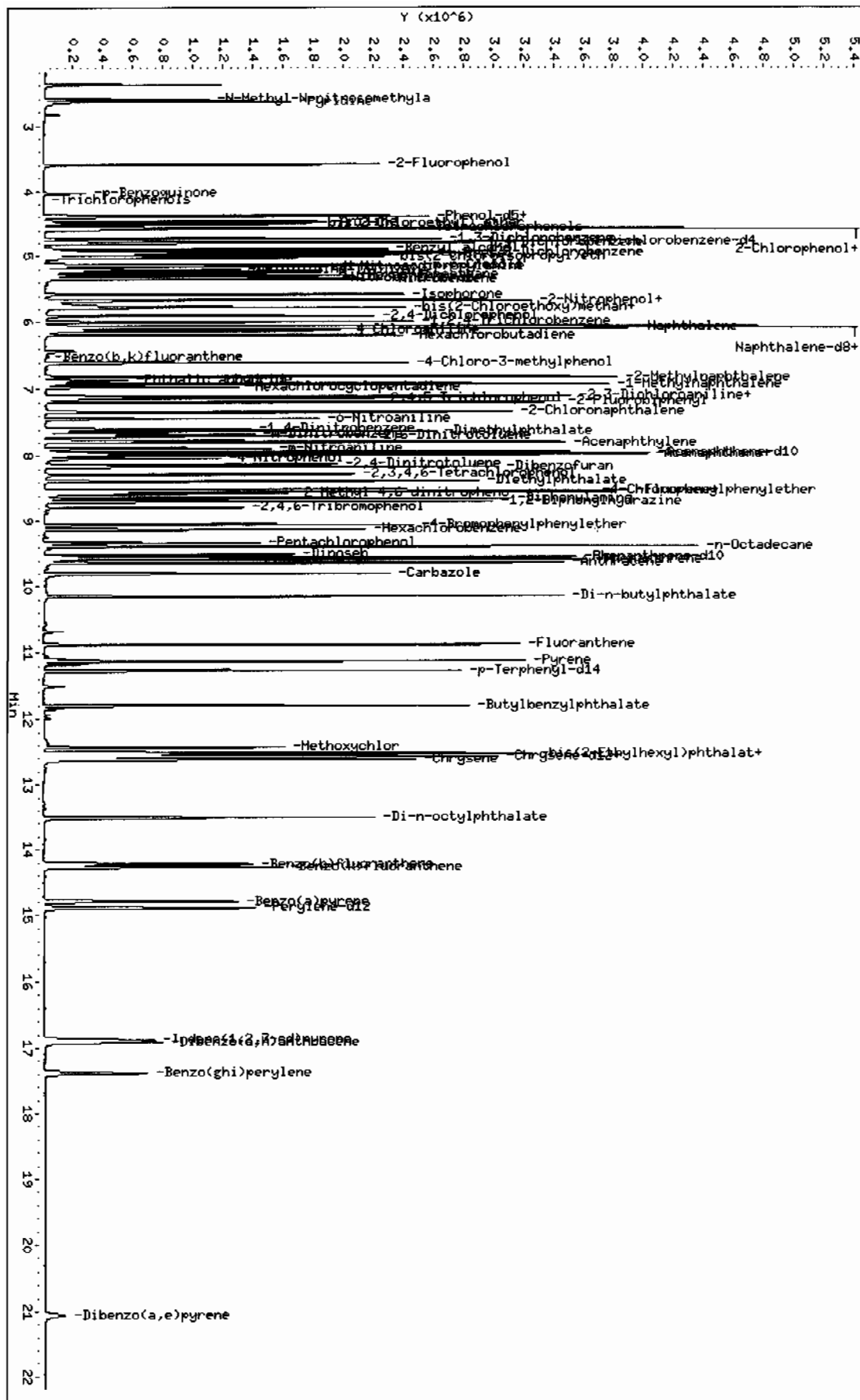
Column phase: J&W DB-5MS

Instrument: HSD3.1

Operator: JLD

Column diameter: 0.20

/chem/HSD3.i/5012010a.b/s3a2030.d



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 21-JAN-2010 01:29  
Lab File ID: s3a2031.d Init. Cal. Date(s): 20-JAN-2010 21-JAN-2010  
Analysis Type: Init. Cal. Times: 17:59 00:33  
Lab Sample ID: WBN100103-08.1 Quant Type: ISTD  
Method: /chem/MSD3.i/s012010a.b/MSD3-8270R-AQA-012010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	1.00310	0.87886	0.87886	0.000	-12.38528	60.00000	Averaged
16 Acetophenone	1.32216	1.42921	1.42921	0.000	8.09690	60.00000	Averaged
189 Caprolactam	0.08576	0.10573	0.10573	0.000	23.29058	60.00000	Averaged
208 1,1'-Biphenyl	1.21038	1.35841	1.35841	0.000	12.23019	60.00000	Averaged
207 Atrazine	0.04628	0.05463	0.05463	0.000	18.04776	60.00000	Averaged
77 Benzidine	42.00694	40.00000	0.37178	0.000	5.01735	60.00000	Linear
90 3,3'-Dichlorobenzidine	43.71602	40.00000	0.30161	0.000	9.29005	60.00000	Linear
102 1,4-Dioxane	0.37050	0.48478	0.48478	0.000	30.84714	60.00000	Averaged
103 Methyl methacrylate	0.21351	0.27929	0.27929	0.000	30.81270	60.00000	Averaged
104 Ethyl methacrylate	0.89246	1.16472	1.16472	0.000	30.50708	60.00000	Averaged
105 2-Picoline	1.30074	1.34281	1.34281	0.000	3.23452	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.57807	0.62738	0.62738	0.000	8.53033	60.00000	Averaged
107 Methyl methanesulfonate	0.60378	0.70581	0.70581	0.000	16.89775	60.00000	Averaged
108 N-Nitrosodiethylamine	0.58167	0.62350	0.62350	0.000	7.19031	60.00000	Averaged
109 Ethyl Methanesulfonate	0.74637	0.99843	0.99843	0.000	33.77148	60.00000	Averaged
110 Pentachloroethane	0.32905	0.48815	0.48815	0.000	48.35264	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.60059	0.65198	0.65198	0.000	8.55722	60.00000	Averaged
113 N-Nitrosomorpholine	0.98604	1.06719	1.06719	0.000	8.22947	60.00000	Averaged
114 o-Toluidine	1.80736	1.88793	1.88793	0.000	4.45782	60.00000	Averaged
115 N-Nitrosopiperidine	0.15108	0.16164	0.16164	0.000	6.98512	60.00000	Averaged
116 a,a-Dimethylphenethylamine	1.11880	1.16043	1.16043	0.000	3.72071	60.00000	Averaged
118 2,6-Dichlorophenol	0.21531	0.25050	0.25050	0.000	16.34370	60.00000	Averaged
119 Hexachloropropene	0.11708	0.19865	0.19865	0.000	69.66795	60.00000	Averaged
120 p-Phenylenediamine	0.24808	0.28612	0.28612	0.000	15.33691	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.23566	0.24977	0.24977	0.000	5.98473	60.00000	Averaged
122 Safrole	0.19323	0.24544	0.24544	0.000	27.02225	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42534	0.50468	0.50468	0.000	18.65216	60.00000	Averaged
124 Isosafrole	0.35652	0.51744	0.51744	0.000	45.13574	60.00000	Averaged
125 1,4-Naphthoquinone	0.33545	0.36014	0.36014	0.000	7.36120	60.00000	Averaged
127 Pentachlorobenzene	0.37060	0.42276	0.42276	0.000	14.07224	60.00000	Averaged
128 1-Naphthylamine	0.91242	1.03143	1.03143	0.000	13.04392	60.00000	Averaged
129 2-Naphthylamine	1.00263	1.12891	1.12891	0.000	12.59532	60.00000	Averaged
131 5-Nitro-o-toluidine	0.29533	0.33028	0.33028	0.000	11.83547	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.14894	0.22680	0.22680	0.000	52.28395	60.00000	Averaged
137 Phenacetin	0.33125	0.38915	0.38915	0.000	17.47830	60.00000	Averaged
138 Diallate	0.31820	0.32997	0.32997	0.000	3.69872	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 21-JAN-2010 01:29  
Lab File ID: s3a2031.d Init. Cal. Date(s): 20-JAN-2010 21-JAN-2010  
Analysis Type: Init. Cal. Times: 17:59 00:33  
Lab Sample ID: WBN100103-08.1 Quant Type: ISTD  
Method: /chem/MSD3.i/s012010a.b/MSD3-8270R-AQA-012010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.63580	0.70273	0.70273	0.000	10.52630	60.00000	Averaged
141 Pentachloronitrobenzene	0.07853	0.09143	0.09143	0.000	16.43821	60.00000	Averaged
142 Pronamide	0.29619	0.34625	0.34625	0.000	16.89924	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.03387	0.03596	0.03596	0.000	6.17128	60.00000	Averaged
147 Methapyrilene	0.52598	0.61294	0.61294	0.000	16.53393	60.00000	Averaged
148 Isodrin	0.11094	0.11480	0.11480	0.000	3.48482	60.00000	Averaged
149 Aramite	0.04585	0.04869	0.04869	0.000	6.19320	60.00000	Averaged
150 Kepone	0.06767	0.07404	0.07404	0.000	9.41477	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.39647	0.41235	0.41235	0.000	4.00381	60.00000	Averaged
152 Chlorobenzilate	0.32229	0.35506	0.35506	0.000	10.16696	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.51678	0.53770	0.53770	0.000	4.04793	60.00000	Averaged
155 2-Acetylaminofluorene	43.29018	40.00000	0.34384	0.000	8.22545	60.00000	Linear
157 7,12Dimethylbenz(a)anthracene	0.53008	0.55722	0.55722	0.000	5.11999	60.00000	Averaged
158 3-Methylcholanthrene	0.38427	0.46495	0.46495	0.000	20.99848	60.00000	Averaged
212 Cis Diallate	0.33782	0.46727	0.46727	0.000	38.32025	60.00000	Averaged
213 Trans Diallate	0.37435	0.38819	0.38819	0.000	3.69872	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD3.i/s012010a.b/s3a2031.d  
Lab Smp Id: WBN100103-08.1 Client Smp ID: APICV  
Inj Date : 21-JAN-2010 01:29  
Operator : JLD1 Inst ID: MSD3.i  
Smp Info : |WBN100103-08.1|40PPM|1|SVMF|1|APICV  
Misc Info : |MSD8270|WBN100107-02|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD3.i/s012010a.b/MSD3-8270R-AQA-012010.m  
Meth Date : 21-Jan-2010 09:24 jen00986 Quant Type: ISTD  
Cal Date : 20-JAN-2010 21:56 Cal File: s3a2023.d  
Als bottle: 32 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AP12.sub  
Target Version: 3.50  
Processing Host: hpclp1

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	4.782	4.782 (1.000)	601996	40.0000	
* 29 Naphthalene-d8	136	6.064	6.064 (1.000)	2246525	40.0000	
* 46 Acenaphthene-d10	164	7.939	7.939 (1.000)	1188314	40.0000	
* 67 Phenanthrene-d10	188	9.561	9.561 (1.000)	1851984	40.0000	
* 91 Chrysene-d12	240	12.572	12.572 (1.000)	1380458	40.0000	
* 98 Perylene-d12	264	14.895	14.895 (1.000)	919801	40.0000	
209 Benzaldehyde	77	4.377	4.377 (0.915)	529070	40.0000	35.0
16 Acetophenone	105	5.163	5.163 (1.080)	860378	40.0000	43.2
189 Caprolactam	113	6.504	6.504 (1.073)	237531	40.0000	49.3
208 1,1'-Biphenyl	154	7.311	7.311 (0.921)	1614222	40.0000	44.9
207 Atrazine	173	9.217	9.217 (0.964)	101175	40.0000	47.2
77 Benzidine	184	11.005	11.005 (0.875)	513228	40.0000	42.0
90 3,3'-Dichlorobenzidine	252	12.501	12.501 (0.994)	416362	40.0000	43.7
102 1,4-Dioxane	88	2.396	2.396 (0.501)	291838	40.0000	52.3
103 Methyl methacrylate	100	2.393	2.393 (0.500)	168133	40.0000	52.3
104 Ethyl methacrylate	69	2.912	2.912 (0.609)	701155	40.0000	52.2
105 2-Picoline	93	3.169	3.169 (0.663)	808367	40.0000	41.3
106 N-Nitrosomethylethylamine	88	3.243	3.243 (0.678)	377681	40.0000	43.4
107 Methyl methanesulfonate	80	3.474	3.474 (0.727)	424893	40.0000	46.8
108 N-Nitrosodiethylamine	102	3.809	3.809 (0.796)	375342	40.0000	42.9
109 Ethyl Methanesulfonate	79	4.052	4.052 (0.847)	601051	40.0000	53.5
110 Pentachloroethane	167	4.521	4.521 (0.945)	293863	40.0000	59.3
111 N-Nitrosopyrrolidine	100	5.154	5.154 (1.078)	392491	40.0000	43.4 (Q)
113 N-Nitrosomorpholine	56	5.187	5.187 (1.085)	642444	40.0000	43.3
114 o-Toluidine	106	5.201	5.201 (1.088)	1136525	40.0000	41.8
115 N-Nitrosopiperidine	114	5.498	5.498 (0.907)	363120	40.0000	42.8



Compounds	QUANT SIG			REL RT	RESPONSE	AMOUNTS	
	MASS	RT	EXP RT			CAL-AMT (ng/ul)	ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.896	5.896	(0.972)	2606938	40.0000	41.5
118 2,6-Dichlorophenol	162	6.137	6.137	(1.012)	562759	40.0000	46.5
119 Hexachloropropene	213	6.169	6.169	(1.017)	446272	40.0000	67.9
120 p-Phenylenediamine	108	6.507	6.507	(1.073)	642785	40.0000	46.1
121 N-Nitrosodi-n-butylamine	84	6.469	6.469	(1.067)	561110	40.0000	42.4 (Q)
122 Safrole	162	6.704	6.704	(1.106)	551387	40.0000	50.8
123 1,2,4,5-Tetrachlorobenzene	216	6.985	6.985	(0.880)	599717	40.0000	47.5
124 Isosafrole	162	7.261	7.261	(0.915)	614885	40.0000	58.0
125 1,4-Naphthoquinone	158	7.525	7.525	(0.948)	427957	40.0000	42.9
127 Pentachlorobenzene	250	8.109	8.109	(1.021)	502367	40.0000	45.6
128 1-Naphthylamine	143	8.244	8.244	(1.038)	1225664	40.0000	45.2
129 2-Naphthylamine	143	8.330	8.330	(1.049)	1341500	40.0000	45.0
131 5-Nitro-o-toluidine	152	8.538	8.538	(1.075)	392478	40.0000	44.7
136 1,3,5-Trinitrobenzene	75	8.917	8.917	(0.933)	420039	40.0000	60.9
137 Phenacetin	108	8.978	8.978	(0.939)	720701	40.0000	47.0 (Q)
138 Diallate	86	8.946	8.946	(0.936)	611091	40.0000	41.5
140 4-Aminobiphenyl	169	9.340	9.340	(0.977)	1301442	40.0000	44.2
141 Pentachloronitrobenzene	237	9.346	9.346	(0.978)	169333	40.0000	46.6 (Q)
142 Pronamide	173	9.381	9.381	(0.981)	641242	40.0000	46.8
146 4-Nitroquinoline-1-oxide	101	10.417	10.417	(1.090)	66605	40.0000	42.5
147 Methapyrilene	58	10.476	10.476	(1.096)	1135156	40.0000	46.6
148 Isodrin	193	10.711	10.711	(1.120)	212615	40.0000	41.4
149 Aramite	185	11.228	11.228	(1.174)	90172	40.0000	42.5
150 Kepone	272	11.890	11.890	(1.244)	137118	40.0000	43.8
151 p-(Dimethylamino)azobenzene	120	11.422	11.422	(0.909)	569227	40.0000	41.6
152 Chlorobenzilate	251	11.464	11.464	(0.912)	490148	40.0000	44.1
153 3,3'-Dimethylbenzidine	212	11.807	11.807	(0.939)	742275	40.0000	41.6
155 2-Acetylaminofluorene	181	12.119	12.119	(0.964)	474661	40.0000	43.3
157 7,12Dimethylbenz(a)anthracene	256	14.200	14.200	(0.953)	512532	40.0000	42.0
158 3-Methylcholanthrene	268	15.418	15.418	(1.035)	427666	40.0000	48.4 (Q)
212 Cis Diallate	86	9.046	9.046	(0.946)	129807	6.00000	8.3
213 Trans Diallate	86	8.946	8.946	(0.936)	611091	34.0000	35.2

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD3.i/s012010a.b/s3a2031.d

Date: 21-JAN-2010 01:29

Client ID: APICV

Sample Info: IMBN100103-08.140PPH11SVH11APICV

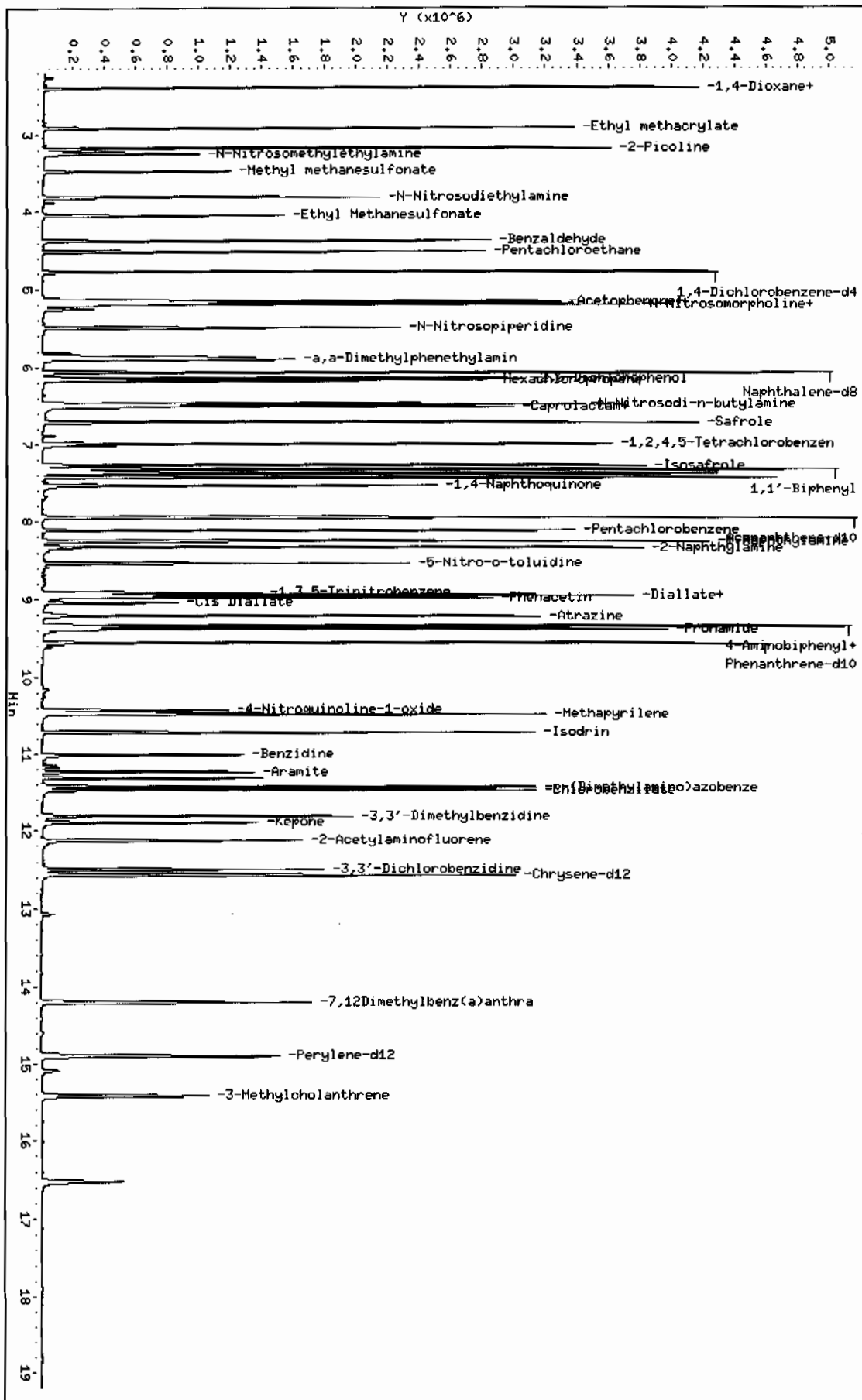
Column phase: 3M DB-SHS

Instrument: MSD3.i

Operator: JLD1

Column diameter: 0.20

/chem/MSD3.i/s012010a.b/s3a2031.d



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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 28-JAN-2010 18:30  
Lab File ID: sla2810.d Init. Cal. Date(s): 22-JAN-2010 24-JAN-2010  
Analysis Type: Init. Cal. Times: 14:28 00:53  
Lab Sample ID: WBN100121-17.1 Quant Type: ISTD  
Method: /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX RRF	%D / %DRIFT	CURVE TYPE
3 2-Fluorophenol	1.23715	1.16557	1.16557	0.000	-5.78634	60.00000	Averaged	
5 Phenol-d5	1.53662	1.42045	1.42045	0.000	-7.55981	60.00000	Averaged	
20 Nitrobenzene-d5	0.29522	0.27828	0.27828	0.000	-5.73766	60.00000	Averaged	
39 2-Fluorobiphenyl	1.03050	0.95301	0.95301	0.000	-7.51966	60.00000	Averaged	
60 2,4,6-Tribromophenol	0.14474	0.12215	0.12215	0.000	-15.61167	60.00000	Averaged	
81 p-Terphenyl-d14	0.71776	0.68682	0.68682	0.000	-4.31107	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.74385	0.71574	0.71574	0.000	-3.77902	60.00000	Averaged	
2 Pyridine	1.20641	1.22431	1.22431	0.000	1.48385	60.00000	Averaged	
4 Aniline	0.67969	0.58377	0.58377	0.000	-14.11236	60.00000	Averaged	
6 Phenol	1.61551	1.50353	1.50353	0.001	-6.93182	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	1.22689	1.11220	1.11220	0.000	-9.34842	60.00000	Averaged	
8 2-Chlorophenol	1.27422	1.20392	1.20392	0.000	-5.51753	60.00000	Averaged	
203 n-Decane	1.99474	1.83866	1.83866	0.000	-7.82415	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.39084	1.29685	1.29685	0.000	-6.75746	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.35583	1.30079	1.30079	0.001	-4.05934	20.00000	Averaged	ccc
13 1,2-Dichlorobenzene	1.34266	1.27368	1.27368	0.000	-5.13729	60.00000	Averaged	
14 bis(2-Chloroisopropyl) ether	3.10314	2.97172	2.97172	0.000	-4.23525	60.00000	Averaged	
12 Benzyl alcohol	0.88347	0.76119	0.76119	0.000	-13.84092	60.00000	Averaged	
15 o-Cresol	1.04624	0.96249	0.96249	0.000	-8.00425	60.00000	Averaged	
18 m,p-Cresols	1.35106	1.22620	1.22620	0.000	-9.24138	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.92729	0.87235	0.87235	0.050	-5.92390	60.00000	Averaged	spcc
19 Hexachloroethane	0.55103	0.54492	0.54492	0.000	-1.10899	60.00000	Averaged	
21 Nitrobenzene	0.33558	0.31713	0.31713	0.000	-5.49809	60.00000	Averaged	
22 Isophorone	0.58259	0.55390	0.55390	0.000	-4.92362	60.00000	Averaged	
23 2-Nitrophenol	0.15798	0.15451	0.15451	0.001	-2.19409	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	0.29604	0.26854	0.26854	0.000	-9.29005	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.37574	0.35329	0.35329	0.000	-5.97472	60.00000	Averaged	
26 2,4-Dichlorophenol	0.24537	0.23547	0.23547	0.001	-4.03429	20.00000	Averaged	ccc
27 Benzoic acid	0.18637	0.13862	0.13862	0.000	-25.62149	60.00000	Averaged	
28 1,2,4-Trichlorobenzene	0.26377	0.25337	0.25337	0.000	-3.94317	60.00000	Averaged	
30 Naphthalene	0.95658	0.78496	0.78496	0.000	-17.94115	60.00000	Averaged	
204 alpha-Terpineol	0.25189	0.25868	0.25868	0.000	2.69291	60.00000	Averaged	
31 4-Chloroaniline	0.30399	0.28829	0.28829	0.000	-5.16497	60.00000	Averaged	
32 Hexachlorobutadiene	0.16516	0.14362	0.14362	0.001	-13.04574	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.25971	0.25273	0.25273	0.001	-2.69034	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.58099	0.53811	0.53811	0.000	-7.38091	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 28-JAN-2010 18:30  
Lab File ID: sla2810.d Init. Cal. Date(s): 22-JAN-2010 24-JAN-2010  
Analysis Type: Init. Cal. Times: 14:28 00:53  
Lab Sample ID: WBN100121-17.1 Quant Type: ISTD  
Method: /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.52482	0.48883	0.48883	0.000	-6.85816	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.14166	0.12068	0.12068	0.050	-14.81240	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.47687	0.44516	0.44516	0.000	-6.64956	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.30203	0.27974	0.27974	0.001	-7.37978	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.34702	0.32987	0.32987	0.000	-4.94184	60.00000	Averaged
40 2-Chloronaphthalene	1.06399	0.97501	0.97501	0.000	-8.36303	60.00000	Averaged
42 o-Nitroaniline	0.39980	0.36711	0.36711	0.000	-8.17838	60.00000	Averaged
41 m-Nitroaniline	37.80011	40.00000	0.26062	0.000	-5.49972	60.00000	Linear
43 Dimethylphthalate	1.16760	1.08927	1.08927	0.000	-6.70902	60.00000	Averaged
44 2,6-Dinitrotoluene	0.28262	0.26503	0.26503	0.000	-6.22396	60.00000	Averaged
50 2,4-Dinitrotoluene	0.36140	0.34120	0.34120	0.000	-5.58899	60.00000	Averaged
45 Acenaphthylene	1.57997	1.48370	1.48370	0.000	-6.09259	60.00000	Averaged
47 Acenaphthene	0.97165	0.85753	0.85753	0.001	-11.74455	20.00000	Averaged ccc
48 2,4-Dinitrophenol	39.13327	40.00000	0.10265	0.050	-2.16682	60.00000	Linear spcc
49 Dibenzofuran	1.44837	1.33290	1.33290	0.000	-7.97239	60.00000	Averaged
51 Diethylphthalate	1.09539	1.00867	1.00867	0.000	-7.91669	60.00000	Averaged
52 4-Nitrophenol	0.22600	0.20395	0.20395	0.050	-9.75622	60.00000	Averaged spcc
53 Fluorene	1.14812	1.01389	1.01389	0.000	-11.69130	60.00000	Averaged
54 4-Chlorophenylphenylether	0.49062	0.43617	0.43617	0.000	-11.09738	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	41.01876	40.00000	0.10968	0.000	2.54690	60.00000	Linear
56 p-Nitroaniline	0.27237	0.24173	0.24173	0.000	-11.25170	60.00000	Averaged
133 Diphenylamine	0.58359	0.54150	0.54150	0.001	-7.21199	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.79967	0.76297	0.76297	0.000	-4.58949	60.00000	Averaged
61 4-Bromophenylphenylether	0.17222	0.14441	0.14441	0.000	-16.14906	60.00000	Averaged
63 Hexachlorobenzene	0.21470	0.17881	0.17881	0.000	-16.71711	60.00000	Averaged
65 Pentachlorophenol	0.14384	0.12004	0.12004	0.001	-16.54471	20.00000	Averaged ccc
206 n-Octadecane	0.69764	0.64760	0.64760	0.000	-7.17201	60.00000	Averaged
68 Phenanthrene	0.99090	0.91139	0.91139	0.000	-8.02399	60.00000	Averaged
69 Anthracene	1.00576	0.93717	0.93717	0.000	-6.81976	60.00000	Averaged
72 Di-n-butylphthalate	1.12348	1.05710	1.05710	0.000	-5.90911	60.00000	Averaged
76 Fluoranthene	1.06379	0.96511	0.96511	0.001	-9.27644	20.00000	Averaged ccc
79 Pyrene	1.22125	1.27829	1.27829	0.000	4.67074	60.00000	Averaged
85 Butylbenzylphthalate	0.56673	0.58378	0.58378	0.000	3.00864	60.00000	Averaged
89 Benzo(a)anthracene	1.03280	0.90752	0.90752	0.000	-12.12977	60.00000	Averaged
92 Chrysene	1.02647	0.96452	0.96452	0.000	-6.03571	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.68040	0.66718	0.66718	0.000	-1.94282	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 28-JAN-2010 18:30  
Lab File ID: sla2810.d Init. Cal. Date(s): 22-JAN-2010 24-JAN-2010  
Analysis Type: Init. Cal. Times: 14:28 00:53  
Lab Sample ID: WBN100121-17.1 Quant Type: ISTD  
Method: /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
94 Di-n-octylphthalate	1.33021	1.43259	1.43259	0.001	7.69601	20.00000	Averaged ccc
95 Benzo(b)fluoranthene	1.04450	0.98405	0.98405	0.000	-5.78769	60.00000	Averaged
96 Benzo(k)fluoranthene	1.02942	1.05221	1.05221	0.000	2.21373	60.00000	Averaged
97 Benzo(a)pyrene	0.90311	0.88554	0.88554	0.001	-1.94464	20.00000	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.89519	0.78248	0.78248	0.000	-12.59072	60.00000	Averaged
100 Dibenzo(a,h)anthracene	0.75431	0.64929	0.64929	0.000	-13.92374	60.00000	Averaged
101 Benzo(ghi)perylene	0.80785	0.65443	0.65443	0.000	-18.99193	60.00000	Averaged
126 m-Dinitrobenzene	0.19188	0.18187	0.18187	0.000	-5.21820	60.00000	Averaged
130 2,3,4,6-Tetrachlorophenol	0.26971	0.22470	0.22470	0.000	-16.68774	60.00000	Averaged
143 Dinoseb	40.11733	40.00000	0.12853	0.000	0.29334	60.00000	Linear
173 Carbazole	0.93028	0.71675	0.71675	0.000	-22.95405	60.00000	Averaged
184 p-Benzoquinone	0.06922	0.02949	0.02949	0.000	-57.39584	60.00000	Averaged
192 Methoxychlor	0.51603	0.53114	0.53114	0.000	2.92811	60.00000	Averaged
211 p-Toluidine	0.74107	0.58049	0.58049	0.000	-21.66804	60.00000	Averaged
210 m-Toluidine	0.90820	0.76269	0.76269	0.000	-16.02212	60.00000	Averaged
26 Phthalic anhydride	0.11304	0.07920	0.07920	0.000	-29.93396	60.00000	Averaged
179 Dibenzo(a,e)pyrene	0.41743	0.31820	0.31820	0.000	-23.77160	60.00000	Averaged
214 1,4-Dinitrobenzene	0.17273	0.16382	0.16382	0.000	-5.15816	60.00000	Averaged
215 2-Ethoxyethanol	0.88737	0.80975	0.80975	0.000	-8.74714	60.00000	Averaged
216 Methylenebis(2-chloroanilin	0.13187	0.13144	0.13144	0.000	-0.32714	60.00000	Averaged
M 225 Trichlorophenols	0.32452	0.30481	0.30481	0.000	-6.07632	60.00000	Averaged
M 226 Tetrachlorophenols	0.26971	0.22470	0.22470	0.000	-16.68774	60.00000	Averaged
M 227 Benzo(b,k)fluoranthene	1.02168	1.01813	1.01813	0.000	-0.34824	60.00000	Averaged

Data File: /chem/MSD1.i/s012810.b/sla2810.d  
 Report Date: 29-Jan-2010 11:16

Page 1

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2810.d  
 Lab Smp Id: WBN100121-17.1 Client Smp ID: MEGACVS  
 Inj Date : 28-JAN-2010 18:30  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |WBN100121-17.1|40 PPM|1|SVMF|1|MEGACVS  
 Misc Info : |MSD8270|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
 Als bottle: 2 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: MEGAICARE.sub  
 Target Version: 3.50  
 Processing Host: hpc1p1

Compounds	QUANT SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
*****	*****	==	=====	*****	*****	*****
* 10 1,4-Dichlorobenzene-d4	152	4.434	4.434 (1.000)	254377	40.0000	
* 29 Naphthalene-d8	136	5.687	5.687 (1.000)	1043318	40.0000	
* 46 Acenaphthene-d10	164	7.540	7.540 (1.000)	554113	40.0000	
* 67 Phenanthrene-d10	188	9.139	9.139 (1.000)	875506	40.0000	
* 91 Chrysene-d12	240	12.039	12.039 (1.000)	672640	40.0000	
* 98 Perylene-d12	264	14.121	14.121 (1.000)	543664	40.0000	
\$ 3 2-Fluorophenol	112	3.304	3.304 (0.745)	296493	40.0000	37.7
\$ 5 Phenol-d5	99	4.063	4.063 (0.916)	361330	40.0000	37.0
\$ 20 Nitrobenzene-d5	82	4.957	4.957 (0.872)	290339	40.0000	37.7
\$ 39 2-Fluorobiphenyl	172	6.810	6.810 (0.903)	528073	40.0000	37.0
\$ 60 2,4,6-Tribromophenol	329	8.387	8.387 (1.112)	67683	40.0000	33.8
\$ 81 p-Terphenyl-d14	244	10.845	10.845 (0.901)	461983	40.0000	38.3
1 N-Methyl-N-nitrosomethylamine	74	2.387	2.387 (0.538)	182068	40.0000	38.5
2 Pyridine	79	2.434	2.434 (0.549)	311436	40.0000	40.6
4 Aniline	66	4.128	4.128 (0.931)	148498	40.0000	34.4
6 Phenol	94	4.075	4.075 (0.919)	382463	40.0000	37.2(Q)
7 bis(2-Chloroethyl) ether	63	4.169	4.169 (0.940)	282918	40.0000	36.3
8 2-Chlorophenol	128	4.240	4.240 (0.956)	306249	40.0000	37.8
203 n-Decane	43	4.257	4.257 (0.960)	467714	40.0000	36.9
9 1,3-Dichlorobenzene	146	4.381	4.381 (0.988)	329890	40.0000	37.3
11 1,4-Dichlorobenzene	146	4.451	4.451 (1.004)	330892	40.0000	38.4
13 1,2-Dichlorobenzene	146	4.593	4.593 (1.036)	323995	40.0000	37.9
14 bis(2-Chloroisopropyl)ether	45	4.669	4.669 (1.053)	755936	40.0000	38.3
12 Benzyl alcohol	108	4.551	4.551 (1.027)	193630	40.0000	34.5
15 o-Cresol	107	4.634	4.634 (1.045)	244836	40.0000	36.8
18 m,p-Cresols	107	4.793	4.793 (1.081)	311918	40.0000	36.3

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.810	4.810	(1.085)	221907	40.0000	37.6
19 Hexachloroethane	117	4.916	4.916	(1.109)	138614	40.0000	39.6
21 Nitrobenzene	77	4.981	4.981	(0.876)	330865	40.0000	37.8
22 Isophorone	82	5.222	5.222	(0.918)	577896	40.0000	38.0
23 2-Nitrophenol	139	5.293	5.293	(0.931)	161206	40.0000	39.1
24 2,4-Dimethylphenol	122	5.316	5.316	(0.935)	280170	40.0000	36.3
25 bis(2-Chloroethoxy)methane	93	5.416	5.416	(0.952)	368591	40.0000	37.6
26 2,4-Dichlorophenol	162	5.534	5.534	(0.973)	245670	40.0000	38.4
27 Benzoic acid	105	5.428	5.428	(0.954)	144623	40.0000	29.8
28 1,2,4-Trichlorobenzene	180	5.622	5.622	(0.989)	264341	40.0000	38.4
30 Naphthalene	128	5.710	5.710	(1.004)	818963	40.0000	32.8
204 alpha-Terpineol	59	5.704	5.704	(1.003)	269883	40.0000	41.1
31 4-Chloroaniline	127	5.757	5.757	(1.012)	300774	40.0000	37.9
32 Hexachlorobutadiene	225	5.828	5.828	(1.025)	149838	40.0000	34.8
33 4-Chloro-3-methylphenol	107	6.245	6.245	(1.098)	263673	40.0000	38.9
34 2-Methylnaphthalene	142	6.428	6.428	(1.130)	561417	40.0000	37.0
35 1-Methylnaphthalene	142	6.534	6.534	(1.149)	510001	40.0000	37.2
36 Hexachlorocyclopentadiene	237	6.593	6.593	(0.874)	66868	40.0000	34.1
205 2,3-Dichloroaniline	161	6.722	6.722	(0.892)	246669	40.0000	37.3
37 2,4,6-Trichlorophenol	196	6.722	6.722	(0.892)	155009	40.0000	37.0
38 2,4,5-Trichlorophenol	196	6.757	6.757	(0.896)	182784	40.0000	38.0
40 2-Chloronaphthalene	162	6.945	6.945	(0.921)	540266	40.0000	36.6
42 o-Nitroaniline	65	7.051	7.051	(0.935)	203418	40.0000	36.7
41 m-Nitroaniline	138	7.492	7.492	(0.994)	144415	40.0000	37.8
43 Dimethylphthalate	163	7.251	7.251	(0.962)	603576	40.0000	37.3
44 2,6-Dinitrotoluene	165	7.310	7.310	(0.970)	146855	40.0000	37.5
50 2,4-Dinitrotoluene	165	7.745	7.745	(1.027)	189066	40.0000	37.8
45 Acenaphthylene	152	7.392	7.392	(0.980)	822140	40.0000	37.6
47 Acenaphthene	154	7.575	7.575	(1.005)	475171	40.0000	35.3
48 2,4-Dinitrophenol	184	7.604	7.604	(1.009)	56880	40.0000	39.1 (Q)
49 Dibenzofuran	168	7.757	7.757	(1.029)	738578	40.0000	36.8
51 Diethylphthalate	149	7.998	7.998	(1.061)	558917	40.0000	36.8
52 4-Nitrophenol	139	7.663	7.663	(1.016)	113011	40.0000	36.1
53 Fluorene	166	8.128	8.128	(1.078)	561809	40.0000	35.3
54 4-Chlorophenylphenylether	204	8.122	8.122	(1.077)	241689	40.0000	35.6
55 2-Methyl-4,6-dinitrophenol	198	8.181	8.181	(0.895)	96025	40.0000	41.0
56 p-Nitroaniline	138	8.151	8.151	(1.081)	133943	40.0000	35.5
133 Diphenylamine	169	8.251	8.251	(0.903)	474087	40.0000	37.1
58 1,2-Diphenylhydrazine	77	8.292	8.292	(0.907)	667982	40.0000	38.2
61 4-Bromophenylphenylether	248	8.645	8.645	(0.946)	126429	40.0000	33.5
63 Hexachlorobenzene	284	8.722	8.722	(0.954)	156546	40.0000	33.3
65 Pentachlorophenol	266	8.928	8.928	(0.977)	105097	40.0000	33.4
206 n-Octadecane	57	9.004	9.004	(0.985)	566980	40.0000	37.1
68 Phenanthrene	178	9.163	9.163	(1.003)	797926	40.0000	36.8
69 Anthracene	178	9.222	9.222	(1.009)	820501	40.0000	37.3
72 Di-n-butylphthalate	149	9.751	9.751	(1.067)	925494	40.0000	37.6
76 Fluoranthene	202	10.445	10.445	(1.143)	844960	40.0000	36.3

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
							(ng/ul)	(ng/ul)
79 Pyrene		202	10.692	10.692	(0.888)	859827	40.0000	41.9
85 Butylbenzylphthalate		149	11.369	11.369	(0.944)	392671	40.0000	41.2
89 Benzo(a)anthracene		228	12.022	12.022	(0.999)	610436	40.0000	35.1
92 Chrysene		228	12.069	12.069	(1.002)	648773	40.0000	37.6
93 bis(2-Ethylhexyl)phthalate		149	12.022	12.022	(0.999)	448775	40.0000	39.2
94 Di-n-octylphthalate		149	12.898	12.898	(0.913)	778845	40.0000	43.1
95 Benzo(b)fluoranthene		252	13.516	13.516	(0.957)	534990	40.0000	37.7
96 Benzo(k)fluoranthene		252	13.557	13.557	(0.960)	572046	40.0000	40.9
97 Benzo(a)pyrene		252	14.027	14.027	(0.993)	481438	40.0000	39.2
99 Indeno(1,2,3-cd)pyrene		276	15.939	15.939	(1.129)	425405	40.0000	35.0
100 Dibenzo(a,h)anthracene		278	15.974	15.974	(1.131)	352993	40.0000	34.4
101 Benzo(ghi)perylene		276	16.415	16.415	(1.162)	355788	40.0000	32.4(Q)
126 m-Dinitrobenzene		168	7.287	7.287	(0.966)	100774	40.0000	37.9
130 2,3,4,6-Tetrachlorophenol		232	7.887	7.887	(1.046)	124509	40.0000	33.3
143 Dinoseb		211	9.122	9.122	(0.998)	112526	40.0000	40.1
173 Carbazole		167	9.386	9.386	(1.027)	627515	40.0000	30.8
184 p-Benzoquinone		54	3.716	3.716	(0.838)	7502	40.0000	17.0
192 Methoxychlor		227	11.927	11.927	(0.991)	357264	40.0000	41.2
211 p-Toluidine		106	4.846	4.846	(1.093)	147664	40.0000	31.3
210 m-Toluidine		106	4.881	4.881	(1.101)	194010	40.0000	33.6
26 Phthalic anhydride		104	6.487	6.487	(1.141)	82635	40.0000	28.0
179 Dibenzo(a,e)pyrene		302	19.480	19.480	(1.379)	172994	40.0000	30.5
214 1,4-Dinitrobenzene		168	7.198	7.198	(0.955)	90777	40.0000	37.9
215 2-Ethoxyethanol		59	2.205	2.205	(0.497)	205983	40.0000	36.5
216 Methylenabis(2-chloroaniline)		231	11.986	11.986	(0.996)	88413	40.0000	39.9(Q)
M 225 Trichlorophenols		196				337793	80.0000	75.1
M 226 Tetrachlorophenols		232				124509	40.0000	33.3
M 227 Benzo(b,k)fluoranthene		252				1107036	80.0000	79.7

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.





GEL Laboratories LLC  
CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 28-JAN-2010 19:01  
Lab File ID: sla2811.d Init. Cal. Date(s): 22-JAN-2010 24-JAN-2010  
Analysis Type: Init. Cal. Times: 14:28 00:53  
Lab Sample ID: WBN100120-03.2 Quant Type: ISTD  
Method: /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
			RRF40	RRF	%D / %DRIFT	
209 Benzaldehyde	0.98983	1.06163	1.06163	0.000	7.25393	Averaged
16 Acetophenone	1.33456	1.40493	1.40493	0.000	5.27254	Averaged
189 Caprolactam	0.07585	0.08625	0.08625	0.000	13.71244	Averaged
208 1,1'-Biphenyl	1.15859	1.24973	1.24973	0.000	7.86655	Averaged
207 Atrazine	0.04517	0.04767	0.04767	0.000	5.54954	Averaged
77 Benzidine	0.40507	0.34733	0.34733	0.000	-14.25332	Averaged
90 3,3'-Dichlorobenzidine	0.32111	0.32147	0.32147	0.000	0.11416	Averaged
102 1,4-Dioxane	0.37945	0.41186	0.41186	0.000	8.54254	Averaged
103 Methyl methacrylate	0.19309	0.21308	0.21308	0.000	10.35084	Averaged
104 Ethyl methacrylate	0.85975	0.94232	0.94232	0.000	9.60400	Averaged
105 2-Picoline	1.36641	1.44757	1.44757	0.000	5.93956	Averaged
106 N-Nitrosomethylethylamine	0.57778	0.60612	0.60612	0.000	4.90448	Averaged
107 Methyl methanesulfonate	0.53721	0.57514	0.57514	0.000	7.06054	Averaged
108 N-Nitrosodiethylamine	0.58057	0.61357	0.61357	0.000	5.68385	Averaged
109 Ethyl Methanesulfonate	0.72637	0.75211	0.75211	0.000	3.54293	Averaged
110 Pentachloroethane	0.33502	0.36745	0.36745	0.000	9.67855	Averaged
111 N-Nitrosopyrrolidine	0.60873	0.65550	0.65550	0.000	7.68280	Averaged
113 N-Nitrosomorpholine	0.96535	1.05728	1.05728	0.000	9.52306	Averaged
114 o-Toluidine	1.90568	1.94826	1.94826	0.000	2.23408	Averaged
115 N-Nitrosopiperidine	0.15346	0.16699	0.16699	0.000	8.81774	Averaged
116 a,a-Dimethylphenethylamine	1.21469	1.29349	1.29349	0.000	6.48728	Averaged
118 2,6-Dichlorophenol	0.21780	0.23513	0.23513	0.000	7.95526	Averaged
119 Hexachloropropene	0.09745	0.11597	0.11597	0.000	19.00161	Averaged
120 p-Phenylenediamine	0.27928	0.29192	0.29192	0.000	4.52861	Averaged
121 N-Nitrosodi-n-butylamine	0.23166	0.24174	0.24174	0.000	4.35163	Averaged
122 Safrole	0.19462	0.20746	0.20746	0.000	6.60135	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42406	0.45390	0.45390	0.000	7.03620	Averaged
124 Isosafrole	0.36483	0.38916	0.38916	0.000	6.66623	Averaged
125 1,4-Naphthoquinone	0.32432	0.34660	0.34660	0.000	6.87016	Averaged
127 Pentachlorobenzene	0.38949	0.37749	0.37749	0.000	-3.08086	Averaged
128 1-Naphthylamine	0.93163	1.00362	1.00362	0.000	7.72735	Averaged
129 2-Naphthylamine	1.02040	1.08118	1.08118	0.000	5.95716	Averaged
131 5-Nitro-o-toluidine	0.30425	0.31432	0.31432	0.000	3.30727	Averaged
136 1,3,5-Trinitrobenzene	0.12442	0.15038	0.15038	0.000	20.86062	Averaged
137 Phenacetin	0.31074	0.33746	0.33746	0.000	8.60137	Averaged
138 Diallate	0.26675	0.30958	0.30958	0.000	16.05677	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 28-JAN-2010 19:01  
 Lab File ID: sla2811.d Init. Cal. Date(s): 22-JAN-2010 24-JAN-2010  
 Analysis Type: Init. Cal. Times: 14:28 00:53  
 Lab Sample ID: WBN100120-03.2 Quant Type: ISTD  
 Method: /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.29778	0.32768	0.32768	0.000	10.03929	60.00000	Averaged
213 Trans Diallate	0.31382	0.36421	0.36421	0.000	16.05677	60.00000	Averaged
140 4-Aminobiphenyl	0.62815	0.68303	0.68303	0.000	8.73829	60.00000	Averaged
141 Pentachloronitrobenzene	0.07246	0.07313	0.07313	0.000	0.92832	60.00000	Averaged
142 Pronamide	0.27967	0.30595	0.30595	0.000	9.39666	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02086	0.02442	0.02442	0.000	17.06268	60.00000	Averaged
147 Methapyriene	0.57545	0.60463	0.60463	0.000	5.06989	60.00000	Averaged
148 Isodrin	0.10938	0.11485	0.11485	0.000	4.99796	60.00000	Averaged
149 Aramite	0.04846	0.05070	0.05070	0.000	4.61712	60.00000	Averaged
150 Kepone	0.06763	0.05915	0.05915	0.000	-12.54263	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.30082	0.38771	0.38771	0.000	28.88598	60.00000	Averaged
152 Chlorobenzilate	0.26599	0.31437	0.31437	0.000	18.18954	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.53071	0.54269	0.54269	0.000	2.25787	60.00000	Averaged
155 2-Acetylaminofluorene	0.32695	0.37110	0.37110	0.000	13.50554	60.00000	Averaged
157 7,12Dimethylbenz(a)anthracene	0.45173	0.50548	0.50548	0.000	11.89850	60.00000	Averaged
158 3-Methylcholanthrene	0.38431	0.38469	0.38469	0.000	0.09864	60.00000	Averaged

Data File: /chem/MSD1.i/s012810.b/sla2811.d  
 Report Date: 28-Jan-2010 19:31

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GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2811.d  
 Lab Smp Id: WBN100120-03.2 Client Smp ID: APCVS  
 Inj Date : 28-JAN-2010 19:01  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |WBN100120-03.2|40 PPM|1|SVMF|1|APCVS  
 Misc Info : |MSD8270|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 28-Jan-2010 19:31 amy01291 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
 Als bottle: 3 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: apl2.sub  
 Target Version: 3.50  
 Processing Host: hpc1p1

Compounds	QUANT SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	152	4.434	4.434 (1.000)	268069	40.0000	
* 29 Naphthalene-d8	136	5.686	5.686 (1.000)	1026599	40.0000	
* 46 Acenaphthene-d10	164	7.539	7.539 (1.000)	545453	40.0000	
* 67 Phenanthrene-d10	188	9.139	9.139 (1.000)	856697	40.0000	
* 91 Chrysene-d12	240	12.033	12.033 (1.000)	628867	40.0000	
* 98 Perylene-d12	264	14.115	14.115 (1.000)	433220	40.0000	
209 Benzaldehyde	77	4.040	4.040 (0.911)	284590	40.0000	42.9
16 Acetophenone	105	4.804	4.804 (1.084)	376618	40.0000	42.1
189 Caprolactam	113	6.128	6.128 (1.078)	88542	40.0000	45.5
208 1,1'-Biphenyl	154	6.916	6.916 (0.917)	681669	40.0000	43.1
207 Atrazine	173	8.822	8.822 (0.965)	40841	40.0000	42.2
77 Benzidine	184	10.580	10.580 (0.879)	218426	40.0000	34.3
90 3,3'-Dichlorobenzidine	252	11.980	11.980 (0.996)	202163	40.0000	40.0
102 1,4-Dioxane	88	2.198	2.198 (0.496)	110408	40.0000	43.4
103 Methyl methacrylate	100	2.193	2.193 (0.495)	57120	40.0000	44.1
104 Ethyl methacrylate	69	2.663	2.663 (0.601)	252607	40.0000	43.8
105 2-Picoline	93	2.904	2.904 (0.655)	388049	40.0000	42.4
106 N-Nitrosomethylethylamine	88	2.969	2.969 (0.670)	162481	40.0000	42.0
107 Methyl methanesulfonate	80	3.187	3.187 (0.719)	154176	40.0000	42.8
108 N-Nitrosodiethylamine	102	3.498	3.498 (0.789)	164479	40.0000	42.3
109 Ethyl Methanesulfonate	79	3.728	3.728 (0.841)	201617	40.0000	41.4
110 Pentachloroethane	167	4.175	4.175 (0.942)	98501	40.0000	43.9
111 N-Nitrosopyrrolidine	100	4.792	4.792 (1.081)	175718	40.0000	43.1 (Q)
113 N-Nitrosomorpholine	56	4.822	4.822 (1.088)	283425	40.0000	43.8
114 o-Toluidine	106	4.845	4.845 (1.093)	522267	40.0000	40.9
115 N-Nitrosopiperidine	114	5.128	5.128 (0.902)	171435	40.0000	43.5

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
116 a,a-Dimethylphenethylamine	58	5.504	5.504	(0.968)	1327895	40.0000	42.6
118 2,6-Dichlorophenol	162	5.763	5.763	(1.013)	241384	40.0000	43.2
119 Hexachloropropene	213	5.792	5.792	(1.019)	119057	40.0000	47.6
120 p-Phenylenediamine	108	6.134	6.134	(1.079)	299688	40.0000	41.8
121 N-Nitrosodi-n-butylamine	84	6.098	6.098	(1.072)	248171	40.0000	41.7 (Q)
122 Safrole	162	6.328	6.328	(1.113)	212981	40.0000	42.6
123 1,2,4,5-Tetrachlorobenzene	216	6.604	6.604	(0.876)	247580	40.0000	42.8
124 Isosafrole	162	6.875	6.875	(0.912)	212266	40.0000	42.7
125 1,4-Naphthoquinone	158	7.128	7.128	(0.945)	189054	40.0000	42.7
127 Pentachlorobenzene	250	7.716	7.716	(1.023)	205902	40.0000	38.8
128 1-Naphthylamine	143	7.839	7.839	(1.040)	547425	40.0000	43.1
129 2-Naphthylamine	143	7.928	7.928	(1.051)	589734	40.0000	42.4
131 5-Nitro-o-toluidine	152	8.133	8.133	(1.079)	171445	40.0000	41.3
136 1,3,5-Trinitrobenzene	75	8.527	8.527	(0.933)	128827	40.0000	48.3
137 Phenacetin	108	8.586	8.586	(0.940)	289104	40.0000	43.4 (Q)
138 Diallate	86	8.551	8.551	(0.936)	265216	40.0000	46.4
212 Cis Diallate	86	8.651	8.651	(0.947)	42108	6.00000	6.6
213 Trans Diallate	86	8.551	8.551	(0.936)	265216	34.0000	39.4
140 4-Aminobiphenyl	169	8.933	8.933	(0.977)	585154	40.0000	43.5
141 Pentachloronitrobenzene	237	8.945	8.945	(0.979)	62649	40.0000	40.4 (Q)
142 Pronamide	173	8.986	8.986	(0.983)	262108	40.0000	43.8
146 4-Nitroquinoline-1-oxide	101	9.992	9.992	(1.093)	20922	40.0000	46.8
147 Methapyrilene	58	10.063	10.063	(1.101)	517983	40.0000	42.0
148 Isodrin	193	10.280	10.280	(1.125)	98393	40.0000	42.0
149 Aramite	185	10.816	10.816	(1.183)	43431	40.0000	41.8
150 Kepone	272	11.421	11.421	(1.250)	50673	40.0000	35.0
151 p-(Dimethylamino)azobenzene	120	10.998	10.998	(0.914)	243818	40.0000	51.6
152 Chlorobenzilate	251	11.045	11.045	(0.918)	197697	40.0000	47.3
153 3,3'-Dimethylbenzidine	212	11.357	11.357	(0.944)	341281	40.0000	40.9
155 2-Acetylaminofluorene	181	11.639	11.639	(0.967)	233374	40.0000	45.4
157 7,12Dimethylbenz(a)anthracene	256	13.492	13.492	(0.956)	218983	40.0000	44.8
158 3-Methylcholanthrene	268	14.598	14.598	(1.034)	166654	40.0000	40.0 (Q)

#### QC Flag Legend

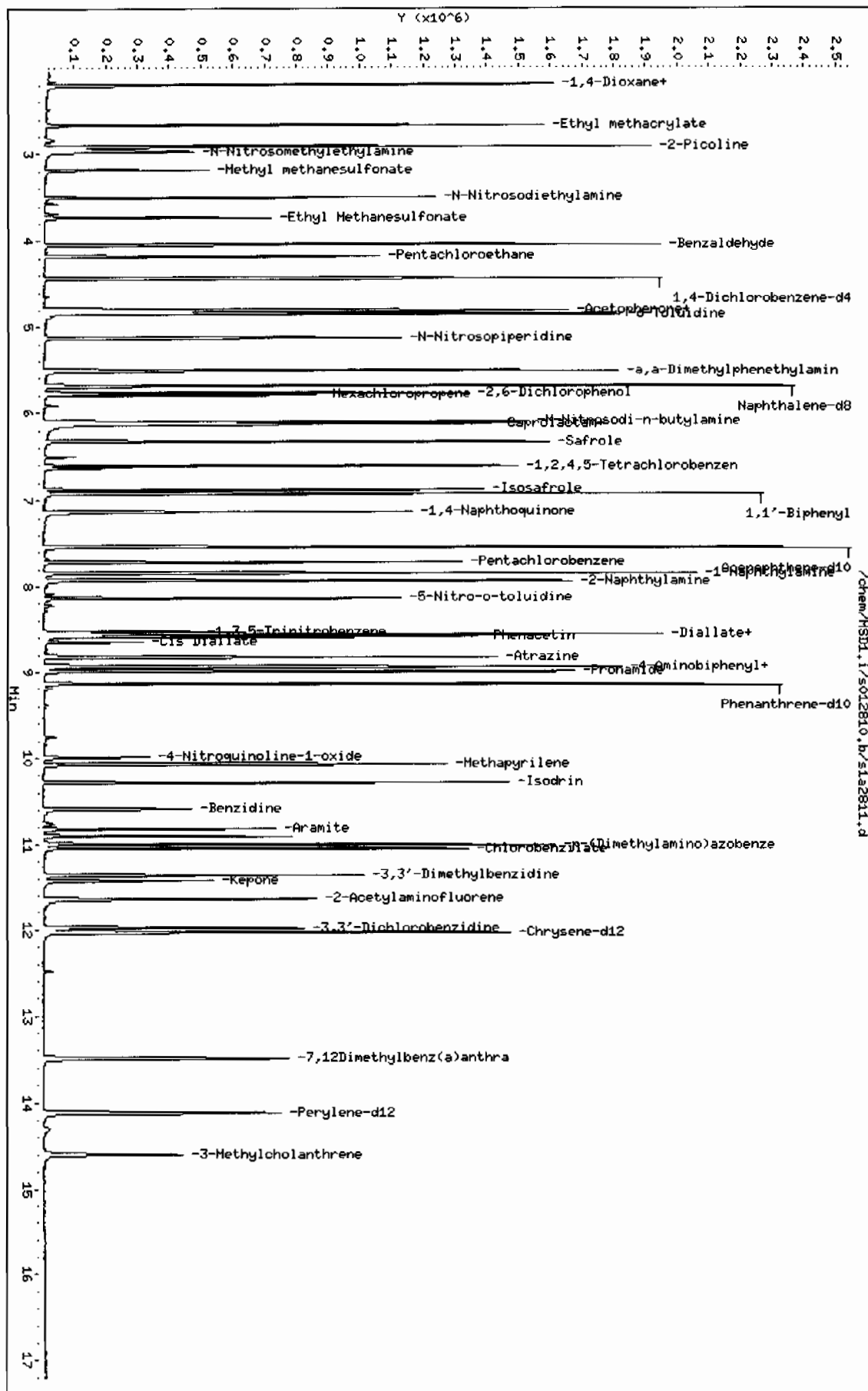
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.1/s012810.b/s1a2811.d  
 Date : 28-JAN-2010 19:01  
 Client ID: APCVS  
 Sample Info: 14BN100120-03.2140 PPH115WH111APCVS

Column phase: J&W DB-SMS

Instrument: MSD1.1

Operator: AMY  
 Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-JAN-2010 19:51  
Lab File ID: sla2914.d Init. Cal. Date(s): 22-JAN-2010 24-JAN-2010  
Analysis Type: Init. Cal. Times: 14:28 00:53  
Lab Sample ID: WBN100121-17.1 Quant Type: ISTD  
Method: /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
3 2-Fluorophenol	1.23715	1.13989	1.13989	0.000	-7.86174	60.00000	Averaged
5 Phenol-d5	1.53662	1.36317	1.36317	0.000	-11.28721	60.00000	Averaged
20 Nitrobenzene-d5	0.29522	0.27374	0.27374	0.000	-7.27770	60.00000	Averaged
39 2-Fluorobiphenyl	1.03050	0.94214	0.94214	0.000	-8.57402	60.00000	Averaged
60 2,4,6-Tribromophenol	0.14474	0.12008	0.12008	0.000	-17.03861	60.00000	Averaged
81 p-Terphenyl-d14	0.71776	0.65859	0.65859	0.000	-8.24468	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.74385	0.71485	0.71485	0.000	-3.89867	60.00000	Averaged
2 Pyridine	1.20641	1.22394	1.22394	0.000	1.45316	60.00000	Averaged
4 Aniline	0.67969	0.58166	0.58166	0.000	-14.42304	60.00000	Averaged
6 Phenol	1.61551	1.45434	1.45434	0.001	-9.97637	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.22689	1.09218	1.09218	0.000	-10.97979	60.00000	Averaged
8 2-Chlorophenol	1.27422	1.17452	1.17452	0.000	-7.82431	60.00000	Averaged
203 n-Decane	1.99474	1.78516	1.78516	0.000	-10.50634	60.00000	Averaged
9 1,3-Dichlorobenzene	1.39084	1.29252	1.29252	0.000	-7.06946	60.00000	Averaged
11 1,4-Dichlorobenzene	1.35583	1.25898	1.25898	0.001	-7.14361	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.34266	1.25602	1.25602	0.000	-6.45270	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	3.10314	2.89566	2.89566	0.000	-6.68616	60.00000	Averaged
12 Benzyl alcohol	0.88347	0.72668	0.72668	0.000	-17.74703	60.00000	Averaged
15 o-Cresol	1.04624	0.92534	0.92534	0.000	-11.55551	60.00000	Averaged
18 m,p-Cresols	1.35106	1.15759	1.15759	0.000	-14.31990	60.00000	Averaged
17 N-Nitrosodipropylamine	0.92729	0.85324	0.85324	0.050	-7.98510	60.00000	Averaged spcc
19 Hexachloroethane	0.55103	0.53181	0.53181	0.000	-3.48804	60.00000	Averaged
21 Nitrobenzene	0.33558	0.30886	0.30886	0.000	-7.96136	60.00000	Averaged
22 Isophorone	0.58259	0.54565	0.54565	0.000	-6.34040	60.00000	Averaged
23 2-Nitrophenol	0.15798	0.15022	0.15022	0.001	-4.91204	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.29604	0.25534	0.25534	0.000	-13.74767	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.37574	0.35010	0.35010	0.000	-6.82249	60.00000	Averaged
26 2,4-Dichlorophenol	0.24537	0.22789	0.22789	0.001	-7.12526	20.00000	Averaged ccc
27 Benzoic acid	0.18637	0.15970	0.15970	0.000	-14.30811	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.26377	0.24480	0.24480	0.000	-7.18984	60.00000	Averaged
30 Naphthalene	0.95658	0.76533	0.76533	0.000	-19.99355	60.00000	Averaged
204 alpha-Terpineol	0.25189	0.25326	0.25326	0.000	0.54194	60.00000	Averaged
31 4-Chloroaniline	0.30399	0.27622	0.27622	0.000	-9.13472	60.00000	Averaged
32 Hexachlorobutadiene	0.16516	0.14278	0.14278	0.001	-13.55332	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.25971	0.24607	0.24607	0.001	-5.25307	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.58099	0.53015	0.53015	0.000	-8.75003	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-JAN-2010 19:51  
Lab File ID: sla2914.d Init. Cal. Date(s): 22-JAN-2010 24-JAN-2010  
Analysis Type: Init. Cal. Times: 14:28 00:53  
Lab Sample ID: WBN100121-17.1 Quant Type: ISTD  
Method: /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.52482	0.48509	0.48509	0.000	-7.57023	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.14166	0.11313	0.11313	0.050	-20.13568	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.47687	0.43252	0.43252	0.000	-9.30027	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.30203	0.26945	0.26945	0.001	-10.78686	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.34702	0.32160	0.32160	0.000	-7.32346	60.00000	Averaged
40 2-Chloronaphthalene	1.06399	0.95861	0.95861	0.000	-9.90442	60.00000	Averaged
42 o-Nitroaniline	0.39980	0.34719	0.34719	0.000	-13.16052	60.00000	Averaged
41 m-Nitroaniline	32.40969	40.00000	0.22309	0.000	-18.97577	60.00000	Linear
43 Dimethylphthalate	1.16760	1.07381	1.07381	0.000	-8.03305	60.00000	Averaged
44 2,6-Dinitrotoluene	0.28262	0.26519	0.26519	0.000	-6.16463	60.00000	Averaged
50 2,4-Dinitrotoluene	0.36140	0.32973	0.32973	0.000	-8.76434	60.00000	Averaged
45 Acenaphthylene	1.57997	1.43912	1.43912	0.000	-8.91462	60.00000	Averaged
47 Acenaphthene	0.97165	0.85056	0.85056	0.001	-12.46232	20.00000	Averaged ccc
48 2,4-Dinitrophenol	38.96883	40.00000	0.10204	0.050	-2.57792	60.00000	Linear spcc
49 Dibenzofuran	1.44837	1.29215	1.29215	0.000	-10.78605	60.00000	Averaged
51 Diethylphthalate	1.09539	1.00448	1.00448	0.000	-8.29948	60.00000	Averaged
52 4-Nitrophenol	0.22600	0.17351	0.17351	0.050	-23.22633	60.00000	Averaged spcc
53 Fluorene	1.14812	1.00207	1.00207	0.000	-12.72078	60.00000	Averaged
54 4-Chlorophenylphenylether	0.49062	0.42628	0.42628	0.000	-13.11368	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	40.22395	40.00000	0.10735	0.000	0.55988	60.00000	Linear
56 p-Nitroaniline	0.27237	0.20669	0.20669	0.000	-24.11444	60.00000	Averaged
133 Diphenylamine	0.58359	0.51424	0.51424	0.001	-11.88389	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.79967	0.74546	0.74546	0.000	-6.77923	60.00000	Averaged
61 4-Bromophenylphenylether	0.17222	0.14162	0.14162	0.000	-17.76540	60.00000	Averaged
63 Hexachlorobenzene	0.21470	0.17955	0.17955	0.000	-16.36869	60.00000	Averaged
65 Pentachlorophenol	0.14384	0.11708	0.11708	0.001	-18.60345	20.00000	Averaged ccc
206 n-Octadecane	0.69764	0.64488	0.64488	0.000	-7.56195	60.00000	Averaged
68 Phenanthrene	0.99090	0.87337	0.87337	0.000	-11.86066	60.00000	Averaged
69 Anthracene	1.00576	0.89906	0.89906	0.000	-10.60972	60.00000	Averaged
72 Di-n-butylphthalate	1.12348	1.06848	1.06848	0.000	-4.89606	60.00000	Averaged
76 Fluoranthene	1.06379	0.95529	0.95529	0.001	-10.19925	20.00000	Averaged ccc
79 Pyrene	1.22125	1.22144	1.22144	0.000	0.01553	60.00000	Averaged
85 Butylbenzylphthalate	0.56673	0.59854	0.59854	0.000	5.61366	60.00000	Averaged
89 Benzo(a)anthracene	1.03280	0.87534	0.87534	0.000	-15.24573	60.00000	Averaged
92 Chrysene	1.02647	0.94372	0.94372	0.000	-8.06174	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.68040	0.73777	0.73777	0.000	8.43100	60.00000	Averaged



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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-JAN-2010 19:51  
Lab File ID: sla2914.d Init. Cal. Date(s): 22-JAN-2010 24-JAN-2010  
Analysis Type: Init. Cal. Times: 14:28 00:53  
Lab Sample ID: WBN100121-17.1 Quant Type: ISTD  
Method: /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF %D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
94 Di-n-octylphthalate	1.33021	1.57193	1.57193	0.001	18.17102	20.00000 Averaged ccc
95 Benzo(b)fluoranthene	1.04450	0.95416	0.95416	0.000	-8.64890	60.00000 Averaged
96 Benzo(k)fluoranthene	1.02942	0.99440	0.99440	0.000	-3.40200	60.00000 Averaged
97 Benzo(a)pyrene	0.90311	0.85148	0.85148	0.001	-5.71680	20.00000 Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.89519	0.79214	0.79214	0.000	-11.51103	60.00000 Averaged
100 Dibenzo(a,h)anthracene	0.75431	0.65791	0.65791	0.000	-12.78049	60.00000 Averaged
101 Benzo(ghi)perylene	0.80785	0.67615	0.67615	0.000	-16.30253	60.00000 Averaged
126 m-Dinitrobenzene	0.19188	0.17516	0.17516	0.000	-8.71242	60.00000 Averaged
130 2,3,4,6-Tetrachlorophenol	0.26971	0.22587	0.22587	0.000	-16.25284	60.00000 Averaged
143 Dinoseb	40.37761	40.00000	0.12946	0.000	0.94403	60.00000 Linear
173 Carbazole	0.93028	0.67433	0.67433	0.000	-27.51378	60.00000 Averaged
184 p-Benzoquinone	0.06922	0.04101	0.04101	0.000	-40.75050	60.00000 Averaged
192 Methoxychlor	0.51603	0.53066	0.53066	0.000	2.83652	60.00000 Averaged
211 p-Toluidine	0.74107	0.55157	0.55157	0.000	-25.57021	60.00000 Averaged
210 m-Toluidine	0.90820	0.75370	0.75370	0.000	-17.01142	60.00000 Averaged
26 Phthalic anhydride	0.11304	0.09930	0.09930	0.000	-12.15333	60.00000 Averaged
179 Dibenzo(a,e)pyrene	0.41743	0.31545	0.31545	0.000	-24.43006	60.00000 Averaged
214 1,4-Dinitrobenzene	0.17273	0.15545	0.15545	0.000	-10.00641	60.00000 Averaged
215 2-Ethoxyethanol	0.88737	0.87224	0.87224	0.000	-1.70546	60.00000 Averaged
216 Methylenebis(2-chloroanilin	0.13187	0.11872	0.11872	0.000	-9.97693	60.00000 Averaged
IM 225 Trichlorophenols	0.32452	0.29553	0.29553	0.000	-8.93514	60.00000 Averaged
IM 226 Tetrachlorophenols	0.26971	0.22587	0.22587	0.000	-16.25284	60.00000 Averaged
IM 227 Benzo(b,k)fluoranthene	1.02168	0.97428	0.97428	0.000	-4.63990	60.00000 Averaged

Data File: /chem/MSD1.i/s012910.b/sla2914.d  
 Report Date: 30-Jan-2010 13:22

Page 1

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012910.b/sla2914.d  
 Lab Smp Id: WBN100121-17.1 Client Smp ID: MEGACVS  
 Inj Date : 29-JAN-2010 19:51  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |WBN100121-17.1|40 PPM|1|SVMF|1|MEGACVS  
 Misc Info : |MSD8270|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 30-Jan-2010 13:22 11o00884 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
 Als bottle: 2 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: MEGAICARE.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL	
						(ng/ul)	(ng/ul)	
*****	****	==	=====	=====	=====	=====	=====	
* 10 1,4-Dichlorobenzene-d4	152	4.428	4.428	(1.000)	275589	40.0000		
* 29 Naphthalene-d8	136	5.681	5.681	(1.000)	1120211	40.0000		
* 46 Acenaphthene-d10	164	7.539	7.539	(1.000)	596863	40.0000		
* 67 Phenanthrene-d10	188	9.133	9.133	(1.000)	949640	40.0000		
* 91 Chrysene-d12	240	12.033	12.033	(1.000)	762448	40.0000		
* 98 Perylene-d12	264	14.115	14.115	(1.000)	663788	40.0000		
\$ 3 2-Fluorophenol	112	3.304	3.304	(0.746)	314141	40.0000	36.8	
\$ 5 Phenol-d5	99	4.057	4.057	(0.916)	375676	40.0000	35.5	
\$ 20 Nitrobenzene-d5	82	4.957	4.957	(0.873)	306644	40.0000	37.1	
\$ 39 2-Fluorobiphenyl	172	6.804	6.804	(0.902)	562329	40.0000	36.6	
\$ 60 2,4,6-Tribromophenol	329	8.380	8.380	(1.112)	71672	40.0000	33.2	
\$ 81 p-Terphenyl-d14	244	10.839	10.839	(0.901)	502138	40.0000	36.7	
1 N-Methyl-N-nitrosomethylamine	74	2.381	2.381	(0.538)	197005	40.0000	38.4	
2 Pyridine	79	2.428	2.428	(0.548)	337304	40.0000	40.6	
4 Aniline	66	4.128	4.128	(0.932)	160299	40.0000	34.2	
6 Phenol	94	4.075	4.075	(0.920)	400801	40.0000	36.0(Q)	
7 bis(2-Chloroethyl) ether	63	4.169	4.169	(0.942)	300994	40.0000	35.6	
8 2-Chlorophenol	128	4.234	4.234	(0.956)	323686	40.0000	36.9	
203 n-Decane	43	4.257	4.257	(0.961)	491971	40.0000	35.8	
9 1,3-Dichlorobenzene	146	4.381	4.381	(0.989)	356203	40.0000	37.2	
11 1,4-Dichlorobenzene	146	4.445	4.445	(1.004)	346960	40.0000	37.1	
13 1,2-Dichlorobenzene	146	4.587	4.587	(1.036)	346145	40.0000	37.4	
14 bis(2-Chloroisopropyl)ether	45	4.663	4.663	(1.053)	798012	40.0000	37.3	
12 Benzyl alcohol	108	4.545	4.545	(1.027)	200266	40.0000	32.9	
15 o-Cresol	107	4.634	4.634	(1.046)	255013	40.0000	35.4	
18 m,p-Cresols	107	4.787	4.787	(1.081)	319019	40.0000	34.3	

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
							(ng/ul)	(ng/ul)
17 N-Nitrosodipropylamine		70	4.804	4.804	(1.085)	235144	40.0000	36.8
19 Hexachloroethane		117	4.916	4.916	(1.110)	146560	40.0000	38.6
21 Nitrobenzene		77	4.975	4.975	(0.876)	345990	40.0000	36.8
22 Isophorone		82	5.216	5.216	(0.918)	611241	40.0000	37.5
23 2-Nitrophenol		139	5.287	5.287	(0.931)	168277	40.0000	38.0
24 2,4-Dimethylphenol		122	5.316	5.316	(0.936)	286036	40.0000	34.5
25 bis(2-Chloroethoxy)methane		93	5.416	5.416	(0.953)	392188	40.0000	37.3
26 2,4-Dichlorophenol		162	5.528	5.528	(0.973)	255280	40.0000	37.1
27 Benzoic acid		105	5.434	5.434	(0.956)	178901	40.0000	34.3
28 1,2,4-Trichlorobenzene		180	5.616	5.616	(0.989)	274230	40.0000	37.1
30 Naphthalene		128	5.704	5.704	(1.004)	857328	40.0000	32.0
204 alpha-Terpineol		59	5.704	5.704	(1.004)	283704	40.0000	40.2
31 4-Chloroaniline		127	5.751	5.751	(1.012)	309423	40.0000	36.3
32 Hexachlorobutadiene		225	5.822	5.822	(1.025)	159942	40.0000	34.6
33 4-Chloro-3-methylphenol		107	6.245	6.245	(1.099)	275650	40.0000	37.9
34 2-Methylnaphthalene		142	6.422	6.422	(1.130)	593883	40.0000	36.5
35 1-Methylnaphthalene		142	6.528	6.528	(1.149)	543402	40.0000	37.0
36 Hexachlorocyclopentadiene		237	6.586	6.586	(0.874)	67526	40.0000	31.9
205 2,3-Dichloroaniline		161	6.722	6.722	(0.892)	258155	40.0000	36.3
37 2,4,6-Trichlorophenol		196	6.716	6.716	(0.891)	160826	40.0000	35.7
38 2,4,5-Trichlorophenol		196	6.751	6.751	(0.895)	191953	40.0000	37.1
40 2-Chloronaphthalene		162	6.939	6.939	(0.920)	572159	40.0000	36.0
42 o-Nitroaniline		65	7.045	7.045	(0.934)	207223	40.0000	34.7
41 m-Nitroaniline		138	7.492	7.492	(0.994)	133154	40.0000	32.4
43 Dimethylphthalate		163	7.245	7.245	(0.961)	640915	40.0000	36.8
44 2,6-Dinitrotoluene		165	7.310	7.310	(0.970)	158285	40.0000	37.5
50 2,4-Dinitrotoluene		165	7.739	7.739	(1.027)	196803	40.0000	36.5
45 Acenaphthylene		152	7.386	7.386	(0.980)	858956	40.0000	36.4
47 Acenaphthene		154	7.575	7.575	(1.005)	507668	40.0000	35.0
48 2,4-Dinitrophenol		184	7.598	7.598	(1.008)	60906	40.0000	39.0 (Q)
49 Dibenzofuran		168	7.757	7.757	(1.029)	771236	40.0000	35.7
51 Diethylphthalate		149	7.992	7.992	(1.060)	599535	40.0000	36.7
52 4-Nitrophenol		139	7.663	7.663	(1.016)	103560	40.0000	30.7
53 Fluorene		166	8.128	8.128	(1.078)	598098	40.0000	34.9
54 4-Chlorophenylphenylether		204	8.116	8.116	(1.076)	254431	40.0000	34.8
55 2-Methyl-4,6-dinitrophenol		198	8.175	8.175	(0.895)	101944	40.0000	40.2
56 p-Nitroaniline		138	8.145	8.145	(1.080)	123366	40.0000	30.4
133 Diphenylamine		169	8.245	8.245	(0.903)	488339	40.0000	35.2
58 1,2-Diphenylhydrazine		77	8.286	8.286	(0.907)	707915	40.0000	37.3
61 4-Bromophenylphenylether		248	8.645	8.645	(0.947)	134491	40.0000	32.9
63 Hexachlorobenzene		284	8.716	8.716	(0.954)	170512	40.0000	33.4
65 Pentachlorophenol		266	8.928	8.928	(0.977)	111184	40.0000	32.6
206 n-Octadecane		57	8.998	8.998	(0.985)	612406	40.0000	37.0
68 Phenanthrene		178	9.163	9.163	(1.003)	829388	40.0000	35.2
69 Anthracene		178	9.216	9.216	(1.009)	853779	40.0000	35.8
72 Di-n-butylphthalate		149	9.745	9.745	(1.067)	1014669	40.0000	38.0
76 Fluoranthene		202	10.439	10.439	(1.143)	907185	40.0000	35.9

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
							(ng/ul)	(ng/ul)
79 Pyrene		202	10.686	10.686	(0.888)	931281	40.0000	40.0
85 Butylbenzylphthalate		149	11.363	11.363	(0.944)	456355	40.0000	42.2
89 Benzo(a)anthracene		228	12.016	12.016	(0.999)	667402	40.0000	33.9
92 Chrysene		228	12.068	12.068	(1.003)	719538	40.0000	36.8
93 bis(2-Ethylhexyl)phthalate		149	12.016	12.016	(0.999)	562510	40.0000	43.4
94 Di-n-octylphthalate		149	12.892	12.892	(0.913)	1043425	40.0000	47.3
95 Benzo(b)fluoranthene		252	13.510	13.510	(0.957)	633360	40.0000	36.5
96 Benzo(k)fluoranthene		252	13.551	13.551	(0.960)	660068	40.0000	38.6
97 Benzo(a)pyrene		252	14.021	14.021	(0.993)	565200	40.0000	37.7
99 Indeno(1,2,3-cd)pyrene		276	15.939	15.939	(1.129)	525815	40.0000	35.4
100 Dibenzo(a,h)anthracene		278	15.968	15.968	(1.131)	436712	40.0000	34.9
101 Benzo(ghi)perylene		276	16.409	16.409	(1.163)	448822	40.0000	33.5(Q)
126 m-Dinitrobenzene		168	7.281	7.281	(0.966)	104547	40.0000	36.5
130 2,3,4,6-Tetrachlorophenol		232	7.881	7.881	(1.045)	134815	40.0000	33.5
143 Dinoseb		211	9.116	9.116	(0.998)	122944	40.0000	40.4
173 Carbazole		167	9.380	9.380	(1.027)	640368	40.0000	29.0
184 p-Benzoquinone		54	3.710	3.710	(0.838)	11303	40.0000	23.7
192 Methoxychlor		227	11.921	11.921	(0.991)	404604	40.0000	41.1
211 p-Toluidine		106	4.845	4.845	(1.094)	152008	40.0000	29.8
210 m-Toluidine		106	4.875	4.875	(1.101)	207712	40.0000	33.2
26 Phthalic anhydride		104	6.481	6.481	(1.141)	111241	40.0000	35.1
179 Dibenzo(a,e)pyrene		302	19.474	19.474	(1.380)	209393	40.0000	30.2
214 1,4-Dinitrobenzene		168	7.192	7.192	(0.954)	92782	40.0000	36.0
215 2-Ethoxyethanol		59	2.199	2.199	(0.497)	240380	40.0000	39.3
216 Methylenebis(2-chloroaniline)		231	11.980	11.980	(0.996)	90515	40.0000	36.0(Q)
M 225 Trichlorophenols		196				352779	80.0000	72.8
M 226 Tetrachlorophenols		232				134815	40.0000	33.5
M 227 Benzo(b,k)fluoranthene		252				1293428	80.0000	76.3

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.1/s012910.b/s1a2914.d

Date: 29-JAN-2010 19:51

Client ID: MEGACVS

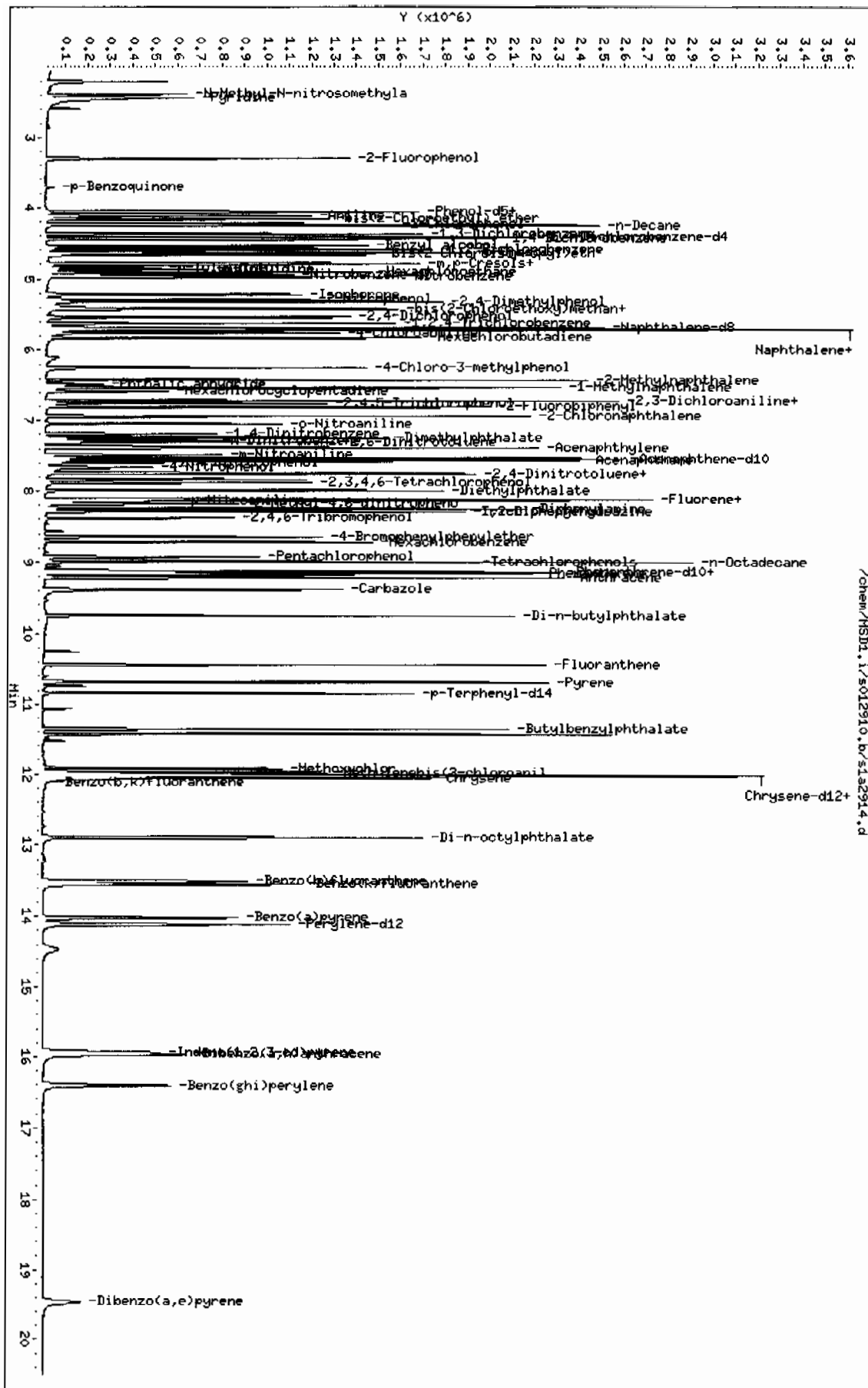
Sample Info: IWB100121-17.1140 PPH111SVF111MEGACVS

Column phase: J&W DB-SHS

Instrument: MSD1.i

Operator: AMY

Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-JAN-2010 20:22  
Lab File ID: sla2915.d Init. Cal. Date(s): 22-JAN-2010 24-JAN-2010  
Analysis Type: Init. Cal. Times: 14:28 00:53  
Lab Sample ID: WBN100120-03.2 Quant Type: ISTD  
Method: /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.98983	1.02951	1.02951	0.000	4.00898	60.00000	Averaged
16 Acetophenone	1.33456	1.37219	1.37219	0.000	2.81971	60.00000	Averaged
189 Caprolactam	0.07585	0.08782	0.08782	0.000	15.78190	60.00000	Averaged
208 1,1'-Biphenyl	1.15859	1.18588	1.18588	0.000	2.35540	60.00000	Averaged
207 Atrazine	0.04517	0.04687	0.04687	0.000	3.77992	60.00000	Averaged
77 Benzidine	0.40507	0.32110	0.32110	0.000	-20.72859	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.32111	0.31163	0.31163	0.000	-2.95147	60.00000	Averaged
102 1,4-Dioxane	0.37945	0.40801	0.40801	0.000	7.52724	60.00000	Averaged
103 Methyl methacrylate	0.19309	0.20204	0.20204	0.000	4.63450	60.00000	Averaged
104 Ethyl methacrylate	0.85975	0.90581	0.90581	0.000	5.35708	60.00000	Averaged
105 2-Picoline	1.36641	1.42349	1.42349	0.000	4.17683	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.57778	0.60422	0.60422	0.000	4.57667	60.00000	Averaged
107 Methyl methanesulfonate	0.53721	0.55124	0.55124	0.000	2.61222	60.00000	Averaged
108 N-Nitrosodiethylamine	0.58057	0.59048	0.59048	0.000	1.70594	60.00000	Averaged
109 Ethyl Methanesulfonate	0.72637	0.74376	0.74376	0.000	2.39415	60.00000	Averaged
110 Pentachloroethane	0.33502	0.35001	0.35001	0.000	4.47263	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.60873	0.63962	0.63962	0.000	5.07429	60.00000	Averaged
113 N-Nitrosomorpholine	0.96535	1.03243	1.03243	0.000	6.94890	60.00000	Averaged
114 o-Toluidine	1.90568	1.90702	1.90702	0.000	0.07034	60.00000	Averaged
115 N-Nitrosopiperidine	0.15346	0.16137	0.16137	0.000	5.15042	60.00000	Averaged
116 a,a-Dimethylphenethylamine	1.21469	1.18109	1.18109	0.000	-2.76601	60.00000	Averaged
118 2,6-Dichlorophenol	0.21780	0.22952	0.22952	0.000	5.38018	60.00000	Averaged
119 Hexachloropropene	0.09745	0.10899	0.10899	0.000	11.83525	60.00000	Averaged
120 p-Phenylenediamine	0.27928	0.27205	0.27205	0.000	-2.58664	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.23166	0.22836	0.22836	0.000	-1.42610	60.00000	Averaged
122 Safrole	0.19462	0.20198	0.20198	0.000	3.78168	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42406	0.43638	0.43638	0.000	2.90602	60.00000	Averaged
124 Isosafrole	0.36483	0.37160	0.37160	0.000	1.85543	60.00000	Averaged
125 1,4-Naphthoquinone	0.32432	0.34183	0.34183	0.000	5.39794	60.00000	Averaged
127 Pentachlorobenzene	0.38949	0.36144	0.36144	0.000	-7.20225	60.00000	Averaged
128 1-Naphthylamine	0.93163	0.95943	0.95943	0.000	2.98455	60.00000	Averaged
129 2-Naphthylamine	1.02040	1.05828	1.05828	0.000	3.71306	60.00000	Averaged
131 5-Nitro-o-toluidine	0.30425	0.29388	0.29388	0.000	-3.41063	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.12442	0.15591	0.15591	0.000	25.30787	60.00000	Averaged
137 Phenacetin	0.31074	0.31961	0.31961	0.000	2.85420	60.00000	Averaged
138 Diallate	0.26675	0.29775	0.29775	0.000	11.62018	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-JAN-2010 20:22  
Lab File ID: sla2915.d Init. Cal. Date(s): 22-JAN-2010 24-JAN-2010  
Analysis Type: Init. Cal. Times: 14:28 00:53  
Lab Sample ID: WBN100120-03.2 Quant Type: ISTD  
Method: /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.29778	0.32109	0.32109	0.000	7.82672	60.00000	Averaged
213 Trans Diallate	0.31382	0.35029	0.35029	0.000	11.62018	60.00000	Averaged
140 4-Aminobiphenyl	0.62815	0.64884	0.64884	0.000	3.29413	60.00000	Averaged
141 Pentachloronitrobenzene	0.07246	0.07106	0.07106	0.000	-1.92935	60.00000	Averaged
142 Pronamide	0.27967	0.29895	0.29895	0.000	6.89473	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02086	0.02252	0.02252	0.000	7.95182	60.00000	Averaged
147 Methapyrilene	0.57545	0.61437	0.61437	0.000	6.76266	60.00000	Averaged
148 Isodrin	0.10938	0.12046	0.12046	0.000	10.12357	60.00000	Averaged
149 Aramite	0.04846	0.05479	0.05479	0.000	13.06867	60.00000	Averaged
150 Kepone	0.06763	0.07326	0.07326	0.000	8.31721	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.30082	0.34992	0.34992	0.000	16.32286	60.00000	Averaged
152 Chlorobenzilate	0.26599	0.30007	0.30007	0.000	12.81336	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.53071	0.52878	0.52878	0.000	-0.36430	60.00000	Averaged
155 2-Acetylaminofluorene	0.32695	0.36755	0.36755	0.000	12.41799	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.45173	0.49088	0.49088	0.000	8.66664	60.00000	Averaged
158 3-Methylcholanthrene	0.38431	0.40039	0.40039	0.000	4.18493	60.00000	Averaged

Data File: /chem/MSD1.i/s012910.b/s1a2915.d  
Report Date: 30-Jan-2010 13:21

Page 1

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012910.b/s1a2915.d  
Lab Smp Id: WBN100120-03.2 Client Smp ID: APCVS  
Inj Date : 29-JAN-2010 20:22  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |WBN100120-03.2|40 PPM|1|SVMF|1|APCVS  
Misc Info : |MSD8270|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012910.b/MSD1-M8270AQAP-012210.m  
Meth Date : 30-Jan-2010 13:21 llo00884 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: s1a2203.d  
Als bottle: 3 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: ap12.sub  
Target Version: 3.50  
Processing Host: kilroy

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL	
=====	=====	==	=====	=====	=====	(ng/ul)	(ng/ul)	=====
* 10 1,4-Dichlorobenzene-d4	152	4.428	4.428	(1.000)	300641	40.0000		
* 29 Naphthalene-d8	136	5.681	5.681	(1.000)	1173456	40.0000		
* 46 Acenaphthene-d10	164	7.534	7.534	(1.000)	640526	40.0000		
* 67 Phenanthrene-d10	188	9.133	9.133	(1.000)	1019449	40.0000		
* 91 Chrysene-d12	240	12.027	12.027	(1.000)	885553	40.0000		
* 98 Perylene-d12	264	14.116	14.116	(1.000)	717689	40.0000		
209 Benzaldehyde	77	4.034	4.034	(0.911)	309513	40.0000	41.6	
16 Acetophenone	105	4.798	4.798	(1.084)	412538	40.0000	41.1	
189 Caprolactam	113	6.122	6.122	(1.078)	103050	40.0000	46.3	
208 1,1'-Biphenyl	154	6.916	6.916	(0.918)	759586	40.0000	40.9	
207 Atrazine	173	8.822	8.822	(0.966)	47785	40.0000	41.5	
77 Benzidine	184	10.580	10.580	(0.880)	284354	40.0000	31.7	
90 3,3'-Dichlorobenzidine	252	11.974	11.974	(0.996)	275963	40.0000	38.8	
102 1,4-Dioxane	88	2.193	2.193	(0.495)	122665	40.0000	43.0	
103 Methyl methacrylate	100	2.187	2.187	(0.494)	60742	40.0000	41.8	
104 Ethyl methacrylate	69	2.657	2.657	(0.600)	272323	40.0000	42.1	
105 2-Picoline	93	2.899	2.899	(0.655)	427958	40.0000	41.7	
106 N-Nitrosomethylethylamine	88	2.963	2.963	(0.669)	181654	40.0000	41.8	
107 Methyl methanesulfonate	80	3.181	3.181	(0.718)	165725	40.0000	41.0	
108 N-Nitrosodiethylamine	102	3.493	3.493	(0.789)	177521	40.0000	40.7	
109 Ethyl Methanesulfonate	79	3.722	3.722	(0.841)	223606	40.0000	41.0	
110 Pentachloroethane	167	4.175	4.175	(0.943)	105226	40.0000	41.8	
111 N-Nitrosopyrrolidine	100	4.787	4.787	(1.081)	192295	40.0000	42.0 (Q)	
113 N-Nitrosomorpholine	56	4.822	4.822	(1.089)	310392	40.0000	42.8	
114 o-Toluidine	106	4.840	4.840	(1.093)	573329	40.0000	40.0	
115 N-Nitrosopiperidine	114	5.122	5.122	(0.902)	189355	40.0000	42.1	



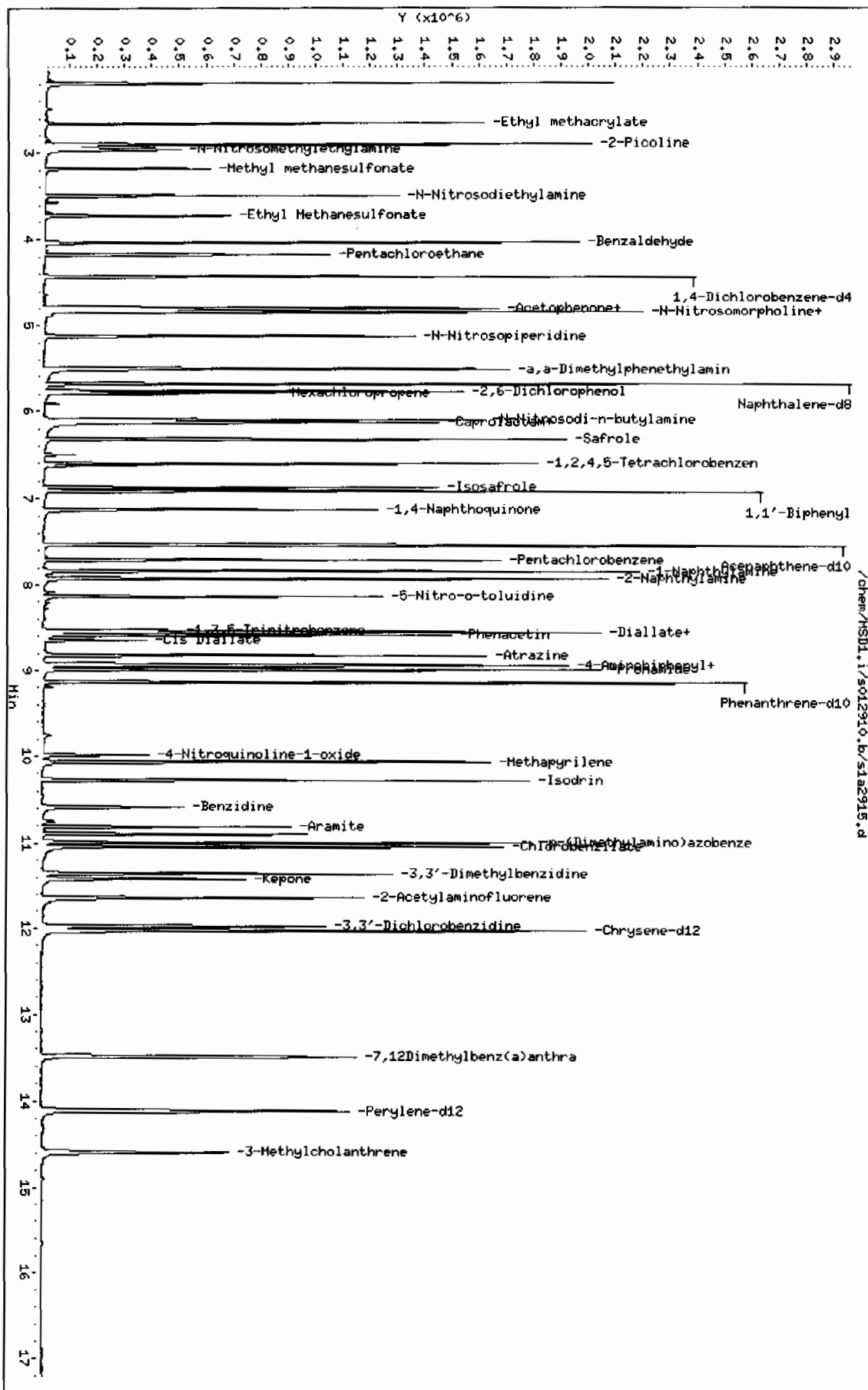
Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
116 a,a-Dimethylphenethylamine	58	5.504	5.504	(0.969)	1385958	40.0000	38.9
118 2,6-Dichlorophenol	162	5.763	5.763	(1.014)	269333	40.0000	42.2
119 Hexachloropropene	213	5.793	5.793	(1.020)	127893	40.0000	44.7
120 p-Phenylenediamine	108	6.134	6.134	(1.080)	319241	40.0000	39.0
121 N-Nitrosodi-n-butylamine	84	6.098	6.098	(1.073)	267966	40.0000	39.4(Q)
122 Safrole	162	6.322	6.322	(1.113)	237009	40.0000	41.5
123 1,2,4,5-Tetrachlorobenzene	216	6.598	6.598	(0.876)	279515	40.0000	41.2
124 Isosafrole	162	6.875	6.875	(0.913)	238022	40.0000	40.7
125 1,4-Naphthoquinone	158	7.128	7.128	(0.946)	218948	40.0000	42.2
127 Pentachlorobenzene	250	7.710	7.710	(1.023)	231509	40.0000	37.1
128 1-Naphthylamine	143	7.839	7.839	(1.041)	614540	40.0000	41.2
129 2-Naphthylamine	143	7.922	7.922	(1.052)	677858	40.0000	41.5
131 5-Nitro-o-toluidine	152	8.134	8.134	(1.080)	188236	40.0000	38.6
136 1,3,5-Trinitrobenzene	75	8.528	8.528	(0.934)	158942	40.0000	50.1
137 Phenacetin	108	8.586	8.586	(0.940)	325821	40.0000	41.1(Q)
138 Diallate	86	8.545	8.545	(0.936)	303536	40.0000	44.6
212 Cis Diallate	86	8.645	8.645	(0.947)	49100	6.00000	6.5
213 Trans Diallate	86	8.545	8.545	(0.936)	303536	34.0000	38.0
140 4-Aminobiphenyl	169	8.928	8.928	(0.977)	661457	40.0000	41.3
141 Pentachloronitrobenzene	237	8.939	8.939	(0.979)	72440	40.0000	39.2(Q)
142 Pronamide	173	8.986	8.986	(0.984)	304769	40.0000	42.8
146 4-Nitroquinoline-1-oxide	101	9.986	9.986	(1.093)	22959	40.0000	43.2
147 Methapyrilene	58	10.063	10.063	(1.102)	626318	40.0000	42.7
148 Isodrin	193	10.275	10.275	(1.125)	122801	40.0000	44.0
149 Aramite	185	10.810	10.810	(1.184)	55857	40.0000	45.2
150 Kepone	272	11.416	11.416	(1.250)	74682	40.0000	43.3
151 p-(Dimethylamino)azobenzene	120	10.992	10.992	(0.914)	309871	40.0000	46.5
152 Chlorobenzilate	251	11.039	11.039	(0.918)	265728	40.0000	45.1
153 3,3'-Dimethylbenzidine	212	11.357	11.357	(0.944)	468259	40.0000	39.8
155 2-Acetylaminofluorene	181	11.639	11.639	(0.968)	325482	40.0000	45.0
157 7,12Dimethylbenz(a)anthracene	256	13.492	13.492	(0.956)	352298	40.0000	43.5
158 3-Methylcholanthrene	268	14.592	14.592	(1.034)	287356	40.0000	41.7(Q)

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.1/5012910.b/s1a2915.d  
 Date: 29-JAN-2010 20:22  
 Client ID: APCVS  
 Sample Info: IUBN100120-03.2140 PPH115VNF11APCVS  
 Column phase: 30M DB-5MS

Instrument: MSD1.1  
 Operator: ARY  
 Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 11-FEB-2010 10:15  
Lab File ID: s3b1107.d Init. Cal. Date(s): 20-JAN-2010 29-JAN-2010  
Analysis Type: Init. Cal. Times: 17:59 22:17  
Lab Sample ID: WBN100121-17.4 Quant Type: ISTD  
Method: /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m

COMPOUND		RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
\$	3 2-Fluorophenol	1.04085	0.93969	0.93969	0.000	-9.71872	60.00000	Averaged
\$	5 Phenol-d5	1.30813	1.15299	1.15299	0.000	-11.85922	60.00000	Averaged
\$	20 Nitrobenzene-d5	0.29548	0.33892	0.33892	0.000	14.70197	60.00000	Averaged
\$	39 2-Fluorobiphenyl	1.03392	1.01831	1.01831	0.000	-1.50969	60.00000	Averaged
\$	60 2,4,6-Tribromophenol	0.11467	0.07993	0.07993	0.000	-30.29743	60.00000	Averaged
\$	81 p-Terphenyl-d14	0.68752	0.60567	0.60567	0.000	-11.90612	60.00000	Averaged
	1 N-Methyl-N-nitrosomethylami	0.72841	0.69323	0.69323	0.000	-4.82886	60.00000	Averaged
	2 Pyridine	0.81403	0.71473	0.71473	0.000	-12.19856	60.00000	Averaged
	4 Aniline	0.60975	0.50418	0.50418	0.000	-17.31403	60.00000	Averaged
	6 Phenol	1.38337	1.26722	1.26722	0.001	-8.39620	20.00000	Averaged ccc
	7 bis(2-Chloroethyl) ether	1.09435	0.88544	0.88544	0.000	-19.09025	60.00000	Averaged
	8 2-Chlorophenol	1.05048	1.01248	1.01248	0.000	-3.61765	60.00000	Averaged
203	n-Decane	1.59470	1.46594	1.46594	0.000	-8.07451	60.00000	Averaged
	9 1,3-Dichlorobenzene	1.20957	1.20264	1.20264	0.000	-0.57340	60.00000	Averaged
	11 1,4-Dichlorobenzene	1.22630	1.22142	1.22142	0.001	-0.39803	20.00000	Averaged ccc
	13 1,2-Dichlorobenzene	1.15004	1.12943	1.12943	0.000	-1.79218	60.00000	Averaged
	14 bis(2-Chloroisopropyl)ether	2.59104	1.97807	1.97807	0.000	-23.65734	60.00000	Averaged
	12 Benzyl alcohol	0.73117	0.64119	0.64119	0.000	-12.30729	60.00000	Averaged
	15 o-Cresol	0.89964	0.79260	0.79260	0.000	-11.89754	60.00000	Averaged
	18 m,p-Cresols	1.17039	1.01435	1.01435	0.000	-13.33242	60.00000	Averaged
	17 N-Nitrosodipropylamine	0.88907	0.84011	0.84011	0.050	-5.50691	60.00000	Averaged spcc
	19 Hexachloroethane	0.52660	0.52300	0.52300	0.000	-0.68214	60.00000	Averaged
	21 Nitrobenzene	0.31068	0.35115	0.35115	0.000	13.02488	60.00000	Averaged
	22 Isophorone	0.55065	0.60769	0.60769	0.000	10.35935	60.00000	Averaged
	23 2-Nitrophenol	0.14255	0.12658	0.12658	0.001	-11.20223	20.00000	Averaged ccc
	24 2,4-Dimethylphenol	0.24644	0.25239	0.25239	0.000	2.41259	60.00000	Averaged
	25 bis(2-Chloroethoxy)methane	0.31970	0.33125	0.33125	0.000	3.61436	60.00000	Averaged
	26 2,4-Dichlorophenol	0.20739	0.20283	0.20283	0.001	-2.19736	20.00000	Averaged ccc
	27 Benzoic acid	0.17347	0.08924	0.08924	0.000	-48.55471	60.00000	Averaged
	28 1,2,4-Trichlorobenzene	0.23033	0.25271	0.25271	0.000	9.71442	60.00000	Averaged
	30 Naphthalene	0.84122	0.79206	0.79206	0.000	-5.84427	60.00000	Averaged
204	alpha-Terpineol	0.27709	0.25716	0.25716	0.000	-7.19525	60.00000	Averaged
	31 4-Chloroaniline	32.46000	40.00000	0.20590	0.000	-18.85000	60.00000	Linear
	32 Hexachlorobutadiene	0.13146	0.15408	0.15408	0.001	17.20815	20.00000	Averaged ccc
	33 4-Chloro-3-methylphenol	0.23504	0.24199	0.24199	0.001	2.95964	20.00000	Averaged ccc
	34 2-Methylnaphthalene	0.50578	0.50908	0.50908	0.000	0.65304	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 11-FEB-2010 10:15  
Lab File ID: s3b1107.d Init. Cal. Date(s): 20-JAN-2010 29-JAN-2010  
Analysis Type: Init. Cal. Times: 17:59 22:17  
Lab Sample ID: WBN100121-17.4 Quant Type: ISTD  
Method: /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.51307	0.49856	0.49856	0.000	-2.82775	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.22766	0.18341	0.18341	0.050	-19.43723	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.50997	0.46176	0.46176	0.000	-9.45396	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.28670	0.27898	0.27898	0.001	-2.69324	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.30976	0.28544	0.28544	0.000	-7.85074	60.00000	Averaged
40 2-Chloronaphthalene	0.94508	0.85635	0.85635	0.000	-9.38866	60.00000	Averaged
42 o-Nitroaniline	0.37117	0.27327	0.27327	0.000	-26.37538	60.00000	Averaged
41 m-Nitroaniline	25.30203	40.00000	0.12996	0.000	-36.74493	60.00000	Linear
43 Dimethylphthalate	1.08482	1.01632	1.01632	0.000	-6.31490	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25779	0.23011	0.23011	0.000	-10.74022	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32038	0.27883	0.27883	0.000	-12.96888	60.00000	Averaged
45 Acenaphthylene	1.48695	1.40009	1.40009	0.000	-5.84099	60.00000	Averaged
47 Acenaphthene	0.94692	0.81718	0.81718	0.001	-13.70091	20.00000	Averaged ccc
48 2,4-Dinitrophenol	0.11484	0.06691	0.06691	0.050	-41.74198	60.00000	Averaged spcc
49 Dibenzofuran	1.21446	1.15007	1.15007	0.000	-5.30155	60.00000	Averaged
51 Diethylphthalate	1.07824	1.05743	1.05743	0.000	-1.92976	60.00000	Averaged
52 4-Nitrophenol	0.18279	0.11816	0.11816	0.050	-35.35687	60.00000	Averaged spcc
53 Fluorene	1.02579	0.96653	0.96653	0.000	-5.77681	60.00000	Averaged
54 4-Chlorophenylphenylether	0.48232	0.46586	0.46586	0.000	-3.41443	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	0.10303	0.11691	0.11691	0.000	13.47182	60.00000	Averaged
56 p-Nitroaniline	20.92469	40.00000	0.09682	0.000	-47.68828	60.00000	Linear
133 Diphenylamine	0.53006	0.44320	0.44320	0.001	-16.38742	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.78142	0.73699	0.73699	0.000	-5.68588	60.00000	Averaged
61 4-Bromophenylphenylether	0.17043	0.14096	0.14096	0.000	-17.28994	60.00000	Averaged
63 Hexachlorobenzene	0.17700	0.14191	0.14191	0.000	-19.82349	60.00000	Averaged
65 Pentachlorophenol	0.10027	0.08798	0.08798	0.001	-12.25274	20.00000	Averaged ccc
206 n-Octadecane	0.65176	0.56529	0.56529	0.000	-13.26747	60.00000	Averaged
68 Phenanthrene	0.87923	0.81460	0.81460	0.000	-7.35046	60.00000	Averaged
69 Anthracene	0.87768	0.80551	0.80551	0.000	-8.22273	60.00000	Averaged
72 Di-n-butylphthalate	1.06159	1.07139	1.07139	0.000	0.92307	60.00000	Averaged
76 Fluoranthene	0.80003	0.88663	0.88663	0.001	10.82513	20.00000	Averaged ccc
79 Pyrene	1.14589	0.92253	0.92253	0.000	-19.49289	60.00000	Averaged
85 Butylbenzylphthalate	0.57344	0.49168	0.49168	0.000	-14.25764	60.00000	Averaged
89 Benzo(a)anthracene	0.91588	0.88840	0.88840	0.000	-3.00044	60.00000	Averaged
92 Chrysene	0.86151	0.83482	0.83482	0.000	-3.09800	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.78921	0.72387	0.72387	0.000	-8.27960	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 11-FEB-2010 10:15  
Lab File ID: s3b1107.d Init. Cal. Date(s): 20-JAN-2010 29-JAN-2010  
Analysis Type: Init. Cal. Times: 17:59 22:17  
Lab Sample ID: WBN100121-17.4 Quant Type: ISTD  
Method: /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
94 Di-n-octylphthalate	1.61982	1.35304	1.35304	0.001	-16.46994	20.00000	Averaged ccc
95 Benzo(b)fluoranthene	0.93870	0.88817	0.88817	0.000	-5.38377	60.00000	Averaged
96 Benzo(k)fluoranthene	0.97450	0.93107	0.93107	0.000	-4.45655	60.00000	Averaged
97 Benzo(a)pyrene	0.81798	0.83812	0.83812	0.001	2.46260	20.00000	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.66728	0.82276	0.82276	0.000	23.30021	60.00000	Averaged
100 Dibenzo(a,h)anthracene	0.54458	0.68330	0.68330	0.000	25.47261	60.00000	Averaged
101 Benzo(ghi)perylene	0.54772	0.69347	0.69347	0.000	26.61103	60.00000	Averaged
126 m-Dinitrobenzene	0.18506	0.14338	0.14338	0.000	-22.52330	60.00000	Averaged
130 2,3,4,6-Tetrachlorophenol	0.24334	0.22553	0.22553	0.000	-7.31925	60.00000	Averaged
143 Dinoseb	0.14194	0.12852	0.12852	0.000	-9.45203	60.00000	Averaged
173 Carbazole	0.71254	0.53033	0.53033	0.000	-25.57221	60.00000	Averaged
184 p-Benzoquinone	0.09247	0.06808	0.06808	0.000	-26.37244	60.00000	Averaged
192 Methoxychlor	0.51665	0.52866	0.52866	0.000	2.32361	60.00000	Averaged
211 p-Toluidine	0.91289	0.65233	0.65233	0.000	-28.54236	60.00000	Averaged
210 m-Toluidine	1.30281	0.87277	0.87277	0.000	-33.00895	60.00000	Averaged
26 Phthalic anhydride	0.10481	0.11092	0.11092	0.000	5.83115	60.00000	Averaged
179 Dibenzo(a,e)pyrene	0.23979	0.21869	0.21869	0.000	-8.79988	60.00000	Averaged
214 1,4-Dinitrobenzene	0.21468	0.16954	0.16954	0.000	-21.02559	60.00000	Averaged
215 2-Ethoxyethanol	0.84974	0.69334	0.69334	0.000	-18.40566	60.00000	Averaged
216 Methylenebis(2-chloroanilin	0.10764	0.11610	0.11610	0.000	7.85606	60.00000	Averaged
M 225 Trichlorophenols	0.29823	0.28221	0.28221	0.000	-5.37167	60.00000	Averaged
M 226 Tetrachlorophenols	0.24334	0.22553	0.22553	0.000	-7.31925	60.00000	Averaged
M 227 Benzo(b,k)fluoranthene	0.95660	0.90962	0.90962	0.000	-4.91149	60.00000	Averaged

Data File: /chem/MSD3.i/s021110.b/s3b1107.d  
 Report Date: 12-Feb-2010 08:04

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Data file : /chem/MSD3.i/s021110.b/s3b1107.d  
 Lab Smp Id: WBN100121-17.4 Client Smp ID: MEGACVS  
 Inj Date : 11-FEB-2010 10:15  
 Operator : JLD1 Inst ID: MSD3.i  
 Smp Info : |WBN100121-17.4|40 PPM|1|SVMF|1|MEGACVS  
 Misc Info : |MSD8270|WBN100205-01|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m  
 Meth Date : 12-Feb-2010 08:04 jen00986 Quant Type: ISTD  
 Cal Date : 29-JAN-2010 22:17 Cal File: s3a2925.d  
 Als bottle: 2 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: MEGAI1.sub  
 Target Version: 3.50  
 Processing Host: hpclp1

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	4.594	4.594	(1.000)	478290	40.0000	
* 29 Naphthalene-d8		136	5.863	5.863	(1.000)	1706089	40.0000	(H)
* 46 Acenaphthene-d10		164	7.727	7.727	(1.000)	936064	40.0000	
* 67 Phenanthrene-d10		188	9.332	9.332	(1.000)	1531177	40.0000	
* 91 Chrysene-d12		240	12.280	12.280	(1.000)	1549732	40.0000	
* 98 Perylene-d12		264	14.476	14.476	(1.000)	1267095	40.0000	
\$ 3 2-Fluorophenol		112	3.446	3.446	(0.750)	449446	40.0000	36.1
\$ 5 Phenol-d5		99	4.227	4.227	(0.920)	551465	40.0000	35.2
\$ 20 Nitrobenzene-d5		82	5.135	5.135	(0.873)	578221	40.0000	45.9
\$ 39 2-Fluorobiphenyl		172	6.989	6.989	(0.904)	953201	40.0000	39.4
\$ 60 2,4,6-Tribromophenol		329	8.576	8.576	(1.110)	74817	40.0000	27.9
\$ 81 p-Terphenyl-d14		244	11.042	11.042	(0.899)	938622	40.0000	35.2
1 N-Methyl-N-nitrosomethylamine		74	2.479	2.479	(0.540)	331566	40.0000	38.1
2 Pyridine		79	2.564	2.564	(0.558)	341848	40.0000	35.1
4 Aniline		66	4.294	4.294	(0.935)	241145	40.0000	33.1
6 Phenol		94	4.239	4.239	(0.923)	606099	40.0000	36.6
7 bis(2-Chloroethyl) ether		63	4.333	4.333	(0.943)	423496	40.0000	32.4
8 2-Chlorophenol		128	4.400	4.400	(0.958)	484257	40.0000	38.6
203 n-Decane		43	4.397	4.397	(0.957)	701143	40.0000	36.8
9 1,3-Dichlorobenzene		146	4.541	4.541	(0.988)	575209	40.0000	39.8
11 1,4-Dichlorobenzene		146	4.609	4.609	(1.003)	584192	40.0000	39.8
13 1,2-Dichlorobenzene		146	4.756	4.756	(1.035)	540194	40.0000	39.3
14 bis(2-Chloroisopropyl) ether		45	4.832	4.832	(1.052)	946089	40.0000	30.5
12 Benzyl alcohol		108	4.723	4.723	(1.028)	306673	40.0000	35.1
15 o-Cresol		107	4.806	4.806	(1.046)	379094	40.0000	35.2
18 m,p-Cresols		107	4.961	4.961	(1.080)	485153	40.0000	34.7

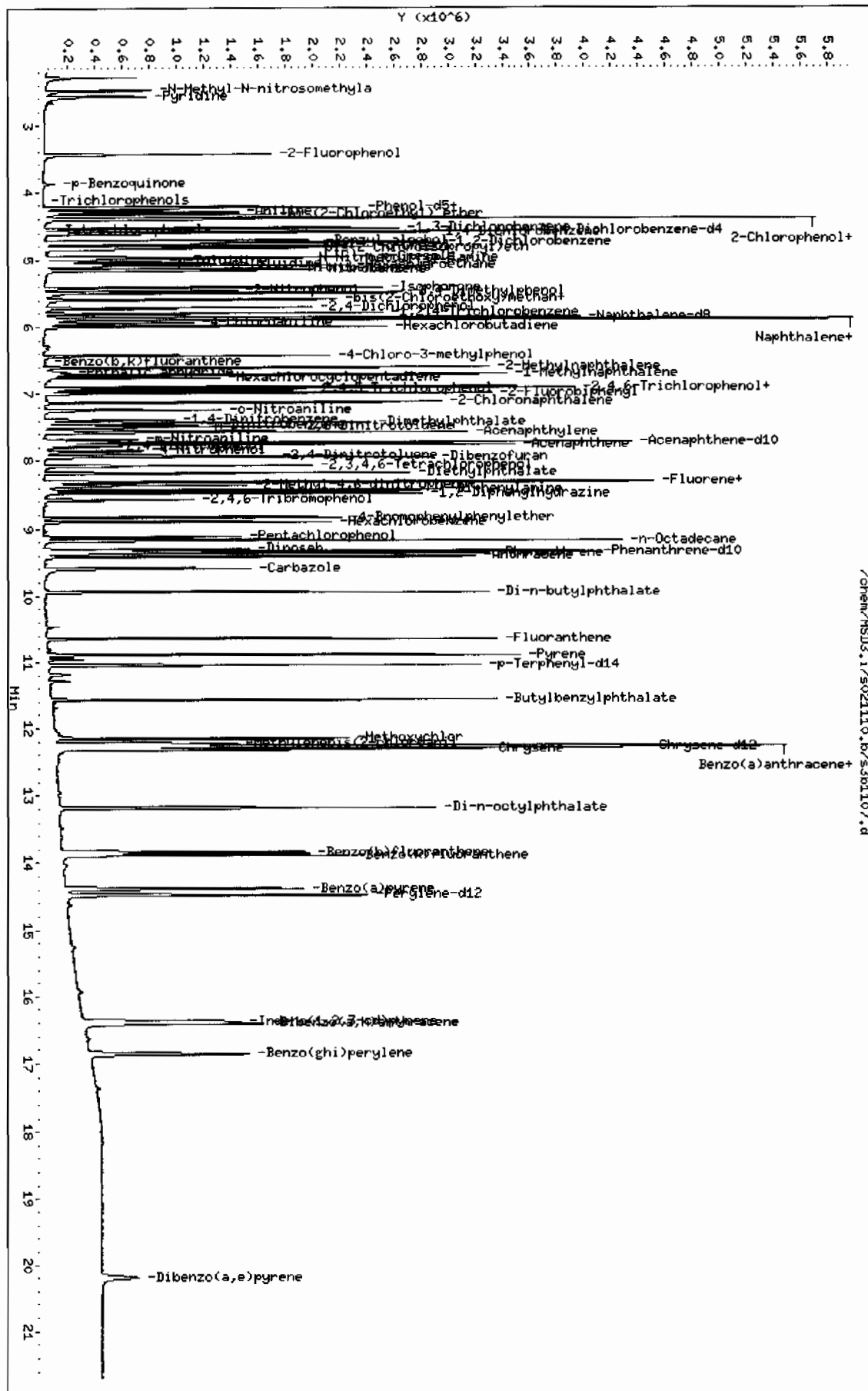
Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.979	4.979	(1.084)	401817	40.0000	37.8
19 Hexachloroethane	117	5.085	5.085	(1.107)	250148	40.0000	39.7
21 Nitrobenzene	77	5.152	5.152	(0.876)	599093	40.0000	45.2
22 Isophorone	82	5.408	5.408	(0.919)	1036778	40.0000	44.1
23 2-Nitrophenol	139	5.466	5.466	(0.929)	215960	40.0000	35.5
24 2,4-Dimethylphenol	122	5.490	5.490	(0.933)	430592	40.0000	41.0
25 bis(2-Chloroethoxy)methane	93	5.593	5.593	(0.951)	565144	40.0000	41.4
26 2,4-Dichlorophenol	162	5.710	5.710	(0.971)	346047	40.0000	39.1
27 Benzoic acid	105	5.593	5.593	(0.951)	152254	40.0000	20.6
28 1,2,4-Trichlorobenzene	180	5.796	5.796	(0.985)	431138	40.0000	43.9
30 Naphthalene	128	5.884	5.884	(1.000)	1351327	40.0000	37.7
204 alpha-Terpineol	59	5.884	5.884	(1.000)	438730	40.0000	37.1
31 4-Chloroaniline	127	5.937	5.937	(1.009)	351283	40.0000	32.4
32 Hexachlorobutadiene	225	5.993	5.993	(1.018)	262881	40.0000	46.9
33 4-Chloro-3-methylphenol	107	6.430	6.430	(1.093)	412861	40.0000	41.2
34 2-Methylnaphthalene	142	6.606	6.606	(1.123)	868540	40.0000	40.3
35 1-Methylnaphthalene	142	6.712	6.712	(1.141)	850595	40.0000	38.9
36 Hexachlorocyclopentadiene	237	6.762	6.762	(0.875)	171679	40.0000	32.2
205 2,3-Dichloroaniline	161	6.909	6.909	(0.894)	432235	40.0000	36.2 (H)
37 2,4,6-Trichlorophenol	196	6.903	6.903	(0.893)	261142	40.0000	38.9
38 2,4,5-Trichlorophenol	196	6.942	6.942	(0.898)	267188	40.0000	36.8
40 2-Chloronaphthalene	162	7.127	7.127	(0.922)	801596	40.0000	36.2
42 o-Nitroaniline	65	7.242	7.242	(0.937)	255800	40.0000	29.4
41 m-Nitroaniline	138	7.685	7.685	(0.995)	121647	40.0000	25.3
43 Dimethylphthalate	163	7.433	7.433	(0.962)	951337	40.0000	37.5
44 2,6-Dinitrotoluene	165	7.497	7.497	(0.970)	215394	40.0000	35.7
50 2,4-Dinitrotoluene	165	7.927	7.927	(1.026)	261003	40.0000	34.8
45 Acenaphthylene	152	7.577	7.577	(0.981)	1310577	40.0000	37.7
47 Acenaphthene	154	7.762	7.762	(1.005)	764933	40.0000	34.5 (H)
48 2,4-Dinitrophenol	184	7.791	7.791	(1.008)	62628	40.0000	23.3
49 Dibenzofuran	168	7.944	7.944	(1.028)	1076541	40.0000	37.9
51 Diethylphthalate	149	8.182	8.182	(1.059)	989823	40.0000	39.2
52 4-Nitrophenol	139	7.856	7.856	(1.017)	110607	40.0000	25.8
53 Fluorene	166	8.315	8.315	(1.076)	904738	40.0000	37.7
54 4-Chlorophenylphenylether	204	8.306	8.306	(1.075)	436071	40.0000	38.6
55 2-Methyl-4,6-dinitrophenol	198	8.365	8.365	(0.896)	179010	40.0000	45.4
56 p-Nitroaniline	138	8.347	8.347	(1.080)	90634	40.0000	20.9
133 Diphenylamine	169	8.435	8.435	(0.904)	678619	40.0000	33.4
58 1,2-Diphenylhydrazine	77	8.479	8.479	(0.909)	1128466	40.0000	37.7
61 4-Bromophenylphenylether	248	8.838	8.838	(0.947)	215840	40.0000	33.1
63 Hexachlorobenzene	284	8.900	8.900	(0.954)	217295	40.0000	32.1
65 Pentachlorophenol	266	9.117	9.117	(0.977)	134715	40.0000	35.1
206 n-Octadecane	57	9.170	9.170	(0.983)	865553	40.0000	34.7
68 Phenanthrene	178	9.359	9.359	(1.003)	1247295	40.0000	37.0
69 Anthracene	178	9.412	9.412	(1.009)	1233373	40.0000	36.7
72 Di-n-butylphthalate	149	9.941	9.941	(1.065)	1640491	40.0000	40.4
76 Fluoranthene	202	10.644	10.644	(1.141)	1357588	40.0000	44.3

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
79 Pyrene	202	10.891	10.891	(0.887)	1429668	40.0000	32.2
85 Butylbenzylphthalate	149	11.569	11.569	(0.942)	761969	40.0000	34.3
89 Benzo(a)anthracene	228	12.262	12.262	(0.999)	1376778	40.0000	38.8
92 Chrysene	228	12.313	12.313	(1.003)	1293745	40.0000	38.8
93 bis(2-Ethylhexyl)phthalate	149	12.254	12.254	(0.998)	1121803	40.0000	36.7
94 Di-n-octylphthalate	149	13.180	13.180	(0.910)	1714424	40.0000	33.4
95 Benzo(b)fluoranthene	252	13.835	13.835	(0.956)	1125391	40.0000	37.8
96 Benzo(k)fluoranthene	252	13.879	13.879	(0.959)	1179750	40.0000	38.2
97 Benzo(a)pyrene	252	14.378	14.378	(0.993)	1061979	40.0000	41.0
99 Indeno(1,2,3-cd)pyrene	276	16.374	16.374	(1.131)	1042518	40.0000	49.3
100 Dibenzo(a,h)anthracene	278	16.407	16.407	(1.133)	865809	40.0000	50.2
101 Benzo(ghi)perylene	276	16.862	16.862	(1.165)	878691	40.0000	50.6
126 m-Dinitrobenzene	168	7.468	7.468	(0.967)	134213	40.0000	31.0
130 2,3,4,6-Tetrachlorophenol	232	8.074	8.074	(1.045)	211106	40.0000	37.1
143 Dinoseb	211	9.306	9.306	(0.997)	196794	40.0000	36.2
173 Carbazole	167	9.585	9.585	(1.027)	812023	40.0000	29.8
184 p-Benzoquinone	54	3.881	3.881	(0.845)	32562	40.0000	29.4
192 Methoxychlor	227	12.153	12.153	(0.990)	819277	40.0000	40.9
211 p-Toluidine	106	5.023	5.023	(1.093)	312002	40.0000	28.6(H)
210 m-Toluidine	106	5.055	5.055	(1.100)	417435	40.0000	26.8
26 Phthalic anhydride	104	6.677	6.677	(1.135)	189240	40.0000	42.3
179 Dibenzo(a,e)pyrene	302	20.195	20.195	(1.395)	277097	40.0000	36.5
214 1,4-Dinitrobenzene	75	7.389	7.389	(0.956)	158702	40.0000	31.6
215 2-Ethoxyethanol	59	2.282	2.282	(0.497)	331618	40.0000	32.6
216 Methylenebis(2-chloroaniline)	231	12.224	12.224	(0.995)	179925	40.0000	43.1
M 225 Trichlorophenols	196				528330	80.0000	75.7
M 226 Tetrachlorophenols	232				211106	40.0000	37.1
M 227 Benzo(b,k)fluoranthene	252				2305141	80.0000	76.1

#### QC Flag Legend

H - Operator selected an alternate compound hit.





Data File: /chem/MSD3.1/s021110.b/s3b1107.d  
 Date: 11-FEB-2010 10:15  
 Client ID: MEGACVS  
 Sample Info: I8B100121-17.4140 PPH11SVF11MEGACVS  
 Column phase: J&M DB-SMS

/chem/MSD3.1/s021110.b/s3b1107.d

Instrument: MSD3.1  
 Operator: JLD1  
 Column diameter: 0.20

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 11-FEB-2010 11:22  
Lab File ID: s3b1109.d Init. Cal. Date(s): 20-JAN-2010 29-JAN-2010  
Analysis Type: Init. Cal. Times: 17:59 22:17  
Lab Sample ID: WBN100120-08.4 Quant Type: ISTD  
Method: /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	1.00310	0.73531	0.73531	0.000	-26.69628	60.00000	Averaged
16 Acetophenone	1.32216	1.11345	1.11345	0.000	-15.78517	60.00000	Averaged
189 Caprolactam	0.08576	0.08235	0.08235	0.000	-3.97088	60.00000	Averaged
208 1,1'-Biphenyl	1.21038	1.02986	1.02986	0.000	-14.91483	60.00000	Averaged
207 Atrazine	0.04628	0.04205	0.04205	0.000	-9.13034	60.00000	Averaged
77 Benzidine	17.98906	40.00000	0.11297	0.000	-55.02735	60.00000	Linear
90 3,3'-Dichlorobenzidine	33.47311	40.00000	0.22493	0.000	-16.31723	60.00000	Linear
102 1,4-Dioxane	0.37050	0.40007	0.40007	0.000	7.98135	60.00000	Averaged
103 Methyl methacrylate	0.21351	0.22194	0.22194	0.000	3.95140	60.00000	Averaged
104 Ethyl methacrylate	0.89246	0.97928	0.97928	0.000	9.72913	60.00000	Averaged
105 2-Picoline	1.30074	1.12601	1.12601	0.000	-13.43316	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.57807	0.46636	0.46636	0.000	-19.32474	60.00000	Averaged
107 Methyl methanesulfonate	0.60378	0.54558	0.54558	0.000	-9.63922	60.00000	Averaged
108 N-Nitrosodiethylamine	0.58167	0.47584	0.47584	0.000	-18.19402	60.00000	Averaged
109 Ethyl Methanesulfonate	0.74637	0.77245	0.77245	0.000	3.49472	60.00000	Averaged
110 Pentachloroethane	0.32905	0.40244	0.40244	0.000	22.30400	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.60059	0.46342	0.46342	0.000	-22.83927	60.00000	Averaged
113 N-Nitrosomorpholine	0.98604	0.70965	0.70965	0.000	-28.03106	60.00000	Averaged
114 o-Toluidine	1.80736	1.49395	1.49395	0.000	-17.34060	60.00000	Averaged
115 N-Nitrosopiperidine	0.15108	0.13171	0.13171	0.000	-12.82150	60.00000	Averaged
116 a,a-Dimethylphenethylamine	1.11880	0.69647	0.69647	0.000	-37.74913	60.00000	Averaged
118 2,6-Dichlorophenol	0.21531	0.19006	0.19006	0.000	-11.72778	60.00000	Averaged
119 Hexachloropropene	0.11708	0.17035	0.17035	0.000	45.49860	60.00000	Averaged
120 p-Phenylenediamine	0.24808	0.10747	0.10747	0.000	-56.68041	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.23566	0.20149	0.20149	0.000	-14.50096	60.00000	Averaged
122 Safrole	0.19323	0.19539	0.19539	0.000	1.11790	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42534	0.41161	0.41161	0.000	-3.22887	60.00000	Averaged
124 Isosafrole	0.35652	0.35735	0.35735	0.000	0.23130	60.00000	Averaged
125 1,4-Naphthoquinone	0.33545	0.25317	0.25317	0.000	-24.52786	60.00000	Averaged
127 Pentachlorobenzene	0.37060	0.31661	0.31661	0.000	-14.56899	60.00000	Averaged
128 1-Naphthylamine	0.91242	0.71241	0.71241	0.000	-21.92030	60.00000	Averaged
129 2-Naphthylamine	1.00263	0.73421	0.73421	0.000	-26.77113	60.00000	Averaged
131 5-Nitro-o-toluidine	0.29533	0.20596	0.20596	0.000	-30.26215	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.14894	0.18649	0.18649	0.000	25.21627	60.00000	Averaged
137 Phenacetin	0.33125	0.25801	0.25801	0.000	-22.11143	60.00000	Averaged
138 Diallate	0.31820	0.25742	0.25742	0.000	-19.09967	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD3.i Injection Date: 11-FEB-2010 11:22  
Lab File ID: s3b1109.d Init. Cal. Date(s): 20-JAN-2010 29-JAN-2010  
Analysis Type: Init. Cal. Times: 17:59 22:17  
Lab Sample ID: WBN100120-08.4 Quant Type: ISTD  
Method: /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX RRF	%D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.63580	0.38821	0.38821	0.000	-38.94233	60.00000		Averaged
141 Pentachloronitrobenzene	0.07853	0.07223	0.07223	0.000	-8.02236	60.00000		Averaged
142 Pronamide	0.29619	0.26993	0.26993	0.000	-8.86662	60.00000		Averaged
146 4-Nitroquinoline-1-oxide	0.03387	0.01839	0.01839	0.000	-45.69872	60.00000		Averaged
147 Methapyrilene	0.52598	0.42646	0.42646	0.000	-18.91937	60.00000		Averaged
148 Isodrin	0.11094	0.09230	0.09230	0.000	-16.79972	60.00000		Averaged
149 Aramite	0.04585	0.04003	0.04003	0.000	-12.69372	60.00000		Averaged
150 Kepone	0.06767	0.05001	0.05001	0.000	-26.08797	60.00000		Averaged
151 p-(Dimethylamino)azobenzene	0.39647	0.28615	0.28615	0.000	-27.82505	60.00000		Averaged
152 Chlorobenzilate	0.32229	0.24821	0.24821	0.000	-22.98780	60.00000		Averaged
153 3,3'-Dimethylbenzidine	0.51678	0.33989	0.33989	0.000	-34.22992	60.00000		Averaged
155 2-Acetylaminofluorene	35.74600	40.00000	0.27594	0.000	-10.63499	60.00000		Linear
157 7,12Dimethylbenz(a)anthracene	0.53008	0.41513	0.41513	0.000	-21.68539	60.00000		Averaged
158 3-Methylcholanthrene	0.38427	0.37076	0.37076	0.000	-3.51523	60.00000		Averaged
212 Cis Diallate	0.33782	0.33957	0.33957	0.000	0.51917	60.00000		Averaged
213 Trans Diallate	0.37435	0.30285	0.30285	0.000	-19.09967	60.00000		Averaged

GEL Laboratories LLC

Data file : /chem/MSD3.i/s021110.b/s3b1109.d  
 Lab Smp Id: WBN100120-08.4 Client Smp ID: APCVS  
 Inj Date : 11-FEB-2010 11:22  
 Operator : JLD1 Inst ID: MSD3.i  
 Smp Info : |WBN100120-08.4|40 PPM|1|SVMF|1|APCVS  
 Misc Info : |MSD8270|WBN100205-01|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m  
 Meth Date : 11-Feb-2010 12:29 jen00986 Quant Type: ISTD  
 Cal Date : 29-JAN-2010 22:17 Cal File: s3a2925.d  
 Als bottle: 4 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	4.592	4.592	(1.000)	671630	40.0000	
* 29 Naphthalene-d8	136	5.860	5.860	(1.000)	2411324	40.0000	
* 46 Acenaphthene-d10	164	7.722	7.722	(1.000)	1410733	40.0000	
* 67 Phenanthrene-d10	188	9.334	9.334	(1.000)	2359593	40.0000	
* 91 Chrysene-d12	240	12.276	12.276	(1.000)	2242420	40.0000	
* 98 Perylene-d12	264	14.475	14.475	(1.000)	1728794	40.0000	
209 Benzaldehyde	77	4.204	4.204	(0.916)	493854	40.0000	29.3
16 Acetophenone	105	4.982	4.982	(1.085)	747827	40.0000	33.7
189 Caprolactam	113	6.362	6.362	(1.086)	198581	40.0000	38.4
208 1,1'-Biphenyl	154	7.100	7.100	(0.919)	1452851	40.0000	34.0
207 Atrazine	173	9.019	9.019	(0.966)	99228	40.0000	36.3
77 Benzidine	184	10.790	10.790	(0.879)	253332	40.0000	18.0
90 3,3'-Dichlorobenzidine	252	12.220	12.220	(0.995)	504378	40.0000	33.5
102 1,4-Dioxane	88	2.282	2.282	(0.497)	268697	40.0000	43.2 (H)
103 Methyl methacrylate	100	2.273	2.273	(0.495)	149063	40.0000	41.6 (H)
104 Ethyl methacrylate	69	2.772	2.772	(0.604)	657716	40.0000	43.9
105 2-Picoline	93	3.083	3.083	(0.671)	756261	40.0000	34.6
106 N-Nitrosomethylethylamine	88	3.107	3.107	(0.677)	313221	40.0000	32.3
107 Methyl methanesulfonate	80	3.333	3.333	(0.726)	366429	40.0000	36.1
108 N-Nitrosodiethylamine	102	3.655	3.655	(0.796)	319590	40.0000	32.7
109 Ethyl Methanesulfonate	79	3.893	3.893	(0.848)	518803	40.0000	41.4
110 Pentachloroethane	167	4.333	4.333	(0.944)	270288	40.0000	48.9
111 N-Nitrosopyrrolidine	100	4.979	4.979	(1.084)	311246	40.0000	30.9 (Q)
113 N-Nitrosomorpholine	56	5.006	5.006	(1.090)	476619	40.0000	28.8
114 o-Toluidine	106	5.014	5.014	(1.092)	1003383	40.0000	33.1
115 N-Nitrosopiperidine	114	5.311	5.311	(0.906)	317600	40.0000	34.9

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	=====	=====	=====	=====	=====	=====
116 a,a-Dimethylphenethylamine	58	5.716	5.716	(0.975)	1679403	40.0000	24.9
118 2,6-Dichlorophenol	162	5.942	5.942	(1.014)	458298	40.0000	35.3
119 Hexachloropropene	213	5.966	5.966	(1.018)	410774	40.0000	58.2
120 p-Phenylenediamine	108	6.321	6.321	(1.079)	259135	40.0000	17.3
121 N-Nitrosodi-n-butylamine	84	6.277	6.277	(1.071)	485859	40.0000	34.2 (Q)
122 Safrole	162	6.503	6.503	(1.110)	471139	40.0000	40.4 (H)
123 1,2,4,5-Tetrachlorobenzene	216	6.776	6.776	(0.878)	580671	40.0000	38.7
124 Isosafrole	162	7.058	7.058	(0.914)	504123	40.0000	40.1 (H)
125 1,4-Naphthoquinone	158	7.326	7.326	(0.949)	357152	40.0000	30.2
127 Pentachlorobenzene	250	7.893	7.893	(1.022)	446653	40.0000	34.2 (H)
128 1-Naphthylamine	143	8.034	8.034	(1.040)	1005023	40.0000	31.2
129 2-Naphthylamine	143	8.119	8.119	(1.051)	1035777	40.0000	29.3
131 5-Nitro-o-toluidine	152	8.328	8.328	(1.078)	290548	40.0000	27.9
136 1,3,5-Trinitrobenzene	75	8.719	8.719	(0.934)	440044	40.0000	50.1 (H)
137 Phenacetin	108	8.780	8.780	(0.941)	608795	40.0000	31.2 (Q)
138 Diallate	86	8.736	8.736	(0.936)	607411	40.0000	32.4
140 4-Aminobiphenyl	169	9.125	9.125	(0.978)	916008	40.0000	24.4
141 Pentachloronitrobenzene	237	9.125	9.125	(0.978)	170423	40.0000	36.8 (QH)
142 Pronamide	173	9.175	9.175	(0.983)	636924	40.0000	36.4
146 4-Nitroquinoline-1-oxide	101	10.201	10.201	(1.093)	43402	40.0000	21.7 (H)
147 Methapyrilene	58	10.260	10.260	(1.099)	1006283	40.0000	32.4
148 Isodrin	193	10.475	10.475	(1.122)	217792	40.0000	33.3 (H)
149 Aramite	185	11.011	11.011	(1.180)	94454	40.0000	34.9
150 Kepone	272	11.627	11.627	(1.246)	118014	40.0000	29.6 (H)
151 p-(Dimethylamino)azobenzene	120	11.193	11.193	(0.912)	641677	40.0000	28.9
152 Chlorobenzilate	251	11.238	11.238	(0.915)	556582	40.0000	30.8
153 3,3'-Dimethylbenzidine	212	11.565	11.565	(0.942)	762173	40.0000	26.3 (H)
155 2-Acetylaminofluorene	181	11.869	11.869	(0.967)	618767	40.0000	35.7
157 7,12Dimethylbenz(a)anthracene	256	13.812	13.812	(0.954)	717675	40.0000	31.3 (H)
158 3-Methylcholanthrene	268	14.974	14.974	(1.034)	640963	40.0000	38.6 (QH)
212 Cis Diallate	86	8.836	8.836	(0.947)	120188	6.00000	6.0
213 Trans Diallate	86	8.736	8.736	(0.936)	607411	34.0000	27.5

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.  
H - Operator selected an alternate compound hit.

Data File: /chem/MSD3.1/s021110.b/s3b1109.d

Date : 11-FEB-2010 11:22

Client ID: APCVS

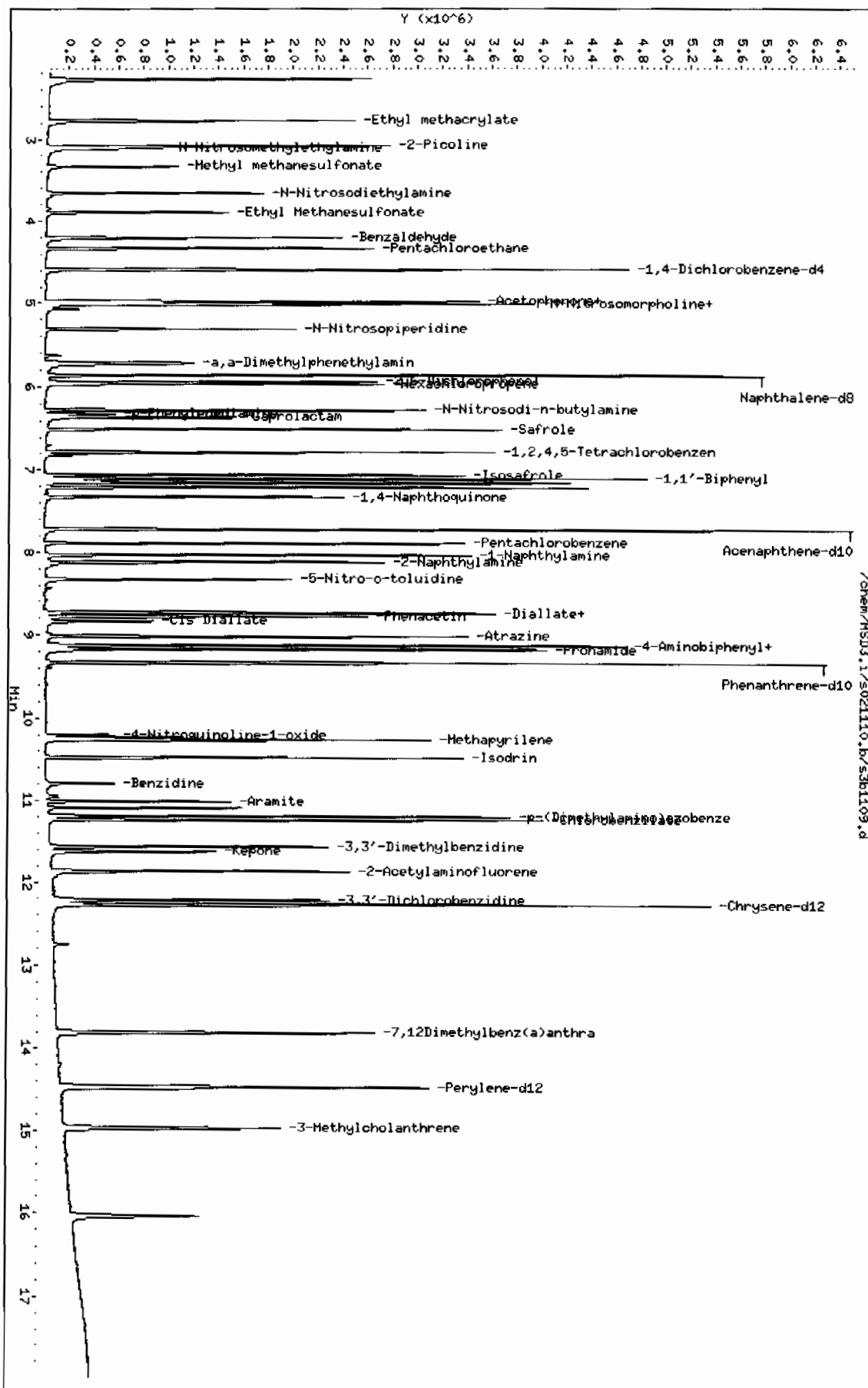
Sample Info: IMB100120-08.4140 PPH11SVNF11APCVS

Column phase: J&W DB-5MS

Instrument: MSD3.1

Operator: JLD1

Column diameter: 0.20



# QC Data

Data File: /chem/MSD1.i/s012210.b/s1a2201.d

Page 1

Date : 22-JAN-2010 13:28

Client ID: DFTPP

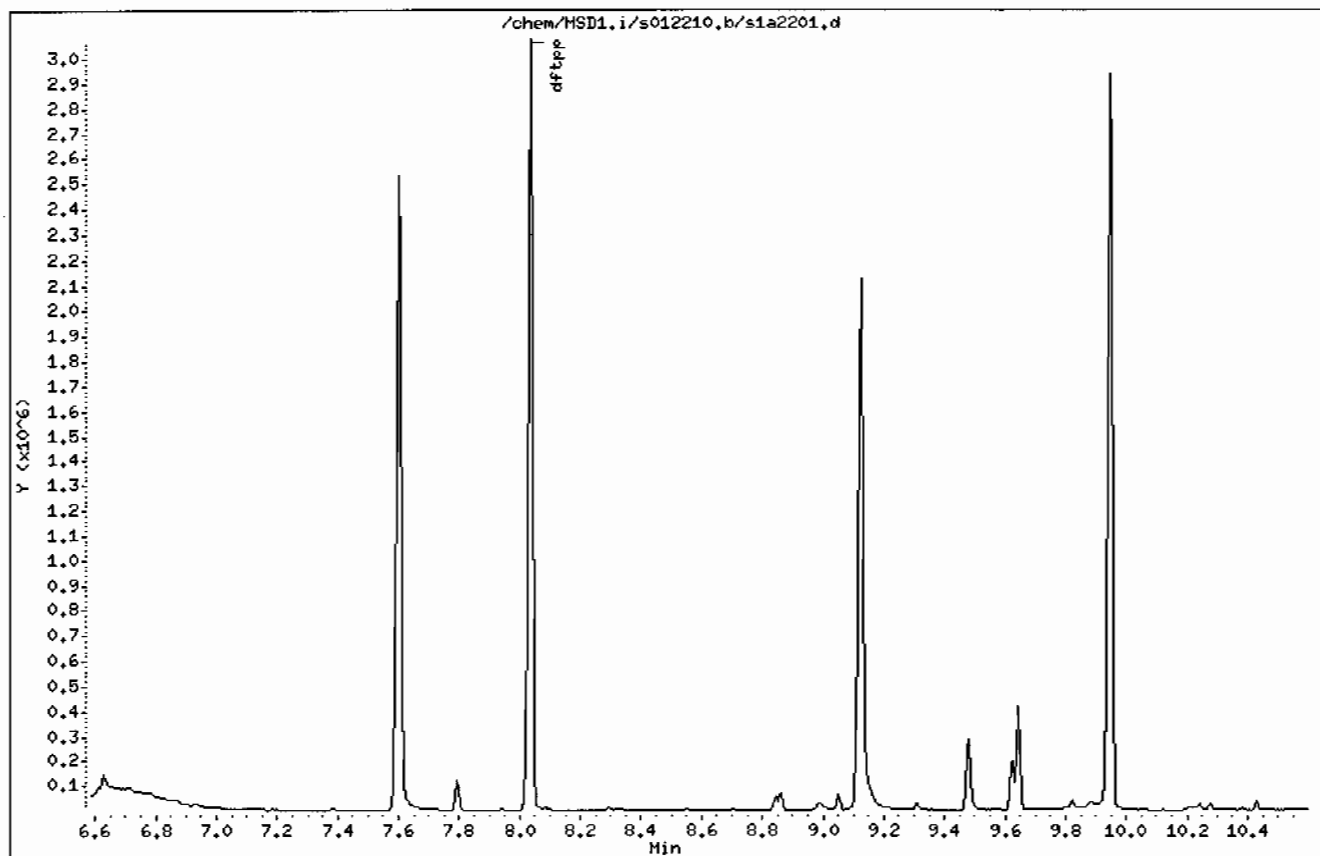
Instrument: MSD1.i

Sample Info: IWBNO91213-01150 PPM111SVMF111DFTPP

Operator: AHY

Column phase: J&W DB-5MS

Column diameter: 0.20





Date : 22-JAN-2010 13:28

Client ID: DFTPP

Instrument: HSD1.i

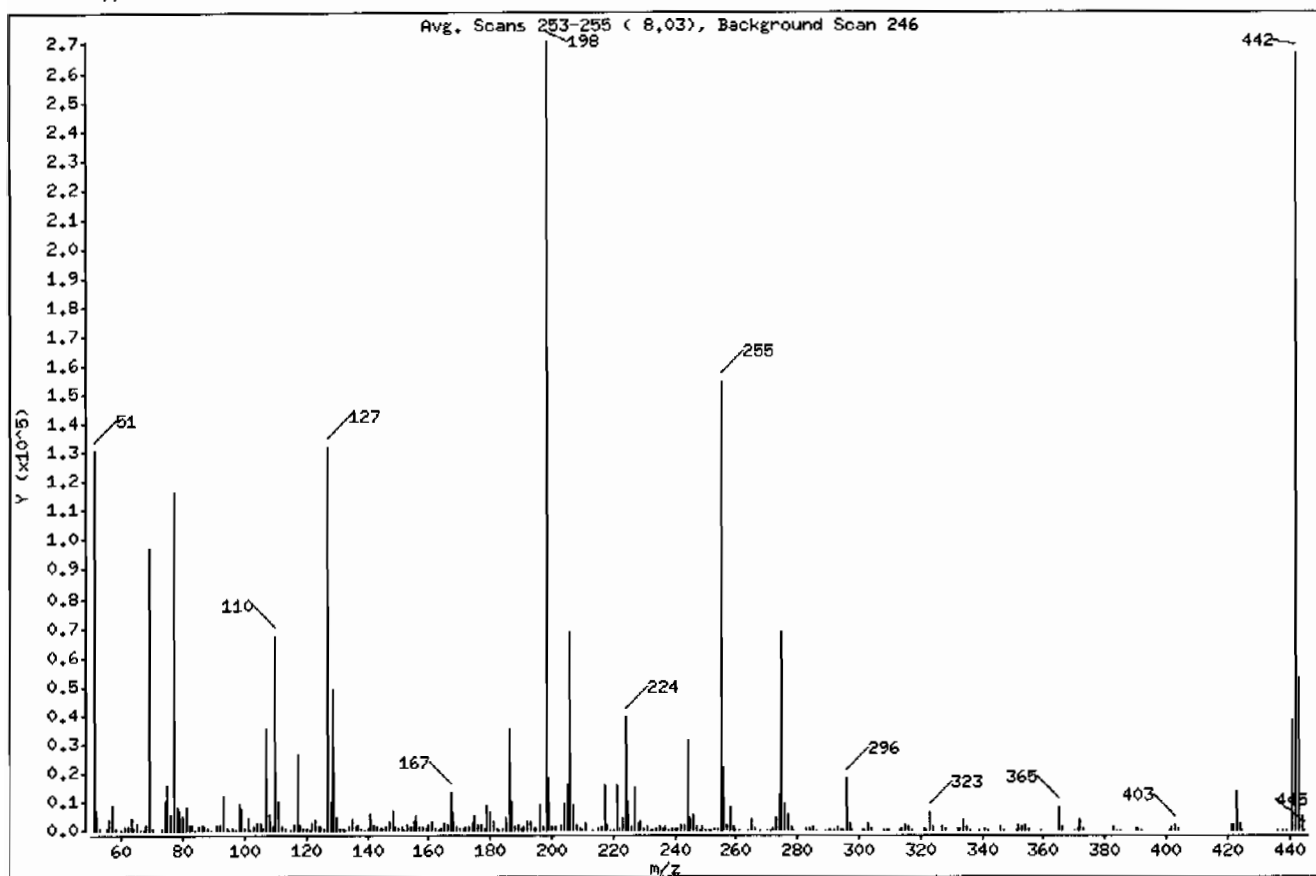
Sample Info: INBN091213-01150 PPH11SVMF111DFTPP

Operator: AMY

Column phase: J&amp;W DB-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	48.30
68	Less than 2.00% of mass 69	0.58 ( 1.61)
69	Mass 69 relative abundance	35.90
70	Less than 2.00% of mass 69	0.17 ( 0.48)
127	40.00 - 60.00% of mass 198	48.74
197	Less than 1.00% of mass 198	0.42
199	5.00 - 9.00% of mass 198	6.75
275	10.00 - 30.00% of mass 198	25.31
365	Greater than 1.00% of mass 198	3.03
441	Present, but less than mass 443	14.30
442	Greater than 40.00% of mass 198	98.45
443	17.00 - 23.00% of mass 442	19.46 ( 19.77)

Date : 22-JAN-2010 13:28

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: INBN091213-01150 PPH11SVNF11IDFTPP

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s1a2201.d

Spectrum: Avg. Scans 253-255 ( 8.03), Background Scan 246

Location of Maximum: 198.00

Number of points: 293

m/z	Y	m/z	Y	m/z	Y	m/z	Y
-----							
51.00	130840	131.00	706	206.00	68632	291.00	73
52.00	6776	132.00	509	207.00	8431	292.00	263
53.00	320	133.00	210	208.00	2130	293.00	1336
55.00	443	134.00	1321	209.00	727	294.00	281
56.00	3606	135.00	3897	210.00	281	295.00	184
-----							
57.00	8610	136.00	1548	211.00	2715	296.00	18008
58.00	387	137.00	1963	213.00	140	297.00	2490
60.00	185	138.00	512	215.00	686	298.00	113
61.00	1523	139.00	272	216.00	1284	301.00	265
62.00	1544	140.00	575	217.00	15824	302.00	269
-----							
63.00	4326	141.00	5916	218.00	2148	303.00	2198
64.00	586	142.00	1874	219.00	259	304.00	595
65.00	2303	143.00	1289	220.00	131	308.00	241
66.00	117	144.00	364	221.00	15760	309.00	154
67.00	231	145.00	358	222.00	886	310.00	253
-----							
68.00	1569	146.00	1180	223.00	4057	313.00	50
69.00	97264	147.00	3047	224.00	39064	314.00	866
70.00	468	148.00	6902	225.00	9797	315.00	1970
73.00	793	149.00	1388	226.00	956	316.00	1148
74.00	9765	150.00	404	227.00	15204	317.00	155
-----							
75.00	15418	151.00	992	228.00	2221	321.00	646
76.00	5542	152.00	142	229.00	3228	322.00	278
77.00	116616	153.00	1835	230.00	469	323.00	6371
78.00	8229	154.00	1476	231.00	1355	324.00	1186
79.00	6897	155.00	3291	232.00	212	327.00	1129
-----							
80.00	5255	156.00	5087	233.00	253	328.00	626
81.00	7787	157.00	1051	234.00	909	332.00	482
82.00	2036	158.00	1113	235.00	1109	333.00	602
83.00	1825	159.00	845	236.00	814	334.00	3895
84.00	125	160.00	1948	237.00	1225	335.00	1130
-----							
85.00	1269	161.00	2929	238.00	214	336.00	109
86.00	2080	162.00	852	239.00	584	339.00	52
87.00	1007	163.00	221	240.00	401	341.00	748
88.00	414	164.00	394	241.00	884	342.00	152
89.00	184	165.00	2325	242.00	1949	346.00	1372

Date : 22-JAN-2010 13:28

Client ID: DFTPP

Instrument: HSD1.i

Sample Info: INBN091213-01150 PPH11SVHF11DFTPP

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s1a2201.d

Spectrum: Avg. Scans 253-255 ( 8.03), Background Scan 246

Location of Maximum: 198.00

Number of points: 293

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	1689	166.00	1891	243.00	2132	347.00	237
92.00	1805	167.00	13287	244.00	31392	351.00	54
93.00	11559	168.00	6172	245.00	4076	352.00	1895
94.00	855	169.00	1126	246.00	5397	353.00	1390
95.00	256	170.00	451	247.00	1256	354.00	2134
96.00	670	171.00	522	248.00	272	355.00	352
97.00	254	172.00	1136	249.00	1048	359.00	129
98.00	9351	173.00	1468	250.00	245	365.00	8203
99.00	7250	174.00	2597	251.00	261	366.00	1276
100.00	711	175.00	4976	252.00	307	370.00	146
101.00	4367	176.00	1578	253.00	635	371.00	528
102.00	208	177.00	2145	254.00	925	372.00	3583
103.00	1486	178.00	693	255.00	154240	373.00	917
104.00	2721	179.00	8749	256.00	22104	383.00	949
105.00	2512	180.00	6263	257.00	1667	384.00	252
106.00	851	181.00	2934	258.00	8214	385.00	52
107.00	35624	182.00	476	259.00	1286	390.00	431
108.00	5593	183.00	294	260.00	262	391.00	379
109.00	969	184.00	754	261.00	207	392.00	241
110.00	67552	185.00	4276	264.00	294	401.00	128
111.00	9950	186.00	35584	265.00	3453	402.00	1401
112.00	1261	187.00	10024	266.00	404	403.00	1995
113.00	367	188.00	963	268.00	50	404.00	738
115.00	189	189.00	2070	270.00	158	421.00	1981
116.00	1811	190.00	381	271.00	299	422.00	1855
117.00	26168	191.00	1048	272.00	473	423.00	13496
118.00	1983	192.00	2962	273.00	4487	424.00	2654
119.00	321	193.00	3343	274.00	12282	425.00	253
120.00	485	194.00	775	275.00	68576	436.00	50
121.00	124	195.00	465	276.00	9076	438.00	149
122.00	2208	196.00	8456	277.00	5760	439.00	52
123.00	3504	197.00	1147	278.00	941	441.00	38744
124.00	1503	198.00	270912	279.00	177	442.00	266688
125.00	1494	199.00	18296	283.00	610	443.00	52728
126.00	494	200.00	1463	284.00	412	444.00	5090

Date : 22-JAN-2010 13:28

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBNO91213-01150 PPH11SVHF11/DFTPP

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s1a2201.d

Spectrum: Avg. Scans 253-255 ( 8.03), Background Scan 246

Location of Maximum: 198.00

Number of points: 293

m/z	Y	m/z	Y	m/z	Y	m/z	Y
127.00	132032	201.00	1301	285.00	966	445.00	222
128.00	9861	203.00	1656	286.00	197		
129.00	49280	204.00	9303	289.00	181		
130.00	4136	205.00	15663	290.00	211		

Data File: /chem/MSD3.i/s012010a,b/s3a2013.d

Page 1

Date : 20-JAN-2010 17:17

Client ID: DFTPP

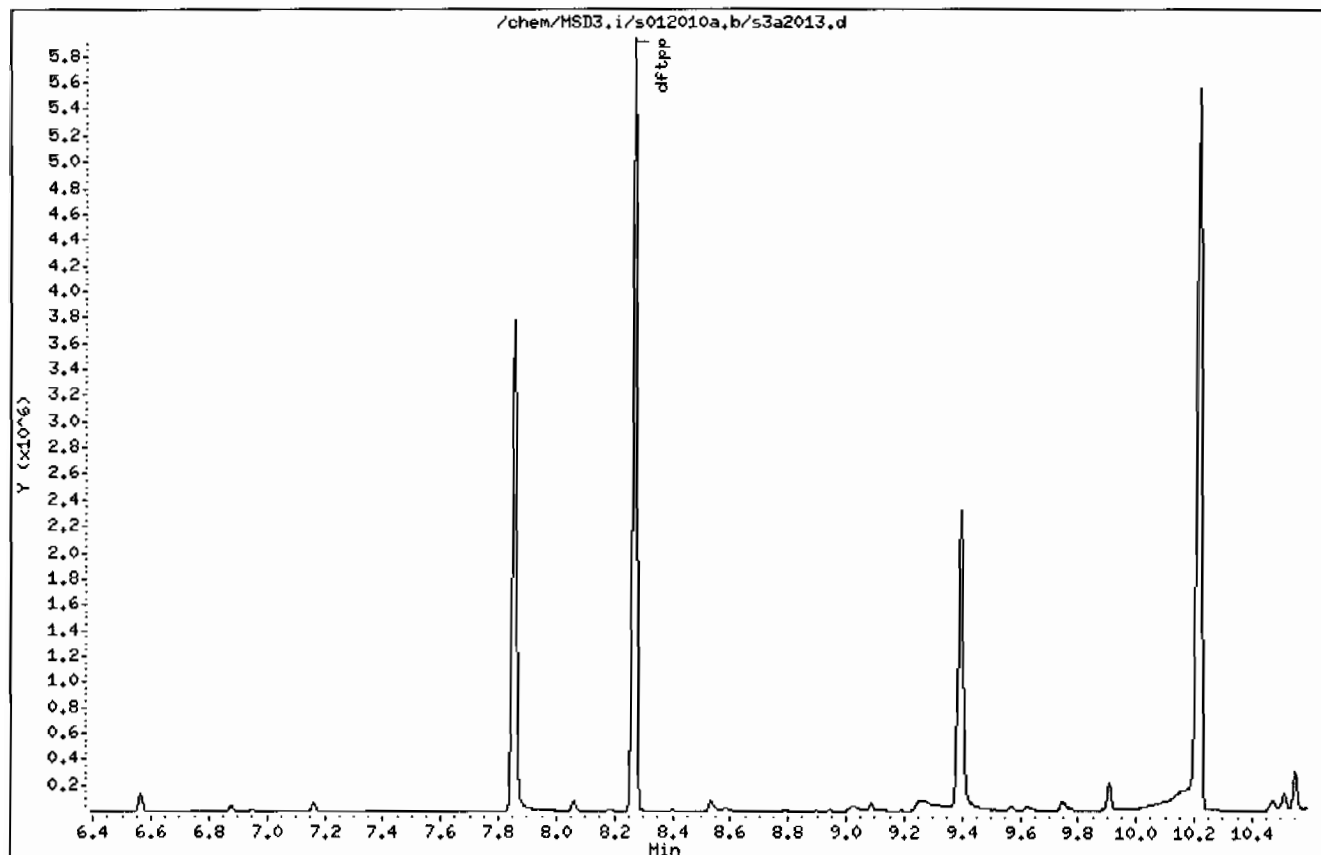
Instrument: MSD3.i

Sample Info: IWBNI00107-01IDFTPP11ISVMI11IDFTPP1

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0,20



Date : 20-JAN-2010 17:17

Client ID: DFTPP

Instrument: HSD3.i

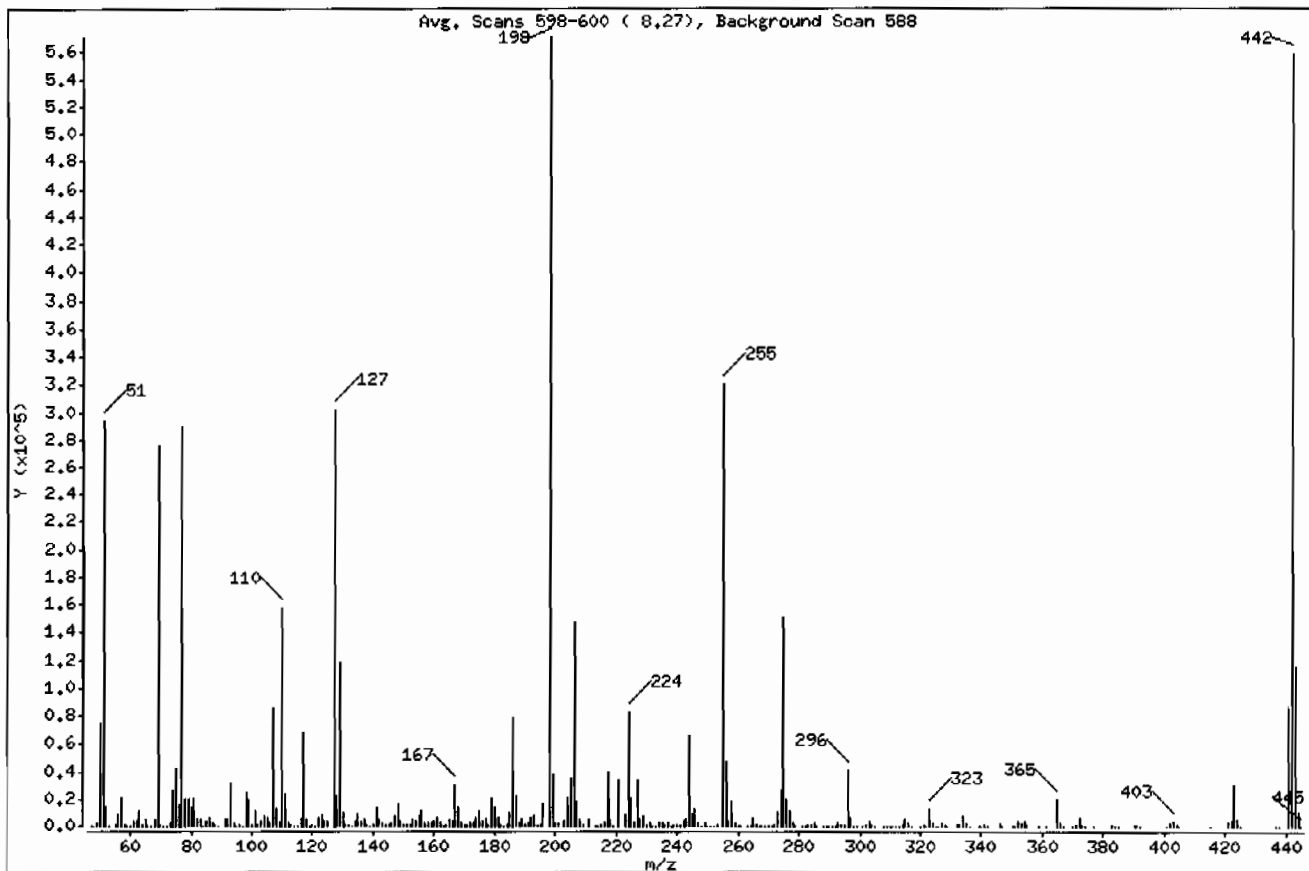
Sample Info: IWBNI00107-01|DFTPP|1|SVM|1|DFTPP|

Operator: JLD1

Column phase: J&amp;W DB-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	51.61
68	Less than 2.00% of mass 69	0.89 ( 1.85)
69	Mass 69 relative abundance	48.28
70	Less than 2.00% of mass 69	0.24 ( 0.49)
127	40.00 - 60.00% of mass 198	52.97
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.71
275	10.00 - 30.00% of mass 198	26.39
365	Greater than 1.00% of mass 198	3.48
441	Present, but less than mass 443	14.91
442	Greater than 40.00% of mass 198	97.96
443	17.00 - 23.00% of mass 442	20.16 ( 20.58)

Date : 20-JAN-2010 17:17

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: IWBNI00107-01|DFTPP1|SVH11|DFTPP1

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s3a2013.d

Spectrum: Avg. Scans 598-600 ( 8.27), Background Scan 588

Location of Maximum: 198.00

Number of points: 317

m/z	Y	m/z	Y	m/z	Y	m/z	Y
-----							
47.00	71	130.00	10080	214.00	173	301.00	490
48.00	215	131.00	1922	215.00	1657	302.00	731
49.00	1992	132.00	1040	216.00	3255	303.00	4594
50.00	74976	133.00	396	217.00	38984	304.00	1332
51.00	294720	134.00	3380	218.00	4866	305.00	157
-----							
52.00	14845	135.00	9473	219.00	515	308.00	596
53.00	653	136.00	3795	221.00	33936	309.00	359
55.00	1342	137.00	4700	223.00	8682	310.00	471
56.00	9017	138.00	1054	224.00	82472	311.00	77
57.00	20728	139.00	626	225.00	21400	312.00	75
-----							
58.00	925	140.00	1431	226.00	2177	313.00	319
59.00	258	141.00	14888	227.00	34304	314.00	1886
60.00	180	142.00	4915	228.00	4806	315.00	4776
61.00	3855	143.00	3193	229.00	7275	316.00	2628
62.00	4152	144.00	888	230.00	959	317.00	508
-----							
63.00	11447	145.00	759	231.00	3027	320.00	140
64.00	1645	146.00	2722	232.00	642	321.00	1328
65.00	5508	147.00	7667	233.00	641	322.00	621
66.00	373	148.00	17112	234.00	2259	323.00	13004
67.00	401	149.00	3399	235.00	2452	324.00	2330
-----							
68.00	5108	150.00	1015	236.00	1606	325.00	228
69.00	275712	151.00	1867	237.00	2669	326.00	281
70.00	1360	152.00	1209	238.00	408	327.00	2511
71.00	126	153.00	4709	239.00	1373	328.00	1262
72.00	92	154.00	3367	240.00	1044	329.00	201
-----							
73.00	2123	155.00	8100	241.00	1937	332.00	958
74.00	26656	156.00	12062	242.00	4382	333.00	1303
75.00	42640	157.00	2327	243.00	4685	334.00	8529
76.00	15152	158.00	2803	244.00	65856	335.00	2354
77.00	290112	159.00	2124	245.00	8735	336.00	285
-----							
78.00	20048	160.00	4463	246.00	12559	339.00	180
79.00	19176	161.00	6742	247.00	2716	340.00	192
80.00	14978	162.00	1977	248.00	586	341.00	1630
81.00	21032	163.00	552	249.00	2429	342.00	424
82.00	5241	164.00	785	250.00	440	346.00	3171

Date : 20-JAN-2010 17:17

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: IWBH100107-01IDFTPP11SVH11IDFTPP1

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s3a2013.d

Spectrum: Avg. Scans 598-600 ( 8.27), Background Scan 588

Location of Maximum: 198.00

Number of points: 317

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	4854	165.00	5288	251.00	493	347.00	557
84.00	419	166.00	4276	252.00	604	350.00	127
85.00	3785	167.00	29592	253.00	1354	351.00	248
86.00	6173	168.00	13942	255.00	319808	352.00	3954
87.00	2798	169.00	2462	256.00	47472	353.00	2730
88.00	1095	170.00	1019	257.00	3415	354.00	4049
89.00	472	171.00	1253	258.00	18800	355.00	813
91.00	4699	172.00	2641	259.00	2905	359.00	249
92.00	5188	173.00	3263	260.00	441	361.00	68
93.00	31992	174.00	6267	261.00	543	365.00	19880
94.00	2223	175.00	11398	263.00	185	366.00	3135
95.00	515	176.00	3378	264.00	460	367.00	191
96.00	1464	177.00	5542	265.00	7188	370.00	406
97.00	609	178.00	1755	266.00	1380	371.00	1007
98.00	24728	179.00	21648	267.00	143	372.00	7125
99.00	19224	180.00	14476	268.00	157	373.00	1815
100.00	1766	181.00	6936	269.00	33	374.00	114
101.00	11457	182.00	1104	270.00	428	377.00	170
102.00	667	183.00	598	271.00	542	383.00	1878
103.00	4115	184.00	1734	272.00	880	384.00	495
104.00	7470	185.00	10368	273.00	9910	385.00	155
105.00	6606	186.00	78664	274.00	25968	390.00	921
106.00	2421	187.00	22736	275.00	150720	391.00	700
107.00	85448	188.00	2180	276.00	19760	392.00	528
108.00	13681	189.00	4878	277.00	11944	401.00	477
109.00	2749	190.00	775	278.00	2043	402.00	2667
110.00	156928	191.00	2381	279.00	417	403.00	3854
111.00	23736	192.00	7053	281.00	157	404.00	1417
112.00	3017	193.00	7872	282.00	276	405.00	208
113.00	950	194.00	1545	283.00	1456	415.00	192
114.00	218	195.00	941	284.00	958	421.00	3844
115.00	308	196.00	17480	285.00	2218	422.00	3784
116.00	4903	198.00	571136	286.00	378	423.00	29736
117.00	68016	199.00	38344	288.00	138	424.00	5833
118.00	4862	200.00	3066	289.00	459	425.00	528



Date : 20-JAN-2010 17:17

Client ID: DFTPP

Instrument: MSD3.i

Sample Info: INBN100107-01|DFTPP11|SVM11|DFTPP1

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

Data File: s3a2013.d

Spectrum: Avg. Scans 598-600 ( 8,27), Background Scan 588

Location of Maximum: 198,00

Number of points: 317

m/z	Y	m/z	Y	m/z	Y	m/z	Y
119,00	619	201,00	2806	290,00	427	437,00	75
120,00	1124	203,00	3981	291,00	255	438,00	34
121,00	421	204,00	20728	292,00	552	441,00	85168
122,00	5938	205,00	35552	293,00	2690	442,00	559488
123,00	8803	206,00	147008	294,00	703	443,00	115120
124,00	4068	207,00	18872	295,00	963	444,00	10969
125,00	3625	208,00	4964	296,00	41336	445,00	603
127,00	302528	209,00	1534	297,00	5911		
128,00	22944	211,00	5840	298,00	340		
129,00	118808	213,00	416	299,00	70		

Data File: /chem/MSD1.i/s012810.b/s1a2808.d

Page 1

Date : 28-JAN-2010 17:48

Client ID: DFTPP

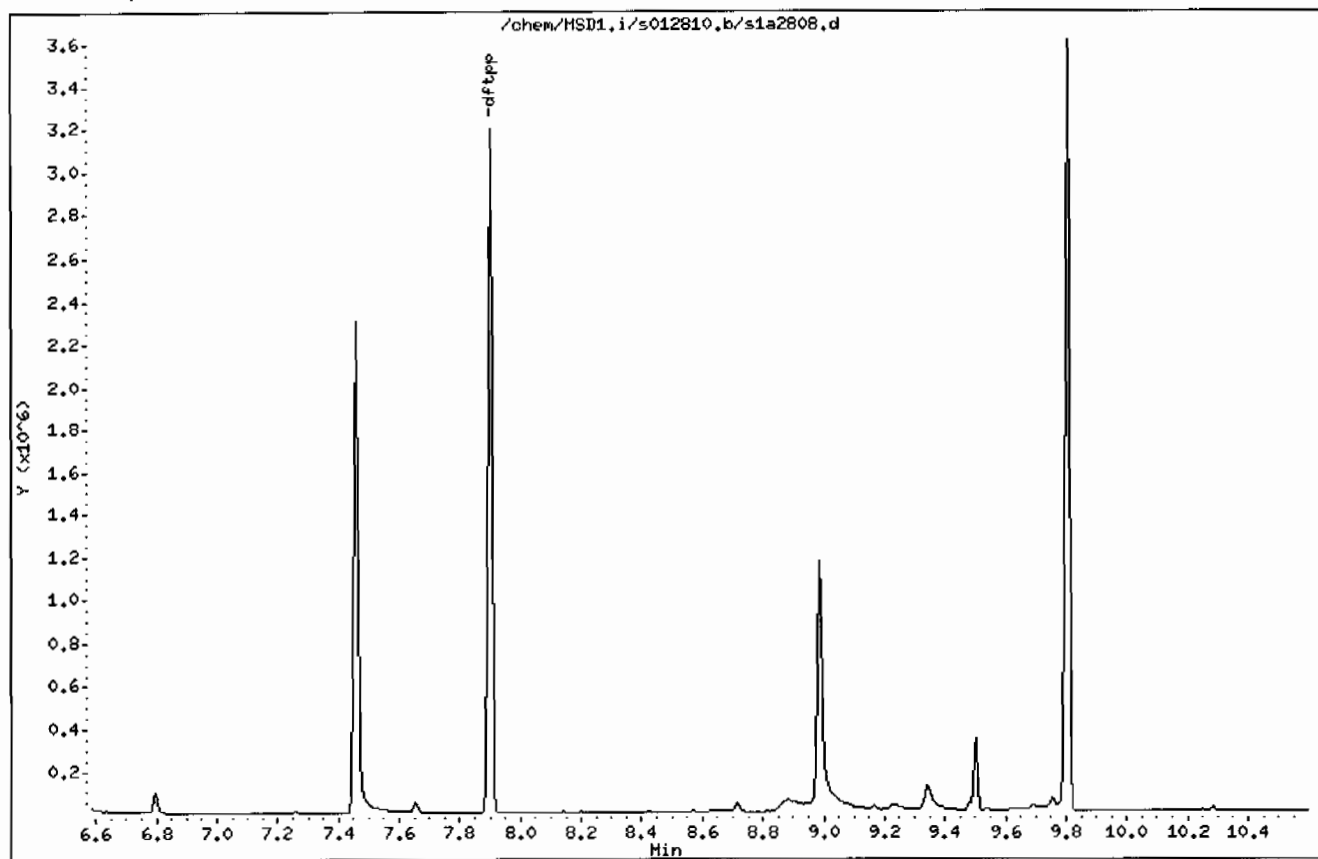
Instrument: MSD1.i

Sample Info: INBN091213-01150 PPH11SVHF111DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20



Date : 28-JAN-2010 17:48

Client ID: DFTPP

Instrument: MSD1.i

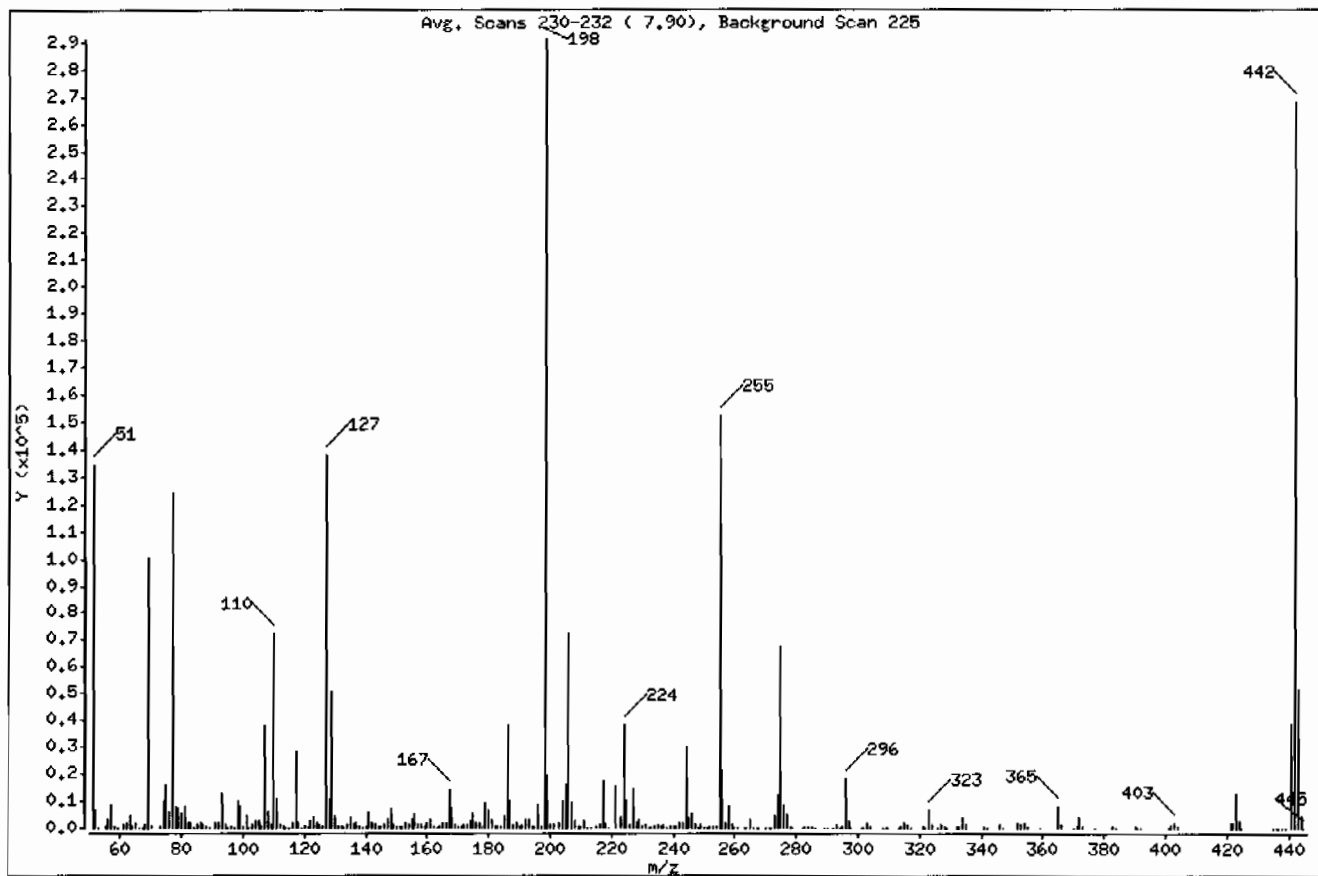
Sample Info: INBN091213-01150 PPH11SVMF11IDFTPP

Operator: AHY

Column phase: J&amp;W DB-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	46.17
68	Less than 2.00% of mass 69	0.53 ( 1.54)
69	Mass 69 relative abundance	34.50
70	Less than 2.00% of mass 69	0.18 ( 0.52)
127	40.00 - 60.00% of mass 198	47.45
197	Less than 1.00% of mass 198	0.27
199	5.00 - 9.00% of mass 198	6.65
275	10.00 - 30.00% of mass 198	23.13
365	Greater than 1.00% of mass 198	2.85
441	Present, but less than mass 443	13.37
442	Greater than 40.00% of mass 198	92.05
443	17.00 - 23.00% of mass 442	17.66 ( 19.18)

Date : 28-JAN-2010 17:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: HWBNO91213-01150 PPH11|SVMF11|DFTPP

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s1a2808.d

Spectrum: Avg. Scans 230-232 ( 7.90), Background Scan 225

Location of Maximum: 198.00

Number of points: 296

m/z	Y	m/z	Y	m/z	Y	m/z	Y
-----							
51.00	134464	131.00	863	207.00	9286	292.00	295
52.00	6856	132.00	479	208.00	2504	293.00	1270
53.00	205	133.00	262	209.00	755	294.00	304
55.00	720	134.00	1292	210.00	632	295.00	348
56.00	3622	135.00	3945	211.00	2686	296.00	18072
-----							
57.00	8750	136.00	1632	212.00	118	297.00	2394
58.00	400	137.00	2127	213.00	214	298.00	142
59.00	52	138.00	487	215.00	830	301.00	155
61.00	1555	139.00	273	216.00	1443	302.00	288
62.00	1717	140.00	570	217.00	17080	303.00	2204
-----							
63.00	4721	141.00	6306	218.00	2275	304.00	656
64.00	613	142.00	2082	219.00	228	308.00	253
65.00	2209	143.00	1426	221.00	15566	309.00	133
66.00	142	144.00	438	223.00	3856	310.00	168
67.00	74	145.00	363	224.00	38112	313.00	79
-----							
68.00	1551	146.00	1225	225.00	10143	314.00	958
69.00	100464	147.00	3220	226.00	1035	315.00	1948
70.00	522	148.00	7483	227.00	15018	316.00	1178
73.00	614	149.00	1496	228.00	2146	317.00	217
74.00	10316	150.00	379	229.00	3224	321.00	669
-----							
75.00	16319	151.00	925	230.00	464	322.00	252
76.00	5929	152.00	403	231.00	1492	323.00	6567
77.00	124368	153.00	2021	232.00	237	324.00	1112
78.00	8315	154.00	1404	233.00	291	326.00	56
79.00	7268	155.00	3657	234.00	990	327.00	1083
-----							
80.00	5389	156.00	5376	235.00	1140	328.00	568
81.00	8190	157.00	1055	236.00	753	329.00	55
82.00	2079	158.00	1154	237.00	1157	332.00	440
83.00	1928	159.00	833	238.00	150	333.00	511
84.00	263	160.00	1911	239.00	568	334.00	3975
-----							
85.00	1368	161.00	3160	240.00	513	335.00	1076
86.00	2143	162.00	895	241.00	823	341.00	701
87.00	1038	163.00	209	242.00	2131	342.00	138
88.00	394	164.00	400	243.00	2015	346.00	1337
89.00	263	165.00	2182	244.00	30256	347.00	235

Date : 28-JAN-2010 17:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBNO91213-01150 PPH11SVMF11IDFTPP

Operator: AHY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s1a2808.d

Spectrum: Avg. Scans 230-232 ( 7.90), Background Scan 225

Location of Maximum: 198.00

Number of points: 296

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	2014	166.00	2059	245.00	4142	352.00	1860
92.00	1956	167.00	14018	246.00	5628	353.00	1311
93.00	12577	168.00	7123	247.00	1123	354.00	2014
94.00	1022	169.00	1226	248.00	276	355.00	396
95.00	257	170.00	419	249.00	1045	359.00	74
96.00	646	171.00	522	250.00	234	365.00	8289
97.00	217	172.00	1101	251.00	251	366.00	1260
98.00	9775	173.00	1564	252.00	338	370.00	180
99.00	7952	174.00	2820	253.00	601	371.00	550
100.00	683	175.00	5341	254.00	938	372.00	3704
101.00	4743	176.00	1704	255.00	151744	373.00	927
102.00	276	177.00	2320	256.00	21392	377.00	62
103.00	1459	178.00	894	257.00	1685	383.00	933
104.00	2770	179.00	9561	258.00	8248	384.00	229
105.00	2855	180.00	6496	259.00	1299	390.00	471
106.00	839	181.00	3094	260.00	289	391.00	310
107.00	37872	182.00	529	261.00	253	392.00	228
108.00	6178	183.00	360	263.00	50	401.00	145
109.00	1029	184.00	878	264.00	171	402.00	1482
110.00	72304	185.00	4844	265.00	3094	403.00	2008
111.00	10422	186.00	37984	266.00	230	404.00	735
112.00	1325	187.00	10326	267.00	54	421.00	1736
113.00	390	188.00	1072	268.00	14	422.00	1728
114.00	57	189.00	2025	270.00	245	423.00	12742
115.00	64	190.00	390	271.00	332	424.00	2519
116.00	2120	191.00	1094	272.00	285	425.00	252
117.00	28376	192.00	3123	273.00	4524	435.00	52
118.00	2148	193.00	3515	274.00	11797	436.00	56
119.00	314	194.00	803	275.00	67376	437.00	58
120.00	431	195.00	535	276.00	8957	438.00	194
121.00	172	196.00	8925	277.00	5319	439.00	52
122.00	2397	197.00	790	278.00	918	441.00	38928
123.00	3723	198.00	291200	279.00	125	442.00	268032
124.00	1859	199.00	19376	282.00	60	443.00	51424
125.00	1456	200.00	1569	283.00	594	444.00	4687

Date : 28-JAN-2010 17:48

Client ID: DFTPP

Instrument: HSD1.i

Sample Info: IWBNO91213-01150 PPH11SVHF11IDFTPP

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s1a2808.d

Spectrum: Avg. Scans 230-232 ( 7.90), Background Scan 225

Location of Maximum: 198.00

Number of points: 296

m/z	Y	m/z	Y	m/z	Y	m/z	Y
126.00	565	201.00	1528	284.00	464	445.00	254
127.00	138176	203.00	1858	285.00	923		
128.00	10408	204.00	9709	286.00	195		
129.00	51152	205.00	16382	289.00	163		
130.00	4488	206.00	72280	290.00	230		

Data File: /chem/HSD1.i/s012910.b/s1a2912.d

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Date : 29-JAN-2010 19:07

Client ID: DFTPP

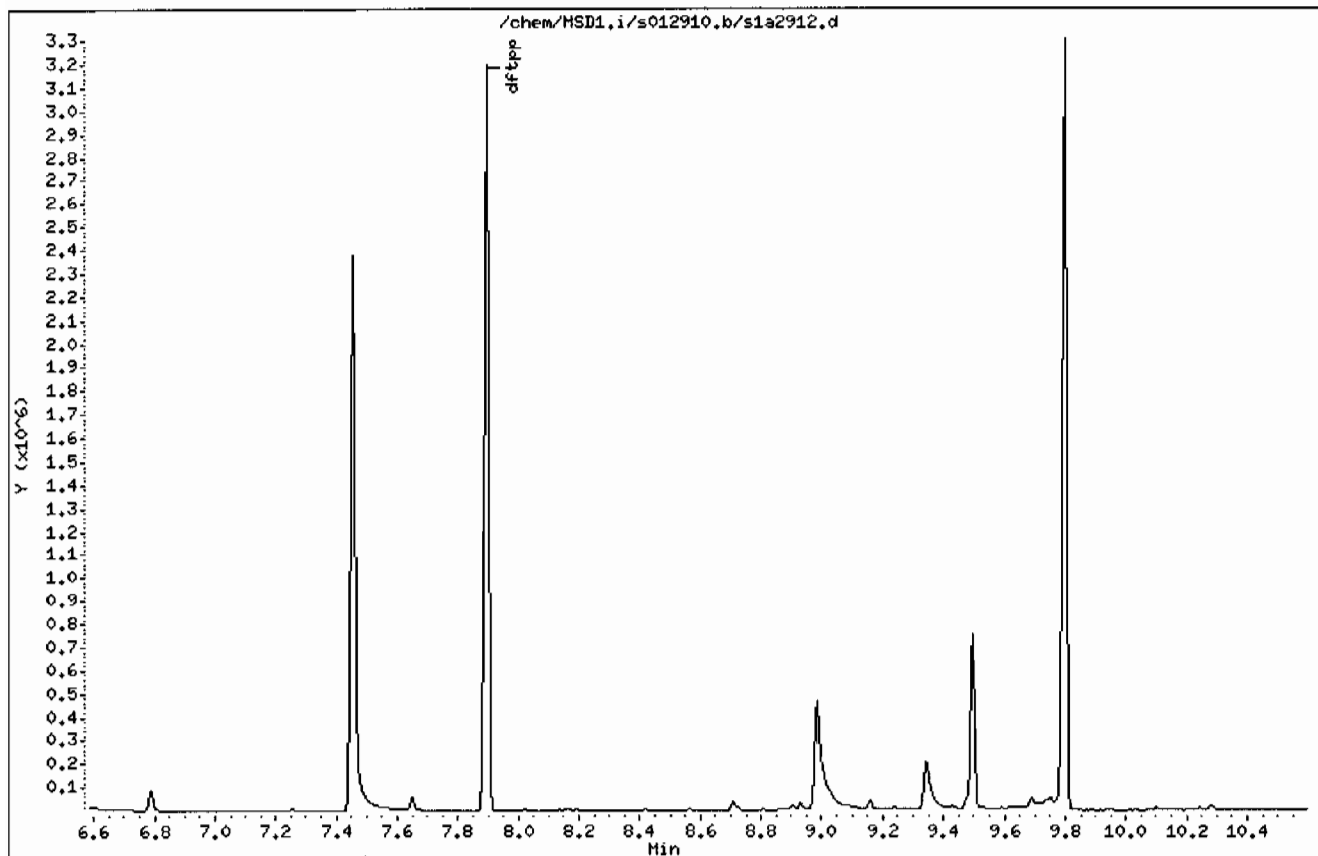
Instrument: MSD1.i

Sample Info: INWEN091213-01150 PPH111SVHF111DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20



Date : 29-JAN-2010 19:07

Client ID: DFTPP

Instrument: MSD1.i

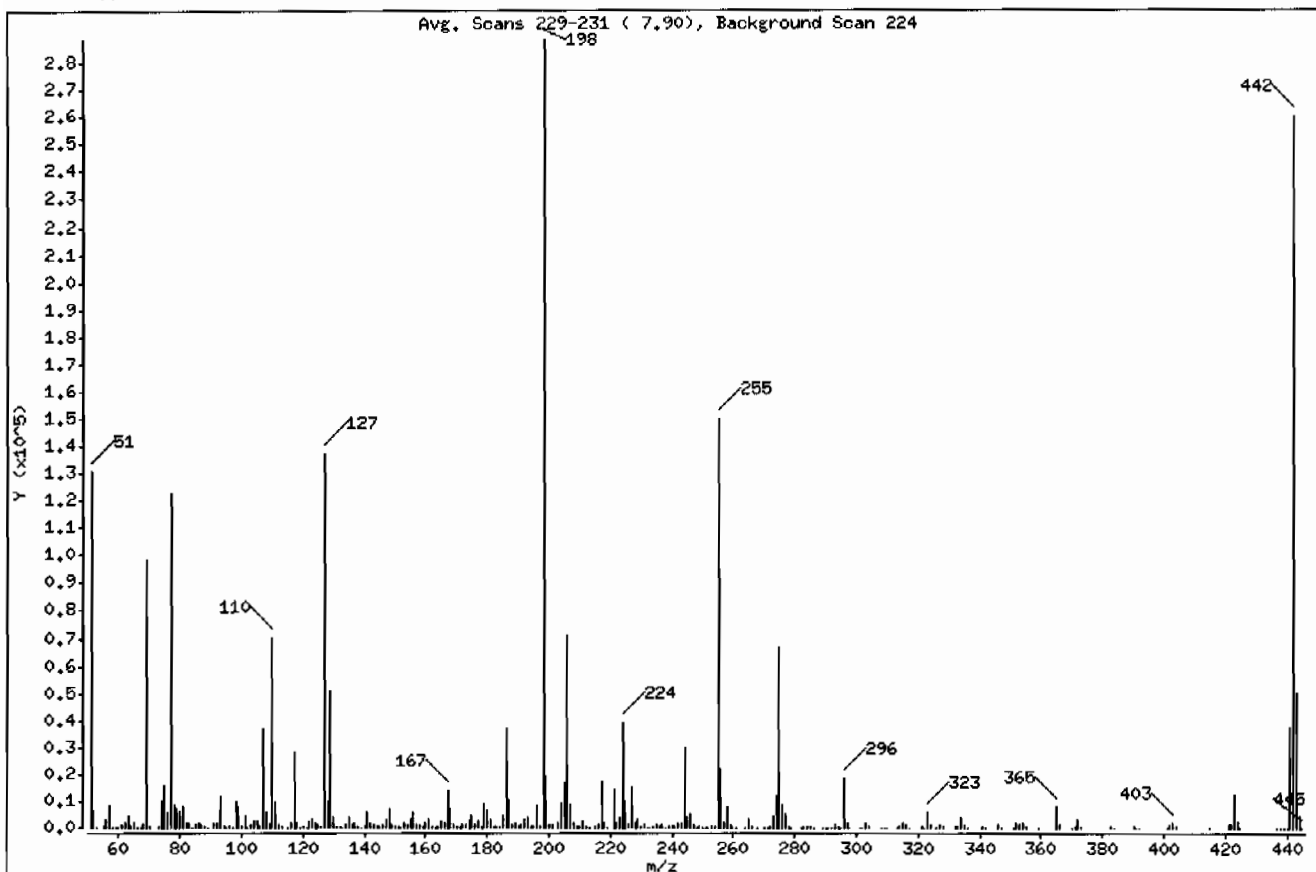
Sample Info: INBN091213-01150 PPM11SVMF11IDFTPP

Operator: AMY

Column phase: J&amp;W DB-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	45.37
68	Less than 2.00% of mass 69	0.56 ( 1.63)
69	Mass 69 relative abundance	34.08
70	Less than 2.00% of mass 69	0.19 ( 0.55)
127	40.00 - 60.00% of mass 198	47.65
197	Less than 1.00% of mass 198	0.13
199	5.00 - 9.00% of mass 198	6.60
275	10.00 - 30.00% of mass 198	23.14
365	Greater than 1.00% of mass 198	2.85
441	Present, but less than mass 443	13.19
442	Greater than 40.00% of mass 198	90.23
443	17.00 - 23.00% of mass 442	17.40 ( 19.29)



Date : 29-JAN-2010 19:07

Client ID: DFTPP

Instrument: MSD1.1

Sample Info: IWBNO91213-01150 PPH11SVHF111DFTPP

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s1a2912.d

Spectrum: Avg. Scans 229-231 ( 7.90), Background Scan 224

Location of Maximum: 198.00

Number of points: 296

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	130992	131.00	844	207.00	8945	292.00	261
52.00	6636	132.00	454	208.00	2268	293.00	1279
53.00	293	133.00	222	209.00	793	294.00	356
55.00	570	134.00	1375	210.00	635	295.00	200
56.00	3570	135.00	4009	211.00	2718	296.00	18288
57.00	8550	136.00	1607	212.00	398	297.00	2296
58.00	324	137.00	2148	213.00	196	298.00	66
59.00	63	138.00	556	215.00	723	301.00	257
60.00	50	139.00	211	216.00	1459	302.00	312
61.00	1519	140.00	725	217.00	17336	303.00	2072
62.00	1672	141.00	6022	218.00	2282	304.00	516
63.00	4388	142.00	2209	219.00	174	308.00	260
64.00	567	143.00	1411	221.00	14789	309.00	137
65.00	2256	144.00	499	222.00	1714	310.00	203
66.00	164	145.00	445	223.00	4061	313.00	116
67.00	54	146.00	1120	224.00	38992	314.00	889
68.00	1603	147.00	3159	225.00	9816	315.00	1979
69.00	98376	148.00	7517	226.00	1041	316.00	1236
70.00	544	149.00	1644	227.00	15443	317.00	233
73.00	803	150.00	430	228.00	2054	321.00	627
74.00	10060	151.00	790	229.00	3188	322.00	299
75.00	15960	152.00	176	230.00	503	323.00	6041
76.00	5680	153.00	2000	231.00	1355	324.00	1088
77.00	122608	154.00	1456	232.00	249	326.00	58
78.00	8433	155.00	3452	233.00	262	327.00	1117
79.00	6990	156.00	5657	234.00	938	328.00	577
80.00	5687	157.00	1153	235.00	1061	332.00	478
81.00	8100	158.00	1129	236.00	754	333.00	598
82.00	1935	159.00	883	237.00	1195	334.00	4061
83.00	1887	160.00	1887	238.00	68	335.00	1141
84.00	305	161.00	3100	239.00	599	336.00	61
85.00	1444	162.00	897	240.00	417	341.00	713
86.00	2245	163.00	264	241.00	811	342.00	138
87.00	1129	164.00	359	242.00	1997	346.00	1443
88.00	480	165.00	2373	243.00	2108	347.00	206

Date : 29-JAN-2010 19:07

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBNO91213-01150 PPH11SVHF11IDFTPP

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s1a2912.d

Spectrum: Avg. Scans 229-231 ( 7.90), Background Scan 224

Location of Maximum: 198.00

Number of points: 296

m/z	Y	m/z	Y	m/z	Y	m/z	Y
-----							
89.00	182	166.00	1969	244.00	30128	351.00	81
91.00	1843	167.00	14035	245.00	3986	352.00	1908
92.00	1853	168.00	6978	246.00	5505	353.00	1263
93.00	12083	169.00	1209	247.00	1064	354.00	1996
94.00	907	170.00	406	248.00	257	355.00	361
-----							
95.00	106	171.00	544	249.00	988	359.00	52
96.00	641	172.00	1146	250.00	150	365.00	8226
97.00	276	173.00	1571	251.00	176	366.00	1304
98.00	9652	174.00	2833	252.00	309	370.00	173
99.00	8050	175.00	4966	253.00	648	371.00	508
-----							
100.00	690	176.00	1461	254.00	871	372.00	3433
101.00	4622	177.00	2436	255.00	150144	373.00	815
102.00	224	178.00	808	256.00	22128	383.00	854
103.00	1556	179.00	9253	257.00	1660	384.00	265
104.00	2851	180.00	6583	258.00	8196	390.00	429
-----							
105.00	2635	181.00	3112	259.00	1249	391.00	287
106.00	898	182.00	525	260.00	250	392.00	276
107.00	37320	183.00	397	261.00	266	401.00	171
108.00	5998	184.00	867	264.00	313	402.00	1360
109.00	1070	185.00	4619	265.00	3014	403.00	2030
-----							
110.00	70216	186.00	37344	266.00	571	404.00	696
111.00	10024	187.00	10726	268.00	176	415.00	53
112.00	1250	188.00	1194	270.00	210	421.00	1649
113.00	402	189.00	2159	271.00	288	422.00	1576
115.00	114	190.00	427	272.00	442	423.00	12305
-----							
116.00	1907	191.00	1111	273.00	4571	424.00	2405
117.00	28840	192.00	3255	274.00	11853	425.00	273
118.00	2141	193.00	3668	275.00	66808	437.00	109
119.00	265	194.00	789	276.00	8625	438.00	76
120.00	456	195.00	402	277.00	5425	439.00	58
-----							
121.00	164	196.00	8950	278.00	899	440.00	50
122.00	2363	197.00	373	279.00	197	441.00	38080
123.00	3442	198.00	288704	282.00	80	442.00	260480
124.00	1690	199.00	19040	283.00	593	443.00	50240
125.00	1591	200.00	1519	284.00	382	444.00	4621

Date : 29-JAN-2010 19:07

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IMBN091213-01150 PPH11ISVHF11IDFTPP

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Data File: s1a2912.d

Spectrum: Avg. Scans 229-231 ( 7.90), Background Scan 224

Location of Maximum: 198.00

Number of points: 296

m/z	Y	m/z	Y	m/z	Y	m/z	Y
126.00	558	201.00	1417	285.00	966	445.00	293
127.00	137536	203.00	1892	286.00	148		
128.00	10119	204.00	9601	289.00	163		
129.00	51224	205.00	16432	290.00	227		
130.00	4106	206.00	71192	291.00	115		

Data File: /chem/MSD3.i/s021110.b/s3b1106.d

Page 1

Date : 11-FEB-2010 10:03

Client ID: DFIPP

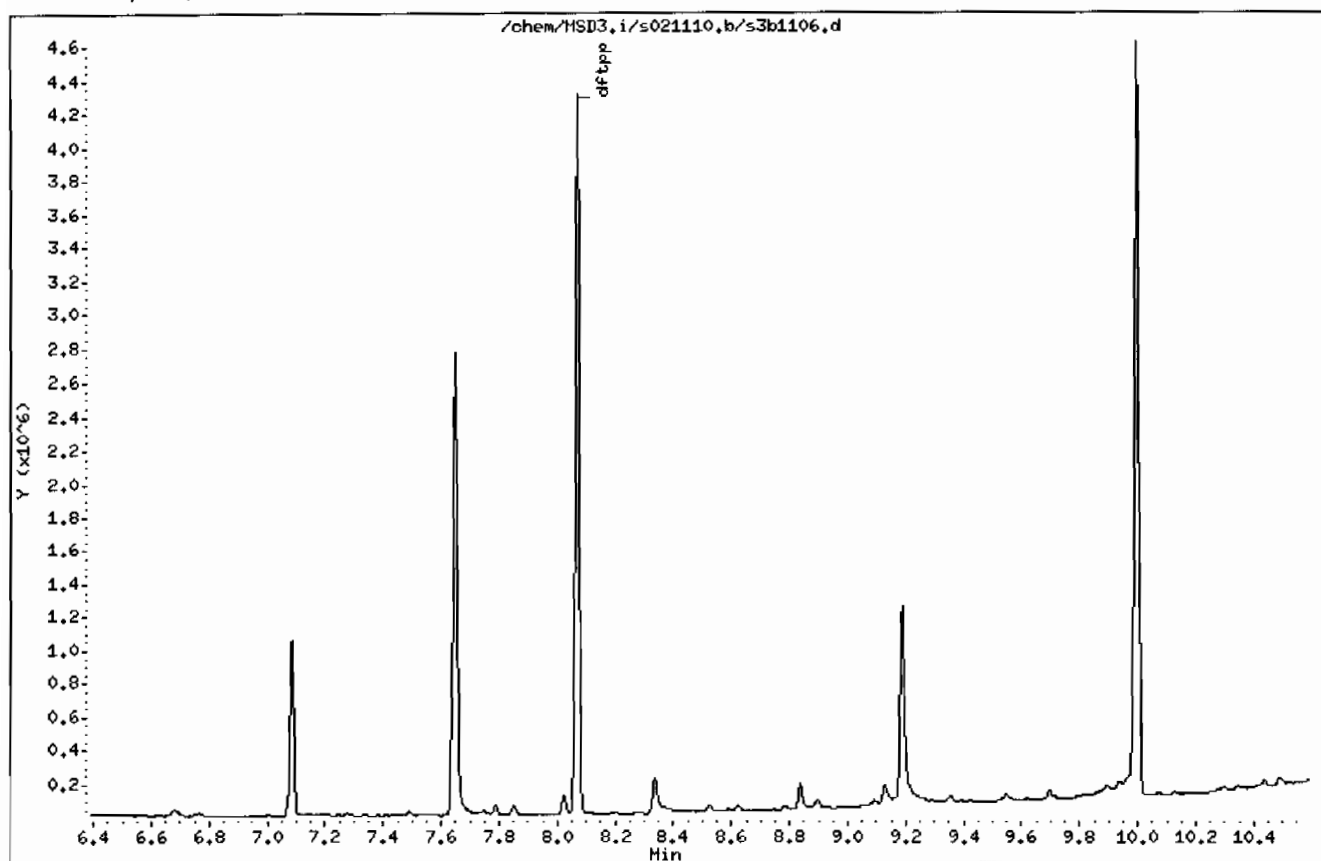
Instrument: MSD3.i

Sample Info: IWBH100107-01|DFIPP|1|SVH|1|DFIPP|

Operator: JLD1

Column phase: J&W DB-5MS

Column diameter: 0.20



Date : 11-FEB-2010 10:03

Client ID: DFTPP

Instrument: MSD3.i

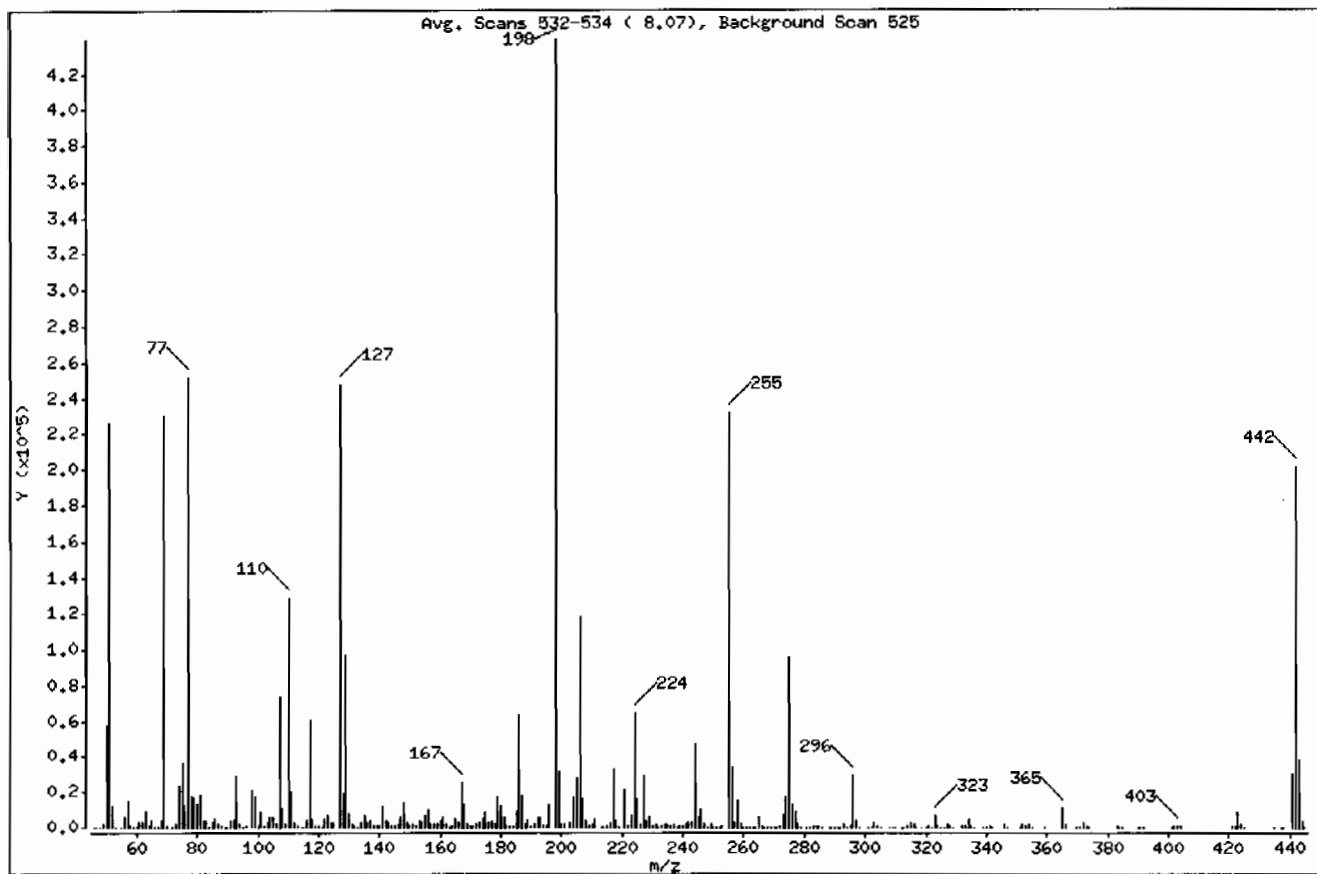
Sample Info: IWBNI00107-011DFTPP11ISVM111DFTPP1

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

1 dftpp



Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-1304  
Lab Sample ID: 1202022801  
Client Sample: QC for batch 944590  
Client ID: MB for batch 944590  
Batch ID: 944591  
Run Date: 01/28/2010 19:28  
Prep Date: 01/25/2010 14:38  
Data File: s1a2812.d

Client: LANL010  
Method: SW846 8270C  
Inst: MSD1.J  
Analyst: AMY  
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	U	333	ug/kg	66.7	333
	3-Nitroaniline					

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

SDG Number: 10-1304  
Lab Sample ID: 1202022801  
Client Sample: QC for batch 944590  
Client ID: MB for batch 944590  
Batch ID: 944591  
Run Date: 01/28/2010 19:28  
Prep Date: 01/25/2010 14:38  
Data File: s1a2812.d

Client: LANL010  
Method: SW846 8270C  
Inst: MSD1J  
Analyst: AMY  
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
131-11-3	<i>m</i> -Nitroaniline					
	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	1.96	616	ug/kg		J
79-09-4	Propanoic acid	2.16	151	ug/kg	87	NJ

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

SDG Number:	10-1304	Matrix:	SOIL
Lab Sample ID:	1202022801		
Client Sample:	QC for batch 944590	Client:	LANL010
Client ID:	MB for batch 944590	Method:	SW846 8270C
Batch ID:	944591	Inst:	MSD1.J
Run Date:	01/28/2010 19:28	Analyst:	AMY
Prep Date:	01/25/2010 14:38	Aliquot:	30 g
Data File:	s1a2812.d	Column:	J&W DB-5MS
		Level:	LOW
		Project:	QC
		SOP Ref:	GL-OA-E-009
		Dilution:	1
		Inj. Vol:	.5 uL
		Final Volume:	1 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.1	951	ug/kg		JA



Data File: /chem/MSD1.i/s012810.b/sla2812.d  
Report Date: 29-Jan-2010 11:33

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GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2812.d  
Lab Smp Id: 1202022801 Client Smp ID: SBLK01  
Inj Date : 28-JAN-2010 19:28  
Operator : AMY Inst ID: MSD1.i  
Smp Info : |1202022801|944591|1|SVMF|1|SBLK01  
Misc Info : |MSD8270\_S|WBN100107-03|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
Als bottle: 4 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.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

Compounds	QUANT SIG						CONCENTRATIONS	
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.434	4.434	(1.000)	266781	40.0000		
* 29 Naphthalene-d8	136	5.687	5.687	(1.000)	1057093	40.0000		
* 46 Acenaphthene-d10	164	7.540	7.540	(1.000)	558445	40.0000		
* 67 Phenanthrene-d10	188	9.134	9.139	(1.000)	896983	40.0000		
* 91 Chrysene-d12	240	12.027	12.039	(1.000)	688475	40.0000		
* 98 Perylene-d12	264	14.116	14.121	(1.000)	508429	40.0000		
\$ 3 2-Fluorophenol	112	3.316	3.304	(0.748)	477401	57.8583	1930	
\$ 5 Phenol-d5	99	4.063	4.063	(0.916)	588654	57.4381	1910	
\$ 20 Nitrobenzene-d5	82	4.957	4.957	(0.872)	258180	33.0917	1100	
\$ 39 2-Fluorobiphenyl	172	6.810	6.810	(0.903)	476646	33.1306	1100	
\$ 60 2,4,6-Tribromophenol	329	8.381	8.387	(1.112)	101189	50.0742	1670	
\$ 81 p-Terphenyl-d14	244	10.845	10.845	(0.902)	478791	38.7558	1290	

Data File: /chem/MSD1.i/s012810.b/sla2812.d  
 Report Date: 29-Jan-2010 11:33

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GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2812.d  
 Lab Smp Id: 1202022801 Client Smp ID: SBLK01  
 Inj Date : 28-JAN-2010 19:28  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |1202022801|944591|1|SVMF|1|SBLK01  
 Misc Info : |MSD8270\_S|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
 Als bottle: 4 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1304.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	4.434	1728864	40.000

RT	AREA	CONCENTRATIONS		QUAL	QUANT		CPND #
		ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown							
1.958	798432	18.4729720	616	0		0	10
Propanoic acid							
2.158	195756	4.52911717	151	87	NIST05.L	793	10

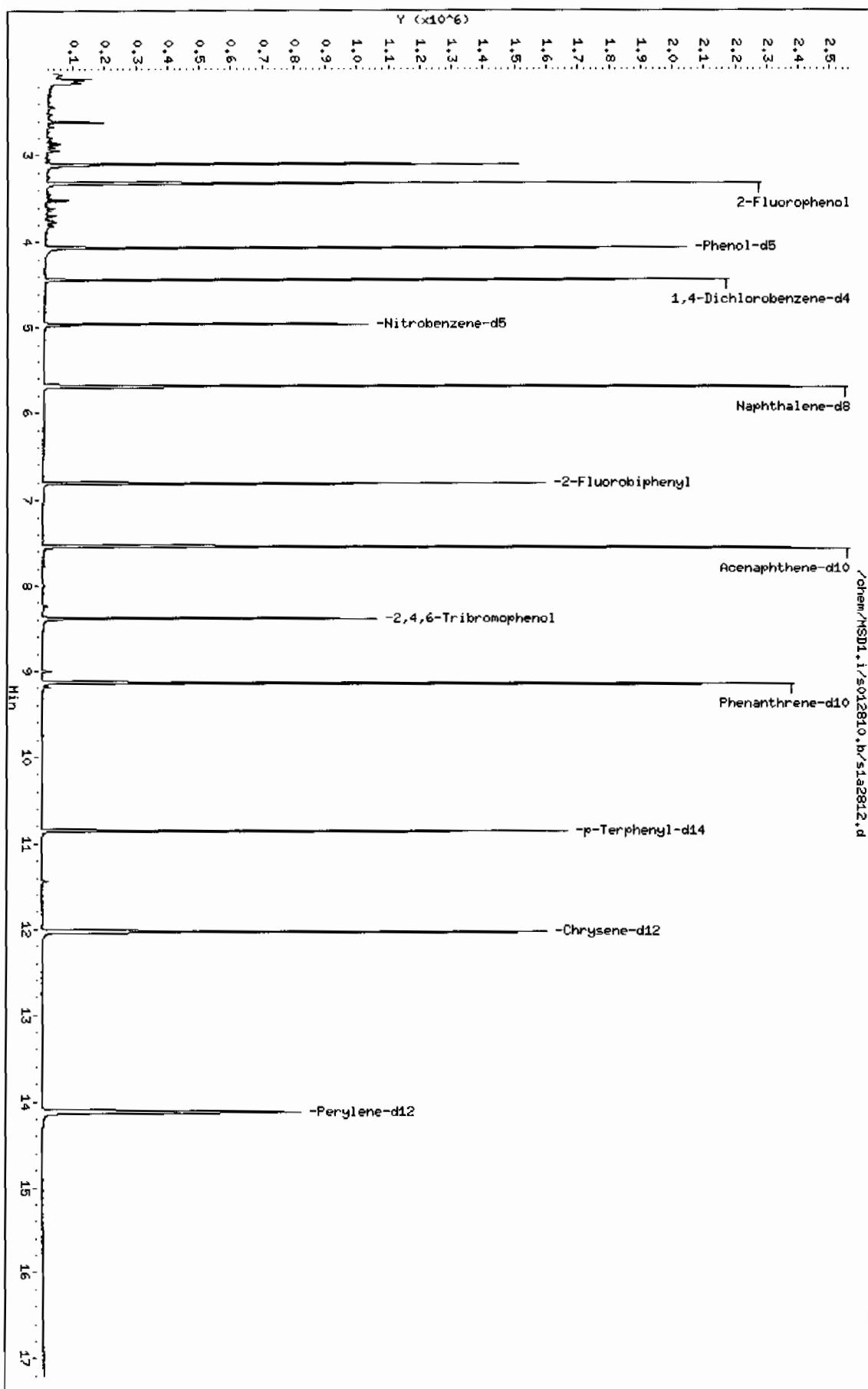
Data File: /chem/MSD1.i/s012810.b/s1a2812.d  
Report Date: 29-Jan-2010 11:33

Page 2

RT	AREA	CONCENTRATIONS		QUAL	QUANT		CPND #
		ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate				CAS #:			
3.099	1233498	28.5389112	951	0	0	10	

Data File: /chem/MSD1.i/s012810.b/s1a2812.d  
Date: 28-JUN-2010 19:28  
Client ID: SBLK01  
Sample Info: 11202022801944591.1|SUMF.1|SBLK01  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5MS

Instrument: MSD1.i  
Operator: RMV  
Column diameter: 0.20



Date : 28-JAN-2010 19:28

Client ID: SBLK01

Instrument: HSD1,i

Sample Info: I1202022801194459111SVMF111SBLK01

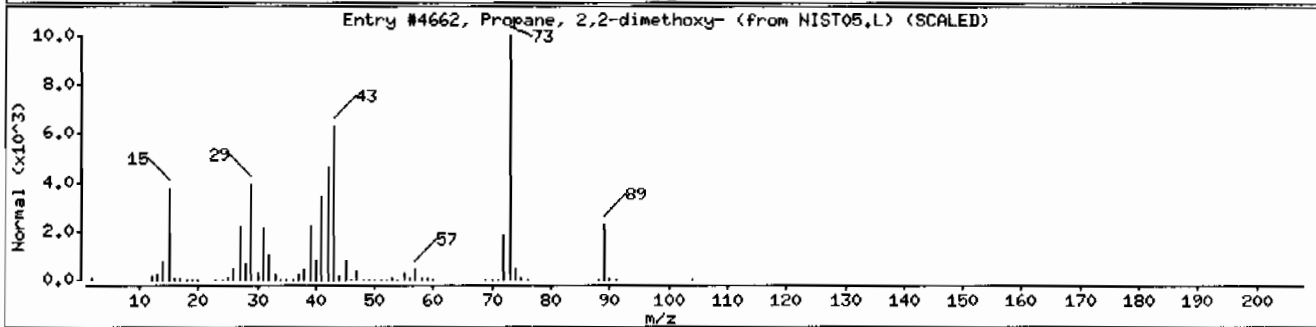
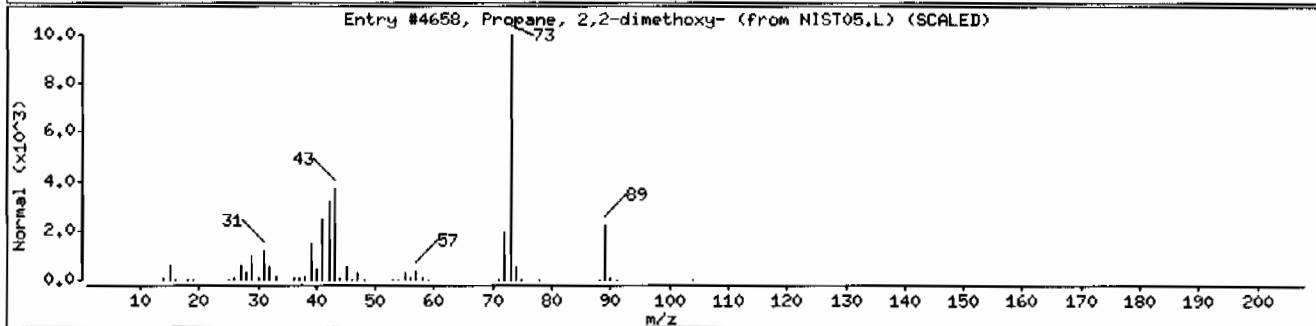
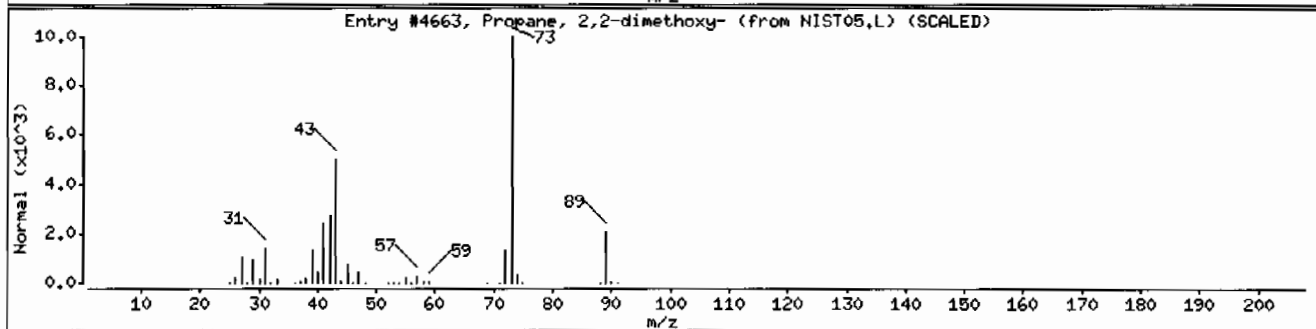
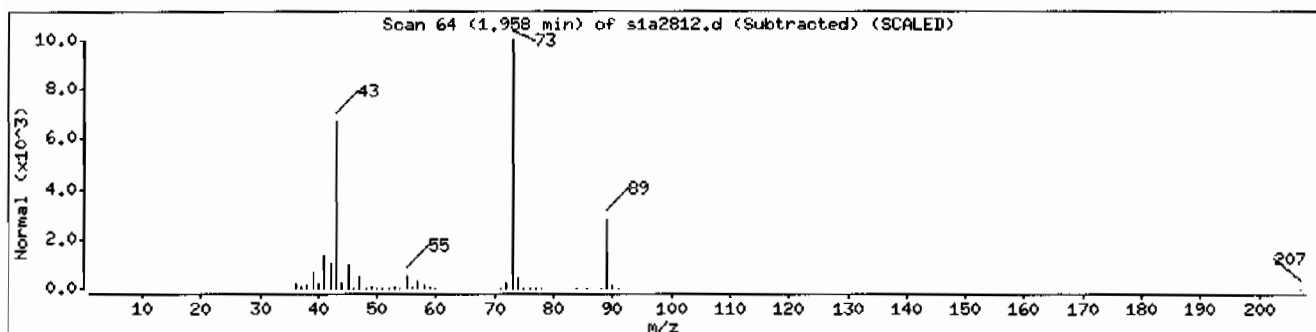
Volume Injected (uL): 0.5

Operator: AMY

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	45	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	36	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	28	C5H12O2	104



Date : 28-JAN-2010 19:28

Client ID: SBLK01

Instrument: HSD1.i

Sample Info: I1202022801194459111SVHF111SBLK01

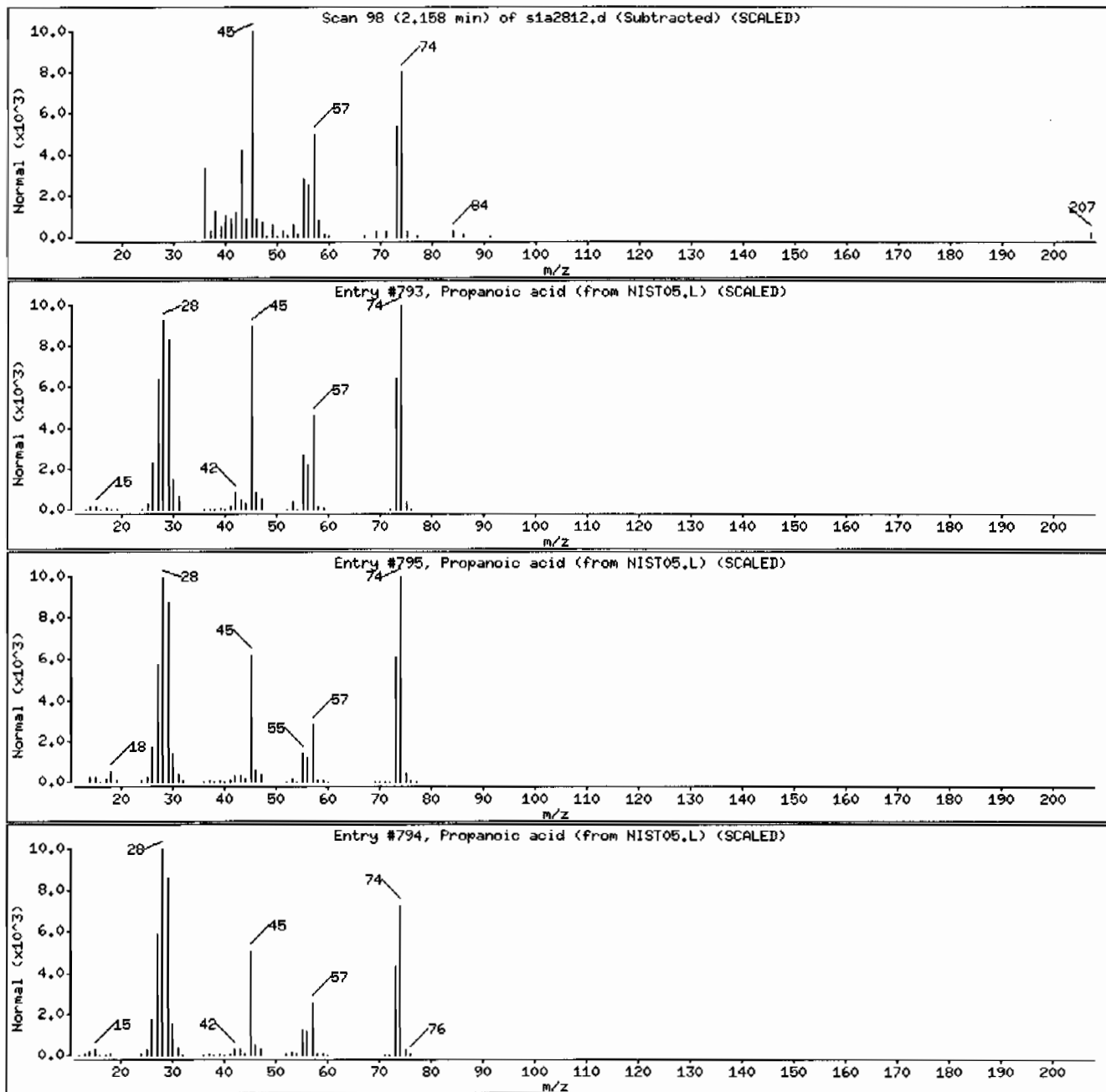
Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Propanoic acid	79-09-4	NIST05.L	793	87	C3H6O2	74
Propanoic acid	79-09-4	NIST05.L	795	80	C3H6O2	74
Propanoic acid	79-09-4	NIST05.L	794	72	C3H6O2	74



Date : 28-JAN-2010 19:28

Client ID: SBLK01

Instrument: MSD1.i

Sample Info: I1202022801194459111SVHF111SBLK01

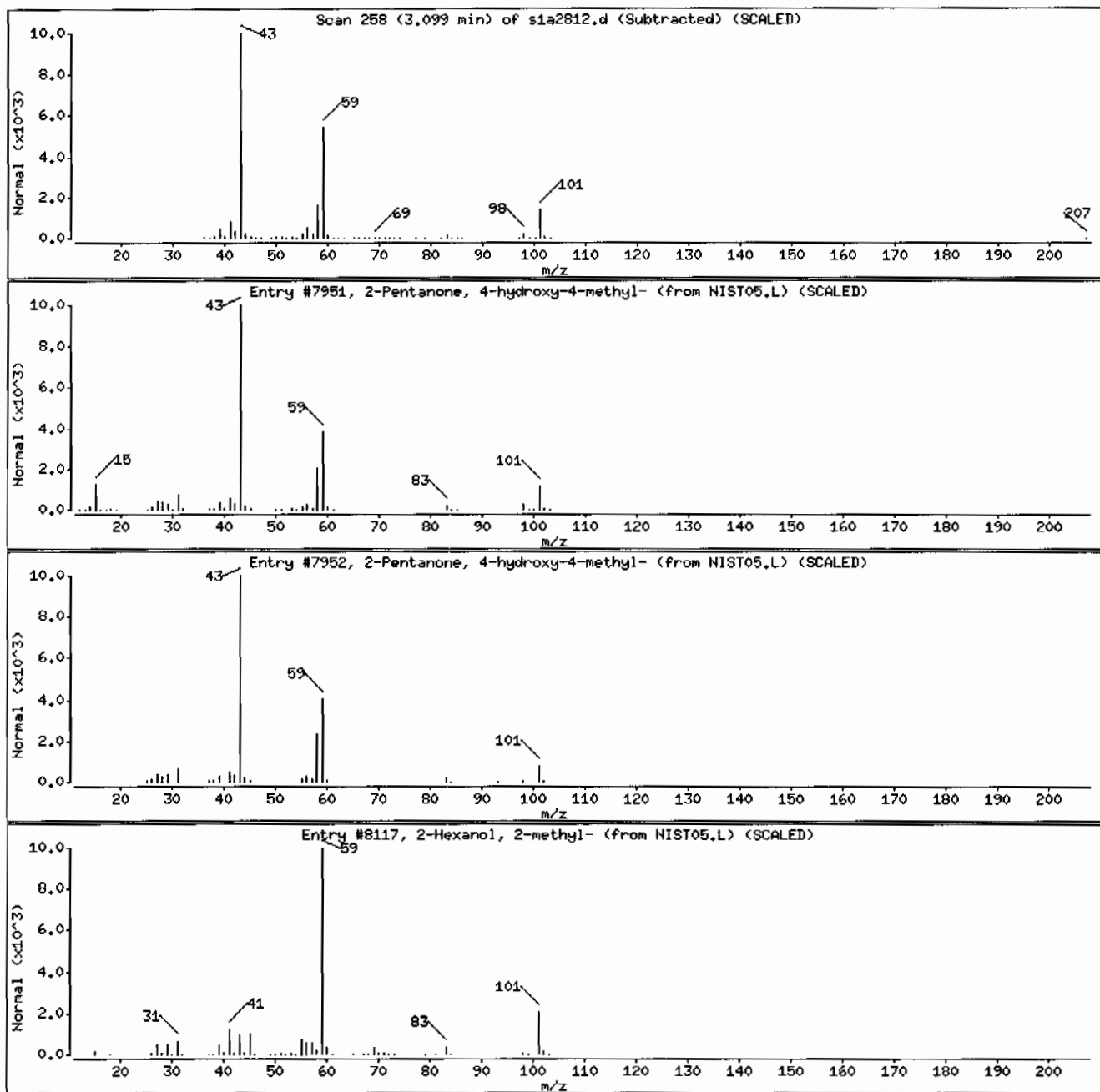
Volume Injected (uL): 0.5

Operator: AMY

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	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Hexanol, 2-methyl-	625-23-0	NIST05.L	8117	28	C7H16O	116



Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-1304

Lab Sample ID: 1202022802

Client Sample: QC for batch 944590

Client ID: LCS for batch 944590

Batch ID: 944591

Run Date: 01/28/2010 19:56

Prep Date: 01/25/2010 14:38

Data File: sla2813.d

Client: LANL010

Method: SW846 8270C

Inst: MSD1.I

Analyst: AMY

Aliquot: 30 g

Column: J&amp;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		896	ug/kg	66.7	333
108-95-2	Phenol		1020	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1030	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		944	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		944	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1150	ug/kg	66.7	333
83-32-9	Acenaphthene		1010	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1140	ug/kg	33.3	333
100-02-7	4-Nitrophenol		863	ug/kg	110	333
87-86-5	Pentachlorophenol		768	ug/kg	83.3	333
129-00-0	Pyrene		1370	ug/kg	10.0	33.3
110-86-1	Pyridine		793	ug/kg	66.7	333
62-53-3	Aniline		917	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		916	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		922	ug/kg	66.7	333
100-51-6	Benzyl alcohol		1130	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		938	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		988	ug/kg	66.7	333
95-48-7	o-Cresol		966	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1080	ug/kg	100	333
67-72-1	Hexachloroethane		955	ug/kg	66.7	333
98-95-3	Nitrobenzene		1010	ug/kg	66.7	333
78-59-1	Isophorone		1130	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1050	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		968	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		978	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1070	ug/kg	66.7	333
65-85-0	Benzoic acid		2140	ug/kg	167	667
91-20-3	Naphthalene		876	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		875	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		869	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1040	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1420	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1100	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1190	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1030	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1060	ug/kg	66.7	333
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline		1010	ug/kg	66.7	333



Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-1304		Matrix: SOIL	
Lab Sample ID: 1202022802			
Client Sample: QC for batch 944590	Client: LANL010	Project: QC	
Client ID: LCS for batch 944590	Method: SW846 8270C	SOP Ref: GL-OA-E-009	
Batch ID: 944591	Inst: MSD1J	Dilution: 1	
Run Date: 01/28/2010 19:56	Analyst: AMY	Inj. Vol: .5 uL	
Prep Date: 01/25/2010 14:38	Aliquot: 30 g	Final Volume: 1 mL	
Data File: s1a2813.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		1180	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1090	ug/kg	33.3	333
208-96-8	Acenaphthylene		1110	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		929	ug/kg	127	667
132-64-9	Dibenzofuran		1260	ug/kg	66.7	333
84-66-2	Diethylphthalate		1220	ug/kg	66.7	333
86-73-7	Fluorene		1050	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1100	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1010	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1100	ug/kg	100	333
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine		1150	ug/kg	66.7	333
122-66-7	Azobenzene		1130	ug/kg	66.7	333
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1150	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1040	ug/kg	66.7	333
85-01-8	Phenanthrene		1120	ug/kg	10.0	33.3
120-12-7	Anthracene		1110	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1240	ug/kg	66.7	333
206-44-0	Fluoranthene		1090	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1340	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1120	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1090	ug/kg	100	333
218-01-9	Chrysene		1190	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1250	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1330	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1230	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1280	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1270	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1190	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1160	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1100	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1050	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/sla2813.d  
 Lab Smp Id: 1202022802 Client Smp ID: SBLK01LCS  
 Inj Date : 28-JAN-2010 19:56  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |1202022802|944591|1|SVMF|1|SBLK01LCS  
 Misc Info : |MSD8270\_S|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: sla2203.d  
 Als bottle: 5 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1304.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

Compounds	QUANT SIG				RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT		ON-COLUMN	FINAL
						(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.440	4.434	(1.000)	268891	40.0000	
* 29 Naphthalene-d8	136	5.687	5.687	(1.000)	1073566	40.0000	
* 46 Acenaphthene-d10	164	7.539	7.540	(1.000)	570514	40.0000	
* 67 Phenanthrene-d10	188	9.139	9.139	(1.000)	904479	40.0000	
* 91 Chrysene-d12	240	12.039	12.039	(1.000)	639843	40.0000	
* 98 Perylene-d12	264	14.121	14.121	(1.000)	502052	40.0000	
\$ 3 2-Fluorophenol	112	3.322	3.304	(0.748)	484574	58.2669	1940
\$ 5 Phenol-d5	99	4.069	4.063	(0.917)	612711	59.3164	1980
\$ 20 Nitrobenzene-d5	82	4.963	4.957	(0.873)	274701	34.6690	1160
\$ 39 2-Fluorobiphenyl	172	6.810	6.810	(0.903)	507425	34.5238	1150
\$ 60 2,4,6-Tribromophenol	329	8.386	8.387	(1.112)	132017	63.9480	2130
\$ 81 p-Terphenyl-d14	244	10.845	10.845	(0.901)	501658	43.6931	1460

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.081	4.075	(0.919)	331961	30.5676	1020 (Q)
8 2-Chlorophenol	128	4.245	4.240	(0.956)	264040	30.8254	1030
11 1,4-Dichlorobenzene	146	4.451	4.451	(1.003)	258063	28.3142	944
17 N-Nitrosodipropylamine	70	4.804	4.810	(1.082)	176544	28.3219	944 (Q)
28 1,2,4-Trichlorobenzene	180	5.622	5.622	(0.989)	222970	31.4962	1050
33 4-Chloro-3-methylphenol	107	6.257	6.245	(1.100)	239983	34.4285	1150
47 Acenaphthene	154	7.575	7.575	(1.005)	418686	30.2115	1010
50 2,4-Dinitrotoluene	165	7.739	7.745	(1.027)	175667	34.0793	1140
52 4-Nitrophenol	139	7.681	7.663	(1.019)	83459	25.8918	863
65 Pentachlorophenol	266	8.933	8.928	(0.977)	74897	23.0277	768
79 Pyrene	202	10.692	10.692	(0.888)	801685	41.0381	1370
2 Pyridine	79	2.481	2.434	(0.559)	192811	23.7752	792
4 Aniline	66	4.134	4.128	(0.931)	125744	27.5208	917
7 bis(2-Chloroethyl) ether	63	4.175	4.169	(0.940)	226591	27.4739	916
9 1,3-Dichlorobenzene	146	4.387	4.381	(0.988)	258491	27.6473	922
12 Benzyl alcohol	108	4.551	4.551	(1.025)	202198	34.0462	1130
13 1,2-Dichlorobenzene	146	4.598	4.593	(1.036)	253982	28.1399	938
14 bis(2-Chloroisopropyl) ether	45	4.669	4.669	(1.052)	618085	29.6300	988
15 o-Cresol	107	4.640	4.634	(1.045)	203775	28.9739	966
18 m,p-Cresols	107	4.792	4.793	(1.079)	294077	32.3796	1080 (Q)
19 Hexachloroethane	117	4.922	4.916	(1.109)	106112	28.6469	955
21 Nitrobenzene	77	4.981	4.981	(0.876)	271765	30.1740	1000
22 Isophorone	82	5.216	5.222	(0.917)	531981	34.0226	1130
23 2-Nitrophenol	139	5.292	5.293	(0.931)	133935	31.5885	1050
24 2,4-Dimethylphenol	122	5.322	5.316	(0.936)	230650	29.0292	968
25 bis(2-Chloroethoxy) methane	93	5.416	5.416	(0.952)	295735	29.3259	978
26 2,4-Dichlorophenol	162	5.534	5.534	(0.973)	211540	32.1223	1070
27 Benzoic acid	105	5.463	5.428	(0.961)	320519	64.0785	2140
30 Naphthalene	128	5.710	5.710	(1.004)	674484	26.2713	876
31 4-Chloroaniline	127	5.757	5.757	(1.012)	214124	26.2448	875
32 Hexachlorobutadiene	225	5.828	5.828	(1.025)	115541	26.0649	869
34 2-Methylnaphthalene	142	6.428	6.428	(1.130)	486902	31.2252	1040
36 Hexachlorocyclopentadiene	237	6.592	6.593	(0.874)	85769	42.4503	1420
37 2,4,6-Trichlorophenol	196	6.722	6.722	(0.892)	142361	33.0472	1100
38 2,4,5-Trichlorophenol	196	6.763	6.757	(0.897)	176737	35.7085	1190
40 2-Chloronaphthalene	162	6.945	6.945	(0.921)	471025	31.0384	1030
42 o-Nitroaniline	65	7.051	7.051	(0.935)	180780	31.7029	1060
41 m-Nitroaniline	138	7.492	7.492	(0.994)	118820	30.2812	1010
43 Dimethylphthalate	163	7.239	7.251	(0.960)	587667	35.2883	1180
44 2,6-Dinitrotoluene	165	7.310	7.310	(0.970)	132117	32.7759	1090
45 Acenaphthylene	152	7.386	7.392	(0.980)	749502	33.2598	1110
48 2,4-Dinitrophenol	184	7.604	7.604	(1.009)	34822	27.8606	929 (Q)
49 Dibenzofuran	168	7.757	7.757	(1.029)	783038	37.9050	1260
51 Diethylphthalate	149	7.998	7.998	(1.061)	571165	36.5584	1220
53 Fluorene	166	8.128	8.128	(1.078)	518106	31.6392	1050
54 4-Chlorophenylphenylether	204	8.122	8.122	(1.077)	231906	33.1408	1100
55 2-Methyl-4,6-dinitrophenol	198	8.180	8.181	(0.895)	70934	30.3541	1010

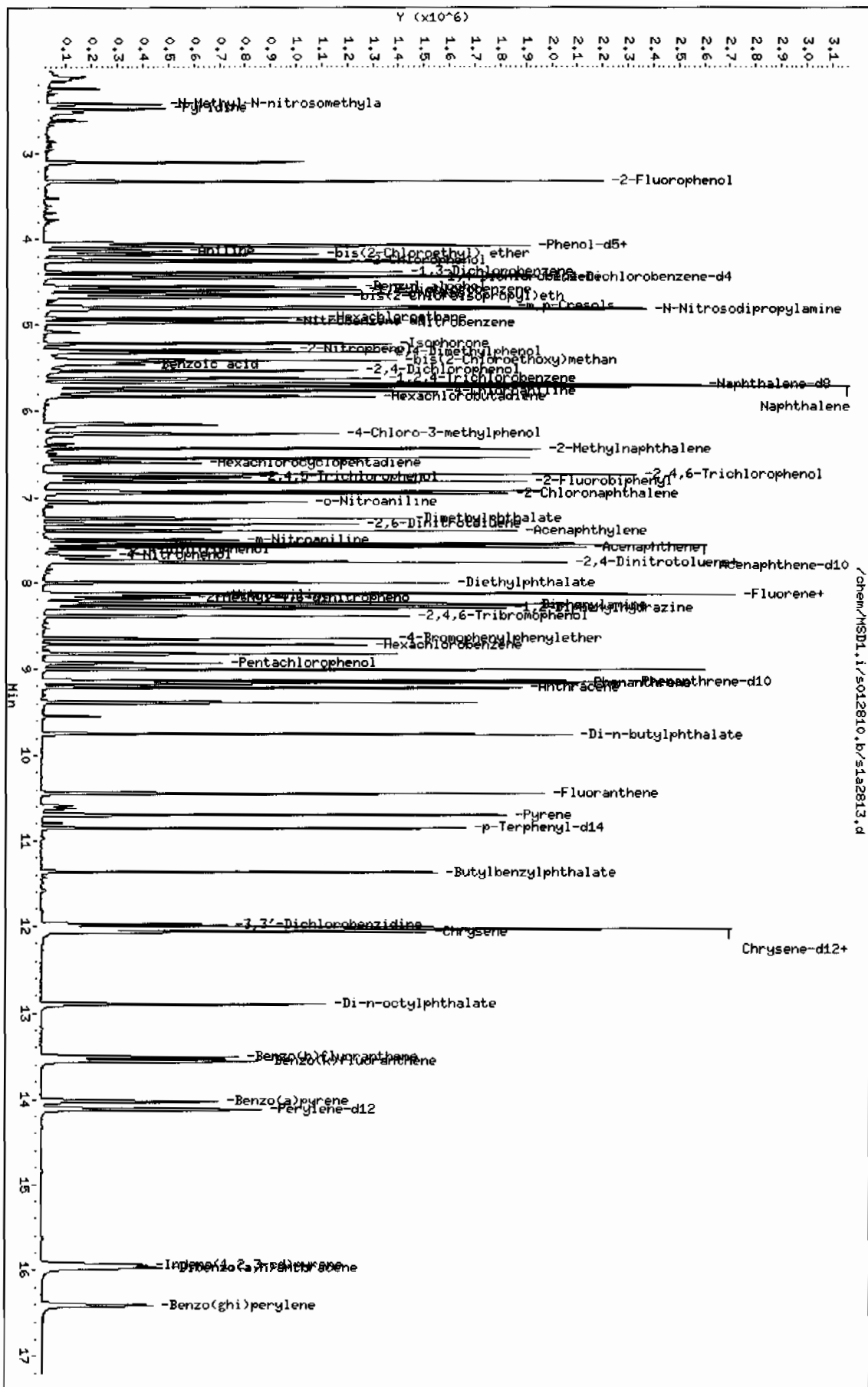
Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.151	8.151	(1.081)	128658	33.1185	1100
133 Diphenylamine	169	8.251	8.251	(0.903)	455125	34.4893	1150
58 1,2-Diphenylhydrazine	77	8.292	8.292	(0.907)	611459	33.8158	1130
61 4-Bromophenylphenylether	248	8.645	8.645	(0.946)	134881	34.6365	1150
63 Hexachlorobenzene	284	8.722	8.722	(0.954)	151627	31.2329	1040
68 Phenanthrene	178	9.163	9.163	(1.003)	749967	33.4714	1120
69 Anthracene	178	9.216	9.222	(1.008)	759997	33.4178	1110
72 Di-n-butylphthalate	149	9.751	9.751	(1.067)	943594	37.1432	1240
76 Fluoranthene	202	10.445	10.445	(1.143)	784309	32.6056	1090
85 Butylbenzylphthalate	149	11.368	11.369	(0.944)	363600	40.1087	1340
89 Benzo(a)anthracene	228	12.016	12.022	(0.998)	555470	33.6227	1120
90 3,3'-Dichlorobenzidine	252	11.980	11.980	(0.995)	167469	32.6042	1090
92 Chrysene	228	12.068	12.069	(1.002)	587601	35.7868	1190
93 bis(2-Ethylhexyl)phthalate	149	12.021	12.022	(0.999)	407748	37.4639	1250
94 Di-n-octylphthalate	149	12.898	12.898	(0.913)	667403	39.9740	1330
95 Benzo(b)fluoranthene	252	13.510	13.516	(0.957)	485087	37.0019	1230
96 Benzo(k)fluoranthene	252	13.557	13.557	(0.960)	497597	38.5121	1280
97 Benzo(a)pyrene	252	14.027	14.027	(0.993)	430710	37.9977	1270
99 Indeno(1,2,3-cd)pyrene	276	15.939	15.939	(1.129)	401000	35.6895	1190
100 Dibenzo(a,h)anthracene	278	15.974	15.974	(1.131)	328118	34.6568	1160
101 Benzo(ghi)perylene	276	16.409	16.415	(1.162)	335266	33.0650	1100(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.422	2.387	(0.546)	134420	26.8821	896

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s012810.b/s12813.d  
 Date: 28-JAN-2010 19:56  
 Client ID: SBLK01LCS  
 Sample Info: 11202022802194459111SYN111SBLK01LCS  
 Volume Injected (uL): 0.5  
 Column phase: 3M DB-5MS

Instrument: MSD1.i  
 Operator: AMY  
 Column diameter: 0.20



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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 1202022803	Date Received: 01/20/2010 08:45	%Moisture: 19.4
Client Sample: QC for batch 944590	Client: LANL010	Project: QC
Client ID: RE15-10-7165MS	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/28/2010 22:14	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30 g	Final Volume: 1 mL
Data File: s1a2818.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		846	ug/kg	82.8	414
108-95-2	Phenol		930	ug/kg	82.8	414
95-57-8	2-Chlorophenol		886	ug/kg	82.8	414
106-46-7	1,4-Dichlorobenzene		495	ug/kg	82.8	414
621-64-7	N-Nitrosodipropylamine		852	ug/kg	82.8	414
59-50-7	4-Chloro-3-methylphenol		1080	ug/kg	82.8	414
83-32-9	Acenaphthene		912	ug/kg	13.7	41.4
121-14-2	2,4-Dinitrotoluene		1100	ug/kg	41.4	414
100-02-7	4-Nitrophenol		786	ug/kg	137	414
87-86-5	Pentachlorophenol		837	ug/kg	103	414
129-00-0	Pyrene		1270	ug/kg	12.4	41.4
110-86-1	Pyridine		684	ug/kg	82.8	414
62-53-3	Aniline		732	ug/kg	124	414
111-44-4	bis(2-Chloroethyl) ether		746	ug/kg	82.8	414
541-73-1	1,3-Dichlorobenzene		455	ug/kg	82.8	414
100-51-6	Benzyl alcohol		871	ug/kg	124	414
95-50-1	1,2-Dichlorobenzene		534	ug/kg	82.8	414
108-60-1	bis(2-Chloroisopropyl)ether		758	ug/kg	82.8	414
95-48-7	o-Cresol		853	ug/kg	82.8	414
65794-96-9	m,p-Cresols		963	ug/kg	124	414
67-72-1	Hexachloroethane		421	ug/kg	82.8	414
98-95-3	Nitrobenzene		814	ug/kg	82.8	414
78-59-1	Isophorone		987	ug/kg	82.8	414
88-75-5	2-Nitrophenol		872	ug/kg	82.8	414
105-67-9	2,4-Dimethylphenol		755	ug/kg	145	414
111-91-1	bis(2-Chloroethoxy)methane		847	ug/kg	82.8	414
120-83-2	2,4-Dichlorophenol		960	ug/kg	82.8	414
65-85-0	Benzoic acid		1180	ug/kg	207	828
91-20-3	Naphthalene		681	ug/kg	12.4	41.4
106-47-8	4-Chloroaniline		756	ug/kg	82.8	414
87-68-3	Hexachlorobutadiene		507	ug/kg	82.8	414
91-57-6	2-Methylnaphthalene		851	ug/kg	8.28	41.4
77-47-4	Hexachlorocyclopentadiene		840	ug/kg	82.8	414
88-06-2	2,4,6-Trichlorophenol		1050	ug/kg	82.8	414
95-95-4	2,4,5-Trichlorophenol		1130	ug/kg	82.8	414
91-58-7	2-Chloronaphthalene		908	ug/kg	13.7	41.4
88-74-4	2-Nitroaniline		980	ug/kg	82.8	414
99-09-2	o-Nitroaniline					
	3-Nitroaniline		988	ug/kg	82.8	414

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

<b>SDG Number:</b> 10-1304	<b>Date Collected:</b> 01/13/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 1202022803	<b>Date Received:</b> 01/20/2010 08:45	<b>%Moisture:</b> 19.4
<b>Client Sample:</b> QC for batch 944590	<b>Client:</b> LANL010	<b>Project:</b> QC
<b>Client ID:</b> RE15-10-7165MS	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 944591	<b>Inst:</b> MSD1.1	<b>Dilution:</b> 1
<b>Run Date:</b> 01/28/2010 22:14	<b>Analyst:</b> AMY	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 01/25/2010 14:38	<b>Aliquot:</b> 30 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s1a2818.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate		1110	ug/kg	82.8	414
606-20-2	2,6-Dinitrotoluene		1010	ug/kg	41.4	414
208-96-8	Acenaphthylene		997	ug/kg	12.4	41.4
51-28-5	2,4-Dinitrophenol		903	ug/kg	157	828
132-64-9	Dibenzofuran		1170	ug/kg	82.8	414
84-66-2	Diethylphthalate		1170	ug/kg	82.8	414
86-73-7	Fluorene		1000	ug/kg	12.4	41.4
7005-72-3	4-Chlorophenylphenylether		1060	ug/kg	82.8	414
534-52-1	2-Methyl-4,6-dinitrophenol		952	ug/kg	82.8	414
100-01-6	4-Nitroaniline		1080	ug/kg	124	414
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine		1040	ug/kg	82.8	414
122-66-7	Azobenzene		1050	ug/kg	82.8	414
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1120	ug/kg	82.8	414
118-74-1	Hexachlorobenzene		982	ug/kg	82.8	414
85-01-8	Phenanthrene		1090	ug/kg	12.4	41.4
120-12-7	Anthracene		1090	ug/kg	8.28	41.4
84-74-2	Di-n-butylphthalate		1250	ug/kg	82.8	414
206-44-0	Fluoranthene		1080	ug/kg	12.4	41.4
85-68-7	Butylbenzylphthalate		1310	ug/kg	82.8	414
56-55-3	Benzo(a)anthracene		1090	ug/kg	12.4	41.4
91-94-1	3,3'-Dichlorobenzidine		810	ug/kg	124	414
218-01-9	Chrysene		1180	ug/kg	12.4	41.4
117-81-7	bis(2-Ethylhexyl)phthalate		1260	ug/kg	82.8	414
117-84-0	Di-n-octylphthalate		1380	ug/kg	82.8	414
205-99-2	Benzo(b)fluoranthene		1160	ug/kg	12.4	41.4
207-08-9	Benzo(k)fluoranthene		1250	ug/kg	12.4	41.4
50-32-8	Benzo(a)pyrene		1220	ug/kg	12.4	41.4
193-39-5	Indeno(1,2,3-cd)pyrene		1130	ug/kg	12.4	41.4
53-70-3	Dibenzo(a,h)anthracene		1120	ug/kg	12.4	41.4
191-24-2	Benzo(ghi)perylene		1020	ug/kg	12.4	41.4
120-82-1	1,2,4-Trichlorobenzene		706	ug/kg	82.8	414

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/s1a2818.d  
 Lab Smp Id: 1202022803 Client Smp ID: RE15-10-7165MS  
 Inj Date : 28-JAN-2010 22:14  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |1202022803|944591|1|SVMF|1|MS  
 Misc Info : |MSD8270\_S|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: s1a2203.d  
 Als bottle: 7 QC Sample: MS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1304.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	30.00000	weight of sample
M	19.44320	% 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	4.434	4.434	(1.000)	277111	40.0000	
* 29 Naphthalene-d8		136	5.687	5.687	(1.000)	1126580	40.0000	
* 46 Acenaphthene-d10		164	7.540	7.540	(1.000)	598353	40.0000	
* 67 Phenanthrene-d10		188	9.139	9.139	(1.000)	960529	40.0000	
* 91 Chrysene-d12		240	12.039	12.039	(1.000)	731884	40.0000	
* 98 Perylene-d12		264	14.127	14.121	(1.000)	597571	40.0000	
\$ 3 2-Fluorophenol		112	3.316	3.304	(0.748)	367090	42.8309	1770
\$ 5 Phenol-d5		99	4.069	4.063	(0.918)	472965	44.4294	1840
\$ 20 Nitrobenzene-d5		82	4.957	4.957	(0.872)	200293	24.0887	997
\$ 39 2-Fluorobiphenyl		172	6.810	6.810	(0.903)	396500	25.7217	1060
\$ 60 2,4,6-Tribromophenol		329	8.386	8.387	(1.112)	114121	52.7074	2180
\$ 81 p-Terphenyl-d14		244	10.845	10.845	(0.901)	432716	32.9488	1360

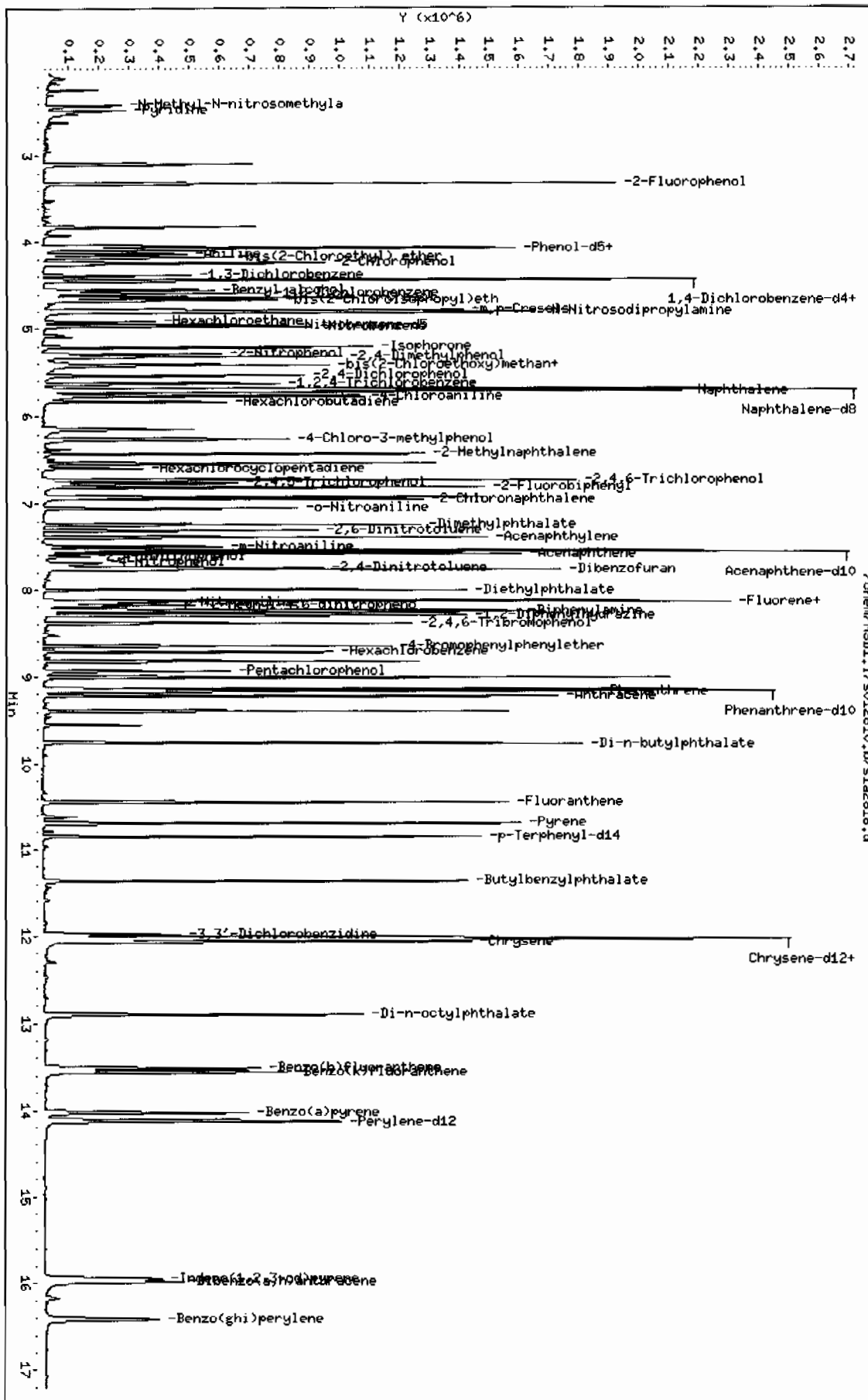


Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng/ul)	(ug/Kg)
6 Phenol	94	4.081	4.075	(0.920)	251497	22.4714	930 (Q)
8 2-Chlorophenol	128	4.240	4.240	(0.956)	189058	21.4169	886
11 1,4-Dichlorobenzene	146	4.451	4.451	(1.004)	112289	11.9548	495 (R)
17 N-Nitrosodipropylamine	70	4.798	4.810	(1.082)	132262	20.5886	852 (Q)
28 1,2,4-Trichlorobenzene	180	5.622	5.622	(0.989)	126699	17.0550	706
33 4-Chloro-3-methylphenol	107	6.257	6.245	(1.100)	191587	26.1922	1080
47 Acenaphthene	154	7.575	7.575	(1.005)	320475	22.0489	912
50 2,4-Dinitrotoluene	165	7.739	7.745	(1.027)	144055	26.6465	1100
52 4-Nitrophenol	139	7.681	7.663	(1.019)	64235	19.0007	786
65 Pentachlorophenol	266	8.934	8.928	(0.977)	69833	20.2180	836
79 Pyrene	202	10.686	10.692	(0.888)	683633	30.5941	1260
2 Pyridine	79	2.475	2.434	(0.558)	138079	16.5211	684
4 Aniline	66	4.134	4.128	(0.932)	83283	17.6871	732
7 bis(2-Chloroethyl) ether	63	4.169	4.169	(0.940)	153246	18.0297	746
9 1,3-Dichlorobenzene	146	4.387	4.381	(0.989)	106033	11.0046	455 (R)
12 Benzyl alcohol	108	4.551	4.551	(1.027)	128788	21.0421	871
13 1,2-Dichlorobenzene	146	4.593	4.593	(1.036)	119971	12.8979	534 (R)
14 bis(2-Chloroisopropyl) ether	45	4.669	4.669	(1.053)	393818	18.3190	758
15 o-Cresol	107	4.640	4.634	(1.046)	149499	20.6260	853
18 m,p-Cresols	107	4.787	4.793	(1.080)	217883	23.2786	963 (Q)
19 Hexachloroethane	117	4.922	4.916	(1.110)	38795	10.1627	420 (R)
21 Nitrobenzene	77	4.975	4.981	(0.875)	186023	19.6822	814
22 Isophorone	82	5.210	5.222	(0.916)	391248	23.8446	987
23 2-Nitrophenol	139	5.293	5.293	(0.931)	93804	21.0826	872
24 2,4-Dimethylphenol	122	5.316	5.316	(0.935)	152090	18.2411	755
25 bis(2-Chloroethoxy)methane	93	5.416	5.416	(0.952)	216564	20.4645	847
26 2,4-Dichlorophenol	162	5.534	5.534	(0.973)	160368	23.2058	960
27 Benzoic acid	105	5.428	5.428	(0.954)	150181	28.6115	1180
30 Naphthalene	128	5.710	5.710	(1.004)	443372	16.4568	681
31 4-Chloroaniline	127	5.757	5.757	(1.012)	156362	18.2632	756
32 Hexachlorobutadiene	225	5.828	5.828	(1.025)	57035	12.2611	507 (R)
34 2-Methylnaphthalene	142	6.422	6.428	(1.129)	336436	20.5605	851
36 Hexachlorocyclopentadiene	237	6.593	6.593	(0.874)	43037	20.3099	840
37 2,4,6-Trichlorophenol	196	6.722	6.722	(0.892)	114660	25.3783	1050
38 2,4,5-Trichlorophenol	196	6.763	6.757	(0.897)	142058	27.3664	1130
40 2-Chloronaphthalene	162	6.945	6.945	(0.921)	349403	21.9528	908
42 o-Nitroaniline	65	7.051	7.051	(0.935)	141642	23.6836	980
41 m-Nitroaniline	138	7.492	7.492	(0.994)	97983	23.8885	988
43 Dimethylphthalate	163	7.240	7.251	(0.960)	467545	26.7690	1110
44 2,6-Dinitrotoluene	165	7.310	7.310	(0.970)	103433	24.4660	1010
45 Acenaphthylene	152	7.387	7.392	(0.980)	569724	24.1057	997
48 2,4-Dinitrophenol	184	7.604	7.604	(1.009)	23197	21.8279	903 (Q)
49 Dibenzofuran	168	7.757	7.757	(1.029)	613779	28.3292	1170
51 Diethylphthalate	149	7.992	7.998	(1.060)	464984	28.3774	1170
53 Fluorene	166	8.128	8.128	(1.078)	416770	24.2668	1000
54 4-Chlorophenylphenylether	204	8.122	8.122	(1.077)	187630	25.5659	1060
55 2-Methyl-4,6-dinitrophenol	198	8.175	8.181	(0.894)	54665	23.0132	952

Compounds	QUANT SIG	CONCENTRATIONS					
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
-----	----	==	=====	=====	=====	=====	=====
56 p-Nitroaniline	138	8.151	8.151	(1.081)	106186	26.0620	1080
133 Diphenylamine	169	8.245	8.251	(0.902)	351064	25.0512	1040
58 1,2-Diphenylhydrazine	77	8.292	8.292	(0.907)	488941	25.4622	1050
61 4-Bromophenylphenylether	248	8.645	8.645	(0.946)	111747	27.0213	1120
63 Hexachlorobenzene	284	8.722	8.722	(0.954)	122318	23.7255	982
68 Phenanthrene	178	9.163	9.163	(1.003)	627537	26.3730	1090
69 Anthracene	178	9.216	9.222	(1.008)	637027	26.3761	1090
72 Di-n-butylphthalate	149	9.751	9.751	(1.067)	812718	30.1247	1250
76 Fluoranthene	202	10.445	10.445	(1.143)	669076	26.1919	1080
85 Butylbenzylphthalate	149	11.369	11.369	(0.944)	329501	31.7763	1310
89 Benzo(a)anthracene	228	12.016	12.022	(0.998)	498912	26.4013	1090
90 3,3'-Dichlorobenzidine	252	11.980	11.980	(0.995)	115033	19.5792	810
92 Chrysene	228	12.069	12.069	(1.002)	535651	28.5202	1180
93 bis(2-Ethylhexyl)phthalate	149	12.022	12.022	(0.999)	380524	30.5657	1260
94 Di-n-octylphthalate	149	12.898	12.898	(0.913)	662168	33.3210	1380
95 Benzo(b)fluoranthene	252	13.510	13.516	(0.956)	439259	28.1504	1160
96 Benzo(k)fluoranthene	252	13.557	13.557	(0.960)	463947	30.1681	1250
97 Benzo(a)pyrene	252	14.027	14.027	(0.993)	398264	29.5191	1220
99 Indeno(1,2,3-cd)pyrene	276	15.939	15.939	(1.128)	364699	27.2704	1130
100 Dibenzo(a,h)anthracene	278	15.974	15.974	(1.131)	305400	27.1011	1120
101 Benzo(ghi)perylene	276	16.415	16.415	(1.162)	298760	24.7549	1020(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.416	2.387	(0.545)	105403	20.4538	846

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.  
R - Spike/Surrogate failed recovery limits.



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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 1202022804	Date Received: 01/20/2010 08:45	%Moisture: 19.4
Client Sample: QC for batch 944590	Client: LANL010	Project: QC
Client ID: RE15-10-7165MSD	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.I	Dilution: 1
Run Date: 01/28/2010 22:41	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.03 g	Final Volume: 1 mL
Data File: sla2819.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		876	ug/kg	82.7	413
108-95-2	Phcnol		928	ug/kg	82.7	413
95-57-8	2-Chlorophenol		891	ug/kg	82.7	413
106-46-7	1,4-Dichlorobenzene		584	ug/kg	82.7	413
621-64-7	N-Nitrosodipropylamine		839	ug/kg	82.7	413
59-50-7	4-Chloro-3-methylphenol		933	ug/kg	82.7	413
83-32-9	Accnaphthene		835	ug/kg	13.6	41.3
121-14-2	2,4-Dinitrotoluene		899	ug/kg	41.3	413
100-02-7	4-Nitrophenol	J	177	ug/kg	136	413
87-86-5	Pentachlorophenol		594	ug/kg	103	413
129-00-0	Pyrene		1080	ug/kg	12.4	41.3
110-86-1	Pyridine		731	ug/kg	82.7	413
62-53-3	Aniline		688	ug/kg	124	413
111-44-4	bis(2-Chloroethyl) ether		785	ug/kg	82.7	413
541-73-1	1,3-Dichlorobenzene		551	ug/kg	82.7	413
100-51-6	Benzyl alcohol		822	ug/kg	124	413
95-50-1	1,2-Dichlorobenzene		618	ug/kg	82.7	413
108-60-1	bis(2-Chloroisopropyl)ether		782	ug/kg	82.7	413
95-48-7	o-Cresol		838	ug/kg	82.7	413
65794-96-9	m,p-Cresols		919	ug/kg	124	413
67-72-1	Hexachloroethane		520	ug/kg	82.7	413
98-95-3	Nitrobenzene		845	ug/kg	82.7	413
78-59-1	Isophorone		971	ug/kg	82.7	413
88-75-5	2-Nitrophenol		881	ug/kg	82.7	413
105-67-9	2,4-Dimethylphenol		737	ug/kg	145	413
111-91-1	bis(2-Chloroethoxy)methane		840	ug/kg	82.7	413
120-83-2	2,4-Dichlorophenol		905	ug/kg	82.7	413
65-85-0	Benzoic acid		836	ug/kg	207	827
91-20-3	Naphthalene		708	ug/kg	12.4	41.3
106-47-8	4-Chloroaniline		776	ug/kg	82.7	413
87-68-3	Hexachlorobutadiene		569	ug/kg	82.7	413
91-57-6	2-Methylnaphthalene		835	ug/kg	8.27	41.3
77-47-4	Hexachlorocyclopentadiene		738	ug/kg	82.7	413
88-06-2	2,4,6-Trichlorophenol		930	ug/kg	82.7	413
95-95-4	2,4,5-Trichlorophenol		958	ug/kg	82.7	413
91-58-7	2-Chloronaphthalene		853	ug/kg	13.6	41.3
88-74-4	2-Nitroaniline		842	ug/kg	82.7	413
	o-Nitroaniline					
99-09-2	3-Nitroaniline		828	ug/kg	82.7	413

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

SDG Number: 10-1304	Date Collected: 01/13/2010 12:00	Matrix: R
Lab Sample ID: 1202022804	Date Received: 01/20/2010 08:45	%Moisture: 19.4
Client Sample: QC for batch 944590	Client: LANL010	Project: QC
Client ID: RE15-10-716MSD	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 944591	Inst: MSD1.J	Dilution: 1
Run Date: 01/28/2010 22:41	Analyst: AMY	Inj. Vol: .5 uL
Prep Date: 01/25/2010 14:38	Aliquot: 30.03 g	Final Volume: 1 mL
Data File: s1a2819.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		965	ug/kg	82.7	413
606-20-2	Dimethylphthalate		870	ug/kg	41.3	413
208-96-8	2,6-Dinitrotoluene		917	ug/kg	12.4	41.3
51-28-5	Accnaphthylene		702	ug/kg	157	827
132-64-9	2,4-Dinitrophenol	J	1040	ug/kg	82.7	413
84-66-2	Dibenzofuran		979	ug/kg	82.7	413
86-73-7	Diethylphthalate		870	ug/kg	12.4	41.3
7005-72-3	Fluorene		908	ug/kg	82.7	413
534-52-1	4-Chlorophenylphenylether		646	ug/kg	82.7	413
100-01-6	2-Methyl-4,6-dinitrophenol		836	ug/kg	124	413
122-39-4	4-Nitroaniline		884	ug/kg	82.7	413
122-66-7	<i>p</i> -Nitroaniline		906	ug/kg	82.7	413
101-55-3	Diphenylamine		936	ug/kg	82.7	413
118-74-1	Azobenzene		845	ug/kg	82.7	413
85-01-8	<i>1,2</i> -Diphenylhydrazine		896	ug/kg	12.4	41.3
120-12-7	4-Bromophenylphenylether		891	ug/kg	8.27	41.3
84-74-2	Hexachlorobenzene		998	ug/kg	82.7	413
206-44-0	Phenanthrene		853	ug/kg	12.4	41.3
85-68-7	Di-n-butylphthalate		1070	ug/kg	82.7	413
56-55-3	Fluoranthene		860	ug/kg	12.4	41.3
91-94-1	Benzo(a)anthracene		647	ug/kg	124	413
218-01-9	3,3'-Dichlorobenzidine		914	ug/kg	12.4	41.3
117-81-7	Chrysene		1020	ug/kg	82.7	413
117-84-0	bis(2-Ethylhexyl)phthalate		1130	ug/kg	82.7	413
205-99-2	Di-n-octylphthalate		897	ug/kg	12.4	41.3
207-08-9	Benzo(b)fluoranthene		1000	ug/kg	12.4	41.3
50-32-8	Benzo(k)fluoranthene		937	ug/kg	12.4	41.3
193-39-5	Benzo(a)pyrene		799	ug/kg	12.4	41.3
53-70-3	Indeno(1,2,3-cd)pyrene		794	ug/kg	12.4	41.3
191-24-2	Dibenzo(a,h)anthracene		715	ug/kg	12.4	41.3
120-82-1	Benzo(ghi)perylene		759	ug/kg	82.7	413
	1,2,4-Trichlorobenzene					

GEL Laboratories LLC

Data file : /chem/MSD1.i/s012810.b/s1a2819.d  
 Lab Smp Id: 1202022804 Client Smp ID: RE15-10-7165MSD  
 Inj Date : 28-JAN-2010 22:41  
 Operator : AMY Inst ID: MSD1.i  
 Smp Info : |1202022804|944591|1|SVMF|1|MSD  
 Misc Info : |MSD8270\_S|WBN100107-03|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD1.i/s012810.b/MSD1-M8270AQAP-012210.m  
 Meth Date : 29-Jan-2010 11:16 amy01291 Quant Type: ISTD  
 Cal Date : 22-JAN-2010 14:28 Cal File: s1a2203.d  
 Als bottle: 8 QC Sample: MSD  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1304.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	19.44320	% 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	4.434	4.434	(1.000)	283396	40.0000	
* 29 Naphthalene-d8	136	5.687	5.687	(1.000)	1148403	40.0000	
* 46 Acenaphthene-d10	164	7.540	7.540	(1.000)	609917	40.0000	
* 67 Phenanthrene-d10	188	9.139	9.139	(1.000)	965647	40.0000	
* 91 Chrysene-d12	240	12.033	12.039	(1.000)	674953	40.0000	
* 98 Perylene-d12	264	14.121	14.121	(1.000)	495574	40.0000	
\$ 3 2-Fluorophenol	112	3.316	3.304	(0.748)	375255	42.8124	1770
\$ 5 Phenol-d5	99	4.069	4.063	(0.918)	461363	42.3783	1750
\$ 20 Nitrobenzene-d5	82	4.957	4.957	(0.872)	199800	23.5728	974
\$ 39 2-Fluorobiphenyl	172	6.810	6.810	(0.903)	373819	23.7906	983
\$ 60 2,4,6-Tribromophenol	329	8.387	8.387	(1.112)	90948	41.2086	1700
\$ 81 p-Terphenyl-d14	244	10.845	10.845	(0.901)	332318	27.4384	1130

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng/ul)	(ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
6 Phenol	94	4.081	4.075	(0.920)	256916	22.4464	928 (Q)
8 2-Chlorophenol	128	4.240	4.240	(0.956)	194665	21.5629	891
11 1,4-Dichlorobenzene	146	4.452	4.451	(1.004)	135732	14.1300	584 (R)
17 N-Nitrosodipropylamine	70	4.799	4.810	(1.082)	133378	20.3018	839 (Q)
28 1,2,4-Trichlorobenzene	180	5.622	5.622	(0.989)	139053	18.3624	759
33 4-Chloro-3-methylphenol	107	6.257	6.245	(1.100)	168372	22.5810	933
47 Acenaphthene	154	7.575	7.575	(1.005)	299228	20.1968	835
50 2,4-Dinitrotoluene	165	7.740	7.745	(1.027)	119881	21.7544	899
52 4-Nitrophenol	139	7.687	7.663	(1.020)	14753	4.28140	177 (aQR)
65 Pentachlorophenol	266	8.934	8.928	(0.977)	49914	14.3744	594
79 Pyrene	202	10.686	10.692	(0.888)	537712	26.0935	1080
2 Pyridine	79	2.475	2.434	(0.558)	151175	17.6869	731
4 Aniline	66	4.134	4.128	(0.932)	80143	16.6426	688 (R)
7 bis(2-Chloroethyl) ether	63	4.169	4.169	(0.940)	165094	18.9929	785
9 1,3-Dichlorobenzene	146	4.387	4.381	(0.989)	131231	13.3176	550 (R)
12 Benzyl alcohol	108	4.551	4.551	(1.027)	124441	19.8810	822
13 1,2-Dichlorobenzene	146	4.593	4.593	(1.036)	142243	14.9531	618 (R)
14 bis(2-Chloroisopropyl) ether	45	4.669	4.669	(1.053)	415904	18.9172	782
15 o-Cresol	107	4.640	4.634	(1.046)	150292	20.2756	838
18 m,p-Cresols	107	4.787	4.793	(1.080)	212811	22.2324	919 (Q)
19 Hexachloroethane	117	4.922	4.916	(1.110)	49091	12.5747	520 (R)
21 Nitrobenzene	77	4.975	4.981	(0.875)	196930	20.4402	845
22 Isophorone	82	5.210	5.222	(0.916)	393091	23.5017	971
23 2-Nitrophenol	139	5.293	5.293	(0.931)	96676	21.3152	881
24 2,4-Dimethylphenol	122	5.316	5.316	(0.935)	151433	17.8171	736
25 bis(2-Chloroethoxy)methane	93	5.416	5.416	(0.952)	219268	20.3263	840
26 2,4-Dichlorophenol	162	5.534	5.534	(0.973)	154277	21.9003	905
27 Benzoic acid	105	5.422	5.428	(0.953)	108249	20.2310	836
30 Naphthalene	128	5.710	5.710	(1.004)	470342	17.1261	708
31 4-Chloroaniline	127	5.757	5.757	(1.012)	163871	18.7764	776
32 Hexachlorobutadiene	225	5.828	5.828	(1.025)	65228	13.7559	569 (R)
34 2-Methylnaphthalene	142	6.422	6.428	(1.129)	336948	20.2005	835
36 Hexachlorocyclopentadiene	237	6.587	6.593	(0.874)	38549	17.8472	738
37 2,4,6-Trichlorophenol	196	6.722	6.722	(0.892)	103641	22.5045	930
38 2,4,5-Trichlorophenol	196	6.769	6.757	(0.898)	122680	23.1853	958
40 2-Chloronaphthalene	162	6.945	6.945	(0.921)	334928	20.6444	853
42 o-Nitroaniline	65	7.051	7.051	(0.935)	124119	20.3602	842
41 m-Nitroaniline	138	7.492	7.492	(0.994)	83511	20.0349	828
43 Dimethylphthalate	163	7.240	7.251	(0.960)	415617	23.3447	965
44 2,6-Dinitrotoluene	165	7.304	7.310	(0.969)	90729	21.0541	870
45 Acenaphthylene	152	7.387	7.392	(0.980)	534615	22.1913	917
48 2,4-Dinitrophenol	184	7.610	7.604	(1.009)	12748	16.9878	702 (aQ)
49 Dibenzofuran	168	7.757	7.757	(1.029)	554550	25.1102	1040
51 Diethylphthalate	149	7.992	7.998	(1.060)	395392	23.6728	978
53 Fluorene	166	8.128	8.128	(1.078)	368613	21.0559	870 (R)
54 4-Chlorophenylphenylether	204	8.116	8.122	(1.076)	164350	21.9693	908
55 2-Methyl-4,6-dinitrophenol	198	8.175	8.181	(0.894)	34040	15.6222	646

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.145	8.151	(1.080)	83967	20.2179	836
133 Diphenylamine	169	8.245	8.251	(0.902)	301211	21.3799	884
58 1,2-Diphenylhydrazine	77	8.292	8.292	(0.907)	422906	21.9066	906
61 4-Bromophenylphenylether	248	8.645	8.645	(0.946)	94187	22.6546	936
63 Hexachlorobenzene	284	8.716	8.722	(0.954)	105919	20.4357	845
68 Phenanthrene	178	9.163	9.163	(1.003)	518402	21.6710	896
69 Anthracene	178	9.216	9.222	(1.008)	523307	21.5527	891
72 Di-n-butylphthalate	149	9.751	9.751	(1.067)	655058	24.1521	998
76 Fluoranthene	202	10.439	10.445	(1.142)	529982	20.6370	853
85 Butylbenzylphthalate	149	11.363	11.369	(0.944)	246989	25.8281	1070
89 Benzo(a)anthracene	228	12.016	12.022	(0.999)	362574	20.8050	860
90 3,3'-Dichlorobenzidine	252	11.980	11.980	(0.996)	84758	15.6430	647(R)
92 Chrysene	228	12.063	12.069	(1.002)	382969	22.1107	914
93 bis(2-Ethylhexyl)phthalate	149	12.022	12.022	(0.999)	282492	24.6052	1020
94 Di-n-octylphthalate	149	12.898	12.898	(0.913)	449246	27.2593	1130
95 Benzo(b)fluoranthene	252	13.510	13.516	(0.957)	280820	21.7006	897
96 Benzo(k)fluoranthene	252	13.551	13.557	(0.960)	309329	24.2539	1000
97 Benzo(a)pyrene	252	14.021	14.027	(0.993)	253725	22.6765	937
99 Indeno(1,2,3-cd)pyrene	276	15.933	15.939	(1.128)	214334	19.3254	799
100 Dibenzo(a,h)anthracene	278	15.968	15.974	(1.131)	179489	19.2061	794
101 Benzo(ghi)perylene	276	16.404	16.415	(1.162)	173110	17.2959	715(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.428	2.387	(0.548)	111716	21.1981	876

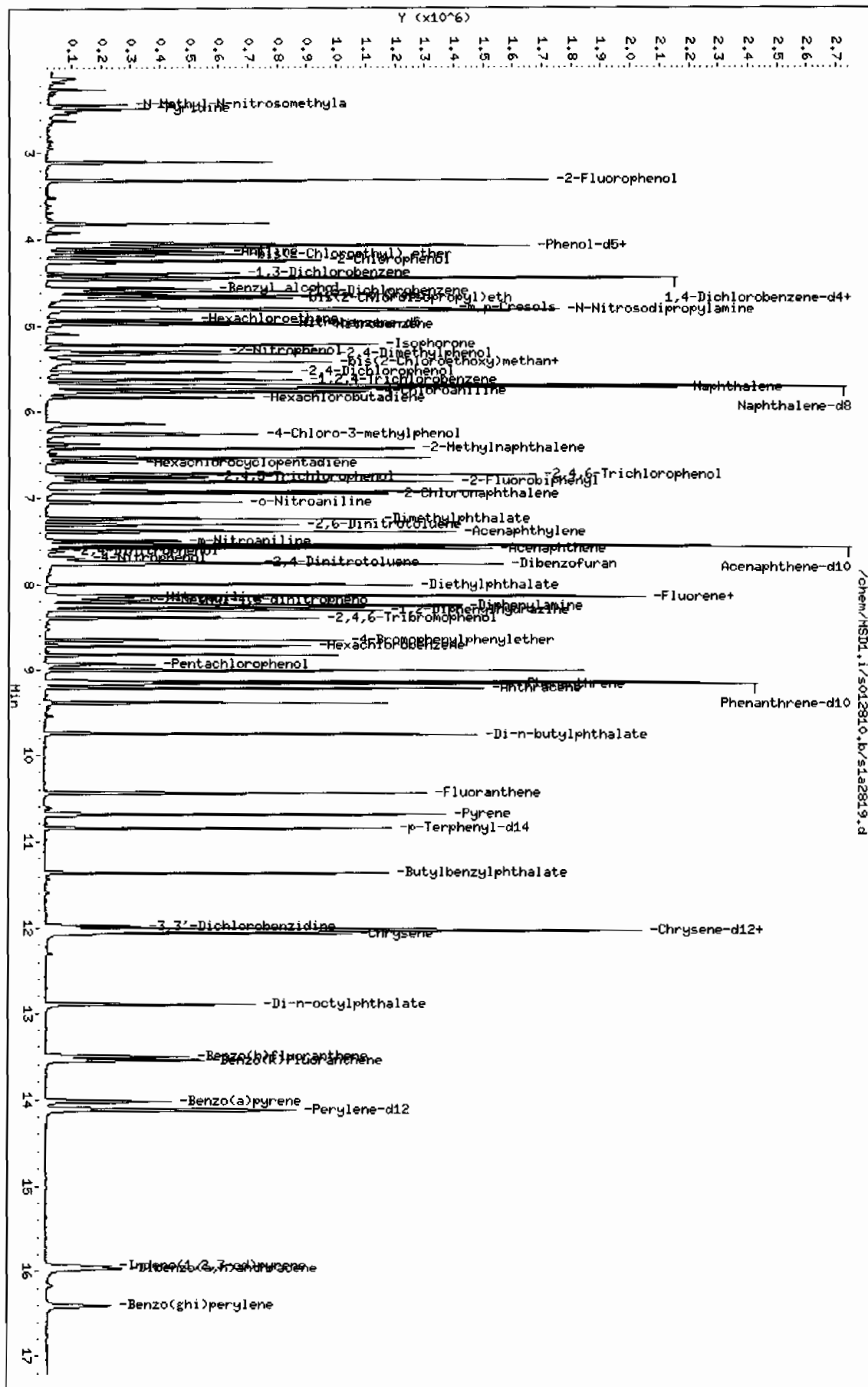
#### QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.



Data File: /chem/MSD1.1/s012810.b/s1a2819.d  
 Date: 28-JAN-2010 22:41  
 Client ID: RE15-10-7163MSD  
 Sample Info: 11292022804194459111SMF111MSD  
 Volume Injected (uL): 0.5  
 Column Phase: J&W DB-SMS

Instrument: MSD1.1  
 Operator: AMY  
 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: 944590      Verified by: \_\_\_\_\_  
 Analyst: Robin Hunt      Lab SOP: GL-OA-E-010 REV# 18  
 Method: SW846 3550B      Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202022801 MB	25-JAN-2010 14:38:00	30	1	0.03333
1202022802 LCS	25-JAN-2010 14:38:00	30	1	0.03333
245106001	25-JAN-2010 14:38:00	30	1	0.03333
1202022803 MS (245106001)	25-JAN-2010 14:38:00	30	1	0.03333
1202022804 MSD (245106001)	25-JAN-2010 14:38:00	30.03	1	0.0333
245106002	25-JAN-2010 14:38:00	30.01	1	0.03332
245106003	25-JAN-2010 14:38:00	30.09	1	0.03323
245106004	25-JAN-2010 14:38:00	30.02	1	0.03331
245106005	25-JAN-2010 14:38:00	30.05	1	0.03328
245106006	25-JAN-2010 14:38:00	30.01	1	0.03332
245106007	25-JAN-2010 14:38:00	30.01	1	0.03332
245106008	25-JAN-2010 14:38:00	30.09	1	0.03323
245106009	25-JAN-2010 14:38:00	30	1	0.03333
245106010	25-JAN-2010 14:38:00	30	1	0.03333
245106011	25-JAN-2010 14:38:00	30.03	1	0.0333
245106012	25-JAN-2010 14:38:00	30	1	0.03333
245106013	25-JAN-2010 14:38:00	30.02	1	0.03331
245106014	25-JAN-2010 14:38:00	30.02	1	0.03331
245106015	25-JAN-2010 14:38:00	30.02	1	0.03331
245106016	25-JAN-2010 14:38:00	30.05	1	0.03328

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202022802	BNA LCS w/o Benzidine 50ppm	UE091229-12B	1	mL	Verified By: JAM
LCS	1202022802	BENZIDINE LCS	UE091229-21	1	mL	Final Solvent: CH2Cl2
MS	1202022803	BNA LCS w/o Benzidine 50ppm	UE091229-12B	1	mL	
MS	1202022803	BENZIDINE LCS	UE091229-21	1	mL	
MSD	1202022804	BNA LCS w/o Benzidine 50ppm	UE091229-12B	1	mL	
MSD	1202022804	BENZIDINE LCS	UE091229-21	1	mL	
SURR	ALL	BNA for all Surrogate	UE100108-10	1	mL	
REGNT	ALL	Methylene Chloride	1245620-D	150	mL	
REGNT	ALL	Acetone	1255284	150	mL	
SOURC	ALL	SODIUM SULFATE	1256907	30	g	

# GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD3

DATE: 02/11/2010 METHOD: See raw data OPERATOR: JLD1 REVIEWED BY: \_\_\_\_\_  
 HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT: 1262945-D  
 Multiplier Voltage: 1035 Emv Extr. Injection Volume: 0.5, 1.0 ul  
 DFTPP Solution ID: WBN100107-01 Internal Std ID: WBN100205-01  
 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/MSD3.i/s021110.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
Is3b1101.d	WBN100107-01	JLD1	11-FEB-2010 07:50	150NG	s021110	1.0	DFTPP	IDUSE
Is3b1102.d	WBN100107-01	JLD1	11-FEB-2010 08:06	150NG	s021110	1.0	DFTPP	IDUSE
Is3b1103.d	WBN100121-17.4	JLD1	11-FEB-2010 08:35	140 PPM	s021110	1.0	MEGACVS	IDUSE; MAINTENANCE
Is3b1104.d	WBN100107-01	JLD1	11-FEB-2010 09:12	150NG	s021110	1.0	DFTPP	IDUSE
Is3b1105.d	WBN100121-17.4	JLD1	11-FEB-2010 09:24	140 PPM	s021110	1.0	MEGACVS	IDUSE; MAINTENANCE
Is3b1106.d	WBN100107-01	JLD1	11-FEB-2010 10:03	150NG	s021110	1.0	DFTPP	IDUSE
Is3b1107.d	WBN100121-17.4	JLD1	11-FEB-2010 10:15	140 PPM	s021110	1.0	MEGACVS	IDUSE (478293)
Is3b1108.d	WBN100121-05.3	JLD1	11-FEB-2010 10:53	140 PPM	s021110	1.0	BJCOCVS	IDUSE
Is3b1109.d	WBN100120-08.4	JLD1	11-FEB-2010 11:22	140 PPM	s021110	1.0	APCVS	IDUSE
Is3b1110.d	WBN100205-26.2	JLD1	11-FEB-2010 11:47	140 PPM	s021110	1.0	PESTCVS	IDUSE
Is3b1111.d	1202037860	JLD1	11-FEB-2010 12:12	1950932	246379-2	1.0	SBLK01	IDUSE
Is3b1112.d	1202037861	JLD1	11-FEB-2010 12:37	1950932	246379-2	1.0	SBLK01LCS	IDUSE
Is3b1113.d	246143021	JLD1	11-FEB-2010 13:02	1949708	246143	20.0	IBV12	IDUSE; RR OF S3B0924; SURR HIGH
Is3b1114.d	246143017	JLD1	11-FEB-2010 13:31	1949708	246143	2000.0	IBV120L	IDUSE; RR OF S3B0923; REPORT ONLY C 93
Is3b1115.d	1202037860	JLD1	11-FEB-2010 14:01	1950932	246379-2	1.0	SBLK01	IDUSE
Is3b1116.d	1202037861	JLD1	11-FEB-2010 14:30	1950932	246379-2	1.0	SBLK01LCS	IDUSE
Is3b1117.d	246143017	JLD1	11-FEB-2010 14:59	1949708	246143	20.0	IBV12	IDUSE; RR OF S3B0923; ISTD LOW
Is3b1118.d	INSTRUMENTBLANK	JLD1	11-FEB-2010 15:28		s021110	1.0	IB	IB
Is3b1119.d	245106016	JLD1	11-FEB-2010 15:54	1944591	110-1304	1.0	LANL	IDUSE; RR OF S1A2924; ISTD PASS ON LOW SIDE/SURR LOW

s3b1120.d	1245106014	JLD1	11-FEB-2010 16:19	1944591	10-1304	10.0 LANL	USE; RR OF SIA2922; ISTD PASS/SURR HIGH
s3b1121.d	1246400003	JLD1	11-FEB-2010 16:44	1950932	246379-2	100.0 BY12	IC 93 OR; RR AT 4000X
s3b1122.d	INSTRUMENTBLANK	JLD1	11-FEB-2010 17:13		18021110	1.0	IB
s3b1123.d	1246400008	JLD1	11-FEB-2010 17:39	1950932	246379-2	40.0 BY12	IDUSE; OVERDILUTED SEE 4X RR
s3b1124.d	1246400011	JLD1	11-FEB-2010 18:08	1950932	246379-2	40.0 BY12	ISTD LOW; RR @40X
s3b1125.d	1246400015	JLD1	11-FEB-2010 18:36	1950932	246379-2	40.0 BY13	DUSE; OVERDILUTED SEE 4X RR
s3b1126.d	1246400018	JLD1	11-FEB-2010 19:05	1950932	246379-2	40.0 BY14	ISTD LOW; SEE RR @40X; C 93 OR RR @200X
s3b1127.d	1246400021	JLD1	11-FEB-2010 19:34	1950932	246379-2	40.0 BY15	USE; SURR HIGH
s3b1128.d	1246400024	JLD1	11-FEB-2010 20:03	1950932	246379-2	40.0 BY16	??
s3b1129.d	1246400027	JLD1	11-FEB-2010 20:32	1950932	246379-2	40.0 BY17	ISTD LOW; RR @40X
s3b1130.d	1246400030	JLD1	11-FEB-2010 21:00	1950932	246379-2	40.0 BY18	IDUSE; OVERDILUTED SEE 4X RR
s3b1131.d	1246400033	JLD1	11-FEB-2010 21:29	1950932	246379-2	40.0 BY19	USE; SURR HIGH
s3b1132.d	1202037862	JLD1	11-FEB-2010 21:57	1950932	246379-2	40.0 MS	USE
s3b1133.d	1202037863	JLD1	11-FEB-2010 22:26	1950932	246379-2	40.0 MSD	IDUSE; OUT OF TUNE
s3b1135.d	WBN100121-17.4	JLD1	12-FEB-2010 03:05	140 PPM	18021110	1.0 MEGACVS	IDUSE; FILE S3B1334 DOES NOT EXIST

# GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD3

DATE: 01/20/2010 METHOD: See raw data OPERATOR: JLD1 REVIEWED BY: \_\_\_\_\_  
 HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT: 246976-D  
 Multiplier Voltage: 1035 Emv Extr. Injection Volume: 0.5, 1.0 ul  
 DFTPP Solution ID: WBN100107-01 Internal Std ID: WBN100107-02  
 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/MSD3.i/s012010a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
ls3a2013-0.d	WBN100107-01	JLD1	120-JAN-2010 17:17	15CNG	s012010a	1.01DFTPP	USE; 8270C MEGA/APICAL/ICV	
ls3a2013.d	WBN100107-01	JLD1	120-JAN-2010 17:17	15ONG	s012010a	1.01DFTPP	USE; 8270C MEGA/APICAL/ICV	
ls3a2014.d	INSTRUMENTBLANK	JLD1	120-JAN-2010 17:33		s012010a	1.01	11b	
ls3a2015.d	WBN100112-08	JLD1	120-JAN-2010 17:59	101PPM	s012010a	1.01MEGAICAL	USE; LEV 1	
ls3a2016-MQC	WBN100112-07	JLD1	120-JAN-2010 18:29	110PPM	s012010a	1.01MEGAICAL	18270C PASS MQC FOR C 41	
ls3a2016.d	WBN100112-07	JLD1	120-JAN-2010 18:29	110PPM	s012010a	1.01MEGAICAL	USE; LEV 2	
ls3a2017.d	WBN100112-06	JLD1	120-JAN-2010 18:58	120PPM	s012010a	1.01MEGAICAL	USE; LEV 3	
ls3a2018.d	WBN100112-05	JLD1	120-JAN-2010 19:28	140PPM	s012010a	1.01MEGAICAL	USE; LEV 4	
ls3a2019.d	WBN100112-04	JLD1	120-JAN-2010 19:58	150PPM	s012010a	1.01MEGAICAL	USE; LEV 5	
ls3a2020.d	WBN100112-03	JLD1	120-JAN-2010 20:27	180PPM	s012010a	1.01MEGAICAL	USE; LEV 6	
ls3a2021.d	WBN100112-02	JLD1	120-JAN-2010 20:57	1100PPM	s012010a	1.01MEGAICAL	USE; LEV 7	
ls3a2022.d	WBN100112-01	JLD1	120-JAN-2010 21:26	1120PPM	s012010a	1.01MEGAICAL	USE; LEV 8 (ICAL FAILS 203/179/216)	
ls3a2023.d	WBN100103-01	JLD1	120-JAN-2010 21:56	110PPM	s012010a	1.01APICAL	USE; LEV 2	
ls3a2024.d	WBN100103-02	JLD1	120-JAN-2010 22:22	120PPM	s012010a	1.01APICAL	USE; LEV 3	
ls3a2025.d	WBN100103-03.1	JLD1	120-JAN-2010 22:48	140PPM	s012010a	1.01APICAL	USE; LEV 4	
ls3a2026.d	WBN100103-04	JLD1	120-JAN-2010 23:15	150PPM	s012010a	1.01APICAL	USE; LEV 5	
ls3a2027.d	WBN100103-05	JLD1	120-JAN-2010 23:41	180PPM	s012010a	1.01APICAL	USE; LEV 6	
ls3a2028.d	WBN100103-06	JLD1	121-JAN-2010 00:07	1100PPM	s012010a	1.01APICAL	USE; LEV 7	
ls3a2029.d	WBN100103-07	JLD1	121-JAN-2010 00:33	1120PPM	s012010a	1.01APICAL	USE; LEV 8	

ls3a2030-D.d	WEN100106-09.3	JLD1	21-JAN-2010 00:59	40PPM	ls012010a	1.0 MEGAICV	USE; 8270D FAILS C 184 >60%	
ls3a2030.d	WEN100106-09.3	JLD1	21-JAN-2010 00:59	40PPM	ls012010a	1.0 MEGAICV	USE; 8270C FAILS C 184	
ls3a2031-D.d	WEN100103-08.1	JLD1	21-JAN-2010 01:29	40PPM	ls012010a	1.0 APICV	USE; 8270D FAILS C 119 >60%	
ls3a2031.d	WEN100103-08.1	JLD1	21-JAN-2010 01:29	40PPM	ls012010a	1.0 APICV	USE; 8270C FAILS C 119 >60%	
ls3a2032.d	WEN100107-01	JLD1	21-JAN-2010 01:57	5CNG	ls012010a	1.0 DFTTP	DOSE; TCNE FAILS	

## GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD1

DATE: 01/22/2010

METHOD: See raw data

OPERATOR: AMY

REVIEWED BY:

DATE: \_\_\_\_\_

HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT: 1202440-D

Multiplier Voltage: 1318 Emv Extr. Injection Volume: 0.5, 1.0 ul

DETPP Solution ID: WBN091213-01 Internal Std ID: WBN091223-01

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/MSD1.i/s012210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1a2201.d	WBN091213-01	AMY	122-JAN-2010 13:28	150 PPM	s012210	1.0	DETPP	TUNE MEGA AND AP
s1a2202.d	INSTB.K	AMY	122-JAN-2010 13:56	1	s012210	1.0		
s1a2203.d	WBN100121-16	AMY	122-JAN-2010 14:28	101 PPM	MEGA1:CARE1	1.0	MEGA031	
s1a2204.d	WBN100121-15	AMY	122-JAN-2010 15:06	110 PPM	MEGA1:CARE1	1.0	MEGA010	
s1a2205.d	WBN100121-14	AMY	122-JAN-2010 15:43	120 PPM	s012210	1.0	MEGA020	
s1a2206.d	WBN100121-13.1	AMY	122-JAN-2010 16:20	140 PPM	s012210	1.0	MEGA040	
s1a2207.d	WBN100121-12	AMY	122-JAN-2010 16:55	150 PPM	s012210	1.0	MEGA050	
s1a2208.d	WBN100121-11	AMY	122-JAN-2010 17:31	180 PPM	s012210	1.0	MEGA080	
s1a2209.d	WBN100121-10	AMY	122-JAN-2010 18:07	100 PPM	s012210	1.0	MEGA100	
s1a2210.d	WBN100121-09	AMY	122-JAN-2010 18:43	1120 PPM	s012210	1.0	MEGA120	
s1a2211.d	WBN100120-01	AMY	122-JAN-2010 19:19	110 PPM	s012210	1.0	AP010	
s1a2212.d	WBN100120-02	AMY	122-JAN-2010 19:50	120 PPM	s012210	1.0	AP020	
s1a2213.d	WBN100120-03.1	AMY	122-JAN-2010 20:21	140 PPM	s012210	1.0	AP040	
s1a2214.d	WBN100120-04	AMY	122-JAN-2010 20:52	150 PPM	s012210	1.0	AP050	
s1a2215.d	WBN100120-05	AMY	122-JAN-2010 21:24	180 PPM	s012210	1.0	AP080	
s1a2216.d	WBN100120-06	AMY	122-JAN-2010 21:55	1100 PPM	s012210	1.0	AP100	
s1a2217.d	WBN100120-07	AMY	122-JAN-2010 22:26	1120 PPM	s012210	1.0	AP120	
s1a2218.d	WBN091121-17.1	AMY	122-JAN-2010 22:57	140 PPM	s012210	1.0	MEGA1CV	PASS
s1a2219.d	WBN100120-08.1	AMY	122-JAN-2010 23:33	140 PPM	s012210	1.0	AP1CV	PASS



sls22220.d	WBN100107-01	AMY	123-JAN-2010 18:04	150 PPM	s012210	1.0 DETPP	TUNE PEST AND HEX
sls22221.d	INSTBLK	AMY	123-JAN-2010 18:19		s012210	1.0	
sls22222.d	WBN100103-25	AMY	123-JAN-2010 18:49	110 PPM	s012210	1.0 PEST010	
sls22223.d	WBN100103-24	AMY	123-JAN-2010 19:19	120 PPM	s012210	1.0 PEST020	
sls22224.d	WBN100103-23.1	AMY	123-JAN-2010 19:50	140 PPM	s012210	1.0 PEST040	
sls22225.d	WBN100103-22	AMY	123-JAN-2010 20:20	150 PPM	s012210	1.0 PEST050	
sls22226.d	WBN100103-21	AMY	123-JAN-2010 20:51	180 PPM	s012210	1.0 PEST080	
sls22227.d	WBN100103-20	AMY	123-JAN-2010 21:21	1100 PPM	s012210	1.0 PEST100	
sls22228.d	WBN100103-19	AMY	123-JAN-2010 21:51	1120 PPM	s012210	1.0 PEST120	
sls22229.d	WBN100120-16	AMY	123-JAN-2010 22:22	1500 PPM	s012210	1.0 HEX500	
sls22230.d	WBN100120-15	AMY	123-JAN-2010 22:52	1000 PPM	s012210	1.0 HEX1000	
sls22231.d	WBN100120-14	AMY	123-JAN-2010 23:22	11250 PPM	s012210	1.0 HEX1250	
sls22232.d	WBN100120-13	AMY	123-JAN-2010 23:53	11500 PPM	s012210	1.0 HEX1500	
sls22233.d	WBN100120-12	AMY	124-JAN-2010 00:23	11750 PPM	s012210	1.0 HEX1750	
sls22234.d	UBN090828-02.10	AMY	124-JAN-2010 00:53	12000 PPM	s012210	1.0 HEX2000	
sls22235.d	WBN100103-26.1	AMY	124-JAN-2010 01:23	140 PPM	s012210	1.0 PEST1CV	
sls22236.d	WBN100103-10.4	AMY	124-JAN-2010 01:53	11250 PPM	s012210	1.0 HEX1CV	

## GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD1

DATE: 01/28/2010

METHOD: See raw data

OPERATOR: AMY

REVIEWED BY:

DATE:

HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1

SOLVENT

Multiplier Voltage: 1318 Emv Extr. Injection Volume: 0.5, 1.0 ul

DFTPP Solution ID: WBN091213-01

Internal Std ID: WBN091223-01

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/MSD1.i/s012810.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
sla2801.d	INSTBLK	AMY	28-JAN-2010 10:04		MEGAICARE	1.0	INSTBLK	DOUSE
sla2802.d	WBN091213-01	AMY	28-JAN-2010 10:33	50 PPM	s012810	1.0	DFTPP	DOUSE-mega fails
sla2803.d	WBN100121-17.1	AMY	28-JAN-2010 11:20	140 PPM	MEGAICARE	1.0	MEGACVS	DOUSE-mega fails
sla2804.d	WBN100120-03.2	AMY	28-JAN-2010 11:50	140 PPM	lap:2	1.0	APCVS	DOUSE-mega fails
sla2805.d	WBN091213-01	AMY	28-JAN-2010 15:22	150 PPM	s012810	1.0	DFTPP	DOUSE-tune failed
sla2806.d	WBN091213-01	AMY	28-JAN-2010 16:31	150 PPM	s012810	1.0	DFTPP	DOUSE-mega fails
sla2807.d	WBN100121-17.1	AMY	28-JAN-2010 16:46	140 PPM	s012810	1.0	MEGACVS	DOUSE-mega fails
sla2808.d	WBN091213-01	AMY	28-JAN-2010 17:48	50 PPM	s012810	1.0	DFTPP	PASSING
sla2809.d	WBN100121-17.1	AMY	28-JAN-2010 18:03	140 PPM	s012810	1.0	MEGACVS	DOUSE-meag fails
sla2810.d	WBN100121-17.1	AMY	28-JAN-2010 18:30	140 PPM	s012810	1.0	MEGACVS	PASSING
sla2811.d	WBN100120-03.2	AMY	28-JAN-2010 19:01	140 PPM	s012810	1.0	APCVS	PASSING
sla2812.d	1202022801	AMY	28-JAN-2010 19:28	1944591	110-1304	1.0	SBK01	REPORT
sla2813.d	1202022802	AMY	28-JAN-2010 19:56	1944591	110-1304	1.0	SBK01LCS	REPORT
sla2814.d	245381004	AMY	28-JAN-2010 20:23	1945179	110-1380	1.0	LANL	REPORT-RR of sla2734
sla2815.d	245381005	AMY	28-JAN-2010 20:51	1945179	110-1380	1.0	LANL	REPORT-RR of sla2735
sla2816.d	245381006	AMY	28-JAN-2010 21:19	1945179	110-1380	1.0	LANL	REPORT-RR of sla2736
sla2817.d	245106001	AMY	28-JAN-2010 21:46	1944591	10-1304	1.0	LANL	REPORT
sla2818.d	1202022803	AMY	28-JAN-2010 22:14	1944591	110-1304	1.0	MS	REPORT-many spike failures, MSD confirms
sla2819.d	1202022804	AMY	28-JAN-2010 22:41	1944591	110-1304	1.0	MSD	REPORT-many spike failures, MS confirms

lsia2820.d	1245106002	AMY	128-JAN-2010 23:08	1944591	10-1304	1.01LANL	REPORT
lsia2821.d	1245106003	AMY	128-JAN-2010 23:36	1944591	10-1304	1.01LANL	REPORT
lsia2822.d	1245106004	AMY	129-JAN-2010 00:04	1944591	10-1304	1.01LANL	REPORT
lsia2823.d	1245106005	AMY	129-JAN-2010 00:31	1944591	10-1304	1.01LANL	REPORT
lsia2824.d	1245106006	AMY	129-JAN-2010 00:58	1944591	10-1304	1.01LANL	REPORT
lsia2825.d	1245106007	AMY	129-JAN-2010 01:25	1944591	10-1304	1.01LANL	REPORT
lsia2826.d	1245106008	AMY	129-JAN-2010 01:53	1944591	10-1304	1.01LANL	REPORT
lsia2827.d	1245106009	AMY	129-JAN-2010 02:20	1944591	10-1304	1.01LANL	REPORT

## GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD1

DATE: 01/29/2010

METHOD: See raw data

OPERATOR: JMB3

REVIEWED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT: 1202440-D

Multiplier Voltage: 1318 Emv Extr. Injection Volume: 0.5, 1.0 uL

DFTPP Solution ID: WBN091213-01 Internal Std ID: WBN091223-01

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/MSD1.i/s012910.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
sla2901.d	INSTBLK	AMY	29-JAN-2010 10:08		MEGALICARE	1.0I	DUSE	
sla2902.d	WBN091213-01	AMY	29-JAN-2010 10:37	150 PPM	s012910	1.0I	DFTPP	DUSE
sla2903.d	WBN091213-01	AMY	29-JAN-2010 11:30	150 PPM	s012910	1.0I	DFTPP	DUSE
sla2904.d	WBN100121-17.1	AMY	29-JAN-2010 11:45	140 PPM	MEGALICARE	1.0I	MEGACVS	DUSE
sla2905.d	WBN100120-03.2	AMY	29-JAN-2010 12:16	140 PPM	api2	1.0I	APCVS	DUSE
sla2906.d	WBN091213-01	AMY	29-JAN-2010 14:00	150 PPM	s012910	1.0I	DFTPP	DUSE
sla2907.d	WBN100121-17.1	AMY	29-JAN-2010 14:44	140 PPM	MEGALICARE	1.0I	MEGACVS	DUSE
sla2908.d	WBN091213-01	AMY	29-JAN-2010 17:08	50 PPM	s012910	1.0I	DFTPP	DUSE
sla2909.d	WBN100121-17.1	AMY	29-JAN-2010 17:23	140 PPM	s012910	1.0I	MEGACVS	DUSE
sla2910.d	WBN100120-03.2	AMY	29-JAN-2010 17:53	140 PPM	s012910	1.0I	APCVS	DUSE
sla2911.d	WBN100121-17.1	AMY	29-JAN-2010 18:20	140 PPM	s012910	1.0I	MEGACVS	DUSE
sla2912.d	WBN091213-01	AMY	29-JAN-2010 19:07	150 PPM	s012910	1.0I	DFTPP	PASSING
sla2913.d	WBN100121-17.1	AMY	29-JAN-2010 19:23	140 PPM	s012910	1.0I	MEGACVS	DUSE
sla2914.d	WBN100121-17.1	AMY	29-JAN-2010 19:51	140 PPM	s012910	1.0I	MEGACVS	pass 275589
sla2915.d	WBN100120-03.2	AMY	29-JAN-2010 20:22	140 PPM	s012910	1.0I	APCVS	PASSING
sla2916-1.d	1202027011	AMY	29-JAN-2010 20:50	1946353	10-1427	1.0I	SBLK01	DUSE-moved to different instrument
sla2916-2.d	1202027011	AMY	29-JAN-2010 20:50	1946353	10-1428	1.0I	SBLK01	DUSE-moved to different instrument
sla2916.d	1202027011	AMY	29-JAN-2010 20:50	1946353	10-1408	1.0I	SBLK01	DUSE-moved to different instrument
sla2917-1.d	1202027012	AMY	29-JAN-2010 21:18	1946353	10-1427	1.0I	SBLK01CS	DUSE-moved to different instrument

sls2917-2.d	1202027012	AMY	29-JAN-2010 21:18	946353	10-1428	1.0 SBLK01LCS	DUSE-moved to different instrument
sls2917.d	1202027012	AMY	29-JAN-2010 21:18	946353	10-1408	1.0 SBLK01LCS	DUSE-moved to different instrument
sls2918.d	1245106010	AMY	29-JAN-2010 21:45	944591	10-1304	1.0 LANL	REPORT
sls2919.d	1245106011	AMY	29-JAN-2010 22:13	944591	10-1304	1.0 LANL	REPORT
sls2920.d	1245106012	AMY	29-JAN-2010 22:40	944591	10-1304	1.0 LANL	REPORT
sls2921.d	1245106013	AMY	29-JAN-2010 23:07	944591	10-1304	1.0 LANL	REPORT
sls2922.d	1245106014	AMY	29-JAN-2010 23:35	944591	10-1304	1.0 LANL	DUSE-fail istd-Report 10X RR s3b1120
sls2923.d	1245106015	AMY	30-JAN-2010 00:02	944591	10-1304	1.0 LANL	REPORT
sls2924.d	1245106016	AMY	30-JAN-2010 00:29	944591	10-1304	1.0 LANL	REPORT-fail istd-rr s3b1119-istd pass but very low.
sls2925.d	1245597002	AMY	30-JAN-2010 00:56	946353	10-1408	1.0 LANL	DUSE-
sls2926.d	1245597003	AMY	30-JAN-2010 01:23	946353	10-1408	1.0 LANL	DUSE-fail istd-rr s4b0529 a.so fails ISTD - CONFIRMATION
sls2927.d	1245597004	AMY	30-JAN-2010 01:50	946353	10-1408	1.0 LANL	DUSE-fail istd-rr on different instrument
sls2928.d	1245597005	AMY	30-JAN-2010 02:16	946353	10-1408	1.0 LANL	DUSE-rr on different instrument
sls2929.d	1245597006	AMY	30-JAN-2010 02:43	946353	10-1408	1.0 LANL	DUSE-fail istd-rr s7B0815 also fails ISTD - CONFIRMATION
sls2930.d	1245597007	AMY	30-JAN-2010 03:10	946353	10-1408	1.0 LANL	DUSE-fail istd-rr on different instrument
sls2931.d	1245597008	AMY	30-JAN-2010 03:36	946353	10-1408	1.0 LANL	DUSE-fail istd-rr on different instrument
sls2932.d	1245597009	AMY	30-JAN-2010 04:03	946353	10-1408	1.0 LANL	DUSE-fail istd-rr on different instrument
sls2933.d	1245597010	AMY	30-JAN-2010 04:29	946353	10-1408	1.0 LANL	DUSE-fail istd-rr on different instrument
sls2934.d	1245597011	AMY	30-JAN-2010 04:55	946353	10-1408	1.0 LANL	DUSE-fail istd-rr on different instrument
sls2935.d	1245628002	AMY	30-JAN-2010 05:22	946353	10-1427	1.0 LANL	DUSE-fail istd-rr on different instrument
sls2936.d	1245628003	AMY	30-JAN-2010 05:49	946353	10-1427	1.0 LANL	DUSE-fail istd-rr on different instrument
sls2937.d	1245628004	AMY	30-JAN-2010 06:15	946353	10-1427	1.0 LANL	DUSE-rr on different instrument
sls2938.d	1245631002	AMY	30-JAN-2010 06:42	946353	10-1428	1.0 LANL	DUSE-fail istd-rr on different instrument
sls2939.d	1202027013	AMY	30-JAN-2010 07:08	946353	10-1428	1.0 MS	DUSE-out of tune
sls2940.d	1202027014	AMY	30-JAN-2010 07:35	946353	10-1428	1.0 MSD	DUSE-out of tune
sls2941.d	1245631003	AMY	30-JAN-2010 08:01	946353	10-1428	1.0 LANL	DUSE-out of tune

Instrument Batch: /chem/MSD1.i/s012910.b

### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 12-FEB-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> 944591	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG): 245106(10-1304)</b> <b>Application Issues:</b> Failed Recovery for MS/PS Failed RPD for MS/MSD, or PS/PSD Failed Yield for Surrogates Failed Recovery for MSD/PSD			
<b>Specification and Requirements</b> <b>Exception Description:</b>		<b>DER Disposition:</b>	
1. Sample 245106014 recovered Nitrobenzene-d5 at 109% (limits: 31%-105%).  2. The MS (1202022803) and MSD (1202022804) failed to meet spike recovery and RPD value acceptance criteria for multiple analytes. Please see the QC Summary Report for the specific failures.		1. Sample 245106014 was analyzed at a 1:10 dilution. As a result, the surrogate was diluted out of the established acceptance limit.  2. Recovery failures were present in both the MS and MSD. Therefore, the spike and RPD value failures were attributed to sample matrix interference and the data were reported.	

**Originator's Name:**

Amy Carroll

15-FEB-10

**Data Validator/Group Leader:**

Daniel Beacham

15-FEB-10

Data File: /chem/MSD3.i/s021110.b/s3b1119.d  
Report Date: 12-Feb-2010 15:18

Page 1

GEL Laboratories LLC

Data file : /chem/MSD3.i/s021110.b/s3b1119.d  
Lab Smp Id: 245106016 Client Smp ID: RE15-10-7179  
Inj Date : 11-FEB-2010 15:54  
Operator : JLD1 Inst ID: MSD3.i  
Smp Info : |245106016|944591|1|SVMF|1|LANL  
Misc Info : |MSD8270\_S|WBN100205-01|  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m  
Meth Date : 12-Feb-2010 08:04 jen00986 Quant Type: ISTD  
Cal Date : 29-JAN-2010 22:17 Cal File: s3a2925.d  
Als bottle: 12  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1304.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	30.05000	weight of sample
M	20.30540	% 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	4.589	4.594	(1.000)	565805	40.0000	
* 29 Naphthalene-d8	136	5.858	5.863	(1.000)	2124838	40.0000	
* 46 Acenaphthene-d10	164	7.720	7.727	(1.000)	1246086	40.0000	
* 67 Phenanthrene-d10	188	9.329	9.332	(1.000)	2108892	40.0000	
* 91 Chrysene-d12	240	12.270	12.280	(1.000)	1429211	40.0000	
* 98 Perylene-d12	264	14.463	14.476	(1.000)	691896	40.0000	
\$ 3 2-Fluorophenol	112	3.450	3.446	(0.752)	610990	41.4991	1730
\$ 5 Phenol-d5	99	4.216	4.227	(0.919)	819403	44.2834	1850
\$ 20 Nitrobenzene-d5	82	5.124	5.135	(0.875)	382811	24.3892	1020
\$ 39 2-Fluorobiphenyl	172	6.982	6.989	(0.904)	671794	20.8575	871
\$ 60 2,4,6-Tribromophenol	329	8.570	8.576	(1.110)	126923	35.5309	1480 (R)
\$ 81 p-Terphenyl-d14	244	11.039	11.042	(0.900)	641808	26.1264	1090

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
47 Acenaphthene		154	7.735	7.762	(1.002)	27266	0.92432	38.6(aQ)

#### 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.



## ION RATIO REPORT

## SV REPORT

Data file: s3b1119.d

Report Date: 02/11/2010 16:17

Lab. ID: 245106016

SampleType: SAMPLE

Injection Date: 11-FEB-2010 15:54

Operator: JLD1

Instrument: MSD3.i

Sample Info: |245106016|944591|1|SVMF|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100122-01|

Comment:

Method used: /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1304

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	52135	4.22	4.29	80-120	100	(T)
93	3373	4.26	4.29	187-247	6	(Q)
-----						
17	N-Nitrosodipropylamine		CAS#: 621-64-7			
70	53698	5.12	4.98	80-120	100	(T)
42	31284	5.12	4.98	36- 96	58	(T)
-----						
41	m-Nitroaniline		CAS#: 99-09-2			
138	299	7.72	7.69	80-120	100	( )
92	9067	7.72	7.69	89-149	3032	(Q)
108	31664	7.72	7.69	0- 40	10587	(Q)
-----						
44	2,6-Dinitrotoluene		CAS#: 606-20-2			
165	161531	7.72	7.50	80-120	100	(T)
63	8187	7.73	7.49	48-108	5	(QT)
-----						
45	Acenaphthylene		CAS#: 208-96-8			
152	26810	7.73	7.58	80-120	100	(T)
151	6613	7.73	7.58	0- 50	25	(T)
153	27412	7.73	7.58	0- 43	102	(QT)
-----						
47	Acenaphthene		CAS#: 83-32-9			
154	27266	7.73	7.76	80-120	100	( )
153	27412	7.73	7.76	77-137	101	( )
152	26810	7.73	7.76	21- 81	98	(Q)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50	2,4-Dinitrotoluene		CAS#: 121-14-2			
165	161531	7.72	7.93	80-120	100	(T)
89	4926	7.72	7.93	74-134	3	(QT)
63	8187	7.73	7.93	36- 96	5	(QT)
-----						
56	p-Nitroaniline		CAS#: 100-01-6			
138	123	8.41	8.35	80-120	100	(T)
108	233	8.40	8.35	60-120	188	(Q)
92	151	8.38	8.35	32- 92	122	(Q)
-----						
90	3,3'-Dichlorobenzidine		CAS#: 91-94-1			
252	126	12.20	12.22	80-120	100	( )
254	518	12.29	12.22	34- 94	411	(QT)
126	158	12.19	12.22	0- 47	126	(Q)

Q qualifier indicates ion failed ratio requirement  
T qualifier indicates RT outside 0.06 minute window of expected RT

Data File: /chem/MSD3.i/s021110.b/s3b1119.d  
 Report Date: 12-Feb-2010 15:18

Page 1

GEL Laboratories LLC

Data file : /chem/MSD3.i/s021110.b/s3b1119.d  
 Lab Smp Id: 245106016 Client Smp ID: RE15-10-7179  
 Inj Date : 11-FEB-2010 15:54  
 Operator : JLD1 Inst ID: MSD3.i  
 Smp Info : |245106016|944591|1|SVMF|1|LANL  
 Misc Info : |MSD8270\_S|WBN100205-01|  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD3.i/s021110.b/MSD3-8270R-AQA-012910.m  
 Meth Date : 12-Feb-2010 08:04 jen00986 Quant Type: ISTD  
 Cal Date : 29-JAN-2010 22:17 Cal File: s3a2925.d  
 Als bottle: 12  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1304.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	30.05000	weight of sample
M	20.30540	% moisture

Cpnd Variable

Local Compound Variable

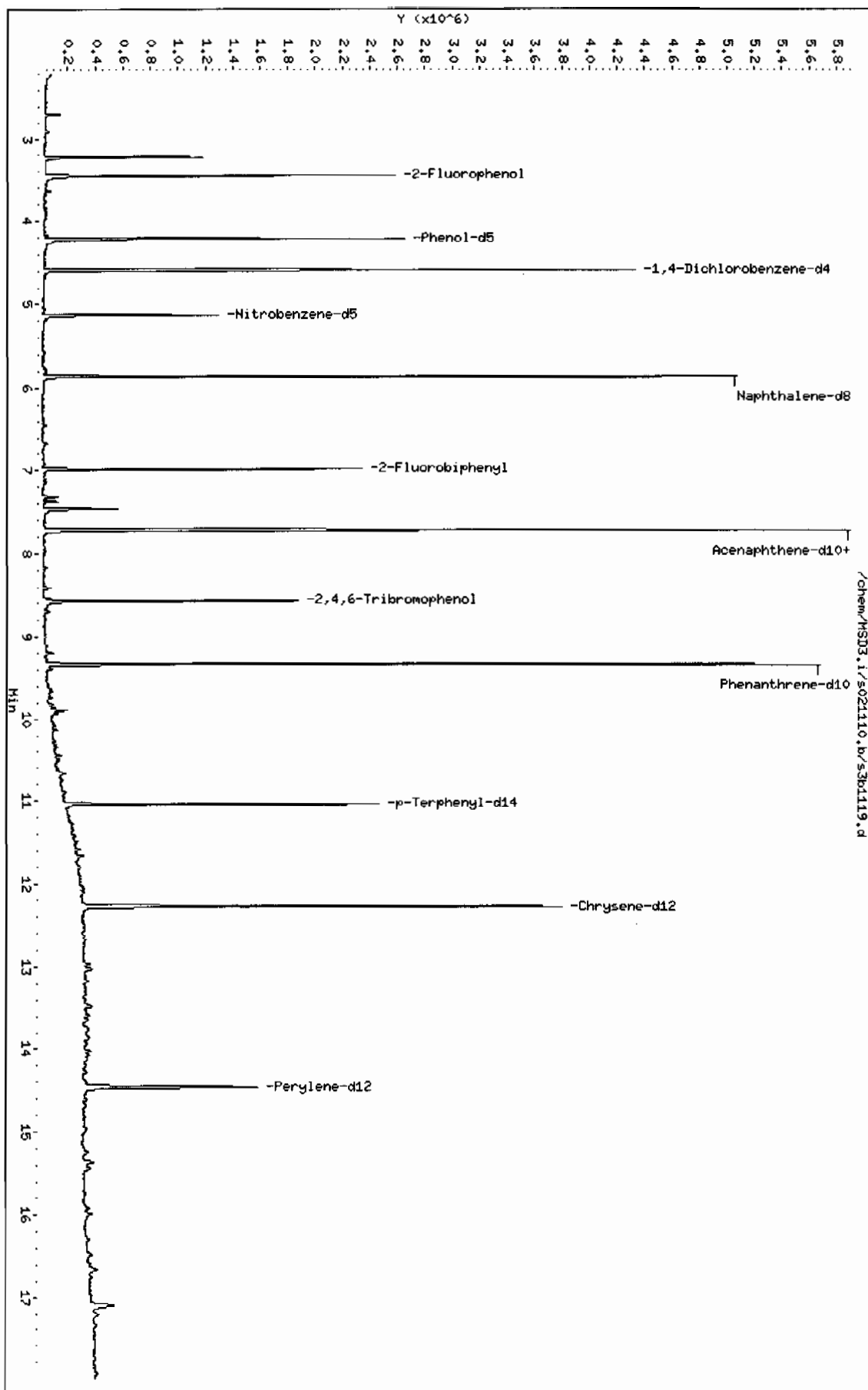
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	4.589	3939503	40.000
* 46 Acenaphthene-d10	7.720	5897039	40.000
* 98 Perylene-d12	14.463	2133186	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
----	----	-----	-----	----	-----	-----	-----

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LJB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate					CAS #:		
3.218	1065088	10.8144378	452	0		0	10
2H-1-Benzopyran-2-one					CAS #: 91-64-5		
7.461	682535	4.62967768	193	98	NIST05.L	21395	46
Unknown					CAS #:		
17.097	511935	9.59943869	401	0		0	98

Data File: /chem/MSD3.i/s021110.b/s3b1119.d  
Date: 11-FEB-2010 15:54  
Client ID: REL5-10-7179  
Sample Info: 1245106016194459111SVHF111LANL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5MS

Instrument: MSD3.i  
Operator: JLD1  
Column diameter: 0.20



Date : 11-FEB-2010 13:54

Client ID: RE15-10-7179

Instrument: MSD3.i

Sample Info: 1245106016194459111SVMF111LANL

Volume Injected (uL): 0.5

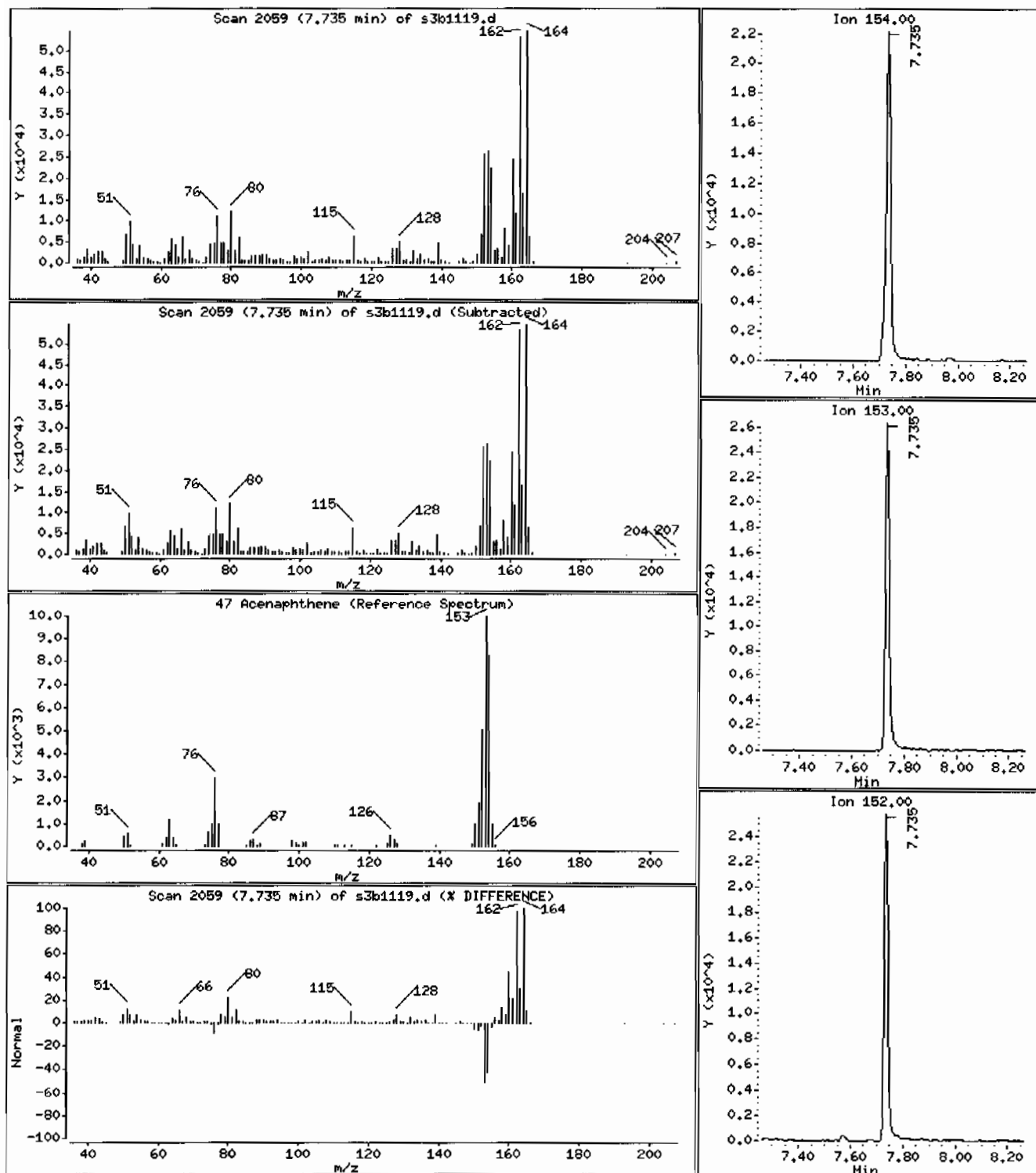
Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 38.6 ug/Kg



Date: 11-FEB-2010 15:54

Client ID: RE15-10-7179

Instrument: HSD3.i

Sample Info: 1245106016194459111SVMF111LANL

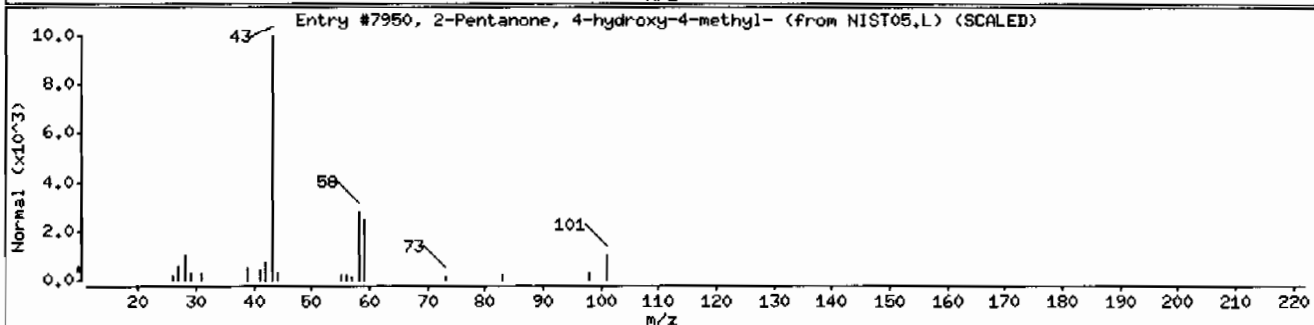
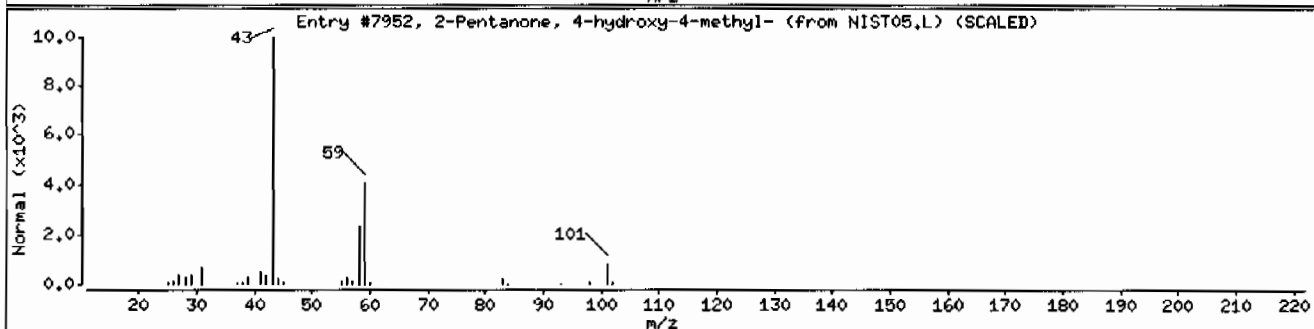
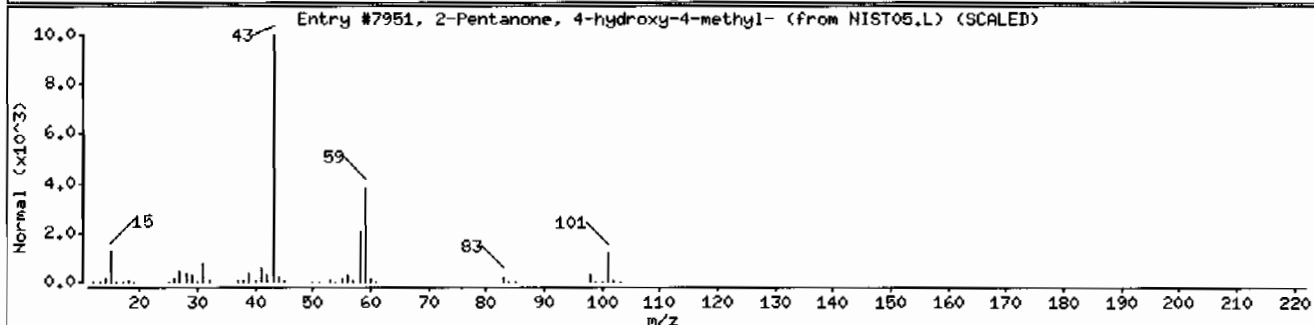
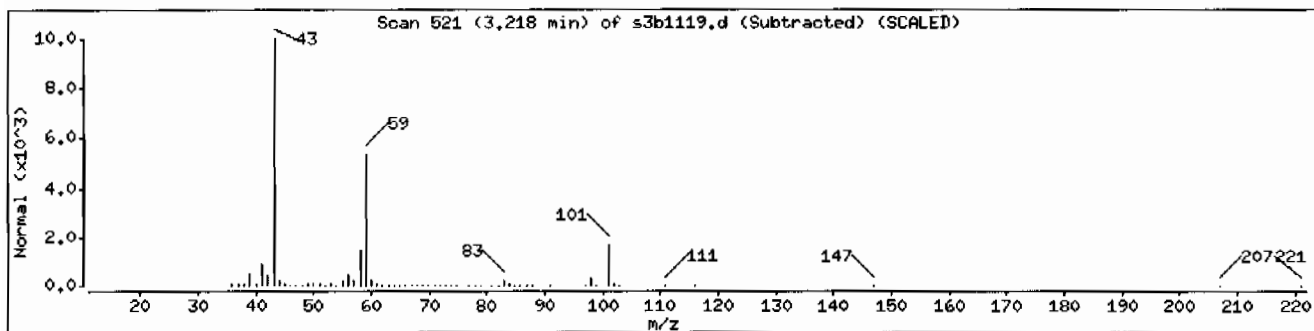
Volume Injected (uL): 0.5

Operator: JLD1

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-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7950	25	C6H12O2	116



Date : 11-FEB-2010 15:54

Client ID: RE15-10-7179

Instrument: MSD3.i

Sample Info: 1245106016194459111|SVMF|1|ILANL

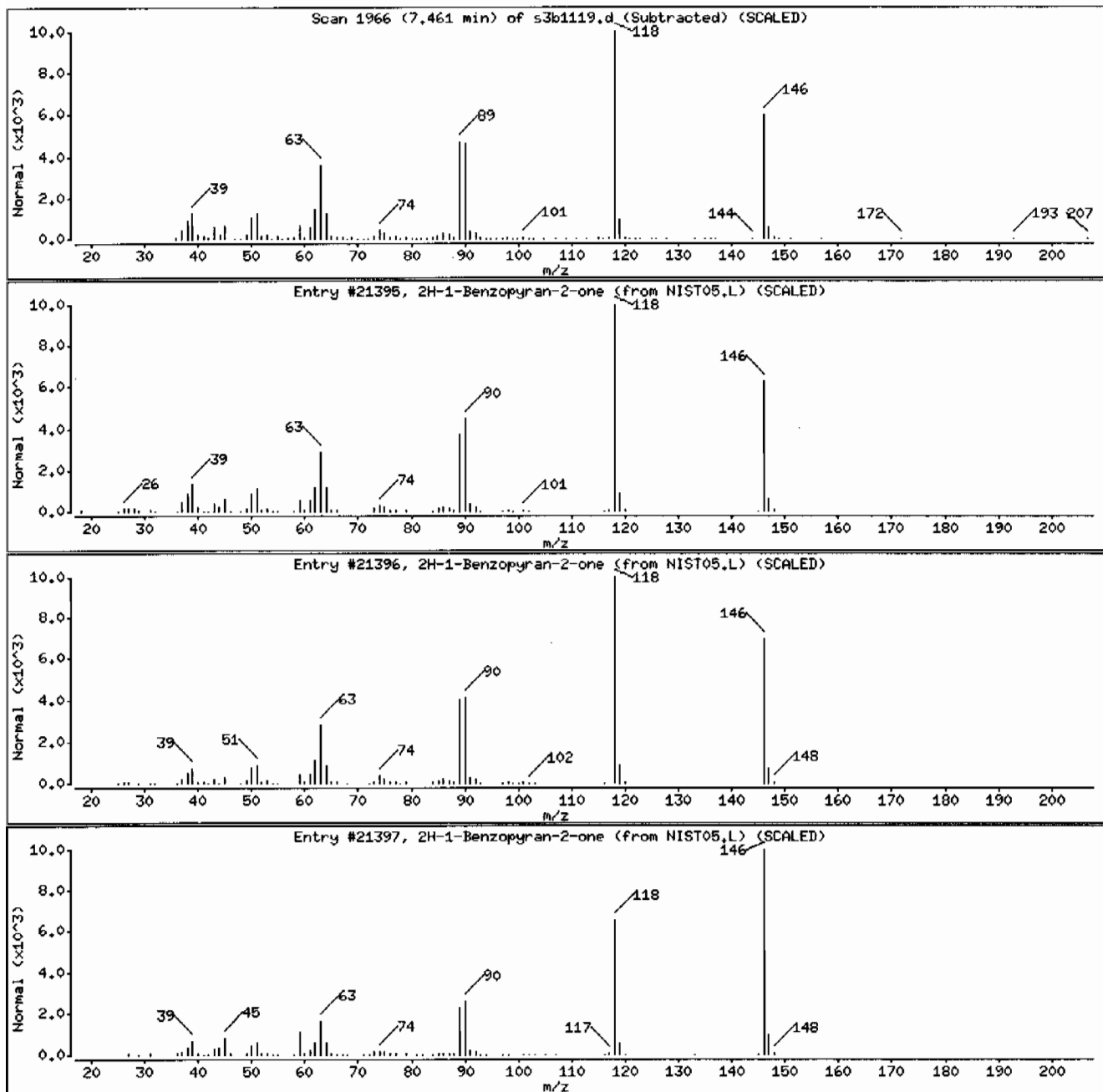
Volume Injected (uL): 0.5

Operator: JLD1

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	91-64-5	NIST05.L	21395	98	C9H6O2	146
2H-1-Benzopyran-2-one	91-64-5	NIST05.L	21396	97	C9H6O2	146
2H-1-Benzopyran-2-one	91-64-5	NIST05.L	21397	95	C9H6O2	146





Date: 11-FEB-2010 15:54

Client ID: RE15-10-7179

Instrument: MSD3.i

Sample Info: 1245106016194459111SVMF111LANL

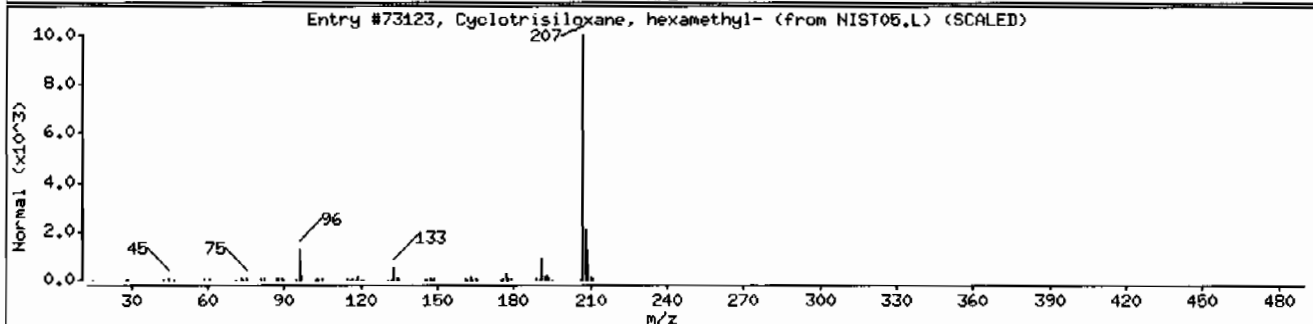
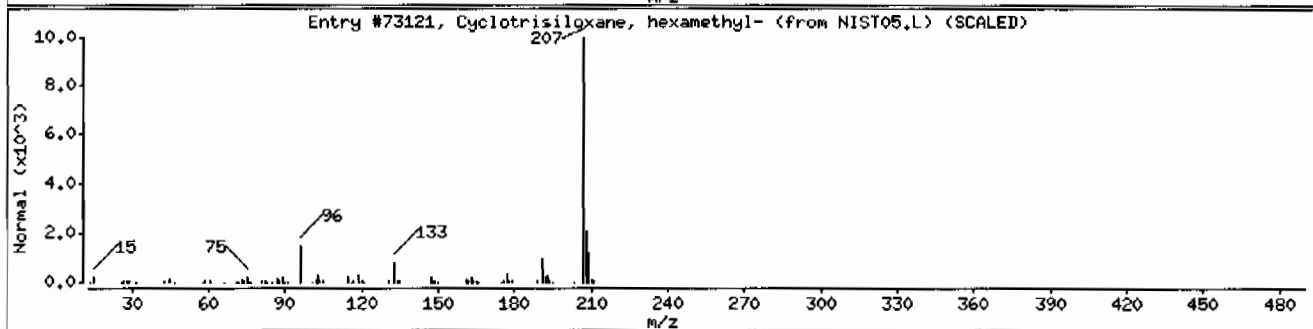
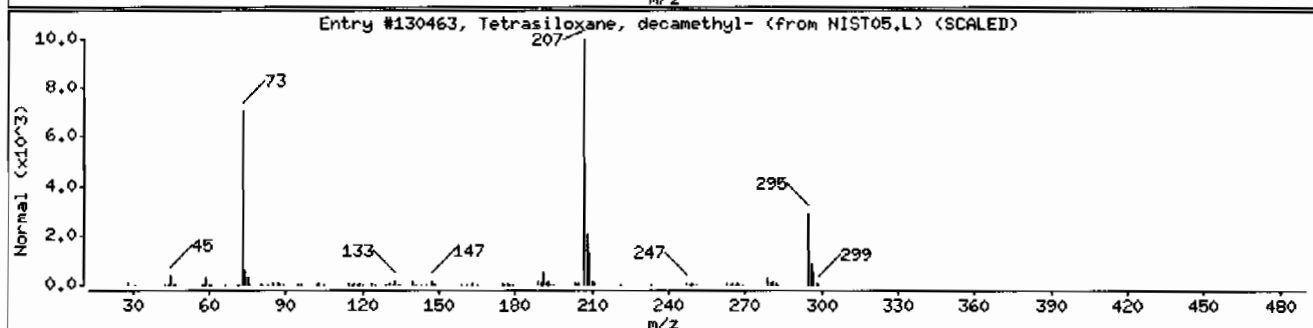
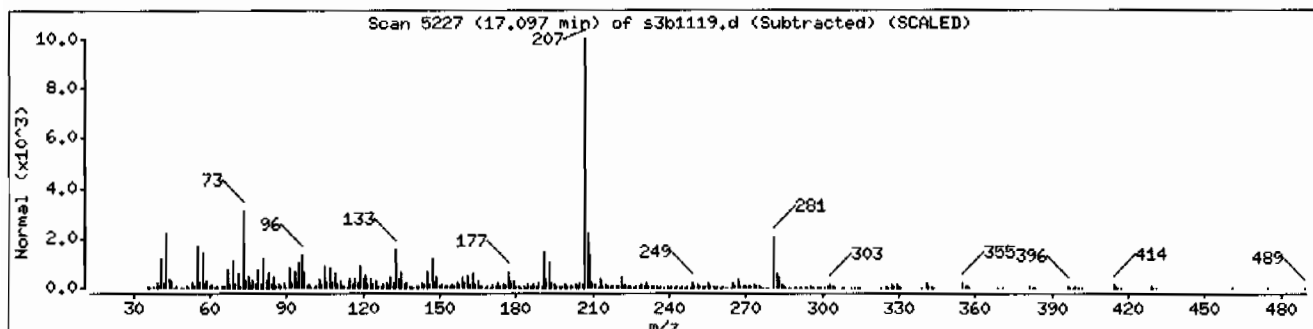
Volume Injected (uL): 0.5

Operator: JLD1

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Tetrasiloxane, decamethyl-	141-62-8	NIST05.L	130463	59	C <sub>10</sub> H <sub>30</sub> O <sub>3</sub> Si <sub>4</sub>	310
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73121	50	C <sub>6</sub> H <sub>18</sub> O <sub>3</sub> Si <sub>3</sub>	222
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73123	50	C <sub>6</sub> H <sub>18</sub> O <sub>3</sub> Si <sub>3</sub>	222



# LC/MS/MS EXPLOSIVES ANALYSIS

**LC/MS/MS Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-1304**

**Method/Analysis Information**

<b>Procedure:</b>	<b>Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)</b>
Analytical Method:	SW846 8321A Modified
Prep Method:	SW846 8330 PREP
Analytical Batch Number:	944246
Prep Batch Number:	944245

**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>
245106001	RE15-10-7165
245106002	RE15-10-7171
245106003	RE15-10-7170
245106004	RE15-10-7164
245106005	RE15-10-7167
245106006	RE15-10-7169
245106007	RE15-10-7168
245106008	RE15-10-7166
245106009	RE15-10-7177
245106010	RE15-10-7181
245106011	RE15-10-7178
245106012	RE15-10-7182
245106013	RE15-10-7183
245106014	RE15-10-7176
245106015	RE15-10-7180
245106016	RE15-10-7179
1202021906	Method Blank (MB)
1202021907	Laboratory Control Sample (LCS)
1202021908	245106001(RE15-10-7165) Matrix Spike (MS)
1202021909	245106001(RE15-10-7165) Matrix Spike Duplicate (MSD)

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

## **Primary Analyte Analysis**

### **Calibration Information**

#### **Initial Calibration**

All initial calibration requirements for this analysis have been met for this SDG.

#### **Calibration Verification Standard Requirements**

All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

#### **Calibration Blank Requirements**

All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

#### **CRI Requirements**

All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

### **Quality Control (QC) Information**

#### **Method Blank (MB) Statement**

The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

#### **Surrogate Recoveries**

All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

#### **Laboratory Control Sample (LCS) Recovery**

The LCS recovered Tetryl at 39.9%. The recovery limits are 51-112%. Both the MS and MSD met acceptance limits for Tetryl, thus establishing control of the extraction and analytical methods. The data are reported. Please see data exception report 789231.

#### **QC Sample Designation**

Sample 245106001 (RE15-10-7165) was chosen for matrix spike and matrix spike duplicate analysis.

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

The MS spike recoveries were within the established acceptance limits.

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

The MSD spike recoveries were within the established acceptance limits.

#### **MS/MSD Relative Percent Difference (RPD) Statement**

The RPD(s) between the MS and MSD met the acceptance limits.

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

The internal standard responses were within the required acceptance criteria for all samples and QC.

### **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**

QC samples 1202021906 (MB) and 1202021907 (LCS) failed ISTD acceptance criteria. They were re-analyzed and passed acceptance criteria. The re-analyses are 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**

Sample 245106001 (RE15-10-7165) was chosen for matrix spike and matrix spike duplicate analysis.

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

The MS spike recoveries were within the established acceptance limits.

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

The MSD spike recoveries were within the established acceptance limits.

##### **MS/MSD Relative Percent Difference (RPD) Statement**

The RPD(s) between the MS and MSD met the acceptance limits.

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

The internal standards were not added to the secondary analyte extracts.

#### **Technical Information**

##### **Holding Time Specifications**

All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

##### **Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

##### **Sample Dilutions**

According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

##### **Sample Re-extraction/Re-analysis**

Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

#### **Miscellaneous Information**

##### **Data Exception (DER) Documentation**

Data exception report 789231 was generated for this SDG.

The LCS recovered Tetryl at 39.9%. The recovery limits are 51-112%. Both the MS and MSD met acceptance limits for Tetryl, thus establishing control of the extraction and analytical methods. The data are reported.

##### **Manual Integrations**

Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

##### **Flagging Convention**

The samples were not originally analyzed using SW-846 Method 8330.

##### **Additional Comments**

Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

### System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

### Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

### Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

### Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather Mauer Date: 02/10/10

# SAMPLE DATA SUMMARY



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7165

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106001

Sample Amount 2

Moisture: 19.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208015a

Date Analyzed: 08-FEB-10 21:37

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: RE15-10-7165

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106001

Sample Amount 2

Moisture: 19.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010024.wiff

Date Analyzed: 01-FEB-10 23:22

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: RE15-10-7171

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106002

Sample Amount 2

Moisture: 7.8

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208018a

Date Analyzed: 08-FEB-10 23:05

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: RE15-10-7171

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106002

Sample Amount 2

Moisture: 7.8

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010027.wiff

Date Analyzed: 02-FEB-10 00:09

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: RE15-10-7170

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106003

Sample Amount 2

Moisture: 23.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208019a

Date Analyzed: 08-FEB-10 23:35

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: RE15-10-7170

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106003

Sample Amount 2

Moisture: 23.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010028.wiff

Date Analyzed: 02-FEB-10 00:25

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: RE15-10-7164

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106004

Sample Amount 2

Moisture: 17.7

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208020a

Date Analyzed: 09-FEB-10 00:04

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: RE15-10-7164

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106004

Sample Amount 2

Moisture: 17.7

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010029.wiff

Date Analyzed: 02-FEB-10 00:41

Units: ug/kg

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

\*Concentration =

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



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7167

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106005

Sample Amount 2

Moisture: 22.0

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208021a

Date Analyzed: 09-FEB-10 00:34

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: RE15-10-7167

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106005

Sample Amount 2

Moisture: 22.0

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010030.wiff

Date Analyzed: 02-FEB-10 00:56

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: RE15-10-7169

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106006

Sample Amount 2

Moisture: 8.9

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208022a

Date Analyzed: 09-FEB-10 01:03

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: RE15-10-7169

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106006

Sample Amount 2

Moisture: 8.9

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010031.wiff

Date Analyzed: 02-FEB-10 01:12

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: RE15-10-7168

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106007

Sample Amount 2

Moisture: 19.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208026a

Date Analyzed: 09-FEB-10 03:01

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: RE15-10-7168

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106007

Sample Amount 2

Moisture: 19.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010035.wiff

Date Analyzed: 02-FEB-10 02:15

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: RE15-10-7166

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106008

Sample Amount 2

Moisture: 31.6

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208027a

Date Analyzed: 09-FEB-10 03:31

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: RE15-10-7166

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106008

Sample Amount 2

Moisture: 31.6

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010036.wiff

Date Analyzed: 02-FEB-10 02:31

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: RE15-10-7177

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106009

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208028a

Date Analyzed: 09-FEB-10 04:00

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: RE15-10-7177

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106009

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010037.wiff

Date Analyzed: 02-FEB-10 02:46

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: RE15-10-7181

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106010

Sample Amount 2

Moisture: 12.1

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208029a

Date Analyzed: 09-FEB-10 04:30

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: RE15-10-7181

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106010

Sample Amount 2

Moisture: 12.1

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010038.wiff

Date Analyzed: 02-FEB-10 03:02

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: RE15-10-7178

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106011

Sample Amount 2

Moisture: 21.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208030a

Date Analyzed: 09-FEB-10 04:59

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

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7178

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106011

Sample Amount 2

Moisture: 21.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010039.wiff

Date Analyzed: 02-FEB-10 03:18

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: RE15-10-7182

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106012

Sample Amount 2

Moisture: 18.0

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208031a

Date Analyzed: 09-FEB-10 05:29

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: RE15-10-7182

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106012

Sample Amount 2

Moisture: 18.0

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010040.wiff

Date Analyzed: 02-FEB-10 03:34

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: RE15-10-7183

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106013

Sample Amount 2

Moisture: 12.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208032a

Date Analyzed: 09-FEB-10 05:58

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: RE15-10-7183

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106013

Sample Amount 2

Moisture: 12.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010041.wiff

Date Analyzed: 02-FEB-10 03:49

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7176

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106014

Sample Amount 2

Moisture: 4.7

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208033a

Date Analyzed: 09-FEB-10 06:28

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

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7176

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106014

Sample Amount 2

Moisture: 4.7

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010042.wiff

Date Analyzed: 02-FEB-10 04:05

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: RE15-10-7180

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106015

Sample Amount 2

Moisture: 13.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208034a

Date Analyzed: 09-FEB-10 06:58

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: RE15-10-7180

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106015

Sample Amount 2

Moisture: 13.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010043.wiff

Date Analyzed: 02-FEB-10 04:21

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: RE15-10-7179

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106016

Sample Amount 2

Moisture: 20.3

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208035a

Date Analyzed: 09-FEB-10 07:27

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: RE15-10-7179

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106016

Sample Amount 2

Moisture: 20.3

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010044.wiff

Date Analyzed: 02-FEB-10 04:36

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): 10-1304

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
245106001	RE15-10-7165	110	70 - 144	
245106001	RE15-10-7165	120	70 - 144	
245106002	RE15-10-7171	107	70 - 144	
245106002	RE15-10-7171	111	70 - 144	
245106003	RE15-10-7170	110	70 - 144	
245106003	RE15-10-7170	112	70 - 144	
245106004	RE15-10-7164	110	70 - 144	
245106004	RE15-10-7164	117	70 - 144	
245106005	RE15-10-7167	112	70 - 144	
245106005	RE15-10-7167	119	70 - 144	
245106006	RE15-10-7169	109	70 - 144	
245106006	RE15-10-7169	116	70 - 144	
245106007	RE15-10-7168	114	70 - 144	
245106007	RE15-10-7168	125	70 - 144	
245106008	RE15-10-7166	113	70 - 144	
245106008	RE15-10-7166	117	70 - 144	
245106009	RE15-10-7177	112	70 - 144	
245106009	RE15-10-7177	115	70 - 144	
245106010	RE15-10-7181	108	70 - 144	
245106010	RE15-10-7181	114	70 - 144	
245106011	RE15-10-7178	116	70 - 144	
245106011	RE15-10-7178	121	70 - 144	
245106012	RE15-10-7182	95.3	70 - 144	
245106012	RE15-10-7182	119	70 - 144	
245106013	RE15-10-7183	112	70 - 144	
245106013	RE15-10-7183	116	70 - 144	
245106014	RE15-10-7176	122	70 - 144	
245106014	RE15-10-7176	123	70 - 144	
245106015	RE15-10-7180	113	70 - 144	
245106015	RE15-10-7180	129	70 - 144	
245106016	RE15-10-7179	113	70 - 144	
245106016	RE15-10-7179	122	70 - 144	
1202021906	MB for batch 944245	107	70 - 144	
1202021906	MB for batch 944245	120	70 - 144	
1202021907	LCS for batch 944245	114	70 - 144	
1202021907	LCS for batch 944245	120	70 - 144	
1202021908	RE15-10-7165(245106001MS)	113	70 - 144	

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1304

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
1202021908	RE15-10-7165(245106001MS)	118	70 - 144	
1202021909	RE15-10-7165(245106001MSD)	107	70 - 144	
1202021909	RE15-10-7165(245106001MSD)	113	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) 10-1304

Extract Batch Code: 944245

Date Extracted: 25-JAN-10

GEL LCS ID: 1202021907

GEL LCSDUP ID:

Analysis Date/Time: 09-FEB-10 20:14

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
1,3,5-Trinitrobenzene	5000	3780	75.7					69 - 126
2,4,6-Trinitrotoluene	5000	5220	104					73 - 149
2,4-Dinitrotoluene	5000	5460	109					87 - 137
2,6-Dinitrotoluene	5000	5160	103					89 - 120
2-Amino-4,6-dinitrotoluene	5000	5250	105					90 - 130
4-Amino-2,6-dinitrotoluene	5000	5240	105					84 - 130
HMX	5000	4170	83.4					58 - 138
Nitrobenzene	5000	4420	88.4					71 - 122
PETN	5000	4850	97					64 - 137
RDX	5000	4440	88.7					81 - 137
Tetryl	5000	2000	39.9 *					51 - 112
m-Dinitrobenzene	5000	5080	102					83 - 122
m-Nitrotoluene	5000	4400	88					73 - 118
o-Nitrotoluene	5000	4640	92.8					72 - 119
p-Nitrotoluene	5000	4740	94.9					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)** 10-1304

**Extract Batch Code:** 944245

**Date Extracted:** 25-JAN-10

**GEL LCS ID:** 1202021907

**GEL LCSDUP ID:**

**Analysis Date/Time:** 01-FEB-10 23:06

**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	5040	101					52 - 114
2,6-Diamino-4-nitrotoluene	5000	5160	103					64 - 122
3,5-Dinitroaniline	5000	5530	111					70 - 127
tris(o-cresyl) phosphate	5000	5080	102					84 - 119
TATB	7500	5650	75.3					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: RE15-10-7165

Lab Code: GEL

GEL Job No (SDG) 10-1304

Extract Batch Code: 944245

Date Extracted: 25-JAN-10

GEL Spike ID: 1202021908

GEL SpikeDup ID: 1202021909

Analysis Date/Time: 08-FEB-10 22:07

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	4540	90.8	4420	88.4	2.74	30	50 - 140
2,4,6-Trinitrotoluene	5000	0	5310	106	5050	101	4.98	30	76 - 144
2,4-Dinitrotoluene	5000	0	5510	110	5330	107	3.31	30	86 - 135
2,6-Dinitrotoluene	5000	0	5310	106	5200	104	2.18	30	90 - 118
2-Amino-4,6-dinitrotoluene	5000	0	5590	112	5380	108	3.8	30	85 - 137
4-Amino-2,6-dinitrotoluene	5000	0	5350	107	5390	108	.731	30	72 - 143
HMX	5000	0	4240	84.7	4310	86.2	1.77	30	51 - 144
Nitrobenzene	5000	0	4700	94	4900	98.1	4.2	30	70 - 122
PETN	5000	0	5170	103	5240	105	1.41	30	60 - 140
RDX	5000	0	4380	87.5	4240	84.9	3.09	30	59 - 152
Tetryl	5000	0	3430	68.6	3300	66	3.83	30	36 - 124
m-Dinitrobenzene	5000	0	5200	104	5030	101	3.21	30	85 - 118
m-Nitrotoluene	5000	0	4560	91.2	4410	88.2	3.26	30	70 - 120
o-Nitrotoluene	5000	0	4760	95.3	4770	95.5	.191	30	69 - 123
p-Nitrotoluene	5000	0	5010	100	4890	97.9	2.37	30	65 - 133

#Column to be used to flag recovery and RPD values with an asterisk

# High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-7165

Lab Code: GEL

GEL Job No (SDG) 10-1304

Extract Batch Code: 944245

Date Extracted: 25-JAN-10

GEL Spike ID: 1202021908

GEL SpikeDup ID: 1202021909

Analysis Date/Time: 01-FEB-10 23:38

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	5520	110	4730	94.6	15.4	26	34 - 135
2,6-Diamino-4-nitrotoluene	5000	0	5360	107	5250	105	2.07	30	55 - 130
3,5-Dinitroaniline	5000	0	5400	108	5000	100	7.69	30	73 - 129
tris(o-cresyl) phosphate	5000	0	5070	101	4940	98.8	2.6	30	72 - 127
TATB	7500	0	5550	74	6700	89.3	18.8	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): 10-1304

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08-FEB-10 14:44

GEL Data File: EXP0208001a

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	481.075
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	515.914
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: Tue Feb 09 10:21:18 2010, Page 1 of 77

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Method: C:\MASSLYNX\New\_Exp.PRO\MethDB\020810expa.mdb, Time: Tue Feb 09 09:17:48 2010

Calibration: Untitled, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208001a

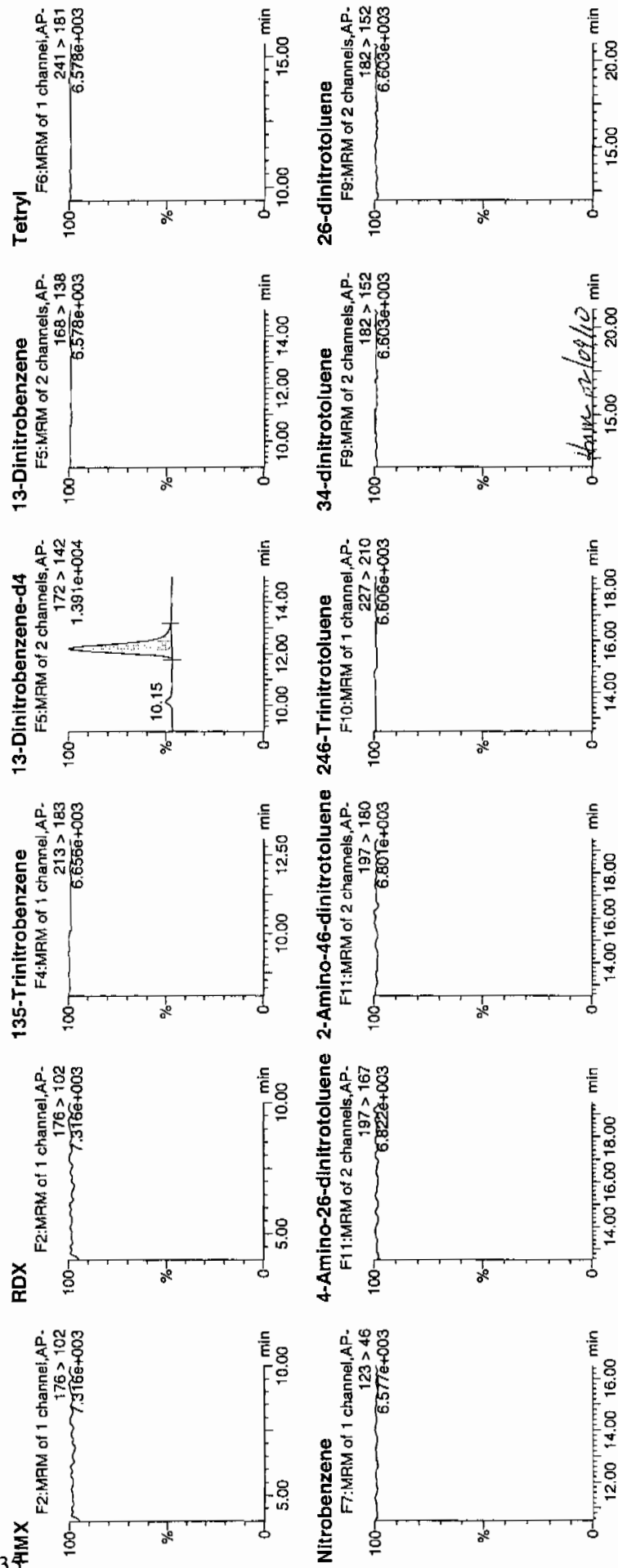
Date: 08-Feb-2010

Time: 14:44:17

ID: XIBLK01

Vial: 1:1,A

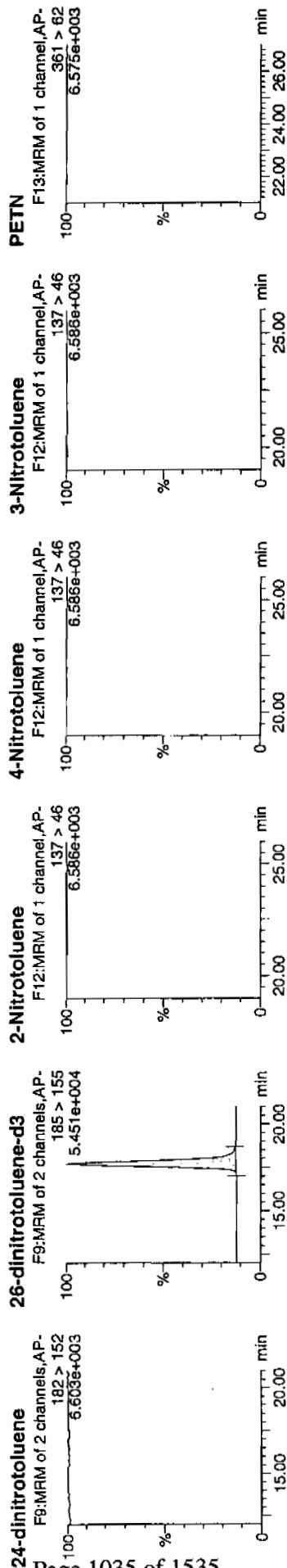
1357  
2/9/10



Printed: Tue Feb 09 10:21:18 2010, Page 2 of 77

**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



ID	Name	Trace	RT	Area	IS Area	Abs. Resp	Response	Flags	Mod. Date	Mod. Time	% Rec	% Dev	S/N
XIBLK01	HMX	176 > 102			3092.901								
XIBLK01	RDX	176 > 102			3092.901								
XIBLK01	135-Trinitrobenzene	213 > 183			3092.901								
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.20	3092.901									
XIBLK01	13-Dinitrobenzene	168 > 138			3092.901								
XIBLK01	Tetryl	241 > 181			3092.901								
XIBLK01	Nitrobenzene	123 > 46			3092.901								
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			19047.234								
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			19047.234								
XIBLK01	246-Trinitrotoluene	227 > 210			19047.234								
XIBLK01	34-dinitrotoluene	182 > 152			19047.234								
XIBLK01	26-dinitrotoluene	182 > 152			19047.234								
XIBLK01	24-dinitrotoluene	182 > 152			19047.234								
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.71	19047.234									
XIBLK01	2-Nitrotoluene	137 > 46			19047.234								
XIBLK01	4-Nitrotoluene	137 > 46			19047.234								
XIBLK01	3-Nitrotoluene	137 > 46			19047.234								
XIBLK01	PETN	361 > 62			19047.234								
						19047.234	19047.234	bb					
						3092.901	3092.901	bb					
						481.0748	96.2	-3.8	573.7				
						515.9145	103.2	3.2	1409.8				

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1304

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08-FEB-10 15:13

GEL Data File: EXP0208002a

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	552.32
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	568.377
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\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208002a

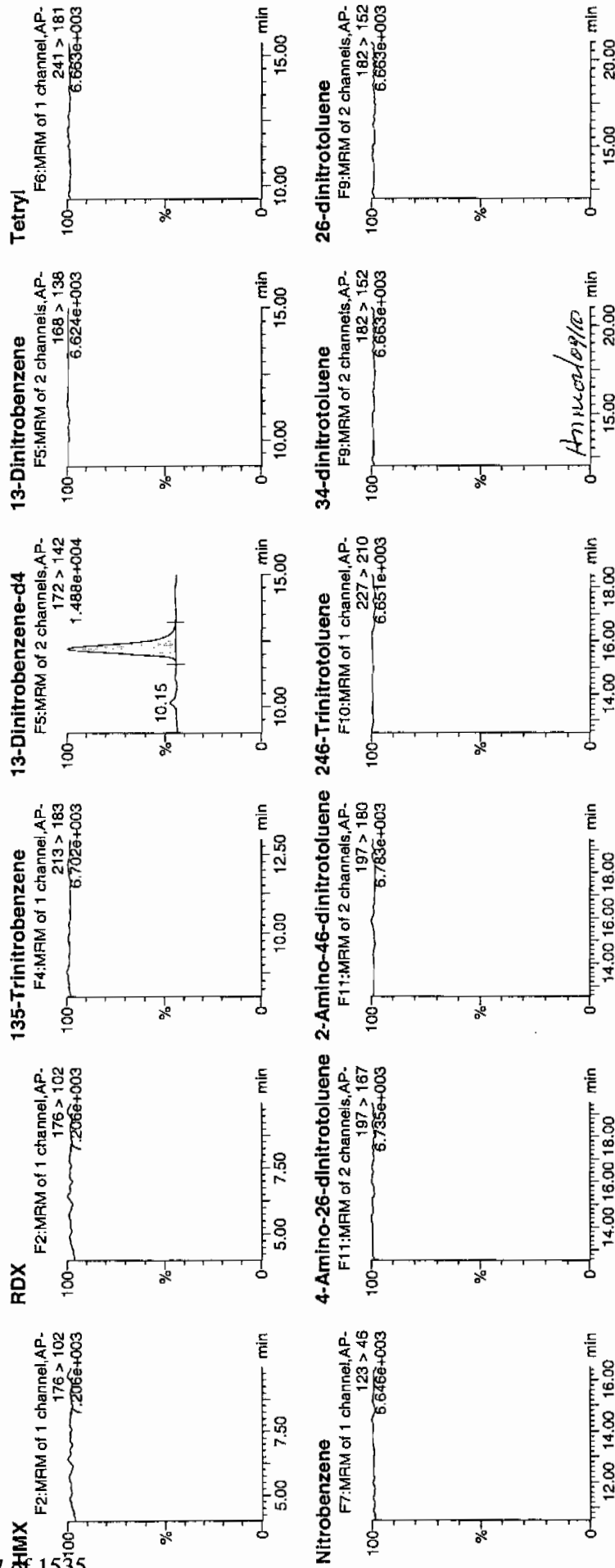
Date: 08-Feb-2010

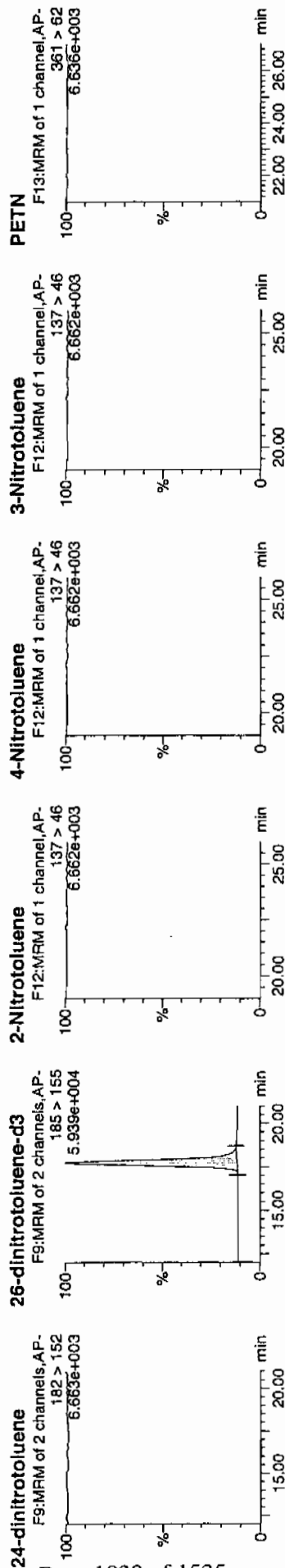
Time: 15:13:49

ID: XIBLK01

Vial: 1:1,A

2/9/10  
MHP





ID	Name	Trace	RT	Area	IS Area	Abs. Resp	Response	Flags	Mod Date	Mod Time	Conc	%Rec	%Dev	S/N
XIBLK01	HMX		176 > 102		3550.947									
XIBLK01	RDX		176 > 102		3550.947									
XIBLK01	135-Trinitrobenzene		213 > 183		3550.947									
XIBLK01	13-Dinitrobenzene-d4		172 > 142	12.20	3550.947		3550.947	bb			552.3201	110.5	10.5	593.6
XIBLK01	13-Dinitrobenzene		168 > 138		3550.947									
XIBLK01	Tetryl		241 > 181		3550.947									
XIBLK01	Nitrobenzene		123 > 46		3550.947									
XIBLK01	4-Amino-26-dinitrotoluene		197 > 167		20984.104									
XIBLK01	2-Amino-46-dinitrotoluene		197 > 180		20984.104									
XIBLK01	246-Trinitrotoluene		227 > 210		20984.104									
XIBLK01	34-dinitrotoluene		182 > 152		20984.104									
XIBLK01	26-dinitrotoluene		182 > 152		20984.104									
XIBLK01	26-dinitrotoluene-d3		185 > 155		20984.104									
XIBLK01	2-Nitrotoluene		137 > 46	17.72	20984.104		20984.104	bb			568.3767	113.7	13.7	1591.1
XIBLK01	4-Nitrotoluene		137 > 46		20984.104									
XIBLK01	3-Nitrotoluene		137 > 46		20984.104									
XIBLK01	PETN		361 > 62		20984.104									

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1304

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 01-FEB-10 17:21

GEL Data File: EXS02010001.wiff

Instrument ID: LCMSMS

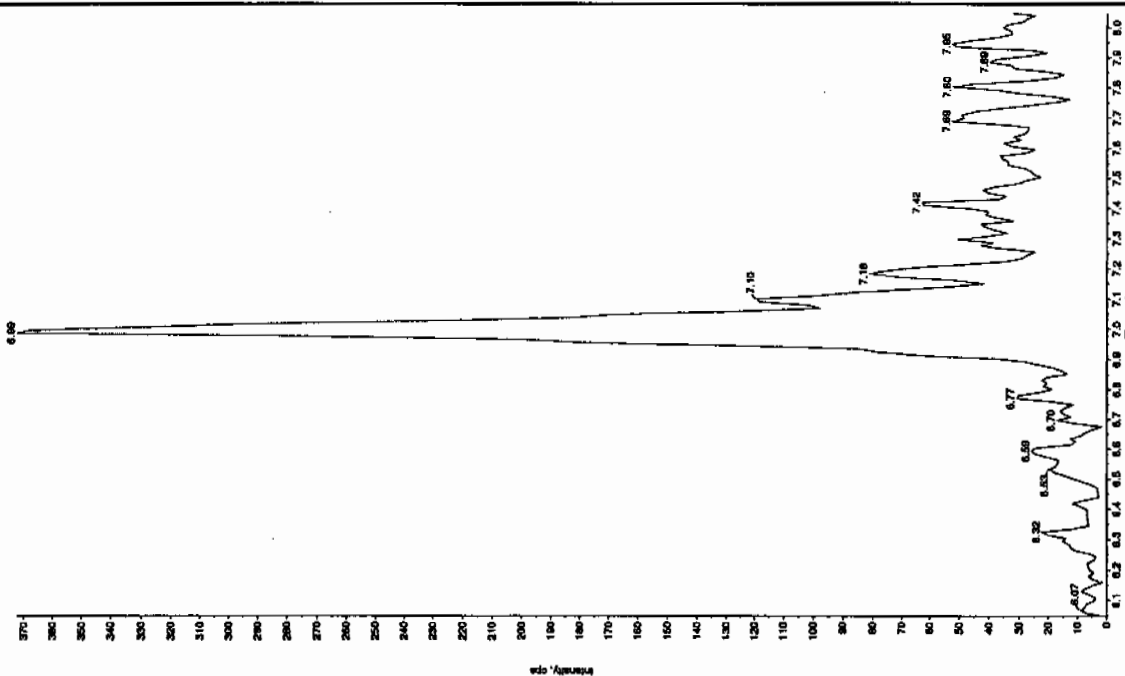
Column: Phenomenex Ultracarb 5u ODS(20)

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

then 2/2/10

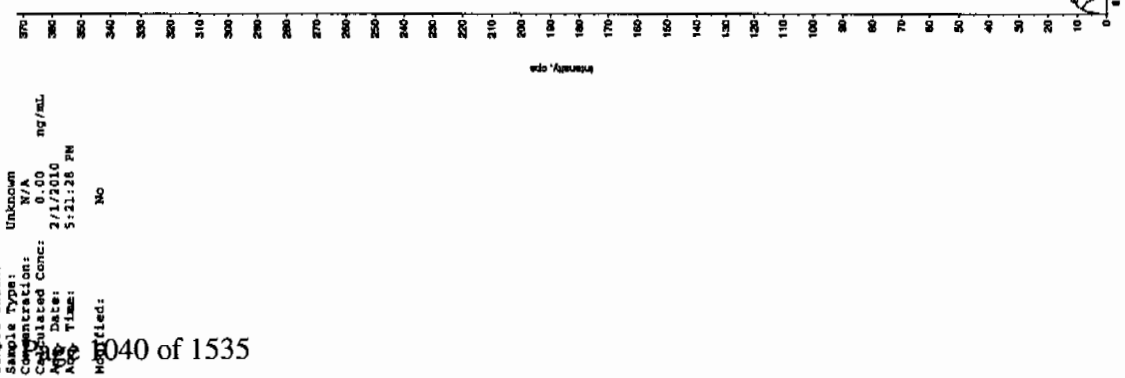
Sample Name: "XBL001" Sample ID: "11111" File: "EX552010001.wif"  
 Peak Name: "55-Dinitrofluorene" Mass(es): "182.0/146.0 amu"  
 Comment: "LDAEXP\_B" Annotation: "1"

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 2/1/2010  
 Acq. Time: 5:21:28 PM  
 Modified: No

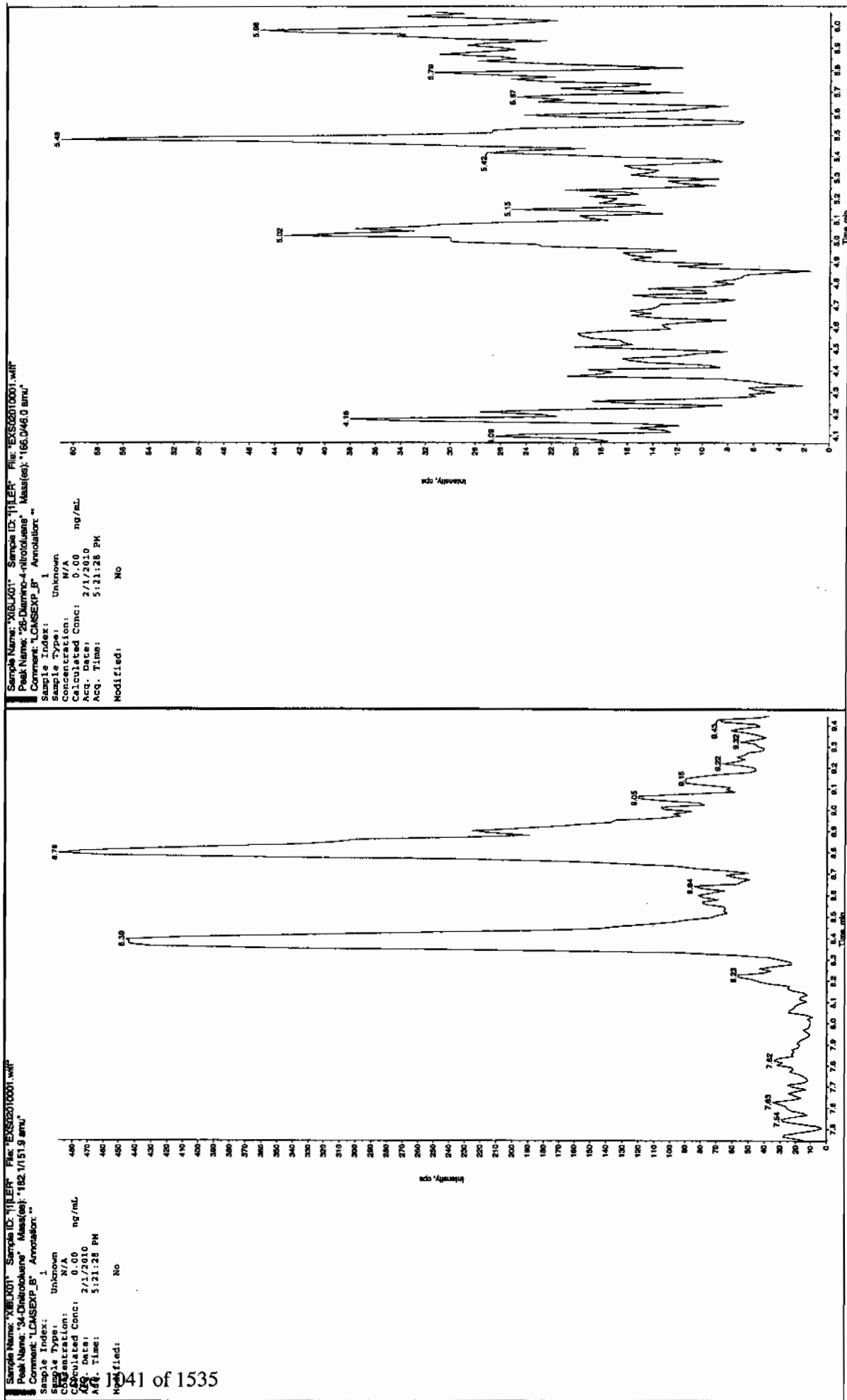


Sample Name: "XBL001" Sample ID: "11111" File: "EX552010001.wif"  
 Peak Name: "1A1B" Mass(es): "257.2/204.9 amu"  
 Comment: "LDAEXP\_B" Annotation: "1"

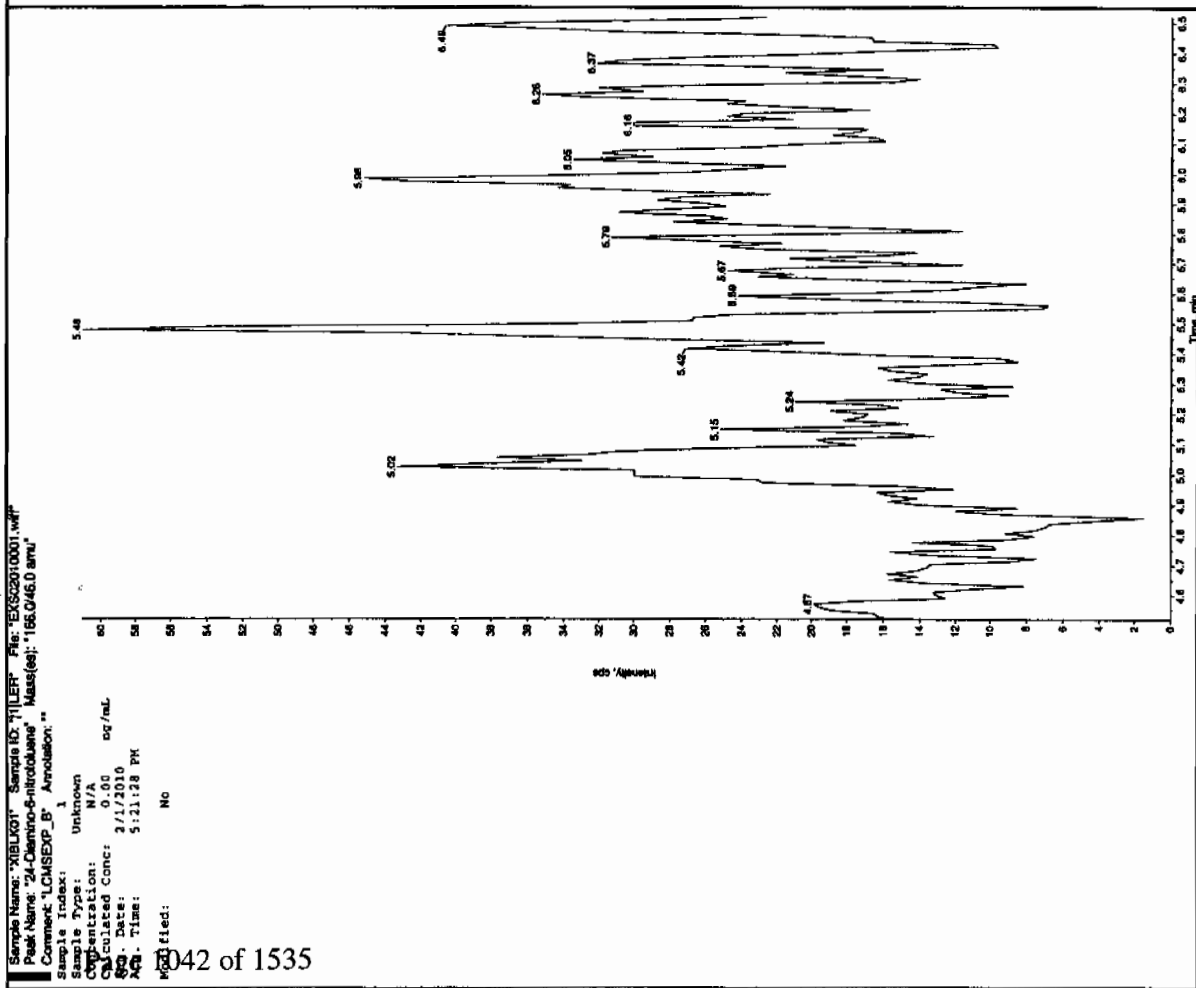
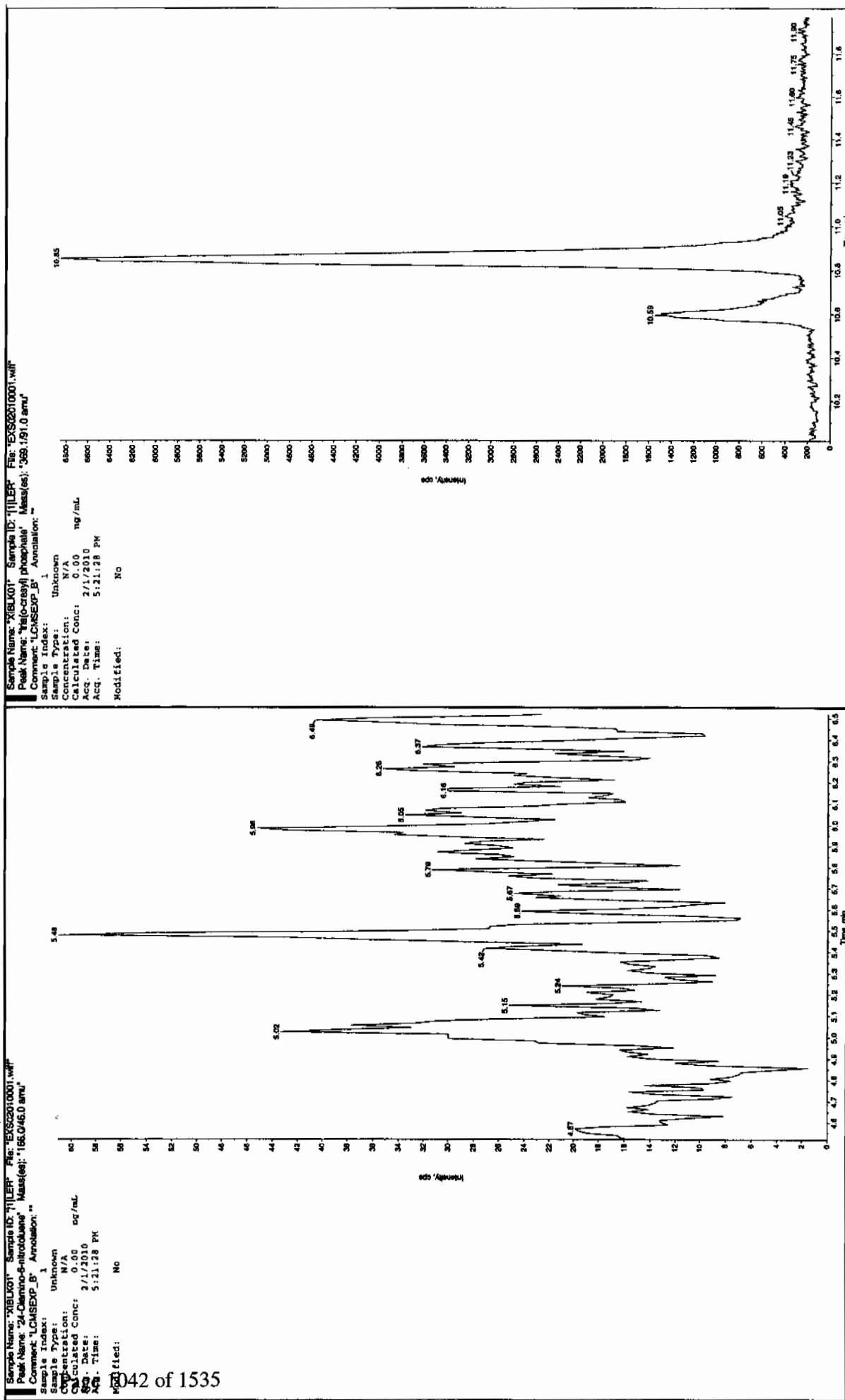
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 2/1/2010  
 Acq. Time: 5:21:28 PM  
 Modified: No



then 2/2/10







Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1304

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 01-FEB-10 17:37

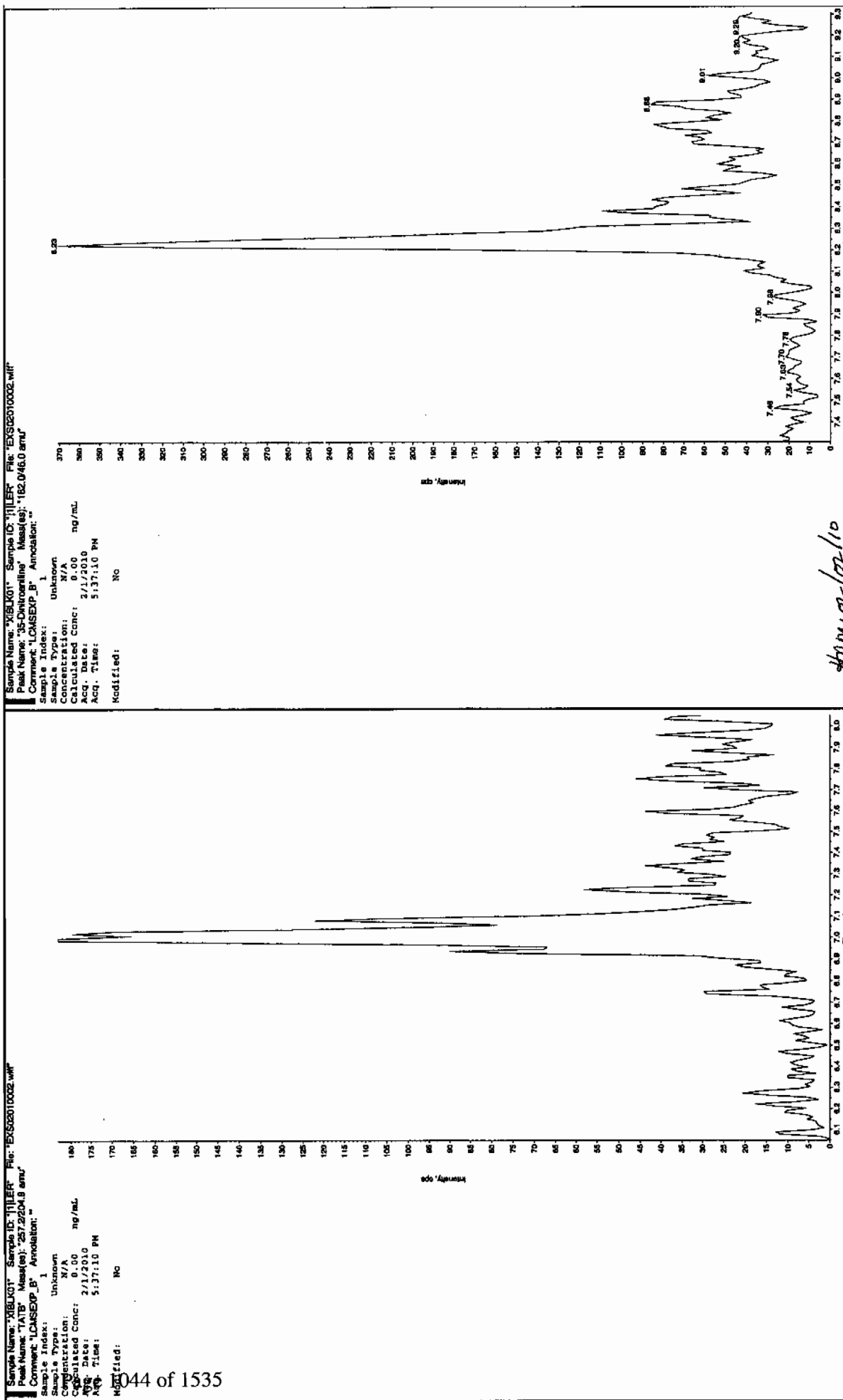
GEL Data File: EXS02010002.wiff

Instrument ID: LCMSMS

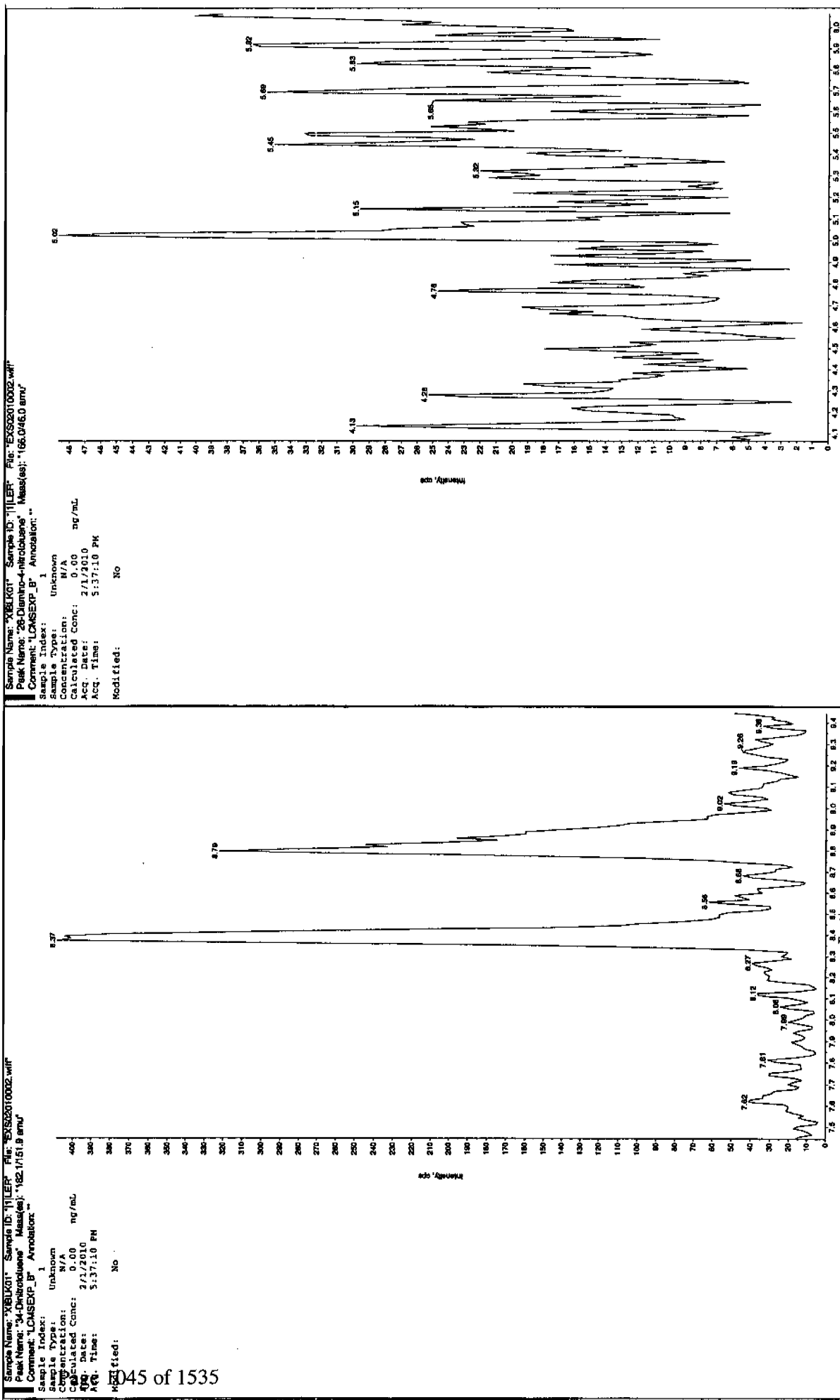
Column: Phenomenex Ultracarb 5u ODS(20)

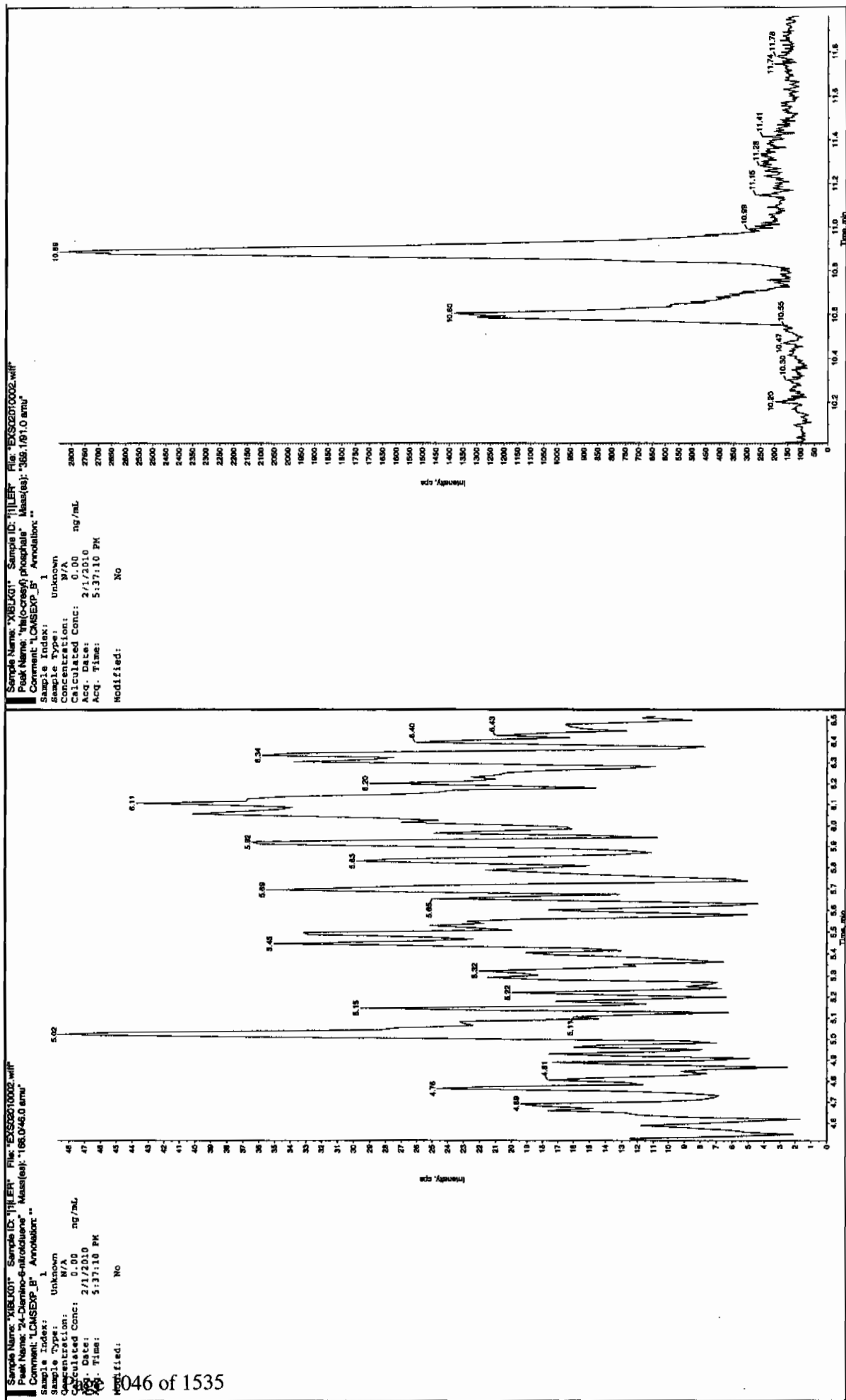
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

SLU 2/2/10



Time 2/2/10





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1304

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 08-FEB-10 18:40

GEL Data File: EXP0208009a

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	519.67
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	546.786
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: Tue Feb 09 10:21:18 2010, Page 17 of 77

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208009a

Date: 08-Feb-2010

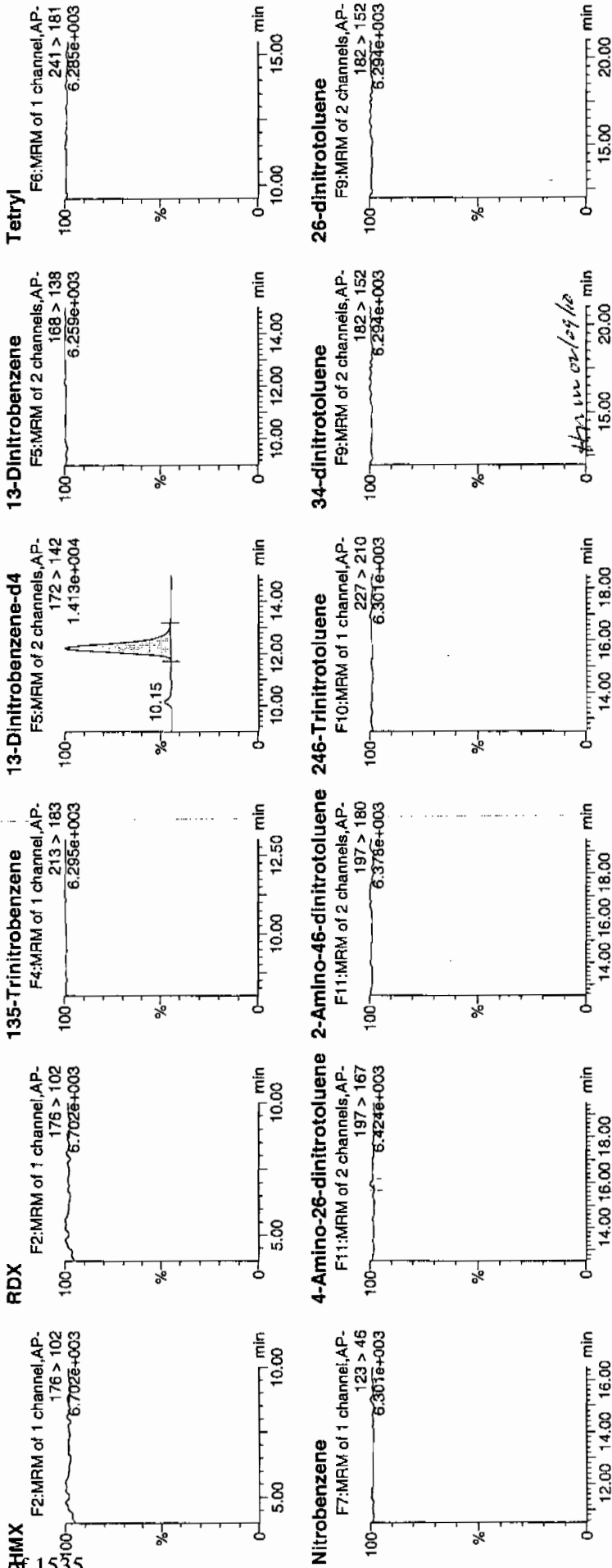
Time: 18:40:36

ID: XIBLK02

Vial: 1:1,A

48

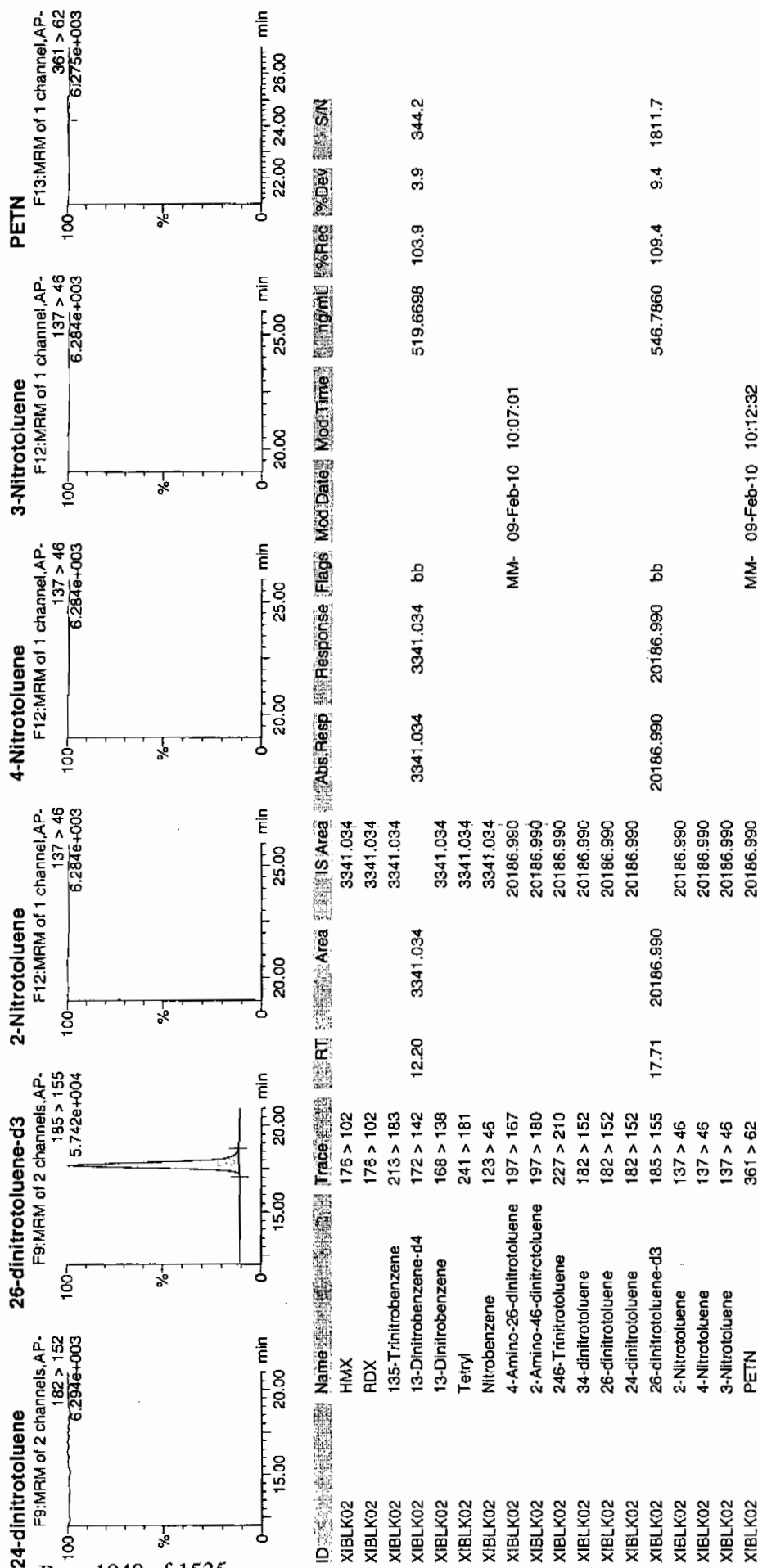
MM  
2/10



Printed: Tue Feb 09 10:21:18 2010, Page 18 of 77

# Quantify Sample Report GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1304

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 08-FEB-10 19:39

GEL Data File: EXP0208011a

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	534.714
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	583.46
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\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0208011a

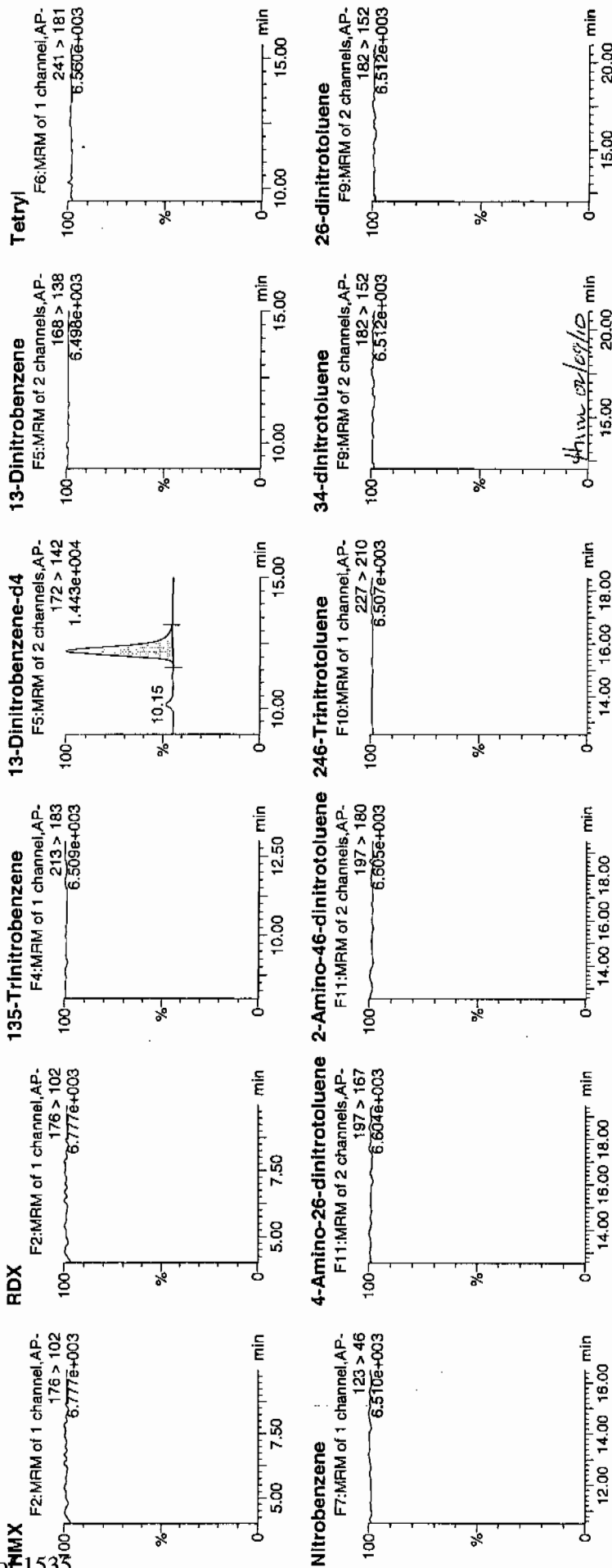
Date: 08-Feb-2010

Time: 19:39:33

ID: XIBLK03

Serial: 1:1,A

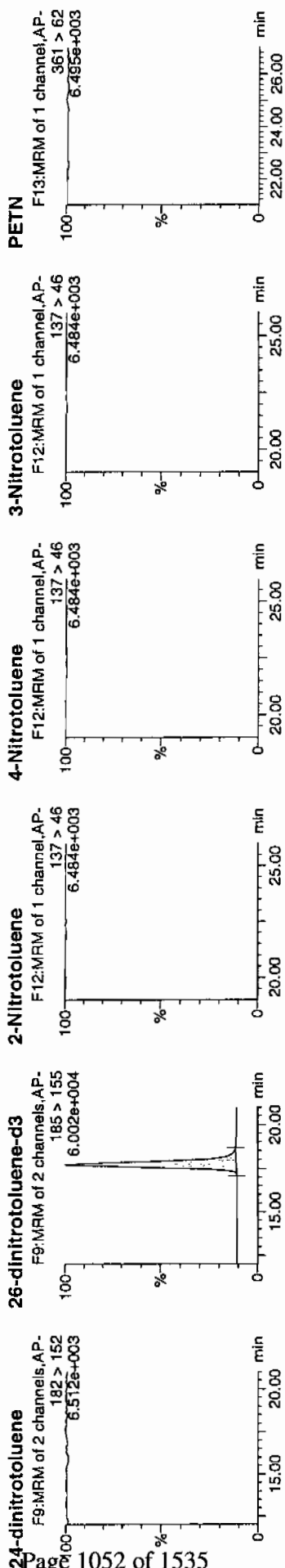
2/9/10  
M.A.P.



Printed: Tue Feb 09 10:21:18 2010, Page 22 of 77

**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



ID	Name	Trace	RT	Area	IS Area	Abs. Resp	Response	Flags	Mod. Date	Mod. Time	ng/ml	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102		3437.753										
XIBLK03	RDX	176 > 102		3437.753										
XIBLK03	135-Trinitrobenzene	213 > 183		3437.753										
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.20	3437.753							534.7137	106.9	6.9	235.9
XIBLK03	13-Dinitrobenzene	168 > 138												
XIBLK03	Tetryl	241 > 181												
XIBLK03	Nitrobenzene	123 > 46												
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167												
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180												
XIBLK03	246-Trinitrotoluene	227 > 210												
XIBLK03	34-dinitrotoluene	182 > 152												
XIBLK03	26-dinitrotoluene	182 > 152												
XIBLK03	24-dinitrotoluene	182 > 152												
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.72	21540.977							583.4602	116.7	16.7	396.6
XIBLK03	2-Nitrotoluene	137 > 46												
XIBLK03	4-Nitrotoluene	137 > 46												
XIBLK03	3-Nitrotoluene	137 > 46												
XIBLK03	PETN	361 > 62												

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1304

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 09-FEB-10 02:02

GEL Data File: EXP0208024a

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	594.411
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	592.137
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\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208024a

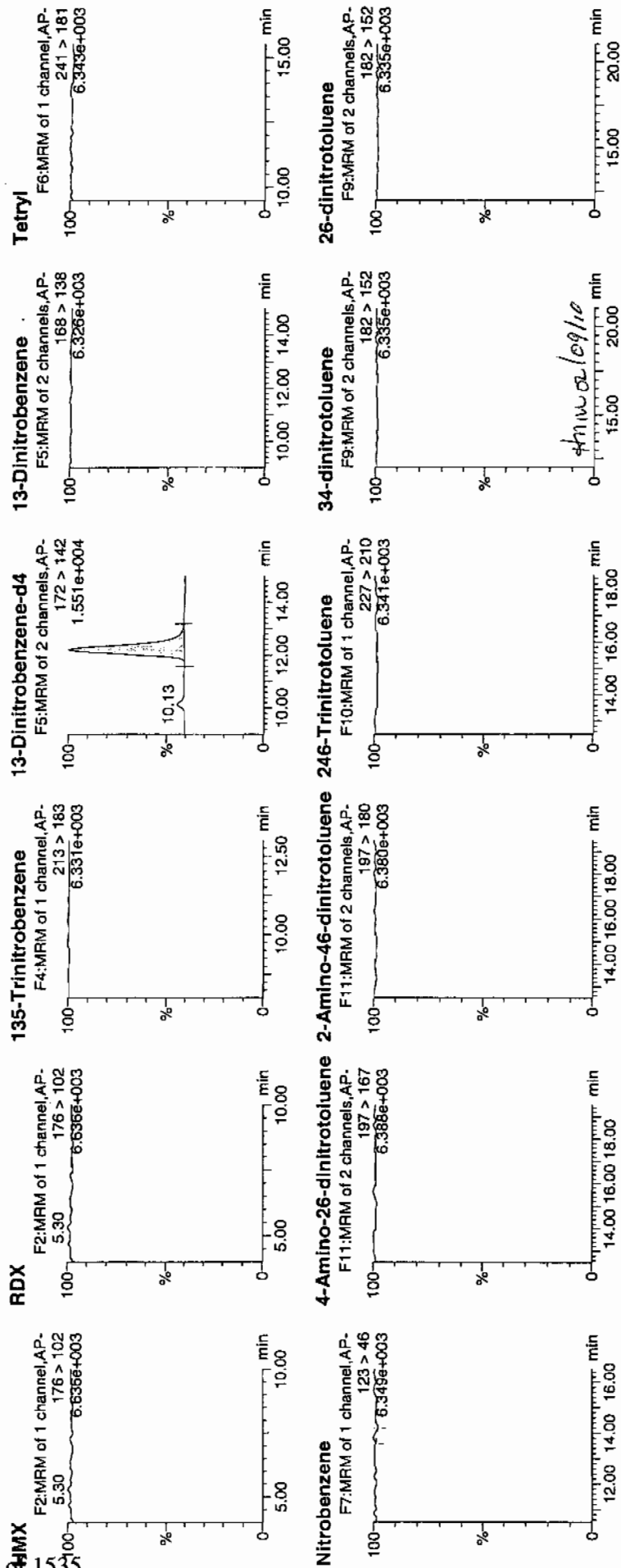
Date: 09-Feb-2010

Time: 02:02:53

ID: XIBLK04

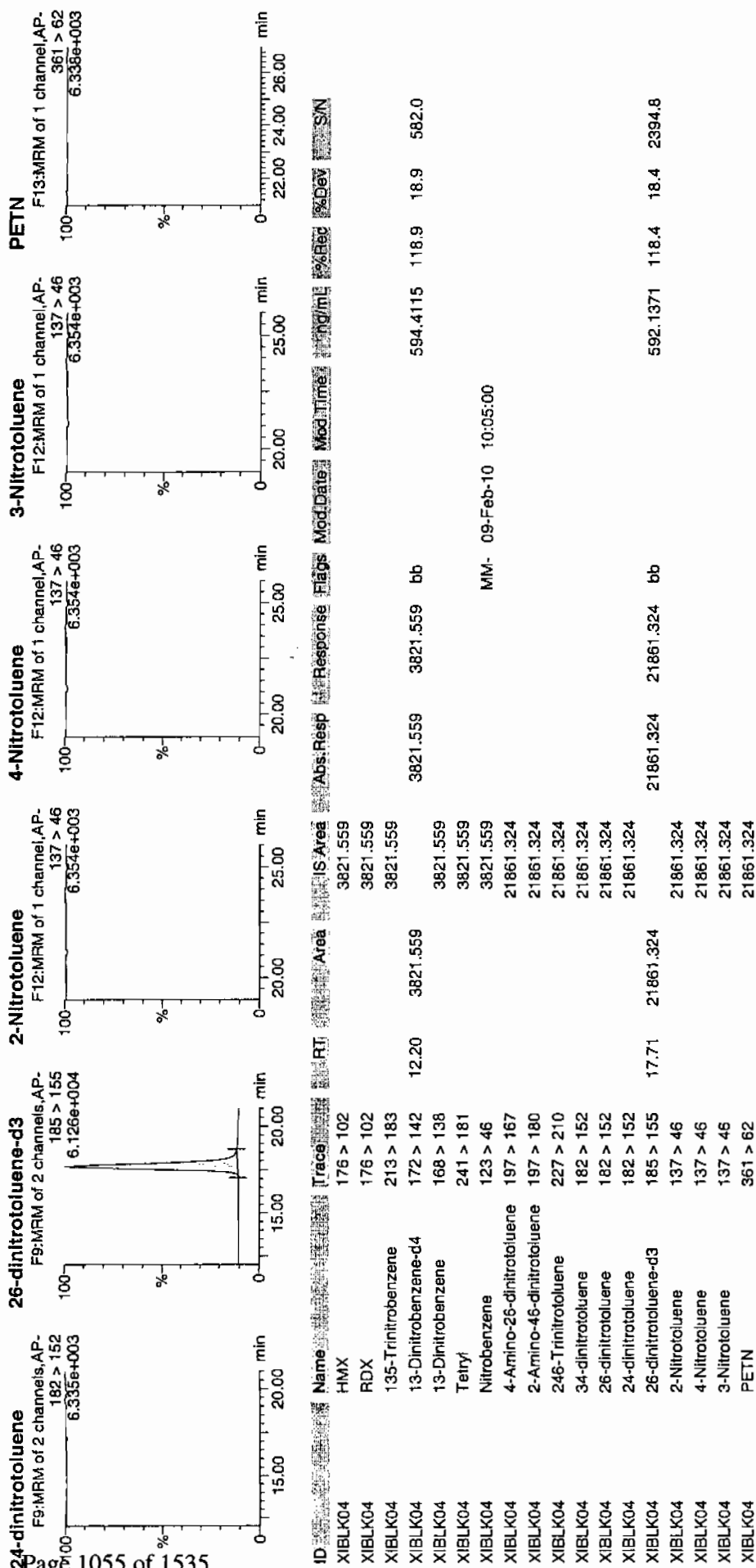
Cal: 1:1,A

1/10/10



**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYN\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1304

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 09-FEB-10 08:26

GEL Data File: EXP0208037a

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	592.976
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	568.449
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:\MASSLYN\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYN\NEW\_EXP.PRO\PRO\DATA\EXP0208037a

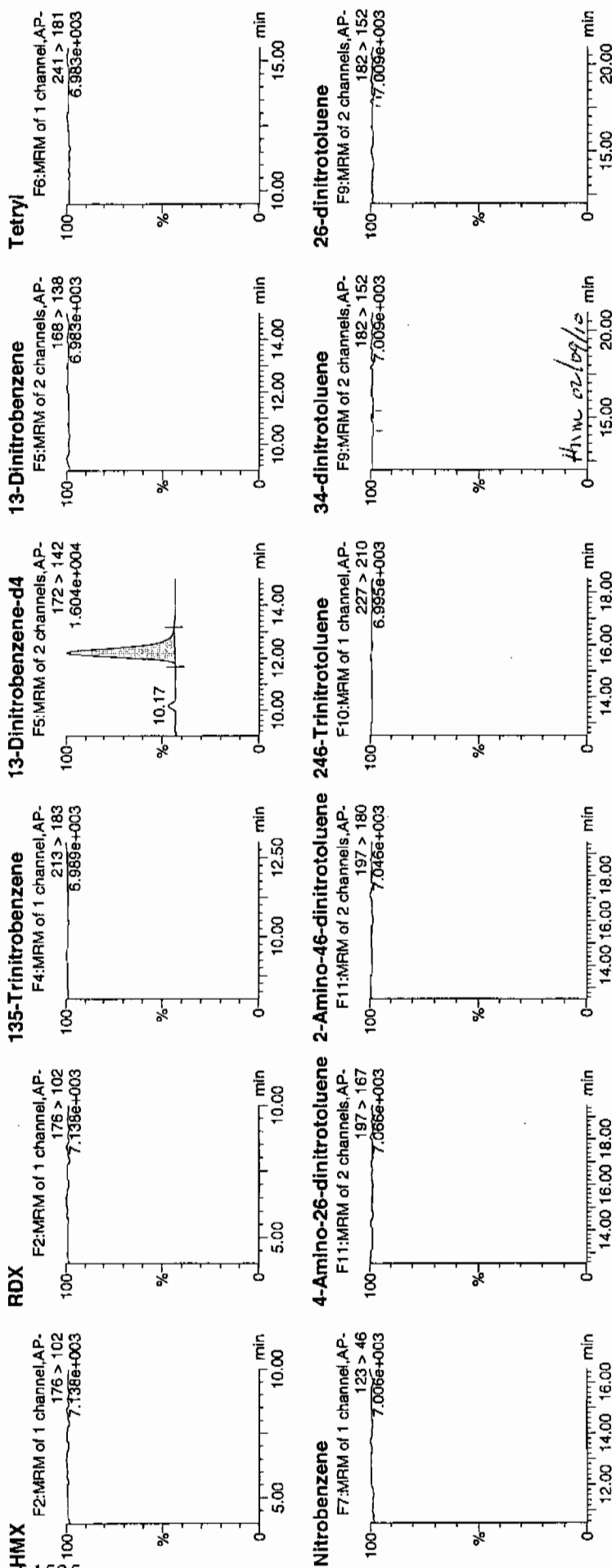
Date: 09-Feb-2010

Time: 08:26:48

ID: XIBLK05

**vial: 1:1,A**

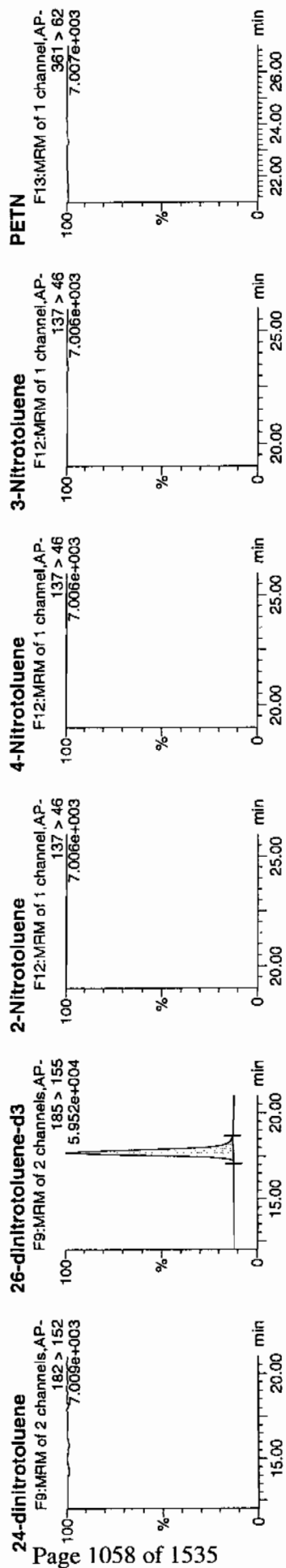
57





**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\020810expA.qtd, Time: Tue Feb 09 10:19:05 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc/mL	%Rec	%Dev	SN
XIBLK05	HMX	176 > 102			3812.331									
XIBLK05	RDX	176 > 102			3812.331									
XIBLK05	135-Trinitrobenzene	213 > 183			3812.331									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.20	3812.331			3812.331	bb			592.9761	118.6	18.6	397.2
XIBLK05	13-Dinitrobenzene	168 > 138												
XIBLK05	Tetryl	241 > 181			3812.331									
XIBLK05	Nitrobenzene	123 > 46			3812.331									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167			20986.781									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180			20986.781									
XIBLK05	246-Trinitrotoluene	227 > 210			20986.781					MM- 09-Feb-10 10:09:37				
XIBLK05	34-dinitrotoluene	182 > 152			20986.781					MM- 09-Feb-10 10:15:23				
XIBLK05	26-dinitrotoluene	182 > 152			20986.781									
XIBLK05	24-dinitrotoluene	182 > 152			20986.781									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.71	20986.781			20986.781	bb			568.4492	113.7	13.7	1868.8
XIBLK05	2-Nitrotoluene	137 > 46			20986.781									
XIBLK05	4-Nitrotoluene	137 > 46			20986.781									
XIBLK05	3-Nitrotoluene	137 > 46			20986.781									
XIBLK05	PETN	361 > 62			20986.781									

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1304

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 09-FEB-10 14:50

GEL Data File: EXP0208050a

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	619.031
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	615.609
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\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208050a

Date: 09-Feb-2010

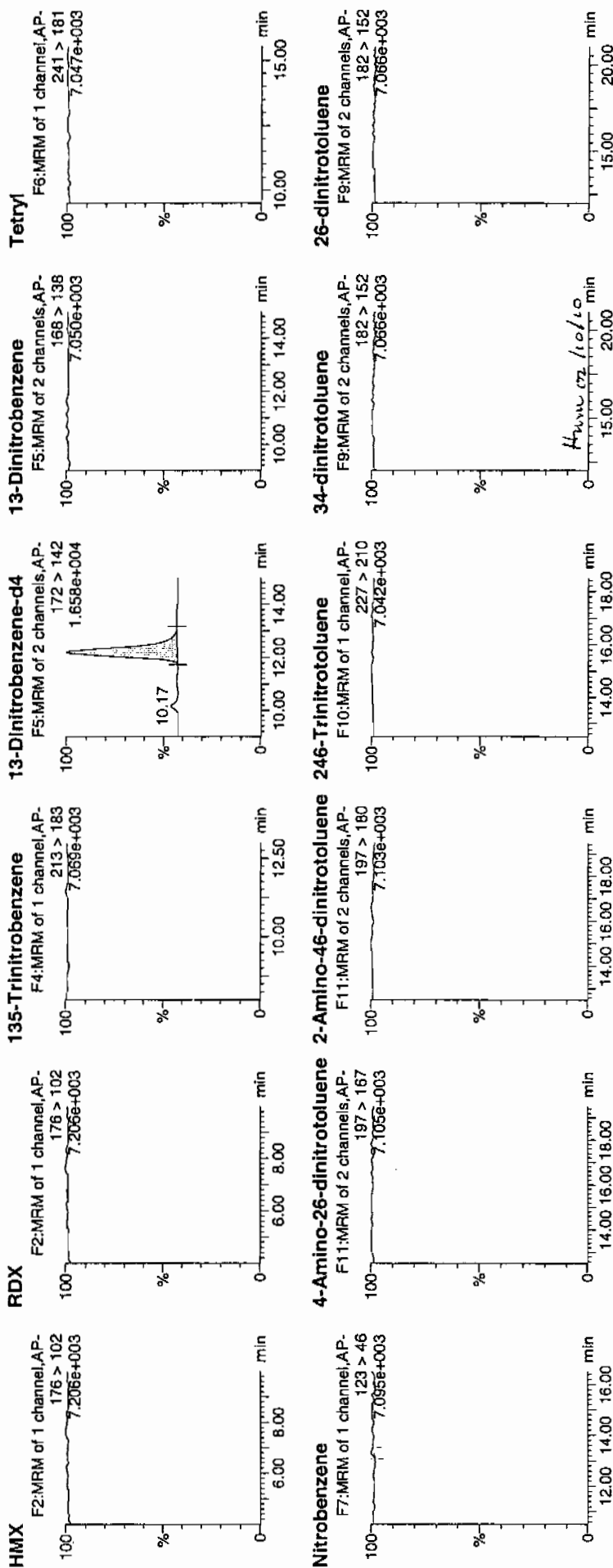
Time: 14:50:17

ID: XIBLK06

Vial: 1-1,A

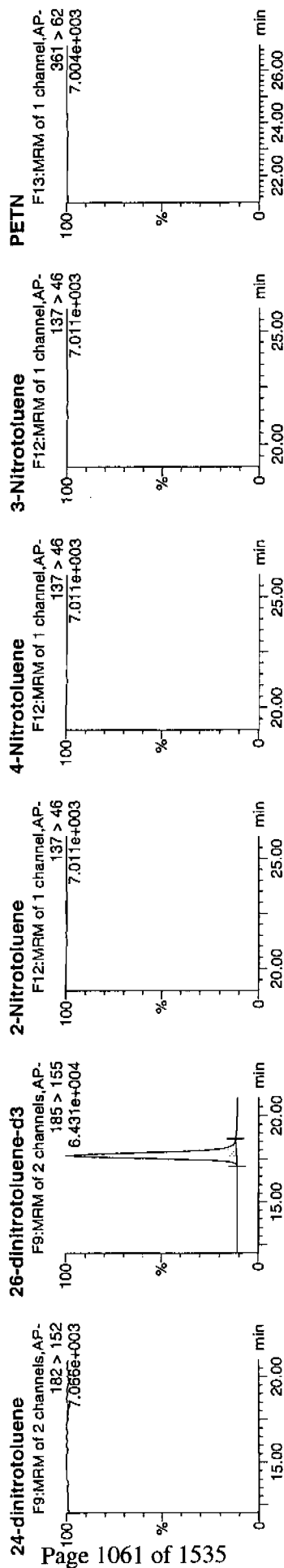
10/10

Page 1060 of 1535



**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYN\New\_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010



ID	Name	Trace	RT	Area	IS Area	Abs. Resp	Flags	Mod. Date	Mod. Time	Int. Conc	% Rec	% Dev	SN
XIBLK06	HMX	176 > 102		3979.842									
XIBLK06	RDX	176 > 102		3979.842									
XIBLK06	135-Trinitrobenzene	213 > 183		3979.842									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	12.20	3979.842		3979.842	bb			619.0311	123.8	23.8	262.8
XIBLK06	13-Dinitrobenzene	168 > 138		3979.842									
XIBLK06	Tetryl	241 > 181		3979.842									
XIBLK06	Nitrobenzene	123 > 46		3979.842									
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167		22727.891					10-Feb-10	09:17:09			
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180		22727.891									
XIBLK06	246-Trinitrotoluene	227 > 210		22727.891									
XIBLK06	34-dinitrotoluene	182 > 152		22727.891									
XIBLK06	26-dinitrotoluene	182 > 152		22727.891									
XIBLK06	24-dinitrotoluene	182 > 152		22727.891									
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.71	22727.891		22727.891	bb			615.6090	123.1	23.1	1189.9
XIBLK06	2-Nitrotoluene	137 > 46		22727.891									
XIBLK06	4-Nitrotoluene	137 > 46		22727.891									
XIBLK06	3-Nitrotoluene	137 > 46		22727.891									
XIBLK06	PETN	361 > 62		22727.891									

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1304

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 09-FEB-10 21:13

GEL Data File: EXP0208063a

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	602.957
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	577.242
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\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208063a

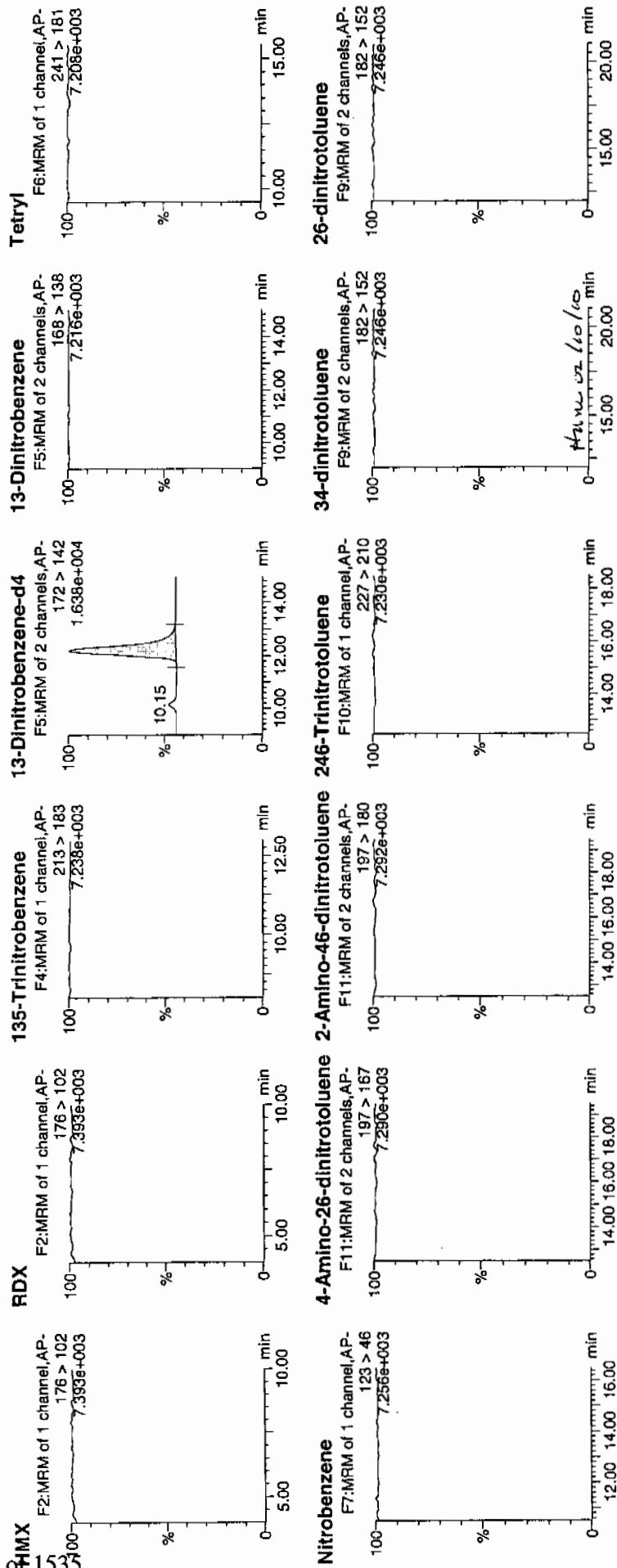
Date: 09-Feb-2010

Time: 21:13:58

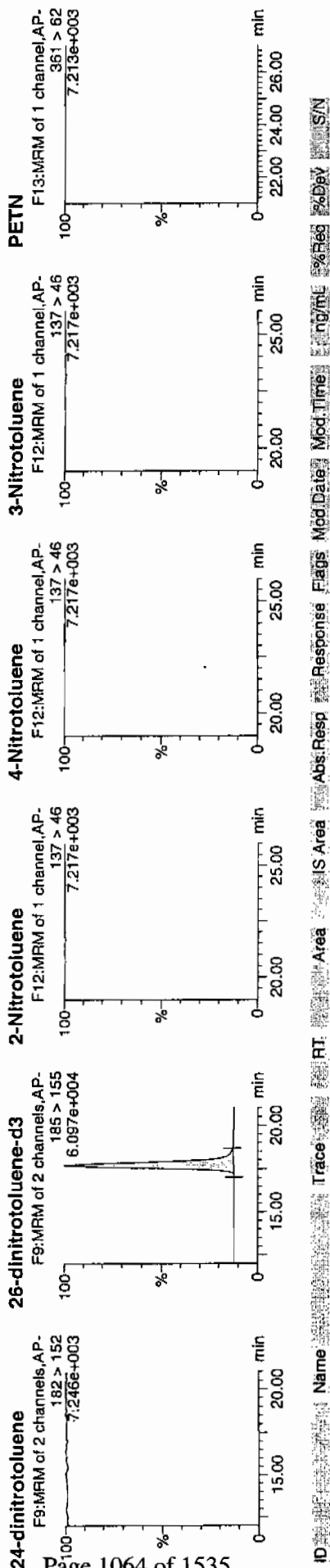
ID: XIBLK07

Ratio: 1:1,A

2/10/10



Dataset: C:\MASSLYN\New\_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010



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ID	Name	RT	Area	IS Area	Abs. Resp	Response	Flags	Mod Date	Mod Time	ng/mL	% Rec	% Dev	S/N
XIBLK07	HMX	176 > 102		3876.500									
XIBLK07	RDX	176 > 102		3876.500									
XIBLK07	135-Trinitrobenzene	213 > 183		3876.500									
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.20	3876.500									
XIBLK07	13-Dinitrobenzene	168 > 138		3876.500									
XIBLK07	Tetryl	241 > 181		3876.500									
XIBLK07	Nitrobenzene	123 > 46		3876.500									
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167		3876.500									
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180		21311.416									
XIBLK07	246-Trinitrotoluene	227 > 210		21311.416									
XIBLK07	34-dinitrotoluene	182 > 152		21311.416									
XIBLK07	26-dinitrotoluene	182 > 152		21311.416									
XIBLK07	24-dinitrotoluene	182 > 152		21311.416									
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.71	21311.416									
XIBLK07	2-Nitrotoluene	137 > 46		21311.416									
XIBLK07	4-Nitrotoluene	137 > 46		21311.416									
XIBLK07	3-Nitrotoluene	137 > 46		21311.416									
XIBLK07	PETN	361 > 62		21311.416									
					3876.500	3876.500	bb			602.9571	120.6	20.6	383.4
					21311.416	21311.416	bb	MM-	10-Feb-10 09:08:37	577.2423	115.4	15.4	1930.8

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1304

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 01-FEB-10 19:42

GEL Data File: EXS02010010.wiff

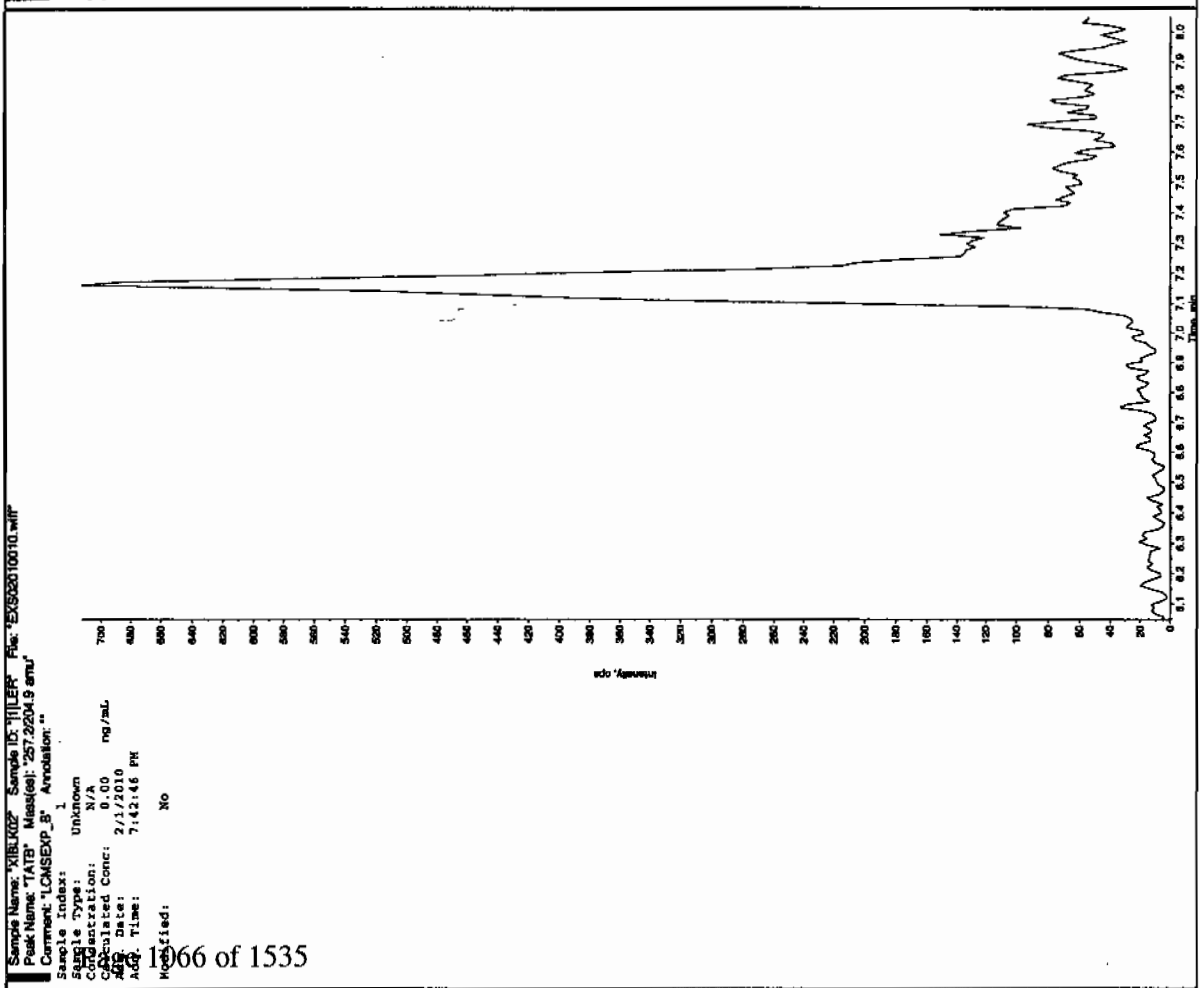
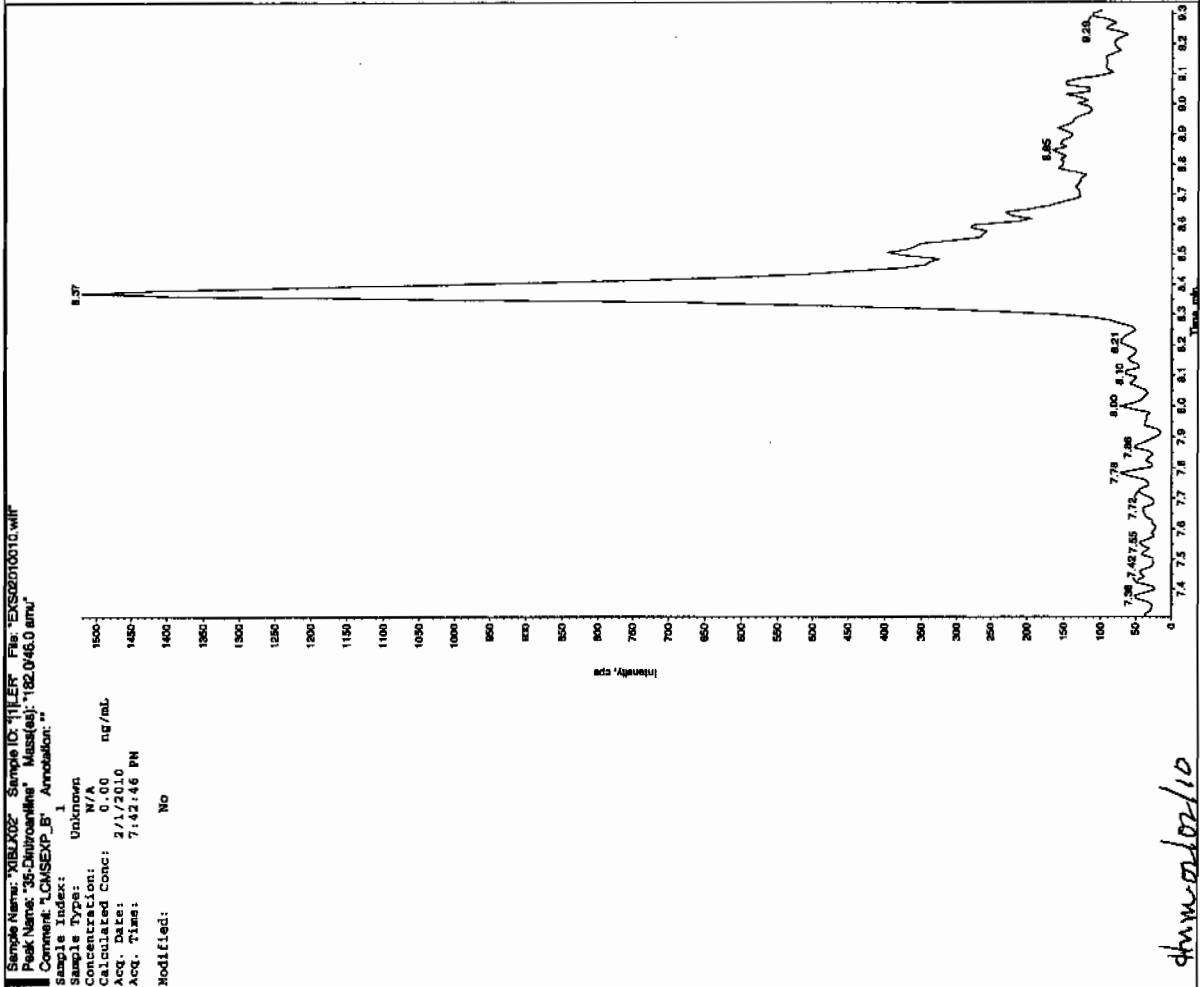
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

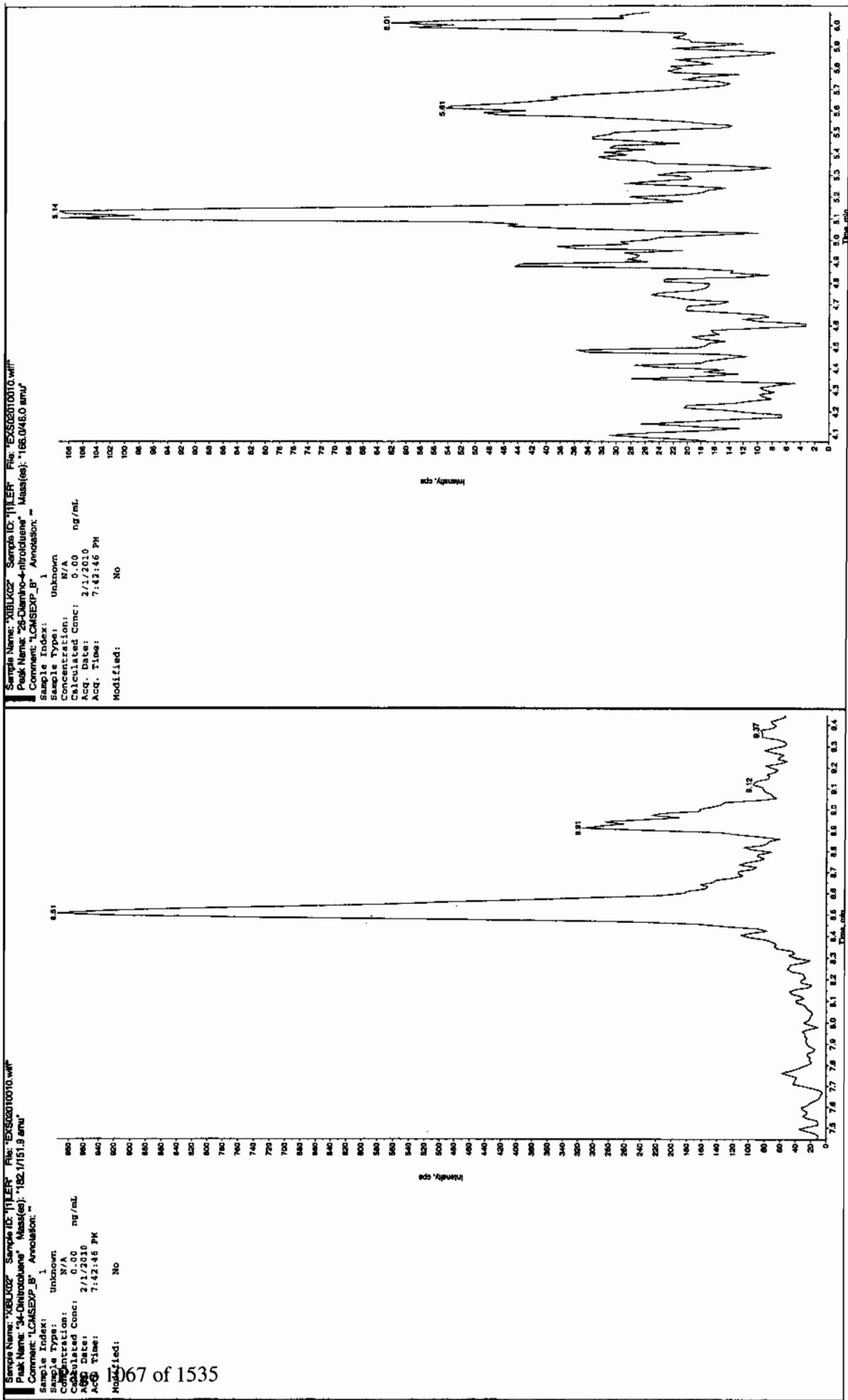
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

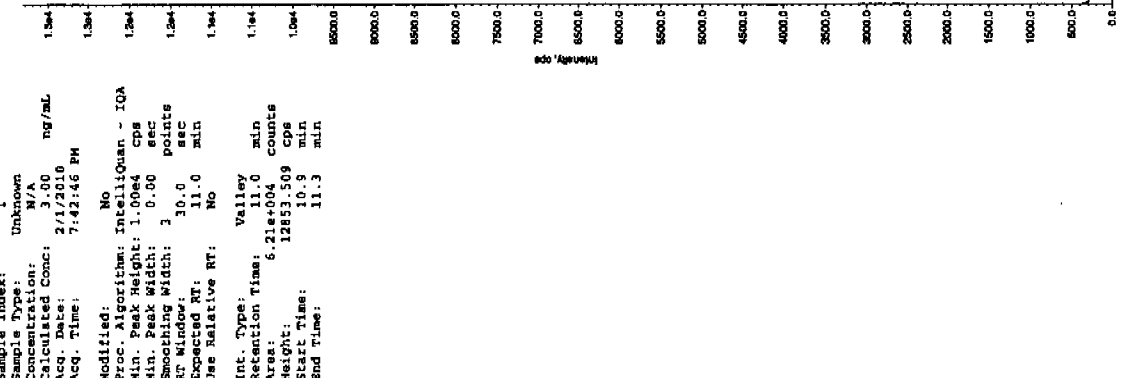


See 12/10

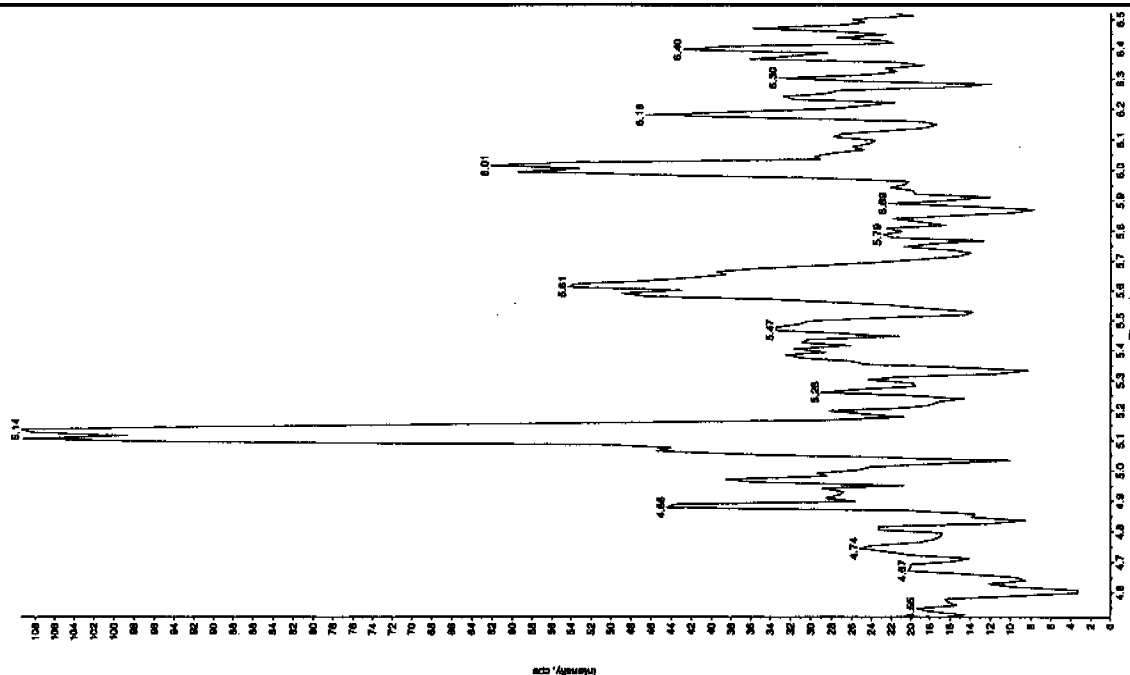


dmw-0102/10





Sample Name: "XISUK02" Sample ID: "11ER" File: "EXS2010010.wif"  
Peak Name: "24-Diamino-6-nitroaldene" Mass(es): "166.0/46.0 amu"



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1304

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 01-FEB-10 20:14

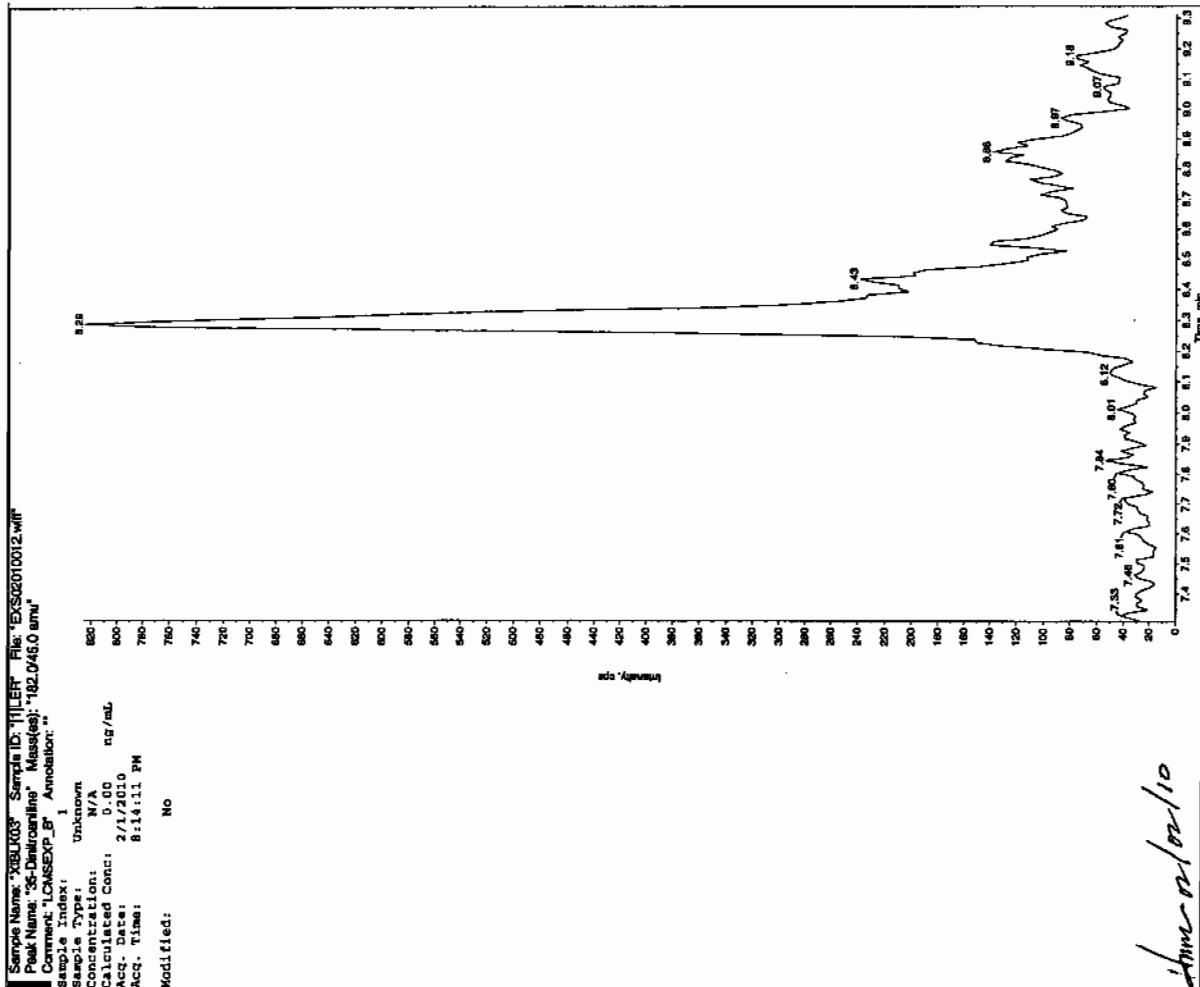
GEL Data File: EXS02010012.wiff

Instrument ID: LCMSMS

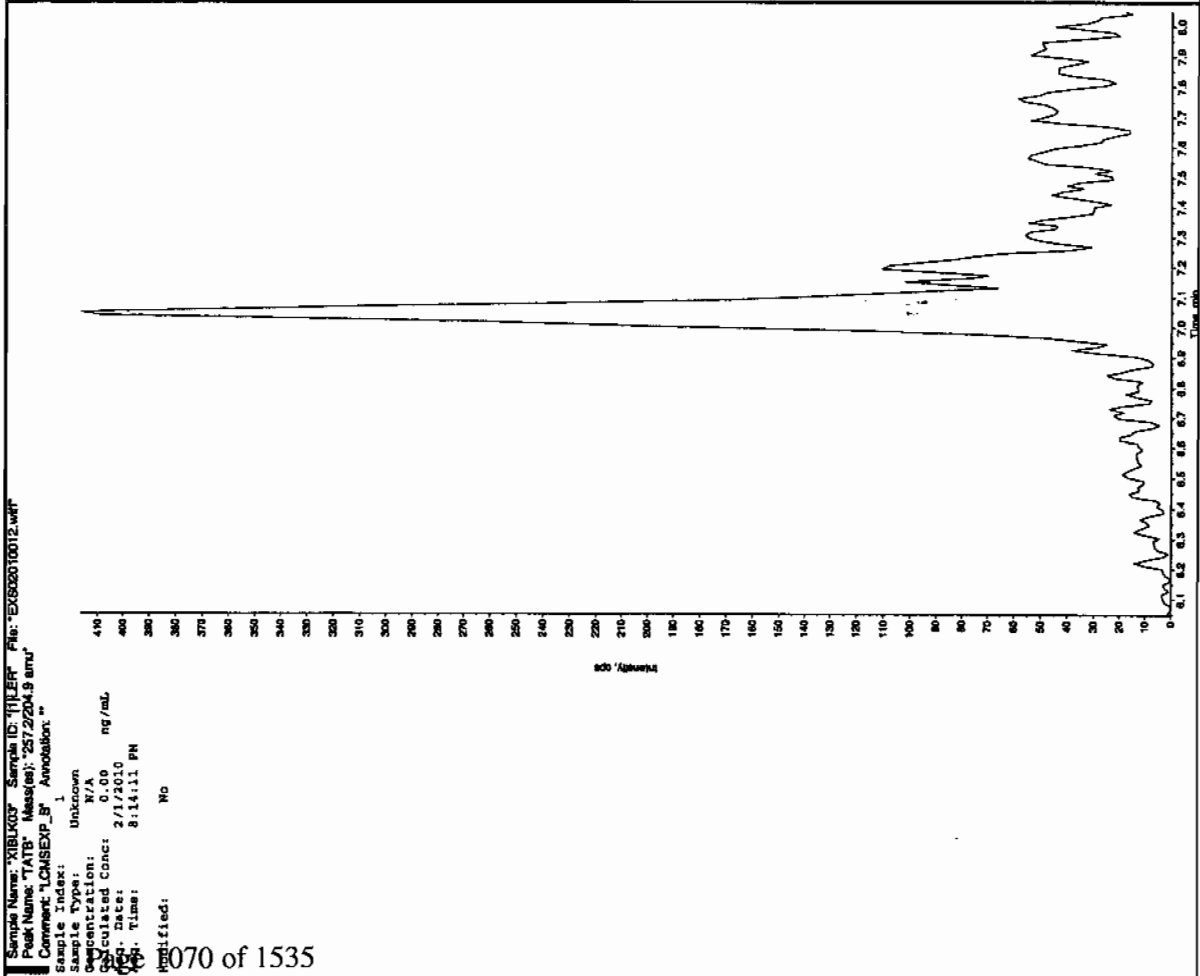
Column: Phenomenex Ultracarb 5u ODS(20)

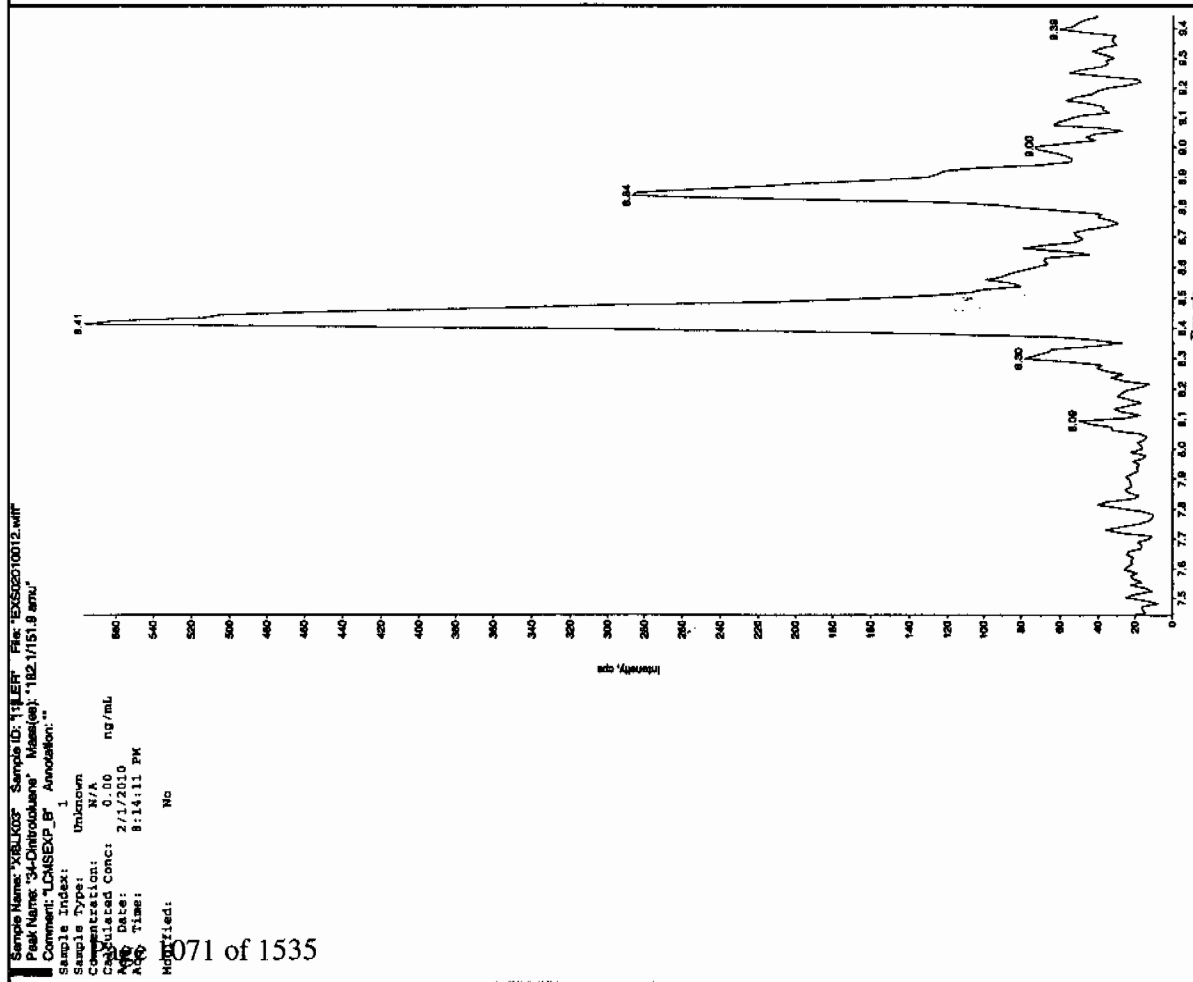
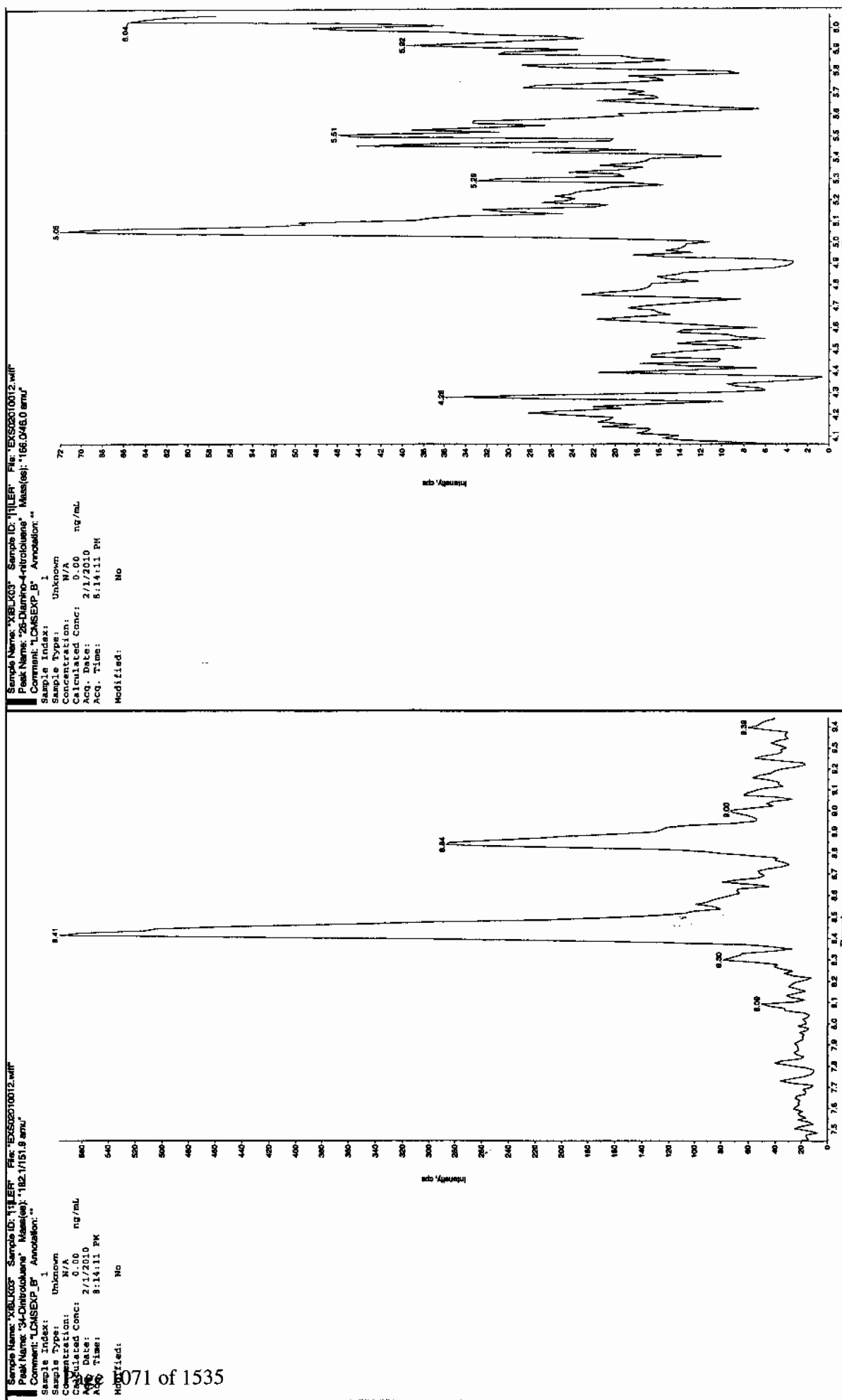
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

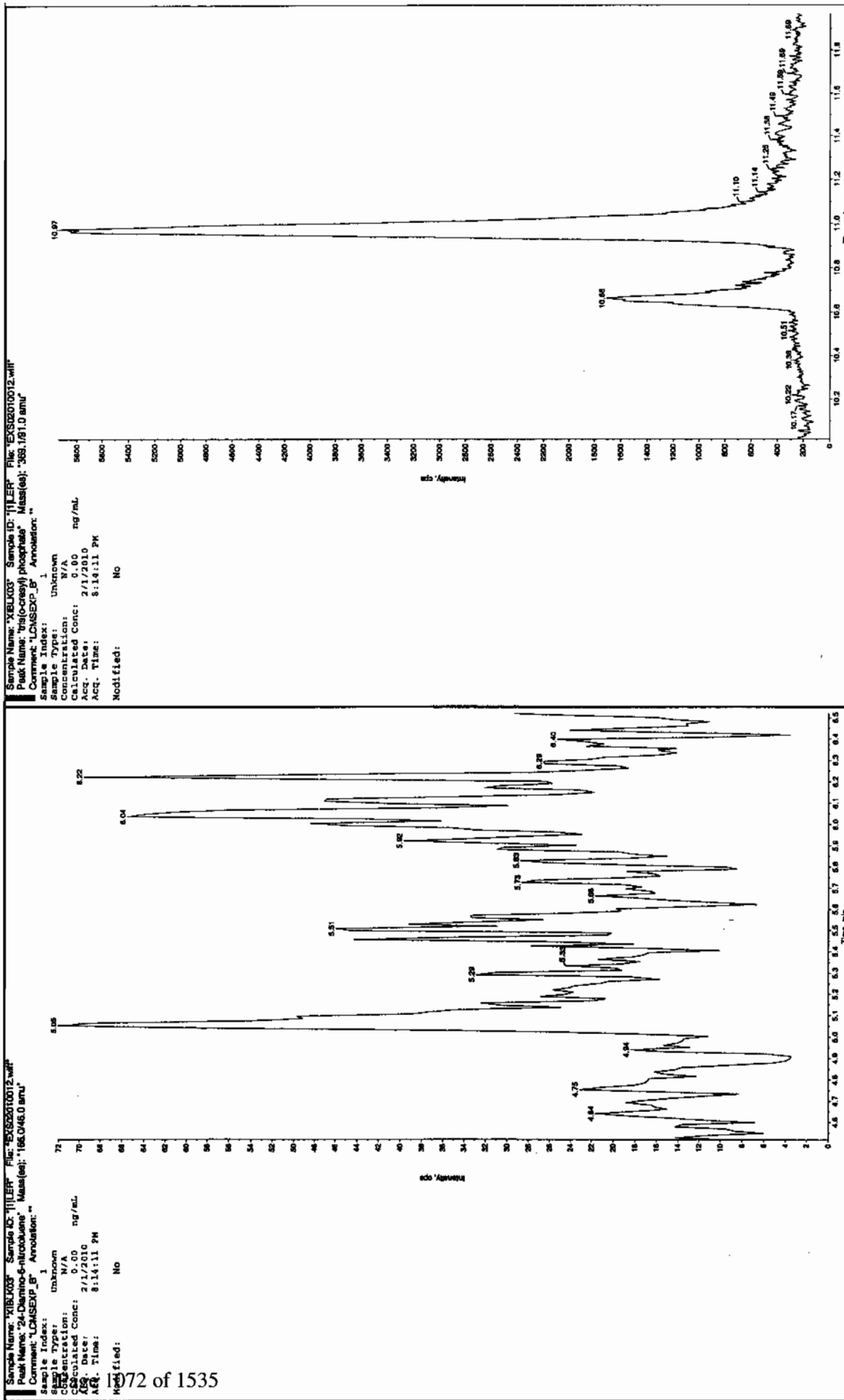
See 2/21/10



See 2/21/10







4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1304

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 01-FEB-10 22:19

GEL Data File: EXS02010020.wiff

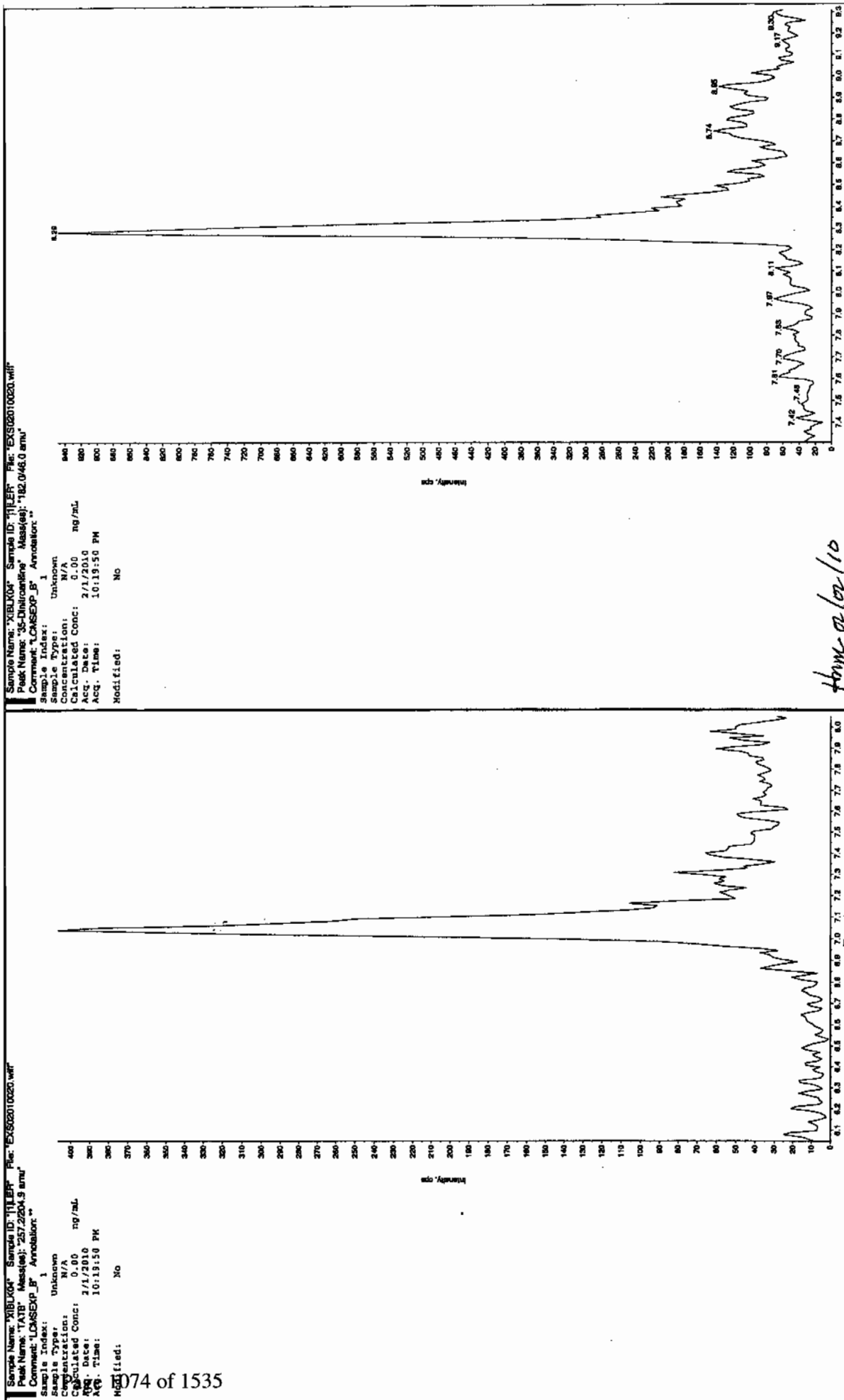
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

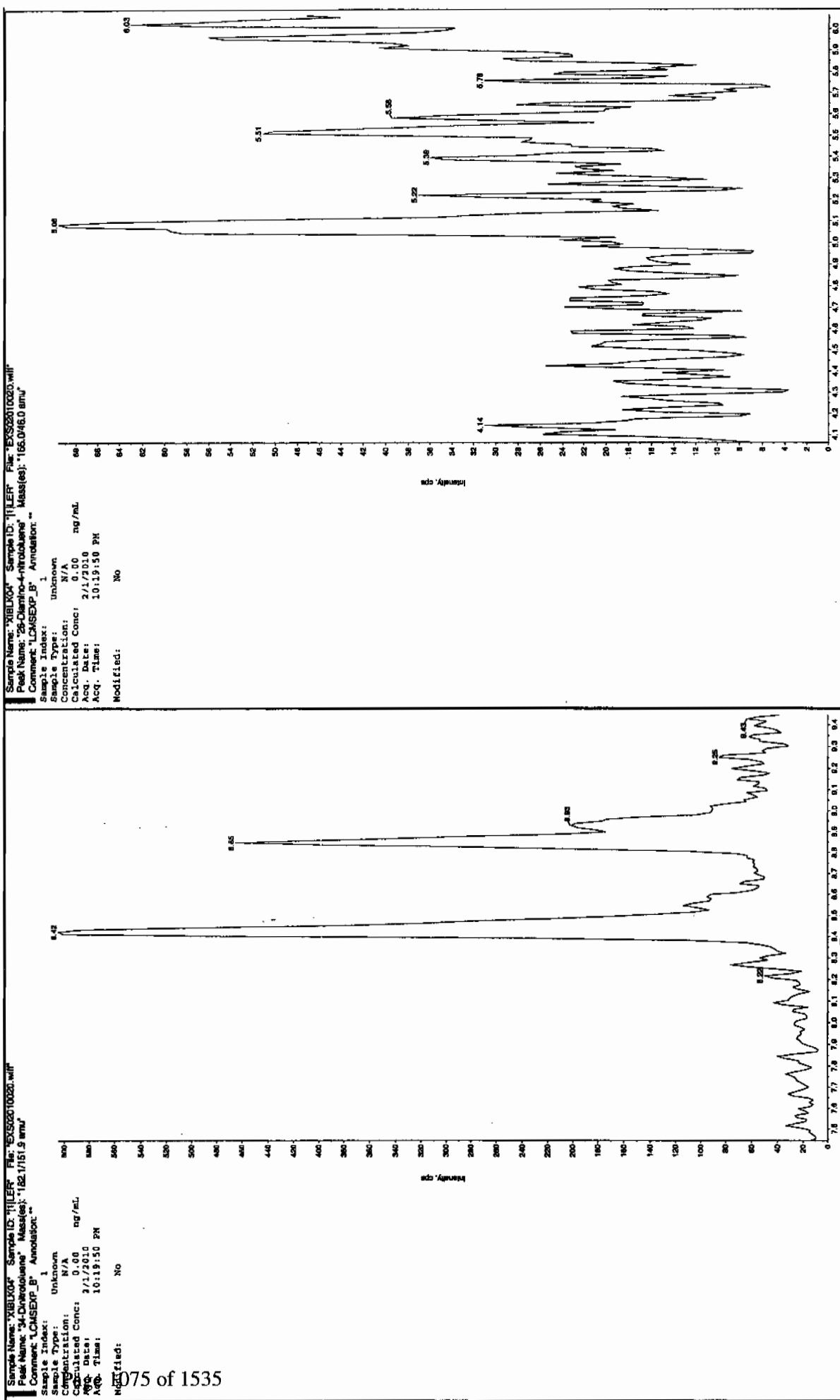
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

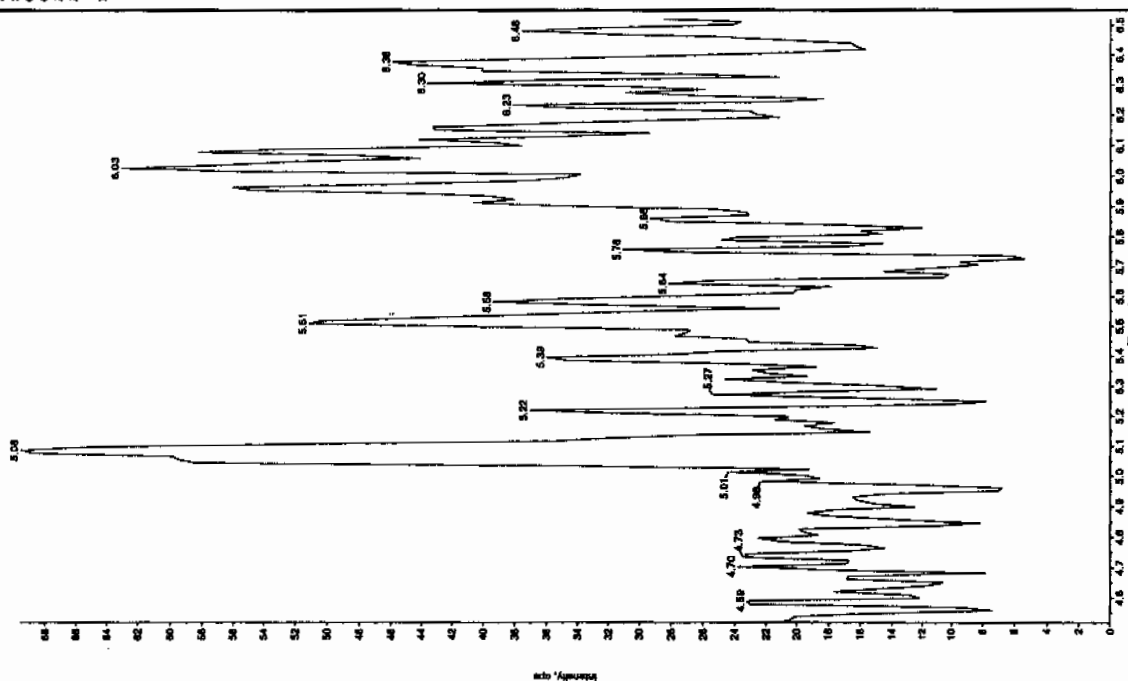


8/2/10



time on 8/2/10





Sample Name: "XBL104" Sample ID: "11LEF" File: "EXS2010020.wif"  
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/48.0 amu"  
Comment: "LOMEXP B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	2/1/2010
Run Time:	10:19:50 PM
Modified:	No

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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1304

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 02-FEB-10 01:44

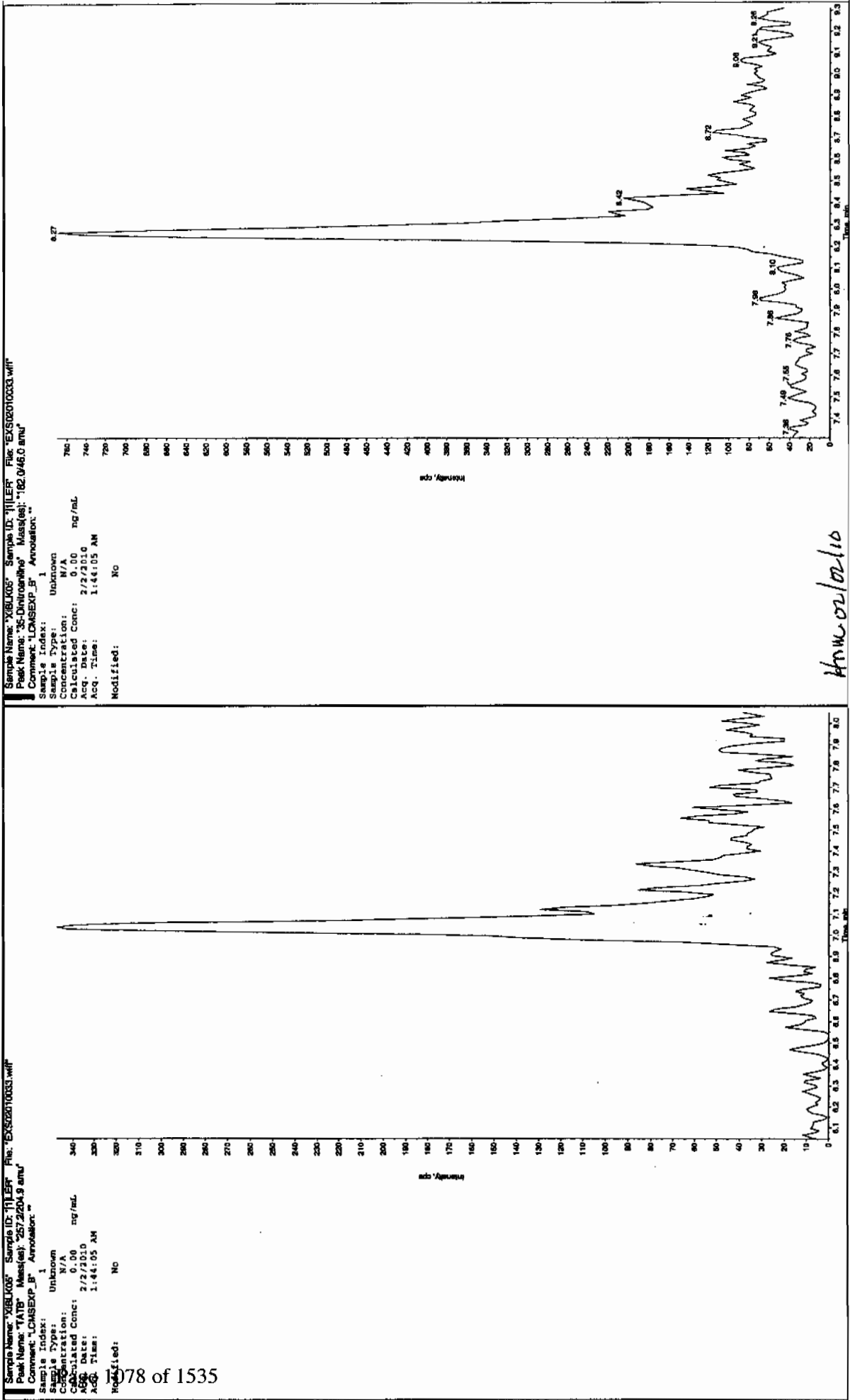
GEL Data File: EXS02010033.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

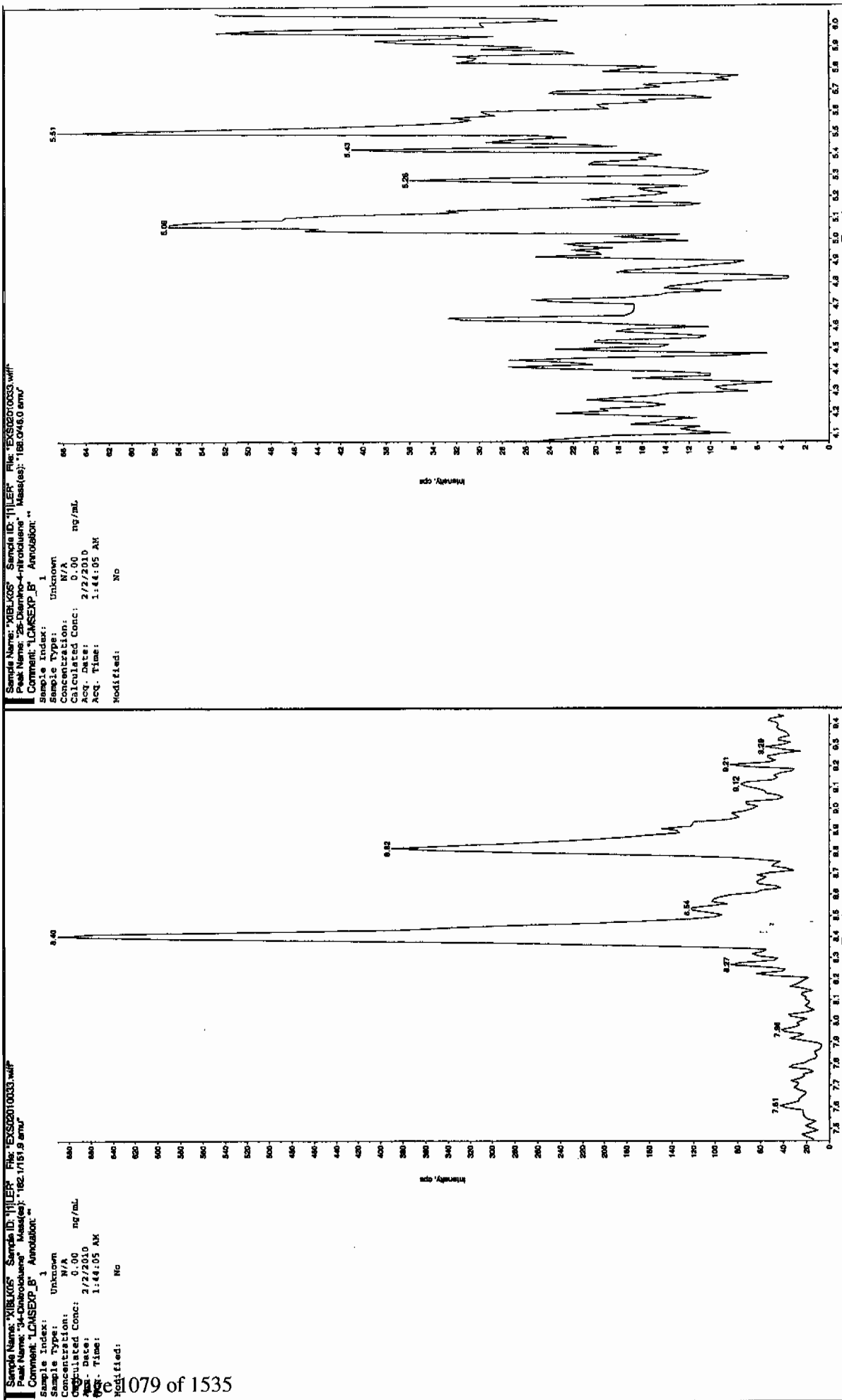
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

8022110

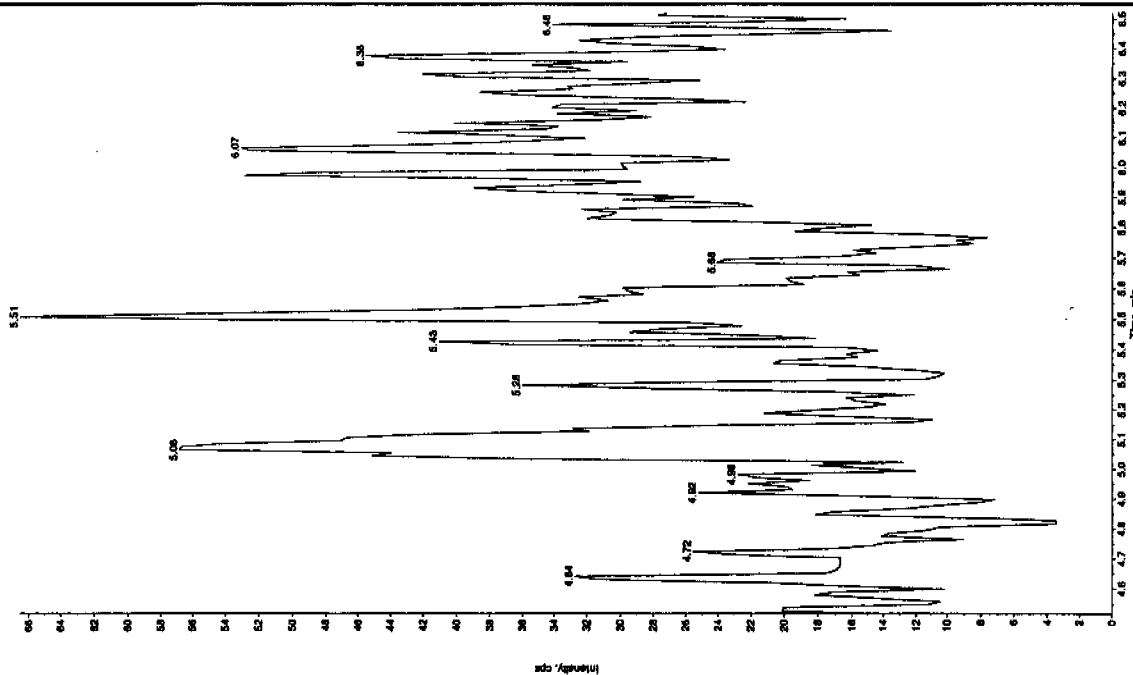


8022110

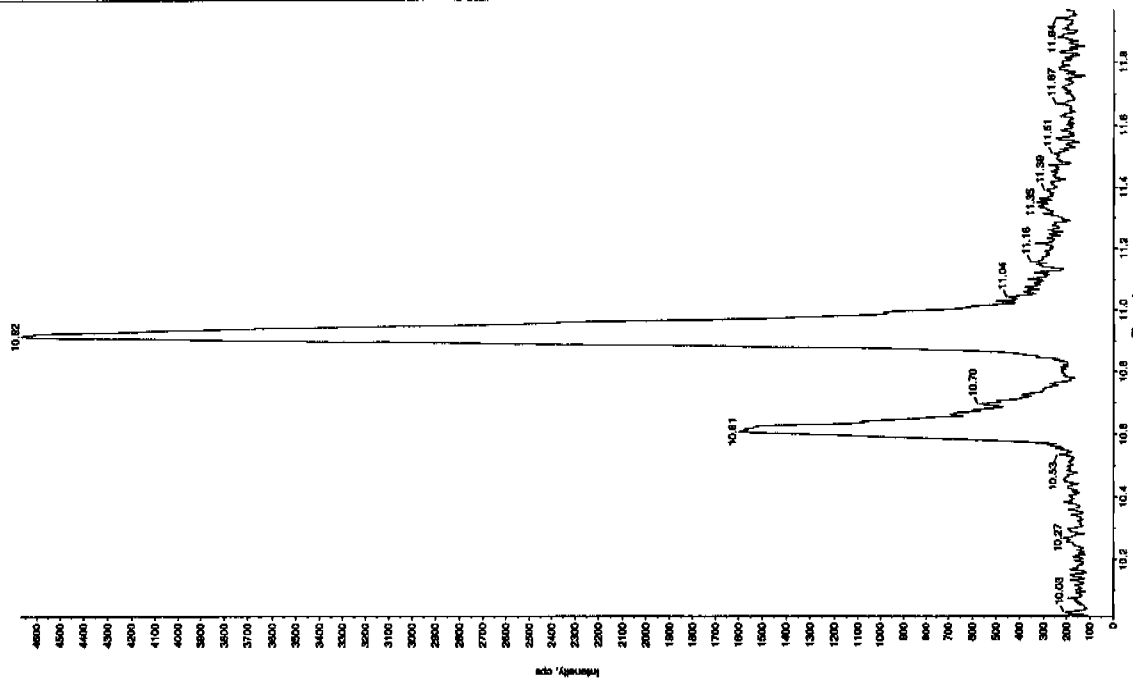
078 of 1535



Sample Name: "XBL005" Sample ID: "11LER" File: "EX502010033.wif"  
 Peak Name: "24-Dimethylnitrobenzene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ug/mL  
 Calculated Conc: 2/2/2010  
 Acq. Date: 1:44:05 AM  
 Acq. Time: 1:44:05 AM  
 Modified: No



Sample Name: "XBL005" Sample ID: "11LER" File: "EX502010033.wif"  
 Peak Name: "bis(o-cresyl) phosphate" Mass(es): "358.191.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ug/mL  
 Calculated Conc: 2/2/2010  
 Acq. Date: 1:44:05 AM  
 Acq. Time: 1:44:05 AM  
 Modified: No



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1304

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 02-FEB-10 05:08

GEL Data File: EXS02010046.wiff

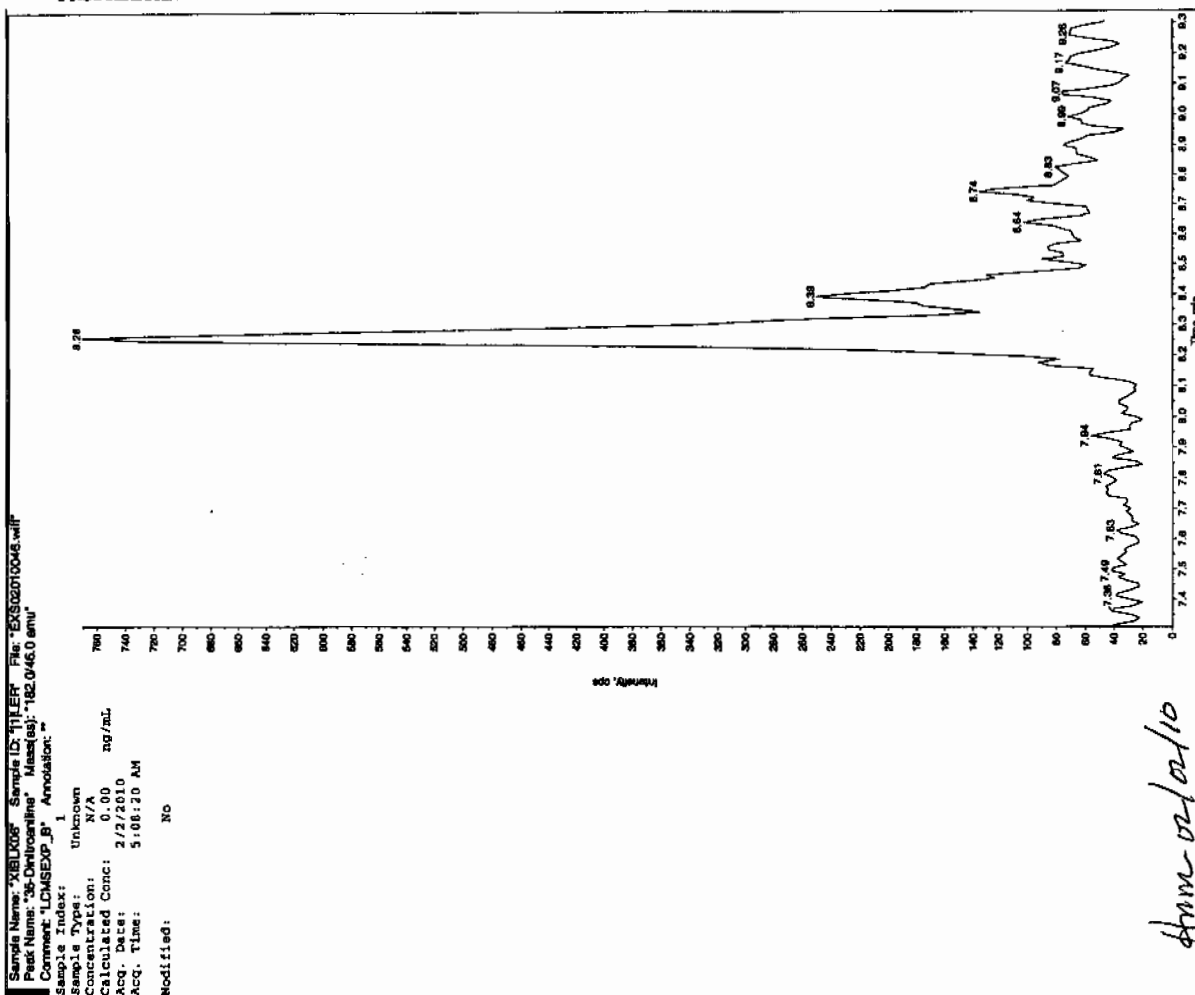
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

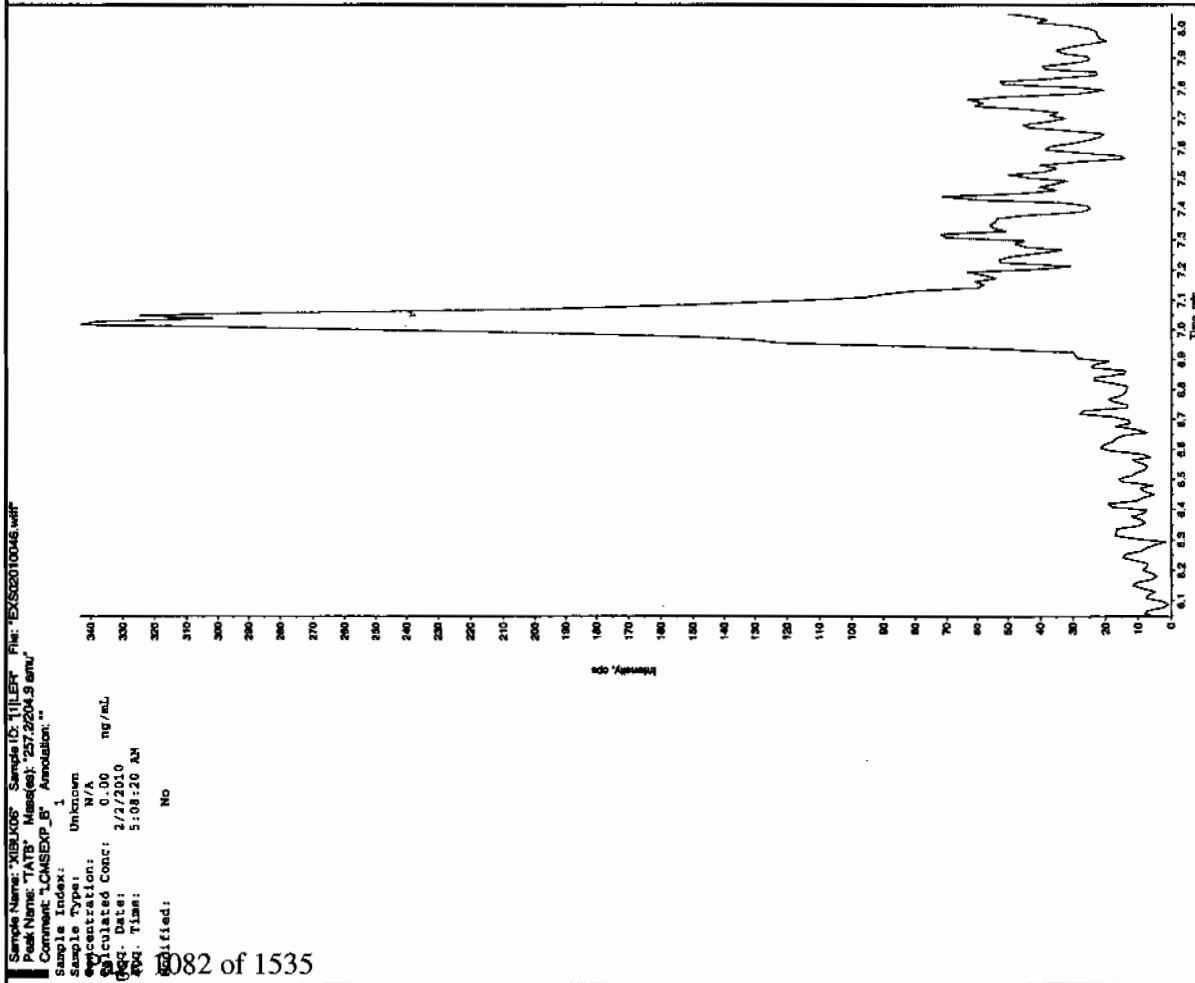
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

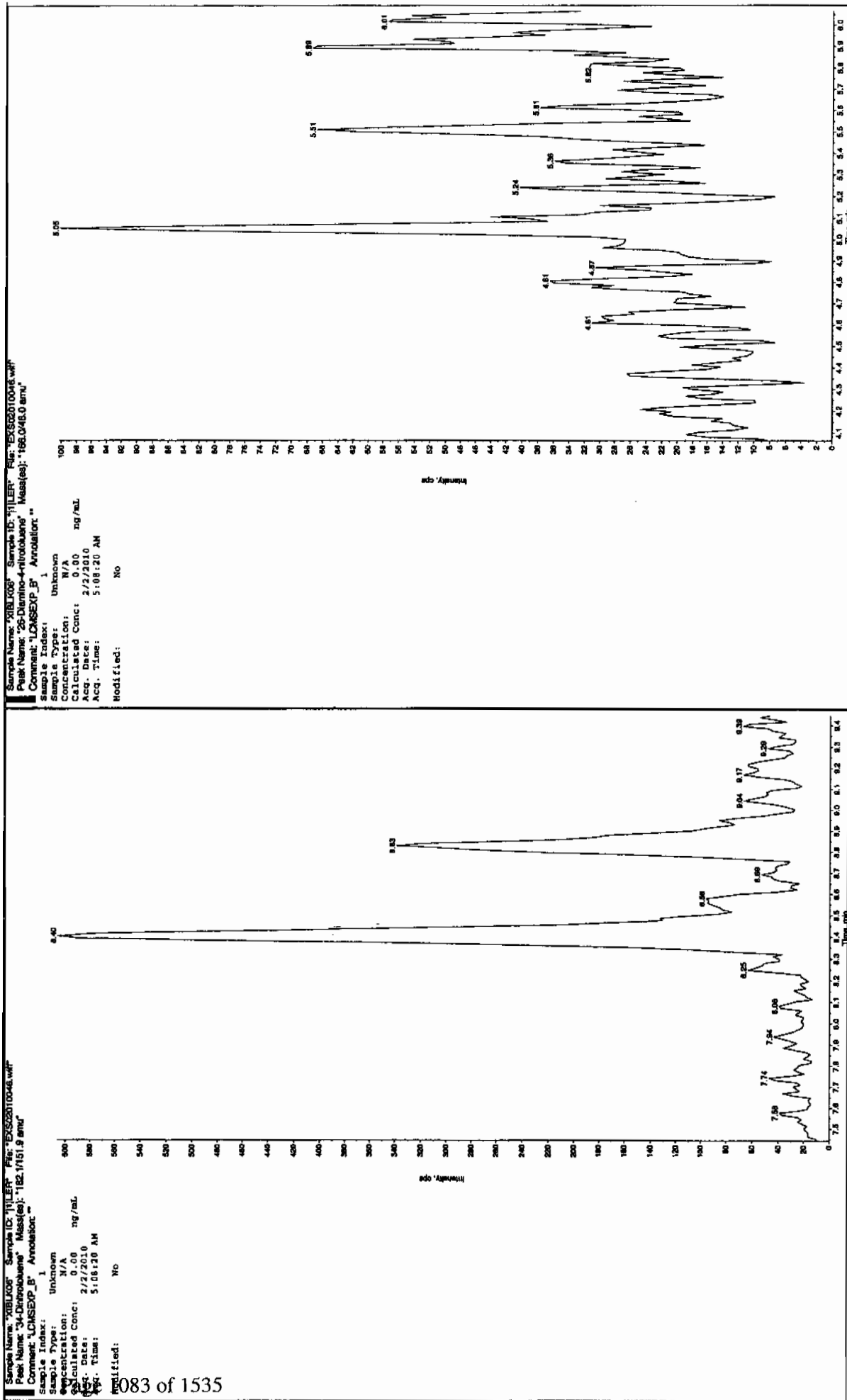


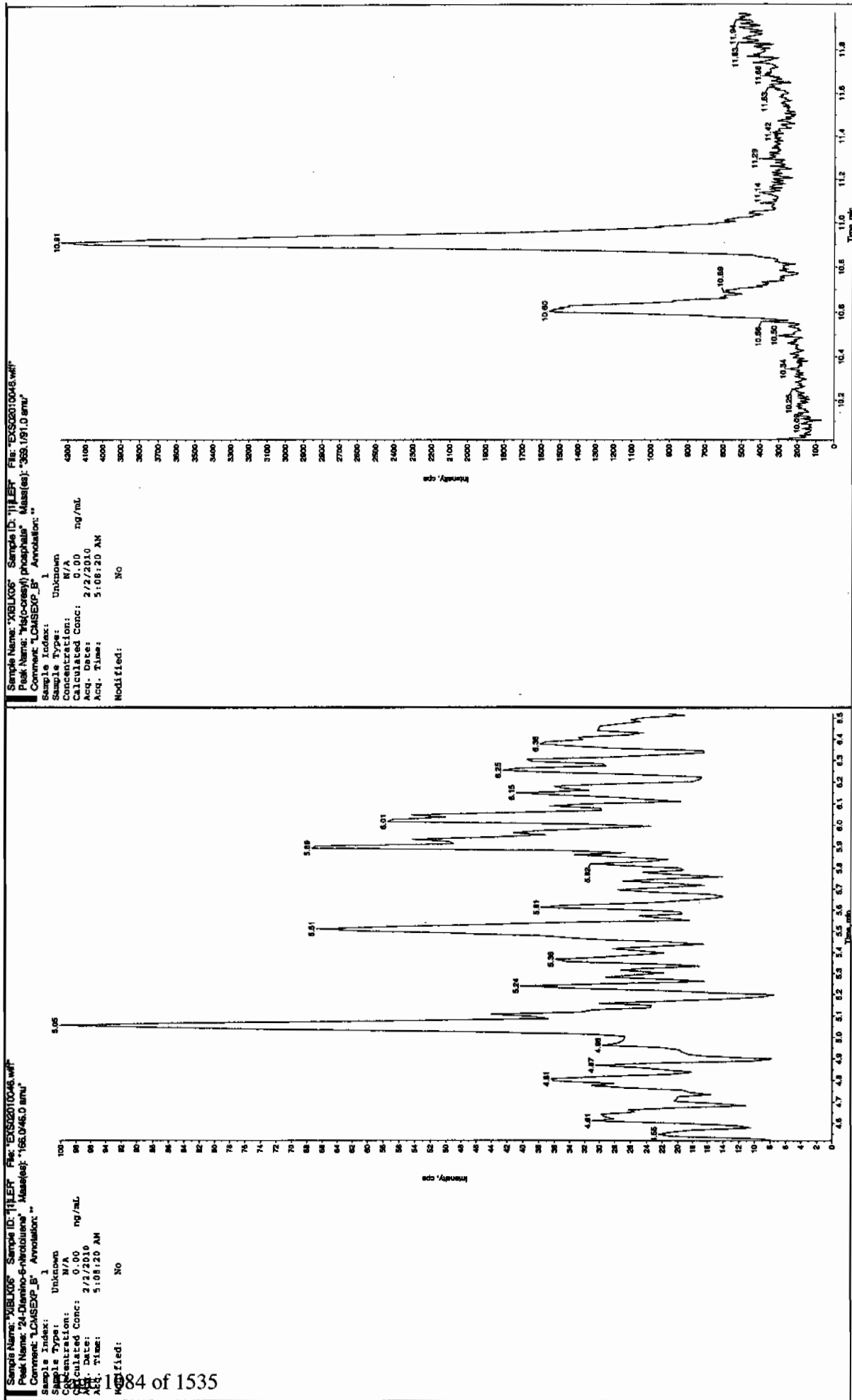
Jan 2010



Jan 2010







\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Nairb.ref

;Positive ion monoisotopic and average masses from solution  
 ;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H<sub>2</sub>O.  
 ;Most useful general purpose calibrant for all low  
 ;MW applications, including MS/MS work.  
 ;At high resolution, readily covers from m/z 50-2000.  
 ;At reduced resolution, can be used to over m/z 3000.  
 ;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.  
 Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

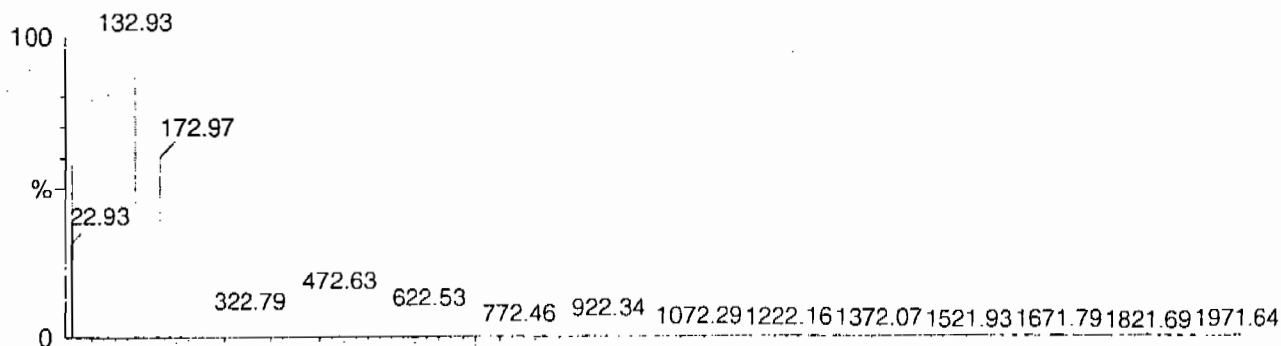
Calibration Report - MS1 Static

Page 1 of 1

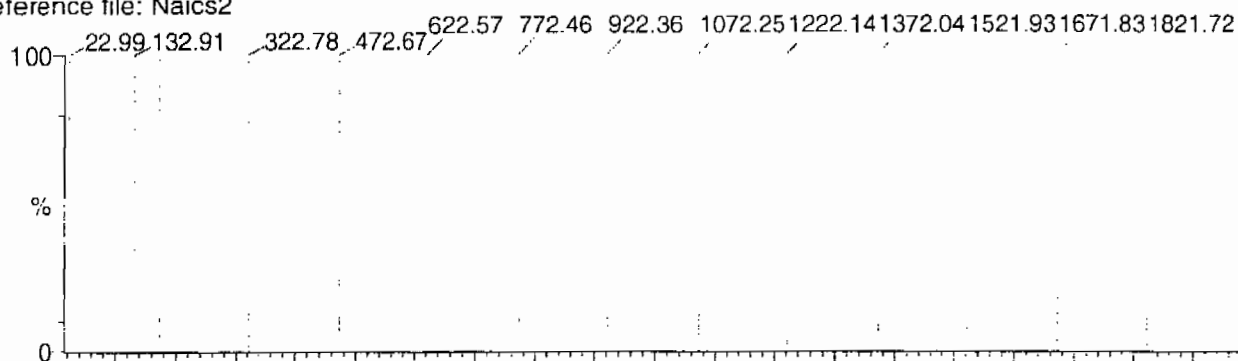
Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

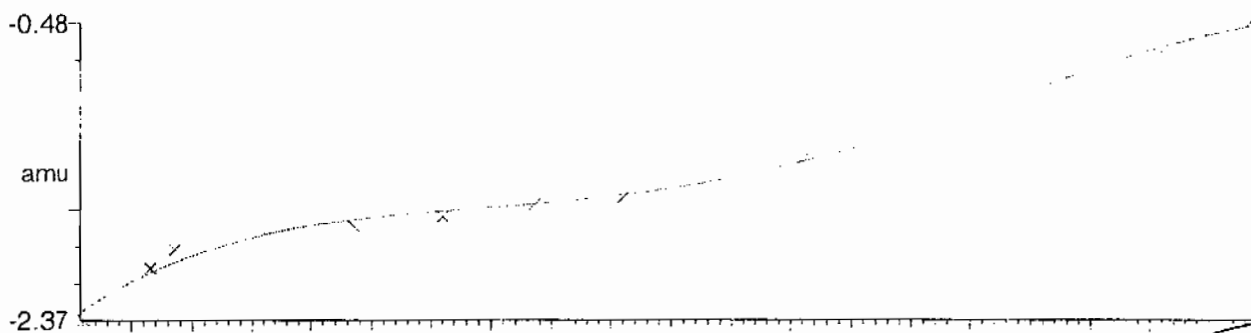
15 matches of 15 tested references



Reference file: Naics2

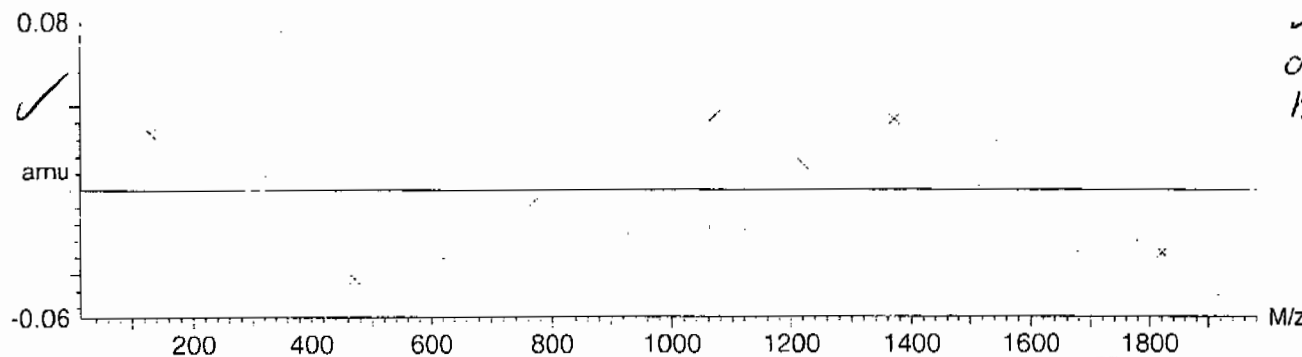


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-1.673470 \times 10^{-9} \pm 0.036953$



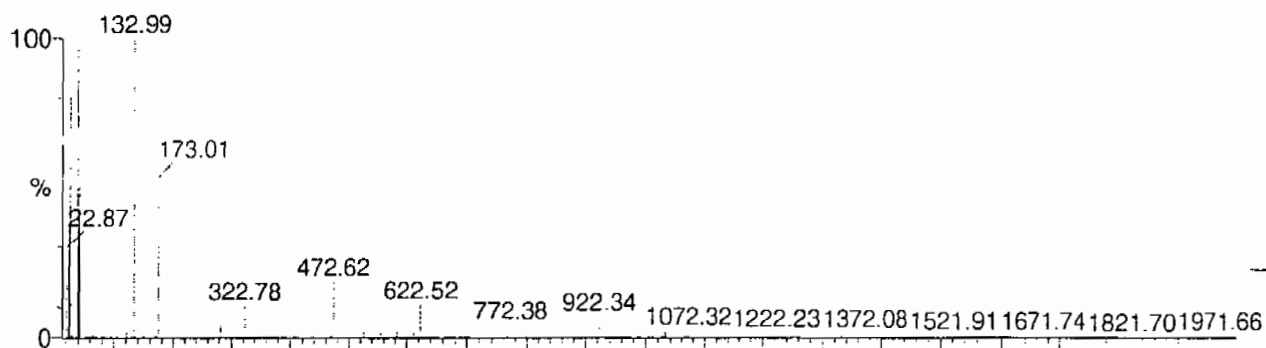
Calibration Report - MS1 Scanning

Page 1 of 1

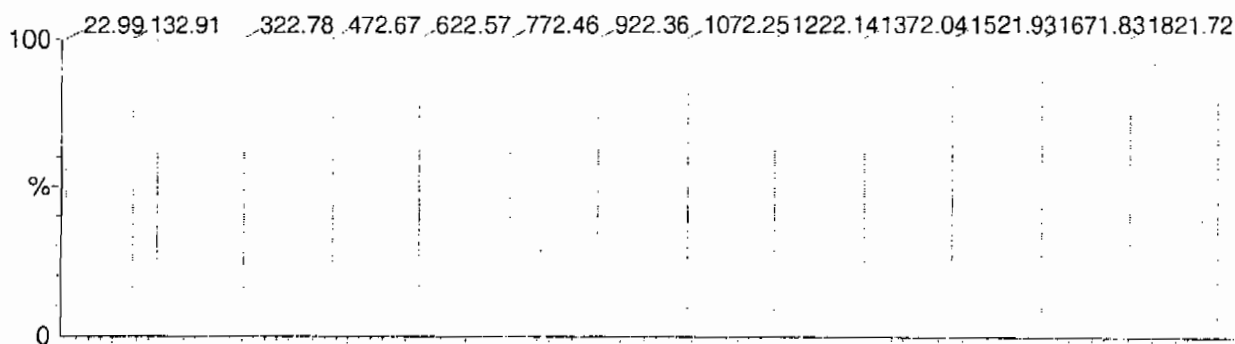
Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

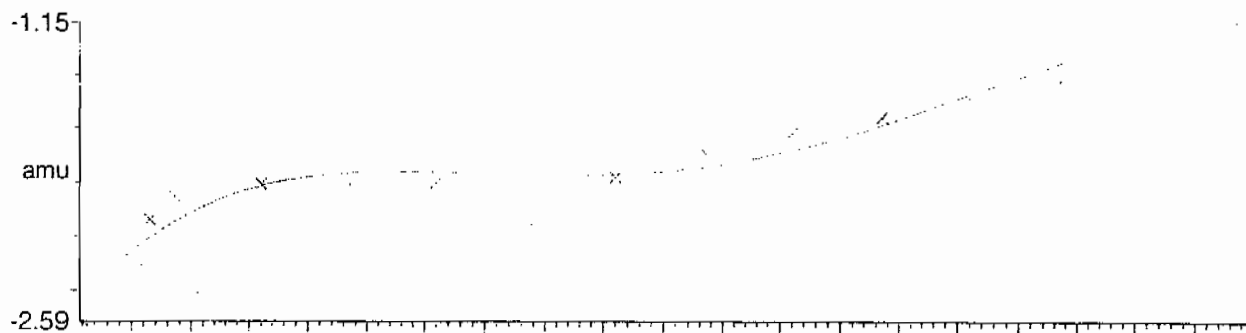
15 matches of 15 tested references



Reference file: Naics2

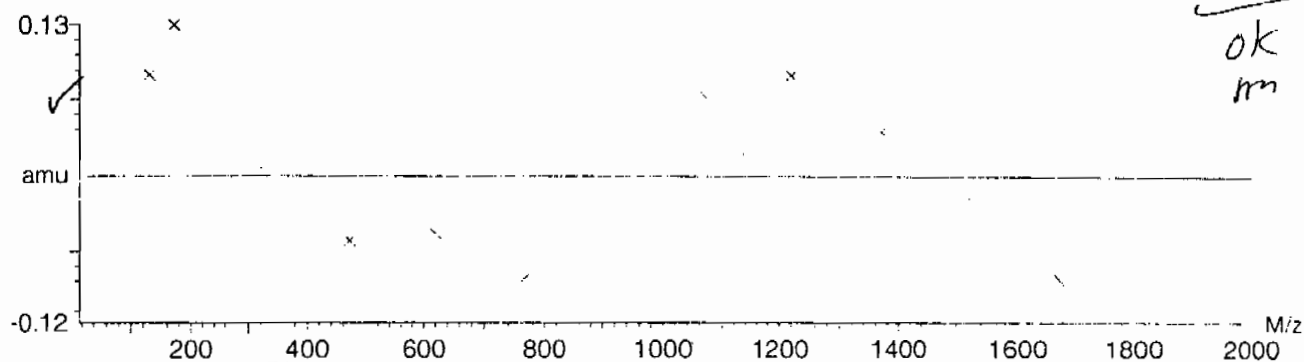


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-5.432715 \times 10^{-9} \pm 0.069858$



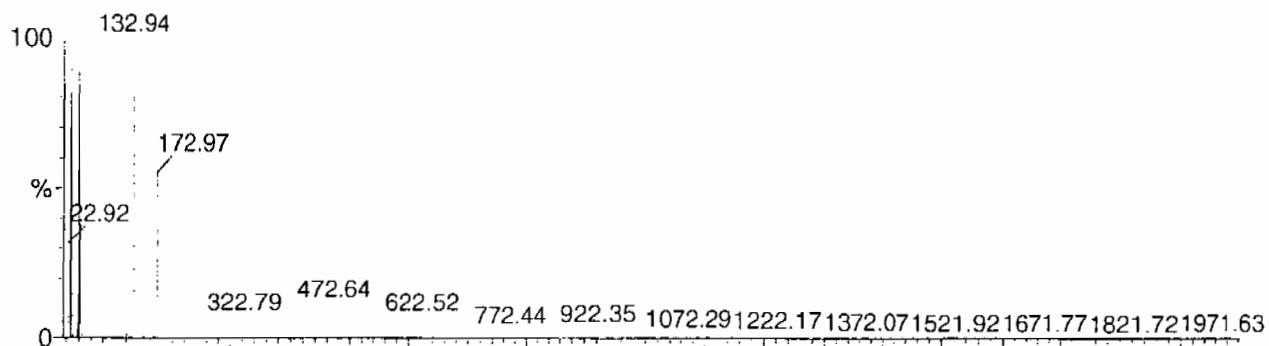
Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

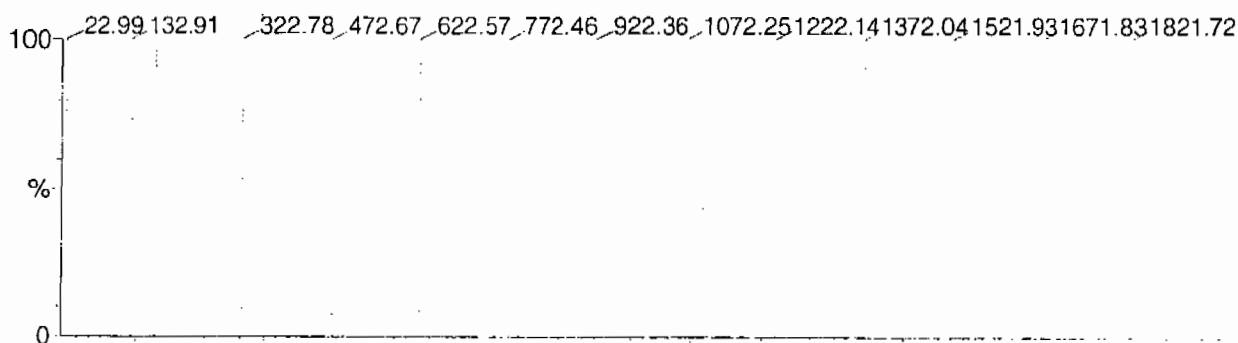
Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

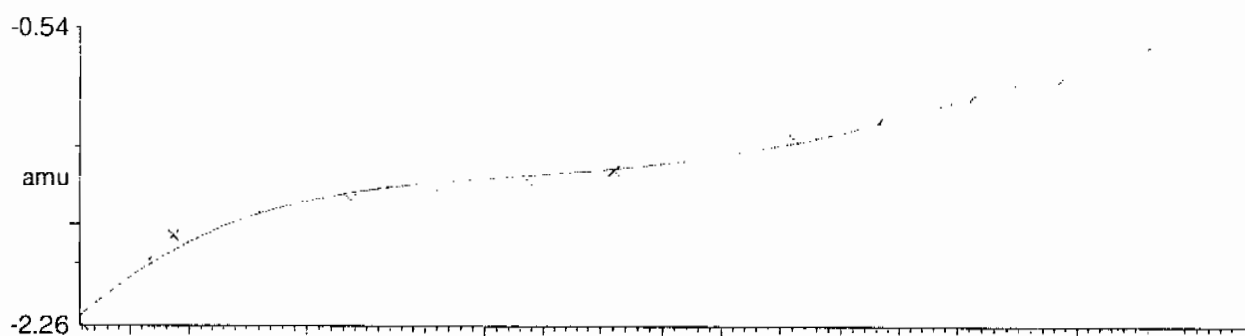
15 matches of 15 tested references



Reference file: Naics2

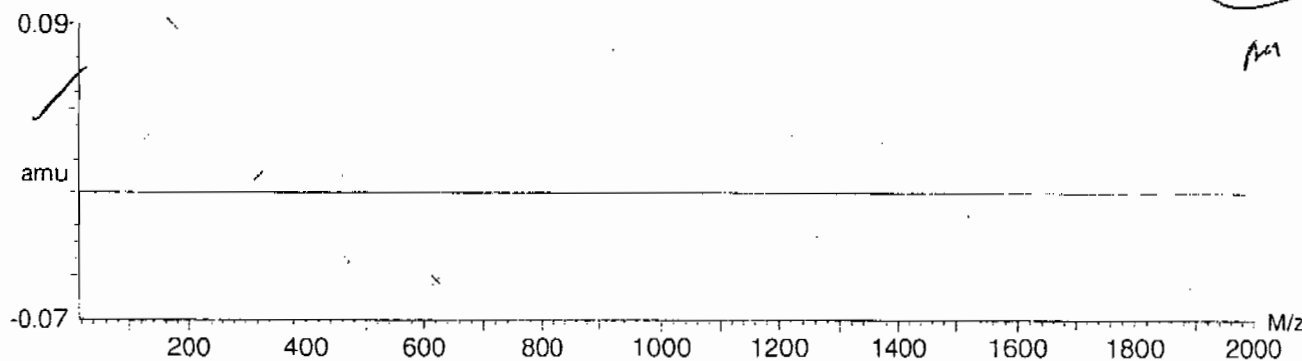


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $3.486639 \times 10^{-9} \pm 0.040487$



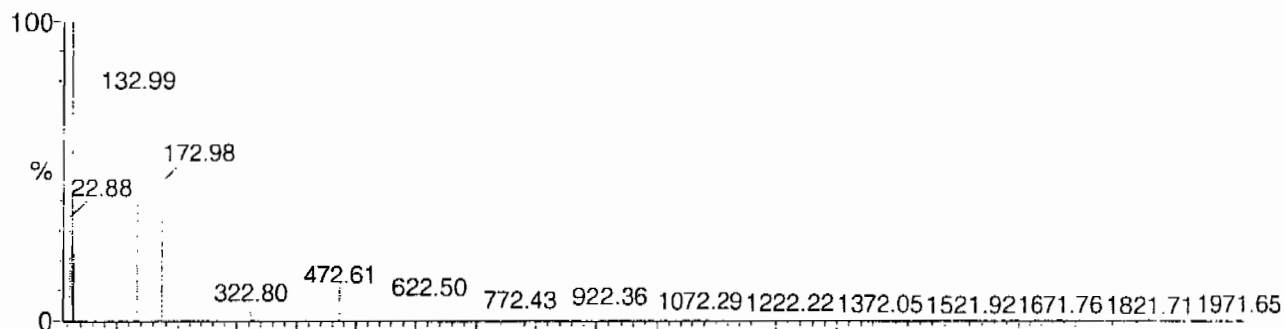
Calibration Report - MS2 Static

Page 1 of 1

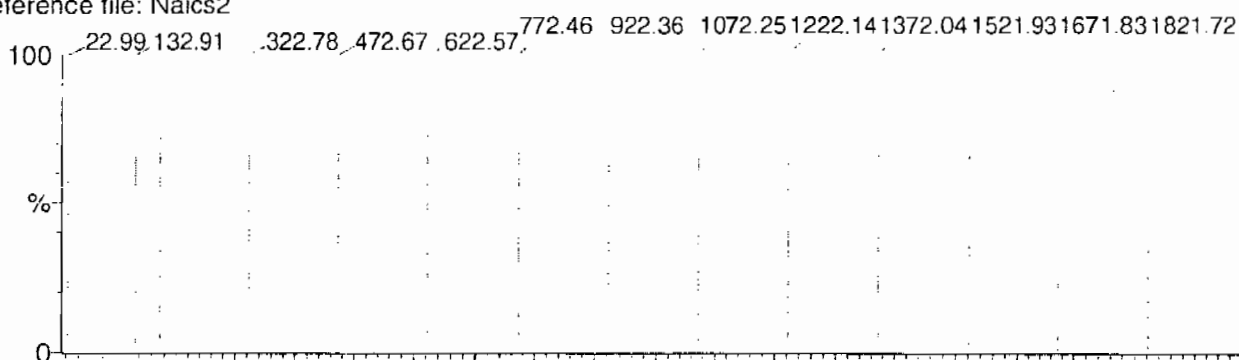
Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

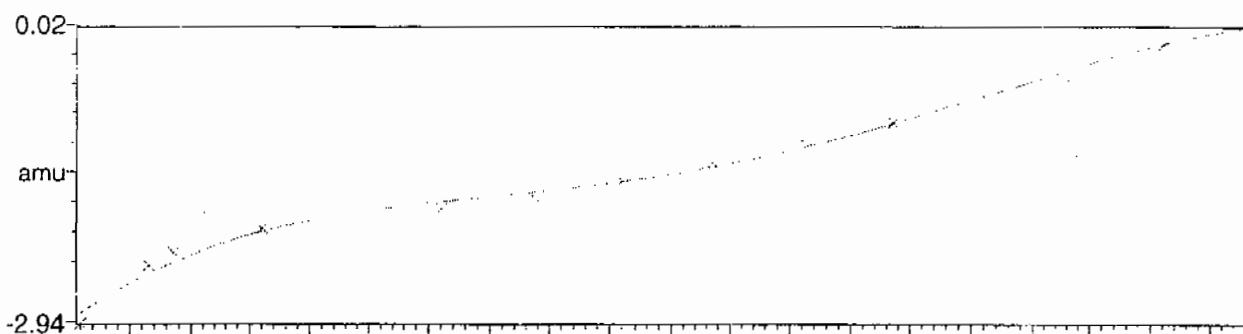
15 matches of 15 tested references



Reference file: Naics2

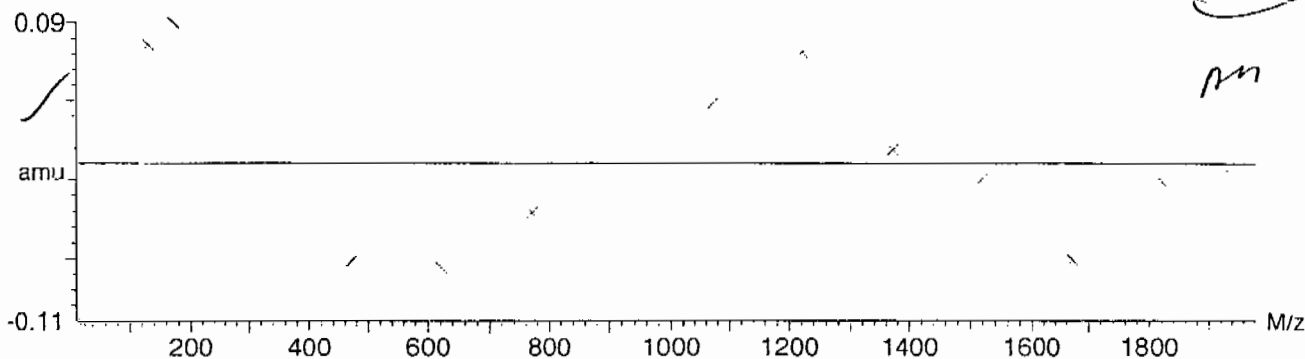


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $2.048910 \times 10^{-9} \pm 0.057803$





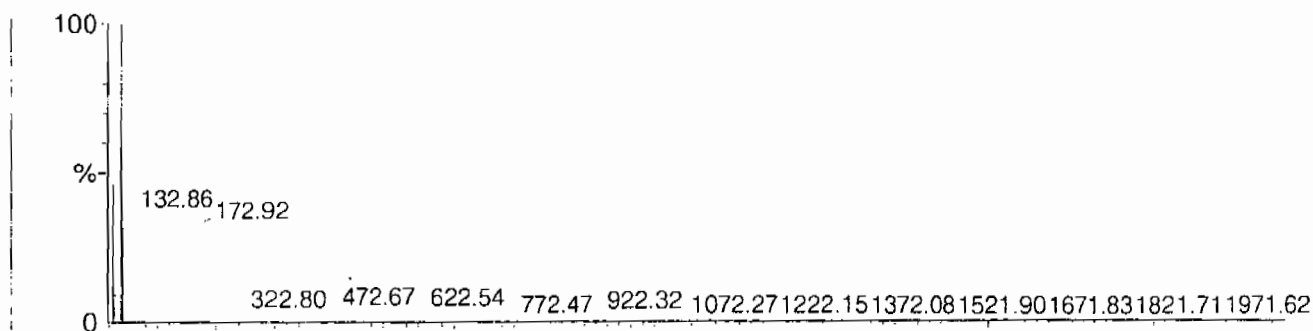
Calibration Report - MS2 Scanning

Page 1 of 1

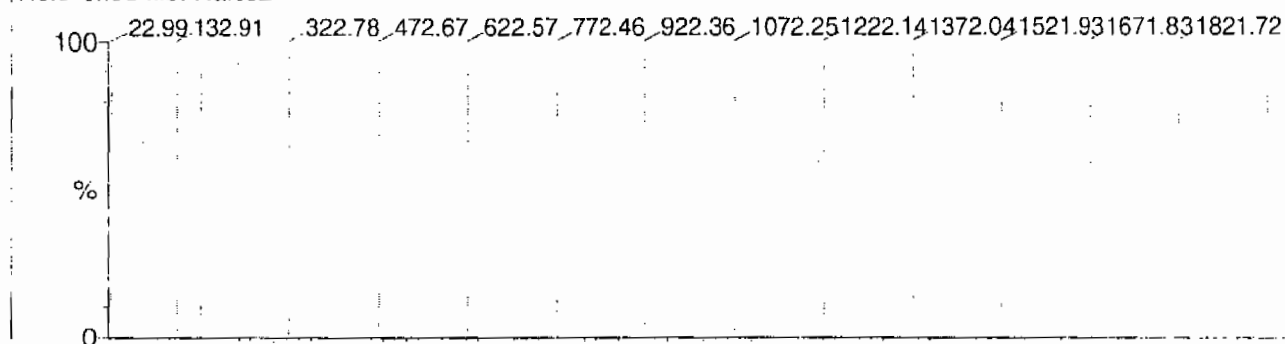
Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

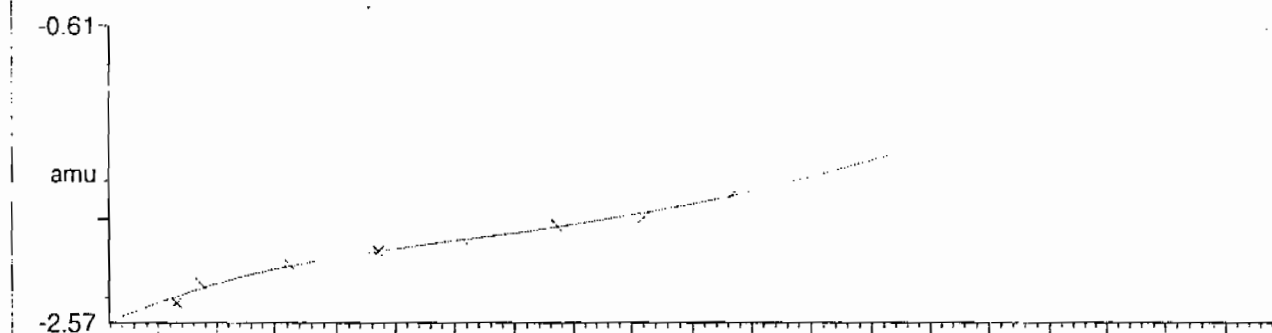
14 matches of 15 tested references



Reference file: Naics2

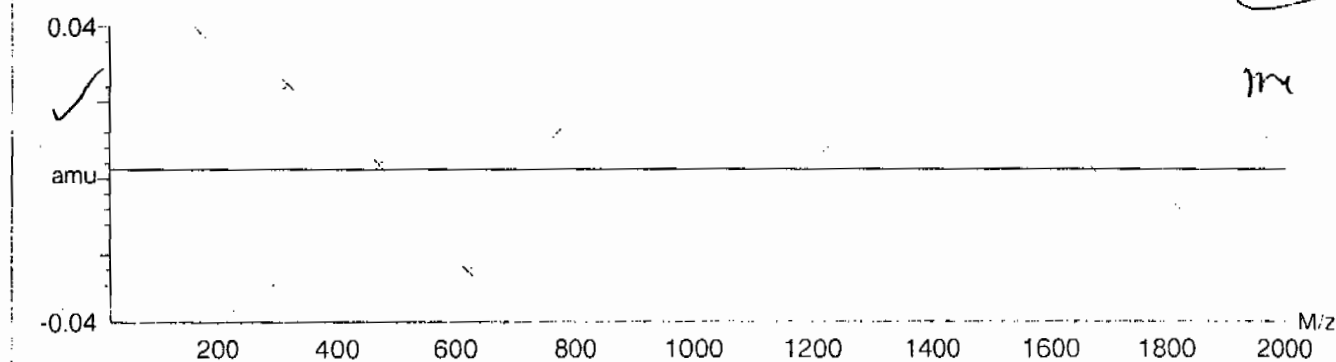


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-2.623502 \times 10^{-9} \pm 0.025622$



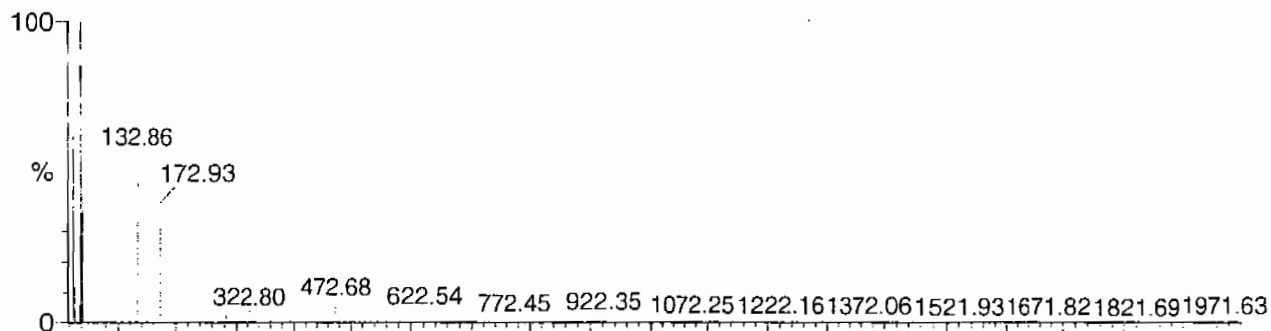
Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

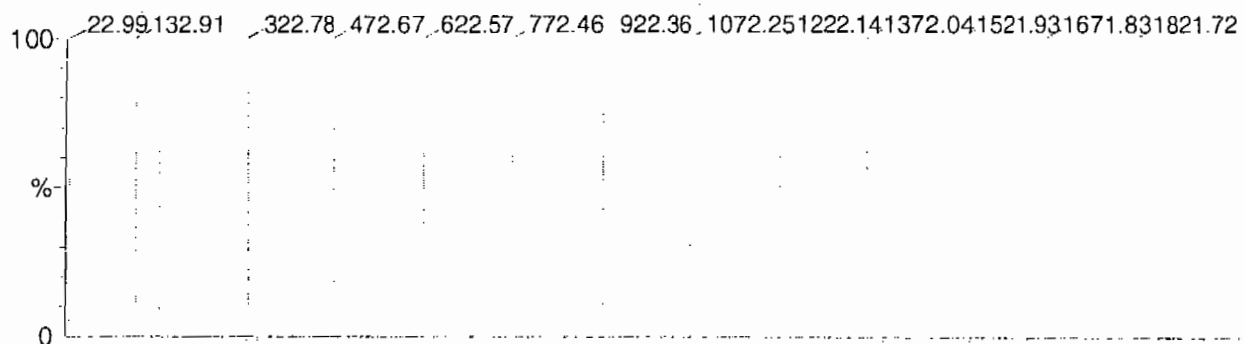
Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

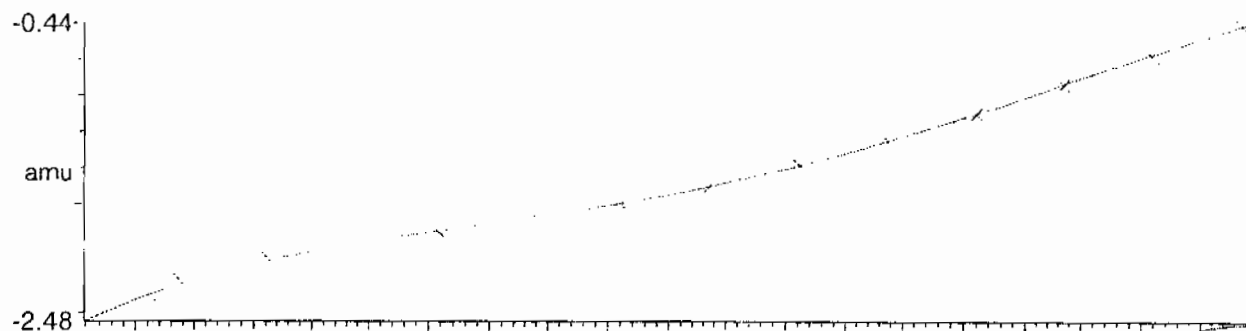
14 matches of 15 tested references



Reference file: Naics2

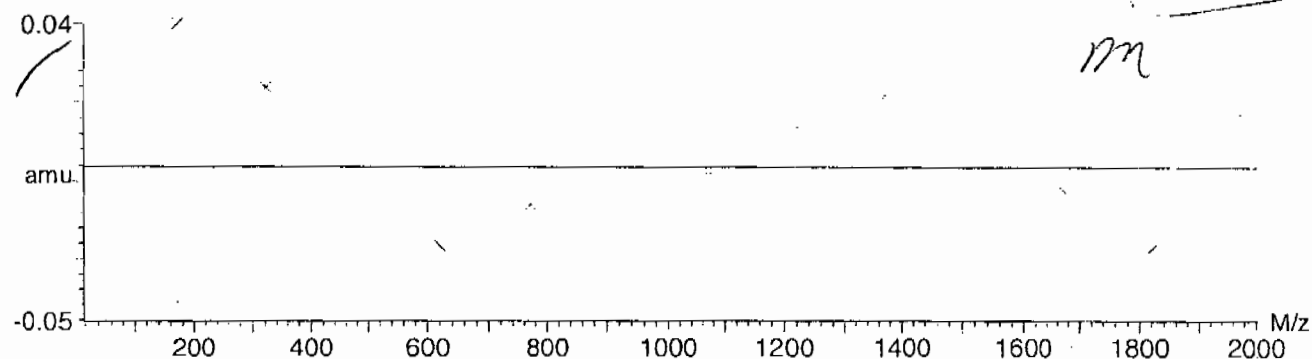


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-6.785350 \times 10^{-9} \pm 0.023134$

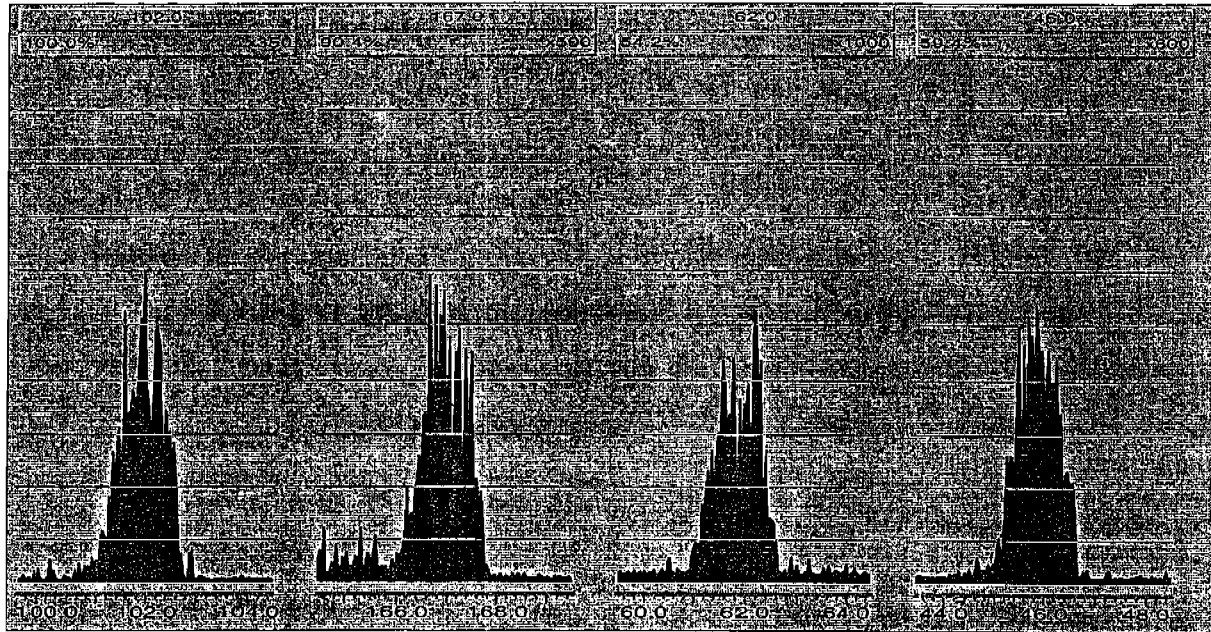


Quattro Micro Tune Parameters

Page 1

Parameter File: C:\MASSLYNX\NEW\_EXP.PROVACQUDB\explosives04.lpr

Printed : Mon Feb 08 14:05:58 2010



# High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1304

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) #
			3214.577	12.205	18459.667	17.697
Upper Limit			4178.9501	12.705	23997.5671	18.197
Lower Limit			2250.2039	11.705	12921.7669	17.197
RE15-10-7165	08-feb-10 21:37	EXP0208015a	3976.7	12.205	21101.2	17.707
RE15-10-7165(245106001MS)	08-feb-10 22:07	EXP0208016a	4056.33	12.203	22476.4	17.696
RE15-10-7165(245106001MSD)	08-feb-10 22:36	EXP0208017a	3779.32	12.206	21108.4	17.699
RE15-10-7171	08-feb-10 23:05	EXP0208018a	3501.45	12.205	18768.5	17.707
RE15-10-7170	08-feb-10 23:35	EXP0208019a	3178.7	12.205	18595.9	17.706
RE15-10-7164	09-feb-10 00:04	EXP0208020a	3353.3	12.205	20001.4	17.707
RE15-10-7167	09-feb-10 00:34	EXP0208021a	3510.21	12.205	20279.9	17.706
RE15-10-7169	09-feb-10 01:03	EXP0208022a	3422.53	12.205	20136.7	17.684
RE15-10-7168	09-feb-10 03:01	EXP0208026a	3803.71	12.203	21335.7	17.695
RE15-10-7166	09-feb-10 03:31	EXP0208027a	3931.8	12.205	21967.2	17.706
RE15-10-7177	09-feb-10 04:00	EXP0208028a	3567.5	12.205	21290.1	17.706
RE15-10-7181	09-feb-10 04:30	EXP0208029a	3823.86	12.205	21644.1	17.706
RE15-10-7178	09-feb-10 04:59	EXP0208030a	3533.47	12.205	20291.4	17.706
RE15-10-7182	09-feb-10 05:29	EXP0208031a	3594.89	12.205	22246.4	17.707
RE15-10-7183	09-feb-10 05:58	EXP0208032a	3750.1	12.205	22413.2	17.706
RE15-10-7176	09-feb-10 06:28	EXP0208033a	4049.46	12.203	18979.5	17.705
RE15-10-7180	09-feb-10 06:58	EXP0208034a	3943.53	12.205	21754.7	17.706
RE15-10-7179	09-feb-10 07:27	EXP0208035a	3353.93	12.205	19278.6	17.706
MB for batch 944245	09-feb-10 19:45	EXP0208060a	3802.45	12.202	20270.7	17.695
LCS for batch 944245	09-feb-10 20:14	EXP0208061a	3905.61	12.237	20576.3	17.696

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: RE15-10-7165

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106001

Sample Amount 2

Moisture: 19.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208015a

Date Analyzed: 08-FEB-10 21:37

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

Printed: Tue Feb 09 10:21:18 2010, Page 29 of 77

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qtd, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208015a

Date: 08-Feb-2010

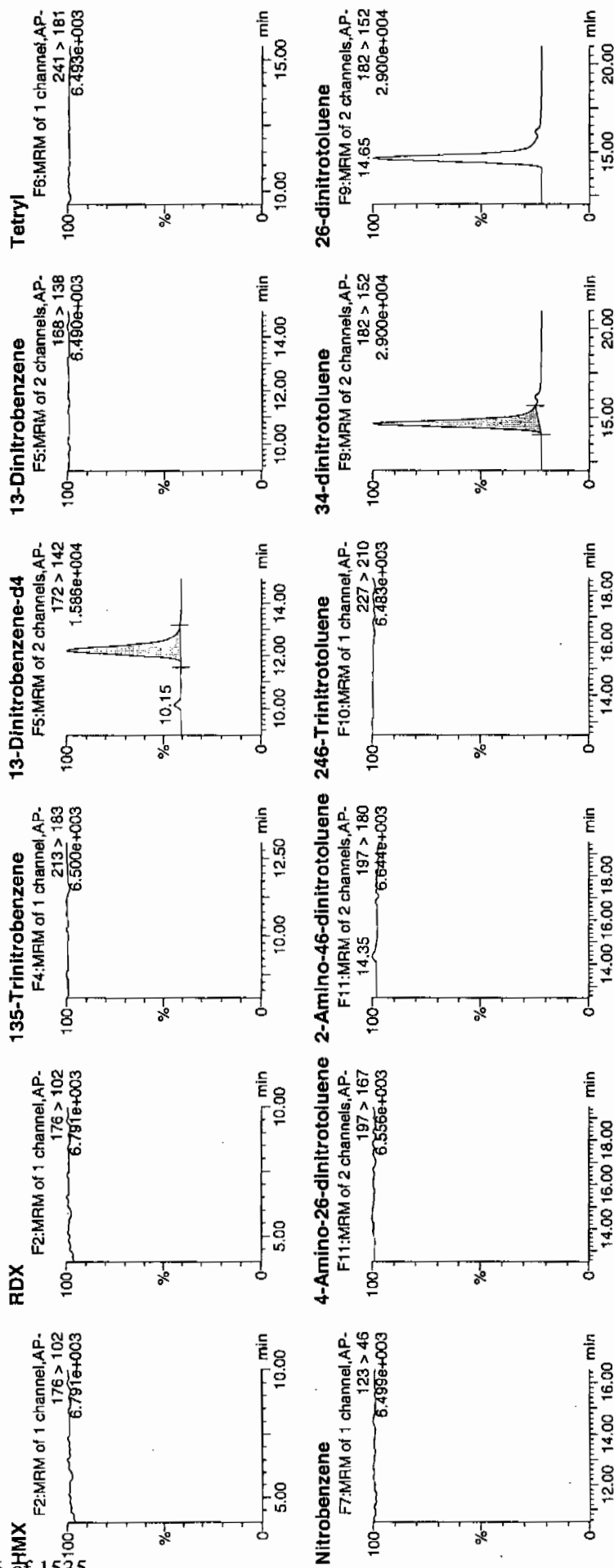
Time: 21:37:31

ID: 245106001

Vial: 1:4,C

WAW/944246/SUZ/2-1

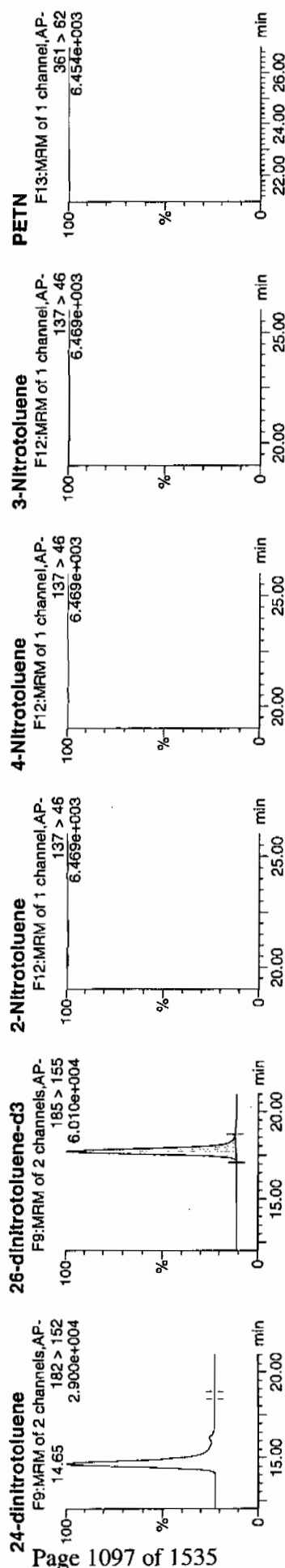
Left  
2/9/10



Handwritten signature/initials.

**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



ID	Name	RT	Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ppm	%Rec	%Dev	S/N
245106001	HMZ	176 > 102	3976.705									
245106001	RDX	176 > 102	3976.705									
245106001	135-Trinitrobenzene	213 > 183	3976.705									
245106001	13-Dinitrobenzene-d4	172 > 142	12.21	3976.705	bb				618.5431	123.7	23.7	343.2
245106001	13-Dinitrobenzene	168 > 138	3976.705									
245106001	Tetryl	241 > 181	3976.705									
245106001	Nitrobenzene	123 > 46	3976.705									
245106001	4-Amino-26-dinitrotoluene	197 > 167	21101.246									
245106001	2-Amino-46-dinitrotoluene	197 > 180	21101.246									
245106001	246-Trinitrotoluene	227 > 210	21101.246									
245106001	34-dinitrotoluene	182 > 152	10470.190	248.094	bb				275.6626	110.3	10.3	432.5
245106001	26-dinitrotoluene	182 > 152	21101.246									
245106001	24-dinitrotoluene	182 > 152	21101.246									
245106001	26-dinitrotoluene-d3	185 > 155	17.71	21101.246	MM- 09-Feb-10 10:17:39				571.5496	114.3	14.3	1236.5
245106001	2-Nitrotoluene	137 > 46	21101.246	21101.246	bb							
245106001	4-Nitrotoluene	137 > 46	21101.246									
245106001	3-Nitrotoluene	137 > 46	21101.246									
245106001	PETN	361 > 62	21101.246									



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7165

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106001

Sample Amount 2

Moisture: 19.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010024.wiff

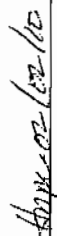
Date Analyzed: 01-FEB-10 23:22

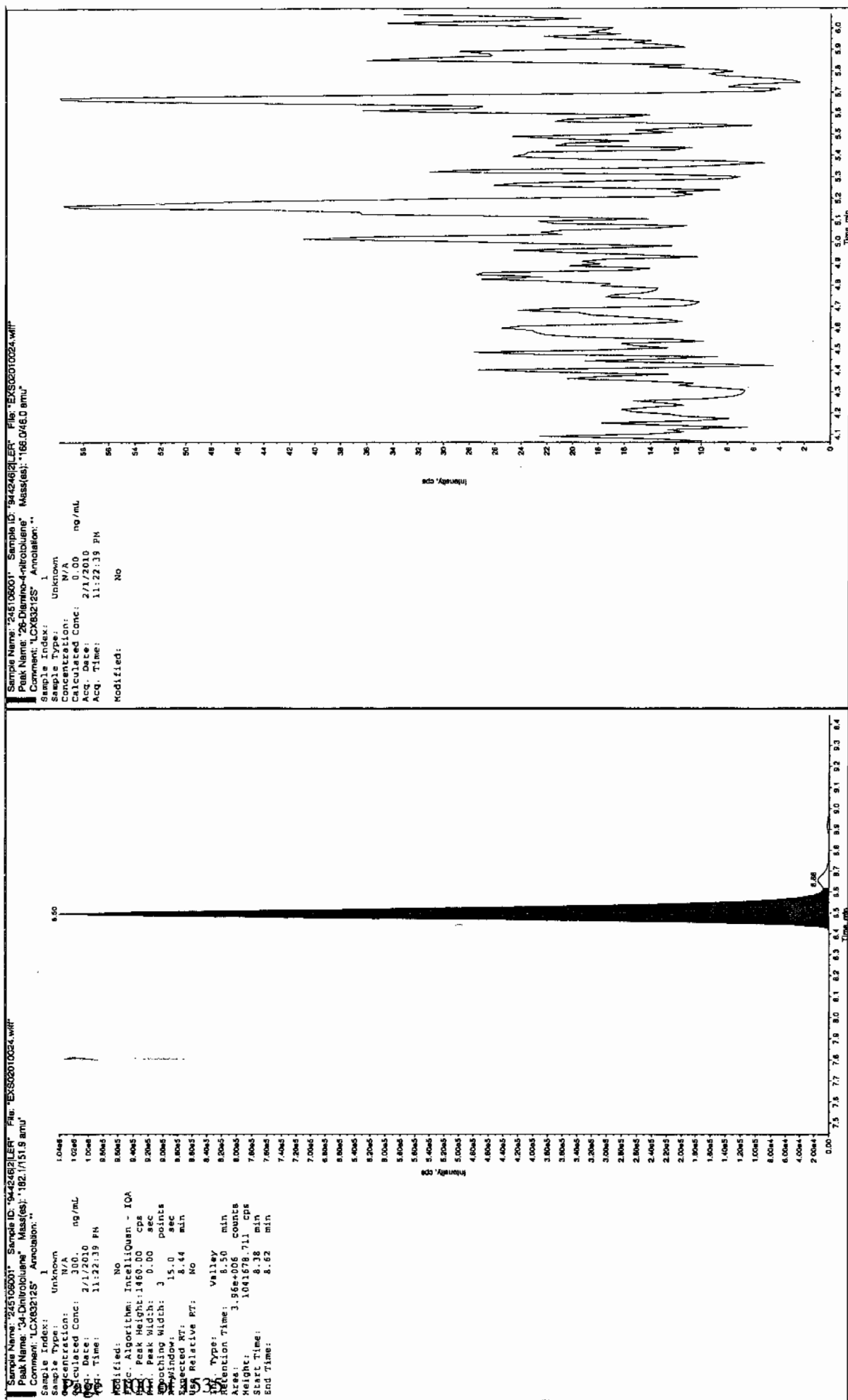
Units: ug/kg

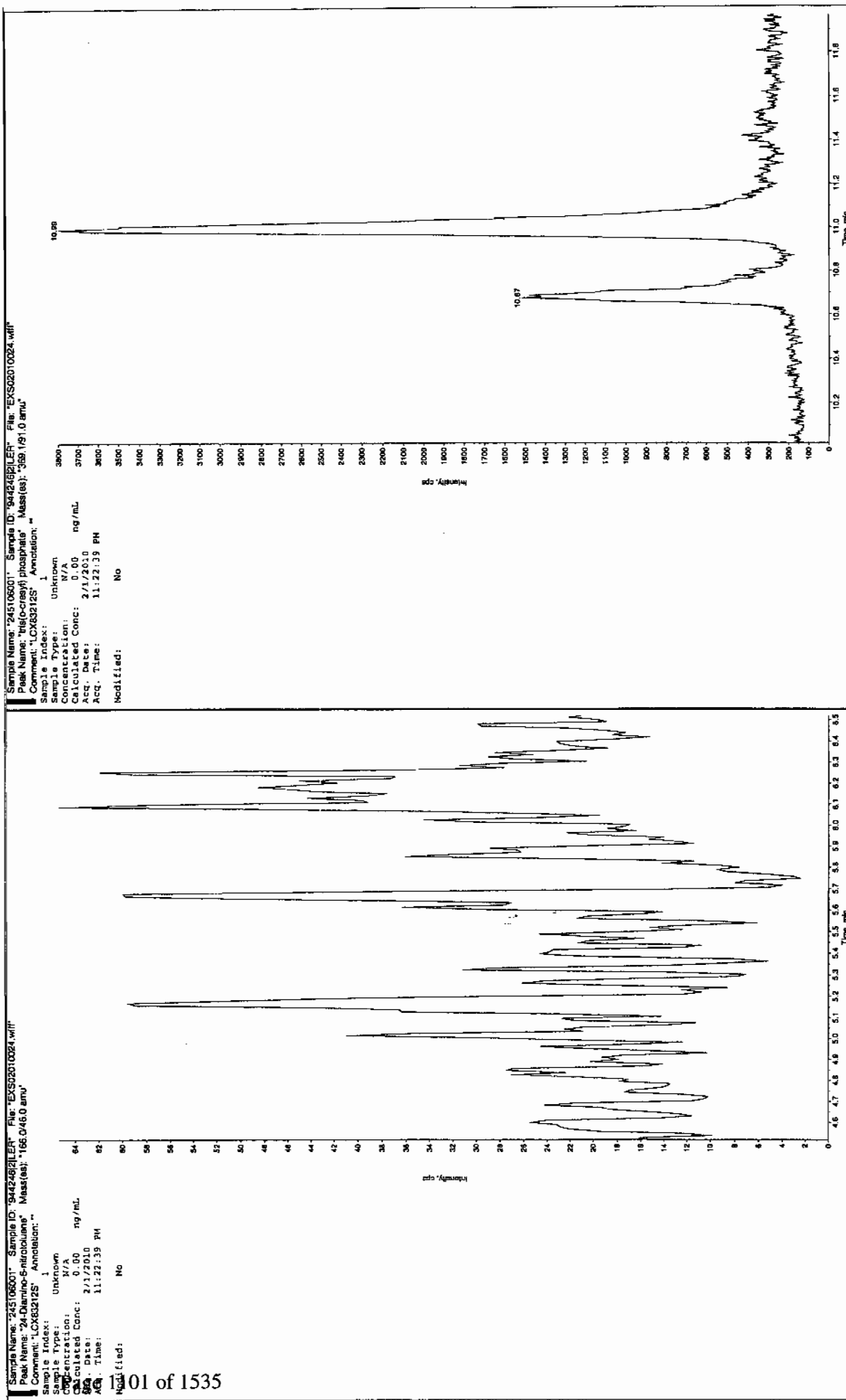
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

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







Sample Name: "245106001" Sample ID: "94424521LER" File: "EXS02010024.wif"  
 Peak Name: "In(o-cresyl) phosphata" Mass(es): "359.1/91.0 amu"  
 Comment: "LCX83212S" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 2/1/2010  
 Acq. Time: 11:22:39 PM  
 Modified: No

Sample Name: "245106001" Sample ID: "94424521LER" File: "EXS02010024.wif"  
 Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"  
 Comment: "LCX83212S" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 2/1/2010  
 Acq. Time: 11:22:39 PM  
 Modified: No

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7171

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106002

Sample Amount 2

Moisture: 7.8

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208018a

Date Analyzed: 08-FEB-10 23:05

Units: ug/kg

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

\*Concentration =

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

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208018a

Date: 08-Feb-2010

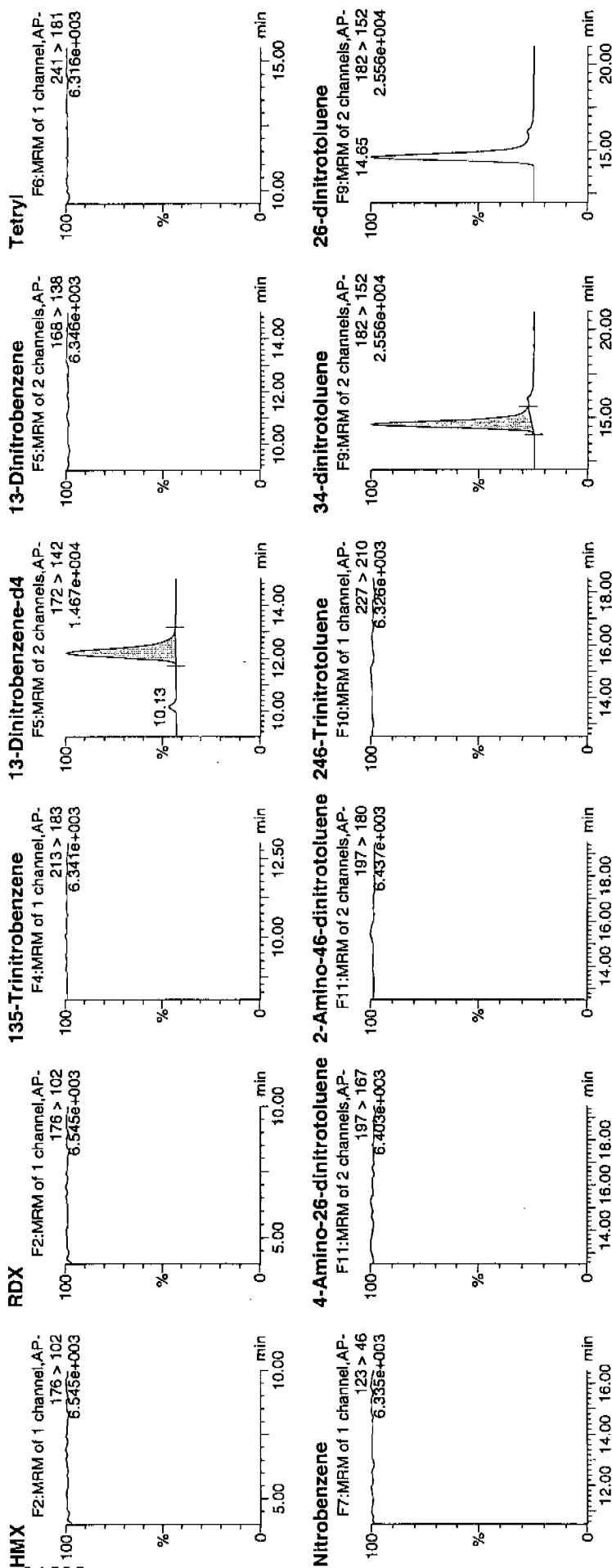
Time: 23:05:58

ID: 245106002

Vial: 1:4,F

2/9/10

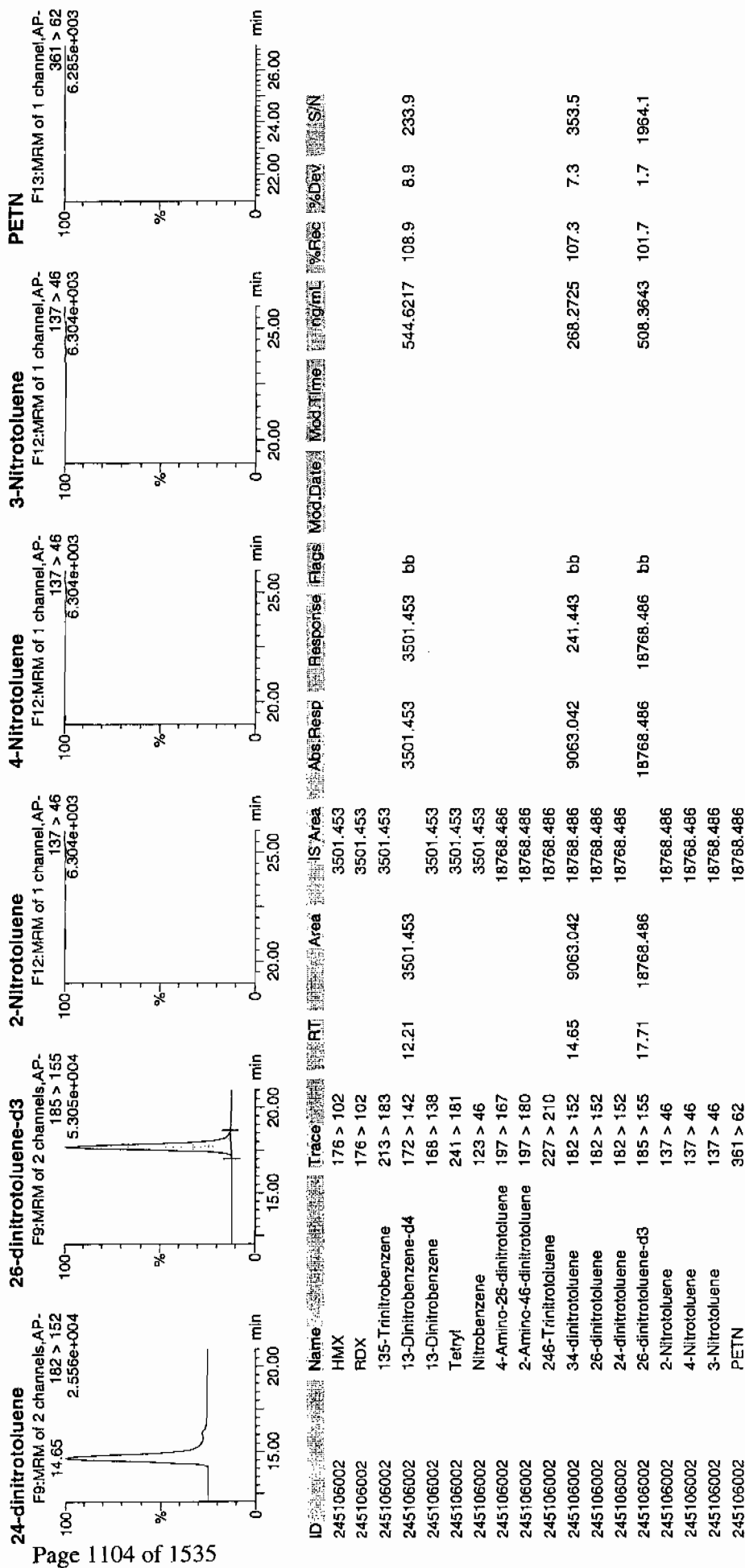
944246 / 121



show 2/9/10

**Quantify Sample Report**  
 GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO1020810expA.qld, Time: Tue Feb 09 10:19:05 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7171

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106002

Sample Amount 2

Moisture: 7.8

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010027.wiff

Date Analyzed: 02-FEB-10 00:09

Units: ug/kg

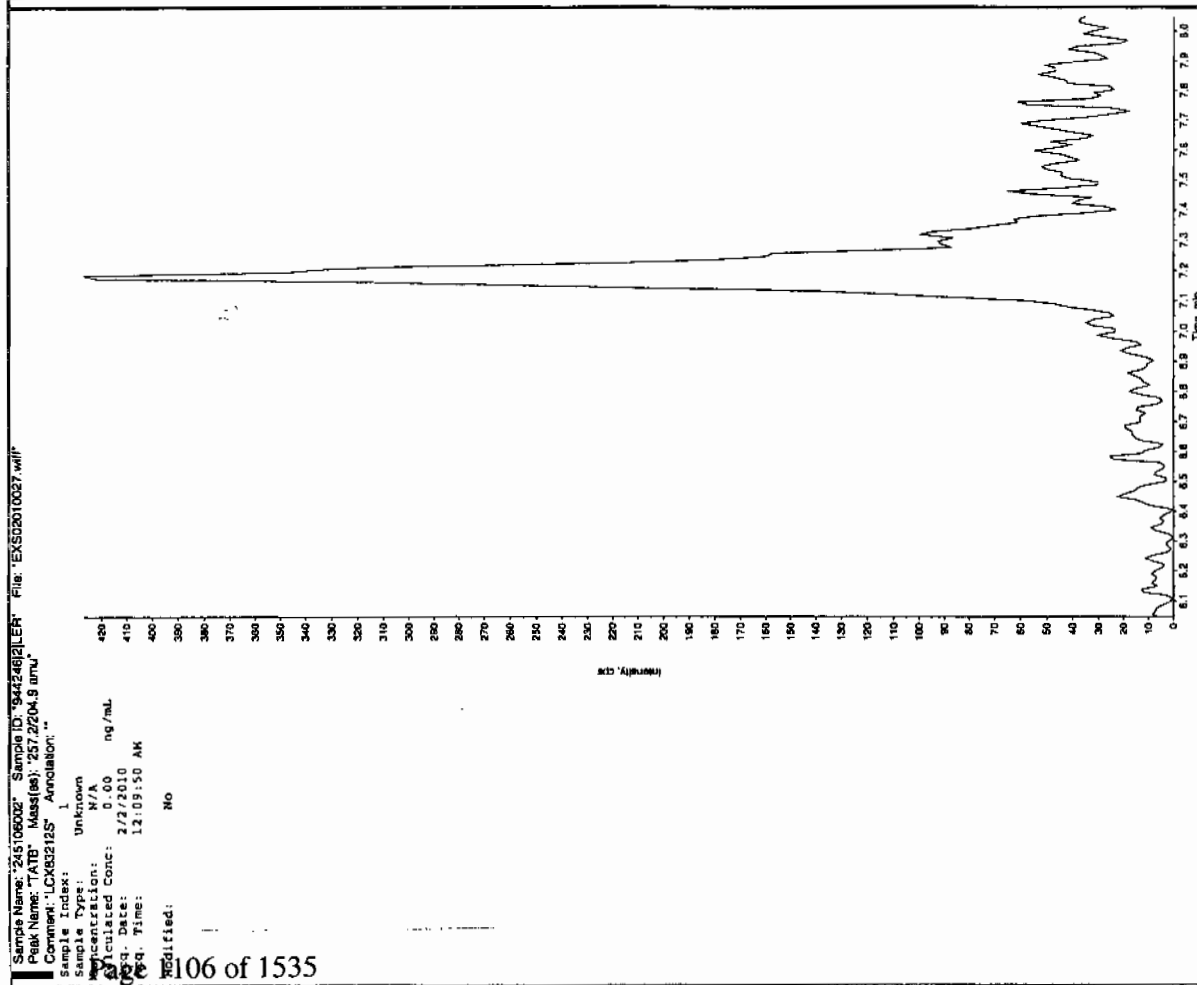
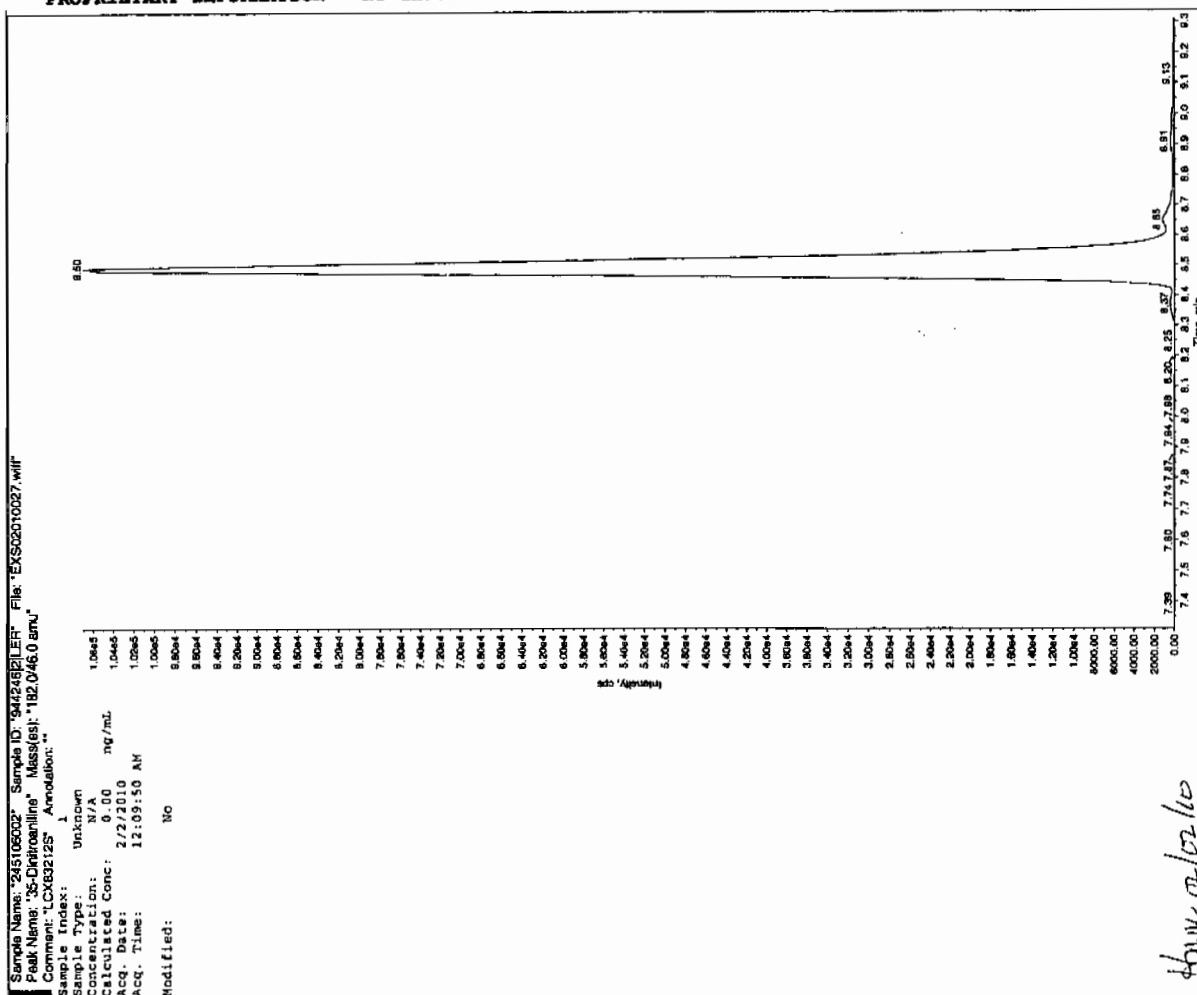
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

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

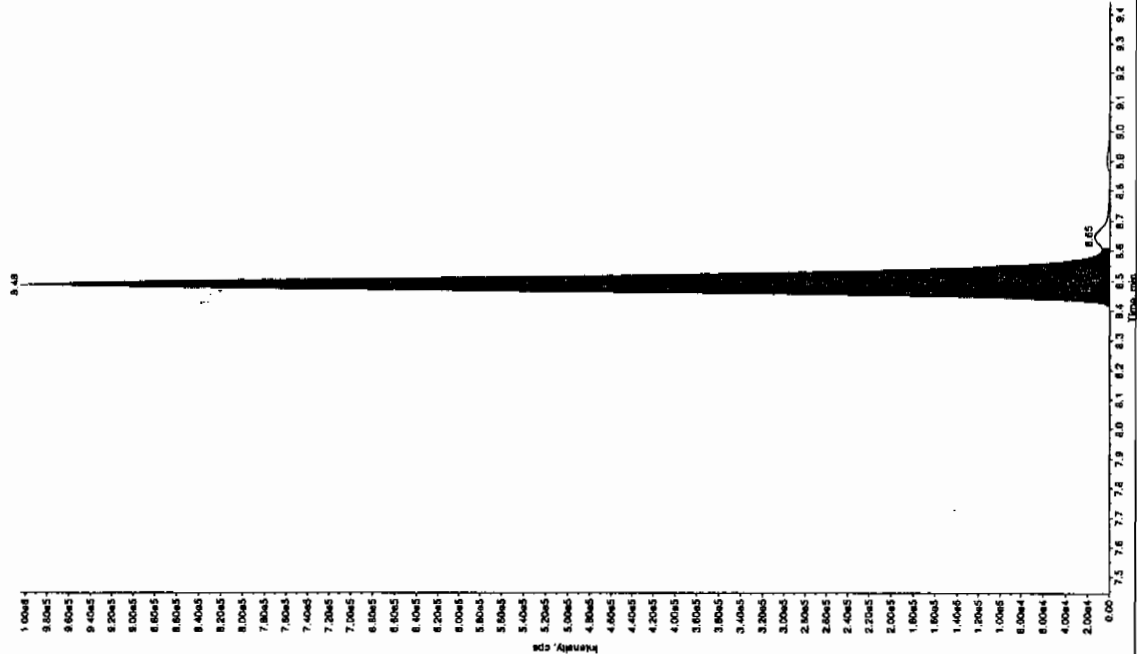


2/2/10  
2/2/10



Sample Name: "245106002" Sample ID: "944246121" File: "EXS02010027.wif"  
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCX63212S" Annotation: "

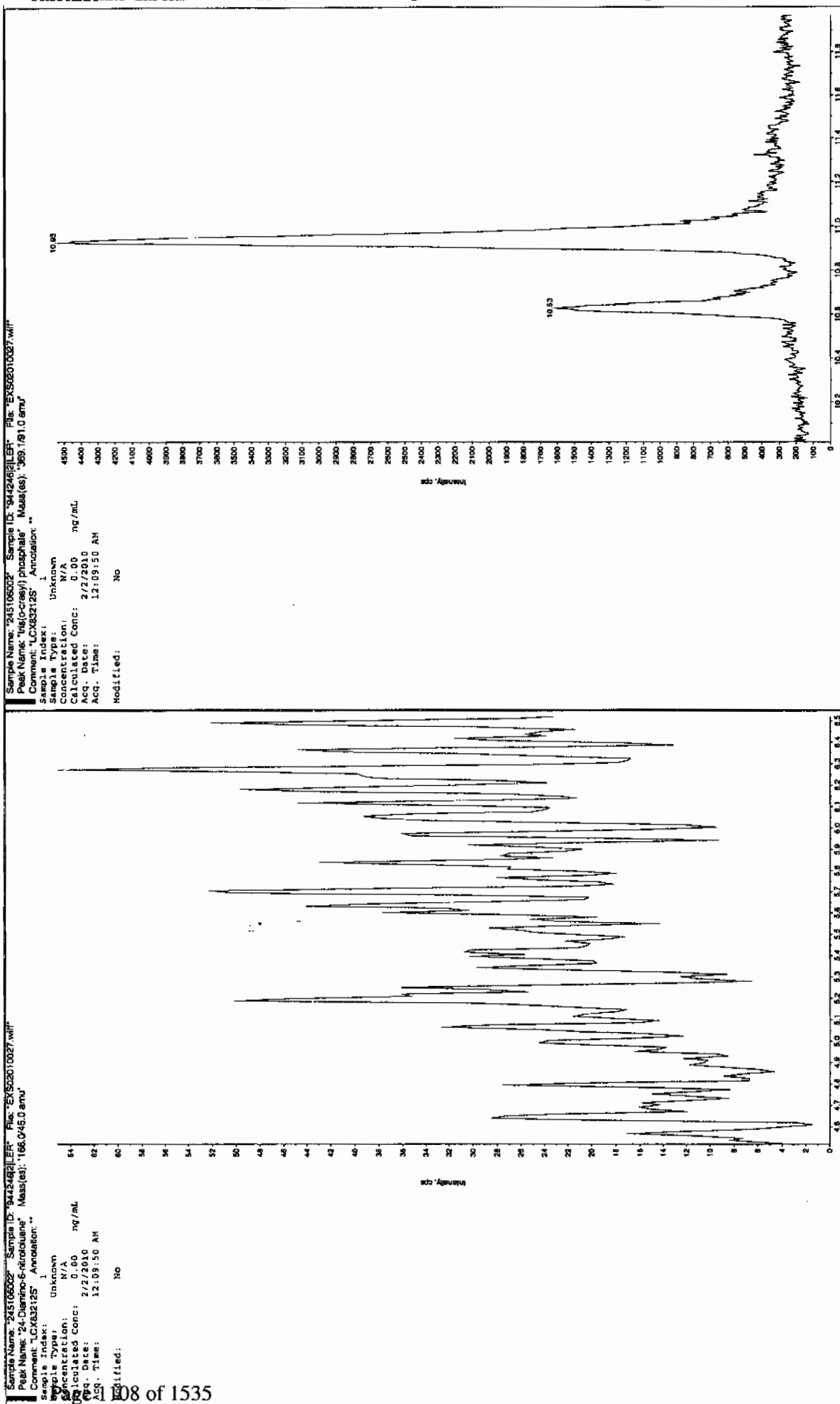
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 2/2/2010  
 Acq. Time: 12:09:50 AM  
 Modified: No



Sample Name: "245106002" Sample ID: "944246121" File: "EXS02010027.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1151.9 amu"  
 Comment: "LCX63212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 277. ng/mL  
 Acq. Date: 2/2/2010  
 Acq. Time: 12:09:50 AM  
 Modified: No

Proc. Algorithm: Intelliquan - IQA  
 Peak Height: 1460.00 cps  
 Wh. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Window: 15.0 sec  
 Expected RT: 8.44 min  
 RT Relative RT: No  
 RT Type: Valley  
 Retention Time: 8.48 min  
 Area: 3.68e+006 counts  
 Height: 100406.616 cps  
 Start Time: 8.38 min  
 End Time: 8.61 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7170

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106003

Sample Amount 2

Moisture: 23.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208019a

Date Analyzed: 08-FEB-10 23:35

Units: ug/kg

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

\*Concentration =

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

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208019a

Date: 08-Feb-2010

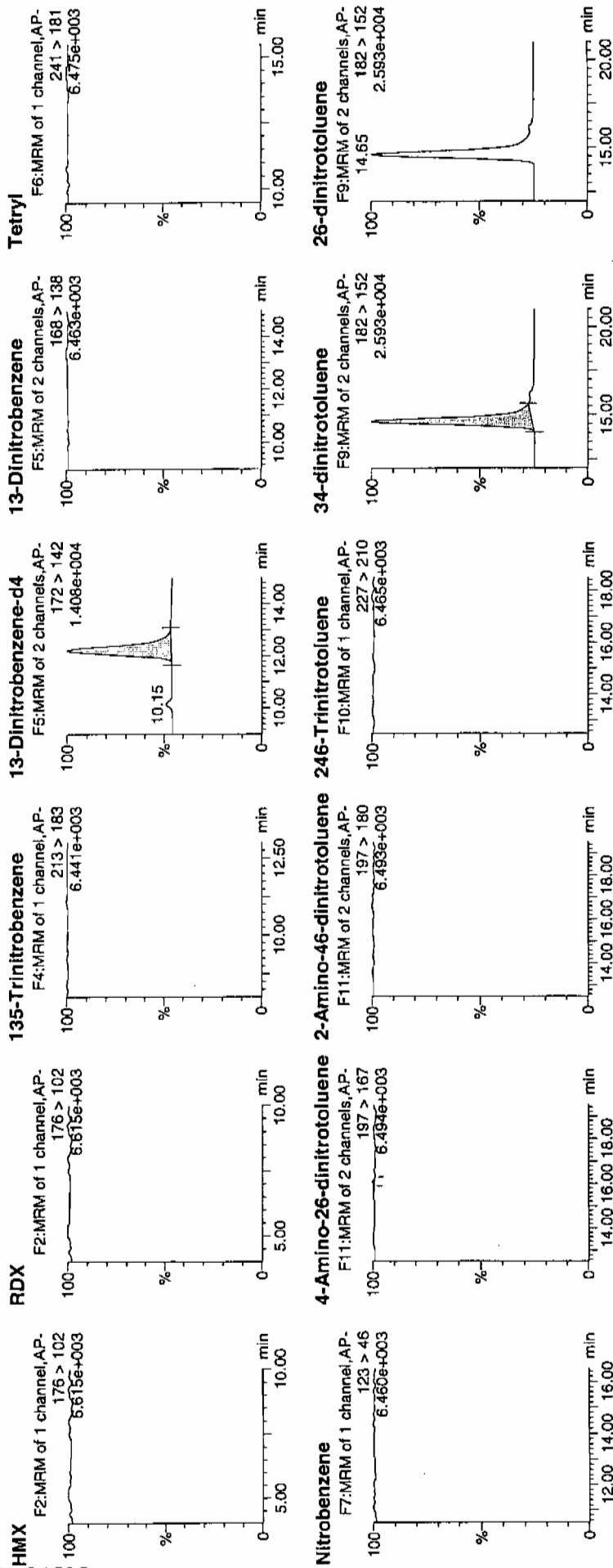
Time: 23:35:26

ID: 245106003

Vial: 1:5,A

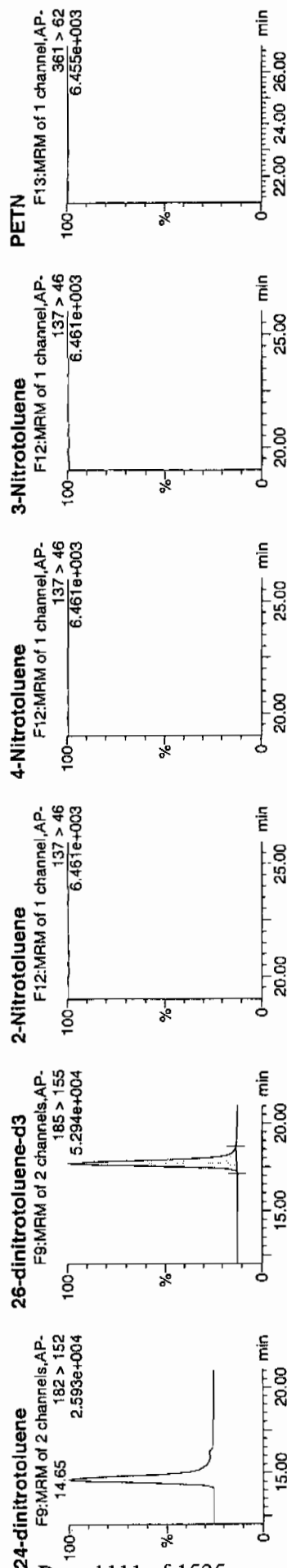
14.77  
2/9/10

LAOL/944246/S&S/21



**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc mg	%Rec	%Dev	SN
245106003	HMX	176 > 102			3178.698									
245106003	RDX	176 > 102			3178.698									
245106003	135-Trinitrobenzene	213 > 183			3178.698									
245106003	13-Dinitrobenzene-d4	172 > 142	12.20	3178.698			3178.698	bb		09-Feb-10	10:08:03	494.4198	98.9	-1.1
245106003	13-Dinitrobenzene	168 > 138			3178.698									
245106003	Tetryl	241 > 181			3178.698									
245106003	Nitrobenzene	123 > 46			3178.698									
245106003	4-Amino-26-dinitrotoluene	197 > 167			18595.908									
245106003	2-Amino-46-dinitrotoluene	197 > 180			18595.908									
245106003	246-Trinitrotoluene	227 > 210			18595.908									
245106003	34-dinitrotoluene	182 > 152	14.65	9172.350	18595.908		9172.350	bb				274.0278	109.6	9.6
245106003	26-dinitrotoluene	182 > 152			18595.908									
245106003	24-dinitrotoluene	182 > 152			18595.908									
245106003	26-dinitrotoluene-d3	185 > 155	17.71	18595.908										
245106003	2-Nitrotoluene	137 > 46			18595.908		18595.908	bb				503.6898	100.7	0.7
245106003	4-Nitrotoluene	137 > 46			18595.908									
245106003	3-Nitrotoluene	137 > 46			18595.908									
245106003	PETN	361 > 62			18595.908									

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7170

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106003

Sample Amount 2

Moisture: 23.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010028.wiff

Date Analyzed: 02-FEB-10 00:25

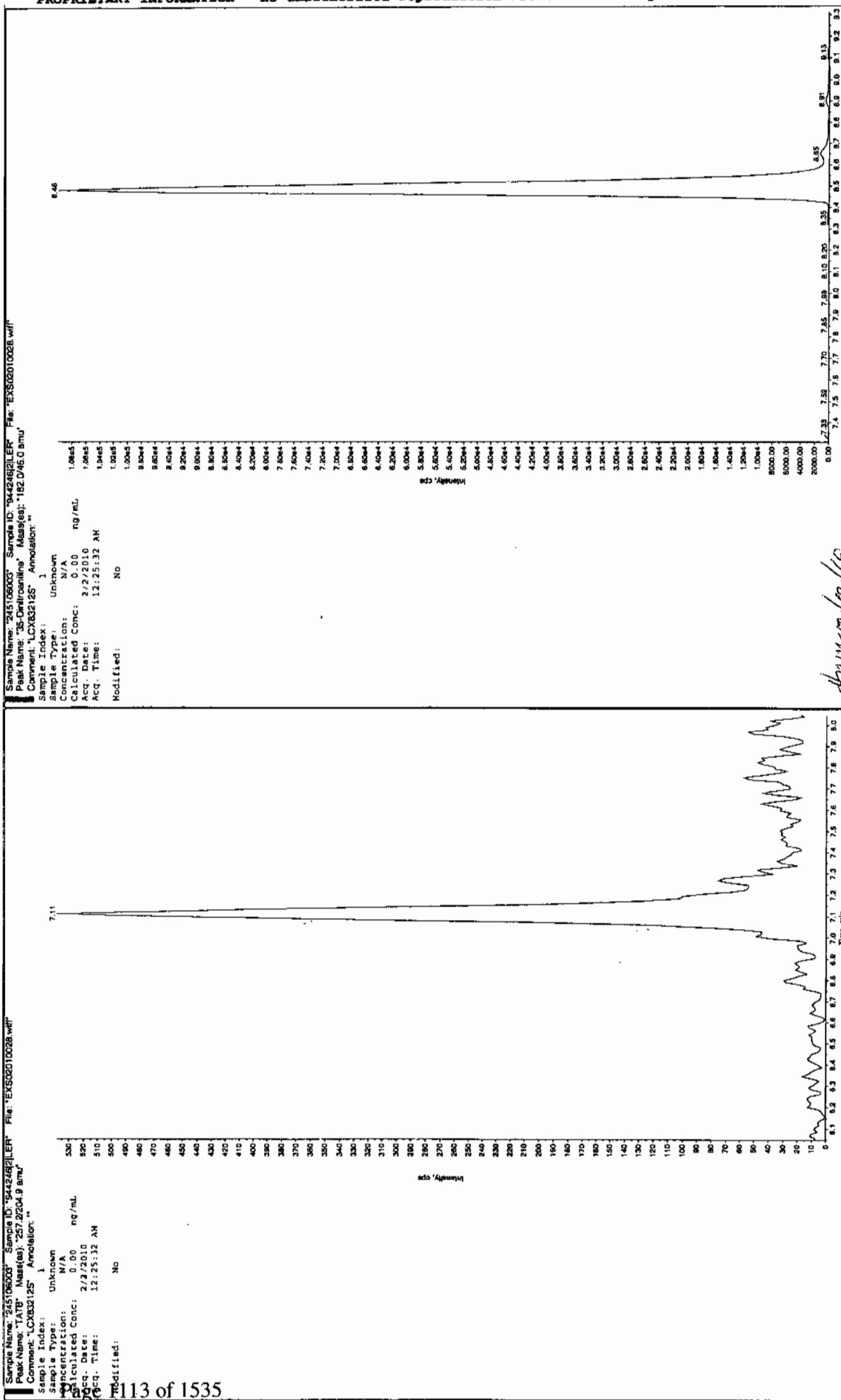
Units: ug/kg

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

2012/10  
2008

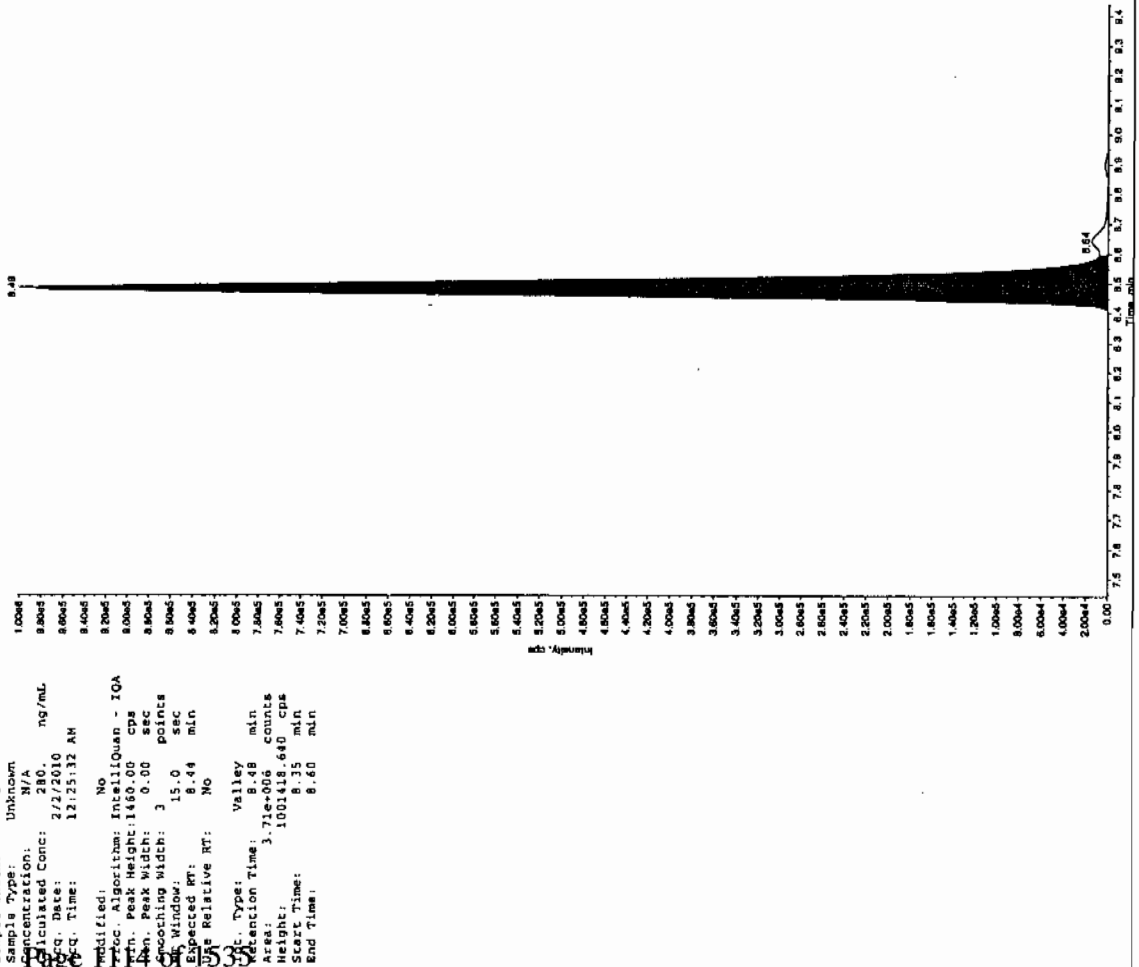


2012/10  
2008



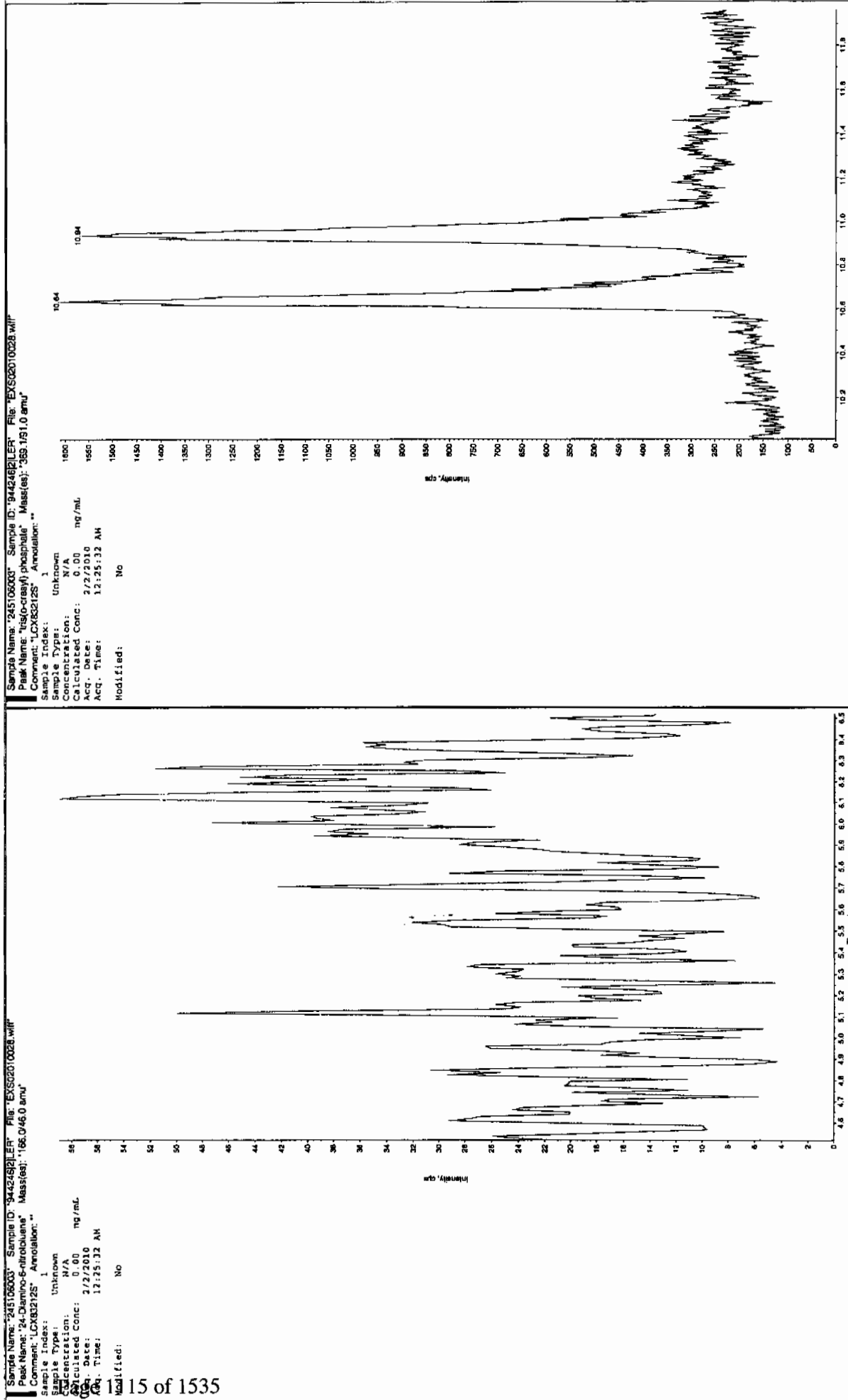
Sample Name: "245106003" Sample ID: "94424621ER" File: "EXS02010028.wif"  
 Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "165.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 2/2/2010 ng/mL  
 Acq. Date: 12/25/12 AM  
 Acq. Time: 12:25:32 AM  
 Modified: No



Sample Name: "245106003" Sample ID: "94424621ER" File: "EXS02010028.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.151.9 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 2/2/2010 ng/mL  
 Acq. Date: 12/25/12 AM  
 Acq. Time: 12:25:32 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Window: 15.0 sec  
 Expected RT: 8.44 min  
 Age Relative RT: No  
 Ret. Type: Valley  
 Retention Time: 8.48 min  
 Area: 3.71e+006 counts  
 Height: 1001464.640 cps  
 Start Time: 8.35 min  
 End Time: 8.60 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7164

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106004

Sample Amount 2

Moisture: 17.7

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208020a

Date Analyzed: 09-FEB-10 00:04

Units: ug/kg

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

\*Concentration =

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

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP\PRO\Data\EXP0208020a

Date: 09-Feb-2010

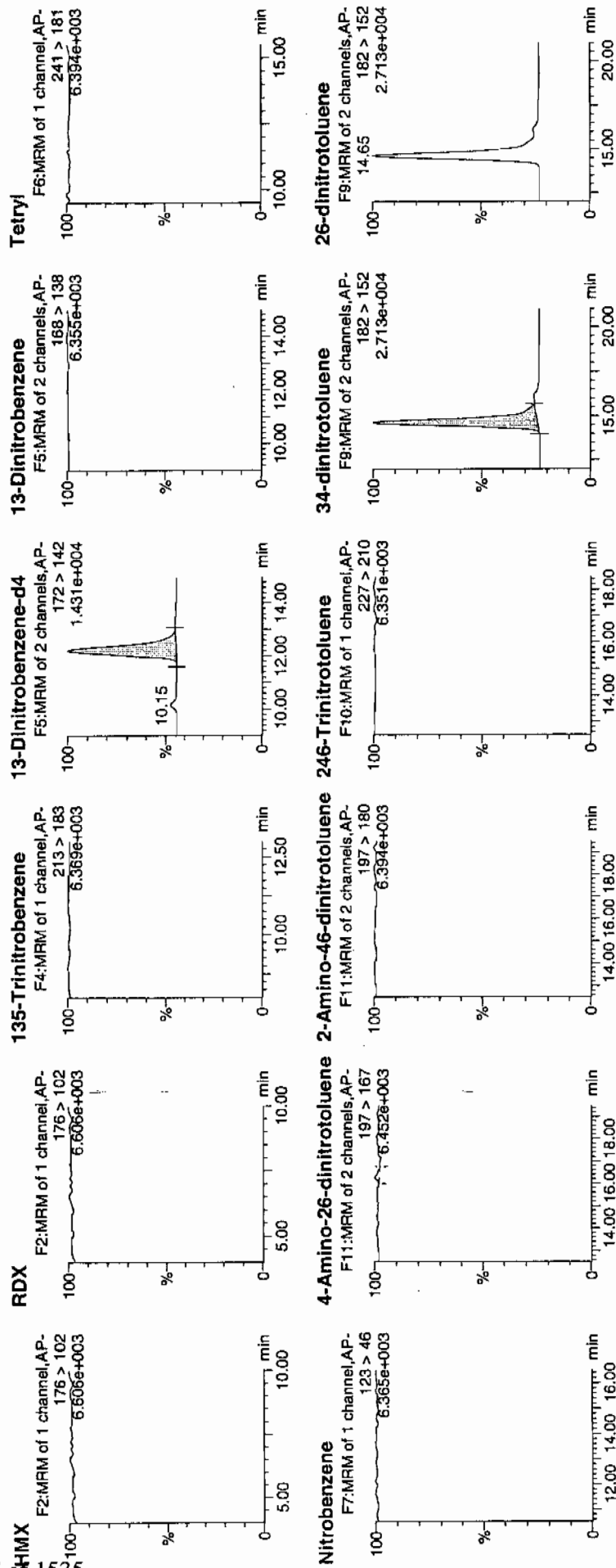
Time: 00:04:56

ID: 245106004

Vial: 1:5,B

14077  
2/9/10

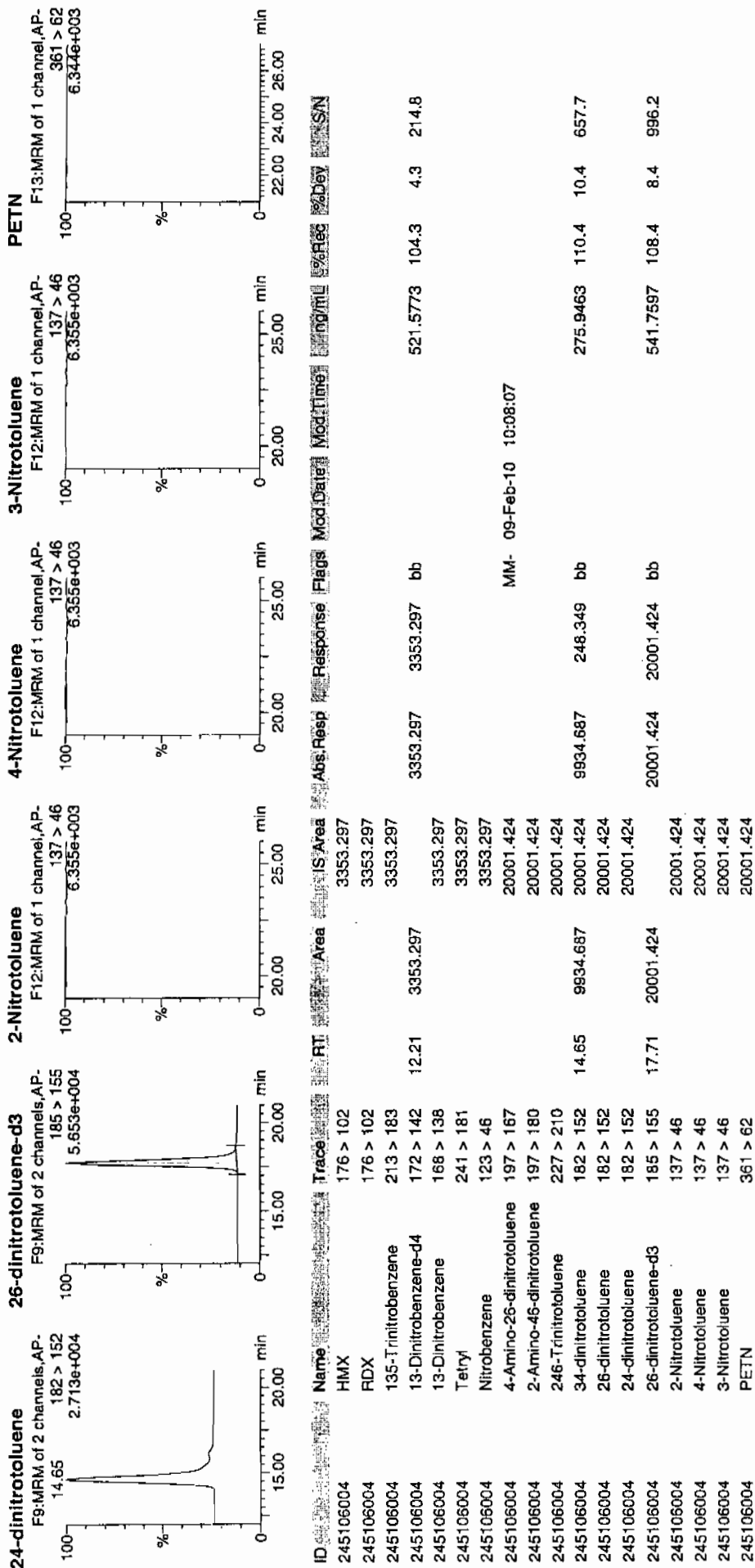
944246 / 8032 / 21



gsmw/cg/10

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7164

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106004

Sample Amount 2

Moisture: 17.7

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010029.wiff

Date Analyzed: 02-FEB-10 00:41

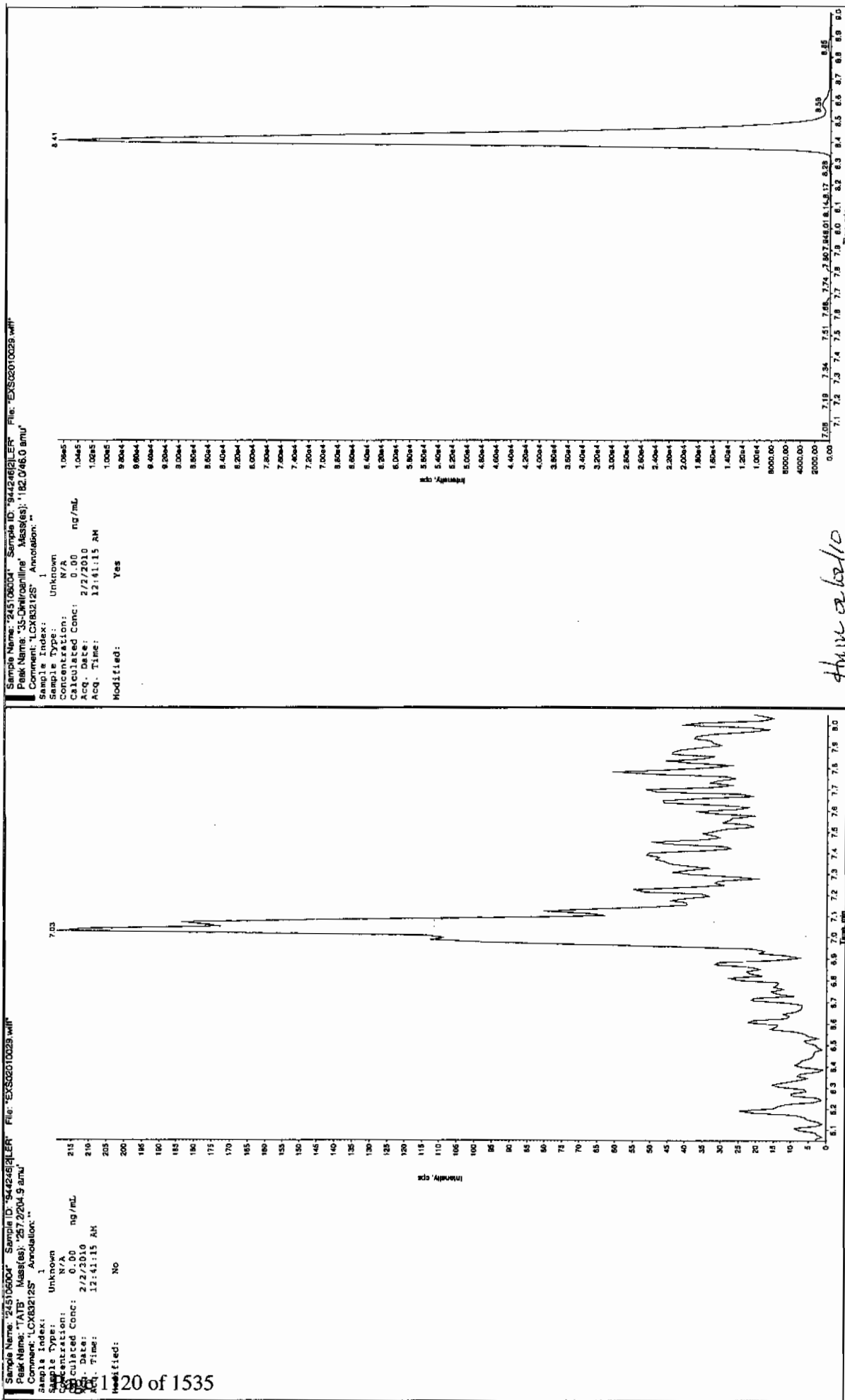
Units: ug/kg

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

\*Concentration =

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

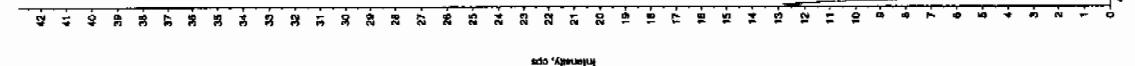
2/21/10



4/10/10

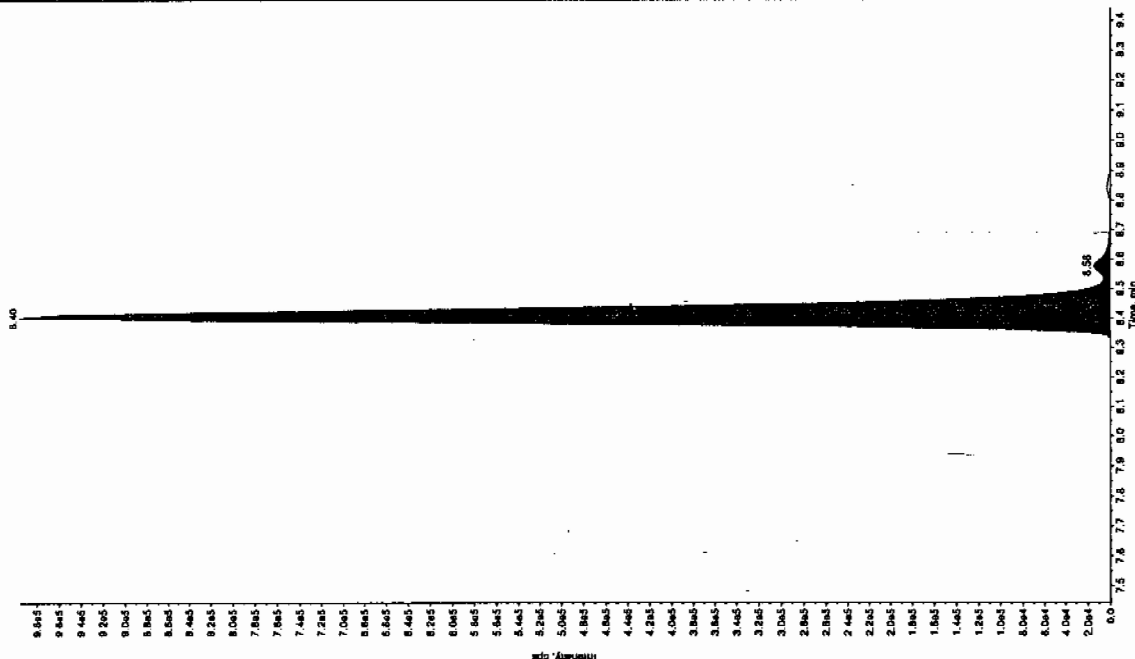
Sample Name: "245106004" Sample ID: "944246121.ER" File: "EXS02010029.wif"  
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "156.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 7/7/2010  
 Acq. Time: 12:41:15 AM  
 Modified: No

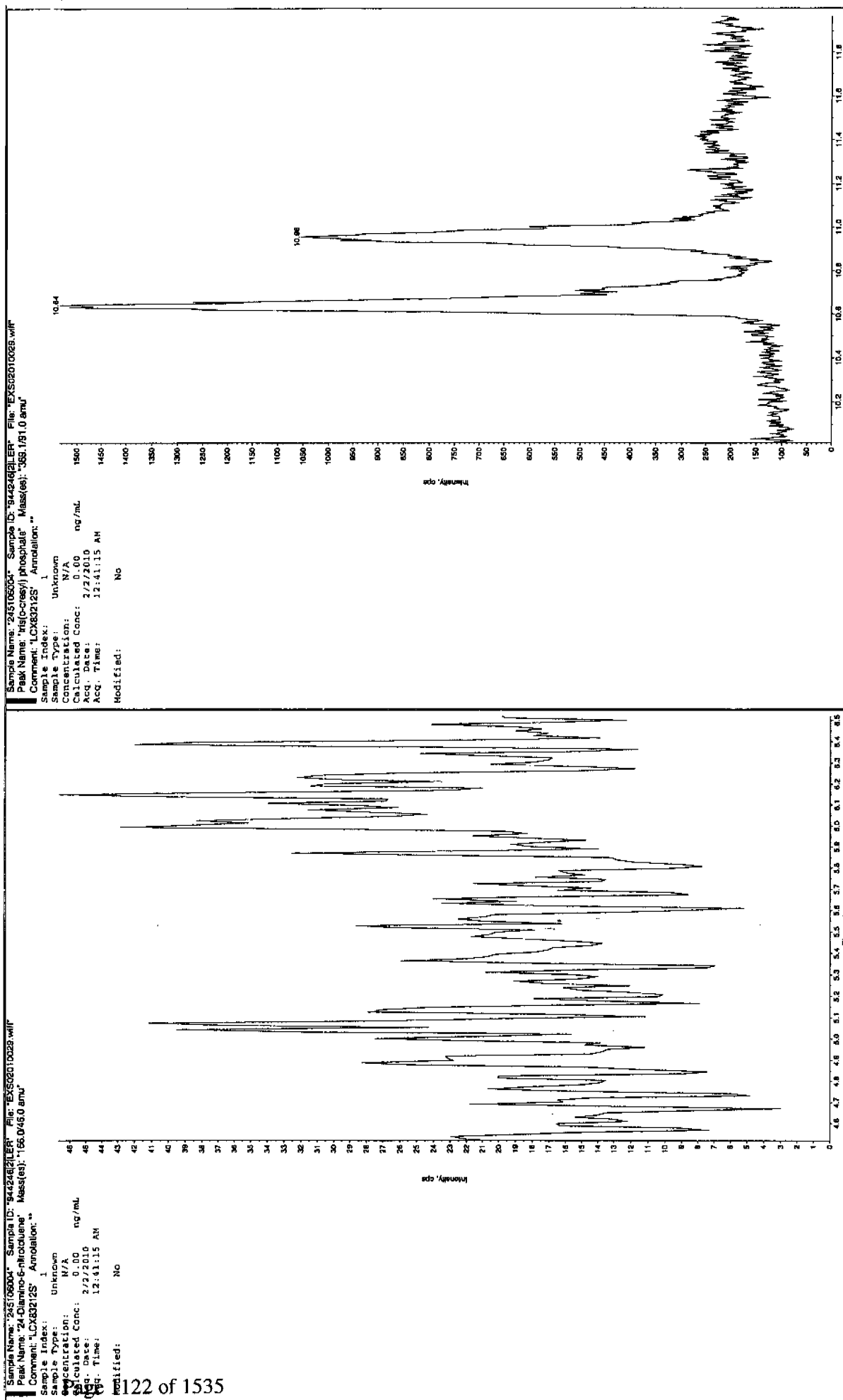


Sample Name: "245106004" Sample ID: "944246121.ER" File: "EXS02010029.wif"  
 Peak Name: "14-Dinitrotoluene" Mass(es): "182.17151.9 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 293.1 ng/mL  
 Calculated Conc: 293.1  
 Acq. Date: 7/7/2010  
 Acq. Time: 12:41:15 AM  
 Modified: No  
 Proc. Algorithm: InCellQuan - TOA  
 Min. Peak Height: 1450.00 cps  
 Min. Peak Width: 0.00 sec  
 Resolution: 15.0 points  
 Expected RT: 8.44 min  
 Use Relative RT: No  
 Det. Type: Valley  
 Retention Time: 8.40 min  
 Area: 3.88e+006 counts  
 Height: 996928.918 cps  
 Start Time: 8.31 min  
 End Time: 8.75 min







1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7167

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106005

Sample Amount 2

Moisture: 22.0

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208021a

Date Analyzed: 09-FEB-10 00:34

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

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208021a

Date: 09-Feb-2010

Time: 00:34:26

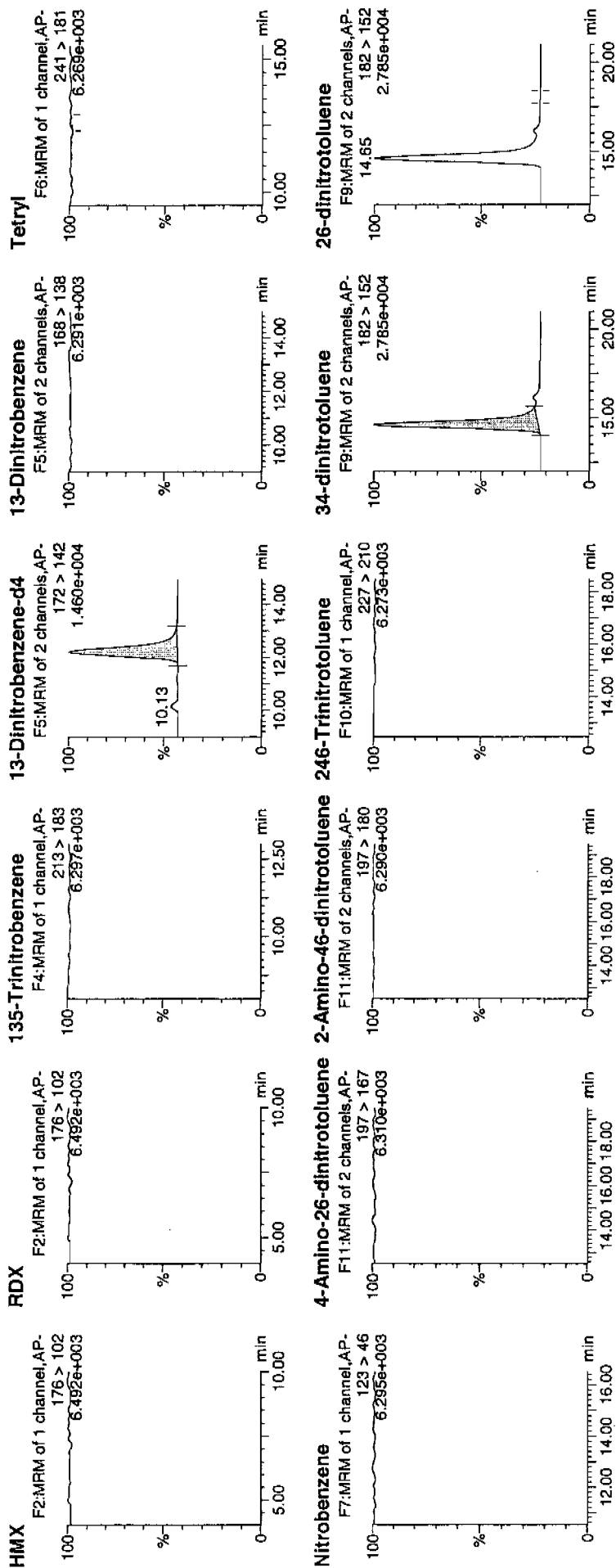
ID: 245106005

Vial: 1:5,C

MSH  
2/9/10

944246 / Solu / 2 /

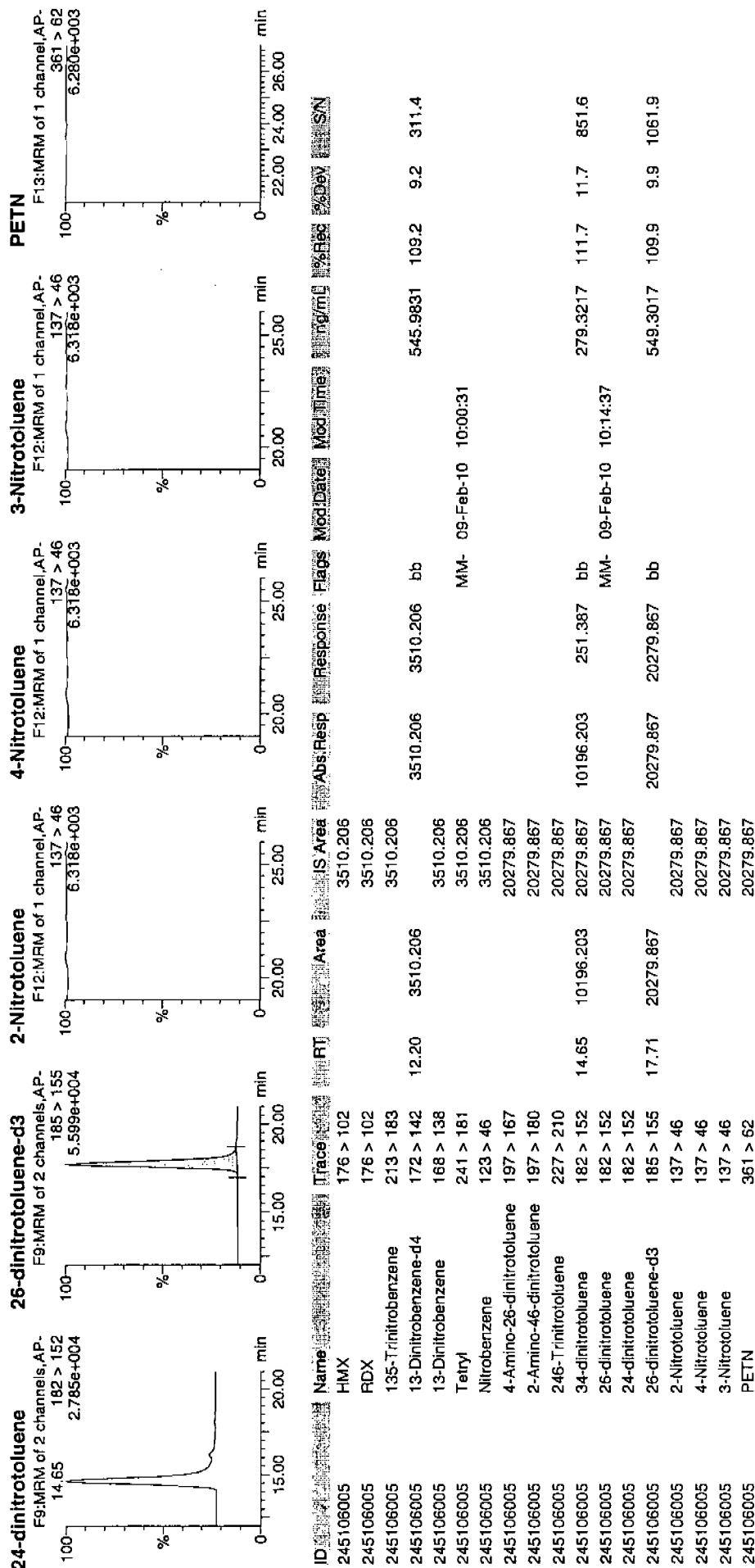
Page 1124 of 1535



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**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7167

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106005

Sample Amount 2

Moisture: 22.0

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010030.wiff

Date Analyzed: 02-FEB-10 00:56

Units: ug/kg

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

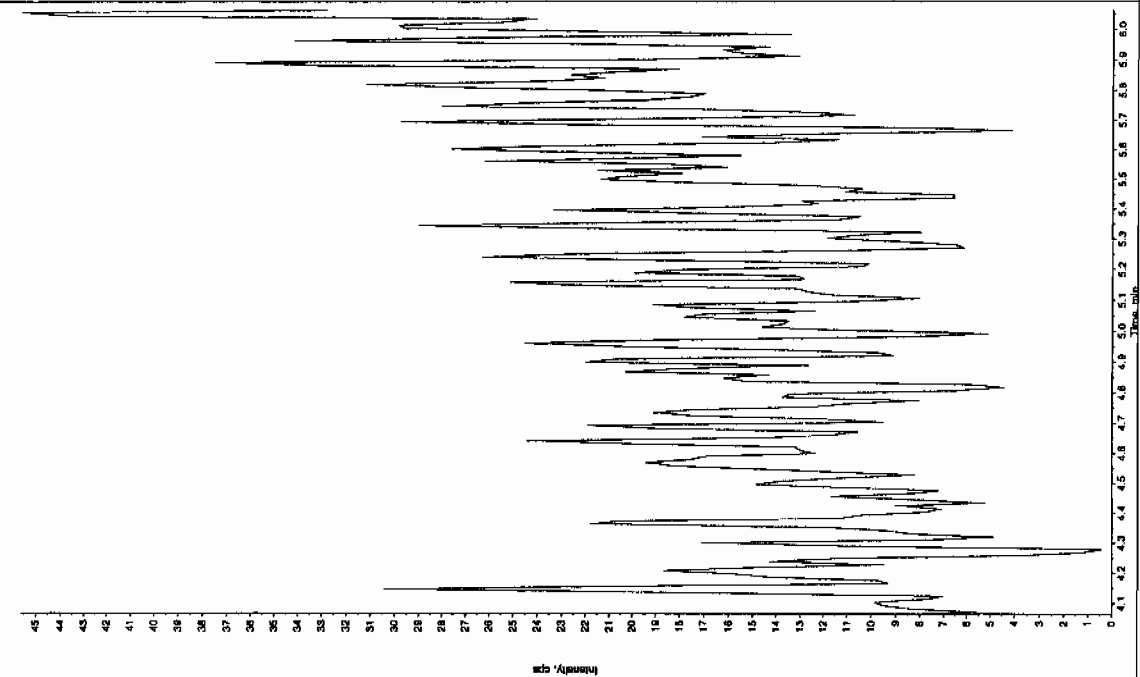
\*Concentration =

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



Sample Name: "245106005" Sample ID: "944246212" File: "EX502010030.wif"  
 Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

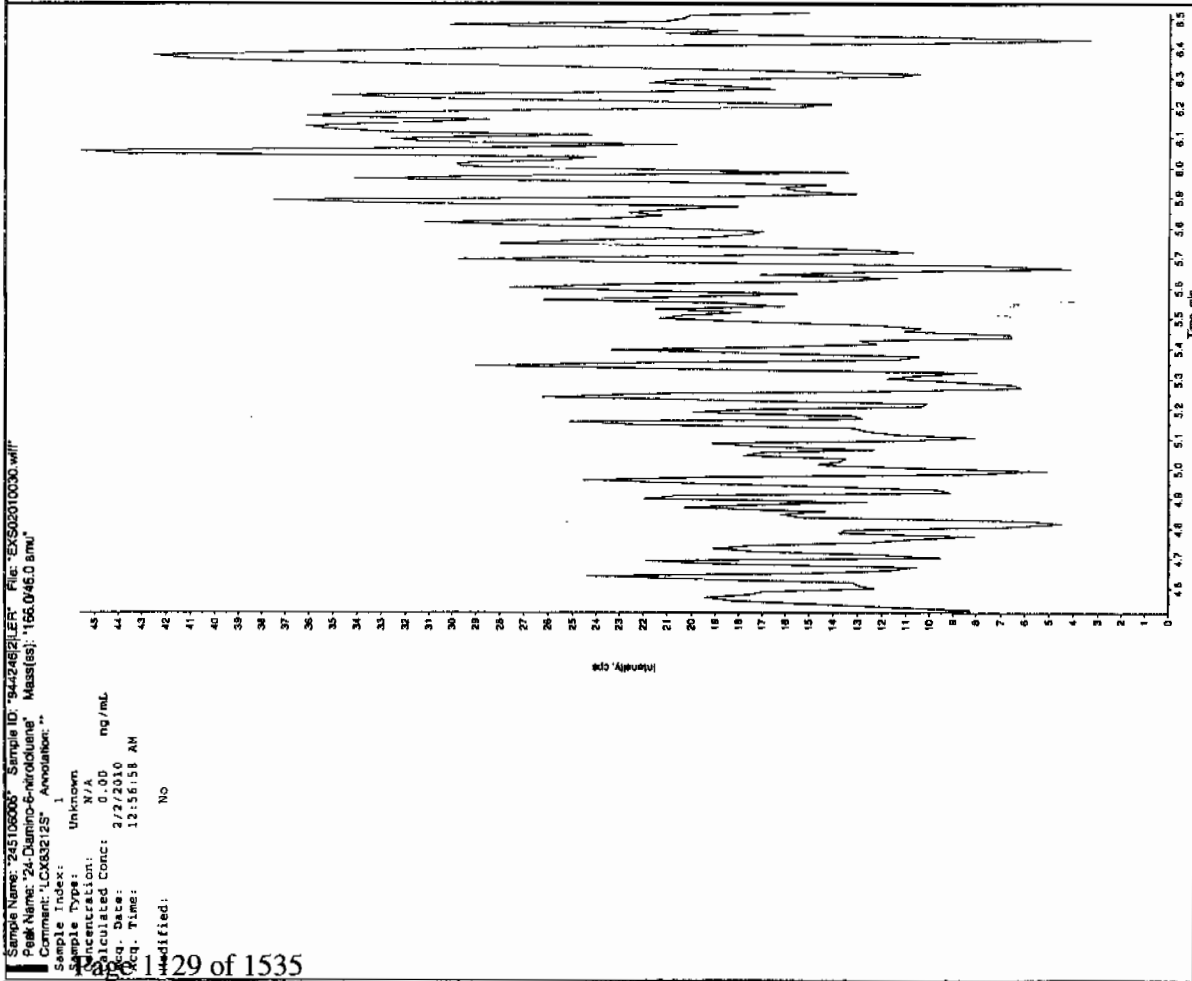
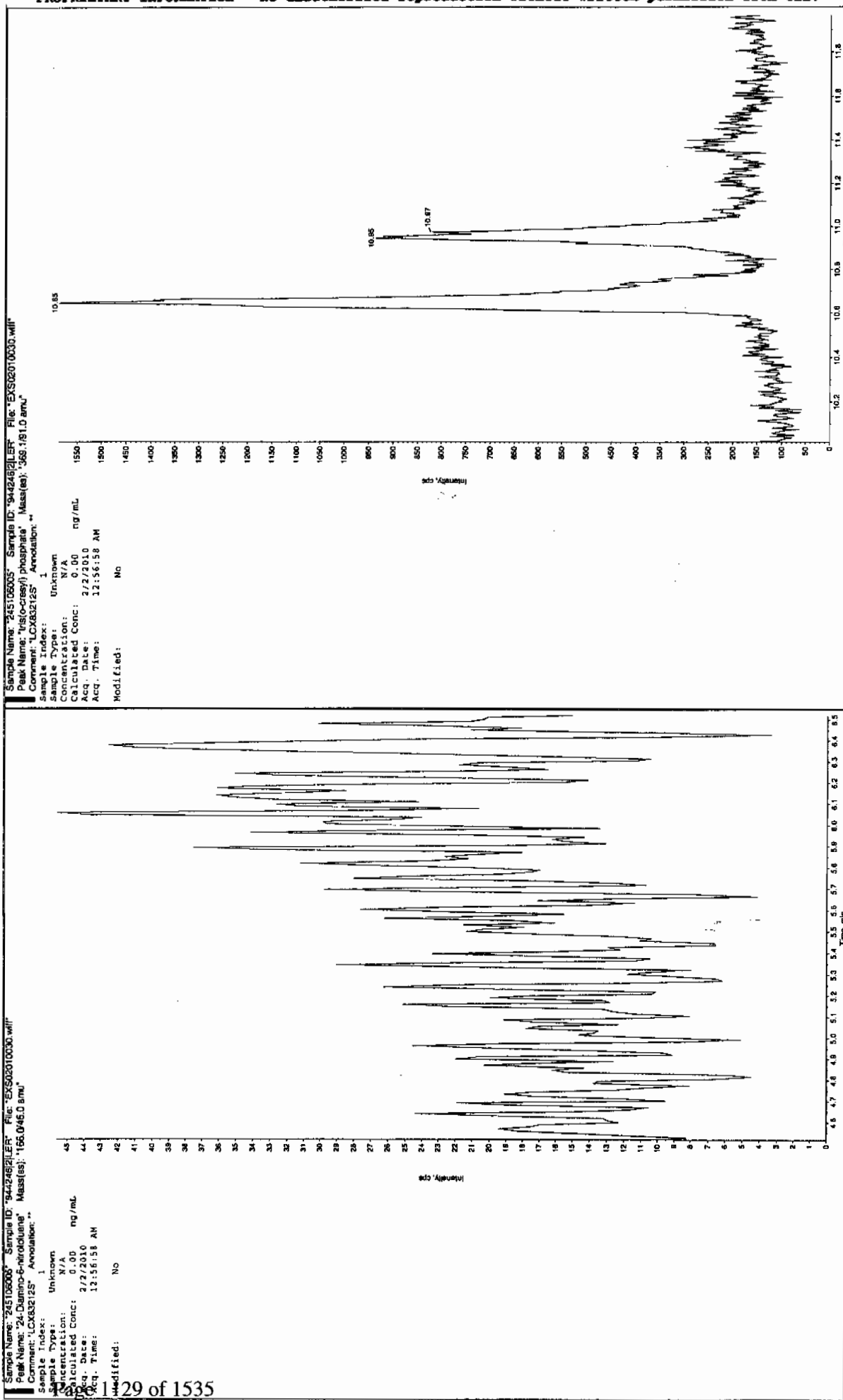
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 2/2/2010 ng/mL  
 Acq. Date: 12:56:58 AM  
 Acq. Time: 12:56:58 AM  
 Modified: No



Sample Name: "245106005" Sample ID: "944246212" File: "EX502010030.wif"  
 Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 2/2/2010 ng/mL  
 Acq. Date: 12:56:58 AM  
 Acq. Time: 12:56:58 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Peak Height: 1460.00 cps  
 Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Window: 15.0 sec  
 Expected RT: 8.44 min  
 Relative RT: No  
 Type: Valley  
 Retention Time: 8.44 min  
 Peak Count: 3070 counts  
 Height: 1068624.674 cps  
 Start Time: 8.39 min  
 End Time: 8.62 min







1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7169

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106006

Sample Amount 2

Moisture: 8.9

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208022a

Date Analyzed: 09-FEB-10 01:03

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\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0208022a

Date: 09-Feb-2010

Time: 01:03:55

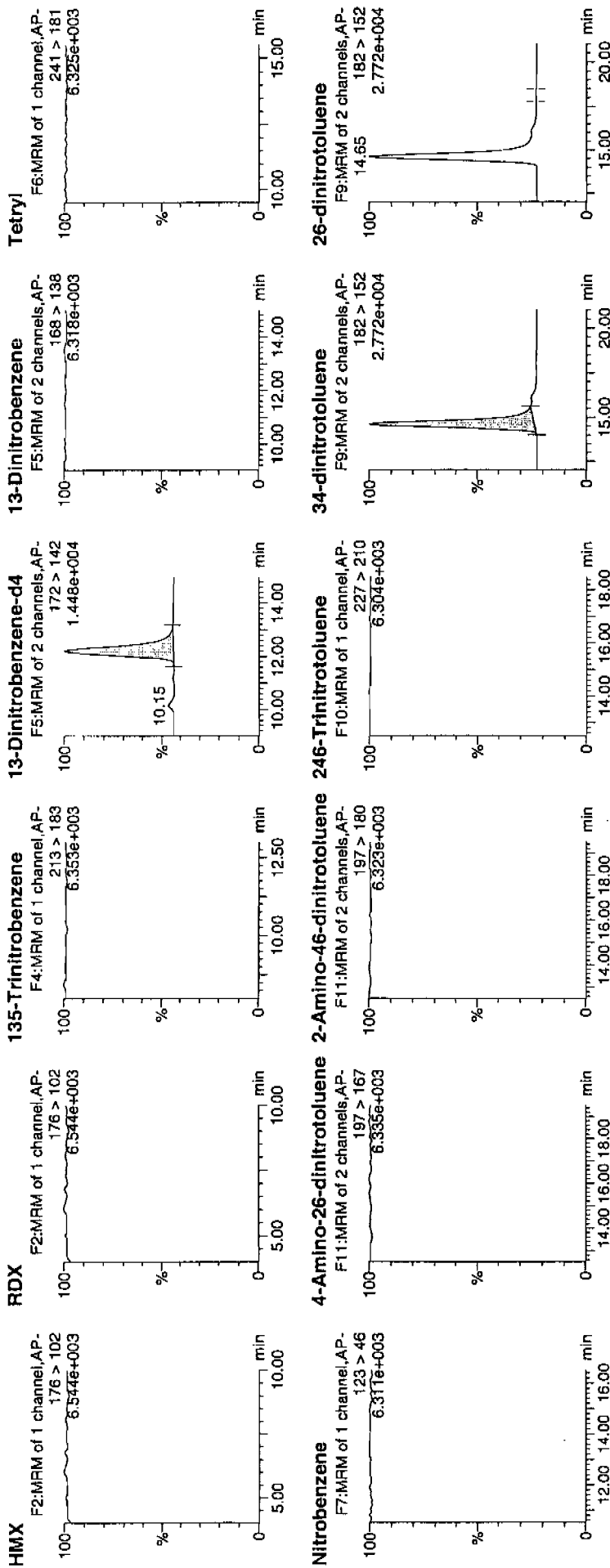
ID: 245106006

Vial: 1:5,D

1047  
2/9/10

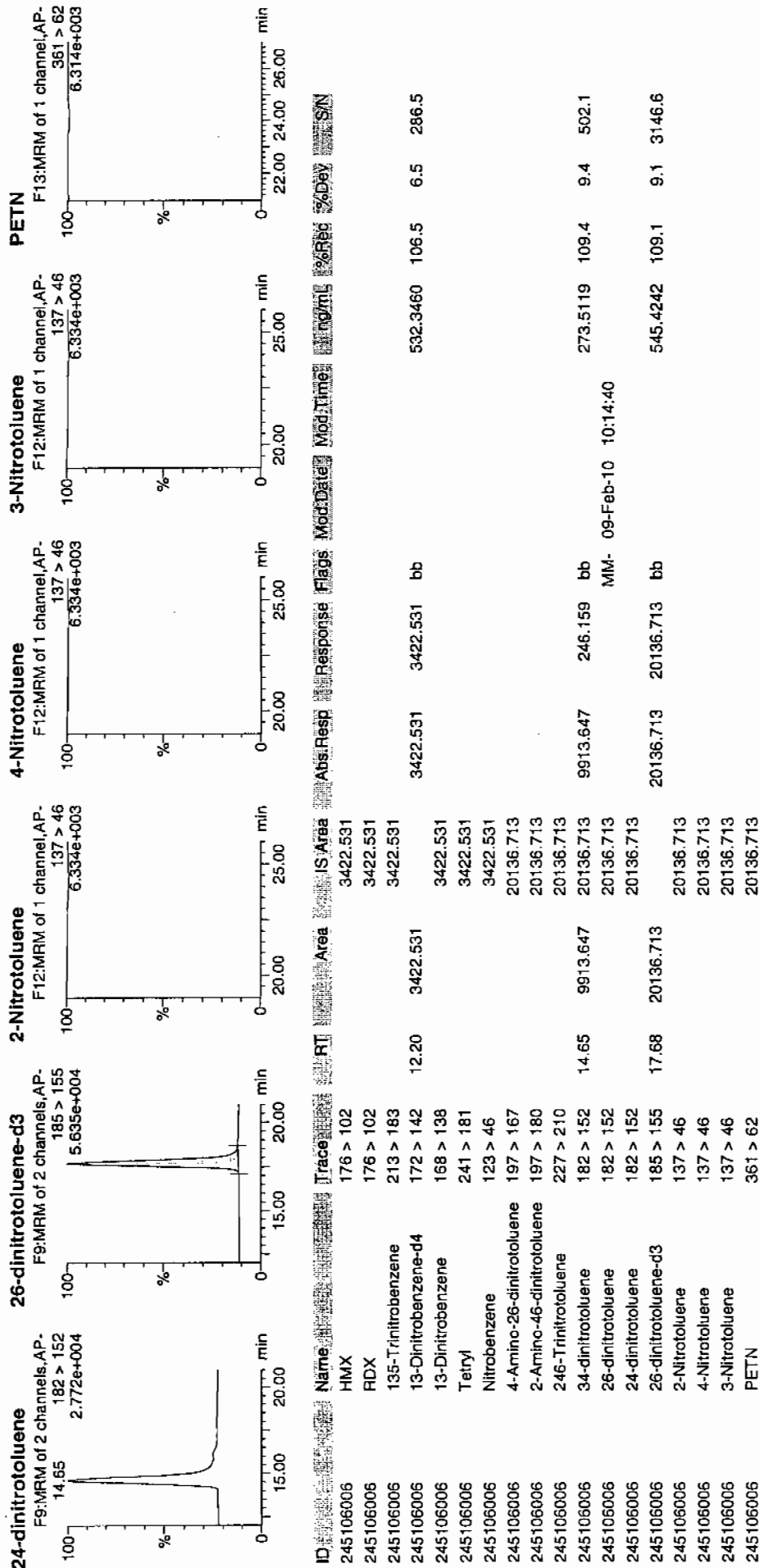
LAUW 944246 / 2-1  
Sours / 2-1

Page 1131 of 1535



LAUW 109 / 10

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7169

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106006

Sample Amount 2

Moisture: 8.9

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010031.wiff

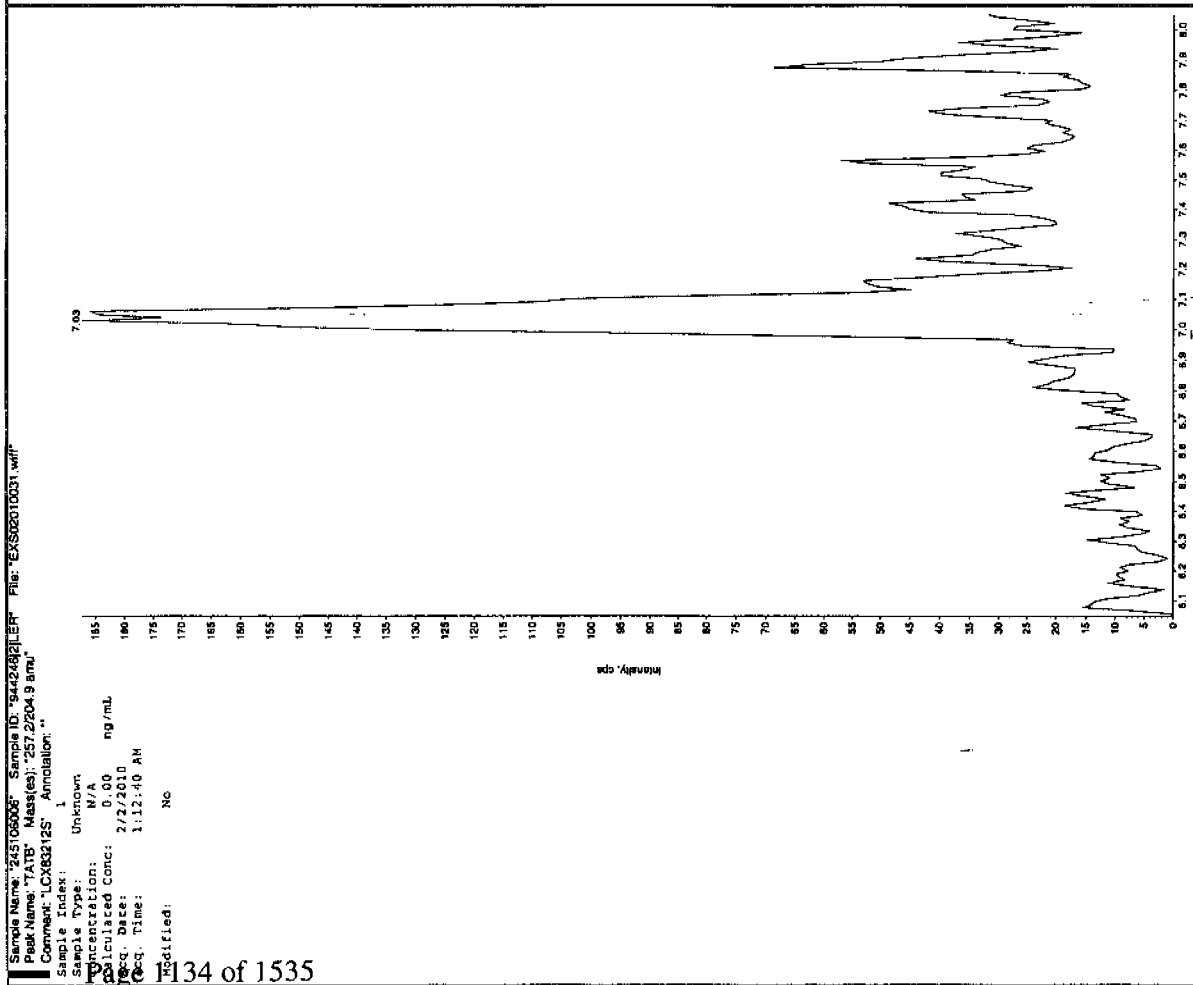
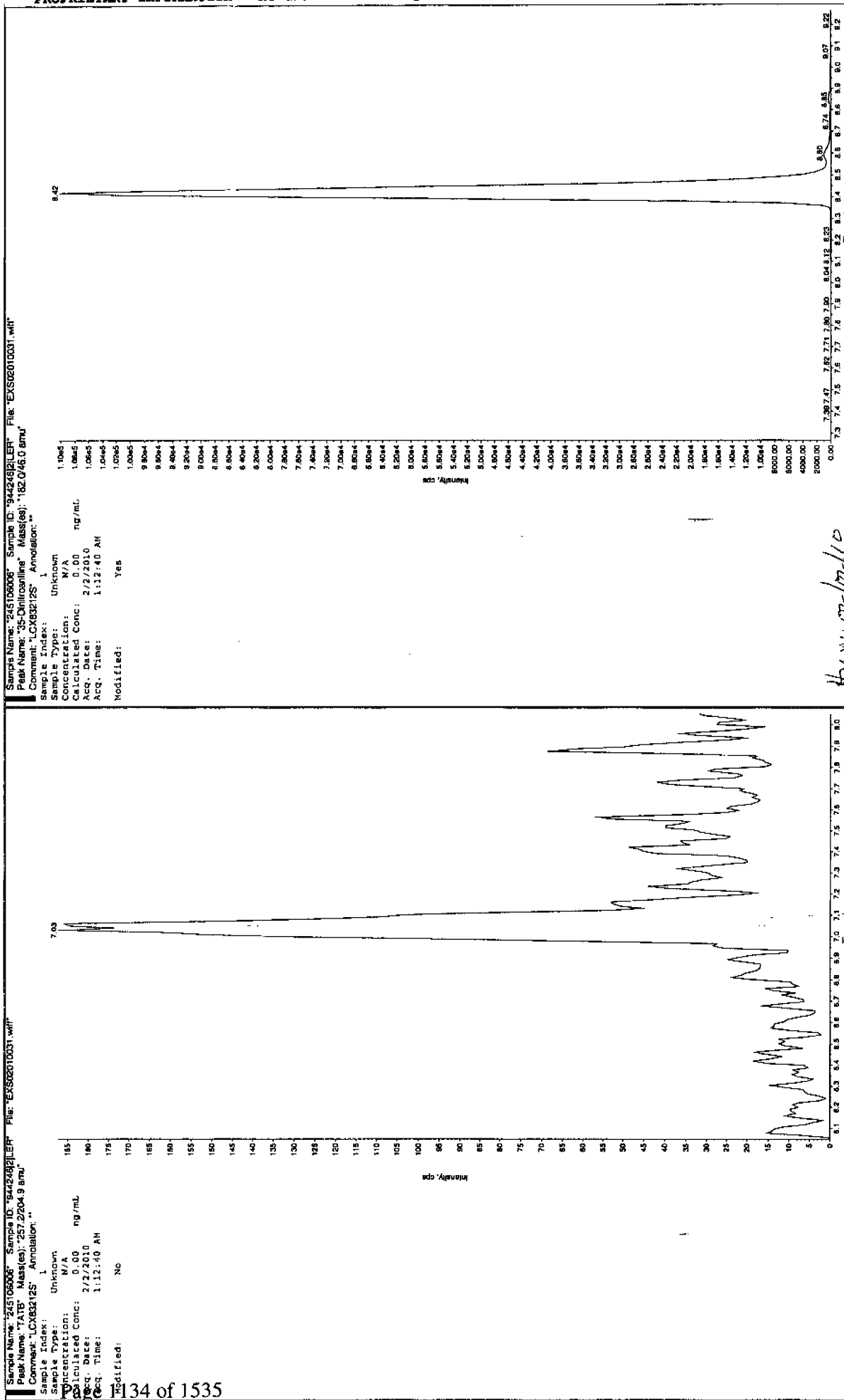
Date Analyzed: 02-FEB-10 01:12

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



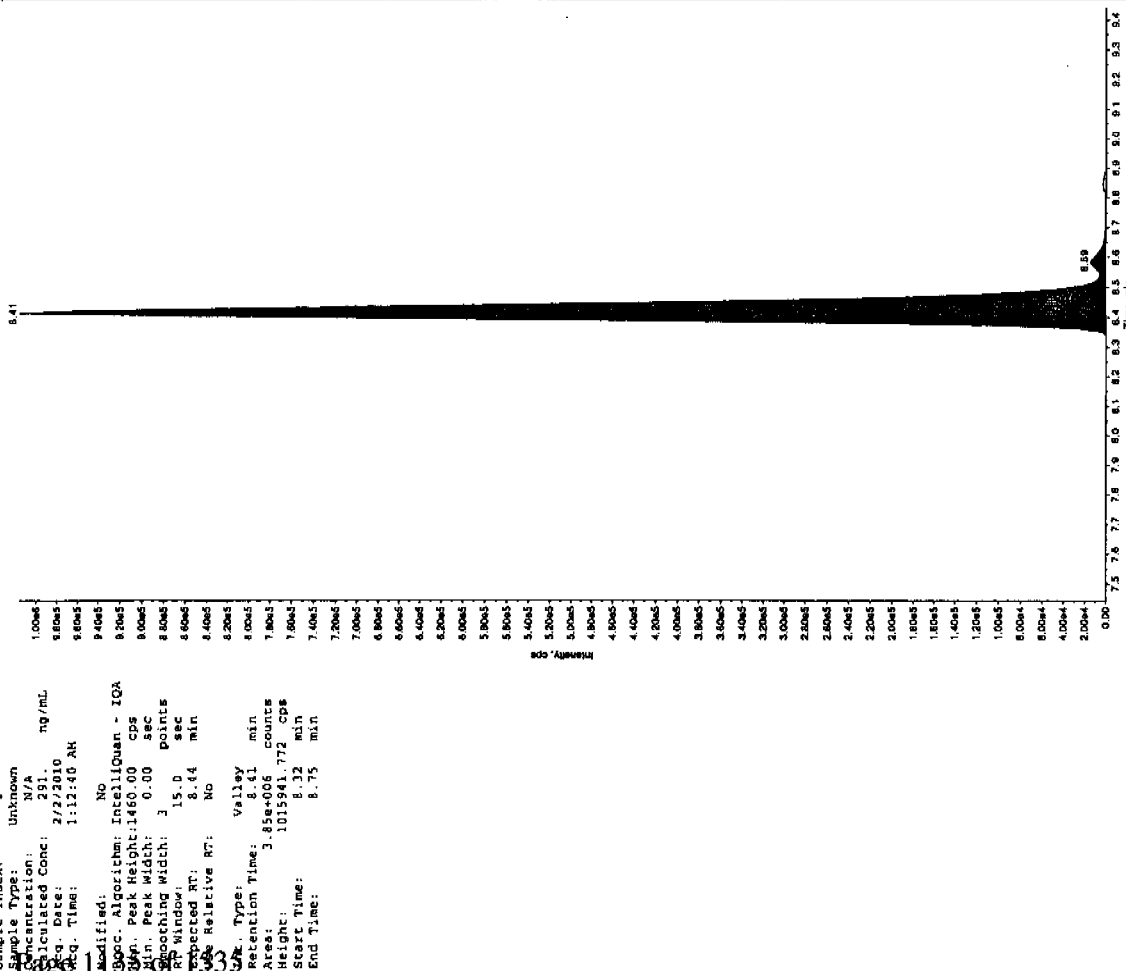
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245105005" Sample ID: "94424621ER" File: "EX02010031.wif"

Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0466.0 amu"

Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 2/22/2010  
 Acq. Time: 1:12:40 AM  
 Modified: No

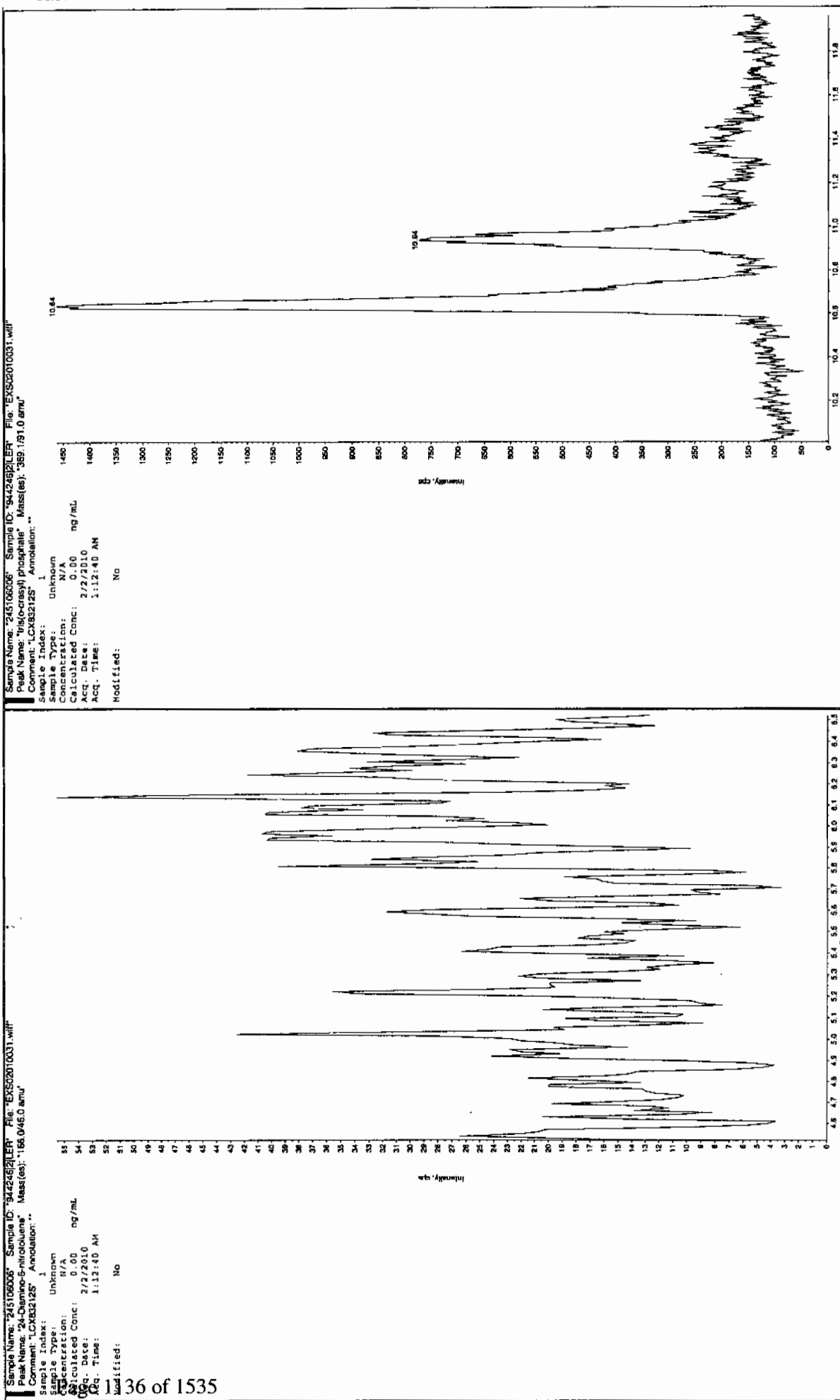


Sample Name: "245105005" Sample ID: "94424621ER" File: "EX02010031.wif"

Peak Name: "34-Dinitrotoluene" Mass(es): "182.1151.9 amu"

Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 291.  
 Acq. Date: 2/22/2010  
 Acq. Time: 1:12:40 AM  
 Modified: No  
 IQOC: Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Peak Window: 15.0 sec  
 Expected RT: 8.44 min  
 Use Relative RT: No  
 Peak Type: Valley  
 Retention Time: 8.41 min  
 Area: 3.85e+005 counts  
 Height: 1015941.772 cps  
 Start Time: 8.32 min  
 End Time: 8.75 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7168

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106007

Sample Amount 2

Moisture: 19.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208026a

Date Analyzed: 09-FEB-10 03:01

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



Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208026a

Date: 09-Feb-2010

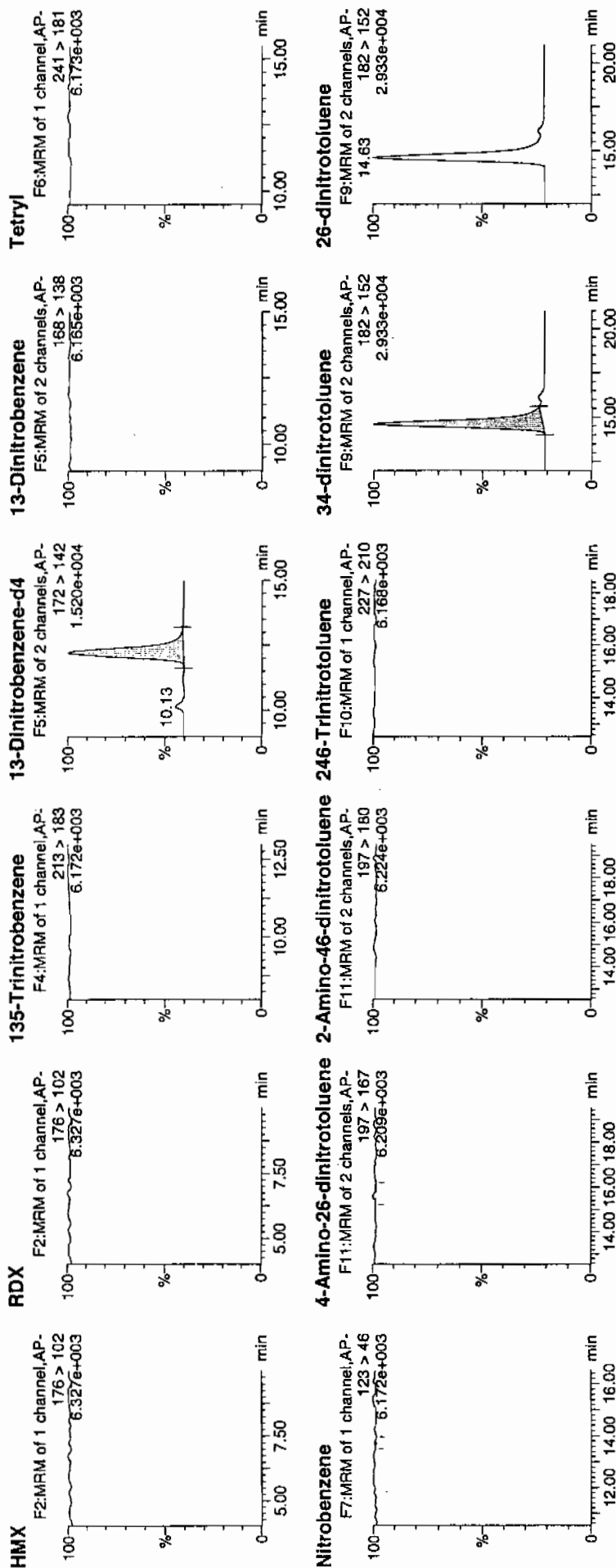
Time: 03:01:51

ID: 245106007

Vial: 1:5,E

NOT  
2/9/10

WAV 944246 / SOLID / 2 /

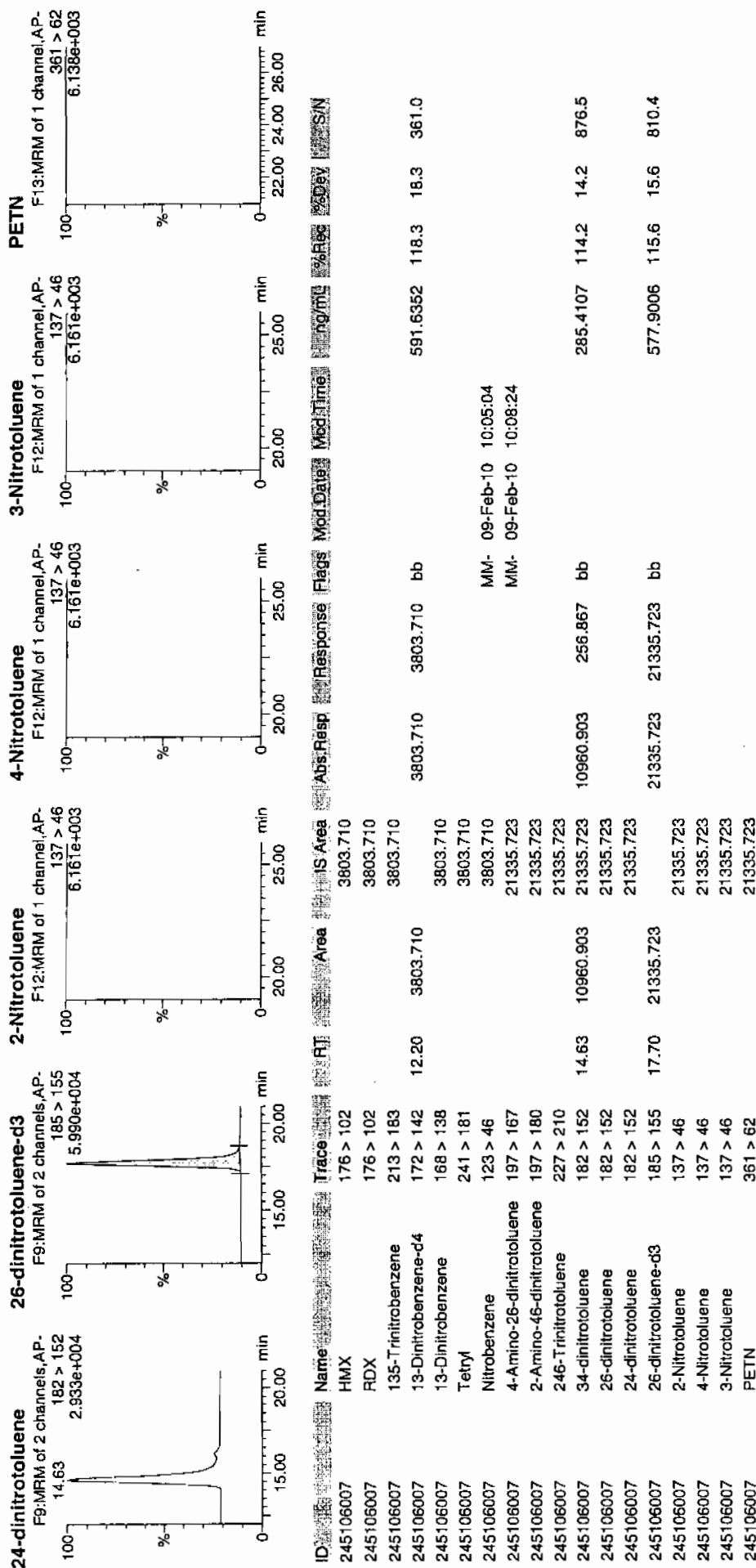


APR 09/10

Printed: Tue Feb 09 10:21:18 2010, Page 52 of 77

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYN\New\_Exp\_PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7168

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106007

Sample Amount 2

Moisture: 19.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010035.wiff

Date Analyzed: 02-FEB-10 02:15

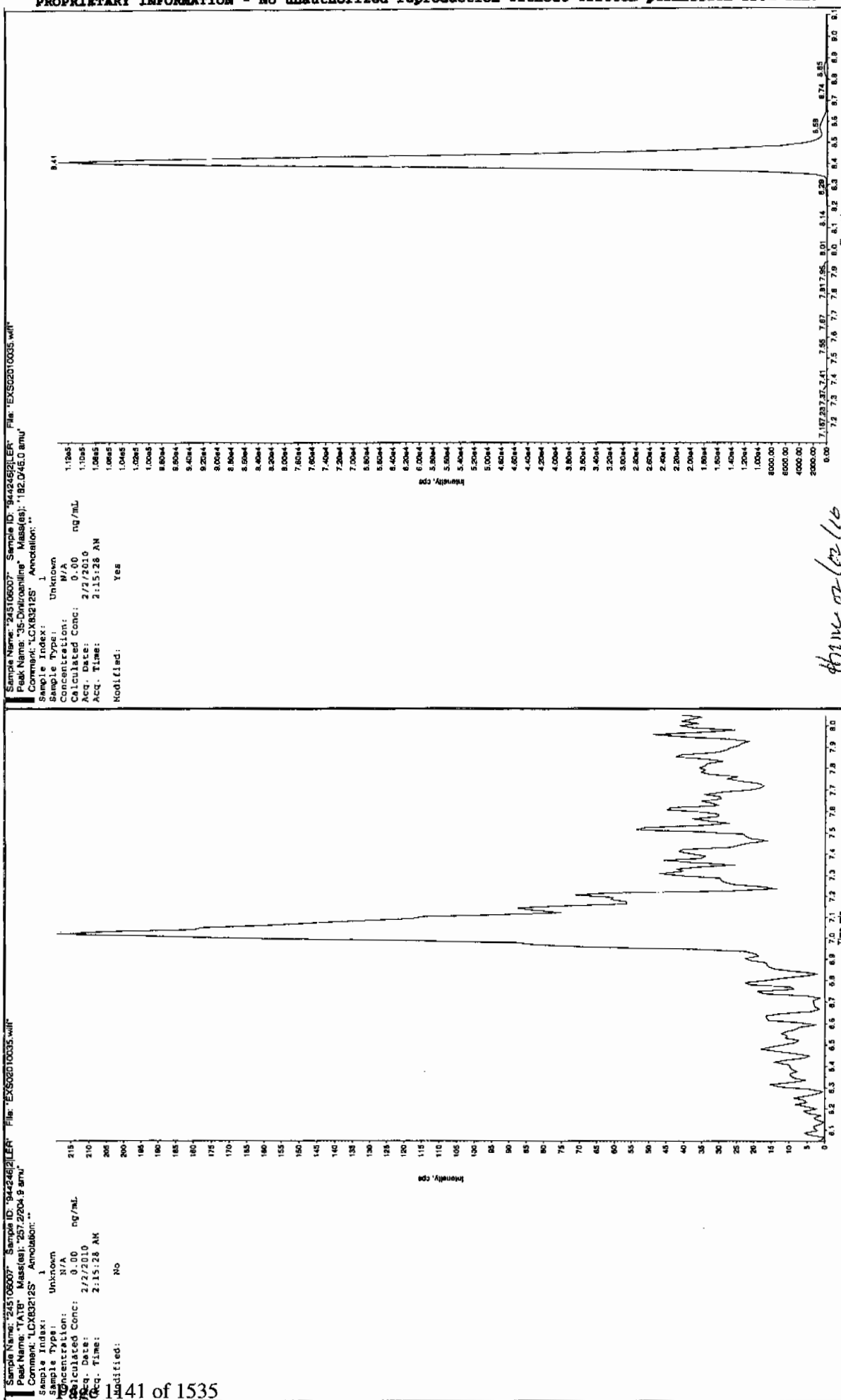
Units: ug/kg

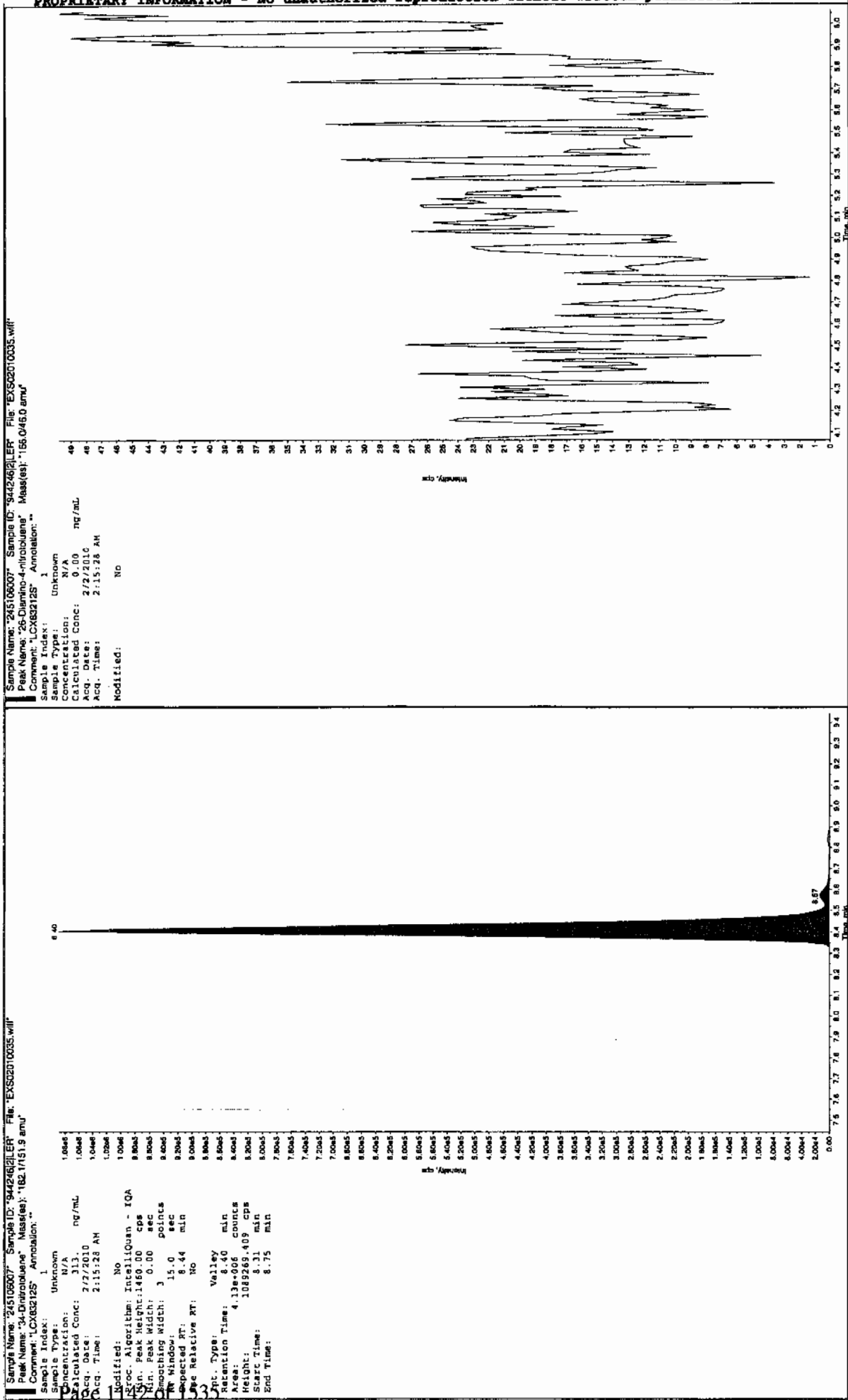
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

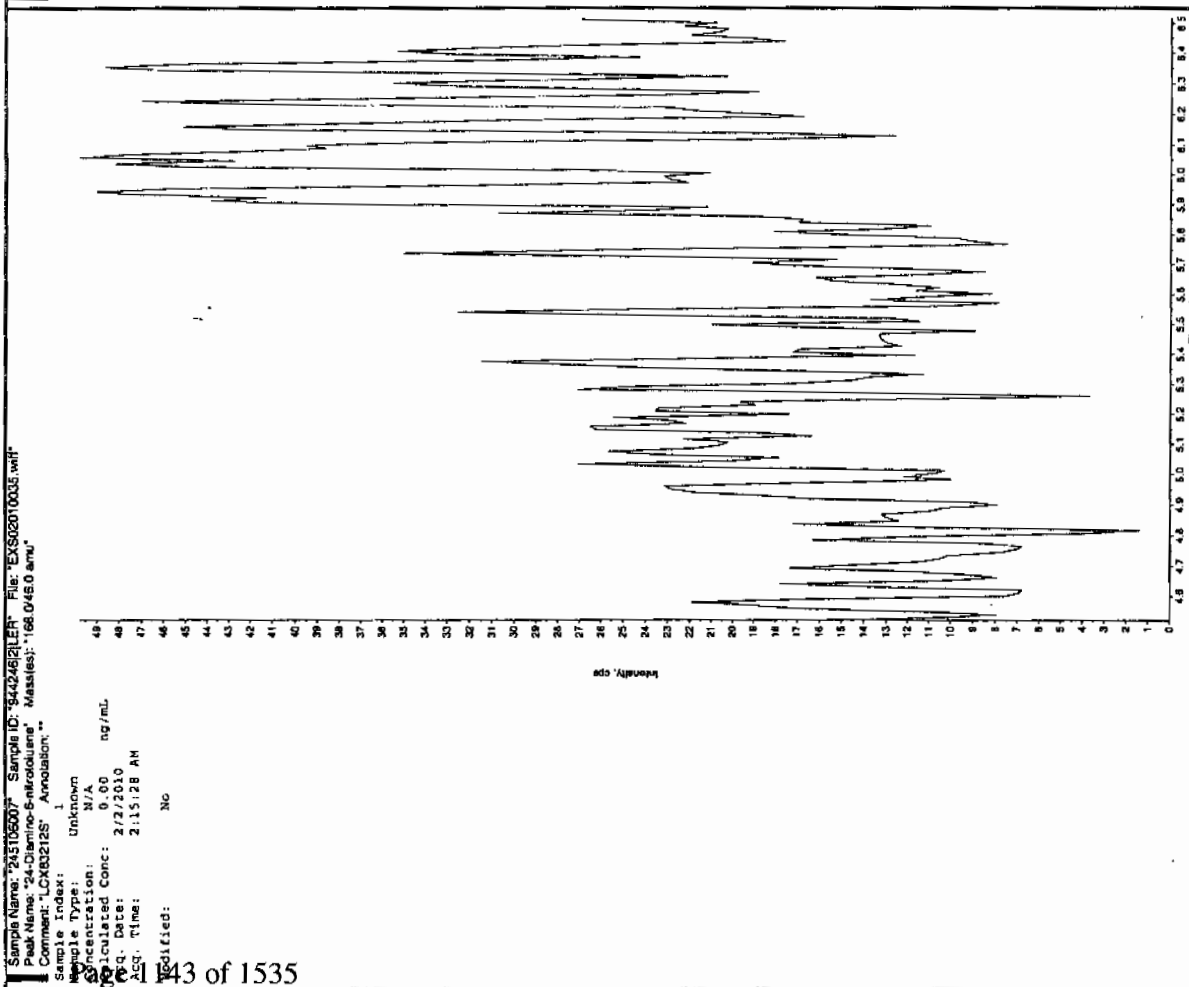
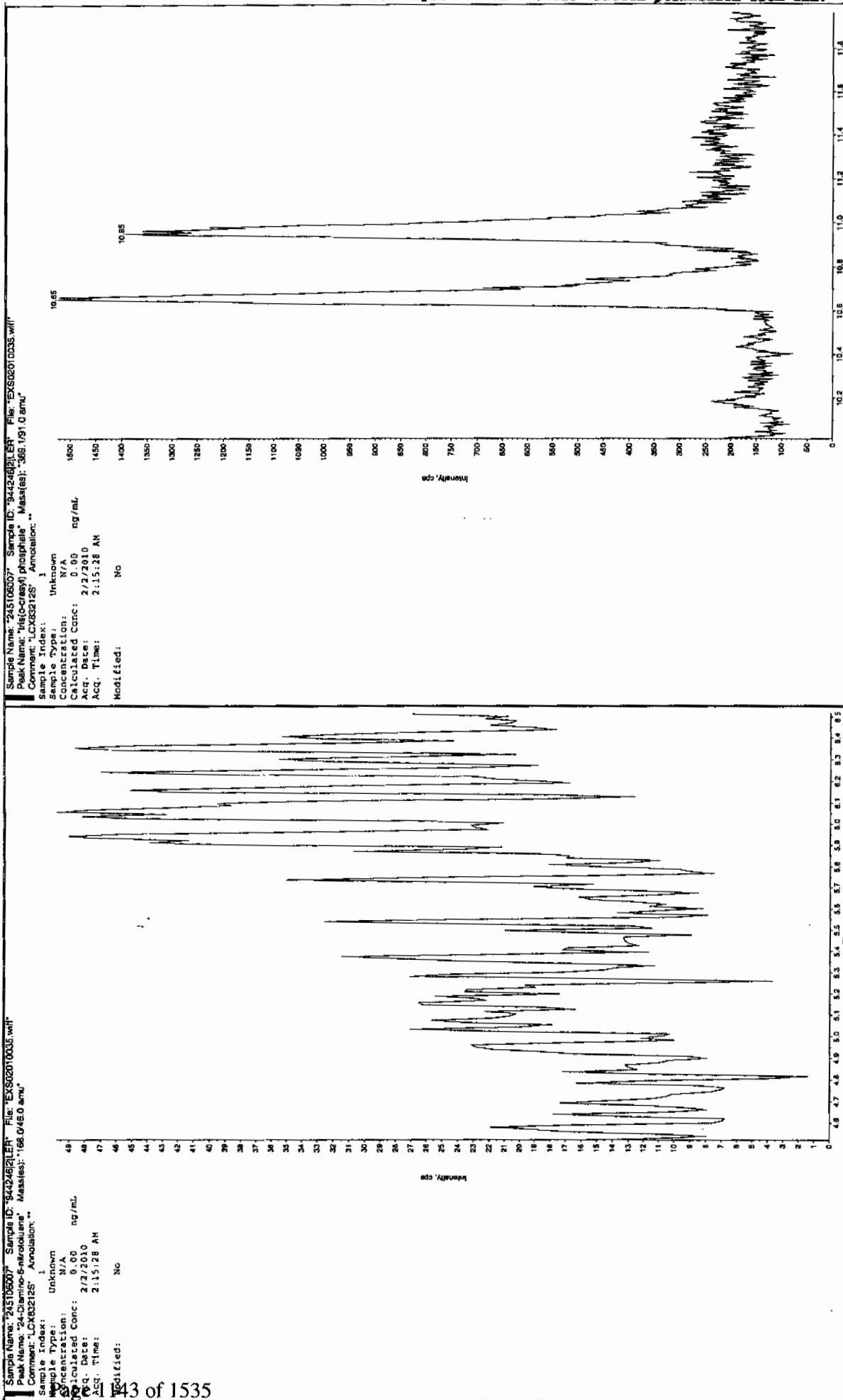
\*Concentration =

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

See 2/2/10







\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7166

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106008

Sample Amount 2

Moisture: 31.6

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208027a

Date Analyzed: 09-FEB-10 03:31

Units: ug/kg

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

\*Concentration =

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

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208027a

Date: 09-Feb-2010

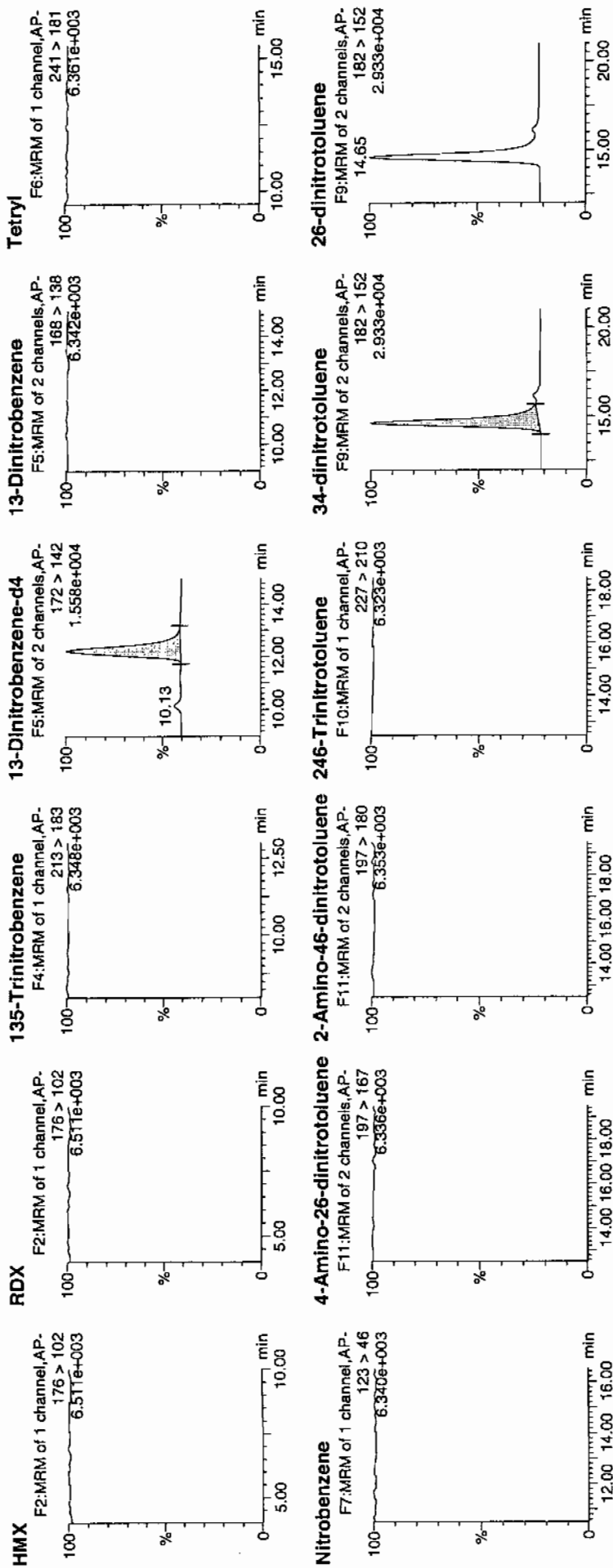
Time: 03:31:20

ID: 245106008

Vial: 1:5,F

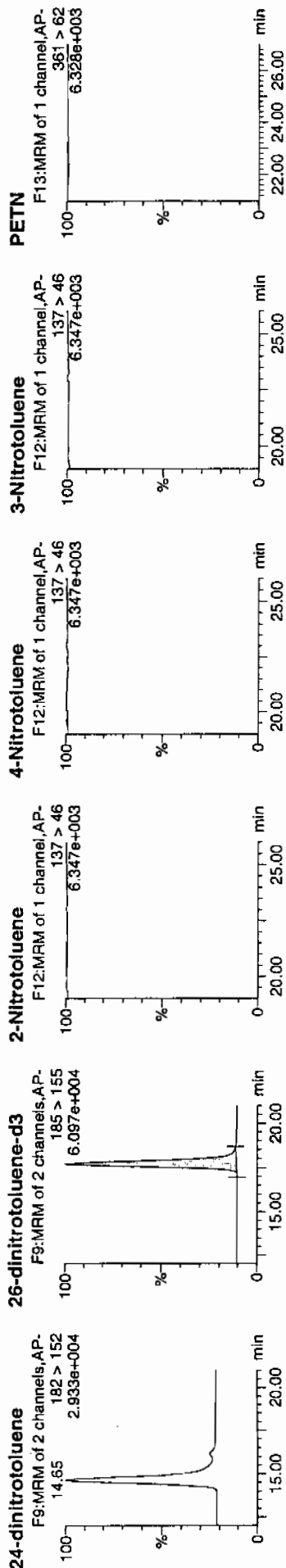
944246 / 21  
Saxa

447  
2/9/10





Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Time	%Rec	%Dev	SN
245106008	HMX	176 > 102		3931.796	3931.796							
245106008	RDX	176 > 102		3931.796	3931.796							
245106008	135-Trinitrobenzene	213 > 183		3931.796	3931.796							
245106008	13-Dinitrobenzene-d4	172 > 142	12.20	3931.796								
245106008	13-Dinitrobenzene	168 > 138		3931.796								
245106008	Tetryl	241 > 181		3931.796								
245106008	Nitrobenzene	123 > 46		3931.796								
245106008	4-Amino-26-dinitrotoluene	197 > 167		21967.205								
245106008	2-Amino-46-dinitrotoluene	197 > 180		21967.205								
245106008	246-Trinitrotoluene	227 > 210		21967.205								
245106008	34-dinitrotoluene	182 > 152	14.65	11123.997	21967.205	11123.997	253.196	bb				
245106008	26-dinitrotoluene	182 > 152		21967.205								
245106008	24-dinitrotoluene	182 > 152		21967.205								
245106008	26-dinitrotoluene-d3	185 > 155	17.71	21967.205		21967.205	21967.205	bb				
245106008	2-Nitrotoluene	137 > 46		21967.205								
245106008	4-Nitrotoluene	137 > 46		21967.205								
245106008	3-Nitrotoluene	137 > 46		21967.205								
245106008	PETN	361 > 62										

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7166

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106008

Sample Amount 2

Moisture: 31.6

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010036.wiff

Date Analyzed: 02-FEB-10 02:31

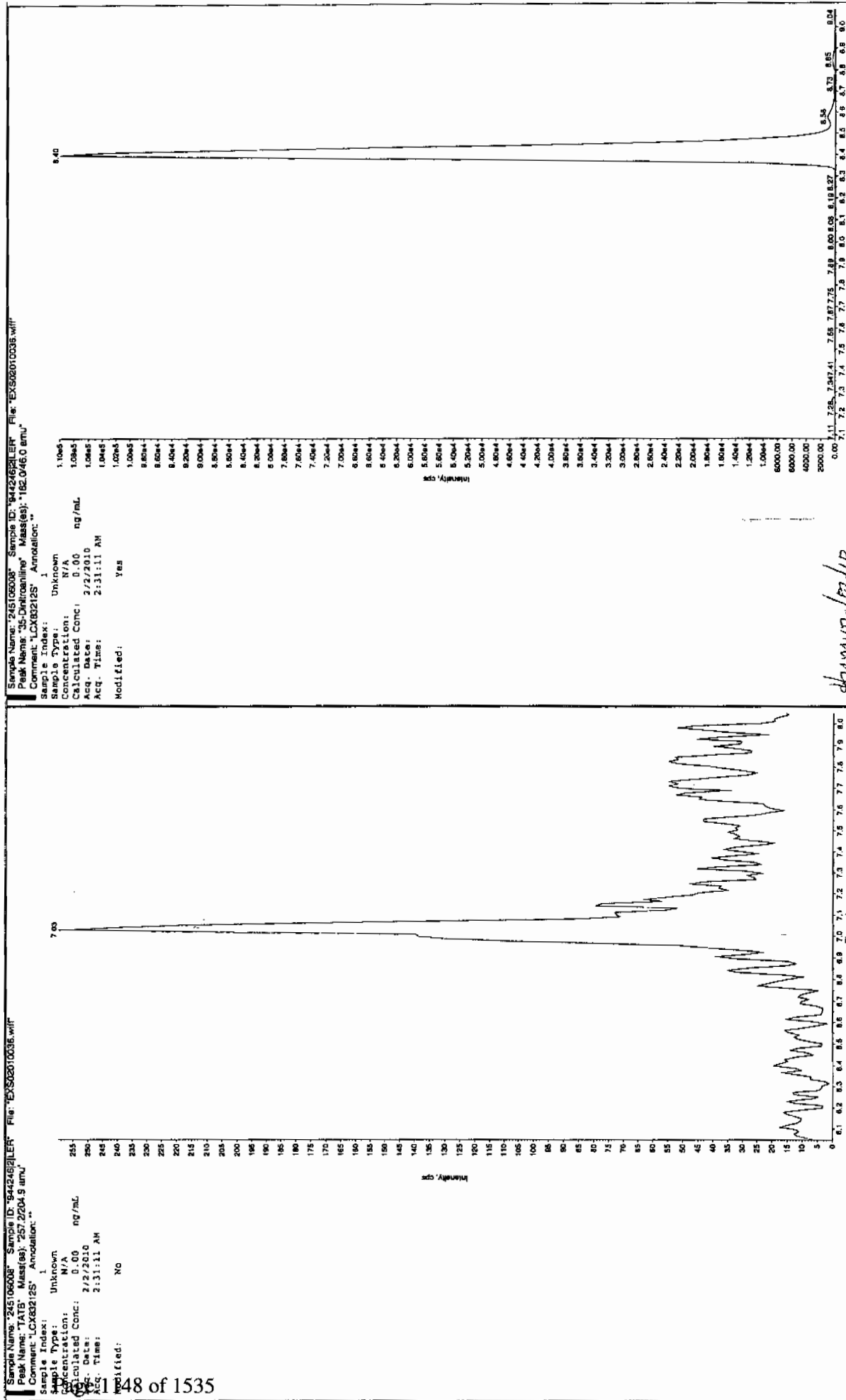
Units: ug/kg

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

\*Concentration =

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

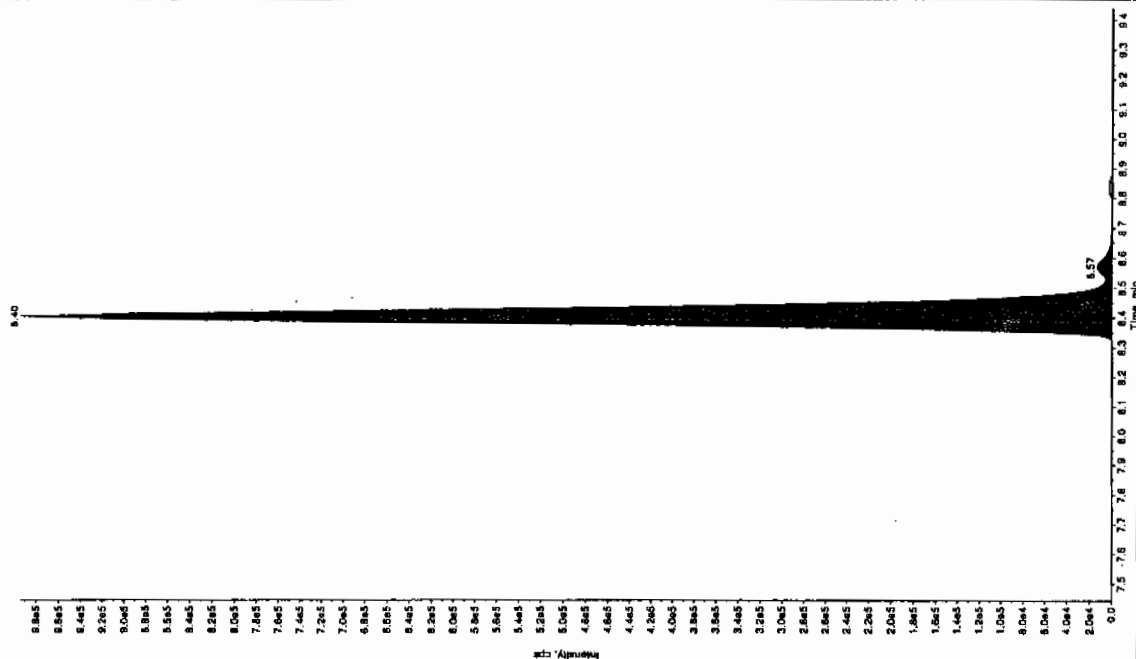
San 21210



San 21210

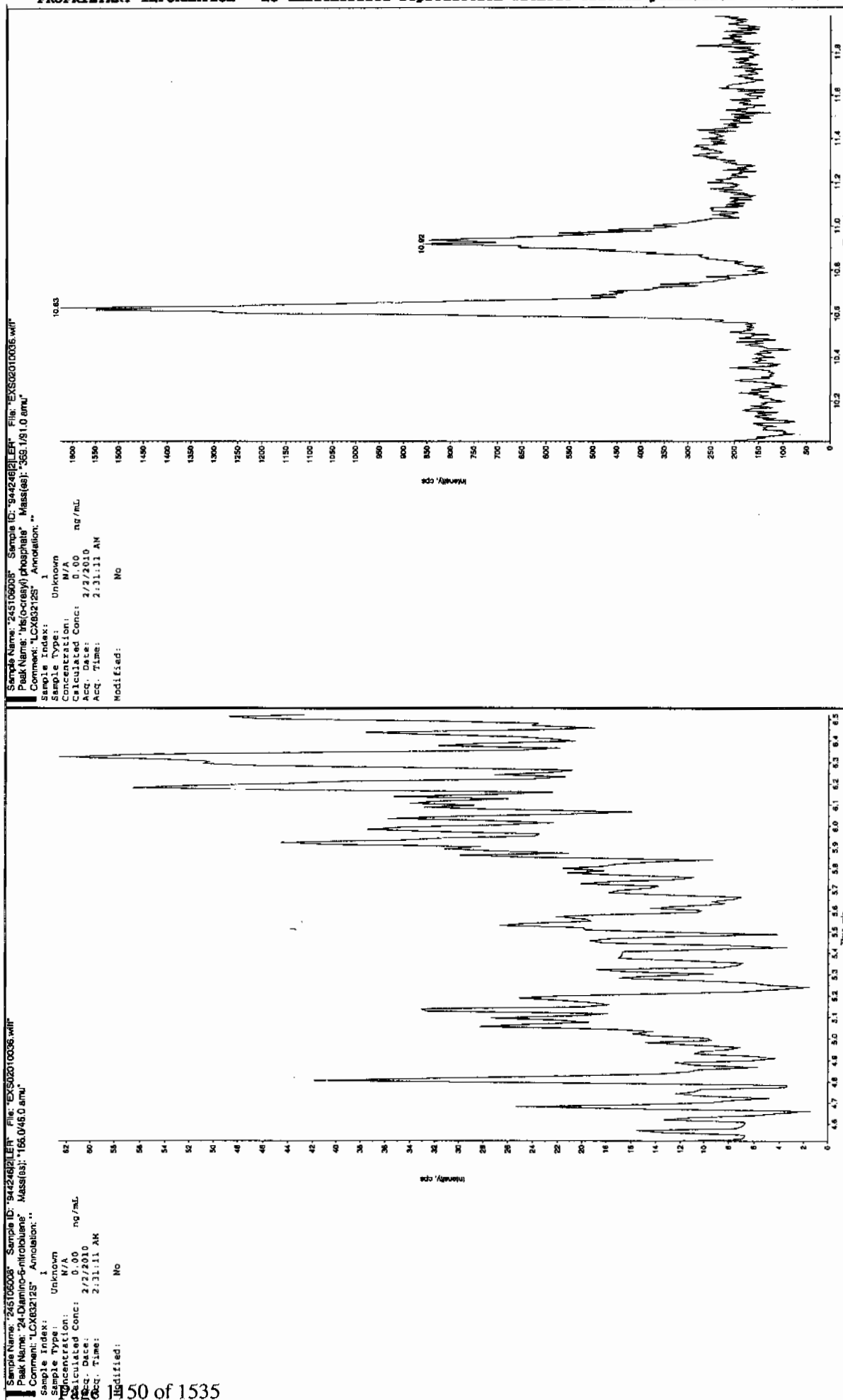
Sample Name: "245106008" Sample ID: "94424621ER" File: "EXS02010035.wif"  
 Peak Name: "28-Diamino-4-nitroquene" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 2/27/2010  
 Acq. Time: 2:31:11 AM  
 Modified: No



Sample Name: "245106008" Sample ID: "94424621ER" File: "EXS02010035.wif"  
 Peak Name: "3a-Dinitrofluorene" Mass(es): "182.1151.9 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 2/27/2010  
 Acq. Time: 2:31:11 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.44 min  
 Relative RT: No  
 Ret. Type: Valley  
 Retention Time: 8.40 min  
 Area: 3.87e+006 counts  
 Height: 594296.570 cps  
 Start Time: 8.25 min  
 End Time: 8.75 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7177

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106009

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208028a

Date Analyzed: 09-FEB-10 04:00

Units: ug/kg

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

\*Concentration =

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

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208028a

Date: 09-Feb-2010

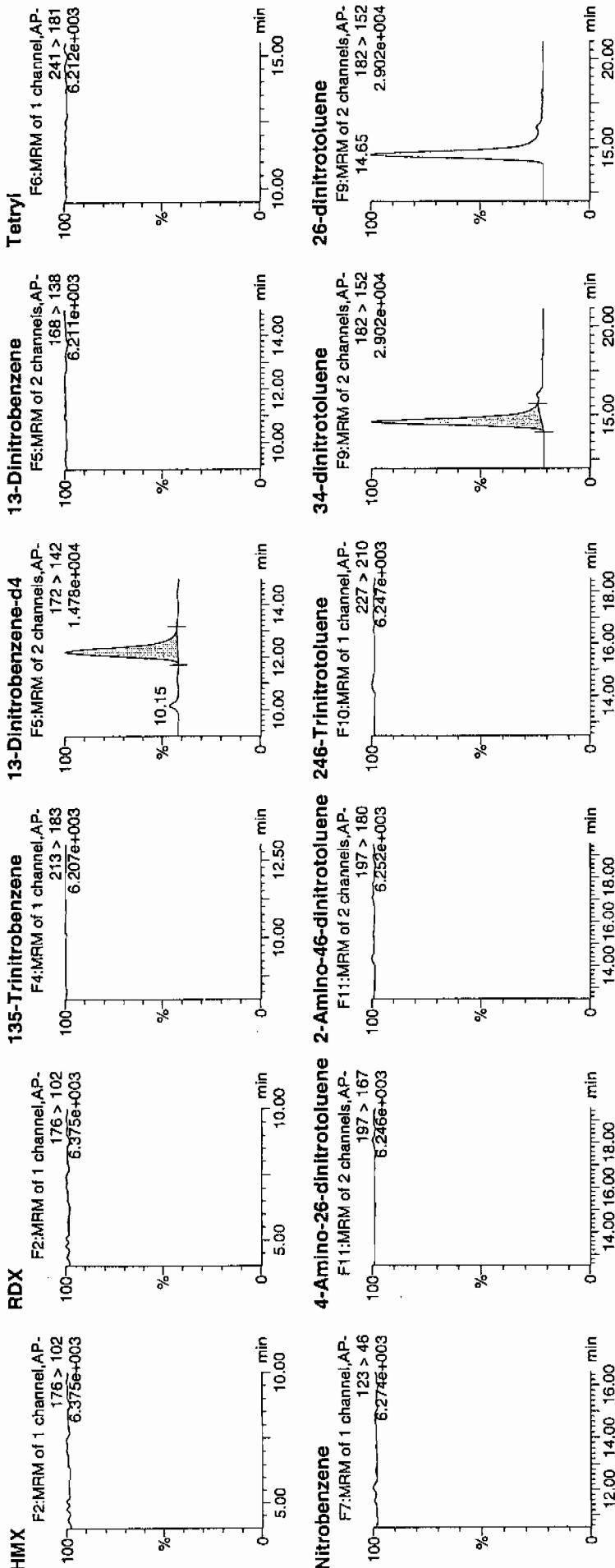
Time: 04:00:48

ID: 245106009

Vial: 1:6,A

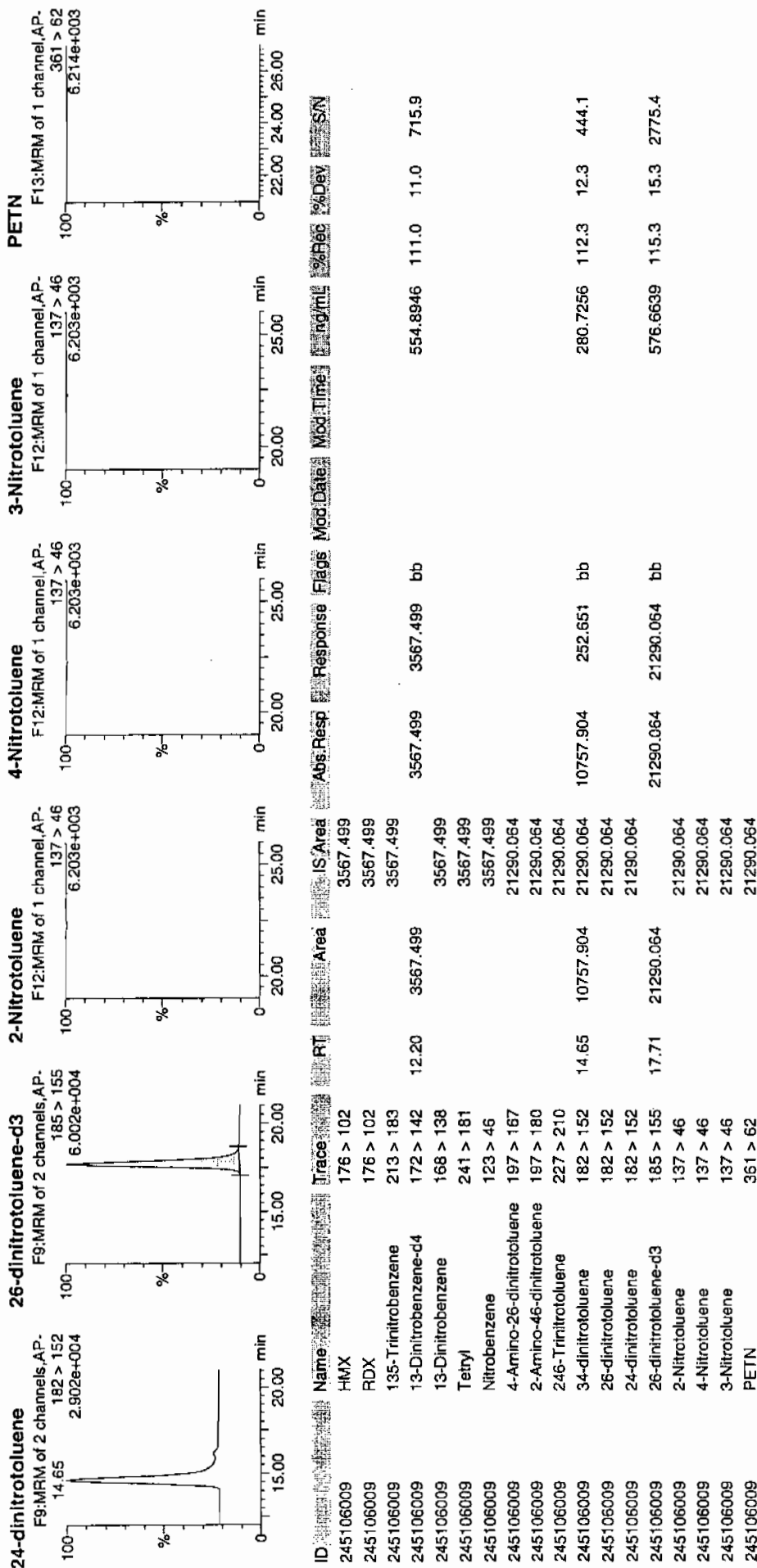
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thm  
2/9/10

Dataset: C:\MASSLYNX\New\_Exp\PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010





1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7177

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106009

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010037.wiff

Date Analyzed: 02-FEB-10 02:46

Units: ug/kg

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

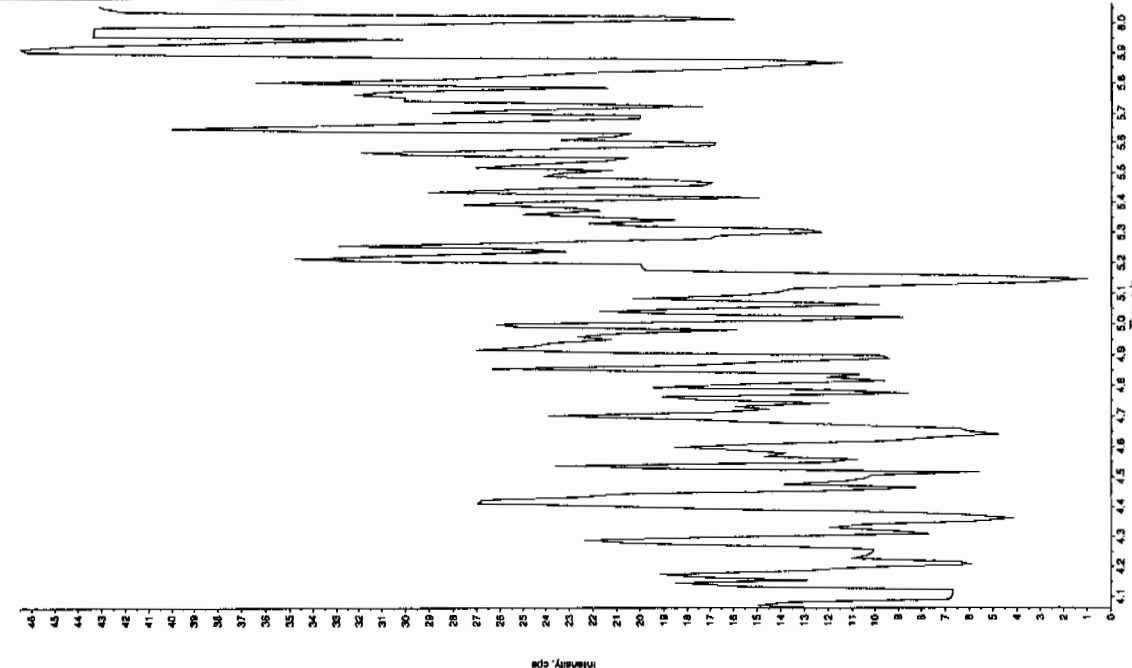
\*Concentration =

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



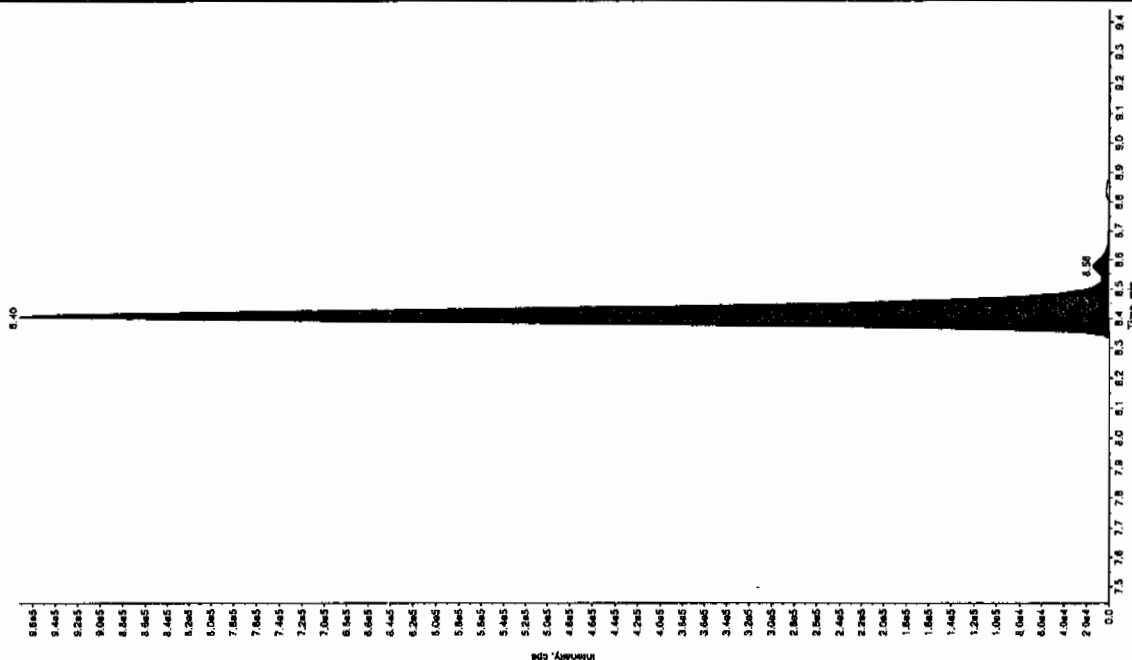
Sample Name: "245106008" Sample ID: "94424621ER" File: "EX802010037.wif"  
 Peak Name: "25-Dinitro-4-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 2/2/2010  
 Acq. Date: 2/2/2010  
 Acq. Time: 2:46:53 AM  
 Modified: No

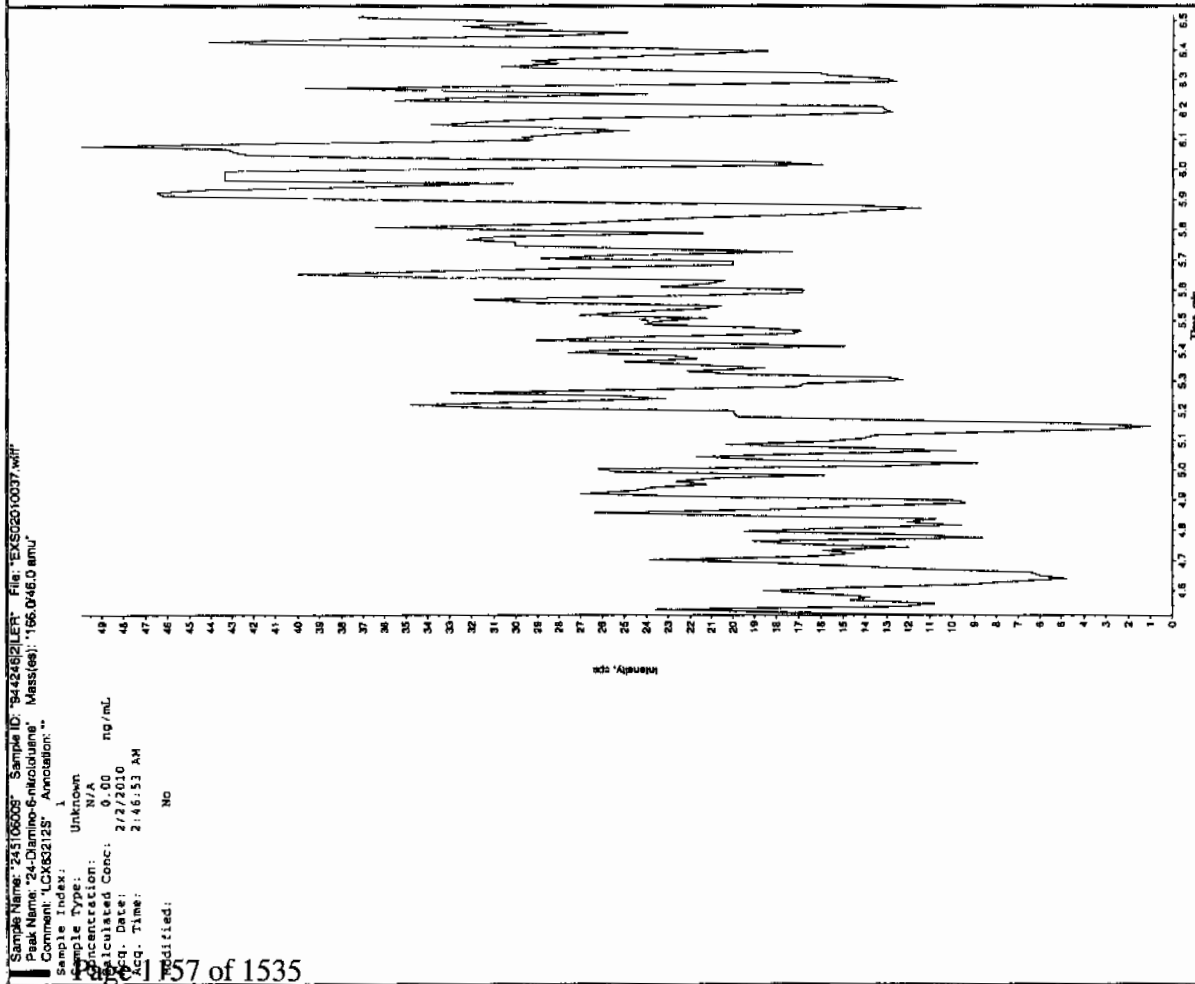
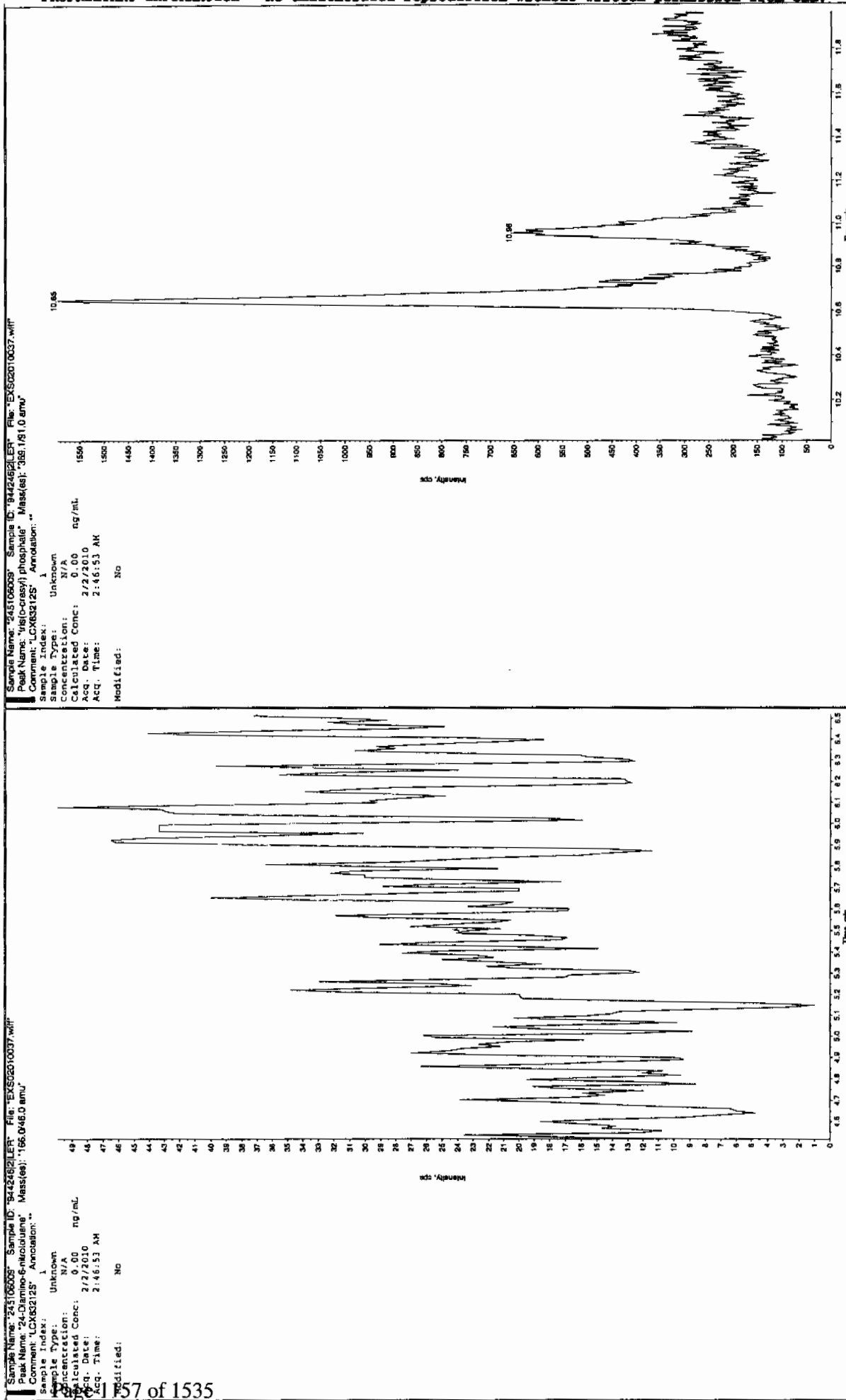


Sample Name: "245106008" Sample ID: "94424621ER" File: "EX802010037.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1151.9 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 2/2/2010  
 Acq. Date: 2/2/2010  
 Acq. Time: 2:46:53 AM  
 Modified: No



Spec. Algorithm: IntelliQuan - IQA  
 n. Peak Height: 1460.00 cps  
 n. Peak Width: 0.00 sec  
 n. Peak Area: 15.0 points  
 n. Peak Window: 15.0 sec  
 n. Peak RT: 8.44 min  
 n. Peak Relative RT: No  
 n. Type: Valley  
 Retention Time: 8.40 min  
 Area: 3.81e-006 counts  
 Height: 972290.405 cps  
 Start Time: 8.27 min  
 End Time: 8.75 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7181

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106010

Sample Amount 2

Moisture: 12.1

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208029a

Date Analyzed: 09-FEB-10 04:30

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\EXP0208029a

Date: 09-Feb-2010

Time: 04:30:19

ID: 245106010

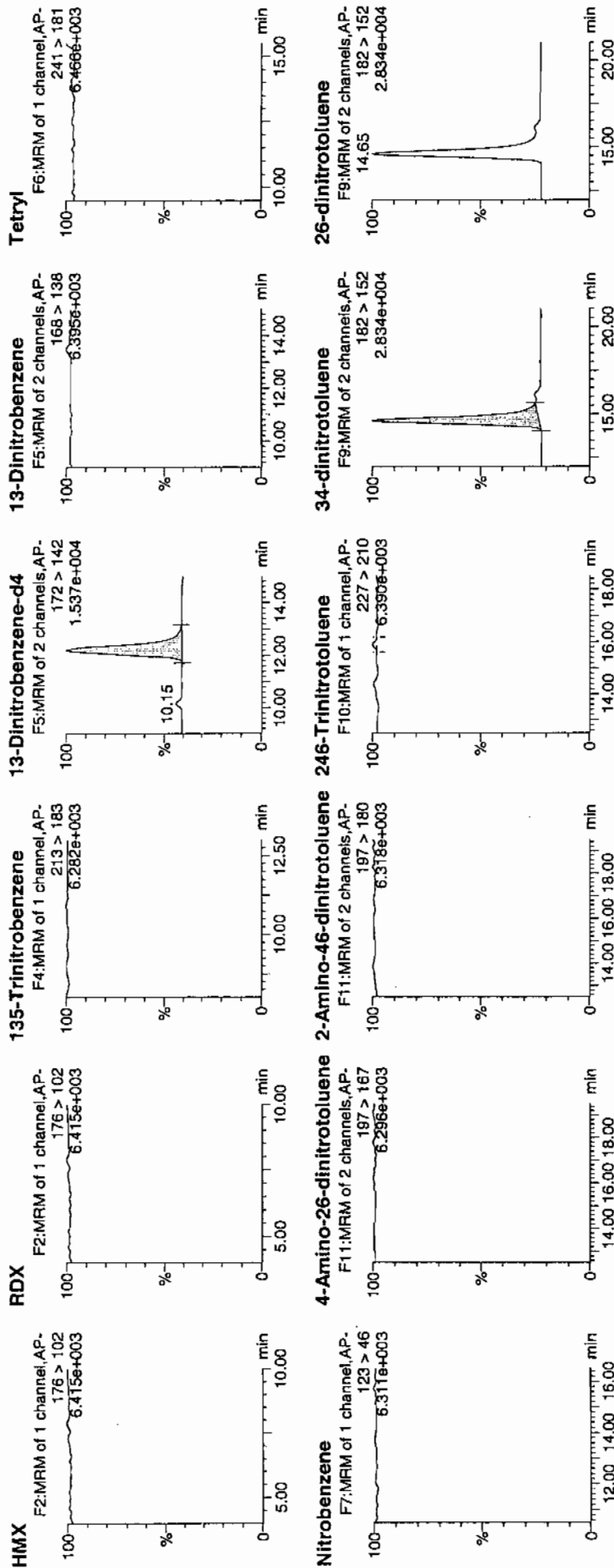
Vial: 1:6,B

2/9/10

944246 / Soars / 2 /

Page 1559 of 1535

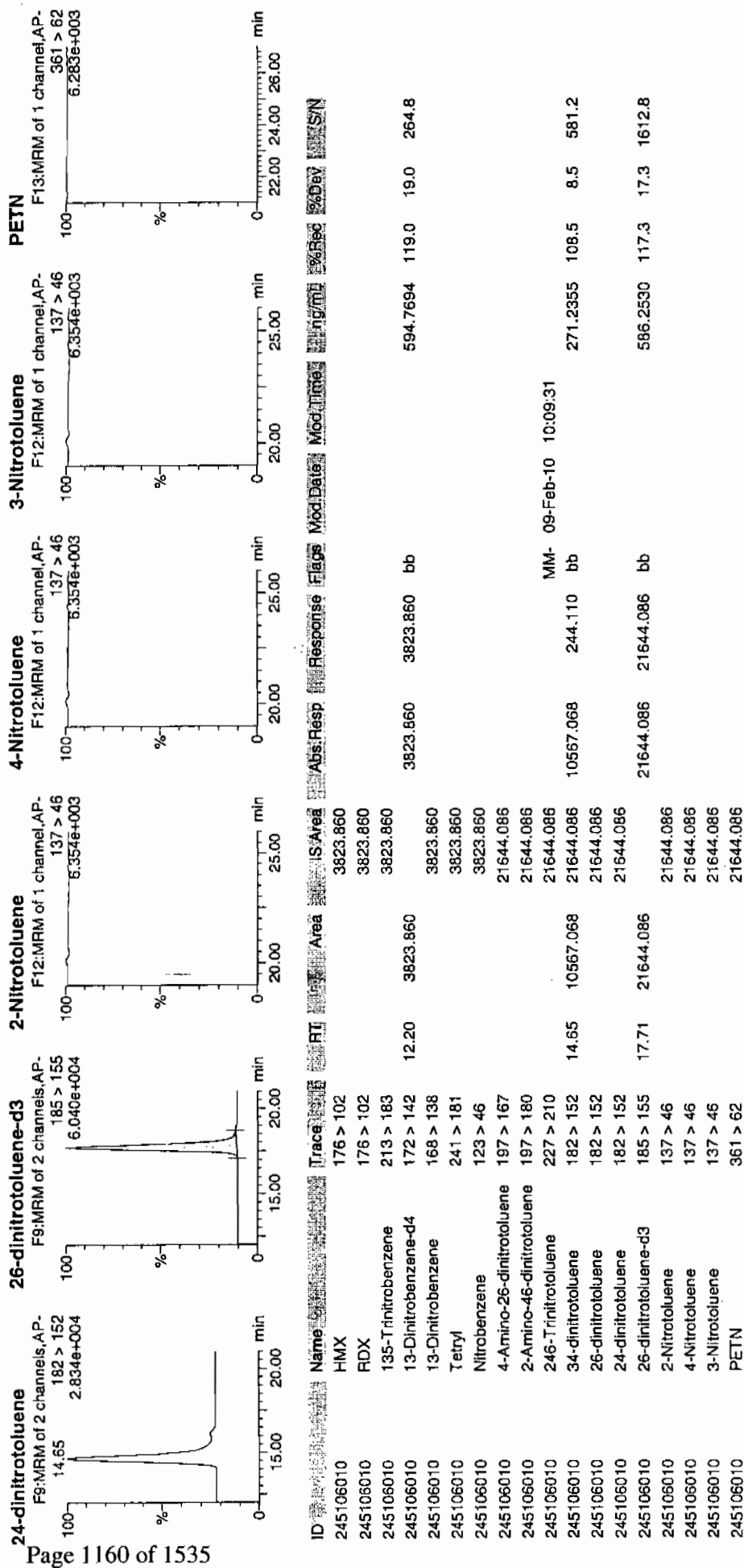
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.



Handwritten signature

**Quantify Sample Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7181

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106010

Sample Amount 2

Moisture: 12.1

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010038.wiff

Date Analyzed: 02-FEB-10 03:02

Units: ug/kg

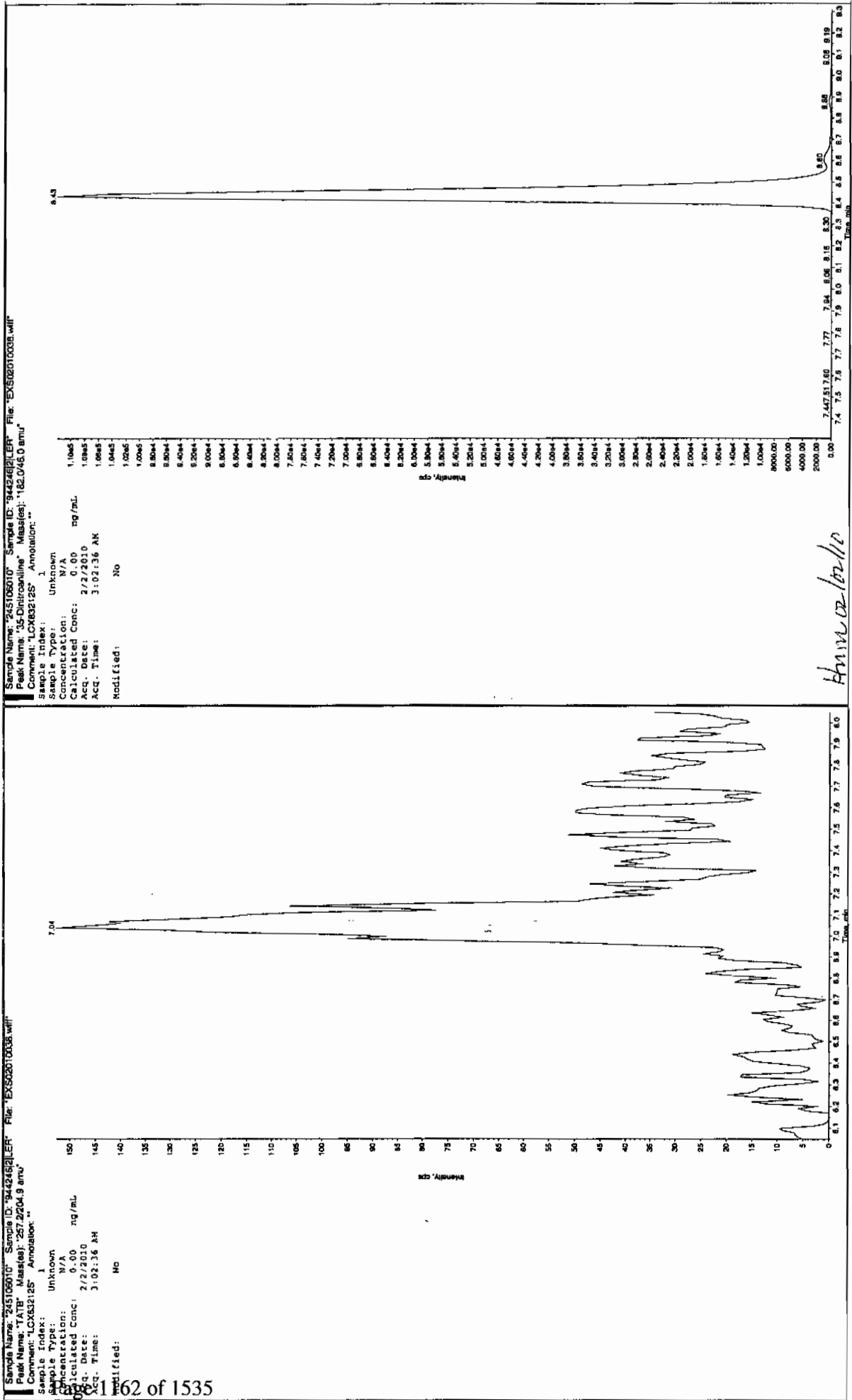
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

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



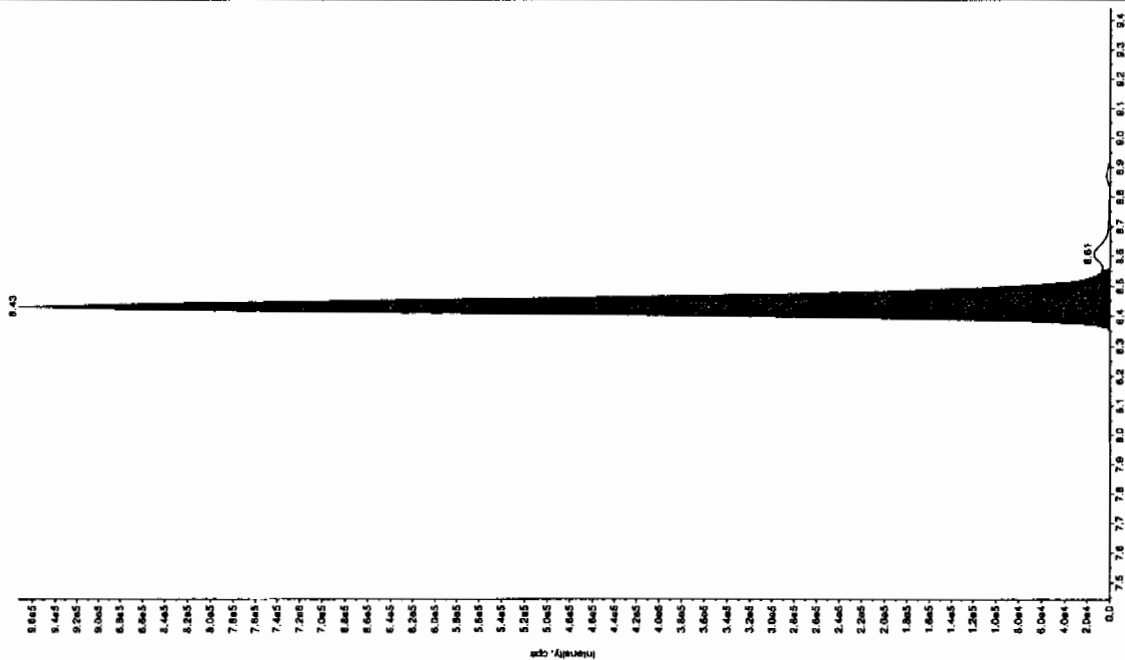
See 2/2/10



Ammonia 2/2/10

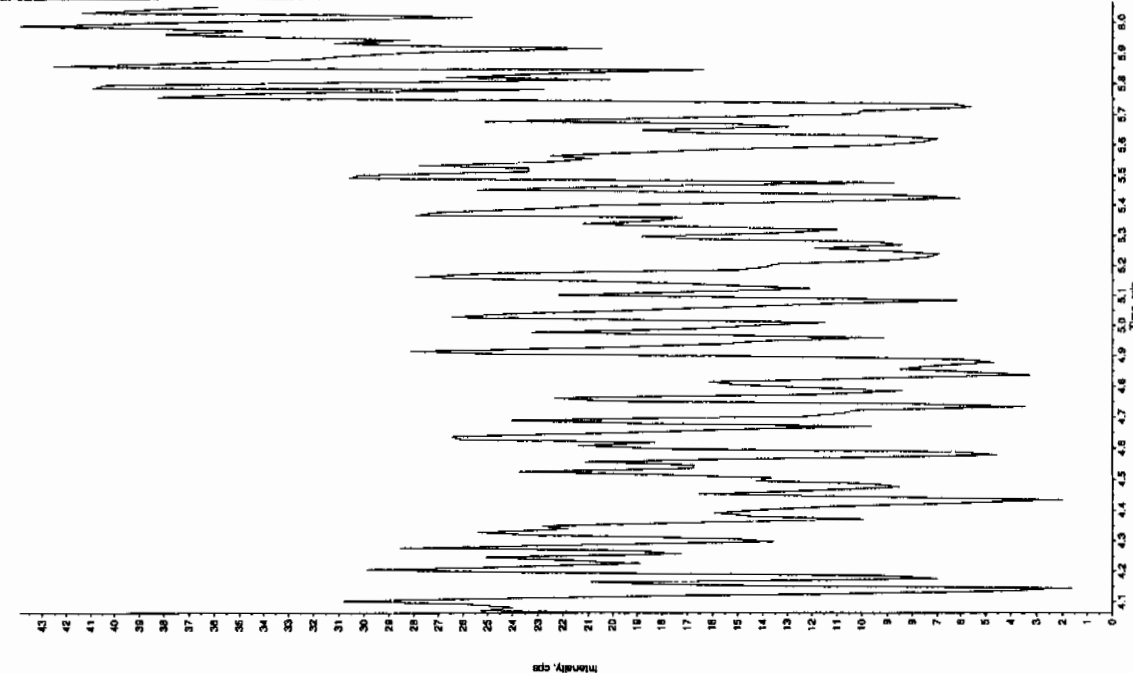
Sample Name: "245106010" Sample ID: "9442482" File: "EX502010038.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCX83212S" Annotation: "

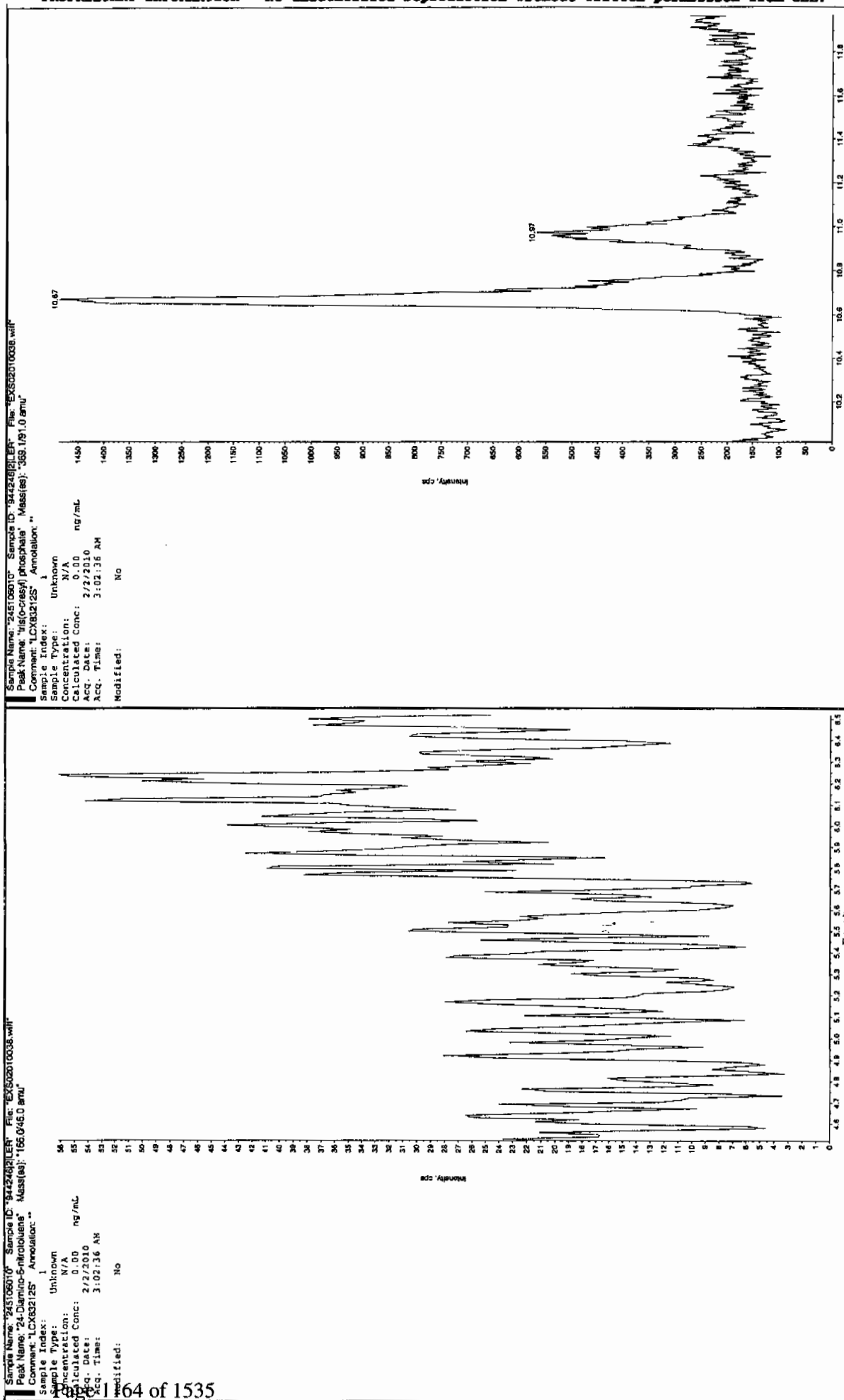
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 286.0  
 Acq. Date: 2/2/2010  
 Acq. Time: 3:02:36 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 In. Peak Height: 1460.00 cps  
 In. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 In. Window: 15.0 sec  
 Expected RT: 8.64 min  
 Use Relative RT: No  
 Ret. Type: Valley  
 Retention Time: 8.63 min  
 Area: 3.79e+006 counts  
 Height: 972436.279 cps  
 Start Time: 8.53 min  
 End Time: 8.56 min



Sample Name: "245106010" Sample ID: "9442482" File: "EX502010038.wif"  
 Peak Name: "26-Dinitro-4-nitrotoluene" Mass(es): "186.0/166.0 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 272.2/1010  
 Acq. Date: 2/2/2010  
 Acq. Time: 3:02:36 AM  
 Modified: No





1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7178

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106011

Sample Amount 2

Moisture: 21.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208030a

Date Analyzed: 09-FEB-10 04:59

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

Printed: Tue Feb 09 10:21:18 2010, Page 59 of 77

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208030a

Date: 09-Feb-2010

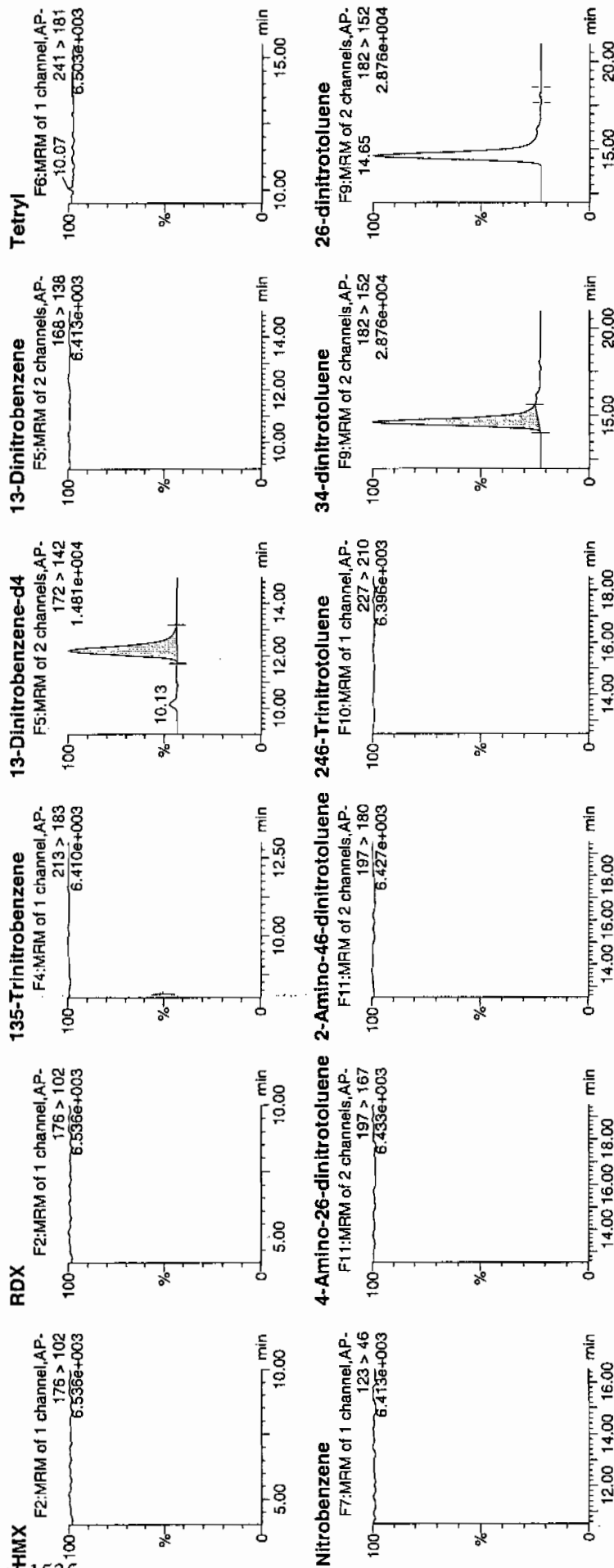
Time: 04:59:49

ID: 245106011

Vial: 1:6,C

944246 / 21

2/9/10

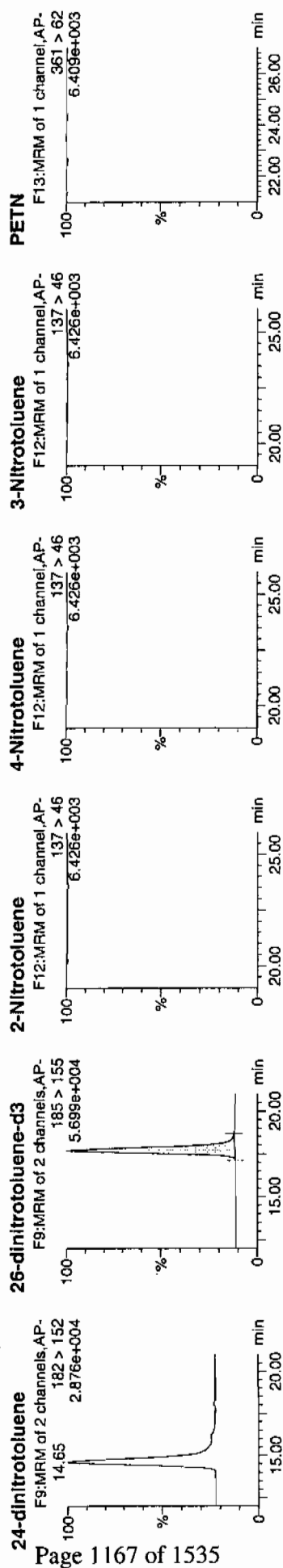


Handwritten signature

## Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

[illegible]

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7178

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106011

Sample Amount 2

Moisture: 21.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010039.wiff

Date Analyzed: 02-FEB-10 03:18

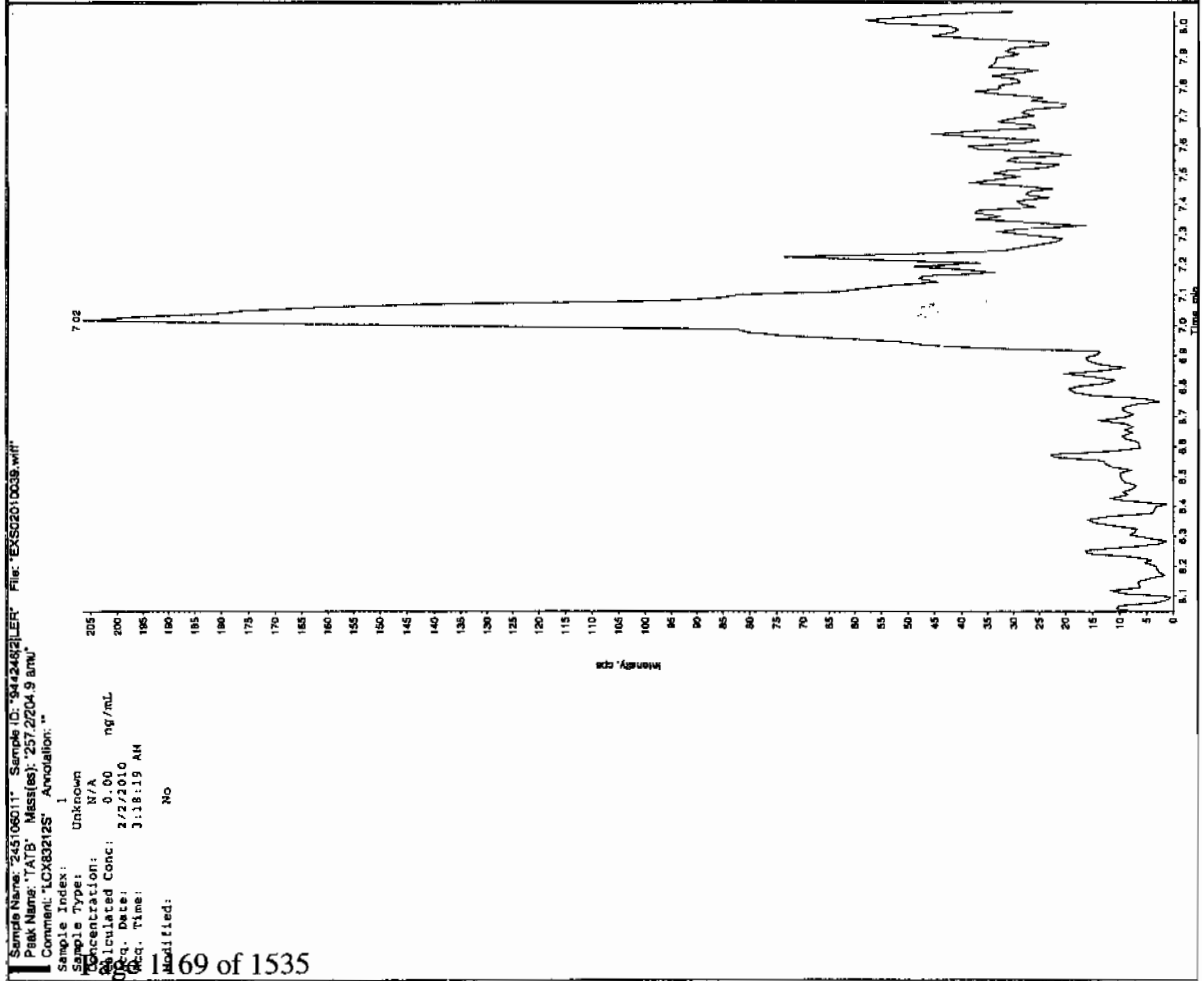
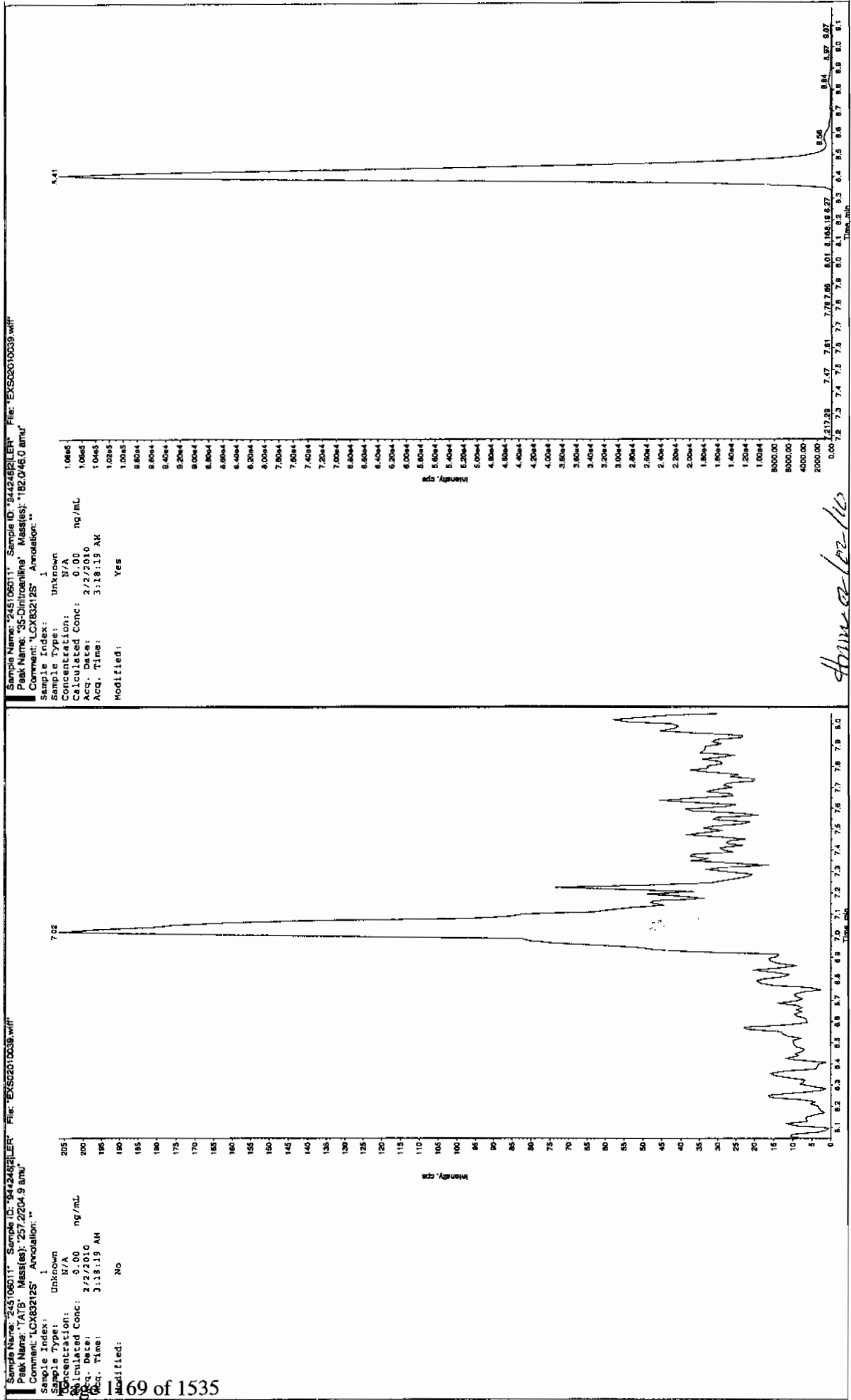
Units: ug/kg

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

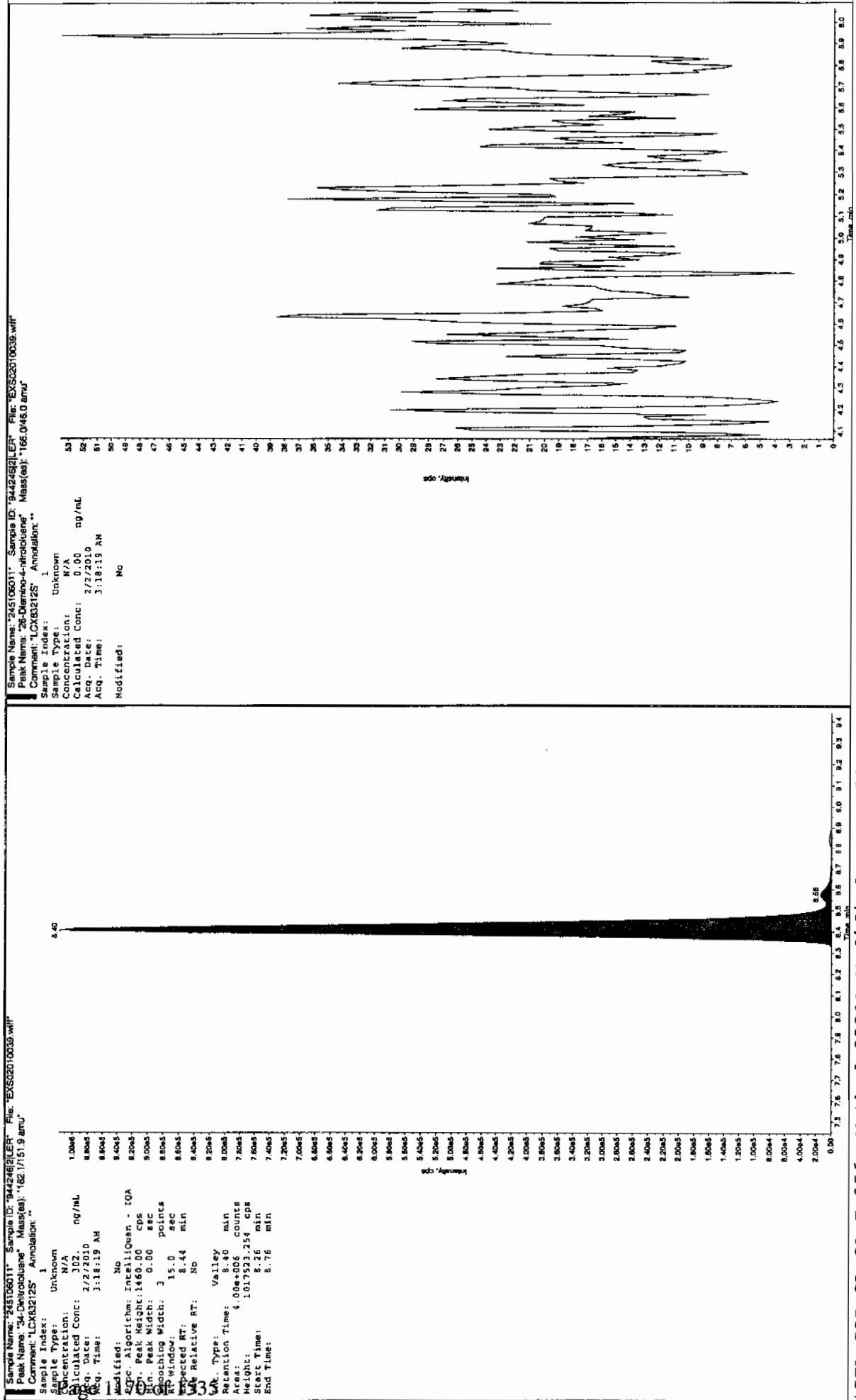
\*Concentration =

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

Jan 22/10

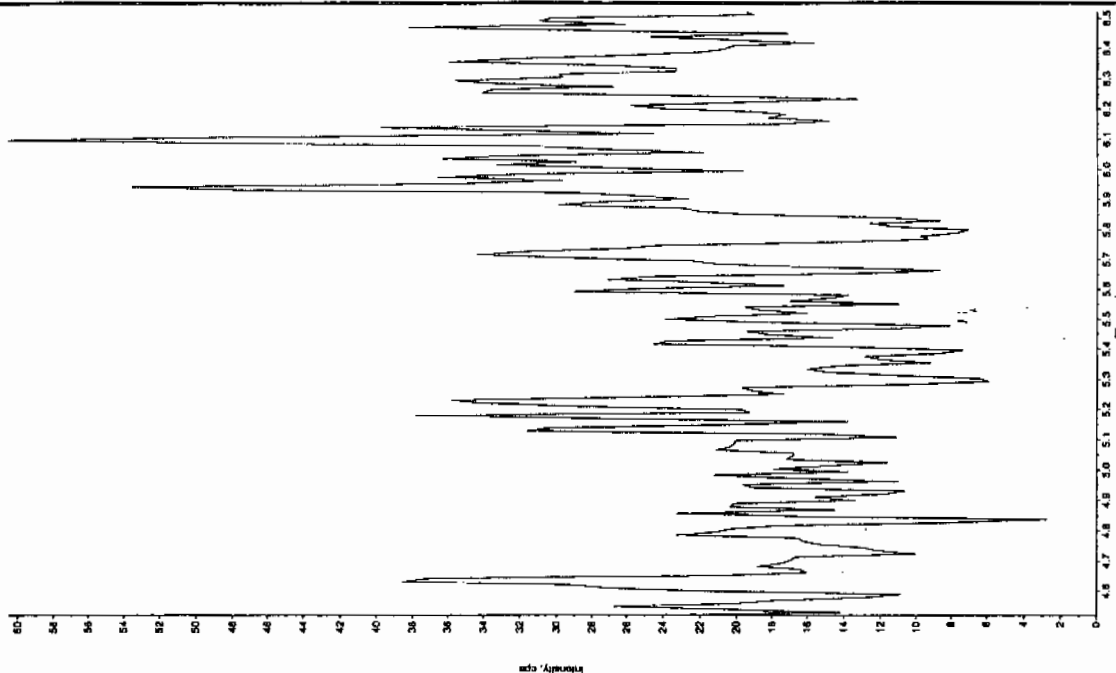






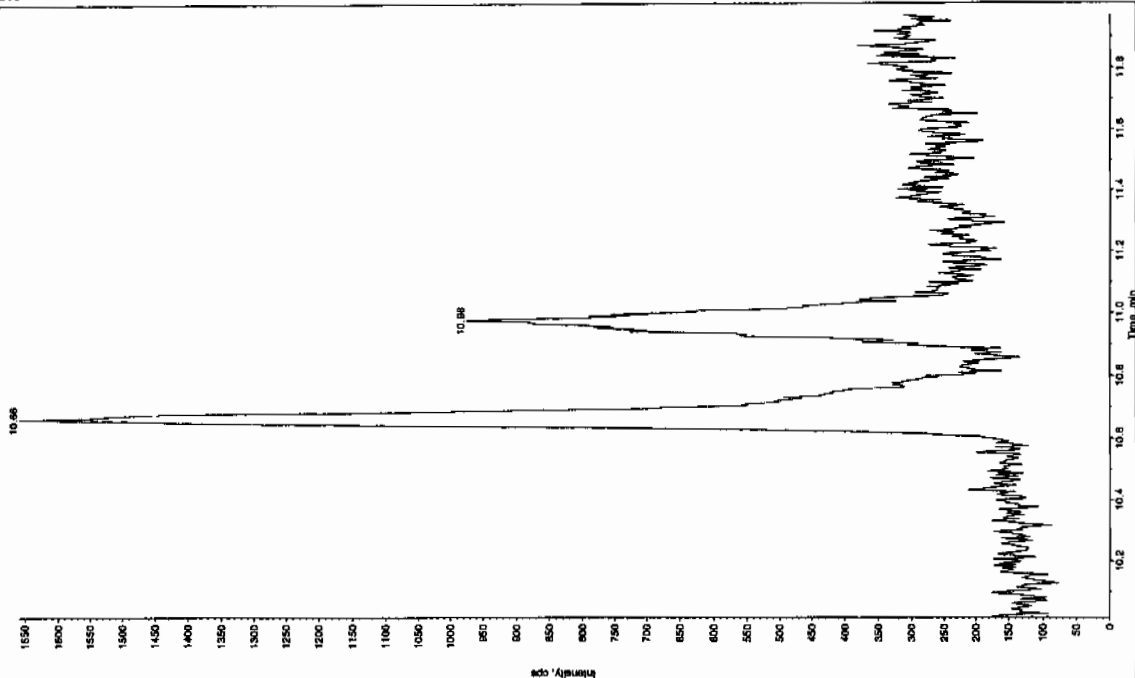
Sample Name: "24-Diamino-6-nitrocouans" Sample ID: "944248[2]LER" File: "EX502070039.wif"  
 Peak Name: "156.045.0 amu" Mass(es): "156.045.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 2/2/2010  
 Acq. Time: 3:18:19 AM  
 Modified: No



Sample Name: "245106011" Sample ID: "944246[2]LER" File: "EX502010039.wif"  
 Peak Name: "10.98" Mass(es): "10.98 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 2/2/2010  
 Acq. Time: 3:18:19 AM  
 Modified: No



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7182

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106012

Sample Amount 2

Moisture: 18.0

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208031a

Date Analyzed: 09-FEB-10 05:29

Units: ug/kg

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

\*Concentration =

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

**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208031a

Date: 09-Feb-2010

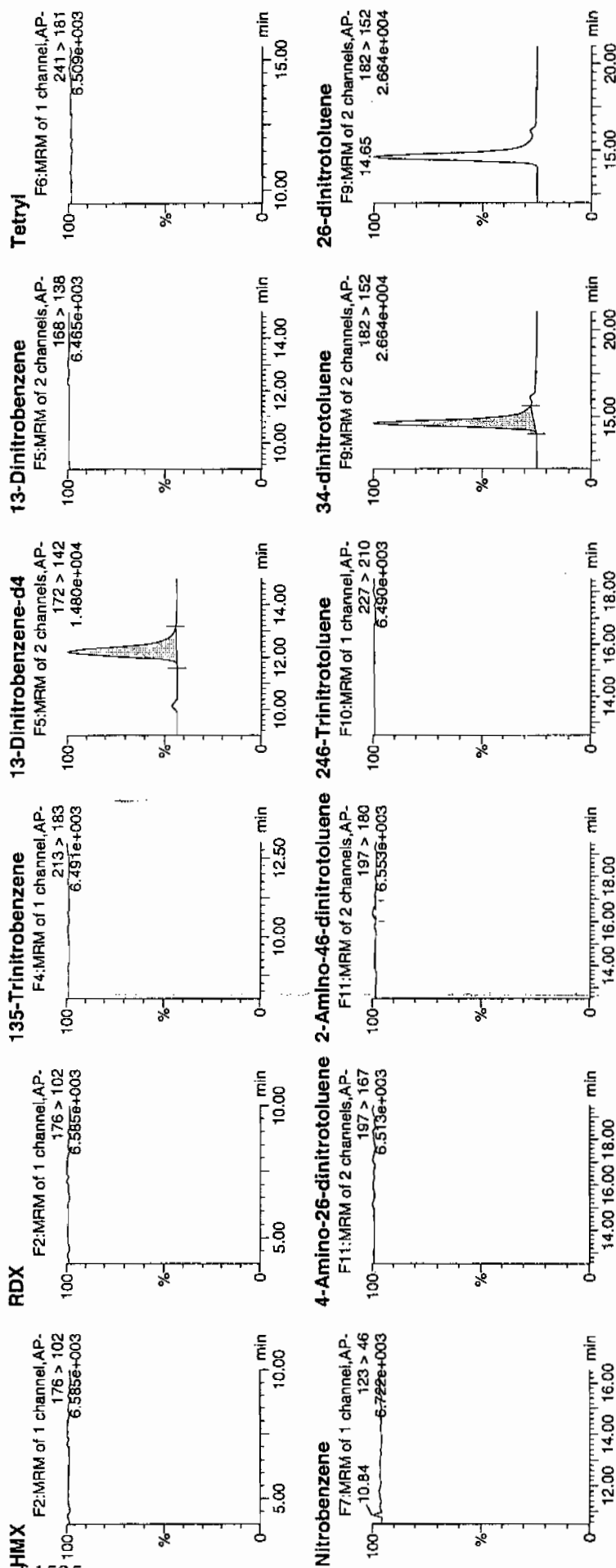
Time: 05:29:19

ID: 245106012

Vial: 1:6,D

auth  
2/9/10

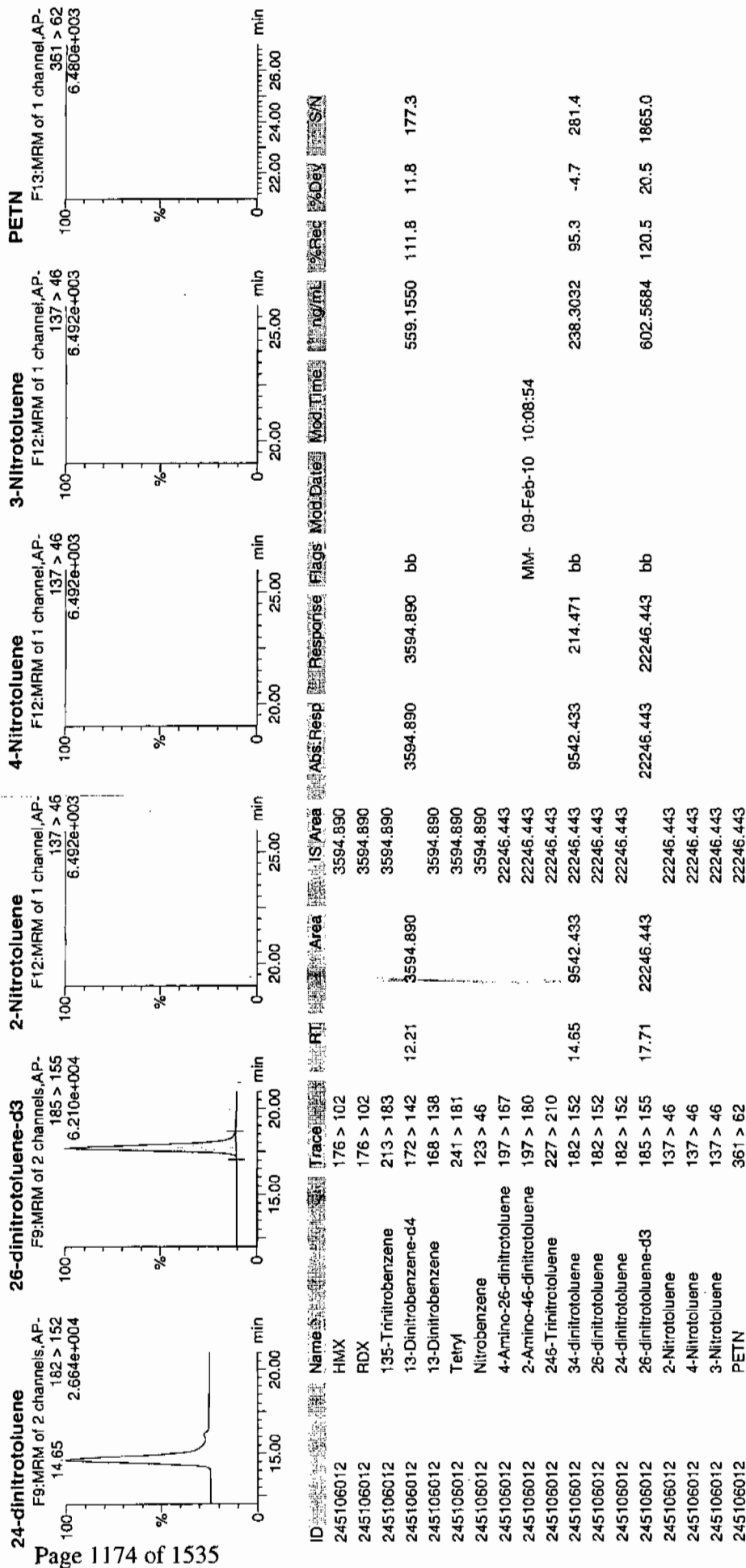
WAL 944246 / SOWS / 2 /



auth  
2/9/10

**Quantify Sample Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7182

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106012

Sample Amount 2

Moisture: 18.0

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010040.wiff

Date Analyzed: 02-FEB-10 03:34

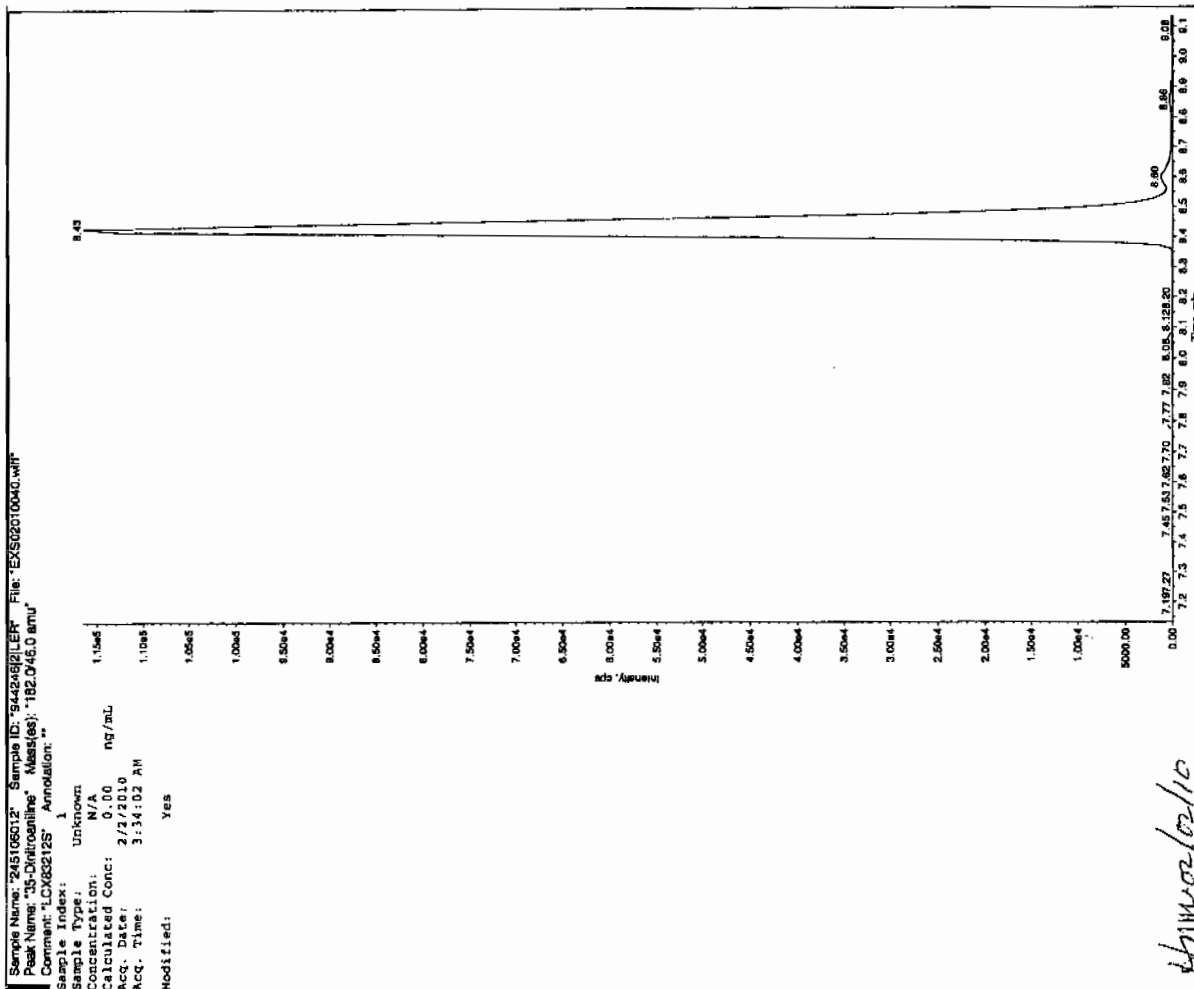
Units: ug/kg

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

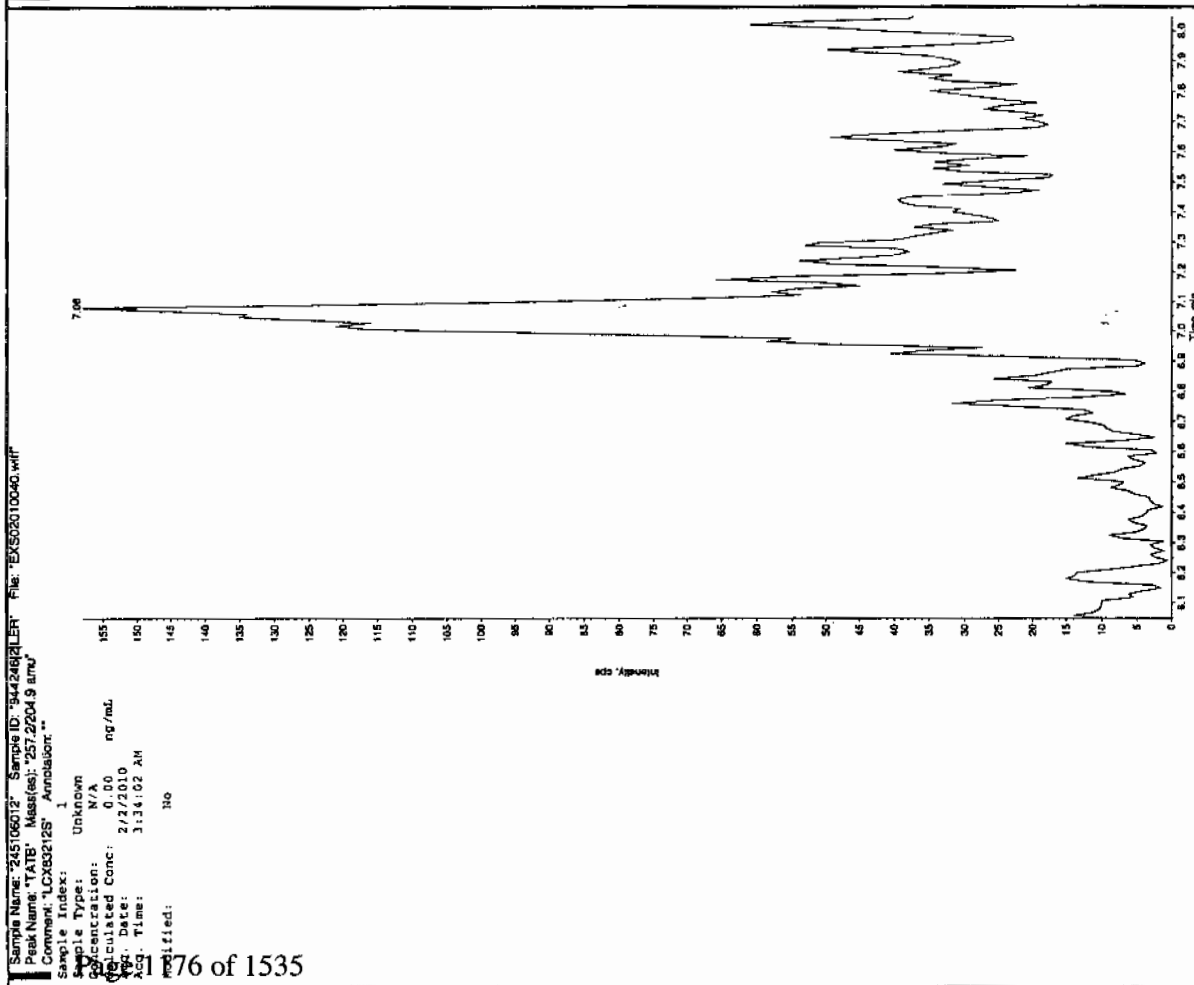
\*Concentration =

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

See 2/2/10



2/2/10



Sample Name: '25106012' Sample ID: '94424621ER' File: 'EXS02010040.wiff'  
Peak Name: '34-Dinitrotoluene' Mass(es): '182.1/151.9 amu'

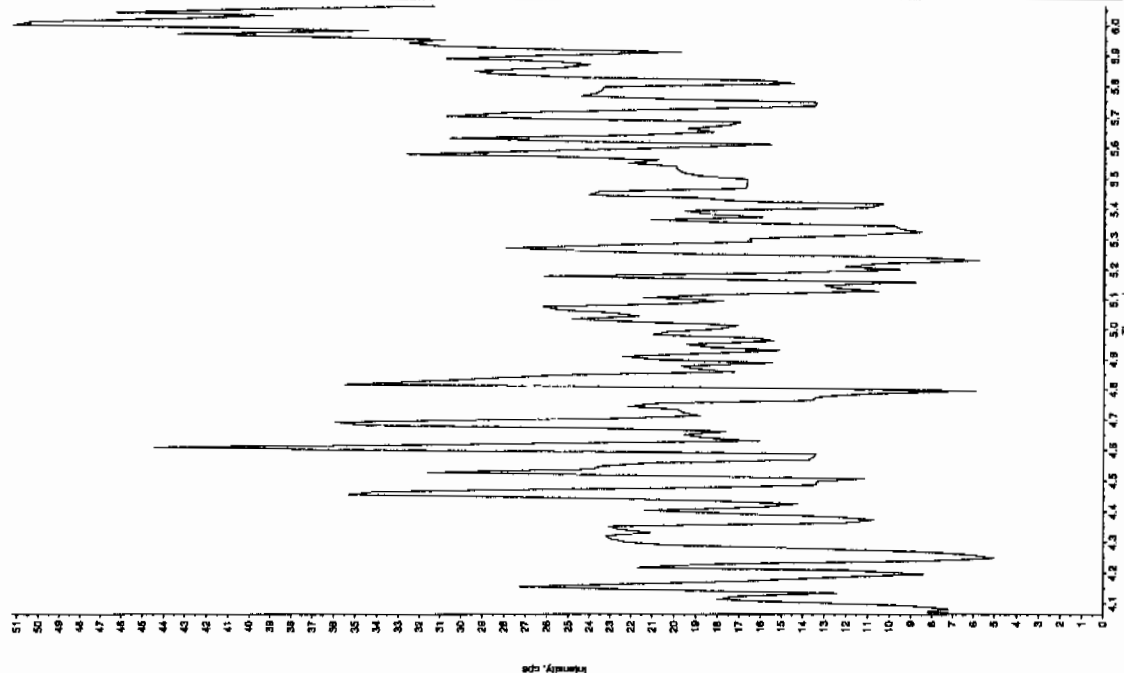
Sample Index:	1	Annotation: "
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	0.00	ng/mL
Acq. Date:	2/2/2010	
Acq. Time:	3:34:02 AM	
Modified:	No	

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	297. ng/mL
Exp. Date:	2/2/2010
Acq. Time:	3:34:02 AM
Modified:	No

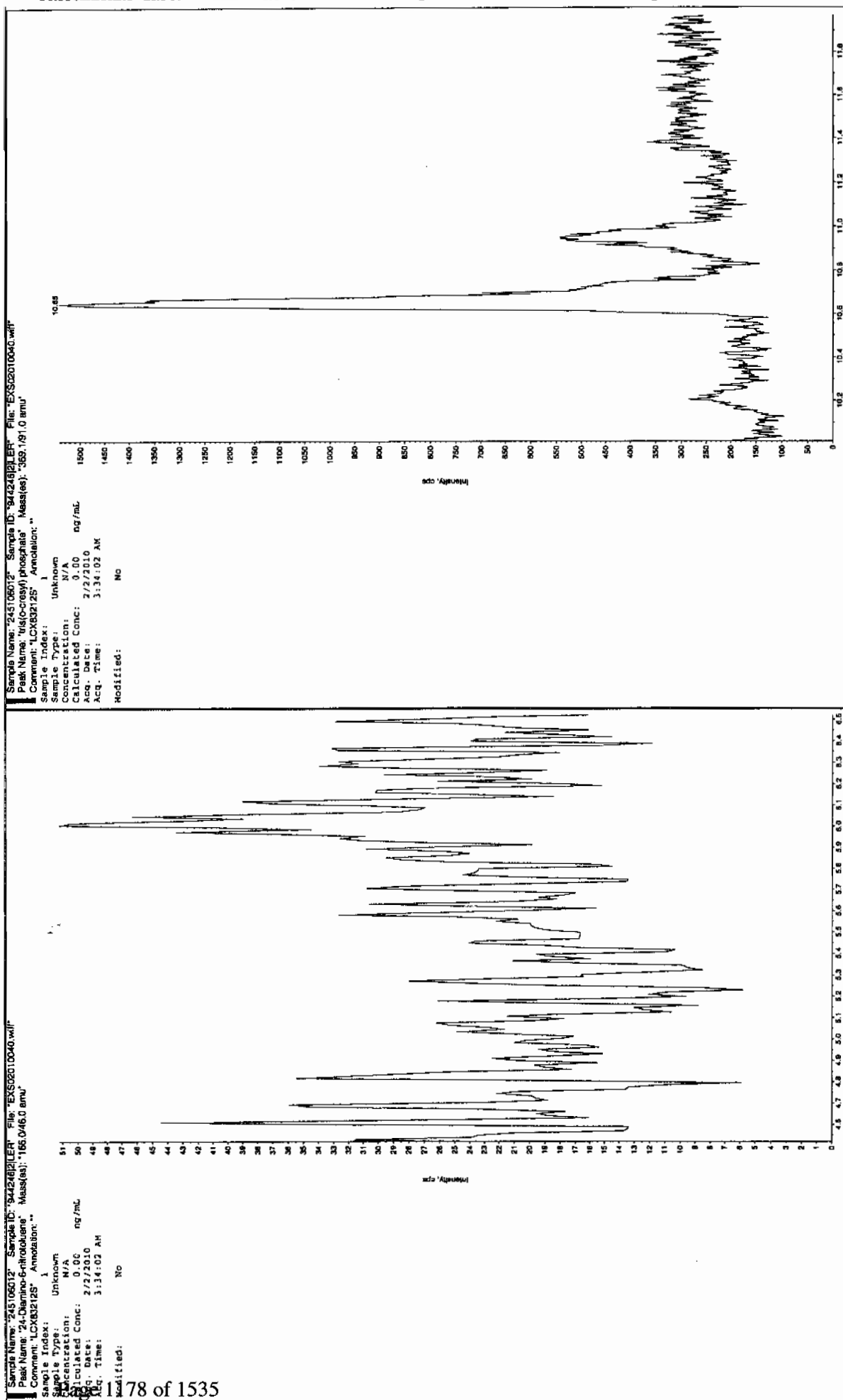
```

modified: NO
Metric: Algorithm: InterQuart - IDA
Metric: Peak Height: 1410.00 cps
Metric: Peak Width: 3.00 points
Metric: Peak Width: 3.00 points
Metric: Peak Window: 15.0 sec
Metric: Expected RT: 6.44 min
Metric: Relative RT: NO
Metric: Val. Type: Valley
Metric: Retention Time: 8.42 min
Metric: Area: 1.93e+06 counts
Metric: Height: 1033394.165 cps
Metric: Start Time: 8.32 min
Metric: End Time: 8.75 min

```







\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7183

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106013

Sample Amount 2

Moisture: 12.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208032a

Date Analyzed: 09-FEB-10 05:58

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208032a

Date: 09-Feb-2010

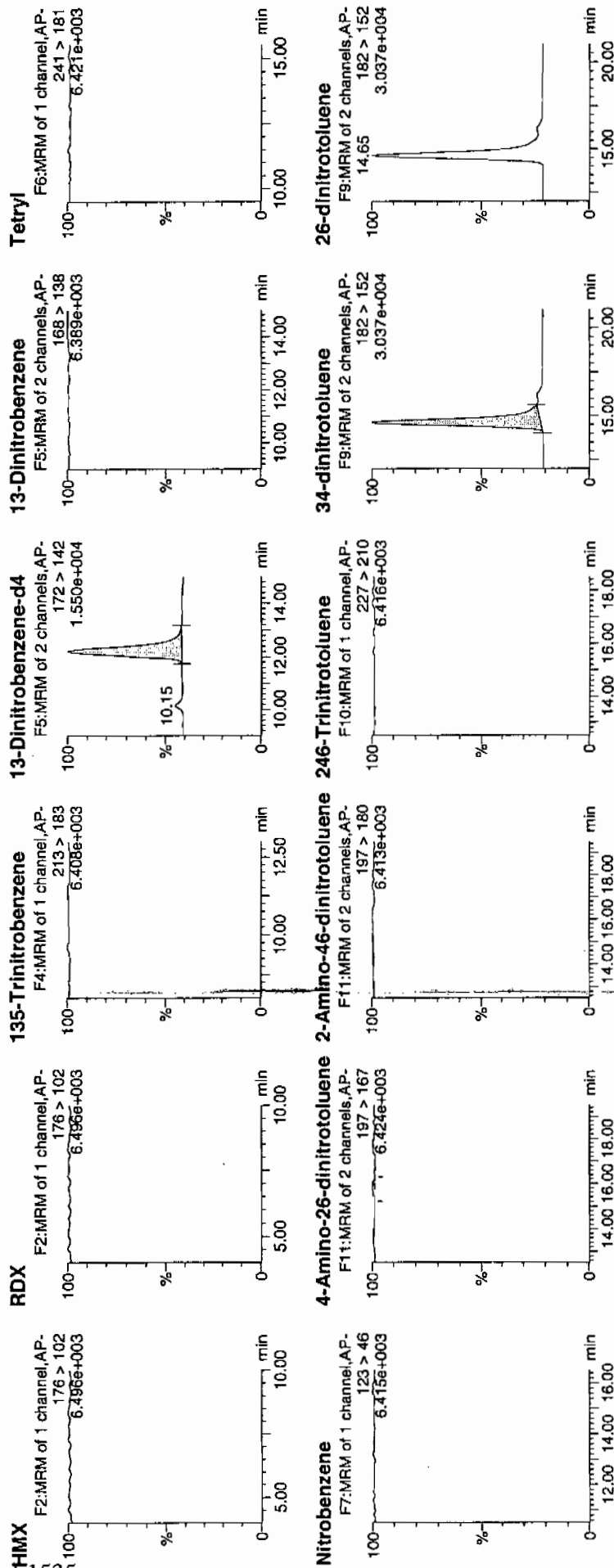
Time: 05:58:48

ID: 245106013

Vial: 1:6,E

100%  
2/9/10

1944246 / 50121

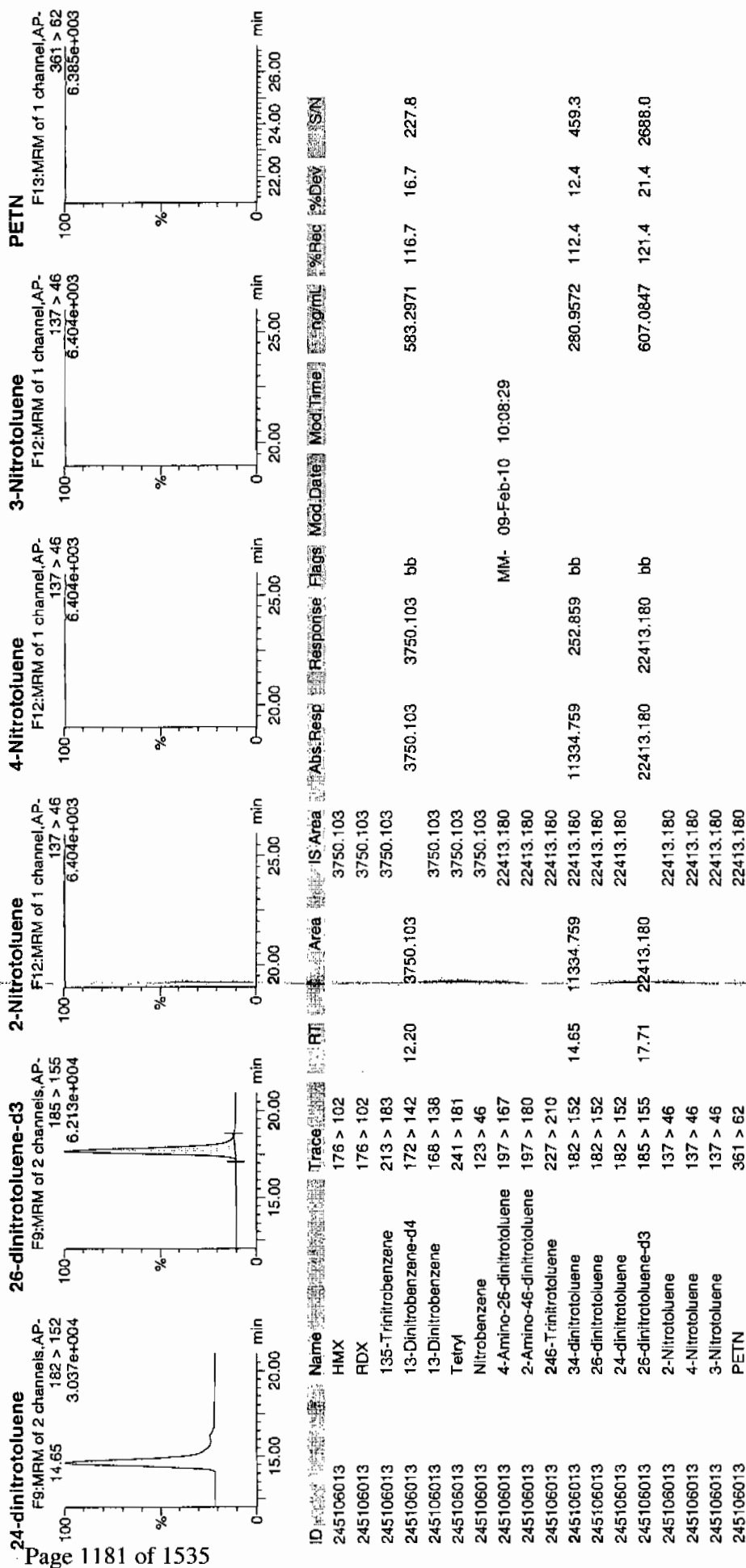


Handwritten signature

Printed: Tue Feb 09 10:21:18 2010, Page 64 of 77

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7183

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106013

Sample Amount 2

Moisture: 12.2

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010041.wiff

Date Analyzed: 02-FEB-10 03:49

Units: ug/kg

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

\*Concentration =

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

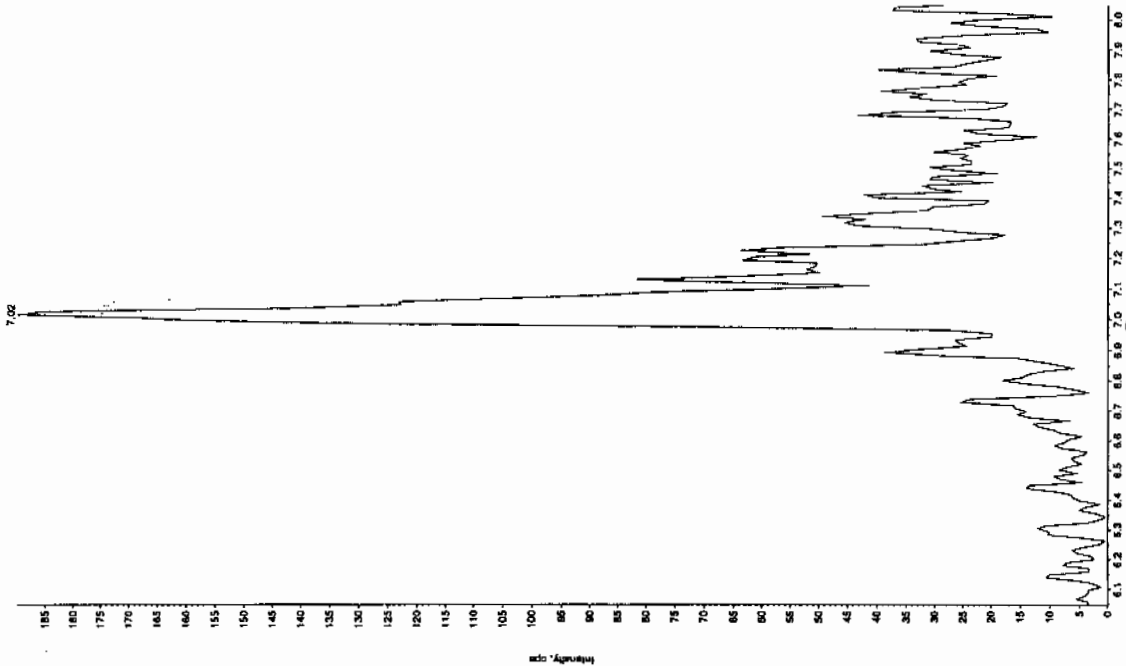
Jan 26/10

Sample Name: "245106013" Sample ID: "94424621LRF" File: "EX502010041.wif"

Peak Name: "TATB" Mass(es): "257.2/204.9 amu"

Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 2/2/2010  
 Acq. Time: 3:49:45 AM  
 Modified: No

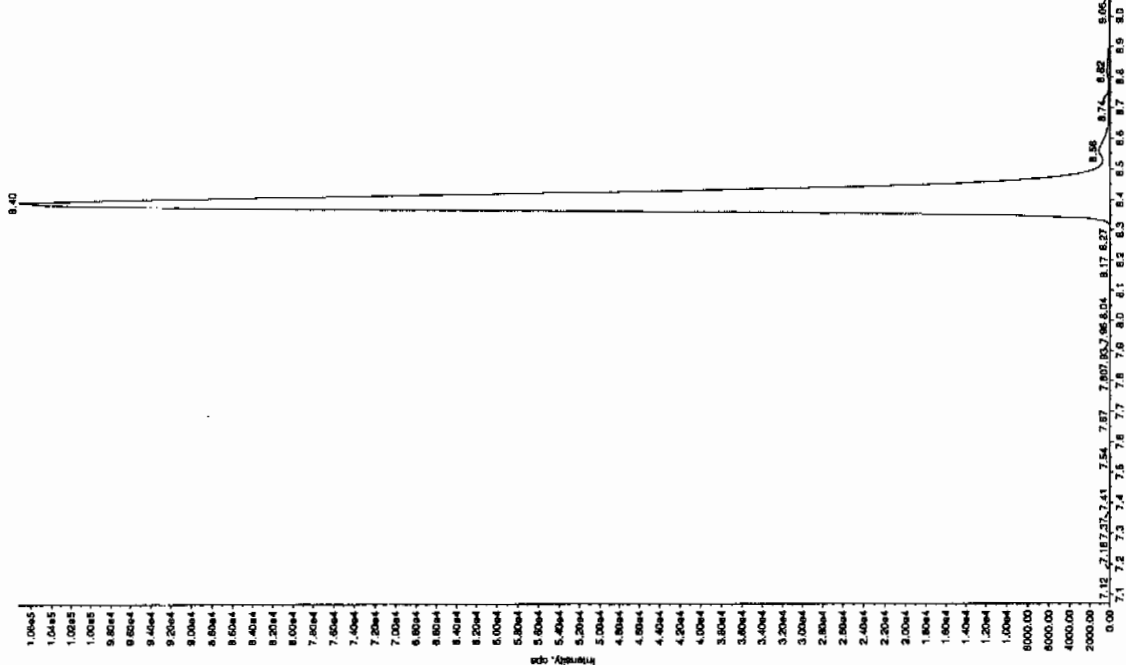


Sample Name: "245106013" Sample ID: "94424621LRF" File: "EX502010041.wif"

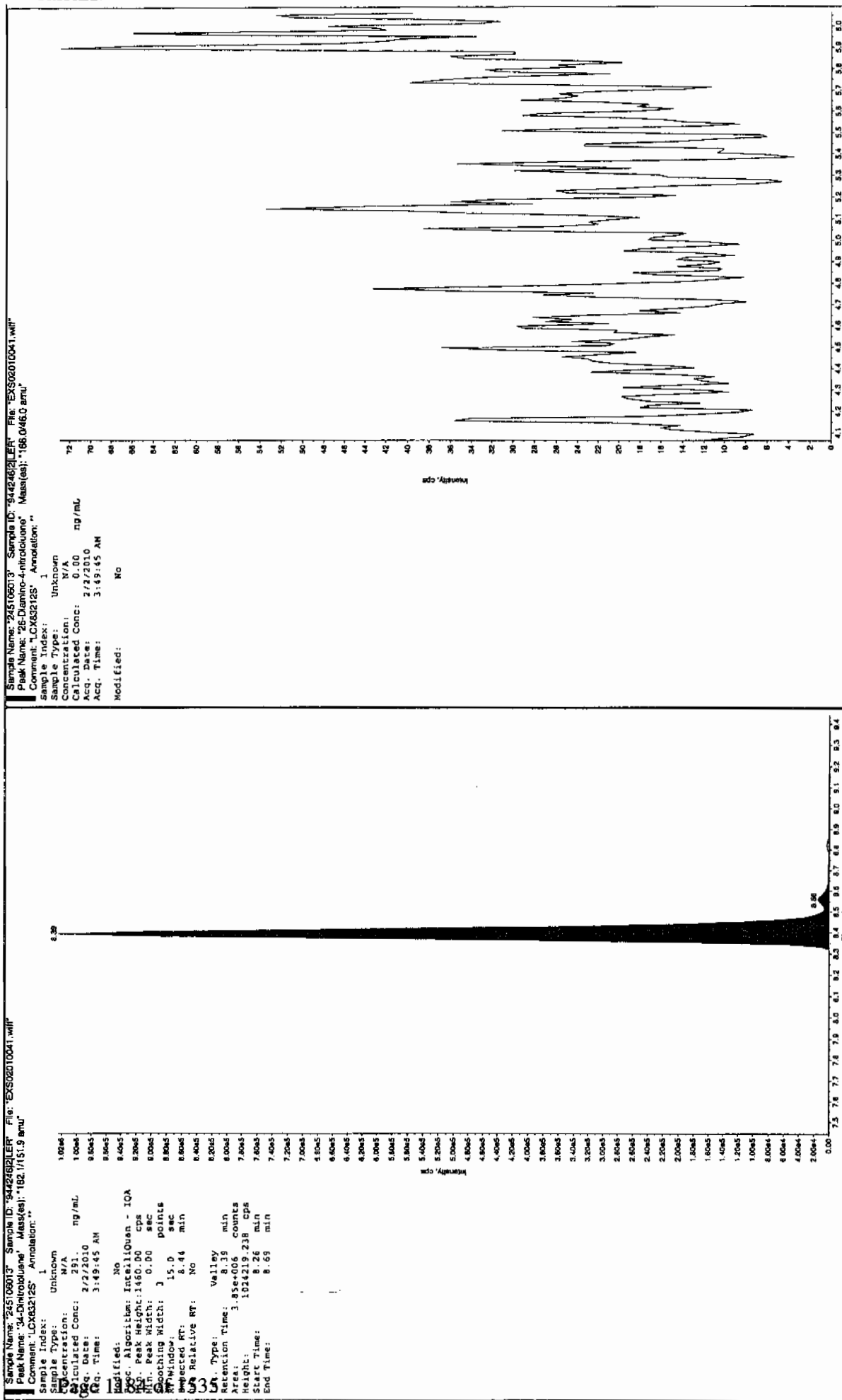
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/166.0 amu"

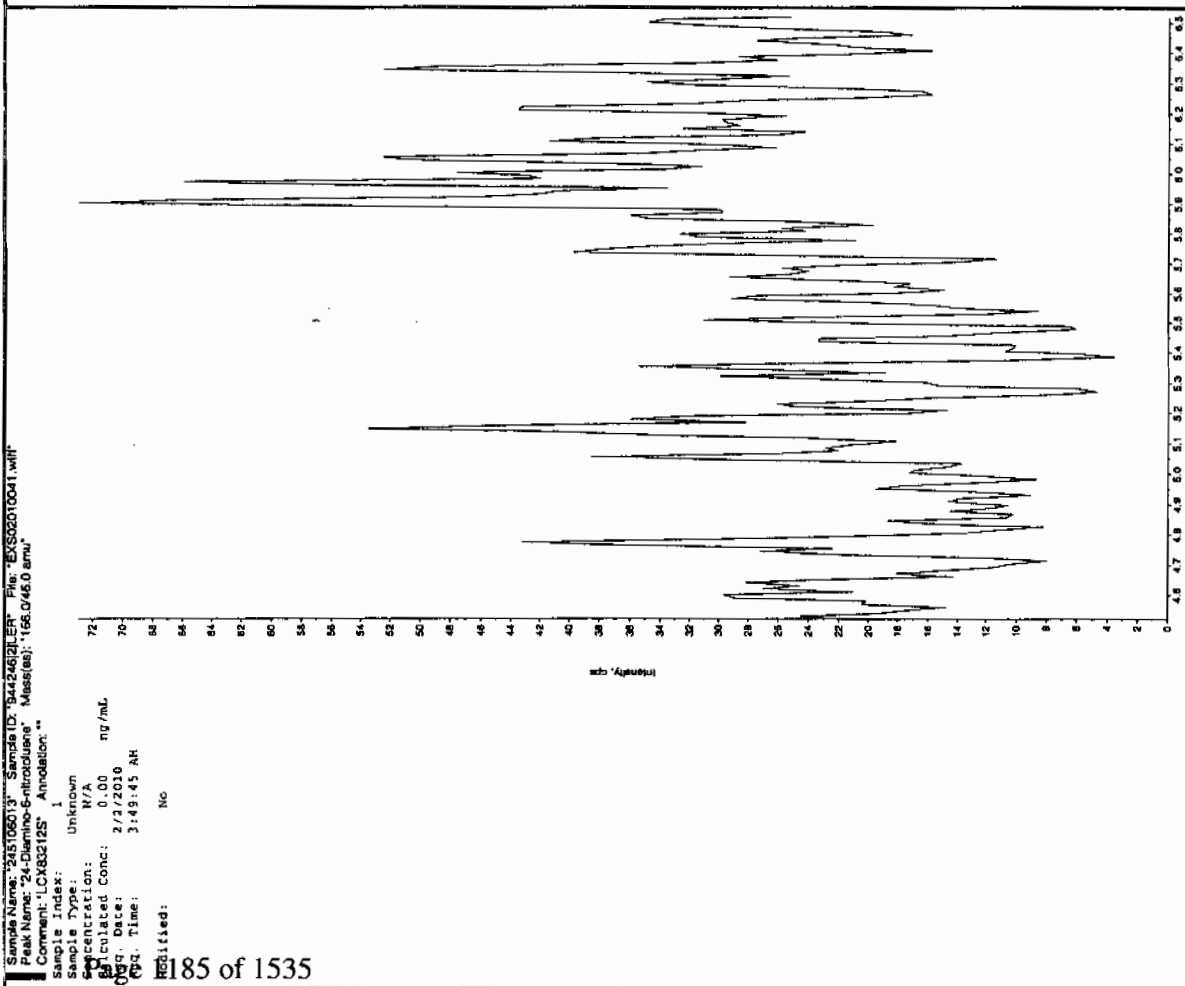
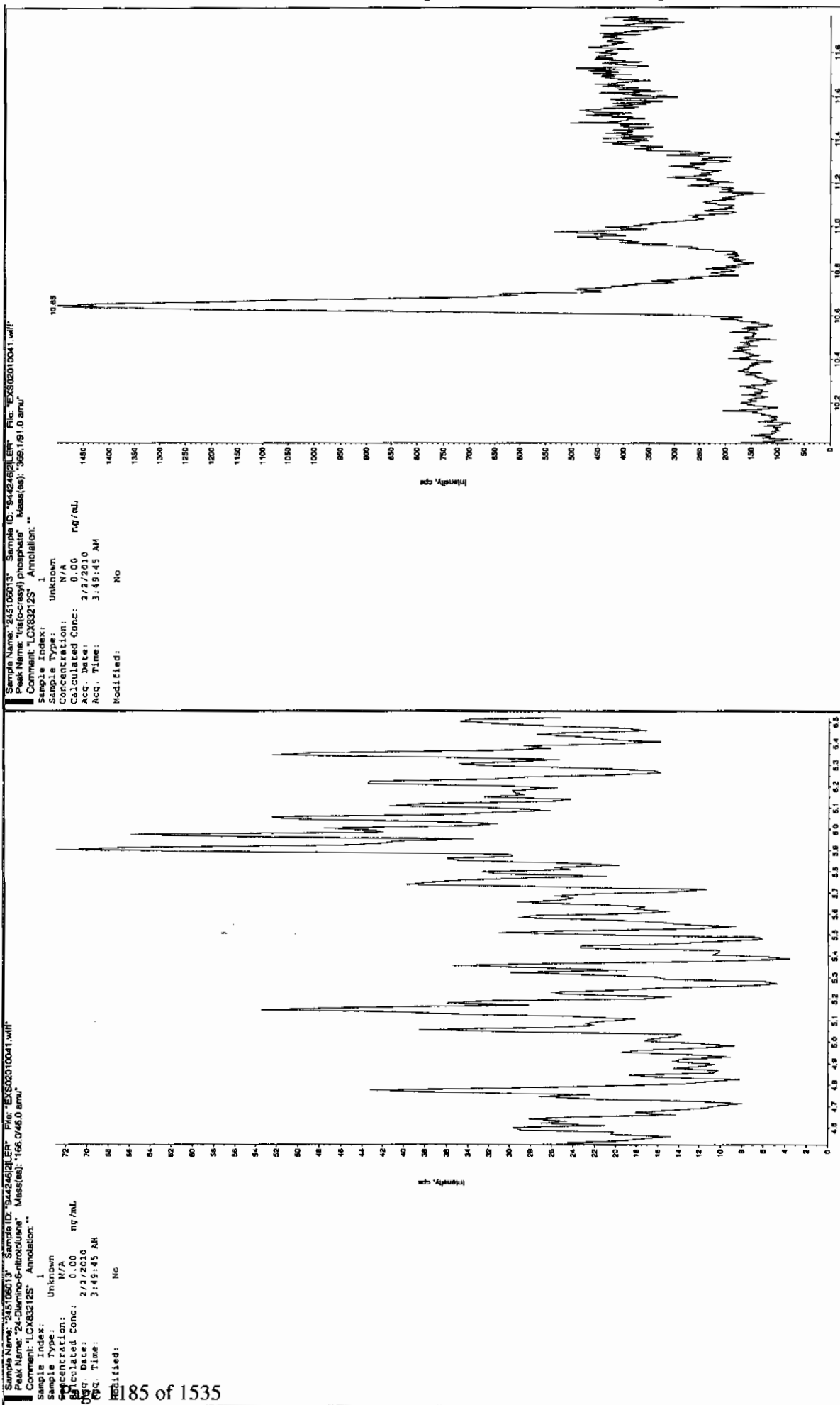
Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 2/2/2010  
 Acq. Time: 3:49:45 AM  
 Modified: Yes



Jan 26/10







1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7176

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106014

Sample Amount 2

Moisture: 4.7

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208033a

Date Analyzed: 09-FEB-10 06:28

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
------------------	---	---	---	-----------------

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYN\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYN\NEW\_EXP.PRO\Data\EXP0208033a

Date: 09-Feb-2010

Time: 06:28:33

ID: 245106014

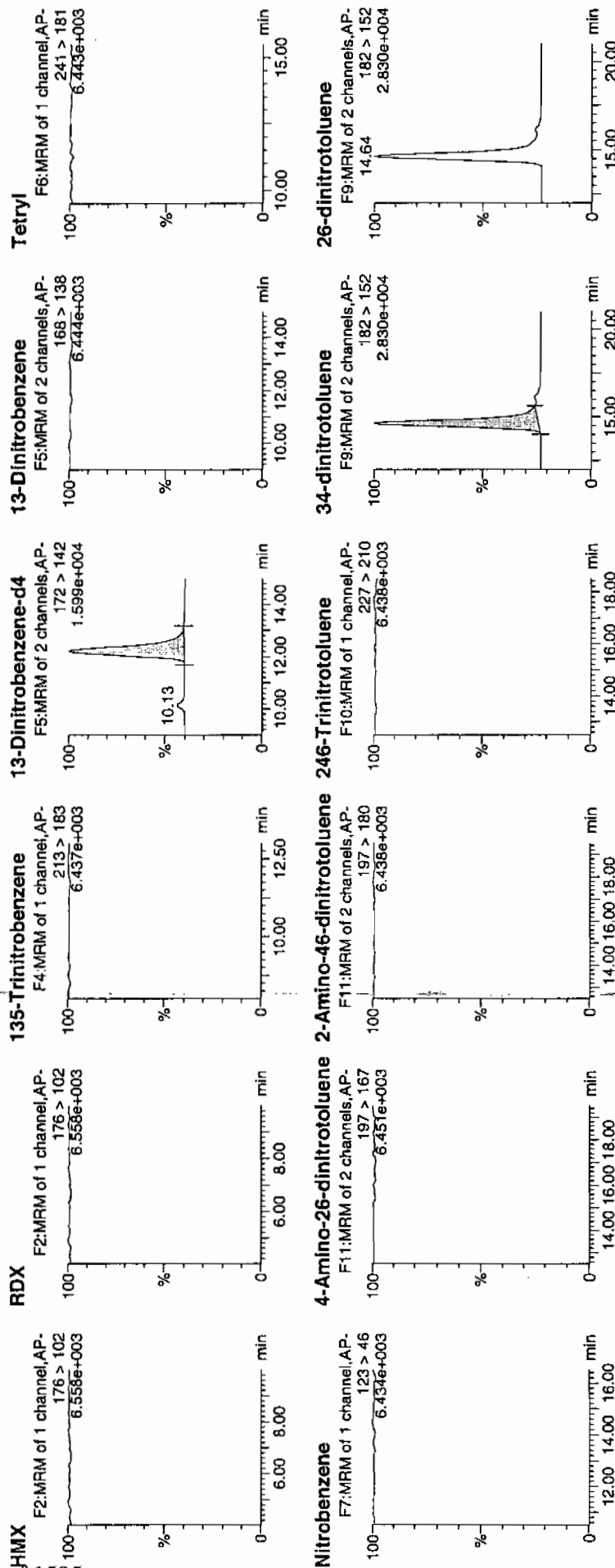
Vial: 1:6.F

not  
2/9/10

944246 / Solu / 21

87

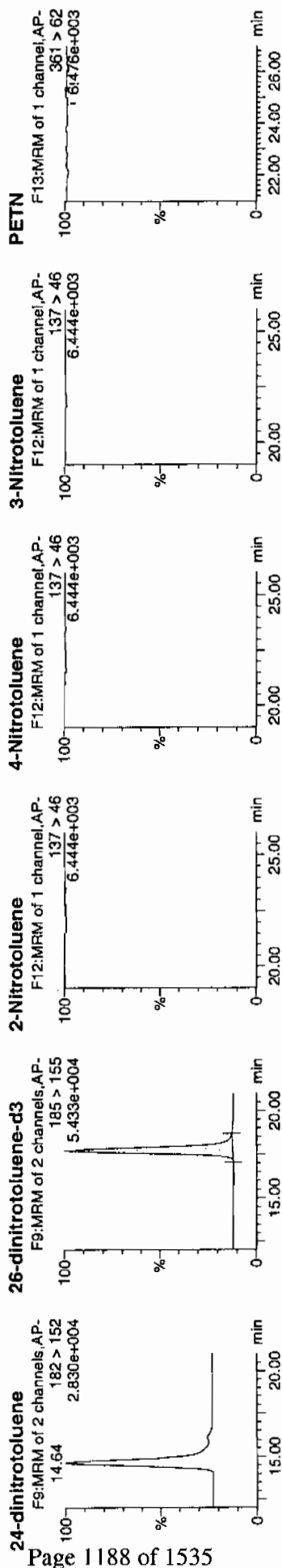
1535



pmw 109/110

**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc ng/ml	% Rec	% Dev	S/N
245106014	HMX	176 > 102			4049.460									
245106014	RDX	176 > 102			4049.460									
245106014	135-Trinitrobenzene	213 > 183			4049.460									
245106014	13-Dinitrobenzene-d4	172 > 142	12.20	4049.460		4049.460	4049.460	bb			629.8596	126.0	26.0	367.6
245106014	13-Dinitrobenzene	168 > 138			4049.460									
245106014	Tetryl	241 > 181			4049.460									
245106014	Nitrobenzene	123 > 46			4049.460									
245106014	4-Amino-26-dinitrotoluene	197 > 167			18979.486									
245106014	2-Amino-46-dinitrotoluene	197 > 180			18979.486									
245106014	246-Trinitrotoluene	227 > 210			18979.486									
245106014	34-dinitrotoluene	182 > 152	14.64	10386.506	18979.486	10386.506	273.625	bb			304.0299	121.6	21.6	578.3
245106014	26-dinitrotoluene	182 > 152			18979.486									
245106014	24-dinitrotoluene	182 > 152			18979.486									
245106014	26-dinitrotoluene-d3	185 > 155	17.70	18979.486		18979.486	18979.486	bb			514.0795	102.8	2.8	1419.9
245106014	2-Nitrotoluene	137 > 46			18979.486									
245106014	4-Nitrotoluene	137 > 46			18979.486									
245106014	3-Nitrotoluene	137 > 46			18979.486									
245106014	PETN	361 > 62			18979.486									

MM- 09-Feb-10 10:12:39

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7176

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106014

Sample Amount 2

Moisture: 4.7

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010042.wiff

Date Analyzed: 02-FEB-10 04:05

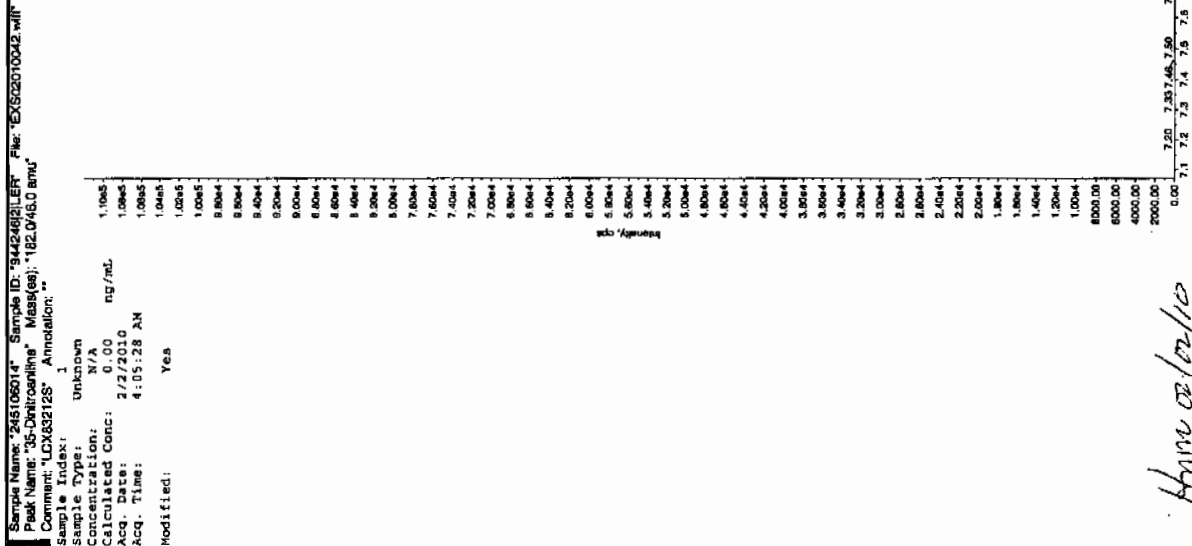
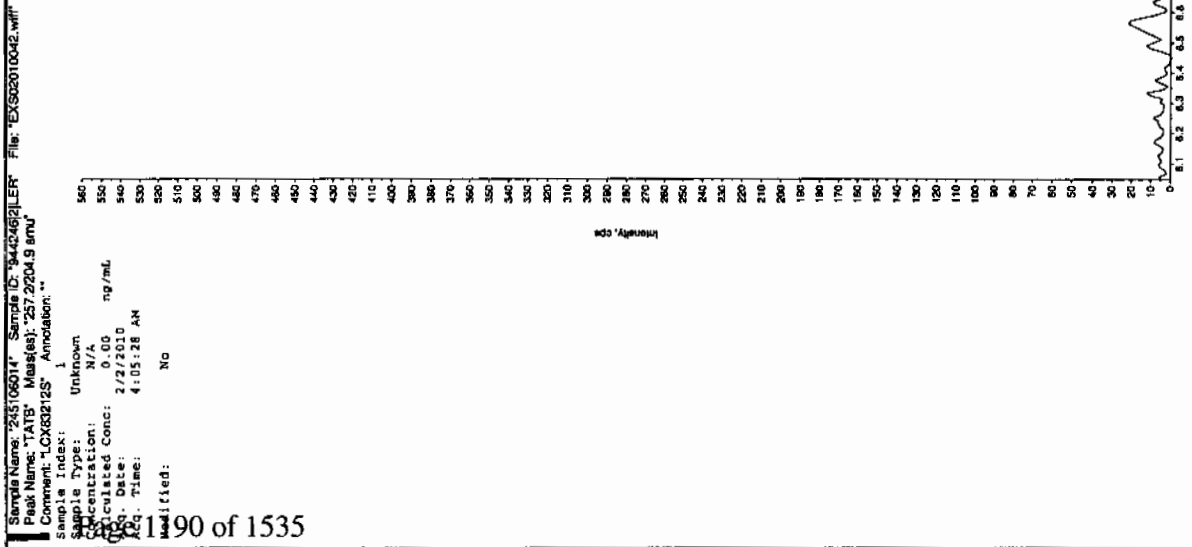
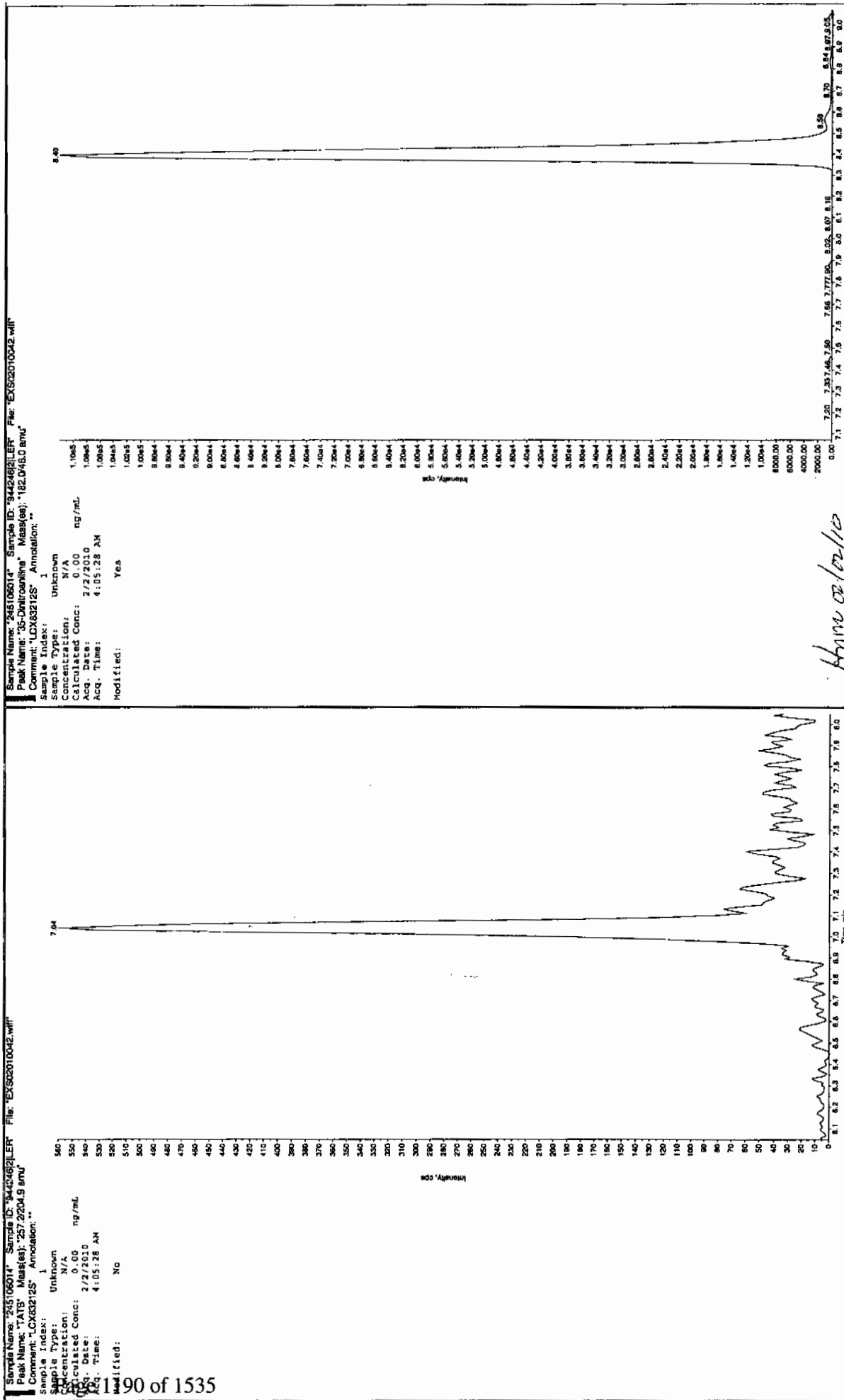
Units: ug/kg

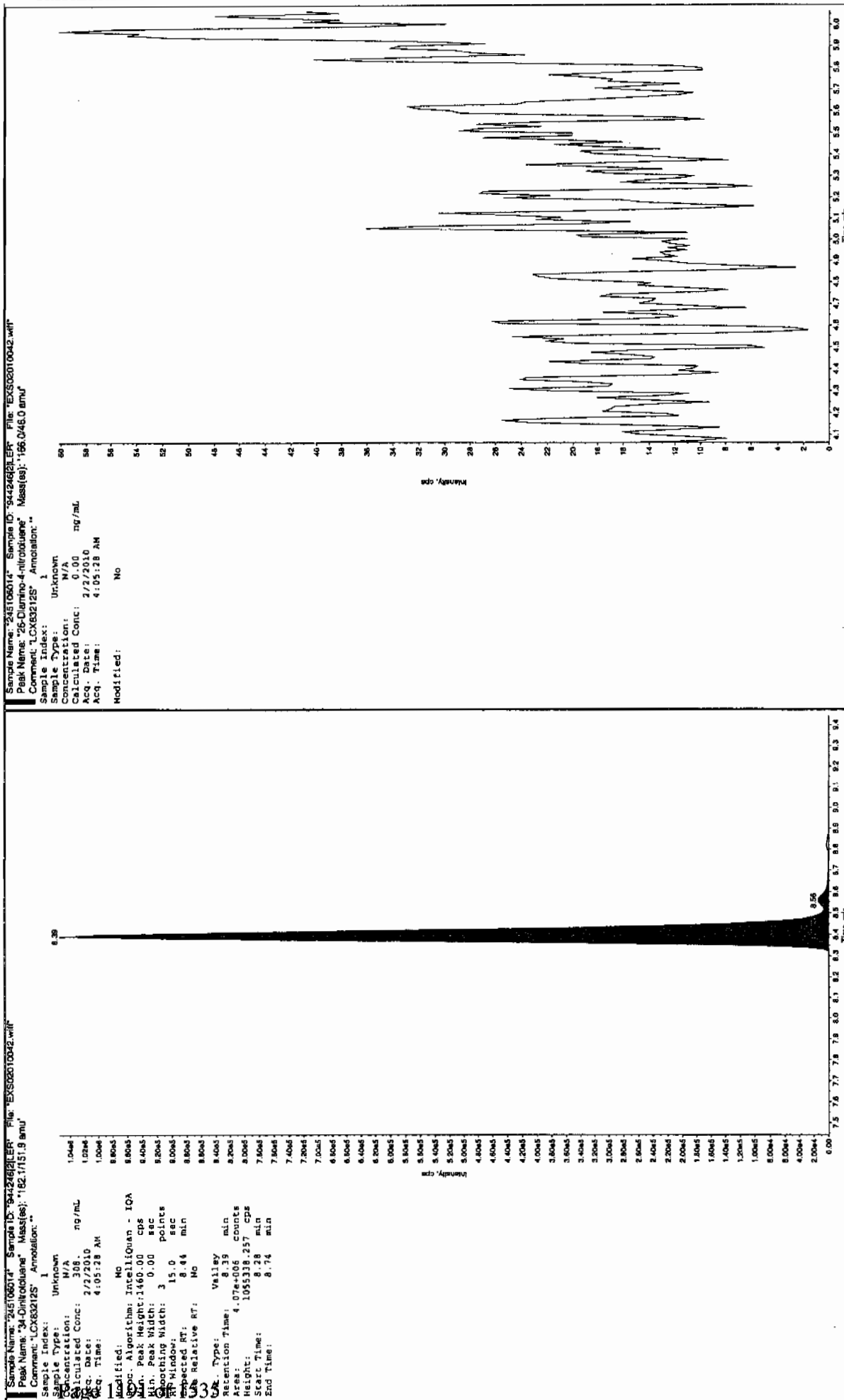
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

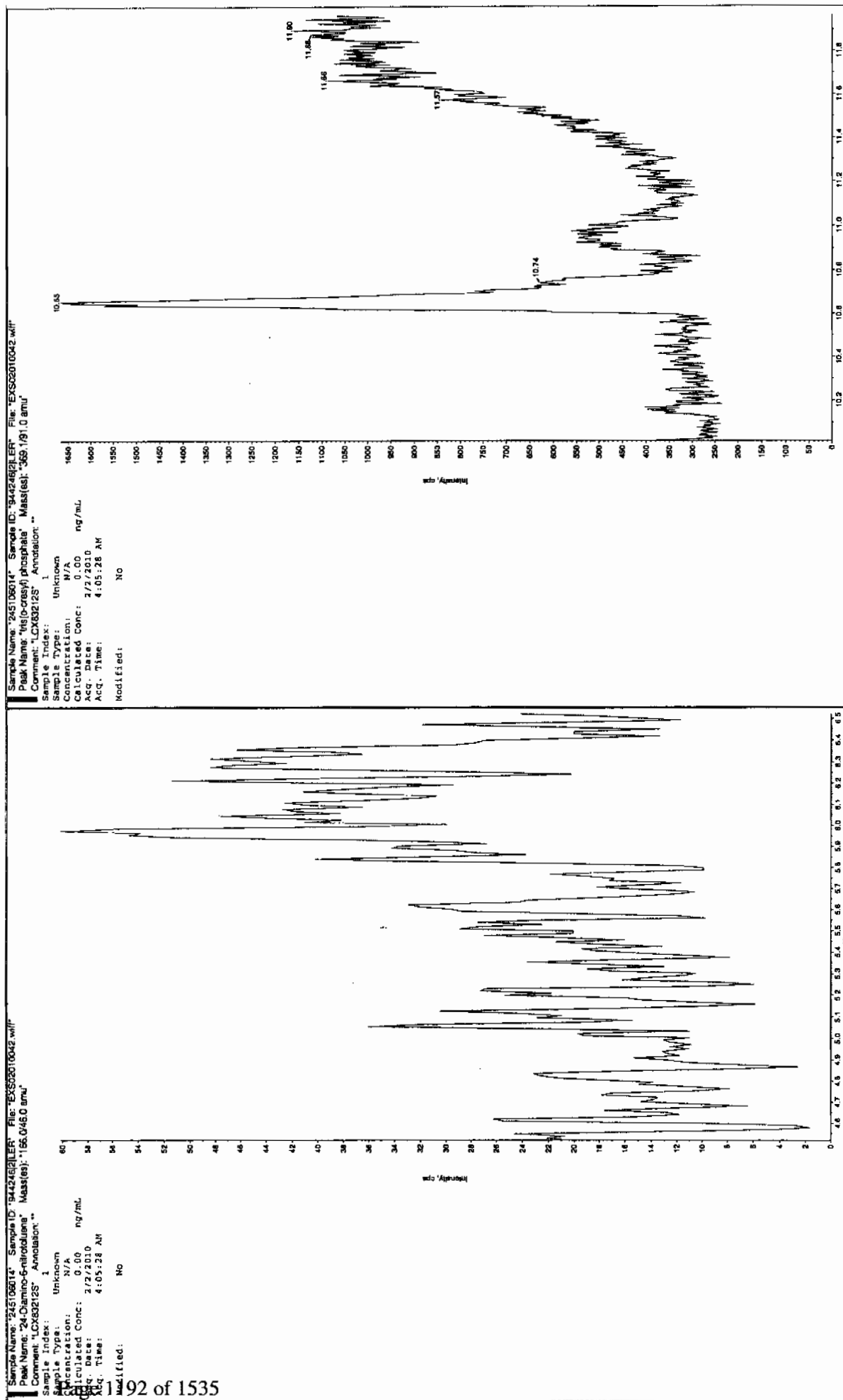
\*Concentration =

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

See 2/2/10







\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7180

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106015

Sample Amount 2

Moisture: 13.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208034a

Date Analyzed: 09-FEB-10 06:58

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208034a

Date: 09-Feb-2010

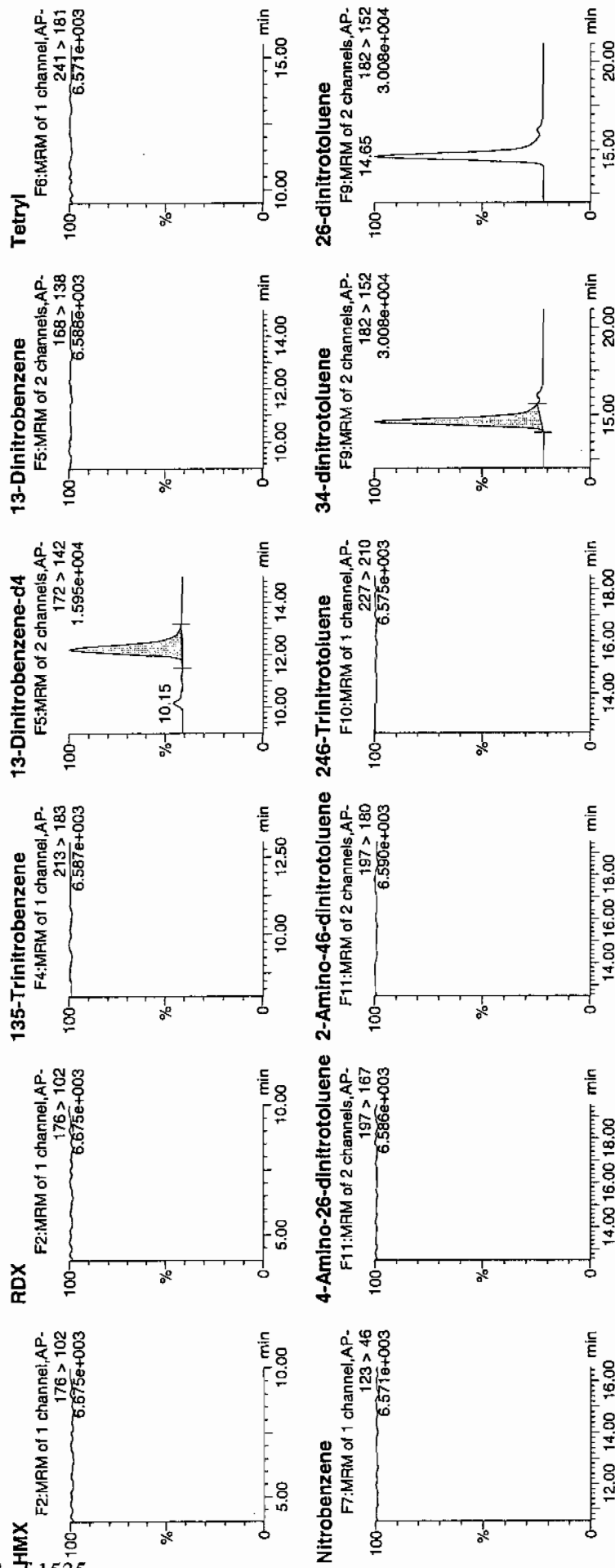
Time: 06:58:02

ID: 245106015

Vial: 1:7,A

2677  
 2/9/10

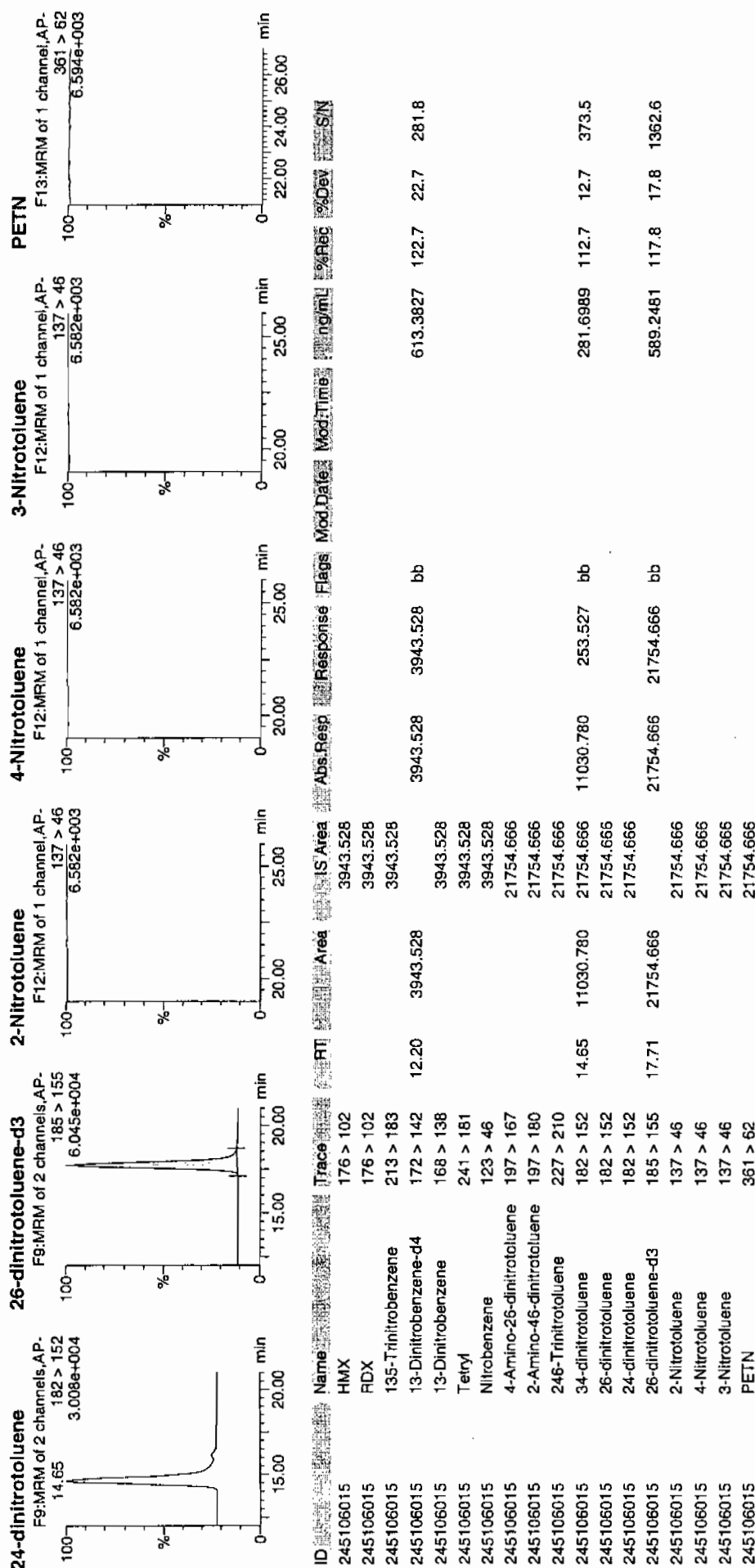
LAU (944246 / 8022 / 2 /



471116  
 2/9/10

**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7180

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106015

Sample Amount 2

Moisture: 13.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010043.wiff

Date Analyzed: 02-FEB-10 04:21

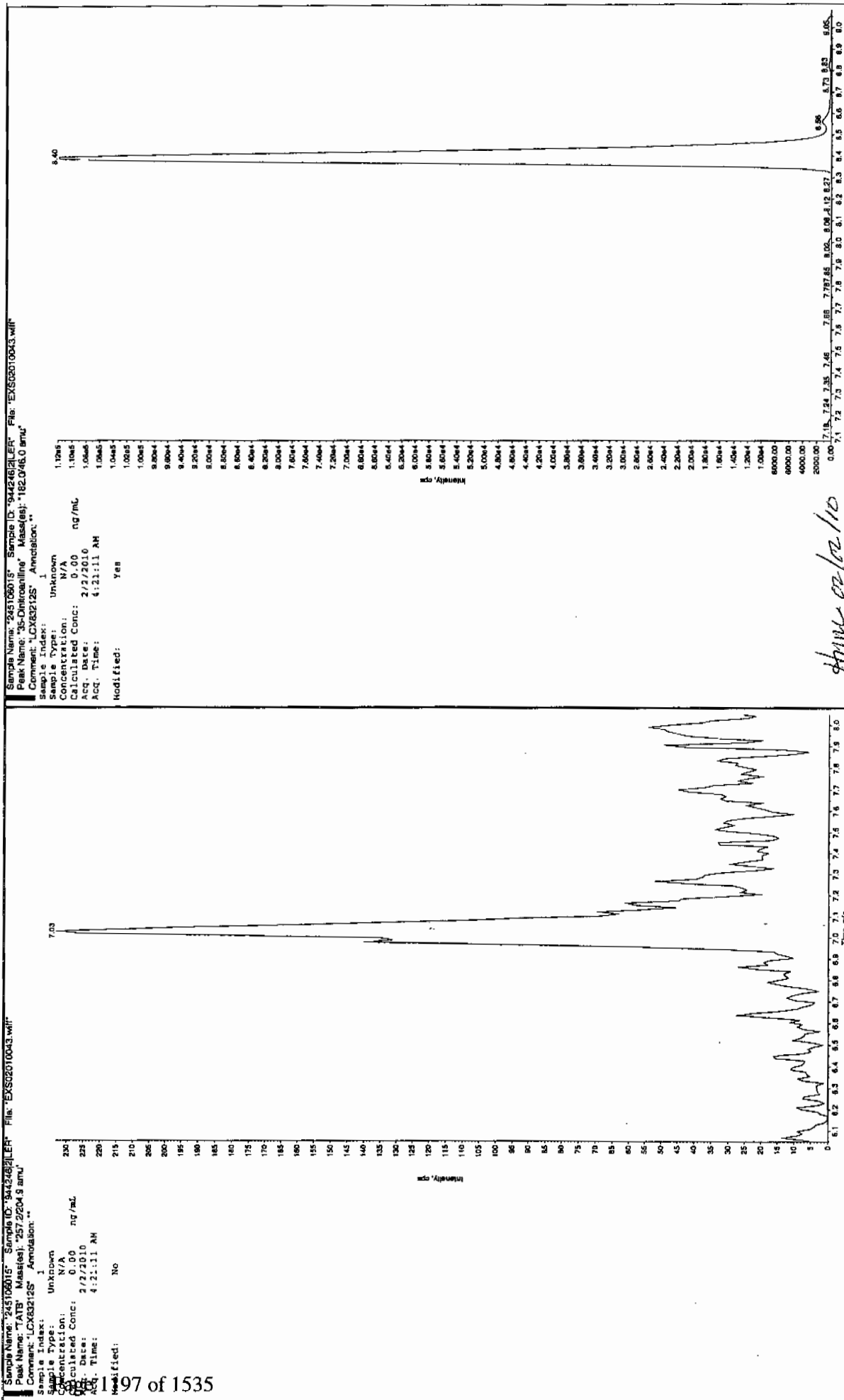
Units: ug/kg

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

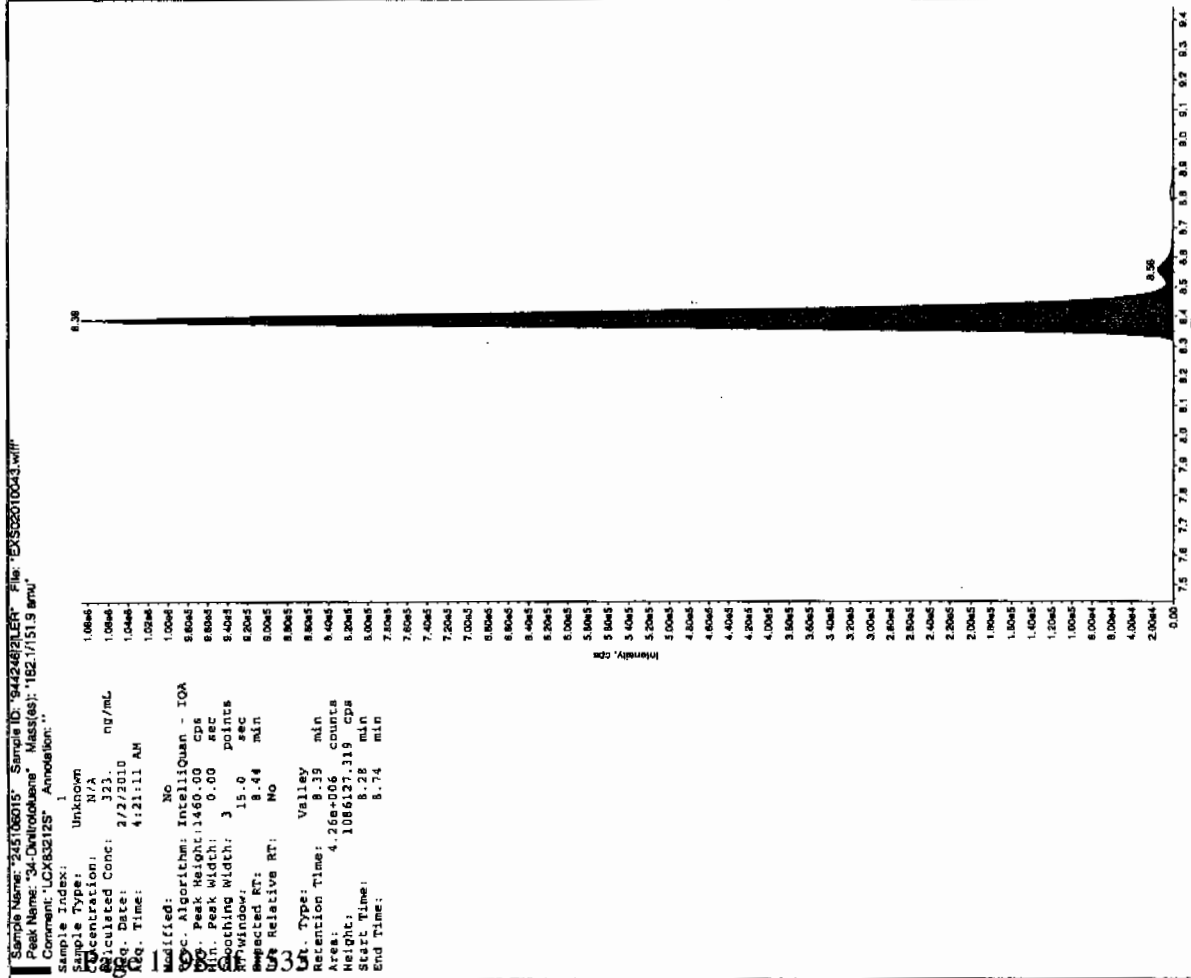
\*Concentration =

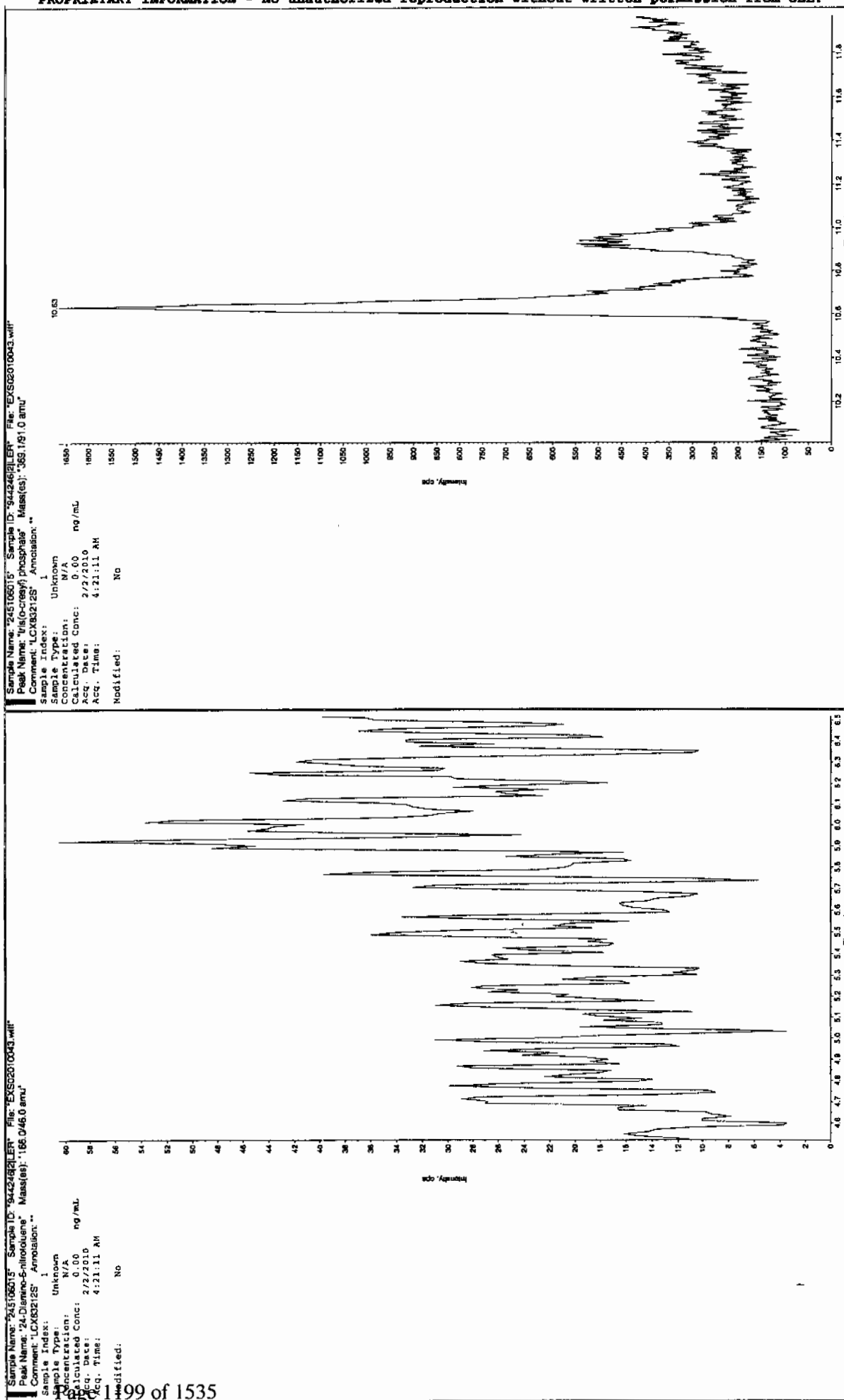
Instrument Value	X	<u>Concentrated Extract Volume</u>	X	Dilution Factor
		<u>Sample Amoun</u>		

Sen 2/2/10



Sen 02/02/10





\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7179

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106016

Sample Amount 2

Moisture: 20.3

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208035a

Date Analyzed: 09-FEB-10 07:27

Units: ug/kg

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

\*Concentration =

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

**Quantify Sample Report**  
 GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208035a

Date: 09-Feb-2010

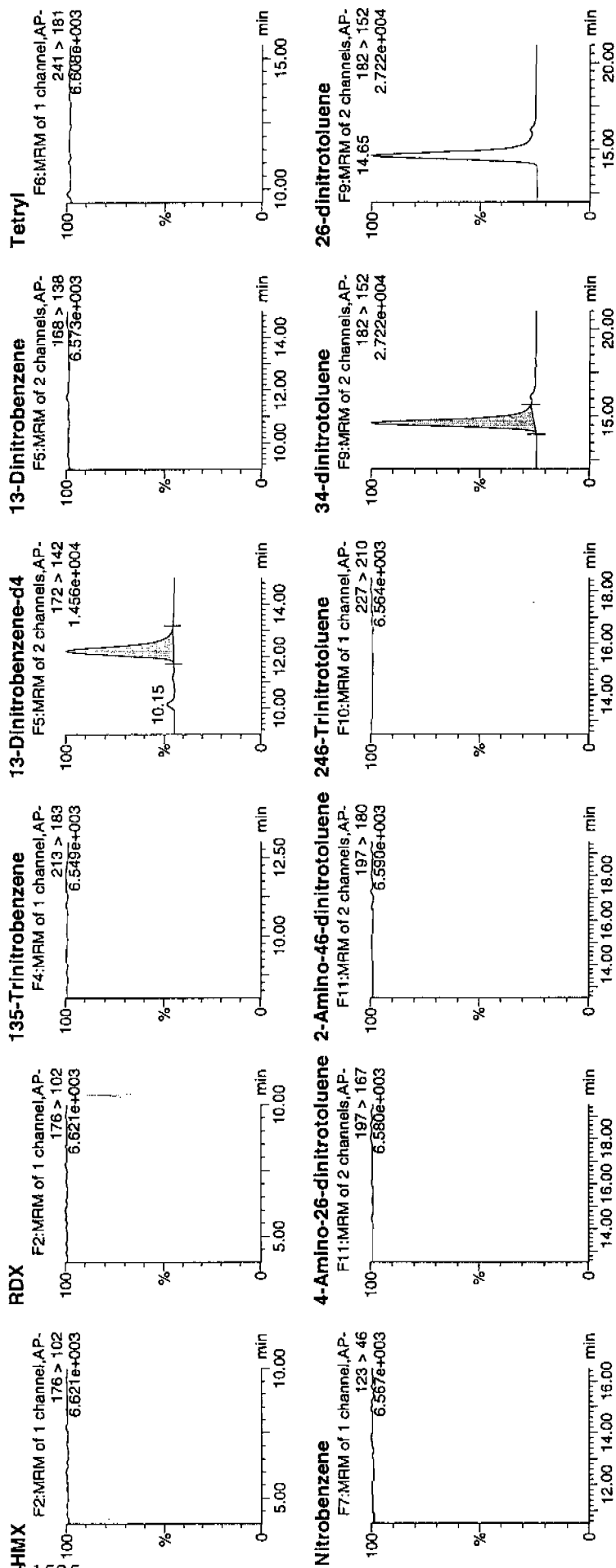
Time: 07:27:33

ID: 245106016

Vial: 1:7.B

2/9/10

944246 / Solu / 2 /



done 2/9/10

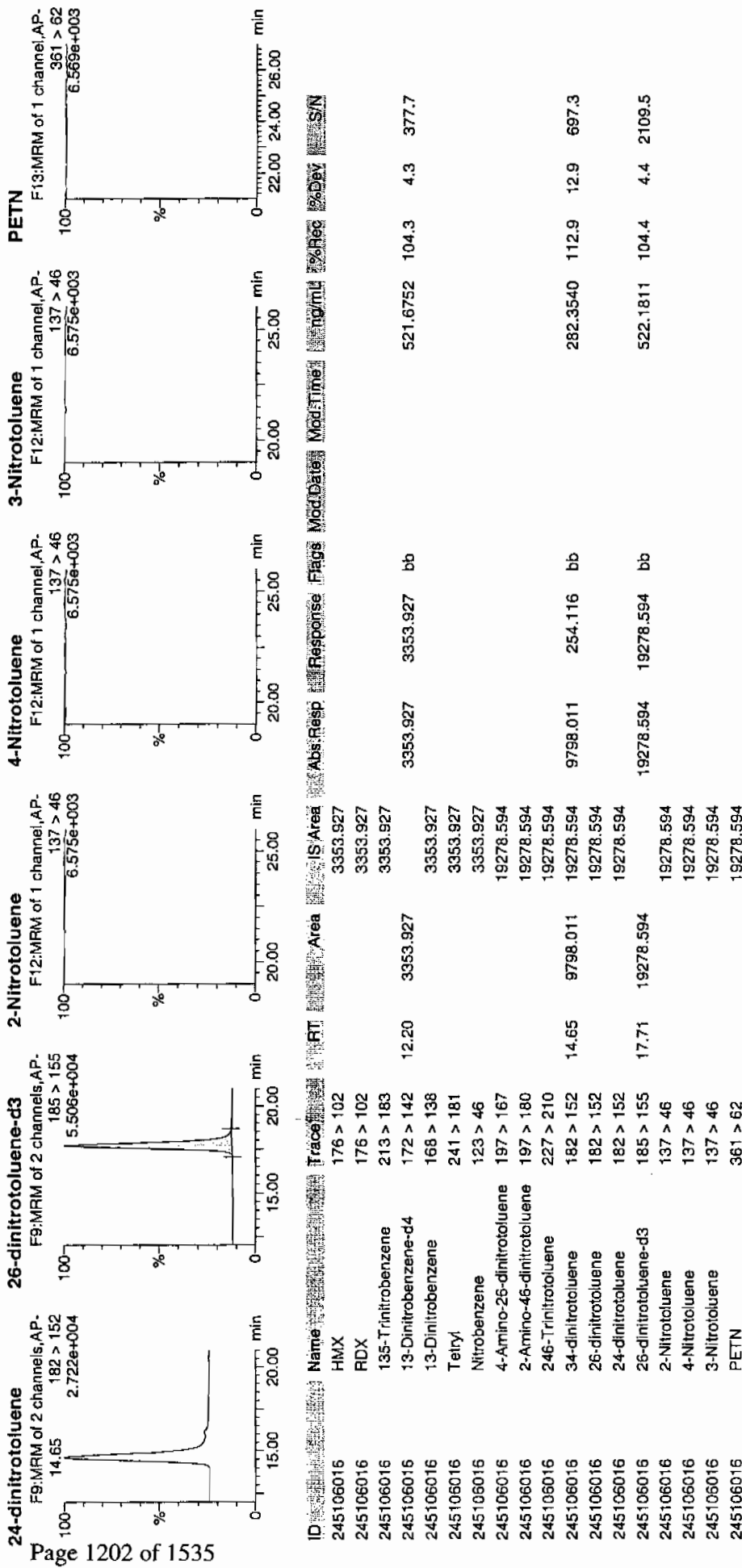


# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Feb 09 10:21:18 2010, Page 70 of 77

Dataset: C:\MASSLYNX\New\_Exp\PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7179

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 245106016

Sample Amount 2

Moisture: 20.3

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010044.wiff

Date Analyzed: 02-FEB-10 04:36

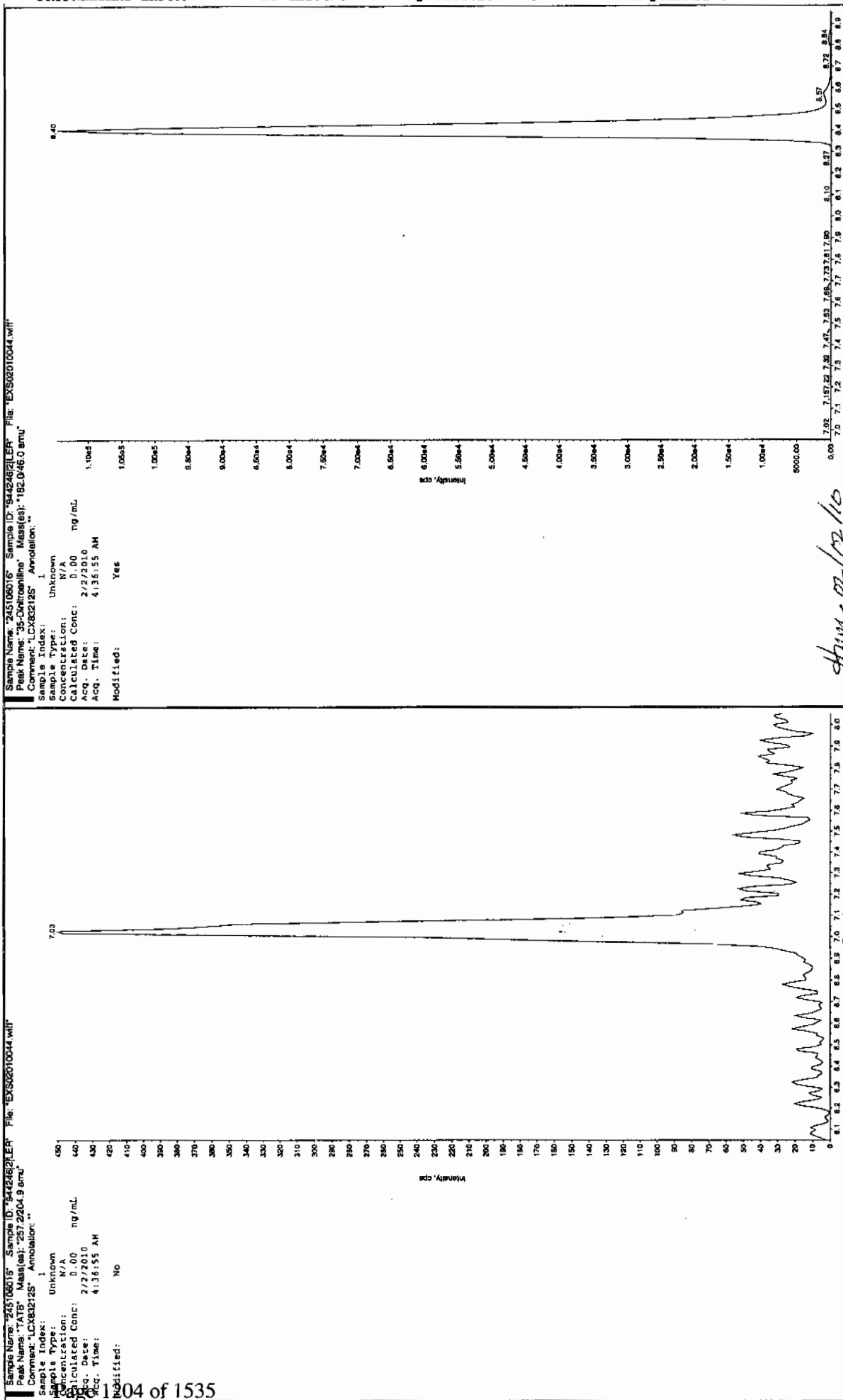
Units: ug/kg

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

\*Concentration =

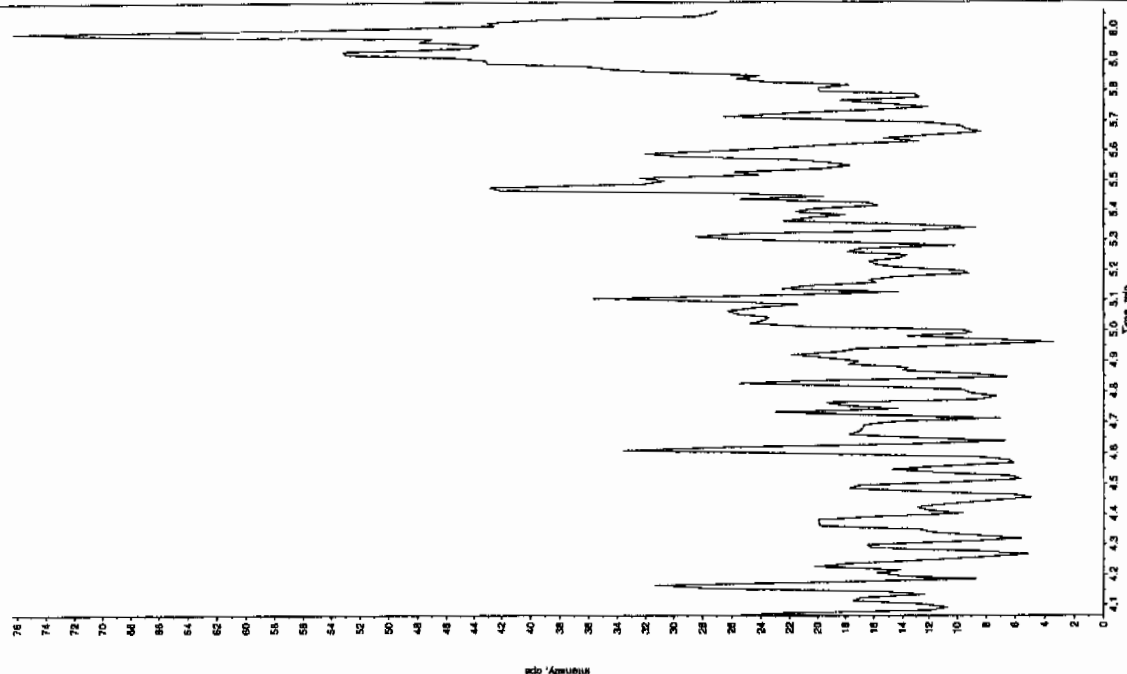
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

See 02/10



Sample Name: "245106016" Sample ID: "944246211ER" File: "EX502010044.wif"  
 Peak Name: "25-Dimethoxy-4-ethyltoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 2/2/2010  
 Acq. Time: 4:36:55 AM  
 Modified: No



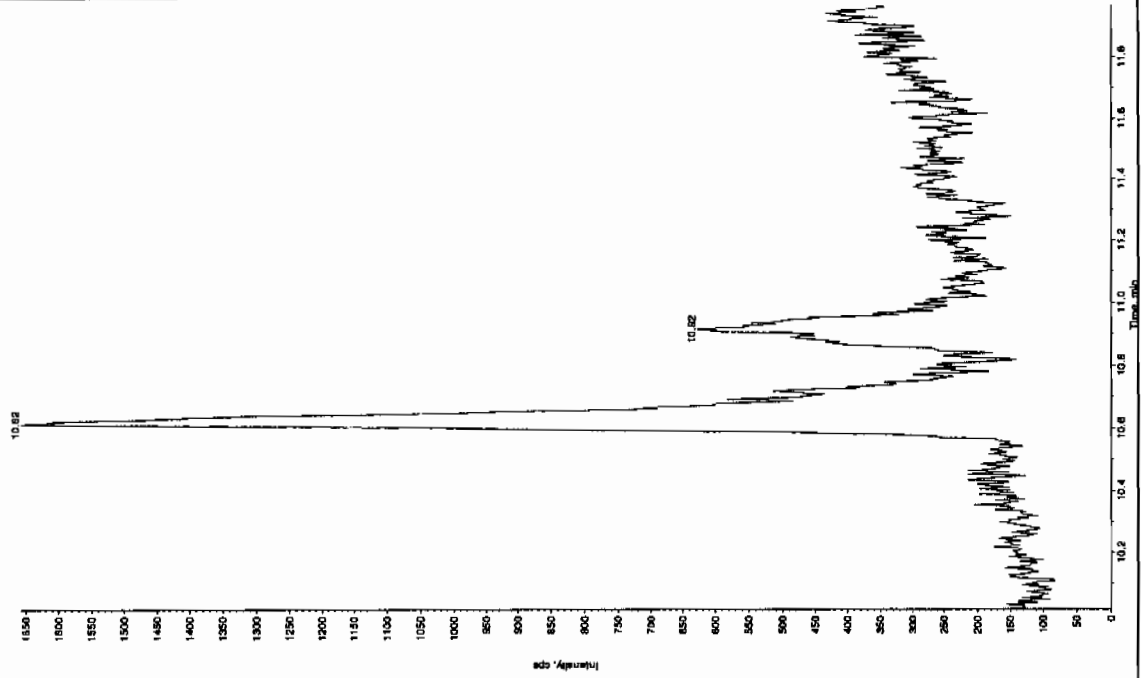
Sample Name: "245106016" Sample ID: "944246211ER" File: "EX502010044.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.17151.9 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 304. ng/mL  
 Acq. Date: 2/2/2010  
 Acq. Time: 4:36:55 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Peak Height: 1460.00 cps  
 Peak Width: 3.00 sec  
 Baseline Width: 15.0 points  
 Predicted RT: 8.44 min  
 Use Relative RT: No  
 Ret. Type: Valley  
 Retention Time: 8.39 min  
 Area: 4.02e+006 counts  
 Height: 1018362.610 cps  
 Start Time: 8.29 min  
 End Time: 8.74 min



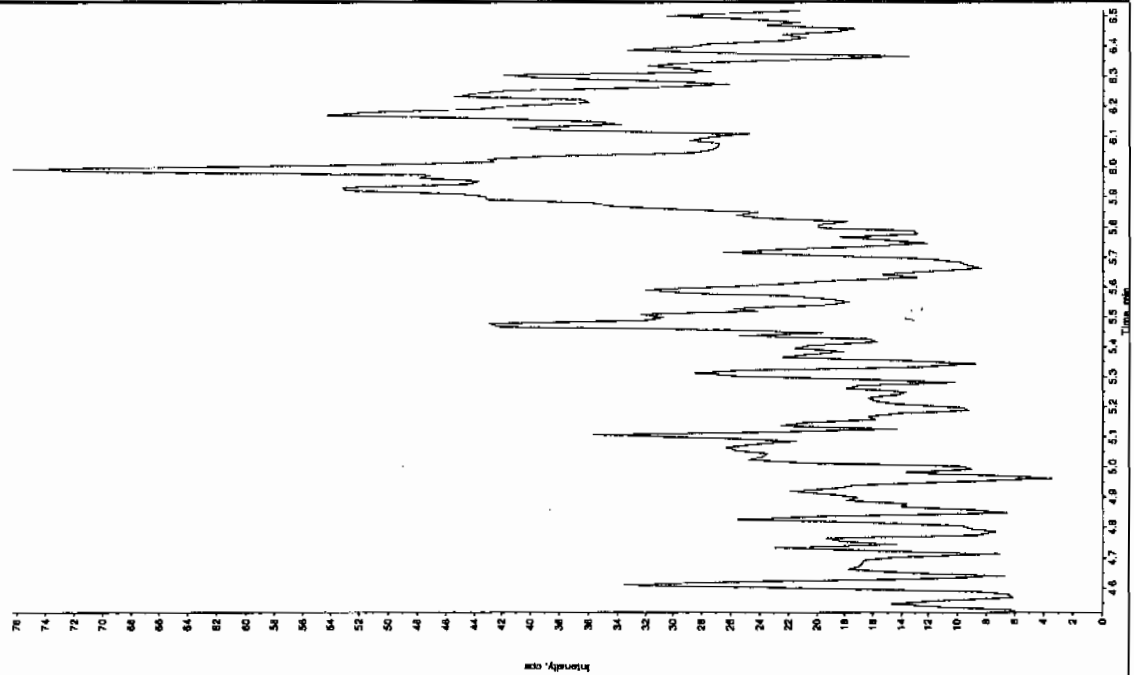
Sample Name: "245106016" Sample ID: "94424621EP" File: "EX502010044.wif"  
 Path: "C:\Users\jagrawa\Documents\LCMSMS\8321A-Modified LCMSMS#4"  
 Comment: "LCMSMS832125" Annotation: "Mass(es): 385.199.0 amu"

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 2/2/2010  
 Acq. Time: 4:36:55 AM  
 Modified: No



Sample Name: "245106016" Sample ID: "94424621EP" File: "EX502010044.wif"  
 Path: "C:\Users\jagrawa\Documents\LCMSMS\8321A-Modified LCMSMS#4"  
 Comment: "LCMSMS832125" Annotation: "Mass(es): 166.046.0 amu"

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 2/2/2010  
 Acq. Time: 4:36:55 AM  
 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)

Calibration Levels 8321A-Modified-EXPL.xls

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1304

Lab Code: GEL

Run Date: 01-FEB-10.08-FEB-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:	EXP0208003a	EXP0208004a	EXP0208005a	EXP0208006a	EXP0208007a	EXP0208008a			
Data File:									
1,3,5-Trinitrobenzene	3.548	3.943	4.247	3.451	3.361	3.547	3.683	9.244	
1,3-Dinitrobenzene-d4	6.149	6.436	6.465	6.633	6.717	6.174	6.429	3.612	
2,4,6-Trinitrotoluene	.299	.308	.311	.323	.348	.347	0.323	6.431	
2,4-Dinitrotoluene	.243	.236	.232	.24	.256	.258	0.244	4.271	
2,6-Dinitrotoluene	1.071	1.092	1.008	1.066	1.112	1.095	1.074	3.4	
2,6-Dinitrotoluene-d3	34.376	37.613	37.768	39.993	37.032	34.734	36.919	5.669	
2-Amino-4,6-dinitrotoluene	.361	.359	.391	.411	.422	.432	0.396	7.897	
3,4-Dinitrotoluene	.793	.884	.838	.907	.976	1	0.900	8.794	
4-Amino-2,6-dinitrotoluene	.279	.278	.264	.289	.311	.303	0.287	6.027	
HMX	3.402	3.005	4.021	3.584	3.432	3.392	3.473	9.511	
Nitrobenzene	.773	.761	.821	.856	.825	.812	0.808	4.332	
RDX	2.405	2.171	2.783	2.361	2.379	2.47	2.428	8.269	
m-Dinitrobenzene	1.257	1.065	1.193	1.226	1.214	1.259	1.202	5.994	
m-Nitrotoluene	.103	.107	.082	.087	.09	.089	0.093	10.689	
o-Nitrotoluene	.173	.148	.144	.152	.156	.157	0.155	6.405	
p-Nitrotoluene	.071	.091	.069	.074	.076	.075	0.076	10.145	

Q column used to flag RSD values outside of Limit (>20%)

\* Values outside of QC Limit



Form 6

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1304

Lab Code: GEL

Run Date: 01-FEB-10.08-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0208003a	EXP0208004a	EXP0208005a	EXP0208006a	EXP0208007a	EXP0208008a					
Parname:											
PETN	1686.42	3643.3	12841.7	23262.7	39238.6	44182	1.544	-.0002977	21.056	.9994	
Tetryl	213.659	359.657	1210.76	2567.13	4763.44	5400.44	.962	-.0000981	8.004	.9996	

Quadratic Fit:  $y = Ax^2 + Bx + C$   
 where  $X^2$  column above is coefficient A  
 X column above is coefficient B  
 intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)

\* Values outside of QC Limit

# Quantify Calibration Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Method: C:\MASSLYNX\New\_Exp.PRO\MethDB\020810expa.mdb, Time: Tue Feb 09 09:17:48 2010

Calibration: Untitled, Time: Tue Feb 09 10:19:05 2010

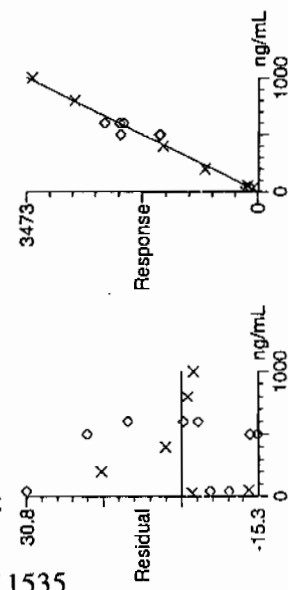
Compound name: HMX

Response Factor: 3.4728

RRF SD: 0.330307, % Relative SD: 9.51126

Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )

Curve type: RF



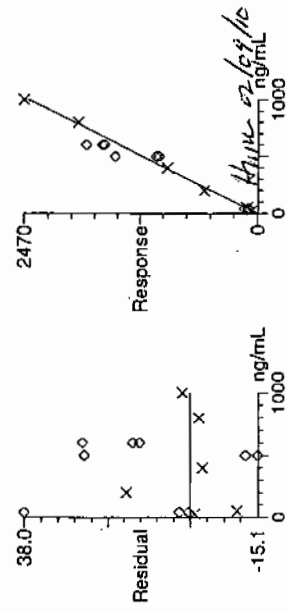
Compound name: RDX

Response Factor: 2.42814

RRF SD: 0.200785, % Relative SD: 8.26908

Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )

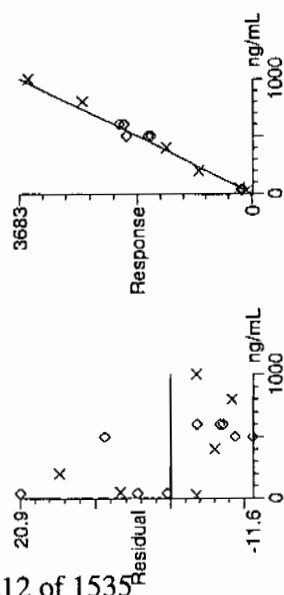
Curve type: RF



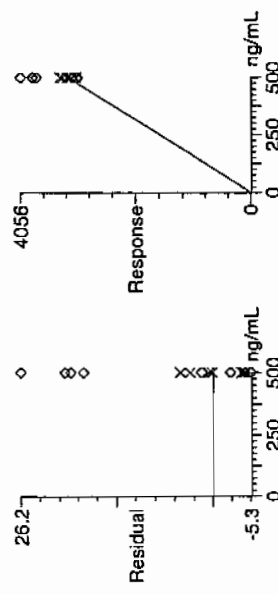
**Quantify Calibration Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYN\New\_Exp\_PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 135-Trinitrobenzene  
 Response Factor: 3.68306  
 RRF SD: 0.340458, % Relative SD: 9.2439  
 Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



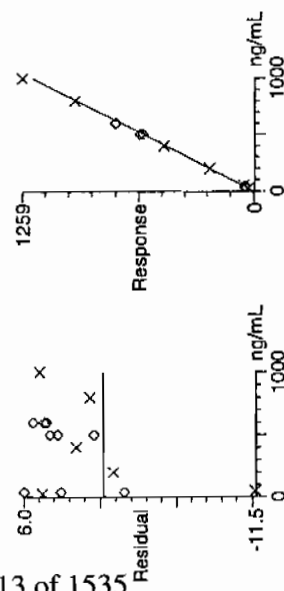
Compound name: 13-Dinitrobenzene-d4  
 Response Factor: 6.42915  
 RRF SD: 0.232214, % Relative SD: 3.6119  
 Response type: External Std, Area  
 Curve type: RF



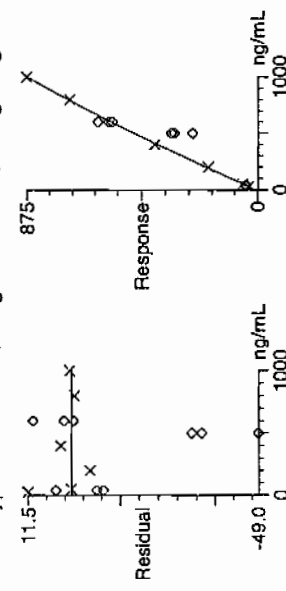
# Quantity Calibration Report GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 13-Dinitrobenzene  
Response Factor: 1.2024  
RRF SD: 0.0720671, % Relative SD: 5.99362  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



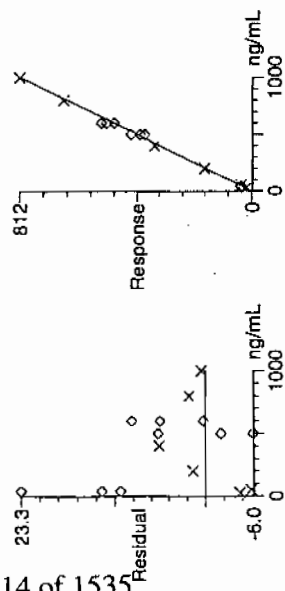
Compound name: TetraM  
Coefficient of Determination: 0.999624  
Calibration curve:  $-9.80877e-005 * x^2 + 0.962233 * x + 8.00395$   
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None



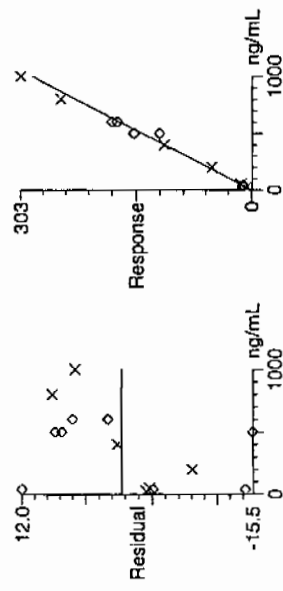
# Quantify Calibration Report GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: Nitrobenzene  
Response Factor: 0.807771  
RRF SD: 0.034992, % Relative SD: 4.33192  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF

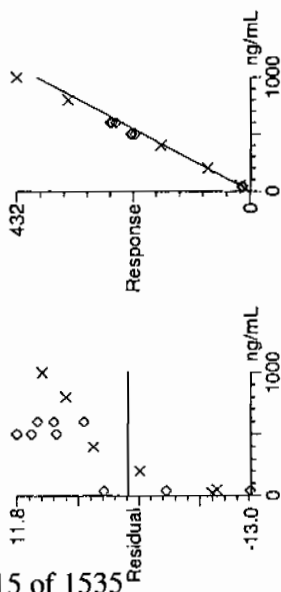


Compound name: 4-Amino-26-dinitrotoluene  
Response Factor: 0.287245  
RRF SD: 0.0173125, % Relative SD: 6.02707  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF

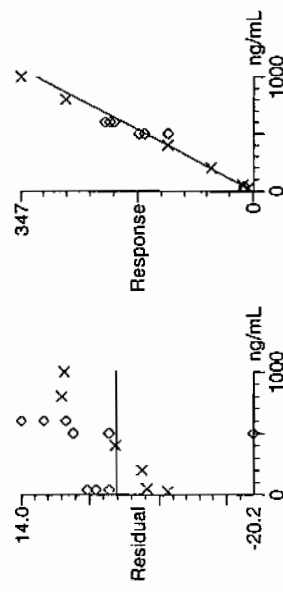


Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 2-Amino-46-dinitrotoluene  
 Response Factor: 0.39603  
 RRF SD: 0.0312733, % Relative SD: 7.8967  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RIF



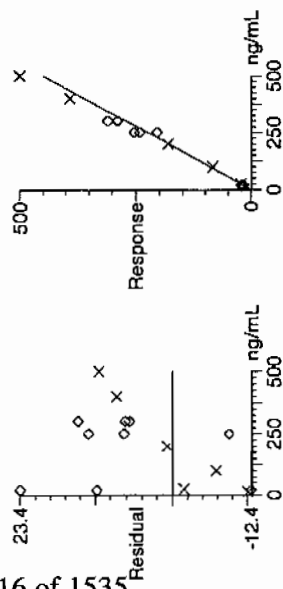
Compound name: 246-Trinitrotoluene  
 Response Factor: 0.322663  
 RRF SD: 0.0207501, % Relative SD: 6.43088  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RIF



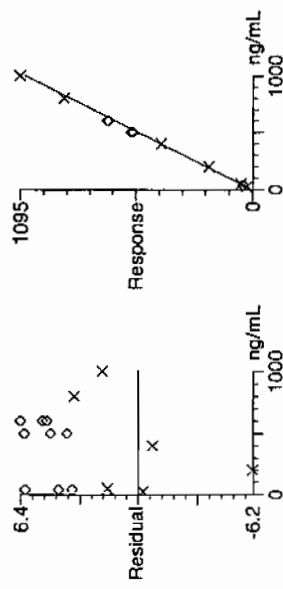
# Quantify Calibration Report GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 34-dinitrotoluene  
Response Factor: 0.899992  
RRF SD: 0.0791463, % Relative SD: 8.79411  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF

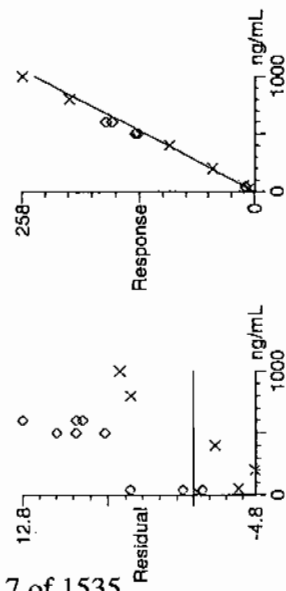


Compound name: 26-dinitrotoluene  
Response Factor: 1.07409  
RRF SD: 0.0365192, % Relative SD: 3.40002  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF

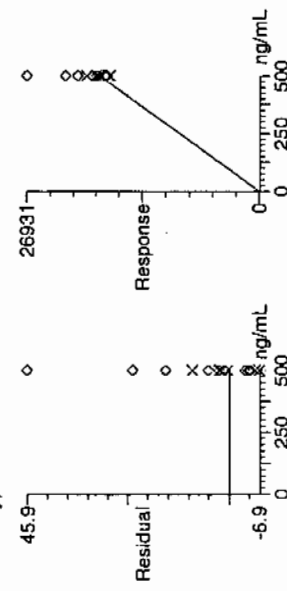


Dataset: C:\MASSLYNX\New\_Exp\PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 24-dinitrotoluene  
Response Factor: 0.244052  
RRF SD: 0.010423, % Relative SD: 4.27082  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



Compound name: 26-dinitrotoluene-d3  
Response Factor: 36.9194  
RRF SD: 2.09302, % Relative SD: 5.66917  
Response type: External Std, Area  
Curve type: RF

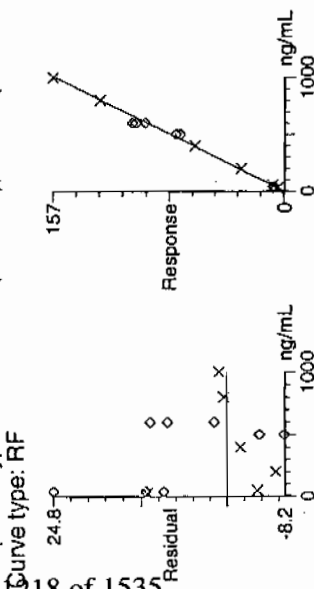




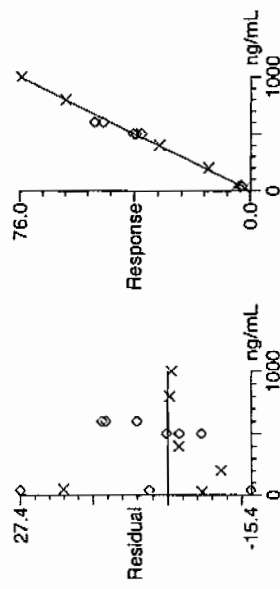
# Quantify Calibration Report GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 2-Nitrotoluene  
Response Factor: 0.155048  
RRF SD: 0.00993156, % Relative SD: 6.40546  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



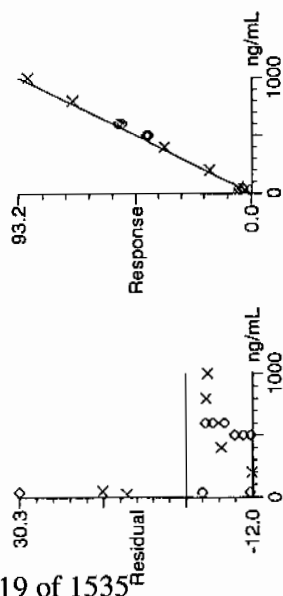
Compound name: 4-Nitrotoluene  
Response Factor: 0.0760026  
RRF SD: 0.00771034, % Relative SD: 10.1448  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



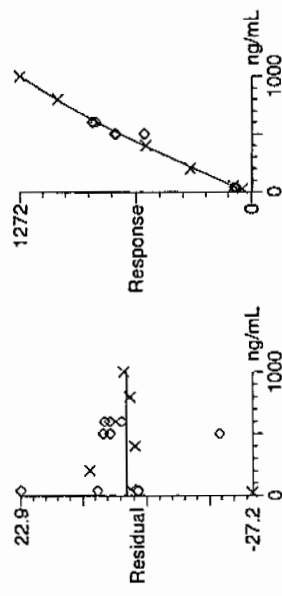
**Quantify Calibration Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 3-Nitrotoluene  
 Response Factor: 0.0931713  
 RF SD: 0.0099588, % Relative SD: 10.6887  
 Response type: Internal Std (Ref 14), Area \* (IS Conc. / IS Area)  
 Curve type: RF



Compound name: PETN  
 Coefficient of Determination: 0.999420  
 Calibration curve:  $-0.000297734 \cdot x^2 + 1.54409 \cdot x + 21.0556$   
 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): 10-1304

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0208010a

Analysis Date: 08-FEB-10 19:10

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	577.44	96	
1,3-Dinitrobenzene-d4	500	477.774	96	
2,4,6-Trinitrotoluene	600	643.695	107	
2,4-Dinitrotoluene	600	652.405	109	
2,6-Dinitrotoluene	600	631.529	105	
2,6-Dinitrotoluene-d3	500	481.745	96	
2-Amino-4,6-dinitrotoluene	600	657.981	110	
3,4-Dinitrotoluene	300	321.546	107	
4-Amino-2,6-dinitrotoluene	600	609.28	102	
HMX	600	598.223	100	
Nitrobenzene	600	634.828	106	
PETN	600	620.504	103	
RDX	600	679.292	113	
Tetryl	600	611.62	102	
m-Dinitrobenzene	600	625.274	104	
m-Nitrotoluene	600	570.29	95	
o-Nitrotoluene	600	651.604	109	
p-Nitrotoluene	600	672.143	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 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\020810expA.qtd, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208010a

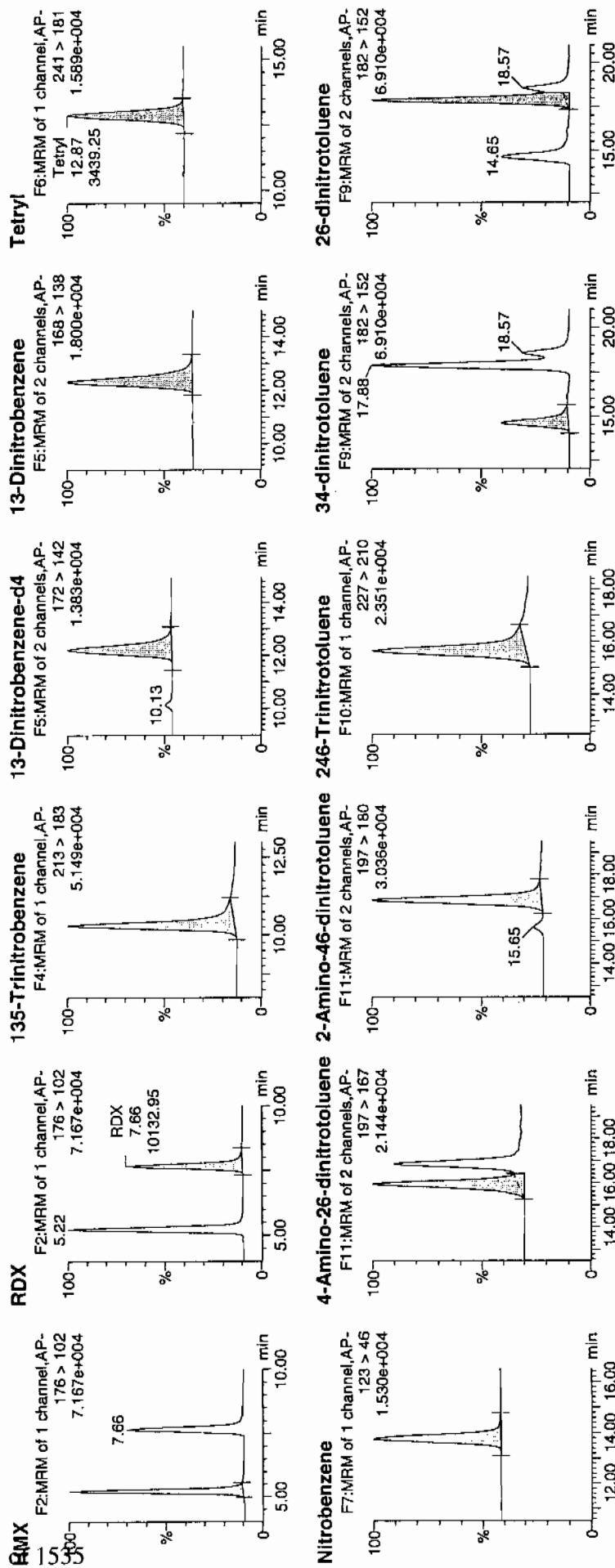
Date: 08-Feb-2010

Time: 19:10:05

ID: WXX100208-07ICV

Ratio: 1:1,B

2/9/10  
M.A.P.

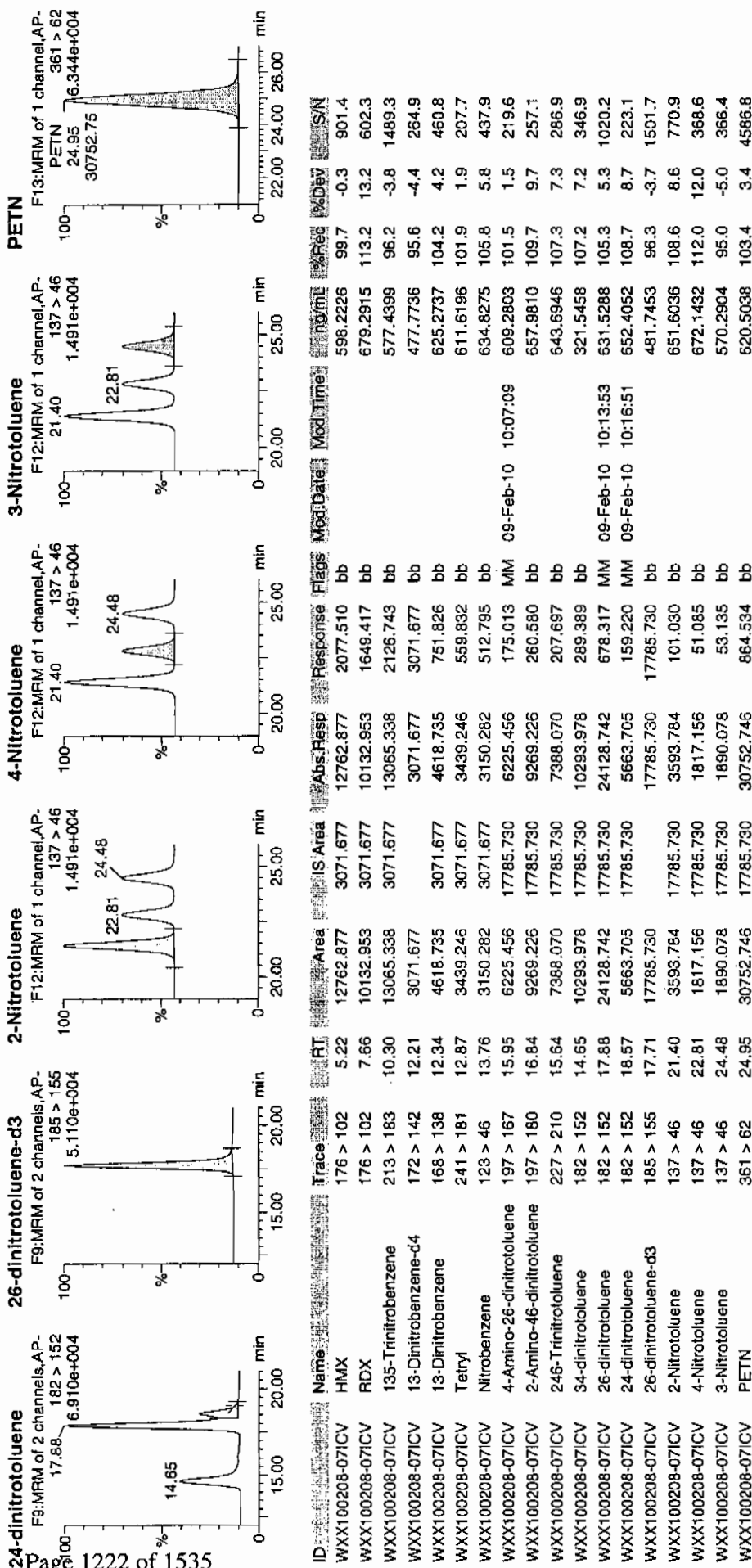


2/10/10  
M.A.P.

Printed: Tue Feb 09 10:21:18 2010, Page 20 of 77

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 02/08/10  
 Time of Injection: 1910  
 Standard Number: WXX100208-07ICV  
 Data File: EXP0208010a

HMX	99.7
RDX	113.2
135-TNB	96.2
13-DNB	104.2
Tetryl	101.9
Nitrobenzene	105.8
4A-26-DNT	101.5
2A-46-DNT	109.7
246-TNT	107.3
34-DNT(surr)	107.2
26-DNT	105.3
24-DNT	108.7
2-NT	108.6
4-NT	112.0
3-NT	95.0
PETN	103.4

*101.7  
2/9/10*

Total 1679.7

Average 105.0

*Home or 109/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1304

Lab Code: GEL

Run Date: 01-FEB-10.08-FEB-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:	EXS02010003.wif	EXS02010004.wif	EXS02010005.wif	EXS02010006.wif	EXS02010007.wif	EXS02010008.wif	EXS02010009.wif					
Paraname:												
2,4-Diamino-6-nitrotoluene	85300	178000	455000	877000	1320000	1790000	3770000	11300	1680	.1	1	
2,6-Diamino-4-nitrotoluene	149000	283000	723000	1460000	2370000	3070000	5780000	-53500	3290	-.184	.9997	
3,4-Dinitrotoluene	319000	646000	1540000	3070000	4720000	6250000	11600000	-86700	14300	-2.64	.9985	
3,5-Dinitroaniline	504000	1010000	2460000	4650000	6800000	8960000	15400000	-1230	10000	-1.17	.9999	
TATB	94000	195000	464000	917000	1370000	1770000	3450000	8380	1840	-.062	1	
tris(o-cresyl) phosphate	1240000	2460000	5650000	10300000	15500000	19800000	30600000	-9200	23800	-4.22	.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

*Fun*  
*01/21/02*

020110ICAL

Peak Name: TATB  
No Internal Standard  
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	8.38e+003			
a1	1.84e+003			
a2	-0.0615			
Correlation coefficient 1.0000				
Use Area				

Peak Name: 35-Dinitroaniline  
No Internal Standard  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.23e+003			
a1	1e+004			
a2	-1.17			
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	-8.67e+004			
a1	1.43e+004			
a2	-2.64			
Correlation coefficient 0.9985				
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	-5.35e+004			
a1	3.29e+003			
a2	-0.184			
Correlation coefficient 0.9997				
Use Area				

Peak Name: 24-Diamino-6-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

*Hum* *02/02/10* Page 1



020110ICAL

Iterate No

None

Weighting

Fit Quadratic  
a0 1.13e+004  
a1 1.68e+003  
a2 0.0997

Correlation coefficient 1.0000  
Use Area

Peak Name: tris(o-cresyl) phosphate  
No Internal Standard  
Q1/Q3 Masses: 369.15/91.00 amu

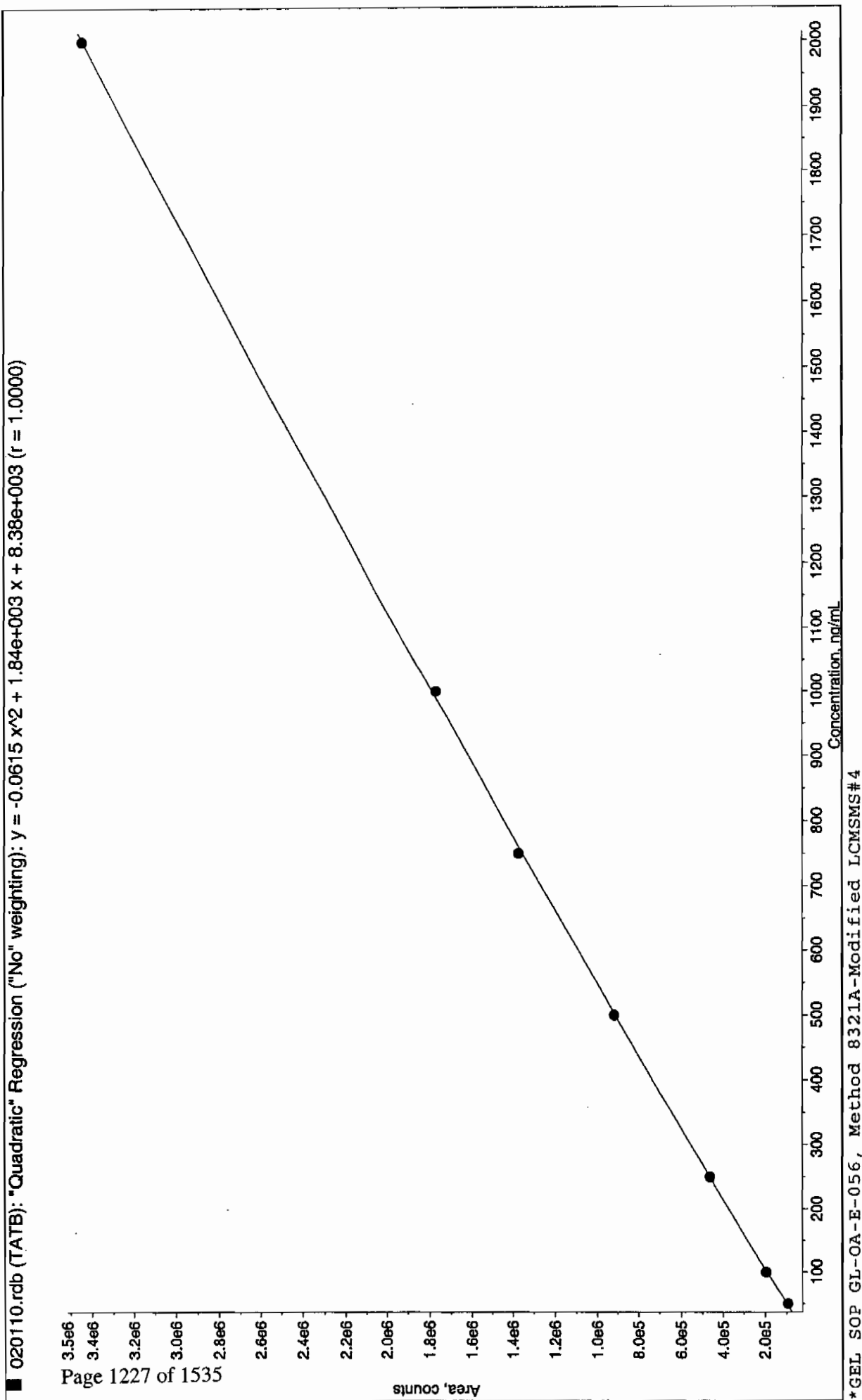
Iterate No

None

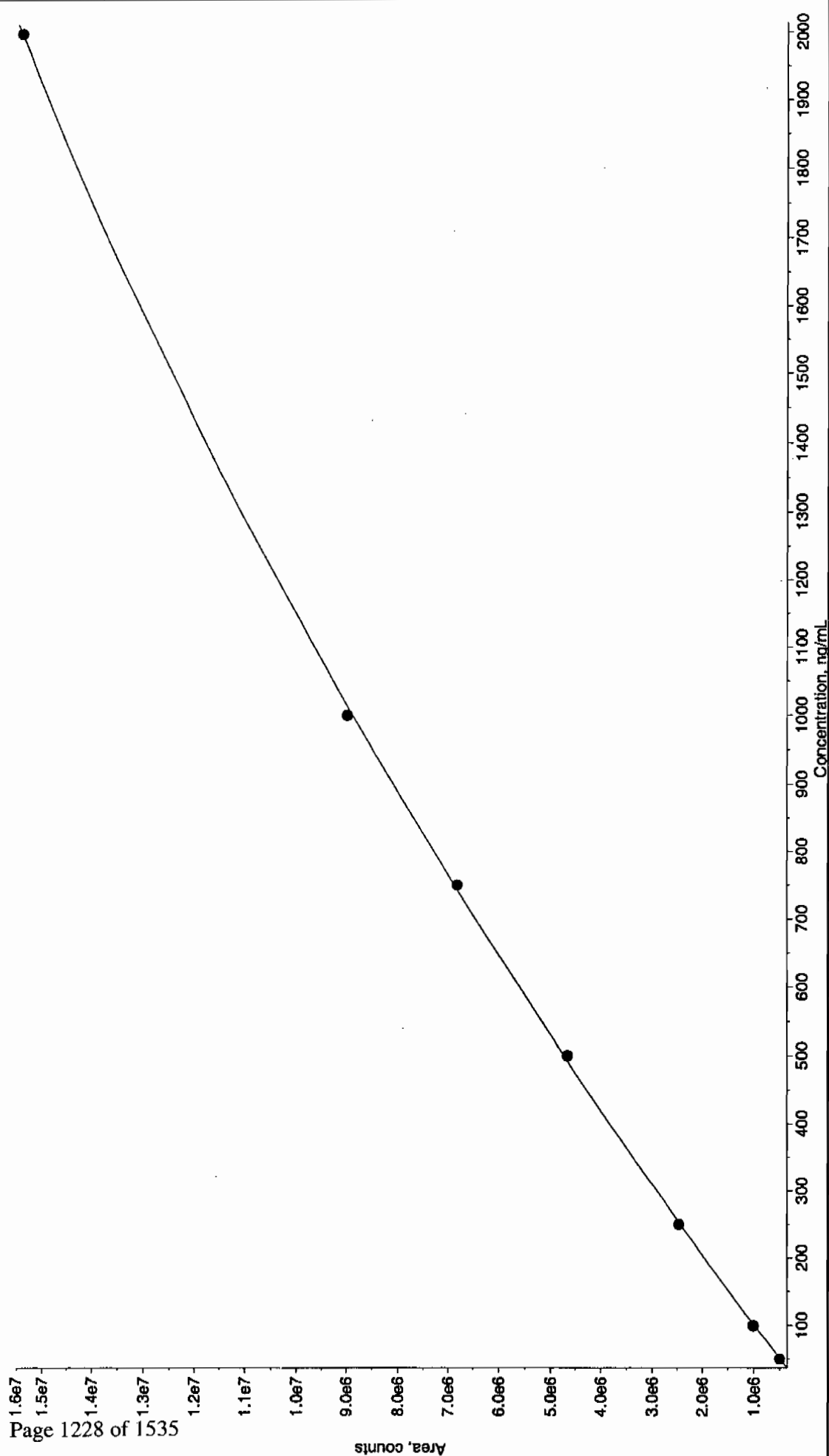
Weighting

Fit Quadratic  
a0 -9.2e+003  
a1 2.38e+004  
a2 -4.22

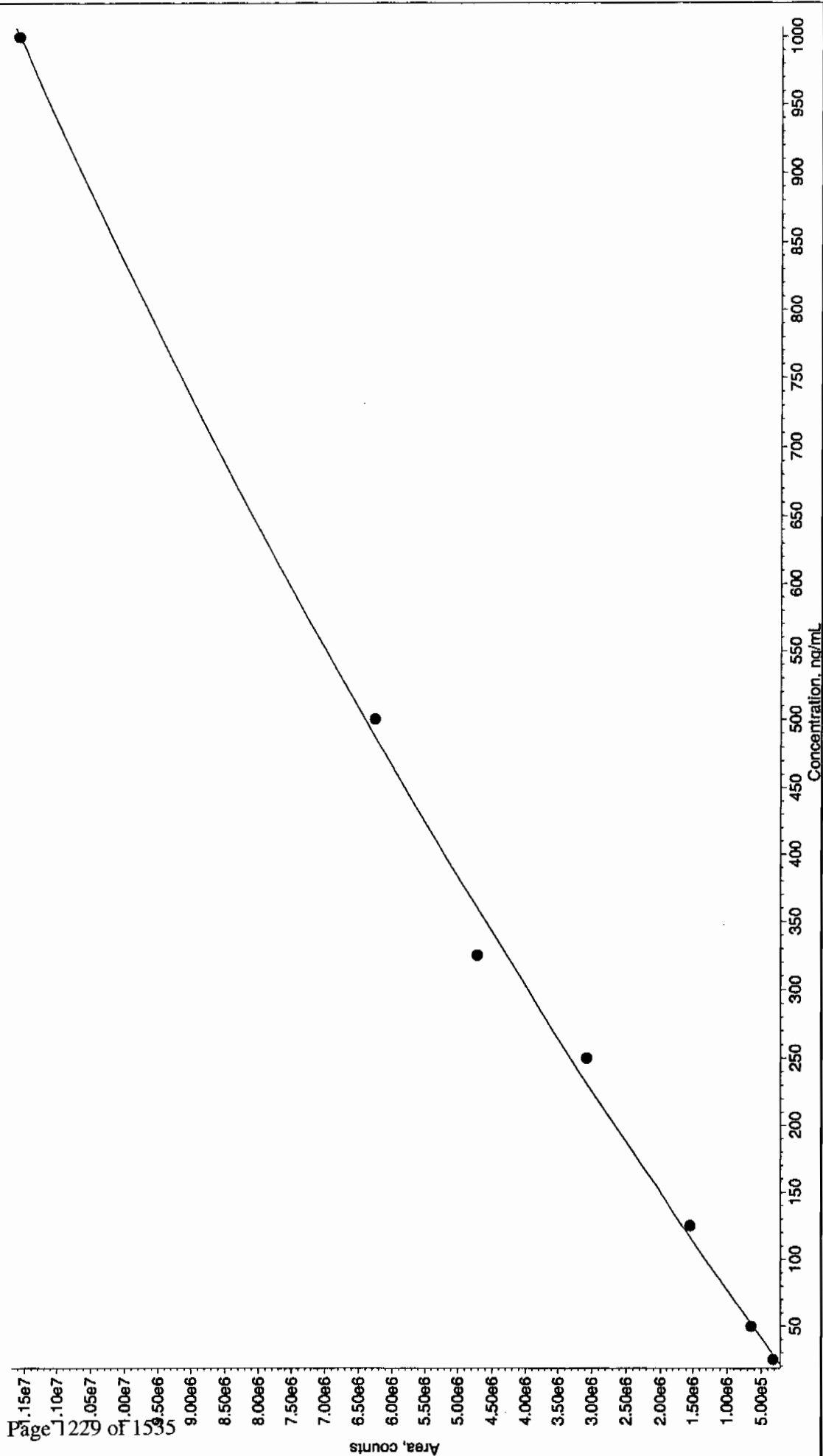
Correlation coefficient 0.9997  
Use Area



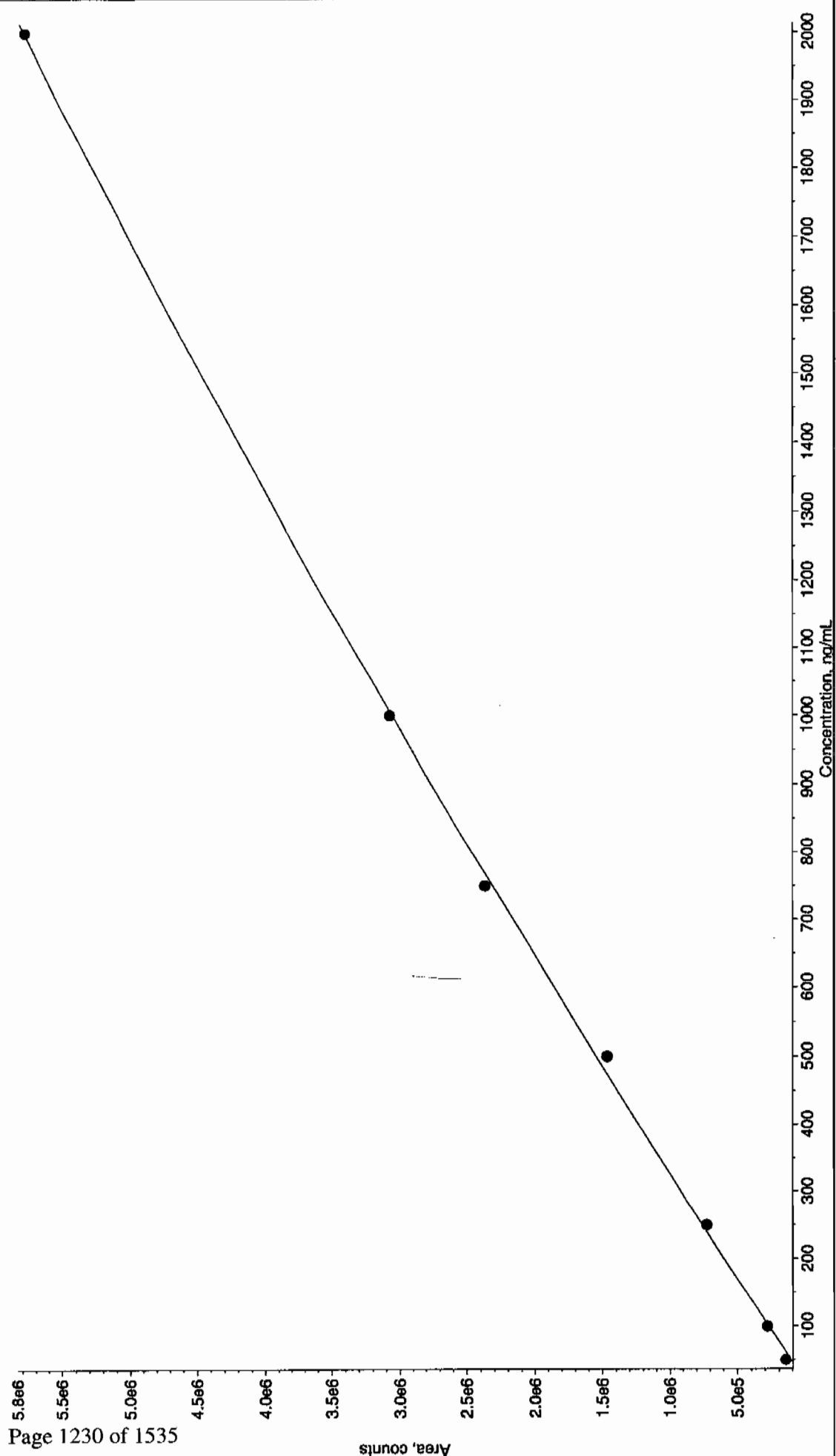
020110.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting):  $y = -1.17 x^2 + 1e+004 x + -1.23e+003$  ( $r = 0.9999$ )



020110.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -2.64 x^2 + 1.43e+004 x + -8.67e+004$  ( $r = 0.9985$ )

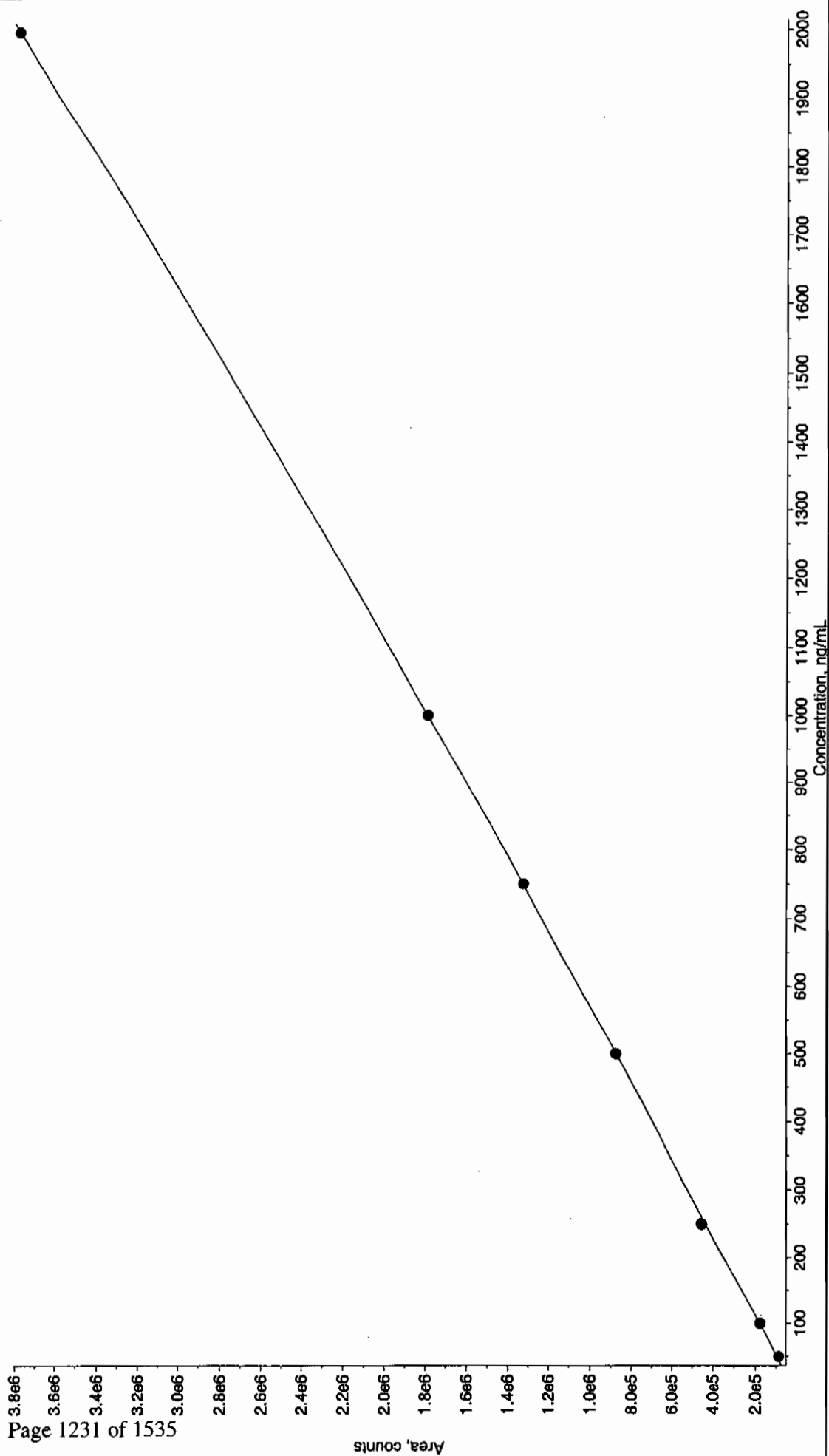


020110.rdb (26-Diamino-4-nitrotoluene): "No" weighting:  $y = -0.184 x^2 + 3.29e+003 x + -5.35e+004$  ( $r = 0.9997$ )

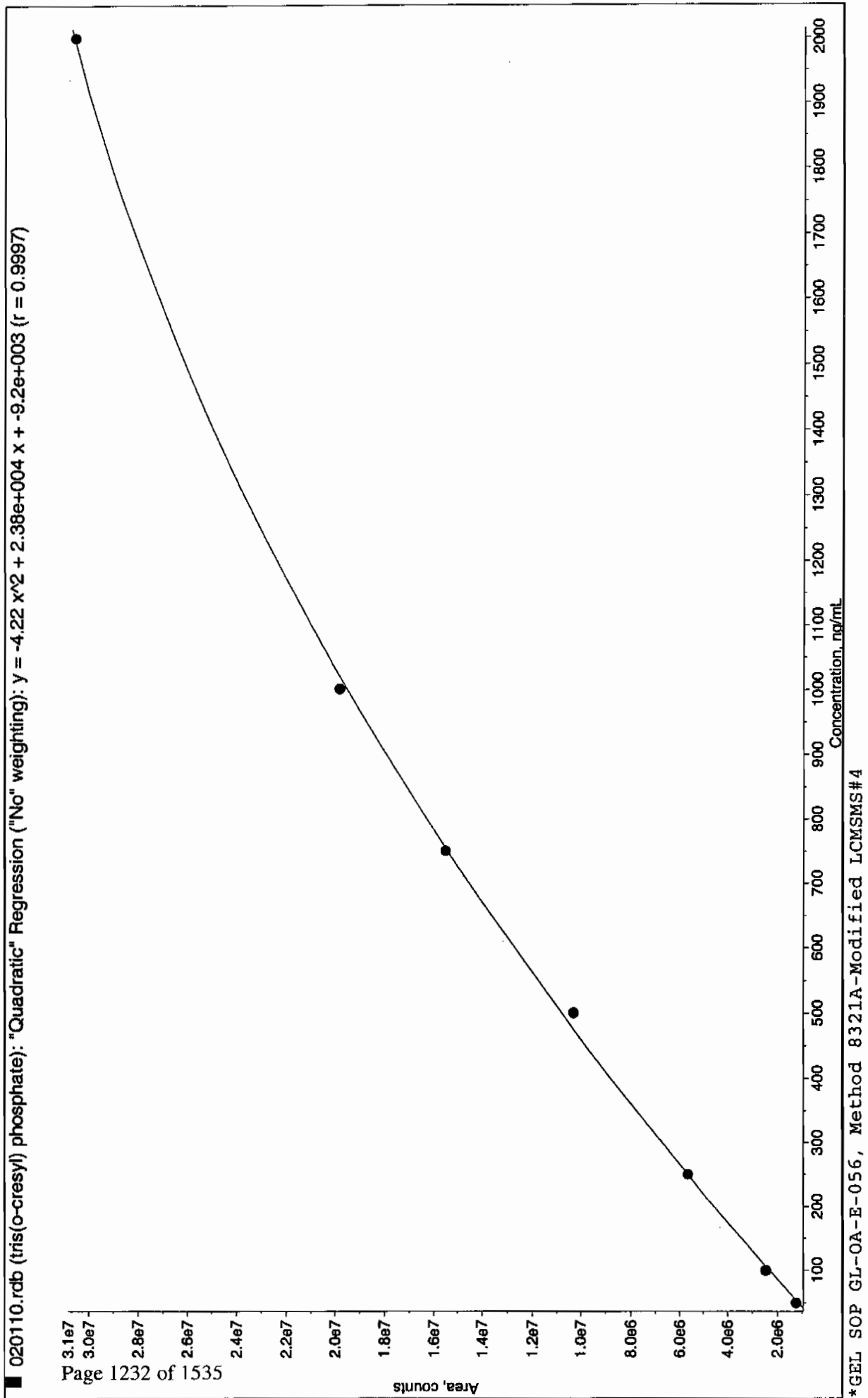


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

020110.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting):  $y = 0.0997 x^2 + 1.68e+003 x + 1.13e+004$  ( $r = 1.0000$ )



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1304

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS02010011.wiff

Analysis Date: 01-FEB-10 19:58

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	485	97	
2,6-Diamino-4-nitrotoluene	500	481	96	
3,4-Dinitrotoluene	250	227	91	
3,5-Dinitroaniline	500	494	99	
TATB	500	497	100	
tris(o-cresyl) phosphate	500	484	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%

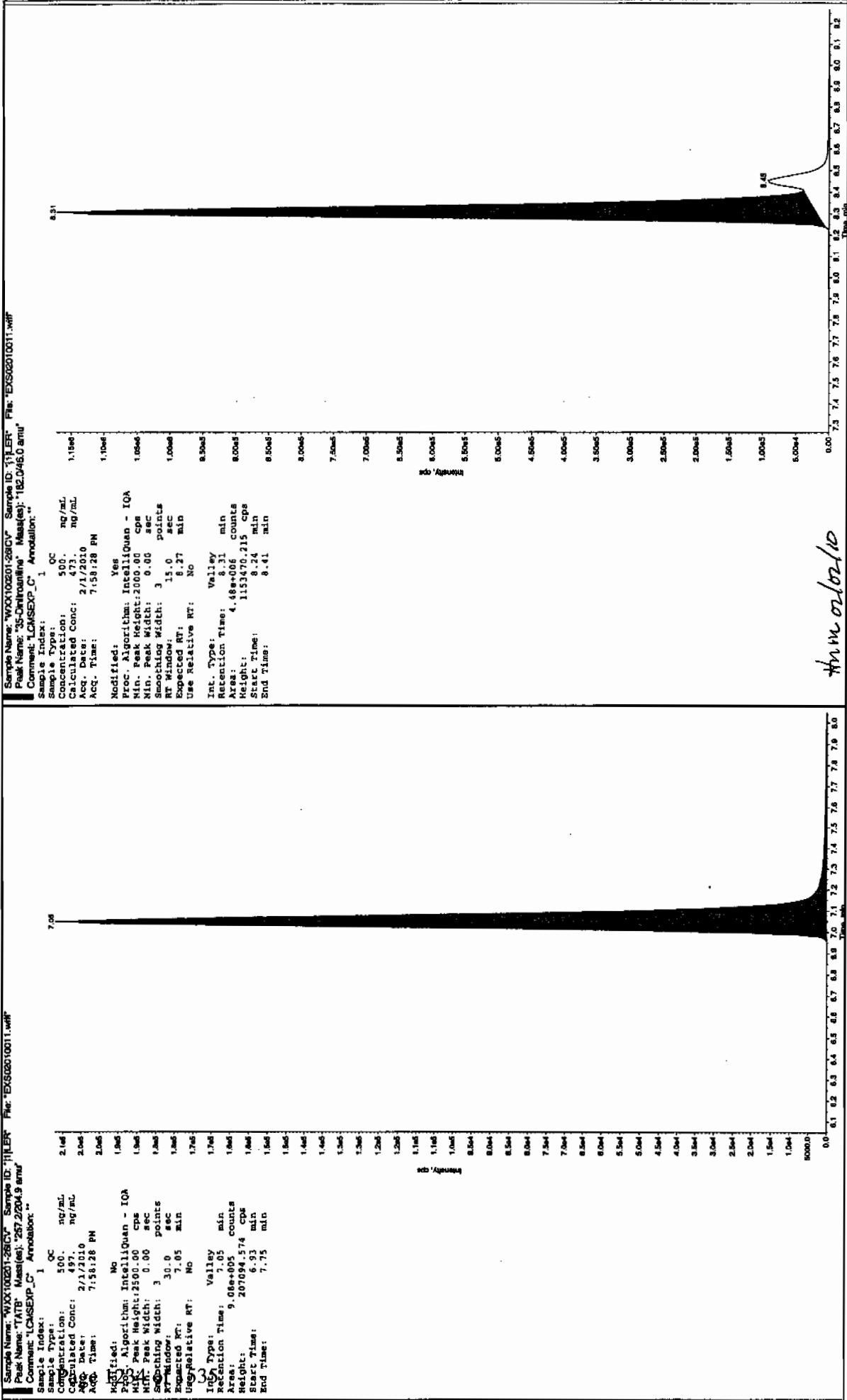
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

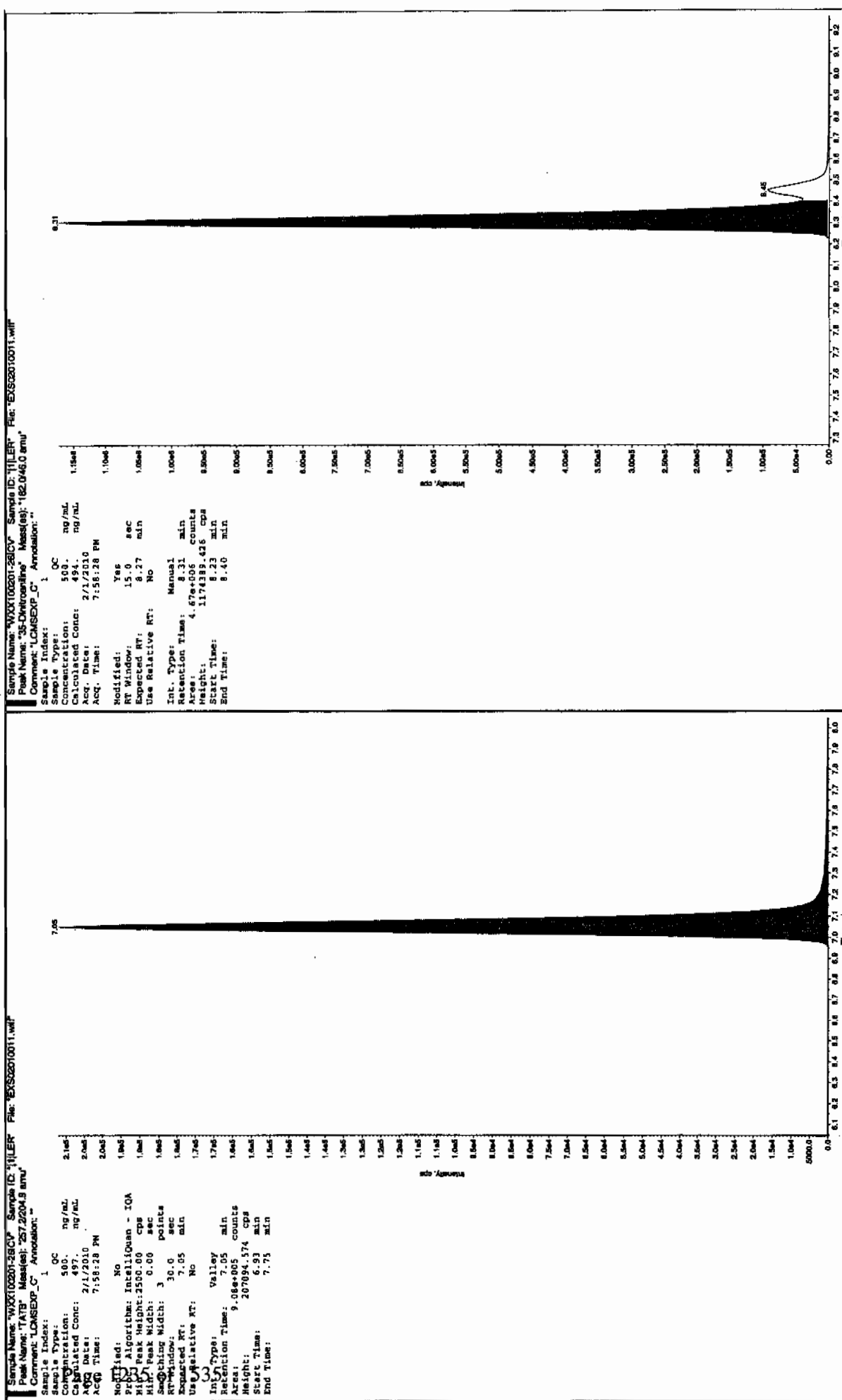


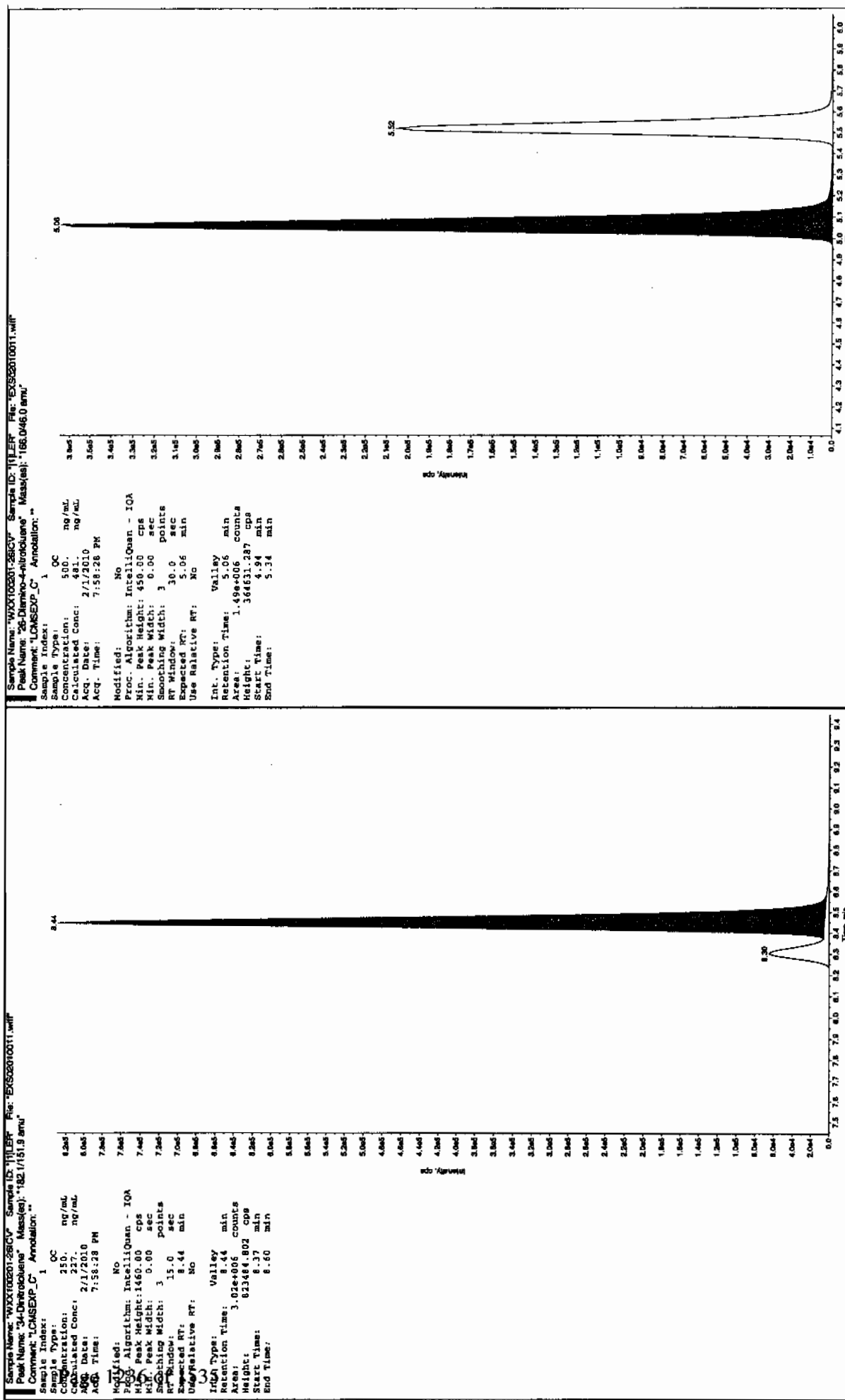
Before Jan 22/10

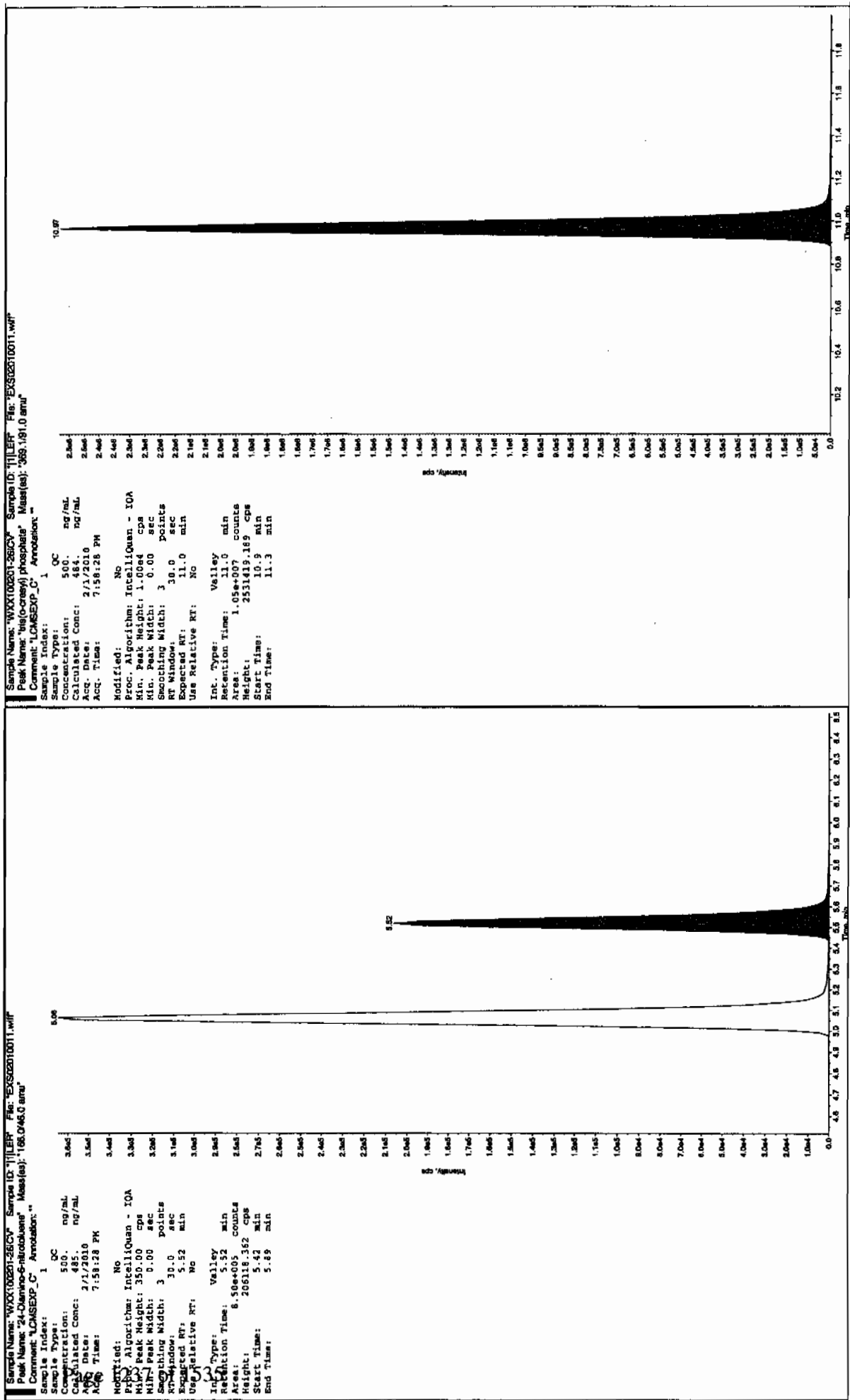


After Jan 22/10

after Jan 21/10







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1304

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208012a

Analysis Date: 08-FEB-10 20:09

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	40.21	101	
1,3-Dinitrobenzene-d4	500	487.883	98	
2,4,6-Trinitrotoluene	40	41.689	104	
2,4-Dinitrotoluene	40	40.338	101	
2,6-Dinitrotoluene	40	41.76	104	
2,6-Dinitrotoluene-d3	500	475.508	95	
2-Amino-4,6-dinitrotoluene	40	38.358	96	
3,4-Dinitrotoluene	20	17.528	88	
4-Amino-2,6-dinitrotoluene	40	38.578	96	
HMX	40	37.759	94	
Nitrobenzene	40	49.333	123	
PETN	40	39.026	98	
RDX	40	41.043	103	
Tetryl	40	37.278	93	
m-Dinitrobenzene	40	39.387	98	
m-Nitrotoluene	40	35.357	88	
o-Nitrotoluene	40	44.694	112	
p-Nitrotoluene	40	41.348	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

Dataset: C:\MASSLYNX\New\_Exp\_PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0208012a

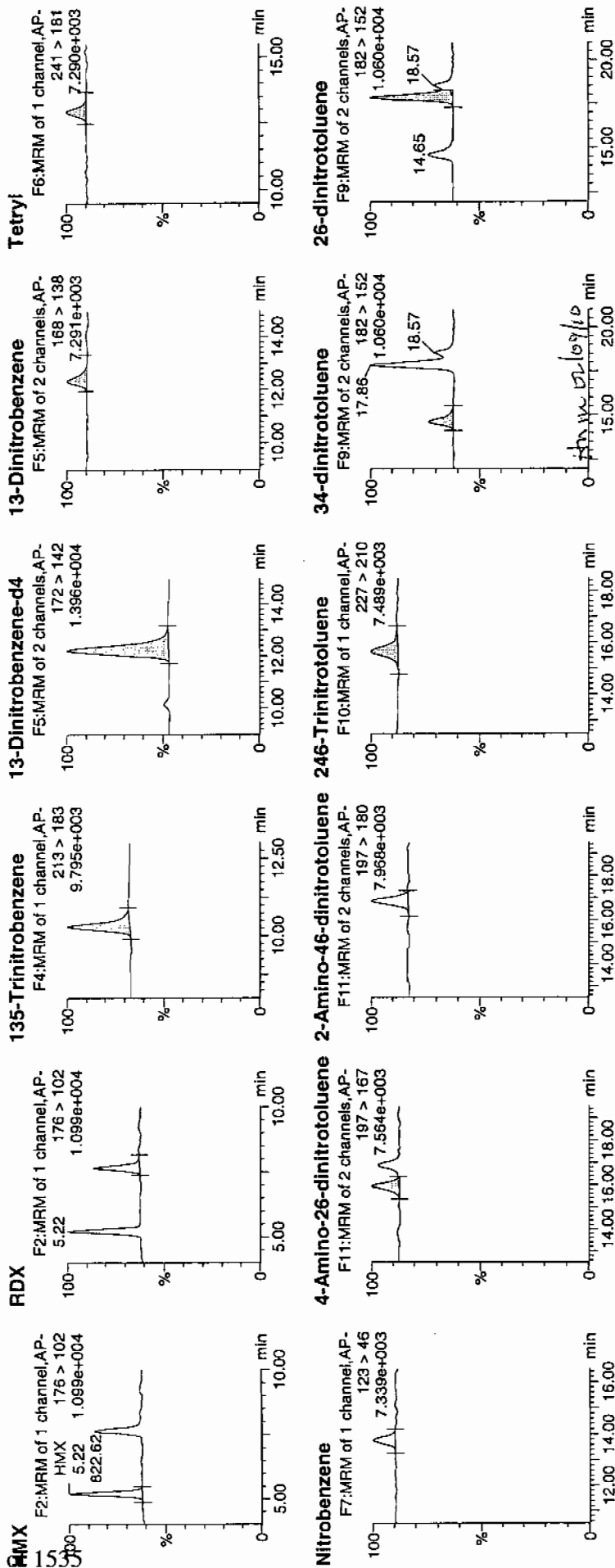
Date: 08-Feb-2010

Time: 20:09:03

ID: WXX100208-08CRI

Ratio: 1:1,C

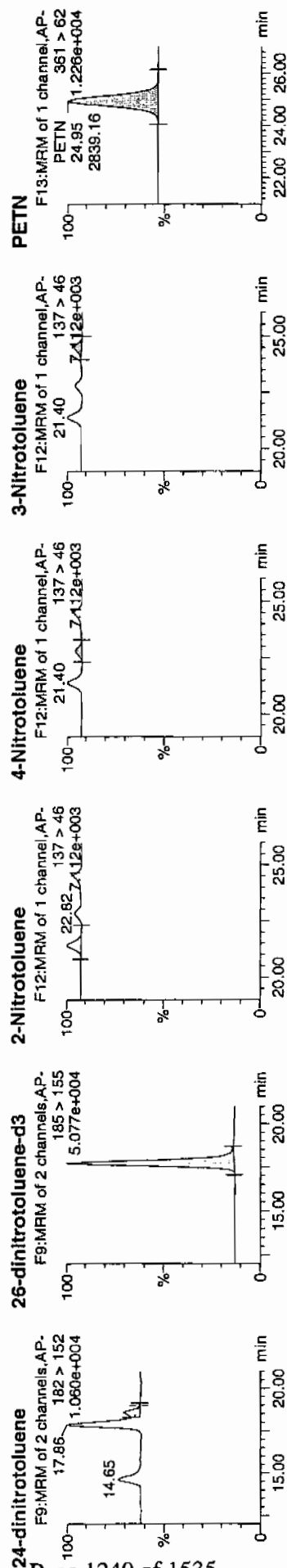
100%  
2/10/10



Printed: Tue Feb 09 10:21:18 2010, Page 24 of 77

# Quantify Sample Report GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	SN
WXX100208-08CRI	HMZ	176 > 102	5.22	822.619	3136.673	822.619	131.129	bb			37.7589	94.4	-5.6	95.4
WXX100208-08CRI	RDX	176 > 102	7.66	625.184	3136.673	625.184	99.657	bb			41.0425	102.6	2.6	61.5
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.30	929.059	3136.673	929.059	148.096	bb			40.2102	100.5	0.5	111.3
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.20	3136.673		3136.673	3136.673	bb			487.8832	97.6	-2.4	122.8
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	297.097	3136.673	297.097	47.359	bb			39.3869	98.5	-1.5	19.3
WXX100208-08CRI	Tetryl	241 > 181	12.92	274.384	3136.673	274.384	43.738	bb			37.2783	93.2	-6.8	24.6
WXX100208-08CRI	Nitrobenzene	123 > 46	13.76	249.993	3136.673	249.993	39.850	bb			49.3333	123.3	23.3	23.5
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.92	389.077	17555.461	389.077	11.081	MM	09-Feb-10	10:07:17	38.5781	96.4	-3.6	24.6
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.86	533.368	17555.461	533.368	15.191	bb			38.3580	95.9	-4.1	43.1
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.64	472.299	17555.461	472.299	13.452	bb			41.6894	104.2	4.2	65.7
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.65	553.874	17555.461	553.874	15.775	bb			17.5279	87.6	-12.4	33.8
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.86	1574.877	17555.461	1574.877	44.854	MM	09-Feb-10	10:14:02	41.7604	104.4	4.4	116.4
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.57	345.648	17555.461	345.648	9.844	MM	09-Feb-10	10:17:05	40.3376	100.8	0.8	25.5
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.71	17555.461		17555.461	17555.461	bb			475.5082	95.1	-4.9	2857.9
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.40	243.311	17555.461	243.311	6.930	bb			44.6944	111.7	11.7	27.5
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.82	110.338	17555.461	110.338	3.143	bb			41.3480	103.4	3.4	12.6
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.51	115.663	17555.461	115.663	3.294	bb			35.3566	88.4	-11.6	14.1
WXX100208-08CRI	PETN	361 > 62	24.95	2839.157	17555.461	2839.157	80.863	bb			39.0264	97.6	-2.4	1037.0

GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 02/08/10  
 Time of Injection 2009  
 Standard Number WXX100208-08CRI  
 Data File EXP0208012a

HMX	94.4
RDX	102.6
135-TNB	100.5
13-DNB	98.5
Tetryl	93.2
Nitrobenzene	123.3
4A-26-DNT	96.4
2A-46-DNT	95.9
246-TNT	104.2
34-DNT(surr)	87.6
26-DNT	104.4
24-DNT	100.8
2-NT	111.7
4-NT	103.4
3-NT	88.4
PETN	97.6

*HA  
2/9/10*

Total 1602.9

Average 100.2

*HA 02/09/10*

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): 10-1304

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208023a

Analysis Date: 09-FEB-10 01:33

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	554.897	92	
1,3-Dinitrobenzene-d4	500	508.101	102	
2,4,6-Trinitrotoluene	600	663.13	111	
2,4-Dinitrotoluene	600	649.62	108	
2,6-Dinitrotoluene	600	630.157	105	
2,6-Dinitrotoluene-d3	500	523.831	105	
2-Amino-4,6-dinitrotoluene	600	647.652	108	
3,4-Dinitrotoluene	300	319.699	107	
4-Amino-2,6-dinitrotoluene	600	634.612	106	
HMX	600	662.759	110	
Nitrobenzene	600	657.025	110	
PETN	600	606.078	101	
RDX	600	749.058	125	*
Tetryl	600	660.942	110	
m-Dinitrobenzene	600	626.395	104	
m-Nitrotoluene	600	578.428	96	
o-Nitrotoluene	600	666.647	111	
p-Nitrotoluene	600	667.754	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

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208023a

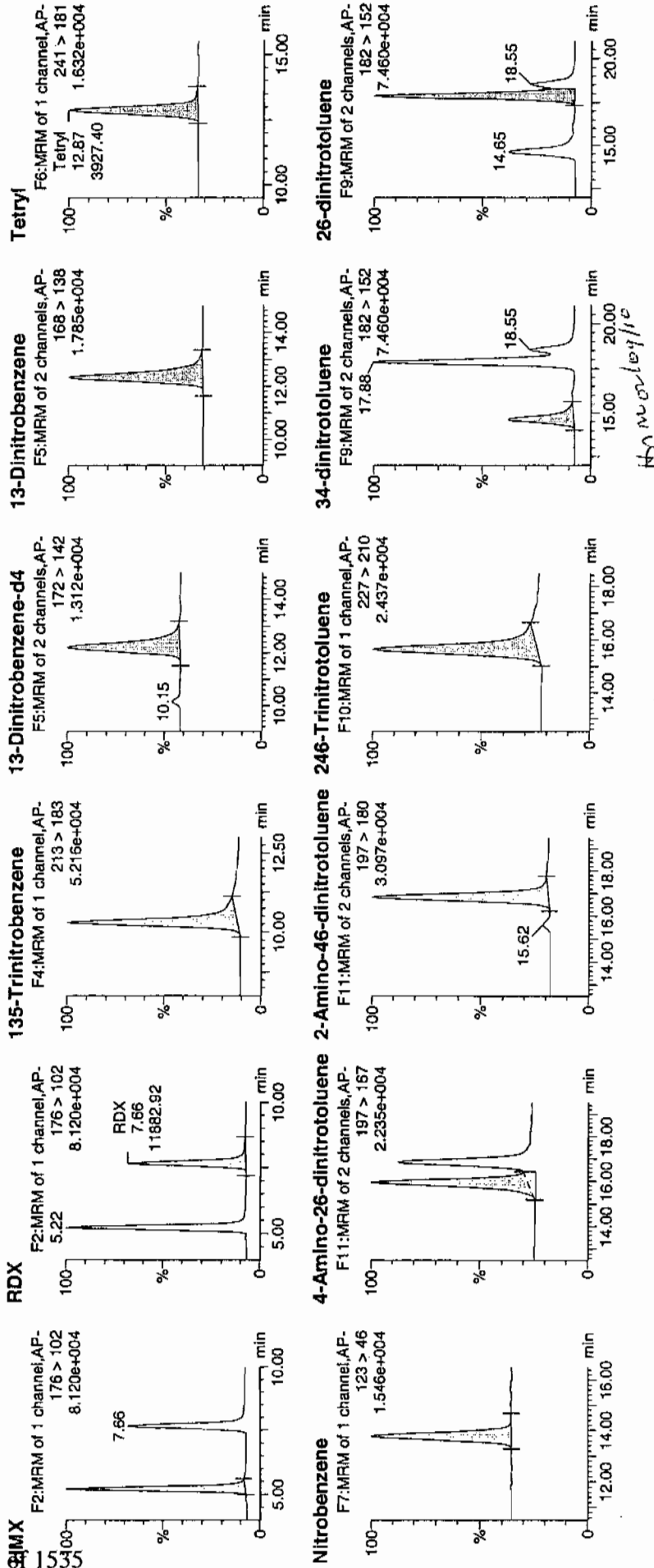
Date: 09-Feb-2010

Time: 01:33:25

ID: WXX100208-07CCV

Vial: 1:1,B

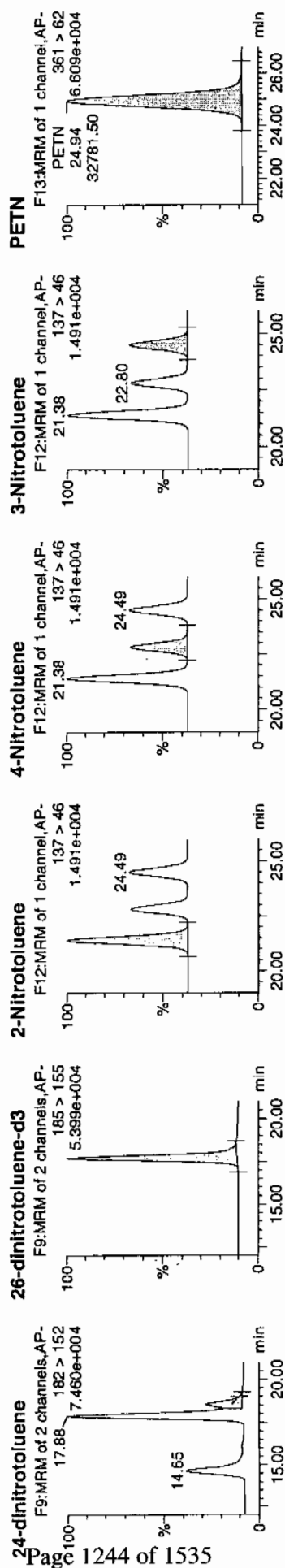
WAT  
2/9/10



Printed: Tue Feb 09 10:21:18 2010, Page 46 of 77

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYN\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.22	15037.290	3266.656	15037.290	2301.634	bb			662.7595	110.5	10.5	1639.6
WXX100208-07CCV	RDX	176 > 102	7.66	11882.921	3266.656	11882.921	1818.820	bb			749.0581	124.8	24.8	1082.1
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.28	13352.233	3266.656	13352.233	2043.716	bb			554.8968	92.5	-7.5	1376.9
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.20	3266.656		3266.656	3266.656	bb			508.1010	101.6	1.6	605.5
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	4920.726	3266.656	4920.726	753.175	bb			626.3952	104.4	4.4	650.7
WXX100208-07CCV	Tetryl	241 > 181	12.87	3927.402	3266.656	3927.402	601.135	bb			660.9418	110.2	10.2	338.7
WXX100208-07CCV	Nitrobenzene	123 > 46	13.76	3467.394	3266.656	3467.394	530.725	bb			657.0246	109.5	9.5	301.8
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.95	7050.759	19339.496	7050.759	182.289	MM	09-Feb-10	10:08:16	634.6121	105.8	5.8	309.2
WXX100208-07CCV	2-Amino-45-dinitrotoluene	197 > 180	16.84	9920.775	19339.496	9920.775	256.490	bb			647.6525	107.9	7.9	941.2
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.64	8276.058	19339.496	8276.058	213.968	bb			663.1304	110.5	10.5	495.8
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.65	11128.977	19339.496	11128.977	287.727	bb			319.6991	106.6	6.6	327.6
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.88	26179.654	19339.496	26179.654	676.844	MM	09-Feb-10	10:14:49	630.1572	105.0	5.0	989.4
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.55	6132.196	19339.496	6132.196	158.541	MM	09-Feb-10	10:18:07	649.6200	108.3	8.3	212.0
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.71	19339.496		19339.496	19339.496	bb			523.8307	104.8	4.8	1406.1
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.38	3997.954	19339.496	3997.954	103.362	bb			666.6469	111.1	11.1	1102.1
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.80	1963.000	19339.496	1963.000	50.751	bb			667.7539	111.3	11.3	513.0
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.49	2084.521	19339.496	2084.521	53.893	bb			578.4278	96.4	-3.6	524.4
WXX100208-07CCV	PETN	361 > 62	24.94	32781.500	19339.496	32781.500	847.527	bb			606.0775	101.0	1.0	5719.1

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 02/09/10  
 Time of Injection: 0133  
 Standard Number: WXX100208-07CCV  
 Data File: EXP0208023a

HMX	110.5
RDX	124.8
135-TNB	92.5
13-DNB	104.4
Tetryl	110.2
Nitrobenzene	109.5
4A-26-DNT	105.8
2A-46-DNT	107.9
246-TNT	110.5
34-DNT(surr)	106.6
26-DNT	105.0
24-DNT	108.3
2-NT	111.1
4-NT	111.3
3-NT	96.4
PETN	101.0

*MAF  
2/9/10*

Total 1715.8

Average 107.2

*MAF on 2/9/10*

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): 10-1304

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208025a

Analysis Date: 09-FEB-10 02:32

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	48.344	121	
1,3-Dinitrobenzene-d4	500	473.5	95	
2,4,6-Trinitrotoluene	40	40.42	101	
2,4-Dinitrotoluene	40	41.928	105	
2,6-Dinitrotoluene	40	42.477	106	
2,6-Dinitrotoluene-d3	500	478.268	96	
2-Amino-4,6-dinitrotoluene	40	34.805	87	
3,4-Dinitrotoluene	20	22.301	112	
4-Amino-2,6-dinitrotoluene	40	34.146	85	
HMX	40	52.317	131	*
Nitrobenzene	40	45.327	113	
PETN	40	49.164	123	
RDX	40	55.212	138	*
Tetryl	40	41.653	104	
m-Dinitrobenzene	40	42.381	106	
m-Nitrotoluene	40	52.115	130	*
o-Nitrotoluene	40	49.924	125	
p-Nitrotoluene	40	50.961	127	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208025a

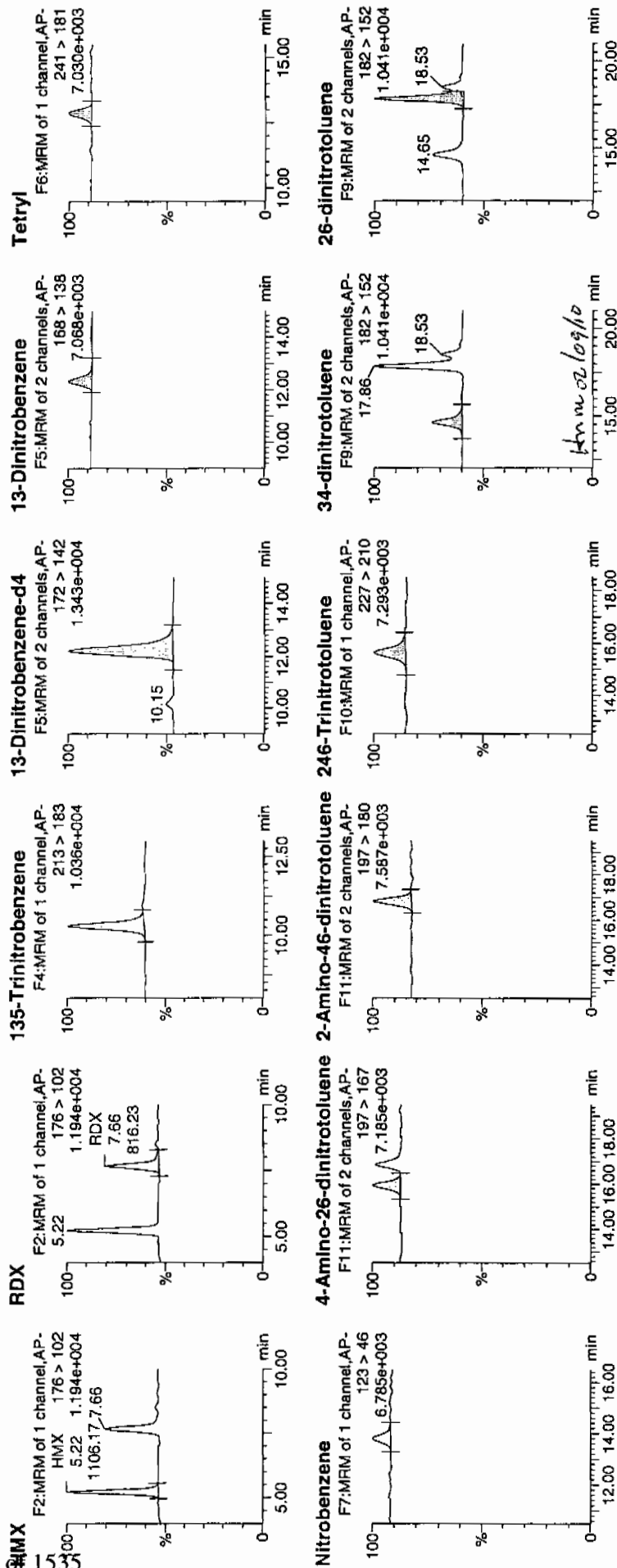
Date: 09-Feb-2010

Time: 02:32:22

ID: WXX100208-08CRI

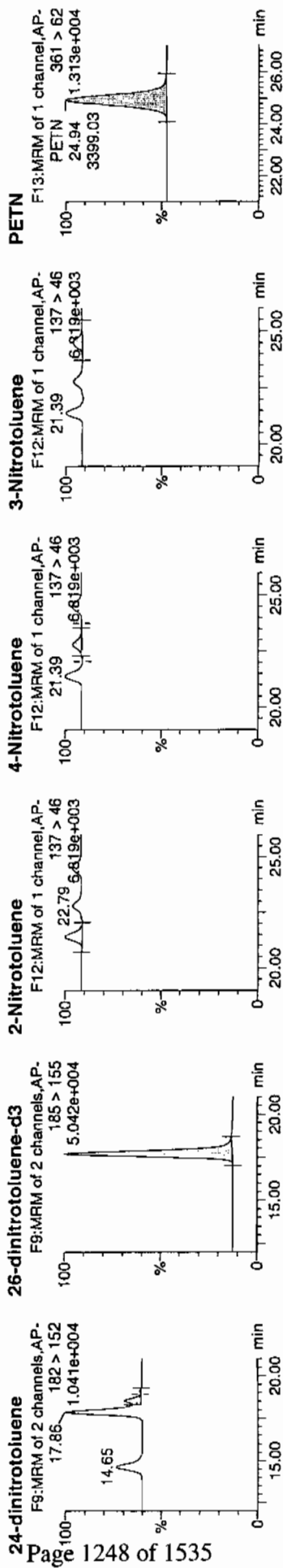
Vial: 1:1,C

WAT  
10/10



Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



ID	Name	Trace	RT	Area	IS Area	Abs. Resp	Response	Flags	Mod. Date	Mod. Time	Conc (mg/ml)	%Rec	%Dev	SN
WXX100208-08CRI	HMX	176 > 102	5.22	1106.172	3044.203	1106.172	181.685	bb			52.3165	130.8	30.8	145.7
WXX100208-08CRI	RDX	176 > 102	7.66	816.232	3044.203	816.232	134.063	bb			55.2123	138.0	38.0	85.9
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.28	1084.060	3044.203	1084.060	178.053	bb			48.3439	120.9	20.9	161.9
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.20	3044.203		3044.203	3044.203	bb			473.5003	94.7	-5.3	257.8
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	310.255	3044.203	310.255	50.958	bb			42.3807	106.0	6.0	45.2
WXX100208-08CRI	Tetryl	241 > 181	12.87	291.717	3044.203	291.717	47.914	bb			41.6529	104.1	4.1	19.9
WXX100208-08CRI	Nitrobenzene	123 > 46	13.80	222.919	3044.203	222.919	36.614	bb			45.3268	113.3	13.3	14.9
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.92	346.380	17657.348	346.380	9.808	bb			34.1464	85.4	-14.6	22.4
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.84	486.778	17657.348	486.778	13.784	bb			34.8054	87.0	-13.0	49.4
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.64	460.576	17657.348	460.576	13.042	bb			40.4200	101.1	1.1	89.9
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.65	708.785	17657.348	708.785	20.071	bb			22.3008	111.5	11.5	40.3
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.86	1611.184	17657.348	1611.184	45.624	MM	09-Feb-10	10:14:57	42.4765	106.2	6.2	118.7
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.53	361.362	17657.348	361.362	10.233	MM	09-Feb-10	10:18:19	41.9281	104.8	4.8	26.4
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.68	17657.348		17657.348	17657.348	bb			478.2680	95.7	-4.3	1801.9
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.39	273.359	17657.348	273.359	7.741	bb			49.9242	124.8	24.8	22.3
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.79	136.781	17657.348	136.781	3.873	MM	09-Feb-10	10:12:02	50.9614	127.4	27.4	11.4
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.49	171.475	17657.348	171.475	4.856	bb			52.1151	130.3	30.3	12.0
WXX100208-08CRI	PETN	361 > 62	24.94	3399.029	17657.348	3399.029	96.250	bb			48.1641	122.9	22.9	286.4

GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 02/09/10  
 Time of Injection 0232  
 Standard Number WXX100208-08CRI  
 Data File EXP0208025a

HMX	130.8
RDX	138.0
135-TNB	120.9
13-DNB	106.0
Tetryl	104.1
Nitrobenzene	113.3
4A-26-DNT	85.4
2A-46-DNT	87.0
246-TNT	101.1
34-DNT(surr)	111.5
26-DNT	106.2
24-DNT	104.8
2-NT	124.8
4-NT	127.4
3-NT	130.3
PETN	122.9

*2/9/10*

Total 1814.5

Average 113.4

*Time 02/09/10*

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): 10-1304

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208036a

Analysis Date: 09-FEB-10 07:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	557.726	93	
1,3-Dinitrobenzene-d4	500	507.978	102	
2,4,6-Trinitrotoluene	600	683.818	114	
2,4-Dinitrotoluene	600	677.06	113	
2,6-Dinitrotoluene	600	638.573	106	
2,6-Dinitrotoluene-d3	500	505.031	101	
2-Amino-4,6-dinitrotoluene	600	628.37	105	
3,4-Dinitrotoluene	300	343.206	114	
4-Amino-2,6-dinitrotoluene	600	610.088	102	
HMX	600	580.276	97	
Nitrobenzene	600	601.509	100	
PETN	600	627.319	105	
RDX	600	669.645	112	
Tetryl	600	596.357	99	
m-Dinitrobenzene	600	631.512	105	
m-Nitrotoluene	600	558.007	93	
o-Nitrotoluene	600	611.096	102	
p-Nitrotoluene	600	633.085	106	

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

Printed: Tue Feb 09 10:21:18 2010, Page 71 of 77

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208036a

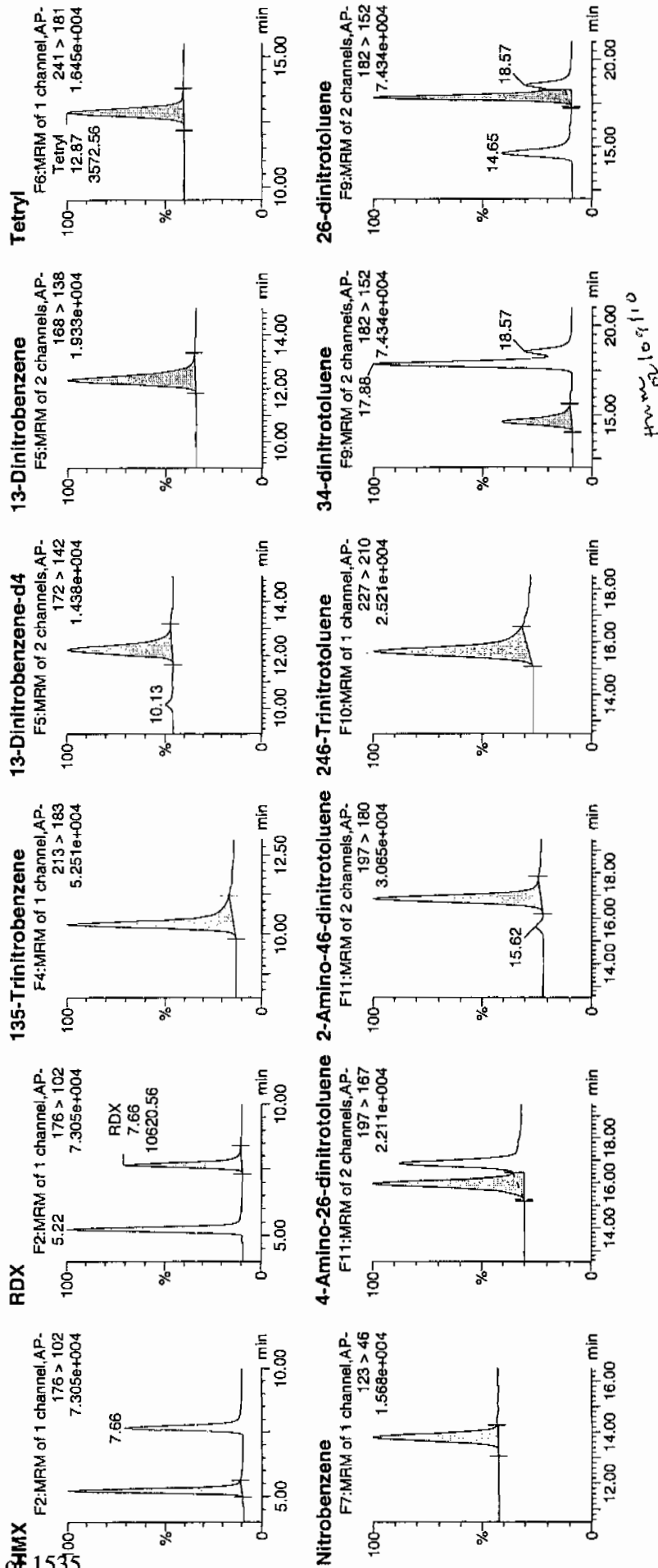
Date: 09-Feb-2010

Time: 07:57:19

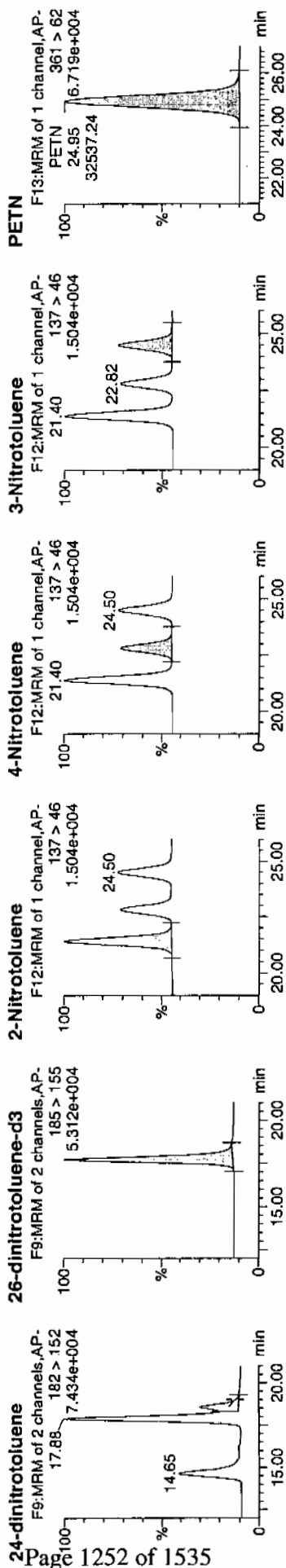
ID: WXX100208-07CCV

Vial: 1:1,B

AP  
1/9/10  
2



Dataset: C:\MASSLYNX\New\_Exp\_PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc	%Rec	%Dev	SN
WXX100208-07CCV	HMX	176 > 102	5.22	13162.657	3265.867	13162.657	2015.186	bb			580.2763	96.7	-3.3	1346.4
WXX100208-07CCV	RDX	176 > 102	7.66	10620.564	3265.867	10620.564	1625.995	bb			669.6453	111.6	11.6	912.9
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.30	13417.060	3265.867	13417.060	2054.134	bb			557.7256	93.0	-7.0	1689.0
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.20	3265.867	3265.867	3265.867	3265.867	bb			507.9782	101.6	1.6	605.7
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	4959.725	3265.867	4959.725	759.327	bb			631.5122	105.3	5.3	605.8
WXX100208-07CCV	Tetryl	241 > 181	12.87	3572.560	3265.867	3572.560	546.954	bb			596.3571	99.4	-0.6	266.7
WXX100208-07CCV	Nitrobenzene	123 > 46	13.80	3173.647	3265.867	3173.647	485.881	bd			601.5088	100.3	0.3	397.7
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.95	6535.022	18645.436	6535.022	175.245	MM	09-Feb-10	10:08:38	610.0875	101.7	1.7	220.1
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.84	9279.965	18645.436	9279.965	248.854	bb			628.3699	104.7	4.7	600.3
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.64	8227.966	18645.436	8227.966	220.643	bb			683.8179	114.0	14.0	212.5
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.65	11518.506	18645.436	11518.506	308.883	bb			343.2061	114.4	14.4	186.4
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.88	25577.211	18645.436	25577.211	685.884	MM	09-Feb-10	10:15:19	638.5734	106.4	6.4	536.5
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.57	6161.852	18645.436	6161.852	165.238	MM	09-Feb-10	10:18:29	677.0601	112.8	12.8	117.9
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.71	18645.436	18645.436	18645.436	18645.436	bb			505.0314	101.0	1.0	1377.3
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.40	3533.284	18645.436	3533.284	94.749	bb			611.0957	101.8	1.8	676.4
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.82	1794.293	18645.436	1794.293	48.116	bb			633.0852	105.5	5.5	322.7
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.50	1938.759	18645.436	1938.759	51.990	bb			558.0066	93.0	-7.0	336.8
WXX100208-07CCV	PETN	361 > 62	24.95	32537.242	18645.436	32537.242	872.526	bb			627.3190	104.6	4.6	16598.7

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 02/09/10  
 Time of Injection: 0757  
 Standard Number: WXX100208-07CCV  
 Data File: EXP0208036a

HMX	96.7
RDX	111.6
135-TNB	93.0
13-DNB	105.3
Tetryl	99.4
Nitrobenzene	100.3
4A-26-DNT	101.7
2A-46-DNT	104.7
246-TNT	114.0
34-DNT(surr)	114.4
26-DNT	106.4
24-DNT	112.8
2-NT	101.8
4-NT	105.5
3-NT	93.0
PETN	104.6

*Handwritten:* 1477  
2/9/10

Total 1665.2

*Handwritten:* 1665.2

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): 10-1304

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208038a

Analysis Date: 09-FEB-10 08:56

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	41.878	105	
1,3-Dinitrobenzene-d4	500	600.974	120	
2,4,6-Trinitrotoluene	40	41.161	103	
2,4-Dinitrotoluene	40	39.718	99	
2,6-Dinitrotoluene	40	41.46	104	
2,6-Dinitrotoluene-d3	500	511.208	102	
2-Amino-4,6-dinitrotoluene	40	41.059	103	
3,4-Dinitrotoluene	20	24.686	123	
4-Amino-2,6-dinitrotoluene	40	44.787	112	
HMX	40	36.25	91	
Nitrobenzene	40	44.383	111	
PETN	40	42.434	106	
RDX	40	40.143	100	
Tetryl	40	36.6	92	
m-Dinitrobenzene	40	41.257	103	
m-Nitrotoluene	40	38.786	97	
o-Nitrotoluene	40	43.692	109	
p-Nitrotoluene	40	33.849	85	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208038a

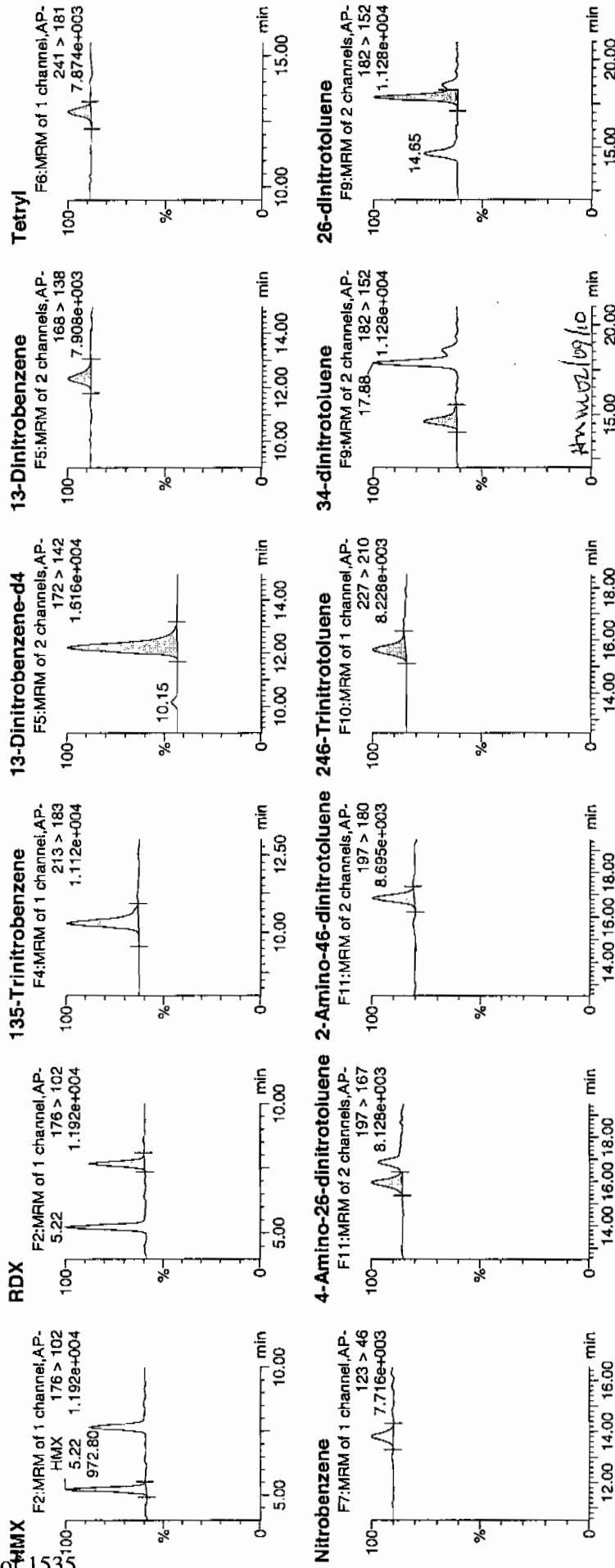
Date: 09-Feb-2010

Time: 08:56:17

ID: WXX100208-08CRI

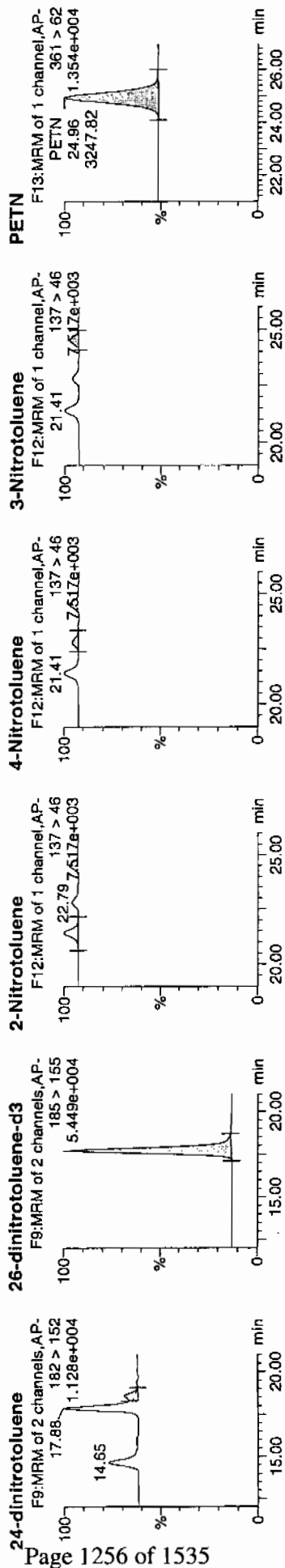
Vial: 1:1,C

WXX  
2/10



**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



ID	Name	Trace	RT	Area	IS:Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	Conc./mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.22	972.801	3863.752	972.801	125.888	bb			36.2497	90.6	-9.4	111.9
WXX100208-08CRI	RDX	176 > 102	7.66	753.223	3863.752	753.223	97.473	bb			40.1430	100.4	0.4	77.4
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.28	1191.883	3863.752	1191.883	154.239	bb			41.8780	104.7	4.7	118.4
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.20	3863.752	3863.752	3863.752	3863.752	bb			600.9743	120.2	20.2	435.6
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	383.336	3863.752	383.336	49.607	bb			41.2566	103.1	3.1	20.7
WXX100208-08CRI	Tetryl	241 > 181	12.87	332.982	3863.752	332.982	43.090	bb			36.6002	91.5	-8.5	27.6
WXX100208-08CRI	Nitrobenzene	123 > 46	13.80	277.043	3863.752	277.043	35.852	bb			44.3833	111.0	11.0	19.4
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.92	485.610	18873.490	485.610	12.865	MM	09-Feb-10	10:08:44	44.7871	112.0	12.0	52.7
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.84	613.793	18873.490	613.793	16.261	bb			41.0593	102.6	2.6	87.6
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.64	501.319	18873.490	501.319	13.281	bb			41.1607	102.9	2.9	66.2
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.65	838.618	18873.490	838.618	22.217	bb			24.6856	123.4	23.4	48.7
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.88	1680.954	18873.490	1680.954	44.532	MM	09-Feb-10	10:15:31	41.4604	103.7	3.7	121.8
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.59	365.888	18873.490	365.888	9.693	MM	09-Feb-10	10:18:36	39.7177	99.3	-0.7	22.8
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.71	18873.490	18873.490	18873.490	18873.490	bb			511.2084	102.2	2.2	1598.8
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.41	255.711	18873.490	255.711	6.774	bb			43.6918	109.2	9.2	36.6
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.79	97.109	18873.490	97.109	2.573	bb			33.8492	84.6	-15.4	15.6
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.53	136.407	18873.490	136.407	3.614	bb			38.7858	97.0	-3.0	22.9
WXX100208-08CRI	PETN	361 > 62	24.96	3247.825	18873.490	3247.825	86.042	bb			42.4344	106.1	6.1	522.7

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 02/09/10  
 Time of Injection 0856  
 Standard Number WXX100208-08CRI  
 Data File EXP0208038a

HMX	90.6
RDX	100.4
135-TNB	104.7
13-DNB	103.1
Tetryl	91.5
Nitrobenzene	111.0
4A-26-DNT	112.0
2A-46-DNT	102.6
246-TNT	102.9
34-DNT(surr)	123.4
26-DNT	103.7
24-DNT	99.3
2-NT	109.2
4-NT	84.6
3-NT	97.0
PETN	106.1
Total	1642.1

*not  
2/9/10*

Average

102.6

*from calc*

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): 10-1304

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208049a

Analysis Date: 09-FEB-10 14:20

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	581.172	97	
1,3-Dinitrobenzene-d4	500	549.978	110	
2,4,6-Trinitrotoluene	600	711.282	119	
2,4-Dinitrotoluene	600	646.244	108	
2,6-Dinitrotoluene	600	631.864	105	
2,6-Dinitrotoluene-d3	500	554.109	111	
2-Amino-4,6-dinitrotoluene	600	637.752	106	
3,4-Dinitrotoluene	300	327.767	109	
4-Amino-2,6-dinitrotoluene	600	652.073	109	
HMX	600	648.743	108	
Nitrobenzene	600	534.529	89	
PETN	600	566.64	94	
RDX	600	721.033	120	*
Tetryl	600	576.02	96	
m-Dinitrobenzene	600	635.781	106	
m-Nitrotoluene	600	523.672	87	
o-Nitrotoluene	600	534.766	89	
p-Nitrotoluene	600	557.168	93	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

## Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

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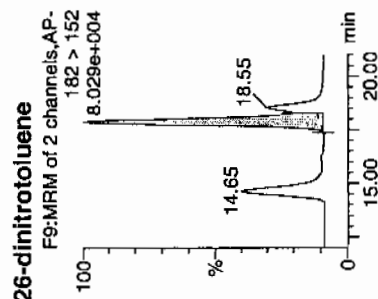
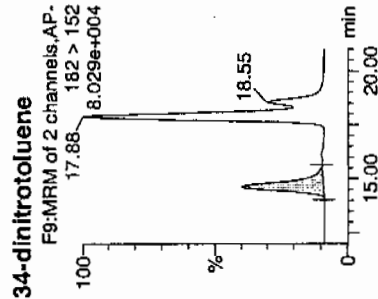
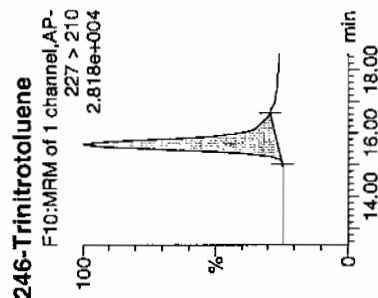
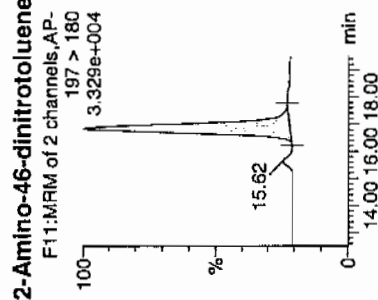
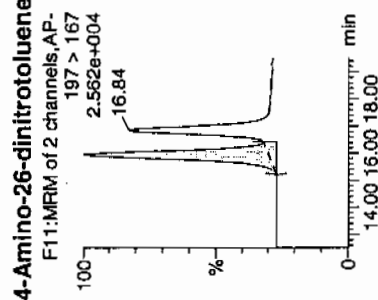
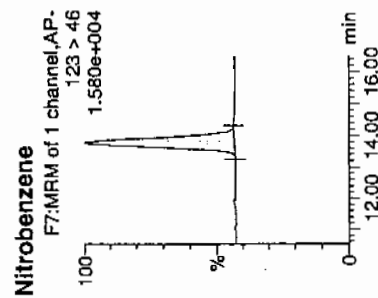
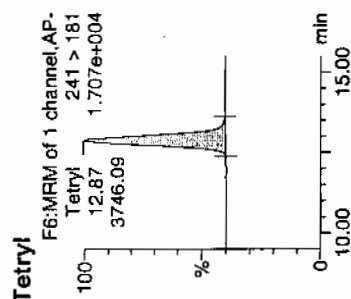
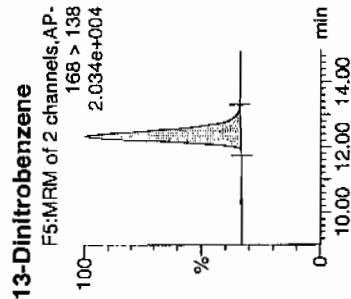
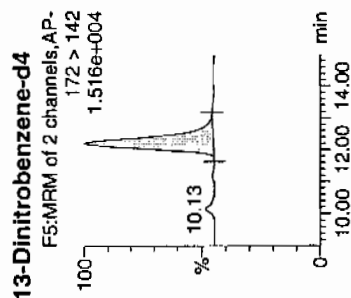
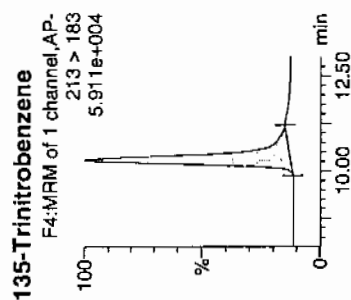
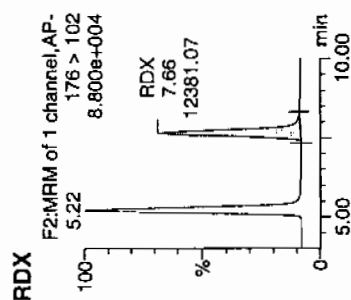
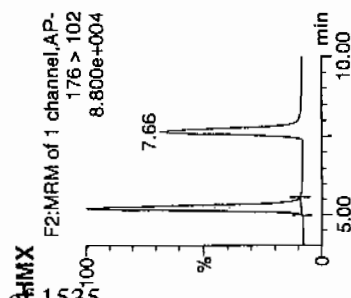
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Date: 09-Feb-2010

Time: 14:20:41

ID: WXX100208-07CCV

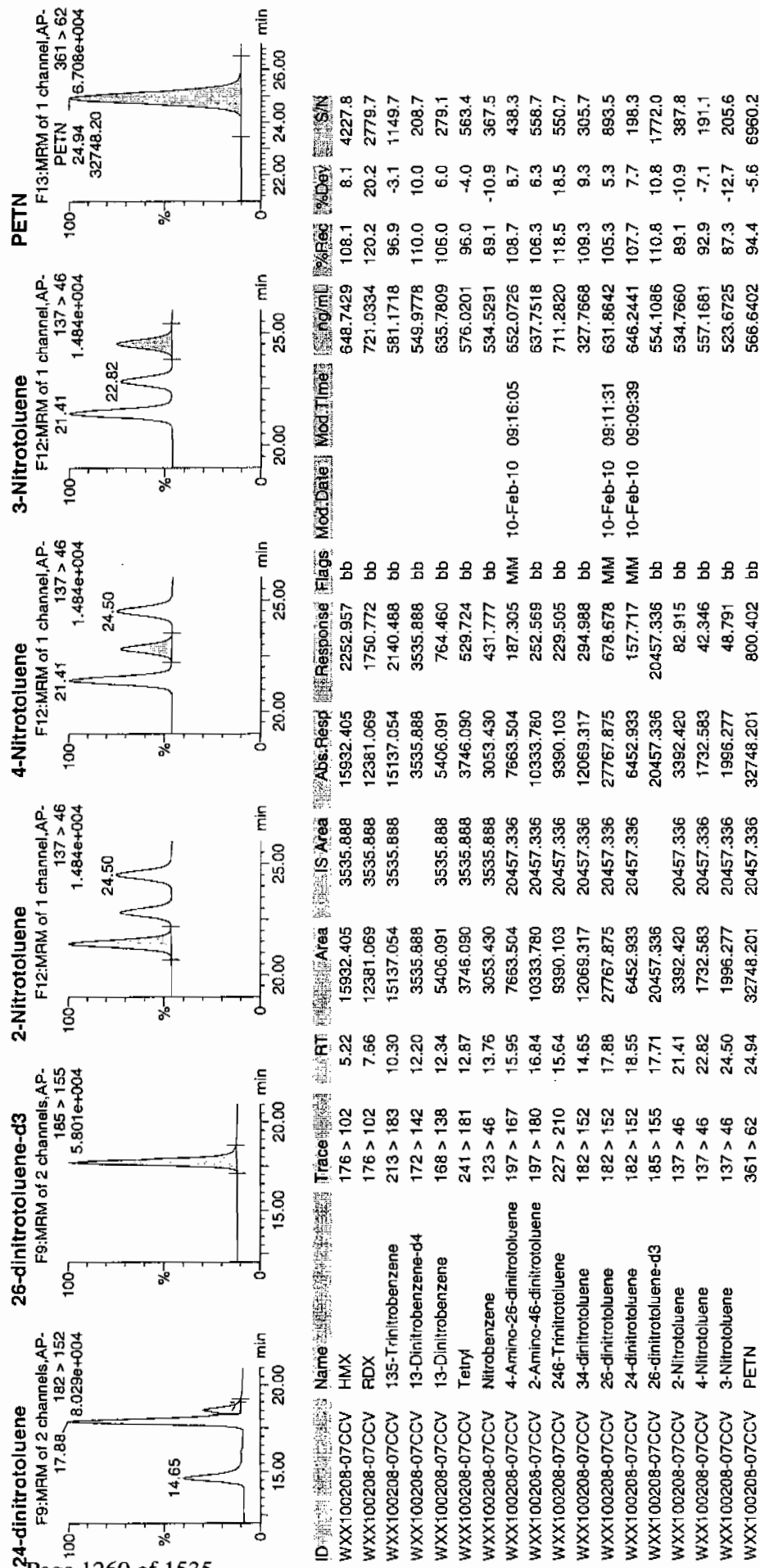
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Home of the

**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PROV020810expA1.qld, Time: Wed Feb 10 09:19:53 2010



GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 02/09/10  
 Time of Injection: 1420  
 Standard Number: WXX100208-07CCV  
 Data File: EXP0208049a

HMX	108.1
RDX	120.2
135-TNB	96.9
13-DNB	106.0
Tetryl	96.0
Nitrobenzene	89.1
4A-26-DNT	108.7
2A-46-DNT	106.3
246-TNT	118.5
34-DNT(surr)	109.3
26-DNT	105.3
24-DNT	107.7
2-NT	89.1
4-NT	92.9
3-NT	87.3
PETN	94.4

*not  
2/10/10*

Total 1635.8

Average 102.2

*done 02/10/10*

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): 10-1304

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208051a

Analysis Date: 09-FEB-10 15:19

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	43.499	109	
1,3-Dinitrobenzene-d4	500	575.339	115	
2,4,6-Trinitrotoluene	40	37.174	93	
2,4-Dinitrotoluene	40	39.545	99	
2,6-Dinitrotoluene	40	44.458	111	
2,6-Dinitrotoluene-d3	500	556.656	111	
2-Amino-4,6-dinitrotoluene	40	44.445	111	
3,4-Dinitrotoluene	20	22.823	114	
4-Amino-2,6-dinitrotoluene	40	42.665	107	
HMX	40	42.028	105	
Nitrobenzene	40	40.451	101	
PETN	40	36.261	91	
RDX	40	37.937	95	
Tetryl	40	44.71	112	
m-Dinitrobenzene	40	44.913	112	
m-Nitrotoluene	40	32.902	82	
o-Nitrotoluene	40	39.318	98	
p-Nitrotoluene	40	38.91	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 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

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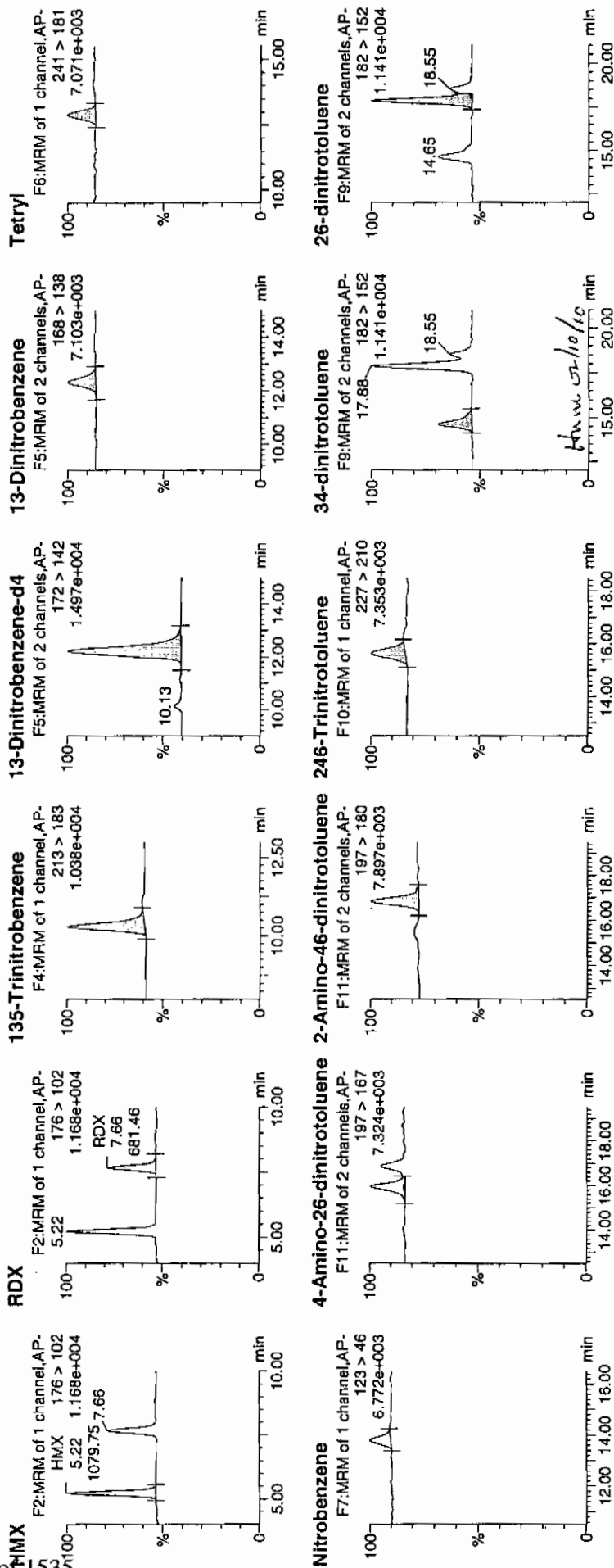
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Time: 15:19:46

ID: WXX100208-08CRI

Vial: 1:1,C

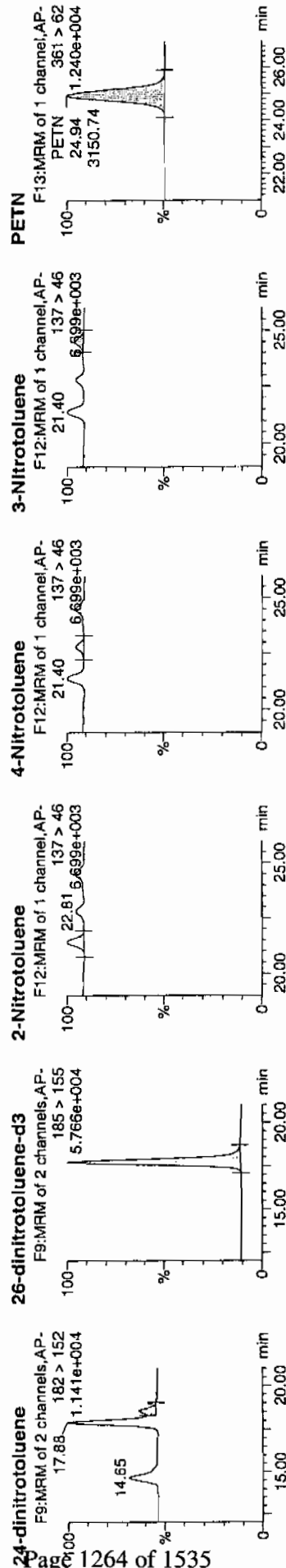
10/10  
2/10/10



Printed: Wed Feb 10 09:25:16 2010, Page 26 of 79

# Quantify Sample Report GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010



ID	Name	Trace	RT	Area	IS Area	Abs. Resp	Response	Flags	Mod Date	Mod Time	ng/mL	% Rec	% Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.22	1079.752	3698.938	1079.752	145.954	bb	10-Feb-10	09:15:53	42.0278	105.1	5.1	142.2
WXX100208-08CRI	RDX	176 > 102	7.66	681.462	3698.938	681.462	92.116	bb	10-Feb-10	09:15:53	37.9368	94.8	-5.2	77.8
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.28	1185.200	3698.938	1185.200	160.208	bb	10-Feb-10	09:15:53	43.4987	108.7	8.7	112.1
WXX100208-08CRI	13-Dinitrobenzene	172 > 142	12.20	3698.938	3698.938	3698.938	3698.938	bb	10-Feb-10	09:15:53	575.3398	115.1	15.1	520.0
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	399.509	3698.938	399.509	54.003	bb	10-Feb-10	09:15:53	44.9130	112.3	12.3	46.9
WXX100208-08CRI	Tetryl	241 > 181	12.87	376.028	3698.938	376.028	50.829	bb	10-Feb-10	09:15:53	44.7099	111.8	11.8	36.6
WXX100208-08CRI	Nitrobenzene	123 > 46	13.76	241.726	3698.938	241.726	32.675	bb	10-Feb-10	09:15:53	40.4509	101.1	1.1	30.0
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.95	503.725	20551.385	503.725	12.255	MM	10-Feb-10	09:15:53	42.6648	106.7	6.7	25.0
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.84	723.475	20551.385	723.475	17.602	bb	10-Feb-10	09:15:53	44.4451	111.1	11.1	30.7
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.64	493.014	20551.385	493.014	11.995	bb	10-Feb-10	09:15:53	37.1739	92.9	-7.1	37.3
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.65	844.283	20551.385	844.283	20.541	bb	10-Feb-10	09:15:53	22.8233	114.1	14.1	68.4
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.88	1962.747	20551.385	1962.747	47.752	MM	10-Feb-10	09:15:53	44.4584	111.1	11.1	212.7
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.55	396.684	20551.385	396.684	9.651	MM	10-Feb-10	09:15:53	39.5450	98.9	-1.1	42.0
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.71	20551.385	20551.385	20551.385	20551.385	bb	10-Feb-10	09:15:53	556.6560	111.3	11.3	1207.4
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.40	250.572	20551.385	250.572	6.096	bb	10-Feb-10	09:15:53	39.3183	98.3	-1.7	41.5
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.81	121.550	20551.385	121.550	2.957	bb	10-Feb-10	09:15:53	38.9095	97.3	-2.7	20.1
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.48	126.001	20551.385	126.001	3.066	bb	10-Feb-10	09:15:53	32.9019	82.3	-17.7	20.8
WXX100208-08CRI	PETN	361 > 62	24.94	3150.736	20551.385	3150.736	76.655	bb	10-Feb-10	09:15:53	36.2614	90.7	-9.3	631.2

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 02/09/10  
 Time of Injection 1519  
 Standard Number WXX100208-08CRI  
 Data File EXP0208051a

HMX	105.1
RDX	94.8
135-TNB	108.7
13-DNB	112.3
Tetryl	111.8
Nitrobenzene	101.1
4A-26-DNT	106.7
2A-46-DNT	111.1
246-TNT	92.9
34-DNT(surr)	114.1
26-DNT	111.1
24-DNT	98.9
2-NT	98.3
4-NT	97.3
3-NT	82.3
PETN	90.7

*WTF  
2/10/10*

Total 1637.2

Average 102.3

*4/11/10 02/10/10*

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): 10-1304

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208062a

Analysis Date: 09-FEB-10 20:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	547.737	91	
1,3-Dinitrobenzene-d4	500	567.181	113	
2,4,6-Trinitrotoluene	600	715.292	119	
2,4-Dinitrotoluene	600	646.614	108	
2,6-Dinitrotoluene	600	637.73	106	
2,6-Dinitrotoluene-d3	500	528.196	106	
2-Amino-4,6-dinitrotoluene	600	658.061	110	
3,4-Dinitrotoluene	300	330.267	110	
4-Amino-2,6-dinitrotoluene	600	627.96	105	
HMX	600	599.91	100	
Nitrobenzene	600	551.5	92	
PETN	600	580.031	97	
RDX	600	625.098	104	
Tetryl	600	563.424	94	
m-Dinitrobenzene	600	616.138	103	
m-Nitrotoluene	600	563.078	94	
o-Nitrotoluene	600	586.398	98	
p-Nitrotoluene	600	590.193	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

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

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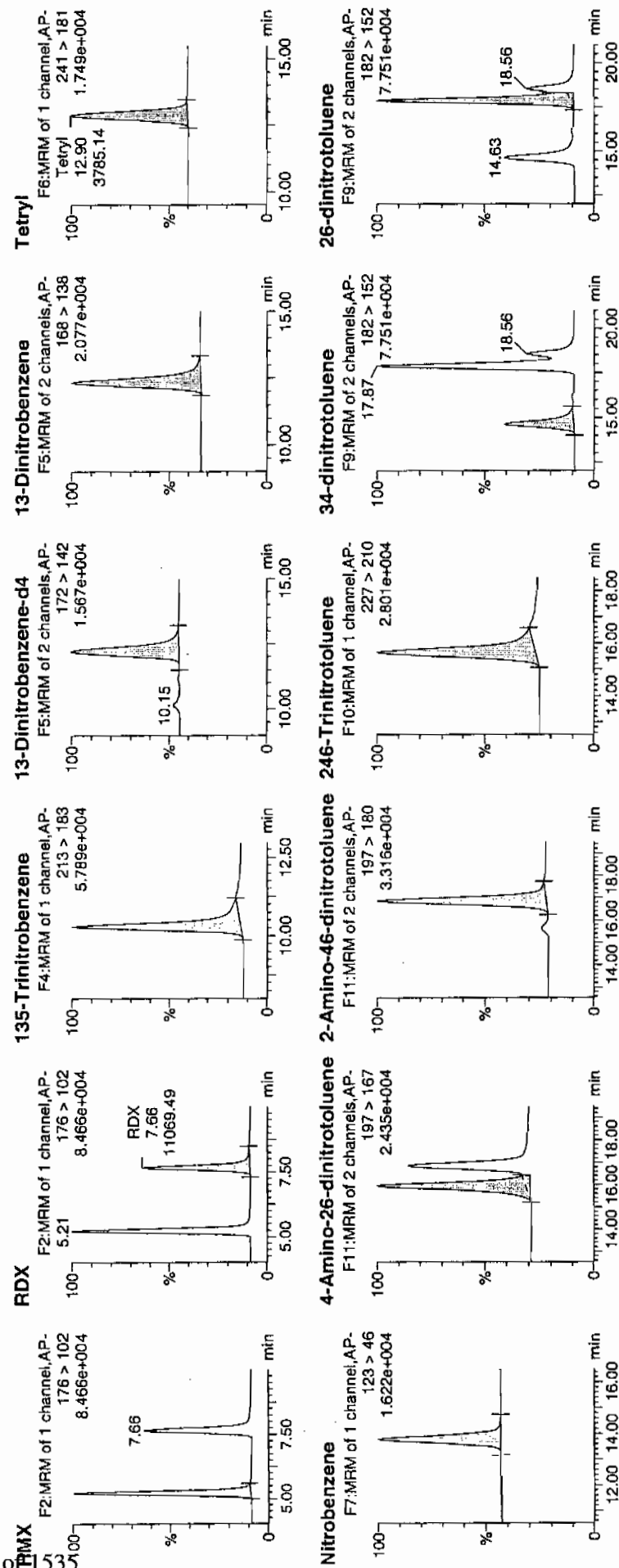
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2/10/10

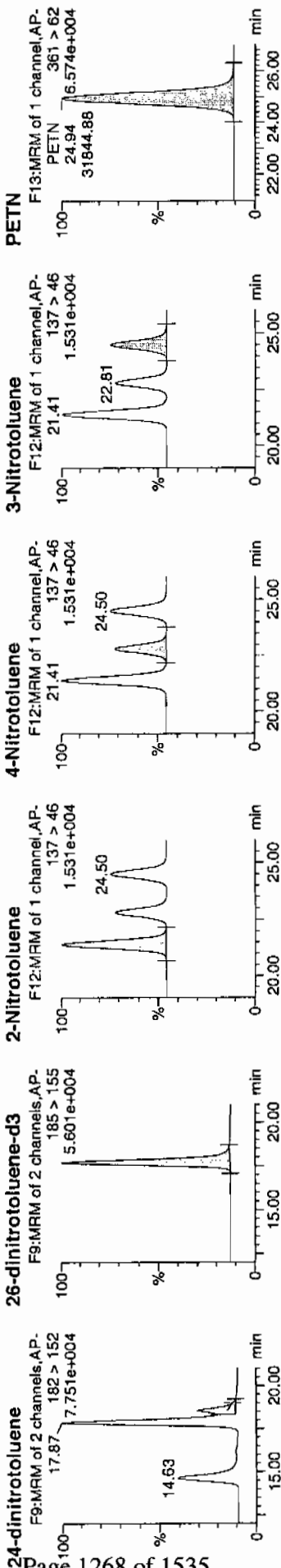


4/10/10

Printed: Wed Feb 10 09:25:16 2010, Page 48 of 79

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010



ID	Name	Trace	RT	Area	Area	AbsHesp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	SN
WXX100208-07CCV	HMX	176 > 102	5.21	15193.972	3646.489	15193.972	2083.370	bb			599.9101	100.0	-0.0	2159.2
WXX100208-07CCV	RDX	176 > 102	7.66	11069.486	3646.489	11069.486	1517.828	bb			625.0982	104.2	4.2	1309.8
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.30	14712.466	3646.489	14712.466	2017.347	bb			547.7372	91.3	-8.7	911.4
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.20	3646.489		3646.489	3646.489	bb			567.1808	113.4	13.4	245.8
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	5402.941	3646.489	5402.941	740.842	bb			616.1378	102.7	2.7	784.8
WXX100208-07CCV	Tetryl	241 > 181	12.90	3785.138	3646.489	3785.138	519.011	bb			563.4238	93.9	-6.1	224.4
WXX100208-07CCV	Nitrobenzene	123 > 46	13.79	3248.918	3646.489	3248.918	445.466	bb			551.5002	91.9	-8.1	291.5
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.94	7034.992	19500.662	7034.992	180.378	MM	10-Feb-10	09:14:42	627.9599	104.7	4.7	282.3
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.83	10164.215	19500.662	10164.215	260.612	bb			658.0609	109.7	9.7	492.6
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.63	9001.442	19500.662	9001.442	230.798	bb			715.2919	119.2	19.2	634.3
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.63	11592.679	19500.662	11592.679	297.238	bb			330.2675	110.1	10.1	650.3
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.87	26715.053	19500.662	26715.053	684.978	MM	10-Feb-10	09:12:13	637.7300	106.3	6.3	1878.4
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.56	6154.682	19500.662	6154.682	157.807	MM	10-Feb-10	09:08:50	646.6135	107.8	7.8	424.9
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.70	19500.662		19500.662	19500.662	bb			528.1961	105.6	5.6	929.9
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.41	3546.001	19500.662	3546.001	90.320	bb			586.3983	97.7	-2.3	592.3
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.81	1749.453	19500.662	1749.453	44.856	bb			590.1932	98.4	-1.6	284.2
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.50	2046.115	19500.662	2046.115	52.463	bb			563.0782	93.8	-6.2	310.9
WXX100208-07CCV	PETN	361 > 62	24.94	31844.883	19500.662	31844.883	816.508	bb			580.0314	96.7	-3.3	6751.2

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 02/09/10  
 Time of Injection: 2044  
 Standard Number: WXX100208-07CCV  
 Data File: EXP0208062a

HMX	100.0
RDX	104.2
135-TNB	91.3
13-DNB	102.7
Tetryl	93.9
Nitrobenzene	91.9
4A-26-DNT	104.7
2A-46-DNT	109.7
246-TNT	119.2
34-DNT(surr)	110.1
26-DNT	106.3
24-DNT	107.8
2-NT	97.7
4-NT	98.4
3-NT	93.8
PETN	96.7

*101.8  
2/10/10*

Total 1628.4

Average 101.8

*same as before*

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): 10-1304

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208064a

Analysis Date: 09-FEB-10 21:43

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	43.241	108	
1,3-Dinitrobenzene-d4	500	602.61	121	
2,4,6-Trinitrotoluene	40	38.148	95	
2,4-Dinitrotoluene	40	39.085	98	
2,6-Dinitrotoluene	40	43.106	108	
2,6-Dinitrotoluene-d3	500	567.8	114	
2-Amino-4,6-dinitrotoluene	40	39.591	99	
3,4-Dinitrotoluene	20	24.084	120	
4-Amino-2,6-dinitrotoluene	40	41.143	103	
HMX	40	39.239	98	
Nitrobenzene	40	38.933	97	
PETN	40	36.686	92	
RDX	40	36.427	91	
Tetryl	40	34.123	85	
m-Dinitrobenzene	40	38.756	97	
m-Nitrotoluene	40	38.95	97	
o-Nitrotoluene	40	40.457	101	
p-Nitrotoluene	40	34.567	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

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208064a

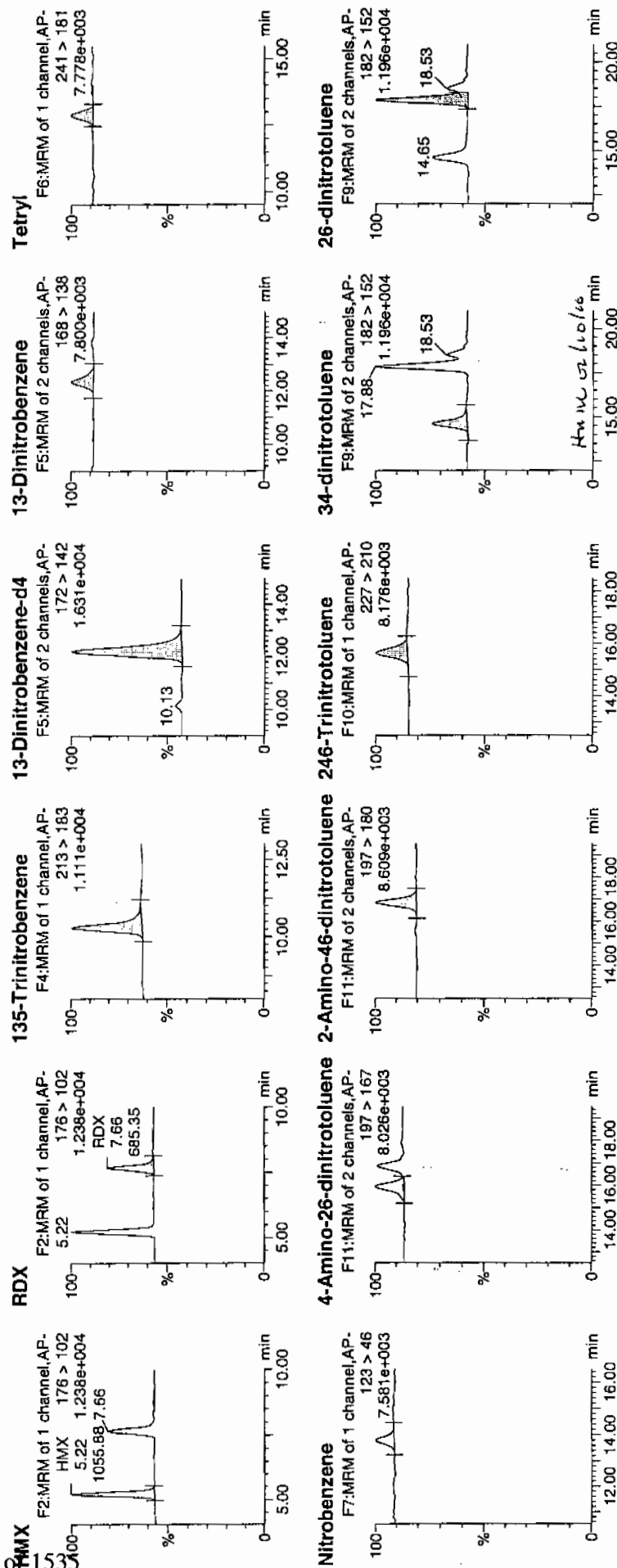
Date: 09-Feb-2010

Time: 21:43:27

AP: WXX100208-08CRI

Mail: 1:1,C

WAT  
2/10/10

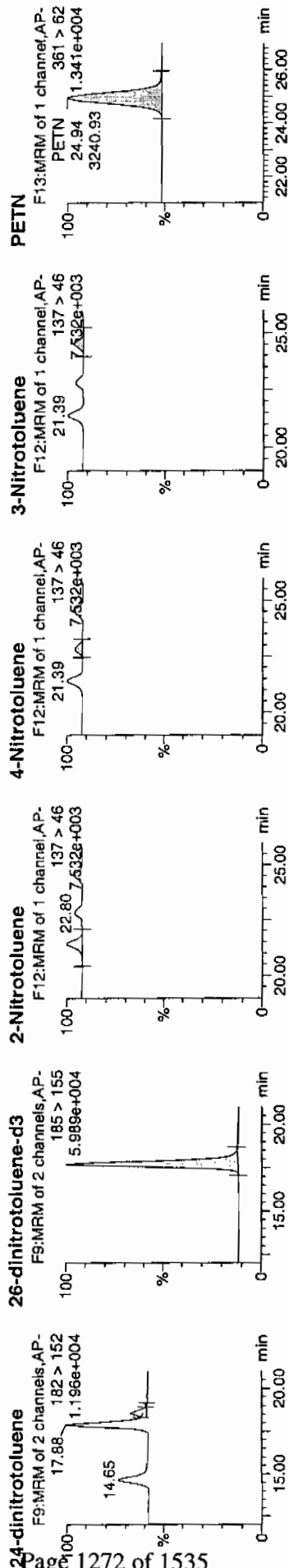


# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Wed Feb 10 09:25:16 2010, Page 52 of 79

Dataset: C:\MASSLYNX\New\_Exp\PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010



ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc (µg/ml)	% Rec	% Dev	ISN
WXX100208-08CRI	HMX	176 > 102	5.22	1055.883	3874.267	1055.883	136.269	bb			39.2388	98.1	-1.9	268.1
WXX100208-08CRI	RDX	176 > 102	7.66	685.352	3874.267	685.352	88.449	bb			36.4267	91.1	-8.9	148.4
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.30	1234.027	3874.267	1234.027	159.259	bb			43.2411	108.1	8.1	146.8
WXX100208-08CRI	13-Dinitrobenzene	172 > 142	12.20	3874.267	3874.267	3874.267	3874.267	bb			602.6098	120.5	20.5	308.3
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	361.083	3874.267	361.083	46.600	bb			38.7561	96.9	-3.1	29.4
WXX100208-08CRI	Tetryl	241 > 181	12.92	315.552	3874.267	315.552	40.724	bb			34.1231	85.3	-14.7	25.2
WXX100208-08CRI	Nitrobenzene	123 > 46	13.80	243.681	3874.267	243.681	31.449	bb			38.9327	97.3	-2.7	18.5
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.95	495.481	20962.824	495.481	11.818	MM	10-Feb-10	09:14:32	41.1429	102.9	2.9	52.0
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.84	657.359	20962.824	657.359	15.679	bb			39.5908	99.0	-1.0	64.0
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.84	516.055	20962.824	516.055	12.309	bb			38.1476	95.4	-4.6	49.9
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.65	908.764	20962.824	908.764	21.676	bb			24.0842	120.4	20.4	46.7
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.88	1941.125	20962.824	1941.125	46.299	MM	10-Feb-10	09:12:20	43.1056	107.8	7.8	126.2
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.53	399.918	20962.824	399.918	9.539	MM	10-Feb-10	09:08:33	39.0850	97.7	-2.3	25.9
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.71	20962.824	20962.824	20962.824	20962.824	bb			567.8003	113.6	13.6	2300.0
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.39	262.989	20962.824	262.989	6.273	bb			40.4568	101.1	1.1	52.2
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.80	110.147	20962.824	110.147	2.627	bb			34.5672	86.4	-13.6	23.8
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.53	152.150	20962.824	152.150	3.529	bb			38.9502	97.4	-2.6	30.6
WXX100208-08CRI	PETN	361 > 62	24.94	3240.928	20962.824	3240.928	77.302	bb			36.6863	91.7	-8.3	1151.2

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 02/09/10  
 Time of Injection 2143  
 Standard Number WXX100208-08CRI  
 Data File EXP0208064a

HMX	98.1
RDX	91.1
135-TNB	108.1
13-DNB	96.9
Tetryl	85.3
Nitrobenzene	97.3
4A-26-DNT	102.9
2A-46-DNT	99.0
246-TNT	95.4
34-DNT(surr)	120.4
26-DNT	107.8
24-DNT	97.7
2-NT	101.1
4-NT	86.4
3-NT	97.4
PETN	91.7

*MST  
2/10/10*

Total 1576.6

Average 98.5

*477 m or 110/10*

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): 10-1304

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02010013.wiff

Analysis Date: 01-FEB-10 20:29

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	93.9	94	
2,6-Diamino-4-nitrotoluene	100	100	100	
3,4-Dinitrotoluene	50	52.7	105	
3,5-Dinitroaniline	100	106	106	
TATB	100	97.1	97	
tris(o-cresyl) phosphate	100	101	101	

Recovery Limits:

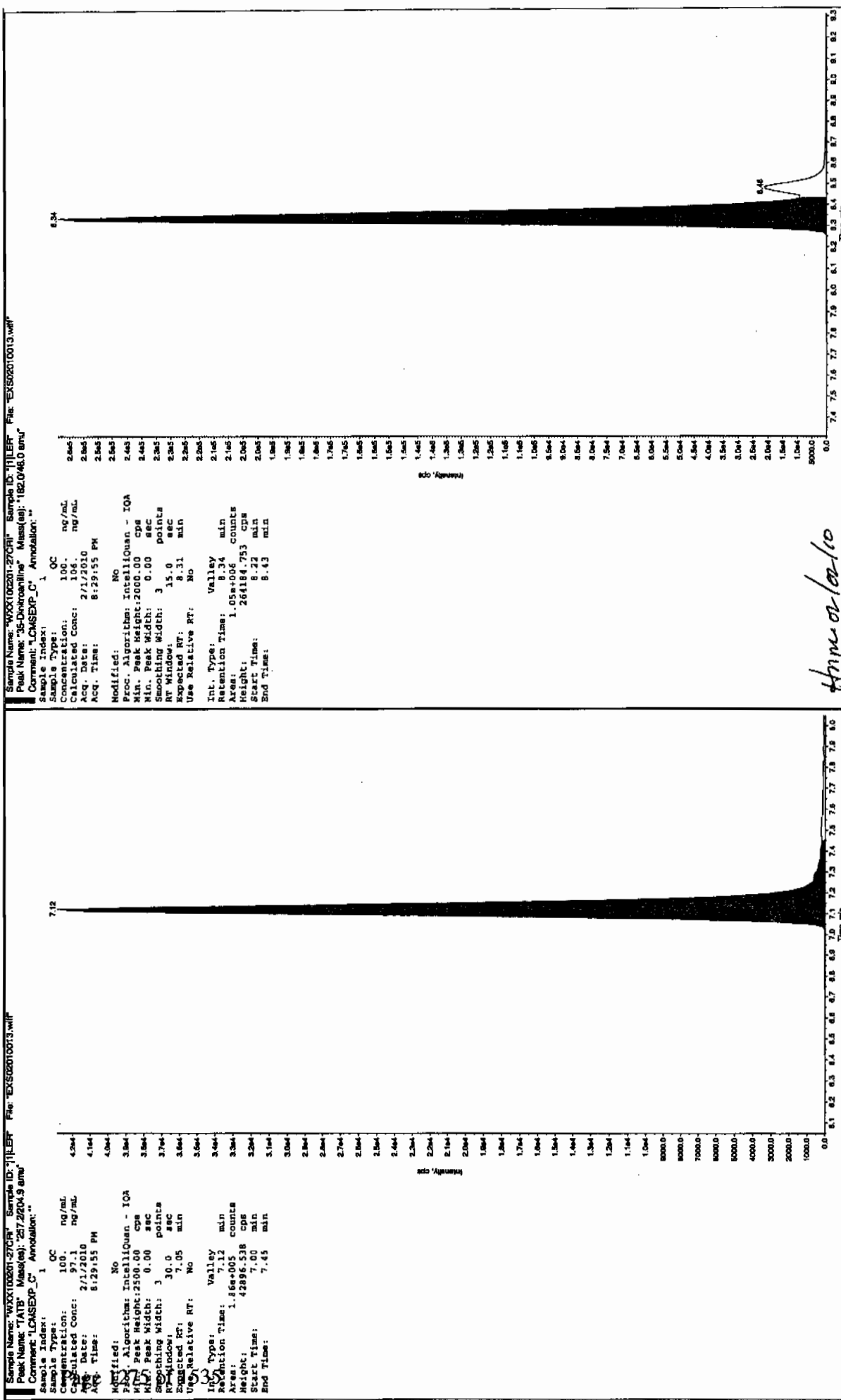
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

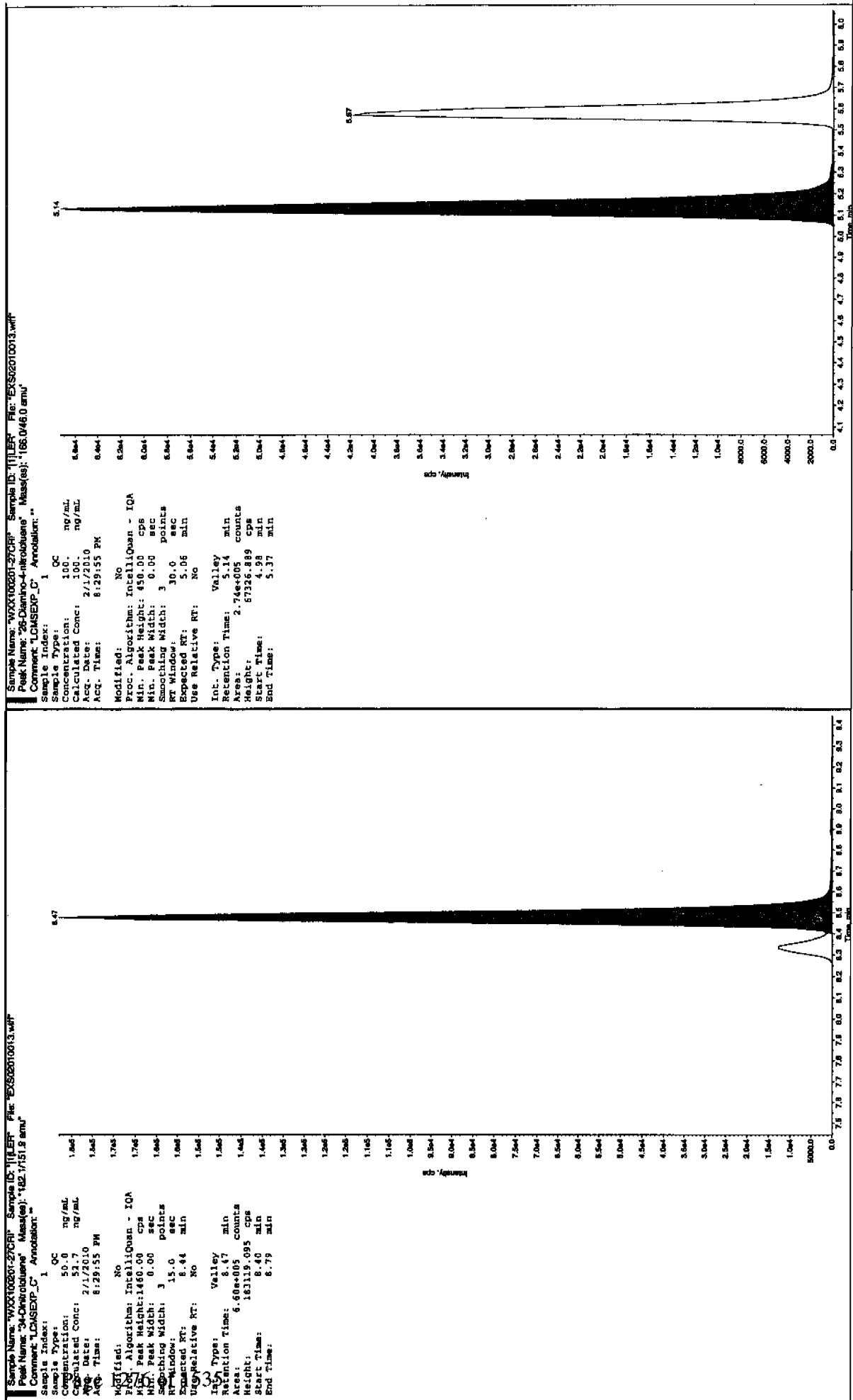
Other Target Analytes 70-130%

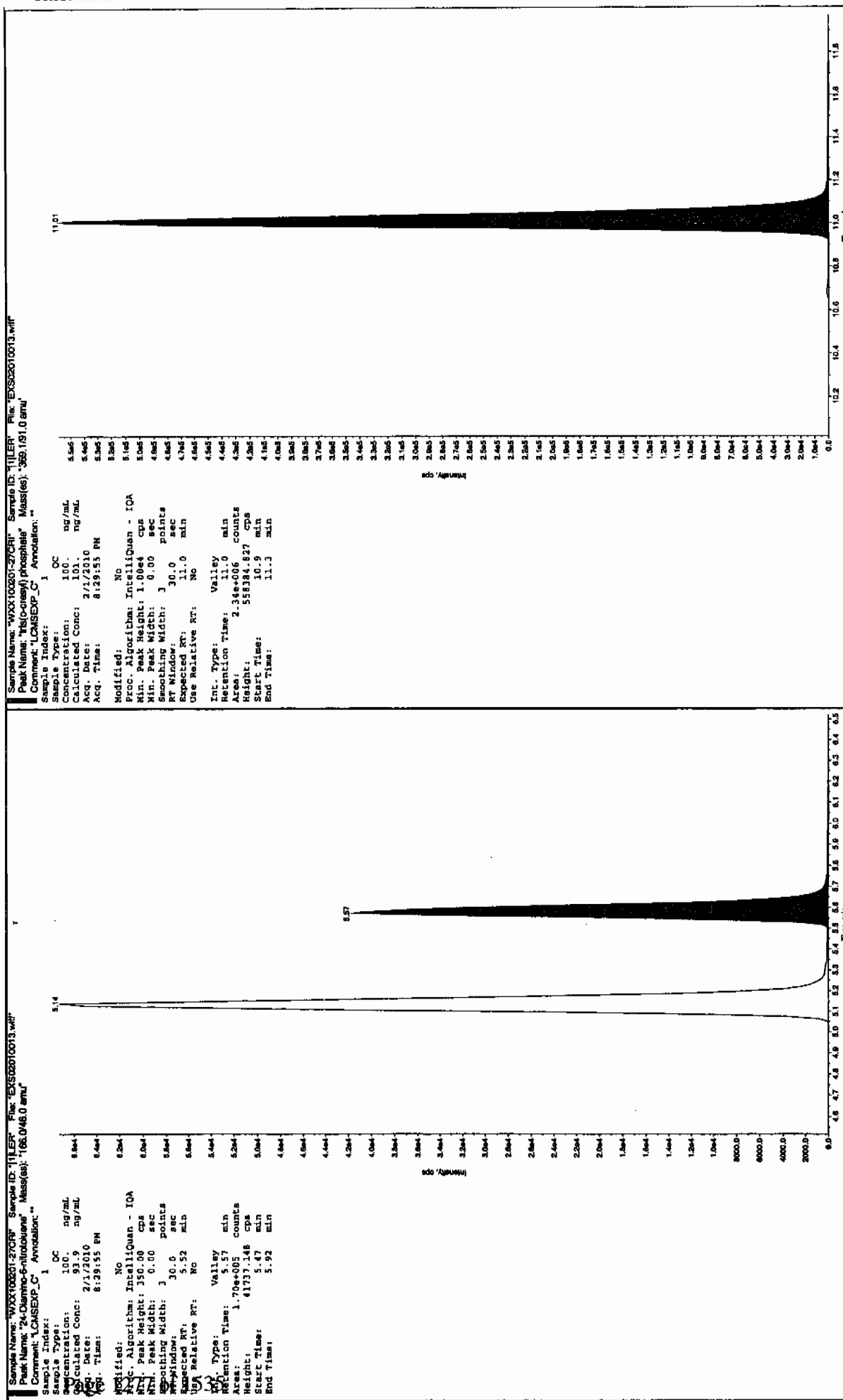
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

22/10







7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1304

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02010019.wiff

Analysis Date: 01-FEB-10 22:04

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	459	92	
2,6-Diamino-4-nitrotoluene	500	356	71	
3,4-Dinitrotoluene	250	232	93	
3,5-Dinitroaniline	500	550	110	
TATB	500	511	102	
tris(o-cresyl) phosphate	500	463	93	

Recovery Limits:

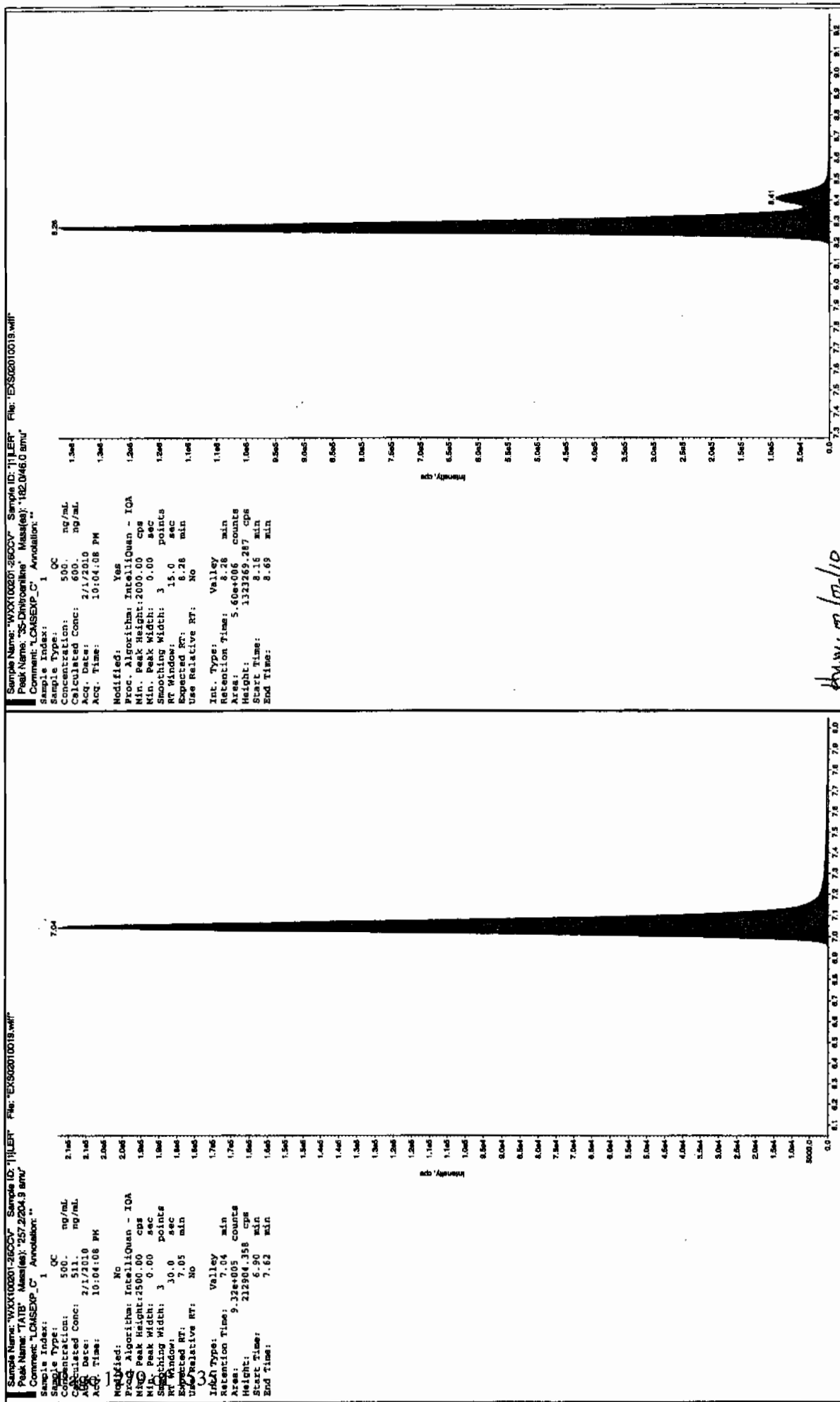
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

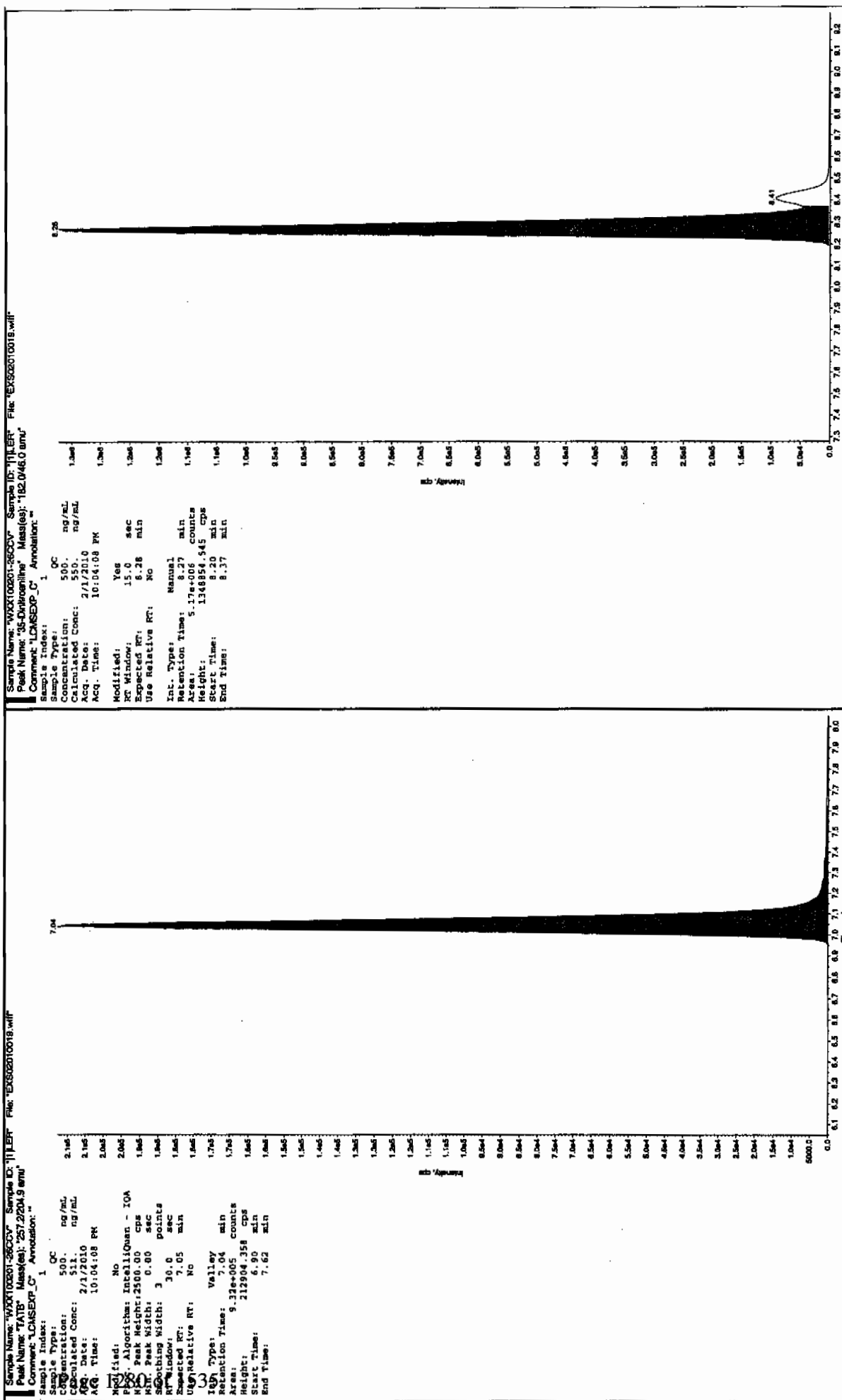
\* Value outside of Recovery Limits

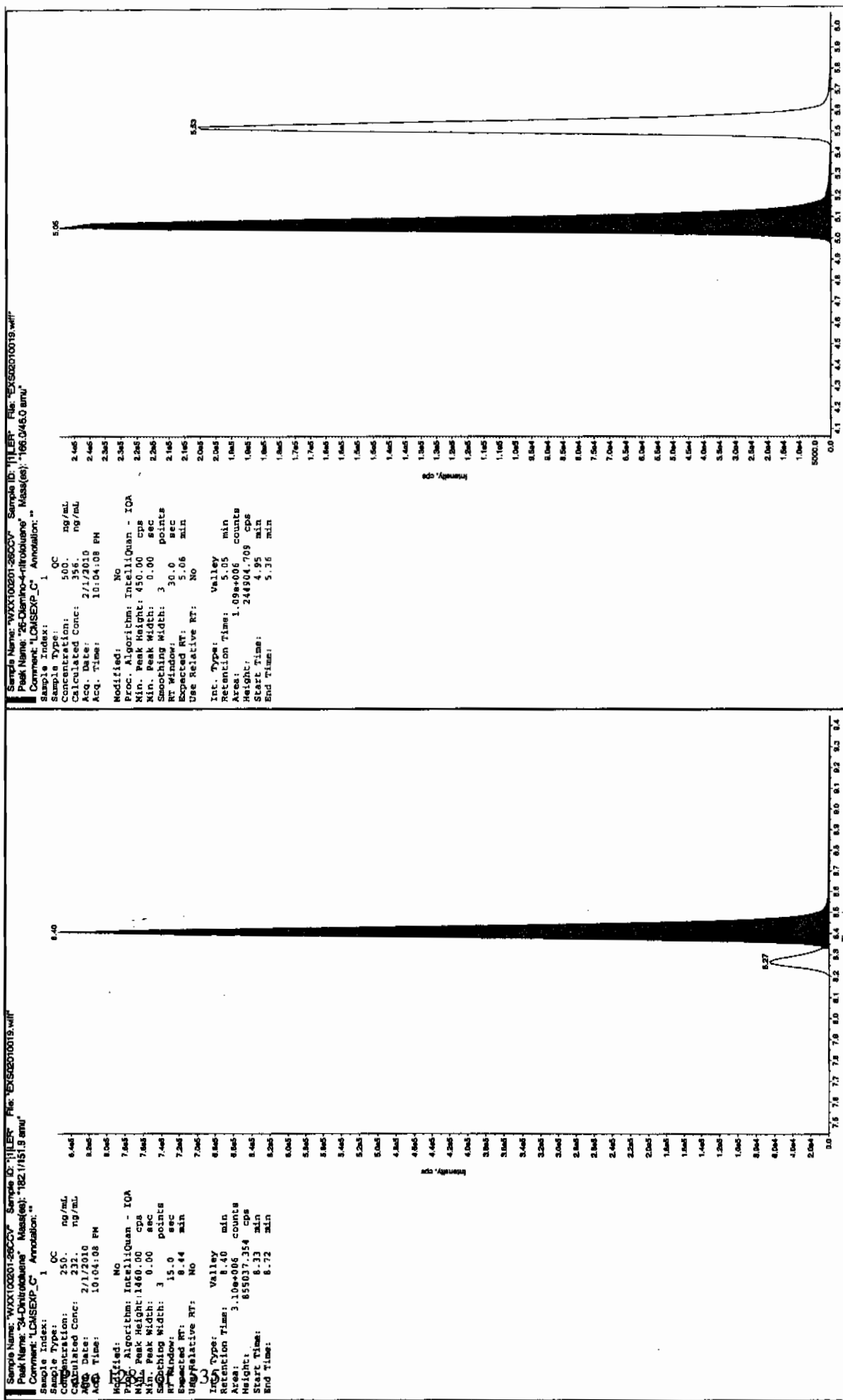
Before Sep 21/10



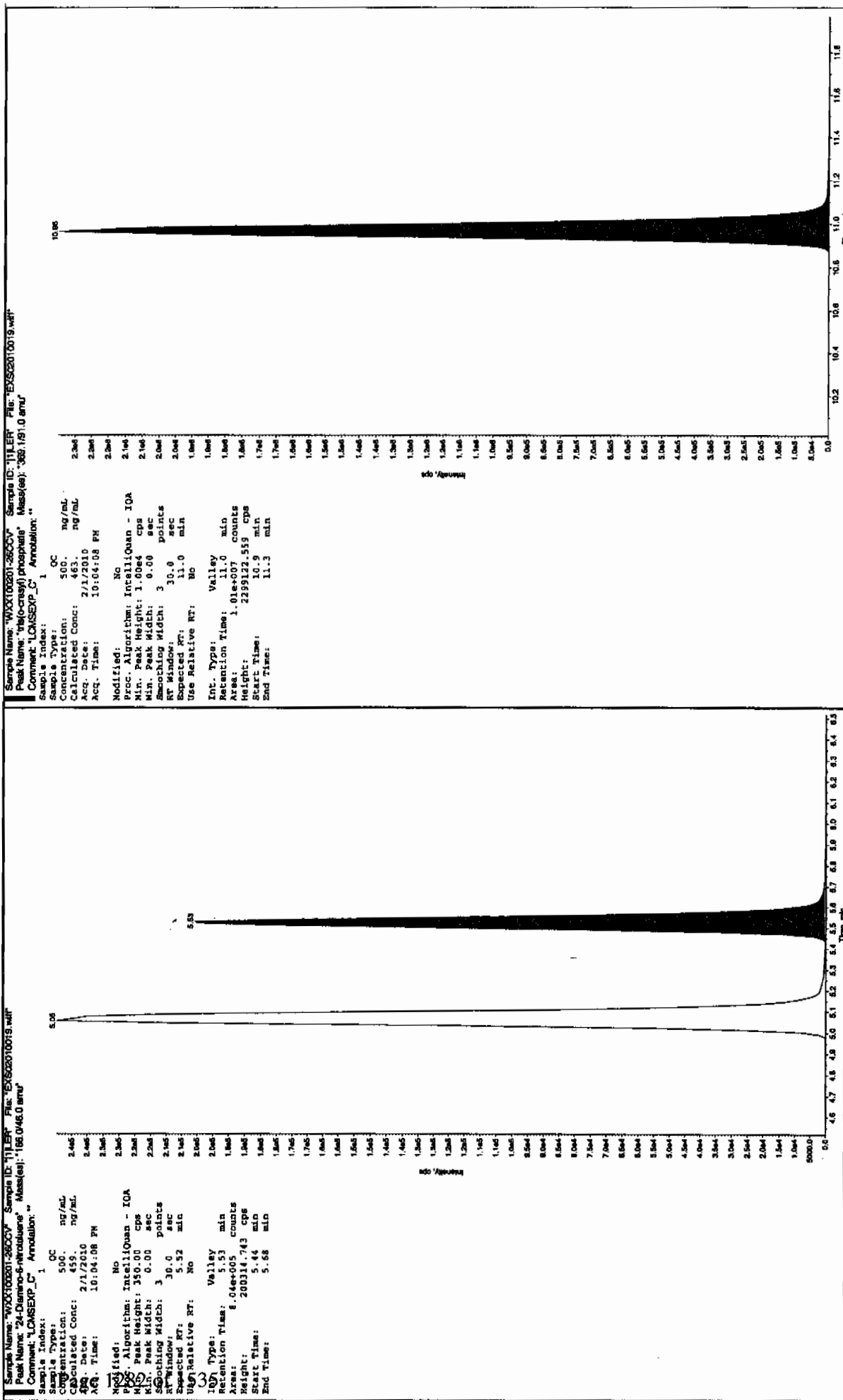
After 02/10

06/28/00









7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1304

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02010021.wiff

Analysis Date: 01-FEB-10 22:35

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	99.4	99	
2,6-Diamino-4-nitrotoluene	100	98.5	99	
3,4-Dinitrotoluene	50	52.3	105	
3,5-Dinitroaniline	100	101	101	
TATB	100	111	111	
tris(o-cresyl) phosphate	100	103	103	

Recovery Limits:

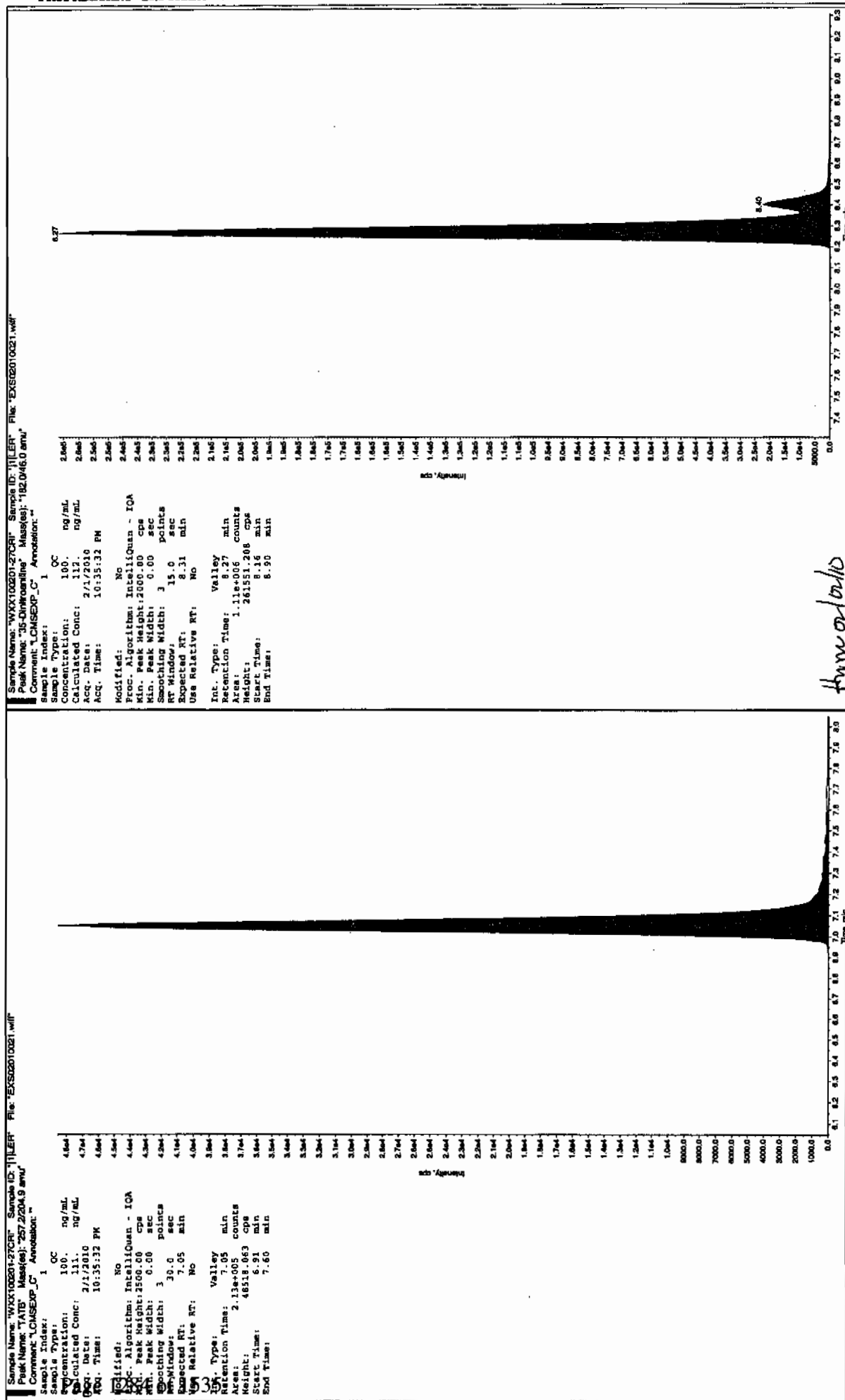
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

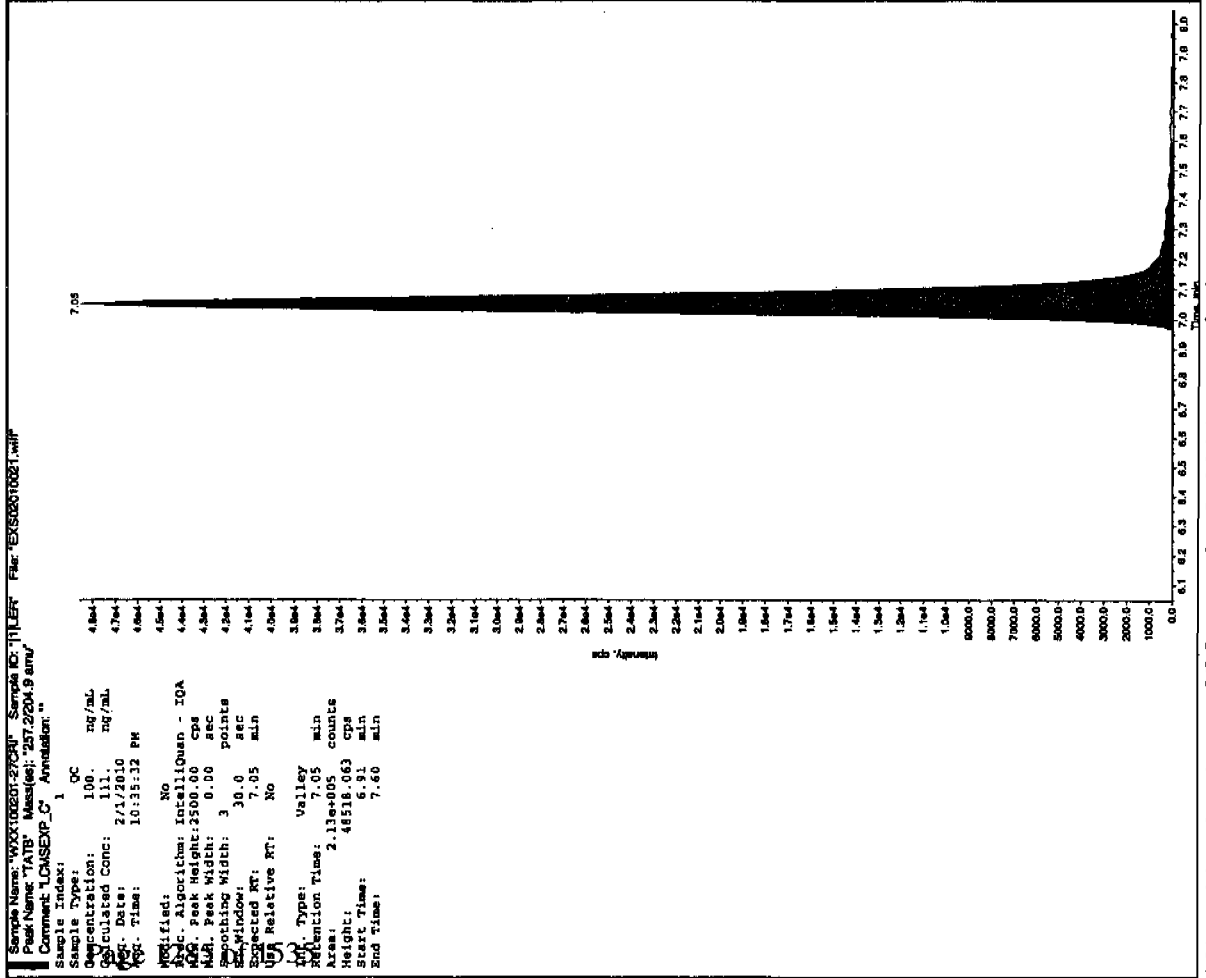
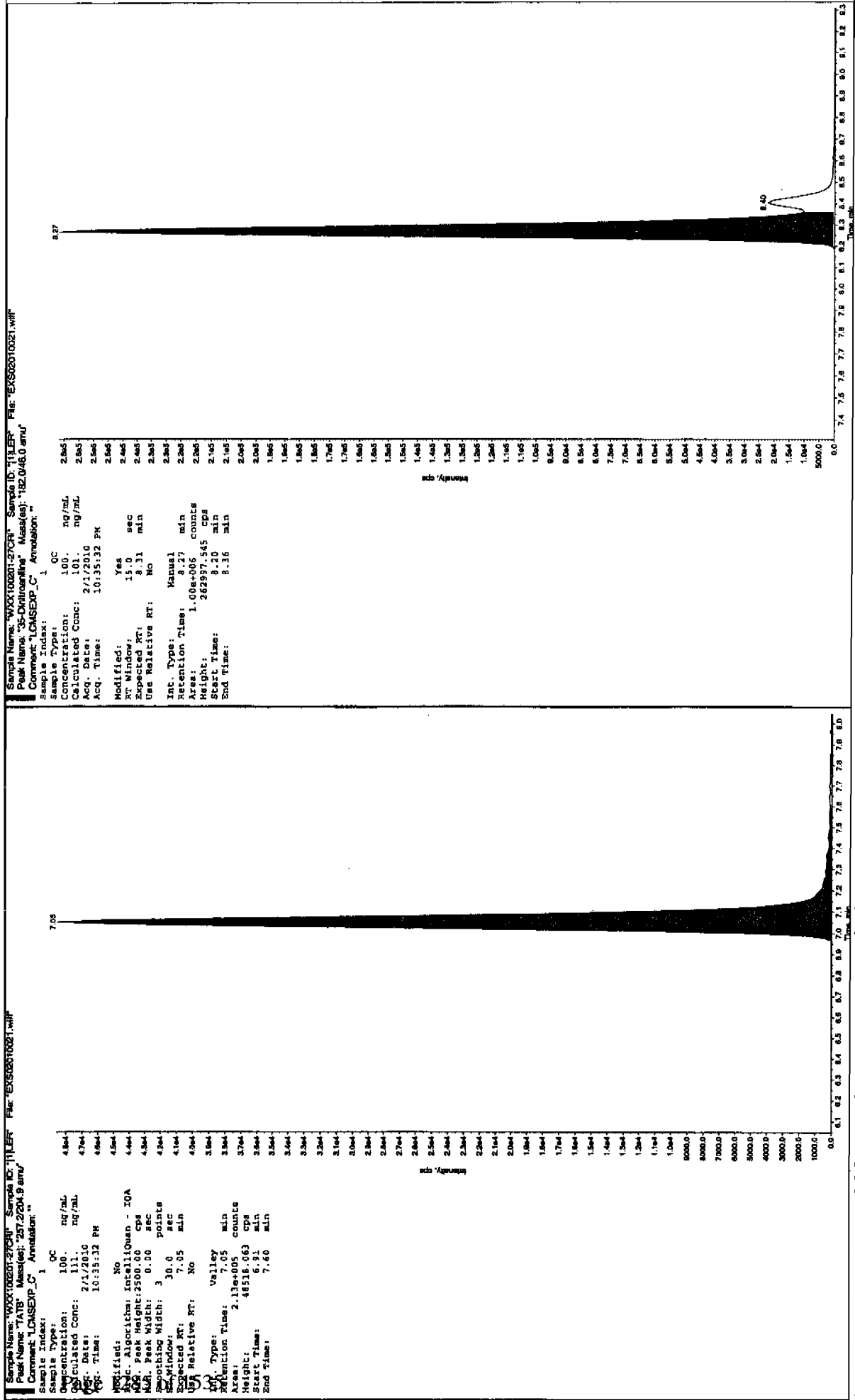
\* Value outside of Recovery Limits

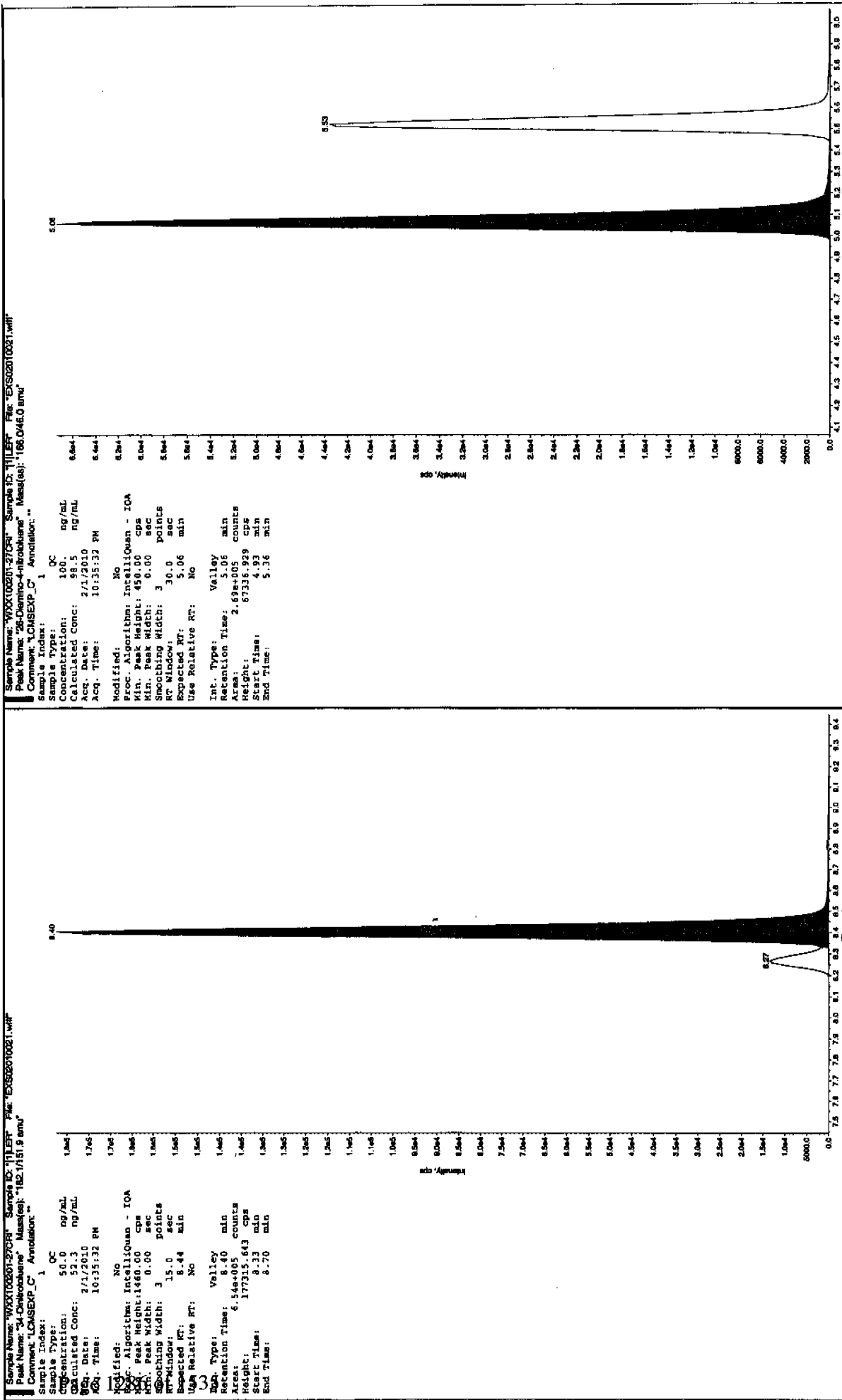
Before Jan 24/10

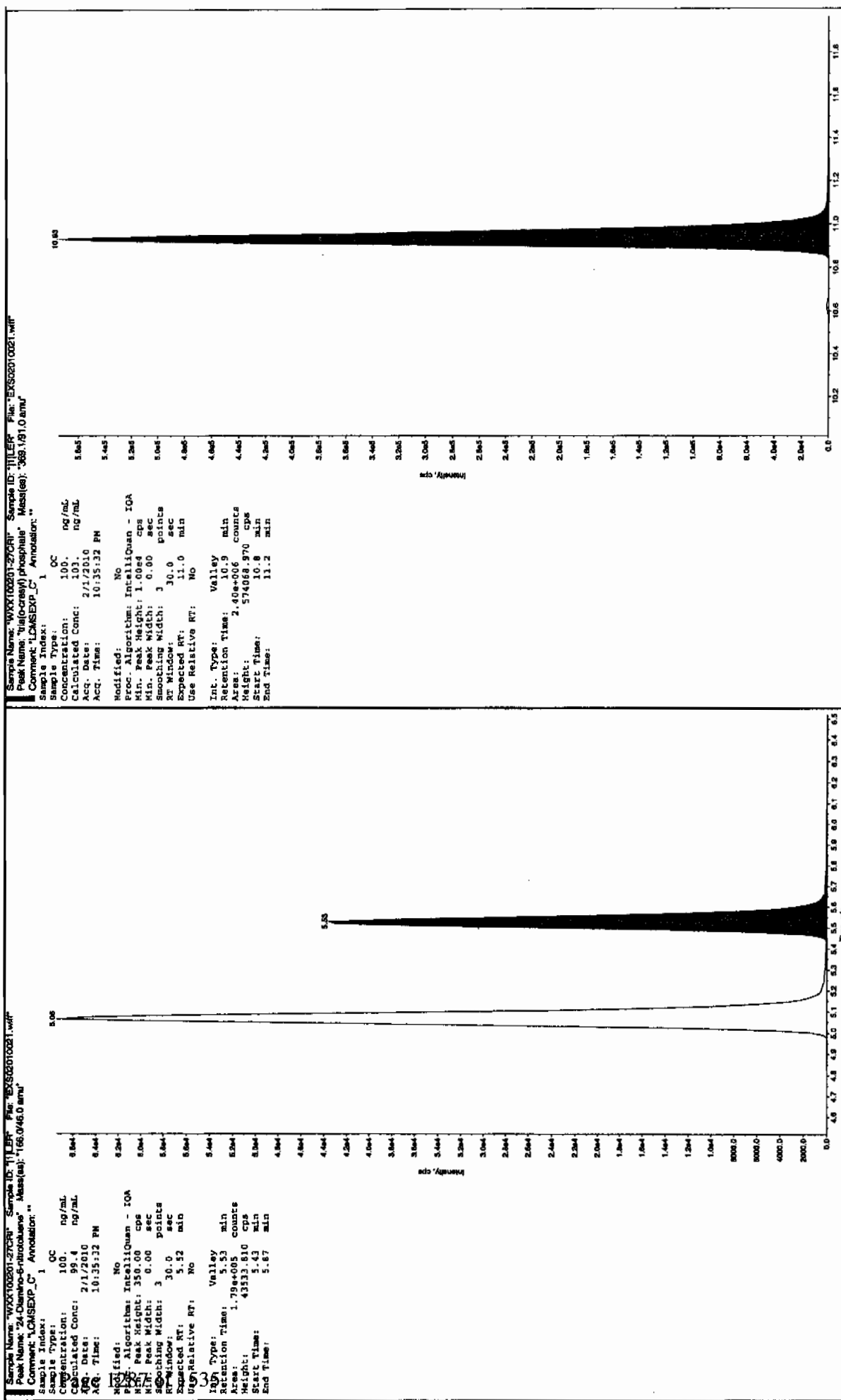


\*GEL SOP GL-OA-E-056, Method 8321A-Modified ICMSMS#4

2/21/10  
000200







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1304

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02010032.wiff

Analysis Date: 02-FEB-10 01:28

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	602	120	
2,6-Diamino-4-nitrotoluene	500	509	102	
3,4-Dinitrotoluene	250	234	94	
3,5-Dinitroaniline	500	563	113	
TATB	500	534	107	
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 ,

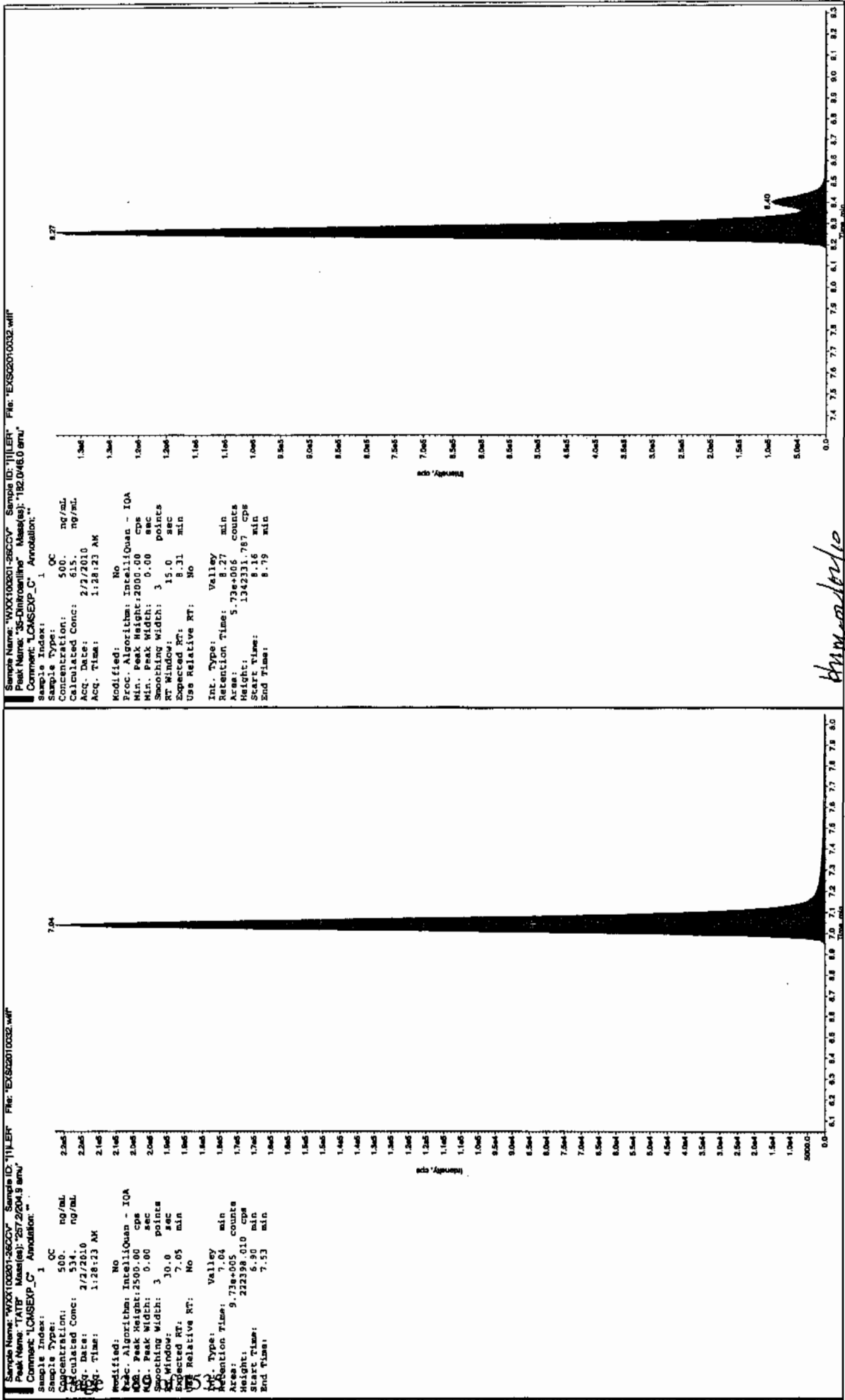
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

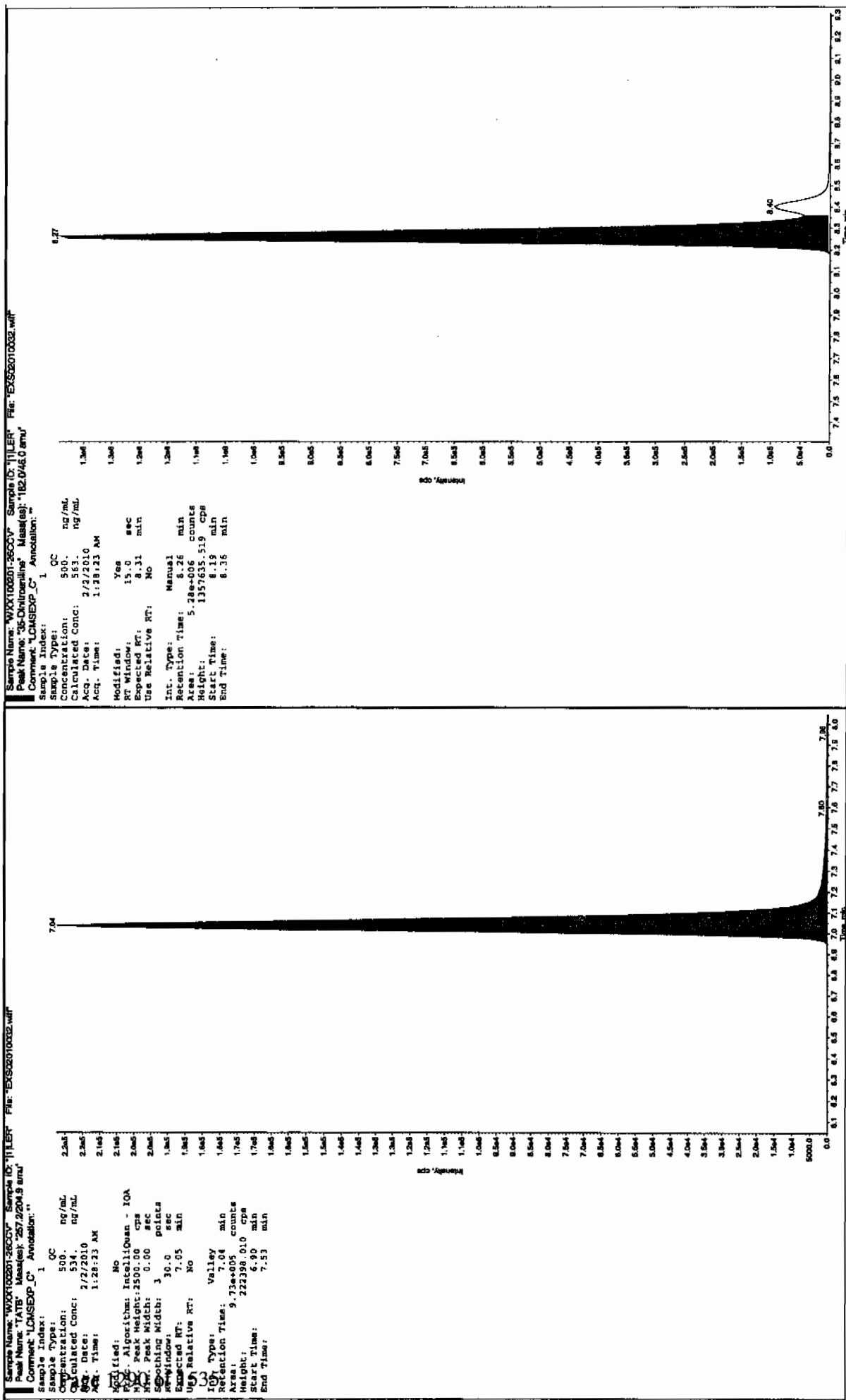
Before Jan 22/10

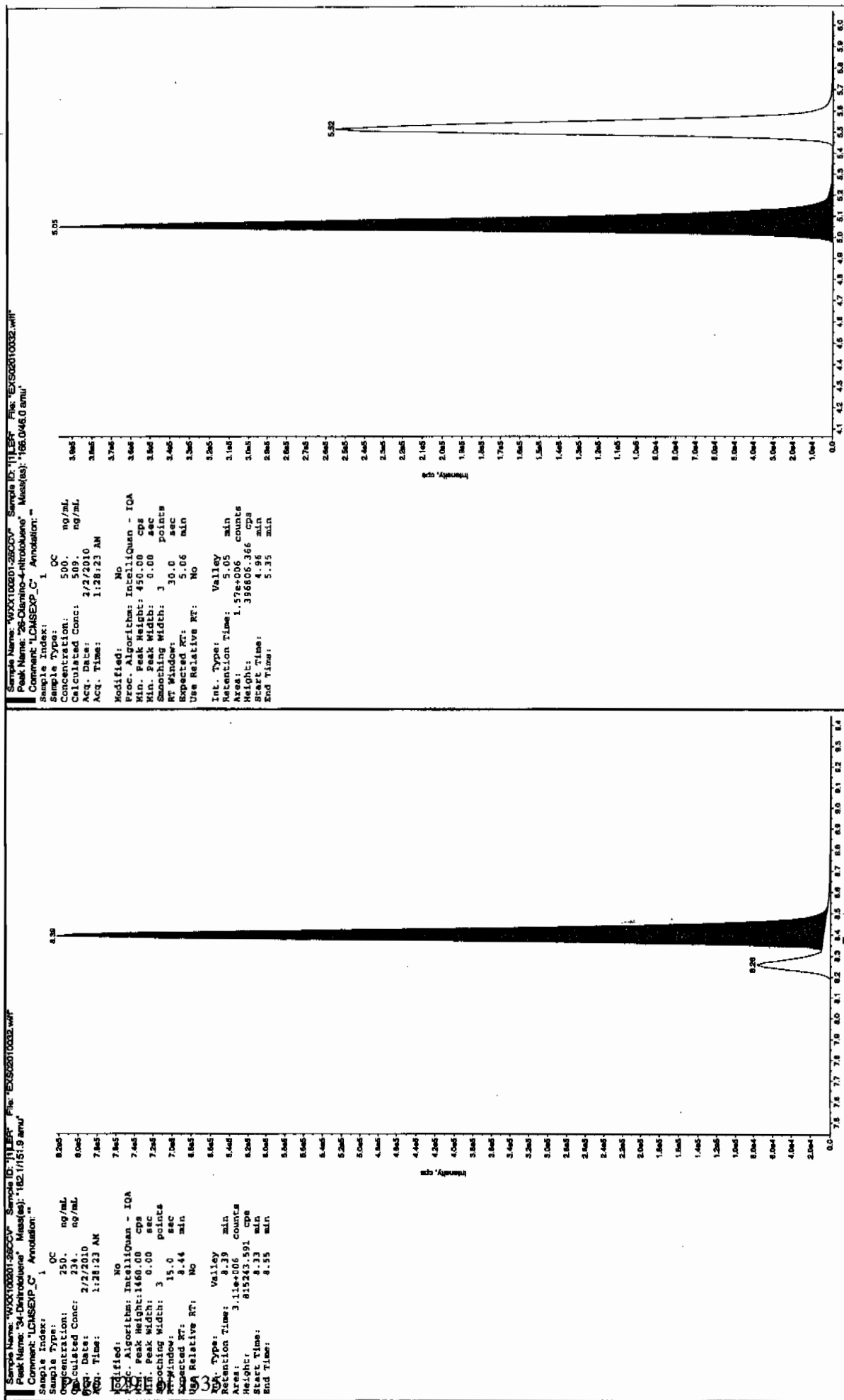


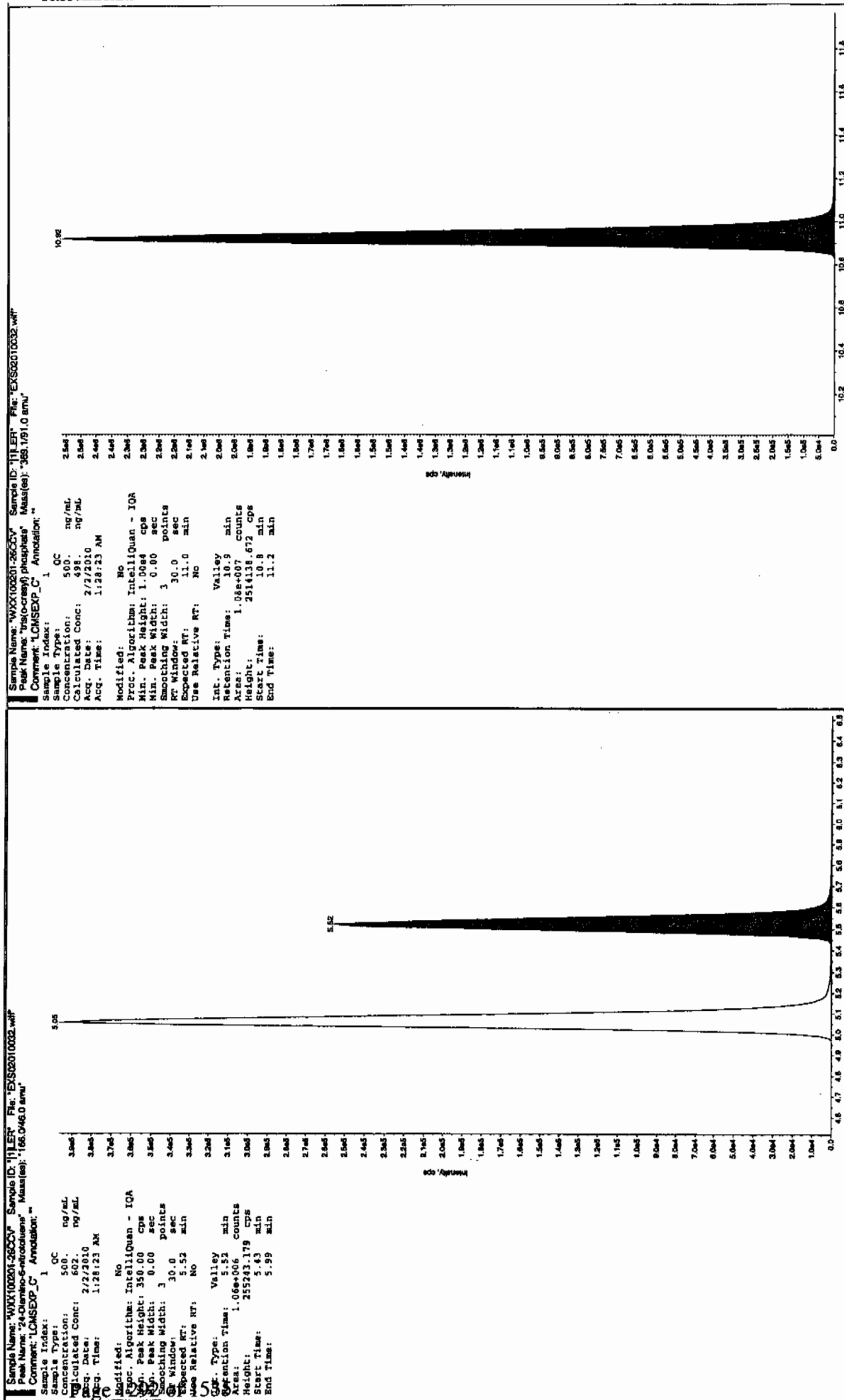
After Jan 22/10



after 2/2/10







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1304

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02010034.wiff

Analysis Date: 02-FEB-10 01:59

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	98	98	
2,6-Diamino-4-nitrotoluene	100	99.3	99	
3,4-Dinitrotoluene	50	55.5	111	
3,5-Dinitroaniline	100	119	119	
TATB	100	99.6	100	
tris(o-cresyl) phosphate	100	106	106	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

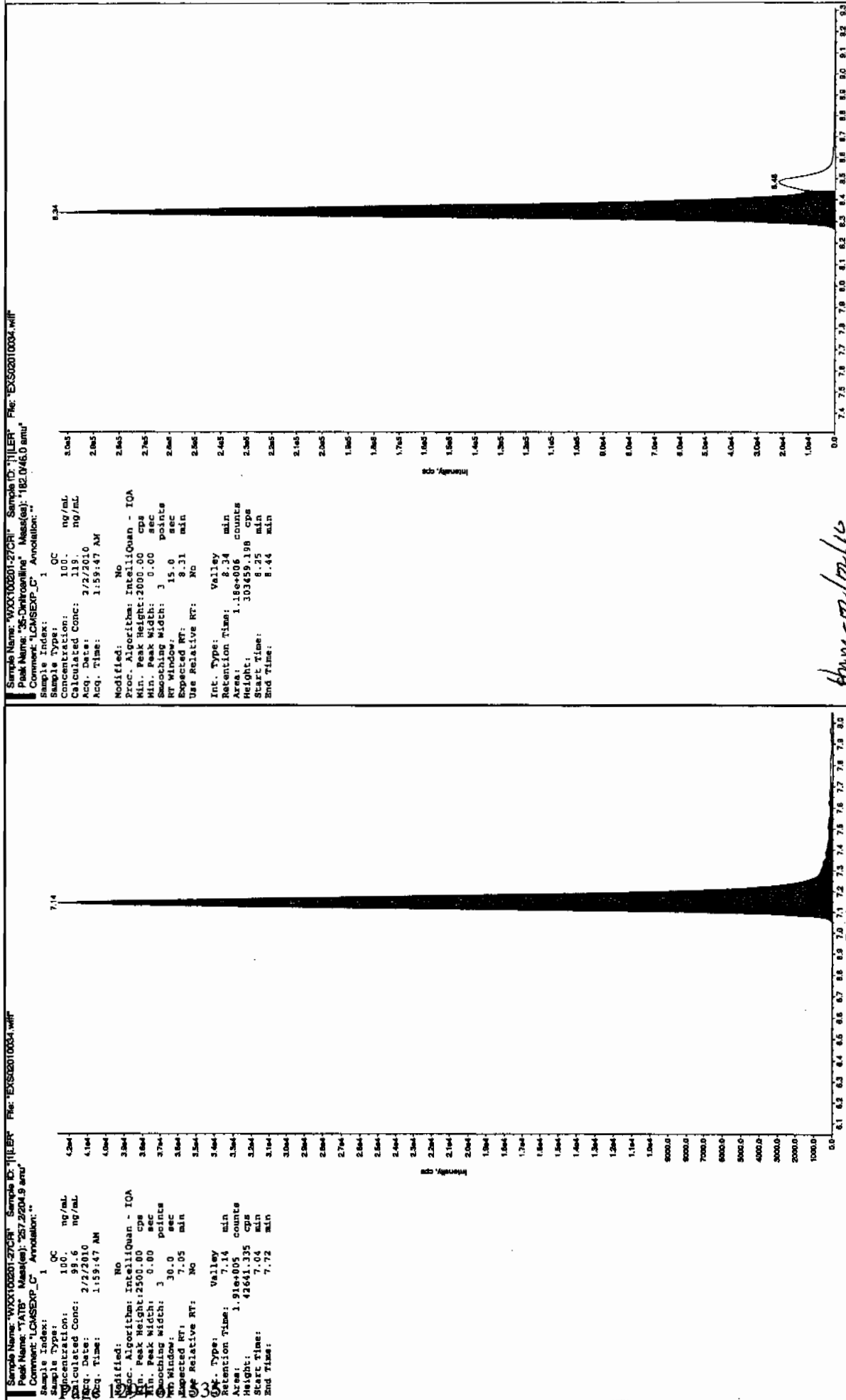
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

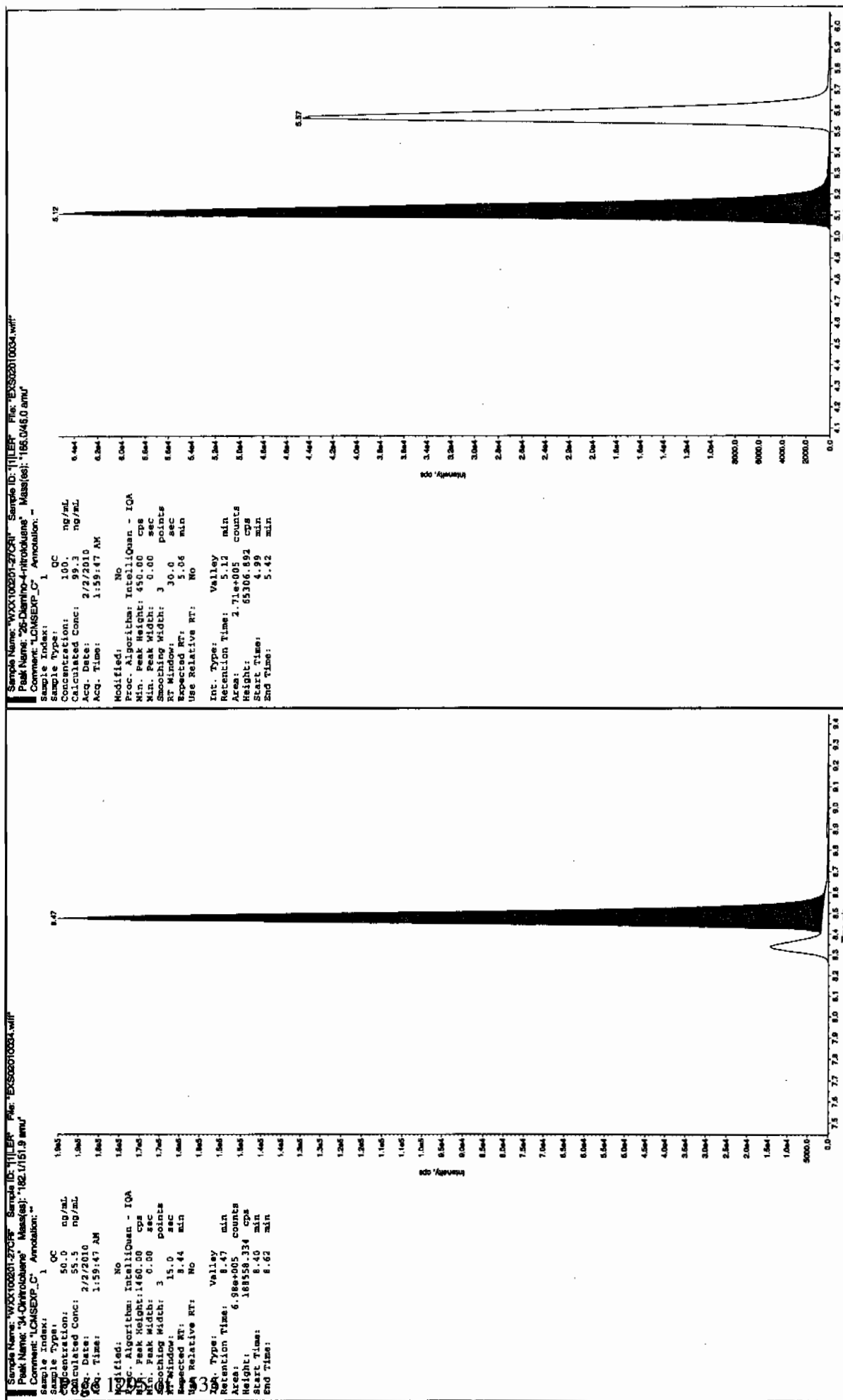
# Column used to flag Recovery outside of Limits

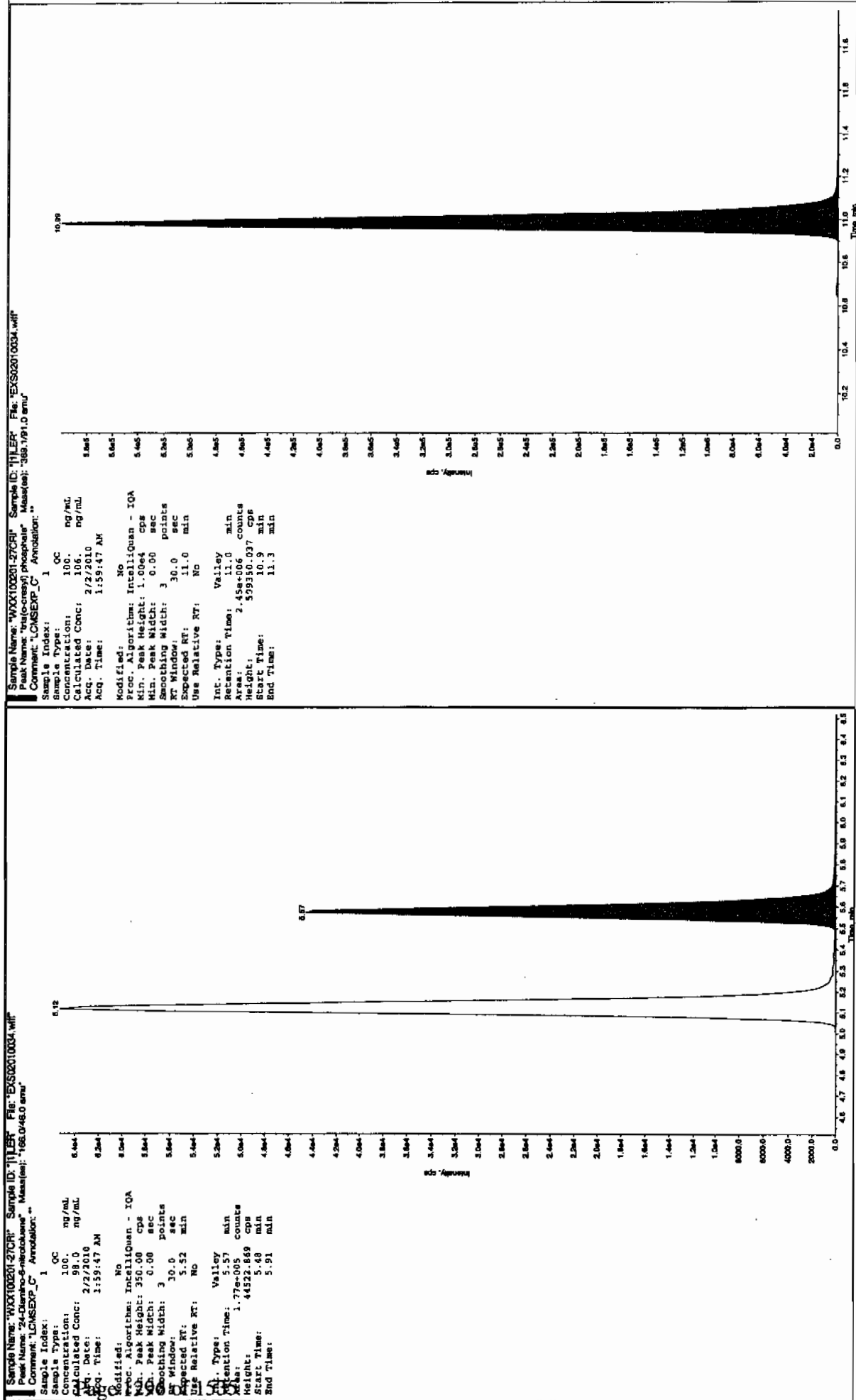
\* Value outside of Recovery Limits

20110



Ann-02/02/10





7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1304

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02010045.wiff

Analysis Date: 02-FEB-10 04:52

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	513	103	
2,6-Diamino-4-nitrotoluene	500	457	91	
3,4-Dinitrotoluene	250	247	99	
3,5-Dinitroaniline	500	551	110	
TATB	500	482	96	
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%

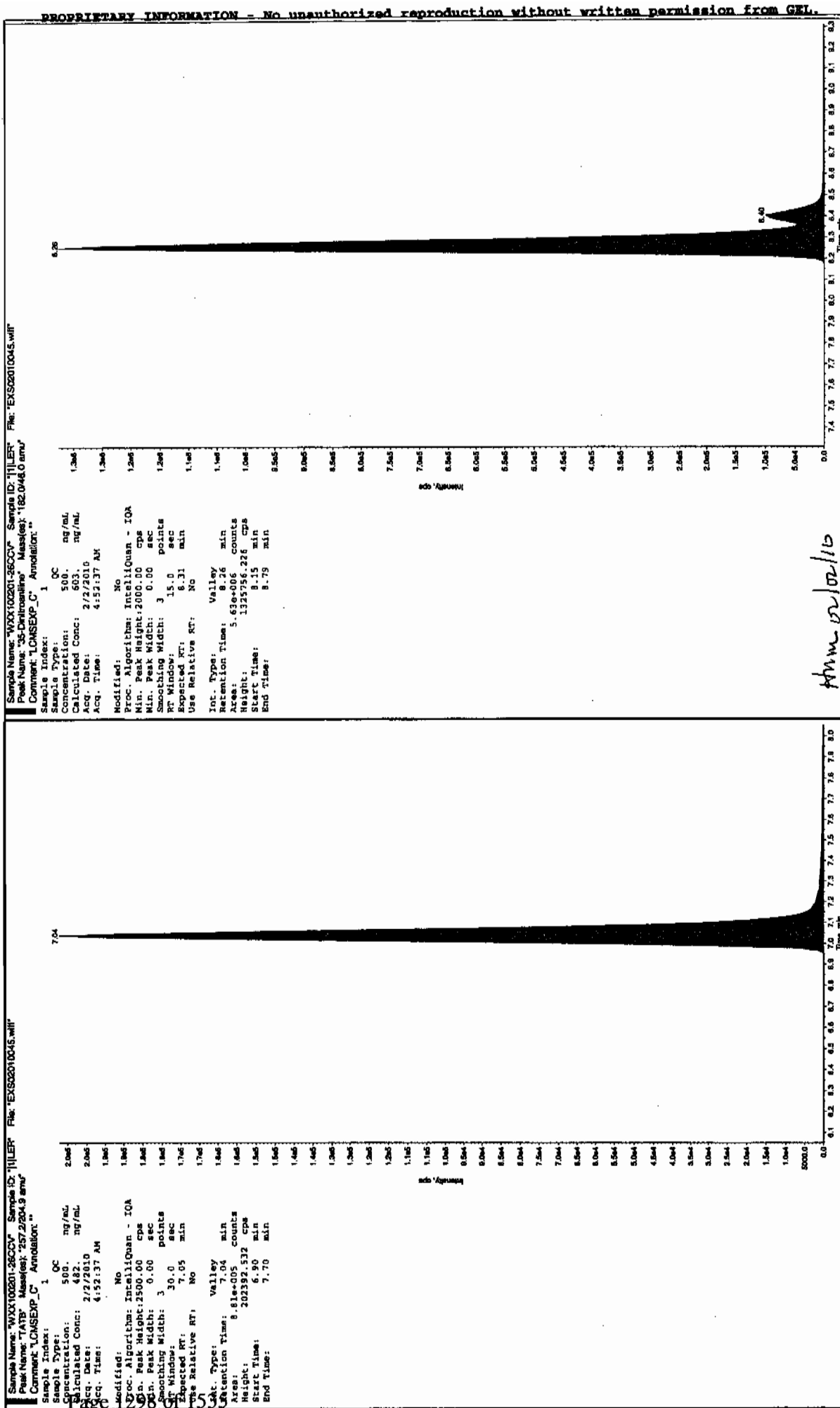
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

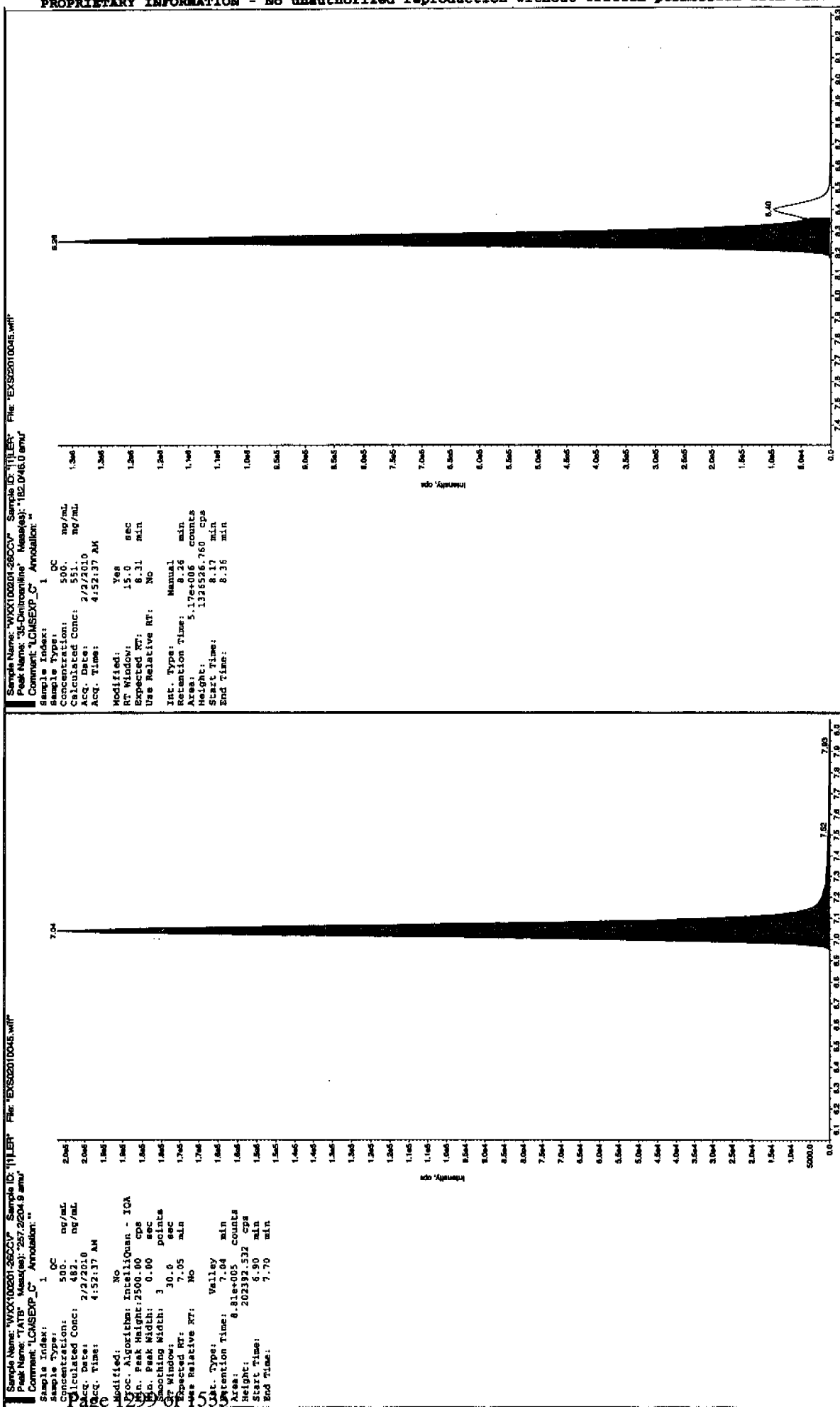


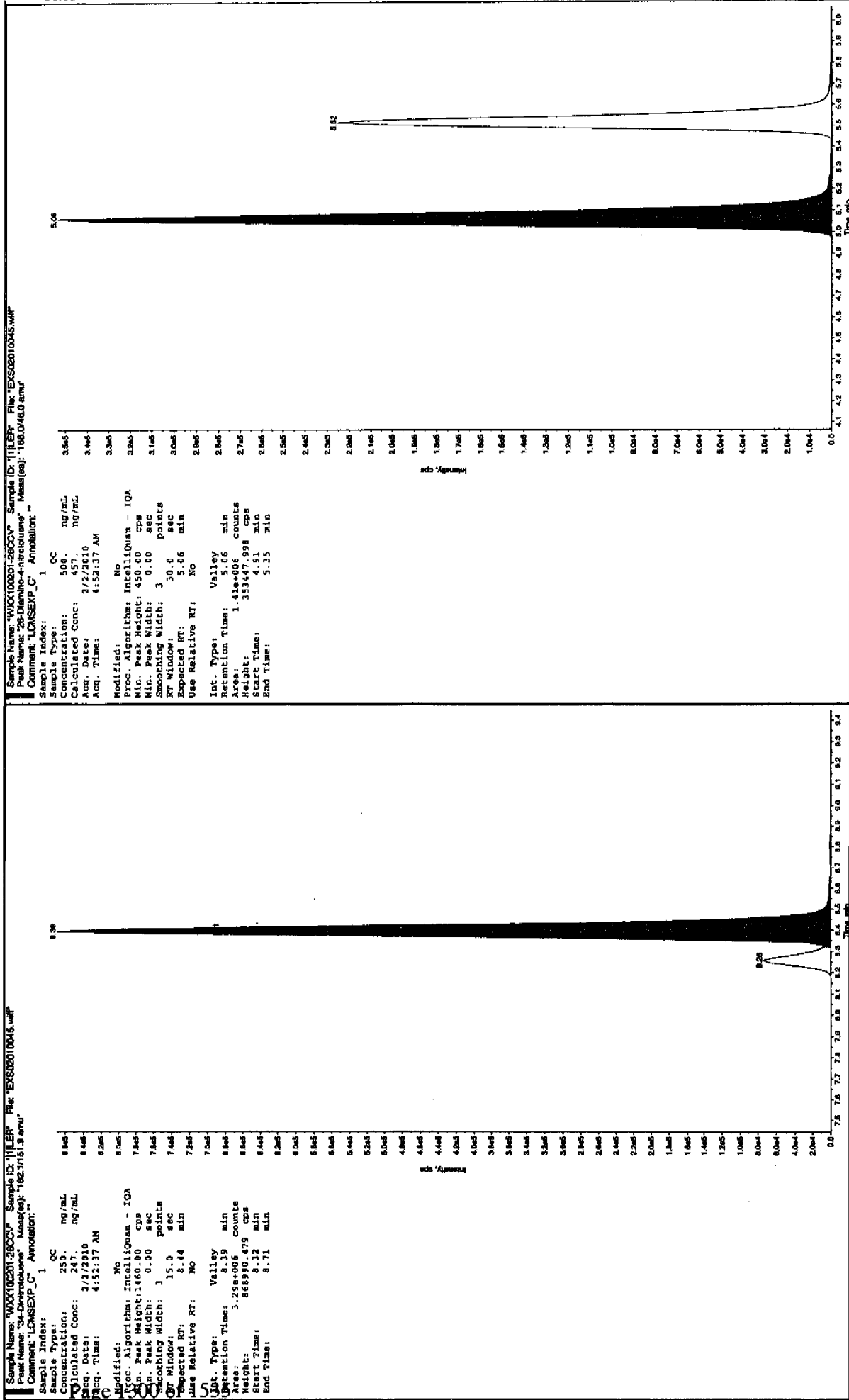
Before Jan 2/2/10

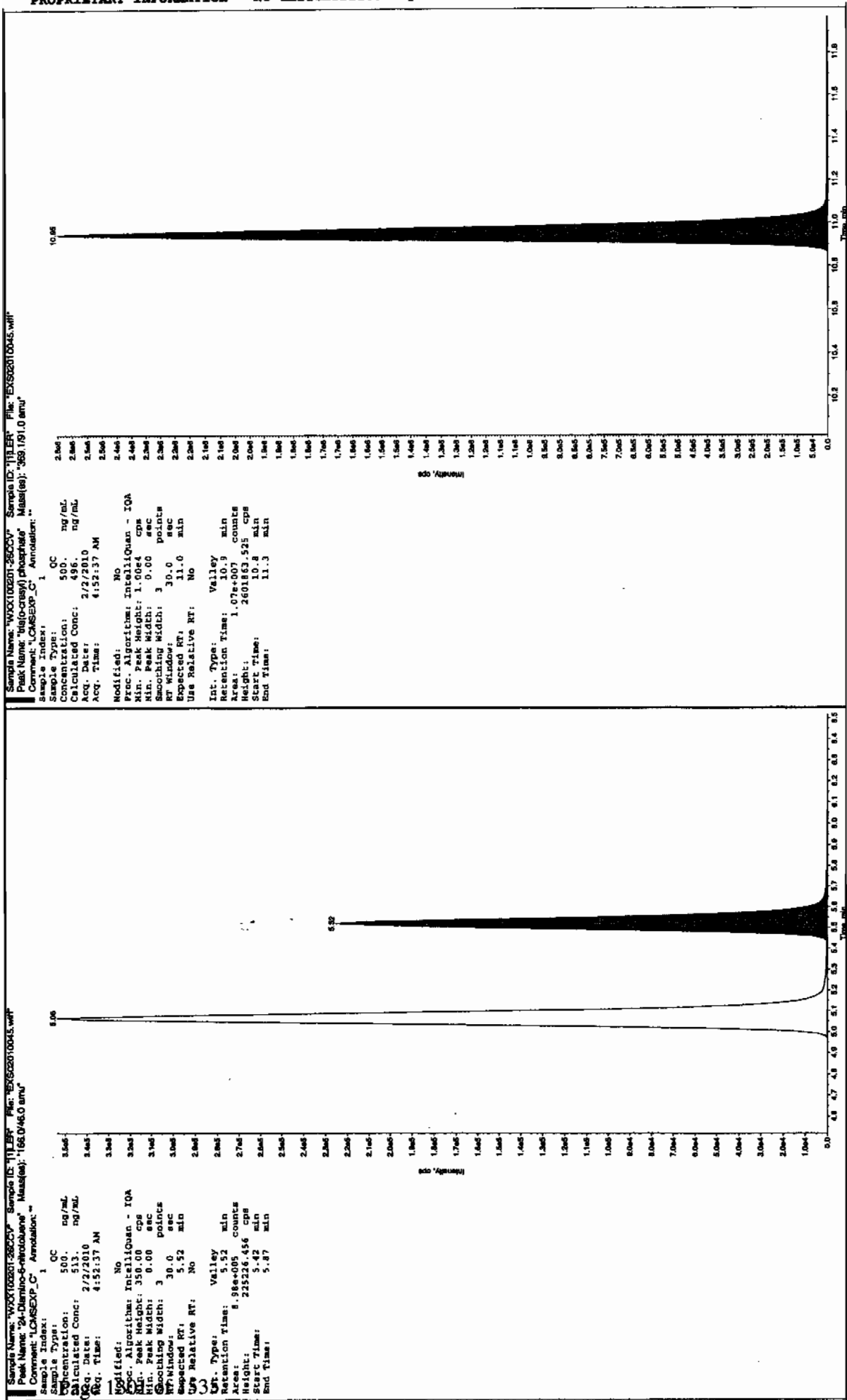


After Jan 2/2/10

after scan 212/10







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1304

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02010047.wiff

Analysis Date: 02-FEB-10 05:24

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	110	110	
3,4-Dinitrotoluene	50	51.6	103	
3,5-Dinitroaniline	100	119	119	
TATB	100	96.8	97	
tris(o-cresyl) phosphate	100	104	104	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

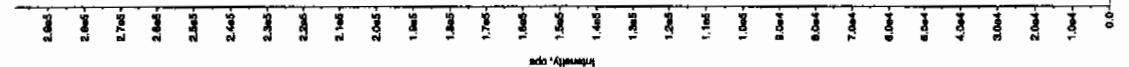
\* Value outside of Recovery Limits

Before Day 2/2/10

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Sample Name: "WXX100201-270R" Sample ID: "111ER" File: "EXS02010047.wif"  
 Peak Name: "35-Dimethylamine" Mass(es): "182.0445.0 amu"  
 Comment: "LCMSDEP\_C" Annotation:

Sample Index: 1  
 Sample Type: 100  
 Concentration: 100 ng/mL  
 Calculated Conc: 129 ng/mL  
 Acq. Date: 2/2/2010  
 Acq. Time: 5:24:03 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.31 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.26 min  
 Area: 1.28e+006 counts  
 Height: 298747.437 cps  
 Start Time: 8.0 min  
 End Time: 8.49 min



Handwritten signature/initials

Sample Name: "WXX100201-270R" Sample ID: "111ER" File: "EXS02010047.wif"  
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
 Comment: "LCMSDEP\_C" Annotation:

Sample Index: 1  
 Sample Type: 100  
 Concentration: 96.8 ng/mL  
 Calculated Conc: 96.8 ng/mL  
 Acq. Date: 2/2/2010  
 Acq. Time: 5:24:03 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 7.05 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 7.04 min  
 Area: 1.86e+005 counts  
 Height: 43902.82 cps  
 Start Time: 6.8 min  
 End Time: 7.46 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Jan 26/10

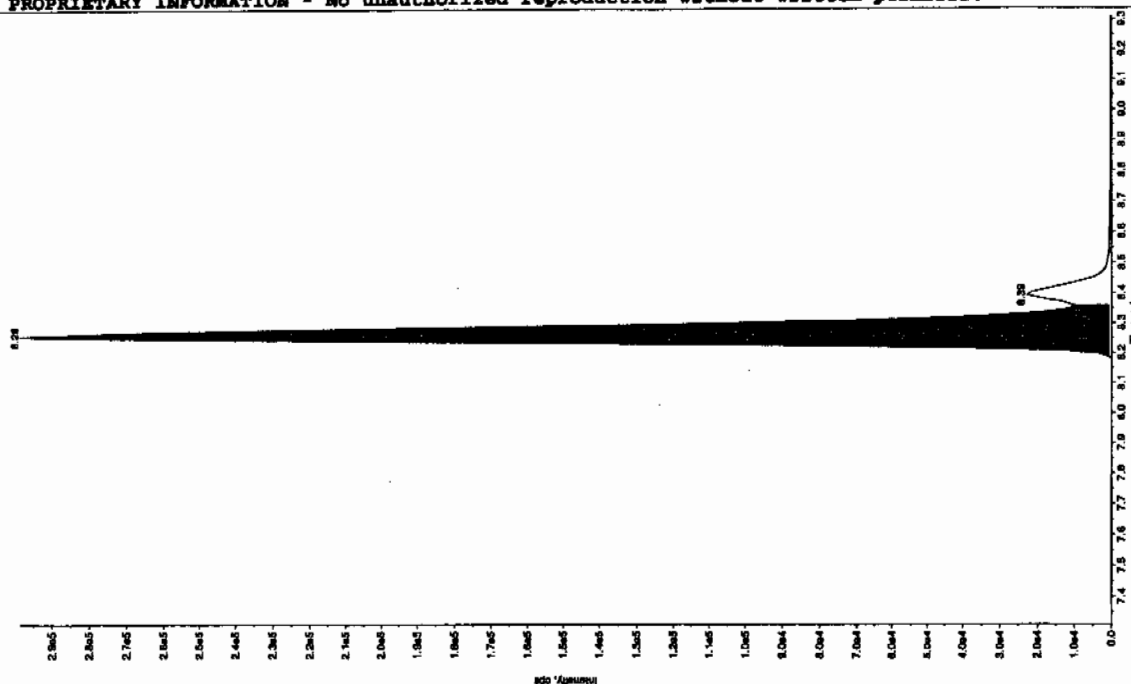
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100201-270R" Sample ID: "11LRF" File: "EXS02010047.wif"

Peak Name: "35-Orlistatline" Mass(es): "182.048.0 amu"

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
Sample Type: QC  
Concentration: 100. ng/mL  
Calculated Conc: 119. ng/mL  
Acq. Date: 2/2/2010  
Acq. Time: 5:24:03 AM  
Modified: Yes  
RT Window: 15.0 sec  
Expected RT: 8.31 min  
Use Relative RT: No  
Int. Type: Manual  
Retention Time: 8.26 min  
Area: 1.18e+005 counts  
Height: 298756.062 cps  
Start Time: 8.19 min  
End Time: 8.36 min

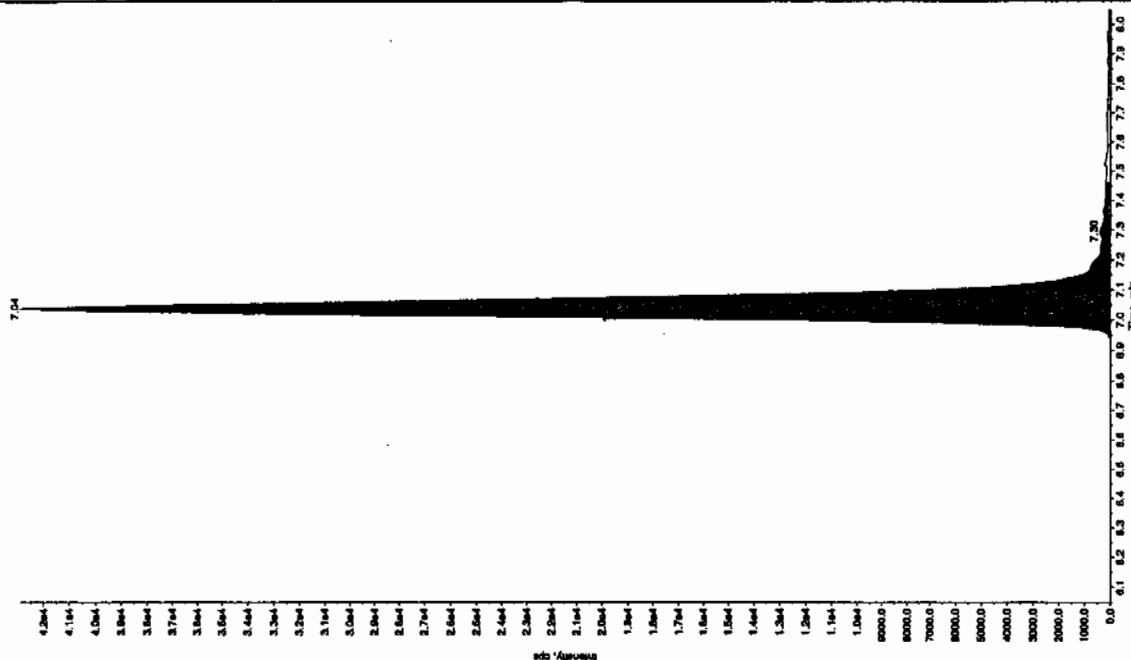


Sample Name: "WXX100201-270R" Sample ID: "11LRF" File: "EXS02010047.wif"

Peak Name: "TATP" Mass(es): "257.22234.9 amu"

Comment: "LCMSEXP\_C" Annotation: "

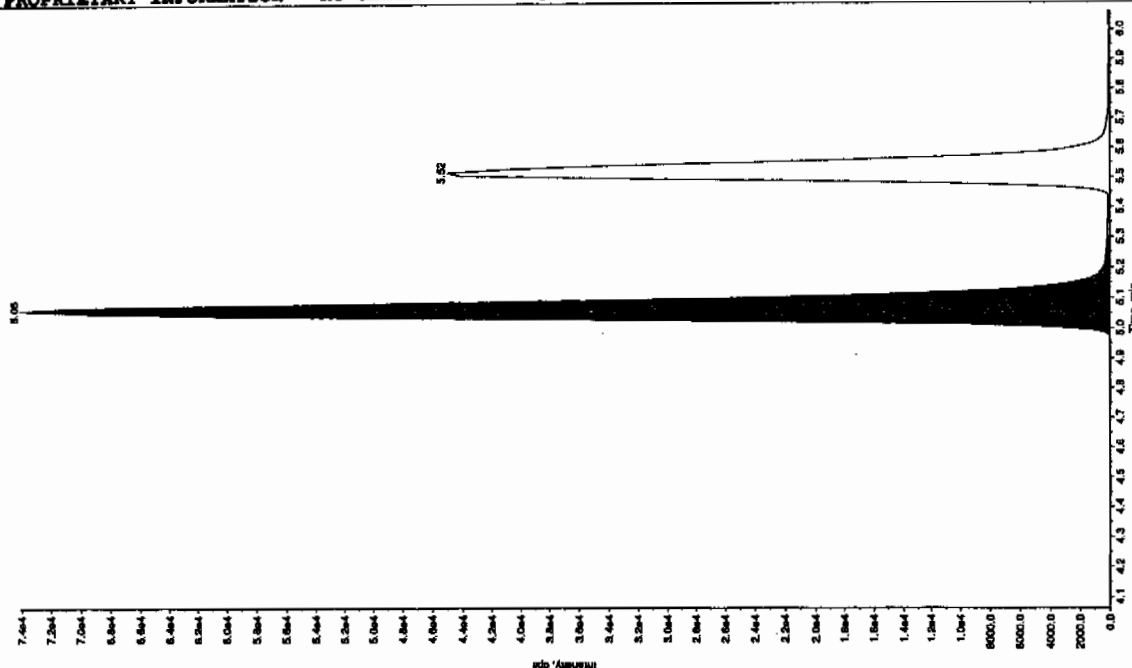
Sample Index: 1  
Sample Type: QC  
Concentration: 100. ng/mL  
Calculated Conc: 96.8 ng/mL  
Acq. Date: 2/2/2010  
Acq. Time: 5:24:03 AM  
Modified: No  
Proc. Algorithm: IntCalQuan - IQA  
Min. Peak Height: 2500.00 cps  
Peak Width: 3.00 sec  
Peak Width: 30.0 points  
Expected RT: 7.05 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 7.04 min  
Area: 1.86e+005 counts  
Height: 42909.824 cps  
Start Time: 6.89 min  
End Time: 7.46 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

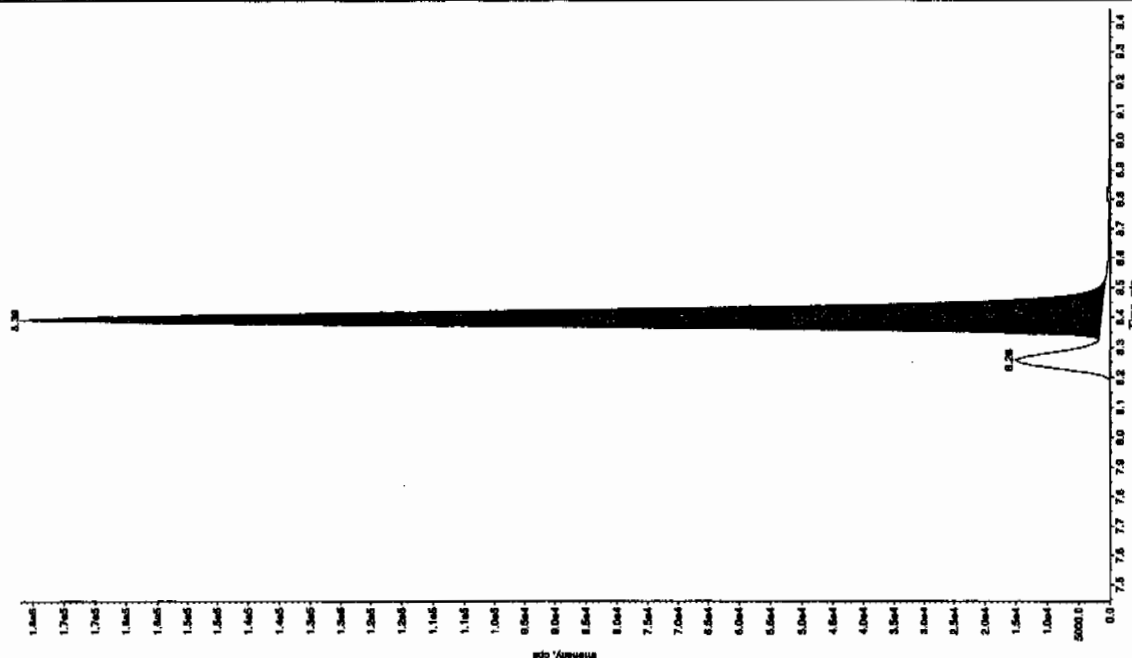
Sample Name: "WXX100201-2701" Sample ID: "111ER" File: "EXS02010047.wif"  
 Peak Name: "25-Oxotetra-4-nitrofluorene" Mass(es): "166.0446.0 amu"  
 Comment: "LCMS/EXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: 100  
 Concentration: 110.0 ng/mL  
 Calculated Conc: 2/2/2010  
 Acq. Date: 5:24:03 AM  
 Acq. Time: 5:24:03 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: 5.06 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.06 min  
 Area: 3.07e+006 counts  
 Height: 7412.846 cps  
 Start Time: 4.91 min  
 End Time: 5.30 min

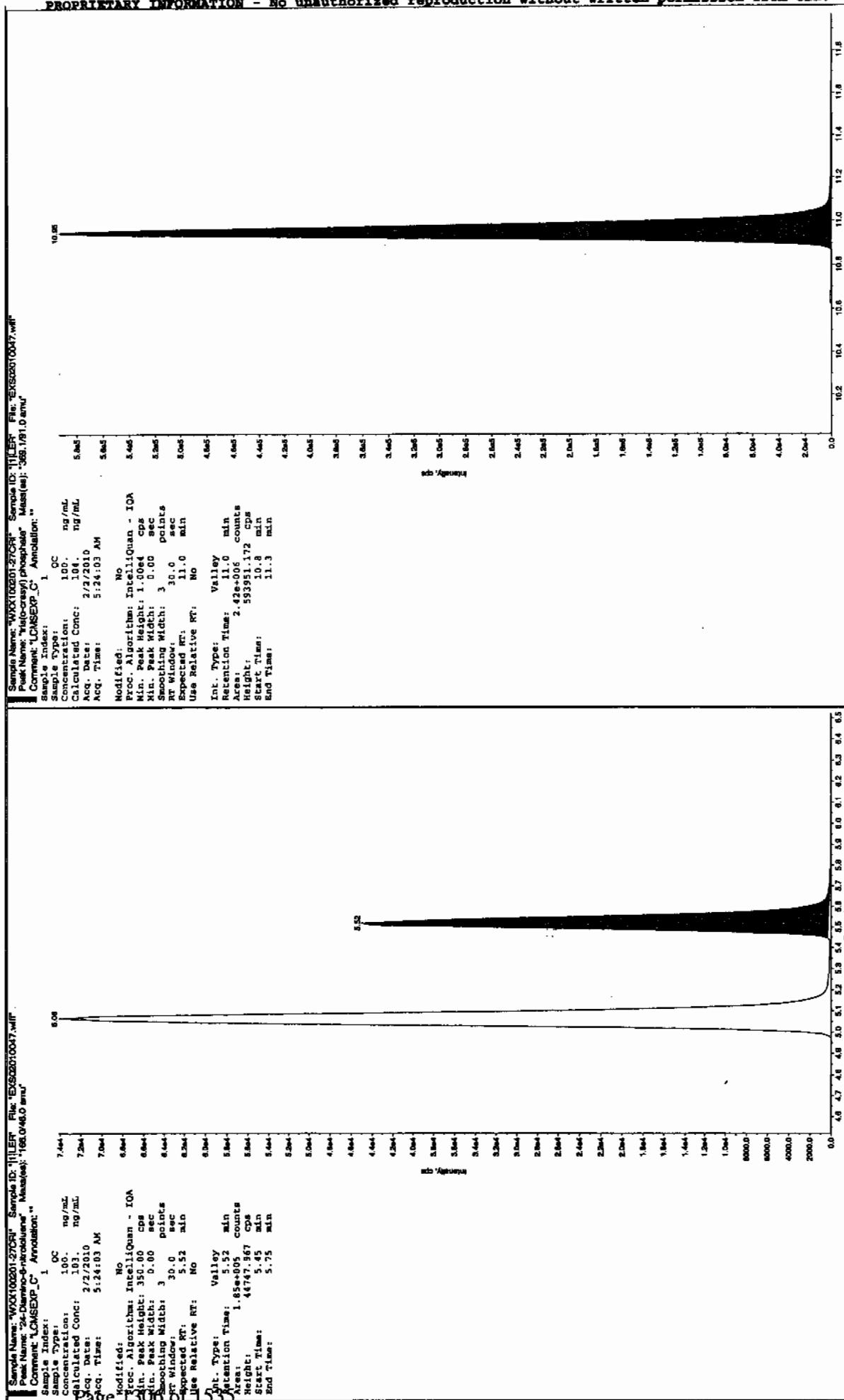


Sample Name: "WXX100201-2701" Sample ID: "111ER" File: "EXS02010047.wif"  
 Peak Name: "34-Oxotetra-4-nitrofluorene" Mass(es): "182.1151.9 amu"  
 Comment: "LCMS/EXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: 100  
 Concentration: 51.6 ng/mL  
 Calculated Conc: 2/2/2010  
 Acq. Date: 5:24:03 AM  
 Acq. Time: 5:24:03 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.44 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.39 min  
 Area: 6.44e+005 counts  
 Height: 17567.110 cps  
 Start Time: 8.27 min  
 End Time: 8.53 min







# QUALITY CONTROL DATA

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 944245

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 1202021906

Sample Amount 2

Moisture:

Amount Units g

Date Received: 21-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208060a

Date Analyzed: 09-FEB-10 19:45

Units: ug/kg

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

\*Concentration =

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

**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA1.qid, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208060a

Date: 09-Feb-2010

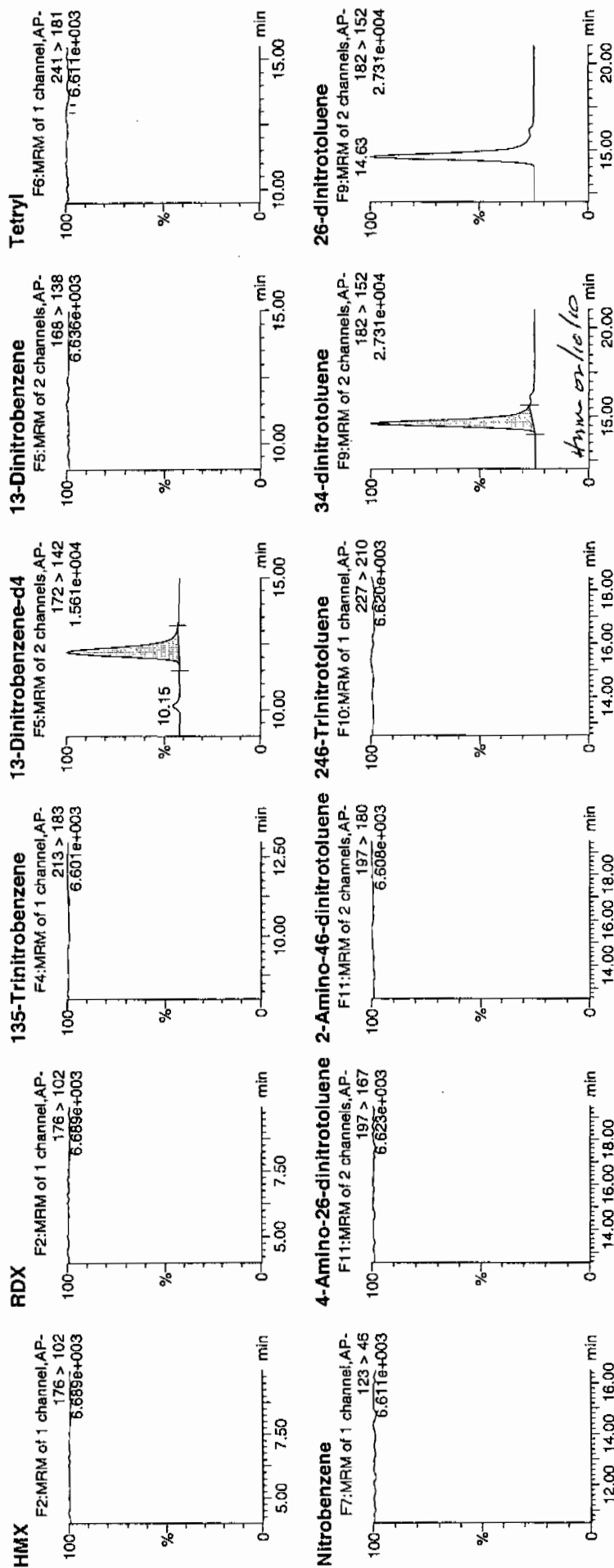
Time: 19:45:21

ID: 1202021906

Vial: 1:8,A

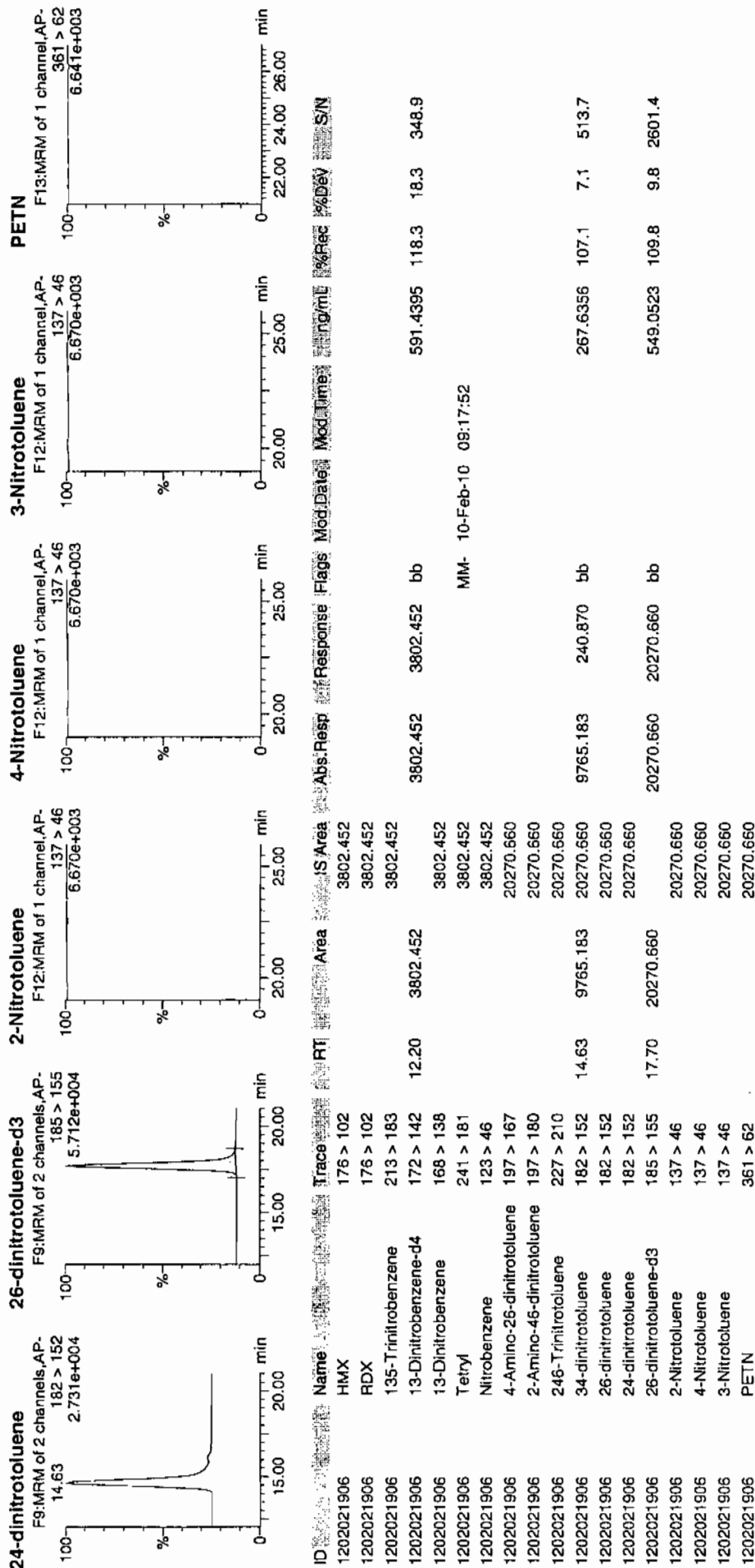
1.5617  
2/10/10

1944246 / 80222 / 113 / 2 /



**Quantify Sample Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\020810expA1.q.d, Time: Wed Feb 10 09:19:53 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 944245

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 1202021906

Sample Amount 2

Moisture:

Amount Units g

Date Received: 21-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010022.wiff

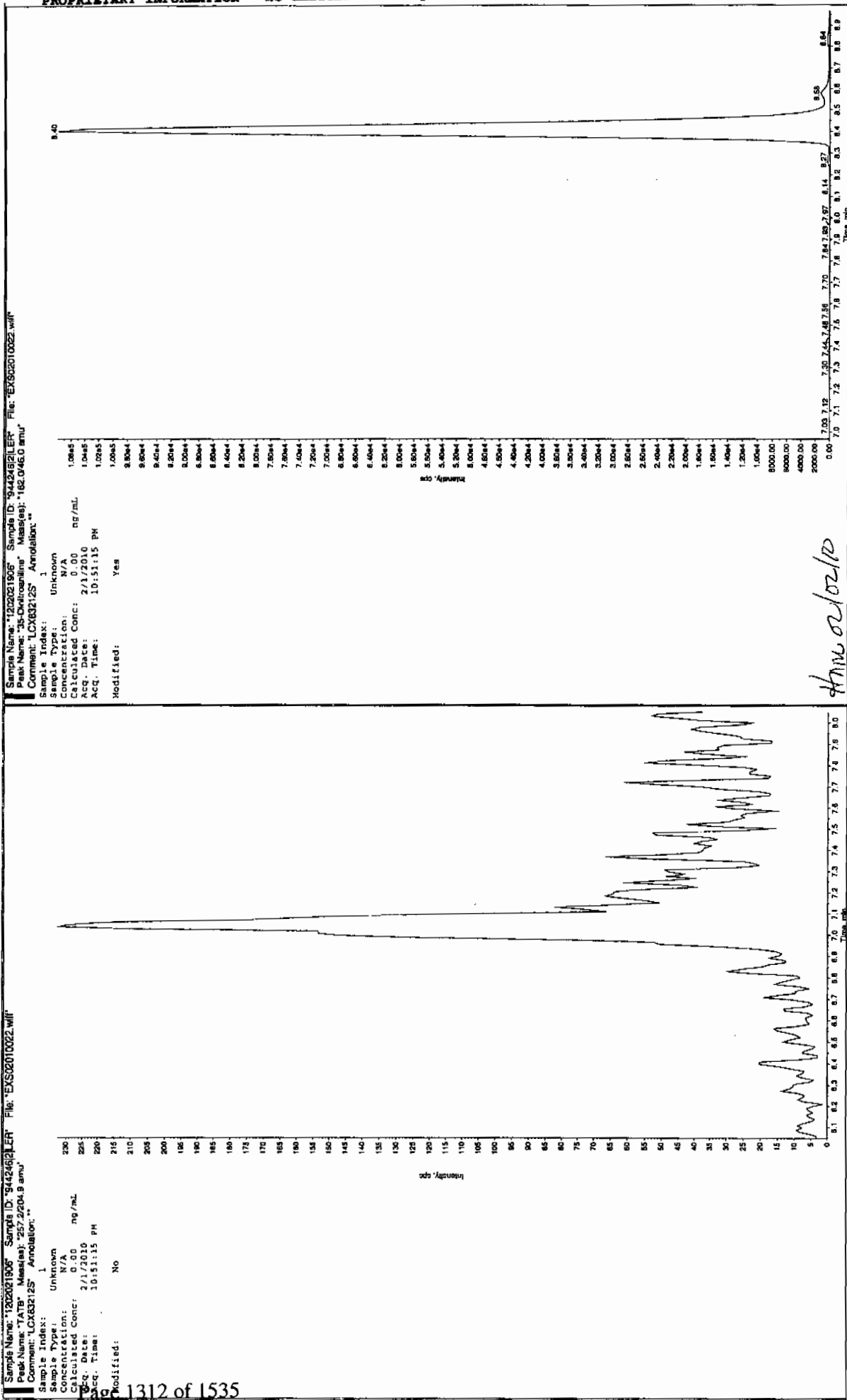
Date Analyzed: 01-FEB-10 22:51

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



2/2/10  
 J. G. G.

4/10/2010

Sample Name: 1020210022 Sample ID: 94424621.0022.wif  
 Peak Name: 25-Diethyl-4-nitrofluorene Mass(es): 166.046.0 amu  
 Comment: LC832125 Annotation: "

Sample Index: 1  
 Sample Name: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 2/1/2010  
 Acq. Date: 10:51:15 PM  
 Acq. Time: 10:51:15 PM  
 Modified: No



Sample Name: 1020210022 Sample ID: 94424621.0022.wif  
 Peak Name: 25-Diethyl-4-nitrofluorene Mass(es): 162.151.9 amu  
 Comment: LC832125 Annotation: "

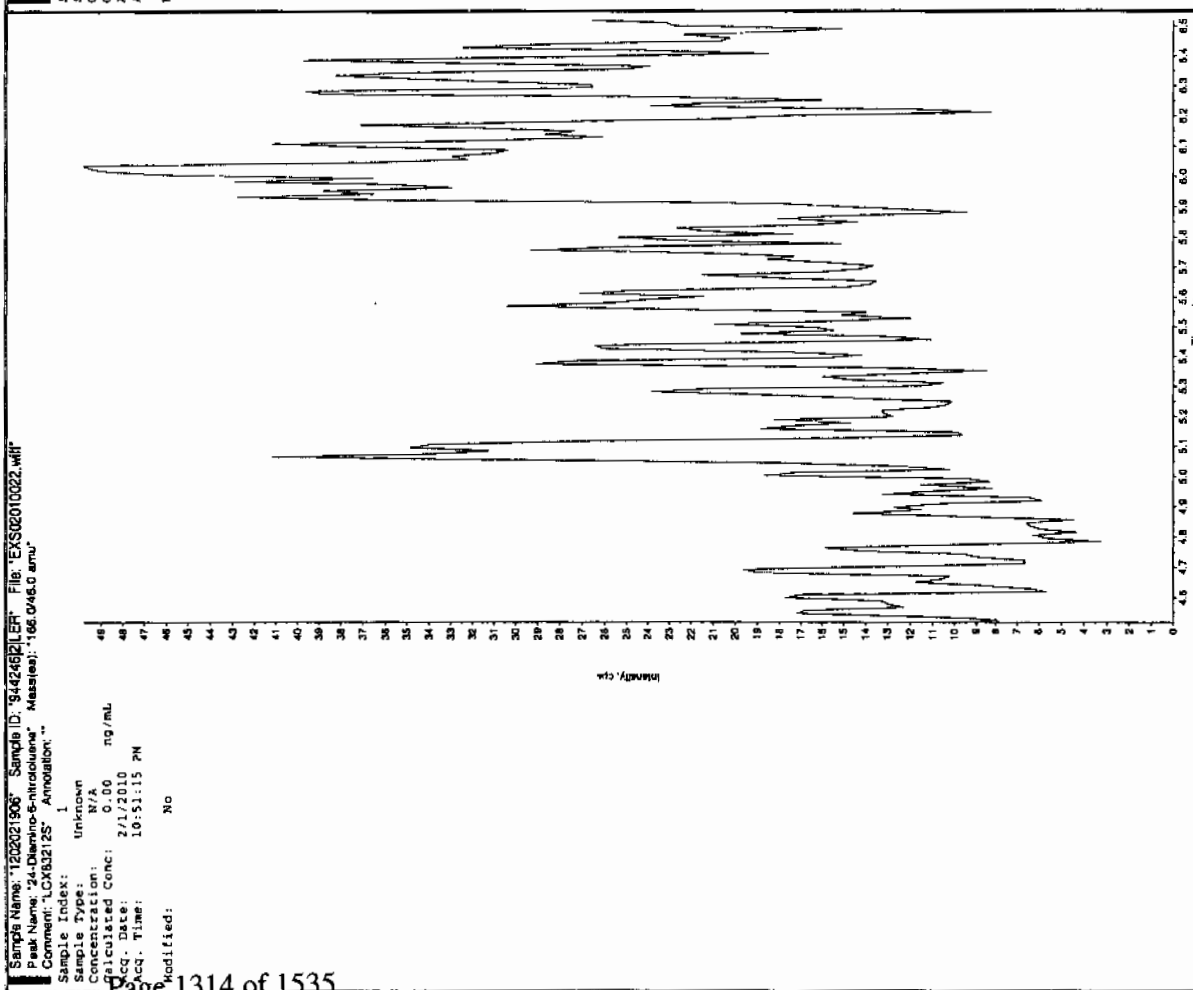
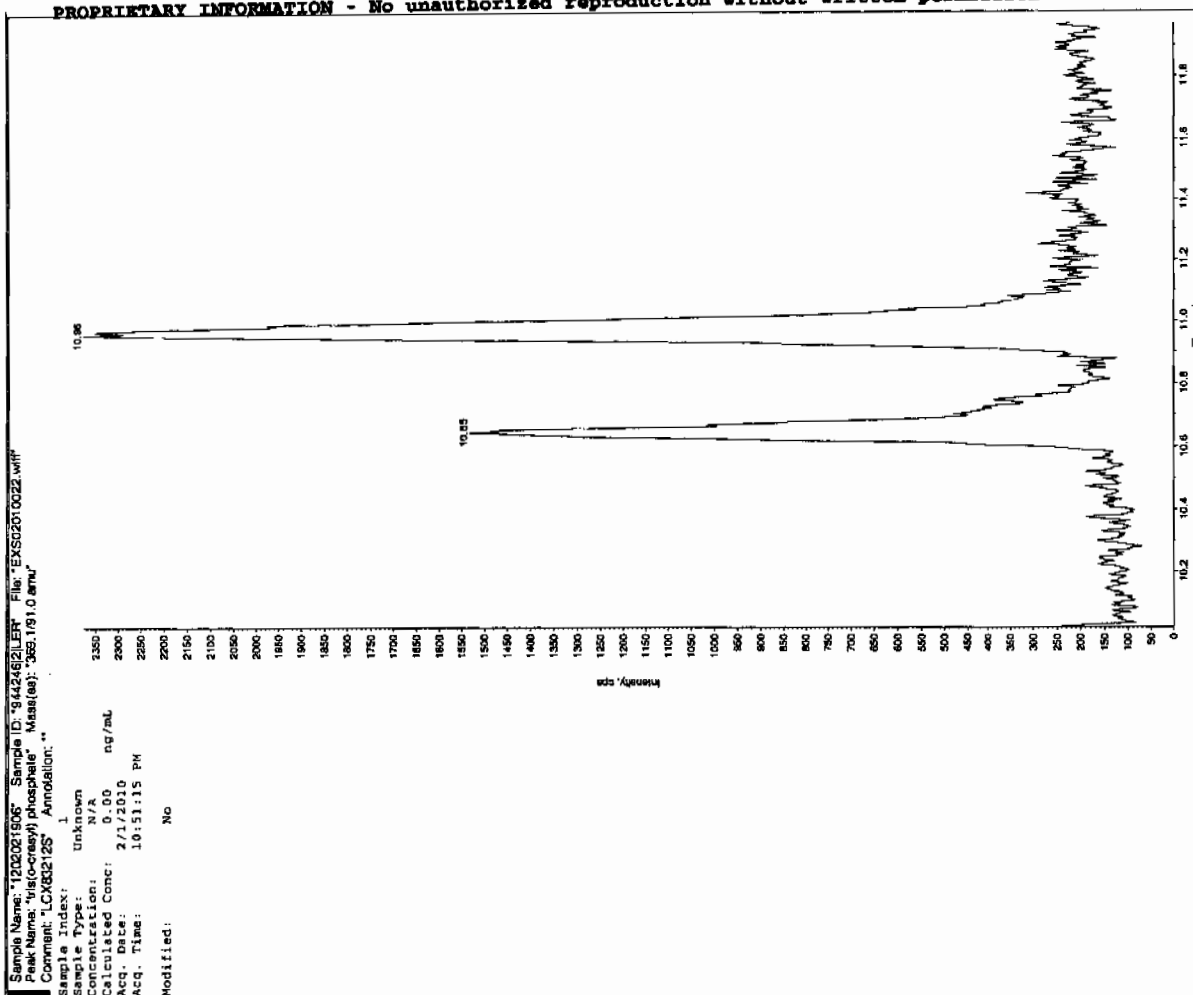
Sample Index: 1  
 Sample Name: Unknown  
 Concentration: 301. ng/mL  
 Calculated Conc: 2/1/2010  
 Acq. Date: 10:51:15 PM  
 Acq. Time: 10:51:15 PM  
 Modified: No

Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3.00 points  
 AT Window: 15.0 sec  
 Expected RT: 8.44 min  
 Use Relative RT: No

Valley  
 Ret. Type: Valley  
 Retention Time: 8.40 min  
 Area: 3.98e+006 counts  
 Height: 1051275.635 cps  
 Start Time: 8.31 min  
 End Time: 8.71 min

\*GEL 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 944245

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 1202021907

Sample Amount 2

Moisture:

Amount Units g

Date Received: 21-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208061a

Date Analyzed: 09-FEB-10 20:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5220	
121-14-2	2,4-Dinitrotoluene	5460	
121-82-4	RDX	4440	
19406-51-0	4-Amino-2,6-dinitrotoluene	5240	
2691-41-0	HMX	4170	
35572-78-2	2-Amino-4,6-dinitrotoluene	5250	
479-45-8	Tetryl	2000	
606-20-2	2,6-Dinitrotoluene	5160	
78-11-5	PETN	4850	
88-72-2	o-Nitrotoluene	4640	
98-95-3	Nitrobenzene	4420	
99-08-1	m-Nitrotoluene	4400	
99-35-4	1,3,5-Trinitrobenzene	3780	
99-65-0	m-Dinitrobenzene	5080	
99-99-0	p-Nitrotoluene	4740	

\*Concentration =

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

# Quantify Sample Report GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208061a

Date: 09-Feb-2010

Time: 20:14:58

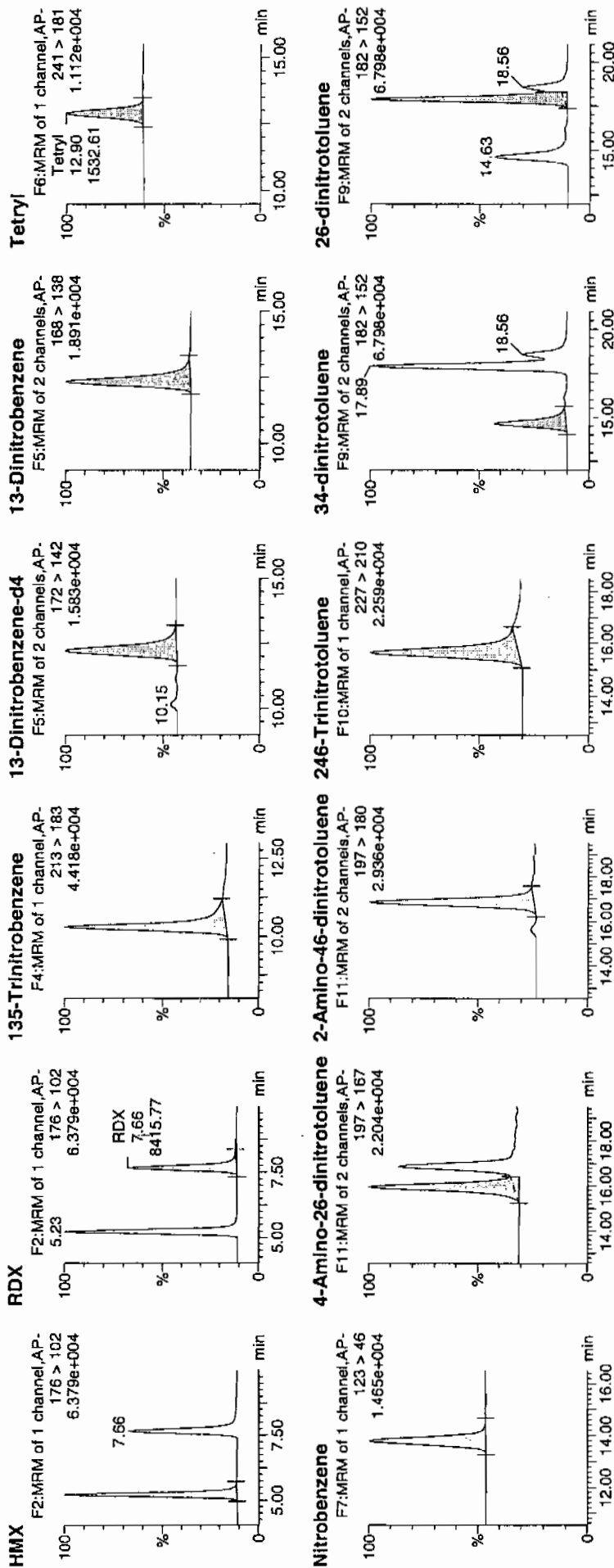
ID: 1202021907

Vial: 1:8,B

μOFF

2/12/10

WAV/944246/S220/CS/2/



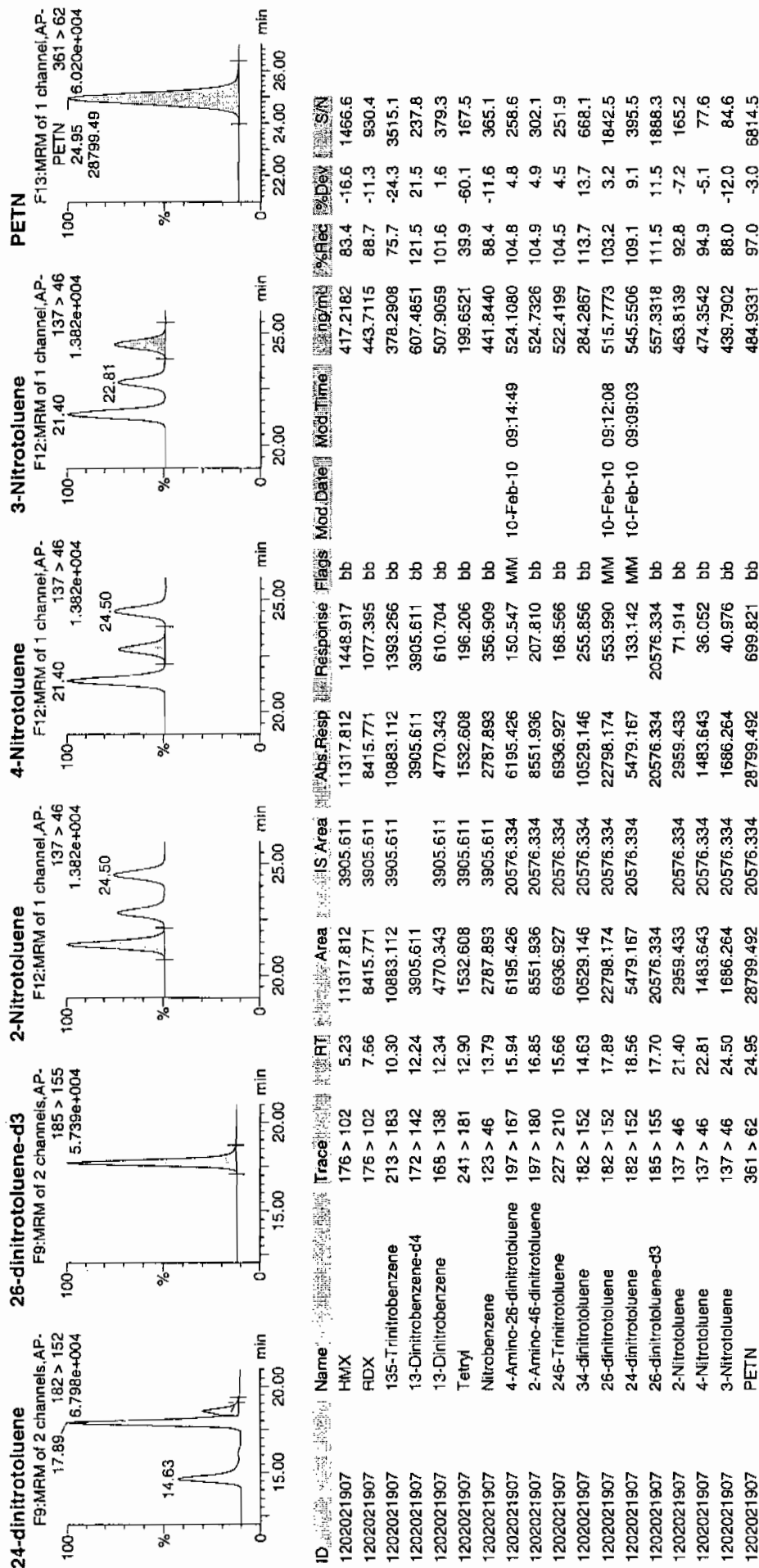
Handwritten signature

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Wed Feb 10 09:25:16 2010, Page 46 of 79

Dataset: C:\MASSLYNX\New\_Exp\_PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 944245

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 1202021907

Sample Amount 2

Moisture:

Amount Units g

Date Received: 21-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010023.wiff

Date Analyzed: 01-FEB-10 23:06

Units: ug/kg

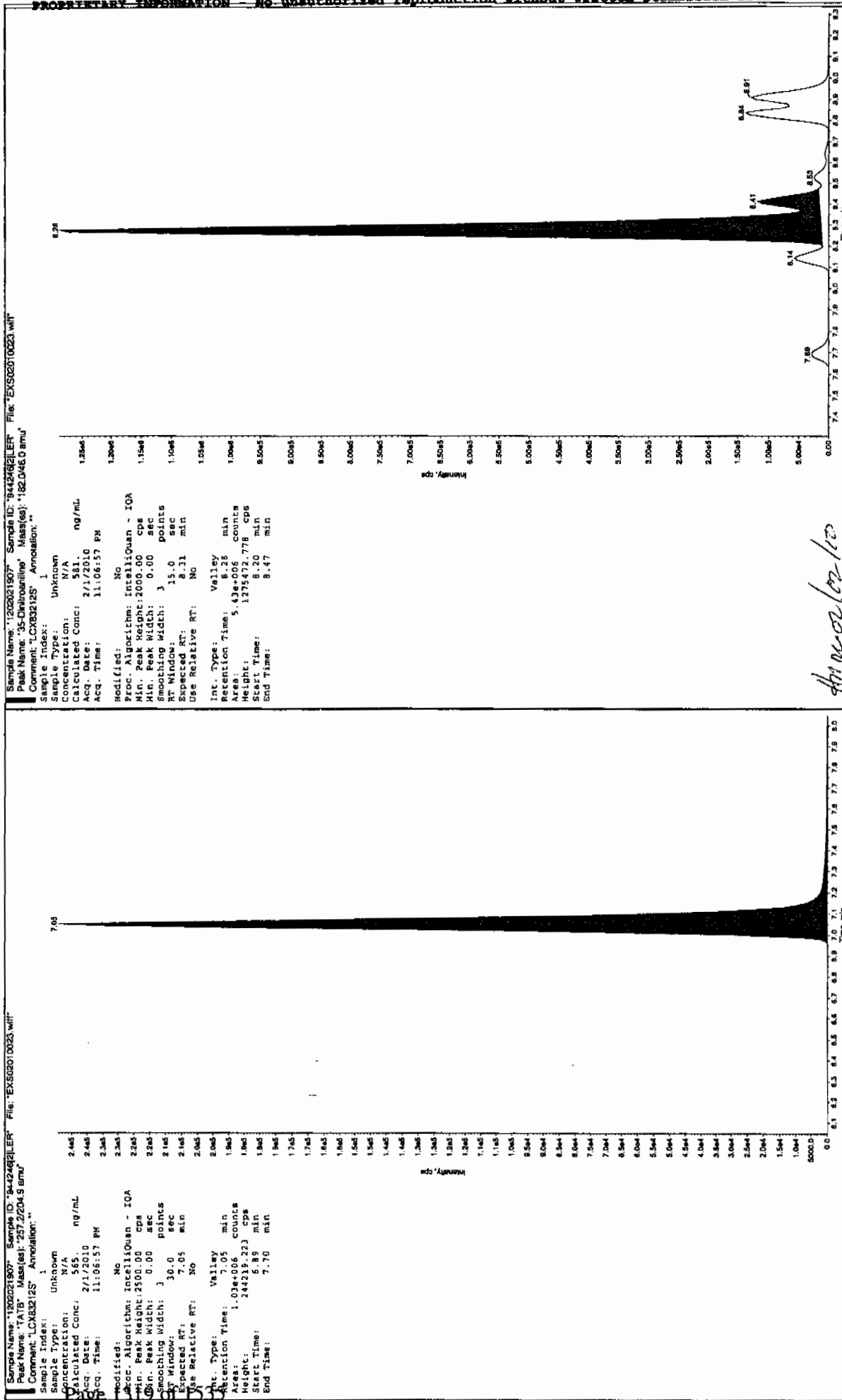
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5650	
59229-75-3	2,6-Diamino-4-nitrotoluene	5160	
618-87-1	3,5-Dinitroaniline	5530	
6629-29-4	2,4-Diamino-6-nitrotoluene	5040	
78-30-8	tris(o-cresyl) phosphate	5080	

\*Concentration =

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

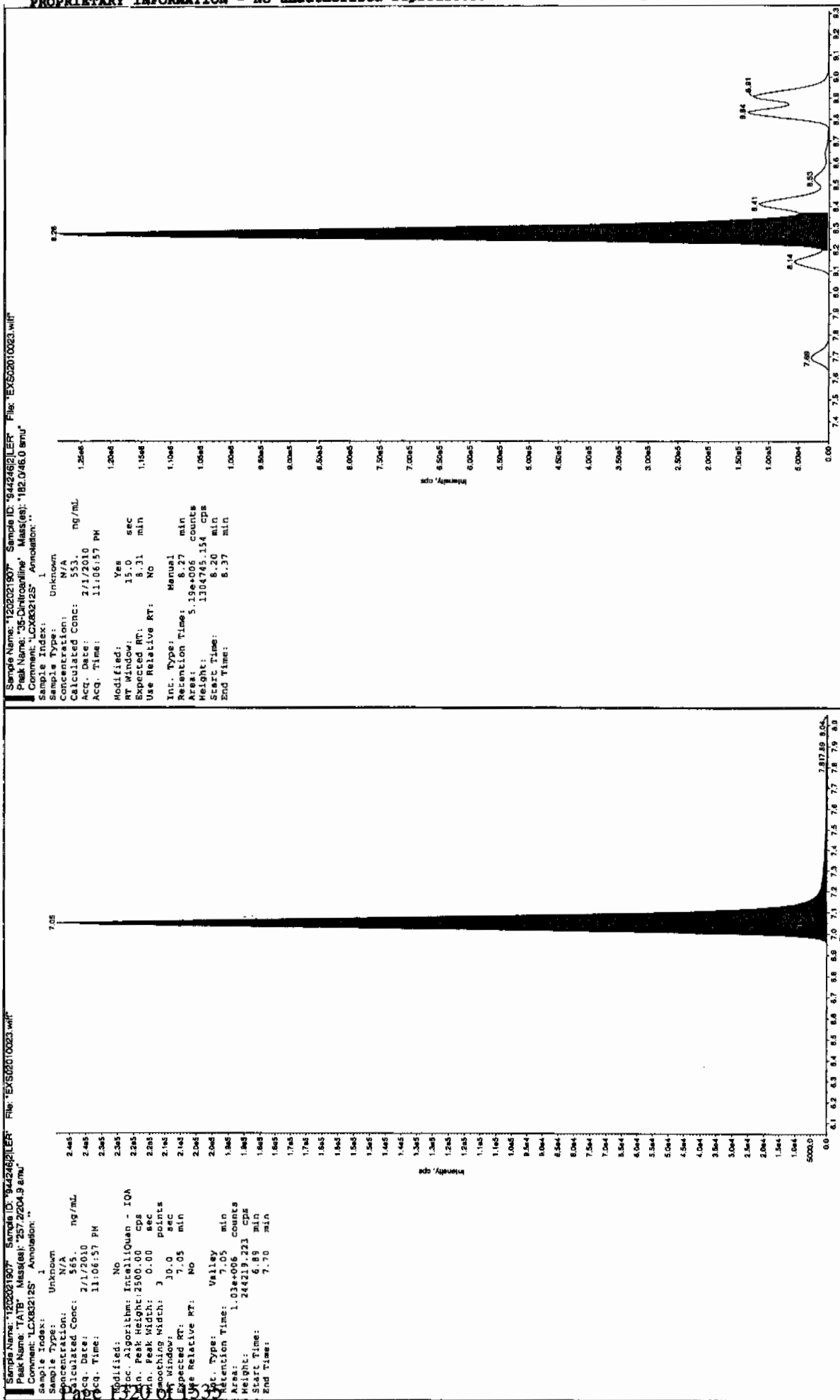
Before Scan 22/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.



After Scan 22/10

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202021907" Sample ID: "94424621.ER" File: "EX502010023.wif"

Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.046.0 amu"

Comment: "LCX832125" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 516. ng/mL

Acq. Date: 2/1/2010

Acq. Time: 11:06:57 PM

Modified: No

Proc. Algorithm: InterpolQuan - IQA

Min. Peak Height: 450.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 5.06 min

Use Relative RT: No

Int. Type: Valley

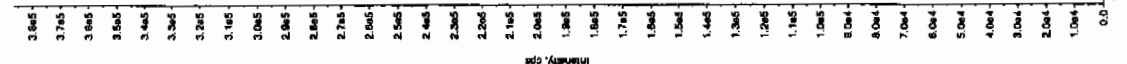
Retention Time: 5.06 min

Area: 1.60e+006 counts

Height: 386434.021 cps

Start Time: 4.96 min

End Time: 5.36 min



Sample Name: "1202021907" Sample ID: "94424621.ER" File: "EX502010023.wif"

Peak Name: "34-Dinitrotoluene" Mass(es): "182.17151.9 amu"

Comment: "LCX832125" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 299. ng/mL

Acq. Date: 2/1/2010

Acq. Time: 11:06:57 PM

Modified: No

Proc. Algorithm: InterpolQuan - IQA

Min. Peak Height: 150.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.44 min

Use Relative RT: No

Int. Type: Valley

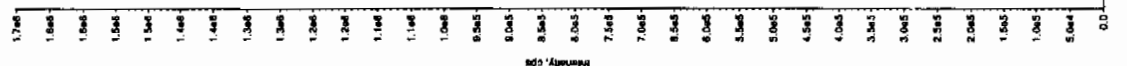
Retention Time: 8.40 min

Area: 3.96e+006 counts

Height: 1039063.354 cps

Start Time: 8.34 min

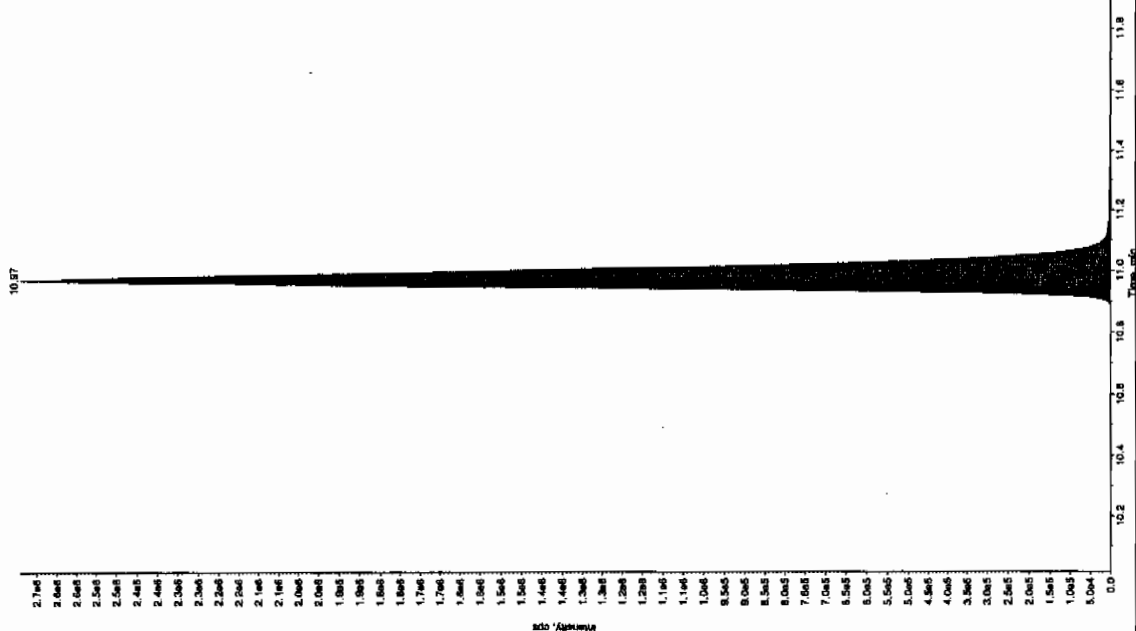
End Time: 8.66 min





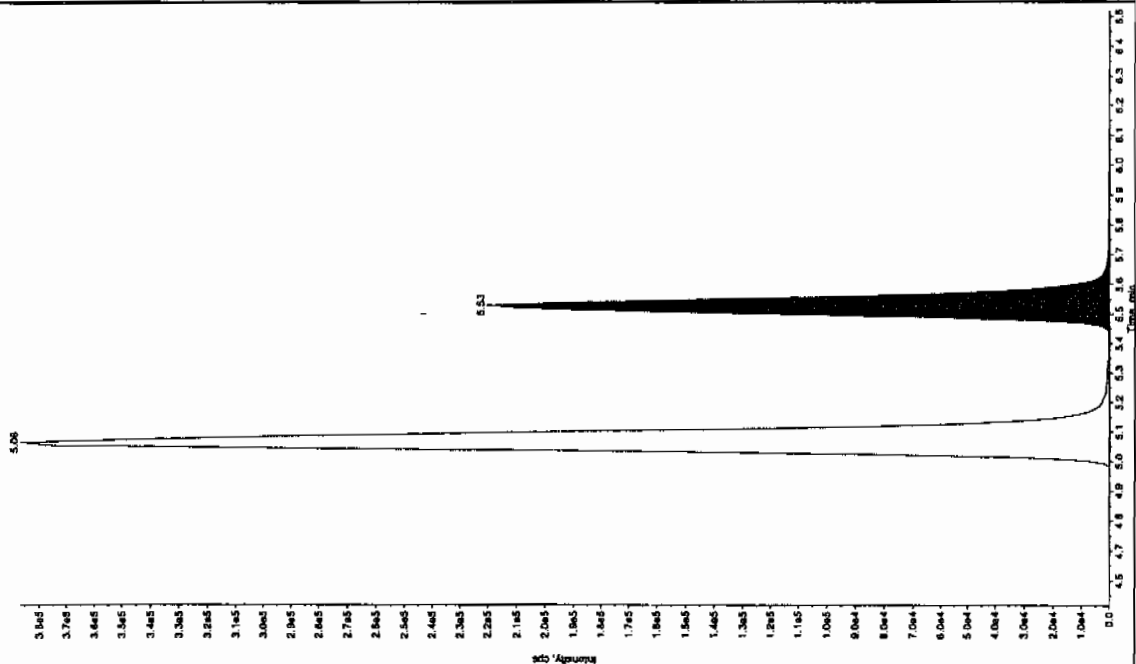
Sample Name: "1202021907" Sample ID: "94424621ER" File: "EXS02010023.wif"  
 Peak Name: "1,1,1-trichloro-2,2,2-trifluoroethane" Mass(es): "368.181,0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 2/120.0 ng/mL  
 Acq. Date: 2/12/00  
 Acq. Time: 11:00:57 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1.00e4 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 11.0 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 11.0 min  
 Area: 1.10e+007 counts  
 Height: 2689816.650 cps  
 Start Time: 10.9 min  
 End Time: 11.3 min



Sample Name: "1202021907" Sample ID: "94424621ER" File: "EXS02010023.wif"  
 Peak Name: "2,4-Dinitro-6-nitrotoluene" Mass(es): "196.046,0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 2/120.0 ng/mL  
 Acq. Date: 2/12/00  
 Acq. Time: 11:00:57 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: 5.52 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.53 min  
 Area: 8.44e+005 counts  
 Height: 220192.535 cps  
 Start Time: 5.42 min  
 End Time: 5.69 min



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7165(245106001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 1202021908

Sample Amount 2

Moisture: 19.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208016a

Date Analyzed: 08-FEB-10 22:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5310	
121-14-2	2,4-Dinitrotoluene	5510	
121-82-4	RDX	4380	
19406-51-0	4-Amino-2,6-dinitrotoluene	5350	
2691-41-0	HMX	4240	
35572-78-2	2-Amino-4,6-dinitrotoluene	5590	
479-45-8	Tetryl	3430	
606-20-2	2,6-Dinitrotoluene	5310	
78-11-5	PETN	5170	
88-72-2	o-Nitrotoluene	4760	
98-95-3	Nitrobenzene	4700	
99-08-1	m-Nitrotoluene	4560	
99-35-4	1,3,5-Trinitrobenzene	4540	
99-65-0	m-Dinitrobenzene	5200	
99-99-0	p-Nitrotoluene	5010	

\*Concentration =

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

Printed: Tue Feb 09 10:21:18 2010, Page 31 of 77

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208016a

Date: 08-Feb-2010

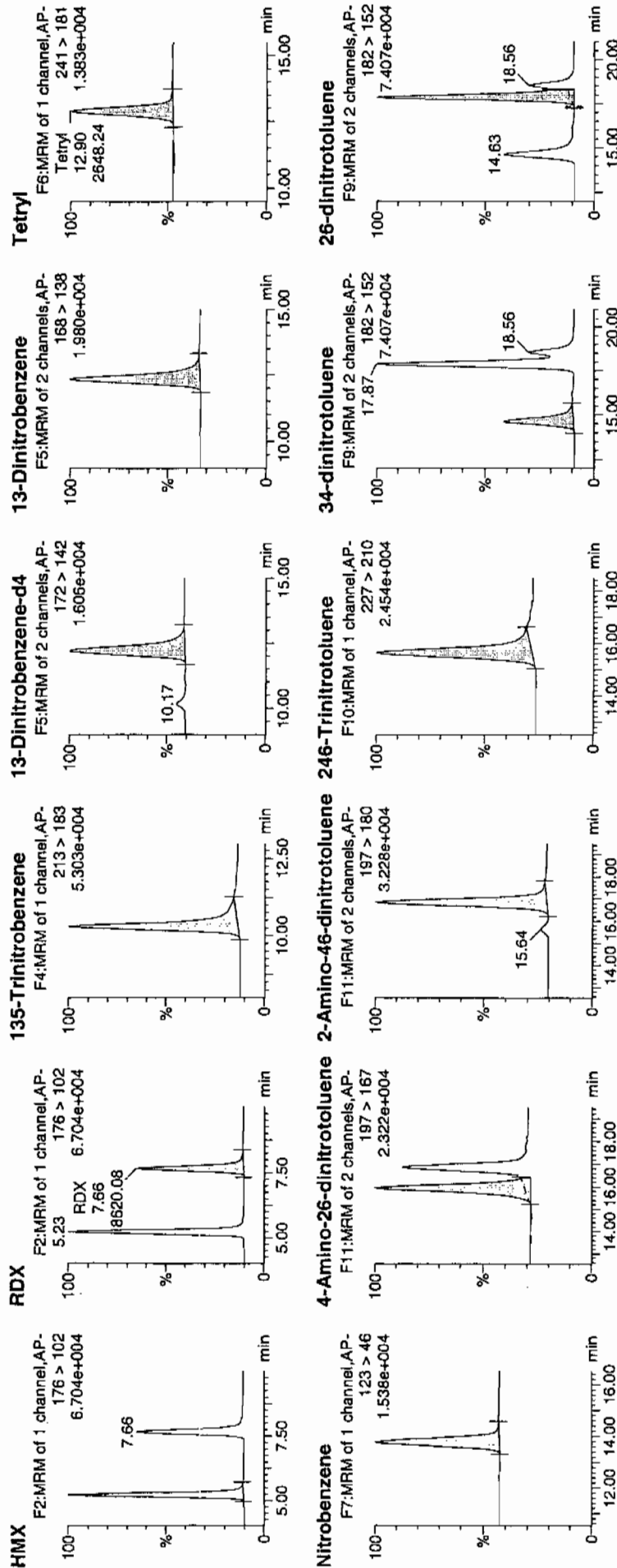
Time: 22:07:00

ID: 1202021908

Vial: 1:4,D

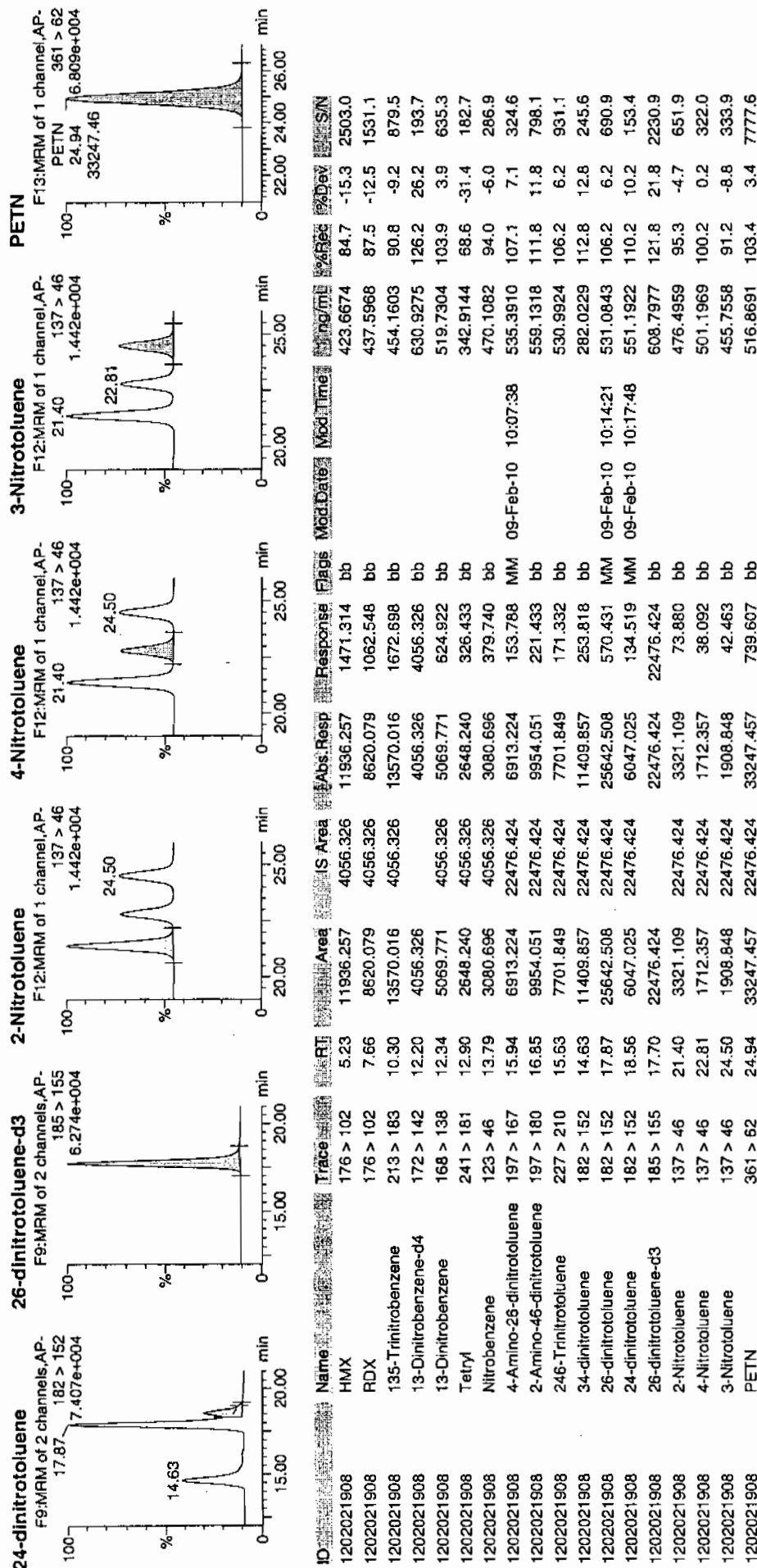
4177  
2/9/10

245106001 us / 2 /



4177  
2/9/10

Dataset: C:\MASSLYNX\New\_Exp\_PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7165(245106001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 1202021908

Sample Amount 2

Moisture: 19.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010025.wiff

Date Analyzed: 01-FEB-10 23:38

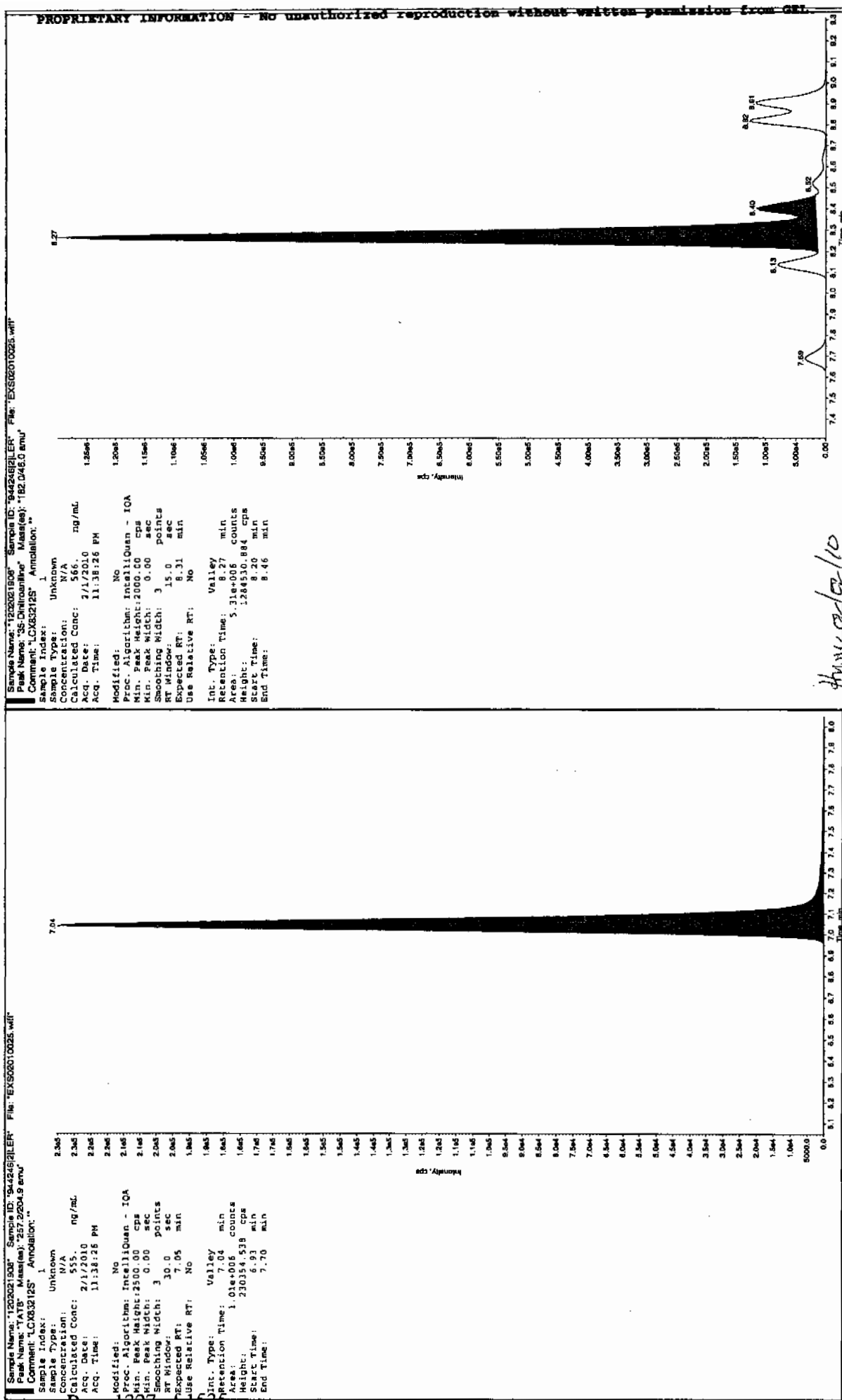
Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5550	
59229-75-3	2,6-Diamino-4-nitrotoluene	5360	
618-87-1	3,5-Dinitroaniline	5400	
6629-29-4	2,4-Diamino-6-nitrotoluene	5520	
78-30-8	tris(o-cresyl) phosphate	5070	

\*Concentration =

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

Before Jan 21/10



After Jan 21/10

Sample Name: "1202021908" Sample ID: "9442462" File: "EXS02010025.wif"

Peak Name: "3S-Diol/epoxide" Mass(es): "182.046.0 amu"

Comment: "LCX83212S" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 540. ng/mL

Acq. Date: 2/1/2010

Acq. Time: 11:38:26 PM

Modified: Yes

RP Window: 15.0 sec

Expected RT: 8.32 min

Use Relative RT: No

Int. Type: Manual

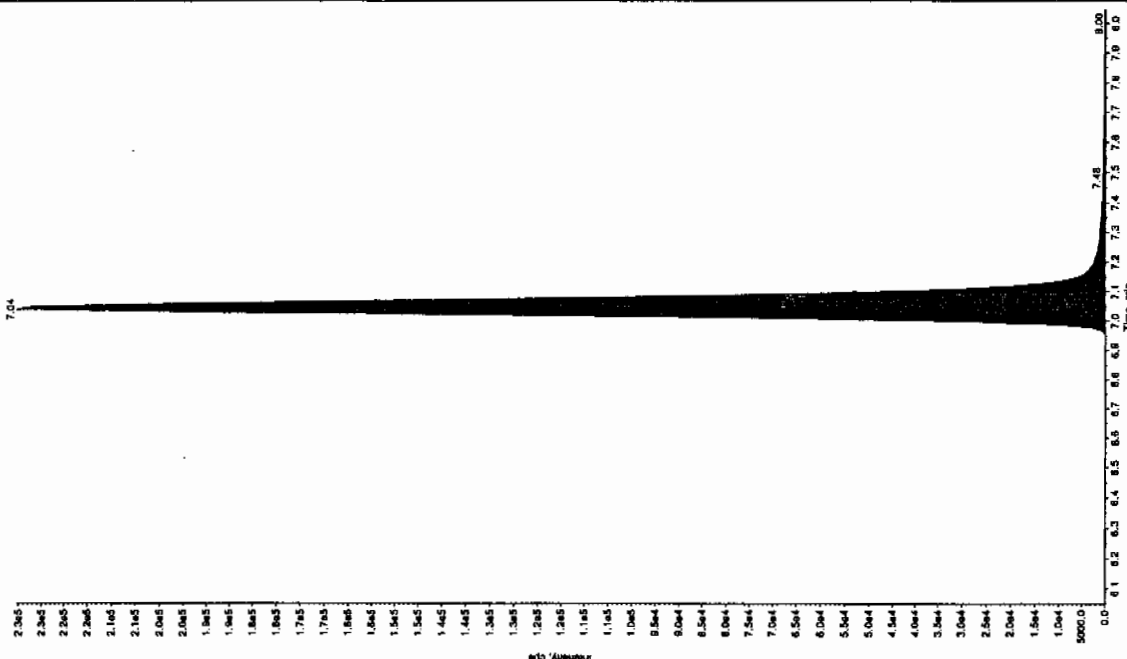
Retention Time: 8.27 min

Area: 5.07e+006 counts

Height: 1396474.514 cps

Start Time: 8.20 min

End Time: 8.36 min



Sample Name: "1202021508" Sample ID: "9442462" File: "EXS02010025.wif"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCX83212S" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 555. ng/mL

Acq. Date: 2/1/2010

Acq. Time: 11:38:26 PM

Modified: No

RP Window: 30.0 sec

Expected RT: 7.05 min

Use Relative RT: No

Int. Type: Valley

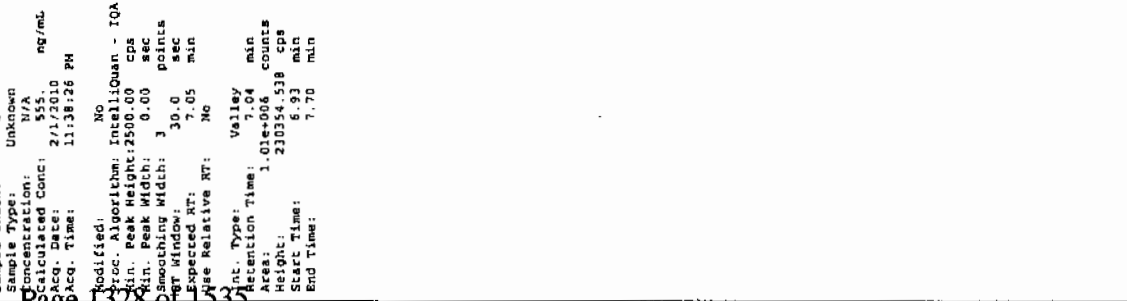
Retention Time: 7.04 min

Area: 1.01e+006 counts

Height: 230354.518 cps

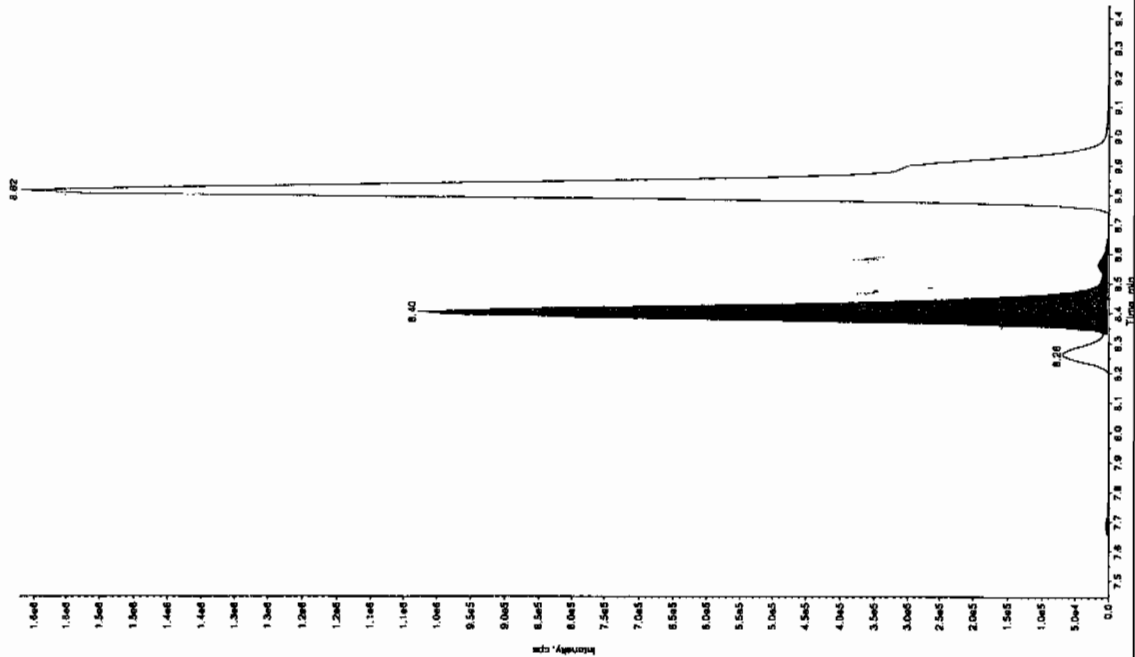
Start Time: 6.93 min

End Time: 7.70 min



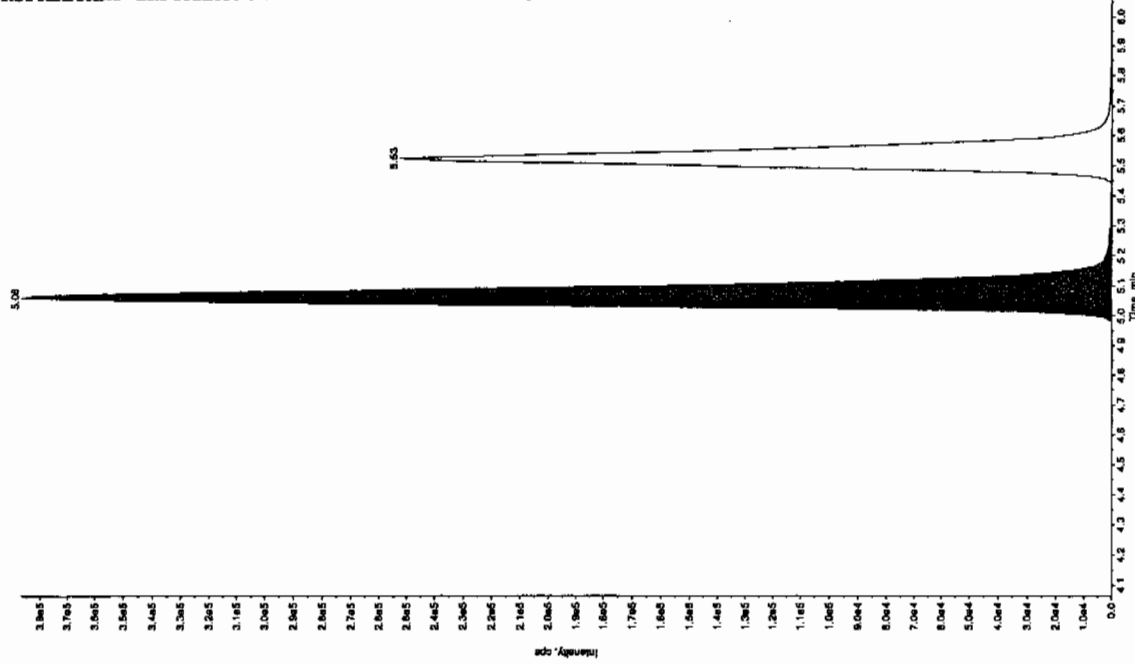
Sample Name: "1202021906" Sample ID: "944244921.ER" File: "EXS02010025.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "152.17151.9 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 2/11/2010  
 Acq. Time: 11:38:26 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: 8.44 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.40 min  
 Area: 3.86e+006 counts  
 Height: 102570.857 cps  
 Start Time: 8.33 min  
 End Time: 8.63 min

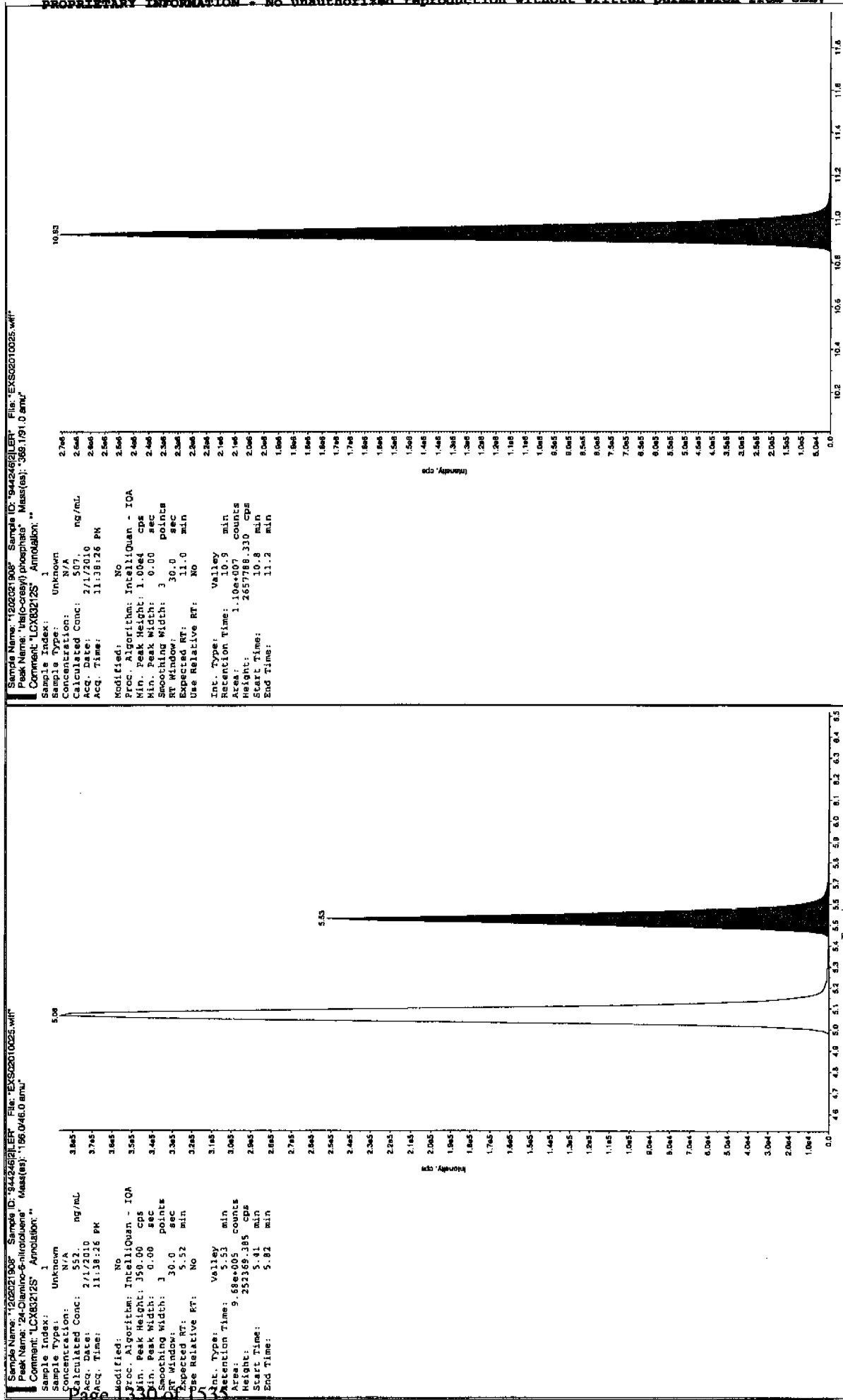


Sample Name: "1202021906" Sample ID: "944244921.ER" File: "EXS02010025.wif"  
 Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "166.0465.0 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 2/11/2010  
 Acq. Time: 11:38:26 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: 5.06 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.05 min  
 Area: 1.86e+006 counts  
 Height: 38696.871 cps  
 Start Time: 4.96 min  
 End Time: 5.35 min







1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7165(245106001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 1202021909

Sample Amount 2

Moisture: 19.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208017a

Date Analyzed: 08-FEB-10 22:36

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5050	
121-14-2	2,4-Dinitrotoluene	5330	
121-82-4	RDX	4240	
19406-51-0	4-Amino-2,6-dinitrotoluene	5390	
2691-41-0	HMX	4310	
35572-78-2	2-Amino-4,6-dinitrotoluene	5380	
479-45-8	Tetryl	3300	
606-20-2	2,6-Dinitrotoluene	5200	
78-11-5	PETN	5240	
88-72-2	o-Nitrotoluene	4770	
98-95-3	Nitrobenzene	4900	
99-08-1	m-Nitrotoluene	4410	
99-35-4	1,3,5-Trinitrobenzene	4420	
99-65-0	m-Dinitrobenzene	5030	
99-99-0	p-Nitrotoluene	4890	

\*Concentration =

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0208017a

Date: 08-Feb-2010

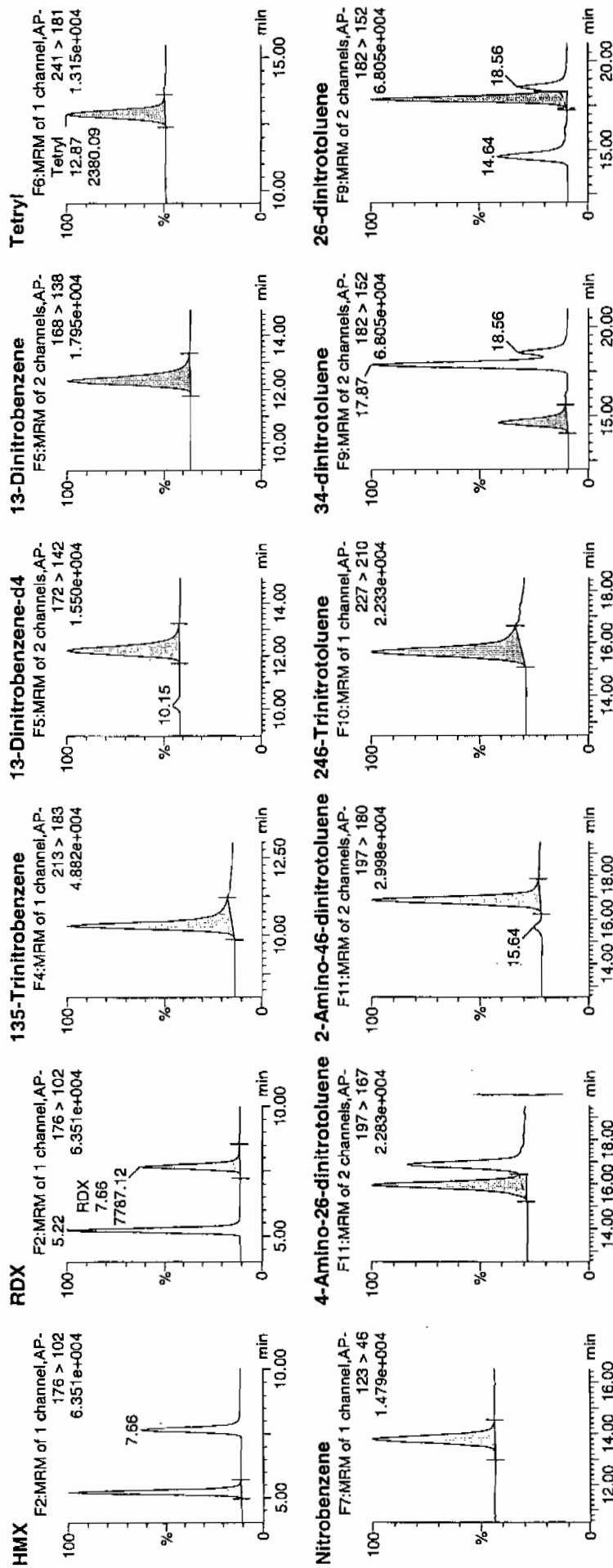
Time: 22:36:29

ID: 1202021909

Vial: 1:4,E

Handwritten notes: *2/9/10*, *245106001MED / 2-1*, *LAU / 944246 / SOL*

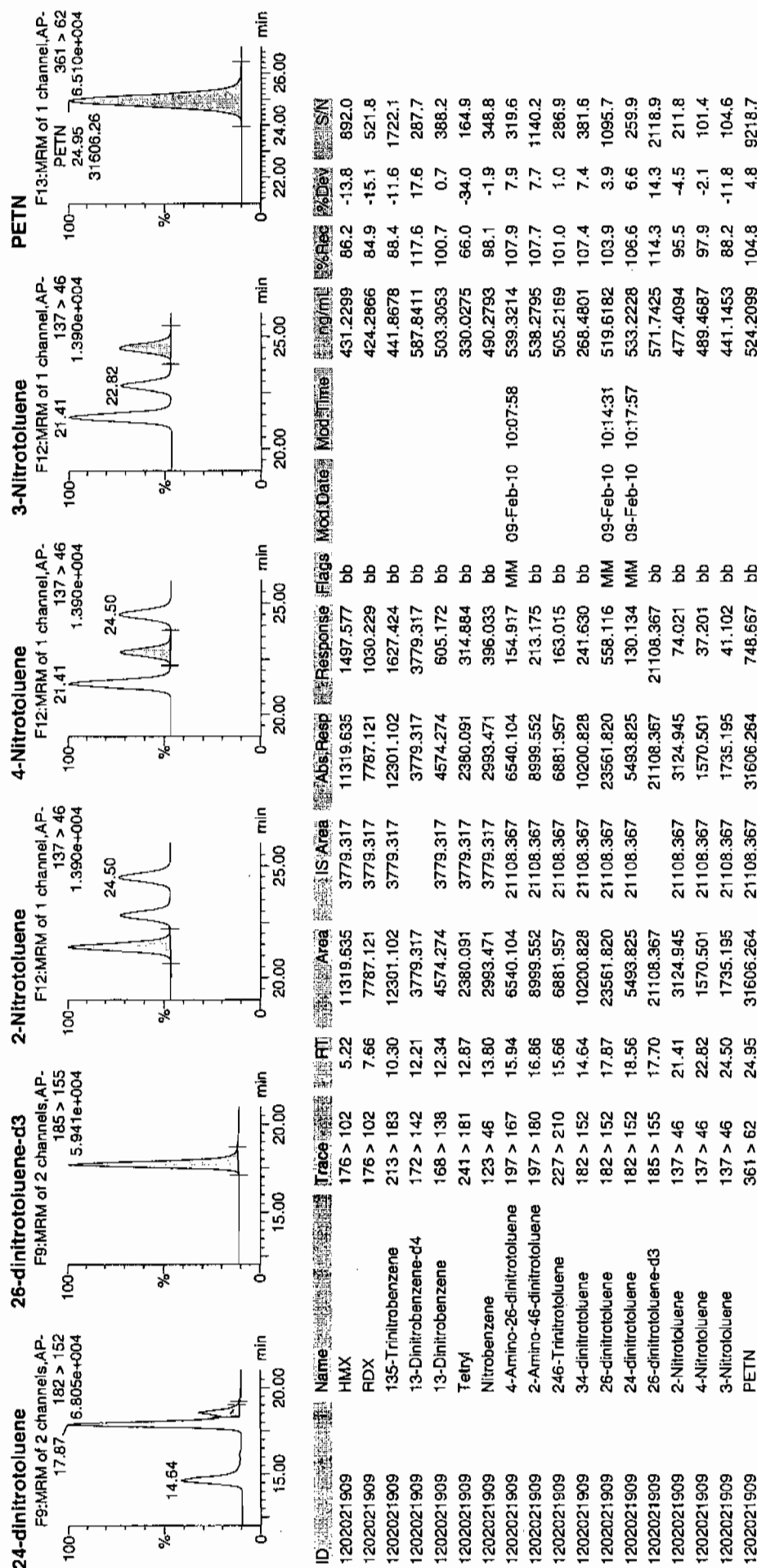
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.



Handwritten note: *2/9/10*

Dataset: C:\MASSLYNX\New\_Exp.PRO\020810expA.qid, Time: Tue Feb 09 10:19:05 2010

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7165(245106001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1304

Matrix: SOIL

GEL Sample ID: 1202021909

Sample Amount 2

Moisture: 19.4

Amount Units g

Date Received: 20-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944245

Concentrated Extract Volume (mL) 10

Date Extracted: 25-JAN-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02010026.wiff

Date Analyzed: 01-FEB-10 23:54

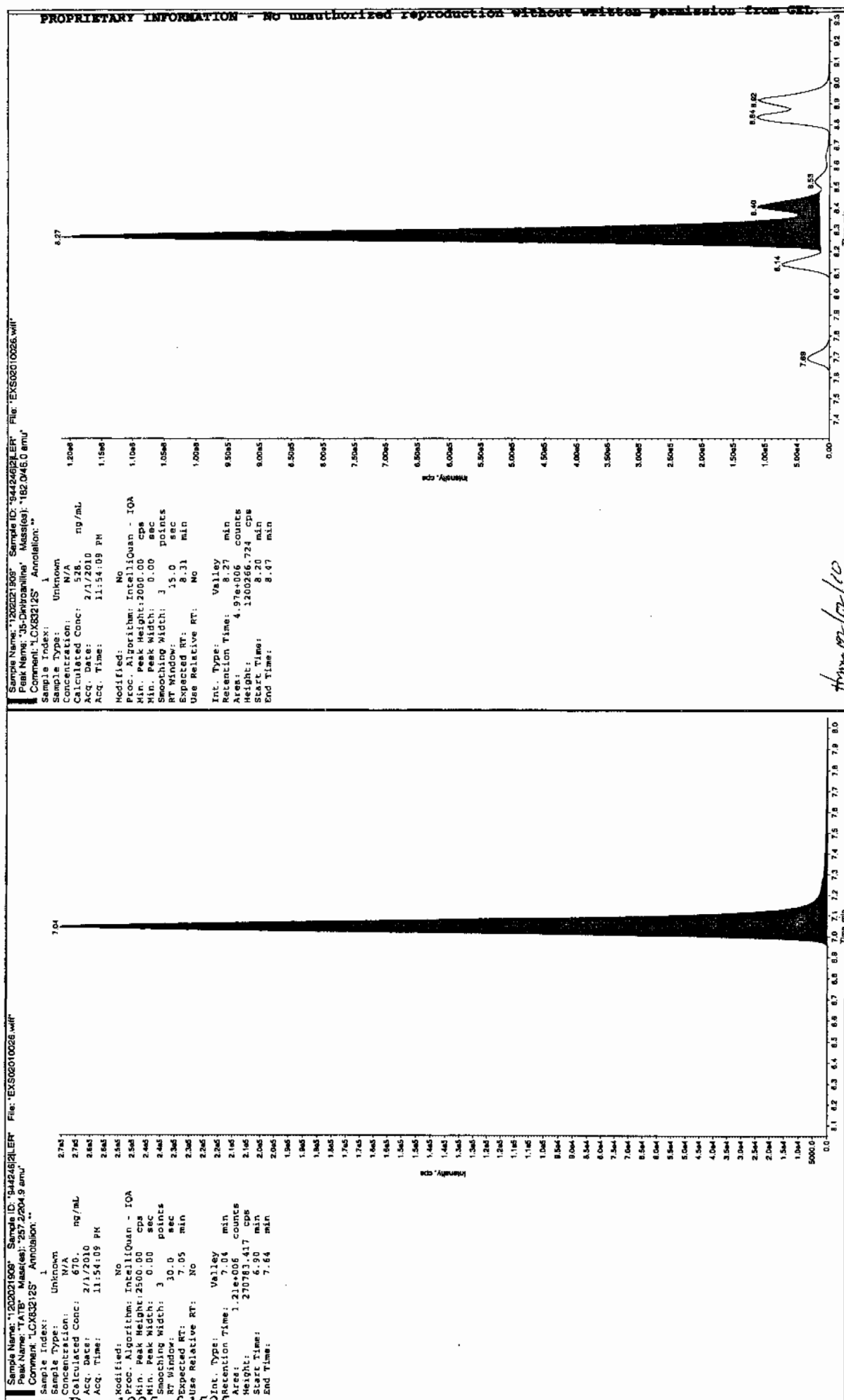
Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	6700	
59229-75-3	2,6-Diamino-4-nitrotoluene	5250	
618-87-1	3,5-Dinitroaniline	5000	
6629-29-4	2,4-Diamino-6-nitrotoluene	4730	
78-30-8	tris(o-cresyl) phosphate	4940	

\*Concentration =

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

Before 12/10



After 12/10

Sample Name: "1200021809" Sample ID: "94424621.ER" File: "EXS02010026.wif"

Peak Name: "TATB" Mass(es): "257.2/204.9 amu"

Comment: "LCX832125" Annotation: "

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 500. ng/mL

Acq. Date: 2/1/2010

Acq. Time: 11:54:09 PM

Modified: Yes

RT Window: 15.0 sec

Expected RT: 8.31 min

Use Relative RT: No

Int. Type: Manual

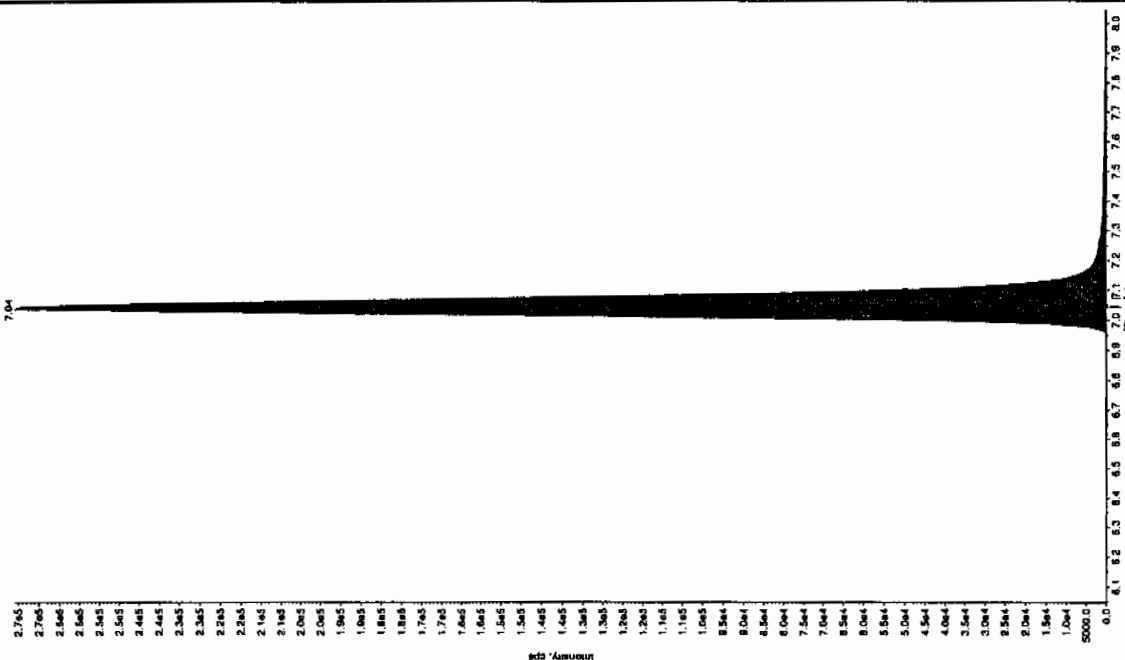
Retention Time: 8.27 min

Area: 4.73e+006 counts

Height: 1227120.350 cps

Start Time: 8.20 min

End Time: 8.36 min



Sample Name: "1200021809" Sample ID: "94424621.ER" File: "EXS02010026.wif"

Peak Name: "TATB" Mass(es): "257.2/204.9 amu"

Comment: "LCX832125" Annotation: "

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 670. ng/mL

Acq. Date: 2/1/2010

Acq. Time: 11:54:09 PM

Modified: No

Proc. Algorithm: Interpolated - IOA

Min. Peak Height: 1500 cps

Max. Peak Width: 3.00 sec

Smoothing Width: 3.00 points

RT Window: 30.0 sec

Expected RT: 7.05 min

Use Relative RT: No

Int. Type: Valley

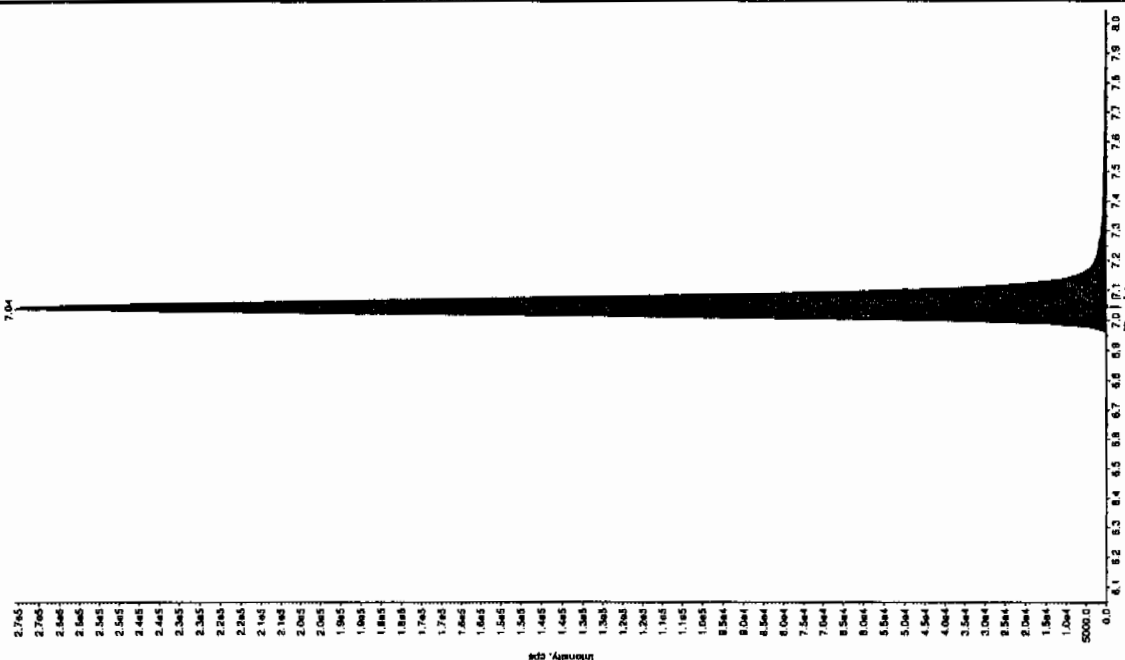
Retention Time: 7.04 min

Area: 1.21e+006 counts

Height: 270783.417 cps

Start Time: 6.90 min

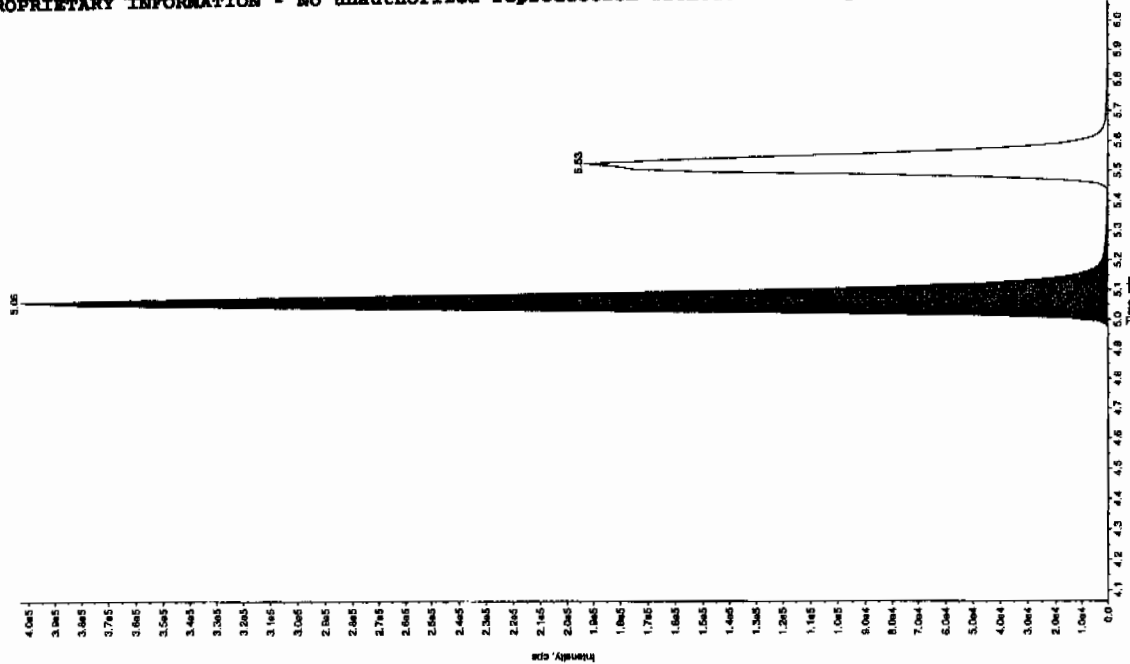
End Time: 7.64 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

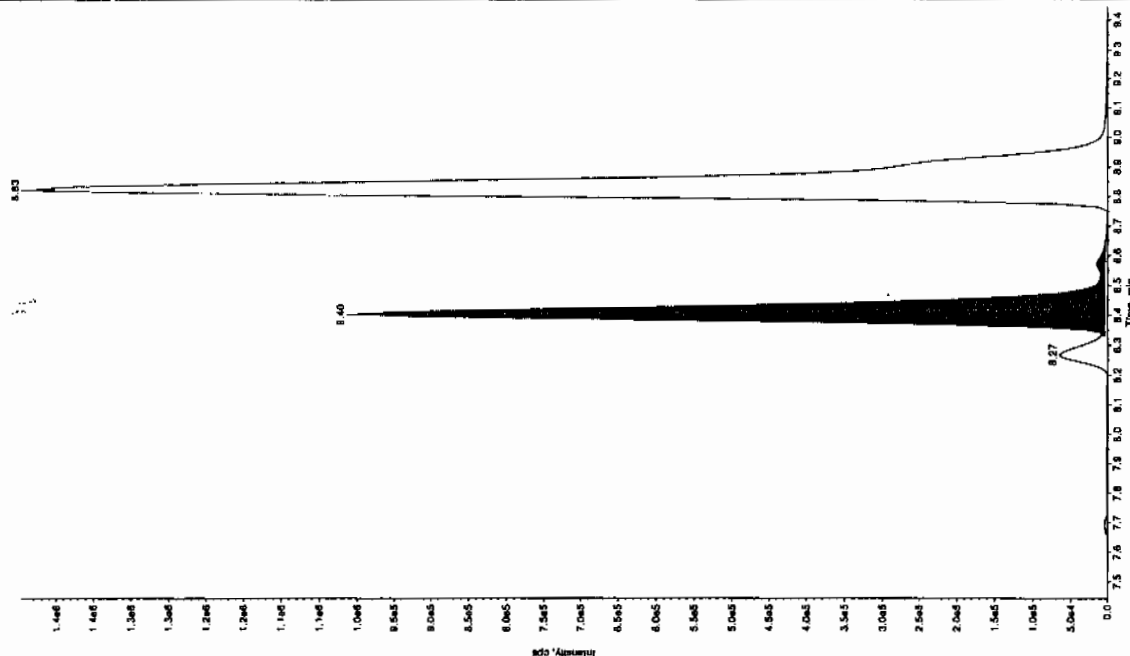
Sample Name: "1202021905" Sample ID: "94424621ER" File: "EX502010026.wif"  
 Peak Name: "25-Dienino-4-nitrotoluene" Mass(es): "186.046.0 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 314 ng/mL  
 Calculated Conc: 2/1/2010  
 Acq. Date: 11:54:09 PM  
 Acq. Time: 11:54:09 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: 5.06 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.06 min  
 Area: 1.62e+005 counts  
 Height: 401096.283 cps  
 Start Time: 4.94 min  
 End Time: 5.34 min



Sample Name: "1202021905" Sample ID: "94424621ER" File: "EX502010026.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1151.9 amu"  
 Comment: "LCX832125" Annotation: "

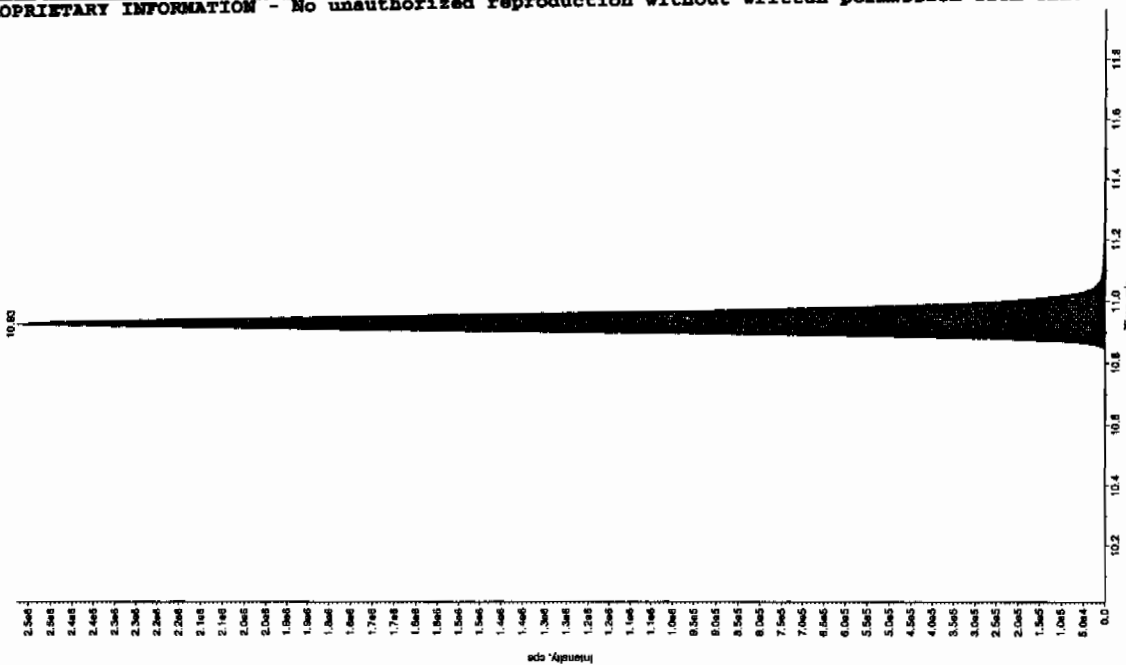
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 314 ng/mL  
 Calculated Conc: 2/1/2010  
 Acq. Date: 11:54:09 PM  
 Acq. Time: 11:54:09 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.44 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.44 min  
 Area: 3.75e+005 counts  
 Height: 1010760.039 cps  
 Start Time: 8.33 min  
 End Time: 8.65 min





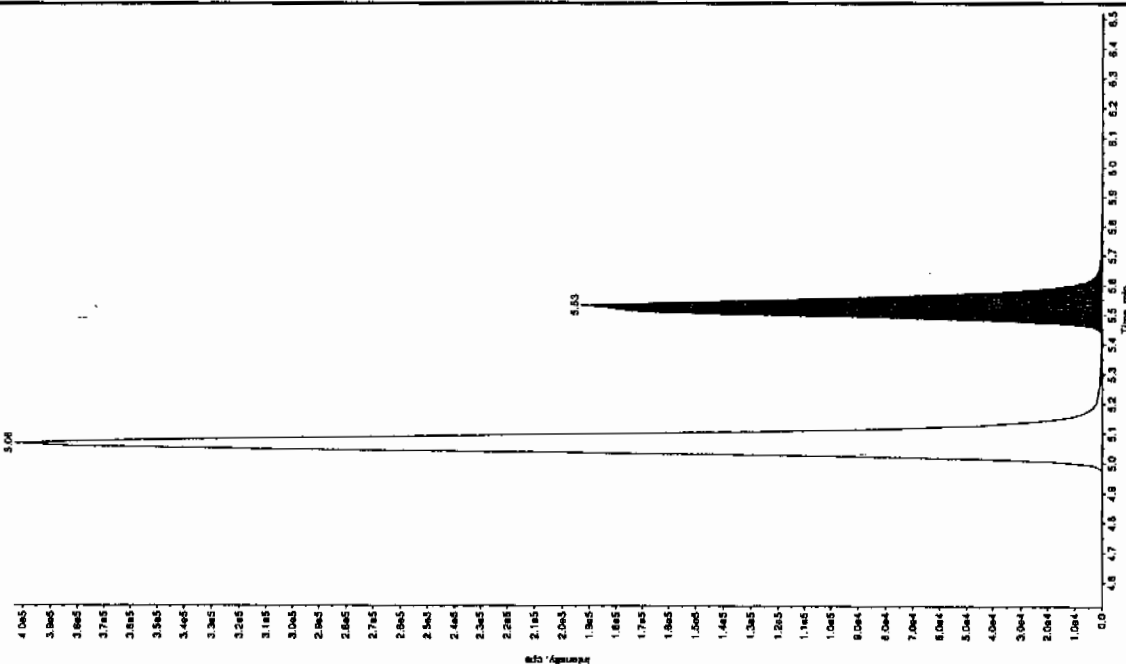
Sample Name: "1202021909" Sample ID: "944246[2]LRF" File: "EXS02010026.wif"  
 Peak Name: "tri(n-o-cresyl) phosphatidyl" Mass(es): "369.1/91.0 amu"  
 Comment: "LCX032125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 2/1/2010 ng/mL  
 Acq. Date: 11/54/09 PM  
 Acq. Time: 11:54:09 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1.00e4 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 11.0 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.9 min  
 Area: 1.07e+007 counts  
 Height: 2527376.221 cps  
 Start Time: 10.8 min  
 End Time: 11.3 min



Sample Name: "1202021909" Sample ID: "944246[2]LRF" File: "EXS02010026.wif"  
 Peak Name: "24-Diamino-6-nitrothiouracil" Mass(es): "156.0/46.0 amu"  
 Comment: "LCX032125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 473 ng/mL  
 Acq. Date: 11/54/09 PM  
 Acq. Time: 11:54:09 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.52 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.53 min  
 Area: 8.28e+005 counts  
 Height: 191096.100 cps  
 Start Time: 5.43 min  
 End Time: 5.92 min



# MISCELLANEOUS DATA

# Prep Logbook Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 944245  
 Analyst: Sirena White  
 Method: SW846 8330 PREP  
 Verified by: \_\_\_\_\_  
 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)
1202021906 MB	25-JAN-2010 14:04:00	2	10	5
1202021907 LCS	25-JAN-2010 14:04:00	2	10	5
245106001	25-JAN-2010 14:04:00	2	10	5
1202021908 MS (245106001)	25-JAN-2010 14:04:00	2	10	5
1202021909 MSD (245106001)	25-JAN-2010 14:04:00	2	10	5
245106002	25-JAN-2010 14:04:00	2	10	5
245106003	25-JAN-2010 14:04:00	2	10	5
245106004	25-JAN-2010 14:04:00	2	10	5
245106005	25-JAN-2010 14:04:00	2	10	5
245106006	25-JAN-2010 14:04:00	2	10	5
245106007	25-JAN-2010 14:04:00	2	10	5
245106008	25-JAN-2010 14:04:00	2	10	5
245106009	25-JAN-2010 14:04:00	2	10	5
245106010	25-JAN-2010 14:04:00	2	10	5
245106011	25-JAN-2010 14:04:00	2	10	5
245106012	25-JAN-2010 14:04:00	2	10	5
245106013	25-JAN-2010 14:04:00	2	10	5
245106014	25-JAN-2010 14:04:00	2	10	5
245106015	25-JAN-2010 14:04:00	2	10	5
245106016	25-JAN-2010 14:04:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments
LCS	1202021907	8321 Explosives LCS	DX091230-03	.1	mL	Final Solvent: ACN
LCS	1202021907	8321 LANL Explosives Mix 10mg/L	UXX100108-01.2	1	mL	
MS	1202021908	8321 Explosives LCS	DX091230-03	.1	mL	
MS	1202021908	8321 LANL Explosives Mix 10mg/L	UXX100108-01.2	1	mL	
MSD	1202021909	8321 Explosives LCS	DX091230-03	.1	mL	
MSD	1202021909	8321 LANL Explosives Mix 10mg/L	UXX100108-01.2	1	mL	
SURR	All	3,4-Dinitrotoluene (8330 Sur.) 100ppm	DXP100121-02	.05	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 02/08/10  
 Extr. Injection Volume: 50uL  
 Sequence Number: 020810expA  
 Initial Calibration Date: 02/08/10  
 Method: SW846 8321A-Modified  
 Int. Std.: UXX100128-01.1  
 Mobile Phase Lot#: 1265885, 1250738  
 Standard-Samp Reagent Lot#: 1260901, 1246195  
 Reviewed BY: *[Signature]*  
 Date: 02/10/10  
 SOP: GL-OA-E-056 Rev.12  
 Alt Check Std. ID: WXX100208-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0208001a	XIBLK01	MAP	2/8/10 14:44			1		USE	B
EXP0208002a	XIBLK01	MAP	2/8/10 15:13			1		USE	B
EXP0208003a	WXXICAL-01	MAP	2/8/10 15:43			1		USE	I
EXP0208004a	WXXICAL-02	MAP	2/8/10 16:12			1		USE	I
EXP0208005a	WXXICAL-03	MAP	2/8/10 16:42			1		USE	I
EXP0208006a	WXXICAL-04	MAP	2/8/10 17:11			1		USE	I
EXP0208007a	WXXICAL-05	MAP	2/8/10 17:41			1		USE	I
EXP0208008a	WXXICAL-06	MAP	2/8/10 18:11			1		USE	I
EXP0208009a	XIBLK02	MAP	2/8/10 18:40			1		USE	B
EXP0208010a	WXXICV	MAP	2/8/10 19:10			1		USE	C
EXP0208011a	XIBLK03	MAP	2/8/10 19:39			1		USE	B
EXP0208012a	WXXCRI	MAP	2/8/10 20:09			1		USE	C
EXP0208013a	1202021906	MAP	2/8/10 20:38	944246	10-1304	2	LANL	DUSE-RA	S
EXP0208014a	1202021907	MAP	2/8/10 21:08	944246	10-1304	2	LANL	DUSE-RA	S
EXP0208015a	245106001	MAP	2/8/10 21:37	944246	10-1304	2	LANL	USE	S
EXP0208016a	1202021908	MAP	2/8/10 22:07	944246	10-1304	2	LANL	USE	S
EXP0208017a	1202021909	MAP	2/8/10 22:36	944246	10-1304	2	LANL	USE	S
EXP0208018a	245106002	MAP	2/8/10 23:05	944246	10-1304	2	LANL	USE	S
EXP0208019a	245106003	MAP	2/8/10 23:35	944246	10-1304	2	LANL	USE	S
EXP0208020a	245106004	MAP	2/9/10 0:04	944246	10-1304	2	LANL	USE	S
EXP0208021a	245106005	MAP	2/9/10 0:34	944246	10-1304	2	LANL	USE	S
EXP0208022a	245106006	MAP	2/9/10 1:03	944246	10-1304	2	LANL	USE	S
EXP0208023a	WXXCCV	MAP	2/9/10 1:33			1		USE	C
EXP0208024a	XIBLK04	MAP	2/9/10 2:02			1		USE	B
EXP0208025a	WXXCRI	MAP	2/9/10 2:32			1		USE	C
EXP0208026a	245106007	MAP	2/9/10 3:01	944246	10-1304	2	LANL	USE	S
EXP0208027a	245106008	MAP	2/9/10 3:31	944246	10-1304	2	LANL	USE	S
EXP0208028a	245106009	MAP	2/9/10 4:00	944246	10-1304	2	LANL	USE	S
EXP0208029a	245106010	MAP	2/9/10 4:30	944246	10-1304	2	LANL	USE	S

EXP0208030a	245106011	MAP	2/9/10 4:59	944246	10-1304	2	LANL	USE	S
EXP0208031a	245106012	MAP	2/9/10 5:29	944246	10-1304	2	LANL	USE	S
EXP0208032a	245106013	MAP	2/9/10 5:58	944246	10-1304	2	LANL	USE	S
EXP0208033a	245106014	MAP	2/9/10 6:28	944246	10-1304	2	LANL	USE	S
EXP0208034a	245106015	MAP	2/9/10 6:58	944246	10-1304	2	LANL	USE	S
EXP0208035a	245106016	MAP	2/9/10 7:27	944246	10-1304	2	LANL	USE	S
EXP0208036a	WXXCCV	MAP	2/9/10 7:57			1		USE	C
EXP0208037a	XIBLK05	MAP	2/9/10 8:26			1		USE	B
EXP0208038a	WXXCRI	MAP	2/9/10 8:56			1		USE	C
EXP0208039a	1202021914	MAP	2/9/10 9:25	944250	10-1324	2	LANL	USE	S
EXP0208040a	1202021915	MAP	2/9/10 9:55	944250	10-1324	2	LANL	USE	S
EXP0208041a	245114002	MAP	2/9/10 10:24	944250	10-1324	2	LANL	USE	S
EXP0208042a	1202021916	MAP	2/9/10 10:54	944250	10-1324	2	LANL	USE	S
EXP0208043a	1202021917	MAP	2/9/10 11:23	944250	10-1324	2	LANL	USE	S
EXP0208044a	245114003	MAP	2/9/10 11:53	944250	10-1324	2	LANL	USE	S
EXP0208045a	245114004	MAP	2/9/10 12:22	944250	10-1324	2	LANL	USE	S
EXP0208046a	245114005	MAP	2/9/10 12:52	944250	10-1324	2	LANL	USE	S
EXP0208047a	245114006	MAP	2/9/10 13:21	944250	10-1324	2	LANL	USE	S
EXP0208048a	245114007	MAP	2/9/10 13:51	944250	10-1324	2	LANL	USE	S
EXP0208049a	WXXCCV	MAP	2/9/10 14:20			1		USE	C
EXP0208050a	XIBLK06	MAP	2/9/10 14:50			1		USE	B
EXP0208051a	WXXCRI	MAP	2/9/10 15:19			1		USE	C
EXP0208052a	245114008	MAP	2/9/10 15:49	944250	10-1324	2	LANL	USE	S
EXP0208053a	245114009	MAP	2/9/10 16:18	944250	10-1324	2	LANL	USE	S
EXP0208054a	245114010	MAP	2/9/10 16:48	944250	10-1324	2	LANL	USE	S
EXP0208055a	245114011	MAP	2/9/10 17:17	944250	10-1324	2	LANL	USE	S
EXP0208056a	245114012	MAP	2/9/10 17:47	944250	10-1324	2	LANL	USE	S
EXP0208057a	245114013	MAP	2/9/10 18:16	944250	10-1324	2	LANL	USE	S
EXP0208058a	245114014	MAP	2/9/10 18:46	944250	10-1324	2	LANL	USE	S
EXP0208059a	245114015	MAP	2/9/10 19:15	944250	10-1324	2	LANL	USE	S
EXP0208060a	1202021906	MAP	2/9/10 19:45	944246	10-1304	2	LANL	USE	S
EXP0208061a	1202021907	MAP	2/9/10 20:14	944246	10-1304	2	LANL	USE	S
EXP0208062a	WXXCCV	MAP	2/9/10 20:44			1		USE	C
EXP0208063a	XIBLK07	MAP	2/9/10 21:13			1		USE	B
EXP0208064a	WXXCRI	MAP	2/9/10 21:43			1		USE	C
EXP0208065a	1202023096	MAP	2/9/10 22:12	944718	Various	2	LANL	USE	S
EXP0208066a	1202023097	MAP	2/9/10 22:42	944718	Various	2	LANL	USE	S

EXP0208067a	245116001	MAP	2/9/10 23:12	944718	10-1327	2	LANL	USE	S
EXP0208068a	1202023098	MAP	2/9/10 23:41	944718	10-1327	2	LANL	USE	S
EXP0208069a	1202023099	MAP	2/10/10 0:10	944718	10-1327	2	LANL	USE	S
EXP0208070a	245116002	MAP	2/10/10 0:40	944718	10-1327	2	LANL	DUSE-RA	S
EXP0208071a	245116003	MAP	2/10/10 1:09	944718	10-1327	2	LANL	USE	S
EXP0208072a	245116004	MAP	2/10/10 1:39	944718	10-1327	2	LANL	USE	S
EXP0208073a	245116005	MAP	2/10/10 2:08	944718	10-1327	2	LANL	DUSE-RA	S
EXP0208074a	245116006	MAP	2/10/10 2:38	944718	10-1327	2	LANL	USE	S
EXP0208075a	WXXCCV	MAP	2/10/10 3:07			1		USE	C
EXP0208076a	XIBLK08	MAP	2/10/10 3:37			1		USE	B
EXP0208077a	WXXCRI	MAP	2/10/10 4:06			1		USE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 02/01/10  
 Extr. Injection Volume: 10uL  
 Sequence Number: 020110exs  
 Initial Calibration Date: 020110  
 Method: 8321A-Modified  
 Int. Std.: N/A  
 Mobile Phase Lot#: 1250738, 1246467  
 Standard-Samp Reagent Lot#: 1246195, 1253092  
 Reviewed By: *thm*  
 Date: 02/02/10  
 SOP: GL-OA-E-056 Rev.12  
 Alt Check Std. ID: WXX100201-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02010001.wiff	XIBLK01	LER	2/1/2010 17:21			1		USE	B
EXS02010002.wiff	XIBLK01	LER	2/1/2010 17:37			1		USE	B
EXS02010003.wiff	WXXICAL-19	LER	2/1/2010 17:52			1		USE	I
EXS02010004.wiff	WXXICAL-20	LER	2/1/2010 18:08			1		USE	I
EXS02010005.wiff	WXXICAL-21	LER	2/1/2010 18:24			1		USE	I
EXS02010006.wiff	WXXICAL-22	LER	2/1/2010 18:39			1		USE	I
EXS02010007.wiff	WXXICAL-23	LER	2/1/2010 18:55			1		USE	I
EXS02010008.wiff	WXXICAL-24	LER	2/1/2010 19:11			1		USE	I
EXS02010009.wiff	WXXICAL-25	LER	2/1/2010 19:27			1		USE	I
EXS02010010.wiff	XIBLK02	LER	2/1/2010 19:42			1		USE	B
EXS02010011.wiff	WXXICV	LER	2/1/2010 19:58			1		USE	C
EXS02010012.wiff	XIBLK03	LER	2/1/2010 20:14			1		USE	B
EXS02010013.wiff	WXXCRI	LER	2/1/2010 20:29			1		USE	C
EXS02010014.wiff	1202027560	LER	2/1/2010 20:45	946603	10-1422	2	LANL	USE	S
EXS02010015.wiff	1202027561	LER	2/1/2010 21:01	946603	10-1422	2	LANL	USE	S
EXS02010016.wiff	245618007	LER	2/1/2010 21:17	946603	10-1422	2	LANL	USE	S
EXS02010017.wiff	1202027562	LER	2/1/2010 21:32	946603	10-1422	2	LANL	USE	S
EXS02010018.wiff	1202027563	LER	2/1/2010 21:48	946603	10-1422	2	LANL	USE	S
EXS02010019.wiff	WXXCCV	LER	2/1/2010 22:04			1		USE	C
EXS02010020.wiff	XIBLK04	LER	2/1/2010 22:19			1		USE	B
EXS02010021.wiff	WXXCRI	LER	2/1/2010 22:35			1		USE	C
EXS02010022.wiff	1202021906	LER	2/1/2010 22:51	944246	10-1304	2	LANL	USE	S
EXS02010023.wiff	1202021907	LER	2/1/2010 23:06	944246	10-1304	2	LANL	USE	S
EXS02010024.wiff	245106001	LER	2/1/2010 23:22	944246	10-1304	2	LANL	USE	S
EXS02010025.wiff	1202021908	LER	2/1/2010 23:38	944246	10-1304	2	LANL	USE	S
EXS02010026.wiff	1202021909	LER	2/1/2010 23:54	944246	10-1304	2	LANL	USE	S
EXS02010027.wiff	245106002	LER	2/2/2010 0:09	944246	10-1304	2	LANL	USE	S
EXS02010028.wiff	245106003	LER	2/2/2010 0:25	944246	10-1304	2	LANL	USE	S
EXS02010029.wiff	245106004	LER	2/2/2010 0:41	944246	10-1304	2	LANL	USE	S

EXS02010030.wiff	245106005	LER	2/2/2010 0:56	944246	10-1304	2	LANL	USE	S
EXS02010031.wiff	245106006	LER	2/2/2010 1:12	944246	10-1304	2	LANL	USE	S
EXS02010032.wiff	WXXCCV	LER	2/2/2010 1:28			1		USE	C
EXS02010033.wiff	XIBLK05	LER	2/2/2010 1:44			1		USE	B
EXS02010034.wiff	WXXCRI	LER	2/2/2010 1:59			1		USE	C
EXS02010035.wiff	245106007	LER	2/2/2010 2:15	944246	10-1304	2	LANL	USE	S
EXS02010036.wiff	245106008	LER	2/2/2010 2:31	944246	10-1304	2	LANL	USE	S
EXS02010037.wiff	245106009	LER	2/2/2010 2:46	944246	10-1304	2	LANL	USE	S
EXS02010038.wiff	245106010	LER	2/2/2010 3:02	944246	10-1304	2	LANL	USE	S
EXS02010039.wiff	245106011	LER	2/2/2010 3:18	944246	10-1304	2	LANL	USE	S
EXS02010040.wiff	245106012	LER	2/2/2010 3:34	944246	10-1304	2	LANL	USE	S
EXS02010041.wiff	245106013	LER	2/2/2010 3:49	944246	10-1304	2	LANL	USE	S
EXS02010042.wiff	245106014	LER	2/2/2010 4:05	944246	10-1304	2	LANL	USE	S
EXS02010043.wiff	245106015	LER	2/2/2010 4:21	944246	10-1304	2	LANL	USE	S
EXS02010044.wiff	245106016	LER	2/2/2010 4:36	944246	10-1304	2	LANL	USE	S
EXS02010045.wiff	WXXCCV	LER	2/2/2010 4:52			1		USE	C
EXS02010046.wiff	XIBLK06	LER	2/2/2010 5:08			1		USE	B
EXS02010047.wiff	WXXCRI	LER	2/2/2010 5:24			1		USE	C



GEL Laboratories LLC  
Form GEL-DER

DER Report No.: 789231

Revision No.: 1

### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 10-FEB-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> LC-MS/MS	<b>Test / Method:</b> SW846 8321A Modified	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 944246	<b>Sample Numbers:</b> 1202021907		
<b>Potentially affected work order(s)(SDG):</b> 245106(10-1304) <b>Application Issues:</b> Failed Recovery for LCS/LCSD			
<b>Specification and Requirements</b>		<b>DER Disposition:</b>	
<b>Exception Description:</b>  1. The Laboratory Control Sample (1202021907) did not meet spike recovery limits for Tetryl at 39.9%. The recovery limits are 51-112%.		1. Both the Matrix Spike and Matrix Spike Duplicate met acceptance limits for Tetryl, thus establishing control of the extraction and analytical methods. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.	

**Originator's Name:**

Michael Penny 10-FEB-10

**Data Validator/Group Leader:**

Herbert Maier 10-FEB-10

# GC SEMIVOLATILE PCB ANALYSIS

**PCB Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-1304**

**Method/Analysis Information**

**Procedure:** Analysis of Polychlorinated Biphenyls by ECD  
**Analytical Method:** SW846 8082  
**Prep Method:** SW846 3550B  
**Analytical Batch Number:** 943953  
**Prep Batch Number:** 943951

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8082:

<b>Sample ID</b>	<b>Client ID</b>
245106001	RE15-10-7165
245106002	RE15-10-7171
245106003	RE15-10-7170
245106004	RE15-10-7164
245106005	RE15-10-7167
245106006	RE15-10-7169
245106007	RE15-10-7168
245106008	RE15-10-7166
1202021249	Method Blank (MB)
1202021250	Laboratory Control Sample (LCS)
1202021251	245106001(RE15-10-7165) Matrix Spike (MS)
1202021252	245106001(RE15-10-7165) 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# 14.

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.

Surrogate recovery did not meet the acceptance criteria in the standards bracketing the samples in this SDG; however, this had no adverse effects on the data as the surrogate recovery was well within the acceptance range in the samples in this SDG.

#### **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 spike recoveries met the acceptance limits.

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

Sample 245106001(RE15-10-7165) was selected for the matrix spike and matrix spike duplicate analysis.

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

The MS recoveries for this SDG were within the established acceptance limits.

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

The MSD recoveries for this SDG 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 245106003 (RE15-10-7170) 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. A DER was not required for this SDG.

#### **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 for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

#### **System Configuration**

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

<b>Instrument ID</b>	<b>Instrument</b>	<b>System Configuration</b>	<b>Column ID</b>	<b>Column Description</b>
ECD1A.1_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.1_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

#### **Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Review Validation**

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Coo

Date: 2/15/10

## Roadmap for LANL 10-1304 PCB

This roadmap was analyzed by yip00818 on 01-25-2010, 13:36.

This roadmap was reviewed by jim01140 on 01-25-2010, 15:18.

This roadmap was packaged by yml on 02-15-2010, 10:45.

This roadmap was validated by jim01140 on 02-15-2010, 14:05.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdte	injtime	subst	chemid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b058f5801.d	245106001	sample	22-JAN-2010	16:35	10-1304.sub	RE15-10-7165	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b061b6101.d	245106002	sample	22-JAN-2010	17:13	10-1304.sub	RE15-10-7171	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b062b6201.d	245106003	sample	22-JAN-2010	17:26	10-1304.sub	RE15-10-7170	5.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b063b6301.d	245106004	sample	22-JAN-2010	17:38	10-1304.sub	RE15-10-7164	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b064b6401.d	245106005	sample	22-JAN-2010	17:51	10-1304.sub	RE15-10-7167	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b067b6701.d	245106006	sample	22-JAN-2010	18:29	10-1304.sub	RE15-10-7169	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b068b6801.d	245106007	sample	22-JAN-2010	18:41	10-1304.sub	RE15-10-7168	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b069b6901.d	245106008	sample	22-JAN-2010	18:54	10-1304.sub	RE15-10-7166	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdte	injtime	subst	chemid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b058b5801.d	245106001	sample	22-JAN-2010	16:35	10-1304.sub	RE15-10-7165	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b061b6101.d	245106002	sample	22-JAN-2010	17:13	10-1304.sub	RE15-10-7171	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b062b6201.d	245106003	sample	22-JAN-2010	17:26	10-1304.sub	RE15-10-7170	5.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b063b6301.d	245106004	sample	22-JAN-2010	17:38	10-1304.sub	RE15-10-7164	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b064b6401.d	245106005	sample	22-JAN-2010	17:51	10-1304.sub	RE15-10-7167	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b067b6701.d	245106006	sample	22-JAN-2010	18:29	10-1304.sub	RE15-10-7169	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b068b6801.d	245106007	sample	22-JAN-2010	18:41	10-1304.sub	RE15-10-7168	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b069b6901.d	245106008	sample	22-JAN-2010	18:54	10-1304.sub	RE15-10-7166	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdte	injtime	subst	chemid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b043b4301-2.d	1202021249	mb	22-JAN-2010	13:31	10-1304.sub	PBLK01	1.00000	943953	
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b044b4401-2.d	1202021250	lcs	22-JAN-2010	13:42	10-1304.sub	PBLK01LCS	1.00000	943953	
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b059b5901.d	1202021251	ms	22-JAN-2010	16:48	10-1304.sub	RE15-10-7165MS	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i012210.b060b6001.d	1202021252	msd	22-JAN-2010	17:00	10-1304.sub	RE15-10-7165MSD	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smplid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
<input type="checkbox"/>	N	/chem/food1a.i/012210.b/043b4301-2.d	1202021249	mb	22-JAN-2010	13:31	10-1304.sub	PBLK01	1.00000	943953	
<input type="checkbox"/>	N	/chem/food1a.i/012210.b/044b4401-2.d	1202021250	lcs	22-JAN-2010	13:42	10-1304.sub	PBLK01LCS	1.00000	943953	
<input type="checkbox"/>	N	/chem/food1a.i/012210.b/059b5901.d	1202021251	ms	22-JAN-2010	16:48	10-1304.sub	RE15-10-7165MS	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/food1a.i/012210.b/060b6001.d	1202021252	msd	22-JAN-2010	17:00	10-1304.sub	RE15-10-7165MSD	1.00000	943953	UPLOAD BOTH COLUMNS, USE HIGHER



# SAMPLE DATA SUMMARY

## PCB

Page 1 of 1

Certificate of Analysis  
Sample Summary

SDG Number:	10-1304	Date Collected:	01/13/2010 12:00	Matrix:	R
Lab Sample ID:	245106004	Date Received:	01/20/2010 08:45	%Moisture:	17.7
Client ID:	RE15-10-7164	Client:	LANL010	Project:	LANL01004
Batch ID:	943953	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Run Date:	01/22/2010 17:38	Inst:	ECD1A.I	Dilution:	1
Prep Date:	01/21/2010 19:38	Analyst:	YS1	Inj. Vol:	1 uL
Data File:	063f6301.d	Aliquot:	30.12 g	Final Volume:	1 mL
	063b6301.d	Column:	1 CLP1	Level:	LOW
			2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.04	ug/kg	1.34	4.04	1
11104-28-2	Aroclor-1221	U	4.04	ug/kg	1.34	4.04	1
11141-16-5	Aroclor-1232	U	4.04	ug/kg	1.34	4.04	1
53469-21-9	Aroclor-1242	U	4.04	ug/kg	1.34	4.04	1
12672-29-6	Aroclor-1248	U	4.04	ug/kg	1.34	4.04	1
11097-69-1	Aroclor-1254	U	4.04	ug/kg	1.34	4.04	1
11096-82-5	Aroclor-1260	U	4.04	ug/kg	1.34	4.04	1

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

SDG Number: 10-1304  
Lab Sample ID: 245106001

Client ID: RE15-10-7165  
Batch ID: 943953  
Run Date: 01/22/2010 16:35  
Prep Date: 01/21/2010 19:38  
Data File: 058f5801.d  
058b5801.d

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.15 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 19.4  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.12	ug/kg	1.37	4.12	1
11104-28-2	Aroclor-1221	U	4.12	ug/kg	1.37	4.12	1
11141-16-5	Aroclor-1232	U	4.12	ug/kg	1.37	4.12	1
53469-21-9	Aroclor-1242	U	4.12	ug/kg	1.37	4.12	1
12672-29-6	Aroclor-1248	U	4.12	ug/kg	1.37	4.12	1
11097-69-1	Aroclor-1254	U	4.12	ug/kg	1.37	4.12	1
11096-82-5	Aroclor-1260	U	4.12	ug/kg	1.37	4.12	1

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

**SDG Number:** 10-1304  
**Lab Sample ID:** 245106008

**Date Collected:** 01/13/2010 12:00  
**Date Received:** 01/20/2010 08:45  
**Client:** LANL010  
**Method:** SW846 8082  
**Inst:** ECD1A.I  
**Analyst:** YS1  
**Aliquot:** 30.19 g  
**Column:** 1 CLP1  
2 CLP2

**Matrix:** R  
**%Moisture:** 31.6  
**Project:** LANL01004  
**SOP Ref:** GL-OA-E-040  
**Dilution:** 1  
**Inj. Vol:** 1 uL  
**Final Volume:** 1 mL  
**Level:** LOW

**Client ID:** RE15-10-7166  
**Batch ID:** 943953  
**Run Date:** 01/22/2010 18:54  
**Prep Date:** 01/21/2010 19:38  
**Data File:** 069f6901.d  
069b6901.d

CAS No.	Paramname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.84	ug/kg	1.61	4.84	1
11104-28-2	Aroclor-1221	U	4.84	ug/kg	1.61	4.84	1
11141-16-5	Aroclor-1232	U	4.84	ug/kg	1.61	4.84	1
53469-21-9	Aroclor-1242	U	4.84	ug/kg	1.61	4.84	1
12672-29-6	Aroclor-1248	U	4.84	ug/kg	1.61	4.84	1
11097-69-1	Aroclor-1254	U	4.84	ug/kg	1.61	4.84	1
11096-82-5	Aroclor-1260	U	4.84	ug/kg	1.61	4.84	1

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

SDG Number: 10-1304

Lab Sample ID: 245106005

Client ID: RE15-10-7167

Batch ID: 943953

Run Date: 01/22/2010 17:51

Prep Date: 01/21/2010 19:38

Data File: 064f6401.d

064b6401.d

Date Collected: 01/13/2010 12:00

Date Received: 01/20/2010 08:45

Client: LANL010

Method: SW846 8082

Inst: ECD1A.J

Analyst: YS1

Aliquot: 30.02 g

Column: 1 CLP1

2 CLP2

Matrix: R

% Moisture: 22

Project: LANL01004

SOP Ref: GL-OA-E-040

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

Level: LOW

CAS No.	Paramname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.27	ug/kg	1.42	4.27	1
11104-28-2	Aroclor-1221	U	4.27	ug/kg	1.42	4.27	1
11141-16-5	Aroclor-1232	U	4.27	ug/kg	1.42	4.27	1
53469-21-9	Aroclor-1242	U	4.27	ug/kg	1.42	4.27	1
12672-29-6	Aroclor-1248	U	4.27	ug/kg	1.42	4.27	1
11097-69-1	Aroclor-1254	U	4.27	ug/kg	1.42	4.27	1
11096-82-5	Aroclor-1260	U	4.27	ug/kg	1.42	4.27	1

## PCB

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Certificate of Analysis  
Sample Summary

SDG Number: 10-1304

Lab Sample ID: 245106007

Client ID: RE15-10-7168

Batch ID: 943953

Run Date: 01/22/2010 18:41

Prep Date: 01/21/2010 19:38

Data File: 068f6801.d

068b6801.d

Date Collected: 01/13/2010 12:00

Date Received: 01/20/2010 08:45

Client: LANL010

Method: SW846 8082

Inst: ECD1A.I

Analyst: YS1

Aliquot: 30.02 g

Column: 1 CLP1

2 CLP2

Matrix: R

% Moisture: 19.2

Project: LANL01004

SOP Ref: GL-OA-E-040

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.12	ug/kg	1.37	4.12	1
11104-28-2	Aroclor-1221	U	4.12	ug/kg	1.37	4.12	1
11141-16-5	Aroclor-1232	U	4.12	ug/kg	1.37	4.12	1
53469-21-9	Aroclor-1242	U	4.12	ug/kg	1.37	4.12	1
12672-29-6	Aroclor-1248	U	4.12	ug/kg	1.37	4.12	1
11097-69-1	Aroclor-1254	U	4.12	ug/kg	1.37	4.12	1
11096-82-5	Aroclor-1260	U	4.12	ug/kg	1.37	4.12	1

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

SDG Number: 10-1304  
Lab Sample ID: 245106006

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.01 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 8.9  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 µL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.66	ug/kg	1.22	3.66	1
11104-28-2	Aroclor-1221	U	3.66	ug/kg	1.22	3.66	1
11141-16-5	Aroclor-1232	U	3.66	ug/kg	1.22	3.66	1
53469-21-9	Aroclor-1242	U	3.66	ug/kg	1.22	3.66	1
12672-29-6	Aroclor-1248	U	3.66	ug/kg	1.22	3.66	1
11097-69-1	Aroclor-1254	U	3.66	ug/kg	1.22	3.66	1
11096-82-5	Aroclor-1260	U	3.66	ug/kg	1.22	3.66	1

## PCB

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Certificate of Analysis  
Sample SummarySDG Number: 10-1304  
Lab Sample ID: 245106003Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.J  
Analyst: YS1  
Aliquot: 30.15 g  
Column: 1 CLP1  
2 CLP2Matrix: R  
%Moisture: 23.2  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 5  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	21.6	ug/kg	7.19	21.6	1
11104-28-2	Aroclor-1221	U	21.6	ug/kg	7.19	21.6	1
11141-16-5	Aroclor-1232	U	21.6	ug/kg	7.19	21.6	1
53469-21-9	Aroclor-1242	U	21.6	ug/kg	7.19	21.6	1
12672-29-6	Aroclor-1248	U	21.6	ug/kg	7.19	21.6	1
11097-69-1	Aroclor-1254	U	21.6	ug/kg	7.19	21.6	1
11096-82-5	Aroclor-1260	U	21.6	ug/kg	7.19	21.6	1



## PCB

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Certificate of Analysis  
Sample Summary

SDG Number:	10-1304	Date Collected:	01/13/2010 12:00	Matrix:	R
Lab Sample ID:	245106002	Date Received:	01/20/2010 08:45	%Moisture:	7.8
Client ID:	RE15-10-7171	Client:	LANL010	Project:	LANL01004
Batch ID:	943953	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Run Date:	01/22/2010 17:13	Inst:	ECD1A.I	Dilution:	1
Prep Date:	01/21/2010 19:38	Analyst:	YSJ	Inj. Vol:	1 uL
Data File:	061f6101.d	Aliquot:	30.17 g	Final Volume:	1 mL
	061b6101.d	Column:	1 CLP1	Level:	LOW
			2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.59	ug/kg	1.20	3.59	1
11104-28-2	Aroclor-1221	U	3.59	ug/kg	1.20	3.59	1
11141-16-5	Aroclor-1232	U	3.59	ug/kg	1.20	3.59	1
53469-21-9	Aroclor-1242	U	3.59	ug/kg	1.20	3.59	1
12672-29-6	Aroclor-1248	U	3.59	ug/kg	1.20	3.59	1
11097-69-1	Aroclor-1254	U	3.59	ug/kg	1.20	3.59	1
11096-82-5	Aroclor-1260	U	3.59	ug/kg	1.20	3.59	1

# QUALITY CONTROL SUMMARY

PCB  
Surrogate Recovery Report

Page 1 of 1

SDG Number: 10-1304

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 #
1202021249	MB for batch 943951	62	59	55	56
1202021250	LCS for batch 943951	59	56	51	52
245106001	RE15-10-7165	49	47	53	45
1202021251	RE15-10-7165MS	61	59	67	55
1202021252	RE15-10-7165MSD	56	54	61	51
245106002	RE15-10-7171	58	56	63	53
245106003	RE15-10-7170	64 D	65 D	68 D	61 D
245106004	RE15-10-7164	55	54	57	52
245106005	RE15-10-7167	57	56	62	53
245106006	RE15-10-7169	56	55	61	41
245106007	RE15-10-7168	55	54	55	41
245106008	RE15-10-7166	59	56	63	49

**Surrogate**

4CMX = 4cmx

DCB = Decachlorobiphenyl

**Acceptance Limits**

(34%-105%)

(33%-115%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

PCB

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**Quality Control Summary  
Spike Recovery Report****SDG Number: 10-1304****Sample Type: Laboratory Control Sample****Client ID: LCS for batch 943951****Matrix: SOIL****Lab Sample ID:1202021250****Instrument: ECD1A.I****Analysis Date: 01/22/2010 13:42****Dilution: 1****Analyst: YS1****Pren Batch II 943951****Inj. Vol: 1 uL****Batch ID: 943953**

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	19.9	60	41-110
11096-82-5	LCS Aroclor-1260	33.3	0.0	21.4	64	48-110

PCB

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Client ID: RE15-10-7165MS

Lab Sample ID:1202021251

Instrument: ECD1A.I

Analyst: YS1

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: R

%Moisture: 19.4

Analysis Date: 01/22/2010 16:48

Dilution: 1

Pre Batch ID 943951

Batch ID: 943953

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS Aroclor-1016	41.2	0.00 U	28.1	68	23-117
11096-82-5	MS Aroclor-1260	41.2	0.00 U	33.1	80	27-116

PCB

Page 2 of 2

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1304

Sample Type: Matrix Spike Duplicate

Client ID: RE15-10-7165MSD

Matrix: R

Lab Sample ID:1202021252

%Moisture: 19.4

Instrument: ECD1A.I

Analysis Date: 01/22/2010 17:00

Dilution: 1

Analyst: YS1

Prep Batch ID: 943951

Inj. Vol: 1 uL

Batch ID: 943953

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	41.1	0.00 U	25.0	61	23-117	12	0-30
11096-82-5	MSD Aroclor-1260	41.1	0.00 U	28.5	69	27-116	15	0-30

## Method Blank Summary

Page 1 of 1

SDG Number:	10-1304	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 943951	Instrument ID:	ECD1A.I_2	Data File:	043b4301-1.d
Lab Sample ID:	1202021249		ECD1A.I_1		043f4301-1.d
Column:	CLP2	Prep Date:	01/21/2010 19:38	Analyzed:	01/22/10 13:31
	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 943951	1202021250	044f4401-1.d 044b4401-1.d	01/22/10	1342
02 RE15-10-7165	245106001	058f5801.d 058b5801.d	01/22/10	1635
03 RE15-10-7165MS	1202021251	059f5901.d 059b5901.d	01/22/10	1648
04 RE15-10-7165MSD	1202021252	060f6001.d 060b6001.d	01/22/10	1700
05 RE15-10-7171	245106002	061f6101.d 061b6101.d	01/22/10	1713
06 RE15-10-7170	245106003	062f6201.d 062b6201.d	01/22/10	1726
07 RE15-10-7164	245106004	063f6301.d 063b6301.d	01/22/10	1738
08 RE15-10-7167	245106005	064f6401.d 064b6401.d	01/22/10	1751
09 RE15-10-7169	245106006	067f6701.d 067b6701.d	01/22/10	1829
10 RE15-10-7168	245106007	068f6801.d 068b6801.d	01/22/10	1841
11 RE15-10-7166	245106008	069f6901.d 069b6901.d	01/22/10	1854

# SAMPLE DATA



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

SDG Number: 10-1304

Lab Sample ID: 245106004

Client ID: RE15-10-7164

Batch ID: 943953

Run Date: 01/22/2010 17:38

Prep Date: 01/21/2010 19:38

Data File: 063f6301.d

063b6301.d

Date Collected: 01/13/2010 12:00

Date Received: 01/20/2010 08:45

Client: LANL010

Method: SW846 8082

Inst: ECD1A.I

Analyst: YS1

Aliquot: 30.12 g

Column: 1 CLP1

2 CLP2

Matrix: R

%Moisture: 17.7

Project: LANL01004

SOP Ref: GL-OA-E-040

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.04	ug/kg	1.34	4.04	1
11104-28-2	Aroclor-1221	U	4.04	ug/kg	1.34	4.04	1
11141-16-5	Aroclor-1232	U	4.04	ug/kg	1.34	4.04	1
53469-21-9	Aroclor-1242	U	4.04	ug/kg	1.34	4.04	1
12672-29-6	Aroclor-1248	U	4.04	ug/kg	1.34	4.04	1
11097-69-1	Aroclor-1254	U	4.04	ug/kg	1.34	4.04	1
11096-82-5	Aroclor-1260	U	4.04	ug/kg	1.34	4.04	1

Data File: /chem/ecdla.i/012210.b/063f6301.d  
Report Date: 25-Jan-2010 13:49

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/012210.b/063f6301.d  
Lab Smp Id: 245106004 Client Smp ID: RE15-10-7164  
Inj Date : 22-JAN-2010 17:38  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |245106004|1|  
Misc Info : |ECD82P\_1S|943953|SVA|LANL|SOIL|RE15-10-7164|||  
Comment :  
Method : /chem/ecdla.i/012210.b/ECD1-F-8082-121409.m  
Meth Date : 23-Jan-2010 11:25 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d  
Als bottle: 63  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-1304.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	30.12000	Weight of sample extracted (g)
M	17.73550	% Moisture

Cpnd Variable Local Compound Variable

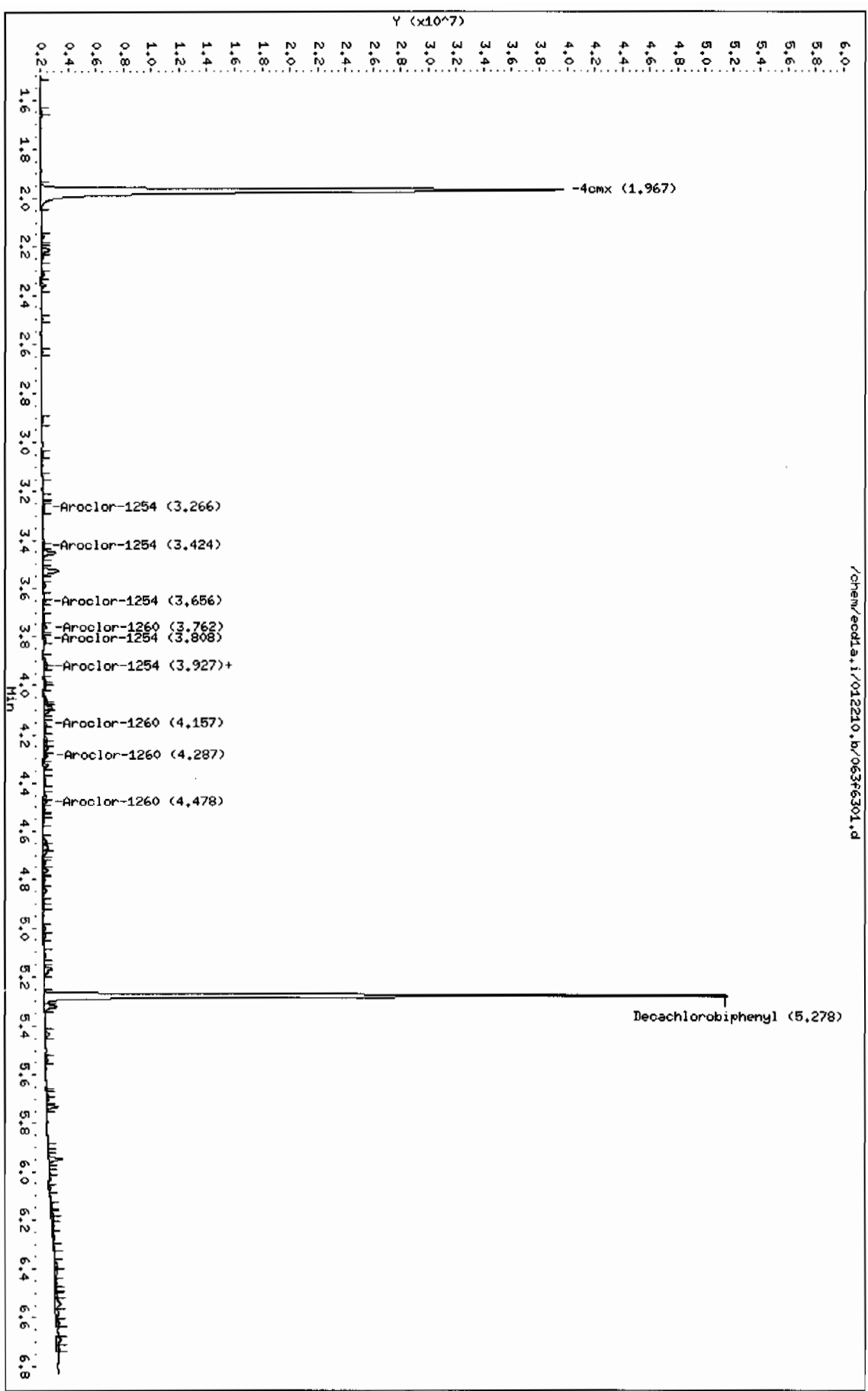
CONCENTRATIONS

RT	EXP RT	DLT RT	ON-COL	FINAL	TARGET RANGE	RATIO
			RESPONSE ( ug/L)	(ug/Kg)		
\$ 11 4cmx				CAS #: 877-09-8		
1.967	1.967	0.000	43412964 110.481	4.4	80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.278	5.281	-0.003	37454969 113.551	4.6	80.00- 120.00	100.00

Data File: /chem/eod1a.i/012210.b/063f6301.d  
Date: 22-JUN-2010 17:38  
Client ID: RE15-10-7164  
Sample Info: 124510600411  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: eod1a.i  
Operator: YS1  
Column diameter: 0.25

/chem/eod1a.i/012210.b/063f6301.d



Data File: /chem/ecdla.i/012210.b/063b6301.d  
 Report Date: 25-Jan-2010 13:49

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/012210.b/063b6301.d

Lab Smp Id: 245106004

Client Smp ID: RE15-10-7164

Inj Date : 22-JAN-2010 17:38

Operator : YS1

Inst ID: ecdla.i

Smp Info : |245106004|1|

Misc Info : |ECD82P\_1S|943953|SVA|LANL|SOIL|RE15-10-7164|||

Comment :

Method : /chem/ecdla.i/012210.b/ECD1-B-8082-121409.m

Meth Date : 23-Jan-2010 11:25 yip00818

Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017b1701.d

Als bottle: 63

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-1304.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	30.12000	Weight of sample extracted (g)
M	17.73550	% Moisture

Cpnd Variable

Local Compound Variable

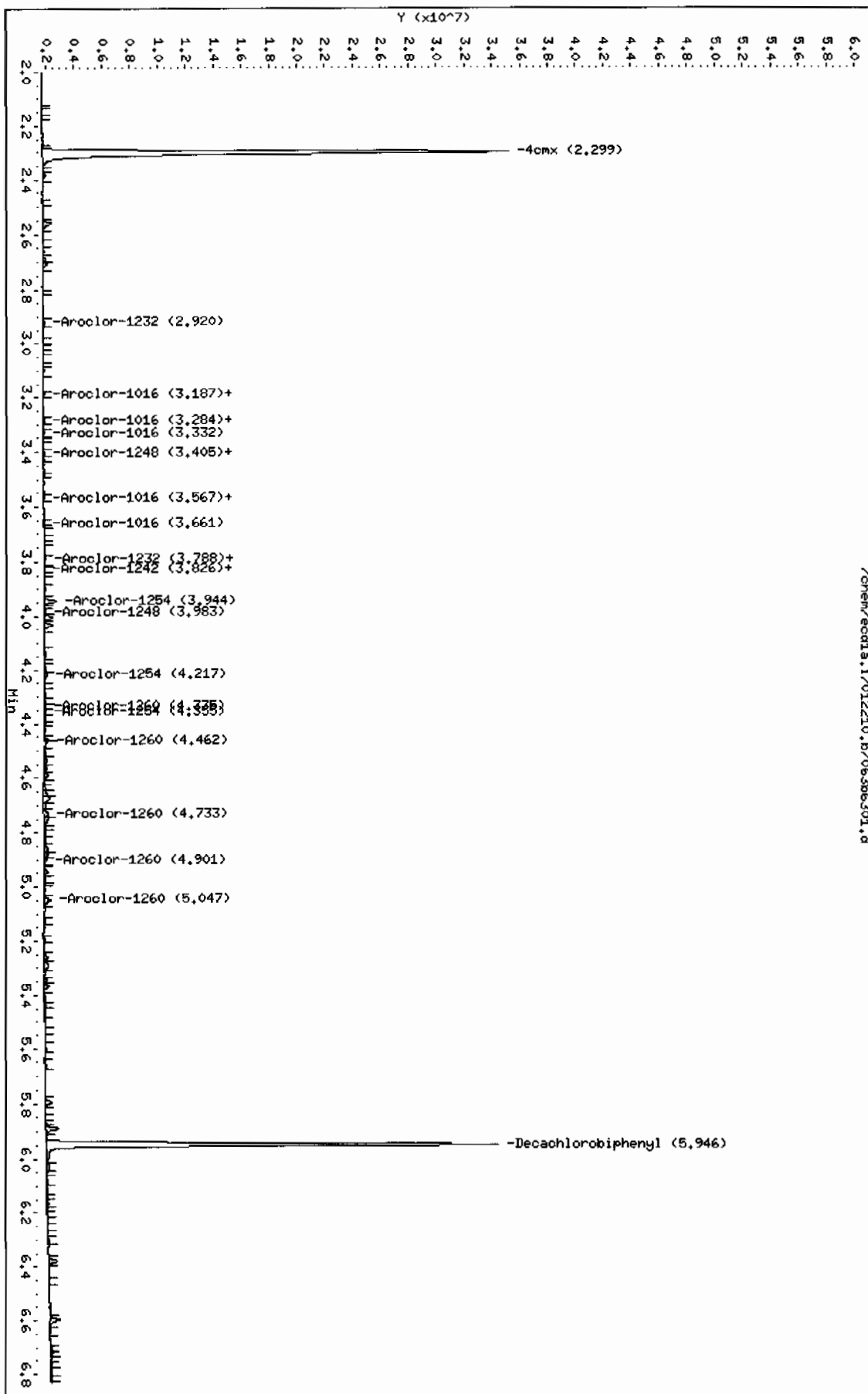
CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
=====						
\$ 11 4cmx				CAS #: 877-09-8		
2.299	2.299	0.000	31436612 108.326	4.4	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.946	5.947	-0.001	25499076 104.515	4.2	80.00- 120.00	100.00
-----						

Data File: /chem/eodla.i/012210.b/06306301.d  
 Date: 22-JAN-2010 17:38  
 Client ID: RELS-10-7164  
 Sample Info: 124510600411  
 Volume Injected (uL): 1.0  
 Column phase: CLP2

Instrument: eodla.i  
 Operator: YSL  
 Column diameter: 0.25

/chem/eodla.i/012210.b/06306301.d

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## PCB

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Certificate of Analysis  
Sample SummarySDG Number: 10-1304  
Lab Sample ID: 245106001Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.15 g  
Column: 1 CLP1  
2 CLP2Matrix: R  
% Moisture: 19.4  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: J  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOWClient ID: RE15-10-7165  
Batch ID: 943953  
Run Date: 01/22/2010 16:35  
Prep Date: 01/21/2010 19:38  
Data File: 058f5801.d  
058b5801.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.12	ug/kg	1.37	4.12	1
11104-28-2	Aroclor-1221	U	4.12	ug/kg	1.37	4.12	1
11141-16-5	Aroclor-1232	U	4.12	ug/kg	1.37	4.12	1
53469-21-9	Aroclor-1242	U	4.12	ug/kg	1.37	4.12	1
12672-29-6	Aroclor-1248	U	4.12	ug/kg	1.37	4.12	1
11097-69-1	Aroclor-1254	U	4.12	ug/kg	1.37	4.12	1
11096-82-5	Aroclor-1260	U	4.12	ug/kg	1.37	4.12	1

Data File: /chem/ecdl1a.i/012210.b/058f5801.d  
Report Date: 25-Jan-2010 13:45

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/058f5801.d

Lab Smp Id: 245106001

Client Smp ID: RE15-10-7165

Inj Date : 22-JAN-2010 16:35

Operator : YSl

Inst ID: ecd1a.i

Smp Info : |245106001|1|

Misc Info : |ECD82P\_1S|943953|SVA|LANL|SOIL|RE15-10-7165|||

Comment :

Method : /chem/ecdl1a.i/012210.b/ECD1-F-8082-121409.m

Meth Date : 23-Jan-2010 11:25 yip00818

Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017f1701.d

Als bottle: 58

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-1304.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	30.15000	Weight of sample extracted (g)
M	19.44320	% Moisture

Cpnd Variable

Local Compound Variable

CONCENTRATIONS

RT	EXP RT	DLT RT	ON-COL	FINAL	TARGET RANGE	RATIO
==	=====	=====	RESPONSE ( ug/L)	(ug/Kg)	=====	=====
\$ 11 4cmx				CAS #: 877-09-8		
1.967	1.967	0.000	38146295 97.0783	4.0	80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.278	5.281	-0.003	34943590 105.937	4.4	80.00- 120.00	100.00

Data File: /chem/eod1a.i/012210.b/058f5801.d

Date : 22-JAN-2010 16:35

Client ID: RE15-10-7165

Sample Info: 1245106001111

Volume Injected (uL): 1.0

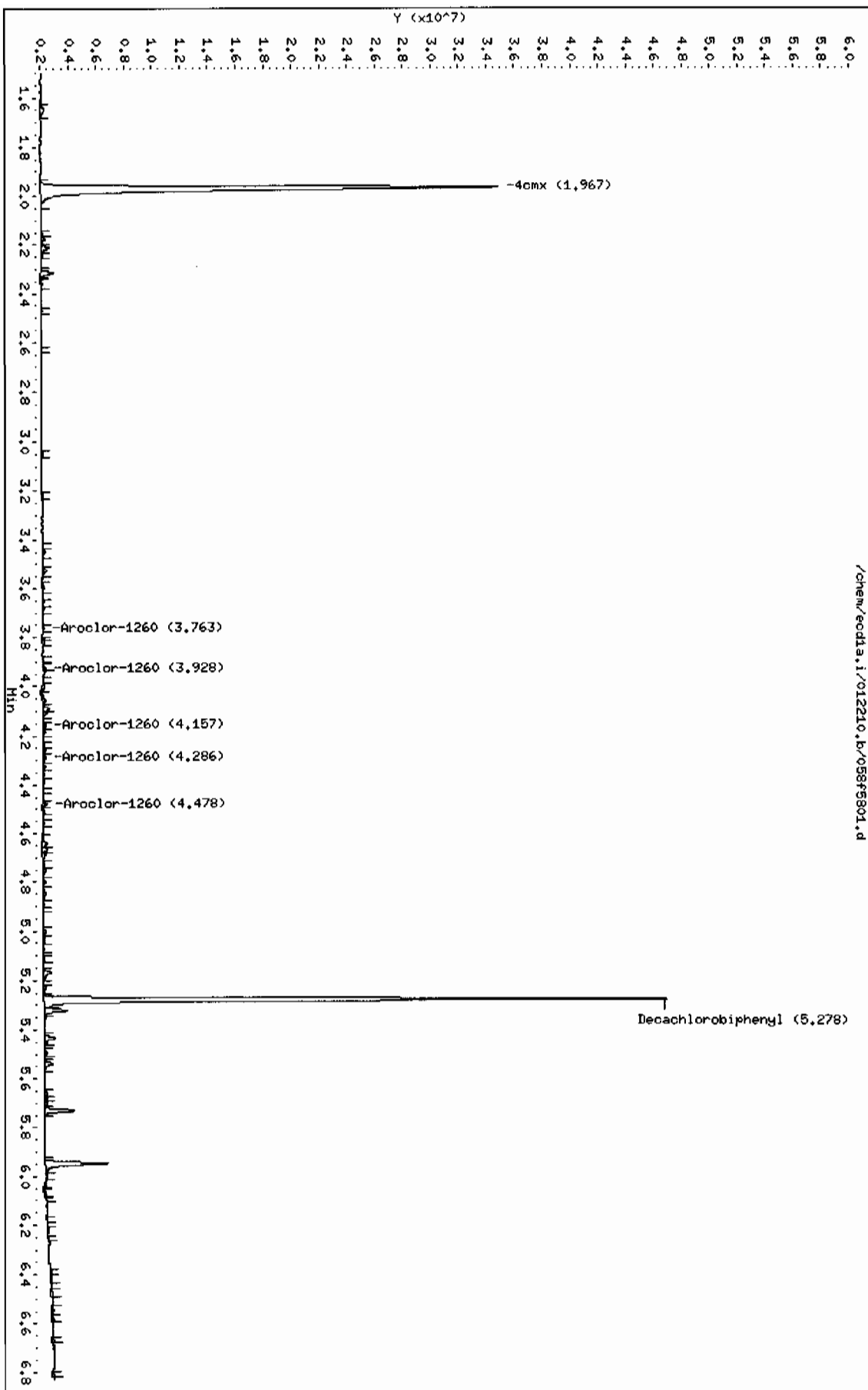
Column phase: CLP1

Instrument: eod1a.i

Operator: YSI

Column diameter: 0.25

/chem/eod1a.i/012210.b/058f5801.d





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/012210.b/058b5801.d  
Lab Smp Id: 245106001 Client Smp ID: RE15-10-7165  
Inj Date : 22-JAN-2010 16:35  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |245106001|1|  
Misc Info : |ECD82P\_1S|943953|SVA|LANL|SOIL|RE15-10-7165|||  
Comment :  
Method : /chem/ecd1a.i/012210.b/ECD1-B-8082-121409.m  
Meth Date : 23-Jan-2010 11:25 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d  
Als bottle: 58  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-1304.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	30.15000	Weight of sample extracted (g)
M	19.44320	% 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						
2.300	2.299	0.001	27479556 94.6904	3.9	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
5.946	5.947	-0.001	21743330 89.1213	3.7	80.00- 120.00	100.00
-----						

Data File: /chem/eod1a.i/012210.b/05865801.d

Date: 22-JAN-2010 16:35

Client ID: RE15-10-7165

Sample Info: 124510600111

Volume Injected (uL): 1.0

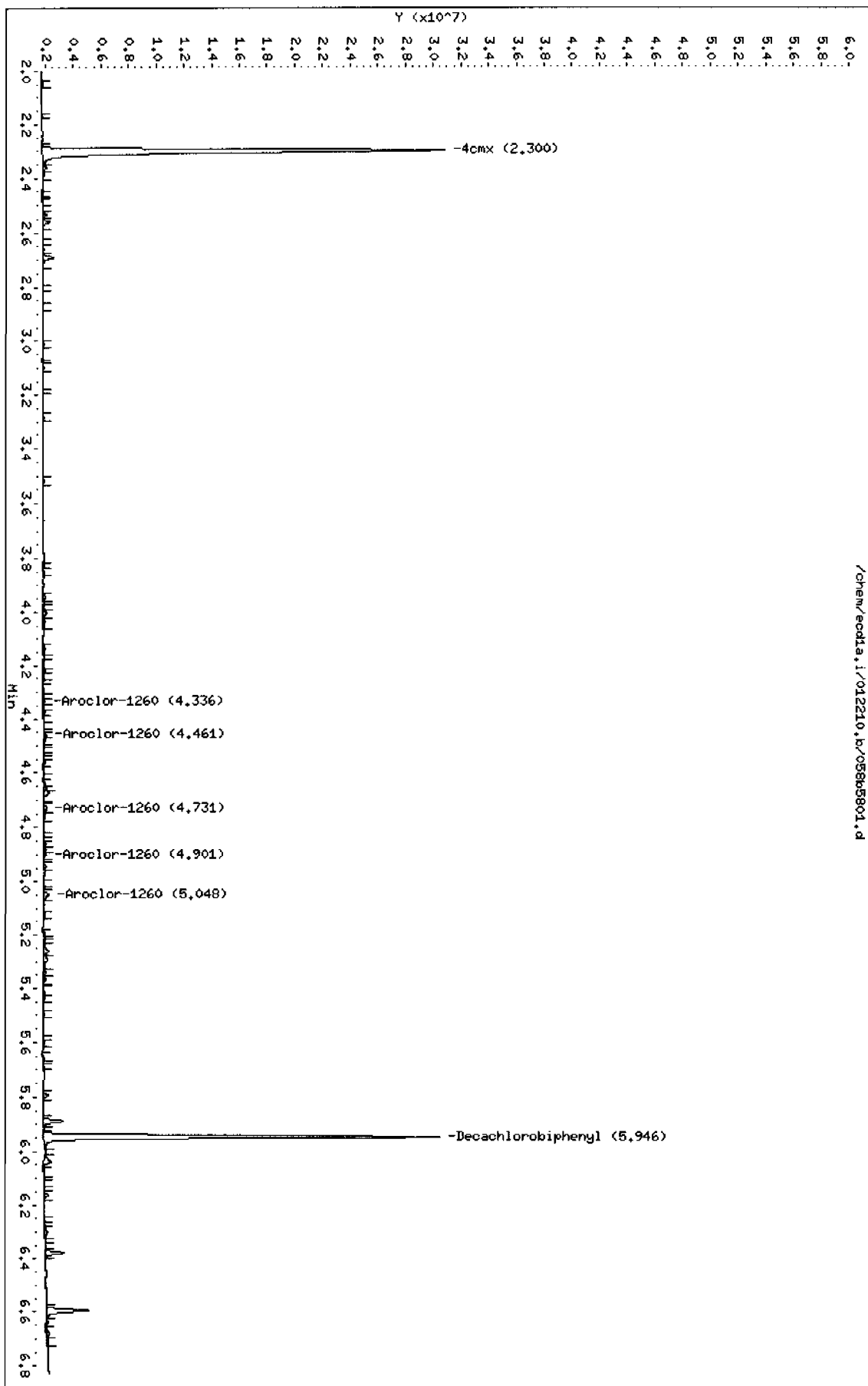
Column phase: CLP2

Instrument: eod1a.i

Operator: YSL

Column diameter: 0.25

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## PCB

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Certificate of Analysis  
Sample SummarySDG Number: 10-1304  
Lab Sample ID: 245106008Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45Matrix: R  
%Moisture: 31.6Client ID: RE15-10-7166  
Batch ID: 943953Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.IProject: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1

Run Date: 01/22/2010 18:54

Analyst: YS1

Inj. Vol: 1 uL

Prep Date: 01/21/2010 19:38

Aliquot: 30.19 g

Final Volume: 1 mL

Data File: 069f6901.d  
069b6901.dColumn: 1 CLP1  
2 CLP2

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.84	ug/kg	1.61	4.84	1
11104-28-2	Aroclor-1221	U	4.84	ug/kg	1.61	4.84	1
11141-16-5	Aroclor-1232	U	4.84	ug/kg	1.61	4.84	1
53469-21-9	Aroclor-1242	U	4.84	ug/kg	1.61	4.84	1
12672-29-6	Aroclor-1248	U	4.84	ug/kg	1.61	4.84	1
11097-69-1	Aroclor-1254	U	4.84	ug/kg	1.61	4.84	1
11096-82-5	Aroclor-1260	U	4.84	ug/kg	1.61	4.84	1

Data File: /chem/ecdl1a.i/012210.b/069f6901.d  
Report Date: 25-Jan-2010 13:50

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/069f6901.d

Lab Smp Id: 245106008

Client Smp ID: RE15-10-7166

Inj Date : 22-JAN-2010 18:54

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |245106008|1|

Misc Info : |ECD82P\_1S|943953|SVA|LANL|SOIL|RE15-10-7166|

Comment :

Method : /chem/ecdl1a.i/012210.b/ECD1-F-8082-121409.m

Meth Date : 25-Jan-2010 13:49 yip00818

Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017f1701.d

Als bottle: 69

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-1304.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	30.19000	Weight of sample extracted (g)
M	888800.00000	% Moisture

Cpnd Variable

Local Compound Variable

CONCENTRATIONS

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	ON-COL	FINAL	TARGET RANGE	RATIO
11	4cmx						
1.966	1.967	-0.001	45995696	117.054	117	80.00- 120.00	100.00
12	Decachlorobiphenyl						
5.279	5.281	-0.002	41659680	126.298	126	80.00- 120.00	100.00

Data File: /chem/ecod1a.i/012210.b/06968901.d

Date : 22-JAN-2010 18:54

Client ID: RE15-10-7166

Sample Info: 124510600811

Volume Injected (uL): 1.0

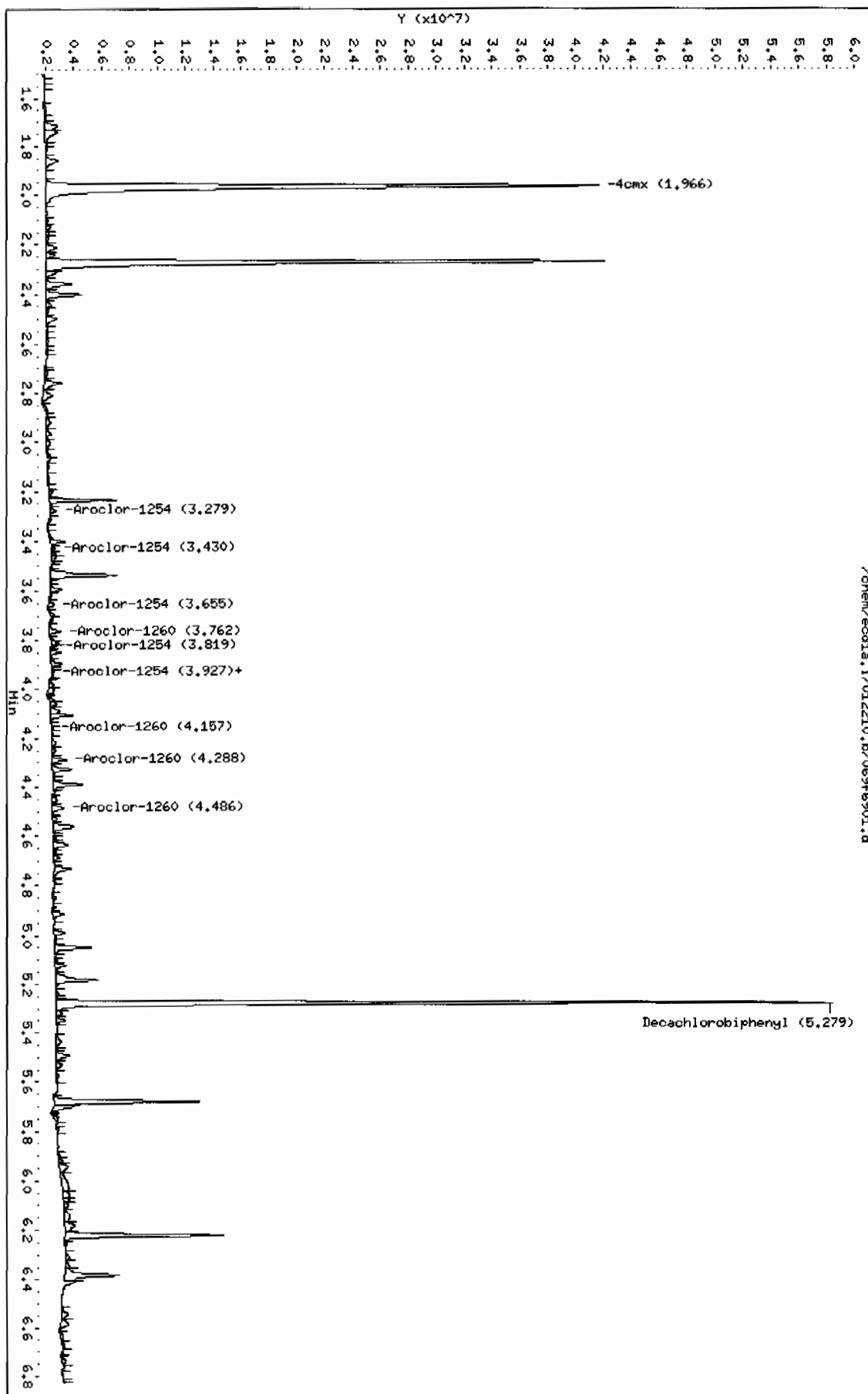
Column phase: CLP1

Instrument: ecod1a.i

Operator: YSL

Column diameter: 0.25

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/012210.b/069b6901.d

Lab Smp Id: 245106008

Client Smp ID: RE15-10-7166

Inj Date : 22-JAN-2010 18:54

Operator : YS1

Inst ID: ecdla.i

Smp Info : |245106008|1|

Misc Info : |ECD82P\_1S|943953|SVA|LANL|SOIL|RE15-10-7166|1|

Comment :

Method : /chem/ecdla.i/012210.b/ECD1-B-8082-121409.m

Meth Date : 25-Jan-2010 13:49 yip00818

Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017b1701.d

Als bottle: 69

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-1304.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	30.19000	Weight of sample extracted (g)
M	31.55810	% Moisture

Cpnd Variable

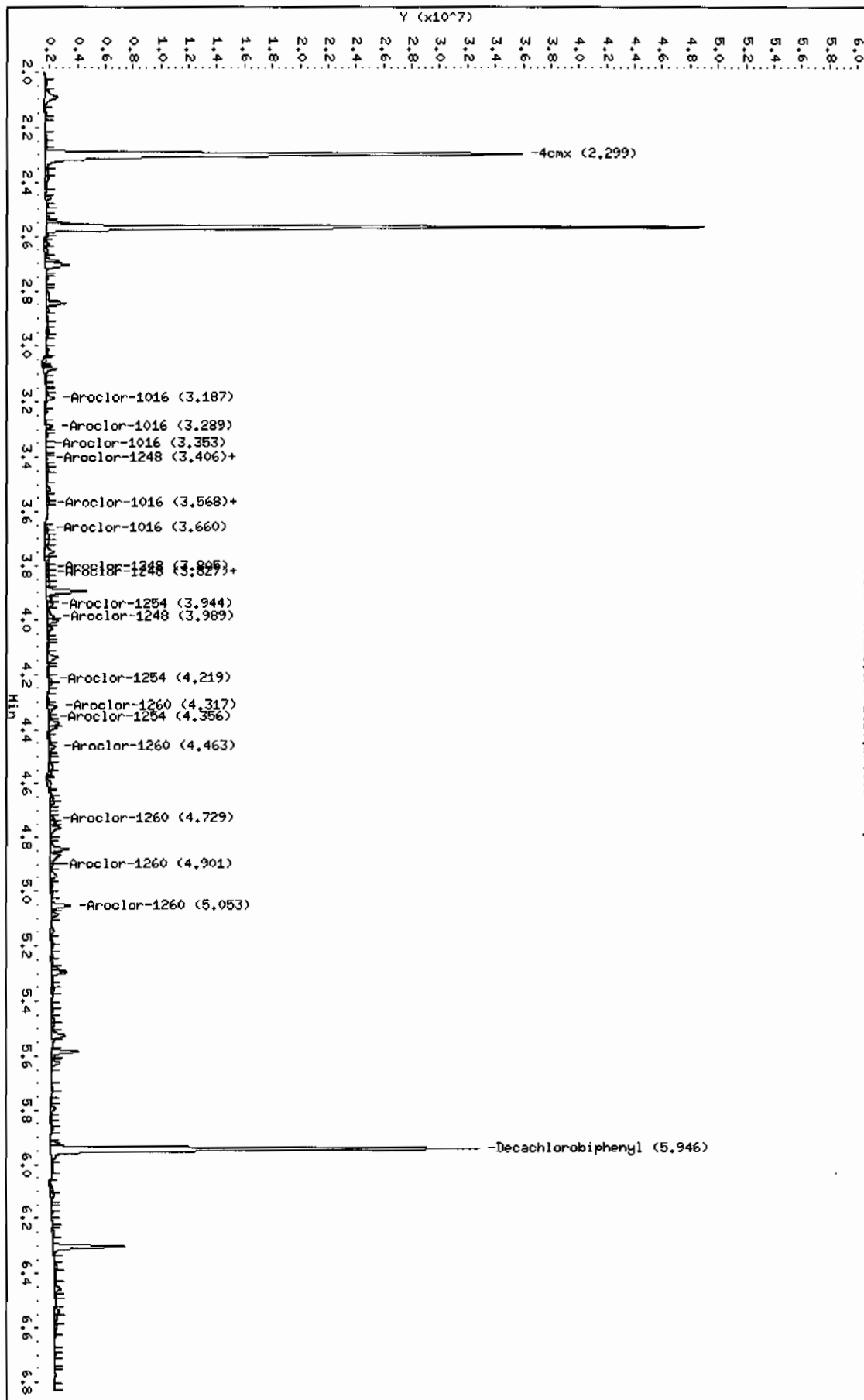
Local Compound Variable

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
=====						
\$ 11 4cmx					CAS #: 877-09-8	
2.299	2.299	0.000	32313784	111.348	5.4 80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3	
5.946	5.947	-0.001	23854250	97.7736	4.7 80.00- 120.00	100.00
-----						

Data File: /chem/ecdl1.i/012210.b/069b6901.d  
Date: 22-JAN-2010 18:54  
Client ID: RE15-10-7166  
Sample Info: 124510600811  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: ecdl1.i  
Operator: YSI  
Column diameter: 0.25

/chem/ecdl1.i/012210.b/069b6901.d



## PCB

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## Certificate of Analysis

## Sample Summary

SDG Number: 10-1304  
Lab Sample ID: 245106005

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45

Matrix: R  
%Moisture: 22  
Project: LANL01004  
SOP Ref: GL-OA-E-040

Client ID: RE15-10-7167  
Batch ID: 943953  
Run Date: 01/22/2010 17:51  
Prep Date: 01/21/2010 19:38  
Data File: 064f6401.d  
064b6401.d

Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.02 g  
Column: 1 CLP1  
2 CLP2

Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.27	ug/kg	1.42	4.27	1
11104-28-2	Aroclor-1221	U	4.27	ug/kg	1.42	4.27	1
11141-16-5	Aroclor-1232	U	4.27	ug/kg	1.42	4.27	1
53469-21-9	Aroclor-1242	U	4.27	ug/kg	1.42	4.27	1
12672-29-6	Aroclor-1248	U	4.27	ug/kg	1.42	4.27	1
11097-69-1	Aroclor-1254	U	4.27	ug/kg	1.42	4.27	1
11096-82-5	Aroclor-1260	U	4.27	ug/kg	1.42	4.27	1



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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/064f6401.d

Lab Smp Id: 245106005

Client Smp ID: RE15-10-7167

Inj Date : 22-JAN-2010 17:51

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |245106005|1|

Misc Info : |ECD82P\_1S|943953|SVA|LANL|SOIL|RE15-10-7167|||

Comment :

Method : /chem/ecdl1a.i/012210.b/ECD1-F-8082-121409.m

Meth Date : 23-Jan-2010 11:25 yip00818

Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017f1701.d

Als bottle: 64

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-1304.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	21.99090	% 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			
1.966	1.967	-0.001	44527496	113.318	4.8 80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl			CAS #: 2051-24-3			
5.278	5.281	-0.003	40680734	123.330	5.3 80.00- 120.00	100.00

Data File: /chem/eod1a.i/012210.b/064f6401.d

Date : 22-JAN-2010 17:51

Client ID: RE15-10-7167

Sample Info: 1245106005111

Volume Injected (uL): 1.0

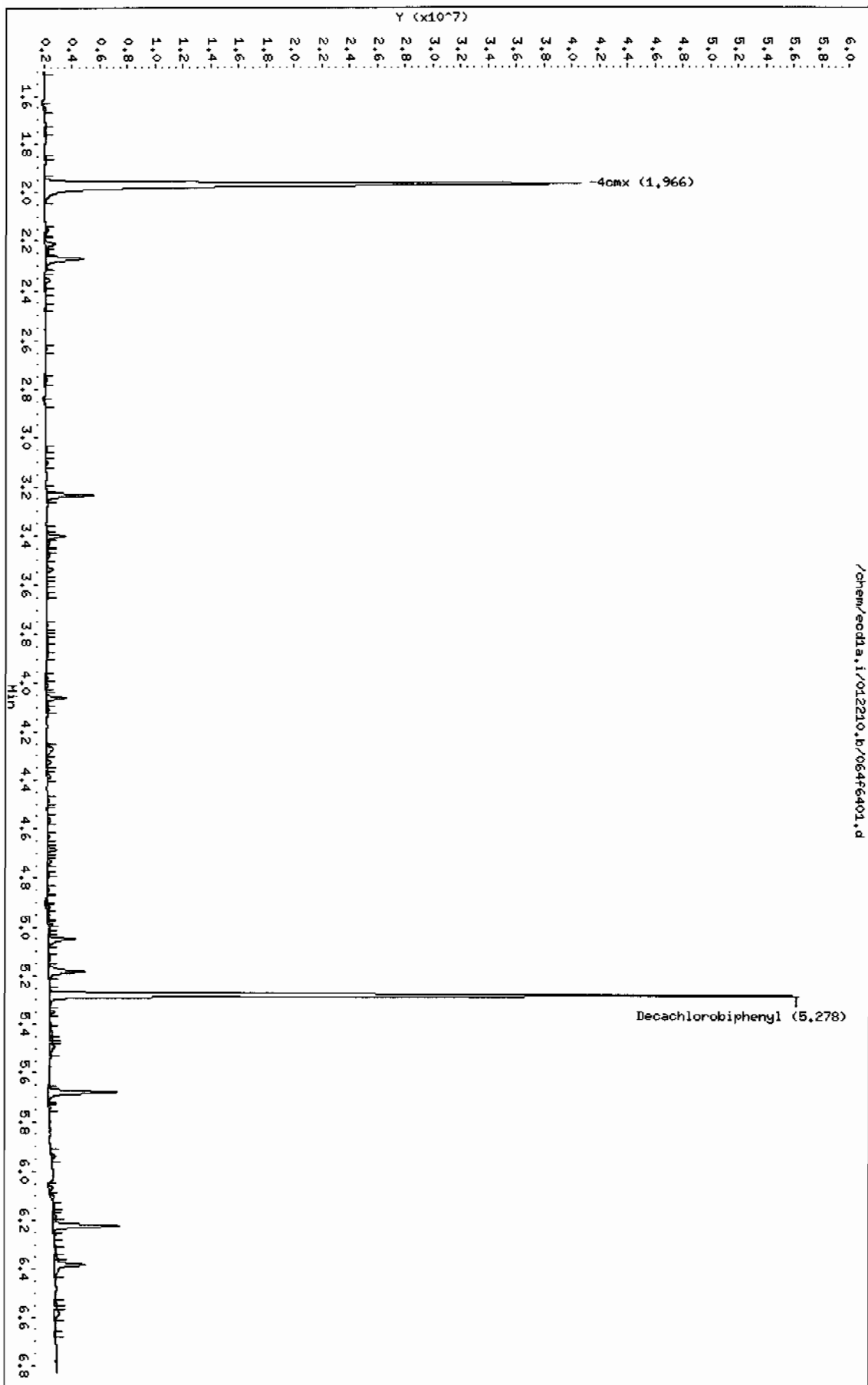
Column phase: CLP1

Instrument: eod1a.i

Operator: YSL

Column diameter: 0.25

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Data File: /chem/ecdla.i/012210.b/064b6401.d  
Report Date: 25-Jan-2010 13:49

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/012210.b/064b6401.d  
Lab Smp Id: 245106005 Client Smp ID: RE15-10-7167  
Inj Date : 22-JAN-2010 17:51  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |245106005|1|  
Misc Info : |ECD82P\_1S|943953|SVA|LANL|SOIL|RE15-10-7167|||  
Comment :  
Method : /chem/ecdla.i/012210.b/ECD1-B-8082-121409.m  
Meth Date : 23-Jan-2010 11:25 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d  
Als bottle: 64  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-1304.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	21.99090	% 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						
2.298	2.299	-0.001	32412690	111.689	4.8 80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
5.946	5.947	-0.001	26083114	106.909	4.6 80.00- 120.00	100.00
-----						

Data File: /chem/eod1a.i/012210.b/064b6401.d

Date: 22-JUN-2010 17:51

Client ID: RELS-10-7167

Sample Info: 124510600511

Volume Injected (ul): 1.0

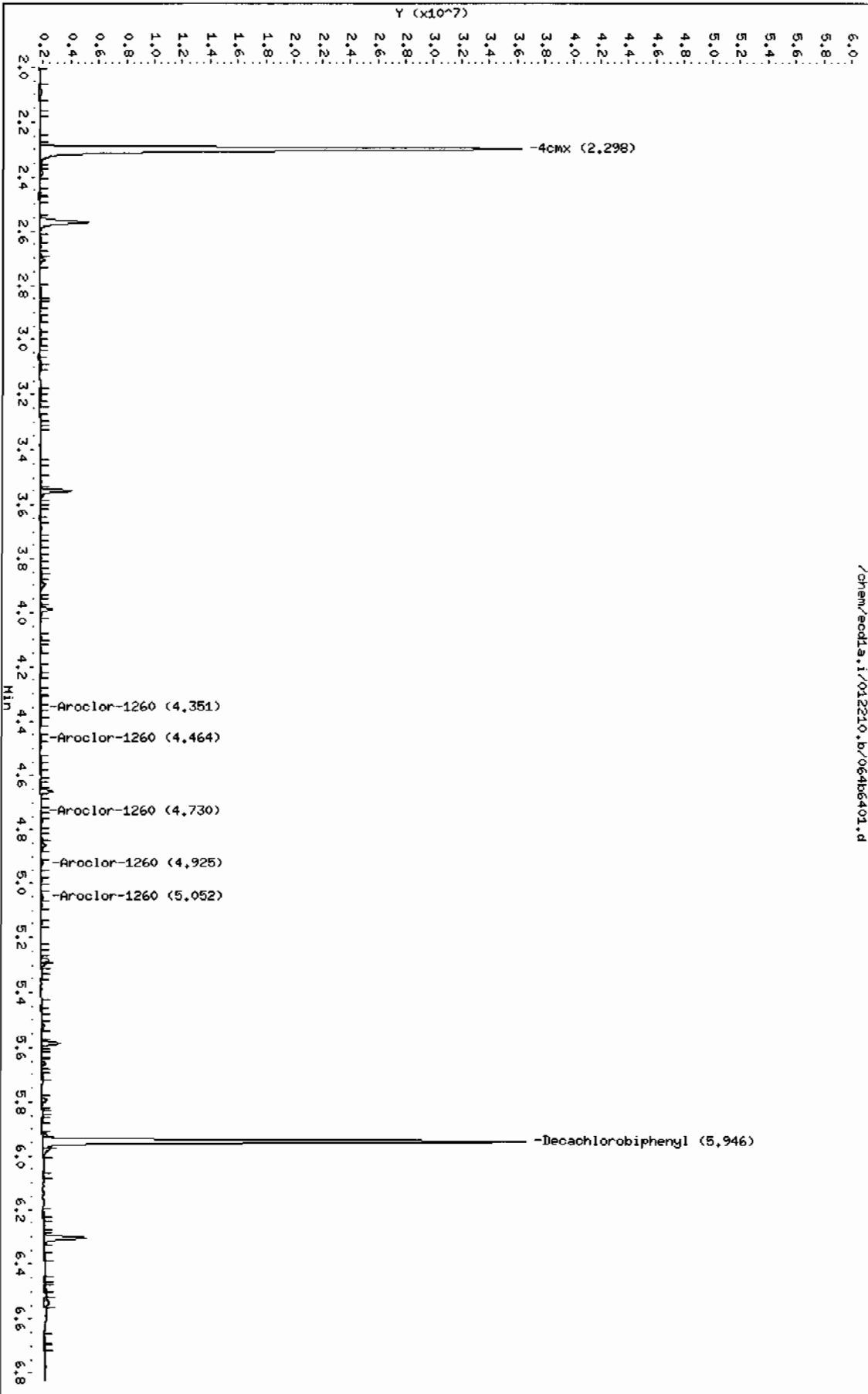
Column phase: CLP2

Instrument: eod1a.i

Operator: YSL

Column diameter: 0.25

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## PCB

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Certificate of Analysis  
Sample Summary

SDG Number: 10-1304  
Lab Sample ID: 245106007

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.J  
Analyst: YS1  
Aliquot: 30.02 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 19.2  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.12	ug/kg	1.37	4.12	1
11104-28-2	Aroclor-1221	U	4.12	ug/kg	1.37	4.12	1
11141-16-5	Aroclor-1232	U	4.12	ug/kg	1.37	4.12	1
53469-21-9	Aroclor-1242	U	4.12	ug/kg	1.37	4.12	1
12672-29-6	Aroclor-1248	U	4.12	ug/kg	1.37	4.12	1
11097-69-1	Aroclor-1254	U	4.12	ug/kg	1.37	4.12	1
11096-82-5	Aroclor-1260	U	4.12	ug/kg	1.37	4.12	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/012210.b/068f6801.d  
Lab Smp Id: 245106007 Client Smp ID: RE15-10-7168  
Inj Date : 22-JAN-2010 18:41  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |245106007|1|  
Misc Info : |ECD82P\_1S|943953|SVA|LANL|SOIL|RE15-10-7168|||  
Comment :  
Method : /chem/ecdla.i/012210.b/ECD1-F-8082-121409.m  
Meth Date : 25-Jan-2010 13:49 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d  
Als bottle: 68  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-1304.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	19.18620	% Moisture

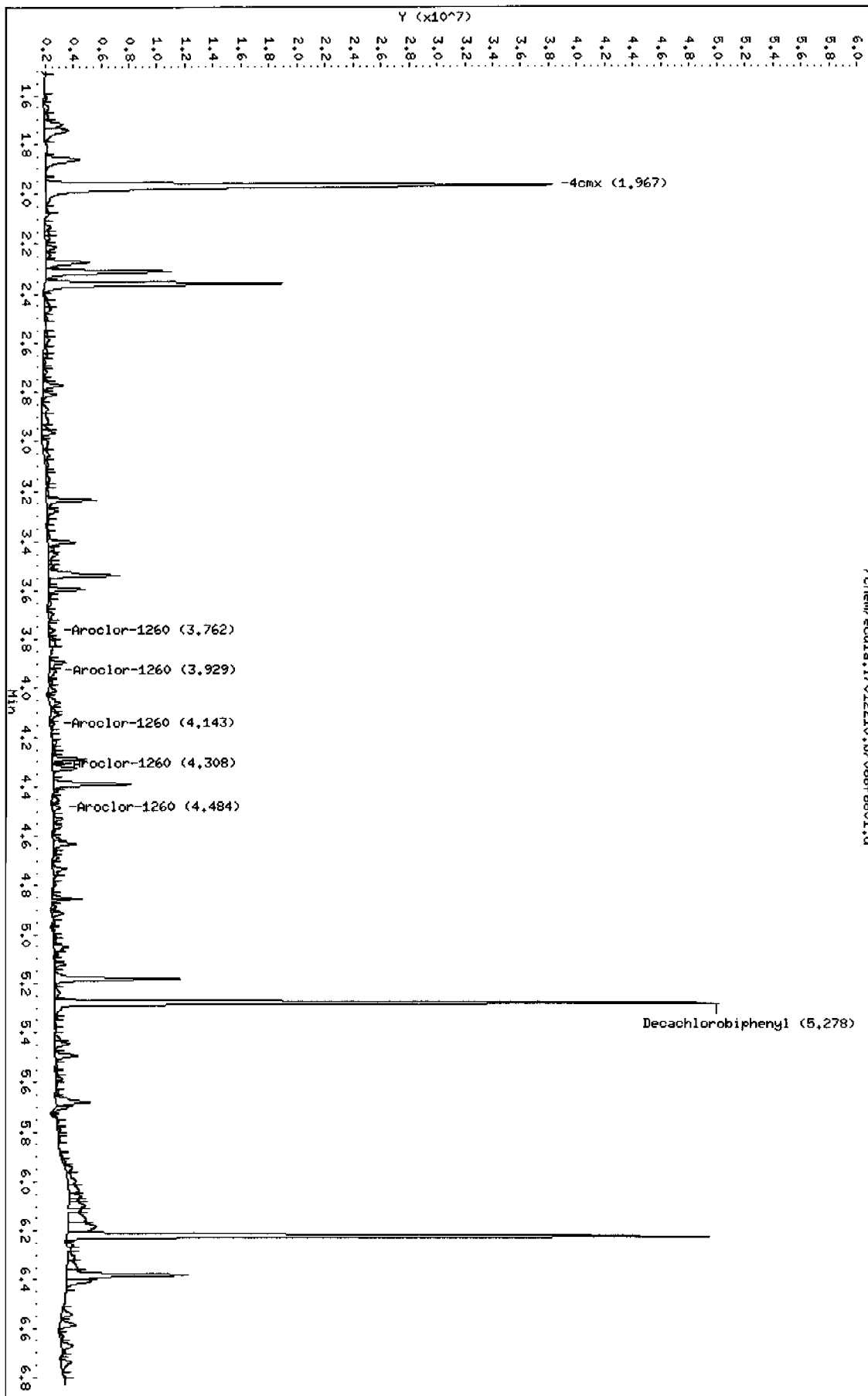
Cpnd Variable Local Compound Variable

CONCENTRATIONS						
		ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8		
1.967	1.967	0.000	43006112 109.446	4.5 80.00- 120.00	100.00	
-----						
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.278	5.281	-0.003	36033832 109.242	4.5 80.00- 120.00	100.00	
-----						

Data File: /chem/ecdl1.i/012210.b/068f6801.d  
Date : 22-JAN-2010 18:41  
Client ID: RE15-10-7168  
Sample Info: 1245106007111  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: ecdl1.i  
Operator: YS1  
Column diameter: 0.25

/chem/ecdl1.i/012210.b/068f6801.d



Data File: /chem/ecdl1a.i/012210.b/068b6801.d  
Report Date: 25-Jan-2010 13:49

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdl1a.i/012210.b/068b6801.d  
Lab Smp Id: 245106007 Client Smp ID: RE15-10-7168  
Inj Date : 22-JAN-2010 18:41  
Operator : YSl Inst ID: ecd1a.i  
Smp Info : |245106007|1|  
Misc Info : |ECD82P\_1S|943953|SVA|LANL|SOIL|RE15-10-7168|||  
Comment :  
Method : /chem/ecdl1a.i/012210.b/ECD1-B-8082-121409.m  
Meth Date : 25-Jan-2010 13:49 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d  
Als bottle: 68  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-1304.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	19.18620	% 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		
2.299	2.299	0.000	31285785	107.806	4.4 80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.946	5.947	-0.001	19847856	81.3522	3.4 80.00- 120.00	100.00	
-----							



Data File: /chem/eodla.i/012210.b/068b6801.d

Date: 22-JUN-2010 18:41

Client ID: RELS-10-7168

Sample Info: 1245106007111

Volume Injected (uL): 1.0

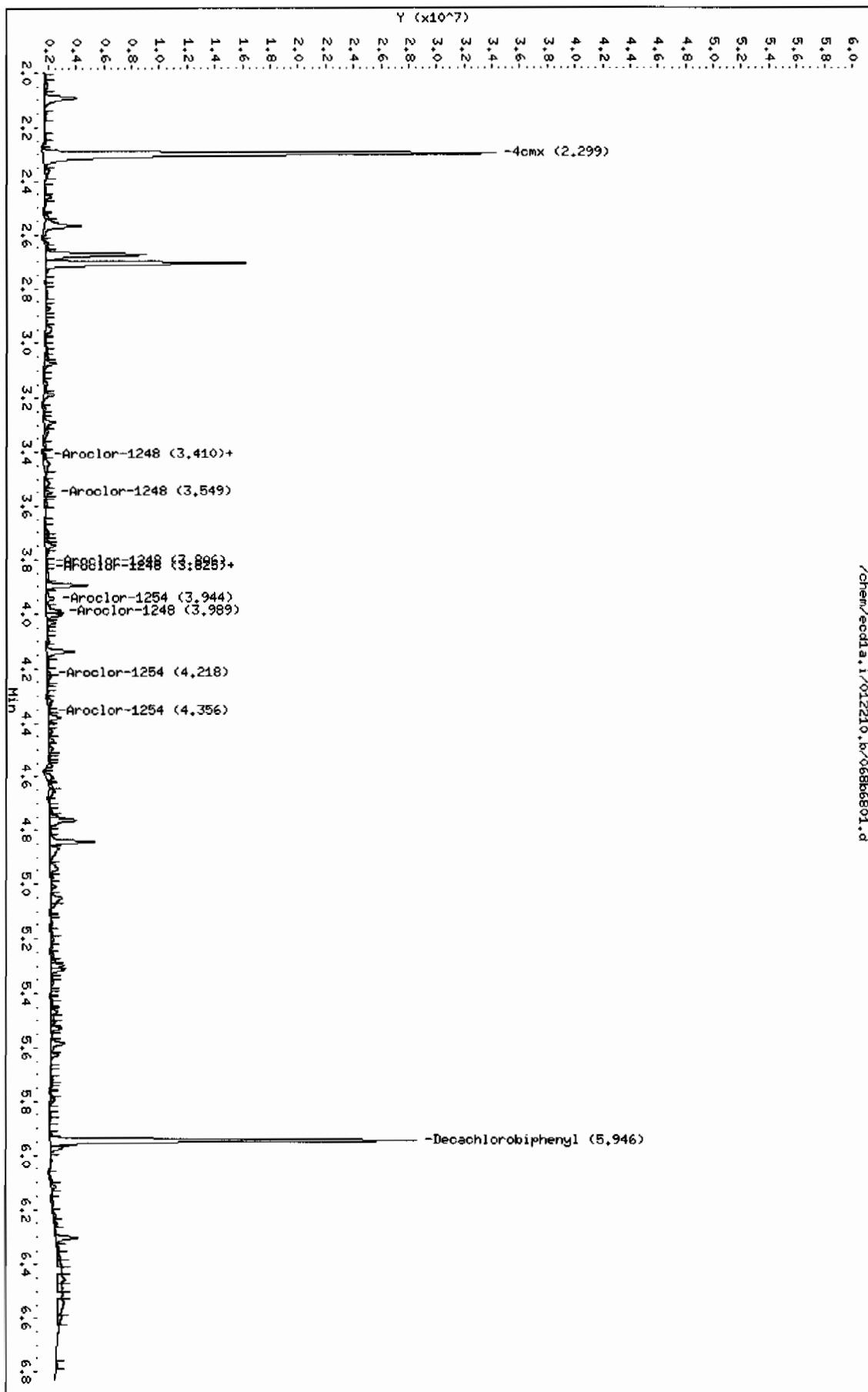
Column phase: CLP2

Instrument: eodla.i

Operator: YSI

Column diameter: 0.25

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## PCB

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Certificate of Analysis  
Sample SummarySDG Number: 10-1304  
Lab Sample ID: 245106006Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.01 g  
Column: 1 CLP1  
2 CLP2Matrix: R  
%Moisture: 8.9  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.66	ug/kg	1.22	3.66	1
11104-28-2	Aroclor-1221	U	3.66	ug/kg	1.22	3.66	1
11141-16-5	Aroclor-1232	U	3.66	ug/kg	1.22	3.66	1
53469-21-9	Aroclor-1242	U	3.66	ug/kg	1.22	3.66	1
12672-29-6	Aroclor-1248	U	3.66	ug/kg	1.22	3.66	1
11097-69-1	Aroclor-1254	U	3.66	ug/kg	1.22	3.66	1
11096-82-5	Aroclor-1260	U	3.66	ug/kg	1.22	3.66	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/012210.b/067f6701.d

Lab Smp Id: 245106006

Client Smp ID: RE15-10-7169

Inj Date : 22-JAN-2010 18:29

Operator : YS1

Inst ID: ecdla.i

Smp Info : |245106006|1|

Misc Info : |ECD82P\_1S|943953|SVA|LANL|SOIL|RE15-10-7169|||

Comment :

Method : /chem/ecdla.i/012210.b/ECD1-F-8082-121409.m

Meth Date : 25-Jan-2010 13:49 yip00818

Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017f1701.d

Als bottle: 67

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-1304.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	30.01000	Weight of sample extracted (g)
M	8.93310	% Moisture

Cpnd Variable

Local Compound Variable

CONCENTRATIONS

RT	EXP RT	DLT RT	ON-COL		FINAL	TARGET RANGE	RATIO
			RESPONSE	( ug/L)	(ug/Kg)		
xx	xxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxx
-----							
\$ 11 4cmx					CAS #:	877-09-8	
1.966	1.967	-0.001	44374169	112.928	4.1	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #:	2051-24-3	
5.278	5.281	-0.003	40180708	121.814	4.4	80.00- 120.00	100.00
-----							

Data File: /chem/eod1a.i/012210.b/0676701.d

Date: 22-JAN-2010 18:29

Client ID: RE15-10-7169

Sample Info: 124510600611

Volume Injected (uL): 1.0

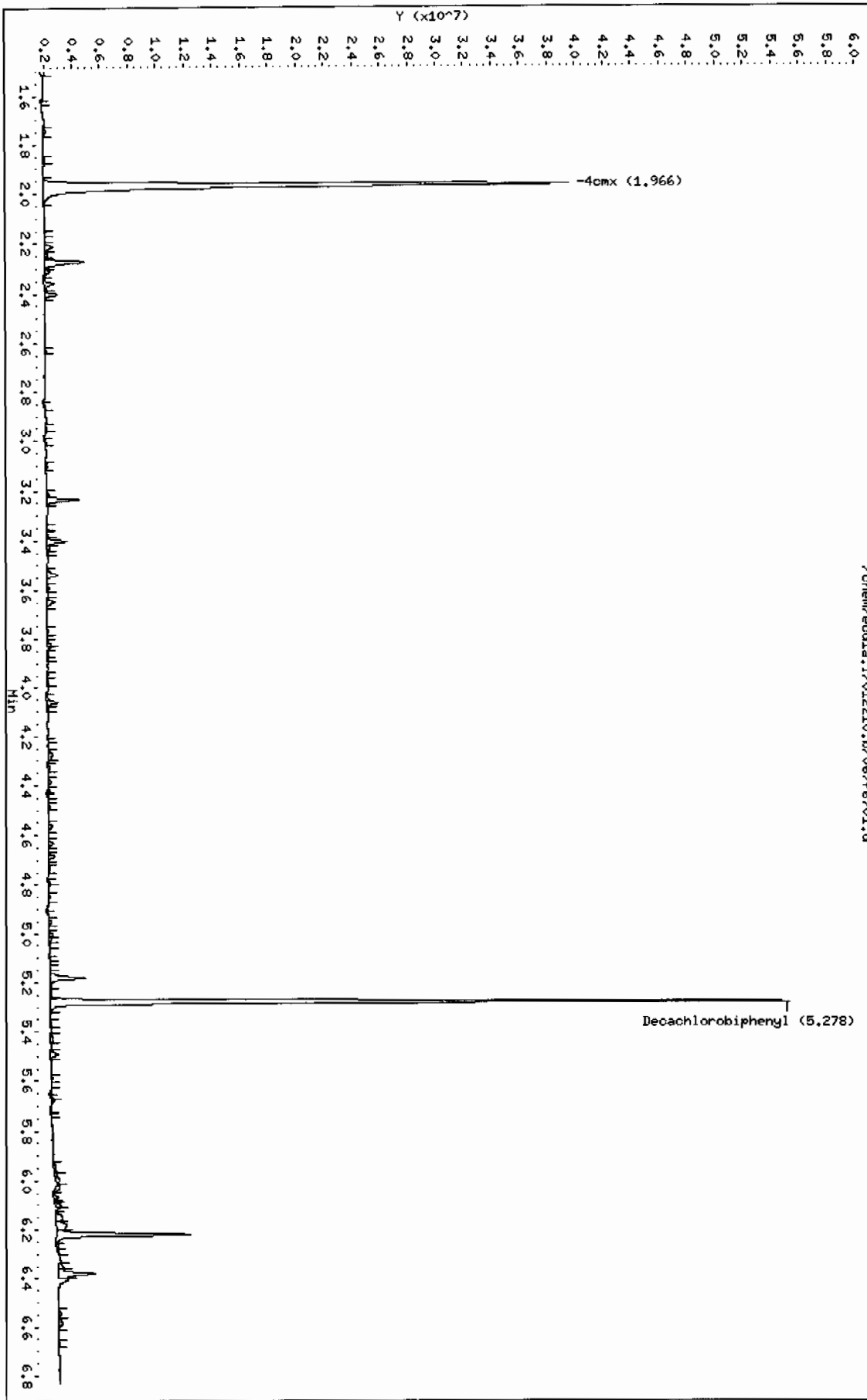
Column phase: CLP1

Instrument: eod1a.i

Operator: YS1

Column diameter: 0.25

/chem/eod1a.i/012210.b/0676701.d



Data File: /chem/ecd1a.i/012210.b/067b6701.d  
Report Date: 25-Jan-2010 13:49

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecd1a.i/012210.b/067b6701.d  
Lab Smp Id: 245106006 Client Smp ID: RE15-10-7169  
Inj Date : 22-JAN-2010 18:29  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |245106006|1|  
Misc Info : |ECD82P\_1S|943953|SVA|LANL|SOIL|RE15-10-7169|||  
Comment :  
Method : /chem/ecd1a.i/012210.b/ECD1-B-8082-121409.m  
Meth Date : 25-Jan-2010 13:49 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d  
Als bottle: 67  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-1304.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	30.01000	Weight of sample extracted (g)
M	8.93310	% Moisture

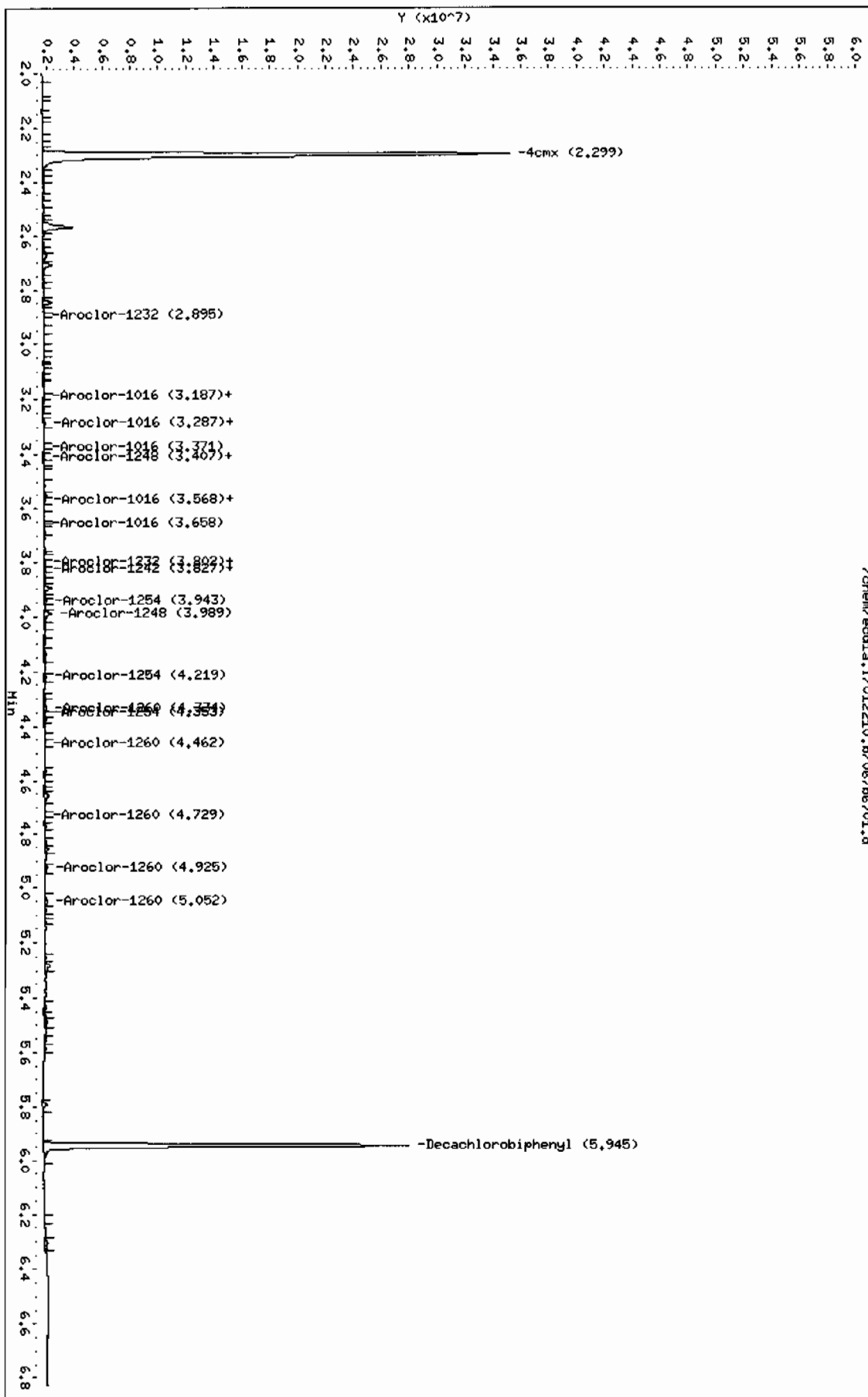
Cpnd Variable Local Compound Variable

CONCENTRATIONS							
			ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
\$ 11 4cmx CAS #: 877-09-8							
2.299	2.299	0.000	32146193	110.771	4.0 80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3							
5.945	5.947	-0.002	19976877	81.8810	3.0 80.00- 120.00	100.00	
-----							

Data File: /chem/eod1a.i/012210.b/067b6701.d  
Date: 22-JUN-2010 18:29  
Client ID: RE15-10-7169  
Sample Info: 124510600611  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: eod1a.i  
Operator: YSL  
Column diameter: 0.25

/chem/eod1a.i/012210.b/067b6701.d



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

SDG Number: 10-1304  
Lab Sample ID: 245106003

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.15 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 23.2  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 5  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	21.6	ug/kg	7.19	21.6	1
11104-28-2	Aroclor-1221	U	21.6	ug/kg	7.19	21.6	1
11141-16-5	Aroclor-1232	U	21.6	ug/kg	7.19	21.6	1
53469-21-9	Aroclor-1242	U	21.6	ug/kg	7.19	21.6	1
12672-29-6	Aroclor-1248	U	21.6	ug/kg	7.19	21.6	1
11097-69-1	Aroclor-1254	U	21.6	ug/kg	7.19	21.6	1
11096-82-5	Aroclor-1260	U	21.6	ug/kg	7.19	21.6	1

Data File: /chem/ecdl1a.i/012210.b/062f6201.d  
Report Date: 27-Jan-2010 09:22

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/062f6201.d  
Lab Smp Id: 245106003 Client Smp ID: RE15-10-7170  
Inj Date : 22-JAN-2010 17:26  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |245106003|5|  
Misc Info : |ECD82P\_1S|943953|SVA|LANL|SOIL|RE15-10-7170|||  
Comment :  
Method : /chem/ecdl1a.i/012210.b/ECD1-F-8082-121409.m  
Meth Date : 25-Jan-2010 13:49 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d  
Als bottle: 62  
Dil Factor: 5.00000  
Integrator: Falcon Compound Sublist: 10-1304.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.15000	Weight of sample extracted (g)
M	23.19660	% 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						
1.966	1.967	-0.001	10007509 25.4681	5.5	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
5.278	5.281	-0.003	8987720 27.2477	5.9	80.00- 120.00	100.00
-----						



Data File: /chem/ecdt.a.i/012210.b/062f6201.d

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Date: 22-JAN-2010 17:26

Client ID: RELS-10-7170

Instrument: ecdt.a.i

Sample Info: 1245106003151

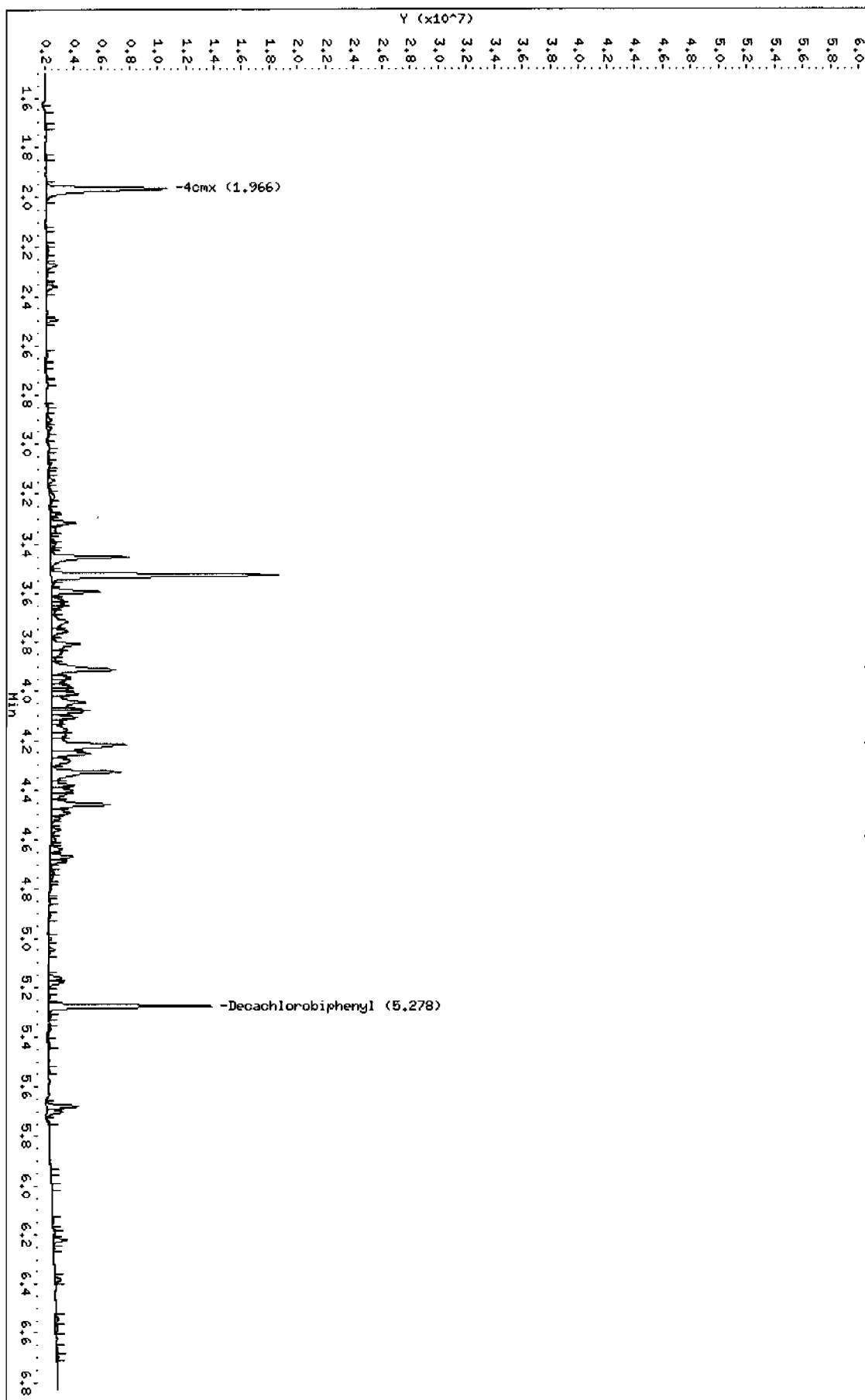
Volume Injected (uL): 1.0

Operator: YSL

Column phase: CLP1

Column diameter: 0.25

/chem/ecdt.a.i/012210.b/062f6201.d



Data File: /chem/ecdl1a.i/012210.b/062b6201.d  
Report Date: 25-Jan-2010 13:48

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/062b6201.d

Lab Smp Id: 245106003

Client Smp ID: RE15-10-7170

Inj Date : 22-JAN-2010 17:26

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |245106003|5|

Misc Info : |ECD82P\_1S|943953|SVA|LANL|SOIL|RE15-10-7170|

Comment :

Method : /chem/ecdl1a.i/012210.b/ECD1-B-8082-121409.m

Meth Date : 23-Jan-2010 11:25 yip00818 Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017b1701.d

Als bottle: 62

Dil Factor: 5.00000

Integrator: Falcon

Compound Sublist: 10-1304.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	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.15000	Weight of sample extracted (g)
M	23.19660	% 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	
2.299	2.299	0.000	7502752 25.8534	5.6	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3	
5.946	5.947	-0.001	5947758 24.3786	5.3	80.00- 120.00	100.00
-----						

Data File: /chem/ecda.i/012210.b/062b6201.d

Date: 22-Jan-2010 17:26

Client ID: REA5-10-7470

Sample Info: 1245106003151

Volume Injected (uL): 1.0

Column phase: CLP2

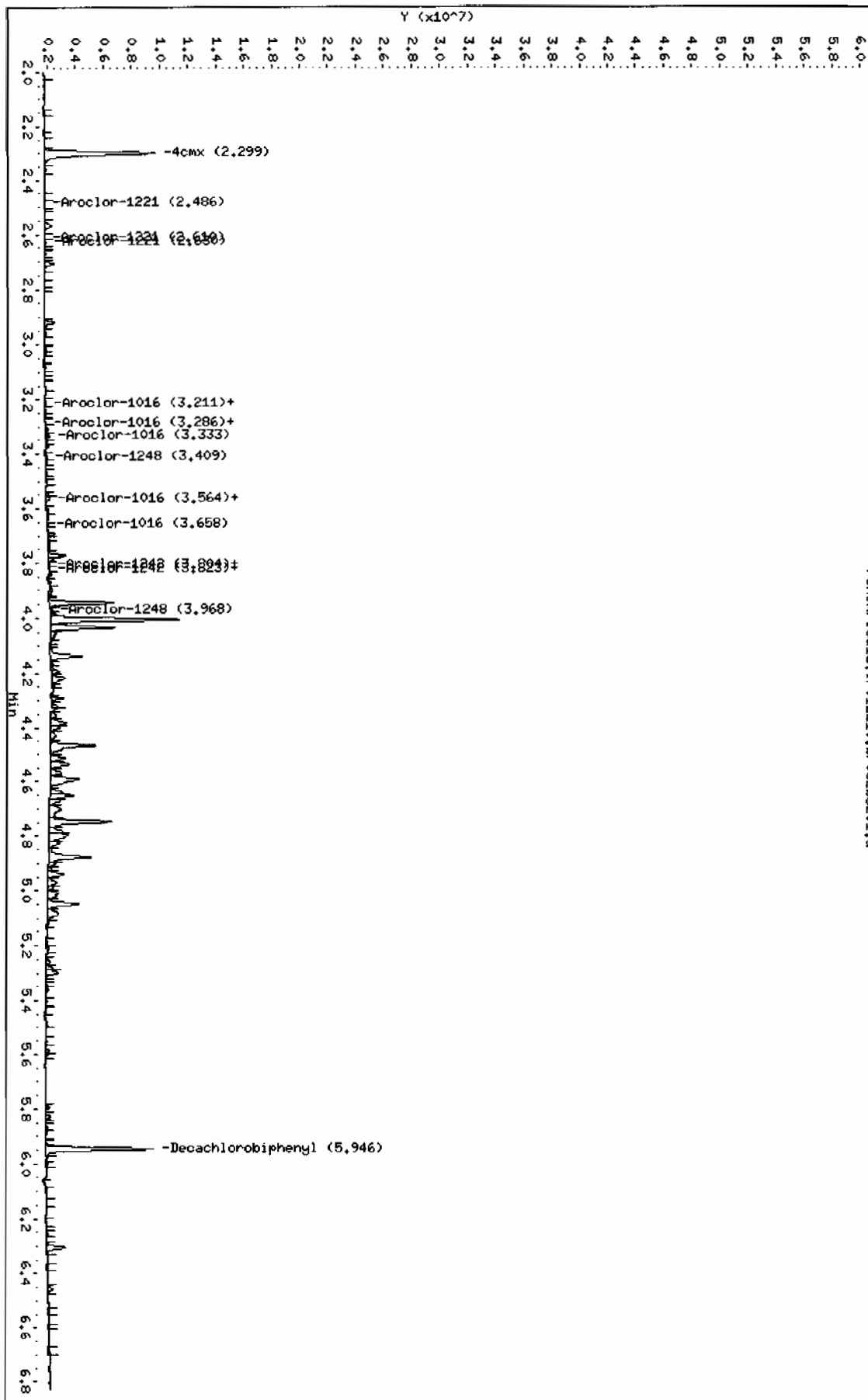
Instrument: ecda.i

Operator: YSL

Column diameter: 0.25

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/chem/ecda.i/012210.b/062b6201.d



## PCB

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Certificate of Analysis  
Sample SummarySDG Number: 10-1304  
Lab Sample ID: 245106002Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.17 g  
Column: 1 CLP1  
2 CLP2Matrix: R  
%Moisture: 7.8  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.59	ug/kg	1.20	3.59	1
11104-28-2	Aroclor-1221	U	3.59	ug/kg	1.20	3.59	1
11141-16-5	Aroclor-1232	U	3.59	ug/kg	1.20	3.59	1
53469-21-9	Aroclor-1242	U	3.59	ug/kg	1.20	3.59	1
12672-29-6	Aroclor-1248	U	3.59	ug/kg	1.20	3.59	1
11097-69-1	Aroclor-1254	U	3.59	ug/kg	1.20	3.59	1
11096-82-5	Aroclor-1260	U	3.59	ug/kg	1.20	3.59	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/061f6101.d  
Lab Smp Id: 245106002 Client Smp ID: RE15-10-7171  
Inj Date : 22-JAN-2010 17:13  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |245106002|1|  
Misc Info : |ECD82P\_1S|943953|SVA|LANL|SOIL|RE15-10-7171|||  
Comment :  
Method : /chem/ecdl1a.i/012210.b/ECD1-F-8082-121409.m  
Meth Date : 23-Jan-2010 11:25 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d  
Als bottle: 61  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-1304.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	30.17000	Weight of sample extracted (g)
M	7.79820	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS

RT	EXP RT	DLT RT	ON-COL	FINAL	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
\$ 11 4cmx							CAS #: 877-09-8	
1.966	1.967	-0.001	45726124	116.368	4.2	80.00- 120.00	100.00	
\$ 12 Decachlorobiphenyl							CAS #: 2051-24-3	
5.278	5.281	-0.003	41750506	126.573	4.6	80.00- 120.00	100.00	

Data File: /chem/eod1a.i/012210.b/061f6101.d

Date: 22-JAN-2010 17:13

Client ID: RELS-10-7171

Sample Info: 1245106002111

Volume Injected (uL): 1.0

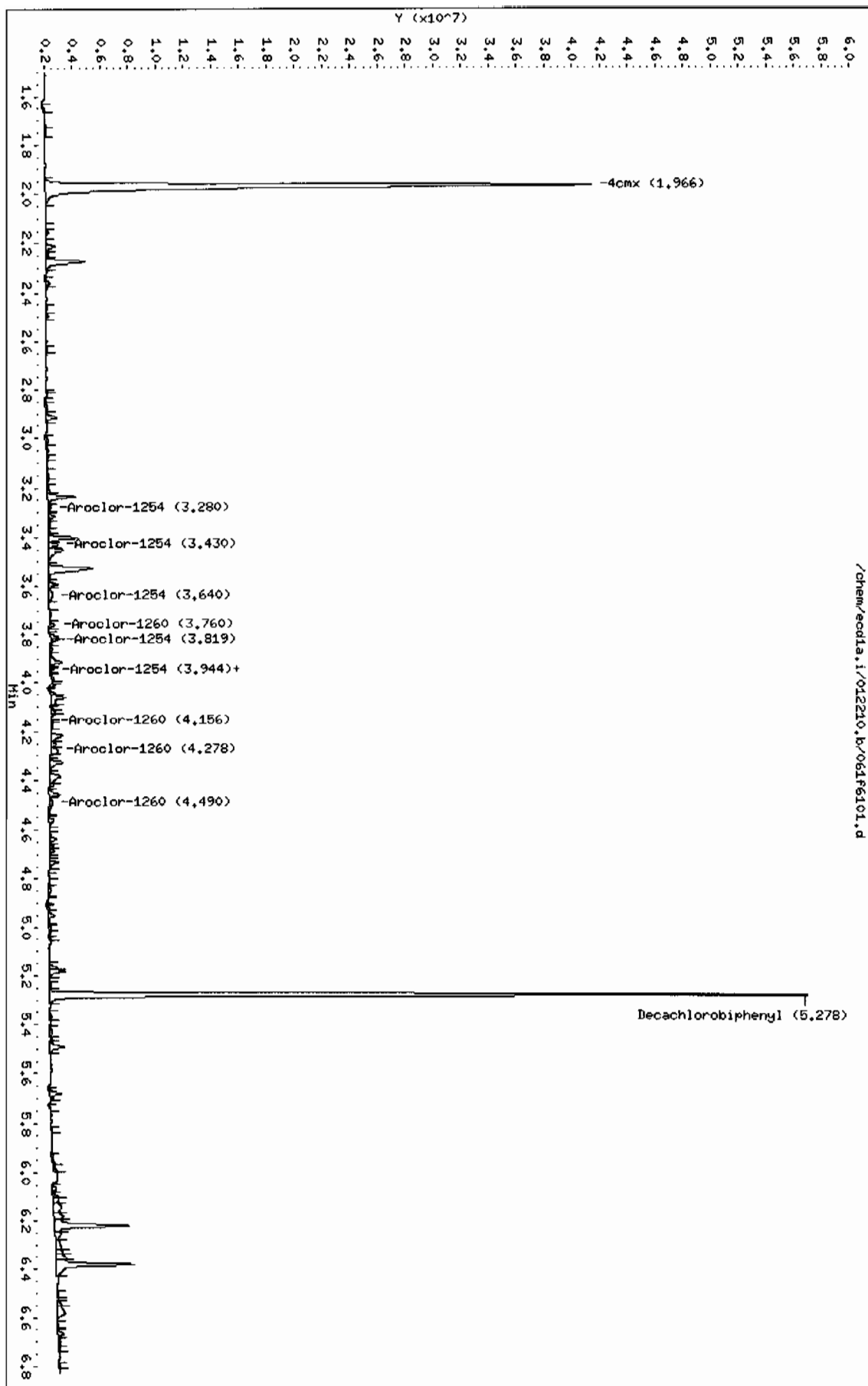
Column phase: CLP1

Instrument: eod1a.i

Operator: YSL

Column diameter: 0.25

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Data File: /chem/ecd1a.i/012210.b/061b6101.d  
Report Date: 25-Jan-2010 13:48

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/012210.b/061b6101.d

Lab Smp Id: 245106002

Client Smp ID: RE15-10-7171

Inj Date : 22-JAN-2010 17:13

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |245106002|1|

Misc Info : |ECD82P\_1S|943953|SVA|LANL|SOIL|RE15-10-7171|||

Comment :

Method : /chem/ecd1a.i/012210.b/ECD1-B-8082-121409.m

Meth Date : 23-Jan-2010 11:25 yip00818

Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017b1701.d

Als bottle: 61

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-1304.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	30.17000	Weight of sample extracted (g)
M	7.79820	% 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		
2.299	2.299	0.000	32755962	112.872	4.0 80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.945	5.947	-0.002	26022785	106.662	3.8 80.00- 120.00	100.00	
-----							

Data File: /chem/eod1a.i/012210.b/061b6101.d

Date: 22-JUN-2010 17:13

Client ID: RE15-10-7171

Sample Info: 124510600211

Volume Injected (uL): 1.0

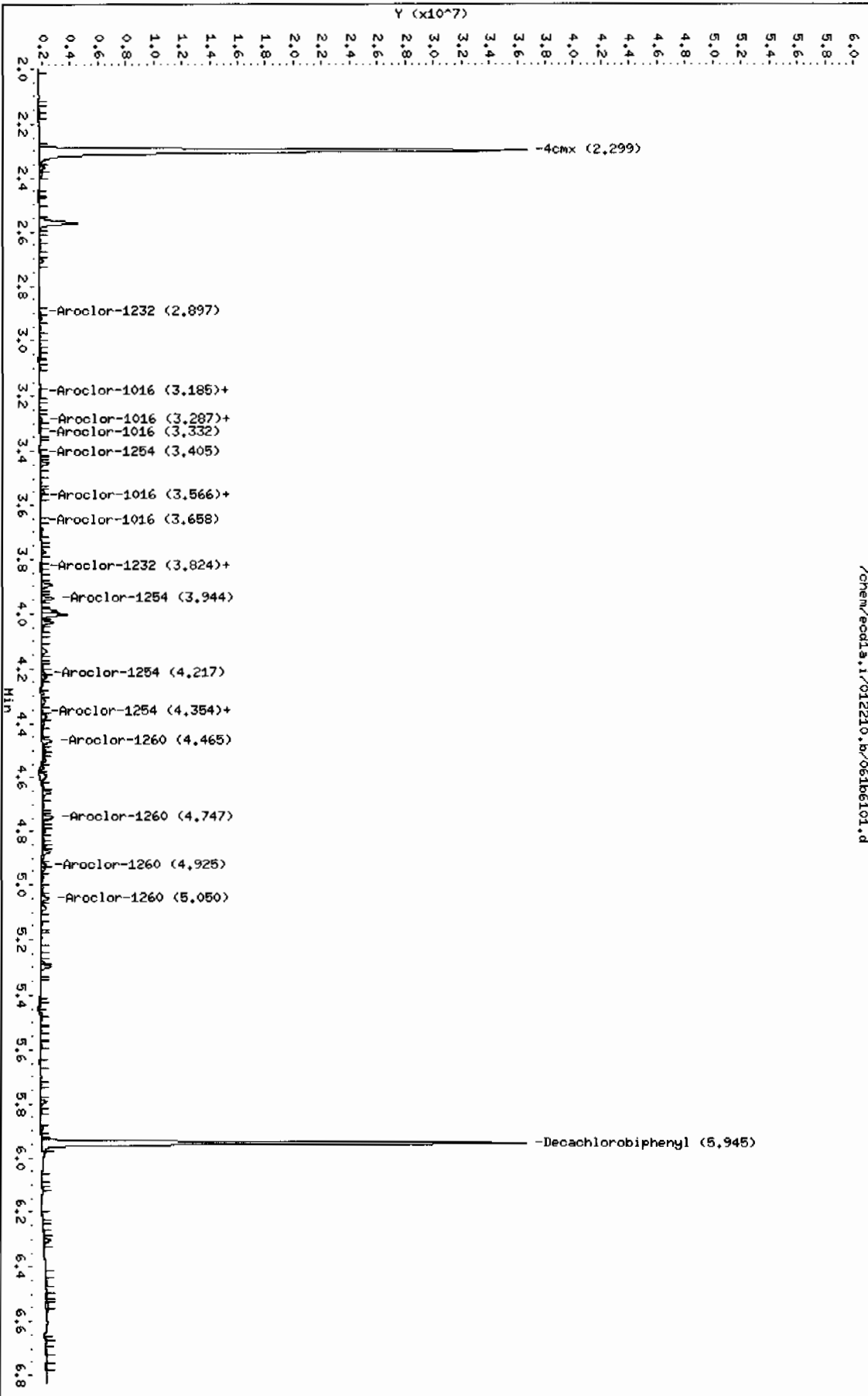
Column phase: CLP2

Instrument: eod1a.i

Operator: YS1

Column diameter: 0.25

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# STANDARDS DATA

Report Date: 26-Jan-2010 14:37

### Calibration History

Method : /chem/ecdla.i/012210.b/ECD1-F-8082-121409.m  
Start Cal Date: 14-DEC-2009 05:36  
End Cal Date : 22-JAN-2010 09:50

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecdla.i/012210.b/013f1301.d
22-JAN-2010 06:48	AR1232	/chem/ecdla.i/012210.b/006f0601.d
14-DEC-2009 11:34	AR1268	/chem/ecdla.i/121409.b/040f4001.d
14-DEC-2009 09:28	AR1248	/chem/ecdla.i/121409.b/028f2801.d
14-DEC-2009 08:25	AR1242	/chem/ecdla.i/121409.b/022f2201.d
14-DEC-2009 07:22	AR1254	/chem/ecdla.i/121409.b/016f1601.d
22-JAN-2010 09:08	AR1660	/chem/ecdla.i/012210.b/019f1901.d

Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecdla.i/012210.b/014f1401.d
22-JAN-2010 06:58	AR1232	/chem/ecdla.i/012210.b/007f0701.d
14-DEC-2009 11:44	AR1268	/chem/ecdla.i/121409.b/041f4101.d
14-DEC-2009 09:38	AR1248	/chem/ecdla.i/121409.b/029f2901.d
14-DEC-2009 08:35	AR1242	/chem/ecdla.i/121409.b/023f2301.d
14-DEC-2009 07:32	AR1254	/chem/ecdla.i/121409.b/017f1701.d
22-JAN-2010 09:19	AR1660	/chem/ecdla.i/012210.b/020f2001.d

Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecdla.i/012210.b/015f1501.d
22-JAN-2010 07:09	AR1232	/chem/ecdla.i/012210.b/008f0801.d
14-DEC-2009 11:55	AR1268	/chem/ecdla.i/121409.b/042f4201.d
14-DEC-2009 09:49	AR1248	/chem/ecdla.i/121409.b/030f3001.d
14-DEC-2009 08:46	AR1242	/chem/ecdla.i/121409.b/024f2401.d
14-DEC-2009 07:43	AR1254	/chem/ecdla.i/121409.b/018f1801.d
22-JAN-2010 09:29	AR1660	/chem/ecdla.i/012210.b/021f2101.d

Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecdla.i/121409.b/046f4601.d
14-DEC-2009 09:59	AR1248	/chem/ecdla.i/121409.b/031f3101.d
14-DEC-2009 08:56	AR1242	/chem/ecdla.i/121409.b/025f2501.d
14-DEC-2009 07:53	AR1254	/chem/ecdla.i/121409.b/019f1901.d
22-JAN-2010 09:40	AR1660	/chem/ecdla.i/012210.b/022f2201.d
14-DEC-2009 12:06	AR1268	/chem/ecdla.i/121409.b/043f4301.d
22-JAN-2010 08:36	AR1262	/chem/ecdla.i/012210.b/016f1601.d
14-DEC-2009 05:47	AR1221	/chem/ecdla.i/121409.b/007f0701.d
22-JAN-2010 07:19	AR1232	/chem/ecdla.i/012210.b/009f0901.d

Cal Level: 5 , Cal Amount: 4000.00000		
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22-JAN-2010 08:47	AR1262	/chem/ecdla.i/012210.b/017f1701.d
22-JAN-2010 07:30	AR1232	/chem/ecdla.i/012210.b/010f1001.d
14-DEC-2009 12:16	AR1268	/chem/ecdla.i/121409.b/044f4401.d
14-DEC-2009 10:10	AR1248	/chem/ecdla.i/121409.b/032f3201.d
14-DEC-2009 09:07	AR1242	/chem/ecdla.i/121409.b/026f2601.d
14-DEC-2009 08:04	AR1254	/chem/ecdla.i/121409.b/020f2001.d
22-JAN-2010 09:50	AR1660	/chem/ecdla.i/012210.b/023f2301.d

# Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
22-JAN-2010 18:03	AR1660	/chem/ecdla.i/012210.b/065f6501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-JAN-2010 19:32	AR1660	/chem/ecdla.i/012210.b/072f7201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-JAN-2010 15:32	AR1660	/chem/ecdla.i/012210.b/053f5301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-JAN-2010 13:10	AR1660	/chem/ecdla.i/012210.b/041f4101.d
Ccal Level: 4 , Ccal Amount: 1000		
22-JAN-2010 11:46	AR1660	/chem/ecdla.i/012210.b/033f3301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-JAN-2010 10:01	AR1660	/chem/ecdla.i/012210.b/024f2401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-JAN-2010 10:11	AR1268	/chem/ecdla.i/012210.b/025f2501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-JAN-2010 09:40	AR1660	/chem/ecdla.i/012210.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-JAN-2010 08:57	AR1262	/chem/ecdla.i/012210.b/018f1801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-JAN-2010 08:36	AR1262	/chem/ecdla.i/012210.b/016f1601.d
Ccal Level: 4 , Ccal Amount: 1000		
22-JAN-2010 07:51	AR1221	/chem/ecdla.i/012210.b/012f1201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-JAN-2010 07:40	AR1232	/chem/ecdla.i/012210.b/011f1101.d
Ccal Level: 4 , Ccal Amount: 1000		
22-JAN-2010 07:19	AR1232	/chem/ecdla.i/012210.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-JAN-2010 06:37	AR1248	/chem/ecdla.i/012210.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-JAN-2010 06:27	AR1242	/chem/ecdla.i/012210.b/004f0401.d

Ccal Level: 4 , Ccal Amount: 1000	
+=====+	
22-JAN-2010 06:16  AR1254	/chem/ecdl1a.i/012210.b/003f0301.d
+-----+	

Report Date: 26-Jan-2010 14:37

### Calibration History

Method : /chem/ecdla.i/012210.b/ECD1-B-8082-121409.m  
Start Cal Date: 11-DEC-2009 10:17  
End Cal Date : 22-JAN-2010 09:50

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecdla.i/012210.b/013b1301.d
22-JAN-2010 06:48	AR1232	/chem/ecdla.i/012210.b/006b0601.d
14-DEC-2009 11:34	AR1268	/chem/ecdla.i/121409.b/040b4001.d
14-DEC-2009 09:28	AR1248	/chem/ecdla.i/121409.b/028b2801.d
14-DEC-2009 08:25	AR1242	/chem/ecdla.i/121409.b/022b2201.d
14-DEC-2009 07:22	AR1254	/chem/ecdla.i/121409.b/016b1601.d
22-JAN-2010 09:08	AR1660	/chem/ecdla.i/012210.b/019b1901.d

Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecdla.i/012210.b/014b1401.d
22-JAN-2010 06:58	AR1232	/chem/ecdla.i/012210.b/007b0701.d
14-DEC-2009 11:44	AR1268	/chem/ecdla.i/121409.b/041b4101.d
14-DEC-2009 09:38	AR1248	/chem/ecdla.i/121409.b/029b2901.d
14-DEC-2009 08:35	AR1242	/chem/ecdla.i/121409.b/023b2301.d
14-DEC-2009 07:32	AR1254	/chem/ecdla.i/121409.b/017b1701.d
22-JAN-2010 09:19	AR1660	/chem/ecdla.i/012210.b/020b2001.d

Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecdla.i/012210.b/015b1501.d
22-JAN-2010 07:09	AR1232	/chem/ecdla.i/012210.b/008b0801.d
14-DEC-2009 11:55	AR1268	/chem/ecdla.i/121409.b/042b4201.d
14-DEC-2009 09:49	AR1248	/chem/ecdla.i/121409.b/030b3001.d
14-DEC-2009 08:46	AR1242	/chem/ecdla.i/121409.b/024b2401.d
14-DEC-2009 07:43	AR1254	/chem/ecdla.i/121409.b/018b1801.d
22-JAN-2010 09:29	AR1660	/chem/ecdla.i/012210.b/021b2101.d

Cal Level: 4 , Cal Amount: 1000.00000		
22-JAN-2010 09:40	AR1660	/chem/ecdla.i/012210.b/022b2201.d
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecdla.i/121409.b/046b4601.d
14-DEC-2009 12:06	AR1268	/chem/ecdla.i/121409.b/043b4301.d
22-JAN-2010 08:36	AR1262	/chem/ecdla.i/012210.b/016b1601.d
14-DEC-2009 05:47	AR1221	/chem/ecdla.i/121409.b/007b0701.d
22-JAN-2010 07:19	AR1232	/chem/ecdla.i/012210.b/009b0901.d
14-DEC-2009 09:59	AR1248	/chem/ecdla.i/121409.b/031b3101.d
14-DEC-2009 08:56	AR1242	/chem/ecdla.i/121409.b/025b2501.d
14-DEC-2009 07:53	AR1254	/chem/ecdla.i/121409.b/019b1901.d
14-DEC-2009 12:16	AR1268	/chem/ecdla.i/121409.b/044b4401.d

Cal Level: 5 , Cal Amount: 4000.00000		
22-JAN-2010 08:47	AR1262	/chem/ecdla.i/012210.b/017b1701.d
22-JAN-2010 07:30	AR1232	/chem/ecdla.i/012210.b/010b1001.d
14-DEC-2009 10:10	AR1248	/chem/ecdla.i/121409.b/032b3201.d
14-DEC-2009 09:07	AR1242	/chem/ecdla.i/121409.b/026b2601.d

14-DEC-2009 08:04	AR1254	/chem/ecdla.i/121409.b/020b2001.d
22-JAN-2010 09:50	AR1660	/chem/ecdla.i/012210.b/023b2301.d

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 18:03  AR1660  /chem/ecdla.i/012210.b/065b6501.d
Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 19:32  AR1660  /chem/ecdla.i/012210.b/072b7201.d
Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 15:32  AR1660  /chem/ecdla.i/012210.b/053b5301.d
Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 11:46  AR1660  /chem/ecdla.i/012210.b/033b3301.d
Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 13:10  AR1660  /chem/ecdla.i/012210.b/041b4101.d
Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 10:11  AR1268  /chem/ecdla.i/012210.b/025b2501.d
Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 10:01  AR1660  /chem/ecdla.i/012210.b/024b2401.d
Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 09:40  AR1660  /chem/ecdla.i/012210.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 08:57  AR1262  /chem/ecdla.i/012210.b/018b1801.d
Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 08:36  AR1262  /chem/ecdla.i/012210.b/016b1601.d
Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 07:51  AR1221  /chem/ecdla.i/012210.b/012b1201.d
Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 07:40  AR1232  /chem/ecdla.i/012210.b/011b1101.d
Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 07:19  AR1232  /chem/ecdla.i/012210.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 06:37  AR1248  /chem/ecdla.i/012210.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 06:27  AR1242  /chem/ecdla.i/012210.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 06:16  AR1254  /chem/ecdla.i/012210.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000
22-JAN-2010 09:50  AR1660  /chem/ecdla.i/012210.b/023b2301.d
Ccal Level: 1346718976, Ccal Amount: 0.0

Ccal Level: 0 , Ccal Amount: 0.0			
m/ecdl1a.i/012210.b/004b0401			

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1a.i/012210.b/ECD1-F-8082-121409.m  
 Quant Method : ESTD Target Version : 3.50  
 Last Update : 23-Jan-2010 11:25 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	2.422	2.392-2.452	1.445e+04
	2.711	2.681-2.741	1.820e+04
	2.792	2.762-2.822	1.198e+04
	2.830	2.800-2.860	7.178e+03
	3.041	3.011-3.071	9.259e+03
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.081	2.051-2.111	4.301e+03
	2.174	2.144-2.204	2.440e+03
	2.200	2.170-2.230	1.027e+04
3 Aroclor-1232	2.424	2.394-2.454	6.849e+03
	2.712	2.682-2.742	8.426e+03
	2.792	2.762-2.822	5.627e+03
	3.041	3.011-3.071	3.983e+03
4 Aroclor-1242	3.295	3.265-3.325	3.858e+03
	2.423	2.393-2.453	1.166e+04
	2.711	2.681-2.741	1.345e+04
	2.830	2.800-2.860	5.506e+03
	3.040	3.010-3.070	7.245e+03
	3.294	3.264-3.324	6.811e+03



## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdla.i/012210.b/ECD1-F-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.091	3.061-3.121	7.848e+03
	3.242	3.212-3.272	6.870e+03
	3.294	3.264-3.324	1.331e+04
	3.426	3.396-3.456	1.101e+04
	3.658	3.628-3.688	7.455e+03
6 Aroclor-1254	3.270	3.240-3.300	1.249e+04
	3.425	3.395-3.455	1.672e+04
	3.659	3.629-3.689	2.071e+04
	3.821	3.791-3.851	1.569e+04
	3.931	3.901-3.961	1.517e+04
7 Aroclor-1260	3.766	3.736-3.796	1.772e+04
	3.929	3.899-3.959	2.693e+04
	4.159	4.129-4.189	1.619e+04
	4.302	4.272-4.332	1.691e+04
	4.481	4.451-4.511	3.767e+04
8 Aroclor-1262	3.766	3.736-3.796	1.500e+04
	3.929	3.899-3.959	2.038e+04
	4.160	4.130-4.190	2.520e+04
	4.301	4.271-4.331	2.299e+04
	4.481	4.451-4.511	4.717e+04
9 Aroclor-1268	4.667	4.637-4.697	5.438e+04
	4.689	4.659-4.719	5.419e+04
	4.802	4.772-4.832	4.052e+04
	5.005	4.975-5.035	1.833e+04
	5.171	5.141-5.201	1.233e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	1.967	1.937-1.997	3.929e+05
\$ 12 Decachlorobiphenyl	5.281	5.251-5.311	3.299e+05

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdla.i/012210.b/ECD1-B-8082-121409.m  
 Quant Method : ESTD Target Version : 3.50  
 Last Update : 25-Jan-2010 13:49 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	3.196	3.166-3.226	1.269e+04
	3.280	3.250-3.310	8.798e+03
	3.343	3.313-3.373	5.479e+03
	3.570	3.540-3.600	6.997e+03
	3.646	3.616-3.676	6.563e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.497	2.467-2.527	3.640e+03
	2.592	2.562-2.622	2.329e+03
	2.632	2.602-2.662	8.119e+03
3 Aroclor-1232	2.899	2.869-2.929	5.892e+03
	3.197	3.167-3.227	6.222e+03
	3.280	3.250-3.310	4.345e+03
	3.570	3.540-3.600	3.111e+03
4 Aroclor-1242	3.805	3.775-3.835	3.193e+03
	3.195	3.165-3.225	1.059e+04
	3.278	3.248-3.308	8.054e+03
	3.568	3.538-3.598	5.962e+03
	3.802	3.772-3.832	6.057e+03
	3.830	3.800-3.860	6.701e+03

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdla.i/012210.b/ECD1-B-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.403	3.373-3.433	8.054e+03
	3.568	3.538-3.598	9.874e+03
	3.802	3.772-3.832	1.122e+04
	3.829	3.799-3.859	1.248e+04
	3.967	3.937-3.997	1.210e+04
6 Aroclor-1254	3.403	3.373-3.433	6.435e+03
	3.825	3.795-3.855	1.156e+04
	3.941	3.911-3.971	1.243e+04
	4.217	4.187-4.247	1.688e+04
	4.354	4.324-4.384	1.244e+04
7 Aroclor-1260	4.336	4.306-4.366	1.328e+04
	4.461	4.431-4.491	1.616e+04
	4.727	4.697-4.757	1.250e+04
	4.901	4.871-4.931	1.293e+04
	5.048	5.018-5.078	2.845e+04
8 Aroclor-1262	4.461	4.431-4.491	1.356e+04
	4.727	4.697-4.757	1.889e+04
	4.901	4.871-4.931	1.747e+04
	5.049	5.019-5.079	3.453e+04
	5.262	5.232-5.292	2.487e+04
9 Aroclor-1268	5.260	5.230-5.290	4.358e+04
	5.288	5.258-5.318	4.039e+04
	5.438	5.408-5.468	3.144e+04
	5.602	5.572-5.632	1.427e+04
	5.795	5.765-5.825	8.886e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	2.299	2.269-2.329	2.902e+05
\$ 12 Decachlorobiphenyl	5.947	5.917-5.977	2.440e+05

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36  
 End Cal Date : 22-JAN-2010 09:50  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1a.i/012210.b/ECD1-F-8082-121409.m  
 Cal Date : 25-Jan-2010 13:49 yip00818  
 Curve Type : Average

## Calibration File Names:

Level 1: /chem/ecdl1a.i/012210.b/013f1301.d  
 Level 2: /chem/ecdl1a.i/012210.b/014f1401.d  
 Level 3: /chem/ecdl1a.i/012210.b/015f1501.d  
 Level 4: /chem/ecdl1a.i/121409.b/046f4601.d  
 Level 5: /chem/ecdl1a.i/012210.b/017f1701.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)	17152	15723	14340	13165	11871	14450	14.366
(2)	20222	18880	18157	17319	16420	18200	8.008
(3)	13841	12775	11738	11182	10381	11983	11.310
(4)	8068	7610	7065	6751	6396	7178	9.308
(5)	10742	9730	9060	8692	8073	9259	11.051
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	8031	7459	6765	6313	5679	6849	13.524
(2)	9246	8871	8229	8095	7686	8426	7.427
(3)	6376	6076	5599	5256	4827	5627	11.031
(4)	4642	4328	3905	3655	3384	3983	12.710
(5)	4445	4061	3757	3587	3443	3858	10.378
4 Aroclor-1242(1)	13692	12467	11522	10819	9798	11660	12.846
(2)	14782	14429	13236	12555	12263	13453	8.301
(3)	6076	5890	5423	5191	4949	5506	8.563
(4)	8395	7578	7079	6747	6426	7245	10.645
(5)	7587	7189	6604	6378	6296	6811	8.178
5 Aroclor-1248(1)	9070	8103	7743	7247	7078	7848	10.119
(2)	7785	7181	6827	6444	6114	6870	9.456
(3)	15108	13267	13037	12915	12225	13310	8.094
(4)	12682	11331	10815	10392	9852	11015	9.799
(5)	8605	7806	7405	7124	6336	7455	11.244

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36  
 End Cal Date : 22-JAN-2010 09:50  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1a.i/012210.b/ECD1-F-8082-121409.m  
 Cal Date : 25-Jan-2010 13:49 yip00818  
 Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	14281	12975	12313	11911	10947	12485	9.963
(2)	18803	17181	16666	15949	15010	16722	8.494
(3)	22492	20906	20786	20326	19059	20714	5.957
(4)	16753	15627	15809	15513	14770	15694	4.535
(5)	16595	15169	15433	15075	13591	15172	7.071
7 Aroclor-1260(1)	19893	18582	17373	16964	15783	17719	8.883
(2)	29870	28088	26601	25873	24210	26928	8.011
(3)	18146	16901	15831	15388	14665	16186	8.420
(4)	18726	17599	16558	16161	15497	16908	7.512
(5)	40163	39110	37340	36803	34911	37666	5.434
8 Aroclor-1262(1)	16796	15375	14585	14470	13775	15000	7.687
(2)	22563	20964	19865	19587	18936	20383	6.975
(3)	27641	25661	24522	24605	23554	25197	6.179
(4)	25041	23378	22465	22352	21708	22989	5.624
(5)	49563	47861	46825	46728	44852	47166	3.655
9 Aroclor-1268(1)	56914	55996	53872	52565	52528	54375	3.680
(2)	57500	55307	54092	52376	51697	54194	4.300
(3)	43006	41368	40020	38976	39247	40524	4.120
(4)	19620	18932	18085	17425	17569	18326	5.094
(5)	128350	126812	122798	118830	119599	123278	3.436
10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 4cmx	418599	402993	390421	384479	368225	392944	4.842
12 Decachlorobiphenyl	365576	343871	322200	315067	302545	329852	7.572

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17  
 End Cal Date : 22-JAN-2010 09:50  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1a.i/012210.b/ECD1-B-8082-121409.m  
 Cal Date : 25-Jan-2010 13:49 yip00818  
 Curve Type : Average

## Calibration File Names:

Level 1: /chem/ecdl1a.i/012210.b/013b1301.d  
 Level 2: /chem/ecdl1a.i/012210.b/014b1401.d  
 Level 3: /chem/ecdl1a.i/012210.b/015b1501.d  
 Level 4: /chem/ecdl1a.i/012210.b/022b2201.d  
 Level 5: /chem/ecdl1a.i/012210.b/017b1701.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)	14547	13492	12382	12014	10999	12687	10.796
(2)	10711	9528	8572	8001	7178	8798	15.569
(3)	6657	5897	5299	4960	4582	5479	14.907
(4)	8356	7487	6966	6298	5879	6997	13.980
(5)	7909	7060	6442	5919	5487	6563	14.548
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	7405	6518	5773	5260	4504	5892	19.017
(2)	7294	6687	6058	5769	5299	6222	12.576
(3)	5336	4800	4249	3912	3427	4345	17.180
(4)	3854	3418	3039	2783	2462	3111	17.466
(5)	3940	3492	3102	2870	2562	3193	16.853
4 Aroclor-1242(1)	12348	11309	9989	9755	9542	10589	11.338
(2)	9730	8628	7875	7358	6677	8054	14.627
(3)	7163	6326	5763	5452	5107	5962	13.534
(4)	7183	6468	5900	5548	5185	6057	12.997
(5)	7820	7123	6589	6229	5746	6701	11.977
5 Aroclor-1248(1)	9914	8542	7972	7289	6553	8054	15.880
(2)	11996	10356	9798	9046	8173	9874	14.605
(3)	13306	11756	11119	10365	9555	11220	12.723
(4)	14720	13121	12480	11577	10516	12483	12.732
(5)	14361	12633	11977	11210	10342	12104	12.596

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17  
 End Cal Date : 22-JAN-2010 09:50  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1.i/012210.b/ECD1-B-8082-121409.m  
 Cal Date : 25-Jan-2010 13:49 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)	7857	6938	6317	5878	5185	6435	15.850
(2)	13759	12316	11389	10708	9625	11559	13.615
(3)	14674	13172	12243	11576	10492	12431	12.786
(4)	19102	17554	16808	16165	14771	16880	9.533
(5)	14276	12708	12612	11843	10739	12435	10.425
7 Aroclor-1260(1)	15831	14170	12897	12253	11224	13275	13.436
(2)	18938	17236	15730	15062	13823	16158	12.272
(3)	14824	13336	12121	11559	10656	12499	12.980
(4)	15326	13753	12528	11996	11041	12929	12.837
(5)	32399	30081	27859	27071	24818	28446	10.204
8 Aroclor-1262(1)	15849	14211	13033	12748	11945	13557	11.192
(2)	21776	19630	18382	17939	16725	18890	10.157
(3)	20222	18124	16968	16542	15497	17471	10.323
(4)	38743	35618	34053	33297	30946	34532	8.384
(5)	28740	25266	23755	23937	22633	24866	9.485
9 Aroclor-1268(1)	48327	45655	43354	41349	39206	43578	8.193
(2)	44968	41865	39872	38249	36983	40388	7.790
(3)	35350	32573	30975	29630	28674	31440	8.372
(4)	16410	14977	13894	13214	12876	14274	10.077
(5)	96769	92419	87897	84047	83161	88859	6.460
10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 4cmx	322636	305092	287884	278003	257406	290204	8.621
12 Decachlorobiphenyl	286142	259289	233988	227231	213222	243974	11.841

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.: 10-1304  
 Instrument ID: ECD1A Calibration Date: 01/22/10 Time: 1001  
 Lab File ID: 024F2401 Init. Calib. Date(s): 01/22/10 01/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0908 0950  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14450.346	13420.000	0.01	-7.1	15.0
(2)	18199.756	17572.663	0.01	-3.4	15.0
(3)	11983.312	11183.272	0.01	-6.7	15.0
(4)	7177.742	6767.612	0.01	-5.7	15.0
(5)	9259.441	8690.610	0.01	-6.1	15.0
Aroclor-1260	17718.759	17220.000	0.01	-2.8	15.0
(2)	26928.394	26474.572	0.01	-1.7	15.0
(3)	16186.368	15676.090	0.01	-3.2	15.0
(4)	16907.951	16450.654	0.01	-2.7	15.0
(5)	37665.571	37479.866	0.01	-0.5	15.0
4cmx	392943.52	391418.16	0.01	-0.4	15.0
Decachlorobiphenyl	329851.94	322295.41	0.01	-2.3	15.0

FORM VII PEST



FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1304  
 Instrument ID: ECD1A Calibration Date: 01/22/10 Time: 1001  
 Lab File ID: 024B2401 Init. Calib. Date(s): 01/22/10 01/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0908 0950  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Aroclor-1016	12686.880	12160.000	0.01	-4.2	15.0
(2)	8798.138	8042.569	0.01	-8.6	15.0
(3)	5479.218	4985.923	0.01	-9.0	15.0
(4)	6997.244	6316.927	0.01	-9.7	15.0
(5)	6563.494	5936.669	0.01	-9.6	15.0
Aroclor-1260	13275.098	12550.000	0.01	-5.5	15.0
(2)	16157.966	15408.233	0.01	-4.6	15.0
(3)	12499.207	11753.882	0.01	-6.0	15.0
(4)	12928.717	12209.834	0.01	-5.6	15.0
(5)	28445.628	27606.323	0.01	-3.0	15.0
=====	=====	=====	=====	=====	=====
4cmx	290204.15	282542.72	0.01	-2.6	15.0
Decachlorobiphenyl	243974.44	232138.13	0.01	-4.8	15.0
=====	=====	=====	=====	=====	=====

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1304  
 Instrument ID: ECD1A Calibration Date: 01/22/10 Time: 1310  
 Lab File ID: 041F4101 Init. Calib. Date(s): 01/22/10 01/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0908 0950  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Aroclor-1016	14450.346	13501.572	0.01	-6.6	15.0
(2)	18199.756	17773.752	0.01	-2.3	15.0
(3)	11983.312	11586.695	0.01	-3.3	15.0
(4)	7177.742	6957.916	0.01	-3.1	15.0
(5)	9259.441	8740.415	0.01	-5.6	15.0
Aroclor-1260	17718.759	16982.070	0.01	-4.2	15.0
(2)	26928.394	25515.240	0.01	-5.2	15.0
(3)	16186.368	15422.643	0.01	-4.7	15.0
(4)	16907.951	15634.190	0.01	-7.5	15.0
(5)	37665.571	36172.856	0.01	-4.0	15.0
=====	=====	=====	=====	=====	=====
4cmx	392943.52	406293.59	0.01	3.4	15.0
Decachlorobiphenyl	329851.94	266950.32	0.01	-19.1	15.0 <-

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1304  
 Instrument ID: ECD1A Calibration Date: 01/22/10 Time: 1310  
 Lab File ID: 041B4101 Init. Calib. Date(s): 01/22/10 01/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0908 0950  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12686.880	12101.121	0.01	-4.6	15.0
(2)	8798.138	8017.714	0.01	-8.9	15.0
(3)	5479.218	5008.292	0.01	-8.6	15.0
(4)	6997.244	6416.766	0.01	-8.3	15.0
(5)	6563.494	5943.051	0.01	-9.4	15.0
Aroclor-1260	13275.098	11615.754	0.01	-12.5	15.0
(2)	16157.966	14604.660	0.01	-9.6	15.0
(3)	12499.207	10888.842	0.01	-12.9	15.0
(4)	12928.717	11184.302	0.01	-13.5	15.0
(5)	28445.628	25032.235	0.01	-12.0	15.0
4cmx	290204.15	283834.55	0.01	-2.2	15.0
Decachlorobiphenyl	243974.44	201663.95	0.01	-17.3	15.0

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FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1304  
 Instrument ID: ECD1A Calibration Date: 01/22/10 Time: 1532  
 Lab File ID: 053F5301 Init. Calib. Date(s): 01/22/10 01/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0908 0950  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14450.346	13362.571	0.01	-7.5	15.0
(2)	18199.756	17241.552	0.01	-5.3	15.0
(3)	11983.312	11480.294	0.01	-4.2	15.0
(4)	7177.742	6920.061	0.01	-3.6	15.0
(5)	9259.441	8799.758	0.01	-5.0	15.0
Aroclor-1260	17718.759	17442.394	0.01	-1.6	15.0
(2)	26928.394	25272.275	0.01	-6.2	15.0
(3)	16186.368	15660.231	0.01	-3.2	15.0
(4)	16907.951	16440.042	0.01	-2.8	15.0
(5)	37665.571	38025.554	0.01	1.0	15.0
4cmx	392943.52	400960.69	0.01	2.0	15.0
Decachlorobiphenyl	329851.94	236061.66	0.01	-28.4	15.0

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FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1304  
 Instrument ID: ECD1A Calibration Date: 01/22/10 Time: 1532  
 Lab File ID: 053B5301 Init. Calib. Date(s): 01/22/10 01/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0908 0950  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Aroclor-1016	12686.880	12373.583	0.01	-2.5	15.0
(2)	8798.138	8068.647	0.01	-8.3	15.0
(3)	5479.218	5003.682	0.01	-8.7	15.0
(4)	6997.244	6312.529	0.01	-9.8	15.0
(5)	6563.494	5908.539	0.01	-10.0	15.0
Aroclor-1260	13275.098	12006.645	0.01	-9.6	15.0
(2)	16157.966	15090.452	0.01	-6.6	15.0
(3)	12499.207	11433.839	0.01	-8.5	15.0
(4)	12928.717	11719.761	0.01	-9.4	15.0
(5)	28445.628	26217.967	0.01	-7.8	15.0
=====	=====	=====	=====	=====	=====
4cmx	290204.15	286186.57	0.01	-1.4	15.0
Decachlorobiphenyl	243974.44	203414.98	0.01	-16.6	15.0

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FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1304  
 Instrument ID: ECD1A Calibration Date: 01/22/10 Time: 1803  
 Lab File ID: 065F6501 Init. Calib. Date(s): 01/22/10 01/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0908 0950  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14450.346	13422.083	0.01	-7.1	15.0
(2)	18199.756	17824.847	0.01	-2.0	15.0
(3)	11983.312	11540.991	0.01	-3.7	15.0
(4)	7177.742	6939.889	0.01	-3.3	15.0
(5)	9259.441	8814.664	0.01	-4.8	15.0
Aroclor-1260	17718.759	17802.673	0.01	0.5	15.0
(2)	26928.394	27224.347	0.01	1.1	15.0
(3)	16186.368	16263.101	0.01	0.5	15.0
(4)	16907.951	17007.552	0.01	0.6	15.0
(5)	37665.571	38906.081	0.01	3.3	15.0
4cmx	392943.52	403098.25	0.01	2.6	15.0
Decachlorobiphenyl	329851.94	327708.15	0.01	-0.6	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.: 10-1304  
 Instrument ID: ECD1A Calibration Date: 01/22/10 Time: 1803  
 Lab File ID: 065B6501 Init. Calib. Date(s): 01/22/10 01/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0908 0950  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12686.880	12682.664	0.01	-0.0	15.0
(2)	8798.138	8253.065	0.01	-6.2	15.0
(3)	5479.218	5129.364	0.01	-6.4	15.0
(4)	6997.244	6459.361	0.01	-7.7	15.0
(5)	6563.494	6055.132	0.01	-7.7	15.0
Aroclor-1260	13275.098	12316.980	0.01	-7.2	15.0
(2)	16157.966	15404.880	0.01	-4.7	15.0
(3)	12499.207	11781.771	0.01	-5.7	15.0
(4)	12928.717	12165.182	0.01	-5.9	15.0
(5)	28445.628	27262.586	0.01	-4.2	15.0
4cmx	290204.15	288691.65	0.01	-0.5	15.0
Decachlorobiphenyl	243974.44	165954.36	0.01	-32.0	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.: 10-1304  
 Instrument ID: ECD1A Calibration Date: 01/22/10 Time: 1932  
 Lab File ID: 072F7201 Init. Calib. Date(s): 01/22/10 01/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0908 0950  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14450.346	13362.241	0.01	-7.5	15.0
(2)	18199.756	17710.882	0.01	-2.7	15.0
(3)	11983.312	11479.428	0.01	-4.2	15.0
(4)	7177.742	6929.826	0.01	-3.4	15.0
(5)	9259.441	8839.454	0.01	-4.5	15.0
Aroclor-1260	17718.759	17781.257	0.01	0.4	15.0
(2)	26928.394	27166.151	0.01	0.9	15.0
(3)	16186.368	16223.230	0.01	0.2	15.0
(4)	16907.951	16977.708	0.01	0.4	15.0
(5)	37665.571	38840.356	0.01	3.1	15.0
4cmx	392943.52	400176.80	0.01	1.8	15.0
Decachlorobiphenyl	329851.94	323855.46	0.01	-1.8	15.0

FORM VII PEST



FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1304  
 Instrument ID: ECD1A Calibration Date: 01/22/10 Time: 1932  
 Lab File ID: 072B7201 Init. Calib. Date(s): 01/22/10 01/22/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 0908 0950  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Aroclor-1016	12686.880	12502.844	0.01	-1.4	15.0
(2)	8798.138	8200.377	0.01	-6.8	15.0
(3)	5479.218	5096.774	0.01	-7.0	15.0
(4)	6997.244	6425.112	0.01	-8.2	15.0
(5)	6563.494	6066.096	0.01	-7.6	15.0
Aroclor-1260	13275.098	12778.668	0.01	-3.7	15.0
(2)	16157.966	15722.500	0.01	-2.7	15.0
(3)	12499.207	12057.799	0.01	-3.5	15.0
(4)	12928.717	12495.065	0.01	-3.4	15.0
(5)	28445.628	28356.561	0.01	-0.3	15.0
=====	=====	=====	=====	=====	=====
4cmx	290204.15	289088.07	0.01	-0.4	15.0
Decachlorobiphenyl	243974.44	219061.58	0.01	-10.2	15.0

FORM VII PEST

Data File: /chem/ecdl1a.i/012210.b/003f0301.d  
Report Date: 22-Jan-2010 10:49

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/003f0301.d

Lab Smp Id: WAR091216-54

Client Smp ID: AR125401

Inj Date : 22-JAN-2010 06:16

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR091216-54

Misc Info :

Comment :

Method : /chem/ecdl1a.i/012210.b/ECD1-F-8082-121409.m

Meth Date : 22-Jan-2010 10:49 yip00818 Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017f1701.d

Als bottle: 3

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1254.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: kilroy

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
----	--------	--------	-----------------------------	-------------------	--------------	-------

6 Aroclor-1254

CAS #: 11097-69-1

3.270	3.270	0.000	12685738 1000.00	1020	80.00- 120.00	100.00
3.425	3.425	0.000	17374914 1000.00	1040	116.96- 156.96	136.96
3.659	3.659	0.000	22847469 1000.00	1100	160.10- 200.10	180.10
3.821	3.821	0.000	17424694 1000.00	1110	117.36- 157.36	137.36
3.931	3.931	0.000	16498579 1000.00	1090	110.06- 150.06	130.06

Average of Peak Amounts = 1.07e+03

Data File: /chem/eod1a.i/012210.b/003f0301.d

Date: 22-JAN-2010 06:16

Client ID: AR125401

Sample Info: 1MAR091216-54

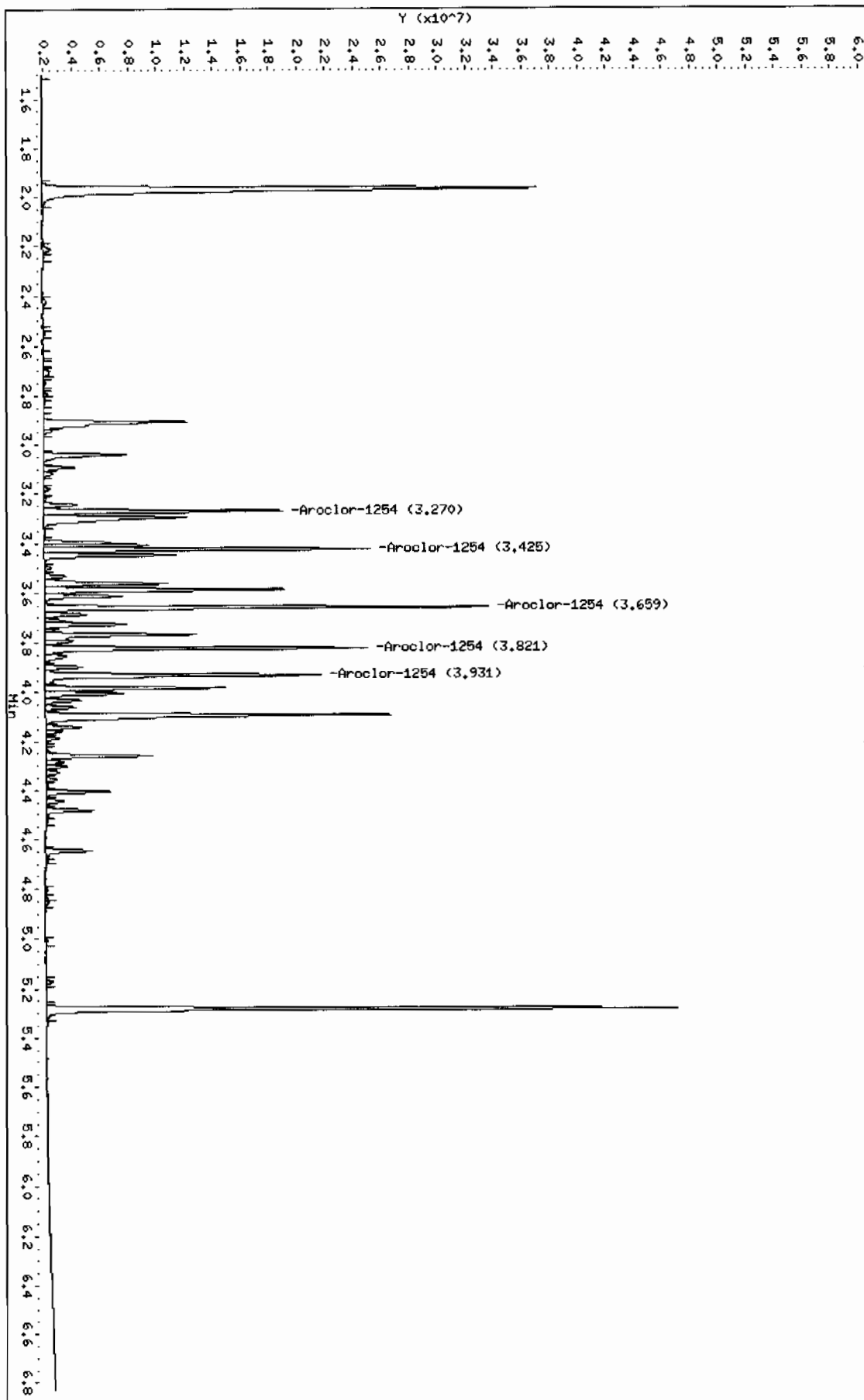
Column phase: CLP1

Instrument: eod1a.i

Operator: YSI

Column diameter: 0.25

/chem/eod1a.i/012210.b/003f0301.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/012210.b/003b0301.d  
 Lab Smp Id: WAR091216-54 Client Smp ID: AR125401  
 Inj Date : 22-JAN-2010 06:16  
 Operator : YS1 Inst ID: ecd1a.i  
 Smp Info : |WAR091216-54  
 Misc Info :  
 Comment :  
 Method : /chem/ecd1a.i/012210.b/ECD1-B-8082-121409.m  
 Meth Date : 22-Jan-2010 10:49 yip00818 Quant Type: ESTD  
 Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d  
 Als bottle: 3 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: AR1254.sub  
 Target Version: 3.50 Sample Matrix: None  
 Processing Host: kilroy

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	CAL-AMT ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
6							
Aroclor-1254				CAS #: 11097-69-1			
3.406	3.403	0.003	5974221	1000.00	928	80.00- 120.00	100.00
3.828	3.825	0.003	10523195	1000.00	910	156.14- 196.14	176.14
3.945	3.941	0.004	11951498	1000.00	961	180.05- 220.05	200.05
4.221	4.217	0.004	16776207	1000.00	994	260.81- 300.81	280.81
4.357	4.354	0.003	12578249	1000.00	1010	190.54- 230.54	210.54
Average of Peak Amounts =				961			

Data File: /chem/ecdda.i/012210.b/00300301.d

Date : 22-JAN-2010 06:16

Client ID: AR125401

Sample Info: 114R091216-54

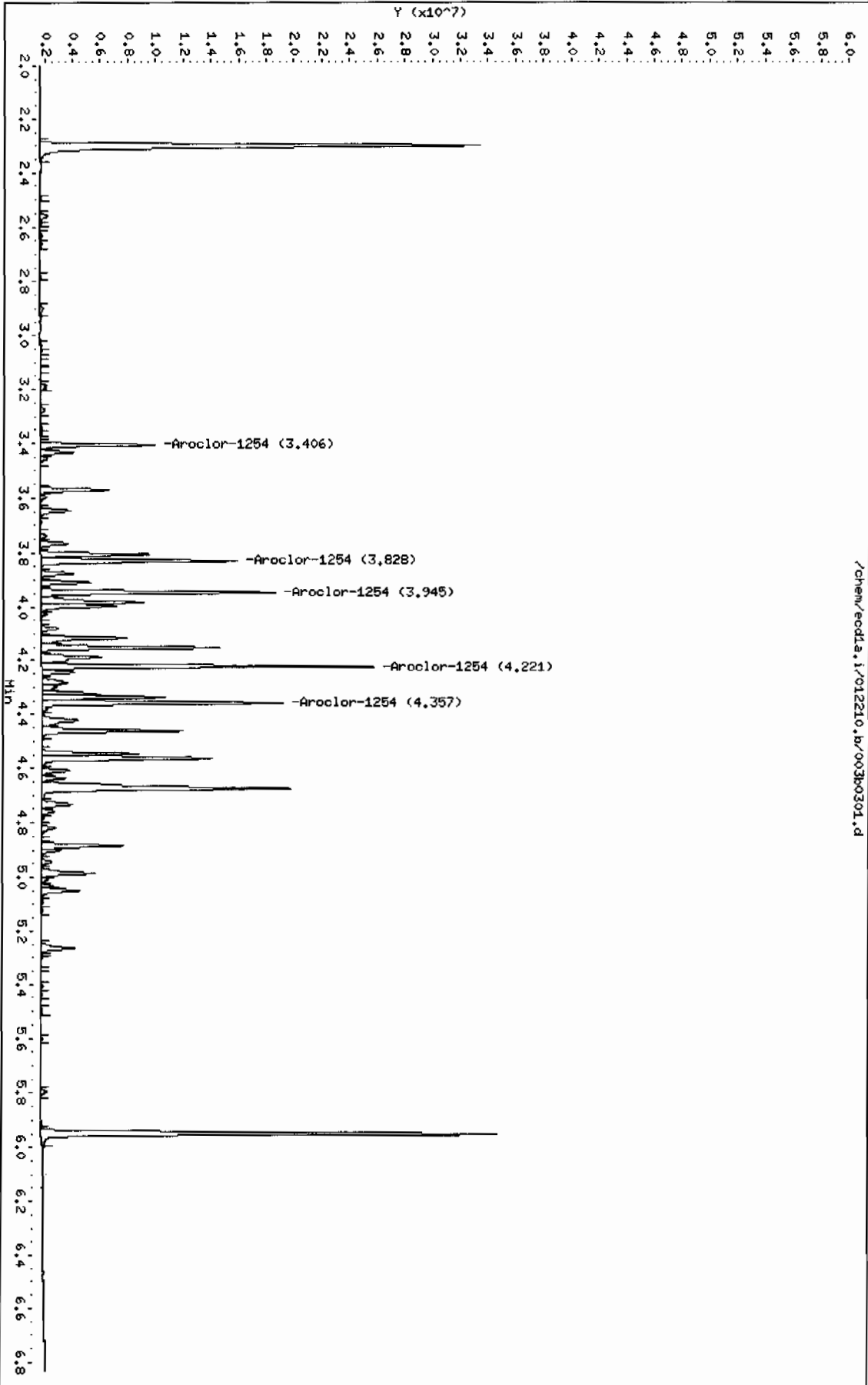
Page 1

Instrument: ecdda.i

Column phase: CLP2

Operator: YSL

Column diameter: 0.25



Data File: /chem/ecdl1a.i/012210.b/004f0401.d  
Report Date: 22-Jan-2010 10:49

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/004f0401.d

Lab Smp Id: WAR091217-42

Client Smp ID: AR124201

Inj Date : 22-JAN-2010 06:27

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR091217-42

Misc Info :

Comment :

Method : /chem/ecdl1a.i/012210.b/ECD1-F-8082-121409.m

Meth Date : 22-Jan-2010 10:49 yip00818

Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017f1701.d

Als bottle: 4

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1242.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: kilroy

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
----	--------	--------	-----------------------------	-------------------	--------------	-------

4 Aroclor-1242

CAS #: 53469-21-9

2.423	2.423	0.000	11171076 1000.00	958	80.00- 120.00	100.00
2.711	2.711	0.000	14288314 1000.00	1060	107.90- 147.90	127.90
2.830	2.830	0.000	5607766 1000.00	1020	30.20- 70.20	50.20
3.040	3.040	0.000	7233165 1000.00	998	44.75- 84.75	64.75
3.294	3.294	0.000	7331777 1000.00	1080	45.63- 85.63	65.63

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecdda.i/012210.b/004f0401.d

Date: 22-JUN-2010 06:27

Client ID: AR124201

Sample Info: 148091217-42

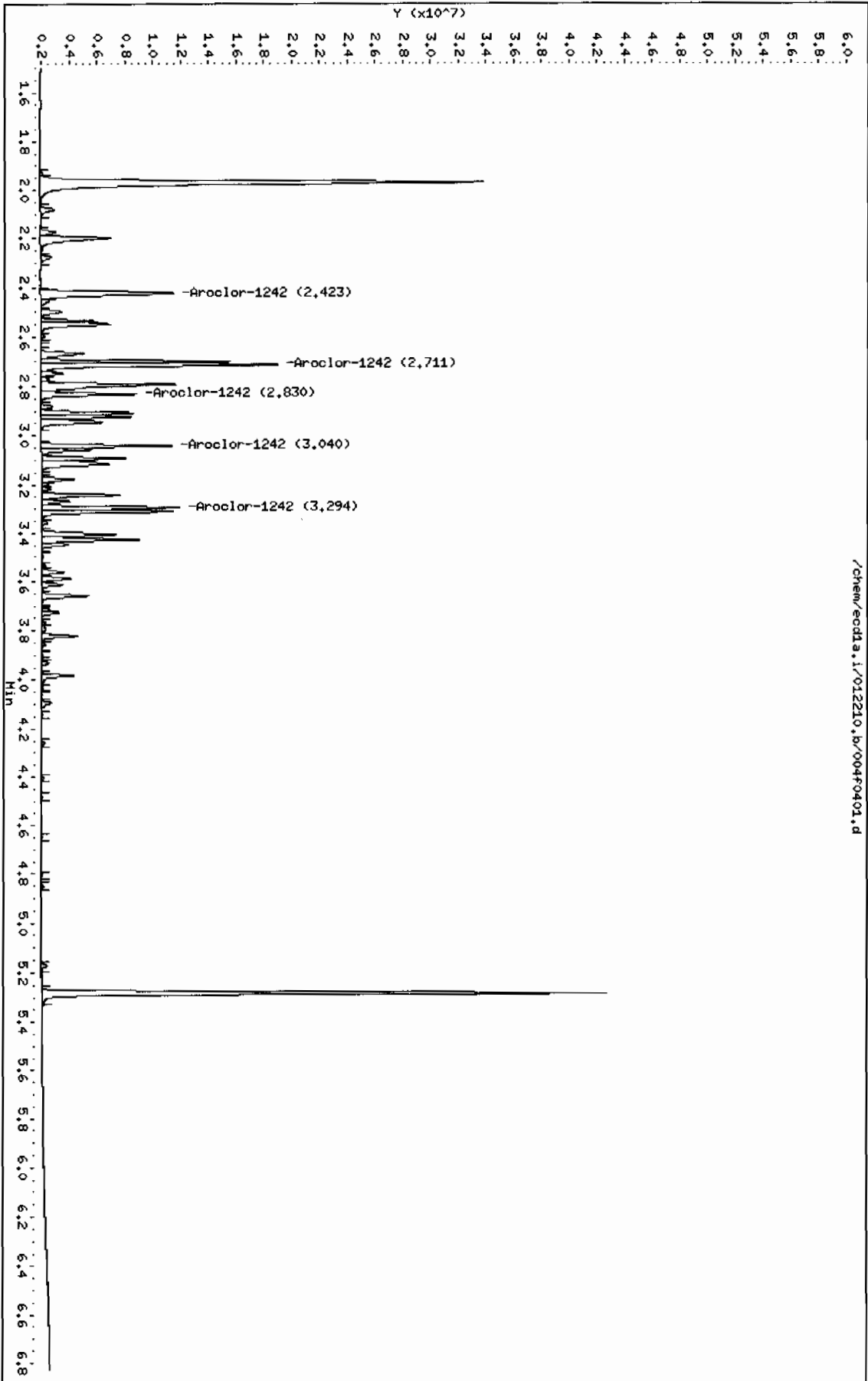
Column phase: CLP1

Instrument: ecdda.i

Operator: YSL

Column diameter: 0.25

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Data File: /chem/ecdla.i/012210.b/004b0401.d  
 Report Date: 22-Jan-2010 10:49

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/012210.b/004b0401.d  
 Lab Smp Id: WAR091217-42 Client Smp ID: AR124201  
 Inj Date : 22-JAN-2010 06:27  
 Operator : YSl Inst ID: ecdla.i  
 Smp Info : |WAR091217-42  
 Misc Info :  
 Comment :  
 Method : /chem/ecdla.i/012210.b/ECD1-B-8082-121409.m  
 Meth Date : 22-Jan-2010 10:49 yip00818 Quant Type: ESTD  
 Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d  
 Als bottle: 4 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: AR1242.sub  
 Target Version: 3.50 Sample Matrix: None  
 Processing Host: kilroy

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242 CAS #: 53469-21-9						
3.197	3.195	0.002	10142729 1000.00	958	80.00- 120.00	100.00
3.279	3.278	0.001	6820957 1000.00	847	47.25- 87.25	67.25
3.571	3.568	0.003	5573742 1000.00	935	34.95- 74.95	54.95
3.804	3.802	0.002	5738851 1000.00	948	36.58- 76.58	56.58
3.833	3.830	0.003	6388482 1000.00	953	42.99- 82.99	62.99
Average of Peak Amounts =				928		



Data File: /chem/ecdl1.i/012210.b/004b0401.d

Date: 22-JAN-2010 06:27

Client ID: AR124201

Sample Info: 14MR091217-42

Column phase: CLP2

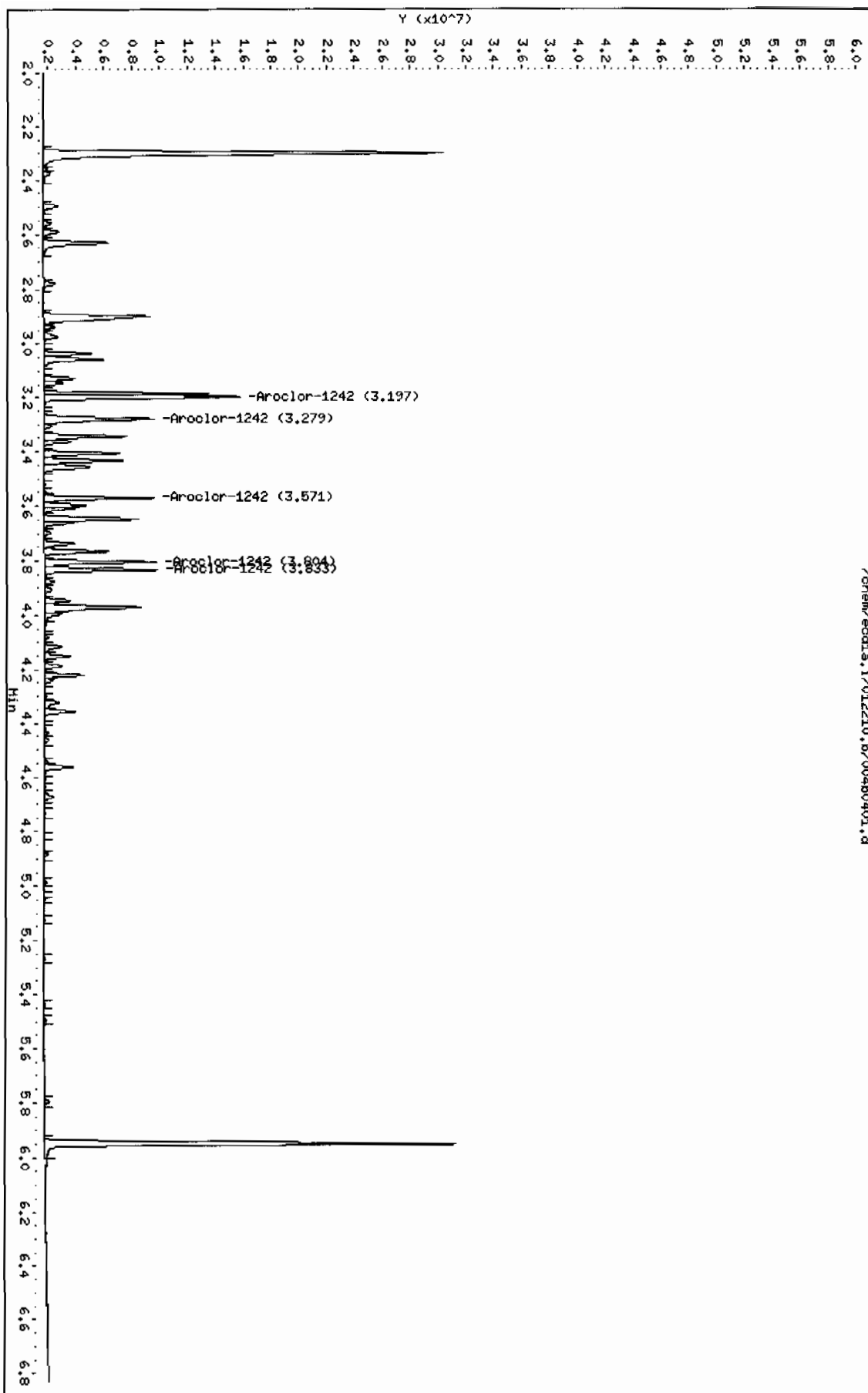
Page 1

Instrument: ecdl1.i

Operator: YSI

Column diameter: 0.25

/chem/ecdl1.i/012210.b/004b0401.d



Data File: /chem/ecdla.i/012210.b/005f0501.d  
Report Date: 22-Jan-2010 10:49

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/012210.b/005f0501.d  
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801  
Inj Date : 22-JAN-2010 06:37  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR091217-48  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/012210.b/ECD1-F-8082-121409.m  
Meth Date : 22-Jan-2010 10:49 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d  
Als bottle: 5 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1248.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: kilroy

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	CAL-AMT ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
3.091	3.091	0.000	8157286	1000.00	1040	80.00- 120.00	100.00
3.242	3.242	0.000	7109584	1000.00	1030	67.16- 107.16	87.16
3.294	3.294	0.000	13970810	1000.00	1050	151.27- 191.27	171.27
3.426	3.426	0.000	11186428	1000.00	1020	117.13- 157.13	137.13
3.658	3.658	0.000	7129388	1000.00	956	67.40- 107.40	87.40

Average of Peak Amounts = 1.02e+03

Data File: /chem/eodla.i/012210.b/005f0501.d

Date: 22-JAN-2010 06:37

Client ID: AR124801

Sample Info: IMAR091217-48

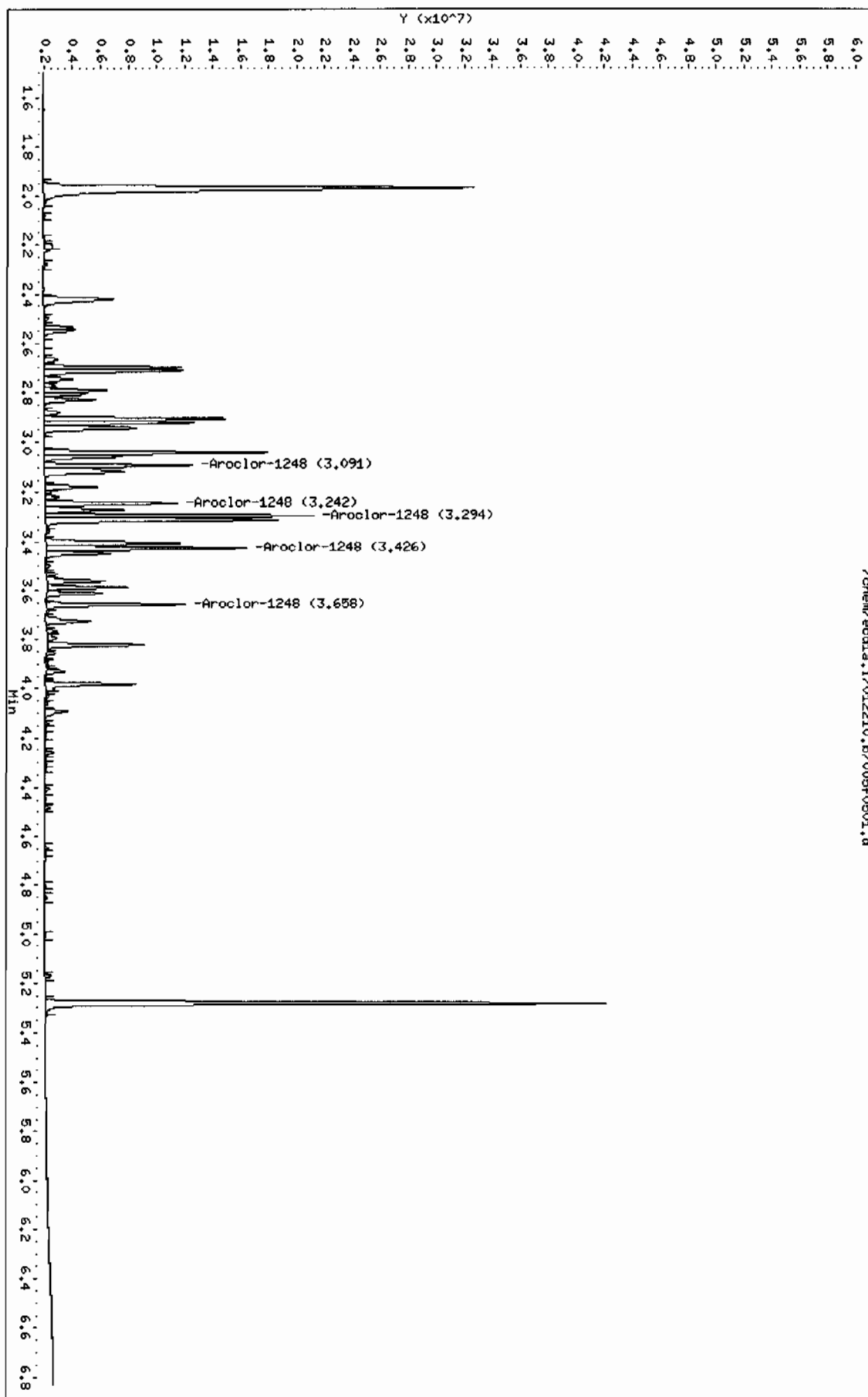
Column phase: CLP1

Instrument: eodla.i

Operator: YSL

Column diameter: 0.25

/chem/eodla.i/012210.b/005f0501.d



Data File: /chem/ecdla.i/012210.b/005b0501.d  
Report Date: 22-Jan-2010 10:49

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/012210.b/005b0501.d  
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801  
Inj Date : 22-JAN-2010 06:37  
Operator : YSl Inst ID: ecdla.i  
Smp Info : |WAR091217-48  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/012210.b/ECD1-B-8082-121409.m  
Meth Date : 22-Jan-2010 10:49 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d  
Als bottle: 5 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1248.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: kilroy

AMOUNTS

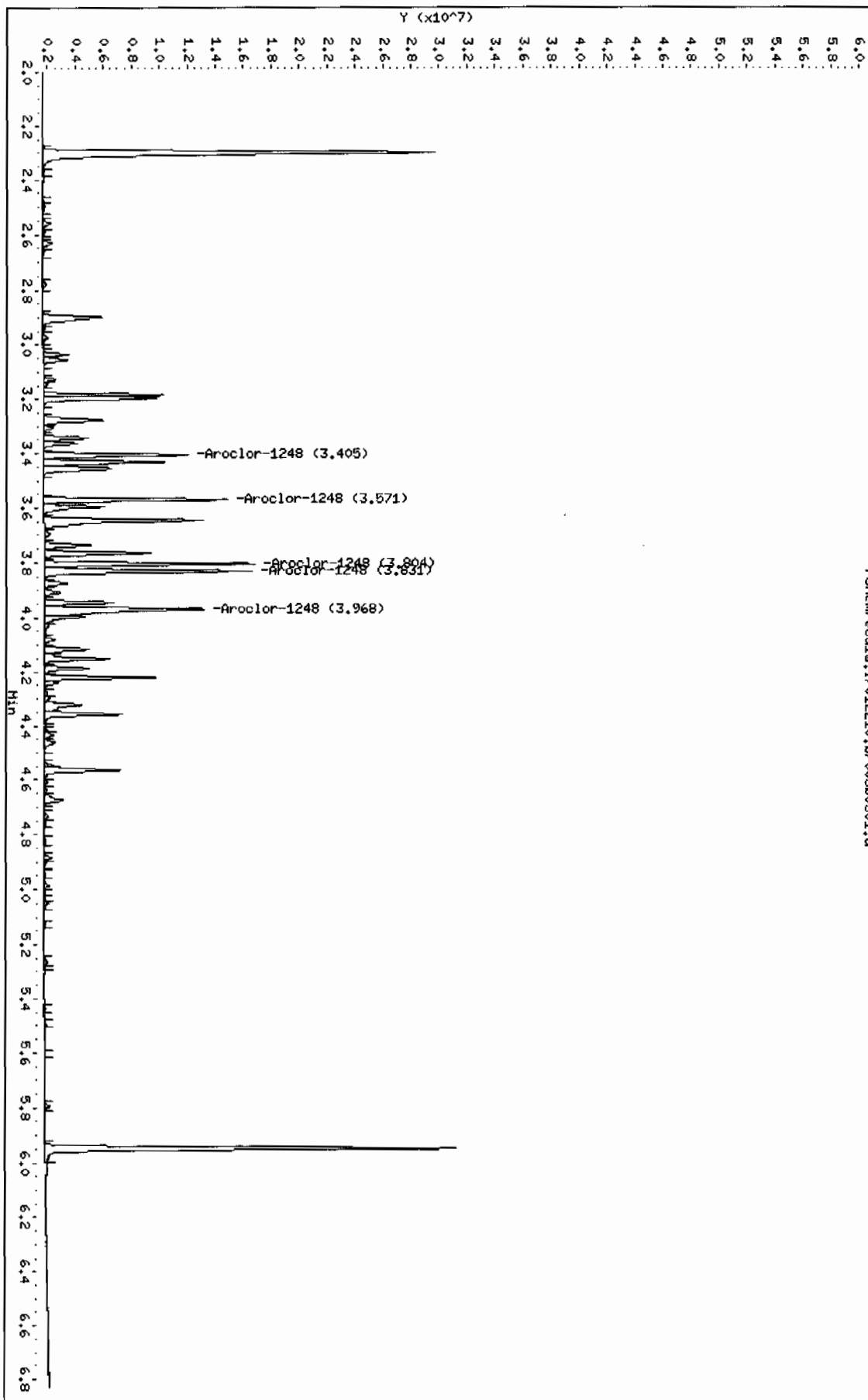
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	CAL-AMT ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248						CAS #: 12672-29-6	
3.405	3.403	0.002	7361014	1000.00	914	80.00- 120.00	100.00
3.571	3.568	0.003	9218661	1000.00	934	105.24- 145.24	125.24
3.804	3.802	0.002	10611367	1000.00	946	124.16- 164.16	144.16
3.831	3.829	0.002	11780822	1000.00	944	140.04- 180.04	160.04
3.968	3.967	0.001	11368244	1000.00	939	134.44- 174.44	154.44
Average of Peak Amounts					935		

Data File: /chem/ecda.i/012210.b/005b0501.d  
Date : 22-JAN-2010 06:37  
Client ID: AR124801  
Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecda.i  
Operator: YSA  
Column diameter: 0.25

/chem/ecda.i/012210.b/005b0501.d



Data File: /chem/ecd1a.i/012210.b/011f1101.d  
Report Date: 22-Jan-2010 10:51

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/012210.b/011f1101.d  
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201  
Inj Date : 22-JAN-2010 07:40  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100104-32  
Misc Info :  
Comment :  
Method : /chem/ecd1a.i/012210.b/ECD1-F-8082-121409.m  
Meth Date : 22-Jan-2010 10:50 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d  
Als bottle: 11 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1232.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: kilroy

AMOUNTS

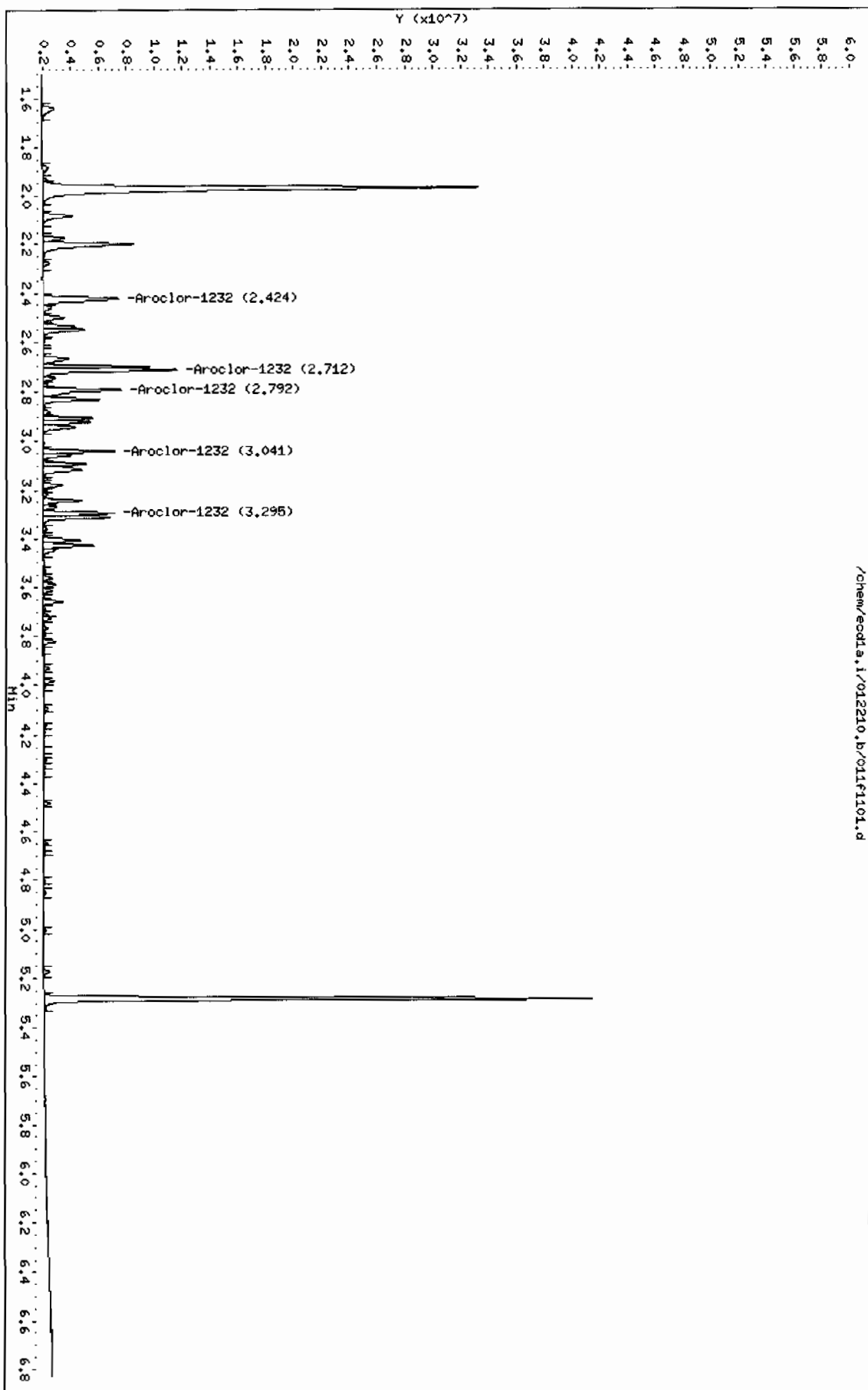
RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
3 Aroclor-1232			CAS #: 11141-16-5			
2.424	2.424	0.000	6334414 1000.00	925	80.00- 120.00	100.00
2.712	2.712	0.000	8223516 1000.00	976	109.82- 149.82	129.82
2.792	2.792	0.000	5405597 1000.00	961	65.34- 105.34	85.34
3.041	3.041	0.000	3973758 1000.00	998	42.73- 82.73	62.73
3.295	3.295	0.000	3761296 1000.00	975	39.38- 79.38	59.38
Average of Peak Amounts =			967			

Data File: /chem/eod1a.i/012210.b/011f1101.d  
Date : 22-JAN-2010 07:40  
Client ID: AR123201  
Sample Info: 14AR100104-32

Column phase: CLP1

Instrument: eod1a.i  
Operator: YS1  
Column diameter: 0.25

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Data File: /chem/ecdl1a.i/012210.b/011b1101.d  
Report Date: 22-Jan-2010 10:50

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/011b1101.d

Lab Smp Id: WAR100104-32

Client Smp ID: AR123201

Inj Date : 22-JAN-2010 07:40

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100104-32

Misc Info :

Comment :

Method : /chem/ecdl1a.i/012210.b/ECD1-B-8082-121409.m

Meth Date : 22-Jan-2010 10:50 yip00818

Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017b1701.d

Als bottle: 11

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1232.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: kilroy

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.899	2.899	0.000	5239418 1000.00	889	80.00- 120.00	100.00
3.197	3.197	0.000	5831838 1000.00	937	91.31- 131.31	111.31
3.280	3.280	0.000	4009044 1000.00	923	56.52- 96.52	76.52
3.570	3.570	0.000	2988352 1000.00	960	37.04- 77.04	57.04
3.805	3.805	0.000	2982139 1000.00	934	36.92- 76.92	56.92
Average of Peak Amounts =				929		



Data File: /chem/ecod1a.i/012210.b/011b1101.d

Date : 22-JAN-2010 07:40

Client ID: AR123201

Sample Info: 1MAR100104-32

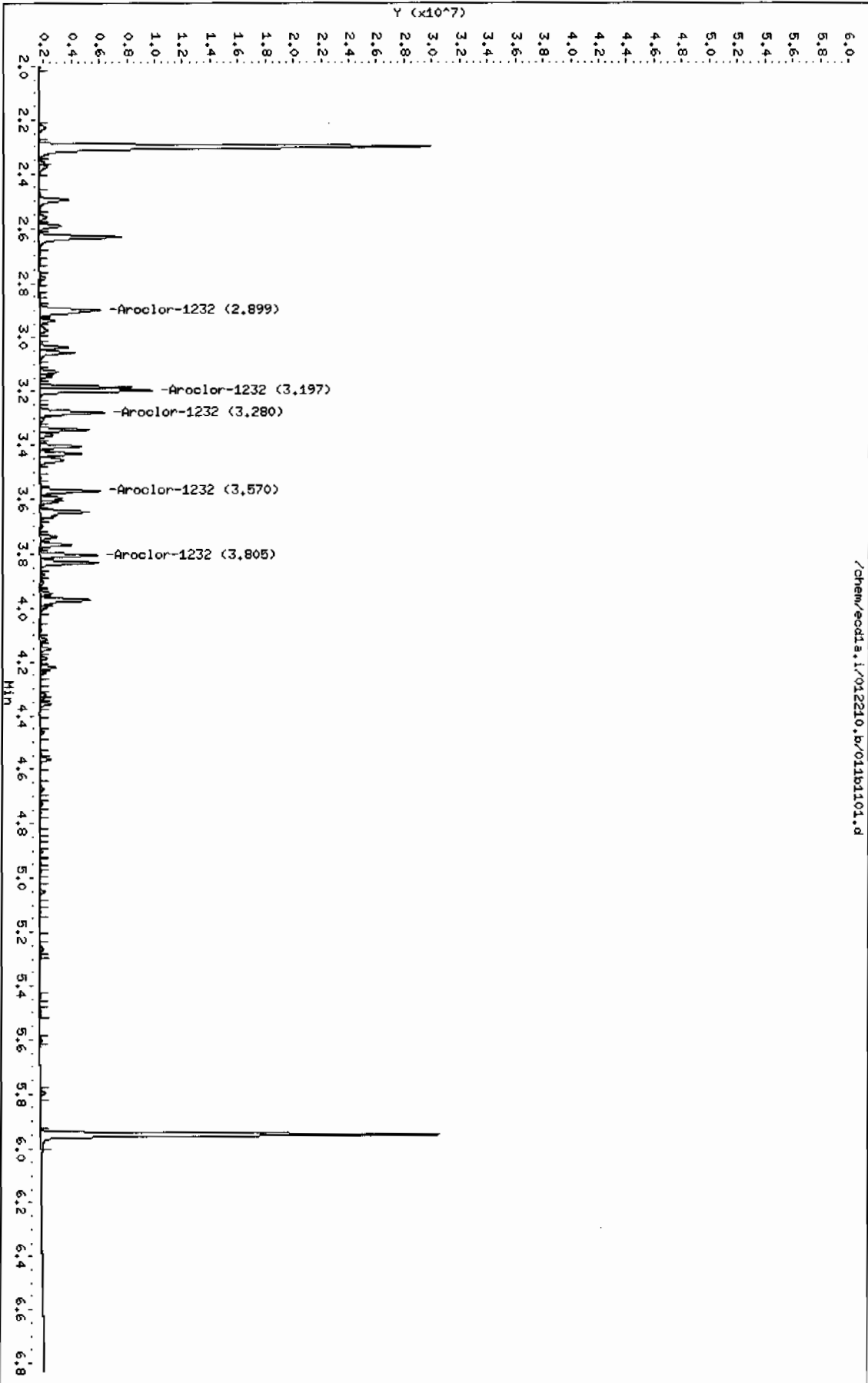
Column phase: CLP2

Instrument: ecod1a.i

Operator: YSA

Column diameter: 0.25

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Data File: /chem/ecdl1a.i/012210.b/012f1201.d  
Report Date: 22-Jan-2010 10:51

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/012f1201.d

Lab Smp Id: WAR100104-21

Client Smp ID: AR122101

Inj Date : 22-JAN-2010 07:51

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100104-21

Misc Info :

Comment :

Method : /chem/ecdl1a.i/012210.b/ECD1-F-8082-121409.m

Meth Date : 22-Jan-2010 10:51 yip00818

Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017f1701.d

Als bottle: 12

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1221.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: kilroy

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
----	--------	--------	------------------	---------	--------------	-------

2 Aroclor-1221

CAS #: 11104-28-2

2.081	2.081	0.000	4419201 1000.00	1030	80.00- 120.00	100.00
2.174	2.174	0.000	2486703 1000.00	1020	36.27- 76.27	56.27
2.200	2.200	0.000	10567195 1000.00	1030	219.12- 259.12	239.12

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecdl1a.i/012210.b/012f1201.d  
Date: 22-JAN-2010 07:51  
Client ID: AR122101  
Sample Info: 1MAR100104-21

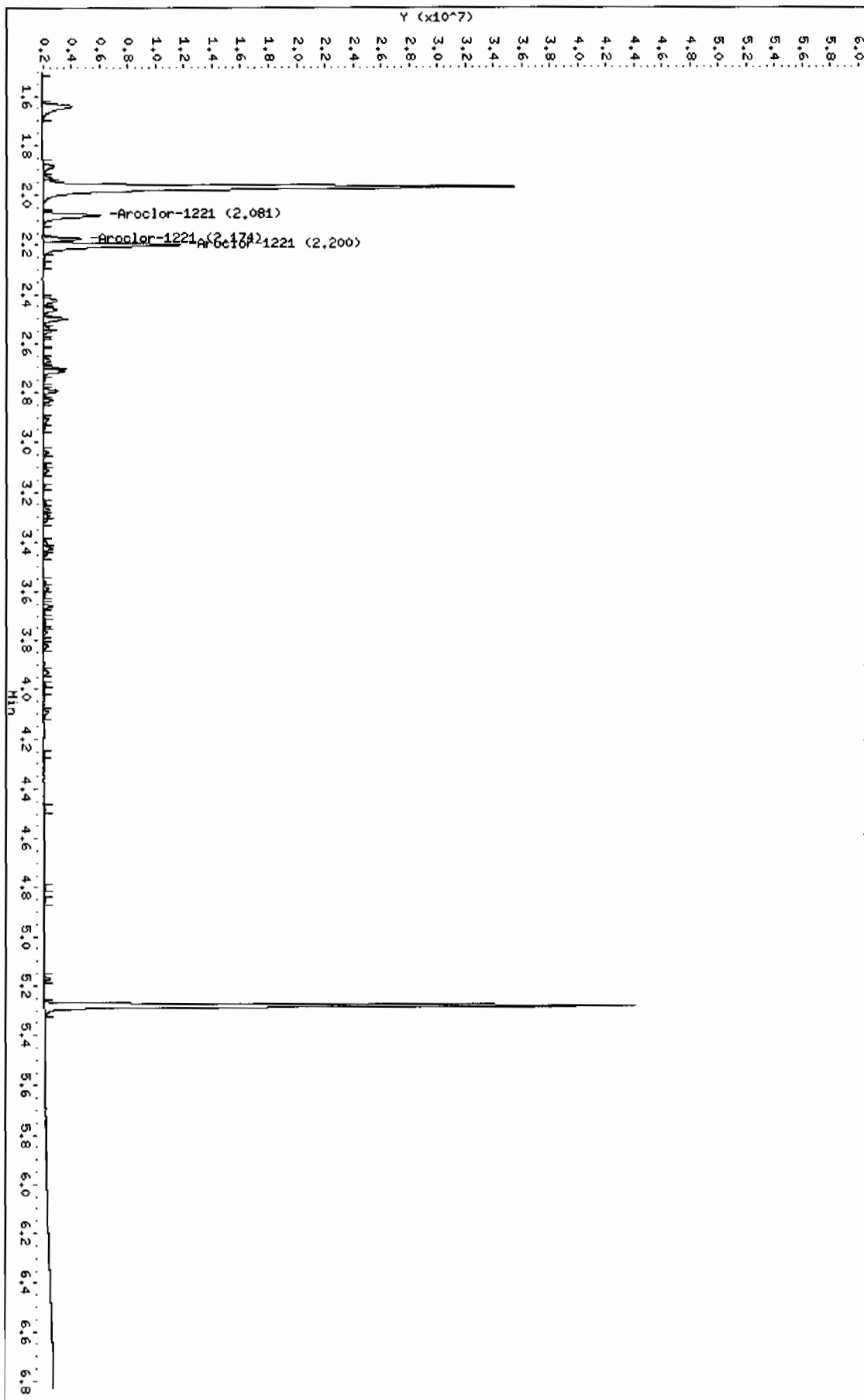
Instrument: ecdl1a.i

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Column Phase: CLP1

Operator: YS1  
Column diameter: 0.25

/chem/ecdl1a.i/012210.b/012f1201.d



Data File: /chem/ecdla.i/012210.b/012b1201.d  
Report Date: 22-Jan-2010 10:51

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/012210.b/012b1201.d  
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101  
Inj Date : 22-JAN-2010 07:51  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR100104-21  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/012210.b/ECD1-B-8082-121409.m  
Meth Date : 22-Jan-2010 10:51 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d  
Als bottle: 12 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1221.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: kilroy

AMOUNTS

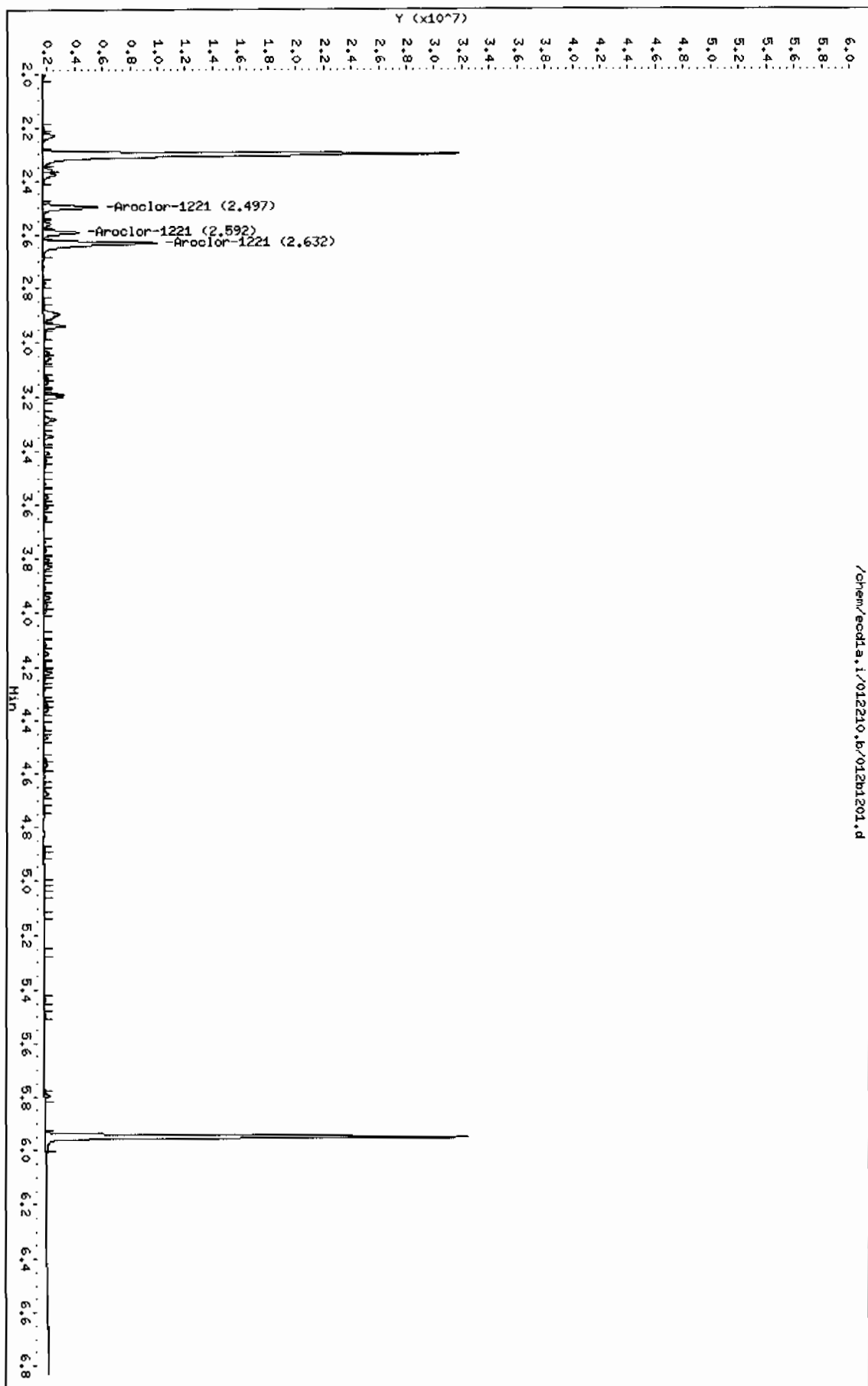
RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
2 Aroclor-1221			CAS #: 11104-28-2			
2.497	2.497	0.000	3461803 1000.00	951	80.00- 120.00	100.00
2.592	2.592	0.000	2226509 1000.00	956	44.32- 84.32	64.32
2.632	2.632	0.000	7714702 1000.00	950	202.85- 242.85	222.85
Average of Peak Amounts =				952		

Data File: /chem/eod1a.i/012210.b/012b1201.d  
Date: 22-JUN-2010 07:31  
Client ID: AR122101  
Sample Info: WAF100104-21

Column phase: CLP2

Instrument: eod1a.i  
Operator: YSI  
Column diameter: 0.25

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Data File: /chem/ecdla.i/012210.b/024f2401.d  
 Report Date: 22-Jan-2010 11:03

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/012210.b/024f2401.d

Lab Smp Id: WAR100104-60 01

Client Smp ID: AR166001

Inj Date : 22-JAN-2010 10:01

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR100104-60 01

Misc Info :

Comment :

Method : /chem/ecdla.i/012210.b/ECD1-F-8082-121409.m

Meth Date : 22-Jan-2010 11:00 yip00818 Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017f1701.d

Als bottle: 24

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: kilroy

AMOUNTS						
RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx						
				CAS #: 877-09-8		
1.967	1.967	0.000	39141816 100.000	99.6	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl						
				CAS #: 2051-24-3		
5.281	5.281	0.000	32229541 100.000	97.7	80.00- 120.00	100.00
-----						
1 Aroclor-1016						
				CAS #: 12674-11-2		
2.422	2.422	0.000	13423961 1000.00	929	80.00- 120.00	100.00
2.711	2.711	0.000	17572663 1000.00	966	118.32- 158.32	130.91
2.792	2.792	0.000	11183272 1000.00	933	67.45- 107.45	83.31
2.830	2.830	0.000	6767612 1000.00	943	33.88- 73.88	50.41
3.041	3.041	0.000	8690610 1000.00	938	48.01- 88.01	64.74
Average of Peak Amounts				942		
-----						
7 Aroclor-1260						
				CAS #: 11096-82-5		
3.766	3.766	0.000	17216636 1000.00	972	80.00- 120.00	100.00 (M)
3.929	3.929	0.000	26474572 1000.00	983	133.39- 173.39	153.77
4.159	4.159	0.000	15676090 1000.00	968	72.92- 112.92	91.05
4.302	4.302	0.000	16450654 1000.00	973	78.19- 118.19	95.55
4.481	4.481	0.000	37479866 1000.00	995	201.20- 241.20	217.70
Average of Peak Amounts =				978		
-----						

QC Flag Legend

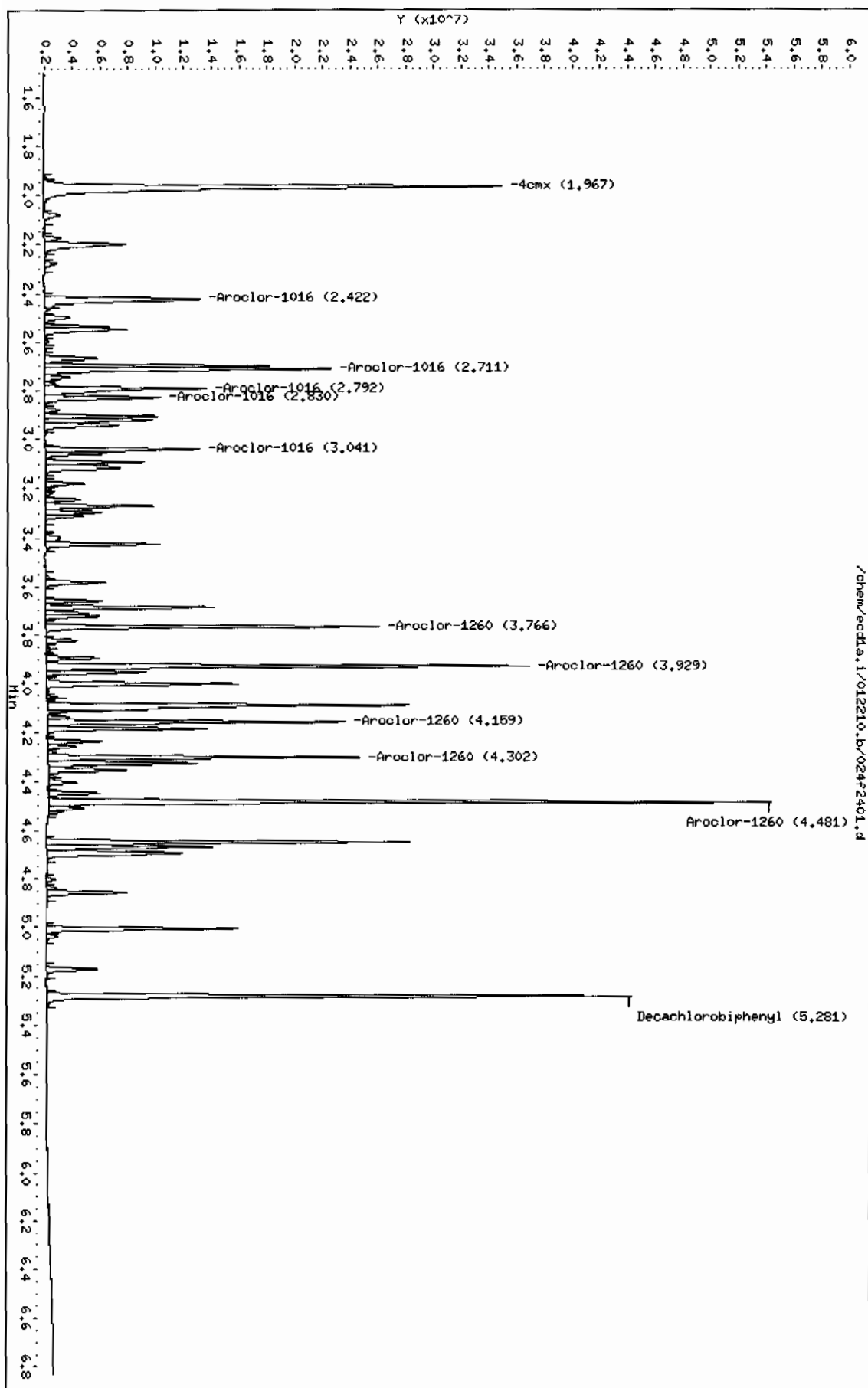
M - Compound response manually integrated.

Data File: /chem/eodla.i/012210.b/024f2401.d  
Date: 22-JAN-2010 10:01  
Client ID: AR160001  
Sample Info: 1MR100104-60 01

Column phase: CLP1

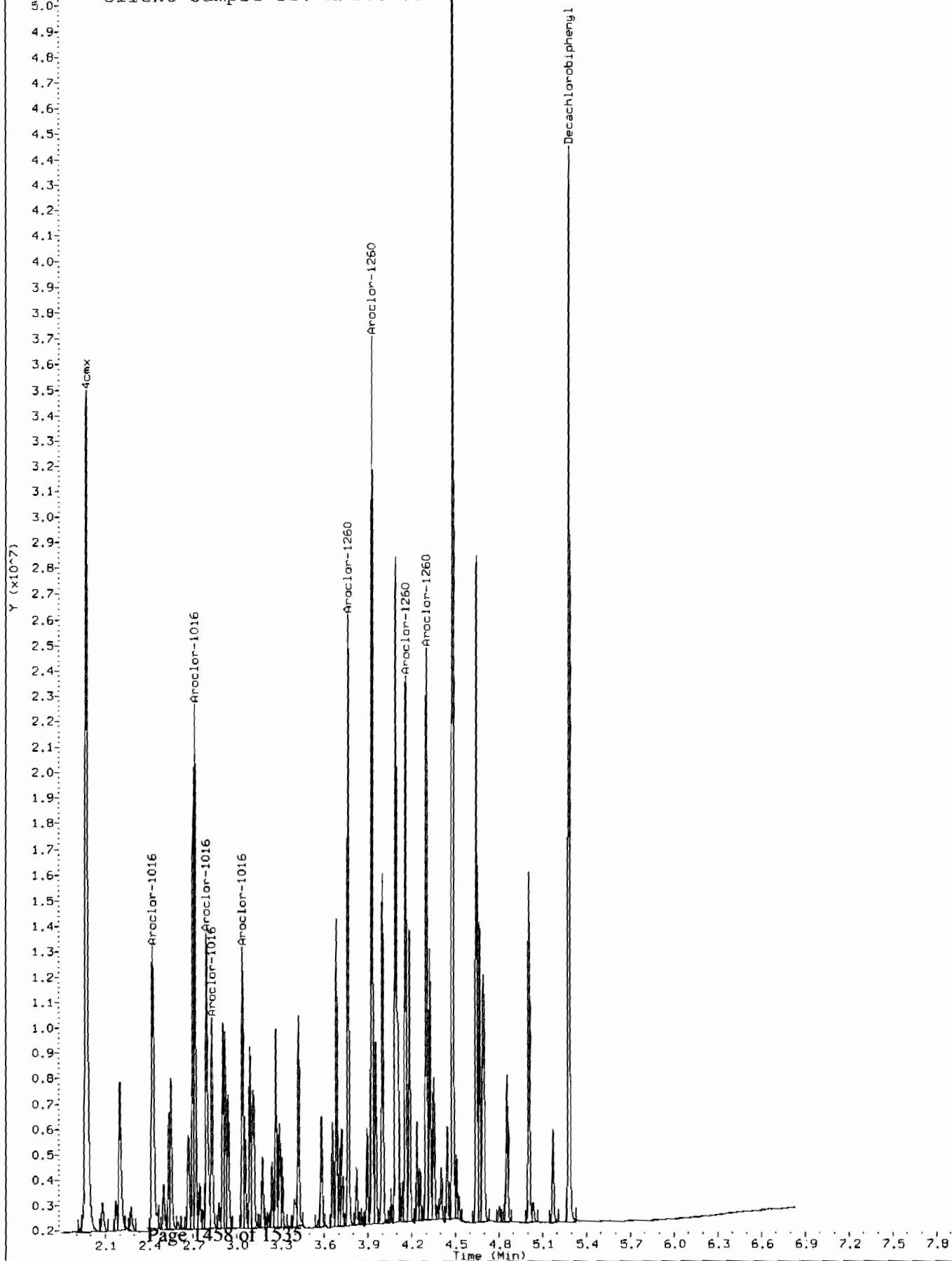
Instrument: eodla.i  
Operator: YSL  
Column diameter: 0.25

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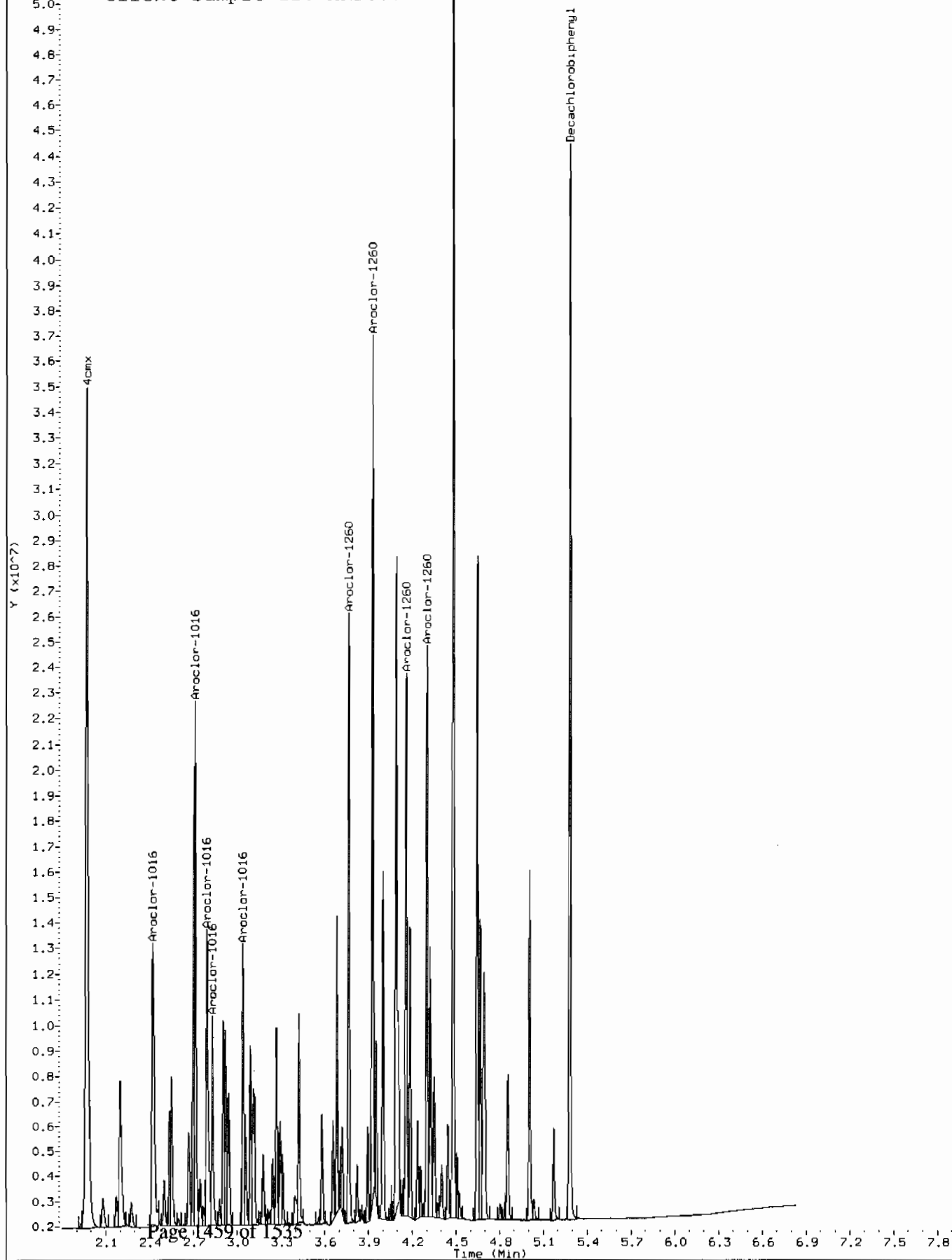




Comment: Manually Integrated  
Data File: /chem/ecdl1.i/012210.b/024f2401.d  
Operator: YS1  
Injection Date: 22-JAN-2010 10:01  
Instrument: ecd1a.i  
Client Sample ID: AR166001



Comment: Before manual integration  
Data File: /chem/ecdla.i/012210.b/orig-024f2401.d  
Operator: YS1  
Injection Date: 22-JAN-2010 10:01  
Instrument: ecdla.i  
Client Sample ID: AR166001



Data File: /chem/ecdl1a.i/012210.b/024b2401.d  
 Report Date: 22-Jan-2010 10:53

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/024b2401.d

Lab Smp Id: WAR100104-60 01

Client Smp ID: AR166001

Inj Date : 22-JAN-2010 10:01

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100104-60 01

Misc Info :

Comment :

Method : /chem/ecdl1a.i/012210.b/ECD1-B-8082-121409.m

Meth Date : 22-Jan-2010 10:53 yip00818 Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017b1701.d

Als bottle: 24

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: kilroy

AMOUNTS

			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO	
\$ 11 4cmx				CAS #: 877-09-8			
2.299	2.299	0.000	28254272 100.000	97.4	80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.947	5.947	0.000	23213813 100.000	95.1	80.00- 120.00	100.00	
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
3.196	3.196	0.000	12155075 1000.00	958	80.00- 120.00	100.00 (M)	
3.280	3.280	0.000	8042569 1000.00	914	46.17- 86.17	66.17	
3.343	3.343	0.000	4985923 1000.00	910	21.02- 61.02	41.02	
3.570	3.570	0.000	6316927 1000.00	903	31.97- 71.97	51.97	
3.646	3.646	0.000	5936669 1000.00	904	28.84- 68.84	48.84	
Average of Peak Amounts =				918			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
4.336	4.336	0.000	12548443 1000.00	945	80.00- 120.00	100.00	
4.461	4.461	0.000	15408233 1000.00	954	102.79- 142.79	122.79	
4.727	4.727	0.000	11753882 1000.00	940	73.67- 113.67	93.67	
4.901	4.901	0.000	12209834 1000.00	944	77.30- 117.30	97.30	
5.048	5.048	0.000	27606323 1000.00	970	200.00- 240.00	220.00	
Average of Peak Amounts =				951			

Data File: /chem/ecdl.a.i/012210.b/024b2401.d  
Report Date: 22-Jan-2010 10:53

Page 2

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/eodla.i/012210.b/024b2401.d

Date: 22-JUN-2010 10:01

Client ID: AR166001

Sample Info: 1MAR100104-60 01

Page 1

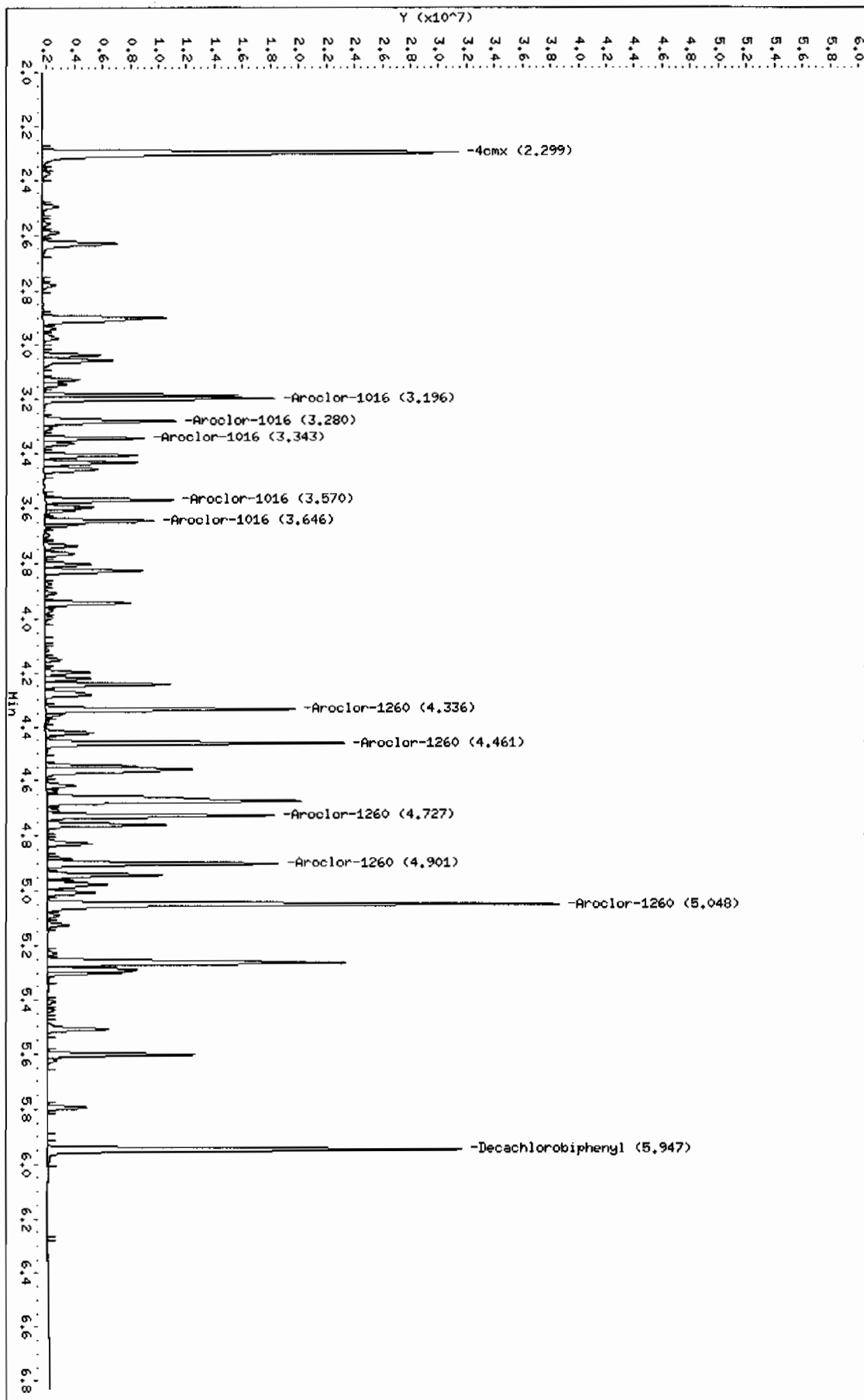
Instrument: eodla.i

Column phase: CLP2

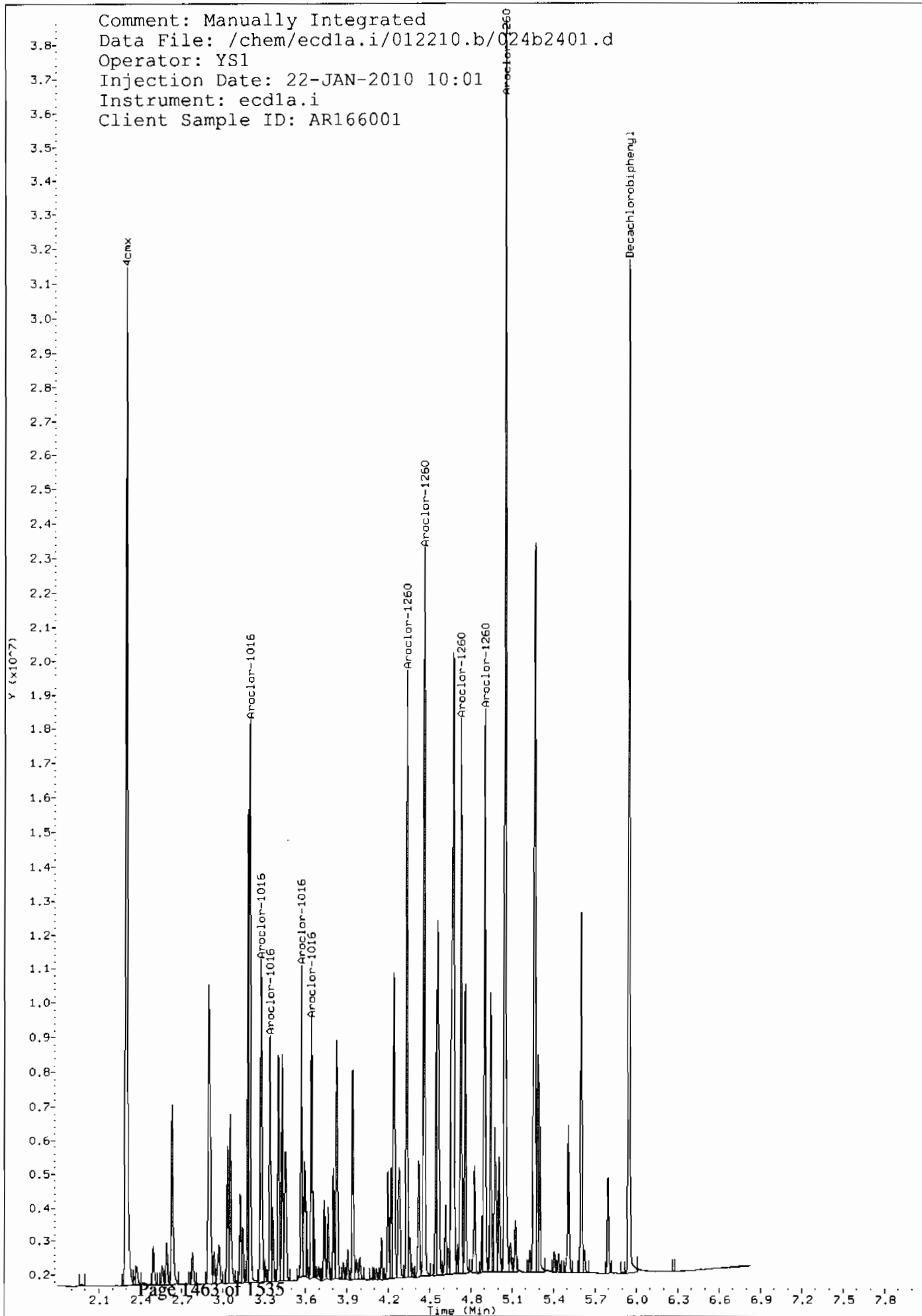
Operator: YSL

Column diameter: 0.25

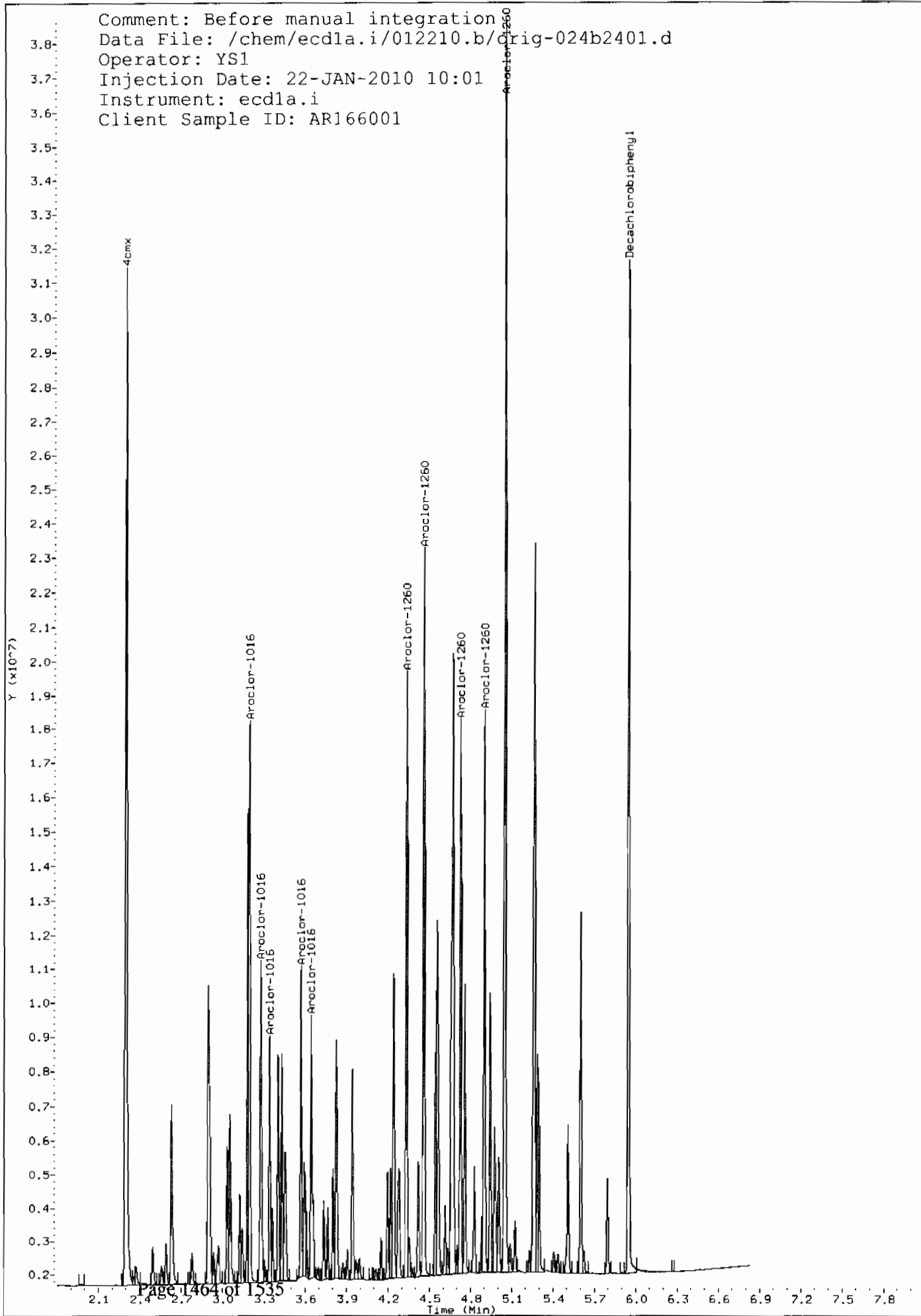
/chem/eodla.i/012210.b/024b2401.d



Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/012210.b/024b2401.d  
Operator: YS1  
Injection Date: 22-JAN-2010 10:01  
Instrument: ecdl1a.i  
Client Sample ID: AR166001



Comment: Before manual integration  
Data File: /chem/ecdl1a.i/012210.b/Orig-024b2401.d  
Operator: YS1  
Injection Date: 22-JAN-2010 10:01  
Instrument: ecdl1a.i  
Client Sample ID: AR166001



Data File: /chem/ecdl1a.i/012210.b/041f4101.d  
 Report Date: 25-Jan-2010 11:24

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/041f4101.d  
 Lab Smp Id: WAR100104-60 03 Client Smp ID: AR166003  
 Inj Date : 22-JAN-2010 13:10  
 Operator : YSI Inst ID: ecd1a.i  
 Smp Info : |WAR100104-60 03  
 Misc Info :  
 Comment :  
 Method : /chem/ecdl1a.i/012210.b/ECD1-F-8082-121409.m  
 Meth Date : 23-Jan-2010 11:25 yip00818 Quant Type: ESTD  
 Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d  
 Als bottle: 41 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			
1.969	1.967	0.002	40629359 100.000	103	80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.282	5.281	0.001	26695032 100.000	80.9	80.00- 120.00	100.00	
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
2.424	2.422	0.002	13501572 1000.00	934	80.00- 120.00	100.00	
2.713	2.711	0.002	17773752 1000.00	976	112.54- 152.54	131.64	
2.793	2.792	0.001	11586695 1000.00	967	65.91- 105.91	85.82	
2.831	2.830	0.001	6957915 1000.00	969	31.86- 71.86	51.53	
3.041	3.041	0.000	8740414 1000.00	944	46.15- 86.15	64.74	
Average of Peak Amounts =				958			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
3.768	3.766	0.002	16982070 1000.00	958	80.00- 120.00	100.00	
3.931	3.929	0.002	25515239 1000.00	948	132.78- 172.78	150.25	
4.161	4.159	0.002	15422643 1000.00	953	71.24- 111.24	90.82	
4.304	4.302	0.002	15634190 1000.00	925	75.48- 115.48	92.06	
4.483	4.481	0.002	36172855 1000.00	960	198.43- 238.43	213.01	
Average of Peak Amounts =				949			

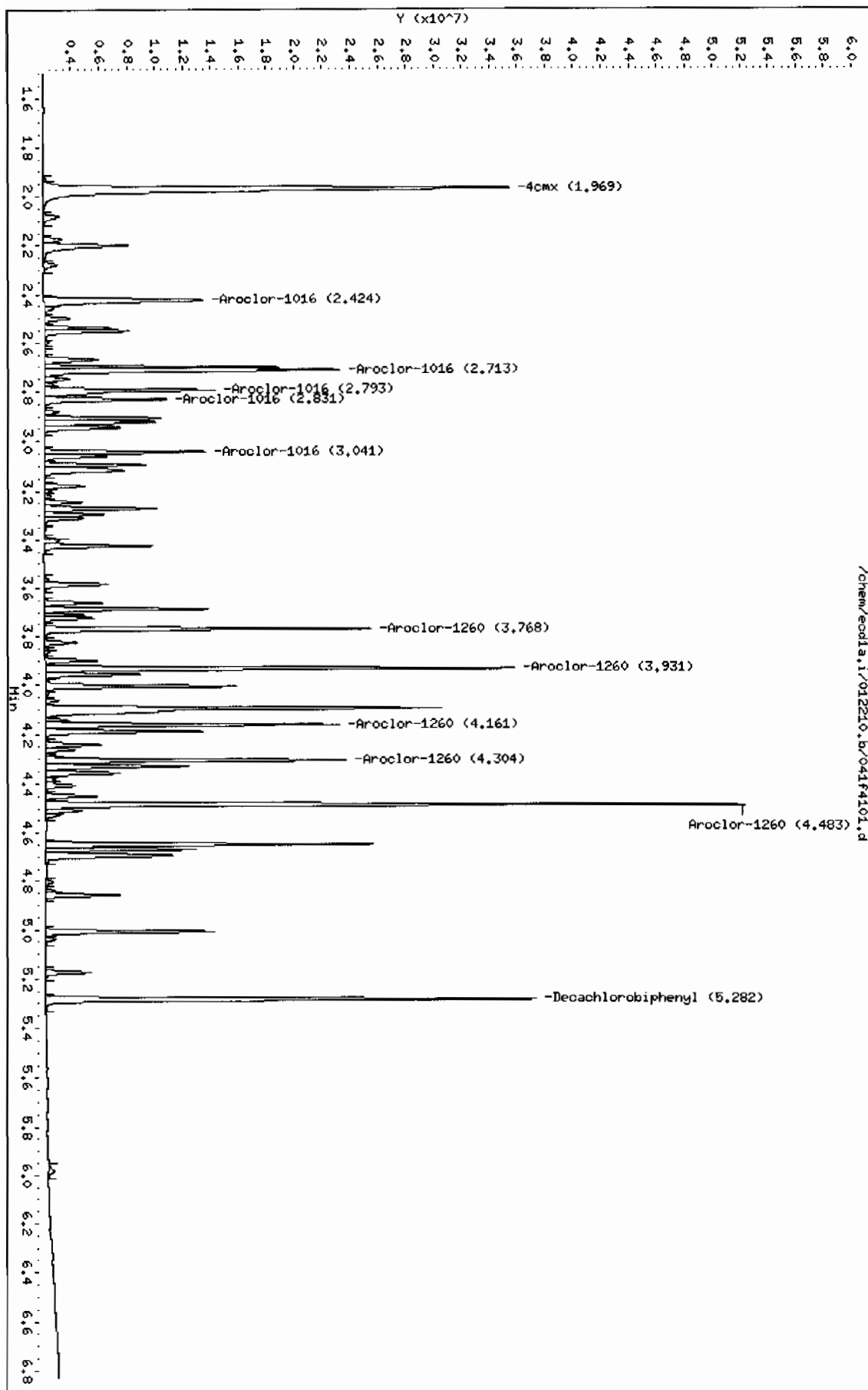


Data File: /chem/ecdda.i/012210.b/041f4101.d  
Date: 22-JAN-2010 13:10  
Client ID: AR166003  
Sample Info: IMR100104-60 03

Column phase: CLP1

Instrument: ecdda.i  
Operator: YSL  
Column diameter: 0.25

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Data File: /chem/ecdl1a.i/012210.b/041b4101.d  
Report Date: 25-Jan-2010 11:24

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/041b4101.d  
Lab Smp Id: WAR100104-60 03 Client Smp ID: AR166003  
Inj Date : 22-JAN-2010 13:10  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100104-60 03  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/012210.b/ECD1-B-8082-121409.m  
Meth Date : 23-Jan-2010 11:25 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d  
Als bottle: 41 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		
2.301	2.299	0.002	28383455	100.000	97.8	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.947	0.002	20166395	100.000	82.6	80.00- 120.00	100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
3.198	3.196	0.002	12101121	1000.00	954	80.00- 120.00	100.00
3.281	3.280	0.001	8017714	1000.00	911	46.75- 86.75	66.26
3.345	3.343	0.002	5008292	1000.00	914	21.57- 61.57	41.39
3.571	3.570	0.001	6416765	1000.00	917	33.85- 73.85	53.03
3.647	3.646	0.001	5943051	1000.00	905	30.13- 70.13	49.11
Average of Peak Amounts =					920		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
4.338	4.336	0.002	11615753	1000.00	875	80.00- 120.00	100.00
4.463	4.461	0.002	14604659	1000.00	904	104.88- 144.88	125.73
4.729	4.727	0.002	10888842	1000.00	871	74.00- 114.00	93.74
4.903	4.901	0.002	11184301	1000.00	865	77.33- 117.33	96.29
5.050	5.048	0.002	25032235	1000.00	880	199.41- 239.41	215.50
Average of Peak Amounts =					879		

Data File: /chem/ecoda.i/012210.b/041b4101.d

Date: 22-JAN-2010 13:10

Client ID: AR166003

Sample Info: MAR100104-60 03

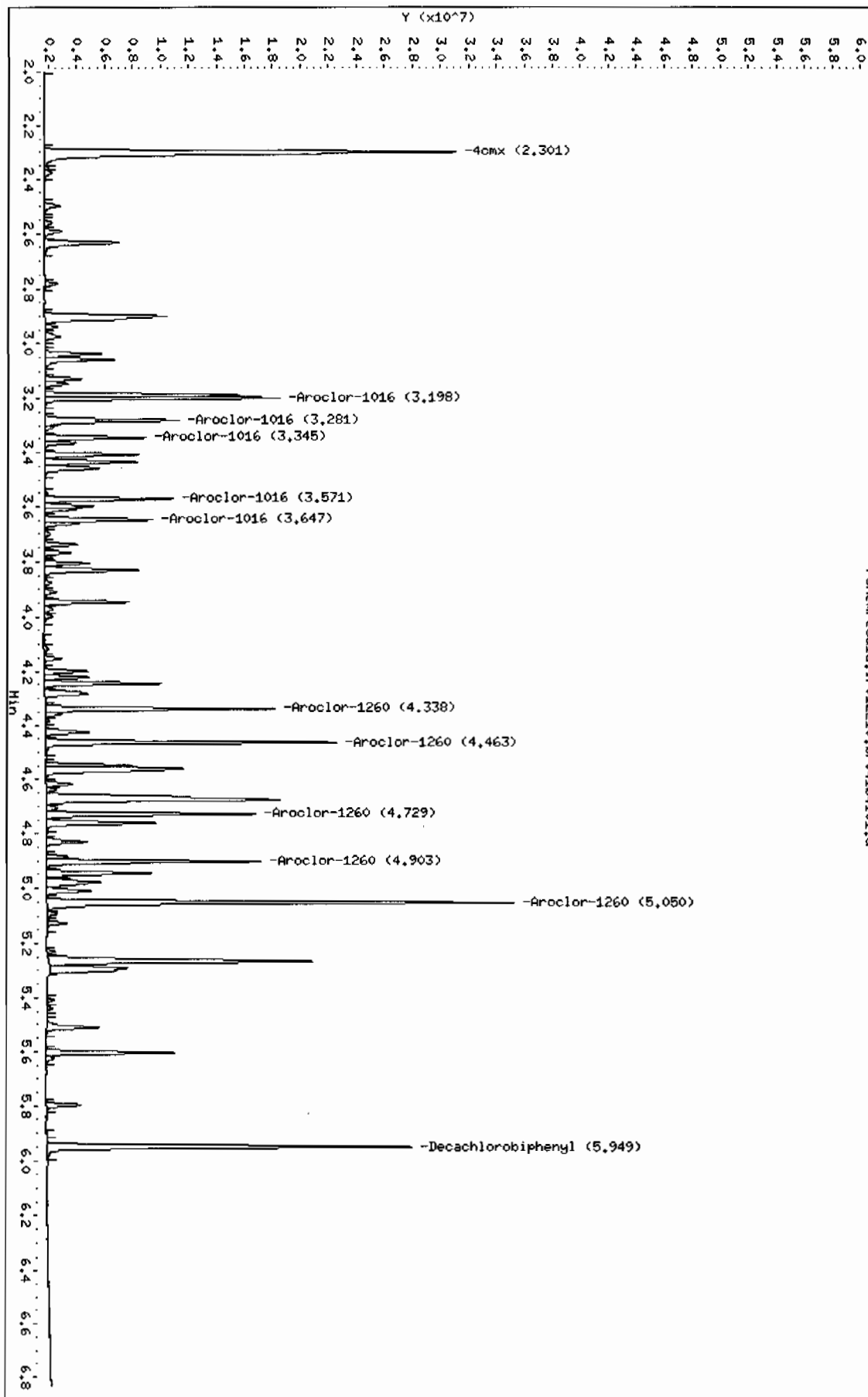
Column phase: CLP2

Instrument: ecoda.i

Operator: YSL

Column diameter: 0.25

/chem/ecoda.i/012210.b/041b4101.d



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/012210.b/053f5301.d

Lab Smp Id: WAR100104-60 04

Client Smp ID: AR166004

Inj Date : 22-JAN-2010 15:32

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR100104-60 04

Misc Info :

Comment :

Method : /chem/ecdla.i/012210.b/ECD1-F-8082-121409.m

Meth Date : 23-Jan-2010 11:21 yip00818 Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017f1701.d

Als bottle: 53

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1pl

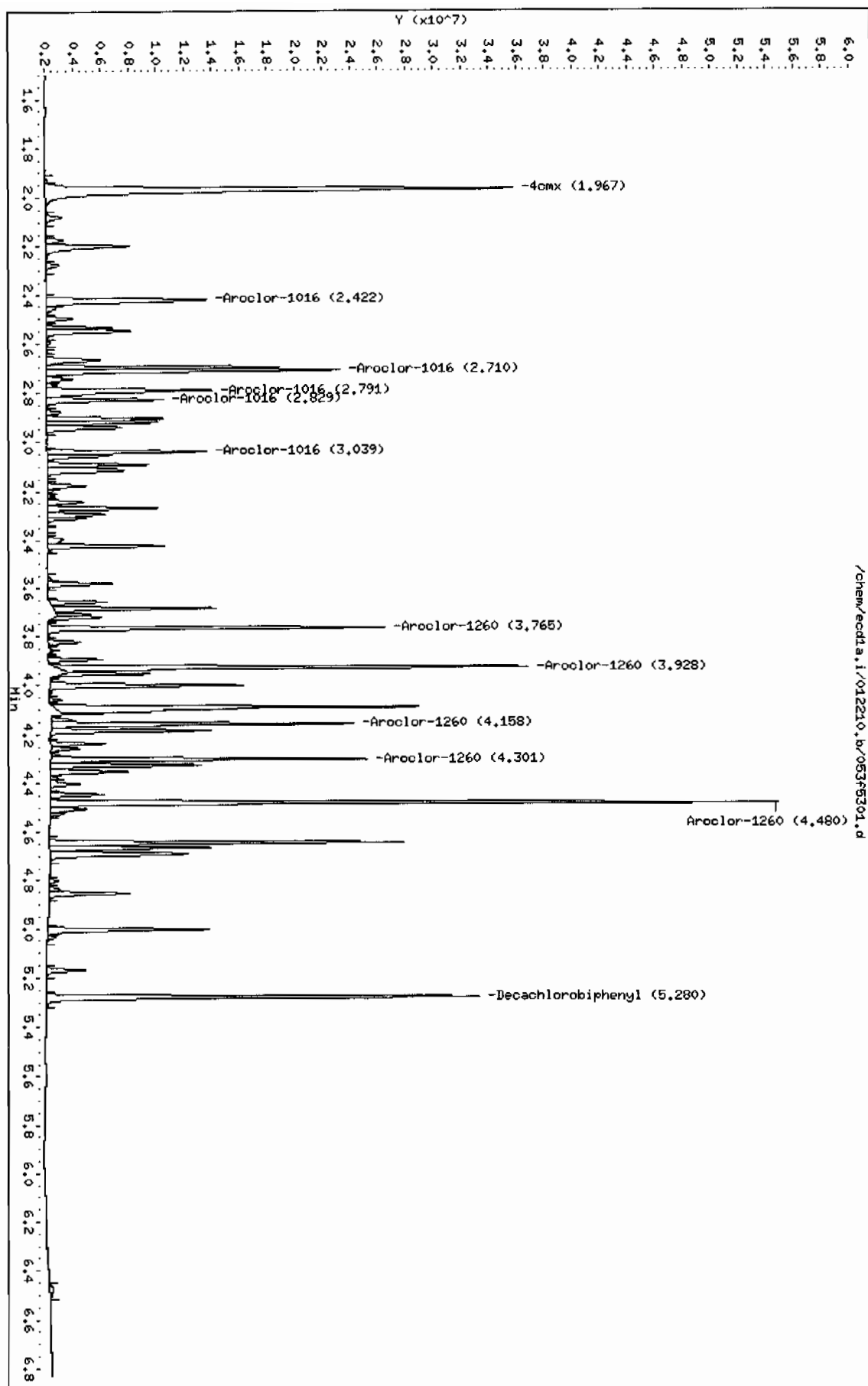
AMOUNTS

			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx					CAS #: 877-09-8		
1.967	1.967	0.000	40096069	100.000	102	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.280	5.281	-0.001	23606166	100.000	71.6	80.00- 120.00	100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
2.422	2.422	0.000	13362570	1000.00	925	80.00- 120.00	100.00
2.710	2.711	-0.001	17241551	1000.00	947	109.03- 149.03	129.03
2.791	2.792	-0.001	11480294	1000.00	958	65.91- 105.91	85.91
2.829	2.830	-0.001	6920061	1000.00	964	31.79- 71.79	51.79
3.039	3.041	-0.002	8799758	1000.00	950	45.85- 85.85	65.85
Average of Peak Amounts =					949		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
3.765	3.766	-0.001	17442393	1000.00	984	80.00- 120.00	100.00
3.928	3.929	-0.001	25272275	1000.00	938	124.89- 164.89	144.89
4.158	4.159	-0.001	15660230	1000.00	967	69.78- 109.78	89.78
4.301	4.302	-0.001	16440041	1000.00	972	74.25- 114.25	94.25
4.480	4.481	-0.001	38025554	1000.00	1010	198.01- 238.01	218.01
Average of Peak Amounts =					974		

Data File: /chem/ecdda.i/012210.b/053f5301.d  
Date: 22-JAN-2010 15:32  
Client ID: AR166004  
Sample Info: IMA100104-60 04

Column phase: CLP1

Instrument: ecdda.i  
Operator: YSA  
Column diameter: 0.25



Data File: /chem/ecdl1a.i/012210.b/053b5301.d  
Report Date: 25-Jan-2010 11:39

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/053b5301.d  
Lab Smp Id: WAR100104-60 04 Client Smp ID: AR166004  
Inj Date : 22-JAN-2010 15:32  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100104-60 04  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/012210.b/ECD1-B-8082-121409.m  
Meth Date : 23-Jan-2010 11:25 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d  
Als bottle: 53 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1660.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpc1p1

AMOUNTS							
			CAL-AMT		ON-COL		RATIO
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		( ug/L)	TARGET RANGE	
==	=====	==	=====		=====	=====	=====
-----							
\$ 11 4cmx					CAS #: 877-09-8		
2.300	2.299	0.001	28618657	100.000	98.6	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.946	5.947	-0.001	20341498	100.000	83.4	80.00- 120.00	100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
3.196	3.196	0.000	12373583	1000.00	975	80.00- 120.00	100.00(M)
3.280	3.280	0.000	8068647	1000.00	917	46.75- 86.75	65.21
3.343	3.343	0.000	5003682	1000.00	913	21.57- 61.57	40.44
3.570	3.570	0.000	6312529	1000.00	902	33.85- 73.85	51.02
3.646	3.646	0.000	5908538	1000.00	900	30.13- 70.13	57.71
Average of Peak Amounts =					922		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
4.336	4.336	0.000	12006645	1000.00	904	80.00- 120.00	100.00
4.461	4.461	0.000	15090452	1000.00	934	104.88- 144.88	125.68
4.727	4.727	0.000	11433839	1000.00	915	74.00- 114.00	95.23
4.901	4.901	0.000	11719761	1000.00	906	77.33- 117.33	97.61
5.048	5.048	0.000	26217967	1000.00	922	199.41- 239.41	218.36
Average of Peak Amounts =					916		
-----							

Data File: /chem/ecdl1a.i/012210.b/053b5301.d  
Report Date: 25-Jan-2010 11:39

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#### QC Flag Legend

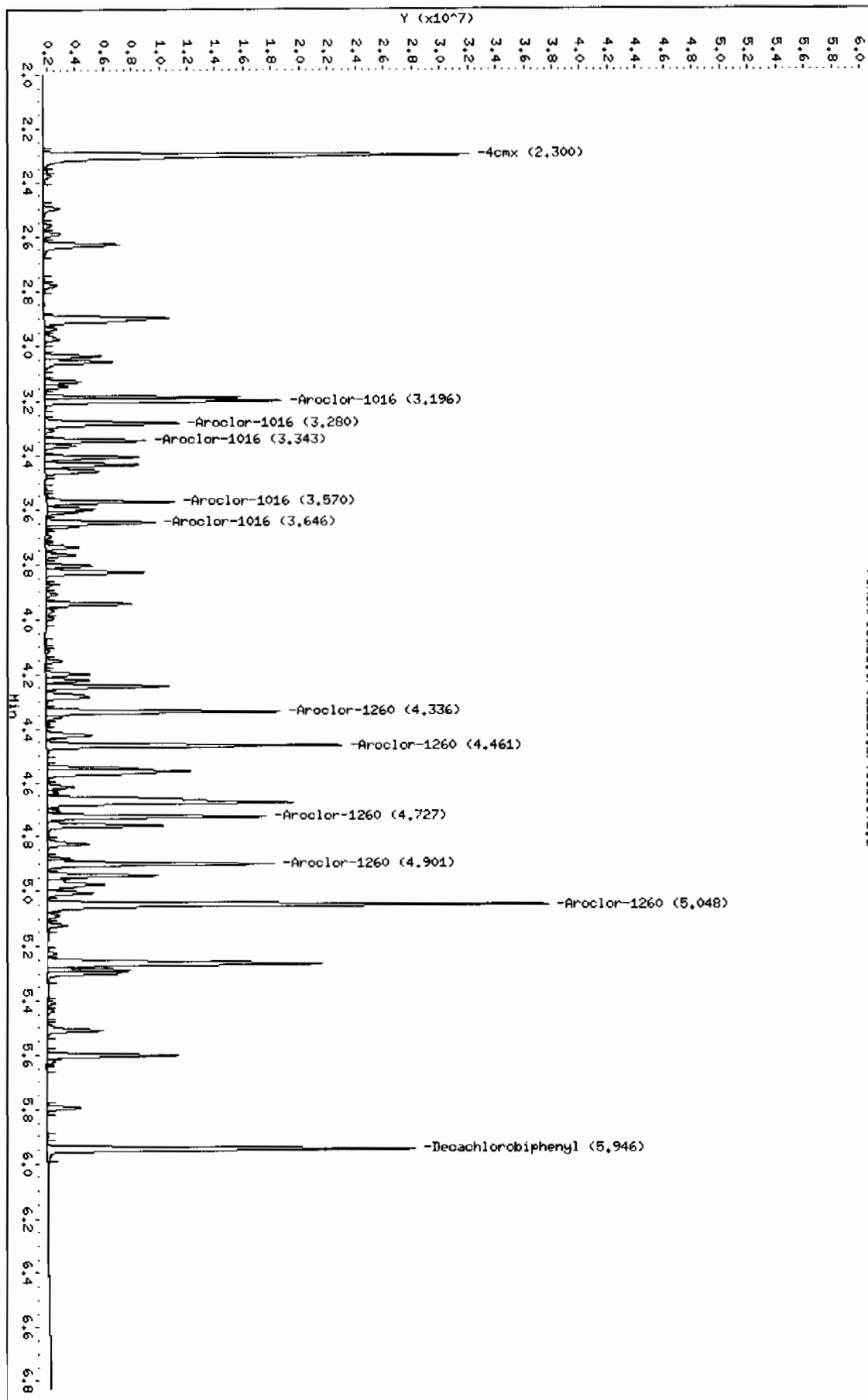
M - Compound response manually integrated.

Data File: /chem/eodla.i/012210.b/053b5301.d  
Date: 22-JUN-2010 15:32  
Client ID: AR166004  
Sample Info: 1MAR100104-60 04

Column phase: CLP2

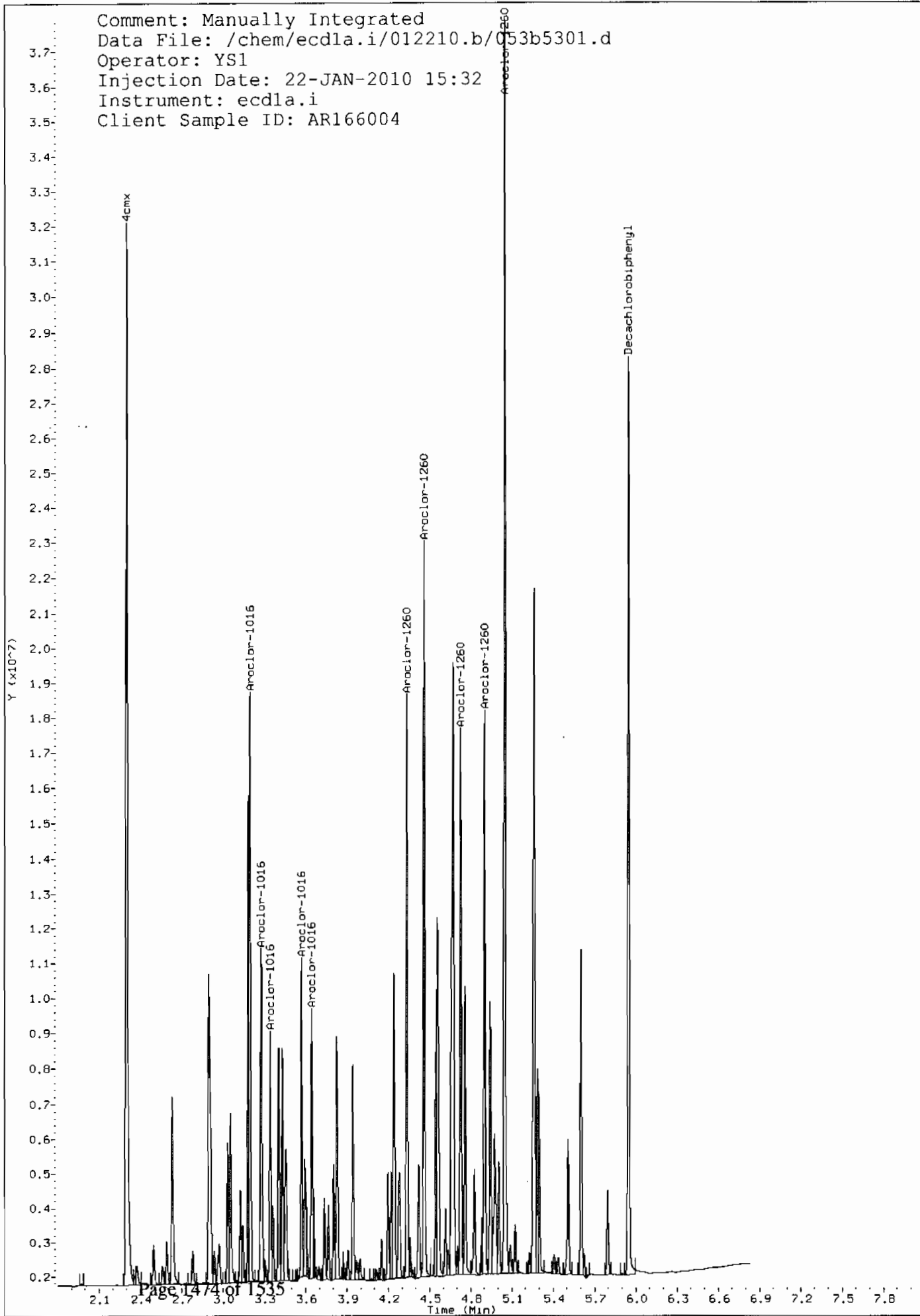
Instrument: eodla.i  
Operator: YSI  
Column diameter: 0.25

/chem/eodla.i/012210.b/053b5301.d

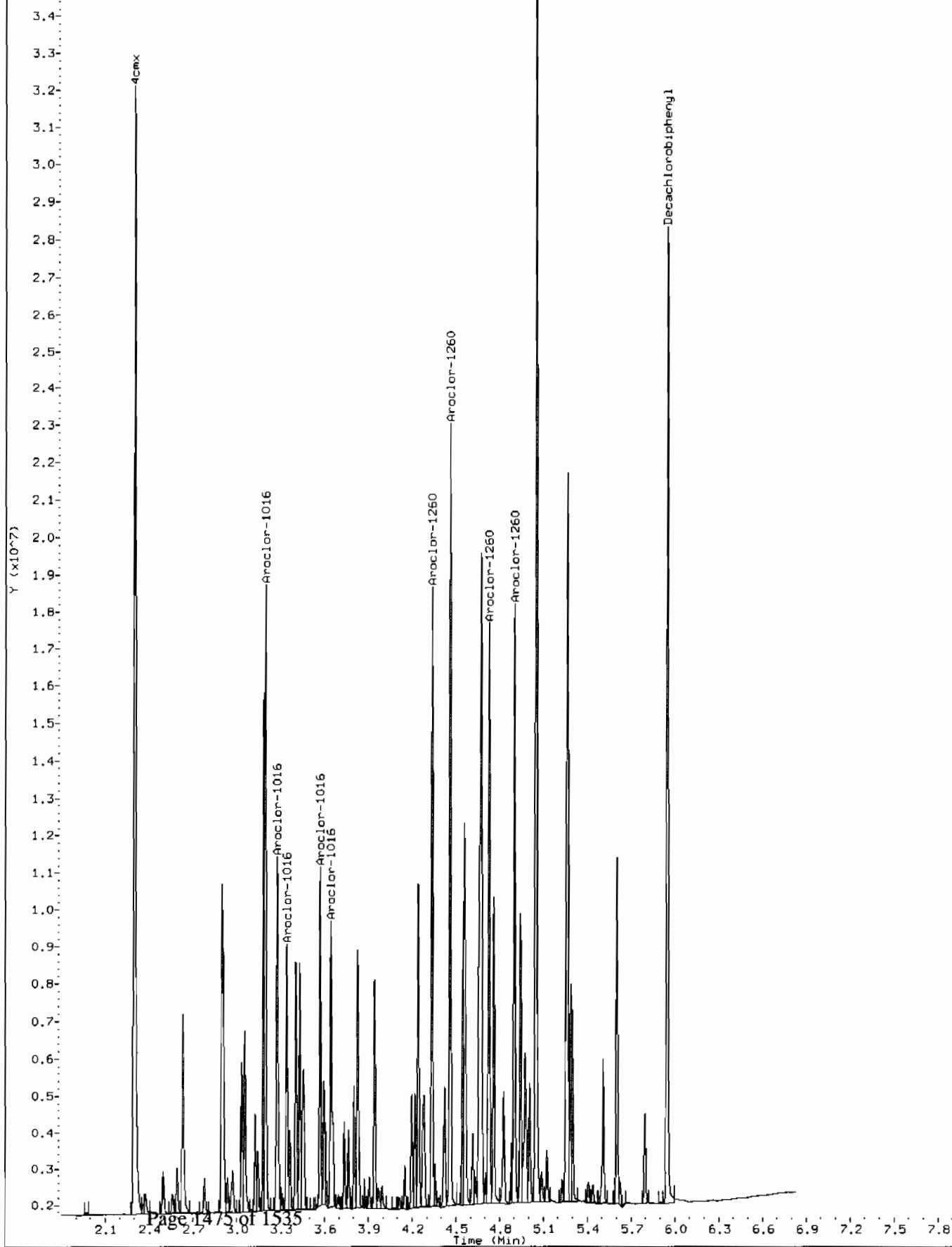




Comment: Manually Integrated  
Data File: /chem/ecdla.i/012210.b/053b5301.d  
Operator: YS1  
Injection Date: 22-JAN-2010 15:32  
Instrument: ecdla.i  
Client Sample ID: AR166004



Comment: Before manual integration  
Data File: /chem/ecdl1a.i/012210.b/orig-053b5301.d  
Operator: YS1  
Injection Date: 22-JAN-2010 15:32  
Instrument: ecd1a.i  
Client Sample ID: AR166004



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1.i/012210.b/065f6501.d

Lab Smp Id: WAR100104-60 05

Client Smp ID: AR166005

Inj Date : 22-JAN-2010 18:03

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100104-60 05

Misc Info :

Comment :

Method : /chem/ecdl1.i/012210.b/ECD1-F-8082-121409.m

Meth Date : 25-Jan-2010 13:49 yip00818

Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017f1701.d

Als bottle: 65

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS								
			CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO		
=====	=====	=====	=====	=====	=====	=====		
\$ 11 4cmx				CAS #: 877-09-8				
1.968	1.967	0.001	40309825	100.000	102	80.00-	120.00	100.00
-----								
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3				
5.278	5.281	-0.003	32770815	100.000	99.4	80.00-	120.00	100.00
-----								
1 Aroclor-1016				CAS #: 12674-11-2				
2.422	2.422	0.000	13422083	1000.00	929	80.00-	120.00	100.00
2.711	2.711	0.000	17824847	1000.00	979	112.80-	152.80	132.80
2.791	2.792	-0.001	11540991	1000.00	963	65.99-	105.99	85.99
2.829	2.830	-0.001	6939889	1000.00	967	31.71-	71.71	51.71
3.039	3.041	-0.002	8814664	1000.00	952	45.67-	85.67	65.67
Average of Peak Amounts =				958				
-----								
7 Aroclor-1260				CAS #: 11096-82-5				
3.764	3.766	-0.002	17802673	1000.00	1000	80.00-	120.00	100.00
3.928	3.929	-0.001	27224347	1000.00	1010	132.92-	172.92	152.92
4.158	4.159	-0.001	16263101	1000.00	1000	71.35-	111.35	91.35
4.300	4.302	-0.002	17007552	1000.00	1000	75.53-	115.53	95.53
4.479	4.481	-0.002	38906081	1000.00	1030	198.54-	238.54	218.54
Average of Peak Amounts =				1.01e+03				

Data File: /chem/ecda.i/012210.b/055f6501.d

Date: 22-JUN-2010 18:03

Client ID: AR16005

Sample Info: IMA100104-60 05

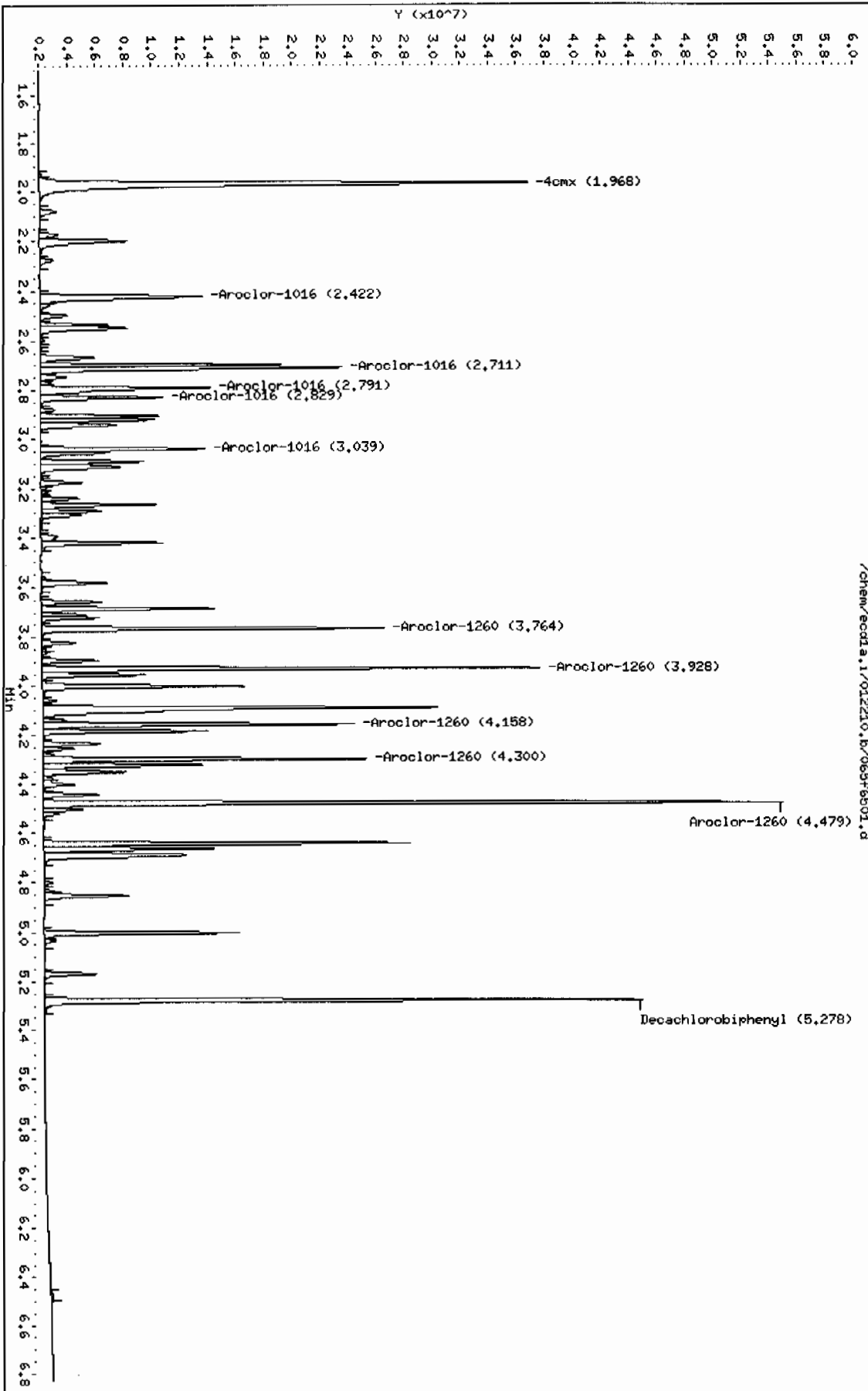
Column phase: CLP1

Instrument: ecda.i

Operator: YSL

Column diameter: 0.25

Page 1



Data File: /chem/ecdl1a.i/012210.b/065b6501.d  
 Report Date: 25-Jan-2010 13:49

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/065b6501.d  
 Lab Smp Id: WAR100104-60 05 Client Smp ID: AR166005  
 Inj Date : 22-JAN-2010 18:03  
 Operator : YSl Inst ID: ecd1a.i  
 Smp Info : |WAR100104-60 05  
 Misc Info :  
 Comment :  
 Method : /chem/ecdl1a.i/012210.b/ECD1-B-8082-121409.m  
 Meth Date : 25-Jan-2010 13:49 yip00818 Quant Type: ESTD  
 Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d  
 Als bottle: 65 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: AR1660.sub  
 Target Version: 3.50 Sample Matrix: None  
 Processing Host: hpc1p1

AMOUNTS								
			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		( ug/L)		TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
-----								
\$ 11 4cmx					CAS #:	877-09-8		
2.300	2.299	0.001	28869165	100.000	99.5	80.00- 120.00	100.00	
-----								
\$ 12 Decachlorobiphenyl					CAS #:	2051-24-3		
5.945	5.947	-0.002	16595436	100.000	68.0	80.00- 120.00	100.00	
-----								
1 Aroclor-1016					CAS #:	12674-11-2		
3.196	3.196	0.000	12682664	1000.00	1000	80.00- 120.00	100.00 (M)	
3.279	3.280	-0.001	8253065	1000.00	938	45.07- 85.07	65.07	
3.343	3.343	0.000	5129364	1000.00	936	20.44- 60.44	40.44	
3.570	3.570	0.000	6459361	1000.00	923	30.93- 70.93	50.93	
3.645	3.646	-0.001	6055132	1000.00	922	27.74- 67.74	47.74	
Average of Peak Amounts =					944			
-----								
7 Aroclor-1260					CAS #:	11096-82-5		
4.336	4.336	0.000	12316980	1000.00	928	80.00- 120.00	100.00	
4.460	4.461	-0.001	15404880	1000.00	953	105.07- 145.07	125.07	
4.726	4.727	-0.001	11781771	1000.00	943	75.65- 115.65	95.65	
4.899	4.901	-0.002	12165182	1000.00	941	78.77- 118.77	98.77	
5.047	5.048	-0.001	27262586	1000.00	958	201.34- 241.34	221.34	
Average of Peak Amounts =					945			
-----								

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdda.i/012210.b/065b6501.d

Date : 22-JAN-2010 18:03

Client ID: AR166005

Sample Info: I48100104-60 05

Column phase: CLP2

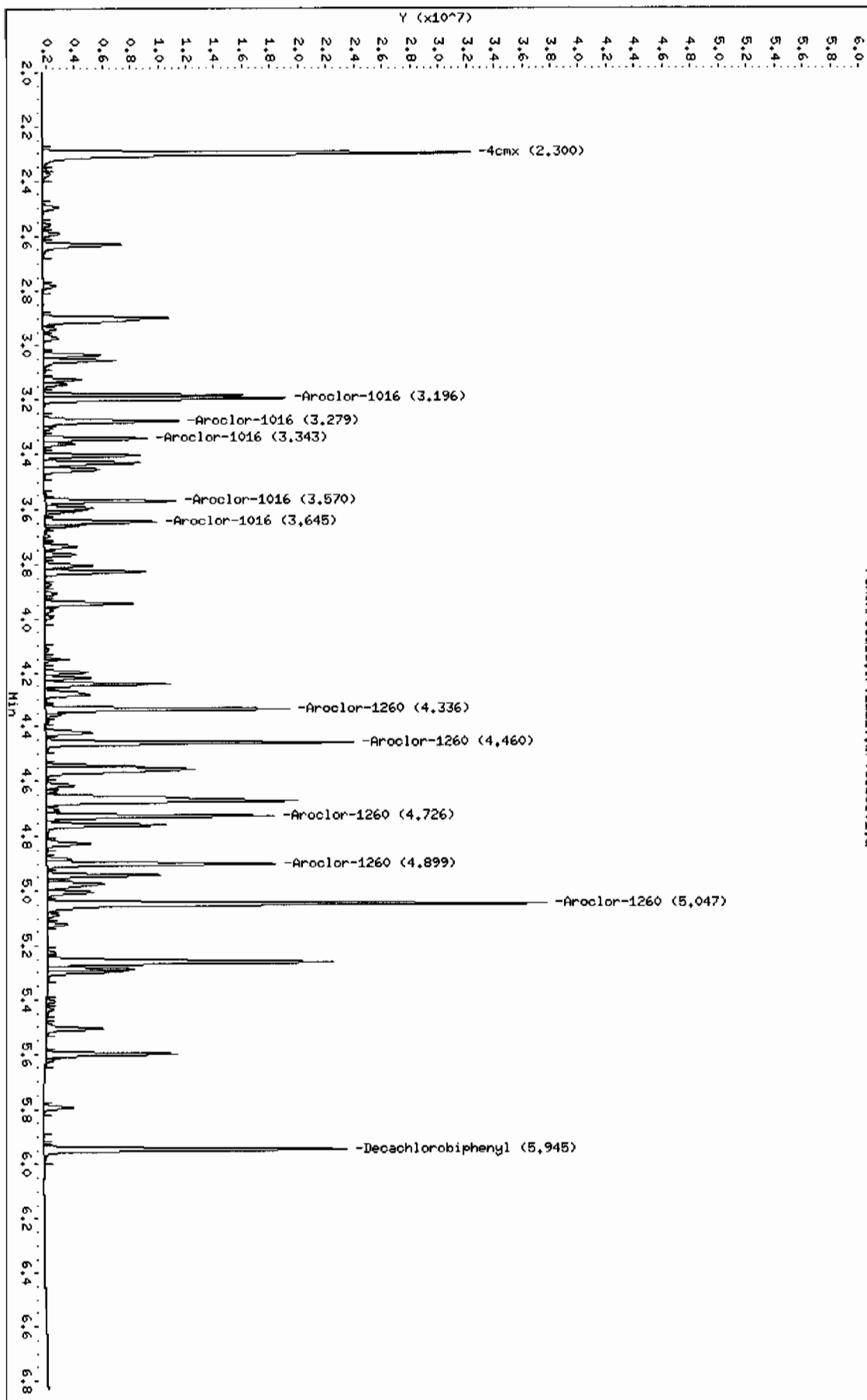
Instrument: ecdda.i

Operator: YSL

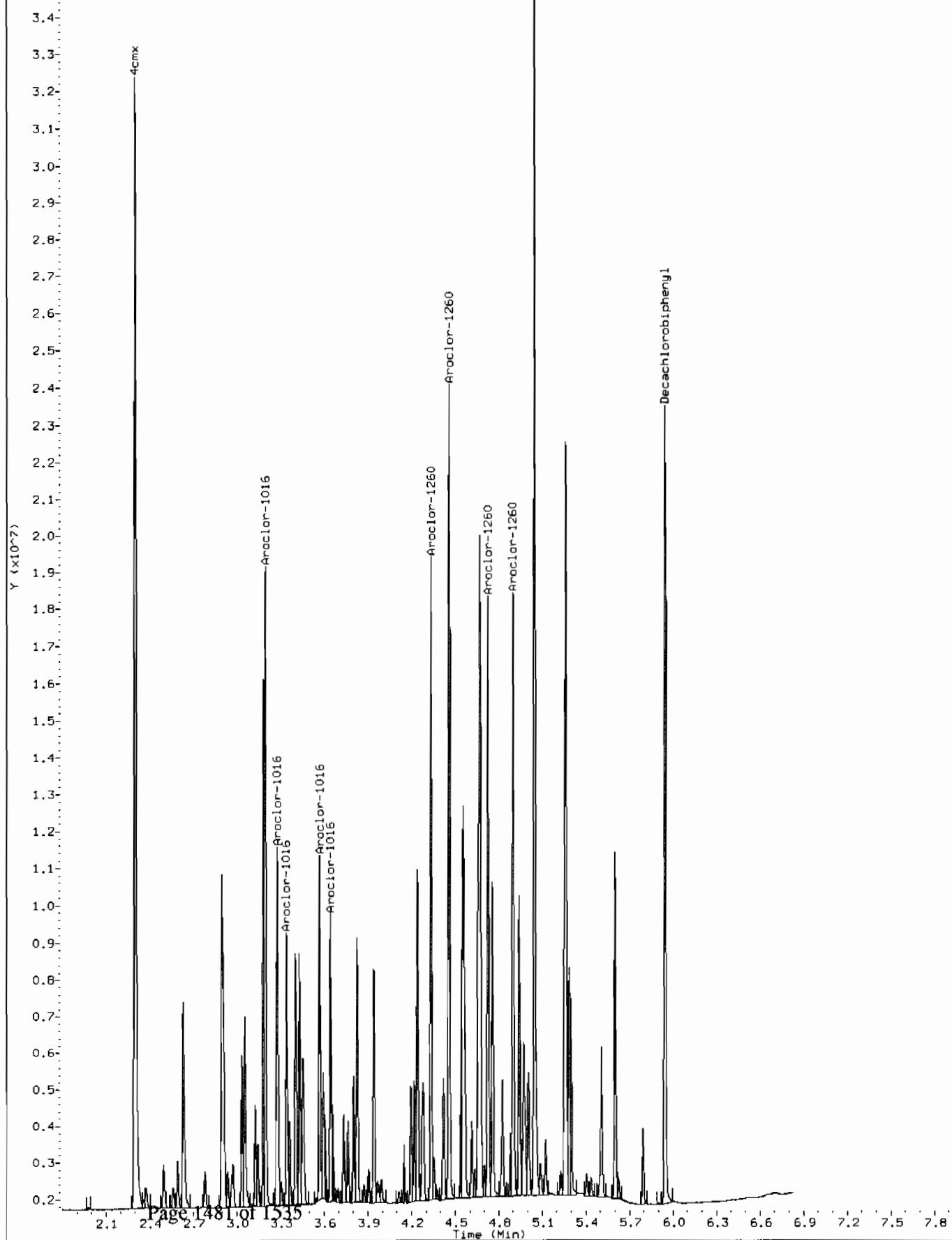
Column diameter: 0.25

Page 1

/chem/ecdda.i/012210.b/065b6501.d

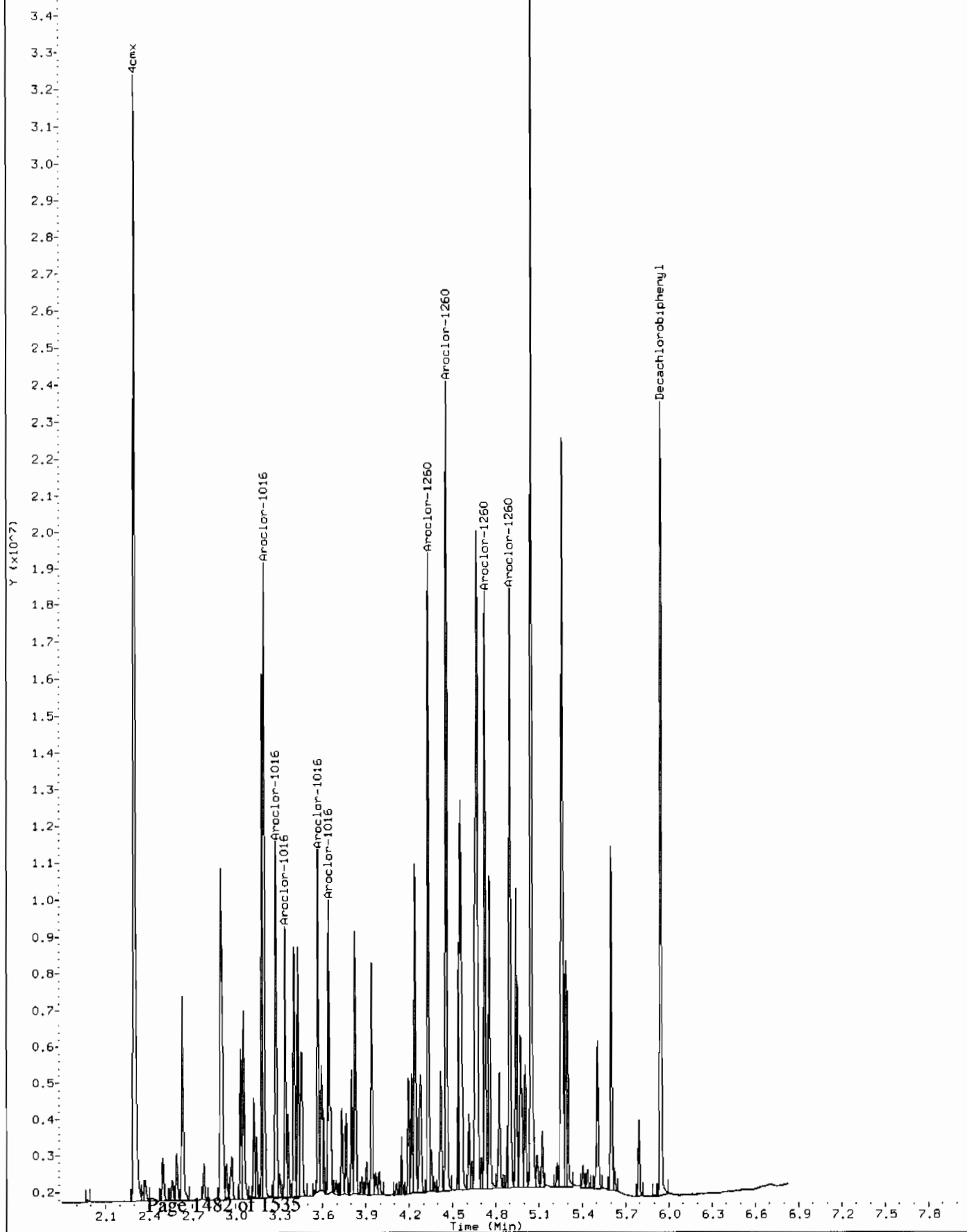


Comment: Manually Integrated  
Data File: /chem/ecdl1.i/012210.b/065b6501.d  
Operator: YSJ  
Injection Date: 22-JAN-2010 18:03  
Instrument: ecdl1.i  
Client Sample ID: AR166005





Comment: Before manual integration  
Data File: /chem/ecdl1a.i/012210.b/Orig-065b6501.d  
Operator: YS1  
Injection Date: 22-JAN-2010 18:03  
Instrument: ecdl1a.i  
Client Sample ID: AR166005



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/072f7201.d

Lab Smp Id: WAR100104-60 06

Client Smp ID: AR166006

Inj Date : 22-JAN-2010 19:32

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100104-60 06

Misc Info :

Comment :

Method : /chem/ecdl1a.i/012210.b/ECD1-F-8082-121409.m

Meth Date : 23-Jan-2010 11:25 yip00818

Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017f1701.d

Als bottle: 72

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS

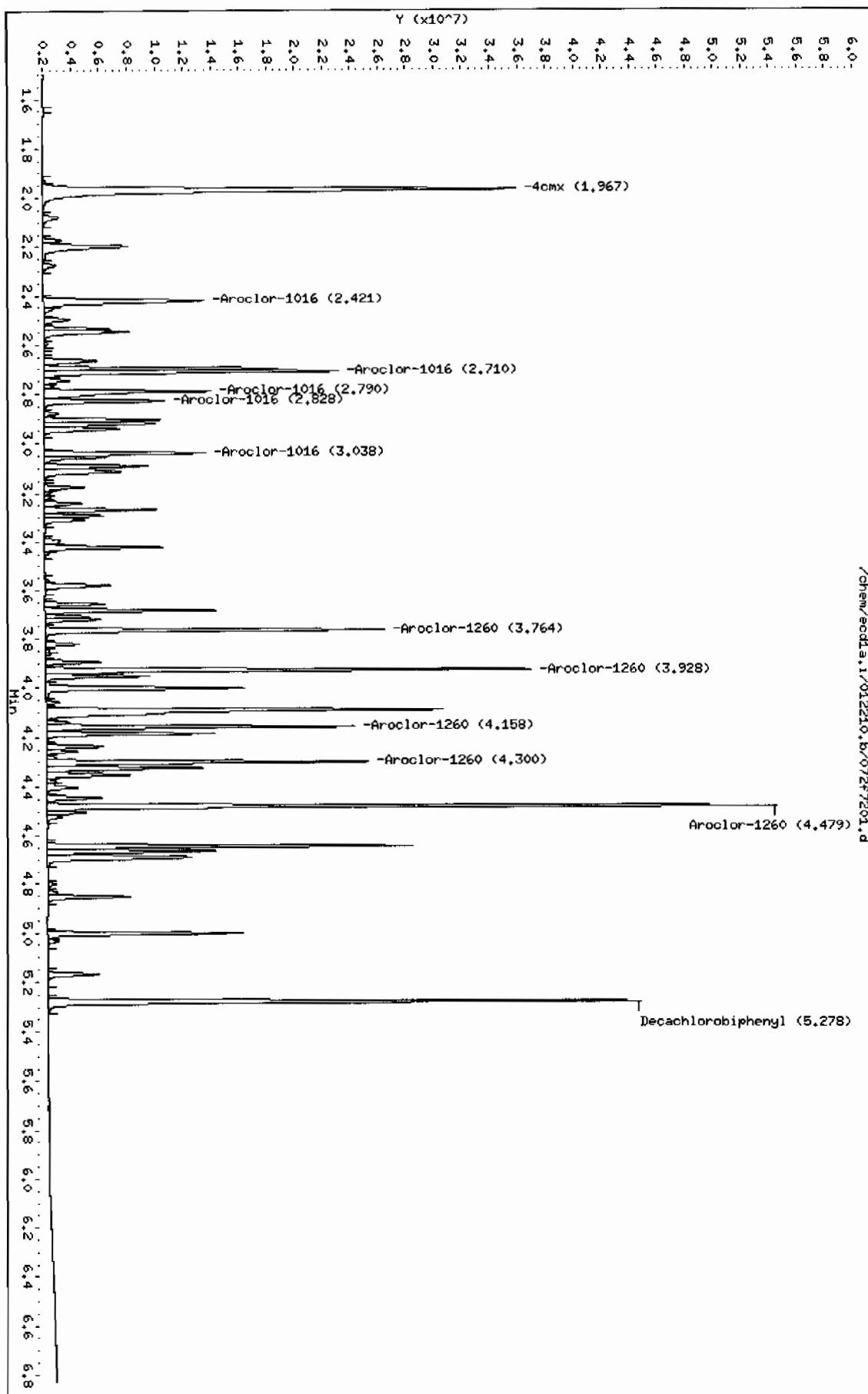
RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====		=====	=====	=====	=====
\$ 11 4cmx						
				CAS #: 877-09-8		
1.967	1.967	0.000	40017680 100.000	102	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl						
				CAS #: 2051-24-3		
5.278	5.281	-0.003	32385546 100.000	98.2	80.00- 120.00	100.00
-----						
1 Aroclor-1016						
				CAS #: 12674-11-2		
2.421	2.422	-0.001	13362240 1000.00	925	80.00- 120.00	100.00
2.710	2.711	-0.001	17710881 1000.00	973	112.54- 152.54	132.54
2.790	2.792	-0.002	11479428 1000.00	958	65.91- 105.91	85.91
2.828	2.830	-0.002	6929826 1000.00	965	31.86- 71.86	51.86
3.038	3.041	-0.003	8839454 1000.00	955	46.15- 86.15	66.15
Average of Peak Amounts =				955		
-----						
7 Aroclor-1260						
				CAS #: 11096-82-5		
3.764	3.766	-0.002	17781257 1000.00	1000	80.00- 120.00	100.00
3.928	3.929	-0.001	27166151 1000.00	1010	132.78- 172.78	152.78
4.158	4.159	-0.001	16223230 1000.00	1000	71.24- 111.24	91.24
4.300	4.302	-0.002	16977707 1000.00	1000	75.48- 115.48	95.48
4.479	4.481	-0.002	38840356 1000.00	1030	198.43- 238.43	218.43
Average of Peak Amounts =				1.01e+03		
-----						

Data File: /chem/ecda.i/012210.b/072f7201.d  
Date: 22-JAN-2010 19:32  
Client ID: AR166006  
Sample Info: IMR100104-60 06

Column phase: CLP1

Instrument: ecda.i  
Operator: YSI  
Column diameter: 0.25

Page 1



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/072b7201.d

Lab Smp Id: WAR100104-60 06

Client Smp ID: AR166006

Inj Date : 22-JAN-2010 19:32

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100104-60 06

Misc Info :

Comment :

Method : /chem/ecdl1a.i/012210.b/ECD1-B-8082-121409.m

Meth Date : 23-Jan-2010 11:25 yip00818

Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017b1701.d

Als bottle: 72

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			
2.298	2.299	-0.001	28908807	100.000	99.6 80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.945	5.947	-0.002	21906158	100.000	89.8 80.00- 120.00	100.00	
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
3.195	3.196	-0.001	12502844	1000.00	985 80.00- 120.00	100.00 (M)	
3.278	3.280	-0.002	8200377	1000.00	932 45.07- 85.07	65.59	
3.342	3.343	-0.001	5096774	1000.00	930 20.44- 60.44	40.76	
3.568	3.570	-0.002	6425112	1000.00	918 30.93- 70.93	51.39	
3.644	3.646	-0.002	6066095	1000.00	924 27.74- 67.74	57.96	
Average of Peak Amounts =				938			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
4.335	4.336	-0.001	12778668	1000.00	963 80.00- 120.00	100.00	
4.460	4.461	-0.001	15722500	1000.00	973 105.07- 145.07	123.04	
4.726	4.727	-0.001	12057799	1000.00	965 75.65- 115.65	94.36	
4.900	4.901	-0.001	12495065	1000.00	966 78.77- 118.77	97.78	
5.047	5.048	-0.001	28356561	1000.00	997 201.34- 241.34	221.91	
Average of Peak Amounts =				973			

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdda.i/012210.b/072b7201.d

Date: 22-JAN-2010 19:32

Client ID: AR166006

Sample Info: INAR100104-60 06

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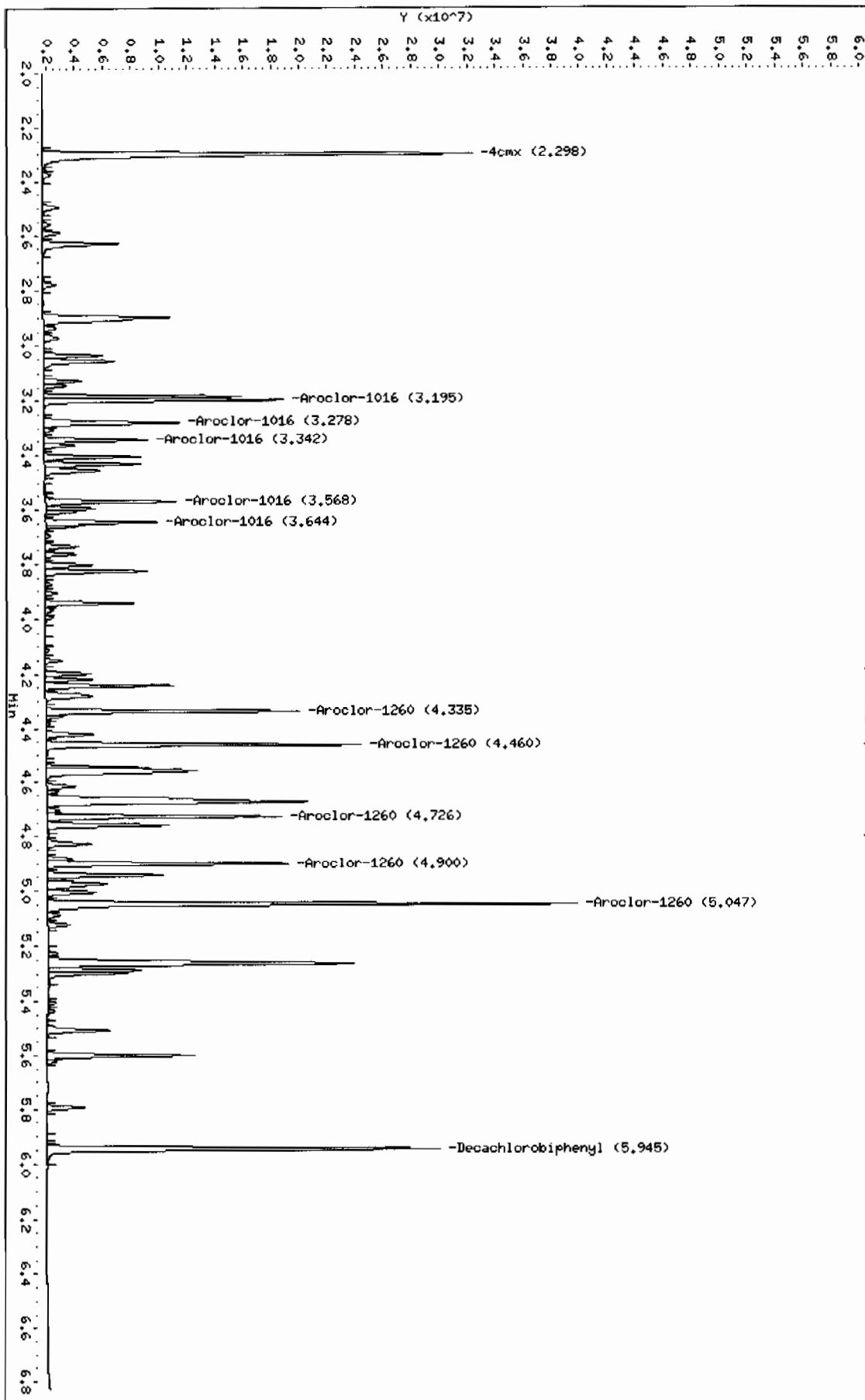
Column phase: CLP2

Instrument: ecdda.i

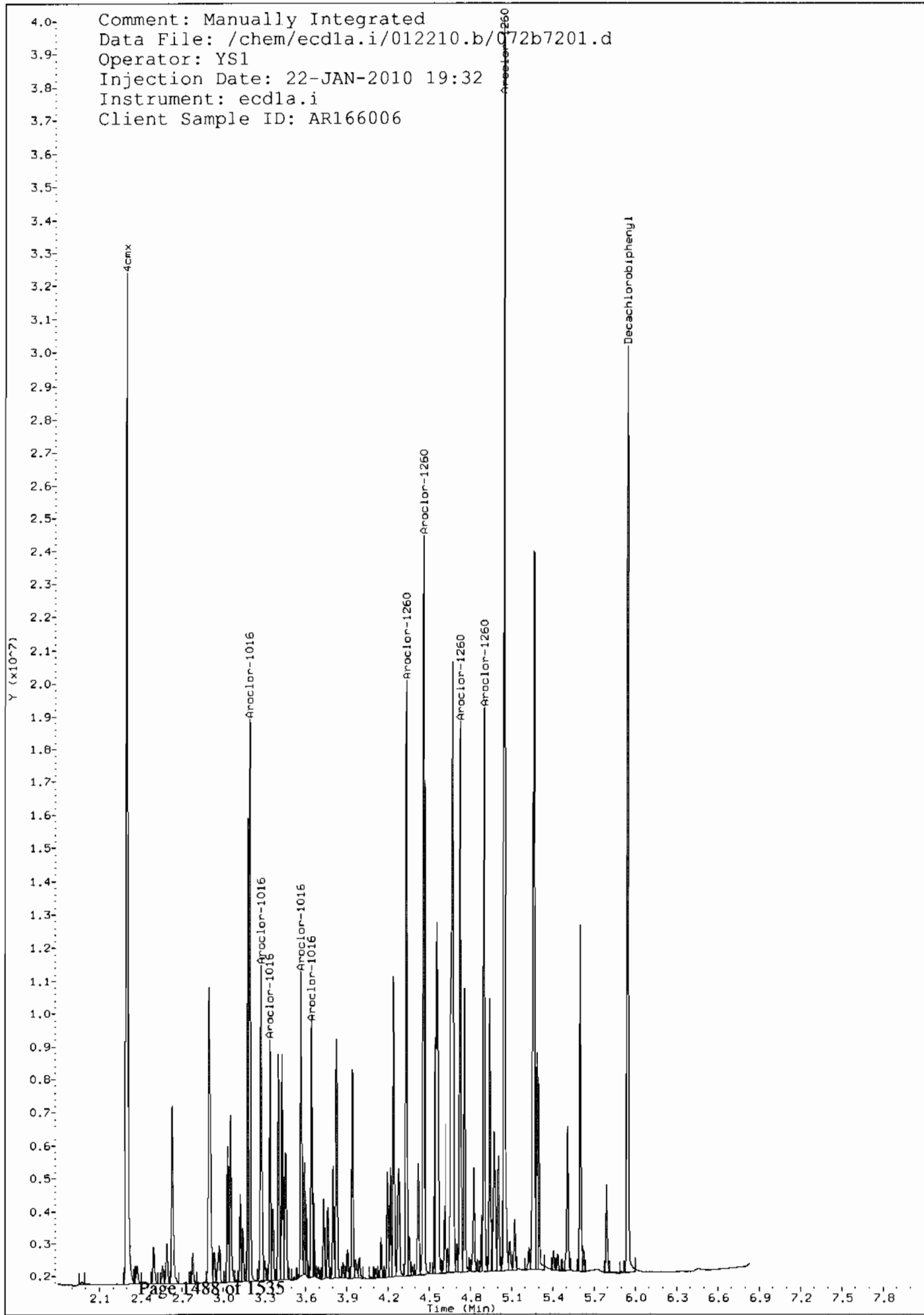
Operator: YSI

Column diameter: 0.25

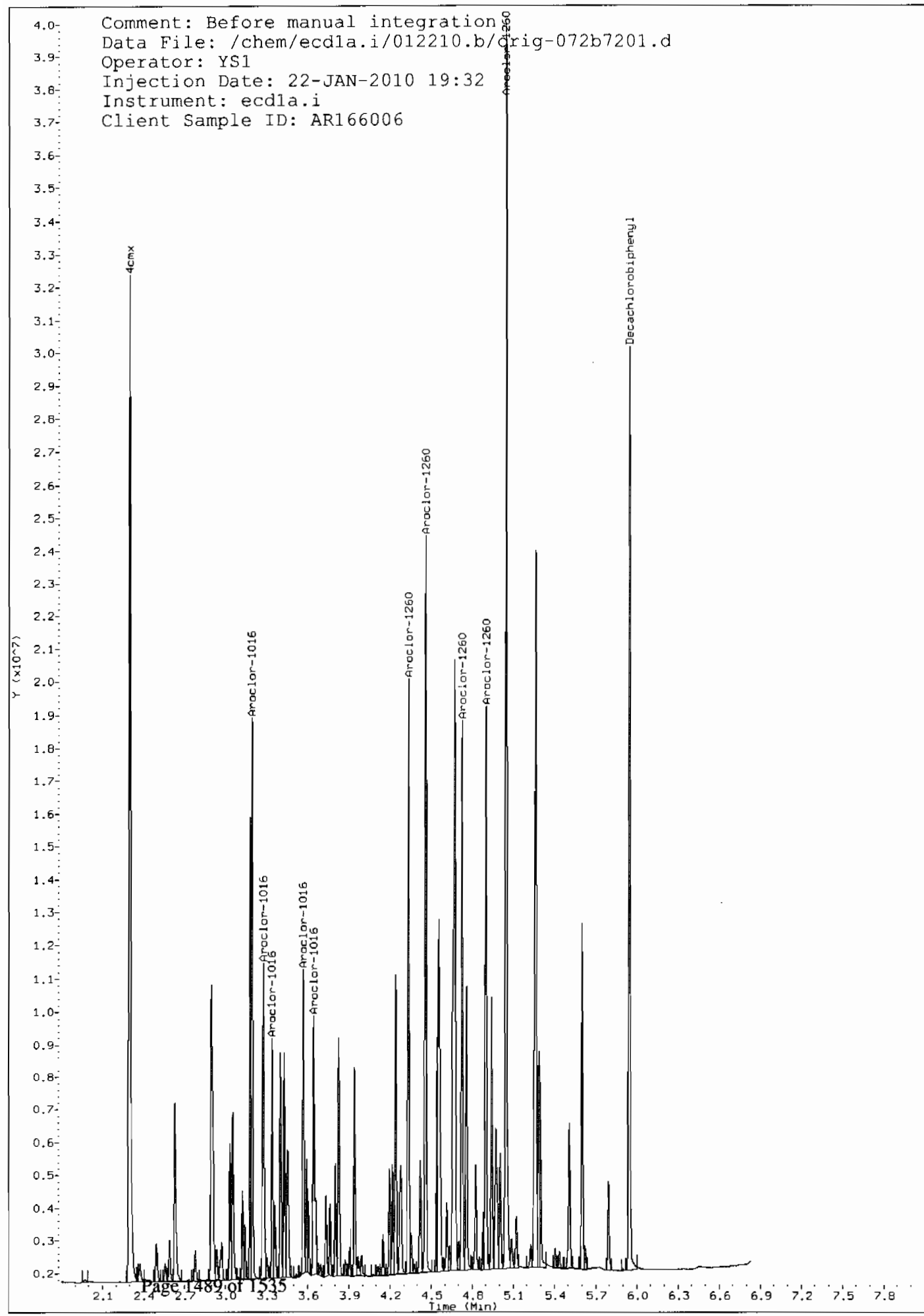
/chem/ecdda.i/012210.b/072b7201.d



Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/012210.b/072b7201.d  
Operator: YS1  
Injection Date: 22-JAN-2010 19:32  
Instrument: ecdl1a.i  
Client Sample ID: AR166006



Comment: Before manual integration  
Data File: /chem/ecdla.i/012210.b/orig-072b7201.d  
Operator: YS1  
Injection Date: 22-JAN-2010 19:32  
Instrument: ecdla.i  
Client Sample ID: AR166006





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.: 10-1304

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/22/10 01/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 1.97			DCB: 5.28			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #	
01	PIBLK01	WAR100105-99	01/22/10	0555	1.96	5.28
02	ZZZZZ	ZZZZZ	01/22/10	0606		
03	AR125401	WAR091216-54	01/22/10	0616		
04	AR124201	WAR091217-42	01/22/10	0627		
05	AR124801	WAR091217-48	01/22/10	0637		
06	AR123201	WAR100122-05	01/22/10	0648		
07	AR123202	WAR100122-06	01/22/10	0658		
08	AR123203	WAR100122-07	01/22/10	0709		
09	AR123204	WAR100122-08	01/22/10	0719		
10	AR123205	IAR100104-03	01/22/10	0730		
11	AR123201	WAR100104-32	01/22/10	0740		
12	AR122101	WAR100104-21	01/22/10	0751		
13	AR126201	WAR100122-09	01/22/10	0801		
14	AR126202	WAR100122-10	01/22/10	0812		
15	AR126203	WAR100122-11	01/22/10	0822		
16	AR126204	WAR100122-12	01/22/10	0836		
17	AR126205	IAR100104-04	01/22/10	0847		
18	AR126201	WAR100104-62	01/22/10	0857		
19	AR166001	WAR100122-13	01/22/10	0908	1.97	5.28
20	AR166002	WAR100122-14	01/22/10	0919	1.97	5.28
21	AR166003	WAR100122-15	01/22/10	0929	1.97	5.28
22	AR166004	WAR100122-16	01/22/10	0940	1.97	5.28
23	AR166005	IAR100104-01	01/22/10	0950	1.97	5.28
24	AR166001	WAR100104-60	01/22/10	1001	1.97	5.28
25	AR126801	WAR100122-68	01/22/10	1011		
26	DDTANALOGSTD	WAR091219-DD	01/22/10	1022		
27	PIBLK02	WAR100105-99	01/22/10	1032	1.97	5.28
28	ZZZZZ	ZZZZZ	01/22/10	1043	1.97	5.28
29	ZZZZZ	ZZZZZ	01/22/10	1055	1.97	5.28
30	ZZZZZ	ZZZZZ	01/22/10	1108	1.97	5.28
31	ZZZZZ	ZZZZZ	01/22/10	1121	1.97	5.28
32	ZZZZZ	ZZZZZ	01/22/10	1133	1.97	5.28

QC LIMITS

# 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.: 10-1304

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/22/10 01/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 1.97		DCB: 5.28			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01	AR166002	WAR100104-60	01/22/10	1146	1.97 5.28
02	PIBLK03	WAR100105-99	01/22/10	1156	1.97 5.28
03	ZZZZZ	ZZZZZ	01/22/10	1207	1.97 5.28
04	ZZZZZ	ZZZZZ	01/22/10	1217	1.97 5.28
05	ZZZZZ	ZZZZZ	01/22/10	1228	1.97 5.28
06	ZZZZZ	ZZZZZ	01/22/10	1239	1.97 5.28
07	ZZZZZ	ZZZZZ	01/22/10	1249	1.97 5.28
08	ZZZZZ	ZZZZZ	01/22/10	1300	1.97 5.28
09	AR166003	WAR100104-60	01/22/10	1310	1.97 5.28
10	PIBLK04	WAR100105-99	01/22/10	1321	1.97 5.28
11	PBLK01	1202021249	01/22/10	1331	1.97 5.28
12	PBLK01LCS	1202021250	01/22/10	1342	1.97 5.28
13	ZZZZZ	ZZZZZ	01/22/10	1353	1.97 5.28
14	ZZZZZ	ZZZZZ	01/22/10	1403	1.97 5.28
15	ZZZZZ	ZZZZZ	01/22/10	1416	1.97 5.28
16	ZZZZZ	ZZZZZ	01/22/10	1428	1.97 5.28
17	ZZZZZ	ZZZZZ	01/22/10	1441	1.97 5.28
18	ZZZZZ	ZZZZZ	01/22/10	1454	1.97 5.28
19	ZZZZZ	ZZZZZ	01/22/10	1506	1.97 5.28
20	ZZZZZ	ZZZZZ	01/22/10	1519	1.97 5.28
21	AR166004	WAR100104-60	01/22/10	1532	1.97 5.28
22	PIBLK05	WAR100105-99	01/22/10	1544	1.97 5.28
23	ZZZZZ	ZZZZZ	01/22/10	1557	1.97 5.28
24	ZZZZZ	ZZZZZ	01/22/10	1610	1.97 5.28
25	ZZZZZ	ZZZZZ	01/22/10	1622	1.97 5.28
26	RE15-10-7165	245106001	01/22/10	1635	1.97 5.28
27	RE15-10-7165	1202021251	01/22/10	1648	1.97 5.28
28	RE15-10-7165	1202021252	01/22/10	1700	1.97 5.28
29	RE15-10-7171	245106002	01/22/10	1713	1.97 5.28
30	RE15-10-7170	245106003	01/22/10	1726	1.97 5.28
31	RE15-10-7164	245106004	01/22/10	1738	1.97 5.28
32	RE15-10-7167	245106005	01/22/10	1751	1.97 5.28

QC LIMITS

# 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.: 10-1304

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/22/10 01/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION							
S1 : 1.97				DCB: 5.28			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #	
01	AR166005	WAR100104-60	01/22/10	1803	1.97	5.28	
02	PIBLK06	WAR100105-99	01/22/10	1816	1.97	5.28	
03	RE15-10-7169	245106006	01/22/10	1829	1.97	5.28	
04	RE15-10-7168	245106007	01/22/10	1841	1.97	5.28	
05	RE15-10-7166	245106008	01/22/10	1854	1.97	5.28	
06	ZZZZZ	ZZZZZ	01/22/10	1907	1.97	5.28	
07	ZZZZZ	ZZZZZ	01/22/10	1919	1.97	5.28	
08	AR166006	WAR100104-60	01/22/10	1932	1.97	5.28	
09	PIBLK07	WAR100105-99	01/22/10	1944	1.97	5.28	
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							

QC LIMITS

# 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.: 10-1304

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/22/10 01/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.30			DCB: 5.95			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT	#	RT
						#
01	PIBLK01	WAR100105-99	01/22/10	0555	2.30	5.95
02	ZZZZZ	ZZZZZ	01/22/10	0606		
03	AR125401	WAR091216-54	01/22/10	0616		
04	AR124201	WAR091217-42	01/22/10	0627		
05	AR124801	WAR091217-48	01/22/10	0637		
06	AR123201	WAR100122-05	01/22/10	0648		
07	AR123202	WAR100122-06	01/22/10	0658		
08	AR123203	WAR100122-07	01/22/10	0709		
09	AR123204	WAR100122-08	01/22/10	0719		
10	AR123205	IAR100104-03	01/22/10	0730		
11	AR123201	WAR100104-32	01/22/10	0740		
12	AR122101	WAR100104-21	01/22/10	0751		
13	AR126201	WAR100122-09	01/22/10	0801		
14	AR126202	WAR100122-10	01/22/10	0812		
15	AR126203	WAR100122-11	01/22/10	0822		
16	AR126204	WAR100122-12	01/22/10	0836		
17	AR126205	IAR100104-04	01/22/10	0847		
18	AR126201	WAR100104-62	01/22/10	0857		
19	AR166001	WAR100122-13	01/22/10	0908	2.30	5.95
20	AR166002	WAR100122-14	01/22/10	0919	2.30	5.95
21	AR166003	WAR100122-15	01/22/10	0929	2.30	5.95
22	AR166004	WAR100122-16	01/22/10	0940	2.30	5.95
23	AR166005	IAR100104-01	01/22/10	0950	2.30	5.95
24	AR166001	WAR100104-60	01/22/10	1001	2.30	5.95
25	AR126801	WAR100122-68	01/22/10	1011		
26	DDTANALOGSTD	WAR091219-DD	01/22/10	1022		
27	PIBLK02	WAR100105-99	01/22/10	1032	2.30	5.95
28	ZZZZZ	ZZZZZ	01/22/10	1043	2.30	5.95
29	ZZZZZ	ZZZZZ	01/22/10	1055	2.30	5.95
30	ZZZZZ	ZZZZZ	01/22/10	1108	2.30	5.95
31	ZZZZZ	ZZZZZ	01/22/10	1121	2.30	5.95
32	ZZZZZ	ZZZZZ	01/22/10	1133	2.30	5.95

QC LIMITS

# 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.: 10-1304

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/22/10 01/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.30			DCB: 5.95			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT	#	RT
=====	=====	=====	=====	=====	=====	=====
01	AR166002	WAR100104-60	01/22/10	1146	2.30	5.95
02	PIBLK03	WAR100105-99	01/22/10	1156	2.30	5.95
03	ZZZZZ	ZZZZZ	01/22/10	1207	2.30	5.95
04	ZZZZZ	ZZZZZ	01/22/10	1217	2.30	5.95
05	ZZZZZ	ZZZZZ	01/22/10	1228	2.30	5.95
06	ZZZZZ	ZZZZZ	01/22/10	1239	2.30	5.95
07	ZZZZZ	ZZZZZ	01/22/10	1249	2.30	5.95
08	ZZZZZ	ZZZZZ	01/22/10	1300	2.30	5.95
09	AR166003	WAR100104-60	01/22/10	1310	2.30	5.95
10	PIBLK04	WAR100105-99	01/22/10	1321	2.30	5.95
11	PBLK01	1202021249	01/22/10	1331	2.30	5.95
12	PBLK01LCS	1202021250	01/22/10	1342	2.30	5.95
13	ZZZZZ	ZZZZZ	01/22/10	1353	2.30	5.95
14	ZZZZZ	ZZZZZ	01/22/10	1403	2.30	5.95
15	ZZZZZ	ZZZZZ	01/22/10	1416	2.30	5.95
16	ZZZZZ	ZZZZZ	01/22/10	1428	2.30	5.95
17	ZZZZZ	ZZZZZ	01/22/10	1441	2.30	5.95
18	ZZZZZ	ZZZZZ	01/22/10	1454	2.30	5.95
19	ZZZZZ	ZZZZZ	01/22/10	1506	2.30	5.95
20	ZZZZZ	ZZZZZ	01/22/10	1519	2.30	5.95
21	AR166004	WAR100104-60	01/22/10	1532	2.30	5.95
22	PIBLK05	WAR100105-99	01/22/10	1544	2.30	5.95
23	ZZZZZ	ZZZZZ	01/22/10	1557	2.30	5.95
24	ZZZZZ	ZZZZZ	01/22/10	1610	2.30	5.95
25	ZZZZZ	ZZZZZ	01/22/10	1622	2.30	5.95
26	RE15-10-7165	245106001	01/22/10	1635	2.30	5.95
27	RE15-10-7165MS	1202021251	01/22/10	1648	2.30	5.95
28	RE15-10-7165MSD	1202021252	01/22/10	1700	2.30	5.95
29	RE15-10-7171	245106002	01/22/10	1713	2.30	5.95
30	RE15-10-7170	245106003	01/22/10	1726	2.30	5.95
31	RE15-10-7164	245106004	01/22/10	1738	2.30	5.95
32	RE15-10-7167	245106005	01/22/10	1751	2.30	5.95

QC LIMITS

# 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.: 10-1304

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/22/10 01/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.30			DCB: 5.95			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01	AR166005	WAR100104-60	01/22/10	1803	2.30	5.95
02	PIBLK06	WAR100105-99	01/22/10	1816	2.30	5.95
03	RE15-10-7169	245106006	01/22/10	1829	2.30	5.94
04	RE15-10-7168	245106007	01/22/10	1841	2.30	5.95
05	RE15-10-7166	245106008	01/22/10	1854	2.30	5.95
06	ZZZZZ	ZZZZZ	01/22/10	1907	2.30	5.95
07	ZZZZZ	ZZZZZ	01/22/10	1919	2.30	5.95
08	AR166006	WAR100104-60	01/22/10	1932	2.30	5.95
09	PIBLK07	WAR100105-99	01/22/10	1944	2.30	5.95
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

## Identification Summary

Page 1 of 1

SDG Number: 10-1304

Client ID: LCS for batch 943951

Lab Sample ID: 1202021250

Data File: 044f4401.d

Data File: 044b4401.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 22-JAN-10 13:42

Analyzed: 22-JAN-10 13:42

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
<b>Aroclor-1016</b>							3.66
<i>Column 1</i>	1	2.42	2.39 – 2.45	20		ug/kg	
	2	2.71	2.68 – 2.74	19.8		ug/kg	
	3	2.79	2.76 – 2.82	19.9		ug/kg	
	4	2.83	2.8 – 2.86	19.8		ug/kg	
	5	3.04	3.01 – 3.07	19.9		ug/kg	
					19.9		
<i>Column 2</i>	1	3.2	3.17 – 3.23	20		ug/kg	
	2	3.28	3.25 – 3.31	19.1		ug/kg	
	3	3.34	3.31 – 3.37	18.6		ug/kg	
	4	3.57	3.54 – 3.6	19.3		ug/kg	
	5	3.65	3.62 – 3.68	18.9		ug/kg	
					19.2		
<b>Aroclor-1260</b>							6.45
<i>Column 1</i>	1	3.77	3.74 – 3.8	21.3		ug/kg	
	2	3.93	3.9 – 3.96	21.2		ug/kg	
	3	4.16	4.13 – 4.19	21.4		ug/kg	
	4	4.3	4.27 – 4.33	20.9		ug/kg	
	5	4.48	4.45 – 4.51	22.1		ug/kg	
					21.4		
<i>Column 2</i>	1	4.34	4.31 – 4.37	19.7		ug/kg	
	2	4.46	4.43 – 4.49	20.4		ug/kg	
	3	4.73	4.7 – 4.76	19.9		ug/kg	
	4	4.9	4.87 – 4.93	20		ug/kg	
	5	5.05	5.02 – 5.08	20.4		ug/kg	
					20		

## Identification Summary

Page 1 of 1

SDG Number: 10-1304

Client ID: RE15-10-7165MS

Lab Sample ID: 1202021251

Data File: 059b5901.d

Data File: 059b5901.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 22-JAN-10 16:48

Analyzed: 22-JAN-10 16:48

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							2.28
Column 1	1	2.42	2.39 - 2.45	27.2		ug/kg	
	2	2.71	2.68 - 2.74	28.7		ug/kg	
	3	2.79	2.76 - 2.82	27.9		ug/kg	
	4	2.83	2.8 - 2.86	27.9		ug/kg	
	5	3.04	3.01 - 3.07	28.7		ug/kg	
					28.1		
Column 2	1	3.2	3.17 - 3.23	28.1		ug/kg	
	2	3.28	3.25 - 3.31	27.5		ug/kg	
	3	3.34	3.31 - 3.37	26.9		ug/kg	
	4	3.57	3.54 - 3.6	27.2		ug/kg	
	5	3.65	3.62 - 3.68	27.5		ug/kg	
					27.5		
Aroclor-1260							4.68
Column 1	1	3.76	3.74 - 3.8	33		ug/kg	
	2	3.93	3.9 - 3.96	33.9		ug/kg	
	3	4.16	4.13 - 4.19	33.6		ug/kg	
	4	4.3	4.27 - 4.33	34.2		ug/kg	
	5	4.48	4.45 - 4.51	30.9		ug/kg	
					33.1		
Column 2	1	4.34	4.31 - 4.37	30.9		ug/kg	
	2	4.46	4.43 - 4.49	32.6		ug/kg	
	3	4.73	4.7 - 4.76	31.9		ug/kg	
	4	4.9	4.87 - 4.93	30.9		ug/kg	
	5	5.05	5.02 - 5.08	31.7		ug/kg	
					31.6		



## Identification Summary

Page 1 of 1

SDG Number: 10-1304

Client ID: RE15-10-7165MSD

Lab Sample ID: 1202021252

Data File: 060f6001.d

Data File: 060b6001.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 22-JAN-10 17:00

Analyzed: 22-JAN-10 17:00

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							.862
Column 1	1	2.42	2.39 – 2.45	24.6	25	ug/kg	
	2	2.71	2.68 – 2.74	25.5		ug/kg	
	3	2.79	2.76 – 2.82	24.9		ug/kg	
	4	2.83	2.8 – 2.86	24.7		ug/kg	
	5	3.04	3.01 – 3.07	25.3		ug/kg	
Column 2	1	3.2	3.17 – 3.23	25.2	24.8	ug/kg	
	2	3.28	3.25 – 3.31	24.7		ug/kg	
	3	3.34	3.31 – 3.37	24		ug/kg	
	4	3.57	3.54 – 3.6	25.2		ug/kg	
	5	3.65	3.62 – 3.68	24.8		ug/kg	
Aroclor-1260							5.36
Column 1	1	3.76	3.74 – 3.8	28.6	28.5	ug/kg	
	2	3.93	3.9 – 3.96	29.3		ug/kg	
	3	4.16	4.13 – 4.19	28.9		ug/kg	
	4	4.3	4.27 – 4.33	28.9		ug/kg	
	5	4.48	4.45 – 4.51	26.8		ug/kg	
Column 2	1	4.34	4.31 – 4.37	26.9	27	ug/kg	
	2	4.46	4.43 – 4.49	28		ug/kg	
	3	4.73	4.7 – 4.76	27.2		ug/kg	
	4	4.9	4.87 – 4.93	25.9		ug/kg	
	5	5.05	5.02 – 5.08	27.2		ug/kg	

# QUALITY CONTROL DATA

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

Page 1 of 1

SDG Number:	10-1304	Matrix:	SOIL
Lab Sample ID:	1202021249		
Client Sample:	QC for batch 943951	Client:	LANL010
Client ID:	MB for batch 943951	Method:	SW846 8082
Batch ID:	943953	Inst:	ECD1A.I
Run Date:	01/22/2010 13:31	Analyst:	YS1
Prep Date:	01/21/2010 19:38	Aliquot:	30 g
Data File:	043f4301-1.d	Column:	1 CLP1
	043b4301-1.d		2 CLP2
		Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	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

Data File: /chem/ecdla.i/012210.b/043f4301-2.d  
Report Date: 25-Jan-2010 13:27

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/012210.b/043f4301-2.d  
Lab Smp Id: 1202021249 Client Smp ID: PBLK01  
Inj Date : 22-JAN-2010 13:31  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |1202021249|1|  
Misc Info : |ECD82P\_1S|943953|SVA|QC A|SOIL|MB|||  
Comment :  
Method : /chem/ecdla.i/012210.b/ECD1-F-8082-121409.m  
Meth Date : 23-Jan-2010 11:25 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d  
Als bottle: 43 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-1304.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	4	cmx					
1.968	1.967	0.001	48649665 123.808	4.1	80.00- 120.00	100.00	
12	Decachlorobiphenyl						
5.282	5.281	0.001	36275241 109.974	3.7	80.00- 120.00	100.00	

Data File: /chem/eod1a.i/012210.b/043f4301-2.d

Date: 22-JUN-2010 13:31

Client ID: PBLK01

Sample Info: 1120202124911

Volume Injected (uL): 1.0

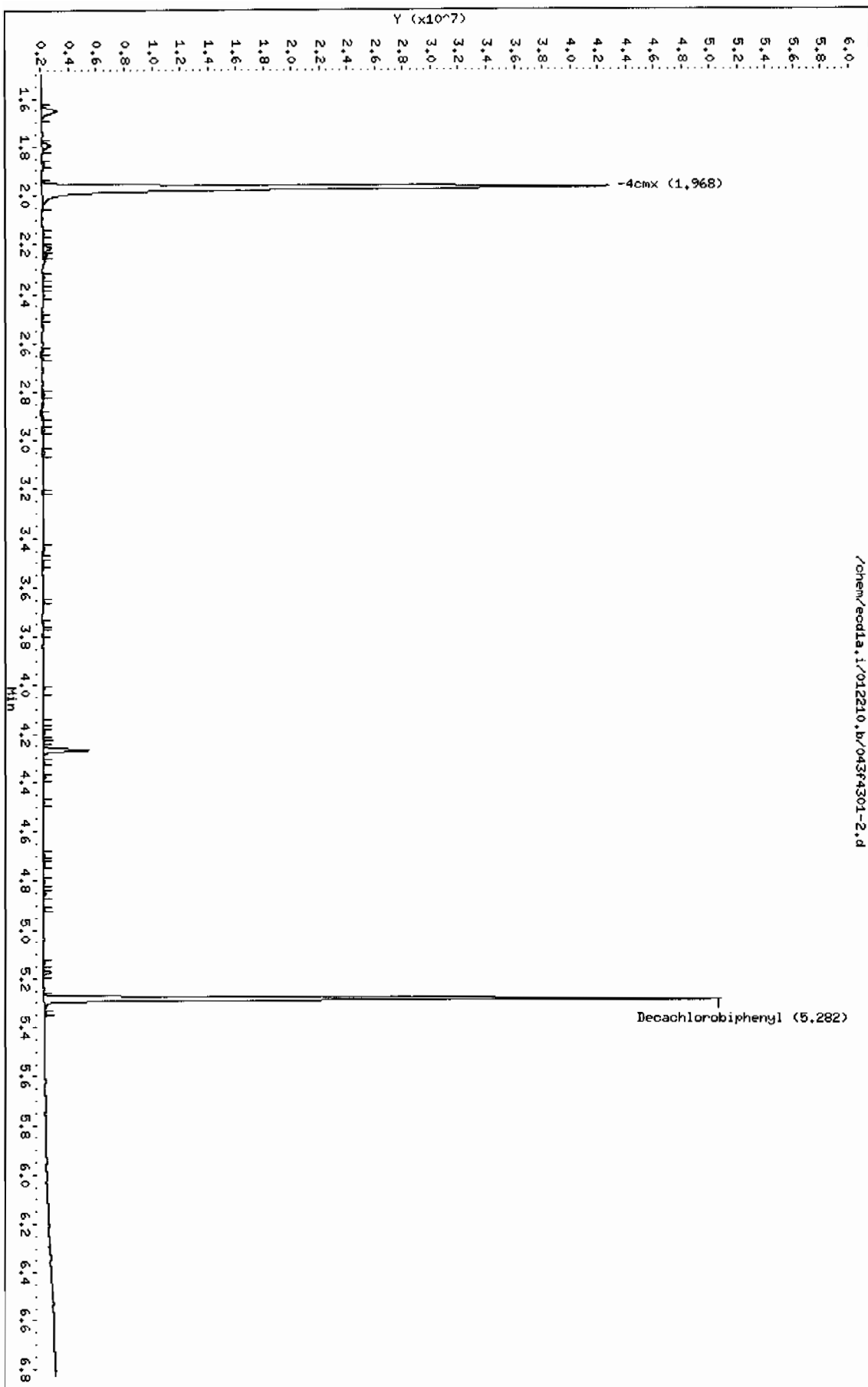
Column phase: CLP1

Instrument: eod1a.i

Operator: YS1

Column diameter: 0.25

Page 1



Data File: /chem/ecdla.i/012210.b/043b4301-2.d  
 Report Date: 25-Jan-2010 13:26

Page 1

GEL Laboratories LLC

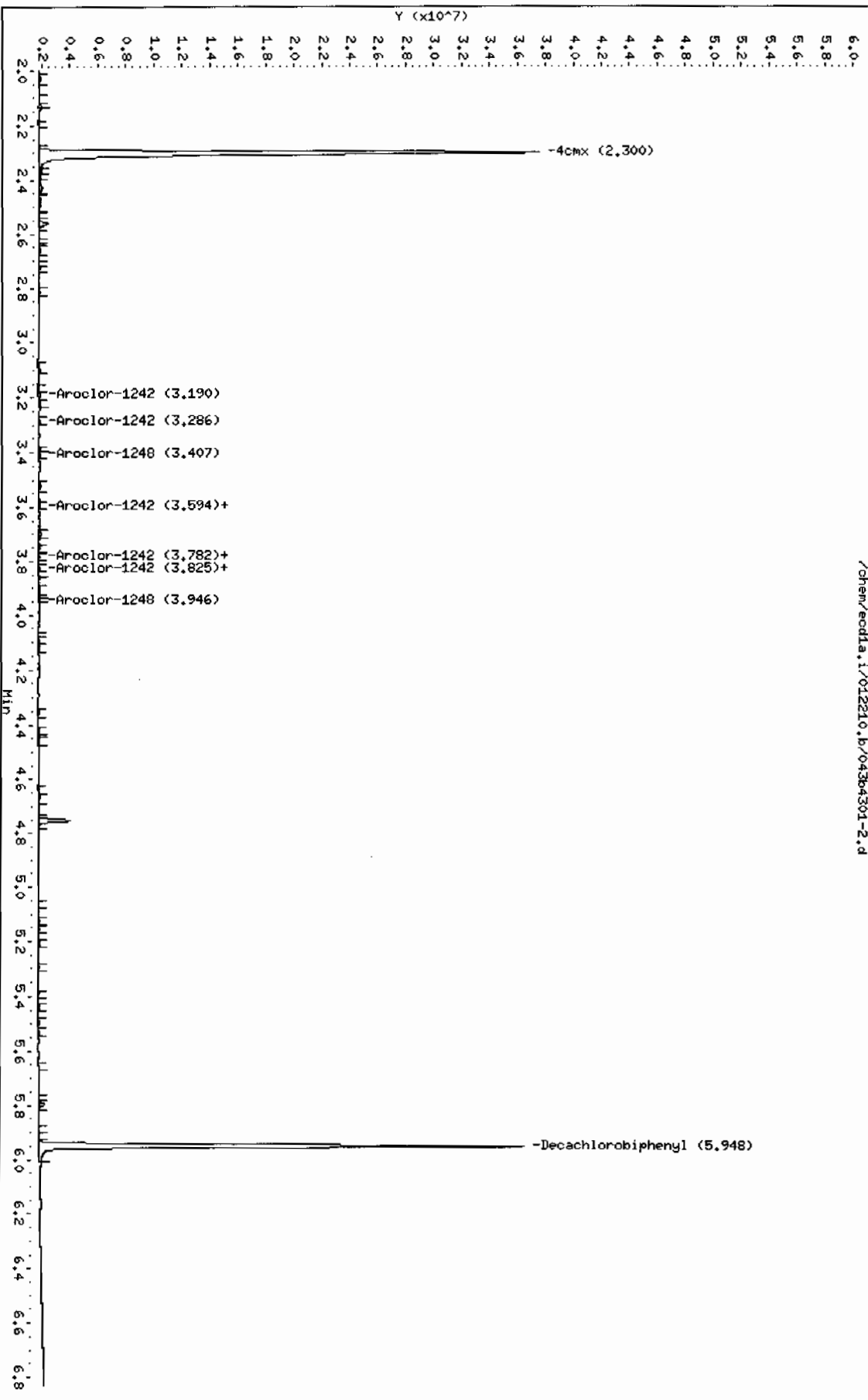
RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
 Data file : /chem/ecdla.i/012210.b/043b4301-2.d  
 Lab Smp Id: 1202021249 Client Smp ID: PBLK01  
 Inj Date : 22-JAN-2010 13:31  
 Operator : YS1 Inst ID: ecdla.i  
 Smp Info : |1202021249|1|  
 Misc Info : |ECD82P\_1S|943953|SVA|QC A|SOIL|MB|||  
 Comment :  
 Method : /chem/ecdla.i/012210.b/ECD1-B-8082-121409.m  
 Meth Date : 23-Jan-2010 11:25 yip00818 Quant Type: ESTD  
 Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d  
 Als bottle: 43 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-1304.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	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
			ON-COL	FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO		
==	=====	=====	=====	=====	=====	=====		
\$ 11 4cmx					CAS #: 877-09-8			
2.300	2.299	0.001	34477166	118.803	4.0 80.00- 120.00	100.00		
-----								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.948	5.947	0.001	27278689	111.810	3.7 80.00- 120.00	100.00		
-----								



Data File: /chem/ecdda.i/012210.b/043b4301-2.d  
Date: 22-JAN-2010 13:31  
Client ID: PBLX01  
Sample Info: 11202021249111  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: ecdda.i  
Operator: YSL  
Column diameter: 0.25

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

Page 1 of 1

SDG Number: 10-1304

Matrix: SOIL

Lab Sample ID: 1202021250

Client Sample: QC for batch 943951

Client: LANL010

Project: QC

Client ID: LCS for batch 943951

Method: SW846 8082

SOP Ref: GL-OA-E-040

Batch ID: 943953

Inst: ECD1A.I

Dilution: 1

Run Date: 01/22/2010 13:42

Analyst: YS1

Inj. Vol: 1 uL

Prep Date: 01/21/2010 19:38

Aliquot: 30 g

Final Volume: 1 mL

Data File: 044f4401-1.d

Column: 1 CLP1

Level: LOW

044b4401-1.d

2 CLP2

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		19.9	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		21.4	ug/kg	1.11	3.33	1



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/012210.b/044f4401-2.d  
 Lab Smp Id: 1202021250 Client Smp ID: PBLK01LCS  
 Inj Date : 22-JAN-2010 13:42  
 Operator : YS1 Inst ID: ecdla.i  
 Smp Info : |1202021250|1|  
 Misc Info : |ECD82P\_1S|943953|SVA|QC A|SOIL|LCS|||  
 Comment :  
 Method : /chem/ecdla.i/012210.b/ECD1-F-8082-121409.m  
 Meth Date : 23-Jan-2010 11:25 yip00818 Quant Type: ESTD  
 Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d  
 Als bottle: 44 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-1304.sub  
 Target Version: 3.50 Sample Matrix: Soil  
 Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	
\$ 11 4cmx					CAS #: 877-09-8			
1.968	1.967	0.001	46379333	118.031	3.9	80.00- 120.00	100.00	
-----								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.283	5.281	0.002	33783976	102.422	3.4	80.00- 120.00	100.00	
-----								
1 Aroclor-1016					CAS #: 12674-11-2			
2.423	2.422	0.001	8679418	600.637	20.0	80.00- 120.00	100.00	
2.713	2.711	0.002	10828976	595.007	19.8	112.54- 152.54	124.77	
2.793	2.792	0.001	7167803	598.149	19.9	65.91- 105.91	82.58	
2.831	2.830	0.001	4254875	592.787	19.8	31.86- 71.86	49.02	

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET RANGE	RATIO		
==	=====	=====	=====	=====	=====	=====	=====		
1 Aroclor-1016 (continued)									
3.042	3.041	0.001	5529236	597.146	19.9	46.15-	86.15	63.71	
Average of Peak Concentrations =					19.9				
-----									
7 Aroclor-1260					CAS #: 11096-82-5				
3.768	3.766	0.002	11345212	640.294	21.3	80.00-	120.00	100.00	
3.930	3.929	0.001	17139503	636.484	21.2	132.78-	172.78	151.07	
4.161	4.159	0.002	10384312	641.547	21.4	71.24-	111.24	91.53	
4.303	4.302	0.001	10593353	626.531	20.9	75.48-	115.48	93.37	
4.483	4.481	0.002	24979035	663.180	22.1	198.43-	238.43	220.17	
Average of Peak Concentrations =					21.4				
-----									

Data File: /chem/eodla.i/012210.b/0444401-2.d

Date: 22-JAN-2010 13:42

Client ID: PALKOILCS

Sample Info: 11202021250111

Volume Injected (uL): 1.0

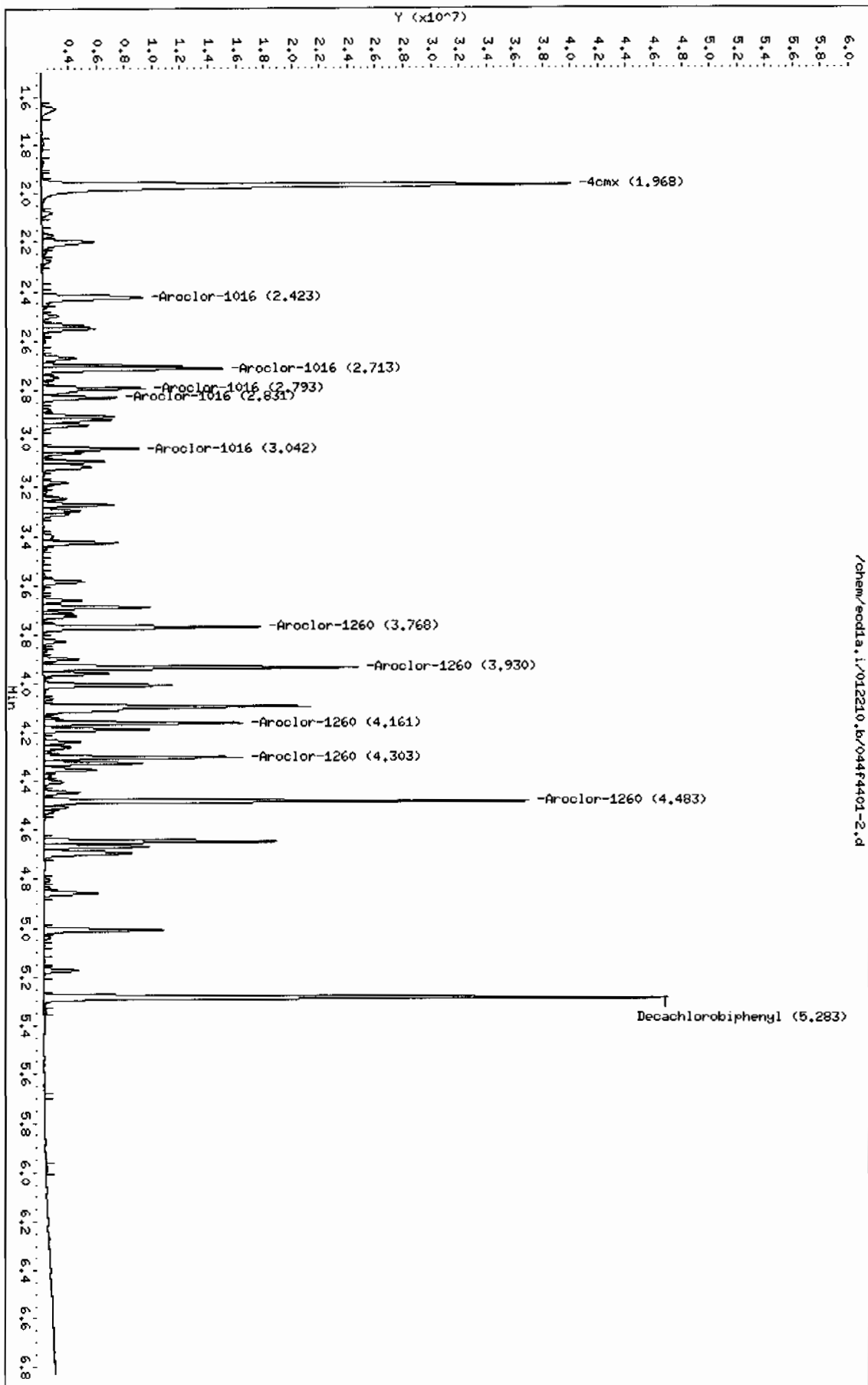
Column phase: CLP1

Instrument: eodla.i

Operator: YSL

Column diameter: 0.25

Page 1



Data File: /chem/ecdla.i/012210.b/044b4401-2.d  
Report Date: 25-Jan-2010 13:25

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/012210.b/044b4401-2.d  
Lab Smp Id: 1202021250 Client Smp ID: PBLK01LCS  
Inj Date : 22-JAN-2010 13:42  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |1202021250|1|  
Misc Info : |ECD82P\_1S|943953|SVA|QC A|SOIL|LCS|1|  
Comment :  
Method : /chem/ecdla.i/012210.b/ECD1-B-8082-121409.m  
Meth Date : 23-Jan-2010 11:25 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d  
Als bottle: 44 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-1304.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

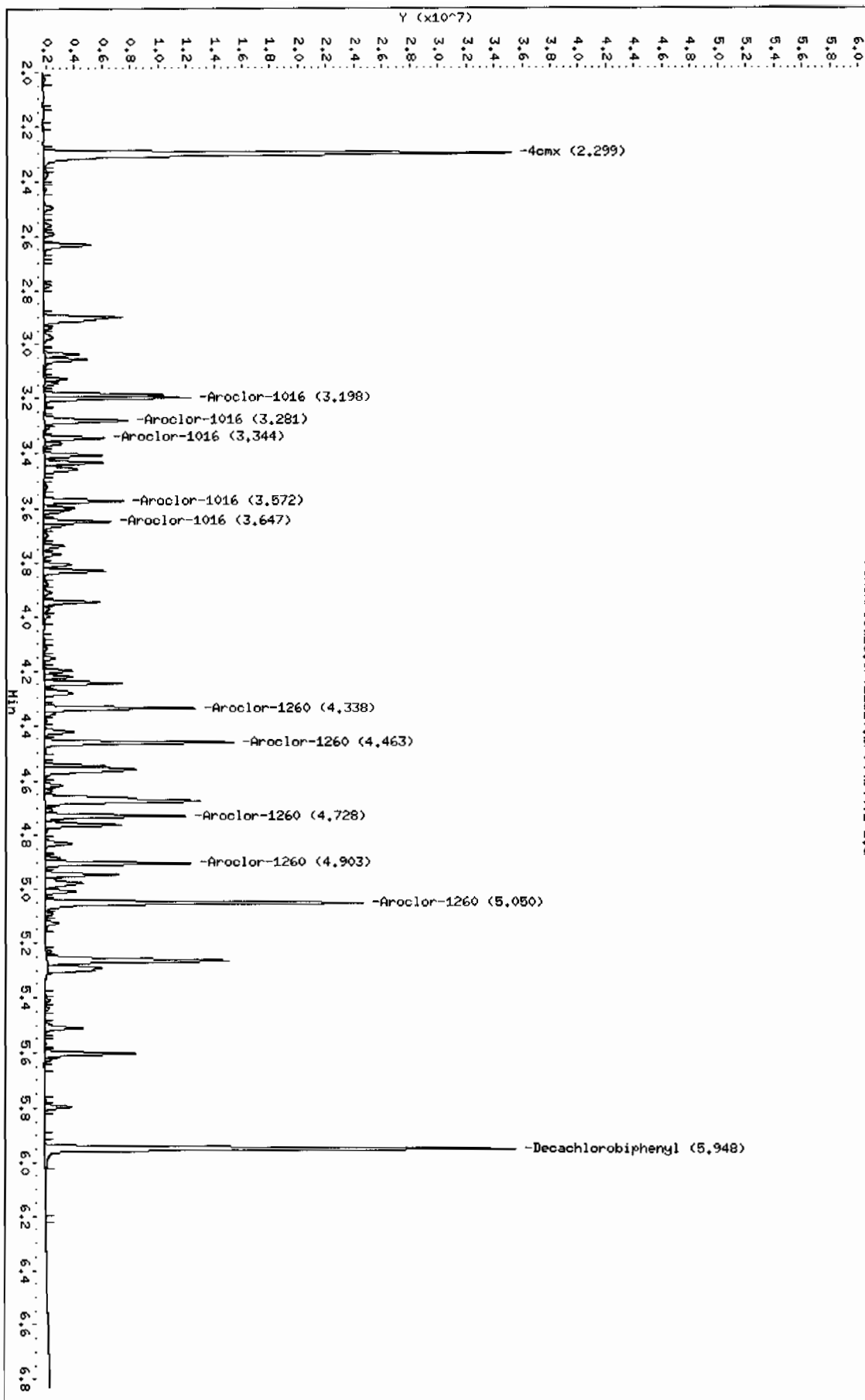
CONCENTRATIONS							
		ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
\$ 11 4cmx CAS #: 877-09-8							
2.299	2.299	0.000	32654239	112.522	3.8 80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3							
5.948	5.947	0.001	25469946	104.396	3.5 80.00- 120.00	100.00	
-----							
1 Aroclor-1016 CAS #: 12674-11-2							
3.198	3.196	0.002	7595503	598.690	20.0 80.00- 120.00	100.00	
3.281	3.280	0.001	5044521	573.362	19.1 45.59- 85.59	66.41	
3.344	3.343	0.001	3053083	557.211	18.6 20.76- 60.76	40.20	
3.572	3.570	0.002	4055838	579.634	19.3 31.39- 71.39	53.40	

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO		
=====									
1 Aroclor-1016 (continued)									
3.647	3.646	0.001	3724434	567.447	18.9	28.52-	68.52	49.03	
Average of Peak Concentrations =					19.2				
-----									
7 Aroclor-1260					CAS #: 11096-82-5				
4.338	4.336	0.002	7848647	591.231	19.7	80.00-	120.00	100.00	
4.463	4.461	0.002	9870442	610.872	20.4	103.04-	143.04	125.76	
4.728	4.727	0.001	7449118	595.967	19.9	74.36-	114.36	94.91	
4.903	4.901	0.002	7741167	598.758	20.0	77.78-	117.78	98.63	
5.050	5.048	0.002	17374164	610.785	20.4	201.91-	241.91	221.37	
Average of Peak Concentrations =					20.1				
-----									

Data File: /chem/ecdl1.i/012210.b/0440401-2.d  
Date: 22-JAN-2010 13:42  
Client ID: PBLK01LCS  
Sample Info: 1120202125011  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: ecdl1.i  
Operator: YSL  
Column diameter: 0.25

/chem/ecdl1.i/012210.b/0440401-2.d



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

SDG Number: 10-1304  
Lab Sample ID: 1202021251  
Client Sample: QC for batch 943951  
Client ID: RE15-10-7165MS  
Batch ID: 943953  
Run Date: 01/22/2010 16:48  
Prep Date: 01/21/2010 19:38  
Data File: 059f5901.d  
059b5901.d

Date Collected: 01/13/2010 12:00  
Date Received: 01/20/2010 08:45  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.J  
Analyst: YS1  
Aliquot: 30.13 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 19.4  
Project: QC  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		28.1	ug/kg	1.37	4.12	1
11104-28-2	Aroclor-1221	U	4.12	ug/kg	1.37	4.12	1
11141-16-5	Aroclor-1232	U	4.12	ug/kg	1.37	4.12	1
53469-21-9	Aroclor-1242	U	4.12	ug/kg	1.37	4.12	1
12672-29-6	Aroclor-1248	U	4.12	ug/kg	1.37	4.12	1
11097-69-1	Aroclor-1254	U	4.12	ug/kg	1.37	4.12	1
11096-82-5	Aroclor-1260		33.1	ug/kg	1.37	4.12	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/012210.b/059f5901.d  
Lab Smp Id: 1202021251 Client Smp ID: RE15-10-7165MS  
Inj Date : 22-JAN-2010 16:48  
Operator : YSl Inst ID: ecdla.i  
Smp Info : |1202021251|1|  
Misc Info : |ECD82P\_1S|943953|SVA|QC A|SOIL|MS|||  
Comment :  
Method : /chem/ecdla.i/012210.b/ECD1-F-8082-121409.m  
Meth Date : 25-Jan-2010 13:49 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d  
Als bottle: 59 QC Sample: MS  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-1304.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	30.13000	Weight of sample extracted (g)
M	19.44320	% Moisture

Cpnd Variable Local Compound Variable

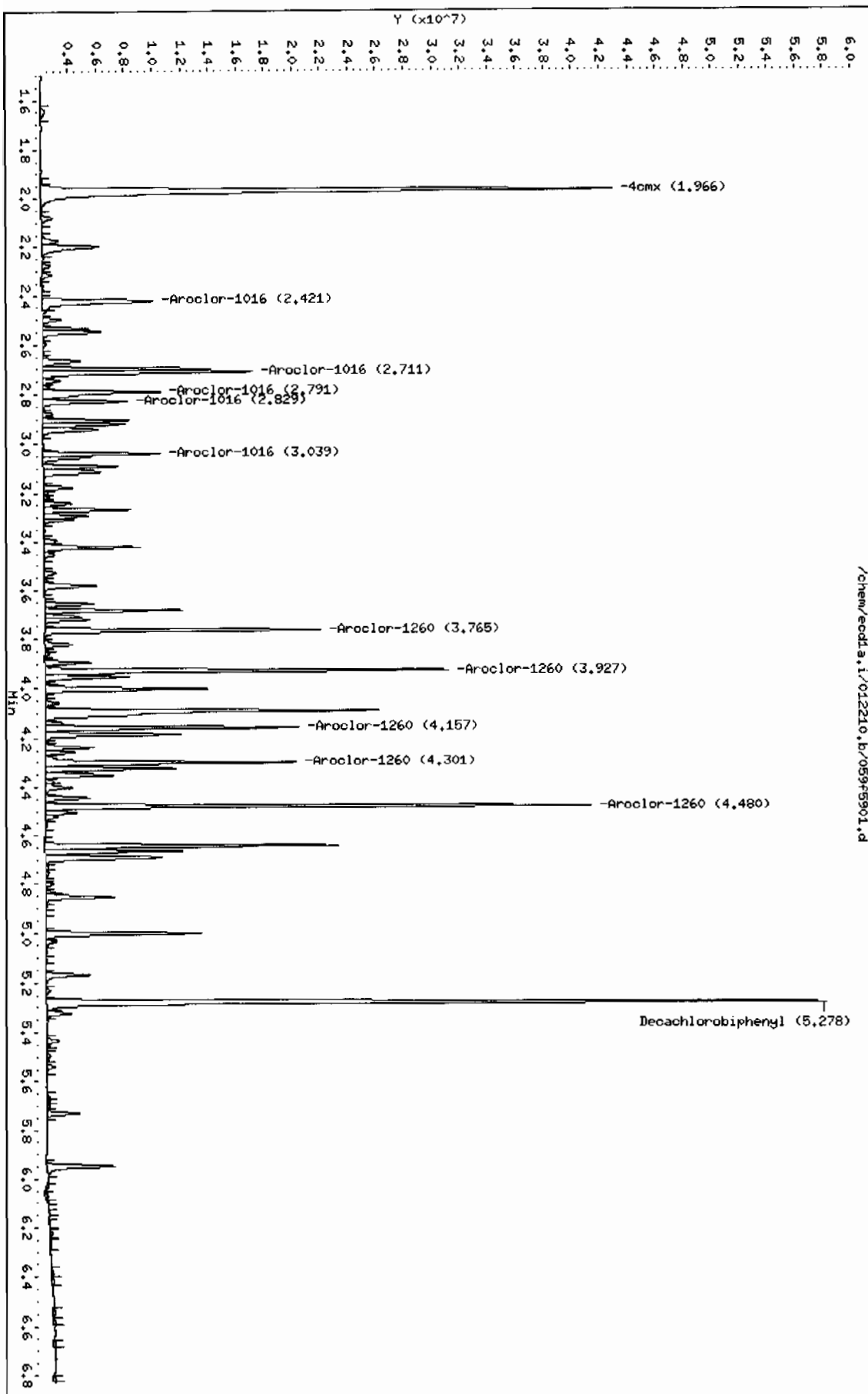
CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8		
1.966	1.967	-0.001	47702923 121.399	5.0	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.278	5.281	-0.003	43900109 133.090	5.5	80.00- 120.00	100.00
-----						
1 Aroclor-1016				CAS #: 12674-11-2		
2.421	2.422	-0.001	9555396 661.257	27.2	80.00- 120.00	100.00
2.711	2.711	0.000	12692705 697.411	28.7	112.80- 152.80	132.83
2.791	2.792	-0.001	8121346 677.721	27.9	65.99- 105.99	84.99
2.829	2.830	-0.001	4853703 676.216	27.9	31.71- 71.71	50.80



CONCENTRATIONS								
RT	EXP RT	DLT RT	ON-COL		FINAL	TARGET RANGE	RATIO	
			RESPONSE	( ug/L)	(ug/Kg)			
==	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)								
3.039	3.041	-0.002	6452620	696.869	28.7	45.67-	85.67	67.53
Average of Peak Concentrations =					28.1			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.765	3.766	-0.001	14186744	800.662	33.0	80.00-	120.00	100.00
3.927	3.929	-0.002	22139790	822.173	33.9	132.92-	172.92	156.06
4.157	4.159	-0.002	13183346	814.472	33.6	71.35-	111.35	92.93
4.301	4.302	-0.001	14025480	829.520	34.2	75.53-	115.53	98.86
4.480	4.481	-0.001	28260861	750.310	30.9	198.54-	238.54	199.21
Average of Peak Concentrations =					33.1			
-----								

Data File: /chem/eodla.i/012210.b/059f5901.d  
 Date: 22-JAN-2010 16:48  
 Client ID: REIS-10-716SMS  
 Sample Info: 11202021251111  
 Volume Injected (uL): 1.0  
 Column phase: CLP4

Instrument: eodla.i  
 Operator: YSL  
 Column diameter: 0.25



Data File: /chem/ecdl1a.i/012210.b/059b5901.d  
Report Date: 25-Jan-2010 13:45

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/059b5901.d

Lab Smp Id: 1202021251

Client Smp ID: RE15-10-7165MS

Inj Date : 22-JAN-2010 16:48

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |1202021251|1|

Misc Info : |ECD82P\_1S|943953|SVA|QC A|SOIL|MS|1|

Comment :

Method : /chem/ecdl1a.i/012210.b/ECD1-B-8082-121409.m

Meth Date : 23-Jan-2010 11:25 yip00818

Quant Type: ESTD

Cal Date : 22-JAN-2010 08:47

Cal File: 017b1701.d

Als bottle: 59

QC Sample: MS

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-1304.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	30.13000	Weight of sample extracted (g)
M	19.44320	% Moisture

Cpnd Variable

Local Compound Variable

CONCENTRATIONS

RT	EXP RT	DLT RT	ON-COL	FINAL	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
CAS #: 877-09-8								
2.299	2.299	0.000	34171363	117.749	4.8	80.00- 120.00	100.00	
CAS #: 2051-24-3								
5.946	5.947	-0.001	26637523	109.182	4.5	80.00- 120.00	100.00	
CAS #: 12674-11-2								
3.196	3.196	0.000	8659500	682.556	28.1	80.00- 120.00	100.00 (M)	
3.279	3.280	-0.001	5871067	667.308	27.5	45.59- 85.59	67.80	
3.342	3.343	-0.001	3578538	653.111	26.9	20.76- 60.76	41.32	
3.570	3.570	0.000	4625678	661.071	27.2	31.39- 71.39	53.42	

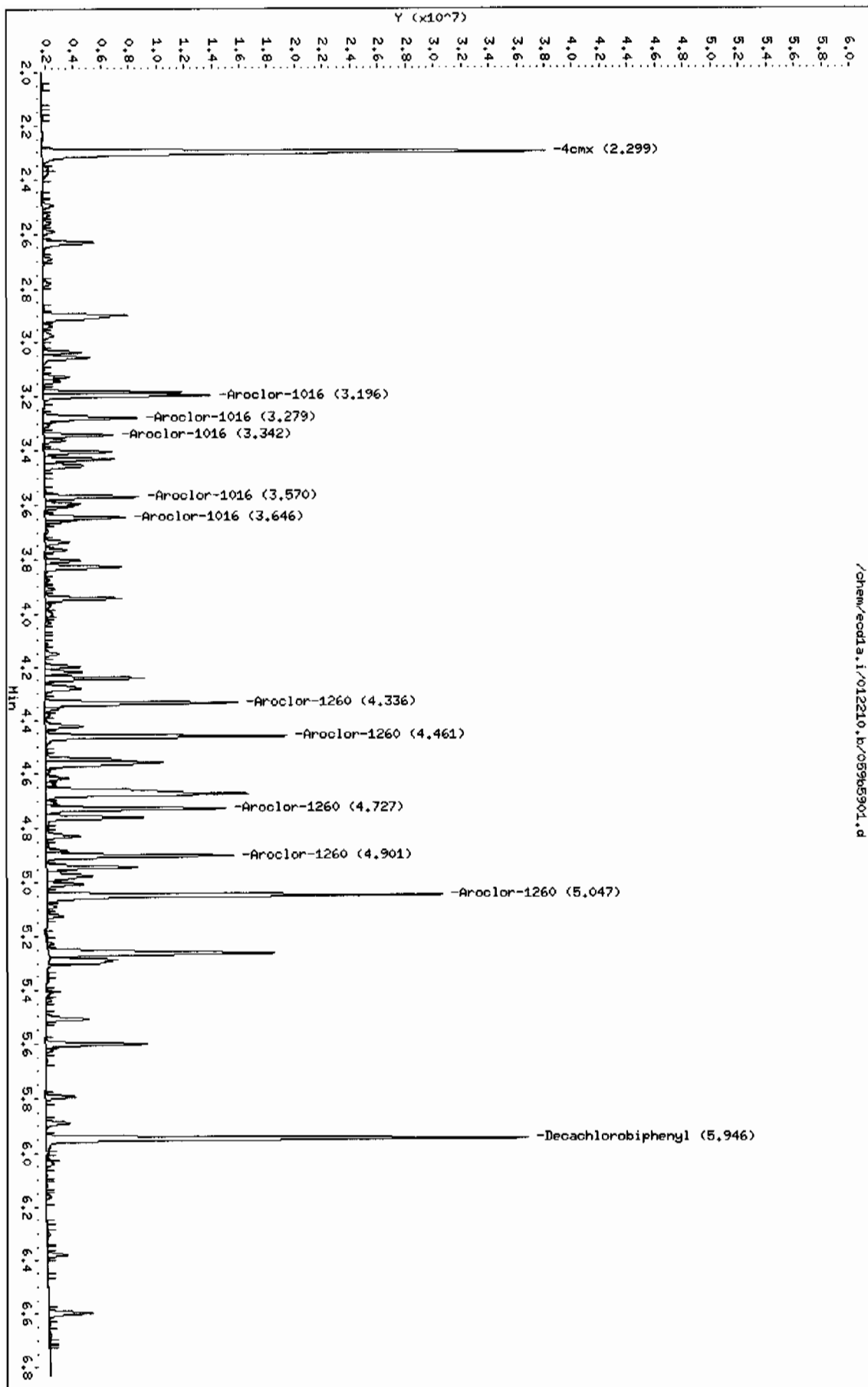
CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)									
3.646	3.646	0.000	4388121	668.565	27.5	28.52-	68.52	50.67	
Average of Peak Concentrations =					27.5				
-----									
7 Aroclor-1260					CAS #: 11096-82-5				
4.336	4.336	0.000	9971361	751.133	30.9	80.00-	120.00	100.00	
4.461	4.461	0.000	12782420	791.091	32.6	103.04-	143.04	128.19	
4.727	4.727	0.000	9665642	773.300	31.9	74.36-	114.36	96.93	
4.901	4.901	0.000	9686663	749.236	30.9	77.78-	117.78	97.14	
5.047	5.048	-0.001	21870263	768.844	31.7	201.91-	241.91	219.33	
Average of Peak Concentrations =					31.6				
-----									

# QC Flag Legend

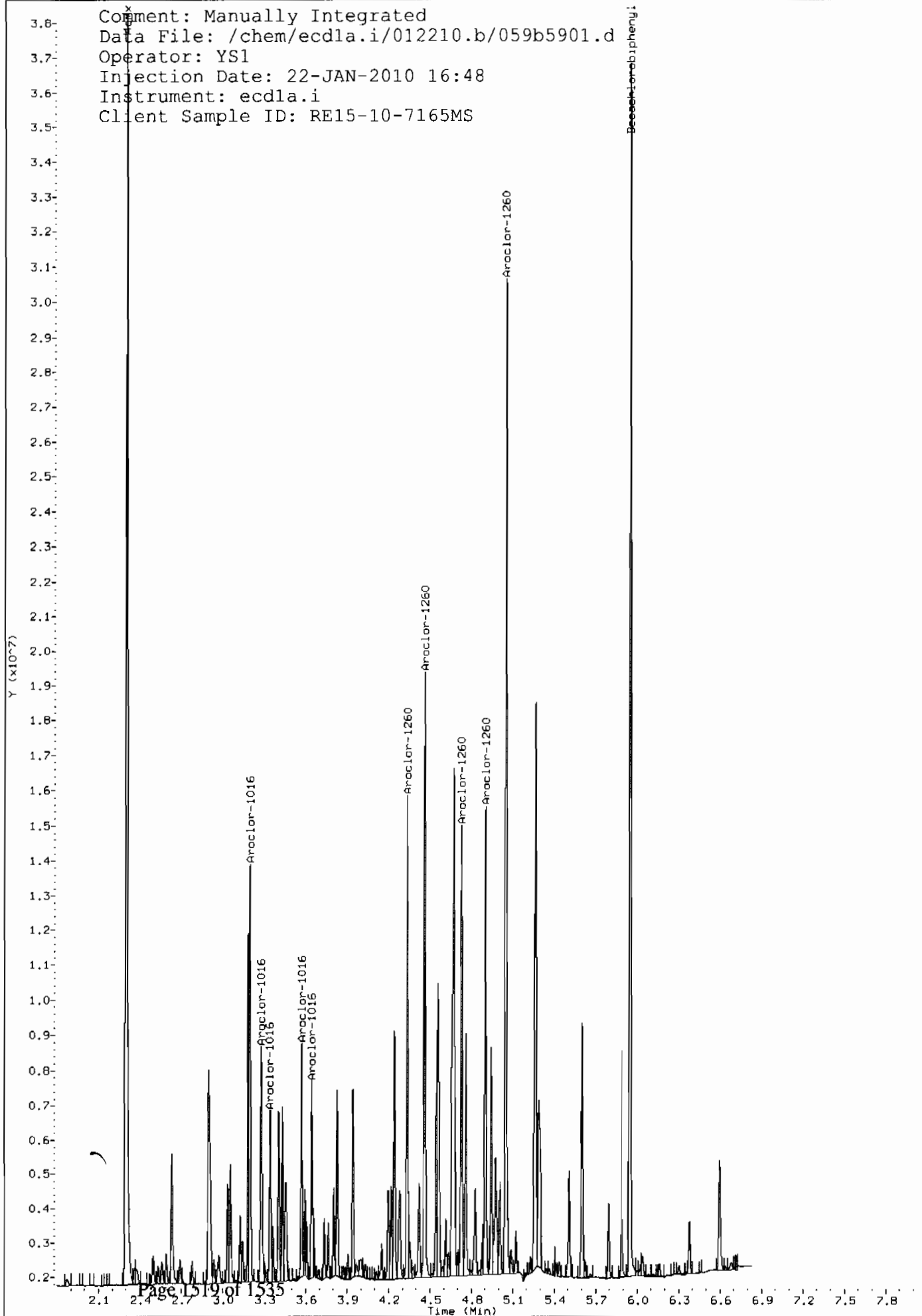
M - Compound response manually integrated.

Data File: /chem/ecdl.a.i/012210.b/059b5901.d  
Date: 22-JAN-2010 16:48  
Client ID: RE15-10-7165MS  
Sample Info: 11202021251.11  
Volume Injected (uL): 1.0  
Column phase: CLP2

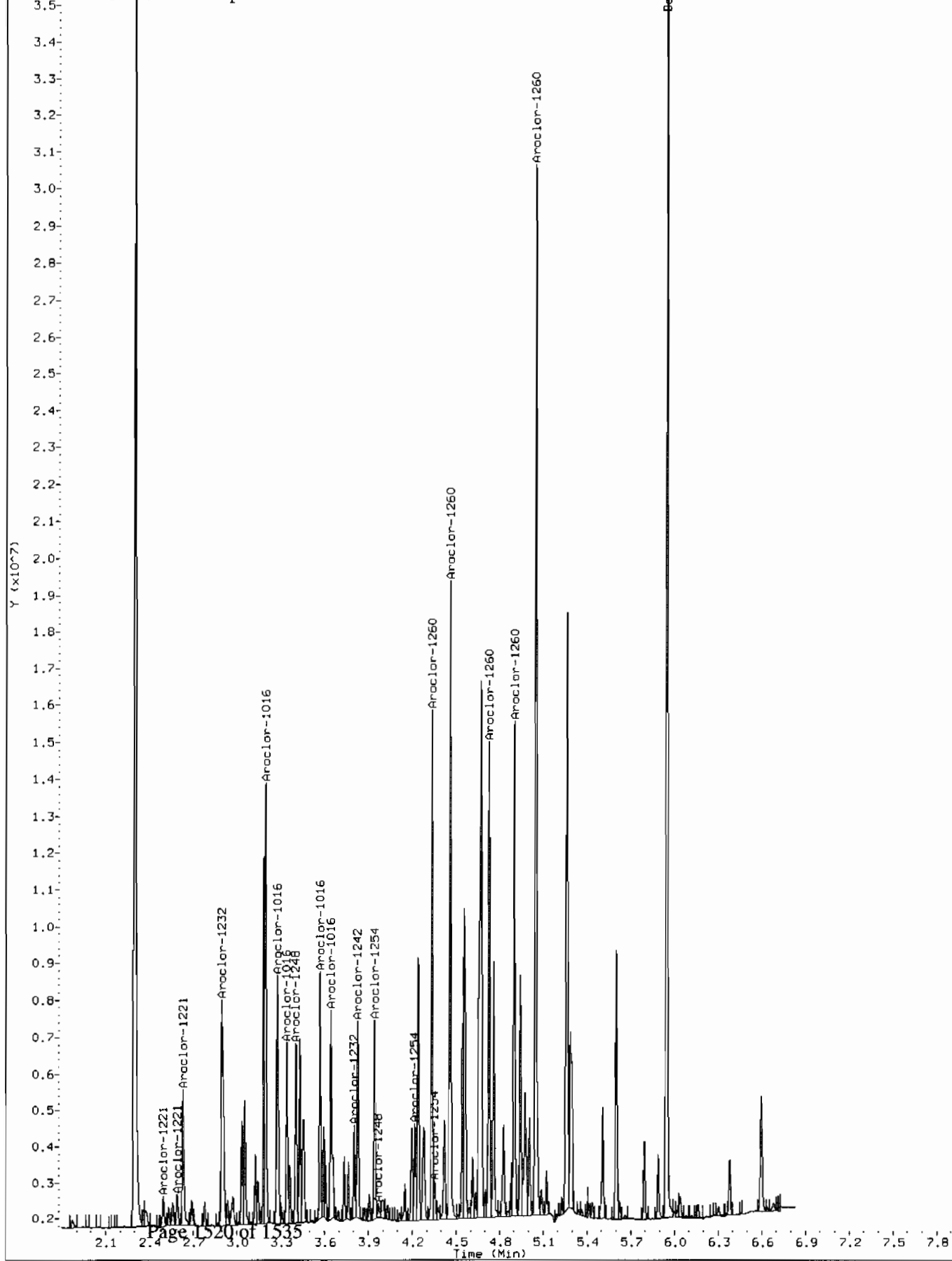
Instrument: ecdl.a.i  
Operator: YSI  
Column diameter: 0.25



Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/012210.b/059b5901.d  
Operator: YS1  
Injection Date: 22-JAN-2010 16:48  
Instrument: ecd1a.i  
Client Sample ID: RE15-10-7165MS



Comment: Before manual integration  
Data File: /chem/ecdla.i/012210.b/orig-059b5901.d  
Operator: YS1  
Injection Date: 22-JAN-2010 16:48  
Instrument: ecdla.i  
Client Sample ID: RE15-10-7165MS



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

SDG Number:	10-1304	Date Collected:	01/13/2010 12:00	Matrix:	R
Lab Sample ID:	1202021252	Date Received:	01/20/2010 08:45	%Moisture:	19.4
Client Sample:	QC for batch 943951	Client:	LANL010	Project:	QC
Client ID:	RE15-10-7165MSD	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	943953	Inst:	ECD1A.J	Dilution:	1
Run Date:	01/22/2010 17:00	Analyst:	YS1	Inj. Vol:	1 uL
Prep Date:	01/21/2010 19:38	Aliquot:	30.17 g	Final Volume:	1 mL
Data File:	060f6001.d	Column:	1 CLP1	Level:	LOW
	060b6001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		25.0	ug/kg	1.37	4.11	1
11104-28-2	Aroclor-1221	U	4.11	ug/kg	1.37	4.11	1
11141-16-5	Aroclor-1232	U	4.11	ug/kg	1.37	4.11	1
53469-21-9	Aroclor-1242	U	4.11	ug/kg	1.37	4.11	1
12672-29-6	Aroclor-1248	U	4.11	ug/kg	1.37	4.11	1
11097-69-1	Aroclor-1254	U	4.11	ug/kg	1.37	4.11	1
11096-82-5	Aroclor-1260		28.5	ug/kg	1.37	4.11	1



Data File: /chem/ecdl1a.i/012210.b/060f6001.d  
Report Date: 25-Jan-2010 13:45

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/012210.b/060f6001.d  
Lab Smp Id: 1202021252 Client Smp ID: RE15-10-7165MSD  
Inj Date : 22-JAN-2010 17:00  
Operator : YSl Inst ID: ecd1a.i  
Smp Info : |1202021252|1|  
Misc Info : |ECD82P\_1S|943953|SVA|QC A|SOIL|MSD|||  
Comment :  
Method : /chem/ecdl1a.i/012210.b/ECD1-F-8082-121409.m  
Meth Date : 23-Jan-2010 11:25 yip00818 Quant Type: ESTD  
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d  
Als bottle: 60 QC Sample: MSD  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-1304.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	30.17000	Weight of sample extracted (g)
M	19.44320	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS

RT	EXP RT	DLT RT	ON-COL	FINAL	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
-----								
\$ 11 4cmx							CAS #: 877-09-8	
1.967	1.967	0.000	43779431	111.414	4.6	80.00- 120.00	100.00	
-----								
\$ 12 Decachlorobiphenyl							CAS #: 2051-24-3	
5.278	5.281	-0.003	39918507	121.019	5.0	80.00- 120.00	100.00	
-----								
1 Aroclor-1016							CAS #: 12674-11-2	
2.422	2.422	0.000	8633280	597.445	24.6	80.00- 120.00	100.00	
2.710	2.711	-0.001	11299535	620.862	25.5	112.54- 152.54	130.88	
2.790	2.792	-0.002	7255546	605.471	24.9	65.91- 105.91	84.04	
2.829	2.830	-0.001	4300115	599.090	24.6	31.86- 71.86	49.81	

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)								
3.039	3.041	-0.002	5688584 614.355		25.3	46.15-	86.15	65.89
Average of Peak Concentrations =					25.0			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.764	3.766	-0.002	12315803 695.071		28.6	80.00-	120.00	100.00 (M)
3.927	3.929	-0.002	19168149 711.819		29.3	132.78-	172.78	155.64
4.157	4.159	-0.002	11362162 701.959		28.9	71.24-	111.24	92.26
4.300	4.302	-0.002	11876921 702.446		28.9	75.48-	115.48	96.44
4.479	4.481	-0.002	24562632 652.124		26.8	198.43-	238.43	199.44
Average of Peak Concentrations =					28.5			

#### QC Flag Legend

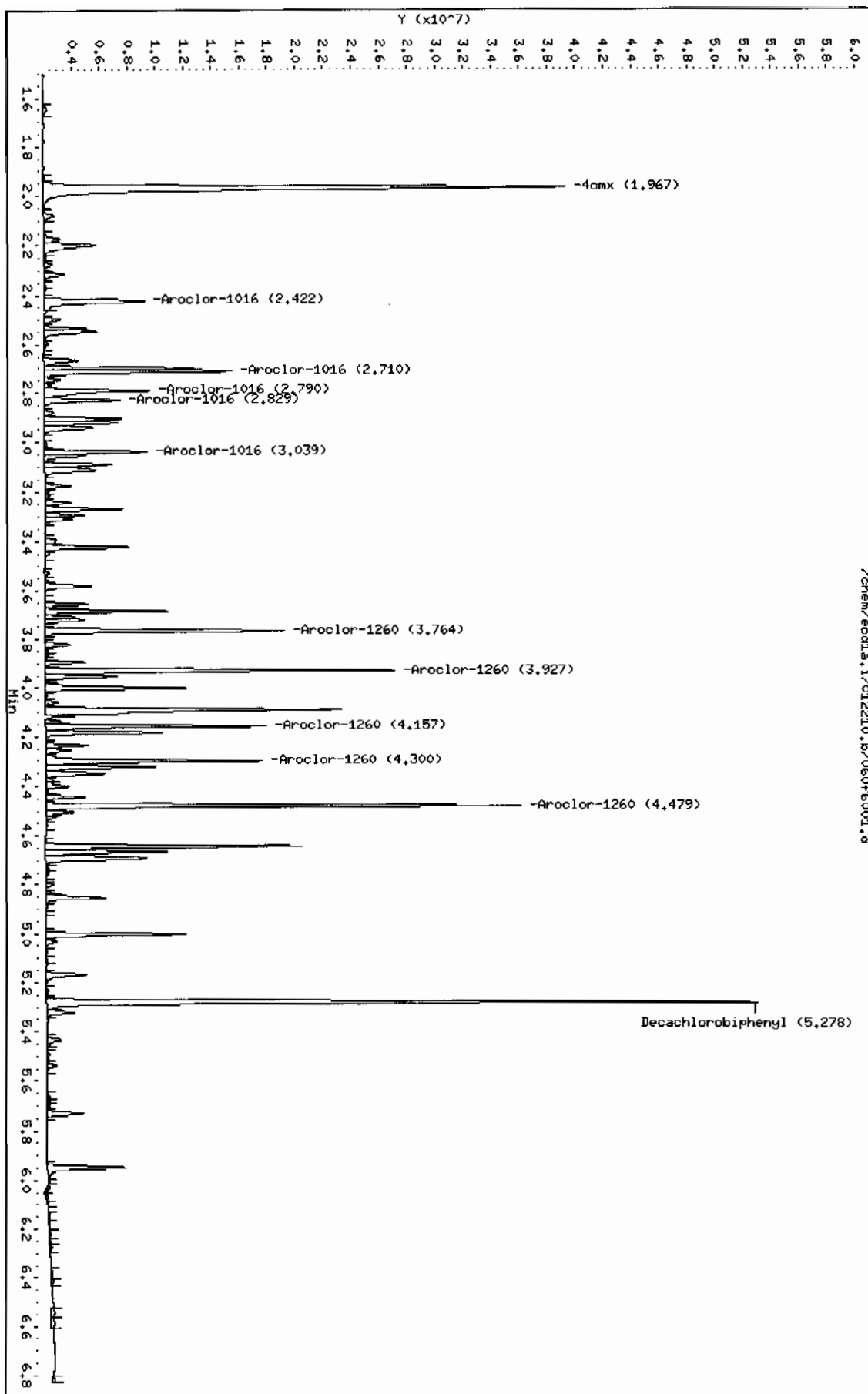
M - Compound response manually integrated.

Data File: /chem/eod1a.i/012210.b/0606001.d  
Date: 22-JAN-2010 17:00  
Client ID: RE15-10-716SHSD  
Sample Info: 11202021252111  
Volume Injected (uL): 1.0  
Column phase: CLP1

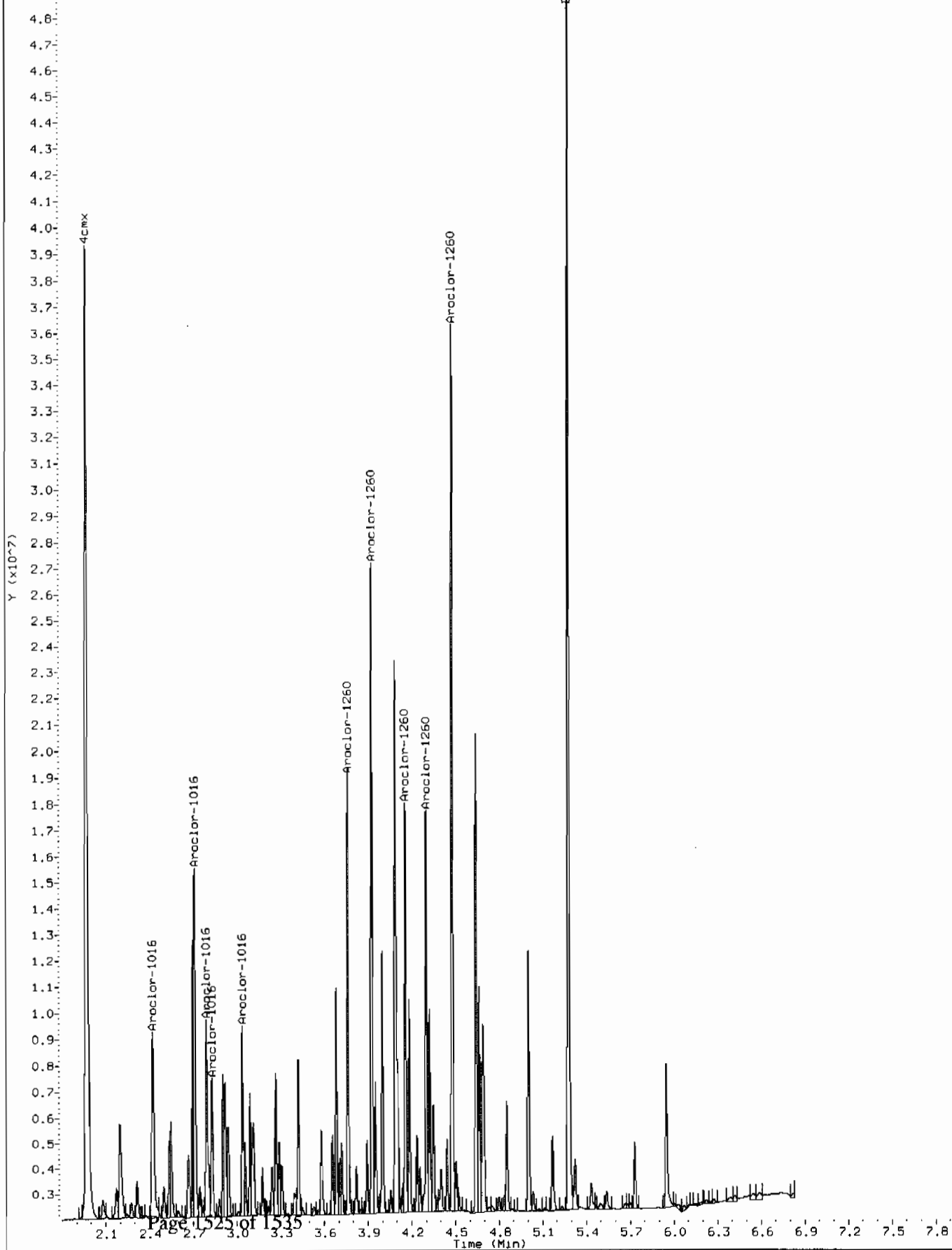
Instrument: eod1a.i  
Operator: YSL  
Column diameter: 0.25

/chem/eod1a.i/012210.b/0606001.d

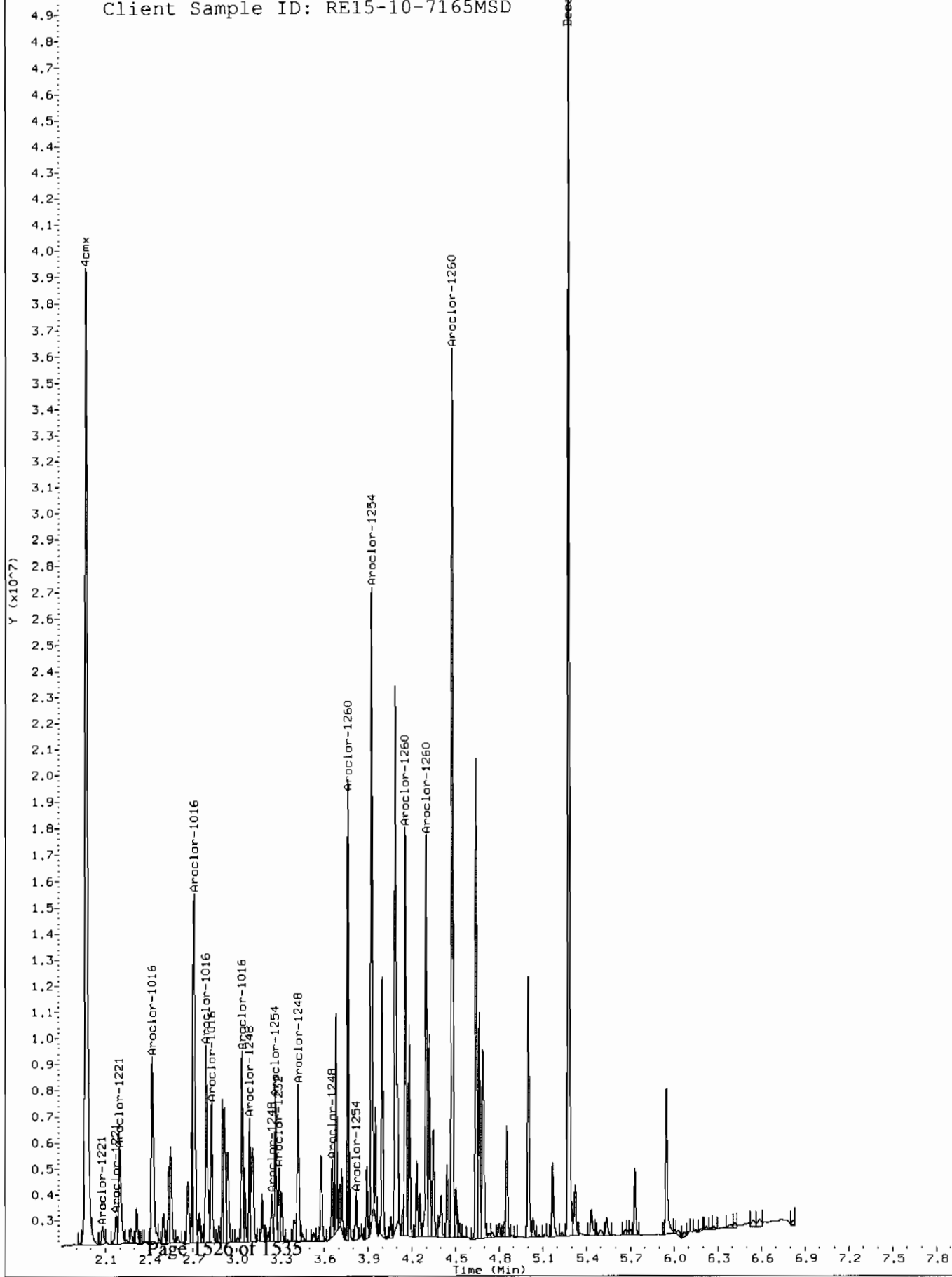
Page 1



Comment: Manually Integrated  
Data File: /chem/ecdla.i/012210.b/0606001.d  
Operator: YS1  
Injection Date: 22-JAN-2010 17:00  
Instrument: ecdla.i  
Client Sample ID: RE15-10-7165MSD



Comment: Before manual integration  
Data File: /chem/ecdla.i/012210.b/original-060f6001.d  
Operator: YS1  
Injection Date: 22-JAN-2010 17:00  
Instrument: ecdla.i  
Client Sample ID: RE15-10-7165MSD



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
 Data file : /chem/ecdla.i/012210.b/060b6001.d  
 Lab Smp Id: 1202021252 Client Smp ID: RE15-10-7165MSD  
 Inj Date : 22-JAN-2010 17:00  
 Operator : YS1 Inst ID: ecdla.i  
 Smp Info : |1202021252|1|  
 Misc Info : |ECD82P\_1S|943953|SVA|QC A|SOIL|MSD|||  
 Comment :  
 Method : /chem/ecdla.i/012210.b/ECD1-B-8082-121409.m  
 Meth Date : 23-Jan-2010 11:25 yip00818 Quant Type: ESTD  
 Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d  
 Als bottle: 60 QC Sample: MSD  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-1304.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	30.17000	Weight of sample extracted (g)
M	19.44320	% 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			
2.299	2.299	0.000	31422656	108.278	4.4	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.946	5.947	-0.001	24947387	102.254	4.2	80.00- 120.00	100.00
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
3.196	3.196	0.000	7764356	611.999	25.2	80.00- 120.00	100.00
3.279	3.280	-0.001	5270555	599.053	24.6	45.59- 85.59	67.88
3.343	3.343	0.000	3196197	583.331	24.0	20.76- 60.76	41.16
3.569	3.570	-0.001	4290450	613.163	25.2	31.39- 71.39	55.26

CONCENTRATIONS							
			ON-COL		FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)							
3.645	3.646	-0.001	3961856	603.620	24.8	28.52- 68.52	51.03
Average of Peak Concentrations =					24.8		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
4.336	4.336	0.000	8661662	652.474	26.8	80.00- 120.00	100.00
4.461	4.461	0.000	10979845	679.531	28.0	103.04- 143.04	126.76
4.726	4.727	-0.001	8273835	661.949	27.2	74.36- 114.36	95.52
4.900	4.901	-0.001	8124293	628.391	25.8	77.78- 117.78	93.80
5.047	5.048	-0.001	18783836	660.342	27.2	201.91- 241.91	216.86
Average of Peak Concentrations =					27.0		
-----							

Data File: /chem/eodla.i/012210.b/0606001.d

Date: 22-JAN-2010 17:00

Client ID: REIS-10-716MSD

Sample Info: 1120202125211

Volume Injected (ul): 1.0

Column phase: CLP2

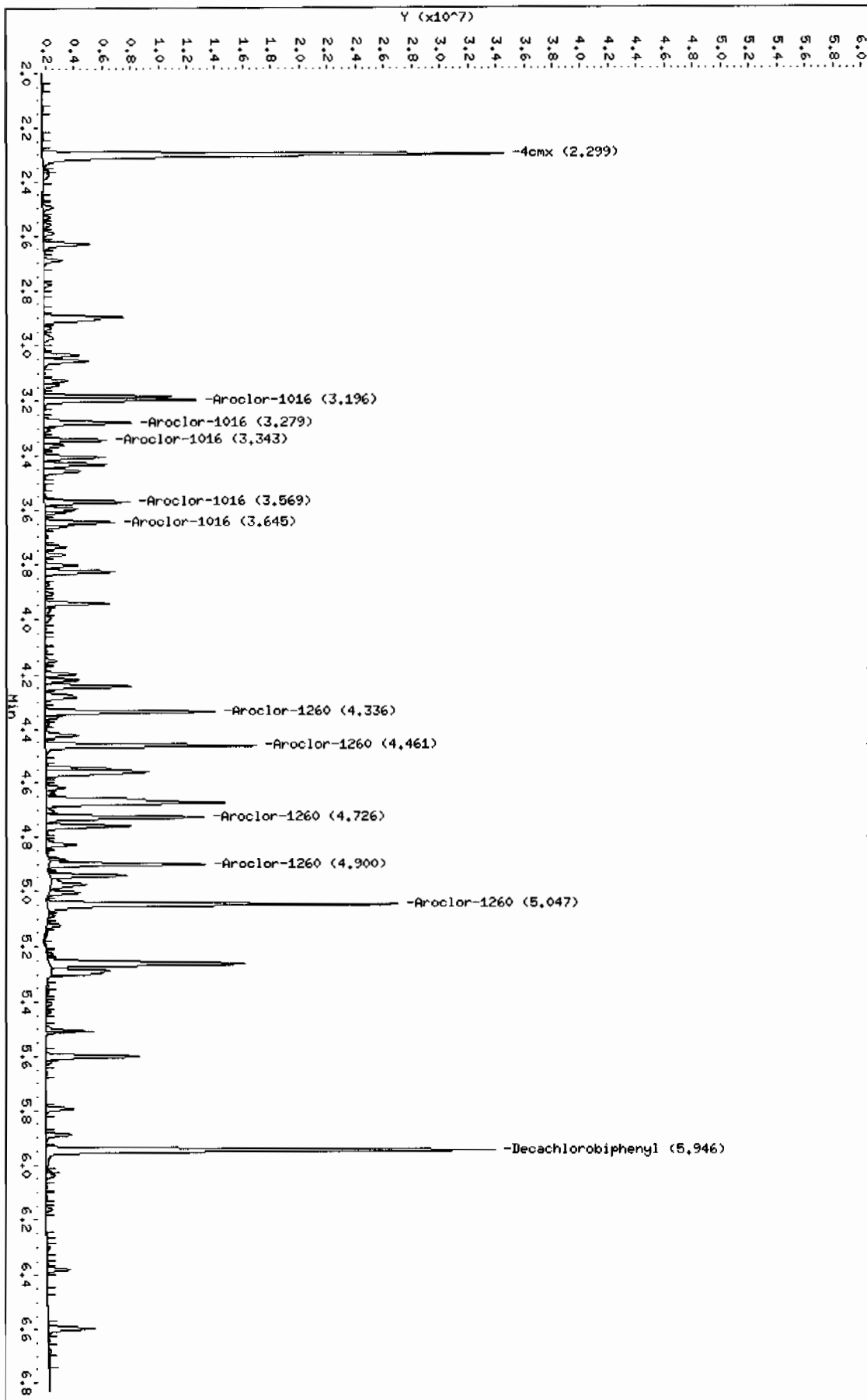
Instrument: eodla.i

Operator: YSL

Column diameter: 0.25

/chem/eodla.i/012210.b/0606001.d

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# MISCELLANEOUS DATA

## GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD1

DATE: 01/25/2010 METHOD: ECD1-F-8082-121409.m OPERATOR: YS1 REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699  
ALUMINA LOT 1240553-A  
COPPER LOT 236547-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/ecdla.i/012210.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	122-JAN-2010 05:55		012210	1.00		CLEAN
002f0201.d	WAR100104-60 01	YS1	122-JAN-2010 06:06		012210	1.00		DUSE RE I-CAL
003f0301.d	WAR091216-54	YS1	122-JAN-2010 06:16		012210	1.00		PASSED ON BOTH COLUMNS
004f0401.d	WAR091217-42	YS1	122-JAN-2010 06:27		012210	1.00		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	122-JAN-2010 06:37		012210	1.00		PASSED ON BOTH COLUMNS
006f0601.d	WAR100122-05 32	YS1	122-JAN-2010 06:48		012210	1.00		AR1232 I-CAL LEVEL 1
007f0701.d	WAR100122-06 32	YS1	122-JAN-2010 06:58		012210	1.00		AR1232 I-CAL LEVEL 2
008f0801.d	WAR100122-07 32	YS1	122-JAN-2010 07:09		012210	1.00		AR1232 I-CAL LEVEL 3
009f0901.d	WAR100122-08 32	YS1	122-JAN-2010 07:19		012210	1.00		AR1232 I-CAL LEVEL 4
010f1001.d	WAR100104-03 32	YS1	122-JAN-2010 07:30		012210	1.00		AR1232 I-CAL LEVEL 5
011f1101.d	WAR100104-32	YS1	122-JAN-2010 07:40		012210	1.00		PASSED ON BOTH COLUMNS
012f1201.d	WAR100104-21	YS1	122-JAN-2010 07:51		012210	1.00		PATTERN ONLY
013f1301.d	WAR100122-09 62	YS1	122-JAN-2010 08:01		012210	1.00		AR1262 I-CAL LEVEL 1
014f1401.d	WAR100122-10 62	YS1	122-JAN-2010 08:12		012210	1.00		AR1262 I-CAL LEVEL 2
015f1501.d	WAR100122-11 62	YS1	122-JAN-2010 08:22		012210	1.00		AR1262 I-CAL LEVEL 3

Instrument Batch: /chem/ecdla.i/012210.b

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Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
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016f1601.d	WAR100122-12 62	YS1	122-JAN-2010 08:36		1012210		1.01		PAR1262 I-CAL LEVEL 4
017f1701.d	WAR100104-04 62	YS1	122-JAN-2010 08:47		1012210		1.01		PAR1262 I-CAL LEVEL 5
018f1801.d	WAR100104-62	YS1	122-JAN-2010 08:57		1012210		1.01		PASSED ON BOTH COLUMNS
019f1901.d	WAR100122-13 60	YS1	122-JAN-2010 09:08		1012210		1.01		PAR1660 I-CAL LEVEL 1
020f2001.d	WAR100122-14 60	YS1	122-JAN-2010 09:19		1012210		1.01		PAR1660 I-CAL LEVEL 2
021f2101.d	WAR100122-15 60	YS1	122-JAN-2010 09:29		1012210		1.01		PAR1660 I-CAL LEVEL 3
022f2201.d	WAR100122-16 60	YS1	122-JAN-2010 09:40		1012210		1.01		PAR1660 I-CAL LEVEL 4
023f2301.d	WAR100104-01 60	YS1	122-JAN-2010 09:50		1012210		1.01		PAR1660 I-CAL LEVEL 5
024f2401.d	WAR100104-60 01	YS1	122-JAN-2010 10:01		1012210		1.01		PASSED ON BOTH COLUMNS
025f2501.d	WAR100122-68	YS1	122-JAN-2010 10:11		1012210		1.01		PASSED ON BOTH COLUMNS
026f2601.d	WAR091219-DDT	YS1	122-JAN-2010 10:22		1012210		1.01		DDT ANALOG STANDARD
027f2701.d	WAR100105-99 02	YS1	122-JAN-2010 10:32		1012210		1.01		CLEAN
028f2801.d	1202021361	YS1	122-JAN-2010 10:43		1944018		1.01QC A		UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	1202021362	YS1	122-JAN-2010 10:55		1944018		1.01QC A		UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	1245-99001	YS1	122-JAN-2010 11:08		1944018		2.01ORNL		UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	11202021363	YS1	122-JAN-2010 11:21		1944018		2.01QC A		UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	11202021364	YS1	122-JAN-2010 11:33		1944018		2.01QC A		UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	WAR100104-60 02	YS1	122-JAN-2010 11:46		1012210		1.01		PASSED ON BOTH COLUMNS
034f3401.d	WAR100105-99 03	YS1	122-JAN-2010 11:56		1012210		1.01		CLEAN
035f3501.d	11202018791	YS1	122-JAN-2010 12:07		1942925		1.01QC A		REPORT FROM ECD8
036f3601.d	11202018792	YS1	122-JAN-2010 12:17		1942925		1.01QC A		REPORT FROM ECD8
037f3701.d	1243909001	YS1	122-JAN-2010 12:28		1942925		2010MDLVECD11232-L1		1.01QCQA UPLOAD BOTH COLUMNS
038f3801.d	1243909002	YS1	122-JAN-2010 12:39		1942925		2010MDLVECD11232-L1		1.01QCQA UPLOAD BOTH COLUMNS
039f3901.d	1243909003	YS1	122-JAN-2010 12:49		1942925		2010MDLVECD11232-L1		1.01QCQA UPLOAD BOTH COLUMNS
040f4001.d	1243909004	YS1	122-JAN-2010 13:00		1942925		2010MDLVECD11232-L1		1.01QCQA UPLOAD BOTH COLUMNS

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	11202018792	YS1	122-JAN-2010 12:17	1942925			1.01QC A	REPORT FROM ECD8
037f3701.d	1243909001	YS1	122-JAN-2010 12:28	1942925		2010MDLVECD11232-L1	1.01QCQA	UPLOAD BOTH COLUMNS
038f3801.d	1243909002	YS1	122-JAN-2010 12:39	1942925		2010MDLVECD11232-L1	1.01QCQA	UPLOAD BOTH COLUMNS
039f3901.d	1243909003	YS1	122-JAN-2010 12:49	1942925		2010MDLVECD11232-L1	1.01QCQA	UPLOAD BOTH COLUMNS
040f4001.d	1243909004	YS1	122-JAN-2010 13:00	1942925		2010MDLVECD11232-L1	1.01QCQA	UPLOAD BOTH COLUMNS

041f4101.d	WAR100104-60 03	YS1	22-JAN-2010 13:10		1012210	1.0	PASSED ON BOTH COLUMNS
042f4201.d	WAR100105-99 04	YS1	22-JAN-2010 13:21		1012210	1.0	CLEAN
043f4301.d	1202021249	YS1	22-JAN-2010 13:31	943953	110-1274	1.0	QC A UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	1202021250	YS1	22-JAN-2010 13:42	943953	110-1274	1.0	QC A UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	244902001	YS1	22-JAN-2010 13:53	943953	110-1274	1.0	LANL UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	244923001	YS1	22-JAN-2010 14:03	943953	110-1287	1.0	LANL UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	244923002	YS1	22-JAN-2010 14:16	943953	110-1287	1.0	LANL DUES RR 10X
048f4801.d	244923003	YS1	22-JAN-2010 14:28	943953	110-1287	1.0	LANL DUES RR
049f4901.d	244923004	YS1	22-JAN-2010 14:41	943953	110-1287	1.0	LANL UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	244923005	YS1	22-JAN-2010 14:54	943953	110-1287	1.0	LANL UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	244923006	YS1	22-JAN-2010 15:06	943953	110-1287	1.0	LANL UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	244923007	YS1	22-JAN-2010 15:19	943953	110-1287	1.0	LANL UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	WAR100104-60 04	YS1	22-JAN-2010 15:32		1012210	1.0	PASSED ON BOTH COLUMNS
054f5401.d	WAR100105-99 05	YS1	22-JAN-2010 15:44		1012210	1.0	CLEAN
055f5501.d	244923008	YS1	22-JAN-2010 15:57	943953	110-1287	1.0	LANL UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecdl.a.i/012210.b

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056f5601.d	244923009	YS1	22-JAN-2010 16:10	943953	110-1287	1.0	LANL UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	244923010	YS1	22-JAN-2010 16:22	943953	110-1287	1.0	LANL UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	245106001	YS1	22-JAN-2010 16:35	943953	110-1304	1.0	LANL UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	1202021251	YS1	22-JAN-2010 16:48	943953	110-1304	1.0	QC A UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	1202021252	YS1	22-JAN-2010 17:00	943953	110-1304	1.0	QC A UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	245106002	YS1	22-JAN-2010 17:13	943953	110-1304	1.0	LANL UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	245106003	YS1	22-JAN-2010 17:26	943953	110-1304	5.0	LANL UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	245106004	YS1	22-JAN-2010 17:38	943953	110-1304	1.0	LANL UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	245106005	YS1	22-JAN-2010 17:51	943953	110-1304	1.0	LANL UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	WAR100104-60 05	YS1	22-JAN-2010 18:03	1	012210	1.01	PASSED ON BOTH COLUMNS
066f6601.d	WAR100105-99 06	YS1	22-JAN-2010 18:16	1	012210	1.01	CLEAN
067f6701.d	245106006	YS1	22-JAN-2010 18:29	943953	110-1304	1.01LANL	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	245106007	YS1	22-JAN-2010 18:41	943953	110-1304	1.01LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	245106008	YS1	22-JAN-2010 18:54	943953	110-1304	1.01LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	244923002	YS1	22-JAN-2010 19:07	943953	110-1287	10.01LANL	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	244923003	YS1	22-JAN-2010 19:19	943953	110-1287	1.01LANL	UPLOAD BOTH COLUMNS, USE HIGHER
072f7201.d	WAR100104-60 06	YS1	22-JAN-2010 19:32	1	012210	1.01	PASSED ON BOTH COLUMNS
073f7301.d	WAR100105-99 07	YS1	22-JAN-2010 19:44		012210	1.01	CLEAN

Instrument Batch: /chem/ecdl1a.i/012210.b

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# Prep Logbook

## Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 943951 Verified by: \_\_\_\_\_  
 Analyst: Andrew Schwennin  
 Method: SW846 3550B

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)
1202021249 MB	21-JAN-2010 19:38:05	30	H2SO4/KM2	2	9	1	0.03333	
1202021250 LCS	21-JAN-2010 19:38:05	30	H2SO4/KM2	2	9	1	0.03333	
244902001	21-JAN-2010 19:38:05	30.11	H2SO4/KM2	2	9	1	0.03321	
244923001	21-JAN-2010 19:38:05	30.16	H2SO4/KM2	2	9	1	0.03316	
244923002	21-JAN-2010 19:38:05	30.07	H2SO4/KM2	2	9	1	0.03326	
244923003	21-JAN-2010 19:38:05	30.03	H2SO4/KM2	2	9	1	0.0333	
244923004	21-JAN-2010 19:38:05	30.18	H2SO4/KM2	2	9	1	0.03313	
244923005	21-JAN-2010 19:38:05	30.05	H2SO4/KM2	2	9	1	0.03328	
244923006	21-JAN-2010 19:38:05	30.19	H2SO4/KM2	2	9	1	0.03312	
244923007	21-JAN-2010 19:38:05	30.19	H2SO4/KM2	2	9	1	0.03312	
244923008	21-JAN-2010 19:38:05	30.01	H2SO4/KM2	2	9	1	0.03332	
244923009	21-JAN-2010 19:38:05	30.11	H2SO4/KM2	2	9	1	0.03321	
244923010	21-JAN-2010 19:38:05	30.14	H2SO4/KM2	2	9	1	0.03318	
245106001	21-JAN-2010 19:38:05	30.15	H2SO4/KM2	2	9	1	0.03317	
1202021251 MS (245106001)	21-JAN-2010 19:38:05	30.13	H2SO4/KM2	2	9	1	0.03319	
1202021252 MSD (245106001)	21-JAN-2010 19:38:05	30.17	H2SO4/KM2	2	9	1	0.03315	
245106002	21-JAN-2010 19:38:05	30.17	H2SO4/KM2	2	9	1	0.03315	
245106003	21-JAN-2010 19:38:05	30.15	H2SO4/KM2	2	9	1	0.03317	
245106004	21-JAN-2010 19:38:05	30.12	H2SO4/KM2	2	9	1	0.0332	
245106005	21-JAN-2010 19:38:05	30.02	H2SO4/KM2	2	9	1	0.03331	
245106006	21-JAN-2010 19:38:05	30.01	H2SO4/KM2	2	9	1	0.03332	
245106007	21-JAN-2010 19:38:05	30.02	H2SO4/KM2	2	9	1	0.03331	
245106008	21-JAN-2010 19:38:05	30.19	H2SO4/KM2	2	9	1	0.03312	

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202021250	PCB Laboratory Control	WEI00105-07	1	mL	Clean up Date: 01/21/10
MS	1202021251	PCB Laboratory Control	WEI00105-07	1	mL	Clean up Initials: AJ5
MSD	1202021252	PCB Laboratory Control	WEI00105-07	1	mL	Verified By: AV
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	URE091217-15	1	mL	Final Solvent: Hexane
REGNT	All	1:1 sulfuric acid	1133264a	5	mL	Clean Up SOP: GL-OA-E-037
REGNT	All	Hexane	1256896-B2	150	mL	
REGNT	All	Acetone	1256900	150	mL	
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL	
SOURC	All	SODIUM SULFATE	1256907	30	g	